



U.S. Department  
of Transportation  
**Federal Railroad  
Administration**

# Grant/Cooperative Agreement

1. RECIPIENT NAME AND ADDRESS California High-Speed Rail Authority 925 L St Ste 1425 Sacramento, CA 95814-3704		2. AGREEMENT NUMBER: FR-HSR-0009-10-01-05	3. AMENDMENT NO. 5	
		4. PROJECT PERFORMANCE PERIOD: FROM 08/17/2010 TO 09/30/2017		
		5. FEDERAL FUNDING PERIOD: FROM 08/17/2010 TO 09/30/2017		
1A. IRS/VENDOR NO.	6. ACTION Administrative Supplement/Change			
1B. DUNS NO. [REDACTED]				
7. CFDA#: [REDACTED]	9. TOTAL OF PREVIOUS AGREEMENT AND ALL AMENDMENTS		2,552,556,231.00	
8. PROJECT TITLE California High-Speed Train Program ARRA Grant		10. AMOUNT OF THIS AGREEMENT OR AMENDMENT		0.00
		11. TOTAL AGREEMENT AMOUNT		2,552,556,231.00
12. INCORPORATED ATTACHMENTS THIS AGREEMENT INCLUDES THE FOLLOWING ATTACHMENTS, INCORPORATED HEREIN AND MADE A PART HEREOF: Amended Terms and Conditions, Attachment 1				
13. STATUTORY AUTHORITY FOR GRANT/ COOPERATIVE AGREEMENT American Recovery and Reinvestment Act of 2009, Public Law 111-5 (February 17, 2009)				
14. REMARKS				
<b>GRANTEE ACCEPTANCE</b>		<b>AGENCY APPROVAL</b>		
15. NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL Mr. Jeff Morales		17. NAME AND TITLE OF AUTHORIZED FRA OFFICIAL Ms. Gina Matrassi-ao		
16. SIGNATURE OF AUTHORIZED GRANTEE OFFICIAL Electronically Signed	16A. DATE 12/05/2012	18. SIGNATURE OF AUTHORIZED FRA OFFICIAL Electronically Signed	18A. DATE 12/05/2012	
<b>AGENCY USE ONLY</b>				
19. OBJECT CLASS CODE: 41010		20. ORGANIZATION CODE: 9013000000		
21. ACCOUNTING CLASSIFICATION CODES				
DOCUMENT NUMBER	FUND	BY	BPAC	AMOUNT
FR-HSR-0009-10-01-00	2709120718	2010	91010029Y0	0.00
FR-HSR-0009-10-01-00	2709120718	2011	91010029Y0	0.00

# AWARD ATTACHMENTS

California High-Speed Rail Authority

FR-HSR-0009-10-01-05

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1. Amended Terms and Conditions, Attachment 1
2. Funding Contribution Plan

## **Attachment 1 to Amendment No. 5**

The parties, intending to be legally bound, agree to amend their Agreement of September 22, 2010, as amended on December 22, 2010, August 8, 2011, September, 19, 2011, and April 16, 2012 as follows:

1. Attachment 1 is deleted in its entirety, and the following is substituted therefore:

### **Special Provisions, Attachment 1**

1. **Identification of Awarding Agency and Grantee:**

The California High-Speed Rail Authority (CHSRA or Grantee), an agency of the State of California, and the Administrator of the Federal Railroad Administration (FRA), acting by delegation from the Secretary of Transportation, have entered into this Cooperative Agreement (“Agreement”) to conduct and fund this project, as more specifically set forth in the Statement of Work, Attachment 3, attached hereto and made a part hereof and any supplements thereto. As used in this Agreement, the term “Project” refers to the overall effort identified in Section 8 of the Grant/Cooperative Agreement and as that term is defined in Subsection 1(h) of Attachment 2. As used herein, the term “individual work efforts” refers to the individual tasks and subtasks set forth in the Statement of Work (Attachment 3 and Attachment 3A) and any future supplements or amendments thereto. Unless otherwise provided, reporting requirements in this Agreement may be aggregated with respect to the individual work efforts. However, progress reporting (Section 9 of Attachment 1), and budgeting and payment processing (Sections 1 and 7 of Attachment 2) may not be aggregated, and must be accounted for on the basis of the individual work efforts involved.

2. **Scope:**

The Grantee shall furnish all personnel, facilities, and equipment, and other materials and services (except as otherwise specified herein) necessary to perform the Project, as set forth in the Statement of Work (Attachment 3), and any supplements thereto, which the Parties agree is pursuant to the representations, certifications, and assurances set forth in the Grantee’s application(s), and any amendments thereto (“Application”), incorporated herein by reference and made a part hereof.

3. **Awarding Agency Participation:**

The FRA will provide, on an “as available” basis, one professional staff person, to be designated as the Grant Manager, to review work or work products in progress, and arrange for the review of the Project results upon completion. If this award is made as a cooperative agreement, FRA will have substantial programmatic involvement. Substantial involvement means that, after award, technical, administrative, or

programmatic staff will assist, guide, coordinate, or otherwise participate in Project activities.

**4. Term:**

Unless sooner terminated in accordance with its terms, this Agreement shall be valid for the period described in Section 4 of the Grant/Cooperative Agreement. While all Federal funds must be expended consistent with Attachment 1A, Section 8, the period described in Section 4 of the Grant/Cooperative Agreement includes the period for both completion of the Project, and completion and submission of a final report on Project results, as described in Section 11 and/or other deliverables as agreed to between the parties.

**5. Total Project Cost; Cost-Sharing Responsibility:**

- a. The total estimated cost of the Project is \$5,058,327,462.00 and is to be apportioned as set forth in subsections (b)-(f). The costs for completing the tasks required in Attachments 3 and 3A in the funding percentages identified in subsections (c) and (e) and all costs in excess of those provided by FRA as identified in this section will be the responsibility of the Grantee.
- b. For the funds obligated in the Original Agreement and Amendment No. 1, FRA funding assistance is limited to 49.8182% of the estimated cost of the activities in Attachment 3 and Attachment 3A excluding activities in Task 8.1 therein, or \$2,466,176,231.00, whichever is less.
- c. For the funds obligated in the Original Agreement and Amendment No. 1, Grantee funding assistance shall not be less than 50.1818% of the total cost of the activities in Attachment 3 and Attachment 3A excluding the activities in Task 8.1 therein. For the activities included in this subparagraph (c), the Grantee funding shall not be less than \$2,484,176,231.00.
- d. For the funds obligated in Amendment No. 2, FRA funding assistance is limited to 80% of the estimated cost of activities described in Task 8.1, Attachment 3A to this Agreement or \$86,380,000.00, whichever is less.
- e. For the funds obligated in Amendment No. 2, Grantee funding assistance shall not be less than 20% of the total cost of the activities described in Task 8.1, Attachment 3A to this Agreement. For the activities in this subsection (e), the Grantee funding shall not be less than \$21,595,000.00.
- f. Of the amount specified in subparagraph (a) of this section, the total Grantee funding contribution (both subparagraphs (c) and (e) of this section) shall not be less than \$2,505,771,231.00.

- g. When requesting payment, the Grantee must identify: (1) the total amount of costs; (2) Grantee funding assistance applied to the Project; and (3) the balance of Federal assistance dollars requested for each payment. Payment requests must include a designation of the individual work effort involved. The Grantee may provide its funding assistance under this subsection from permissible non-Grantee sources.
- h. Funding responsibility for the Project under this Agreement is recapped as follows

	FRA Funding Assistance	+	Grantee Cash Contribution	+	Grantee In-Kind Contribution	=	Total Project Funding
\$ Original Agreement	\$194,000,000	+	\$194,000,000	+	\$0	=	\$388,000,000
\$ Amendment No. 1 (PE/NEPA/CEQA)	\$37,500,000	+	\$53,500,000	+	\$0	=	\$91,000,000
\$ Amendment No. 1 (FD/Construction)	\$2,234,676,231	+	\$2,236,676,231	+	\$0	=	\$4,471,352,462
\$ Amendment No. 2 (FD/Construction)	\$86,380,000	+	\$21,595,000	+	\$0	=	\$107,975,000
\$ Total Amount.	\$2,552,556,231	+	\$2,505,771,231	+	\$0	=	\$5,058,327,462

- i. In accordance with Attachment 2, Sections 7(c)(5) and (d)(1) herein, FRA hereby authorizes the incurrence of pre-agreement costs by the Grantee on or after February 17, 2009, in anticipation of Agreement award, but such costs are allowable only to the extent that they are otherwise allowable under the terms of this Agreement.
- j. FRA recognizes that unless otherwise stated herein, the Grantee anticipates using proceeds of Proposition 1A bonds to provide the Grantee's match funding as required by Subsections 5(c), 5(e), and 5(f) hereof, but that the issuance and sale of Proposition 1A bonds are subject to certain other state legal requirements. In the event the Grantee does not expect such proceeds to be available in time to provide the contributory match concurrent with its request for grant funds, the Grantee shall make all reasonable efforts to secure a substitute funding source to deliver the required funding. Notwithstanding the foregoing, if the Grantee does not meet its obligations to deliver the Grantee contributory match according to the terms of this Agreement, FRA reserves all rights under law and this including those in Attachment 2, Section 23.

**6. Program Income:**

The Grantee is encouraged to earn income to defray Project costs. Unless prohibited by 49 C.F.R. Part 18.25 or 40 C.F.R Part 19.24, as applicable, or otherwise agreed to in

writing to by FRA and the Grantee, any program income derived from the Project shall be committed under this Agreement to further eligible objectives of the Project.

**7. Payment Method:**

Payment of FRA: funding through FRA's Office of Financial Services, shall be made on reimbursable basis, whereby the Grantee will be reimbursed, after the submission of proper invoices, for actual expenses incurred. FRA may use the advanced payment method to fund requested expenses as permitted by 49 C.F.R. 18.21(c) consistent with the FRA-approved Funding Contribution Plan after receipt and approval of a written justification and request from the Grantee.

The Grantee will use the Automated Clearing House (ACH) Electronic Vendor Payment method for transfer of funds and submit either a SF-270 or SF-271 form. Requests for payment must be made through the Department of Transportation's Delphi eInvoicing System. Information on the Delphi eInvoicing System can be found at: <http://www.dot.gov/cfo/delphi-einvoicing-system.html>.

To obtain access to the Delphi eInvoicing System, please contact your grant Administrative Officer or Grant Manager.

**8. Payment Conditions:**

Concurrently with its submission of invoices for actual expenses incurred for each request for payment, and prior to FRA's issuance of each payment, the Grantee shall submit to FRA a statement certifying to the following conditions of payment:

- a. The purpose of the Project is to benefit intercity passenger rail service; and
- b. That there has been no material adverse change in pending litigation, including the timeline for resolution, or change in any other circumstances that might prevent the Grantee from securing and delivering its required matching funding contribution, including any change in circumstances consistent with the Funding Contribution Plan included with this Agreement as Exhibit 3; and
- c. That the Grantee has completed all actions necessary to provide its matching funding contribution as required by the terms of this Agreement and the Funding Contribution Plan included with this Agreement as Exhibit 3; and
- d. Progress on the Project is being made in a sound, economical, and efficient manner, and in accordance with all applicable laws, regulations, and published policies; and
- e. Progress on the Project is being made in accordance with the Approved Project Budget as described in Section 4 of Attachment 2 to this Agreement; and
- f. There has been no change in law, conditions, or any other event, including litigation, that may affect the Grantee's ability to complete the Project in accordance with the terms of this Agreement; and
- g. Where the Grantee has submitted a Risk Mitigation Strategy to FRA, that there has been no adverse change in circumstances that might alter the assessment of identified risks; and

- h. For payment of expenses related to final design and/or construction of the Project:
  - i. Progress on the Project is consistent with and as described in the Grantee's project management plan, as described in Section 3 of Attachment 1A to this Agreement; and
  - ii. Progress on the Project is consistent with and as described in the Grantee's financial plan as described in Section 4 of Attachment 1A to this Agreement; and
  - iii. Progress on the Project is within the scope of the environmental review described in Section 5 of Attachment 1A to this Agreement

The Grantee agrees that FRA's issuance of each payment is conditioned upon Grantee's satisfaction of the above conditions. If Grantee fails to certify to any condition, FRA may withhold the requested payment.

#### **9. Reports, Presentation and Other Deliverables:**

Whether for technical examination, administrative review, or publication, all submittals shall be of a professional quality and suitable for their intended purpose.

#### **10. Progress Reports:**

Four quarterly progress reports following the form of Attachment 4 shall be submitted for periods:

January 1 – March 31, April 1 – June 30, July 1 – September 30, and October 1 – December 31. The Grantee shall furnish one (1) cop of the Grant Manager on or before the thirtieth (30<sup>th</sup>) calendar day of the month following the end of the quarter being reported. Each report shall set forth concise statements concerning activities relevant to the Project, and shall include, but not be limited to, the following:

- a. Relate the state of completion of times in the Statement of Work to expenditures of relevant budget elements.
- b. An account of significant progress (findings, events, trends, etc.) made during the reporting period.
- c. A description of any technical and/or cost problems encountered or anticipated that will affect completion of the grant within the time and fiscal constraints as set forth in the Agreement, together with recommended solutions or corrective action plans (with dates) to such problems, or identification of specific action that is required by the FRA, or a statement that no problems were encountered.
- d. An outline of work and activities planned for the next reporting period.

Semiannual Proposition 1A bond sale Progress Reports shall be submitted for periods:

January 1 –June 30, July 1 –December 31. The Grantee shall furnish one (1) copy of the Proposition 1A bond sale Progress report to the Grant Manager on or before the thirtieth (30<sup>th</sup>) calendar day of the month following the end of the half year being reported. Each report shall set forth concise statements concerning activities relevant to the Project, and shall include, but not be limited to, the following:

- a. The Grantee's actions taken to issue and sell Proposition 1A bonds.
- b. The amount of Proposition 1A bond proceeds issued, sold and approved for Project use.

**11. Quarterly Federal Financial Report:**

The Grantee shall furnish one (1) copy of a quarterly financial status report to the Grant Manager, and one (1) copy to the Administrative Office, on or before the thirtieth (30<sup>th</sup>) calendar day of the month following the end of the quarter being reported. The Grantee shall use SF-425, Federal Financial Report, in accordance with the instructions accompanying the form, to report all transactions, including Federal cash, Federal expenditures and unobligated balance, recipient share, and program income.

**12. Interim and/or Final Report(s):**

If required, interim reports will be due at intervals specified in the Statement of Work. Within 90 days of the Project completion date or termination by FRA, the Grantee shall furnish one (1) hard copy and one (1) reproducible master original to the Grant Manager, and one (1) hard copy to the FRA Administrative Office of a Summary Project Report. A final version of this report, detailing the results and benefits of the Grantee's improvement efforts, shall be furnished by the expiration date of this Agreement.

**13. Administrative Responsibility:**

Mr. Matthew Lorah, Office of Financial Management is designed as FRA's Administrative Officer for this Project. All FRA administrative duties under this Agreement are to be performed by the Administrative Officer, unless otherwise specified.

**14. Grant Manager:**

- a. Ms. Mariam Ouhamou, Office of Railroad Policy and Development is designed as FRA's Grant Manager. The Grant Manager will oversee the technical administration of this Agreement and act as technical liaison with the Grantee. The Grant Manager is not authorized to change the Statement of Work or specifications as stated in this Agreement, to make any commitments or otherwise obligate the FRA, or authorized any changes which affect this Agreement's monetary amount, the delivery schedule, period of performance or other terms or conditions.



- b. The FRA official authorized to sign this Agreement is the only individual who can legally commit or obligate FRA for the expenditure of public funds. The technical administration of this Agreement shall not be construed to authorize the revision of the terms and conditions of this Agreement.

**15. Delivery/Mailing Address:**

Unless directed otherwise, all deliverables and copies of reports required to be delivered to the Grant Manager under this Agreement shall be delivered F.O.B. destination, under transmittal letter, to:

Federal Railroad Administration  
Office of Railroad Policy and Development  
1200 New Jersey, SE (SELECT Mail Stop 20 OR Mail Stop 25)  
Washington, DC 20590  
ATTN: Ms. Mariam Ouhamou

Unless directed otherwise, all deliverables and copies of reports required to be delivered to the Administrative Officer under this Agreement shall be delivered F.O.B. destination, under transmittal letter to:

Federal Railroad Administration  
Office of Financial Management  
1200 New Jersey Avenue, SE (Mail Stop 45)  
Washington, DC 20590  
ATTN: Mr. Matthew Lorah

**16. Governing Regulations:**

The Grantee acknowledges that its performance shall be governed by and in compliance with the following Administrative and Cost Principles:

For State, Local and/or Tribal Governmental Entities:

1. 49 C.F.R. Part 18, "Uniform Administrative Requirements for Grant and Cooperative Agreements to State and Local Governments"
2. OMB Circular A-87, "Cost Principles for State and Local Governments," as amended.

For non-profit and for-profit:

1. 49 C.F.R. Part 19, "Uniform Administrative Requirements for Grants and Cooperative Agreements With Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations" (applies to non-profit and for-profit organizations)
2. OMB Circular A-21, "Cost Principles for Education Institutions" (applies to educational institutions)

3. OMB Circular A-122, “Cost Principles for Nonprofit Organizations” (applies to private non-profit organizations)
4. Federal Acquisition Regulation, 48 C.F.R. Chapter I, Subpart 31.2, “Contracts with Commercial Organizations” (applies to for-profit organizations)

These identified circulars and regulations are hereby incorporated into this Agreement by reference as if fully set out herein.

17. Buy America:

The Grantee shall comply with the Buy America provisions set forth in 49 U.S.C. §24405(a) for the Project requiring the use of steel, iron, and manufactured goods produced in the United States, in accordance with the conditions therein set forth.

2. Attachment 1A is deleted in its entirety, and the following is substituted therefor:

**PRIIA Clauses for Corridor Programs, Attachment 1A**

**Section 1. Railroad Agreements.**

The Grantee represents that it has entered into and will abide by, or will enter into and abide by, a written agreement, in form and content satisfactory to FRA, with any railroad owning property on which the Project is to be undertaken, in accordance with 49 U.S.C. 24405(c)(1) and section 4.2.6 of the High Speed Intercity Passenger Rail (HSIPR) Program Interim Guidance published in the Federal Register on July 1, 2010 (75 FR 38344). Such agreement shall provide for compensation for use, assurance regarding the adequacy of infrastructure capacity, a commitment to keeping railroad collective bargaining agreements in full force and effect, and compliance with liability requirements consistent with 49 U.S.C. 28103. The Grantee shall not enter into or agree to any substantive changes to the FRA approved written agreement with the railroad on which the Project is undertaken without FRA’s prior written consent. The Grantee may not obligate or expend any funds (federal, state or private) for final design and/or construction of the Project, or commence any part of the final design and/or construction for the Project, or any component of the Project, without receiving FRA’s prior written approval of the executed railroad agreement satisfying the requirements of this section.

**Section 2. Service Outcome Agreements with Infrastructure Owners and Operators.**

a. The Grantee represents that it has or will have satisfactory continuing control over the use of Project improvements and the capability and ability to maintain the Project improvements for the useful life of the Project, in accordance with 49 U.S.C. 24402(b)(1) and (c)(1)(B). Satisfactory continuing control may be established by either the direct ownership of Project improvements or through a written agreement(s) in form and content satisfactory to FRA with the owners of infrastructure on which the Project is to be undertaken and the proposed service operator of any rail passenger service that benefits

from the Project, which agreement(s) shall authorize construction of, access to, and/or use of Project improvements for a minimum of twenty years from the date the Project improvements are placed in service. Such agreements may be combined, if appropriate.

b. The written agreement(s) shall include the following minimum terms and conditions tailored to the Project: (1) specific identification of Project benefits in terms relevant to the Project being implemented, including, as appropriate, additional frequencies, improved reliability, future availability of developed capacity, and improved schedules, (2) a firm commitment on the part of the infrastructure owner and operator to achieving the Project benefits included in the Grantee's application and reflected in the Statement(s) of Work attached to this Agreement, and (3) reasonable and appropriate enforcement mechanisms that provide for prompt resolution of disputes and the ability of the Grantee to obtain the Project benefits funded through this Agreement in an expeditious and reasonable manner.

c. The Grantee shall not enter into or agree to any substantive changes in the FRA-approved written agreement(s) with the infrastructure owner and service operator without FRA's prior written consent.

d. The Grantee may not obligate or expend any funds (federal, state or private) for final design and/or construction of the Project, or commence any part of final design and/or construction for the Project or any component of the Project, without receiving FRA's prior written approval of a fully executed agreement(s) satisfying the requirements of this section.

e. The agreement required by this section 2 is supplemental to any agreement that may be required by section 1 of Attachment 1A, however, the requirements of sections 1 and 2 may be satisfied in one agreement, where appropriate.

### **Section 3. Project Management Plan.**

The Grantee may not obligate or expend any funds (Federal, state or private) for final design and/or construction of the Project, or commence any part of final design and/or construction for the Project or any component of the Project, without receiving FRA's prior written approval of a project management plan that complies with the requirements of 49 U.S.C. §24403(a) and section 4.2.6 of the High Speed Intercity Passenger Rail (HSIPR) Program interim guidance published in the Federal Register on July 1, 2010 (75 FR 38344). The project management plan should document assumptions and decisions regarding communications, management processes, execution and overall project control.

### **Section 4. Financial Plans.**

The Grantee may not obligate or expend any funds (federal, state or private) for final design and/or construction of the Project, or commence any part of final design and/or

construction for the Project or any component of the Project, without receiving FRA's prior written approval of a financial plan that complies with the requirements of section 2.2 of the High Speed Intercity Passenger Rail (HSIPR) Program interim guidance published in the Federal Register on June 23, 2009 (74 FR 29900) and that is consistent with the requirements described in Attachment 3A Task 5.

#### **Section 5. Environmental Assessment.**

Prior to initiating final design, or commencing construction for the Project or any component of the Project, the Grantee shall submit all necessary environmental documentation, in accordance with Attachment 2, section 21(d) of this Agreement, and receive FRA's written confirmation that relevant Project environmental reviews have been completed for the overall Project or for an individual component of the Project that the Grantee proposes to advance to final design or construction (see also the relevant section(s) of the HSIPR Program Interim Guidance/NOFA through which this Project was selected for funding (e.g. section 1.5 and Appendix 3.2.9 of the NOFA published in the Federal Register on June 23, 2009 (74 FR 29900)). The Grantee may not obligate or expend any funds (federal, state or private) for final design and/or construction of the Project, or commence any part of final design and/or construction for the Project or any component of the Project, without receiving such written confirmation from FRA.

#### **Section 6. Final Design and Engineering.**

Prior to commencing final design activities for the Project or any individual component of the Project, the Grantee shall submit to FRA a complete set of Preliminary Engineering documents, prepared by or on behalf of the Grantee in accordance with the provisions of Appendix 2.3 of the High-Speed Intercity Passenger Rail (HSIPR) Program interim guidance published in the Federal Register on July 1, 2010 (75 FR 38350), and in accordance with the Statement(s) of Work incorporated into this Agreement. Except in unusual circumstances and where approved in advance by FRA, the submitted Preliminary Engineering documents shall include evidence of concurrence by infrastructure owners and operators of rail service whose operations would be affected by the Project improvements. The Grantee may not obligate or expend any funds (Federal, state or private) for final design and/or final engineering of the Project, or commence any part of final design and/or final engineering for the Project or any component of the Project, without receiving FRA's prior written approval of the Preliminary Engineering documents.

#### **Section 7. Construction.**

Prior to commencing construction activities for the Project or any individual component of the Project, the Grantee shall submit to FRA a complete set of Final Design documents, completed by or on behalf of the Grantee in accordance with the provisions of Appendix 2.4 of the High-Speed Intercity Passenger Rail (HSIPR) Program interim guidance published in the Federal Register on July 1, 2010 (75 FR 38350), and in accordance with

the Statement(s) of Work incorporated into this Agreement. In unusual circumstances where the Preliminary Engineering documents approved by FRA did not contain evidence of concurrence by infrastructure owners and operators of rail service whose operations would be affected by Project improvement, then the submitted Final Design documents shall include evidence of concurrence by such infrastructure owners and operators. The Grantee may not obligate or expend any funds (Federal, state or private) for construction of the Project, as defined in the Statement(s) of Work, or commence any part of construction for the Project or any component of the Project, without receiving FRA's prior written approval of the Final Design documents.

### **Section 8. Design/Build Program Plan.**

Project components being implemented by the Grantee through a design/build implementation Process shall, with FRA's concurrence, comply with this section 8 in lieu of sections 6 and 7. Prior to commencing any design activities that follow preliminary engineering/design, and expressly including the preparation of final construction plans and detailed specifications for the performance of construction work for the Project or any individual component of the Project, the Grantee shall submit to FRA a comprehensive Design/Build Program Plan completed by or on behalf of the Grantee, and as described in the Statement of Work attached to this Agreement. The Design/Build Program Plan shall include, at a minimum, a description identifying: (1) the suitability of the Project as a design/build candidate, (2) the performance metrics to be used to assess successful Project completion, (3) the composition of the design/build Project team, (4) Project scope, (5) the decision factors to be used for the selection from among the design/build proposals, and (6) methods for contract administration. FRA may issue additional guidance in the future further describing the required contents of Design/Build Program Plans. Except in unusual circumstances and where approved in advance by FRA, the Grantee will be responsible for providing in the Design/Build Program Plan evidence of concurrence by infrastructure owners and operators of rail service whose operations would be affected by the Project improvements. The Grantee may not obligate or expend any funds (federal, state or private) for implementing the design/build implementation process for the Project (not including preparation of the Plan) or any component of the Project or commence any part of implementing the design/build implementation process (not including the preparation of the Plan) without receiving FRA's prior written approval of the Design/Build Program Plan.

### **Section 9. Property Acquisition.**

The Grantee may not obligate or expend any funds (Federal, state, or private) to acquire any real property for the Project, including rights-of-way, unless property acquisition is specifically authorized in the Statement of Work incorporated as an attachment to this Agreement and unless the required National Environmental Policy Act (NEPA) documentation for the associated acquisition step is by then completed as determined in writing by FRA and any required California Environmental Quality Act (CEQA) documentation for the associated acquisition step is by then completed as determined by

the Grantee.

### **Section 10. Detailed Statements of Work For Project Components.**

The Grantee may not obligate or expend any funds (Federal, state or private) for the final design and/or construction of the Project or commence any activity on or for the Project, that is not specifically authorized in a Statement of Work incorporated as an attachment to this Agreement and/or which has not secured all required FRA approvals. The parties recognize that this Agreement contemplates a phased Project implementation process, whereby individual Project components or phases will be implemented as they are developed by the Grantee and approved by FRA. These phases may be reflected in terms of stages of Project development (e.g., preliminary engineering, final design, or construction) or in terms of individual Project components (e.g., stations, interlocking, or third track construction) of the larger Project. The parties contemplate a series of amendments to this Agreement that will add greater definition to the individual Project components to be undertaken by the Grantee for each phase or component of Project implementation, and will authorize the Grantee to initiate the next phase of Project implementation, as reflected in the agreed-upon amendments or supplements to the Statement of Work. It is the Grantee's responsibility to propose revised or additional statements of work (including a detailed scope, schedule and budget) significantly in advance of proposed implementation, to allow for the Grantee and the FRA to agree on the components of that next phase, and adopt a revised or supplemental Statement of Work through an amendment to this Agreement.

### **Section 11. Buy America.**

The Grantee shall comply with the Buy America provisions set forth in 49 U.S.C. 24405(a) for the Project with respect to the use of steel, iron, and manufactured goods produced in the United States, subject to the conditions therein set forth.

### **Section 12. Labor Provisions.**

49 U.S.C. 24405(b) provides that persons conducting rail operations over rail infrastructure constructed or improved in whole or in part with funds provided through this Agreement shall be considered a "rail carrier," as defined by 49 U.S.C. 10102(5), for the purposes of Title 49, United States Code, and any other statute that adopts that definition or in which that definition applies, including the Railroad Retirement Act of 1974 (45 U.S.C 231 et seq.), the Railway Labor Act (43 U.S.C.151 et seq.), and the Railroad Unemployment Insurance Act (45 U.S.C. 351 et seq.). The Grantee shall reflect these provisions in its agreements with the entities operating rail services over such rail infrastructure to the extent required by 49 U.S.C. 24405(b) and other laws referenced above.

### **Section 13. Labor Protective Arrangements.**

For a project that uses rights-of-way owned by a railroad, the Grantee shall comply with the protective arrangements established under Section 504 of the Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act), 45 U.S.C. 836, with respect to employees affected by actions taken in connection with the Project financed in whole or in part under this Agreement (See 49 U.S.C. 24405(c).) The Grantee agrees to include the applicable protective arrangements established by the Department of Labor under 45 U.S.C. 836. in its agreements with entities operating rail services over rail infrastructure constructed as part of the Project. The following definitions apply for purposes of applying those protective arrangements:

‘Protected employee’ means an employee of a railroad who had an employment relationship with such railroad on the date on which the Grantee first applied for financial assistance applicable to the Project involved and who is affected by actions taken pursuant to this Agreement; provided, however, that an employee who was benefitted solely as a result of the Project shall not be a protected employee under these provisions.

‘Railroad’ means a rail carrier or a common carrier by railroad or express as defined in 49 U.S.C. 10102, and includes the National Railroad Passenger Corporation and the Alaska Railroad as well as a person that conducts rail operations over rail infrastructure constructed or improved with funding provided in whole or in part in a grant made pursuant to this Agreement.

#### **Section 14. Maintenance Responsibility and Refunds.**

a. Except as otherwise provided herein, the Grantee shall ensure the maintenance of Project property to the level of utility (including applicable FRA track safety standards) which exists when the Project improvements are placed in service (as set forth in the Statement(s) of Work incorporated into this Agreement) for a period of twenty (20) years from the date such Project property was placed in service, consistent with the satisfactory continuing control and maintenance responsibilities of 49 U.S.C. 24402(b)(1) and (c)(1) and as addressed in Section 2 above. In the event the Project property is not maintained as required by this section, for a period of time in excess of six (6) months, or such other period as may be mutually determined by the parties, and is not restored within a reasonable time to the level of utility which exists when the Project improvements are placed in service, the Grantee will refund to FRA a pro-rata share of the Federal contribution, based upon the percentage remaining of the twenty (20) year period that commenced when the Project property was placed in service.

b. In the event that all intercity passenger rail service making use of the Project property is discontinued during the twenty (20) year period, the Grantee shall continue to ensure that maintenance of the Project property, as set forth above, for a period of one (1) year from the date of the discontinuance to allow for the possible reintroduction of intercity rail passenger service.

#### **Section 15. Project Use for Intercity Passenger Rail Service and Refunds.**

- a. The Grantee acknowledges that the purpose of the Project is to benefit intercity passenger rail service. In the event that all intercity passenger rail service making use of the Project improvements is discontinued (for any reason) at any time during a period of twenty (20) years from the date such Project improvements were placed in service, as set forth above, and if such intercity passenger rail service is not reintroduced during a one (1) year period following the date of such discontinuance, the Grantee shall refund to FRA, no later than eighteen (18) months following the date of such discontinuance, a pro-rata share of the Federal contribution, based upon the percentage of the twenty (20) year period remaining at the time of such discontinuance.
- b. To the extent necessary and appropriate, sections 14 and 15 shall be implemented in a manner so as to avoid any double counting of any refunds paid or required to be paid to the FRA.

#### **Section 16. Davis-Bacon Act Provisions.**

Payment of prevailing wages on the Project is required by 49 U.S.C. 24405(c)(2) for Project components that use or would use rights-of-way owned by a railroad. The Grantee shall comply with the provisions of 40 U.S.C. 25505(c)(2) and the relevant section(s) of the HSIPR Program Interim Guidance /NOFA through which this Project was selected for funding (e.g. section 1.5 and Appendix 3.2.9 of the NOFA published in the Federal Register on June 23, 2009 (74 FR 29900), with respect to the payment of prevailing wages consistent with the provisions of 49 U.S.C. 24312. For these purposes, wages in collective bargaining agreements negotiated under the Railway Labor Act are deemed to comply with the Davis-Bacon Act requirements.

#### **Section 17. Replacement of Existing Intercity Passenger Rail Service.**

49 U.S.C. 24405(d) requires any entity providing intercity passenger railroad transportation on a project funded by this Agreement to comply with certain requirements with respect to its employees and the employees of preexisting intercity rail passenger services. The Grantee shall comply with the applicable provisions of 49 U.S.C. 24405(d) to the extent it is or becomes a provider of intercity passenger railroad transportation. If it is not the operator or provider of the intercity passenger rail services benefitting from the Project funded under this Agreement, then it shall notify its selected operator of the requirements imposed by section 24405(d).

#### **Section 18. Additional Guidance**

Additional guidance for Grantees in complying with the requirements of this Attachment 1A (and with the Cooperative Agreement generally) is found in the HSIPR Program Interim Guidance/NOFA through which this Project was selected for funding. The Grantee should refer to this Guidance as necessary when carrying out the activities associated with implementing this Project.

3. Attachment 1B is deleted in its entirety, and the following is substituted therefore:



## **American Recovery and Reinvestment Act of 2009 Clauses, Attachment 1B**

The Grantee will comply with the following clauses, which are an integral part of the Agreement to which these clauses are attached and made a part thereof.

### **Section 1. Grantee Certifications.**

The American Recovery and Reinvestment Act of 2009 (Recovery Act) requires three certifications, which the Grantee shall address as follows:

- a. Maintenance of Effort Certification (Recovery Act Section 1201).** A Maintenance of Effort Certification was required from each State within thirty days of enactment of the Recovery Act (February 17, 2009) pursuant to section 1201 of the Recovery Act. With respect to the Recovery Act funds provided through this Agreement, the Grantee may rely on an existing certification submitted by the State to the Secretary of Transportation, so long as the Grantee certifies to the Administrator (c/o the Grant Manager identified in Attachment 2, section 14) as to the existence and continued validity of the existing certification. If a new certification is required, it should be submitted to the Secretary of Transportation, c/o Joel Szabat, Deputy Assistant Secretary of Transportation for Policy, at [TigerTeam.Leads@dot.gov](mailto:TigerTeam.Leads@dot.gov). Certifications may be submitted via e-mail as electronic, scanned copies, with original signed versions to be submitted via U.S. mail.
- b. Responsible Investments Certification (Recovery Act Section 1511).** With respect to and prior to the receipt of the funds made available through this Agreement, the Governor or the head of the State Department of Transportation shall certify to the Secretary of Transportation that the infrastructure investments to be funded herein have received the full review and vetting required by law and that the Governor or head of the State Department of Transportation accepts responsibility that the infrastructure investments are an appropriate use of taxpayer dollars. The certification shall include a description of the investments, the estimated total cost, and the amount of Recovery Act funds to be used, and shall be submitted to the Secretary of Transportation, c/o Joel Szabat, Deputy Assistant Secretary of Transportation for Policy, at [TigerTeam.Leads@dot.gov](mailto:TigerTeam.Leads@dot.gov). Certifications may be submitted via e-mail as electronic, scanned copies, with original signed versions to be submitted via U.S. mail. As required by the Recovery Act, Certifications under Section 1511 shall be immediately posted on an appropriate State website and linked to the website established by the Recovery Accountability and Transparency Board. No funds will be reimbursed until such posting is made.
- c. Appropriate Use of Funds Certification (Recovery Act Section 1607).** An Appropriate Use of Funds Certification was required from each State within 45 days of enactment of the Recovery Act (February 17, 2009) pursuant to section 1607 of the Recovery Act. With respect to the Recovery Act funds provided through this Agreement, the Grantee may rely on an existing certification submitted by the State to the Secretary of Transportation, so long as the Grantee certifies to the Administrator (c/o the Grant

Manager identified in Attachment 2, Section 14) of the existence and continued validity of the existing certification. If a new certification is required, it should be submitted to the Secretary of Transportation, c/o Joel Szabat, Deputy Assistant Secretary of Transportation for Policy, at [TigerTeam.Leads@dot.gov](mailto:TigerTeam.Leads@dot.gov). Certifications may be submitted via e-mail as electronic, scanned copies, with original signed versions to be submitted via U.S. mail.

**d. Department of Transportation Guidance.** The Department has issued guidance on compliance with the certification requirements of the Recovery Act, which is found at <http://www.dot.gov/recovery/certguidance.htm>. The Grantee should refer to this guidance in evaluating the continued validity of any existing certifications and in preparing any new certifications required under this section 1.

## **Section 2. Whistleblower Protections.**

An employee of the Grantee may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing, including a disclosure made in the ordinary course of an employee's duties, to the Recovery Accountability and Transparency Board, an inspector general, the Comptroller General, a member of Congress, a State or Federal regulatory or law enforcement agency, a person with supervisory authority over the employee (or such other person working for the employer who has the authority to investigate, discover, or terminate misconduct), a court or grand jury, the head of a Federal agency, or their representatives, information that the employee reasonably believes is evidence of – (1) gross mismanagement of an agency contract or grant relating to Recovery Act funds; (2) a gross waste of Recovery Act funds; (3) a substantial and specific danger to public health or safety related to the implementation or use of Recovery Act funds; (4) an abuse of authority related to the implementation or use of Recovery Act funds; or (5) a violation of law, rule, or regulation related to an agency contract (including the competition for or negotiation of a contract) or grant, awarded or issued relating to Recovery Act funds.

## **Section 3. False Claims Act.**

The Grantee and any sub-grantee awarded funds made available under the Recovery Act and through this Agreement shall promptly refer to the Department of Transportation Inspector General any credible evidence that a principal, employee, agency, contractor, sub-grantee, subcontractor, or other person has submitted a false claim under the False Claims Act or has committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct involving Recovery Act funds.

## **Section 4. Prohibited Activities.**

None of the funds provided through this Agreement may be used for any casino or other gaming establishment, aquarium, zoo, golf course or swimming pool.

## **Section 5. Recovery Act Funding Announcement.**

The Grantee is strongly encouraged to post a sign at all fixed project locations at the most publicly accessible location and a plaque in all purchased or rehabilitated rail cars announcing that the project or equipment was funded by the U.S. Department of Transportation, Federal Railroad Administration, with funds provided through the American Recovery and Reinvestment Act. The configuration of the signs or plaques will be consistent with guidance issued by the Office of Management and Budget and/or the Department of Transportation and approved by the FRA.

## **Section 6. Reporting Requirements.**

- a. Periodic Reports.** The Grantee shall submit periodic reports to the FRA Administrator, as required by section 1201(c) of the Recovery Act, and as described in this section, not later than February 17, 2011, and February 17, 2012. The periodic reports shall include information describing: (1) the amount of Federal funds appropriated, allocated, obligated, and outlaid under this Agreement; (2) the number of projects that have been put out to bid under this Agreement and the amount of Federal funds associated with such projects; (3) the number of projects for which contracts have been awarded under this Agreement and the amount of Federal funds associated with such contracts; (4) the number of projects for which work has begun under such contracts and the amount of Federal funds associated with such contracts; (5) the number of projects for which work has been completed under such contracts and the amount of Federal funds associated with such contracts; (6) the number of direct, on-project jobs created or sustained by the Federal funds provided for projects under this Agreement and, to the extent possible, the estimated indirect jobs created or sustained in the associated supplying industries, including the number of jobs created and the total increase in employment since February 17, 2009; and (7) information tracking the actual aggregate expenditures by the Grantee from Grantee sources (both internal and external) for projects eligible for funding under this Agreement during the period beginning on February 17, 2009 through September 30, 2010, as compared to the level of such expenditures that were planned to occur during such period as of February 17, 2009. The Department of Transportation or the FRA may issue additional guidance on the preparation and submission of periodic reports.
- b. Jobs Accountability Reports.**
- i. As required by Section 1512(c) of the Recovery Act, and consistent with Office of Management and Budget (OMB) Guidance, dated June 22, 2009 and found at ([http://www.whitehouse.gov/omb/assets/memoranda\\_fy2009/m09-21.pdf](http://www.whitehouse.gov/omb/assets/memoranda_fy2009/m09-21.pdf)), the Grantee shall submit a jobs accountability report to <http://www.FederalReporting.gov> not later than ten days after the end of each quarter. The report shall contain: (1) the total amount of Recovery Act funds received pursuant to this Agreement; (2) the amount of Recovery Act funds received that were expended or obligated to projects or activities; and (3) a detailed list of all projects or activities for which Recovery Act funds were expended or obligated, including—(A) the name of the project or activity; (B) a description of the project or activity; (C) an evaluation of the completion status of the project or activity; (D) an estimate of the number of jobs created and the number of jobs retained by the project or

activity; and (E) detailed information on any subcontracts or subgrants awarded by the Grantee to include the data elements required to comply with the Federal Funding Accountability and Transparency Act of 2006 (Public Law 109-282), allowing aggregate reporting on awards below \$25,000 or to individuals, as prescribed by the Director of the Office of Management and Budget.

ii. Information from these reports will be made available to the public. The reporting responsibility should be passed down from the Grantee to the sub-grantee/sub-recipient or vendor, in order to ensure that the necessary information is provided to the Grantee, which is ultimately responsible for reporting the required elements. The Office of Management and Budget may issue additional guidance on the preparation and submission of jobs accountability reports. The Grantee must also register with the Central Contractor Registration database (<http://www.ccr.gov>) or complete other registration requirements as determined by the Director of the Office of Management and Budget. A DUNS Number (<http://www.dnb.com>) is one of the requirements for registration in the Central Contractor Registration.

## **Section 7. Contract Awards**

As required by Section 1554 of the Recovery Act, the Grantee shall to the maximum extent possible award contracts funded under this Agreement as fixed-priced contracts through the use of competitive procedures. In rare circumstances where the Grantee awards a contract that is not fixed-price and not awarded using competitive procedures, the Grantee shall publicly and electronically post a summary of such contract on its website and electronically link such posting to the website created and maintained by the Recovery Accountability and Transparency Board pursuant to section 1526 of the Recovery Act.

## **Section 8. Deadline for Recovery Act Reimbursement**

The Grantee acknowledges that pursuant to 31 U.S.C. § 1552 and as described in the High-Speed Intercity Passenger Rail (HSIPR) interim guidance published in the *Federal Register* on June 23, 2009 (74 FR 29900), the fixed appropriation account for funds made available under the Recovery Act closes on September 30, 2017 and any remaining balance (whether obligated or unobligated) in that account shall be cancelled and thereafter shall not be available for obligation or expenditure for any purpose. Therefore, the Grantee is responsible for submitting to FRA all materials necessary for Project Recovery Act closeout and meeting all other requirements for payment under 49 C.F.R. Part 18 with sufficient time for the completion of closeout and payment no later September 30, 2017. FRA shall process all such materials, and complete final closeout and reimbursement by September 30, 2017, provided that FRA receives such materials from CHSRA and determines those materials are consistent with the requirements above by July 31, 2017. Nothing in this Section 8 changes the Grantee's obligations to complete the tasks required in Attachments 3 and 3A, and meet all other requirements, within the time period otherwise specified in Section 4 of this Cooperative Agreement.

4. Attachment 2 is deleted in its entirety, and the following is substituted therefor:

## **General Provisions, Attachment 2**

### **1. Definitions. As used in this Agreement:**

- a. Agreement** means this Grant Agreement or Cooperative Agreement, including all attachments.
- b. Application** means the signed and dated proposal by or on behalf of the Grantee, as may be amended, for Federal financial assistance for the Project, together with all explanatory, supporting, and supplementary documents heretofore filed with and accepted or approved by FRA.
- c. Approved Project Budget** means the most recently dated written statement, approved in writing by FRA, of the estimated total cost of the Project, the items to be deducted from such total in order to calculate the estimated net Project cost, the maximum amount of Federal assistance for which the Grantee is currently eligible, the specific items (including contingencies specified) for which the total may be spent, and the estimated cost of each of such items. The term "Approved Project Budget" also includes "Financial Plan" as used in 49 C.F.R. Part 19.
- d. Awarding Agency** means (1) with respect to a grant, the Federal agency, and (2) with respect to a subgrant, the party that awarded the subgrant. In the case of a Federal Agency, the term "Awarding Agency" also includes "Federal Awarding Agency" as used in 49 C.F.R. Part 19.
- e. Federal Railroad Administration** is an operating administration of the U.S. Department of Transportation.
- f. Federal Government** means the United States of America and any executive department or agency thereof.
- g. Grantee** means any entity that receives Federal grant assistance directly from FRA for the accomplishment of the Project.
- h. Project** means the task or set of tasks set forth in the approved Application as now reflected in and refined by the individual work efforts set forth in Attachment 3 and Attachment 3A and any supplements thereto which the Grantee carries out pursuant to this Agreement.
- i. Subgrantee** means any entity that receives FRA assistance from an FRA Grantee, rather than from FRA directly. The term "subgrantee" does not include "third party contractor."
- j. U.S. DOT** means the U.S. Department of Transportation, including its operating administrations.

**k. California High Speed Rail Authority (CHSRA or Grantee)**, an agency of the State of California established pursuant to California Public Utilities Code Section 185020, is the State of California entity responsible for planning, constructing and operating a high speed train system in California.

## **2. Accomplishment of the Project:**

### **a. General Requirements:**

The Grantee agrees to carry out the Project in a sound, economical, and efficient manner, and in accordance with the provisions of this Agreement, grant guidance, the Application, the Approved Project Budget, the Statement of Work, Project schedules, and all applicable laws, regulations, and published policies. This includes, but is not limited to the following, as applicable:

- 1) U.S. DOT regulations, "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments" (common grant management rule), 49 C.F.R. Part 18, applies to Projects with governmental bodies
- 2) U.S. DOT regulations, "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations," 49 C.F.R. Part 19, applies to Projects with institutions of higher education and private nonprofit organizations. 49 C.F.R. Part 19 also applies to grants and cooperative agreements with private for-profit organizations.

### **b. Application of Federal, State, and Local Laws and Regulations.**

1) Federal Laws and Regulations. The Grantee understands that Federal laws, regulations, policies, and related administrative practices to this Agreement on the date the Agreement was executed may be modified from time to time. The Grantee agrees that the most recent of such Federal requirements will govern the administration of this Agreement at any particular time, except if there is sufficient evidence in this Agreement of a contrary intent. Likewise, new Federal laws, regulations, policies and administrative practices may be established after the date the Agreement has been executed and may apply to this Agreement. To achieve compliance with changing Federal requirements, the Grantee agrees to include in all sub-assistance agreements and third party contracts financed with FRA assistance, specific notice that Federal requirements may change and the changed requirements will apply to the Project as required. All limits or standards set forth in this Agreement to be observed in the performance of the Project are minimum requirements.

2) State or Territorial Law and Local Law. Except to the extent that a Federal statute or regulation preempts State or territorial law, nothing in this Agreement shall require the Grantee to observe or enforce compliance with any provision thereof, perform any other act, or do any other thing in contravention of any applicable State or territorial law; however, if any of the provisions of this Agreement violate any applicable State or

territorial law, or if compliance with the provisions of this Agreement would require the Grantee to violate any applicable State or territorial law, the Grantee agrees to notify the FRA immediately in writing in order that FRA and the Grantee may make appropriate arrangements to proceed with the Project as soon as possible.

**c. Funds of the Grantee.** Unless otherwise stated in this Agreement, the Grantee agrees to provide the matching contributory funds or cost share of the Project costs, if applicable, at or before the time that such funds are needed to meet Project expenses.

**d. Changed Conditions of Performance (Including Litigation).** The Grantee agrees to notify FRA immediately of any change in local law, conditions, or any other event that may affect its ability to perform the Project in accordance with the terms of this Agreement. In addition, the Grantee agrees to notify FRA immediately of any decision pertaining to the Grantee's conduct of litigation that may affect FRA's interests in the Project or FRA's administration or enforcement of applicable Federal laws or regulations. Before the Grantee may name FRA as a party to litigation for any reason, the Grantee agrees first to inform FRA; this proviso applies to any type of litigation whatsoever, in any forum.

**e. No FRA Obligations to Third Parties.** Absent FRA's express written consent, and notwithstanding any concurrence by FRA in or approval of the award of any contract of the Grantee (third party contract) or subcontract of the Grantee (third party subcontract) or the solicitation thereof, FRA shall not be subject to any obligations or liabilities to third party contractors or third party subcontractors or any other person not a party to this Agreement in connection with the performance of the Project.

### 3. Ethics:

**a. Standards of Conduct.** The Grantee agrees to maintain a written code or standards of conduct that shall govern the performance of its officers, employees, board members, or agents engaged in the award and administration of contracts supported by Federal funds. The code or standards shall provide that the Grantee's officers, employees, board members, or agents may neither solicit nor accept gratuities, favors or anything of monetary value from present or potential contractors or subgrantees. The Grantee may set minimum rules where the financial interest is not substantial or the gift is an unsolicited item of nominal intrinsic value. As permitted by State or local law or regulations, such code

or standards shall provide for penalties, sanctions, or other disciplinary actions for violations by the Grantee's officers, employees, board members, or agents, or by contractors or subgrantees or their agents.

1) Personal Conflict of Interest. The Grantee's code or standards must provide that no employee, officer, board member, or agent of the Grantee may participate in the selection, award, or administration of a contract supported by Federal funds if a real or apparent conflict of interest would be involved. Such a conflict would arise when any of the parties set forth below has a financial or other interest in the firm selected for award:

- a) The employee, officer, board member, or agent;
- b) Any member of his or her immediate family;
- c) His or her partner; or
- d) An organization that employs, or is about to employ, any of the above.

2) Organizational Conflicts of Interest. The Grantee's code or standards of conduct must include procedures for identifying and preventing real and apparent organizational conflicts of interests. An organizational conflict of interest exists when the nature of the work to be performed under a proposed third party contract, may, without some restrictions on future activities, result in an unfair competitive advantage to the contractor or impair the contractor's objectivity in performing the contract work.

b. **Existing Provisions.** This section does not require the Grantee to implement a new code or standards of conduct where a State statute, or written code or standards of conduct, already effectively covers all of the elements of a.

#### 4. **Approved Project Budget:**

The Grantee agrees to carry out the Project in accordance with the Approved Project Budget, written approval of which the Grantee shall secure prior to being paid under this Agreement. If the Approved Project Budget is included in this Agreement as Attachment 3, execution of the Agreement shall constitute such written approval. The Grantee agrees to obtain the prior written approval of FRA's Associate Administrator for Railroad Development or the Associate Administrator for Railroad Safety, as applicable, for any revisions to the Approved Project Budget that equal or exceed 10 percent any line item or pertain to a line item involving contingency or miscellaneous costs. For revisions to the Approved Project Budget that are less than 10 percent of any line item, and do not involve contingency or miscellaneous costs, the Grantee agrees to notify FRA of the revisions to the Approved Project Budget. Any revisions to the Approved Project Budget must not affect total project costs or the respective cost-sharing responsibilities set forth in Attachment 1, Section 5.

#### 5. **Accounting Records:**

a. **Project Accounts.** The Grantee agrees to establish and maintain for the Project either a separate set of accounts or accounts within the framework of an established accounting system, in a manner consistent with 49 C.F.R. § 18.20, or 49 C.F.R. § 19.21, as amended, whichever is applicable.

b. **Funds Received or Made Available for the Project.** Consistent with the provisions of 49 C.F.R. § 18.21, or 49 C.F.R. § 19.21, as amended, whichever is applicable, the Grantee agrees to record in the Project Account, and deposit in a financial institution all Project payments received by it from FRA pursuant to this Agreement and all other funds provided for, accruing to, or otherwise received on account of the Project (Project Funds). The Grantee is encouraged to use financial institutions owned at least 50 percent by minority group members.

c. **Documentation of Project Costs and Program Income.** All costs charged to the



Project, including any approved services contributed by the Grantee or others, shall be supported by properly executed payrolls, time records, invoices, contracts, or vouchers describing in detail the nature and propriety of the charges. The Grantee also agrees to maintain accurate records of all Program Income derived from Project implementation.

**d. Checks, Orders, and Vouchers.** The Grantee agrees that all checks, payrolls, invoices, contracts, vouchers, orders, or other accounting documents pertaining in whole or in part to the Project shall be clearly identified, readily accessible, and, to the extent feasible, kept separate from documents not pertaining to the Project.

## 6. Record Retention:

**a. Submission of Proceedings, Contracts and Other Documents.** During the course of the Project and for three years thereafter, the Grantee agrees to retain intact and to provide any data, documents, reports, records, contracts, and supporting materials relating to the Project as FRA may require. Reporting and record-keeping requirements are set forth in-

- 1) 49 C.F.R. Part 18 for governmental Grantees; and
- 2) 49 C.F.R. Part 19 for private non-profit and for-profit Grantees.

Project closeout does not alter these requirements.

## **b. Audit and Inspection.**

1) General Audit Requirements. A Grantee that is:

- a) a State, local government or Indian tribal government agrees to comply with the audit requirements of 49 C.F.R. § 18.26 and OMB Circular A-133, and any revision or supplement thereto.
- b) an institution of higher education or nonprofit organization agrees to comply with the audit requirements of 49 C.F.R. § 19.26 and OMB Circular A-133, and any revision or supplement thereto.
- c) a private for-profit organization agrees to comply with the audit requirements of OMB Circular A-133.

The Grantee agrees to obtain any other audits required by FRA. Project closeout will not alter the Grantee's audit responsibilities. Audit costs for Project administration and management are allowable under this Project to the extent authorized by OMB Circular A-87, Revised; OMB Circular A-21, Revised; or OMB Circular A-122, Revised.

2) Inspection by Federal Officials. The Grantee agrees to permit the Secretary and the Comptroller General of the United States, or their authorized

representatives, to inspect all Project work, materials, payrolls, and other data, and to audit the books, records, and accounts of the Grantee and its contractors pertaining to the Project. The Grantee agrees to require each third party contractor whose contract award is not based on competitive bidding procedures as defined by the Secretary to permit the Secretary of Transportation and the Comptroller General of the United States, or their duly authorized representatives, to inspect all work, materials, payrolls, and other data and records involving that contract, and to audit the books, records, and accounts involving that contract as it affects the Project.

## **7. Payments:**

**a. Request by the Grantee for Payment.** The Grantee's request for payment of the Federal share of allowable costs shall be made to FRA via the Department of Transportation's Delphi eInvoicing System, and will be acted upon by FRA as set forth in this section. Information on the Delphi eInvoicing System can be found in Section 7 of Attachment 1, Special Provisions. Each payment made to the Grantee must comply with Department of the Treasury regulations, "Rules and Procedures for Funds Transfers," 31C.F.R. Part 205. To receive a Federal assistance payment, the Grantee must:

1) Have demonstrated or certified that it has made a binding commitment of non-Federal funds, if applicable, adequate when combined with Federal payments, to cover all costs to be incurred under the Project to date. A Grantee required by Federal statute or this Agreement to provide contributory matching funds or a cost share agrees:

a) to refrain from requesting or obtaining Federal funds in excess of the amount justified by the contributory matching funds or cost share that has been provided; and

b) unless otherwise stated in this Agreement, to refrain from taking any action that would cause the proportion of Federal funds made available to the Project at any time to exceed the percentage authorized under this Agreement. The requirement for contributory matching funds or cost share may be temporarily waived only to the extent expressly provided in writing by FRA.

2) Have submitted to FRA all financial and progress reports required to date under this Agreement; and

3) Have identified the source(s) of financial assistance provided under this Project, if applicable, from which the payment is to be derived.

### **b. Payment by FRA.**

1) Reimbursement Payment by FRA. Unless otherwise stated in this Agreement, FRA shall use the reimbursement method, whereby the Grantee agrees to:

a. Complete and submit Standard Form 3881, "Payment Information Form - ACH

Payment Vendor Payment System," to FRA; and

b. Complete and submit Standard Form 270, "Request for Advance or Reimbursement," to FRA.

2) Advance Payment by FRA. Consistent with Attachment 1, Section 7 of this Agreement and where provided for in this Agreement, FRA may use the Advance Payment method whereby the Grantee agrees to:

a. Provide FRA with evidence of the existence of an interest-bearing account established to hold the advanced payment and to prevent co-mingling of funds.

b. Develop and implement procedures that ensure that the time between FRA's payment and the Grantee's disbursement is no more than 3 days.

c. Complete and submit Standard Form 270, "Requests for Advance or Reimbursement" to FRA.

Advance payment of grant funds shall be made only against invoices received by the Grantee for allowable costs of the Grantee on or before the date of payment request.

3) Upon receipt of a payment request and adequate accompanying information (invoices in accordance with applicable cost principles), FRA will authorize payment by direct deposit, or if requested by the Grantee, by issuance of a Treasury check (allow 30-day processing time for issuance of check), provided the Grantee: (i) is complying with its obligations under this Agreement, (ii) has satisfied FRA that it needs the requested Federal funds during the requisition period, and (iii) is making adequate and timely progress toward Project completion. If all these circumstances are present, FRA may pay allowable costs incurred by the Grantee consistent with the detailed Project Budget on file with FRA and the Funding Contribution Plan included as Exhibit 3 to this Agreement..

4) Other Payment Information.

a. The Grantee agrees to adhere to and impose on its subgrantees all applicable foregoing "Payment by FRA" requirements of this Agreement.

b. If the Grantee fails to adhere to the foregoing "Payment by FRA" requirements of this Agreement, FRA may revoke the portion of the Grantee's funds that has not been expended.

c. **Allowable Costs.** FRA will provide payment only if the Grantee's expenditures or anticipated expenditures meet all requirements set forth below:

1) Conform with the Project description, the Statement of Work, and the Approved Project Budget and all other terms of this Agreement;

- 2) Be necessary in order to accomplish the Project;
  - 3) Be reasonable for the goods or services purchased;
  - 4) Be actual net costs to the Grantee (i.e., the price paid minus any refunds, rebates, or other items of value received by the Grantee that have the effect of reducing the cost actually incurred);
  - 5) Be incurred (and be for work performed) after the effective date of this Agreement, unless specific authorization from FRA to the contrary is received in writing;
  - 6) Unless permitted otherwise by Federal status or regulation, conform with Federal guidelines or regulations and Federal cost principles as set forth below:
    - a. For Grantees that are governmental organizations, the standards of OMB Circular A-87, Revised, "Cost Principles for State and Local Governments" apply;
    - b. For Grantees that are institutions of higher education, the standards of OMB Circular A-21, Revised, "Cost Principles for Educational Institutions" apply;
    - c. For Grantees that are private nonprofit organizations, the standards of OMB Circular A-122, Revised, "Cost Principles for Nonprofit Organizations" apply; and
    - d. For Grantees that are for-profit organizations, the standards of the Federal Acquisition Regulation, 48 C.F.R. Chapter I, Subpart 31.2, "Contracts with Commercial Organizations" apply.
  - 7) Be satisfactorily documented; and
  - 8) Be treated uniformly and consistently under accounting principles and procedures approved and prescribed by FRA for the Grantee, and those approved or prescribed by the Grantee for its subgrantees and contractors.
- d. Disallowed Costs.** In determining the amount of Federal assistance FRA will provide, FRA will exclude:
- 1) Any Project costs incurred by the Grantee before the obligation date of this Agreement, or amendment or modification thereof, whichever is later, unless specifically allowed by this Agreement, otherwise permitted by Federal law or regulation, or unless an authorized representative of FRA states in writing to the contrary;
  - 2) Any costs incurred by the Grantee that are not included in the latest Approved Project Budget; and

- 3) Any costs attributable to goods or services received under a contract or other arrangement that is required to be, but has not been, concurred in or approved in writing by FRA.

The Grantee agrees that payment of any cost under the "Payment by FRA," part of this Agreement does not constitute a final FRA decision about the allowability of that cost and does not constitute a waiver of any violation by the Grantee of the terms of this Agreement. The Grantee understands that FRA will not make a final determination about the allowability of any cost until an audit of the Project has been completed. If FRA determines that the Grantee is not entitled to receive any part of the Federal funds requested, FRA will notify the Grantee stating the reasons therefore. Project closeout will not alter the Grantee's obligation to return any funds due to FRA as a result of later refunds, corrections, or other transactions. Nor will Project closeout alter FRA's right to disallow costs and recover funds on the basis of a later audit or other review. Unless prohibited by law, FRA may offset any Federal assistance funds to be made available under this Project as needed to satisfy any outstanding monetary claims that the Federal Government may have against the Grantee. Exceptions pertaining to disallowed costs will be assessed based on their applicability, as set forth in the applicable Federal cost principles or other written Federal guidance.

**e. Bond Interest and Other Financing Costs.** To the extent permitted in writing by FRA, bond interest and other financing costs are allowable.

**f. Requirement to Remit Interest.** The Grantee agrees that:

- 1) Any interest earned by the Grantee on FRA funds must be remitted to FRA, except as provided by 31 U.S.C. § 6503, or the Indian Self-Determination Act, 25 U.S.C. § 450 et seq., and any regulations thereunder that may be issued by the U.S. Secretary of the Treasury.
- 2) Irrespective of whether the Grantee has deposited funds in an interest-bearing account, the Grantee agrees to pay to FRA interest on any FRA funds that the Grantee has drawn down and failed to spend for eligible Project activities. Unless waived by FRA, interest will be calculated at rates imposed by the U.S. Secretary of the Treasury beginning on the fourth day after the funds were deposited in the Grantee's bank or other financial depository. This requirement does not apply to any Grantee that is a state, state instrumentality, or Indian Tribal Government, except as permitted under applicable state law and by regulations that may be issued by the U.S. Secretary of the Treasury.
- 3) Upon notice by FRA to the Grantee of specific amounts due, the Grantee agrees to promptly remit to FRA any excess payment of amounts or disallowed costs, including any interest due thereon.

**g. De-obligation of Funds.** Once the Project has been completed, FRA reserves the right to de-obligate unspent FRA funds prior to Project closeout.

## 8. Property, Equipment and Supplies:

Unless otherwise approved by FRA, the following conditions apply to property, equipment, and supplies financed under this Agreement:

a. **Use of Property.** The Grantee agrees that Project property, equipment, and supplies shall be used for the provision of the Project activity for the duration of its useful life, as determined by FRA. Should the Grantee unreasonably delay or fail to use Project property, equipment, or supplies during its useful life, the Grantee agrees that FRA may require the Grantee to return the entire amount of FRA assistance expended on that property, equipment, or supplies. The Grantee further agrees to notify FRA immediately when any Project property or equipment is withdrawn from use in the Project activity or when such property or equipment is used in a manner substantially different from the representations made by the Grantee in its Application or the text of the Project description.

### b. General Federal Requirements.

1) a Grantee that is a governmental entity agrees to comply with the property management standards of 49 C.F.R. §§ 18.31, 18.32, and 18.33, including any amendments thereto, and other applicable guidelines or regulations that are issued.

2) a Grantee that is not a governmental entity agrees to comply with the property standards of 49 C.F.R. §§ 19.30 through 19.37 inclusive, including any amendments thereto, and other applicable guidelines or regulations that are issued. Exceptions to the requirements of 49 C.F.R. §§ 18.31, 18.32, and 18.33, and 49 C.F.R. §§ 19.30 through 19.37 inclusive, must be specifically approved by FRA.

c. **Maintenance.** The Grantee agrees to maintain the Project property and equipment in good operating order, and in accordance with any guidelines, directives, or regulations that FRA may issue.

d. **Records.** The Grantee agrees to keep satisfactory records with regard to the use of the property, equipment, and supplies, and submit to FRA, upon request, such information as may be required to assure compliance with this section of this Agreement.

e. **Transfer of Project Property.** The Grantee agrees that FRA may:

1) require the Grantee to transfer title to any property, equipment, or supplies financed with FRA assistance made available by this Agreement, as permitted by 49 C.F.R. § 18.32(g) or 49 C.F.R. §§ 19.30 through 19.37 inclusive, whichever may be applicable.

2) direct the disposition of property or equipment financed with FRA assistance made available under this Agreement, as set forth by 49 C.F.R. §§ 18.31 and 18.32 or 49 C.F.R. §§ 19.30 through 19.37 inclusive, whichever may be applicable.

f. **Withdrawn Property.** If any Project property, equipment, or supplies are not used for the Project for the duration of its useful life, as determined by FRA, whether by planned withdrawal, misuse or casualty loss, the Grantee agrees to notify FRA immediately. Disposition of withdrawn property, equipment, or supplies shall be in accordance with 49 C.F.R. §§ 18.31 and 18.32 for a Grantee that is a governmental entity, or 49 C.F.R. §§ 19.30 through 19.37 inclusive, for a Grantee that is an institution of higher education or a private organization.

g. **Encumbrance of Project Property.** Unless expressly authorized in writing by FRA, the Grantee agrees to refrain from:

1) Executing any transfer of title, lease, lien, pledge, mortgage, encumbrance, contract, grant anticipation note, alienation, or other obligation that in any way would affect FRA interest in any Project property or equipment; or

2) Obligating itself in any manner to any third party with respect to Project property or equipment.

The Grantee agrees to refrain from taking any action or acting in a manner that would adversely affect FRA's interest or impair the Grantee's continuing control over the use of Project property or equipment.

#### 9. **Relocation and Land Acquisition:**

The Grantee agrees to comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. §§ 4601 et seq.; and U.S.DOT regulations, "Uniform Relocation and Real Property Acquisition for Federal and Federally Assisted Programs," 49 C.F.R. Part 24.

#### 10. **Flood Hazards:**

The Grantee agrees to comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, 42 U.S.C. § 4012a(a), with respect to any construction or acquisition Project.

#### 11. **Procurement:**

a. **Federal Standards.** The Grantee agrees to comply with the Procurement Standards requirements set forth at 49 C.F.R. § 18.36 or 49 C.F.R. §§ 19.40 through 19.48 inclusive, whichever may be applicable, and with applicable supplementary U.S. DOT or FRA directives or regulations. If determined necessary for proper Project administration, FRA reserves the right to review the Grantee's technical specifications and requirements.

b. **Cargo Preference** – Use of United States-Flag Vessels. Pursuant to U.S. DOT, Maritime Administration regulations, "Cargo Preference -- U.S.-Flag Vessels," 46 C.F.R. Part 381,

the Grantee shall insert the following clauses in contracts let by the Grantee in which equipment, materials or commodities may be transported by ocean vessel in carrying out the Project:

As required by 46 C.F.R. Part 381, The contractor agrees -

1) To utilize privately owned United States-flag commercial vessels to ship at least 50% of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, materials, or commodities pursuant to this contract to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

2) To furnish within 20 days following the date of loading for shipments originating within the United States, or within 30 working days following the date of loading for shipment originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (1) above to the recipient (through the prime contractor in the case of subcontractor bills-of lading) and to the Division of Cargo Preference and Domestic Trade, Maritime Administration, 1200 New Jersey Avenue, SE, Washington, D.C. 20590, marked with appropriate identification of the Project.

3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract

c. **Notification Requirement.** With respect to any procurement for goods and services (including construction services) having an aggregate value of \$500,000 or more, the Grantee agrees to:

1) specify in any announcement of the awarding of the contract for such goods or services the amount of Federal funds that will be used to finance the acquisition; and

2) express the said amount as a percentage of the total costs of the planned acquisition.

d **Debarment and Suspension; and Drug-Free Work Place.** The Grantee agrees to obtain certifications on debarment and suspension from its third party contractors and subgrantees and otherwise comply with U.S. DOT regulations, "Nonprocurement Suspension and Debarment," 2 C.F.R. Part 1200, and "Government wide Requirements for Drug-Free Workplace (Grants)," 49 C.F.R. Part 32.

e. **Notification of Third Party Contract Disputes or Breaches.** The Grantee agrees to notify FRA of any current or prospective major dispute, breach, or litigation pertaining to any third party contract. If the Grantee seeks to name FRA as a party to litigation for any reason, the Grantee agrees first to inform FRA before doing so. This proviso applies to any type of litigation whatsoever, in any forum.

f. **Participation by Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals.**



1) The Grantee agrees to: (a) provide maximum practicable opportunities for small businesses, including veteran-owned small businesses and service disabled veteran-owned small businesses, and (b) implement best practices, consistent with our nation's civil rights and equal opportunity laws, for ensuring that all individuals – regardless of race, gender, age, disability, and national origin – benefit from activities funded through this Agreement.

2) An example of a best practice under (b) above would be to incorporate key elements of the Department's Disadvantage Business Enterprise (DBE) program (see 49 C.F.R. Part 26) in contracts under this Agreement. This practice would involve setting a DBE contract goal on contracts funded under this Agreement that have subcontracting possibilities. The goal would reflect the amount of DBE participation on the contract that the Grantee would expect to obtain absent the effects of discrimination and consistent with the availability of certified DBE firms to perform work under the contract. When a DBE contract goal has been established by a Grantee, the contract would be awarded only to a bidder/offer that has met or made (or in the case of a design/build project, is committed to meeting or making) documented, good faith efforts to reach the goal. Good faith efforts are defined as efforts to achieve a DBE goal or other requirement of this Agreement which, by their scope, intensity, and appropriateness to the objective can reasonably be expected to achieve the goal or other requirement.

3) The Grantee must provide FRA a plan for incorporating the above best practice into its implementation of the Project within 30 days following execution of this Agreement. If the Grantee is not able to substantially incorporate Part 26 elements in accordance with the above-described best practice, the Grantee agrees to provide the FRA with a written explanation and an alternative program for ensuring the use of contractors owned and controlled by socially and economically disadvantaged individuals.

## **12. Metric System:**

The Grantee agrees to use the metric system of measurement in its Project activities to the extent practicable, in conformance with applicable regulations, guidelines, and policies that U.S. DOT or FRA may issue. The Metric Conversion Act of 1975, as amended by the Omnibus Trade and Competitiveness Act of 1988 (15 U.S.C. 205), designates the metric system of measurement as the preferred system of weights and measures for United States trade and commerce, and it requires that each agency use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impracticable or likely to cause significant inefficiencies or loss of markets to U.S. firms.

## **13. Patent Rights:**

a. If any invention, improvement, or discovery of the Grantee or any of its third party contractors is conceived or first actually reduced to practice in the course of or under this Project, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the Grantee agrees to notify FRA

immediately and provide a detailed report. The rights and responsibilities of the Grantee, third party contractors and FRA with respect to such invention, improvement, or discovery will be determined in accordance with applicable Federal laws, regulations, policies, and any waiver thereof.

b. If the Grantee secures a patent with respect to any invention, improvement, or discovery of the Grantee or any of its third party contractors conceived or first actually reduced to practice in the course of or under this Project, the Grantee agrees to grant to FRA a royalty-free, non-exclusive, and irrevocable license to use and to authorize others to use the patented device or process for Federal Government purposes.

c. The Grantee agrees to include the requirements of the "Patent Rights" section of this Agreement in its third party contracts for planning, research, development, or demonstration under the Project.

#### **14. Rights in Data and Copyrights:**

a. The term "subject data" used in this section means recorded information, whether or not copyrighted, that is developed, delivered, or specified to be delivered under this Agreement. The term includes graphic or pictorial delineations in media such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms such as punched cards, magnetic tape, or computer memory printouts; and information retained in computer memory. Examples include, but are not limited to: computer software, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term does not include financial reports, cost analyses, and similar information incidental to Project administration.

b. The following restrictions apply to all subject data first produced in the performance of this Agreement:

1) Except for its own internal use, the Grantee may not publish or reproduce such data in whole or in part, or in any manner or form, nor may the Grantee authorize others to do so, without the written consent of FRA, until such time as FRA may have either released or approved the release of such data to the public; this restriction on publication, however, does not apply to grant agreements with academic institutions.

2) As authorized by 49 C.F.R. § 18.34, or 49 C.F.R. § 19.36, as applicable, FRA reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes:

a) Any work developed under a grant, cooperative agreement, sub-grant, sub-agreement, or third party contract, irrespective of whether or not a copyright has been obtained; and

b) Any rights of copyright to which a Grantee, subgrantee, or a third party contractor purchases ownership with Federal assistance.

c. When FRA provides assistance to a Grantee for a Project involving planning, research, or development, it is generally FRA's intent to increase the body of knowledge, rather than to limit the benefits of the Project to those parties that have participated therein. Therefore, unless FRA determines otherwise, the Grantee understands and agrees that, in addition to the rights set forth in preceding portions of this section of this Agreement, FRA may make available to any FRA Grantee, subgrantee, third party contractor, or third party subcontractor, either FRA's license in the copyright to the "subject data" derived under this Agreement or a copy of the "subject data" first produced under this Agreement. In the event that such a Project which is the subject of this Agreement is not completed, for any reason whatsoever, all data developed under that Project shall become subject data as defined herein and shall be delivered as FRA may direct.

d. To the extent permitted by State law, the Grantee agrees to indemnify, save and hold harmless FRA, its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by the Grantee of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under this Agreement. The Grantee shall not be required to indemnify FRA for any such liability arising out of the wrongful acts of employees or agents of FRA.

e. Nothing contained in this section on rights in data, shall imply a license to FRA under any patent or be construed as affecting the scope of any license or other right otherwise granted to FRA under any patent.

f. The requirements of this section of this Agreement do not apply to material furnished to the Grantee by FRA and incorporated in the work carried out under this Agreement, provided that such incorporated material is identified by the Grantee at the time of delivery of such work.

g. Unless FRA determines otherwise, the Grantee agrees to include the requirements of this section of this Agreement in its third party contracts for planning, research, development, or demonstration under the Project.

## **15. Acknowledgment of Support and Disclaimer:**

a. An acknowledgment of FRA support and a disclaimer must appear in any grantee publication, whether copyrighted or not, based on or developed under the Agreement, in the following terms:

"This material is based upon work supported by the Federal Railroad Administration under a grant/cooperative agreement, dated ." (Fill-in appropriate identification of grant/cooperative agreement)

b. All grantee publications must also contain the following:

"Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the Federal Railroad Administration and/or U.S. DOT."

c. The Grantee agrees to cause to be erected at the site of any construction, and maintain during construction, signs satisfactory to FRA identifying the Project and indicating that FRA is participating in the development of the Project.

#### **16. Reprints of Publications:**

At such time as any article resulting from work under this Agreement is published in a scientific, technical, or professional journal or publication, two reprints of the publication should be sent to FRA's Grant Manager, clearly referenced with the appropriate identifying information.

#### **17. Site Visits:**

FRA, through its authorized representatives, has the right, at all reasonable times, to make site visits to review Project accomplishments and management control systems and to provide such technical assistance as may be required. If any site visit is made by FRA on the premises of the Grantee, subgrantee, contractor, or subcontractor under this Agreement, the Grantee shall provide and shall require its subgrantees or subcontractors to provide, all reasonable facilities and assistance for the safety and convenience of FRA representatives in the performance of their duties. All site visits and evaluations shall be performed in such a manner as will not unduly delay work being conducted by the Grantee, subgrantee, contractor, or subcontractor.

#### **18. Safety Oversight:**

To the extent applicable, the Grantee agrees to comply with any Federal regulations, laws, or policy and other guidance that FRA or U.S. DOT may issue pertaining to safety oversight in general, and in the performance of this Agreement, in particular.

#### **19. Civil Rights:**

The Grantee agrees to comply with all civil rights laws and regulations, in accordance with applicable Federal directives, except to the extent that the FRA determines otherwise in writing. These include, but are not limited to, the following: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) (as implemented by 49 C.F.R. Part 21), which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681- 1683, and 1685-1686), which prohibits discrimination on the basis of sex, (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 1601-1607), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the

basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§ 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title V111 of the Civil Rights Act of 1968 (42 U.S.C. §§ 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing, (i) 49 U.S.C. § 306, which prohibits discrimination on the basis of race, color, national origin, or sex in railroad financial assistance programs; (j) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance was made; and (k) the requirements of any other nondiscrimination statute(s) which may apply to the Grantee.

## **20. Americans With Disabilities Act:**

The Grantee agrees to utilize funds provided under this Agreement in a manner consistent with the requirements of the Americans With Disabilities Act of 1990, as amended (42 U.S.C. § 12101 et seq.).

## **21. Environmental Protection:**

a. All facilities that will be used to perform work under this Agreement shall not be so used unless the facilities are designed and equipped to limit water and air pollution in accordance with all applicable local, state and Federal standards.

b. The Grantee will conduct work under this Agreement, and will require that work that is conducted as a result of this Agreement be in compliance with the following provisions, as modified from time to time, all of which are incorporated herein by reference: section 114 of the Clean Air Act, 42 U.S.C. 7414, and section 308 of the Federal Water Pollution Control Act, 33 U.S.C. 1318, and all regulations issued thereunder. The Grantee certifies that no facilities that will be used to perform work under this Agreement are listed on the List of Violating Facilities maintained by the Environmental Protection Agency ("EPA"). The Grantee will notify the Administrator as soon as it or any contractor or subcontractor receives any communication from the EPA indicating that any facility which will be used to perform work pursuant to this Agreement is under consideration to be listed on the EPA's List of Violating Facilities; provided, however, that the Grantee's duty of notification hereunder shall extend only to those communications of which it is aware, or should reasonably have been aware. The Grantee will include or cause to be included in each contract or subcontract entered into, which contract or subcontract exceeds Fifty Thousand Dollars (\$50,000.00) in connection with work performed pursuant to this Agreement, the criteria and requirements of this section and an affirmative covenant requiring such contractor or subcontractor to immediately inform the Grantee upon the receipt of a communication from the EPA concerning the matters set forth herein.

c. The Grantee may not expend any of the funds provided in this agreement on construction or other activities that represent an irretrievable commitment of resources to a particular course of action affecting the environment until after all environmental and historic preservation analyses required by the National Environmental Policy Act (42

U.S.C. 4332)(NEPA), the National Historic Preservation Act (16 U.S.C. 470(f))(NHPA), and related laws and regulations have been completed and the FRA has provided the Grantee with a written notice authorizing the Grantee to proceed.

d. The Grantee shall assist the FRA in its compliance with the provisions of NEPA, the Council on Environmental Quality's regulations implementing NEPA (40 C.F.R. Part 1500 et seq.), FRA's "Procedures for Considering Environmental Impacts" (45 Fed. Reg. 40854, June 16, 1980), as revised May 26, 1999, 64 Fed. Reg. 28545), Section 106 of the NHPA, and related environmental and historic preservation statutes and regulations. As a condition of receiving financial assistance under this agreement, the Grantee may be required to conduct certain environmental analyses and to prepare and submit to the FRA draft documents required under NEPA, NHPA, and related statutes and regulations (including draft environmental assessments and proposed draft and final environmental impact statements).

e. No publicly-owned land from a park, recreational area, or wildlife or waterfowl refuge of national, state, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, or any land from an historic site of national, state or local significance as so determined by such officials shall be used by the Grantee without the prior written concurrence of FRA. The Grantee shall assist the FRA in complying with the requirements of 49 U.S.C. §303(c).

f. The Grantee agrees to facilitate compliance with the policies of Executive Order No. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," 42 U.S.C. 4321 note, except to the extent that the FRA determines otherwise in writing.

## 22. **Project Completion, Audit, Settlement, and Closeout:**

**a. Project Completion.** Within 90 days of the Project completion date or termination by FRA, the Grantee agrees to submit a final Federal Financial Report (Standard Form 425), a certification or summary of Project expenses, and third party audit reports, as applicable.

**b. Audits.** Each governmental Grantee agrees to undertake the audits required by 49 C.F.R. § 18.26 and OMB Circular A-128 or any revision or supplement thereto. Each non-governmental Grantee agrees to undertake the audits required by 49 C.F.R. § 19.26 and OMB Circular A-133 or any revision or supplement thereto.

**c. Remittance of Excess Payments.** If FRA has made payments to the Grantee in excess of the total amount of FRA funding due, the Grantee agrees to promptly remit that excess and interest as may be required by the "Payment by FRA" section of this Attachment.

**d. Project Closeout.** Project closeout occurs when all required Project work and all administrative procedures described in 49 C.F.R. Part 18, or 49 C.F.R. Part 19, as applicable, have been completed, and when FRA notifies the Grantee and forwards the

final Federal assistance payment, or when FRA acknowledges the Grantee's remittance of the proper refund. Project closeout shall not invalidate any continuing obligations imposed on the Grantee by this Agreement or by the FRA's final notification or acknowledgment.

### **23. Rights of FRA:**

a. Suspension or Termination of Assistance. Upon written notice, the Grantee agrees that FRA may suspend or terminate all or part of the financial assistance provided herein if the Grantee has violated the terms of this Agreement, or if FRA determines that the purposes of the statute under which the Project is authorized would not be adequately served by continuation of Federal financial assistance for the Project. Any failure to make reasonable progress on the Project, an FRA determination that the Grantee may be unable to meet the contributory match percentage identified in Attachment 1, Section 5 and complete the Project according to the Project Schedules included in Attachment 3 or Attachment 3A, or other violation of this Agreement that significantly endangers substantial performance of the Project shall provide sufficient grounds for FRA to terminate this Agreement. In general, termination of any financial assistance under this Agreement may not invalidate obligations properly incurred by the Grantee and concurred in by FRA before the termination date, to the extent those obligations cannot be canceled. Expiration of any Project time period established for this Project does not, by itself, constitute an expiration or termination of this Agreement.

b. Repayment of Federal Funds. If FRA determines that the Grantee has misused Federal assistance funds by failing to make adequate progress, failing to make reasonable use of the Project property, facilities, or equipment, or failing to adhere to the terms of this Agreement, FRA reserves the right to require the Grantee to repay the entire amount of FRA funds provided under this Agreement or any lesser amount as may be determined by FRA. FRA may also require repayment of any FRA funds provided under this Agreement if the Grantee fails to complete the Project or one of its Tasks or fails to adhere to the Funding Contribution Plan or FRA determines the Grantee will be unable to meet the contributory match percentage identified in Attachment 1, Section 5 and complete the Project according to the Project Schedules included in Attachment 3 or Attachment 3A.

c. Offset. FRA's decision to require the Grantee to repay all or part of the funds provided under this Agreement will be made in writing and shall constitute the collection of a claim of the United States Government and FRA's right to receive payment will be a claim of the United States Government as those terms are defined in Title 31, Subtitle III, Chapter 37 of US Code (or any replacement therefor). The Grantee acknowledges that FRA may collect on such a claim by means of administrative offset against funds payable by the United States to, or held by the United States for, the State of California. Such offsets may include all FRA funds payable to the State of California, other U.S. DOT funds payable to the State of California, and where these funds combined are not sufficient to fully offset the claim, or the claim is otherwise not satisfied, any other funds payable made by the United States to the State of California.

d. Suspension or Debarment. If the Grantee fails to secure and deliver its required match funding contribution pursuant to the Funding Contribution Plan or fails to make reasonable use of the Project property, facilities, or equipment, or fails to adhere to the terms of this Agreement, FRA may suspend or debar the Grantee from further participation in any Federal financial assistance program relating to surface transportation administered by the U.S. DOT.

e. Amendment Following Suspension or Termination. If FRA suspends or terminates the financial assistance provided herein pursuant to Section 23(a), notwithstanding Section 26, of this Attachment 1, FRA may require an amendment to Attachment 3 or Attachment 3A covering all future expenditures of grant funds to ensure responsible use of Federal funds in response to changed circumstances.

f. Consideration for Future Funding. Failure of the Grantee to secure and deliver its required match funding contribution payment pursuant to the Funding Contribution Plan (included with this Agreement as Exhibit 3) or to make reasonable use of the Project property, facilities, or equipment, or to adhere to the terms of this Agreement may adversely affect any future decisions regarding any future requests for funding under any financial assistance programs administered by the FRA or the U.S. DOT.

g. Statement of Resolution. If the Grantee fails to secure and deliver its required match funding contribution pursuant to the Funding Contribution Plan (included with this Agreement as Exhibit 3) or fails to make reasonable use of the Project property, facilities, or equipment, or fails to adhere to the terms of this Agreement, FRA may require that the Grantee provide a written description of the facts and circumstances leading to its failure and a detailed proposal and timeline for resolving those issues. FRA may accept the Grantee's proposal and allow the Grantee time to resolve the issues in accordance with the proposal, decline to accept the proposal, or accept the proposal with modifications. Acceptance of such a proposal may require an amendment to this Agreement.

**24. Transparency Act Requirements—Reporting Subawards and Executive Compensation (Does not Apply to American Recovery and Reinvestment Act Funds):**

The Grantee will insert the following clause in all first-tier subgrants of \$25,000 or more--

**a. Reporting of First-Tier Subawards.**

1) Applicability. Unless you are exempt as provided in paragraph d. of this section, you must report each action that obligates \$25,000 or more in Federal funds that does not include Recovery funds (as defined in section 1512(a)(2) of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5) for a subaward to an entity (see definitions in subsection e. of this section).

2) Where and when to report.

a. You must report each obligating action described in subsection a.1. of this section to <http://www.fsr.gov>.



b. For subaward information, report no later than the end of the month following the month in which the obligation was made. (For example, if the obligation was made on November 7, 2010, the obligation must be reported by no later than December 31, 2010.)

3) What to report. You must report the information about each obligating action that the submission instructions posted at <http://www.fsrs.gov> specify.

**b. Reporting Total Compensation of Recipient Executives.**

1) Applicability and what to report. You must report total compensation for each of your five most highly compensated executives for the preceding completed fiscal year, if—

a. the total Federal funding authorized to date under this award is \$25,000 or more;

b. in the preceding fiscal year, you received—

(1) 80 percent or more of your annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

(2) \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

c. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 ([15 U.S.C. 78m\(a\) 78o\(d\) section 6104 of the Internal Revenue Code of 1986](#)). (To determine if the public has) or access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/execomp.htm>.)

2) Where and when to report. You must report executive total compensation described in subsection b.1. of this section:

a. As part of your registration profile at <http://www.ccr.gov>.

b. By the end of the month following the month in which this award is made, and annually thereafter.

**c. Reporting of Total Compensation of Subrecipient Executives.**

1) Applicability and what to report. Unless you are exempt as provided in subsection d. of this section, for each first-tier subrecipient under this award, you shall report the names and total compensation of each of the subrecipient's five most highly compensated executives for the subrecipient's preceding completed fiscal year, if—

a. in the subrecipient's preceding fiscal year, the subrecipient received—

(1) 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at [2 CFR 170.320](#) (and subawards); and

(2) \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts), and Federal financial assistance subject to the Transparency Act (and subawards); and

b. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 ([15 U.S.C. 78m\(a\) 78o\(d\) section 6104 of the Internal Revenue Code of 1986](#)). (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/execom.htm>.)

2) Where and when to report. You must report subrecipient executive total compensation described in subsection c.1. of this section:

a. To the recipient.

b. By the end of the month following the month during which you make the subaward. For example, if a subaward is obligated on any date during the month of October of a given year (i.e., between October 1 and 31), you must report any required compensation information of the subrecipient by November 30 of that year.

#### **d. Exemptions.**

If, in the previous tax year, you had gross income, from all sources, under \$300,000, you are exempt from the requirements to report:

a. Subawards, and

b. The total compensation of the five most highly compensated executives of any subrecipient.

#### **e. Definitions. For purposes of this section:**

1) Entity means all of the following, as defined in 2 CFR part 25:

a. A Governmental organization, which is a State, local government, or Indian tribe;

b. A foreign public entity;

c. A domestic or foreign nonprofit organization;

d. A domestic or foreign for-profit organization;

e. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

2) Executive means officers, managing partners, or any other employees in management positions.

3) Subaward:

a. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.

b. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see Sec. ——.210 of the attachment to OMB Circular A-133, “Audits of States, Local Governments, and Non-Profit Organizations”).

c. A subaward may be provided through any legal agreement, including an agreement that you or a subrecipient considers a contract.

4) Subrecipient means an entity that:

a. Receives a subaward from you (the recipient) under this award; and

b. Is accountable to you for the use of the Federal funds provided by the subaward.

5) Total compensation means the cash and noncash dollar value earned by the executive during the recipient's or subrecipient's preceding fiscal year and includes the following (for more information see [17 CFR 229.402\(c\)\(2\)](#)):

a. Salary and bonus.

b. Awards of stock, stock options, and stock appreciation rights. Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.

c. Earnings for services under non-equity incentive plans. This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.

d. Change in pension value. This is the change in present value of defined benefit and actuarial pension plans.

e. Above-market earnings on deferred compensation which is not tax-qualified.

f. Other compensation, if the aggregate value of all such other compensation (e.g. severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds \$10,000.

**25. Entire Agreement:**

This Agreement constitutes the entire agreement between the parties. All prior discussions and understandings concerning such scope and subject matter are superseded by this Agreement.

**26. Grant Amendments:**

Modifications to this Agreement may be made only in writing, signed by the each party's authorized representative, and specifically referred to as a modification to this Agreement.

**27. Flow Down Provisions:**

The Grantee shall include provisions to carry out the purposes of this Agreement in all contracts or grant agreements with persons who perform any part of the work under this Agreement. There shall be provisions for a further flow down of such requirements to each sub-tier contractor or grantee as required.

**28. Successors and Assignees:**

This Agreement may not be assigned without the express prior written consent of the other party.

**29. Execution:**

This Agreement may be executed in several counterparts, each of which shall be deemed an original.

**30. Severability:**

If any provision of this Agreement is held invalid, all remaining provisions of this Agreement shall continue in full force and effect to the extent not inconsistent with such holding.

5. Attachment 3, Phase 1 California High-Speed Train Program-PE/NEPA/CEQA is deleted in its entirety, and the following substituted therefor:

**ATTACHMENT 3**  
**STATEMENT OF WORK**  
(November 2012)

**Phase 1 California High-Speed Train Program – PE/NEPA/CEQA**

## BACKGROUND

In 2008, the California State Legislature adopted AB 3034, finding “it imperative that the state proceed quickly to construct a...high-speed passenger train system to serve the major metropolitan areas...It is the intent of the Legislature that the entire high-speed train system shall be constructed as quickly as possible...and that it be completed no later than 2020....” Also in 2008, California voters passed Proposition 1A, approving \$9 billion in bonds to support construction of the high-speed train. The Legislature and the voters specifically directed that the system should include California’s Central Valley, as well as other major California population centers.

The California High-Speed Rail Authority (Authority or CHSRA) through the California High-Speed Train Program (CHSTP) proposes to implement a new high-speed rail system, grade-separated from road vehicle traffic and operated almost exclusively on separate, dedicated tracks with a top design speed of up to 250 mph and an operating speed of up to 220 mph. The 800-mile, statewide program will provide reliable, high-speed electrified train service between the Bay Area, the Central Valley, Sacramento, and Southern California. The Authority has been working to plan and design this system for over a decade.

In 2005, 2008, and 2010, the Authority and the Federal Railroad Administration (FRA) completed and certified Program-level environmental impact statements/reports (EIS/EIR) under the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) covering the entire CHSTP. CHSRA and FRA currently are preparing project-level EIS/EIR documents for individual sections (as identified below) of the CHSTP. CHSRA and FRA will not make final decisions regarding specific facilities, construction, sections, alignments, or mitigation measures until associated project EIR/EIS document(s) are complete and certified.

Phase 1 of the program would involve construction of about 520 miles of the system between San Francisco and Anaheim. Phase 1 is divided into seven geographic sections (Section(s)) as follows:

<u>Section</u>	<u>Length (Miles)</u>
San Francisco-San Jose	50
San Jose-Merced Wye	120
Merced-Fresno	60
Fresno-Bakersfield	115
Bakersfield-Palmdale	85
Palmdale-Los Angeles	60
Los Angeles-Anaheim	30
Phase 1 Total	520

Phase 1, when complete, would be designed to provide 2-hour and 40-minute nonstop service—competitive with air travel—between San Francisco and Los Angeles, compared with over 6 hours of travel time by automobile. Before construction begins on Phase 1 of the CHSTP, it is necessary to finish the required environmental documentation and preliminary engineering (PE),

which is the subject of this Attachment 3. No construction activities are funded under this Statement of Work.

## **GENERAL OBJECTIVE**

The Grantee (Authority) shall complete PE (approximately 30% design) and environmental documentation to support final environmental decisions in the form of Notices of Determination (NODs) and Records of Decision (RODs) for each of the seven Sections listed above, and station area planning, right-of-way (ROW) preservation, and development of necessary documents for design/build bidding and ultimately construction of Phase 1 of the CHSTP, from San Francisco to Anaheim, California.

## **DESCRIPTION OF WORK**

The following description of the work outlines the actions the Authority will undertake to advance the environmental documentation, PE, and preparation of camera-ready bid documents. The work is organized, scheduled, budgeted, and will be monitored, invoiced, and reported in accordance with the Authority's existing Work Breakdown Structures (WBSs) for the Regional Consultants (RCs) preparing the environmental documents and PE, and for the Program Management Team (PMT) that provides management authority over the six RCs and other Authority contractors. To facilitate the grant administration process, four grant tasks and subtasks listed below have been established, three of which are directly correlated with a CHSTP WBS task (or group of tasks) shown in parentheses. The tasks and subtasks are also directly correlated to individual line items in the detailed approved project budget to be submitted and approved by FRA. The Grantee shall provide quarterly updates to the Approved Project Budget. Revisions to the Approved Project Budget must be made in accordance with Attachment 2, Section 4 of the Cooperative Agreement (Agreement).

A detailed description of each of the PMT WBS tasks is provided in Exhibit 1, and each of the RC WBS Tasks is described in Exhibit 2. An overall description of the PE/NEPA/CEQA grant tasks follows below. A more detailed description of each subtask can be found in the exhibits by reading the WBS task(s) associated with each of the PE/NEPA/CEQA grant subtasks as described below.

### **Task 1: Environmental Review**

Task 1.1 Regional Consultant Project Management (RC Task 1)

Task 1.2 Regional Consultant Public/Agency Participation (RC Task 2)

Task 1.3 Alternatives Analysis (RC Task 3)

Task 1.4 EIR/EIS Analysis (RC Task 5)

Task 1.5 Draft and Final EIR/EIS (RC Task 7)

Task 1.6 Certification of EIR/EIS and ROD (RC Task 8)

Task 1.7 Program Management (50% of PMT Tasks 1, 2, and 5 + 100% of PMT Task 4)

### **Task 2: Preliminary Engineering (approximately 30% design)**

Task 2.1 Regional Consultant PE (RC Task 4)

Task 2.2 Program Management (50% of PMT Task 1, 2, and 5)

Task 2.3 PMT Engineering (PMT Task 3)

**Task 3: Other Related Work Needed Prior to Start of Construction**

- Task 3.1 Regional Consultant Station Area Planning (RC Task 6)
- Task 3.2 Regional Consultant Right-of-Way (ROW) Work (RC Task 9)
- Task 3.3 PMT ROW Work (PMT Task 6)
- Task 3.4 Ridership Forecasting (PMT Task 7)
- Task 3.5 Construction Planning/Procurement Support (PMT Task 8)
- Task 3.6 Station Area Planning
- Task 3.7 Los Angeles Union Station

**Task 4: Project Administration and Indirect Costs**

- Task 4.1 Statewide Cost Allocation Plan (SWCAP) and Indirect Cost Methodology

**Task 1: Environmental Review**

The environmental review process is being conducted in accordance with the requirements of the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA), Section 106 of the National Historic Preservation Act, Section 4(f) of the Department of Transportation Act (49 U.S.C. 303), and other applicable environmental laws and regulations (collectively NEPA/CEQA). The Federal Railroad Administration (FRA) is the Federal lead agency responsible for NEPA compliance, and the Authority is the State agency responsible for CEQA compliance. To satisfy both NEPA and CEQA, a combined environmental document is prepared—EIR for CEQA and EIS for NEPA. The combined environmental document is referred to as an EIR/EIS.

The Authority has seven project-level EIR/EIS studies under way for Phase 1 of the CHSTP. In consultation with FRA, the Authority will prepare the EIR/EISs in accordance with the Council on Environmental Quality’s NEPA implementing regulations (40 C.F.R. Part 1500), FRA’s Procedures for Considering Environmental Impacts (64 F.R. 28545 (May 26, 1999)), and other applicable Federal and State environmental assessment/review requirements. The Authority will carry out the steps required to complete the environmental documents as described below.

- **Notice of Intent (NOI)/Notice of Preparation (NOP):** A NOI is prepared and published by FRA in the *Federal Register*. Under CEQA a similar NOP is prepared and filed with the State Clearinghouse and advertised in local newspapers. (This step has already been completed for all seven Sections and is not a part of this Statement of Work.)
- **Scoping:** Scoping involves public meetings called “scoping meetings” at selected locations within the study area to present the Program Level alternatives and optional station sites, explain the environmental process, and receive comments from the public and agencies regarding issues and alternatives to be studied in the EIR/EIS document for the particular HST section. (This step has already been completed for all seven Sections and is not a part of this Statement of Work.)
- **Agency Coordination:** The Authority, along with FRA, will develop an Agency Coordination Plan that will bring together the appropriate local, regional, State, and Federal agencies to ensure compliance with their respective environmental approval and permitting requirements. The Agency Coordination Plan outlines the roles and

responsibilities of these agencies and identifies the project information that will be shared with them for comment. Similar plans are prepared to facilitate public outreach to local communities including low income and minority populations, as well as Native American tribes and other consulting parties in the Section 106 process. (Agency coordination is under way on all seven Sections and activities undertaken in support of agency coordination after the effective date of this Agreement<sup>1</sup> are potentially eligible under this Statement of Work.)

- Purpose and Need: The Authority, with FRA, will develop a project Purpose and Need Statement for each Section, which is required by NEPA and documents why a project is undertaken, and includes the description of project objectives for CEQA. (Purpose and Need Statements are being prepared for all seven Sections and activities undertaken in developing purpose and need statements after the effective date of this Agreement are potentially eligible under this Statement of Work.)
- Alternatives Analysis: The Authority, with FRA approval, will conduct an Alternatives Analysis (AA) in each Section to help identify the alignments and station locations to carry forward in the environmental review. The AA process will define potentially reasonable and feasible project alternatives, design options, and station locations that can meet the NEPA Purpose and Need and CEQA project objectives while avoiding or minimizing environmental impacts. Nothing in this Agreement shall preclude the consideration or further study (and associated funding under this Agreement) of any reasonable alternative(s) to complete the CHSTP, including reasonable alternative(s) outside the currently identified Section(s) set forth above and elsewhere in this Agreement as is appropriate under either NEPA or CEQA. (The AA process is under way in all seven Sections and activities undertaken in developing the alternatives analysis after the effective date of this Agreement are potentially eligible under this Statement of Work.)<sup>2</sup>
- Project Definition: The Authority will prepare a draft of the Project Definition/Description for each Section when the AA process is finished, and will update it when engineering design reaches 15% completion. The Authority, with FRA, will proceed first with the preparation of Technical Reports, and then with the development of baseline conditions, impact analyses, and mitigation measures for the Draft EIR/EISs. (Project definition will begin after AA process is complete and is a part of this Statement of Work.)
- Administrative Draft EIR/EIS: Prior to releasing the public Draft EIR/EIS documents, an Administrative Draft EIR/EIS is prepared for each Section for the Authority and FRA. These agencies will review the Administrative Draft EIR/EISs for completeness and conformity with the NEPA/CEQA requirements. Pursuant to the terms of agreements by and between the relevant agencies, the Administrative Draft EIR/EISs or relevant portions thereof would be circulated to cooperating agencies, which may include the U.S. Army Corps of Engineers for all Sections, and may include the Federal Transit

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<sup>1</sup> This language does not prohibit the potential reimbursement of allowable expenses incurred prior to the effective date of this Agreement, if and as permitted per Section 5.i. of Attachment 1 to this Agreement.

<sup>2</sup> Any modifications to this paragraph made through Amendment 2 confirms the parties' intent and mutual understanding reached in the original Cooperative Agreement executed September 2010,



Administration, the Bureau of Land Management and other Federal agencies for specific Sections. (The Administrative draft is underway for all of the seven sections and activities undertaken in support of the Administrative Draft EIR/EISs after the effective date of this Agreement are included within this Statement of Work.)

- Draft EIR/EIS: The Authority, with FRA, will prepare and circulate Draft EIR/EISs for public and agency review. A public review and comment period of 45 to 60 days will be provided for each of these publications. The Authority, with FRA, will present the results of the analysis described in the Draft EIR/EIS documents at public meetings and comments will be accepted regarding the project and the environmental documents. The Authority, with FRA will prepare responses for the comments received on the Draft EIR/EISs. Both the comments and responses will be presented as part of the Final EIR/EISs. (The Draft EIR/EISs are underway for all of the seven sections and activities undertaken in support of the Draft EIR/EISs after the effective date of this Agreement are included within this Statement of Work.)
- Final EIR/EIS: The Authority, with FRA, will prepare Final EIR/EIS documents for the seven high-speed train Sections and make the Final EIRs/EISs available for a 30-day period. (The Final EIR/EISs have not been prepared and will be undertaken as a part of this Statement of Work.)
- NOD/ROD: The Authority will file a NOD for the decisions it makes related to each Final EIR, and prepare associated appropriate supporting documentation and/or findings. The Authority will support FRA in issuing RODs. (The NOD/RODs have not been prepared and will be undertaken as a part of this Statement of Work.)

The Authority has contracted with the PMT and six RCs to prepare the environmental documents, PE, and other related work products needed to advance the CHSTP. In managing the EIR/EIS process through final approval of a NOD/ROD for each high-speed train Section, the PMT has prepared guidance to ensure that each RC will:

- Conduct public scoping meetings with presentation materials intended to inform the public of the CHSTP and help them understand the environmental review process.
- Have adequate public, stakeholder, and agency outreach during the environmental review process.
- Provide outreach to non-English-speaking communities or groups.
- Conduct the AA process developed for the projects with a level of detail and public/agency involvement needed to select the most reasonable and feasible options, which will avoid or minimize potential impact.
- Use the study area limits developed for the projects to identify environmental baseline conditions.
- Use the criteria and significance thresholds developed for the projects to identify potential impacts.
- Identify measures to avoid, minimize, and/or mitigate impacts.

During the preparation of the environmental deliverables and EIR/EIS documents by the RCs, the Authority and PMT staffs will provide technical and quality assurance/quality control (QA/QC) review to ensure that the guidance and standard methods adopted by the Authority and FRA are followed.

Task 1 also includes the work to be undertaken by the Authority to prepare agency agreements, and to obtain regulatory agency approvals, and environmental permits. The RC's staff with expertise in environmental permitting will assist with, and manage the documentation needed for, the permitting process on behalf of the Authority, which begins during the preparation of the Final EIR/EIS. The major environmental permits that each of the HST Sections may require include:

- Section 404 permit under the Clean Water Act
- Section 401 water quality certification permit
- Section 408 and Section 214 of the Water Resources Development Act
- Section 4(f) and Section 6(f) Approvals
- National Pollution Discharge Elimination System (NPDES) Permits
- U.S. Fish & Wildlife Service Section 7 Consultation and Biological Opinion
- California Endangered Species Act permits
- California Department of Fish and Game (DFG) Section 1602 Lake and Streambed Alteration Agreement
- California Department of Transportation (Caltrans) Encroachment Permits

As permitted by Federal and State law, the Authority will also contract with other Federal, State, and local entities as required to support environmental review and preliminary engineering, including State and local governments, railroads and utilities. Any FRA reimbursement for any such activities must be consistent with the requirements of OMB Circular A-87 and be identified in the approved "Description of Outside Positions" described in Task 1 Deliverables below.

In addition to the environmental work described above, Task 1 includes, as its first deliverable, summary and detailed schedules and budgets outlining milestones to be submitted to FRA for approval within 30 days of execution of Amendment 2 of this Agreement and shall be updated quarterly.

### **Task 1 Deliverables**

The Authority, in coordination with FRA, shall prepare and deliver the following document(s) for the seven Phase 1 sections:

- Revised Summary and Detailed Budget and Schedule for Phase 1
- Agency Coordination Plan
- Purpose and Need Statement
- Preliminary Alternatives Analysis Reports and, if necessary, Supplemental Alternatives Analysis Reports
- Project Definition/Description
- Administrative Drafts of the EIR/EISs for both the draft and final documents, including any required Section 4(f) Statement(s)
- Draft and Final EIR/EISs, including any required Section 4(f) Statement(s) and Environmental Mitigation Implementation Plan and updates
- NOD for the decisions it makes related to each Final EIR

- Draft ROD for each Final EIS
- Statewide agency agreements with environmental resource agencies as required to support the environmental permitting
- Description of Outside Positions (e.g., at other government agencies) to be partially or fully funded by this Agreement, for FRA review and approval
- Required environmental permits

**Task 2: Preliminary Engineering (approximately 30% Design)**

The Authority, in coordination with FRA, shall complete PE of the seven Phase 1 Sections described above.

The Authority with assistance from PMT Engineering will provide ongoing oversight of the RCs to assure design consistency and satisfaction of legal requirements across the system. The RCs are guided by design criteria set forth in technical memoranda for the system. Design consistency will be achieved by strict adherence to these design criteria by the RC teams as they develop their 15% design and up to 30% design (and additional design work for discrete areas as needed and agreed to by FRA) submittals as follows:

- 15% design – The Authority will complete preliminary engineering for acceptance by FRA that is sufficient to support a regional project draft and final EIR/EIS, provide a more detailed construction cost estimate, and conform with all requirements and commitments included in decision documents (FRA ROD; Authority resolution, CEQA findings, and Mitigation Monitoring and Report Plan) and the Final Program EIR/EISs. Generally, the level of engineering detail will be sufficient to determine the required footprint for the CHSTP facilities and identify environmental impacts.
- 30% design– The Authority will complete preliminary engineering for acceptance by FRA that conforms to the regional project Final Environmental Documents that will support procurement of final design and construction services and provide a more detailed and accurate construction cost estimate. Generally, the level of engineering detail will identify all elements of the project to be constructed but leave construction details and final placement for development during final design. However, there may be discrete areas of the CHSTP that will require additional design work beyond 30% to inform decisionmaking. Design beyond 30% covered by this Agreement will be only as needed and agreed to by FRA prior to commencing additional design activities.

The engineering-related requirements generally fall into two categories, technical design requirements and safety requirements. Compliance with the technical design requirements is critical to ensure that the CHSTP provides the performance mandated by the guiding legislation (AB 3034) and set forth by the Authority in policy documents. Compliance with applicable safety requirements, including requirements which may be codified in an FRA Rule of Particular Applicability (RPA) and/or waiver for the CHSTP, is critical to securing any necessary approvals from FRA and other entities to operate the California high-speed train in revenue service.

Task 2 includes the work by the Authority to support the development of the RPA, development of design standards, rolling stock specifications, and operations & maintenance (O&M) plans as further described below.

### Design Standards and O&M Plans

The Authority will develop design standards and O&M Plans to meet the Federal and State safety requirements and the performance objectives of the CHSTP. Engineering and design standards, plus O&M plans, will guide the final design and construction of the high-speed rail system. O&M plans will be developed only for the purpose of informing design and construction determinations and decision-making and shall be limited in scope to such purpose.

The engineering efforts are focused on five key areas of activity, all of which are required to ensure that the designed high-speed rail system will meet the specified performance objectives. These key areas include:

#### Systemwide Design Elements

- The Authority will produce, in coordination with FRA, CHSTP requirements and design for a network-wide 2 × 25-kV traction power supply system and coordinate with the CPUC for obtaining necessary approval(s).
- The Authority will produce, in coordination with FRA, standard designs for track structure, overhead contact system (OCS), and ancillary facilities to ensure a consistent application across the CHSTP network.
- The Authority will produce, in coordination with FRA, train control and communications systems specifications that provide the CHSTP's requirements for performance, capacity, and safety and for consistent application across the CHSTP network.

#### Design Criteria and Standards

- The Authority will prepare design criteria in consultation with FRA, that comply with FRA safety standards and requirements, and support the Petition for the RPA, including designs related to trainsets, track alignment, bridge and viaduct design, tunnel design, building (including stations and maintenance facility) design, earthworks, drainage design, safety and security, geotechnical investigations and design, seismic considerations, traction power facility equipment, traction power system analysis, OCS configuration, positive train control, system architecture and design requirements, system interfaces, and supervisory control and data acquisition.
- The Authority will develop design criteria that are documented in drawings and technical memoranda and include assessment of existing high-speed rail systems, analysis of what is appropriate for the California high-speed rail system, and design guidance for final design and construction. Design criteria and standards will ensure that all subsystems deliver a reliable and safe high-speed train system commensurate with State law and FRA requirements and provide a consistent design approach to be applied to each CHSTP section.

- The Authority will prepare, in coordination with FRA, the CHSTP Design Manual that will be the primary design reference for final design and construction. Standard specifications and special provisions will be developed for inclusion in the procurement documents.

#### Maintenance Plan

- The Authority will develop a plan, in consultation with FRA, for the maintenance of track infrastructure, known as maintenance-of-way (MOW), addressing inspection and maintenance activities and frequency intervals (time or mileage as appropriate) typical for high-speed rail infrastructure for purposes of determining MOW facility requirements, including activities at each site, equipment requirements, and approximate size and locations.
- The Authority will create, in coordination with FRA, a rolling stock inspection and maintenance plan that includes activities, and frequency intervals (time or mileage as appropriate) typical for high-speed rail rolling stock for purposes of determining rolling stock facility requirements including types of facilities, activities at each of the facilities including major equipment, required frequency of inspection and maintenance, approximate location for each of the facility types, approximate size of each facility type, and rolling stock dwell time at each location.

#### Operational Planning and Concept of Operations

- The Authority will prepare and submit to FRA an operational plan to support Project Section studies and make regional project recommendations for the purpose of determining facility requirements that optimize system performance. The plan will include operational concepts for the CHSTP, including operational objectives, mainline configuration, and control of operations, rolling stock storage, maintenance, and repair for the purpose of determining facility requirements that optimize system performance.
- The Authority will also prepare and submit to FRA operating design criteria including operating routes, operating speed and restrictions, design level of service, operating hours, operating schedule and station dwell times, normal and contingency modes of operations, recovery time, headways, and trainset length and seating requirements.

#### Rolling Stock Specifications

- The Authority will prepare and submit to FRA rolling stock specifications to support procurement and acceptance of trainsets that meet the Authority's performance and safety requirements including maximum operating speed, acceleration rate and braking rates (service and emergency), leading dimensions and clearances, trainset makeup, number of seats, number of trainsets, distributed power versus locomotive hauled, line voltage, radial steering trucks, heating, ventilating, and air-conditioning requirements, coupling systems (internal and external), carbody materials, energy management systems, signal and train control technologies, and communications requirements.

### **Task 2 Deliverables**

The Authority shall prepare and deliver, in coordination with FRA and as described above for Task 2, the following preliminary design documents for each of the seven Phase 1 Sections and/or systemwide:

- 15% design for each Section
- Approximately 30% design for each Section
- Systemwide design standards
- CHSTP Design Manual
- O&M plans, including maintenance plans, and design criteria
- Rolling stock specifications.

### **Task 3: Other Related Work Needed Prior to Start of Construction**

In addition to the Environmental Review (Task 1) and Preliminary Engineering (Task 2) described above, the Authority will also complete the additional work required to be completed prior to start of construction, including ROW acquisition support, ridership forecasting, and construction planning/procurement support as more fully described in the attached RC and PMT task descriptions (See Exhibits 1 and 2).<sup>3</sup> Station area planning would be initiated concurrent with Task 1 and would continue past the start of construction.

#### **Station Area Planning**

The Authority shall, in partnership with appropriate local government entities, develop a station area plan incorporating a transit-oriented development (TOD) zoning overlay (or equivalent) to the local comprehensive plan for a one-half-mile area around Phase 1 HST stations (or such other area as CHSRA and FRA deem appropriate on a station-by-station basis). The station area plan will address station site(s) and conceptual design; surrounding infill development; transportation connectivity; development parcel economic viability analysis; and a financing/phasing plan. Station area plans should address the following goals for each station in a manner appropriate to the local context:

- Develop and recommend for adoption transit oriented development (TOD) measures at and around the locations of HST stations.
- Work with the local jurisdictions in which potential HST stations are being considered to facilitate adoption, amendment of City and County General Plans and zoning codes and/or adoption of Specific Plans consistent with HST station area development plans.
- Work with regional and local transit providers, and all other government agencies to establish, relocate, and add transit as necessary to the HST station to achieve a target percentage of all rail passengers accessing the station by transit.
- Treat the HSIPR station as a new city gateway – consider the station’s form and spaces, both primary and secondary (backside, underside); the station’s place-making effects and iconic and readily identifiable design.

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<sup>3</sup> In the event of any conflict between this Attachment 3 and Exhibits 1 and/or 2, this Attachment 3 shall control.

- Plan intensified development for the one-half-mile area (or such other area as CHSRA and FRA deem appropriate on a station-by-station basis) around the station site – step up the development densities closer to the station; recommend minimums for dwelling units (DU)/acre for residential and floor area ratio (FAR) for commercial/light industrial; recommend development massing and setbacks from the street; and recommend urban design and building design treatments so public spaces within the “station district” will be inviting to walk through both day and night by people of all ages.
- Plan an urban scale and streetscape that promotes walking, biking, and transit use – establish continuity of the public way; create a hierarchy of streets; design a walkable street pattern/grid; emphasize pedestrian spaces immediately around the HSIPR station; accommodate bicyclists, transit, taxis, and passenger drop-off, car-sharing services, and access to parking.
- Tailor a phased parking strategy to the station context and market, paying particular attention to the amount and price of parking in the station area – account for expected parking demand for the HSIPR service; account for possible substitution of additional transit services and pedestrians from adjacent development (including at the parking sites) for parking demand; and include parking policies that manage supply and charge locally appropriate market rates to encourage station access by transit, taxis, and walking.
- Develop a financing and phasing plan as to how the station area plan’s public infrastructure will get financed and what financing and other tools will be used to attract private investment and development.

#### ROW Acquisition Support

For all Phase 1 sections, the Authority shall:

- Identify parcels that could protect ROWs and preserve land for future high-speed rail uses based on the Program EIR/EIS decisions and consistent with environmental review requirements and other applicable legal requirements.
- Gather and document parcel requirements to support negotiations, including survey documents and legal descriptions with respect to ownership, easements, and parcel size.
- Develop a Relocation Plan for ROW acquisitions that conforms to the State and Federal relocation assistance requirements including the Uniform Relocation Assistance Act, and other State and Federal provisions that would be required at the time of acquisition.

#### ROW Preservation

Through this Agreement, funds are provided for the preservation and acquisition of Los Angeles Union Station property and rights-of-way. This early acquisition will ensure that the long term use of the station is secured, a future revenue stream is secured and dedicated to use for HST system capital and operating costs as shown in CHSRA financial plans, CHSRA is not solely dependent on third parties for the development of this major hub, and CHSRA will be able to influence and benefit from future station development initiatives. CHSRA must demonstrate to FRA that this investment will immediately result in a positive revenue

stream and that any necessary environmental documentation is complete prior to committing funds.

### Ridership Forecasting

- Ridership work to support Phase 1 EIR/EIS completion: July 1, 2010 through NOD/ROD: The Authority shall prepare ridership & revenue forecasts and station boardings to support the final project EIR/EIS documents and the final selection of station locations, updating operating and service patterns (e.g., Anaheim-Los Angeles Union Station 3-5 trains/hour), and evaluating maximum reasonable impacts (local traffic, regional & local air quality, parking requirements, etc.).
- Ridership & revenue forecasting work to support 30% design of Phase 1, construction planning/procurement, and staged development of facilities: The Authority shall prepare forecasts of growth and timing of ridership & revenue in conjunction with staged opening of service (e.g., sizing of the trainset fleet, initial phases of storage yard and maintenance facility equipping, staged parking requirements and road/transit improvements around stations).

### Construction Planning/Procurement

For all Phase 1 sections, CHSRA shall:

- Develop a staging and construction plan.
- Complete civil design, systems design, systems integration and any value engineering efforts.
- Develop an approach and bid packages for equipment and construction procurement and other services, if needed.
- Develop detailed cost estimates as PE is completed.
- Support procurement and construction inspection.

### Small/Disadvantaged Business Program

Through this Agreement, funds are provided for the development and/or implementation of a Small/Disadvantaged Business Program (as described in Attachment 2 Section 11(g) of Cooperative Agreement No. FR-HSR-0009-10-01-02) as well as to introduce many other innovative strategies to promote the successful participation of Small and Disadvantaged Business concerns in the CHSRA's contracting program. The CHSRA shall describe the activities necessary to complete the Small/Disadvantaged Business Program in a Small/Disadvantaged Business Plan which shall be submitted to FRA and shall include:

- Small Business Program Administration and Support – The Authority shall hire or contract for a Small Business Administrator and other support as necessary to provide ongoing management and administration of the Small Business Program.
- Availability and Disparity Study – As directed by FRA, the CHSRA shall develop an Availability and Disparity Study that will explore all possible resources (including



existing Disparity and Availability Studies) within the respective market to assess their applicability to the industries impacting the California High Speed Train Program. CHSRA will follow the methodology outlined in the National Cooperative Highway Research Program (NCHRP) Report 644, Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program and NCHRP Synthesis 416, Implementing Race-Neutral Measures in State Disadvantaged Business Enterprise Programs in conducting the required study. The CHSRA shall provide FRA with a Scope of Work describing the work necessary to complete the Availability and Disparity Study for FRA review and input which shall be incorporated into the Final Scope of Work. Once the study is completed, CHSRA will provide FRA with a copy and a Final Report.

- Small Business Development (SBD) Program – As directed by FRA, the CHSRA will establish a small and disadvantaged business development program. The CHSRA intends to develop this program by entering into Memorandums of Understanding with the U.S. Office of Small and Disadvantaged Business Utilization (OSDBU) and the U.S. SBA, Small Business Development Program, also known as the Small Business Development Center (SBDC) Program. The OSDBU and SBDC’s provide direct and personalized technical assistance to entrepreneurs through professional consulting, supplemented by low-cost or free seminars and conferences. These services are delivered throughout California via an extensive network of thirty-five SBDCs. The SBDCs provide comprehensive business guidance on most business issues. The CHSRA may also provide additional technical business development services to SB/DBEs who are interested in the CHSRA projects as necessary.

### **Task 3 Deliverables**

The Authority, in coordination with FRA, shall prepare and deliver the following for each Phase 1 section:

- Station area plans
- ROW acquisition plans
- ROW acquisition documentation
- Ridership forecasts
- Construction contract documents ready for bid.
- Small Business Development Program Plan
- Availability and Disparity Study Scope of Work and Final Report

**Project Limits:** The Project limits of each geographic Section are established in each RCs’ contract. They extend generally between major proposed station locations along the Phase 1 route at a logical breakpoint between Sections. There is close coordination between RCs in adjacent sections to ensure that all seven Sections will connect and function seamlessly.

### **Task 4: Project Administration and Indirect Costs**

Under this Agreement, the Grantee may seek reimbursement for allowable costs pertaining to the administration of the funds by the State and other indirect costs. The allowable costs may include costs incurred by the Authority, its project management consulting team, or other State agencies that provide services to the Authority in administering the funds (e.g., the California Department of Finance, Department of General Services, and Department of Justice).

#### Statewide Cost Allocation Plan (SWCAP) and Indirect Costs

Grantee shall administer the activities under this Cooperative Agreement consistent with the requirements of OMB Circular A-87. The California Department of Finance is designing and maintaining statewide systems required for administering Federal funding received under ARRA and is assessing the CHSRA's share of those SWCAP expenditures.

Under the SWCAP, as authorized by OMB Circular A-87, the California Department of Finance has assessed the Grantee for a proportional share of the State's overall costs of designing and maintaining statewide systems required for administering Federal funding received under the American Recovery and Reinvestment Act of 2009 (ARRA). The Department of Health and Human Services (HHS) has reviewed and approved a supplemental SWCAP for California's ARRA funding. In approving the State's ARRA Supplemental SWCAP Addendum, HHS concurs that the methodology, activities, and projected expenditures have been deemed consistent with the requirements of OMB Circular A-87 and associated Guidance on developing SWCAPs for Recovery Act Projects. CHSRA's share of SWCAP is derived as a percentage of the Authority's total statewide ARRA allocation.

In addition, OMB Circular A-87 allows for the reimbursement of certain indirect costs which may not be included in the SWCAP but are otherwise allowable. In order to determine the applicability and scope of potential indirect costs, as well as the method for reimbursing such costs, the Authority shall submit to FRA, the appropriate documentation describing a proposed approach for FRA review and approval.

#### **Task 4 Deliverables:**

- The Authority shall submit to FRA documentation of its portion of the SWCAP which shall include at a minimum all documentation submitted to HHS pursuant to the requirements of OMB Circular A-87 for approval of the SWCAP. After review, FRA will determine which costs are reimbursable and appropriate under the SWCAP.
- The Authority shall also submit to FRA for review and approval a methodology for identifying other allowable indirect costs and a method for determining the appropriate reimbursement. After review, FRA will determine which indirect costs are reimbursable. If appropriate the budget may be amended to reflect this determination and shall be incorporated herein.

#### **PROJECT SCHEDULE**

Two sections (Merced-Fresno and Fresno-Bakersfield) are targeted to complete environmental review in early 2012 and to start construction by the end of 2012, with construction completed

by the end of September 2017<sup>4</sup>. The remaining five Phase 1 Sections (San Jose-Merced, San Francisco-San Jose, Bakersfield-Palmdale, Los Angeles-Anaheim, and Palmdale-Los Angeles) are scheduled to complete environmental review in early 2013 through early 2014 (San Jose-Merced scheduled first, in January 2012, with the others to follow) and, as funding becomes available, would be ready to start construction thereafter. A Summary and detailed schedules outlining milestones for deliverables were submitted to FRA for approval in March 2011, and shall be updated quarterly.

## PROGRAM ESTIMATE/BUDGET

The total cost of the Phase 1 PE/NEPA/CEQA activities as described in Tasks 1, 2, 3, and 4 is approximately \$479.0 million, of which, this Agreement will fund up to \$231.5 million and the Authority is responsible for obtaining funds for the remainder.

The total cost, and the Federal, State, and local share of these costs are listed in Table 2 below. It is understood that any additional expense required beyond that provided in this Agreement to complete the activities described above shall be borne by the Grantee. A detailed project budget by task and subtask, by Fiscal Year, and by performing entity (RC and PMT) was submitted to FRA for its approval in March 2011, and the detailed approved project budget will be updated by the Authority quarterly. Revisions to the Approved Project Budget must be made in accordance with Attachment 2, Section 4 of the Agreement.

**Table 2: Cost of the Phase 1 PE/NEPA/CEQA Work**

Section <sup>5</sup>	Total Cost (YOE \$ in Millions)	State Share (YOE \$ in Millions)	Local Share (YOE \$ in Millions)	Federal Share (YOE \$ in Millions)
San Francisco - San Jose	\$47,832,015	\$23,916,008	\$0	\$23,916,008
San Jose – Merced	\$60,522,298	\$28,975,435	\$1,285,714	\$30,261,149
Merced - Fresno <sup>6</sup>	\$57,631,276	\$27,672,781	\$1,142,857	\$28,815,638
Fresno – Bakersfield <sup>6</sup>	\$75,959,484	\$35,551,170	\$2,428,572	\$37,979,742
Bakersfield – Palmdale	\$55,384,691	\$27,692,346	\$0	\$27,692,346
Palmdale - Los Angeles	\$63,638,891	\$31,176,589	\$642,857	\$31,819,446
Los Angeles - Anaheim <sup>7</sup>	\$117,131,345	\$18,565,672	\$48,000,000	\$50,565,672

<sup>4</sup> As described in Section 8 of Attachment 1B, the Authority must submit for reimbursement all expenses within the time specified in that Section 8 for FRA to make appropriate payments no later than September 30, 2017.

<sup>5</sup> The total amount budgeted in this Statement of Work for each of these sections includes funds for station area planning as described in Task 3. The non-Federal matching funds (50%) must be provided by local government unless (a) local government can reasonably demonstrate that it cannot provide (or secure from other government or private sources) the matching funds and (b) CHSRA determines that Prop 1A funds are legally available to cover the part of the match not provided by a local government.

<sup>6</sup> The total amount budgeted in this Statement of Work for Merced-Fresno and Fresno-Bakersfield includes \$500,000 each for Merced and Bakersfield station design. The non-Federal matching funds (50%) shall be provided by local agency(ies) subject to the exceptions listed in footnote 5.

<b>Section<sup>5</sup></b>	<b>Total Cost (YOE \$ in Millions)</b>	<b>State Share (YOE \$ in Millions)</b>	<b>Local Share (YOE \$ in Millions)</b>	<b>Federal Share (YOE \$ in Millions)</b>
Project Administration and Indirect Costs	\$900,000	\$450,000	\$0	\$450,000
Total	\$479,000,000	\$194,000,000	\$53,500,000	\$231,500,000

The Parties acknowledge their mutual benefit in efficiently spending the Federal and state funds to complete the Project and that there is an opportunity for substantial cost saving in Task 8 of Attachment 3A if the Grantee is allowed to accelerate the expenditure of ARRA funds. The Grantee's expenditures shall be consistent with a Funding Contribution Plan agreed to by the Parties and included with this Agreement as Exhibit 3 which the Grantee shall update quarterly and provide to FRA for review and approval. The Parties further acknowledge it is important for the Funding Contribution Plan to appropriately allocate risk between the parties to this Agreement. In order to realize such savings and appropriately allocate risk, FRA agrees to provide the Grantee with payment consistent with the Funding Contribution Plan even where such payment may temporarily exceed the Grantees contributory matching fund percentage. The Grantee's contribution on a monthly basis shall be consistent with the Funding Contribution Plan.

The Grantee shall provide FRA with written notice upon the earliest determination that state funds are available, including proceeds from the sale of Proposition 1A bonds, and this Agreement shall be amended to reflect the availability of such funds.

The Grantee remains responsible for ensuring that the matching contribution at Project completion is not less than 50.1818% for all activities excluding Task 8.1 (as that Task is described in Attachment 3A) and not less than 20.000% of the total cost of Task 8.1(as that Task is described in Attachment 3A). The Grantee shall immediately provide FRA with written notice if at any time there is a material adverse change in pending litigation, including the timeline for resolution, or any other circumstances that might prevent the Grantee from securing and delivering the required matching contribution. Upon receiving such written notice, FRA may require that this Agreement be amended to reflect such change or take any other action permitted under this Agreement, including but not limited to, exercise of rights, including termination, pursuant to Attachment 2, Section 23.

FRA at its sole discretion may require the Grantee to use the reimbursable payment method for any future payment requests and may also require that the Grantee commit its contributory match concurrent with each payment request consistent with the funding contribution proportions required under Attachment 1, Subsections 5(c) and 5(e)

## **PROJECT COORDINATION**

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<sup>7</sup> The total amount budgeted in this Statement of Work for Los Angeles- Anaheim includes funding for Los Angeles Union Station ROW preservation subject to the requirements listed in Task 3, ROW Preservation.

The Grantee shall perform all tasks required to complete the necessary environmental documentation and preliminary engineering through a coordinated process with interested parties, including all railroad owners and operators within the project area, participating and cooperating State and Federal resource agencies, Caltrans, and FRA.

## **PROJECT MANAGEMENT**

The Authority's staff organization currently consists of a Chief Executive Officer, a Chief of Staff, a Chief Financial Officer, Chief Counsel and two Deputy Executive Directors (for Communication, Policy and Public Outreach, and for Environmental Review and Planning), a small support staff, as well as a Chief Engineer contractor, a Project Management Oversight (PMO) contractor, a Government Relations Management contractor, a Program Management Team, and seven RC Teams (plus an additional team for the "Altamont Corridor Rail Project"). Additionally, the Authority employs a financial consultant contractor and a public outreach and communications contractor. The California AG's office provides legal support to the Authority on all matters including review of the environmental deliverables (under CEQA) up to and including the Final Environmental Report (EIR) and the NOD. The Authority is working with FRA under a Memorandum of Understanding, and FRA, the Federal lead agency for NEPA, is responsible for the technical and legal review of the section EISs.

Nothing herein is intended to, or shall be construed to or shall operate to, preclude or to limit the Authority from negotiating such changes in its contracts with its consultants as it finds are necessary and appropriate in order to secure the performance of the work described herein in an adequate and timely manner, provided, however, that the Authority shall provide to FRA timely written notice of all such contractual changes relevant to the work to be performed under this Statement of Work.

## **PMT SCOPE OF WORK AND DELIVERABLES**

### **Phase 1 California High-Speed Train Program – PE/NEPA/CEQA**

#### **A. PMT STATEMENT OF WORK**

The work on the PMT contract will be done in phases. The Phase I of this work is estimated to take 6 years to complete. The Consultant will prepare an Annual Work Program (AWP) which will consist of a detailed scope of work (defining deliverables and due dates), a detailed staffing plan, and cost estimate.

**Phase I - PE for completion of EIR/EIS, Implementation Plan.** During this phase, the Consultant will be accountable for:

- § Establishment of a Project Office
- § Development of a project implementation strategy and master plan
- § Launch and management of the project level environmental work through a series of GEC consultants
- § Development of a Right-of-Way assessment and acquisition program
- § Development of a methodology for the performance and management of subsurface structural/geotechnical investigation

The CONSULTANT will establish those systems necessary to maintain control of the schedule, budget, documentation, procurement, construction contracting strategies, etc. so that project delivery tracks the established schedule and financial targets.

#### **Program Management Responsibilities**

- A. Project Management Plan (PMP) Develop a PMP in accordance with generally accepted industry practice
- B. Prepare and maintain: 1) a master project schedule, 2) project estimate, and 3) financial and technical information system using contemporary software applications and MIS technology to facilitate controlled access by all project participants for obtaining and updating information. All project information is to be integrated through the use of a master Work Breakdown Structure (WBS). The WBS will facilitate the periodic summarization of detailed cost and schedule information.
- C. Project Management and Control System (PMCS) - Implement a PMCS that enables the integrated monitoring and control of the entire project in terms of financial management, scheduling, document control and other status reporting functions. While the focus initially is Phase I, the PMCS should be chosen to accommodate expansion for use throughout the entire program.
- D. Risk Management Plan (RMP) - Develop program and management plan which identifies the potential risks which could threaten the timely and cost effective completion of the project. Risks to be identified should include but are not limited to technical, financial, institutional, and legal risks, and the RMP shall

address those risks identified as appropriate by the Authority's Executive Director. The RMP will include risk identification, risk assessment, risk allocation, and recommended risk management strategies. The plan will be updated on a periodic basis.

- E. Project Insurance - Develop and recommend project insurance strategy through the evaluation of available alternatives and the review of successful approaches deployed elsewhere. When the need arises, prepare RFP for the solicitation of wrap-up insurance and manage the contract.
- F. Quality Management - Establish and implement a QA and QC plan for the work of the CONSULTANT and a master plan for the project
- G. Public Education, Participation and Outreach – Assist and implement a public education, participation and outreach plan for a diverse stakeholder group throughout the project area.
- H. Design Standards and Coordination – Establish master standards for the project and establish procedures and systems to assure compliance and coordination.
- I. Project-Level Preliminary Engineering/ EIR/EIS Management – provide oversight and coordination of the project-level preliminary engineering and EIR/EIS for all the regions.
- J. Procurement and Contract Administration – Provide services to procure other services, equipment and construction for the total project implementation.
- K. Special Design Work - The majority of the preliminary design work will be accomplished through the regional environmental/engineering contracts however the CONSULTANT maybe required to perform additional design work or full design on specific elements. Unit costs for systems elements (signaling, communications, and electrification) and HST vehicles will be developed by the CONSULTANT as well as engineering design criteria, operational analysis and costs.

**Task 1 Project Management & Controls**

- 1.1 Program Management
- 1.2 Schedule & Document Control
- 1.3 Admin, Contracts & Special Projects
- 1.4 Quality Assurance & Quality Control
- 1.5 Risk Management
- 1.6 Special Projects
- 1.7 Project and Program Controls and Scheduling
- 1.8 Cost Estimating
- 1.9 Business Plan and Funding Support

The Program Director and team provide over arching guidance to the Program Management Team and to the Regional Consultants in the pursuit of the environmental work and preliminary engineering toward the goal of the Notice of Determination and Record of Decision that will allow the project to move into construction. The scope of work also includes the following:

- A. Project Management Plan (PMP) Develop a PMP in accordance with generally accepted industry practice
- B. Prepare and maintain: 1) a master project schedule, 2) project estimate, and 3) financial and technical information system using contemporary software applications and MIS technology to facilitate controlled access by all project participants for obtaining and updating information. All project information is to be integrated through the use of a master Work Breakdown Structure (WBS). The WBS will facilitate the periodic summarization of detailed cost and schedule information.
- C. Project Management and Control System (PMCS) - Implement a PMCS that enables the integrated monitoring and control of the entire project in terms of financial management, scheduling, document control and other status reporting functions. While the focus initially is Phase I, the PMCS should be chosen to accommodate expansion for use throughout the entire program.
- D. Risk Management Plan (RMP) - Develop program and management plan which identifies the potential risks which could threaten the timely and cost effective completion of the project. Risks to be identified should include but are not limited to technical, financial, institutional, and legal risks, and the RMP shall address those risks identified as appropriate by the Authority's Executive Director. The RMP will include risk identification, risk assessment, risk allocation, and recommended risk management strategies. The plan will be updated on a periodic basis.
- E. Project Insurance - Develop and recommend project insurance strategy through the evaluation of available alternatives and the review of successful approaches deployed elsewhere. When the need arises, prepare RFP for the solicitation of wrap-up insurance and manage the contract.
- F. Quality Management - Establish and implement a QA and QC plan for the work of the CONSULTANT and a master plan for the project

## **Task 2 Public Education & Communications**

The Program Management Team will provide Public Education, Participation and Outreach efforts for a diverse stakeholder group throughout the project area.

These services were performed until officially until June 30, 2009 and unofficially through February 2009 when The Authority contracted directly with a firm for these services overseen by the Deputy Director of Communications.

The Program Management Team continues to provide legislative support on the local, State, and Federal level.

- 2.1 Statewide public Education & coordination (NIC)
- 2.2 News media relations (NIC)
- 2.3 State, Federal, and regional interest group
- 2.4 Communications (NIC)

## **Task 3 Engineering Criteria & Design Management**



The Program Management Team will provide engineering support to establish master standards for the project and establish procedures and systems to assure compliance and coordination between all sections. The engineering group will provide technical oversight and coordination of the project-level preliminary engineering and EIR/EIS for all the regions.

The majority of the preliminary engineering design work will be accomplished through the regional environmental/engineering contracts however the Program Management Team will perform additional design work or full design on specific elements. Unit costs for systems elements (signaling, communications, and electrification) and HST vehicles will be developed by the Program Management Team as well as engineering design criteria, operational analysis and costs. In addition the development of a methodology for the performance and management of subsurface structural/geotechnical investigation will be established.

- 3.1 Team Management
- 3.2 Infrastructure
- 3.3 Systems
- 3.4 Operations
- 3.5 Maintenance
- 3.6 Rolling Stock
- 3.7 Regulatory Approvals
- 3.8 Standard Plans
- 3.9 Standard Specifications
- 3.10 Cost Estimating
- 3.11 Design Manual
- 3.12 Design Submittal Review (from RC)
- 3.13 Risk Management
- 3.14 Staging and Procurement Support
- 3.15 Survey Control
- 3.16 System Integration

**Task 4 Environmental Review**

Provide environmental services to establish protocols, standards and a timeline for each regional consultant to follow. Oversee and review the environmental process by the regional consultants to ensure compliance with all regulatory agencies and maintain consistency throughout each environmental section.

- 4.1 Project Task Management
- 4.2 Program Management Coordination
- 4.3 Environmental Scoping
- 4.4 Alternatives Analysis
- 4.5 Environmental Methods
- 4.6 Public/Agency Involvement Coordination
- 4.7 Review of Environmental, Social, Economic and Community Issues
- 4.8 Review of Technical Reports and DEIS/R

- 4.9 Permits & Approvals
- 4.10 Statewide Technical Tasks
- 4.11 GIS Support Services
- 4.12 Agency Agreements for Coordination & Funding
- 4.13 Section 404 and 408 Coordination
- 4.14 Design-Build Environmental Procurement Support

**Task 5 Regional Consultant Oversight**

The Program Management Team provides oversight of the Regional Consultants on behalf of the Authority. The Regional Managers attend public interest meetings with the Regional Consultants working to share a common message based on Authority approved policies. The Regional Managers ensure the Regional Consultants are performing their work in alignment with the scope identified in the Annual Work Plan, budget and schedule. To ensure that the environmental and engineering standards are being properly applied.

- 5.A LA - Palmdale
  - 5.1 A Project Management
  - 5.2 A Meetings
  - 5.3 A Engineering & Environmental Review
- 5.B LA-Orange Co.
  - 5.1 B Project Management
  - 5.2 B Meetings
  - 5.3 B Engineering & Environmental Review
- 5.C LA-San Diego
  - 5.1 C Project Management
  - 5.2 C Meetings
  - 5.3 C Engineering & Environmental Review
- 5.D Palmdale - Fresno
  - 5.D1 Palmdale - Bakersfield
    - 5.1 D Project Management
    - 5.2 D Meetings
    - 5.3 D Engineering & Environmental Review
  - 5.D2 Bakersfield - Fresno
    - 5.1 D Project Management
    - 5.2 D Meetings
    - 5.3 D Engineering & Environmental Review
- 5.E Fresno - Sacramento
  - 5.E1 Fresno - Merced
    - 5.1 E Project Management
    - 5.2 E Meetings
    - 5.2 E Engineering & Environmental Review
  - 5.E2 Merced - Sacramento
    - 5.1 E Project Management
    - 5.2 E Meetings
    - 5.2 E Engineering & Environmental Review
- 5.F Altamont Pass

- 5.1 F Project Management
- 5.2 F Meetings
- 5.3 F Engineering & Environmental Review
- 5.G Merced to San Jose
- 5.1 G Project Management
- 5.2 G Meetings
- 5.3 G Engineering & Environmental Review
- 5.H San Jose - San Francisco
- 5.1 H Project Management
- 5.2 H Meetings
- 5.3 H Engineering & Environmental Review

**Task 6 ROW Assessment and Acquisition**

Development of a Right-of-Way assessment and acquisition program

- 6.1 Right-of-Way Program Management
- 6.2 Right-of-Way Guidelines and Management Approach
- 6.3 Standardization of Rights of Way Acquisition Process
- 6.4 Acquisition Strategy and Protocols
- 6.5 Relocation Planning
- 6.6 Right-of-Way Engineering and appraisal
- 6.7 Acquisitions
- 6.8 Relocation and Property Management

**Task 7 Ridership and Revenue**

Ridership forecasts, revenue and operational analysis of the high-speed rail system are necessary to establish the viability of the system. Once proved viable this analysis is the foundation to determine the number of trains, station size and possible station locations as well as projected operating costs and surpluses.

- 7.1 Rail Systems Operations and Maintenance Management
- 7.2 Operations Planning
- 7.3 Ridership and Revenue Forecasts
  - 7.3.1 Ongoing Forecasts
  - 7.3.2 EIR/S support/public explanations
- 7.4 Ridership and Revenue Model Upgrades and Update
- 7.5 Maintenance
- 7.6 Operations Planning

**Task 8 Staging/Procurement**

Provide services to procure other services, equipment and construction for the total project implementation. Including possible staging options to best serve the project.

- 8.1 Staging and Construction Planning

- 8.2 Procurement and Bid Packages
- 8.3 Cost Estimating
- 8.4 Procurement/Construction Inspection Support
- 8.5 Master Agreements

In alignment with Program Management Responsibilities, section C. Project Management and Control System (PMCS) Task 9, Program-Wide Planning Activities and Task 10, Construction Management Planning tasks have been added for FY 11/12 in preparation for construction.

**Task 9 Program-Wide Planning Activities**

To establish the working relationships required for collaboration with local authorities in support of the high-speed rail design and construction. Areas of interest will be all aspects of station design and operation including Transit Orientated Development (TOD), concession planning, sustainability, P3 opportunities, etc.

- 9.1 Station Area Planning
- 9.2 High-Speed Track System Planning
- 9.3 Agency Planning
- 9.4 Sustainability
- 9.5 Stakeholder Coordination
- 9.6 Customer Experience

**Task 10 Construction Management Planning**

To prepare all the controls, instructions and guidance for the Design-Builders for the purpose of tracking and reporting progress, performing inspections and the specific outline for managing the construction aspect of the program.

- 10.1 Construction Management Planning Policies
- 10.2 Construction Management Procedure(s)
- 10.3 CM Interface Requirements for Procurement Packages
- 10.4 Construction Management Manual
- 10.5 Construction Management Engineering and Procurement Support

Once the Notice of Determination and Record of Decision is accomplished and the project moves forward to Phase II for that section, the work scope will evolve. Phase II, III and IV are described below but are not contemplated to be funded under this PMT contract (with the possible exception of some Phase II work).

**Phase II – Design and Pre-Construction.** During Phase II the Consultant will manage civil design, systems design (including trainsets), systems integration and any value engineering effort deemed appropriate. The performance measurement is a high-quality design which is delivered on time and within budget, that is constructible, biddable in accordance with the contracting strategy, and fully compliant with the Authority’s service operating plan. Throughout this phase the Consultant continues to be responsible for maintaining schedule and cost control along with the quality and

risk management. All systems prepared and launched during Phase I must be maintained. All required actions to prepare for timely construction and material acquisition must be undertaken as well.

**Phase III – Construction and Preparation for Operations** – During Phase III the Consultant is responsible for the management of all construction contracts unless specifically excluded by the Authority and assigned to another entity or themselves. This does not relieve the Consultant of overall integration of the systems through the chosen contracting methodology. The CONSULTANT will engage the services of one or more construction managers (CM's) to carry out the management task. The Consultant will also manage the GEC (civil and system designers) construction support activities. The Consultant continues to be responsible for maintaining schedule and cost control along with the quality and risk management. All systems prepared and launched during Phase I and used during Phase II must be maintained. Claims avoidance, defense and mitigation strategy is to be developed and proactively managed. During this phase the Consultant will also be responsible for recommending a rail operations contracting strategy and in close cooperation with the Authority, will assist in the implementation of such a contract in order to allow the successful contractor to be a part of Phase IV - Testing and Commissioning Phase. The Consultant will insure that the contractors and the selected operator are working in an integrated manner to facilitate a smooth transition from construction and installation of systems to the commissioning phase. Testing and commissioning plans will be reviewed for schedule conformance and compliance with all systems integration, quality and risk management plans.

**Phase IV – System Testing and Commissioning.** During Phase IV the Consultant will actively manage all contractors directly or through assigned CM's to see that all systems and facilities are tested in accordance with approved plans, that any deficiencies are promptly addressed and corrected so that the operator is presented with a safe operating system that can deliver the performance established in the business plan. The Consultant must also see to it that all training documentation is delivered, as-builts are prepared and delivered, and training is accomplished according to plan.

#### **PMT REPORTS AND/OR MEETINGS**

- A. The Consultant shall submit progress reports at least once a month to the-Executive Director and the Authority's Program Management Oversight contractor. The report should be sufficiently detailed for the Executive Director to determine if the Consultant is performing to expectations and is on schedule, to provide communication of interim findings and to afford occasions for airing difficulties or special problems encountered so remedies can be developed.
- B. A schedule for the submittal of reports, and report content, for the initial phase of work will be developed within the first 30-days of the contract.

Exhibit 1 to Cooperative Agreement FR-HSR-0009-10-01-00

- C. Progress reports shall identify the total number of hours worked by the Consultants' and Subconsultants' personnel by use of the Work Breakdown Structure (WBS) level element(s).
- D. The Consultant's Project Director shall meet with the Authority's Executive Director as needed to discuss progress on the Agreement.

**REGIONAL CONSULTANT SCOPE OF WORK AND DELIVERABLES**

**Phase 1 California High-Speed Train Program – PE/NEPA/CEQA**

**B. REGIONAL CONSULTANT SCOPE OF WORK (TYPICAL)**

1. The Consultant will be performing “Preliminary Engineering and Project-Specific Environmental Work” under this agreement as generally described in Attachment 2 (consisting of the Statement of Qualifications/Scope of Work/Deliverables) which is made a part hereof, and as made more specific by the Annual Work Programs that are to be prepared by the Consultant, subject to refinement in consultation with California High-Speed Rail Authority (Authority) staff, and are to be effective upon acceptance by the Authority’s Contract Manager. The Consultant is responsible for developing engineering, planning, and environmental data; for preparing one or more project site-specific Environmental Impact Report/Environmental Impact Statement (EIR/EIS) document(s) for the high-speed train (HST) system in \_\_\_\_\_corridor; and for providing the described right-of-way preservation and acquisition services in this corridor, as requested by the Authority. The project EIR/EIS(s) will include engineering and environmental impact analyses of the HST line and facilities, including station development, and connections with other modes of transportation. EIR/EIS process (es) will include the involvement of the public, interested groups, and appropriate local, State, and Federal agencies, as determined in consultation with Authority staff.
2. The services shall be performed in the \_\_\_\_\_ region; with a project office located within the \_\_\_\_\_ region.
3. All inquiries during the term of this Agreement will be directed to the project representatives identified below:

**STATEMENT OF WORK**

The focus of this work will be on the selected corridor as part of the Authority’s and Federal Railroad Administration’s (FRA) certified statewide California High-Speed Train Program EIR/EIS and FRA’s Record of Decision (both November 2005). The Consultant is responsible for developing engineering, planning, environmental data, preparing one or more project site-specific EIR/EIS document(s) for this HST segment, and for providing right-of-way preservation and acquisition services in this corridor. The project EIR/EIS(s) will include engineering and environmental impact analyses of the HST line and facilities, station development, and connections with other modes of transportation. EIR/EIS process (es) will include the involvement of the public, interested groups, and local, State, and Federal agencies with approval or permit responsibilities. The Consultant must develop a work program to prepare environmental studies and analyses that will be used to satisfy both the State and Federal requirements. The Authority will be the lead State agency, and FRA will be the lead Federal agency.

The public involvement program is part of this contract and will be a part of EIR/EIS process (es) focusing on identification of issues and concerns. Key responsibilities of the Consultant include developing environmental and engineering analyses and implementing a regional public and agency involvement process to assist in identifying issues and concerns in the study area.

**“Work Plan” Elements:**

In the work plan, bidders should address, but are not limited to:

- Project Management Plan
- Public Participation Program
- Project Definition
- Preliminary Engineering
- Environmental Impact Analysis
- Station Area Development Planning
- Prepare Draft and Final Project-Level EIR/EIS Documents
- Certification of EIR and Preparation of ROD for EIS
- Permitting and Rights-of-Way Preservation and Acquisition Services

**Task 1. Project Management Plan**

The Work Plan shall identify key personnel, coordination of work activities and sub-consultants and an integrated approach to managing the work effort to control schedule, budget and project quality.

The Consultant should prepare a schedule for completion of work task, deliverables, key meetings (such as presentations to the Authority board), and project milestones. The Project Management Plan must also ensure that the work is being undertaken in a technically correct manner that is acceptable to the Authority and FRA, as well as other Federal, State, regional, and local agencies. The schedule should allow sufficient time for necessary reviews and approvals and circulation periods. The Consultant will be responsible for delivering a legally sufficient environmental document and ensuring that the progress of the project is properly reported and documented.

The Program Management Team (PM) will be responsible for supervising and directing the work of the Consultant. The PM provides continuity throughout the project evolution and is responsible for monitoring, directing and coordinating all aspects of the statewide HST program. The Consultant’s project manager will report to the PM.

**Task 2. Public Participation Program**

The Consultant is responsible for developing and implementing a public involvement program focused on identifying regional and local issues and concerns of the potential impacts of HST system and for proposing necessary mitigation measures. A key to the success of the Consultant will be their ability to effectively work with the communities within the study region, affected agencies and interested parties (including freight railroads) and organizations.



The Consultant will identify specific methods to be used to encourage participation, group facilitation, and dispute resolution, as well as encourage as much interaction with the communities as possible. The Consultant will suggest an anticipated number of meetings, presentations, and hearings and the appropriate timing for key events relating to major milestones and decision-making points in the process. The Consultant will participate in selected Authority board meetings; will organize technical advisory committee and community meetings, convening of public meetings/workshops/ hearings—including all forums required as part of the EIR/EIS process (es). The Consultant will be responsible for preparing public hearing/meeting packets, presentations and display materials. The Consultant will be responsible for the appropriate documentation of all meetings and forums and preparing a Final Report(s) summarizing the activities and results of the Public Participation Program.

The Consultant will be responsible for creating and maintaining all stakeholder and agency databases needed to support the work and the EIR/EIS process (es). The Consultant is responsible for setting up and securing meeting sites and all equipment needed for meetings and advertising for meetings. The Consultant must work with other agencies and organizations to get their assistance in helping to publicize meetings.

The Consultant will be responsible for providing appropriate information and electronic documents to put on the Authority and FRA websites, including a “Most Commonly Asked Questions” Document.

**Task 3. Project Definition**

The \_\_\_\_\_ HST corridor has been evaluated for more the 12 years by the California Intercity High-Speed Rail Commission (1993-1996) and the CHSRA (1997-2006). Within this corridor, \_\_\_\_\_ operates the \_\_\_\_\_ commuter rail service, and freight is operated by the \_\_\_\_\_ between \_\_\_\_\_.

Within \_\_\_\_\_, the California Department of Transportation currently operates intercity passenger rail service, the \_\_\_\_\_, the \_\_\_\_\_ operates the \_\_\_\_\_ commuter rail service, and freight is operated by the \_\_\_\_\_.

The Consultant will review existing studies, plans and other documents that have been prepared and then summarize as appropriate. It is important that the work is consistent with and builds upon the Authority’s previous work, and includes the mitigation and design practices included in the Authority approval of the HST system, and that work efforts are not duplicated. The Authority’s certified statewide Program EIR/EIS and the technical reports that support this document, as well as the Authority’s most recent Business Plan and the technical studies that support this document, are all available on the Authority’s website ([www.cahighspeedrail.ca.gov](http://www.cahighspeedrail.ca.gov)). The Authority is in the process of developing new ridership and revenue forecasts. The Consultant will not be responsible for developing HST ridership and revenue forecasts, but will use the work of others as appropriate to carry out the work.

Based on the review of existing studies and documents, and under the direction of the Authority staff in consultation with FRA, the Consultant will collect any additional data needed to undertake the work. Information requirements may include:

- Demographic and land use data and plans
- Existing and future transit systems
- Roadway network
- Freight railroad track charts
- Existing and future travel patterns
- Base maps
- Aerial photos
- Other relevant information

As part of the project-specific EIR/EIS process (es) the Consultant will include potential intercity/commute service and help develop partnerships between the Authority and other agencies.

The Project Definition will include a segment-by-segment alignment description of the HST design options to be investigated in the Project EIR/EIS process (es).

#### **Task 4. Preliminary Engineering**

The Consultant is responsible for developing HST design concepts at a sufficient level of detail to develop accurate capital cost estimates, right-of-way requirements, construction staging, traffic and environmental impacts to satisfy CEQA and NEPA requirements. The design concepts will include:

- Plan and Profile drawings of the alignment
- Typical sections
- Special structures and structural modifications
- Electric Traction Facilities and Catenary
- Right-of-way requirements
- Construction Needs and Methods
- Landscaping and amenities
- Station layouts (including parking)
- Renderings of proposed stations
- Locations and functional layouts of support facilities (maintenance, storage, substations, etc.)
- Utility relocation needs
- Bridge reconstructions
- Analysis of freight demands for the corridor
- Impacts of proposed freight operations

The Consultant will develop preliminary engineering (30%) design drawings of the HST alignments, stations and station sites, grade crossings, maintenance facilities, signal and electric power facilities, and bridges or other structures. Design drawings will be used to complete a 30% costs estimate. The Consultant will need to purchase and incorporate into the Work the appropriate aerial mapping for this task. The Consultant will develop HST cost estimates, documenting all project components. Costs should be presented in current year.

Unit costs for systems elements (signaling, communications, and electrification) and HST vehicles will be provided by the PM. HST engineering design criteria, train systems (signaling, communications, and electrification) engineering, operational analysis and costs will be the responsibility of the PM. The design of \_\_\_\_\_ Station will be the responsibility of the Consultant for the \_\_\_\_\_ Regional Engineering/Environmental work.

The Consultant will develop a staged construction plan for the project. This plan will identify operable project segments or elements of the HST infrastructure (such as grade separations) that could be constructed early and bring near term project benefits to existing rail freight and conventional passenger rail services.

#### **Task 5. Environmental Impact Analysis**

This task requires the Consultant to conduct any technical studies necessary to evaluate and assess impacts of the HST Alternatives and No Project Alternative as part of the EIR/EIS process(es), addressing both alignments and proposed station locations. The Consultant will provide a scope of work for each technical study and impact topic required by CEQA and NEPA that include, but are not limited to:

- Traffic and Circulation
- Travel Conditions
- Air Quality
- Noise and Vibration
- Energy
- Electromagnetic Fields and Electromagnetic Interference
- Land Use and Planning, Communities and Neighborhoods, Property, and Environmental Justice
- Agricultural Lands
- Aesthetics and Visual Resources
- Public Utilities
- Hazardous Wastes and Materials
- Cultural and Paleontological Resources
- Geology and Soils
- Hydrology and Water Resources
- Biological Resources and Wetlands
- Section 4(f) and 6(f) Resources (Public Parks and Recreation, Waterfowl Resources, and Historic Sites)
- Cumulative and Secondary Impacts Evaluation
- Construction Impacts
- Economic Growth and Related Impacts
- Unavoidable Adverse Environmental Impacts

Technical reports should be prepared for each topic of environmental analysis and include a description of the existing environmental conditions (Affected Environment) that could be affected by the No Project and HST Alternatives. The Consultant will propose measures that

will be used to define the study area. The various technical studies and corresponding impacts analyses will be incorporated into the Administrative Draft EIR/EIS document(s). As part of the Draft EIR/EIS document(s), the Consultant shall identify and describe in detail all appropriate mitigation measures required to mitigate for the HST Alternative. The Work Plan should identify anticipated fieldwork needed as part of the site-specific environmental analyses and incorporate this into the project schedule.

A preferred HST Alternative will be identified as well as any incremental stages of improvement. The HST Project EIR/EIS document(s) will evaluate in detail the potential for incremental phased implementation leading to completion of the preferred HST Alternative. Site-specific environmental impacts will be addressed to enable the Authority to reach decisions on the ultimate configuration of the \_\_\_\_\_ corridor for all involved rail services as well as any incremental phases of development after the completion of environmental documents.

**Task 6. Station Area Development Planning**

The Authority is committed to encouraging the adoption of TOD measures and to promote value-capture at and around the locations of HST stations. The Consultant will work closely with the local jurisdictions and public in developing HST station area plans. All station area plans should reflect the values of the community, encourage public participation, and meet the Authority's objectives for accommodating HST facilities, increasing ridership and providing alternatives to the automobile.

The Consultant will work with local jurisdictions in which potential HST stations would be located to prepare station area plans and will facilitate adoption, amendment of City and County General Plans.

**Task 7. Prepare Draft and Final Project-Level EIR/EIS Document(s)**

The Consultant will prepare the Draft EIR/EIS document(s) and Final EIR/EIS document(s), including necessary administrative review versions. The site-specific EIR/EIS document(s) must satisfy all the requirements of CEQA and NEPA.

The Consultant in coordination with the PM will be responsible for undertaking all activities associated with the development, publishing and circulation of the EIR/EIS document(s) including: initiating the scoping process, preparing the Notice Intent (NOI) and the Notice of Preparation (NOP), creating an NOI/NOP mailing list, noticing and circulation of the NOI/NOP, developing the project Purpose and Need Statement, developing environmental methodologies and evaluation criteria, writing the EIR/EIS document(s), publishing the Notice of Availability, printing, distributing, and circulating the Draft EIR/EIS document(s), developing a summary of public comments, drafting responses to comments (including any additional environmental/engineering work), editing/refining/changing the EIR/EIS document(s) based on PM, Authority and FRA direction, printing, preparing and sending notices of availability, and distributing the Final EIR/EIS document(s). The Consultant shall also be responsible for identifying, maintaining (in electronic form and hard copy) and documenting all appropriate records, references, and resource documents/materials used for the preparation of the EIR/EIS document(s).

The Consultant will respond to four rounds of review on the administrative draft EIR/EIS(s): 1) a first round of review by the Authority, FRA and the PM, 2) a second round of review by cooperating and responsible agencies, 3) final review by the Authority, FRA, and the PM, and 4) certification and approval with findings by the Authority and clearance and issuance of a ROD by FRA.

**Task 8. Certification of EIR/EIS Document(s) and Permitting**

The Consultant will prepare other related environmental documents that are required as part of the certification of the Project EIR/EIS document(s), including Findings and a Statement of Overriding Considerations, the Record of Decision/Notice of Determination, and the Mitigation Monitoring and Reporting Plan.

Upon request by the Authority, the Consultant shall prepare applications for and process any and all needed permits from the U.S. Army Corps of Engineers, the U.S. Fish & Wildlife Service, the California Department of Fish and Game, the California Water Quality Control Board, and other regulatory agencies. The Consultant shall identify which permits will be necessary for construction of the project and prepare applications for the specific permits identified in the RC Annual Work Program on behalf of the Authority. The Consultant, under the direction of the Authority staff and the PM, shall meet with and discuss the conditions for the issuance of environmental permits by the regulatory agencies; only the Authority staff may accept any such conditions.

**Task 9. Rights-of-way Preservation and Acquisition Services**

For the portions of the HST line where a defined general alignment has been selected, the Consultant will conduct assessments to identify segments at risk of imminent development or other changes in use that could significantly increase implementation costs and difficulty. The Consultant will develop recommendations for protective advance acquisition consistent with State and Federal requirements and will perform any necessary coordination with other Federal, State, and local agencies and assist the Authority in making acquisitions to the extent such acquisitions have been approved and authorized by the Authority and consistent with available funding. All services rendered and all acquisitions will conform with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

As requested by Authority the Consultant will provide assistance to the Authority in reaching agreement on terms of access to shared rights-of-way with rail line owners and operators, shared capital and operating costs, types of improvement required to maintain existing operations while allowing high-speed train operations, and other critical matters such as liability indemnification, insurance requirements, and other operational matters. This work may include participating in right-of-way negotiations with the BNSF and the UPRR with the Authority.

**REGIONAL CONSULTANT REPORTS AND/OR MEETINGS**

- E. The Consultant shall submit progress reports at least once a month to the Program Manager (PM). The report should be sufficiently detailed for the PM to evaluate and to advise the Authority as to whether the Consultant is performing to expectations and is on schedule, to provide communication of interim findings and to afford occasions for airing difficulties or special problems encountered so remedies can be developed.
- F. A schedule for the submittal of reports, and report content, for the initial phase of work will be developed within the first 30-days of this Agreement.
- G. Progress reports shall identify the total number of hours worked by the Consultants' and Subconsultants' personnel by use of a Work Breakdown Schedule (WBS) level element(s).
- H. The Consultant's Project Manager shall meet with the PM as needed, and with Authority staff as needed, to discuss progress on the work.



6. Attachment 3A, Initial Central Valley Section: Fresno to Bakersfield (Kern County) of the California High-Speed Train Program, is deleted in its entirety, and the following is substituted therefor:

**ATTACHMENT 3A**

**STATEMENT OF WORK**

(November 2012)

**Initial Central Valley Section: Fresno to Bakersfield (Kern County)**  
**of the California High-Speed Train Program**

**INTRODUCTION**

In 2008, the California State Legislature adopted AB 3034, finding “it imperative that the state proceed quickly to construct a...high-speed passenger train system to serve the major metropolitan areas....It is the intent of the Legislature that the entire high-speed train system shall be constructed as quickly as possible...and that it be completed no later than 2020....” Also in 2008, California voters passed Prop 1A, approving \$9 billion in bonds to support construction of the high-speed train. The Legislature and the voters specifically directed that the system should include California’s Central Valley, as well as other major California population centers.

The California High-Speed Rail Authority (Authority or CHSRA) through the California High-Speed Train Program (CHSTP) is working to fulfill AB 3034’s directive. The new high-speed rail system will be grade-separated from road vehicle traffic and will operate almost exclusively on separate, dedicated tracks with a top design speed of up to 250 mph and an operating speed of up to 220 mph. The 800-mile, statewide program will provide reliable, high-speed electrified train service between the Bay Area, the Central Valley, Sacramento, and Southern California.

Phase 1 of the Program involves construction of about 520 miles of the system between San Francisco and Anaheim. When completed, Phase 1 will provide 2-hour and 40-minute nonstop service—competitive with air travel—between San Francisco and Los Angeles compared with over 6 hours of travel time by automobile. Subsequent phases of the CHSTP include a southern extension (Los Angeles to San Diego, via the Inland Empire) and a northern extension (from Merced to Sacramento).

The American Recovery and Reinvestment Act (ARRA), enacted February 17, 2009, contained \$8 billion to fund high-speed and intercity passenger rail (HSIPR) projects. On January 28, 2010, the U.S. Department of Transportation announced the selection of the four CHSRA design/build project sections eligible to receive up to \$2.25 billion<sup>8</sup> in ARRA funds.

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<sup>8</sup> FRA awarded \$400 million of the \$2.25 billion to Transbay Joint Powers Authority (TJPA) for specific HSR-related improvements to Transbay Terminal, reducing the total funding amount to \$1.85 billion for Phase 1 PE/NEPA/CEQA work and final design/construction.



In September 2010, the Federal Railroad Administration (FRA) and the Grantee executed the Agreement with a Federal award amount of \$194 million for preliminary engineering (PE) (up to 30% design and additional design work for discrete areas as needed and agreed to by FRA), environmental documentation to support final environmental decisions in the form of Federal Records of Decisions (RODs) and California Notices of Determination (NODs) for each of the seven sections of Phase 1 of the High-Speed Train (HST) System, and other work required prior to the start of construction including right-of-way (ROW) acquisition planning and development of the necessary procurement plans and documents for final design and construction for Phase 1 of the system all as described in Attachment 3.

On October 28, 2010, Secretary LaHood announced the selection of a Central Valley project section to receive an additional \$715 million in funding from the Transportation, Housing, and Urban Development and related Agencies Appropriations Act for 2010 (Div. A of Consolidated Appropriations Act, 2010 (Pub. L. 11-117, December 16, 2010)) (FY 10 Appropriations). The CHSRA Board met on December 2, 2010, to agree on a location to begin construction of California's HST System in the Central Valley and selected a scenario beginning in Madera County to Corcoran, California. Subsequently, FRA announced redistribution of HSIPR funding to California and other States on December 9, 2010. The redistribution provides an additional \$616,176,231 to CHSRA for PE/National Environmental Policy Act (NEPA)/California Environmental Quality Act (CEQA) work under way and final design and construction of the initial Central Valley section. A large portion of the redistributed funding (up to \$578.7 million) is included in this Statement of Work.

On March 16, 2011, FRA published a Notice of Funding Availability in the *Federal Register* to solicit applications for approximately \$2.392 billion in redirected HSIPR Program funding previously announced for the State of Florida which included both Recovery Act and FY 10 Appropriations funds, as well as approximately \$38 billion in unallocated Recovery Act funds (76 FR 14443 (March 16, 2011)). In May 2011, Secretary LaHood announced selections based on the merits of the applications received for those funds. As part of this announcement, the Authority was selected to receive an additional \$86,380,000 in ARRA funding and \$213,620,000<sup>9</sup> in FY10 Appropriations funding for final design and construction of the initial Central Valley section.

## **BACKGROUND AND KEY ASSUMPTIONS**

- In 2005, 2008, and 2010, CHSRA and FRA completed under the NEPA, and certified under the CEQA, program-level environmental impact statements/reports (EIS/EIR) covering the entire CHSTP and subsequently issued the corresponding RODs/NODs.
- CHSRA and FRA are currently preparing project-level EIS/EIR documents for the CHSTP. The CHSRA and FRA anticipate release of draft EIS/EIR documents for the two Central Valley CHSTP sections in August 2011. CHSRA and FRA will not make final decisions

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<sup>9</sup> Because these funds have a different statutory authority and associated requirements, they would be awarded in a separate Cooperative Agreement.

regarding specific facilities, construction, alignments, or mitigation measures in either section until the associated EIS/EIR is complete and certified.

- Subject to FRA and CHSRA environmental decisions, CHSRA intends to implement a design/build approach for the Phase 1 Program as funding becomes available in prioritized geographic sections. Pending completion of environmental review, CHSRA would start construction of an initial Central Valley Section from Madera County to Bakersfield (Kern County), California (hereinafter the “Project”).
- To the extent permitted by applicable law, CHSRA and FRA agree to amend this Agreement, after completion and certification of the EIS/EIR document(s) for the Project, as necessary to conform to CHSRA and FRA final Project decisions.
- Because the Project is more expensive than any single funding source available, the Project scope is separated into two geographic sections that are integral and interdependent<sup>10</sup>. In combination with each other, they will comprise and describe the entire initial Central Valley Project. This Agreement covers final design and construction activities between Fresno and Bakersfield (Kern County), funded with \$2.321 billion<sup>11</sup> in 2009 ARRA funds that are being awarded through this Agreement. Final design and construction activities between Madera County and Fresno will require up to \$928.62 million in Federal funding and are anticipated to be addressed in a future FRA obligation of HSIPR funding.
- The timing and sequencing of each subsequent section of the CHSTP will commence as environmental requirements are met, decisions are made, and funding becomes available.
- Prior to the completion of Phase 1 of the Program, CHSRA will complete an initial operating segment upon which to begin operating HST service. This segment will require electrification, centralized train control and communications systems, maintenance facilities, and a fleet of high-speed trainsets. The initial operating segment will be identified in a future CHSRA Board action and will likely make up to a 200- to 300-mile line between the San Francisco Bay Area and the Central Valley or between the Los Angeles Basin and the Central Valley.
- The Project spans two EIRs/EISs, which have not been completed by CHSRA and FRA at the time of this Agreement: (1) Merced to Fresno and (2) Fresno to Bakersfield. Prioritization of the Project from Madera County to Bakersfield (Kern County),

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<sup>10</sup> The HSIPR Program has multiple funding sources. One of these sources is the ARRA, which contained up to \$8 billion for the development of individual HSIPR projects and larger corridor programs. Another funding source is the Transportation, Housing, and Urban Development and related Agencies Appropriations Act for 2010 (Div. A of Consolidated Appropriations Act, 2010 (Pub. L. 11-117, December 16, 2010)), which appropriated a total of \$2.5 billion for HSIPR projects. These funding sources have different reporting requirements and necessarily require separate obligations.

<sup>11</sup> \$2.25 billion minus \$400 million allocated for TJPA’s Transbay Terminal = \$1.85 billion minus \$194 million allocated to Phase 1 PE/NEPA/CEQA work = \$1.656 billion plus \$616.2 million in redistributed HSIPR funds for final design/construction minus \$37.5 million in redistributed HSIPR funds for PE/NEPA/CEQA = \$2.23 billion of Federal funds plus and additional \$86.38 million in HSIPR funds for final design/construction = \$2.321 billion.

for initial Central Valley construction, does not presume a specific alignment as the RODs/NODs for such selected alignment have not yet been completed.

- To comply with FRA requirements for assuring operational independence, an Interim Use Reserve has been established for the Project. The Interim Use Reserve includes a connection on each end of the initial construction section in the Central Valley with the Burlington Northern and Santa Fe Railway Company (BNSF) mainline, plus associated positive train control (PTC), and interim station (i.e., Amtrak) capital costs, totaling \$108 million. The funds allocated to this Interim Use Reserve are to be 100% Federal funds. This allocation does not alter or affect the overall Federal share associated with funding this Project (see Project Budget). The amount established in this Fund is intended to be sufficient to complete the additional capital investments necessary to allow for the provision of interim Amtrak *San Joaquin* service in this corridor.
  - If at some point before construction of the Project is substantially complete, FRA determines in coordination with CHSRA that there will be a significant delay in securing the funds required to complete the investments needed to begin initial HST revenue operations, the Federal funds set aside in the Interim Reserve Fund will be utilized to cover the capital investments necessary to allow for the section to be placed in service for intercity (non-HST) passenger rail purposes (satisfying Sections 2, 4, and 13 of Attachment 1A to this Agreement). CHSRA would not fund from bond funds, or construct or operate, such connection. Prior to letting of any design/build contracts under this Agreement, CHSRA shall coordinate to secure commitments by the appropriate other government agency(ies) and/or private entities that would construct and operate such connection and related service, including any associated environmental review required by law.
  - If at some point before construction of the Project is substantially complete, FRA determines, in coordination with CHSRA, that sufficient funds are anticipated to be available to complete the investments necessary to build the initial Central Valley Section and to complete an initial operating segment for high-speed train operations, then FRA may authorize, in writing, through an Amendment to this Agreement, reallocation of the Interim Reserve Funds for additional investment in building out the California High-Speed Train Program, prioritizing environmentally cleared sections adjacent to the Project.

## **GENERAL OBJECTIVE**

Consistent with the terms of this Agreement, the Authority shall complete, or will cause to be completed, the activities necessary for final design and construction of the Project. As described in Tasks 5 through 10 below, the Project includes ROW acquisition and site work, final design, and construction of fully grade-separated mostly dedicated HST guideway, including aerial structures (viaducts) and track work. Implementation of final design and construction of the Project is conditioned on successful completion of project-level EIS/EIR documents and consistent with all necessary Federal, State, and other permits and approvals. Also included is program management and associated professional services involved in managing final design

and construction of the overall Project. HST systems elements are not included in this Project (e.g., electrification, communications systems, train control, rolling stock, and vehicle maintenance facilities); these elements will be added by CHSRA as additional funding permits and are required to complete an initial operating segment.

## **DESCRIPTION OF WORK**

The final design and construction of the Project between Fresno and Bakersfield (Kern County), is included in the following major tasks described below. Associated deliverables are outlined in the Performance Objectives and Deliverables section of Attachment 3A.

### **Task 5      Design/Build Program Management**

Task 5 includes management, oversight, and reporting of all tasks necessary to, and all contractors associated with, completing the Project including coordination with appropriate local, regional, State, and Federal agencies, all railroad owners and operators within the Project area, and outreach to local communities affected by the Project. In addition, CHSRA will direct the real property acquisition efforts for the Project. Specific construction management activities will include contract administration, submittal review, quality assurance inspection, materials inspection, management of claims and change orders, and review and approval of progress payment requests and final acceptance of the work. CHSRA is also responsible for public communication and outreach to citizens, communities, and stakeholders during all aspects and phases of Project design and construction.

CHSRA will provide to FRA the following documents to reflect Project progress:

- Annual Work Plan (AWP): CHSRA will prepare a detailed staffing plan and cost estimate for the Project. The AWP outlines the work necessary to establish and manage project control systems to maintain, manage, and monitor project schedule, budget, documentation, procurement, and tracking of deliverables so that implementation of the Project stays on schedule and within budget.
- Program Management Plan (PMP) Updates: CHSRA will update the Phase 1 Program Management Plan (PMP) and produce a Project-specific PMP addressing the management requirements of this Project and submit it to FRA for review and written approval. CHSRA will update both documents annually.
- Financial Plan Updates: CHSRA will review the Financial Plan and provide annual updates of the relevant information to FRA. The Financial Plan and updates specific to this Project shall incorporate the Interim Use Reserve discussed above and in Task 9 below. Updates of the Financial Plan will be submitted to FRA for review and written approval.
  - Prior to the release of each of the Requests for Proposals (RFPs) for the design and/or construction contracts, CHSRA will provide for FRA review and written approval a financial plan for the Project (Central Valley Project Financial Plan)

that demonstrates CHSRA has secured firm commitments of all funding (other than that provided through this Agreement) required to complete construction of the Project. The financial plan shall provide (in year-of-expenditure dollars) finalized annual projections for the sources and uses of all funds, during the development and construction phases of the Project and a detailed assessment of financial risks facing the Central Valley Project during both the construction (including risks such as capital cost overruns, revenue shortfalls, and maintenance cost overruns), along with proposed actions for mitigating or accommodating such risks (including assessment of additional funding sources available to compensate for potential capital financing shortfalls).

- CHSRA will provide FRA with a financial plan that covers the entire Phase 1 Program (including the Central Valley Project) (the Phase 1 Financial Plan) that lays out in as much detail as possible (1) annual projections for the sources and uses of all funds, during the development and construction phases of the Phase 1 Program and for the first 20 years of operations, and (2) an assessment of financial risks facing the Phase 1 Program during both the construction and operations phases (including risks such as capital cost overruns, revenue shortfalls, and operating and maintenance cost overruns), along with proposed actions for mitigating or accommodating such risks (including assessment of additional funding sources available to compensate for potential capital or operating financing shortfalls).
- For post-RFP period review, CHSRA will provide FRA with updates to the Central Valley Project Financial Plan, on at least an annual basis, or more often if there are material changes to the previous plan, updates to the Phase 1 Financial Plan, on at least an annual basis, or more often if there are material changes to the previous plan and financial plans for any additional projects funded with HSIPR funds, including the initial operating segment.
- The Finance Plan(s) shall address the financial soundness of the reserve scenario in the event Amtrak's *San Joaquin* service might operate over the new infrastructure.
- Design/Build Program Plan: CHSRA will prepare a Design/Build Program Plan that identifies: (1) the suitability of the Project as a design/build candidate, (2) the performance metrics to be used to assess successful Project completion, (3) the composition of the design/build Project team, (4) Project scope, (5) the decision factors to be used for the selection from among the design/build proposals, and (6) the methods for contract administration. Submittal of a Design/Build Program Plan is necessary to complete procurements and must be submitted to FRA for review and written approval.
- RFPs/ Notice(s) to Proceed (NTP) for Design and/or Construction Services: CHSRA will provide a copy of the proposed terms and conditions of the RFPs related to proposed contracts for design and/or construction services to FRA for the opportunity to review and provide written approval prior to formally soliciting such proposals. The CHSRA

shall request in writing, FRA's written approval to issue NTP for any contract for design and/or construction service. The Parties will work closely to complete such reviews in sufficient time to avoid impacting the Project schedule.

- Final Inspection and Acceptance Reports: Upon completion of construction, CHSRA shall invite FRA to participate in the final inspection and acceptance of the work.
- Service Development Plan Updates: CHSRA will refine and update the Phase 1 Service Development Plan and provide two updates to FRA of the relevant information based on mutual agreement with FRA that may include Operations (Service Goals, Operations Analysis, including railroad operation simulation and equipment, operations planning, and crew scheduling analysis); Fleet Management Plan (this includes a determination of the number of trainsets required for the HSIPR Corridor); Capital Needs (Phase 1 Investments and Cost Estimate); and Operating and Financial Results (Methods, Assumptions, and Outputs for Travel Demand Forecasts; Expected Revenue; and all Operating Expenses). The Service Development Plan shall be developed and updated for the purpose of informing design and construction determinations and decision making and shall be limited in scope to such purpose.

## **Task 6 Real Property Acquisition**

This task includes only real property acquisition and associated activities detailed below that are not already covered under Task 3 ROW Acquisition Support of the PE/NEPA/CEQA Agreement, (see Task 3.2 Regional Consultant ROW Work (RC Task 9) and Task 3.3 PMT ROW Work (PMT Task 6) of Exhibits 1 and 2 of Attachment 3).

The system will use or be adjacent to existing transportation ROWs to the extent feasible and will require numerous property acquisitions. Such acquisitions (the allowable costs of which are reimbursable under this Agreement) include right-of-way for the track alignment and stations consistent with Project requirements.

CHSRA will obtain and manage the necessary property rights for the system in a lawful, fiscally sound, and publicly acceptable manner. Real property acquisition will comply with all Federal, State, and local laws including the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended). Real Property Acquisition will be accomplished through a headquarters element, a regional specialist oversight office, and a local team that will conduct on-the-ground real property acquisition functions. These responsibilities will be carried out through the leadership of a CHSRA HQ element consisting of a Real Property Director reporting to the CEO, and a senior State real property specialists responsible for:

- Appraisals and acquisition
- Coordination of real property aspects regarding utilities relocations and railroad and other public agency agreements and
- Relocation assistance and property management

CHSRA will have appropriate legal support which will provide real property legal services to the Director. A specialist real property consultant for program support will provide program-wide

services to the Director, such as recommending acquisition standards and procedures as well as providing quality assurance and audit of the acquisition process.

On-the-ground real property activities will be carried out by onsite real property specialty consultants and may include:

- Parcel identification
- Survey and mapping
- Appraisals
- Offers of just compensation
- Negotiations
- Property acquisition and
- Relocation entitlement

CHSRA shall establish a Regional Real Property Office for the Project, which will have appropriate legal support and be staffed by senior State real property specialists who oversee the functions carried out by the onsite consultants and process those cases where State governance is appropriate.

#### **Task 7            Early Work Program**

Certain work activities associated with implementing the Project may be advanced as part of an early work program as described in the deliverables below. The Early Works Program will include soft (e.g., planning, design, coordination, negotiation, legal) and hard (e.g., construction, land acquisition, implementation) costs as described below and associated with (1) utility relocation, (2) site clearing/demolition, (3) railroad track relocation, (4) highway/roadway relocation/grade separations, (5) environmental remediation/hazardous materials disposal, and (6) environmental (NEPA/CEQA) mitigation. Implementing these activities with Federal funds is contingent upon FRA written approval of the planning for these activities, which are outlined below. Design work undertaken as part of this Task 7 is presumed not to qualify as Final Design Activities under this Agreement, subject to final determination by FRA. Activities in the early work program will occur only to the extent that they are consistent with legal requirements associated with satisfying environmental review requirements and approved by FRA.

CHSRA will provide to FRA the following documents to reflect Project progress:

- Utility Relocation Plan: CHSRA will identify all utilities that will be relocated and outline the roles and responsibilities to successfully complete all early utility relocation for the Project, contracting approach, and schedule for completing all necessary utility relocations. CHSRA will submit the Utility Relocation Plan to FRA for review and written approval. CHSRA will implement the Utility Relocation Plan and periodically update the Plan to reflect implementation progress.
- Site Clearing and Demolition Plan: CHSRA will define the area of the Project that will need to be cleared and any demolition of existing structures and outline the roles and responsibilities to successfully complete Project site clearing and demolition activities,

contracting approach, and schedule for completing all necessary site clearing and demolition of existing structures. CHSRA will submit the Site Clearing/Demolition Plan to FRA for review and written approval. CHSRA will implement the Site Clearing/Demolition Plan and periodically update the Plan to reflect implementation progress.

- Railroad Track Relocation Plan: Portions of the Project are on or adjacent to BNSF ROW. Although it is anticipated that BNSF will be responsible for its own railroad track relocation design and construction, CHSRA will work with BNSF to develop a Railroad Track Relocation Plan. CHSRA will submit the Railroad Track Relocation Plan to FRA for review and written approval. This plan will describe in detail what tracks and supporting railroad infrastructure will need to be relocated at each location along the route where such relocation is required to support the Project. CHSRA will implement any elements of the Railroad Track Relocation Plan it is responsible for under the Plan, coordinate with BNSF for completion of railroad-specific work, and periodically update the Plan to reflect implementation progress.
- Highway/Roadway Relocation/Grade Separations Plan: Highway/roadway relocations and grade separations will be completed in coordination with California Department of Transportation (Caltrans) or other owners of roadway facilities (e.g., counties, local jurisdictions) during the early stages of construction, consistent with CHSRA/Caltrans Master Agreement. CHSRA will work with Caltrans and other interested parties to develop a Highway/Roadway Relocation/Grade Separations Plan that describes in detail what Highway/Roadway relocation and grade separations are required at each location along the route where such relocation or grade separation is required to support the Project. CHSRA will submit the Highway/Roadway Relocation/Grade Separations Plan to FRA for review and written approval. CHSRA will implement any elements of the Highway/Roadway Relocation/Grade Separations Plan it is responsible for under the Plan, coordinate with Caltrans for completion of highway/roadway-specific work, and periodically update the Plan to reflect implementation progress.
- Environmental Remediation/Hazardous Materials Disposal Plan: CHSRA will develop a plan to implement remediation and hazardous material disposal activities consistent with mitigation measures CHSRA and FRA adopts and documents in the CEQA/NEPA environmental process. This plan will include compliance with existing and applicable Federal and State regulations, appropriate Authority policies, and the use of best management practices. This plan will identify procedures for testing and remediating known or suspected hazardous materials encountered during the construction of the Project. CHSRA will submit the Environmental Remediation/Hazardous Materials Disposal Plan to FRA for review and written approval. CHSRA will implement the Environmental Remediation/Hazardous Materials Disposal Plan and periodically update the Plan to reflect implementation progress.
- Environmental (NEPA/CEQA) Mitigation: The EIS/EIR final decisions by FRA and CHSRA may require mitigation measures that could include, but are not limited to purchase of wetlands mitigation sites, noise control (for example, construction of noise



walls, reinforcement of structure in sensitive receptors), preservation of agricultural lands, construction of local traffic control improvements (for example, traffic calming measures, geometric roadway improvements, installation of traffic lights). Adopted mitigation measures and associated plans for implementation would be set forth in the Environmental (NEPA/CEQA) Mitigation Implementation Plan required by the PE/NEPA/CEQA Agreement. CHSRA will implement the Environmental (NEPA/CEQA) Mitigation Implementation Plan. Updates to the Plan to reflect implementation progress are covered under the PE/NEPA/CEQA Agreement.

## **Task 8 Final Design and Construction Contract Work**

The vast majority of the work associated with this Agreement is associated with the final design and construction contracts that will be procured, awarded, and administered by CHSRA for delivery of this Project. As a deliverable in Task 1 of this Attachment 3A for review and written approval by FRA, CHSRA will prepare and deliver to FRA a Design/Build Program Plan that identifies: (1) the suitability of the Project as a design/build candidate; (2) the performance metrics to be used to assess successful Project completion; (3) the composition of the design/build Project team; (4) Project scope; (5) the decision factors to be used for the selection from among the design/build proposals; and (6) the methods for contract administration. As currently envisioned for the work covered under this Attachment 3A, up to three to four separate contracts will be utilized, including two to three geographically-based civil infrastructure contracts and at least one Project-wide track work contract. CHSRA's detailed Design/Build Program Plan will be prepared in the first quarter of FY2011. CHSRA will provide the Design/Build RFPs and CHSRA's selected Design/Build contractors to FRA for review and written approval prior to award.

### **Task 8.1 Final Design and Construction Contract Work – May 2011 ARRA Funding**

A portion of the civil structural, track design and construction to be completed by the Grantee through this Task 8.1 and involving additional miles of at-grade track has a different cost share allocation between FRA and the Grantee due to the source of the Federal funds. Because these funds are matched 20% by the State (compared to a 50% match by the State for Task 8), work will be segregated as a separate Task in one of the civil infrastructure contract packages utilized for design/build.

## **Task 9 Project Reserves**

CHSRA will establish two Project Reserve accounts. The first would be for funds over and above the Unallocated Contingency that have been budgeted but not yet allocated to specific tasks. The second would be the aforementioned "Interim Use Reserve." The Interim Use Reserve includes a connection on each end of the initial construction section in the Central Valley with the BNSF mainline plus associated PTC, and interim station (i.e., Amtrak) capital costs, totaling \$108 million. The management and use of these reserve funds will be described in the updated Project-specific PMP and proceed only upon written approval from FRA and as an Amendment to this Agreement.

## **Task 10 Unallocated Contingency**

CHSRA has allocated 5% of the Project budget as unallocated contingency. The management and use of contingency funds will be described in a Contingency Management Plan that will be prepared as part of the updated Program Management Plan.

### **PROJECT SCHEDULE**

All requests for payment per this Agreement allocated for the portion of the initial construction section in the Central Valley funded with ARRA money defined as Fresno to Bakersfield (Kern County) will have been submitted and approved by FRA by September 2017 consistent with Section 8 of Attachment 1B. A detailed schedule outlining additional milestones for the initial construction section is on file with FRA.

	<b>Start</b>	<b>Finish</b>
<b>Task 5: Design/Build Program Management</b>	<b>4-1-11</b>	<b>9-30-17</b>
<b>Task 6: Real Property Acquisition</b>	<b>7-1-11</b>	<b>6-30-14</b>
<b>Task 7: Early Work Program</b>	<b>7-1-11</b>	<b>12-1-14</b>
<b>Task 8: Design/Build Contract Work</b>	<b>4-1-12</b>	<b>9-30-17</b>
<b>Task 8:1 Design/Build Contract Work – May 2011 ARRA Funding</b>	<b>4-1-12</b>	<b>9-30-17</b>
<b>Task 9: Project Reserve</b>	<b>Throughout the Project</b>	<b>9-30-17</b>
<b>Task 10: Unallocated Contingency</b>	<b>Throughout the Project</b>	<b>9-30-17</b>

### **PERFORMANCE OBJECTIVES AND DELIVERABLES**

**CHSRA shall achieve the following performance objectives to be authorized for funding of Project components and for the Project to be considered complete.**

#### **Overall Postaward Prerequisites**

1. Prior to commencing any activities described Tasks 6-8, CHSRA shall provide to FRA an updated Program Management Plan, including an updated cost estimate appropriate to the level of project development. This submittal must be approved by FRA in writing.

2. Prior to award of Design/Build contract work funded by this Agreement, CHSRA shall complete PE and environmental documentation for the Project as defined in Attachment 3.
3. CHSRA shall execute any required stakeholder agreements with infrastructure owners and operators (principally BNSF and Union Pacific Railroad) and other stakeholders as appropriate in advance of the commencement of work on any activity described Tasks 6-9, copies of which will be submitted prior to execution to FRA for approval.

**Task-Specific Deliverables**

CHSRA shall achieve the following deliverables.

<i>Task Description</i>	<i>Delivery Date</i>
<b><i>Task 5: Design/Build (D/B) Program Management</i></b>	
Unless FRA determines otherwise in writing, the Authority may not continue to conduct any construction activities, as described in Attachment 3, unless and until the Authority submits, and FRA approves in writing, the following deliverables:	
2011 Annual Work Plan (AWP)	8-11
2012 AWP	8-12
2013 AWP	8-13
2014 AWP	8-14
2015 AWP	8-15
2016 AWP	8-16
2017 AWP	8-17
2012 Operations Modeling/Schedules/Demand Forecasts for Ridership & Revenue	4-12
Design/Build (D/B) Program Plan	8-11
2012 Financial Plan Update	7-12
2012 PMP Update	7-12
2012 Service Development Plan Update	7-12
2013 Financial Plan Update	7-13
2013 PMP Update	7-13
2014 Financial Plan Update	7-14
2014 PMP Update	7-14
2015 Financial Plan Update	7-15
2015 PMP Update	7-15

<b><i>Task Description</i></b>	<b><i>Delivery Date</i></b>
2016 Financial Plan Update	7-16
2016 PMP Update	7-16
2016 Service Development Plan Update	7-16
2016 Operations Modeling/Schedules/Demand Forecast Update for Ridership & Revenue	7-16
<b><i>Task 6: Real Property Acquisition</i></b>	
Quarterly Updates to the Real Property Acquisition Plan	Quarterly
<b><i>Task 7: Early Work Program<sup>12</sup></i></b>	
Utility Relocation Plan	4-12
Site Clearing/Demolition Plan	4-12
Railroad Track Relocation Plan	4-12
Highway Relocation Plan	4-12
Environmental Remediation/HazMat Disposal Plan	12-11
<b><i>Tasks 8 and 8.1: D/B Contract Work</i></b>	
D/B Contract #1 RFP	12-11
D/B Contract #2 RFP	12-11
D/B Contract #3 RFP	12-11
D/B Project-wide Track Work RFP	4-13
Interim Use Construction RFP	<i>If needed</i>
CHSRA D/B Contractor Selection	8/12
D/B Contract #1 Final Inspection and Acceptance Report	2-17
D/B Contract #2 Final Inspection and Acceptance Report	4-17
D/B Contract #3 Final Inspection and Acceptance Report	6-17
D/B Projectwide Track Work Inspection and Acceptance Report	9-17
Interim Use Construction Final Inspection and Acceptance Report	<i>If needed</i>
<b><i>Task 9: Project Reserves</i></b>	
Project Reserve Plan	10-11
Project Reserve Plan Quarterly Updates	Quarterly
<b><i>Task 10: Unallocated Contingency</i></b>	

<sup>12</sup> The Plans associated with Early Works activities covered by this Agreement will be updated periodically to reflect implementation progress.

<b><i>Task Description</i></b>	<b><i>Delivery Date</i></b>
Contingency Management Plan (CMP)	10-11
CMP Quarterly Updates	Quarterly

To the extent any of foregoing schedule tasks or associated deliverables cannot be completed until associated environmental review is completed, FRA and CHSRA agree to modify the schedule by Amendment to this Agreement.

## **PROJECT ADMINISTRATION**

CHSRA will provide Project receipts and documents as required by FRA. CHSRA will obtain documentation of materials, payrolls and work performed, invoices and receipts, etc., during the Program from contractors and consultants as conditions of payment. These will be submitted or made available to FRA as required.

## **PROJECT BUDGET**

The total estimated cost of the Project is \$5,058,327,462. The total estimated cost for activities in Attachment 3 and the activities in Attachment 3A excluding Task 8.1 is \$4,950,352,462 of which FRA will contribute an estimated 50% but not more than \$2,466,176,231. The total estimated cost of Attachment 3A, Task 8.1 is \$107,975,000 for which FRA will contribute an estimated 80% but not more than \$86,380,000.<sup>13</sup> Any additional expense required beyond that provided in this statement of work shall be borne by CHSRA. A cost summary by task is shown below and a detailed budget is on file with FRA. These are estimates only and cover work that will be required regardless of the specific facilities and horizontal/vertical alignments for the Central Valley portion of the CHSTP CHSRA and FRA ultimately select.

### **Cost Summary**

<b>Task Description</b>	<b>Federal</b>	<b>State</b>	<b>Local</b>	<b>Total</b>
<b>Task 5: Design/Build Program Management</b>				
	\$333,526,830.00	\$333,526,831.00	\$0.00	\$667,053,661.00
<b>Task 6: Real Property Acquisition</b>				
	\$165,109,906.00	\$161,109,906.00	\$6,000,000.00	\$332,219,812.00
<b>Task 7: Early Work Program</b>				
	\$125,612,570.00	\$125,612,569.00	\$0.00	\$251,225,139.00
<b>Task 8: Design/Build Contract Work</b>				

<sup>13</sup> Because the Grantee contribution is different, the funding has been split into Tasks 8 and 8.1 to facilitate tracking the appropriate contribution and any associated requirements.

	\$1,455,774,423.00	\$1,455,774,423.00	\$0.00	\$2,911,548,846.00
8.1 Design/Build Contract Work – May 2011 ARRA Funds	\$86,380,000	\$21,595,000	\$0.00	\$107,975,000
<b>Task 9: Project Reserves</b>				
9.1 Project Reserve	\$0.00	\$37,195,511.00	\$0.00	\$37,195,511.00
9.2 Interim Use Reserve	\$108,023,253.00	\$0.00	\$0.00	\$108,023,253.00
<b>Task 10: Unallocated Contingency</b>				
	\$46,629,249.00	\$117,456,991.00	\$0.00	\$164,086,240.00
<b>TOTAL</b>	\$2,321,056,231	\$2,252,271,231	\$6,000,000	\$4,579,327,462

The Parties acknowledge their mutual benefit in efficiently spending the Federal and state funds to complete the Project and that there is an opportunity for substantial cost saving in Task 8 if the Grantee is allowed to accelerate the expenditure of ARRA funds. The Grantee's expenditures shall be consistent with a Funding Contribution Plan agreed to by the Parties and included with this Agreement as Exhibit 3 which the Grantee shall update quarterly and provide to FRA for review and approval. The Parties further acknowledge it is important for the Funding Contribution Plan to appropriately allocate risk between the parties to this Agreement. In order to realize such savings and appropriately allocate risk, FRA agrees to provide the Grantee with payment consistent with the Funding Contribution Plan even where such payment may temporarily exceed the Grantees contributory matching fund percentage. The Grantee's contribution on a monthly basis shall be consistent with the Funding Contribution Plan.

The Grantee shall provide FRA with written notice upon the earliest determination that state funds are available, including proceeds from the sale of Proposition 1A bonds, and this Agreement shall be amended to reflect the availability of such funds.

The Grantee remains responsible for ensuring that the matching contribution at Project completion is not less than 50.1818% for all activities excluding Task 8.1 and not less than 20.000% of the total cost of Task 8.1. The Grantee shall immediately provide FRA with written notice if at any time there is a material adverse change in pending litigation, including the timeline for resolution, or any other circumstances that might prevent the Grantee from securing and delivering the required matching contribution. Upon receiving such written notice, FRA may require that this Agreement be amended to reflect such change or take any other action permitted under this Agreement, including but not limited, to exercise of rights, including termination, pursuant to Attachment 2, Section 23.

FRA at its sole discretion may require the Grantee to use the reimbursable payment method for any future payment requests and may also require that the Grantee commit its contributory match concurrent with each payment request consistent with the funding contribution proportions required under Attachment 1, Subsections 5(c), 5(e) and 5(f).

## **PROJECT COORDINATION**

CHSRA will perform all tasks required for the Project including necessary coordination with all involved Federal and State agencies, local governments, and all railroad owners and operators and stakeholders using processes already in place. CHSRA's project coordination process is based on ongoing practice, executed Memoranda of Understanding and other Agreements, and public involvement processes developed for the NEPA/CEQA phase of the Project.

## **PROJECT MANAGEMENT**

The Authority's staff organization currently consists of a Chief Executive Officer, a Chief of Staff, a Chief Financial Officer, Chief Counsel and two Deputy Executive Directors (for Communication, Policy and Public Outreach, and for Environmental Review and Planning), a small support staff, as well as a Chief Engineer contractor, a Project Management Oversight

(PMO) contractor, a Government Relations Management contractor, a Program Management Team, and seven RC Teams (plus an additional team for the “Altamont Corridor Rail Project”). Additionally, CHSRA employs a financial consultant contractor and a public outreach and communications contractor. CHSRA plans to hire a Construction Management consultant for this Project. The Authority’s organization for this work will be supported by appropriate legal services.

CHSRA will engage contractors through the competitive bidding process established by the State of California for all construction activities and in compliance with Federal regulations. CHSRA will provide construction oversight and will give direction to the construction engineering and contractor.

CHSRA shall satisfy the requirements of this Agreement including providing all of the deliverables in a timely manner for FRA’s review, acceptance, or approval. FRA approval is specifically required for all Project deliverables, as laid out in Attachments 3 and 3A of this Agreement. Failure to satisfy the deliverables within the prescribed timeframes may result in FRA withholding grant payments or any other action consistent with the terms of the Cooperative Agreement and Federal law. FRA normally requires a minimum of 30 calendar days for review and approvals.

Nothing herein is intended to, or shall be construed to or shall operate to, preclude or to limit CHSRA from negotiating such changes in its contracts with its consultants as it finds are necessary and appropriate to secure the performance of the work described herein in an adequate and timely manner, provided, however, that CHSRA shall provide FRA timely written notice of all such contractual changes relevant to the work to be performed under Attachment 3 of this Agreement.



Cooperative Agreement FR-HSR-0009-10-01-00, as amended, Exhibit 3: Funding Contribution Plan

This Exhibit 3 is the Funding Contribution Plan required by Cooperative Agreement FR-HSR-0009-10-01-00, as amended. Nothing in this Funding Contribution Plan shall be interpreted to modify, supersede, or amend the terms of Cooperative Agreement FR-HSR-0009-10-01-00 including but not limited to the Scope, Schedule and Approved Project Budget contained therein.

		Period Start Period End	1-Jul-12 30-Jun-13	1-Jul-13 30-Jun-14	1-Jul-14 30-Jun-15	1-Jul-15 30-Jun-16	1-Jul-16 30-Jun-17	1-Jul-17 30-Jun-18	1-Jul-18 30-Jun-19
<b>Uses</b>									
<b>Phase 1 Planning, PE &amp; Environmental</b>	186,000,000		92,691,617	37,161,942	26,937,680	23,669,782	5,538,980	-	-
<b>Real Property Acquisition</b>									
CP1 ROW Acquisition	441,000,000		225,964,411	215,035,589	-	-	-	-	-
CP2 ROW Acquisition	179,000,000		6,105,322	131,253,009	41,641,669	-	-	-	-
CP3 ROW Acquisition	108,000,000		3,683,658	79,191,760	25,124,582	-	-	-	-
CP4 ROW Acquisition	45,670,021		1,557,711	33,487,864	10,624,446	-	-	-	-
<b>D-B, Program Management, Contract Work &amp; Contingency</b>									
Program Management	266,422,656		38,997,826	44,683,740	44,683,740	44,854,942	44,683,740	44,512,538	4,006,128
SR-99	225,900,000		28,600,000	29,100,000	47,900,000	61,600,000	52,900,000	5,800,000	-
CP1	1,450,823,148		-	103,125,689	616,885,196	477,108,209	214,642,875	38,469,733	591,447
CP2	900,704,098		-	13,471,860	35,362,457	437,310,400	367,161,387	47,397,994	-
CP3	1,163,348,616		-	15,408,362	43,412,826	27,902,926	600,398,243	474,227,285	1,998,973
CP4	466,547,844		-	5,348,379	16,632,000	8,073,736	249,837,366	186,210,053	446,309
CP5	512,336,079		-	-	16,826,719	51,784,732	179,626,665	198,397,588	65,700,374
<b>Project Reserve</b>	108,000,000		-	-	-	-	-	108,000,000	-
<b>Total Uses</b>	<b>6,053,752,462</b>		<b>397,600,544</b>	<b>707,268,194</b>	<b>926,031,316</b>	<b>1,132,304,727</b>	<b>1,714,789,256</b>	<b>1,103,015,193</b>	<b>72,743,232</b>
<b>Sources</b>									
ARRA Funds	2,414,056,231		397,600,544.47	527,662,898	103,021,460	573,308,299	812,463,029	-	-
FY10 Funds	928,620,000		-	-	-	-	103,028,444	794,987,654	30,603,902
Prop 1A Funds	2,711,076,231		-	179,605,296	823,009,856	558,996,428	799,297,783	308,027,539	42,139,330
<b>Total Sources</b>	<b>6,053,752,462</b>		<b>397,600,544</b>	<b>707,268,194</b>	<b>926,031,316</b>	<b>1,132,304,727</b>	<b>1,714,789,256</b>	<b>1,103,015,193</b>	<b>72,743,232</b>

Notes:

1	Estimates based on input from Authority staff and consultants as of November 2012
1	Phase I Planning PE & Environmental costs include costs for oversight and management of the regional contractors
	Monthly cost estimates for Phase 1 PE/NEPA/CEQA are based on estimated annual expenditures spread uniformly over 12 months .
2	CP1-5 D-B costs include the cost of construction management and other support costs
	Estimated CP1-5 D-B construction costs are estimated following an S-curve for the corresponding construction timeline
	SR-99 Realignment costs are based on the draft agreement between the Authority and Caltrans as of July 19th, 2012.
3	CP1-5 ROW acquisition costs include the cost of ROW support and mitigation.
4	Program Management costs after March FY 12/13 are spread in a level manner.
5	Portions of Phase 1 will need additional funding for Planning, Preliminary Engineering and Environmental
6	PE/NEPA/CEQA Dollars spent between 2010 and 2012 in the amount of \$202,000,000 are not reflected in the above numbers
7	Amendment #1 in amount of \$91,000,000
8	Reference is made to the Grant Agreement dated September 22, 2010 and to Amendment No. 5
9	Advance payment is requested for all ARRA eligible elements through spring 2014, or earlier.
10	Grantee's ability to issue NTP for any design or construction contract is subject to the limitations in Attachment 3A, Task 5 of Cooperative Agreement FR-HSR-0009-10-01-00, as amended.
11	Red text designates scope activities that are authorized to be paid with Federal funds , using advance payment method, until Prop 1A bond sale or April 2014, whichever is earlier.
12	Blue text designates scope activities that are authorized to be paid with Federal funds, using advance payment method, until Prop 1A bond sale or April 2014, whichever is earlier; however, these activities require FRA approval prior to issuing NTP for any design and construction activities, consistent with Attachment 3A, Task 5 of Cooperative Agreement FR-HSR-0009-10-01-00, as amended.
13	Project contingency is allocated across CP 1-5.
14	Project reserve will be allocated in future grant amendments
15	Preconstruction funding availability estimated mid-June 2012. Does not reflect invoicing lag to the FRA.

Calculations

**Red text:** Designates scope activities that are authorized to be paid with Federal funds, using advance payment method, until Prop 1A bond sale or April 2014, whichever is earlier.  
 Designates scope activities that are authorized to be paid with Federal funds, using advance payment method, until Prop 1A bond sale or April 2014, whichever is earlier;  
**Blue text:** however, these activities require FRA approval prior to issuing NTP for any design and construction activities, consistent with Attachment 3A, Task 5 of Cooperative Agreement FR-HSR-0009-10-01-00, as amended.

	Period Start Period End	1-Jul-12 31-Jul-12	1-Aug-12 31-Aug-12	1-Sep-12 30-Sep-12	1-Oct-12 31-Oct-12	1-Nov-12 30-Nov-12	1-Dec-12 31-Dec-12	1-Jan-13 31-Jan-13	1-Feb-13 28-Feb-13	1-Mar-13 31-Mar-13	1-Apr-13 30-Apr-13	1-May-13 31-May-13	1-Jun-13 30-Jun-13	1-Jul-13 31-Jul-13	
<b>Uses</b>															
<b>Phase 1 Planning, PE &amp; Environmental</b>		186,000,000													
		5,430,827	6,868,869	6,916,248	10,135,412	9,946,867	10,242,102	9,898,065	8,081,143	6,649,010	6,101,791	6,313,657	6,107,625	3,096,829	
<b>Real Property Acquisition</b>															
CP1 ROW Acquisition		441,000,000					1,480,339	1,480,339	75,178,647	82,551,805	25,540,761	26,486,229	13,246,291	30,120,167	
CP2 ROW Acquisition		179,000,000								1,489,641	1,525,164	1,523,421	1,567,096	9,031,429	
CP3 ROW Acquisition		108,000,000								898,778	920,210	919,159	945,511	5,449,130	
CP4 ROW Acquisition		45,670,021								380,067	389,130	388,685	399,829	2,304,277	
<b>D-B, Program Management, Contract Work &amp; Contingency</b>															
<b>Program Management</b>		266,422,656													
SR-99		225,900,000					3,014,970	3,135,569	3,424,041	3,424,041	3,595,243	3,766,446	3,937,648	3,937,648	
CP1		1,450,823,148					21,000,000	950,000	950,000	950,000	950,000	950,000	950,000	2,425,000	
CP2		900,704,098												8,713,997	
CP3		1,163,348,616													
CP4		466,547,844													
CP5		512,336,079													
<b>Project Reserve</b>		108,000,000													
<b>Total Uses</b>		<b>6,053,752,462</b>	<b>7,786,425</b>	<b>9,789,287</b>	<b>9,612,177</b>	<b>34,439,292</b>	<b>13,911,838</b>	<b>15,808,010</b>	<b>15,752,445</b>	<b>87,633,831</b>	<b>96,514,545</b>	<b>39,193,502</b>	<b>40,518,800</b>	<b>26,640,393</b>	<b>65,078,476</b>
<b>Sources</b>															
Prop 1A Availability - Flag	1-Apr-14		0	0	0	0	0	0	0	0	0	0	0	0	0
Target Match for ARRA to Prop 1A	50.6%														
Target Match for FY10 to Prop 1A	72.1%														
<b>All ARRA</b>			1	1	1	1	1	1	1	1	1	1	1	1	1
Available ARRA Funds (b/f)	2,414,056,231	2,414,056,231	2,406,269,806	2,396,480,519	2,386,868,342	2,352,429,050	2,338,517,212	2,322,709,202	2,306,956,757	2,219,322,926	2,122,808,382	2,083,614,880	2,043,096,080	2,016,455,687	
ARRA Funds Expended	(925,263,443)	(7,786,425)	(9,789,287)	(9,612,177)	(34,439,292)	(13,911,838)	(15,808,010)	(15,752,445)	(87,633,831)	(96,514,545)	(39,193,502)	(40,518,800)	(26,640,393)	(65,078,476)	
Available ARRA Funds (c/f)		2,406,269,806	2,396,480,519	2,386,868,342	2,352,429,050	2,338,517,212	2,322,709,202	2,306,956,757	2,219,322,926	2,122,808,382	2,083,614,880	2,043,096,080	2,016,455,687	1,951,377,211	
Remaining ARRA Funds	1,488,792,788														
Total authorized expenditures until Prop 1A bond sale or April 2014, whichever is earlier	925,263,443	7,786,425	9,789,287	9,612,177	34,439,292	13,911,838	15,808,010	15,752,445	87,633,831	96,514,545	39,193,502	40,518,800	26,640,393	65,078,476	
Required Prop 1A to "Catch Up" to Target Match	902,165,484														
<b>Prop 1A Catch up</b>															
Remaining Expenditures	5,128,489,019														
Remaining Funds Needed to Catch Up (b/f)	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	
Prop 1A Spent															
Remaining Funds Needed to Catch Up (c/f)		902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	
Available Prop 1A Funds (b/f)	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	
Prop 1A Funds Expended	(902,165,484)														
Available Prop 1A Funds (c/f)		2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	
Remaining Prop 1A Funds	1,808,910,747														
<b>ARRA, FY10, and Prop 1A Split</b>															
Remaining Expenditures	4,226,323,535														
Notional ARRA Expenditures															
Notional FY10 Expenditures															
Available ARRA Funds (b/f)	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	
ARRA Funds Expended	(1,488,792,788)														
Available ARRA Funds (c/f)		1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	
Remaining Expenditures															
Available FY10 Funds for Construction & ROW (b/f)	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	
FY10 Funds Expended	(928,620,000)														
Available FY10 Funds for Construction & ROW (c/f)		928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	
Remaining Expenditures															
Available Prop 1A Funds (b/f)	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	
Prop 1A Funds Expended	(1,808,910,747)														
Available Prop 1A Funds (c/f)		1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	
Funding Gap															
<b>Total Sources for PE/NEPA/CEQA</b>	<b>6,053,752,462</b>	<b>7,786,425</b>	<b>9,789,287</b>	<b>9,612,177</b>	<b>34,439,292</b>	<b>13,911,838</b>	<b>15,808,010</b>	<b>15,752,445</b>	<b>87,633,831</b>	<b>96,514,545</b>	<b>39,193,502</b>	<b>40,518,800</b>	<b>26,640,393</b>	<b>65,078,476</b>	
ARRA Expenditures	(2,414,056,231)	(7,786,425)	(9,789,287)	(9,612,177)	(34,439,292)	(13,911,838)	(15,808,010)	(15,752,445)	(87,633,831)	(96,514,545)	(39,193,502)	(40,518,800)	(26,640,393)	(65,078,476)	
FY10 Expenditures	(928,620,000)														
Prop 1A Expenditures	(2,711,076,231)														
<b>Total</b>	<b>(6,053,752,462)</b>														

1-Aug-13 31-Aug-13	1-Sep-13 30-Sep-13	1-Oct-13 31-Oct-13	1-Nov-13 30-Nov-13	1-Dec-13 31-Dec-13	1-Jan-14 31-Jan-14	1-Feb-14 28-Feb-14	1-Mar-14 31-Mar-14	1-Apr-14 30-Apr-14	1-May-14 31-May-14	1-Jun-14 30-Jun-14	1-Jul-14 31-Jul-14	1-Aug-14 31-Aug-14	1-Sep-14 30-Sep-14	1-Oct-14 31-Oct-14	1-Nov-14 30-Nov-14	1-Dec-14 31-Dec-14	1-Jan-15 31-Jan-15	1-Feb-15 28-Feb-15	1-Mar-15 31-Mar-15	1-Apr-15 30-Apr-15	
3,096,829	3,096,829	3,096,829	3,096,829	3,096,829	3,096,829	3,096,829	3,096,829	3,096,829	3,096,829	3,096,829	2,244,807	2,244,807	2,244,807	2,244,807	2,244,807	2,244,807	2,244,807	2,244,807	2,244,807	2,244,807	2,244,807
2,818,180	95,164,420	-	86,932,823	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11,350,081	8,001,244	11,851,722	8,056,478	11,851,722	11,851,722	11,851,722	11,851,722	11,851,722	11,851,722	11,851,722	3,470,139	3,470,139	3,470,139	3,470,139	3,470,139	3,470,139	3,470,139	3,470,139	3,470,139	3,470,139	3,470,139
6,848,093	4,827,566	7,150,760	4,860,892	7,150,760	7,150,760	7,150,760	7,150,760	7,150,760	7,150,760	7,150,760	2,093,715	2,093,715	2,093,715	2,093,715	2,093,715	2,093,715	2,093,715	2,093,715	2,093,715	2,093,715	2,093,715
2,895,857	2,041,436	3,023,846	2,055,528	3,023,846	3,023,846	3,023,846	3,023,846	3,023,846	3,023,846	3,023,846	885,371	885,371	885,371	885,371	885,371	885,371	885,371	885,371	885,371	885,371	885,371

3,766,446	3,595,243	3,937,648	3,595,243	3,766,446	3,937,648	3,424,041	3,595,243	3,766,446	3,766,446	3,595,243	3,937,648	3,595,243	3,766,446	3,937,648	3,424,041	3,937,648	3,766,446	3,424,041	3,766,446	3,766,446	3,766,446
2,425,000	2,425,000	2,425,000	2,425,000	2,425,000	2,425,000	2,425,000	2,425,000	2,425,000	2,425,000	2,425,000	3,991,667	3,991,667	3,991,667	3,991,667	3,991,667	3,991,667	3,991,667	3,991,667	3,991,667	3,991,667	3,991,667
1,348,534	1,516,389	3,418,436	3,193,210	5,390,574	8,067,892	8,600,892	11,271,674	15,003,811	17,514,958	19,085,324	30,541,191	28,325,937	35,482,112	47,211,245	40,240,246	50,230,269	61,145,629	59,118,759	66,040,078	68,681,659	68,681,659
-	-	-	-	-	-	-	-	6,451,694	3,378,317	3,641,849	4,170,925	4,503,261	4,702,168	3,298,213	3,360,129	2,964,104	2,232,417	1,596,613	1,596,613	1,596,613	1,596,613
-	-	-	-	-	-	-	-	7,678,709	3,566,726	4,162,927	4,521,305	4,810,030	5,366,308	5,486,426	3,772,927	4,278,873	3,830,632	2,721,629	2,993,791	2,094,042	2,094,042
-	-	-	-	-	-	-	-	2,826,159	1,140,655	1,381,564	1,566,594	1,443,693	1,768,568	1,933,791	1,701,544	1,625,408	1,450,089	1,178,965	1,137,210	1,026,681	1,026,681
-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,869,238	1,025,649	1,179,498	1,305,229	1,431,251	1,574,376	1,997,903	1,997,903

34,549,019	120,668,128	34,904,240	114,216,002	36,705,175	39,553,695	39,573,090	42,415,074	63,274,974	56,915,258	59,415,063	57,423,361	55,363,862	63,771,299	78,003,887	66,148,317	77,297,523	87,147,826	82,792,760	89,794,211	91,849,042	91,849,042
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0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
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1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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1,951,377,211 (34,549,019)	1,916,828,192 (120,668,128)	1,796,160,064 (34,904,240)	1,761,255,824 (114,216,002)	1,647,039,822 (36,705,175)	1,610,334,647 (39,553,695)	1,570,780,951 (39,573,090)	1,531,207,862 (42,415,074)	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788
1,916,828,192	1,796,160,064	1,761,255,824	1,647,039,822	1,610,334,647	1,570,780,951	1,531,207,862	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788

34,549,019	120,668,128	34,904,240	114,216,002	36,705,175	39,553,695	39,573,090	42,415,074	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-	63,274,974	56,915,258	59,415,063	57,423,361	55,363,862	63,771,299	78,003,887	66,148,317	77,297,523	87,147,826	82,792,760	89,794,211	91,849,042	91,849,042
902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	838,890,509	781,975,251	722,560,188	665,136,828	609,772,965	546,001,666	467,997,780	401,849,463	324,551,939	237,404,113	154,611,353	64,817,142	64,817,142
902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	902,165,484	838,890,509	781,975,251	722,560,188	665,136,828	609,772,965	546,001,666	467,997,780	401,849,463	324,551,939	237,404,113	154,611,353	64,817,142	-	-
2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,647,801,257	2,590,885,998	2,531,470,935	2,474,047,575	2,418,683,712	2,354,912,414	2,276,908,527	2,210,760,210	2,133,462,687	2,046,314,860	1,963,522,100	1,873,727,889	1,873,727,889
2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,711,076,231	2,647,801,257	2,590,885,998	2,531,470,935	2,474,047,575	2,418,683,712	2,354,912,414	2,276,908,527	2,210,760,210	2,133,462,687	2,046,314,860	1,963,522,100	1,873,727,889	1,873,727,889	1,873,727,889

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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19,482,984

1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788
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1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788
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928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000
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928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000
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1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747
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1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747
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34,549,019	120,668,128	34,904,240	114,216,002	36,705,175	39,553,695	39,573,090	42,415,074	63,274,974	56,915,258	59,415,063	57,423,361	55,363,862	63,771,299	78,003,887	66,148,317	77,297,523	87,147,826	82,792,760	89,794,211	91,849,042	91,849,042
(34,549,019)	(120,668,128)	(34,904,240)	(114,216,002)	(36,705,175)	(39,553,695)	(39,573,090)	(42,415,074)	-	-	-	-	-	-	-	-	-	-	-	-	-	(13,686,786)
-	-	-	-	-	-	-	-	(63,274,974)	(56,915,258)	(59,415,063)	(57,423,361)	(55,363,862)	(63,771,299)	(78,003,887)	(66,148,317)	(77,297,523)	(87,147,826)	(82,792,760)	(89,794,211)	(91,849,042)	(78,162,256)

1-May-15 31-May-15	1-Jun-15 30-Jun-15	1-Jul-15 31-Jul-15	1-Aug-15 31-Aug-15	1-Sep-15 30-Sep-15	1-Oct-15 31-Oct-15	1-Nov-15 30-Nov-15	1-Dec-15 31-Dec-15	1-Jan-16 31-Jan-16	1-Feb-16 29-Feb-16	1-Mar-16 31-Mar-16	1-Apr-16 30-Apr-16	1-May-16 31-May-16	1-Jun-16 30-Jun-16	1-Jul-16 31-Jul-16	1-Aug-16 31-Aug-16	1-Sep-16 30-Sep-16	1-Oct-16 31-Oct-16	1-Nov-16 30-Nov-16	1-Dec-16 31-Dec-16	1-Jan-17 31-Jan-17	
2,244,807	2,244,807	1,972,482	1,972,482	1,972,482	1,972,482	1,972,482	1,972,482	1,972,482	1,972,482	1,972,482	1,972,482	1,972,482	1,972,482	461,582	461,582	461,582	461,582	461,582	461,582	461,582	461,582
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,470,139	3,470,139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,093,715	2,093,715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
885,371	885,371	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

3,595,243	3,766,446	3,937,648	3,595,243	3,766,446	3,766,446	3,595,243	3,937,648	3,595,243	3,595,243	3,937,648	3,595,243	3,766,446	3,766,446	3,595,243	3,937,648	3,766,446	3,595,243	3,766,446	3,766,446	3,766,446	3,766,446
3,991,667	3,991,667	5,133,333	5,133,333	5,133,333	5,133,333	5,133,333	5,133,333	5,133,333	5,133,333	5,133,333	5,133,333	5,133,333	5,133,333	4,408,333	4,408,333	4,408,333	4,408,333	4,408,333	4,408,333	4,408,333	4,408,333
64,326,601	65,541,470	60,413,687	51,820,932	51,211,703	38,283,020	36,986,880	41,412,021	32,670,515	33,702,856	37,657,833	30,128,732	31,573,606	31,246,423	28,255,995	31,093,269	29,436,432	23,340,141	18,134,169	18,134,169	17,871,119	
1,496,272	1,561,903	1,632,899	1,490,909	1,657,827	5,119,160	104,386,305	257,076,056	33,057,035	3,742,793	4,099,249	6,547,653	7,447,131	11,053,381	15,080,679	16,690,341	28,037,768	26,763,325	36,213,660	41,116,292	41,907,028	
1,729,666	1,807,196	1,853,214	1,692,065	1,772,639	1,772,639	1,692,065	2,443,377	2,337,800	2,337,800	2,560,447	2,337,800	2,449,123	4,653,958	88,601,947	240,406,961	35,141,066	5,095,073	5,184,966	11,335,087	11,553,080	
980,015	819,442	649,659	593,166	614,965	607,903	580,271	635,536	591,431	591,431	727,867	801,718	839,895	839,895	1,547,941	43,785,883	104,440,496	15,466,903	2,150,049	2,745,573	4,862,097	
2,658,490	2,785,086	2,725,844	2,179,653	2,283,446	3,771,743	3,415,461	3,740,744	3,304,163	3,030,642	5,919,128	6,924,486	7,244,711	7,244,711	6,915,405	9,133,926	12,964,388	12,482,647	13,216,099	13,216,099	13,470,267	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87,471,986	88,967,241	78,318,766	68,477,783	68,412,841	60,426,726	157,762,040	316,351,197	82,662,002	54,106,580	62,007,987	57,441,448	60,426,727	65,910,629	148,867,125	349,917,942	218,656,511	91,613,247	83,535,303	95,183,581	98,299,952	

1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788
1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788

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87,471,986	88,967,241	78,318,766	68,477,783	68,412,841	60,426,726	157,762,040	316,351,197	82,662,002	54,106,580	62,007,987	57,441,448	60,426,727	65,910,629	148,867,125	349,917,942	218,656,511	91,613,247	83,535,303	95,183,581	98,299,952	

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747
1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747

87,471,986	88,967,241	78,318,766	68,477,783	68,412,841	60,426,726	157,762,040	316,351,197	82,662,002	54,106,580	62,007,987	57,441,448	60,426,727	65,910,629	148,867,125	349,917,942	218,656,511	91,613,247	83,535,303	95,183,581	98,299,952	
44,288,798	45,045,876	39,654,342	34,671,657	34,638,776	30,595,248	79,878,044	160,174,874	41,853,408	27,395,233	31,395,871	29,083,742	30,595,248	33,371,856	75,374,372	177,170,381	110,710,120	46,385,601	42,295,578	48,193,331	49,771,212	
63,044,597	64,122,289	56,447,502	49,354,707	49,307,901	43,551,985	113,705,482	228,007,101	59,577,848	38,996,800	44,691,664	41,400,375	43,551,986	47,504,456	107,294,557	252,200,011	157,594,590	66,029,372	60,207,271	68,602,656	70,848,751	
1,475,106,002	1,430,817,204	1,385,771,328	1,346,116,987	1,311,445,330	1,276,806,554	1,246,211,306	1,166,333,262	1,006,158,388	964,304,980	936,909,747	905,513,876	876,430,133	845,834,885	812,463,029	737,088,657	559,918,275	449,208,155	402,822,554	360,526,976	312,333,645	262,562,433
(44,288,798)	(45,045,876)	(39,654,342)	(34,671,657)	(34,638,776)	(30,595,248)	(79,878,044)	(160,174,874)	(41,853,408)	(27,395,233)	(31,395,871)	(29,083,742)	(30,595,248)	(33,371,856)	(75,374,372)	(177,170,381)	(110,710,120)	(46,385,601)	(42,295,578)	(48,193,331)	(49,771,212)	
1,430,817,204	1,385,771,328	1,346,116,987	1,311,445,330	1,276,806,554	1,246,211,306	1,166,333,262	1,006,158,388	964,304,980	936,909,747	905,513,876	876,430,133	845,834,885	812,463,029	737,088,657	559,918,275	449,208,155	402,822,554	360,526,976	312,333,645	262,562,433	
43,183,188	43,921,366	38,664,424	33,806,126	33,774,065	29,831,478	77,883,996	156,176,323	40,808,594	26,711,348	30,612,116	28,357,706	29,831,479	32,538,773	73,492,752	172,747,561	107,946,391	45,227,646	41,239,725	46,990,250	48,528,740	
928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000
928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	928,620,000
43,183,188	43,921,366	38,664,424	33,806,126	33,774,065	29,831,478	77,883,996	156,176,323	40,808,594	26,711,348	30,612,116	28,357,706	29,831,479	32,538,773	73,492,752	172,747,561	107,946,391	45,227,646	41,239,725	46,990,250	48,528,740	
1,795,565,633	1,752,382,445	1,708,461,079	1,669,796,655	1,635,990,529	1,602,216,464	1,572,384,986	1,494,500,990	1,338,324,666	1,297,516,072	1,270,804,725	1,240,192,609	1,211,834,903	1,182,003,424	1,149,464,651	1,075,971,899	903,224,338	795,277,947	750,050,301	708,810,575	661,820,326	613,291,586
(43,183,188)	(43,921,366)	(38,664,424)	(33,806,126)	(33,774,065)	(29,831,478)	(77,883,996)	(156,176,323)	(40,808,594)	(26,711,348)	(30,612,116)	(28,357,706)	(29,831,479)	(32,538,773)	(73,492,752)	(172,747,561)	(107,946,391)	(45,227,646)	(41,239,725)	(46,990,250)	(48,528,740)	
1,752,382,445	1,708,461,079	1,669,796,655	1,635,990,529	1,602,216,464	1,572,384,986	1,494,500,990	1,338,324,666	1,297,516,072	1,270,804,725	1,240,192,609	1,211,834,903	1,182,003,424	1,149,464,651	1,075,971,899	903,224,338	795,277,947	750,050,301	708,810,575	661,820,326	613,291,586	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87,471,986	88,967,241	78,318,766	68,477,783	68,412,841	60,426,726	157,762,040	316,351,197	82,662,002	54,106,580	62,007,987	57,441,448	60,426,727	65,910,629	148,867,125	349,917,942	218,656,511	91,613,247	83,535,303	95,183,581	98,299,952	
(44,288,798)	(45,045,876)	(39,654,342)	(34,671,657)	(34,638,776)	(30,595,248)	(79,878,044)	(160,174,874)	(41,853,408)	(27,395,233)	(31,395,871)	(29,083,742)	(30,595,248)	(33,371,856)	(75,374,372)	(177,170,381)	(110,710,120)	(46,385,601)	(42,295,578)	(48,193,331)	(49,771,212)	
(43,183,188)	(43,921,366)	(38,664,424)	(33,806,126)	(33,774,065)	(29,831,478)	(77,883,996)	(156,176,323)	(40,808,594)	(26,711,348)	(30,612,116)	(28,357,706)	(29,831,479)	(32,538,773)	(73,492,752)	(172,747,561)	(107,946,391)	(45,227,646)	(41,239,725)	(46,990,250)	(48,528,740)	

1-Feb-17 28-Feb-17	1-Mar-17 31-Mar-17	1-Apr-17 30-Apr-17	1-May-17 31-May-17	1-Jun-17 30-Jun-17	1-Jul-17 31-Jul-17	1-Aug-17 31-Aug-17	1-Sep-17 30-Sep-17	1-Oct-17 31-Oct-17	1-Nov-17 30-Nov-17	1-Dec-17 31-Dec-17	1-Jan-18 31-Jan-18	1-Feb-18 28-Feb-18	1-Mar-18 31-Mar-18	1-Apr-18 30-Apr-18	1-May-18 31-May-18	1-Jun-18 30-Jun-18	1-Jul-18 31-Jul-18	1-Aug-18 31-Aug-18	1-Sep-18 30-Sep-18	1-Oct-18 31-Oct-18	
461,582	461,582	461,582	461,582	461,582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,424,041	3,937,648	3,424,041	3,937,648	3,766,446	3,595,243	3,937,648	3,595,243	3,766,446	3,766,446	3,595,243	3,937,648	3,424,041	3,766,446	3,595,243	3,937,648	3,595,243	451,973	472,518	410,885	472,518	
4,408,333	4,408,333	4,408,333	4,408,333	4,408,333	1,933,333	1,933,333	1,933,333	1,933,333	-	-	-	-	-	-	-	-	-	-	-	-	-
13,359,050	14,765,050	6,417,322	8,041,169	5,794,991	7,244,958	7,931,174	2,821,464	3,743,099	3,629,438	3,464,466	3,781,873	1,565,267	1,084,319	1,035,034	1,133,606	1,035,034	591,447	-	-	-	
38,097,297	43,811,892	28,154,739	28,405,802	22,882,564	13,928,761	15,255,308	5,650,615	5,462,999	1,784,117	3,584,357	1,731,837	-	-	-	-	-	-	-	-	-	
23,304,460	28,768,004	37,631,752	51,449,710	61,926,137	71,696,268	78,524,484	71,320,531	70,934,233	48,803,549	46,585,206	29,011,904	24,116,636	14,031,126	9,528,075	6,446,164	3,229,109	1,998,973	85,820	89,721	78,019	
5,634,042	12,042,927	11,985,273	21,600,932	23,575,250	29,919,807	32,769,313	29,919,807	27,566,262	20,254,786	16,359,925	11,622,426	7,941,181	4,311,949	3,145,815	1,512,618	886,165	-	-	-	52,013	
17,696,821	21,047,878	18,302,503	21,047,878	20,132,753	19,217,628	21,047,878	19,217,628	20,079,338	20,004,895	18,523,830	14,491,402	12,601,221	14,332,356	13,648,345	15,002,934	10,230,134	9,019,631	10,459,881	9,153,615	10,439,000	
-	-	-	-	-	-	-	108,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106,385,627	129,243,314	110,785,545	139,353,053	142,948,055	147,535,998	161,399,137	242,458,623	131,552,376	100,043,471	90,312,788	64,577,090	49,648,346	37,526,195	30,952,513	28,032,969	18,975,686	12,147,845	11,022,120	9,642,519	10,963,531	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788
1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788	1,488,792,788
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106,385,627	129,243,314	110,785,545	139,353,053	142,948,055	147,535,998	161,399,137	242,458,623	131,552,376	100,043,471	90,312,788	64,577,090	49,648,346	37,526,195	30,952,513	28,032,969	18,975,686	12,147,845	11,022,120	9,642,519	10,963,531	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747
1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747	1,808,910,747
106,385,627	129,243,314	110,785,545	139,353,053	142,948,055	147,535,998	161,399,137	242,458,623	131,552,376	100,043,471	90,312,788	64,577,090	49,648,346	37,526,195	30,952,513	28,032,969	18,975,686	12,147,845	11,022,120	9,642,519	10,963,531	
53,865,149	65,438,448	56,092,915	70,557,210	72,377,430	74,700,397	81,719,578	122,761,601	66,607,572	50,653,990	45,727,153	32,696,659	25,137,940	19,000,255	15,671,870	14,193,647	9,607,765	6,150,695	5,580,718	4,882,198	5,551,053	
76,676,424	93,150,883	79,847,622	100,437,381	103,028,444	106,335,160	116,326,885	174,749,734	94,815,117	72,105,375	65,092,079	46,543,320	35,783,571	27,046,646	22,308,728	20,204,494	13,676,544	8,755,443	7,944,088	6,949,753	7,901,860	
262,562,433	208,697,284	143,258,836	87,165,921	16,608,712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(53,865,149)	(65,438,448)	(56,092,915)	(70,557,210)	(16,608,712)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
208,697,284	143,258,836	87,165,921	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52,520,478	63,804,865	54,692,630	68,795,844	126,339,344	147,535,998	161,399,137	242,458,623	131,552,376	100,043,471	90,312,788	64,577,090	49,648,346	37,526,195	30,952,513	28,032,969	18,975,686	12,147,845	11,022,120	9,642,519	10,963,531	
928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	825,591,556	719,256,396	602,929,511	428,179,777	333,364,659	261,259,284	196,167,206	149,623,885	113,840,314	86,793,668	64,484,940	44,280,446	30,603,902	21,848,459	13,904,371	6,954,618	
-	-	-	-	(103,028,444)	(106,335,160)	(116,326,885)	(174,749,734)	(94,815,117)	(72,105,375)	(65,092,079)	(46,543,320)	(35,783,571)	(27,046,646)	(22,308,728)	(20,204,494)	(13,676,544)	(8,755,443)	(7,944,088)	(6,949,753)	(6,954,618)	
928,620,000	928,620,000	928,620,000	928,620,000	928,620,000	719,256,396	602,929,511	428,179,777	333,364,659	261,259,284	196,167,206	149,623,885	113,840,314	86,793,668	64,484,940	44,280,446	30,603,902	21,848,459	13,904,371	6,954,618	-	
52,520,478	63,804,865	54,692,630	68,795,844	23,310,900	41,200,838	45,072,252	67,708,889	36,737,259	27,938,096	25,220,710	18,033,770	13,864,775	10,479,549	8,643,785	7,828,475	5,299,142	3,392,402	3,078,032	2,692,766	4,008,913	
613,291,586	560,771,108	496,966,242	442,273,612	373,477,768	350,166,869	308,966,031	263,893,778	196,184,890	159,447,631	131,509,535	106,288,826	88,255,056	74,390,280	63,910,732	55,266,946	47,438,472	42,139,330	38,746,928	35,668,896	32,976,130	
(52,520,478)	(63,804,865)	(54,692,630)	(68,795,844)	(23,310,900)	(41,200,838)	(45,072,252)	(67,708,889)	(36,737,259)	(27,938,096)	(25,220,710)	(18,033,770)	(13,864,775)	(10,479,549)	(8,643,785)	(7,828,475)	(5,299,142)	(3,392,402)	(3,078,032)	(2,692,766)	(4,008,913)	
560,771,108	496,966,242	442,273,612	373,477,768	350,166,869	308,966,031	263,893,778	196,184,890	159,447,631	131,509,535	106,288,826	88,255,056	74,390,280	63,910,732	55,266,946	47,438,472	42,139,330	38,746,928	35,668,896	32,976,130	28,967,217	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106,385,627	129,243,314	110,785,545	139,353,053	142,948,055	147,535,998	161,399,137	242,458,623	131,552,376	100,043,471	90,312,788	64,577,090	49,648,346	37,526,195	30,952,513	28,032,969	18,975,686	12,147,845	11,022,120	9,642,519	10,963,531	
(53,865,149)	(65,438,448)	(56,092,915)	(70,557,210)	(16,608,712)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(52,520,478)	(63,804,865)	(54,692,630)	(68,795,844)	(23,310,900)	(41,200,838)	(45,072,252)	(67,708,889)	(36,737,259)	(27,938,096)	(25,220,710)	(18,033,770)	(13,864,775)	(10,479,549)	(8,643,785)	(7,828,475)	(5,299,142)	(3,392,402)	(3,078,032)	(2,692,766)	(4,008,913)	

