Navigating the Caltrans Oversight Process

Moving Projects Forward with Caltrans' Buy-In

Eric Spangler, PE, TE
Jerusalem Verano, PE

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City and County Engineers Association (CCEA)

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Meet Our Presenters

Eric Spangler, PE, TE

Department Manager - Transportation

Eric has 24 years of experience delivering projects on and off the California State Highway System and is the Los Angeles Transportation Department Manager at Michael Baker International.

In Caltrans District 7 he managed the following recent projects:

- SR-91 WB Widening at I-605 PA/ED and PS&E
- I-405 La Cienega Southbound Ramps Widening PS&E
- US-101 Lost Hills Interchange PS&E & Construction
- US-101 Kanan Interchange PID
- I-10 Robertson/National PID and PA/ED
- SR-1 PCH Median Channelization PID, PA/ED, PS&E
- I-110/SR-47 Connector Widening PA/ED & PS&E
- I-605 Katella PS&E (D12)
- I-405 Multi-Asset Design-Build (D12)

Meet Our Presenters

Jerusalem Verano, PE

Project Manager - Transportation

Jerusalem is a Project Manager / Project Engineer for Michael Baker International with 12-years of experience delivering a variety of projects on and off the state highway system.

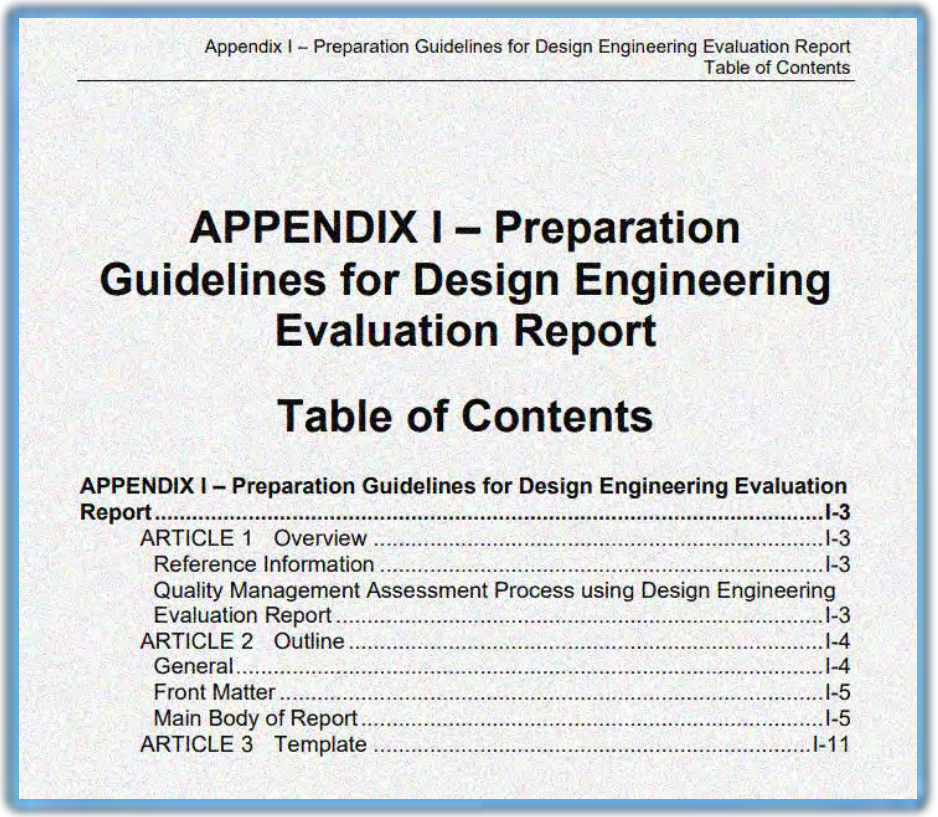
He has served as Project Engineer for the following Caltrans Projects:

- I-405 La Cienega Southbound Ramps Widening PS&E
- US-101 Lost Hills Interchange PS&E & Construction
- US-101 Kanan Interchange PID
- SR-60/World Logistics Center Interchange PID and PA/ED
- SR-129 Watsonville Complete Streets & CAPM PS&E

When is Caltrans Oversight required vs. an Encroachment Permit?

Encroachment permits are allowed:

- Utility only projects
- DEER (> $1 million in State R/W) and non-complex:
  - No structure modification
  - No R/W acquisitions
  - No increase in VMT
  - Only one build alternative.
  - Can have new Non-Standard HDM Design Features, requiring DSDD
  - DEER is a combined PID and PA/ED Document



When is Caltrans Oversight required vs. an Encroachment Permit?

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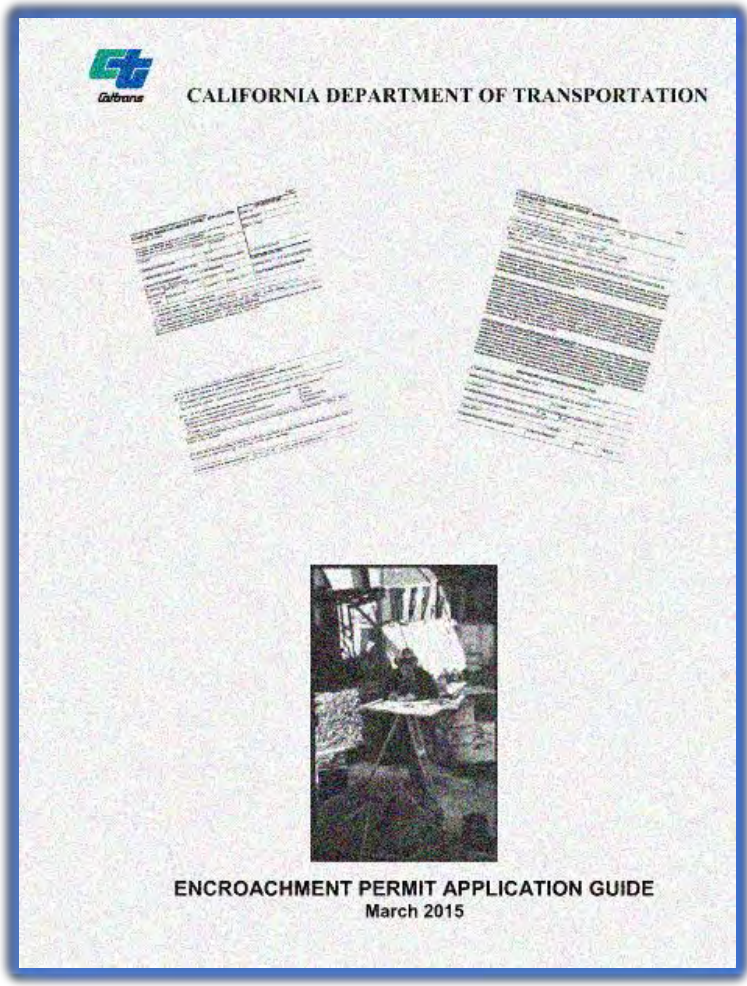
Encroachment Permit Process:

- Prepare DEER, and 100% PS&E
- Plans can be prepared in AutoCAD in local agency format, don't have to follow Caltrans Plans Prep Manual (PPM)

* ***Risky to have no or very little oversight during plan development.***

Oversight is required when project is "complex" or large

- Larger projects with large new impervious areas.
- Multiple build alternatives under consideration
- Structures Modifications
- R/W Conveyances
- Potential increase in VMT



Caltrans Oversight Project Development Process

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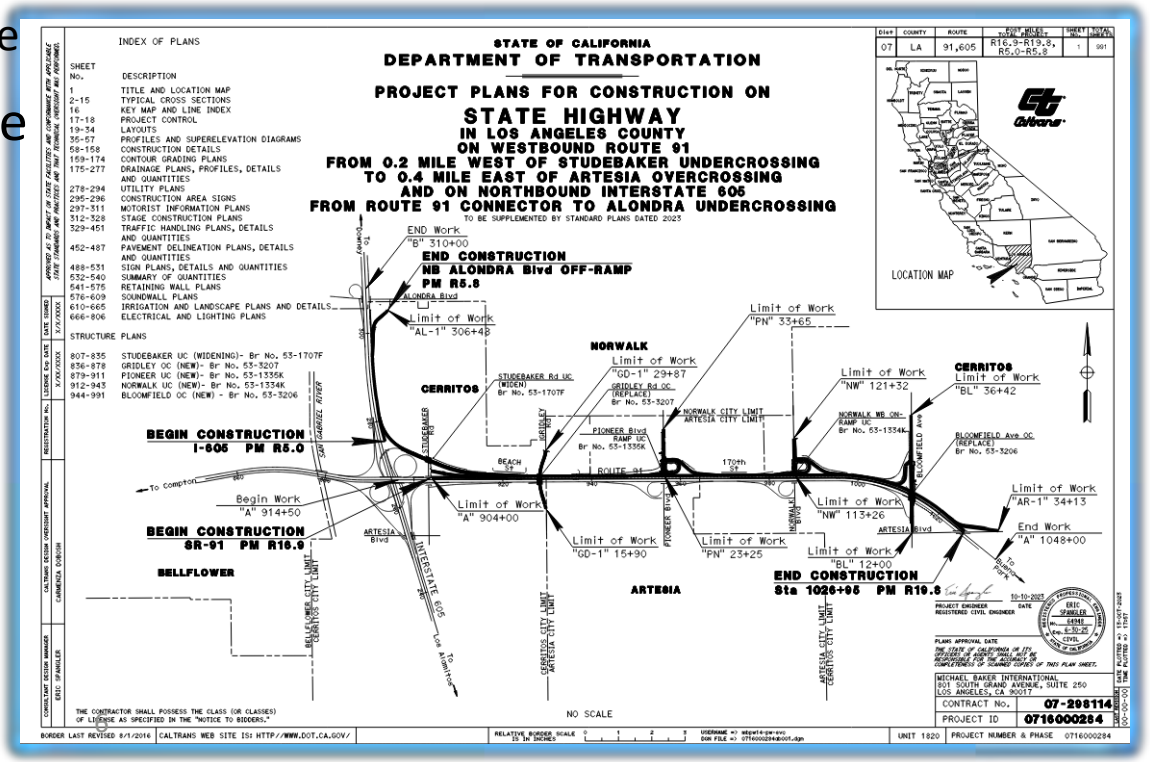
Overall Difference between Local Agency vs. Caltrans Oversight:

- Number of people reviewing project
- Number & Types of deliverables
- Caltrans technical experts generate a lot of comments in their expertise/discipline
  - More Departments / More “silo’ed”
- Even the Caltrans Plan format is “silo’ed” by discipline
  - Lot of sheets, separated by discipline
- AutoCAD vs. Microstation software
- Standards change every 6 months



Caltrans Oversight Project Development Process

Project Initiation Document (PID)	***Project Approval / Environmental Document (PA/ED)***	***Plans, Specificaitons, and Estimates (PS&E)***	***Construction***
12 – 18 month	18-24 months	24 months	20-24 months

Generate Build Alternatives & Programming Phase	***Study and Select Preferred Alternative, Environmental Clearance***	***Final Design***	***Construction***

Timelines shown are for typical single interchange project

Cooperative Agreements

Separate Cooperative Agreements with Caltrans are required for each project Phase

- 6-month process
- Caltrans reimbursement
  - Caltrans charges the local agency for oversight of the PID Phase only. Caltrans typically charges for oversight of the PID Phase.
  - Oversight for the PA/ED, PS&E, and Construction Phases should be provided at no charge.
- Combined PID & PA/ED Phase document such a PSR-PR would trigger a PID cooperative agreement and the local agency would be charged for the Caltrans Oversight of both phases.
- If the project is funded through design and construction, try to get a combined PA/ED and PS&E Cooperative Agreement, rather than 2 separate COOPs.

PID Phase

- PSR-PDS is typical Oversight PID Document
- Objective:
  - Define Purpose and Need of Project to address existing deficiency
  - Generate 1 or more Build Alternative that meet Purpose and Need
- Preliminary Engineering
  - Prepare TEPA (Traffic Engineering Performance Assessment)
  - Prepare GAD Exhibits (Topo or Aerial Photo Background)
  - Define non-standard features and list probability of Approval
  - Prepare Cost Estimate(s)
    - Incl. ROW Cost Estimate
    - Incl. Utility Relocation Cost Estimate
  - PID Storm Water Data Report (SWDR)

PID Phase

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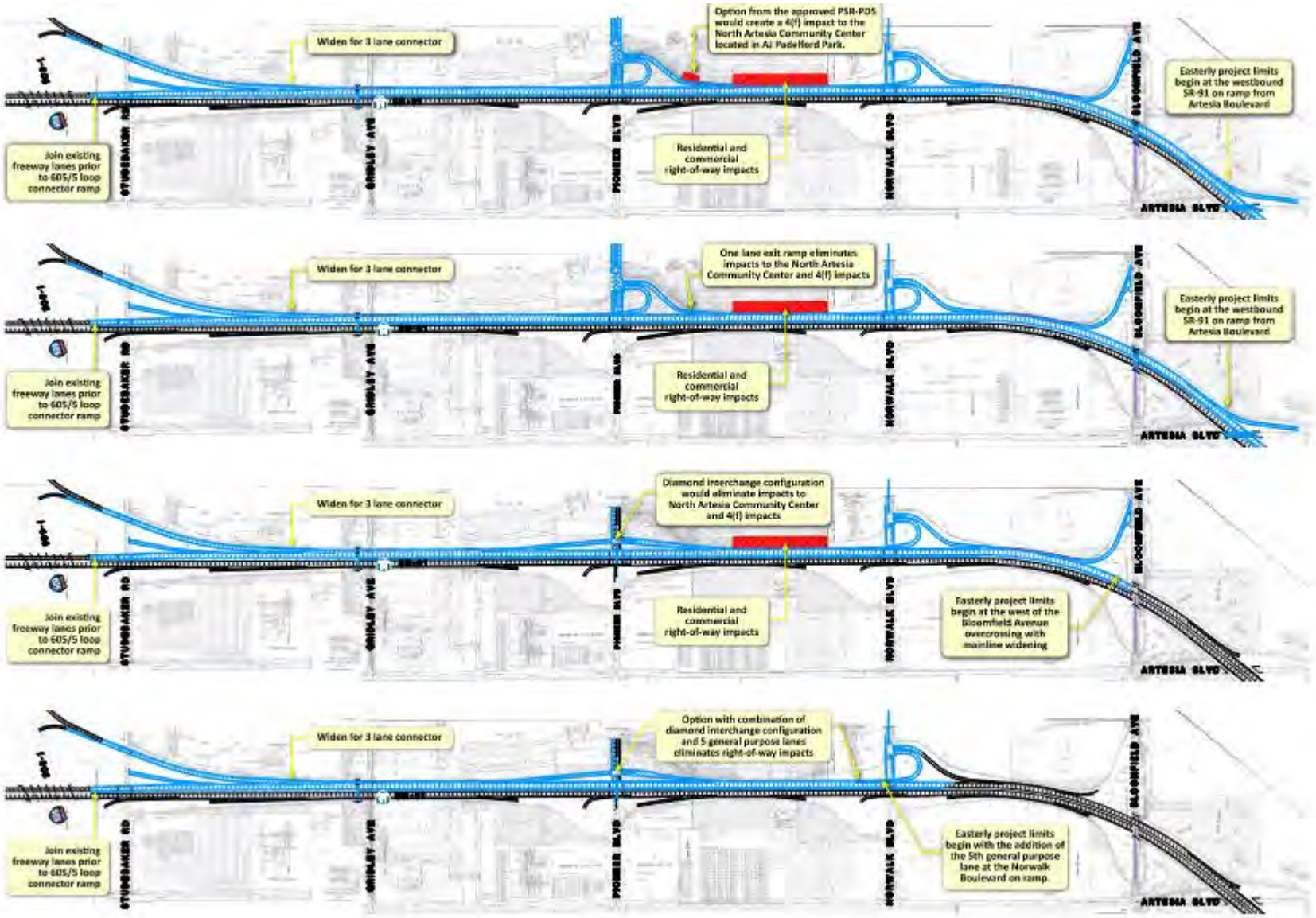


PID Phase

- Environmental
  - Preliminary Environmental Assessment Report (PEAR) – scopes the required Environmental Technical studies and Environmental Document for the PA/ED Phase
- Once you complete a PID, you know:
  - General scope of the project
  - Approx project cost
  - Schedule
- PID Phase "Programs" Project
  - Use the PID to apply for and secure funding for the project
- Public Outreach not required in programming phase
- PID and PA/ED Phases ***cannot*** be overlapped
- ***Conduct regular PDT meetings with Caltrans***

PA&ED Phase

- PA/ED is the phase where the Alternatives generated in the PID Phase are refined, modified, studied, and one is selected as preferred.
- PA/ED has 2 elements:
  - Project Report (Preliminary Engineering)
  - Environmental Document
- ***PA/ED is more time consuming & expensive when you have multiple build Alternatives***
- Public Outreach is performed in PA/ED for higher level environmental documents or when the local agency decides for smaller projects when they want community input and buy-in
- ***Monthly PDT meetings recommended***

PA&ED Steps:

1. Alternatives Analysis / Refinement
   - Traffic Analysis of Preliminary Build Alts
   - Refine Build Alts based upon Traffic input
   - Public Outreach Meeting #1 (Scoping Meeting)
   - Select Build Alternative(s) to go through PA/ED Analysis

Partial Cloverleaf Concept

Tight Diamond Concept

PA&ED Steps

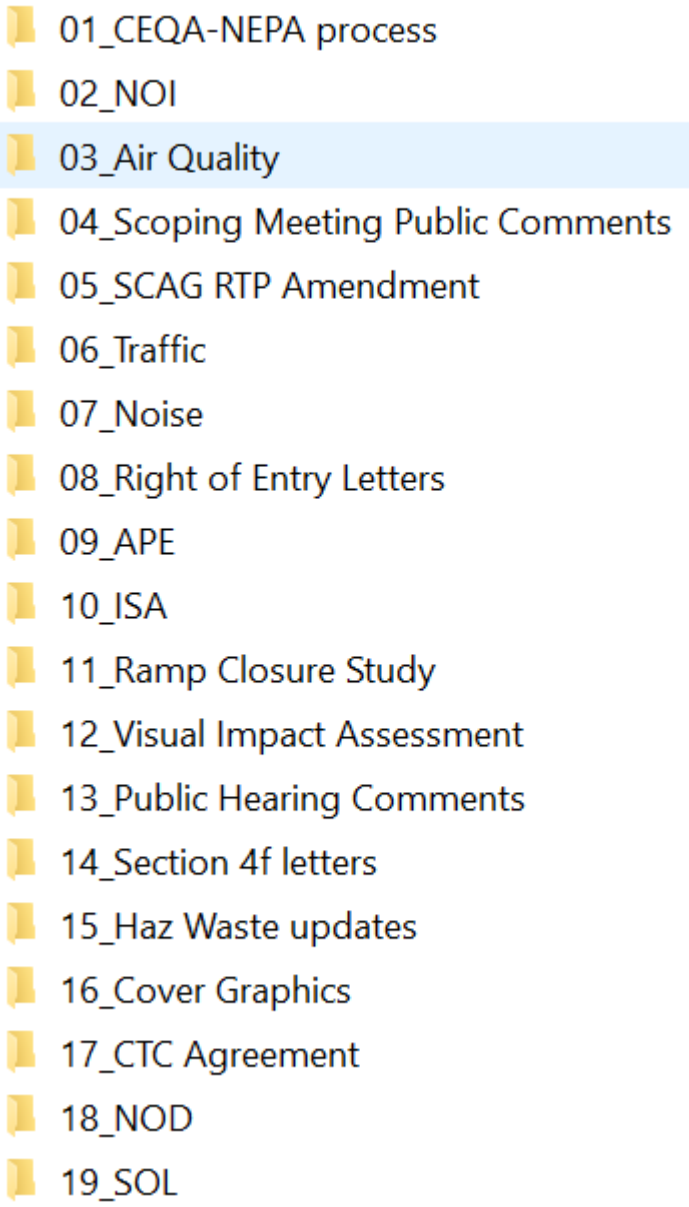
2. Preliminary Engineering
   - Geometric Approval Drawing (GAD)
   - Aerial topography survey (topo) background
   - Identify Non-Standard Features
   - Prepare Project Report if you have 1 Build Alternative
   - Prepare Draft Project Report if you have more than 1 Built Alt.
3. Environmental Clearance (CEQA & NEPA)
   - Once your GAD(s) is approved by Caltrans, you can start Environmental Technical Studies.

PA&ED Steps

- Project Report
  - GAD(s) / 30 % Plans
  - Cost Estimate(s)
  - Utility Plans & Relocation Cost estimates
  - Right of Way Data Sheet
  - TMP Data Sheet, Other Elements
- Preliminary Engineering Technical Studies
  - Traffic Analysis Operations Report (TOAR)
  - SWDR, Drainage, Intersection Control Evaluation (ICE)
  - LCCA, Phase 1 ISA, GDR, APS(s), Value Analysis, etc.
  - Design Standard Decision Document (once Preferred Alternative has been selected)
    - ***Once your DSDD has been approved, you can proceed to PS&E at risk.***

PA&ED Phase

- Environmental
  - Once GAD(s) are approved:
  - Technical Studies are prepared, reviewed and approved
  - Draft Environmental Document (DED) is prepared, reviewed and Approved
  - DED is circulated for public review
  - Public Outreach Open House meeting
  - Public Comment period is closed
  - PDT select Preferred Alternative
  - Prepare Final Environmental Document
  - Engineering team prepares Final Project & DSDD of Preferred Alternative



PA&ED Phase

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Item No.	Deliverable
Project Management	
1	Project Master Schedule
2	Project Management Plan (incl. Risk Management Plan)
3	Quality Management Plan
4	Monthly Invoice & Progress Reporting Format
Traffic Reports	
1	Data Collection Methodology Memo
2	Traffic Forecasting Methodology Memo
3	Traffic Count Encroachment Permit
4	Traffic Analysis Methodology Memo
5	Traffic Operations Analysis Report (including Accident/Safety Analysis & ICE Analysis)
Engineering Reports	
1	Aerial Topo (Part B)
2	Aerial Topo (Part C)
3	Geometric Approval Drawing (GAD)
4	Value Analysis Report
5	Conceptual Hydrology Study/Drainage Concept Plans
6	Storm Water Data Report

Item No.	Deliverable
7	Utility Impacts and Relocation Report
8	Project Cost Estimate
9	Preliminary Geotechnical Materials Report
10	Preliminary Geotechnical Design Report
11	Preliminary Structures Foundation Report
12	Structures Advanced Planning Studies
13	Overhead Sign Concept Plan
14	Construction Staging/Traffic Handling Concepts Plans and Preliminary Transportation Management Plan
15	Electrical Concept Plan
16	Park and Ride Study
17	Landscape Concept Report
20	R/W Data Sheet
21	Life Cycle Cost Analysis
Environmental Technical Studies	
1	NOI for Environmental Document
2	Project Purpose & Need
3	Technical Study Work Plans
4	Right of Entry for Environmental Studies
5	Energy Studies
6	Paleontological Studies (PIR and PER)
7	Natural Environmental Study Report – Minimal Impacts (NES-MI) and Wetlands Jurisdictional Delineation Report
8	Air Quality Study/Conformity Report (Metro/Caltrans)
9	Preliminary Site Investigation for Hazardous Waste (ISA)

PA&ED Phase

Item No.	Deliverable
10	Location Hydraulic/Floodplain Report
11	Water Quality Assessment Report
12	Area of Potential Effects Map (APE)
13	Native American Consultation Documentation
14	Archaeological Survey Report (ASR)
15	Historical Resources Evaluation Report (HRER)
16	Historical Property Survey Report (HPSR)
17	Noise Study Report
18	Community Impact Assessment
19	Visual Impact Analysis and Scenic Resources Evaluation
20	Draft Right of Way Relocation Impact Document
Public Community Outreach	
1	Public Involvement Plan
2	Open House Summary Report
3	Round 2 Open House Summary Report
Draft/Final Project Report/Environmental Document	
1	Draft Project Report
2	Section 4 (f) Evaluation (De Minimis)
3	Administrative Draft-MND / EA-FONSI
4	Draft MND/EA-FONSI Document
5	Circulate Draft Environmental Document (Notice of Availability/Public Hearing)
6	Public Hearing Products
7	Public Hearing Summary Report
8	Respond to Public Comments and Correspondence
9	Noise Abatement Decision Report
10	Design Standard Decision Document

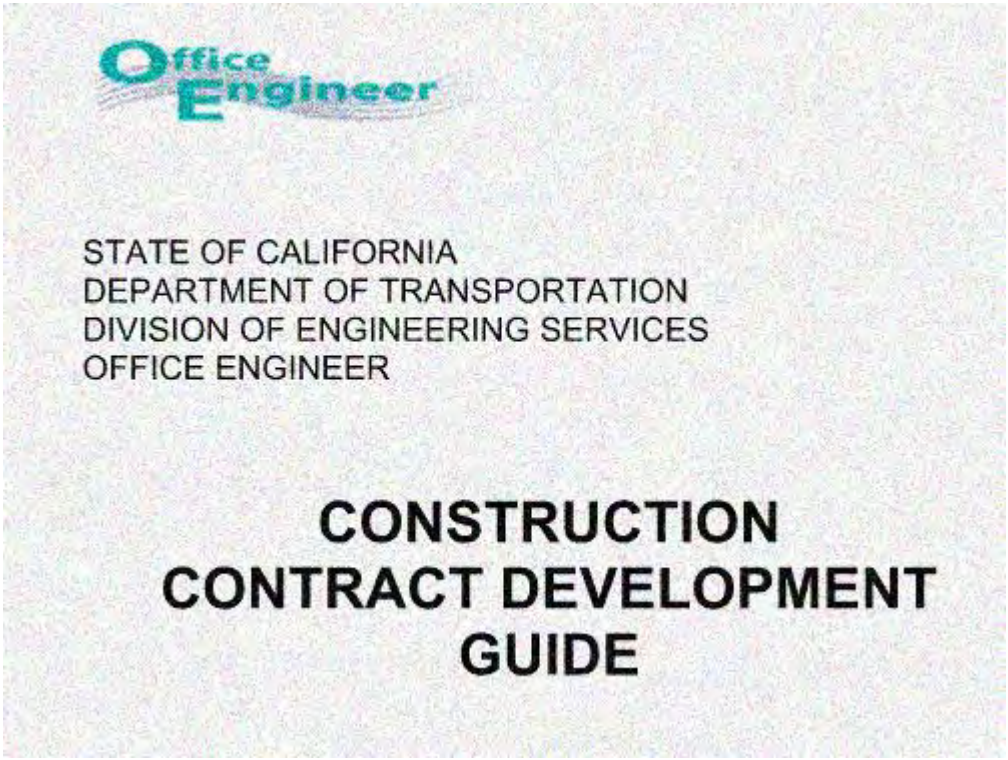
Item No.	Deliverable
12	Final Project Report with updated ROW Data Sheet
13	Section 4(f) Letters to local agencies
14	Final Right of Way Relocation Impact Document
15	Final ND
16	Final FONSI
17	CEQA Certification
18	Quality Control Certification
19	Environmental Document Checklist
20	FHWA Approval of Air Quality Conformity
21	Public Distribution of Approved MND / EA-FONSI
22	Notice of Determination (NOD) and Statute of Limitations (SOL) Notice
23	Notice of Completion for State Clearinghouse

PS&E Phase

- ***Can overlap with PA/ED Phase***
- As soon as the DSDD is approved for the preferred Alt, you can start PS&E
- Get detailed Survey field shots/lidar
- Prepare 35% Plans / GAD
- Identify new non-standard features, prepare SDSDD
- Prepare 65%, 95%, and 100% PS&E
- Execute Utility Agreements, Send Utility NTOs
- Obtain R/W
- Obtain Encroachment Permits from other Local Agencies
- Obtain Resource Agency Permits

PS&E Phase

- Obtain Construction Encroachment Permit from Caltrans
- ***Monthly PDT meeting recommended***



PS&E Phase

Survey Deliverables	
1	Encroachment Permit Application
2	Survey Lidar A List
3	Survey Lidar B List
4	Survey Lidar C List

Sign Deliverables	
1	OH Sign Location Plan

Geotechnical Deliverables	
1	Geotechnical Work Plan
2	Preliminary Foundation Report
3	Geotechnical Design Report
4	Materials Pavement Memo
5	Foundation Reports

Roadway Deliverables	
1	Geometric Workshops & Focus Meetings
2	GAD / Pre-65% Geometric Plans
3	Supplemental Design Standard Decision Document (DSDD)
4	65% PS&E
7	NSSPs
8	95% PS&E (Caltrans, Cerritos, Artesia)
9	Construction QMP (Metro)
10	Ramp Metering Exception Fact Sheet
11	Supplemental Project Report
12	Freeway Agreements (Artesia & Cerritos)
13	100% / Signature PS&E
14	Construction Encroachment Permits from Cities

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PS&E Phase

Structure Deliverables	
	Structures Focus Meetings

Item No.	Deliverable
1	Bridge Type Selection Reports
2	65% Structure Plans
3	95% Structures PS&E
4	95% Structures PS&E (City of Cerritos)
5	Pioneer Ramp UC Type Selection Memo

Hazardous Waste Deliverables	
1	Haz Materials Work Plan & Health & Safety Plan
2	Corridor ISA Amendment #2
3	Phase I Focused ISAs for commercial acquisition parcels
4	Site Investigation (SI) Work Plan
5	Phase II Site Investigation
6	Hazardous Materials Survey Report-Bridges (ACM and LBP)
7	Corridor ISA Amendment #3
8	Hazardous Materials Disclosure Documents (HMDDs)

Right of Way Deliverables	
	Right of Way Coordination Meetings
1	Record of Survey (Caltrans Review)
2	Record of Survey (LA County Review)
3	PD-26 Right of Way Requirements Map
4	Right of Way Appraisal Maps
5	Legal Descriptions
6	Appraisals
7	Right of Way Certification

Drainage & Water Quality Deliverables	
1	Storm Water Data Report
2	Drainage Report
3	Drainage Plans
4	Temporary Water Pollution Control Plans
5	LA County Flood Control Permits

PS&E Phase

Item No.	Deliverable
Landscape and Irrigation	
1	Landscape Concept Plan
2	Landscape & Irrigation Plans
Utility Deliverables	
1	Relocation Claim Letters (to Utilities)
2	Utility Plans
3	Potholing Work Plan & Encroachment Permit (up to 56)
4	Utility Certification
5	Utility Exception Request Memo
6	Utility Agreements
Traffic & Electrical & Stage Construction Deliverables	
1	Stage Construction Concept Exhibit
2	TMP
3	Stage Construction & Traffic Handling Plans
4	Electrical Plans
5	Communication & Fiber Optic Plans

Environmental Revalidation & Permitting	
1	Env. Commitment Record & Env. Cert
2	Environmental Revalidation
3	Clean Water Act 401 Permit from RWQCB

Item No.	Deliverable
4	Fed. Clean Water Act 404 from Army Corp
5	CDFW 1602 Streambed Alternation Agreement
6	Paleontological Mitigation Plan (PMP)

Construction Phase

- ***Keep Caltrans BEES Bid Items*** (Names and Codes) as your Bid Schedule
- Caltrans BID Item codes correlate to the Chapter of the Caltrans Standard Specifications that apply to that item
- Caltrans BID Item Names correlate to the pay items on the plans and in the Specs/SSPs.
- Add your Greenbook/City Front End Administrative Bid Documents on top of the Caltrans Encroachment Permit Package (Approved PS&E)
- Administer Construction
- Prepare As-Built Plans
- Complete Maintenance Agreements

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Q&A

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