



# Construction Update

July 11, 2013

## Transbay Transit Center

**TJPA**





Transbay Transit Center

## Period Summary

- There were no recordable or lost time incidents or injuries this period.
- There have been over 790,000 craft hours completed, excluding demolition, through June 30, 2013. Over 40,000 completed since the last meeting.
- Overall the excavation work is 78% complete.
- Bracing installation is complete in Zones 1 and 2; work continues in Zone 3 and has just begun in Zone 4. In Zone 3 struts are complete at bracing levels A and B, 85% complete at level C, 70% complete at level D.
- Production micropiles continue in Zone 2 (100% installed, 95% tested) and Zone 3 (44% installed). To date 1,230 have been installed and grouted. A total of 1,111 have been tested, all have passed.



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## Period Summary

- Demolition of the Buttress work slab in Zone 4 has been completed. The construction access trestle has been completed and is open for use. Level 1 excavation is approximately 85% complete in Zone 4.
- Grounding system installation, geothermal installation and mud slabs are completed in Zone 1.
- Zone 2 geothermal piping has been installed and tested in two of the four fields in the Zone.
- RUP 4.2, the AWSS Work, continued this period. Final testing has been completed between First and Second Streets, including the intersections. Final repaving of this area will be completed July 23. Work on the block between Beale and Main is now underway.



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# Construction The Next 90 Days

- Next 30 Days

- Complete geothermal and grounding in Zone 2.
- Start grounding and geothermal in Zone 3.
- Start Zone 1 waterproofing and protection slab install.
- Issue Structural Steel Contract.
- Complete micropiles in west half of Zone 3, de-mobilize equipment.

- In 60 Days

- Complete mud slab work in Zone 2.
- Start mud slab pours in Zone 3.
- Install Beale St. PG&E duct bank under traffic bridge.
- Complete Level A bracing in Zone 4.

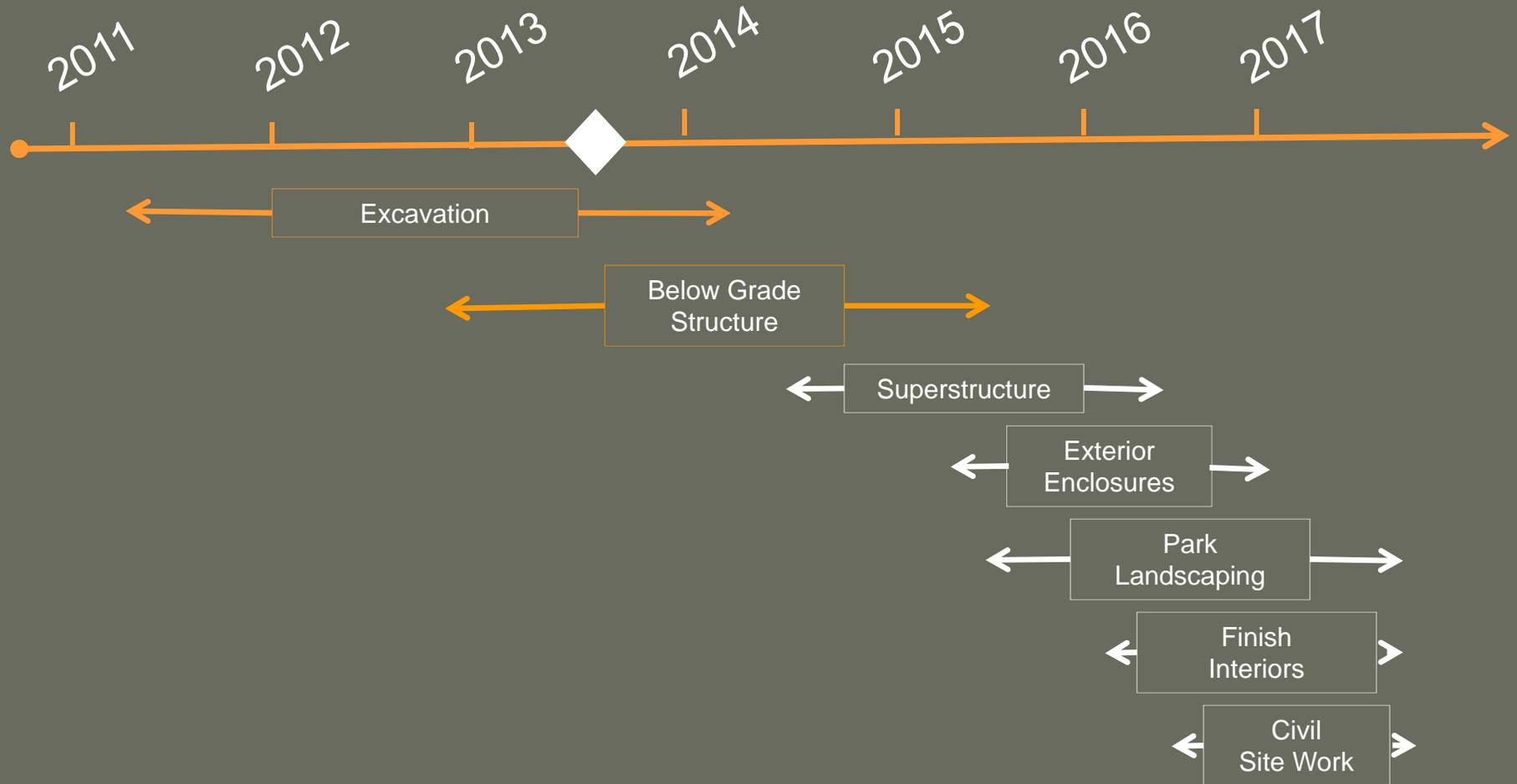
- In 90 Days

- Start Zone 4 Level B Bracing.
- Complete demolition of Buttress “tops” through Level 2.



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# Construction Timeline Summary





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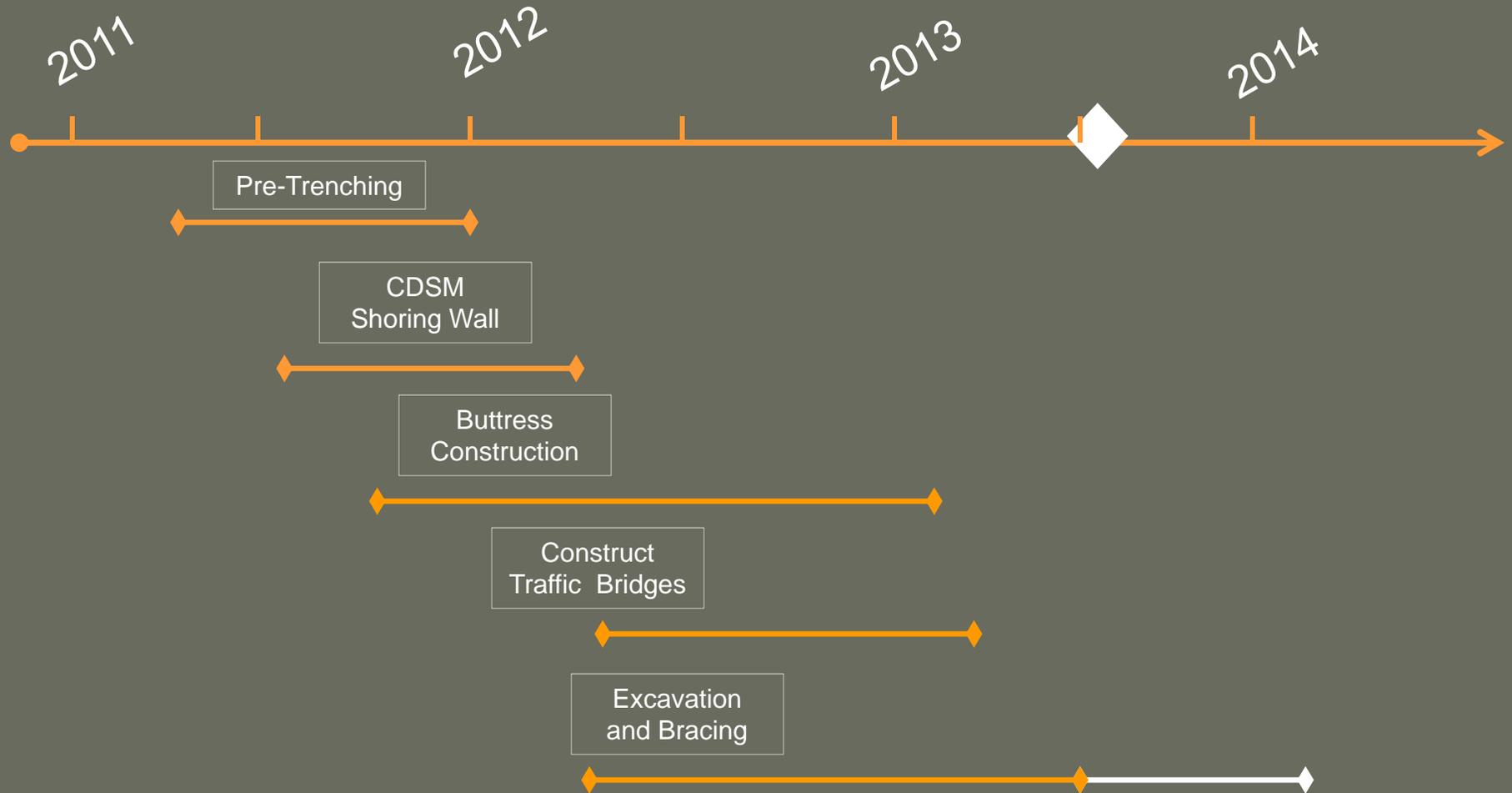
## Construction Milestones

Key Schedule Dates	Baseline	May-13	Float
Complete Utility Relocations	Jul-13	Nov-13	985
Complete First Mat Pour	Jul-13	Aug-13	157
Complete Zone 2 Mat Pour	Aug-13	Dec-13	56
Complete Excavation	Jan-14	Mar-14	24
Complete Zone 1 Concourse Level Deck	Mar-14	May-14	31
Begin Steel Erection	Jun-14	Jul-14	33
Complete Steel Superstructure	Nov-15	Jan-16	0
Connect Bus Ramps to Transit Center	May-16	May-16	222
Complete Rough Interiors	Aug-16	Feb-17	19
Complete Exterior Curtain Wall	Jan-17	Mar-17	0
Complete Finish Interiors	Jul-17	Aug-17	16
Begin Bus Operations	Oct-17	Oct-17	0
Final Completion	Mar-18	Mar-18	0



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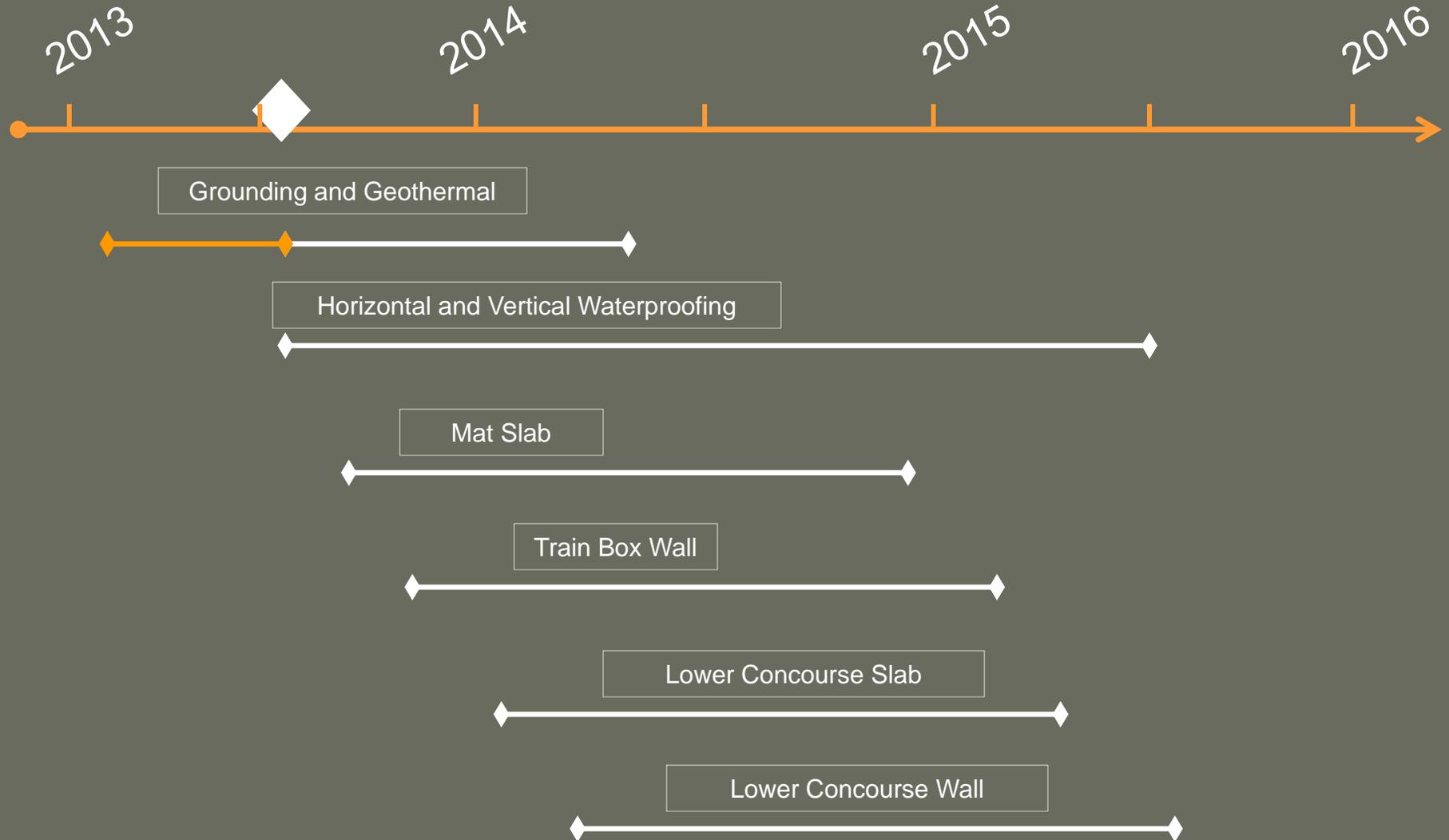
# BSE Timeline Summary





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# Below Grade Concrete Timeline Summary

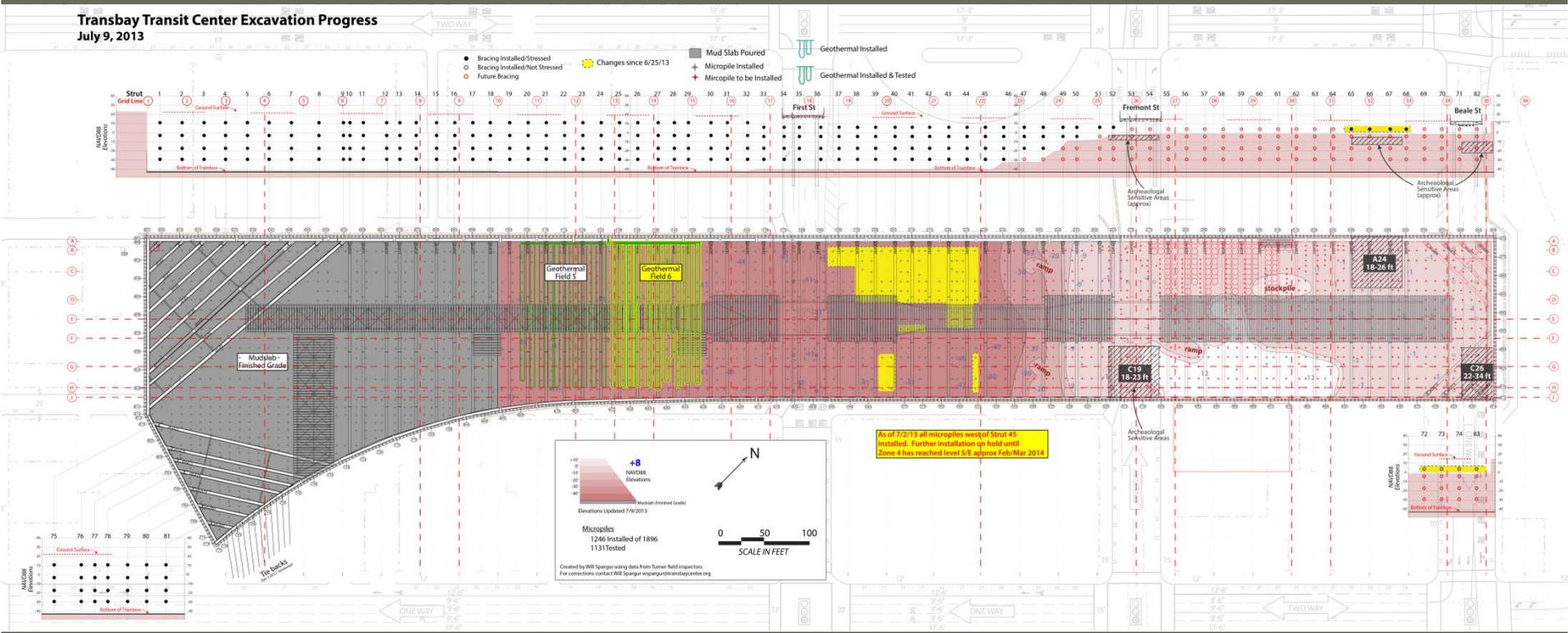




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# Excavation and Bracing Status All Zones July 9, 2013

Transbay Transit Center Excavation Progress  
July 9, 2013



**+8 NAVD83 Elevations**  
Elevations Updated 7/9/2013

**Micropiles**  
1246 Installed of 1896  
1131 Tested

Created by WSP Spang using data from Turner field inspection.  
For corrections contact WSP Spang: wsp@spangtransbaycenter.org

0 50 100  
SCALE IN FEET

As of 7/2/13 all micropiles west of Strut 45 installed. Further installation on hold until Zone 4 has reached level 5/E approx Feb/Mar 2014



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# Central and West Sections Progress



May 2013



July 2013



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# Micropile Status through June 30, 2013

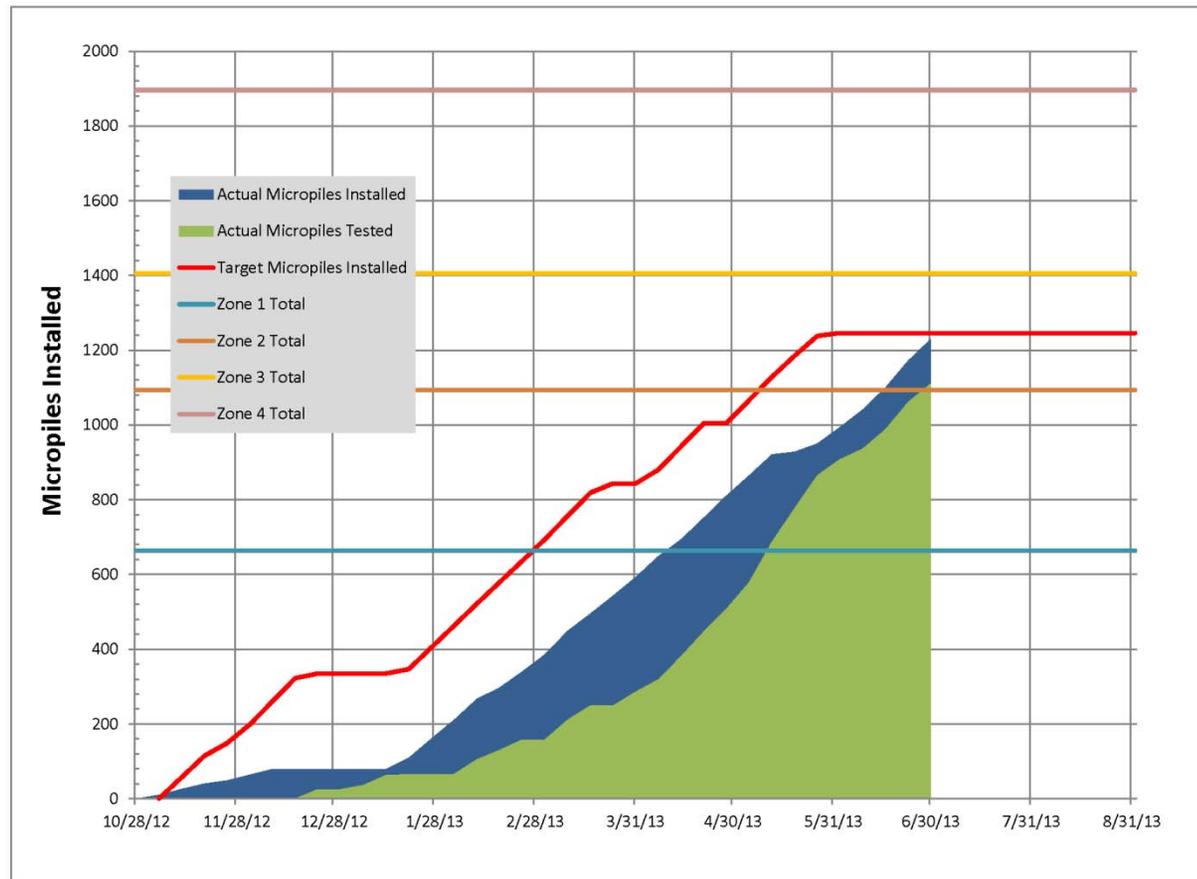
Micropiles	Total	Installed	% Installed	Tested	% Tested
Zone 1	664	664	100%	664	100%
Zone 2	429	429	100%	409	95%
Zone 3	313	137	44%	38	12%
Zone 4	490	0	0%	0	0%
Overall	1896	1230	65%	1111	59%



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# Micropile Status

## Micropile Installation Production

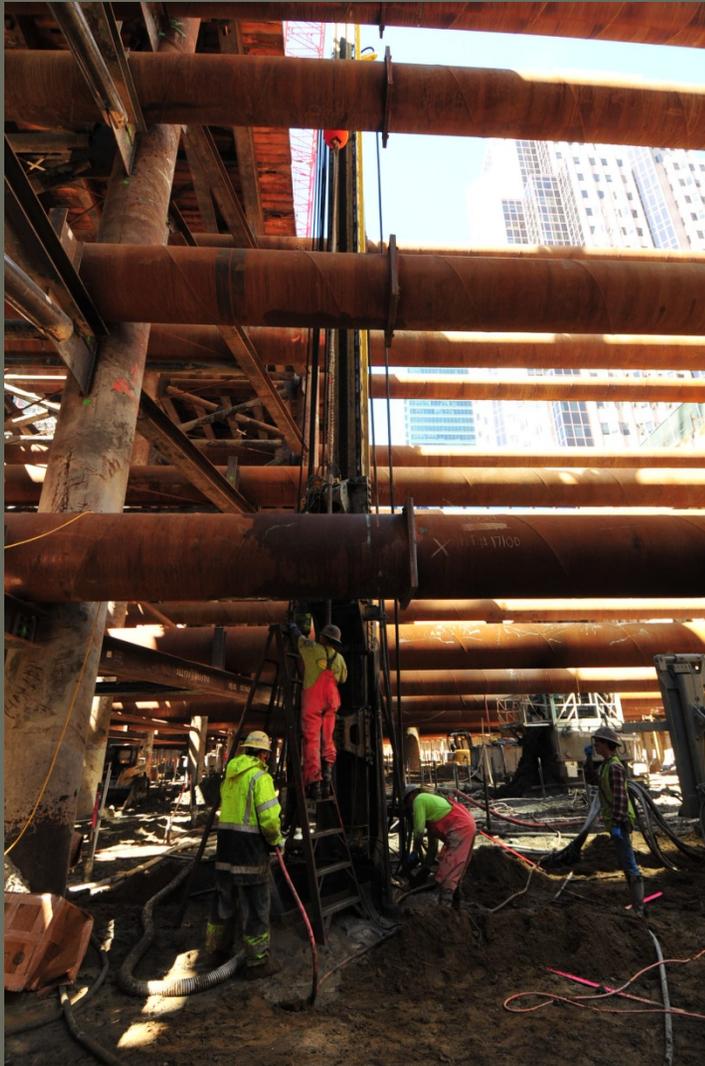


Date: 7/10/2013



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# Micropiles – Zone 2





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# Geothermal Piping – Zone 2





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# Geothermal Piping – Zone 2





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# Subgrade and Mudslab Preparations – Zone 2





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# Subgrade and Mudslab Preparations – Zone 2





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# Excavation and Bracing – Zone 3





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# East Section Progress



May 2013



July 2013



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# Zone 4 Progress





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# Zone 4 Progress





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# Utility Relocation - AWSS Installation Update





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# Bay Area Regional Labor Breakdown

Labor by Area	Through June 2013	
Location	Total Hours Completed	Hours Percent
East Bay (Alameda, Contra Costa, Solano)	250,751	32%
North Bay (Marin, Napa, Sonoma)	23,572	3%
South Bay (San Mateo, Santa Clara)	79,124	10%
San Francisco	143,997	18%
Other*	295,649	37%
<b>Totals</b>	<b>793,091**</b>	<b>100%</b>

\*Other includes workers from throughout California including the Central Valley as well as workers from out of state who are onsite for specific tasks.

\*\*Total hours are for the Transit Center construction work and do not include the initial Demolition work represented by a total of approximately 55,000 craft hours.



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# Labor Breakdown by Trade through June 2013

Classification	TTC Building and RUP's*
Inspectors – Soils / Material Test	38
Carpenters and Related Trades	41
Cement Mason	32
Electrical – Utility Lineman	26
Electrician	25
Field Surveyor	26
Iron Worker	97
Laborer and Related Trades	489
Operating Engineer	301
Pile Drivers	121
Plumber	6
Roofer	11
Sheet Metal	5
Teamsters	162
Tile Setters / Finishers	7
Water Well Driller	9
<b>Totals</b>	<b>1,396</b>

\* Relocation of Utilities Project



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Questions?