Interagency Transfer Agreement

Between

STATE OF CALIFORNIA
Department of Transportation

And

San Joaquin Joint Powers Authority

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PREAMBLE

This Interagency Transfer Agreement (ITA) between the State of California and the San Joaquin Joint Powers Authority is entered into during a period of substantial change and transformation in California's transportation investments. The State of California recognizes the benefits in regional management of intercity rail services that are connected to local communities and riders; the State is also now focused on making transportation investments that will weave our regional and intercity transportation assets together into an integrated system. These investments are grounded in both the revolutionary investment in High-Speed Rail services as developed and managed by the California High Speed Rail Authority as well as substantially increased funding for conventional intercity rail and transit systems. The ITA respects the dual goals of local engagement and statewide integration, and is structured to achieve benefits both locally and statewide; allowing California to provide greater transportation choices that effectively and efficiently support increased rail ridership and is a cornerstone of sustainable operations and practices.

INTERAGENCY TRANSFER AGREEMENT

The ITA is made and entered into as of the Effective Date in the State of California by and between the San Joaquin Joint Powers Authority (SJJPA), a joint powers authority (JPA) as amended pursuant to Assembly Bill 1779 (Chapter 801, Statutes of 2012), and the State of California, acting by and through the California Department of Transportation (Department), collectively the "Parties", and subject to the approval of the California State Transportation Agency (CalSTA).

RECITALS

The ITA is made with reference to the following facts:

1. On September 29, 2012, the Governor signed into law AB 1779, also known as the Intercity Passenger Rail Act of 2012 (Act), authorizing the Department, with approval from the Secretary of Transportation, to enter into an interagency transfer agreement under which the SJJPA would assume responsibility for administering the state-funded intercity rail service for the corridor between Sacramento, Oakland, Bakersfield, and Los Angeles. AB 1779 amends sections 14031.8, 14070.2, 14070.4 and 14070.6 of, and to repeal and add Article 5.4 (commencing with Section 14074) of Chapter 1 of Part 5 of Division 3 of Title 2 of, the Government Code relating to transportation.

2. The following public agencies are authorized to contract with each other for the joint exercise of any common power under Article 1, Chapter 5, Division 7, Title 1 of the Government Code of the State of California, and each has been designated by the Act and signed on to be the Member Agencies of the SJJPA:

- Sacramento Regional Transit District

- San Joaquin Regional Rail Commission
- Stanislaus Council of Governments
- Merced County Association of Governments
- Madera County Transportation Commission
- Fresno Council of Governments
- Kings County Association of Governments
- Tulare County Association of Governments
- Contra Costa Transportation Authority
- Alameda County
- Kern Council of Governments has not yet appointed members and signed on to the SJJPA but may do so at any time in the future. If the rail service boundaries of the San Joaquin Corridor are extended, an additional Member Agency from each county receiving rail service may be added to the board with the approval of a two-thirds vote by the SJJPA.

3. The San Joaquin Corridor rail termini currently are at Oakland, Sacramento, and Bakersfield, with intermediate stations at Wasco, Corcoran, Hanford, Fresno, Madera, Merced, Turlock (Denair), Modesto, Stockton, Lodi, Antioch, Martinez, Richmond, and Emeryville

4. The Secretary of CalSTA is responsible for the overall planning, coordination, and budgeting of Intercity Passenger Rail Service.

5. The Secretary of CalSTA has determined that transferring responsibility for intercity passenger rail service in the San Joaquin corridor would result in administrative or operating cost reductions.

6. The Secretary of CalSTA shall establish, through an annual budget process, the level of state funding available for the operation of intercity passenger rail service in the San Joaquin corridor.

7. The ITA provides for the transfer of responsibility for administering the intercity passenger rail service, also known as the San Joaquin Service from the Department to the SJJPA, subject to the approval of the Secretary of CalSTA.

8. SJJPA has produced an initial business plan (Initial Business Plan), which contains a proposal for the use of the State funding allocation for operation of the Service and which describes the methods by which the SJJPA will administer such rail service and seek to increase

the ridership in the San Joaquin corridor, and which will be updated by the SJJPA annually, and submitted to the Secretary by April 1st of each year.

9. In accordance with Section 14070.6 of the Government Code, the SJJPA may, continue to, contract with the National Railroad Passenger Corporation (Amtrak) or through a competitive solicitation with other organizations not precluded by state or federal law to provide passenger rail service, for the operation of the Service, and may contract with rail corporations, other rail operators, and local agencies for the use of tracks and other facilities and for the provision of passenger services on terms and conditions as the Parties may agree. Under any contract executed by the SJJPA under the ægis of 14070.6, the Department is deemed to be a third-party beneficiary, and any such contract may not contain any provision or provisions that would negatively impact or conflict with any other contracts the Department has regarding intercity rail service or any plans CHSRA has or funds regarding High-Speed Rail, provided such CHSRA plans have been provided to SJJPA by the Department.

10. Consistent with the most recently approved Annual Business Plan, and the state budget processes described herein, the Department shall develop a proposed yearly allocation which is consistent with and sufficient for agreed upon Service, and planned improvements to the Service as set forth in the most recently approved Business Plan.

AGREEMENT

NOW THEREFORE, in consideration of the recitals and the rights, duties and covenants set forth herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the SJJPA and the Department hereby agree to the following:

ARTICLE 1. DEFINITIONS

The terms defined in this Section 1.0 shall for all purposes of ITA have the meanings specified herein.

1.1 "Act" refers to the Intercity Passenger Rail Act of 2012 (AB 1779) codified in Chapter 801 of the statutes of 2012 at Government Code Section 14070 et seq.

1.2 "Agreement" shall mean this Interagency Transfer Agreement (ITA) and its Appendices whereby the Department transfers, as provided for in the Act and as set forth herein, responsibility for operating and administering the Service to the SJJPA, including all applicable cost controls established hereunder or by statute.

1.3 "Annual Business Plan" shall mean the business plan submitted to the Secretary by April 1st of each year.

1.4 "BNSF Railway Company" or "BNSF" and "Union Pacific Railroad" or "UPRR" shall refer to the privately owned Class I railroads over which the Service operates.

1.5 "California Department of Transportation" or "Caltrans" means the Department of Transportation of the State of California.

1.6 "California Transportation Commission" or "CTC" shall refer to the commission established in 1978 by Assembly Bill 402 (Chapter 1106, Statutes of 1977) and further defined in Section 5.4 of this ITA.

1.7 "CHSRA" shall mean the California High-Speed Rail Authority who is authorized to develop and manage the high-speed rail system in California.

1.8 "Cost Savings" shall have the meaning set forth in Section 7.5.

1.9 "Department" shall mean the State of California, acting by and through its Department of Transportation of the State of California or "Caltrans", and any entity succeeding to the powers, authorities and responsibilities of the Department invoked by or under the Agreement or the Supplemental Agreements.

1.10 "Effective Date" means the date set forth in Section 2.1.

1.11 "Efficiency and Cost Reduction Measures" means the proposed measures and initiatives outlined in the SJJPA's Annual Business Plan, which will be newly identified in each Annual Business Plan, and provide the justification for spending proposed Cost Savings on Service improvements.

1.12 "Excess Liability Insurance" means the policy of excess liability insurance which is described in Section 14.4(b)(ii) hereof and a copy of which is attached to this ITA as **Appendix F.**

1.13 "Expanded Service" has the meaning set forth in Section 15.3.

1.14 "Functions Assumed by SJJPA" means the statement of functions assumed by the SJJPA which is attached to this ITA as **Appendix K.**

1.15 "Functions Assumed or Retained by the Department" means the statement of functions assumed by the Department which is attached to this ITA as **Appendix L.**

1.16 "General Liability Insurance" means the general liability insurance policy coverage described in Section 14.4(b)(i), a copy of which is attached to this ITA as **Appendix F.**

1.17 "Governor" means the Governor of the State of California.

1.18 "High-Speed Rail" refers to the California high-speed rail system as developed and managed by the California High-Speed Rail Authority

1.19 "Initial Business Plan" shall mean the business plan which has been submitted by the SJJPA and approved by to the Secretary of CalSTA. A copy of the Initial Business Plan and approval letter is attached to this ITA as **Appendix B.**

1.20 "Intercity Passenger Rail Services" shall mean transportation in the form of both traditional and High-Speed Rail through daily services between metropolitan areas, to rural areas of California, and to points beyond California's borders.

1.21 "Intercity Rail Program" means the Service, the Pacific Surfliner rail service and the Capitol Corridor rail service, all the feeder bus services related thereto and any future state-supported intercity passenger services.

1.22 "Legislature" means the State Legislature of the State of California.

1.23 "Maintenance Agreement" means that certain Maintenance Agreement between the California Department of Transportation and the National Passenger Railroad Corporation (Amtrak) for the maintenance of State-owned equipment dated November 20, 1994, a copy of which is attached to this ITA as **Appendix I.**

1.24 "Maintenance Transfer Date" shall be no later than July 1, 2015 and have the transfer of the maintenance obligations identified in Section 8.4.

1.25 "Managing Agency" shall mean the agency under contract with SJJPA to provide all necessary administrative, professional and technical support to SJJPA and for the oversight of the San Joaquins Corridor, including performance of SJJPA's obligations in this ITA.

1.26 "Master Fund Transfer Agreement" means that certain Standard Provisions of Intercity Rail Fund Transfer Agreement between the Department and the SJJPA covering allocations of State transportation, planning and development account funds herewith, a copy of which is attached to this ITA as **Appendix D.**

1.27 "Mechanical Staff" shall mean a representative of the Department or the SJJPA specifically designated to oversee the maintenance of State-owned equipment.

1.28 "Member Agencies" shall mean those public entity members of the SJJPA named in Recital 2 of this ITA, subject to future revision if any public entities withdraw and/or are added to the SJJPA.

1.29 "Minimum Service" as defined in the Act, shall mean the level of service funded by the Department during the first three years following the effective date of the interagency transfer agreement which shall in no case be less than the number of intercity round trips operated in a corridor and serving the end points served by the intercity rail corridor and further set forth in Section 15.2.

1.30 "Minor Capital Improvement Projects" means minor capital projects as defined in and authorized by California Government Code Section 14037.

1.31 "Operating Agreement" means that certain agreement for the provision of passenger rail service pursuant to Title 49 U.S.C. Section 24107 between the Department and Amtrak and dated

April 1, 2015, a copy of which is attached to this ITA as **Appendix J** and all subsequent agreement(s) for the operation of the Service during the term of this ITA**.**

1.32 "Operating Reserve Fund" shall mean the surplus funds retained by SJJPA that represent the difference between the Department's operating subsidy payments and the actual costs invoiced by the operator, and will not exceed 12.5 percent of the immediate prior operating subsidy, as further described in Section 7.3.

1.33 "Operating Slots" shall mean the contractual ability to run regular passenger train(s) on a host railroad on a specific frequency.

1.34 "Retained Equipment" shall have the meaning set forth in Section 8.4(f).

1.35 "San Joaquin Corridor", or "Corridor", means the Los Angeles-Bakersfield-Fresno-Stockton-Sacramento-Oakland rail corridor which has its termini at Sacramento, Oakland and Bakersfield with intermediate stations located in Kern County, Tulare County, Kings County, Fresno County, Madera County, Merced County, Stanislaus County, San Joaquin County, Contra Costa County, and Alameda County.

1.36 "Secretary" shall mean the Secretary of the California State Transportation Agency (CalSTA). Unless the context otherwise requires, any reference to the Secretary includes CalSTA and its officers and employees.

1.37 "Service" shall, pursuant to the Act, mean, the State-supported administration, marketing, and operation and maintenance of rail and related services in the San Joaquin Corridor, including feeder bus services related thereto, as expanded, modified and developed by the SJJPA pursuant to this ITA or any amendment thereto, and shall not include the services operated or funded by the Member Agencies.

1.38 "Shared Use Agreements" shall refer to those agreements that exist between the Department and any railroad owner over which the Service operates.

1.39 "SJJPA" means the San Joaquin Joint Powers Authority, the public agency created by and organized as a joint exercise of powers agency pursuant to Article 1, Chapter 5, Division 7, Title 1 of the Government Code of the State of California, which shall assume administrative responsibility for the Service as more fully provided in this ITA.

1.40 "State" shall mean the State of California.

1.41 "Statement of Administrative and Operating Cost Reductions" refers to the statement documenting the Secretary's specific determination that administrative and operating cost reductions will be achieved through transfer of responsibilities to the SJJPA, included in this ITA as **Appendix A**.

1.42 "Statement of Three-Year Funding" means the statement described in Section 6.5, a copy of which is attached to this ITA as **Appendix C.**

1.43 "State-owned Equipment" means the train sets (rail cars and locomotives).

1.44 "Supplemental Agreements" shall mean any written agreement between the Department and any other service provider which is necessary for SJJPA's operation of the Service.

1.45 "Surplus Fund" shall have the meaning set forth in Section 7.3 hereof and shall mean the difference between the allocated amount for the operation of the Service and the aggregate amount of actual billings for the operation of the Service in the fiscal year by each respective passenger rail operating service provider.

1.46 "Term" has the meaning set forth in Section 3.1.

1.47 "Thruway Bus" shall mean all connecting state-supported, contracted, operated bus service for which the SJJPA assumes administrative responsibility, a description thereof is included in **Appendix E**.

1.48 "Track and Signal Improvements" shall mean the capital improvements to the track and signal infrastructure of the San Joaquin Corridor.

1.49 "Transfer Agreement" means the Transfer/Maintenance Agreement between the Department and Amtrak for the Transfer and Operations of State Provided Rail Equipment dated June 2, 1995 and amended July 1, 1998, a copy of which is attached to this ITA as **Appendix H**.

1.50 "Uniform Performance Standards" means the standards, adopted by the Secretary, and referred to in Article 12 hereof, a copy of which are attached to this ITA as **Appendix G**.

ARTICLE 2. TRANSFER OF RESPONSIBILITIES

2.1 Except as otherwise provided for herein, the Department hereby transfers the administrative for the Service to the SJJPA, effective as of July 1, 2015 (the "Effective Date"). Subject to the terms and conditions of this ITA and except as otherwise provided herein, as of such date, the SJJPA assumes responsibility for management of the Operating Agreement and administering the Service as set forth herein, and, as of such date, succeeds the Department's powers, obligations and duties relative to such Service as provided in this ITA.

2.2 The State agrees that the SJJPA may have its Mechanical Staff present at the site of rail equipment maintenance from and after the Effective Date to monitor maintenance on behalf of the SJJPA.

ARTICLE 3. TERM OF THE ITA; OPTION TO RENEW

3.1 The term of this ITA, as provided in Government Code Section 14070.4, subdivision (b) shall commence on the Effective Date set forth in Section 2.1 above and shall terminate, subject to earlier termination as provided herein, on the third anniversary date of the Effective Date.

3.2 As provided in Government Code Section 14070.2(b), the interagency transfer agreement between the department and the SJJPA shall cover the initial three-year period after the transfer, but may be extended thereafter by mutual agreement on the same terms and conditions as stated herein. If either the SJJPA or the Department determines it does not wish to extend the agreement at the end of the initial term or a subsequent term, it shall notify the other party no less than 180 days prior to the termination date. Alternatively, the SJJPA and the Department may, by mutual agreement, modify this agreement upon renewal. If the Parties enter discussion to renew the agreement, they shall work in good faith to conclude a renewal agreement prior to expiration of the existing agreement. If the Parties fail to reach agreement prior to expiration of the existing agreement, the SJJPA shall continue to manage the Service for an additional 180 days funded by the Department, after which time, the management of the service shall transfer back the Department, absent renewal of that agreement within that 180 day period.

ARTICLE 4. ANNUAL LEVEL OF FUNDING

4.1 Subject to the Annual Business Plan or amendment thereto, and to the satisfaction of the Secretary, the Department shall seek to obtain funding for the SJJPA which is consistent with each successive approved budget contained in the Annual Business Plan, and sufficient for the level of the Service which, shall be no less than the existing level of service upon the Effective Date of this ITA as provided in AB 1779 and are contained in each successive approved Annual Business Plan.

4.2 In order to facilitate the state budget process the Initial Business Plan or Annual Business Plan shall identify the funding requested for the next two years of the Service.

4.3 Further detail on the Funding Request and Budget process is referenced in **Appendix L,** Section 9**.**

ARTICLE 5. PLANNED SERVICE IMPROVEMENTS

5.1 The SJJPA believes that there are adequate facilities and equipment for six daily round trips for the Service (four between Oakland and Bakersfield and two between Sacramento and Bakersfield). It is the intent of the SJJPA to sustain this level of service and funding permitted, subject to any necessary consent or approvals of UPRR and BNSF, the SJJPA will implement additional service.

5.2 The State Rail Plan identifies expansion of the number of daily trains as well as the areas served, and the Parties agree to work to accomplish this service level increase to the extent reasonably feasible, subject to the availability of necessary funding, trackage rights and equipment, infrastructure constraints and consistent with the requirements of other Intercity Rail Programs for operating funding, train sets and rail capacity during the terms of this ITA, and also subject to remaining supportive of the development of High-Speed Rail services developed and managed by CHSRA. It is the intent of the Parties that the Department shall support the Service, provided such support does not prejudice the programs of the other Intercity Rail Programs or the investment in high speed rail services developed and managed by CHSRA. It is

also the intent of the foregoing that the Department shall support these other Intercity Rail Programs, provided such support does not disproportionately prejudice the programs of the Service.

5.3 The Annual Business Plan shall identify the scope of operations and capital improvements, if any, to the Service for the identified State fiscal years and shall be the basis for projecting funding requirements for the performance of the Service by the SJJPA. The Department and the Secretary will receive, review, modify as required or deemed advisable and the Secretary shall approve on or before July 31st of each year, each Annual Business Plan, and shall exercise reasonable efforts to secure from the Legislature the appropriation for the level of the Service agreed upon therein. Subject to Article 15 hereof, this Service will be operated to the extent that the Legislature appropriates necessary funds.

5.4 Funding for capital improvements to implement agreed upon enhanced levels of the Service may be obtained through available federal, state and local capital funding programs. To the extent that the SJJPA requests capital funding through state capital funding programs, the SJJPA shall submit the appropriate documentation which meets State requirements governing such programs for submittal in accordance with all applicable rules, regulations, policies, procedures and timetables of the California Transportation Commission or other applicable state bodies as they relate to such submittals. Anticipated changes in operating subsidy requirements resulting from the capital improvements shall be identified prior to programming such projects in order to enhance planning and to increase the likelihood of obtaining sufficient operating funds for the service improvements that result.

ARTICLE 6. AMTRAK FEDERAL FISCAL YEAR 2014-2015 CONTRACT; ESTIMATED STATE COSTS FOR THE FIRST YEAR; REQUIREMENT THAT THE SECRETARY DETERMINE THAT EFFICIENCIES AND COST REDUCTIONS CAN BE ACHIEVED BY SJJPA; STATEMENT OF ANTICIPATED OPERATING SUBSIDY BY THE DEPARTMENT

6.1 It is agreed that the Department will prepay Amtrak operating and maintenance costs for the Service through September 30, 2015, under the existing Federal Fiscal Year (FFY) 2014-2015 contract. The Department will work cooperatively with the SJJPA to reconcile actual cost expenditures with all prepayments made to Amtrak for the contract period, and will provide the complete invoicing, reconciliations and any other relevant supporting documentation pertaining to the FFY 2014-2015 contract.

6.2 For Amtrak FFY 2015-16 (October 1, 2015 through September 30, 2016) funds will be transferred to SJJPA no more than monthly according to the terms identified in the Master Fund Transfer Agreement (**Appendix D)**. For State Fiscal Year (SFY) (July 1, 2015 through June 30, 2016,) administrative and marketing funds will be transferred to SJJPA in accordance with the Master Fund Transfer Agreement. These amounts or such other amounts as are set forth in the Initial Business Plan submitted by the SJJPA, subject to the approval of the Secretary, shall be transferred to the SJJPA following appropriation by the Legislature, consistent with the Master

Fund Transfer Agreement. Pursuant to the provisions of Article 16 of this ITA, there is no guaranty of State funding.

6.3 In order to authorize the Department to enter into this ITA to effect transfer of administrative functions to the SJJPA, and in accordance with and pursuant to the Statement of Administrative and Operating Cost Reduction, the Secretary has determined that transferring responsibility for intercity rail service in the San Joaquin Corridor to the SJJPA would reasonably result in the efficiencies and cost reductions identified by the SJJPA in its Initial Business Plan, and by the Secretary as identified in **Appendix A.**

6.4 SJJPA has submitted to the Secretary, an Initial Business Plan which includes all the information required under Article 10 hereof. A copy of the Initial Business Plan is attached to ITA as **Appendix B**.

6.5 The attached Statement of Three Year Funding **(Appendix C)** is a statement of the estimated annual level of funding for a three year period from the Effective Date of this ITA (which level of funding is consistent with and sufficient for the planned service improvements within the Corridor and shall not be less than the level of service as of the Effective Date of this ITA), together with a statement for each year of this ITA, of the funds intended to be transferred by the Department to the SJJPA subject to Legislative appropriation for support at the same level, including (a) State operating subsidies made available for the Service, and (b) funds for the administration and marketing of the Service, with such amounts adjusted for inflation.

ARTICLE 7. SUBSEQUENT YEAR AUTHORITY COSTS

7.1 On or before April 1st of each year in which this ITA, or any subsequent agreement regarding the Service, is in effect, the SJJPA shall submit to the Secretary for review and approval, subject to any recommended modifications to be made on or before July 31st, as part of the SJJPA's Annual Business Plan, the projected costs for the next two State fiscal years to administer the Service. The State's share of such annual projected costs, when approved by the Secretary, shall be submitted by the Department into the State budget process and shall, subject to the appropriation by the Legislature and, to the extent legally required, to programming by the CTC, be allocated to the SJJPA. Notwithstanding Article 15, in the event the Legislature does not appropriate funding for this ITA, the Parties will meet to discuss the best options to minimize unnecessary disruptions to the Service.

7.2 The amount sought to be appropriated by the Legislature shall cover the State's share of all the SJJPA's and State costs to administer, manage, maintain, market and operate the Service, as set forth in AB 1779, including all planned service improvements as set forth in Article 5 and such other additions and extensions within the San Joaquin Rail Corridor to which the Department and the SJJPA may agree.

7.3 If the budget allocation and the funds provided by the Department to the SJJPA in any State fiscal year for passenger rail services operations exceeds the level of actual billings from the SJJPA's contracting passenger rail operating service provider, the difference between the

allocated amount for such operating services and the aggregate amount of actual billings for such services in the fiscal year by such passenger rail operating service provider shall be considered to be Surplus Fund. Such Surplus Funds shall be identified by the SJJPA and the Department shall be notified of its estimated amount no later than 30 days from receipt and following review and reconciliation by the SJJPA of a final invoice for the fiscal year from the passenger rail operating service provider. Surplus Funds may be retained by the SJJPA in a separately identifiable Operating Reserve Fund intended solely to fund future variability in operating costs such as fuel, host railroad incentives and other operating costs that may vary from the budgeted amount established at the start of each passenger rail service provider contract year. The maximum level of funds allowed to be retained in the Operating Reserve Fund, unless otherwise approved in writing by the Department, and conditioned upon approval by the Secretary, shall be 12.5% of the State subsidy level in the most recently completed Amtrak contract year. Amounts in excess of funding over the 12.5% of the State subsidy level for the most recently completed Amtrak, or any subsequent operators, contract year, shall be returned to the Department pursuant to the means specified in the Master Fund Transfer Agreement.

7.4 The Operating Reserve Fund shall be utilized ahead of any requests for additional budget allocations for cost fluctuations that occur during the course of the contract year related to carrying out the Services in the approved Annual Business Plan.

7.5 Notwithstanding the foregoing, the SJJPA may use cost savings (Cost Savings) from operational improvements or efficiencies achieved by it, or increases in Operating Revenues in excess of Annual Business Plan projections and farebox recovery requirements specified in the Uniform Performance Standards, to provide for service improvements that increase ridership of the Service. Cost Savings are to be based on trackable management actions, including but not limited to proposals either in the Initial Business Plan/Annual Business Plan or otherwise documented and quantified during the course of performance of the Service during the then fiscal year. Cost Savings prospectively quantified in an Annual Business Plan based on management actions proposed for the future may be directly budgeted for targeted service improvements. Cost Savings based on management actions taken during the regular administration of the Services shall be tracked, and the current fiscal year savings specifically identified for utilization in future year service improvements identified in the next Annual Business Plan, allowing the funds to remain available for service improvement expenditure rather than be designated as Surplus Funds. Increases in operating revenues above those anticipated in the Annual Business Plan forecast shall be available for service improvement expenditure only after the Operating Reserve maximum level identified in Section 7.3 is achieved, and subject to their identification and budgeting in an approved Annual Business Plan.

ARTICLE 8. SERVICE RESPONSIBILITIES

8.1 The respective duties, obligations and responsibilities of the SJJPA and the Department for the Service, unless otherwise specified, shall be the Effective Date of this ITA.

8.2 The duties, obligations and responsibilities of the Department are identified in **Appendix L**.

8.3 The duties, obligations and responsibilities of the SJJPA are identified in **Appendix K**.

8.4 **Supplemental Agreements**

a. On the Maintenance Transfer Date, and subject to any maintenance or warranty administration responsibility retained by the Department, the SJJPA will assume responsibility for administration of the delegated maintenance oversight for the rail cars and locomotives assigned to the Service and any other Intercity Rail Program with which SJJPA shares tracks and rail cars, including leased equipment, the equipment designated and purchased by the Department for such Intercity Rail Program as set forth in the Department's California Passenger Rail Fleet Plan, and equipment utilized for such Intercity Rail Program which is or may be acquired to the execution of this ITA which are used in the operation of the Service.

b. The terms for transferring the State-owned Equipment and other equipment and property owned by the Department and required for the Service, including the number of units to be provided, liability coverages, maintenance and warranty responsibility and indemnification issues, are as set forth herein and will be in force as of the Effective Date of this ITA.

c. The effectiveness of this ITA is specifically contingent upon the approval and execution and attachment hereto of the Supplemental Agreements, all data as of the Effective Date. If the Parties to each of the Supplemental Agreements have not agreed upon and executed each of the Agreements, neither party hereto shall have any further obligation or liability to the other party.

d. The State-owned Equipment is subject to the terms of the Maintenance Agreement and the Transfer Agreement. The Transfer Agreement and the Maintenance Agreement are for a term commencing on the Effective Date and continuing until terminated in accordance with the provisions thereof. The Transfer Agreement is for a term commencing on the Effective Date and continuing until terminated in accordance with the provisions thereof (**Appendices H** and **I**)

e. The Parties agree that the Operating Agreement is intended to govern the operation of the Service between the SJJPA and Amtrak or any future operator. The Transfer Agreement is intended to govern certain operations issues among the SJJPA, the Department and Amtrak or any future operator pending transfer of maintenance administration responsibility (subject to any defined responsibility retained by the Department) with respect to the State-owned Equipment.

f. With respect to the State-owned Equipment being transferred to the SJJPA for operation of the Service and maintenance supervision responsibility transferred to the SJJPA, it is the intent of the Parties that no other rights in any specifically identified units of the State-owned Equipment shall be transferred to the SJJPA. Rather, it is the intent of the Parties, and it

is hereby agreed, that interagency transfer to the SJJPA the right to operate within the Corridor and, effective upon transfer of maintenance supervision responsibility, the obligation to supervise maintenance of a number of units of each type of State-owned Equipment, either solely or in concert with equipment maintenance supervisory personnel from Amtrak as identified in the Equipment and Operating Agreements.

8.5 SJJPA shall, as of the effective dates applicable to such specific responsibilities as may be set forth herein and in the Appendices of this ITA, assume from the Department, the Department's functions, duties, obligations and responsibilities related to the Service, including but not limited to the specific functions and responsibilities set forth in **Appendix K**, attached hereto, and excluding those functions and responsibilities retained by the Department and set forth in **Appendix L** and Section 8.4 above.

8.6 SJJPA shall set fares for the Service; provided, however that where the Service is directly contiguous with any part of any other California Intercity Rail Program, through the Statewide Working Group identified in **Appendix L**, the Parties will attempt to reach agreement on the fare structure for such contiguous areas. Failing such agreement, any dispute arising from disagreements between the members of the Statewide Working Group identified in **Appendix L** shall instead be resolved by the Secretary. The determination by the Secretary shall be final and binding upon the Parties.

8.7 **Improvements to the Service; Integration with CHSRA**

a. SJJPA acknowledges that the Department desires to improve rail and transit service and grow ridership by creating an integrated statewide rail and transit system with coordinated schedules and common fare collection systems. Creation of a better-integrated rail and transit system will create additional options for travelers and help the Department achieved its mobility, safety and greenhouse gas reduction goals for the statewide transportation system.

b. The CHSRA is an integral component of the statewide integrated rail and transit system. Notwithstanding the foregoing, the SJJPA shall use best efforts in working with the CHSRA and any other rail and transit providers to improve the integration of the Service with other high-speed rail, traditional rail and transit services, including the Service operating as a feeder to High-Speed Rail service. SJJPA shall use best efforts in working with CHSRA as CHSRA plans its service. In the event that SJJPA fails to reach agreement with the CHSRA in the timeframe reasonably required to meet CHSRA needs and on terms related, but not limited to, scheduling, ticketing, cost sharing, service, and fare integration issues, the dispute, arising from such disagreement, shall be brought by either SJJPA or the Department and resolved by the Secretary. The determination by the Secretary shall be final and binding.

c. With respect to all equipment and facilities, including rail cars, rail equipment, buses and rail tracks and stations, used jointly by both the Service and any other California Intercity Rail Program, all savings in operations attributable to such other Intercity Rail Program shall be allocated to such Intercity Rail Program. Likewise, effective as of the Maintenance Transfer Date, maintenance on any passenger rail equipment jointly used for the Service and

another California Intercity Rail Program, shall be equitably apportioned between such Intercity Rail Programs based upon total car and locomotive miles traveled in service, or any other equitable cost sharing mechanisms agreed upon between the Department and JPAs.

8.8 SJJPA and the Department agree to use their respective best efforts to minimize any negative impacts of such joint use and to maximize the efficient use of the equipment and facilities by taking, without limitation, the following steps: (i) maintenance and cleanliness standards shall be the same for any joint-use equipment or facilities; (ii) assignment of equipment to individual trains shall be in accordance with a deployment plan agreed to by the Statewide Working Group identified in **Appendices K** and **L**.

8.9 SJJPA shall maintain, through contracted forces or continued use of the Amtrak Operating Agreement, all stations over, currently specified in the Operating Agreement, which it has control or responsibility, including, but not limited to restroom facilities, in good condition and repair, and in accordance with high standards of cleanliness (Public Utilities Code, Section 99317.8).

8.10 The Operating Agreement is a six-month agreement between the Department and Amtrak with an effective date of April 1, 2015, subject to renewal in October 2015 for successive terms of (12) months. As of the Effective Date, the SJJPA and Amtrak will enter into an Operating Agreement or the SJJPA shall be assigned the existing agreement between the Department and Amtrak with respect to the Service, subject to approval by the Department and Amtrak. The Parties further agree that the future operating agreements between the SJJPA and Amtrak, or any subsequent operator with respect to the Service, and any assignment of the Department's rights and obligations with respect to the Service and/or the State-owned Equipment under the Transfer Agreement or the Maintenance Agreement, pursuant to any new maintenance and/or transfer agreement between the SJJPA and Amtrak (or any subsequent operator) shall be subject to review and approval by the Secretary or the Secretary's designee prior to its execution by the SJJPA , which approval shall not be unreasonably withheld.

8.11 Because Funding Agreement(s) for Capital Projects with the Host Railroad(s) and Local Agencies are currently in place, and the work to be performed has commenced under the supervision of the Department, the Parties agree that it is in their mutual best interest for the Department to continue as the public entity party to the Funding Agreement(s) and to continue to administer and supervise the project and funding agreement(s). The Department agrees to consult with the SJJPA regarding any change orders, amendments or modification of the scope of work to be performed which is sought or recommended by the Host Railroad(s) or Local Agencies, and to review and consider, and if it deems appropriate, to seek to effect any changes recommended by the SJJPA to the scope of work.

ARTICLE 9. OPERATION OF FEEDER BUS SERVICE

9.1 SJJPA will take over the administration of the feeder bus routes defined in **Appendix E,** which operate primarily in conjunction with the Service.

9.2 All costs of operation of the bus routes will be the responsibility of the SJJPA; all revenue credits for the bus portion of the trip generated from passenger tickets used for travel on these bus routes will be retained by the SJJPA for the Service.

9.3 SJJPA may change schedules of San Joaquin trains and may change the schedules of the connection bus routes administered by the SJJPA, or may discontinue individual bus trips. The Parties agree that the changes of the type to the Service described above may result in potential adverse impacts upon the rail and bus services administered by other party or service as a direct result of breaking or eliminating connections with such services may impact interregional connectivity and are committed to foster collaborative decision-making through active participation in the Statewide Working Group defined in **Appendices K** and **L.** In the event there is a dispute related to a proposed change to the Services by SJJPA, the Parties shall comply with the informal dispute resolution outlined in Article 18.1.

9.4 The Parties shall also allow any Department administered feeder bus services to use Service facilities, and stations without any charge by the SJJPA to the Department or the operator. The SJJPA will not prohibit and will assist in the placement by the Department of signs and informational material designed to alert the public to the availability of Department administered feeder bus service. (For the purposes of this Section, "Department administered feeder bus service" includes any bus service funded pursuant to California Public Utilities Code, Section 99316).

ARTICLE 10. ANNUAL BUSINESS PLAN

10.1 The Annual Business Plan shall each year describe the responsibilities and identify the annual level of funding consistent with and sufficient for operation and administration of the Service and for any planned improvements to the Service.

10.2 The Initial Business Plan has been submitted by the SJJPA to the Department, and contains budget, operating and capital improvement proposals, as well as all other required elements of the Business Plan as set forth below, for State fiscal years 2015-16 and 2016-17 respectively.

10.3 SJJPA's Initial Business Plan proposed budget for 2015-16 is based on specific requests for marketing, administrative and minor capital funding, plus the Amtrak operating contract funds estimated under Article 6. The Secretary and the Department have proposed funds sufficient for such Initial Business Plan, with any modifications made by the Secretary or the Legislature, in the 2015 State Budget Act for 2015-16.

10.4 The Initial Business Plan has been received by the Secretary and by the Department and shall be approved with any modifications requested by the Secretary, as soon as reasonably possible following the Effective Date. The budget proposal for such approved Annual Business Plan shall be incorporated into the Department's budget proposal and shall be submitted to the Governor in accordance with the deadline established by the Department of Finance and to be included in the Governor's budget proposal to the Legislature for the next State fiscal year. In the event that the SJJPA does not agree with the amount provided in the Department's budget

proposal for the Service, it shall be permitted to make its views known to the Governor through CalSTA and the Department of Finance during the state budget development process with consideration to the governor's release of the budget proposal to the State Legislature and compliant with the requirements of budget development confidentiality.

10.5 Not later than ten (10) business days following the receipt by the SJJPA from Amtrak of the adjusted and final contract amount for the Operating Agreement for a subsequent federal fiscal year, or if the SJJPA has entered into a similar agreement with another operator of the Service, within ten (10) business days following receipt by the SJJPA of an adjusted and final contract amount for subsequent year of such other similar agreement, the SJJPA shall submit to the Department an amendment to the Annual Business Plan reflecting the final contract amount.

10.6 Subsequent State fiscal year Annual Business Plans shall be submitted no later than April 1 of each year of the term of this ITA or any renewal thereof and shall contain information for a two year budget, the upcoming and subsequent State fiscal year . The Annual Business Plan shall be reviewed and, subject to modification by the Secretary, approved by the Secretary on or before July 31 of each year, with any recommended modification, and the approved budget incorporated into the Department's proposed budget for inclusion in the Governor's budget in accordance with the procedures set forth in Sections 10.4 and 10.5 above.

10.7 Each Annual Business Plan shall be consistent with the provisions and requirements of this ITA and shall contain each of the requirements contained in the California Government Code Section 14070.4, subdivision (b), including, without limitation, provisions regarding the following matters.

a. A report on recent as well as historical performance of the Service, an overall operating plan including proposed service enhancements to increase ridership and provide for increased traveler demands in the Corridor for the upcoming year, short term and long term capital improvement programs, funding requirements for the upcoming State fiscal year, and an action plan with specific performance goals and objectives.

b. Documentation of Service improvements to provide the planned level of service, including operating plans to serve peak period work trips and consideration of other Service expansions and enhancements.

c. A clear delineation of how funding and accounting for State-sponsored Intercity Rail Program services shall be separate from locally sponsored services in the Corridor. Any proposals to expand or modify the Service shall be accompanied by the identification of all associated costs and ridership projections.

d. The establishment of fares, operating strategies, capital improvements needed, and the marketing and operating strategies designed to meet Uniform Performance Standards required by the Act.

e. Service amenities, food and beverage services, and commissary services.

f. SJJPA's proposed levels of train performance.

g. Any proposed modifications or amendment to Performance Standards.

h. System Integration with the California High-Speed Rail services and the services of other state supported intercity rail services.

10.8 Should the Initial Business Plan or Annual Business Plan as approved by the Secretary include an estimated completion date or dates for any items of work identified therein, the SJJPA shall conform to those completion dates. In accordance with the provisions of the Master Fund Transfer Agreement, any failure to conform may constitute the basis for delaying or withholding payment for the work to the extent of the delay.

10.9 Methods the Department will use for its annual review of the Annual Business Plan and annual proposal on funding and appropriations will include evaluation of the Annual Business Plan to determine that the Annual Business Plan is an integrated program that provides all of the necessary components for producing the required intercity passenger rail services, including but not limited to, specific determinations that the Annual Business Plan addresses:

a. Cost levels for the provision of the proposed level of passenger rail service;

b. Route and schedule coordination with other Intercity Rail Programs and other passenger rail services, and with feeder bus services for such Intercity Rail Programs and other passenger rail services, including as appropriate, a comparison of proposed fares, schedules and service amenities with other competitive transportation modes within the Corridor to ensure that the projected route performance is reasonable and achievable;

c. Compliance with the Uniform Performance Standards as modified from time to time;

d. Non-violation of (i) the provisions of this ITA, (ii) Supplemental Agreements with respect to the Service and the State-Owned Equipment, and (iii) applicable law and regulations;

e. Reasonableness of the projections of ridership, revenues and funding needs using standard rail industry and financial evaluation tools and models;

f. Identified and documented annual funding and appropriations requirements for each year of this ITA;

g. Fiscal results of the prior year's operations; and

h. Consistency with the California High-Speed Rail business plan and any other CHSRA plans which have been developed by CHSRA and provided to SJJPA by the Department

Such review will also include a determination as to whether all necessary resources are available and have been included in the Annual Business Plan, that key assumptions are reasonable and

consistent, and that proposed levels of passenger rail and feeder bus service are sufficient to meet anticipated customer needs on a cost-effective basis.

ARTICLE 11. DEPARTMENT AS A THIRD PARTY BENEFICIARY TO AMTRAK CONTRACT; SJJPA AS AN AGENCY OF THE STATE

11.1 In accordance with the Act, the Department is deemed to be a third-party beneficiary of any contract for passenger rail services between the SJJPA and Amtrak (or any other passenger rail service provider under contract with the SJJPA pursuant to California Government Code Section 14070.6), for use of tracks and other facilities and for the provision of passenger services on such terms and conditions as the Parties may agree.

11.2 No such contract shall contain any provision which would have a materially detrimental effect on any other contract the Department may have regarding other California Intercity Rail Programs and the High-Speed Rail.

11.3 As provided in California Government Code Section 14070.4, the SJJPA is deemed to be an agency of the State of California for purposes related to providing passenger rail services. By executing this ITA, the SJJPA acknowledges and agrees that such provision does not render it an agent of the Department or CalSTA.

ARTICLE 12. UNIFORM PERFORMANCE STANDARDS

12.1 **Appendix G** is the Uniform Performance Standards for the operation of the Service by the SJJPA. These Uniform Performance Standards are the final Uniform Performance Standards adopted by the Secretary in accordance with the Act as of June 30, 2014 and subject to revision following the first year.

ARTICLE 13. FORCE MAJEURE

13.1 Each party will be excused from performance of its obligations where such non-performance is caused by any event beyond its reasonable control, such as any non-appealable order, rule or regulation of any federal or state governmental body, Acts of God (of Acts of God (including fire, flood, earthquake, storm, hurricane or other natural disaster), war, invasion, act of foreign enemies, hostilities (regardless of whether war is declared), civil war, rebellion, revolution, insurrection, military or usurped power or confiscation, terrorist activities, nationalization, government sanction, blockage, embargo, labor dispute, strike, lockout or interruption, provided that the party excused hereunder shall use all reasonable efforts to minimize its non-performance and to overcome, remedy or remove such event in the shortest practical time.

13.2 Should a *force majeure* event occur, as provided in Section 13.1, which renders it impossible for a period of forty-five (45) or more consecutive days for either party to perform its obligations hereunder, the Parties agree to negotiate in good faith to amend the existing Business

Plan or Business Plan Update to deal with such event and to seek additional sources of funding to continue the operation of the Service.

ARTICLE 14. LIABILITY AND INDEMNIFICATION; INSURANCE REQUIREMENTS

14.1 **Parties' Obligation to Indemnify**

Liability, indemnification and insurance coverage for liability imposed for injury or damage to State, SJJPA or any third party related to or arising out of obligation, responsibility or duty delegated to or assumed by the State or SJJPA under this ITA shall be provided below.

a. Indemnification by SJJPA

i. SJJPA agrees to indemnify, defend and save harmless the State, the Department, its officers, agents and employees from any and all claims, suits or actions of every name, kind and description including but not limited to, contractual losses accruing or resulting to any and all contractors, subcontractors, suppliers, laborers, and any other person, firm or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this ITA; from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by SJJPA in the performance of this ITA; or tortious or other theories or assertions of liability occurring by reason of anything done or omitted to be done by SJJPA and/or its agents under this ITA. If any claim, action or proceeding shall at any time be brought against the State or Department asserting a liability for such injury, death, damage or loss, the State or Department shall promptly give notice to SJJPA of such claim, action or proceeding and SJJPA shall thereafter provide all such information as the State or Department may from time to time request.

ii. Provided that SJJPA furnishes and maintains all of the insurance that it is contractually required to obtain under this ITA, then, in accordance with the present terms of the joint exercise of powers agreement pursuant to which SJJPA has been organized, any indemnity obligation of SJJPA hereunder shall not flow through to become obligations of any Member Agency of SJJPA as a consequence of that Member Agency's status as a Member Agency of SJJPA. In addition, no Member Agency shall have any liability or obligation for indemnification hereunder to the extent that its activities arise out of obligations under this ITA, its appointment of a member to SJJPA Board of Directors as its representative thereto, and such member's activities with respect to SJJPA are limited to participation on the Board of Directors or any committees thereof in Board and committee activities to the extent permitted by law and in the usual and customary manner. To the extent that the negligence of any Member Agency outside of the foregoing activities causes or contributes to a loss for which the State has been final adjudged jointly, or jointly and severally, liable with the Member Agency, the State may seek contribution and/or indemnification from that Member Agency to the extent permitted by applicable law.

b. Indemnification by Department

i. The Department shall, to the extent permitted by law, indemnify, defend and hold harmless SJJPA, its Managing Agency, its Member Agencies, officers, directors, employees and agents, from any and all claims, suits or actions of every name, kind and description including injury or damages occurring by reason of anything done or omitted to be done by the Department and/or its agents under this ITA.

14.2 The indemnifying party shall bear all expenses, costs and shall pay all settlements or final judgments arising out of any claim, action or proceeding involving the injury to and/or death of any person or damages to or any loss of property arising from any indemnification obligation of the indemnifying party under Section 14.1 above, including the costs of defense and settlement. Should a claim, action or proceeding of any nature be brought at any time against a party entitled to indemnification pursuant to Section 14.1 above, asserting liability on the part of the such party for such injury, death, damage or loss, the party entitled to such indemnification shall promptly provide notice to the indemnifying party of such claim, action or proceeding and shall tender the defense of such claim, action or proceeding to the indemnifying party which shall thereafter provide tall such defense, indemnity and protections as are necessary under the provisions of this ITA. The party entitled to indemnification shall provide such additional information or assistance as is reasonably requested by the indemnifying party to assist in the defense, prosecution or settlement of any such claim, action or proceeding. The indemnifying party may engage counsel of its choice to defend the indemnified party subject to the indemnified party's consent, such consent not to be unreasonably withheld.

14.3 **SJJPA Provided Insurance**

a. SJJPA will name or cause to be named the State, Department and the Secretary as named insureds to any policy of insurance purchased by SJJPA and in any indemnity provision in any agreement between SJJPA and Amtrak or any successor operator to Amtrak, UP, BNSF or any successor thereto, feeder bus operators, or any other party SJJPA has an agreement with, that involves or is related in any way to the administration, operation or maintenance of the Service by SJJPA. SJJPA will provide or cause to be provided to the State, copies of all applicable insurance policies and/or certifications and agreements containing indemnity provisions.

b. Effective upon assumption by SJJPA of operating or maintenance responsibility for the State-owned Equipment, SJJPA will require that Amtrak or any subsequent operator continue to provide physical damage insurance for State-owned Equipment at the same or higher levels and at least the same terms and conditions as included in the Operating Agreement in effect on the date of execution of this ITA. Any change to this coverage shall require the prior written approval of the Department. Unless otherwise approved in writing by the Department, the insurance as referenced herein shall be written on an equipment replacement cost basis with a deductible not to exceed $100,000 (to be paid by the State) per occurrence. The State and Department shall be named as an additional insureds and the sole loss payee as respects to its interest in the State-owned Equipment entrusted to SJJPA. SJJPA shall cause the insurer to waive all rights of subrogation against the State and the Department. SJJPA shall include the cost of

securing all of the required insurance and any deductibles included in this ITA in the Annual Business Plan for submission to the Legislature for appropriation.

14.4 **Department Provided Insurance**

a. Department will name or cause to be named SJJPA, its Managing Agency, and each Member Agency identified in Recital 2, as named insured with respect to any policy of insurance purchased by the Department as of the Effective Date of this ITA and thereafter as required by this ITA and in any indemnity provision in any agreement between the Department and Amtrak or any successor operator, UP, BNSF or any successor thereto, feeder bus operators, or any other party the Department has an agreement with that involves or is related in any way to the administration, operation or maintenance of the Service or State-owned Equipment by the State. The Department will provide or cause to be provided to SJJPA, copies of all applicable insurance policies and/or certifications and agreements containing indemnity provisions upon request.

b. Commencing no later than the Effective Date, in addition to the primary insurance coverage provided by Amtrak, the Department will obtain and maintain in force the following additional insurance and name SJJPA and its Managing Agency as named insureds:

i. General Liability Insurance coverage for property damage and bodily injury in the amount of ten million dollars ($10,000,000), with a deductible not to exceed $100,000 per occurrence covering the Services to be performed by SJJPA, and naming the State and the Secretary as additional insureds; the policy shall contain the coverages and exclusions contained in the policy.

ii. Excess Liability Insurance coverage for property damage and personal injury in excess of the insurance provided for in subdivision (a) above, in the amount of one hundred forty million dollars ($140,000,000), generally covering the Services to be performed by SJJPA, and naming the State and the Secretary as additional insureds; the policy or policies shall contain substantially the same coverages and exclusions contained in the policy or policies which are attached to this ITA.

14.5 **Insurance Premiums and Deductibles**

a. All premiums for the procurement and continuation of the insurance provided for in Section 14.3 and 14.4 of this Section and the incremental cost of adding the State and the Secretary as named insureds for these policies described above will be included in the Annual Business Plan, to the extent that the State provides the estimated cost, for submission to the Legislature for appropriation. Subject to the deductible identified in the preceding sentence, any deductible obligation of the policy referenced in subdivision a. above will be included in the Annual Business Plan for submission to the Legislature for appropriation.

b. Any deductible obligation under the property damage policy for State-owned Equipment required to be maintained under the provisions of the Operating Agreement and referenced in Section 14.4 above shall be the responsibility of the Department. The Department

will provide funding to SJJPA on an as needed and as available basis to cover this obligation from other unencumbered Intercity Rail Program funds. In the event of an occurrence requiring the Department to fund the deductible amount or any portion thereof, SJJPA will immediately notify the Secretary and the Department will take the necessary steps to seek to increase the funding of the current Master Fund Transfer Agreement with SJJPA to include the specific loss up to the full $100,000 deductible sum. To the extent that there is no available unobligated Intercity Rail Program funding, the deductible sum at issue will be covered by SJJPA from budgeted rail funds already allocated to SJJPA through the Annual Business Plan process.

14.6 Except as may be purchased hereafter, the State does not maintain, nor does it intend to maintain or cause to be maintained during the course of this ITA, any insurance coverages for its indemnification obligations herein. The foregoing notwithstanding , the State reserves the right to purchase or cause to be purchased at any time during the term of this ITA or any extension thereof, insurance coverage for such indemnification obligations.

14.7 Pursuant to California Government Code Section 895.4, the foregoing Sections 14.1 through 14.9 constitute the entire agreement between the Parties hereto regarding indemnification for liabilities which may be incurred by either party under this ITA.

14.8 Any disputes under this Article 14 shall be resolved by arbitration pursuant to Article 18 hereof.

14.9 The ITA, the Master Fund Transfer Agreement, and (as respects the State's participation herein), the Transfer Agreement are solely intended to establish standards and controls governing the expenditure of State-provided funds and the use of State-owned Equipment for the Service to be operated and maintained by SJJPA.

ARTICLE 15. FUNDING SHORTFALLS; DEFICIT FINANCING; REDUCTION IN LEVEL OF PASSENGER RAIL SERVICE IN THE CORRIDOR

15.1 Subject to funding appropriation by the Legislature and to the extent legally required the Parties agree that the level of Service to be funded by the Department is described in Sections 4.1, 5.1 and 5.2 above. Subject to the Minimum Service requirement described below, the SJJPA shall not be obligated to perform the Service for which funding is not available at the time the Service is to be provided.

15.2 Subject to funding appropriation by the Legislature and to the extent legally required and as required by the Act, the Parties agree that for not less than three years from the Effective Date of this ITA, a Minimum Level of Service shall be maintained by the SJJPA and funded by the Department from operating subsidies made available for intercity rail services in the corridor and funds currently used by the Department for administration and marketing of the corridor, not to exceed the amount in the approved Annual Business Plan. This minimum level of service is defined as two (2) daily round trips between Sacramento and Bakersfield, and four (4) daily round trips between Oakland (Jack London Square) and Bakersfield, together with the associated feeder

bus services described in Sections 9.1 through 9.4 with substantially the same number of train miles as was provided on the Effective Date of transfer (hereinafter, "Minimum Service").

15.3 The Parties agree that other proposed service that goes beyond Minimum Service, whether called additional service, locally sponsored service, State sponsored service, enhanced service, or any other similarly descriptive term, shall hereinafter be referred to as "Expanded Service." Expanded Service shall only be operated by the SJJPA if sufficient funding is included in the Annual Business Plan budget, to the extent required by law, is appropriated by the Legislature and programmed by the CTC, or otherwise is available for expenditure when the Expanded Service commences. Funding for Expanded Service may be provided by the State, any jurisdiction served by the Service, or any other available funding source. In the event the SJJPA determines that funds appropriated by the Legislature or otherwise available for Expanded Service will be insufficient to operate the Expanded Service during the State fiscal year, the SJJPA shall obtain any additional funds required or make adjustments to the level of Expanded Service to the extent necessary to operate at least Minimum Service with available funding.

15.4 In recognition of the obligations imposed by the Act on the SJJPA to operate the Minimum Service, and on the State to fund that Minimum Service, the Parties shall use their best efforts to include adequate funding in the proposed budget submitted to the legislature. The Annual Business Plan budget shall set forth a specific line item amount identified solely for the operation of the Minimum Service.

15.5 If there is a shortfall between the funding approved in the proposed budget contained in an Annual Business Plan and the actual amount appropriated by the Legislature, or actually available from the State or any other funding source at the time the Service is to be provided, the SJJPA shall work with the operator to reduce the level of service to one that can be sustained by available funding during the fiscal year, but in no event less than the Minimum Service. If Minimum Service cannot be provided because the Legislature has not appropriated funds identified in the Business Plan sufficient to maintain Minimum Service, the SJJPA may terminate this ITA in accordance with Section 17.5 hereof.

15.6 If the level of funding described in Section 15.2 above is appropriated by the Legislature and, to the extent required by law, is programmed by the CTC, but additional funding is still needed to operate the Minimum Service without interruption, the following steps will be taken:

a. To the extent feasible, and in cooperation with the operator, the SJJPA make adjustments to the level of passenger rail service for service other than the defined Minimum Service during the fiscal year, to the extent necessary to continue the uninterrupted operation of an amended form of the Service, but in no event less than the Minimum Service;

b. If additional funding is still required, the SJJPA will seek to obtain such additional funding from available sources. If, following good faith efforts by the Department and the SJJPA to obtain such supplemental funding, the SJJPA is unable to do so, the SJJPA shall continue to operate the Minimum Service for so long as it has funds available to provide such Minimum Service. Not less than thirty (30) days in advance of the date that the SJJPA anticipates that it will

exhaust funds available to provide Minimum Service or amended Minimum Service, it shall notify the Department that it is terminating the Agreement, which termination shall be effective sixty (60) days following the date anticipated for exhaustion of funds to maintain such Minimum Service or amended Minimum Service. In such event , and at least ninety (90) days (or such other notice period contained in any contract with a subsequent operator of termination of such contract) prior to the effective date of termination of this ITA, the SJJPA shall have notified Amtrak or any subsequent operator that it intends to terminate this ITA and shall have obtained the consent of Amtrak or any subsequent operator to continue the Service to the date of termination of the Agreement, which Service shall be maintained for such period at a level to be agreed upon between the Department and Amtrak or such subsequent operator. In such event, the Department agrees to fund Minimum Service or such other service level as may be agreed upon between the Department and Amtrak or any subsequent operator, for such period and to compensate the SJJPA for administration of the Service for such period in the monthly amounts for each monthly period during which the Service is continued, equal to one twelfth (1/12) of the amount appropriated by the Legislature for the then-current State fiscal year for administration of the Service by the SJJPA . Such amount shall be paid in accordance with the provisions of Article III of the Master Fund Transfer Agreement.

ARTICLE 16. NO GUARANTY OF FUNDING

16.1 Notwithstanding any other provision of this ITA, the Department has no obligation or duty and no representation or warranty is made by the Department herein that any funding will actually be appropriated by the Legislature and, to the extent required, programmed by the CTC, to carry out the purposes of this ITA. The obligation of the Department is limited to preparing, supporting and submitting budgets and appropriation request through the Department of Finance on a timely basis, all as set forth in this ITA.

ARTICLE 17. TERMINATION BY PARTIES

17.1 Notwithstanding any other provision of this ITA, either party may terminate this ITA without cause, by giving not less than one hundred eighty (180) days advance written notice to the other.

17.2 In the event that a party terminates this ITA, the Parties agree to cooperate with each other to facilitate the transfer of responsibilities from the SJJPA to another entity or back to the Department with minimum disruption to passenger service and in the most cost effective manner possible. To the extent reasonably feasible, the Parties shall endeavor to make the effective date of termination coincident with the beginning of the State's next fiscal year.

17.3 In the event that there are any funds provided by the Department remaining unspent by the SJJPA as of the date of termination of the Agreement, such funds shall be promptly released or reimbursed to the Department to be used by the Department to provide the Service or for transfer to a successor administering agency of the Service.

17.4 Section 17.1 notwithstanding, the Department may, in its sole discretion, terminate this ITA upon not less than thirty (30) days prior notice upon the occurrence of a material breach of any of the Agreements, which material breach shall include, but not be limited to the following:

a. SJJPA's refusal to perform any of the Services as required under the Agreements when such refusal significantly disrupts operations in the Corridor and is not excused by any other provision of this ITA;

b. SJJPA's insolvency or inability to meet its obligations, the filing of an involuntary petition in bankruptcy, its making of an assignment for the benefit of creditors, filing a petition for an arrangement, composition of compromise with its creditors under any applicable laws or having a trustee, receiver, or other officer appointed to take charge of its assets;

c. SJJPA's failure to comply with any valid law, ordinance, rule, regulation or order of any legal entity or authority which failure has a material impact on SJJPA's ability to perform this ITA;

d. The abolition, termination or other dissolution of the SJJPA;

e. The material breach of any other obligation, duty, responsibility, covenant or condition agreed to by the SJJPA pursuant to the Agreements.

17.5 Section 17.1 notwithstanding, the SJJPA may, at its sole discretion, terminate this ITA upon not less than thirty (30) days prior notice upon the occurrence of a material breach of the Agreement by the Department, which shall include, but not be limited to:

a. The failure of the Legislature to appropriate sufficient funds to operate the Service at the Minimum Service levels;

b. The failure of the Department to make payments as required by this ITA or the Master Fund Transfer Agreement;

c. The material breach of any other obligation duty, responsibility, covenant or condition agreed to by the Department pursuant to the Agreements.

17.6 Upon termination, the party electing to terminate shall notify the other party in writing stating the basis for termination. If termination is for cause, and the other party has taken effective action to remedy the default within the notice period, such termination shall not become effective.

17.7 Upon termination for cause, the Department shall have the right to enter into an agreement with another party for administration and/or operation of the Service. In the event of termination for cause, the terminating party shall also be entitled to unavoidable incremental allowable costs actually incurred and attributable to the termination, but, in the event of termination for cause by the Department, not for any operating costs for continuation of the

Service which would otherwise have been incurred had the Department not exercised its right to terminate.

17.8 Except as set forth in this Article 17, no party shall have any liability or obligation to the other party by reason of termination of this ITA.

17.9 Any exercise of the Department's right to terminate this ITA shall be subject to the prior written approval of the Secretary.

ARTICLE 18. DISPUTE RESOLUTION PROCESS

18.1 **Informal Dispute Resolution**

Parties shall develop a mutually agreed upon issue resolution process, as described below, with a primary objective to ensure the Service stays on schedule and issues between the Parties are resolved in a timely manner. The Parties agree to the following:

a. If the Parties are unable to reach agreement on any particular issue relating to either Parties' obligations pursuant to this ITA, the Parties agree to promptly follow the issue resolution process as outlined below:

i. The Department's project manager and SJJPA's equivalent may initiate the process of informal dispute resolution by providing the other Party with written notice of a dispute. The written notice shall provide a clear statement of the dispute, and shall refer to the specific provisions of the Agreement or Supplemental Agreements that pertain to the dispute. The Department's project manager and SJJPA's equivalent shall meet and attempt to resolve the dispute within five days of the initial meeting. If the dispute is resolved, the Parties shall create and sign a short description of the facts and the resolution that was agreed upon by the Parties.

ii. If the dispute is not resolved by the tenth day, the Department's senior project manager and SJJPA's equivalent shall meet and review the dispute within five days. The Department's senior project manager and SJJPA's equivalent manager shall attempt to resolve the dispute within ten days of their initial meeting. If the dispute is resolved, the Parties shall create and sign a short description of the facts and the resolution that was agreed upon by the Parties.

iii. If the dispute is not resolved by the tenth day, the Department's Director or his designee and SJJPA's equivalent manager shall meet and review the dispute within five days. The Department's Director or his designee and SJJPA's equivalent manager shall attempt to resolve the dispute within ten days of the initial meeting. If the dispute is resolved, the Parties shall create and sign a short description of the facts and the resolution that was agreed upon by the Parties. If the dispute is not resolved by the tenth day by the Department's Director or his designee and SJJPA's equivalent manager, the Parties shall submit the matter to the Secretary as specified in Section 18.1(b).

b. All disputes must exhaust the informal dispute resolution process outlined in

Article 18.1. For issues which have been identified in this ITA for resolution by the Secretary, the Parties shall submit a summary of the dispute to the Secretary for a final and binding resolution. For all other disputes, the Parties shall follow the arbitration process outlined in Section 18.2.

18.2 **Arbitration**

a. Unless otherwise agreed to by the Parties, in the event of a dispute between the Parties which has not been satisfactorily resolved by those parties within sixty (60) days of the commencement of the dispute, said dispute shall be submitted to arbitration by a panel of three arbitrators who shall conduct the arbitration pursuant to the rules of the American Arbitration Association. The panel of arbitrators shall consist of one arbitrator appointed by each of the disputants, the third arbitrator to be appointed by mutual consent of the other two arbitrators.

b. The arbitration panel shall resolve the dispute in accordance with the terms of this ITA, and such resolution shall be final and binding upon the parties. Each party shall bear its own costs of arbitration, including reasonable attorney's fees. The cost of the third arbitrator shall be divided equally between the disputants. Any proceeding convened under this provision shall be conducted in the City of Sacramento, California. Judgment on the award rendered by the arbitrators may be entered in any court having jurisdiction thereof. Upon failure of a party to comply with an arbitration award issued pursuant to this Section, the other party may refer the matter to a court of competent jurisdiction for enforcement of the award.

c. Unless otherwise agreed by the disputants, only disputes regarding a disputant's rights and obligations arising under the terms of: (i) ITA, (ii) the Supplemental Agreements, or (iii) any other agreement between the disputants in which this arbitration provision is incorporated by reference shall be subject to arbitration pursuant to Section 18.2.

d. The foregoing notwithstanding, with respect to contract claims or disputes arising under this ITA or any appendix hereto which may be subject to the provision of California Public Contract Code Section 10240, such claims or disputes shall be resolved by arbitration conducted by a single arbitrator selected by the parties from the certified list created by the California Public Works Contract Arbitration Committee and in accordance with the requirements and procedures set forth in such Section 10240.

ARTICLE 19. AUDIT AND INSPECTION

19.1 The SJJPA grants to the Department and its designated representative, such audit and inspection rights and allows such persons access to and the right to copy such books and records as such persons may request from time to time in connection with performance of the Service and for the purposes of complying or verifying compliance with the this ITA. The Department shall perform such audits and reviews of the financial statements and operations of the SJJPA and the Service as are specified herein and as are more fully set forth in the Master Fund Transfer Agreement. Such audits and reviews shall be conducted by Department staff, by an independent auditor selected by the Department, or any combination thereof.

19.2 The Department may conduct such reviews or audit of the operation or financial statements of the SJJPA at such other times and under such circumstances as Department may determine, upon reasonable notice to the SJJPA. Reviews and audits shall include the financial statements, documentation and the physical operations of the SJJPA. Auditors shall have access to the financial statements and supporting documents, including books and records of account, sufficient to form an opinion as to the financial condition and operations of the SJJPA. Costs incurred by the Department to perform such audits and reviews shall be borne by the Department. Costs incurred by the SJJPA's staff related to the performance of such reviews and the audits may not be invoiced to the Department but may be recovered thorough the SJJPA's indirect cost rate.

19.3 Further, SJJPA agrees to include a similar right of the State to audit records related to performance of the Service and for the purposes of complying or verifying compliance with the Agreement.

ARTICLE 20. SUCCESSOR ACTS

20.1 All statutes cited herein shall be deemed to include amendments to and successor statutes to the cited statues as they presently exist.

ARTICLE 21. SUCCESSOR AND ASSIGNS TO THE PARTIES

21.1 Neither this ITA nor any right, duty or obligation hereunder may be assigned, transferred, hypothecated or pledged by any party without the express written consent of the other party; provided, that unless otherwise expressly required herein, a party shall not be obligated to obtain the written consent of the other party with respect to any contract related to the Service for the provision of goods and/or services to the contracting party in the ordinary course of business.

ARTICLE 22. NOTICES

22.1 Any notice which may be required under this ITA shall be in writing, shall be effective when received, and shall be given by personal service, or by certified or registered mail, return receipt requested, to the addresses set forth below, or to such other addresses as may be specified in writing and given to the other party in accordance herewith.

If given to the Department:

State of California

Department of Transportation

Division of Rail and Mass Transportation,

P.O. Box 942874

Sacramento, CA 994274-0001

Attention: Rail Program Manager, MS 74

with a copy to:

California State Transportation Agency

915 Capitol Mall Suite 350 B

Sacramento, CA 95814

If given to the SJJPA:

San Joaquin Joint Powers Authority (SJJPA)

949 East Channel Street

Stockton, CA 95202

Attention: Executive Director

ARTICLE 23. AMENDMENT

23.1 The ITA may not be changed, modified, or amended except in writing, signed by the parties hereto, and approved in advance in writing by the Secretary, and any attempt at oral modification of this ITA shall be void and of no effect.

ARTICLE 24. REPRESENTATION AND WARRANTIES OF THE Parties

24.1 SJJPA hereby represents and warrants to the Department that:

a. SJJPA is in good standing under applicable law, with all requisite power and authority to carry on the activities for which it has been organized and proposed to be conducted pursuant to the Agreements.

b. SJJPA has the requisite power and authority to execute and deliver the Agreements and to carry out its obligations hereunder. The execution and delivery of the Agreements by such entity, the performance by it of its obligations thereunder and the consummation of the transactions contemplated thereby have been duly authorized by the governing board of such entity and no other proceedings are necessary to authorize the Agreements or to consummate the transactions contemplated thereby. The Agreements have been duly and validly executed and delivered by such entity and constitute valid and binding obligations of such entity, enforceable against it in accordance with their terms, except to the

extent that such enforceability may be subject to bankruptcy, insolvency, reorganization, moratorium or other laws now or hereinafter in effect relating to the creditor's rights and the remedy of specific enforcement and injunctive and other forms of equitable relief, and may be subject to equitable defenses and to the discretion of the court before which any proceeding therefore may be brought.

c. Neither the execution and delivery of the Agreements and the performance of its obligations thereunder nor the consummation of the transactions contemplated thereby will (i) conflict with or result in a breach of any provision of any agreement among the Member Agencies; (ii) violate any write, order, judgment, injunction, decrees, statute, rule or regulation of any court or governmental authority applicable to such entity or its property or assets.

24.2 The Department does hereby represent and warrant with respect to each of the Agreements to the SJJPA that:

a. It validly exists with all requisite power and authority to carry on the activities proposed to be conducted pursuant to the Agreements.

b. It has the requisite power and authority to execute and deliver the Agreements and to carry out its obligations thereunder. The execution and delivery of the Agreements, the performance by it of its obligations thereunder and the consummation of the transactions contemplated thereby have been duly authorized and no other proceedings are necessary to authorize the Agreements or to consummate the transactions contemplated thereby. The agreements have been duly and validly executed and delivered by it and constitute valid and binding obligations, enforceable against it in accordance with their terms, except to the extent that such enforceability may be subject to bankruptcy, insolvency, reorganization, moratorium or other laws now or hereinafter in effect relating to creditor's rights and other forms of equitable relief, and may be subject to equitable defenses and to the discretion of the court before which any proceeding therefore may be brought.

c. Neither the execution and delivery of the Agreements and the performance of its obligations thereunder nor the consummation of the transactions contemplated thereby will (i) conflict with or result in a breach of any other agreement; (ii) violate any writ, order, judgment, injunction, decree, statute, rule or regulation of any court or governmental authority applicable to such entity or its property or assets.

ARTICLE 25. CONSTRUCTION, NUMBER, GENDER AND CAPTIONS

25.1 The Agreements have been executed in the State of California and shall be construed according to the law of said State. Numbers and gender as used therein shall be construed to include that number and/or gender which is appropriate in the context of the text in which either is included. Captions are included therein for the purposes of ease of reading and identification. Neither gender, number nor captions used therein shall be construed to alter the plain meaning of the text in which any or all of them appear.

ARTICLE 26. COMPLETE AGREEMENT

26.1 The ITA, including Appendices, constitutes the full and complete agreement of the parties, superseding and incorporating all prior oral and written agreements relating to the subject matter of this ITA.

26.2 All attached Appendices A through L are hereby incorporated and made an integral part of this ITA by this reference.

ARTICLE 27. PARTIAL INVALIDITY

27.1 If any part of this ITA is determined to be invalid, illegal or unenforceable, such determination shall not affect the validity, legality or enforceability of any other part of this ITA and the remaining parts of this ITA shall be enforced as if such invalid, illegal or unenforceable part were not contained herein.

ARTICLE 28. CONFLICTS BETWEEN THIS ITA AND SUPPLEMENTAL AGREEMENTS

28.1 To the extent that any provision of or requirement of this ITA may conflict with a provision or requirement of any Agreement between the parties hereto, or between a party hereto and any other party, which is attached to this ITA as an appendix, the priority of agreements shall be employed to resolve such conflict.

ARTICLE 29. COUNTERPARTS

29.1 This ITA may be executed in one or more counterparts and may include multiple signature pages, all of which shall be deemed to be one instrument. Copies of this ITA may be used in lieu of the original.

ARTICLE 30. GOVERNING LAW

30.1 The Agreement shall be governed by and construed in accordance with the laws of the State of California.

[signature page immediately follows]

IN WITNESS WHEREOF, the parties have signed this ITA as of the date set forth above.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

By: _____
Name: MALCOLM DOUGHERTY
Title: Director

SAN JOAQUIN JOINT POWERS AUTHORITY

By: _____
Name: JOHN PEDROZO
Title: Chairperson

APPROVED AS TO FORM AND EXECUTION:

Name: K. Assoum
Title: Deputy Attorney

APPROVED AS TO FORM AND EXECUTION:

Name: _____
Title: _____

APPENDIX A

STATEMENT OF ADMINISTRATIVE AND OPERATING COST REDUCTIONS

In evaluating the Initial Business Plan submitted by the San Joaquin Joint Powers Authority (SJJPA), the Secretary of the California State Transportation Agency has determined that the transfer of responsibility for the State-supported administration, marketing, and operation and maintenance of rail and related services in the San Joaquin Corridor (Service) to the SJJPA would result in a number of opportunities for the State of California to achieve administrative or operating cost reductions, as defined in the Interagency Transfer Agreement and as required in Section 2(b)(2) of AB 1779 (Intercity Passenger Rail Act of 2012).

These reductions are in addition to those required by the Uniform Performance Standards that were adopted on June 30, 2014. The Uniform Performance Standards apply to both state-managed and Joint Powers Authority-managed corridors, and lay out the baseline for performance of the state corridors.

The primary opportunities for cost reductions resulting from SJJPA's administration of the Service may be derived from:

1) Revenue increases that exceed those anticipated by the Uniform Performance Standards resulting from locally-focused, grass-roots marketing of the service that increases ridership and revenue.

2) Cost control resulting from aggressive management of actual cost contracts negotiated by the SJJPA with the National Railroad Passenger Corporation (Amtrak), the current passenger rail contract-holder for the rail corridor.

In addition, locally-focused management and customer service is expected to lead to service improvements based on closer interaction with customers and local transit agencies, as well as more immediate oversight of Amtrak's operations, further improving revenues and controlling costs. The net result of these factors will be a decline in the inflation-adjusted subsidy per passenger mile, with the expectation that this decline in Amtrak annual operating subsidy relative to the baseline expected by applying the Uniform Performance Standards will exceed the annual administrative budget allocated to the SJJPA before the end of the three year initial term of this ITA.

As a result, the investment of significant resources in administering the Service based on the SJJPA model will deliver cost reductions by or before the expiration of the initial term of this ITA. Progress in achieving such savings will be monitored during the ITA term and will be reflected in developing the annual administrative and operating cost allocations during the life of the initial term.

As such, based on the aforementioned, the Secretary authorizes the California Department of Transportation to enter into the Interagency Transfer Agreement with the SJJPA to effect a transfer of those administrative functions, consistent with the Intercity Passenger Rail Act of 2012.

APPENDIX B

INITIAL BUSINESS PLAN

CALIFORNIA STATE TRANSPORTATION AGENCY

Edmund G. Brown Jr.
Governor

Brian P. Kelly
Secretary

June 19, 2015

Mr. John Pedrozo, Chair
San Joaquin Joint Powers Authority
949 East Channel Street
Stockton, CA 95202

Re: CalSTA Approval of San Joaquin Joint Powers Authority Initial Business Plan

Dear Mr. Pedrozo:

I am in receipt of the San Joaquin Joint Powers Authority (SJJPA) Initial Business Plan (IBP) for Fiscal Year (FY) 2015-16 and FY 2016-17. The Initial Business Plan was submitted on May 22, 2015 to the California State Transportation Agency (CalSTA) and the California Department of Transportation (Caltrans) in accordance with Intercity Passenger Rail Act of 2012 and more specifically Section 14070.4 (b) of the Government Code.

As described in more detail below, at this time, CalSTA is able to approve the IBP conditioned upon the modifications and considerations outlined below, and subject to additional detail included in the Interagency Transfer Agreement (ITA), inclusive of all appendices but more specifically Appendices A and C. The execution of the ITA by Caltrans is conditioned upon the approval of the IBP (which this letter constitutes) and the determination of administrative and operating costs reductions by CalSTA (statement included in Appendix A of the ITA). It is expected that the parties, Caltrans and SJJPA, will execute the ITA on or before June 30, 2015. For ease of reference, unless otherwise defined in this letter, capitalized terms have the definition specified in the ITA.

1. Administrative and Marketing Expenses:
   a. FY2015-16 funding for Administrative and Marketing expenses on Page 5 and 6, and again on pages 46 and 47 of the IBP is approved, in the amount of $2,595,606.
   b. FY2016-17 funding for Administrative and Marketing expenses listed on Page 5 and 6, and again on pages 46 and 47 of the IBP is approved with respect to the annualization of positions partially funded in FY2015-16, in the amount of $2,629,230.
   c. Escalation of budget from one fiscal year to the next will be subject to conditions described in Appendix C of the ITA.

2. Amtrak Operations and Capital Expenditures:
   a. FY2015-16 funding for Amtrak operations and capital expenditures will be determined in accordance with the detail provided in Appendix C of the ITA.
   b. Estimated contract authority inclusive of the state operating payment, equipment capital charge and minor capital costs is expected to total $44,618,720 as described in Appendix C of the ITA.
   c. FY2015-16 and FY2016-17 contracts with Amtrak are expected to be actual cost based contracts.
3. Management actions resulting in operating cost reductions as anticipated by the Secretary, and further detailed in Appendix A of the ITA, shall be documented in order to show progress over the period of the Initial Business Plan towards exceeding the administrative expenses of the Service for the San Joaquin Corridor by the end of the initial three-year term of the ITA.
4. Future Business Plans should include tables that clearly itemize the expenses for each major cost category, such as Administrative and Marketing Expenses and Operating Costs including Minor Capital. Additionally, future Business Plans shall clearly delineate how funding and accounting for state-sponsored intercity rail passenger services are separated from locally sponsored services in the corridor.
5. Planning for future changes in the San Joaquin Corridor Service resulting from integration with High Speed Rail will be in accordance with the California High-Speed Rail Authority/Caltrans/SJJPA Joint Policy Statement (Joint Policy Statement), coordinated through the Statewide Working Groups and planned in a manner consistent with the commitments of the Joint Policy Statement, the enabling legislation, and the ITA.
6. Key strategic and policy issues raised in the IBP will be addressed through the Statewide Working Group, as described in Appendix K and Appendix L of the ITA. Particular issues raised in the IBP shall be considered in the context of the IBP will include, but not be limited to the following:
   a. Significant service and schedule changes, including deployment of the 7th round trip and planning for an 8th round trip, mid-route origination or termination of service, significant service extensions such as those to Redding or over Altamont Pass, train or connecting bus schedule adjustments that would affect Amtrak Thruway bus routes with connections to the LOSSAN or Capitol Corridors, and any significant retiming of train service within the corridor.
   b. Planning with host railroads to address capital needs, system improvements related to increased service or requiring future expenditures of state capital funding. As described in greater detail in Appendix L, Section 4 of the ITA, the Department shall be responsible for statewide analysis and modeling of network-impacting capital and operating conditions. Planning for these efforts will be a collaborative effort that is expected to be a significant, on-going topic

for the Statewide Working Group, and negotiations with host railroads will also be coordinated at the Statewide Working Group level.

c. Service planning, and the utilization of consultant resources as necessary, must be consistent with the administration and marketing budgets presented in the IBP, and consistent with statewide analysis and modeling that is the responsibility of Caltrans.

d. Opportunities for statewide fare media integration.

e. Coordination of market research efforts, including consultation on methods and process.

f. Modifications to train and thruway bus schedules.

g. Near term equipment deployment planning, including use of the "Comet Cars."

h. Plans for long-term equipment needs for the service, including potential future new equipment orders in addition to those already under contract by Caltrans.

i. Issues or impacts related to the implementation of Positive Train Control.

j. Identification and prioritization of future infrastructure and facility projects, including but not limited to track, signal, bridge, maintenance facilities, and stations.

7. The commitment to use best efforts in working with the California High Speed Rail Authority and other rail and transit providers to improve the seamless integration of the Service with high speed rail, as well as other rail and transit services.

If you have any questions or need additional information regarding CalSTA's position on your Initial Business Plan, please contact Mr. Chad R. Edison, Deputy Secretary for Transportation, at (916) 323-5400.

Sincerely,

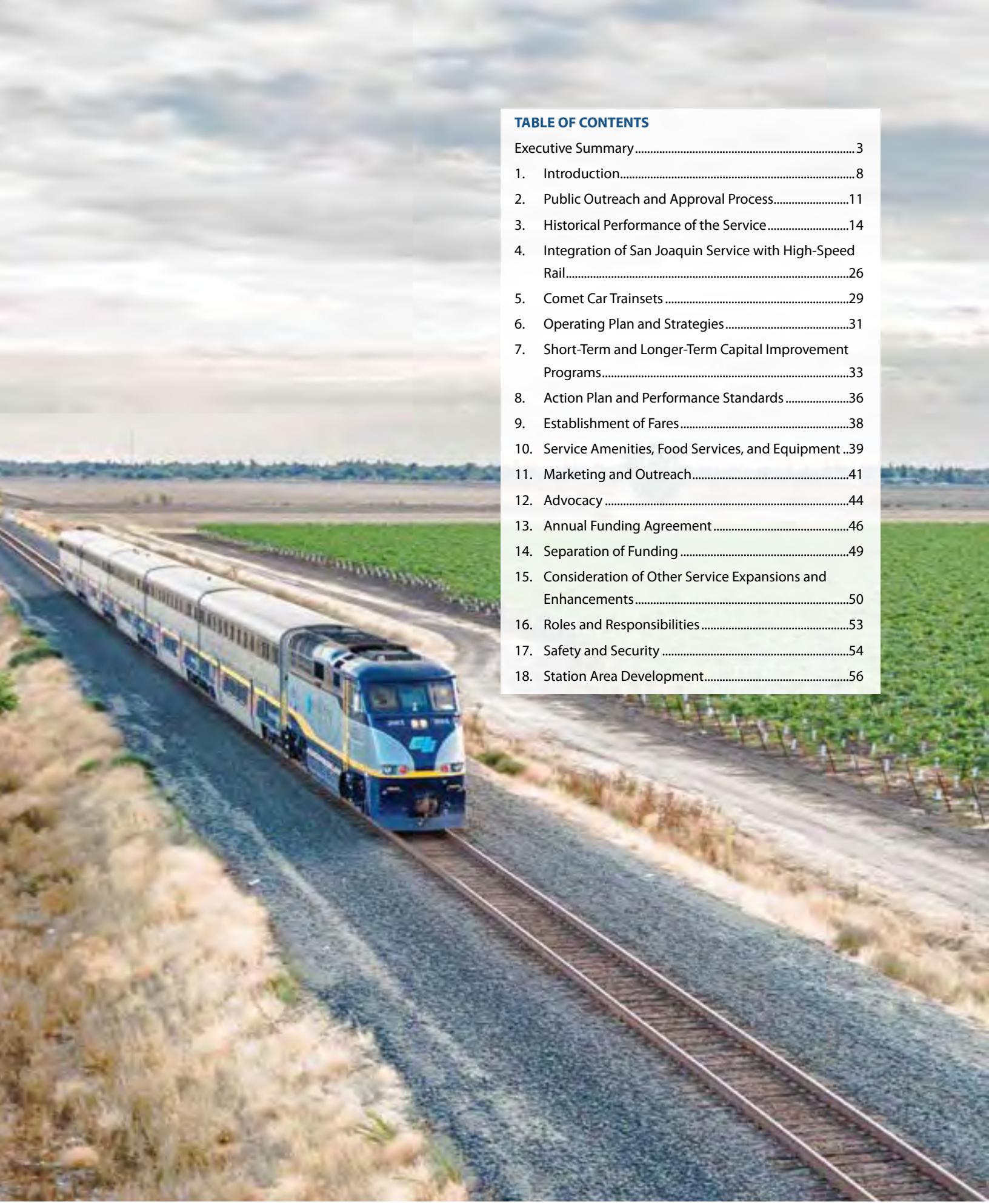
BRIAN P. KELLY
Secretary

cc: Stacey Mortensen, Managing Director, San Joaquin Joint Powers Authority
Chad Edison, Deputy Secretary for Transportation, California State Transportation Agency
Malcolm Dougherty, Director, California Department of Transportation
Bruce Roberts, Chief, Division of Rail and Mass Transportation

2015 BUSINESS PLAN

UPDATE

SAN JOAQUIN JOINT POWERS AUTHORITY



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EXECUTIVE SUMMARY

The Intercity Passenger Rail Act of 2012 (Assembly Bill 1779) signed by Governor Brown on September 29, 2012, permitted the establishment of the San Joaquin Joint Powers Authority (SJJPA), and enables SJJPA to enter into an Interagency Transfer Agreement (ITA) with the State to transfer the administrative responsibilities of the San Joaquin Intercity Passenger Rail Service ("San Joaquin service" or "San Joaquins") from the State to SJJPA. The ITA is expected to be signed by June 2015.

SJJPA is governed by a Board of Directors comprised of a Board Member and an Alternate representing each of the 10 Member Agencies along the 365-mile San Joaquin route. The Member Agencies are:

- Alameda County
- Contra Costa Transportation Authority
- Sacramento Regional Transit District
- San Joaquin Regional Rail Commission
- Stanislaus Council of Governments
- Merced County Association of Governments
- Madera County Transportation Commission
- Fresno Council of Governments
- Kings County Association of Governments
- Tulare County Association of Governments

The primary purpose of this Business Plan Update is to identify SJJPA's intentions for State Fiscal Year (FY) 2015/16 and FY 2016/17 in its proposed manage-ment of the San Joaquin service (Bakersfield-Fresno-Stockton-Sacramento-Oakland). This Business Plan Update summarizes the service and capital improve-ments that have contributed to the success of the San Joaquin service and identifies improvements to sustain its growth. This SJJPA Business Plan Update will be submitted to the Secretary of the California State Transportation Agency (CalSTA).

History of San Joaquin Service

The San Joaquin service began March 5, 1974 with one round-trip between Oakland and Bakersfield and a bus connection to Los Angeles. Under the management and administration of Caltrans Division of Rail, it has grown to the fifth busiest intercity passenger rail service in the nation carrying about 1.2 million passengers a year with six daily round trips (four between Oakland and Bakersfield and two between Sacramento and Bakersfield). While San Joaquin ridership and revenue had steadily increased over a number of years, there has been no additional frequency of service added since 2002, and no new service between Oakland and Bakersfield added in over 20 years (since 1993). Amtrak operates all three state-supported intercity rail services under contracts with the State and the Capitol Corridor Joint Powers Authority (CCJPA).

The extensive network of dedicated Amtrak Thruway buses connecting with the San Joaquin is critical to the performance of this service. Amtrak Thruway bus service connections are provided at Sacramento, Stockton, Oakland, Emeryville, Martinez, Merced, Hanford and Bakersfield – taking passengers to and from destinations throughout California and to Las Vegas and Reno. In 2012, nearly 45% of San Joaquin passengers used an Amtrak Thruway bus on at least one end of their trip.

Operating Plan and Service Expansion

For FY 2015/16 SJJPA plans to deploy an additional daily round trip between Oakland and Bakersfield – bringing the total San Joaquin service to 7 daily round trips. For FY 2016/17 San Joaquin's operating plan will maintain the same level of service as FY 2015/16: 2 daily roundtrips between Sacramento and Bakersfield, and 5 daily round trips between Oakland and Bakersfield.

The San Joaquins have great potential for increased ridership, revenue, service coordination and performance. SJJPA will implement a number of strategies to improve the San Joaquins. Some of the strategies can be implemented with little or no additional resources, including improved train monitoring, train and connecting bus schedule adjustments, and improved service coordination.

Deployment of the 7th daily round trip is the highest priority for service expansion, and SJJPA will focus advocacy efforts on securing the required increase in state operating funds. It will also be a high priority for SJJPA to work with the State to secure the funding necessary for the capital improvements, equipment, and the additional operating funds to enable the deployment of the 8th daily round trip.

Initiating early San Joaquin trains mid-corridor and having the last San Joaquin trains end mid-corridor may result in substantial increases in ridership and revenue. Merced appears to be well suited as the location to initiate mid-corridor starts. Fresno will also

be evaluated as a potential location for mid-corridor starts. SJJPA will work with Caltrans, BNSF Railway Company (BNSF) and Union Pacific Railroad (UPRR) to evaluate the possibility of having the 7th and 8th daily round trips be used by San Joaquin trains which start and end mid-corridor.

There is a great potential market for the San Joaquin service to Sacramento if the frequency of service can be increased and offered at the right time of day. SJJPA will work with California High-Speed Rail Authority (CHSRA), CalSTA, Caltrans and the Central Valley Rail Working Group (CVRWG) to pursue improvements of the San Joaquin service to Sacramento.

Additional San Joaquin stations in key locations could improve access to the service and increase ridership. Working in partnership with local and regional agencies, SJJPA will assess viable new station locations, and promote the funding, design, and initiation of construction for new stations within the next three fiscal years. Additional potential stations discussed thus far include, Hercules, Berkeley, 65th Street Sacramento, Elk Grove, North Fresno, and North/West Bakersfield. Contra Costa representatives have also suggested that another station in Eastern Contra Costa be evaluated in coordination with a mid-corridor start.

In addition to increasing the frequency of the San Joaquin service, SJJPA will plan for 90 mph maximum speed operations in key locations and other projects which can reduce travel times. SJJPA will also identify and work to implement at-grade crossing improvements and grade separations to improve safety and reliability and consider deployment of at-grade crossing "wayside horns" to reduce community impacts.

Integration with High-Speed Rail

Like other high-speed rail (HSR) services throughout the world, California will need to have extensive networks of conventional intercity and commuter rail networks that complement and provide "feeder" service to the proposed HSR system for it to be successful. SJJPA believes the San Joaquin service is the conventional passenger rail service that is most critical to the phased implementation of HSR in California. A recent Joint Policy Statement adopted by CHSRA, SJJPA and Caltrans, is intended to ensure cooperation and input of local communities on all decisions related to any changes in the San Joaquin service and consistent planning between these agencies.

Comet Car Trainsets

On October 21, 2013, Caltrans Division of Rail introduced a trainset of refurbished Comet Cars into service on the San Joaquin route to provide additional seating capacity and increase revenue through the running of longer train sets on the service. Caltrans clearly stated to SJJPA that the use of the Comet Car trainsets is a short-term solution to add capacity to the San Joaquin service until the new bi-level equipment purchased by the State is delivered.

Performance Standards

Pursuant to AB 1779, the Secretary of CalSTA submitted a set of uniform performance standards on June 30, 2014 for all state-supported intercity passenger rail corridors. These standards will allow the administrators and operators of these intercity services to control cost and improve efficiency. If necessary, the Secretary may modify these standards not later than July 30, 2015, or the effective date of the ITA, whichever comes first. The three primary uniform performance standard measures used for the State supported intercity passenger rail services are: usage, cost efficiency, and service quality. SJJPA has adopted the CalSTA performance standards, and will continue to develop strategies to maintain the successful performance of the San Joaquin service.

In addition to meeting CalSTA's performance standards, SJJPA has also focused on considering the environmental impact of the San Joaquin service and its role in helping to create a more sustainable California. Increases in San Joaquin ridership benefit the environment by reducing air pollution and greenhouse gas emissions and help to encourage sustainable, transit-oriented development. It is estimated that in FY 2012, the San Joaquin service (including Thruway buses) reduced well over 100 million miles of automobile vehicle-miles traveled and as a result had a net reduction of CO2 emissions of over 24 million pounds.[1]

[1] *California Intercity Passenger Rail (CIPR) Brochure, April 2013*

Capital Improvement Program and Future Extensions

The State has invested almost $460 million since 1976 to increase and improve the San Joaquin service.[2] There have been more than $240 million in San Joaquin Corridor improvements over the last 20 years. Caltrans is currently working to complete the improvements needed to enable the deployment of an additional daily round trip between Oakland and Bakersfield and has initiated planning for up to 11 daily round trips.

SJJPA strongly supports the completion of those capital projects that are currently underway to enable the deployment of an additional daily round trip between Oakland and Bakersfield (7th San Joaquin daily round trip). These capital projects are expected to be completed by mid to late 2015. SJJPA will also work with the State to secure funding and expedite the implementation of the projects needed to implement an 8th daily round trip (about $99.6 million needed) and mid-corridor start/ends. SJJPA will develop a comprehensive program of improvements to reduce travel time, increase ridership, reduce impacts, improve service reliability, and increase the frequency along the existing San Joaquin intercity rail corridor. Potential future extensions of San Joaquin service to be investigated include:

- Extending rail service north 160 miles along the UPRR rail line from Sacramento to Redding to directly serve Yuba/Sutter, Butte, Tehama and Shasta counties.
- Extending San Joaquin trains 5 more miles past the Oakland Station to serve the existing Oakland Coliseum/BART (Oakland Airport).
- Utilization of the Altamont Corridor to bring San Joaquin service to additional Bay Area markets.

Marketing Strategies

For FY 2015/16 and FY 2016/17, SJJPA assumes $1.0 million each fiscal year for "Marketing Expenses." The SJJPA Marketing and Outreach Plan will retain the successful elements of the existing San Joaquin marketing effort and introduce a more grassroots approach for the San Joaquin Corridor and potential passengers. SJJPA will retain small businesses or individuals who are active in community issues to act as a direct conduit between SJJPA and the various communities within the corridor. These team members will be passionate about their communities and ensure the San Joaquin service information gets to the right stakeholders and critical feedback gets to the agency. This approach is more direct and more cost effective than traditional advertising.

SJJPA will include specific strategies for reaching out to minority, non-English-speaking constituencies, and disadvantaged communities along the San Joaquin corridor. With Hispanics comprising well over 50% of the San Joaquin Valley population, but only 30% of the Amtrak ridership, a concerted effort will be made to tailor promotional materials in Spanish and utilize informational outlets that are more effective. The grass roots strategy will help SJJPA identify and address other markets throughout the San Joaquin Corridor that are underserved, or lacking information. SJJPA seeks to value all segments of people in the economic and social domains, and can achieve this by direct person-to-person contact through the utilization of outreach representatives – team members who live and work in the very communities through which the train travels.

Visitor bureaus, business organizations, social services providers and non-profit groups involved in transportation, environmental or livability issues will be enlisted to support the distribution of information and generate support for the San Joaquin service. These local groups will help highlight the mobility options available and planning processes underway aimed at creating better connections to work, family, and attractions.

SJJPA will coordinate with the State, host railroads, Amtrak, and local/regional agencies to ensure effective coverage of information through various media venues and create joint media and promotion opportunities to achieve cost-efficiencies in marketing the San Joaquin system. Communications and marketing to current and potential riders will be enhanced through bulletins, newsletters, informational brochures and timetables of connecting services, and special ridership promotions.

[2] *Caltrans, 2013 State Rail Plan, May 2013 (page 225)*

Advocacy

Major improvement or expansion of the San Joaquins will require additional funding. There currently is no ongoing, stable capital funding source for the California Intercity Passenger Rail Program (CIPRP). To increase the frequency of the San Joaquin service and improve travel times, a significant investment in the existing freight infrastructure will be required. A key to funding the future growth of the San Joaquin service is developing a much stronger political base of support. This needed advocacy was one of the key reasons for AB 1779 and for establishing SJJPA. One of the primary advantages of a regional governance, or Joint Powers Authority (JPA) model, is the ability for active advocacy at the local, regional, state and federal levels in support of the service.

While the ITA is not expected to be signed until June 2015, SJJPA and affiliated agencies have been working hard to advocate for increased funding, improvements, and support for the overall state intercity rail program. SJJPA has already elevated the improvement of the San Joaquin service as an issue of importance in the San Joaquin Corridor. Through the SJJPA's efforts, nearly 60 agencies, and organizations throughout the San Joaquin Corridor have already signed on as supporters for the San Joaquin service and the CIPRP – and this number will continue to grow. In 2014, the SJJPA and partnering agencies worked hard to successfully ensure that intercity rail was included as an important component of Cap & Trade allocations.

Administrative Role and Action Plan

The primary role of the SJJPA will be the day-to-day management of the San Joaquin service. SJJPA selected the San Joaquin Regional Rail Commission (SJRRC) as their Managing Agency for an initial three-year term. SJRRC's consolidated agency approach results in the most efficient and cost-effective management of the San Joaquin Valley's two passenger rail services. SJJPA administrative costs for FY 2015/16 are estimated at $1,595,606 and for FY 2016/17 are estimated at $1,669,120.

The San Joaquin service, as administered by the SJJPA, will remain a part of the State's intercity rail system and continue to be funded by the State. SJJPA will provide the level of service consistent with funding appropriated by the State and any cost savings identified by SJJPA or revenues in excess of the Business Plan Update projections during the term of the ITA may be used by SJJPA for service improvements in the San Joaquin Corridor.

In addition to the day-to-day management of the service, SJJPA's FY 2015/16 and FY 2016/17 "Action Plan" includes:

- Negotiating revisions to Amtrak operating agreement to improve performance reporting and decrease costs for operating.
- Developing schedules and a service plan for implementing for 7th and 8th round-trip trains in conjunction with Union Pacific Railroad (UPRR), BNSF Railway Company (BNSF), Amtrak and the State and work to improve the existing 6 round-trip schedule.
- Identifying improvements and costs needed for mid-corridor starts/ends.
- Assist CalSTA in the development of its "Network Integration Strategic Service Plan for the California Passenger Rail Network."
- Evaluate measures to improve train and Thruway bus performance, including modifications to the service.
- Work with UPRR, BNSF, Amtrak and State to continue ridership and revenue growth by improving reliability, adjusting the service plan, and/or implementing projects that add capacity and reduce travel times.

Annual Funding Requirement

A primary purpose of this Business Plan Update is to request the annual funds required by the SJJPA to operate, administer, and market the San Joaquin service for agreed-upon service levels. The ITA will set forth the fund request for FY 2015/16 to identify the maximum amount of funds to be transferred to the SJJPA for FY 2015/16 which will be incorporated into the FY 2015/16 Legislative Budget process.

Based on current San Joaquin operations, Amtrak is negotiating the operating costs for the San Joaquin Service for FY 2014/15 with Caltrans Division of Rail and Mass Transportation. The administrative responsibility of the San Joaquin service remains with the State until there is a signed ITA. These negotiations are ongoing and the costs for the San Joaquin rail and Thruway bus services are currently not fully known. The San Joaquin Operating Costs for FY 2014/15 will be the number that is agreed

upon between Amtrak and the State. On October 8, 2014 the CTC approved an allocation request of $42.604 million for San Joaquin operations for FY 2014/15. Based on the CTC allocation for FY 2014/15, and discussions with Caltrans and Amtrak, the current estimate for the operating deficit for FY 2015/16 at $47.3 million. This represents an 11% increase from FY 2014/15. Most of the increase is from an estimated $3.7 million for the operation of the 7th daily round trip between Oakland and Bakersfield (for half of the fiscal year). For FY 2016/17 the San Joaquin operating subsidy is estimated to be $48.3 million (which includes $7.4 million for the 7th daily round trip).

For Federal FY 14 (October 2014 – September 2015) actual San Joaquin ticket revenue was about 8.4% less than was forecast by Amtrak ($38.1 million actual vs. $41.6 million forecast) and about 3.3% less than the ticket revenue for FY 13 ($38.1 million actual vs. $39.4 million actual). In Federal FY 14, the San Joaquin farebox ratio dropped significantly as a result of decreased revenue and increased operational costs. Cost increases due to the introduction of the Comet Car trainsets, and continuing PRIIA Section 209 Amtrak charges are seen as the primary reasons for the reduction in farebox ratio.

Safety and Security

SJJPA Safety and Security activities include working with the various stakeholders, including the State, SJJPA member agencies, Amtrak, UPRR, BNSF, Operation Lifesaver, Department of Homeland Security (DHS), Bus Operators and First Responders along the San Joaquin Corridor on assessing current Operation Lifesaver, Emergency Preparedness and Security training efforts. The safety program will be focused on areas around stations, and at railroad crossings (with an emphasis on rural areas having private crossings in the Central Valley).

The FY 2015/16 and 2016/17 Safety and Security Program will use a network of rail safety education volunteers and free DHS security training resources along with safety and security grant programs to coordinate, develop new programs, and build upon and enhance programs currently undertaken by Amtrak.

Station Area Development

There are great benefits to enhancing development patterns and increasing development densities near San Joaquin stations. In addition to potential benefits from minimizing land consumption needs for new growth, increased dense development near San Joaquin stations concentrates activity conveniently located to these stations. This promotes increased use of the San Joaquins, generating additional ridership and revenue to benefit the State. A dense development pattern can better support a comprehensive and extensive local transit and shuttle system, bicycle and pedestrian paths, and related amenities that can serve the local communities as well as provide access to and egress from San Joaquin stations.

The responsibility and powers needed to focus growth and station area development guidelines in the areas around San Joaquin stations reside primarily with local government. To help ensure that the San Joaquins become an instrument for encouraging maximizing implementation of station area development principles the SJJPA will:

1. Encourage local governments to prepare/update and adopt station area plans, amend city and county general plans, and promote transit-oriented development (TOD) in the vicinity of San Joaquin stations.

2. Assist local governments in securing grants/funding for planning and implementing TOD around San Joaquin stations.

3. Require any new San Joaquin station location to be a multi-modal transportation hub with a preference for traditional city centers and will have TOD in the station area.

4. Work with communities and organizations to support TOD and with developers to implement TOD.

1. INTRODUCTION

The primary purpose of this Business Plan Update is to identify the San Joaquin Joint Powers Authority's (SJJPA) intentions for State Fiscal Year (FY) 2015/16 and FY 2016/17 in its proposed management of the San Joaquin Intercity Passenger Rail Service ("San Joaquin service" or "San Joaquins") which directly serves the San Joaquin Corridor (Bakersfield-Fresno-Stockton-Sacramento-Oakland). The Intercity Passenger Rail Act of 2012 (Assembly Bill 1779) signed by Governor Brown on September 29, 2012, permitted the establishment of the SJJPA, and enables the SJJPA to enter into an Interagency Transfer Agreement (ITA) with the State to transfer the administrative responsibilities of the San Joaquin service to the SJJPA and develop and implement a program of improvements.

The SJJPA Board is the governing body of the SJJPA. The Board includes elected representatives of ten Member Agencies (Alameda County, Contra Costa Transportation Authority, Fresno Council of Governments, Kings County Association of Governments, Madera County Transportation Commission, Merced County Association of Governments, Sacramento Regional Transit, San Joaquin Regional Rail Commission, Stanislaus Council of Governments, and Tulare County Association of Governments). Nine of these Member Agencies executed the SJJPA Joint Exercise of Powers Agreement (JEPA) by the end of February 2013, and the SJJPA held its first Board Meeting on March 22, 2013. Kings County Association of Governments joined the SJJPA after executing the SJJPA JEPA on April 24, 2013.

An ITA between the SJJPA and the State must be signed by both parties in order to transfer administra-tive responsibilities of the San Joaquin service to the SJJPA. The ITA is expected to be signed by June 2015. After the signing of the ITA, by July 1, 2015 the SJJPA will become responsible for some of the duties now undertaken by the State's Department of Transportation (Caltrans). These duties include the following:

- Overersight of the day-to-day San Joaquin serviceoperations by entering into an operating agree-ment with the current contract operator, the National Railroad Passenger Corporation (Amtrak);
- Negotiating changes to the current contract or select another qualified operator;
- Advising the Capitol Corridor Joint Powers Authority (CCJPA) on the management and administration of the State-owned and other rolling stock (passenger cars and locomotives) assigned to the San Joaquin service, maintenance of the rolling stock assigned to the Capitol Corridor and San Joaquin Corridor, and Amtrak's fleet maintenance functions performed on this entire fleet;
- Overseeing the portion of the dedicated feeder bus system for the San Joaquin service which is subcontracted to private bus operators through the Amtrak contract;
- Planning for future service improvements;
- Coordinating with CCJPA and Los Angeles-San Diego-San Luis Obispo (LOSSAN) JPA and the State on issues such as scheduling, connecting buses and ticketing;
- Marketing for the San Joaquin service.

As required by AB 1779, during the term of the ITA, the SJJPA is to submit an annual Business Plan by April 1 of each year to the Secretary of the Business, Transportation and Housing Agency – which is now the Secretary of the California State Transportation Agency (CalSTA). The Business Plan (or Business Plan Update) will be reviewed and approved by the State and used to develop annual appropriation request to the State Legislature.

Regional Governance of the San Joaquin Service

In 1996, the Capitol Corridor Joint Powers Authority (CCJPA) was created to oversee the administration of the Capitol Corridor service under the provisions of Senate Bill 457 (SB 457). SB 457 authorized the State to enter into interagency transfer agreements with specified joint exercise of powers entities to assume responsibility for intercity passenger rail services and be allocated funds for that purpose. The local/regional agencies along the Pacific Surfliner and San Joaquin corridors chose not to take advantage of SB 457, and therefore the administrative responsibility for the San Joaquin and Pacific Surfliner services has remained with Caltrans Division of Rail. The deadline for forming a new joint powers authority (JPA) under SB 457 was the end of 1996.

Over the last 17 years, without direct financial contri-bution by member agencies, the CCJPA has success-fully managed the Capitol Corridor between Auburn and San Jose. Capital investments, cooperation with the Union Pacific freight railroad, and state support have allowed for dramatic increases in the frequency

of service, and the Capitol Corridor intercity passenger rail service has the best on-time performance in the nation for intercity service. In addition to more cost effective administration and operations, the CCJPA has shown that there are several other potential benefits to local authority administration of intercity passenger service including:

- The ability to have a stronger voice in advocating for service improvements and expansions;
- Local decision-making that is more responsive and adaptive to passenger issues;
- The ability to take better advantage of joint marketing and partnerships with local agencies; and
- More engagement by local communities to support the service.

In 2012, transportation planning agencies throughout the San Joaquin Valley worked together in order to set up a regional Joint Powers Authority and to support legislation that would enable regional governance of the San Joaquin intercity rail service. To protect the existing San Joaquin service and to promote its improvement, local and regional agencies throughout most of the San Joaquin Corridor (Bakersfield-Fresno-Modesto-Stockton-Sacramento-Oakland) sponsored and supported Assembly Bill 1779 (AB 1779). This bill enabled regional government agencies to form the San Joaquin Joint Powers Authority (SJJPA) to take over the administration and management of the existing San Joaquin service from the State. AB 1779 was passed by the Legislature on August 30, 2012 with bipartisan support, and was signed by Governor Brown on September 29, 2012. The first SJJPA Board meeting was held on March 22, 2013 in Merced. A similar bill (SB 1225), which was sponsored and supported by local and regional agencies in the LOSSAN (Los Angeles-San Diego-San Luis Obispo) Corridor, was also passed and signed by the Governor on September 29, 2012 enabling regional governance of the Pacific Surfliner service. These two initiatives were coordinated efforts and the SJJPA and the LOSSAN JPA continue to work in coordination for regional governance of both corridors and to advocate for the California Intercity Passenger Rail Program.

AB 1779 defines the composition of the SJJPA, and extends the time for executing an interagency transfer agreement with the Department of Transportation to June 30, 2015. The earliest the governance/management of the San Joaquin service could be transferred to the SJJPA was June 30, 2014, and AB

1779 requires that the transfer must result in administrative or operating cost reductions. AB 1779 requires the SJJPA to protect the existing San Joaquin service and facilities and seek to expand service as warranted by ridership and available revenue. Increases in the San Joaquin service and ridership will result in more jobs, improved air quality, and will help promote sustainable development in the San Joaquin Corridor. Under the provisions of AB 1779, the State will continue to provide the funding necessary for service operations, administration and marketing. Furthermore, Caltrans Division of Rail and Mass Transportation will remain responsible for the development of the Statewide Rail Plan and the coordination and integration between the three state-supported intercity passenger rail services. AB 1779 was sponsored by the San Joaquin Regional Rail Commission (SJRRC), Sacramento Regional Transit, the Central Valley Rail Working Group, and the San Joaquin Valley Regional Policy Council.

In addition to more cost effective administration and operations, there will be many benefits to regional governance of San Joaquin Rail Service. Train riders and San Joaquin Valley residents will have a stronger voice in deciding what happens with the service since local decision-making is more responsive and adaptive to passenger issues. The SJJPA, which is made up of elected officials throughout the San Joaquin Corridor, will be a strong voice in advocating for service improvements and expansions – particularly in Washington D.C. and in Sacramento. The SJJPA will take advantage of joint marketing and partnerships with local agencies throughout the San Joaquin Valley. Since the SJJPA's board members are part of the communities in the San Joaquin Corridor, it will also be better able to engage local communities throughout the corridor to use and support the San Joaquin service.

The SJRRC was selected by the SJJPA Board to be the Managing Agency at the July 26, 2013 SJJPA Board Meeting in Fresno. As Managing Agency of the SJJPA, the SJRRC will provide all necessary administrative support for the SJJPA. The SJPPA along with its supporters and sponsors are working with other partner agencies to advocate for conventional intercity rail service improvements throughout California.

Business Plan Requirements

As specified in AB 1779, this Business Plan Update includes a report on the recent as well as historical performance of the corridor service, an overall operating plan including proposed service enhancements to increase ridership and provide for increased traveler demands in the corridor for the upcoming year, short-term and long-term capital improvement programs, funding requirements for the upcoming fiscal year, and an action plan with specific performance goals and objections. It documents service improvements (rail and thruway/connecting bus) to provide the planned level of service, inclusion of operating plans to serve peak period work trips, and consideration of other service expansions and enhancements. This Business Plan Update is consistent with the 2013 State Rail Plan developed by Caltrans Division of Rail (DOR) pursuant to Section 14036 and the 2014 Business Plan adopted by the California High-Speed Rail Authority (CHSRA) Board in April 2014, pursuant to Section 185033 of the Public Utilities Code.

This Business Plan Update clearly delineates how proposals to expand or modify service, including funding and accounting, for state-sponsored intercity rail passenger services are separate from locally sponsored services in the corridor. These proposals are accompanied by the identification of all associated costs and ridership projections and specific performance measures. This Business Plan Update establishes, among other things: fares, operating strategies, capital improvements needed, and marketing and operational strategies designed to meet performance standards established in partnership with Caltrans DOR and California State Transportation Agency (CalSTA).

2. PUBLIC OUTREACH AND APPROVAL PROCESS

This chapter summarizes public outreach for the SJJPA Business Plan. It provides an overview of the methods used to engage agencies, organizations, and interested and affected stakeholders. This chapter also describes the process for formal adoption of the SJJPA Business Plan/Business Plan Update by the SJJPA Board.

Public Outreach Goals for the SJJPA Business Plan

The overall goals for the public outreach program for the SJJPA Business Plan include:

- Conducting inclusive public outreach that facilitates agency and public involvement and input towards the development of the SJJPA Business Plan;
- Providing easily understood, concise, and multilingual project information that fosters project education and garners public input;
- Ensuring historically underrepresented groups are part of the public outreach process;
- Creating opportunity for the public and agencies to provide valuable input that will assist in decision-making;
- Ensuring that the San Joaquin Corridor agencies, organizations, state and federal agencies, interest groups, and stakeholders are aware of and understand the SJJPA's role in San Joaquin service planning and its vision for the San Joaquin service.

Public Outreach Support Activities for the SJJPA Business Plan

A number of activities are being used to support public involvement and stakeholder outreach efforts, including:

Stakeholder list development: A stakeholder contact list was created for use in outreach activities during the SJJPA Business Plan development process and for future SJJPA activities/board meetings.

Collateral materials: The collateral materials will include SJJPA Business Plan Executive Summary brochure, electronic newsletter, and frequently asked questions (FAQ) document.

Web page development and management: The SJJPA web page serves as an information portal for SJJPA Business Plan content and meeting information, and as a means to receive information from the public. The site (www.acerail.com/sjjpa) is also linked to social media sites for distribution and receipt of public information. SJJPA Board Meeting agenda information and draft Business Plan Chapters are provided in both English and Spanish.

Graphics and media: Printed and electronic materials will be developed in English and in Spanish to explain the key SJJPA Business Plan content to the general public and stakeholders. Interaction with traditional and print media organizations and with social media platforms will further enhance outreach efforts.

Meetings and Coordination

The following briefings and meetings are took place during development of the Draft SJJPA Business Plan:

SJJPA Board Meetings: Publicly noticed board meetings enabled SJJPA Board, agencies, organizations, and the public to have early input on Draft SJJPA Business Plan chapters as they were being developed. Six draft chapters were presented in November 2013, seven were presented in January 2014, and the remaining six chapters and the Executive Summary were presented in March 2014.

SJJPA Ad Hoc Staff Working Group internal coordination: Staff representatives from each of the SJJPA Member Agencies, Kern COG, San Joaquin COG, and Sacramento Area COG met regularly to review draft materials prior to submittal to the SJJPA Board and to participate in the development of the SJJPA Board meeting agendas. SJJPA Member Agencies were asked to provide information regarding the SJJPA, the Draft SJJPA Business Plan and its availability to their constituents.

CalSTA/Caltrans/CHSRA briefings: Briefings ensure that information is shared with CalSTA, Caltrans, and the California High Speed Rail Authority (CHSRA) for review and dissemination. Meetings with staff contacts occur regularly.

Federal Railroad Administration (FRA): The FRA was briefed regarding the SJJPA and the development and review of the Draft SJJPA Business Plan. Meetings with staff contacts occur regularly.

San Joaquin Corridor Cities: Briefings with all the cities along the San Joaquin Corridor that either have or are interested in having a potential future San Joaquin station. Cities are encouraged to pursue station area development grants and participate in the SJJPA Business Plan process.

SB 391 state and regional agencies and related organizations: SB 391 requires Caltrans to address how the State will attain a reduction of Greenhouse Gas (GHG) emissions to 1990 levels by 2020, and 80 percent below 1990 levels by 2050. To this end, the SJJPA Business Plan includes an assessment of GHG emissions for the existing and future rail system. The following state and regional agencies and related organizations were briefed:

- California Air Resources Board (ARB);
- California Energy Commission (CEC);
- California Transportation Commission (CTC);
- Strategic Growth Council (SGC).
- Active Transportation and Livable Communities (ATLC);
- California Association of Councils of Governments (CALCOG);
- Metropolitan Planning Organizations (MPO);
- San Joaquin Valley Air Pollution Control District (SJV APCD);
- Bay Area Air Quality Management District (BAAQMD); and
- Sacramento Metropolitan Air Quality Management District (SMAQMD).

Rail corridor partners and passenger rail owners/operators: The regional and local organizations/agencies responsible for advising (and in some cases, administering) intercity passenger rail operations and organizations that fund and/or operate intercity and commuter passenger rail services throughout California participated in the SJJPA Business Plan process and provided valuable input and feedback:

- Capitol Corridor JPA;
- Coast Rail Coordinating Council (CRCC);
- LOSSAN JPA;
- Peninsula Corridor Joint Powers Board (PCJPB);
- San Joaquin Valley Rail Committee (SJVRC);
- San Joaquin Regional Rail Commission (SJRRC); and
- Amtrak.

Freight railroads: SJJPA staff held individual briefings with the railroad companies whose infrastructure/track is used by the San Joaquin to obtain a more detailed review of freight-related issues in the SJJPA Business Plan:

- BNSF Railway Company (BNSF); and
- Union Pacific Railroad (UPRR).

Minority, Non-English-Speaking Constituencies: With Hispanics comprising well over 50 percent of the San Joaquin Valley population a special effort is being made to reach out to the Hispanic community. The following minority and/or non-English-Speaking constituencies and related organizations were briefed:

- CA Hispanic Chamber of Commerce
- Hispanic Chamber of Commerce Branches: Alameda County, Contra Costa County, Sacramento, San Joaquin County, Central Valley, Central California, Fresno Area, Kern County;
- Latino Coalition for a Healthy California;
- Valley Latino Environmental Advancement Project (LEAP);
- United Farm Workers of America;
- Labor Council for Latin America Advancement;
- MANA: A National Latina Organization;
- Latino Business Association;
- Latino Water Coalition;
- League of United Latin American Citizens (LULAC);
- Vida en el Valle San Joaquin (bi-lingual newspaper);
- Central Valley Asian-American Chamber of Commerce;
- Central CA Asian Pacific Women;
- Cal Asian Chamber of Commerce;
- Sac-Asian Pacific Chamber of Commerce;
- Vietnamese American Chamber of Commerce;
- Cambodia Chamber of Commerce'
- National Hmong American Farmers (CA office);
- CA Black Chamber of Commerce;
- CA Black Chamber of Commerce Branches: Sacramento, Oakland, Contra Costa, San Joaquin, Fresno, Kern;
- National Society of Black Engineers (Region VI);
- CA Alliance of African American Educators;
- National Urban League (Greater Sacramento);
- Center for Race, Poverty, and Justice;
- Fresno Metro Ministries; and
- GI Forum.

Agricultural groups: The San Joaquin Valley is one of the most productive agricultural areas in the world. With the San Joaquin route traversing the entire San Joaquin Valley (from north to south), a focused effort is being made to reach out to agricultural groups. The following agriculture groups and agricultural related organizations were briefed:

- County Farm Bureaus: Alameda, Contra Costa, Sacramento, San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and Kern;
- American Farmland Trust;
- Groundswell San Joaquin Valley;
- Farmland Working Group;
- Valley Land Alliance;
- CA Farm Bureau Federation;
- Ag Innovations Network;
- Fresno Food System Alliance; and
- CA Roundtable on Agriculture and the Environment.

Tribal consultation: Tribal input is important in the development of the SJJPA Business Plan. Federally recognized tribes, non-recognized tribes, and tribal organizations can help determine policies and practices that will ensure that tribal transportation needs are considered and addressed.

San Joaquin Valley Rail Committee (SJVRC): SJJPA staff presented to the SJVRC regarding the progress of the SJJPA at their December 5 meeting and encouraged active participation by the SJVRC in the development of the SJJPA Business Plan. SJJPA staff will be available to present to the SJVRC at their future meetings prior to the signing of the Interagency Transfer Agreement (ITA).

Other stakeholder groups: SJJPA sought input from other agencies and organizations that have an interest in intercity passenger rail, such as the Central Valley Rail Working Group, the San Joaquin Valley Regional Policy Council, California Transit Association, Local Government Commission, California Partnership for the San Joaquin Valley, Transform, the Sierra Club, RailPAC, TRAC, Climateplan, NRDC, the Planning and Conservation League, CALPIRG, the California Labor Federation, Operating Engineers Local Union #3, San Joaquin Partnership, and East Bay Leadership Council. These agencies and organizations were asked to help distribute information regarding the SJJPA, and the Draft SJJPA Business Plan and its availability to their constituents.

Public meetings: Five public meetings were held after the Draft SJJPA Business Plan was released at the end of March 2014. These meetings allowed review of draft findings and provided stakeholder input. The meetings included non-English participation options. Meetings were held in the following locations:

- Fresno (May 27, 2014 at Fresno COG);
- Bakersfield (May 22, 2014 at Kern COG);
- Sacramento (May 29, 2014 at Historic City Hall) ;
- Modesto (May 28th, 2014 at StanCOG); and
- San Francisco Bay Area (Walnut Creek, May 14, 2014 at Contra Costa TA).

SJJPA Business Plan Approval Process

The Draft SJJPA Business Plan was completed and presented for release at the March 28, 2014 SJJPA Board Meeting. Initial draft chapters were presented and made available for public and agency review at the November 22, 3013 and January 24, 2014 SJJPA Board Meetings. After the release of the complete Draft SJJPA Business Plan, there was a review period of nearly two months. Written comments submitted to the SJJPA on the Draft SJJPA Business Plan, or specific draft chapters were provided to the SJJPA Board in advance of the June 27, 2014 SJJPA Board Meeting.

The SJJPA Board discussed the SJJPA Business Plan at its June 27, 2014 Board Meeting and it took action to unanimously approve the SJJPA Business Plan. Prior to taking action on the Business Plan there was opportunity for public comment on the SJJPA Business Plan. The 2014 Business Plan Update was approved at the January 23, SJJPA Board Meeting. The 2015 Business Plan Update was unanimously approved at the May 15, 2015 SJJPA Board Meeting in Stockton. At the request of CalSTA, the 2015 Business Plan Update incorporates FY 2016/17 throughout this revised Business Plan.

3. HISTORICAL PERFORMANCE OF THE SERVICE

California has three state-supported intercity passenger rail routes: the Pacific Surfliner, Capitol Corridor, and the San Joaquin (see Figure 3.1). Each of these intercity services were initiated and/or expanded largely as a result of the voter-approved bond measures passed in 1990. As a result, this financial support helped transform these services into some of the most successful intercity passenger rail services in the nation. With over 5.6 million annual passengers for fiscal year 2012/13, California has more than 20 percent of all the nation's intercity riders. Since 1990, the State has invested more than $1.3 billion in infrastructure and equipment for intercity passenger rail and about $1 billion in operating support.[3]

Beginning with the introduction of the Amtrak national network in the late 1970s, passenger train service has been expanding in California. The State initiated, co-funded and operated intercity rail service under the authority of Section 403(b) of the Federal Rail Passenger Services Act. Amtrak operates all three state-supported intercity rail services under contracts with the State and the Capitol Corridor Joint Powers Authority (CCJPA).

The annual state budget includes a line item for the operating costs of the three state-supported intercity rail services. For each service, the state budget provides funding for intercity train operations, a marketing budget, certain capitalized maintenance projects/ equipment overhauls, and the administrative staff budgets. State transportation funds have provided the full annual operating financial support for the San Joaquin and Capitol Corridor.

The 2012/13 state costs for state-supported intercity rail services was just over $90 million ($29.4 million for Pacific Surfliner, $31.8 million for San Joaquin, and $29.1 million for Capitol Corridor).[4] However, it should be noted that historically (until FY 2013/14) Amtrak paid 30% of the Pacific Surfliner total service cost as part of Amtrak's basic system.[5] By comparison, in 1997/98, the total state costs for the state supported intercity rail services was $48.4 million ($20.4 million for the Pacific Surfliner, $17.2 million for the San Joaquin, and $10.8 million for the Capitol Corridor).[6]

[3] Amtrak California (http://amtrakcalifornia.com/index.cfm/news/press-releases/record-ridership-for-californias-san-joaquinc2ae-trains/ & http://amtrakcalifornia.com/index.cfm/news/press-releases/amtrak-californias-san-joaquin-corridor-reaches-more-than-a-million-riders/)

[4] Caltrans, Oct 2013; Memo from William Bronte to CTC (Financial Allocation for FY 2013-14)

[5] Under Section 209 of PRIIA, state is required to pay 100 percent by 2013/14. Based upon input from Caltrans and Amtrak, the LOSSAN Agency estimated that maintaining the Pacific Surfliner service would cost the state an additional $25 million annually for 2013/14 (for operations and maintenance and leasing Amtrak rolling stock).

[6] Caltrans, California State Rail Plan 2007-08 to 2017-18

Figure 3.1: California Intercity Passenger Rail Routes

Source: California Department of Transportation, 2012

Section 209 of the Passenger Rail Investment and Improvement Act (PRIIA) of 2008 requires that all Amtrak service on routes of 750 miles or less in length become the funding responsibility of the State by FY 2013/14. As shown on Table 3.1, the 2013/14 state subsidy for state-supported intercity rail services is estimated at $108.95 million ($36.8 million for Pacific Surfliner, $42.4 million for San Joaquin, and $29.7 million for Capitol Corridor). This represents an $18.6 million increase (20%) over 2012/13 for the same amount of service. The San Joaquin service is shown as having a $10.633 million cost increase which represents a 33.4% increase in state subsidy for the San Joaquin service from FY 2012/13. In its October 8, 2013 memo to the California Transportation Commission, the California Department of Transportation explains the increase in cost as follows:

"For previous years the Pacific Surfliner corridor had been 30 percent funded by National Railroad Passenger Corporation (Amtrak). With PRIIA Section 209 becoming law the Department is now responsible for 100 percent of the Pacific Surfliner corridor funding. Also included with this are additional expenses; Capital Equipment Costs for both the Pacific Surfliner and San Joaquin corridors."

San Joaquin Service

The State and Amtrak share operating responsibility for the San Joaquin service. The State funds the route's operation, Amtrak operates the trains, and Caltrans has been responsible for the oversight of the San Joaquin service through its operating contract with Amtrak. Caltrans coordinates functions such as marketing, scheduling, and on board services with Amtrak. Until Caltrans began operating a Comet Car trainset on the San Joaquin route (initiated on October 21, 2013), the San Joaquin service had been operated mostly with state-owned rolling stock[7]. Amtrak maintains the San Joaquin equipment; however the maintenance of San Joaquin equipment is overseen by the Capitol Corridor Joint Powers Authority which manages the maintenance of both the Capitol Corridor and San Joaquin services through their ITA with the State, and their operating agreement with Amtrak.

The San Joaquin service extends 364 miles and provides direct rail service to 11 counties: Sacramento, Contra Costa, Alameda, San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and Kern (see Figure 3.2). These counties have a current total population of more than 8 million residents. Nearly 50% of the corridor population resides in the eight San Joaquin Valley counties (just over 4 million), with little over 32% of the population in the two Bay Area counties (2.6 million), and about 18% in Sacramento County (1.44 million). For more than 283 miles, the route traverses the entire San Joaquin Valley from north to south accounting for about 78% of the total route miles.

[7] While the Comet Cars are owned by the state, the single-level café car and baggage car (which are part of the Comet Car trainset) are leased from Amtrak.

Table 3.1: State Costs for State Supported Intercity Rail Routes

FY 2011-12 through FY 2013-14 State Costs for the State Supported Intercity Rail Routes ($ in thousands)			
Route	**FY 2011-12 (Allocation)**	**FY 2012-13 (Allocation)**	**FY 2013-14 (Current request)**
Pacific Surfliner	$28,953	$29,423	$36,819
San Joaquin	$31,788	$31,814	$42,447
State-Administered Routes - Totals	**$60,741**	**$61,237**	**$79,266**
Capitol Corridor	$29,606	$29,110	$29,681
All Routes - Totals	**$90,347**	**$90,347**	**$108,947**

Source: Department of California, Oct 8, 2013 Memo to CTC (Financial Allocation for FY 2013-14)

Figure 3.2: San Joaquin Route

Source: California Department of Transportation, 2012

Between Oakland and Bakersfield the San Joaquin route is 315 miles long and has 13 intermediate stops. The San Joaquin route is 49 miles between Sacramento and Stockton with one additional intermediate stop. The San Joaquin has six daily round-trip trains (four between Oakland and Bakersfield and two between Sacramento and Bakersfield). The current minimum scheduled San Joaquin running time between Oakland and Bakersfield is 6 hour 5 minutes, averaging 52 mph. Between Sacramento and Bakersfield, the San Joaquin service has a minimum 5 hour 10 minute running time, and an average speed of over 55 mph. Maximum speed for the San Joaquin service is 79 mph.

Amtrak operates the state-supported San Joaquin intercity service on track owned by the UPRR and the BNSF through operating agreements with the UPRR and BNSF. UPRR owns the 49 miles of track used by the San Joaquin service between Stockton and Sacramento, and 39 miles between Oakland and Port Chicago, whereas the remaining 276 miles (between Port Chicago and Bakersfield) are owned by BNSF (see Table 3.2). The BNSF line and the UP line between Stockton and Sacramento are primarily single track (the BNSF line has about 26 miles of double-track divided among five segments).

Caltrans estimates that current freight operations average 24 to 26 daily trains on the BNSF between Stockton and Bakersfield and 10 trains on the BNSF between Port Chicago and Stockton. They estimate that the UPRR operates 24 daily trains between Oakland and Martinez; and 40 daily trains on the UPRR Fresno Subdivision between Sacramento and Stockton. Some BNSF freight traffic with trackage rights over UPRR is routed via the Sacramento Subdivision between Sacramento and Stockton along with a limited number of UPRR freights.

The financial performance of the San Joaquin service is dependent on several institutional arrangements. The most important arrangement is the State's contract with Amtrak to operate the service and maintain any assigned equipment and facilities.

San Joaquin operating expenses include:
- Onboard labor, equipment maintenance;
- Railroad performance permits;
- Train fuel and power;
- Property insurance for state-owned rolling stock operated and maintained by Amtrak;

Table 3.2: San Joaquin Ownership and Track Characteristics

San Joaquin Route Ownership and Track Characteristics								
Between	**Mile Post**	**And**	**Mile Post**	**Route Miles**	**Owner of Track**	***No. of Tracks**	**Max Speed**	**Signal System**
Oakland Jack London Square	7.0	Oakland 10th Street	4.2	2.8	UP	2	50	CTC
Oakland 10th St.	2.2	Martinez	31.7	29.5	UP	2	79	CTC
Martinez	34.7	Port Chicago	41.3	6.6	UP	1	79	CTC
Port Chicago	1163.5	Stockton	1120.7	42.8	BNSF	1-2	79	CTC
Sacramento	89.0	Elvas	91.8	2.8	UP	2	35	CTC
Elvas	38.8	Stockton	84.7	45.9	UP	1	60	CTC
Stockton	1120.7	Bakersfield	886.9	233.8	BNSF	1	79	CTC
			TOTAL	**364.2**				

** General Number of Mainline Tracks*
Owners:
BNSF - BNSF Railway Company
UP - Union Pacific Railroad Company

Signal Systems:
CTC - Centralized Traffic Control - Wayside signals protect possession of blocks. Signals and powered switches are also remotely controlled from the dispatching center to direct the movement of trains.

Source: California Department of Transportation, 2012

- Commissary and station costs;
- Support of Amtrak's national and local operation (e.g. phone information and reservations system); and
- Connecting bus service and other operating expenses.

In 1979-80 the San Joaquin service only had two daily round trips between Oakland and Bakersfield and annual ridership was a little over 123,000. Ridership has steadily increased over the years and in FY 2012/13 it reached a record 1.2 million passengers. The San Joaquin service is currently the fifth most used intercity service within the Amtrak system. Table 2.3 presents historical annual operating performance of the San Joaquin service between FY 1973/74 through FY 2011/12. This table also shows that San Joaquin revenue had increased since FY 1994/95 and the farebox ratio had increased since FY 2002/03. The farebox ratio in FY 2011/12 had risen to 55%, whereas it was only 40% in FY 2002/03.

As shown on Table 3.3, service on the San Joaquin has increased from the original single round trip to the current six daily round trips as follows:

- Second round trip added between Oakland and Bakersfield on 2/3/80;
- Third round trip added between Oakland and Bakersfield on 12/17/89;
- Fourth round trip added between Oakland and Bakersfield on 10/25/92;
- Fifth round trip added, first round trip between Sacramento and Bakersfield on 2/21/99; and
- Sixth round trip added, second between Sacramento and Bakersfield on 3/18/02.

While San Joaquin ridership and revenue had been steadily increasing, there have been no additional frequency of service added since 2002, and no new service between Oakland and Bakersfield added in over 20 years (since 1993).

Table 3.3: San Joaquin Historic Operating Performance

San Joaquin Route Annual Operating Performance – State Fiscal Years										
State Fiscal Year		Ridership Data		Financial Data for Operations						
		Ridership	PM/TM	Revenue	Expense	Loss	State Calculated	Amtrak Service Costs	Train Loss per PM	Farebox Ratio
	Notes		(F1)		(F2)		(F3)	(F4)	(F5)	(F6)
1973-74	(S1)	38.770	83.6							
1974-75		66,990	44.2							
1975-76		66,530	43.8							
1976-77		87,642	56.0							
1977-78		80,611	52.7							
1978-79		87,645	60.2							
1979-80	(S2)	123,275	63.6	$1,174,065	$3,975,185	$2,801,120	$518,206		18.4¢	29.5%
1980-81		159,498	55.3	$2,224,137	$6,940,934	$4,716,797	$,1,360,391		18.4¢	32.0%
1981-82		189,479	65.3	$3,115,710	$7,774,029	$4,658,319	$2,228,585		14.0¢	40.1%
1982-83		186,121	62.9	$3,342,137	$7,991,697	$4,649,560	$2,490,275		14.6¢	41.8%
1983-84		248,275	85.3	$4,730,431	$8,094,789	$3,364,358	$2,518,066		7.3¢	58.4%
1984-85		269,837	94.6	$5,210,951	$8,641,293	$3,430,342	$2,802,955		7.7¢	60.3%
1985-86		280,798	101.1	$5,425,329	$8,610,554	$3,185,225	$2,658,895		6.8¢	63.0%
1986-87		304,668	106.1	$6,084,677	$9,179,133	$3,094,456	$2,929,148		5.1¢	66.3%
1987-88		340,573	121.1	$7,457,686	$9,633,659	$2,175,973	$2,605,572		2.2¢	77.4%
1988-89		370,190	133.7	$9,527,268	$10,968,216	$1,440,948	$1,887,450		1.3¢	86.9%
1989-90	(S3)	418,768	116.9	$11,845,743	$15,286,520	$3,440,777	$3,544,332		3.2¢	77.5%
1990-91		463,906	104.1	$12,691,986	$18,456,785	$5,764,799	$5,803,565		4.9¢	68.8%
1991-92		483,593	104.3	$12,369,805	$18,633,777	$6,263,972	$6,472,598		4.3¢	66.4%
1992-93	(S4)	516,113	109.6	$12,628,496	$22,227,149	$9,598,653	$10,789,651		6.5¢	56.8%
1993-94		558,569	94.6	$13,894,624	$26,678,861	$12,784,237	$12,335,021	$3,937,150	8.3¢	52.1%
1994-95		524,680	88.8	$12,244,668	$25,077,153	$12,832,485	$12,668,018	$3,705,069	9.7¢	48.8%
1995-96		526,088	86.6	$12,477,497	$25,386,099	$12,908,602	$14,483,048	$1,360,327	11.8¢	49.2%
1996-97		652,544	106.1	$13,817,681	$34,528,165	$20,710,484	$16,265,387	$5,672,236	18.6¢	40.0%
1997-98		702,178	118.0	$15,230,966	$36,517,290	$21,286,324	$17,190,515	$4,493,597	17.7¢	41.7%
1998-99	(S5)	680,687	102.8	$16,496,457	$37,269,835	$20,773,378	$19,938,254	$1,712,168	17.6¢	44.3%
1999-00		671,295	92.7	$18,061,512	$41,791,782	$23,730,270	$24,232,326	$652,236	19.0¢	43.2%
2000-01		710,833	97.9	$19,667,681	$43,404,325	$23,736,644	$24,350,127	$540,809	18.2¢	45.3%
2001-02	(S6)	733,152	96.9	$20,114,693	$46,503,548	$26,388,855	$26,281,035	$396,392	20.0¢	43.3%
2002-03		769,708	89.9	$20,318,564	$50,552,529	$30,233,965	$29,729,650	$504,315	21.7¢	40.2%
2003-04		752,227	87.2	$22,100,796	$50,061,460	$27,960,664	$27,960,664	$89.345	20.5¢	44.1%
2004-05		743,245	85.1	$22,590,880	$49,883,689	$27,292,809	$27,292,808		19.6¢	45.3%
2005-06		801,242	91.1	$25,869,979	$55,226,742	$29,356,763	$29,356,763		19.0¢	46.8%
2006-07		789,641	88.8	$26,862,994	$61,188,078	$34,325,084	$34,325,084		28.8¢	43.9%
2007-08		894,346	88.2	$28,945,651	$65,474,253	$36,528,602	$36,528,602		21.4¢	44.2%
2008-09		958,946	90.0	$30,671,510	$68,232,766	$37,561,256	$37,561,256		21.2¢	45.0%
2009-10		967,437	103.7	$32,117,615	$62,689,957	$30,572,342	$30,572,342		22.2¢	51.2%
2010-11		1,032,579	112.9	$36,571,173	$69,578,077	$33,006,904	$33,006,904		21.9¢	52.6%
2011-12		1,133,654	124.0	$40,865,063	$74,323,829	$33,458,766	$33,458,766		20.2¢	55.0%
TOTAL		**19,386,333**		**$526,748,425**	**$1,080,782,158**	**$554,033,733**	**$536,146,259**			

Source: California Department of Transportation, 2012

TABLE 3.3 Notes

(S1) Service started 3/6/74 with one round-trip between Oakland and Bakersfield Data is for four months only.

(S2) State support started 10/1/79. Data is for nine months, during which time ridership totaled 93,206.

(S3) Third round-trip added 12/17/89 between Oakland and Bakersfield.

(S4) Fourth round-trip added 10/25/92 between Oakland and Bakersfield.

(S5) Fifth round-trip added 2/21/99 between Sacramento and Bakersfield.

(S6) Sixth round-trip added 3/18/02 between Sacramento and Bakersfield.

(F1) Passenger-miles per train mile (PM/TM), a measure of the average load on a train over its entire route.

(F2) Prior to October 1983, all trains billed on solely related cost basis. From October 1983 through September 1995, all trains billed on short term avoidable cost basis. Effective October 1996, all trains billed on Full Cost (Train, Route and System) Basis. Incudes cost of connecting buses. Depreciation and interest (equipment capital cost) included in operating cost under solely-related cost basis but excluded and charged separately under short-term, long-term avoidable and full cost bases.

*(F3) **Calculated service costs shown here may not reflect actual State contract cost.** From October 1979 through September 1983, State cost increased in stages from 18.5 to 48.5 percent of operating loss (including equipment costs). Between October 1983 and September 1995, State cost was 65 percent of train operating loss for first three round trips, plus 50 percent of depreciation and interest (equipment capital cost). For the fourth round trip, State cost was 70 percent of train operating loss plus equipment capital cost. Between October 1995 and September 1996, State cost was 100 percent of train operating loss and 60 percent of equipment capital cost. Between October 1996 and September 1997, State cost was 65 percent of train operating loss. Effective October 1997, State is billed contractually specified percentages of most individual cost elements, plus a fixed amount for certain other cost elements. Also includes State payment of costs of special agreements with Amtrak for use of equipment, and State payment of entire net cost of all connecting bus routes.*

(F4) Between State Fiscal Years 1993-94 and 2003-04, Amtrak cost is based on billings submitted and reflects cost basis and Amtrak shares as stated in notes (F2) and (F3) above. However, Amtrak does not include the unbilled Amtrak share of fixed cost elements. Prior to FY 1993-94, data to calculate Amtrak cost is not available/ beginning in FY 2004-05, no Amtrak share is billed.

(F5) Train loss (deficit) per train passenger-mile. Connecting buses not included in loss per passenger mile data.

(F6) Farebox Ratio, the ratio of Revenue to Expense.

Table 3.4 shows Amtrak boardings and alightings at San Joaquin stations for FY 12. These numbers include trips with a Thruway bus connection (which comprise a considerable number of the trips at Bakersfield, Stockton-San Joaquin St, Hanford and Emeryville). For example, Bakersfield is shown as having the most (507,058) passengers (Ons/Offs) in FY 12, however over 62% of these passengers took a connecting bus to Southern California. The number of San Joaquin passengers who actually traveled to/from Bakersfield was about 190,000. Stockton (San Joaquin Street) Station is shown as having the third highest ridership at over 277,926 passengers, but about 47% of these passengers took a connecting Thruway bus at Stockton. The number of passengers who actually traveled to/from Stockton (San Joaquin Street) was closer to 145,000. Many of those taking a Thruway bus at Stockton were traveling to or from Sacramento (over 51,000 passengers). For Sacramento Station the total number of passengers (rail + Thruway bus) actually traveling to or from Sacramento would be over 167,000 passengers. The Thruway bus station with the greatest number of riders is by far Los Angeles Union Station with nearly 161,200 passengers in FY 2012.

Table 3.5 provides FY 2012 ridership for the 20 highest San Joaquin "city pairs" (including trips with an Amtrak Thruway bus connection). This table shows that the Bakersfield-Fresno station pair had the highest "city-pair" ridership for FY 2012 with 104,689 passengers. Of these riders, 74,856 (71.5%) used a connecting Thruway bus to Southern California. Of the Bakersfield-Fresno passengers who took a connecting Thruway bus, 39,715 (53%) were traveling between Fresno and Los Angeles Union Station. The second highest station pair shown on Table 3.5 is Bakersfield to Stockton with 85,602 passengers. Both the Bakersfield and Stockton stations are major hub stations for the connecting Thruway bus services. Over 85% of the riders between Bakersfield and Stockton took a connecting Thruway bus on at least one end of their trip (72,776) in FY 2012. Only 12,826 San Joaquin passengers travelled between Bakersfield and Stockton without a Thruway bus connection in FY 2012. While Table 3.4 and 3.5 highlight that the most heavily used rail stations are within the San Joaquin Valley, ridership at Bakersfield, Hanford, and Stockton is dominated by passengers connecting to/from the San Joaquin's extensive Amtrak Thruway bus services.

Table 3.4: San Joaquin Ridership Report

Station Ridership Report San Joaquin – FY 12			
	Station	**Passenger ons/offs**	**% Chg. vs FY 11**
1	Bakersfield	507,058	6.5
2	Fresno	394,074	5.9
3	Stockton (San Joaquin St.)	277,926	6.8
4	Hanford	210,682	5.7
5	Sacramento	130,933	6.6
6	Merced	125,316	9.5
7	Modesto	118,226	13.0
8	Emeryville	115,775	6.7
9	Martinez	108,761	8.0
10	Oakland	63,467	7.6
11	Richmond	49,251	6.9
12	Stockton (Downtown)	40,056	4.3
13	Antioch	39,001	12.1
14	Corcoran	29,072	6.0
15	Denair	25,308	7.9
16	Madera	24,770	13.9
17	Wasco	21,117	16.0
18	Lodi	8,439	13.7
	TOTAL PAX ON/OFFS	2,289,232	7.2%
	TOTAL RIDERSHIP	**1,144,616**	**7.2%**

The above figures are total boardings and alightings at each station. Since each trip contains two endpoints, total ridership is equal to half of total boardings and alightings. ***Source: Amtrak, 2013***

Table 3.5: San Joaquin City Pair Ridership

San Joaquin City Pair Ridership FY 12	
City Pair	**Ridership**
Bakersfield - Fresno	104,689
Bakersfield - Stockton	85,602
Fresno - Hanford	77,157
Bakersfield - Hanford	45,224
Fresno - Stockton	43,995
Bakersfield - Sacramento	38,735
Bakersfield - Modesto	38,570
Bakersfield - Martinez	36,905
Fresno - Sacramento	36,147
Bakersfield - Merced	35,533
Emeryville - Fresno	29,093
Bakersfield - Emeryville	25,670
Emeryville - Stockton	22,469
Fresno - Martinez	22,060
Oakland - Stockton	20,249
Richmond - Stockton	17,375
Hanford - Stockton	17,135
Merced - Stockton	16,728
Modesto - Stockton	16,374
Hanford - Sacramento	15,360

Source: Amtrak, May 2013

San Joaquin Amtrak Thruway Bus Service

The extensive network of dedicated Amtrak Thruway buses connecting with the San Joaquin is critical to the performance of this service. In addition to the Thruway bus service connections in Bakersfield, other Amtrak Thruway bus service connections are provided at Sacramento, Stockton, Oakland, Emeryville, Martinez, Merced, and Hanford (see Figure 3.3). In 2012, nearly 45 percent (510,793) of San Joaquin passengers used an Amtrak Thruway bus on at least one end of their trip[8].

All trains either initiating or terminating at Bakersfield are met by Amtrak Thruway buses connecting south to Southern California. In FY 2012, over 317,000 San Joaquin passengers used an Amtrak Thruway bus between Bakersfield and Southern California, with over half of these passengers traveling to or from Los Angeles Union Station (nearly 161,200 passengers). All trains at Stockton are met by a Thruway bus continuing either to Oakland or Sacramento, whichever terminus the train does not serve. The Thruway bus system extends north to Redding, east to Reno and Las Vegas, Nevada; south to Indio; and all along the California coast from Arcata to San Diego.

Caltrans contracts with Amtrak for dedicated feeder bus services, and Amtrak then contracts with bus operators. The bus routes function as part of the San Joaquin service, with coordinated connections, guaranteed seating, integrated fares and ticketing procedures, and inclusion in Amtrak's central information and reservation system in the same manner as the trains. The current San Joaquin bus routes and their origins/destinations[9] are as follows:

- Route 1 Network–Los Angeles Basin[10]
  - 1a–Bakersfield-Los Angeles-San Diego*
  - 1b–Bakersfield-Los Angeles-Long Beach*/San Pedro*
  - 1c–Bakersfield-Van Nuys-Torrance
- Route 3–Sacramento Valley, Stockton*-Sacramen-to-Marysville-Chico-Redding
- Route 6–South Bay, Stockton-San Jose
- Route 7–North Bay/Redwood Empire, Martinez-Vallejo-Napa-Santa Rosa-Eureka*-McKinleyville*

[8] *California Department of Transportation, 2013*

[9] *Connecting stations for San Joaquin trains are shown in italics. Cities designated with asterisks (*) are not served by all schedules on the route.*

[10] *Route 1 serves the Pacific Surfliner and San Joaquin routes.*

- Route 9–High Desert-Las Vegas, Bakers ield-Las Vegas
- Route 10–Valley-South Coast, Bakersfield-Oxnard-Santa Barbara
- Route 12–Antelope Valley, Bakers ield-Victorville
- Route 15–Yosemite, Merced-Yosemite National Park
- Route 18–Valley-Central Coast
  - o 18a–Hanford-San Luis Obispo-Santa Maria
  - o 18b–Hanford-Visalia
- Route 19–Inland Empire-Coachella Valley
  - o 19a–Bakersfield-Riverside-San Bernardino-Hemet*
  - o 19b–Bakersfield-Riverside-San Bernardino-Palm Springs-Indio
- Route 34–Bay Area – Stockton, Stockton-Oakland-San Francisco
- Route 35–San Jose – Santa Cruz
- Route 56–Stockton – San Jose
- Route 99-Trans Bay, Emeryville-San Francisco (Route 99 is a joint route with Capital Corridor)

Source: California Department of Transportation, 2012

Figure 3.3: San Joaquin and Connecting Thruway Bus and Rail Services

Source California Department of Transportation, 2013

4. INTEGRATION OF SAN JOAQUIN SERVICE WITH HIGH-SPEED RAIL

The San Joaquin Service has the 5th highest intercity passenger rail service ridership in the nation and in 2013 was the top ranked system in the nation for increased ridership. This success has been dependent upon several subset markets within the overall corri-dor that meet the travel demands of the various com-munities, and has been realized through considerable State investment. SJJPA believes any integration of the San Joaquin service with the proposed High-Speed Rail service, must build upon that success, rather than just co-opt the San Joaquin ridership into the new HSR system; otherwise the State will have invested in two systems aimed at similar ridership markets.

Successful HSR services throughout the world have extensive networks of conventional intercity and commuter rail networks that complement and provide critical "feeder" service to the HSR servicesat shared multimodal "hub" stations. To operate at a surplus, HSR services are focused on express, longer distance travel markets that include a large share of business travelers willing to pay for the shortened travel times which high-speed travel makes possible. Conventional rail services play an important role in providing a more local, multi-stop intercity service, serving shorter trips with additional stations in smaller markets and providing a lower cost transportation alternative for families and travelers who do not need or cannot afford the higher fares that are associated HSR.

With California's phased approach to implementing HSR, the conventional rail services are particularly critical to the success of the initial operating segment (IOS) of the proposed HSR system. The San Joaquin service (including the Thruway buses), with its desirable rail connectivity to the Bay Area, Sacramento, and the northern San Joaquin Valley, provides the best initial support for the proposed HSR IOS. With billions of dollars being investing in the California HSR project, the improvement and expansion of the San Joaquin service as a feeder network should be a very high priority for SJJPA, CHSRA, the State, the regions, and the FRA, in consultation with the BNSF and UPRR.

The enabling legislation for SJJPA requires that the SJJPA Business Plan shall be consistent with the most recent California State Rail Plan (CSRP) pursuant to Section 14036 and the CHSRA's 2014 Business Plan pursuant to Section 185033 of the Public Utilities Code. To use the most recent and relevant source of information in the State's planning for high-speed rail, the SJJPA Business Plan Update is consistent with the High-Speed Rail Business Plan that was adopted by the CHSRA Board in April, 2014. The Joint Policy Statement adopted by CHSRA, SJJPA and Caltrans, is intended to ensure cooperation and input of local communities on all decisions related to any changes in the San Joaquin service and consistent planning between these agencies.

Joint Policy Statement between CHSRA, Caltrans and SJJPA

To coordinate the efforts to integrate the San Joaquin service with the HSR program, the SJJPA Board Officers met with CHSRA Board Member Tom Richards, CEO Jeff Morales, and Regional Directors Diana Gomez and Ben Tripousis on June 27, 2013. As a result of this meeting, there was agreement the San Joaquin service would likely evolve over time (but not diminish) to provide complementary feeder service to the proposed high-speed rail system. It was also determined that coordinating planning efforts in the San Joaquin Corridor and signing a "Joint Policy Statement" would be in the best interest of all of the rail parties, and promote a clearer understanding of how decisions regarding the San Joaquin service would be made in the future.

After much consultation with the affected partners and local communities, SJJPA adopted the Joint Policy Statement on July 26, 2013 that was also adopted and signed by the CHSRA and Caltrans (shown as Figure 4.1). The Joint Policy Statement ensures SJJPA and the affected communities will be actively involved in any coordination, decisions, and/or service adjustments between the San Joaquins and the proposed HSR service. The continued coordination with CHSRA and Caltrans is a high priority for SJJPA as part of its advocacy efforts to protect and improve the entire San Joaquin service.

2014 CHSRA Business Plan

AB 528 (Lowenthal) passed by the Legislature and signed by the Governor on September 6, 2013 changed the due date of the CHSRA Business Plan from January 1, to May 1 every two years. As required

by law, the CHSRA released a draft 2014 Business Plan at least 60 days before the publication of their Business Plan. A copy of the draft 2014 CHSRA Business Plan was furnished to the SJJPA at that time. SJJPA closely coordinated with CHSRA, CalSTA, and Caltrans Division of Rail during development of the draft 2014 CHSRA Business Plan and subsequent review before the plan was accepted. The 2014 CHSRA Business Plan was adopted by the CHSRA Board in April and was submitted to the State Legislature on May 1, 2014.

The CHSRA's priority and focus is on the phased implementation of state-of-the-art, electrified high-speed train service for California that would be capable of operating at speeds up to 220 mph. The SJJPA worked with the CHSRA within the framework of the Joint Policy Statement to ensure that the SJJPA's Business Plan was consistent with the 2014 CHSRA Business Plan as it relates to the San Joaquin service.

CHSRA and FRA Grant Agreement

The FRA required that the grant application for construction funding for the first construction section have "independent utility", meaning if there were no additional federal funds available (or other future funding sources) for a significant period of time, that the construction segment built using the federal grant funds would have an intercity passenger rail operational use.[11] The CHSRA continues to work with CalSTA and the FRA, "to evaluate the potential for interim service…consistent with the principle that each program phase can stand alone and have independent utility."[12]

CHSRA has publicly stated, and SJJPA is in agreement, that it is preferable the San Joaquin service never has to utilize the first construction section of the HSR system. However, should it become a necessity due to a significant delay of the HSR program, SJJPA will work through the framework of the Joint Policy Statement to develop an appropriate contingency plan for interim use of the first construction section by the San Joaquin service. SJJPA and the local communities along the corridor believe that any potential interim use of the first construction section must not be to the detriment of continuing San Joaquin service from Merced to Bakersfield along the existing BNSF alignment and continuing through service along the entire existing BNSF alignment.

[11] *CHSRA and FRA Grant Agreement, signed Dec 5, 2012, Attachment 3A page 81*
[12] *2014 California High-Speed Rail Authority Business Plan, page 22*

Figure 4.1

JOINT POLICY STATEMENT OF

California High Speed Rail Authority
California Department of Transportation
San Joaquin Joint Powers Authority

The San Joaquin Corridor Intercity Passenger Rail Service (San Joaquin Rail Service) is a vital economic and environmental asset to the state and the communities along the San Joaquin Corridor. With annual ridership of over 1 million passengers on only 6 daily round-trip trains, many people depend on the service to access the urban areas of the state and travel between communities. The San Joaquin Rail Service serves and promotes many Valley communities and plays a vital role as the sole transportation alternative for many Valley residents.

The phased introduction of the new high-speed rail system will have some impact on the San Joaquin Rail Service. This is true in all corridors where high-speed rail will run parallel to or in the same corridor as existing conventional service. These changes can be beneficial to both systems.

The California High Speed Rail Authority (Authority) and California Department of Transportation (Caltrans) believe the San Joaquin Rail Service is important to the communities who have supported this service for decades, and will work to maintain and improve the San Joaquin Rail Service in conjunction with the implementation of high-speed rail.

The new San Joaquin Joint Powers Authority (SJJPA), working on behalf of the San Joaquin Corridor communities, will work jointly with the Authority and Caltrans to support the phased implementation of high-speed rail over the coming decades, and will work to advocate complementary service strategies.

This mutual understanding of how these rail services will rely on each other, and benefit from each other, forms the basis for the following joint commitment:

The Authority, Caltrans and SJJPA agree to protect the state investment in the San Joaquin Corridor, and work together to develop viable strategies and solutions to meet the needs of the high-speed rail system, the San Joaquin Rail Service and the stakeholder communities.

Dan Richard, Chairperson
California High-Speed Rail Authority

Malcolm Dougherty, Director
California Department of Transportation

John Pedroza, Chairperson
San Joaquin Joint Powers Authority

5. COMET CAR TRAINSETS, BI-LEVEL & NEW EQUIPMENT

Comet Car Trainsets

On October 21, 2013, Caltrans Division of Rail introduced a trainset of refurbished Comet Cars into service on the San Joaquin route. Caltrans' decision to purchase and use Comet Car trainsets on the San Joaquin route was intended to provide additional seating capacity through the running of longer train sets on the service. Caltrans has clearly stated to SJJPA that the use of the Comet Car trainset is a short-term solution to add capacity to the San Joaquin service until the new bi-level equipment purchased by the State are delivered, and that the deployment of the Comet Car trainset is to increase the ridership and revenue of the San Joaquin service.

While use of the Comet Car trainset could potentially increase the seating capacity of the San Joaquin service, there are some potential negative aspects to having single-level Comet Car trainsets deployed, including; high-level boarding (which requires all passengers to climb a steep set of stairs), narrow doors that are manually opened, use of a manually cranked wheelchair lift at all stations, bike storage and large luggage stored in separate baggage cars, and costs associated with additional train attendants and maintenance. SJJPA has submitted formal comments to Caltrans raising concerns regarding these aspects of the Comet Car trainsets, as the SJJPA believes they could threaten the future success of the San Joaquin service.

California Cars

In addition to the Comet Cars, the San Joaquin service uses the Bi-level California cars owned by the State of California. The bi-level equipment was purchased in the 1990's for use on the three California Intercity Passenger Rail Corridors. The California Car fleet in Northern California is shared between the San Joaquin and Capitol Corridor services to allow for maximum flexibility in seating capacity. Bi-level equipment assignments for the Northern California fleet will be studied to see if there can be further optimization of equipment based upon peak loads of paired trains.

New Equipment

With the increase in ridership on the State supported services, Caltrans, owner of the rolling stock, recognized the need for additional passenger cars to expand seating capacity and continue to meet the growing demand of the State's intercity rail services. To meet the demand, Caltrans worked with the

Federal Railroad Administration and States for Passenger Rail Coalition to develop a program to procure additional passenger rail cars. As a result of these efforts, Caltrans was successful in bringing together federal High Speed Intercity Passenger Rail (HSIPR) program funding of $168 million. In December 2011, the California Transportation Commission (CTC) approved matching funds of $42 million in Prop 1B funds to complete the funding to acquire additional rolling stock. The first of the new Bi-levels for California are scheduled to begin arriving in mid 2016; however most of the Bi-level cars are not expected to be delivered until after September 2017. Caltrans' Division of Rail leadership in procuring the funding to order these new cars will directly benefit SJJPA. It is anticipated at this time that twelve new passenger cars and three new locomotives will be assigned to the San Joaquin Corridor, with the possibility of being able to place orders for additional equipment if train frequencies are increased.

In December 2014, the CTC approved allocation of $108 million in Prop 1B funding for additional passenger rail cars and locomotives. This will result in additional new equipment for the California fleet. The exact breakdown between locomotives and railcars is still under negotiations. The option locomotives will cost about $6.5 million and the option railcars will be approximately $3.2 million each. The State expects to focus on purchasing new locomotives which will mostly be used to replace locomotives being leased from Amtrak. About 10% of this allocation will be utilized for an "On-board Information System (OBIS)". The OBIS is an integrated video and audio communications system for on-train travel and service messages as well as potential advertising messages.

6. OPERATING PLAN AND STRATEGIES

FY 2015/16 and 2016/17 Operating Plan

In Federal FY 14 (October 2013 – September 2014) San Joaquin ridership dropped (by 1.3%) for the first time since FY 07 and revenue dropped (by 3.3%) for the first time since FY 94. SJJPA will work with the State and Amtrak to determine the cause of the decrease and suggest potential remedies. A potential reason for the decrease is that it appears that capacity for the San Joaquin service was reduced with the introduction of the Comet Car trainset(s). Since the San Joaquins use reserved ticketing, any decrease in capacity would be likely to result in a decrease in ridership. Despite a disappointing FY 14 with a strong statewide economy and a growing San Joaquin Corridor, the San Joaquins should return to a pattern of increased ridership and revenue in FY 15 and beyond.

The San Joaquin's operating plan for FY 2015/16 assumes that an additional daily round trip will be added in the San Joaquin Corridor between Oakland and Bakersfield half-way through the fiscal year. For FY 2016/17 San Joaquin's operating plan will maintain the same level of service as FY 2015/16: 2 daily roundtrips between Sacramento and Bakersfield, and 5 daily round trips between Oakland and Bakersfield.

Based upon historical ridership growth, increasing the frequency of the San Joaquin service is a key objective. SJJPA will evaluate and pursue cost effective service expansion opportunities in consultation with the host railroads as capital and operational funding is made available. SJJPA will work with Caltrans to identify future equipment needs, funding sources and delivery schedules for service improvements.

To enhance the current San Joaquin service, SJJPA is committed to working with Caltrans Division of Rail and Mass Transportation, Capitol Corridor, Pacific Surfliner, Altamont Corridor Express (ACE), Amtrak, BNSF, UPRR, and Regional and Local Transit providers to improve connecting transit service to the trains and connecting bus service along the San Joaquin corridor. To help achieve this, SJJPA will utilize its Member Agencies to assist in coordinating improved communications and connectivity.

Operating Strategies

The San Joaquins have great potential for increased ridership, revenue, service coordination and performance. SJJPA will implement a number of strategies to improve the San Joaquins. Some of the strategies listed can be implemented with little or no additional resources.

Train Monitoring - On Time Performance (OTP):

1. Coordinate with the Host Railroads and Amtrak to provide computer displays with real-time viewing of all train movement (freight and passenger) on the San Joaquin corridor.
2. Initiate weekly conference calls with the Host Railroads and Amtrak to discuss the prior weeks On-Time Performance. The discussion will include the types of delays, the reasons for the delays and identify potential solutions so future delays can be a prevented.
3. Coordinate with the Host Railroads to bring Dispatchers out to tour the San Joaquin Corridor and ride the trains to develop an understanding of the territory being dispatched.
4. Work with the Host Railroads and Amtrak to identify capital and/or system improvements to improve On-Time Performance. This includes annual hy-rail trips over the corridor with the Host Railroad's and Amtrak's operating and passenger rail personal. This will allow for a prioritized list of projects agreed to by all parties which can be either on, or off the corridor which will increase capacity and velocity of the overall system.

Train and Connecting Bus Schedule Adjustments:

1. The SJJPA will make an early evaluation of the existing train and connecting bus schedules and determine if there are potential changes which could improve ridership, revenue and cost effectiveness. Schedule adjustments have the potential to improve the San Joaquin performance without additional resources.
2. Closely review of the bus routes to determine if the routes are operated as efficient as possible.
3. Assess operational impacts and potential schedule changes from the implementation of potential new station locations (including Berkeley, Hercules, Elk Grove, and 65th Street Sacramento).

Service Coordination:

1. Represent the San Joaquins at monthly Capital Improvement Team (CIT) meetings with the Union Pacific Railroad (UPRR). The meeting is to discuss operational issues encountered over prior month and any upcoming capital and system projects that could affect train performance.
2. Initiate monthly CIT meetings with the BNSF. The meeting is to discuss operational issues encountered over prior month and any upcoming capital and system projects that could affect train performance.
3. Work with the Capitol Corridor JPA, LOSSAN JPA, and Caltrans to provide improved connections to the Capitol Corridor and Pacific Surfliner.
4. Work with the Federal Railroad Administration on regulatory requirements associated with the San Joaquin Service, i.e. Positive Train Control.

Near-term Operating Improvements:

1. Work with the State to continue the construction and identification of capital and operational funding for projects to increase the San Joaquin service up to eight (8) daily round-trips between Oakland and Bakersfield.
2. Plan for required improvements and seek capital and operational funding to increase the San Joaquin service to Sacramento.
3. The SJJPA will work with Amtrak and the Host Railroads (BNSF and UPRR) to evaluate the feasibility of initiating increased service mid-corridor as part of service expansion plans. SJJPA will evaluate the estimated costs of mid-corridor train starts along with the compatibility of cycling the equipment for maintenance and the feasibility of mid-point crewing locations.
4. Work with Caltrans Division of Rail and Mass Transportation, Amtrak, BNSF and UPRR to develop potential train schedules to better serve the morning markets in Bakersfield, Oakland and Sacramento through a mid-point start in Merced. Operating trains from Merced in the morning heading south to Bakersfield and north to Oakland and Sacramento
5. Work with Amtrak and the Host Railroads on developing a grass roots Safety and Security Program targeting the Farming Community and First Responder's. This includes presentations at fairs, festivals, and to special groups. For example, having all student groups taking the San Joaquins attend an OL presentation prior to taking the trip, allowing Transportation Security Administration (TSA) uniformed VIPR's team ride the trains. VIPR teams are a no-cost resource for expanding and enhancing security through random and unpredictable deployments.

7. SHORT-TERM AND LONGER-TERM CAPITAL IMPROVEMENT PROGRAMS

The State has invested almost $460 million since 1976 to increase and improve the San Joaquin service.[13] There have been more than $240 million in San Joaquin Corridor improvements over the last 20 years. Table 7.1 shows the major investments that were programmed for the San Joaquin Corridor between 1993 and 2012. Caltrans is currently working to complete the improvements needed to enable the deployment of an additional daily round trip between Oakland and Bakersfield and has initiated planning for up to 11 daily round trips.

Table 7.1: San Joaquin Capital Projects 1993 – 2012

San Joaquin Capital Projects 1993 - 2012 ($ Millions)			
Project	**Cost**	**Track Miles**	**Benefit**
4 to 6 Train	$53.8	21.5	Two Round Trips
Oakley to Pt Chicago CTC	$21.5	2	Capacity, OTP
Shirley to Hanford	$22.0	5	Capacity, OTP
Kings Park Dbl Track	$18.5	4.5	Capacity, OTP
Calwa to Bowles	$26.7	8.5	Capacity, OTP
Stockton Dbl Track	$10.0	6	Capacity, OTP
Empire	$11.0	8.2	Capacity, OTP
Keddie Xover	$0.8		Capacity, OTP
Escalon Siding Ext	$10.0	2.5	Capacity, OTP
Merced Xover	$2.1		Capacity, OTP
Sac-Stockton Upgrade	$39.0	16.6	Two Trains Sac to Stockton
Mococco Upgrade	$9.0	6.2	Two Trains Oak to PC
Cap Maintenance	$1.7		Ride Quality, OTP
Design and Engineering	$14.4		Eng, Modeling, Environmental
TOTAL	**$240.5**	**81**	

Source: CalTrans DOR, August 30, 2012

A key goal of SJJPA is to build upon the State's efforts to improve the performance and increase the frequency of the San Joaquin service and expand ridership through increased awareness of the service and the development of new ridership markets. In coordination with the State, the SJJPA will identify, evaluate, and implement capital improvements for the San Joaquin service to enable increased frequency, reliability, and safety, and to reduce travel times and operating costs.

Initial "Short-Term Improvements" presented below represent Caltrans' current program for the capital investments needed to provide additional frequencies for the San Joaquin service. The Longer-Term Improvements represents an initial list of improvements highlighting possible future capital improvement projects for the San Joaquin service in the coming years. In subsequent years, SJJPA will establish an annual capital program in consultation with the State and the SJJPA constituents.

Short-term Capital Improvements

SJJPA strongly supports the completion of those capital projects that are currently underway to enable the deployment of an additional daily round trip between Oakland and Bakersfield (7th San Joaquin daily round trip). These capital projects, which are listed in Table 7.2, are expected to be completed by mid to late 2015.

Table 7.3 identifies the list of projects in the San Joaquin Corridor that Caltrans and BNSF have identified as necessary to enable an additional daily round trip on the San Joaquin route between Oakland and Bakersfield (8th Daily Round Trip at 79 mph). The "Merced-LeGrand Segment 1" and "Stockton-Escalon Segment 3" are fully funded and construction is underway. Caltrans expects construction of these two sections will take about three years to complete. This table also identifies $15 million for a layover facility in Merced to enable mid-corridor starts/ends. SJJPA will work with the State to secure funding and expedite the implementation of the projects needed to implement an 8th daily round trip and mid-corridor start/ends.

[13] *Caltrans, 2013 State Rail Plan, May 2013 (page 225)*

SJJPA will also coordinate with CHSRA regarding grade separations or improvements being done to the BNSF track as a result of the implementation of the initial construction of the HSR system. During FY 2015/16, SJJPA will identify any additional short-term projects which should be implemented to help improve the San Joaquin service including the identification of additional rolling stock needed to increase service levels.

SJJPA will work with the State to:

- Secure funding for the projects
- Ensure that the projects meet the project delivery schedule
- Minimize the construction impacts of these projects
- Maximize the benefits of these projects on overall service performance

Longer-term Capital Improvements

SJJPA will develop a comprehensive program of improvements to reduce travel time, increase ridership, and improve service reliability of the San Joaquin service. An initial list of preliminary long-term improvements is identified below, which requires further review by SJJPA and is subject to approval from the State, Union Pacific, BNSF, local and regional agencies, and other interested parties. This list demonstrates some of the possibilities for the future of the San Joaquin service.

- Additional bi-level trainsets to achieve at least an eleven (11) round-trip schedule.
- Construction of a new maintenance facility.
- Track and signal improvements between Sacramento and Stockton on UPRR Fresno Subdivision or new track on r/w adjacent to UPRR Fresno Subdivision to enable increasing frequency, speed, and safety of service to Sacramento.
- Improvements to increase service, speed, and safety between Oakland and Port Chicago.
- Improvements from Port Chicago to Bakersfield (see Table 7.3, "11 Daily Trains at 79 mph") to increase frequency, speed, and safety.
- Improvements to enable 90 mph operations where cost effective. This work would focus on key locations to reduce travel time and improve reliability.

Table 7.2: San Joaquin Capital Projects Underway

San Joaquin Capital Projects Underway ($ Millions)

Project	Cost	Track Miles	Benefits
Oakley to Pt Chicago Segment 3	$26.5	3.5	Capacity
Stockton to Escalon Segment 1	$8.4	2.5	Capacity
San Joaquin PTC	$10.0	Corridor	Capacity, Safety
Capitalized Maint	$1.0	Corridor	Ride Quality OTP
TOTAL	**$44.9**	**6**	

Source: CalTrans DOR, August 30, 2012

Table 7.3: San Joaquin Capital Projects for 8th – 11th Daily Round Trips ($ Millions)

San Joaquin Capital Projects for 8th - 11th Daily Round Trips ($ Millions)						
8 Trains at 79 MPH (5/10 Year)	**Segment**	**Milepost**	**Miles**	**Cost**	**Env**	**Funding**
Gregg Double Track		1008.9 - 1013.8	5	$23.4	CEQA	
Merced-LeGrand Segment 1	1	1041.7 - 1050.1	8.4	$40.4	CEQA	$40.8
Stockton-Escalon Segment	3	1106.8 - 1110.6	3.8	$20.5	CEQA	$20.5
Stockton-Escalon Segment	4	1110.6 - 1116.3	5.7	$21.5	CEQA	
Oakley-Port Chicago Segment 2	2	1152.7 - 1155.8	3.1	$55.0	CEQA	
		Total 8 Trains at 79	**26**	**$160.8**		
		MPH Remaining	**13.8**	**$99.6**		
Projects Not Engineered or Estimated						
Merced Layover Facility **		1055.6		$15.0	***PEIR	
Stockton Station Track		1120 -1120 (vicinity)	0.2	$20.0	***PEIR	
		Estimated Total		**$35.0**	***PEIR	
11 Trains at 79 (25 Year)	**Segment**	**Milepost**	**Miles**	**Cost**		
Una to Shafter Segment 2 *	2	899.4 - 902.9	3.5	$22.0	***PEIR	
Angiola to Corcoran Double track		943.0 - 953.8	22.4	$63.0	***PEIR	
Figarden Double track		1004.1 - 1008.6	4.5	$27.0	***PEIR	
Gregg to Madera Double track		1013.9 - 1020.5	6.6	$40.0	***PEIR	
Oakley-Port Chicago Segment	1 & 4	1157.9 - 1163.8	3.5	$37.6	CEQA	
		Total 11 Trains at 79 MPH	**40.5**	**$189.6**		

2/4/14
** Project not previously segmented*
*** Project may be necessary for 8 train schedule*
**** Project identified in SJ Corridor PEIR - 7/2014 Release*

Source: CalTrans 2013

8. ACTION PLAN AND PERFORMANCE STANDARDS

Pursuant to AB 1779, the Secretary of CalSTA submitted a set of uniform performance standards on June 30, 2014 for all state-supported intercity passenger rail corridors. These standards require the administrators and operators of these intercity services to control cost and improve efficiency. If necessary, the Secretary may modify the above standards not later than July 30, 2015, or the effective date of the ITA, whichever comes first. SJJPA adopted the CalSTA performance standards on September 27, 2014.

CalSTA identified three uniform performance standards measures to be used for the State supported intercity passenger rail services: usage, cost efficiency, and service quality.

- **Usage** – measured by passenger miles and ridership.
- **Cost Efficiency** – measured by farebox recovery and total operating cost per passenger mile.
- **Service Quality** – measured by endpoint on-time performance, all-station on-time performance, and operator responsible delays per 10,000 train miles.

In support of the State's performance standards, upon the transfer of service, SJJPA will develop various measures to continuously monitor the financial, operational, ridership performance and outreach effectiveness of the San Joaquin Service. Additionally, SJJPA already has, and will continue to develop strategies to maintain successful performance of the San Joaquin service.

In addition to the CalSTA performance standards, the SJJPA has focused on also considering the environmental impact of the San Joaquin service and its role in helping to create a more sustainable California. Increases in San Joaquin ridership benefit the environment by reducing air pollution and greenhouse gas emissions and help to encourage sustainable, transit-oriented development. It is estimated that in FY 2012, the San Joaquin service (including Thruway buses) reduced well over 100 million miles of automobile vehicle-miles traveled and as a result had a net reduction of CO2 emissions of over 24 million pounds.[14] The deployment of the 7th and 8th daily round trips could reduce an additional 44 million vehicle-miles traveled and 10.4 million pounds of CO2 reduced annually.[15]

FY 2015/16 and 2016/17 Action Plan

For FY 2015/16 and FY 2016/17, SJJPA will continuously develop action plans with service criteria and objectives to increase ridership, control costs, improve quality, increase the benefits of the San Joaquin Corridor and better integrate all corridor public transit systems with the San Joaquin Service (including dedicated Thruway bus services). Each action will be part of SJJPA's overall management of the San Joaquin service as a transportation product in a highly competitive travel market. The following is a list of areas to be covered:

- Negotiate revisions to Amtrak operating agreement to improve performance reporting and decrease costs for operating.
- Develop schedules and a service plan for implementing for a 7th and 8th round-trip train in conjunction with UPRR, BNSF, Amtrak and the State and also work on improvements to the existing 6 round-trip schedule.
- Identify improvements and costs needed for mid-corridor starts/ends.
- Develop SJJPA policy for service standards (service levels and extensions, new station stops, train running times, station design criteria, etc.).
- Prepare and implement a Public Communications and Information Program and Marketing Program.
- Develop FY 2016/17 Business Plan
- Assist CalSTA in the development of its "Network Integration Strategic Service Plan for the California Passenger Rail Network."
- Provide input on Caltrans' Draft Program EIR for the San Joaquin Corridor and assist Caltrans with agency, organization, and public outreach and coordination.

[14] *California Intercity Passenger Rail (CIPR) Brochure, April 2013*
[15] *Based upon an increase of 260,000 riders/year for each additional round trip*

- Develop monthly and timely performance reporting procedures.
- Work jointly with the CHSRA and Caltrans to develop viable strategies and solutions to support phased implementation of high-speed rail and to meet the needs of the San Joaquin Service and the stakeholder communities of the San Joaquin Corridor.
- Establish operating coordination with UPRR, BNSF and Amtrak on schedule and train performance.
- Conduct a market research program.
- Monitor and report on status of Business Plan commitments.
- Refine consolidated Capital Improvement Program.
- Coordinate fares and service schedules with connecting transport systems.
- Refine marketing program.
- Review and monitor Thruway bus performance.
- Identify any Thruway bus routes not served by competing bus services, and promote use of excess bus capacity on those routes.
- Identify future infrastructure (track, signal, and bridge) and facility projects to support increased service levels and extensions and improve performance of service.
- Monitor and expand the programs with transit agencies to improve and promote connectivity between the trains and local transit services.
- Evaluate measures to improve train and Thruway bus performance, including modifications to the service.
- Work with Amtrak to increase performance tracking through detailed monthly reports on ticketing (including e-Ticketing), delay, and food service.
- Work with UPRR, BNSF, Amtrak and State to continue ridership and revenue growth by improving reliability, adjusting the service plan, and/or implementing projects that add capacity and reduce travel times.
- Work with Amtrak to secure additional cost efficiencies to be reinvested in service enhancements.
- Initiate planning for additional service to Sacramento in coordination with BNSF, UPRR, the State and the Central Valley Rail Working Group.
- Work with Amtrak, CCJPA, and Caltrans on identifying minimum standards for equipment reliability and availability, maintenance of minimum trainset capacity, service performance, and crew size.
- Work with Amtrak, CCJPA, Caltrans, UPRR, and BNSF on identifying variables that affect on-time performance.
- Coordinate with Caltrans to identify and implement equipment modifications to increase reliability, improve passenger amenities and improve service.
- Coordinate with Caltrans to identify rolling stock needed for increased service levels.
- Investigate the installation of shore power cabinets[16] at stations and locations where trainsets will experience substantial dwell times (including potential mid-corridor starts/ends).
- Coordinate with the California Freight Advisory Committee and provide input on the California Freight Mobility Plan.
- Develop and work to establish a program to provide subsidies for residents within the San Joaquin Corridor who cannot afford the regular fares.

[16] *Shore power cabinets enable trainsets to idle with power without running their diesel locomotives, saving fuel costs and reducing CO2 emissions.*

9. ESTABLISHMENT OF FARES

SJJPA, upon assuming oversight of the San Joaquin Service will work with Caltrans and Amtrak to develop fares ensuring the service is attractive and competitive with other modes of transportation along the corridor. Available ticket types on the San Joaquins are: one-way, roundtrip, 10-ride tickets and monthly passes. The 10-trip ticket is valid for 45 days from date of first use and can be used by more than one person at a time. The multi-ride tickets, and tickets purchased by seniors, students, military personnel and children under age 15 are sold at a discounted rate. Additionally, Amtrak provides reduced fares for certain national partners, such as AAA members.

The San Joaquin service is on a reservation system with tickets sold in advance providing a limited ability to sell tickets on the train thus turning potential passengers away. The current fare management policy on the San Joaquins is to increase the standard "value" fares as the San Joaquin trains start to reach capacity. The highest level of increase can be about twice as much as the initial fare offered.

FY 2015/16 and FY 2016/17 Fares

The projected fare structure for FY 2015/16 and FY 2016/17 is dependent upon the implementation of revised Amtrak operating pricing policies for FY 2015/16 and FY 2016/17. If operating expenses are stabilized or reduced a fare increase may not be necessary for these fiscal years. The SJJPA will work with Caltrans and Amtrak on the impacts of a revised pricing policy and determine if a fare increase will be required. Addition-ally, SJJPA will look into other opportunities to increase fare revenue without raising fares, these include but are not limited to:

- Explore smart-card fare collection technology or other current best-fit technology provided it can be incorporated into the Amtrak ticketing structure;
- Continue and expand the transit connectivity programs such as the Transit Transfer Program, joint ticketing, and transfer of motorcoach bus routes to parallel local transit services;
- Increase public awareness of the Service to increase ridership and revenue.
- To encourage new riders, consider discounts for group travel and families.
- Explore with Amtrak moving the San Joaquin service back to unreserved ticketing, like the Capitol Corridor and Pacific Surfliner. Any determination will need to include data on the tradeoffs between reserved and unreserved ticketing, including if the benefits outweigh the impacts.
- Investigate changes to the existing fare policy of increasing fares as trains begin to reach capacity.
- As identified in the previous chapter, SJJPA will work to establish a program to subsidize tickets for residents within the San Joaquin Corridor who cannot afford to pay regular San Joaquin fares.

10. SERVICE AMENITIES, FOOD SERVICES, AND EQUIPMENT

Service Amenities

Accessibility: The SJJPA supports the State's current goal to provide total accessibility to the State-owned equipment including all its features and amenities. No person shall be denied access on the basis of physical ability. Accessibility features for bi-level coaches include onboard wheelchair lifts, two designated spaces per train car for passengers in wheelchairs, and one wheelchair-accessible lavatory on the lower level of each train car. On a temporary basis, the State has deployed a Comet Car trainset on the San Joaquin service. Since the Comet Car trainset has higher access points and does not have onboard wheelchair lifts, hand-cranked mobile wheelchair lifts are required at all San Joaquin stations. Each single-level Comet Car coach has one wheelchair-accessible lavatory. The SJJPA has requested that Caltrans closely monitor the performance of the Comet Car trainset.

Door Control: An essential feature of the bi-level coaches is the ability for doors to be operated remotely on either side of the train from a single point of control. This feature allows the operator to maximize passenger flow in boarding and alighting operations, and thereby minimize station dwell time. Comet Car coach doors are all manually operated requiring additional Assistant Conductors to be onboard and prevents some Comet Car trainset doors from being used when the trains are at stations.

Information Displays: Each coach is equipped with electronic passenger information displays that provide the train numbers and destination, plus any public information.

Lavatories: Lavatories in coaches feature electric hand dryers, soap dispensers, and infant diaper-changing tables.

Telecommunications: All coaches in the fleet have Wi-Fi service. This service is free to the customer and permits e-mail and webpage viewing. Amtrak's Wi-Fi service prohibits streaming services which would use up large amounts of bandwidth. Power plug access is available at each seat and can power and charge passengers' various electronic devices.

Bicycle Access: Bi-level coaches have bicycle storage units that hold three bicycles on the lower level of the car. In addition, 14 first generation California Cab Cars (8300-series) have undergone a retrofit to hold 13 bicycles as opposed to 7 bicycles. The five Surfliner Cab Cars (6000-series) have storage space for up to 13 bicycles in the lower baggage area. Comet Car coaches have no bicycle storage. For the Comet Car trainset, there are 4 bicycle storage units in the "Cabbage" car which also is used for baggage. It is important to note that on the Comet Car trainset bicycles are only accommodated at manned Stations.

Food and Beverage Services: Each San Joaquin train has a café car which offers food and beverage service throughout most of the end-to-end the trip. A wide variety of entrees, snacks, and beverages are provided. After the SJJPA assumes responsibility for the San Joaquin service, the existing food and beverage service will be continued as it is. However, after assuming responsibility, the SJJPA will evaluate the existing food and beverage service. Topics to be evaluated include: menu; inventory and storage; increasing the capacity and usefulness of the space in the cars; patron flow; signage and information; securing and accounting for stock and materials; mid-trip restocking; hours of operation. The SJJPA will investigate increasing the sale of and promotional opportunities for products from the San Joaquin Corridor. The San Joaquin service offers a very unique opportunity to

highlight and promote food and beverage products from the San Joaquin Corridor and can help market the service and the corridor.

Equipment Acquisition, Maintenance, and Renovation

The CCJPA is responsible for the administration and maintenance supervision of the State-owned fleet of rail cars and locomotives assigned to Northern California. In accordance with the ITA between the CCJPA and the State, the CCJPA is entrusted with ensuring the Capitol Corridor and San Joaquin rail fleet is operated and maintained to the high standards of reliability, cleanliness, and safety set by Amtrak, the State, and the CCJPA.

The SJJPA will work closely with Caltrans, Amtrak and the CCJPA to refine the maintenance and operations programs to improve the reliability, safety, and cost-effectiveness of the rail fleet. The San Joaquin and Capitol Corridor routes now share a combined fleet of 15 F59PHI locomotives, 2 DASH-8 locomotives, and 85 bi-level passenger coaches and food service cars which include three upgraded Amtrak-owned Superliner Coach Cars.[17] The California fleet also has 14 Comet Car coaches, 3 leased Horizon Café cars and 3 leased F40 Cabbage cars. New fleet acquisitions will substantially increase San Joaquin service capacity. During FY 2012-13, Caltrans secured funding earmarked for 42 new bi-level coaches and 12 cleaner burning locomotives for the California fleet. In December 2014 Caltrans secured an additional $108 million for more new equipment and for an On-board Information System.

Caltrans, Amtrak and the CCJPA have created a program of periodic overhauls to the existing train fleet that will improve the fleet performance. The main propulsion engines of the original fleet of locomotives are being rebuilt, exceeding current EPA TIER II emissions standards. Starting in 2013, the HVAC units, ducting and control systems are being renewed, providing better air quality and climate control. All passenger coaches and locomotives are now equipped with a digital security camera system to improved safety and security. In addition, fourteen California Cab cars have been converted to Cab/Baggage/Bike cars similar to the five newer Surfliner Cabs, to provide greater baggage storage and 13 more bike racks.[18]

[17] CCJPA FY 2013—14 – FY 2014-15 Business Plan Update – March 2013
[18] Ibid.

11. MARKETING AND OUTREACH

The San Joaquin trains serve markets from Bakersfield to Sacramento via the San Joaquin Valley and branch off from Stockton through the East Bay Area to Oakland. The San Joaquins are unique in the State, with a vast network of Thruway bus services that provide convenient connections for services between northern and southern California. Between the trains and connecting buses, the San Joaquins provide easy access to many of California's popular destinations, including: cultural attractions; museums; amusement parks; entertainment and music venues; national, state, regional, and local parks; state and county fairs and festivals; seasonal cuisine and artisan foods; the State Capitol; and major population centers.

The proposed goals and objectives of the SJJPA Marketing and Outreach program are:

a) Ensure Member Agencies, Corridor Communities and Major Stakeholders Participate in the Development of the Marketing and Outreach Plan
b) Ensure Retention of Existing Riders
c) Ensure Adequate Education and Awareness about the San Joaquins in all Communities Served by the Trains and Thruway Buses
d) Reach out to Minority, Non-English-Speaking Constituencies, Disadvantaged Communities, and Members of the Public along the Corridor who may not be familiar with the San Joaquin Service
e) Utilize Community Advocates as Communication Channels for Information Flow and Leverage Information Distribution Through All Corridor Communities
f) Showcase attractions and services provided in Communities Served by the Trains and Thruway Buses
g) Increase Outreach Focus and Opportunities for School, Senior Group and other Special Group Trips
h) Incorporate Regular Passenger and Community Appreciation Activities and Events to ensure current rider retention
i) Solicit Feedback From Passengers and Communities on the Effectiveness of the Outreach Programs and the San Joaquin Service
j) Retool Marketing and Outreach Programs in Response to Feedback
k) Increase Ridership and Revenue to Ensure Future San Joaquin Service Sustainability

Ensure Member Agencies, Corridor Communities and Major Stakeholders Participate in the Development of the Marketing and Outreach Plan

Along the San Joaquin Corridor, many of the regional planning agencies and members agencies to the SJJPA are in the process of updating Regional Transportation Plans, Sustainable Communities Strategies programs, and other planning efforts. As part of these efforts, most partner agencies have created outstanding Public Participation Plans, and it is desirous of the SJJPA to become involved in the public participation

efforts so as to create a uniformed message of transit planning.

Given the far-reaching nature of the Thruway bus services within the State, many other communities and agencies have also outlined a plan for engaging the public, and it will be of importance to partner with these agencies to ensure consistency of message.

Reach out to Minority, Non-English-Speaking Constituencies, Disadvantaged Communities, and Members of the Public along the Corridor who may not be familiar with the San Joaquin Service

As the consistently growing ridership shown in previous Chapters would indicate, the traditional marketing strategies for the San Joaquins appear to have been relatively successful. However, service data over the years indicates those traditional marketing strategies have not been as effective as possible with the majority demographics within the San Joaquin Valley.

Of the 364 train miles on the San Joaquin route, about 284 miles (78%) pass through the San Joaquin Valley The San Joaquin Valley is one of the largest rural and agricultural areas in the nation. It is also culturally diverse with more than 70 ethnicities and 105 languages spoken. Overall, nearly half of the entire constituency speaks Spanish as the primary language. Valley counties along the San Joaquin rail corridor share common issues such as large rural areas, agricultural industries, a rapidly growing and highly diverse population, and a lack of effective information about transportation alternatives.

The Plan will include specific strategies for reaching out to minority, non-English-speaking constituencies along the San Joaquin corridor. With Hispanics comprising well over 50 percent of the San Joaquin Valley population, but only 30 percent of the Amtrak ridership, a concerted effort will be made to tailor promotional materials in Spanish and utilize informational outlets that are more effective. The grass roots strategy will help SJJPA identify and address other markets throughout the San Joaquin Corridor that are underserved, or lacking information. The agency seeks to value all segments of people in the economic and social domains, and can achieve this by direct person-to-person contact through the utilization of outreach representatives – team members who live and breathe the very communities through which the train travels.

Utilize Community Advocates as Communication Channels for Information Flow and Leverage Information Distribution through All Corridor Communities

The SJJPA Marketing and Outreach Plan will retain the successful elements of the existing San Joaquin marketing effort and introduce a more grass roots approach for the San Joaquin Corridor and potential passengers. An approach that has worked throughout the ACE service area has been to retain small businesses or individuals who are active in community issues to act as a direct conduit between the SJRRC and the various communities within the corridor. These team members are passionate about their communities and ensure the ACE service information gets to the right stakeholders and critical feedback gets to the agency. This approach has been more direct and more cost effective than traditional advertising. A similar strategy is proposed along the San Joaquin service area.

Showcase attractions and services provided in Communities Served by the Trains and Thruway Buses

Visitor bureaus, business organizations, social services providers and non-profit groups involved in transportation, environmental or livability issues will be enlisted to support the distribution of information and generate support for the San Joaquin service. These local groups will help highlight the mobility options available and planning processes underway aimed at creating better connections to work, family, and attractions. This effort would include coordination of joint promotions with businesses, tourist and recreation attractions, hotels and entertainment partners.

Increase Outreach Focus and Opportunities for School, Senior Group and other Special Group Trips

The San Joaquin corridor also has many opportunities for group, senior and student travel. SJJPA will partner with Operation Lifesaver to present engaging discussions with young people in schools on how to be safe around the railroad tracks and the benefits of traveling by train, will encourage travel among families with programs like "Kids on Trains," partner with schools for field trips via the San Joaquins, and provide focused outreach to senior organizations and communities.

Retool Marketing and Outreach Programs in Response to Feedback

As SJJPA seeks to solicit feedback from existing passengers about the San Joaquin service, and from stakeholders about the future of the San Joaquin service, the marketing and outreach team will not only report findings to the SJJPA board and stakeholders, but will also retool the programs as necessary.

General Partnerships and Communication Tools

SJJPA will coordinate with the State, host railroads, Amtrak, and local/regional agencies to ensure effective coverage of information through various media venues and create joint media and promotion opportunities to achieve cost-efficiencies in marketing the San Joaquin system. Communications and marketing to current and potential riders will be enhanced through bulletins, newsletters, informational brochures and timetables of connecting services, and special ridership promotions. SJJPA will assist its partner agencies in creating graphical marketing and outreach material in an effort to creatively extend the message of the San Joaquin system. The marketing and outreach team will develop a guidance package to assist the transit providers and community stakeholders in how best to communicate the rail services to various audiences.

The SJJPA can be effective in outreach to the public is by ensuring the messages and material it communicates are consistent, uniformed, and branded. The Marketing and Outreach team will work toward ensuring the themes associated with marketing efforts are consistent with the goals and objectives of the SJJPA board.

Building upon Amtrak's successful social media platform, the SJJPA will seek to expand the use of social media marketing through networks such as Facebook and Twitter to engage customers, enhance communications, and increase brand visibility.

12. ADVOCACY

Major improvement or expansion of the San Joaquins will require additional funding. There currently is no ongoing, stable capital funding source for the California Intercity Passenger Rail Program (CIPRP). To increase the frequency of the San Joaquin service and improve travel times, a significant investment in the existing freight infrastructure will be required. A key to funding the future growth of the San Joaquin service is developing a much stronger political base of support. This needed advocacy was one of the key reasons for AB 1799 and for establishing the SJJPA. One of the primary advantages of a regional governance, or Joint Powers Authority (JPA) model, is the ability for active advocacy at the local, regional, state and federal levels. Where state agencies are often limited in terms of advocacy, SJJPA can bring the full collective power of the Member Agencies and communities served by the San Joaquins in support of the service.

While the ITA is not expected to be signed until June 2015, the SJJPA and affiliated agencies have been working hard to advocate for increased funding, improvements, and support for the overall state intercity rail program. The SJJPA has already elevated the improvement of the San Joaquin service as an issue of importance in the San Joaquin Corridor. Through the SJJPA's efforts, more than 60 agencies, and organizations throughout the San Joaquin Corridor have already signed on as supporters for the San Joaquin service and the CIPRP – and this number will continue to grow.

A key role of the SJJPA is its active participation in the "CIPRP Leadership Coalition." The SJJPA, CCJPA, LOSSAN JPA, the Coast Rail Coordinating Council and the San Joaquin Valley Rail Committee comprise the CIPRP Leadership Coalition. This coalition works together for the purpose of jointly advocating for the improvement of the CIPRP. Staff from each agency participates in bi-weekly conference calls, with in-person meetings held with the Chairs, Vice Chairs and staff quarterly. The coalition organizes annual lobby days in both Sacramento and Washington D.C., and an annual Rail Advocacy Forum in support of the CIPRP. The coalition also works in coordination to educate elected officials, agencies, organizations and the public about the CIPRP and in an effort to gain widespread support for the program. The CIPRP Leadership Coalition worked with members of the Legislature to organize a "Select Committee" for rail support in the CA Senate and in the CA Assembly in 2015. The purpose of the Select Committees is best described in the Mission Statement below which was developed by the CIPRP Leadership Coalition with input from members of the Legislature:

"California's State Legislative Passenger Select Committee promotes policies to ensure a premier, customer-focused conventional rail system that successfully moves people and goods in a manner that is cost-efficient, maximizes public benefits, and protects the environment. The Select Committee works to engage decision makers and to protect and grow the investment in the state's conventional passenger rail network that will ensure its continued utilization and success. The Select Committee will work to increase state funding to improve and expand the program and to leverage these investments by advocating for additional federal rail funds."

The CIPRP Leadership Coalition has also developed statewide "California Passenger Rail Program Guiding Principles" (Guiding Principles) that have been adopted by the SJJPA, the CCJPA, the LOSSAN JPA, the Coast Rail Coordination Council as well as several other agencies and organizations. These Guiding Principles are being used for joint efforts to gain support for rail programs and improvements at the local, regional, state, and federal levels. The Guiding Principles are:

- Protect and enhance California's investment in the existing successful passenger rail system, including sustainable and recurring sources of funds at both the state and federal levels.
  Specifically support:
  a. A new recurring state source of capital, equipment, and operations funds to cover the existing passenger rail corridors and emerging corridors throughout the state.
  b. A new program for state of good repair improvements to existing rail corridors that facilitate the movement of passengers and freight.
  c. Allocations of State Propositions 1A, 1B, and other current and future funds to transit services, including commuter and state-supported intercity passenger rail, that connect with the state's planned high-speed train system.

d. "High-Speed and Intercity Passenger Rail (HSIPR)" programs title in federal surface transportation reauthorization, funded by other than the current Highway Trust Fund revenues.
e. The American Public Transportation Association's (APTA's) recommendation for $50 billion in federal funding over an initial six year period for the development of a nationwide HSIPR network.

- Support priority investments in integrated passenger rail networks that connect both existing services and future high-speed service which can in turn influence mode shift to be more sustainable and efficient and have positive impacts on the environment.
- Procure a fleet of state-owned, standardized, bi-level rolling stock to support existing and future intercity passenger service.
- Continue partnerships at the federal, state, regional and local levels in support of future passenger rail investments which support safety, reliability, goods movement, job creation, sustainability, economic development, and quality of life.
- Support lowering voter approval thresholds at the regional level in order to create new sources for passenger rail investments.
- Support state efforts to dedicate a portion of cap and trade funds for public transportation systems and specifically for the development and improvement of an integrated passenger rail network.
- Support streamlining of existing programs and policies to expedite efficient development of passenger rail improvements (e.g. RRIF, TIFIA).

The CIPRP Leadership Coalition worked hard to successfully ensure that intercity rail was included as an important component of Cap & Trade allocations. ***Intercity passenger rail's inclusion in Cap & Trade is a critical milestone for the CIPRP since this will provide a much needed stable and ongoing source of capital funding for the CIPRP.*** The CIPRP Leadership Coalition worked with Members of the Legislature and their staff and the Administration in support the Cap & Trade allocation program that was approved by the Legislature on June 15, 2014.

While SJJPA was established to manage the San Joaquins, many San Joaquin passengers utilize multiple rail and bus services in their travels throughout the State and a focus on coordination between the systems is critical for the success of all services. Coordination of schedules, fares, ticketing, trip planning and connecting buses will be a focus of future advocacy efforts and complement the intent of the statewide Guiding Principles.

The San Joaquins are in a unique position related to the proposed CA High Speed Rail (HSR) program. With the First Construction Segment slated for the Central Valley, there have been many differing opinions on the potential impacts to the San Joaquins. After much consultation with the affected communities and the CA High Speed Rail Authority (CHSRA), the SJJPA adopted and signed the "Joint Policy Statement" between SJJPA, CHSRA and Caltrans (shown as Figure 4.1). This agreement ensures SJJPA and the affected communities will be actively involved in any coordination, decisions, and/or service adjustments between the San Joaquins and the proposed HSR service. In addition, the CHSRA and Caltrans have acknowledged the importance of the San Joaquin service to the communities it services and have committed to working to "maintain and improve the San Joaquin service in conjunction with the implementation of high-speed rail." The continued coordination with CHSRA and Caltrans is a high priority for the SJJPA as part of its efforts to advocate protecting and improving the entire San Joaquin service.

Although, the SJJPA has made significant progress in its efforts to advocate for the San Joaquin service since its formation in March of 2013, this work has just begun and will be an ongoing priority for the SJJPA. The San Joaquins have been one of the most consistent and fastest growing corridors in the nation, and yet the frequency of service has not increased in over a decade (it has not increased for over twenty years between Oakland and Bakersfield). Advocacy for the San Joaquins and the CIPRP is critical for developing the much stronger political base of support needed to fund the future growth of the San Joaquin service.

13. ANNUAL FUNDING REQUIREMENT

The primary purpose of this Business Plan Update is to request the annual funds required by the SJJPA to operate, administer, and market the San Joaquin service for agreed-upon service levels. Previous chapters describe the proposed operating plan and strategies, planned service improvements, and capital improvements for FY 2015/16 and FY 2016/17. The Business Plan will set forth the funding request for FY 2015/16 to identify the amount of funds to be transferred to the SJJPA. These funds will be incorporated in the FY 2015/15 Budget Process.

FY 2015/16 and FY 2016/17 Operating Costs

Based on the current San Joaquin operations (which are consistent with the Overall Operating Plan and Operating Strategies presented in Chapter 6), Amtrak is negotiating the operating costs for the San Joaquin Service for FY 2014/15 with the Caltrans Division of Rail and Mass Transportation. The administrative responsibility of the San Joaquin service remains with the State until there is a signed ITA. FY 2014/15 negotiations are ongoing and the costs for the San Joaquin rail and Thruway bus ser-vices are currently not fully known. The San Joaquin Operating Costs for FY 2014/15 will be the number that is agreed upon between Amtrak and the State. On October 8, 2014 the CTC approved an allocation request of $42.604 million for San Joaquin operations for FY 2014/15. This amount represents the "operating loss" (total expenses minus passenger revenue) subtracted by a $2.263 million "Amtrak Credit".[19]

Based on the CTC allocation for FY 2014/15, and discussions with Caltrans and Amtrak, the current estimate the Operating Costs for FY 2015/16 is $47.3 million. This represents an 11% increase from FY 2014/15. The increase includes an estimated $3.7 million for the operation of the 7th daily round trip between Oakland and Bakersfield (for half of the fiscal year). For FY 2016/17 the San Joaquin operating subsidy is estimated to be $48.3 million (which includes $7.4 million for the 7th daily round trip).

Ridership and Revenue Projections

Ridership projections by Amtrak for Federal FY 14 (October 2013 – September 2014) for the San Joaquin service anticipated a modest 1.55% increase from FY 13 (increasing from 1.22 million in FY 13 to 1.24 million in FY 14).[20] Amtrak forecasted an increase in ticket revenue of 5.48% (from $39.40 million to $41.56 million). Amtrak's FY 14 ridership and revenue forecasts were based upon current San Joaquin operations. Federal FY 14 actual San Joaquin ridership was about 4.1% less than was forecast by Amtrak (1.19 million actual vs. 1.24 million forecast) and about 1.3% less than the ridership for FY 13 (1.19 million actual vs. 1.2 million actual adjusted[21]. FY 14 actual San Joaquin ticket revenue was about 8.4% less than was forecast by Amtrak ($38.1 million actual vs. $41.6 million forecast) and about 3.3% less than the ticket revenue for FY 13 ($38.1 million actual vs. $39.4 million actual). For FY 14, the San Joaquin farebox ratio dropped significantly as a result of decreased revenue and increased operational costs[22]. Cost increases due to the introduction of the Comet Car trainsets, and continuing PRIIA Section 209 Amtrak charges are seen as the primary reasons for the reduction in farebox ratio.

Amtrak's Federal FY 15 (October 2014 – September 2015) forecast for San Joaquin ridership is 1.236 million. This represents a 4.0% increase from actual FY 14 ridership. Ticket revenue for Federal FY 15 is estimated at $39.29 million (an increase of 3.1% from actual FY 14 ticket revenues). Amtrak is projecting San Joaquin FY 16 (October 2015 – September 2016) ridership at 1.243 million passengers and ticket revenue at $40.374 million. Amtrak does not yet have San Joaquin ridership and revenue forecasts for FY 17.

FY 2015/16 and 2016/17 Marketing Expenses

For FY 2015/16, SJJPA assumes $1.0 million for "Marketing Expenses." SJJPA will develop various marketing programs and a detailed Marketing Plan. The marketing expenses represent only those direct expenses attributed to the SJJPA and do not include any costs for marketing programs provided solely by Amtrak or the State. SJJPA also assumes $1.0 million for Marketing Expenses for FY 2016/17.

[19] Total San Joaquin Expenses are reported at $87.1 million and Passenger Revenue $42.23 million for FY 2014/15

[20] Amtrak Ridership Forecasts for San Joaquin service, Sept 2013 (provided by Caltrans DOR)

[21] In FY 14, Amtrak began counting actual lifted ridership for multi-ride tickets (due to eTicketing), rather than the estimated multi-ride ridership previously used. The "actual adjusted" number for FY 13 uses the same method as FY 14.

[22] From over 55% in FY13 to less than 50% in FY14

[23] Caltrans, 2013 State Rail Plan, May 2013 (page 86)

FY 2015/16 and 2016/17 Administrative Expenses

SJJPA administrative costs for FY 2015/16 are estimated at $1,595,606. For FY 2016/17, SJJPA administrative costs are estimated at $1,669,120. SJJPA is estimating a 4.6% increase for cost escalation and additional operational oversight. Funds are required for the SJJPA to provide administrative support for the San Joaquin service. The primary role of the SJJPA will be the day-to-day management of the San Joaquin service. As directed by the SJJPA, the Managing Agency staff will perform the following general functions:

- Plan, supervise, and implement (through contracted operators) San Joaquin train and Thruway bus services and related capital projects/programs;
- Coordinate the daily activities with and monitor the performance of the contract operator and other contracted entities;
- Work with BNSF and UPRR in the oversight of train dispatching and railroad related issues;
- Develop and implement marketing, public information, communications, and advocacy programs;
- Coordinate the planning and implementation of the San Joaquin service with the State as part of the statewide intercity rail system;
- Coordinate with the State and CCJPA for the allocation of rolling stock for the San Joaquin service; and
- Coordinate with local, regional, state, and federal agencies and organizations to promote improved connectivity and accessibility, integration with other modes, and sustainable development. Address connectivity and integration with the rest of the intercity rail network, both state rail corridors and long distance trains.

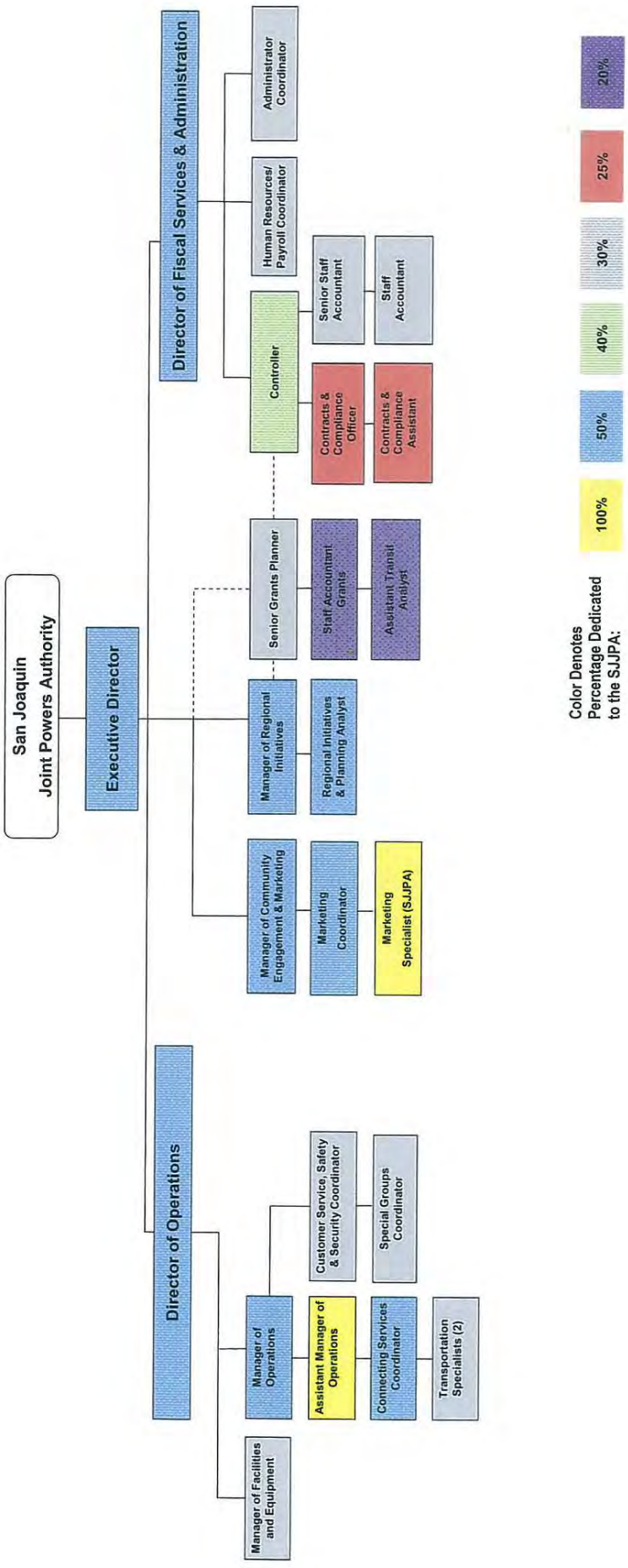
SJJPA selected the San Joaquin Regional Rail Commission (SJRRC) as their Managing Agency for an initial three-year term. SJRRC is the owner/operator of the Altamont Corridor Express (ACE) rail service between Stockton and San Jose. SJRRC's proposed shared and dedicated Managing Agency staffing for SJJPA for FY 2015/16 and 2016/17 is shown on Table 13.1.

SJRRC's consolidated agency approach results in the most efficient and cost-effective management of the San Joaquin Valley's two passenger rail services.

The San Joaquin service, as administered by the SJJPA, will remain a part of the State's intercity rail system and continue to be funded by the State. SJJPA will provide the level of service consistent with funding appropriated by the State and any cost savings identified by SJJPA or revenues in excess of the Business Plan projections during the term of the ITA may be used by SJJPA for service improvements in the San Joaquin Corridor.

[24] *SJRRC Managing Agency Proposal to the SJJPA, July 15, 2013*

Table 13.1: Detailed SJJPA Staffing Plan for FY 2015/16 and FY 2016/17



14. SEPARATION OF FUNDING

As identified in the Joint Exercise of Powers Agreement (JEPA) for the SJJPA, the Controller of the Managing Agency of the SJJPA shall perform the functions of Auditor and Controller of the SJJPA, and the Treasurer of the Managing Agency of the SJJPA shall perform the functions of Treasurer of the SJJPA. SJJPA has selected SJRRC as the Managing Agency for the SJJPA during the term of the ITA. SJRRC utilizes the Auditor-Controller and the Treasurer of the County of San Joaquin. SJRRC shall establish the appropriate accounting and financial procedures to insure that the funds appropriated and otherwise secured during FY 2015/16 and FY 2016/17 for SJJPA to support the San Joaquin service are solely expended to operate, administer, and market the San Joaquin service.

The ITA will include language confirming the State shall perform audits and reviews of financial statements of the SJJPA with respect to the San Joaquin service. In addition, per the Managing Agency Services Agreement between the SJJPA and the SJRRC, SJJPA will require that the Auditor-Controller shall provide for an annual independent audit of the accounts of SJJPA (pursuant to Section 6506 of the Government Code) within six (6) months of the close of the applicable fiscal years.

15. CONSIDERATION OF OTHER SERVICE EXPANSIONS AND ENHANCEMENTS

Planning and potential implementation for service expansion and enhancement beyond the state fund-ing requirement for FY 2015/16, FY 2016/17 and the existing 6 San Joaquin daily round-trips will require securing capital improvements, additional operating funding and institutional agreements.

Although San Joaquin ridership and revenue has steadily increased over the years, there has been no additional frequency of service added between Oakland and Bakersfield in over two decades, and there has been no additional trains added between Sacramento and Bakersfield in more than twelve years. As compared to the Capitol Corridor (15 daily round trips between Oakland and Sacramento) and the Pacific Surfliner (11 daily round trips between Los Angeles and San Diego), the potential ridership for the San Joaquin service is particularly constrained by its much more limited frequency of service. San Joaquins ridership to/from Sacramento is most severely constrained with only two daily round trips between Sacramento and Bakersfield, with one of those trips arriving in Sacramento at 11:30 pm. Planning for the enhancement and expansion of the San Joaquin service is essential to ensure continued growth and increased benefits to the corridor and to the State.

7th and 8th Daily Round Trips

Caltrans Division of Rail and Mass Transportation is currently working to com-plete the improvements needed for a 5th daily round trip between Oakland and Bakersfield (the 7th total San Joaquin daily round trip – with two between Sac-ramento and Bakersfield). The capital improvements needed for this 7th daily round trip are fully funded, underway, and expected to be completed by mid to late 2015. SJJPA will work with Caltrans to ensure that the 7th train is deployed within the next year and target the 8th daily round trip to be deployed within three years. Providing increased frequency of service is essential to the continued growth of ridership and revenue for the San Joaquins. Deployment of the 7th daily round trip is the highest priority for service expansion, and SJJPA will focus advocacy efforts on securing the required increase in state operating funds. Caltrans is also planning for and has identified the improvements needed for an 8th daily round trip (between Oakland and Bakersfield). It will also be a high priority for SJJPA to work with the State to secure the funding necessary for the capital improvements and the additional operating funds to enable the deployment of the 8th daily round trip.

Mid-Corridor Starts/Ends

Initiating early San Joaquin trains mid-corridor and having the last San Joaquin trains end mid-corridor may result in substantial increases in ridership and revenue. Historically all San Joaquin trains have run from one end of the corridor to the other. Currently, the first San Joaquin northbound train leaves Bakersfield at 4:55 am and arrives at Oakland (Jack London Square) at 11:00 am. The first northbound train to Sacramento leaves Bakersfield at 7:15 am and arrives at Sacramento at 12:30 pm. The first southbound train leaves Sacramento at 6:40 am and arrives in Bakersfield at 12:02 pm. SJJPA will evaluate the estimated costs of mid-corridor train starts along with the compatibility of cycling the equipment for maintenance. Based upon the current San Joaquin run times, Merced appears to be a logical location to initiate mid-corridor service. Amtrak already uses Merced as a mid-point crewing location. A Merced start point enables trains to begin at round 5:00 am and arrive at Oakland, and Bakersfield by 8:00 am. A 5:38 start from Merced would enable a train to arrive in Sacramento by 8:00 am. Merced is also the northern terminus of the initial operating section (IOS) for the proposed California high-speed rail system. Additionally, Fresno is by far the most heavily used San Joaquin station (for origins and destinations) and should also be evaluated as a potential location for mid-corridor starts/ends. SJJPA will work with Caltrans, BNSF and UPRR to evaluate the possibility of having the 7th and 8th daily round trips be used by San Joaquin trains which start and end mid-corridor.

Additional Service to Sacramento

There is a great potential market for the San Joaquin service to Sacramento if the frequency of service can be increased and offered at the right time of day. Currently there are only two daily round trips between Bakersfield and Sacramento. The northbound San Joaquin trains arrive in Sacramento at 12:30 pm and 11:30 pm. Nevertheless, Sacramento station has the fourth highest San Joaquin ridership with about 110,000 rail passenger/year and another 57,000 using the Thruway buses from Stockton to the Sacramento area. SJJPA will work with the State to evaluate rider-

ship potential to Sacramento with more optimal rail service. Additionally, the more than $50 million in Prop 1A funding (high-speed rail) allocated to the Sacramento to Merced corridor in SB 1029 could be a funding source for CHSRA planning work for providing additional San Joaquin service to Sacramento and potentially some San Joaquin improvements associated with supporting the phased implementation of the high-speed rail system. SJJPA will work with CHSRA, CalSTA, Caltrans and the Central Valley Rail Working Group (CVRWG) to pursue improvements of the San Joaquin service to Sacramento.

Potential Additional Stations

Additional San Joaquin stations in key locations could improve access to the service and increase ridership. Working in partnership with local and regional agencies, SJJPA will assess viable new station locations, and promote the funding, design, and initiation of construction for new stations within the next three fiscal years. Additional potential stations discussed thus far include, Hercules, Berkeley, 65th Street Sacramento, Elk Grove, North Fresno, and North/West Bakersfield. Contra Costa representatives have also suggested that another station in Eastern Contra Costa be evaluated in coordination with a mid-corridor start. Investigating potential additional stations in the San Joaquin Valley is particularly important to the future of the San Joaquin service considering the State's plans for implementing HSR through the San Joaquin Valley. With the implementation of HSR, the San Joaquin service should stop at additional communities not directly served by HSR to better complement HSR and become an important feeder service.

Planning for 90 mph maximum speed operations and other projects which can reduce travel times.

Increasing the maximum operating speed of the San Joaquin service in key locations could reduce travel times and improve reliability. In coordination with BNSF, UPRR and Caltrans, SJJPA will work to identify cost effective locations where the San Joaquin maximum speeds could be increased to 90 mph and the associated capital improvements which would be needed. Working with BNSF, UPRR, and Caltrans, SJJPA will also identify locations along the San Joaquin alignment where key track improvements (such as curve realignments) could increase speed and reduce travel times.

At-Grade Crossing Improvements, Grade Separations, and Wayside Horns

Accidents between intercity passenger rail services and vehicles predominately occur where the railroad track and a road cross at the same level. These are called "at-grade" crossings. There are hundreds of at-grade crossings along the San Joaquin route. SJJPA will work with BNSF, UPRR, CCJPA (where the route is shared), and Caltrans to develop a plan and prioritization for at-grade crossing improvements. This would include an inventory of all previous at-grade crossing incidents along the route, potential improvements and would identify key crossings which should be prioritized for future grade separation. Grade crossing improvements will increase safety and will also improve the performance of the San Joaquins and freight operations.

Wayside Horns are mounted on poles at an at-grade crossing and emit a sound which is directed at approaching motorists, pedestrians and bicycles on the roadway. Where these are deployed, they eliminate the need for trains to use their horns through at-grade crossings. It is estimated that the area of noise impact is about 10% of the area compared to a train mounted horn. Wayside horns have already been successfully deployed on the San Joaquin alignment in the City of Escalon (at four at-grade crossings). The deployment of Wayside horns at other locations along the San Joaquin route will be evaluated as a way of reducing community impacts from both the San Joaquin and freight operations.

Planning for additional service between Oakland and Bakersfield

Initiation of mid-corridor starts could greatly increase the viability for providing additional service between Merced and Oakland and Merced and Bakersfield. In addition, the San Joaquin service will play an important role in providing rail connectivity to the Bay Area and Sacramento to the IOS of HSR. In coordination with BNSF, Caltrans has identified the capital improvements needed to deploy up to nine daily round trips between Bakersfield and Port Chicago (just east of Martinez). Building upon the 2013 State Rail Plan and the San Joaquin Corridor Service Development Plan, additional planning is needed to determine the improvements needed to increase San Joaquin service between Port Chicago and Oakland.

Network Integration Planning

CalSTA in coordination with rail transportation providers throughout California will be developing a "Network Integration Strategic Service Plan for the California Passenger Rail Network" throughout FY 2015/16 and FY 2016/17. This statewide planning effort will include ridership and revenue forecasts, op-erations and services planning, capital improvement planning as well as network integration elements
(fare integration, ticketing, joint timetables, etc.). The future improvement of the San Joaquin service will be a key element of this planning process. SJJPA will work closely with CalSTA throughout this planning effort which will provide key planning information for enhancing and expanding San Joaquin service.

Extension of San Joaquin Service

The 2013 State Rail Plan identifies a "San Joaquin Extension to Redding" as a potential expansion of the San Joaquin service. Extending rail service north from Sacramento to Redding would extend the San Joaquins 160 miles along the UPRR rail line serving Yuba/Sutter, Butte, Tehama and Shasta counties. This route is currently served by San Joaquin thruway buses with four daily round trips with stops at: Marysville, Oroville, Chico, Red Bluff, and Redding. In FY 2012 it is estimated that only 18,510 San Joaquin passengers used this thruway bus connection. The current population of the five counties is around 550,000. Redding is has the largest population of the cities potentially served with about 90,000, Marysville/Yuba City's population is at about 87,000, Chico (which is home to Chico State University) has about 86,000 people, and Red Bluff about 15,000. The Coast Starlight has one daily round trip along the UP rail line (with stations at Chico and Redding), however the southbound Coast Starlight train arrives at Redding at 2:21 am and the northbound train leaves Redding at 3:14 am – providing for inconvenient access for travelers from this region. The 2013 State Rail Plan identifies that this corridor was studied in the 1995 "Northern Sacramento Valley Intercity Feasibility Study, Interim Findings Report" but is not included in SACOG's regional transportation plan. Furthermore Caltrans notes that "UPRR—the owner/operator of this rail ROW—declined to consider additional passenger rail operations in this corridor beyond the daily Coast Starlight."

SJJPA proposes to work with the State to develop new ridership and revenue forecasts for a potential extension of the San Joaquin service to Redding and to develop preliminary cost estimates. If the findings are encouraging, SJJPA will begin discussions with the local and regional agencies and elected officials within the Redding – Sacramento Corridor as well as their representatives in the State Legislature to determine the level of interest in pursuing the extension of the San Joaquin service to Redding.

In addition to the potential extension of the San Joaquin service to Redding, SJJPA proposes to investigate continuing San Joaquin trains to serve the existing Oakland Coliseum/BART (Oakland Airport) station served by the Capitol Corridor. Extending the service just 5 more miles to this station would provide another direct link to BART, the Coliseum complex, and the new Oakland Airport Connector Automated Guideway Transit service which began operations on November 22, 2014 (see Figure 15.1). SJJPA will work with the State and CCJPA to develop initial cost and ridership projections. SJJPA also will begin to explore the possibility of having some San Joaquin service in the future utilize the Altamont Corridor to bring San Joaquin service to additional Bay Area markets.

Figure 15.1 Oakland Airport Connector

Source: BART website, 2014

16. ROLES AND RESPONSIBILITIES: CALTRANS DOR AND SJJPA

Under the provisions of AB 1779, the State would continue to have prominent and very important roles with the San Joaquin service, even after the administration responsibility is turned over to SJJPA. The State will continue to provide the funding necessary for service operations, administration and marketing. Furthermore, the State would remain responsible for the development of the Statewide Rail Plan; the coordination and integration between the three state-supported intercity passenger rail services; the preparation of grant applications to the federal government; and the development of state budget requests – consistent with the role for the Capitol Corridor under the CCJPA agreement. The State remains the owner of the trainsets used for the San Joaquin and Capitol Corridor services and will continue to be responsible for the procurement of new equipment for the state-supported intercity passenger rail services. The ITA will describe the terms of use by SJJPA of car and locomotive trainsets and other equipment and property owned by the State and required for the San Joaquin service including the number of units to be provided, liability coverage, maintenance and warranty responsibilities, and indemnification issues.

SJJPA will work with CalSTA and Caltrans Division of Rail and Mass Transportation to reach agreement and fully define the roles and responsibilities of SJJPA and the State towards the operation, maintenance, planning, and improvement of the San Joaquin service. The agreed upon roles and responsibilities will be included as a key part of the ITA.

17. SAFETY AND SECURITY

Safety and Security Leadership

One of the most important single elements in developing improvement in safety and security is effective leadership from the most senior levels of the organization. A strong commitment from the very top is a given, but the purpose of further developing safety leadership for the San Joaquin Service is to:

- Strengthen the message of the importance of safety and security across all key managers;
- Secure a common understanding of safety and security objectives, targets and goals of the Service;
- Communicate the safety and security strategies and policies to managers; and
- Share best practices in leadership behavior that creates and sustains a strong safety and security culture.

The focus of the SJJPA Safety and Security program is to develop a grass roots program increasing the public's awareness of railroad safety and security in coordination with Amtrak and their current efforts along the San Joaquin Rail Corridor. The program will be focused on areas around stations, and at railroad crossings, with an emphasis on rural areas having private crossings in the Central Valley, including emergency preparedness drills in coordination with Amtrak.

SJJPA Safety and Security activities include working with the various stakeholders, including the State, SJJPA member agencies, Amtrak, UPRR, B NSF, Operation Lifesaver, Department of Homeland Security (DHS), Bus Operators and First Responders along the San Joaquin Corridor on assessing current Operation Lifesaver, Emergency Preparedness and Security training efforts.

Developing a baseline of the training completed along the corridor and associated outreach efforts allow for the development of grass roots programs working with Amtrak on how to best utilize secured grant funds by both the SJJPA and Amtrak. This also provides a guide for the ability to leverage new grant funding and resources for updating programs and exercises. All program updates will include incorporating connecting bus routes and other rail services which connect with the San Joaquins.

Safety and Security Program FY 2015/16 and 2016/17

The FY 2015/16 and 2016/17 Safety and Security Program will use a network of rail safety education volunteers and free DHS security training resources along with safety and security grant programs to coordinate, develop new programs, and build upon and enhance programs currently undertaken by Amtrak. The primary objective is to increase rail safety and security awareness by targeting the existing base of employees, service corridor stakeholders and others including non-English speaking populations, agriculture and seasonal employees, school groups, driver education classes, community audiences, professional drivers, law enforcement officers and emergency responders. Components of the program include but not limited to:

1. Coordination of rail safety outreach to specific communities/populations based on safety data.
2. Coordination of Emergency Preparedness Training for corridor first responders.
3. Coordination of rail security awareness training for train crews, maintenance staff, bus operators and station agents.
4. Assist with coordination and monitoring of disaster simulations to ensure state and federal requirements are met.
5. Coordination of Emergency Preparedness Training for Passenger Operations that connect to the San Joaquin Service.

Additionally, an ongoing component of the SJJPA Safety and Security Programs are regular meetings and coordination with the various stakeholders, including the State, SJJPA member agencies, Amtrak, UPRR, BNSF, Operation Lifesaver, Department of Homeland Security (DHS), Bus Operators and First Responders along the San Joaquin Corridor to assess and increase public rail safety and security awareness efforts. Elements for improving safety and security awareness are to:

- Assess current rail safety and security awareness efforts;
- Develop strategies for increasing safety and security awareness;
- Identify "hot spots" along the Corridor;
- Develop a targeted approach to rail safety and security training; and
- Develop outreach programs that meet the needs of the public, as well as stakeholders.

Safety and Security Programs are ever evolving. As conditions changes so must the programs. The objectives of the SJJPA Safety and Security Program: is to instill a comprehensive safety culture that will govern all of the activities associated with the operations and maintenance of the service. Through the implementation a detailed system safety and security program that will play a key role the overall effort to ensure maximum safety and security for passengers, employees and the communities served.

18. STATION AREA DEVELOPMENT

There are great benefits to enhancing development patterns and increasing development densities near San Joaquin stations. In addition to potential benefits from minimizing land consumption needs for new growth, increased dense development near San Joaquin stations concentrates activity conveniently located to these stations. This promotes increased use of the San Joaquins, generating additional ridership and revenue to benefit the State. It also accommodates new growth on a smaller footprint. Reducing the land needed for new growth should reduce pressure for new development on nearby habitat areas, in environmentally fragile or hazardous areas, and on agricultural lands. A dense development pattern can better support a comprehensive and extensive local transit and shuttle system, bicycle and pedestrian paths, and related amenities that can serve the local communities as well as provide access to and egress from San Joaquin stations. Benefits could also include relief from traffic congestion, improved air quality, more affordable housing, promotion of job opportunities, reduction in energy consumption, and better use of public infrastructure. Local governments will determine which mechanisms best suit each community and could be implemented to enhance the benefits possible from potential San Joaquin station area development.

Significant growth is expected in large areas of California. Increased development around San Joaquin stations, however, is consistent with and promotes the State's adopted smart growth principles and could be a catalyst for wider adoption of smart growth principles in communities near San Joaquin stations. San Joaquin stations are integrated into their communities and connected by local and regional transit can help the State realize some of the principles of AB 32 and SB 375. With strong companion policies and good planning, San Joaquin stations should encourage infill development, help protect environmental and agricultural resources by encouraging more efficient land use, and minimize ongoing cost to taxpayers by making better use of existing infrastructure. The SJJPA is committed to cooperating with local communities to encourage development around San Joaquin stations appropriate to the scale and needs of each community directly served by the San Joaquins.

General Principles for Station Area Development

Applying transit-oriented development (TOD) measures around rail stations is a strategy that works for large, dense urban areas, as well as smaller central cities and suburban areas. TOD can produce a variety of other local and regional benefits by encouraging walkable, bikable compact and infill development. Local governments play a significant role in implementing station area development by adopting plans,

policies, zoning provisions, and incentives for higher densities, and by approving a mix of urban land uses. TOD measures for major facilities are generally applied to areas within about one-half mile of stations.

Station area development principles include the following features:

- Higher density development in relation to the existing pattern of development in the surrounding area, along with minimum requirements for density.
- A mix of land uses (e.g., retail, office, hotels, entertainment, residential) and a mix of housing types to meet the needs of the local community. Different styles of TOD will be appropriate for different station areas.
- A grid street pattern and compact pedestrian-oriented design that promotes walking, bicycle, and transit access with streetscapes that include landscaping, small parks, pedestrian spaces, bus shelters, lighting, wayfinding signs, bike lanes, and bike racks.
- Building design that considers the continuity of the building sizes and that coordinates the street-level and upper-level architecture.
- TOD areas typically have reduced parking requirements for retail, office, and residential uses due to their transit access and walkability. Sufficient train passenger parking is essential to the system viability, but the use of access by transit and other modes is encouraged.

Implementation of TOD at San Joaquin Stations

The responsibility and powers needed to focus growth and station area development guidelines in the areas around San Joaquin stations reside primarily with local government. Key ways in which the SJJPA can help ensure that the San Joaquins become an instrument for encouraging maximizing implementation of station area development principles include:

1. Encourage local governments to prepare/update and adopt station area plans, amend city and county general plans, and promote TOD in the vicinity of San Joaquin stations.

Local governments can use a number of mechanisms to encourage higher density TOD in and around San Joaquin stations and to minimize undesirable growth effects. These include developing plans (such as specific plans, transit village plans, regional plans, and greenbelts), development agreements, zoning overlays, and, in some cases, use of redevelopment authority. Most successful contemporary examples of urban development are the product of long-term strategic planning. Local governments typically prepare long-term plans that focus growth at station areas. Regional plans are also typically used to coordinate station area development with existing urban areas and reserves for parks, agriculture, and natural habitat.

2. Assist local governments in securing grants/funding for planning and implementing TOD around San Joaquin stations.

The SJJPA will use its influence to help local and regional governments in securing grants/funding for planning and implementing TOD around San Joaquin stations. The SJJPA will lobby the State and federal government to create and maintain grant programs to provide financial assistance to cities and regions for TOD planning and implementation. The SJJPA will also support grant applications for TOD planning and implementation for San Joaquin stations. The SJJPA will provide assistance to cities and regional governments to increase awareness of existing and potential grant programs. The SJJPA is committed to working with host cities and other local agencies, in a cooperative manner, sharing data and information to enable each station area to benefit from the efforts and successes at other stations.

3. Require any new San Joaquin station location to be a multi-modal transportation hub with a preference for traditional city centers and will have TOD in the station area.

After the ITA is signed and administrative responsibility of the San Joaquins is transferred to the SJJPA, it will determine where any new San Joaquin stations may be located. To be considered for a station, the proposed site must have the potential to promote higher density, mixed-use, pedestrian accessible development around the station or be within an existing traditional city center or TOD area. Local government would be expected to promote TOD and to help finance and maintain station amenities and the public spaces needed to create an attractive pedestrian/bicycle environment.

4. Work with communities and organizations to support TOD and with developers to implement TOD.

The SJJPA will help educate communities throughout the San Joaquin Corridor about the benefits of TOD and improved San Joaquin service for helping to meet regional and statewide sustainability goals. The SJJPA will partner with organizations and local and regional agencies to encourage developers to implement TOD throughout the San Joaquin corridor.

San Joaquin Stations

The San Joaquin service has 18 rail stations. All of the San Joaquin stations are multi-modal transportation hubs and most of the stations are located in traditional city centers. Table 18.1 presents the existing amenities and services at San Joaquin stations, as well as a preliminary assessment of their potential for new TOD. TOD opportunities are considered low at San Joaquin stations that are located in outlying areas away from the city centers/downtowns. The highest potential for new TOD at San Joaquin stations is likely to be in the major cities.

Table 18.1: San Joaquin Stations and TOD Potential

Station	Existing Amenities/Transit Connectivity	Within City Center	New TOD Potential
Sacramento	Enclosed waiting room, ticket office, ticket machine, restrooms, phone, ATM, 165 overnight parking spaces, Amtrak, Thruway Bus, Local and Regional Bus Services and Light Rail	Yes	High
Lodi	Enclosed waiting room, ticket machine, phone, 380 parking spaces, Local and Regional Bus Services	Yes	Medium
Stockton–ACE	Enclosed waiting room, ticket machine, phone, 143 parking spaces, Thruway Bus, ACE Commuter Rail and Bus Service	Yes	Medium
Oakland–Jack London Square	Enclosed waiting room, ticket office, ticket machine, restrooms, phone, ATM, 500 short-term and 500 long-term parking spaces, Amtrak, Thruway Bus, Bus Service	Yes	High
Emeryville	Enclosed waiting room, ticket office, ticket machine, restrooms, phone, ATM, 220 parking spaces, Amtrak, Thruway Bus, Bus Service	Yes	Medium
Richmond	Platform with shelter, ticket machine, phone, 400 parking spaces, Amtrak, BART, Bus Service	Yes	Medium
Martinez	Enclosed waiting room, ticket office, ticket machine, restrooms, phone, 220 parking spaces, Amtrak, Thruway Bus, Local and Regional Bus Services	Yes	Medium
Antioch	Platform with shelter, ticket machine, 43 parking spaces, Bus Service	Yes	Medium
Stockton–Amtrak	Enclosed waiting room, ticket office, ticket machine, restrooms, phone, 24 parking spaces	No	Low
Modesto	Enclosed waiting room, ticket office, ticket machine, restrooms, phone, 122 parking spaces, Bus Service	No	Low
Denair/Turlock	Platform with shelter, ticket machine, 8 parking spaces, Dial-a-Ride	No	Low
Merced	Enclosed waiting room, ticket office, ticket machine, restrooms, phone, 46 parking places, Thruway Bus, Local and Regional Bus Service	Yes	Medium
Madera	Platform only, ticket machine, 19 parking spaces, Dial-a-Ride	No	Low
Fresno	Enclosed waiting room, ticket office, ticket machine, restrooms, phone, 109 parking spaces, Bus Service	Yes	High
Hanford	Enclosed waiting room, ticket office, ticket machine, restrooms, phone, 47 parking spaces, Thruway Bus, Bus Service	Yes	Medium
Corcoran	Enclosed waiting room, ticket machine, restrooms, phone, 90 parking spaces, Bus Services	Yes	Medium
Wasco	Platform with shelter, ticket machine, 35 parking spaces, Bus Services	Yes	Medium
Bakersfield	Enclosed waiting room, ticket office, ticket machine, restrooms, phone, ATM, 206 parking spaces, Thruway Bus Services, Bus Services	Yes	High





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San Joaquin
Joint Powers Authority

APPENDIX C

STATEMENT OF THREE YEAR FUNDING

The primary purpose of this **Appendix C** is to address the method of determining the funding level in support of the Service, as defined in this Interagency Transfer Agreement (ITA), planned for the San Joaquin rail corridor during the initial three year term of this ITA. This **Appendix C** provides guidance on the process for determining future funding levels for the Service, and states the intent of the State to provide sufficient funding for the service levels specified herein. The process is meant to be descriptive of the approach to be followed in setting funding levels, but is not intended to be all-encompassing. All future funding is subject to appropriation and the results of the State budget process.

The service level that is expected to be funded by the State will not decrease during the term of the ITA. From July 1, 2015 – March 31, 2016, funding will be provided to support the existing level of service: 2 daily round trip frequencies from Sacramento to Bakersfield, 4 daily round trip frequencies from Oakland to Bakersfield, and the associated level of Thruway bus services identified in **Appendix E**. Beginning on or about April 1, 2016 through the end of the initial term of the ITA, funding will be provided to support one additional round trip in the Oakland to Bakersfield corridor (and supporting additional Thruway bus connections), subject to legislative appropriation and completion of contract negotiations with the National Railroad Passenger Corporation (Amtrak) for the additional service.

Funding for the San Joaquin Joint Powers Authority (SJJPA) is made up of a number of subcomponents.

SECTION 1: ADMINISTRATIVE EXPENSES

A. First Year (July 1, 2015 – June 30, 2016): The SJJPA's baseline request of $1,595,606 serves as the first year of administrative funding planned for the service. This budget includes administrative staffing, legal services, travel, insurance premiums and contracted services, audit, safety/security and planning budgets.

B. Second Year (July 1, 2016 to June 30, 2017): $33,624 of additional baseline funding to support the phase in of administrative positions not budgeted for a full year in FY 2015/16. Administrative budget escalation, while proposed at a rate of 2.5% annually in the business plan, will be subject to consideration of the effectiveness in achieving the Uniform Performance Standards (UPS) and the salary escalation for similar administrative employees in state government, as well as additional considerations. It will apply to both the first year baseline funding level, as well as the additional baseline funding identified for the second year.

C. Third Year (July 1, 2017 to June 30, 2016): Administrative budget escalation, while proposed at a rate of 2.5% annually in the business plan, will be subject to consideration of the effectiveness in achieving the Uniform Performance Standards (UPS) and the salary escalation for similar administrative employees in state government, as well as additional considerations. It will be applied to the second year budget as calculated above.

SECTION II: MARKETING EXPENSES

All three years shall be based on a budget of $1,000,000 annually.

SECTION III: AMTRAK OPERATING SUBSIDY & CAPITAL EXPENDITURES

A. First Year

1. Base Contract: The SJJPA will be provided contract authority to enter into a 12 month contract with Amtrak that takes effect on October 1, 2015 and ends September 30, 2016, utilizing State Operating Assistance appropriated in the state FY 2015-16 budget. The contract authority can be estimated based on Amtrak's March 31, 2015 budget proposal, but is subject to change based on negotiations that will be conducted in partnership with the state due to the transition in management of the Service. Estimated contract authority consists of three items, totaling $40,918,720 for the Amtrak FY15-16 contract:

   a. State Operating Payment: $38,147,685

   b. Equipment Capital Charge: $2,271,035

   c. Minor Capital: $500,000

2. 7th Round Trip Contract Modification: An estimated $3,700,000 is to be approved with the State's 2015-16 Budget for a 5th round trip between Oakland and Bakersfield, expected to take effect on or about April 1, 2016 and subject to additional negotiation with Amtrak on cost changes necessary to provide service.

B. Second Year

1. Inclusion of Full Year Funding for 7th round trip: Funding required for the 7th round trip will be included and is subject to completion of Amtrak contract negotiations and State budget approval.

2. Change in state operating payment reflecting, but not limited to, the following adjustments in no particular order:

   a. Growth in revenue commensurate with population growth and cost growth.

   b. Cost growth in line with or below the Office of Management and Budget GDP Chain Deflator (or other measure specified by the California Department of Finance), on a per-passenger mile basis.

   c. Management actions undertaken by the SJJPA leading to additional revenue growth or cost savings targeted at 33% of the second year administrative budget or other target recommended by the SJJPA consistent with achieving net cost reductions for the State as referenced in **Appendix A**.

   d. Cost changes based on changes in PRIIA Section 209 or its successor federal legislation.

   e. Consideration of statewide cost factors and service expansion needs in relation to available budget.

f. Other adjustments related to achieving results of programs funded by grants or capital investments in the Service.

3. Equipment capital charge at the Amtrak required level based on equipment assignment.

4. Minor capital will remain unchanged.

5. Funding level for second year contract authority is expected to be under the rate of inflation.

C. Third Year

1. Change in state operating payment from the second Amtrak contract year reflecting, but not limited to, the following adjustments in no particular order:

a. Growth in revenue commensurate with population growth and cost growth.

b. Cost growth in line with or below the Office of Management and Budget GDP Chain Deflator (or other measure specified by the California Department of Finance), on a per-passenger mile basis.

c. Management actions undertaken by the SJJPA leading to additional revenue growth or cost savings targeted at 67% of the third year administrative budget or other target recommended by the SJJPA consistent with achieving net cost reductions for the State as referenced in **Appendix A**.

d. Cost changes based on changes in PRIIA Section 209 or its successor federal legislation.

e. Consideration of statewide cost factors and service expansion needs in relation to available budget.

f. Other adjustments related to achieving results of programs funded by grants or capital investments in the Service.

2. Equipment capital charge at the Amtrak required level based on equipment assignment.

3. Minor capital will remain unchanged.

4. Funding level for third year contract authority is expected to be under the rate of inflation.

APPENDIX D

MASTER FUND TRANSFER AGREEMENT

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

MASTER FUND TRANSFER AGREEMENT

Recipient:	SJJPA
Effective Date of this MFTA:	July 1, 2015
Termination Date of this MFTA:	July 1, 2018

This Master Fund Transfer Agreement (MFTA), effective as of the date set forth above, is by and between the San Joaquin Joint Powers Authority (SJJPA), a joint powers authority (JPA) as amended pursuant to Assembly Bill 1779 (Chapter 801, Statutes of 2012), and the State of California, acting by and through its Department of Transportation, hereinafter referred to as Department.

RECITALS

1. On September 29, 2012, the Governor signed into law AB 1779, also known as the Intercity Passenger Rail Act of 2012 (Act), authorizing the Department, with approval from the Secretary of Transportation, to enter into an interagency transfer agreement (ITA) under which the SJJPA would assume responsibility for administering the state-funded intercity rail service for the corridor between Sacramento, Oakland, Bakersfield, and Los Angeles. AB 1779 amends sections 14031.8, 14070.2, 14070.4 and 14070.6 of, and to repeal and add Article 5.4 (commencing with Section 14074) of Chapter 1 of Part 5 of Division 3 of Title 2 of, the Government Code relating to transportation.

2. The following public agencies are authorized to contract with each other for the joint exercise of any common power under Article 1, Chapter 5, Division 7, Title 1 of the Government Code of the State of California, and each has been designated by the Act and signed on to be the Member Agencies of the SJJPA:

- Sacramento Regional Transit District
- San Joaquin Regional Rail Commission
- Stanislaus Council of Governments
- Merced County Association of Governments
- Madera County Transportation Commission
- Fresno Council of Governments

- Kings County Association of Governments
- Tulare County Association of Governments
- Contra Costa Transportation Authority
- Alameda County
- Kern Council of Governments has not yet appointed members and signed on to the SJJPA but may do so at any time in the future. If the rail service boundaries of the San Joaquin Corridor are extended, an additional Member Agency from each county receiving rail service may be added to the board with the approval of a two-thirds vote by the SJJPA.

3. The San Joaquin Corridor rail termini are at Oakland, Sacramento, and Bakersfield, with intermediate stations at Wasco, Corcoran, Hanford, Fresno, Madera, Merced, Turlock (Denair), Modesto, Stockton, Lodi, Antioch, Martinez, Richmond, and Emeryville.

4. Department and SJJPA have concurrently entered into an ITA, for the transfer of responsibility to SJJPA for the State-supported administration, marketing, and operation and maintenance of rail and related services in the San Joaquin Corridor, including feeder bus services related thereto, as expanded, modified and developed by SJJPA pursuant to the ITA or any amendment thereto (Service).

5. This MFTA shall have no force or effect unless and until an annual fiscal year-specific supplement to this MFTA, hereinafter referred to as MFTA Supplement, and has been fully executed by both Department and SJJPA.

6. Department has prepared this MFTA, which hereby, together with the ITA, approved Annual Business Plan, and annual MFTA Supplement, found in EXHIBIT A, sets forth the entire terms and conditions under which State funds are to be expended by SJJPA for the fiscal year period of that Business Plan and annual MFTA Supplement.

NOW THEREFORE, in consideration of the recitals and the rights, duties and covenants set forth herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, SJJPA and the Department hereby agree to the following:

EXHIBITS

Exhibit A Board Resolution Approving MFTA

Exhibit B Annual MFTA Supplement

Exhibit C Disclosure Form to Report Lobbying (Form LLL)

DEFINITIONS

The terms defined below shall for all purposes of this MFTA have the meanings specified herein.

a. "Annual Business Plan" shall mean the business plan submitted by SJJPA to the Secretary by April 1st of each year.

b. "California Department of Transportation" or "Caltrans" means the Department of Transportation of the State of California.

c. "CalSTA" shall mean the California State Transportation Agency.

d. "Department" shall mean the State of California, acting by and through its Department of Transportation of the State of California or "Caltrans", and any entity succeeding to the powers, authorities and responsibilities of the Department invoked by or under the Agreement or the Supplemental Agreements.

e. "Initial Business Plan" shall mean the business plan which has been submitted by SJJPA and approved by to the Secretary of CalSTA.

f. "Interagency Transfer Agreement" and "ITA" shall mean the Interagency Transfer Agreement dated June 30, 2015 entered into between the Department and SJJPA including and its Appendices whereby the Department transfers, as provided for in the Act and as set forth herein, responsibility for operating and administering the Service to SJJPA, including all applicable cost controls established hereunder or by statute.

g. "ITA" shall mean the Interagency Transfer Agreement dated June 30, 2015 entered into between the Department and SJJPA.

h. "Managing Agency" shall mean the agency under contract with SJJPA to provide all necessary administrative, professional and technical support to SJJPA and for the oversight of the San Joaquin Corridor, including performance of SJJPA's obligations in the ITA.

i. "Member Agencies" shall mean those public entity members of SJJPA named in Recital 2 of this Agreement, subject to future revision if any public entities withdraw or are added to SJJPA.

j. "MFTA Supplement" shall mean the fiscal-year specific agreement executed annually, which includes the approved Annual Business Plan for that year, as a supplement to this MFTA.

k. "Operating Reserve Fund" shall mean the surplus funds retained by SJJPA that represent the difference between the Department's operating subsidy payments and the actual costs invoiced by the operator, and will not exceed 12.5 percent of the immediate prior operating subsidy as is further described in Section 7.3 of the ITA.

l. "Request for Advance Payment" shall mean a requested submitted by SJJPA to the Department for payment of costs incurred or to be incurred against the approved Annual Business Plan.

m. "Secretary" shall mean the Secretary of the California State Transportation Agency (CalSTA). Unless the context otherwise requires, any reference to the Secretary includes CalSTA and its officers and employees.

n. "Service" shall, pursuant to the Act, mean, the State-supported administration, marketing, and operation and maintenance of rail and related services in the SJJPA Corridor, including feeder bus services related thereto, as expanded, modified and developed by SJJPA pursuant to this Agreement or any amendment thereto, and shall not include the services operated or funded by the Member Agencies.

o. "Surplus Funds" shall mean the difference between the allocated amount for the operation of the Service and the aggregate amount of actual billings for the operation of the Service in the fiscal year by each respective passenger rail operating service provider and further described in Section 7.3 of the ITA.

ARTICLE 1 - PROGRAM ADMINISTRATION

1.1. Annual Business Plan

1.1.1. SJJPA agrees to develop and submit an Annual Business Plan, in compliance with Government Code 14070.4, by each April 1 for approval by CalSTA. The Business Plan identifies the scope of operations and capital improvements, if any, to the Service for the identified State fiscal years and shall be the basis for projecting funding requirements for the performance of the Service by SJJPA. The Secretary will approve on or before July 31st of each year, each Annual Business Plan, and shall exercise reasonable efforts to secure from the Legislature the appropriation for the level of the Service agreed upon therein.

1.1.2. Each annual MFTA Supplement will expressly adopt and incorporate the terms and conditions of this MFTA by reference.

1.2. Annual MFTA Supplement

1.2.1. SJJPA shall be responsible for the complete performance of the Service contained in this MFTA and revised, as deemed appropriate by the Department and SJJPA, in each MFTA Supplement. The description of all work, as identified in the ITA and any other MFTA Supplement, shall be accomplished in accordance with applicable provisions of the ITA, and State and Federal law.

1.2.2. The fully executed annual MFTA Supplement shall serve as the encumbrance document. Encumbrance and disbursement of funds by Department will occur only after the execution of this MFTA; approval of the Annual Business Plan by CalSTA; execution of the annual MFTA Supplement; and the State budget for that fiscal year has been passed.

1.2.3. No funds of any nature are allocated or encumbered in this MFTA unless included in a fully executed annual MFTA Supplement.

1.2.4. Department agrees to pass through available State funds and to reimburse allowable costs incurred in executing the tasks, projects, and products incorporated in the approved Annual Business Plan and executed annual MFTA Supplement.

1.2.5. Only work performed during the term of, and consistent with, the work elements in the approved Annual Business Plan and executed annual MFTA Supplement may be reimbursed. Reimbursements are based upon the fiscal year, July 1 to June 30. All work performed subsequent to the end of each fiscal year (June 30) is subject to the approved Annual Business Plan and annual MFTA Supplement for that corresponding fiscal year and reimbursed from the corresponding fiscal year budgeted funds.

1.2.6. SJJPA may incur costs against its approved Annual Business Plan and executed annual MFTA Supplement and may submit Requests for Advance Payment with the understanding that Department is unable to approve any payments until such time as the funds are included in that Fiscal Year's Annual State Budget which is passed by the Legislature and is signed by the Governor.

1.3. Amendments to MFTA Supplement

1.3.1. While amendments to the Annual Business Plan are not anticipated, SJJPA further agrees to ensure that amendments to a previously approved Annual Business Plan are approved by CalSTA, adopted by SJJPA Board, and incorporated by reference in the ITA, prior to initiating any work identified in those amendments. Such requests for amendments to the Annual Business Plan shall occur no more frequently than once per year. Changes requiring amendments generally include adding, deleting, or revising a work element; adding funds to, deleting funds from a work element; or revising a scope of work. If a work element or project will not be completed as approved, SJJPA will amend the Annual Business Plan and notify Department of the need to amend the annual MFTA Supplement. Amendments to MFTA Supplements shall submitted no later than 14 days from the approval of the amended Annual Business Plan. The parties must execute the amended MFTA Supplement no later than 45 days from the approval of the amended Annual Business Plan.

1.4. Progress Reports

1.4.1. SJJPA agrees to submit to Department all reports as required by the ITA. Department may withhold payment of Requests for Advance Payment/Reimbursement submitted pending the submission of required documentation.

ARTICLE II - ALLOWABLE COSTS AND REIMBURSEMENT

2.1 Operating Reserve Funds, Surplus Funds, Cost Savings

2.1.1 In accordance with the ITA, SJJPA may retain certain funds as identified below:

2.1.2 Operating Reserve Fund, as defined in the ITA, which shall include surplus funds retained by SJJPA that represent the difference between the Department's operating subsidy

payments and the actual costs invoiced by the operator, and will not exceed 12.5 percent of the immediate prior yearly operating subsidy.

2.1.3 Surplus Fund, as defined in the ITA, which shall include the difference between the allocated amount for the operation of the Service and the aggregate amount of actual billings for the operation of the Service in the fiscal year by each respective passenger rail operating service provider.

2.1.4 Cost Savings ("Cost Savings") realized from operational improvements or efficiencies achieved by it, or increases in operating revenues in excess of Business Plan projections and farebox recovery requirements specified in the Uniform Performance Standards, to provide for service improvements that increase ridership of the Service. Cost Savings are to be based on trackable management actions, including but not limited to proposals either in the Initial Business Plan/Annual Business Plan or otherwise documented and quantified during the course of performance of the Service during the then fiscal year. Cost Savings prospectively quantified in a Business Plan based on management actions proposed for the future may be directly budgeted for targeted service improvements. Cost Savings based on management actions taken during the regular administration of the Services shall be tracked, and the current fiscal year savings specifically identified for utilization in future year service improvements identified in the next Business Plan, allowing the funds to remain available for service improvement expenditure rather than be designated as Surplus Funds. Increases in operating revenues above those anticipated in the Business Plan forecast shall be available for service improvement expenditure only after the Operating Reserve Fund maximum level is achieved, and subject to their identification and budgeting in an approved Business Plan.

2.2 **Requests for Advance Payment**

2.2.1 Department agrees to make advance payments to SJJPA, in conformance with state and federal regulations, as promptly as Department fiscal procedures will permit upon the receipt of a signed and electronically submitted Request for Advance Payment that includes all required information, as applicable, for the period of time covered by that Request for Advance Payment. Incomplete or inaccurate Requests for Advance Payment shall be returned to SJJPA unapproved for correction as soon as errors are discovered.

2.2.1.1 Administration and Marketing Funds: SJJPA shall prepare and electronically submit to Department, not more frequently than once a year, one signed Request for Advance Payment for the annual administration and marketing budget as specified in the executed annual MFTA Supplement and approved Annual Business Plan.

2.2.1.2 Operating Funds: SJJPA shall prepare and electronically submit to Department, not more frequently than once a month, one signed Request for Advance Payment for the monthly operating payment as specified in the payment schedule included in the operating agreement between SJJPA and the operator of the Service.

2.2.1.3 These amounts or such other amounts as are set forth in the approved

Annual Business Plan and executed annual MFTA Supplement, shall be transferred to SJJPA following appropriation by the Legislature.

2.2.2 In the event that future MFTA Supplements are not executed by June 30th of the prior fiscal year, payments will be made under the prior fiscal year MFTA Supplement. Payments made under this provision will be made no more than monthly for administration, marketing, and operations, upon receipt of a properly executed Request for Advance Payment. Advance payments made under this provision for administration and marketing, will be in the amount of 1/12th of the amount that was approved for the prior fiscal year MFTA Supplement. Advance payments made under this provision for operating expenses, will be in the amount specified in the operating agreement between SJJPA and the operator of the Service.

2.3 Advance Payment Reconciliation and Closeout Documentation

2.3.1 SJJPA shall electronically submit MFTA Supplement closeout reports to Department no later than six months (December 31st), from the close of the fiscal year for administration, marketing expenditures, and operations expenditures. The closeout report shall show actual expenditures for administration, marketing and operations as compared to advance payments received by SJJPA. Notwithstanding the foregoing, SJJPA may request an extension of time to the Department, which shall not be unreasonably withheld, for the submission of the closeout reports referenced in this Section 2.3.

2.3.2 The closeout report(s) must be attached to a transmittal letter, typed on SJJPA's letterhead. If these documents are not received by the dates set forth above, Department may withhold future apportionments and/or allocations to SJJPA. Department's election not to withhold future apportionments and/or allocations immediately after the end of one fiscal year shall not limit Department's ability to initiate subsequent withholdings.

2.3.3 Any Surplus Funds in excess of the 12.5% of the State subsidy level in the most recently completed Amtrak contract year, as defined in the ITA, upon receipt of the required closeout documentation, Department shall issue a reconciliation letter to SJJPA stating the amount of unused Surplus Funds shall be returned to the Department or deducted from the next Advance Payment from the Department.

2.4 Funding Contingencies

2.4.1 All obligations of Department under the terms of the MFTA and each annual MFTA Supplement are subject to the availability of State funds, appropriation of resources by the Legislature, and the annual passage of the State Budget Act.

ARTICLE III – COST PRINCIPLES AND AUDITS

3.1 Section 1. Cost Principles

3.1.1 SJJPA agrees to comply with Title 2, CFR, part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, and 49

CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments, as applicable.

3.1.2 SJJPA agrees, and will require that its contractors, subcontractors, and subrecipients be obligated to agree, that (a) the Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31, et seq., shall be used to determine the allowability of individual project cost items (subrecipients shall refer to, 2 CFR, Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards); and (b) all parties shall comply with Federal administrative procedures in accordance with 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments. Every sub-recipient receiving Project funds as a contractor, subcontractor, or sub-grantee under this MFTA shall comply with Federal administrative procedures in accordance with 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

3.1.3 SJJPA agrees and shall require that all of its agreements with contractors, subcontractors, and subrecipients contain provisions requiring adherence to this section in its entirety.

3.2 **Record Retention/Audits**

3.2.1 SJJPA shall maintain, and shall require its subrecipients, contractors and its subcontractors to maintain all source documents, books and records connected with their performance of Annual Business Plan work initiated under this MFTA and each applicable annual MFTA Supplement for a minimum of three (3) years from the date of final payment of each annual MFTA Supplement to SJJPA or, if an audit is initiated within that timeframe, until audit resolution is achieved for each annual MFTA Supplement, whichever is later, and shall make all such supporting information available for inspection and audit by representatives of Department, the Bureau of State Audits, or the Federal Government upon request. Copies will be made and furnished by SJJPA upon request at no cost to Department. Scanned original documents in electronic form are suitable to meet this requirement.

3.2.2 SJJPA shall establish and maintain, and shall require that its subrecipients, contractors and subcontractors shall establish and maintain, an accounting system conforming to Generally Accepted Accounting Principles (GAAP) to support Requests for Reimbursement which segregate and accumulate the costs of work elements by line item (i.e. direct labor, other direct costs, subrecipients/subcontractor, etc.) and enable the determination of expenditures at interim points of completion, and provide support for reimbursement payment vouchers or invoices.

3.2.3 For the purpose of determining compliance with Title 2, California Government Code, Chapter 6.5, Article 2, Section 8546.7, in connection with the performance of SJJPA contracts and/or agreements with third parties, SJJPA, SJJPA's sub-recipients, contractors, and subcontractors, shall each maintain and make available for inspection all books, documents, papers, accounting records, and other evidence pertaining to the performance of such

contracts and/or agreements, including, but not limited to, the costs of administering those various contracts and/or agreements. All of the above referenced parties shall make such contracts and/or agreements available at their respective offices at all reasonable times during the entire period of each annual MFTA Supplement and for three (3) years from the date of final payment to SJJPA or, if an audit is initiated within that timeframe, until audit resolution is achieved for each annual MFTA Supplement, whichever is later. Department, the California State Auditor, or any duly authorized representative of Department or the United States Department of Transportation, shall each have access to any books, records, and documents that are pertinent to the fulfillment of the contracts and/or agreements for audits, examinations, excerpts, and transactions, and SJJPA shall furnish copies thereof if requested.

3.2.4 Where applicable, SJJPA agrees to comply with audit requirements for third party contractors, subcontractor and subrecipients in accordance with Department Local Assistance Procedure Manual, Ch.10 or any successor thereto.

3.2.5 SJJPA agrees to include all costs associated with this MFTA, Annual Business Plan and annual MFTA Supplement, and any amendments thereto; to be examined in the annual audit and in the schedule of activities to be examined under SJJPA's single audit prepared in compliance with Office of Management and Budget Circular A-133. SJJPA is responsible for assuring that the Single Auditor has reviewed the requirements of this MFTA, the Annual Business Plan and the annual MFTA Supplement. Copies of said audits shall be submitted to Department.

3.2.6 When conducting an audit of the costs and match credits claimed under the provisions of each annual MFTA Supplement and this MFTA, Department will rely to the maximum extent possible on any prior audit of SJJPA pursuant to the provisions of State and Federal law. In the absence of such an audit, work of other auditors will be relied upon to the extent that work is acceptable to Department when planning and conducting additional audits.

3.2.7 SJJPA agrees to furnish documentation to Department demonstrating that all of its agreements with contractors, subcontractors, and subrecipients do contain applicable provisions requiring adherence to the requirements in this section.

3.2.8 Neither the pendency of a dispute nor its consideration by Department will excuse SJJPA from full and timely performance in accordance with the terms of this MFTA, the Annual Business Plan, and the annual MFTA Supplement.

ARTICLE IV - MISCELLANEOUS PROVISIONS

4.1 Non-Discrimination Clause

4.1.1 In the performance of work undertaken pursuant to the ITA and for which funding is provided pursuant to this MFTA, SJJPA shall not, and shall affirmatively require that its contractors shall not, unlawfully discriminate, harass or allow harassment, against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition

(cancer), age (over 40), marital status, denial of family and medical care leave, and denial of pregnancy disability leave.

4.1.2 SJJPA shall ensure, and shall require that its contractors and all subcontractors and/or subrecipients ensure, that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. SJJPA shall comply, and require that its contractors and subcontractors and/or subrecipients comply, with the provisions of the Fair Employment and Housing Act (Government Code, Section 12900 et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this MFTA by reference and made a part hereof as if set forth in full.

4.1.3 Each of SJJPA's contractors, subcontractors, and/or subrecipients shall give written notice of their obligations under this clause to labor organizations with which they have collective bargaining or other labor agreements. SJJPA shall include the non-discrimination and compliance provisions hereof in all contracts and subcontracts to perform work under this MFTA.

4.1.4 SJJPA shall comply with the nondiscrimination program requirements of Title VI of the Civil Rights Act of 1964. Accordingly, 49 CFR Part 21, and 23 CFR Part 200 are made applicable to this MFTA by this reference. Wherever the term "Contractor" appears therein, it shall mean SJJPA.

4.1.5 SJJPA shall permit, and shall require that its contractors, subcontractors, and subrecipients will permit, access to all records of employment, employment advertisements, application forms, and other pertinent data and records by the State Fair Employment Practices and Housing Commission or any other agency of the State of California designated by Department to investigate compliance with this Section 4.

4.2 **Federal Lobbying Activities Certification**

4.2.1 SJJPA certifies, to the best of its knowledge and belief, that no State or Federal funds have been paid or will be paid by, or on behalf of, SJJPA to any person for influencing or attempting to influence an officer or employee of any State or Federal agency, a Member of the State Legislature or United States Congress, an officer or employee of the Legislature or Congress, or any employee of a Member of the Legislature or Congress in connection with the awarding of any State or Federal contract, the making of any State or Federal grant, the making of any State or Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any State or Federal contract, grant, loan, or cooperative agreement.

4.2.2 If any funds other than State or Federal funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a

Member of Congress in connection with a State or Federal contract, grant, loan, or cooperative agreement, SJJPA shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with those form instructions, unless exempt under Federal law.

4.2.3 This certification is a material representation of fact upon which reliance was placed when this MFTA and each annual MFTA Supplement was entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

4.2.4 SJJPA also agrees by signing this MFTA that SJJPA shall require that the language of this certification be included in all contracts and subcontracts funded wholly or in part by any fund sources listed on Page 1 of this MFTA and which exceed $100,000 and that all such subrecipients shall certify and disclose accordingly.

ARTICLE V - GENERAL PROVISIONS

5 Sanctions for Compliance

5.1 In the event of a final determination by the Department under Section 5.4 of this MFTA of a claim of SJJPA's noncompliance with the nondiscrimination provisions of Section 4.2 of this MFTA, the Department may take such action as authorized by law which include but are not limited to a withhold of payments to SJJPA under the ITA, cancellation, suspension, or termination of the ITA, in whole or in part.

5.2 Contract Award

5.2.1 SJJPA, contractor, subcontractor and subrecipient contracts containing Federal and State funds are required to be bid and awarded in accordance with Title 49, CFR, Part 18 and consistent with Local Assistance Procedure Manual, Ch. 10 or successors thereto as applicable.

5.3 Contract Amendment

5.3.1 No amendments to the terms of this MFTA, and any annual MFTA Supplement shall be valid unless made in writing and signed by the individuals legally authorized to contractually bind the parties hereto. Each party agrees that it has had or will have the opportunity to seek review by and approval from its legal counsel of any amendments prior to their execution. No oral understanding or agreement not incorporated herein shall be binding on any of the parties thereto. For the purposes of this MFTA, the Chief, Division of Rail and Mass Transportation, shall be the Contract Administrator for Department.

5.4 Dispute Resolution

5.4.1 Adjudication of Disputes by Way of Administrative Proceedings

5.4.1.1 Department hereby sets up an administrative procedure for

adjudication of disputes that may arise relating to the administration of the funding under this MFTA. All disputes must exhaust the informal dispute resolution process outlined in Section 5.4.2. In the event the parties are unable to resolve their disputes through informal dispute resolution, the parties shall follow the arbitration process outlined in Section 5.4.2.

5.4.1.2 SJJPA agrees to exhaust the administrative remedy prior to resorting to legal remedies. In case of disputes with Department, SJJPA shall submit to the Chief, Division of Rail and Mass Transportation for the Department or designee a written demand for a decision regarding the disposition of any dispute, arising under this MFTA. The Chief, Division of Rail and Mass Transportation for the Department shall make a written decision regarding the dispute and will provide it to SJJPA. SJJPA shall have an opportunity to challenge the determination by the Chief, Division of Rail and Mass Transportation for the Department but must make that challenge in writing, within ten (10) working days to the Department's Contract Officer or his/her designee. If the challenge is not made by SJJPA within the ten (10) day period, the Chief, Division of Rail and Mass Transportation for the Department shall become the final decision of the Department. If such a challenge is made, Chief, Division of Rail and Mass Transportation for the Department and SJJPA shall submit written, factual information and data in support of their respective positions to Department's Director or his designee within a timeframe established by the parties at the time of challenge. If the dispute is not resolved by the time established by the parties at the time of challenge, the parties may exercise their rights under Section 5.4.2.

5.4.2 Arbitration

5.4.2.1 Unless otherwise agreed to by the Parties, in the event of a dispute between the Parties which has not been satisfactorily resolved by those parties within sixty (60) days of the commencement of the dispute, said dispute shall be submitted to arbitration by a panel of three arbitrators who shall conduct the arbitration pursuant to the rules of the American Arbitration Association. The panel of arbitrators shall consist of one arbitrator appointed by each of the disputants, the third arbitrator to be appointed by mutual consent of the other two arbitrators.

5.4.2.2 The arbitration panel shall resolve the dispute in accordance with the terms of this MFTA, and such resolution shall be final and binding upon the parties. Each party shall bear its own costs of arbitration, including reasonable attorney's fees. The cost of the third arbitrator shall be divided equally between the disputants. Any proceeding convened under this provision shall be conducted in the City of Sacramento, California. Judgment on the award rendered by the arbitrators may be entered in any court having jurisdiction thereof. Upon failure of a party to comply with an arbitration award issued pursuant to this Section, the other party may refer the matter to a court of competent jurisdiction for enforcement of the award.

5.4.2.3 Unless otherwise agreed by the disputants, only disputes regarding a disputant's rights and obligations arising under the terms of: (i) this MFTA, (ii) the MFTA Supplements, or (iii) any other agreement between the disputants in which this arbitration provision is incorporated by reference shall be subject to arbitration.

5.4.2.4 The foregoing notwithstanding, with respect to contract claims or disputes arising under this MFTA or any exhibit hereto which may be subject to the provision of California Public Contract Code Section 10240, such claims or disputes shall be resolved by arbitration conducted by a single arbitrator selected by the parties from the certified list created by the California Public Works Contract Arbitration Committee and in accordance with the requirements and procedures set forth in such Section 10240.

5.5 **Intercept Clause**

5.5.1 Costs for which SJJPA receives reimbursement payment or credit that are determined by a subsequent audit or other review by either State or Federal authorities to be unallowable under 2 CFR, part 200; 48 CFR, Chapter 1, Part 31; or 49 CFR, Part 18, are to be repaid to Department by SJJPA within thirty (30) days of SJJPA receiving notice of audit findings. Should SJJPA fail to reimburse moneys due department within thirty (30) of discovery or demand, or within such other period as may be agreed in writing between the Parties hereto, Department is authorized to intercept and withhold future payments due SJJPA from Department or any third-party source, including, but not limited to, the State Treasurer, the State Controller or any other fund source.

5.6 **Parties of Agreement**

5.6.1 This MFTA, the annual MFTA Supplement, and any related agreements are solely between the named parties thereto and no express or implied benefit to entities or individuals not a party thereto is intended or to be inferred. There are no third-party beneficiaries to or of this MFTA, annual MFTA Supplement, or any other agreement pertaining hereto.

5.7 **Hold Harmless and Indemnification Clause**

5.7.1 Indemnification by SJJPA

5.7.1.1 SJJPA agrees to indemnify, defend and save harmless the State, the Department, its officers, agents and employees from any and all claims, suits or actions of every name, kind and description including but not limited to, contractual losses accruing or resulting to any and all contractors, subcontractors, suppliers, laborers, and any other person, firm or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this MFTA; from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by SJJPA in the performance of this MFTA; or tortious or other theories or assertions of liability occurring by reason of anything done or omitted to be done by SJJPA and/or its agents under this MFTA. If any claim, action or proceeding shall at any time be brought against the State or Department asserting a liability for such injury, death, damage or loss, the State or Department shall promptly give notice to SJJPA of such claim, action or proceeding and SJJPA shall thereafter provide all such information as the State or Department may from time to time request.

5.7.1.2 Provided that SJJPA furnishes and maintains all of the insurance that it

is contractually required to obtain under this MFTA, then, in accordance with the present terms of the joint exercise of powers agreement pursuant to which SJJPA has been organized, any indemnity obligation of SJJPA hereunder shall not flow through to become obligations of any Member Agency of SJJPA as a consequence of that Member Agency's status as a Member Agency of SJJPA. In addition, no Member Agency shall have any liability or obligation for indemnification hereunder to the extent that its activities arise out of its obligations under this MFTA, its appointment of a member to SJJPA Board of Directors as its representative thereto, and its participation on SJJPA Board of Directors or any committees thereof in Board and committee activities to the extent permitted by law and in the usual and customary manner. To the extent that the negligence of any Member Agency outside of the foregoing activities causes or contributes to a loss for which the State has been final adjudged jointly, or jointly and severally, liable with the Member Agency, the State may seek contribution and/or indemnification from that Member Agency to the extent permitted by applicable law.

5.7.2 Indemnification by Department

5.7.2.1 The Department shall, to the extent permitted by law, indemnify, defend and hold harmless SJJPA and the Managing Agency, its Member Agencies, officers, directors, employees and agents, from any and all claims, suits or actions of every name, kind and description including injury or damages occurring by reason of anything done or omitted to be done by the Department and/or its agents under this MFTA.

5.7.3 The indemnifying party shall bear all expenses, costs and shall pay all settlements or final judgments arising out of any claim, action or proceeding involving the injury to and/or death of any person or damages to or any loss of property arising from any indemnification obligation of the indemnifying party under Section 5.7 above, including the costs of defense and settlement. Should a claim, action or proceeding of any nature be brought at any time against a party entitled to indemnification pursuant to Section 5.7 above, asserting liability on the part of the such party for such injury, death, damage or loss, the party entitled to such indemnification shall promptly provide notice to the indemnifying party of such claim, action or proceeding and shall tender the defense of such claim, action or proceeding to the indemnifying party which shall thereafter provide tall such defense, indemnity and protections as are necessary under the provisions of this MFTA. The party entitled to indemnification shall provide such additional information or assistance as is reasonably requested by the indemnifying party to assist in the defense, prosecution or settlement of any such claim, action or proceeding. The indemnifying party may engage counsel of its choice to defend the indemnified party subject to the indemnified party's consent, such consent not to be unreasonably withheld.

5.8 **Default**

5.8.1 In the event that SJJPA (a) fails to comply with applicable Federal and State laws and regulations; (b) fails to timely proceed with the approved Annual Business Plan, in accordance with the MFTA and/or Supplemental MFTA; or (c) otherwise materially violates the terms and conditions of this MFTA and/or Supplemental MFTA, Department reserves the right to terminate all funding for that approved Annual Business Plan, or a portion thereof. Any

such termination shall be accomplished by delivery to SJJPA of a Notice of Termination, which notice shall become effective not less than thirty (30) days after receipt, specifying the reason for the termination, the extent to which funding of work under this MFTA is terminated and the date upon which such termination becomes effective. During the period before the termination date becomes effective, SJJPA and Department shall meet to try to resolve any dispute. No such termination shall become effective if, (a) during the process described in Section 5.9, the termination is stayed, (b) within the thirty (30) day period after receipt of the Notice of Termination, SJJPA either cures the default, or (c) if that default is not reasonably susceptible to cure within said thirty (30) day period, Department approves a SJJPA plan and SJJPA thereafter diligently completes the cure in a manner and timeline acceptable to Department.

5.8.2 If Department terminates funding for the approved Annual Business Plan pursuant to the above Section 5.8, Department shall pay SJJPA the sum due SJJPA under the MFTA Supplemental for eligible work performed prior to termination.

5.9 **Termination**

5.9.1 This MFTA shall remain in full force and effect until the termination date stated on Page 1 of this MFTA, unless superseded or terminated in conformance with Section 5.8. All indemnification, document retention, audit, claims, and legal challenge, articles will remain in effect until terminated or modified in writing by mutual agreement or expiry by statute of limitations.

[signature page immediately follows]

IN WITNESS WHEREOF, the parties have signed this MFTA as of the date set forth above.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

By:
Name: MALCOLM DOUGHERTY
Title: Director

SAN JOAQUIN JOINT POWERS AUTHORITY

By:
Name: JOHN PEDROZO
Title: Chairperson

APPROVED AS TO FORM AND EXECUTION:

Name: K. Assouri
Title: Deputy Attorney

APPROVED AS TO FORM AND EXECUTION:

Name:
Title:

Exhibit A

Board Resolution Approving MFTA

RESOLUTION SJJPA 14/15-4

RESOLUTION OF THE GOVERNING BOARD OF THE SAN JOAQUIN JOINT POWERS AUTHORITY ADOPTING THE 2015 BUSINESS PLAN UPDATE

WHEREAS, the Intercity Passenger Rail Act of 2012 provides for the creation of a San Joaquin Joint Powers Authority (SJJPA) which, if certain requirements are met, will manage the San Joaquin Intercity Rail Service; and

WHEREAS, ten (10) Member Agencies have approved a Joint Exercise of Powers Agreement to form the SJJPA and have appointed Board Members and Alternates; and

WHEREAS, the 2014 SJJPA Business Plan Update was adopted on January 23, 2015; and

WHEREAS, minor edits were requested by the California State Transportation Agency (CalSTA); and

WHEREAS, in order to take over the administrative responsibilities of the San Joaquin rail service, the SJJPA must develop and approve a Business Plan to be included and referenced as part of the Interagency Transfer Agreement (ITA) with the State of California.

NOW THEREFOR BE IT RESOLVED, that the Governing Board of the San Joaquin Joint Powers Authority hereby adopts the 2015 SJJPA Business Plan Update.

PASSED AND ADOPTED, by the SJJPA this 15th day of May, 2015, by the following vote:

AYES: 10 Blalock, Tatzin, Chiesa, Verboon, Rogers, Hume, Johnson, Ishida, Vice-Chair Perea, Chair Pedrozo

NOES: 0

ABSENT: 0

ABSTAIN: 0

ATTEST: 0

SAN JOAQUIN JOINT POWERS AUTHORITY

Stacey Mortensen, Secretary

John Pedrozo, Chair

SJJPA RESOLUTION NO. 14/15-5

RESOLUTION OF THE GOVERNING BOARD OF THE SAN JOAQUIN JOINT POWERS AUTHORITY (SJJPA), AUTHORIZING THE CHAIR TO EXECUTE THE INTERAGENCY TRANSFER AGREEMENT WITH THE STATE OF CALIFORNIA, ENABLING THE ADMINISTRATIVE RESPONSIBILITY OF THE SAN JOAQUIN RAIL SERVICE AND FUNDING FOR THE SERVICE TO BE TRANSFERRED TO SJJPA

WHEREAS, the Intercity Passenger Rail Act of 2012 provides for the creation of a San Joaquin Joint Powers Authority (SJJPA) which, if certain requirements are met, will manage the San Joaquin Intercity Rail Service; and

WHEREAS, ten (10) Member Agencies have approved a Joint Exercise of Powers Agreement to form the SJJPA and have appointed Board Members and Alternates; and

WHEREAS, the Initial Draft ITA was presented to the Governing Board on September 26, 2014 and staff has been working with Caltrans and CalSTA to finalize the terms and conditions of the ITA; and

WHEREAS, in order to take over the administrative responsibilities of the San Joaquin rail service, SJJPA must approve and sign an Interagency Transfer Agreement (ITA) with the State of California; and

WHEREAS, there may be minor changes to the ITA recommended by the Secretary of Transportation as part of his final review and approval and it would be appropriate for the Chair, in consultation with the Vice Chairs and Counsel, to negotiate with the Secretary and agree to minor administrative changes in the final ITA language,

NOW THEREFOR BE IT RESOLVED, that the Governing Board of the San Joaquin Joint Powers Authority hereby adopts the Interagency Transfer Agreement for submittal to the Secretary of Transportation and authorizes the Chair to sign the ITA and to negotiate any final administrative changes to the ITA proposed by the State, subject to concurrence of the Vice Chairs and Counsel.

PASSED AND ADOPTED by the SJJPA on this 15th. day of May 2015, by the following vote:

AYES: 10 Blalock, Datsin, Chiesa, Verboon, Rogers, Buma, Johnson, Tchida, Vice-Chair Perea, Chair Pedrozo

NOES: 0

ABSENT: 0

ABSTAIN: 0

ATTEST:

STACEY MØRTENSEN
Secretary

SAN JOAQUIN JOINT
POWERS AUTHORITY

JOHN PEDROZO, Chair

Exhibit B
Annual MFTA Supplement

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MASTER FUND TRANSFER AGREEMENT – ANNUAL SUPPLEMENT

Recipient: [Agency Name]

Effective Date of this MFTA: [date]

Termination Date of this MFTA: [date]

1. The undersigned signatory Joint Powers Authority (JPA) hereby commits to complete, this State fiscal year (FY), the Annual Business Plan, a copy of which was approved on [date] and is attached as part of this Master Fund Transfer Agreement Supplement (MFTA Supplement)

2. All of the obligations, duties, terms and conditions set forth in the Master Fund Transfer Agreement (MFTA), numbered [MFTA number] and executed with effective dates of [date to date] between [Agency name] (JPA) and the Department of Transportation (DEPARTMENT), are incorporated herein by this reference as part of this MFTA Supplement for this State FY.

3. This MFTA Supplement obligates and encumbers only the following funding source(s):

UNIT	PROJECT ID	PHASE	FUND SOURCE	AMOUNT	FISCAL YEAR

BUDGET ITEM	CHAPTER	STATUTES	BUDGET YEAR

FUNDS CERTIFIED BY:	I hereby certify upon my own personal knowledge that budgeted funds are available for the period and purpose of the expenditure stated above.	
NAME AND TITLE OF AUTHORIZED OFFICIAL	SIGNATURE OF AUTHORIZED OFFICIAL	DATE:

4. Attachments listed below are incorporated by reference to this MFTA Supplement.
   a. Approved Annual Business Plan

b. Board Resolution Approving MFTA Supplement

IN WITNESS WHEREOF, the parties hereto have executed this MFTA Supplement by their duly authorized officers.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

By: _____
Name: _____
Title: _____

APPROVED AS TO FORM AND EXECUTION:

Name: _____
Title: _____

SAN JOAQUIN JOINT POWERS AUTHORITY

By: _____
Name: _____
Title: _____

APPROVED AS TO FORM AND EXECUTION:

Name: _____
Title: _____

Exhibit C

Disclosure Form to Report Lobbying (Form LLL)

FORM SF-LLL

DISCLOSURE OF LOBBYING ACTIVITIES

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

1. Type of Federal Action:

☐ a. contract
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action:

☐ a. bid/offer/application
b. initial award
c. post-award

3. Report Type:

☐ a. initial
b. material change

For Material Change Only:
year ____ quarter_____
date of last report _____

4. Name and Address of Reporting Entity

☐ Prime ☐ Subawardee
Tier _____ , if known

Congressional District, if known

5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:

Congressional District, if known

6. Federal Department/Agency:

7. Federal Program Name/Description:

CFDA Number, if applicable _____

8. Federal Action Number, if known:

9. Award Amount, if known:

10. a. Name and Address of Lobby Entity
(If individual, last name, first name, MI)

b. Individuals Performing Services (including address if different from No. 10a)
(last name, first name, MI)

(attach Continuation Sheet(s) if necessary)

11. Amount of Payment (check all that apply)

$_____ ☐ actual ☐ planned

12. Form of Payment (check all that apply):

☐ a. cash
☐ b. in-kind; specify: nature _____
value _____

13. Type of Payment (check all that apply)

☐ a. retainer
☐ b. one-time fee
☐ c. commission
☐ d. contingent fee
☐ e. deferred
☐ f. other, specify _____

14. Brief Description of Services Performed or to be performed and Date(s) of Service, including officer(s), employee(s), or member(s) contacted, for Payment Indicated in Item 11:

(attach Continuation Sheet(s) if necessary)

15. Continuation Sheet(s) attached: **Yes** ☐ **No** ☐

16. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature: _____

Print Name: _____

Title: _____

Telephone No.:_____ Date: _____

Authorized for Local Reproduction

Standard Form - LLL

Federal Use Only:

Standard Form LLL Rev. 09-12-97

INSTRUCTIONS FOR COMPLETION OF SF-LLL

DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of covered Federal action or a material change to previous filing pursuant to Title 31 U.S.C. Section 1352. The filing of a form is required for such payment or agreement to make payment to lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Attach a continuation sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state, and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be a prime or subaward recipient. Identify the tier of the subawardee (e.g., the first subawardee of the prime is the first tier). Subawards include, but are not limited to, subcontracts, subgrants, and contract awards under grants.
5. If the organization filing the report in Item 4 checks "Subawardee," then enter the full name, address, city, state, and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organization level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (Item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identification in Item 1 (e.g., Request for Proposal [RFP] number, Invitation for Bid [IFB] number, grant announcement number, the contract grant or loan award number, the application/proposal control number assigned by the Federal agency). Include prefixes (e.g., "RFP-DE-90-001)."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitments for the prime entity identified in Item 4 or 5.
10. (a) Enter the full name, address, city, state, and zip code of the lobbying entity engaged by the reporting entity identified in Item 4 to influence the covered Federal action.

    (b) Enter the full names of the individual(s) performing services and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (Ml).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (Item 4) to the lobbying entity (Item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative

amount of payment made or planned to be made.

12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed or will be expected to perform and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the Federal officer(s) or employee(s) contacted or the officer(s) employee(s) or Member(s) of Congress that were contacted.
15. Check whether or not a continuation sheet(s) is attached.
16. The certifying official shall sign and date the form and print his/her name title and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503. SF-LLL-Instructions Rev. 06-04-90.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MASTER FUND TRANSFER AGREEMENT – ANNUAL SUPPLEMENT

Recipient: San Joaquin Joint Powers Authority

Contract Number: 75R0002

Effective Date of this Agreement: July 1, 2015

Termination Date of this Agreement: June 30, 2016

1. The undersigned signatory Joint Powers Authority (JPA) hereby commits to complete, this State fiscal year (FY), the Initial Business Plan, a copy of which was approved on June 19, 2015 and is attached as part of this Master Fund Transfer Agreement Supplement (MFTA Supplement).

2. All of the obligations, duties, terms and conditions set forth in the Master Fund Transfer Agreement (MFTA), numbered 75RSJJPA2015MFTA, and executed with effective dates of July 1, 2015 through July 1, 2018 between the San Joaquin Joint Powers Authority (JPA) and the Department of Transportation (DEPARTMENT), are incorporated herein by this reference as part of this MFTA Supplement for this State FY.

3. This MFTA Supplement obligates and encumbers only the following funding sources:

ADMINISTRATION					
UNIT	**PROJECT ID**	**PHASE**	**FUND SOURCE**	**AMOUNT**	**FISCAL YEAR**
3822	0015000333	S	PTA	$1,595,606	2015/2016
MARKETING					
UNIT	**PROJECT ID**	**PHASE**	**FUND SOURCE**	**AMOUNT**	**FISCAL YEAR**
3822	0015000333	SE1	PTA	$1,000,000	2015/2016

BUDGET ITEM	**CHAPTER**	**STATUTES**	**BUDGET YEAR**
2660-001-0046	10	2015	2015

FUNDS CERTIFIED BY:	I hereby certify upon my own personal knowledge that budgeted funds are available for the period and purpose of the expenditure stated above.	
NAME AND TITLE OF AUTHORIZED OFFICIAL Bruce Roberts, Chief Division of Rail and Mass Transportation	SIGNATURE OF AUTHORIZED OFFICIAL Bruce Roberts	DATE: 6-29-15

4. Attachments listed below are incorporated by reference to this MFTA Supplement.
   a. Approved Annual Business Plan
   b. Board Resolution or Certified Minutes Approving MFTA Supplement

[signature page immediately follows]

IN WITNESS WHEREOF, the parties hereto have executed this MFTA Supplement by their duly authorized officers.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

By: _____
Name: MALCOLM DOUGHERTY
Title: Director

APPROVED AS TO FORM AND EXECUTION:

Name: K. Assouni
Title: Deputy Attorney

SAN JOAQUIN JOINT POWERS AUTHORITY

By: _____
Name: JOHN PEDROZO
Title: Chairperson

APPROVED AS TO FORM AND EXECUTION:

Name: Thomas L. Sheppard
Title: _____

APPENDIX E

THRUWAY BUS SERVICES

Consistent with the roles and responsibilities of Appendix K, the SJJPA will manage the administration of the following feeder bus routes which operate primarily in conjunction with the intercity passenger rail services on the following routes:

THRUWAY	TRAIN CONNECTION	TERMINUS	FREQUENCY	DAYS OPERATED
ROUTE 1A	Bakersfield/ Fresno	San Diego/ Santa Ana/ Los Angeles	1 RT Bakersfield-San Diego 1 RT Bakersfield-Santa Ana 4 RT Bakersfield-Los Angeles 1 RT Fresno-Los Angeles	DAILY
ROUTE 1B	Bakersfield	San Pedro	4 RT	DAILY
ROUTE 1C	Bakersfield	Torrance	4 RT	DAILY
ROUTE 3	Stockton/ Sacramento	Redding/ Davis	3 RT Redding-Sacramento/Stockton 1 RT Redding - Sacramento 2.5 RT Davis/Sacramento-Stockton 1 RT Davis-Sacramento 1 RT Roseville-Sacramento 1 RT Davis/Sacramento-Stockton (2 RT Auburn-Sacramento, paid by the CCJPA as part of route 20)	DAILY
ROUTE 6	Stockton	San Jose	5 RT	DAILY
ROUTE 7	Martinez	Napa/Santa Rosa/ Arcata/McKinleyville	2 RT McKinleyville-Martinez 1.5 RT Santa Rosa-Martinez 2.5 RT Napa-Martinez	DAILY
ROUTE 9	Bakersfield	Las Vegas	1 RT	DAILY
ROUTE 10	Bakersfield	Santa Barbara	3 RT	DAILY
ROUTE 12	Bakersfield	Victorville	2 RT	DAILY
ROUTE 15	Merced	Yosemite	3 or more RT	DAILY
ROUTE 18	Hanford	Visalia/ Santa Maria	2 RT Visalia-Hanford 2 RT Santa Maria-Hanford	DAILY
ROUTE 19	Bakersfield	Indio/Hemet/ San Bernardino	2 RT Bakersfield-Indio 1 RT Bakersfield-San Bernardino 1 RT Bakersfield-Hemet	DAILY
ROUTE 34	Stockton	San Francisco/ Lodi	2 RT San Francisco-Stockton 2 RT Stockton-Lodi	DAILY
ROUTE 35	San Jose	Santa Cruz	15 or more RT	DAILY
ROUTE 56	Stockton	San Jose	3 OW	MONDAY-FRIDAY (excluding HOLIDAYS)
ROUTE 99	Emeryville	San Francisco	10 RT	DAILY

Key

RT Round Trip(s)

OW One Way

APPENDIX F

INSURANCE POLICIES

NATIRAI-02 SHETTYSHT

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 6/29/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Willis Certificate Center	
Willis of New York, Inc. c/o 26 Century Blvd P.O. Box 305191 Nashville, TN 37230-5191	PHONE (A/C, No, Ext): (877) 945-7378	FAX (A/C, No): (888) 467-2378
	E-MAIL ADDRESS: certificates@willis.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : AIG Specialty Insurance Company	26883
INSURED	INSURER B :	
National Railroad Passenger Corporation (AMTRAK) 60 Massachusetts Ave NE 4th Floor West Washington, DC 20002	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$
	CLAIMS-MADE OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$
	POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$
	OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS / NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
A	UMBRELLA LIAB OCCUR						EACH OCCURRENCE	$ 25,000,000
	X EXCESS LIAB X CLAIMS-MADE	X		80775695	12/31/2014	12/31/2015	AGGREGATE	$ 25,000,000
	DED X RETENTION $ 20,000,000							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

THIS VOIDS & REPLACES PREVIOUSLY ISSUED CERTIFICATE DATED: 06/26/2015.

See Attached

CERTIFICATE HOLDER

San Joaquin Joint Powers Authority (SJJPA)
949 East Channel Street
Stockton, CA 95202

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

AGENCY CUSTOMER ID: NATIRAI-02
LOC #: _____

ADDITIONAL REMARKS SCHEDULE

AGENCY **Willis of New York, Inc.**	NAMED INSURED **National Railroad Passenger Corporation (AMTRAK)** **60 Massachusetts Ave NE** **4th Floor West** **Washington, DC 20002**
POLICY NUMBER **SEE PAGE 1**	
CARRIER **SEE PAGE 1** / NAIC CODE **SEE PAGE 1**	EFFECTIVE DATE **SEE PAGE 1**

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: Acord 25 **FORM TITLE:** Certificate of Liability Insurance

Amtrak 12/31/2014-12/31/2015

Excess Liability Certificate Attachment:

Layer:	Carrier:	Policy Number:
$25M xs $20M	**$25,000,000 AIG Specialty Ins. Co.**	**80775695**
	American Int'l Reinsurance Co. Ltd.	**13631140**
$25M xs $45M	**$15,000,000 Lexington Ins. Co.**	**WE1400906**
	$10,000,000 Queen's Island Ins. Co.	**QIRR804005**
$30M xs $70M	**$7,500,000 North American Capacity Ins. Co. (Swiss Re) EXS2000087 01**	
	$10,000,000 Aegis (Lloyd's Synd. AES 1225	**WE1400895**
	$7,500,000 Argo Re	**WE1400894**
	$5,000,000 Aspen (Lloyd's Synd. ASP 4711)	**WE1400895**
$25M xs $100M	**$25,000,000 XL Insurance (Bermuda) Ltd. XLUMB-602343**	
$25M xs $125M	**$15,000,000 Steadfast Insurance Co.**	**SEC5543167-02**
	Hanseatic Ins. Co. Bermuda HIPD203439	
	$10,000,000 Endurance Specialty Ins. Ltd. 007283	
$50M xs 150M	**$15,000,000 XL insurance Company Ltd.**	**WE1400896**
	$12,500,000 Argo Re	**WE1400897**
	$$7,500,000 Aspen (Lloyd's Synd. ASP 4711)	**WE1400898**
	$7,500,000 Canopius Underwriting Bermuda Ltd.NRPC-231	
	$7,500,000 North American Capacity Ins. Co. (Swiss Re) EXS2000088 01	
$25M xs $200M	**$25,000,000 North American Capacity Ins. Co. (Swiss Re) EXS2000089 01**	
$150M xs $225M	**$7,500,000 Canopius Underwriting Bermuda Lrd.NRPC-231**	
	$17,500,000 Axis Specialty Ltd.	**113870**
	$25,000,000 Endurance Specialty Ltd.	**EXC10003852500**
	$17,500,000 Munich Reinsurance Co.	**WE1400900**
	$10,000,000 Catlin (Lloyd's Synd. SJC 2003)	**WE1400899**
	$10,000,000 Torus Insurance (UK) Ltd.	**WE1400905**
	$62,500,000 American International Reinsurance Co. Ltd. 6340343	
$75M xs $375M	**$25,000,000 North American Capacity Ins. Co. (Swiss Re) EXS2000090 01**	
	$12,500,000 Apollo (Lloyd's Synd. APL 1969	**WE1400901**
	$25,000,000 Arch Insurance (Bermuda)	**URP0031353-03**
	$12,500,000 American Int'l Reinsurance Co. Ltd.	**26157561**

AGENCY CUSTOMER ID: NATIRAI-02
LOC #: _____

ADDITIONAL REMARKS SCHEDULE

AGENCY		NAMED INSURED
Willis of New York, Inc.		**National Railroad Passenger Corporation (AMTRAK)** **60 Massachusetts Ave NE** **4th Floor West** **Washington, DC 20002**
POLICY NUMBER **SEE PAGE 1**		
CARRIER **SEE PAGE 1**	NAIC CODE **SEE PAGE 1**	EFFECTIVE DATE **SEE PAGE 1**

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: _____ **FORM TITLE:** _____

$50M xs $450M	**$12,500,000 Catlin (Lloyd's Synd. SJC 2003)**	**WE1400902**
	$5,000,000 Ascot (Lloyd's Synd. ASC 1414	**WE1400902**
	$17,500,000 Munich Reinsurance Co.	**WE1400904**
	$10,000,000 Argo Re	**WE1400903**
	$5,000,000 Axis Specialty Ltd.	**113870**
	50% Ironshore Insurance Ltd. / 50% Starr Insurance &	
$50M xs $500M	**$50,000,000 Reinsurance Ltd.**	**IS0000414**
$50M xs $550M	**$50,000,000 ACE Bermuda Insurance Ltd**	**AMTRA-1587/005RE**

With respect to the San Joaquin Rail Corridor.

Certificate Holder Name continued: Sacramento Regional Transit District, San Joaquin Regional Rail Commission, Stanislaus Council of Governments, Merced County Association of Governments, Madera County Transportation Commission, Fresno Council of Governments, Kings County Association of Governments, Tulare County Association of Governments, Contra Costa Transportation Authority, Alameda County, State of California.

Certificate Holders are included as Additional Insureds as respects to Excess Liability.

APPENDIX G

UNIFORM PERFORMANCE STANDARDS

Intercity Passenger Rail Act of 2012
Establishment of Uniform Performance Standards

By

Secretary, California State Transportation Agency
June 30, 2014

I. Introduction

Pursuant to Government Code section 14031.8(f)(1), the Secretary of the California State Transportation Agency hereby establishes of a set of uniform performance standards for all corridors and operators to control cost and improve efficiency, as detailed in this report.

The set of performance standards are built from following measures:

- **Usage** – measured by passenger miles and ridership
- **Cost Efficiency** – measured by farebox recovery and total operating cost per passenger mile
- **Service Quality** – measured by endpoint on-time performance, all-station on-time performance, and operator responsible delays per 10,000 train miles

This report indicates performance standards for each measure and describes circumstances under which adjustment to the standards will be considered.

II. Primary Uniform Performance Standards

Section 14031.8(f)(1) of the Government Code: "Not later than June 30,2014, the Secretary shall establish a set of uniform performance standards for all operators to control cost and improve efficiency."

The primary uniform performance standards have been developed in categories related to Usage, Cost Efficiency, and Service Quality. While some historical reference information can be provided for certain standards, there has been a great deal of fluctuation in many of the categories included in the standards due to significant changes in the federally mandated methodology for calculating Amtrak costs related to state supported corridors, and railroad on-time performance has been impacted in certain corridors as significant changes have occurred

1. Definitions and further detail related to the calculations is included in Attachment 1.

2. For corridors with an established JPA, counties included in the population tabulation are defined based upon statutory inclusion in a JPA and either having a train station within its borders or being transected by an ICPR corridor. For example, Tulare County is a part of the SJJPA, but does not contain a train station, however it is transected by the San Joaquin corridor. San Francisco county is represented by BART on the CCJPA board, but does not contain a station and is not transected by an ICPR corridor. For corridors without an established JPA, counties included in the population tabulation are defined based upon either having a train station within its borders or being transected by an ICPR corridor

in the quantity and type of freight trains in the corridor, the addition of other passenger services in the same corridor, and extended work windows from large capital projects such as the rebuilding of bridges and double tracking. Future changes are also expected to impact the standards, as further detailed in Section III, including service changes related to the introduction of high-speed rail or other new passenger services. As a result, not every standard will be presented as a fixed target. Rather, in many instances continuous improvement (year over year) will be expected, with future business plans expected to address the tools used to bring the corridor performance up to standard or to achieve ongoing improvement.

The primary standards are as follows: [1]

Usage

Passenger Miles –
Using state fiscal year 2013-14 as a baseline, demonstrate ongoing growth in passenger miles carried in proportion to growth in total corridor population (across the sum of all counties with an intercity passenger rail (ICPR) train station or transected by an ICPR route within each train corridor[2]), as well as year over year growth (continuous improvement). Future year goal setting shall be established using Department of Finance approved population forecasting data applied to total corridor population. Success in meeting the goal in a given fiscal year will be measured against the applicable Department of Finance adjusted population data. Growing passenger miles at least as fast as population growth is the primary measure for determining the effectiveness in achieving the public interest as stated in the Intercity Passenger Rail Act of 2012, which requires the intercity rail program to keep pace with the needs of an expanding population. Corridors will also be asked to achieve year over year growth, unless mitigating factors such as an identified statewide recession or reduction in inflation-adjusted funding are identified by the Secretary.

Passenger miles will be reported separately for rail and feeder bus services related to each corridor.[1] Bus passenger miles will be tied to the rail corridor which funds the feeder bus service. However, feeder buses that provide connections to multiple rail corridors shall have their effectiveness measured pursuant to Government Code section 14035.2(a)(3) on their contribution to the entire state corridor network.

This measure is one of the most important for use in greenhouse gas reduction calculations. Combined with data on train and rail equipment vehicle miles, as well as good data on the average party size for each ticket sale, important understanding can be achieved on the impact of rail service on greenhouse gas reduction.

Ridership –
Growth in ridership in proportion to corridor population growth is also an important primary performance standard related to usage. The growth targets will be established following the same methodology related county population growth as described under the passenger mile statistic, and will include reporting on the breakout between rail ridership and feeder bus ridership per corridor. Growth relative to the state fiscal year 2013-14 baseline, as well as year over year growth is expected, unless similar mitigating factors are identified by the Secretary

[1] Bus passenger miles are under development and expected to be available before state fiscal year 2014-15 is complete. If unavailable, the Secretary may waive this reporting requirement.

Cost Efficiency

Farebox Recovery - As a primary standard of cost efficiency, farebox recovery is a critical tool to ensure that balance is struck between pricing that attracts customers to use the state funded service and sufficient participation in the cost of delivering service. This is also an area undergoing significant change as Amtrak's cost structure evolves in response to federal statute. California's rail corridors have historically achieved farebox recovery both above and below 50%. Much of the recent fluctuation is due to alteration in the underlying cost structure due to the implementation of Passenger Rail Investment and Improvement Act (PRIIA) Section 209 and the subsequent change to the state's financial responsibility. The recommended standard for all rail corridors, inclusive of the bus routes, is 50%. Future adjustments in service levels, fares, or other management actions will be expected in response to forecasts or actual experience of lower performance. All operating costs payable to Amtrak or any other contractor providing service to the rail corridor, including any ancillary contracts for supporting services, such as food and beverage, and information and reservation services, shall be considered part of the cost and calculated. Should such operating costs be part of a Joint Powers Authority budget, they shall be separated out so that the appropriate farebox recovery can be calculated for the corridor. All revenues creditable to the corridor shall be part of the farebox revenue.

Total Operating Cost per Passenger Mile - This cost efficiency measure is recommended as a standard requiring continuous improvement in constant year dollars, with State Fiscal Year 14-15 as the initial baseline (the baseline year is one year later than the usage performance measures due to significant changes in cost structure that are still occurring due to PRIIA Section 209 implementation). Constant year dollars shall be calculated using the OMB GDP Chain Deflator (or equivalent measure specific to California if available from the California Department of Finance). Adjustments in the baseline relative to significant shifts in federal statutory policy will be developed by the Secretary if they occur. If no significant changes in federal policy occur in State Fiscal Year 15-15, a two-year moving average basis may be used for both the baseline period and the measurement period.[2] Future year goal setting will be based on inflation expectations as established by an appropriate Department of Finance forecast

Service Quality

Service quality measures will rely on measures of service quality already reported by Amtrak (the current operator of service). Specific adjustments in standards may be recommended by the Secretary as a result of specific investments made to improve performance to better than the baseline standard or in order to permit corridor improvement to baseline standard over a phase-in period.

Endpoint On-Time Performance (OTP) Endpoint OTP will be calculated as 90% of endpoint station arrivals within 15 minutes of schedule for trips of 251-300 miles, and within 10 minutes of schedule for trips of up to 250 miles. While the on-time performance calculation is calculated based on the distance traversed by each scheduled train, the route results that summarize the train level performance will be the data used for this standard at the state level. If public timetables are adjusted for minor maintenance and construction projects, Endpoint OTP will be

[2] For example, the baseline period would be SFY 14-15 plus SFY 15-16, while the measurement period would be SFY 15-16 plus SFY 16-17

calculated against the adjustment timetable. Endpoint OTP should be reported both quarterly and by state fiscal year.

All-Stations OTP – All-Stations OTP is a calculation based on the percentage of train times (departure from origin station and arrival times at all other stations) at all of a train's stations that takes place within 15 minutes of the time in the public schedule. The standard is 90%, calculated quarterly. If public timetables are adjusted for minor maintenance and construction projects, All-Stations OTP will be calculated against the adjustment timetable. All-Stations OTP will be reported both quarterly and by state fiscal year, at the route level.

Operator responsible delays per 10,000 train miles - Operator responsible delays are more closely related to day-to-day corridor management than host railroad driven delays, and are thus considered a primary measure of effective corridor management. The standard of fewer than 325 minutes of delay per 10,000 train miles shall be the performance standard established for all rail corridors, utilizing the delay codes in Attachment 1. Should the delay codes undergo change in the future (addition or deletion), or specific adjustments be recommended based on investments designed to improve on the current standard, the Secretary may recommend changes in the method of calculating delay (i.e. the codes used) or in the baseline standard.

Management Metrics and Statistics

Many additional metrics can be and are expected to be developed for purposes of good corridor management. These are not detailed in this report, but may be addressed further in the Interagency Transfer Agreements developed for JPA management. The limited list of standards included in this report should not prevent additional metrics from being developed to monitor and manage corridor performance.

III. Modification of Performance Standards

A number of factors may lead to the need to modify the specific standards addressed in this document. The Secretary recommends that adjustments in each corridor's specific standards could be desirable under a number of circumstances, while continuing the goals established in this report. Examples include:

- Expectations of a higher baseline for passenger miles and/or ridership due to state funded improvements that lead to an expansion of service or capacity.
- Adjustments in standards that result from reduction in inflation-adjusted state funding available for service.
- Adjustments in standards that result from a recession in California, as determined by the State of California.
- Adjustments in standards due to significant changes in third party costs, currently listed in the Amtrak state contract as fuel and host railroad costs.
- Adjustments in standards that result from changes in federal statute, such as the cost allocation formula mandated under PRIIA Section 209 or its successor legislation.

- Adjustments in standards related to investments designed to improve on time performance and reduce delay.

- Adjustments based on improvements in available data that supports more accurate calculation of a specific standard, or responds to specific technical changes in the data available for the calculation.

- Adjustments that result from new rail network connectivity, such as connections to an emerging corridor or adjustments related to high-speed rail.

In addition, numerous additional statistics and metrics may be developed for purposes of promoting good planning and statewide performance management which may also lead to modifications of the performance standards. Some of these may be related to the categories of Usage, Cost Efficiency, and Service Quality covered in this report. Others may be developed for purposes of better understanding critical aspects of environmental performance, promotion of sustainable communities along the corridors, and effectiveness of fleet maintenance and management of state-owned rolling stock. Reporting on such measures will be separately addressed in the Interagency Transfer Agreements. In addition, requirements to achieve environmental goals may be conditions of certain future funds, and fleet performance may be governed by additional measures to be developed as an attachment to any ITA.

The resulting recommended changes in the methodology or level of the specific performance standard will be documented annually by the Secretary no later than date of approval of each corridor's business plan (currently no later than July 31st of each year), along with the reason for the change.

IV. Modification of this Report

Pursuant to Government Code section 14031.8(f)(2), "to the extent necessary, as determined by the secretary, [these] performance standards may be modified not later than July 30, 2015, or the effective date of the interagency transfer agreement, whichever comes first."

ATTACHMENT 1

Usage

Corridor Passenger Miles – the total number of miles traveled by passengers on a corridor, comprised of total bus passenger miles and total train passenger miles, as reported by the rail corridor operator.

Train Passenger Miles – the total number of miles traveled by a passenger on a train corridor, excluding bus passenger miles.

Bus Passenger Miles – the total number of miles traveled by a passenger on a bus route, excluding train passenger miles.

Corridor population calculation for establishing passenger mile and ridership goals:

COUNTIES ASSIGNED TO EACH CORRIDOR	SFY 13/14	SFY 14/15 (or future year)	% INCREASE – Ridership/passenger mile goal
SAN JOAQUIN Alameda Contra Costa Sacramento San Joaquin Stanislaus Merced Madera Fresno Kings Tulare Kern	Sum of population for all counties assigned to the corridor	Sum of population for all counties assigned to the corridor	Increase in goal relative to SFY 13/14 baseline
PACIFIC SURFLINER San Luis Obispo Santa Barbara Ventura Los Angeles Orange San Diego			
CAPITAL CORRIDOR Placer Sacramento Yolo Solano Contra Costa Alameda Santa Clara			

Corridor Ridership – the total number of passengers on a corridor, comprised of total bus riders plus total rail riders.

Cost Efficiency

Farebox Recovery – is calculated by dividing Total Revenue by Total Operating Expense.

Total Revenue – Total combined ticket, food and beverage, and other ancillary revenue as reported by the corridor operator.

Total Operating Expense – Total of all costs associated with the operations of a corridor, including but not limited to, third party costs, route costs, additives, and other costs associated with corridor operations that would otherwise be provided by the corridor operator or the state, including reservation and information call centers.

- Host Railroad Maintenance of Way
- Host Railroad Performance
- Fuel and Power
- Route Operating Costs and Additives associated with Amtrak
- Route Operating Costs not associated with Amtrak (such as call centers) that may be part of either the State or JPA budget

Cost per Passenger Mile – is calculated by dividing Corridor Passenger Miles by Total Operating Expense

Service Quality

The following delay codes are used to calculate the Operator Responsible Delays per 10,000 Train Miles, based on delay codes currently reported as Amtrak-responsible delays.

Code	Code Description	Explanation
ADA	Passenger Related	All delays related to disabled passengers, wheel chair lifts, guide dogs, etc.
CAR	Car Failure	Mechanical failure on all types of cars
CCR	Cab Car Failure	Mechanical failure on Cab Cars
CON	Hold for Connection	Holding for connections from other trains or buses
CTC	CETC System failure	Failure of the CETC train control system
ENG	Locomotive Failure	Mechanical failure on engines
HLD	Passenger Related	All delays related to passengers, checked-baggage, large groups, etc.
INJ	Injury Delay	Delay due to injured passengers or employees.
ITI	Initial Terminal Delay	Delay at initial terminal due to late arriving inbound trains causing late release of equipment
MTI	Disabled train ahead	Disabled train ahead due to mechanical failure
OTH	Miscellaneous Delays	Lost-on-run, heavy trains, unable to make normal speed, etc.
SVS	Servicing	All switching and servicing delays
SYS	Crew & System	Delays related to crews including lateness, lone-engineer delays

APPENDIX H

TRANSFER AGREEMENT

DEPARTMENT OF TRANSPORTATION
DIVISION OF RAIL
O. BOX 942874
ACRAMENTO, CA 94274-0001
916-227-9488
TDD (916) 654-4014

June 2, 1995

Mr. G.O. Mallery
Chief Executive Officer
West Coast Strategic Business Unit
National Railroad Passenger Corporation
800 North Alameda Street
Los Angeles, CA 90012

Subject: Caltrans/Amtrak
Transfer/Maintenance Agreement

Response to: N/A

Dear Mr. Mallery:

Per Mr Fred Ohly's request is a clean copy of the final Transfer/Maintenance Agreement with all lined out items and bolded items deleted from the document. A draft copy was signed last week, but we are asking that Amtrak make every effort to expedite the signing of these final Agreements so that everyone may have an original for their files After receiving the original signed copies, Caltrans will sign them and return the Agreements to you via Federal Express .

If you have any questions, please contact Karen Hunter of my staff at (916) 227-9437.

Sincerely,

for STEVE ALSTON, Chief
Office of Rail Equipment

cc: S. Alston (Caltrans)
S. Longshore (Caltrans)
K. Hunter (Caltrans)
S. Stadtfeld (BAH)

TRANSFER AGREEMENT
INDEX

APPENDIX 1

Transfer of Equipment Form

APPENDIX 2

Form of Budget
Annual Contract Amount

APPENDIX 3

Form of Invoice

APPENDIX 4

State Provided Equipment Operating Procedures

[illegible]
THE CALIFORNIA DEPARTMENT OF TRANSPORTATION
CALTRANS
AND
THE NATIONAL RAILROAD PASSENGER CORPORATION
AMTRAK
FOR THE PURCHASE AND OPERATION OF
STATE-SUPPORTED RAIL EQUIPMENT
DATED OCTOBER 1, 1994

THIS AGREEMENT DATED OCTOBER 1, 1994 IS ENTERED INTO BY AND BETWEEN CALTRANS AND AMTRAK

I. GENERAL PROVISIONS

1.1 Definitions

As used in this Agreement, the following terms shall have the meaning specified in this Section.

a. Agreement. This Agreement and all appendices hereto as amended or modified pursuant to the terms hereof.

b. Amtrak. The National Railroad Passenger Corporation.

c. Amtrak Provided Equipment. Locomotives and passenger cars supplied by Amtrak under contract for State supported 49-U.S.C. 24704 service.

d. Approved Contract Amount. The budget agreed upon by the parties pursuant to the process described in Section 5 of this Agreement, including any amendments to such budget.

e. Caltrans. The California Department of Transportation.

f. Caltrans Officer. The Chief of the Office of Equipment of the Rail Program of the California Department of Transportation, acting directly or through an authorized representative.

g. Contract Services/Services. Those train operations and related functions that are specified to be performed by Amtrak for Caltrans by this Agreement and current 49-U.S.C. 24704 agreements.

h. Delivery. The arrival and acceptance by Caltrans of vehicles, equipment, parts, materials, tools, documentation and training required under equipment manufacture contracts at the State-designated point of delivery in California.

i. Equipment Delivery Period. The period of time between the first delivery of State Provided Equipment and the transfer to Amtrak of the final piece of State Provided Equipment.

j. Federal Fiscal Year/Fiscal Year. The Federal Fiscal Year from October 1 through September 30.

k. Maintenance Agreement. The agreement between Caltrans and Amtrak covering the maintenance by Amtrak of State Provided Equipment.

l. Manufacturer. The original equipment manufacturers of State Provided Equipment including sub-suppliers.

m. Operator. When used in this Agreement or the Appendices to it shall mean Amtrak.

n Planned Deployment Plan. The detailed description of the operation of State Provided Equipment in a Federal Fiscal Year, including specific routes on which Amtrak shall provide Services, train consists, units of equipment to be maintained, and other related services, all as agreed upon by the parties, prior to the start of each Federal Fiscal Year, or as amended by the agreement of the parties during the course of the Federal Fiscal Year.

o. Service Property. The service property includes tracks, land, structures, and other maintenance facilities that are located on or adjacent to the rail lines and yards, that are used by Amtrak in provision of the Services under this Agreement.

p. State. The State of California Department of Transportation.

q. State Provided Equipment. Locomotives and passenger cars, including self propelled cars supplied by Caltrans, that are used in providing the Contract Services.

r. Title. Documentation of ownership of locomotives and passenger cars as required by the State of California.

s. Transfer. The change of custody for each locomotive or passenger car from Caltrans to Amtrak, or from Amtrak to Caltrans. Each locomotive or passenger car shall be considered transferred when the transfer document for the individual vehicle is signed by the Caltrans Officer and Amtrak's appropriate representative. Physical custody of each vehicle shall be assumed at a location agreed to by Caltrans and Amtrak.

1.2 Notices

Any notice, report, or other communication shall, unless otherwise specified, be in writing and shall be delivered in hand or mailed by first class mail, postage prepaid, addressed to:

G. O. Mallery
Chief Executive Officer West Coast Strategic Business Unit
National Railroad Passenger Corporation
800 North Alameda Street
Los Angeles, CA 90012
Telecopy: (213) 683-6890

Rail Program
Attention: Cindy McKim
Deputy Director, Rail, Transit and Aeronautics
California Department of Transportation
1801 30th Street, East Building
Sacramento, CA 95816
Fax: (916) 227-9487

Either party may change the name, address, or title of the party to be notified hereunder by notifying the other party in writing of such change.

1.3 Successor and Assigns

The rights and obligations of Amtrak and Caltrans hereunder may not be assigned, other than by an act of Federal or State law, unless with the prior written consent of both parties.

1.4 Entire Agreement

This Agreement, which relates solely to the substitution of State Provided Equipment in lieu of Amtrak Provided Equipment, is in addition to agreements between Caltrans and Amtrak, which relate solely to the use of State funding to support Amtrak intercity operations.

This Agreement embodies the entire agreement between Caltrans and Amtrak as it relates to State Provided Equipment. No oral or prior written matter not incorporated herein will have any force or effect. The parties hereby acknowledge that they are not relying on any representations or agreements other than those contained in this Agreement, current 49-U.S.C. 24704 agreements, and the Maintenance Agreement for State Provided Equipment. This Agreement will not be modified except in writing subscribed to by both parties.

1.5 Severability

In the event that any provision of this Agreement is found to be invalid or unenforceable in any respect, the remainder of this Agreement shall nevertheless be

binding with the same effect as if the invalid or unenforceable provision were originally deleted. This will not apply where the provision that is declared invalid or unenforceable is so fundamental to the Agreement that the remainder of the Agreement, standing alone, does not represent a meeting of the minds of the parties, or that deletion substantially alters the rights or obligations of either party under the Agreement.

1.6 Waiver

None of the provisions of this Agreement shall be considered waived by either party unless such waiver is reduced to writing and signed by the party to be charged. No such waiver shall be construed as a modification of any of the provisions of this Agreement or as a waiver of any past or future default of breach hereof except as is expressly stated in the waiver. The failure of either party to insist at any time upon the strict observance of any of the provisions of this Agreement, or to exercise any right or remedy in this Agreement, shall not impair any such right or remedy to be construed as a waiver or relinquishment thereof.

1.7 Authority Of Caltrans Officer

The Caltrans Officer maintains sole authority and responsibility for the acceptance and transfer of State Provided Equipment on behalf of Caltrans. The Caltrans Officer has the authority to transfer State Provided Equipment from Caltrans to Amtrak or from Amtrak to Caltrans.

The Caltrans Officer shall decide on behalf of Caltrans all questions which may arise regarding the quality or acceptability of the Services performed under this Agreement; all questions which may arise regarding the interpretation of this Agreement; all questions that may arise regarding the acceptable fulfillment of this Agreement on the part of Amtrak; and all questions which may arise regarding compensation. In addition, the Caltrans Officer shall have complete authority to administer and make decisions on disputes and claims on behalf of Caltrans during the term of this Agreement. As the designated representative of Caltrans, the Caltrans Officer's decision shall be Caltrans final position and the Caltrans Officer shall have the authority to enforce and make effective such decisions and orders which Amtrak fails to carry out promptly. This is subject to the provisions of Section 10 "Dispute Resolution" of this Agreement.

The Caltrans Officer shall respond in writing, within twenty (20) working days of receipt, to all written questions and requests concerning approvals, interpretations, and other matters pertaining to this Agreement from Amtrak, unless otherwise allowed for by this Agreement.

Amtrak General Management shall respond, in writing, within twenty (20) working days of receipt, to all questions and requests for information in writing from the Caltrans Officer regarding this Agreement as those questions relate to Amtrak's operation of State Provided Equipment.

1.8 Interpretation of this Agreement

Should it appear that the services to be performed or any of the matters relative thereto are not sufficiently detailed or explained in this Agreement, Amtrak may request from the Caltrans Officer for such further written explanations as may be necessary, and shall as part of this Agreement conform to the explanation provided by the Caltrans Officer, provided that such explanation is consistent with the provisions of this Agreement.

1.9 Delivery

It is the sole responsibility of Caltrans to ensure that State Provided Equipment shall be delivered by the respective Contractors to a location determined and approved by Caltrans. After arrival of each locomotive or passenger car at the designated delivery point, and before the vehicle is placed in regular operation, a joint inspection shall be performed by Caltrans/Amtrak and the Manufacturer on each locomotive or passenger car and defects remedied prior to the transfer of State Provided Equipment to Amtrak. Removal of all temporary fittings required for shipment shall be the responsibility of the Manufacturer and shall be complete prior to transfer of State Provided Equipment.

1.10 Acceptance

After arrival at the designated point of delivery, each locomotive or passenger car will undergo acceptance testing by Caltrans with the assistance of Amtrak. When a locomotive or passenger car passes these tests to the satisfaction of the Caltrans Officer, written acceptance of the vehicle will be provided to the Manufacturer by the Caltrans Officer.

1.11 Title

Title to each vehicle shall be transferred to Caltrans immediately upon acceptance. Caltrans shall maintain title to all State Provided Equipment transferred to Amtrak. Title to State Provided Equipment shall remain with Caltrans at all times and shall not be assigned to any other party without the consent of the Caltrans Officer.

1.12 Transfer

The Caltrans Officer shall transfer State Provided Equipment to Amtrak for operations consistent with the Planned Deployment Plan. Locomotives and cars may be transferred individually, in consist, or in any quantity thereof. Transfer of each individual vehicle shall occur after joint inspection by Amtrak and Caltrans, and shall be formalized by the appropriate State and Amtrak documentation as contained in Appendix 1. Upon signature of the transfer document by the Caltrans Officer and Amtrak's appropriate representative, subject vehicles shall be considered in the custody of Amtrak for operation and maintenance in accordance with all of the terms of this Agreement. The parties shall modify the Statement of Condition in the Transfer of Equipment Form set forth in Appendix 1 to include any capital improvements or design changes/retrofits made during the term of this Agreement.

Transfer of each vehicle shall occur after delivery, and may occur either before or after acceptance and transfer of title from the Manufacturer.

In the event of special, unforeseen, or extraordinary circumstances, or of termination or default of this Agreement by either Amtrak or Caltrans, Caltrans, as owner of the State Provided Equipment, may initiate transfer of custody of State Provided Equipment from Amtrak to the State of California. No later than thirty (30) days after receipt of the State's official written notification, Amtrak will transfer custody of designated State Provided Equipment to Caltrans at a Caltrans-determined location. The State Provided Equipment transferred back to Caltrans from Amtrak shall be in the same condition, as referred in the initial transfer documents, subject to normal wear and tear.

2. AMTRAK SERVICES TO BE PROVIDED

2.1 Basic Scope of Services

During the Agreement term, Amtrak shall operate and maintain State Provided Equipment in accordance with the Transfer and Maintenance Agreements and the Planned Deployment Plan in accordance with all applicable laws and regulations and in accordance with the terms and provisions herein set forth. The elements of the Contract Services may be altered by amendment of this Agreement as mutually agreed upon by Caltrans and Amtrak.

2.2 Administrative and Managerial Services

2.2.1 General Management

Amtrak shall identify responsible qualified managers, based in California, who shall manage the provisions of this Agreement in a manner that is consistent with both parties' objective of providing the highest quality service to the public and the best interests of Caltrans.

The Amtrak managers assigned to the Services shall have experience and knowledge in the area of railroad passenger operations and shall have authority to make decisions in a timely manner concerning the daily operations and management of the Services consistent with this Agreement. Amtrak shall administer and manage all functions involved in providing the Services as set forth and described more fully in this Agreement in a manner which will comply with all applicable local, State and Federal requirements. All personnel provided by Amtrak and Amtrak's subcontractors involved in any aspect of providing the Services shall be employees or contractors of Amtrak or its subcontractors, and not of Caltrans, and shall be subject to the direction, supervision and control of Amtrak and not of Caltrans.

2.2.2 Accounting Records

During the Agreement term, Amtrak shall keep full and accurate accounting records of all costs associated with this Agreement covering State Provided

Equipment. Amtrak shall retain such records for at least three (3) years following the end of the accounting period to which the records apply; such records may be retained on microfiche or electronic medium. The State may inspect, audit and obtain copies of the accounting records of Amtrak pertaining to the Contract Services at any reasonable time during regular business hours at Amtrak's place of business where said records are kept. Such actions shall not unreasonably interfere with the business or accounting functions of Amtrak. Amtrak shall cooperate fully with Caltrans in the explanation of the contents of said records.

2.2.3 Performance Monitoring

Amtrak shall maintain performance records and furnish the written performance reports as required by this Agreement. The criteria on which Amtrak will be monitored on a performance basis will be as follows:

a. Performance of maintenance work specified in this contract and the Maintenance Agreement;

b. Adherence to Amtrak operating crew procedures as they relate to State Provided Equipment. For example; car door use failures or operation of wheelchair lift;

c. Provision of operation/warranty/performance guarantee reports as required by this agreement and the Maintenance Agreement;

d. Availability of Amtrak Provided Equipment and State Provided Equipment for service as scheduled;

e. Compliance with the Planned Deployment Plan.

Non-compliance with these criteria will result in enforcement of the provisions of Section 6.3.1.

2.3 Deployment Plan

The operation of State Provided Equipment shall be in accordance with current 49-U.S.C. 24704 agreements and the Planned Deployment Plan.

2.4 Use of State Provided Equipment

Unless otherwise specifically provided for elsewhere in this Agreement, the use of State Provided Equipment transferred to Amtrak for operation shall be governed by this Section 2.4.

State Provided Equipment shall not be utilized on any trains other than State supported 49-U.S.C. 24704 trains within the State of California unless approved in writing in advance by the Caltrans Officer.

In the event Caltrans gives permission for Amtrak to use State Provided Equipment on non-49-U.S.C. 24704 service or Amtrak sponsored special trains, the

State shall be reimbursed by Amtrak for the use of the State Provided Equipment at a daily rate to be mutually agreed upon before use of the equipment.

2.4.1 Emergency Circumstances

In "Emergency Circumstances" as detailed below, Amtrak may use State Provided Equipment without prior approval, providing that:

1. All reasonable efforts have been made to gain prior State approval; and,

2. The use of State Provided Equipment will not cause the substitution of non-State provided equipment in, or the annulment of, a State sponsored 49-U.S.C. 24704 service train; and,

3. The use of State Provided Equipment will not adversely impact State Supported 49-U.S.C. 24704 service schedules.

For the purpose of this section, "Emergency Circumstances" shall be considered all of the following:

1. Failure of Amtrak owned equipment that would cause the cancellation of an Amtrak funded service; and,

2. No replacement Amtrak owned equipment is available within 2 hours; and,

3. Replacement freight railroad owned equipment is not available within 2 hours.

In the event State Provided Equipment is used in "Emergency Circumstances" the State shall be reimbursed at the current highest lease rate charged by Amtrak to the State for similar Amtrak equipment.

In the event that Amtrak uses State Provided Equipment other than as provided for in this Agreement or as previously agreed to by the State in writing, then Amtrak shall compensate the State for the use of that State Provided Equipment at a rate of compensation to the State shall be two (2) times the current highest lease rate charged by Amtrak to the State for similar Amtrak equipment.

All reimbursements and compensation referred to in this section shall take the form of credits to the State to be applied to the then current month's invoice from Amtrak, and shall be expressly accounted for therein.

Amtrak is responsible for the maintenance and repair of any equipment used or damaged during Amtrak use on non-State sponsored trains, at no cost to Caltrans, prior to return to Caltrans. Amtrak shall continue to compensate the State at the applicable compensation rate until damaged State Provided Equipment is repaired and available for service in State sponsored service.

2.4.2 Leasing of State Provided Equipment

Amtrak shall have the right, subject to Caltrans approval, to lease State Provided Equipment, for purposes other than provision of services covered by 49-U.S.C. 24704 agreements and by this Agreement, for use at times or places or during periods that do not impair Amtrak's ability to provide already contracted services, for which Caltrans shall be compensated as mutually agreed in advance of that equipment usage.

2.4.3 Special Trains

Amtrak shall not use State Provided Equipment for special trains without the prior written approval of the State. Requests to use State Provided Equipment on special trains by Amtrak shall be submitted in writing at least thirty (30) days prior to the intended use. Such requests shall include the schedule for the special train, the duration that State Provided Equipment is required and any other relevant information required by Caltrans. Approval for use shall be at the sole discretion of the State. Caltrans shall respond to such requests no less than ten (10) working days after receipt of the written request. In the event that the State gives permission for Amtrak to use State Provided Equipment on non-49-U.S.C. 24704 services or Amtrak sponsored special trains, the State shall be reimbursed by Amtrak for the use of the State Provided Equipment, at a daily rate to be mutually agreed upon before the use of that State Provided Equipment.

The State shall have the absolute priority and right to use State Provided Equipment on State sponsored special trains. The operation of State sponsored special trains shall be mutually agreed upon between the State and Amtrak prior to operation. No less than thirty (30) days prior to any event for which Caltrans anticipates providing special train service, it shall submit to Amtrak a request in writing for Amtrak to operate such service. Amtrak shall, not less than ten (10) working days after receipt of the written request, inform Caltrans in writing of the cost of providing such service. Amtrak shall not unreasonably refuse to operate State sponsored special trains provided that State Provided Equipment and Amtrak crews are available. The operation of such special trains shall not unreasonably interfere with the contracted maintenance of State Provided Equipment.

The cost of operation of any special trains shall not be included in the approved contract amount unless specifically included in the Planned Deployment Plan. All reimbursements and compensations referred to in this section shall take the form of a credit to the State to be applied to the current month's invoice from Amtrak, and shall be expressly accounted for therein.

2.5 Clearing of Wrecks

Amtrak will have full responsibility for clearing wrecks which involve State Provided Equipment.

The repair of wreck damaged State Provided Equipment shall be in accordance with the provisions of the Maintenance Agreement. Caltrans shall have access to the wreck site as allowed for in this agreement under Section 4.7 "Access to

Equipment". Caltrans shall be advised of needs pursuant to the provisions of Section 12.3 "Notification of Emergency".

2.6 Fares, Timetables and Ticket Sales

Fares, timetables and ticket sales shall be governed by the provisions of the 45 U.S.C. 2574 agreements in force at that time, unless otherwise agreed in writing.

2.7 Maintenance of State Provided Equipment

The maintenance of State Provided Equipment shall be in accordance with the separate Maintenance Agreement between Caltrans and Amtrak.

3. AMTRAK RIGHTS AND OBLIGATIONS

3.1 Training Obligations

Amtrak shall ensure that all employees and subcontractors assigned to the operation of State Provided Equipment are thoroughly trained in the operation of the specific features of State Provided Equipment. Operation of such features shall be in accordance with the provisions of this Agreement and standard Amtrak operating practice.

Amtrak will be responsible for ensuring that said training is provided when necessary and is regularly updated as required. Caltrans shall ensure that contracted training to be provided by the manufacturers is given to Amtrak's training personnel. This shall include the provision of trainer's notes to Amtrak. All subsequent training of personnel shall be the responsibility of Amtrak.

All training programs or portions thereof that are designed specifically for State Provided Equipment will be reviewed and approved by Caltrans, and will be designed, developed and implemented in accordance with established professional standards for performance-based instruction. Amtrak will provide Caltrans with copies of all training programs and records used for employees who are working on State Provided Equipment.

The training of Amtrak employees for the maintenance of State Provided Equipment shall be governed by the provisions of the Maintenance Agreement, Section 3.3. Amtrak shall maintain accurate training records which identify Amtrak personnel/subcontractors who received training, and the dates of courses taken. Training records shall be made readily available upon Caltrans request.

3.2 Subcontracting

Amtrak's subcontractors involved in any aspect of providing any Contract Services shall be subject to the direction, supervision, and control of Amtrak and not Caltrans.

3.3 Compliance with Industry Codes, Regulations and Standards

During the operation of State Provided Equipment, Amtrak shall comply with FRA and CPUC regulations, AAR and accepted industry standards, all applicable State and local codes, and all performance standards set forth in this document.

Amtrak shall be solely responsible for any fines or penalties resulting from violation of applicable laws and standards other than those that are solely a result of the original design and manufacture of State Provided Equipment.

3.4 Reporting Obligations

Amtrak shall provide Caltrans with access to the operational reports listed in this section. In addition, Amtrak shall prepare and submit in a timely manner, all reports affecting State Provided Equipment which are required to be submitted to any federal, state or local governmental agency, and shall furnish copies simultaneously to Caltrans. Amtrak shall also promptly furnish to Caltrans copies of any citations or complaints issued by an enforcement or regulatory body which involve State Provided Equipment, and Amtrak will advise Caltrans, within ten (10) working days, of the disposition of such citations or complaints. The purpose of the reports described in this section are to keep Caltrans apprised of the performance of, and incidents which may impact the operation of, State Provided Equipment.

Amtrak agrees to keep full and accurate records required herein and to provide Caltrans with such other reports or information as will fulfill the purpose described in the previous sentence. Amtrak shall not release or disclose any reports that relate solely to the performance of State Provided Equipment without prior notification to Caltrans.

Caltrans shall have on demand, via an Arrow terminal located at Caltrans Rail Program, access to the following Amtrak reports on an as needed basis:

a. Unit Status List
b. Display Unit Record Report
c. Display Mechanical History Report
d. Build Resources List Report
e. Train Status Report for 49-U.S.C. 24704 Trains and Connections
f. Daily Consist Report
g. Daily West SBU Report

The Daily Division Report shall be supplied automatically each day by the Arrow printer at the Rail Program.

In addition, Amtrak shall supply copies of major incident reports, when completed, for incidents that involve State Provided Equipment or the Contract Services. The above reports are in addition to any other reports required elsewhere in this Agreement, in the 49-U.S.C. 24704 Agreement and in the Maintenance Agreement.

3.5 Accounting Standards

Amtrak shall maintain the books and records which are required by this Agreement, and shall provide or give access to, any financial or other reports required by this Agreement within fifteen (15) working days of receipt of a written request from Caltrans, all in accordance with Generally Accepted Accounting Principles.

3.6 Equipment Features

There are certain features specific to State Provided Equipment that require operation in accordance with the procedures detailed in Appendix 4 of this Agreement. Any revision to these procedures shall be mutually agreed between Amtrak and Caltrans and shall be followed by Amtrak on all State supported operations using State Provided Equipment.

4. CALTRANS RIGHTS AND OBLIGATIONS

4.1 Operations and Management Supervision

In addition to the rights and obligations stated elsewhere in this Agreement, Caltrans shall have the following rights with respect to control, oversight and monitoring of Amtrak's performance:

1. All facilities and equipment developed or used by Amtrak in the performance of its obligations under this Agreement and the levels of resources allocated/consumed to fulfill the terms of this Agreement and the Maintenance Agreement may be monitored.

2. State Provided Equipment may be inspected at any time and removed from service when in Caltrans sole discretion and with justifiable reason, any equipment is determined to be in an unacceptable condition.

3. At Caltrans sole discretion, the Caltrans Officer may direct Amtrak to cease operation of any State Provided Equipment operated in the 49-U.S.C. 24704 operations. Amtrak shall resume operation of any such State Provided Equipment only upon receipt of approval from Caltrans.

4.2 Access to Equipment

Authorized Caltrans staff will be allowed immediate and unannounced access to inspect State Provided Equipment transferred to Amtrak and may review Amtrak maintenance practices at any time.

A special access permit will not be required in the Amtrak maintenance facility, however Caltrans agrees that it will defend, indemnify and save harmless Amtrak and operating railroads, from and against any and all liability for bodily

injury, death, or property damage negligently caused by Caltrans staff while at Amtrak's mechanical facility. Upon arrival in that facility, authorized Caltrans staff will immediately contact Amtrak's Facility Manager or senior official prior to entering the equipment maintenance work area in order to coordinate their on-site activity. Authorized Caltrans staff and or representatives will comply with all Amtrak Safety rules and regulations while at the maintenance facility or on Amtrak property.

For head-end access, a special photo ID inspection permit will be required for Caltrans staff. Amtrak will provide no more than seven (7) photo ID Train Authorization Permits for Caltrans to issue its staff at any one time. The Amtrak Train Authorization Permit for selected Caltrans staff authorizes immediate and unannounced access to the cab of State Provided Locomotives (head-end) and on-board Amtrak trains. To protect the safety of Amtrak passengers and operating crews, Caltrans shall issue the Authorization Permit only to those individuals who have been trained, have knowledge of railroad operating rules and practices, and have a need, as determined by Caltrans, to have access to State Provided Equipment on Amtrak operated trains to perform their duties and responsibilities.

Amtrak agrees that authorized Caltrans staff will be permitted to inspect State Provided Equipment during revenue service, however, Caltrans agrees that it will defend, indemnify and save harmless Amtrak and the operating railroads, from and against any and all liability for bodily injury, death, or property damage negligently caused by Caltrans staff while inspecting State Provided Equipment in revenue service.

Authorized Caltrans staff shall have the right to be present at the site of wrecks or derailments involving State Provided Equipment and shall have the right to provide advice as to the recovery of State Provided Equipment. Notwithstanding the preceding sentence, Caltrans shall have no right to direct the actions of Amtrak or other parties in such cases. In the event that Caltrans advice is not followed and additional damage is caused to State Provided Equipment, Amtrak shall be responsible for the repair of said additional damage at no cost to Caltrans.

4.3 Caltrans Right to Additional Information

Caltrans shall have the right to obtain from Amtrak within fifteen (15) working days of receipt of a written request, any reasonable information related to State Provided Equipment. This is in addition to any other rights to information and reports included in this Agreement and the 49-U.S.C. 24704 agreements.

4.4 Public Information Responsibilities

Caltrans may assume some responsibility for marketing the public use of 49-U.S.C. 24704 services, and specifically State Provided Equipment, through advertisements or other promotions. Amtrak will cooperate with Caltrans in Caltrans marketing efforts as related to State Provided Equipment. This marketing authority is in addition to any related provisions within the 49-U.S.C. 24704 agreements.

Amtrak will inform Caltrans of all passenger complaints that relate to the design and function of State Provided Equipment. Amtrak will install at no cost to Caltrans, Caltrans-approved promotional materials or public information notices on State Provided Equipment pursuant to procedures established by Caltrans and Amtrak.

4.5 Advertising

Only Caltrans may utilize or authorize the utilization of the interior and exterior of State Provided Equipment for the display of any written or printed advertising, promotional material, or public information notices, and any revenues from such advertisements shall be credited to the Service.

Only Caltrans may authorize, in writing the use of the Caltrans Logo or images of State Provided Equipment.

4.6 Liaison with Transit Agencies

Caltrans reserves the right to coordinate with other transit agencies in such matters that do not affect the 49-U.S.C. 24704 agreement and the Planned Deployment Plan in force at that time. Such coordination will be at Caltrans sole discretion.

4.7 Transportation of Caltrans Employees

Amtrak shall permit staff employed by the Caltrans Rail Program to travel at no charge on Amtrak intercity trains when said employee presents an Amtrak-issued photo identification pass. Travel is limited within the area served by State Provided Equipment only as necessary to transport such staff between stations or facilities in connection with the administration and performance of this Agreement, 49-U.S.C. 24704 agreements, and the Maintenance Agreement for State Provided Equipment, and other related agreements.

4.8 Other Contracting Rights

Caltrans specifically reserves the right to contract with any other person, corporation or other entity for performance of any tasks required by Caltrans that are not specifically assigned to Amtrak by this Agreement and the 49-U.S.C. 24704 agreements in force at that time. Any employee or contractor of such person, corporation or other entity shall be permitted to perform contracted functions after daily operations at locations mutually agreed by Amtrak and Caltrans; provided however, that no such employee or contractor shall unreasonably interfere with Amtrak's operation, servicing, maintenance and inspection of State Provided Equipment or Amtrak equipment.

5. BUDGETING PROCESS

For the purpose of this Agreement, all budgets referred to shall be consolidated budgets that reflect all costs to the State for the provision of all current

49-U.S.C. 24704 services, provision of service as required by this Agreement and provision of services required by the Maintenance Agreement for any Federal Fiscal Year. No State funds are or will be encumbered under this Agreement.

5.1 Initial Year Budget Process

For the initial year of this Agreement, October 1, 1994 to September 30, 1995, the parties shall agree upon a Planned Deployment Plan.

For the initial year of this Agreement, Amtrak shall revise the previously submitted budget and submit it to Caltrans. This budget revision shall reflect the Planned Deployment Plan for the initial year.

A Planned Deployment Plan may be jointly modified at any time.

5.2 Annual Budget Process

5.2.1 Preparation of Planned Deployment Plan

Prior to April 1 of each year during the term of this Agreement, Caltrans shall prepare and submit to Amtrak a draft Planned Deployment Plan, for State Provided Equipment, for the time period of October 1 to September 30. This draft Planned Deployment Plan shall include a detailed description of the utilization of State Provided Equipment Caltrans expects Amtrak to provide in the next Federal Fiscal Year, and will form the basis for the final Deployment Plan. This coincides with the contracting period for the provision of 49-U.S.C. 24704 service in California.

Prior to May 1 of each year during the term of this Agreement, Caltrans and Amtrak shall jointly agree on the final Planned Deployment Plan, for State Provided Equipment.

5.2.2 Preparation of Proposed Budget

The Planned Deployment Plan shall form the basis for the budgeting of the Approved Contract Amount and the budget amount for the Maintenance Agreement in each Federal Fiscal Year. No later than June 1 of each year during the term of this Agreement, Amtrak shall prepare and submit to Caltrans a final budget, in a format as stated in this Agreement for provision of 49-U.S.C. 24704 Services, including appropriate detail concerning mechanical costs, described for the period October 1 to September 30. This budget shall reflect the costs to be incurred by the State for the actual operations and levels of service provided during the current Federal Fiscal Year. The required form of the budget for the 49-U.S.C. 24704 Service is contained in Appendix 2 of this Agreement. The final budget shall be approved by Caltrans.

Once this budget is approved by Caltrans, it shall become the basis for the Approved Contract Amount for the next Federal Fiscal Year. The budget shall be approved by Caltrans no later than July 1.

The proposed budget shall reflect the costs to be incurred by the State for the actual operations and levels of Services being provided during the current Federal Fiscal Year, except as modified by the Planned Deployment Plan for any future period. The proposed budget shall be consistent with the Planned Deployment Plan and current 49-U.S.C. 24704 agreements and use the current Maintenance Agreement for State Provided Equipment (See Maintenance Agreement Appendix 7, Form of Budget). Amtrak shall specify the assumptions used in developing the proposed budget. The proposed budget shall not include any provision for the operation of special trains.

5.2.3 Information to Accompany Proposed Budget

For train routes that will not utilize State Provided Equipment in the next Federal Fiscal Year, the budget amount shall be as is currently provided under the 49-U.S.C. 24704 budget provisions.

For train routes that will use State Provided Equipment for part or all of the next Federal Fiscal Year, the train route budget shall show separate budget amounts for the following line items:

a. Maintenance of State Provided Equipment (See Maintenance Agreement Appendix 7, Form of Budget)
b. Fuel for State Provided Equipment
c. Food Service Supplies and Consumables for State Provided Equipment

5.3 Budget Amendment for Unforeseen Events

Upon the occurrence of events that were not reasonably foreseeable at the time of approval of the Approved Contract Amount, which events will cause a material change in the assumptions used in developing the costs included in the Approved Contract Amount, the parties shall agree upon amendments to the Approved Contract Amount for that Fiscal Year to reflect those changes.

5.4 Budget Revisions Required Due to Cost Overruns

If, during a Federal Fiscal Year, the costs to be incurred by the State are projected to exceed the Approved Contract Amount for that Federal Fiscal Year to date, Amtrak shall immediately inform Caltrans, with an explanation of the reasons for the projected cost overrun from the Approved Contract Amount to date, and of the actions Amtrak will take, subject to Caltrans approval, to bring any variance back into conformity with the Approved Contract Amount for that Federal Fiscal Year.

Amtrak shall submit a proposed revised budget to Caltrans within thirty (30) days of notification that Amtrak will exceed the approved contract amount, and the parties shall promptly agree upon a revised Approved Contract Amount for the remainder of the Federal Fiscal Year.

In addition, on May 1 of each Fiscal Year, Amtrak shall provide to Caltrans a forecast of expected actual costs to the State and any anticipated or known variance

from the Approved Contract Amount to provide the agreed services for the remainder of that Federal Fiscal Year.

If the parties are unable to agree upon a revised Approved Contract Amount for provision of the Services as detailed in this Agreement, the Maintenance Agreement and the 49-U.S.C. 24704 agreements for the remainder of the Federal Fiscal Year, the parties will meet to agree upon service reductions or modifications that will permit operation for the remainder of the Federal Fiscal Year within the operating funds available to Caltrans.

5.5 Additional Compensation

In the event Caltrans requests additional services be provided by Amtrak, such as special trains, the cost to the State of such services shall be considered separate from the Approved Contract Amount and not subject to the other provisions of the Section 5 "Budgeting Process".

6. INVOICING AND PAYMENT

6.1 Form of Invoice

The form of all invoices shall be as shown in Appendix 3 of this Agreement with the following additional information, to be provided as attachments to the invoice, as referenced in this section.

The payment and invoice process for 49-U.S.C. 24704 services shall not change from that referenced in the 49-U.S.C. 24704 agreements and shall include all costs associated with this agreement and the Maintenance Agreement, with the following exceptions as they relate to State Provided Equipment where additional support for the costs incurred is to be provided.

a. Maintenance of State Provided Equipment,

b. Fuel for State Provided Equipment; and,

c. Food service supplies and consumables and revenues for State Provided Equipment.

For the following items included in 49-U.S.C. 24704 invoices, the following additional information shall be supplied with respect to State Provided Equipment:

d. Rolling Stock Rental - for State Provided Equipment this shall be the actual cost incurred with details of the cause of such cost to be shown.

e. Depreciation and Interest - Depreciation and Interest shall not apply to State Provided Equipment.

f. Inventory Purchases - Caltrans costs for spare parts provided by Amtrak for State Provided Equipment shall be the same as current 49-U.S.C. 24704 agreements where the State Provided Equipment is used on

[redacted]

6.2 Schedule of Payments

The scheduling of payments shall be as provided in the 49-U.S.C. 24704 agreements, including advance monthly payments, with those exceptions as provided in Section 6 and 10 of this Agreement.

6.3 Failure to Comply and Disputed Invoices

In the event that Amtrak fails to perform the services as required by this Agreement and/or the Maintenance Agreement, or an invoiced amount is disputed by Caltrans, the provisions of this Section 6.3 shall apply.

6.3.1 Withholding Payment Due to Failure to Comply

In the event Amtrak does not comply with the requirements of this Agreement or the Maintenance Agreement as they relate to State Provided Equipment, Caltrans shall compute the value of the perceived failure and notify Amtrak in writing that a corresponding amount will be withheld from the monthly advanced payment following the next monthly payment if the perceived failure has not been resolved to Caltrans satisfaction. Caltrans shall detail the reason for the proposed withholding of payment and the actions Caltrans considers necessary to resolve the perceived failure.

Once resolution of the failure to comply is achieved between Caltrans and Amtrak, the notice to withhold will be withdrawn, or the monthly payment withheld will be remitted with the next monthly advanced payment. Should resolution of the non-compliance not be achieved through negotiation or the provisions of Section 10, "Dispute Resolution", the withheld amount will be paid under protest once the invoice for that month is presented. Such payment shall not be considered as resolution of the dispute and the process outlined in Section 10, "Dispute Resolution", shall be carried to its conclusion. Should the resolution of the dispute result in a refund to Caltrans, said refund shall be applied as a credit to the next monthly advanced payment, and shall be expressly accounted for therein.

6.3.2 Withholding Payment Due to Invoice Dispute

In the event Caltrans disputes a charge detailed in the monthly invoice, and Amtrak cannot provide an acceptable explanation of said charge, Caltrans shall have the right, at its sole discretion, to withhold the disputed invoice amount. Caltrans shall advise Amtrak of the amount of disputed charges withheld, detail reasons for the withholding, and the actions that Caltrans considers necessary to resolve the disputed invoice amount. Caltrans shall

notify Amtrak in writing one month in advance of its intention to withhold the payment of an invoice amount. In the event that resolution of the disputed invoice amount is not achieved within the notice period, Caltrans shall withhold the disputed invoice amount from the next invoice payment due after the notice period has expired.

If resolution of the disputed invoiced amount is achieved between Caltrans and Amtrak after the amount has been withheld, the withheld amount will be remitted with the next invoice payment. Should resolution of the disputed invoiced amount not be achieved through negotiation or the provisions of Section 11, 'Dispute Resolution', the withheld amount will be paid under protest after three calendar months of withholding. Such payment shall not be considered as resolution of the dispute and the process outlined in Section 11, 'Dispute Resolution', shall be carried to its conclusion.

7. CHANGES IN SERVICES OR SERVICE LEVELS

All changes to levels of service for trains utilizing State Provided Equipment shall be conducted in accordance with the provisions of the 49-U.S.C. 24704 agreements and this Agreement. All agreed upon changes will be reflected in the issuance of a revised Approved Contract Amount and Planned Deployment Plan.

8. [illegible]

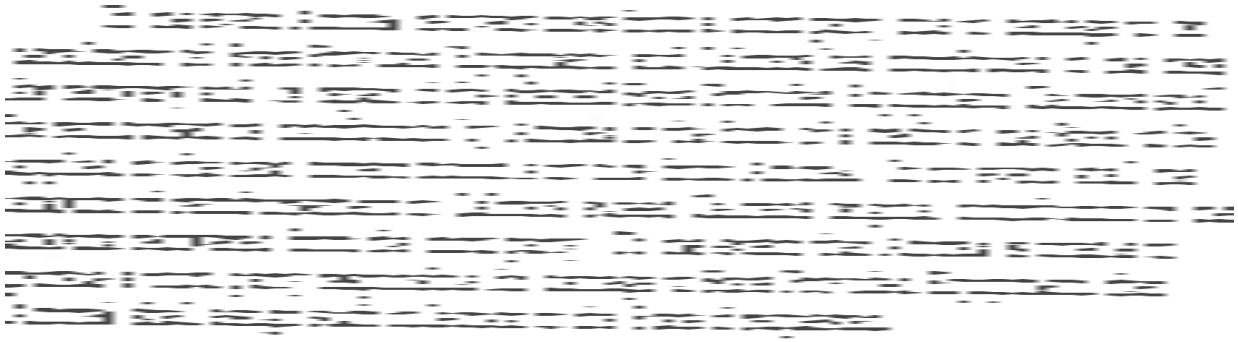
[illegible]

9. DAMAGE TO EQUIPMENT

Equipment owned/operated by Amtrak shall include State Provided Equipment for liability and repair purposes.

When it is determined by arbitration, or agreement as provided in Section 11 of this agreement that damage to State Provided Equipment has been caused solely by the negligent acts or omissions of Amtrak, including its employees, subcontractors, or agents, Amtrak shall be solely responsible for the cost of clearing wrecks, repair of damage, or provision of replacement equipment to permit continued operation of the 49 U.S.C. 24704 service; such costs shall not be included in determining the applicable deficit of the 49 U.S.C. 24704 service. In addition, no insurance or system self-insurance and wreck damage costs shall be charged to 49

U.S.C. 24704 services to the extent that State Provided Equipment is used to operate that service. For purposes of this section, a railroad or other entity that has contracted to permit Amtrak to use its rail lines or services shall not be deemed to be a subcontractor or agent of Amtrak.



10. DISPUTE RESOLUTION

10.1 Settlement of Disputes

Both parties to this Agreement shall make every reasonable effort, through telephone communications, letters, and meetings, to settle any dispute arising out of this Agreement without resorting to arbitration. The parties shall make every reasonable effort to meet within thirty (30) days to discuss disputes. If the parties so agree, they may involve a disinterested person experienced in railroad operations, or an accountant if appropriate, to render his or her objective advice and opinions, which shall be advisory only and not binding unless the parties agree in writing to be bound by his or her judgment in a particular instance.

10.2 Controversies Subject to Arbitration

Any claim or controversy between Caltrans and Amtrak which cannot be resolved by the parties concerning the interpretation, application, or implementation of this Agreement shall be resolved by submitting it to arbitration pursuant to the provisions of this Section 10; provided, however, that no such claim or controversy shall be submitted to arbitration until it has first been submitted to the Caltrans' Caltrans Officer and Amtrak's assigned manager of State-sponsored Services for resolution between them.

10.3 Arbitration Procedure

Any controversy, claim or dispute arising out of or related to the interpretation, construction, performance or breach of this Agreement which cannot be resolved by the parties, shall be submitted to mediation in the County of San Francisco, California, administered by the American Arbitration Association under its Commercial Mediation Rules. Mediation shall proceed and continue until the matter is either resolved, or the mediator finds, or the parties agree, that mediation should not continue. However, unless otherwise agreed, the mediation process shall not last more than sixty (60) days. If the parties cannot resolve the

controversy, claim or dispute through the mediation process described above, the matter shall upon the request of any party, be settled by arbitration in the County of San Francisco, California, administered by the American Arbitration Rules, and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

10.4 Pending Resolution

Except as provided specifically in other sections of this Agreement, when such arbitration is pending, the business, operations, physical plant and compensation for Services under this Agreement, to the extent that they are the subject of such controversy, shall continue to be transacted, used, and paid in the manner and form existing prior to the arising of such controversy, unless the arbitrators shall make a preliminary ruling to the contrary.

10.5 Cost of Arbitration

All direct costs and expenses of mediators, arbitrators, and associated facilities shall be borne equally by the parties; all costs and expenses of each party other than those for payment to the mediator or arbitrator(s) and/or mediation or arbitration facilities shall be borne and paid for by the party which incurs such expenses. In the event legal proceedings (other than mediation and arbitration) are instituted to enforce a settlement agreed to in a mediation or an arbitration decision, the prevailing party in said enforcement proceedings shall be compensated for all costs associated with enforcement of the settlement, including attorneys fees, in addition to any other relief to which it may be entitled.

10.6 Enforcement

Upon failure of a party to comply with an arbitration award issued pursuant to this Section, the other party may refer the matter to a court of competent jurisdiction for enforcement of the said award.

[redacted]

a. Repeated instances of willful failure to use the features of State Provided Equipment in accordance with this Agreement and Amtrak and manufacturer operating procedures.

b. Wilful or negligent conduct resulting in damage to, or the degradation of, State Provided Equipment.

Amtrak shall promptly hold a disciplinary hearing, and if possible when requested by Caltrans, hold Amtrak employees and Subcontractors out of Service utilizing State Provided Equipment pending the hearing. Amtrak shall promptly hold disciplinary hearings, and in accordance with the findings of those hearings assess discipline in accordance with applicable Amtrak labor agreements. Information pertaining to employee conduct witnessed by Caltrans employees should be forwarded to Amtrak's Western Strategic Business Unit (SBU) in Los Angeles. If the hearing results in a finding of guilt, the employee shall be reassigned to the extent possible, from Services utilizing State Provided Equipment. The provisions of this section shall be governed by applicable Amtrak labor agreements.

12. EMERGENCIES

12.1 Force Majeure

Each party will be excused from performance of its obligation, except obligations involving payment to the other party, where such non-performance is caused by any event beyond its control, such as any order, rule, or regulation of any federal, state, or local government body, agent, or instrumentality, work stoppage, accident, natural disaster, or civil disorder, provided that the party excused hereunder shall use all reasonable efforts to minimize its non-performance and to overcome, remedy or remove such event in the shortest practical time.

12.2 Operation Disruption

Amtrak shall inform passengers on State Sponsored Service of any foreseeable disruptions and resulting delays. Amtrak may make reasonable temporary adjustments in schedules or consists and take other such actions as are necessary to minimize interference with train operations caused by the performance of necessary track and roadbed maintenance, track construction work or construction of public utilities or highways.

12.3 Notification of Emergency

In the event of an emergency involving State Provided Equipment, as detailed in this section, Amtrak shall notify Caltrans within two hours after Amtrak has been made aware of the occurrence of the emergency. Amtrak will notify Caltrans by any of the following procedures:

a. The Caltrans 24 Hour Emergency Office;

b. Caltrans "Arrow" terminal or printer - Sending a "FLASH" message.

For the purposes of this section, an emergency that requires notification involves a fatality, including crew members, on-board personnel or passengers, and

affects or was caused by State Provided Equipment or results in damages expected to exceed $20,000 in repair or replacement of State Provided Equipment.

All other incidents not covered by the above shall be reported to Caltrans in the Daily Division Reports.

13. EFFECTIVE DATE, TERM AND TERMINATION

13.1 Term

This Agreement shall take effect November 20, 1994 and remain in effect until terminated by 60 days advance notice from either party to the other.

13.2 Termination for Cause by Caltrans

Caltrans may, at its sole discretion, terminate this Agreement upon thirty (30) days prior notification upon the occurrence of material breach of this Agreement, which shall include, but not be limited to, the following:

1. Amtrak's refusal to perform any of the Services scheduled or required under this Agreement when such refusal significantly disrupts Caltrans operations and is not excused by any other provisions of this Agreement.

2. Amtrak's insolvency or inability to meet its obligations, the filing of an involuntary petition in bankruptcy against it, the adjudication of bankruptcy, Amtrak's making an assignment for the benefit of creditors, filing a petition for an arrangement, composition or compromise with its creditors under any applicable laws, or having a trustee, receiver, or other officer appointed to take charge of its assets.

3. Amtrak's failure to comply with a valid law, ordinance, rule, regulation or order of any legal entity or authority and that failure has a material impact on Amtrak's ability or fitness to carry out its obligations to provide the Services under this Agreement.

4. Amtrak's failure to comply with the terms and conditions of the Maintenance Agreement.

13.3 Termination for Cause by Amtrak

Amtrak may, at its sole discretion, terminate this Agreement upon the occurrence of material breach of this Agreement, which shall include, but not be limited to, the failure of Caltrans to make payments as required by this Agreement.

13.4 Termination for Convenience

Caltrans may, no later than thirty (30) days after the occurrence of any of the following, where the occurrence of the event makes it impossible or unsuitable for Amtrak to continue as operator of the Services, terminate this Agreement:

1. The abolition or merger of Caltrans with another entity.

2. Legislation or court decision requiring that another entity operate or finance the Services.

3. Funding is not available for the Services.

4. Patronage on trains included in the Caltrans operation falls so short of projections that the Service is not deemed cost effective with respect to the transportation benefits and air quality goals.

5. Legislation, regulation or court decision places on Caltrans, or on the operation of the Services, financial or operational burdens which are so great as to degrade service quality below acceptable levels, or which imposes unforeseen and excessive liabilities on Caltrans, or which raises costs to a level where costs are deemed by Caltrans to exceed benefits.

6. Caltrans determines that continued provision of Services by Amtrak will result in imminent danger to the public health or safety.

13.5 Termination Procedure

Upon termination, the party electing to terminate the agreement shall follow the procedure set forth below:

1. The party electing to terminate shall notify the other in writing and clearly state the basis for that action.

2. The termination shall be effective no later than thirty (30) days after receipt of notice, except that a termination for cause shall not become effective if the other party has taken effective action to remedy the default within that thirty (30) day period.

13.6 Rights and Obligations Upon Termination

1. Upon termination for cause or termination for convenience Caltrans shall have the right to contract for Services by another party.

2. Amtrak shall bear any incremental cost incurred by either Caltrans or Amtrak that is attributable to termination for cause by Caltrans.

3. Caltrans shall bear any incremental cost incurred by either Caltrans or Amtrak that is attributable to termination for cause by Amtrak.

4. Notwithstanding Subsections 2 and 3 above, Caltrans shall pay the following termination costs to Amtrak upon termination for convenience:

a. The reasonable cost of settling and paying claims out of the termination of Services under subcontracts or purchase orders;

b. Reasonable costs determined at the time of termination which are incurred pursuant to the performance of any specific written instructions received from Caltrans concerning such termination; and,

c. Any other reasonable costs incidental to such termination of Services.

5. Notwithstanding all of the foregoing, the total amount of termination costs payable to Amtrak shall not exceed 1/12 of the Approved Contract Amount for the Fiscal Year in which the termination occurs.

6. No termination of this Agreement shall diminish or affect Caltrans obligation to pay for any Services rendered or to fulfill other obligations incurred prior to the effective date of the termination.

IN WITNESS WHEREOF, the parties have set their hands

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	NATIONAL RAILROAD PASSENGER CORPORATION
_____ (sign)	_____
_____ (print)	_____
_____ Title	_____
By:	By:
Its	Its:
APPROVED AS TO FORM:	

By: _____ Name: _____
Name
Title

APPENDIX 1

TRANSFER OF EQUIPMENT FORM

TRANSFER OF EQUIPMENT FORM

Unit Description: _____

Unit Serial Number: _____

Unit Road Number: _____

Effective Date of Transfer: _____

Condition, Inventory and Exceptions Noted at Transfer:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Approved for Transfer

_____
Caltrans Officer

_____
Dated

Approved for Acceptance

_____
Amtrak Representative

_____
Dated

APPENDIX 2

FORM OF BUDGET

APPROVED CONTRACT AMOUNT

FORM OF BUDGET

Fiscal Year:_____ Train No #_____ Note 1

Revenues

Transportation	
Food & Beverage	
Mail, Express, other	

Total Projected Revenues

Expenses	Amtrak Provided Equipment	State Provided Equipment
Train & Engine Crews	Note 2	
Train Fuel	Note 3	Note 4
OBS - labor	Note 3	Note 4
OBS - supplies	Note 3	Note 4
Rolling Stock Rental		
Station Services		
Transportation		
Maintenance of Equipment	Note 3	Note 5
Maintenance of Way		
Other Railroad		
Railroad Performance Payments		
Commissary		
Crew Base		
Sales and Marketing		
Reservations		
General Support		
Insurance		
Accounting & Administration		

Projected Annual Expense _____

Projected Annual Income (Deficit) _____

Projected State Share of Deficit Note 6

Equipment Capital Costs (D & I) _____

Total Annual State Contribution _____

NOTES

1. A separate budget sheet shall be prepared for each train number for the fiscal year. A single summary sheet shall show the total projected cost to the State for all 49-U.S.C. 24704 service for the next fiscal year.

2. Where no note is shown the budgeted value shall reflect the allocated cost as currently specified by 49-U.S.C. 24704 agreements.

3. Budget value based on allocated costs for Amtrak Provided Equipment.

4. Budget value based on actual costs for State Provided Equipment.

5. Budget based on the total maintenance budget, extracted on the basis of vehicle months for State Provided Equipment on that train number for the fiscal year, according to the Planned Deployment Plan. The total budget allocations for the maintenance of State Provided Equipment across all train numbers shall equal the total maintenance budget generated in accordance with the terms of the Maintenance Agreement. Section 6 - Materials Management, of the Maintenance Agreement.

6. Costs shared per existing 49-U.S.C. 24704 agreements.

ANNUAL CONTRACT AMOUNT

Fiscal Year _____

Total Annual State Contribution (Operating Expense)
(Amount generated from Form of
Budget for all Train Numbers) _____

[illegible] _____

[illegible] _____

[illegible] _____

Total State Cost for Storage Facilities
(Not included elsewhere) _____

TOTAL CONTRACT AMOUNT _____

[redacted]

FORM OF INVOICE

Month: _____ Train No # _____ Note 1

Revenues

Transportation	
Food & Beverage	
Mail, Express, other	

Total Months Revenues _____

Expenses	Amtrak Provided Equipment	State Provided Equipment
Train & Engine Crews	Note 2	
Train Fuel	Note 3	Note 4
OBS - labor	Note 3	Note 4
OBS - supplies	Note 3	Note 4
Rolling Stock Rental		
Station Services		
Transportation		
Maintenance of Equip	Note 3	Note 5
Maintenance of Way		
Other Railroad		
Railroad Performance Payments		
Commissary		
Crew base		
Sales and Marketing	Note 3	Note 4
Reservations		
General Support		
Insurance		
Accounting & Administration		

Total Month's Expenses _____

Months Income (Deficit) _____

State Share of Deficit Note 6

Inventory Control Note 7

Equipment Capital Costs (D & I) _____

Less:
Monthly Advanced Payment _____

Amount Due (Refund) from State _____

NOTES

1. A separate invoice shall be submitted for each train number for each month. A single summary sheet shall show the total State contribution for all 49-U.S.C. 24704 service for the month.

2. Where no note is shown the expense shall reflect the cost as currently specified by 49-U.S.C. 24704 agreements.

3. Expense shall be the costs for Amtrak Provided Equipment.

4. Expense shall be the actual costs for State Provided Equipment.

5. Expense shall be the actual cost for Equipment maintenance, extracted on the basis of vehicle months for State Provided Equipment on that Train Number for that month. The total actual cost for the maintenance of State Provided Equipment across all Train Numbers shall equal the total cost shown on the maintenance cost information sheet generated in accordance with the terms of the Maintenance Agreement. This does not include inventory control labor (1 person).

6. Shared costs based on current 49-U.S.C. 24704 agreements.

7. Expense shall be the actual cost for one inventory control position. Inventory control position shall be limited to one Personnel Year (PY) with benefits and salary not to exceed $44,000/year.

APPENDIX 4

STATE PROVIDED EQUIPMENT OPERATING PROCEDURES

DOOR CONTROL

EQUIPMENT

The California Car is equipped with trainlined door control, to maximize passenger flow in boarding and alighting operations, and thereby minimize station dwell time. Each cab and trailer has two 52-inch wide passenger door openings on each side of the lower level. The doors are of the sliding pocket type, electrically controlled and pneumatically operated, with two door panels for each door opening.

The doors may be controlled from control panels located adjacent to the door openings at the "B" end of the car. The control panels are accessible and operable by a standard conductor's key. Each panel may be configured to control all doors ahead of the local door, all doors behind the local door, or the local door alone. The door control system is interlocked with the propulsion control system to prevent motion of the train when any of the doors are opened for passenger boarding or alighting. An override button is provided to allow one door leaf to be kept open upon departure at speeds up to 10 miles per hour, to allow Amtrak personnel to look out the door and in either direction of train travel. The override button must be kept depressed to keep the door open.

The lower floor of the California Car is 18 inches above the Top of Rail. Station platforms in California are intended to be constructed or modified to a height of 8 inches above the Top of Rail. The predominant step height between platform and car floor throughout California is therefore 10 inches. There are, however, platforms lower than the Top of Rail.

PROCEDURES

Amtrak personnel shall follow all manufacturer's prescribed procedures in the operation of the doors and trainlined door control system. The following shall supplement Amtrak's standard boarding and alighting procedures:

- Both leaves shall be opened at active doors throughout boarding and alighting.
- At stations with platforms constructed to 8 inches above the Top of Rail, all doors on the platform side of the train shall be opened for boarding and alighting when the train is stopped at a station.
- At stations with platforms constructed to 8 inches above the Top of Rail, when a consist is longer than a train platform, or the train must be stopped such that not all doors are positioned over the platform, only those doors over the platform shall be opened.
- At stations with platforms lower than 8 inches above the Top of Rail, the number of doors opened shall equal the number of train Amtrak personnel available to attend boarding and alighting, with one Amtrak personnel per open door.

- At stations with platforms lower than 8 inches above the Top of Rail, Amtrak personnel shall deploy step boxes on the platform to assist fully ambulatory passengers in boarding and alighting.

- When one or more wheelchair lift is deployed at any station, at least one other door shall be opened and crewed for boarding and alighting of fully ambulatory passengers.

WHEELCHAIR ACCESS

EQUIPMENT

The California Car is designed to maximize access to the car, its amenities and features for all passengers, regardless of physical ability. It is equipped with on-board wheelchair lifts, one on either side of the car, both located at the door openings at the "B" end of the car. The wheelchair lifts are manually deployed and electrically operated, and can be used for the boarding and alighting of passengers in wheelchairs over the entire range of platform/car floor height differentials. Door openings at the "B" end of the car are identified by standard wheelchair access symbols.

The lower level passenger seating area of the California Car is designed for access by passengers in wheelchairs. Two spaces for passengers in wheelchairs are provided in the lower level passenger seating area. These spaces are equipped with tip-up passenger seats which when stored, allow ample space for the positioning of a wheelchair, according to ADA requirements. In addition, all double and single seats have movable armrests to allow the transfer of a passenger from a wheelchair to a standard passenger seat.

There are two lavatories on the lower level, of which the one at the "A" end is designed for access by passengers in wheelchairs.

PROCEDURES

Amtrak personnel shall follow all manufacturer's prescribed procedures in the operation of the on-board wheelchair lifts. The following shall supplement Amtrak's standard procedures for providing access to passengers with physical disabilities.

- Amtrak personnel attending passenger doors shall identify in advance passengers on the train or on the platform who will require use of the on-board lift(s), and direct them to attended, lift-equipped doors.

- If all wheelchair seating locations in a given car are full, and a boarding passenger in a wheelchair does not wish to transfer to a standard seat, the passenger shall be directed to the nearest attended lift-equipped door, in a car that has adequate capacity. If no other lift-equipped door is attended,

Amtrak personnel shall attend the nearest lift-equipped door in a car that has adequate capacity.

- At stations with platforms lower than 8 inches above the Top of Rail, if lifts are deployed at one or more equipped door openings, at least one additional door shall be open and attended for the boarding and alighting of fully ambulatory passengers.

- Amtrak personnel attending doors where lifts are deployed shall direct fully ambulatory passengers to other doors for boarding and alighting.

- Amtrak personnel shall provide assistance as required or requested to passengers using the on-board lift to ensure their safe and secure boarding and alighting.

- Amtrak personnel shall direct passengers in wheelchairs to designated seating locations in the lower level passenger seating area, and shall provide whatever assistance is required to ensure that both the passengers and their mobility aids are safely and securely situated.

- Amtrak personnel shall assist passengers wishing to transfer from wheelchairs to standard passenger seats as required or requested, and shall assist them in transfer to their wheelchairs with ample time before the next scheduled stop to facilitate efficient passenger boarding and alighting.

- Wheelchairs of passengers transferring to standard seats shall be stored, if possible, in the bicycle storage locker of the same car. If the bicycle storage locker is entirely occupied by bicycles or other mobility aids, the passenger will be directed to a wheelchair seating location.

- Priority for use of wheelchair seating locations in a given car will be given to passengers in wheelchairs, over fully ambulatory passengers traveling with passengers in wheelchairs and using the tip-up seats, unless additional capacity can be provided in other cars.

- Groups of passengers traveling together in wheelchairs will be accommodated to the extent possible in a single car. If available capacity in a single car is exceeded, one or more passengers shall be asked to transfer to standard passenger seats if wheelchair storage space is available, or shall be directed to the nearest available car with adequate capacity. The on-board lift on that car shall be attended if it is not already.

INFORMATION DISPLAYS

EQUIPMENT

The California Car is equipped with trainlined destination and passenger information displays. The displays will be used to provide advance notice of station

arrivals, service information, and any such public information that Caltrans specifies. Two displays are located on the outside of the car, on either side, two in the upper level passenger area and two in the lower level passenger area. An additional display is provided on the "A" end of cab cars. Food service cars will have only one display in the lower level.

The system is controllable from a display keyboard, one of which is located in the electrical locker of each car. The displays for an entire consist may be controlled from the electrical locker of any car. The trainlined information display system has the capability, via Global Positioning System (GPS) technology, for preprogramming of all station announcements on a given route. Until this capability can be utilized, however, individual station announcements shall be actuated manually by Amtrak personnel in advance of arrivals. The information displays will also be programmable in advance with background information to be determined by Caltrans. Cab end displays shall indicate the terminus of the route to which the train is assigned.

PROCEDURES

Amtrak personnel shall follow all manufacturer's prescribed procedures in the operation of the trainlined destination and passenger information signs. Some of the following procedures will become unnecessary when the full GPS-based capability of the destination sign system becomes available.

- Caltrans and Amtrak will agree on the content and format of all information to be programmed for display.
- Maintenance personnel shall ensure that only and all of the information determined by or agreed to with Caltrans is programmed for display in every car.
- Amtrak personnel shall scroll through all display contents in advance of each departure to verify the operability of the system and the content of preprogrammed background information and station announcements.
- Amtrak personnel shall monitor the operation of the system and content of all display information periodically throughout the course of each trip.
- Amtrak personnel shall key the appropriate code for each station stop in advance of arrival, prior to making a voice announcement.
- Amtrak personnel shall ensure that next stop information is canceled or overridden following each station stop.

AUDIO ENTERTAINMENT SYSTEM

EQUIPMENT

California Car cabs and trailers provide at-seat audio entertainment and information. Each car is equipped with a 3-channel audio system, with a central control complex located in the electrical locker. The audio system includes two multiple-disc compact disc changers, a cassette tape player/AM-FM radio tuner, and an amplifier. Each seating location is provided with personal control unit (PCU) with channel selector and volume controls. The PCU accepts standard personal wire-type headsets, either passengers' personal property or headsets purchased on board the train. The audio entertainment broadcast may be overridden by Amtrak personnel or prerecorded voice announcements from the public address system.

PROCEDURES

Amtrak personnel shall follow all manufacturer's prescribed procedures in the operation of the audio entertainment and information system.

- Caltrans and Amtrak will agree on the content and format of all information to be programmed for broadcast.
- Maintenance personnel shall ensure that only and all of the entertainment and information determined by or agreed to with Caltrans is programmed for broadcast in every car.
- Amtrak personnel verify the operability of the system and the content of preprogrammed entertainment and information in advance of each departure.
- Amtrak personnel shall monitor the operation of the system and content of preprogrammed entertainment and information periodically throughout the course of each trip.
- Amtrak personnel shall ensure the security of the central control complex in the electrical locker of each car.
- Amtrak personnel shall vend headsets to passengers from the food service car upper level service area and any cart-based point of sale for a price to be agreed with Caltrans.

SEAT BACK INFORMATION CARDS

EQUIPMENT

Most seat locations in California Car cabs and trailers will be provided with seat-back magazine nets. These will be used to provide passengers with printed vehicle information, safety and emergency procedures, entertainment programming, Amtrak or Caltrans periodicals and marketing material.

[redacted]

LAVATORIES

EQUIPMENT

Lavatories in California Cars incorporate several features that differ from those on existing Amtrak equipment operated in California. In particular, the lavatories include attendant call buttons, electric hand dryers, disposable soap dispensers, and infant diaper changing tables (Accessible lavatory only).

The lavatory attendant call system is trainlined to sound an audible signal in each car of the train. The car in which the call button has been activated will indicate via lights at each upper level inter-car passageway the specific space to which the call applies.

PROCEDURES

- Amtrak personnel shall verify the operability of all equipment and features, the cleanliness of the spaces and fixtures, and the provision of sufficient consumables in each lavatory space prior to each departure.
- Upon the sounding of a lavatory attendant call, Amtrak personnel shall identify the car and lavatory from which the call was initiated. Amtrak personnel shall knock on the lavatory door and inquire as to the assistance required. Should no response result, Amtrak personnel shall unlock the door, if locked, evaluate the situation and render assistance as necessary.
- Amtrak personnel shall reset the attendant call system, using the dedicated reset switch in the electrical locker, immediately upon completion of their assistance on scene.
- Amtrak personnel shall monitor the operability of all equipment and features, the cleanliness of the spaces and fixtures, and the provision of sufficient consumables in each lavatory space throughout the course of each trip.

Amtrak personnel shall restock all consumables in each lavatory (toilet tissue, hand soap, seat protectors, facial tissue, etc.) as required during the course of each trip.

FOOD SERVICE

Caltrans and Amtrak will determine, via separate and supplemental agreement, the standards, practices and procedures for the provision of service within the food service cars or via cart-based food service.

SEATS

EQUIPMENT

The California Car cabs trailers and baggage combines are equipped with single and double seats designed and arranged to maximize the comfort, convenience, aesthetics, and accessibility of the equipment. The intent of the equipment is that every passenger shall be provided the most comfortable travel possible for their fare.

The majority of seating in the passenger areas is in paired seats. A small number of single seats are provided as well. All seats are equipped with armrests that may be raised or lowered according to the preference of the passengers and to facilitate access to and egress from the seats. Seat pairs are fitted with center armrests between the two seating locations. When raised, the center armrest stows flush with the seat back, providing a continuous bench seat, wider than the two normally available widths combined.

PROCEDURES

A paid individual passenger boarding the California Car is entitled to one seat location for his or her person. No passenger shall be entitled to more than one seat location for their person or any personal effects. Only if light loading permits shall passengers use adjacent seat locations for placement of their belongings.

Amtrak personnel shall provide every assistance necessary for elderly or physically challenged passengers to be placed in or moved from a seat. In the event that an individual location, either a single or double seat, is not sufficient for the comfortable accommodation of a passenger because of physical dimension or handicap, such a passenger shall be permitted to occupy the entire width of a double seat with the center armrest raised. This expanded occupancy shall be provided at no additional cost to the passenger.

BICYCLES

Amtrak shall permit passengers to bring bicycles on the trains, subject to the terms of this Agreement.

EQUIPMENT

Each California Car cab and trailer are equipped with a bicycle storage and securement unit, located in one passenger vestibule diagonally across from the accessible lavatory. The unit provides space and securement for up to three bicycles, stored vertically on their rear wheels and secured to the inside bulkhead of the unit.

PRIORITY

Bicycles shall be accommodated on California Car consists or consists including one or more California Cars, up to the combined capacity of California Car bicycle storage units. All 49-U.S.C. 24704 train consists and any special trains made up of or including California Cars shall accommodate bicycles to the extent of the available bicycle storage capacity.

The primary purpose of the bicycle storage unit shall be to secure storage and securement of bicycles. All bicycles boarding a consist of California Cars shall be stored and secured in the bicycle storage units.

CAPACITY

Should the number of bicycles boarding a train made up of, or including, California Cars exceed the available bicycle storage capacity, the Conductor shall determine the available passenger space in the lower level of the cars. At the discretion of the conductor, additional bicycles may be boarded, provided that:

a. They are held in a standing position in the lower level passenger seating area by the subject passenger and do not obstruct or impede the passage of other passengers, or

b. They are held in a standing position in one of the lower level vestibules and do not obstruct or impede the passage of other passengers.

Amtrak personnel shall monitor bicycle storage capacity and direct passengers boarding bicycles in excess of the bicycle storage capacity of the car being boarded to other cars with available capacity. Should a passenger attempt to board a bicycle on a train which is at bicycle capacity, Amtrak personnel shall deny that boarding if the Amtrak personnel judges that regular passenger loading precludes the safe carriage of the bicycles.

[redacted]

[redacted]

[redacted]

b. [redacted]ers shall carry bicycles, clear of the ground, from the platform [redacted] vestibule of the car. Amtrak personnel shall assist passengers carrying bicycles as necessary to ensure safe and expeditious boarding.

c. In the vestibule, bicycles shall be lifted to a vertical position, with their rear wheels on the floor, for movement into the bicycle storage unit. Amtrak personnel shall assist passengers storing bicycles, as necessary, to ensure safe and expeditious boarding.

d. Bicycles shall be secured in the bicycle storage unit as directed by storage device instructions, conspicuously displayed in or adjacent to the bicycle storage unit and included in this Appendix. Bicycles may be locked in the storage unit by passengers with personal bicycle locks.

e. Passengers boarding bicycles shall take seats in the passenger seating areas of the train. Passengers with bicycles may remain in the company of their stored bicycle at the discretion of the Amtrak personnel if they do not obstruct or impede the passage of other passengers.

f. Audible announcements of the next scheduled station stop shall provide adequate notice for passengers to remove bicycles from the storage unit.

g. Amtrak personnel shall assist passengers removing bicycles, as necessary, to ensure safe and expeditious alighting.

h. Passengers shall carry bicycles, clear of the ground, from the vestibule to the platform. Amtrak personnel shall assist passengers carrying bicycles as necessary to ensure safe and expeditious alighting.

GROUPS OF BICYCLISTS

Groups of bicyclists shall be accommodated to the extent of available bicycle storage space on each car and in an entire consist. Should the number of passengers in a group boarding bicycles exceed the storage capacity of a single car, Amtrak personnel will direct the group to store additional bicycles in other cars. Should the number of passengers in a group boarding bicycles exceed the storage capacity of an entire train, Amtrak personnel will advise the group accordingly, and allow them the option to board part of the group or wait for a following train. At no point shall the safety and comfort of any other passengers be compromised to accommodate passengers carrying bicycles in excess of the capacity of the consist.

APPENDIX I

MAINTENANCE AGREEMENT

MAINTENANCE AGREEMENT
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APPENDIX 1

State Provided Equipment Vehicle Details

APPENDIX 2

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Amtrak/Caltrans Maintenance Analysis Program - F59PHI Locomotive MAP Forms

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Amtrak/Caltrans Maintenance Analysis Program - Car MAP Forms

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Amtrak/Caltrans Maintenance Analysis Program - Food Service Car MAP Forms

APPENDIX 6

Spare Parts Invoice Format

[illegible]

[illegible]

MAINTENANCE AGREEMENT BETWEEN
CALIFORNIA DEPARTMENT OF TRANSPORTATION
(CALTRANS)
AND
NATIONAL RAILROAD PASSENGER CORPORATION
(AMTRAK)
FOR THE MAINTENANCE OF
STATE PROVIDED EQUIPMENT
DATED NOVEMBER 20, 1994

THIS AGREEMENT, DATED NOVEMBER 20, 1994, IS ENTERED INTO BY AND BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) AND THE NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK).

1. GENERAL PROVISIONS

1.1 Definitions

As used in this Agreement, the following terms shall have the meaning specified in this Section.

a. Agreement. This Agreement and all appendices hereto as amended or modified pursuant to the terms hereof.

b. Amtrak. The National Railroad Passenger Corporation.

c. Amtrak Provided Equipment. Locomotives and passenger cars supplied by Amtrak under contract for State supported 49-U.S.C. 24704 service.

d. Approved Contract Amount. The budget agreed upon by the parties pursuant to the process described in Section 7 of this Agreement, including any amendments to such budget.

e. Caltrans. The California Department of Transportation.

f. Contract Services/Services. The train maintenance operations and related functions that are specified to be performed by Amtrak for Caltrans by this Agreement and current 49-U.S.C. 24704 agreements.

g. Caltrans Officer. The Chief of the Office of Equipment of the Division of Rail of the California Department of Transportation, acting directly or through properly authorized agents, such agents acting within the scope of the particular duties assigned to them.

h. Delivery. The arrival and acceptance by Caltrans, of vehicles, equipment, parts, materials, tools, documentation and training required under equipment manufacture contracts at the designated point of delivery in California.

i. Equipment Delivery Period. The period of time between the first delivery of State Provided Equipment and the transfer to Amtrak of the final piece of State Provided Equipment contemplated by this Agreement.

j. Federal Fiscal Year/Fiscal Year. The Federal Fiscal Year from October 1 through September 30.

k. Manufacturer. The original equipment manufacturers of State Provided Equipment including sub-suppliers.

l. Operator. When used in this Agreement or the Appendices to, it shall mean Amtrak.

m. Planned Deployment Plan. The detailed description of the operation of State Provided Equipment in a Federal Fiscal Year, including specific routes on which Amtrak shall provide Services, train consists, units of equipment to be maintained, and other related services, all as agreed upon by the parties, prior to the start of each Federal Fiscal Year, or as amended by the agreement of the parties during the course of the Federal Fiscal Year.

n. State. The State of California, Department of Transportation.

o. State Provided Equipment. Locomotives and passenger cars, including self propelled cars supplied by Caltrans, that are used in providing the Contract Services.

p. Service Property. The service property includes tracks, land, structures, and other maintenance facilities that are located on or adjacent to the rail lines and yards, that are used by Amtrak in provision of the Services under this Agreement.

q. Title. Documentation of ownership of locomotives and passenger cars as required by the State of California.

r. Transfer. Transfer is the change of custody for each locomotive or passenger car from Caltrans to Amtrak, or from Amtrak to Caltrans. Each locomotive or passenger car shall be considered transferred when the transfer document for the individual vehicle is signed by the Caltrans Officer and Amtrak's appropriate representative. Physical custody of each vehicle shall be assumed at a location agreed to by Caltrans and Amtrak.

s [redacted]

1.2 Notices

[redacted]

C.O. Mallery
Chief Executive Officer West Coast Strategic Business Unit
National Railroad Passenger Corporation
800 North Alameda Street
Los Angeles, CA 90012
Telecopy: (213) 683-6890

Cindy McKim
Deputy Director, Rail, Transit & Aeronautics
California Department of Transportation
1801 30th Street, East Building
Sacramento, CA 95816
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Either party may change the name, address or title of the party to be notified hereunder, by notifying the other party in writing of such change.

1.3 Successor and Assigns

The rights and obligations of Amtrak and Caltrans hereunder may not be assigned, other than by an act of federal or state law, unless with the prior written consent of both parties.

1.4 Entire Agreement

This Agreement, which relates solely to the substitution of State Provided Equipment in lieu of APE, is in addition to agreements between Caltrans and Amtrak, which relate solely to the use of State funding to support Amtrak intercity operations.

This Agreement embodies the entire agreement between Caltrans and Amtrak as it relates to State Provided Equipment. No oral or prior written matter not incorporated herein will have any force or effect. The parties hereby acknowledge that they are not relying on any representations or agreements other than those contained in this

Agreement, current 49-U.S.C. 24704 agreements, and the Maintenance Agreement for State Provided Equipment. This Agreement will not be modified except in writing subscribed to by both parties.

1.5 Severability

In the event that any provision of this Agreement is found to be invalid or unenforceable in any respect, the remainder of this Agreement shall nevertheless be binding with the same effect as if the invalid or unenforceable provision were originally deleted. This will not apply where the provision that is declared invalid or unenforceable is so fundamental to the Agreement that the remainder of the Agreement, standing alone, does not represent a meeting of the minds of the parties, or that deletion substantially alters the rights or obligations of either party under the Agreement.

1.6 Waiver

None of the provisions of this Agreement shall be considered waived by either party unless such waiver is reduced to writing and signed by the party to be charged. No such waiver shall be construed as a modification of any of the provisions of this Agreement or as a waiver of any past or future default of breach hereof except as is expressly stated in the waiver. The failure of either party to insist at any time upon the strict observance of any of the provisions of this Agreement, or to exercise any right or remedy in this Agreement, shall not impair any such right or remedy or be construed as a waiver or relinquishment thereof.

1.7 Authority Of Caltrans Officer

The Caltrans Officer shall decide on behalf of Caltrans all questions which may arise regarding the quality or acceptability of the Services performed under this Agreement; all questions which may arise regarding the interpretation of this Agreement; all questions that may arise regarding the acceptable fulfillment of this Agreement on the part of Amtrak; and all questions which may arise regarding compensation. In addition, the Officer shall have complete authority to administer and make decisions on disputes and claims on behalf of Caltrans during the term of this Agreement. As the designated representative of Caltrans, the Officer's decision shall be Caltrans final position and the Officer shall have the authority to enforce and make effective such decisions and orders which Amtrak fails to carry out promptly. This is subject to the provisions of Section 10 - Dispute Resolution, of this Agreement.

The Officer shall respond in writing, within twenty (20) working days of receipt, to all written questions and requests concerning approvals, interpretations, and other matters pertaining to this Agreement, unless otherwise allowed for by this Agreement.

Amtrak General Management shall respond in writing, within twenty (20) working days of receipt, to all written questions and requests for information from the Caltrans Officer regarding this Agreement as those questions relate to Amtrak's maintenance of State Provided Equipment.

1.5 Interpretation of the Agreement

Should it appear that the Services to be done, or any of the matters relative thereto are not sufficiently detailed or explained in this Agreement, Amtrak may apply to the Officer for such further written explanations as may be necessary, and shall, as part of this Agreement, conform to the explanation provided by the Office, provided that such explanation is consistent with the provisions of this Agreement.

2. GENERAL SERVICES PROVIDED

2.1 General Scope of Services

Amtrak shall, within the funds available in the Final Budget each year, maintain, repair, clean, inspect, and service all State Provided Equipment in accordance with the equipment maintenance standards described in this Agreement. Amtrak shall do this Service work in a timely manner at designated maintenance facilities as detailed in this Agreement.

Specifically, Amtrak shall:

a. Perform the scheduled maintenance, repair and cleaning of State Provided Equipment as detailed in Section 5 - Maintenance of State Provided Equipment, of this Agreement.

b. Perform accident damage repairs to State Provided Equipment as allowed for by this Agreement.

c. Perform the material management and purchasing functions as detailed in Section 6 - Materials Management, of this Agreement.

The actual vehicles that shall be considered State Provided Equipment for the purposes of this Agreement are listed in Appendix 1 - State Provided Equipment Vehicle Details.

2.2 Utilities

Amtrak shall be responsible for the supply of all utilities (wayside power, water and electricity) at all locations that are used in the provision of the Services

as required by this Agreement. This shall include the provision of utilities at any layover points that are required by this Agreement or the Transfer Agreement.

2.3 Warranty Support

Amtrak shall comply with the terms of any Manufacturer warranty on State Provided Equipment, and cooperate with Caltrans in the fulfillment of any manufacturer obligation on those warranties. Amtrak shall follow the warranty procedures and use the warranty forms and tags as illustrated in Appendix 2 - Amtrak/Caltrans Warranty Tag Procedure for Caltrans Owned Locomotives and Cars. All reimbursements from the manufacturers shall be in the form of parts or spare parts credit which shall be applied by Amtrak solely for the benefit of State Provided Equipment. Amtrak shall ensure that adequate controls are in place to ensure that Caltrans is not charged for Caltrans supplied items and that Caltrans supplied items are not diverted to non Caltrans uses.

Caltrans will be party to any dispute between Amtrak and the Manufacturers concerning warranty issues and reserves the right to be present at any tear down inspections of warranty disputed parts. Access to State Provided Equipment will be provided per Section 4 of the Transfer Agreement.

For warranty purposes, Amtrak shall maintain equipment histories on all State Provided Equipment listed in Appendix 1 - State Provided Equipment Vehicle Details. Amtrak will retain copies of warranty claim forms and all other warranty information in a location agreed to by Caltrans and Amtrak.

2.4 Performance Guarantee Support

Amtrak shall provide support and will participate with Caltrans in the measurement of vehicle availability as required under the Performance Guarantee provisions from the Manufacturers. Amtrak shall supply maintenance information as required by this Agreement, and operational information as required by the Transfer Agreement, to enable Caltrans to maximize its reimbursements from Manufacturer performance guarantees. All reimbursements from the Manufacturers shall be in the form of parts or spare parts credit which shall be applied by Amtrak solely for the benefit of State Provided Equipment. Amtrak shall ensure that adequate controls are in place to ensure that Caltrans is not charged for Caltrans supplied items and that Caltrans supplied items are not diverted to non Caltrans uses.

2.5 Testing and Acceptance

Amtrak shall provide support and will participate with Caltrans and equipment manufacturers in the testing and acceptance of State Provided Equipment. A joint inspection of each piece of new equipment shall be

conducted by Caltrans and Amtrak per Section 1 - General Provisions of the Transfer Agreement, and specifically Sections 1.9 through 1.12.

3. AMTRAK RIGHTS AND OBLIGATIONS

3.1 Documentation Requirements

Amtrak shall document and maintain a complete and accurate mechanical history on each piece of State Provided Equipment for control, maintenance, and repair scheduling and planning purposes, as well as for warranties and performance guarantees.

3.2 Reporting Information

Amtrak will retain, for at least three (3) years, and make available to Caltrans upon request, all records concerning the inspection, maintenance, repair and cleaning of each unit of State Provided Equipment and will deliver such records to Caltrans at the end of that period if Caltrans so requests.

3.3 Training and Manuals

To ensure that State Provided Equipment is maintained to the correct standards and practices embodied in this Agreement, the following subsections shall govern the provision of manuals necessary for training and the training for Amtrak/Caltrans personnel.

3.3.1 Training of Amtrak/Caltrans Employees

Caltrans shall ensure all training contracted to be provided by the Manufacturers is given to Amtrak/Caltrans personnel. This shall include the provision of trainer's notes to Amtrak. Amtrak shall work with the equipment manufacturers and Caltrans to develop appropriate technical training courses, and to train employees in their required functions. The training courses to be provided by the Manufactures are listed below:

Locomotive

- 710G3B Engine Maintenance
- F59PHI Orientation
- F59PHI Electrical Systems
- 26LUL Familiarization
- Caterpillar 3412TA Familiarization

Car

- Operations Training
- Running Maintenance Training
- Heavy Maintenance Training

All subsequent training of Service personnel shall be the responsibility of Amtrak. Amtrak will be responsible for ensuring training is provided when necessary and that training is regularly updated as required.

All training programs or portions thereof designed specifically for State Provided Equipment will be reviewed and approved by Caltrans and will be designed, developed and implemented in accordance with established professional standards for performance-based instruction. Amtrak will provide Caltrans with copies of all training programs used for employees who are maintaining and repairing State Provided Equipment.

Amtrak will maintain and store training records which will be made readily available to Caltrans upon request. Training records will identify each employee who has received training and the date of courses taken.

3.3.2 Manuals for State Provided Equipment

The inspection, maintenance and repair of State Provided Equipment shall be carried out in conformance with the various manufacturers' maintenance instructions after a minimum of ten (10) copies of each manual have been delivered. Amtrak will be guided by the following manuals and others that may reasonably be issued from time to time:

- EMD Service Manuals for F59PHI locomotives
- GE Service Manuals for Dash-8 locomotives
- Caterpillar Service Manuals for Head End Power engines
- MK Service Manuals for the California Car

Caltrans shall be responsible for supplying the initial manuals to Amtrak upon the transfer of State Provided Equipment or when they become available, whichever occurs first. Amtrak shall be responsible for updating the manuals in accordance with information provided by the original equipment Manufacturer and shall maintain at least one master set of manuals in good condition, fully updated, in each location where regularly scheduled maintenance will occur. Manuals rendered lost or unusable through Amtrak negligence shall be replaced at no cost to Caltrans. For manuals rendered unusable through reasonable wear and tear, Caltrans shall be invoiced for the cost of replacement price paid by Amtrak.

3.4 Quality Control

Amtrak and Caltrans shall establish a Quality Control Program, including guidelines, standards and procedures for implementation as it relates to the maintenance, repair, service, and cleaning of State Provided Equipment.

Amtrak will ensure vendor compliance with specifications, material quality, and compliance with maintenance standards and procedures. Amtrak, and Caltrans as necessary, will conduct quality control performance reviews to assess the standards of maintenance, repairs, servicing, and cleaning of State Provided Equipment. Caltrans shall have the right to perform quality control monitoring at any time as long as such monitoring or inspection shall not unreasonably affect Amtrak's ability to provide these Services and the services required under the Transfer Agreement.

Quality deficiencies found during monitoring will be witnessed by authorized Amtrak personnel as deficiencies are found, and the quality control form will be signed off by both the monitor and Amtrak with or without comments.

Amtrak will be accountable for quality deficiencies found during performance monitoring which occur between the completion of a MAP inspection and return to service.

Monitoring which takes place soon (i.e., after one or more revenue trips) after equipment has been returned to service after maintenance or cleaning, are intended to be advisory only and without punitive action.

3.5 Subcontracting

Amtrak shall have the right to subcontract any of the Services to be provided under this Agreement subject to Caltrans approval, which approval shall not be unreasonably withheld. The subcontracting of any aspect of the contracted work does not relieve Amtrak of any of its obligation under this Agreement.

Amtrak's subcontractors involved in any aspect of providing the Contract Services shall be subject to the direction, supervision, and control of Amtrak and not Caltrans.

3.6 Compliance with Industry Codes, Regulations and Standards

Amtrak shall comply with FRA and CPUC regulations, AAR and accepted industry standards, and all other applicable State and local codes, as well as the standards set forth in this Agreement, during maintenance of State Provided Equipment.

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4. CALTRANS RIGHTS AND OBLIGATIONS

4.1 Outside Contractors

In circumstances not involving Amtrak's sole negligent acts or omissions as provided In Section 9 of the Transfer Agreement, at its sole discretion, Caltrans may elect to arrange for the original equipment suppliers or other outside contractors to perform major repairs or modifications to State Provided Equipment, including performance of such work at designated maintenance facilities or other locations to be agreed upon, subject to current labor agreements. Amtrak shall, when directed by Caltrans, subcontract wreck repair as directed by Caltrans in those instances where Caltrans has determined that the estimated time and costs for that directed repair work are in the State's best interests. Unless otherwise agreed to, the State will pay Amtrak in advance for the estimated costs of those directed repairs from the State operating funds encumbered under the 49-U.S.C. 24704 agreement.

4.2 Caltrans Right to Additional Information

Caltrans shall have the right to obtain from Amtrak, within fifteen (15) working days of receipt of a written request, any reasonable information related to Services performed on State Provided Equipment. This is in addition to any other rights to information and reports included in this Agreement and the 49-U.S.C. 24704 agreements.

4.3 Access to Equipment

Authorized Caltrans staff will be allowed immediate and unannounced access to State Provided Equipment as pronounced in the Transfer Agreement, Section 4.2.

5. MAINTENANCE OF STATE PROVIDED EQUIPMENT

5.1 Location of Maintenance of State Provided Equipment

The maintenance of State Provided Equipment as provided for by this Agreement shall be performed in the locations listed below. The location at which individual items are maintained shall be consistent with the Planned Deployment Plan from the Transfer Agreement, and shall be chosen to ensure maximum in-service fleet time is achieved. Maintenance or repair of State Provided Equipment shall not be conducted in other locations without the prior approval of Caltrans.

- Los Angeles - Redondo
- Los Angeles - 8th Street
- Oakland - Amtrak car shop
- Oakland - Amtrak
- San Jose

Additionally, layover facilities and cleaning and inspection of equipment shall be provided at the following additional locations as required by the current Planned Deployment Plan:

- Santa Barbara
- San Jose
- Bakersfield
- Sacramento
- San Diego
- Roseville
- Colfax (future)
- San Luis Obispo (future)

Unscheduled repairs to State Provided Equipment to allow the completion of scheduled current operations may be performed at any location consistent with minimizing the disruption to service, preventing equipment damage and maintaining safety.

5.2 General Maintenance Requirements

Amtrak shall maintain all State Provided Equipment in accordance with a scheduled preventative maintenance program that is identified in this Agreement. The program may be modified from time-to-time by mutual agreement between Amtrak and Caltrans.

Work performed will be fully documented by individual units where possible, including equipment type worked on, person-hours expended, spares and materials consumed.

Periodic maintenance work shall be done in accordance with printed instructions. These instructions shall be found on the maintenance worksheets contained in Appendices to this Agreement which may be revised by mutual agreement of the parties. Each item of maintenance shall be signed by the mechanic when completed. The completed forms shall then be signed by the foreman in charge and Amtrak's Mechanical Department Officer. The completed forms shall be available for inspection by Caltrans representatives at any time after the completion of the relevant work and shall be kept on file for at least 3 years.

5.2.1 Locomotive Maintenance Schedules

The worksheets for the maintenance of State Provided Locomotives are in Appendix 3 and cover the following maintenance cycle time periods:

a. Daily Maintenance Analysis Program MAP reports
b. 15 Day Maintenance Analysis Program MAP reports
c. 92 Day Maintenance Analysis Program MAP reports
d. 180 Day Maintenance Analysis Program MAP reports
e. 360 Day Maintenance Analysis Program MAP reports
f. 720 Day Maintenance Analysis Program MAP reports
g 1080 Day Maintenance Analysis Program MAP reports

The 720 & 1080 Day Maintenance Analysis Program MAP reports are for reference only unless the term of this Agreement is extended as allowed for by the provisions of Section 11 - Effective Date, Term and Termination, of this Agreement.

5.2.2 Car Maintenance Schedules

The worksheets for the maintenance of State Provided Cars are in Appendix 4 and cover the following maintenance cycle time periods:

a. Daily Maintenance Analysis Program MAP reports
b. 92 Day Air Brake Inspection MAP Report
c. 120 Day Maintenance Analysis Program MAP reports
d. 360 Day Maintenance Analysis Program MAP reports
e. 720 Day Maintenance Analysis Program MAP reports

The 720 Day Maintenance Analysis Program MAP reports are for reference only unless the term of this Agreement is extended as allowed for by the provisions of Section 11 - Effective Date, Term and Termination, of this Agreement.

5.2.3 Food Service Car Maintenance Schedules

The worksheets for the maintenance of State Provided Food Service Cars are in Appendix 5 and cover the following maintenance cycle time periods:

a. Pre-Trip Cleaning Maintenance Analysis Program MAP reports
b. 60 Day Maintenance Analysis Program MAP reports
c. 120 Day Maintenance Analysis Program MAP reports
d. 360 Day Maintenance Analysis Program MAP reports
e. 720 Day Maintenance Analysis Program MAP reports

The 720 Day Maintenance Analysis Program MAP reports are for reference only unless the term of this Agreement is extended as allowed for by the provisions of Section 11 - Effective Date, Term and Termination, of this Agreement.

5.3 General Repair Requirements

Notwithstanding the requirements to complete scheduled maintenance of State Provided Equipment, Amtrak shall repair in a timely manner all failures of, and damage to, State Provided Equipment in accordance with the provisions of this Agreement. Such repairs shall be carried out in such a manner that downtime for the unit of equipment is minimized. Should the necessary repairs exceed five (5) working days, Caltrans shall have access to current downtime information (work completed and planned) through the Arrow system and shall be advised immediately if there will be any anticipated impact to Service.

5.3.1 Damage to State Provided Equipment

In circumstances not involving Amtrak's sole negligent acts or omissions as provided in Section 9 of the Transfer Agreement, Amtrak shall not make any repairs to any unit of State Provided Equipment without prior written approval from Caltrans if the cost of the modifications or repairs due to damage to that unit of State Provided Equipment is expected to exceed $20,000. Requests for approval shall include an assessment of all work to be completed and a budget amount for the completion of said work. Any such requests shall be submitted to Caltrans within five (5) working days of the incident causing the work to be required. Caltrans shall respond to any such request within (five) 5 working days of its receipt. Caltrans shall have the right to inspect any such damage and review the basis for the projected budget repair amount submitted by Amtrak. Caltrans shall have the right to have such repairs or modifications carried out by a third party at Caltrans sole discretion.

5.3.2 Heavy Overhaul

No heavy overhauls are anticipated to be required by State Provided Equipment in the initial terms of this Agreement. However, should heavy overhaul of components be required, this shall be considered to be within Amtrak's scope of work whereupon Amtrak shall arrange for such heavy overhaul work to be completed at a location subject to Caltrans approval. Amtrak shall also make appropriate provision for such

heavy overhaul work in the Maintenance Budget if Caltrans determines that heavy overhaul may become necessary.

5.4 Maintenance and Repair Standards

All work to be completed on State Provided Equipment under the terms of this Agreement shall be to the minimum standards specified in the maintenance procedures in this Agreement, and specifically this Section 5. Failure to achieve these standards shall be considered to be non-performance under the terms of this Agreement, and will be handled in accordance with Transfer Agreement Section 6.3.1 and/or Section 10.

All locomotives in service shall be equipped with spare jumpers and a functioning radio and maintained in order to develop their designed horsepower and speed. Locomotives must not be operated in revenue service with non-functional auxiliary equipment except with the permission of Caltrans or in the case of an emergency.

5.4.1 Equipment Cleaning and Inspection

Amtrak will actively pursue and maintain a high standard for cleanliness for both the exteriors and interiors of State Provided Equipment. Caltrans will make every effort to work together with Amtrak to realize this important goal. Other than changes due to differences in equipment and interior decor, there will be no new standards imposed by Caltrans above the existing "Amtrak Car Cleaning Standards" (MCC004 Course Handout) at the outset. The existing Amtrak cleaning procedures and frequencies for cars and locomotives will be used and closely monitored.

Amtrak shall clean, service and inspect equipment in accordance with mutually agreed upon standards, and in compliance with 49 CFR, Part 229, each day prior to placing State Provided Equipment in service.

Amtrak shall wash the exterior of all State Provided Equipment as required to ensure that the visual exterior appearance of each train set is not noticeably affected. In any event, the exterior of all State Provided Equipment shall be cleaned at least once a week. In the event that an automatic train wash is used, any areas that are not reached by this equipment shall be washed manually during periodic maintenance.

Amtrak shall ensure all State Provided Equipment is clean when dispatched from the servicing point. Amtrak shall use its best reasonable efforts to monitor and report to Caltrans any cleaning deficiencies. It is understood and agreed that the obligation to perform car cleaning is that of Amtrak. Cleaning standards to be followed by Amtrak shall be in accordance with the "Amtrak Car Cleaning Standards" publication and this Agreement, unless otherwise mutually amended by both parties.

If Service results do not meet Caltrans expectations, the Amtrak cleaning program will be adjusted, either in procedure or interval, with a commensurate adjustment of costs if required, to achieve the desired standard.

5.4.2 Alterations and Modifications

Amtrak shall not undertake any alteration or modification of State Provided Equipment without the express written permission of the Caltrans Officer. If a modification is sought by Amtrak, Amtrak shall submit a written description of the work, with sketches and wiring schematics as appropriate, and a detailed cost estimate for approval. During the course of a modification program, Amtrak shall maintain current permanent records of those units which have been modified. Amtrak shall also ensure modification information is available to Caltrans through the Arrow system. Revised vendor components which replace obsolete components and which may require minor installation modifications shall not be considered as modifications under the intent of this section.

5.5 Event of Non-Compliance

In the event Amtrak fails to service State Provided Equipment in accordance with the terms of this Agreement, Caltrans and Amtrak shall be guided by Section 6.3.1 and/or Section 10 of the Transfer Agreement. If, after following the procedures set forth in Sections 6.3.1 or 10, no satisfactory resolution has been reached, Caltrans may at its sole discretion transfer maintenance of all or part of the State Provided Equipment to a third party. Prior to any such transfer, Amtrak shall be given thirty (30) days written notice.

6. MATERIALS MANAGEMENT

6.1 Material Management System

Amtrak shall use AAMPS for inventory control and cost effective, efficient procurement and material dispersal, accounting, and all warranty administration, including the implementation of a material purchasing accounting system.

Amtrak shall provide AAMPS training and manuals for designated Caltrans contracted consultants and Caltrans employees who will monitor Amtrak inventory control.

All materials for use on State Provided Equipment shall be stored in a physically separate location, and considered a unique location by the AAMPS system. If the Oakland Maintenance Facility is available, Amtrak shall be responsible for the provision

of all Caltrans/Amtrak supplied storage areas, shelving and security of the storage area, unless specifically excepted by this Agreement. If a shortage in Maintenance Facility space occurs, Amtrak and Caltrans shall mutually agree upon alternative sites for storage, shelving, and security arrangements. Parts and components shall be stored only in designated areas, and under security appropriate for the nature of the part. Parts and components that are sensitive to heat, cold, moisture or humidity shall be properly stored and protected.

Amtrak will institute a materials control and management system that will maximize efficiency, reduce inventory cost through forecasting of material requirements, and control all phases of the materials handling function. A review of maximum/minimum inventory levels will be conducted at least every three months, or as directed by Caltrans. Caltrans shall attend this review and respond in writing within ten (10) working days with any disagreement of the maximum/minimum inventory levels prior to implementation.

6.2 Purchasing of Spare Parts and Consumables

Amtrak shall be responsible for, and shall manage the purchasing of all materials required to maintain and repair State Provided Equipment. All materials or equipment purchased by Amtrak pursuant to this Agreement shall be used solely for the repair and maintenance of State Provided Equipment and shall remain the property of Caltrans. Unless otherwise agreed, Caltrans, through Amtrak or other sources, shall purchase materials for implementation of modifications or equipment improvements not included within the Contract Services.

Caltrans will submit a list of required parts to maintain and repair State Provided Equipment. Caltrans and Amtrak will agree that all applicable items have been included. Initial spare parts will be purchased by Caltrans through their contracts with equipment Manufactures and transferred to Amtrak. This shall be at no additional cost to Caltrans.

In circumstances where parts or supplies required for State Provided Equipment are not available from Caltrans inventory but are available in the Amtrak inventory for its intercity or commuter rail passenger service, Amtrak may use such parts or supplies to maintain or repair State Provided Equipment. Caltrans shall reimburse Amtrak for its system average cost of replacing any such parts or supplies.

Amtrak shall purchase spare parts and lubricants in accordance with the terms of the warranty agreements between the Manufacturers and Caltrans for the duration of said warranty period.

In cases where Amtrak purchases spare parts or lubricants from other than the original equipment suppliers for reason of cost or delivery, Amtrak shall notify Caltrans. In all cases, the performance of selected spare parts, lubricants or consumables shall meet or exceed the performance of the originally specified part.

In making purchasing decisions, Amtrak shall purchase, where prudent and cost-effective, from local vendors, but shall in all circumstances take into account and give full consideration to factors including, but not limited to, price, delivery schedule, freight charges and applicable local, state and federal regulations.

6.3 Reporting of Spare Parts Transactions

Each month Amtrak shall submit a comprehensive material accounting report showing all spare parts transactions related to State Provided Equipment for the previous month, including both parts received into stores and parts used. The comprehensive report shall include:

- Store Activity Report
- Issues by Location
- Monthly Transfers Activity
- Price Adjustments by Location
- Quantity Adjustments
- Removals by Location
- Receipt Transactions

Parts received during the month shall be listed in one of four categories listed below, showing quantity received, description, part number, unit cost and total cost:

- Purchased
- Supplied under warranty (by inquiry in AAMPS)
- Supplied under Performance guarantee (by inquiry in AAMPS)
- Transferred from Amtrak Stock

Parts used during the month shall be shown on an information only report by AAR class. Caltrans and Amtrak shall jointly agree what components shall be considered as consumable spare parts.

For consumable spare parts, the report need only show the total quantity of each component used for that month by location, along with unit price and total cost.

For all major spare parts, the report shall show the date, location, the unit of State Provided Equipment it was used on, unit price and total cost per unit as provided to Caltrans by inquiry in ARROW. This report for information only, will not result in any change to the monthly billing for spare parts submitted to Caltrans.

6.4 Materials Management Budget

The materials management budget shall be included in the annual maintenance budget as written in Section 7 - Annual Maintenance Budget, and Appendix 7 - Form of Budget, of this Agreement.

6.5 Invoicing and Payment

Payment shall be governed by the terms of this Agreement with spare parts included in the overall Maintenance Agreement invoice. Supporting documentation in the form of a material accounting statement, as shown in Appendix 6 - Spare Parts Invoice Format, shall be supplied to indicate the actual spare parts purchased and inventory control labor used during the invoice period.

6.5.1 Invoicing for Material Management

The annual budget shall provide a position to perform the material control function required by this Agreement. Caltrans shall pay an amount not to exceed an annual salary plus benefits for one (1) PY for a Federal Fiscal Year.

Caltrans shall pay a fixed monthly amount to Amtrak for the provision of material management services in accordance with the amount contained in the current budget. This amount shall be included on the monthly invoice and shall be broken down to show direct labor costs and any applied overhead costs.

6.5.2 Invoicing for Purchased Spare Parts

Caltrans shall be invoiced for the purchase of spare parts for the month in which Amtrak receives the invoice from its supplier. Amtrak shall provide, at Caltrans request, a copy of any invoices that require further clarification. The invoice to Caltrans shall show all items being charged for that month, with quantity, unit price, Amtrak part numbers, and total cost. In addition, a report of all Caltrans provided spare parts included in the material management system as a result of warranty claims and performance guarantees will be provided as outlined in Section 6.3. Suppliers part numbers are available through the materials management system.

7. ANNUAL MAINTENANCE BUDGET

For all State Provided Equipment, Amtrak shall provide equipment maintenance budget information. The total maintenance budget shall be separated among the train numbers on the basis of route miles the State Provided Equipment is used on each route. This amount shall be the maximum amount shown in the budgets per Transfer Agreement, Section 5 - Budgeting Process. Maintenance budget information shall be submitted as detailed in Appendix I - Form of Budget of this Agreement, to be submitted concurrently with the Transfer Agreement budget.

8. INVOICING AND PAYMENT

For the maintenance of State Provided Equipment, Amtrak shall submit invoices for maintenance as required by the Transfer Agreement, Section 6. A monthly report of service activity as detailed in Agreement shall be submitted at the same time as the Transfer Agreement monthly invoice.

9. DAMAGE TO EQUIPMENT

Responsibility with respect to damage to the State Provided Equipment shall be as provided for in the terms of the Transfer Agreement, Section 9 - Damage to Equipment.

10. DISPUTE RESOLUTION

The process of dispute resolution embodied in the Transfer Agreement, Section 10 - Dispute Resolution, is hereby incorporated into this Agreement by this reference.

11. EFFECTIVE DATE, TERM AND TERMINATION

11.1 Term

The Agreement shall take effect November 1, 1994 and remain in effect so long as the Transfer Agreement is in effect.

11.2 Termination for Cause by Caltrans

Caltrans may, in its sole discretion, terminate this Agreement upon thirty (30) days prior notification, upon the occurrence of any material breach of this Agreement which shall include but not be limited to, the following:

1. Amtrak's refusal to perform any of the Services under this Agreement, when such refusal significantly disrupts 49-U.S.C. 24704 service and is not excused by any other provisions of this Agreement.

2. Amtrak's insolvency or inability to meet its obligations, or the filing of an involuntary petition in bankruptcy against it, or the adjudication that it is bankrupt; of Amtrak's making an assignment for the benefit of creditors, filing a petition for an arrangement, composition or compromise with its creditors under any applicable laws, or having a trustee, receiver, or other officer appointed to take charge of its assets,

3. Amtrak's failure to comply with a valid and respectable law, ordinance, rule, regulation or order of any legal entity or authority that has a material impact on Amtrak's ability or fitness to carry out its obligations to provide the Services under this Agreement, or

4. Amtrak's failure to comply with the terms and conditions of this Agreement.

11.3 Termination for Cause by Amtrak

Amtrak may at its sole discretion, terminate this Agreement upon the occurrence of material breach of this Agreement, which shall include, but not be limited to, the failure of Caltrans to make payments as required by this Agreement.

11.4 Termination for Convenience

Caltrans may, no later than thirty (30) days after the occurrence of any of the following, where the occurrence of the event makes it impossible or unsuitable for Amtrak to continue as operator of the Services, terminate this Agreement:

1. The abolition or merger of Caltrans with another entity.

2. Legislation or court decision requiring that another entity operate or finance the Services.

3. Funding is not available for the Services.

4. Patronage on trains included in the Caltrans operation falls so short of projections that the Service is not deemed cost effective with respect to the transportation benefits and air quality goals.

5. Legislation, regulation or court decision places on Caltrans, or on the operation of the Services, financial or operational burdens which are so great as to degrade service quality below acceptable levels, or which

imposes unforeseen and excessive liabilities on Caltrans, or which raises costs to a level where costs are deemed by Caltrans to exceed benefits.

6. Caltrans determines that continued provision of Services by Amtrak will result in imminent danger to the public health or safety.

11.5 Termination Procedure

Upon termination, the party electing to terminate the Agreement shall follow the procedure set forth below:

1. The party electing to terminate shall notify the other in writing and clearly state the basis for that action.

2. The termination shall be effective no later than thirty (30) days after date of notice, except that a termination for cause shall not become effective if the other party has taken effective action to remedy the default within that thirty (30) day period.

11.6 Rights and Obligations Upon Termination

1. Upon termination for cause or termination for convenience, Caltrans shall have the right to contract for Services by another party.

2. Amtrak shall bear any incremental cost incurred by either Caltrans or Amtrak that is attributable to termination for cause by Caltrans.

3. Caltrans shall bear any incremental cost incurred by either Caltrans or Amtrak that is attributable to termination for cause by Amtrak.

4. Notwithstanding Subsections 2 and 3 above, Caltrans shall pay the following termination costs to Amtrak upon termination for convenience:

a. [illegible]

b. [illegible]

c. [illegible]

c. Any other reasonable costs incidental to such termination of Services.

5. Notwithstanding the foregoing, the total amount of termination costs payable to Amtrak shall not exceed [illegible] of the Approved Budget for the Fiscal Year in which the termination occurs.

6. No termination of this Agreement shall relieve the State of any obligation to pay for any Services rendered prior to such termination or other obligations incurred prior to the effective date of the termination.

IN WITNESS WHEREOF, the parties have set their hands

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	NATIONAL RAILROAD PASSENGER CORPORATION
(sign) _____	_____
(print) _____	_____
(date) _____	_____
By:	By:
Its:	Its:

APPROVED AS TO FORM:

By: _____ Date: _____
Name
Title

APPENDIX 1
STATE PROVIDED EQUIPMENT
VEHICLE DETAILS

Appendix I
State Provided Equipment
Vehicle Details

For the purposes of this Agreement, the number of State Provided vehicles and the identity of each vehicle is listed below. At any given time during the term of this Agreement, not all the listed vehicles may be considered as State Provided Equipment. Only those vehicles that have been transferred to Amtrak under the terms of the Transfer Agreement are covered by the terms of this Agreement.

Locomotives

Type	Manufacturer	Serial No	Road No
F59PHI	GMLG	926339-01	2001
F59PHI	GMLG	926339-02	2002
F59PHI	GMLG	926339-03	2003
F59PHI	GMLG	926339-04	2004
F59PHI	GMLG	926339-05	2005
F59PHI	GMLG	926339-06	2006
F59PHI	GMLG	926339-07	2007
F59PHI	GMLG	926339-08	2008
F59PHI	GMLG	926339-09	2009
8-32BWH	GE	46837	2051
8-32BWH	GE	46838	2052

Appendix 1
State Provided Equipment
Vehicle Details

Rolling Stock

Type	Manufacturer	Serial No	Road No
Trailer Car	MK		8001
Trailer Car	MK		8002
Trailer Car	MK		8003
Trailer Car	MK		8004
Trailer Car	MK		8005
Trailer Car	MK		8006
Trailer Car	MK		8007
Trailer Car	MK		8008
Trailer Car	MK		8009
Trailer Car	MK		8010
Trailer Car	MK		8011
Trailer Car	MK		8012
Trailer Car	MK		8013
Trailer Car	MK		8014
Trailer Car	MK		8015
Trailer Car	MK		8016
Trailer Car	MK		8017
Trailer Car	MK		8018
Trailer Car	MK		8019
Trailer Car	MK		8020
Trailer Car	MK		8021
Trailer Car	MK		8022
Trailer Car	MK		8023
Trailer Car	MK		8024
Trailer Car	MK		8025
Trailer Car	MK		8026
Trailer Car	MK		8027
Trailer Car	MK		8028
Trailer Car	MK		8029
Trailer Car	MK		8030
Trailer Car	MK		8031
Trailer Car	MK		8032
Baggage Car	MK		8201
Baggage Car	MK		8202
Baggage Car	MK		8203
Baggage Car	MK		8204
Baggage Car	MK		8205
Baggage Car	MK		8206
Cab Car	MK		8301
Cab Car	MK		8302
Cab Car	MK		8303
Cab Car	MK		8304

Cab Car	MK		8305
Cab Car	MK		8306
Cab Car	MK		8307
Cab Car	MK		8308
Cab Car	MK		8309
Cab Car	MK		8310
Cab Car	MK		8311
Cab Car	MK		8312
Cab Car	MK		8313
Cab Car	MK		8314
Food Service Car	MK		8801
Food Service Car	MK		8802
Food Service Car	MK		8803
Food Service Car	MK		8804
Food Service Car	MK		8805
Food Service Car	MK		8806
Food Service Car	MK		8807
Food Service Car	MK		8808
Food Service Car	MK		8809
Food Service Car	MK		8810
Food Service Car	MK		8811
Food Service Car	MK		8812
Food Service Car	MK		8813
Food Service Car	MK		8814

APPENDIX 2
AMTRAK/CALTRANS WARRANTY TAG PROCEDURE FOR CALTRANS OWNED LOCOMOTIVES AND CARS

MATERIAL CONTROL WARRANTY PROCEDURES

1. Review warranty tag for completeness.
2. Confirm that the Application for Adjustment (AFA) part number agrees with the warranty tag and that all proper signatures are affixed. NOTE: Forms must be filled out for all exchanges, including one for one exchanges on site.
3. Input BPA no cost release. On the release include the AFA number and for items sent to the manufacturer, include a copy of the AFA with the shipping document which is forwarded to the manufacturer.

   Identify in the document number field types of warranty as listed below:

   WARR1 - One for one replacement of material

   WARR2 - Material for warranty labor

   WARR3 - Performance guarantee parts credit
4. On receipt of material, complete a transaction code 12 (repair and return) to bring the material back into the inventory.

MATERIAL CONTROL WARRANTY FILES

Up to the time of material arrival, the Material Control Warranty File will be kept in an open file. After receipt of the material, a copy of the receipt screen will be placed in the Warranty File which then can be placed in the closed file.

FILE IDENTIFICATION

File identification will be by noun description of AAMPS number (if applicable).

YELLOW TAG FORMAT

CALTRANS/AMTRAK WARRANTY TAG

SITE	TAG #
OAK	_____
LAX	_____
SAS	_____

_____ CTF _____

Locomotive #_____ Car#_____ Mileage_____

Equipment Position #(car part)_____ Date Part Removed_____

Source of Part(s) Data: (Circle One) EMD MP AMMS Other_____

Part #_____

Part Name_____

Serial # Removed_____ Applied_____

Brief Description of Defect_____

_____

_____

Amtrak/Caltrans Warranty Tag Procedure for Caltrans Owned Locomotives and Cars

1. Amtrak shall develop and procure a Tag (Warranty Tag) to affix to each faulty part removed from the locomotives/cars under warranty, as well as an Amtrak/Caltrans Warranty Claim Request (AWCR) form that shall serve as a control document for tracking the disposition and handling of each faulty part.

2. Each M of E facility with the new locomotives/cars will designate a "M of E Warranty Contact" as follows:

   - OAK: Robert Vandenburg, Mgr. Maintenance Facility
   - LAX: Gil Bruno, Mgr. Maintenance Facility

   The M of E Warranty Contact shall be responsible for ensuring that the following tasks are accomplished:

   - A Warranty Tag is completed correctly and attached to each defective part
   - An AWCR form is completed for each Warranty Tag
   - The Service Representative has signed each AWCR form and indicated the disposition of each part
   - Each tagged part is delivered to the Material Control Storehouse at the facility
   - The Material Control Warranty Representative signs each AWCR form

3. Each Material Control location shall designate a "Warranty Representative" as follows:

   - OAK: Supvr., Material Control
   - LAX: J. C. Metzger, Mgr. Material Control

4. The steps describing each event in the Warranty Cycle are as follows:

   a) Amtrak mechanic removes a faulty part from the locomotive/car.

   b) The mechanic tags each faulty part with a yellow Warranty Tag, filling in the information on the tag in either pen or indelible magic marker. The mechanic shall wire or tape the Warranty Tag to the defective part.

      NOTE: Warranty Tags numbered from _____ through _____ are interim tags made of yellow cardstock. Final tags numbered _____ and up shall be made from yellow Tyvek material.

The Warranty Tag shall contain the following information:

- The pre-printed Warranty Control Number. The Warranty Control Number shall be eight characters:

  Three alpha characters indicating the facility location, followed by five numeric characters indicating the current warranty claim at that facility.

  The mechanic shall circle the appropriate location and write in the correct claim number.

  Example: ____ LAX 00078

  ____ OTHER _____

  If "OTHER" is circled, the mechanic shall write the facility name in front of "OTHER".

Remaining information on the Warranty Tag shall include:

- locomotive/car number
- locomotive/car mileage from computer
- date defective part removed from locomotive/car
- locomotive/car Position Number for the defective part

Source of part(s) Data: MK, EMD, AMMS, or OTHER. If "OTHER" write in manufacturer's name:

- part number for the defective part
- serial number, if applicable of removed part and of new part applied
- part name
- brief description of fault/trouble/failure of the part that requires warranty action

c) Using the Warranty Tag information, an AWCR form (four sheet carbonless NCR form) is prepared by the M of E Warranty Contact Person.

The AWCR form, M of E Action section, shall contain the following information:

- Warranty Tag Number, i.e. "LA - 00078"
- locomotive/car number
- locomotive/car mileage from computer
- date defective part removed from locomotive/car
- locomotive/car Position Number for the defective part
- date locomotive/car was shopped (taken out of service)

Source of Part(s) Data: MK, EMD, AMMS, or OTHER. If "OTHER" write in manufacturer's name:

- part number for the defective part
- serial number, if applicable of removed part and of new part applied
- part name from parts manual
- AMMS number corresponding to EMD or MK part number (if known)
- brief description of fault/trouble/failure that required the part to be removed from locomotive/car
- brief description of any deviations from normal appearance, function, or condition of the part
- labor manhours by craft to remove the faulty part and replace it
- M of E Warranty Contact Person to sign and date AWCR form

d) EMD or MK's Service Representative shall complete the "Disposition Action" portion of the AWCR form, and decide the disposition of each warranty claim part according to the selections in the table below. The Service Representative shall provide the M of E Warranty Contact Person with a copy of the EMD or MK WCR form corresponding to each AWCR.

The Service Representative shall add the following information to the AWCR form:

- the EMD or MK WCR number
- the disposition of the faulty part (replacement, scrap, etc.)
- where the defective part shall be sent
- sign and date the disposition portion of the AWCR form
- whether the replacement part was supplied to Amtrak directly from EMD or MK's warehouse at the facility

Disposition action shall be defined as follows:

Disposition Action	Action/Part Responsible
Scrap Faulty Part a) or b)	Material Control to dispose of defective part via Amtrak procedures. Either: a) EMD or MK to replace part at no cost to Amtrak via BPO Release Number. Matl. Cntl. to receive replacement part and issue credit to M of E Dept. Net costs of M of E Dept. is zero.

[redacted]

Replacement of Faulty Part/Unit Exchange	Material Control to send defective part to EMD or MK collect. Either: a) EMD or MK to replace part at no cost to Amtrak via aPO Release Number. Material Control to receive replacement part and issue credit to M of E Department. Net cost to M of E Department is zero, or b) EMD or MK to replace part at no cost to Amtrak from EMD or MK stock on hand at facility. Net cost to the M of E Department is zero.
Warranty Claim Disallowed	Amtrak and EMD or MK to conduct a joint teardown inspection of the part; final determination of allowability of the warranty claim shall be resolved at the inspection, and noted on the AWCR form. If the part is considered a warranty claim, the Material Control Warranty Representative shall arrange for the disposition of the part in accordance with either the "Scrap Faulty Part" or "Replacement of Faulty Part/ Unit Exchange" noted in this procedure.

e) When replacement parts are ordered from EMD or MK, the Material Control Warranty Representative shall take the responsibility for:

- a BPO Release Number
- placing the BPO Release Number in the "MCA" portion of the AWCR form
- checking each AWCR form for appropriate signature
- confirming that appropriate signatures are affixed
- verifying that the correct number and name are assigned to the corresponding EMD or MK part number on the AWCR form
- initiating a system request to assign an AMMS number to the EMD or MK part number, if one has not been assigned
- disposing of each warranty claim part according to the instructions authorized by EMD or MK's Service Representative on the AWCR form
- assuring that all parts returned to EMD or MK are shipped collect

No action is required on the AWCR form by the Material Control Representative when the part is furnished directly to Amtrak from EMD or MK's onsite warehouse.

f) The M of E Warranty Contact Person shall retain the original page (white copy) of the AWCR form; the Material Control Warranty Representative shall retain the yellow copy of the AWCR form; Amtrak's Manager Warranty shall retain the pink copy of the form; EMD or MK's Service Representative shall retain the blue copy; and Caltrans shall receive a xerox of the white copy.

g) The _____ person is responsible for updating the AMMS with the serial number of the replacement part.

AMTRAK/CAL TRAN OWNED EQUIPMENT
WARRANTY CLAIM REQUEST

M OF E ACTION

WARRANTY TAG NUMBER _____ CAR NUMBER _____
DATE CAR SHOPPED _____ CAR MILEAGE _____
CAR POSITION NUMBER FOR PART _____
DATE PART REMOVED FROM CAR _____

MANUFACTURER ACTION

MANUFACTURER'S NAME _____
MANUFACTURER'S PART NUMBER _____
MANUFACTURER'S SERIAL NUMBER REMOVED _____ APPLIED _____
MANUFACTURER'S PART NAME _____

AGMS NUMBER _____

BRIEF DESCRIPTION OF NOTED DEVIATIONS (APPEARANCE, FUNCTION, OR CONDITION)

_____
_____
_____

MANHOURS/CRAFT _____
FOR AMTRAK _____ _____
M of E Warranty Contact Person Date

M OF E DISPOSITION ACTION

M OF E WCN NUMBER _____
SCRAP FAULTY PART _____ REPLACEMENT/UNIT EXCHANGE _____
WARRANTY CLAIM DISALLOWED _____ (REASON) _____
TEARDOWN INSPECTION RESULTS _____
SHIP PART/ASSEMBLY TO: _____
PART FURNISHED FROM M OF E WAREHOUSE AT FACILITY _____

FOR M OF E _____ _____
M OF E Company Authorization Date

MATERIAL CONTROL ACTION

BPO # _____ BPO RELEASE NUMBER _____
RECEIVED _____ _____
Material Control Warranty Rep. Date

AMTRAK/CAL TRANS OWNED EQUIPMENT
WARRANTY CLAIM REQUEST

M of E ACTION

WARRANTY TAG NUMBER _____ CAR NUMBER _____
DATE CAR SHOPPED _____ CAR MILEAGE _____
CAR POSITION NUMBER FOR PART _____
DATE PART REMOVED FROM CAR _____

MANUFACTURER ACTION

MANUFACTURER'S NAME _____
MANUFACTURER'S PART NUMBER _____
MANUFACTURER'S SERIAL NUMBER REMOVED _____ APPLIED _____
MANUFACTURER'S PART NAME _____

AMMS NUMBER _____

BRIEF DESCRIPTION OF NOTED DEVIATIONS (APPEARANCE, FUNCTION, OR CONDITION)

_____
_____
_____

MANHOURS/CRAFT _____
FOR AMTRAK _____
M of E Warranty Contact Person _____ Date

EMD DISPOSITION ACTION

EMD WCN NUMBER _____
SCRAP FAULTY PART _____ REPLACEMENT/UNIT EXCHANGE _____
WARRANTY CLAIM DISALLOWED _____ (REASON) _____
TEARDOWN INSPECTION RESOLUTION _____
SHIP PART/ASSEMBLY TO: _____
PART RELEASED FROM EMD WAREHOUSE AT FACILITY _____

FOR EMD _____
EMD Company Authorization _____ Date

MATERIAL CONTROL ACTION

BPO # _____ BPO RELEASE NUMBER _____
RECEIVED _____
Material Control Warranty Rep. _____ Date

APPENDIX 3
AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM - F59PHI LOCOMOTIVE MAP FORMS

MAINTENANCE CYCLES AND MAP FORM CODES FOR

CALIFORNIA LOCOMOTIVE

Maintenance Cycle	Map Form Color
Daily	Blue
15 Day	Red
30 Day	Green
90 Day	Green
180 Day	Golden Rod
720 Day	Tan
1380 Day	White

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
DAILY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 9ATS & MAP 9
RECORD DEFECTS ON MAP 9

UNIT NO _____ LOCATION: _____ DATE: _____

	DESCRIPTION	OK	DEFECT
1.	Check fuel and sand levels.		
2.	Check engine room, HEP area, cab floor and windows (FRA 229.9).		
3.	Replenish supply of spare hose (12), torpedoes (3) and hoses (2).		
4.	Empty trash receptacles.		
5.	Clean and check operation of toilet.		
6.	Record defects and corrective actions on MAP 9.		

_____
SIGNATURE

	DESCRIPTION	OK	DEFECT
1.	Check all fire extinguishers are in place and sealed. Check date tags.		
2.	Check main, auxiliary engine and air compressor oil levels. Bring level to full mark.		
3.	Check cooling water system for leaks. Check cooling water level and treatment.		
4.	With engine running, inspect for unusual noises in diesel engine, auxiliary blower assembly, AR-10 main generator, air compressor, HEP 480 volt alternator and auxiliary engine. Check for fuel, oil and exhaust leaks.		
5.	Drain reservoir and air collector condensate. Check air compressor control air system. Drain condensate (FRA 229.45).		
6.	Inspect running gear, wheels, gear cases and caps, pins, bushings and brake shoes (FRA 229.9, 229.45, 229.75). Rear axle shall not have more than 1/2 inch to 3 inches.		
7.	Records defects and corrective actions on MAP 9.		

_____
SIGNATURE

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
DAILY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

	DESCRIPTION	OK	DEFECT
1.	Check inspection cards for FRA compliance		
2.	Inspect cabs seals and mountings, cab windows, sun visors, and doors including latching mechanisms and safety retainers.		
3.	Test horn, bell and safety devices (FRA 229.46.)		
4.	Test air brake and safety control devices (FRA 229.46)		
5	All air brake hoses are properly coupled and are in condition for service.		
6.	All angle cocks and cutout cocks are properly positioned for services.		
7.	ER and BP are within 3 pounds of each other and can be regulated.		
8.	Check BP leakage, which must not exceed 3 pounds per minute.		
9.	Check operation of handbrake and emergency brake valve in cab.		
10.	Check operation of independent brake valve apply, release and bail-off features.		
11.	Check operation of dynamic brake, alerter penalty brake application and blended brake.		
12.	Check operation of sanders FRA 229.131.		
13.	Check that carbody side panels are secured.		
14.	Test alerter.		
15.	Voice test radio.		
16.	Check computer display for faults.		
17.	Record defects and corrective actions on MAP 9.		

SIGNATURE

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
DAILY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

MAP 9 WORKSHEET

DEFECT	CORRECTIVE ACTION TAKEN	SIGNATURE

UNIT NUMBER: LOCATION:

Time and date OK'd for service: Next Air Due Date:

The above work has been performed, except as noted, and the report is approved.

Signature: Foreman:

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
15-DAY INSPECTIONS - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 6ATS, & MAP 9
RECORD DEFECTS ON MAP 9

UNIT NO. _____ LOCATION: _____ DATE: _____

MECHANICAL

	DESCRIPTION	OK	DEFECT
1.	Test rail and auxiliary engine lube oil alarms and coolant alarms. Check misc. gages.		
2.	Test operation of rail sanders and differential pressure sensing hardware between 12 psi and 15 psi.		
3.	Check manual and automatic drain valves. Set for automatic. [FRA 229.45]		
4.	Inspect draft gear and safety appliances.		
5.	Check gear cases for sufficient lubricant and signs of damage.		

_____
SIGNATURE

ELECTRICAL

	DESCRIPTION	OK	DEFECT
1.	Test headlight, crossing lights, red strobe light, panel lights, red marker lights, and carbody lights. [FRA 229.125]		
2.	Check operation of cab heaters and air conditioners. _____ Signature		
3.	Power test traction engine in forward and reverse. Check operation of speed indicator when locomotive is moved.		
4.	Inspect traction motor cables for damage.		
5.	Check humidity indicators on air dryer.		
6.	Assure speed recorder is operating.		
7.	Records defects and corrective actions on MAP 9.		
8.	Assure defects reported on MAP 9 and MAP 100 have been cleared.		

_____
SIGNATURE

_____
SUPERVISOR IN CHARGE

[illegible]

[illegible]

DEFECT	[illegible]	[illegible]

UNIT NUMBER:_____ LOCATION:_____

Time and date OK'd for service: _____ Next Air Due Date:_____

The above work has been performed, except as noted, and the report is approved.

Signature:_____ Foreman:_____

[redacted]

UNIT NO. _____ LOCATION: _____ DATE: _____

MECHANICAL

	DESCRIPTION	OK	DEFECT
1.	Inspect exhaust manifold, turbo exhaust stack, and silencer for cracks, leaks and carbon tracks with engine under self-load test.		
2.	Inspect automatic fueling system adapters, dust caps, and hoses for cracks, broken parts and worn gaskets		
3	Check operation of low water, crankcase pressure, and low oil pressure engine protective devices.		
4.	Check operation of emergency fuel shutoff de vices. FRA 229.93		
5.	Test air gauges.		
6.	Check wire connections at injectors.		
7.	Remove and clean eductor tube.		
8.	Check fuel gauges (engine/ fuel tank) for proper operation.		
9.	Drain the retention tank.		
10.	Test and lubricate TM blower inlet guide vane assembly.		
11.	Record defects and corrective action on MAP 9.		

_____

SIGNATURE

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
92-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

MECHANICAL

	DESCRIPTION	OK	DEFECT
1.	Check coupler wear.		
2.	Inspect couplers: - Pilots Coupler s must be checked for 1 1/4" minimum clearance from ball to top of link. Insure that coupler swivel pin retainers are secure.		

	Front	Rear	Clearance Limits
Drawbar height (above rail)	_____	_____	FRA 34-1/2" maximum FRA 31-1/2" minimum
Pilot/snow height (above rail)	_____	_____	FRA 6" maximum FRA 3" minimum
Coupler slack	_____	_____	1/2" maximum

3.	Inspect Trucks:		
A.	Gauge wheels - record readings. Make sure wheels are in compliance with 49 CFR 229.73 & 229.75.		
B.	Shock absorbers are properly secured and free of defects.		
C.	Truck frames must be inspected to insure that there has been no wheel contact with side frame.		
D.	Truck secondary suspension system must be inspected to determine if any springs are missing or broken.		
E.	The secondary suspension system must be inspected for any rubbing, abrasion, or fretting cracks in the system.		
F.	The lateral stops located between spring plank and truck bolster must be inspected to determine if there is any excessive clearance.		
G.	The total clearance between pedestal liners must not exceed 3/8 inches.		
H.	The pedestal liners must be inspected to insure wear has not exceeded a thickness of 3/32 of an inch or more.		
I.	Inspect gearcase and support arms for crack and tightness.		
J.	Visual inspection of journal bearings.		

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
92-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

DESCRIPTION	OK	DEFECT
4. Inspect truck wear plates clearances		

	Front	Rear	Clearance Limits
Truck Side Bearing	LS	LS	1/4" max 1/16" min per side bearing
Clearance	RS	RS	1/2" max - total per truck

INSPECTOR: _____

5.

POS	Flng Hgt	Flng Thk	Rim Thk	Tread Wear	POS	Flng Hgt	Flng Thg	Rim Thg	Tread Wear
L1					R1				
L2					R2				
L3					R3				
L4					R4				

Front Truck No.: _____ Rear Truck No.: _____

Wear Limit
Flange Height: 1-3/8"
Flange Thickness: 1"
Rim Thickness: 1-1/8"
Tread Worn Hollow: 0"

INSPECTOR: _____

SUPERVISOR IN CHARGE: _____

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
92-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

MECHANICAL

	DESCRIPTION	OK	DEFECT
1	HEP Engine Running		
	4. Check for leaks in cooling fuel and oil systems		
	5. Check for abnormal noise from engine turbo, generator		
	6. Check exhaust system for leaks or abnormalities		
	7. Record engine hour meter reading		
2.	Remove and clean lube oil centrifuge rotor assembly. Renew paper element.		
3.	Change coolant conditioner element.		
4.	Test hot engine temperature devices		
5.	Drain HEP engine sump.		
6.	Check operation of engine protection device.		
7.	Record defects and corrective action on MAP 9.		

SIGNATURE

[redacted]

AUXILIARY ENGINE

INSPECTION AND MAINTENANCE TASKS WILL BE BASED ON CATERPILLAR RECOMMENDATIONSDESCRIPTION		OK	DEFECT
1.	Renew lubricating oil and filters. Bring lube oil to full mark.		
2.	Renew fuel filters.		
3.	Correct defects recorded on MAP 9.		

SIGNATURE

MAIN ENGINE

DESCRIPTION		OK	DEFECT
1.	Check cooling level and treatment.		
2.	With fuel pumps running and 15 psi. water pressure applied to cooling system, inspect air box, crankcase, liners, piston rings, radiators, hoses, pipe connections, pressure cap for leaks.		
3.	Repace all fuel filter elements and clean all strainers.		
4.	Clean lube oil separator screen and inner and outer eductor tubes. Inspect and clean stack and stiffener bars.		
5.	Change turbo lube oil filter and soak back filter elements.		
6.	Inspect and if needed blow dirt from radiators.		
7.	Lubricate radiator cooling fan shutter linkages. Check for binding and worn sections.		
8.	Clean main generator pit drain aspirator.		
9.	Change fiberglass bag type engine air filter elements.		
10	Drain condensate from fuel tank sumps.		
11.	Renew brake shoes as required and assure brake shoes are in proper alignment with wheel tread.		
12	Lubricate door hinges, locks, and miscellaneous hardware.		
13	Renew cab air conditioner filters.		

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
92-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

DESCRIPTION				OK	DEFECT
14. Measure and record manometer readings of air filters at filter test hose stems in cab (LSM-4)					
		Inches of Water Reading	Min	Max	
	A = Air Filters (engine & inertial)	_____ _____	5"	14"	
	I = Inertial Filters	_____	3"	7"	
	E = Engine Filters (A - I)	_____	N/A	N/A	
15.	Test air brake and safety control devices. (FRA 229.45)				
16.	Clean locomotive exterior, engine room, engine sumps, and cab.				
17.	Record defects and corrective actions on MAP 9.				

_____
SIGNATURE

_____
SUPERVISOR IN CHARGE

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
92-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

ELECTRICAL

	DESCRIPTION	OK	DEFECT
1.	Check cooling fans and inertial blower for proper rotation and bearing noise. Check fan contactors for blown fuses.		
2	Check VR - 15 module. Output must be 74 - 76 volts. Record output.		
3.	Inspect all electrical equipment inside insulation and electrical connections. (FRA rule 229.25). Check communications trainline transition jumper.		
4.	Measure the output voltage: A. PSM 300 _____ B. PSM 310 _____ C. PSM 320 _____		
5.	Check low voltage system for grounds. Protect solid state equipment.		
6.	Perform functional check of fault indicator lights (annunciator panels overhead and control stand).		
7.	Visually inspect all equipment in control cabinets.		
8.	Inspect high voltage switch gear (power contactors, reverser, brake transfer switch).		
9.	Record defects and corrective actions in MAP 9.		

_____

SIGNATURE

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
92-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

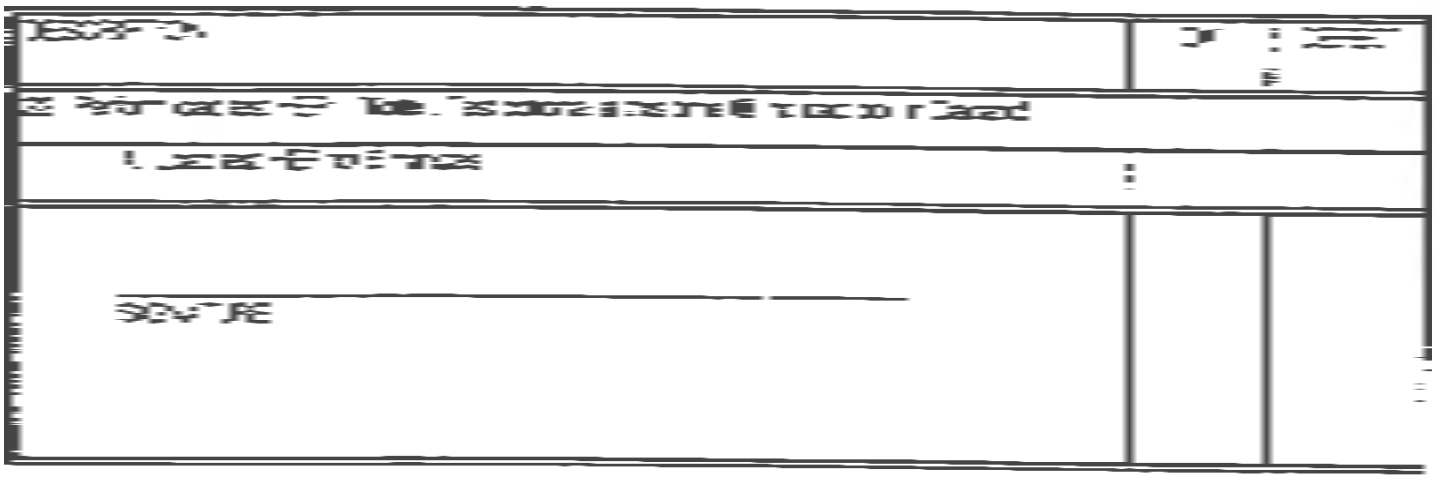
ELECTRICAL

1.	Check high voltage system for grounds with 1,000 volt megger and record. If reading is above 400,000 ohms, DC leakage test may be used. (MAX 1000 VAC) Check operation of ground relay. Record_____		
2.	Perform self tests at EM 2000 display.		
3.	Perform operational wheel slip test. Perform module self-test on all modules equipped.		
4.	[illegible]		
5.	Test accuracy of speed indicator and locomotive overspeed settings.		
6.	Inspect, clean, and renew worn brushes in dynamic brake blower motor. (MI 4104)		
7.	Inspect AR - 15 slip rings. Replace worn brushes. (MI 3317)		
8.	[illegible]		
9.	[illegible]		
10.	Check for AC grounds.		
11.	Check fuses in control cabinet/supply spares.		
12.	Inspect HEP alternator fan blades for cracked blades or loose weights.		
13.	Visually inspect HEP wiring for loose connections and signs of overheating.		
14.	Check HEP line voltage.		
15.	Record defects and corrective actions on MAP 9. _____ SIGNATURE		

[illegible]

DESCRIPTION		OK	DEFECT
17.	HEP PLANT:		
	A. Check operation of all meters, automatic voltage regulators and controls, observe voltmeter for differences in voltage between phases to ensure T.C. and power on indicators function.		
	B. Check operation of main breaker from right side, left side and both sides together.		
	C. Check all 480 volt A.C. trainline receptacles for grounds or shorts.		
	D. Check condition of HEP power cables, jumper cables, and receptacles.		
	E. Load 480 Volt HEP receptacles and check for proper operation.		
	F. Assure that two (2) 480 Volt adaptor jumper cables are furnished and properly stored in the locomotive for the next trip.		
	G. Check operation of all engine shutdown protective devices (Governor solenoid, Fuel solenoid, overspeed system, and crankcase pressure device) On Engine		
18.	Test continuity at MU receptacles.		
19.	Check battery electrolyte level and specific gravity. Check electrical connections, wash batteries and apply NO-OX to terminals. Record specific gravity_____		
20.	Inspect all traction motors. Replace worn brushes and refill seals on covers as needed. (MI 3900) Clean string band and brush holder insulators.		
21.	Correct defects recorded on MAP 9. _____ SIGNATURE		

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
92-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9



[illegible]

DESCRIPTION		
[illegible]		
[illegible]		
[illegible]		
[illegible]		
[illegible]		
[illegible]		
* E. Record horsepower reading _____ _____ SIGNATURE		
24. Power test traction engine in forward and reverse. Check operation of speed recorder when locomotive is moved.		
25. Assure seals are properly applied to all safety devices as required.		
26. Record defects and corrective actions on MAP 9.		

_____ _____
SIGNATURE

* Readings may be obtained from EM2000 computer monitor screen

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
92-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

MAP 9 WORKSHEET

DEFECT	CORRECTIVE ACTION TAKEN	SIGNATURE

UNIT NUMBER: LOCATION:

Time and date OK'd for service: Next Air Due Date:

The above work has been performed, except as noted, and the report is approved.

Signature: Foreman:

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
186-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

UNIT NO. _____ - **LOCATION:** _____ - **DATE:** _____

MECHANICAL

DESCRIPTION	OK	DEFECT
1. Retorque exhaust manifold base bolts. Tighten top deck cover bolts.		
2. Measure piston to cylinder head clearances and record each. Take measurements on MAP 1. If higher than .100", renew power assembly. Measure piston rings and clearance on top compression rings and record all cylinder readings on MAP 1. If above .025", renew assembly.		
3. Clean air compressor breather. Change air compressor intake filter.		
4. Lubricate truck center bearings. Add one fitting.		
5. Record defects and corrective action on MAP 5.		
6. Change air dryer 915-275 filter element.		
7. Inspect oil pan, rods and gaskets.		
8. Record defects and corrective actions on MAP 5.		
9. Replace Cat Engine crankcase emission absorbers.		

_____

SIGNATURE

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
186-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

ELECTRICAL

DESCRIPTION	OK	DEFECT
1. HEP PLUG: Renew starter motor brushes and blow out starter with air pressure as		
2. Record defects and corrective actions on MAP 6		
3. Wash batteries with soda		
4. Blow out HEP's field and static rig case with low pressure air. Inspect		
5. Inspect and replace if needed, alcyer tester motor brushes and blow out motor		
6. Inspect and replace if needed, starter motor brushes and blow out motor		
7. Megger the HEP alternator		
8. Record defects and corrective actions on MAP 6		

SIGNATURE

SUPERVISOR IN CHARGE

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
186-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

MAP 9 WORKSHEET

DEFECT	CORRECTIVE ACTION TAKEN	SIGNATURE

UNIT NUMBER: _____ **LOCATION:**

Time and date OK'd for service: Next Air Due Date:

The above work has been performed, except as noted, and the report is approved.

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
368-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

UNIT NO._____ LOCATION:_____ DATE:_____

MECHANICAL

DESCRIPTION	OK	DEFECT
1. Check for dangerous air dryer bypass.		
2. Remove and inspect air dryer borosilicate coalescing element.		
3. Replace air dryer filter.		
4. Clean air dryer separator inlet screen.		
5. Inspect radiator passages for dirt.		
6. Clean radiator fan blades.		
7. Inspect and lubricate radiator shutter linkages.		
8. Measure pressure drop across carbody internal filters.		
9. Check pressure drop across the main engine after coolers.		
10. Check seatback oil system for proper operation.		
11. Renew main electrical cabinet filters.		
12. Clean and inspect horn and bell.		
13. Remove HEP engine injectors, inspect and replace as needed.		
14. Record defects and corrective actions in MAP 9.		
15. Qualify air compressor by performing orifice test (MI 1144)		

_____

SIGNATURE

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
368-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

AUXILIARY ENGINE

DESCRIPTION	OK	DEFECT
1. Auxiliary Engine		
A. Check rack setting, injector timing and engine speed.		
B. Auxiliary engine:		
a) Adjust fuel injector control racks.		
b) Adjust engine governor linkage.		
c) Adjust load limit.		
d) Adjust speed limit.		
e) Adjust maximum no load speed.		
f) Record defects and corrective action on MAP 9.		
2.Clean and inspect turbocharger screen.		
3.Retorque head frame to crankcase bolts.		
4.Retorque cylinder crab bolts to 1800 ft. lbs. on conventional crabs. Engines with plate crabs get torqued to 2400 ft. lbs. in two passes 400 ft. lbs. then 2400 ft. lbs.		
5.Check engine generator, air compressor, and turbo base bolts for tightness.		
6.Change air compressor oil. (MI 1144).		
7.Remove, clean, and replace HEP cabinet air filters.		
8.Perform Salem air dryer maintenance per Salem service bulletin #248.		
9.Clean and inspect orifice of sander relay valves.		
10.Replace air filter automatic drain valve and magnet valve.		
11.Replace main reservoir automatic drain valve and magnetic valve.		
12.Clean and inspect dirt collector chamber of brake pipe branch cutout cock		
13.Replace filter in cutout cock body.		
14.Replace main reservoir safety valve.		
15.Record defects and corrective actions on MAP 9.		

SIGNATURE

SUPERVISOR IN CHARGE

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
368-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

ELECTRICAL (Preliminary Checks)

DESCRIPTION	OK	DEFECT
1. [illegible]		
2. [illegible]		
3. [illegible]		
4. [illegible]		
5. [illegible]		
6.Clean HEP turbo lube pump motor commutator surfaces.		
7. [illegible]		

SIGNATURE

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
368-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

MAP 9 WORKSHEET

DEFECT	CORRECTIVE ACTION TAKEN	SIGNATURE

UNIT NUMBER: _____ **LOCATION:**_____

Time and date OK'd for service: _____ Next Air Due Date:_____

The above work has been performed, except as noted, and the report is approved.

Signature:_____ Foreman:_____

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
735-DAY INSPECTION - F-59PHI LOCOMOTIVES
Includes MAP 6, MAP 8ATS & MAP 9
RECORD DEFECTS ON MAP 9

UNIT NO._____LOCATION:_____ DATE:

MECHANICAL

DESCRIPTION	OK	DEFECT
1. Renew electronic fuel injectors		
2. Replace fuel preheater mixing valve, if equipped.		
3. Renew all rubber hoses & flexible Aeroquip type hoses in fuel, lube oil and water systems. Renew Marmon and Dresser coupling seals or O-rings.		
4. Remove and clean aftercoolers and inertial filter assemblies.		
5. Perform two-year maintenance on Sullair air dryer per Sullair Air Bulletin #248.		
6. Check temperature between lube oil and cooling water into engine.		
7. Replace thermostatic valve in fuel preheater.		
8. Replace hot oil shutdown device with new.		
9. Replace engine protector with new or rebuilt.		
10. Record defects and corrective action on MAP 9.		

_____
SIGNATURE

ELECTRICAL

DESCRIPTION	OK	DEFECT
1. Clean spike suppressors, alternator slip rings, and windows.		
2. Transpose leads to AR15 slip rings		
3. Record defects and corrosive actions on MAP 9.		

_____
SIGNATURE

T NUMBER: _____ LOCATION:

Time and date OK'd for service: _____ Next Air Due Date:

The above work has been performed, except as noted, and the report is approved.

Signature:_____ Foreman:

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
1084 AIRBRAKE INSPECTION - F-59PHI LOCOMOTIVES
Inspect in Compliance with FRA Rule #229

UNIT NO._____ LOCATION:_____ DATE:_____

DESCRIPTION	OK	DEFECT
1. Brake cylinder relay valve (J, F or B type).		
2. Main reservoirs safety valves.		
3. Intercooler safety valve.		
4. Brake pipe vent valves.		
5. N-1 reducing valve(s).		
6. Double check valve (16 and 20 pipe).		
7. Distributing or service portion.		
8. Equalizing piston portion.		
9. Brake application portion or P2-A brake application valve.		
10. All relay air valves (H-5, HB-5, HB50).		
11. MU2A valve.		
12. A-1 charging pilot cut-off valve.		
13. Magnet valves for: A. Overspeed B. Air compressor unloader C. Dynamic interlock D. Safety control (alerter) E. Sander F. MHV, MVR, MVSR blended brake		
14. Check valve between #1 and #2 main reservoir.		
15. Related dirt collectors and filters.		
16. Main reservoir cut-off valve.		
17. All double and reverse double check valves.		
18. One-way check valves.		
19. Change all air brake hoses.		
20. 26 C automatic brake valve(s).		
21. Grease generator rear seals.		

_____
SIGNATURE

AMTRAK/CALTRANS
MAINTENANCE ANALYSIS PROGRAM
1084 AIRBRAKE INSPECTION - F-59PHI LOCOMOTIVES
Inspect in Compliance with FRA Rule #229

DEFECT	CORRECTIVE ACTION TAKEN	SIGNATURE

UNIT NUMBER: _____ **LOCATION:**_____

Time and date OK'd for service: _____ Next Air Due Date:_____

The above work has been performed, except as noted, and the report is approved.

Signature:_____ Foreman:_____

APPENDIX 4
AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM - CAR MAP FORMS

MAINTENANCE CYCLES AND MAP FORM COLORS FOR

CALIFORNIA CAR

Maintenance Cycle	Map Form Color
Daily	Blue
Pre-Trip (Food Service)	Tan
59 Day (Food Service)	Pink
90 Day *	Canary
120 Day	Green
360 Day *	Golden Rod
1080 Day *	White

* Air Brake Inspections/Change-outs on Cab Cars

Note: 1080 Day Air Brake inspection on Cars will change to a 1440 Day (4 Year) inspection, pending FRA approval.

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
DAILY TRIP INSPECTION REPORT
MAP 10 AC
Include MAP 9

UNIT NO.:_____ **LOCATION:**_____ **DATE:**_____

TRIP INSPECTION

DESCRIPTION	SIGNATURE
1. CHECK MAP 21-A. RECORD OVERDATES AND DEFECTS.	
2. RUNNING GEAR Visually inspect truck frames, bolsters, springs, planks, equalizers, pedestal legs and liners, springs, primary suspension, pedestal tie plates, ground straps, shock absorbers, pairing, wheels, axles, journal bearings. Inspect brake discs, brake shoes/pads for thickness and brake rigging for damage.	
3. COUPLERS Visually inspect couplers and coupler components, i.e., uncoupling bracket mechanism, anti-creep protection, pin protection and pilot lugs for defects. Check uncoupling lever clearance.	
4. VESTIBULES AND END-OF-CAR HARDWARE Visually inspect/check operation of diaphragms, bridge-plates, curtains, safety appliances, doors and panels, handbrake for defects.	
5. INTERIOR HARDWARE Visually inspect emergency tools, first aid kits, seats, carpet, trash receptacles, toilets, sinks, and soap dispensers. Drain toilet waste retention toilet. Fill toilet hopper water tank Ensure that fire extinguishers are in place and sealed. Check date tags and pressure gauges. Replace if necessary. SMP 28002.	
6. PERFORM CAR CLEANING ACCORDING TO AMTRAK PROCEDURES Inside: Passenger side, door pockets, mid side and end panels, trash receptacles, seat backs, window sills, seat tracks, floor, vestibules, not all rubber floor mats. Restrooms: Sanitize wash basin, toilet and surrounding affected area, check toilet paper, spot clean walls and floor.	
7. AIR BRAKE Visually inspect piping, hoses, couplings, brake reservoir, condensate, test air brakes and slide/release indicators. Check pressure switches for proper operation.	

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
DAILY TRIP INSPECTION REPORT
MAP 10 AC
Include MAP 9

UNIT NO.:_____ **LOCATION:**_____ **DATE:**_____

TRIP INSPECTION

DESCRIPTION	SIGNATURE
8. AIR CONDITIONING, HEAT, REFRIGERATION	
8.1 REPLACE AIR FILTERS EVERY 92 DAYS OR SOONER IF NECESSARY. NOTE DATE ON MAP 21-A. Check vaporizer units, coils, oil level, freon level, look for signs of leaks.	
8.2 Check shunt trip circuit.	
8.3 Check operation of fresh air dampers	
8.4 Check air conditioning /heating system for proper operation.	
8.5 Check for debris in condenser coil. Clean with back flow of low velocity air as required.	
8.6 Check compressor oil in sight glass during operation.	
8.7 Check freon sight glass for moisture and proper operation.	
8.8 Check food service temperatures:	
8.9 Freezers: 0 degrees or below.	
9. ELECTRICAL AND EQUIPMENT COMPARTMENTS	
9.1 Visually inspect/check operation of trainline cables, jumpers, receptacles, batteries, battery charger/low voltage/power supply, ground cables, wheel slide sensors, antifreeze circuits, wheelslide controller, and protective covers on equipment boxes.	
9.2 WheelSide Sensor Clearance: .010"	
10. INTERIOR ELECTRICAL Visually inspect/check operation of electrical locker, circuit breakers, contactors, fuses, switches, relays,lighting, water heater, water cooler, PA, intercom,message displays and lamp signs illumination, indicators, conductors signal.	
11. WHEELCHAIR Cycle wheelchair lift.	

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
DAILY TRIP INSPECTION REPORT
MAP 10 AC
Include MAP 9

~~CE~~ _____ INSPECTED BY _____

~~CE~~ _____ INSPECTED BY _____

~~CE~~ _____ INSPECTED BY _____

_____ _____

FOREMAN IN CHARGE **DATE**

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
DAILY TRIP INSPECTION REPORT
MAP 10 AC
Include MAP 9

WORK SHEET

DEFECT	CORRECTIVE ACTION TAKEN	SIGNATURE

INSPECTOR:_____ **Time and Date Ok'd for service:**_____

The above work has been performed, except as noted, and the report is approved.

_____ _____

Signature **Occupation**

_____

Foreman in Charge

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
92 DAY AIR BRAKE INSPECTION REPORT
FRA PERIODIC INSPECTION
MAP 10 AC
Include MAP 9

UNIT NO.:_____ **LOCATION:**_____ **DATE:**_____

TRIP INSPECTION

DESCRIPTION	SIGNATURE
1. Test air gauges.	
2. Test load meter.	
3. Inspect all electrical equipment and visible insulation per FRA rule 229.25.	
4. Inspect condition of all safety appliances.	
5. Inspect running gear.	
6. Perform single car air brake test.	

FRA _____ INSPECTED BY _____

FRA _____ INSPECTED BY _____

FRA _____ INSPECTED BY _____

_____ _____

FOREMAN IN CHARGE **DATE**

[illegible]

[illegible]

DEFECT	CORRECTIVE ACTION TAKEN	[illegible]

INSPECTOR:_____ **Time and Date Ok'd for service:**_____

The above work has been performed, except as noted, and the report is approved.

_____ _____

Signature **Occupation**

_____

Foreman in Charge

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
120-DAY INSPECTION REPORT
MAP 120A
Includes #9, 10AC, 60SE

CAR NO.:_____ **LOCATION:**_____ **DATE:**_____

DESCRIPTION	PS MANUAL REF SECTION	SIGNATURE
1. Battery 1.1 Check that all vent caps are closed. 1.2 Inspect for and remove all corrosion in the battery box. Sec. 2 1.3 Wash off dirt using garden hose spray under pressure of 30-40 psi; then blow off excess water with low velocity air at 30 ps max. 1.4 Check cell voltages. 1.5 Check/refill electrolyte level, if needed. 1.6 Measure specific gravity of electrolyte. NOTE: NEVER USE VASELINE OR GREASE ON METALLIC PARTS. 1.7 Check for battery grounds. 1.8 Check temperature compensator for proper resistance.	Vol II	
2. Battery Charger WARNING: Turn off both external AC circuit breakers and battery circuit breaker. 2.1 Remove top and front panels from BCU/PS and blow all dirt and dust from components (heat sink, circuit boards, etc.) with low velocity air at 30 ps. 2.2 Inspect contacts of load shed contactor PSP5 and transfer contactor PSP1. If burned or pitted, replace. 2.3 Check the charging voltage and current output of charger, adjust when necessary.	Vol II Sec. 2	
3. Transformers: 3.1 Check for burning or overheating. 3.2 Check electrical connections for tightness. 3.3 Blow off dust and dirt using low velocity air at 30 psi max.		
4. **Electrical Lockers and Panels:** 4.1 Inspect each panel and its connectors for dirty or corroded contacts. Clean contacts if required. 4.2 Blow out dust and dirt using low velocity air at pressure of 30 psi. 4.3 Inspect each component for broken, discolored, overheated or loose parts. Replace if required.	Vol II Sec. 5	

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
120-DAY INSPECTION REPORT
MAP 120A
Includes #9, 10AC, 60SE

CAR NO.:_____ LOCATION:_____ DATE:_____

DESCRIPTION	PS MANUAL REF SECTION	SIGNATURE
5. Air Conditioning, Heating and Ventilation: 5.1 Clean outer covers of air conditioning unit. Renew filter/dryers if required. 5.2 Blow condenser and evaporator coils. Wash if necessary. 5.3 Check evaporator mounting bolts for security. Check evaporator drain. 5.4 Check blower motor, condenser fan motor, compressor motor, ventilation and exhaust blowers and motors for: a) Secure mounting of fan to motor shaft. b) Motor and blower mounting bolt tightness. c) Frayed, worn or deteriorated wiring. d) Security of wire supports and terminals. e) Evidence of bearing seal leakage. f) Security of condenser grill safety switch. 5.5 Lubricate blowers and condenser fan motors annually using approved lubricant (Shell Cytrina #3, Class 1 Lithium Base). CAUTION: Over-lubrication will damage the bearings. Never apply more than a single squirt of grease (1/2 oz) to any one fitting. 5.6 Inspect freon moisture indicators. 5.7 Check all freon components, lines and tubing for secure mounting and signs of leaks. 5.8 Check unit chassis shock mounts for deteriorated or failed conditions and mounting bolts for security. 5.9 Check overhead panels for security and damage. 5.10 Check heater elements and high temperature limit switch for security. 5.11 Check heating system wiring for frayed, worn or deteriorated insulation and wire supports for tightness. 5.12 Check fresh air damper assembly for loose connections, tighten as necessary. 5.13 Receiver tank liquid level. 5.14 Compressor oil level. 5.15 Inspect (evap) blower wheel (damage, security, rotation, balance). 5.16 Inspect (evap) motor (visual/audible) 5.17 Clean evaporator coil (clean and rinse, comb fins). 5.18 Control panel contactors (contact voltage drop). 5.19 Check operation of anti-freeze heaters.	Vol II Sec 4 & 5	

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
120-DAY INSPECTION REPORT
MAP 120A
Includes #9, 10AC, 60SE

CAR NO.:_____ LOCATION:_____ DATE:_____

DESCRIPTION	PERIODICAL REFERENCE	SIGNATURE
6. Manually Operated Doors: 6.1 Check operation/securement of doors, locks, and handles. Lubricate when necessary. 6.2 Check filter function, replace desiccant cartridge. 6.3 Check operator cushioning during opening. 6.4 Check function of closing lock arm.	[illegible] Sec. [illegible]	
7. Inspect seats for mechanical defects.		
8. **Inspect fire extinguishers** Record inspection tag dates _____. If inspection date will exceed one year before next 120/180 day inspection, the tag must be redated. SMP 28002 REV 10/82.		
9. Car body: 9.1 Inspect sides and roof for damage or distortion. 9.2 Inspect undercar hoses and equipment brackets, pressure air. 9.3 Inspect all interior walls and ceiling. 9.4 Inspect access flap holder and grab handles for loose or missing screws. 9.5 Check seals at windows or signs of leaks. 9.6 Check operation of handicap lock and open mechanism.		
10. Door Operators and Door Safety Appendages: 10.1 Turn all door handles to the OFF position and check that doors may be manually opened. Return all door handles to its NORMAL position. 10.2 Verify that operator limit switch CLOSE is positioned when door panel is nearly closed. 10.3 Check that pressure regulator is set at 60 psi. 10.4 Check door panel weather seal contact switch assembly. Seal is broken or missing. Check operation of door panel switch assembly.		
11. Inspect Door Key switches: 11.1 Check each assembly and tighten mounting hardware, if necessary. 11.2 Test door key switch operation in all modes.	[illegible] Sec. 6	

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
120-DAY INSPECTION REPORT
MAP 120A
Includes #9, 10AC, 60SE

CAR NO.:_____ **LOCATION:**_____ **DATE:**_____

DESCRIPTION	PS MANUAL REF SECTION	SIGNATURE
12. Interior and Exterior Emergency Switch: 12.1 Inspect each switch assembly and tighten mounting hardware, if necessary. 12.2 With system circuit breaker ON, check the operation of all doors.	Vol III Sec. 6	
13. Communications System-Carborne Control Unit 13.1 Remove cover and check terminals and pins for corrosion. Clean as required. 13.2 Remove 27 point electrical connection from trainline connection and inspect pins and connections for corrosion and cleanliness and clean as required. Verify trainline circuits with 27 point test unit. 13.3 Check that 2 amp fuse is properly applied. 13.4 PA wire L.E.O scanner continuity test. SMP. 11001 13.5 Inspect Conductor station selection switch, handset and cord for defect. 13.6 Inspect Engineer Station selection switch, handset and cord for defects. 13.7 Inspect PA Amplifier housing, wires, connections and hardware for defects. 13.8 Inspect External PA speakers, terminal boards, grilles and cones for defects. 13.9 Inspect CD player cable connections, wire for defects. 13.10 Inspect AM/FM Radio Cassette unit, wire and hardware for defects. 13.11 Inspect Passenger Seat Control units for defects. 13.12 Inspect Entertainment Amplifier (EA) and cable connections for defects. 13.13 Inspect EA power supply and cable connections for defects. 13.14 Inspect Communication Control unit and connections for defects. 13.15 Inspect Audio Sources power supply and connectors for Defects.	Vol III Sec. 9	
14. Lighting System: 14.1 Check operation of all systems and replace burned out bulbs as needed.		
15. Drain and flush water tanks. SMP 47601		

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
120-DAY INSPECTION REPORT
MAP 120A
Includes #9, 10AC, 60SE

CAR NO.:_____ **LOCATION:**_____ **DATE:**_____

DESCRIPTION	PS MANUAL REF SECTION	SIGNATURE
16. Water Raising System: 16.1 Check adjustable reducing valve, cut-out cocks, E-1 Safety valve, and all piping for external damage and air leakage.	Vol III Sec. 11	
17. Lavatories and Waste Treatment System: 17.1 Check spigots, changing tables, signage, wash basins and plumbing systems for defects. 17.2 Drain air filter regulator. 17.3 Verify regulator pressure at 60 PSI. 17.4 Clean air filter regulator. 17.5 Remove obstructions in regulator piping. 17.6 Open strainer on water panel and drain. 17.7 Inspect water lines for defects. 17.8 Inspect toilet flapper and flapper gasket. 17.9 Check flapper and air cylinder operation. 17.10 Inspect air cylinder O rings. 17.11 Inspect air cylinder retainer rings. 17.12 Inspect spray O rings. 17.13 Clean spring ring. 17.14 Inspect macerator boot. 17.15 Clean level sensor.	Vol III Sec. 10	
18. Brakes: 18.1 Conduct single car test. 18.2 Check brake cylinder pressure. (55-57 psi full service. 71-73 psi emergency). 18.3 Inspect handbrake. Clean and lubricate as required. 18.4 Lubricate hanger and brake head bolts (tread brakes). 18.5 Lubricate alemite fitting in head of hanger arm bolt (disc brakes). 18.6 Fill body reservoir with lubricant (tread brakes). 18.7 Clean magnetic pick-up and check for loose locknut (if loose, check gap). 18.8 Perform Decelostat self test. 18.9 Check duplex air gauge.		

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
120-DAY INSPECTION REPORT
MAP 120A
Includes #9, 10AC, 60SE

CAR NO.:_____ **LOCATION:**_____ **DATE:**_____

DESCRIPTION	PS MANUAL REF SECTION	SIGNATURE
19. **Brake Control:** Drain condensate from combined control and selector volume reservoirs by removing the 1/2 inch NPT drain plug from the bottom of each reservoir. Diaphragms: 19.1 Inspect gasket faceplate. Replace if broken or worn. 19.2 Inspect faceplate. Replace diaphragm if worn or leaking. 19.3 Inspect shear mounts. Replace as necessary. 19.4 Inspect diaphragm to car mounting to assure proper weather seal. 19.5 Couple to adjacent car. Spray water on top of diaphragms assure proper weather seal.	Vol IV Sec. 12	
20. **Air Bag System:** 20.1 Remove leveling valve and clean screens. 20.2 Remove OB-1 strainer and clean filter.	Vol III Sec. 11	

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
120-DAY INSPECTION REPORT
MAP 120A
Includes #9, 10AC, 60SE

CAR NO.:_____ **LOCATION:**_____ **DATE:**_____

DESCRIPTION	PS MANUAL REF SECTION	SIGNATURE
21. Truck Mechanical: 21.1 Inspect and gauge wheels. Clean road dirt from wheel plates. Record measurements on MAP # ALL AW. 21.2 Inspect crossbars. 21.3 Inspect equalizers, equalizer seats, and associated parts for wear. 21.4 Inspect pedestal liners for wear, renew as required. 21.5 Inspect pedestal tie straps (tighten if necessary). 21.6 Inspect bolster anchor rods (if necessary, shim to obtain proper tightness). 21.7 (Horizon) Inspect condition of lateral bumpers. Assure proper clearance. 1/8" lateral clearance, 3/8" total lateral play. 21.8 Check leveling of car body. 21.9 Inspect rubber bushings between links of the vertical and horizontal shock absorbers and respective pivot points. 21.10 Check rubber bushings on car body bolster connections at car body bolster and truck bolster. 21.11 Check all piping and connections for loose fittings and damaged components. 21.12 Check shock absorbers for proper mechanical operation. Repair or renew as needed. 21.13 Check the locking center pin which affects securement of the two truck halves (bolster and truck frame) at the center pivot for security. 21.14 Check for proper handbrake connection to axle disc of the B-end truck. 21.15 Check handbrake cable attachment and handbrake for proper operation. Check for proper operation of brake indicating light.	10	
22. Make visual inspection of yoke, yoke pin, wear strap and radial connector bushings for excessive wear.	Vol IV Sec. 14 & Running Maintenance and Service Manual Pgs 3-40	

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
120-DAY INSPECTION REPORT
MAP 120A
Includes #9, 10AC, 60SE

CAR NO.:_____ **LOCATION:**_____ **DATE:**_____

DESCRIPTION	PS MANUAL REF SECTION	SIGNATURE
23.1 Inspect diaphragm phenolic wear plate and elastomeric shear mounts for cracks and breaks. 23.2 Inspect faceplate for bends of cracks. 23.3 Inspect AR-7 coating for abrasions or cracks.		
24. Draft Gear: 24.1 Check draft for tightness in the pocket. 24.2 Inspect Waughmat springs for proper alignment, signs of deterioration, wear, and bent dividers.	Vol IV Sec. 14 & Running Maintenance and Service Manual Pgs 3-40	
25. Coupler: 25.1 Remove dirt and foreign matter from coupler with a dry air blast or other suitable means. 25.2 Check that the inside of the coupler head, the coupler operating parts and the machined surfaces of the coupler contour are free from lubricant or paint. 25.3 Gauge the following (see reference figures): a) Contour - Gauge 31000 (figure 3-3). b) Aligning wing/guard arm-Gauges 32600 (figure 3-4) and 34101-4 (figure 3-5). c) Coupler body interlocking surfaces- Gauge 44250-5 (figure 3-6). d) Contour slack-Gauge 34100-1 (figure 3-7). e) Nose wear and stretch limit-Gauge 34100-2A (figure 3-8). 25.4 Check anticreep protection (figure 3-9). 25.5 Make visual inspection of coupler body pin protectors and pivot lugs. Condemn for cracks in pivot lug, pin protector boss, or breaks in pin protector boss. 25.6 Check coupler shank wear plate. Check and lubricate coupler carrier assembly. 25.7 Check that the carbody is level and at proper height. 25.8 Check coupler height per AAR PC Rule # 5 adjust by shimming at the coupler carrier. Check levelness of coupler. 25.9 Check that coupler operating rod operates freely. Check clearance between operating rod eye and lockfit lever (figure 3-2). 25.10 Inspect uncoupling bracket mechanism.	Vol IV Sec. 14 & Running Maintenance and Service Manual Pgs 3-32 & 3-33 Vol IV Sec. 14	

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
120-DAY INSPECTION REPORT
MAP 120A
Includes #9, 10AC, 60SE

CAR NO.:_____ **LOCATION:**_____ **DATE:**_____

DESCRIPTION	PS MANUAL REF SECTION	SIGNATURE
26. Truck-Wheel Side 26.1 Check that roof sensor cable assembles, collet cable assemblies for magnetic sensors and power roof wires at wheel side controller as well as output wires to toilet relay and wires and cable assemblies to wheel slip duct valve and solenoid assemblies are secure and are not broken. Replace any if damaged. 26.2 Check wheel side duct valve and reservoir for air leakage. 26.3 Record sensor resistance (600-1200 ohms). _____ _____ _____ _____		
27. Inspect all exposed 480V cables for nicks, cracks, or deterioration. Record meter readings (must be at least 2 meg). 1-2_____ 1-3_____ 2-3_____ 1-GND_____ 2-GND_____ 3-GND_____	SMP 26601 SMP 48001	
28. Observe safety precautions. Assure that 480V. power is not connected to the car and that the main circuit breaker is open, locked out, and tagged. Then use a non-metallic brush and approved electrical parts cleaner to clean the small control pins in the 480V. receptacles.		
29. **Trainline Jumpers and Receptacles:** HEP 29.1 Inspect cover spring. 29.2 Check jumpers and receptacles for shorted wires. 29.3 Inspect all (5) cable support cleat blocks. 29.4 Inspect for loose or missing hardware.		

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
120-DAY INSPECTION REPORT
MAP 120A
Includes #9, 10AC, 60SE

CAR NO.:_____ LOCATION:_____ DATE:_____

DESCRIPTION	MANUAL REFERENCE	SIGNATURE
30. Refrigeration: [30] 30.1 Renew mail filters on and coffee-maker. 30.2 Check operation of freezer cabinet hinges, latches, locks, seals, temperature indicators and all stained stains. 30.3 Check operation of convection ovens, coffee-makers, faucets and sink drains. 30.4 Test microwave ovens.	SMP 23604	
31. Check for proper operation of convection and microwave ovens and coffee pots.	Vol IV Sec. 15	
32. Wheelchair Lift: 32.1 Inspect main rollers for excessive wear or flat spots. 32.2 Inspect inner frame tube for galling. 32.3 Inspect cylinders for leaks. 32.4 Inspect power unit for leak & test hand pump operation. 32.5 Inspect all hydraulic hoses & fittings for damage & leaks. 32.6 Inspect for loose or missing fasteners or hardware. 32.7 Inspect non-skid surface for wear. 32.8 Inspect power unit filter. 32.9 Lubricate platform hinge.		
33. Check emergency window handles to ensure they are connected to, and will pull out, the rubber bead on emergency sash window. If not, corrected to meet proper specifications.	Vol. I Sec. 1.4	
34. Inspect all non-concealed lights, marker lights, and switches. Replace all burnt out lamps and broken or missing glassware.		

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
120-DAY INSPECTION REPORT
MAP 120A
Includes #9, 10AC, 60SE

CAR NO.:_____ LOCATION:_____ DATE:_____

EQUIPMENT ACCEPTANCE FOR SERVICE APPROVALS:

PM Supervisor: _____ Date: _____

OBS QA Inspector: _____ Date: _____

Mech. Dept. QC Inspector: _____ Date: _____

Date car release for service: _____ Date: _____

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
360-DAY INSPECTION REPORT
MAP 360 AC
Includes: #9, 120 AC, 60 AC, 60 PTC, 10 AC

UNIT NO.:_____ **LOCATION:**_____ **DATE:**_____

DESCRIPTION	SIGNATURE
1. BATTERIES: 1.1 Check for metal corrosion. 1.2 Check electrolyte corrosion. 1.3 Check protective coating for breaks and cleanness. 1.4 Torque all bolts and lugs to [illegible] lbs. 1.5 Apply Mobil Oil 1 compound to all exposed terminals and bolts.	
2. LIGHTING: FLUORESCENT 2.1 Ensure light assemblies are properly secured. 2.2 Check light assembly for breaks and cracks. 2.3 Check sockets for breaks and cracks. 2.4 Check electrical contacts for corrosion. 2.5 Inspect wires. 2.6 Check ballast assembly for breaks and cracks. 2.7 Clean fluorescent lamps. 2.8 Clean light assembly surfaces (inside and outside). 2.9 Check and clean dust and residue buildup on light assemblies. 2.10 Verify function of lights. 2.11 Check wiring for defective insulation and wire terminations for proper physical connections, also check condition of connections and connector pins. 2.12 Check ballasts for evidence of overheating, arcing and other visible defects; check ballast wiring leads and make sure ballast are mounted securely. LCD SIGNS 2.13 Ensure LCD signs are secure. 2.14 Inspect lamp pins for damage and corrosion. 2.15 Inspect sockets for electrical damage and corrosion. 2.16 Inspect wire harness for damage and corrosion. 2.17 Inspect PWAs and LCD modules for defects.	
3. COMMUNICATIONS: 3.1 Clean unit and replace laser.	
4. HVAC: 4.1 R&R dehydrator. 4.2 Check heater resistance and current.	

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
360-DAY INSPECTION REPORT
MAP 360 AC
Includes: #9, 120 AC, 60 AC, 60 PTC, 10 AC

UNIT NO.:_____ LOCATION:_____ DATE:_____

DESCRIPTION	SIGNATURE
5. DOORS:	
END DOORS	
5.1 Inspect pneumatic door operator.	
5.2 Check security of spring eyebolt locknuts.	
5.3 Check cylinder piston rod clearance.	
5.4 Check and adjust door speeds.	
5.5 Clean and lubricate door hangers and tracks.	
SIDE DOORS:	
5.6 Check security of system components, wire leads, base plate mounting bolts, operator to car structure nuts, and slide mountings.	
5.7 Check solenoid valve mounting, slide valve function, and alignment of operator and door centerlines (parallel).	
5.8 Verify hanger side movement is within specifications.	
5.9 Check cleanliness and freedom of door hangers and clean door tracks and pockets as needed.	
5.10 Lubricate door tracks.	
GENERAL	
5.11 Inspect solenoid (air) valve and air cylinder.	
5.12 Inspect and clean wiring for door control box.	
5.13 Vacuum or brush all dirt from the operator assembly.	
5.14 Remove oil and grease from assembly surface using a lint free cloth dampened with clorethene NU or equivalent	
5.15 Check resistance of varistor assemblies used across magnet valve coils on time-delay relay coil. Ref. Vapor manual: Pgs 5-9.	
5.16 Verify that all electric wiring is free from mechanical interference; dress and secure if necessary.	
5.17 Operate each door panel and check each operator for leaks in the piping connections.	
5.18 Check that door panel opens in 2-1/2 seconds and closes in 3-1/2 seconds. Adjust opening and closing speed fittings, if necessary. Tighten speed setting jamnuts after each adjustment.	
5.19 Open door panel and check that it remains open for 15 seconds.	
5.20 Check that miniature control valve is activated when the door panel is closed.	
5.21 Inspect each press switch assembly and tighten mounting hardware if necessary.	
5.22 Check sensitive edge and sensitive edge switch for security.	
5.23 Check each door slide assembly and tighten mounting hardware if necessary.	
5.24 Verify that each door slide is mounted parallel to its door edge.	
5.25 Check that sensitive edge switch is securely mounted to the door slide plate.	
5.26 Verify that the switch wiring and PVC tubing are free from mechanica	

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
360-DAY INSPECTION REPORT
MAP 360 AC
Includes: #9, 120 AC, 60 AC, 60 PTC, 10 AC

UNIT NO.:_____ **LOCATION:**_____ **DATE:**_____

DESCRIPTION	SIGNATURE
6. INTERIOR: 6.1 Remove drapes for dry cleaning.	
7. BRAKES: 7.1 Clean and inspect C6-4 Type strainer and replace strainer material. 7.2 Clean and inspect Hi type air filter and replace filter cartridge. BRAKES (AIR): 7.3 Check for proper hand brake connection to axle disc of the 3-axle truck. 7.4 Check hand brake cable attachment and hand brake for proper operation. Check for proper operation of brake indicating light. 7.5 Clean and inspect C-1 Strainer and check valve. 7.6 Clean and inspect orifice of sander relay valves. 7.7 Replace air filter automatic drain valve and magnetic valve. 7.8 Replace main reservoir automatic drain valve and magnetic valve. 7.9 Clean and inspect dirt collector chamber of brake pipe branch cutout cock. 7.10 Replace filter in cutout cock body. 7.11 Clean out sump and replace paper filter in dirt collector/cut out cock. 7.12 Replace main reservoir strainer.	

EQUIPMENT-ACCEPTANCE FOR SERVICE APPROVALS:

PM Supervisor: _____ **Date:** _____

OBS QA Inspector: _____ **Date:** _____

Mech. Dept. QC Inspector: _____ **Date:** _____

Date car released for service: _____

APPENDIX 5
AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM - FOOD SERVICE CAR MAP FORMS

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
FOOD SERVICE CARS
PRE-TRIP CLEANING REPORT
MAP 110PTC/60SPT
Includes #9, 10AC

UNIT NO.:_____ **LOCATION:**_____ **DATE:**_____

DESCRIPTION	REFERENCE	SIGNATURE
8. [illegible]		
9. Remove floor mats in kitchen area and scrub floor with an approved germicidal cleaner, steam clean the floor mats and/or apply new floor matting.	[illegible]	
10. [illegible]		
11. Review MAP 21A, clean all cleaning related defects. (ALL CARS).		

REFRIGERATION / MECHANICAL

DESCRIPTION	SIGNATURE
1. Check all refrigeration and freezers for proper operation and cooling temperatures. • Freezer temperature 0 degrees F. or below. • Refrigeration temperature 40 degrees F. or below. • Refrigeration temperature 33 degrees F. or above. • Thermometer accurate to +/- 3 degree.	
2. Ensure toilets are working properly. If a car has an inoperative toilet, it must be repaired, or the car is to be shopped prior to dispatchment. (ALL CARS)	
3. Check hand washing facilities for proper operation.If car has an inoperative wash basin, they must be repaired or the car is to be shopped prior to dispatchment. (ALL CARS) • Cold and hot (110-140 degrees) water available. • Metering faucet (if present) hold for at least 15 sec.	

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
FOOD SERVICE CARS
60-DAY CLEANING REPORT
MAP 60AC
Includes: #9, 10AC

UNIT NO.:_____ **LOCATION:**_____ **DATE:**_____

	DESCRIPTION	REFERENCE	SIGNATURE
4.	Elevators-Scrub and clean interior and floor of elevator shaft.	Sec. 15.1	
5.	Hot Food Servers-Remove and clean trays and drawer sides. Clean underneath, inside and out.	MMI 14-4 Sec. 15	
6.	Toasters-If equipped, wipe clean with germicidal cleaner. Remove and clean crumb tray.		
7.	Scrub and wash the following with approved germicidal cleaner: a. All storage cabinets inside and out. b. All areas with storage bins. c. All lockers inside and outside doors.	MCC-004 Page 42	
8.	Remove floor mats behind the bar area and scrub floor. Steam clean the floor mats and/or apply new floor coating.	MCC-004 Page 16	
9.	Inspect and clean out all areas under cabinets and sinks that may be open. Date car released for service: _____		
10.	Scrub and wipe clean with germicidal cleaner all cabinets, counters, bins, lockers, counter and work surfaces.	MCC-004 Page 16	

AMTRAK/CALTRANS MAINTENANCE ANALYSIS PROGRAM
FOOD SERVICE CARS
60-DAY CLEANING REPORT
MAP 60AC
Includes: #9, 10AC

UNIT NO.:_____ **LOCATION:**_____ **DATE:**_____

EQUIPMENT-ACCEPTANCE FOR SERVICE APPROVALS:

PM Supervisor: _____ **Date:** _____

OBS QA Inspector: _____ **Date:** _____

Mech. Dept. QC Inspector: _____ **Date:** _____

Date car released for service: _____

MAINTENANCE REFERENCES:

Amtrak Car Cleaning Standards MC-004
FDA Food Service Manual ..... DHEW Pub. No. (FDA) 78-2081
Mech. Dept. SMP Manual
Superliner Maintenance Manuals

APPENDIX 6
MATERIAL ACCOUNTING STATEMENT

MAINTENANCE AGREEMENT
APPENDIX 6

SPARE PARTS INVOICE FORMAT

Spare Parts Invoice for the month of _____

Consumable parts Purchased

Description	Part No	Quantity	Price	Total
			Total	_____

Spare parts Purchased

Description	Part No	Quantity	Price	Total
			[illegible]	_____

[illegible] _____

[illegible] _____

[illegible] _____

[illegible]

[illegible]				
			[illegible]	_____

Spare parts Used (1)

Vehicle No	Work Order No	Description	Part No	Quantity	Price	Total
					Total	_____

Total Spare Parts Used _____

NOTES

1. Only Spare parts purchased are invoiced to Caltrans each month, spare parts used will determine usage patterns and provide a true cost of running State Provided Equipment.

2. Inventory control labor not to exceed one Person Year (PY), annual salary and benefits up to $44,000.

	Projected vehicle Months	Spares cost per vehicle per Month	Total Cost
Cab Cars			
Trailer Cars			
Food Service Cars			
Baggage Cars			
F59 PHI			
Dash-8			

Total Spares Costs For year _____

Maintenance Labor Costs	
Management overhead for Labor	
Spare Parts Costs	
Inventory Control Personnel (4)	
Other Costs(3)	

Total Maintenance Cost For State Provided Equipment _____

NOTES

1. Scheduled maintenance includes all work included on MAP forms including car/locomotive cleaning

2. Consumable spare parts includes lamps, brake shoes and lubrication oils etc. which are changed on a regular basis due to normal wear and tear.

3. Other costs must be supported by additional information on the requirements.

4. Inventory Control Personnel shall be limited to one (1) Person Year (PY) with annual salary plus benefits not to exceed $44,000/year.

APPENDIX J

OPERATING AGREEMENT

NATIONAL RAILROAD PASSENGER CORPORATION
and
THE STATE OF CALIFORNIA

AGREEMENT FOR THE PROVISION OF
RAIL PASSENGER SERVICE

THIS AGREEMENT made as of the first day of April, 2015, by and between the National Railroad Passenger Corporation, a corporation organized under the Rail Passenger Service Act (recodified at 49 U.S.C. § 24101 et. seq.) and the laws of the District of Columbia and having its principal office and place of business in Washington, D.C. (hereinafter referred to as "Amtrak"), and the State of California acting by and through its Department of Transportation (hereinafter referred to as "the State").

WHEREAS, the State has requested that Amtrak provide rail passenger service for the benefit of persons traveling to, from and within the State of California as further described in Appendix I (hereinafter, the "Service"); and has provided to Amtrak adequate assurances as to the State's resources to reimburse for actual costs documented as reported by the Amtrak Performance Tracking ("APT") System of the associated operating losses (expenses not covered by revenue) of such service levels, and minor capital costs as more specifically defined herein; and

WHEREAS, the parties wish to provide for certain described daily bus service between statewide points to connect with the aforesaid rail passenger service, the cost of which will be borne by the State subject to Appendix VI; and

WHEREAS, State and Amtrak are committed to working cooperatively to providing a safe, high-quality service at an actual, documented reasonable cost, and will continue pursuing, throughout the term of this Agreement, revenue enhancement and cost reduction strategies; and

WHEREAS, the State is authorized by applicable state law to enter into an agreement with Amtrak on the terms and conditions hereinafter set forth and funds for this purpose have been made available by the State as set forth herein; and

WHEREAS, in accordance with Section 209 of Title II of the Passenger Rail Investment and Improvement Act of 2008, Pub. L. No. 110-432, 122 Stat. 4848 ("PRIIA"), Congress required, among other things, that Amtrak, in consultation with the relevant states and the District of Columbia, develop and implement a methodology for allocating the operating and capital costs of rail routes of not more than 750 miles outside the segment of the continuous Northeast Corridor railroad line between Boston, Massachusetts and Washington, District of Columbia among the relevant states and the District of Columbia, and Amtrak. Amtrak and the State desire to enter into agreement to operate the routes; and

WHEREAS, Amtrak developed such a methodology in consultation with a group of states, but was unable to achieve the necessary concurrence on the methodology from all relevant states and the District of Columbia as required by PRIIA. Accordingly, on November 21, 2011, Amtrak petitioned the Surface Transportation Board (the "STB"), and the STB adopted Amtrak's proposed methodology to meet the requirements of PRIIA ("Approved 209 Methodology"), which is attached hereto and incorporated herein as Appendix VI; and

WHEREAS, the Service is subject to the Approved 209 Methodology.

NOW THEREFORE, in consideration of the mutual covenants herein contained, the parties hereto agree as follows:

I. SERVICE TO BE PROVIDED

A. Subject to sufficient Federal funding to allow Amtrak to provide continued operations, Amtrak will continue to provide rail passenger service over the route(s) in accordance with the schedules jointly developed and agreed to by Amtrak and the State prescribed in Appendix I. Amtrak shall not be required to increase the frequency of any of the schedules except pursuant to a mutually agreed and amended Appendix I made pursuant to Section XIII, Item A hereof; provided, however, that this shall not preclude Amtrak from providing such increased scheduled service at its own cost and expense.

B. Amtrak shall exercise its best efforts to provide rail passenger service of high quality. Amtrak and the State shall jointly approve in writing decisions impacting such things as menu items and prices, level of on-board amenities, fares (including promotions and changes in fares), on-board operating policies (including procedures for disabled access, train crew procedures and stationing, and checked baggage service), and reservation requirements. Both parties agree that in order to provide a consistent level of service across all Amtrak services, that tariff policies (including age or membership restrictions to qualify for passenger-type discounts, and rules, procedures and fees for handling reservations, cancellations, ticket exchanges, and ticket or payment refunds) will be handled consistent with Amtrak national policies. Amtrak will provide the State at least thirty (30) days written notice of any changes to the general tariff policies.

C. Performance Standards

1. Standards, Incentives, and Assessments:
Amtrak will endeavor to operate the Service so as to achieve the performance standards set forth in Appendix II, V and XIX ("Performance Standards"). In the event that Amtrak achieves or exceeds a certain level of performance established for each Performance Standard as set forth in Appendix II, V and XIX, STATE agrees to make additional payments to Amtrak in the incentive amounts set forth in Appendix II, V and/or XIX ("Incentives"). In the event that Amtrak does not achieve a certain level of performance established for each Performance Standard as set forth in Appendix II, V and XIX, Amtrak

agrees to credit STATE the assessment amounts set forth in Appendix II, V and XIX ("Assessments").

2. Data-Based Standards:
Certain Performance Standards will be based on data that is regularly collected and reported to the State by Amtrak regarding the performance of its trains ("Data-Based Standards"). Each Data-Based Standard used to determine Incentives and Assessments is described in detail in Appendices II and XIX, including method and frequency of data collection.

3. Observation-Based Standards:
Amtrak has created and maintains standards for many elements of the services provided under this Agreement, including but not limited to the condition of passenger rail equipment, the condition of station facilities, and the conduct of its employees. For many of these standards, Amtrak utilizes internal quality control processes to monitor adherence to the standards. The STATE desires to supplement Amtrak's quality control processes with additional State inspections, which will be accomplished through a State-directed inspection as outlined in Appendix V ("Observation-Based Standards").

4. Determination, Calculation and Disposition of Incentives and Assessments:.
During the term of this Agreement, Incentives and Assessments shall be calculated in the manner set forth below and recorded, though the amounts shall not be included in the STATE's regular invoices. On a quarterly basis, total Assessments shall be subtracted from total Incentives. If the result is a negative number, it shall represent a net Assessment to be credited by Amtrak against payments otherwise due by the STATE. If the result is a positive number, it shall represent a net Incentive to be invoiced by Amtrak and paid by the STATE. The STATE and Amtrak shall have no further obligations toward each other as to how any Incentive or Assessment amounts are spent.

For Data-Based Standards set forth in Appendix II and/or XIX, Amtrak will collect the required data derived from the sources outlined in Appendix II and/or XIX and for the time period (monthly/quarterly) defined in Appendix II and/or XIX, calculate any applicable Incentives and Assessments, and present this calculation to the STATE on a regular (monthly) basis. Once both parties are satisfied with the calculation, the net amount of any Incentives and Assessments shall be recorded for future disposition as described above.

For Observation-Based Standards, representatives of STATE shall conduct inspections in the manner set forth in Appendix V. Once both parties are satisfied with the conclusion of the inspection and any applicable Incentives or Assessments, the net amount shall be recorded for future disposition as described above.

The parties agree that they will limit the net amount of Incentives or Assessments to no more than $12,500 per month, even in cases where the calculations in Appendix II, V and/or XIX would result in higher amounts.

If in the course of administering the calculation of Incentives and Assessments relating to the Observation-Based Standards, the STATE and Amtrak are unable to agree on a specific fact related to calculating an Incentive or Assessment, the parties may document the basis for the dispute in writing within sixty (60) days following the date the alleged fact was first presented by one party to another, and this fact may then be resolved in accordance with Section XVI of this Agreement. Except for disputes identified in writing pursuant to this paragraph, the parties shall be deemed to be in agreement with all Incentive and Assessment calculations made pursuant to this Section and Appendix II, V and/or XIX. Notwithstanding Section IX, neither Party shall be entitled to adjust or make a claim concerning any such calculation.

5. The parties acknowledge that they have agreed to these Incentives and Assessments based on the expectation of a certain level of operating and capital funding provided to Amtrak by a variety of sources, including but not limited to the State and the Federal government. In the event of a material change in these funding levels during the term of this Agreement, the terms of these Incentives and Assessments may be modified by mutual written amendment to this Agreement of the parties in accordance with Section XIII, Item-A. The parties acknowledge this is the first year of implementation of Performance Standards. Performance Standards, Incentives and Assessments will be renegotiated or adjusted on an annual basis, as conditions warrant.

6. The STATE and Amtrak agree that the following standards outlined in Appendix II, V and XIX will be implemented effective October 1, 2014, however, the STATE and Amtrak recognize that the procedures and reports needed to support the Data-Based Standards and Incentives and Assessments will not be completed by October 1, 2014. Accordingly, STATE and Amtrak agree that the procedures and reports will be completed no later than November 15, 2014. Any Data-Based Incentives or Assessments accrued between October 1, 2014 and the completion date of the reporting package will be applied retroactively to October 1, 2014.

   Data-Based Standards:

   - Delay Minutes – Train Operations
   - eCSI – Customer Service Indices

   Observation Based Standards:

   - Employee Conduct and Revenue Collection

The STATE and Amtrak agree that the following Observation-Based standards are to be measured but that such standards have not been developed and agreed-upon by Amtrak and the STATE in order to be included in this Agreement. Accordingly, the STATE and Amtrak agree that the language will be developed in a process involving a working sub-group, in a manner so that the final language shall be consistent with the requirements of the Approved 209 Methodology. Implementation of the remaining performance standards shall be memorialized through an amendment to this Agreement or by separate agreement. Sample performance standards are incorporated as appendices herein where noted below.

Observation Based Standards:

i. Rolling Stock Availability, Serviceability, Cleaning and Maintenance – Sample standards are incorporated herein as Appendix VII.
ii. Maintenance of Stations – Sample standards are incorporated herein as Appendix XVI.
iii. Connecting Motor Coach

During the term of this Agreement, the parties shall confer not less than quarterly to review the performance data for the previous quarter; to diagnose the root cause(s) of performance results that are below the minimum acceptable level of performance; and to propose initiatives that may improve performance.

D. To appropriately monitor the fiscal performance of the Service, the parties agree to meet, either in person or via telephone, on a quarterly basis to review documented costs as reported by APT versus the estimated budget set forth in Appendix III, attached hereto and incorporated herein by reference. Amtrak shall provide to be agreed-upon documentation to support the documented costs charged to the State as reported by APT ("Standard Supporting Documentation"). The parties agree to make adjustments to this Agreement and other service-related documents as necessary and appropriate. In addition, Amtrak shall provide the operational and financial reports described in Appendix X, attached hereto and incorporated herein by reference.

E. Both parties agree that maintaining appropriate staffing levels is key to the continued success of the Service, and Amtrak is committed to sourcing qualified job applicants and filling vacancies in a timely and efficient manner.

F. Frequency of Service

a) The State may, upon not less than 180 days prior written notice, request that Amtrak increase or decrease frequency of Service. Amtrak shall work cooperatively with the State to obtaining the approval of any railroads over which such increased frequency of service is to be operated. An increase or decrease in frequency of service will require a written amendment to this Agreement.

G. Equipment in Service

1. In the event that the said rail passenger service may, from time to time, be fully utilized by the traveling public, Amtrak shall exercise reasonable efforts to provide additional rail passenger service equipment from its available resources consistent with the funding requirements of Appendix VI, unless otherwise identified within this Agreement. By mutual agreement, upon request by the State, Amtrak shall deploy such additional compatible equipment as the State may, in its discretion, make available for use in the service on a route provided for herein.

2. During the term of this Agreement, Amtrak shall not remove its equipment from the Service without prior written approval from the State, which approval shall not be unreasonably withheld. The State understands and agrees that under a force majeure event, Amtrak may redeploy one or more units of its equipment into another Amtrak service for a period of up to thirty (30) continuous days. If the duration of the extraordinary circumstance is longer than thirty (30) days, Amtrak must obtain the State's written approval to continue to redeploy the equipment. Said approval shall not be unreasonably denied.

3. Amtrak shall deploy State-provided equipment among the three State-supported corridors consistent with the Deployment Plan for State-Provided Equipment set forth in Appendix C incorporated by reference and attached hereto. Amtrak agrees to meet on a regular basis as requested by the State and CCJPA to review and update, as necessary, the Deployment Plan. Further, Amtrak agrees to meet with the State and CCJPA within 48 hours of an event that causes a reduction in the number of available units of equipment identified in the Deployment Plan, in order to modify the Deployment Plan to meet the reduced level of equipment.

4. During the term of this Agreement, Amtrak shall not remove State-owned equipment from California State supported service without the prior written approval from the State. In the event the State approves Amtrak's use of State-owned equipment for use in other Amtrak services, Amtrak shall lease the State-owned equipment under terms and conditions to be agreed upon by the parties.

H. The parties shall cooperate for the purpose of effecting the continuing existence and use of the rail passenger service herein and shall take such other action as they may mutually agree is conducive to the establishment and provision of the Service on a regular, efficient and economic basis. To that end, Amtrak and the State will work together on marketing campaigns and will jointly approve media advertising, advertising campaigns, advertising expenditures funded under Appendix III.

I. Lease of Rolling Stock for Peak Travel Periods

1. In order to maximize rolling stock for certain peak travel periods, including Thanksgiving and Del Mar Race season, Amtrak included, as part of the FFY 15 forecast included in this Agreement, lease-in of rolling stock from third parties to accommodate additional demand ("Additional Service"). The costs relating to the lease of the additional rolling stock may include, but are not limited to, inspections to verify the condition of the rolling stock, cleaning and maintenance costs, and costs directly related to the operation of the leased rolling stock. The State acknowledges that Amtrak has assumed for pricing purposes that Additional Service to be provided under this Agreement shall not exceed the level of additional service provided by Amtrak under the FFY14 Agreement. Should the State request Additional Service beyond the level assumed by Amtrak under this Agreement, the State agrees to reimburse Amtrak on an actual cost basis in accordance with Approved 209 Methodology.

J. Privately Owned Rail Passenger Cars

1. Amtrak will attempt to accommodate private cars on the Service. Amtrak reserves the right to refuse any request which in Amtrak's judgment would cause a delay in movement of one of its trains or would result in any additional costs. Movement and parking of private cars shall be pursuant to Amtrak's national tariffs and policies. The State shall incur no additional costs under this Agreement for the provision of accommodating private cars, and revenues from the provision shall be credited to the routes carrying the private cars per the Approved 209 Methodology, Appendix VI.

K. Trade and Service Marks

1. Each party grants the other a limited, non-exclusive license to use its name, trade name, trademarks and service marks (collectively referred to as "Marks") for the purpose of implementing the regional marketing and advertising plan. Except as expressly provided herein, no right, property, license, permission or interest of any kind in or to the use of any Mark owned or used by a party is or is intended to be given or transferred to or acquired by the other party by the execution, performance or nonperformance of this Agreement or any part thereof. Each party agrees to comply with all of the other party's instructions regarding the other party's Marks. Neither party shall use any Marks of the other in any manner that would diminish its value or harm the reputation of the other party.

2. Each party acknowledges that the other party's Marks and copyrights are considered to be valuable and that the other party (or its licensors) claims to own all worldwide right, title and interest therein and thereto. Each party agrees that it shall in no way contest or deny the validity of, or the right or title of, the other party's Marks by reason of this Agreement. Each party further

agrees not to register anywhere in the world any domain name, name, mark, symbol, logo, copyright, company, product name, service name or description that could be confused with or is similar to or which dilutes the other party's Marks. Each party shall have the right to review and approve, prior to publication or display, the portion of any and all content, artwork, copy, advertising, promotional materials, direct mail, inserts, press releases, newsletters, web pages, timetables or other communications or any other publicity published or distributed by another party (or at its direction and authorization) that specifically references the California State supported service in whole or in part, the reviewing/approving party's name, or uses any of the reviewing/approving party's Marks for work products produced pursuant to this Agreement. Such review and approval by the other party shall be timely and shall not be unreasonably withheld.

L. Amtrak agrees to insert, in all published timetables and advertising related to the rail passenger service herein, the following statement:

"This service is financed by the State of California, Department of Transportation."

M. Minor Capital Improvement Projects

1. Pursuant to Section 14037 of the Government Code and Section 167 of the Streets and Highways Code, in order to enhance the operation of the Service set forth in Appendix I, Amtrak and the State may, from time to time, identify minor capital projects to improve facilities and the operation of the Service identified in Appendix I. Pursuant to Section 10105 of the California Public Contract Code, the project limit for minor capital projects is $250,000. Minor capital projects are understood to include the following: maintenance, physical improvements, alteration or repair work done for facilities related to rail or feeder bus service, which facilities include, but are not limited to track, rail equipment, and stations (landscaping, pavement, parking lots, signage, Public Address systems, baggage rooms, lighting, bus loading and layover area). Such projects may, at the written request of the State, be undertaken by Amtrak using a portion of the funds set forth in Appendix III, incorporated by reference and attached hereto. In order to implement a specific project, Amtrak shall provide to the State a project scope of work, schedule and budget. The State will provide Amtrak with a written authorization to proceed with the project(s), incorporating the project scope of work, schedule, budget, and any prior written approval of the plans and specifications for the project. Such authorization, provided to the Amtrak Minor Capital Project Manager in Los Angeles, shall specify the maximum amount of money that is allocated to the specific project being authorized.

2. In Federal Fiscal Year (FFY) 14, state fiscal year (SFY) 13/14 funds in the amount of $1,000,000 were authorized for minor capital projects on the

Pacific Surfliner and San Joaquin routes, with the exclusion of rail minor equipment projects described in Section I, Item N below.

3. In FFY 15, SFY 14/15 funds in the amount of $1,000,000 are included in Appendix III for minor capital projects on the Pacific Surfliner and San Joaquin routes, with the exclusion of rail minor equipment projects.

4. Unless the term of this Agreement is extended through written amendment, all minor capital projects authorized by State under this Section for FFY 14 and FFY15 must cease or be completed by September 30, 2015, and all invoices must be submitted to the State no later than December 30, 2015. Should the work contemplated hereunder not be completed by September 30, 2015, the State shall be responsible for any cost Amtrak incurs in terminating the work.

N. Minor Rail Equipment Projects

1. In order to implement a specific minor equipment project, Amtrak shall provide to the State a project scope of work, schedule and budget. The State will provide Amtrak with a written authorization to proceed with the project(s), incorporating the project scope of work, schedule, budget and any prior written approval of the plans and specifications for the project.

2. FFY 14, SFY 13/14 funds in the amount of $1,500,000 were authorized for minor equipment projects.

3. For FFY15, SFY 14/15 funds in the amount of $500,000 are included in Appendix III for minor rail equipment projects.

4. Unless the term of this Agreement is extended through written amendment, all minor rail equipment projects authorized by State under this Section for FFY 14 and 15 must cease or be completed by September 30, 2015 and all invoices must be submitted to the State no later than December 30, 2015. Should the work contemplated hereunder not be completed by September 30, 2015, the State shall be responsible for any cost Amtrak incurs in terminating the work.

O. Insurance

1. Amtrak shall cause the State to be named as an additional insured and as a loss payee on applicable Amtrak property insurance policies ('Master Policies") covering all State-owned rolling stock operated by Amtrak and the facility assets jointly owned by Amtrak and State in the Oakland Maintenance Facility.

2. In addition to the Master Policies, Amtrak shall procure and maintain for the duration of this Agreement, at the fully reimbursable cost and expense of State, an additional policy ("State Policy") for all State-owned or State-leased

rolling stock, including the Superliner Coaches refurbished in accordance with Section I, Item R operated by Amtrak, with policy limits equal to the retention or deductible in the Master Policies (historically from $10 million to $15 million). The State Policy shall be written on a replacement cost basis, and the deductible or retention shall not exceed $250,000 per occurrence at the fully reimbursable cost and expense of the State. The State Policy shall insure the State-owned rolling stock operated by Amtrak against all risks of physical damage usually covered under a railroad property insurance policy except for the perils of earthquake and terrorism, unless Amtrak is specifically authorized by State to include earthquake and terrorism coverage. The parties acknowledge and agree that deductible levels may be modified during the term of the Agreement.

3. Amtrak shall also procure and maintain for the duration of this Agreement, at the fully reimbursable cost and expense of State, an additional policy ("State Maintenance Facility Policy") to cover the Oakland Maintenance Facility with policy limits equal to the retention or deductible in the Master Policies (historically from $10 million to $15 million). The deductible or retention for the State Maintenance Facility Policy shall not exceed $100,000 per occurrence for All Risk coverage (excluding earthquake and boiler/machinery), and $100,000 per occurrence for Boiler/Machinery Breakdown coverage, both at the fully reimbursable cost and expense of State. The parties acknowledge and agree that deductible levels may be modified during the term of the Agreement.

P. The State may direct Amtrak to perform wreck repair work on State-owned rolling stock in accordance with standards established by the State (e.g., current equipment manufacturer specifications), in accordance with Amtrak's standard procurement policies and procedures as required by Amtrak's annual operating and capital grants with the Federal Railroad Administration.

Q. State Website

1. The parties shall work together to ensure that content on the State's [amtrakcalifornia.com] website and the Amtrak.com website related to the Service is timely, consistent and accurate.

R. Superliner Deployment in California state-supported Service

1. Under the FFY08 Agreement for Provision of Rail Passenger Service ("FFY08 Agreement"), State desired Amtrak to supplement available coach equipment for operation of California state-supported services to replace State-owned coaches cycling through State's equipment overhaul program. To that end, Amtrak agreed to refurbish seven (7) Amtrak-owned and previously out-of-service Superliner coaches (unit numbers 34043, 34051, 34053, 34067, 34081, 31034 and 31592) ("Superliner Work"). In exchange

for State's funding of this Superliner Work and any other required maintenance and/or related costs, and subject to Amtrak's continued operation of California state-supported Service, Amtrak agreed to dedicate operation of these refurbished Superliner coaches, identified above, to California state-supported Service for a period of 72 months from the date of delivery of said Superliner coaches into California state-supported Service. Under the FFY08 Agreement, Amtrak agreed to be responsible for the cost of the required four-year overhaul of the Superliner coaches which will occur within the 72-month period. State understood and agreed that it will not receive any credit for the related out-of-service time associated with the necessary overhaul. Appendix IX, attached hereto and incorporated herein by reference, identifies the old and new unit numbers for the seven refurbished cars, the date the cars went into service and the date the 72 month period will be completed for each car.

2. Should the State desire Amtrak to continue to deploy the Superliner coaches in California state-supported Service beyond the initial 72-month period, State shall make such a request in writing to Amtrak at least one hundred and eighty (180) days prior to expiration of the initial 72-month period. At that time, Amtrak will evaluate its intercity passenger rail requirements and to the extent the Superliner coaches would not otherwise be required for other Amtrak service, and consistent with the terms and conditions of Amtrak's then current policy for assignment of rolling stock equipment to state-supported service, the Parties will negotiate the timeframe and funding requirements for continued deployment of the refurbished Superliners in California state-supported Service consistent with the funding requirements of Appendix VI. Pursuant to this Section I, Item R.2, Caltrans and Amtrak agree to continue to deploy two Caltrans-funded, wreck-repaired Superliner coaches (Coach 34953 and Coach 34981) for the term of this Agreement. These two coaches shall be used in San Joaquin Service and will be included in the revised deployment plan set forth in Appendix C. This provision supersedes Item 6 of Appendix XVIII-A, CAL-ATK#: 1032 attached hereto and incorporated herein by reference.

3. State reserves the right to exercise, at its option and at any time within the 72-month period, a request for modifications to any of the Superliner coaches in accordance with specifications to be mutually agreed upon in advance by the parties ("Modifications"). In the event State chooses to exercise such option, Amtrak will provide for State's prior approval an updated estimate of the cost of performing such Modifications, and 100% of such costs shall be paid by State. Any such Modifications shall be performed in accordance with a schedule to be mutually agreed upon by the Parties, and in no event will the 72-month period be extended to accommodate the time the Superliner coaches are out-of-service for Modifications work.

4. Except to the extent set forth in the last sentence of this Section I, Item R.4, should any of the Superliner coaches, listed in Appendix IX, be damaged such that they would be required to be taken out-of-service, State understands and

agrees that Amtrak shall not be obligated to replace or repair the damaged Superliner coach(es) and any repairs or replacement would be at the State's sole expense, subject to Amtrak's ability to schedule the work. When any of the repaired Superliner coaches are insured by Amtrak using State funds as directed by State in accordance with Section I, Item O and are damaged, Amtrak will use reasonable efforts to give priority repairs to the Superliner coach(es) should the work be performed at an Amtrak Maintenance Facility, to the extent funded by insurance proceeds and State funds as necessary, or Amtrak will make these insurance proceeds available to an Amtrak-approved alternative repair facility named by State.

5. State understands and agrees as a result of a force majeure event, Amtrak may redeploy one or more Superliner coaches to another Amtrak service for a period of up to thirty (30) continuous days. However, Amtrak agrees to extend the 72-month period for a period equivalent to the period of time that the Superliner coaches are out-of-service due to Amtrak's redeployment of the Superliner coaches pursuant to this provision.

6. Amtrak's commitment to operate the Superliner coaches in accordance with this Section I, Item R shall survive expiration of this Agreement.

S. Research and Ridership Modeling

1. Amtrak maintains forecasting services to assist Amtrak in the development of its nationwide rail passenger services ("Forecasting Contracts"). Subject to execution of a task order(s) between the State and Amtrak covering specific work items and price, Amtrak may utilize the services to forecast California State-Supported services, passengers, revenue, capacity and related work.

2. The State will have rights of review and approval of work done through Amtrak under the Amtrak forecasting process. Information developed from ridership and ticket revenue forecasts and capacity analysis and operations and scheduling analysis may be used for service changes, other service adjustments and long-range planning as authorized by the State.

3. Under the FFY13 Agreement, the State agreed to reimburse Amtrak up to $1,400,000, in SFY 12/13 funds, for the cost of market research, and ridership and capacity modeling, Operation Lifesaver, marketing, and rail safety activities. The individual project specifics of which shall be agreed upon by the parties by means of task orders. Authorization for SFY 12/13 funds expires June 30, 2015.

4. For FFY14, the State agreed to reimburse Amtrak up to $569,000, SFY 13/14 funds, for the cost of market research, ridership and capacity modeling and up to $81,000 for Operation Lifesaver, marketing and rail safety activities. The individual project specifics of which shall be agreed upon by the parties by

means of task orders. Authorization for SFY 13/14 funds expires June 30, 2016.

5. For FFY14, the State agreed to reimburse Amtrak up to $800,000 in SFY 14/15 funds, for the cost of ridership and capacity modeling and other related research. The individual project specifics of which shall be agreed upon by the parties by means of task orders. Authorization for SFY 14/15 funds expires June 30, 2017.

6. Unless the term of this Agreement is extended through written amendment, all Research and Ridership Modeling projects authorized by the State under this section must cease or be completed on or by September 30, 2015. And, unless otherwise stated in this section, all final invoices must be submitted to the State no later than December 30, 2015. Should the work contemplated hereunder not be completed by September 30, 2015, the State shall be responsible for any cost Amtrak incurs in terminating the work.

T. Dedicated Positions to State Route Service

1. As a part of the budget identified in Appendix III, Amtrak agrees to provide positions, identified in Appendix III and Appendix A that are administered by Amtrak, dedicated solely to the support of the State routes as described herein. Periodically, the State and/or Amtrak may conduct audits of those positions to ensure that the work performed under those positions is in accordance with job description identified in Appendix III and Appendix A. The audits will also analyze whether the numbers of positions in each category are adequate to meet the performance requirements of the Agreement, and whether such employees are evaluated by Amtrak managers consistent with their job descriptions. Results of the audit will be shared and discussed with Amtrak and the parties will recommend solutions to any issues discovered during the audit. The State reserves the right to defer an audit at its sole discretion. Amtrak understands and agrees that these positions are to be dedicated solely to the support of the Service provided for herein.

II. EQUIPMENT PROJECTS

A. Unless the term of this Agreement is extended through written amendment, all Equipment Projects authorized by the State under this section must cease or be completed on or by September 30, 2015. And, unless otherwise stated in this section, all final invoices shall be submitted to the State no later than December 30, 2015. Should the work contemplated hereunder not be completed by September 30, 2015, the State shall be responsible for any cost Amtrak incurs in terminating the work.

B. On-Board Information System.

1. For FFY15, State has funded the initial $8 million for OBIS and will increase available funding in accordance with project schedule and estimated budget

draw down not to exceed $25 million for the life of the project. Amtrak agrees to provide project development, implementation, documentation, completion and management, in accordance with the Appendix XX, National On-Board Information System Project, Conformed Statement of Work, as well as task orders that are jointly developed and approved by the California Department of Transportation (Caltrans) and Amtrak, for the design, development, engineering, material acquisition, deployment, programming and software, content development, installation, as well as modification, expansion, improvement, content management and upgrade on new and existing rolling stock owned by Caltrans.

C. Digital Train Line (DTL)

1. For FFY 13, the State agreed to reimburse Amtrak, for its actual costs of performance, not to exceed $4,000,000, in SFY 12/13 funds, for the design, engineering, materials and installation of a digital train line system ("DTL") on the 49 Surfliner Cars deployed in Los Angeles on Pacific Surfliner service, and 24 State-owned California Cars and Surfliner cars based in Oakland (73 cars total) in preparation for the implementation of an On-Board Information System (OBIS) currently in development. The DTL project shall include the following activities, in accordance with Appendix XIV: perform system design, engineering and installation procedure development; acquire materials for 73 of the 127 cars (funding for the acquisition of material for the remaining 54 California Cars and Surfliners based in Oakland will be provided by CCJPA under separate instrument between CCJPA and Amtrak; install the DTL on all 127 cars in accordance with the approved installation procedure; shipment of material to Oakland and/or Los Angeles as required; project management including travel within California, as approved in advance by the State; and system proof-of-design testing. Authorization for SFY 12/13 funding expires June 30, 2015. Therefore, invoices for this work shall be submitted to the State no later than May 15, 2015.

D. Wi-Fi

1. The State financed the deployment of a Wi-Fi - system on state-owned and select Amtrak-owned rail equipment in accordance with the Agreement between the California Department of Transportation, the Capitol Corridor Joint Powers Authority and National Railroad Passenger Corporation for the Implementation of Wi-Fi on the Pacific Surfliner, San Joaquin and Capitol Corridor dated November 28, 2011 (Contract No. 75A0341), attached hereto and incorporated herein by reference as Appendix XII.

2. Costs associated with the ongoing management and delivery of installed Wi-Fi is included as a part of the budget identified in Appendix III.

3. During FFY15, Amtrak, State and CCJPA shall continue the development and management and upgrade agreements as needed for On-Board Information

System (OBIS), Digital Train Line (DTL) and Wi-Fi projects on California owned rail equipment.

E. Locomotive Equipment Work

Amtrak agrees to complete the following work on State-owned passenger locomotives (collectively, "Locomotive Equipment Work"):

1. HEP Units Replacement Work (*2001, 2002, 2003, 2004, 2010, 2011, 2012, 2013, 2014 and 2015*). Under the FFY13 Agreement, the State agreed to reimburse Amtrak for the replacement of the remaining Caterpillar 3412 HEP units on the remaining seven State owned F59PHI locomotives with Caterpillar Tier 4i C15 HEP units (2002, *2004, 2010, 2011, 2012, 2013 and 2014*) in the amount of up to $237,000 per unit; replace three Tier 3 C15 HEP units (2001, 2002 and 2015) with Caterpillar Tier 4i C15 HEP units at the estimated amount of $192,000 per unit and purchase one spare Tier 4i unit at the estimated amount of $92,000 for a total not to exceed $2,327,000 in SFY12/13 funds. Such work shall be procured in accordance with Amtrak's standard procurement policies and procedures. Should the preferred bid or any necessary contract change orders exceed the estimated amount set forth above, the State and Amtrak agree to either (a) seek additional funding, or (b) work together to reduce the scope of the project to meet the available funds. If one of the ten units listed above fails, it may be replaced with the spare Tier 4i unit, if necessary, by a letter from the State informing Amtrak of a change in locomotive unit. Authorization for SFY 12/13 funding expires June 30, 2015. Therefore, invoices for this work shall be submitted to the State no later than May 15, 2015.

F. Upgrade of State-owned Comet 1B Coach Cars

1. The State has requested Amtrak to upgrade up to 14 State-owned Comet 1B coach cars for use on State-supported intercity routes in accordance with Appendix XVII, attached hereto and incorporated herein by reference. In addition, any other work necessary to integrate these cars into the State-supported Amtrak service may be performed by Amtrak at the request of the State as appropriate.

2. This work will include rehabilitation of non-Comet 1B Coach Cars for use in the Comet car fleet, including three F40 "Non-Powered Control Units" (NPCUs) and three Horizon Dinettes.

3. The State agrees (1) that all components of the upgrade described in Section II, Items F.1 and F.2 are conditioned on Amtrak's written approval of the scope of work; and (2) that future operation and maintenance of the cars is subject to the terms and conditions provided in the Agreement in Principle

between State and Amtrak or Amtrak Operation of Intercity Passenger Rail Service in Support of ARRA/PRIIA Grant Program dated August 22, 2009.

4. SFY 10/11 funds in the amount of $12,000,000 for the estimated cost of overhauling and upgrading of up to 14 State-owned Comet 1B coach cars and rehabilitation of non-Comet 1B cars for use in conjunction with the Comet car fleet to Amtrak operating and maintenance standards were included in the FFY 11 Agreement. This overhaul and upgrade is to modify the Comet 1B cars to conform to Amtrak practices and standards to the degree practical for maintenance, parts, operations and amenities for the purpose of integrating these cars into State-supported Amtrak California intercity passenger rail services, consistent with Amtrak's established policies and standards. This work shall include car movement to an Amtrak overhaul facility, engineering, materials management, overhaul of onboard systems, upgrading of amenities to intercity standards and other tasks as mutually agreed between the parties. No work shall be performed with the $12,000,000 of funding for the project included in the FFY11 Agreement or funds expended unless the parties enter into a written agreement detailing the scope and terms of work covered under each written agreement. Initial purchasing and preparation for the project has begun using SFY 10/11 monies. Should agreement not be reached on the scope of the project, the State will retain ownership of all initial purchases. The State agrees to seek any additional future year funding for this project necessary to complete the agreed upon scope of work.

    a) SFY 11/12 funds in the amount of $5,000,000 were added in the FFY12 Agreement (FFY12) for the Comet 1B project for work described under Section II, Items F.1, F.2, and F.5 (a)-(e).

    b) All work authorized under this section shall be procured in accordance with Amtrak's standard procurement policies and procedures. Before Amtrak starts work on projects funded with the $5,000,000, the State and Amtrak will agree in writing to the scope and terms of the work. Amtrak shall complete all work and submit final invoices to the State for actual costs documented, not to exceed $5,000,000.

    c) The total amount included in the FFY 12 Agreement for Comet 1B Cars was $7,100,000 in SFY 11/12 funds ($2,100,000 in Section II, Item F.5 below, and $5,000,000 in Section II, Item F.4 (b)).

5. SFY 11/12 Funds in the amount of $2.1 million were included in the FFY12 Agreement for the Comet 1B project for Positive Train Control (PTC) and other security-related projects, for the 14 Comet 1B cars, three F-40 NPCU units and three horizon dinettes , as described in Section II, Items F.1 and F.2 above. System architecture and design, equipment modification and installation, and ongoing system operation shall be subject to State review and approval. The State will have final approval regarding the designation of the

$2.1 million between the projects listed below. The work to be performed with these funds shall include:

a) Installation of PTC on the three F40 NPCUs that will be used for push-pull operation with the Comet cars. The PTC installation shall be in conformance with Amtrak's standard PTC installation on other F40 NPCUs and other locomotives and cab cars.

b) Installation of Amtrak standard "Train Communication Data" (TCD) system on the three F40 NPCUs. The TCD system shall include a forward-facing camera that digitally records the view out of the front windshield of the control units, including grade crossings, signal indications, switch positions, and trespassers on the railroad right of way. The TCD system shall conform to the Amtrak standard TCD system.

c) Installation of wireless data management system on the 14 Comet coaches and the three Horizon Dinettes that will be used in conjunction with the Comet equipment. The wireless data management system shall be consistent with Wi-Fi systems authorized and installed on State owned equipment as set forth in Section II, Item D and may also include additional data management systems such as a digital wire train bus and digital high-bandwidth car-to-car connectors as directed by the State.

d) Installation of a public address and passenger intercommunication system (PA/IC) on the 14 Comet cars and three Horizon Dinettes. The details of the PA/IC system that is to be installed on the Comet cars will be subject to discussion between the State and Amtrak based on component availability and system compatibility between the Comet cars and the Horizon Dinettes. The system will conform to Amtrak standard for trainline pin assignment and equipment compatibility.

e) All work authorized under this Section shall be procured in accordance with Amtrak's standard procurement policies and procedures. Before Amtrak starts work on the projects listed in Section II, Item F above, the State and Amtrak will agree in writing to the scope and terms of work. The State agrees to seek any additional future year funding for this project necessary to complete the agreed upon scope of work. Amtrak shall submit invoices to the State for actual costs documented, not to exceed $2,100,000, no later than May 15, 2014.

6. For FY 13, the State agreed to reimburse Amtrak, for its actual costs of performance, not to exceed $650,000, for preventive maintenance, Train & Engine crew and on-board staffing activities, associated with the Comet 1B cars, for the period beginning upon execution of the separate letter agreement

referenced below through September 30, 2014 subject to specific written approval by Caltrans via a separate letter agreement to be executed by the parties prior to the introduction of Comet 1B cars into Amtrak California Service. This work may include materials and labor for regularly scheduled inspection, maintenance and cleaning activities for the Comet 1B cars, and associated Horizon Dinettes, Non-powered control units (NPCUs) and other equipment used in conjunction with the Comet trainsets. These funds shall be approved for expenditure on an actual cost basis, and Amtrak shall provide appropriate documentation to Caltrans showing the hiring date for all new employees hired to provide preventive maintenance activities on the Comet Cars, in accordance with a cost proposal to be submitted by Amtrak and approved by Caltrans prior to the start of the Comet Car preventive maintenance work as provided in the separate letter agreement to be executed by the parties prior to the introduction of Comet 1B cars into Amtrak California Service Authorization for SFY 12/13 funding expires June 30, 2015. Therefore, invoices for this work shall be submitted to the State no later than May 15, 2015.

7. SFY 13/14 funds in the amount of $3,600,000 were included in the FFY14 Agreement for the estimated cost of overhauling and upgrading of up to 14 State-owned Comet 1B coach cars and rehabilitation of 3 Horizon Dinettes (53501, 53509 and 53510) and 3 NPCUs (90215, 90218 and 90225).

For FFY 14, Amtrak shall perform maintenance and operation activities of the Comet Car trainsets in accordance with maintenance standards and procedures to be agreed upon by the parties by October 31, 2013.

G. HVAC Rebuild Program – State-Owned Equipment.

1. Amtrak agreed in the FFY 14 Agreement to perform the following work on State-owned passenger railcars:

2. Rebuild and overhaul of up to 134 HVAC units on 66 California Cars, including two spare HVAC units (each car has two units) in conformance with the budget and scope of work as negotiated between Amtrak and Wabtec/Stone Vapor (attached as Appendix XI). Amtrak shall prioritize the rebuilding of the HVAC units so that those in most need of overhaul will be rebuilt first. Amtrak shall execute and administer this contract for the HVAC unit rebuild, and shall ensure that all scope of work and quality requirements are met. Amtrak will submit a project scope and schedule to the State for approval prior to the start of work. Unless the term of this project is extended through written amendment, all work must cease or be completed by September 30, 2015 and all invoices must be submitted to the State no later than December 30, 2015.

3. The State agreed to reimburse Amtrak up to $3,000,000 in SFY 13/14 funds to perform the HVAC work described in this Section.

H. Oakland Maintenance Facility Improvements

1. For FFY 13, the State agreed to reimburse Amtrak, for its actual documented costs as reported by APT of performance, not to exceed $750,000 in SFY 12/13 funds, for the design, engineering, materials and installation of additional storage tracks at the Oakland Maintenance Facility (OMF), in accordance with the project description attached hereto and incorporated herein as Appendix XV. The storage tracks shall be equipped with 480 V AC ground power, compressed air, lighting and security monitoring. All work authorized under this section shall be procured in accordance with Amtrak's standard procurement policies and procedure. Authorization for SFY 12/13 funding expires June 30, 2015.

2. For FFY14, the State agreed to reimburse Amtrak for its documented costs as reported by APT of performance, not to exceed $1,500,000 in SFY14/15 funds in order to complete specific infrastructure as set forth in Appendix XV. In the event the funding level is insufficient to complete the scope of work set forth in Appendix XIII and Appendix XV, the State agrees to either (a) obtain supplemental funding; or (b) work with Amtrak to provide that elements of those projects may be phased over multiple fiscal years where additional funding may be authorized; or (c) down scope the project to meet available funding.

IL. SPECIAL PROJECTS

A. Google Transit

1. Under the FFY14 Agreement, Amtrak agreed to perform all work necessary to incorporate State supported Bus Route data in Google Transit.

2. STATE agreed to compensate Amtrak up to $20,000 in SFY 13/14 funding for documented costs as reported by APT associated with the upgrade of Google Transit to include the State supported Feeder Bus routes, as set forth in Appendix A.

3. Amtrak agreed to be responsible for all maintenance and upgrades necessary to maintain Google Transit thereafter.

4. Amtrak shall complete all work by September 30, 2015 and submit invoices to the State for actual costs documented, not to exceed $20,000, no later than December 30, 2015.

B. Bus Decals

1. Under the FFY14 Agreement, the State agreed to compensate Amtrak up to $35,000 in SFY 13/14 funds for documented costs for the production and installation of new bus decals on the entire state supported fleet.

2. Amtrak shall coordinate with the State on the design and installation of the decals on the sides, the front, and the rear of each bus.

3. Amtrak shall complete all work by September 30, 2015 and submit invoices to the State for documented costs, not to exceed $35,000, no later than December 30, 2015.

C. Info Post and Sign Replacement

1. Under the FFY14 Agreement, the State agreed to compensate Amtrak up to $75,000 for documented costs for all labor and supplies to, repair, and replace "Info Posts" and signage along State supported train corridors and bus routes as defined in Appendix I and Appendix A.

   a) State shall supply Amtrak with Bus Stop and Bus Bay signs.

   b) Amtrak shall coordinate with the State on spec development for Info posts and any other signage.

2. Amtrak shall replace damaged signs or Info Posts within 30 days of notification by State.

Amtrak shall complete work by September 30, 2015 and submit invoices to the State for actual documented costs, not to exceed $75,000, no later than December 30, 2015. Should the work contemplated hereunder not be completed by September 30, 2015, the State shall be responsible for any cost Amtrak incurs in terminating the work.

IV. DECISIONS AFFECTING SERVICE

A. Amtrak and the State will jointly approve in writing, not less than thirty (30) days' prior to implementation, any decision which has a significant impact on the scheduling, marketing, fares and ticketing, or operations of the rail passenger service provided pursuant to this Agreement, as well as all service elements noted in Section I above. This includes all decisions that might have a financial impact on the service. Such decisions will be requested in writing by either party not less than forty-five (45) days prior to proposed implementation. The State hereby recognizes Amtrak's statutory obligation to act in a manner consistent with prudent management in providing rail passenger service including any expansion of rail passenger service. Amtrak shall include the State in discussions or negotiations with railroads or appropriate regional rail authorities regarding schedule changes which impact State-supported service.

B. If the State or Amtrak fails to respond in writing to notice from the other party as aforesaid within fifteen (15) days, the State or Amtrak shall be deemed to have concurred in the proposed decision set forth therein.

C. Notwithstanding the notice procedures contained in this Section IV, if access to or over rail lines on any route provided herein shall be unavailable by reason of obstruction or otherwise, Amtrak may suspend or reroute any part of the service provided pursuant to this Agreement for so long as such access shall be unavailable. Amtrak shall promptly notify the State in writing of any such suspension or rerouting, and the parties shall cooperate to restore the rail service provided for herein.

V. PROVISION OF BUS FEEDER SERVICES

Amtrak agrees to provide the following feeder bus services as a part of the budget identified in Appendix III.

A. Amtrak shall contract with one or more bus or non-Amtrak rail operators for the provision of connecting service between an Amtrak station or stations and other points, over such route(s) and in accordance with service levels as may be more particularly set forth in Appendix A attached hereto. Only passengers in possession of valid Amtrak tickets, vouchers or passes for transportation to, from, or through the aforesaid Amtrak station or stations shall be accepted for carriage, except on Route 35 and 15. Amtrak shall observe all provisions set forth in Section 14035.55 of the Government Code in regards Amtrak feeder buses. No checked baggage shall be carried, except between such specific points as may hereafter be agreed to by Amtrak and the State. Changes in the aforesaid schedules(s) may be made, as necessary to coordinate with changes in applicable schedules of Amtrak's rail passenger service.

B. By means of its standard form of Amtrak Purchase Order, Amtrak shall contract with a bus operator or operators for connecting bus service(s), as set forth in this Section V, Item A and Appendix A of this Agreement and also provide the State with a copy of each amendment thereto. Each such service shall commence on the applicable commencement date set forth in Appendix A hereto or date of execution of this Agreement, whichever is later, and shall terminate without further notice upon expiration or termination of this Agreement; provided, however, that any such service may be terminated by Amtrak (with the concurrence of the State) or the bus operator on seventy-five (75) days' prior written notice; provided, further, that termination hereunder shall not relieve either party hereto of financial obligations incurred prior to termination. Provided further, that breach of any of the conditions of subdivision (c) of Section 14035.55 of the Government Code shall be grounds for termination of the state supported intercity passenger bus service.

C. Purchase Orders will not be revised during a term of contract, except for fuel cost adjustments as follows, service expansions or deletions per the request of the State or a contract extension. All Purchase Order proposals for bus operations shall contain a separate identifiable fuel cost component, which shall be indexed based upon the Oil Price Information Service (OPIS) or the Energy Information Administration (EIA)

index, with adjustments allowed, per the terms of the Purchase Order. During the period of contract performance, and depending on the terms of the respective Purchase Order, Amtrak will make an adjustment in contract value, in the manner specified below, should the OPIS/EIA average price per gallon increase or decrease by more than 10% in a three month period from the fuel price per gallon submitted with a bid.

1. The three-month OPIS/EIA average price shall be subtracted from "OPIS/EIA average price" provided as part of the proposal (herein referred to as the base price) to determine the price differential.

2. The price differential shall be converted to a percent. If the difference is more than 10% from the base price, in a three month period depending on the terms of the respective Purchase Order, the amount above the 10% will be converted back to price per gallon (herein referred to as the differential price).

3. The formulas for calculating the cost differential is: three months, (cumulative daily route miles operated) X (differential price per gallon) / (fleet miles per gallon of fuel).

D. Amtrak and State agree to a flat rate for feeder service on Route 15 as described in Appendix A. The State agrees to compensate Amtrak a flat rate for unlimited access of service on Routes 99 and 17. These rates are included in the budget identified in Appendix III.

E. Amtrak shall provide the State with details of all fuel adjustments made, including the computation of the three-month OPIS/EIA average. At the onset of any Amtrak procurement process soliciting bids for contract bus services, both Amtrak and the State may jointly agree to modify the above provisions via an amendment to this Agreement. Amtrak assumes no financial risk in this regard, as excess fuel costs are absorbed jointly by the contracted bus operator and the State.

F. Each Contract Bus or non-Amtrak Rail Operator will invoice Amtrak monthly for the cost of the applicable service hereunder. In the event additional bus miles are operated on a trip-by-trip basis as a result of a natural disaster or man-made road closure (or any other reason mutually agreed to by the State and Amtrak and confirmed in writing in advance), said additional service shall be paid for at the established rate and will be incorporated in a separate monthly invoice to Amtrak, accompanied by a written explanation documenting the date, time and necessity for the additional miles operated.

G. Rates for Short Non-established Route Segments

Extra buses are sometimes required for segments of existing routes included in Appendix A for which there is no agreed-to price. Amtrak may pay for such extra bus segments in any of the following three ways:

1. Amtrak may pay the Contract Bus Operator at the rate provided by the Amtrak Purchase Order for the shortest route segment that includes the segment to be covered by the extra bus. Amtrak will notify the State of the rate to be paid for such extra bus segments by providing the State with a provision of notice of such a negotiated rate which will be signed by Amtrak's Director of Bus Operations or other authorized Amtrak representative; or

2. If Amtrak is able to negotiate with the Contract Bus Operator a limited time rate for such a short extra bus segment that will lower the cost of segments (as compared to the cost under Section V, Item G.1 above), Amtrak may pay the Contract Bus Operator for such extra segments based on that limited time rate. Amtrak will notify the State of such a limited time rate with a provision of notice to the State of such a negotiated rate including charges, based on that rate, which notification will be signed by Amtrak's Director of Bus Operations or other authorized Amtrak representative; or

3. If Amtrak is able to negotiate with the Contract Bus Operator a negotiated rate for such an extra bus segment that will lower the cost of such extra bus segments (as compared to the cost under Section V, Item G.1 above), Amtrak may pay the Contract Bus Operator for such extra segments based on that negotiated rate. Amtrak will notify the State of such a negotiated rate with a provision of notice to the State of such a negotiated rate, based on that rate, which notification will be signed by Amtrak's Director of Bus Operations or other authorized Amtrak representative.

4. Amtrak may negotiate such rates under the preceding Sections V, Items G.2 and G.3 on the basis of multiple trips, daily usage, flat mileage, the cost of upgrading to a larger capacity bus, or any other reasonable basis.

H. Rates for Temporary and Long-term Special Service due to Service Disruptions

1. If natural disasters or other events cause bus service to be temporarily detoured or otherwise disrupted (30 days or less), Amtrak may secure special bus service from a Contract Bus Operator at the lowest available rate that provides service acceptable to Amtrak. If Amtrak determines that the Contract Bus Operator cannot provide any or all of the special service sought at a rate acceptable to Amtrak, Amtrak may secure such special bus service from one or more non-contract transportation providers (including taxi or van service providers) at the lowest available rate that provides service acceptable to Amtrak. Amtrak will notify the State of such special rates with any Contract Bus Operator and non-contract transportation providers by providing the State with a provision of notice of such a negotiated rate, incorporating such rates, which invoices will be signed by Amtrak's Director of Bus Operations or other authorized Amtrak representative.

2. If natural disasters or other events cause long-term (expected to exceed 30 days) disruptions to bus service, and Amtrak and the State agree upon the basic level of service to be provided during such disruptions, Amtrak may negotiate with a Contract Bus Operator for continuing special bus service at the lowest available rate that provides service acceptable to Amtrak. Amtrak will also obtain the State's concurrence with such special long-term service arrangements prior to confirmation to the Contract Bus Operator. Such rates may cover additional route miles, extra equipment needed to provide service, driver housing, and any other additional elements involved in providing the special bus service. Amtrak will notify the State of such continuing special rates with a provision of notice to the State of such a negotiated rate, including charges based on such rates, which notification will be signed by Amtrak's Director of Bus Operations or other authorized Amtrak representative.

I. Rates for Short-Notice Bus Service from Non-Contract Bus Operator

1. When a Contract Bus Operator is unable to meet a request for extra bus service, made on less than three hours' notice of need (or less than the call-time stated, if any, in the Contract Bus Operator's Agreement with Amtrak), Amtrak may secure such extra bus service from a non-contract transportation provider (including taxi or van service provider) at the lowest available rate providing service acceptable to Amtrak. In the monthly bus bill provided by Amtrak to the State, Amtrak will notify the State of such special rates with any non-contract transportation providers by providing the State with a copy of the invoice from the non-contract transportation provider, which includes such rates and will be signed by Amtrak's Director of Bus Operations or other authorized Amtrak representative.

2. Where Amtrak anticipates a future need to secure such short-notice extra bus service from a non-contract transportation provider, Amtrak may negotiate a negotiated rate for such service. Amtrak's provision of notice to the State of such a negotiated rate, signed by Amtrak's Director of Bus Operations or other authorized Amtrak representative, will satisfy the notice requirement under the preceding Section V, Item I.1.

J. State Payment of Short-Segment, Disruption-Service and Short-Notice Rates

Based on any rates obtained by Amtrak (with notice to the State) under the preceding Sections V, Items G, H and I, Amtrak agrees to provide services in full pursuant to the budget established under Appendix III.

K. Cost Allocation of Extra Buses Required by Late Trains

1. When an extra bus must be ordered solely because of a late connecting state-supported train, Amtrak will charge the cost of the extra bus to the late state-supported train's operations rather than to the bus service.

2. The parties will attempt in good faith to negotiate one or more separate agreements (which will take the form of a letter of understanding), providing that where a train frequently operates late for reasons not within Amtrak's direct control, and in consideration of the bus schedule or other factors Amtrak holds the bus for less than an hour, Section V, Item K.1 would not apply and the cost of any extra bus required by the late connecting train would be charged to the bus service rather than to the late train's operations.

3. When a train connecting to bus service is late, Amtrak will attempt to minimize the overall costs resulting from the late train by holding scheduled buses for a limited period of time, recognizing after a certain period that continuing to hold a bus will increase, rather than decrease, costs. In determining how long to hold a connecting bus, Amtrak will consider the bus driver's hours-of-service limitation, safety-related conditions, and the needs of customers other than those on the late arriving train to reach their destinations or to make other connections, among the relevant factors.

L. The State may, upon seventy-five (75) days written notice, request Amtrak to terminate any portion of the service provided in Appendix A; provided that any such termination shall not relieve the State of financial obligations incurred prior to the date of such termination. Feeder Bus services may be terminated in less than 75 days upon joint written approval of the State and Amtrak.

VI. REIMBURSEMENT BY THE STATE

Capitalized terms shall have the meaning set forth in Appendix VI.

The State shall pay Amtrak for documented costs as reported by APT for the operation of the service as set forth in this Agreement, subject to Section VII, Item G:

The estimated basis for State funding is set forth in Appendix III, attached hereto and incorporated herein by reference. The total State funding is $ 54,463,000 (Fifty Four Million, Four Hundred Sixty Three Thousand Dollars) for the service in this Agreement through and including September 30, 2015. Appendix III-Schedule C represents an estimated annual budget for all projected Route Costs and Additives for the Service, Third Party Costs, Capital Costs – Passenger Service Equipment, and the Additional Expenses – Non Route Specific costs ("Below the Line" Expenses") set forth in Appendix III, Page 2. The State and Amtrak agree that Appendix III is an estimate and that Amtrak will be reimbursed for documented costs as reported by APT, not to exceed $ 54,463,000.

A. Operating Costs – General

Operating Costs will be calculated according to Appendix VI. Payments shall be made in accordance with Appendix III, Schedule A. Payments shall be subsequently reconciled on a monthly basis for documented costs incurred as reported by APT. Route Costs, Additives and Third Party Costs shall be charged based on documented costs incurred as reported by APT. Passenger and Other Allocated Revenue shall be credited on an actual basis as reported by APT. The operations and delivery of food and beverage service is included as a Route Cost as required by Appendix VIII, attached hereto and incorporated herein by reference. For purposes of estimating the net Operating Cost, estimates of Route Costs, Additives and Third Party Costs and Passenger and Other Allocated Revenue are provided, as identified in Appendix III.

B. Third Party Costs – Fuel

For the purpose of determining the basis for funding, fuel cost shall be based upon the gallons allocated by the San Joaquin and Pacific Surfliner as reported by Amtrak Performance Tracking (APT) during each billing period multiplied by the average cost per gallon paid for fuel by Amtrak, on a monthly basis in Sacramento, Oakland, Bakersfield, Goleta, Los Angeles, San Diego, or other fueling location(s) as appropriate. Billed fuel charges will be reconciled monthly against documented costs as reported by APT.

C. Third Party Costs - Host Railroad Maintenance of Way, Performance Incentives and Other Costs

Host railroad expenses shall be computed by Amtrak on a monthly basis, as billed to Amtrak by the host railroads. Host railroad expenses shall be billed to the State on an documented cost basis as reported by APT.

D. Capital Costs – Passenger Service Equipment

Capital Costs for Passenger Service Equipment are included in this Agreement and will be calculated as a usage fee according to Appendix VI and will be charged to the State in accordance with Appendix III. The parties agree that on or before January 1, 2016, Amtrak shall provide the State with an accounting of the actual pro-rata usage fee payable by the State for the operation of Amtrak-owned passenger rail equipment in the Service during the period October 1, 2014 through September 30, 2015 and that such an accounting shall be used as a basis for the settlement of any additional payment due to Amtrak, or amount refundable to the State, as the result of any differential between the actual usage fee payable and the total estimated payments made by the State under this Agreement.

E. The total amount of the State's financial obligation to Amtrak under this Agreement for services to be rendered by Amtrak pursuant hereto shall not exceed $ 54,463,000 unless otherwise provided by amendment to this Agreement. Amtrak's obligation to

provide the services agreed to by the parties under this Agreement shall not cease until ninety (90) days after Amtrak has notified the State, in writing, that Amtrak's loss projections indicate that the maximum financial obligation of the State, as provided herein, is insufficient to meet the State's share of the loss.

F. With respect to each connecting bus service authorized in Appendix A hereto, Amtrak hereby agrees that, subject to the terms of the Amtrak Purchase Orders, it will pay all monthly invoices; provided, however, that Amtrak shall have no obligation to contract with any bus operator or to issue any Amtrak Purchase Order as aforesaid unless and until the State shall have endorsed such Amtrak Purchase Order as evidence of the State's acceptance of the terms thereof.

    1. Amtrak agrees to provide the State with a monthly billing from the Contract Bus Operator within forty-five (45) days after the end of that month. These bus billings shall be considered acceptable documentation to support Amtrak's documented costs.

G. State and Amtrak agree that within forty-five (45) days of the end of each quarter of the contract year, the parties will review in person or via conference call the Monthly Reconciliation Statements, Standard Supporting Documentation and any other documentation deemed necessary to reconcile and validate documented charges billed to the State, evaluate positive and negative variances affecting individual budget line items (Appendix III) and discuss whether the remaining funds available to the State are likely to meet the Amtrak estimated contract budget for the remainder of the contract year.

    Projected Third Party Costs may be revised by Amtrak based on the most recent actual allocated fuel and host railroad costs as reported by APT.

H. In the event the parties agree that the amount of forecasted Operating Costs for the remainder of the contract year exceeds the remaining State funds, the State agrees to work with Amtrak to implement any and all necessary cost savings, service modifications or fare increases to comply with the State's funding limitations specified herein, or the State may seek to obtain supplemental funding. Subject to the notice provisions in Section VII, Item C, Amtrak shall not be required to provide any of the said Service or any services whatsoever for which the State is not bound hereunder or for which the cost to the State, as determined hereunder, exceeds the aforesaid amount(s). However, if the State has an outstanding payment dispute under Section VII, Item G.2, this amount will not be considered an expense until the dispute is resolved. The State may increase the amount of financial obligation hereunder through an amendment to this Agreement.

I. In the event State of California continues to act on the behalf of the State in the management of the Agreement and the parties fail to reach agreement for operation of the Operations for the period October 1, 2015 through September 30, 2016 ("FFY16 Agreement") prior to September 30, 2015, the parties agree that the terms of this

Agreement shall govern continued operation of the Operations until a new agreement is executed by the parties ("Continuation Period"). In such event, the State agrees to continue to reimburse Amtrak for the costs, at the level established for the period October 1, 2014 through September 30, 2015, plus the addition of a 5% escalation component, for the term of the Continuation Period. Once a FFY16 Agreement is executed by the parties, Amtrak will credit the State's payments made during the Continuation Period to the State's obligations under the FFY16 Agreement. In no event shall the Continuation Period extend beyond June 30, 2016.

VII. MANNER OF REIMBURSEMENT

A. On or before the fifteenth day of each month of the federal fiscal year specified in Appendix III hereto, Amtrak shall submit an invoice to the State based on documented costs and documented expected losses for each month. Invoices shall be rendered not less than forty-five (45) days prior to the due date and shall specify the address to which the said remittance shall be made. Late fees will be paid in accordance with the California Prompt Payment Act (GC §927 et seq.).

B. Estimated Amount of Reimbursement; Payment Schedule

The State agrees to reimburse Amtrak in accordance with the estimated monthly payment schedule included in Schedule A of Appendix III.

Upon execution of this Agreement, Amtrak shall render monthly invoices to the State. Payment shall be made in accordance with the payment schedule in Schedule A of Appendix III and processed according to California Prompt Payment Act, or within forty-five (45) days of date the invoice is received.

Amtrak shall provide complete and accurate invoices to the State in order to receive payment. Invoices submitted to the State must contain all information and supporting documentation required by this Agreement.

C. Monthly Reconciliation Statements

Amtrak shall submit monthly reconciliation statements with standard supporting documentation ("Monthly Reconciliation Statements") as soon as practicable but in any event not more than forty-five (45) days after the end of each month that establish the documented monthly Passenger Related and Other Revenue, actual monthly Route Costs and Overhead Additives, and documented monthly Third Party Costs (including Fuel and Power costs, Host Railroad Costs and Performance Incentives), all as reported by APT for operating the Service. The documented cost of providing the Service shall be determined based upon the reporting from Amtrak's Performance Tracking system for the Service as set forth in Appendix VI.

Credits or debits resulting from the monthly reconciliation process will be credited or billed to the State as set forth in Section VII of this Agreement. State shall remit all undisputed payment(s) to Amtrak of any unpaid supplemental reimbursement

resulting from the monthly reconciliation, processed according to the California Prompt Payment Act, or not more than forty-five (45) days after receipt of such invoice for supplemental reimbursement and standard supporting documentation. If, after reconciliation of the monthly invoice, it is determined that the amount of monthly payment by the State exceeds the amount of payment owed by the State for such month, Amtrak shall credit on the next monthly invoice an amount equal to such overpayment by the State. If, after reconciliation of the final monthly invoice, it is determined that the amount of monthly payment by the State exceeds the amount of payment owed by the State for the final month of this Agreement, Amtrak shall at the State's option, credit or pay to the State an amount equal to any such overpayment by the State.

Pursuant to 49 USC §24702, upon the cessation of financial support under such a contract by either party, Amtrak may discontinue such service or route after forty-five (45) days prior written notice to the State; provided, however, that such discontinuance shall not constitute or be construed as a waiver by Amtrak of any such payment; provided, further, that any such discontinuance shall be without prejudice to the continued operation of any remaining portion or portions of the said Service.

D. Invoices for Capital Projects

Capital projects to support the Service, not identified in this Agreement, shall be funded and administered through separate agreements.

E. Payment for Services Performed Prior to Termination of Agreement

Not later than ninety (90) days following the expiration or termination of the Agreement, each party hereto shall remit to the other the full balance due with respect to underpayment or overpayment, if any, relating to the obligations of each party to the other pursuant to the terms of this Agreement.

F. Withholding Payment Due to Failure to Comply

1. In the event Amtrak does not comply with the requirements of this Agreement, including Appendix C, as they relate to State provided equipment and train and bus operations for the Federal Fiscal Year specified in Appendix I and Appendix A, the State shall compute the value of the perceived failure and notify Amtrak in writing that a corresponding amount will be withheld from the monthly advance payment following the next monthly payment if the perceived failure has not been resolved to the State's satisfaction. The State shall detail the reason for the proposed withholding of payment and the actions the State considers necessary to resolve the perceived failure.

2. Once resolution of the failure to comply is achieved between the State and Amtrak, the notice to withhold will be withdrawn, or the monthly payment withheld will be remitted with the next monthly advance payment. Should resolution of the non-compliance not be achieved through negotiation or the

provisions of Section 10, "Dispute Resolution" of the Transfer Agreement as amended (in Section 10 (b) thereof), and the process outlined in Section 10, "Dispute Resolution" of the Transfer Agreement, shall be carried to its conclusion.

G. Withholding Payment Due to Invoice Dispute

1. In the event the State disputes a charge detailed in the monthly invoice or Monthly Reconciliation Statement, including whether APT properly allocated costs to a route covered under this Agreement, and Amtrak cannot provide an acceptable explanation of said charge as defined by Appendix VI and identified as a reasonable approximation of costs related to the operation of Service hereunder, the State shall have the right, at its sole discretion, to withhold the amount in dispute as specified herein and shall be required to pay the remainder of the invoice. The State shall advise Amtrak of the amount of disputed charges to be withheld, detailed reasons for the withholding, and the actions that the State considers necessary to resolve the disputed invoice amount. In the event that resolution of the disputed invoice amount is not achieved within the notice period, the State shall withhold the disputed amount from the next invoice payment due after the notice period has expired.

2. If resolution of the disputed invoiced amount is achieved between the State and Amtrak after the amount has been withheld, the withheld amount will be remitted with the next invoice payment. Should resolution of the disputed invoice amount not be achieved through negotiation of the provisions of Section 10, "Dispute Resolution" of the Transfer Agreement the process outlined in Section 10, "Dispute Resolution" of the Transfer Agreement, shall be carried to its conclusion.

H. If any minor capital and minor equipment projects are implemented in accordance with Section I, Items M and N above, Amtrak shall render separate invoices for the State's share of documented costs incurred for each project as reported by APT, accompanied by Standard Supporting Documentation. Such invoices shall be rendered no more frequently than monthly and no less frequently than quarterly. Invoices shall be rendered not less than forty-five (45) days prior to the due date and shall specify the address to which remittance shall be made. Late payment fees will be paid in accordance with the California Prompt Payment Act (GC §927 et seq.).

I. If the State directs Amtrak to perform wreck repair work to standards established by the State (e.g., current equipment manufacturer specifications) pursuant to Section I, Item P of this Agreement, the State will pay Amtrak for the documented costs of the directed repairs from the California Damaged Equipment Wreck Recovery Fund based on an invoice from Amtrak.

VIII. DEFENSE OF CLAIMS

Amtrak shall bear the expense of prosecuting the settlement and defense of, and shall pay any settlement or final judgment disposing of any claim, action or proceeding involving injury to or death of any person or damage to or loss of any property arising directly from its operation of the rail passenger and bus feeder service provided for hereunder, or from its performance of maintenance services provided by Amtrak hereunder at stations, the Oakland Maintenance Facility and the Los Angeles Maintenance Facility. If any claim, action or proceeding shall at any time be brought against the State asserting a liability for such injury, death, damage or loss, the State shall promptly give notice to Amtrak of such claim, action or proceeding and shall thereafter provide all such information as Amtrak may from time to time request.

IX. INSPECTION AND AUDIT

A. The State may, at any time, inspect the rail passenger and bus feeder service provided hereunder; provided, however, that such inspection shall not hinder or delay the operation of the said service. Upon reasonable notice, Amtrak shall permit auditors or any other duly authorized agent of the State (including, but not limited to the Bureau of State Audits and the Department of General Services) to inspect all books, records and accounts relating to the said service, including supporting documentation provided to Amtrak by operating railroads or any other subcontracted services in connection therewith and further including all records and documents relating to the determination and allocation of the costs and revenues of the service. All such books, records, accounts and documents shall be maintained by Amtrak in accordance with generally accepted accounting principles and be accessible to the State for a period of three (3) years following the expiration of each contract period as defined in Appendix III hereto. The State will provide quarterly progress reports to Amtrak for all audits and will exercise diligence in rendering its final audit report to Amtrak following commencement of its field work in a timely manner for any given audit. During the audit period and pending the results of the audit, the State may not withhold or short pay any advance or reconciliation invoice amounts either based upon preliminary audit findings or awaiting the results of the audit. However, nothing in this Section shall prevent the State from exercising its rights under Section VII, Item G of this Agreement.

B. Amtrak shall, without cost to the State, make available such financial, operating and ridership data relating to the service provided hereunder as may be available in Amtrak's information retrieval systems. Operating and ridership data shall be supplied for each train and bus hereunder and shall include numbers of (i) passengers carried, (ii) passenger miles, (iii) car miles, city pairs for each sold ticket, dates of sales, food and beverage sales and revenue. Such data shall be computed and furnished on a monthly basis. Amtrak will provide the State with the monthly ridership tape of origin-destination data for all tickets collected on the train and feeder bus network. Furthermore, Amtrak will take reasonable steps to provide such supplemental data relating to the said Service as may be reasonably requested by the

State. In the event of changes in data format, Amtrak will make reasonable efforts to inform the State in sufficient time so that the State may make appropriate changes to use the reformatted data.

X. FORCE MAJEURE

The obligations of Amtrak hereunder shall be subject to force majeure. Amtrak shall not be liable for any failure to perform, or for any delay or cancellation in connection with the performance of any obligation hereunder if such failure, delay or cancellation is due to or in any manner caused by the subsequent enactment of or change in statutes, laws, regulations, or acts, demands, orders or interpositions of any federal, state, county or local government agency having jurisdiction thereof, or by Acts of God or of the public enemy, strikes, fire, flood, weather, war, acts of picketing, rebellion, insurrection or terrorism, or any other cause beyond Amtrak's control.

XI. TERMINATION

This Agreement may be terminated upon ninety (90) days prior notice in writing from the State to Amtrak. The State may also terminate this Agreement for cause on ninety (90) days prior written notice in the event of a material breach of this Agreement by Amtrak, except that a termination for cause shall not become effective if Amtrak shall have taken action to substantially remedy the default within that ninety (90) day period. Termination pursuant to this Section shall be without prejudice to Amtrak's right to receive reimbursement pursuant to the provisions of Sections VI and VII hereof for service provided until and including the date of termination.

XII. NOTICES

Except as otherwise provided in Section VII, Item A hereof, any notices required by this Agreement or related to the service provided for under this Agreement by either party shall be in writing and shall be directed to the officials identified herein by personal delivery or by deposit in the United States mail via first class mail, postage prepaid, or by overnight courier.

For Amtrak:

Contractual Issues:
Senior Manager State Corridors
National Railroad Passenger Corporation
530 Water Street, 5th Floor
Oakland, California 94607

All other Issues for the San Joaquins:
Deputy General Manager California
National Railroad Passenger Corporation
530 Water Street, 5th Floor

Oakland, California 94607

All other Issues for the Pacific Surfliner:
Deputy General Manager Southwest
National Railroad Passenger Corporation
810 North Alameda Street
Los Angeles, California 90012

For the State:

Chief, Division of Rail and Mass Transportation
California Department of Transportation
1120 N ST, MS 74
Sacramento, California 94274-0001

Chief, Office of Capital Projects and Operations
Division of Rail and Mass Transportation
California Department of Transportation
1120 N ST, MS 74
Sacramento, California 94274-0001

The titles and addresses set forth herein may be changed at any time by either party hereto by notice in writing to the other.

XIII. AGREEMENT CONTENT

A. This Agreement constitutes the entire agreement between the parties. There are no agreements, whether express or implied except as are expressly set forth herein. All prior agreements and understandings between the parties with respect to the provision of service herein on and after the effective date of this Agreement are subsumed within this Agreement. No change or modification in or to this Agreement shall be of any force or effect unless in writing, dated and executed by duly authorized representatives of the parties.

B. The two executed documents, and any subsequent amendments to the documents, entitled: "TRANSFER AGREEMENT FOR THE TRANSFER AND OPERATION OF STATE PROVIDED RAIL EQUIPMENT, Dated June 2, 1995 and amended July 1, 1998"; and "MAINTENANCE AGREEMENT FOR THE MAINTENANCE OF STATE PROVIDED EQUIPMENT, Dated November 20, 1994, revised April 1, 1999" ("Maintenance Agreement"), and "Letter of Understanding between State and the Capitol Corridor Joint Powers Authority (CCJPA) to formalize all equipment maintenance responsibilities between State and CCJPA" attached hereto as Appendix D ("Letter of Understanding"), are hereby referenced and incorporated into this Agreement. In accordance with the Letter of Understanding, the State shall have the ability to make all final decisions regarding modifications to State-owned equipment. Amtrak shall not modify State-owned rolling stock without State' prior written approval. In the event Amtrak modifies State-owned rolling stock without State'

prior written approval, Amtrak shall be responsible for all cost associated with restoring the rolling stock to its prior condition.

C. Prior to modifying any Surfliner-type cars in the Pacific Surfliner fleet, Amtrak agrees to notify and involve the State in the planning process. No less than 60 days prior to modifying any Surfliner-type cars Amtrak agrees to submit to the State for its review final written modification plans for the fleet. State understands and agrees that final approval of modifications to Amtrak-owned equipment remains with Amtrak. Costs for such modifications to Amtrak-owned equipment shall be at Amtrak's expenses unless otherwise agreed to by the State in writing.

XIV. CONSTRUCTION

The Section headings used in this Agreement are for convenience only and shall not affect the construction of any of the terms hereof.

XV. SEVERABILITY

If any part of this Agreement is determined to be invalid, illegal or unenforceable, such determination shall not affect the validity, legality or enforceability of any other part of this Agreement and the remaining parts of this Agreement shall be enforced as if such invalid, illegal or unenforceable part were not contained herein.

XVI. DISPUTE RESOLUTION

The parties hereto shall make every reasonable effort to settle any dispute arising out of this Agreement without resorting to litigation. If the parties so agree, they may involve a disinterested person experienced in railroad operations, or an accountant if appropriate to render his or her objective advice and opinions, which shall be advisory only and not binding unless the parties agree in writing to be bound by his or her judgment in a particular instance. Any claim or controversy concerning the interpretation, application, or implementation of this Agreement which cannot be resolved by the parties shall first be submitted to Amtrak's General Manager State Supported Business Line or his/her designee and the Chief, Division of Rail and Mass Transportation, California Department of Transportation or its successor positions. In the event the parties do not reach resolution of the dispute at that level within thirty (30) days of receipt of notice of the dispute, the parties may elevate the dispute to the Vice President Operations of Amtrak and the Deputy Director of Model Programs, California Department of Transportation for resolution. In the event that the dispute is not resolved within thirty (30) days thereafter, either party may pursue any right or remedy available to it by law or may propose a method of alternative dispute resolution.

XVII. CONFIDENTIALITY

The State agrees that, subject to the requirements of the California Public Records Act (California Government Code Sections 6250 et seq.) its employees, contractors and agents will not, either during or at any time after the term of this Agreement, publish or

disclose to any third party or the public any identified Amtrak proprietary or confidential information of any kind or nature disclosed by Amtrak to the State hereunder without the prior written authorization of Amtrak. This Section shall survive termination or expiration of this Agreement.

XVIII. FAIR EMPLOYMENT PRACTICES

Amtrak shall observe the terms and conditions set forth in Appendix IV, titled FAIR EMPLOYMENT PRACTICES ADDENDUM, incorporated by reference and attached hereto. In said addendum, the term "Contractor" shall be deemed to read "Amtrak".

XIX. EMPLOYEE DISCIPLINE AND CONDUCT

A. Nothing herein shall require Amtrak to perform any service or to take any action that would violate any term or condition of any labor agreement between Amtrak and any organization representing Amtrak's employees or any other labor agreement applicable to Amtrak.

B. All Amtrak employees/subcontractors exclusively engaged in providing State Provided Service shall perform their duties in a safe, courteous, and efficient manner in accordance with Appendix V.

XX. GENERAL CORRESPONDENCE

A. The State shall respond in writing, within twenty (20) working days of receipt, to all written questions and requests from Amtrak concerning approvals, interpretations, and other matters pertaining to this Agreement, unless otherwise allowed for by this Agreement.

B. Amtrak shall respond in writing, within twenty (20) working days of receipt, to all written questions and requests from the State concerning approvals, interpretations, and other matters pertaining to this Agreement, unless otherwise allowed for by this Agreement.

XXI. COMPLIANCE WITH LAWS

The parties will comply with all applicable state, federal and local laws and regulations in the performance of this Agreement.

XXII. APPROVAL

This Agreement is of no force or effect until signed by both parties and approved by the Department of General Services, if required. Amtrak may not commence performance until such approval has been obtained.

XXIII. ASSIGNMENT

This Agreement is not assignable by either party, either in whole or in part, without the consent of the other party in the form of a formal written amendment.

XXIV. INDEPENDENT CONTRACTOR

Amtrak, and the agents and employees of Amtrak, in the performance of this Agreement, shall act in an independent capacity and not as officers or employees or agents of the State.

XXV. NON-DISCRIMINATION CLAUSE

During the performance of this Agreement, Contractor and its subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (e.g., cancer), age (over 40), marital status, and denial of family care leave. Contractor and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Contractor and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 (a-f) et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full. Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

Amtrak shall include the nondiscrimination and compliance provisions of this clause in all subcontracts awarded under this Agreement to perform work under the Agreement.

XXVI. CHILD SUPPORT COMPLIANCE ACT

For any Agreement in excess of $100,000, the contractor acknowledges in accordance with Public Contract Code 7110, that:

A. The contractor recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the Family Code; and

B. The contractor, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees

to the New Hire Registry maintained by the California Employment Development Department.

XXVII. TIMELINESS

Time is of the essence in this Agreement.

XXVIII. PRIORITY HIRING CONSIDERATIONS

If this Agreement includes services in excess of $200,000, Amtrak shall give priority consideration in filling vacancies in positions funded by this Agreement to qualified recipients of aid under Welfare and Institutions Code Section 11200 in accordance with Pub. Contract Code §10353.

XXIX. CERTIFICATION CLAUSES

By executing this Agreement, Amtrak certifies to the best of its knowledge and belief the following:

A. Statement of Compliance

Amtrak has, unless exempted, complied with the nondiscrimination program requirements. (Gov. Code §12990 (a-f) and CCR, Title 2, Section 8103) (Not applicable to public entities).

B. Drug-Free Workplace Requirements

Amtrak will comply with the requirements of the Drug-Free Workplace Act of 1990 and will provide a drug-free workplace by taking the following actions:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.

2. Establish a Drug-Free Awareness Program to inform employees about:

   a) The dangers of drug abuse in the workplace;

   b) The person's or organization's policy of maintaining a drug-free workplace;

   c) Any available counseling, rehabilitation and employee assistance programs; and

d) Penalties that may be imposed upon employees for drug abuse violations.

3. Every employee who works on the proposed Agreement will:

   a) Receive a copy of the company's drug-free workplace policy statement; and

   b) Agree to abide by the terms of the company's statement as a condition of employment on the Agreement.

4. Failure to comply with these requirements may result in suspension of payments under the Agreement or termination of the Agreement or both and Amtrak may be ineligible for award of any future State agreements if the department determines that any of the following has occurred: Amtrak has made false certification, or violated the certification by failing to carry out the requirements as noted above. (Gov. Code §8350 et seq.)

C. National Labor Relations Board Certification

Amtrak certifies that no more than one (1) final unappealable finding of contempt of court by a Federal court has been issued against Amtrak within the immediately preceding two-year period because of Amtrak's failure to comply with an order of a Federal court, which orders Amtrak to comply with an order of the National Labor Relations Board. (Pub. Contract Code §10296) (Not applicable to public entities.)

D. Expatriate Corporations

Amtrak declares that it is not an expatriate corporation or subsidiary of an expatriate corporation within the meaning of Public Contract Code Section 10286 and 10286.1, and is eligible to contract with the State of California.

E. Domestic Partners

For contracts over $100,000 executed or amended after January 1, 2007, Amtrak certifies that contractor is in compliance with Public Contract Code Section 10295.3.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives in multiple original counterparts as of the day and year first above written.

NATIONAL RAILROAD PASSENGER CORPORATION

Dated: 3/23/15

By: for JMB
Joseph Boardman
President and Chief Executive Officer

3/19/15

STATE OF CALIFORNIA

Dated:

By:
Department Contract Officer
Department of Transportation

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APPENDIX I

NATIONAL RAILROAD PASSENGER CORPORATION

and

THE STATE OF CALIFORNIA

AGREEMENT DATED : APRIL 2015
FOR THE PROVISION OF
RAIL PASSENGER SERVICE

FISCAL YEAR 2015
April 1, 2015 – September 30, 2015

Pursuant to Section 1 of the aforesaid Agreement, Amtrak shall provide rail passenger service during fiscal year 2015 over the route(s) set forth below, substantially in accordance with the schedule(s) attached. The said service shall commence on April 1, 2015 and shall terminate September 30, 2015.

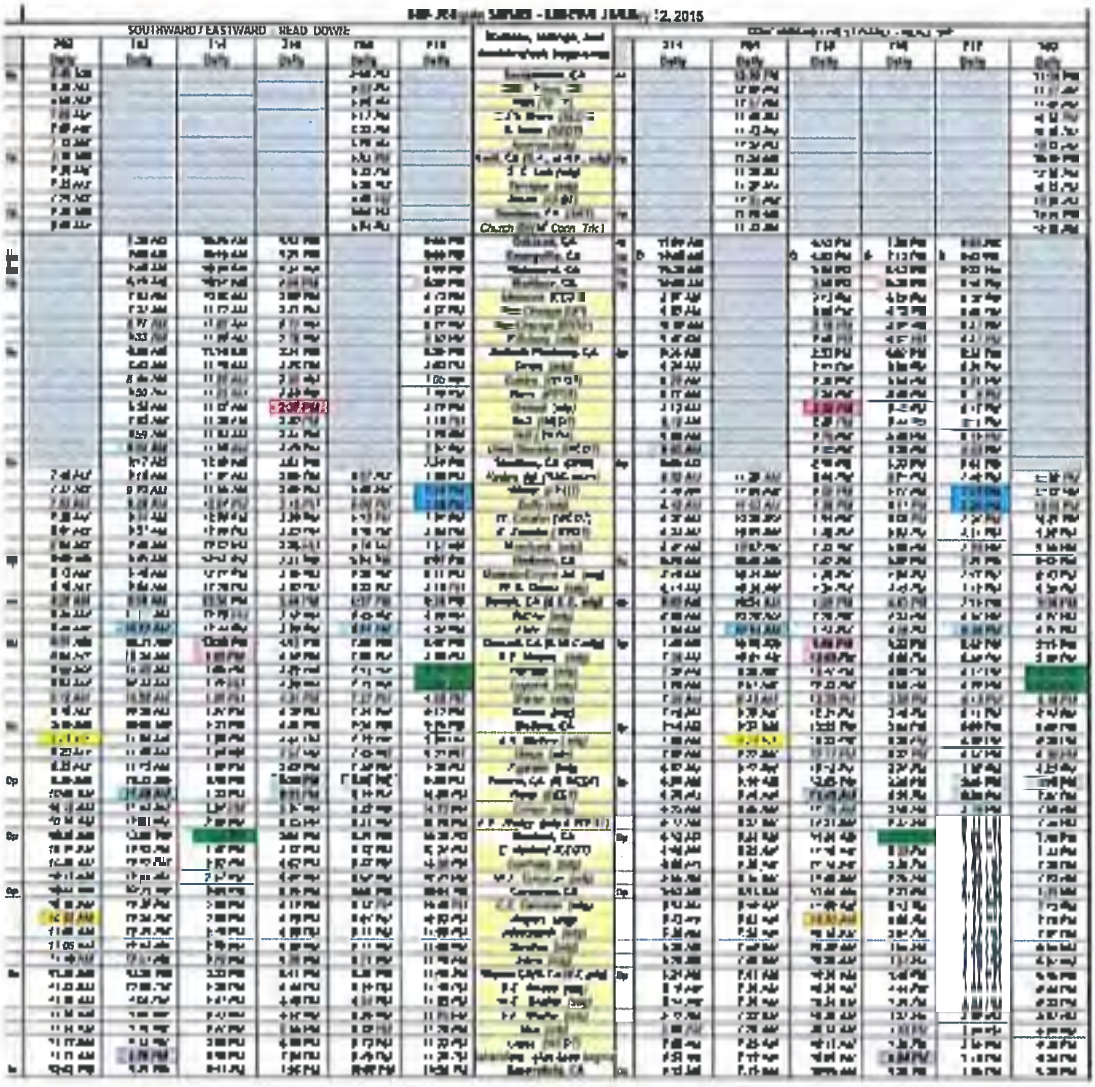
ROUTE(S)

San Luis Obispo/Santa Barbara to Los Angeles to San Diego
Oakland/Sacramento to Bakersfield

This Appendix I constitutes an integral part of the aforesaid Agreement. No change, modification or amendment hereto shall be of any force or effect unless evidenced by a revised Appendix I provided, however, that notwithstanding the foregoing, changes in the schedule(s) listed herein may be made pursuant to Section 2 of the aforesaid Agreement.

Surfliner Service Effective January 12, 2015	562 Daily	564 Daily	566 Daily	759 Daily	572 Daily	774 Daily	580 Daily	582 Daily	784 Daily	790 Daily	5790 Daily
Will Not Operate											
Will Also Operate											
San Luis Obispo, CA											
Grover Beach, CA											
Guadalupe, CA											
Lompoc-Surf Beach, CA											
Lompoc, CA											
Surf Station, CA											
Santa Barbara, CA											
Carpinteria, CA											
Ventura, CA											
Oxnard, CA											
Camarillo, CA											
Moorpark, CA											
Simi Valley, CA											
Chatsworth, CA											
Van Nuys, CA											
Burbank-Bob Hope Airport, CA											
Glendale, CA											
Los Angeles, CA											
Fullerton, CA											
Anaheim, CA											
Santa Ana, CA											
Irvine, CA											
San Juan Capistrano, CA											
San Clemente Pier, CA											
Oceanside, CA											
Carlsbad Village, CA											
Pelicans, CA											
Encinitas, CA											
Solana Beach, CA											
Sorrento Valley, CA											
San Diego, CA (Old Town)											
San Diego, CA											

Surfliner Service Effective January 12, 2015	561 Daily	563 Daily	565 Daily	569 Daily	571 Daily	573 Daily	575 Daily	577 Daily	579 Daily	583 Daily	785 Daily	591 Daily
Will Not Operate												
Will Also Operate												
San Diego, CA												
San Diego, CA (Old Town)												
Sorrento Valley, CA												
Solana Beach, CA												
Encinitas, CA												
Pelicans, CA												
Carlsbad Village, CA												
Oceanside, CA												
San Clemente Pier, CA												
San Juan Capistrano, CA												
Irvine, CA												
Santa Ana, CA												
Anaheim, CA												
Fullerton, CA												
Los Angeles, CA												
Glendale, CA												
Burbank-Bob Hope Airport, CA												
Van Nuys, CA												
Chatsworth, CA												
Simi Valley, CA												
Moorpark, CA												
Camarillo, CA												
Oxnard, CA												
Ventura, CA												
Carpinteria, CA												
Santa Barbara, CA												
Goleta, CA												
Lompoc-Surf Beach, CA												
Guadalupe, CA												
Grover Beach, CA												
San Luis Obispo, CA												



APPENDIX II

NATIONAL RAILROAD PASSENGER CORPORATION

and

STATE OF CALIFORNIA

On-Time Performance Standards

Method of Measurement

1. Delay Minutes – Train Operations

(a) "Delay Minutes" are a Data-Based Standard collected in a manner described in Amtrak's Service Standards Manual and other delay reporting procedures as updated from time to time. Delay Minutes are attributed to a variety of causes using a three-letter coding system ("Delay Codes"), and this information is used for a variety of purposes. As described in the Service Standards Manual, every time a train's actual running time exceeds the pre-established optimum running time between stations, or whenever actual station dwell time exceeds designated station dwell time, delay has occurred. For purposes of this Appendix II, such an event shall be considered a "Delay Instance"; in the event that multiple events cause delay within the same segment, each such event shall be considered a separate Delay Instance. The total Delay Instances and their component Delay Minutes are reviewed and compiled in Amtrak's On-Time Performance Monitor Report System ("MRS"), which shall be considered the definitive source of delay data for the purposes of this Agreement.

(b) Delay Minutes identified by the Delay Codes described in the table below shall, for purposes of this Appendix II be considered "Eligible Delay Minutes" and shall determine Incentives and Assessments, depending on the duration of the delay, as described in Section 3(c).

Code	Title, Reason, or Examples as Described in the Service Standards Manual	Notes
CAR	Car Failure. Includes HEP ("Head End Power") failure, Inoperative HSD or DSD ["Hot Box" Detector or Dragging Equipment Detector] actuations, set out/pick up defective equipment, etc.	Included in cases where Amtrak maintains the rolling stock
CCR	Cab Car Failure. All service delays caused by mechanical failure of trailing cab cars. A train trailing cab car that is being used simply as another passenger car in the trailing consist of a train, will not be considered a Cab Car for purposes of delay coding. "Cab Car" includes NPCU's, Superliners II, IV, and all variations of passenger type Cab Cars.	Included in cases where Amtrak maintains the rolling stock
ENG	Engine Failure. Dead Failure, Inoperative HSD or DSD actuations, or any on-board HSD alarm, set signal failure on engine, set out/pick up defective engine, operating with freight engine, delayed emergency applications or problems with fuel on engine.	Included in cases where Amtrak maintains the rolling stock

SVS	Servicing (fuel, water, toilet/trash dumping, inspections, switching private/ office cars or section of train, normal engine changes, loading/ unloading non-onboard express)	Included in cases where Amtrak provides servicing
SYS	System (late crew, unscheduled ie crew, single engineer copying authorities or restroom break, held due to passenger train derailment; alleged crew rules violation; delayed-in-block after station stop	Delays at initial terminal only

(c) Delay Minutes identified by the Delay Codes described in the table below, or any other Delay Codes, shall not be considered "Eligible Delay Minutes" for purposes of this Section 1 of Appendix V, and thus shall not be included in the determination of incentives or assessments under this Section 1 of this Appendix V, without prejudice to any other Agreements or reporting processes making use of calculations of Delay Minutes identified with these Delay Codes.

Code	Title, Reason, or Examples as Described in the Service Standards Manual	Notes
ADA	Passenger-Related delays specifically related to disabled passengers (Wheelchair lifts, exercising guide dogs, etc.)	No incentive or assessment
CON	Hold for Connection (holds for train or bus connections, sprinting en route holds)	No incentive or assessment
CTI	Commuter Train Interference (meets, following, overtakes)	No incentive or assessment
CUI	Customs and Immigration	No incentive or assessment
DBS	Debris Strike (emergency braking, damage, set-outs from same; also debris blocking track ahead, or removal of debris from train).	No incentive or assessment
DCS	Signal Delays (wayside detector failures including false actuations, defective road crossing protection, restrictive wayside or cab signals from unknown cause or from signal, power-switch or CTC system failure; efficiency tests of the crew, drawbridge stuck open).	No incentive or assessment
DDA	Detect detector activation with nothing found wrong	No incentive or assessment
DET	Delays caused by catenary or wayside electric power system failure. (Note. This Delay Code is to be used ONLY between XSH and NHV (by Conductors working between NYP and NHV).)	No incentive or assessment
DMW	M of W Work (holding for defect repair or M of W forces to clear; inability to contact M of W Foreman on radio; routed around M of W work.)	No incentive or assessment
DSR	Temporary Speed Restrictions (slow orders, slows through M of W site) Exception: heat/cold orders, see "WTR."	No incentive or assessment
DTR	Detour Delays (all delay or time lost while operating on a detour, regardless of actual cause)	No incentive or assessment
FTI	Freight Train Interference (meets, following, overtakes, restrictive signals known to be caused by freight trains, holds due to freight train derailments, non scheduled stop to pick-up/drop-off freight train crew)	No incentive or assessment
HLD	Passenger Related (multiple spots, checked bags, large groups, snake breaks, other passenger-related delays; except for disabled passengers, see delay code "ADA", or sick/injured, see "INJ")	No incentive or assessment
INJ	Injury Delays (injured or sick passenger or employee)	No incentive or assessment
ITI	Initial Terminal Delay due to late arriving inbound train causing late release of equipment or late crew rest, where mechanical failure delay is NOT involved.	No incentive or assessment

MBO	Drawbridge openings for marine traffic, where no failure of the drawbridge is involved.	No incentive or assessment
NCD	Wait for scheduled departure time at stations, kill time to prevent early arrival at stations.	No incentive or assessment
OTH	Miscellaneous Amtrak-responsible delays (unable to make normal speed, heavy train, isolation of engine[s] for fuel conservation, etc. Also, person pulling emergency cord).	No incentive or assessment
POL	Police Related (DEA, police/fire department holds on right-of-way; bomb threat delays; can include on-train police activity)	No incentive or assessment
PTI	Passenger Train Interference (meets, following, etc. -does not include commuter trains)	No incentive or assessment
RTE	Routing (crossover moves, flying manual or spring switch, run via siding, late track isolation, inability to contact DS, dispatcher-holds). Also includes delays resulting directly from being routed to abnormal track at stations.	No incentive or assessment
TRS	Trespasser Incidents (Includes crossing accidents, trespasser or animal strikes, vehicle on track ahead; "near-miss" delays; bridge strikes by vehicle or boat)	No incentive or assessment
WTR	Weather (includes heat; cold orders; storms, floods, fallen trees, washouts, landslides; earthquake-related delays; slippery rail due to leaves; burning leaves caught under truck of car; snow-removal equipment working ahead; ice or snow under equipment, including wayside defect-detector activations caused by ice)	No incentive or assessment

(d) For each Delay Instance attributed to the Delay Codes listed in Section 1(b) above, Amtrak shall incur Assessments as follows:

Eligible Delay Minutes per Delay Instance	Assessment
6-10 minute initial terminal delay	$250
11-15 minute initial terminal delay	$400
Greater than 15 minute initial terminal delay	$600
11-15 en route delay	$250
Greater than 15 minute en route delay	$600

(e) In certain circumstances, a train may be Cancelled (whereby Amtrak decides not to begin the train's scheduled trip prior to its departure from the initial terminal) or Suspended (whereby Amtrak decides to end a train's scheduled trip prior to its arrival at the final terminal). Amtrak will endeavor to provide alternative transportation to passengers for trains that are Cancelled or Suspended. For each train that is Cancelled or Suspended due to a reason included in the Delay Codes listed in Section 1(b), Amtrak shall incur Assessments as follows:

Event	Assessments
Cancelled or Suspended train	$750

(f) Amtrak shall be eligible to earn incentives under the total "Eligible Delay Minutes" per [illegible] miles per month table below for the thresholds established below:

Total Eligible Delay Minutes per Month per 10,000 Train Miles	Incentive
N/A	Max 0

(g) Amtrak shall provide the STATE supporting documentation for the calculations described above in electronic format, consisting both a static format (e.g., Portable Document Format "PDF") that shall be the version of record and a format allowing for data manipulation (e.g., spreadsheet and/or comma separated values (CSV)).

(h) If during the term of this Agreement Amtrak changes the way in which the MSRS is compiled, then Amtrak shall confer with the STATE and other affected states governed by Section 209 of PRIIA with similar Incentive and Assessment provisions, to determine if the change has a material impact on the calculation of Incentives or Assessments and is necessary an amendment to this Appendix B is necessary. If Amtrak, STATE , and other States are unable to agree, then Amtrak will adjust its calculations of Incentives and Assessments to account for the change such that Incentives and Assessments are substantially equal to what they would have been had the change not occurred.

[redacted]

[redacted]

[redacted]

[redacted]

FISCAL YEAR 2015
April 1, 2015 – September 30, 2015

Pursuant to Section VI of the aforesaid Agreement, the State's obligation during fiscal year 2015 to reimburse Amtrak under the said Agreement shall not exceed $54,463,000 (Fifty Four Million, Four Hundred and Sixty Three Thousand Dollars). Funds for the said purpose have been authorized and made available by the State of California for fiscal year 2015 (April 1, 2015 – September 30, 2015) pursuant to the laws of the State.

The aforesaid amount is hereby allocated as follows:

COST OF OPERATIONS:		
Pacific Surfliner Route: San Luis Obispo/Santa Barbara via Los Angeles to San Diego		$15,251,000
San Joaquin Route: Oakland/Sacramento to Bakersfield		$21,344,000
Add-On Expenses:		
Pacific Surfliner Route Capital Equipment Charges	$5,724,000	
San Joaquin Route Capital Equipment Charges	$1,016,000	
Capitol Corridor Capital Equipment Charges	$108,000	
Rolling Stock Insurance	$700,000	
Oakland Maintenance Facility Property Insurance	$175,000	
Oakland Maintenance Facility Security	$145,000	
Total Add-On Expenses:		$7,868,000
TOTAL OPERATIONS COST:		$44,463,000

Additional Expenses – Non Route Specific:	
Minor Capital Projects	$1,000,000
Minor Capital Projects for Rail Equipment Projects	$500,000
Calif. Damaged Equipment Wreck Recovery Fund	$500,000
Onboard Information System Project (OBIS)	$8,000,000
Total Additional Expenses:	$10,000,000
TOTAL PAYABLE TO AMTRAK:	**$54,463,000**

As a part of the 209 Estimated Budget (Appendix III, Itemized Budget), the State hereby agrees that it will reimburse Amtrak for the following positions described below and in Appendix A.

AMTRAK MAINTENANCE COMPLIANCE INSPECTOR – LOS ANGELES– State-Supported Position R1

Amtrak will engage one (1) five-day per week maintenance compliance inspector in Southern California to monitor maintenance performed on California cars and locomotives and to ensure that maintenance is performed consistent with the Maintenance and Transfer Agreements. The position will receive specific work direction from Caltrans or its on-site representative. The position may require alternating shifts and some travel. Appointments will be approved by the State in writing.

The scope of work will encompass:

Maintenance Oversight – Monitor the Maintenance Analysis Program (MAP) to ensure that maintenance work is compliant with contracts, standards, specifications and procedures. Monitor repairs and document the Amtrak AWCR/ARO process, as defined in the Maintenance Agreement, to ensure that repairs are compliant with contract standards, specifications and procedures. Monitor parts inventory and parts availability. Evaluate mechanical failures, equipment design defects and design issues to ensure compliance with manufacturer's specifications and contractual provisions.

Operations Compliance – Ensure that State owned rail equipment is operated according to Caltrans requirements, manufacturer specifications and contract provisions.

Retrofit and Rework Inspection – Ensure that post manufacturing modifications made to California passenger rail equipment are completed in compliance with work order documentation, contract provisions and quality control standards.

Warranty Management – Ensure that the warranty provisions of the State's vehicle procurement contracts and replacement parts warranties are administered in a contractually compliant manner.

Information Management – Enter inspection and audit reference sheet data into the Car Database. Enter AWCR and ARO and other warranty and repair data into database. Enter maintenance data into database. Enter retrofit and rework data into database. Enter operations inspection information into database. Ensure Arrow and Caltrans database information is reconciled. Produce reports as necessary.

AMTRAK EQUIPMENT OPERATIONS LIAISON (TRANSPORTATION DEPT) – OAKLAND– State-Supported Position R2

Amtrak will engage one (1) five-day per week Equipment Operations Liaison in the Transportation Department at the Oakland Maintenance Facility to monitor the operation and performance of State-owned rail equipment. This position will act as liaison between the State and Amtrak's Transportation and Mechanical Departments for all equipment maintenance and operations, and ensure that the equipment is maintained and operated in accordance with the Maintenance and Transfer Agreements. The position will report to an Amtrak Manager in the Transportation Department and will receive specific work direction from Caltrans or its on-site representative. The position may require alternating shifts and some travel. Appointments will be approved by the State in writing.

The scope of work will encompass:

Maintenance Monitoring – Inspect rail equipment after periodic maintenance and prior to release to service to ensure that all systems and components are in working order and that the equipment has been cleaned and serviced and is ready for revenue operation. Provide documentation to Caltrans and Amtrak mechanical regarding nonconformance with equipment maintenance standards and follow up to determine cause and corrective action. Act as liaison between Transportation, Mechanical and the State for all issues relating to the maintenance and operation of State-owned equipment.

Operations Compliance – Ensure that State owned rail equipment is operated according to contractual requirements, manufacturer specifications and contract provisions. Interface with all on-train personnel to make sure that crews are familiar with and have been trained on the proper procedures for operating State-owned equipment. Provide assistance to Amtrak's Training Officer in developing an ongoing training program for the operation of State-owned cars and locomotives. Discuss equipment-related issues with train crews and provide feedback to Caltrans and Amtrak.

Equipment Performance – Ride State-supported trains and monitor the performance of rail equipment while in service. Document equipment failures and defects on MAP-21A forms, AWCRs and other established reporting procedures, and report to the State and to Amtrak Mechanical for resolution. Perform follow-up inspections to ensure that defects are repaired and that all equipment is operating properly.

Information Management – Document instances of equipment failure, operational problems or maintenance nonconformance and create AWCRs as necessary. Enter AWCRs and other warranty and repair data into database. Ensure Arrow and Caltrans database information is reconciled. Produce reports as necessary.

AMTRAK MAINTENANCE SCHEDULING MANAGER –OAKLAND – State-Supported Position R3

Amtrak will engage one (1) five-day per week maintenance scheduling manager in Oakland, California, to schedule and ensure the availability of cars and locomotives for PM maintenance, equipment rework, wreck repair and warranty work; as well as, to coordinate with Amtrak Oakland maintenance personnel to maximize equipment availability for passenger service. The position will report to an Amtrak manager and will receive specific work direction from Caltrans Manager of Equipment, Track and Inspection or his on-site representative. The position may require alternating shifts and some travel. Appointments will be approved by the State in writing.

The scope of work will encompass:

PM Maintenance Scheduling – Monitor Amtrak's Maintenance Analysis Program to ensure that maintenance work is scheduled and performed on or before the required date. Monitor fleet maintenance needs and available resources to insure that only the minimum number of cars and locomotives are out of service at any time. Evaluate the maintenance process, identify procedures that slow maintenance, and propose improved procedures. Meet with Amtrak Oakland maintenance management to ensure that schedule requirements are understood, follow up to verify that schedules are met and report failures to meet schedule commitments to the Amtrak Mechanical Superintendent/Oakland or Master Mechanic/West and Caltrans management.

Retrofit and Rework Scheduling – Ensure that equipment is made available to rework contractors to meet contract schedule requirements. Evaluate PM maintenance, wreck repair and warranty work to maximize the amount of work done during scheduled out of service time. Meet with Caltrans' rework manager to review planned rework and coordinate rework schedule. Follow up with rework contractors and Amtrak maintenance to verify that equipment will be available to support scheduled rework or report failures to meet schedule commitments to the Mechanical Superintendent/Oakland or Master Mechanic/West and Caltrans manager.

Wreck Repair Scheduling – Track recoverable wreck damage (third party liability) to the State's vehicles, and follow up with Amtrak's claims department to ensure vehicle repairs are made immediately upon payment of third party liability. Identify non-recoverable damage to the State's vehicles, meet with Caltrans to approve repair plans, secure funding and schedule timely repairs. Maintain a database to track all unresolved wreck damage.

Warranty Work Scheduling – Ensure that the warranty work, and replacement parts warranties (for both new and reworked systems) on the State's vehicles, are scheduled and completed in a contractually compliant and efficient manner. Meet with Caltrans' representatives to coordinate warranty schedule and resolve vendor issues. Follow up with vendors and Amtrak maintenance to verify that equipment will be available to support scheduled warranty repairs or report failures to meet schedule commitments to the Mechanical Superintendent/Oakland or Master Mechanic/West and Caltrans manager.

Information Management – Enter PM maintenance, rework, wreck repair, and warranty work data into databases. Track AWCR/ARO and other warranty and repair data through the use of database searches. Enter, update and search PM maintenance, rework, wreck repair and warranty work data through the use of databases. Use computer programs to develop schedule tracking charts and reports. Produce reports as necessary.

AMTRAK SALES MANAGER – SACRAMENTO – State-Supported Position R4

Amtrak will engage one part-time sales manager to support sales and marketing efforts on the San Joaquins.

AMTRAK ROAD FOREMAN – BAKERSFIELD – State-Supported Position R6

Amtrak will engage one full time road foreman to oversee all San Joaquin train and bus operations.

AMTRAK SUPERVISOR – FRESNO – State-Supported Position R7

Amtrak will engage one full time supervisor of on-board service to oversee all service aspects of the San Joaquin train and bus operations.

AMTRAK ON-BOARD CLEANER – OAKLAND – State Supported Positions R8 – R9

Amtrak will engage two full time train attendants to work on the San Joaquin trains for on-board restroom cleaning.

APPENDIX B

Schedule 1

Options for 2015 April - September Advance Payments

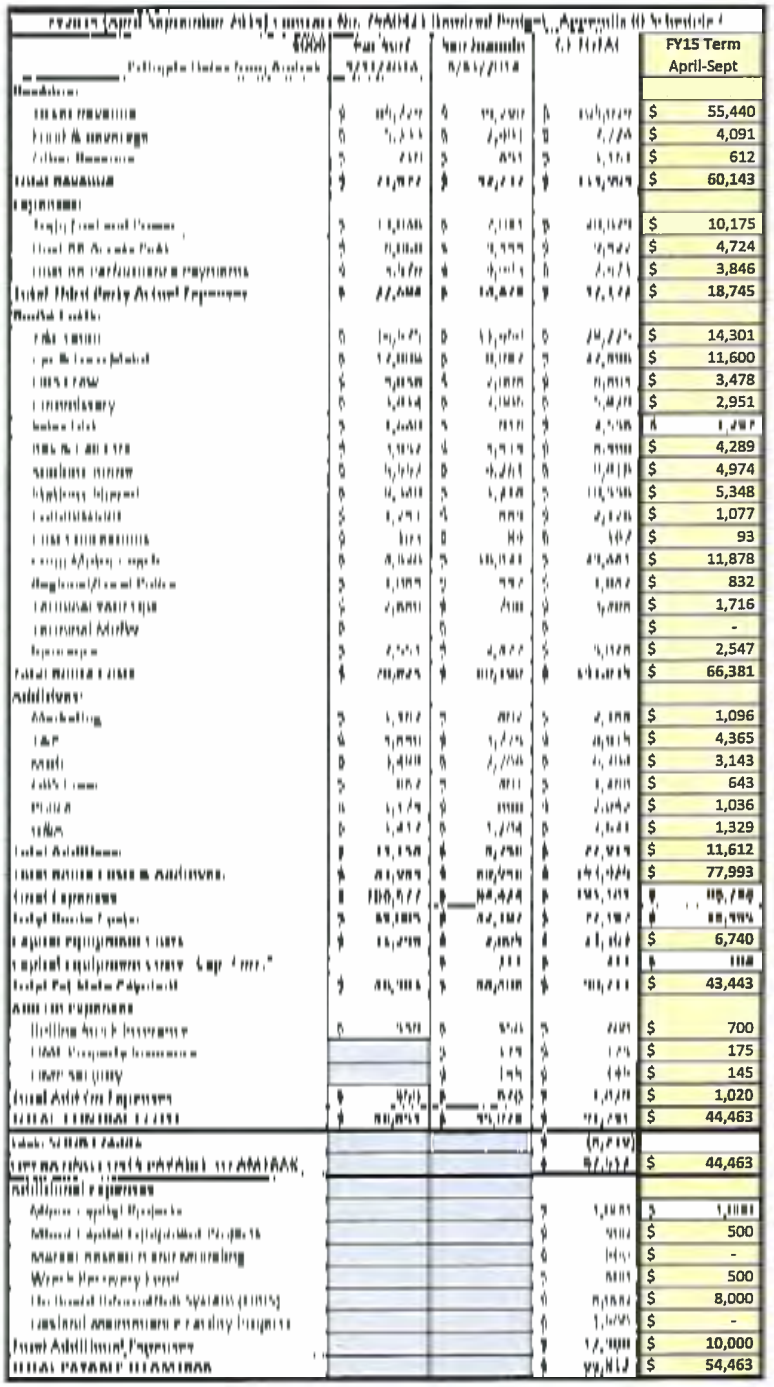
Pacific Surfliner Route	April-15	May-15	June-15	July-15	August-15	Sept-15	Total	FY15
Allocation (actual percentage by month)	7.17%	8.22%	9.35%	9.37%	9.40%	8.25%	100.00%	(April-Sept)
Pacific Surfliner FY15 Agreement Calculations								
REVENUES:								
Total Revenue	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Food and Beverage Revenue	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Mail, Express, and Other	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Total Operating Revenue Estimate	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
EXPENSES:								
Train Fuel and Power	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Host RR Access Fees	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Railroad Performance Payments	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Total Third Party Estimate	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Total Route Costs and Additives Estimate	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Total Operating Expense Estimate	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Pacific Surfliner Route Operating Costs	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Capital Equipment Costs	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Add-On Expense Items	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
[illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]

San Joaquin Route	April-15	May-15	June-15	July-15	August-15	Sept-15	Total	FY15
Allocation (actual percentage by month)	7.17%	8.22%	9.35%	9.37%	9.40%	8.25%	100.00%	(April-Sept)
San Joaquin FY15 Agreement Calculations								
REVENUES:								
Total Revenue	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Food and Beverage Revenue	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Mail, Express, and Other	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Total Operating Revenue Estimate	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
EXPENSES:								
Train Fuel and Power	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Host RR Access Fees	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Railroad Performance Payments	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Total Third Party Estimate	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Total Route Costs and Additives Estimate	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Total Operating Expense Estimate	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
San Joaquin Route Operating Costs	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Capital Equipment Costs	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Capital Equipment Costs - Cap Cont.	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Add-On Expense Items	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Operating Costs with Add-On Expenses	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]

SUMMARY AMC ADVANCE PAYMENT								
Pacific Surfliner Route Costs & Add-Ons	$ [illegible]	$ [illegible]	$ 3,866,858	$ 3,896,781	$ [illegible]	$ [illegible]	$ 46,653,000	$ [illegible]
San Joaquin Route Costs & Add-Ons	$ [illegible]	$ [illegible]	$ 3,768,620	$ 4,157,933	$ [illegible]	$ [illegible]	$ 45,078,000	$ 23,137,853
TOTAL CONTRACT COST	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ 44,440,674
Less: SCRIP Credits							$ [illegible]	
OPERATING COSTS NET OF SCRIP	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ 44,440,674

Note: The allocation of certain costs by the use of the monthly distribution percentages from Adopted Sales revenue estimates for 2014-15 by route.

FY15 PRICE ESTIMATE FY2015 (April-September 2015) Revenue and Expense Estimate				
	Pacific Surfliner Route	San Joaquin Route	Total	FY15 April-Sept
Revenues:				
Ticket Revenue	$ 65,729,000	$ 39,230,000	$ 105,039,000	$ 55,440,000
Food & Beverage	$ 5,233,000	$ 2,491,000	$ 7,724,000	$ 4,091,000
Mail, Express, & Other	$ 710,000	$ 451,000	$ 1,161,000	$ 612,000
Total Revenues	$ 71,672,000	$ 42,232,000	$ 113,904,000	$ 60,143,000
Expenses:				
Estimated Third Party Actual Expenses:				
Train Fuel & Power	$ 13,048,000	$ 7,031,000	$ 20,079,000	$ 10,175,000
Host RR Access Fees	$ 5,068,000	$ 3,354,000	$ 8,422,000	$ 4,724,000
Host RR Performance Payments	$ 3,578,000	$ 4,093,000	$ 7,671,000	$ 3,846,000
Total Actual Expenses	$ 22,694,000	$ 14,478,000	$ 37,172,000	$ 18,745,000
Route Costs and Additives Expenses:	$ 83,983,000	$ 69,946,000	$ 153,929,000	$ 77,993,000
Total Operating Expenses	$ 106,677,000	$ 84,424,000	$ 191,101,000	$ 96,738,000
Route Operating Costs (Revenue less Expenses)	$ 35,005,000	$ 42,192,000	$ 77,197,000	$ 36,595,000
Capital Equipment Costs	$ 11,258,000	$ 2,006,000	$ 13,309,000	$ 6,740,000
Capital Equipment Costs - Capital Corridor		$ 211,000	$ 211,000	$ 108,000
Add-On Expenses:				
Rolling Stock Insurance	$ 350,000	$ 350,000	$ 700,000	$ 700,000
OMF Property Insurance	$ -	$ 175,000	$ 175,000	$ 175,000
OMF Security	$ -	$ 145,000	$ 145,000	$ 145,000
Total Add-Ons	$ 350,000	$ 670,000	$ 1,020,000	$ 1,020,000
TOTAL CONTRACT COST	$ 46,553,000	$ 43,078,000	$ 91,731,000	$ 44,463,000
Less: SOGR Credits			$ (4,219,000)	
OPERATING COSTS PAYABLE TO AMTRAK			$ 87,512,000	$ 44,463,000



				FY15 Term April-Sept
				$ 55,440
				$ 4,091
				$ 612
				$ 60,143
				$ 10,175
				$ 4,724
				$ 3,846
				$ 18,745
				$ 14,301
				$ 11,600
				$ 3,478
				$ 2,951
				$ 1,287
				$ 4,289
				$ 4,974
				$ 5,348
				$ 1,077
				$ 93
				$ 11,878
				$ 832
				$ 1,716
				$ -
				$ 2,547
				$ 66,381
				$ 1,096
				$ 4,365
				$ 3,143
				$ 643
				$ 1,036
				$ 1,329
				$ 11,612
				$ 77,993
				$ 116,788
				$ 88,995
				$ 6,740
				$ 118
				$ 43,443
				$ 700
				$ 175
				$ 145
				$ 1,020
				$ 44,463
				$ 44,463
				$ 1,000
				$ 500
				$ -
				$ 500
				$ 8,000
				$ -
				$ 10,000
				$ 54,463

APPENDIX IV
FAIR EMPLOYMENT PRACTICES ADDENDUM

1. In the performance of this contract, the Contractor and its subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (e.g. cancer), age (over 40), marital status, and denial of family care leave. The contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, ancestry, sex*, age*, national origin or physical handicap*. Such action will include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by the State setting forth the provisions of this Fair Employment Practices section.

2. The Contractor will permit access to his records of employment, employment advertisements, application forms and other pertinent data and records by the State Fair Employment Practices Commission, or any other agency of the State of California designated by the awarding authority for the purposes of investigation to ascertain compliance with the Fair Employment Practices section of this contract.

3. Remedies for Willful Violation

(a) The State may determine a willful violation of the Fair Employment Practices provision to have occurred upon receipt of a final judgement having that effect from a court in an action to which contractor was a party, or upon receipt of a written notice from the Fair Employment Practices Commission that it has investigated and determined that the Contractor has violated the Fair Employment Practices Act and issued an order under Labor Code Section 1426, which has become final or obtained an injunction under Labor Code Section 1429.

(b) For willful violation of this Fair Employment Practices provision, the State shall have the right to terminate this contract either in whole or in part, and any loss or damage sustained by the State in securing the goods or services hereunder shall be borne and paid for by the Contractor and by his surety under the performance bond, if any, and the State may deduct from any moneys due or that thereafter may become due to the Contractor, the difference between the price named in the contract and the actual cost thereof to the State.

* See Government Code Sections 12990(a-f) et seq. and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285 et seq. for additional details.

APPENDIX V

NATIONAL RAILROAD PASSENGER CORPORATION

and

STATE OF CALIFORNIA

Standards for Employee Conduct and Revenue Collection

Employee Conduct

(a) Amtrak's Service Standards Manual for Train Service and On-Board Service Employees, as amended from time to time, exists to ensure the delivery of consistent, high-quality service to our passengers by both frontline and supervisory employees. It ties together, in a single reference document, many diverse company policies, procedures and standards that apply to the services Amtrak's Train Service and On-Board Service employees perform. The following elements of the Standards Manual are of specific interest to the STATE and are therefore considered an Observation-Based Standard as defined in Section I, Item C.3.

(1) Chapter 6 of Service Standards Manual for Train Service and On-Board Service Employees, as amended from time to time, describes Crew Functions & Responsibilities. Section B.2. of this chapter describes All Crew Members' General Responsibilities. These responsibilities include but are not limited to the following:

a. Report in full uniform with Amtrak photo identification badge.
b. Maintain a professional demeanor, a professional appearance and a clean, organized work area at all times.
c. Do not chew gum or use toothpicks while on duty.
d. Do not eat or drink while boarding or detraining passengers.
e. Gambling, begging and/or soliciting of any type while on-board the train or on any Amtrak property is prohibited.
f. Do not disturb the passengers' traveling experience with unprofessional conduct.
g. Assume responsibility for his/her personal safety, as well as the safety of other employees and passengers.
h. Be alert and vigilant at all times.
i. Do not lean against cars or structures, nor appear to stroll aimlessly on platforms.
j. Maintain an appropriate voice level to be heard and understood, but not boisterous or annoying to passengers.
k. Make appropriate announcements.
l. Tactfully enforce the smoking policy, as set forth in Section (a)(2) of this Appendix
m. Ensure that the Conductor is kept informed of any passenger problems, issues or service disruptions before taking any action, except in life-threatening emergency situations such as a derailment.
n. Be respectful of co-workers.
o. Assist, encourage, train and motivate fellow crew members.

p. Never relinquish your responsibilities to another employee who is observed as not "fit for duty".
q. Assist passengers with boarding and detraining.
r. Assist disabled passengers with meal service, movement to a feature cars (if requested), restroom, etc.
s. Assist with wheelchair and wheelchair lift operation as necessary.

(2) Chapter 7 of Service Standards Manual for Train Service and On-Board Service Employees, as amended from time to time, describes Policies and Procedures. Section A.13. of this chapter describes the Smoking Policy:

> Amtrak supports a smoke free environment and does not allow the use of tobacco products or electronic smoking devices on board trains and in stations, offices and other designated Amtrak facilities. All On-Train personnel are responsible for the enforcement of the smoking policy.

(3) Chapter 8 of the Service Standards Manual for Train Service and On-Board Service Employees, as amended from time to time, describes Accounting, including Train Service Accounting Procedures. As described in Section 1 A.c of this chapter, the safe operation of the train will always take precedence over ticket collection and use of the eTicketing Mobile Device. As described in Section 1 A.e of this chapter, Conductors and Assistant Conductors are responsible for:

a. Prompt revenue collection and remittance.
b. Proper care and handling of all tickets, money, revenue tools and transportation documentation.
c. Using courtesy, tact and good judgment when interacting with passengers.

(b) Amtrak's General Guidelines for Station Employees, as amended from time to time ("Guidelines"), contains general guidelines for station employees to supplement Amtrak policies and local and departmental rules. These Guidelines include the responsibilities listed Section (a)(1) of this Appendix, with the exception of those responsibilities described therein that are only performed on board a train. In addition, Station Employees' responsibilities also include the following:

a. Unless busy at assigned work such as the ticket office, baggage area, etc., be available and in a position to offer assistance to customers.
b. See that passengers are directed to correct platform and train cars and do not board the wrong train.
c. Greet customers appropriately, courteously and pleasantly.
d. Assist passengers in wheelchairs in a timely manner, specifically when boarding and detraining.

(c) The STATE and Amtrak will designate inspectors to verify that Amtrak Train Service, On-Board Service, and Station Employees are conducting themselves in accordance with those elements of the Service Standards Manual and/or General Guidelines for Station Employees that are described in this Section.

(d) In the event that a designated STATE inspector asserts, based on personal observation, that an element of the Service Standards Manual or General Guidelines for Station Employees described in this Section has been violated by an Amtrak employee, the Managing Director for STATE shall notify the Senior Manager for State Corridors and the Deputy General Manager for Amtrak of the alleged violation within two (2) business days via either electronic mail or the contact information specified in Section XII of this Agreement and provide any related supporting information. Amtrak will investigate the alleged violation according to the provisions of any applicable collective bargaining agreement and will report to the STATE the outcome of this investigation.

(e) The parties shall keep records of the alleged violations identified by the designated STATE inspectors. Upon the third and each subsequent instance of a specific Amtrak employee violating the Service Standards Manual or General Guidelines for Station Employees described in this Section that is substantiated by the investigation and report process described in Section (d) above, Amtrak shall incur Assessments as follows:

Incident	Assessment
Failure of any Amtrak Train Service, On-Board Service, or Station Employee to abide by the duties, responsibilities, and procedures of the applicable Service Standards Manual and/or General Guidelines for Station Employees described in this Appendix	$400

Amtrak may determine that there was a likely failure of a Train Service or On-Board Service Employee to conduct him/herself in accordance with those elements of the Service Standards Manual described in this Section and in its sole discretion may agree to incur a Assessment without any corroborating conclusions from any related internal disciplinary process, or without pursuing any formal disciplinary process. Any Assessment shall be processed as described in Section I, Item C.4 of this Agreement.

(f) In addition to the procedures described in this Appendix, Amtrak has existing procedures for receiving and responding to passenger concerns and/or complaints not directly observed by the designated inspectors described in Section (c) above. The State should encourage passengers with any concerns or complaints not directly observed by the designated inspectors to contact the Amtrak at 1-800-USA-RAIL or to send an e-mail via www.amtrak.com. In certain cases, the State may wish to contact Amtrak via the contact information specified in Section XII of this Agreement to alert Amtrak when it learns of unusual passenger concerns and complaints.

Appendix VI

PRIIA Section 209
Cost Methodology Policy

~~August 31, 2011~~

~~*Final Version*~~

November 20, 2012

Corrected Version

Note: Periodic review of the APT system revealed a calculation error on the Central Division T&E Additive in the August, 31, 2011 version. The figure has been corrected in red in Appendix E on page 15.

Prepared for PRIIA 209 States and Other Interested States by
The States Working Group (SWG) and Amtrak:

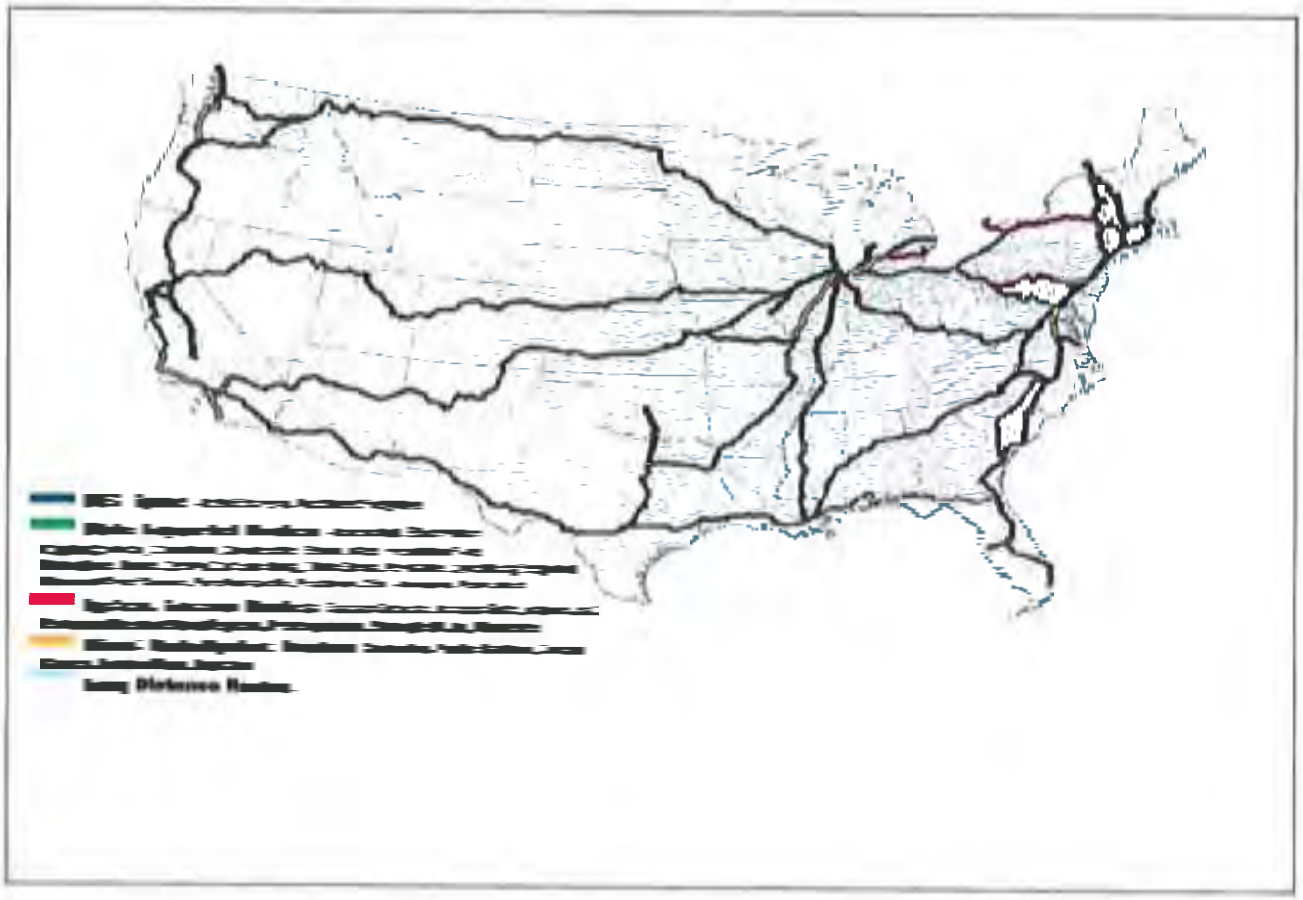
Passenger Rail Investment and Improvement Act (PRIIA) of 2008 Section 209 Cost Methodology Policy

Recommended by the State Working Group (SWG) and Amtrak Staff[1]

FINAL VERSION 8/31/11

Overview

Under the provisions of PRIIA Section 209, all short-distance Amtrak corridor services must become state-supported routes and states must pay the proportional costs associated with their respective corridor route. This document describes the "single, nationwide standardized methodology for establishing and allocating the operating and capital costs among the States and Amtrak." This methodology applies to services provided by Amtrak over routes "of no more than 750 miles between endpoints," as described in section 24102(5)(B).



[1] Members of SWG-Amtrak group include: John Bennett, Stephen Gardner, Shayne Gill, Susan Howard, Max Johnson, David Kutrosky, Beth Nachreiner, Kevin Page, Patricia Quinn, and Patrick Simmons

Appendix A provides a list of affected routes; ***Appendix B*** provides the text of Section 209 and related statutes. Currently, approximately 36 of the total 110 corridor routes are either partially or completely supported by Amtrak. Once Section 209 is implemented, all such corridors routes will be priced in a transparent, fair and equitable manner. Amtrak and states were charged with collaboratively creating a cost methodology to establish a basis for sharing operating costs plus an annual capital charge for Amtrak-owned equipment and facilities used for intercity passenger rail service.

This policy statement outlines the methodology Amtrak will use to compute:

- operating expenses for routes using a formulation that defines direct route costs and associated additives, and
- capital charges for the use of Amtrak-owned assets.

The Amtrak Performance Tracking (APT) system – Amtrak's recently-implemented cost accounting system, that is linked to Amtrak's financial and operating systems -- provides the cost basis that the SWG and Amtrak used to evaluate options for assigning service area route costs.

The Federal Railroad Administration (FRA) met with the SWG and Amtrak to address the issue of transition assistance to the states during the phase in of the new methodologies for route and capital costs. This policy outlines clearly that states are responsible for the costs associated with the new capital charge. However, the FRA recognizes that states will face a financial burden as they implement the new cost-sharing approach. While the details of transition assistance have not been fully developed, the FRA has committed to working with the states and Amtrak on transition assistance.

Basis for Allocating Costs

Many railroad costs—both costs directly related to the services provided and those shared among services—are by their nature provided through jointly used crews, crew bases (locations where train crews report for work), support teams/facilities, maintenance facilities, and stations. As such, cost allocation methods and procedures are needed to fairly apportion these costs. The Amtrak Performance Tracking (APT) system will provide the basis for allocating "to each route the costs incurred only for the benefit of that route and a proportionate share, based upon factors that reasonably reflect relative use, of costs incurred for the common benefit of more than one route".

In some cases, Amtrak and states may agree to use supplemental financial data to adjust the results of APT, including, but not limited to, local systems for measuring fuel consumption that are not available nationally. Pursuant to part (b) of Section 209, if changes to Amtrak's financial systems result in a material change to the results of APT, Amtrak will work with its state partners to update this policy in a manner consistent with the intent of Section 209.

Operating Scenarios

State-supported routes are classified into three operating scenarios:

Single State Corridor Trains. These corridor trains do not cross state lines and do not use the NEC "spine" (Boston-Washington).

Multi-State Corridor Trains. For corridor trains that cross state lines but do not use the NEC "spine" (Boston-Washington), the states on the train route shall develop an equitable method for sharing the costs

and revenues from the trains. Amtrak will provide the affected states with information to assist in reaching agreement.

Base-Increment NEC Corridor Trains (Single- and Multi-State). In Section 209, the Northeast Corridor (NEC) is defined as "the continuous Northeast Corridor railroad line between Boston, Massachusetts and Washington, District of Columbia" in section 24102(5)(B). Trains having some part of their route both on the NEC and on a state-supported corridor are considered Base-Increment trains. In the case of base-Increment NEC corridor trains, APT allocates costs between the state leg and the NEC leg for accounting purposes in various ways. The allocation explanations for specific expenses are described in the APT documentation available on the FRA website, both in summary in the Main report and in detail in Appendix A.

The following general conditions apply to Base-Increment trains:

- Route Costs (defined below) common to both legs are prorated based on whether costs are incurred on the state leg or on the NEC. For instance, turnaround servicing is allocated by train miles on the NEC and state leg. Non-turnaround maintenance is allocated by both time and mileage-based statistics prorated for the amount of time a train spends on either the NEC or the state leg.
- Trains that travel through multiple states off the NEC shall develop a mutually agreeable method for sharing the costs and revenues of the trains.
- "Through revenue" is revenue from trips with one endpoint on the NEC and one endpoint on the state-supported leg. Through revenue will be credited to the state in one of two ways, to be determined by the state and established in the agreement:
    - Passenger Mile Split. Through revenue will be split between the state and Amtrak proportionate to miles traveled off and on the NEC. Under this method, Amtrak is responsible for all operating and capital costs when the train is on the NEC leg. Capital charges for equipment will be split between the state and Amtrak reflecting service both on and off the NEC, allocated based on the time-based Units Used statistic. Capital charges for fixed assets will be for the state leg only.
    - Through Revenue Plus Passenger Mile Charge. States will continue to be charged costs for the state leg as described above. Through revenue will be credited to the state, along with a charge per passenger mile for the costs of through riders traveling on the NEC. This per passenger mile charge will represent the state's share of Amtrak's:
        - Fully allocated NEC operating costs, as pro rated by all available Amtrak Northeast Regional seat miles;
        - Equipment capital overhaul costs, as pro rated by all available Amtrak Northeast Regional seat miles
        - Fully allocated fixed asset Normalized Replacement capital costs as defined in ***Appendix C***, pro rated by all available Amtrak NEC seat miles; and
        - 20% of any fixed asset State of Good Repair Backlog capital costs as defined in ***Appendix C***, pro rated by all available Amtrak NEC seat miles.

      These charges will be fixed for the term of the contract between the state and Amtrak and applied against actual passenger miles. However, this through revenue policy may be amended by Amtrak and the affected states if the outcome of the PRIIA Section 212 cost allocation process requires changes to this policy.

In addition to the operating scenarios described above, some state-supported routes travel for part or all of the entire route on right-of-way owned by Amtrak outside the NEC; these routes are described in ***Appendix D***. In these situations, Amtrak will remove the maintenance of way expenses for these segments as allocated in APT, and replace them with a synthetic host railroad charge. This charge is consistent with the costs that are typically charged to Amtrak by host railroads for incremental operating and maintenance. For right of way that Amtrak purchases or assumes maintenance responsibility for not listed in ***Appendix D***, Amtrak and the state will negotiate such maintenance and related charges on a case-by-case basis.

Methodology for Determining Operating Costs

Under the proposed S209 Methodology, the Service Fee will include:

- 100 percent of the "Third Party Costs" associated with its corridor service;
- 100 percent of the verifiable Route Costs associated with its corridor service;
- Support Fees proportional to its corridor service; and,
- Credit for passenger and other allocated revenue, resulting in the Net State Cost.

Third Party Costs:

Actual Third Party Costs will be charged to the state corridors. Third Party Costs are comprised of:

- Host railroad maintenance of way;
- Host railroad performance payments; and
- Fuel and power charges.

Route Costs:

Route Costs are operating costs closely associated with the operation of a route. Route Costs can clearly be evaluated and tracked by Amtrak and the states in the direct provision of service on a corridor train. Route operating costs include the following categories as allocated by the APT system:

- Train and engine crew labor
- Car and locomotive maintenance and turnaround service
- On Board Service Labor and provisions (Food Service)
- Route Advertising,
- Sales & Distribution
- Reservations and Call Centers
- Route Stations
- Shared Stations
- Commissions
- Customer Concession
- Connecting Motor Coach
- Local & Regional Police
- Block & Tower operations
- Terminal Maintenance of Way
- Insurance

Support Fees:

Some cost categories have an additional level of regional and national support not included in the Route Costs, and therefore also include Support Fees that are proportional to the service provided. Support Fees are determined by applying category-specific additives to an associated route cost or other aspect of service, (i.e. revenue or passenger miles). These additives were developed by converting support cost data from the APT system into rates that would be consistent across all trains in a region, or in some cases, all state-supported trains.

For example, Amtrak provides mechanical support, facilities and services that can reasonably be apportioned between Amtrak's business lines – the Northeast Corridor (NEC) trains, long-distance trains and state-supported trains. The Maintenance of Equipment (MoE) support fee represents the portion of those costs allocated to state-supported trains and is determined by applying an additive rate to the Car & Locomotive Maintenance and Turnaround route cost.

There are six categories of Support Fees are determined as follows:

- Train & Engine Crew Support (T&E): A combination of system and division additives applied to Train & Engine Crew Labor route costs. All corridors will be charged a system additive which is fixed (*12.9 percent*) and a division additive which is variable (*13.5-24.3 percent*). The division additive is based on the Amtrak region in which the corridor operates and is linked to the management structure within Amtrak that is responsible for service delivery by train crews. The T&E system additive rate excludes costs from Amtrak's Consolidated National Operations Center (CNOC), which are considered a "backbone" cost.
- Maintenance of Equipment (MoE): A fixed system additive (*27 percent*) applied to the Car & Locomotive Maintenance and Turnaround Route Cost. The MoE additive rate excludes backshops and fleet engineering costs, which are considered a "backbone" cost.
- On Board Services (OBS): A fixed system additive (*10 percent*) applied to the OBS Crew & Provisions Route Cost.
- Marketing: A variable regional additive (*1.9 - 2.8 percent*) applied to total revenue. The marketing additive is based on the degree to which a state corridor is connected to the NEC or to a major Amtrak hub station. Corridors that fall into those categories will have a higher additive associated with Amtrak's higher level of shared marketing in those regions.
- Police: A fixed system additive (*$.005*) applied to passenger miles.
- General & Administrative: A fixed system additive (*2 percent*) applied to Total Route Costs.

The additive rate will remain the same for three years beginning October 2012, unless there is a significant unforeseen event, such as a significant decrease in Amtrak's Federal funding or a significant change to the size of Amtrak's network. A change in the additive rate during the three-year term must be approved by Amtrak and the states. At the end of the three year period, Amtrak will propose adjustments to the additive rates if they are necessary. States and Amtrak must mutually agree on additive rate adjustments.

The table below illustrates the S209 Operating Cost Pricing Methodology. The definitions of cost categories and additives are described in more depth in ***Appendix E.***

S209 Operating Cost Pricing Methodology

ROUTE COSTS	+	SUPPORT FEE	=	OPERATING COSTS
Train & Engine Crew Labor		*T&E Route x (Division Additive* + System Additive (12.9%)*	=	Total Train & Engine Crew Labor
Car & Locomotive Maintenance & Turnaround	+	*Car & Loco Route Cost X System Additive (27%)*	=	Total Maintenance of Equipment
On Board Service (OBS) Crew & Provisions	+	*OBS Route Cost x 10% OBS Additive*	=	Total On Board Services
Route Advertising			=	Total Route Advertising
Sales & Distribution	+	*Marketing Additive* x Passenger and Allocated Revenue**	=	Total Sales & Marketing
Reservations & Call Centers			=	Total Res & Call Center
Stations – Route			=	Total Route Stations
Station – Shared			=	Total Shared Stations
Commissions			=	Total Commissions
Customer Concessions			=	Total Concessions
Connecting Motor Coach			=	Total Motor Coach
Regional/Local Police	+	*Passenger Miles x Police Additive ($0.005)*	=	Total Police & Security
Terminal Yard Operations			=	Total Terminal Yard Ops
Terminal Maintenance of Way			=	Total Terminal MoW
Insurance			=	Total Insurance
Total Route Costs *(Sum of Above)*	+	*Total Route Costs x General & Administration Additive (2%)*	=	General & Administrative
				Route Service Fee *(Sum of Above)*
		Host RR Maintenance of Way + Host RR Performance + Fuel & Power	+	3rd Party Costs
			=	**Total Operating Costs** *Service Fee + 3rd Party Costs*
			-	Less Passenger and Other Allocated Revenue
			=	**NET STATE COST**

**Denotes variable additive. Reference Appendix E*

Passenger and Other Allocated Revenue

Passenger revenues include ticket revenue and food and beverage revenue attributable to a particular route. Other Allocated Revenue includes miscellaneous revenue related to a route's passenger train operations, such as ticket by mail fees, loyalty marketing revenue, commissions from sales of third-party services during the reservations process (call/Internet "tipping"), package express where applicable, and other.

Optional Services and Pricing

States may wish to independently contract with alternative service providers for some services rather than Amtrak. For example, states may contract directly with vendors for food service, equipment maintenance, and other components of their services. Working with independent service providers may have an impact on the

level of service that Amtrak can provide for a state. In these cases, costs that are not incurred by Amtrak would not be included in cost estimates or service reimbursements.

Operating Surplus
In the case where a route achieves an operating surplus, that route's surplus funds will be applied as follows: first, to operating payments for other routes supported by that state; second, to equipment capital charges for that state; third, for agreed upon fixed asset capital charges for that state; fourth, for future operating and capital payments by that state.

Methodology for Determining Capital Costs

Amtrak makes substantial capital investments in equipment (rolling stock) and other fixed assets needed to deliver passenger rail services. Under this policy, Amtrak will charge states for a share of these investments proportional to their use in state-supported services. Based on Section 209 requirements, the capital charge, or capital use charge[2], will be allocated to each route; each sponsoring state is responsible for funding its capital charge. Amtrak will work with states to find federal and other sources of funds to assist with the capital charge.

The capital charge will be forward looking and investment-based. Amtrak will assess an annual capital charge to each state for the following asset types:

- Equipment – existing and new Amtrak-owned;
    - For existing rolling stock, states will be charged a pro rata share, based on Units Used, of capital overhauls performed on the equipment classes they use to assure the assets remain FRA compliant and in a state of good repair
    - For rolling stock procured in the future by Amtrak, states will be charged a pro rata share of the purchase price, financing cost, and capital overhauls reflecting costs paid by Amtrak
    - Capital equipment charges will vary from year to year based on the life cycle maintenance plan associated with the equipment type.
- Other Amtrak fixed assets, including joint stations and Amtrak-owned rights of way;
    - This policy contains no formula-based fixed asset capital charge for Amtrak's other fixed assets such as stations and other facilities. Because of the unique nature of the fixed assets on each route, Amtrak and the states will develop an investment plan to maintain fixed assets in a state of good repair on a case-by-case basis during contract negotiation. States and Amtrak, as necessary, will be responsible for their pro rata share of any capital investments required on these Amtrak owned assets based on usage of these assets by state-supported and other users such as Amtrak long distance and/or commuter.
    - Amtrak will work with states to jointly identify and prioritize route-specific capital projects
- Other investments in assets not owned by Amtrak but required to maintain or enhance service.
    - Some routes make use of assets owned by third parties such as host railroads or state and [illegible] governments. States and Amtrak, as necessary, will be responsible for their pro rata share of any capital investments required on these non-Amtrak owned assets based on usage of these assets by state-supported and other users such as Amtrak long distance and/or commuter.

[2] Depending on specific state needs, the charge for capital investment on a state corridor can be characterized as a capital charge, or a capital use charge. For purposes of this document, the term "capital charge" encompasses both characterizations.

A complete description of capital cost categories is included in ***Appendix E.***

Amtrak will develop a defined five-year investment program in cooperation with each state that describes the capital investments to be made over the period and the payments expected from the states throughout the period to support the five-year capital program. The program will be adjusted as needed in each annual contract update.

The five-year program would include detailed, verifiable program work elements to be accomplished by Amtrak in support of state services annually. In the case of investments/overhauls for equipment used in multiple routes, a sharing relationship will be negotiated at the beginning of each fiscal year based on the route's actual use of equipment as recorded by the APT system and adjusted for any changes in service expected in the upcoming year.

Amtrak will use the best available data to provide the state with an estimate for its capital charge prior to signing an agreement for state supported service. At the end of the contract period, Amtrak will reconcile that estimate to the actual capital investment by that equipment type and a state's use of equipment, as previously determined in each state's annual contract.

In cases where Amtrak spent less on capital programs than planned, Amtrak will apply a credit balance to future years' capital charges. In cases where Amtrak spent more on capital programs than planned, there will be no adjustment to the current year's charge but an adjustment will be made on the subsequent year's charge based on look forward investment strategies.

Amtrak will include the capital charge as a component of each state's Annual Operating Support Agreement. This capital charge will equal each state's pro rata share of the overhaul work described above. States may pay this amount from operating or capital funds, depending on a state's individual financial policies and/or grant sources.

The timing of the billing for capital charges will depend on the timing of the planned capital expenditures. The monthly cash flow for the equipment charge would be determined as part of the development of the Annual Operating Support Agreement.

Attribution of Previous State Capital Investments on the Amtrak Network

Some states have made capital contributions to Amtrak assets in association with their services. For Amtrak-owned equipment, states will be credited for the net present value of past capital investments in Amtrak equipment at the time of Section 209 implementation. This will compensate States for investments they have made in pooled assets used by multiple routes. These past equipment investments by States will allow all routes using that equipment type to schedule future capital replacements at a later date than would have been the case without the prior state investment. Amtrak will work with states to calculate the value of past capital investments in a mutually agreeable way.

For fixed assets, whether owned by Amtrak or other third parties, the capital charge is based on planned investments, not past depreciation, and represents the funding needed to make the agreed-upon investments to sustain existing service levels. As a result, any credit that reduces the capital charge would reduce the funds available for investment, create a funding gap, and prevent the needed investment. Therefore, credit towards future fixed asset capital charges cannot be given within the framework of the Section 209 policy for prior investments made by a state in Amtrak or third party assets. Notwithstanding the inability to fund a fixed asset credit, past State investments in Amtrak or other fixed assets should result in a longer service life for the asset,

and a resulting reduction and/or deferral in the amount of future capital investments, as well as maintaining and/or improving a route's operating performance.

Forecasts of Funding Requirements for State Supported Contracts

Amtrak develops five-year revenue and cost forecasts as part of its annual business planning process. For each state-supported route, Amtrak will estimate projected costs for the contract period and share them with states. For existing services that are not changing in the forecast period, Amtrak will rely on historical APT data together with out-year cost forecasts provided by Amtrak to predict the results. In cases where service levels (frequencies, schedule changes, etc.) are changing, Amtrak will forecast revenue and expense changes using ridership, revenue, and cost estimation models which are directly related to the expected changes in service levels.

State Corridor-Amtrak Contract Template

Amtrak and the SWG developed a contract template for states and Amtrak to use as they work together to develop their contract for services. The contract template addresses the key issues that states and Amtrak must discuss and address in some fashion to develop their agreements for the contract period. The contract template can be customized to reflect state differences. ***Appendix F*** outlines the proposed contract template

Transition from Prior Costing Methodologies

Section 209 of PRIIA requires that the new methodology be fully implemented by October 16, 2013 – that date closely aligns with the beginning of Federal Fiscal Year (FFY) 2014 on October 1, 2013. States may transition to the Section 209 methodology at a mutually agreed upon time prior to October 1, 2013 provided this transition does not result in a reduction in net forecasted state payments to Amtrak compared to that State's prior methodology. Otherwise, all states will transition to the Section 209 methodology effective October 1, 2013.

FRA staff met with the Amtrak and the SWG several times during the course of Section 209 methodology development. The FRA recognizes that the implementation of the new methodology will require increased financial support from states. FRA staff have committed to continuing their work with Amtrak and the states to develop a possible transition assistance plan to ease the impact of Section 209 on the affected states. The states, Amtrak and FRA recognize that any transition plan will need to ultimately be addressed by Congress.

Appendix A: Routes Affected by PRIIA Section 209

	Route Miles[3]	State-Supported FY10[4]	System Trains	State Supported per PRIIA Sec 209
Single-State[5]				
Empire Service	401		Yes	Yes
Lincoln Service (Chi-St. Louis)	284	Yes	Partial	Yes
Illini/Saluki	310	Yes		Yes
Illinois Zephyr/Carl Sandburg	256	Yes		Yes
Pacific Surfliner	350	Yes	Partial	Yes
Capitols	168	Yes		Yes
San Joaquins	315	Yes		Yes
Hiawatha	85	Yes		Yes
Wolverines	304		Yes	Yes
Heartland Flyer	206	Yes		Yes
Cascades	467	Yes	Partial	Yes
Adirondack	381	Yes		Yes
Blue Water	319	Yes		Yes
Hoosier State	156		Yes	Yes
Pere Marquette	178	Yes		Yes
NEC Base-Increment (Single and Multi-State)[6]				
Vermonter	611	Yes		Yes
New Haven – Springfield	63		Yes	Yes
Keystone Service	195	Yes	Partial	Yes
Regional/New Haven Lynchburg	173	Yes		Yes
Washington-Richmond	187	Yes	Partial	Yes
Pennsylvanians	353		Yes	Yes
Carolinians	479	Yes		Yes

[3] For routes with multiple frequencies having different origins and destinations, represents the longest rail trip possible on multiple trains.
[4] FY10 State support does not include capital payment, or in some cases, all trains on a route.
[5] Routes with 95% or more route miles in one state are considered single state.
[6] Excludes route miles on NEC.

Appendix B: Relevant Legislation

SEC. 209. STATE-SUPPORTED ROUTES.

(a) IN GENERAL.—Within 2 years after the date of enactment of this Act, the Amtrak Board of Directors, in consultation with the Secretary, the governors of each relevant State, and the Mayor of the District of Columbia, or entities representing those officials, shall develop and implement a single, nationwide standardized methodology for establishing and allocating the operating and capital costs among the States and Amtrak associated with trains operated on each of the routes described in section 24102(5)(B) and (D) and section 24702 that—

(1) ensures, within 5 years after the date of enactment of this Act, equal treatment in the provision of like services of all States and groups of States (including the District of Columbia); and

(2) allocates to each route the costs incurred only for the benefit of that route and a proportionate share, based upon factors that reasonably reflect relative use, of costs incurred for the common benefit of more than 1 route.

(b) REVISIONS.—The Amtrak Board of Directors, in consultation with the Secretary, the governors of each relevant State, and the Mayor of the District of Columbia, or entities representing those officials, may revise or amend the methodology established under subsection (a) as necessary, consistent with the intent of this section, including revisions or modifications b[illegible] on Amtrak's financial accounting system developed pursuant to section 203 of this division.

(c) REVIEW.—If Amtrak and the States (including the District of Columbia) in which Amtrak operates such routes do not voluntarily adopt and implement the methodology developed under subsection (a) in allocating costs and determining compensation for the provision of service in accordance with the date established therein, the Surface Transportation Board shall determine the appropriate methodology required under subsection (a) for such services in accordance with the procedures and procedural schedule applicable to a proceeding under section 24904(c) of title 49, United States Code, and require the full implementation of this methodology with regards to the provision of such service within 1 year after the Board's determination of the appropriate methodology.

(d) USE OF CHAPTER 244 FUNDS.—Funds provided to a State under chapter 244 of title 49, United States Code, may be used, as provided in that chapter, to pay capital costs determined in accordance with this section.

49 USC § 24102. Definitions

(5) "national rail passenger transportation system" means

(A) the segment of the continuous Northeast Corridor railroad line between Boston, Massachusetts, and Washington, District of Columbia;

(B) rail corridors that have been designated by the Secretary of Transportation as high-speed rail corridors (other than corridors described in subparagraph (A)), but only after regularly scheduled intercity service over a corridor has been established;

(C) long-distance routes of more than 750 miles between endpoints operated by Amtrak as of the date of enactment of the PRIIA [October 16, 2008]; and

(D) short-distance corridors, or routes of not more than 750 miles between endpoints, operated by--(i) Am[illegible] or (ii) another rail carrier that receives funds under chapter 244.

49 USC §24702. Transportation requested by States, authorities, and other persons provides:

(a) CONTRACTS FOR TRANSPORTATION. Amtrak may enter into a contract with a State, a regional or local authority, or another person for Amtrak to operate an intercity rail service or route not included in the national rail passenger transportation system upon such terms as the parties thereto may agree.

49 USC § 24904. General authority

(c) Compensation for Transportation Over Certain Rights of Way and Facilities. – (1) An agreement under subsection (a)(6) of this section shall provide for reasonable reimbursement of costs but may not cross-subsidize intercity rail passenger, commuter rail passenger, and rail freight transportation.

(2) If the parties do not agree, the Interstate Commerce Commission shall order that the transportation continue over facilities acquired under the Regional Rail Reorganization Act of
1973 (45 U.S.C. 701 et seq.) and the Railroad Revitalization and Regulatory Reform Act of 1976 (45 U.S.C. 801 et seq.) and shall determine compensation (without allowing cross-subsidization between commuter rail passenger and intercity rail passenger and rail freight transportation) for the transportation not later than 120 days after the dispute is submitted. The Commission shall assign to a rail carrier obtaining transportation under this subsection the costs Amtrak incurs only for the benefit of the carrier, plus a proportionate share of all other costs of providing transportation under this paragraph incurred for the common benefit of Amtrak and the carrier. The proportionate share shall be based on relative measures of volume of car operations, tonnage, or other factors that reasonably reflect the relative use of rail property covered by this subsection.

Appendix C: Definition of NEC Capital Charges, Where Applicable

Normalized Replacement Capital Charge– Replacement of assets on a regular schedule designed to mitigate cyclical imbalances in renewal needs. Normalized replacement is the estimated annual capital investment requirements to maintain infrastructure in a state of good repair once it is in that condition.

State of Good Repair (SOGR) Backlog Capital Charge—An asset or group of assets that have received inadequate maintenance over a long period of time, or have not been replaced within standard life cycle. It may still be functioning as designed but face imminent heavy repair or replacement to overcome a "backlog" of regular maintenance which was not performed on schedule. For the Section 209 policy, SOGR Capital Charge will be calculated as incremental to the Normalized Replacement Capital Charge.

Appendix D: Amtrak-Owned Right of Way Eligible for Synthetic Host Railroad Charge

Amtrak-Owned Track Segment	Miles (Centerline)	Routes Affected
New Haven, CT–Springfield, MA	52	Springfield Shuttle
Philadelphia, PA–Harrisburg, PA	104	Keystones, Pennsylvanian
Porter, IN–Kalamazoo, MI	130	Blue Water, Wolverine
New Rochelle Station–Poughkeepsie, NY	103	Empire Service

Appendix E: Definition of Cost Categories Used in State-Supported Service

Major Cost Category	Cost Category	Definition	Formula
Third Party Costs	Host Railroad Maintenance of Way	Payments to host railroads for incremental costs, primarily maintenance of way associated with passenger operations	FM_302(Host RR) less (e.g. minus, less) the Host RR MoE
	Host Railroad Performance Incentives	Incentive payments to host railroads for meeting on time and other performance targets	FM_302(Host RR) Schedule Adherence account
	Fuel and Power	Diesel fuel and electric power used in train operations	FM_334(Fuel) + FM_307(Host RR) Fuel account +
Route Costs	Train & Engine (T&E) Crew Labor	Salaries, wages, benefits and FICA for employees providing services for train operations. Includes engineers, conductors, assistant conductors, and related extra boards	FM_302_1(T&E Crew)
	Car & Equipment Maintenance and Materials	Direct labor, parts, and materials for cleaning, inspection, and minor repairs before or after revenue service. Also includes scheduled running maintenance and fuel order repairs. Excludes capital rehabilitation and overhaul	FM_30?(MoE "Compound) + FM_302(MoE Loco Maint) + FM_203(MoE Car Maint) + FM_22?(MoE Mileage, direct fuel cars only) _ FM_307(Host RR MoE account only)
	OBS Crew & Provisions	Salaries, wages, and benefits for employees providing On Board Services to Café, Lounge, and Dining Cars, including related extra boards. Also includes supplies loaded on trains for sale	FM_301_1(OBS Crew) + FM_30?_2(OBS Support)
	Route Scheduling	Trains & personnel planning in support of a specific route, assigned and executed separate from other trains & individually identified	Specific cost centers in FM_402(Marketing)
	Sales Commission	Sales and distribution commissions, including development of new ticketing and merchant systems	FM_401(Sales and Distribution) less Commission accounts
	Reservations & Call Centers	Reservation sales call centers for general public and travel agencies, and supporting distribution systems	FM_402(Information & Reservations)
	Stations - Direct	Stations serving a single route. Depending on location, may include ticketing, baggage and express, maintenance and utilities, station cleaning and maintenance, training and supervision	FM_501(Stations - Route)
	Stations - Shared	Stations serving multiple routes. In addition to route station services, shared stations may include Rail Car and porter services	FM_502(Stations - Shared)
	Commissions	Commission expenses from credit cards, travel agencies, online systems, express fees, and sales by other carriers as applicable	Commission accounts for multiple families for credit card sales, travel agents, and interline commission expense
	Customer Concession (Page pension)	Payments to passengers for lost & lodging as a result of delays. Generally includes warehousing, emergency motor vouchers	Passenger Transportation Services in FM_?? A (Transport & Administration)
	Connecting Motor Coach	Scheduled connecting motor coach services	FM_30?(Train Movement) Connecting Motor Coach account
	Regional Rail Lines	Local and regional police operations duties in support of Amtrak trains, facilities, and rights of way	FM_30?_3(Police - Regional) cost
	Track & Tower Operations	Crews who operate station towers along Amtrak rights of way	Specific cost centers in FM_30?(Train Movement)
	Terminal Yard Operations	Crews who move trains to/from/within all Amtrak terminals before and after revenue service	FM_302_2(Yard - Train & Equipment Mvmt.) + FM_302_4(Yard - Terminal Yard Services)
	Terminal Mow Insurance	Mow vehicles at large Amtrak terminals, as applicable	Specific cost centers in FM_30?(Maintenance of Way)
	Rail and purchased insurance for passenger train operations		Allocated liability expenses in FM_?? A(Insurance & Administration)
Overhead	T&E	Division specific and system overhead rates for T&E supervision and management. Includes road foremen, superintendents, crew bases, crew agents (yard, local and national), recruiting, training, and other support. Includes overhead allocations	Division: Crew Base: System Base: Total Central 17.5% 12.50% 30.00% 30.4% Mid Atlantic 18.40% 12.00% 31.30% Mid Atlantic/Northeast 20.20% 12.90% 33.10% New England 16.60% 12.80% 29.40% New York 24.30% 13.00% 37.20% Pacific 19.50% 12.90% 32.40% Southern 21.80% 12.80% 34.50% Southwest 16.30% 12.80% 29.20% Total rate to be applied to T&E Crew Labor
	Mail	Maintenance of shops and equipment to support mixed Mail and Express facilities. Includes vehicles and fleet engineering	37.15% of Route Cost for & Locomotive Maintenance and Equipment
	OBS and Commissary Management and Supervision	National yard operations and support	10.00% of OBS Crew & Provisions
	Police		$0.0000 per passenger mile
	Marketing	National marketing programs, including national advertising, loyalty marketing, initiatives, personnel in support of Amtrak Advertising, sales, services & special events, and other	Region / Rate Direct Investment outlays on NEC / 3.80% Direct with investment by Others / 3.80% All other routes / 1.80% Rate to be applied to Total Revenue
	General & Administrative	Charges for General & Administrative support including Computer Systems, Finance, Legal, and other	9.00% of Route Costs
Revenue Credit	Ticket revenue net	Ticket revenue less participants. Where applicable, includes through revenue adjustments described elsewhere in policy	As reported by ATK, with adjustments for through revenue minimum allowances in policy
	Food & Beverage Revenue	On board food & beverage sales. Where applicable, pro rated with supply expense across multiple legs	As reported by ATK, pro rated with supply expense across multiple legs
	Other Revenue	Miscellaneous revenue as allocated by ATK	As reported by ATK

Appendix E: Definition of Cost Categories Used in State-Supported Service - Capital

version 2011-06-21

Major Cost Category	Cost Category	Definition	Formula
Equipment	Passenger service equipment	Capital overhauls for Amtrak-owned equipment in service on state-supported routes, including locomotives, cab cars, coaches, and food service cars. States will be charged for the periodic capital overhauls of equipment in a period based on their proportionate use of that equipment in that period	Capital overhaul expenses by equipment type, from Amtrak's capital accounting systems. Equipment usage statistics from the Amtrak Performance Tracking System. Amtrak will provide States with an estimate of planned overhaul work at the beginning of a contract period and will reconcile the planned usage to actual work performed and actual equipment used in a State's service
	Other mechanical expense	Vehicle repair, facility improvements, equipment engineering and design, general safety & reliability, mechanical IT projects	Not charged to States
Other Amtrak Fixed Assets	Amtrak-owned Fixed Assets used in State Services	Includes assets such as Amtrak-owned rights-of-way, large terminals, stations, and other	To be handled on a case-by-case basis between Amtrak and State partners
Other non-Amtrak Fixed Assets	Non-Amtrak-owned Fixed assets used in State services	Includes assets used in State services owned by third parties such as freight railroads or state and local governments, such as rights of way, stations, and other	To be handled on a case-by-case basis between Amtrak and State partners

Appendix F: State-Amtrak Contract Template

Contract Outline

Effective Date: Contracts aligned to match each Agency's fiscal year

Parties: State Intercity Passenger Rail (IPR) Agency and Amtrak

Recitals/Boilerplate:

Section 1: Services to be Provided (multiple state funded services can be co-mingled under one agreement):

- Description of Amtrak Services and Service Standards {unique to each State}
- Train Schedule and Route Description {Train Service Schedules (including Connecting Bus Service, if applicable) detailed in appendix}
- Service Standards (see appendices) [Optional and specific to each State IPR Agency]
- Monitor the fiscal performance of the service/quarterly meetings (budget vs. actual)

Section 2: Decisions Affecting Service:

- Include Agency in discussions with railroads or appropriate regional rail authorities regarding schedule changes which impact service.
- Apprise Agency of any bargaining provisions that may impact service

Section 3: Amount of Reimbursement by the State IPR Agency:

- Agency's total financial obligation to Amtrak for the stated contract term shall be defined in terms of the following elements as part of the Section 209 Policy:
  - Service Fee—including Route Costs and Additives (including General & Administrative costs)
  - Third Party Costs—including fuel, host railroad access fees and incentive performance payments.
  - Other Special Cost Items as agreed upon between Amtrak and the Agency
  - Passenger Related Revenue—including ticket revenues, food and beverage revenues and other allocated revenues. These revenues are offsets from the above cost categories
  - Agency payment is the sum of the Service Fee, Third Party Costs, Other Special Costs Items with a credit for Passenger Related Revenue
- Forecasting financial elements always entails some risk as costs and/or revenues may vary from the forecasts. Amtrak and the Agency will determine the procedure for handling variances from forecasts during contract negotiations and, in particular, which party takes the risk for variances for each cost category. Options for managing and assigning variance risk are noted below:
  - Service Fee. Amtrak will make forecasts for the Service Fee. The assignment of variance risk will be subject to negotiation among the parties.
  - Third Party Costs. By definition, these costs are passed through Amtrak directly to the Agency. While Amtrak will make forecasts for these costs, the Agency will reimburse Amtrak for the actual amount of these costs whether they are lower than or higher than the Amtrak estimates

- Other Special Cost Items. These cost items will be negotiated between Amtrak and the Agency with the management of the variance between forecast and actual expenses governed in accordance with the particular arrangement between the parties
- Passenger Related Revenue. Amtrak will make forecasts for these items and the assignment of variance risk will be subject to negotiation among the parties.

Section 4: Manner of Reimbursement:

- Agency will pay Amtrak in accordance with the monthly payment schedule provided service operates at a deficit (see appendices)
- Invoices shall be rendered not less than forty-five (45) days prior to the due date.
- Force majeure
- Monthly Reconciliation Statements to State IPR Agency
- Remedies in the event that Amtrak fails to perform the services as required by this Agreement or Amtrak fails to provide revenue credits or carryover excess contract revenues
- Remedies in the event the State IPR fails to provide payment to Amtrak

Section 5: Defense of Claims {may vary due to scope of work}

Section 6: Inspection and Audit:

- Agency has the right to inspect the rail passenger and bus feeder services, facilities and equipment provided for service subject to adequate notice
- Amtrak shall provide the number of passengers carried and passenger miles operated for each train as well as other service-related reports as agreed-to by Amtrak and the Agency. Such data shall be computed and furnished on a monthly basis as described in the appendices (varies by State).

Section 7: Dispute Resolution {May vary}

Section 8: Force Majeure

- The obligations of Amtrak hereunder shall be subject to force majeure.

Section 9: Termination

Section 10: Notices

Section 11: Agreement Content

Section 12: Construction {May vary by State}

Section 13: Severability

Section 14: Compliance with Collective Bargaining Agreements

- The State acknowledges the existence of collective bargaining agreements between Amtrak and certain labor organizations representing certain of Amtrak's employees, and agrees that Amtrak will provide the

Service in a manner consistent with its obligations and rights under such agreements, as they may exist from time to time.

Section 15: State-Required Provisions (unique to each State):

- Appropriation of Funds
- Non-Discrimination
- Fair Employment Practices
- Contractor Integrity

Signature Blocks

Appendices: (contents and number of appendices will vary by State):

- National Section 209 Policy
- Train Service Schedules (and Connecting Bus Service, if applicable)
- Budget
- Payment Schedule
- Examples of Services and Performance Standards {OPTIONAL}
  - Provision of Equipment—Availability and Condition
  - Equipment Maintenance Standards
  - Reliability of Service—On Time Performance
  - Maintenance of Stations
  - Crew Performance, Supervision and Standards
  - Food Service
  - Reservations/Call Center
  - Marketing Support
  - Other Services

APPENDIX VII

NATIONAL RAILROAD PASSENGER CORPORATION

and

STATE OF CALIFORNIA

AGREEMENT DATED 1 APRIL 2015
FOR THE PROVISION OF
RAIL PASSENGER SERVICE

FISCAL YEAR 2015
April 1, 2015 – September 30, 2015
(Effective April 1, 2015)

Train Rolling Stock Availability and Serviceability Standards

A. Equipment to be furnished by Amtrak

Consistent with the train timetables in force as of the effective date of this Agreement, Amtrak will supply to the STATE a minimum of eight (8) equipment sets of serviceable rolling stock each day for train operations consistent with an agreed upon deployment plan (Appendix C). Each equipment set will generally include one (1) locomotive, one (1) café car (equipped with an operational GPS PIDS transponder), one (1) cab car and two (2) to three (3) trailer cars. The consist plan will identify each equipment set, its daily use for specific train numbers, and the equipment required.

B. Serviceability

All equipment provided by Amtrak for train operations shall be serviceable. All FRA requirements applying to serviceability of locomotives and cars shall be met. Locomotives shall be properly fueled with prime mover, HEP and control systems operating as intended. All cab cars and café cars shall be clean with all equipment working as intended. Trash receptacles (including designated recycling receptacles) shall be empty. All heating, ventilation and air-conditioning systems shall be operating properly. All car doors and interior lights shall be in working order and all public address systems shall work properly. All automated exterior and interior train identification and destination signs shall be utilized. All bathrooms shall be serviced and operable, and all lavatory supplies provided. All café cars will be adequately stocked with food, beverages and other items identified in the menu and as such the assigned pars will be re-stocked at the first available opportunity. The equipment shall contain no broken windows or other appurtenances when dispatched from Oakland. No train shall be dispatched with observable safety hazards.

[redacted]

C. [redacted]

[redacted]

APPENDIX VIII

NATIONAL RAILROAD PASSENGER CORPORATION

and

THE STATE OF CALIFORNIA

AGREEMENT DATED 1 APRIL 2015
FOR THE PROVISION OF
RAIL PASSENGER SERVICE

FISCAL YEAR 2015
April 1, 2015 – September 30, 2015

* * * * *

AMTRAK FOOD AND BEVERAGE OPERATIONS

Pursuant to Section I, Item B, Amtrak shall provide food and beverage service for the Service with the express goal of maximizing positive passenger experiences and profit. The operations and delivery of the Food and Beverage program is included as a Route Cost itemized in Appendix III.

APPENDIX IX

NATIONAL RAILROAD PASSENGER CORPORATION

and

THE STATE OF CALIFORNIA

AGREEMENT DATED 1 APRIL 2015
FOR THE PROVISION OF
RAIL PASSENGER SERVICE

FISCAL YEAR 2015
April 1, 2015 – September 30, 2015

* * * * *

Below are the [illegible] trains operated by the state-supported Amtrak-[illegible] Corridor and the [illegible] that the [illegible] trains will be operated in each.

Train Number	Train Number	Train Name	Passenger Train Service Begins	Passenger Train Service Ends	Days of Service	Days Each Week
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

APPENDIX X

NATIONAL RAILROAD PASSENGER CORPORATION

and

STATE OF CALIFORNIA

AGREEMENT DATED 1 APRIL 2015 FOR THE PROVISION OF RAIL PASSENGER SERVICE

FISCAL YEAR 2015
April 1, 2015 – September 30, 2015
(Effective April 1, 2015)

Required Reports

A. Annually
   1. By December 15, a final financial reconciliation of the previous fiscal year.
   2. By March 31, an estimate of the annual budget for the coming fiscal year that identifies train and bus operating expenses, train and bus revenues, minor capital project expenses, equipment insurance expenses, operating loss, funding requirements for the State and Amtrak, and other expenses, passengers and passenger miles.
   3. Station maintenance report detailing all projects completed with State funds for the fiscal year, station location, and dollar amount.

B. Monthly (within 20 days of the end of the month)
   1. Ridership and transportation revenue report for trains and buses.
   2. On-time performance.
   3. Food and beverage revenue and expense report

C. Daily (by 9:00 a.m. next day)
   1. Report on previous day's operations, including: on-time performance, cause of delays, slow orders, unusual incidents, and other service delays available via Arrow or through the morning report automatically generated and distributed via the Arrow printer.

D. Immediately (as soon as possible)
   1. Any incident that will result in a delay of 15 minutes or more.
   2. Any police actions brought to the attention of Amtrak along the corridor that will result in a delay of 15 minutes or more.
   3. Any FRA reportable injuries to passengers, employees or members of the public.
   4. Serious delays affecting service regardless of cause.
   5. Serious mechanical problems which affect service.

Contract No. 75A0421

HVAC UNITS REPAIR AND UPGRADE

Table of Contents

HVAC UNITS REPAIR AND UPGRADE

1 Overview

The purpose of this document Is to provide the additional description of the scope of work referenced in Section 1 (v) HVAC Rebuild Program proposed by Vapor Stone Rail Systems (VSRS) to convert HVAC R22 units to R410A refrigerant on Caltrans multi- level cars.

2 HVAC Technical Description

2.1 HVAC units overview.

Procure 6 (six) new spares to increase the current pool of 2 (two). Rebuild and overhaul of up to 134 HVAC units on 66 California Cars, including two spare HVAC units (each car has two units) in conformance with the budget and scope of work as negotiated between Amtrak and Wabtec/Stone Vapor.

2.2 HVAC Controls.

Each car is equipped with dedicated HVAC controller installed in the car electrical locker. The controller provides reliable temperature controls functionality and Caltrans prefer to keep it in future. Therefore All HVAC units that shall be repaired, will have to work with the existing temperature controller.

3 HVAC Technical Proposal

3.1 Engineering scope of work.

In order to ensure successful units repairs and modifications, VSRS proposes the following engineering scope of work:

1) Analysis of the existing HVAC units damages

2) Modify HVAC refrigeration circuit to improve cooling reliability and ensure proper capacity rating in different operation modes.

3) Develop conversion kit to convert HVAC unit from R-22 refrigerant to new R-41OA refrigerant.

4) Modify electrical circuit to make new units compatible with the existing HVAC temperature controller. The second scroll compressor will be controlled by the MPS presently used to control modulation valve.

5) Design more reliable condenser I evaporator coils that will solve leaking problem due to piping thermal expansion. Evaporator coil distributor and circuits will be improved. Condenser coil will be redesigned to match the capacity requirements and eliminate leaking possibility.

6) Unit mechanical and electrical interfaces will be kept unchanged.

7) Replace condenser fan blade with a 28.5" diameter with 41.5deg pitch angle, to improved airflow rate to approximately 10 000 CFM, yielding a 20% increase from Original OEM Design.

8) Replace the modulation pressure switch with an adjustable pressure switch Johnson control P70CA-400.The new settings are: Opens on rise at 620PSI, Closes at 530PSI.

3.2 Scope of supply.

VSRS will provide the following scope of supply as a part of this technical proposal. Each HVAC unit will be repaired and modified as follow:

1. HVAC units will be inspected for damages and damages will be repaired.

2. Damaged paint will be repainted (touch-up paint).

3. New scroll compressors will be Installed using adapter plate and resilient mounts.

4. New condenser coil with newly developed refrigeration circuits will be installed.

5. New evaporator coil with newly developed refrigeration circuits will be installed.

6. Condenser motor will be replaced with new one.

7. Evaporator motor will be replaced with new one, assembled and balanced as per OEM specification.

8. Contactor panel will be replaced with new one to incorporate new contactors and overloads required to work with tandem scroll compressors (instead of one reciprocating)

9. New thermal insulation will be installed

10. Units will be subject to VSRS Internal qualification tests to ensure proper cooling capacity rating

11. Units will be fully functionally tested prior shipping

3.3 Refrigerant conversion.

The existing HVAC unit was originally designed to use R-22 refrigerant. Due to R-22 refrigerant phasing out process, VSRS proposes to upgrade the existing unit to R-41OA refrigerant. During this process, VSRS will select and replace reciprocating compressor by the tandem scroll compressors, will replace TxV valves, pressure switches and all other components of the refrigeration circuits (except piping). Both evaporator and condenser coil will be properly selected and will take into consideration the actual coil leaking problem.

As a result of this conversion the repaired/upgraded unit will increase the reliability and the cooling efficiency.

R-41OA refrigerant is more preferable choice than R-407C In the case when the space envelope and design conditions allow the usage of this type of refrigerant. VSRS did calculate technical requirements and did analyze the space envelope and confirms the usage R-41OA refrigerant to convert the HVAC unit to the new refrigerant.

5.4 Testing

The repaired HVAC units will be fully tested using VSRS OEM standard procedure which are to FAI conducted by Caltrans and Amtrak. Both AC cooling and heating operations as well as safety circuits will be tested prior shipping units back to the customer.

Project Schedule and Costs

Phase I: producing 6 (six) spare HVAC units necessary to exchange the current pool from two to eight. This procurement will improve the cycle time of the conversion of the 136 HVAC units (68 vehicles) from their current R22 configuration to R410A. Lead time is approximately 12 months from receipt of order to product. This includes Amtrak Engineering support for FAI and factory inspection. Cost of the 6 (six) spares is $[illegible] per unit for a total of $[illegible].

Phase II: Production is expected to last twenty-two months. During Phase II Amtrak Engineering will perform a site inspection at the Vapor Stone production facility in Milpitas, CA prior to start up, attend FAI in Milpitas, CA, and if desired by Caltrans assemble an instrumented prototype car in Oakland, which could then be tested en route. Cost including Amtrak Engineering $[illegible] or $[illegible] per unit.

APPENDIX XII

NATIONAL RAILROAD PASSENGER CORPORATION

and

THE STATE OF CALIFORNIA

AGREEMENT DATED 1 APRIL 2015
FOR THE PROVISION OF
RAIL PASSENGER SERVICE

FISCAL YEAR 2015
April 1, 2015 – September 30, 2015

* * * * *

Wi-Fi Agreement between Caltrans, CCJPA and Amtrak, dated November 28, 2011

Contract No. 75A0421
APPENDIX XII

Agreement

Among

the California Department of Transportation,
the Capitol Corridor Joint Powers Authority
and
National Railroad Passenger Corporation
for the Implementation of Wi-Fi
on the Pacific Surfliner, San Joaquin and Capitol Corridor

THIS AGREEMENT ("Agreement") is made as of the 28th day of November, 2011, by and among the State of California, acting by and through its Department of Transportation ("Caltrans"), the Capitol Corridor Joint Powers Authority, a joint powers authority established under the laws of the State of California ("CCJPA"), and the National Railroad Passenger Corporation, a corporation organized under the Rail Passenger Service Act (recodified at 49 U.S.C. § 24101 et seq.) and the laws of the District of Columbia and having its principal office and place of business in Washington, DC, ("Amtrak"), (collectively, the "Parties").

WHEREAS, Amtrak has awarded a contract to install an onboard communications platform to provide wireless broadband access on all cars and in all trains designated by Amtrak, across the Amtrak fleet, "Supplies/Services Contract" Number B 046 15596, effective September 29, 2010; and

WHEREAS, the platform ("Wi-Fi Network") provides two primary services: 1) Wi-Fi for passengers and 2) secure Wi-Fi channels for Amtrak's business use; and

WHEREAS, through task orders issued pursuant to said contract, Amtrak shall have Wi-Fi networks installed on equipment owned by Caltrans and selected Amtrak equipment as required to support the services; and

WHEREAS, both Caltrans and CCJPA contract annually with Amtrak for the operation of intercity passenger rail service in California; Caltrans' contract is for the operation of service on the San Joaquin and the Pacific Surfliner Corridors and CCJPA's contract is for the operation

of service on the Capitol Corridor. Both Amtrak-owned and Caltrans-owned equipment operate in all three corridors; and

WHEREAS, Caltrans has, pursuant to Section 1(o)(i) of the Caltrans-Amtrak FY 2011 Operating Agreement, provided for the procurement and installation of Wi-Fi network equipment on all Caltrans-owned cars, Amtrak-owned Pacific Surfliner cars and select Amtrak-owned Superliner, Amfleet and Horizon cars; and

WHEREAS, CCJPA has, pursuant to an agreement with Amtrak for Acquisition and Installation of Wi-Fi on all Capitol Corridor Trains, dated May 27, 2011, provided for the procurement and installation of Wi-Fi on the Caltrans owned equipment and select Amtrak-owned cars used on the Capitol Corridor (which includes equipment which is used interchangeably on the San Joaquin Corridor); and

WHEREAS, the Parties hereto wish to define the working relationship and responsibilities between and among themselves relative to the acquisition, installation, maintenance, management and potential modification of Wi-Fi service and/or equipment on all state-owned and Amtrak-owned cars that are in service in California, as contemplated by the task orders; and

WHEREAS, the Parties intend that the documentation and payment of costs for Amtrak's various services related to the Wi-Fi program in California shall be handled through appropriate modifications of other existing agreements between Amtrak and Caltrans and between Amtrak and CCJPA, as determined by mutual agreement of the affected Parties.

WHEREAS, as Wi-Fi service is nationally deployed, the parties may wish to create a forum wherein various state entities and Amtrak may consider issues of national reach, the parties may elect to participate in any national committee or group created to address said issues. A provisional plan for such a committee is attached hereto as Exhibit A.

NOW, THEREFORE, in consideration of the covenants contained herein, the Parties agree as follows:

1. Amtrak Services Provided

Amtrak shall be responsible for providing project management and program support resources consistent with the terms of the task orders to ensure successful installation and operation of the Wi-Fi facilities on the California-owned passenger rail fleet (Amtrak "Services").

Amtrak shall provide support to Caltrans and CCJPA for the Wi-Fi network, including, but not limited to:

1. Pre-launch Task Order and Installation Management
2. Post-launch Ongoing Wireless Network System Administration
3. Post-launch Support for System Upgrades and Modifications

1.1. Pre-Launch Task Order Management and Installation

Amtrak shall oversee the design, testing, installation, and implementation of the wireless network. During the Pre-launch phase of the project, Amtrak shall perform the following tasks.

These responsibilities shall be completed upon public launch of the wireless network. Upon completion of the public launch, Amtrak will begin providing ongoing support and maintenance for the system as herein defined.

1.1.1. Amtrak Organizational Structure

Amtrak shall provide to both Caltrans and CCJPA an organizational chart which includes contact information and job descriptions of the personnel involved in managing the respective task orders. This document will define lines of communication to establish a clear control and management structure. The document shall be updated when personnel changes occur. This organizational chart shall identify the personnel who are authorized to initiate and approve future upgrades, modifications, and application development for the network. Position descriptions of the persons who will provide support for the Wi-Fi program are attached hereto as Exhibit B.

1.1.2. Budget and Invoice Management

Amtrak shall provide a capital budget and spending plan to both Caltrans and CCJPA for the wireless network design, testing, installation, and implementation related to their respective fleets consistent with their respective contracts. Amtrak shall report all expenditures for which it claims reimbursement under the operating agreements. The budget breakdown shall be established according to mutually agreed upon expense categories. Pre-launch expenses will be allocated on a proportionate basis as defined in Section 1.2.1. This allocation will continue until or unless modified by the Parties. Amtrak shall provide to both Caltrans and CCJPA all invoice documentation for all expenses claimed.

1.1.3. Periodic Project Status Meetings

Amtrak shall develop a schedule and structure for status meetings and reporting with Caltrans and CCJPA and shall communicate progress, issues, upcoming milestones and risks related to the wireless network design, testing, installation, and implementation at least bi-weekly. Urgent issues shall be communicated to Caltrans and CCJPA as they arise.

1.1.4. Air Card Ordering

Amtrak shall facilitate the ordering and receipt of all cellular communication accounts utilized in the wireless network system. A database and accounting system shall be established for the management of billing, activation, and usage records of the accounts. A summary of billing for these accounts shall be included in the budget and invoice management process. This database/accounting system shall be used in ongoing Amtrak administration of the wireless network. The accounting records shall be provided to both Caltrans and CCJPA when requested.

1.1.5. Establish the Western NOC

Amtrak shall establish a California-based Network Operation Center ("NOC" or "Western NOC") which Amtrak will actively oversee and manage. The NOC shall support, at a minimum, the following services: Pacific Surfliner, San Joaquin and Capitol Corridor. Additional transportation providers in the Amtrak system may be permitted to participate in the NOC with the concurrence of Caltrans and CCJPA. Amtrak shall establish an accounting process for utilization of the NOC, which allocates costs for both capital and operating expenses to Caltrans and CCJPA and other users of the NOC, if any. The Western NOC shall be compatible with the Eastern NOC with respect to hardware and software structures. Amtrak shall implement a

content filtering policy for the California fleets consistent with the policy established for Amtrak's nationwide fleet.

1.1.6. Change Orders – Pre-Launch

Upon request of Caltrans and/or CCJPA, Amtrak shall manage changes related to task orders for the wireless network design, testing, installation, and implementation. If Amtrak initiates changes related to the task orders, Amtrak shall communicate with Caltrans and CCJPA on a timely basis when actions require a change order. Both Caltrans and CCJPA must provide Amtrak written approval before any change order affecting their respective services or costs shall be implemented. Written communication may be in paper form or by email, return receipt requested.

1.1.7. Troubleshooting

Amtrak shall oversee any troubleshooting activities which involve the performance of the wireless network before the public launch date and shall provide written communication to the responsible entity(ies) of the actions to be taken to resolve issues.

1.1.8. Final Installation Drawings

Amtrak shall work with its contractor to provide Caltrans and CCJPA with as-built drawings that accurately depict the wireless network system components and associated infrastructure for the Caltrans-owned and Amtrak-owned rolling stock deployed in the three state-supported corridors.

1.1.9. Launch Date

The Parties shall agree to an effective launch date and have prepared a launch execution plan. After launch activities have been completed, Amtrak shall shift into providing on-going support as outlined in sections 1.2 and 1.3.

1.1.10. Amtrak User Acceptance Testing

Amtrak shall develop a user testing plan for both Caltrans and CCJPA and shall submit it to Caltrans and CCJPA for approval. Once approved, the Parties shall implement the testing plan. The plan shall describe how test results are to be reported, to whom, and the procedure for accepting or rejecting the test results.

1.1.11. Marketing Launch

Amtrak shall provide Caltrans and CCJPA with marketing materials related to the Amtrak-branded "AmtrakConnect" and Amtrak shall assist and participate with Caltrans and CCJPA in the marketing efforts to launch the service on the California fleets. Amtrak shall allow Caltrans and CCJPA to modify and customize the marketing materials according to their respective needs.

1.1.12. Landing Pages

Amtrak shall provide Caltrans and CCJPA the base landing page and linked content consistent with the overall national deployment for public Wi-Fi on Amtrak trains. Amtrak shall provide Caltrans and CCJPA the ability to customize or update content, look, design, and customer interface under the base design to achieve specific communication and marketing goals and objectives. Amtrak shall work with both Caltrans and CCJPA to identify the best means of providing them access for this purpose, while still retaining the overall "look and feel" of the

national Amtrak Wi-Fi landing page, and while conducting other activities consistent with activities outlined in this Agreement. All proposed changes to the landing pages must be coordinated among the Parties prior to implementation.

1.1.13. Conductor and Station Personnel Training

Amtrak shall provide its conductors and station personnel with the appropriate training and instruction materials to support the wireless network launch. These materials shall include but not be limited to:

Operations Service Advisories (OSA)

Operations Service Updates (OSU)

Crew Briefings

1.1.14. Terms of Service

The parties shall mutually agree to Terms of Service concerning passenger Wi-Fi usage and to any changes to the Terms of Service as may be necessary.

1.2. Post-Launch Ongoing Wireless Network System Administration

Amtrak shall provide oversight of the day-to-day management of the wireless network system consistent with the terms of this Agreement and shall perform the tasks listed below.

1.2.1. Operating Budget Structure

On an annual basis, concurrent with the renewal of their respective operating agreements, Amtrak shall provide Caltrans and CCJPA an estimated operating budget for Amtrak's support of the wireless network system. The budget shall include a breakdown of agreed-upon sub-categories of costs (e.g., marketing costs, NOC support costs). Enhancements and larger scale upgrades may require additions to the budget.

The first year total cost of Amtrak's Services under this Agreement is estimated to be one million, forty-nine thousand, sixty-six dollars ($1,049,066). If the costs are anticipated to exceed this amount, a change order will be required. Said costs will be allocated on a proportionate basis according to the number of communication control units used for each route in both regular service and protect service. Until modified by the Parties, the proportionate share of costs will be thirty percent (30%) for the Capitol Corridor, thirty percent (30%) for the San Joaquin Corridor and forty percent (40%) for the Pacific Surfliner Corridor.

1.2.2. Change Orders – Post-Launch

Upon request of Caltrans and/or CCJPA, Amtrak shall manage changes of the ongoing operation of the Wi-Fi system through a formal change order process. Amtrak shall communicate with Caltrans and CCJPA on a timely basis when actions require a change order. Both Caltrans and CCJPA must provide Amtrak written approval before any change order affecting their respective services or costs, including the increase or decrease of hours of personnel assigned to operate the Wi-Fi program, shall be implemented. Written communication may be in paper form or by email, return receipt requested.

1.2.3. Network Operations Center Maintenance

Amtrak shall oversee the NOC management on behalf of Caltrans and CCJPA. Ongoing operating costs for Amtrak management of the NOC (as specified/agreed) shall be passed on to Caltrans and CCJPA through their annual operating contracts.

1.2.4. Cellular Card Billing Management

Amtrak shall manage all cellular card charges, track cellular card inventory and coordinate billing and payment for all active cellular cards with each carrier installed on the Pacific Surfliner fleet and the Northern fleet, as specified. Costs for Amtrak's management of the cellular card billing process shall be passed on to Caltrans and CCJPA through their annual operating contracts.

1.2.5. Filter Policy

CCJPA has the right to formally request filtering of any website and/or network activity it deems inappropriate, offensive, or undesirable; and Amtrak shall ensure that requests are fulfilled during the next available or planned filter update period. Documentation for all updates to filters shall be shared on a periodic basis. Costs for Amtrak's management of the filtering policies shall be passed on to Caltrans and CCJPA through their respective annual operating contracts.

1.2.6. Landing Page and Content Management Role

Caltrans and/or CCJPA may authorize key decisions affecting the layout and content of the landing page as appropriate for Amtrak services. Caltrans and/or CCJPA may require temporary landing page modifications for the purposes of conducting surveys, completing public service announcements, or may achieve other critical safety/security and public information objectives through the change control process. Caltrans and CCJPA also shall be given permission to continue to utilize and operate with the "AmtrakConnect" marketing materials. Costs for Amtrak's management of the landing page, content development and coordination with Caltrans and CCJPA shall be passed on to Caltrans and CCJPA through their respective annual operating contracts, except that neither Caltrans nor CCJPA shall be responsible for management costs they have not approved.

1.2.7. Customer Complaints and System Troubleshooting

Amtrak shall establish and provide a customer feedback mechanism for the wireless network system and shall respond to customer complaints related to the wireless network system. Caltrans and CCJPA shall receive monthly reports of total incidents and actions taken to resolve the identified issues. In the event of an information security breach, Amtrak shall immediately notify Caltrans, CCJPA, and the California Highway Patrol Emergency Notification and Tactical Alert Center ("ENTAC") at (916) 843-4199. Amtrak, Caltrans and CCJPA shall be responsible for compliance with specific state requirements concerning notification of data breach. Amtrak shall provide the name, address, e-mail address, and phone number(s) of the reporting person, the Amtrak Information Security Officer, an alternate contact, a description of the incident, the date and time the incident occurred, the date and time the incident was discovered, and report any and all actions taken prior to notifying ENTAC, CCJPA, and Caltrans. In the event of an information security breach, Amtrak shall also gather information regarding the make and model, the IP

address, operating system, and location of the affected computer(s). Amtrak shall be responsible for compliance with all federal requirements concerning notification of data breach.

1.3. Post Launch Support for System Upgrades and Modifications

The parties shall jointly determine which upgrades and service options to utilize, if any, in order to improve the wireless network system. The parties shall jointly determine when to implement any such changes. Neither CCJPA nor Caltrans shall be responsible for the costs of any upgrades to equipment or services unless it has authorized such expense.

1.3.1. Costs for Managing System Upgrades, Modifications

Amtrak's costs for managing change orders, requesting system upgrades or modifications, and for implementing global system changes shall be shared, to the extent they can, among all participating entities on an equitable basis of participation pursuant to terms agreed upon in the annual operating agreements

1.3.2. Software and Hardware Upgrades and Modifications Process

Amtrak shall work with Caltrans and CCJPA and through the California Working Group (defined below in Section 3), as appropriate, to establish a directed upgrade and modification path designed to improve the wireless network system. Neither Caltrans nor CCJPA shall be responsible for the costs of upgrades or modifications unless and until such expenses have been authorized by the party.

1.4. Future Applications Requiring the Use of the Wi-Fi System

Amtrak shall work with Caltrans and CCJPA and through the California Working Group to establish new agreements or amendments, which provide for future applications which utilize the wireless network. As future applications may require additional hardware and software, the parties, in cooperation with the California Working Group and shall determine the best mechanism to incorporate the new applications into the Wi-Fi program.

2. Caltrans' and CCJPA's Roles and Responsibilities

Caltrans and CCJPA shall fund the capital and operating costs of the management of the installation, maintenance, and authorized upgrades to the system pursuant to this Agreement.

2.1. Caltrans and CCJPA Organization Charts and Job Responsibility

Caltrans and CCJPA shall each provide to Amtrak and to each other an organizational chart which outlines roles and job responsibilities related to management and oversight of the wireless network. This shall cover the initial task order and all ongoing roles. These charts shall be modified over time as personnel and/or roles change. Caltrans and CCJPA shall also identify the personnel who shall participate in the California Working Group and any national advisory group, if one is formed.

2.2. Invoicing and Payment

Caltrans and Amtrak, and CCJPA and Amtrak shall develop invoicing schedules which align with the major project schedule milestones agreed to in their respective task orders. The respective invoicing schedules shall include all tasks agreed to in their respective task orders.

The invoicing schedules shall be utilized for the expenditure of capital related to the design, testing, installation, and identified maintenance or service contract tasks. By mutual written consent, Caltrans and Amtrak or CCJPA and Amtrak may modify their respective invoicing schedules to adjust for changes to the project schedule. Completion of major milestones shall be identified and agreed upon as the points at which invoice payments shall be due. Both Amtrak and Caltrans or Amtrak and CCJPA respectively, must agree in writing that the milestones associated with their respective invoicing schedules have been satisfactorily achieved prior to Amtrak's issuance of an invoice to either Caltrans or CCJPA.

Subsequent modifications approved by Caltrans or CCJPA as described above which incur a capital expense shall be processed in a similar manner after the initial task order has been completed.

2.3. Capital and Operating Expenditures

Caltrans and CCJPA shall fund Wi-Fi system capital and operating expenditures through their ongoing annual contracts with Amtrak for operations.

2.4. Change Orders

Amtrak shall immediately process all change orders received from Caltrans and/or CCJPA. Caltrans and CCJPA shall use a change order process to manage changes related to their respective contracts for the wireless network design, testing, installation, and maintenance. Amtrak shall communicate with Caltrans and/or CCJPA whenever an action requires a change order. Caltrans and CCJPA must provide written authorization to permit the change order to proceed. The costs of change orders which are processed without prior written approval of Caltrans and/or CCJPA shall be borne by Amtrak. Written communication may be in paper form or by email.

2.5. Public Complaints and Troubleshooting

Neither Caltrans nor CCJPA shall contact Amtrak's contractor directly to resolve passenger complaints or ask Amtrak's contractor to troubleshoot the operations of the network. These communications shall be coordinated with Amtrak through the identified appropriate Amtrak personnel. Caltrans and CCJPA may only contact Amtrak's contractor if given specific approval by Amtrak.

3. Program Oversight

3.1. California Wi-Fi Working Group

A California Wi-Fi working group ("California Working Group") comprised of participants from Caltrans, CCJPA, Amtrak (including the Mechanical, Operations and Marketing and Product Development Departments) shall be formed and meet at least monthly to make recommendations to the Parties about such matters as:

- System performance
- Ongoing system upgrades, enhancement and application development
- Impacts on capital or operating costs for Wi-Fi service
- Changes in policies and/or services that could impact Caltrans or CCJPA Wi-Fi services

4. General Provisions

4.1. Effective Date, Term and Termination

This Agreement shall become effective as of the date hereinabove stated and remain in effect until September 30, 2013, unless extended by mutual agreement of the Parties or terminated by one Party on sixty (60) days' prior written notice to the other Parties (which notice may be given so as to be effective on September 30, 2013); provided, however, that any Party shall have the right to terminate this Agreement at any time during its term in the event that: (i) legislation is enacted that renders continuation of the WI-FI program as contemplated herein impossible to continue; (ii) the Parties cannot reach agreement on system upgrades or changes or other matters affecting provision of WI-FI service, which would fundamentally result in the continuation of an inferior service; (iii) Amtrak discontinues providing passenger rail service in California or (iv) any other intervening event has or will have a material adverse impact on continuation of the services contemplated by this Agreement.

4.2. Invoicing and Payment

To the extent not already provided for in other agreements, Caltrans and CCJPA shall reimburse Amtrak for all specified project costs associated with the Task Orders and Change Control Requests for their respective fleets pursuant to their annual operating contracts, consistent with the invoicing and payment terms specified therein.

To support each invoice, Amtrak shall provide documentation that the invoiced tasks have been performed according to this Agreement and/or the terms of the respective Task Orders.

4.3. Notices

Any notice, report, or other communication shall, unless otherwise specified, be in writing and shall be delivered in hand, e-mailed return receipt requested, or mailed by first class mail, postage prepaid, addressed to:

For Amtrak:
Sr. Principal Officer Policy & Development
National Railroad Passenger Corporation
530 Water Street, 5th Floor
Oakland, California 94607

For the State:
Chief, Division of Rail
California Department of Transportation
P.O. Box 942874, MS 74
Sacramento, California 94274-0001

For CCJPA:
Managing Director
Capitol Corridor Joint Powers Authority
300 Lakeside Drive, 14th Floor East
Oakland, California 94612

Either Party may change the name, address, or title of the Party to be notified hereunder by notifying the other Parties in writing of such change.

4.4. Approval

This Agreement is of no force or effect until signed by all parties. Amtrak may not commence performance until such approval has been obtained.

4.5. Amendment

No amendment or variation of the terms of this Agreement shall be valid unless made in writing, signed by the parties and approved as may be required by law. No oral understanding or Agreement not incorporated in the Agreement is binding on any of the parties.

4.6. Assignment

This Agreement is not assignable by Amtrak, either in whole or in part, without the consent of Caltrans and CCJPA in the form of a formal written amendment.

4.7. Audit

Amtrak agrees that Caltrans, CCJPA, the Bureau of State Audits, or their designated representative shall have the right to review and to copy any records and supporting documentation pertaining to the performance of this Agreement. Amtrak agrees to maintain such records for possible audit for a minimum of three (3) years after final payment, and to require any subcontractors to retain such records for a minimum of three (3) years. Amtrak agrees to allow and to require its subcontractors to allow the auditor(s) access to such records during normal business hours and to allow interviews of any employees who might reasonably have information related to such records. (Gov. Code §8546.7, Pub. Contract Code §10115 et seq., CCR Title 2, Section 1896).

4.8. Force Majeure

The obligations of Amtrak hereunder shall be subject to force majeure. Amtrak shall not be liable for any failure to perform, or for any delay or cancellation in connection with the performance of any obligation hereunder if such failure, delay or cancellation is due to or in any manner caused by the statutes, laws, regulations, acts, demands, orders or interpositions of any federal, state, county or local government agency or joint powers authority having jurisdiction thereof, or by Acts of God, strikes, fire, flood, weather, theft, vandalism, war, acts of picketing, rebellion, insurrection or terrorism, track condition, or any other cause beyond Amtrak's control.

4.9. Limitation of Liability

Except as otherwise expressly provided in this Agreement, Amtrak shall not be subject to any obligations or liabilities, whether arising out of breach of contract or warranty, tort (including negligence) or other theories of law with respect to the Amtrak Services, or any undertakings, acts or omissions related thereto. In no event shall Amtrak be liable for property losses or personal injury damages, penalties, lost profits, lost revenue, lost good will, lost business or economic opportunity, or any other indirect, consequential, incidental, exemplary, special or punitive damages arising out of or relating to Amtrak's performance of Amtrak Services, even if advised in advance of the possibility of such damages. This limitation applies to all causes of action or claims in the aggregate including without limitation breach of contract, breach of warranty, indemnity, negligence, strict liability, misrepresentation and torts. Caltrans and CCJPA

acknowledge and agree that the pricing of the Amtrak Services reflects the intent of the Parties to limit Amtrak's liability as provided herein.

4.10. Dispute Resolution

4.10.1. Settlement of Disputes

The Parties to this Agreement shall make every reasonable effort, through telephone communications, letters and meetings, to settle any dispute arising out of this Agreement without resorting to arbitration or litigation. The Parties shall make every reasonable effort to meet within fifteen (15) days to discuss disputes. If the Parties so agree, they may involve a disinterested person experienced in railroad operations, or an IT specialist if appropriate, to render his or her objective advice and opinions, which shall be advisory only and not binding unless the Parties agree in writing to be bound by his or her judgment in a particular instance.

4.10.2. Controversies Subject to Arbitration

Any claim or controversy between Caltrans and Amtrak or between CCJPA and Amtrak, or among all three Parties, which cannot be resolved by the Parties who are involved, concerning the interpretation, application, or implementation of this Agreement shall be resolved by submitting it to arbitration pursuant to the provisions of this section; provided, however, that no such claim or controversy shall be submitted to arbitration until it has first been submitted to Caltrans, CCJPA and/or Amtrak for resolution between or among them.

4.10.3. Arbitration Procedure

Any controversy, claim or dispute arising out of or related to the interpretation, construction, performance or breach of this Agreement which cannot be resolved by the Parties shall be submitted to mediation in the County of San Francisco, California, administered by the American Arbitration Association under its Commercial Mediation Rules. Mediation shall proceed and continue until the matter is either resolved, or the mediator finds, or the Parties agree, that mediation should not continue. However, unless otherwise agreed, the mediation process shall not last more than sixty (60) days. If the Parties cannot resolve the controversy, claim or dispute through the mediation process described above, the matter shall upon the request of any Party, be settled by arbitration in the County of San Francisco, California, administered by the American Arbitration Rules, and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

4.10.4. Pending Resolution

Except as provided specifically in other sections of this Agreement, when such arbitration is pending, the business, operations, physical plant and compensation for Services under this Agreement, to the extent that they are the subject of such controversy, shall continue to be transacted, used, and paid in the manner and form existing prior to the arising of such controversy, unless the arbitrators shall make a preliminary ruling to the contrary.

4.10.5. Cost of Arbitration

All direct costs and expenses of mediators, arbitrators, and associated facilities shall be borne equally by the Parties; all costs and expenses of each Party other than those for payment to the mediator or arbitrator(s) and/or mediation or arbitration facilities shall be borne and paid for by

the Party which incurs such expenses. In the event legal proceedings (other than mediation and arbitration) are instituted to enforce a settlement agreed to in a mediation or an arbitration decision, the prevailing Party in said enforcement proceedings shall be compensated for all costs associated with enforcement of the settlement, including attorneys fees, in addition to any other relief to which it may be entitled.

4.10.6. Enforcement

Upon failure of a Party to comply with an arbitration award issued pursuant to this Section, the other Party or Parties may refer the matter to a court of competent jurisdiction for enforcement of the said award.

4.11. Termination For Cause

Caltrans and/or CCJPA may terminate this Agreement and be relieved of any payments should Amtrak fail to perform the requirements of this Agreement at the time and in the manner herein provided. In the event of such termination all costs to Caltrans and CCJPA shall be deducted from any sum due to Amtrak under this Agreement and the balance, if any, shall be paid to Amtrak upon demand. Amtrak may terminate this Agreement and be relieved of any responsibilities should Caltrans and/or CCJPA fail to pay for Amtrak's services.

4.12. Independent Contractor

Amtrak, and the agents and employees of Amtrak, in the performance of this Agreement, shall act in an independent capacity and not as officers or employees or agents of Caltrans or CCJPA.

4.13. Timeliness

Time is of the essence in this Agreement.

4.14. Child Support Compliance Act

For any Agreement in excess of $100,000, the contractor acknowledges in accordance with Public Contract Code 7110, that:

Amtrak and its subcontractors recognize the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and

Amtrak, to the best of its knowledge is fully complying with the earnings assignment orders of all employees performing work under this Agreement and is providing the names of all new employees performing work under this Agreement to the New Hire Registry maintained by the California Employment Development Department.

4.15. Unenforceable Provision

In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.

[redacted]

4.14 [redacted]

[redacted]

[redacted]

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed in multiple counterparts by their duly authorized representatives as of the day and year first hereinabove written.

NATIONAL RAILROAD PASSENGER CORPORATION

By: _____ For Date: 1/12/12
Joseph Boardman
President and Chief Operating Officer

Approved as to Form
_____
Amtrak Law Department

STATE OF CALIFORNIA

By: _____ Date: 1/24/12
Bill Bronte
Chief, Division of Rail

Approved as to Form
_____
Attorney for the Department

CAPITOL CORRIDOR JOINT POWERS AUTHORITY

By: _____ Date: 1/25/12
Dan Kennedy
Managing Director

Approved as to Form
_____
Byron Toma, Legal Counsel

Exhibit A

National Executive Steering Committee

A National Executive Steering Committee ("Executive Steering Committee"), organized by Amtrak may be developed in order to provide Caltrans and CCJPA, and potentially other State Partners, with a forum in which they can raise issues or concerns that affect Wi-Fi systems nationwide. If the committee is formed, Caltrans and CCJPA shall be represented.

It is intended that the Executive Steering Committee provide direction about the implementation, utilization and future deployment of the national Wi-Fi program. Recommendations of the Executive Steering Committee shall be made by consensus.

Primary responsibilities of the Executive Steering Committee members shall include, but not be limited to, the following:

- Articulating and/or endorsing the business case for updates or changes to the Wi-Fi system.
- Providing direction and prioritization for:
    - New features for the Wi-Fi system
    - Iteration of new systems to be implemented, such as
        - On-Train Information System (OTIS)
        - Automated Ticket Validation/E-Ticketing
        - Food and Beverage (Inventory Management & Point of Sale)
        - Remote Health Monitoring
        - Video Security and Conductor Live-Video Applications
        - Entertainment and Advertising Content
        - Automating Conductor Reporting Requirements
- Making recommendations that may increase the capital or operating cost related to the maintenance of policies or services on a nationwide basis. These recommendations may encompass hardware, software, NOC, filtering, and landing page content/design or any other applicable aspects of the system.
- Monitoring system performance and recommending corrective action.
- Evaluating costs and system needs.

It is intended that Amtrak will work with Caltrans, CCJPA, and other early Executive Steering Committee members to establish the policies and structure of the Executive Steering Committee. The Executive Steering Committee may include other State and agency partners who are involved in the deployment and use of Amtrak's national wireless program solution. Inclusion of other steering committee members is encouraged.

Exhibit B
Position Descriptions[1]

Operations Project Manager

Position Description:
Support Amtrak's Wi-Fi system on the California Fleets by overseeing daily operations and maintenance, and provide project management on operational enhancements.
Staffed at 100%

Specific Roles:

- Oversee daily operations, working with the contractor to insure the system is available and working according to agreed service levels.
- Manage incident management and reporting, insuring critical issues are addressed in a timely manner.
- Serves as the liaison with cellular service providers to insure continued service improvements and identify opportunities for better leveraging the available bandwidth.
- Organize and participate in the Executive Steering Committee.
- Organize and lead the working group meetings to review performance, trends, and decisions on possible enhancements or changes.
- For identified enhancement projects:
    - Manage the planning, execution, monitoring and close out activities for the assigned project.
        - Make sure that all project team members understand what their responsibilities are and that they are well documented and communicated to "stakeholders" of the project.
        - Manage the project team, assigned vendors and the end-user organization. Provide persistent follow-up to ensure that tasks are completed.
        - Ensure the overall quality of the project team's work.
    - Where appropriate, prepare and propose the budget for the project and in all cases manage costs against budget and project plans.
        - Manage the project so that it doesn't incur cost overruns and ensure that the project team has the resources necessary to get the project done on time and on budget.

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[1] Note: Staffing levels are estimated. Not all of the positions are staffed at 100%. Estimated allocations for support of all CA fleets are listed with each description. Costs shall be based on actual hours attributed to support of the California services, as documented on invoices submitted for payment. Additional staffing resources, outside those identified in Exhibit B, will only be added by Amtrak with the prior written concurrence of CCJPA and Caltrans. Caltrans reserves the right to request that Amtrak staffing resources are increased or decreased based on evolving needs and budgetary requirements. Requests to alter the staffing levels shall be made by formal Change Order Request.

    - Identify and minimize potential risks to the project timeline and budget. Ensure effective risk mitigation; document strategies and practice sound escalation skills to ensure risk is not a barrier to the success of the project.
  - Address Change Management, so that the modifications to the project's baseline of business requirements, schedule, or cost can be identified, communicated throughout the project organization, analyzed, and tracked.
- Reporting
  - Produce weekly project status reports and updates.
  - Produce monthly project expenditure reporting.
  - Communicate in an effective manner the status of the project to CCJPA and Caltrans.

Operations Support Specialist

Position Description:
Support the implementation and ongoing maintenance of Amtrak's Wi-Fi project on California trains by managing the invoicing and payment of goods and services costs incurred by vendors and cellular carriers.
Staffed at 25%

Specific Roles:

- Receive, review, track and submit for payment all cellular invoices received for the California Wi-Fi project, insuring costs are within the contracted rate with no errors or unexpected or un-validated charges.
- Facilitate replacement or upgrade of cards as appropriate.
- Receive, review, track and submit for payment all contractor and Amtrak services invoices received for the California Wi-Fi project, insuring all costs are within the contracted rate and within negotiated service times and levels. This includes reviewing vendor timesheets for accuracy and adherence to expense reimbursement guidelines.
- Assist in budget review and reconciliation for all upgrades and enhancements.
- Monitor daily performance reports, insuring resolution of issues according to process.

Marketing Communications Specialist

Position Description:
Support the implementation of Amtrak's Wi-Fi system on California trains by planning, implementing and maintaining the branding, and marketing and communications aspects of the project.
Staffed at 15%

Specific Roles:

- Work with Caltrans and CCJPA marketing to develop a marketing plan and brand strategy for the Wi-Fi rollout project to include the development of a "look and feel" as well as specific advertising collateral such as advertisements, graphics, seat back cards, and graphic user interface.

- Integrate the Wi-Fi brand (AmtrakConnect) into an overall communication strategy including integration with existing website, development of graphic user interfaces, print and electronic communication, media relations, signage, internal communications, training materials and other customer-facing communications.
- Serve as communications liaison for the Wi-Fi team to communicate the most recent updates and information about the project to ad agency and public relations departments by working closely with the Wi-Fi team, technical team, partners and vendors.
- Provide and revise copy if and as needed for press releases, advertising, graphic user interface, splash page, email and electronic communication, on-board and in-station signage, "how-to" and help files, usage guidelines, terms of use policy, internal communications, training materials and other copy in accordance with both the branding and technical specifications of the project. Maintain accuracy of written communications.
- Support other projects within the On Board Systems environment to enhance the customer experience, and anticipate and address changing communication needs as the project develops and evolves.

Web Developer

Position Description:
Support the implementation and ongoing maintenance of Amtrak's Wi-Fi project on California trains by developing and maintaining the standard web pages used by passengers to connect to the on-board network.
Staffed at 10%

Specific Roles:

- Provide development support for any web page related production issues, including problem identification and resolution.
- Receive and review requirements for web page development and maintenance, validating these adhere to standards established during implementation.
- Develop web pages, including creation of system testing environment with service provider contractor.
- Work with the contractor vendor to create and execute a system test plan that does not impact current service.
- Work with stakeholders to review and sign off on changes and implement new pages.

IT Support

Position Description:
Support the implementation and ongoing maintenance of Amtrak's Wi-Fi project on California trains by providing overall IT expertise, and especially specific to interfaces and information from Amtrak systems.
Staffed at 5%

Specific Roles:

- Provide oversight and review of system design and recommended upgrades and changes.

[redacted]

- [redacted]
- [redacted]
- [redacted]

[redacted][2]

[redacted]:

[redacted]

Specific Roles:

- Provide oversight and review of hardware design and recommended upgrades and changes as new technology becomes available.

[2] This work will be accommodated through existing Caltrans-funded mechanical department positions.

APPENDIX XIII

NATIONAL RAILROAD PASSENGER CORPORATION

and

THE STATE OF CALIFORNIA

AGREEMENT DATED 1 APRIL 2015
FOR THE PROVISION OF
RAIL PASSENGER SERVICE

FISCAL YEAR 2015
April 1, 2015 – September 30, 2015

* * * * *

Improvements to Oakland Maintenance Facility, dated May 21, 2012

Originally in Amendment 1 to the FY12 Operating Agreement – Contract No. 75A0341

Improvements to Oakland Maintenance Facility
May 21, 2012
(Originally in Amendment 1 to the FY12 Operating Agreement – Contract No. 75A0341)

(1) Replace Split Rail with Small Drop Table

Background.

The Oakland Mechanical Facility (OMF) services Caltrans-owned passenger rail cars in two distinct areas of the yard - Service and Inspection (S&I) where whole trains receive daily service on Tracks 1, 2, 3, 4, and 5, and Preventive Maintenance (PM) where individual cars receive 90-day maintenance on Tracks 9, 10, and 11.

The Split Rail on 3-Track gave S&I a means for changing non-compliant wheels on trains. The Split Rail is one of only two places in the yard designed for wheel changes. The other place to change wheels is the Drop Table on Track 11 which is intended for Preventive Maintenance work.

The Split Rail has not been in use for more than two years due to several factors: 1) confined space issues, 2) cumulative damage to bushings that were not designed robust enough to hold the weight of the swinging rails, and 3) periodic flooding damage to motors and control electronics due to their location at the low point in the 3-Track pit. The Split Rail had been repaired frequently, with a cumulative cost of over $50,000 and continued to be unreliable and was taken out of service about two years ago.

The non-functioning Split Rail has had a very disruptive effect on operations. Trains with non-compliant wheels need to be switched to 11-Track where they interrupt Preventive Maintenance operations, and the process can add several extra hours to the wheel change process in addition to considerable down-time for Preventive Maintenance employees.

The advantages of replacing the Split Rail with a Drop Table are: 1) no employees have to go underneath to open and close the rails, 2) all motors and controls are above grade instead of in the pit where they are vulnerable to flooding, and 3) it can fit into the same space without requiring additional excavation or foundation work.

Description of Work.

Engineering work establishing design criteria has already been performed by URS Corporation in conjunction with Amtrak Engineering. Pre-qualified vendors have expressed interest in bidding on the project, which will include removal of the Split Rail and replacement with a custom hydraulically or pneumatically operated drop table meeting the technical specifications identified during the engineering phase.

This funding will allow the bid process to proceed and the selected contractor will design/build a Single Wheel Drop Table on 3-Track.

Deliverables. Describe the work products of the project to be completed in accordance with the Description of Work. In the table provided, list the deliverables, both interim and final, that are the outcomes of the project tasks.

	Deliverable	Task
1	Bid Packets for potential contractors	Ensure competitive bids by qualified contractors
2	Proposal Review	Selection of best proposal and notice to proceed
3	Construction Schedule Approval	Planning for timely completion and minimal operational disruption
4	Completion of Construction / Testing	Acceptance of project upon successful test

Project Schedule.

This project is anticipated to be completed within 6-9 months of obtaining funding.

Project Cost Estimate/Budget.

This project is estimated to cost $300,000 to complete.

*Cost is subject to bid.

(2) Connect South 9-Track with 8-Track

Background.

9-Track is used for Preventive Maintenance (PM) repairs, and switching occurs every day on 9-Track as completed cars are put back in service and new cars come off the PM inspection line. 9-Track is a "stub track," meaning it is only accessible from the North end of the yard because there is no South entrance. This one-end-only access causes a bottle neck because there are many times it would be easier to pull cars off the South end rather than shuffle through all the cars from the North end.

Description of Work.

This project will connect the South end of 9-Track to the adjacent track (8-Track) and involves installing a prefabricated "frog and switch." This is a fairly simple rail project. The roadbed will require very little work as ballast is already laid and the two tracks are very close together. Connecting South 9 to South 8 will provide Amtrak and Caltrans greater flexibility for having repair or modification work performed on State-owned cars on 9 Track without interruption, which will significantly improve the efficiency and reliability of the modification work.

We have two rail contractors with extensive experience performing this sort of work. Amtrak Engineering will draft a scope of work and put this out to bid.

Deliverables. Describe the work products of the project to be completed in accordance with the Description of Work. In the table provided, list the deliverables, both interim and final, that are the outcomes of the project tasks.

Project Schedule.

This project is anticipated to be completed within 3 months of obtaining funding, with the timing somewhat dependent on the availability of a pre-fabricated switch panel of proper dimensions.

Project Cost Estimate/Budget.

This project is estimated to cost $100,000 to complete.

[redacted]

[redacted]

1) a single connection tab for environmental compliance with a sump for collecting accumulated water, an integrated pump to pump waste directly to the waste treatment system, and staging areas with full secondary containment for pressure washers and chemicals totes

2) a roof to keep the containment area from capturing rainwater (EPA "Tier 3" compliant)

3) a scaffolding for allowing the upper level of the cars to be washed in a safe manner, and

4) full protection for length of the car for safe and OSHA-compliant cleaning and working on the roof, including any mobile shielding WiFi antennas for example).

Please see the attached "Eight wash structure_v3.pdf" for an artist's sketch of the proposed structure.

Deliverables. Describe the work products of the project to be completed in accordance with the Description of Work. In the table provided, list the deliverables, both interim and final, that are the outcomes of the project tasks.

Deliverable	Task
1	Engineering Design	Final Engineering Plan
2	Submittal, 30% stage of Design Acceptance	Submittal of plans, calculations and specifications at 30% design for review by Agency operations staff
3	RFP for Contractor	Preparation of bid package that includes final engineering drawings, technical specifications, bidding and contracting documents, engineering cost estimate, and public bid
4	Construction Schedule	Written agreement between contractor and Agency that includes detailed construction schedule, project milestones, and estimated completion of activities
5	Geotechnical Analysis: Drilled Piers	Verify adequate characteristics of underlying soil to ensure the integrity of the piers to support the structure
6	Commissioning of Project Testing	Acceptance of project upon successful completion and testing

Project Schedule.

This project is anticipated to be completed within 2 years of obtaining funding.

Project Cost Estimate/Budget.

This project is estimated to cost $300,000 to complete.

(4) Design OMF Holding Tracks and Construct As Funding Allows

Background.

OMF is a 27-acre facility with 14 working tracks and a "wye" with three stub tracks for turning trains. Tracks 9, 12, 13, and 14 are not through tracks and are used for Preventive Maintenance on cars and locomotives. "Through tracks" are tracks that allow trains or equipment to pass through the yard (Tracks 1, 2, 3, 4, 5, 6, 7, 8, 10, 11). Tracks 1-5 are used by Service and Inspection to stage trains, so they are often blocked by trains. Track 8 is our only Passenger-certified track and must be kept open in case a train with passengers aboard has to come into the yard, but it is also the track where the Yard Switch Engine is stored. Tracks 10 and 11 are used by the Preventive Maintenance line and are almost always blocked with equipment.

This leaves only two through tracks (Tracks 6 and 7) to allow movement of equipment north and south through the yard. Unfortunately those tracks are often blocked with equipment being held in the yard because there are no holding tracks. Having all the through tracks in the yard blocked reduces operational flexibility and reduces places where trains can be moved through the yard. In addition there are no dedicated locations for projects such as the WiFi installation, PTC installation, or other modification or heavy maintenance activities without causing operational issues.

Description of Work.
This project will engage contracted rail engineering services to layout holding tracks on parcels that are largely vacant on the South end of the yard (Parcels D, E and F). In addition we will have the engineering contractor look at options for additional tracks on the North end of the yard.
An initial layout suggests we may be able to add around 800 linear feet of holding track on Parcels D, E, and F (see attached "Figure 1_2012-05-18.pdf" for concept). Until a track engineer lays out our options we will not know for sure how much additional track can be laid.
For greatest flexibility in the future use of those new holding tracks, we plan to look at options for paving the areas adjacent to the tracks and supplying utilities such as ground 480v power and compressed air which would facilitate heavy maintenance projects.
Available funding for this work will not allow the construction of all the tracks envisioned or providing all the optimal amenities and utilities, however after the design work is complete we plan to construct as much track as existing funding allows.

Deliverables. Describe the work products of the project to be completed in accordance with the Description of Work. In the table provided, list the deliverables, both interim and final, that are the outcomes of the project tasks.

	RFP for Construction	
	Construction Schedule	

Project Schedule.
This project is anticipated to be completed within 2 years of obtaining funding.

Project Cost Estimate/Budget.
This project is estimated to cost $250,000 to partial completion.

APPENDIX XIV

Task Order for Onboard Digital Train Line Installation Project

Capitol Corridor and San Joaquin Fleets

May 8, 2013

Capitol Corridor Joint Powers Authority
300 Lakeside Drive, 14th Floor East
Oakland, CA 94612

California Department of Transportation, Division of Rail
1120 N St, ms 74
Sacramento, CA 95814

APPENDIX XIV

Table of Contents

1.0 Task Order Background

This Task Order is issued in accordance with the National Railroad Passenger Corporation Supplies/Services Contract and its associated contract documents and attachments entered into between Nomad Digital, Inc. ("Contractor") and National Railroad Passenger Corporation ("Amtrak") on September 29, 2010

In addition to the Amtrak and Nomad Conformed Scope Of Work (SOW) dated September 24, 2010, this Task Order will define the unique requirements, specifications, and/or design elements needed to meet the specific needs of the services and the fleet of the California owned equipment which supports operations on the Capitol Corridor, San Joaquin and Surfliner and other services as required.

The Capitol Corridor and San Joaquin Corridor are Intercity Passenger Rail (IPR) services and are managed, respectively, by the Capitol Corridor Joint Powers Authority (CCJPA) and Caltrans Division of Rail (Caltrans), with some rolling stock owned and provided by Amtrak to augment the fleet. The current equipment is used on Capitol Corridor and the San Joaquin Corridor interchangeably, with no equipment being assigned to a specific service.

This task order is being issued by Amtrak on behalf of CCJPA and Caltrans, who are acting jointly for the implementation of the Digital Train Line Project. CCJPA and Caltrans staff will be equally involved for all subsequent approvals and review moving forward.

CCJPA and Caltrans have developed this Task Order with Amtrak's support and have contracted with Amtrak to execute the Task Order. Amtrak, in turn, will contract with the Contractor to complete the design, procurement, installation and management of the digital train line on behalf of CCJPA and Caltrans.

2.0 Scope of Proposal

The Northern California fleet which is used on both the San Joaquins and Capitol Corridor is primarily Caltrans-owned. It includes 66 "California Cars" and 18 "Surfliner" cars, and 17 Caltrans-owned locomotives. Additional equipment is owned by Amtrak and used on both corridors – 4 Superliner coaches match with Caltrans funds and assigned to the Northern California fleet, and 2 Superliner snack-coaches. For the purpose of this task order only 75 Caltrans-owned vehicles will receive the digital train line installation.

More information about each train set can be found in Appendix 1: Northern California Fleet. CCJPA, Caltrans and Amtrak require that the Contractor submit a detailed design proposal for each car type diagram listed in Appendix 2: Northern California Fleet Specification Diagrams.

3.0 Maintenance Facilities for Installation Activities

All installation work will take place at the Oakland Maintenance Facility, located at 1333 Third St, Oakland, CA 94607, unless otherwise approved in writing by CCJPA and Caltrans. The facility is staffed 24 hours a day, 7 days a week. Daytime maintenance facilities are located in San Jose, Sacramento, Bakersfield and Auburn, where additional work may be performed if approved by CCJPA and Caltrans.

4.0 Additional Task Order Requirements

The Amtrak and Nomad Conformed SOW, dated September 24, 2010, defined Amtrak's requirements and how the Contractor would meet those requirements. This section identifies the change modifications to the base Wi-Fi system which are unique to the Northern California Fleet installation and service feature set.

4.1 Wire Train Bus

Nomad and Amtrak require a new Inter-Vehicle jumper assembly that can be retrofitted to existing California vehicles to provide a high speed data link between adjacent vehicles. The new jumper will be utilized by Nomad's Installed Wi-Fi system. The new jumper is intended to not be permanently fixed to the vehicles and have connectors that can either be manually disconnected at the ends.

The basic components of the digital train will be:

- A Ethernet backbone running the length of each vehicle connecting into Ethernet switches at each end of the vehicle
- Cabling running from Ethernet switches to train line receptacles located at the ends of each vehicle.
- The cabling and connector assembly must meet the requirements of IEEE Std 802.3-1999 and the performance requirements as defined within Nomad specification NDL-GE01-SSPE-077 to achieve 1000Mb/s throughput performance in each of the internal cables
- Train line receptacles will have a closing cover plate that prevents water ingress and damage to the connectors
- Copper based Ethernet jumper connectors contain one CAT6 Ethernet data cable to achieve 1000 Mb/s data rates between vehicles and one additional spare Cat6 Ethernet cable for future expansion.

4.2 Fiber

Caltrans and CCJPA have requested that Nomad provide fiber running the length of each vehicle. The fiber will not be connected to the system at this time, but will be added to futureproof the system in anticipation of future technical developments.

5.0 Task Order Schedule

Prior to issuance of a Notice To Proceed (NTP) by Caltrans, CCJPA and Amtrak, the Contractor shall submit a proposed project schedule which identifies the dates of all major project milestones as identified in the Conformed SOW. The following table outlines the target timeframes that Amtrak, CCJPA and Caltrans envision for each major Task Order milestone.

Task/Deliverable	Time Frame
Price Proposal 1 for completing the Planning and	1 week from issuance of the Task Order

Task/Deliverable	Time Frame
System Design phases of this Task Order:	
Concept System Design	1 week from Notice To Proceed
Submittal of Proposed Installation Procedures	3 weeks from Approval of Price Proposal
Complete Procurement of Prototype Materials	4 weeks from approval of Price Proposal
Prototype Installation and Testing	3 weeks from delivery of Prototype Materials
Finalized System Design	2 weeks from completion of Prototype Installation and Testing
Complete Procurement of Production Materials	8 weeks from Finalized System Design (with exception of long lead time on switches)
Complete Production Installation and Testing	6 months from Finalized System Design

Appendix XIII

6.0 Appendix 1: Capitol Corridor/San Joaquin Fleet

6.1 General Description

All cars operating in the Northern California Fleet are bi-level intercity cars with passenger seating, restrooms and other amenities such as food service on both upper and lower levels. Passenger entry is through side doors on the lower level, and car-to-car pass-through is on the upper level. All services operate in push-pull service.

6.1.1 California Cars

The California Cars are bi-level passenger cars, built in 1994-1996 by Morrison Knudsen Co. The California Cars were built in four configurations: Coach, Cab Car, Food Service and Coach-Baggage. All California Cars are owned by Caltrans.

6.1.2 Surfliners

The Surfliners were built by Alstom from 2001-2002, and are essentially identical to the Surfliner cars deployed in Los Angeles. As delivered to Northern California, the cars were built in three configurations, including coach, cab-coach and cab-baggage. All 12 Surfliner cars in the Northern California Fleet are owned by Caltrans.

7.0 Capitol Corridor/San Joaquin Fleet Specification Diagrams

Callfornia Car			Surfliner
8001	8023	8307	[illegible]
8002	8024	8308	[illegible]
8003	8025	8309	6461
8004	8026	8310	6462
8005	8027	8311	6463
8006	8028	8312	6464
8007	8029	8313	6465
8008	8030	8314	6961
8009	8031	[illegible]	6962
8010	8032	[illegible]	6963
8011	8201	[illegible]	6964
8012	8202	[illegible]	6965
8013	8203	[illegible]	
8014	8204	[illegible]	
8015	8205	[illegible]	
8016	8206	[illegible]	
8017	8301	[illegible]	
8018	8302	[illegible]	
8019	8303	[illegible]	
8020	8304	[illegible]	
8021	8305	[illegible]	
8022	8306	[illegible]	
	total:	66	12

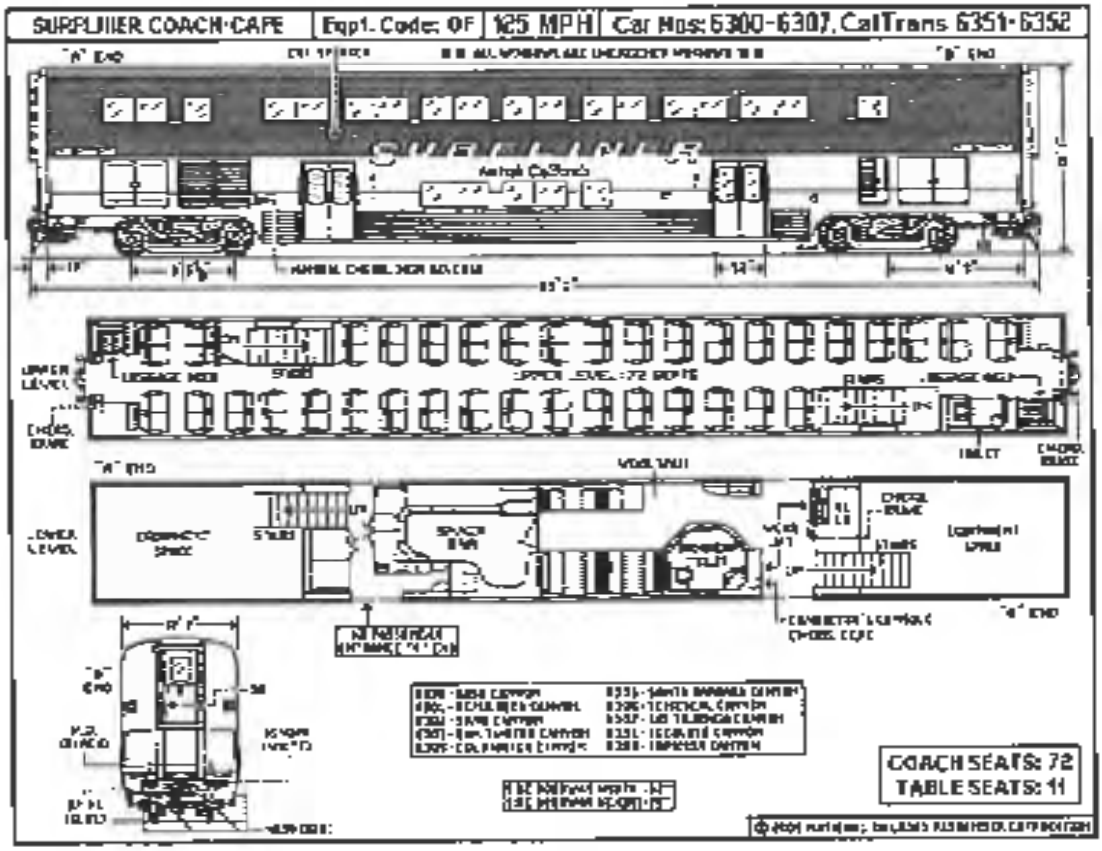
brain car

APPENDIX XIV

7.1 Surfliner Car Layout

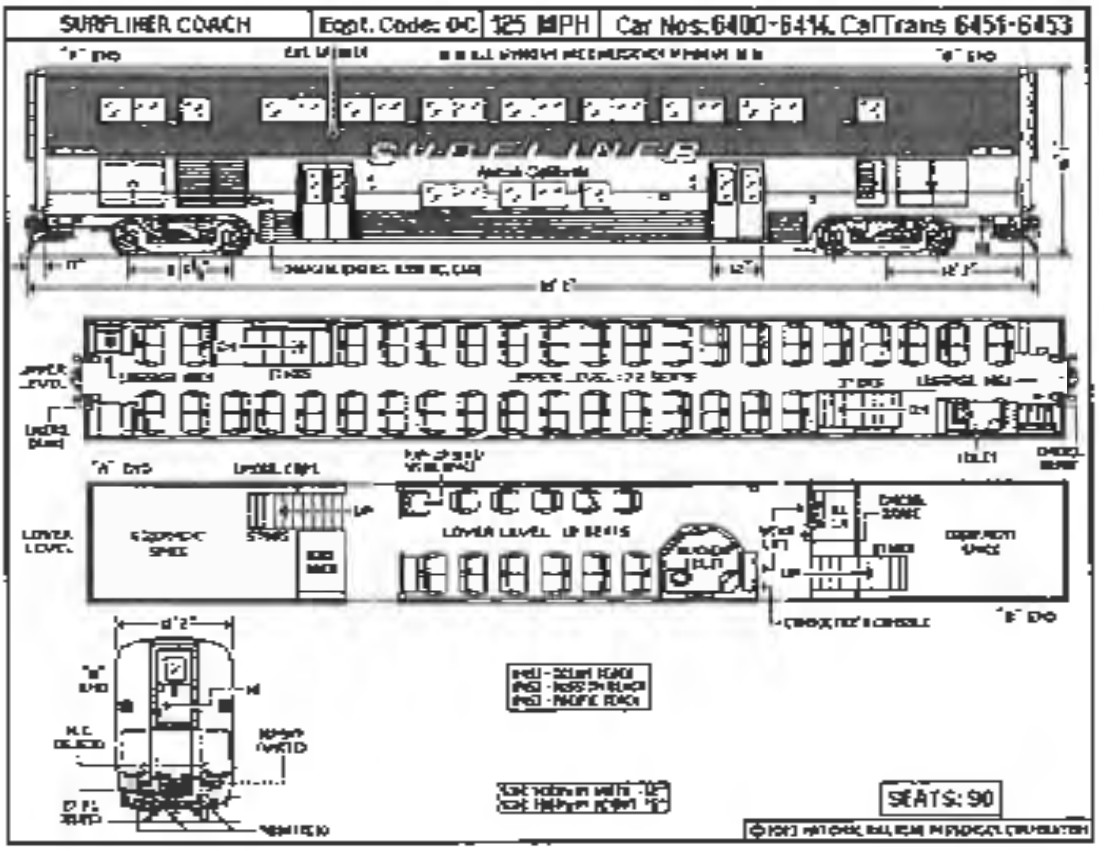
7.1.1 Surfliner Coach-Café (cars 6361 and 6362)

(Drawing shown is for Pacific Surfliner equipment. Northern California equipment is similar. See table of equipment for car numbers)



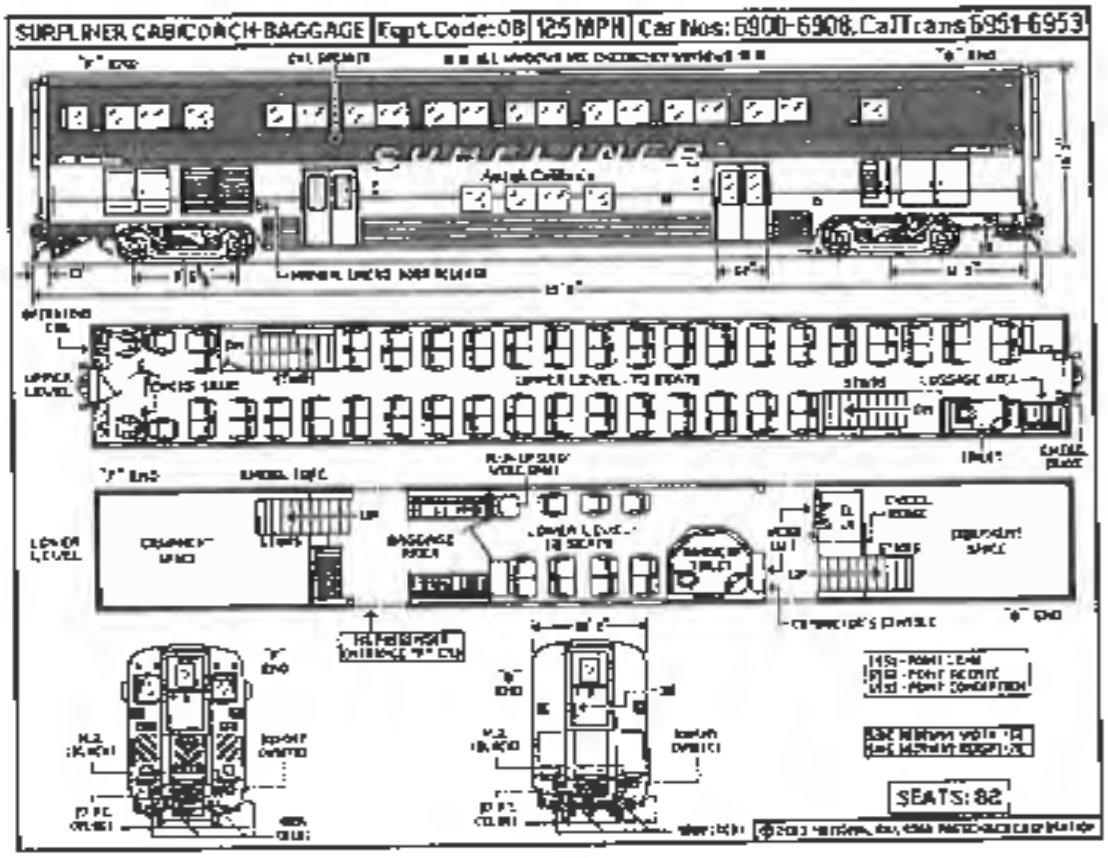
7.1.2 Surfliner Coach (cars 6461-6465)

(Drawing shown is for Pacific Surfliner equipment. Northern California equipment is similar. See table of equipment for car numbers)

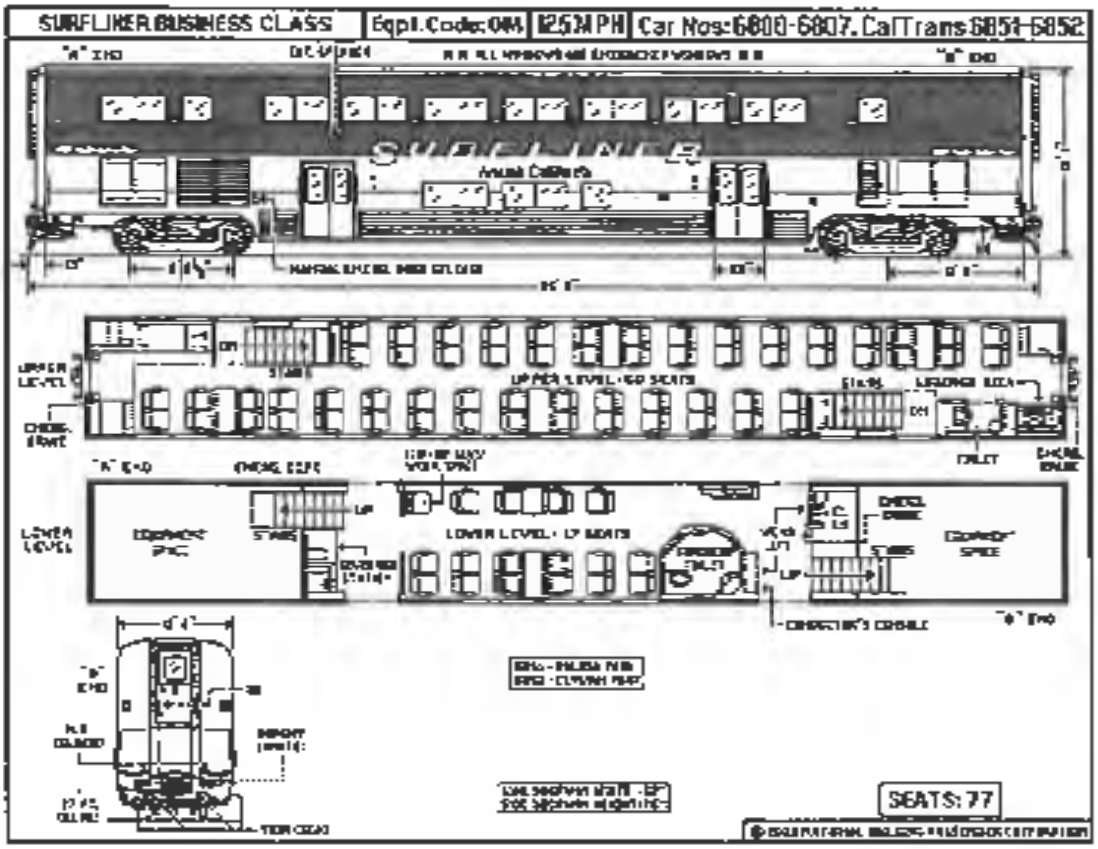


7.1.3 Surfliner Cab/Baggage Coach (cars 6961-6965)

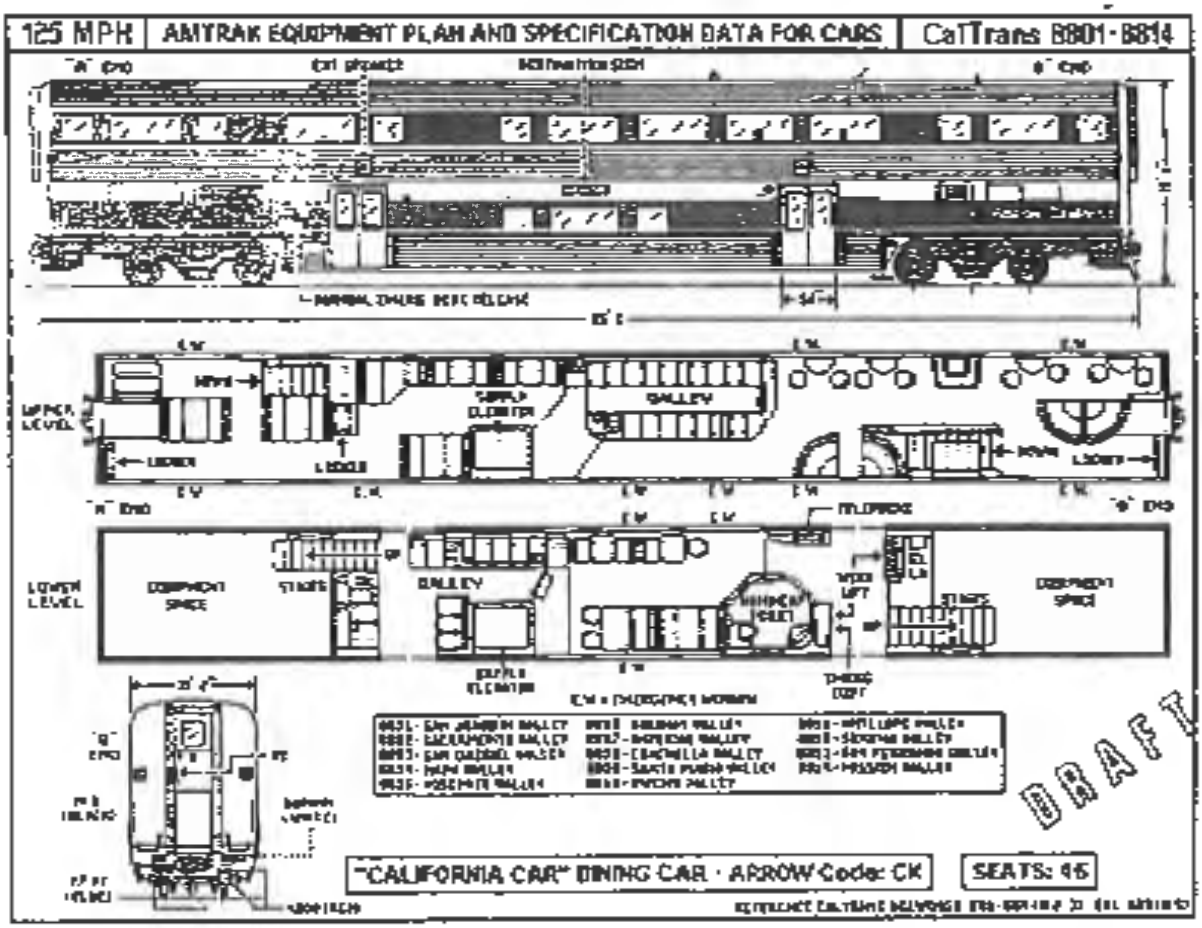
[drawing shown is for Pacific Surfliner equipment. Northern California equipment is similar. See table of equipment for car numbers]



7.1.4 Surfliner Business Class



7.1.5 California Food Service Car (8801-series)



OAKLAND MAINTENANCE FACILITY
SOUTH END TRACK EXPANSION PROJECT

South End Track Expansion Project

Background:

To make room at the Oakland Maintenance Facility (OMF) for additional rolling stock and to increase operational flexibility (adding storage tracks makes longer through tracks available for train sets), Caltrans is funding and Amtrak Engineering is coordinating the "South End Track Expansion Project" (please see attached preliminary design). Caltrans provided funding of $250,000 for this purpose in 2012, although $19,850 was already used to relocate the scrap wheel garden, leaving a remainder of $230,150. Caltrans is currently funding an additional $750,000 for construction of new tracks and ancillary infrastructure.

Specifics:

A. Amtrak Engineering has hired URS to conduct preliminary engineering of "South End Track Expansion" particularly focused on the feasibility of the project, and the best use of available real estate at OMF.

B. Amtrak Engineering will coordinate the following key elements in furtherance of the project:

1) Hire an engineering firm to produce a Bid-Ready design of additional track alignments on the south (east) end of the Oakland Maintenance Facility, including
    a. Utility and Right of Way survey
    b. Drainage requirements
    c. Electrical engineering for 480v Ground Power to all 4 new tracks
    d. Bill of Materials
    e. Cost Estimate
    f. Final Drawings of the proposed tracks and related infrastructure shown preliminarily in "ST202-ST206_ALT3b.pdf" as well as all relevant technical specifications
2) Communicate with Caltrans and Amtrak Management to ensure that the project receives necessary approvals and stays on track
3) Put the construction project out to bid
4) Coordinate use of on-hand materials to lower construction costs (existing LH switch from Sacramento, existing bumping post from 9 Track, stored wood ties from Los Angeles Amtrak)
5) Coordinate construction and verify that the terms of the construction contracts are met

Unknowns:

1) Drainage improvements may or may not be needed in conjunction with additional tracks, but the costs of drainage improvements were not factored into original cost estimates
2) Caltrans has expressed interest in maximizing the storage capacity of the tracks, but if this means blocking the only emergency exit to the yard (at Magnolia Street) then additional design and construction will likely be required to ensure a safe secondary yard exit
3) We have the goal of creating enough space between storage tracks for vehicular access (ST210 and ST211), but until the tracks are laid out in a final design actual space is uncertain
4) Cost estimates are not guaranteed to reflect the actual costs when construction goes out to bid. Amtrak Engineering will make every effort to perform this scope within the available funding, or to phase the work in a logical way to maximize the practical benefit of the funding, based on input from Caltrans.

Robin Reynolds
Facility Engineer, Project Manager

Amtrak Engineering
120 Magnolia Street
Oakland CA 94607

June 11, 2013

Phone (510) 433-5917
Fax (510) 238-2797

APPENDIX XVI

NATIONAL RAILROAD PASSENGER CORPORATION

and

STATE OF CALIFORNIA

AGREEMENT DATED 1 APRIL 2015
FOR THE PROVISION OF
RAIL PASSENGER SERVICE

FISCAL YEAR 2015
April 1, 2015 – September 30, 2015
(Effective April 1, 2015)

Standards for Maintenance of Stations

A. Amtrak is responsible for the maintenance and repair of stations serving San Joaquin and Pacific Surfliner trains (with the exception of parking and associated facilities such as lighting, utilities, etc.) listed in Exhibit X-1, hereto. Standards for the maintenance and repair of the stations listed in Exhibit X-1 are set forth in Exhibit X-2, hereto.

B. THE STATE may give notice to Amtrak of performance failures/defects either verbally or in writing. If verbal notice is provided, THE STATE shall provide subsequent written confirmation to Amtrak of such notice within five (5) business days of verbal notification. All written notices by THE STATE shall include:

   1. Reference to specific Agreement Standard(s);
   2. Nature of specific failure(s) or defect(s); and
   3. Such other information in the possession of THE STATE that may assist Amtrak in verifying and/or correcting noticed failures/defects.

C. Amtrak shall be responsible for notifying THE STATE, verbally or in writing, of the date(s) of correction to noticed failures/defects. If such notice is provided verbally, written confirmation will be provided by Amtrak within five (5) business days of such verbal notification.

EXHIBIT X-1

A. Staffed Stations to be maintained by Amtrak

1. San Joaquin Corridor

San Francisco
Oakland (Jack London)
Emeryville
Martinez
Sacramento
Stockton
Modesto
Merced
Fresno
Hanford
Bakersfield
Los Angeles

2. Pacific Surfliner Corridor

San Diego
Solana Beach
Oceanside
San Juan Capistrano
Irvine
Santa Ana
Anaheim
Fullerton
Los Angeles
Van Nuys
Oxnard
Santa Barbara
San Luis Obispo

B. Unstaffed Stations to be maintained by Amtrak

1. San Joaquin Corridor

Richmond
Antioch
Lodi
Denair
Madera
Corcoran
Wasco

Standards for Maintenance of Stations

EXHIBIT X-2

A. GENERAL CONDITIONS

1. Staffed stations and platforms shall be maintained daily to appear neat and clean.

2. Public waiting rooms and restrooms are to be cleaned and serviced at the end of each day they are open and available for employee and public use.

3. The station areas must be kept free of dangerous and hazardous materials such as broken glass, bottles and cans or other materials, which could be a threat to public health or safety.

B. JANITORIAL (Staffed Stations Only)

1. Amtrak shall furnish all labor, tools, materials and equipment necessary to perform required janitorial services.

2. Amtrak shall furnish all restroom paper supplies including seat covers, toilet paper and paper towels.

3. Public/employee restrooms are to be cleaned and serviced at the end of each day they are open and available for public use.

   a. Replenish restroom paper supplies
   b. Clean and sanitize sinks, toilets, urinals, and baby changing tables
   c. Damp mop floor
   d. Spot clean walls and remove graffiti
   e. Clean mirrors
   f. Fill soap dispensers
   g. Empty trash containers and install new plastic bags
   h. Clean all chrome fixtures

4. Deep cleaning of public/employee restrooms shall be performed quarterly including:

   a. Scrub and disinfect restroom floors
   b. Wash down and disinfect walls, partitions and doors
   c. Ensure corner and baseboards are free of dirt and buildup of grime.

5. Public waiting areas (interior and exterior) are to be cleaned and serviced at the end of each day they are open and available for public use.

a. Sweep floor, spot clean with damp mop as necessary
b. Wipe down benches with damp cloth
c. Wipe down and disinfect all phones
d. Remove graffiti
e. Empty trash receptacles, ashtrays and install new liners, clean top of trash receptacles
f. Clean drinking fountain
g. Wipe down counter in front of ticket window
h. Clean up spills and bird droppings

6. Deep cleaning of public waiting areas shall be performed monthly (except as otherwise noted), including:

a. Scrub, strip and wax interior floors (quarterly or as mutually agreed upon)
b. Wash walls and doors to six (6) feet above floor
c. Wash windows inside and out (quarterly or as mutually agreed upon)
d. Clean window blinds if installed (interior only)
e. Ensure corner and baseboards are free of dirt and buildup of grime.

7. Ticket agent area (behind ticket counter) is to be cleaned and serviced at the end of each day used.

a. Sweep floor and/or vacuum carpet
b. Empty trash containers, install new liners as necessary
c. Dust work surfaces
d. Clean glass on ticket agent counters

8. Deep cleaning of ticket agent area shall be done monthly, including:

a. Shampoo carpet
b. Wash windows inside and out
c. Spot clean walls
d. Clean window blinds if installed (interior only)
e. Polish work surfaces (schedule with ticket agent to clear surfaces)
f. Ensure corner and baseboards are free of dirt and buildup of grime

C. SHELTER AND WAITING AREA MAINTENANCE

1. Stations and waiting areas are to be maintained in a safe and sanitary condition at all times. Unusual or extreme situations will be corrected immediately.

2. For all staffed stations pressure wash the floor and wall areas to three (3) feet above floor level quarterly or as mutually agreed.

3. For all staffed stations wipe down seating area, spot clean glass, and remove litter three (3) days per week.

4. For all staffed stations pressure wash entire shelter, clean gutters, and clean all glass inside and out monthly or as mutually agreed.

5. For all staffed stations for outside waiting areas, pressure spray the cement/asphalt surface quarterly or as mutually agreed and wipe down seating once per week or as mutually agreed.

6. For all staffed stations repair damaged shelters or seating areas. Arrange for same day emergency repair if determined necessary by Amtrak or the STATE.

[illegible]

E. LIGHTING

1. Amtrak shall be responsible for lighting maintenance, replacement and repair. This includes interior and exterior station lights. Amtrak will furnish all lamps.

2. Amtrak will respond within three (3) days to replace interior lights in occupied station areas.

3. Amtrak shall keep all timers and sensors in good operating condition so that lighting is available from sunset to sunrise. Lower light levels during non-service hours are permitted if the station is suitably wired.

4. Amtrak shall repair or replace lamps as necessary or when requested by the STATE to maintain public safety standards.

[illegible]

1. [illegible]

2. [illegible]

3. [illegible]

4. [illegible]

G. SIGNAGE AND SIGN BOARDS

1. All signs in the station area must be washed and wiped clean monthly.

2. Graffiti on signs and sign boards is to be removed within one (1) week.

3. Illuminated signs must be kept in good working condition.

4. Amtrak will make every effort to replace signs damaged by vandals or automobiles within one (1) week. Amtrak may place a temporary sign while a permanent replacement is procured and installed.

H. PAINTING

1. Painting services to be performed by Amtrak shall include both exterior and interior painting and preparation in accordance with STATE standards, subject to a service limit of $1,000 per project or occurrence, graffiti painting excepted.

2. Amtrak shall paint over graffiti as necessary (See Section N, Graffiti, for removal requirements). There is no service limit for graffiti removal.

3. For historical stations, Amtrak must match existing color.

I. PLUMBING

1. Services to be performed by Amtrak include the maintenance and/or replacement of toilets, urinals, sinks, drinking fountains, sump pumps, and related plumbing equipment and fixtures.

2. All clean outs will be routed out quarterly (January, April, July and October).

3. Storm water catch basins and outflow lines will be maintained and routed out as necessary.

4. Amtrak shall snake clogged sewer lines as necessary.

Amtrak shall not be responsible for the repair or replacement of underground water or sewer lines, which cannot be visually inspected and maintained.

J. LOCKSMITH SERVICES

1. Amtrak will maintain the existing security system, supply keys, and provide locksmith services as required.

2. Amtrak will maintain a padlock system for equipment and utility boxes at stations. Locks and keys will be furnished by Amtrak.

K. GLASS

1. Amtrak shall be responsible for replacement of glass in station buildings and shelters.

2. Broken glass shall be replaced by the end of the next business day following notice to/by Amtrak. It is recognized by both parties that in some circumstances it may not be possible to meet the agreed upon time frame and STATE will grant a waiver for such circumstances that are beyond the reasonable control of Amtrak. Amtrak shall take the necessary steps to board up windows or otherwise protect station property and the public safety when windows are broken.

L. PEST CONTROL – PIGEON CONTROL

1. Amtrak shall provide pest control at staffed stations as needed.

2. Amtrak shall provide pigeon control services as needed.

M. ELECTRICAL

1. Except as noted in (2), below, Amtrak shall be responsible for the general maintenance, repair and replacement of electrical equipment and systems at all stations, including rewiring and retrenching as necessary.

2. Amtrak shall not be responsible for any replacements, rewiring, and/or retrenching costing in excess of $2,000 per station per year.

N. GRAFFITI

1. The STATE has a zero-tolerance policy regarding graffiti. Amtrak shall remove all graffiti within five (5) days following notice to/by Amtrak. It is recognized by both parties that in some circumstances it may not be possible to meet the agreed upon time frame and STATE will grant a waiver for such circumstances that are beyond the reasonable control of Amtrak.

O. GENERAL CONTRACTING

1. Amtrak will be responsible for general contracting activity including, but not limited to:

    a. Roof repair to stop water leaks and/or replace missing roof covering material
    b. Door and window repair and replacement
    c. Miscellaneous carpentry

2. Amtrak shall not be responsible for roof replacement or general space remodeling.

P. PUBLIC ADDRESS SYSTEMS

Current public address systems at stations shall be maintained, repaired and/or replaced as necessary and performance checked daily to insure proper functioning of the system at all times. Needed repairs/replacement must be completed within two (2) business days. It is recognized by both parties that in some circumstances it may not be possible to meet the agreed upon time frame and STATE will grant a waiver for such circumstances that are beyond the reasonable control of Amtrak.

Comet IB Conversion

Work Scope
95% DRAFT

Revision 0 – January 18, 2013

Revision Table

REV.	DATE	CHANGE:	BY
35%	04/12/11	35% Draft	J. Barnas
70%	06/29/11	Update to 70% Draft	J. Barnas
90%	09/09/11	Update to 90% Draft	J. Barnas & D. Del Peschio
90% Rev. 1	09/17/11	Revision 1 to 90% Draft	S. Norman
90% Rev. 1	09/21/11	Reformatted Revision 1 to 90% Draft	C. Cordell
90% Rev. 1	10/24/11	Insert SH and GF Comments	J. Barnas, D. Del Peschio, & S. Norman
90% Rev. 1	10/26/11	Insert BG Comments	J. Barnas
90% Rev. 1	11/07/11	Responses to BG Comments and Updated CRRL's	D. Del Peschio
90% Rev. 2	12/05/11	Revision 2 to 90% Draft: Update from 11/10/11 BG Meeting	J. Barnas, D. Del Peschio, & S. Norman
90% Rev. 3	12/23/11	Insert SH Comments on Door Summary	D. Del Peschio & S. Norman
90% Rev. 3	02/17/12	Insert Lighting Testing Update	D. Del Peschio
90% Rev. 3	03/30/12	Insert Update to Emergency Lighting	D. Del Peschio
90% Rev. 3	07/20/12	Insert Amtrak Legal Response Changes	D. Del Peschio
95% Rev. 0	01/18/12	Updated document to 95%	D. Del Peschio
100% Rev. 0	06/19/13	Finalize SOW	S. Wilt

Table of Contents

1.0 Introduction

1.1 Vehicle Description

The California Department of Transportation (herein called Caltrans) acquired fourteen retired Comet IB cars from New Jersey Transit (NJT). Comet IB coaches are single level cars, 85' in length, 10'-6" in width, 12'-8" in height, and 59'-6" between truck centers.

The cars are from a lot of 35 cars built by St. Louis Car Company in 1968-1969 which were originally Electric Multiple Unit (EMU) cars known as the "Jersey Arrow" or "NJT Arrow I" cars. At the time of their mid-life overhaul in 1987-1988, 30 of the original 35 cars were converted into push-pull locomotive hauled cars and were reclassified as "Comet IB."

During the mid-life overhaul all of the propulsion equipment was removed from under the cars and the roof pantographs were removed. A plug was added in the opening for the side center door that had accommodated platform loading. 15 of the 30 cars were reconfigured as cab cars with cabs in the A-End vestibule for use in push-pull operation. The remaining 15 cars were converted to trailer cars.

From nameplates in the electrical cabinet, cab cars weigh approximately 89,400 pounds while the trailer cars weigh approximately 84,900 pounds. Cab car numbers are in the 5155 to 5169 series while trailer cars are in the 5220 to 5234 series. Caltrans has purchased 12 cab cars and 2 trailer cars. Prior to coming to Caltrans, the Comet IB cars were operated and maintained by New Jersey Transit.

The Comet IB carbody superstructure is of stainless steel construction. The end underframe, bolster and cross bearers are of LAHT steel. Side doors and vestibule doors are of stainless steel construction. All cars are presently equipped with toilet rooms and have 3 x 2 seating.

The cars are loaded from low-level platforms through four (4) exterior electro-mechanical single leaf sliding pocket doors, one (1) on each corner of the car. The cars have stepwells, with trap doors. The bottom of the door leaf does not cover the stepwell.

480 V AC, three-phase (3-phase) power for operation of car auxiliaries is furnished from the locomotive, and is trainlined through jumper cables located at each end of the cars.

MU functions are trainlined through a receptacle located at each end of the car.

The Communications System and side door controls are trainlined through a receptacle located at each end of the car.

1.2 Work Scope

This work scope describes the Work to be performed for conversion of locomotive hauled Comet IB cars to be used in push-pull intercity service. Amtrak shall be responsible for:

- To the extent possible materials, components, and systems used for the conversion shall be in common Amtrak usage.
- Conversion and repair of Comet IB passenger cars as specified herein.
- Delivery of the converted cars to Caltrans Oakland Maintenance Facility in Oakland, California.
- Resolution of any problems, within Amtrak's scope of supply, found as a result of tests and inspections. Amtrak will correct all deficiencies discovered and California will be billed on a time and material basis unless such defects are the result of poor workmanship.
- .

- Management, Engineering, Documentation and Other Tasks within Amtrak's scope of supply including:
  - Design and engineering data,
  - Spare parts,
  - Manuals, catalogues and Car History Books,
  - Procedures and reports and,
  - Quality assurance and control while in production.
- Disposal of any hazardous materials removed from the cars during overhaul.
- Asbestos abatement for any unknown asbestos containing materials (ACM's) if found during car overhaul. There are no known sources of asbestos containing materials in the cars.

Amtrak shall submit material certifications, unless otherwise waived by Caltrans, for all new materials indicating their compliance with the requirements of this work scope and applicable regulatory requirements. Caltrans may supply or recommend specific parts or materials.

Alternative materials, equipment, and work scope will be considered by Caltrans provided the alternative solution proves beneficial to Caltrans or offers a better solution to meet work scope objectives. Amtrak shall submit a proposal, with backup documentation, for Caltrans consideration and approval (not to exceed 14 calendar days) for each alternative solution prior to making any substitutions.

1.3 Design Considerations

Converted Comet IB cars shall be fully compatible with Caltrans and Amtrak motive power equipment currently in service within Caltrans service corridors. Converted Comet IB cars are only intended to be operated as coaches in trains with other Comet IB cars, within the center of a train, with a food service car and baggage car in trains up to 8 cars in length.

Converted Comet IB cars shall be refurbished to retain their capability for safe operation at revenue service speeds up to 79 mph (129 km/h) on FRA class 1 to 5 track, including the condition of wholly or partially deflated secondary air suspensions on Comet IB coaches.

All converted cars provided to Caltrans pursuant to this Contract shall be configured as trailer coaches and shall be identical in configuration. Complete functional interchangeability among all cars shall be required.

Where a component or assembly is specified to be repaired, converted, refurbished, reconditioned, or renewed/replaced, Amtrak may propose equivalent new replacements.

The phrase "as required" shall be interpreted to mean "as required to meet the intent of the work scope".

All consumable parts (filters, hoses, brake shoes etc.), all gaskets, and all rubber or elastomeric parts, shall be renewed/replaced with new original equipment manufacturer (OEM) approved material or accepted equivalents.

All missing or damaged hardware, parts, and components shall be renewed/replaced with equivalent material as necessary to meet this work scope.

Adequate clearances shall be provided between cars, and between car and trucks where modifications are made.

Any new apparatus supplied during the overhaul work shall be the same for all cars and shall be fully interchangeable.

All parts removed from a car for reconditioning, overhaul or renewal/replacement shall be reinstalled with new fasteners. Renewal/replacement of missing fasteners, damaged electrical

terminals, and wire labels shall be considered incidental Work and part of Amtrak's scope of work.

All new Work involving equipment exceeding 150 pounds shall require a structural analysis for component attachment strength in accordance with APTA-SS-C & S-034-99. The analysis shall be submitted for Caltrans review and approval before undertaking any work.

The work scope identifies Work which shall be performed on all cars unless otherwise specified as Optional, or As Directed Work. Optional or As Directed Work may be performed on all cars or on individual cars as directed by Caltrans.

1.4 Car Drawings

Drawings and other data contained or referenced herein shall be considered part of this work scope. In cases of conflict between drawings and the work scope, the work scope shall govern. All conflicts shall be identified by Amtrak and resolved with the Engineer.

Appendix A provides a list of available documentation. The accuracy of the drawings and documents referenced herein has not been validated.

1.5 Standards

Converted Comet IB cars shall comply with the requirements applicable at the time of the cars' manufacture, or if required by the current version of law, at NTP, of applicable requirements, standards and recommended practices of the AAR, U.S. Public Health Service (USPHS), the U.S. Food and Drug Administration (USFDA), Code of Federal Regulations (CFR), FRA requirements, APTA PRESS Task Force Standards and Recommended Practices and applicable laws of the United States of America and the State of California.Cars shall be refurbished per the latest revision of the Scope of Work including addenda and change orders. The Engineer shall be promptly notified for resolution of any conflicting requirements.

Trade names and/or manufacturer's names and/or part numbers are not "sole source" items. The term "or equivalent" shall be assumed to follow any such trade name, manufacturer's name and/or part number. Any items so used shall have met the Engineer's requirements of maintainability, reliability, life expectancy, and interchangeability.

Amtrak may, at his option, recommend equivalent alternate standards for the Engineer's consideration. At least three (3) hard copies or an electronic copy of the alternative standard shall be submitted for Caltrans consideration with Amtrak's recommendation. Caltrans may choose to consider all, some or none of such submittals.

1.6 Maintainability

Maintainability of the cars and associated equipment shall be given prime consideration by Amtrak in the conversion of the cars, and by Amtrak's vendors in the fabrication, assembly, or overhaul of the individual subsystems and components.

No component of the car should require scheduled periodic maintenance any more frequently than once every one hundred eighty four (184) days, normal inspection and servicing excluded, based on approximately 200,000 miles of revenue service per year. . No warranty of parts or materials is implied by this statement; a maintenance plan for regular service

1.7 Dimensions as Originally Manufactured

Length, over pulling face of Couplers	85'-0"
Length, between truck centers	59'-6"
Interior width between inside finish	9'-9"
Width of Car at the Side Sheets	10'-6"
Height of car ATR	13'-0" Trailer 13'-6" Cab All Cab cars converted to trailer cars
Width, side door opening	34" (32" with trap up) Dutch doors added – new width 32"
Width, end frame door opening	31"
Width, vestibule door opening	32" B end changed to 36" width
Height, lower level floor ATR at AW0s	4'-3 11/16"
Height, side door opening from top step	108"
Height, side door opening from top of trap in down position	76½"
Lower step height ATR at AW0	1'-6"
Height, coupler center line ATR	34½" (per FRA/AAR requirements)
Truck wheelbase	8'-6"
Wheel diameter (new)	32.0"
Track gauge (nominal)	4'-8½"
Maximum super-elevation point	7"
Minimum radius of horizontal curve with cars coupled	250'
Minimum radius of vertical curve with cars coupled	2,000'
Minimum frog no. – crossover between tracks on 12'- 2" centers	No. 8

Approximate AW0 weight, cab car	89,400 pounds (prior to rebuilding) Need to determine
Approximate AW0 weight, trailer	84,900 pounds (prior to rebuilding) Need to determine – 98,900 brake calc

1.8 Terminology

The following terminology shall be used in all correspondence, drawings, schematic plans, instruction books, and other documents relating to the cars:

Terms	**Definitions**
Car Ends:	The end at which the handbrake is located shall be the B-End. The end of the car opposite the handbrake shall be the A-End.
Car Sides:	When standing in the aisle at the B-End of the car looking toward the A-End of the car, the side of the car on the observer's left is the left side (L), and the opposite side of the car is the right side (R).
Trucks, Axles, and Wheels	Commencing at the B-End of the car, trucks shall be numbered 1 and 2. Commencing at the B-End of the car, axles shall be numbered 1 through 4. Wheels and journals shall be designated by the axle number with an L or R prefix as appropriate.
Drawing Stationing	Drawing station numbers start at the B-End of the car, the coupler face being Station 0.00", and progress down the length of the car to the A-End.

1.9 Definitions

The following definitions are used in this technical work scope. They shall be considered as a supplement to definitions that are provided in the General Provisions of this Contract and the APTA Manual of Standards and Recommended Practices for Rail Passenger Equipment.

Add AWO

Accepted Equivalent — The term "accepted equivalent" shall mean an item which is fully interchangeable in terms of form, fit, function, and properties to the specific item. Any proposed accepted equivalent shall be submitted to Caltrans for review and approval.

Add — The term "add" shall mean the inclusion of a specific item in the car configuration, which is not currently installed.

Approved — The term "approved" shall mean that there were no exceptions taken by Caltrans to the Work submitted by Amtrak. "Approval" of a submittal shall not relieve Amtrak from complying with the requirements of this work scope.

As Directed — The term shall mean "As Directed" by the Engineer.

Caltrans — California Department of Transportation.

Conditional Acceptance – This term shall mean that Caltrans has accepted the vehicle for shipment and/or placement into commissioning or service with open items as specifically noted in a Conditional Acceptance Document, with the requirement to remedy these open items prior to final acceptance.

Contract Deliverable Requirements List (CDRL) — List of documents and other deliverable items that the Contractor is required to deliver to the Customer. CDRL is also used to refer to a specific item on the list. An updated list of CDRLs is attached to this document.

Engineer — The term "Engineer" shall mean Caltrans technical representative. Only the Engineer or other Caltrans designated representative shall be authorized to make technical decisions.

Final Acceptance – This term shall mean that Caltrans has accepted the vehicle for placement into revenue service following the remedy of all open items noted at the time of Conditional Acceptance and/or correction of defects arising during commissioning.

First Article Inspection (FAI) — An FAI is the complete and thorough inspection and verification of the first production article of any design for compliance with all applicable specifications, drawings, codes, work scope and workmanship standards. The FAI may include qualification and/or functional tests. The FAI establishes compliance with applicable documentation. It also establishes the standard of quality for additional production parts of that design.

Modify — The term "modify" shall mean to change the design, placement, or other aspect(s) of an item to provide for a different form, fit, function, or design.

NDT — Non-Destructive Testing such as visual inspection, magnetic particle testing, dye penetrant testing, and ultra-sonic testing.

New — The term "new" shall mean the installation of an item or component which has not previously seen service in whole or in part.

No Action — The term "no action" shall mean that an item requires no specific work as part of the refurbishment. The removal, reinstallation, or other manipulation of any such item may still be required to perform the other required work.

Overhaul, Recondition — The terms "overhaul" and "recondition" shall mean the restoration of an item to have the performance, service life, and appearance of a new item through the renewal/replacement of worn parts, adjustments, cleaning, refinishing (i.e. painting, polishing, anodizing, etc.), repair of any damage, and any other rehabilitation work required. When an item is beyond reconditioning, it shall be renewed/replaced.

Quality Assurance Program — The overall program of a company to assure only products and services of acceptable quality are delivered to customers. The program is supplemented by the Quality Plan which is tailored specifically to the requirements of a particular project.

Quality Manual — The written document of a company which describes its overall Quality Assurance Program activities and responsibilities. This manual is augmented by the Quality Plan for each specific project. The Quality Manual serves as the foundation upon which the Quality Program, including the Quality Plan, is constructed.

Quality Plan — A specific document which is written under the umbrella of the Quality Program to address the requirements of a particular project or activity. The Quality Plan is written in greater detail than the Quality Manual and contains examples of inspection checklists, audit checklists, test reports and other documentation necessary to verify the quality of the product. All of these documents are tailored to the specific project.

Quality Program Audit — Quality Program Audit: An audit of a particular company or facility to verify quality activities are compliant with the requirements of the approved quality program.

Recondition — See "Overhaul, Recondition."

Refurbish(ed) — The term "refurbish" shall mean that an item shall be cleaned, inspected for damage or deterioration, repaired, serviced, painted, where applicable, and tested to verify full functionality. Unless otherwise specified herein, Caltrans or the on-site representative shall be notified for disposition of non-functional items.

Release For Shipment (RFS): — A document provided by Amtrak for Caltrans approval which states that the subject cars have been inspected, discrepancies noted, and that the vehicle is ready for shipment to Caltrans. Shipment of vehicles to or from Caltrans shall not take place without an appropriately signed RFS.

Remove — The term "remove" shall mean the elimination of an item from the final car configuration. The removal of any such item shall include all other Work required to ensure that the final car configuration does not reflect any of the original item installation (such as wiring, holes, brackets, etc).

Renew/Replace — The first option for renewing/replacing a part shall be the installation of a "new" part of the same manufacturer, model number, version, style, etc. If the same part is not available, Amtrak may make an "in-kind" substitution of an existing system, piece of equipment, or component, with a new serviceable system, piece of equipment, or component. It shall be of the same manufacturer, model number, version, style, etc or accepted equivalent. The use of a rebuilt or unit exchange system, piece of equipment, or component shall only be permitted with prior Caltrans approval. All parts of a new technology shall be submitted for Caltrans review and approval prior to installation. Part numbers and AAMPS numbers listed in this Work Scope shall be assumed acceptable to Caltrans.

Repair — The term "repair" refers to the fixing of specific damage or defects. Items which are beyond repair shall be renewed/replaced as specified.

Review — The term "review" shall mean read and provide written comment.

Upgrade — The term "upgrade" shall mean the substitution of an existing system, piece of equipment, or component with a newly designed system, piece of equipment, or component that has the same or improved function as the original.

Work — Any and all activities performed on the cars as defined in the General Provisions.

1.10 Disposition of Removed Materials

Materials and components removed for the purposes of modification and upgrade to the cars and systems shall be retained and catalogued, with the exception of fasteners, insulation, and other inconsequential and/or non-reusable material. Care shall be taken by Amtrak to avoid damage caused by the removal process or other activities. All materials and components removed from the cars shall be made available for inspection/review and disposition by Caltrans and/or the Engineer for a 14-calendar day period. At the end of this period, material will either be disposed of or shipped to an agreed-upon location at the expense of Caltrans.. Following Caltrans disposition of the first car set of removed materials, a disposition decision may be made regarding handling of the remaining car sets of equipment.

1.11 Equipment Numbers and Car Names

Amtrak shall be responsible for prominently labeling all cars and parts thereof with the appropriate Road Numbers throughout the overhaul process.

Amtrak shall maintain a record of each car's original road number and new road number, and shall provide this information in the Car History Book.

Caltrans has 14 Comet IB cars. Reference Appendix B for current and new car numbers.

2.0 Equipment Removal

2.1 General

There are 12 cab cars and 2 trailer cars. Cab cars shall be converted into trailer cars.

This section defines the materials, components, apparatus and functions that shall be permanently removed from the car. Amtrak shall determine the related hardware that requires removal to facilitate these components and functions.

Unless otherwise specified within this section, materials and apparatus removed shall be held for Caltrans disposition.

A master disposition list is provided in Appendix C, for use throughout the project, and will be further developed throughout the prototype phase.

2.2 Cab Equipment

The following equipment shall be removed:

- Cab seat and base assembly
- Plate over the stairwell
- Windshield wiper motor with control valve
- Horn valve and associated piping
- Visor assembly
- Master controller with base
- All brake valves
- Right hand panel with controls and indicators
- Left hand panel with controls and indicators
- Deadman alarm pedal
- All under console pneumatic valves, piping and equipment to the degree practical
- Additionally, any unrepairable, obsolete, unusable materials identified during the removal process.

2.3 Trucks

Reference documents in CDRL # 3.01-3.07 and that intend to address repairs, replacement, modifications and/or procedures of components to the trucks.

2.4 Couplers and Draft Gear

The following equipment shall be removed:

- Right side uncoupling lever and associated hardware

2.5 Pneumatic Equipment

The following equipment shall be removed:

- E-5 wheel slide panel and associated enclosure within the A-end equipment locker
- Wheel slide magnet valves

- Wheel slide sensors
- Electro-pneumatic brake valves
- Sandboxes
- Bell assembly
- Horn assembly

2.6 Car Structure

The following equipment shall be removed:

- The pilot and associated mounting brackets
- Strobe lights
- Cab windshield assemblies shall be removed from the cars and retained for reuse
- Pantograph mounting brackets and catwalk
- Radio antenna

2.7 Interior

The following equipment shall be removed:

- All seats
- Low ceiling panels
- Low ceiling ventilation grilles
- Low ceiling access hatches
- B-End low ceiling area side and bulkhead walls
- Floor covering
- Floor panels

2.8 Toilet Room

The toilet room assembly, floor pan, appliances, and associated wiring shall be removed.

2.9 Water Supply and Waste Retention

The following equipment shall be removed:

- Water storage tank on the B-End bulkhead in the toilet room locker
- Toilet assembly
- Waste retention tank under the car
- All waste retention piping, water supply piping, and freeze protection devices

2.10 Doors

The following equipment shall be removed:

- A-End side door panels and associated linkage at Amtrak's discretion to facilitate Work
- B-End side door panels and associated linkage
- Door threshold heaters and associated controls
- A-End side door operator assemblies
- B-End side door operator assemblies

- Relay panel in the electrical cabinet
- Track/slide/hanger mechanism
- Door pushbutton stations

2.11 HVAC Equipment

The evaporator assemblies with overhead heater and overhead blower motor assemblies shall be removed. Wiring and the mounting equipment shall be modified to accept new evaporator assemblies and blower motor assemblies.

The HVAC motor contactor panel located in the high voltage box under the car shall be removed. Wiring shall be retained for use with a new motor contactor panel.

2.12 Electrical

Unused wiring and cabling may be removed or capped and terminated in a manner to prevent grounds or short circuits. Unused wiring remaining in the car shall be labeled at both ends. The tags shall identify circuit designations consistent with car schematic drawings.

2.13 Communications

The radio receiver/transmitter located in the B-End vestibule locker shall be removed. The connector plug assembly shall be capped.

2.14 Lighting

Headlight assemblies, ballast resistors, switches, and associated wiring shall be removed.

Car number boards located in the external FRP end caps above the cab shall be removed. Wiring, ballast resistors, and switches associated with the car number boards shall be removed.

The strobe light located on the roof of the cab cars shall be removed. The strobe light control box located in the A-End low ceiling and associated wiring and switches shall be removed.

The low ceiling lights shall be removed and retained for reuse.

Reuse diffusers on internal passenger area light fixtures. Ballast in these fixtures to be replaced.

Crossing lights with mounting plates shall be removed.

3.0 Trucks

3.1 General Description

The cars are equipped with cast steel four-wheel trucks of the General Steel Industries, "General 70" type, as shown on GSI arrangement drawing 33800. The truck design is suitable for operation at speeds up to 100 mph.

The truck arrangement includes bolster air springs, equalizer coil springs, single drop equalizers, 8'-6" wheelbase, 6 inch by 11 inch inboard journal bearings, 32 inch diameter wheels, 22 inch diameter central bearing and tread braking with composition brake shoes.

The truck frame is a one-piece casting of a pedestal type.

The truck bolster is a one-piece casting with an integral air reservoir for supplementing the air spring volume.

Resilient materials are used throughout the truck to minimize the transmission of noise and vibration.

At least one (1) journal bearing per axle is equipped with a gear tooth wheel and mounting brackets for a wheel slide system magnetic pickup.

Friction braking is provided by four (4) package tread brake units per truck.

Air spring height is controlled by three (3) leveling valves per car.

3.2 General Work Scope

It is the intent to completely overhaul all trucks.

One (1) completed truck of each type (A-End and B-End) shall be weighed with and without a bolster. Truck weights and bolster weights shall be documented in the Car History Book.

Trucks shall be completely disassembled, cleaned, inspected, repaired, renewed/replaced if damaged, tested and painted. Overhauled trucks shall comply, in all respects, with the standards and applicable recommended practices of the FRA, AAR (except as noted herein), APTA, and OEM recommendations. Trucks shall be suitable for railroad interchange.

All truck members, except wheel sets, brake equipment, and rubber or composition parts shall be cleaned to remove all paint, grease, and dirt prior to inspection and repair. Cleaning procedures shall be submitted for Caltrans review. **CDRL 3.01**

Truck Inspection Procedures including criteria for repair and renewal/replacement of parts shall be submitted for Caltrans review and shall be used to establish future maintenance requirements. **CDRL 3.02**

Unless otherwise specified, all truck components shall be repaired and reused to the maximum extent possible, consistent with their remaining economic life and OEM recommendations.

Components that are specified for overhaul or refurbishment and are unsuitable for reuse shall be renewed/replaced in-kind.

All Work performed on, and/or renewal/replacement of serialized components of the trucks and bolsters, shall be recorded in the Car History Book.

All weld repairs to truck castings and to other truck components shall conform to the truck manufacturer's recommended practices.

All Work on wheel sets shall be performed by a qualified AAR certified wheel shop.

The Overhaul Procedures for the Trucks shall be submitted for Caltrans review. **CDRL 3.03**

3.3 Truck Frames

The truck frame is shown on GSI drawing Z-33801. Truck frames shall be stripped of all components and thoroughly cleaned to remove all paint and contaminants.

Critical areas of the truck frames shall be inspected for cracks using an appropriate non-visual method such as magnaflux or dye penetrant testing.

Cracks shall be repaired by welding and heat treating. The criteria for initiating repairs and the repair method shall be submitted for Caltrans review prior to initiating repairs. **CDRL 3.04**

Truck frames shall be trammeled and checked for diagonal distortion, parallel pedestal legs, lateral dimension between pedestals, width of pedestal openings, and perpendicularity of pedestal legs and alignment of pedestal faces. Tolerances shall conform to new truck tolerances. Diagonal distortion between outside pedestal legs shall not exceed ¼ inch.

Excess wear and oversized bolt holes shall be built up by welding followed by heat treating. Weld buildup shall be finished consistent with allowable tolerances. Built up holes shall be re-drilled to maintain alignment.

The pedestal filler blocks are shown on GSI drawing 22130-102-B. The pedestal filler blocks are to be removed from the truck frame, marked, and processed so that they can be reapplied at the same location on the same truck frame. The pedestal filler blocks shall be cleaned and repaired if damaged or worn.

Pedestal tie bars are to be removed, thoroughly cleaned, inspected, and repaired or renewed/replaced.

The truck central bearing wear plate and vertical wear sleeve are shown on GSI drawings 31398 and 32221 respectively. The wear plate and wear sleeve shall be renewed/replaced.

3.4 Pedestal Liners

Pedestal liners are shown on GSI drawings 22130-153 and 22130-154. Pedestal liners shall be renewed/replaced with manganese steel liners welded to the pedestal legs using stainless steel weld rods.

3.5 Bolsters

The bolster is shown on GSI drawing Z-33802. Bolsters shall be stripped of all components and thoroughly cleaned to remove all paint and contaminants.

Truck bolsters shall be visually inspected for defects including cracks, loose attachments, clearance, electric arcing and side bearing clearance. Critical and suspect areas shall be inspected for cracks using an appropriate non-visual method such as magnaflux or dye penetrant testing.

Cracks shall be repaired by welding and heat treating. The criteria for initiating repairs and the repair method shall be submitted for Caltrans review. **CDRL 3.05**

The spring pockets, anchor points for attaching shock absorbers and bolster anchors, and bolt holes shall be inspected for wear in accordance with OEM requirements. Excess wear and oversized bolt holes shall be built up by welding, followed by heat treating, when applicable. Weld buildup shall be finished consistent with allowable tolerances. Built up holes shall be re-drilled to maintain alignment.

Lateral bumpers shall be renewed/replaced.

3.6 Side Bearings

Side bearing plates and shims shall be removed, cleaned, and renewed/replaced if needed. OEM clearance requirements shall be met during reapplication.

3.7 Bolster Anchors

The bolster anchor arrangement is shown on GSI drawing 33712. The bolster anchor assembly shall be disassembled, cleaned, and inspected. Cracked or damaged parts shall be renewed/replaced.

Rubber cushions, nuts and cotter pins shall be renewed/replaced. Anchor bolts shall be evaluated for excessive wear. The renewal/replacement criteria shall be established during the prototype phase.

Spacer washers shall be used to maintain the bolster alignment with the truck frame.

3.8 Safety Straps

Safety straps shall be inspected. Bent assemblies shall be straightened. Cracked bars or damaged safety bar assemblies and mounting pins shall be renewed/replaced.

3.9 Suspension Arrangement

The Firestone 29C air spring is shown on Firestone drawing NAD 16393-8. All air springs shall be renewed/replaced including the auxiliary rubber spring within the air spring. O-rings shall be renewed/replaced when installing new air springs.

Air springs and air suspension piping shall be inspected for leakage. Any leakage in the piping shall be repaired.

The leveling valve system was modified from two (2) leveling valves per car to three (3) leveling valves per car with two (2) leveling valves being mounted on the carbody at the A-End truck. Westcode leveling valves were replaced by Knorr leveling valves. Carbody mounted leveling valves shall be renewed/replaced with either Knorr or Westcode leveling valves. Use of the Westcode valve may require minor changes to the mounting brackets and piping.

The leveling valve linkage including any grommets shall be renewed/replaced.

The double check leveling valve at the two (2) leveling valve truck shall be renewed/replaced.

Double coil equalizer springs are made up of Alco part numbers CH11118A and CH11118B. Coil springs shall be renewed/replaced. Resilient insulating pads shall be renewed/replaced. Caltrans has provided a quantity of springs for use as renewal/replacement material.

Spacers and shims located within the suspension arrangement shall be thoroughly cleaned and reused in regulating the car.

3.10 Shock Absorbers

Vertical friction snubbers shall be renewed/replaced with Houdaille part number 626339.

Lateral shock absorbers shall be renewed/replaced with Houdaille part number 706464.

Lateral shock connecting link assembly shall be renewed/replaced with Houdaille part number 707903.

Mounting brackets shall be cleaned and inspected.

Worn or damaged brackets shall be repaired or renewed/replaced.

All rubber mounts and fasteners shall be renewed/replaced.

3.11 Equalizer Beams

Equalizer beams shall be cleaned to bare metal and inspected for cracks, bends, and wear using an appropriate non-visual method such as magnaflux or dye penetrant testing.

Cracked equalizer beams shall be renewed/replaced.

Procedures for inspection and processing equalizer beams including repair procedures shall be submitted for Caltrans review. **CDRL 3.06**

3.12 Equalizer Spring Seats

Cast steel equalizer spring seats are shown on GSI drawing Z-33418. Equalizer spring seats shall be cleaned and inspected for cracks or wear.

Defective parts shall be repaired or renewed/replaced.

The equalizer spring seat shown on GSI drawing CZ-36259 shall be used for renewal/replacement of defective spring seats.

3.13 Wheel Sets

All Work on wheel sets shall be performed by an AAR certified wheel shop.

All Work performed on wheel sets shall be in accordance with AAR/APTA Recommended Practices and Standards.

All wheels shall be measured. A wheel set having wheels with less than two (2) inches remaining tread thickness after turning shall have the wheels renewed/replaced with new wheels. Wheel sets having two (2) inches or more remaining tread thickness after turning shall be reused.

Amtrak shall provide sufficient wheels to renew/replace 100% of the wheels. Any wheels remaining after completion of all Work shall be retained as spares.

Wheel sets shall be interchanged between cars and trucks to maintain dimensional tolerances between wheel sets on a car. The maximum allowable difference between wheel circumferences shall be ten (10) tape sizes on the same truck and fourteen (14) tape sizes between trucks on the same car.

3.13.1 Bearings

Journal bearings are inboard type, class E, 6 inch by 11 inch. Journal bearings shall be remanufactured to OEM standards using new contact seals.

Defective bearings shall be renewed/replaced.

Safety wires shall be applied to the journal cap bolts.

The bearing designation and lubrication date shall be stenciled on the truck frame in one (1) inch white letters.

Equalizer journal seats shall be cleaned, inspected and repaired or renewed/replaced. Equalizer journal seat pads shall be renewed/replaced.

3.13.2 Journal Housings

Bearing housings are currently drilled for and are equipped with smoke bombs to detect incipient bearing failures. All smoke bombs shall be removed and the cavities cleaned and inspected.

Journal housings shall be cleaned and inspected.

Damaged journal housings shall be repaired or renewed/replaced.

3.13.3 Wheels

The cars are equipped with 32 inch wheels.

New wheels shall be wrought carbon steel, Class B, in accordance with AAR Specification M-107, latest revision. Wheels shall be multiple wear type with an AAR 1B tread and flange contour, "S" plate design, and shall be manufactured to AAR Standards. Wheels shall conform to 49 CFR Part 238.119 and APTA SS-M-012 Standard for the Manufacture of Wrought Steel Wheels for Passenger Cars and Locomotives.

Certification of the ladle analysis of steel used and of ultrasonic and magnetic particle testing of the wheels shall be furnished to Caltrans in accordance with the latest revisions of Paragraph 8.0 and 18.0 in AAR Specification M-107.

Wheels shall be dynamically balanced to within 1.5 pounds (0.68 kg) at the outside diameter of the rim. Balancing to achieve this standard shall be done by machining the wheel.

Reclaimed and new wheels shall be turned to the AAR 1B profile with a 1:20 taper.

3.13.4 Axles

Axles shall be cleaned and inspected in accordance with AAR/APTA recommended practices.

Axles with undersized bearing seats or condemning defects shall be renewed/replaced.

Renewal/replacement axles shall be solid forged carbon steel, Grade F, in accordance with AAR Specification M-101, latest revision, double normalized and tempered. Axle design shall be the same design as has been used under these cars at New Jersey Transit.

Axle centers shall be provided on both ends of all axles, as shown in AAR Wheel and Axle Manual, Section G - Part II of the Manual of Standards and Recommended Practices.

Cold rolled stress relief grooves shall be provided at both ends of journal bearing seats, similar to that shown in AAR Wheel and Axle Manual, Section G - Part II of the Manual of Standards and Recommended Practices.

Records of the following tests shall be recorded in the Car History Book for all new axles provided.

- Ladle analysis of each heat of steel used in the manufacture of the axles, per the latest revision of AAR Specification M-101
- Tension tests, per the latest revision of AAR Specification M-101
- Microscopic tests per the latest revision of AAR Specification M-101

Axles shall be magnaflux (wet method) inspected after finish machining but prior to grinding.

Axles shall be marked per the latest revision of AAR Specification M-101.

3.14 Brake Equipment

The trucks are equipped with a WABCO GJ-5½ tread brake unit at each wheel.

Tread brake units shall be removed and overhauled in accordance with OEM recommendations as specified in Section 5.

Brake shoes shall be renewed/replaced.

Handbrake foundation brake parts shall be cleaned, inspected, and checked for proper operation.

3.15 Hot Bearing Detection

An inboard journal bearing surveillance system shall be installed in accordance with Amtrak drawing D-04-414, latest revision. The system shall detect incipient bearing failures.

The bearing surveillance system shall be circuit breaker (CB) protected with a circuit breaker located within the electrical cabinet.

An Ultratech surveillance unit, AAMPS# 24 848 61810, shall be mounted in the electrical cabinet. Controls and indicators on the face of the surveillance unit shall be readily accessible for monitoring by crew and maintenance personnel.

An indicator lamp/buzzer panel, AAMPS# 24 240 02228, triggered by the surveillance unit, shall be mounted on a wall or bulkhead easily visible to a passing crewmember.

A diode board, AAMPS# 24 240 02237, shall be located near the surveillance unit, and shall transmit a signal into the trainline circuit whenever a hot bearing is detected.

A junction box, AAMPS# 24 270 01677, shall be installed on each truck frame.

Each journal/journal housing shall be modified to accept a temperature sensor. A temperature sensor shall be installed for each journal. The arrangement shall be submitted for Caltrans review. **CDRL 3.07**

3.16 Brake Air Pipes

All air pipes intended for reuse shall be cleaned internally and externally and inspected for damage.

Damaged air pipes shall be renewed/replaced.

Brake piping on the trucks shall be modified to add a hose to connect to each tread brake unit with the exception of the location under the handbrake lever.

3.17 Truck Grounds and Electrical Wiring

Ground straps between the carbody, truck bolster, truck frame and each truck bearing housing/adapter shall be inspected for damage or wear. Defective ground straps shall be renewed/replaced.

Renewal/replacement ground straps shall be flat, braided stock with punched holes in accordance with Amtrak practices.

Contacted surfaces shall be cleaned flat and bright before the strap is applied.

Round, multi-strand twisted copper cable shall not be permitted. The ground strap design shall resist fraying.

The design capacity shall be adequate for a 750 kVA, 480 V AC HEP load trainlined through the car. Truck grounds shall have a resistance less than 0.01 Ohms when applied to the car.

Junction box gaskets shall be renewed/replaced if junction boxes are retained.

Non-metallic flexible conduit types shall not be used on trucks.

3.18 Assembly

All fasteners used in the truck assembly shall be renewed.

The truck shall be assembled with high strength steel fasteners, minimum 110,000 psi, conforming to the American National Standard semi-finished quality. The fasteners shall be secured with hexagon lock-tight nuts torqued to specified values. Torqued bolts shall be torque striped.

Standard gauge hexagon machine bolts, in sizes ½ inch or less, may be used to secure electrical cables and pipe clamps.

Trucks shall be assembled to the OEM clearances and heights.

Trucks shall be primed and painted a glossy black with high-grade Alkyd enamel.

3.19 Carbody Regulation

Carbody regulation procedures shall be submitted for Caltrans review. Regulation procedures shall incorporate details as to how the following shall be accomplished. **CDRL 3.08**

- Cars shall be located on a level tangent track with the carbody centered over the trucks
- Truck side bearings shall be shimmed for proper clearance
- Bolster anchor assemblies shall be adjusted to OEM requirements
- Equalizer spring height shall be adjusted to OEM requirements
- Air springs shall be inflated to OEM requirements
- Shims shall be applied to compensate for wheel wear
- Shims shall be applied to compensate for carbody imbalance in order to maintain side to side level
- Bolster safety straps clearance shall be maintained
- Coupler height shall be adjusted to FRA requirements
- Lateral bumpers shall be shimmed for proper clearance
- Referencing the New Jersey Transit Maintenance manual for developed by Morris Knudsen for the Comet cars for car height adjusting procedures, pages 14-17 during inspection Jacobs benchmarked the 1" variance in floor height at the centerline of the bolsters. Caltrans shall disposition any variance beyond 1" on a car by car basis.

4.0 Coupler/Draft Gear Arrangement

4.1 General

Each end of the car is equipped with an AAR type "H" Tightlock coupler with "F" shank, yoke, and National Casting rubber draft gears. ASF-Keystone yoke part number 46637 and draft gear part number MS-489-6A are dimensionally and functionally equivalent to the original National Casting designs. Pneumatic and electrical connections are provided by separate hoses and jumper cables.

Inspection, reconditioning and new components shall comply with the current revisions of APTA RP-M-002-98, RP-M-003-98, and RP-M-004-98 where applicable.

Components that are specified for overhaul or refurbishment and are unsuitable for reuse shall be renewed/replaced.

The coupler, yoke, and draft gear assembly shall be removed from the car and cleaned, overhauled, repaired or renewed/replaced as specified herein.

Individual components shall be cleaned and inspected.

The yoke and draft gear assembly shall be sent to OEM supplier, ASF-Keystone, for reconditioning unless otherwise approved by Caltrans.

The Overhaul Plan for the Coupler and Draft Gear Arrangement shall be submitted for Caltrans review. **CDRL 4.01**

4.2 Couplers

Prior to refurbishment couplers shall be visually inspected, gauged, and critical surfaces and components dimensionally measured in accordance with APTA RP-M-004-98.

Type "H" Tightlock couplers requiring work shall be reconditioned per the latest revision of APTA RP-M-004-98.

Only coupler bodies shall be reconditioned in accordance with Sections 6.1 and 6.2 of APTA RP-M-004-98, Recommended Practice for Reconditioned and Second Hand Type "H" Tightlock Couplers.

Couplers, as seen in Buckeye drawing C-14588, are presently double rotary operation couplers as they can be operated from either side of the car. When the couplers are overhauled or renewed/replaced they shall be equipped with single rotary lock lift assemblies appropriate for a single uncoupling arrangement.

All highly stressed components of the coupler shall be magnaflux inspected to verify the extent of repair necessary.

Inspection data shall be recorded in the Car History Book.

Condemned couplers shall be renewed/replaced with new or refurbished couplers.

4.3 Yoke

An AAR high tensile steel Tightlock coupler yoke is provided with the draft gear/coupler arrangement, as seen in ASF-Keystone drawing #SB-46908E. The yoke shall be inspected for wear or damage. ASF-Keystone part number 46637 yoke, shown in ASF-Keystone drawing #SB-20066A, is the equivalent design for renewal/replacement.

Inspection data shall be recorded in the Car History Book.

Damaged or worn yokes shall be renewed/replaced with new yokes.

Purchase and acceptance of new yokes shall be in accordance with APTA RP-M-003-98 Recommended Practice for Purchase and Acceptance of Type "H" Tightlock Couplers.

4.4 Draft Gear

The car is equipped with National Casting rubber draft gears. ASF-Keystone part number MS-489-6A rubber draft gear, shown in ASF-Keystone drawing #SB-20066A, is the equivalent design for renewal/replacement.

Draft gear shall be removed and inspected in accordance with the manufacturer's work scopes. All full and end rubber pads shall be renewed/replaced. The yoke and draft gear shall be sent as an assembly for overhaul.

Followers shall be cleaned, inspected and renewed/replaced if worn or damaged.

Inspection data shall be recorded in the Car History Book.

4.5 Draft Gear Pocket

Amtrak shall inspect the draft gear pocket for cracks, damage, and wear in accordance with Section 6. The determination of whether to repair or replace will be made jointly by Amtrak and Caltrans. All repairs must be mutually agreed upon before performed.

The belly pan shall be inspected, repaired, and reinstalled with new fasteners.

4.6 Coupler Carrier

The coupler carrier is a spring suspended type riding on a wear plate.

The coupler carrier shall be inspected. Damaged or worn components shall be repaired or renewed/replaced. All wear plates, pins, bushings and any other worn parts shall be renewed/replaced in-kind. Springs shall be renewed/replaced in-kind.

Any damage or wear to the draft gear carrier shall be repaired. New fasteners shall be used when reapplying the draft gear carrier.

4.7 Uncoupling Levers

Uncoupling levers shall be refurbished. Damaged or worn components shall be repaired or renewed/replaced.

Presently the cars are equipped with uncoupling levers on both sides of each end of the car. The right hand uncoupling assemblies, facing the car from ground level, shall be eliminated.

Uncoupling levers may be reconfigured to accommodate the addition of new MU and COMM receptacles.

5.0 Brake/Pneumatic Equipment

5.1 General

The cars are equipped with 26-C/CS-2 electro-pneumatic brake equipment, a WABCO E-5 wheel slide system and WABCO GJ-5½ package tread brake units.

The WABCO E-5 wheel slide system shall be replaced with a Knorr MGS wheel slide system.

All brake equipment shall be removed from the car and overhauled per OEM specifications.

The electrical portion of the electro-pneumatic brake system and the snow brake feature shall be removed.

Remove all cab control equipment from the cab area and from under the car as specified in Section 2. Remove associated piping where practical and cap piping or install connections to maintain the integrity and functionality of the brake system piping.

Brake equipment shall be arranged for operation in trains with diesel-electric locomotives.

Amtrak and Amtrak subcontractors performing Work on brake equipment shall submit their test codes, racks, plates, fixtures and procedures used for Caltrans review prior to proceeding with the brake component overhaul. **CDRL 5.01**

Renewal/replacement materials for the COT&S overhaul shall be supplied by WABCO, NYAB/Knorr, Prime, Salem, or Strato. Material from the referenced sub-suppliers may be substituted without limitation.

The use of new portions, brake cylinders and rigging, and renewal/replacement parts not made in North America is prohibited without prior Caltrans approval. New portions and actuators may not use prohibited parts.

5.2 Brake Performance

The specified braking performance for a train with four (4) cars with air brakes alone shall have a minimum full service braking rate of 1.35 mphps at 100 mph increasing and maintaining 2.0 mphps at speeds of 70 mph and less.

Instantaneous Full Service deceleration shall not exceed 2.75 mphps or be less than 1.25 mphps.

Emergency braking rate shall not be less than 2.5 mphps from 70 mph or less.

Maximum jerk rate of 1.5 mphpsps shall not be exceeded under normal condition. Emergency braking is not jerk limited.

Contractor shall perform the necessary analysis to insure that the overhauled brake configuration and hardware has the capability to meet the performance requirements of this specification. A thermal analysis of tread temperatures shall also be performed considering the projected Caltrans route profile. These analyses shall be submitted for Caltrans review.
CDRL 5.02

The braking performance shall be verified during testing, in accordance with Section 16, in the corridors in which the cars are to operate up to maximum permissible speed (79 mph). Validation shall be by calculation at speeds above 79 mph up to 100 mph.

Overhauled cars shall be configured to operate in trains up to 8 cars in length with a Caltrans or Amtrak locomotive equipped with dynamic braking.

The air brake equipment, when delivered to Caltrans, shall be compliant with FRA regulations.

5.3 Tread Brake Units

WABCO GJ-5½ tread brake units shall be removed and overhauled in accordance with OEM recommendations.

All brake shoes and shoe keys shall be renewed/replaced.

Tread brake units shall be painted to match the truck frame.

5.4 Piping and Hoses

Each end of each vehicle is equipped with two (2) trainline pneumatic connections: one (1) for the main reservoir/equalizing pipe (MR) and one (1) for brake pipe (BP). The pneumatic trainline connections shall be modified through hard piping to accommodate the new HEP arrangement. Missing or damaged dummy hose couplings with retaining chains shall be renewed/replaced.

All piping shall be blown clean while being mechanically excited. During the overhaul process, ends of pipes remaining on the car shall be covered or capped. The piping for the main reservoir and brake pipe lines at the ends of the car shall be modified so that the configuration and location of the angle cocks and hoses shall be as shown in APTA RP-M-001, "Recommended Practice for Air Connections, Location and Configuration of, for Passenger Cars Equipped with AAR Long Shank Tight Lock or Similar Long Shank Type Couplers."

Air piping shall be cleaned out, inspected, and tested for leaks. The procedure for cleaning air pipes and testing for air leaks shall be submitted for Caltrans review. **CDRL 5.03**

Leaking piping shall be repaired. Damaged piping shall be repaired or renewed/replaced.

All air hoses shall be renewed/replaced with new hoses. This shall include hoses to the truck air suspension and end-of-car hoses.

Copper air piping which has been damaged resulting in a reduction in the outside diameter of the pipe to less than 75% of its nominal value shall be renewed/replaced. Copper pipe having damage resulting in abrupt kinks shall be renewed/replaced regardless of reduction of outside diameter. Copper piping with nicks or gouges deeper than 25% of the wall thickness of the piping shall be renewed/replaced.

Unused piping shall be removed from the car where feasible or capped in place.

5.5 Brake Valves and Cutout Cocks

The brake manifold shall be refurbished and a COT&S performed on all its components.

All valves and valve portions intended for reuse shall be removed from the car, cleaned, disassembled, overhauled, assembled, and bench tested per OEM specifications.

All cutout cocks shall be cleaned, tested, lubricated, and repaired or renewed/replaced.

All non-functional or missing valve handle locks shall be repaired or renewed/replaced.

Angle cock supports shall be inspected and repaired to bring them back to their original configuration.

5.6 Emergency Brake Valve

Cab cars are not currently equipped with an A-End conductor B-3-B emergency brake valve and E-3 Brake Actuating valve. Cab cars shall be modified and equipped with a B-3-B emergency brake valve and E-3 Brake Actuating valve at both ends of the car as part of their conversion to trailer cars.

Existing B-3-B valves and E-3 Brake Actuating Valves at both ends of trailer cars and the B-End of cab cars shall be removed and overhauled per OEM specifications.

All emergency valve handles shall be accessible from the passenger compartment without removing ceiling panels.

5.7 Air Reservoirs

The main supply and auxiliary reservoirs shall be drained, cleaned, and inspected. Reservoirs with dents, creases, or corrosion that result in evidence of leakage from the telltale holes shall be renewed/replaced. Renewal/replacement reservoirs shall conform to the requirements of ASME Section VIII.

The drain valve and cutout cock shall be inspected. Damaged or defective cutout cocks shall be renewed/replaced.

Reservoir support brackets shall be inspected and repaired. Support brackets that are bent, have failed welds or have inadequately repaired weld joints shall be repaired.

5.8 Air Brake Filter/Dryer

An air brake filter/dryer shall be installed in the air lines before the air reservoirs. The filter/dryer shall be AAMPS# XX XXX XXXX.

5.9 Handbrake

The cars are equipped with Ellcon National Model 5660-2 handbrake which is a two-way wheel type handbrake with a non-spinning wheel, located at the B-End of the car.

The Model 5660-2 handbrake shall be overhauled in accordance with OEM procedures.

The associated chains, levers, bushings, and pulleys shall be inspected in accordance with APTA SS I&M 004-98 and repaired or renewed/replaced.

Brake applied/release micro switches shall be renewed/replaced.

A local handbrake status indicator utilizing high-intensity LED's shall be installed near the handbrake. A YELLOW indicator shall indicate that the handbrake is applied, and a GREEN indicator shall indicate that the handbrake is "fully released."

5.10 Wheel Slide System

The cars are equipped with a WABCO E-5 wheel slide system. The E-5 wheel slide system and associated valves, wiring and sensors shall be replaced with a new Knorr MGS microprocessor controlled wheel slide control system. The system shall include:

- MGS System/Unit controller with prewired connector plug(s)
- GV-18 modulation type dump valves (2 per car)
- Molded type T-harness cables (2 per car)
- Speed sensors
- Adapter cable to connect Portable Test Unit to MGS Controller
- Software for Portable Test Unit

All speed sensors and associated wiring shall be renewed/replaced.

Test data from previous wheel slide tests utilizing vehicles of equivalent weight and with an equivalent brake configuration shall be accepted.

5.11 Test Fittings

Quick disconnect test fittings shall be tested and renewed/replaced if defective.

Quick disconnect test fittings shall be installed on all cars to obtain pressure readings for the air springs, brake cylinders, control lines, and pressure switches.

5.12 Air Brake Testing

Upon completion of all repairs all air piping, including hoses and couplings, shall be charged to not less than 125% of BP working pressure and all pipe joints and fittings shall be tested for leaks.

Air leaks shall be repaired before any further testing is performed.

Upon completion of leak testing, the car and brake system shall be subjected to, and be required to pass, all applicable tests as specified in APTA SS-M-005-98, current revision, Code of Tests for Passenger Car Equipment Using Single Car Testing Device.

Dynamic testing on a train set including a P42DC or F59PHI locomotive (whichever locomotive presents worst-case performance) and up to six (6) completed cars over trackage on which the cars are to operate shall validate the performance of the brake system to the requirements of Section 5. The testing shall include both service and emergency brake stops at several speed increments up to the maximum speed which Caltrans will be operating the cars. Dynamic testing shall also include testing of the wheel slide system over trackage after a soapy solution has been applied. Test instrumentation shall be adequate to accurately record the braking performance. Test procedures and reports shall require Caltrans review. **CDRL 5.04**

In the event that testing results do not meet specification requirements, Caltrans will work with Amtrak to resolve any non-conformances However, Amtrak does not assume any risk with this project and any additional expenses will be borne by the state.

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6.0 Structure

6.1 General

The carbody is of stainless steel construction. The exterior is unpainted.

The exterior skin shall be stripped of all exterior markings, decals, and graffiti.

The carbody shall be cleaned, refurbished, and repaired to provide a neat appearance consistent with a well-maintained rail passenger car.

Decals with Caltrans markings, car numbers and car names shall be applied to the side sheets.

An exterior color palette with material samples and graphic scheme shall be jointly developed between Caltrans and Amtrak.

All asbestos containing materials are believed to have been removed when the cars were converted from EMU vehicles into push-pull cars. Caltrans shall be advised in the event asbestos containing materials are found.

After cleaning and removal of equipment scheduled for removal, the car structure shall be jointly inspected for damage and degradation by Amtrak and Caltrans. Structural repairs shall be documented in the Car History Book.

Any proposed structural repairs shall be subject to Caltrans approval.

Repair or renewal/replacement of carbody parts and/or undercar apparatus shall preserve the present clearance envelope. If clearance between truck and carbody are changed, Amtrak shall verify that there is no incursion into the dynamic envelope of the truck.

Any new apparatus supplied during the car overhaul shall be the same for all cars and shall be fully interchangeable from one car to another.

There shall be no sharp edges or corners any place in or around the car where passengers, operators, or maintenance personnel may come in contact.

All Work performed on the car structure shall be recorded in the Car History Book.

6.2 Carbody

Carbody structure is stainless steel. AISI 301/302 stainless steel is used in visible parts and AISI 201/202 stainless steel is used in concealed parts. The end underframe is low-alloy high-tensile steel.

Roof carlines and purlines are stainless steel. The corrugated roof sheets are rolled from stainless steel.

The cross bearers and floor beams are fabricated stainless steel sections while the center sill is constructed from two (2) formed channels.

Sub-floor sheets are 200 Series stainless steel. Floor panels are three-quarter inch (¾") thick ply-metal sheets faced on both sides with 0.025" thick Stainless Steel.

The carbody shall be cleaned and refurbished to provide a neat appearance consistent with a well-maintained rail passenger car.

The underframe and exterior of the car shall be cleaned. Cleaning procedures shall be determined jointly between Caltrans and Amtrak during the prototype phase.

All accessible carbody structure end, side, roof, underframe members, bolsters, and anchor brackets, including all equipment supports, shall be inspected for structural degradation.

Damage detrimental to the structural integrity of the car shall be analyzed and repair procedures developed and submitted for Caltrans review. **CDRL 6.01**

Carbody damage shall be repaired if the integrity of the carbody structure is compromised, watertightness of the carbody is compromised, or it interferes with equipment functions. Repair procedures and materials including sealing of equipment penetrations shall be submitted for Caltrans review. **CDRL 6.02**

Caltrans shall be notified for disposition if any major structural defects, detrimental to continued operation of the car, are identified. Repairs shall be designed and applied to achieve strength levels in keeping with the original construction. Minor defects, defined during prototyping, shall be repaired as incidental work.

Carbody penetrations left exposed by removal of equipment slated for removal shall be sealed.

The cars shall be detailed to Caltrans colors. Schemes shall be developed during the prototype phase. Decals may be used where appropriate.

The exterior color scheme including decals, car numbers and Caltrans logos shall be provided by Caltrans.

6.2.1 Buffer Plate

A buffer is provided at each end of the car. The buffer face plate is guided and held against the buffer face plate of the adjoining car by side stems and a compression spring arrangement.

Buffer face plate and side stems shall be cleaned and repaired. Buffer springs shall be renewed/replaced.

Hinged stainless steel diamond walkway plates are provided above the buffer plates. Hinges shall be cleaned and lubricated. Bent or damaged walkway plates shall be repaired.

The buffer plate arrangement drawings and a list of parts shall be submitted for Caltrans review. **CDRL 6.03**

6.2.2 Underframe

The underframe, including equipment support brackets, shall be thoroughly cleaned and visually inspected. Special attention shall be given to high stress areas and in locations where equipment mounting is impacted by removal and/or renewal/replacement. NDT methods shall be used as required. Damaged and/or degraded areas shall be mapped and documented.

Caltrans shall be notified for disposition if any major structural defects, detrimental to continued operation of the car, are identified. Minor defects shall be repaired as incidental Work.

Damaged equipment support brackets shall be repaired. Any penetrations of the subfloor sheets shall be patched with stainless steel plates, sealed with fire barrier putty, caulked around the penetration with silicone, and secured with stainless steel sheet metal screws or rivets. Repairs to the sub-floor sheet shall be made in a way to retain the flammability integrity.

6.2.3 Draft Gear Pockets

Draft gear pockets as well as the draft gear carrier shall be cleaned and inspected. All accessible welds shall be visually inspected. NDT methods may be used where required. Damaged and/or degraded areas shall be identified, repaired and documented in the Car History Book.

Cracks, damage, and excessive wear shall be repaired. Repair criteria shall be established during the prototype phase.

Wear plates shall be renewed/replaced based on joint inspection with criteria TBD during the prototype phase.

6.2.4 Pilot

The pilot and associated support brackets on the cab cars shall be removed.

6.2.5 Collision Posts

Collision posts shall be cleaned and inspected. All accessible welds shall be visually inspected. Non-destructive testing (NDT) methods may be used where required. Damaged and/or degraded areas shall be identified, repaired and documented in the Car History Book.

Caltrans will provide analysis and guidance to support Amtrak's incorporation of structural treatments to achieve the structural integrity of the original construction.

6.2.6 Corner Posts

Corner posts shall be cleaned and inspected. All accessible welds shall be visually inspected. NDT methods may be used where required. Damaged and/or degraded areas shall be identified, repaired and documented in the Car History Book.

6.2.7 Side Sills

Side sills shall be cleaned and visually inspected. NDT methods may be used where required. Defects and previous repairs shall be documented in the Car History Book. Damaged and/or degraded areas shall be identified, repaired and documented in the Car History Book.

Caltrans will provide analysis and guidance to support Amtrak's incorporation of structural treatments to achieve the structural integrity of the original construction. Amtrak will follow the specification but will not be liable for any reworking required; these costs will be borne by Caltrans.

6.2.8 Carbody Bolster

The carbody bolster shall be cleaned and visually inspected. NDT methods may be used where required. Defects and previous repairs shall be documented in the Car History Book. Damaged and/or degraded areas shall be identified, repaired and documented in the Car History Book.

6.2.9 Bolster Anchor Brackets

Bolster anchor brackets shall be visually inspected for damage or defects. Minor defects may be repaired without removing the brackets from the cars.

6.2.10 End Caps

The front and rear end caps are fiber-reinforced plastic (FRP) fabrications. The B-End end cap on all cars and the A-End end cap on the trailer cars are solid without penetrations. The A-End end cap on the cab cars has multiple penetrations for sign boards and lights.

All seams between the car shell and end caps shall be resealed/sealed.

End caps may be repaired or renewed/replaced with new stainless steel or FRP end caps.

If Amtrak opts to renew/replace the end caps, the material and design of the new end caps shall be submitted for Caltrans review. **CDRL 6.04**

If Amtrak opts to repair the end caps, repair procedures shall be submitted for Caltrans review.

CDRL 6.05

End cap repairs shall include repair of damage, sealing of all equipment penetrations and preparation of surfaces to receive Rhino Linings urethane sealer and Rhino Eco-Coat spray applied lining materials.

6.2.11 Side and End Sheets

Side and end sheets of the car shall be cleaned and visually inspected. No action shall be taken for minor dents, scratches, and gouges.

Holes, penetrations or damage compromising watertightness in flat sheets and corrugations shall be repaired.

The windows at the cab ends shall be removed and the openings sheeted and sealed with stainless steel sheeting. Windows shall be retained for reuse.

Penetrations in the skin remaining after scheduled equipment removals shall be covered with stainless steel plates and sealed to achieve watertight integrity.

6.2.12 Roof

All car roofs have extensive damage and equipment penetrations.

At the conclusion of all roof repairs and sealing, a leakage test shall be performed. The test method and procedure to test for water leakage shall be submitted for Caltrans review in accordance with Section 16.

Although Amtrak may utilize an alternative method(s) for identifying structural water leaks, subjecting the car to an air pressurization-smoke test, outlined below, minimizes the need for extensive disassembly of the car to adequately test for water leaks.

The air pressurization-smoke test is conducted by sealing all door, window and air grille openings in the shell and pressurizing the shell with air by placing a blower in a window opening or end frame doorway and introducing smoke into the shell.

The air pressure and smoke combination should be continued for approximately 30 minutes at which time the exterior of the shell should be inspected for smoke leaks. All leaks should be marked. This test may also be used to identify leaks in the side, end and subfloor sheets.

Roof penetrations shall be sealed and damage affecting watertightness repaired. Car roofs shall be coated with an elastomeric roof coating with UV protection (Rhino Eco-Coat), gray in color, after repair Work is completed. The procedure and material used for sealing the roof shall be submitted for Caltrans review. **CDRL 6.06**

The pantograph support structure and walkway shall be cut within one-eighth (1/8) inches of the roof sheeting to permit the Rhino Eco-Coat application to provide an integral covering.

Horns on cab cars shall be removed and returned to Caltrans. Caltrans shall provide a shipping address to Amtrak within 14 calendar days of removal and bear the costs of shipping. The roof penetrations associated with the mounting shall be sealed.

The strobe light on cab cars shall be removed and returned to Caltrans. The roof penetrations associated with the mounting shall be sealed.

Deflecting plates and rain gutters installed on the edge of the roof to prevent water from cascading from the roof shall be repaired. Deflecting plates at the roof above the side doors shall be repaired and the seam between the gutter and roof sheet shall be sealed.

Missing gutters and deflecting plates shall be renewed/replaced.

Drain holes shall be cleaned and cleared.

6.2.13 Ventilation Grilles

Ventilation grilles shall be cleaned and resealed. Damaged, bent, or deformed grilles shall be repaired.

Fresh air intake ventilation grilles above the toilet room shall be sealed to prevent toilet gases from being ingested into the car.

6.3 Windows

6.3.1 Passenger Side Windows

Passenger side windows are fixed, single glazed units supported directly in the car structure with endless neoprene glazing gaskets.

Side windows are intact and comply with 49 CFR Part 223.

Side windows, including emergency access windows, shall be replaced. 49 CFR Part 223 compliant Lexan windows may be used to replace windows. Some removed windows shall be retained as spares. Amtrak and Caltrans shall work together to determine the amount of windows saved and criteria for salvageable windows.

Neoprene gaskets shall be designed to make a watertight seal without the need for sealing compound between glazing and gasket. All neoprene gaskets shall be designed for use with polycarbonate and shall be designed to compensate for the expansion rate of the polycarbonate material. Neoprene gaskets shall have rounded corners both inside and outside the car to facilitate cleaning. All neoprene gaskets shall be made into one (1) endless piece by vulcanizing the ends.

6.3.2 Emergency Side Windows

The cars shall be equipped with FRA compliant emergency access and egress windows. Egress windows shall be modified with handles similar to the existing configuration. Access windows shall have external zip strips similar to the existing configuration. Each window shall be either an egress or access window. Egress and access windows shall alternate along the car.

Rubber glazing materials shall be renewed/replaced. After refurbishment, one (1) emergency window of each type in each car, selected at random by a Caltrans Representative, shall be removed to demonstrate ease of removal.

6.3.3 Cab Windows

Cab windows shall be removed and the openings sealed.

Cab windows shall be retained for potential application into carbody end frame doors.

6.4 Diaphragms

Cars are presently equipped with tubular type rubber diaphragms at both ends of trailer cars and the non-cab end of the cab cars. Diaphragms are made of cloth reinforced molded neoprene. For diaphragm installation, reference NJT Drawing 3068B-362-C, Diaphragm and Safety Bar Installation.

Existing diaphragms shall be inspected, cleaned for reuse or have the elastomeric material renewed/replaced in-kind if damaged. Damaged diaphragms shall be renewed/replaced with spare material obtained from NJ Transit and supplied by Caltrans, or with AAMPS# 24 796 08307 for damaged horizontal diaphragms, and AAMPS# 24 796 08315 for damaged vertical diaphragms.

The cab ends of cab cars shall be modified to accept new tubular diaphragm assemblies of the same design.

The diaphragm mounting arrangement and parts/components details shall be submitted for Caltrans review. **CDRL 6.07**

6.5 Safety Appliances

All safety appliances including steps and handholds shall be inspected for damage and to ensure that the attachment to the carbody is sound. Bent or damaged steps and handholds shall be repaired or renewed/replaced.

Safety appliances may be modified to accommodate the new "Dutch" door arrangement.

All handholds and safety appliances shall comply with 49 CFR Part 38 and 49 CFR Part 238.

6.6 Safety End Bars

The stainless steel safety end bars, hinges, and latches shall be inspected and repaired or renewed/replaced if damaged.

7.0 Interior Appointments

7.1 General

The interior of the car shall be thoroughly cleaned and refurbished as specified herein.

A dimensioned interior arrangement drawing shall be submitted for Caltrans review.**CDRL 7.01**

Arrangement drawings for the A-End and B-End vestibules shall be submitted for Caltrans review. Arrangement details shall include the vestibule designs incorporating side doors, vestibule doors, end frame doors, traps, door indication/bypass panel, communication panel, and revised handholds. **CDRL 7.02**

An interior color palette with material samples and graphics scheme shall be jointly developed by Amtrak and Caltrans.

Toilet room modules and associated apparatus shall be removed in accordance with Section 2. New ADA toilet room modules shall be installed in accordance with Section 8.

All seats shall be renewed/replaced with Amtrak double pedestal style seats and cushions.

The floor covering shall be renewed/replaced with carpeting and rubber flooring.

The floor panel arrangement shall be modified for the new seat track arrangement.

Low Location Exit Path Marking (LLEPM) material shall be provided.

7.2 Non-Cab Vestibules

Vestibule side and ceiling panels are stainless steel. The panels shall be cleaned.

Side and overhead maintenance access panels shall be cleaned.

Locks, latches, hinges, safety chains, and retainers on the overhead panels shall be repaired or renewed/replaced in accordance with the original design or accepted equivalent.

Equipment doors and latches shall be refurbished in accordance with Section 10.

Openings in side and ceiling panels caused by equipment removals shall be covered with stainless steel plates. The number of stainless cover plates shall be minimized. The arrangement shall be determined during the prototype phase.

Vestibule floors are diamond plate stainless steel. The floors shall be cleaned. Damaged flooring shall be repaired.

Passenger handholds shall be modified to accommodate the new interior arrangement including the new side "Dutch" doors and end frame doors. Passenger handholds that are retained shall be cleaned and repaired.

Holes resulting from equipment removal shall be blanked off with stainless steel covers. Amtrak shall develop a plan/design for the blank covers during the prototype phase. The plan/design shall be submitted for Caltrans review. **CDRL 7.03**

7.3 Cab Vestibules

The work scope included in the non-cab vestibules shall apply to cab end vestibules.

All cab equipment shall be removed as specified in Section 2.

Electrical and pneumatic circuit integrity shall be maintained by the removal scheme.

The cab seat and pedestal shall be removed and scrapped.

The floor plate under the cab seat shall be removed and scrapped.

Holes resulting from equipment removal shall be blanked off with stainless steel covers. Amtrak shall develop a plan/design for the blank covers during the prototype phase. The plan/design shall be submitted for Caltrans review. **CDRL 7.04**

7.4 Trap Doors

The trap door arrangement and latches shall be modified to accommodate the new "Dutch" doors.

Trap door assemblies including torsion assemblies, latches and keepers shall be removed for refurbishment and modification.

Torsion assemblies shall be cleaned, repaired, adjusted, lubricated and reapplied to modified trap door assemblies.

Latches shall be cleaned and lubricated.

Thresholds, heaters, and detector switches shall be removed.

The Bomar trap door arrangement with design/modification details shall be submitted for Caltrans review. **CDRL 7.05**

7.5 Stairwells

Ground loading side stairwells are located at the four (4) corners of the car. The stairwells are FRP fabrications with replaceable non-skid tread plates.

The stairwells shall be cleaned, inspected, repaired, and finished according to the exterior color palette provided by Caltrans.

The non-skid tread plates shall be renewed/replaced with new non-skid surface. Hi-contrast safety striping shall be applied to the edges of the step tread plates in accordance with ADA requirements.

Supporting structures shall be inspected and repaired.

Non-repairable stairwells shall be renewed/replaced. Two (2) spare stairwells are available.

7.6 Floor Panels

The floor panels are ply-metal with stainless steel sheets top and bottom.

The floor panel arrangement shall be redesigned to accept seat tracks. New floor panels shall be installed in a manner to achieve structural integrity, watertightness, and fire integrity. Seat tracks shall be installed for double pedestal seats.

Spots of the floor with missing acoustic insulation shall be coated with Amtrak's standard repair material.Seat arrangements, toilet room mounting configuration, and underfloor carbody structure shall be considered in developing floor panel configurations.

The design arrangement and application procedures for the floor panels shall be submitted for Caltrans review. **CDRL 7.06**

7.7 Seat Tracks

Standard Amtrak seat tracks, AAMPS# 24 640 00203, shall be installed to accommodate double pedestal seats.

Black rubber Diatron "T" molding, AAMPS# 24 414 03308, shall be applied in exposed seat tracks.

The seat track shall be designed in accordance with APTA standards for older equipment (6G 3G 3G).

The threads of seat track fasteners shall be coated with Loctite Blue 242 before installation.

Zinc-based anti-seize/corrosion inhibitor paste shall be applied to the countersunk area of the seat track in each bolt hole before installation.

Bolt torque values shall be determined considering a lubricated fastener condition and the grade of material.

Where the seat track crosses a floor beam, at least one fastener shall go through the top flange of the floor beam.

The edges of the stainless seat track hat section shall be welded to the floor beams.

Floor panels shall be secured to the floor beams with rivets, including a rivet next to the hat section that goes through the floor panel and the flat area of the hat section.

The above requirements were a part of the FEA completed by Stuart Fielding (RailX).

7.8 Wall and Ceiling Panels

Wainscot panels shall be covered with Nevamar ALV004T Royal Allusion aluminum laminate melamine. If the existing panels have been damaged, they shall be repaired to facilitate the melamine covering without any visible impact on the finished surface.

Window masks shall be cleaned, repaired, and painted "Phantasy White".

Cove panels shall be cleaned, repaired, and painted "Phantasy White".

Center aisle high ceiling panels shall be cleaned, repaired, and painted "Phantasy White".

Stainless steel trim surfaces shall be cleaned and repaired.

Damaged panels shall be renewed/replaced.

Panel repair procedures shall be submitted for Caltrans review. **CDRL 7.07**

7.9 Low Ceiling Arrangement

The arrangement of the two low ceiling areas shall be modified to accommodate an ADA toilet room module, HVAC equipment, vertical luggage rack assemblies, and trash/recycle bins.

The arrangement of the A-End low ceiling area shall be in accordance with RailPlan arrangement drawing 4806.

The arrangement of the B-End low ceiling area shall be in accordance with RailPlan arrangement drawing 4807.

Low ceiling area ceiling panels shall be covered with "Frosty White" melamine.

Low ceiling area wall panels shall be covered with "Navy Legacy" melamine.

The above RailPlan arrangement drawings shall be submitted for Caltrans review. **CDRL 7.08**

7.10 Interior Flooring

Carpet and rubber flooring shall be installed to complement the new interior arrangement.

Samples of the rubber flooring material showing the color and texture of the material shall be submitted as part of the interior color palette.

All seams of rubber flooring shall be cold welded in accordance with OEM procedures.

Caltrans has sufficient quantities of carpeting for installation into the cars. Samples of the carpeting shall be made part of the interior color palette.

7.11 Low Level Exit Path Marking

Low Level Exit Path Marking (LLEPM) material shall be provided compliant with APTA SS-PS-004-99. The LLEPM material shall provide guidance to a car primary exit when normal and emergency light sources are not available.

Exit Path marking and signage shall be provided by high performance photo-luminescent (HPPL) materials conforming to HPPL materials defined in APTA SS-PS-004-99.

The LLEPM design arrangement shall be submitted for Caltrans review. **CDRL 7.09**

7.12 Luggage Racks

7.12.1 Overhead Luggage Racks

The overhead luggage racks shall be cleaned, inspected, and repaired.

7.12.2 Vertical Luggage Rack Assemblies

A vertical luggage rack in accordance with RailPlan drawing 4804 shall be installed in the A-End left corner of the car. The arrangement drawing shall be submitted for Caltrans review. **CDRL 7.10**

7.12.3 Bicycle Rack

7.13 Section has been deleted.Seats

Seating capacity shall be 64 passengers with a seat pitch of 41 inches.

All seat frames shall be replaced with double pedestal seats with foot rests and without leg rests consisting of the following parts:

- Seat frame, AAMPS# 24 472 00630
- Pedestal, AAMPS# 24 472 0050X
- Back cushion, AAMPS# 24 045 07727
- Bottom Cushion, AAMPS# 24 045 07728

Seat frame plastic components shall be Amtrak "Cool Gray".

Seat upholstery may be provided new or may be refurbished with new "Amtrak Blue" covers.

Color samples, fabric samples and seat side panel samples shall be submitted as part of the interior color palette.

The seats shall be locked in position by bolting to prevent passengers from rotating the seats. The bolt shall be easily removable by maintenance personnel so that the seats can be removed for maintenance.

7.14 Tables

Six (6) solid tables, 28 inches wide by 42 inches deep, with a nominal one (1) inch thickness, shall be provided. Tabletops shall be square on the back with a rounded contour on the front end. The tabletops shall have a dark gray raised rock edge lip.

The tabletop surface shall be Wilsonart 1755-60 Canyon Black laminate.

Tabletops shall be 29 inches above the floor. The tables shall be mounted to the seat tracks.

The design and application details of the tables shall be submitted for Caltrans review.**CDRL 7.11**

7.15 Segway Restraining Device

A Segway restraining device shall be installed at the B-End of the car in accordance with Amtrak standard policy.

The restraint shall be attached to the wall adjacent to the electrical cabinet.

7.16 Curtains

Sliding window curtains, AAMPS# , shall be provided at each window. Curtain fabric shall be "Cal 1 purple" in color.

Continuous sliding curtain tracks, AAMPS# 24 345 90001, shall be provided above and below the windows on each side of the car.

Color and material shall be submitted as part of the color palette.

7.17 Emergency Tools

All emergency tools including the tool carrier have been removed from the cars.

Emergency tools compliant with 49 CFR Part 239 shall be provided by Amtrak.

7.18 Trash/Recycle Units

A modular trash/recycling unit in accordance with RailPlan arrangement drawing 4805 shall be installed in the A-End right corner of the car. The arrangement drawing shall be submitted for Caltrans review. **CDRL 7.12**

A trash locker shall also be provided in the B-End left corner between the B-End bulkhead and the toilet room module, below the crew locker. The arrangement drawing shall be submitted for Caltrans review as part of the RailPlan low ceiling area arrangement.

7.19 Lockers

The configuration of lockers and cabinets within the passenger compartment shall be modified to conform to the new low ceiling area arrangement. Lockers and cabinets shall include the electrical cabinet, emergency tool locker, crew locker and equipment lockers. RailPlan arrangement drawings for the lockers and cabinets shall be submitted for Caltrans review. **CDRL 7.13**

7.19.1 Emergency Tool Locker

A new emergency tool locker shall be provided between the B-End bulkhead and the toilet room module.

Tools shall be secured within the locker to prevent rattling. The locker shall be clearly marked with tools being readily accessible for emergency use.

7.19.2 Crew Locker

A lockable crew locker shall be provided as part of the low ceiling area specified in Section 7. The crew locker shall be located between the B-End bulkhead and the toilet room module.

A standard Amtrak coach key shall be required to access the locker.

7.19.3 Electrical Cabinet Doors

Access to the electrical cabinet shall be modified as part of the RailPlan scope of supply for the low ceiling areas.

A single hinged door was applied as the bicycle racks were eliminated allowing this change. The door shall provide circuit breaker access and access for equipment requiring maintenance.

A standard Amtrak coach key shall be required to access the inboard cabinet door.

7.19.4 Equipment Access

Access shall be provided for diagnostics, servicing and removal, and renewal/replacement, where necessary, by hinged access doors or removable access panels, secured with captive hardware.

7.19.5 Vestibule Ceiling Dropdown Panel

The vestibule contains a drop ceiling that separates the compartment into a passenger area and equipment area above.

Access to the vestibule ceiling is currently provided through a hinged, dropdown panel in the middle of the vestibule ceiling. The panel is locked in place by a pencil lock and metal safety catch.

The pencil lock shall be removed, and captive screws shall be installed to hold the panel in place.

The metal safety catch(es) shall be repaired if damaged.

7.20 Air Ducts, Diffusers and Grilles

The Interior of all air ducts shall be cleaned and repaired as specified in Section 11.

Deteriorated insulation materials around the air ducts shall be renewed/replaced.

All return air grilles shall be renewed/replaced as part of the new low ceiling arrangement.

7.21 Trim Work

Cove moldings and trim strips shall be cleaned.

The plastic trim inserts concealing fasteners in the center of the car shall be renewed/replaced.

7.22 Decals

All interior signs and decals shall be replaced in accordance with all Federal and Caltrans requirements. Location and configuration of interior signage and decals shall require Amtrak/Caltrans coordination.

7.23 Miscellaneous Items

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

8.0 ADA Toilet Room

8.1 General

Comet IB cab cars and trailer cars are currently equipped with a toilet room at the B-End of the car.

The toilet room and all associated apparatus shall be removed and a modular ADA toilet room with a proven rail design, in kit form, shall be installed.

Toilet room module, RailPlan kit #3650-1, shall include the interior room shell, exterior panels, and all appliances including heat and ventilation equipment, lighting, and installation brackets, panels and structures to adequately connect the module to the car structure and systems. Kits shall be packaged and shipped as car sets.

Toilet hoppers, water supply system, and waste retention system are excluded from this Specification Section, but shall require coordination with the module selection.

8.2 Design Considerations

The module shell shall be constructed of FRP materials with a high gloss gel coat finish on surfaces exposed to the public. The shell shall include the floor, both interior and exterior sides, and ceiling.

The toilet room module assembly supplied shall have as its basis the most recent service proven design provided by RailPlan, Inc to the Massachusetts Bay Commuter Rail Company (MBCR) for their single level equipment. The module supplied for this Contract shall be RailPlan #3650-1. Design changes from the MBCR module shall be clearly marked on drawings submitted for Caltrans review. Submitted drawings shall also include a Bill of Material (BOM) identifying toilet room appliances. **CDRL 8.01**

Shell segments shall be preassembled to the extent possible and shall be sized for passage through the vestibule.

The toilet room assembly shall include:

- Toilet seat cover dispenser
- Baby changing table
- A molded FRP vanity with:
  - A molded FRP sink
  - Hands-free ADA water faucet, Sloan EAF-275
  - Drain
  - Plumbing kit
  - Celeste foam soap dispenser base
  - A trash receptacle flap
- A stainless steel polished mirror above the vanity
- Facial tissue dispenser
- An electric hand dryer
- A GFCI electrical outlet
- Grab bars in accordance with ADA guidelines
- Molded FRP toilet shroud with a hinged toilet seat
- A hinged transfer seat

- Sink access door with double roll toilet paper holder
- Stainless steel trash receptacle with access door
- Floor heaters
- Molded FRP paper storage cabinet with hinged door and stainless steel shelves, lockable with an Amtrak coach key
- ADA compliant interior lighting
- A kit with wire harness and plumbing components

Heater units shall be provided for the module.

An overhead exhaust fan with grille shall be provided.

The accessible toilet room module shall have a door with a "clear width" in accordance with ADA Guidelines. The door shall lock and remain closed when the train is in motion at any permissible speed. Door latches shall be operable by a person with impaired mobility and coordination.

The modules, attachments, and furnishings shall be designed for the following loading conditions:

Service loads - 1g longitudinal, 1.5g vertical, and 1.5g lateral.

Overloads - 6g longitudinal, 3g vertical, and 3g lateral.

Safety factor: The contractor shall state the factor of safety used in the design calculations for all loading conditions and shall provide the calculation method used.

RailPlan shall provide drawings and parts documentation in sufficient detail to allow Amtrak/Caltrans to second source module appliances for repair or renewal/replacement exclusive of waste retention components.

RailPlan shall supply supplemental drawing information to provide adequate instructions for assembly, installation, disassembly and removal.

RailPlan shall work with Amtrak to develop the BOM's for the entire modular kit and each of its sub-kits.

8.3 Module Shell and Trim Panels

The accessible toilet room arrangement shall be configured in accordance with ADA requirements and consistent with the MBCR module design.

Samples of materials and colors shall be submitted as part of the interior color palette.

- "Frosty White" gel coat on module interior fiberglass surfaces,
- "Navy Legacy" melamine on aisle side plywood panels,
- "Navy Legacy" melamine on toilet side of toilet room door,
- Nevamar ALV004T Royal Allusion melamine on aisle side of toilet room door,
- Norament 4877 Grano, Tanzanite, Hammer Finish flooring,
- Sink counter top with "Safas Stone" matte finish.

The vanity, baby changing table, and toilet shroud shall be incorporated into the design of the accessible toilet room module.

The shell shall consist of multiple sections sized and configured for passage through the doors at the end of the car. Not more than two (2) people, using appropriate mechanical aids, shall be required to move and position each section inside of the car for installation.

The shell, access panels, and interior trim panels shall be constructed of FRP with a gel coat finish. Unless otherwise specified, the finish on all surfaces exposed to passengers shall be a

high gloss with a gloss meter reading of 82 or greater. The finished surfaces shall be free of sanding marks and surface defects. Samples and color of exposed FRP surfaces and flooring materials shall be submitted for Caltrans review.

Tapping plates shall be imbedded into the FRP structures and panels. Tapping plates shall not be attached using adhesives or mechanical fasteners and shall be encapsulated with FRP. Tapping plates and stiffeners shall be steel.

All hinges shall be continuous renewable/replaceable stainless steel piano hinges. Latches shall be standard railroad proven type. Tamper proof fasteners shall not be used.

The floor pan of the shell shall be FRP. A skid-resistant rubber floor covering in the form of a renewable/replaceable insert shall be used on the remaining floor area. The floor covering shall be a NORA product, AAMPS# 24 412 08052, with a Hammer finish, V-72 series, or equivalent product. The floor covering shall extend a minimum four (4) inches up the side walls to form the inside scuff/kick plate. A strippable adhesive shall be utilized. The edges shall be sealed to form a watertight seal, and seams shall be sealed per the manufacturer's recommendations.

An FRP vanity with integral molded sink bowl and ADA water faucet for hand washing shall be built into the module.

Clearances below the vanity shall be in accordance with ADA guidelines. The vanity shall have a quarter (1/4) inch rolled marine anti-drip edge.

A polished stainless steel mirror shall be provided. The mirror shall be located above the vanity and shall be usable by a person standing and by a person seated in a wheelchair or other mobility aid. The mirror shall have a minimum 20 inches by 30 inches viewing area.

A double GFCI receptacle shall be located adjacent to the vanity.

An electric hand dryer suitable for use by a person using a wheelchair or mobility aid shall be provided.

A clearly labeled flush control pushbutton shall be installed on a side wall next to the toilet lid within reach of a person seated in a wheelchair or mobility aid.

The module shall be designed for installation of a Microphor air boost macerator toilet.

Stainless steel grab bars with a non-slip finish in the grasping areas shall be provided in accordance with ADA guidelines.

A folding transfer seat shall be provided to assist a wheelchair user transfer to the toilet seat. The seat shall fold against the side wall when not in use and shall be easily operable by a person in a wheelchair or other mobility aid. The transfer seat shall be designed to support a 300 pound load, with a safety factor of 4, concentrated in a 3 sq-ft area when extended.

A two-roll toilet paper dispenser shall be installed below the vanity and accessible from the toilet/hopper as well as from the wheelchair position.

A surface mounting location shall be provided in the side wall near the toilet to accept a "stick up type" air freshener.

The accessible toilet room entry doorway shall be in accordance with ADA guidelines. The door(s) shall be operable by a person using a wheelchair or mobility aid and a person with limited dexterity. The toilet room shall comply with 49 CFR Part 38.123. The force required to operate the door latch/lock shall not exceed 5 lbf (22 N). Operation of the door and latch shall not require tight grasping, pinching, or twisting of the wrist. The door shall remain in the fully closed, locked, and open positions during any motion of the train at any permissible speed. A method of unlocking the toilet room door in an emergency shall be provided. The door shall automatically return to the closed position, without slamming, from any partially open position, and when released from the full open position.

The door shall be of lightweight construction consistent in appearance to the module. The door shall be free from rattles and banging in any opened or closed position when the train is in motion.

Mechanical and electrical indicators shall be provided to indicate when the toilet room is "OCCUPIED" or "OUT OF SERVICE".

Stainless steel kick strips that are a minimum of four (4) inches high shall be provided at the base of all external side walls of the module.

Maintenance panels shall be provided for access to the exhaust blower. The panels shall be fabricated from ply-metal or other approved materials. The panels shall be easily removable for servicing and/or renewal/replacement of overhead equipment.

Trim strips shall be provided in the hallway between ceiling panels, the car wall panels, and module side walls. The trim strips shall provide a finished appearance to the module.

8.4 HVAC

Heaters shall be provided as part of the toilet room module. Exhaust air from the toilet module shall be vented outside of the car.

Conditioned air shall not be required.

Fans shall operate from 120 V AC. Heater elements and controls shall operate from 480 V AC.

The toilet room heat shall be part of the HVAC system specified in Section 11.

Resistive heaters shall be provided within the toilet module to maintain uniformity of temperature. Heater guards shall be stainless steel and shall be designed to prevent passenger exposure to surface temperatures in excess of 130 °F.

Air within the toilet modules shall be exchanged not less than ten (10) times per hour and shall be vented outside the car. Toilet room air shall be drawn from the passenger seating area, routed through the interior of the room, and exhausted through vents near the toilet.

Exhaust air shall be vented outside the car through the existing grilles on the outside of the car near the roof.

Air distribution and ventilation of the toilet room module shall be tested and adjusted to ensure that airflow is sufficient to meet specification requirements and to ensure that the air pressure inside the module is lower than in the passenger compartment.

8.5 Electrical Systems

8.5.1 General

Wiring harnesses for all component and junction box connections shall be provided. Entry points for car wiring shall be provided that maintain the integrity of the enclosures.

The location of electrical interface points on the car shall be identified. Module sections shall be pre-wired to the extent practical.

All electrical equipment shall be self-protected against over and under voltage conditions as well as voltage surges.

8.5.2 Heaters

Heater elements and their installation shall be coordinated between Amtrak and RailPlan consistent with the new floor heater arrangement.

Threaded fasteners shall be used to make the electrical connections at all heater elements.

8.5.3 Lighting

All general lighting shall operate from 120 V AC.

Emergency lighting shall operate from 72 V DC nominal, with a range of 50-80 V DC. Emergency lighting intensity shall be measured at 59-60 V DC.

Electrical connectors shall be provided at each light fixture.

General lighting intensity inside the module shall be 10 foot-candles measured on a horizontal plane 30 inches above the floor. Lighting at the mirror shall be minimum 30 foot-candles measured on a plane 16 inches from the mirror. The average emergency lighting intensity inside the toilet module measured at the floor within six (6) inches of any wall and in the center of the room shall be five (5) foot-candles.

Lighting fixtures shall be designed to eliminate objectionable glare and shall exhibit a uniform brightness of evenly distributed light, free from high intensity spots and patterns. Light fixtures shall be moisture and dust resistant.

All lamps and fixtures shall be readily renewable/replaceable from the front without removing wall or ceiling panels. Lamps shall be renewable/replaceable without tools.

High-intensity LED lamps and/or fluorescent lamps may be used. Halogen lamps shall not be used.

Fluorescent ballasts and lamp holders shall meet UL595 and UL542 requirements respectively.

Light fixtures shall be labeled with:

- Manufacturer Part Number
- Amtrak Part Number
- Lamp Type(s)

8.5.4 Convenience Outlets

The double convenience outlet shall be 20 A – 120 V AC rated, with Ground Fault Circuit Interrupter (GFCI) protection provided by a local GFCI device. A double outlet shall be located inside the module near the vanity.

8.5.5 Indicators

YELLOW "Toilet Occupied When Lit" indicators, activated by locking the toilet room door in closed position, shall be installed on the module exterior adjacent to the sliding door opening, and on the toilet system status panel on the bulkhead wall facing the seating area.

A similar YELLOW indicator shall be mounted inside the module near the door opening and labeled "Toilet Room Door Locked When Lit" or similar, and shall illuminate at the same time as the "Toilet Occupied When Lit" indicators.

RED "Toilet Out of Service When Lit" indicators shall be installed at the same locations as the "Toilet Occupied When Lit" indicators, and shall illuminate whenever the toilet system is non-functional using a signal generated by the toilet system controller.

Refer to Section 9 for waste tank indicator details.

8.5.6 Speakers

A speaker shall not be required within the toilet room.

8.5.7 Hand Dryer

An electric hand dryer, Xlerator XL-W or equivalent, shall be provided by RailPlan as part of their contract with Amtrak. The dryer shall be ground fault protected.

8.6 Water and Waste Systems

A water supply system and a waste retention system is specified in Section 9.

The module shall be pre-plumbed for water distribution within the module.

8.6.1 Water Heater

The toilet room module shall be provided with a one (1) gallon, 120 V AC, 1250 watt, vertical water heater for hot hand wash water. The water tank shall include an electric immersion heater, factory installed thermostatic temperature control, and low water protection. The thermostat shall be factory set and sealed to deliver hot water to the faucet at 105-115 °F.

8.6.2 Sink

All water fixtures and dispensers shall be constructed in accordance with FDA requirements.

Water from the sink is considered gray water and shall be discharged through trapped drains to the ground.

An ADA faucet, Sloan EAF-275 or equivalent, shall be provided for the sink. The faucet shall be operable with one (1) hand and shall not require tight grasping, pinching, or twisting of the wrist.

8.6.3 Water Shutoff Valve

A water shutoff valve(s) to isolate the module water distribution system from the car shall be provided. The shutoff valve(s) shall be easily accessible without tools.

8.6.4 Freeze Protection

Freeze protection shall be in accordance with Section 9.

8.7 Deliverables

8.7.1 Design Reviews

Design reviews of the toilet room module shall be limited in that Caltrans has accepted the basic design of the molded portions of the MBCR toilet room module, and these will not be subject to further approval.

8.7.2 Drawings

Drawings shall be provided in sufficient detail to understand all elements in the module, interfaces to the car structure, interfaces to other devices, and interfaces with electrical and plumbing systems.

8.7.3 Mockups

Installation of the toilet room modules into the prototype cars shall satisfy "mock-up" requirements.

8.7.4 Diagrams and schematics

New drawings including schematics shall be provided.

8.7.5 Parts Manual

Parts manuals shall be provided incorporating vendor information. As a minimum, a description of the part, part quantity, the name of the supplier, the supplier's part number and Amtrak's part number shall be listed for each part.

8.7.6 Maintenance Manuals

A maintenance manual shall be provided for shop use. The manual shall include instructions defining repair and renewal/replacement of all functional components within the module and any component that is subject to wear.

The manual will also include disassembly and renewal/replacement procedures for the module and its components.

Vendor drawings may be included and referenced in the manual as supplemental information to support maintenance.

8.7.7 Installation and Assistance

RailPlan shall provide written instructions and drawings for installation of the module.

RailPlan shall provide on-site personnel to assist Amtrak personnel to install the modules into the two (2) prototype cars.

9.0 Water Supply and Waste Retention

9.1 General

Existing water supply and waste retention system and associated apparatus shall be removed and scrapped as specified in Section 2.

A new water supply system and waste retention system shall be designed and installed.

Detailed drawings with BOM's shall be submitted for Caltrans review. The BOM shall form the basis for renewal/replacement parts. **CDRL 9.01**

The water supply and waste retention systems shall comply with all applicable Federal and California State regulations.

A non-potable water supply system shall be provided for flushing toilets and for hand washing.

A waste retention system, including toilet hopper, shall be provided.

The car underfloor arrangement shall be modified to accept the new water supply and waste retention systems. Structural analysis for all structural modifications to support water supply and waste tanks shall be performed and submitted for Caltrans review. **CDRL 9.02**

Any component installed shall be designed and mounted to have structural integrity for the vibration environment at the point of attachment.

All carbody mounted equipment shall be designed to withstand continuous vibrations of at least 0.2g at frequencies up to 100 Hz in all directions, as well as randomly oriented shock loads of 6g longitudinally, 3g vertically, and 3g laterally.

9.2 Piping and Fittings

Interconnecting piping, fittings, hoses, and associated apparatus shall be designed and installed, in kit form, for the water supply and waste retention systems.

The use of copper in any form for waste retention shall not be permitted. Non-metallic piping shall be utilized for the waste retention system.

Copper, stainless steel, or non-metallic piping shall be used for water fill and distribution.

Piping, hoses, and fitting shall be suitable for use in the water supply (distribution) system and for an air boost waste retention system. Underfloor water and waste lines exposed to debris damage shall be protected.

Drawings with BOM utilizing the inch-standard shall be provided for the piping installation kit. Installation procedures shall be provided.

9.2.1 Water Line Kit

Interconnecting water lines, fittings, and valves between the water storage tank and water panel shall be Type "K" copper tubing with copper fittings in accordance with Microphor part number MCR96088.

9.2.2 Waste Line Kit

All connections used for the waste system shall be threaded or of a compression type such as a "Hydro-Flow" fitting or equivalent.

Interconnecting waste lines and fittings between the toilet hopper and waste tank shall be threaded stainless steel, minimum one (1) inch diameter, in accordance with Microphor part number MCR96087.

9.3 Water Supply System

A water supply and distribution system shall be provided in kit form.

The supply tank assembly shall be mounted under the car with protection from debris damage.

The supply tank assembly shall be capable of being filled from either side of the car using fill port couplings, AAMPS# 24 210 22207, with protective box.

9.3.1 Water Tank

The water tank assembly shall be a Microphor part number MCR78282. The water tank assembly shall consist of, as a minimum:

- A minimum 100 gallon stainless steel storage tank,
- Two (2) minimum one-third (1/3) HP pressure-regulated DC water pumps for water distribution,
- Freeze protection thermostat,
- Heat pad(s) for freeze protection,
- Freeze dump valve with heated cap,
- Debris shields.

The water supply installation kit shall include, as a minimum:

- Fill port interface piping and fittings,
- Back flow valves as appropriate,
- Check valves as appropriate,
- Electrical interface harness and wiring.

Electrical, mechanical, and plumbing interfaces shall be coordinated with the toilet room module supplier.

9.3.2 Water Panel

The water panel shall be a Microphor part number MCR52807. The Water Panel shall include:

- Y-Strainer,
- Vacuum Break,
- and Solenoid valve.

9.4 Waste Retention System

A waste retention system utilizing a macerator toilet assembly with air boost with a minimum 150 gallon retention tank shall be installed.

The waste retention system shall include all required components in kit form. The waste retention kit shall include, as a minimum:

- A toilet assembly,
- Control Panel,
- Waste retention tank,
- Status Panel,

- An Air Panel,
- A "Flush" pushbutton.

Installation of the toilet assembly and the location of the controls shall be coordinated with the ADA toilet room module supplier, specified in Section 8.

Sizing of circuit breakers shall be coordinated with Section 12.

9.4.1 Toilet Assembly

The toilet assembly shall be a freestanding, right-hand macerator unit with air boost, Microphor part number MCR52521, AAMPS# 42 729 00620.

The toilet pedestal frame shall be constructed from stainless steel.

The hopper bowl shall be constructed from stainless steel with an integral air-assist water spray ring mounted near the upper lip of the bowl.

The waste macerator shall be a two (2) HP rotary cutter-type grinder/pump. The macerator shall be capable of grinding typical toilet wastes along with napkins, tampons, tissues, and similar objects.

The macerator toilet shall be operated by an electrical pushbutton located near the toilet seat.

Approximately 28 ounces of water shall be used per flush cycle.

Compressed air hopper evacuation air at 60-65 psi shall be used to help push waste out of the lower hopper into the macerator grinder. Compressed air shall also be used to propel waste products through the waste lines from the macerator grinder into the retention tank at the end of the grinding cycle.

The macerator shall utilize nominal 480 V AC, three-phase (3-phase) electrical motor.

Assembly valves shall operate from 120 V AC.

Toilet waste shall be transferred to the retention tank through one (1) inch piping.

Toilet assembly interface points shall be designed for ease of toilet assembly renewal/replacement. Quick-disconnect devices shall be used for electrical, pneumatic, and plumbing interfaces.

9.4.2 Retention Tank

The waste tank assembly shall be Microphor part number MCR52341-3.

A waste retention tank, with a minimum usable capacity of 150 gallons, shall be designed and installed under the car within the car clearance diagram.

The location and analysis of the mounting arrangement and car structural modifications shall be provided for Caltrans review. **CDRL 9.03**

The retention tank system and all fittings shall be capable of withstanding the corrosive action from caustic gases produced by human waste in a waste environment.

The inner holding tank and an outer protective tank shall be 316 grade stainless steel. The outer tank shall be ten (10) gauge or thicker.

The fluid system shall be completely gravity draining to the drain connection fitting, to prevent freeze damage from trapped fluids.

All tank fittings shall be stainless steel and shall be at least as large in diameter as their connecting lines. Fittings containing copper shall not be permitted.

The entire inner tank and all intake and drain lines up to the drain servicing fitting shall be completely freeze protected with 120 V AC self-regulating heat protective tapes. The heat tapes shall be capable of withstanding continuous exposure to 212 °F steam.

Carbon steel protective shrouds shall be provided to protect the tank from debris damage. The shroud shall extend over each outward-facing end of the tank and the bottom of the tank.

A removable "clean out cover," large enough to permit the interior of the tank to be cleaned, shall be provided.

An external port for rinse water, a three-quarter (¾) inch Chicago type fitting with spring check valve, shall be provided on each end of the waste retention tank. Rinse water will be provided from an external source off the car.

The retention tank and protective carbon steel shroud shall be painted black.

9.4.3 Tank Drain

The tank drain system shall use a minimum four (4) inch diameter, non-metallic pipe.

A drain port shall be provided on each side of the car. The drain port shall be equipped with a four (4) inch Andrews-type, quick-connect, drain hose connector with a chain-attached dust cap.

The dump valve shall have a clearly marked drain valve handle operable by a single employee. The dump valve shall be a three (3) inch diameter full port ball valve.

Operating the dump valve handle shall open the valve and vent the tank to atmosphere.

The drain system shall permit a "gravity" dump to an in-ground facility or to a toilet service truck.

Vacuum drain time shall not exceed five (5) minutes from "Tank Full" to "Tank Empty". "Tank Empty" is achieved when less than five (5) gallons of waste remain in the tank.

Electrical power or compressed air shall not be required to drain the tank.

9.4.4 Electrical System

The electrical system specified herein, including status indicators, shall be an integral part of the waste retention tank.

The electrical system shall utilize the car's 480 V AC, three-phase (3-phase), HEP electrical power supply protected by a circuit breaker located in the underfloor "High Voltage" CB box.

The toilet assembly and freeze protection shall utilize 120 V AC either from the car 120 V AC electrical power or through a step-down transformer provided as part of the retention tank assembly. Circuit breaker protection shall be provided.

All system annunciations shall operate from 72 V DC from the load shed system on the car. The 72 V DC load shall be CB protected.

9.4.5 Status Indicators

The toilet system status panel, including the manual cutout switch, shall be mounted on the face of the toilet system control box located behind the control box access panel.

A duplicate set of waste tank indicators ("2/3 Full" and "Full") shall be mounted on the indicator panel facing the seating area, next to the "Toilet Occupied When Lit" and "Toilet Out of Service When Lit" indicators. These indicators shall be repeaters for the indicators on the system status panel on the toilet system control box. Draft artwork for this status panel shall be submitted to Caltrans for review.

Amtrak shall supply signage for indicator lights and locker function identification.

Braille shall be used in the signage following current Amtrak/Caltrans configurations.

Refer to Section 8 for toilet room indicator details.

9.5 Documentation

The following documentation is required:

- Parts Manual,
- Maintenance Manual,
- Drawings,
- List of vendors,
- Schematics.

10.0 Doors and Sashes

10.1 General

Comet IB cars are equipped with an electrically powered, single leaf, side passenger door on each corner of the car. Powered side doors shall be replaced with manually operated, hinged "Dutch" doors.

The A-End of the cab cars is equipped with dogged, manually operated, hinged end frame doors. There are no end frame doors on the B-End of cab cars or either end of the trailer cars. End frame doors shall be installed between the collision posts of all cars. Existing end frame doors shall be refurbished.

Manually operated, hinged, vestibule doors shall be refurbished.

The B-End vestibule door on the two (2) trailer cars shall be modified to meet ADA requirements.

Lockable, hinged equipment locker doors, equipment access doors, and associated latches, locks, and keepers shall be refurbished unless they are being eliminated by the interior reconfiguration.

10.2 Side Door Pockets

Side door pockets shall be cleaned to remove accumulated dirt and debris. Amtrak shall have the option of removing the door panel as deemed necessary to facilitate Work.

The side door pockets shall be sealed to the extent possible without extensive disassembly to prevent ingestion of dirt and debris.

10.3 Door Summary Circuit

Each car shall be equipped with a door summary circuit to indicate when all exterior side doors in the car are "closed" and "latched" or "by-passed".

A door indicator shall be illuminated on each side of the car and in each vestibule whenever any exterior side door in the car is "opened". The door indicators shall be extinguished when all exterior side doors on the car are "closed" and "latched" or "by-passed".

Traction power shall be disabled when any exterior side door in the car is "opened" and not "by-passed".

Amtrak shall submit the door summary circuit design for Caltrans review. **CDRL 10.01**

10.3.1 Door Control Panel

A door control panel shall be provided in each vestibule. The door control panel in the B-End shall be located in the communications locker above the handbrake, in accordance with Section 13.

The door control panel shall include a crew door by-pass switch, door summary circuit status lights, and a lamp test button. Each device shall be able to be operated or enabled when the door control panel is activated.

The door control panel shall be activated with a standard Amtrak coach key held captive when the panel is in use. The key shall be inserted while vertical (teeth facing downward toward the floor), then rotated 90 degrees clockwise to activate the panel. The key shall be returned to the vertical position to deactivate the panel and allow for key removal.

The door control panel shall not be readily operable to unauthorized personnel.

Two platform light control switches shall be located on the door control panel in accordance with Section 10.3.6.

10.3.2 Crew Door By-Pass Switch

Provisions shall be provided to allow the upper panel of any side door to be "opened" while retaining traction power, when commanded by a crewmember.

A crew door by-pass switch shall be provided in each vestibule. The crew door by-pass switch shall nullify door summary circuit functions for both exterior side doors in its assigned vestibule.

10.3.3 Door Summary Manual Override Switch

A door summary manual override switch, intended to permit train operation with a malfunctioning door summary circuit until the train can be serviced, shall be provided for each vestibule. The door summary manual override switches shall nullify door summary circuit functions for both doors in their assigned vestibule.

The door summary manual override switches shall be operated by two-position toggle type switches secured in the electrical cabinet. Toggle switches shall have provisions for sealing in the normal position. The switches shall be sealable with an Amtrak-issue serialized seal to prevent unauthorized use.

The switches shall be labeled "Door Summary Circuit Override – A-End" or "Door Summary Circuit Override – B-End" depending on their assigned vestibule.

10.3.4 Lamp Test Button

A lamp test button shall be installed in each door control panel.

When the door control panel is activated, pressing the lamp test button shall cause all lamps in that vestibule (door status indicator lamps in A-End and B-End vestibules, and handbrake status indicator lamps in B-End vestibule) to illuminate for the purpose of testing the lamps.

10.3.5 Door Summary Indicators

Door summary indicators shall be installed in accordance with Section 14.

10.3.6 Platform Light Control Switches

A new toggle switch and LED lamp, WHITE in color, shall be installed at each side door to control the platform light at that door. Each platform light shall have its own toggle switch and LED lamp.

The switches shall be labeled in coordination with the door numbering system in Section 10.4. Starting at the A-End left side corner, the platform lights shall be numbered 1 through 4 in a counterclockwise order. The platform light numbers shall be:

- "Platform Light – Door 1" is at the A-End left side
- "Platform Light – Door 2" is at the B-End left side
- "Platform Light – Door 3" is at the B-End right side
- "Platform Light – Door 4" is at the A-End right side

Labels illustrating the platform light number controlled shall be prominently located adjacent to each platform light control switch. Artwork and exact location shall be determined by Caltrans.

10.4 Side Doors

Side door panels and associated linkage, including overhead door tracks, on the B-End of the car shall be removed to free up space for installation of the toilet room module.

Amtrak shall have the option of removing the A-End side door panels and associated linkage, including overhead door tracks, as deemed necessary to facilitate Work. If retained, side door panels on the A-End of the car shall be retracted into the door pockets and secured to prevent rattling and motion.

10.4.1 Side Door Panels (New)

New split, hinged, "Dutch" doors and trim shall be installed in accordance with Bomar drawing 205-10729-0100. Design details shall be submitted for Caltrans review. **CDRL 10.02**

Starting at the A-End left side corner, the new side doors shall be numbered 1 through 4 in a counterclockwise order. The door numbers shall be:

- Door 1 is at the A-End left side
- Door 2 is at the B-End left side
- Door 3 is at the B-End right side
- Door 4 is at the A-End right side

Door labels illustrating the door number shall be prominently located on the exterior of the car adjacent to each side door. Artwork and exact location shall be determined by Caltrans.

The new "Dutch" side door panels shall be of two (2) halves or sections.

The joint between the bottom and top sections of the door panels shall form a weathertight seal.

The top section shall have a window.

The bottom shall be prevented from opening whenever the top section is closed and latched.

Each section of the side door panels shall have a honeycombed core with a stainless steel skin.

10.4.2 Side Door Windows

The top half of the doors shall be equipped with a 49 CFR Part 223 compliant window.

10.4.3 Side Door Hinges

Door hinges shall be heavy-duty, continuous, stainless steel hinges.

10.4.4 Side Door Latches

Door "Dog" latches shall be provided for both the top and bottom halves of the side doors to secure the doors in the "closed" and "latched" position.

Door "Dogs" shall be accessible and operable from both sides of the door panels.

Door "Dogs" and keepers shall be cast stainless steel.

Spring latches shall be provided to hold each door panel (section) in the "open" position.

10.4.5 Weatherstripping

Weathertight seals shall be installed that form a weathertight barrier whenever both halves of the "Dutch" doors are closed and locked.

10.5 Door Operator Panel

Each side door is equipped with a Faively door operator panel consisting of a drive motor with transmission, limit switches, and electronic control. The door operator panels are located within the passenger compartment behind hinged access doors.

The door operator panels and associated door linkages shall be removed.

Interconnecting wiring shall be terminated in a manner to prevent short circuits and grounds.

10.6 Side Door Controls

Side door controls and equipment shall be removed.

10.6.1 Relay Panel

Door control relay logic is located in the B-End electrical cabinet inside of the passenger compartment. The relay panel shall be removed.

Interconnecting wiring shall be removed or terminated in a manner to prevent short circuits and grounds.

10.6.2 By-Pass Switches

Door summary by-pass switches are currently provided in each vestibule locker to disable a door while maintaining trainline control of the remaining side doors in a train.

Existing door summary switches shall be removed and the interconnecting wiring shall be removed or terminated in a manor to prevent short circuits or grounds. Conductor's Door Switch Panel

A conductor's door control switch panel is located in the vestibules on the bulkhead walls near each side door.

The switch panels shall be removed. The exposed opening shall be covered with a stainless steel plate.

Interconnecting wiring shall be evaluated for use in the door summary circuit and terminated in a manner to prevent short circuits and grounds.

10.6.3 Emergency Door Access Devices

Internal and external emergency access devices are provided to allow a side door panel to be opened manually.

The internal device shall be removed.

The exposed openings shall be covered with stainless steel plates.

Decals, with emergency operating instructions, shall be removed.

An external emergency access device is located on the side of the car near each door. The handles are covered by a glass or plastic cover. Instruction decals are located near the emergency handles.

The external emergency access devices shall be removed and not replaced. The emergency access devices are being eliminated entirely in association with the removal of powered side doors.

The exposed openings shall be covered and sealed with weathertight stainless steel plates.

10.6.4 Crew Switch

The key-operated crew switch located adjacent to the external "Emergency Access Device" shall be removed and covered and sealed with weathertight stainless steel plates.

Wiring shall be terminated to prevent grounding and short circuits.

10.7 End Frame Doors

Hinged end frame doors with "Dog" latches are provided at the cab ends of each cab car. The A-End of each cab car and both ends of each trailer car are open.

The existing cab end frame doors shall be refurbished as specified herein and reused.

Replacement end frame doors (16 plus 2 spares) are being procured from another car project and shall be installed at the open end frames of the cars. All seals shall be renewed, and the doors shall be cleaned. Door hardware shall be reused.

Amtrak shall not be responsible for the condition of the end frame doors and door hardware when received, but shall be responsible for the safe storage and installation of the end frame doors and associated hardware.

Any new door hinge shall be designed and installed to interface the replacement end frame door with the existing Comet IB door frame attachment holes. (Note – utilized existing hinges due to pin diameter compatibility issues).

The design for the end frame door attachment shall be submitted for Caltrans review.

10.7.1 End Frame Door Panels

End frame door panels have a honeycombed core with a stainless steel skin and a window.

The existing door panels have an assortment of dents, scrapes, and gashes.

Both exterior surfaces of existing door panels shall be cleaned.

Damage affecting weathertightness shall be repaired.

The degree of acceptable surface damage shall be determined by Caltrans during the prototype phase.

10.7.2 End Frame Door Windows

End frame doors are each equipped with one (1) 49 CFR Part 223 compliant window.

Door windows shall be cleaned. Heavily scratched, cracked, or damaged windows shall be renewed/replaced. Hazed windows or windows with minor scratches shall not be considered defective.

Existing windshields may be reapplied as end frame door windows.

10.7.3 End Frame Door Hinges

The door hinges are stainless steel. The hinges shall be cleaned, inspected, and lubricated.

Defective hinges shall be renewed/replaced.

10.7.4 Walk Plates

Walk plates and hinges shall be inspected and repaired.

10.7.5 Weatherstripping

All door weatherstripping and rubber parts shall be renewed/replaced.

10.7.6 End Frame Door Locks and Keepers

All end frame door locks and keepers shall be overhauled.

10.7.7 End Frame Door "Dog" Latches

Door "Dog" latches shall be cleaned, inspected, and refurbished.

Damaged or defective "Dog" latches shall be renewed/replaced.

10.8 Vestibule Doors

The vestibule door openings on trailer cars are narrower than on the cab cars. Vestibule door openings shall be widened to 32 inches or greater to match cab cars for ADA access.

Modification details shall be submitted for Caltrans review. **CDRL 10.04**

10.8.1 Vestibule Door Panels

Vestibule door panels have a paper honeycombed core with a stainless steel skin.

The door panels have an assortment of dents, scrapes, and gashes.

Both exterior surfaces of the door panels shall have their original finish restored to the extent possible.

The degree of acceptable surface damage shall be determined by Caltrans during the prototype phase.

10.8.2 Vestibule Door Windows

Door windows shall be cleaned. Heavily scratched, cracked, dark tinted, or damaged windows shall be renewed/replaced. Hazed windows or windows with minor scratches shall not be considered defective.

10.8.3 Vestibule Door Hinges

The door hinge pivots are stainless steel. The hinge pivots shall be cleaned, inspected, and lubricated.

Defective hinge pivots shall be renewed/replaced. Anticipate a renewal/replacement rate of 10% or 2 car sets.

10.8.4 Thresholds

Thresholds shall be modified for wheelchair access and provide for free drainage of moisture to the outside.

Damaged, cracked, chipped, bent, or badly worn thresholds shall be renewed/replaced.

10.8.5 Weatherstripping

All door weatherstripping and rubber parts shall be renewed/replaced.

10.8.6 Vestibule Door Locks and Keepers

Each vestibule door is equipped with a door lock and keeper, J.L. Howard part number 2320, operable with an NJ Transit crew key.

All vestibule door locks and keepers shall be replaced with OEM locks and keepers fitted to operate with an Amtrak coach key.

Old door locks and keepers shall be retained as spares.

10.8.7 Vestibule Door Closer and Linkage

Each door is equipped with a closer assembly, Norton 78 Series part number 1452A31, to control motion of the door.

Damaged or defective door closer assemblies and associated linkage shall be renewed/replaced.

10.8.8 Vestibule Door Automatic Door Magnetic Latch/Release

Each vestibule door is equipped with a magnetic latch, J.L. Howard part number 2671, above the door to secure the door in the open position for passenger entrance and egress. The door is mechanically held open when the car is stationary and released for closing by the wheel slide system referenced in Section 5 when car motion is sensed.

The magnetic latch shall be tested and repaired, or renewed/replaced.

The magnetic latch on the B-End shall be relocated to facilitate ADA clearance requirements between the vestibule door open position and the toilet room module aisle panel and door.

10.9 Locker Doors

10.9.1 Electrical Cabinet

The electrical cabinet is located in the interior of the car on the bulkhead opposite the toilet room.

The doors to the electrical cabinet shall be modified to accommodate the new interior arrangement as part of the RailPlan scope of supply. Arrangement drawings shall be submitted for Caltrans review. **CDRL 10.05**

10.9.2 Vestibule Equipment Lockers

Equipment lockers are located in each vestibule. Access doors are hinged and secured with a pencil lock or secured with threaded fasteners.

Locker doors shall be cleaned and inspected.

Door gaskets shall be renewed/replaced.

The pencil locks shall be renewed/replaced if damaged.

Damaged hinges shall be renewed/replaced with stainless steel piano type hinges.

Fasteners shall be renewed/replaced.

10.9.3 Door Operator Service Doors

There is a hinged service access door for each side door operator. The doors are secured with a finger lock.

The service doors shall be eliminated during reconfiguration of the interior arrangement.

10.9.4 Ceiling Hatches

Ceiling hatches provided for servicing overhead equipment shall be replaced as part of the new interior arrangement. The hatches shall be secured with quarter (¼) turn locks, safety latches, and safety chains utilizing standard Amtrak components to the extent possible.

11.0 Heating, Ventilation and Air Conditioning

11.1 General

The cars are equipped with a split, 12-ton air-conditioning system utilizing R-22 as the refrigerant.

A single compressor-condenser assembly with a Carrier semi-hermetic reciprocating compressor is located under the car.

An overhead evaporator-blower unit is located above the low ceiling at the A-End and B-End of the car. Each evaporator is connected to a two-stage electric overhead heater assembly.

The HVAC motor starter and temperature control panel, provided by Sigma Air Conditioning, Inc., is located in an underfloor enclosure accessible from the side of the car.

The ambient air thermostat located on the back side of the enclosure used for the protective heat circuit (door track heaters on trap doors) shall be removed.

The HVAC control breaker and a three (3) position (OFF/NORMAL/LAYOVER) switch are located in the electrical cabinet at the B-End within the car.

The 480 V AC breakers are located in the underfloor high voltage enclosure accessible from the side of the car.

The control thermostats, return air and fresh air, are located within the car on one (1) end.

A layover thermostat is located on a seat pedestal within the passenger compartment near the center of the car.

The air-conditioning equipment shall remain a split system. The equipment shall continue to utilize refrigerant R-22.

The motor starter and temperature control panel shall be replaced with a panel utilizing a Vapor Stone Rail System Universal HVAC Controller equivalent to the TCU 48 microprocessor controller. The HVAC control upgrade shall include new control panels and thermostats.

The existing car floor heating system has two (2) stages (approximately ten (10) kW each) and is located behind grilles along the floor perimeter of the car side wall.

11.2 Design Conditions and Performance

The existing cooling system is rated 12 tons refrigeration effect at the following conditions:

- Ambient Air to Condenser: 105 °F DB,
- Supply Air Flow: 3200 cfm,
- Outside Air: 1200 cfm at 95 °F DB, 78 °F WB,
- Recirculated Air: 2400 cfm at 76 °F DB, 60% RH.

An air balance test shall be conducted by Amtrak to ensure that at least 1200 cfm of fresh air (600 cfm per end) is entering the car, and at least 2400 cfm (1200 cfm per end) of return air is being recirculated.

The existing heating system is rated as 30 kW of overhead heat (15 kW each evaporator), and 20 kW of floor heat.

Preliminary calculations at the existing airflows show a minimum of 12 tons of cooling, 24 kW of overhead heat (12 kW each evaporator) and 18 kW of floor heat will be sufficient for the overhauled cars.

11.3 Heaters

11.3.1 Floor Heaters

The existing floor heating system is rated at 20 kW (two (2) stages, ten (10) kW each). The existing floor heating arrangement shall be modified to remove all floor heaters that may be concealed behind the toilet room module and under the seats. Grille surface temperatures of the new floor heater arrangement shall not exceed 135 °F. New floor heater elements, of appropriate wattage, may be utilized at selected locations to maintain grille surface temperatures within specified limits. Amtrak may propose an alternate plan, including renewal/replacement of all heater elements, for Caltrans approval.

The total reduction in floor heating capacity shall not be less than two (2) kW per car.

All floor heater grilles shall be removed and cleaned. All debris shall be removed from the vicinity of the heating elements. Heater cover fasteners shall be renewed/replaced.

The top of the heater covers shall be modified to conceal seat mounting clips and seat fastener penetrations. Modification details shall be submitted for Caltrans review. **CDRL 11.01**

All heater elements and ceramic mounts shall be renewed/replaced.

Floor heater wiring shall be tested to determine the condition of the wire insulation. Overheated and defective wiring shall be renewed/replaced. A three (3) Megaohm minimum shall be used as an acceptable criterion.

Cable penetrations shall be sealed to form a fire barrier and to prevent exterior ambient air from migrating into the passenger compartment.

The floor heater arrangement shall be submitted for Caltrans review. **CDRL 11.02**

11.3.2 Toilet Room Heaters

Heater(s) shall be provided within the new toilet room to maintain temperatures equivalent with the passenger compartment temperatures. The toilet room heater(s) shall be controlled by the HVAC system.

Toilet room heater elements shall be integrated into the floor heater arrangement.

11.3.3 Overhead Heaters

The existing overhead heating system is rated at 30 kW (15 kW each evaporator split into two (2) stages, ten (10) kW and five (5) kW)

The overhead heaters shall be replaced and shall be part of the new evaporator units. The overhead heater shall be arranged in two (2) stages of heat and shall contain over temperature protection. The heater elements shall temper the outside air and provide for reheat.

The total overhead heating capacity shall not be less than 24 kW per car (12 kW per evaporator unit split into two (2) stages).

Over temperature protection components shall perform with the new temperature controls.

11.3.4 Antifreeze System

Existing door track heaters and associated wiring shall be removed.

An antifreeze protection system shall be designed to protect the waste retention system and water supply systems from freezing. Design of the antifreeze protection shall be part of the Microphor scope of supply.

11.4 Ventilation System

11.4.1 Passenger Compartment

The evaporator blower fans and motor assemblies shall be replaced and shall be part of the new evaporator assemblies.

All flexible transition ducts and associated hardware shall be renewed/replaced. Renewal/replacement duct material shall be aluminum fiberglass, Gentex style 1018, or equivalent, meeting the current CFR Regulations for smoke and flammability.

The air supply duct is split and supplied from both ends of the car. The inside of the supply duct shall be cleaned. Duct (high ceiling) cover fasteners shall be renewed/replaced and secured.

Air diffusers shall be inspected. All exposed surfaces shall be cleaned. Adjustment wheel screws shall be checked for operation and lubricated. Renew/replace any defective wheel screws and baffles.

The fresh air and return air mixing chamber encompasses the low ceiling area of the car. The mixing chamber shall be cleaned to the extent possible. Fresh air filters shall be removed.

The existing solid type odor/fume controllant ("Bad Air Sponge") located behind a small access door in the low ceiling area shall be removed. The odor/fume controllant shall be replaced with a packet type odor controllant currently being used on Amtrak cars. The new odor controllant shall be installed in the return air plenum and shall be accessible through the return air grille opening.

Return air grille assemblies shall be replaced as part of the new low ceiling arrangement. Each return air grille shall be sized to handle 1200 cfm of air. The noise level directly under the return air grille, measured 20 inches below the grille, shall be 73 dBA or less with the evaporator blowers running.. The new grille assemblies shall include securing hardware, latches, safety catches, and limit chain clips.

Return air filters shall be installed as part of the new evaporator assemblies.

Fresh air intake and exhaust screens on the exterior of the vehicle shall be inspected and cleaned. Gaskets or sealants shall be removed and renewed/replaced. Damaged or missing components shall be renewed/replaced. Missing hardware shall be renewed/replaced.

11.4.1.1 Emergency Blower Shutoff Switch

One (1) emergency blower shutoff switch shall be installed on each door summary circuit control panel in each vestibule, for a total of two (2) switches per car.

11.4.2 Toilet Room

An exhaust blower shall be installed above the toilet room to vent the toilet room gases. Configuration for exhaust ventilation shall be coordinated with the toilet room module supply.

Air within the toilet modules shall be exchanged not less than ten (10) times per hour and shall be vented outside the car. Toilet room air shall be drawn from the passenger seating area, routed through the interior of the room, and exhausted through vents near the toilet.

Exhaust air shall be vented outside the car through the existing grilles on the outside of the car near the roof.

Air distribution and ventilation of the toilet room module shall be tested and adjusted to ensure that airflow is sufficient to meet specification requirements and to ensure that the air pressure inside the module is lower than in the passenger compartment.

11.5 Air Conditioning Equipment

11.5.1 Compressor-Condenser Unit

A single compressor-condenser assembly with a Carrier six (6) cylinder semi-hermetic reciprocating refrigerant compressor is located under the car.

The assembly includes a condenser coil, two (2) axial flow condenser fans with direct connected motors, refrigerant compressor control box, liquid receiver, discharge line check valve, liquid line filter dryer, flexible line connectors, and a resiliently mounted support frame.

The refrigerant compressor's unloading system provides steps in capacity control of 100%, 66 2/3%, and 33 1/3%.

The existing compressor-condenser assembly shall be refurbished.

The refrigerant compressor control box shall be renewed/replaced with AAMPS# 24 285 00631. The control box shall contain a low pressure switch, high pressure switch, modulation pressure switch, condenser pressure switch, an HVAC three (3) position test switch, high and low pressure gauges, and service ports.

New "rock" shields, similar to those installed on the Amtrak Horizon car, shall be added to the sides of the unit to protect it from roadside debris.

The refrigerant compressor shall be remanufactured by the OEM, Carrier Corporation, or an Amtrak certified vendor for this type of equipment.

The remanufactured compressor shall incorporate a crankcase heater. The crankcase heater shall be energized "on", by thermostat, when the compressor is not running.

The condenser coils shall be refurbished. The coils shall be cleaned, inspected, and proof pressure tested to 500 psig minimum. Defective or damaged coils shall be repaired or renewed/replaced. Condenser coil fins shall be straightened.

The filter dryer assembly shall be renewed/replaced with AAMPS# 24 848 5203X.

All sight glass/moisture indicators shall be renewed/replaced with AAMPS# 24 999 73272.

All shutoff and service valves shall be renewed/replaced.

The liquid receiver shall be refurbished. Defective liquid receivers shall be renewed/replaced. Receiver sight glass(es) shall be renewed/replaced.

The discharge check valve shall be renewed/replaced.

Both flexible line connectors (vibration eliminators) shall be renewed/replaced.

All resilient mounts shall be renewed/replaced.

The support frame and covers shall be refurbished. Damaged frames shall be repaired. Dented covers shall be straightened. Cover fasteners shall be renewed/replaced. The frames shall be primed and painted black.

Safety straps and ground straps shall be renewed/replaced.

Refrigerant lines are type-K seamless copper tubing. All fittings are sweated fittings. Joints are silver-soldered. The interior of all carbody refrigerant and drain lines shall be cleaned by an approved procedure and tested for leaks. Leaks shall be repaired.

During compressor-condenser assembly refurbishment, all pipe insulation shall be renewed/replaced.

Rock shields, similar to those installed on Amtrak Horizons car, shall be installed on exposed undercar refrigerant lines.

11.5.2 Evaporator Units

An overhead evaporator unit is located above the A-End and B-End low ceilings. Each unit consists of an evaporator coil assembly, two (2) thermal expansion valves, one (1) liquid line sight glass indicator, liquid line solenoid valve, liquid line strainer, electric heater, drain pan, flexible plenum, and resiliently mounted blower and motor assembly.

Each evaporator assembly, including the evaporator coils, shall be renewed/replaced with a new evaporator assembly, AAMPS# 24 999 70223 or equivalent B-4903-4 evaporator assembly provided by Vapor Stone Rail Systems. The new evaporator assembly shall utilize a differential pressure switch instead of a flapper type airflow switch. The overhead heat capacity for each evaporator shall be a minimum 12 kW.

11.6 HVAC Controls

The HVAC motor starter and temperature control panel, provided by Sigma, is located in an underfloor enclosure accessible from the side of the car.

The motor starter and temperature control panel shall be replaced with a panel utilizing a Vapor Stone Rail Systems TCU 48 microprocessor temperature controller. The HVAC control upgrade shall include new control panels and thermostats.

The new HVAC control panel assembly shall be a microcontroller-based system that meets the existing HVAC system design functional requirements as well as the requirements specified in this section. The new panel shall be installed in the original underfloor enclosure.

The existing wiring shall be tested and reused with the new panel.

Unused wiring shall be labeled and then terminated and capped to prevent grounds and short circuits.

11.6.1 HVAC Control Panel (New)

Heating, ventilation, and air conditioning functions and operational modes shall be controlled by a single electrical control panel.

Electronic and electrical components mounted on the HVAC control panel shall control both of the evaporator units, the compressor-condenser unit, the floor heater elements, and the toilet room heaters.

The interface between the temperature sensors, peripheral devices, and control contactors shall be integrated into the Temperature Controller.

The new panel shall include the Temperature Controller, low voltage power supply, control contactors and relays, overload protection devices, and interconnection terminal blocks.

New contactors shall provide the high voltage power from the main power source to the motors or heating loads. The contactors shall be directly controlled by the HVAC Controller via the relay outputs.

Each contactor shall be adequately rated for the application. All motors shall be protected by overload relays. Contactor coils shall be rated to 120 V AC and have installed surge suppression to protect the circuitry against excessive over voltage.

The HVAC control panel shall contain, as a minimum, the following main components:

Quantity	Component
1	BFA – Blower fan motor A-End contactor

1	BFB – Blower fan motor B-End contactor
1	OHA1 – Overhead heat 1st stage 1-END contactor
1	OHA2 – Overhead heat 2nd stage 1-END contactor
1	OHB1 – Overhead heat 1st stage 2-END contactor
1	OHB2 – Overhead heat 2nd stage 2-END contactor
1	FH1 – Floor heat 1st stage contactor
1	FH1 – Floor heat 2nd stage contactor
1	RC – Refrigerant compressor motor contactor
1	CFC – Condenser fan motor No. 2 contactor
1	OL1 – Refrigerant compressor motor overload relay
1	OL2 – Condenser fan motor No. 1 overload relay
1	OL3 – Condenser fan motor No. 2 overload relay
1	OL4 – Blower motor fan A-END overload relay
1	OL5 – Blower motor fan B-END overload relay
1	Power Supply (120 +/-15% V AC to 24-28 V DC)
1	Electronic temperature controller (TCU 48)
1	LCR – layover control relay

Amtrak shall submit the final configuration of the new control panel and a complete controls functional description for Caltrans review. **CDRL 11.03**

11.6.2 HVAC Thermostats

All thermostats shall be renewed/replaced including the layover thermostat and protective heat thermostat.

The existing protective heat thermostat located on the backside of the HVAC motor starter and temperature control enclosure shall be renewed/replaced by a fresh air sensor. The new fresh air sensor shall be protected from road debris. In the case of fresh air temperature failure, the HVAC Controller shall operate with 55 °F default fresh air temperature.

The layover thermostat shall be relocated in accordance with the new seating arrangement. The layover thermostat is used to monitor the car interior temperature in layover mode. It is located in the middle of the car compartment under a seat on its pedestal. The layover air temperature thermostat is used to maintain the car interior temperature around 45 °F and directly controls the 1st stage of floor heaters. When the interior temperature rises above 47 °F the layover thermostat shall deactivate the floor heat equipment.

The existing return air thermostat assembly, located in the A-End return air plenum, shall be renewed/replaced with a new return air temperature sensor which is used to monitor the car interior temperature. The return air temperature probe shall be mounted on an adaptive bracket. The return air temperature is used with the fresh air temperature to determine the corresponding location on the temperature schedule. The HVAC Controller software will then activate the proper equipment for the specific mode of operation. In the case of the return air temperature sensor failure, the HVAC Controller shall operate with 72 °F default return air temperature.

The existing fresh air thermostat assembly, located in one of the A-End fresh air inlet ducts, shall be renewed/replaced with a new fresh air temperature sensor, and is used to monitor the fresh (ambient) air temperature. The fresh air temperature sensor shall be mounted on the adaptive bracket in the same location as the old one. In the case of fresh air temperature failure, the HVAC Controller shall operate with 55°F default fresh air temperature.

A new mode annunciation panel shall be installed in the return air plenum visible through the return air grille. The new annunciation panel can be part of the new return air temperature assembly. The new annunciation panel shall display the HVAC current mode of operation (ex. HEAT1, HEAT2, REHEAT, PART COOL, FULL COOL, FAULT, etc.). The exact number of lights shall be determined during the design stage and submitted for Caltrans review. **CDRL 11.04**

Two (2) new duct limit temperature sensors shall be adapted to the car. They shall be located in the main supply ducts. The duct limit temperature sensors shall monitor the supply air temperature during heating and maintain the supply air in a comfortable and safe range. The HVAC Controller shall monitor the duct limit sensor status and disable or modulate overhead heating when the supply air temperature is greater than a predefined value (normally 90°F). The HVAC Controller shall reactivate the overhead heating when duct limit supply air temperature is greater than predefined value. In the case of duct limit temperature sensor failure or supply air temperature exceeding 120°F, the HVAC Controller shall deactivate all overhead heat.

All new temperature sensors shall have an accuracy of ± 1° F. The sensing component shall be a thermistor encapsulated into a stainless steel tube and threaded stainless steel enclosure that can be easily installed and removed.

11.6.3 HVAC System Function

The HVAC system operational mode shall be defined by the position of the HVAC circuit breaker, antifreeze circuit breaker, test switch position located in refrigerant control box on the compressor-condenser unit, and the mode switch located in the electrical cabinet.

The available operation modes are:

1. OFF – all heating, ventilation, and air conditioning equipment is deactivated,
2. AUTO – system reacts according to temperature schedule,
3. LAYOVER – floor heating and freeze protection are available,
4. TEST – air conditioning test mode is available.

11.6.3.1 OFF Mode

When the HVAC and antifreeze circuit breakers are in the OFF position, the HVAC system is not operating. Control power is removed from the HVAC Controller and all control contactors. The HVAC system shall also shut down when the HVAC test switch is set to OFF position.

11.6.3.2 AUTO Mode

The AUTO mode shall be activated when the HVAC circuit breaker is in ON position and the mode switch in the electrical cabinet is in the NORMAL position.

In AUTO mode, the layover control relay shall be disabled and the HVAC Controller shall provide control over the entire car HVAC system.

Each evaporator unit and compressor-condenser unit shall be controlled simultaneously according to the return air and fresh air temperature.

In the AUTO mode the HVAC Controller provides the car comfort controls based on the HVAC temperature schedule.

The following functional modes shall be made available in the HVAC system and defined as follows:

1. LOW HEAT mode
   - Overhead heat – 50% of total overhead heat capacity.
   - Floor heat – 50 % of total floor heat capacity.
2. MEDIUM HEAT mode
   - Overhead heat – 100% of total overhead heat capacity.
   - Floor heat – 50% of total floor heat capacity.
3. HIGH HEAT mode
   - Overhead heat – 100% of total overhead heat capacity.
   - Floor heat – 100% of total floor heat capacity.
4. VENT mode
   - Blowers on only; no heating or cooling.
5. PARTIAL COOL with REHEAT mode
   - Cooling – 50% of total cooling capacity.
   - Overhead heat – 50% of total overhead heat capacity.
6. PARTIAL COOL mode
   - Cooling – 50% of total cooling capacity.
7. FULL COOL mode
   - Cooling – 100% of total cooling capacity.

11.6.3.3 Temperature Sequence

In the AUTO mode, the following operation shall be controlled by the HVAC Controller:

- HIGH HEAT – when the fresh (ambient) air is below 35 °F and the return (inside) air is below 70 °F.
- MEDIUM HEAT – when the fresh (ambient) air is between 37 °F and 60 °F and the return (inside) air is below 70 °F.
- LOW HEAT – when the fresh (ambient) air above 61 °F and the return (inside) air is below 70 °F.
- VENTILATION - the car temperature is maintained through ventilation only.
- PARTIAL COOL with REHEAT – when the fresh (ambient) air is above 51 °F and the return (inside) air is between 71 °F and 72 °F.
- PARTIAL COOL – when the fresh (ambient) air is above 51 °F and the return (inside) air is between 73 °F and 75 °F.
- FULL COOL – the fresh (ambient) air is above 51 °F and the return (inside) air is above 75 °F.
- Cooling shall be locked out below 50 °F ambient temperature.

11.6.3.4 LAYOVER Mode

The layover mode is available when the antifreeze circuit breaker is closed. The layover mode is initiated when the mode switch in the electrical cabinet is placed in the LAYOVER position.

Under this condition, the layover control relay shall be activated and first (1st) stage floor heat shall be available under the layover thermostat control.

The HVAC circuit breaker status shall not affect layover mode of operation. When the HVAC circuit breaker is open, the HVAC Controller shall be shut down as well as all heating and air conditioning equipment. When the HVAC circuit breaker remains closed, the HVAC Controller shall monitor the layover control relay status using an analog input and disable all heating and air conditioning equipment upon layover mode detection.

The layover thermostat shall control the floor heating in layover mode. The thermostat closes on temperature drop at 45 °F and shall activate the floor heat contactor 1 (FH1) controlling the first (1st) stage of floor heat. In this mode the interior car temperature shall be maintained at 45 ± 5 °F.

11.6.3.5 TEST mode

The test mode shall be controlled by the test switch located in the refrigerant control box. The test switch has three (3) positions: AUTO, OFF, and MANUAL. The HVAC Controller shall monitor the AUTO and MANUAL test switch positions status using digital inputs and react according to the test switch position. The test mode shall correspond to the HVAC test switch being in the MANUAL position. In this position, the HVAC Controller shall turn the HVAC unit into full cooling operational mode regardless of the actual required operational mode. However, if the fresh (ambient) air temperature is below 50 °F the HVAC Controller shall provide a lockout on the compressor operation regardless of any mode of operation.

11.7 Temperature Control Unit

The Temperature Controller Unit (TCU) shall be a microcontroller-based system designed to control the heating, ventilation, and air conditioning activities required to maintain a stable temperature in the car and provide all necessary maintenance and diagnostic activity. The TCU shall be powered by a DC low voltage power supply installed on the HVAC control panel. The TCU shall have power when the HVAC circuit breaker in the electrical cabinet is ON.

The TCU shall have the following features:

- Temperature measurements and zone climate control,
- Heating, Ventilation, and Air Conditioning circuits monitoring,
- Compressors random start-up sequence,
- System initialization self-test and on-board diagnostic tests,
- User-friendly software that facilitates the diagnostic, troubleshooting, and testing processes accessible via laptop computer,
- Recoverable HVAC events and fault logs with troubleshooting analysis,
- Real time clock with date and time stamping for event logger function,
- Software watchdog function to prevent software failure,
- Fifty percent (50%) program memory provision for future software expandability,
- Digital display that displays temperature, functional mode, faults and software revision.

11.7.1 Remote Terminal

A touchscreen remote terminal shall be installed in the electrical cabinet to control the HVAC system.

11.7.1.1 Ethernet-Capable Remote Terminal

The HVAC contractor is currently developing an Ethernet-capable remote terminal that is a direct replacement for the remote terminal specified in this work scope. It is Caltrans intention to install Ethernet-capable remote terminals in all District D8 at a later date.

For this future installation, an Ethernet cable shall be run from the remote terminal in the electrical cabinet to the Wi-Fi network switch in the D-Shed network room.

11.8 Documentation

The following documentation shall be provided:

- Electrical schematics
- New Control System Drawings,
- System Functional Description,
- HVAC Portable Test Equipment Software Users Guide,
- Parts Manual,
- Maintenance Manuals.

12.0 Electrical

12.1 General

Primary electrical power on the car is 480 V AC provided by a locomotive through head end power (HEP) receptacles and jumper plug assemblies at each end of the car.

Secondary electrical power is 120 V AC transformed from 480 V AC and is used for relay/contactor logic, fluorescent lighting, incandescent lighting, and for convenience receptacles located at each passenger seat and in the toilet room.

Control and emergency electrical power is provided by a 74 V DC battery charger and a bank of batteries. Control and emergency power is used for emergency lighting, critical loads, and control logic.

The Cab Car Wiring Schematic can be found in Figure 2-1, Sheets 1 and 2, in Volume 1 of the NJ Transit Comet IB Maintenance Manual.

HEP Receptacles and jumper plug assemblies shall be renewed/replaced.

Existing wiring and cabling, transformers, circuit breakers and switches shall be inspected, repaired, or renewed/replaced as specified herein.

MU trainline receptacles and COMM trainline receptacles with pigtails shall be renewed/replaced. An additional MU and COMM receptacle with pigtails shall be installed at each end of the car.

New wires and cables shall be tagged and identified at both ends.

Wire and cable markers removed for circuit changes or changes to wire lengths shall be renewed/replaced. The wires and the cables shall be identified as appropriate.

12.2 480 V AC HEP Circuit

High voltage, 480 V AC, three-phase (3-phase) head end power is transmitted to the Comet IB cars and the train through power plugs and receptacles and underfloor HEP trainline cables. There are a total of two (2) fixed HEP jumper plug assemblies and two (2) HEP receptacles on each end of the car. The fixed jumper plugs are designed to plug into the receptacles on an adjacent car or locomotive.

12.2.1 Underfloor HEP Power Cables

There are four (4) sets of three (3) trainline HEP cables, 4/0 AWG, running underfloor the length of the car in conduits. Power is distributed to the car from a HEP trainline junction box near the center of the car.

The arrangement of the HEP receptacles and jumpers will require relocation for compatibility with Caltrans rolling stock. Modification shall be subject to Caltrans review. **CDRL 12.01**

All cables and conduits shall be inspected and tested for insulation integrity. Damaged conduit, cables, cleat blocks, and clamps shall be repaired.

Cable repairs shall be made in accordance with Amtrak Standard Maintenance Procedures and shall be limited to one (1) repair per exposed cable with the exception of the receptacle pigtail splice.

12.2.2 HEP Summary Circuit

There are four (4) sets of three (3) trainline HEP summary cables, 10 AWG, running underfloor the length of the car in conduits. The wiring is an integral part of the HEP receptacles and plug assemblies.

The current NJT wiring arrangement is designed as part of the "door summary circuit" as referenced in Figure 2-1, Sheet 1, in Volume 1 of the NJ Transit Comet IB Maintenance Manual.

The circuit shall be modified to conform to the Amtrak configuration, as detailed in Table 12-5: Trainline Pin Designation.

All cables and conduits shall be inspected and tested for insulation integrity. Damaged conduit, cables, cleat blocks, and clamps shall be repaired.

12.2.3 HEP Receptacles

The HEP receptacle assemblies located at each end of the car shall be renewed/replaced with AAMPS# 24 808 09878 and keyed for Amtrak compatibility.

The receptacles shall be painted red.

12.2.4 HEP Jumper Plug Assemblies

HEP jumper plug assemblies with cable restraints located at each end of the car shall be renewed/replaced with AAMPS# 24 240 20514 and outlet/receptacle AAMPS# 24 808 09878.

HEP plugs shall be yellow.

12.3 Transformers

There are three (3) dry type, single phase, step-down transformers (GE 9T51B13), 480/120 V AC, located in a High Voltage Enclosure under the car. The transformers are wired delta-delta.

The input to the transformers is circuit breaker protected. Individual branch circuits, on the output side, are circuit breaker protected.

100 Amp AC main breaker shall be installed in the electrical cabinet.

The transformers shall be replaced with three (3) 5 kVA transformers, AAMPS # XX XXX XXXX.

12.4 74 V DC Electrical Power

The cars are equipped with a 74 V DC battery charger and a bank of storage batteries. Emergency lighting and critical loads are primarily supplied by DC voltage.

The car battery power system is a floating system.

12.4.1 Battery Charger

The cars are equipped with Saft Nife #75-50-TC battery chargers located in an enclosure under the car near the battery box. Based on preliminary inspections, at least one (1) car is equipped with a McGraw Edison battery charger.

The battery charger enclosures, interiors, covers, and latches shall be thoroughly cleaned and repaired. Cover seals and latches shall be renewed/replaced. The door holding mechanism shall be repaired and adjusted for proper operation.

All battery chargers shall be repaired/renewed/replaced with AAMPS# 24 74 424402.

The battery charger test report shall be recorded in the Car History Book.

12.4.2 Battery Box

The batteries are housed under the car in a steel box with top-hinged removable covers. The box is ventilated and has a grid bottom for water drainage.

The battery box and covers shall be cleaned and repaired. Cover latches shall be renewed/replaced.

The interior shall be painted with a white paint, and then coated with a clear, acid resistant, electrically insulating paint.

12.4.3 Battery

The cars are equipped with Saft SMR 100 F3 NiCad batteries arranged in ten (10) five-cell (5-cell) trays. Battery dates range from 2006 to 2007. One (1) set is dated 1996.

Batteries shall be cleaned, deep-cycled and tested for capacity in accordance with OEM instructions. Batteries shall be topped off with new electrolyte. Water, in any form, shall not be used to top off the batteries.

Condemnable batteries shall be renewed/replaced. At least two (2) car sets of batteries may require renewal/replacement based on preliminary inspections.

Condemnable Saft SMR 100 F3 batteries may be renewed/replaced as a set with Saft SRM 80 F3 batteries, AAMPS# 24 716 02518, provided Amtrak demonstrates that the battery has sufficient capacity to satisfy emergency lighting requirements and to supply all emergency loads. If Amtrak demonstrates that the Saft SRM 80 F3 batteries are an acceptable replacement, a label shall be installed inside of the battery box cover stating that Saft SRM 80 F3 batteries, AAMPS# 24 716 02518, are acceptable renewals/replacements for the Saft SMR 100 F3 batteries.

The battery test report shall be recorded in the Car History Book.

12.5 MU — Trainline

The Comet IB pin designations for the MU trainline are shown in Table 12-5, MU – Trainline Pin Designation. Pin designations shall be verified.

12.5.1 MU — Trainline Receptacles

MU trainline receptacles with pigtails shall be renewed/replaced with AAMPS# 26 520 2746X. Receptacle covers shall be painted black with "MU" stenciled in one (1) inch white letters on the cover.

The pin assignments and housing keying of the MU trainline receptacles shall be modified for compatibility with Amtrak cars.

12.5.2 MU — Trainline Wiring

MU trainline wiring shall be tested for continuity and insulation integrity. Defective wiring shall be renewed/replaced. Splices shall not be permitted.

MU Trainline wiring shall be modified for compatibility with Amtrak cars.

12.6 COMM — Trainline

Comet IB pin designations for the COMM – Trainline are shown in Table 12-6, COMM –

Trainline Pin Designation. Pin designations shall be verified.

12.6.1 COMM — Trainline Receptacle

COMM trainline receptacles with pigtails shall be renewed/replaced with AAMPS# 24 808 06810. Receptacle covers shall be painted blue with "COMM" stenciled in one (1) inch white letters on the cover.

The pin assignments and housing keying of the COMM trainline receptacles shall be modified for compatibility with Amtrak cars.

12.6.2 COMM — Trainline Wiring

Trainline wiring shall be tested for continuity and insulation integrity. Defective wiring shall be renewed/replaced. Splices shall not be permitted.

COMM trainline wiring shall be modified for compatibility with Amtrak cars.

12.7 Dummy Receptacles

A dummy receptacle is located at each end of the car to complete looped trainline functions.

Dummy receptacles shall be renewed/replaced with AAMP# 25 789 09017 and shall be painted white.

Circuits requiring looping shall be looped using standard Amtrak looping plugs.

12.8 Underfloor J-Boxes and Conduit

All underfloor junction boxes shall be opened, cleaned, inside and outside, and inspected. Damaged junction boxes shall be repaired. Gaskets shall be renewed/replaced and covers installed with new fasteners.

Damaged conduits shall be repaired or renewed/replaced. The degree of acceptable damage shall be determined by Caltrans.

Individual wires and connections shall be renewed/replaced in circuits with compromised integrity/isolation or visually identified defects. Splicing shall not be permitted.

12.9 High Voltage Enclosure

The high voltage enclosure is a weathertight enclosure under the car. The enclosure houses the high voltage circuit breaker panel, HVAC control panel, and the transformers referenced in Section 12.3.

The transformers shall be refurbished in accordance with Section 12.3.

The high voltage circuit breaker panel shall be refurbished in accordance with Section 12.10.

The HVAC control panel shall be renewed/replaced in accordance with Section 11.

The enclosure and cover shall be cleaned and repaired.

The interior of the enclosure shall be painted with white insulation paint.

The exterior of the enclosure shall be painted consistent with the car underfloor.

Enclosure cover hinges shall be repaired or renewed/replaced. Latches and cover seals shall be renewed/replaced.

12.10 High Voltage Circuit Breaker Panel

The circuit breaker panels shall be cleaned and inspected for burnt and loose connections. Defective wiring and cabling shall be repaired.

All circuit breakers shall be removed/replaced with properly configured and sized removed/replacement circuit breakers.

Top Row

Designation	Description	Rating	Disposition
CB1U	Main 480	90 A	Renew/Replace
CB13U	Cab Heat	25 A	Renew/Replace Return as Spare
	Door Track		Renew/Replace Return as Spare
CB2U	Floor Heat 1	20 A	Renew/Replace
CB3U	Floor Heat 2	20 A	Renew/Replace
CB39U	Overheat Heat A	25 A	Renew/Replace
CB41U	Overheat Heat B	25 A	Renew/Replace

Bottom Row

Designation	Description	Rating	Disposition
CB6U	Compressor/Fan	50 A	Renew/Replace
CB7U	Condenser Fan	20 A	Renew/Replace
CB9U	Blower Fan A	20 A	Renew/Replace
CB8U	Blower Fan B	20 A	Renew/Replace
TBD	Battery Charger	15 A	Renew/Replace
CB12U	Transformer	20 A	Renew/Replace
CB11U	Battery	60 A	Renew/Replace 75 V DC

Safety covers ("Dead Fronts") shall be reinstalled with new fasteners. Unused "Dead Front" openings shall be sealed.

All markings shall be restored.

12.11 Interior Circuit Breaker/Switch Panels

There are circuit breaker/switch panels located in the H End electrical cabinet and in a locker behind the cab. The panels house circuit breakers and switches for the door equipment, lighting, battery, cab equipment, and assorted low voltage loads.

The circuit breaker and switch panels located in the H End electrical cabinet in the cab cars and trailer cars are arranged differently to accommodate the equipment housed within the cabinet. This cabinet shall be reconfigured to facilitate a split door arrangement that permits crew/operator access on the inboard side of the panel to all breakers and switches. The outboard side of the cabinet shall be used to arrange equipment whose access requires minimal or no maintenance.

Antrak shall evaluate current wiring configurations and submit a plan/design to accomplish this arrangement for Caltrain review, indicating impacts to wiring needed to achieve it. **CDRL 12.02**

Circuit breaker and switch panels shall be cleaned and inspected for burnt and loose connections. Defective wiring shall be repaired.

Safety covers shall be cleaned and reapplied with new fasteners. Unused openings shall be sealed.

Any breaker or switch made spare by removal of electrically powered equipment shall be identified as a spare.

All markings shall be restored.

12.11.1 Vestibule Switch panels

The switch panel on the ceiling in the vestibule contains three (3) toggle switches (marker lights, platform lights, and vestibule lights). The location of the switch panel shall be included in the vestibule arrangement submittal referenced in Section 7.

All toggle switches shall be renewed/replaced.

The toggle switch for the marker lights is also part of the door summary circuit end of train loop. The door summary function shall be removed from the marker light toggle switch.

12.11.2 Lighting Switch Panel

The lighting switch panel is located inside of the passenger compartment on the A-End bulkhead wall.

The switch panel contains three (3) switches for the interior fluorescent lights and one (1) switch for the low ceiling lights.

All switches shall be renewed/replaced.

The low ceiling switch circuitry may require reconfiguration for the new low ceiling lighting.

12.11.3 Door/HVAC Switch Panel

The Door/HVAC switch panel is located in the B-End electrical cabinet. The panel contains two (2) door zone switches and the HVAC configuration switch.

The door zone switches shall be removed. Wiring associated with the zone switches shall be removed or terminated in a manner to prevent grounds or short circuits.

The HVAC switch shall be renewed/replaced.

12.11.4 Cab Circuit Breaker Panel

The cab circuit breaker panel and equipment shall be removed in accordance with Section 2.

12.11.5 120 V AC Circuit Breaker Panel

The 120 V AC circuit breaker panel located in the B-End electrical cabinet shall be cleaned and inspected for burnt and loose connections. Defective wiring and cabling shall be repaired

All circuit breakers shall be renewed/replaced with properly configured and sized renewal/replacement circuit breakers.

Designation	Description	Rating	Disposition
HND CB	Hand Dryer	30 A	Renew/Replace
HVAC CNTL CB	HVAC Control	20 A	Renew/Replace
PLTFM LT CB	Platform Lights	20 A	Renew/Replace
Main LT CB	Main Lighting	20 A	Renew/Replace

12.11.6 DC Circuit Breaker Panel

The DC circuit breaker panel located in the B-End electrical cabinet shall be cleaned and inspected for burnt and loose connections. Defective wiring and cabling shall be repaired

All circuit breakers shall be renewed/replaced with properly configured and sized renewal/replacement circuit breakers.

Designation	Description	Rating	Disposition
EMR LT CB	Emergency Lighting	10 A	Renew/Replace
DECEL CB	Wheel Slide	10 A	Renew/Replace
PA CB	PA/IC System	10 A	Renew/Replace
MARK LT CB	Marker Lights	10 A	Renew/Replace
DRAIN HT CB	Freeze Protection	20 A	Renew/Replace
VEST LT CB	Vestibule Lighting	20 A	Renew/Replace
DOOR CTL CB	Door Control	10 A	Renew/Replace – Retain as Spare
DOOR OP CB	Door Operators	10 A	Renew/Replace – Retain as Spare

12.12 Convenience Outlets

Duplex GFCI protected 120 V AC electric supply convenience outlets, AAMPSA 25 180 07543, shall be installed on the sidewall at each seat location, one (1) per seat pair.

12.13 Cab Wiring

Wiring associated with cab equipment, including terminal board wiring and components located above the cab vestibule ceiling, shall be removed in accordance with Section 2.

12.14 Crew Buzzer

Crew buzzer pushbuttons are located in the ceiling over each side door and on the car exterior adjacent to each door. All crew buzzer pushbuttons shall be removed and the openings sealed.

Wires shall be removed or terminated in a manner to prevent short circuits or grounds.

Table 12-5: Trainline Pin Designation (Black)

Pin	Comet IB Cars (Designations)		Size	Pin	Amtrak Drawing E-63-7380, Rev A	
1	MX	Spare	#12	1	Spare	Spare
2	SG	Alarm Bell	#12	2	SG	Alarm Signal
3	DV	Engine Speed 'D'	#12	3	DV	Engine Speed
4	N	TL Control Negative	A - #4	4	N	Negative 64V
5	ES	Spare	#12	5	ES	Emergency Sand
6	GF	Generator Field	#12	6	GF	Generator Field
7	CV	Engine Speed 'C'	#12	7	CV	Engine Speed
8	FO	Forward	#12	8	FO - RE	Reverse
9	RE	Reverse	#12	9	RE - FO	Forward
10	WS	Wheel Slip	#12	10	WS	Wheel Slip
11	SX	Spare	#12	11	TS	Spare
12	BV	Engine Speed 'B'	#12	12	BV	Engine Speed
13	PC	Trainline Control Positive	C - #4	13	PC	Positive Control
14	SL	Spare	#12	14	S, S	Spare
15	AV	Engine Speed 'A'	#12	15	AV	Engine Speed
16	EP	Engine Run	#12	16	ER	Fuel Pump and Engine Run
17	DBS	Dynamic Brake Setup	#12	17	E	Dynamic Brake Setup
18	P	Spare	B - #4	18	P	Spare
19	M	Spare	*	19	M	Spare
20	BA	Dynamic Brake Warning	#12	20	DW	Brake Warning
21	BG	Brake Ventilation	*	21	BG	Dynamic Brake Start
22	CC	Compressor Control	#12	22	CC	Spare
23	SC	Sanding Control	#12	23	SC	Manual Sand
24	EA	Sand Control	#12	24	BC	Dynamic Brake Demander
25	XS	Spare	#12	25	HX	MU Headlight
26	SY	Ground Reset	#12	26	SY	Spare
27	RV	Spare.	#12	27	RV	Spare

Table 12-6: COMM — Trainline Pin Designation (Blue)

Pin	Comet IB Cars [Designations]		Size	Pin	Amtrak Drawing C-01-1498 Rev B	
1	ACB	Doors Open, South Side [Old]	#12	1	Shell	Shield
2	BT+	Battery Positive	#12	2	EB	Battery Neg
3	BCB	Doors Open, North Side [Old]	#12	3	PA1	Tape Music
4	B-	Battery Negative	A - #4	4	PA2	Tape Music
5	CL	Conductor's Signal Light	#12	5	PA3	[illegible]
6	S6	Spare	#12	6	PA4	[illegible]
7	BCB	Doors Close, North Side [Old]	#12	7	PA5	PA Control
8	B-	Battery Negative	#12	8	PA6	PA Control
9	B-	Battery Negative	#12	9	RA1	Radio
10	AB	Brake system Negative	#12	10	RA2	Radio
11	EB	Emergency Brake	#12	11	DC1	Brake Application
12	S12	Spare	#12	12	DC2	Brake Release
13	SW	Signal Whistle	C - #4	13	DC3	EP Brake Neg
14	CB	Intercom Signal	#12	14	D1	Door Open RS
15	CW	Intercom signal	#12	15	D2	Door Open LS
16	AB	Brake system Negative	#12	16	D3	Door Closed RS
17	EL	Engineman's Signal Light	#12	17	D4	Door Closed LS
18	S18	Spare	B - #4	18	DC4	Door Closed Line Engineman
19	PA	Public Address Control	*	19	BR	Brake Release Line, Engineman
20	PW	Public Address Signal	#12	20	BA	Brake Applied Line, Engineman
21	PB	Public Address Signal	*	21	HL	Hot Journal
22	ACB	Doors Close, South Side [Old]	#12	22	CS	Conductor Signal
23	BT+	Battery Positive	#12	23	DC2	Door Closed Line Conductor
24	BT+	Battery Positive	#12	24	PA7	Tape Music 2
25	DT	Door Thermit	#12	25	PA8	Tape Music 2
26	AA	Brake Application	#12	26	SLS	Conductor Door Closed Line
27	AR	Brake Release	#12	27	AS	Amplifier Cut

13.0 Communications

13.1 General

The communication equipment and system contained in this section is a generic specification for a PA/IC system compatible with Amtrak equipment. It is the intent of the Work Scope to require Amtrak to provide a communication system on the cars/trains that serves all Caltrans needs to operate this equipment in their existing corridors. In this regard, Amtrak is in a position to define the detailed requirements for the service due to ongoing operation of both California DOT equipment and Amtrak equipment. Amtrak is requested to use current Amtrak equipment designs to the maximum extent possible to expedite the selection, procurement, and integration of this equipment into the Comet IB fleet. In lieu of this approach, Amtrak is invited to propose new technology communications systems and equipment that reflect Amtrak's choices for their future systems that integrate with digital communications technologies, including but not limited to Wi-Fi as developed for the Amtrak system of trains. The proposed communication system solutions should include identification of timing issues that may become an important factor in the solution that Caltrans and Amtrak agree upon for the Comet IB fleet.

Each car is equipped with a public address and inter-communications system (PA/IC) accessible only to the train crew. The PA/IC permits crewmembers to make passenger announcements, the engineman to page a crewmember and make passenger announcements, and allows for private two-way inter-communications between any two (2) communications control panels.

The entire PA/IC system including all speakers shall be replaced with a new modern Amtrak compatible system. The communications system design shall be submitted for Caltrans review. **CDRL 13.01**

The communications package shall operate efficiently and effectively for all possible train consist combinations, without adjustment.

The communication system provided shall comply with applicable sections of 49 CFR Part 38 for ADA compliance and 49 CFR Part 238.121.

The equipment shall not pose any health hazard to the public, passengers, or train crew and shall be in strict compliance with all applicable FRA, AAR, FCC, and other state or federal guidelines and regulations.

The equipment shall operate in accordance with the specified requirements when subjected to applicable temperature, shock, humidity, and vibration tests set forth by AAR Specification S-5702 and EIA Standards RS-152 and RS-204. Standard IEC 50571 may also be used as approved by Caltrans.

The existing circuit breakers shall be analyzed for proper suitability to the new communication system.

Power supply inputs, and any directly connected circuitry, shall be isolated from ground on both positive and negative sides of the battery.

Communications equipment shall have all required power conversion and/or power conditioning devices as integral components.

Equipment and installation shall conform to the requirements of IEEE Standard Number 16, "American Standard for Electrical Control Apparatus on Rail Vehicles".

- Components and wiring for the communications system shall be totally isolated from all other vehicle components and wiring. Communications system wiring shall be run in its own separate conduit.
- All terminals and wires shall be properly identified.
- Switches and relays utilized shall be positive acting and of rugged construction.
- The communication equipment shall be powered from the 64/74 V DC distribution system.
- Communication equipment shall be designed to prevent unwanted noise, feedback and interference.

Sound quality and level testing shall be performed on all communications equipment as specified in Section 16.

13.2 Public Address and Intercom System

Public Address and Intercom System shall be installed in all Cars.

System components shall include:

- Amplifier/Control,
- Control Panels,
- Passenger compartment speakers.

13.2.1 Amplifier/Control

One (1) amplifier/control logic unit per car shall be supplied.

Amplifier shall be similar and functionally equivalent to the Midwest 714-7153/COMCO Model 444 DC-DC Converter Voltage Regulator and Power Amplifier Assembly.

Amplifier/Control shall be mounted in the B-End electrical cabinet in all cars.

The power amplifier shall have sufficient power to drive all speakers within the car, with 25% reserve power.

With normal speech input, the amplifier shall operate continuously at full output, at rated input voltage, without degradation. The compression amplifier shall produce a minimum compression range of thirty-five (35) dBA, with a maximum output level variation of two (2) dBA and a maximum total harmonic distortion of three percent (3%) at the compressor output. The compression amplifier shall operate satisfactorily with speakers being one (1) to twelve (12) inches from the microphone.

The PA system shall incorporate an internally switched selectable method of controlling the audio output level in each car based upon the ambient noise level.

Each car shall be automatically controlled, independent of other cars, to provide a comfortable, intelligible sound level at all seating locations.

At no time shall an increase in audio levels result in audio feedback.

13.2.2 Control Panel

A control panel shall be mounted in a new locker in the B-End vestibule. The vestibule locker shall be lockable with a standard Amtrak coach key. The B-End door control panel shall be

located within the locker and operable with a standard Amtrak coach key from the face of the panel. The handbrake indicator lights shall be located in the locker.

Control panels shall be similar and functionally equivalent to the Midwest 714-3784/COMCO Model 155 currently used by Caltrans.

Control panel shall have a selection switch controlled by the standard Amtrak coach key to select between PA and IC modes. The key shall only be removable in the center "OFF" position.

System shall be designed such that feedback or interference from nearby speakers to an active microphone is minimized. This may necessitate Control heads designed such that when any microphone is utilized, nearby or surrounding speakers shall be deactivated to prevent feedback and interference.

13.2.3 Speakers

Ten (10) speakers are installed in the passenger area. The speakers are evenly spaced longitudinally on the centerline of the air duct in the passenger area, and one (1) is installed in each low ceiling area. An additional speaker is mounted in the ceiling of the toilet room and in the ceiling of cab vestibules.

Existing speakers are housed in cylindrical enclosures.

All speakers, except for the speaker in the toilet room, shall be renewed/replaced with new speakers as a component of the PA/IC system replacement. The toilet room speaker shall be eliminated and not renewed/replaced as part of the new toilet room module. Approximately 60 new speakers are available for use as renewals/replacements. Condition and compatibility with the new PA/IC system of the speakers is questionable and must be verified prior to installation.

Speakers shall be wired in such a manner as to eliminate feedback noise to control station microphones.

Speaker assemblies and suspension shall be moisture resistant. All ferrous metal parts shall be made rust resistant by plating.

Each speaker shall be protected by a rustproof metal or plastic enclosure, which shall adequately protect speakers from the effects of dust, moisture, magnetic materials such as steel filings, or other foreign objects. The protective enclosure shall mount on the speaker baffle, completely enclosing the speaker from the rear. Enclosures shall include knockouts and gaskets for the dust-tight entrance of the speaker connection leads and shall be constructed to eliminate mechanical resonances or vibrations.

The speakers shall be arranged for renewal/replacement from the front, and sufficient length shall be provided in the leads for this purpose.

The speakers shall be so phased that when the primary is connected to the distribution line according to the labeling, all speaker cones will move in the same direction at the same time.

The speakers shall be connected to the public address amplifier in parallel and with uniform polarity.

Existing speaker grilles shall be cleaned and reinstalled with new fasteners.

13.2.4 Wiring Details

All interface wiring for the amplifier/control unit and the control panels shall be terminated to connectors as per Section 15.

Wiring for different voltages shall be harnessed separately and terminated to a single connector.

All DC input wires will be No. 14 AWG or approved by Caltrans.

All contractor AC audio wires for public address and intercom trainlines will be No. 14 AWG shielded wires or approved by the Engineer.

All speaker wires will be No. 16 AWG 2/conductor cable.

There shall be eight (8) trainlines available on the cars for the exclusive use of the communication equipment.

Interface wiring shall be of the polarized connector type mounted in the speaker enclosure assembly to ensure proper protective phasing of the speakers.

Components and wiring for the communications system shall be totally isolated from other vehicle components and wiring.

13.3 Wi-Fi

A Wi-Fi communication system shall be installed in accordance with the task order executed between Caltrans and Amtrak for the Comet cars. The CCU's will not be installed by the Beech Grove facility, but system task will be completed OAK Amtrak.

CDRL 13.02

13.4 Digital Trainline

A digital trainline installation shall be coordinated with the task order executed between Caltrans and Amtrak for the Comet cars.

CDRL 13.03

13.5 Radio

Radio equipment installed in the B-End vestibule locker shall be removed in accordance with Section 2.

14.0 Lighting

14.1 General

Fluorescent lighting is utilized for general interior passenger lighting. Emergency incandescent lights are built into some of the fluorescent light fixtures.

There is an incandescent light in the vestibule ceiling above each side door stairway and in the A-End low ceiling area.

Vestibule platform lights are provided at each stairwell.

Two (2) RED marker lights are located at each end of the car.

The headlights and ditch lights at the cab end of the car shall be removed and the openings sealed.

A three tier (3-tier) brake indicator light assembly is located on diagonal corners at each end of the car.

A single door indicator light is located at the top of the corner post on the cab end and on the diagonal corner of the A-End of the car. Single indicator lights shall be removed and relocated.

All light fixtures shall be cleaned, tested, and their lamps shall be renewed/replaced with Cool White lamps. Defective light fixtures shall be repaired as specified herein or renewed/replaced.

14.2 Passenger Lighting

Longitudinal fluorescent light fixtures run the length of the car to provide general interior illumination. Fluorescent lighting is powered from a nominal 120 V AC source. Emergency incandescent lights, operating from battery power, are built into every fourth fluorescent light fixtures.

14.2.1 Fluorescent Lighting

Lighting fixtures shall be cleaned and repaired.

Defective T12 lamp sockets shall be renewed/replaced.

Defective emergency lamp sockets shall be renewed/replaced.

Lenses shall be cleaned. Defective lenses shall be renewed/replaced with Translite part number R-500-14 or equivalent. Lens gaskets shall be renewed/replaced.

All T12 fluorescent ballasts in the passenger seating area shall be replaced with T12 electronic ballasts, AAMPS# XX XXX XXXX, or equivalent. The ballast locations shall not be changed unless necessary to accommodate the new DC ballasts for emergency lighting.

Once the ballasts and lamps have been renewed/replaced, the lighting fixtures shall be tested.

14.2.2 Emergency Lighting

Four (4) new T12 DC ballasts, AAMPS # XX XXX XXXX, compliant with APTA standards SI-II-013-99 and RP-E-012-99, shall be installed to power eight (8) fluorescent lamps as emergency lighting.

The fixtures that currently house the incandescent emergency lamps shall be powered by the DC ballasts. One DC ballast shall power two emergency lamps.

The wire run between the fixture and DC ballast shall not exceed 10 feet, in accordance with APTA RP-E-012-99.

A proof of performance test in accordance with APTA standards shall be conducted to verify emergency lighting levels and to verify that there is sufficient lighting levels to charge the LLEPM and emergency exit pathway markings. (Yakov needs to provide documentation supporting the APTA spec for emergency lighting.)

14.3 Low Ceiling Lights

There are two (2) incandescent lights located in the low ceiling of the A-End of the car equivalent to (same part number) the vestibule ceiling lights.

The existing low ceiling lights shall be removed and retained for repair or renewal/replacement of damaged vestibule light fixtures.

New light fixtures, AAMPS# 24 803 84695, shall be installed in the low ceiling. Location of the light fixtures shall be coordinated with RailPlan as part of the low ceiling redesign.

14.4 Vestibule Lights

There is an incandescent light in the vestibule ceiling above each side door stairway. Vestibule lights have an assortment of lens styles and colors.

Light fixtures, lenses, and bezels shall be cleaned, inspected, and repaired. Gaskets and fasteners shall be renewed/replaced.

Defective, damaged, or missing light fixtures and lenses shall be renewed/replaced with refurbished fixtures and components removed from the low ceiling area.

All lamps shall be renewed/replaced.

14.5 Platform Lights

Exterior platform lights are provided adjacent to each side doorway to illuminate the platform. The light is operated by a toggle switch in the vestibule ceiling.

The fixtures shall be cleaned, tested, and repaired. Damaged, missing, or defective components shall be repaired or renewed/replaced.

All gaskets shall be renewed/replaced

All lamps shall be renewed/replaced.

Platform light switches shall be provided in accordance with Section 10.

14.6 Marker Lights

A RED, 38 V DC, bayonet mount marker light is located on each corner of the car next to the top of the diaphragm. The lights are accessible from within the vestibule. Each light illuminates a RED lens by mounting in a fixture that extends through the vestibule end sheet.

The lights are wired in series with a dropping resistor and are operated by toggle switches in the vestibule ceiling. Marker light switches may be relocated in accordance with modifications to the vestibule arrangement.

Dropping resistors on some of the lights are hanging loose at the back of the fixture in the vestibule. All dropping resistors shall be renewed/replaced and secured in a protected, accessible location above the vestibule ceiling. Wires shall be dressed and secured.

The fixtures shall be cleaned, tested, and repaired. Damaged, missing, or defective components shall be renewed/replaced.

Gaskets and securing fasteners shall be renewed/replaced. New lamps shall be installed.

14.7 Indicator Lights

The existing exterior door indicator and brake indicator assemblies shall be replaced with new high intensity assemblies. Sample assemblies and the installation locations shall be submitted for Caltrans review. **CDRL 14.01**

14.7.1 Interior Door Indicator lights

Three door indicator lights arranged horizontally shall be installed in each vestibule door control panel.

There shall be a BLUE light on the left with an "up" arrow above it. This light shall illuminate when all vestibule doors are "closed" and "latched" or "by-passed" from that vestibule to the end of the train in the direction of the arrow (excluding the vestibule where the panel is located).

There shall be a RED light in the middle that will illuminate when a door in that vestibule is "opened". This light shall operate in parallel with the exterior door indicator lights.

There shall be a BLUE light on the right with a "down" arrow above it. This light shall illuminate when all vestibule doors are "closed" and "latched" or "by-passed" from that vestibule to the end of the train in the direction of the arrow (excluding the vestibule where the panel is located).

The BLUE door system indicator lights shall only illuminate when the door control panel is activated with an Amtrak coach key. The RED indicator shall illuminate any time a door is not "closed" and "latched" or "by-passed" independent of whether the door control panel is activated.

14.7.2 Exterior Door Indicator lights

Single-tier door indicator light assemblies, two (2) per car, are located at the top of an end post at the B-End left corner and the A-End right corner of the car.

Door indicator light assemblies shall be removed and scrapped. The openings shall be sealed and wiring terminated or removed in a manner to prevent grounds and short circuits.

New exterior single-tier door indicator light assemblies utilizing high intensity LED lamps shall be designed and installed on each side of the car opposite the brake indicator light assemblies. The assemblies shall be installed with a gasket to provide a watertight seal between the car and light assembly.

The door indicator light assemblies shall be configured for lamp renewal/replacement from the exterior of the car.

The door indicator lamp assemblies shall display a RED indication when any side passenger door in the adjacent vestibule is "opened". The RED indication shall be extinguished when all passenger side doors in the car are "closed" and "latched" or "by-passed".

Door indicator lights shall also be installed in the three-tier brake indicator light assemblies specified below.

14.7.3 Handbrake Indicator Lights

Handbrake indicator lights shall be installed in the communication locker above the handbrake. A GREEN indication shall be displayed when the handbrake is released and a YELLOW indication shall be displayed when the handbrake is applied.

14.7.4 Exterior Brake Indicator Lights

Three-tier (3-tier) brake indicator light assemblies, two (2) per car, are located on the B-End right side and the A-End left side of each car. Existing brake indicator light assemblies shall be scrapped and replaced with new light assemblies.

New brake indicator light assemblies utilizing high intensity LED lamps shall be designed and installed with gaskets to provide a watertight seal between the car and light assembly.

The indicator light assemblies shall be configured for lamp renewal/replacement from the exterior of the car.

The brake indicator lamp assemblies shall display (X means LIT, O means UNLIT):

Indicator Type:		**Exterior**		**Handbrake**		**Locomotive**	
Air Brakes	**Handbrake**	**Green**	**Yellow**	**Green**	**Yellow**	**Released**	**Applied**
Released	Released	X	O	X	O	X	O
Applied	Released	O	X	X	O	O	X
Released	Applied	X	X	O	X	O	X
Applied	Applied	O	X	O	X	O	X
1 Truck Released	Released	O	O	X	O	O	X
1 Truck Applied							
1 Truck Released	Applied	O	X	O	X	O	X
1 Truck Applied							

Brake status indicators shall illuminate simultaneously on both sides of the car.

14.8 Equipment Cabinet Lights

14.8.1 Electrical Cabinet Light

There is an incandescent light in the electrical cabinet.

The light fixture, lens, and bezel shall be cleaned, inspected, and repaired. Gaskets and fasteners shall be renewed/replaced.

If not repairable, Amtrak shall propose a renewal/replacement fixture for Caltrans review.

All lamps shall be renewed/replaced.

A locker door switch shall be installed to extinguish the light whenever the locker door is closed.

14.9 Light CB/Switch Panels

Refer to Section 12 for the lighting switch and circuit breaker panels.

14.10 Strobe Lights

Strobe lights with associated control equipment, located on the roof of each car, shall be removed in accordance with Section 2.

15.0 Materials and Workmanship

15.1 General

Amtrak shall use materials, standards, and workmanship as specified in this section to renew/replace in-kind, hardware, components, and systems during the overhaul of the Comet IB cars. Unless otherwise stated or where damaged beyond repair, existing hardware and materials may be reused after suitable cleaning and repair. The intention is that the cars will be fully functional and aesthetically refurbished after completion of the overhaul.

All materials used in the refurbishment and construction of these passenger cars shall be generally accepted in the industry and conform to the requirements of this work scope.

This section shall be applicable to all new or refurbished Work applied to or installed on the passenger car whether by Amtrak or their suppliers. Renewal/replacement of parts shall be in-kind from OEM or other approved Amtrak suppliers.

Equivalent components and systems may be utilized in accordance with Section 1.5 for OEM components and systems referenced herein that are obsolete, discontinued, or superseded. Amtrak shall notify The Engineer of such substitutions prior to application utilization.

Alternative materials, equipment, or methods will be considered by Caltrans provided the alternative solution proves beneficial to Caltrans or offers a better solution to meet work scope objectives. Amtrak shall submit a proposal with backup documentation for Caltrans consideration and approval for each alternative solution prior to making any substitutions.

15.2 Standards

Unless otherwise specified, all materials shall conform to NFPA, AAR, APTA, ANSI, ASCE, ASME, AISI, IEEE, and/or ASTM work scopes.

Threaded fastenings and other standard machine elements shall conform to ANSI standards.

Metric threads shall not be used without written Caltrans approval for each specific application.

Inclusion of a material or method in this section does not indicate approval for application or use in a specific situation. When a material or method is specified in this section, this section shall be applicable. However, specific requirements detailed in the appropriate technical work scopes take precedence over this section.

15.3 Markings

All new material intended for use on these passenger cars or material removed during the overhaul and intended for reuse shall be marked or stored so as to be readily identified, and shall be adequately protected during handling and storage.

Rejected material shall be clearly marked and stored in an area specifically designed for that purpose. Rejected material shall remain "unavailable for use" until documented disposition is approved by Caltrans.

15.4 Trim Finish

All new exposed interior metal trim shall have a satin or 4B finish. The finish on the metal trim shall be consistent throughout the car.

15.5 Ply-Metal

Reference Amtrak Spec 067, Ply-metal panels (plywood core only).

The term 'ply-metal' as used in this work scope means 'Structurally bonded ply-metal panels' complying with the following work scopes and U.S. Mil-P-9053.

- Test Conditions (Minimum Metal to Wood Shear Value or 80% Wood Failure)

Dry Shear:	250 psi
Boil shear, 3 hr. boil, tested wet at room temperature:	150 psi
Soak shear, 48 hr. soak, tested wet at room temperature:	150 psi
Creep or cold flow, under static load for 48 hrs. at room temperature:	250 psi

- Tensile Strength

  Panel specimens shall be tested for tensile strength in flat plane in compliance with requirements of ASTM-C297. Sandwich panel material shall be rejected if tensile failure occurs in bond between facing and core.

When finished, continuous edge reinforcement shall be incorporated to facilitate transfer of stresses and to seal edge against moisture penetration and other damage.

15.6 Asbestos

The use of asbestos or asbestos containing materials in any portion for the reconstruction of these passenger cars is strictly prohibited.

15.7 Jointing and Fastenings

Certain combinations of materials shall require particular care in joining to avoid the possibility of dissimilar corrosion materials.

Extreme care shall be exercised in joining materials or components to ensure that the finished product is free from rattles and objectionable noises.

15.7.1 Fastenings

All new fasteners must meet the requirements of 15 CFR Part 280, Fastener Quality.

No protruding screws, mounting bolts or similar items shall be permitted either on the interior or exterior of the passenger car other than those appointments which can be built into the structure in no other manner.

All exposed flat, pan, or oval head screws shall be stainless steel unless otherwise specified.

At least 1½ screw threads shall be visible beyond all nuts. When used without elastic stop nuts, bolts shall not project more than 1½ threads plus ¼ inch (6 mm) for bolts ¼ inch (6 mm) diameter or less and shall not project more than eight (8) threads for larger diameter bolts. With elastic stop nuts, bolt threads shall not project more than ¼ inch (6.4 mm), regardless of bolt size.

Screws, bolts and nuts shall conform to American National Standards unless otherwise specified.

Self-locking nuts shall be used throughout where practical.

Self-tapping screws shall not be used in the areas requiring dismantling for servicing.

When bolts are used to secure an apparatus and the bolt head is inaccessible, a mechanical locking device shall be used to prevent the bolt head from turning when the nut is being applied or removed.

When nuts are inaccessible, a mechanical locking device shall be used or the nuts may be carefully welded in place.

Where rows of inaccessible bolt fastenings are required, a tapped stainless steel plate, with a minimum thickness of three eighth (3/8) inches (10 mm), shall be welded to the supporting structure.

All holes shall be drilled using the minimum practical drill size compatible with fastener employed.

15.7.2 HUCK Fasteners

HUCK fasteners may be used in locations approved by Caltrans. All rough surfaces of the collar end of HUCK Fasteners shall be ground smooth in maintenance access areas only.

15.7.3 Torqueing

All safety-related fasteners, including truck and brake equipment bolts and all fasteners exposed to fatigue loads, shall be torqued to a minimum preload equal to 75% of their proof load and "torque striped" by paint or other approved method after being torqued. All other fasteners shall be torqued so that they do not loosen in service.

Fastener installation torque for standard bolts with standard or heavy hexagon nuts may be calculated from Industrial Fasteners Institute Fastener Standards (latest version) equations using values for "K" of 0.18 for unplated, oiled or waxed threads and 0.15 for plated threads that are also waxed or oiled. Locknuts shall be torqued in accordance with their manufacturer's recommendations or Amtrak may conduct tests to determine installation torque. For special nuts or bolts requiring "torque striping," bolt torque-tension tests may be required to verify that the installed preload is equivalent to 75% of the proof loads.

15.7.4 Plating

Zinc plating conforming to the latest revision of ASTM Work scope A165, Type NS shall be required on fasteners not exposed to view. Cadmium plating shall not be used.

15.7.5 Cleaning

Where metal is welded, riveted, or bolted to metal in the passenger car structure, contact surfaces shall be free of dirt, grease, rust, and scale and shall be coated, except for stainless steel parts, with a suitable metal base primer that will not interfere with later enamel or lacquer paint applications.

15.7.6 Metal-to-Metal Fastenings

Where metal surfaces are placed together for spot welding, an approved spot weld primer shall be used. Stainless steel parts shall not require primer.

15.8 Coating

When refurbishment, modification, and/or renewal/replacement results in exposed surfaces of uncoated carbon steel, they shall be given one (1) heavy coat of an approved base primer and one (1) coat of an approved sealer.

All hidden wood shall be given a minimum of two (2) coats of aluminum paint (including edges of ply-metal panels) to ensure sealing of surfaces.

Hidden metal is material that will subsequently be covered by other materials in the completed passenger car.

15.9 Sealant

Unless otherwise recommended by the sealant manufacturer, a single general purpose sealing compound shall be used throughout the passenger carbody.

The sealant shall have superior metal adhesive properties over which the specified paints can be successfully applied.

15.10 Stainless Steel

15.10.1 Type

This work scope covers AISI Types 201, 202, 301, 302, 304, 316, 430 and Allegheny Ludlum Type 363 stainless steels.

Only low carbon stainless steel shall be used for major structural fabrications and other highly stressed components. Certifications for structural stainless steel shall be required.

Amtrak blanket certifications may be provided for non-structural stainless steel.

15.10.2 Physical Properties

It shall be the responsibility of Amtrak to verify that all material for each use shall be of uniform strength and quality in accordance with American Iron and Steel Institute (AISI) Standards.

15.10.3 Gauge Tolerance

Standard industrial tolerances or better shall be acceptable in material coils and sheets.

15.10.4 Buffing and Polishing

Buffing and polishing of stainless steel, where required, shall be done in an approved manner and without the use of any composition containing iron or iron oxide.

15.10.5 Finish

Stainless steel in locations to be painted shall be given a #36 grit finish using a belt sander or similar tool.

Stainless steel in locations to be unpainted shall be arranged with a brush finish oriented in a horizontal direction on the exterior of the passenger car, and in a direction to suit the decorative treatment in the interior of the passenger car, except for certain vertical members such as doorframes.

Unpainted stainless steel frames, boxes, and other assemblies shall be constructed from No. 1 or No. 2 matte finish sheets.

15.11 Low-Alloy High-Tensile Steel

Low-alloy high-tensile (LAHT) steel, where used, shall be a nickel-containing low-alloy, corrosion-resistant steel with a high tensile strength.

LAHT steel shall conform to ASTM Work scope A-242, and shall have a smooth surface free from pitting.

Cor-Ten, furnished by United States Steel Corporation; Yoloy, as manufactured by the Youngstown Sheet and Tube Company; Armco HT50, as manufactured by the Armco Corporation; Republic 65, as manufactured by Republic Steel Corporation; or accepted equal, shall be acceptable for such applications, except where a particular low-alloy high-tensile steel is called for in this work scope.

15.12 Steel Castings

15.12.1 Quality

All new castings, unless otherwise specified, shall meet the requirements of AAR Work scope M-201 Grade B.

Steel castings shall be sound throughout within work scope requirements and/or for the purpose intended.

The Manufacturer shall prove his manufacturing procedure by either destructive or non-destructive means.

Following the establishment of a satisfactory test procedure, quality control shall be maintained by testing one (1) or more of each lot at a frequency mutually acceptable to Caltrans, Amtrak, and the foundry. The test frequency shall be influenced by the critical requirements of the part.

If new castings are found to be porous or otherwise unsound, the castings shall be destroyed and replacements shall be provided at no cost to Caltrans.

15.12.2 Heat Treating

All new steel castings used in the truck structure shall be made of heat-treated electric furnace or controlled open-hearth steel.

Where physical strength is gained by heat-treating, a physical test shall be conducted on each treating charge, of each heat of castings.

Where more than one (1) heat is represented in a treating charge, a physical test shall be conducted on each heat represented in each treating charge.

15.12.3 Other Castings

Steel castings used in locations not referred to herein shall be selected for composition and characteristics best suited to the application, by the Manufacturer or Amtrak concerned, but shall be subject to review by Caltrans.

15.12.4 Welding

Welding required on castings is permitted provided Amtrak performs all weld repairs in accordance with an approved written procedure and uses AWS certified welders or welders

qualified to ASTM A488. Amtrak's welder qualification procedures and standards shall be identified.

Prior to receiving approval, Amtrak shall submit, for Caltrans review, certified results for Weld Procedure Qualifications, Personnel Qualifications and Materials and Equipment Qualifications. **CDRL 15.01**

15.12.5 Magnetic Particle Inspection

If required magnetic particle inspections of each casting shall be conducted in accordance with ASTM E personnel certified to MIL-STD-410. With respect to structural castings, which include coupler, bolster, and truck castings, the maximum permissible magnetic particle indication shall be one-quarter (¼) inches in the direction transverse to the usual direction of loading, and three-quarter (¾) inches in the direction parallel to the usual direction of loading.

Personnel qualifications shall be submitted for Caltrans review. **CDRL 15.02**

15.12.6 Radiographic Inspection (Disposition as Amtrak doesn't perform)

Radiographic inspection shall be conducted in accordance with the requirements of ASTM standard E 94 using reference radiograph to ASTM E 446. A sampling frequency shall be proposed by Amtrak and submitted for Caltrans approval. Structural castings shall not exceed severity level three (3) of ASTM E 446 in all critical areas of such castings and shall not exceed level five (5) in all other areas of the castings.

Personnel qualifications shall be submitted for Caltrans review. **CDRL 15.03**

15.13 Aluminum

Aluminum alloy mill products shall be identified by Unified Numbering System designations and shall conform to The Aluminum Association Work scopes contained in the Association's publication "Aluminum Standards and Data." Aluminum alloy castings used for door thresholds shall conform to ASTM 8-26, 8-85, or 8-108 for, respectively, sand, die, or permanent mold castings. Aluminum alloy forgings shall conform to ASTM 8-247. Copies of all test reports for sheet, extrusion, and forgings used in the car structure shall be submitted to Caltrans.

15.13.1 Design Stresses

All aluminum structural members shall be designed so that calculated stresses under the specified AW3 passenger load do not exceed the allowable stresses listed in the latest revision of the Aluminum Association of America's "Work scope for Aluminum Structures" for bridge and similar type structures and "Engineering Data for Aluminum Structures." Proper allowance shall be made for the effects of fatigue, for column and plate stability effects, and for strength reduction at welded regions. Permissible fatigue stresses under the specified AW3 passenger load shall be established, with approval based on available relevant research data or on prototype testing under the variable load patterns expected to occur in service.

15.13.2 Fabrication and Fastening

The forming of aluminum parts, joining of parts by bolting, riveting, and welding, and the protection of contact surfaces shall, as a minimum, conform to the requirements of the Aluminum Company of America's Technical Report No.524, "Work scope Covering Use of Aluminum in Passenger Carrying Railway Vehicles," except as otherwise specified herein.

Fabrication techniques shall be such that the strength and corrosion resistance of the aluminum shall not be impaired, or the surface finish permanently marred or discolored, during construction.

15.13.3 Protection of Contact Surface

The specific measures to be taken by Amtrak to prevent the risk of direct metal-to-metal contact and resultant possible electrolytic corrosion shall be approved and shall depend upon the determination of the most suitable method that can be adapted to the design involved. The following instructions shall be the minimum protection.

Aluminum alloy surfaces shall not be secured to or make direct contact with the surfaces of copper, copper bearing aluminum alloy, brass, bronze, silver, nickel, nickel alloys, nickel plated parts, lead, tin, or wood.

The contact surfaces of aluminum alloy with aluminum alloy shall be painted with zinc chromate primer or approved equal before securing.

The surfaces of aluminum alloy parts secured to steel parts, where exposed to weathering or harsh environments, shall be protected with a one-part polysulphide sealant, zinc chromate paste, mica insulation joint material or an approved equivalent material, which completely covers the faying surfaces. The insulating material shall be non-hygroscopic and, if fibrous, shall be impregnated with bitumen or an approved, non-corrosive, water and moisture-repellant substance. After driving, fasteners shall be primed and painted with red oxide or aluminum paint.

Stainless steel and carbon steel fasteners plated with zinc shall be coated with zinc chromate paste or approved equal before installation. Where possible, only the head and the shank of the bolt shall be in contact with the aluminum part when secured in place. Suitable bushings may be used in place of the zinc-chromate paste.

15.14 Fiberglass Reinforced Plastic

Fiberglass reinforced plastic (FRP) panels or doors that are manufactured as part of this work scope shall meet these requirements.

FRP shall be a glass-fiber reinforced laminated material composed of a gel-coated surface with fiberglass reinforcement and a polyester resin.

FRP shall withstand, without any physical deformation or structural damage, the environmental conditions and be resistant to cleaning solutions recommended by Amtrak.

FRP shall meet the relevant flammability and smoke emission requirements.

The manufacturing process shall ensure that the glass fiber reinforcement is distributed throughout the final product in such a manner as to avoid resin-rich or resin-starved sections.

FRP parts shall be thicker at attachment points and edges.

Exposed sharp edges will not be allowed on any parts.

The resin shall be of good commercial-grade polyester material selected to meet the physical properties and molding process requirements.

The fiberglass reinforcement molding process shall result in a minimum glass content of 20% by weight.

The gel coat shall be resistant to scuffing, fire, weather, and cleaning agents.

The gel coat shall have a minimum thickness of 0.015 inches.

If the surface of the FRP panel is to be painted, a primer gel coat shall be used.

If the FRP panel does not receive paint, then the gel coat is to be pigmented to match the color selected by Caltrans.

Additives, fillers, monomers, catalysts, activators, pigments, fire retardants, and smoke inhibitors shall be added to the resin to obtain finished products with the required physical characteristics.

Mineral filler shall not exceed 28% of finished weight for any performed matched die molding process.

Independent laboratory test certificates shall be provided stating the reinforced plastic material complies with the requirements of the application.

15.15 Insulation

Thermal and acoustic insulation shall meet the smoke and flammability requirements as noted below.

15.16 Flammability, Smoke and Toxicity

New materials applied to the car shall meet the requirements of CFR 49 Part 238, Appendix B.

Oils and hydraulic fluids shall be flame retardant, except as required for normal lubrication.

15.17 Elastomers

New elastomeric parts applied within the carbody shall meet the requirements of CFR 49 Part 238, Appendix B.

All elastomeric parts specified herein shall be of neoprene, so compounded and cured that it will perform satisfactorily in passenger car operation at any temperature between -40 °F and 120 °F (-40 °C and 48.9 °C) and shall have the longest possible commercial life consistent with the characteristics specified.

15.18 Metal Parts

Unless otherwise specifically provided or agreed upon between Amtrak and Caltrans, metal parts to which neoprene is cured shall be made of SAE 1020 hot rolled steel and shall be suitable for brass plating after pickling.

15.19 Truck Parts

Truck bumpers and snubbers shall be made of neoprene conforming to ASTM Work scope D-735, Class SC-620 BEl E3 JFL.

Neoprene shall have the highest abrasion resistance possible consistent with all other characteristics herein specified.

Neoprene shall be resistant to oil, grease, acid, and other materials encountered in the operating environment.

Natural rubber shall be considered an acceptable substitute for neoprene if certified to resist contaminants.

15.20 Glazing Materials

All windows shall conform to the provisions of 49 CFR Part 223 (current revision), Appendix A. Individual window panes shall be marked in one (1) corner in accordance with 49 CFR Part 223, Appendix A.

15.21 Piping and Tubing

15.21.1 Protection of Piping and Tubing

All piping and tubing shall be arranged and protected to the extent possible to prevent damage caused by derailment, side-wipes, flying debris, removal and renewal/replacement of passenger car components.

15.21.2 Threaded Connections

The use of sealing tape (plumber's tape, Teflon tape, etc.) is specifically forbidden in threaded pipe connections.

All piping shall be deburred and blown out after cutting and again blown out after installation.

Piping shall be installed with no low spots and shall provide complete drainage away from control devices to prevent damage by freezing. All piping shall be adequately clamped (clamps not welded to pipe) to prevent vibration, using an approved elastomeric tape between the clamp and the pipe. Copper tubing will be sheathed at clamps or sheathed clamps shall be used. Piping through bulkheads or structure shall be positioned to avoid chafing through the use of clamping and/or grommets.

All piping shall be installed shall use a minimum number of fittings. Unions shall be used only where necessary to permit renewal/replacement of apparatus. Hoses shall be provided with swivel type fittings to allow replacement without disturbing surrounding piping or apparatus.

15.21.3 Air Brake Piping and Fittings

Air brake tubing and piping shall be of good commercial quality, free of burrs and scale.

Carbody air lines one-half (½) inch nominal and smaller, and in protected locations, shall be of seamless copper tubing, in accordance with Federal Specification WW-T-799F, Type "K", with wrought copper or cast brass sweat type fittings in accordance with ANSI Standards B16.22 and B16.18, or stainless steel with stainless steel flare fittings.

All air piping on trucks and carbody air lines larger than one-half (½) inch nominal or where subjected to flying debris shall be black pipe conforming to ASTM A53/A53M (schedule 80) with black malleable iron welded fittings, all painted the same as the underframe. Stainless steel pipe and welded stainless steel fittings may also be used. Bends in piping shall utilize large bend radii whenever possible to prevent restriction to the free flow of air. Threaded fittings may be used only where approved on a case-by-case basis. Malleable iron street ells or close nipples shall not be used, except at brake valve exhaust ports.

Hoses shall be allowed only to allow for coupler motion, gladhand connections and connections to brake cylinders from truck body piping. Truck piping shall employ a minimum number of fittings and hoses.

Brake system piping shall be installed in accordance with the recommendations of AAR Standard S 400. Brake piping shall have no low spots (traps) or any 45° or 90° elbows that form "doglegs" in piping runs. The highest point in the Brake Pipe shall be the branch pipe connection to the brake control unit.

15.21.4 Air Conditioning and Refrigeration System Piping and Fittings

Air conditioning lines, refrigeration refrigerant lines, and condensate drain lines shall be of type K copper tubing, with wrought copper sweat type fittings. This shall also apply to lines within supplier-furnished apparatus, except that finned tubing in evaporators and condensers need not be type K. Instead of elbows, tubing may be bent by means of a tube-bending tool. All tubing shall be deburred after cutting.

Piping shall be routed to keep the number of bends to a minimum. All inaccessible runs of tubing shall be without joints. All suction lines and those subject to sweating shall be insulated. Vibration isolators shall be used in piping connections to the compressor.

After fabrication, the system shall be cleared of all dirt and foreign matter and evacuated before charging.

The discharge of condensate drains lines shall be direct to the ground, avoiding car structure, electrical cables and all other undercar equipment.

15.21.5 Soldering of Piping and Fittings

All refrigerant tubing shall be continuously purged with an inert gas during joining and shall be joined using silver solder conforming to Federal Specification QQ-B-654A, BCuP-5 or BAg-5. Condensate drain tubing and carbody air brake tubing shall be joined using silver solder. Soldered joints shall be wiped and the flux cleaned from the tubing and fittings after soldering.

15.21.6 Water Piping and Fittings

Water piping shall be seamless copper tubing in accordance with ASTM B75-02 and sized for the service intended. Piping shall be joined using silver solder. Piping shall be clamped with necessary sound insulation to prevent rattle and be sloped to allow drainage.

Fittings shall be sweat type wrought copper or cast brass in accordance with ANSI Standards B16.22 and B16.18 or "Swage-lok" compression type.

Piping shall be joined using silver solder conforming to AWS Bag-2 for cast brass fittings and to AWS BCup-3 brazing filler metal for wrought copper fittings. The use of solder with lead content is strictly forbidden. The exterior of brazed joints shall be wiped clean after brazing. Flux shall be cleaned from the piping interior of brazed joints.

After installation, the complete water system shall be sanitized.

The piping shall be routed and sloped to allow for proper drainage. Low points in piping shall be equipped with Ogontz automatic drain valves (specified in respective Sections), each equipped with a heater, which shall discharge all the water in the vehicle to the tracks whenever the air temperature at the valve falls below 38 °F. Vent valves shall also be provided to operate in conjunction with the drain valves. At each Ogontz valve, a manual drain valve shall be piped in parallel. Sufficient manual drain valves shall be provided to allow complete draining of the car. Valves shall be labeled in accordance with Amtrak Specification 696.

Drains from the water system shall be routed to discharge directly onto the ground, avoiding car structure, electrical cables and all other undercar equipment.

Freeze protection (heat trace tape, secured with conductive aluminum tape) shall be provided for the water fill housings, underfloor and/or equipment area water piping, water system drain pipes and water tanks (unless a blanket heater is employed).

15.22 Wiring and Connections

15.22.1 Application and Installation of Wire

All wiring shall be performed by or under the direction of experienced wiremen.

Wiremen shall be provided with appropriate tools for skinning insulation, cutting, tinning, soldering, and attaching mechanical or compression type terminals to the conductors.

Care must be taken in removing insulation from the conductor to avoid nicking of the wire or strands of the conductor cable.

Wire in ducts and conduit shall be free of kinks, insulation abrasions, and insulation skinning.

Passenger car wiring methods and materials shall be in accordance with Chapter 3 of the National Fire Protection Association's Publication NFPA No. 70 (NECS) current issue or APTA RP-002-98, except where otherwise required by the work scope, or where approved by Caltrans, and except that all wire shall be stranded.

The layout of wiring shall be designed in advance of its installation and in cooperation with those furnishing the related equipment.

Insofar as practicable, all wiring shall be fabricated on the bench into convenient units and installed in prefabricated groupings and standardized locations.

All wire and cabling shall have appropriate service loops, drip loops, strain relief and sufficient material for a minimum of three (3) re-terminations.

Spare terminations and conductors should be provided on terminal boards, in connectors, and in wire bundles and multi-conductor cables between major panels and junction boxes. A minimum of ten percent (10%), but not less than one (1), shall be provided.

Grounding connections shall be brazed and bolted to, or welded and bolted to, or silver soldered and bolted to the passenger car frame.

All equipment enclosures and shock-mounted equipment shall be grounded with flexible, strap-type, grounding leads bolted between a carbody grounding pad and equipment grounding pads.

15.22.2 Solder

Solder for electrical connections where permitted shall be in accordance with ANSI No. 1, Class B.

Non-corrosive flux shall be applied immediately before soldering.

An automatic temperature controlled solder pot shall be used.

15.22.3 Tape

Polyvinyl chloride or Nomex electrical tapes with Buna "S" type adhesive, 0.010 inches (0.254 mm) in overall thickness, or approved equal, shall be applied.

The above materials shall be suitable for use with the conductor insulation without discoloring or corroding the copper wire and shall provide 600 volt minimum insulation.

15.22.4 Splices

Unless otherwise specified herein, in-line splices shall not be permitted without prior Caltrans approval.

15.22.5 Terminals

Conductors shall be fastened to terminals and connectors by an accepted mechanical crimping method. Soldering of conductors shall be allowed at selected locations only with prior written approval of Caltrans.

Conductors, which will be subjected to motion relative to the terminal, shall be protected and supported by suitable means to minimize breakage of the conductor at or near the terminal.

Crimped terminals shall be used on all wiring operating at 64 volts or higher.

In general, connections shall be made by means of terminal blocks.

Only ring tongue terminals are acceptable. The use of spade type and "Fast-on" terminals shall be prohibited without approval by Caltrans Amtrak shall submit on a case-by-case basis the

use of spade type and "Fast-on" terminals, and shall indicate the standard vendor and typical Amtrak application.

Solder connections shall be permitted on printed circuit boards.

15.22.6 Terminal, Tool, and Die Manufacturer

Mechanical or compression type connectors and terminals shall be AMP standard connectors and terminals. Tools and any associated dies shall be of AMP manufacture. Installation shall be by AMP tools that do not release until the crimping process is completed.

15.22.7 Wire Marking

Wire markers shall be consistent in quality and form with existing wire markers. Missing, damaged or illegible wire markers shall be renewed/replaced.

All wires, terminal studs, connections points and connectors shall be plainly and suitably marked with permanent type markings as per APTA RP-E-002-98, section 5.13, so that circuits may be easily identified, and these markings shall conform to a standard wire numbering system approved by Caltrans.

Spare wires and wiring entirely within an equipment enclosure may have a single wire marker at each end.

Wires shall be marked by laser etching of the sleeve. As an alternate, markers may be of the printed, heat-shrinkable type.

Hand printing is prohibited.

Markings shall be non-conductive.

Marking material/ink shall not be adversely affected by normal electrical cleaners and solvents.

Marking material/ink shall be UV protected to withstand exposure to the elements without discoloration.

15.23 Conduit

Existing conduit requiring renewal/replacement or reconfiguration shall be of similar composition as that removed.

All conduit couplings shall be of an ANSI approved type. Conduit installed on the trucks or in underfloor areas over the trucks shall be standard weight, galvanized steel with threaded fittings. All conduit ends shall be deburred inside and out to remove sharp edges and all pieces shall be blown out with compressed air and cleaned before installation to remove filings and other foreign material.

Rigid aluminum conduit shall consist of seamless, rigid aluminum alloy conforming to ANSI C-80.5 and to the requirements of Standard UL-6. All threads shall be covered with an oxidation-inhibiting compound. Aluminum fittings shall be used to assemble aluminum conduit and shall be made to the same grade and alloy as the conduit.

Steel conduit shall be mild steel in standard lengths with threaded ends and hot-dipped zinc-coated exterior and interior surfaces. It shall be free of burrs and projections, circular in cross-section, of uniform wall thickness and shall conform to the requirements of ANSI Standard 80.1. The threads per inch and length of threading shall conform to ANSI Standard B-2.1 on Pipe Threads.

Steel fittings shall be used to assemble steel conduit. Elbows, nipples, and couplings shall be made of the same grade of steel as that employed in the conduit. All fittings shall be treated,

coated, and threaded according to the requirements for zinc-coated, rigid steel conduit and shall conform to Underwriters Laboratory Standard UL-6.

Flexible conduit shall be an ANSI approved type and shall be of the highest grade and quality. It shall be watertight, interlocking steel strip-protected, with an approved rust resistive coating.

Conduit shall be sized such that the sum of the cross-sectional areas of the conductors and their insulation does not exceed 40% of the cross-sectional area of the conduit for three (3) or more conductors. For two (2) conductors, a limit of 31% shall be used, while for one (1) conductor a limit of 53% will be permitted. For conduits having a length not exceeding 24 inches without bends of more than 15 degrees between enclosures, a maximum fill of 60% shall be permitted.

A run of conduit between junction boxes and/or pulling outlets shall not contain more than the equivalent of four (4) quarter bends (360 degrees total) including the outlet fittings. Bend radii at the inner surface of the bend shall be no less than eight (8) times the nominal inside diameter of the conduit.

All conduit bends and offsets used shall be made by the use of special forms or tools and shall have the largest radius possible so that wires can be drawn (in and out) without the use of tackle or power.

Conduits shall be securely clamped with all runs electrically grounded to make a continuous ground. Suitable insulation shall be provided to prevent electrolysis where aluminum may come in contact with other metals.

All conduits shall be arranged to prevent moisture traps and shall drain toward control boxes, except that all open-ended conduits shall be installed in a manner to ensure gravity drainage of moisture out of the end. The conduit arrangement and installation shall be subject to Caltrans review.

The conduit fittings and junction boxes for passenger car wiring shall be as manufactured by Amtrak or by a supplier of a comprehensive line of parts. Amtrak shall submit the proposed product line for Caltrans approval. All conduit fittings and junction boxes shall be provided with gaskets.

All exterior junction boxes shall be fabricated of steel with a minimum wall thickness of 14 gauge. All exterior junction boxes shall be waterproof and shall be connected in such a way that drainage from equipment groups shall not pass through the conduit into the junction boxes. Interiors of all junction boxes shall be primed and then protected with a white, insulating coating.

The open ends of conduits shall be provided with strain relief type fittings with extended rubber bushings, bell-mouth fittings, or insulated throat box connections. All conduit entries into removable equipment boxes shall be made through watertight access panels secured by captive screw fasteners. Strain relief fittings shall not contain aluminum components.

All junction box covers shall be secured with compressive spring-type latches or captive screws and sealed consistent with enclosure ratings. All fasteners used in junction boxes shall be stainless steel.

15.24 Electrical Devices and Hardware

In addition to the requirements specified elsewhere in this document, each contactor, relay, and switch shall be as follows:

- Designed to meet or exceed current industry standards for railroad applications.
- Be fully accessible for inspection, repair-in-place and renewal/replacement.

- Have a maximum of two (2) wire terminations on any one (1) low voltage contact of the device.
- Contact tips shall not be placed in parallel for the purpose of carrying a current load at or above the manufacturer's tip rating.
- Electrical connections shall be captive screw or nut and bolted together with crimp-on/cable terminals.
- Screw held compression terminals shall not be utilized. Amtrak can propose the use of screw held compression terminals to Caltrans on a case-by-case basis.

If it is necessary to electrically parallel SCR's or diodes, the paralleled combination shall contain equalizing circuits to ensure current sharing.

Where a component failure may result in additional component failures, each such component shall be fused or suitably protected.

Failures shall be in a direction that shall not place passengers, the crew, bystanders, or the equipment in jeopardy.

15.24.1 Contactors and Relays

All contactors and relays shall be service proven devices used in railroad applications.

Devices shall be constructed in a very heavy-duty fashion suitable for use in railroad service.

The coils of all devices shall be suppressed using an RC network or solid state devices appropriately sized to protect against transients generated along the low voltage network.

Contact tip rating shall be stated for the worst condition of reduced surface contact which may result from tip misalignment during normal operation of the device.

The contactor installation shall be such that the arc spray is directed by an arc chute away from ground and any other electrical devices proximate to the contactor.

The estimated lifespan of all contact tips shall not be less than four (4) years.

All contactors shall be constructed so that the main contact tips make and break with a motion (wipe) that prevents deposits or pitting.

All contactors shall be built with series-fed blowout coils.

Amtrak shall demonstrate the ability of each contactor type to reliably interrupt current over the full design operating range.

All devices shall be readily identifiable by means of a permanent, durable marking strip giving the device circuit designation.

No identifications shall be obscured, or partially obscured, by wiring routing.

The identification strip shall be mounted adjacent to the mounting point of the device.

Bifurcated contacts shall be used in low voltage applications, whenever necessary due to dry contacts or low current switching arrangements.

All time delay relays shall be of the RC delay or solid-state type.

Pneumatic or mechanical time delay devices shall not be permitted.

Plug-in relays shall be positively retained by means of a restraining clip or bar. The retaining device shall be captive, ruggedly constructed, and shall be easily positioned for relay installation or removal without the need for special tools. When plug-in relays are removed, the retainer shall be retained so that it cannot come in contact with devices which may have exposed energized electrical circuits, and shall not interfere with the operation of any other device when in this position.

15.24.2 Switches

Switches shall be provided with a "keying" feature such that, after installation, the body of the switch will be constrained from rotation.

Non-rotary switches shall be mounted in a vertical position with the "up" position being "on".

15.24.3 Circuit Breakers

All circuit breakers provided shall be extremely rugged, rated, and fully suitable for the service intended.

The circuit breaker, when tripped, shall assume a distinct position between the "on" and "off" positions to permit determination of the fact that it has been tripped by either its overcurrent or shunt trip elements.

Circuit breaker handles shall protrude from the circuit breaker panel covers sufficiently to be operational in all positions.

Circuit breakers shall be individually renewable/replaceable without disconnecting or removing anything other than the mounting fasteners and electrical connections of the breaker to be renewed/replaced.

Electrical connections to circuit breakers shall either be threaded to accept machine screws or use threaded stud.

Wires to circuit breaker studs shall use ring terminals.

Circuit breaker terminals shall not be used as junction points.

Each and every power circuit shall be protected by an individual circuit breaker.

No circuit breaker shall protect more than one (1) circuit, nor shall any one (1) circuit be protected by more than one (1) circuit breaker.

All circuit breakers shall be sized by current rating and tripping time to protect both the associated equipment and the minimum size wire for power distribution within the protected circuit without causing nuisance tripping.

High voltage circuit breaker poles may be connected in series if necessary to achieve the stated voltage interruption requirements.

Each circuit breaker pole shall be equipped with adequate means of arc extinction to prevent flashover.

Circuit breaker current rating shall be clearly and permanently marked and shall be completely visible after installation.

Electrically operating circuit breakers shall be arranged for operation from the low voltage DC trainline power.

All circuits operated above 125 V AC shall be considered high voltage.

AC circuit breakers shall match the interruption capacity to the source.

Each low voltage circuit breaker shall be either one (1) or two (2) pole devices depending upon the intended function.

All high voltage circuit breakers shall be devices with not less than three (3) poles connected in series.

Circuit breakers shall not be used to perform the functions of a switch.

15.24.4 Fuses

Fuses shall be used only where specified, or where the use of a circuit breaker is not technically feasible.

Each fuse shall be permanently identified and readily accessible.

The rating of each fuse shall be clearly and permanently marked on the fuse and holder.

The fuse holder shall have fuse retention devices at both ends.

Air gap and creepage distances shall be suitable for the application.

Each fuse locker shall have a spare fuse of identical size and rating as the fuse in the circuit.

The spare fuse shall be mounted in a convenient location and marked "SPARE".

15.24.5 Bus Bars

Bus bars shall be fabricated from UNS number C10100, C10200, or C11000 copper, conforming to ASTM B187 as necessary.

Current densities, other than at joints, shall not exceed 2000 amps per square inch, and in any case shall not exceed a value which would cause a bus bar temperature rise greater than 40 °C above ambient.

Current densities in joints shall not exceed 150 amps per square inch.

Bus bar joints shall be silver or electro-tin plated.

Bus bars shall be properly brazed together at joints, unless bolted connections are found to be absolutely necessary for maintenance purposes, and are specifically accepted by Caltrans.

The overlap at bus bar joints shall be no less than ten (10) times the thickness of the bus material.

Bus bar connection bolts shall be torqued to obtain a uniform bus bar connection pressure of 200 psi.

Bolting hardware shall be plated steel with Belleville washers to maintain connection pressure.

Except for connection areas, bus bars shall be safety-insulated, using a high-dielectric, powder coating or accepted means. Tape is not acceptable.

15.24.6 Capacitors and Resistors

Hermetically sealed, dry tantalum capacitors in metal cases shall be used in place of aluminum electrolytic, except for very high values which are not commercially practical or available, in which case long life grade aluminum electrolytic shall be used.

Commercial capacitors shall be a paper or plastic film type, shall incorporate a non-toxic impregnant, and shall be chosen to give a service life of at least twenty (20) years.

Filter capacitors shall have high ripple current rating for long life.

Capacitors shall be derated 20% for voltage based on nominal supply voltage and maximum case temperature.

If filter capacitors are exposed to low ripple voltages, lesser filter values of derating may be accepted if it can be shown that reduced operating temperatures can be achieved due to lower dissipation; however, the sum of the DC and AC ripple voltages shall always be less than the capacitor's voltage rating at a maximum case temperature of 85 °C.

Except for braking power resistors, all resistors shall be derated 50% for power dissipation.

Other power resistor applications may be submitted for acceptance of lower derating, on a case-by-case basis.

Fixed value type resistors shall be provided.

Calibration shall not require adjustable resistor or trimming potentiometers, unless absolutely necessary.

15.24.7 Switch, Circuit Breaker, and Fuse Panels

All switch, circuit breaker, and fuse panels shall be dead front types mounted in specified equipment enclosures.

Each switch and circuit breaker panel shall carry the necessary apparatus, arranged to be easily accessible for connections and designed to prevent operating or maintenance personnel from coming in contact with live parts when operating the switches or circuit breakers.

All live portions of the protected circuitry shall be completely concealed so that no danger of electrocution or shock exists from the touching of the panel or any appurtenances or devices mounted thereto.

All switches, circuit breakers, fuses, and indicating lights shall be provided with a nameplate of raised or recessed lettering on the "dead front," clearly identifying the circuit which each controls and its circuit designation.

The "dead front" panel shall conform to NEPA No. 7d, Article 384.

The "dead fronts" shall be made of moisture-proof, electrically insulating, laminated phenolic or fiberglass, of accepted quality suitable for switchboards. Asbestos shall not be used.

A wiring gutter shall be provided along the top, sides, and bottom, for the routing of high voltage leads to their designated circuit breakers.

The panel shall be secured by accepted, captive fasteners and shall be configured for each removal so maintenance and repair action is not impeded.

Power distribution to the switches and circuit breakers shall be from a bus bar or bus circuit.

Distributing power by successive or "daisy-chained" connections between device terminals will not be permitted for new circuits. Existing circuits that have successive feeds on the breaker input side may be retained. Any changes to circuit breaker sizes for existing circuits must have overcurrent and short circuit analysis performed to verify the selection of wiring in and out of circuit breakers.

15.24.8 Illuminated Status Indicators and Enunciators

All illuminated status indicators, enunciators, or similar devices shall be long-life Light Emitting Diode (LED) type lamps, rather than incandescent bulbs.

15.24.9 Rotating Equipment

Rotating machinery shall be suitable for continuous duty, and the continuous duty shall be confirmed in accordance with IEEE Standard No. 11.

15.25 Wiring

Newly installed wiring and cables shall be in accordance with AAR RP-585 and the recommendations of APTA RP-E-009-98 section 6.0 (or latest version).

New wire and cable shall be soft annealed copper, tinned, stranded, and jacketed with radiation cross-linked polyolefin (Exane), or Caltrans accepted equal, in accordance with AAR Standard S 501.

Amtrak and each manufacturer of equipment shall submit a sample along with the work scopes of each wire size for acceptance by Caltrans prior to commencement of production.

All wiring shall be printed with the manufacturer's identification, conductor size, voltage rating and temperature rating.

15.25.1 Conductor Size

Wires for control and auxiliary circuits shall not be smaller than AWG No. 12, except that smaller wire, where adequate, and subject to prior acceptance by Caltrans, may be permitted for wiring within auxiliary control units and electronics units.

When multi-conductor cables are needed, wire sizes smaller than AWG No. 12 may be used provided that the size selected is satisfactory for the electric load and function the wire is expected to perform. Current rating shall be determined per the recommendations of APTA RP-E-009-98 (or latest version) and the NEC.

15.25.2 Wire Sizes and Types

A minimum number of different wire types and sizes shall be used in wiring the car.

15.25.3 Heater Connections

High temperature silicone insulated wire, in accordance with AAR Standard S 503 (former No. 590), shall be used for connections to heaters and for interconnection of heater elements and units.

15.25.4 Aluminum Wire and Cable

The introduction and use of aluminum wire and/or cable shall be specifically prohibited.

15.25.5 Other Guidelines

Where practical, standardized prefabricated wiring harnesses with quick-disconnect connectors shall be utilized. Standard harnesses shall include spare wires.

All circuits and branches must be separable to isolate when searching for shorts.

High and low voltage wiring and cabling shall be physically separated.

When some parts of a given piece of electrical apparatus are to be connected to two (2) different nominal voltages, all wiring thereto shall be insulated for the higher voltage.

All wire lengths shall include a service loop, which allows for three (3) re-terminations of the wire.

The vehicle wiring shall meet all the above requirements and all recommendations of APTA RP-E-002-98 (latest version).

15.25.6 Underfloor and Overhead Wiring

Sufficient pull boxes shall be provided in long conduit runs to facilitate future repair and maintenance in locations acceptable to Caltrans.

The ends of all conduit and fittings shall be carefully finished to eliminate cutting of insulation.

Where necessary to facilitate component removal and renewal/replacement minimum lengths of flexible liquid tight conduit may be provided.

Conduit fittings, receptacles, wiring devices and junction boxes for car wiring shall be as manufactured by the Thomas and Betts Company, AMP, Appleton, Crouse-Hinds, Hoffman, Pyle National, or accepted equal.

All covers for undercar fittings and boxes shall be gasketed using Caltrans approved materials and shall meet all emissions and toxicity criteria.

Interiors of boxes shall be suitably protected by insulating paint against condensation and corrosion.

When more than one supplier is used, all fittings which require covers and are of the same size shall be supplied by the same manufacturer, or shall be interchangeable.

Exposed power trainline cables shall be supported by neoprene cable cleats on the underside of the car structure with sufficient spacing between individual conductors to permit adequate ventilation.

Insulated bushings shall be used in all conduit and condulet fittings.

In addition to the above requirements, undercar and overhead wire and installation shall meet all recommendations of APTA RP-E-002-98 (or latest version).

15.26 Electronics

15.26.1 Semiconductors

Amtrak shall be responsible for insuring that all electrical and electronic circuitry, whether of his own design and manufacture or of those of his Manufacturers and Suppliers, shall meet as a minimum the criteria listed in this section with regard to the use of semiconductors.

Semiconductors for electronic circuits shall be adequately rated, including current rating, power rating, PIV rating, and performance characteristics for the application intended.

Each discrete semiconductor shall have the following minimum voltage breakdown rating:

- Transistors, thyristors, GTO and IGBT electronic power components operated from the nominal battery supply, or those connected to trainlines, shall have minimum breakdown ratings of four (4) times the maximum circuit voltage. Suppression devices shall be provided as necessary to protect the device and limit the circuit voltage.
- Diodes operated from the nominal battery supply used as suppression devices, or those connected to trainlines, shall have a minimum breakdown rating (PIV) of 1000 volts.
- All discrete semiconductors operated from inverters or other isolating devices shall have a minimum breakdown rating of two (2) times the maximum circuit voltage, except where specifically detailed otherwise. Suppression devices shall be provided as necessary to protect the device and limit the circuit voltage.

All semiconductors shall be operated at less than 50% of the maximum continuous current rating, or 50% of the maximum continuous power rating, with the more restrictive rating being the controlling value.

Circuits shall be designed to limit excessive current to semiconductors, to prevent damage from high discharges (spikes), and to limit excessive temperature through property designed heat sinks, where required.

Semiconductors shall be positively ventilated by the clean air system and located to allow easy renewal/replacement.

Ventilation for cooling shall not pass ambient air over areas of voltage stress.

Integrated circuits operated from the battery supply through inverter or other isolated devices shall be operated within the voltage and current ratings specified by the manufacturer and derated to less than 50% of the maximum stress level at the maximum operating temperature of the device, as specified by the manufacturer.

Where the supply to integrated circuits is regulated and surge protected, the voltage rating shall be 15% below the manufacturer's recommended maximum.

In addition, the maximum power shall be limited to 50% of the manufacturer's specified maximum at the maximum operating temperature.

All semiconductors shall be rated for operation over the temperature range of -40 °F (-40 °C) to 185 °F (85 °C).

All discrete semiconductors devices, such as diodes, thyristors, and transistors, shall be standard devices available from at least two (2) different U.S. manufacturers.

Non-JEDEC registered devices which carry more than ten (10) amps may be used provided Amtrak has obtained prior Caltrans acceptance.

Alternate methods based on a minimum 100 hour burn-in for the completed assembly will be considered.

The burn-in shall be performed with the equipment operational (power on), with the necessary input signals and loads to simulate the maximum power dissipating conditions in the device, and with functional monitoring to identify intermittent malfunctions.

Matching of components is permitted only if the components are normally available from the manufacturer in matched sets.

Germanium semiconductors shall not be utilized.

15.26.2 Printed Circuit Boards

Printed circuit boards shall be designed, constructed and inspected to MIL-STD-275, latest revision, or Caltrans accepted equal unless more stringent requirements are noted herein.

Traces shall be made as wide as practical, with the minimum width being based on a 50 °F (10 °C) temperature rise.

The component side of the board shall be printed with the component reference designation and such other information as may be required to repair and troubleshoot the board, such as capacitor polarity and at least two (2) leads of each transistor and thyristor.

Each integrated circuit shall have an index mark on the component side of the board, visible with the component inserted, to indicate proper keying and insertion.

Components shall be fastened to the board in such a manner as to withstand repeated exposure to shock and vibration.

Sufficient clearance shall be provided between components to allow testing and renewal/replacement without difficulty.

All exposed components, except socketed integrated circuits, shall be coated with conformal insulating and protective coating conforming to MIL-1-46058.

Provision shall be made on each printed circuit board for "keying" to prevent insertion into the wrong socket.

Circuit boards in safety related systems and subsystems shall be interlocked through a safety circuit to disable the vehicle if a circuit board is removed.

Printed circuit board connectors shall conform to MIL-C-55302 or Caltrans accepted equal and shall have plated contacts as required to support a minimum of 500 insertions and removals without increase in contact resistance.

Wire wrap connections shall not be used.

Test jacks shall be provided in appropriate locations on modules and printed circuit boards in sufficient quantity to localize fault isolation to the lowest renewable/replaceable assembly (e.g. PC board, input, wiring grounds).

A negative return test point shall be provided.

Each test point shall accept and hold a standard 0.080 inch diameter tip plug and shall be identified by appropriate markings.

Printed circuit boards and modules shall be positively retained by means of keeper bars or similar means.

Keeper bars shall be retained by chains or links to prevent loss when removed to allow change-out of circuit boards. The use of tools to remove or renew/replace the keeper bars shall not be required.

Except for IC's, plug-in components shall be retained with a retaining device.

All printed circuit boards with the same function shall be interchangeable without additional adjustment.

Circuit boards shall be designed to eliminate susceptibility to electrostatic discharge.

The use of jumper wires shall be minimized.

Large components shall be supported in addition to solder connections.

Power resistors shall be mounted on standoffs so that the resistor bodies do not contact the board and spaced far enough away from the board so that heat from the resistor shall not discolor or damage the board.

Components shall be fastened to the board in such a manner as to withstand repeated exposure to shock and vibration.

15.27 Welding

15.27.1 Responsibility

Amtrak shall be responsible for the quality of the welding done by its organization and its subcontractor(s). All welders employed in the making of welds on structures or products built under this work scope shall be tested to determine their ability to operate the welding equipment used during production and to determine their ability to produce satisfactory welds of the types required herein.

Welders shall have minimum qualifications as identified by ASME Code "Welding and Brazing Procedures and Performance Qualifications" or equivalent AWS procedures.

15.27.2 Welding Rod

Welding rod, wire, or filler metal shall be chosen with respect to make, type, and size by Amtrak for the specific application.

Should the suitability of welding rods, wire electrodes, or filler metal be questioned, the provisions of Chapter 95 of the AWS Welding Handbook shall govern.

15.27.3 Heat Treating

Parts rotating at high speeds or parts subject to shock and/or vibration such as end underframes shall be stress relieved after welding.

15.27.4 Welding Procedures

All welded connections shall be described on the construction drawings for the passenger cars prepared by Amtrak and submitted for Caltrans review.

Standard weld symbols shall be used to define type, pattern, and size for each weld.

Stainless steel parts shall be joined by resistance welding or by arc welding.

Resistance welding procedures shall employ accurate control of current, time, electrode, size and shape, and tip force to produce uniform welds of specified strength that will not be subject to surface corrosion.

The strength of all resistance welds shall comply with American Welding Society Standards.

Amtrak shall treat surface marks resulting from welding to eliminate, to the extent possible, visible defects and discoloration in the finish surface.

In areas where space is restricted, resistance welding of components may be replaced with Huck bolted connections. Each location shall be subject to prior Caltrans review.

Amtrak shall submit the design of individual connections for acceptance.

Torch cutting holes in any part of passenger car assembly or components is specifically prohibited.

16.0 Inspection, Test, Quality Assurance

16.1 General

Inspection and testing of the car and its components is the sole responsibility of Amtrak.

Caltrans will provide QA personnel to monitor Amtrak and Subcontract Work. The presence of Caltrans representatives at Amtrak or Subcontract manufacturing facilities shall not in any manner supplant Amtrak's obligations or lessen the responsibility of Amtrak in respect to meeting all the requirements of the work scope. The cost of Caltrans inspection personnel will be the responsibility of Caltrans.

Inspections and tests shall be performed in accordance with procedures prepared by Amtrak and accepted by Caltrans. Caltrans may witness any or all of these inspections and tests on a continuous or intermittent basis, and may, at its election, perform independent inspections.

Amtrak shall maintain a Quality Assurance program approved by Caltrans.

Selected materials, components, and subsystems shall be subject to a First Article Inspection (FAI). Materials acquired and installed prior to receiving FAI shall be done strictly at Amtrak's risk.

Selected systems shall require a proof of performance test in accordance with Caltrans approved procedures.

All systems shall be thoroughly tested in accordance with Caltrans approved procedures either in Amtrak's manufacturing facility or on Caltrans system prior to releasing converted cars for passenger service.

Caltrans and Amtrak shall select suitable level track of proper length and alignment for performance of required non-revenue qualification and performance tests. These tests shall be conducted by Amtrak and Caltrans costs of the tests shall be reimbursed by Caltrans.

Road tests of each converted car shall be conducted in non-revenue service while the car is in a train consist with a Caltrans or Amtrak locomotive and any number of converted cars and Caltrans and Amtrak compatible cars. These tests shall be conducted by Amtrak. Amtrak shall assign a competent representative to conduct such operating tests. Any defects disclosed by such tests, in apparatus, material, or workmanship related to items within Amtrak's scope of work shall be corrected by Amtrak at Amtrak's expense.

Any defects disclosed by such tests in apparatus or material outside of Amtrak's scope of work shall be rectified by Amtrak, and compensation by Caltrans shall be provided based on Amtrak actual costs, exclusive of warranty items or work incidental to removal and replacement of warranty items.

Written reports of all tests performed on the Comet IB cars and their components shall be submitted for Caltrans review. Tests required by the work scope shall be included in the Car History Books.

Amtrak shall submit for Caltrans review a complete list of tests to be performed. A procedure shall be provided for each test performed. The test procedures shall include the test objective, equipment to be tested, instrumentation, pass/fail criteria, and data recording sheets. Procedures shall be submitted in a timely manner to allow for review. **CDRL 16.01**

Caltrans shall be notified of the time and location of each test at least five (5) working days prior to the scheduled test date. All tests shall be scheduled during normal weekday daytime hours.

16.2 First Article Inspection

Components shall be inspected and tested at the manufacturing or overhaul plant before shipment for proper function and operation to the maximum extent possible.

Amtrak shall include these tests in the test plan. Amtrak shall submit all drawings, test procedures and other documentation required for a FAI at least seven (7) days prior to the scheduled FAI for Caltrans review. Caltrans may witness each FAI. Amtrak shall provide Caltrans with 15 days advance notification for each FAI. **CDRL 16.02**

A FAI shall include a physical inspection of the component or apparatus and functional tests as appropriate. Unless otherwise agreed to with Caltrans, FAI's shall take place at Amtrak's facility or at a Subcontractor's facility.

Amtrak shall have all pertinent drawings, documentation and instrumentation available for Caltrans use during each FAI.

Components subject to FAI shall include, but not be limited to:

- Toilet room and interior modules,
- Waste retention system,
- Water supply system,
- Communications system,
- "Dutch" door assembly,
- Trap door assembly,
- Brake equipment,
- HVAC evaporator,
- HVAC controls,
- Roof coating,
- Digital trainline, design is not complete – how is an FAI done on this?
- Wi-Fi system,
- Wheel slide system,
- Wheel/Axles assembly,
- Overhauled truck.

Where applicable, FAI's shall include functional tests demonstrating operation across the operating range of the component or equipment.

16.3 Qualification Tests (First Car Only)

Qualification or proof of performance tests shall be required for all equipment or subsystems that have not seen prior service on the Comet IB cars. Amtrak shall provide a listing of anticipated Qualification Tests to Caltrans prior to the delivery of the first car to Caltrans.

16.3.1 Truck Clearance Test

Truck clearances, lengths, and location of brake hoses, electrical jumpers, and coupler and drawbar clearances and operation shall be demonstrated at Amtrak's plant by moving a two-car train over curves and a crossover duplicating or exceeding the most restricting trackwork on Caltrans system or other approved method. Truck clearance tests shall be performed on both trucks of each car.

16.3.2 Battery

Amtrak shall perform a battery test in accordance with APTA SS-E-013-99 for used equipment to demonstrate that, from a fully charged battery, emergency lighting can be sustained for one (1) hour. The procedure shall be submitted for Caltrans review. **CDRL 16.03**

16.3.3 Lighting

The lighting test shall demonstrate that general and emergency lighting levels (of the new emergency lighting system) comply with APTA SS-E-013-99, Rev. 1 Standard for Emergency Lighting System Design for Passenger Cars.

The lighting test shall demonstrate that the lighting intensity is sufficient to activate the Low Level Exit Path Marking (LLEPM) material in accordance with APTA SS-PS-004-99. **CDRL 16.04**

16.4 Static Tests (All Cars)

Amtrak shall statically test, for functionality, all systems on each converted Comet IB car before presenting the car for final inspection.

16.4.1 Watertightness Test

All areas of the car sides, ends, and roof, including doors and windows on all cars shall be given a complete test for watertightness after repairs are completed, to confirm that repairs have corrected roof leaks.

Underfloor boxes which are required to be watertight shall receive a pressure water test similar to the watertightness.

Any area showing evidence of leakage shall be repaired to the satisfaction of Caltrans.

The test procedure shall be submitted for Caltrans review. **CDRL 16.05**

16.4.2 Electrical Wiring Test

A continuity test shall be performed on all wiring before any testing or application of electrical power. The accuracy of all wire labels shall be confirmed as continuity is verified.

A direct current ground insulation test shall be performed on each car by disconnecting all ground wires. Each nominal voltage circuit shall be leakage tested separately.

A high potential ground insulation test shall be conducted on all circuits and apparatus in each car at appropriately reduced voltage in accordance with APTA SS-E-001-98 and IEEE standards. Renew/replace wiring failing the pass/fail criteria.

All wires and cable that do not meet the requirement of the test shall be renewed/replaced by Amtrak and retested.

Components furnished by subcontractors that are assembled and wired into packaged units at the point of manufacture shall be tested at the point of manufacture and a certified test report concerning actual tests made on components being furnished for this Contract shall be supplied to Caltrans, through Amtrak.

16.4.3 Convenience Outlets Test

Amtrak shall utilize an appropriate means to verify the functionality of each convenience outlet. This test shall be made on each completed car.

16.4.4 Trainline Test

Amtrak shall utilize an appropriate means to verify the accuracy of car trainline connections. This test shall be made on each completed car at both ends, and in a two-car train.

16.4.5 HVAC Test

Air Conditioning Tests shall include a functional check of all apparatus including thermostats and controls with the equipment supplied with 480 V AC. Test procedures shall be submitted for Caltrans review. **CDRL 16.06**

- The operation of all protective circuits shall be verified.
- Measurements shall be taken with the apparatus running at nominal voltage.
- The current drawn by the equipment and the line voltage shall be recorded during the testing.
- Controls, diffusers, and dampers shall be checked and adjusted for even temperature distribution and proper circulation of air in all cars while maintaining an acceptable noise level.
- Tests shall be performed on completed Comet IB cars.
- Proper draining of the evaporator condensation pan shall be verified.

Heating tests shall include functional checks of all apparatus including thermostats and controls, layover heat, and protective devices.

- Heating tests shall be run at nominal HEP voltage.
- The supply voltage and current demands of the equipment shall be measured and recorded.
- Arrangement of ammeters shall be such as to allow determination of the individual current demands of the floor heaters and each overhead heat unit.
- Tests shall be performed on completed cars.

16.4.6 Brake Tests

Amtrak shall perform a brake functional test on each completed car. The brakes and all associated apparatus and indicators shall be statically tested and adjusted to function as specified. Test procedures shall be submitted for Caltrans review. **CDRL 16.07**

Air brakes and all associated apparatus shall be statically tested and adjusted to function in compliance with FRA Rules, AAR requirements, this work scope and with the Manufacturer's work scope.

Amtrak shall verify that all the brakes can be manually released and applied.

Dynamic brake testing shall be as specified in Section 5.

16.4.7 Weights

Amtrak shall weigh all Comet IB cars at each end separately with all equipment installed at shipment and furnish a weight ticket from certified scales or calibrated load cells. The weight ticket shall be entered in the Car History Book.

One (1) completed truck of each type (A-End and B-End) shall be weighed with and without a bolster and Amtrak shall furnish a weight ticket from certified scales or calibrated load cells. **CDRL 16.08**

16.4.8 Communications System

Amtrak shall test each completed car to confirm the operation of the communication system in accordance with OEM procedures. The output and sound level shall be in accordance with OEM requirements. Test procedures shall be submitted for Caltrans review. **CDRL 16.09**

16.4.9 Battery Charger/Batteries

Amtrak shall functionally test and adjust the battery charger on each car. The test shall verify proper output voltage, load shed functions, and all protective devices. Test procedures shall be submitted for Caltrans review. **CDRL 16.10**

16.4.10 Doors

The functionality of the door summary circuit shall be verified. Test procedures shall be submitted for Caltrans review. **CDRL 16.11**

16.4.11 Wheel Slide System

The functionality of the wheel slide system in accordance with OEM procedures shall be verified. Test procedures, or test data as indicated in Section 5, shall be submitted for Caltrans review. **CDRL 16.12**

16.4.12 Waste Retention and Water Supply Systems

The functionality of the waste retention and water supply systems shall be verified including the functionality of all indicators and controls. Test procedures shall be submitted for Caltrans review. **CDRL 16.13**

16.4.13 Lighting

The functionality of each lighting circuit shall be verified. Test procedures shall be submitted for Caltrans review. **CDRL 16.14**

16.5 Dynamic Testing and Commissioning

Amtrak shall prepare and submit a dynamic testing and commissioning plan for Caltrans review. The dynamic test plan shall include brake test procedures. **CDRL 16.15**

See Section 5 regarding performance requirements.

16.6 Quality Assurance

Amtrak shall submit, for Caltrans review, a copy of its Quality Manual. This Quality Manual shall describe the required quality activities of Amtrak, assuring the appropriate quality level of materials and services for a car overhaul contract. The program shall require primary subcontractors to institute and follow a quality plan compatible with Amtrak's Quality Program. **CDRL 16.16**

16.6.1 Quality Assurance Program

Amtrak shall monitor and verify the acceptability of Amtrak and subcontractor parts and services. This monitoring shall be accomplished by means of quality audits (both internal and external), First Article Inspection (FAI), In-Process Inspection (IPI), Pre-Shipment Inspection (PSI) and Receiving Inspection (RI). Various combinations of these verification methods shall be utilized by Amtrak to an extent commensurate with the criticality and complexity of the materials and services being supplied. Amtrak's history with that subcontractor, both prior to and on this contract, will be a factor in the determination of the level of inspection and verification activities proposed for a particular subcontractor.

16.6.2 Quality Assurance Plan

Amtrak shall submit, for Caltrans review, a Quality Plan designed specifically for this car overhaul project. **CDRL 16.17**

The plan shall be explicit and in sufficient detail to preclude ambiguities. Amtrak's organization chart, including the quality function for this project, shall be included in the plan. This organization chart shall indicate names and titles in all key positions shown on the chart. Amtrak's Quality department leadership assigned to this project shall have a reporting path to corporate upper management, not program or project management of this Contract. Caltrans shall be notified in advance of changes in personnel, titles, or organizational structure. The plan shall include a complete listing of all primary subcontractors, with a scope of supply of $250,000 or greater, and their supplied materials, products, or services. The plan shall indicate those subcontractors where a First Article Inspection will be conducted. The plan shall also include representative samples of check sheets, inspection reports, and other quality documentation forms to be used on this Contract. The plan shall include provisions for identification and segregation of non-conforming materials including verification of appropriate disposition of such non-conforming materials.

Amtrak's Quality Program shall include a calibration/metrology system to ensure that all software, tools, and measuring and test devices which are capable of calibration and are available for use in Amtrak and subcontractor's facilities are currently calibrated. The calibration of such tools and devices shall be directly traceable to the National Institute of Standards and Technology (NIST). Records of the calibration history and current calibration status of each tool shall be available for review by Caltrans.

Amtrak shall have manufacturing/production instruction sheets and/or guidelines for work throughout the course of the Contract. A copy of the latest revision shall be kept on the shop floor for the reference of those performing Work.

Modifications to cars after production shall require Caltrans approval. Written Field Modification Instructions (FMI's) shall be submitted for Caltrans review prior to beginning any modification Work on cars. **CDRL 16.18**

16.6.3 Subcontractor Control

Caltrans shall have the right to attend any and all visits by Amtrak to the subcontractors except those visits of a strictly financial or contractual nature between Amtrak and the subcontractors.

Amtrak shall notify Caltrans, in writing, at least 15 calendar days in advance of all quality audits, first article inspections, in-process inspections, and pre-shipment inspections at subcontractors. Caltrans will determine whether it will attend these functions and will notify Amtrak of that decision.

16.6.4 Manufacturing/Production

Amtrak shall have manufacturing/production instruction sheets and/or guidelines for work throughout the course of the contract. A copy of the latest revision shall be kept on the shop floor for reference of those performing Work. These instructions/guidelines shall include, as a minimum:

- Electrical components, handling/installation/test,
- Wiring; routing, bundling terminations,
- Mechanical applications/torque limits/fastener requirements,
- Assembly/installation/adjustment instructions,
- Soldering instructions/techniques,
- Fiberglass/Body repair instructions/techniques,
- Flooring rubber application instructions/techniques.

16.6.5 Special Processes

Amtrak shall have documented instructions or guidelines in accordance with established industry practices or documents for use in the performance of special processes and procedures. These processes and procedures shall include as a minimum:

- Magnetic Particle examination,
- Dye Penetrant examination,
- Radiographic examination,
- Welding (fusion or resistance).

Personnel performing special processes shall be qualified and certified in accordance with applicable industry codes and standards.

All welding and brazing shall be done by properly qualified welders certified by the American Welding Society (AWS). All inspection of welding or brazing shall be done by or under the supervision of an AWS Certified Welding Inspector (CWI).

Personnel qualification shall be submitted for Caltrans review. **CDRL 16.19**

16.6.6 Inspection Plan

Amtrak shall prepare an inspection plan showing major manufacturing and inspection milestones for Caltrans review. **CDRL 16.20**

- This plan shall include a flow chart of key manufacturing activities and shall indicate Amtrak's proposed inspection points.
- The proposed inspection points shall indicate the type of activity (on-line, in-process, pre-shipment hold points).
- Amtrak shall submit to Caltrans for approval, prior to scheduled use, individual inspection procedures for each of the inspections indicated on the manufacturing and inspection flow chart.
- The plan, flow chart, and individual inspection procedures shall be incorporated as a part of Amtrak's Project Quality Plan.

Joint inspection of Comet IB cars and documentation of condition prior to commencement of overhaul activities shall be included as part of this plan.

The inspection plan shall be used by Caltrans to identify inspection, witness, and hold points to be observed by Caltrans and Amtrak.

Amtrak shall ensure that all processing, fabricating, and other production operations shall be accomplished under an in-process inspection and/or production control system.

Amtrak shall prepare a test plan identifying each test required by the contract and the point in time or manufacturing sequence at which it will be performed.

- Each test shall be performed in compliance with a written test procedure prepared by Amtrak and approved by Caltrans.
- The test procedure shall include pass/fail criteria defined by industry codes and standards or by this work scope.
- Test record and inspection records shall show numerical results as well as the pass/fail determination.

Amtrak's inspection plan shall provide adequate surveillance to ensure proper handling, storing, marking, and packaging of items during the production process.

Amtrak shall eliminate system conditions adversely affecting product quality through program effectiveness reviews and documented procedures that require evidence of corrective actions taken to preclude the recurrence of identified deficiencies.

Amtrak's inspection plan shall require inspection immediately prior to shipment of items deliverable under this contract. This pre-shipment inspection shall include verification that records documenting adherence to the inspection plan during production are complete. These records shall include results of examinations, tests, inspections, process controls and all other quality control requirements of the contract. These records shall be maintained in an orderly, easily accessible arrangement, and shall be available to Caltrans at all times during the contract.

16.6.6.1 100% Receiving Inspection

The following items shall be subject to 100% receiving inspection:

- HVAC Evaporator Assemblies
- HVAC Control Panels
- Side Doors
- Trap Doors
- Wheel/Axle Assemblies
- Truck Kits
- Water Tanks
- Waste Tanks
- Waste System Control Panels
- Digital Trainline Equipment

16.7 Caltrans Participation

Caltrans may conduct quality audits of Amtrak and its facilities. The audit will verify compliance with Amtrak's previously submitted, and Caltrans approved, Quality Program including the Quality Plan for this contract.

Caltrans retains the right to witness or waive participation in all inspection activities at Amtrak, subcontractors, manufacturers and suppliers.

Caltrans retains the right to reject items found to be in non-compliance to the contract work scopes, industry practices, procedures, and documentation, irrespective of whether the non-compliance occurs or is discovered at Amtrak, subcontractor, manufacturer's or supplier's facilities during the course of this contract.

If Caltrans elects to examine work partly or fully completed by a manufacturer or Amtrak, Amtrak or manufacturer shall furnish the tools, instruments and labor to perform such examination and inspection as may be required by Caltrans. Non-compliant workmanship or materials which are disclosed shall be corrected.

Caltrans may choose to place occasional or long-term resident quality personnel in Amtrak's and/or the subcontractors' facilities to monitor the activities attendant with the completion of this contract. All representatives of Caltrans shall be given free access to all parts of Amtrak's facility where work on or for this contract is or will be performed. Caltrans representatives shall not cause disruption nor interfere with production activities in the course of exercising such free access. Caltrans inspection and/or acceptance of components or products does not relieve Amtrak of the requirements of this contract and his responsibility for the form function and quality of all components parts and workmanship under this contract.

16.8 Shipment and Acceptance

Comet IB cars shall be shipped from Amtrak's plant F.O.B. to the Oakland Maintenance Facility in Oakland, California.

16.8.1 Certificate of Inspection and Release for Shipment

Prior to shipment of the converted Comet IB cars to Caltrans, a final in plant inspection of the car and a review of its documentation, including the Car History Book, shall be performed by Caltrans. Amtrak shall submit a final inspection document format for Caltrans' review.**CDRL 16.21**

The Car History Book shall be a compilation of the documentation of all tests, inspections, serial numbers, weights, significant repairs, etc. for all Work performed on the individual cars.

Caltrans shall have no less than two (2) full (8-hour) working days, which shall be weekdays during daylight hours, to perform and complete the review and inspection. The inspection facility shall supply adequate protection from outside weather, with the coach located over a pit having adequate illumination, with 480 V AC station power applied. Each Car ready for shipment will be reviewed and inspected by Caltrans to verify it meets work scope requirements and is fully operational.

On successful completion of inspection and review, a Certificate of In-Plant Inspection and Release for Shipment will be issued by Caltrans to accompany the shipment of each converted Comet IB car.

All parts that must be removed to permit shipment and those items not permanently secured to the car shall be securely boxed to prevent damage and shipped in the locked car to which they belong. The parts shall be inspected and their securement approved by Caltrans representative prior to shipment.

16.8.2 Receiving Inspection at Caltrans

Each converted Comet IB car shall be received at the Oakland Maintenance Facility in Oakland, California and will be jointly inspected by representatives of Caltrans and Amtrak for damage, loss, vandalism, or other discrepancies incurred during shipment.

All receiving inspections shall be conducted and completed on Mondays through Fridays during daylight hours only, excepting state holidays.

Caltrans will then issue a "Receiving Inspection Report" to acknowledge receipt of the converted Comet IB car and furnish appropriate notation as to its apparent "As-Received" condition. The "Receiving Inspection Report" shall be signed by Caltrans' representative and Amtrak's representative to attest to the stated condition of the Car.

Unless specifically excepted by the Contract Documents, and additionally at the sole discretion of Caltrans, each Car shipped from Amtrak's plant to Caltrans shall be complete, ready-to-run.

16.8.3 Conditional Acceptance

As soon as possible after the Receiving Inspection, Amtrak shall adjust, repair, or renew/replace, as required, to correct, to the satisfaction of Caltrans, any discrepancies noted in the Receiving Inspection Report.

Any defects in apparatus, material, or workmanship disclosed by inspections or tests shall be corrected at Amtrak's expense prior to Final Acceptance.

Upon completion of the preparation of the car(s) for road service and acceptance by Caltrans, a Certificate of Conditional Acceptance shall be prepared and signed by Caltrans' representative(s).

The Certificate shall note any discrepancies remaining to be corrected by Amtrak.

16.8.4 Conditional Acceptance Tests

Amtrak shall arrange for train crews and track time to conduct acceptance testing of converted Comet IB cars.

Amtrak shall be required to functionally test all car systems and subsystems to assure and document the functionality and performance of each car in accordance with the work scopes and Caltrans OEM Operating and Maintenance Manuals.

Reports of all tests shall be submitted for review and acceptance by Caltrans prior to final car acceptance.

Amtrak shall provide all necessary personnel and instrumentation to measure system and performance parameters.

All charts or data recorded shall be treated for permanence and shall become the property of Caltrans.

Caltrans shall be responsible for determining each car's readiness for normal operation in revenue service.

16.9 Receipt of Amtrak Furnished Materials

All Amtrak furnished materials, including but not limited to spare car parts, components, sub-assemblies, warranty material, tools or equipment, manuals or other materials or items to be supplied in conformance with this Contract shall be delivered to the Oakland Maintenance Facility in Oakland, California.

Notwithstanding the foregoing, Amtrak shall bear all risks of loss of each item until the same is delivered to Caltrans as designated above and a Certificate of Final Acceptance is issued.

On receipt of any such report that indicates a short shipment or damage item, Amtrak shall promptly renew/replace any missing or damaged equipment and material to prevent delay of the project.

Promptly means in-stock items shall be shipped immediately while the remanufacture and/or repurchase of all other items shall be initiated without delay.

17.0 Manuals and Drawings

17.1 Manuals (For Changed Components Only)

Maintenance Manuals and Parts Catalogs shall only be provided for changed components as well as new systems introduced into the NJT Comet IB cars during car overhaul. As a minimum, manuals shall be provided for the following systems:

- Communications System,
- Waste Retention System,
- Water Supply System,
- HVAC System,
- Toilet Room Module Appliances,
- Truck Suspension and Leveling System,
- Wheel Slide System,
- Doors,
- Door and Brake Indicators,
- Power Distribution/Electrical.

Manuals and catalogs shall be transmitted in hard copy and electronic copy in accordance with written instructions furnished by Caltrans.

Draft hard copies shall be provided for Caltrans review no later than 180 days from NTP. Final copies shall be provided 30 days after the draft copies are accepted by Caltrans.

Amtrak shall submit, for Caltrans review, a list of manuals and catalogs that will be provided.
CDRL 17.01

Maintenance manuals and parts catalogs may be provided in CICM format.

17.1.1 Maintenance Manuals

As a minimum, three (3) hard copies of draft Maintenance Manuals, in loose-leaf binders, shall be provided for Caltrans review.

As a minimum, ten (10) copies of the final Maintenance Manuals, in sturdy loose leaf binders, and three (3) electronic copies on CD's, in Microsoft Office Word or equivalent Caltrans approved software shall be provided.

17.1.2 Parts Catalogs

As a minimum, three (3) hard copies of draft Parts Catalogs, in loose leaf binders, shall be provided for Caltrans review.

As a minimum, ten (10) copies of the final Parts Catalog, in sturdy loose-leaf binders, and three (3) electronic copies on CD's, in Microsoft Office Word or equivalent Caltrans approved software, shall be provided.

17.2 Drawings

As a minimum, hard copies of the following drawings shall be provided on B size paper, and electronic copies shall be provided in an Autodesk AutoCAD compatible format or equivalent Caltrans approved format:

- Integrated Wiring Schematic,
- Wiring Running List,
- Air Piping Diagram,

- Water Piping Diagram,
- Styling and Painting,
- Interior Arrangement,
- Toilet Room and Interior Modules,
- Side, End Frame and Vestibule Doors,
- Decals.

Appendix A: Drawing List

No.	Vendor/Contractor	Drawing Number	Part Number	Description	Rev.	Acquired From:	Referenced in WS
1	Alco Spring	-	CH1118A	Outer Equalizer Springs	-	Alco Spring	Yes, Section 3.9
2	Alco Spring	-	CH1118B	Inner Equalizer Springs	-	Alco Spring	Yes, Section 3.9
3	Amsted Rail/ ASF-Keystone Inc.	SS-20065	MS-469-6A Draft Gear 46637 Yoke	Retrofit Assy MS-469-6A Draft Gear/ 46637 Yoke	A	Curtis Engineering	See PN in Section 4.3
4	Amsted Rail/ ASF-Keystone Inc.	SS-46908	MS-469-6A Draft Gear 46637 Yoke	Assy MS-469-6A Draft Gear/ 46637 Yoke	D	Curtis Engineering	See PN in Section 4.1
5	Amtrak	D-04-1392	-	Wiring Diagram On Bd. Surveillance Hot Journal Detector	D	Amtrak	-
6	Amtrak	D-04-414	-	Schematic Diagram On Bd. Surveillance Hot Journal Detector	-	Amtrak	Yes, Section 3.15
7	Amtrak	-	-	Comet IB Floor Plan	-	Amtrak	Yes, Section 7.C
8	Bomar	-	-	Drop Door Arrangement	-	Bomar	See PN in Section 7.4
9	Bomar	205-10729-C10C	-	Vest Side Door Assembly Caltrans Comet Car Amtrak	B	Bomar	Yes, Section 15.3
10	Bomar	205-10729-C20C	-	End frame door	-	Bomar	-
11	Buckeye Steel Castings Company	C-14568	SH-9-47	A.A.R. Type H Tightlock Coupler Single Rotary Operated. Pattern No. SH-9-47	-	Curtis Engineering	-
12	Columbus Steel Castings	CC-35432	-	Magnetic Particle Inspection & Critical Area Locations for Bolster GSI DRG. C-35432. PATT. Nos 35432 & 35432-3	B	Curtis Engineering	-
13	Forestock	NAD-16393-5	29C	29C Arrow Assembly Buckeye Steel	6	Curtis Engineering	Yes, Section 3.2
14	General Steel Industries Inc.	22130-153	-	Pedestal Liner	-	Curtis Engineering	Yes, Section 3.4
15	General Steel Industries Inc.	22130-154	-	Pedestal Liner	-	Curtis Engineering	Yes, Section 3.4

No.	Vendor/Contractor	Drawing Number	Part Number	Description	Rev.	Acquired From:	Referenced in WS
16	General Steel Industries Inc.	24495-102-B	-	Pedestal Filler Block	-	Curtis Engineering	Yes, Section 3.3
17	General Steel Industries Inc.	S-25104-12	-	Specification for Rubber Pad	E	Curtis Engineering	-
18	General Steel Industries Inc.	25104-12-B	-	Rubber Pad	-	Curtis Engineering	-
19	General Steel Industries Inc.	31398	-	Wear Plate for Truck Central Bearing	C	Curtis Engineering	Yes, Section 3.3
20	General Steel Industries Inc.	32221	-	Vertical Wear Sheet for Truck Central Bearing	C	Curtis Engineering	Yes, Section 3.3
21	General Steel Industries Inc.	33418	-	Cast Steel Equalizer Spring Seat for Four Wheel Motor Truck	A	Curtis Engineering	Yes, Section 3.12
22	General Steel Industries Inc.	33712	-	Bolster Anchor for General 70 Truck	-	Curtis Engineering	Yes, Section 3.7
23	General Steel Industries Inc.	33801	-	Cast Steel Truck Frame for Four Wheel Motor Truck	C	Curtis Engineering	Yes, Section 3.3
24	General Steel Industries Inc.	33802	-	Cast Steel Truck Bolster for Four Wheel Electric Motor Truck	D	Curtis Engineering	Yes, Section 3.5
25	General Steel Industries Inc.	33800D	-	Cast Steel Four Wheel Electric Motor Truck Arrangement for North Jersey General 70 Type	D	Curtis Engineering	Yes, Section 3.1
26	General Steel Industries Inc.	D-35431	-	Location of Critical Areas Cast Steel Truck Frame	A	Curtis Engineering	-
27	General Steel Industries Inc.	DT-35431	-	Tolerances Cast Steel Truck Frame	D	Curtis Engineering	-
28	GSI Engineering, Inc.	DZ-36259	-	Cast Steel Equalizer Spring Seat (supersedes DWG 33418 above)	C	Curtis Engineering	Yes, Section 3.12
29	GSI Engineering, Inc.	DT-35432	-	Tolerances for Cast Steel Truck Bolster Part Nos 35432 & 35432-3	-	Curtis Engineering	-
30	Rondaille	-	525339	Vertical Friction Snubbers	-	Rondaille	Yes, Section 3.10
31	Rondaille	-	706464	Lateral Shock Absorbers	-	Rondaille	Yes, Section 3.10
32	Rondaille	-	707903	Lateral Shock Connecting Link Assembly	-	Rondaille	Yes, Section 3.10
33	Knorr Brake Corp	014452	SV 1205-E3	Leveling Valve SV 1205-E3	4	Curtis	-

No.	Vendor/Contractor	Drawing Number	Part Number	Description	Rev.	Acquired From:	Referenced in WS
						Engineering	
34	Microphor	-	MCR52801-3	Macerator Sanitation System Kit	-	Microphor	-
35	Microphor	-	MCR52341-3	Waste Tank Assembly 150 gallon	-	Microphor	See PN in Section 9.4.2
36	Microphor	-	MCR20432	Waste Tank Mounting Kit	-	Microphor	-
37	Microphor	-	MCR96687	Waste Tank Piping Kit	-	Microphor	See PN in Section 5.2.2
38	Microphor	-	MCR78282	Heated and Insulated Water Tank	-	Microphor	See PN in Section 9.3.1
39	Microphor	-	MCR96688	Water Tank Piping Kit	-	Microphor	See PN in Section 9.2.1
40	Microphor	-	Changing	Toilet Control Panel Assembly	-	Microphor	-
41	Microphor	-	MCR52607	Water Panel Assembly, Accessible	-	Microphor	See PN in Section 9.3.2
42	Microphor	-	Changing	Air Panel Assembly, Accessible	-	Microphor	-
43	Microphor	-	MCR52521	Macerator Toilet Assembly	-	Microphor	See PN in Section 9.4.3
44	Microphor	-	MCR52806	Waste Tank Status Panel Assembly Single	-	Microphor	-
45	Microphor	-	MCR89036	Flush Button Assembly	-	Microphor	-
46	Microphor	-	MCR89508	System Electrical Harness	-	Microphor	-
47	Morrison-Knudsen	3068D-295	-	Side-Inside Finish Panels Door Closure Area Ceiling Panel Application	-	NC Transit	-
48	Morrison-Knudsen	3068D-267	-	Car 112 Side Sill Fix	-	NC Transit	-
49	Morrison-Knudsen	3068A-254	-	Cab Window Blanking Plate	-	NC Transit	-
50	Morrison-Knudsen	3068A-347	-	Trim Aluminum Extrusion	-	NC Transit	-
51	Morrison-Knudsen	3068A-524	-	Support for Luggage Rack Bracket	-	NC Transit	-
52	Morrison-Knudsen	3068A-868	-	Cab Car Heater at P-2-A - Mtg. Bracket	-	NC Transit	-
53	Morrison-Knudsen	3068B-1099	-	Battery Charger Circuit	-	NC Transit	-

No.	Vendor/Contractor	Drawing Number	Part Number	Description	Rev.	Acquired From:	Referenced in WS
54	Morrison-Knudsen	3068B-1115	-	Coupler Stop Modification	-	NJ Transit	-
55	Morrison-Knudsen	3068B-3259	-	Floor Moulding Details	B	NJ Transit	-
56	Morrison-Knudsen	3068B-430	-	Repair Fitting	-	NJ Transit	-
57	Morrison-Knudsen	3068B-611	-	Light Ballast Locations	-	NJ Transit	-
58	Morrison-Knudsen	3068C-1035 Rev A	-	Emergency Light Wiring - Cab and Trailer Cars	A	NJ Transit	-
59	Morrison-Knudsen	3068C-1038	-	Brake Indicator Light Wiring	-	NJ Transit	-
60	Morrison-Knudsen	3068C-1043	-	Cab and Trailer Cars Grab Handle - Corner Post Mounted Vestibule Non-Cab Locations	-	NJ Transit	-
61	Morrison-Knudsen	3068C-1082	-	"A" End Evaporator Wiring	-	NJ Transit	-
62	Morrison-Knudsen	3068C-1106	-	Toilet Room Floor Reinforcement for Floor Pan Fastening - Cab	-	NJ Transit	-
63	Morrison-Knudsen	3068C-1110	-	Head End Power Wiring	-	NJ Transit	-
64	Morrison-Knudsen	3068C-1130	-	"B" End Evaporator Wiring	-	NJ Transit	-
65	Morrison-Knudsen	3068C-1394	-	Pneumatic Schematic Trailer Cars	-	NJ Transit	-
66	Morrison-Knudsen	3068C-275	-	Ring-Pull Latch Assembly	-	NJ Transit	-
67	Morrison-Knudsen	3068C-513	-	Lateral Bumpers on Bolster Modifications	-	NJ Transit	-
68	Morrison-Knudsen	3068C-514	-	Lateral Bumper Modifications and Assembly	-	NJ Transit	-
69	Morrison-Knudsen	3068C-516A	-	Friction Snubber Bracket Assembly	A	NJ Transit	-
70	Morrison-Knudsen	3068C-628	-	Lateral Gage Truck Pads	-	NJ Transit	-
71	Morrison-Knudsen	3068C-883A	-	Cab Area Grab Handle - Cab Car	A	NJ Transit	-
72	Morrison-Knudsen	3068D-1032	-	Vestibule Marker and Platform Light Wiring Trailer and Cab Cars	-	NJ Transit	-
73	Morrison-Knudsen	3068D-1033	-	Signal Buzzer Circuit Cab and Trailer Cars	-	NJ Transit	-
74	Morrison-Knudsen	3068D-1033A	-	Head End Power Safety Circuit Cab and Trailer Cars	A	NJ Transit	-
75	Morrison-Knudsen	3068D-1044	-	PA/IC Wiring Trailer Car	-	NJ Transit	-
76	Morrison-Knudsen	3068D-1045	-	Auxiliary Box Transformers and Circuit Breakers Schematic Wiring Diagram	-	NJ Transit	-
77	Morrison-Knudsen	3068D-1097	-	Freon Compressor Wiring	-	NJ Transit	-
78	Morrison-Knudsen	3068D-1253	-	Communications Wiring Cab Cars	-	NJ Transit	-
79	Morrison-Knudsen	3068D-1332	-	Undercar Equipment Layout - Cab Car	-	NJ Transit	-

No.	Vendor/Contractor	Drawing Number	Part Number	Description	Rev.	Acquired From:	Referenced in WS
80	Morrison-Knudsen	3068D-1345	-	Underseat Equipment Layout - Trailer Car	-	NJ Transit	-
81	Morrison-Knudsen	3068D-287	-	Center Ceiling Panel Arrangement	-	NJ Transit	-
82	Morrison-Knudsen	3068D-299A	-	A.C. Access Doors Low Ceiling No. 1 and 2 Ends	A	NJ Transit	-
83	Morrison-Knudsen	3068D-302B	-	Toilet Room Ceiling - Trailer Car	B	NJ Transit	-
84	Morrison-Knudsen	3068D-308B	-	End Finish Panels No. 1 and 2 Ends	B	NJ Transit	-
85	Morrison-Knudsen	3068D-362C	-	Diaphragm and Safety Bar Installation	C	NJ Transit	-
86	Morrison-Knudsen	3068D-363B	-	Diaphragm Application Piece Parts and Assemblies	B	NJ Transit	-
87	Morrison-Knudsen	3068D-364A	-	Diaphragm Piece Parts	A	NJ Transit	-
88	Morrison-Knudsen	3068D-365B	-	Diaphragm Application	B	NJ Transit	-
89	Morrison-Knudsen	3068D-378A	-	Cab and Trailer Car H.E.P. and Coupler Release Bracket Installation 'A' End	A	NJ Transit	-
90	Morrison-Knudsen	3068D-379	-	Cab and Trailer Car H.E.P. and Coupler Release Bracket Installation 'B' End	-	NJ Transit	-
91	Morrison-Knudsen	3068D-393A	-	Diamondette Floor Panel Assembly - Cab Car	A	NJ Transit	-
92	Morrison-Knudsen	3068D-396A	-	Flooring Layout	A	NJ Transit	-
93	Morrison-Knudsen	3068D-423B	-	Door Widening Piece Parts	B	NJ Transit	-
94	Morrison-Knudsen	3068D-424A	-	Door Widening Piece Parts	A	NJ Transit	-
95	Morrison-Knudsen	3068D-425	-	Angle Supports for Aisle and Room Side of Toilet - Cab Car	-	NJ Transit	-
96	Morrison-Knudsen	3068D-434	-	Crossbearer Reinforcing Angles	-	NJ Transit	-
97	Morrison-Knudsen	3068D-461	-	Toilet Room Ceiling for Cab Car	-	NJ Transit	-
98	Morrison-Knudsen	3068D-507	-	Cab Car - "B" End - Low Ceiling Support Frame Details	-	NJ Transit	-
99	Morrison-Knudsen	3068D-513A	-	Friction Snubber Bracket	A	NJ Transit	-
100	Morrison-Knudsen	3068D-546 Rev. B	-	ADC Wiring - Cab Cars Only	B	NJ Transit	-
101	Morrison-Knudsen	3068D-624	-	Brake System Wiring Cab and Trailer Cars	A	NJ Transit	-
102	Morrison-Knudsen	3068D-646A	-	Cab Car - P-2-A Valve Installation Diagram	A	NJ Transit	-
103	Morrison-Knudsen	3068D-664	-	Diaphragm Support Close-Off Instructions	-	NJ Transit	-
104	Morrison-Knudsen	3068D-797	-	Cars No. 103 and 104 Roof Carline Cutouts for Reconstruction	-	NJ Transit	-

No.	Vendor/Contractor	Drawing Number	Part Number	Description	Rev.	Acquired From:	Referenced in WS
105	Morrison-Knudsen	3068D-799	-	Cars No 114 and 113 Removal of Pantograph Reinforcement Plate	-	NJ Transit	-
106	Morrison-Knudsen	3068D-800	-	Car No. 113 Repair and Splice Detail	-	NJ Transit	-
107	Morrison-Knudsen	3068E-1318	-	Car Schematic (2 Sheets)	-	NJ Transit	-
108	Morrison-Knudsen	3068E-1409	-	Pneumatic Schematic Cab Car	-	NJ Transit	-
109	Morrison-Knudsen	3068E-1457	-	Floor Heater Wiring Cab and Trailer Cars	-	NJ Transit	-
110	Morrison-Knudsen	3068E-1475	-	Door System Wiring Trailer Car	-	NJ Transit	-
111	Morrison-Knudsen	3068E-1478	-	Door System Wiring Cab Cars Only	-	NJ Transit	-
112	Morrison-Knudsen	3068E-1481	-	Electrical Cabinet Wiring Cab and Trailer Car	-	NJ Transit	-
113	Morrison-Knudsen	3068E-259G	-	Center Door Closure - Assembly	G	NJ Transit	-
114	Morrison-Knudsen	3068E-260G	-	Center Door Closure - Sections	G	NJ Transit	-
115	Morrison-Knudsen	3068E-422C	-	Cab Car Door Widening Application	C	NJ Transit	-
116	Morrison-Knudsen	3068E-468A	-	Electrical Cabinet - Cab Car Component Layout	A	NJ Transit	-
117	Morrison-Knudsen	3068E-469B	-	Electrical Cabinet - Cab Car Frame Detail	B	NJ Transit	-
118	Morrison-Knudsen	3068E-483	-	Floor Panel Plan Cab and Trailer Cars	-	NJ Transit	-
119	Morrison-Knudsen	3068E-499A	-	Pneumatic Equipment Location Trailer Car	A	NJ Transit	-
120	Morrison-Knudsen	3068E-501	-	Trailer Car - "B" End - Low Ceiling Support Frame Installation and Details	-	NJ Transit	-
121	Morrison-Knudsen	3068E-502A	-	Cab Car - "B" End Low Ceiling Support Frame Installation	A	NJ Transit	-
122	Morrison-Knudsen	3068E-503B	-	Cab Car - "B" End Low Ceiling Panel Details	B	NJ Transit	-
123	Morrison-Knudsen	3068E-517	-	General Arrangement Trailer Car	-	NJ Transit	-
124	Morrison-Knudsen	3068E-532	-	Cab Compartment Wiring Diagram	-	NJ Transit	-
125	Morrison-Knudsen	3068E-590	-	Pneumatic Equipment Layout - Cab Car	-	NJ Transit	-
126	Morrison-Knudsen	3068E-751	-	Air Diffuser Rearrangement Floor Parts - Trailer and Cab	-	NJ Transit	-
127	Morrison-Knudsen	3068E-804	-	Car 113 Roof Corrugation and Purlin Repair	-	NJ Transit	-
128	Morrison-Knudsen	Illegible	-	RMS42-NS Sigma Air Conditioning Electrical Schematic for Arrow I Rebuild	K	NJ Transit	-
129	Pullman-Standard	401665	-	Axle Wheel Pair for 11 Journals	X5	Curtis Engineering	-
130	RailPlan	4600	-	General Arrangement, Caltrans Comet IB	-	RailPlan	-

No.	Vendor/Contractor	Drawing Number	Part Number	Description	Rev.	Acquired From:	Referenced in WS
131	RailPlan	4801	4801-1	Arrangement, Secondary Structure	-	RailPlan	-
132	RailPlan	4802	4802-1	Arrangement, ADA Module Area	-	RailPlan	-
133	RailPlan	4803	4803-1	Arrangement, Bike Rack Area	-	RailPlan	Yes, Section 7.12.3
134	RailPlan	4804	4804-1	Arrangement, Luggage Rack Area	-	RailPlan	Yes, Section 7.12.2
135	RailPlan	4805	4805-1	Arrangement, Trash/Recycle Area	-	RailPlan	Yes, Section 7.17
136	RailPlan	4806	4806-1	Arrangement, Low Ceiling, -F- End	-	RailPlan	Yes, Section 7.9
137	RailPlan	4807	4807-1	Arrangement, Low Ceiling, -B- End	-	RailPlan	Yes, Section 7.9
138	RailPlan	4808	-	Installation, Secondary Structure	-	RailPlan	-
139	RailPlan	4809	-	Installation, Interior Module	-	RailPlan	-
140	RailPlan	4810	-	Installation, Trash Locker, ADA	-	RailPlan	-
141	RailPlan	4811	-	Installation, Electrical System, ADA	-	RailPlan	-
142	RailPlan	4812	-	Installation, Plumbing System, ADA	-	RailPlan	-
143	RailPlan	4813	-	Installation, Door System, ADA	-	RailPlan	-
144	RailPlan	4814	-	Installation, Exterior Panels, ADA	-	RailPlan	-
145	RailPlan	4815	-	Installation, Bike Rack	-	RailPlan	-
146	RailPlan	4815	-	Installation, Luggage Rack	-	RailPlan	-
147	RailPlan	4817	-	Installation, Trash/Recycle	-	RailPlan	-
148	RailPlan	4818	-	Installation, Low Ceiling, -F- End	-	RailPlan	-
149	RailPlan	4819	-	Installation, Low Ceiling, -B- End	-	RailPlan	-
150	Vapor Stone	-	B-4903-4	Evaporator Assembly	-	Vapor Stone	See PS in Section 12.5.2
151	WABCO	576488	-	Kit - Handbrake Rigging Kit	A	Curtis Engineering	-
152	WABCO	675849	-	Unit - E-1 Deceleostat Outline	F	Curtis Engineering	-
153	WABCO	675912	-	Controller - E7 Deceleostat Outline	C	Curtis Engineering	-

No.	Vendor/Contractor	Drawing Number	Part Number	Description	Rev.	Acquired From:	Referenced in WS
154	WABCO	678639	-	Sensor - Magnetic Speed Outline	C	Curtis Engineering	-
155	WABCO	695343	-	Cable - T - Armored Outline	B	Curtis Engineering	-
156	WABCO	-	-	B-3-B Emergency Brake Valve	-	WABCO	See PN in Section 5.5
157	WABCO	-	-	B-3 Brake Actuating Valve	-	WABCO	See PN in Section 5.5
158	WABCO	82767-24	-	'Co' Type Tread Brake Unit Handbrake Rigging Kit Application Drawing	P	Curtis Engineering	-
159	WABCO	82767-24	-	Erie Lackawanna Cars - 'Co' Type Tread Brake Unit Handbrake Rigging Kit Application Drawing	P	Curtis Engineering	-
160	WABCO	85031-158	-	Cab Car - 26-C/CS-2 Electro-Pneumatic Brake Equipment with E-5 Decelostat Controller - Cable Diagram	D	Curtis Engineering	-
161	WABCO	85031-159	-	Trailer Car - 26-C/CS-2 Electro-Pneumatic Brake Equipment with E-5 Decelostat Controller - Cable Diagram	B	Curtis Engineering	-
162	WABCO	85031-58	-	Cab Car - 26-C/CS-2 Electro-Pneumatic Brake Equipment Arranged for Electrically Time Train Control with 25 PSI B.P. Reduction Permanent Suppression Diagrammatic	A	Curtis Engineering	-
163	WABCO	85031-59	-	Trailer Car - 26-C/CS-2 Electro-Pneumatic Brake Equipment with D-3 Operating Unit Diagrammatic	A	Curtis Engineering	-
164	WABCO	85031-8	-	Cab Car - 26-C/CS-2 Electro-Pneumatic Brake Equipment Arranged for Electrically Time Train Control with 25 PSI B.P. Reduction Permanent Suppression - Piping Diagram	C	Curtis Engineering	-
165	WABCO	85031-9	-	Trailer Car - 26-C/CS-2 Electro-Pneumatic Brake Equipment with D-3 Operating Unit - Piping Diagram	D	Curtis Engineering	-
166	Westcode Inc.	WDC12044	WDC2155/005	Horizontal Leveling Valve 1 of 3	-	Curtis Engineering	-
167	Westcode Inc.	WDC12044	WDC2155/005	Horizontal Leveling Valve 2 of 3	-	Curtis Engineering	-

No.	Vendor/Contractor	Drawing Number	Part Number	Description	Rev.	Acquired From:	Referenced in WS
168	Westcode Inc.	WDC12044	WD12155/005	.Horizontal Leveling Valve 3 of 3	1	Curtis Engineering	-
169	Westinghouse	DB10491/1	-	Compensating Valve	5	Curtis Engineering	-

Appendix B: Car Numbers and Names

	SJTA Number	Car Type	CDTE Number	Car Name
1	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	Trailer	[illegible]	[illegible]
14	[illegible]	Trailer	[illegible]	[illegible]

Appendix C: Disposition List

To be populated during the prototype phase.

Appendix D: Submittal List (CDRL)

CDRL #	WS Section	WS Page	Description	Action	Anticipated Sources/ Responsibility
3.01	3.2 General Work Scope - Trucks	3-1	Truck Cleaning Procedures (except wheel sets, brake equipment, and rubber or composition parts)	Submitted for Caltrans Review	Amtrak
3.02	3.2 General Work Scope - Trucks	3-1	Truck Inspection Procedures (including criteria for repair or renewal/replacement of parts	Submitted for Caltrans Review (established for future maintenance requirements)	Amtrak
3.03	3.2 General Work Scope - Trucks	3-1	Overhaul Procedure for Trucks plus Amtrak and vendor drawings and BOMs for parts and assemblies	Submitted for Caltrans Review	Amtrak
3.04	3.3 Truck Frames	3-2	Criteria for Initiating Repairs and Repair Methods/Procedures for Repairing Cracks in the Truck Frames	Submitted for Caltrans Review	Amtrak (support from 3rd party if necessary)
3.05	3.5 Bolsters	3-2	Criteria for Initiating Repairs and Repair Methods for Repairing Cracks in the Bolsters	Submitted for Caltrans Review	Amtrak
3.06	3.11 Equalizer Beams	3-4	Inspection, Processing, and Repair Procedures for Equalizer Beams	Submitted for Caltrans Review	Amtrak
3.07	3.13 Hot Bearing Detection	3-6	Hot Bearing Detection Arrangement (assuming use of Amtrak system with minor modifications) – includes schematic, wiring diagram, locations, and details of detection box and alarms	Submitted for Caltrans Review	Amtrak, Dimetech
3.08	3.19 Carbody Regulation	3-7	Carbody Regulation Procedures	Submitted for Caltrans Review	Amtrak
4.01	4.1 General - Coupler/Draft Gear Arrangement	4-1	Overhaul Procedures for the Coupler and Draft Gear Arrangement (Caltrans/PB supplied plan may be used as content for Amtrak procedures) and parts/assemblies BOM	Submitted for Caltrans Review	Amtrak (support from 3rd party if necessary)
5.01	5.1 General - Brake Equipment	5-1	Test Codes, Racks, Plates, and Fixtures, and Procedures Used for the Brake Component Overhaul	Submitted for Caltrans Review (prior to processing with the brake component overhaul)	Wabtec (with support from Amtrak on installation details

CDRL #	WS Section	WS Page	Description	Action	Anticipated Sources/ Responsibility
5.02	5.2 Brake Performance	5-1	Overhauled Brake Configuration and Hardware Performance Analyses and Thermal Analyses of Tread Temperatures	Submitted for Caltrans Review	Wabtec (with support from Amtrak re installation details)
5.03	5.3 Piping and Hoses	5-2	Procedure for Cleaning Air Pipes and Testing for Air Leaks	Submitted for Caltrans Review	Amtrak
5.04	5.10 Air Brake Testing	5-4	Test Procedures and Reports for Air Brake Testing/Brake Validation (single car test at Beech Grove and train testing at Caltrans site	Submitted for Caltrans Review	Amtrak/Wabtec
6.01	6.2 Carbody	6-1	Damage Detrimental to the Structural Integrity of the Car (drawings; BOM; procdures; car history book entries)	Shall be Analyzed and Repair Procedures Developed and Submitted for Caltrans Review	Amtrak (support from 3rd party if necessary
6.02	6.2 Carbody	6-2	Repair Procedures and Materials (including sealing of equipment penetrations) for Carbody Damage (including removal of equipment and bracing)	Submitted for Caltrans Review	Amtrak/RailPlan
6.03	6.2.1 Skirt Plate	6-2	Arrangement Drawings and a Listing of Parts	Submitted for Caltrans Review	Amtrak; Supplier(s)
6.04	6.2.10 End Caps	6-3	Material and Design of New End Caps (if Amtrak opts to renew/replace the End Caps	Submitted for Caltrans Review	Amtrak; Eco-Coat Contractor
6.05	6.2.10 End Caps	6-3	Repair Procedures for End Caps (if Amtrak opts to repair the End Caps	Submitted for Caltrans Review	Amtrak
6.06	6.2.12 Roof	6-4	Procedure and Material Used for Preparation and Sealing of the Roof	Submitted for Caltrans Review	Amtrak; Eco-Coat Contractor
6.07	6.4 Diaphragms	6-5	Drawing of Diaphragm Mounting Arrangement and Parts/Components Details	Submitted for Caltrans Review	Amtrak
7.01	7.1 General - Interior Appointments	7-1	Dimensioned Interior Arrangement Drawing	Submitted for Caltrans Review	Amtrak
7.02	7.1 General - Interior Appointments	7-1	Arrangement Drawings (showing design of vestibules and associated amenities)	Submitted for Caltrans Review	Amtrak/Bomar

CDRL #	WS Section	WS Page	Description	Action	Anticipated Sources/ Responsibility
7.03	7.2 Non-Cab Vestibules	7-1	Plan/Design for Blank Covers in the Vestibule	Submitted for Caltrans Review	Amtrak
7.04	7.3 Cab Vestibules	7-2	Plan/Design for Blank Covers in the Vestibule	Submitted for Caltrans Review	Amtrak
7.05	7.4 Trap Doors	7-2	Trap Door Arrangement with Design Details	Submitted for Caltrans Review	Amtrak/Bomar
7.06	7.6 Floor Panels	7-2	Design Arrangement and Application Procedures for Floor Panels	Submitted for Caltrans Review	Amtrak
7.07	7.8 Wall and Ceiling Panels	7-3	Panel Repair Procedures	Submitted for Caltrans Review	Amtrak
7.08	7.9 Low Ceiling Arrangement	7-3	RailPlan Arrangement Drawings 4806 (A-End Low Ceiling Arrangement) and 4807 (B-End Low Ceiling Arrangement)	Submitted for Caltrans Review	Amtrak/ RailPlan
7.09	7.11 Low Level Exit Path Marking	7-3	LLEPM Design Arrangement	Submitted for Caltrans Review	Amtrak/Caltrans (PE)/ Signage Contractor
7.10	7.12.2 Vertical Luggage Rack Assemblies	7-4	RailPlan Arrangement Drawing 4804 (Vertical Luggage Rack Assemblies)	Submitted for Caltrans Review	Amtrak/ RailPlan
7.11	7.14 Tables	7-4	Table Design and Application Details	Submitted for Caltrans Review	Amtrak and Table Supplier
7.12	7.17 Trash/Recycle Units	7-5	RailPlan Arrangement Drawing 4805 (Trash/Recycle Units Arrangement)	Submitted for Caltrans Review	Amtrak/RailPlan
7.13	7.18 Lockers	7-5	RailPlan Arrangement Drawings of the Equipment Locker Changes	Submitted for Caltrans Review	Amtrak/RailPlan
8.01	8.2 Design Considerations - Toilet	8-1	Toilet room Module Drawings with All Appliances and BOM (with changes from the MBCR module clearly detailed; including drawings and analysis of car structure/mounting modifications)	Submitted for Caltrans Review	Amtrak/RailPlan (support from 3rd party if necessary)
9.01	9.1 General - Water Supply and Waste Retention	9-1	Detailed Drawings and BOM for Water and Waste Systems	Submitted for Caltrans Review	Amtrak/Microphor
9.02	9.1 General - Water Supply and Waste Retention	9-1	Structural Analysis for all Structural Modifications to Support Water Supply and Waste Tanks	Submitted for Caltrans Review	Amtrak/Microphor

CDRL #	WS Section	WS Page	Description	Action	Anticipated Sources/ Responsibility
9.03	9.4.2 Retention Tank	9-3	Location and Analysis of Mounting Arrangement and Car Structural Modifications for Waste Tank	Submitted for Caltrans Review	Amtrak/Microphor
10.01	10.3 Door Summary Circuit	10-1	Design of the Door Summary Circuit based on Caltrans functional description; including schematic, logic description/diagram and wiring diagrams"	Submitted for Caltrans Review	Amtrak
10.02	10.3 Side Doors	10-2	Design Details of the "Clutch" Doors	Submitted for Caltrans Review	Amtrak/ Bomar
10.03	10.7 End frame doors	10-4	Installation Details to Adapt Procured End Frame Doors	Submitted for Caltrans Review	Amtrak /support from 3rd party if necessary
10.04	10.8 Vestibule Doors	10-5	Modification Details of the Vestibule Doors	Submitted for Caltrans Review	Amtrak/ Bomar
10.05	10.9.1 Electrical Cabinet	10-6	Arrangement Drawings of the interior equipment locker areas	Submitted for Caltrans Review	Amtrak/ RailPlan
11.01	11.3.1 Floor Heaters	11-2	Modification Details for Top of Heater Covers	Submitted for Caltrans Review	Amtrak
11.02	11.3.1 Floor Heaters	11-2	Heater Arrangement	Submitted for Caltrans Review	Amtrak
11.03	11.6.1 HVAC Control Panel (New)	11-6	Final Configuration of New Control Panel and a Complete HVAC Control's Functional Description	Submitted for Caltrans Review	Amtrak/Webtec
11.04	11.6.2 HVAC Thermostats	11-7	Design of Annunciation Panel	Submitted for Caltrans Review	Webtec
12.01	12.2.1 Underfloor RSP Power Cables	12-1	Relocation Plan for Arrangement of RSP Receptacles	Submitted for Caltrans Review	Amtrak
12.02	12.11 Interior Circuit Breaker/Switch Panels	12-5	Plan/design to accomplish arrangement for interior circuit breaker/switch panels	Submitted for Caltrans Review	Amtrak
13.01	13.1 General - Communications	13-1	Design of Communications System	Submitted for Caltrans Review	Amtrak/Cheetech
13.02	13.3 Wi-Fi	13-4	Details for Wi-Fi System	Submitted for Caltrans Review	Caltrans/Nomad
13.03	13.4 Digital Trainline	13-4	Details for Digital Trainline	Submitted for Caltrans Review	Caltrans/Nomad

CDRL #	WS Section	WS Page	Description	Action	Anticipated Sources / Responsibility
14.01	14.7 Indicator Lights	14-2	Sample Assemblies and the Installation Locations of Indicator Lights (Brake and Door Indicator Lights)	Submitted for Caltrans Review	Amtrak
15.01	15.12.4 Welding	15-5	Amtrak's Welder Qualification Procedures and Standards	Submitted for Caltrans Review	Amtrak
15.02	15.12.5 Magnetic Particle Inspection	15-6	Personnel Qualifications	Submitted for Caltrans Review	Amtrak
15.03	15.12.5 Radiographic Inspection	15-6	Sampling Frequency for Radiographic Inspection (only if required based on inspection)	Submitted for Caltrans Review	Amtrak
15.01	15.1 General - Inspection, Test, Quality Assurance	16-1	Complete List of Tests to be Performed	Submitted for Caltrans Review	Amtrak
15.02	15.2 First Article Inspection (FAI)	16-2	Drawings, Test Procedures, and other Documentation Required for a FAI	Submitted for Caltrans Review with 15 days notice	Amtrak; Suppliers
15.03	15.3.2 Battery	16-2	Procedures for Battery Test (in accordance with APTA SS-E-013-99)	Submitted for Caltrans Review	Amtrak/Salt Lake
15.04	15.3.3 Lighting	16-2	Procedure for Testing Light Levels (must verify Emergency Lighting Levels and verify that there is sufficient light to activate the ALERN)	Submitted for Caltrans Review	Amtrak/Caltrans' PE
15.05	15.4.1 Watertightness Test	16-3	Test Procedure for Watertightness of Car	Submitted for Caltrans Review	Amtrak
15.06	15.4.5 HVAC Test	16-3	Test Procedures for HVAC System to functionally test entire system	Submitted for Caltrans Review	Amtrak/Wabtec
15.07	15.4.6 Brake Tests	16-4	Test Procedures for Static Brake Testing (Amtrak single car test modified if necessary)	Submitted for Caltrans Review	Amtrak
15.08	15.4.7 Weights	16-4	Weight Tickets for Completed Truck with and without Bolster	Furnished	Amtrak
15.09	15.4.8 Communications System	16-4	Test Procedure for Functionality of Communications System	Submitted for Caltrans Review	Amtrak/Transtech

CDRL #	WS Section	WS Page	Description	Action	Anticipated Sources/ Responsibility
16.10	15.4.6 Battery Charger/Batteries	15-4	Test Procedures for Battery Charger (test shall verify proper output voltage, battery transfer, load shed functions, remote indications, and all protective devices)	Submitted for Caltrans Review	Amtrak
16.11	15.4.10 Doors	15-4	Test Procedures for Functionality of Door Summary Circuit	Submitted for Caltrans Review	Amtrak
16.12	15.4.11 Wheel Slide System	15-4	Test Procedures for Functionality of Wheel Slide System	Submitted for Caltrans Review	Amtrak/Knorr
16.13	15.4.12 Waste Retention and Water Supply Systems	15-5	Test Procedures for Functionality of Waste Retention and Water Supply Systems	Submitted for Caltrans Review	Amtrak/Microphor
16.14	15.4.13 Lighting	15-5	Test Procedures for Functionality of Each Lighting Circuit	Submitted for Caltrans Review	Amtrak
16.15	15.5 Dynamic Testing and Commissioning	15-5	Dynamic Testing and Commissioning Plan (plan shall identify the test conditions, Amtrak provided instrumentation, test procedures, data forms and pass/fail criteria)	Submitted for Caltrans Review	Amtrak
16.16	16.5 Quality Assurance	16-5	Copy of Quality Manual	Submitted for Caltrans Review	Amtrak
16.17	16.5.2 Quality Assurance Plan	16-5	Quality Plan (designed specifically for this program)	Submitted for Caltrans Review	Amtrak
16.18	16.5.2 Quality Assurance Plan	16-6	Field Modification Instructions (FMI's)	Submitted for Caltrans Review (prior to installation)	Amtrak
16.19	16.5.5 Special Processes	16-6	Personnel Qualifications (welding and NDT)	Submitted for Caltrans Review	Amtrak
16.20	16.5.6 Inspection Plan	16-7	Inspection Plan (showing major manufacturing and inspection milestones)	Submitted for Caltrans Review	Amtrak
16.21	16.8.1 Certificate of Inspection and Release for Shipment	16-8	Final Inspection Document Format	Submitted for Caltrans Review	Amtrak
17.01	17.1 Manuals (For Changed Components Only)	17-1	List of Manuals and Catalogs that will be Provided	Submitted for Caltrans Review	Amtrak/Suppliers

Appendix E: Photographs

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DEPARTMENT OF TRANSPORTATION
DIVISION OF RAIL
1120 N STREET
P. O. BOX 942874 – MS 74
SACRAMENTO, CA 94274-0001
PHONE (916) 654-6534
FAX (916) 653-4565
TTY 711

Flex your power!
Be energy efficient!

August 23, 2013

[redacted]

CAL-ATK#: 1032

Reply Req'd: Y

Dear Mr. Gariepy:

The California Department of Transportation (Caltrans) hereby authorizes Amtrak to include the following equipment expenses in the Fiscal Year (FY) 2013–14 budget for the operation of the San Joaquin route services, pursuant to the annual Operating Agreement between Caltrans and Amtrak. These expenses are in accordance with the August 12, 2013, revision of the Route and Service Financial Evaluation entitled "Impact of California Comet Cars/Amtrak Single Level Cars Operating on Four San Joaquins for FY 2014", except as noted below. Enclosed is a copy of this analysis for your reference. Please note that the term "Comet Car trainsets" applies to the fourteen Comet coaches, three Horizon Dinettes and three Non-Powered Control Units (NPCU).

1. Caltrans agrees to add seventeen staff at the Oakland Maintenance Facility (OMF)., per Amtrak's proposal, at actual cost not to exceed $1,904,000 for FY 2014.
    a. These seventeen staff may be hired and deployed as Amtrak deems most effective to maximize the efficiency of the maintenance facility functions while performing equal to, or better than, existing Periodic Maintenance (PM) quality and schedule for the bi-level trainsets, provided that:
        i. Amtrak shall submit to Caltrans and the Capitol Corridor Joint Powers Authority (CCJPA) for review, no later than October 31, 2013, the plan by which Amtrak intends to perform the Service and Inspection (S&I) and PM activities on the bi-level and single-level equipment fleets at OMF. This analysis shall show:
            1. the number and classification of all staff on S&I and PM activities;
            2. the shift that they work;
            3. the amount of time that each car will take to go through PM;
            4. the number of cars in PM at all times; and
            5. the quality and throughput metrics that Amtrak will use to determine and to demonstrate to the CCJPA and Caltrans that the addition of the seventeen new positions is adequate to

properly maintain the Comet Cars in accordance with schedule, manufacturer recommendations and all Federal Railroad Administration (FRA) requirements with no degradation of the quality or timeliness of the maintenance of the bi-level fleet, and no diminishment on the available revenue capacity of revenue trains as required by the deployment plan as revised to include the Comet equipment.

ii. Caltrans will consider this plan a deliverable for payment of the October 2013 invoice for the San Joaquin service.

b. The number of Maintenance of Equipment (M of E) positions added at OMF shall not exceed seventeen, nor shall the total FY 2014 cost of these positions exceed the maximum agreed amount of $1,904,000.

c. Caltrans will reimburse Amtrak for the costs of these positions as they are filled. Amtrak shall provide Caltrans with documentation showing that the positions have been filled when invoicing Caltrans for the positions. Caltrans shall not reimburse Amtrak for more than seventeen new positions at OMF. The M of E additive will only apply to the actual costs associated with filling the positions.

i. The Material Control Clerk, though funded out of the M of E additive, shall be filled by Amtrak as a condition of Caltrans' approval of the Comet Car maintenance proposal. Amtrak shall provide evidence to Caltrans when this position has been filled.

d. In the event that the Comet Cars are removed from service, and/or are no longer maintained at OMF, Caltrans will no longer have to fund these 17 positions. Any future changes in the number of cars and/or locomotives maintained at OMF will require a new agreement for maintenance staffing.

e. The Comet Cars, NPCUs and Horizon Dinettes shall be maintained in accordance with all maintenance instructions, PM sheets, maintenance manuals and regulations. If excessive defects or delays are encountered as a result of Comet car maintenance, Caltrans and Amtrak will take action to resolve those problems to the satisfaction of Caltrans.

2. Materials:

a. Caltrans will only be billed for those materials acquired by Amtrak through this Operating Agreement as required to maintain the Comet equipment, including Horizon Dinettes and NPCUs. Many Comet Car parts have been acquired by Caltrans through the overhaul process, and Caltrans shall not be billed for these parts twice. Therefore, Caltrans has removed the $1.4 million set aside in the August 12, 2013, revision of the Route and Service Financial Evaluation (referenced above) identified for Comet car materials, for budgetary purposes.

b. Amtrak shall submit a monthly inventory transaction report showing all materials used on the Comet Cars, including Caltrans-owned inventory. This report shall include date, Car number, part number, description and cost of each part used on the Comet equipment.

   c. The additive for parts will only be applied to the actual cost of the parts acquired by Amtrak for the Comet equipment, and shall not apply to the Caltrans-owned inventory.

3. Caltrans agrees to fund one additional Lead Service Attendant (LSA) in accordance with the estimate in the August 12, 2013, revision of the Route and Service Financial Evaluation referenced above.
4. Caltrans agrees to add one Assistant Conductor (AC) to each Comet trainset as the trainsets are placed in service, to assist with passenger loading and unloading, handling of baggage and bicycles, lifting tickets and other duties as required. This additional AC is in addition to the Conductor and AC that are already considered normal bi-level on-board crew, for a total of three on-board train and engine (T&E) crewmembers on each Comet trainset. The addition of one AC to each Comet trainset shall not cause Amtrak to reduce the number of available on-board T&E crews on the remaining bi-level trainsets below the current levels of one Conductor and one AC. If Caltrans sees a recurring pattern of reduced crew staffing levels on San Joaquin trains, Caltrans and Amtrak shall jointly develop and implement a strategy to ensure that adequate staff are available for San Joaquin train operations. Caltrans shall start reimbursing Amtrak for the additional AC for the second Comet trainset once a service start date for the second Comet trainset has been set by Caltrans and Amtrak can document to Caltrans that the additional AC has been hired. For the purpose of funding the additional ACs, Caltrans has budgeted up to $547,000 for FY 2014 for these two positions and associated costs as identified in the August 12, 2013, revision of the Route and Service Financial Evaluation referenced above.
5. The two additional ACs shall be renewed on an annual basis, and Caltrans reserves the right to terminate funding for one or both of these additional ACs if operational needs no longer require their services, or if budget constraints preclude their inclusion in future budgets.
6. Caltrans also authorizes Amtrak to include the continued use of two Caltrans-funded, wreck-repaired Superliner coaches, numbers 34953 and 34981 (identified in the Operating Agreement as 34053 and 34081, their pre-rebuild numbers) in the FY 2014 budget, per the terms of the August 12, 2013, revision of the Route and Service Financial Evaluation referenced above. Please note that the estimates in the financial evaluation are estimates of actual costs, and shall be billed as such, with appropriate documentation. Also, it is Caltrans' understanding that, per the Passenger Rail Investment and Improvement Act of 2008 Section 209 provisions, the capital access charges for Amtrak-provided equipment have been dropped for FY 2014, and therefore the $715,000 in capital equipment lease charges may not be applicable for the two Superliners. Please confirm, or provide an explanation as to why the capital access charges are still applicable. These two cars shall be used in San Joaquin service and will be included in the revised deployment plan. The use of these cars will be evaluated again prior to execution of the FY 2015 Operating Agreement. Caltrans reserves the right to not renew their lease for FY 2015.

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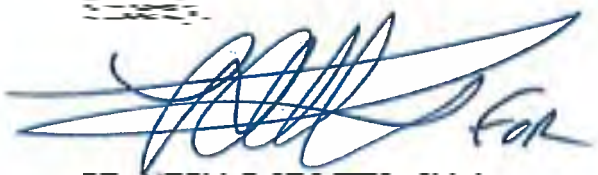
Page 2

[illegible]

[illegible]

Sincerely,



STANTON C. HUNTER, Chief
Office of Rail Equipment

Enclosure

c: David Kuczaky, CCPA
John Corbett, Amtrak

Impact of California Comet Cars/Amtrak Single Level Cars Operating on Four San Joaquins for FY2014

August 9, 2013
Revised August 12, 2013

Summary

The California Department of Transportation (Caltrans) proposes replacing the bi-level California Cars now operating on *San Joaquin* trains 711, 712, 717, and 718 with single-level California Comet Cars and Amtrak cars. In addition, a Superliner coach will be added to the existing consists of trains 714 and 715. As this change is anticipated to begin in October in FY2014, this forecast updates the prior *San Joaquin* FY2014 PRIIA 209 State Operating Forecasts of April 19, 2013 and June 3, 2013, as well as the financial evaluation of operating Comet Cars on trains 711/718 of July 18, 2013.

Because the FY2014 PRIIA 209 State Operating Forecast included $2.159 million in previously estimated maintenance of equipment labor, the base amount is revised to a PRIIA 209 state operating payment of $35.493 million for the *San Joaquins*, with an incremental increase of $6.005 million equipping trains 711, 712, 717, and 718 with Comet Cars and adding a Superliner coach to two other *San Joaquin* trains, for a total state operating payment of $41.498 million. The equipment capital use charge also increases due to the use of two Amtrak Superliner coaches. These coaches increase the equipment capital use charge by $715,000, for a total of $2.916 million. The total state forecast for FY2014 for the *San Joaquins* is summarized in the table below.

Impact of Amtrak Single Level & Comet Cars Operating on Trains 711/712/717/718

($000s)

	FY2014 Base Forecast	FY2014 FORECAST	Increment
Total Passenger & Other Revenue	**$45,227**	**$45,227**	$0
Third Party Costs	16,511	16,706	195
Route Costs	55,489	59,976	4,487
Additives	8,720	10,043	1,323
Total PRIIA 209 Costs	**$80,720**	**$86,725**	**$6,005**
PRIIA 209 State Operating Payment	**$35,493**	**$41,498**	**$6,005**
Equipment Capital Charge	2,201	2,916	715
Fixed Asset Capital Charge	n/a	n/a	0
Total Capital Charges	**$2,201**	**$2,916**	**$715**
Total 209 State Payment	**$37,694**	**$44,414**	**$6,720**

Proposed Change

Caltrans proposes replacing the bi-level California Cars now operating on *San Joaquin* trains 711, 712, 717, and 718 with single-level California Comet Cars and Amtrak cars. The consist is assumed to be:

Train Consists

No. of Units	Description
[illegible]	
[illegible]	
[illegible]	
[illegible]	
[illegible]	

As proposed, these trains will have a total seating capacity of 320 (64 seats per Comet Coach), and decrease of 36 seats over the current California Car assignments (total train capacity of 356).

With the California Cars and Superliner coaches currently assigned to the above trains proposed to be released, the consists for *San Joaquin* trains 701, 702, 713, 714, 715, and 716 are proposed to be as follows:

Train Consists

No. of Units	Description	Note
San Joaquin Trains 701, 702, 703, 704, 713, 714, 715, 716		
1	California F-59 Locomotive	
1	Superliner Coach	Trains 714, 715 ONLY
1	California Dining Car	
1	California Baggage Coach	
2	California Coach	
1	California Cab Coach	

Note that the Superliner coach is assumed to operate on a daily Oakland-Bakersfield round trip, and trains 714 and 715 are shown for costing purposes only. The total Amtrak Superliner requirement is for two coaches.

Ridership and Revenue
No change in ridership, passenger miles, or revenue is assumed.

Operating Costs
Host Railroad
No increase in host railroad costs is forecast as this proposal does not result in a change in train miles.

Fuel
With the proposed additional cars in operation, fuel costs are forecast to increase by $195,000 annually.

Train & Engine Crew Labor
Operations (Crew Management) estimates that the incremental train and engine crew costs are $793,000 annually. The increment is due to the need to add a second assistant conductor to trains 711/712 and 717/718 to handle the existing passenger volume with single-level cars that have vestibule doors and step stools. These positions are based in Oakland and have an overnight layover [illegible]

On Board Service Labor and Support
Due to the change in crew turns resulting from the change in equipment turns, Operations (Crew Planning) forecasts an incremental increase of $42,000 annually. Improved crew turns reduce the $158,000 incremental cost forecast in the July 11, 2013 evaluation of Comet Cars on trains 711/718 by $116,000.

Car & Locomotive Maintenance and Turnaround
Maintenance of equipment costs are forecast to increase by $3.585 million annually. These costs include both labor and materials to maintain the California Comet Cars at Oakland, as well as the two additional Superliner coaches. These figures include the following increase in labor:

Position Description	No. of FTEs
General Foreman	-
Foreman	1.0
Machinist	-
Locomotive Electrician	-
Car Electricians	4.0
HVAC Electrician	1.0
Pipefitter	1.0
Laborer	1.0
Carmen	4.0
Coach Cleaners	5.0
Total	**17.0**

This labor cost is forecast to be $1.904 million in FY2014 dollars.

The remaining amount of the forecast $3.355 million to support the Comet Cars is for materials, estimated at 76.2 percent of the labor cost based on Amtrak's experience with its Horizon Fleet, which is similar to the California Comet Cars.

For the FY2014 PRIIA 209 State Operating Forecast, the base service forecast is reduced by $2.159 million, as this was an earlier estimate for the Comet Car maintenance of equipment labor cost that is replaced with this forecast. In addition, the base MoE additive for FY2014 is correspondingly reduced by $595,000 from the original FY2014 PRIIA 209 State Operating Forecast.

Amtrak will also add a Material Control Staffing Clerk to the staff at the Oakland facility to support the Comet Cars. This cost is not included here as it falls under the PRIIA 209 MoE additive.

The two additional Amtrak Superliner coaches are forecast to cost an additional $230,000 annually in maintenance costs.

Terminal Yard Operations
The additional car unit trips generated by this proposal are forecast to increase the *San Joaquin's* allocated share of terminal yard operations costs by $18,000 annually.

Insurance
Insurance costs are forecast to increase by $49,000 annually as a result of this proposal.

PRIIA 209 Methodology Additives
The Marketing additive is not forecast to change with this proposal.

The T&E additive is forecast to increase by $257,000 annually due to the estimated increase in train and engine crew labor costs.

The MoE additive is forecast to increase by $972,000 annually due to the estimated increase in car & locomotive maintenance and turnaround costs.

The OBS additive is forecast to increase by $4,000 annually due to the estimated increase in OBS labor costs for FY2014.

The Police additive is not forecast to change with this proposal.

The G&A additive is forecast to increase by $90,000 annually due to the estimated increases in total route costs.

All Other Operating Costs
No other operating costs are forecast to be impacted by the proposed changes. However, future route profit (loss) statements may show changes to other expense lines due to cost allocations in APT (Amtrak Performance Tracking) due to associated changes in revenue, passenger statistics, and/or operating statistics.

Equipment Capital Use Charge
While there is no equipment capital use charge for state owned equipment, Caltrans has requested use of two Amtrak-owned Superliner coaches that were not included in the April 19, 2013 FY2014 Forecast. These two coaches are forecast to increase the state's equipment capital use charge by $715,000 in FY2014. This forecast increases the total equipment capital use charge for FY014 for the *San Joaquins* to $2.916 million as shown on page 6.

Conclusion: Net Impact in State Payment
Because the FY2014 PRIIA 209 State Operating Forecast included $2.159 million in previously estimated maintenance of equipment labor, the base amount is revised to a PRIIA 209 state operating payment of $35.493 million for the *San Joaquins,* with an incremental increase of $6.005 million equipping trains 711, 712, 717, and 718 with Comet Cars and adding a Superliner coach to two other *San Joaquin* trains, for a total state operating payment of $41.498 million.

A pro forma of the forecast expenses is on page 5 for the FY2014 PRIIA 209 State Operating Forecast.

Including the equipment capital use charge for the two Amtrak Superliner coaches of $715,000, this proposal increases the total state forecast for the *San Joaquins* by $6.720 million. Therefore, the total FY2014 state forecast for the *San Joaquins* is forecast to increase to $44.414 million.

Impact of Amtrak Single Level & Comet Cars Operating on Trains 711/712/717/718
PRIIA 209 Pricing Policy
FY2014
(all numbers in $000s)

San Joaquins	ACTUALS from [illegible]	Actuals (Inflated for year above)	Incr. BASE (Scheduled) - Actuals	BASE (Scheduled)	Impact of Change: Increment	Impact of Change: Base + Increment
REVENUES[1]						
Ticket Revenue	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ -	$ [illegible]
Food & Beverage	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]
Other Revenue	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]
[illegible]	$ 41,525	$ 41,525	$ 3,702	$ 45,227	$ -	$ 45,227
[illegible]						
Third Party Costs						
Host Railroad (Maintenance of Way and Performance Incentive)	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ -	$ [illegible]
Synthetic Host Railroad Charge	-	-	-	-	-	-
[illegible] and Power	[illegible]	[illegible]	[illegible]	[illegible]	195	[illegible]
Subtotal Third Party Costs	$ 15,460	$ 16,843	$ (331)	$ 16,511	$ 195	$ 16,706
Route Costs						
Train & Engine Crew Labor	10,456	11,234	(601)	10,633	793	11,425
Car & Locomotive Maintenance and Turnaround	6,623	6,948	673	7,620	3,585	11,206
OBS - Crew	1,730	1,857	(3)	1,854	41	1,895
Commissary Provisions	1,688	1,739	87	1,825	-	1,825
Route Advertising	-	-	-	-	-	-
Sales Distribution	650	682	51	734	-	734
Reservations & Call Centers	4,179	4,323	-	4,323	-	4,323
Stations - Route	3,876	4,067	-	4,067	-	4,067
Stations - Shared	1,296	1,150	191	1,340	-	1,340
Commissions	924	924	83	1,007	-	1,007
Customer Congress or.	92	94	5	99	-	99
Connecting Motor Coach	15,040	19,616	-	19,616	-	19,616
Regional/Local Police	441	481	40	521	-	521
Block & Tower Operations	-	-	-	-	-	-
Terminal Yard Operations	585	[illegible]	51	679	[illegible]	697
Terminal: Misc	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Insurance	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Subtotal Route Costs	$ 52,441	$ 54,881	$ 608	$ 55,489	$ 4,483	$ 59,972
Additives						
Marketing	[illegible]	[illegible]	[illegible]	839	-	[illegible]
T&S	[illegible]	[illegible]	(135)	[illegible]	[illegible]	[illegible]
M&E	[illegible]	[illegible]	197	[illegible]	[illegible]	[illegible]
CBS	[illegible]	[illegible]	8	368	[illegible]	[illegible]
Police	[illegible]	[illegible]	42	873	-	[illegible]
G&A	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total: Additives	$ 8,197	$ 8,601	$ 120	$ 8,720	$ 1,323	$ 10,043
Total Expenses	$ 76,097	$ 80,324	$ 396	$ 80,720	$ 6,005	$ 86,725
Estimated State Payment or (Credit)	$ 34,572	$ 38,799	$ (3,306)	$ 35,493	$ 6,005	$ 41,498

Notes
1. 'Actuals' are revenues per APT (FY2012). 'BASE' are revenues as forecast by Amtrak for FY2014.
2. Expenses per APT (FY2012) inflated to FY2014.

San Joaquin APT_RT_39 **Forecast Equipment Capital Charge**
$s in Thousands (000's) ***Revised for 2 Additional Superliner Coaches***

			Cab Car - Bge Cab/Ccm 2/7/96			
			Electric Loco - Aem - 7			

APPENDIX XIX

NATIONAL RAILROAD PASSENGER CORPORATION

and

STATE OF CALIFORNIA

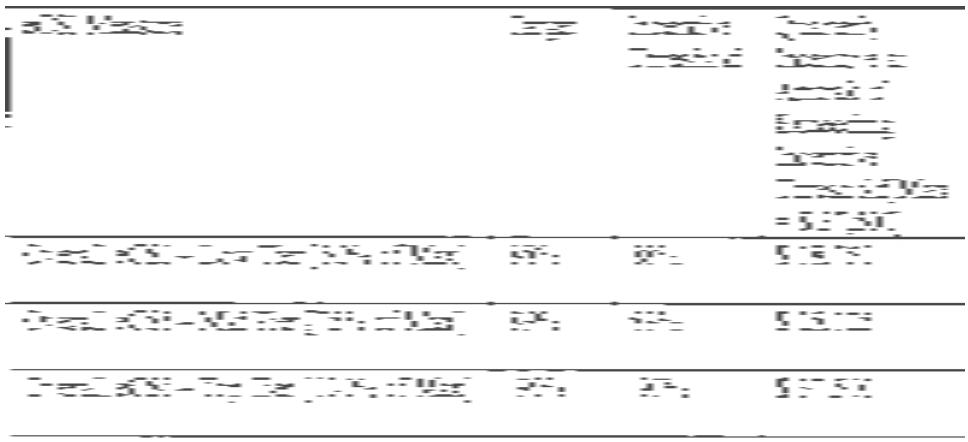
Customer Satisfaction

eCSI (Customer Satisfaction Indices)

(a) Each month, Amtrak contacts a random sample of its passengers via e-mail after the conclusion of a train trip with Amtrak and asks them to rate their perceptions of various attributes of their experience on a numerical scale. Results from multiple passengers are compiled to produce Customer Satisfaction Index or eCSI Scores, both for specific trip attributes ("Single Attribute eCSI") and on an overall basis ("Overall eCSI"). eCSI Scores are compiled monthly, and for the purposes of this section will be calculated as a 3-month average on a quarterly basis.

(b) Amtrak and the STATE have determined that the following eCSI Scores are important measures of the success of the Service, and have therefore established them as a Data-Based Standard as defined in Section 1, Item C.2 with the following Targets, Incentive Thresholds, and Incentives as follows:

1) Targets are the Parties' expectations of the average eCSI Score results for the term of the agreement.
2) Incentive Thresholds are the eCSI Scores at or above which the STATE agrees to pay Amtrak Incentives.
3) Incentives are the amounts that the STATE will pay Amtrak in the event a eCSI Score is at or above an Incentive Threshold. These amounts shall be fixed irrespective of how much the eCSI Scores exceed the Incentive Thresholds.



Scope of Work

Implementation of the On-Board Information System (OBIS)

on the *Pacific Surfliner, San Joaquin, Capitol Corridor and NGEC Cars*

1. SCOPE OF WORK

1.1. Amtrak agrees to provide project development, implementation, documentation, completion and management, in accordance with the Attachment XX, National On-Board Information System Project, Conformed Statement of Work, as well as task orders that are jointly developed and approved by the California Department of Transportation (Caltrans) and Amtrak, for the design, development, engineering, material acquisition, deployment, programming and software, content development, installation, as well as modification, expansion, improvement, content management and upgrade on new and existing rolling stock owned by Caltrans. At Caltrans' discretion, select Amtrak rolling stock deployed on intercity corridor rail passenger services may be modified as an option to this Agreement based on the funding availability. A separate task order must be developed to exercise this option. Section 3.5.7 of the Attachment XX, National On-board Information System Project, Conformed Statement of Work is optional to this Agreement.

1.2. Amtrak agrees to provide full oversight responsibilities for the OBIS program. All work performed under the Scope of Work shall be in conformance with the following general OBIS provisions:

1.2.1. Task Order Implementation Plan Development

Amtrak shall work with Caltrans to develop and maintain a Task Order Implementation Plan describing individual task orders. The plan shall identify in what order task orders will be developed to address specific OBIS project elements in Attachment XX, National On-Board Information System Project, Conformed Statement of Work, the timing of implementing the specific task orders, and documentation identifying the estimated share of work accomplished by each task order. This Task Order Implementation Plan shall be updated and modified as necessary. Any proposed changes to the plan must be reviewed and agreed upon by Amtrak and Caltrans, and approved in writing by the Caltrans Contract Manager. The initial draft Task Order Implementation Plan must be

submitted to the Caltrans Contract Manager seven (7) business days prior to the Project Kick-off Meeting.

1.2.2. Master Project Schedule Development

Amtrak shall work with Caltrans to develop and maintain a Master Project Schedule. At a minimum, the schedule shall include the estimated timeframe for each task order, testing, acceptance, and warranty. This schedule shall be updated and modified as necessary. Any proposed changes to the schedule must be reviewed and agreed upon by Amtrak and Caltrans, and approved in writing by the Caltrans Contract Manager. The initial draft Master Project Schedule must be submitted to the Caltrans Contract Manager seven (7) business days prior to the Project Kick-off Meeting.

1.2.3. Overall OBIS Project Budget Plan Development

Amtrak shall work with Caltrans to develop and maintain an overall OBIS project budget plan ("Budget Plan"). The Budget Plan shall be inclusive of the budget for each open and projected task order. Estimates of any and all pre-task order labor (task order initiation costs) to be performed by Amtrak (to get the respective task order developed) shall be included. Each Budget Plan and task order initiation costs shall be identified as related to the respective intercity passenger rail fleets ("Fleet") covered by the OBIS project. The Budget Plan shall be developed and maintained in alignment with the task order plan and updated as the task order plan is modified and as budget expenditures are made in the course of implementing each task order. By task order and "Fleet", the Budget Plan will clearly identify amounts anticipated to be spent by Amtrak by month, for the time period remaining in the year when the task order is executed. In conjunction with each quarterly report, Amtrak shall update the budget plan with values spent to date and the expected amounts to be spent for the remainder of the project. The initial draft Overall OBIS Project Budget Plan must be submitted to the Caltrans Contract Manager seven (7) business days prior to the Project Kick-off Meeting.

1.2.4. Task Order Development

Amtrak shall work with Caltrans to develop and submit specific task orders according to the Task Order Implementation Plan, Master Project Schedule and Overall OBIS Project Budget Plan. The development of each task order will include the scope of work to be provided by Amtrak, a list of vehicles to be modified, a detailed schedule for completion

of work and deliverables, project budget, and financial information, Amtrak's management resources, a milestone payment schedule, and additional task order requirements if applicable. Caltrans shall provide input and review all drafts within 15 business days. The official task order will be approved in writing by the Caltrans Contract Manager and executed by Amtrak and Caltrans. Amtrak will work with Caltrans and the Illinois Department of Transportation for any task order relevant to the NGEC cars, including overall project schedule, system architecture and basic system programming.

1.2.5 Development and Submission of Amtrak Organizational Structure and Key Personnel for Overall OBIS Implementation

Amtrak shall provide Caltrans with an organizational chart which outlines roles and job responsibilities related to management and oversight of each OBIS task order. Amtrak will work collaboratively with Caltrans to review and approve key personnel assigned to the project. This shall cover the initial task order and all future task orders. Caltrans will only reimburse Amtrak for these staff costs specifically identified in task orders. The organizational chart shall be modified over time as personnel and/or roles change. Amtrak will notify Caltrans if any change occurs. Any proposed changes to the organizational chart and/or key personnel must be reviewed and agreed upon by Amtrak and Caltrans, and approved in writing by the Caltrans Contract Manager. The initial organizational chart must be submitted to the Caltrans Contract Manager seven (7) business days prior to the Project Kick-off Meeting.

Caltrans will submit its OBIS project team organizational chart to Amtrak seven (7) business days prior to the Project Kick-off Meeting. Caltrans will also notify Amtrak if any change occurs.

1.2.6. OBIS Project Kick-off Meeting

Within thirty (30) business days after the execution of the OBIS Agreement, at a time and location mutually agreed upon by Amtrak and Caltrans, Amtrak will hold a Project Kick-Off Meeting. During this meeting or subsequent meetings, Amtrak will present the overall Amtrak/Caltrans OBIS Steering Committee and Governance Plan, Task Order Implementation Plan, Master Project Schedule, and an Overall OBIS Project Budget Plan. During the meeting, the team will discuss the project approach, and the Amtrak Organizational Structure and Key Personnel for Overall OBIS Implementation. Amtrak will accept questions and feedback from Caltrans and adjust the project approach and progress schedules as mutually agreed.

1.2.7. Caltrans Roles and Responsibilities

Caltrans is responsible for the following project administration activities:

i. Jointly develop, review, and approve task orders in conjunction with Amtrak and other states as required.

ii. Review and provide comments and approve deliverables as identified in task orders, such as various project related plans, drawings, schematics and other design review documents within the timeframe specified by the applicable task order.

iii. Participate in the OBIS project-related meetings and/or conference calls to provide input, technical assistance and direction to Amtrak as needed.

iv. Inform Amtrak of any changes and updates to the program and project related issues.

v. Oversee Amtrak's implementation of the OBIS project on state- and Amtrak-owned equipment, as required.

vi. Provide coordination with Amtrak for vehicle availability, priority of work access to contractor facilities as needed.

vii. Provide funding necessary to execute and complete all task order work as approved.

1.2.8. On-going Task Order Project Management/Monthly Progress Report

Amtrak shall prepare a comprehensive task order progress report each month for Caltrans, starting with the first full month after NTP for each task order. The task order progress report shall be due on the tenth (10th) of the following month. Amtrak and Caltrans will work collaboratively to develop report content which will include at a minimum:

i. Project completion percentage on all task orders

ii. Up-to-date Master Project Schedule

iii. Overall OBIS Project Budget showing expenditures

iv. Current status of each task order

v. Status of deliverables for each task orders

vi. Issues log, including engineering changes and schedule delays

vii. Risk assessment

viii. Work accomplished this month

ix. Work planned for next month

x. Three (3) month look-ahead

1.2.9. On-going OBIS Project Management Weekly Meetings

Amtrak shall conduct weekly OBIS Project Management meetings to discuss progress, issues and strategy of the OBIS Project with Caltrans. Amtrak shall develop and provide agendas and meeting minutes for the Weekly Meetings. The agenda shall be provided to the Caltrans Contract Manager at least one business day prior to the meeting, and the minutes shall be provided two business days prior to the next weekly meeting. The minutes will be officially approved at the following meeting.

1.2.10. Representations and Warranties

The Representations and Warranties listed below are contained within from the OBIS Vendor Contract: "National Railroad Passenger Corporation (Amtrak) General Provisions for Development, Deployment, and Operations and Maintenance Services in Support of the On-Board Information Systems Program." "Contractor" has been replaced with "Amtrak" for purposes of this section.

1.2.10.1 Amtrak represents and warrants that all supplies furnished under this Contract (including replacement supplies furnished under this warranty): (1) are new (unless otherwise agreed to by the parties); (2) are merchantable and of good quality, free from defects in design, material and workmanship; (3) are suitable for their intended purpose; (4) conform with all requirements of the Contract Documents; and (5) conform to any samples provided, drawings and specifications. Amtrak further represents and warrants that it shall perform the work with promptness, diligence, and in accordance with the highest professional standards in the industry; it shall comply with all requirements of the Contract; and (4) in performing the work, it shall use adequate numbers of qualified individuals with suitable training, education, experience and skills, and that it shall perform the Work in a manner consistent with the required level of quality and performance.

1.2.10.2 Amtrak warrants that all supplies furnished and all supplies and supplies services performed by Amtrak are guaranteed against defects for a period of **2** years from the date of final acceptance of the last of the

Supplies/Services ("Warranty Period"), or for such period as provided in a SOW. The Warranty Period shall apply on a per-vehicle basis with the Warranty Period commencing for each vehicle on the date that a complete vehicle is installed with the relevant Deliverables under a task order.

1.2.10.3 If a defect arises during the Warranty Period, Caltrans shall promptly, following discovery of the defect, notify Amtrak. At no charge to Caltrans, Amtrak shall repair or replace any defective supplies or correct any defective supplies and/or supplies services within seventy-two hours after notice from Caltrans. If Amtrak fails to respond within said 96 hour period, Caltrans or a third party retained by Caltrans may repair or replace the defective supplies or correct the defective supplies services. Any such repair, replacement or correction by Caltrans or such third party shall in no way alter or void Caltran's warranties under this Contract and Amtrak shall remain obligated for such throughout the entire Warranty Period. Amtrak shall reimburse Caltrans for all costs and expenses incurred by Caltrans within thirty days after receipt of an invoice. Any items repaired, replaced or corrected during the Warranty Period shall be subject to the terms of this section to the same extent as those delivered initially, except that the Warranty Period will extend until termination of the original Warranty Period or six months from repair, replacement or correction, whichever is later. Amtrak acknowledges that, during the Warranty Period (and at all other times), the Supplies may be installed and maintained by Caltrans or third parties on its behalf. Amtrak further agrees that proper installation and maintenance based on Amtrak's documentation will not void or otherwise alter the warranties hereunder.

2. Administrative Requirements for the OBIS Project

2.1. Intellectual Property

Amtrak grants and agrees to grant to Caltrans, its successors and assigns, a perpetual, irrevocable, nonexclusive, royalty-free right and license to use, display and perform the OBIS solution in passenger displays and public address systems located on all of Caltrans' train cars. In the event Caltrans terminates its agreement with Amtrak under which the OBIS solution is provided, Amtrak may license the OBIS solution to the appropriate Joint Powers Authority (JPA) to the extent that the JPA utilizes the OBIS solution for its intended purpose and on the condition that the JPA is obliged to either: (a) have an applicable operation/maintenance agreement in place with Amtrak at the

time assigned to the JPA; or (b) enter into a new operation/maintenance agreement with Amtrak's licensor on at least equivalent financial terms to those as between Amtrak and licensor under a task order for an equivalent (or longer) period of time.

2.2. Billing Rates and Labor Costs

Within each task order that includes Amtrak staff, on an annual basis based on the Federal Fiscal Year, Amtrak shall provide the labor billing rates and any additives for the personnel involved in the OBIS project and any active task orders at the time. Caltrans recognizes that in addition to the base labor rates, a General and Administrative (G&A) additive be added to all Amtrak labor costs with limited exceptions which shall be identified in each labor billing rate sheet. The G&A additive in effect as of January 1, 2014 is 6.66%. This G&A additive will increase annually by 0.5% effective for costs incurred on January 1st through December 31st each year.

2.3. Invoicing and Payment

Milestone payments and deliverables shall be identified in each task order. For the task order establishing staffing resources for Amtrak, the payment terms shall be identified in the specific task order. All payments shall be made on a reimbursement basis. Staff travel shall be approved by the Caltrans Contract Manager prior to travel and reimbursed at established reimbursement rates as approved by Caltrans. For task orders/milestones satisfactorily rendered and approved by the Caltrans Contract Manager, and upon receipt and approval of the invoices, Caltrans agrees to compensate Amtrak in accordance with the task orders/milestones and within 45 days of invoice receipt. Incomplete or disputed invoices shall be returned to Amtrak, unpaid, for correction.

2.3.1. Sample Invoice Format

Invoices may be submitted only after a task/milestone has been achieved, accepted, and approved by the Caltrans Contract Manager. Each invoice shall be itemized in accordance with the tasks specified in the task order and shall include the following:

i. Performance Period (Amtrak will provide this detail separately)
ii. Date of invoice
iii. Contract number
iv. Task order number(Amtrak will provide this detail separately)

v. Type and unit number of the equipment invoiced

vi. Total invoice amount for the particular invoice

vii. Invoice to date and remaining amount in the task order (Amtrak will provide this detail separately)

viii. Invoice to date and remaining amount in the Master Scope of Work (Amtrak will provide this detail separately)

Each invoice shall be accompanied by backup documents as applicable to the tasks.

2.3.2. Invoice Submission Process

Each invoice shall be submitted in triplicate to:

Momoko Tamaoki
Chief, Rail Equipment Project Support Branch
Office of Rail Equipment
Caltrans Division of Rail and Mass Transportation
California Department of Transportation, MS 74
P.O. Box 942874
Sacramento, CA 94274-0001

2.4. Cost Limitation

Total amount of this Scope of Work shall not exceed $25,000,000.00. However, due to the California State Funding Process, incremental budget requests will be made each year to cover the total costs. Initial budget requests should cover approximately $8,000,000 of the total amount. Subsequent year funding requests will cover the remaining costs.

2.5. Notices

Any notice, report, or other communication shall, unless otherwise specified, be in writing and shall be delivered in hand, e-mailed return receipt requested, or mailed by first class mail, postage prepaid, addressed to:

For Amtrak: Jeff Snowden, Senior Director State Partnerships
National Railroad Passenger Corporation
530 Water Street, 5th Floor
Oakland, CA 94607

With a copy to: Lenetta McCampbell, Senior Director, Passenger Experience
National Railroad Passenger Corporation
60 Massachusetts Avenue, NE
Washington, DC 20002

For the State: Momoko Tamaoki
Chief, Rail Equipment Project Support Branch
Office of Rail Equipment
Caltrans Division of Rail and Mass Transportation

California Department of Transportation, MS 74
P.O. Box 942874
Sacramento, CA 94274-0001

With a copy to: Gretchen Brigaman, Chief, Operation and Marketing Branch

Office of Capital Projects & Contracts

Caltrans Division of Rail and Mass Transportation

California Department of TransportationCaltrans, MS 74

P.O. Box 942874

Sacramento, CA 94274-0001

Either Party may change the name, address, or title of the Party to be notified hereunder by notifying the other Parties in writing of such change.

2.6. Equipment Capital Lease Provisions

Should the State of California, as part of a project performed under a task order executed under this Scope of Work, pay to have Amtrak-owned rail equipment modified or improved through the installation of system hardware, components and related project work, the State shall receive a credit against the Capital Equipment Lease charges assessed by Amtrak for the State's use of that equipment, commensurate with the amount of State funds expended on the modification applied to that Amtrak-owned rail equipment, in accordance with all applicable provisions of PRIIA section 209 Capital Equipment Lease cost methodology.

[redacted]

Pursuant to the aforesaid Agreement and subject to all the terms and conditions thereof, Amtrak shall arrange for the provision of connecting bus service(s) or non-Amtrak train service as specified for the period October 1, 2014 through September 30, 2015 as specified herein unless terminated as provided in the aforesaid agreement over the route(s) set forth in Appendix A. The calculation methodology for revenue credits per passenger on each route is explained at the end of Appendix A.

ROUTE 1A

From: Bakersfield
To: San Diego
Via: Newhall/Santa Clarita, Burbank Airport, Glendale, Los Angeles, Fullerton, Santa Ana, Irvine, San Juan Capistrano, Oceanside and Solana Beach

Service Level: 1 Daily Round Trip Bakersfield-San Diego
1 Daily Round Trip Bakersfield-Santa Ana
4 Daily Round Trips Bakersfield-Los Angeles
1 Daily Round Trip Fresno-Los Angeles

ROUTE 1B

From: Bakersfield
To: San Pedro/Long Beach
Via: Glendale and Los Angeles

Service Level: 4 Daily Round Trips Bakersfield-Long Beach/San Pedro

ROUTE 1C

From: Bakersfield
To: Torrance
Via: Newhall/Santa Clarita, Burbank Airport, Van Nuys, UCLA/Westwood, Westchester and El Segundo

Service Level: 4 Daily Round Trips

ROUTE 3

From: Redding
To: Stockton
Via: Redding, Red Bluff, Chico, Oroville, Marysville, Sacramento and Lodi /Elk Grove

From: Davis
To: Sacramento
Via: Direct

From: Roseville
To: Sacramento
Via: Direct

From: Auburn
To: Sacramento
Via: Rocklin, Roseville

Service Level: 3 Daily Round Trips Redding-Sacramento/Stockton
1 Daily Roundtrip Redding - Sacramento
2.5 Daily Round Trips Davis/Sacramento-Stockton
1 Daily Round Trips Davis-Sacramento
1 Daily Round Trip Roseville-Sacramento
1 Daily Round Trip Davis/Sacramento-Stockton
(2 Daily Round Trips Auburn-Sacramento, paid by the CCJPA as part of route 20)

ROUTE 4

From: Los Angeles
To: Santa Barbara/Goleta
Via: Glendale, Van Nuys, Chatsworth, Simi Valley, Moorpark, Camarillo, Oxnard, Ventura and Carpinteria

Service Level: 1 Daily Round Trip

ROUTE 6

From: San Jose
To: Stockton/Lodi
Via: Great America, Fremont, Dublin/Pleasanton, Livermore and Tracy

Service Level: 5 Daily Round Trips

ROUTE 7

From: McKinleyville
To: Martinez
Via: Arcata, Eureka, Fortuna, Rio Dell, Garberville, Laytonville, Legget, Willits, Ukiah, Cloverdale, Healdsburg, Santa Rosa, Rohnert Park, Petaluma, Napa, Vallejo and Vallejo Discovery Kingdom (seasonal).

Service Level: 2 Daily Round Trips McKinleyville-Martinez
1.5 Daily Round Trips Santa Rosa-Martinez
2.5 Daily Round Trips Napa-Martinez

ROUTE 9

From: Bakersfield
To: Las Vegas
Via: Tehachapi, Mojave, Barstow rail station, Barstow bus station, and South Las Vegas.

Service Level: 1 Daily Round Trip

ROUTE 10

From: Bakersfield
To: Santa Barbara
Via: Fillmore, Santa Paula, Oxnard, Ventura and Carpinteria

Service Level: 3 Daily Roundtrips

ROUTE 12

From: Bakersfield
To: Victorville
Via: Tehachapi, Mojave, Lancaster, Palmdale and Littlerock

Service Level: 2 Daily Round Trips

ROUTE 15

From: Merced
To: Yosemite National Park
Via: Mariposa, Midpines and El Portal

Service Level: Amtrak passenger access to all YARTS bus schedules.

ROUTE 17

From: Santa Barbara
To: Oakland
Via: Solvang, Buellton, Lompoc, Guadalupe, Santa Maria, Grover Beach, San Luis Obispo, Cal Poly, Atascadero, Paso Robles, King City, Salinas, San Jose, San Francisco and Emeryville

Service Level: 1 Daily Round Trip Santa Barbara to San Luis Obispo
3 Daily Round Trips Santa Barbara to Oakland
1 Daily Round Trip San Luis Obispo-Paso Robles
1 Daily Round Trip San Luis Obispo-Oakland

ROUTE 18

From: Visalia
To: Santa Maria
Via: Goshen Jct., Hanford, Lemoore, Kettleman City, Paso Robles, Atascadero, Cal Poly, San Luis Obispo and Grover Beach

Service Level: 2 Daily Round Trips

ROUTE 19

From: Bakersfield
To: Indio
Via: [illegible]tario, Riverside, San Bernardino, [illegible] Airport, Palm Desert and La Quinta

[illegible]

ROUTE 34

From: San Francisco
To: Stockton/Lodi
Via: Emeryville, Oakland, Dublin-Pleasanton, Livermore and Tracy

Service Level: 2 Daily Round Trips San Francisco-Stockton
2 Daily Round Trips Stockton-Lodi

ROUTE 35

From: San Jose
To: Santa Cruz
Via: Scotts Valley

Service Level: 27.5 Monday-Friday Round Trips
15.5 Saturday-Sunday-Holiday Round Trips
The State will be responsible for funding $20,000 annually towards this service. (As information, the Capitol Corridor Joint Powers Authority (CCJPA) funds the balance per MOU.)

ROUTE 39

From: Fullerton
To: Indio
Via: Riverside, Cabazon, Palm Springs, Palm Springs Airport, Palm Desert and La Quinta

Service Level: 1 Daily Round Trip Fullerton - Indio
1 Daily Roundtrip Fullerton – Palm Springs

ROUTE 56 (Altamont Corridor Express - non-Amtrak train service)

From: San Jose
To: Stockton
Via: Santa Clara, Great America, Fremont, Pleasanton, Livermore, Tracy and Lathrop/Manteca

Service Level: 3 Monday-Friday eastbound trips, except Holidays, San Jose-Stockton

ROUTE 99

From: San Francisco
To: Emeryville or Oakland
Via: (Actual bus stops vary by corridor and train connection) San Francisco Financial District, San Francisco Ferry Building, San Francisco Pier 39, San Francisco Shopping Center, San Francisco Civic Center, San Francisco Moscone Center, and San Francisco Caltrain Station

Service Level: 60 Monday-Friday One Way Trips
47 Saturday-Sunday-Holiday One Way Trips

Route 99 is a bus network providing multiple connections with San Joaquin, Capitol Corridor, California Zephyr and Coast Starlight trains. The bus cost is prorated between Amtrak, Capitol Corridor and Caltrans routes based on the number of daily connecting buses serving a corridor or Amtrak trains. The ratio is calculated on an annualized total of the number of Monday-Friday except Holiday, and Sunday-Sunday-Holiday scheduled buses operated. The ratio may change as service levels are adjusted. (Calculations are available in a separate document).

Pursuant to the Fixed Fees identified in Appendix III, Amtrak agrees to provide the following staff dedicated to State service as described herein:

CLERKS AT LOS ANGELES UNION STATION – State-Supported Positions B1 & B9

For the year beginning October 1, 2014, Amtrak will engage two seven-day clerks at Los Angeles Union Station to assist in the loading and unloading of connecting bus passengers for two shifts.

DIRECTOR OF BUS OPERATIONS – State-Supported Position B2

For the year beginning October 1, 2014, Amtrak will engage one full-time director at Los Angeles Union Station to supervise the California connecting bus program and to be liaison between the State and Amtrak regarding the overall program. The State will be responsible for funding 67% of this position. (As information, the CCJPA funds the other 33%).

BUS SERVICE MANAGER – State-Supported Position B3

For the year beginning October 1, 2014, Amtrak will engage one full-time service manager in Southern California (reporting to the Director of Bus Operations in Los Angeles) to assist in the supervision of the Southern California connecting bus program and to assist in the liaison between the State and Amtrak on bus matters in Southern California.

BUS SERVICE MANAGER – State-Supported Position B4

For the year beginning October 1, 2014, Amtrak will engage one full-time service manager in Northern California (reporting to the Director of Bus Operations in Los Angeles) to assist in the supervision of the Northern California connecting bus program and to assist in the liaison between the State and Amtrak on bus matters in Northern California. The State will be responsible for funding 50% of this position. (As information, the CCJPA funds the other 50%).

CLERK AT BAKERSFIELD STATION – State-Supported Position B5

For the year beginning October 1, 2014, Amtrak will engage one seven-day clerk at the Bakersfield station to assist in the loading and unloading of connecting bus passengers

SUPERVISOR BUS OPERATIONS – State-Supported Position B6

For the year beginning October 1, 2014, Amtrak will engage one full-time supervisor bus operations in Los Angeles (reporting to the Director of Bus Operations in Los Angeles) to manage the payment process for all associated bus program costs and billings, oversee the daily bus operation at Los Angeles and to assist in the liaison between the State, Amtrak, and bus vendors on bus account matters.

CLERK AT SACRAMENTO STATION – State-Supported Position B7

For the year beginning October 1, 2014, Amtrak will engage one seven-day clerk at the Sacramento station to assist in the loading and unloading of connecting bus passengers. The State will be responsible for funding 40% of this position. (As information, the CCJPA funds the other 60%).

SECRETARY – State-Supported Position B8

For the year beginning October 1, 2014, Amtrak will engage one full-time secretary in Los Angeles (reporting to the Director of Bus Operations in Los Angeles) to assist in the payment process for bus program costs and billings and provide administrative support.

REVENUE CREDITS FOR FEEDER BUS ROUTES - The revenue contribution to the San Joaquin and Pacific Surfliner routes by the feeder bus routes will be determined through the following methodology:

1. For all routes except Route 35 (San Jose-Santa Cruz) Amtrak will calculate bus route revenue credits by multiplying the city pair mileage times city pair ridership for the route from the Amtrak Data Warehouse. The sum of this calculation will be bus passenger miles for each of the bus routes. The bus passenger miles for each route are then added to the route's train passenger miles providing total passenger miles. This will provide total passenger miles for each of the train/bus routes. The total passenger miles for each train/bus route, divided into each route's revenues will provide the true route yield of the train/bus routes.

   To derive the bus revenue credit for each route the true route yield is multiplied by the bus passenger miles (as determined above) for the appropriate route.

2. For Route 35 (San Jose-Santa Cruz) Amtrak will credit revenues per the Memorandum of Understanding regulating Route 35, as signed by Caltrans, Santa Cruz Metropolitan Transit District (SCMTD), CCJPA and Valley Transit Authority. Passengers who use Amtrak-issued tickets on Route 35 deposit the passenger receipt in the SCMTD fare box for transportation; these receipts cannot be scanned. As a result the following method will determine the total revenue credit for Route 35:

a) SCMTD will collect and credit all applicable fares paid at the fare-box on the monthly invoice submitted to Amtrak.

b) SCMTD will collect and remit all Amtrak-issued ticket receipts on their monthly invoice submitted to Amtrak.

c) Amtrak will print a "Tickets-Issued" report for city pairs on Route 35 on a calendar-month basis to determine the actual revenue per passenger. Because Route 35 tickets are issued as "stand alone" rates, independent of rail fares, this average will be different than the "true route yield" referenced in item 1. above. Amtrak will multiply the average revenue per passenger for Route 35 tickets by the number of receipts reported by SCMTD each month to determine the Amtrak revenue credit for that month.

d) All costs and revenues associated with Route 35 services are split between CCJPA and Caltrans. Caltrans will reimburse Amtrak up to $20,000.00 annually for this service.

MISCELLANEOUS COSTS FOR FEEDER BUS SERVICE - From time to time it becomes necessary to provide for miscellaneous costs to offer reasonable, identifiable and necessary Bus Feeder service. By mutual agreement between State and Amtrak, such costs, not already covered by the Fixed Fees itemized in Appendix III, may be charged to the State.

GENERAL - This Appendix A constitutes an integral part of the aforesaid Agreement. No change, modification, or amendment hereto shall be of any force or effect unless evidenced by an Appendix A to the Agreement.

APPENDIX B

NATIONAL RAILROAD PASSENGER CORPORATION

and

THE STATE OF CALIFORNIA

AGREEMENT DATED 1 APRIL 2015
FOR THE PROVISION OF
RAIL PASSENGER SERVICE

FISCAL YEAR 2015
April 1, 2015 – September 30, 2015

* * * * *

RESERVED

APPENDIX C

NATIONAL RAILROAD PASSENGER CORPORATION
and
THE STATE OF CALIFORNIA

AGREEMENT DATED 1 APRIL 2015
FOR THE PROVISION OF
RAIL PASSENGER SERVICE

FISCAL YEAR 2015
April 1, 2015 – September 30, 2015

* * * * * *

California Equipment Deployment Summary

This table summarizes the assignment of California-owned passenger equipment for fiscal year 2015.

	Total Consists	Loco-motives	Diners	Standard Coaches	Baggage-coaches	Cab-coaches	Cab-bag-coaches	Comet 1B Coaches	Total Cars
*San Joaquins**	7	7	7	16	0	0	7	5	35
*Capitols**	8	8	8**	17	5	0	8	0	38
OAK Protect*	--	2	1	4	1	0	4	9	19
Total OAK*	15	17	16	37	6	0	19	14	92
Surfliner (LA)	2	0	2**	5**	0	0	3	0	10
Total	17	17	18	42	6	0	22	14	102

*The *Capitols* operate entirely with "California Car" equipment.
**The "Surfliner" diners are cafe-coaches, as are the two new "Capitol" diners; two "Surfliner" standard coaches are configured for 'Custom/Business Class' service.

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
DIVISION OF RAIL
1120 N STREET
P. O. BOX 942874 – MS 74
SACRAMENTO, CA 94274-0001
PHONE (916) 654-6542
FAX (916) 653-4565
TTY 711

Flex your power!
Be energy efficient!

May 25, 2007

Mr. Eugene K. Skoropowski, AIA
Managing Director
Capitol Corridor Joint Powers Authority
300 Lakeside Drive, 14th Floor East
Oakland, CA 94612

Dear Mr. Skoropowski:

Recently the California Department of Transportation (Caltrans) and Amtrak reached an agreement in principle for the Oakland Maintenance Facility Operations and Maintenance Agreement. Once the Agreement has been finalized, we will forward a copy to you.

Completion of this Agreement has formalized all equipment maintenance responsibilities between Caltrans and Amtrak. Therefore, I am proposing we sign the enclosed Letter of Understanding between Caltrans and the Capitol Corridor Joint Powers Authority (CCJPA) to formalize all equipment maintenance responsibilities between Caltrans and CCJPA to avoid any uncertainty over such responsibilities for State-provided equipment.

Sincerely,

WILLIAM D. BRONTE
Chief
Division of Rail

Enclosure

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
DIVISION OF RAIL
1120 N STREET
P. O. BOX 942874 – MS 74
SACRAMENTO, CA 94274-0001
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Flex your power!
Be energy efficient!

May 25, 2007

Mr. Eugene K. Skoropowski, AIA
Managing Director
Capitol Corridor Joint Powers Authority
300 Lakeside Drive, 14th Floor East
Oakland, CA 94612

Dear Mr. Skoropowski:

This Letter of Understanding between our two agencies will have the same term as the Interagency Transfer Agreement (75RCCJPA-2 as amended) effective July 1, 1998.

The California Department of Transportation (Caltrans) is responsible for:

- Procurement of new equipment.
- Warranty-related issues.
- Major overall of equipment.
- Approval of equipment modifications.
- Repairs of wrecked equipment. Caltrans will document all damage to equipment within a week of receiving the Amtrak Accident Report and has established a Wreck-Damage Equipment Response Group composed of staff from the CCJPA, Amtrak and Caltrans to coordinate decisions and priorities on wreck repairs.

The CCJPA is responsible for all other maintenance administration issues.

Caltrans hereby assigns all its rights, and delegates all its duties with respect to maintenance administration of the State-provided equipment which it may have under existing agreements with Amtrak, the CCJPA, or otherwise, to the CCJPA.

The State-provided equipment shall, be maintained by the CCJPA to the same standards as provided for in the agreements now in effect between the CCJPA and Caltrans which relate to maintenance, and no modification to the equipment or deviation from the existing maintenance standards will be made without a Caltrans written agreement.

If this letter reflects your understanding of our agreement with respect to this matter, please indicate by signing and dating the enclosed copy where specified, and returning it to us for our files.

Sincerely,

WILLIAM D. BRONTE
Chief
Division of Rail

Accepted and agreed to this 31st day of May 2007, terminating on the same day as the Interagency Transfer Agreement (75RCCJPA-2 as amended) effective July 1, 1998.

CAPITOL CORRIDOR JOINT POWERS AUTHORITY

By:

EUGENE K. SKOROPOWSKI, AIA
Managing Director

5/30/2007
Date

c: Carol Gambrel, Amtrak

APPENDIX K

FUNCTIONS ASSUMED BY SJJPA

Assembly Bill 1779, approved in September 2012, enables the San Joaquin Joint Powers Authority (SJJPA) to "assume all responsibility for administering the state-funded intercity passenger rail service in the corridor." This service is commonly referred to as the "San Joaquins." In accordance with the assumption of this responsibility, the SJJPA shall carry out the roles, responsibilities and functions set forth below.

SECTION 1. STATEWIDE WORKING GROUP

1.1 SJJPA acknowledges the need for and shall participate in the Statewide Working Group as established by the Department, in consultation with the Secretary (see Statewide Working Group in **Appendix L**). In order to effectuate the seamless connectivity of the Intercity Passenger Rail Service and system throughout the State, SJJPA in coordination with the Department, shall participate in the statewide working group (Statewide Working Group) in a manner as provided below. A primary purpose of the Statewide Working Group is to ensure appropriate assignment of work efforts and funding that supports analysis and decision making to either the Department or one or more JPAs, taking into account available contracting authority as well as efficiency in conducting analysis, and statewide consistency across intercity rail corridors or requiring changes in the commitment or allocation of State resources. The Department acknowledges that it is not the intent of the Department or the Secretary to limit or hinder the ability of the respective JPAs from administering the respective services.

1.2 The issues addressed by the Statewide Working Group may include, but are not limited to:

1.2.1 Fleet acquisition, management, and deployment

1.2.2 Negotiation with host railroads and passenger terminal operators related to capital investments and allocation of host railroad or passenger terminal capacity for passenger rail operations

1.2.3 Implementation of integrated schedules and fare policies

1.2.4 Terms, conditions, and financial commitments contained in agreements with Amtrak or other intercity rail passenger operators, including CHSRA

1.2.5 Statewide market research, marketing or branding initiatives

1.2.6 Statewide integration of reservations, call center or ticketing initiatives

1.2.7 Statewide analysis and modeling of network-impacting capital and operating initiatives

1.2.8 Assignment of capital projects required for network or corridor development to one or more eligible applicants (including The Department)

1.3 As appropriate, all SJJPA responsibilities below will be consistent with Statewide

Working Group efforts.

1.4 Disputes Between Statewide Working Group Members

1.4.1 Members of the Statewide Working Group shall use their best efforts to resolve matters affecting the statewide connectivity of the system. The members of the Statewide Working Group also agree that matters affecting the connectivity of the statewide system shall not be subject to the arbitration process outlined in Article 18.2 of this Agreement. While every effort will be made to achieve consensus on an issue impacting the statewide system, notwithstanding any other provision of this Agreement, any disputes between members of the Statewide Working Group relating to matters affecting the connectivity of the statewide system shall be resolved as follows:

a. If the Statewide Working Group is unable to resolve matters before it, any member of the Statewide Working Group may escalate the matter to an the Executive Steering Committee (ESC) as part of the issue resolution process. The ESC will be convened no later than 30 days after the Effective Date of this Agreement. The ESC will be available to provide direction to the Statewide Working Group as issues are elevated to the ESC. The ESC shall be comprised of the Department's Chief the Division of Rail and Mass Transportation and the Executive or Managing Director or (or equivalent position) of each JPA. The ESC shall work expeditiously to reach a consensus. If the ESC is unable to reach an agreement regarding matters affecting the connectivity of the statewide system, any member of the Statewide Working Group shall elevate the matter to the Secretary for final and binding resolution.

SECTION 2. MANAGEMENT AND ADMINISTRATION

With respect to the management and administration of the Service, SJJPA shall comply with the following:

2.1 Manage and direct intercity train and bus operations in accordance with the annually approved Business Plan, applicable government codes, and the Uniform Performance Standards.

2.2 Work collaboratively on statewide issues assigned to the various Statewide Working Group.

2.3 Seek SJJPA's Board of Directors approval (Board) to implement decisions reached in the Statewide Working Group, and incorporate into the Annual Business Plan.

2.4 Negotiate and execute all necessary agreements for the administration, operation and maintenance of the Service. These agreements will be developed in coordination with the Department and will support an integrated statewide Intercity Passenger Rail Service. Notwithstanding the foregoing, SJJPA shall not enter into any agreement related to the terms, amendments or modifications of the operating, maintenance agreements, and thruway bus service agreements without the prior approval of the Department. The Department will provide approval or requested modifications for approval within 14 business days of request from SJJPA. SJJPA shall afford the Department an opportunity to provide its review and comments to any terms, amendments or modifications to any professional services agreements between SJJPA and any other party which would have an impact upon the funding, cost or coordination of the Service or impact the coordination of the Service with other intercity rail corridors.

2.5 Develop policies, plans, and programs specific to the implementation of SJJPA's management responsibilities.

2.6 Ensure consistency with and support of statewide policies, plans and programs identified through Statewide Working Groups where applicable.

2.7 Develop and implement changes to schedules and fares for the service. As appropriate, these changes will be consistent with decisions of the Statewide Working Group responsible for statewide integration of schedule and fare policies and will be subject to SJJPA Board approval.

2.8 Prepare and implement risk management and safety programs consistent with state and federal requirements.

2.9 Provide all necessary administration to support the daily operations of the Service, including but not limited to:

2.9.1 Administration of the respective Joint Powers Authority (SJJPA)

2.9.2 Annual reporting to the state

2.9.3 Procurement of goods and/or services necessary for the Service

2.10 Provide necessary staff resources, contracted or directly employed as necessary for the Service.

2.11 Provide necessary staff resources to represent the respective SJJPA rail corridor in statewide planning, programming, integration, and other efforts.

SECTION 3. PLANNING AND OPERATIONS

With respect to the planning and operations of the Service, SJJPA shall comply with the following:

3.1 Develop service and operations plans in coordination with partner agencies to support the Annual Business Plan and statewide network integration efforts

3.2 Manage, administer, review, and evaluate operator, maintenance and other contracted services.

3.3 Manage and monitor contractors' service productivity, on-time performance, and other performance standards and objectives and develop corrective action plans to address any deficiencies.

3.4 Monitor and report on usage, cost efficiency, and service quality measures as defined in the Uniform Performance Standards.

3.5 Oversee implementation of food and beverage service, ensure best use of resources and develop improvement plans for the use of equipment and administration of food/beverage service.

3.6 Include in each Annual Business Plan a food service plan with annual goals and objectives that support a cost neutral program.

3.7 Manage and coordinate fare collection, update and publish schedules, manage and coordinate station maintenance, and security with affected jurisdictions and agencies, in

coordination with Amtrak or any subsequent operator.

3.8 Review train dispatching policies (including priorities) and control procedures, and work with the Host Railroads or dispatching agencies to implement revisions to those policies and procedures to ensure performance standards can be achieved.

3.9 Conduct on-site field audits, including those pursuant to any national standards of service and the Uniform Performance Standards.

3.10 Oversee the implementation and delivery of service amenities, such as onboard WiFi and other existing and planned passenger amenities.

3.11 Review equipment and crew utilization, develop service plan to optimize utilization.

3.12 Ensure coordinated and seamless operations with other Intercity Passenger Rail Service and their Thruway bus connections (including, but not limited to scheduling, reservations systems, ticketing, security, marketing, advertising, and accessibility services). As appropriate, these efforts shall be consistent with efforts of the Statewide Working Group responsible for statewide operations and/or network integration.

3.13 Plan for and implement improvements in connectivity with local transit providers, commercial bus operators, car sharing and active transportation modes, consistent with the efforts of the Statewide Working Group responsible for statewide integration of public transportation services.

SECTION 4. MARKETING

With respect to the marketing of the Service, SJJPA shall comply with the following:

4.1 Develop, implement, update and manage local and regional advertising campaigns. As appropriate marketing efforts will be consistent with the efforts of the Statewide Working Group responsible for statewide integration of market research, marketing and branding.

4.2 Ensure compliance with Government Code 14036.1, which addresses college student outreach.

4.3 Manage marketing contracts for the Service including community outreach and market research efforts.

4.4 Work cooperatively with the Department to comply with Government Code 14036.8, which requires full participation in the railroad public safety awareness program known as “Operation Lifesaver,” whether funded through state retained marketing funds or through inclusion in future SJJPA budget requests.

4.5 Participate in Statewide Working Group addressing market research, marketing, branding, reservations, call centers and ticketing. The Statewide Working Group may create metrics for determine overall goals and effectiveness of marketing campaigns, and also determine the appropriate rights and responsibilities related to uses of logos or trademarks identified by the Statewide Working Group.

4.6 Develop and include in the Annual Business Plan annual marketing and outreach efforts, goals, implementation, and outcomes.

SECTION 5. THRUWAY BUS SERVICES

With respect to the Thruway bus services, SJJPA shall comply with the following:

5.1 The coordination and operational management of all Thruway bus services and connections to other intercity passenger rail routes, commercial bus services, and regional/local transit agencies for which SJJPA has management responsibility, as identified in **Appendix E** of the Agreement.

5.2 Report annual ridership and financial statistics of each Thruway Bus route using a methodology based on information as established by the coordinated efforts of the Department and SJJPA and further defined in **Appendix L.**

5.3 Participate in Statewide Working Group to address statewide improvements in Thruway bus services as well as opportunities for partnership with commercial bus operators and transit operators.

5.4 Manage Thruway bus service and monitor productivity.

5.5 Develop strategies for improvement including changes in schedules or frequency or discontinuation of bus routes or frequencies on poorly performing routes, including such recommendations in the Annual Business Plan

SECTION 6. EQUIPMENT

With respect to the equipment necessary to run the Service, SJJPA shall comply with the following:

6.1 Oversee maintenance and operation of equipment used in daily service in accordance with statewide policies and standards as included in the ITA and subject to update through the Statewide Working Group

6.2 Ensure quality and cleanliness of equipment operated in revenue service.

6.3 Oversee contractors engaged in operations and capital projects assigned to SJJPA.

6.4 Detailed responsibilities for equipment are included in the ITA.

6.5 Participate in the Statewide Working Group to address statewide fleet acquisition, management and deployment, and implement any decisions reached in such working group

6.6 In coordination with the Capitol Corridor Joint Powers Authority (CCJPA) and the service operator, establish the most efficient, cost-effective daily equipment cycles attainable that meet the service needs of both the San Joaquin and Capitol Corridor services. Work jointly with CCJPA to develop maintenance programs and to implement these programs, consistent with statewide policies and standards, and also to develop training programs for the service operator's equipment maintenance personnel, working jointly to assure application of those programs.

6.7 Implement and augment as necessary state established equipment maintenance programs consistent with the maintenance agreement and fleet management plan.

6.8 Prepare and administer contract familiarization programs and briefings for the service operator's equipment maintenance management personnel as necessary and appropriate.

6.9 Monitor operator's compliance with operating and safety regulations through both contracted and direct forces.

6.10 Monitor ongoing maintenance processes and procedures, review and implement revisions designed to improve equipment reliability, availability, and performance consistent with the maintenance and equipment agreements, generally in the context of an appropriate Statewide Working Group

6.11 Conduct on-site field audits of equipment maintenance activities and overall equipment condition.

SECTION 7. FACILITIES

With respect to the facilities required to perform the Service, SJJPA shall comply with the following:

7.1 Inventory, review and assess existing structures and facilities served or used by the Service's operations and identify capital needs.

7.2 Minor Capital Improvement project is defined by Government Code 14037. Minor Capital Improvement project shall be funded from the existing budget resources allocated annually to the corridor SJJPA.

7.3 Major capital improvement projects are the responsibility of the property owner. In the event major capital improvement projects are required for State-owned property, the corridor SJJPA shall work with the Department to define the project scope, schedule and work cooperatively with the Department to obtain funding.

7.4 Work cooperatively with the Department to identify and seek funding for necessary station improvements.

7.5 Monitor and participate in station development plans and programs.

7.6 Manage and coordinate railroad facility programs to limit impacts on service.

7.7 Acquire, by lease, purchase, lease-purchase, or eminent domain, and to hold and dispose of real and personal property as necessary.

7.8 Construct, manage, and maintain station facilities and services.

SECTION 8. BUSINESS PLAN

With respect to the Business Plan SJJPA shall comply with the following:

8.1 Pursuant to Section 14070.4 (b) of the Government Code, SJJPA shall submit its Annual Business Plan to the Department and the Secretary by April 1 of each year. In the event Amtrak is unable to provide, in a timely manner, the necessary financial forecasts in for inclusion in the Annual Business Plan, SJJPA shall inform the Department and provide the Annual Business Plan as soon as practicable.

8.2 The Annual Business Plan shall include the information required by the Act. The Annual Business Plan as approved by the Board of Directors and submitted to the Secretary of the CalSTA is a two-year budget and planning document that is updated annually, and must be approved by

CalSTA each year.

8.3 The Annual Business Plan must be consistent with the Agreement, the most recent State Rail Plan, other CHSRA plans which have been provided to SJJPA by the Department, and the most recent business plan developed by the California High-Speed Rail Authority. The Annual Business Plan shall cover a minimum of two years (the upcoming fiscal year and the one after that) and should include relevant details outlined under **Section 8** to assist the Department with its annual budget process.

SECTION 9. ANNUAL BUDGET PROCESS

With respect to the annual budget process which requires the Department to submit critical information for the annual appropriation in support of the passenger rail services provided pursuant to the Agreement, SJJPA shall comply with the following:

9.1 SJJPA shall cooperate with the Department during the annual budget process to provide necessary documents and data. The State will consider the second year of each Annual Business Plan, subject to any modifications included in the Secretary's approval, for inclusion in the Governor's Proposed Budget (e.g., the FY16-17 budget request will be based on the second year of the Business Plan submitted by April 1, 2015, as approved by the Secretary by July 31, 2015) and should include adequate information necessary for the budget request such as:

a. Revenue

b. Operating Costs

c. Marketing Expenses

d. Administrative Expenses

e. Total budget and details of any anticipated increases/decreases in operating costs for the upcoming year

f. Justification to support increases or reductions to any of the cost categories.

9.2 Following approval of the Business Plan, SJJPA shall provide all necessary support to the Department during the ensuing annual budget process. This will include but not be limited to answering questions about the proposed budget, providing additional data to support that budget, revising the budget request as requested by the Department, or CalSTA through the Department, in order to conform with Department of Finance or legislative direction or by mutual agreement, and submitting any other document necessary to support the budget.

SECTION 10. LEGISLATIVE OUTREACH

With respect to the legislative outreach efforts, SJJPA shall consult with the Department and shall comply with the following:

10.1 Develop and maintain existing relationships with all stakeholders at the local, state, and federal level.

10.2 Develop an annual legislative platform that supports the Annual Business Plan.

10.3 Communicate to federal and state legislative members on issues affecting service.

10.4 Monitor and participate in the development of legislation that will influence funding for the Service.

10.5 Advocate before local, regional, state, and federal officials and agencies for improvements to services and facilities for the Service.

SECTION 11. SERVICE PLANNING

With respect to Service planning, SJJPA shall comply with the following:

11.1 Develop short-term and long-term service planning in coordination with the Department, other intercity rail corridors and the California High-Speed Rail Authority (CHSRA), including participation in the State Rail Plan, network integration efforts, and other planning efforts involving state or regional agencies.

11.2 Prepare and include detailed service planning efforts as part of the Annual Business Plan update.

11.3 Participate in the development of joint-ticketing program as appropriate.

11.4 Coordinate and integrate service and operational plans and programs for the Service with railroad rights-of-way owners, dispatchers, operators, and other stakeholders.

11.5 Subject to consultation with the Department, negotiate with any other public or private transportation providers as necessary to ensure coordinated service with the Service.

11.6 Coordinate above activities with relevant Statewide Working Group when appropriate.

11.7 Notwithstanding the foregoing, SJJPA shall provide all complete and accurate documentation related to the negotiation of a contract required for any service planning to the Department for review. The Department's review and approval shall not be unreasonably withheld and shall be provided no later than 14 business days from the receipt of complete and accurate submittal from SJJPA. If the Department is unable to comply with the timelines provided in this Section 5.1, the Department shall provide prompt notice to SJJPA and provide an alternate review timeline.

SECTION 12. CAPITAL DEVELOPMENT

With respect to the capital development of the Service, SJJPA shall comply with the following:

12.1 Develop and/or update comprehensive capital plan for projects along SJJPA rail corridor for rehabilitation and new capital to support the Service in coordination with corridor stakeholders and the Department.

12.2 Coordinate and manage various capital projects and programs in the corridor. Manage capital projects along the rail corridor and work in coordination with SJJPA member agencies and host railroads.

12.3 Work with local, state, and federal agencies to plan, program, and secure funding for improvements for the Service.

12.4 Negotiate for and accept funds to be expended for the purpose of providing and improving the Service.

12.5 Prepares and coordinates grant proposals.

12.6 Apply for and execute, and administer grants for financial aid pursuant to any applicable state or federal statutes or local requirements.

12.7 Request programming through appropriate procedures.

12.8 Coordinate above activities with relevant Statewide Working Group when appropriate.

SECTION 13. ATTORNEY

13.1 SJJPA may choose to retain legal services to provide legal advice, including support in developing legal and institutional arrangements. Legal services shall be identified in the Annual Business Plan and budget.

APPENDIX L

FUNCTIONS RETAINED OR ASSUMED BY THE DEPARTMENT

The Secretary is responsible for the overall planning, coordination, and budgeting of the State's Intercity Passenger Rail Services. Such responsibilities have been delegated to the Department to ensure that the Intercity Passenger Rail Service and Thruway bus networks, including connectivity to other rail, High-Speed Rail, and transit systems, are integrated and seamless. It is the Department's responsibility to ensure that the existing and planned intercity and High-Speed Rail corridors function as a unified system. The intercity passenger rail network is part of a larger rail network that includes commuter/regional rail and the planned High-Speed Rail system.

To that end, the Department shall be responsible for the following:

SECTION 1. GENERAL RESPONSIBILITIES

1.1 The Department shall retain responsibility for the overall planning, coordination and budgeting of the Intercity Passenger Rail Services in the State.

1.2 The Department is responsible for the development of a statewide passenger rail network that meets statewide and regional goals and objectives.

1.3 The Department remains the designated "State Rail Transportation Authority" pursuant to Title 49 United States Code which requires that the Department prepare, maintain, coordinate and administer the State rail plan.

1.4 The Department has the responsibility for preparing the Interregional Transportation Improvement Program which includes projects to improve interregional movement of people, vehicles and goods and projects to improve the Intercity Passenger Rail Services, as well as the state-wide transit systems.

1.5 The Department shall furnish historical performance, planning and budget data and documents to SJJPA as requested and in order to facilitate sound and efficient planning and administration of the Service.

SECTION 2. STATEWIDE WORKING GROUP

The Department recognizes that multiple JPAs shall be responsible for the administration of certain services for specific Intercity Passenger Rail corridors. In order to effectuate the seamless connectivity of the Intercity Passenger Rail system throughout the State, the Department, in consultation with the Secretary, shall lead the Statewide Working Group (Statewide Working Group) as provided below. A primary purpose of the Statewide Working Group is to ensure appropriate assignment of work efforts and funding that supports analysis and decision making to either the State or one or more JPAs, taking into account available contracting authority as well as efficiency in conducting analysis. The Department acknowledges that it is not the intent of the Department or the Secretary to limit or hinder the ability of the respective JPAs from administering the respective services and statewide consistency across intercity rail corridors or requiring changes in the commitment or allocation of State resources.

2.1 Participants

2.1.1 The participants of the Statewide Working Group shall be:

a. The designated representatives or staff of the Department;

b. The designated representatives or staff of each JPA, authorized by law to administer a specific Intercity Passenger Rail corridor, respectively; and

c. The designated representative or staff of the CHSRA who may participate on an as needed basis and from time to time, to address issues impacting the High-Speed Rail system.

2.2 Organization

2.2.1 The Department shall lead the Statewide Working Group.

2.2.2 The Statewide Working Group shall be tasked and specifically focusing primarily on matters that affect the statewide network or involving more than one JPA. On a monthly basis, either in person or by phone, the Department shall convene the Statewide Working Group. The members of the Statewide Working Group shall establish a specific scope and timeframe for each monthly meeting. Notwithstanding the foregoing, any member of the Statewide Working Group may request a meeting to discuss issues which cannot be postponed to the next regularly scheduled monthly meeting.

2.2.3 The Department shall work collaboratively with the members of the Statewide Working Group to bring swift resolution to the issues impacting the entirety of the system and service. The Department shall not unreasonably withhold reviews and/or approvals that are necessary to operate the services of each respective JPA.

2.2.4 The Department shall maintain a current list of activities on which collaboration and coordination is occurring through the Statewide Working Group. The Department shall prepare meeting minutes that document and record the final plans and decisions developed pursuant to discussions of the Statewide Working Group and provide them to the other members of the Statewide Working Group no later than 15 days from the date of such resolution or meeting.

2.3 Discussion

2.3.1 The Department shall lead the Statewide Working Group on all matters requiring statewide consistency across intercity rail corridors or requiring changes in the commitment or allocation of State resources. The issues addressed in the Statewide Working Group, may include, but not be limited to, the following:

a. Fleet acquisition, management, and deployment.

b. Negotiation with host railroads and passenger terminal operators related to capital investments and allocation of host railroad or passenger terminal capacity for passenger rail operations.

c. Implementation of integrated schedules and fare policies.

d. Terms, conditions, and financial commitments contained in agreements with Amtrak or other intercity rail passenger operators.

e. Statewide market research, marketing or branding initiatives.

f. Statewide integration of reservations, call center or ticketing initiatives.

g. Statewide analysis and modeling of network-impacting capital and operating initiatives.

h. Assignment of capital projects required for network or corridor development to one or more eligible applicants (including the Department).

i. Statewide integration of schedules and fare policies.

j. Statewide integration of reservations, call center and ticketing.

2.4 The Department, in consultation with the members of the Statewide Working Group, may establish focused groups within the Statewide Working Group which to address specific issues identified by one or more member of the Statewide Working Group. Such focused groups may include, but not be limited to the activities identified in either Appendix K or L, respectively. Not all focused groups will need to be active at all times, and some of the issues above may be most effectively consolidated into a single working group.

2.5 Disputes Between Statewide Working Group Members

2.5.1 Members of the Statewide Working Group shall use their best efforts to resolve matters affecting the statewide connectivity of the system. The members of the Statewide Working Group also agree that matters affecting the connectivity of the statewide system shall not be subject to the arbitration process outlined in Article 18.2 of this ITA. While every effort will be made to achieve consensus on an issue impacting the Statewide system, notwithstanding any other provision of this ITA, any disputes between members of the Statewide Working Group relating to matters affecting the connectivity of the Statewide system shall be resolved as follows:

a. If the Statewide Working Group is unable to resolve matters before it, any member of the Statewide Working Group may escalate the matter to an the Executive Steering Committee (ESC) as part of the issue resolution process. The ESC will be convened no later than 30 days after the Effective Date of this ITA. The ESC will be available to provide direction to the Statewide Working Group as issues are elevated to the ESC. The ESC shall be comprised of the Department's Chief the Division of Rail and Mass Transportation and the Executive or Managing Director or (or equivalent position) of each JPA. The ESC shall work expeditiously to reach a consensus. If the ESC is unable to reach an agreement regarding matters affecting the connectivity of the statewide system, any member of the Statewide Working Group shall elevate the matter to the Secretary for final and binding resolution.

SECTION 3. STATE RAIL PLANNING AND NETWORK INTEGRATION

With respect to State rail planning and networking integration, the Department, in consultation

with CalSTA, shall be responsible for the following:

3.1 Leading Network Integration activities, which shall include but not be limited to the statewide effort to integrate all existing and planned rail systems (intercity, commuter/regional, and High-Speed Rail) into a coordinated and integrated system.

3.2 Defining the roles and responsibilities of the California High-Speed Rail Authority and the JPAs in Network Integration efforts, including integration with planned High-Speed Rail.

3.3 Ensuring that the consistency of planning efforts across statewide transportation planning documents, including but not limited to, the California Transportation Plan, the Caltrans State Rail Plan, the Caltrans Interregional Transportation Strategic Plan, California Freight Mobility Plan, the CHSRA Business Plan and the planning efforts of the JPAs.

3.4 Reviewing the JPA Business Plans and other planning documents (such as Corridor Development Plans, Service Development Plans or Strategic Plans) for consistency with statewide network planning, including integration with local transit and High-Speed Rail.

3.5 Conducting statewide planning, primarily through the State Rail Plan (process and in collaboration with CalSTA, the intercity rail JPAs and other stakeholders, to develop vision and long range plans for the development and continuance of a statewide, integrated, and comprehensive passenger rail network, inclusive of High-Speed Rail, as well as connections to feeder bus and local transit systems.

3.5.1 The State Rail Plan will reference relevant areas of each JPA's approved Business Plan in effect at the time of State Rail Plan development (with particular emphasis on near term operational or capital plans expected to impact the 4-5 year horizon of the State Rail Plan), but will also serve as a tool to develop long-range, integrated statewide rail planning that will guide future JPA Business Plan development.

3.5.2 Statewide analysis of proposed or funded capital investments is expected to occur in a detailed manner during the process of developing the State Rail Plan on a five year cycle, with additional updates if necessary to address new projects that have a significant impact on service or network connectivity.

SECTION 4. STATEWIDE ANALYSIS AND MODELING

4.1 In coordination with the Statewide Working Group, the Department shall be responsible for statewide analysis and modeling of network-impacting capital and operating initiatives.

4.2 The Department shall conduct, manage or assign integrated statewide analysis related to proposed improvements that will impact the statewide passenger rail network (inclusive of both capital and operating improvements), in collaboration with the intercity rail JPAs and other relevant stakeholders, primarily through adoption and utilization of standard modeling tools for the statewide analysis of ridership and revenue, as well as railroad operations. Statewide analysis is not expected to be necessary for every capital project or operating change advanced by an infrastructure owner; rather, the analytical tools are intended to foster understanding and support decision making related to how projects affect significant changes in service and network connectivity.

4.3 The Department shall ensure a consistent statewide approach is followed both for statewide network planning (by the Department) and for individual corridor planning (by the JPAs for existing corridors and by the Department for corridors under development).

SECTION 5. **SERVICE COORDINATION**

5.1 The Department, in consultation with CalSTA, is responsible for overseeing coordination among the state-funded intercity rail corridors. In connection with the operation of the Service, the Department shall have the right to approve the terms, amendments or modifications of the operating, maintenance agreements, and thruway bus service agreements between SJJPA and any other party which would have an impact upon the funding, cost or coordination of the Service or impact the coordination of the Service with other intercity rail corridors. The Department shall have the opportunity to provide review and comment of any terms, amendments or modifications to any professional services agreement between SJJPA and any other party which would have a material impact upon the funding, cost or coordination of the Service or impact the coordination of the Service with other intercity rail corridors. Such review and approvals shall be consistent with, and supportive of the ridership growth, cost efficiencies and revenue enhancements and other strategies identified in Appendix A.

5.2 Notwithstanding the foregoing, the Department will provide its review and approval of any terms, amendments, or modifications to agreements between SJJPA and a third party provider (i.e.: operator, service provider). The Department's review and approval shall not be unreasonably withheld and shall be provided no later than 14 business days from the receipt of complete and accurate submittal from SJJPA. If the Department is unable to comply with the timelines provided in this Section 5.1, the Department shall provide prompt notice to SJJPA and provide an alternate review timeline.

5.3 Operations and Marketing

5.3.1 The Department, in consultation with CalSTA, shall review the Annual Business Plan submitted by SJJPA. The review shall include, but not be limited to, an assessment of the integration between the intercity rail corridors, local transit and High-Speed Rail as applicable.

5.3.2 The Department shall provide SJJPA access to its modeling resources necessary to analyze scenarios, supported by necessary financial resources for the modeling effort as identified by the relevant Statewide Working Group member, in its approved Annual Business Plan, related to the ridership and revenue impacts of proposed operational changes, as well as the viability of proposed schedule changes. Modeling and analysis shall be in the context of long term network connectivity and host railroad agreements, subject to collaborative efforts among the JPAs and the Department to prioritize requests within available resources.

5.3.3 The Department shall work cooperatively with SJJPA to clarify modeling requests and submit such requests to the current contractor for such analysis to the extent that the modeling resources necessary to conduct the work are under the Department control. The Department shall review proposed schedules for their impact on network integration in a timely fashion.

5.3.4 The Department may, but is not required to, independently analyze and evaluate scenarios related to proposed operational changes across the statewide network, including use of modeling resources related to ridership and revenue and operational impacts. The results of such analysis shall be made available to any relevant working group for consideration and comment.

5.3.5 The Department, in coordination with the Statewide Working Group, shall develop and manage a listing of efforts requiring statewide collaboration, as well as develop a schedule and charter and work plan for addressing such recommended efforts, and the current or proposed staffing and financial resources available for such efforts.

5.4 Thruway Bus Services

5.4.1 The Department shall review and comment on proposed changes to Thruway bus services as part of the annual review of the business plan and evaluate any significant changes that may impact the service in order to ensure a reliable, integrated statewide passenger rail network is maintained. The Department may recommend implementation of such changes in its submission of business plan comments to the Secretary.

5.4.2 The Department will, in coordination with SJJPA, develop and publish standard methods for evaluating the performance of feeder bus routes, consistent with but not limited to State Government Code Section 14035.2 (3) and notwithstanding Government Code Section 14070.4(5)(d).

SECTION 6. **PERFORMANCE MEASURES AND MONITORING**

6.1 The Department shall monitor the administration of the Service and the performance standards adopted by the Secretary pursuant to the Uniform Performance Standards. This shall primarily be performed through the standard quarterly reports prepared by the Department and Annual Business Plan submissions of SJJPA.

6.2 The Department shall prepare a report of findings outlining any efficiencies or deficiencies in the performance of the Service which may be below the Uniform Performance Standards. The Department's findings shall be provided to SJJPA for review. The Department's findings shall include, if required, a corrective action plan which shall be aimed at bringing the service back into compliance with the Uniform Performance Standards. The Department will provide its findings and any corrective actions, with regular updates, to CalSTA.

SECTION 7. **EQUIPMENT**

7.1 Develop, maintain and update the California Rail Fleet Plan, to provide a guiding document to be used for long-range planning for fleet maintenance, overhaul, modification, expansion, replacement, disposition and deployment, based on service needs, manufacturer recommendations, Federal requirements, reliability and availability performance measures, available funding, and input from the three JPAs.

SECTION 8. **REPORTS**

8.1 The Department, in coordination and with input from SJJPA, shall prepare reports and summaries, as required by the Legislature, the California Transportation Commission, CalSTA, or otherwise required or deemed advisable by the State.

SECTION 9. **FUNDING REQUESTS AND BUDGETS**

9.1 Operation Support

9.1.1 The Department shall prepare an annual funding and budget request for intercity Service and minor capital based on the second year of each Annual Business Plan approved by the Secretary, to be considered during the annual State budget development process.

9.1.2 Following release of the legislatively-approved Budget, the Department shall provide recommendations to CalSTA regarding proposed actions necessary to align resources included in the Budget with the approved Business Plan level of funding. Final allocation of annual funding will be determined by the Secretary or their designee.

9.1.3 With the assistance of the SJJPA, report as required to the Department of Finance or any other required party on the financial status of the state-supported services.

9.2 Capital Projects

9.2.1 Capital projects may be managed by SJJPA subject to the provisions of SJJPA's joint powers agreement and agency bylaws or any other agreement between SJJPA and its members or local project sponsor.

9.2.2 The Department may establish a focus group to assist in assignment of management responsibilities for capital projects to one or more eligible applicants, including one or more JPAs, the Department and/or other stakeholders. Such focus group will also provide a forum for determination of whether a proposed capital project is consistent with the State's priorities, State Rail Plan and other supporting plans, and may be a forum for recommending assignment of project management responsibilities if such funding is successfully obtained

9.2.3 The Department will request funding through Department of Finance, California Transportation Commission and other agencies to sustain and expand rail service on the state-supported Intercity Passenger Rail Service, in accordance with the California State Rail Plan when it is assigned responsibility for such capital projects.

9.2.4 The Department shall support the funding requests of JPAs and other eligible applicants when such entities are assigned responsibility for advancing such capital projects as long as such projects are not in conflict with statewide plans.

9.2.5 The Department shall submit project programming and allocation requirements to the appropriate state entity, or support JPAs in their submissions, based on assignment of the capital project to a responsible agency.

9.2.6 The Department shall provide oversight of state-funded projects assigned to JPAs for capital project management, consistent with any grant or funding program requirements.

9.2.7 Capital projects assigned to the Department for management may be implemented by Host Railroads, Terminal Operators or other public agencies with which the Department develops appropriate environmental, engineering and/or construction agreements.

9.2.8 These roles and responsibilities are not intended to in any way impact an individual JPA member's ability to implement capital improvements on properties within their jurisdictions.

9.3 Grant Programs

With respect to grant programs, the Department shall:

9.3.1 Ensure consistency of proposed capital projects and proposed operational changes with the state rail and long range plans, including confirming for purposes of federal, state or regional grant funding opportunities that such projects or changes are consistent with the state rail plan and other supporting plans.

9.3.2 Administer the Section 190 and other safety related funding programs.

9.4 Amtrak and Other Operator Negotiations and Contracts

9.4.1 The Department has an existing contract between the Department and Amtrak for services provided by Amtrak to the State in support of Intercity Passenger Rail Service. These support services currently include, but are not limited to: ridership modeling; rail equipment insurance coverage; wreck repair and third party recovery fund management; equipment overhaul and modifications; and ownership of the Oakland Maintenance Facility. Future assignment of services currently contained in the contract between the Department and Amtrak to SJJPA is permitted, and no later than the Effective Date of this ITA, the Department will cause to be executed a delegation of certain duties to SJJPA.

9.4.2 The Department shall review and provide comment to CalSTA regarding proposed agreements between the JPAs and Amtrak or any other operator under contract to provide passenger rail service.

9.4.3 The Department shall establish a focus group to promote consistency among the Department and JPA contracts in areas of terms, conditions, and financial commitments. Such working group will also provide a forum for developing consensus on expression of statewide policy in national forums including but not limited to national negotiations related to state pricing and policy.

9.5 Host Railroad and Passenger Terminal Operator Negotiations and Agreements

9.5.1 The Department shall establish a working group to support negotiations with host railroads and passenger terminal operators related to capital investments and allocation of host railroad or passenger terminal capacity for passenger rail operations. Such working group shall:

a. Recommend assignment of negotiating responsibilities to each party impacted by the proposed agreement, and ensure both consistency with statewide network requirements and the ability of both state and JPA parties to support the resulting agreements

b. Recommend assignment of engineering agreements to perform modeling by the host railroads or passenger terminal operators for the purpose of improving statewide passenger operations through on-time performance, ride quality, safety and increased service frequency. Such requests shall, under normal conditions, be submitted only for projects that are already determined to be supportive of and consistent with statewide network visions and plans.

9.6 When capital project management related to Host Railroad or Passenger Terminal Operator projects has been assigned to the Department, the Department shall prepare appropriate engineering and construction management agreements with the railroad or terminal operator to support the design, development and construction of capital projects and prepare environmental documents.