



CALIFORNIA
High-Speed Rail Authority

CALIFORNIA HIGH-SPEED RAIL: Rail Systems Engineering Services Request for Qualifications

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RAIL SYSTEMS ENGINEERING SERVICES CONTRACT

- **Summary of Request**

- » Issuance of Request for Qualifications (RFQ) to procure a Rail Systems Engineering Services support contract
 - This professional services contract is critical to HSR verifying all technical requirements are met by the civil, track, systems, trainsets, and station contractors, who will each have separate and distinct responsibilities.
- » **Staff seeks Board approval to release the RFQ**
- » Staff will seek Board approval prior to executing this Contract.

RAIL SYSTEMS ENGINEERING SERVICES CONTRACT

Background and Draft Contract Terms

- Current rail systems engineering services are provided by the Rail Delivery Partner (RDP)
 - » Rail Systems Engineering Service (RSES) scope was not included in the Program Delivery Support (PDS) Contract (successor to the RDP contract)
 - » Management of RSES Contract will be under the Authority's Rail and Operations Delivery Branch
- Contract term will be 5-years 4-months with option to extend
- Estimated Cost: \$73.2M for the 5-year 4-month term (not to exceed)
- This is a qualifications-based procurement; fair and reasonable fees and costs will be negotiated with the top-ranked Offeror prior to executing a contract
- 30% Small Business utilization goal, inclusive of 10% Disadvantaged Business Enterprise utilization goal and 3% Disabled Veterans Business Enterprise utilization goal

RAIL SYSTEMS ENGINEERING SERVICES CONTRACT

The Rail Systems Engineering Services consultant will:

- Provide a core group of rail engineers to support the Authority in a partner role with expertise in traction power/catenary, signal/train control and communications, network and general program integration, high-voltage, track, stations and station integration, rail equipment and operations to develop rail-related scope, engineering and plans.
- Review all civil designs to ensure:
 - » Compliance with the Authority's Design Criteria Manual (DCM),
 - » Track and systems requirements are met, and
 - » That no elements would interfere with rail construction, rail maintenance and/or rail operations.
- Respond to all special requests and technical evaluations which arise beyond construction and plan reviews, including environmental document and preliminary design reviews.
- Support the Authority in the integration of elements of the rail system and in the management of these interfaces.
- Provide oversight support for civil, track and systems elements, trainsets, and stations.
- Manage risk register and system safety of all safety cases related to civil, track, systems, trainsets, and stations.

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BACKGROUND: REVENUE SERVICE CERTIFICATION

- The RSES Consultant is critical to support certification efforts
- HSR project will be a certified railroad that is ready for passenger service from Merced to Bakersfield
- The Authority has active civil construction on the first 119-mile segment
 - » Track and systems contractors will follow the civils, and
 - » Trainsets, trainset certification facility, heavy maintenance facility

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Background (cont'd): European Norms (EN)

European Union (EU) Regulatory Approach

- In the past, each of the 27 countries set its own railroad standards and regulations
 - » For example: A train designed and certified for operation in Germany would not necessarily be certified to operate in France
- Subsequently, the EU developed standards, regulations and a formal process that allowed for interoperability throughout the EU, including:
 - » Technical Specifications for Interoperability
 - » EN50126 – The specification and demonstration of Reliability, Availability, Maintainability and Safety
 - » EN50128, EN50129 – Software from signaling, communications and process control

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Background (cont'd): Federal Railroad Administration (FRA) Requirements

FRA Approach

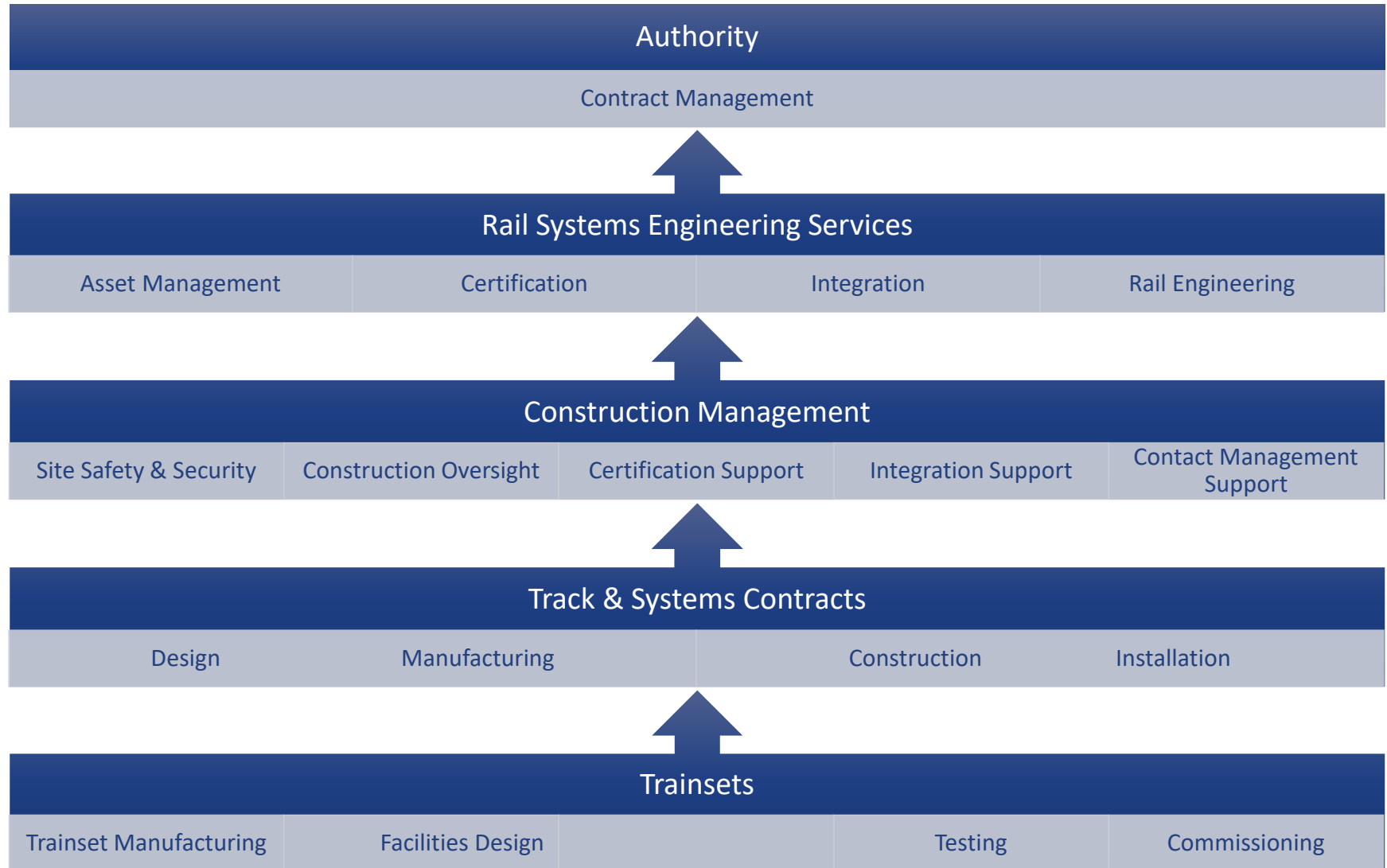
- Rules of General Applicability are established in the Code of Federal Regulations. These are primarily design-based regulations and universally apply to all railroads in the U.S.
- The published rules may not adequately cover design innovations and the FRA may allow specific Rules of Particular Applicability (RPA).
- Such rules are only applicable to specifically identified application in the RPA.
- Safety cases, risk assessments, hazard assessments, and mitigations are benchmarked against these regulatory requirements.

RAIL SYSTEMS ENGINEERING SERVICES SUPPORT

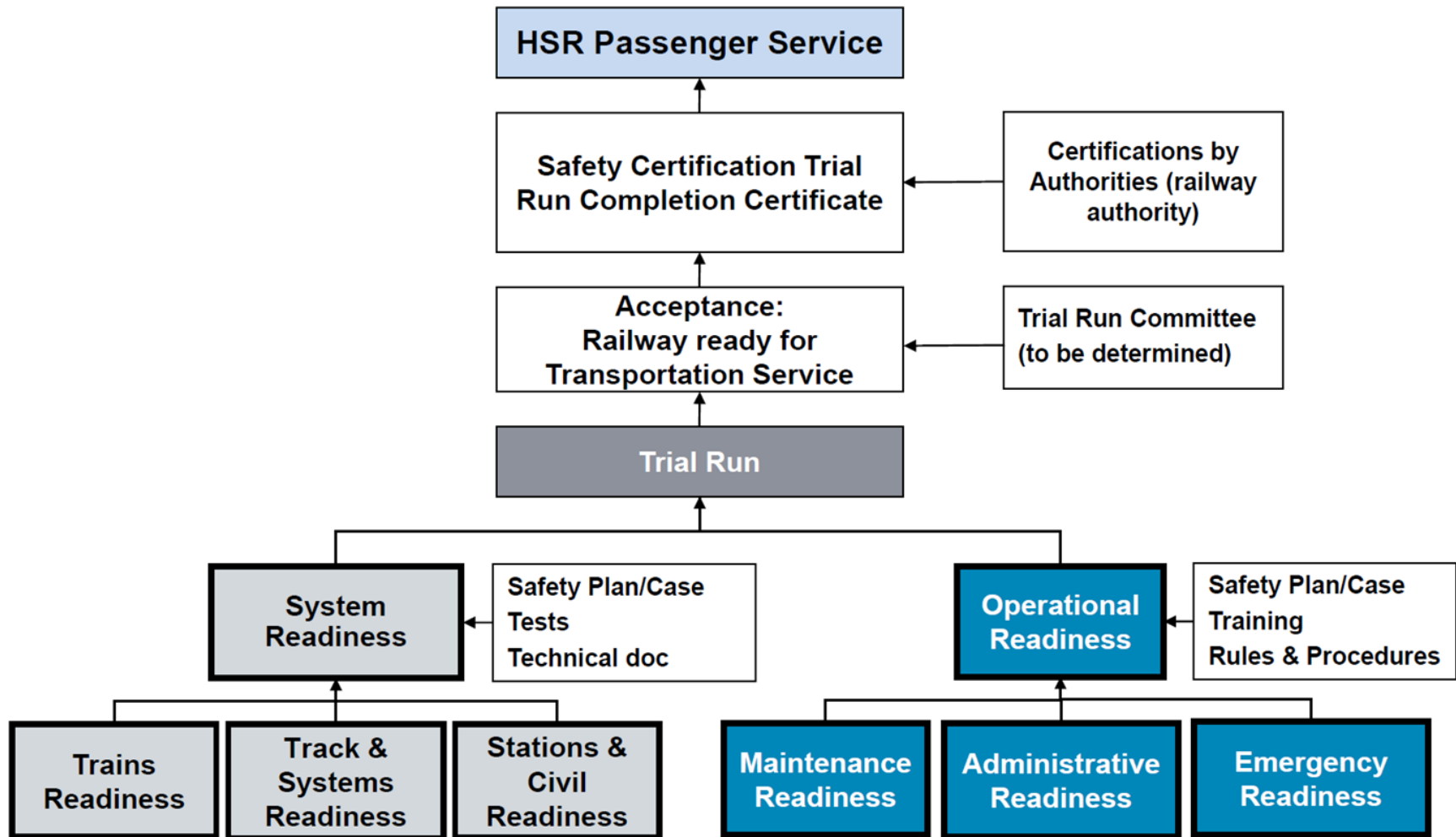
BACKGROUND (CONT'D): CONTRACTS TO BE SUPPORTED BY THE RSES CONSULTANT

- Track
- Systems
- Trainsets
- Stations
- Construction Management (Rail Contracts)

Rail Contracts – Primary Responsibilities



ENTRY INTO PASSENGER SERVICE



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Evaluation

- The SOQs will be evaluated and scored by an Evaluation Selection Committee pursuant to established criteria in the RFQ
- Pre-award audits will be conducted concurrently with negotiations prior to execution
- Environmental, social and governance efforts, which may include any environmental sustainability efforts, socio-economic equity policies, and governance policies, or a report will be incorporated as a pass/fail requirement in the Request for Qualifications

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Procurement Schedule

Activity	Date
RFQ advertised on Cal eProcure	February 17, 2023 or thereafter
Virtual Pre-Bid Conference and Small Business Informational Workshop	March 7, 2023
Statements of Qualifications Due	May 2, 2023
Anticipated Notice of Proposed Award Released	May 2023
Board Meeting	July 2023
Contract Execution and Notice to Proceed	July 2023

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Questions