



RESIDENT ENGINEERS ACADEMY

Instructors:

Osama Abbu-Markhieh

Siobhan Saunders

Renee Sutti

Suzi Theiss

Lindsey Woolsey

Instructors

Siobhan Saunders

Siobhan Saunders is a Construction Oversight Engineer for Headquarters Local Assistance serving local agencies from Monterey County (District 5) to San Francisco (District 4). She has worked for Caltrans over 28 years, almost exclusively in the District 5 Construction Department, starting as a field inspector and materials tester, later running projects as the Resident Engineer.

She has also been an instructor for the Caltrans Resident Engineers Academy and was part of the team who developed the Caltrans Construction Boot Camp for new inspectors.

She graduated from Santa Clara University with a degree in civil engineering and is a licensed Professional Engineer.

Renee Sutti

Renee worked for Department of Transportation for 35 years in District 10 (Central Valley area) and worked as a Construction Inspector for 2 years, then a Resident Engineer. Renee was in charge of various construction projects throughout the District 10 area. Renee is a graduate from Sacramento State University with a degree in civil engineering and is a licensed Professional Engineer.



Objectives

- Prepare you to be a RE on a federal-aid construction project.
- Make you aware of Federal and State requirements.
- Teach you to administer and document the process.
- Prevent your agency from losing federal funds.



Introductions

- Name
- Employer (agency or firm)
- Position (RE, Inspector, PM, CM, etc.)
- Years of construction experience
- State your expectations for this course – be specific





Topics Covered in the Resident Engineers Academy



Pre-Construction Preparation



Scope of Work



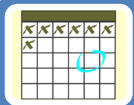
Control of Work



Control of Materials



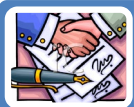
Legal Relations and Responsibility to the Public



Prosecution and Progress



Payment



Contract Change Orders



Environmental Stewardship



Water Pollution Control



Public Relations



Disadvantaged Business Enterprise Program



Labor Compliance



Construction Claims and Disputes



Project Completion and Invoicing



Construction Oversight Program



Types of Resident Engineers

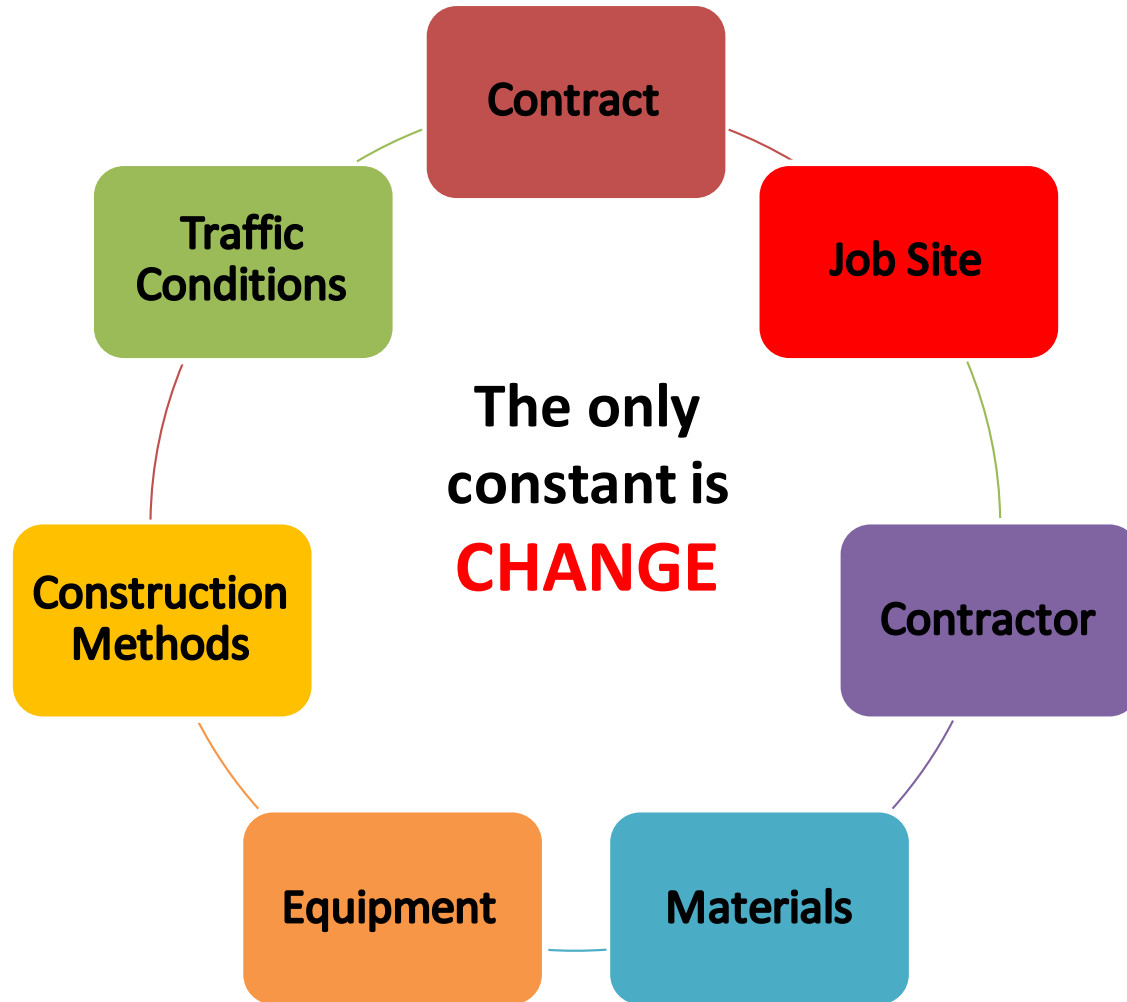


The Resident Engineer who. . .

1. Makes Things Happen!
2. Watches Things Happen!
3. Wonders What Happened!

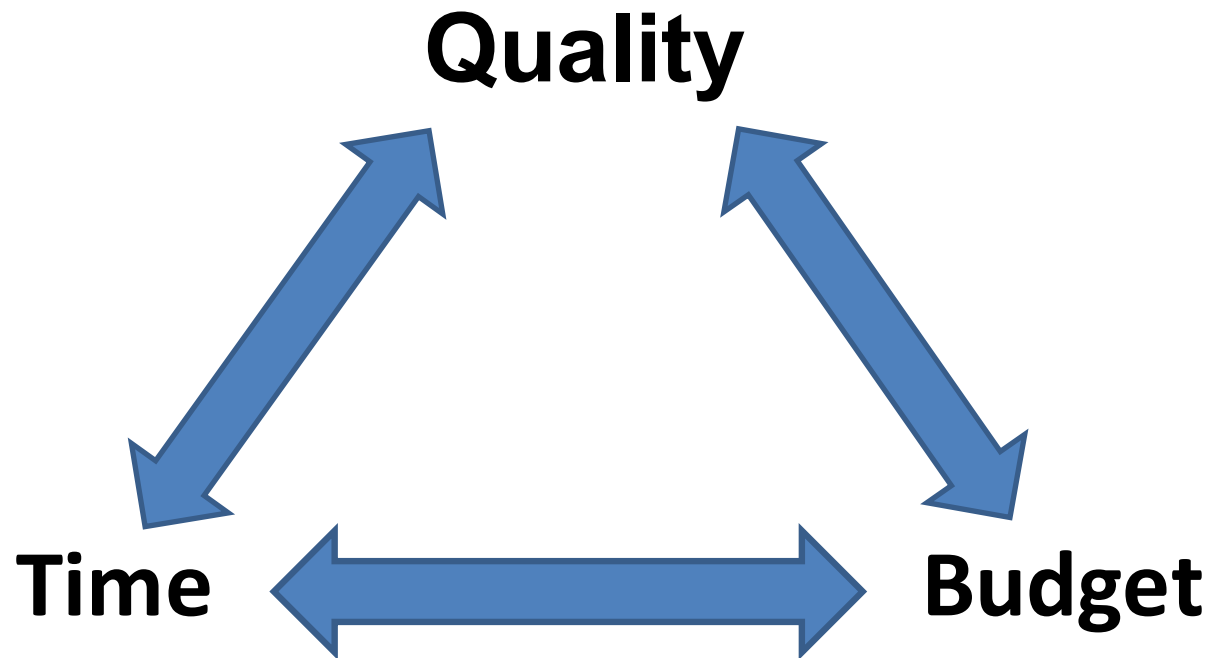


Remember . . .





Resident Engineer Equilateral Triangle





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Programs



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Local Assistance

Caltrans' Local Assistance Program oversees more than one billion dollars annually available to over 600 cities, counties and regional agencies for the purpose of improving their transportation infrastructure or providing transportation services. This funding comes from various Federal and State programs specifically designed to assist the transportation needs of local agencies. Annually, over 1,200 new projects are authorized through the Local Assistance Program of which approximately 700 are construction projects. [Contact Local Assistance](#)

Environmental and Other Policy Issues

- [ADA Section 504](#)
- [Consultant Selection and Procurement](#)
- [Disadvantaged Business Enterprise](#)
- [Local Environmental Issues](#)
- [Title VI](#)

Forms

- [CTC Forms](#)
- [FormsPLUS \(under construction\)](#)
- [Local Assistance Procedures Manual \(LAPM\) Forms](#)
- [Local Assistance Program Guidelines \(LAPG\) Forms](#)

Guidelines and Procedures

- [Caltrans Oversight Information Notice \(COIN\)](#)

Federal and State Programs

Federal Programs

- [Emergency Relief Program](#)
- [Highway Bridge Program](#)
- [Highway Infrastructure program](#)
- [Highway Safety Improvement Program \(HSIP\)](#)
- [Intelligent Transportation Systems Program \(ITS\)](#)
- [Other Federal Programs \(under construction\)](#)

State Programs

- [Active Transportation Program \(ATP\)](#)
- [Bike Program](#)
- [Safe Route To School Program \(SRTS\)](#)
- [SB1](#)
- [State Transportation Improvement Program \(STIP\)](#)

Project Implementation

<https://dot.ca.gov/programs/local-assistance>



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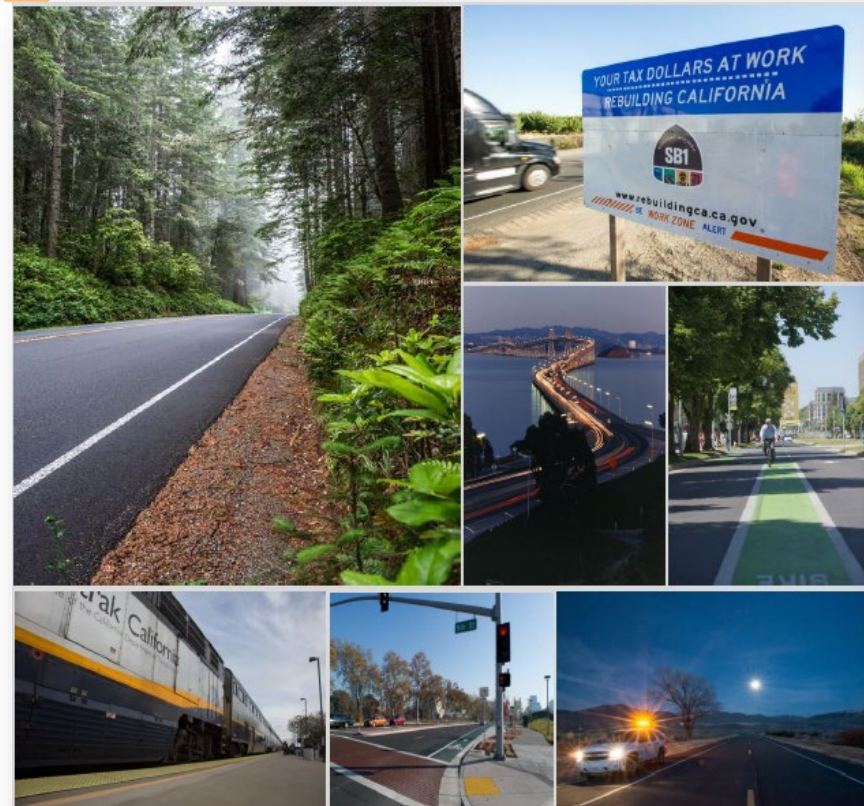
Manuals


- [Bridge Manuals](#)
- [CADD User's Manual](#)
- [California Manual on Uniform Traffic Control Devices \(MUTCD\)](#)
- [Construction Manual](#)
- [DRISI Research Manual](#)
- [Encroachment Permits Manual](#)
- [Engineering Manuals](#)
- [Environmental Manuals](#)
- [Highway Design Manual \(HDM\)](#)
- [Local Assistance Procedures Manual \(LAPM\)](#)
- [Maintenance Manual](#)
- [Materials Engineering and Testing Services Manuals](#)
- [Plans Preparation Manual \(PPM\)](#)
- [Project Development Procedures Manual \(PDPM\)](#)
- [Right of Way and Land Surveys Manuals](#)
- [Project Development Procedure Manual \(PDPM\)](#)



Statewide Campaigns


- | | | | |
|-----------------------------------|---|----------------------------------|--------------------------------------|
| ▶ ADA Access | ▶ Be Work Zone Alert | ▶ Energy Upgrade | ▶ REAL ID |
| ▶ Adopt-A-Highway | ▶ CAL FIRE | ▶ Flex Alert | ▶ Save Our Water |
| ▶ Amber Alert | ▶ California Climate Investments | ▶ Keep Your Home | ▶ Unclaimed Property |
| ▶ Arrive Alive | ▶ California Transportation Plan 2050 | ▶ Move Over Law | |





Local Assistance Procedures Manual


Department of Transportation
State of California




Division of Local Assistance

2019

Caltrans provides a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.



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Local Assistance Procedures Manual (LAPM)

The Local Assistance Procedures Manual (LAPM) is issued in January of each year, last updated January 2018. It is updated through [Local Assistance Procedures](#) (LPPs). It describes the various procedures required to process Federal and State funded local transportation projects. Click below to view or download that entire Chapter, or you may view (use Google Chrome) or download the entire manual by clicking here: [Complete LAPM \(January 2019\)](#). Few links in this LAPM were out of date (please check chapters below for correct links). New LAPM exhibits website is <https://dot.ca.gov/programs/local-assistance/forms/local-assistance-procedures-manual-forms>

Please read our [Disclaimer](#).

Guidelines and Procedures

- [Caltrans Oversight Information Notice \(COIN\)](#)
- [Division of Local Assistance Office Bulletins \(DLA-OBs\)](#)
- [Local Assistance Procedures Manual \(LAPM\)](#)
- [Local Assistance Program Guidelines \(LAPG\)](#)
- [Local Programs Procedures \(LPP\)](#)

List of Chapters

Individual Documents:	Last Update
LAPM Binder Cover (PDF)	Revised in Janu
Table of Contents: Table of Contents (PDF)	Revised in Janu
Chapter 1: Introduction and Overview (PDF)	Revised in Janu
Chapter 2: Roles and Responsibilities (PDF)	Revised in Janu

<https://dot.ca.gov/programs/local-assistance/guidelines-and-procedures/local-assistance-procedures-manual-lapm>


Exhibit 15-F: Deleted[Exhibit 15-G: Construction Contract DBE Commitment \(F-PDF\), EX15G\(Word\)](#)**Chapter 16 Administer Construction Contracts**[Exhibit 16-A: Weekly Statement of Working Days\(F-PDF\), EX16A\(Excel\)](#)[Exhibit 16-B: Subcontracting Request\(F-PDF\), EX16B\(Word\)](#)[Exhibit 16-C: Resident and Assistant Engineers Daily Report \(F-PDF\), EX16C\(Word\)](#)[Exhibit 16-D: Certificate of Proficiency \(PDF\), EX16D\(Word\)](#)[Exhibit 16-E: Independent Assurance Sampling and Testing \(Form MR-0102\) \(F-PDF\), EX16E\(Word\)](#)[Exhibit 16-F: Report of Witness Tests \(Form MR-0103\) \(F-PDF\), EX16F\(Word\)](#)[Exhibit 16-G: Corroboration Report \(MR-0104\) \(PDF\), EX16G\(Word\)](#)[Exhibit 16-H: Independent Assurance Sampling and Testing Log Summary \(Form Mr-0110\) \(PDF\), EX16H\(Excel\)](#)[Exhibit 16-I: Notice of Material to be Used \(Form CEM-3101\)\(F-PDF\), EX16I\(Excel\)](#)[Exhibit 16-J: Notice of Materials to be Furnished \(Form MR-0608\) \(PDF\), EX16J\(Word\)](#)[Exhibit 16-K: Report of Inspection of Material \(Form MR-0029\) \(PDF\), EX16K\(Word\)](#)[Exhibit 16-L: Sample Federal-Aid Advice Invoice \(deleted\)](#)[Exhibit 16-M: Notice of Materials to be Inspected \(Form MR-0028\)\(PDF\), EX16M\(Word\)](#)[Exhibit 16-N: Employee Interview: Labor Compliance/EEO \(F-PDF\) Rev. 7/11/18](#)
Chapter 17 Project Completion[Exhibit 17-A: Cover Letter and Federal Report of Expenditures Checklist \(F-PDF\), EX17A\(Word\)](#)[Exhibit 17-B: Final Inspection of Federal-Aid Project \(FHWA Form 1446C\) \(F-PDF\), EX17B\(Word\)](#)[Exhibit 17-C: Final Inspection Form\(F-PDF\), EX17C\(Word\)](#)[Exhibit 17-D: Federal-Aid Final Invoice\(PDF\), EX17D\(Word\)](#)[Exhibit 17-E: Sample Change Order Summary \(F-PDF\) Revised 3/21/19, EX17E\(Word\)](#)Exhibit 15-N: Finance Letter ~~USE Exhibit 15-O~~[Exhibit 16-O: Federal-Aid Highway Construction Contractor's Annual EEO Report\(Excel\)](#)[Exhibit 16-P: Employee Interview: Labor Compliance/EEO \(Spanish Form\)\(PDF\), EX16P\(Word\)](#)[Exhibit 16-Q: U.S. Department of Labor Office of Federal Contract Compliance Programs\(PDF\), EX16Q\(Word\)](#)[Exhibit 16-R: Size, Frequency and Location of Sampling and Testing Tables\(PDF\), EX16R\(Word\)](#)[Exhibit 16-S: Caltrans Test Method - ASTM Test Method Conversion Chart \(PDF\), EX16S\(Word\)](#)[Exhibit 16-T: Material Typically Accepted by a Certificate of Compliance \(PDF\), EX16T\(Word\)](#)[Exhibit 16-UF: Full and Final Potential Claim Record \(F-PDF\), EX16UF\(Word\)](#)[Exhibit 16-UI: Initial Potential Claim Record \(F-PDF\), EX16UI\(Word\)](#)[Exhibit 16-US: Supplemental Potential Claim Record\(F-PDF\), EX16US\(Word\)](#)[Exhibit 16-V: Source Inspection Request to DLAE\(F-PDF\), EX16V\(Word\)](#)[Exhibit 16-W: Source Inspection Request to TransLab\(PDF\), EX16W\(Word\)](#)[Exhibit 16-Y: Monthly Progress Payment Item Quantity Calculation Sheet \(F-PDF\), EX16Y\(Word\)](#)[Exhibit 16-Z1: Monthly DBE Trucking Verification \(F-PDF\), EX16Z1\(Word\)](#)[Exhibit 16-Z2: Acceptance Testing Results Summary Log\(F-PDF\), EX16Z2\(Excel\)](#)[Exhibit 17-H: Cover Letter and Final Report of Expenditures Checklist \(PE Only\) \(F-PDF\), EX17H\(Word\)](#)[Exhibit 17-I: Cover Letter for Report of Completion of Structures \(F-PDF\), EX17I\(Word\)](#)[Exhibit 17-J: Report of Completion of Structures on Local Streets and Roads\(F-PDF\), EX17J\(Word\)](#)[Exhibit 17-K: Sample Report of Completion of Right of Way\(PDF\), EX17K\(Word\)](#)

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Construction

The Division of Construction is a results driven engineering organization that prides itself on timely project completion. We recognize that time is money for owner, contractor, and the public. Currently Caltrans has 798 ongoing construction contracts valued at \$9.39B. (last updated 4/2/19)

Construction Compliance

- [Construction Compliance Updates](#)
- [Insurance Pre-Approval](#)
- [Insurance Requirements \(PDF\)](#)
- [Owner Controlled Insurance Program \(OCIP\) \(PDF\)](#)
- [Rolling OCIP Pre-Qualification Procedures \(PDF\)](#)
- [Safety/Traffic](#)

Contract Administration

- [California Statewide Crude Oil Price Index](#)
- [Change Order Information](#)
- [Contract Time](#)
- [DIR Debarred Contractors](#)
- [Equipment Rental Rates and Labor Surcharge](#)
- [Miscellaneous Equipment Rental Rate Information](#)
- [Statement of Ongoing Contracts](#)
- [Temporary Pedestrian Facilities Handbook \(PDF\)](#)

Construction Standards

How to File a Title VI Complaint

- [Civil Rights Guidance Information](#)
- [Title VI Discrimination Complaint Form \(PDF\)](#)

iEWB

- [Major Construction Payment and Information - Division of Accounting](#)

Labor Compliance

- [Business Enterprise Program \(DBE/DVBE\)](#)
- [Labor Compliance Policy Bulletins \(LCPB\)](#)
- [Labor Compliance Posters](#)

Partnering

Policies, Procedures, & Publications

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

Construction Manual

Issued by
Division of Construction



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CONSTRUCTION PUBLICATIONS
Editing Team

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

CONSTRUCTION MANUAL

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- 1-1 Construction Organization
- 1-2 Public Relations
- 1-3 Personnel Development
- 1-4 Facilities and Equipment
- 1-5 Field Expenses and Purchases

2 Safety and Traffic

- 2-1 Safety
- 2-2 Traffic
- 2-3 Major Construction Incidents

3 General Provisions

- 3-0 Introduction
- 3-1 General
- 3-2 Bidding
- 3-3 Contract Award and Execution
- 3-4 Scope of Work
- 3-5 Control of Work
- 3-6 Control of Materials
- 3-7 Legal Relations and Responsibility to the Public
- 3-8 Prosecution and Progress
- 3-9 Payment

4 Construction Details

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- 4-10 General Construction
- 4-11 Welding
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- 4-30 Reclaimed Pavements
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- 4-37 Seal Coats
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- 4-46 Ground Anchors and Soil Nails
- 4-47 Earth Retaining Systems
- 4-48 Temporary Structures
- 4-49 Piling
- 4-50 Prestressing Concrete
- 4-51 Concrete Structures
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- 4-53 Shotcrete
- 4-54 Waterproofing
- 4-55 Steel Structures

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6 Sampling and Testing

- 6-1 Sample Types and Frequencies
- 6-2 Acceptance of Manufactured or Fabricated Materials and Products
- 6-3 Field Tests

7 Environmental Stewardship

- 7-1 Environmental Rules and Requirements

8 Employment Practices

- 8-1 Labor Compliance
- 8-2 Equal Employment Opportunity
- 8-3 Disadvantaged Business Enterprises and Disabled Veteran Business Enterprises

9 Projects Sponsored by Others

- 9-1 Construction Contract Administration for Projects Sponsored by Others
- 9-2 Projects Administered by a Local Agency on the State Highway System

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Definitions of Key Terms

- **Local Agency** – A city, county or other public agency
- **Administering Agency** – Local agency that advertises, awards and administers the contract
- **Construction Engineering (CE)** – Contract administration from advertisement through ribbon cutting and close out

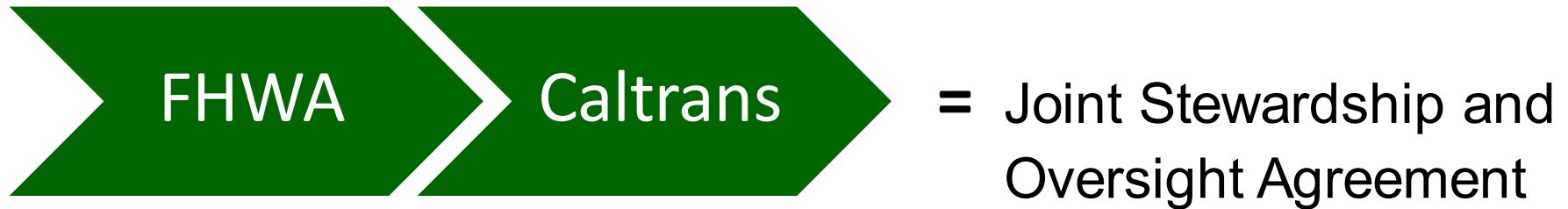


Definitions of Key Terms

- **FHWA** – Federal Highway Administration
- **Federal-aid** – FHWA funds
- List of Acronyms (Handout Pgs. 1-15)



Authority: Why you must follow the procedures taught this week



- “E” Exempt from FHWA Oversight (aka delegated)
- “N” Not Exempt



- Plus “Supplemental Agreements” for individual projects