

CAC Construction Update July 8, 2014

Transbay Transit Center



Current Project Overview

Transbay Transit Center

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Western Zone – Gridlines 1 to 10

Central Zone – Gridlines 10 to 20

Eastern Zone – Gridlines 20 to 35

Period Summary

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- There was one recordable safety incident this period. An ironworker performing rebar installation strained his back. Corrective actions have been implemented.
- The Safety Fest was held on June 20th. It was a huge success and very well received by the field team. Four training stations including fall protection and heat illness prevention were included.
- There have been over 1,100,000 craft hours completed, excluding demolition, through June 30, 2014. An increase of over 50,000 hours since our last construction update.





Period Summary – Safety Statistics

	2011	2012	2013	2014 (through June 30 th)
Total Craft Hours by Year	203,560	421,488	315,000	157,787
Number of Recordable Incidents	3	6	3	6
Number of Lost Time Incidents	1	0	0	2
WO Project Annual RIR / National Annual BLS RIR Average / California RIR Average	2.95 / 3.10 / 3.8	2.85 / 3.20 / 3.6	1.90 / tbd* / tbd*	n/a
WO Project Annual LTIR / National Annual BLS LTIR Average / California LTIR Average	0.98 / 0.90 / 1.8	0.00 / 1.10 / 1.7	0.00 / tbd* / tbd*	n/a

NOTES:

RIR = recordable incident rate, LTIR = lost time incident rate.

These rates are calculated as follows: RIR and LTIR = (# of recordable or lost time incidents for the year X 200,000) / actual hours worked.

* BLS is the Bureau of Labor Statistics, U.S. Department of Labor and State of California, it takes these agencies more than 18 months to produce the statistics after year's end. As a result, 2013 statistics are not yet available.

Period Summary

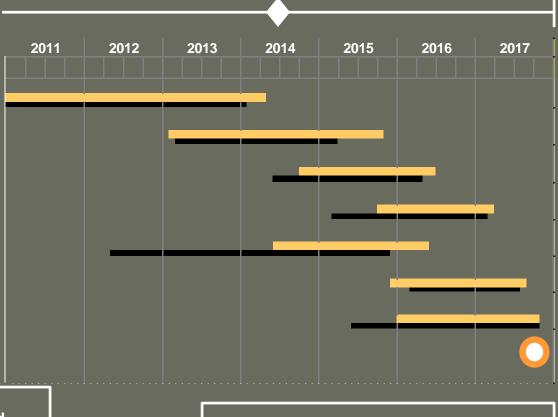
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- Wall and column concrete placement continues between the Rail Level and the Lower Concourse in the west and central zones.
- Lower Concourse slab rebar, embedded plumbing and embedded electrical is in progress, in anticipation of concrete placement, in the central and western zones.
- The first four of 36 Lower Concourse decks have been completed.

- Re-Bracing, following wall placement, continues in the western, central and now the eastern zones.
- Waterproofing and protection slab work continues in preparation for future mat foundation pours in the eastern zone.
- Mat Foundation pour #12 was completed on June 28th.

Construction Schedule – Critical Items*

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Current Schedule

Baseline Schedule

BSE/Foundations

Below Grade Structure/Train Box

Above Grade Superstructure

Building Envelope/Exterior Enclosures

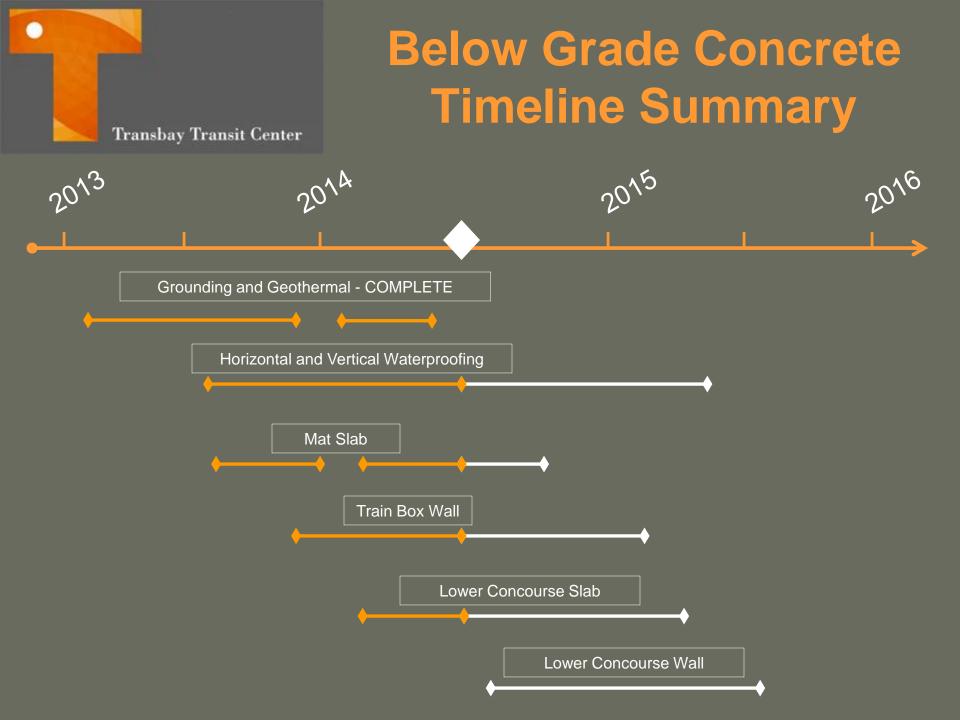
Ramps Preconstruction & Construction

Finishes & Systems

Commissioning & Start-up

Phase 1 Transit Center Completion

* The current critical path of the project is as follows; structural steel fabrication, west end train box walls lift 3, lower concourse decks, central and east end train box walls lifts 1 and 2 and re-bracing.





Zone	Total Columns	Columns Complete	Percent Complete	Total 1st Lift Walls	1st Lift Walls Complete	Percent Complete	Total 2nd Lift Walls	2nd Lift Walls Complete	Percent Complete
Western	62	62	100%	35	35	100%	35	19	54%
Central	44	40	91%	20	20	100%	20	18	90%
Eastern	62	0	0%	35	2	6%	35	0	0%

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Western Zone Activity

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Walls and Columns



Western Zone Activity

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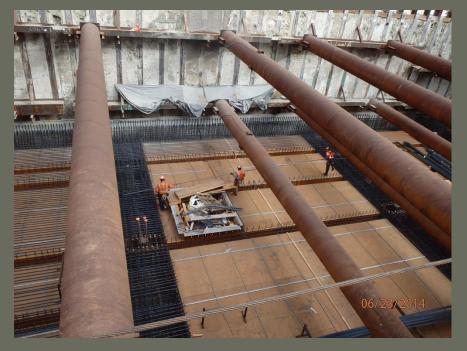


Lower Level walls and Concourse Deck.





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Lower Concourse Deck.





Central Zone Activity



Lower Concourse Deck placed.





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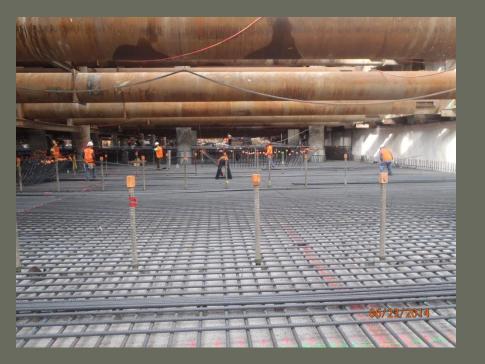
Mat Slab #12 Placement.

Light Column Anchor Bolts.



Eastern Zone Activity

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Prepping for next Mat Slab Placement.





Four (4) mat slabs remain to be placed.

Current Scheduled Dates:

Slab 13 – July 19

Slab 14 – August 2

Slab 15 – August 16

Slab 16 – September 6

Train Box Mat Slab Concrete Placement



Structural Steel

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Structural Steel Fabrication

Steel Fabrication

- Continue cast node fabrication in Louisiana and Kansas.
- Continue cast node shipments to Oregon and Washington.
- Continue fabrication of structural steel in Oregon and Washington.
- Continue fabrication of structural steel in Vallejo, CA.
- Continue fabrication of structural steel in San Bernardino, CA.

Steel Erection : West of First Street

October 2014 – Deliver steel sections and start erection near Shaw Alley.

Steel Erection : First – Fremont

January 2015 – Deliver steel sections and start erection First St. to Fremont St.

Steel Erection : Fremont – Beale

October 2015 – Deliver steel sections and start erection Fremont St. to Beale St.



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Work Proceeding at Thompson Metal Fabricators





Structural Steel Fabrication

Work Proceeding at Thompson Metal Fabricators



Structural Steel Fabrication

Work Proceeding at Oregon Iron Works – Preheating and Welding on to a Cast Node



Cast Node Fabrication as of July 7, 2014

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Casting Group	Totals	In-Process Pattern Completion	In-Process Casting and Machining	Release 1 Shipments March-May	Release 2 Shipment May-June	Release 3 Shipment Jul - Aug	Release 4 Shipment October	Release 5 Shipment December	Release 6 Shipment December
Ground Level - Atchison 19,600 - 46,300 lbs	35	12	5	8	9	2	0	0	0
Bus Deck - Amite 9,500 - 22,800 Ibs	75	23	13	16	10	2	0	0	4
Roof Level - Atchison 4,400 - 5,400 Ibs	138	2	54	32	32	6	0	0	0
Light Columns	56	26	40	N/A	0	0	0	0	0
Totals	304	63	112	56	51	10	0	0	0

Note: In-Process Casting quantity does not include already shipped nodes.

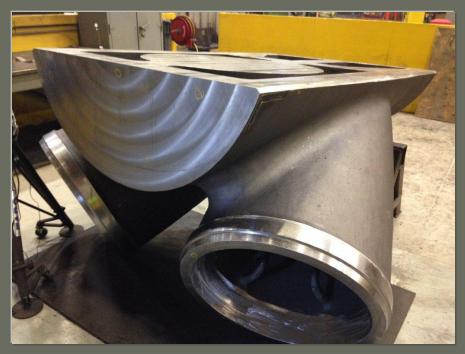


Cast Node Fabrication

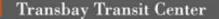
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Type 6 Nodes









Various node types ready for final inspection.

Node Type 1, machining completed, ready for inspection and shipping.





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Type 71 and 72 Nodes



Utility Relocation - AWSS Installation Update

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AWSS work continues at night at direction of SFMTA/MUNI to accommodate bus traffic. Work on Mission between Beale and Fremont was stopped June 24th as a result of a new PG&E conflict. Work to continue on Aug. 3rd after PG&E clears conflict.





To Go- In Progress :

Fremont – Beale Street; anticipate completion by end of August.



Construction The Next 90 Days

- Next 30 Days (July)
 - Continue concrete foundation walls and columns in western, central and eastern zones.
 - Continue Lower Concourse concrete deck rebar and embedded piping/electrical in the central and western zones.
 - Continue placing Lower Concourse slabs in central and western zones.
 - Place mat slab 13 in zone 4.
 - Complete waterproofing for mat slab pours 15 - 16.
 - Continue Structural Steel and Cast Node fabrication.
 - Start Bus Ramp work between Harrison and Howard Streets.

- Next 60-90 Days (Aug. Sept.)
 - Continue concrete foundation walls and columns of the train box in west, central and east zones.
 - Continue Lower Concourse decks in central zone and western zone.
 - Start re-bracing eastern zone
 - Place mat slabs 14 through 16 in eastern zone.
 - Complete AWSS work along Mission Street.
 - Continue Bus Ramp work.
 - Continue Structural Steel and Cast Node fabrication.

Questions?

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