

May 2023 Report (data through March 2023)



## **Executive Summary**

#### Construction Packages (CP) Design-Build Expenditures (Page 5)

- March 2023 Expenditures totaled \$69.8M:
  - Construction Package 1 (Page 14) Expenditures totaled \$33.2M.
  - Construction Package 2-3 (Page 23) Expenditures totaled \$25.1M.
  - Construction Package 4 (Page 34) Expenditures totaled \$11.4M.
- Total CP Cumulative Actual Expenditures (Pages 13, 22, and 31) \$4,570.4M.
- Total Cumulative Current Contract Amount (Pages 12, 20, and 28) \$6,881.9M.

#### **Change Orders**

- Executed Change Orders this period 15 for a total of \$142.1M:
  - Construction Package 1 (Page 15) Eight for a total of \$136.2M.
  - Construction Package 2-3 (Page 24) Four for a total of \$1.8M
  - Construction Package 4 (Page 35) Three for a total of \$4.1M.

#### Risk Contingency (Page 6)

- Approved Contingency \$6,001.6M budgeted contract contingency. Contingency balance is \$2,097.9M as of data date.
  - Construction Package 1 (Page 16) \$2,791.6M budgeted contract contingency. Contingency balance is \$878.4M as of data date.
  - Construction Package 2-3 (Page 25) \$2,691.5M budgeted contract contingency. Contingency balance is \$1,080.6M as of data date.
  - Construction Package 4 (Page 36) \$518.5M budgeted contract contingency. Contingency balance is \$138.9M as of data date.

### **CP Design (Structures/Guideway)**

- CP major design Ready for Construction (RFC). Milestone of 100% of the required 163 RFC design approvals agreed with the Authority in June 2022 for Construction.
  - Construction Package 1 40 of 40 total design packages approved by the Authority for construction.
  - Construction Package 2-3 109 of 109 total design packages approved by the Authority for construction.
  - Construction Package 4 14 of 14 total design packages approved by the Authority for construction.

#### CP Construction Labor (Page 7)

- March 2023, Average Daily Site Workers (by Week) 969 workers. A decrease of 212 workers from the previous period (from 1181):
  - Construction Package 1 (Page 17) 232 workers. A decrease of 10 workers from the previous month (242).
  - Construction Package 2-3 (Page 26) 559 workers. A decrease of 160 workers from the previous month (719).
  - Construction Package 4 (Page 37) 178 workers. A decrease of 42 workers from the previous month (220).
- Contractors continued with construction while following safety protocols and guidelines from the Centers for Disease Control and Prevention (CDC) and Occupational Safety and Health Administration (OSHA).



#### CP Construction Progress (Page 8)

- Structures 70 underway/construction complete compared to 93 structures (75%) total. Increase of one from the previous period.
  - Construction Package 1 26 structures underway/construction complete.
  - Construction Package 2-3 33 structures underway/construction complete.
  - Construction Package 4 11 structures underway/construction complete.
- Guideway 90 miles underway/construction complete compared to 119 miles (76%) total. Increase of two from the previous period.
  - Construction Package 1 20 miles underway/construction complete.
  - Construction Package 2-3 48 miles underway/construction complete.
  - Construction Package 4 22 miles underway/construction complete.

#### Utility Relocations Status (Page 9)

- Relocated: 1,018 (55%); In Progress: 376 (20%); Approved to Start: 23 (1%); Not Started: 419 (23%); Total: 1,836. A total of nine relocated in March 2023. A sequence of activities must be completed to begin utility relocation work. These activities include environmental clearance, executed third-party agreement(s), design approval, construction work plans, pre-construction walkthroughs, acquisition of real property, and/or land right conveyances:
  - Construction Package 1 Relocated: 471 (47%); In Progress: 303 (31%); Approved to Start: 0 (0%); Not Started: 218 (22%); Total: 992.
  - Construction Package 2-3 Relocated: 440 (63%); In Progress: 60 (9%); Approved to Start: 0 (0%); Not Started: 201 (29%); Total: 701.
  - Construction Package 4 Relocated: 107 (75%); In Progress: 13 (9%); Approved to Start: 23 (16%); Not Started: 0 (0%); Total: 143.

#### CP Real Property/Right-of-Way (ROW) (Pages 11 - 12)

- Total Parcels Delivered to Date 2,222 parcels compared to an estimated 2,300 parcels needed.
- Parcels Delivered to Design-Builder (DB) Eight parcels in March 2023.
- Construction Packages 1-4 Zero parcels added and zero parcels removed. The Authority continues to receive requests for additional parcels primarily related to third-party requirements. The Authority reviews these as received and if merit is found, those parcels will be added and acquired per contractual terms.
- Railroad Parcels Delivered to Design-Builder Zero parcels.
- Total Railroad Parcels Delivered to Date 144 parcels delivered compared to an estimated 171 total railroad parcels needed.



#### Project Development (Environmental Clearance) Schedule – Notice of Determination (NOD)/Record of Decision (ROD) (Pages 42 - 43)

- San Francisco to San Jose Work through NOD/ROD has been completed. Staff finalizing the Administrative Record.
- San Jose to Merced Work through NOD/ROD has been completed. Staff finalizing the Administrative Record.
- Bakersfield to Palmdale Work through NOD/ROD has been completed. Continued meeting with key stakeholders, including the Center for Biological Diversity.
- Palmdale to Burbank Regional Consultant is working on the preparation of the Administrative Final EIR/EIS.
- Burbank to Los Angeles Work through NOD/ROD has been completed. Project closeout activities are ongoing.

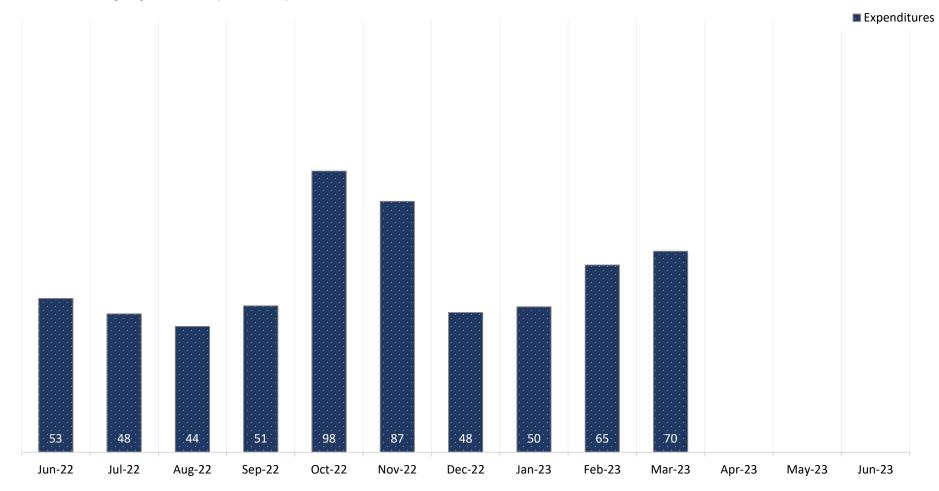
#### Project Development (Post-Record of Decision) Schedule (Page 44)

- Merced Extension (Merced to Madera) Stantec Inc., under Agreement HSR 22-02, continues to make progress on the early actions of this Project, including submittal of various draft documents such as the Project Management Plan-Draft.
- Fresno to Bakersfield Locally Generated Alternative (LGA) HNTB Corporation (HNTB), under agreement HSR 22-01, continues to make progress on the early actions of this Project, including submittal of various draft documents such as the Project Management Plan and the BNSF Shoofly Alignment - Draft.



## **CP 1-4 – Design-Build Expenditures**

**CP 1-4 – Monthly Expenditures (\$ Millions)** 



#### Notes:

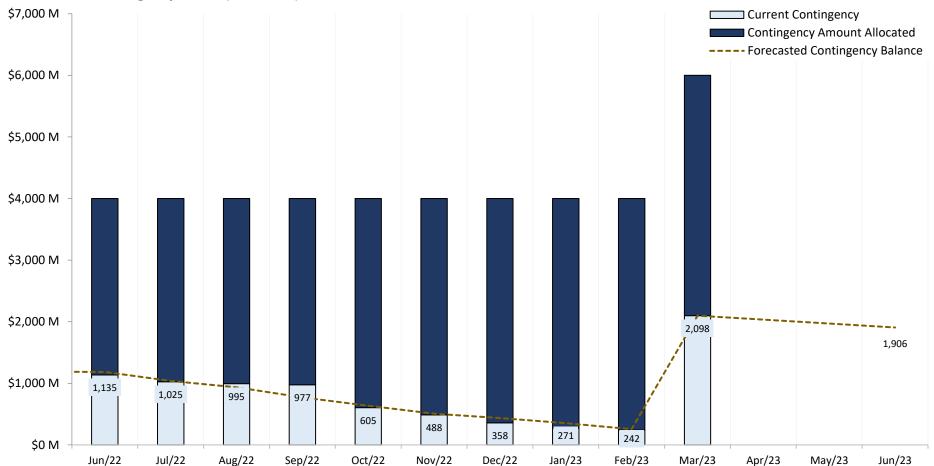
1. Expenditures in the chart above are specific to the Design-Builder production and based on the Capital Outlay and Expenditure Report.

- 2. March 2023 Expenditures totaled \$69.8M:
  - a. Construction Package 1 Expenditures totaled \$33.2M.
  - b. Construction Package 2-3 Expenditures totaled \$25.1M.
  - c. Construction Package 4 Expenditures totaled \$11.4M.



## CP 1-4 – Risk Contingency

## CP 1-4 – Risk Contingency Status (\$ Millions)



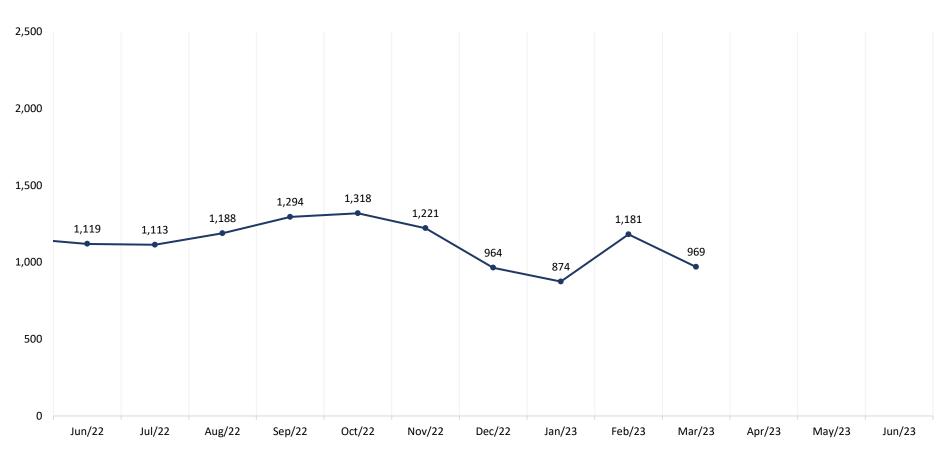
- 1. March 2023 reflects the March 16, 2023 Board Expenditure Authorization which increased the total Program Contingency to \$6,001.6M.
- 2. Contingency balance updated to reflect the Board's adoption of Resolution #HSR21-11 (Expenditure Authorization Increase).
- 3. Contingency Amount Allocated reflects all executed change orders and Business Oversight Committee (BOC) approved items for all CPs.
- 4. The Forecasted Contingency Balance drawdown curve is based only on agreed change orders expected to be executed within the three-month window. Due to change order negotiations, and dispute resolution, timing and value of Forecasted Contingency Balance is uncertain.



## **CP 1-4 – Construction Labor**







Notes:

1. The construction labor numbers (full-time employees) are based on the weekly totals divided by the number of weeks within the working calendar month and represents the Average Daily Site Workers (by week).

2. March 2023, Average Daily Site Workers (by week) – 969 workers. An decrease of 212 workers from the previous period (from 1,181): Multiple rain events continue to impact labor numbers.

a. Construction Package 1 (Page 16) – 232 workers. A decrease of 10 workers from the previous month (242).

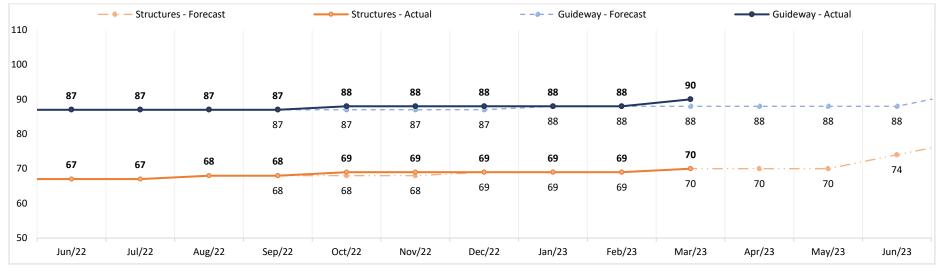
b. Construction Package 2-3 (Page 24) – 559 workers. A decrease of 160 workers from the previous month (719).

c. Construction Package 4 (Page 34) – 178 workers. A decrease of 42 workers from the previous month (220).



## **CP 1-4 – Construction Progress**

#### CP 1-4 – Construction Progress to Completion – Forecast vs. Actual



#### Monthly Construction Status – In Progress vs. Completed

Construction	CP	1	СР	2-3	CF	<b>2</b> 4	Ove	erall	Total
	In Progress	Completed	In Progress	Completed	In Progress	Completed	In Progress	Completed	
Guideway	18	2	15	33	7	15	39	50	90
Structures	9	17	19	14	1	10	29	41	70

#### Notes:

3.

- 1. Construction Complete definition:
  - a. Structure Completion all concrete work is complete.
  - b. Guideway Completion earthworks complete with rough grading.
- 2. Total Structures: 93
  - Structures 70 underway/construction complete compared to 93 structures total. (75%). Increase of one from the previous period: Whitley Avenue started 03/06/2023.
  - a. CP 1 26 structures underway/construction complete.
  - b. CP 2-3 33 structures underway/construction complete.
  - c. CP 4 11 structures underway/construction complete.
- 4. Total Guideway: approximately 119 miles
- 5. Guideway 90 miles underway/construction complete compared to 119 miles total. (76%). Increase of two from the previous period: CP1 Schedule used changed from conditionally accepted to accepted Revised Baseline. The revisions added 2 miles of guideway under construction for the period.
  - a. CP 1 20 miles underway/construction complete.
  - b. CP 2-3 48 miles underway/construction complete.
  - c. CP 4 22 miles underway/construction complete. The actual miles for CP 4 are 21.5 miles but rounded to 22 miles for consistency in reporting.

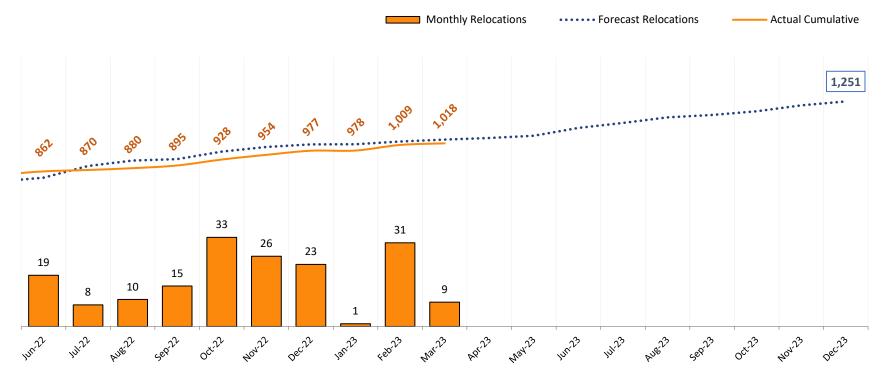


# CP 1-4 – Utility Relocations

### **CP 1-4 – Utility Relocation Summary**

Construction Package	Total Relocations March 31, 2023	Total Utilities Relocated to Date March 31, 2023	Remaining Utility Relocations March 31, 2023
CP 1	992	471	521
CP 2-3	701	440	261
CP 4	143	107	36
Total	1,836	1,018	818

### CP 1-4 – Utility Relocation Status Summary-Monthly



- 1. In Progress 376 (20%).
- 2. Approved to start 23 (1%).
- 3. Not Started 419 (23%).



# **CP 1-4 – Utility Relocation Summary**

### CP 1-4 – Summary by Utility Type

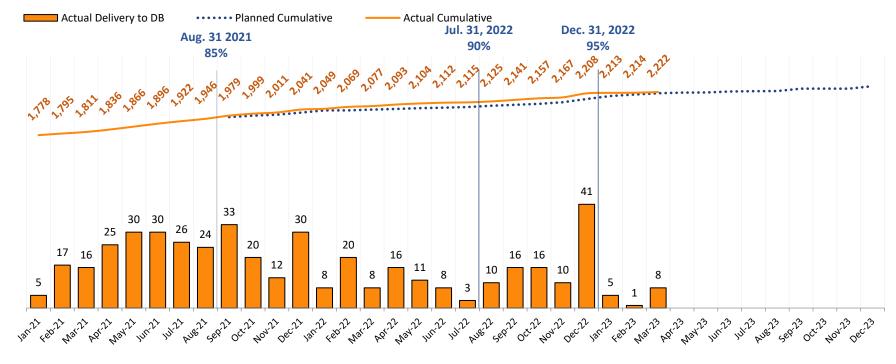
Utility	Status	CP-1 Number	CP-2-3 Number	CP-4 Number	CP 1-4 Total	Percentage
March 31, 2023	March 31, 2023	March 31, 2023	March 31, 2023	March 31, 2023	March 31, 2023	March 31, 2023
	NOT STARTED	93	115	2	210	32%
Flootric	IN PROGRESS	23	52	6	81	12%
Electric	RELOCATED	99	217	54	370	56%
	TOTAL Electric Utilities	215	384	62	661	100%
	NOT STARTED	25	12	0	37	30%
Gas	IN PROGRESS	22	0	0	22	17%
Gas	RELOCATED	44	15	7	66	53%
	TOTAL Gas Utilities	91	27	7	125	100%
	NOT STARTED	46	43	0	89	13%
Telecom	IN PROGRESS	153	3	4	160	24%
Telecom	RELOCATED	216	187	29	432	63%
	TOTAL Telecom Utilities	415	233	33	681	100%
	NOT STARTED	54	31	21	106	29%
Wet	IN PROGRESS	105	5	3	113	31%
vvel	RELOCATED	112	21	17	150	40%
	TOTAL Wet Utilities	271	57	41	369	100%

## CP 1-4 – Real Property/Right-of-Way (ROW)

## CP 1-4 – Right-of-Way (ROW) Summary

Construction Package	Total Needed Parcels March 31, 2023	Total Parcels Delivered to Date March 31, 2023	Remaining Parcels to be Delivered March 31, 2023
CP 1	1,083	1,062	21
CP 2-3	986	939	47
CP 4	231	221	10
Total	2,300	2,222	78

### CP 1-4 – Parcel Delivery to Design-Builder (DB) Summary



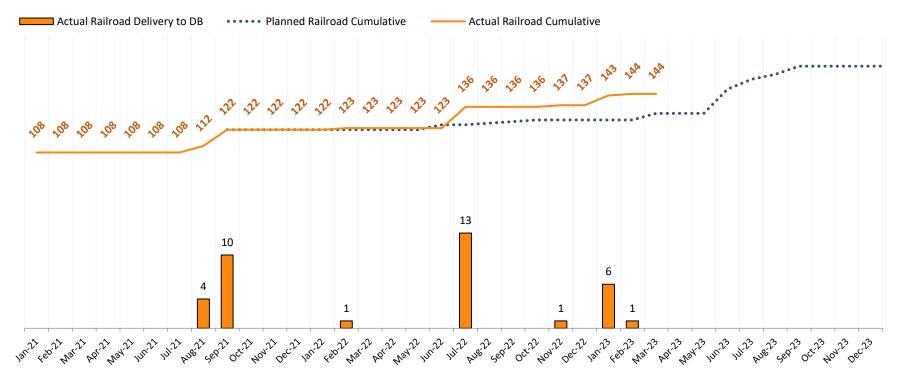
- 1. This reflects the actual parcels delivered to the Design-Builder by month compared to the planned delivery schedule which identifies 90% and 95% milestone completion for CP 1-4.
- 2. Delivery to Design Builder 90% milestone completion was achieved for CP 1-4 in March 2022.
- 3. Real Property delivered 41 parcels in December 2022 which brings the total percentage of parcels delivered to 96%, surpassing their goal of 95% by the end of December 2022.

## CP 1-4 – Real Property/Right-of-Way (ROW) Railroad

### CP 1-4 - Right-of-Way (ROW) Railroad Summary

Construction Package	Total Needed Railroad Parcels March 31, 2023	Total Railroad Parcels Delivered to Date March 31, 2023	Remaining Railroad Parcels to be Delivered March 31, 2023
CP 1	84	64	20
CP 2-3	58	51	7
CP 4	29	29	0
Total	171	144	27

### CP 1-4 – Railroad Parcel Delivery to Design-Builder (DB) Summary



#### Notes:

1. This reflects the actual Railroad parcels delivered to the Design-Builder by month and forecasts based on conditionally accepted Revised Baseline Schedules (RBS) Revision 4.



## CONSTRUCTION PACKAGE 1 (CP 1) OVERVIEW

## CP 1 – Design-Build Contract Summary<sup>(1)</sup>

#### Milestones

Milestone	Date
Request for Quote (RFQ) Date:	11/15/2011
Statement of Qualification (SOQ) Date:	12/19/2011
Request for Proposal (RFP) Date:	03/22/2012
Proposal:	01/18/2013
Bid Open Date:	04/13/2013
Award Date:	08/16/2013
Notice to Proceed (NTP) 1 Date:	10/15/2013
Notice to Proceed (NTP) 2 Date:	11/22/2013
Notice to Proceed (NTP) 3 Date:	07/11/2014
Original Completion Date:	03/31/2018
Current Forecast Contract Completion Date <sup>(2)</sup> :	03/05/2026 <sup>(5)</sup>
Current Forecast Construction Completion Date <sup>(2)</sup> :	12/31/2025

Contract Value	
Description	Amount
Fixed Bid Price:	\$969,988,000.00
Provisional Sums:	\$53,000,000.00
Original Contract Price:	\$1,022,988,000.00
Executed Change Orders:	\$2,228,928,172.47
Current Contract Amount <sup>(4)</sup> :	\$3,251,916,172.47
Approved Invoices to Date:	\$1,979,034,393.46
Remaining Contract Balance:	\$1,272,881,779.01

#### **Contract Time Status**

Description	Duration
Original Contract Days:	1,628
Extension of Time Awarded <sup>(3)</sup> :	2,896
Current Forecast Contract Days <sup>(3)</sup> :	4,460
Calendar Days Worked (thru 03/31/2023):	3,454

#### Expended to Date

Description	Percentage
Time <sup>(3)</sup> :	77.4%
Dollars <sup>(4)</sup> :	60.9%

#### **Growth Percentage**

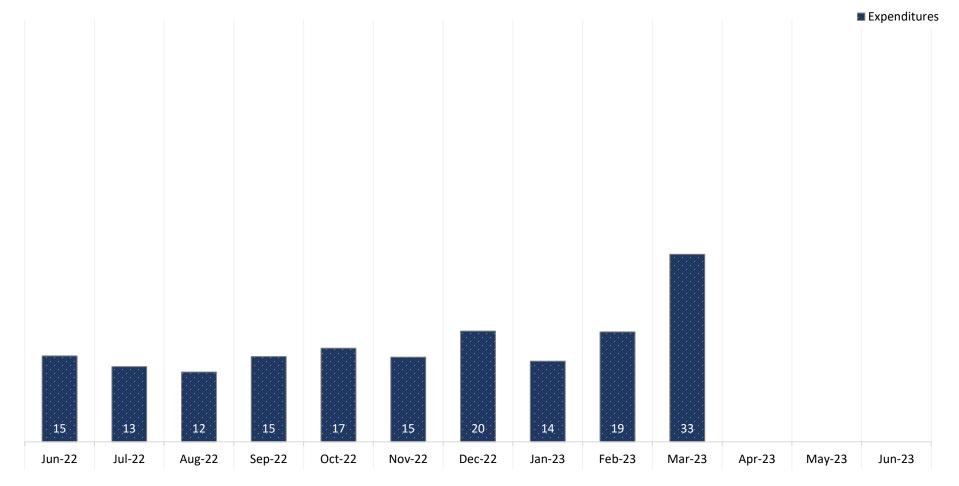
Description	Percentage
Time <sup>(3)</sup> :	174.0%
Dollars <sup>(4)</sup> :	217.9%

- 1. Data in this section is sourced from data provided by the PCM Monthly Status Report.
- 2. Updated per the accepted Revised Baseline Schedule (RBS) Revision 4.
- 3. Contract Time Status (Extension of Time Awarded and Current Contract Days), Expended to Date (Time), and Growth Percentage (Time) calculation is based on the Current Forecast Construction Completion Date.
- 4. Contract value will be updated to reflect RBS Revision 4 once the cost loaded schedule is received and agreed with the contractor.
- 5. Date adjusted to account for Holidays.



## **CP 1 – Design-Build Expenditures**

**CP 1 – Monthly Expenditures (\$ Millions)** 



#### Notes:

1. Expenditures in the chart above are specific to the Design-Builder production and based on the Capital Outlay and Expenditure Report.

2. Expenditures totaled \$33.2M.



# CP 1 – Change Orders (CO)

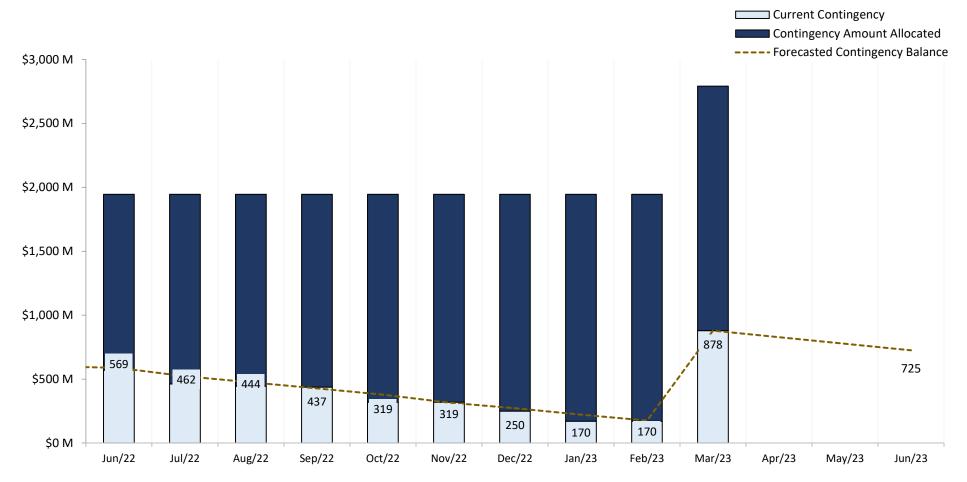
## **CP 1 – Change Order Status**

CO Number	Title	Change Status	Amount	Executed Date
00471.1	East Church Ave HST/UPRR and BNSF Overcrossing – Construction	Executed	\$132,684,677.69	03-30-23
00490	PCM-TPZP-06154 - Sprint Conduit Repairs at Thorne Avenue	Executed	\$22,287.00	03-30-23
00491	CPUC Conflict T17-005 at Road 33 – Construction	Executed	\$309,117.00	03-30-23
00089.03	Comcast Avenue 17 Utility Relocation – Construction	Executed	\$830,104.00	03-28-23
00089.04	Comcast Avenue 17 Utility Relocation - Third Party Cost	Executed	\$88,140.00	03-28-23
00487	IPB Gaps - DL 0122 R6 - Intrusion Protection Barriers	Executed	\$2,270,081.02	03-14-23
00486	Unidentified Drywell Discovered at McKinley and GSB – Construction	Executed	\$4,163.00	03-07-23
00488	Impacts to Bullard Avenue Sewer from COF Veterans Project	Executed	\$3,498.00	03-07-23
	TOTAL		\$136,212,067.71	



## **CP 1 – Risk Contingency**

### CP 1 – Risk Contingency Status (\$ Millions)

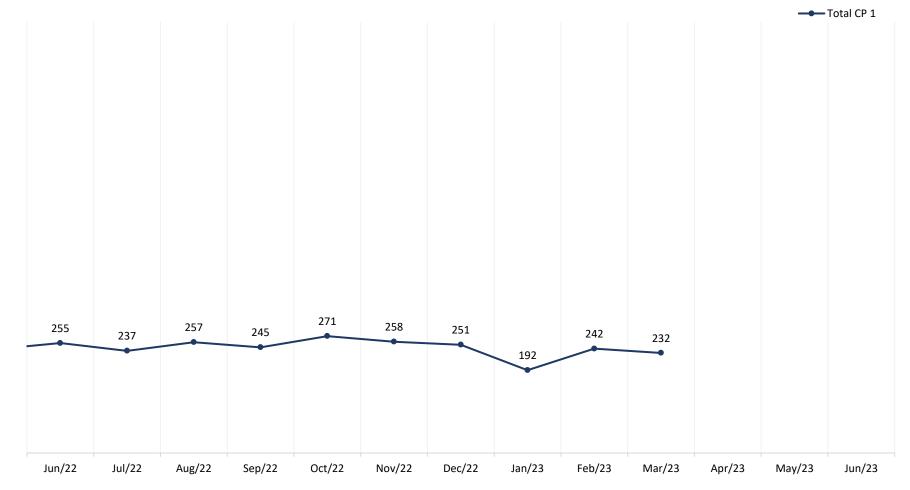


- 1. March 2023 reflects the March 16, 2023 Board Expenditure Authorization which increased the total Program Contingency to \$2,791.6M.
- 2. Contingency balance updated to reflect the Board's adoption of Resolution #HSR21-11 (Expenditure Authorization Increase).
- 3. Contingency Amount Allocated reflects executed change orders and Business Oversight Committee (BOC) approved items.
- 4. The Forecasted Contingency Balance drawdown curve is based only on agreed change orders expected to be executed within the three-month window. Due to change order negotiations and dispute resolution, timing and value of Forecasted Contingency Balance is uncertain.



## **CP 1 – Monthly Construction Labor**

### CP 1 – Monthly Construction Workforce Total – Actual (FTE)



#### Notes:

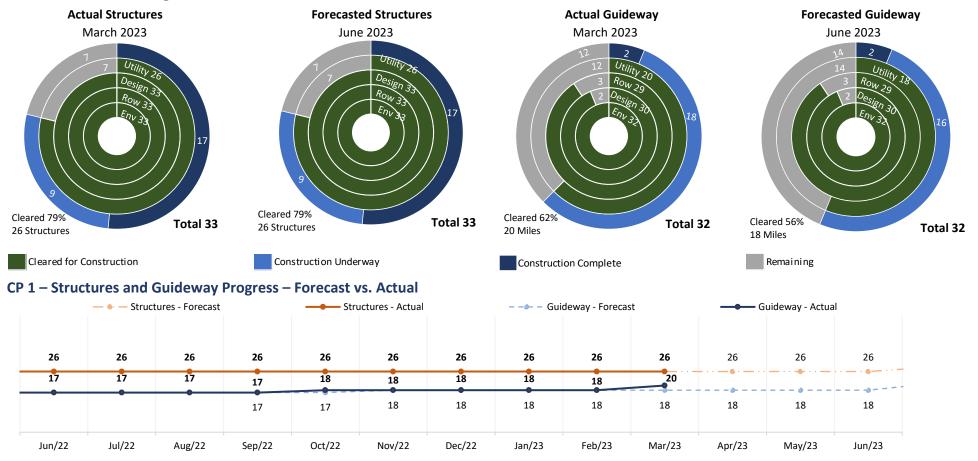
1. The construction labor numbers (full-time employees) are based on the weekly totals divided by the number of weeks within the working calendar month and represents the Average Daily Site Workers (by week).

2. A decrease of 10 workers from the previous month (242).

3. Multiple rain events continue to impact labor numbers.

## **CP 1 – Construction Progress**

#### **CP 1 – Construction Progress**



- 1. The circle charts above incorporate Revised Baseline Schedules (RBS4) approved schedule.
- 2. Construction Complete definition:
  - a. Structure Completion all concrete work is complete.
  - b. Guideway Completion earthworks complete with rough grading.
- 3. Total Structures: 33:
  - a. 26 structures underway/construction complete.
- 4. Total Guideway: 32 miles. Schedule used changed from conditionally accepted to accepted Revised Baseline. The revisions added 2 miles of guideway under construction for the period.
  - a. 20 miles underway/construction complete.
- 5. There are 32 miles of guideway approved by the Authority, but 2.5 miles (Caltrans section) has not been approved by Union Pacific Railroad (UPRR). Update: UPRR has approved the Caltrans 2.5 miles at 60% Design with 90% Design progressing. The Caltrans 2.5 mile IPB Work Plan has been approved and work commenced February 2023.
- 6. Late finish dates are being used to estimate forecast numbers.



# **CP 1 – Utility Relocation Summary**

## CP 1 - High Level Summary

Status	Number	Percentage
March 31, 2023	March 31, 2023	March 31, 2023
Total Utilities Not Started	218	22%
Total Utilities in Progress	303	31%
Total Utilities Relocated	471	47%
Total Utilities	992	100%

### **CP 1 – Summary by Utility Type**

Utility	Status	Number	Percentage
March 31, 2023	March 31, 2023	March 31, 2023	March 31, 2023
	NOT STARTED	93	43%
Electric	IN PROGRESS	23	11%
Electric	RELOCATED	99	46%
	TOTAL Electric Utilities	215	100%
	NOT STARTED	25	28%
Gas	IN PROGRESS	22	24%
Gas	RELOCATED	44	48%
	TOTAL Gas Utilities	91	100%
	NOT STARTED	46	11%
Telecom	IN PROGRESS	153	37%
Telecom	RELOCATED	216	52%
	TOTAL Telecom Utilities	415	100%
	NOT STARTED	54	20%
Wet	IN PROGRESS	105	39%
vel	RELOCATED	112	41%
	TOTAL Wet Utilities	271	100%

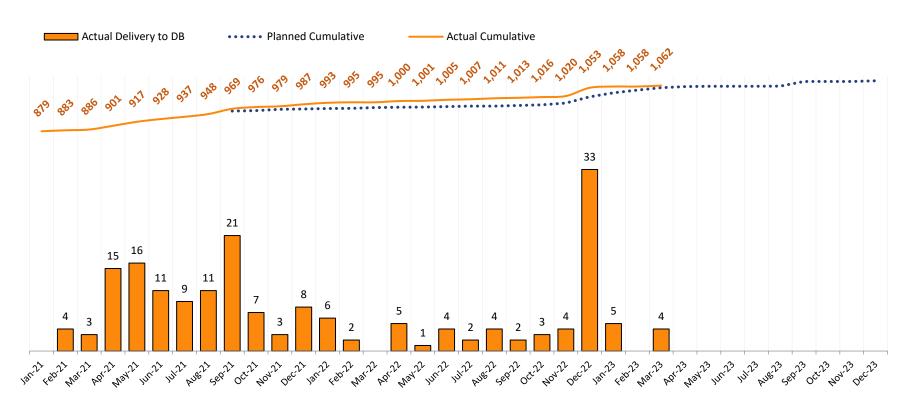


## CP 1- Real Property/Right-of-Way (ROW)

### CP 1 – Right-of-Way (ROW) Summary

Construction Package	Total Needed Parcels	Total Parcels Delivered to Date	Remaining Parcels to be Delivered
	March 31, 2023	March 31, 2023	March 31, 2023
CP 1	1,083	1,062	21

### CP 1 – Parcel Delivery to Design-Builder (DB) Summary



#### Notes:

1. This reflects the actual parcels delivered to the Design-Builder by month and forecasts based on conditionally accepted Revised Baseline Schedules (RBS) Revision 4.

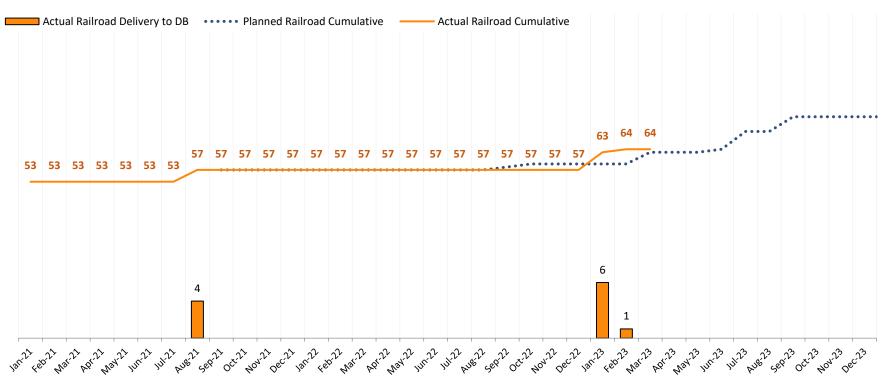


## CP 1 – Real Property/Right-of-Way (ROW) Railroad

#### CP 1 – Right-of-Way (ROW) Railroad Summary

Construction Package	Total Needed Railroad Parcels	Total Railroad Parcels Delivered to Date	Remaining Railroad Parcels to be Delivered
	March 31, 2023	March 31, 2023	March 31, 2023
CP 1	84	64	20

### CP 1 – Railroad Parcel Delivery to Design-Builder (DB) Summary



#### Note:

1. This reflects the actual Railroad parcels delivered to the Design-Builder by month and forecasts based on conditionally accepted Revised Baseline Schedules (RBS) Revision 4.



## **CONSTRUCTION PACKAGE 2-3 (CP 2-3) OVERVIEW**

## CP 2-3 – Design-Build Contract Summary<sup>(1)</sup>

#### Milestones

Milestone	Date
Request for Quote (RFQ) Date:	10/09/2013
Statement of Qualification (SOQ) Date:	12/13/2013
Request for Proposal (RFP) Date:	04/03/2014
Proposal:	10/30/2014
Bid Open Date:	12/11/2014
Award Date:	06/10/2015
Late Notice to Proceed (LNTP) Date:	06/12/2015
Notice to Proceed (NTP) Date:	07/25/2015
Original Completion Date:	08/19/2019
Current Forecast Contract Completion Date <sup>(2)</sup> :	05/21/2026
Current Forecast Construction Completion Date <sup>(2)</sup> :	03/21/2026

Description	Amount
Fixed Bid Price:	\$1,205,335,890.00
Provisional Sums:	\$160,000,000.00
Original Contract Price:	\$1,365,335,890.00
Executed Change Orders:	\$1,538,427,363.59
Current Contract Amount <sup>(4)</sup> :	\$2,903,763,253.59
Approved Invoices to Date:	\$1,942,645,547.30
Remaining Contract Balance:	\$961,117,706.29

#### Contract Time Status

Description	Duration
Original Contract Days:	1,486
Extension of Time Awarded <sup>(3)</sup> :	2,406
Current Forecast Contract Days <sup>(3)</sup> :	3,892
Calendar Days Worked (thru 03/31/2023):	2,806

#### **Expended to Date Percentage**

Description	Percentage
Time <sup>(3)</sup> :	72.1%
Dollars <sup>(4)</sup> :	66.9%

Growth	Percentage
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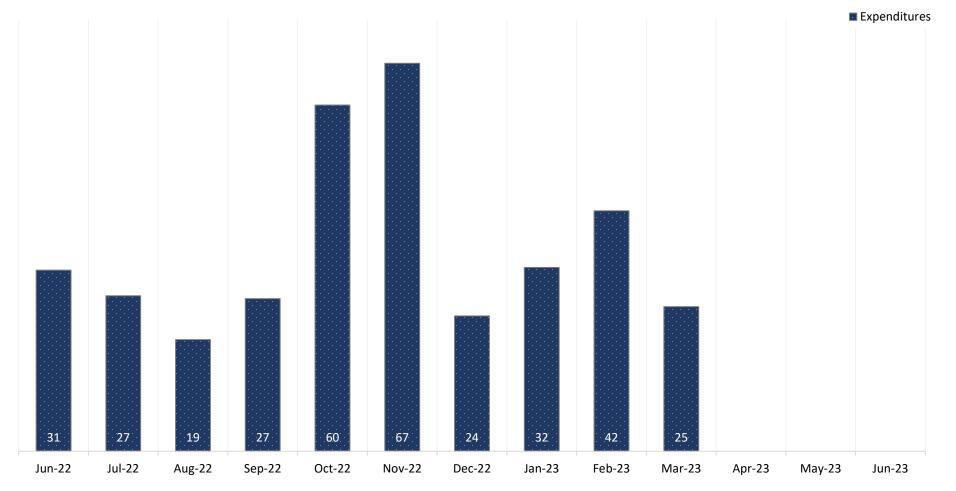
Description	Percentage
Time <sup>(3)</sup> :	161.9%
Dollars <sup>(4)</sup> :	112.7%

- 1. Data in this section is sourced from data provided by the PCM Monthly Status Report.
- 2. Updated per the conditionally accepted Revised Baseline Schedule (RBS) Revision 4.
- 3. Contract Time Status (Extension of Time Awarded and Current Contract Days), Expended to Date (Time), and Growth Percentage (Time) calculation is based on the Current Forecast Construction Completion Date.
- 4. Contract value will be updated to reflect RBS Revision 4 once the cost loaded schedule is received and agreed with the contractor.



## **CP 2-3 – Design-Build Expenditures**

### CP 2-3 – Monthly Expenditures (\$ Millions)



#### Notes:

1. Expenditures in the chart above are specific to the Design-Builder production and based on the Capital Outlay and Expenditure Report.

2. Expenditures totaled \$25.1M.



# CP 2-3 – Change Orders (CO)

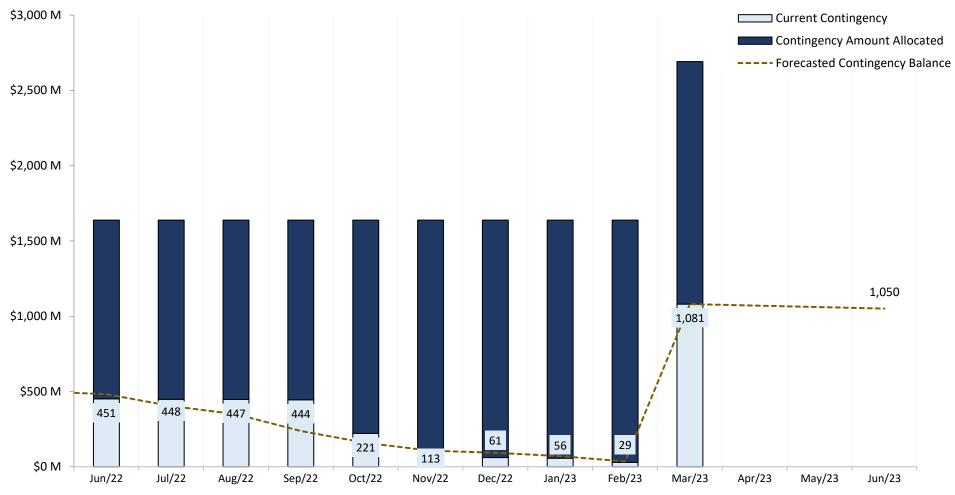
## CP 2-3 – Change Order Status

CO Number	Title	Change Status	Amount	Executed Date
00376	Intrusion Protection Barrier Rebar	Executed	\$1,686,664.00	03-30-23
00361	BVLOS Hand Clearing Mitigation Measures - Deer Creek	Executed	\$80,537.00	03-22-23
00350	Design Costs for Four Additional Wildlife Escape Ramps - DL 106	Executed	\$12,342.00	03-22-23
00321 Remob and Demob - Dutch John Cut and Cole Slough - Geotech Subs - Design Only		Executed	\$52,417.00	03-16-23
	TOTAL		\$1,831,960.00	



## CP 2-3 – Risk Contingency

### CP 2-3 – Risk Contingency Status (\$ Millions)

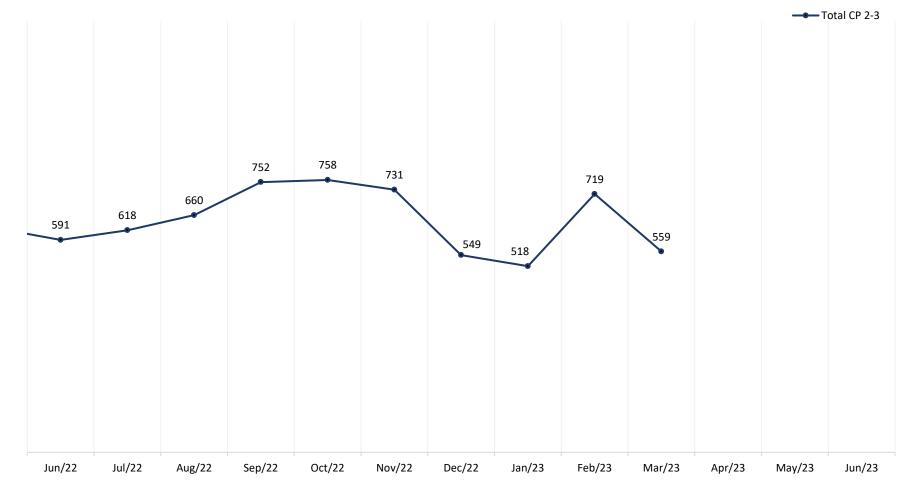


- 1. March 2023 reflects the March 16, 2023 Board Expenditure Authorization which increased the total Program Contingency to \$2,691.5M.
- 2. Contingency balance updated to reflect the Board's adoption of Resolution #HSR21-11 (Expenditure Authorization Increase).
- 3. Contingency Amount Allocated reflects executed change orders and Business Oversight Committee (BOC) approved items.
- 4. The Forecasted Contingency Balance drawdown curve is based only on agreed change orders expected to be executed within the three-month window. Due to change order negotiations and dispute resolution, timing and value of Forecasted Contingency Balance is uncertain.



## **CP 2-3 – Monthly Construction Labor**

### CP 2-3 – Monthly Construction Workforce Total – Actual (FTE)



#### Notes:

1. The construction labor numbers (full-time employees) are based on the weekly totals divided by the number of weeks within the working calendar month and represents the Average Daily Site Workers (by week).

2. A decrease of 160 workers from the previous month (719).

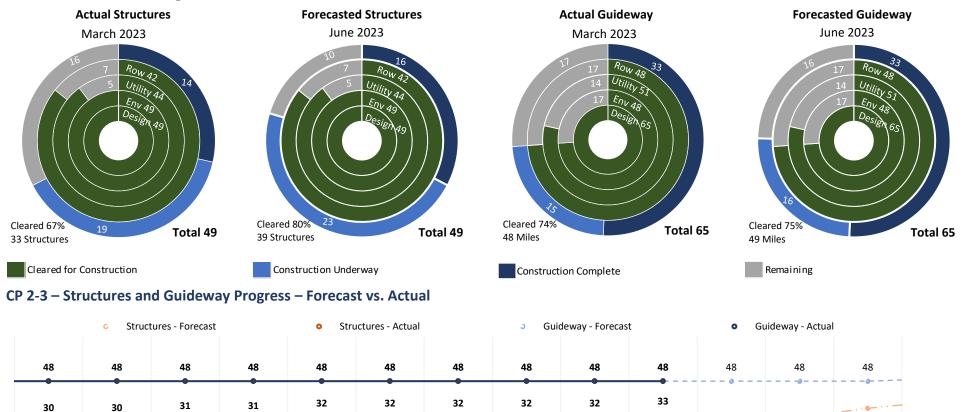
3. Multiple rain events continue to impact labor numbers.

36

Jun/23

## **CP 2-3 – Construction Progress**

#### **CP 2-3 – Construction Progress**



# Jun/22

- 1. The circle charts above incorporate Revised Baseline Schedules (RBS) Revision 4 data as of September 2022, pending final approval.
- 2. The line chart above incorporates provisional forecast numbers as of September 2022, pending final approval of RBS Revision 4.

32

Oct/22

32

Nov/22

32

Dec/22

32

Jan/23

32

Feb/23

32

Mar/23

32

Apr/23

32

May/23

3. Construction Complete definition:

Jul/22

a. Structure Completion – all concrete work is complete.

Aug/22

- b. Guideway Completion earthworks complete with rough grading.
- 4. Total Structures: 49:
  - a. 33 structures underway/construction complete. Whitley Avenue started 03/06/2023.

31

Sep/22

- 5. Total Guideway: 65 miles:
  - a. 48 miles underway/construction complete.
- 6. Late finish dates are being used to estimate forecast numbers.



# **CP 2-3 Utility Relocation Summary**

### CP 2-3 - High Level Summary

Status	Number	Percentage
March 31, 2023	March 31, 2023	March 31, 2023
Total Utilities Not Started	201	29%
Total Utilities in Progress	60	8%
Total Utilities Relocated	440	63%
Total Utilities	701	100%

### CP 2-3 – Summary by Utility Type

Utility	Status	Number	Percentage	
March 31, 2023	March 31, 2023	March 31, 2023	March 31, 2023	
	NOT STARTED	115	30%	
Electric	IN PROGRESS	52	13%	
Electric	RELOCATED	217	57%	
	TOTAL Electric Utilities	384	100%	
	NOT STARTED	12	44%	
Gas	IN PROGRESS	0	0%	
Gas	RELOCATED	15	56%	
	TOTAL Gas Utilities	27	100%	
	NOT STARTED	43	19%	
Telecom	IN PROGRESS	3	1%	
relecom	RELOCATED	187	80%	
	TOTAL Telecom Utilities	233	100%	
	NOT STARTED	31	54%	
Wet	IN PROGRESS	5	9%	
VVEL	RELOCATED	21	37%	
	TOTAL Wet Utilities	57	100%	

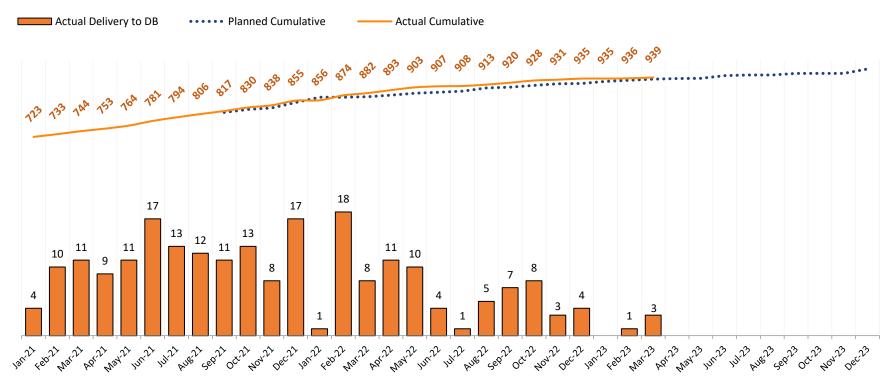


## CP 2-3 – Real Property/Right-of-Way (ROW)

### CP 2-3 – Right-of-Way (ROW) Summary

Construction Package	Total Needed Parcels	Total Parcels Delivered to Date	Remaining Parcels to be Delivered
	March 31, 2023	March 31, 2023	March 31, 2023
CP 2-3	986	939	47

### CP 2-3 – Parcel Delivery to Design-Builder (DB) Summary



#### Notes:

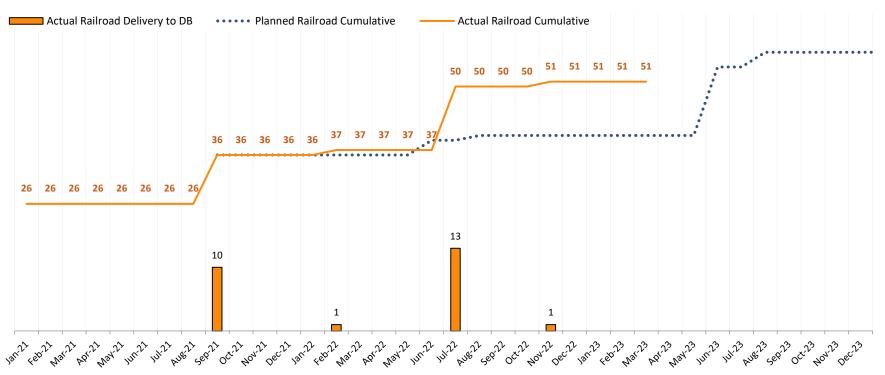
1. This reflects the actual parcels delivered to the Design-Builder by month and forecasts based on Revised Baseline Schedules (RBS) Revision 4.

## CP 2-3 – Real Property/Right-of-Way (ROW) Railroad

### CP 2-3 - Right-of-Way (ROW) Railroad Summary

Construction Packa	ge Total Needed Railroad Parcels	Total Railroad Parcels Delivered to Date	Remaining Railroad Parcels to be Delivered
	March 31, 2023	March 31, 2023	March 31, 2023
CP 2-3	58	51	7

### CP 2-3 – Railroad Parcel Delivery to Design-Builder (DB) Summary



#### Notes:

1. This reflects the actual Railroad parcels delivered to the Design-Builder by month and forecasts based on Revised Baseline Schedules (RBS) Revision 4.



## **CONSTRUCTION PACKAGE 4 (CP 4) OVERVIEW**

## CP 4 – Design-Build Contract Summary<sup>(1)</sup>

#### Milestones

Milestone	Date
Request for Quote (RFQ) Date:	11/20/2014
Statement of Qualification (SOQ) Date:	01/30/2015
Request for Proposal (RFP) Date:	05/27/2015
Proposal:	11/25/2015
Bid Open Date:	01/05/2016
Award Date:	02/29/2016
Late Notice to Proceed (LNTP) Date:	03/01/2016
Notice to Proceed (NTP) Date:	04/15/2016
Original Completion Date:	06/03/2019
Current Forecast Contract Completion Date <sup>(2)</sup> :	10/01/2023
Current Forecast Construction Completion Date <sup>(3)</sup> :	07/24/2023

#### Contract Value

Description	Amount
Fixed Bid Price:	\$337,247,000.00
Provisional Sums:	\$107,000,000.00
Original Contract Price:	\$444,247,000.00
	р
Executed Change Orders:	\$282,005,452.3
Current Contract Amount:	\$726,252,452.3
Approved Invoices to Date:	\$648,729,904.0
Remaining Contract Balance:	\$77,522,548.3
-	

#### **Current Time Status**

Description	Duration
Original Contract Days:	1,144
Extension of Time Awarded:	1,512
Current Forecast Contract Days:	2,656
Calendar Days Worked (thru 03/31/2023):	2,510

#### **Expended to Date**

Description	Percentage
Time:	94.5%
Dollars:	88.2%

#### **Growth Percentage**

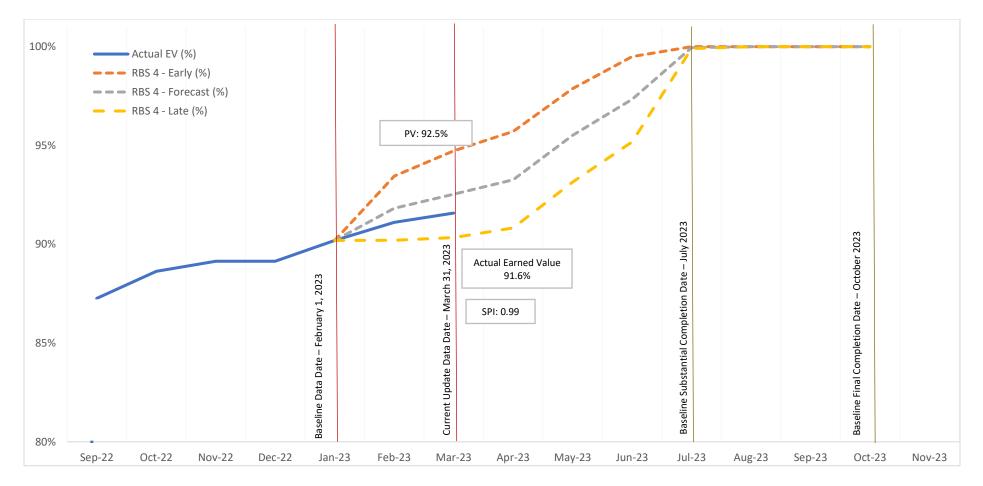
Description	Percentage
Time:	132.2%
Dollars:	62.6%

- 1. Data in this section is sourced from data provided by the PCM Monthly Status Report.
- 2. Updated to align with Current Forecast Contract Completion Date based on Expenditure Authorization.
- 3. Expenditure Authorization Current Forecast Construction Completion Date of July 24, 2023.
- 4. Contract Time Status (Extension of Time Awarded and Current Forecast Contract Days), Expended to Date (Time), and Growth Percentage (Time) calculation is based on the Current Construction Completion Date.



## CP 4 – Earned Value

#### CP 4 – Earned Value Summary (%)

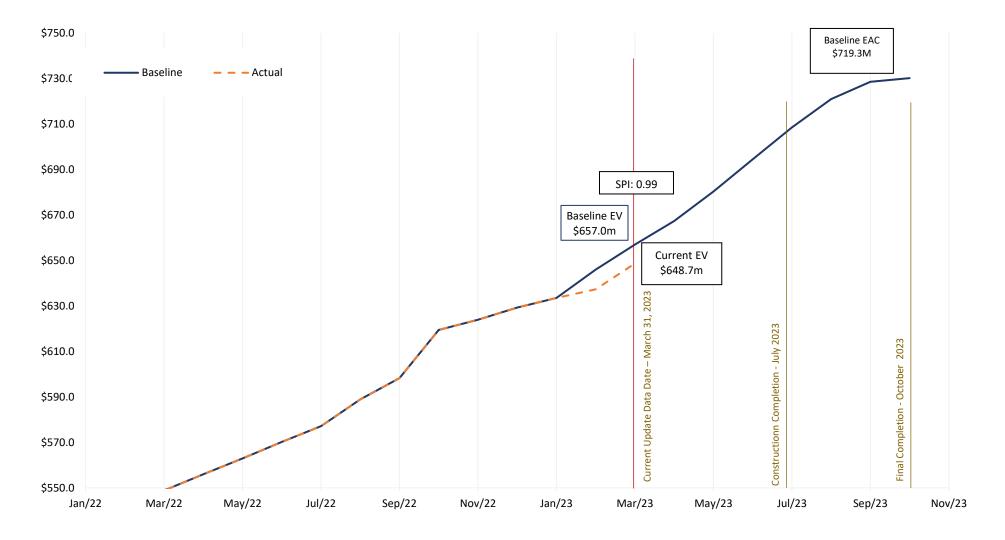


- 1. Forecast periods are based on a revised forecast as of April 1, 2023. The baseline schedule finalization is under negotiation with the contractor.
- 2. Earned Value represents physical progress of site activities, which is based on project team verification of site progress measurements.
- 3. The early dates graph is optimistic and assumes activities will take place on the schedule early dates.
- 4. Average graph assumes non-critical path activities are taking place mid-way of early and late dates.
- 5. The late dates graph assumes activities will take place on the schedule late dates. If actuals fall below late graph, it indicates schedule slippage. To provide contingency, the Schedule Performance Index (SPI) is measured against the average graph.
- 6. Time contingency is not included in these forecasts. This is Authority owned contingency.
- 7. The schedule update received shows Substantial Completion in Summer 2023. Reviews and mitigation opportunities are being investigated with the Contractor to bring this date back to July 2023.



## CP 4 – Cost Trend

### CP 4 – Cost Trend Summary (\$ Millions)

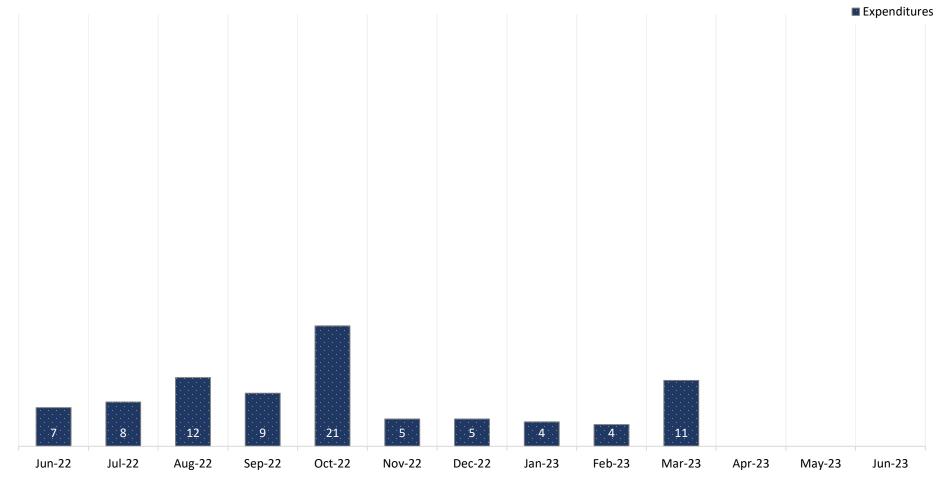


- 1. The graph provides a comparison of the project actual cost performance against the current Estimate at Completion (EAC).
- 2. The current EAC forecast is based on the contract value and the estimated cost of expected change orders.
- 3. The schedule update received shows Substantial Completion in Summer 2023. Reviews and mitigation opportunities are being investigated with the Contractor to bring this date back to July 2023.



## **CP 4 – Design-Build Expenditures**

### **CP 4 – Monthly Expenditures (\$ Millions)**



#### Notes:

1. Expenditures in the chart above are specific to the Design-Builder production and based on the Capital Outlay and Expenditure Report.

2. Expenditures totaled \$11.4M.

3. California Rail Builders (CRB) is unable to proceed with embankment work currently held back by completion of necessary utility relocations.



# **CP 4 – Change Orders (CO)**

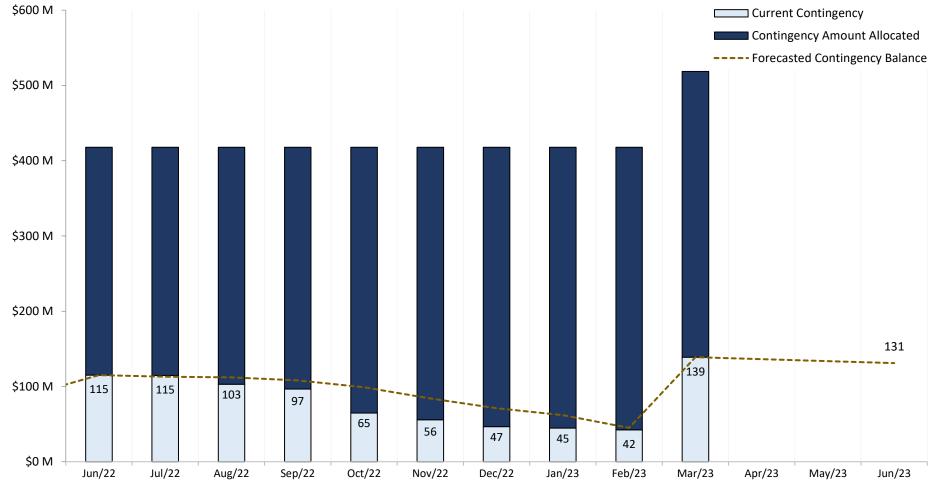
### **CP 4 – Change Order Status**

CO Number	Title	Change Status	Amount	Executed Date
141.1	Escalation Payment for the Period from January 01, 2022 through November 30, 2022	Executed	\$3,237,398.02	03-29-23
173	Environmental Monitoring Additional Costs from July 2022 through August 2022	Executed	\$419,243.57	03-22-23
168	Environmental Monitoring Additional Costs from August 2022 through September 2022	Executed	\$411,585.99	03-06-23
	TOTAL		\$4,068,227.58	



## **CP 4 – Risk Contingency**



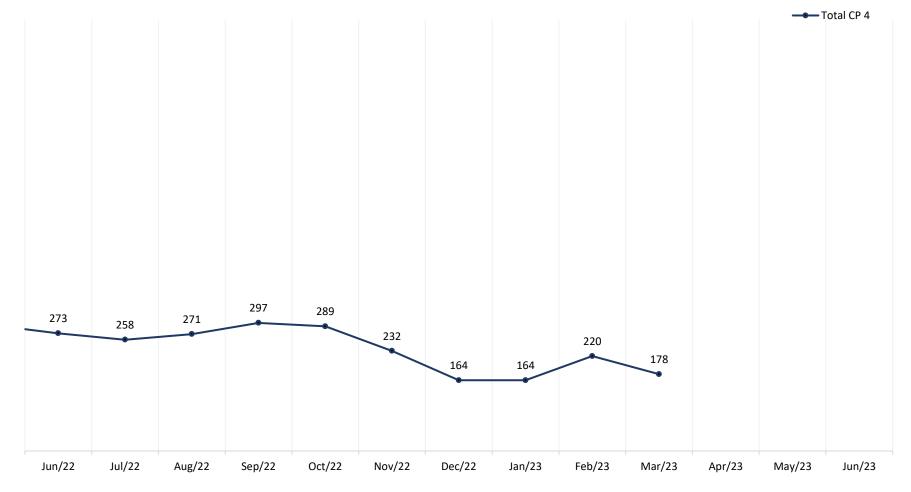


- 1. March 2023 reflects the March 16, 2023 Board Expenditure Authorization which increased the total Program Contingency to \$518.5M.
- 2. Contingency balance updated to reflect the Board's adoption of Resolution #HSR21-11 (Expenditure Authorization Increase).
- 3. Contingency Amount Allocated reflects executed change orders and Business Oversight Committee (BOC) approved items.
- 4. The Forecasted Contingency Balance drawdown curve is based only on agreed change orders expected to be executed within the three-month window. Due to change order negotiations and dispute resolution, timing and value of Forecasted Contingency Balance is uncertain.
- 5. June 2022 increases due to \$31M Business Oversight Committee approved transfer of Utility Provisional Sum from contract to contingency.



## **CP 4 – Monthly Construction Labor**

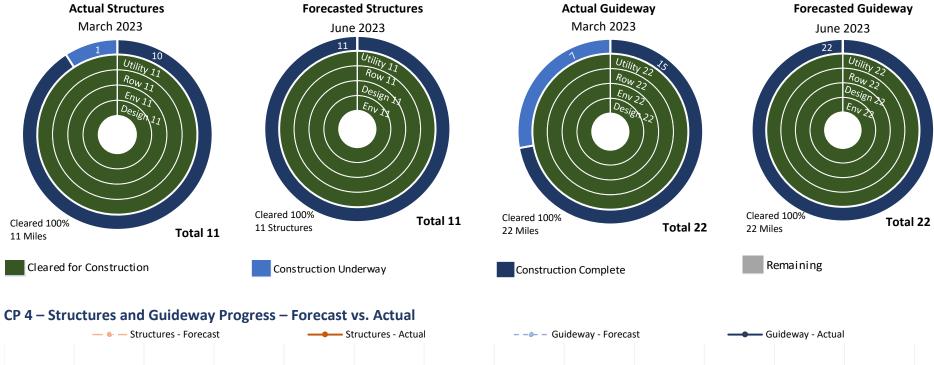
### CP 4 – Monthly Construction Workforce Total – Actual (FTE)



- 1. The construction labor numbers (full-time employees) are based on the weekly totals divided by the number of weeks within the working calendar month and represents the Average Daily Site Workers (by week).
- 2. A decrease of 42 in the number of workers from the previous month (220).
- 3. Multiple rain events continue to impact labor numbers.

## **CP 4 – Construction Progress**

#### **CP 4 – Construction Progress**



22	22	22	22	22	22	22	22	22	22	22	22	22 
				•			•	•	-	<b> </b> . <b></b> .	· _ · · • · · _	· · · •
11	11	11	11	11	11	11	11	11	11	11	11	11
Jun/22	Jul/22	Aug/22	Sep/22	Oct/22	Nov/22	Dec/22	Jan/23	Feb/23	Mar/23	Apr/23	May/23	Jun/23

- 1. The circle charts above incorporate Revised Baseline Schedules (RBS3) approved schedule.
- 2. Construction Complete definition:
  - a. Structure Completion all concrete work is complete.
  - b. Guideway Completion earthworks complete with rough grading.
- 3. Total Structures: 11:
  - a. 11 structures underway/construction complete.
- 4. Total Guideway: 22 miles. The actual miles for CP 4 are 21.5 miles but rounded to 22 miles for consistency in reporting:
  - a. 22 miles underway/construction complete.



# **CP 4 – Utility Relocation Summary**

## CP 4 – High Level Summary

Status	Number	Percentage	
March 31, 2023	March 31, 2023	March 31, 2023	
Total Utilities Not Started	23	16%	
Total Utilities in Progress	13	9%	
Total Utilities Relocated	107	75%	
Total Utilities	143	100%	

### CP 4 – Summary by Utility Type

Utility	Status	Number	Percentage	
March 31, 2023	March 31, 2023	March 31, 2023	March 31, 2023	
	NOT STARTED	2	3%	
Flootvia	IN PROGRESS	6	10%	
Electric	RELOCATED	54	87%	
	TOTAL Electric Utilities	62	100%	
	NOT STARTED	0	0%	
Gas	IN PROGRESS	0	0%	
Gas	RELOCATED	7	100%	
	TOTAL Gas Utilities	7	100%	
	NOT STARTED	0	0%	
Telecom	IN PROGRESS	4	12%	
relecom	RELOCATED	29	88%	
	TOTAL Telecom Utilities	33	100%	
	NOT STARTED	21	51%	
Wet	IN PROGRESS	3	7%	
vvel	RELOCATED	17	42%	
	TOTAL Wet Utilities	41	100%	

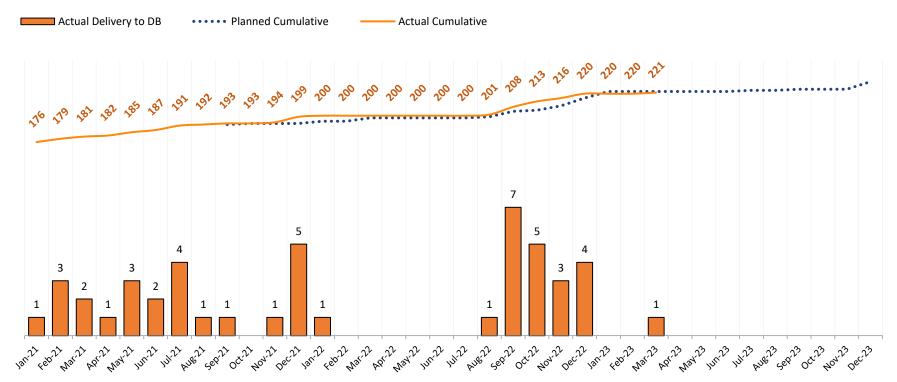


# CP 4 – Real Property/Right-of-Way (ROW)

### CP 4 – Right-of-Way (ROW) Summary

Construction Package	Total Needed Parcels	Total Parcels Delivered to Date	Remaining Parcels to be Delivered
	March 31, 2023	March 31, 2023	March 31, 2023
CP 4	231	221	10

#### CP 4 – Parcel Delivery to Design-Builder (DB) Summary



- 1. This reflects the actual parcels delivered to the Design-Builder by month compared to the Revised Baseline Schedule (RBS) Revision 3.
- 2. One delinquent parcel is anticipated to be delivered in early May.
- 3. CP4 parcels planned beyond May 2023 are not required for substantial completion of construction.

## CP 4 – Real Property/Right-of-Way (ROW) Railroad

## CP 4 – Right-of-Way (ROW) Railroad Summary

Construction Package	Total Needed Railroad Parcels	Total Railroad Parcels Delivered to Date	Remaining Railroad Parcels to be Delivered
	March 31, 2023	March 31, 2023	March 31, 2023
CP 4	29	29	0

### CP 4 – Railroad Parcel Delivery to Design-Builder (DB) Summary

		Actua	al Rai	lroad	Deli	very	to DE	3	•••	•••	Planr	ned R	ailro	ad Cu	ımula	ative			— A	ctua	l Rail	road	Cum	ulativ	/e										
29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29									••
								29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
r		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Jan 22	PD-21 N3	ar-22 Ar	1.21 Ma	×22 12	n <sup>21</sup> 3	JI-27 AI	16 Li Se	20 <sup>-22</sup> 09	J.J. NC	Nº22 De	ec 2 vo	N <sup>2</sup> Le		st-22 AS	1.22 M2	N22 11	N.J. N	N.J. AN	86 Se	8 <sup>22</sup> 00	Y.J. NO	N'J' De	ec. 1. 12		0-7-3 NS	1.73 P2	21.2.3 M2	N123 11	N. 2.3 N	1.23 AU	86 <sup>2</sup> 58	نی رو پې	F-23 NO	1.7.5 1.7.5	, <sup>2</sup> 2

## Project Development Schedule (Environmental Clearance) – Record of Decision (ROD)

### **Project Development Schedule (to ROD)**

Program Priority	Segment	Progress		Purpose and atement	Complete A Ana	Alternatives lysis	Board Con Preliminary F Draft I		Publish Dr	aft EIR/EIS	Publish Fir Obtai		Date EIR/EIS To Be Completed		
Number	Section	Due Dates	Last Month	Current	Last Month	Current	Last Month	Current	Last Month	Current	Last Month	Current	Last Month	Current	
Document Complete	Merced to Fresno	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	
Document Complete	Fresno to Bakersfield	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Compl0ete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	
Document Complete	CV Electrical Interconne ctions	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	
Document Complete	Locally Generated Alternative (F-B)	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	
Document Complete	Central Valley Wye (M-F)	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	
Document Complete	Bakersfield to Palmdale	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	
Document Complete	Burbank to Los Angeles	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	
Document Complete	San Jose to Merced	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	
Document Complete	San Francisco to San Jose	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	
1	Los Angeles to Anaheim	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	May-23 Aug-23 <sup>1</sup> 90%	May-23 Aug-23 <sup>1</sup> 90%	Jun-24 Sep-24 <sup>1</sup> 0%	Jun-24 Sep-24 <sup>1</sup> 0%	Sep-24 <sup>1</sup>	Sep-24 <sup>1</sup>	
2	Palmdale to Burbank	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Sep-23 Nov-23 8%	Sep-23 Sep-23 30%	Nov-23	Nov-23	
3	Heavy Maintenan ce Facility (HMF)	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Apr-16 TBD 0%	Apr-16 TBD 0%	Sep-16 TBD 0%	Sep-16 TBD 0%	Feb-21 TBD 0%	Feb-21 TBD 0%	TBD	TBD	

Notes:

1. For the Los Angeles to Anaheim project section, shared information with program delivery in March 2023 regarding future schedule adjustments, pertaining to potential changes to the project description. Those schedule adjustments will be brought back later this year for review and approval.



## **Project Development – Key Actions**

## **Project Development (Environmental Clearance) – Key Actions Summary**

Project Section	Key Actions
San Francisco to San Jose	Environmental Clearance activities complete. The Rail Delivery Partners (RDP) is supporting the Authority litigation activities.
San Jose to Merced	Environmental Clearance activities complete. The RDP is participating in post-Record of Decision (ROD) coordination with external stakeholders such as the Transportation Authority of Monterey County, Grasslands Water District, City of San Jose, and others.
Central Valley Wye	Conducted monthly progress meeting with County of Madera on Fairmead mitigation projects. Environmental Clearance activities complete. Transition to Merced Extension (Merced to Madera).
Locally Generated Alternative	Environmental Clearance activities complete. Transition to Bakersfield Extension (LGA).
Bakersfield to Palmdale	Work through Notice of Determination/Record of Decision (NOD/ROD) has been completed. The Authority has continued to meet with key stakeholders (e.g., Center for Biological Diversity, City of Palmdale) as necessary.
Palmdale to Burbank	Regional Consultant is working on the preparation of the Administrative Final EIR/EIS.
Burbank to Los Angeles	Work through NOD/ROD has been completed. Project closeout activities are ongoing.
Los Angeles to Anaheim	The LA-A team is preparing a Supplemental Alternative Analysis to evaluate options that minimize operational impacts to BNSF and continues to meet project objectives. An information item was presented at the March 2023 PDC meeting regarding future schedule adjustments for the LA-A project section, pertaining to potential changes to the project description. Those schedule adjustments will be brought back to the PDC later this year for review and approval.



## **Project Development (Post-ROD) – Key Actions Summary**

Project Section	Key Actions
Merced Extension (Merced to Madera)	Stantec Inc. under agreement HSR 22-02, continues to make progress on the early actions of this Project, including submittal of various Draft documents such as the Project Management Plan - Draft.
Fresno to Bakersfield Locally Generated Alternative (LGA)	The HNTB Corporation (HNTB), under agreement HSR 22-01, continues to make progress on the early actions of this Project, including submittal of various Draft documents such as the Project Management Plan and the Burlington Northern Santa Fe Corporation (BNSF) Shoofly Alignment - Draft.