

**APPENDIX B**

**CONSTRUCTION ASSUMPTIONS**

- Construction Assumptions**
- Rope Pulling and System Testing**

**Memorandum**

**APPENDIX B**

**CONSTRUCTION ASSUMPTIONS**

**- Construction Assumptions**



April 8, 2022

David DeRosa  
Associate Vice President  
AECOM  
900 South Grand, Suite 900  
Los Angeles, CA 90071

Re: Los Angeles Aerial Rapid Transit Project: Construction Assumptions

Dear Mr. DeRosa:

Aerial Rapid Transit Technologies LLC (“ARTT”) proposes to construct the Los Angeles Aerial Rapid Transit Project (“LA ART” or “Project”).

### **Construction Phasing and Anticipated Closures**

Construction of each station, junction, and tower is anticipated to occur over several phases: construction of piles, foundations and columns; structural steel and gondola equipment erection; vertical circulation, hardscape, landscape, interior work, and the required roadway asphalt and re-striping to support the Project. An overview of this phasing and area conditions, including anticipated closures, is included as Exhibit 1 to this memorandum. For each of the Project components (Alameda Station, Alameda Tower, Alpine Tower, Chinatown / State Park Station, Broadway Junction, Stadium Tower, and Dodger Stadium Station), Exhibit 1 includes detail on each phase of construction and provides additional information as to the anticipated duration of each phase, potential closure conditions and descriptions, estimated structural details, anticipated construction and staging zones, estimated foundation and pile locations, and potentially impacted utilities. The information about potential closure conditions and descriptions was coordinated with Fehr & Peers.

### **Alameda Station**

As shown in Exhibit 1, there are two potential options for construction of Alameda Station, depending on whether or not Metro’s Lot B, an existing approximately 60-space parking lot in front of the Union Station Terminal and the future location of the Union Station Forecourt (“Lot B”), may be utilized for construction staging and location of the crane to be used during Alameda Station’s construction. If ARTT utilizes Lot B, the construction would include the installation and use of a temporary deck spanning over Alameda Street during the structural steel and gondola equipment erection phase. Two additional construction phases are included under this option for the temporary deck’s installation and its subsequent removal. Once installed, the temporary deck would allow certain lanes to remain open full-time during the structural steel and gondola equipment erection phase, and provide protection for pedestrians on Alameda Street. If



**CONSTRUCTION**

Lot B is not utilized for staging, the temporary deck would not be able to be installed due to the required proximity of the crane to the construction zone. For the structural steel and gondola equipment erection phase, this option would require the closure of additional lanes during construction hours so that the crane could be assembled and remain in the road until the phase is complete. During non-construction hours, certain lanes would remain open that were not impacted by the location of the crane.

Under either option, construction of Alameda Station would not impact pedestrian access to Union Station.

### **Broadway Junction**

Construction of the Broadway Junction will also utilize a temporary deck in order to reduce lane closures along Bishops Road and North Broadway. Two phases of construction are included for the deck's installation and its subsequent removal. Once installed, the temporary deck would allow certain lanes to remain open full-time during the structural steel and gondola equipment erection phase, and provide protection for pedestrians on Bishops Road and North Broadway.

### **Construction Equipment, Number of Construction Workers, Shuttle and Truck Trips, Excavation and Haul Amounts**

Assumptions regarding construction equipment (including type, quantity, and frequency of use), typical number of truck trips, typical number of construction workers, typical number of shuttle trips for construction workers, peak number of truck trips during either concrete pour or steel delivery, excavation depths, depths of site work, excavation amounts, haul amounts, and amount of materials (including soils) reused on site for the construction of LA ART are included in Exhibit 2 (including the assumptions for construction with the temporary deck at Alameda Station) and Exhibit 3 (including the assumptions for construction without the temporary deck at Alameda Station) to this memorandum.

### **Construction Power Draw Estimates**

PCL estimates that construction of the Project would result in a demand of approximately 864,544 kWh of electricity from the grid, with a peak day total of approximately 1,977 kW. This demand would be temporary, and in some cases would supplant electricity that would have otherwise been provided by an alternate energy source (e.g., diesel generators).

### **Construction Worker Parking and Staging at the Dodger Stadium Property**

PCL anticipates that construction worker parking would be provided on- and off-site depending on the phase of construction and the availability of on-site parking. Off-site parking facilities could include parking lots close to construction sites. The Dodger Stadium property may also be used for construction worker parking and construction staging. When construction worker parking is off-site, or construction workers are parked at Dodger Stadium, but are working on



**CONSTRUCTION**

station components elsewhere along the Project alignment, a temporary shuttle may be operated for construction workers to and from the designated off-site parking location. Limited on-site parking will be made available for site visitors, deliveries, and inspectors.

The Dodger Stadium property may be used as a construction staging location, including for staging of the gondola system. Included as Exhibit 4 is the potential location for construction and gondola system staging on the Mesa Lot. Construction staging would include construction trailers for construction management use with corresponding parking for construction management, use during construction hours, and a laydown area. Gondola system staging on the Mesa Lot would include receipt of containers containing the gondola system and assembly and staging of the gondola system. If locations closer to the construction sites are able to be utilized for construction staging, they may also be used as a possible staging location.

Parking spaces will be temporarily removed at Dodger Stadium for Project construction. For construction of Dodger Stadium Station, 105 spaces would be removed during the Foundations and Columns and Structural Steel and Gondola Equipment Erection phases, and 252 spaces would be removed for the Vertical Circulation/Hardscape and Landscape/Interior Work phase. In addition, the Mesa Lot would be used for overall Project construction and gondola system staging, including construction trailers, laydown, and staging areas. 713 parking spaces would be temporarily removed in the Mesa Lot. Additional parking spaces at Dodger Stadium would also be temporarily closed for construction worker parking.

### **Overview of Estimated Utility Relocation Details**

Utility relocations are anticipated to occur prior to the start of the construction. Exhibit 2 (including the assumptions for utility relocations with the temporary deck at Alameda Station) and Exhibit 3 (including the assumptions for utility relocations without the temporary deck at Alameda Station) include an overview of the required utility relocations that are anticipated for the construction of the Project. The following table provides an overview of estimated utility relocation details for LA ART, including the utility relocation duration for each component, maximum depth of excavation, amount of excavation, and amount of materials exported:

### Estimated Utility Relocation Details

<b>Component</b>	<b>Utility Relocation Duration (Weeks)</b>	<b>Maximum Depth of Excavation (Feet)</b>	<b>Amount of Excavation (Cubic Yards)</b>	<b>Amount of Materials Exported (Cubic Yards)</b>
<b>Alameda Station</b>	7	10	1,000	1,000
<b>Alameda Tower</b>	2	10	160	160
<b>Alpine Tower</b>	3	10	1,000	1,000
<b>Chinatown / State Park Station</b>	2	10	160	160
<b>Broadway Junction</b>	8	10	111	111
<b>Stadium Tower</b>	3	10	3,500	3,500
<b>Dodger Stadium Station</b>	5	10	1,600	1,600

### Schedule

Construction of LA ART stations, junction and towers may partially overlap in schedule, especially since construction would occur at physically separated sites, with consideration of available materials, work crew availability, and coordination of closures. Construction is anticipated to take approximately 25 months, including construction, cable installation, and system testing.

A graphic description of the potential construction schedules are included as Exhibit 5 to this memorandum.

### Overview of Construction Details



**CONSTRUCTION**

The following table provides an overview of construction details for LA ART, including the construction duration for each component, maximum depth of drilled piles beneath the pile cap, maximum depth of excavation, amount of excavation, and amount of materials exported:

**Construction Details**

<b>Component</b>	<b>Construction Duration (Months)</b>	<b>Maximum Depth of Drilled Piles Beneath Pile Cap (Feet)</b>	<b>Maximum Depth of Excavation (Feet)</b>	<b>Amount of Excavation (Cubic Yards)</b>	<b>Amount of Materials Exported (Cubic Yards)</b>
<b>Alameda Station</b>	17	125	10	2,728	2,295
<b>Alameda Tower</b>	12	120	10	2,850	2,292
<b>Alpine Tower</b>	11	120	10	3,606	2,887
<b>Chinatown / State Park Station</b>	19	80	10	6,267	4,567
<b>Broadway Junction</b>	19	120	7	6,407	5,379
<b>Stadium Tower</b>	12	120	7	1,286	1,202
<b>Dodger Stadium Station</b>	20	55	42	44,313	44,001

Sincerely,

**PCL Construction Services, Inc.**

  
 Austin Wheelon  
 Preconstruction Manager

AGW

cc: EM, AY

**EXHIBIT 1**  
**Overview of Construction Phasing and Area Conditions**



# Alameda Station with Temporary Deck | Existing

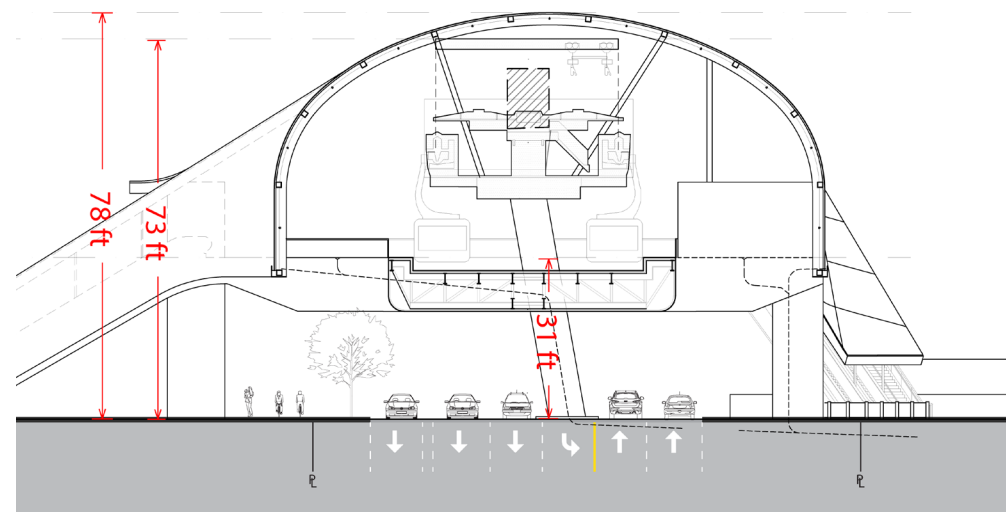
## Existing Conditions with Esplanade

Planned conditions for Metro's proposed Esplanade at the proposed location for Alameda Station:

- 1 NBL turn lane
- 2 NB through lanes
- 1 NB through-right lane/ NB curbside drop off lane
- 2 SB through lanes

Existing conditions for Cesar Chavez Avenue at the proposed location for Alameda Station:

- 1 EBL turn lane
- 2 EB through lanes
- 1 EBR turn lane
- 1 WBL turn lane
- 2 WB through lanes
- 1 WB through-right lane



# Alameda Station with Temporary Deck

## Foundations and Columns 16 weeks

Required area for Construction  
48,600 sqft

### Alameda Street

#### Portion of lanes shortened but not closed

- 2 NB through lanes

#### Lanes and sidewalks closures

- 1 NBL turn lane
- 1 SB through lane
- NB curbside drop off

#### Lanes and sidewalks to remain open

- 1 NB through-right lane
- 1 SB through lane
- Both sidewalks
- Esplanade 2-way bike path

### Cesar Chavez Avenue

#### Lanes and sidewalks closures

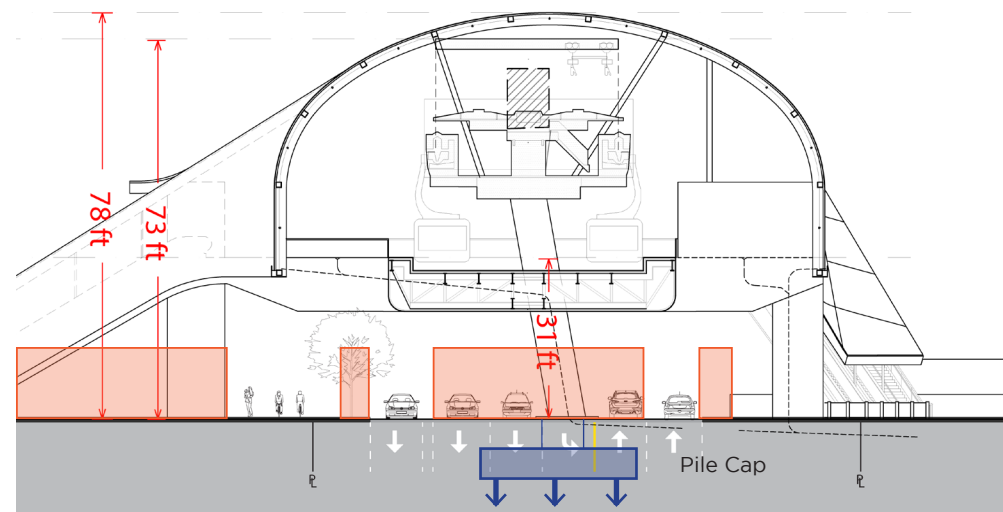
- 1 WBL turn lane

#### Lanes and sidewalks to remain open

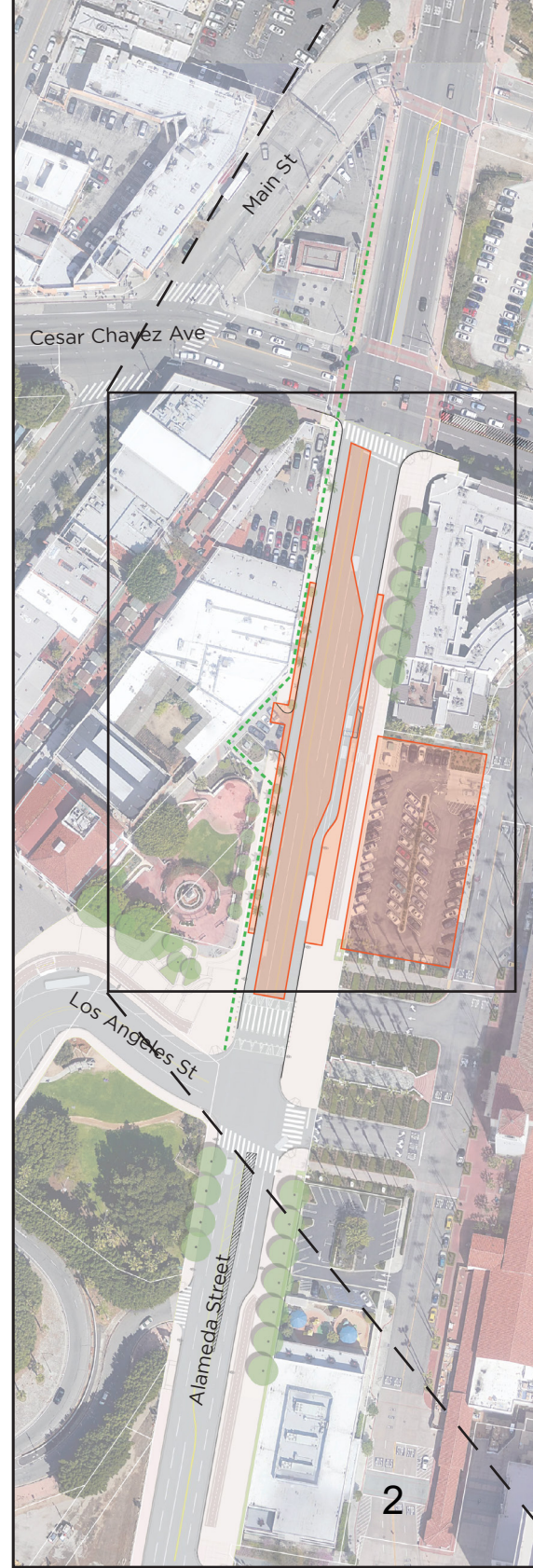
- 1 EBL turn lane
- 2 EB through lanes
- 1 EBR turn lane
- 2 WB through lanes
- 1 WB through-right lane

#### Pile Overview

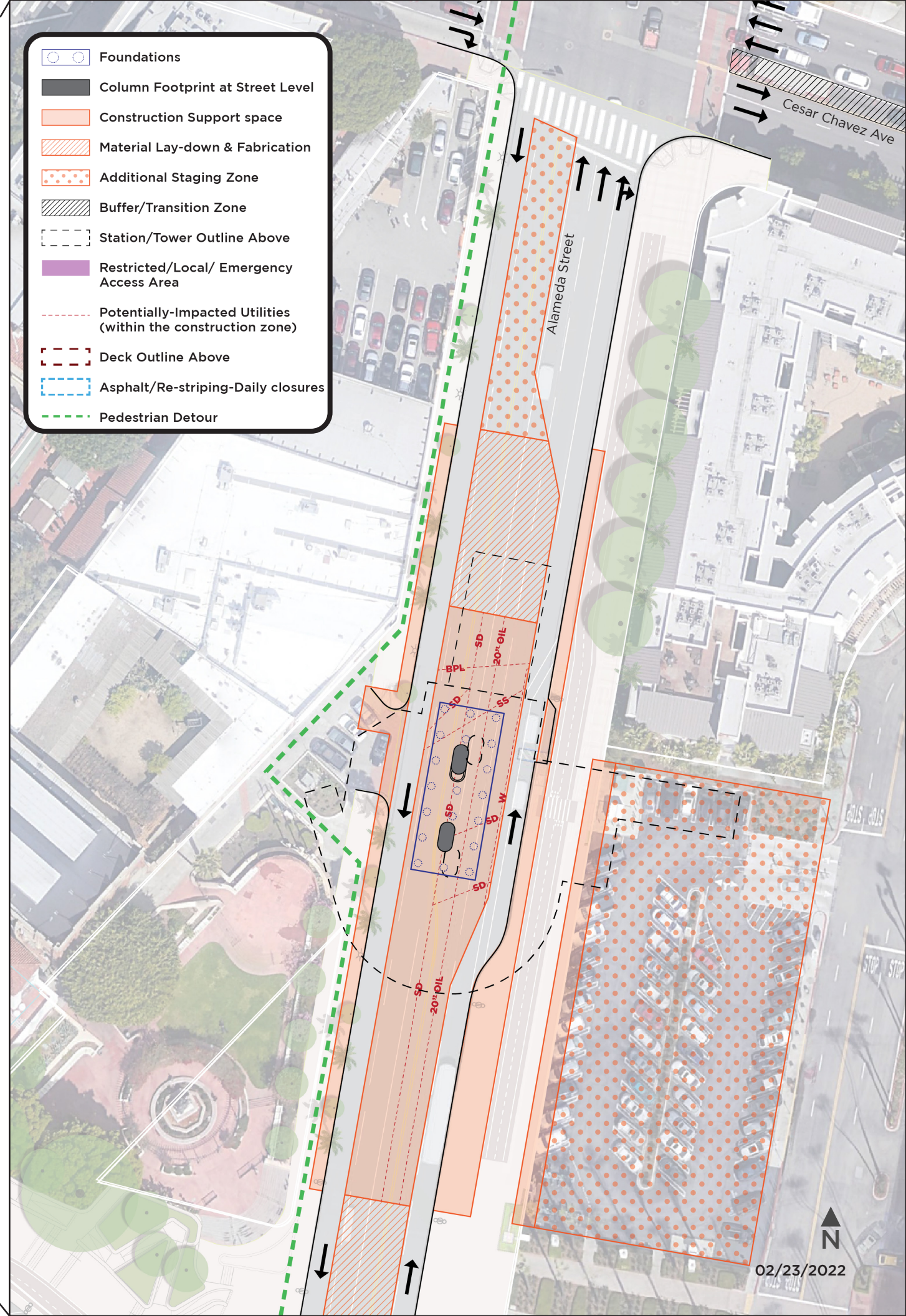
21 total piles; each 4' DIA, up to 125 ft deep below the pile cap



### Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Deck Outline Above
	Asphalt/Re-striping-Daily closures
	Pedestrian Detour



# Alameda Station with Temporary Deck

## Deck Shoring, Cribbing & Erection 2 weeks

Required area for Construction  
51,500 sqft

### Alameda Street

#### Lanes and sidewalks closures

- 1 NBL turn lane
- 2 NB through lanes
- 1 NB through-right lane/  
NB curbside drop off lane
- 2 SB through lanes

#### Lanes and sidewalks to remain open

- No lanes open
- Both sidewalks (Pedestrian traffic will be controlled)
- Esplanade 2-way bike path

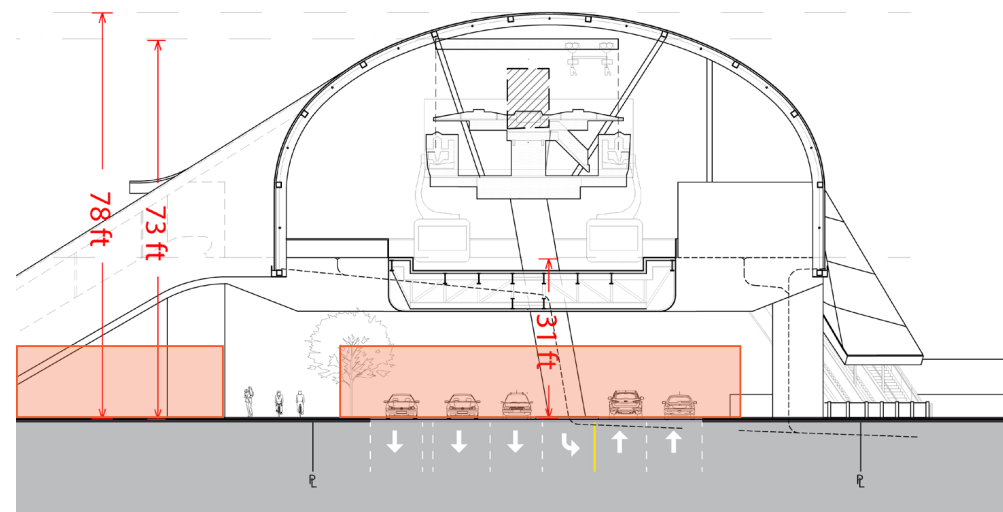
### Cesar Chavez Avenue

#### Lanes and sidewalks closures

- 1 WBL turn lane
- 1 EBR turn lane

#### Lanes and sidewalks to remain open

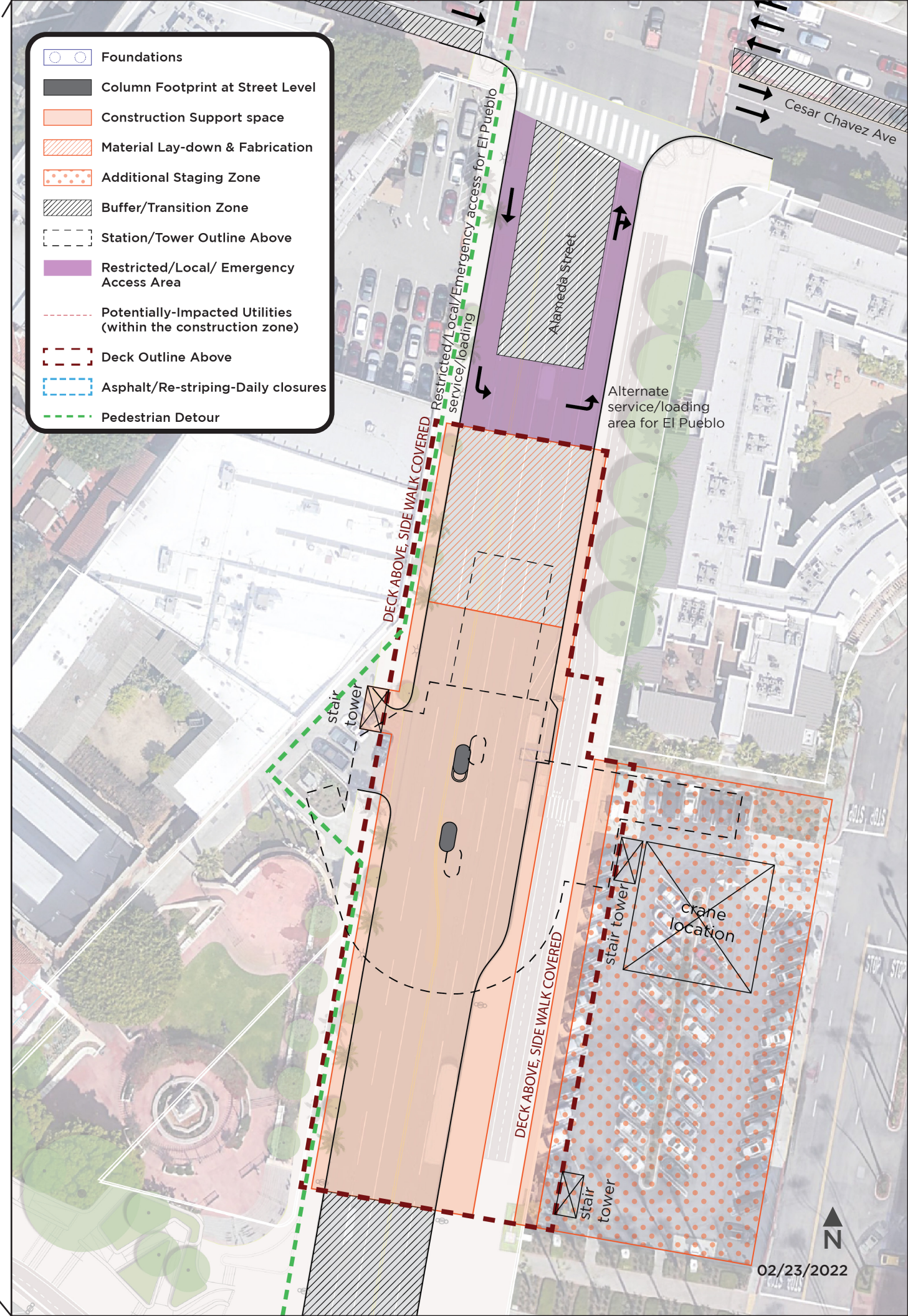
- 1 EBL turn lane
- 2 EB through lanes
- 2 WB through lanes
- 1 WB through-right lane



### Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Deck Outline Above
	Asphalt/Re-stripping-Daily closures
	Pedestrian Detour



# Alameda Station with Temporary Deck

## Structural Steel and Gondola Equipment Erection 28 weeks

Required area for Construction  
40,500 sqft

### Alameda Street

Portion of lanes shortened but not closed

- 1 NBL turn lane
- 1 NB through lane

### Lanes and sidewalks closures

- Partial West sidewalk detour required
- NB curbside drop off

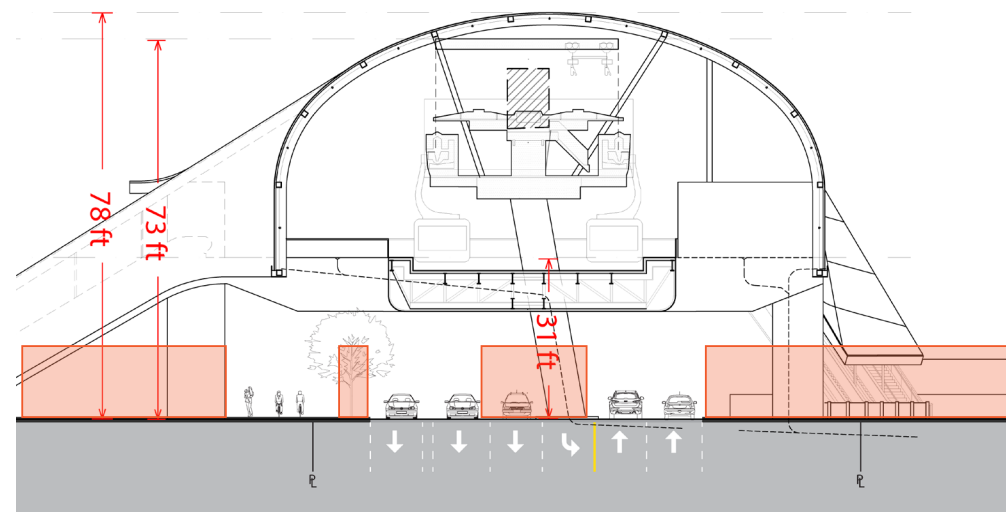
### Lanes and sidewalks to remain open

- 1 NB through lane
- 1 NB through-right lane
- 2 SB through lanes
- East sidewalk
- Esplanade 2-way bike path

### Cesar Chavez Avenue

Lanes and sidewalks to remain open

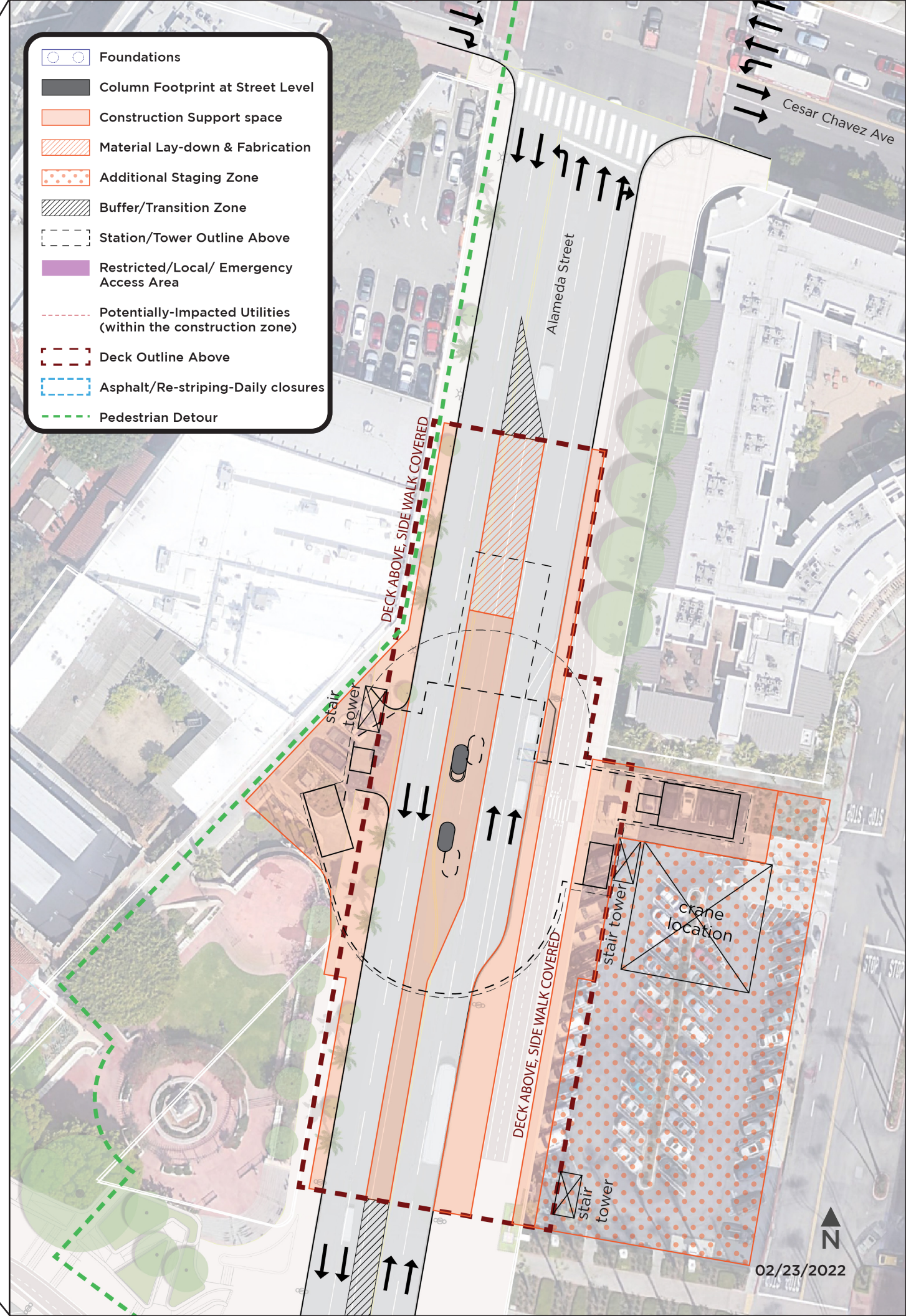
- All lanes



### Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Deck Outline Above
	Asphalt/Re-striping-Daily closures
	Pedestrian Detour



# Alameda Station with Temporary Deck

## Deck Removal

**3 weeks** (Overlaps with Vertical Circulation/ Hardscape and Landscape/ Interior Work)

Required area for Construction  
55,600 sqft

### Alameda Street

#### Lanes and sidewalks closures

- 1 NBL turn lane
- 2 NB through lanes
- 1 NB through-right lane/  
NB curbside drop off lane
- 2 SB through lanes
- Partial West sidewalk  
detour required

#### Lanes and sidewalks to remain open

- No lanes open
- East sidewalk
- Esplanade 2-way bike path

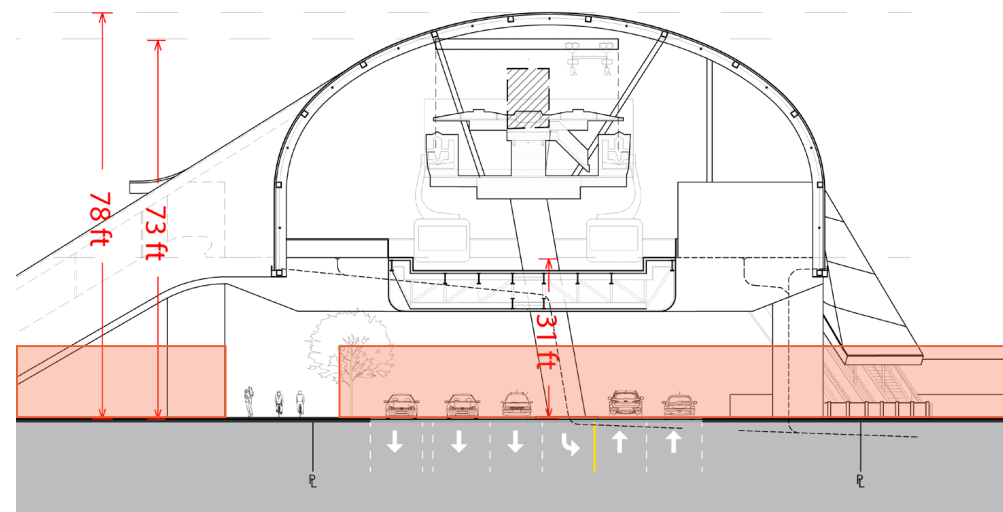
### Cesar Chavez Avenue

#### Lanes and sidewalks closures

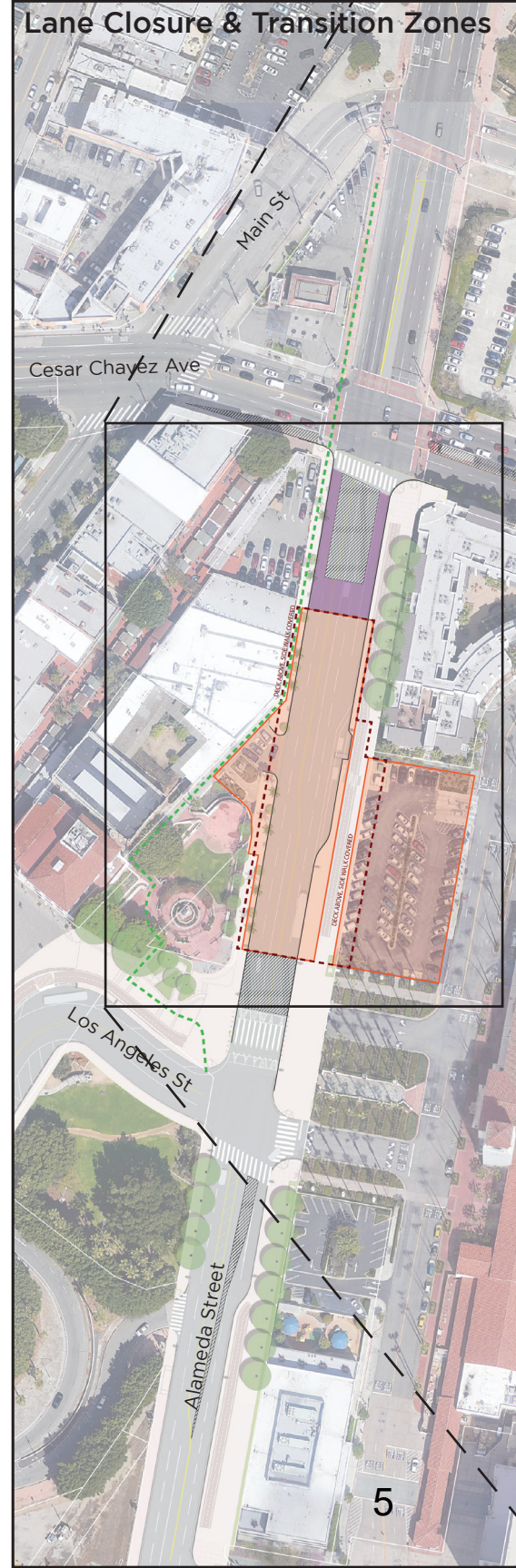
- 1 WBL turn lane
- 1 EBR turn lane

#### Lanes and sidewalks to remain open

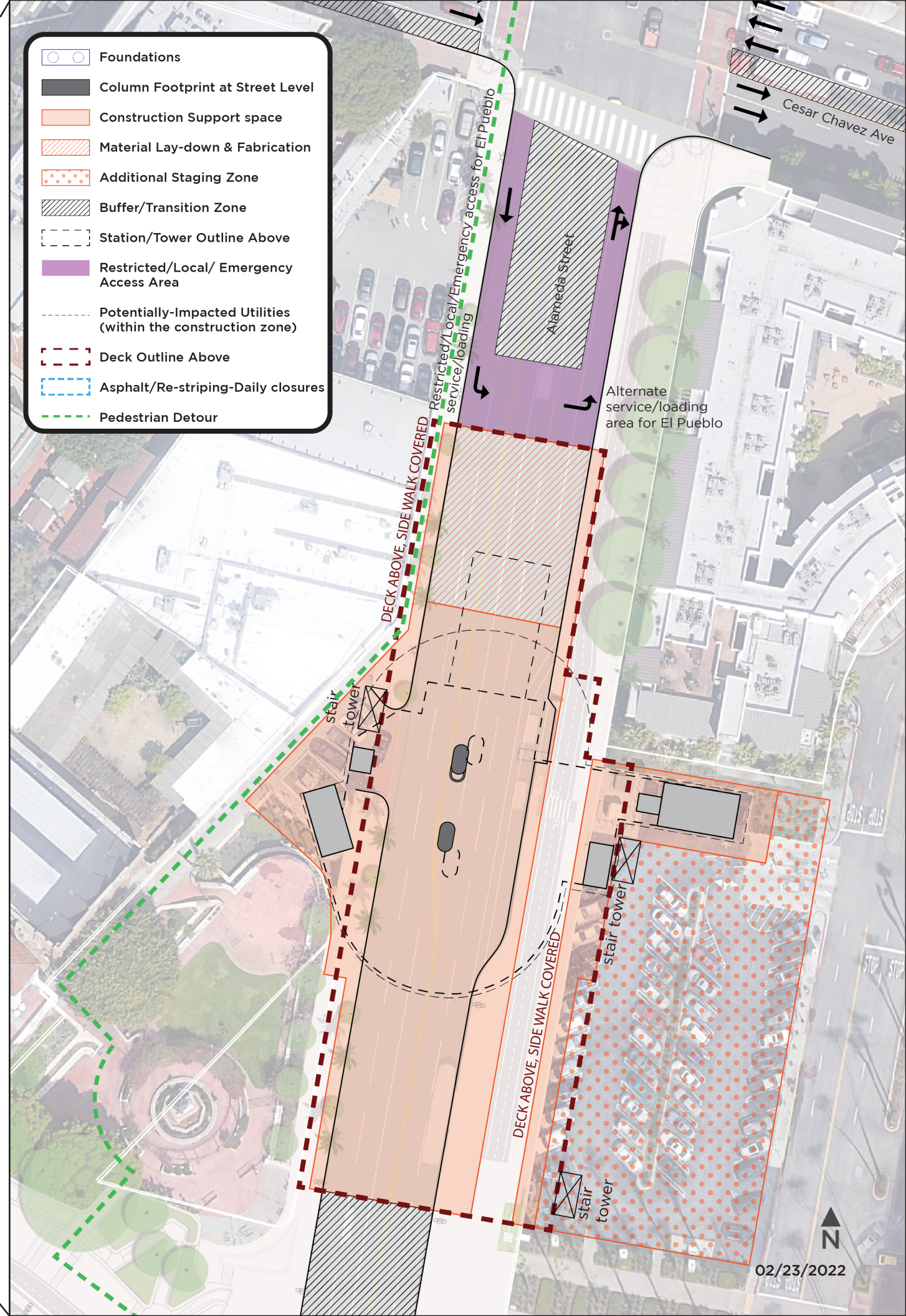
- 1 EBL turn lane
- 2 EB through lanes
- 2 WB through lanes
- 1 WB through-right lane



### Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Deck Outline Above
	Asphalt/Re-stripping-Daily closures
	Pedestrian Detour



# Alameda Station with Temporary Deck

Vertical Circulation/ Hardscape and Landscape/ Interior Work  
27 weeks

**Curbs, Medians, Asphalt & Re-striping Periodic Closures for 10 working days within a 4-week duration period**

Required area for Construction  
35,000 sqft

## Alameda Street

### Lanes and sidewalks closures

- No lane closures, except for asphalt/ re-striping closures
- NB curbside drop off
- Partial West sidewalk detour required

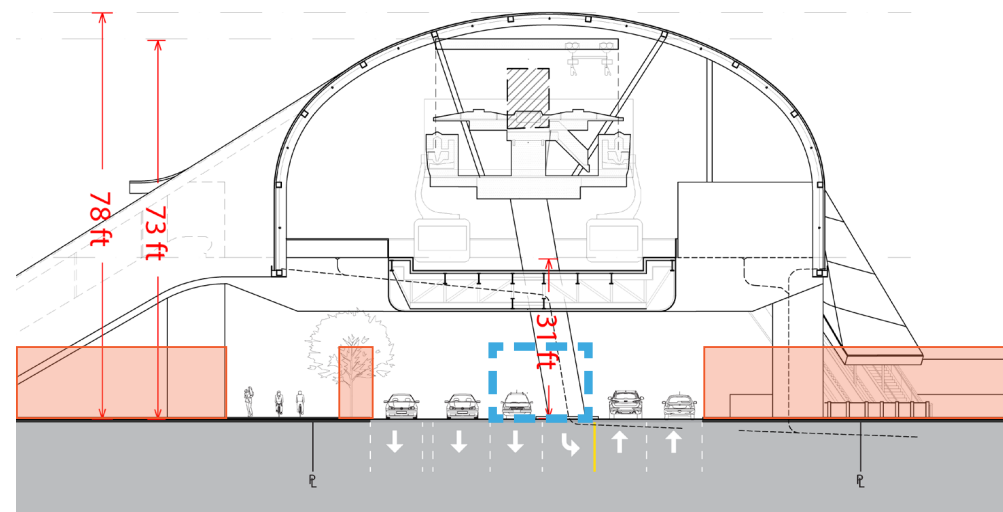
### Lanes and sidewalks to remain open

- All lanes
- East sidewalk
- Esplanade 2-way bike path

## Cesar Chavez Avenue

### Lanes and sidewalks to remain open

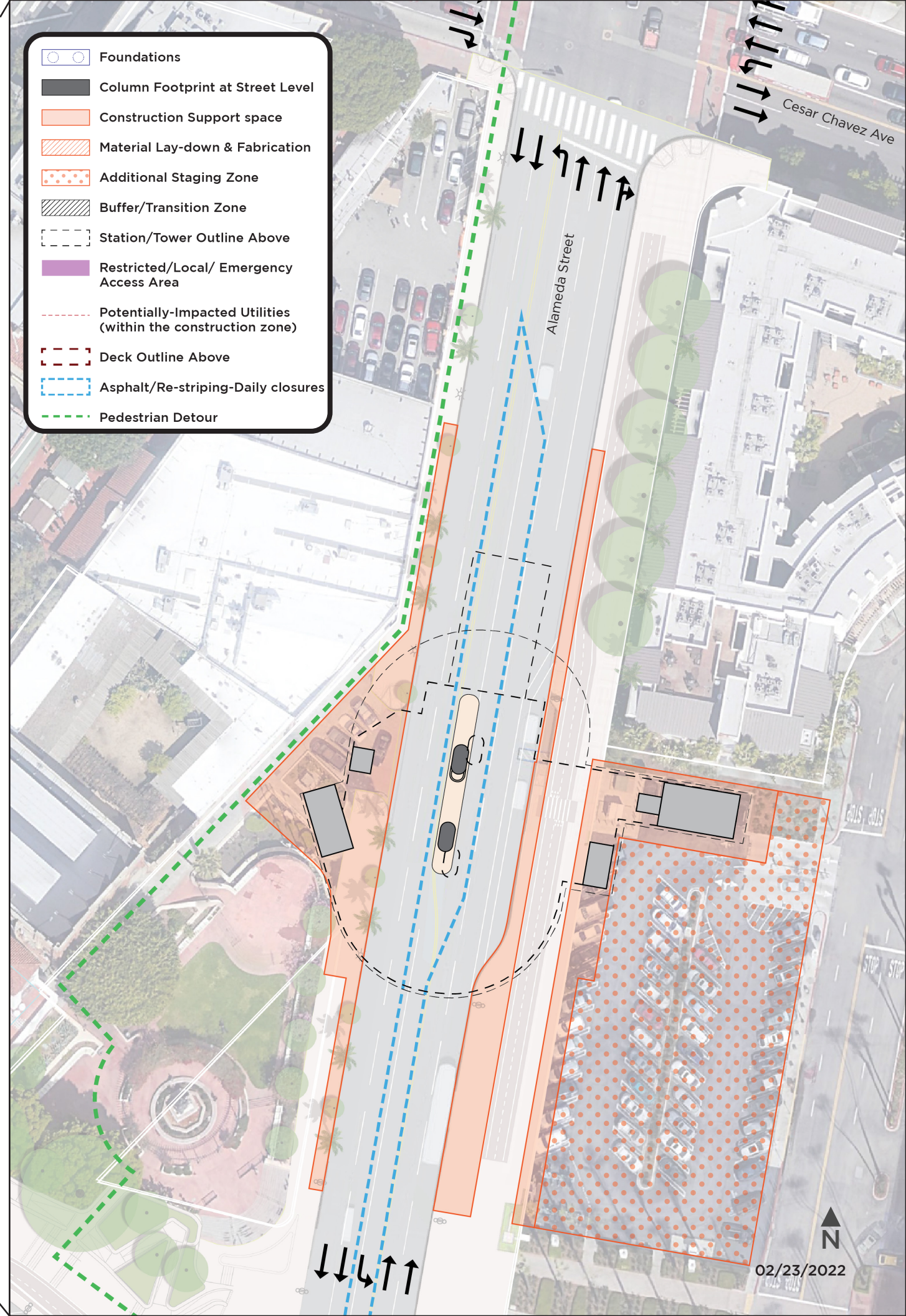
- All lanes



## Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Deck Outline Above
	Asphalt/Re-striping-Daily closures
	Pedestrian Detour



# Alameda Station with Temporary Deck | Build-Out

## Build-Out Conditions with Esplanade

Build-out conditions with Metro's proposed Esplanade at the proposed location for Alameda Station:

- 1 NBL turn lane
- 2 NB through lanes
- 1 NB through-right lane/ NB curbside drop off lane
- 2 SB through lanes

Build-out conditions for Cesar Chavez Avenue at the proposed location for Alameda Station:

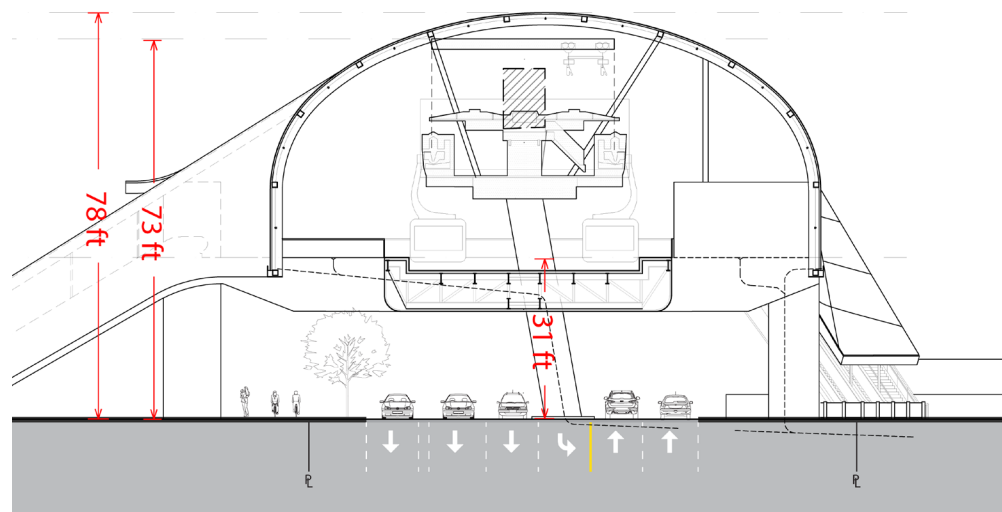
- 1 EBL turn lane
- 2 EB through lanes
- 1 EBR turn lane
- 1 WBL turn lane
- 2 WB through lanes
- 1 WB through-right lane

New raised median introduced within the northbound left-turn lane onto Cesar Chavez Avenue

Minor reduction to left turn pocket storage.

### Vertical circulation for Alameda Station access

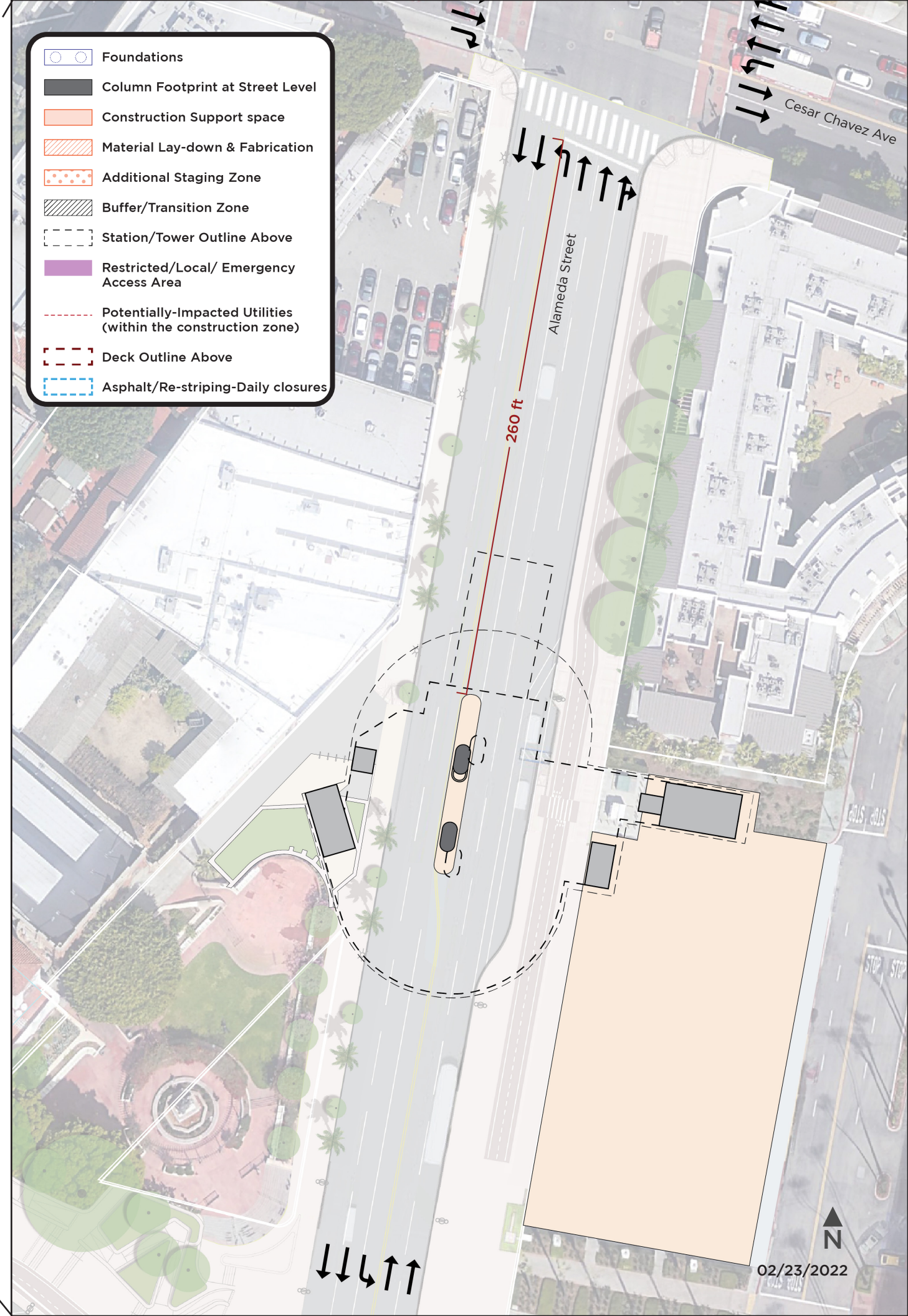
Vertical circulation elements (i.e. elevators, escalators, stairs) for pedestrian access to the Alameda Station introduced at-grade on the Union Station property and El Pueblo property.



Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Deck Outline Above
	Asphalt/Re-striping-Daily closures







# Alameda Station without Temporary Deck | Existing

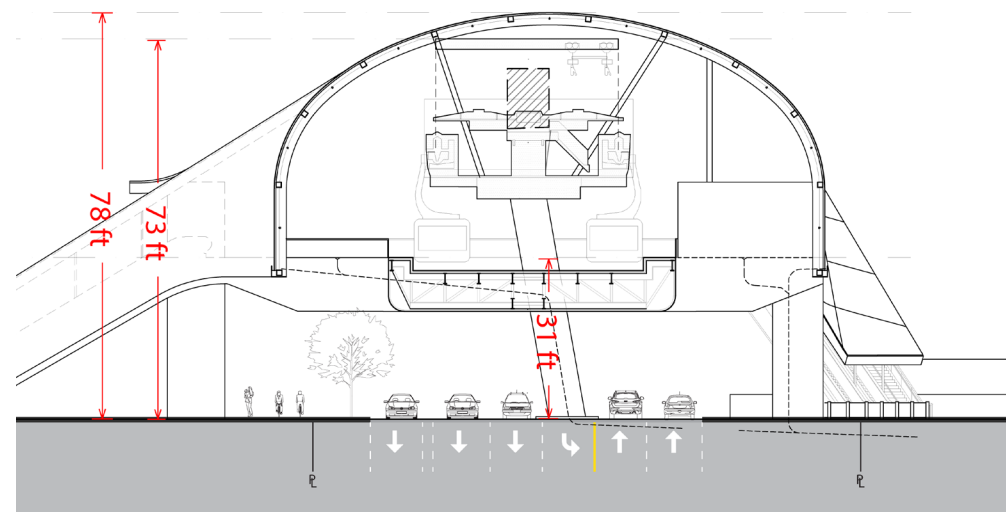
## Existing Conditions with Esplanade

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- 2 SB through lanes

Existing conditions for Cesar Chavez Avenue at the proposed location for Alameda Station:

- 1 EBL turn lane
- 2 EB through lanes
- 1 EBR turn lane
- 1 WBL turn lane
- 2 WB through lanes
- 1 WB through-right lane





# Alameda Station without Temporary Deck

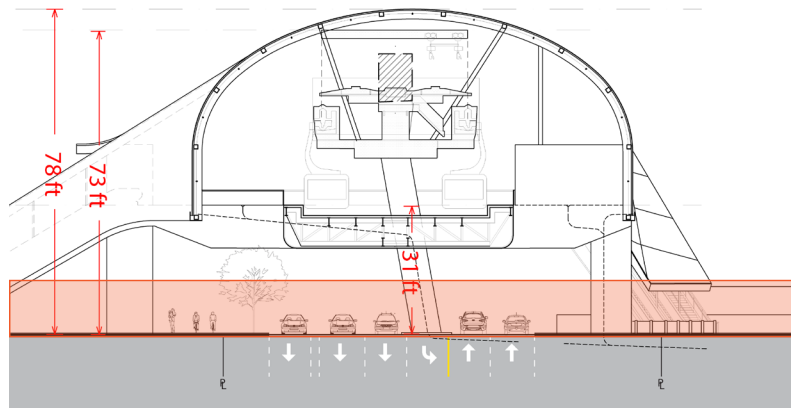
## Structural Steel and Gondola Equipment Erection

30 weeks (Includes 2 more weeks than the Deck Option to account for traffic coordination)

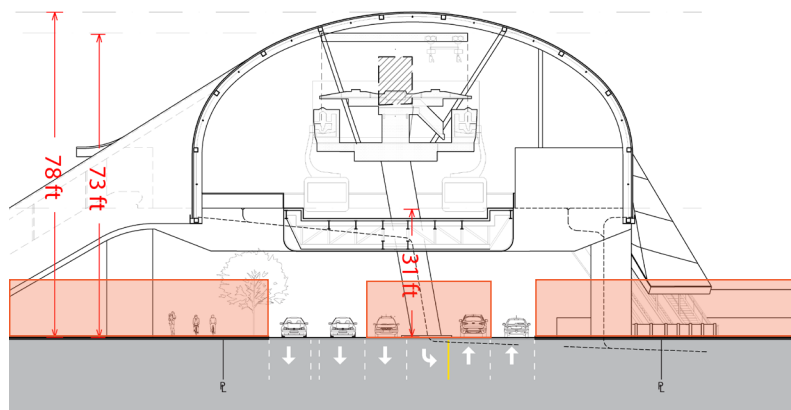
During Structural Steel and Gondola Equipment Erection, the Construction Zone and lane closure areas will vary depending on the construction site activity.

This will result in two alternating conditions over a period of 30 weeks:

1. 10-hrs/day for construction hours
2. 14-hrs/day for non-construction hours

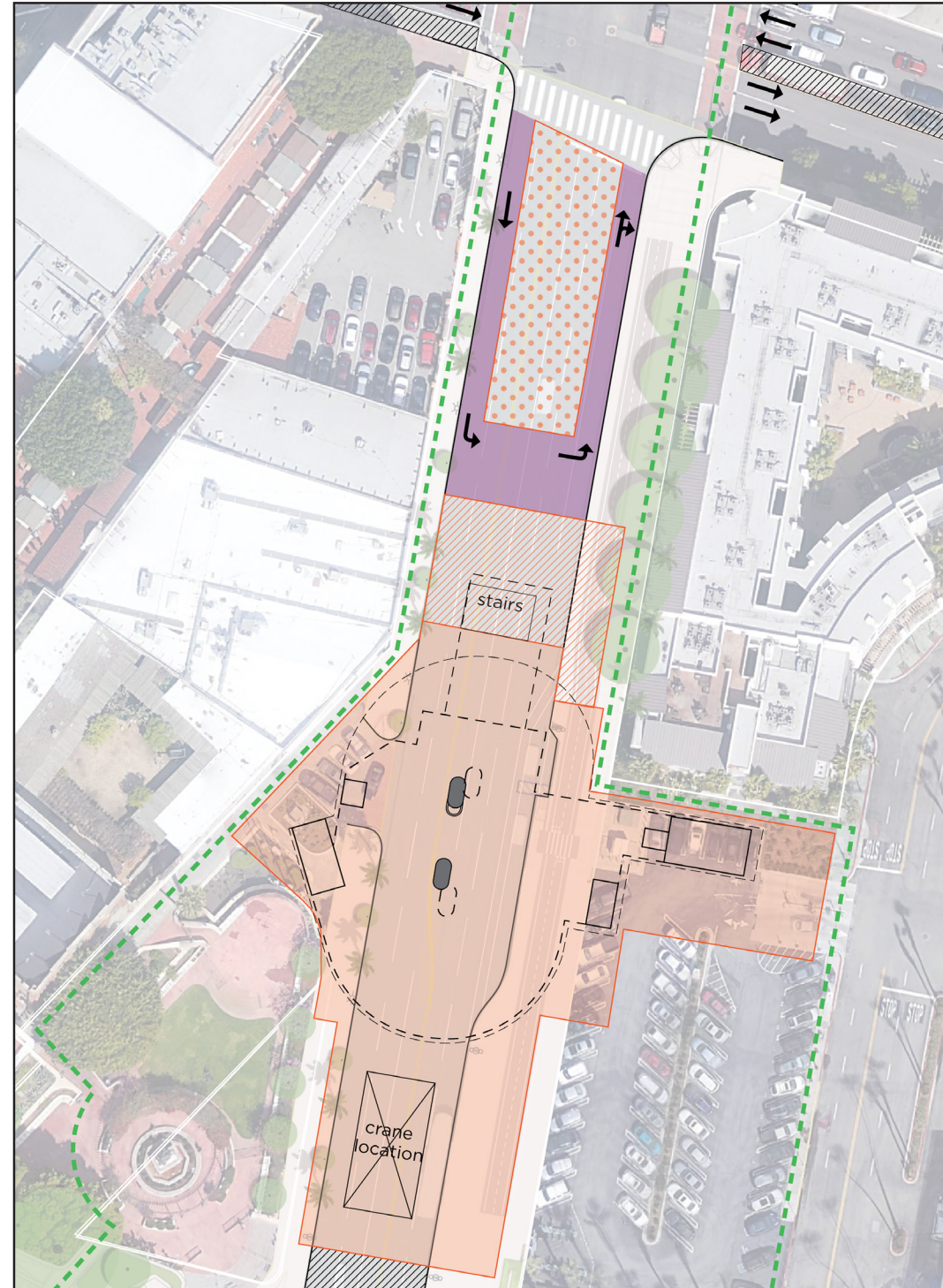


Construction Hours

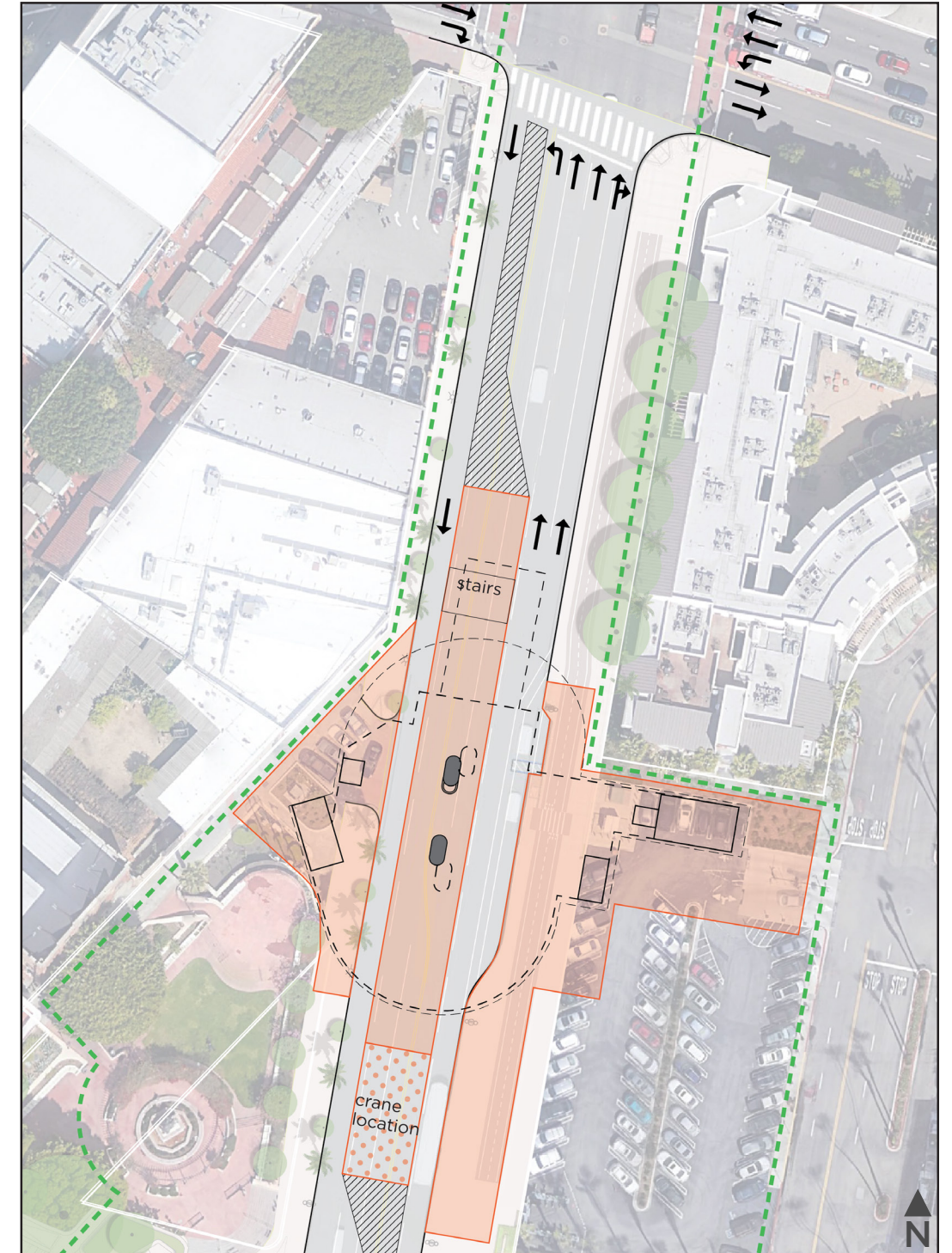


Non-Construction Hours

### Construction Hours | 10 hrs/day



### Non-Construction Hours | 14 hrs/day



# Alameda Station without Temporary Deck | Construction Hours

Structural Steel and Gondola Equipment Erection  
 30 weeks (Includes 2 more weeks than the Deck Option to account for traffic coordination), 10 hrs/day

Required area for Construction during construction hours  
 44,900 sqft

## Alameda Street

### Lanes and sidewalks closures during construction hours

- 1 NBL turn lane
- 2 NB through lanes
- 1 NB through-right lane/ NB curbside drop off lane
- 2 SB through lanes
- Partial sidewalk detours required
- Esplanade 2-way bike path

### Lanes and sidewalks to remain open during construction hours

- No lanes open

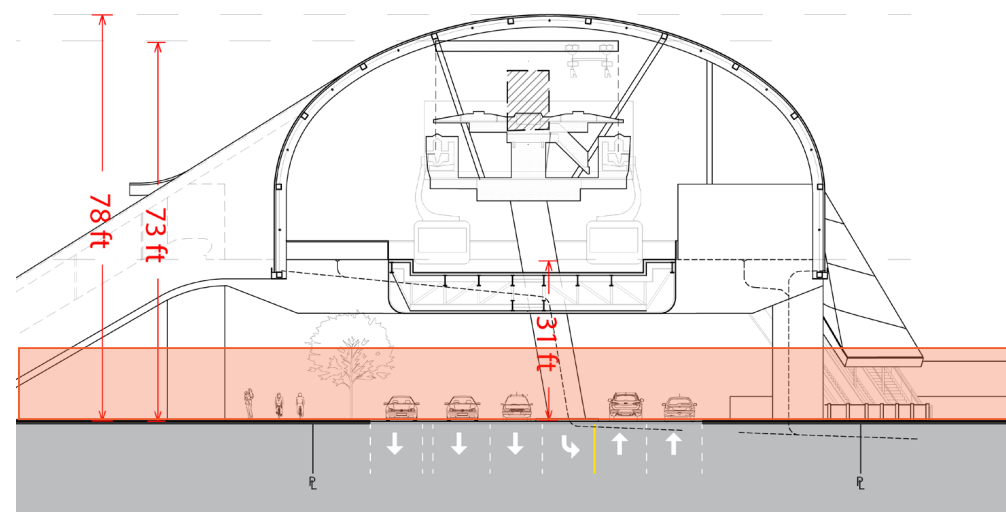
## Cesar Chavez Avenue

### Lanes and sidewalks closures

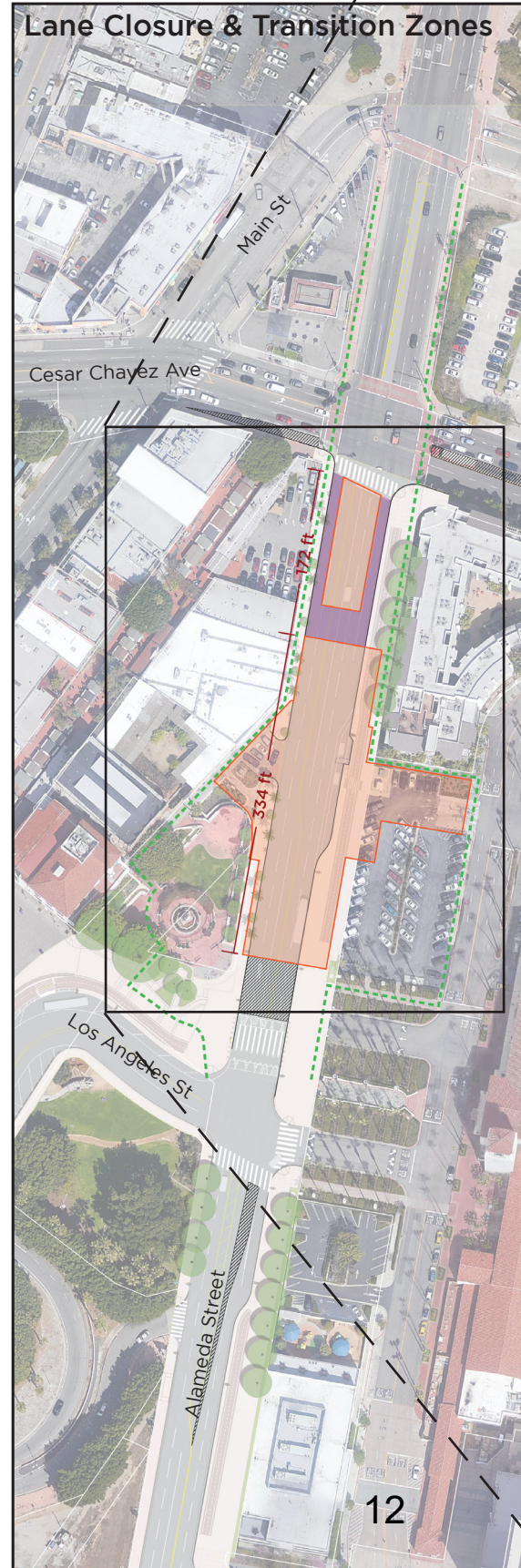
- 1 WBL turn lane
- 1 EBR turn lane

### Lanes and sidewalks to remain open

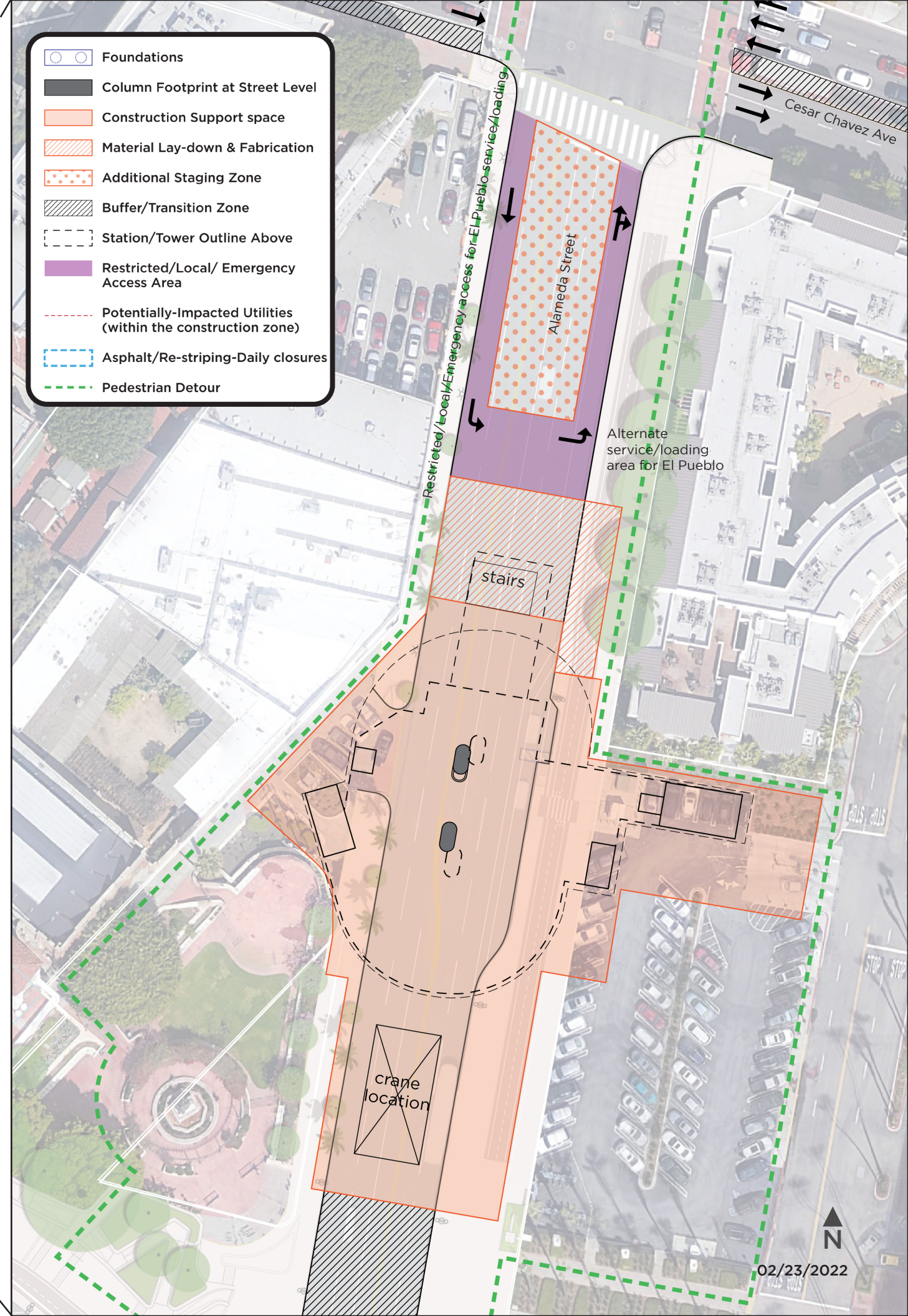
- 1 EBL turn lane
- 2 EB through lanes
- 2 WB through lanes
- 1 WB through-right lane



## Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Asphalt/Re-striping-Daily closures
	Pedestrian Detour



# Alameda Station without Temporary Deck | Non-Construction Hours

Structural Steel and Gondola Equipment Erection  
 30 weeks (Includes 2 more weeks than the Deck Option to account for traffic coordination), 14 hrs/day

Required area for Construction during non-construction hours  
 28,600 sqft

## Alameda Street

Portion of lanes shortened but not closed

- 1 NBL turn lane
- 1 NB through lane

Lanes and sidewalks closures during non-construction hours

- 1 SB through lane
- Partial sidewalk detours required
- Esplanade 2-way bike path
- NB curbside drop off

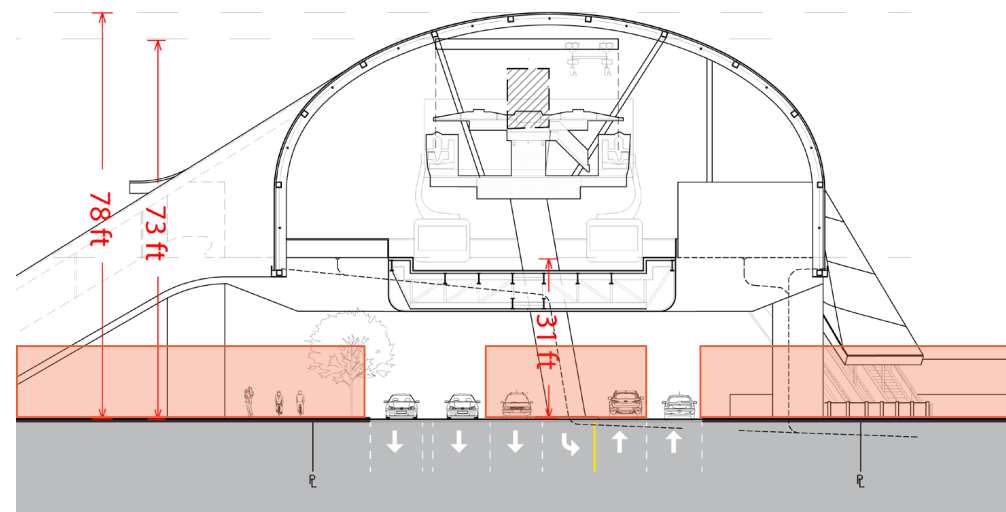
Lanes and sidewalks to remain open during non-construction hours

- 1 NB through lane
- 1 NB through-right lane
- 1 SB through lane

## Cesar Chavez Avenue

Lanes and sidewalks to remain open

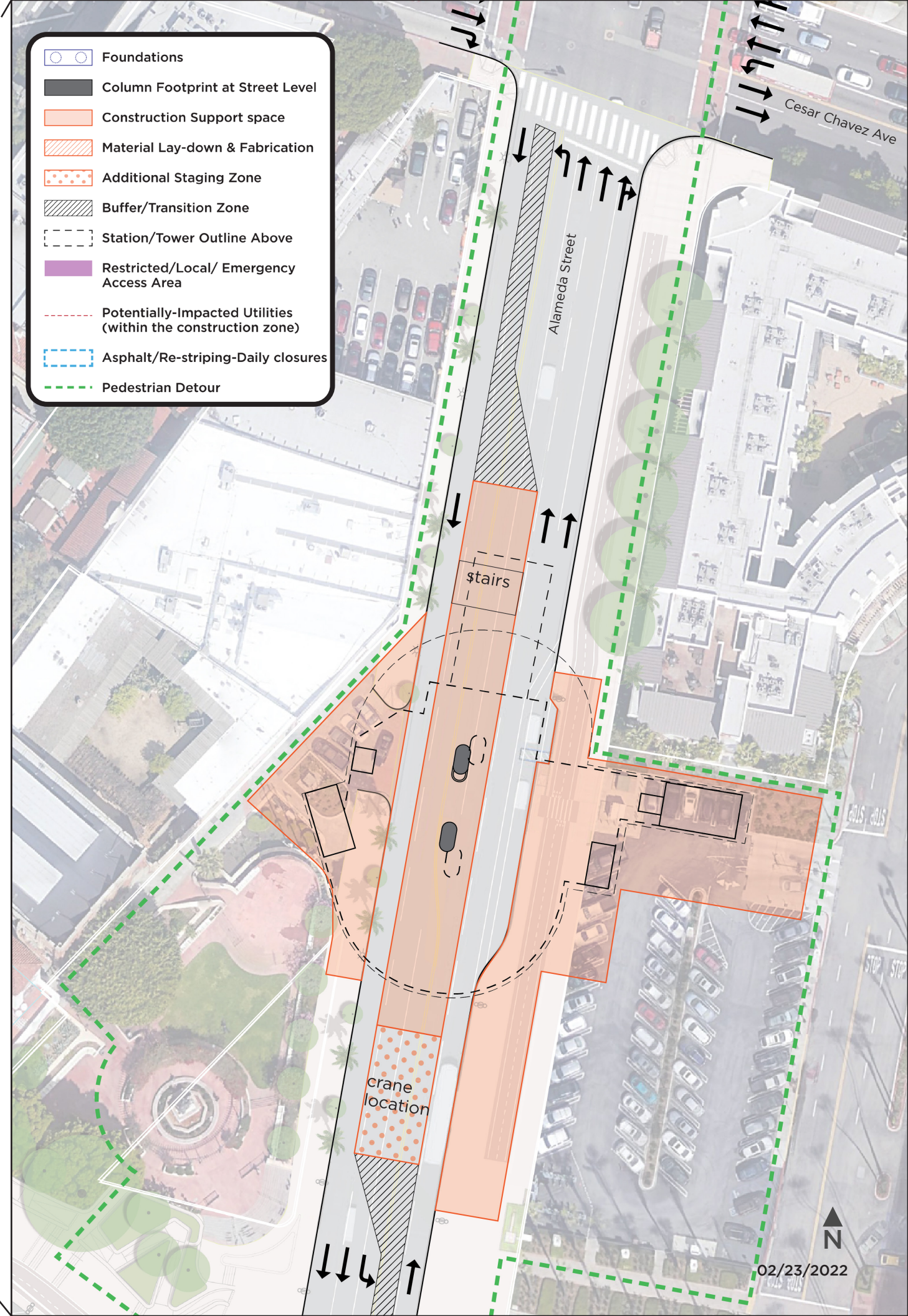
- All lanes



## Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Asphalt/Re-striping-Daily closures
	Pedestrian Detour



# Alameda Station without Temporary Deck

Vertical Circulation/ Hardscape and Landscape/ Interior Work  
27 weeks

**Curbs, Medians, Asphalt & Re-striping Periodic Closures for 10 working days within a 4-week duration period**

Required area for Construction  
37,100 sqft

## Alameda Street

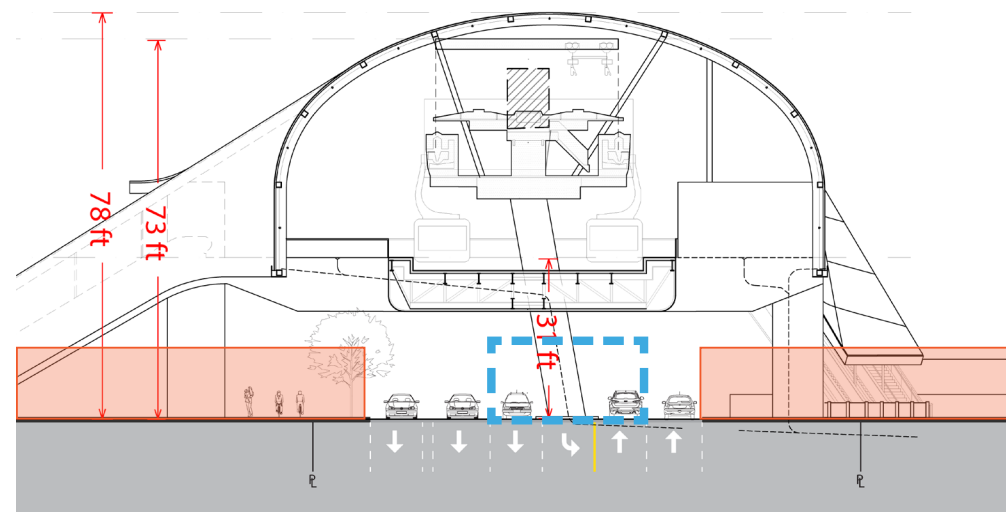
### Lanes and sidewalks closures

- No lane closures, except for asphalt/ re-striping closures
- NB curbside drop off
- Partial sidewalk detours required
- Esplanade 2-way bike path

## Cesar Chavez Avenue

### Lanes and sidewalks to remain open

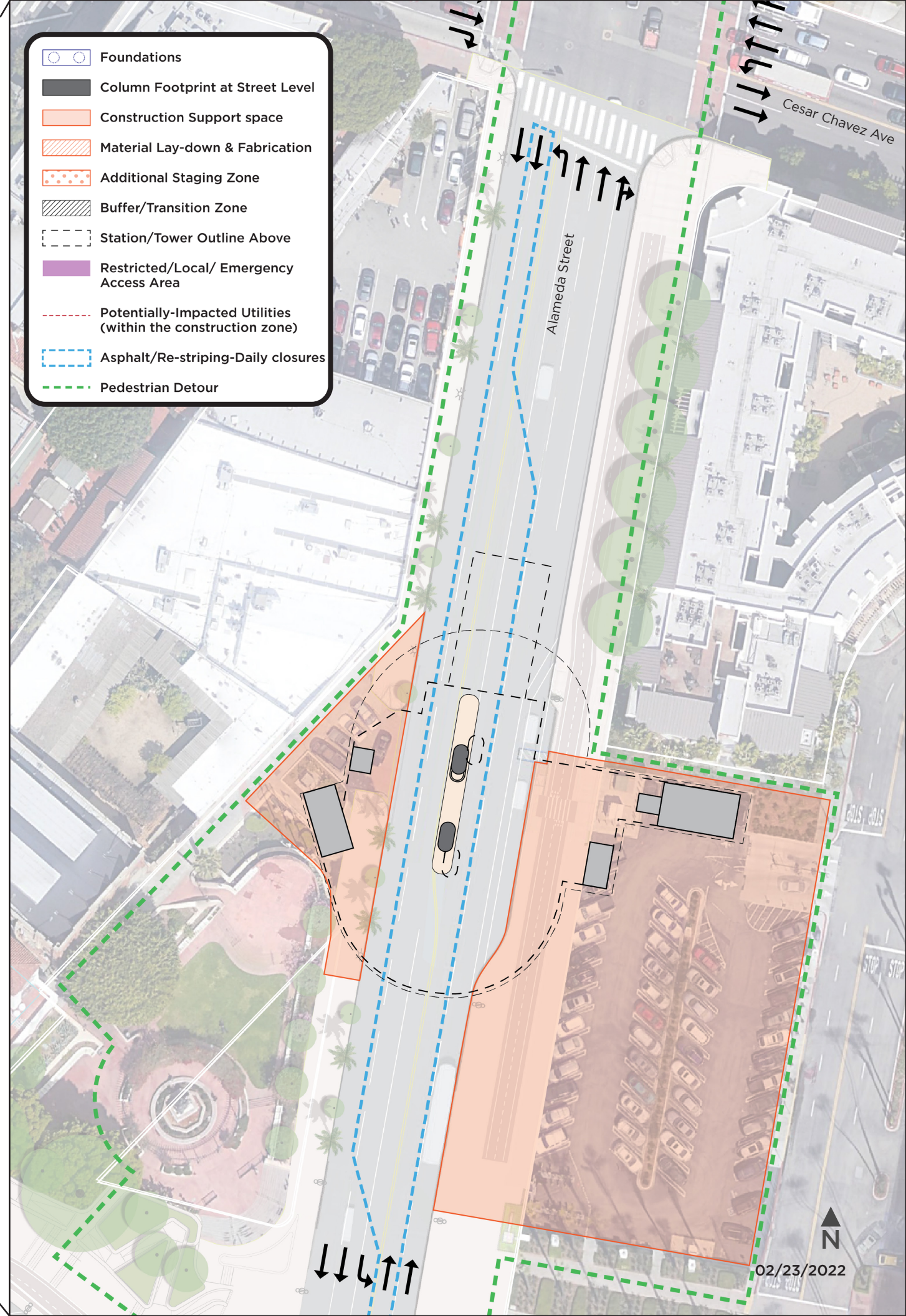
- All lanes



## Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Asphalt/Re-striping-Daily closures
	Pedestrian Detour



# Alameda Station without Temporary Deck | Build-Out

## Build-Out Conditions with Esplanade

Build-out conditions with Metro's proposed Esplanade at the proposed location for Alameda Station:

- 1 NBL turn lane
- 2 NB through lanes
- 1 NB through-right lane/ NB curbside drop off lane
- 2 SB through lanes

Build-out conditions for Cesar Chavez Avenue at the proposed location for Alameda Station:

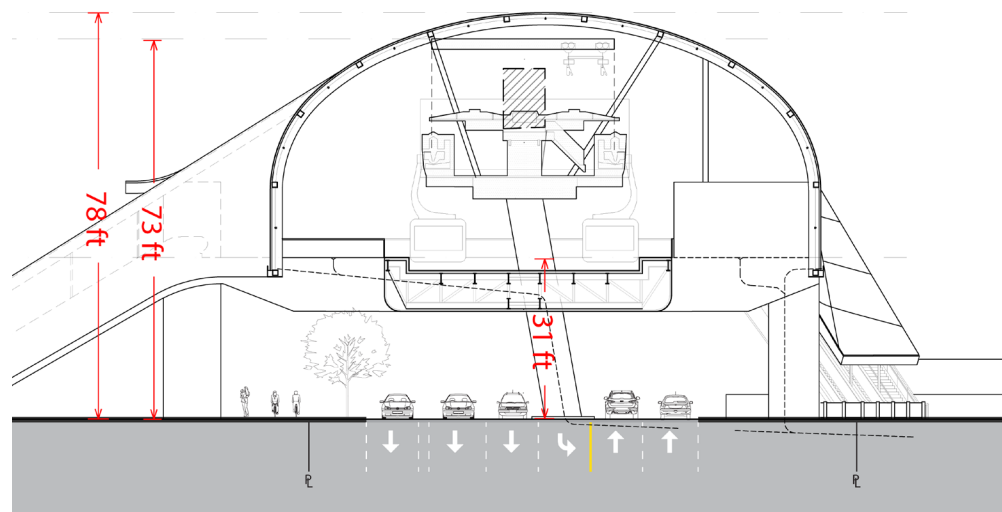
- 1 EBL turn lane
- 2 EB through lanes
- 1 EBR turn lane
- 1 WBL turn lane
- 2 WB through lanes
- 1 WB through-right lane

New raised median introduced within the northbound left-turn lane onto Cesar Chavez Avenue

Minor reduction to left turn pocket storage.

### Vertical circulation for Alameda Station access

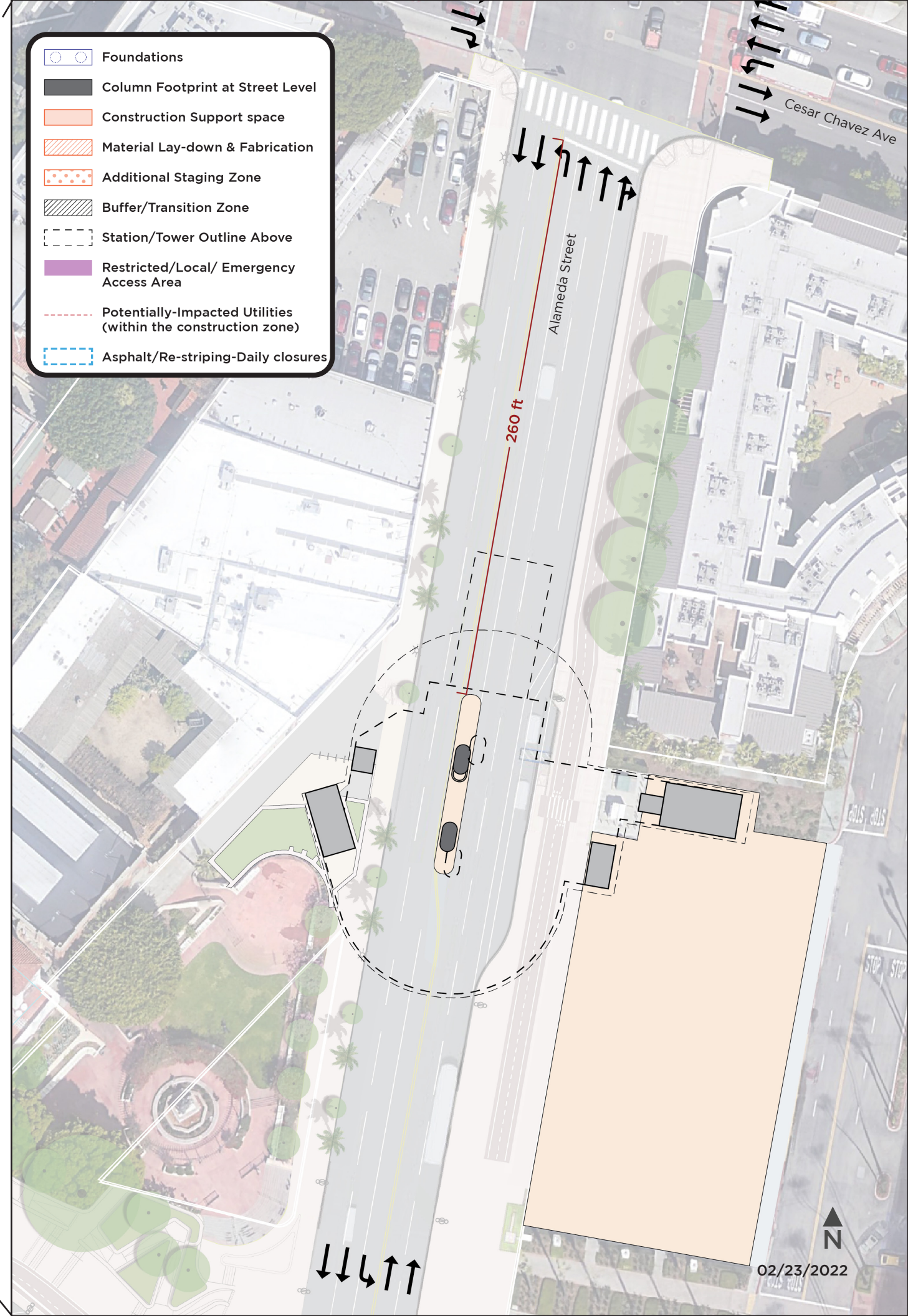
Vertical circulation elements (i.e. elevators, escalators, stairs) for pedestrian access to the Alameda Station introduced at-grade on the Union Station property and El Pueblo property.



Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Asphalt/Re-striping-Daily closures







# Alameda Tower

# Existing

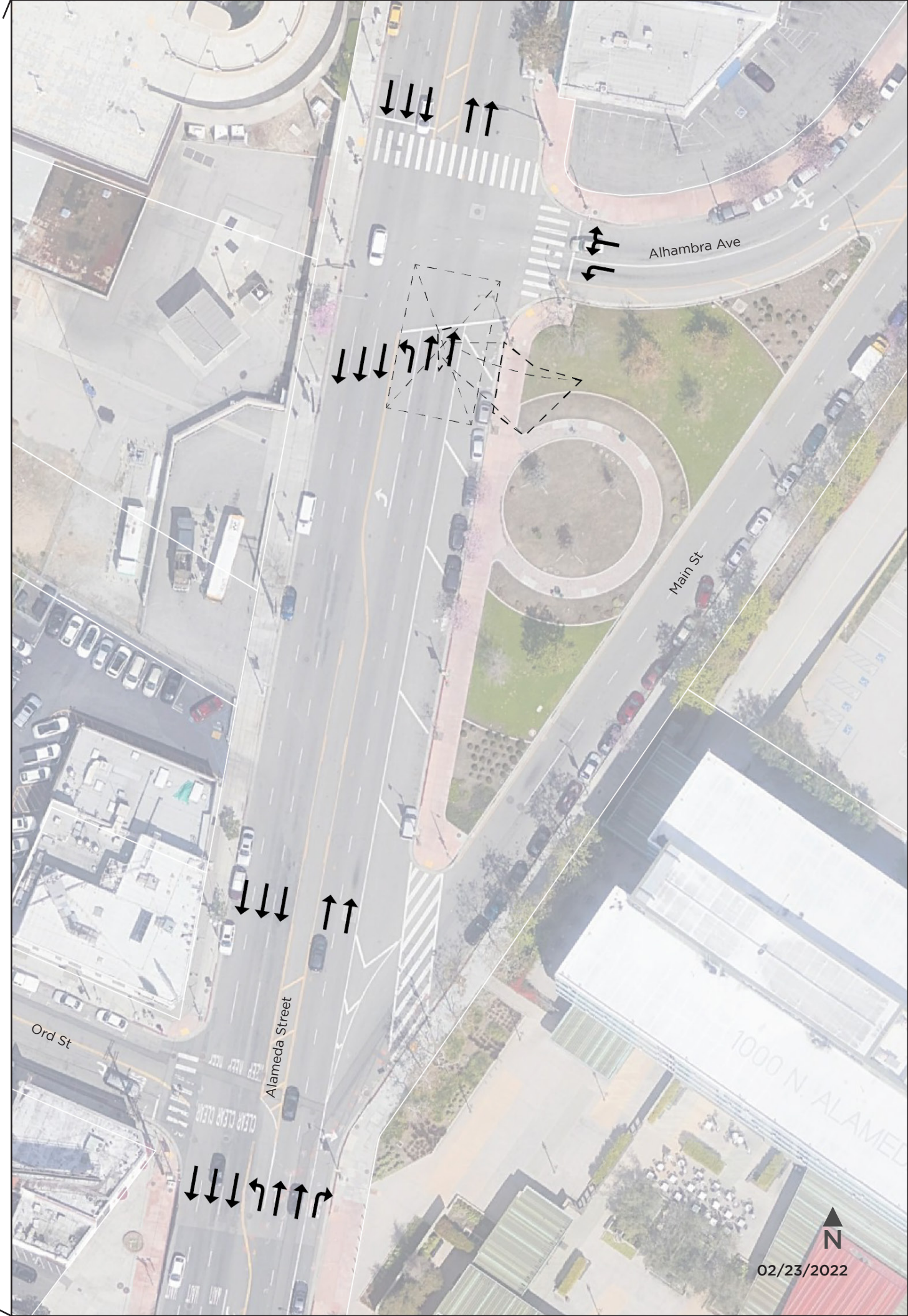
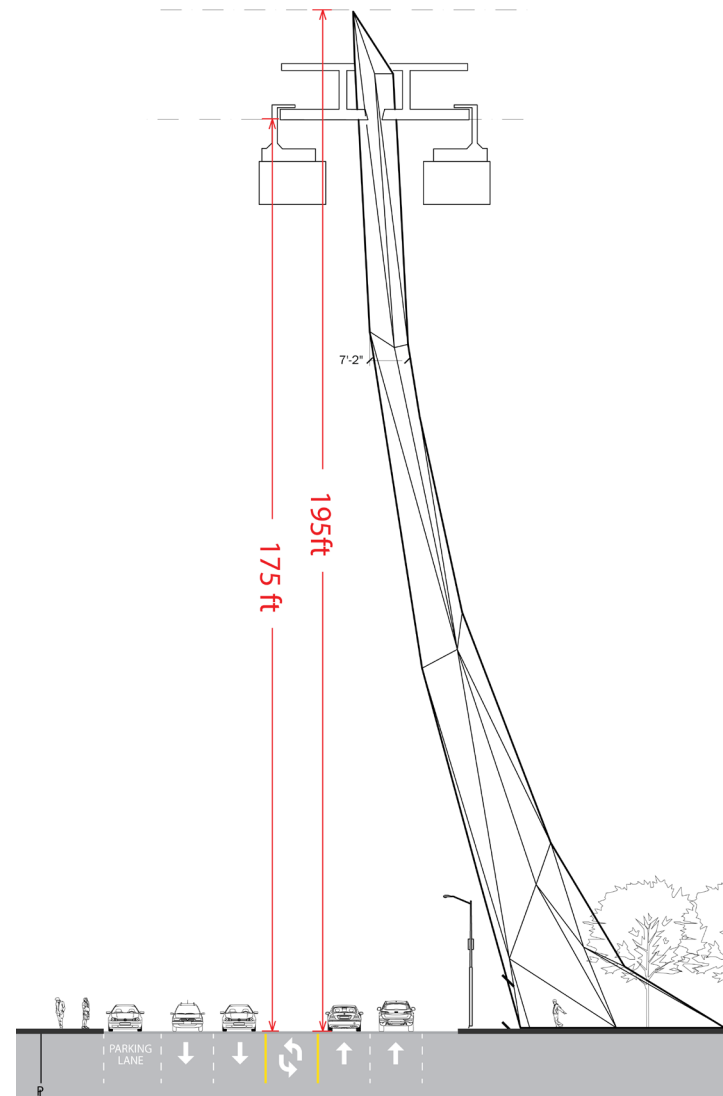
## Existing Conditions

Existing conditions for Alameda at the proposed location for Alameda Tower:

- 1 NBL turn lane
- 2 NB through lanes
- 3 SB through lanes

Existing conditions for Alhambra at the proposed location for Alameda Tower:

- 1 WBL turn lane
- 1 shared WBL/ WBR turn lane



# Alameda Tower

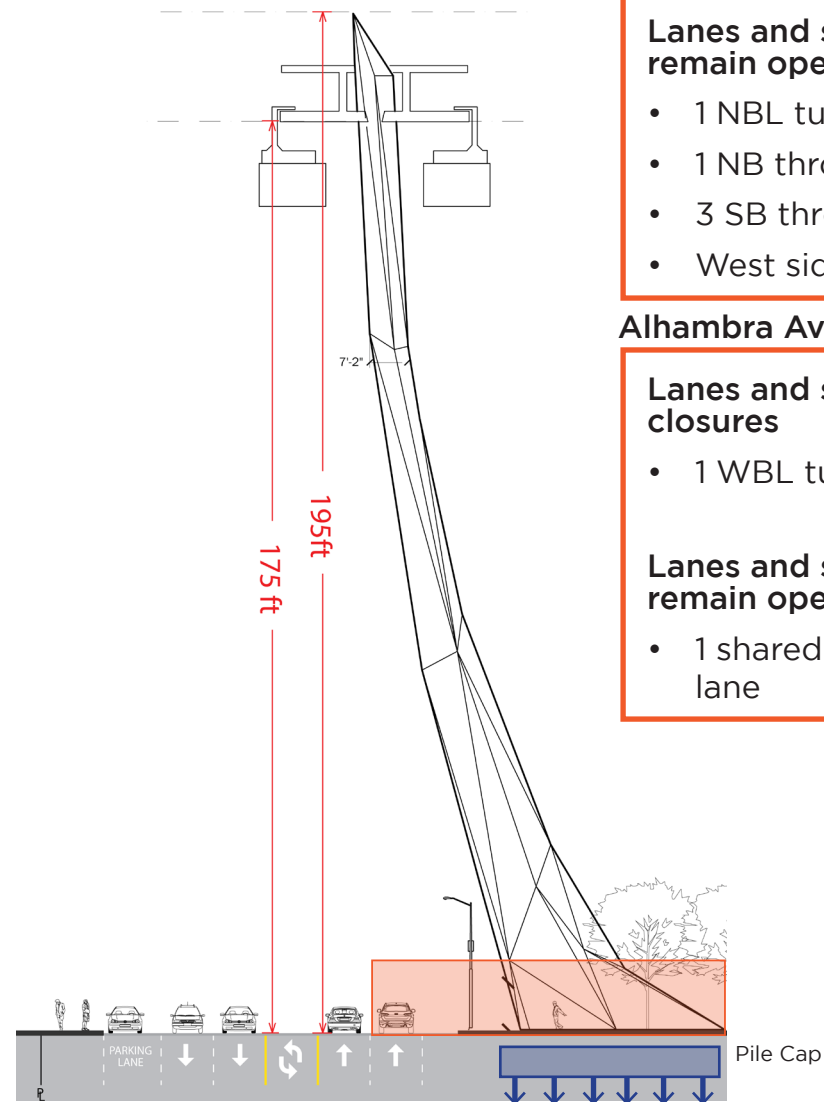
## Foundations and Columns for 16 weeks Weeks 1 - 3 of 26 total weeks of Structural Steel and Gondola Equipment Erection

Weeks 1 - 3 of Structural Steel and Gondola Equipment Erection include construction of the first 25 feet of the Alameda Tower. Closures associated with this work are the same as those reflected on this sheet for the Foundations and Columns.

Required area for Construction  
34,900 sqft

### Pile Overview

36 total piles; each 3' DIA, up to 120 ft deep below the pile cap



### Alameda Street

#### Lanes and sidewalks closures

- Parallel parking lane
- 1 NB through lane
- East sidewalk

#### Lanes and sidewalks to remain open

- 1 NBL turn lane
- 1 NB through lane
- 3 SB through lanes
- West sidewalk

### Alhambra Avenue

#### Lanes and sidewalks closures

- 1 WBL turn lane

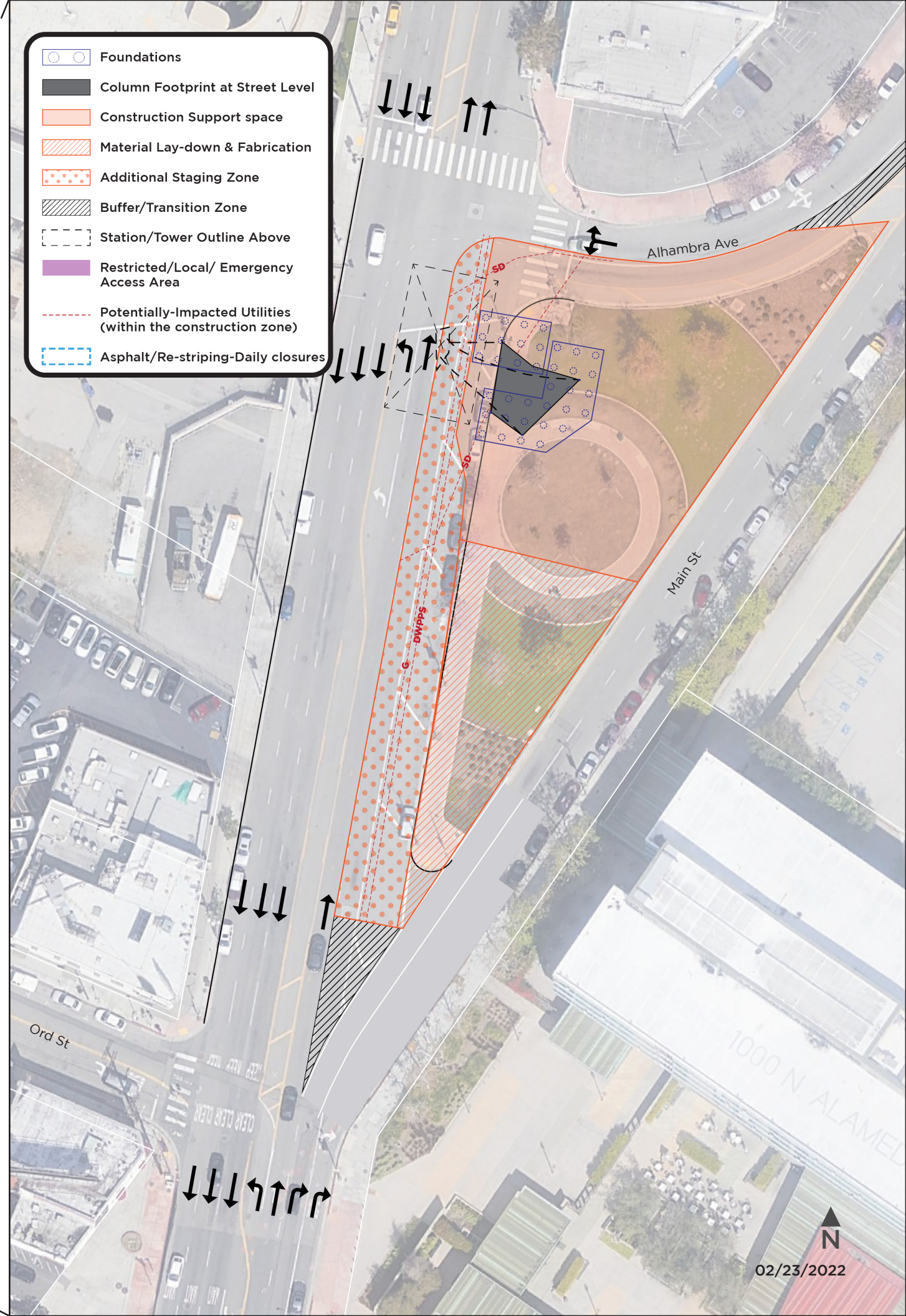
#### Lanes and sidewalks to remain open

- 1 shared WBL/ WBR turn lane

### Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Asphalt/Re-striping-Daily closures



# Alameda Tower

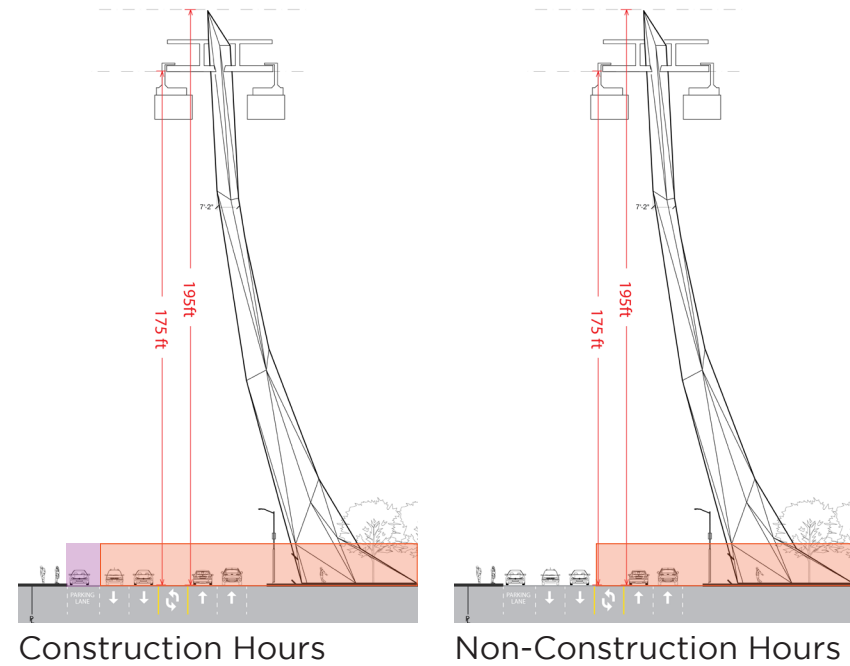
## Structural Steel and Gondola Equipment Erection

Weeks 4 - 26 of 26 total weeks of Structural Steel and Gondola Equipment Erection

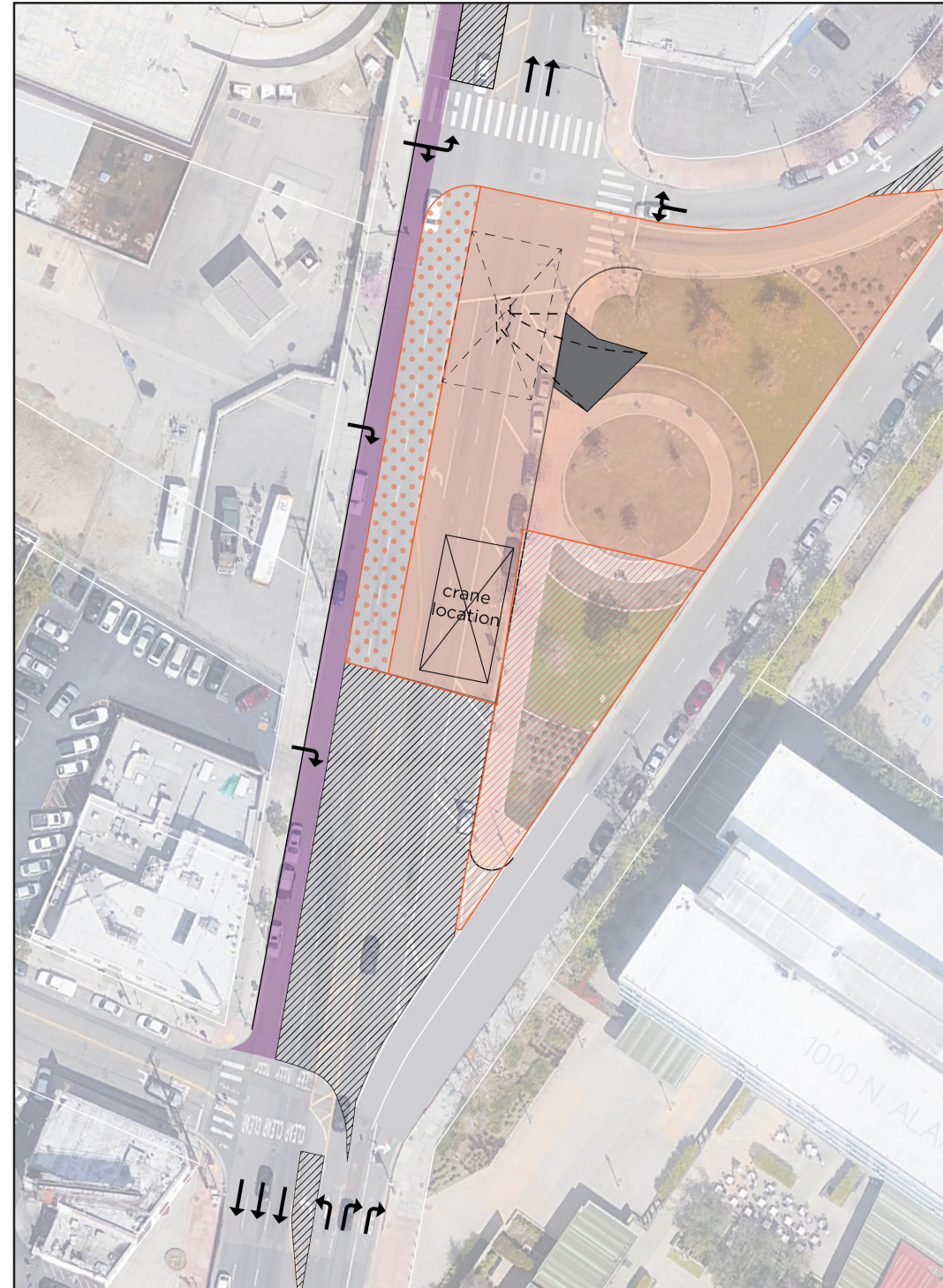
During Structural Steel and Gondola Equipment Erection, the Construction Zone and lane closure areas will vary depending on the construction site activity.

This will result in two alternating conditions over a period of 23 weeks:

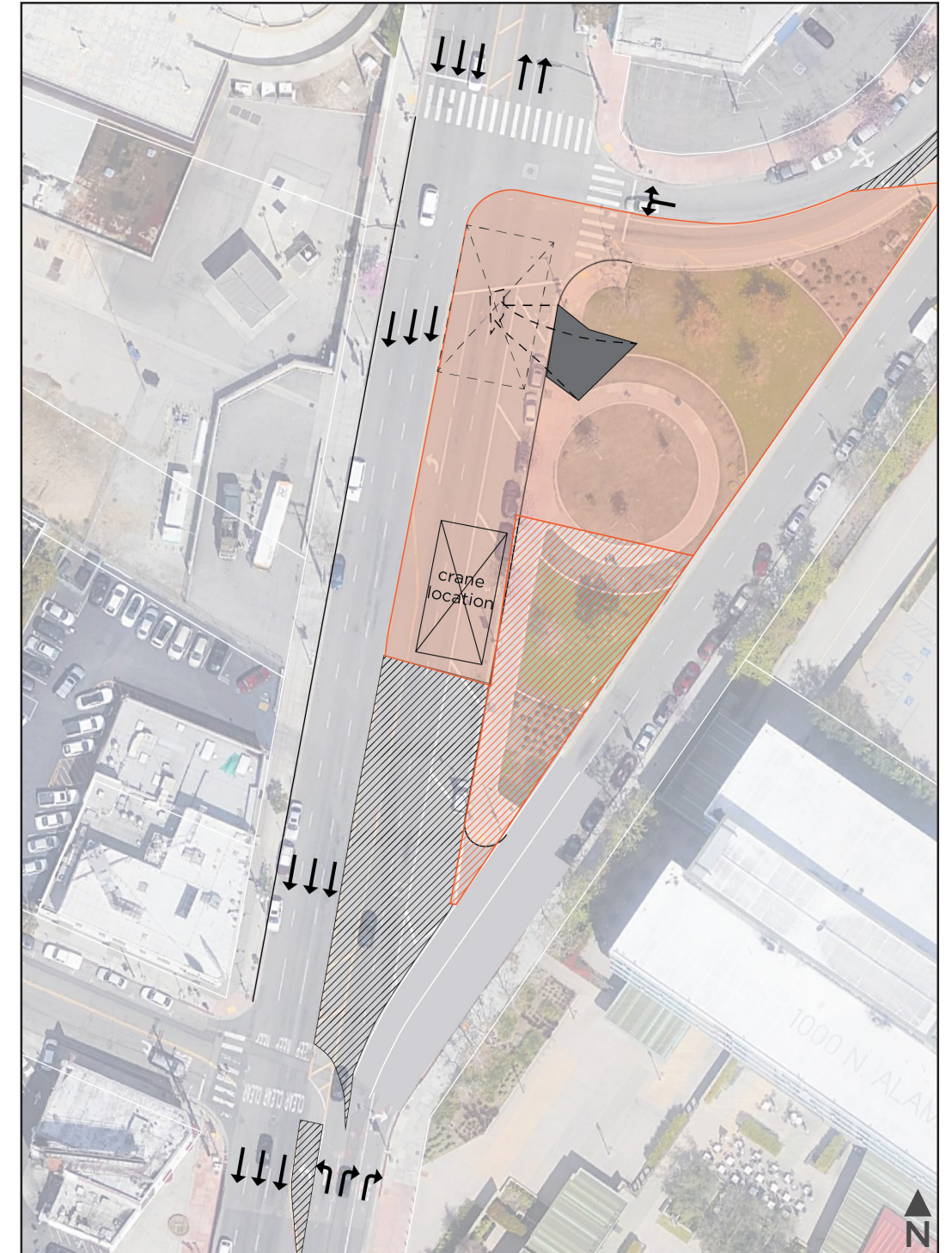
1. 10-hrs/day for construction hours
2. 14-hrs/day for non-construction hours



### Construction Hours | 10 hrs/day



### Non-Construction Hours | 14 hrs/day



# Alameda Tower | Construction Hours

Structural Steel and Gondola Equipment Erection  
 Weeks 4 - 26 of 26 total weeks of Structural Steel and Gondola  
 Equipment Erection, 10 hrs / day

Required area for Construction  
 40,600 sqft

### Restricted/Local/Emergency Access

Provide 1 SB through lane for restricted/local/ Emergency Access for adjacent properties.

### Alameda Street

#### Lanes and sidewalks closures during construction hours

- Parallel parking lane
- 1 NBL turn lane
- 2 NB through lanes
- 3 SB through lanes
- East sidewalk

#### Lanes and sidewalks to remain open during construction hours

- No lanes open
- West sidewalk

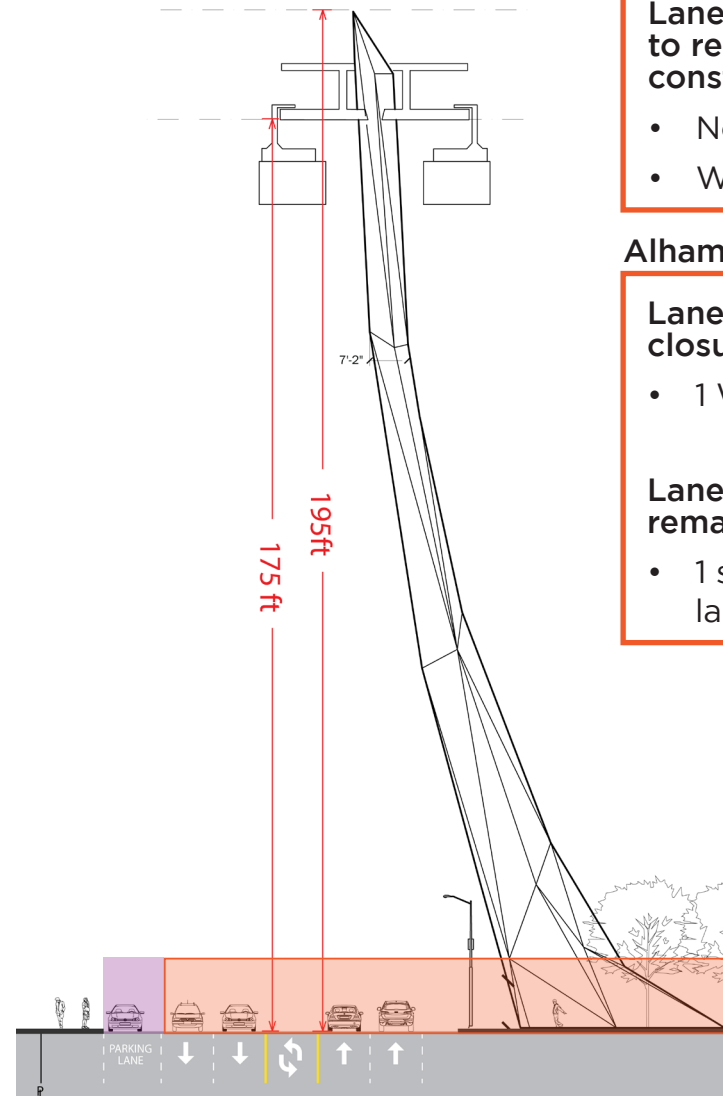
### Alhambra Avenue

#### Lanes and sidewalks closures

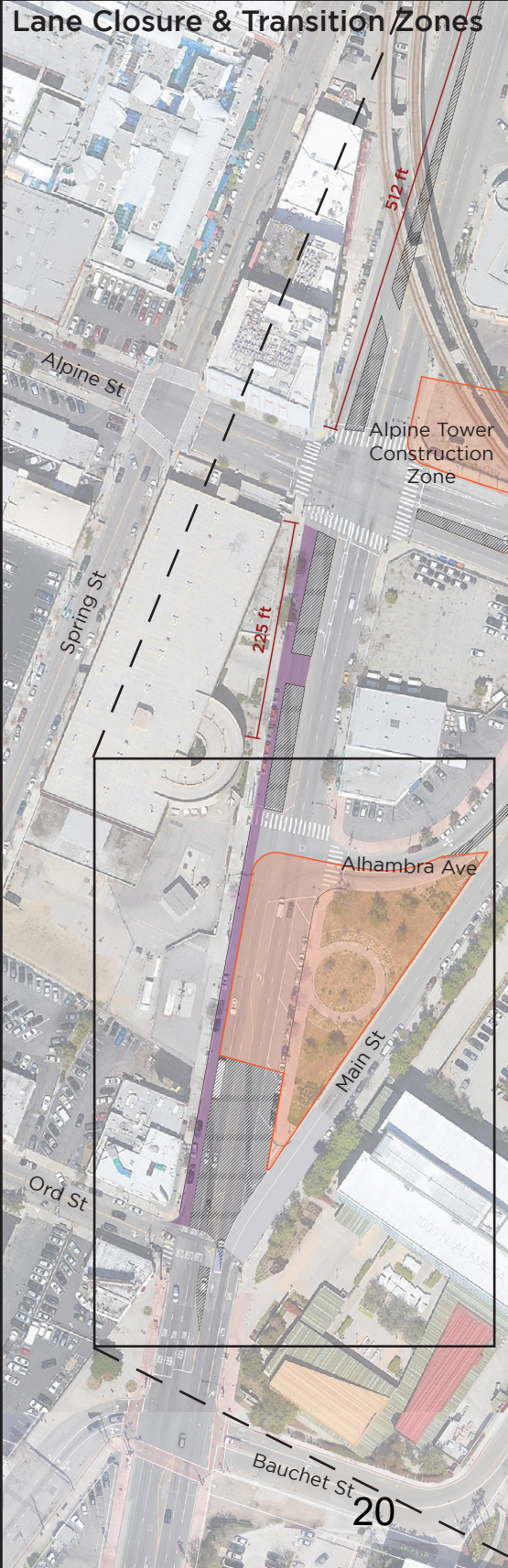
- 1 WBL turn lane

#### Lanes and sidewalks to remain open

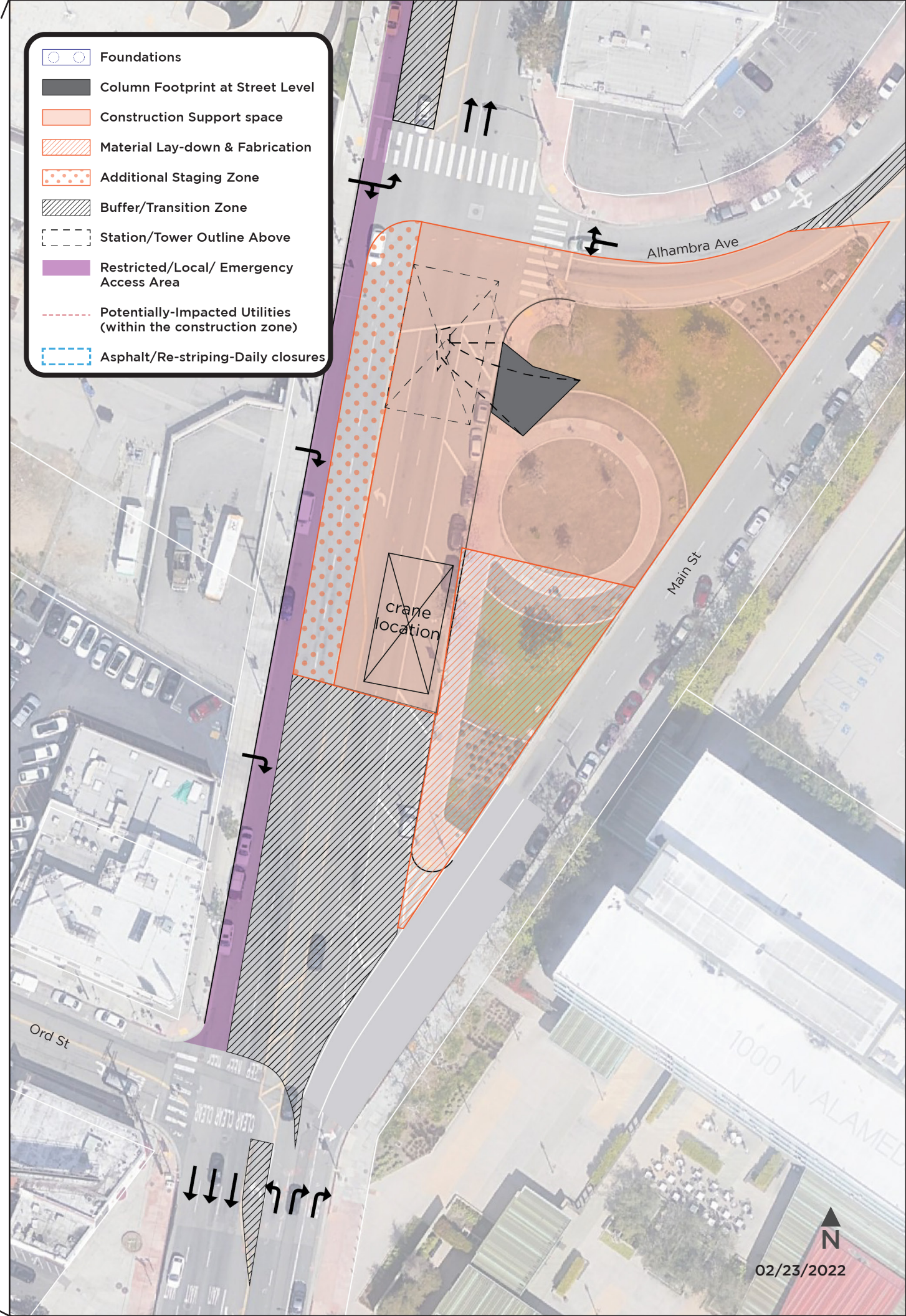
- 1 shared WBL/ WBR turn lane



### Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Asphalt/Re-striping-Daily closures



# Alameda Tower | Non-Construction Hours

Structural Steel and Gondola Equipment Erection  
 Weeks 4 - 26 of 26 total weeks of Structural Steel and Gondola  
 Equipment Erection, 14 hrs / day

Required area for Construction  
 36,200 sqft

## Alameda Street

### Lanes and sidewalks closures during non-construction hours

- Parallel parking lane
- 1 NBL turn lane
- 2 NB through lanes
- East sidewalk

### Lanes and sidewalks to remain open during non-construction hours

- 3 SB through lanes
- West sidewalk

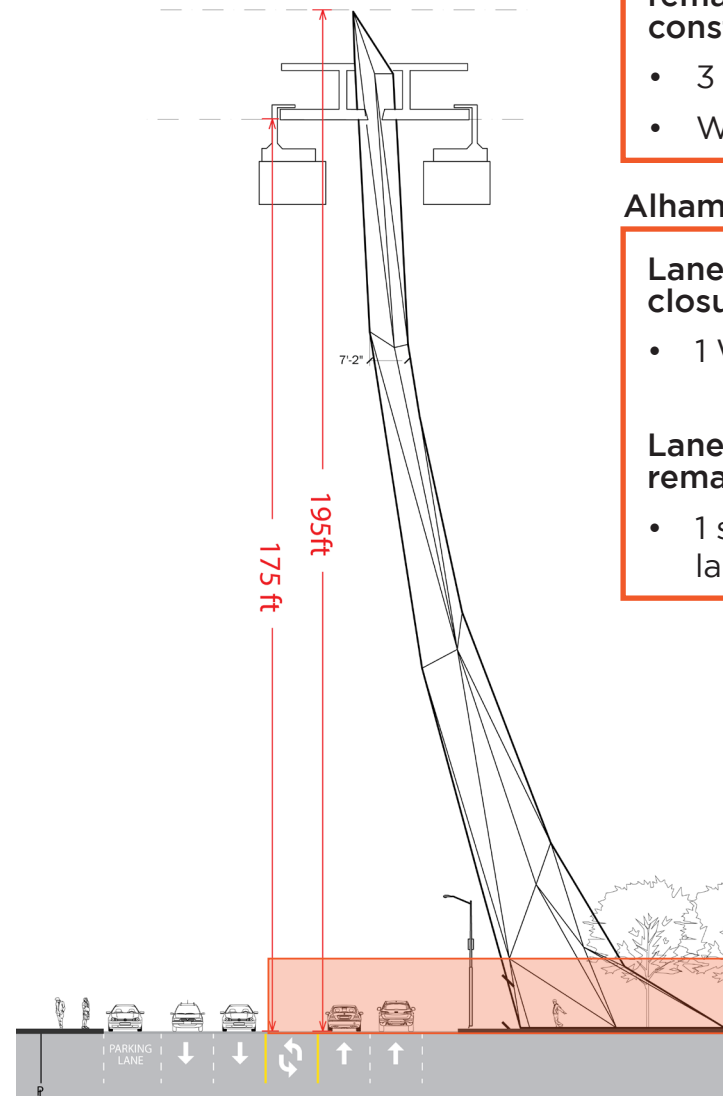
## Alhambra Avenue

### Lanes and sidewalks closures

- 1 WBL turn lane

### Lanes and sidewalks to remain open

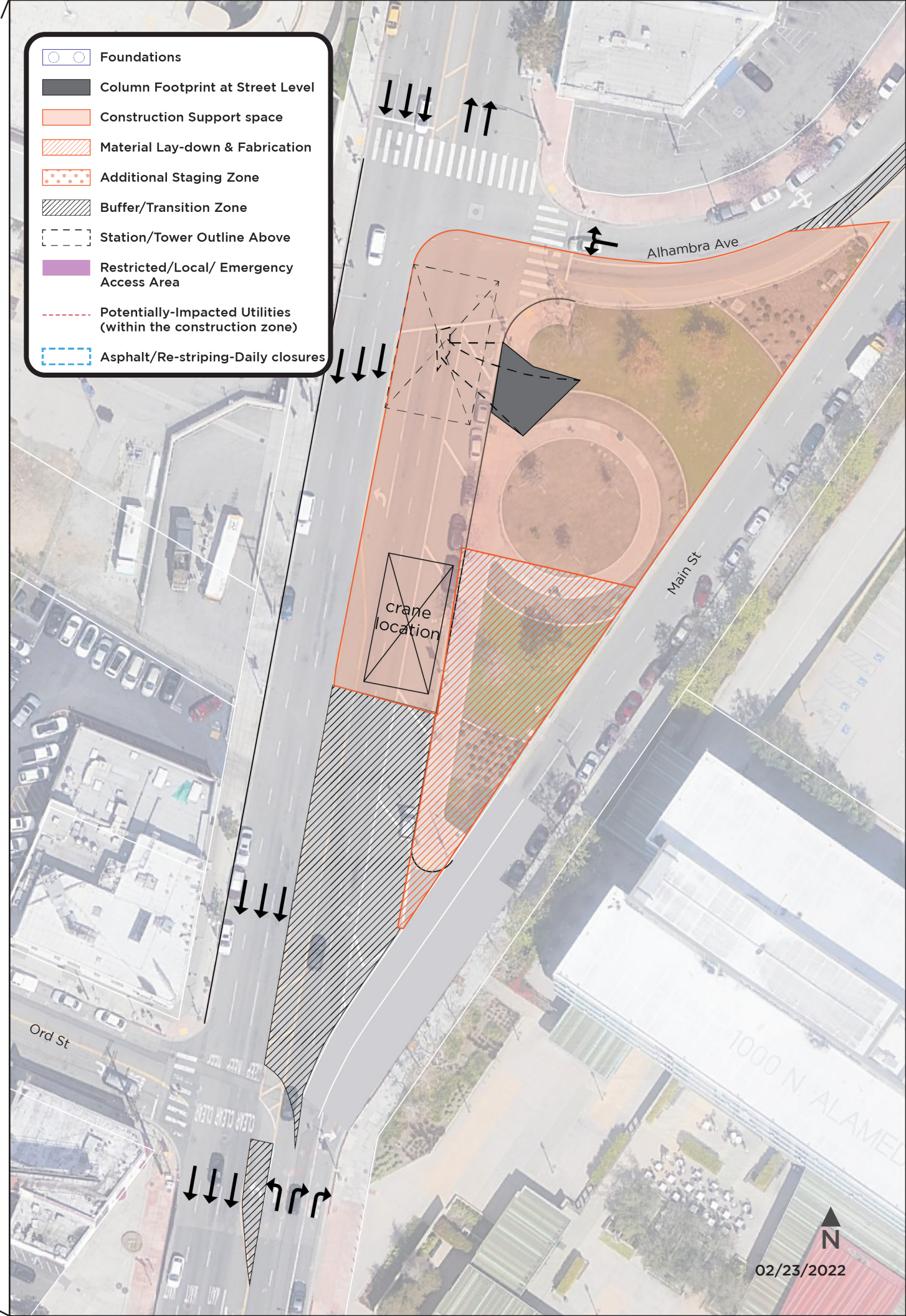
- 1 shared WBL/ WBR turn lane



## Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Asphalt/Re-striping-Daily closures

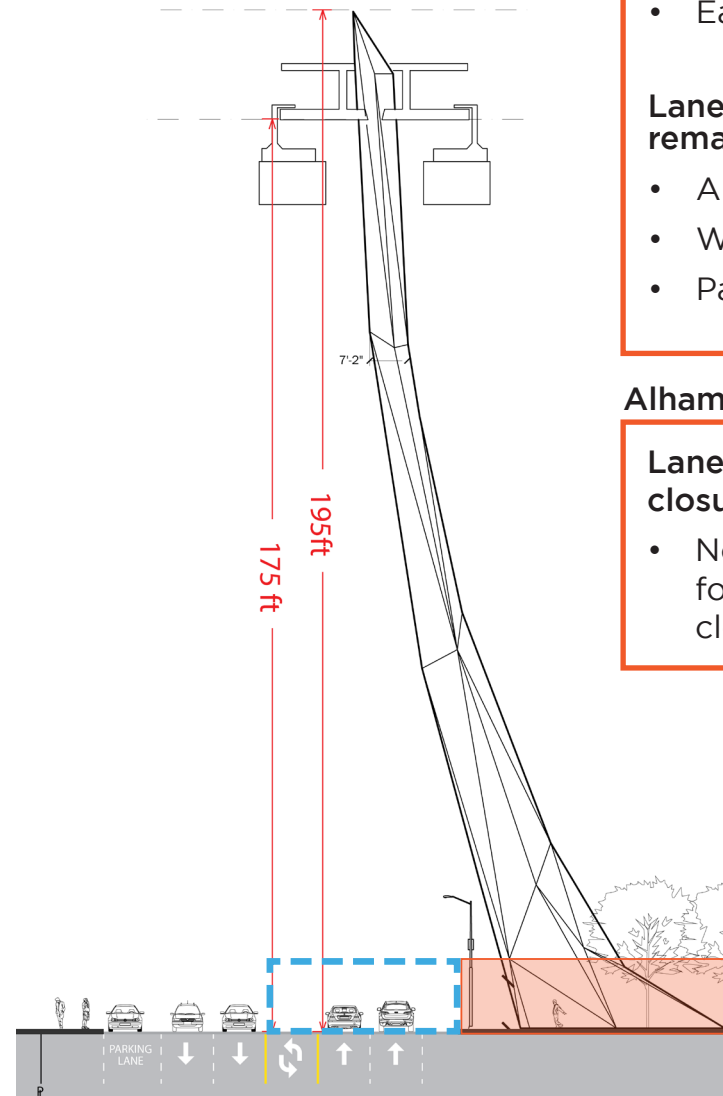


# Alameda Tower

## Hardscape and Landscape/ Interior Work 14 weeks

**Curbs, Medians, Asphalt & Re-striping Periodic Closures for 10 working days within a 14-week duration period**

Required area for Construction  
23,800 sqft



### Alameda Street

#### Lanes and sidewalks closures

- No lane closures, except for asphalt/ re-striping closures
- East sidewalk

#### Lanes and sidewalks to remain open

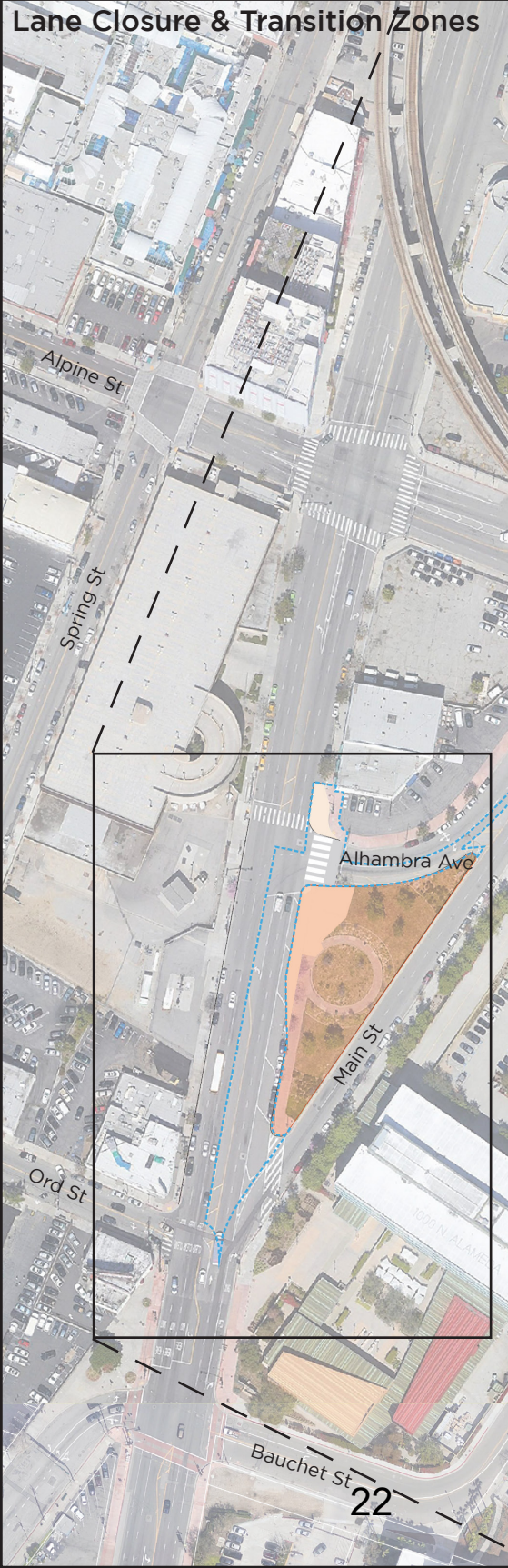
- All lanes
- West sidewalk
- Parallel parking lane

### Alhambra Avenue

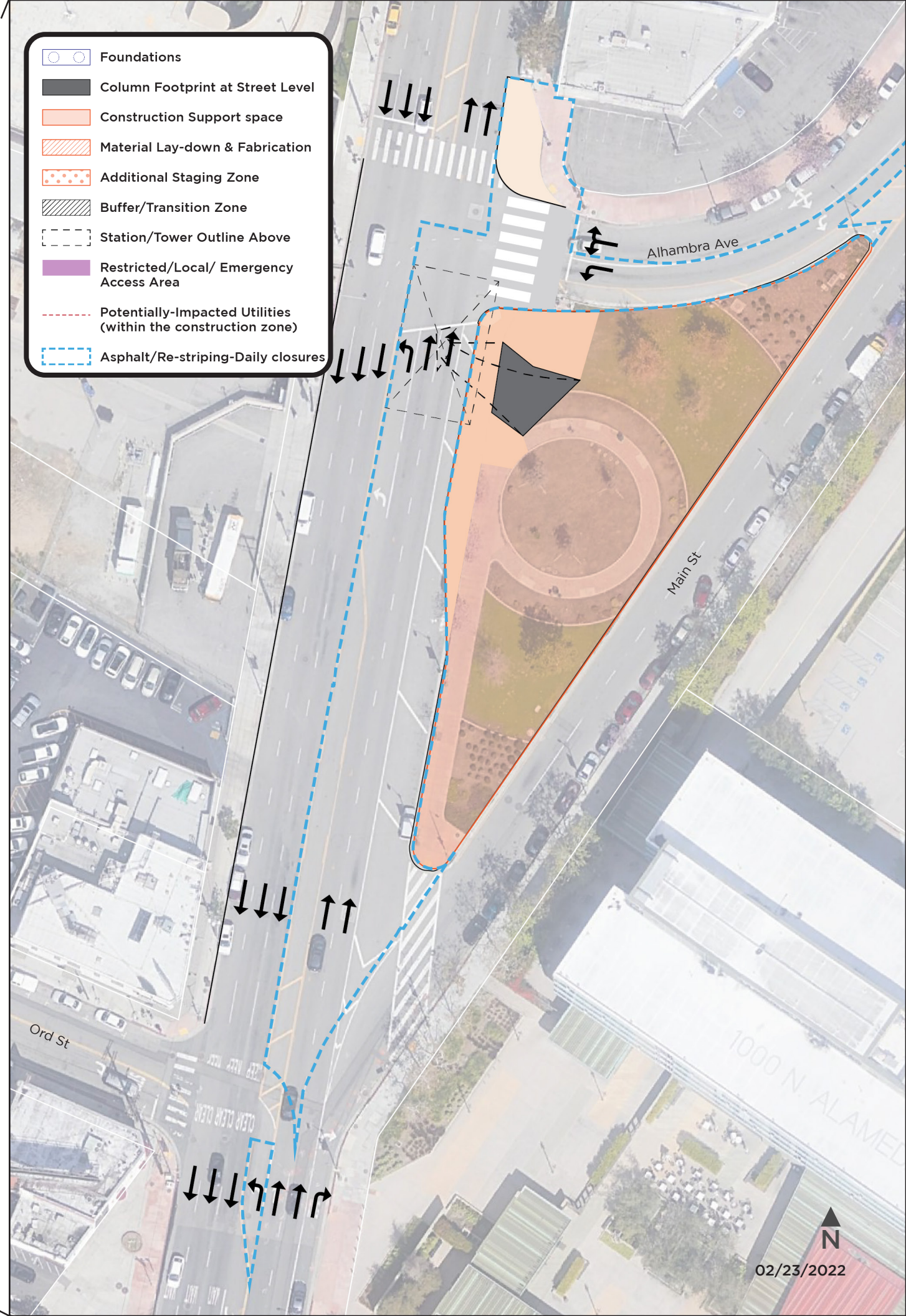
#### Lanes and sidewalks closures

- No lane closures, except for asphalt/ re-striping closures

### Lane Closure & Transition Zones



- Foundations
- Column Footprint at Street Level
- Construction Support space
- ▨ Material Lay-down & Fabrication
- ▨ Additional Staging Zone
- ▨ Buffer/Transition Zone
- - - Station/Tower Outline Above
- Restricted/Local/ Emergency Access Area
- - - Potentially-Impacted Utilities (within the construction zone)
- - - Asphalt/Re-striping-Daily closures



# Alameda Tower

# Build-Out

## Build-Out Conditions

Build-out conditions for Alameda at the proposed location for Alameda Tower:

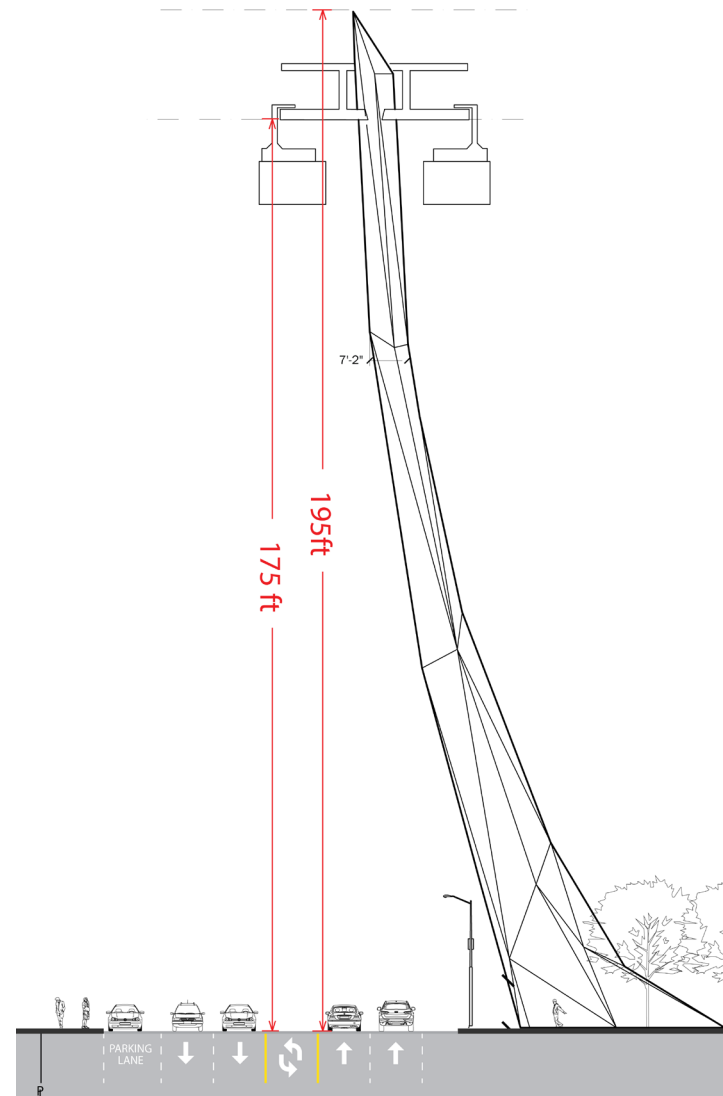
- 1 NBL turn lane
- 2 NB through lanes
- 3 SB through lanes

Build-out conditions for Alhambra at the proposed location for Alameda Tower:

- 1 WBL turn lane
- 1 shared WBL/ WBR turn lane

New curb extension introduced along the eastern edge of Alameda (northbound)

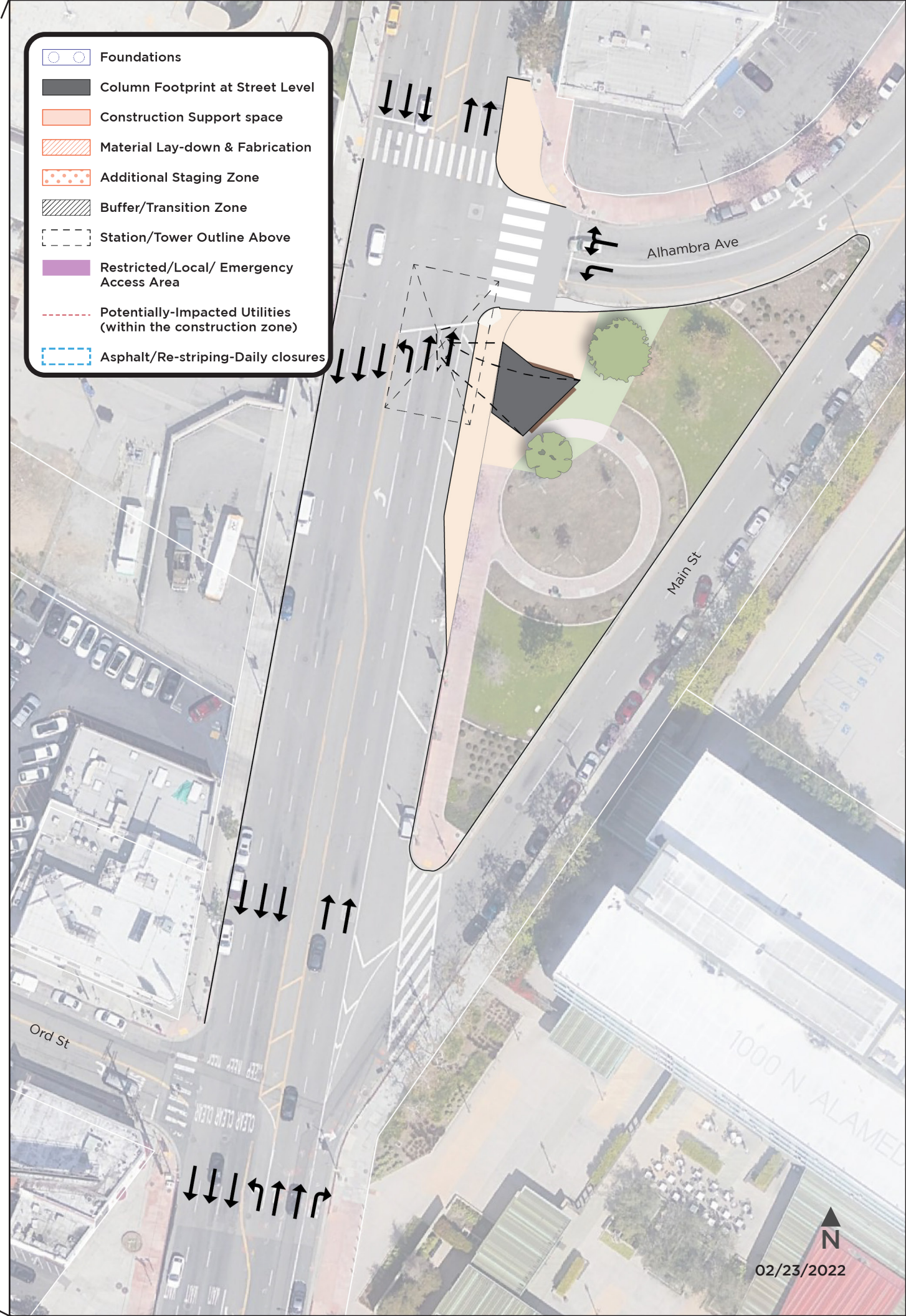
Existing parallel parking spaces reduced by 6 spaces



## Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Asphalt/Re-striping-Daily closures







# Alpine Tower

# Existing

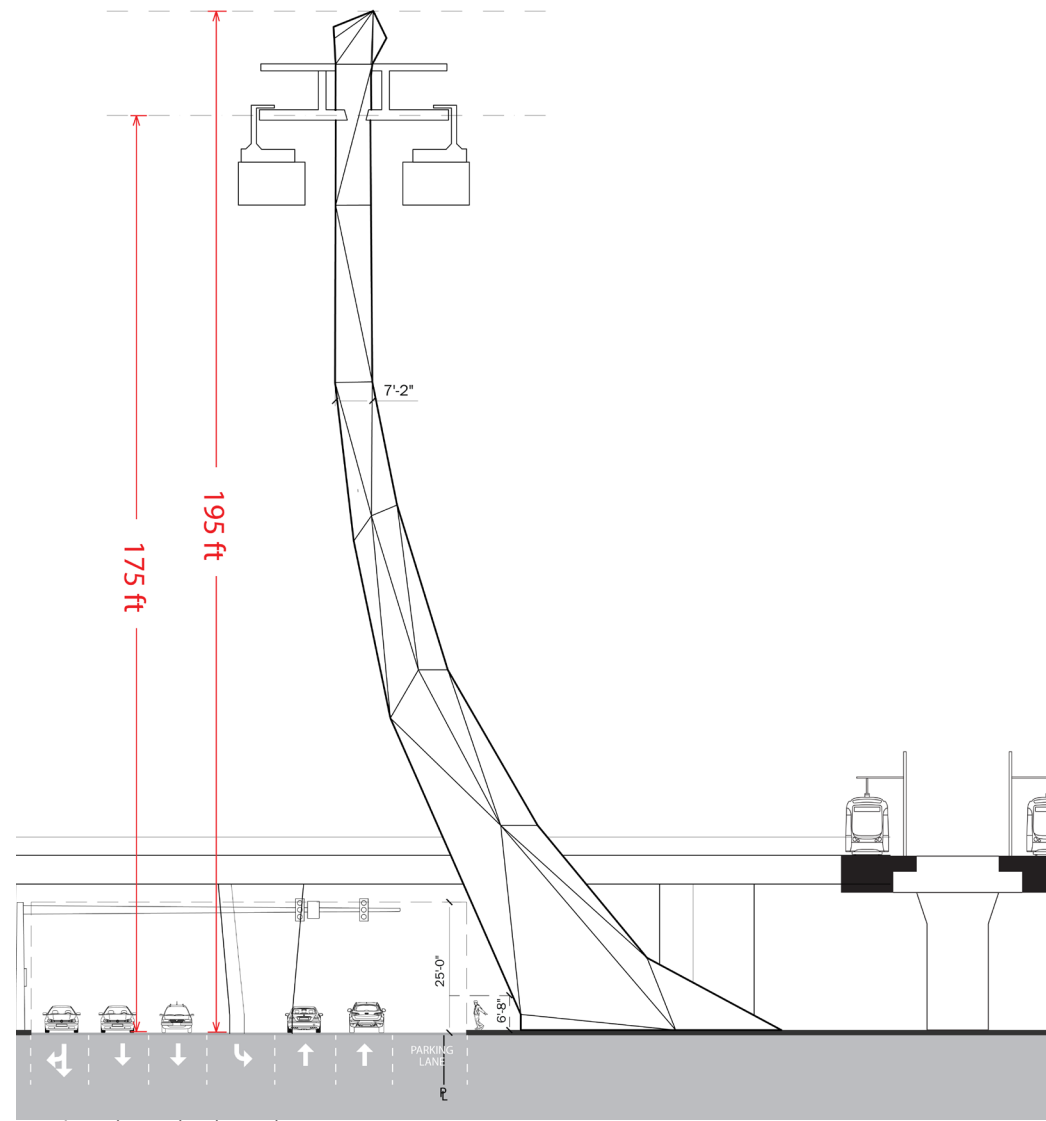
## Existing Conditions

Existing conditions for Alameda Street at the proposed location for Alpine Tower:

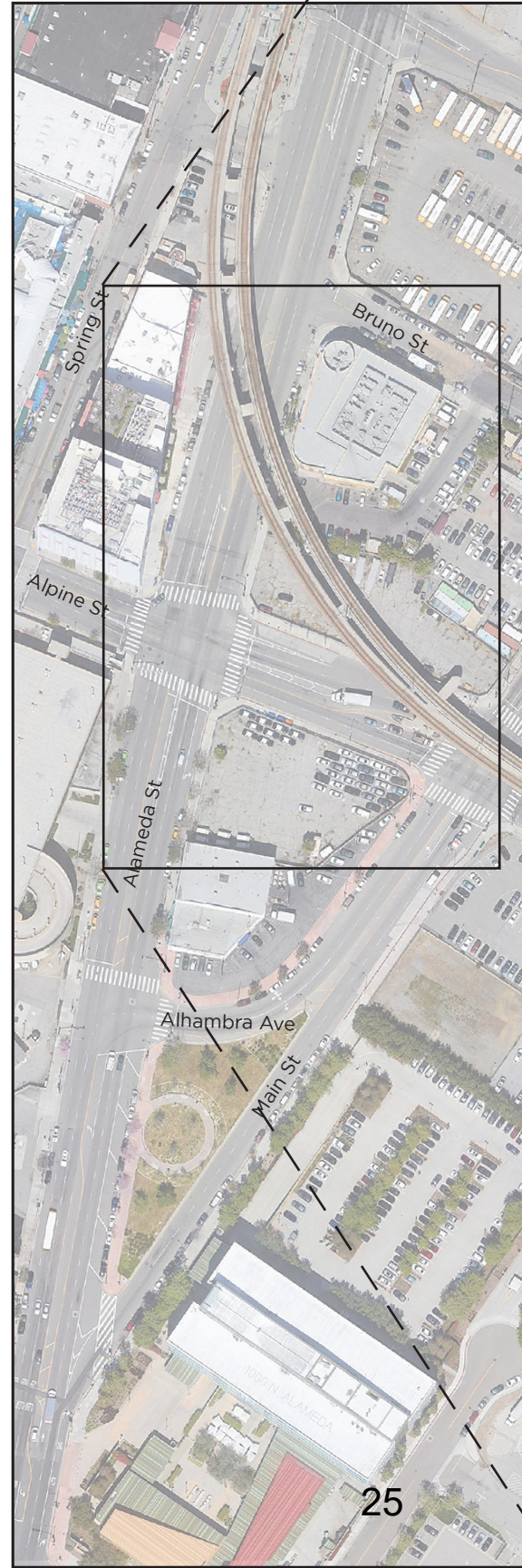
- 2 NB through lanes
- 1 SBL turn lane
- 2 SB through lanes
- 1 SB through-right lane

Existing conditions for Alpine Street along the proposed location for Alpine Tower:

- 2 WB through lanes
- 1 WBL turn lane
- 1 WBR turn lane
- 2 EB through lanes



Section Through Alameda Street

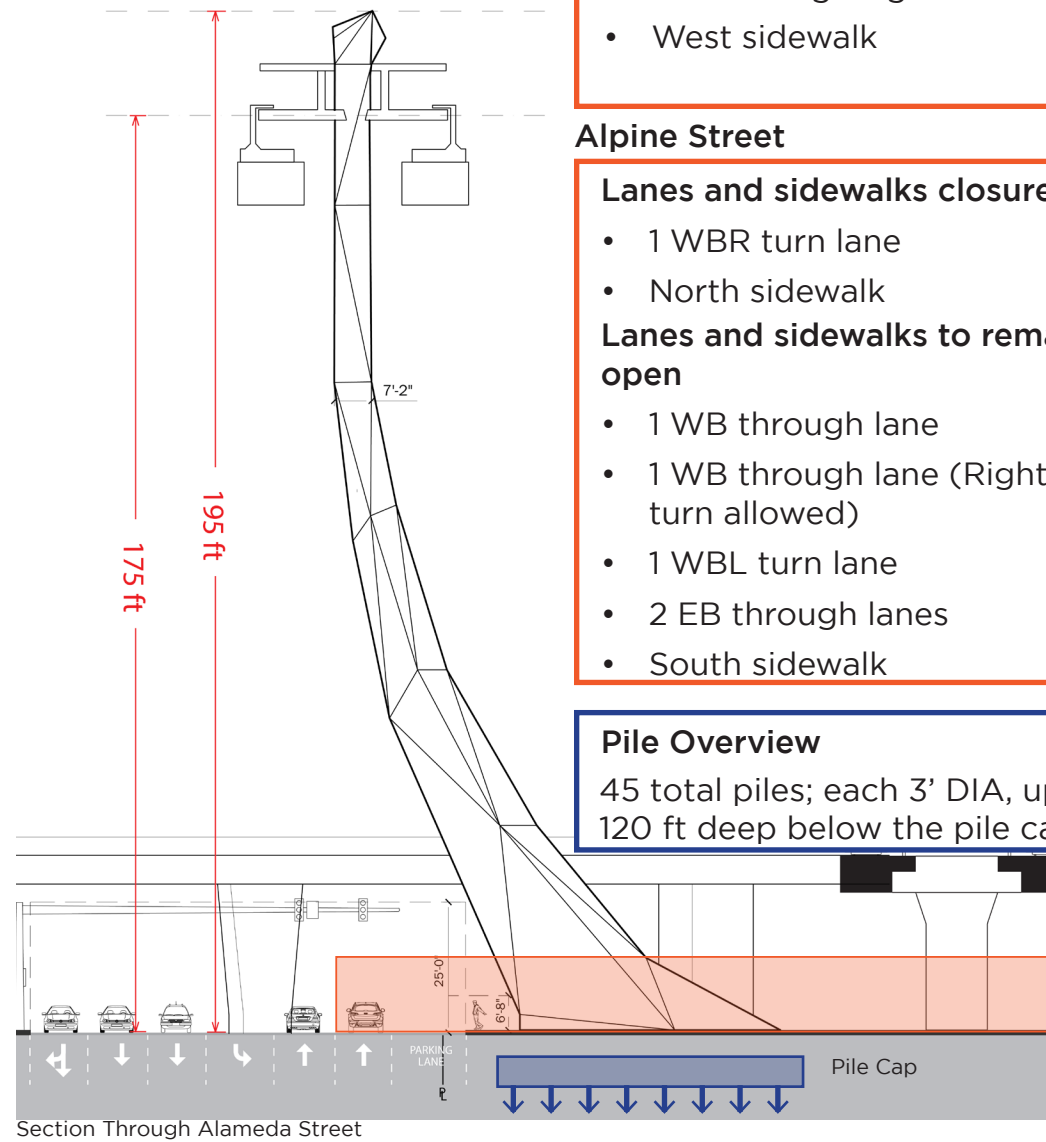


# Alpine Tower

## Foundations and Columns for 15 weeks Weeks 1 - 3 of 28 total weeks of Structural Steel and Gondola Equipment Erection

Weeks 1 - 3 of Structural Steel and Gondola Equipment Erection include construction of the first 25 feet of the Alpine Tower. Closures associated with this work are the same as those reflected on this sheet for the Foundations and Columns.

**Required area for Construction**  
30,100 sqft



### Alameda Street

#### Lanes and sidewalks closures

- 1 NB through lane
- East sidewalk
- NB parallel parking

#### Lanes and sidewalks to remain open

- 1 NB through lane
- 1 SBL turn lane
- 2 SB through lanes
- 1 SB through-right lane
- West sidewalk

### Alpine Street

#### Lanes and sidewalks closures

- 1 WBR turn lane
- North sidewalk

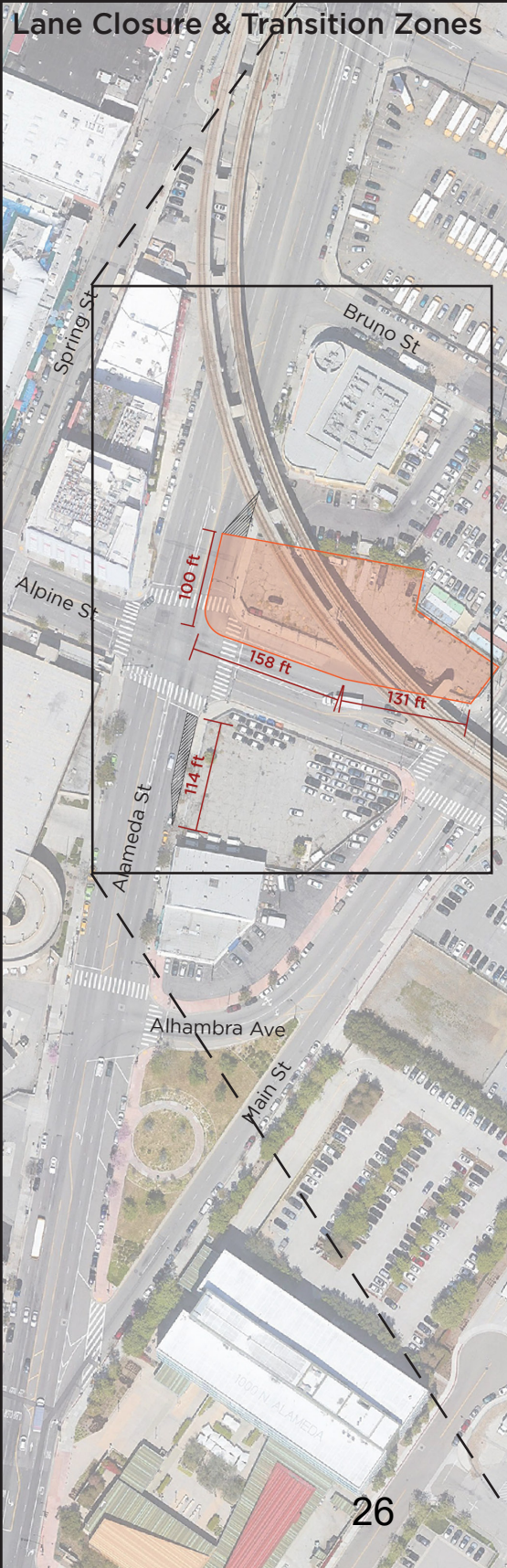
#### Lanes and sidewalks to remain open

- 1 WB through lane
- 1 WB through lane (Right turn allowed)
- 1 WBL turn lane
- 2 EB through lanes
- South sidewalk

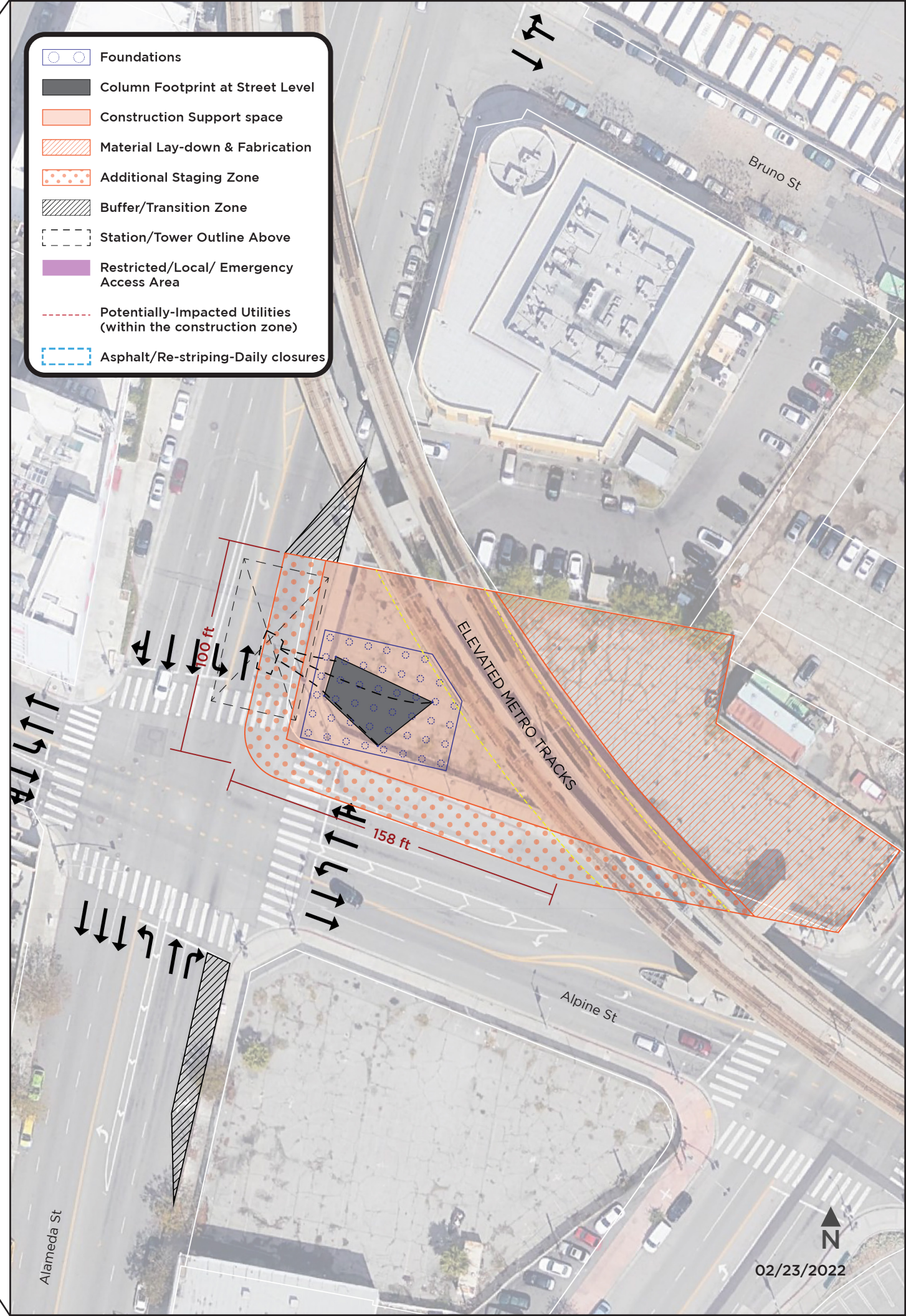
### Pile Overview

45 total piles; each 3' DIA, up to 120 ft deep below the pile cap

### Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Asphalt/Re-striping-Daily closures



# Alpine Tower

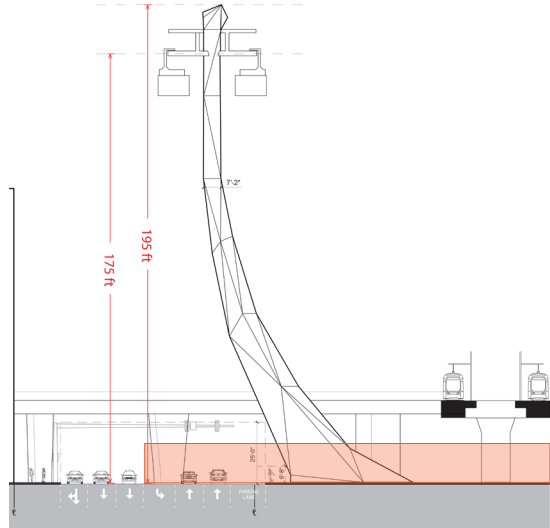
## Structural Steel and Gondola Equipment Erection

Weeks 4 - 28 of 28 total weeks of Structural Steel and Gondola Equipment Erection

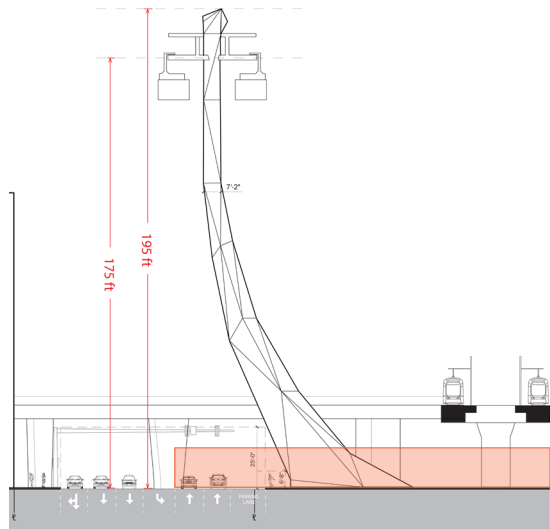
During Structural Steel and Gondola Equipment Erection, the Construction Zone and lane closure areas will vary depending on the construction site activity.

This will result in two alternating conditions over a period of 17 weeks:

1. 10-hrs/day for construction hours
2. 14-hrs/day for non-construction hours

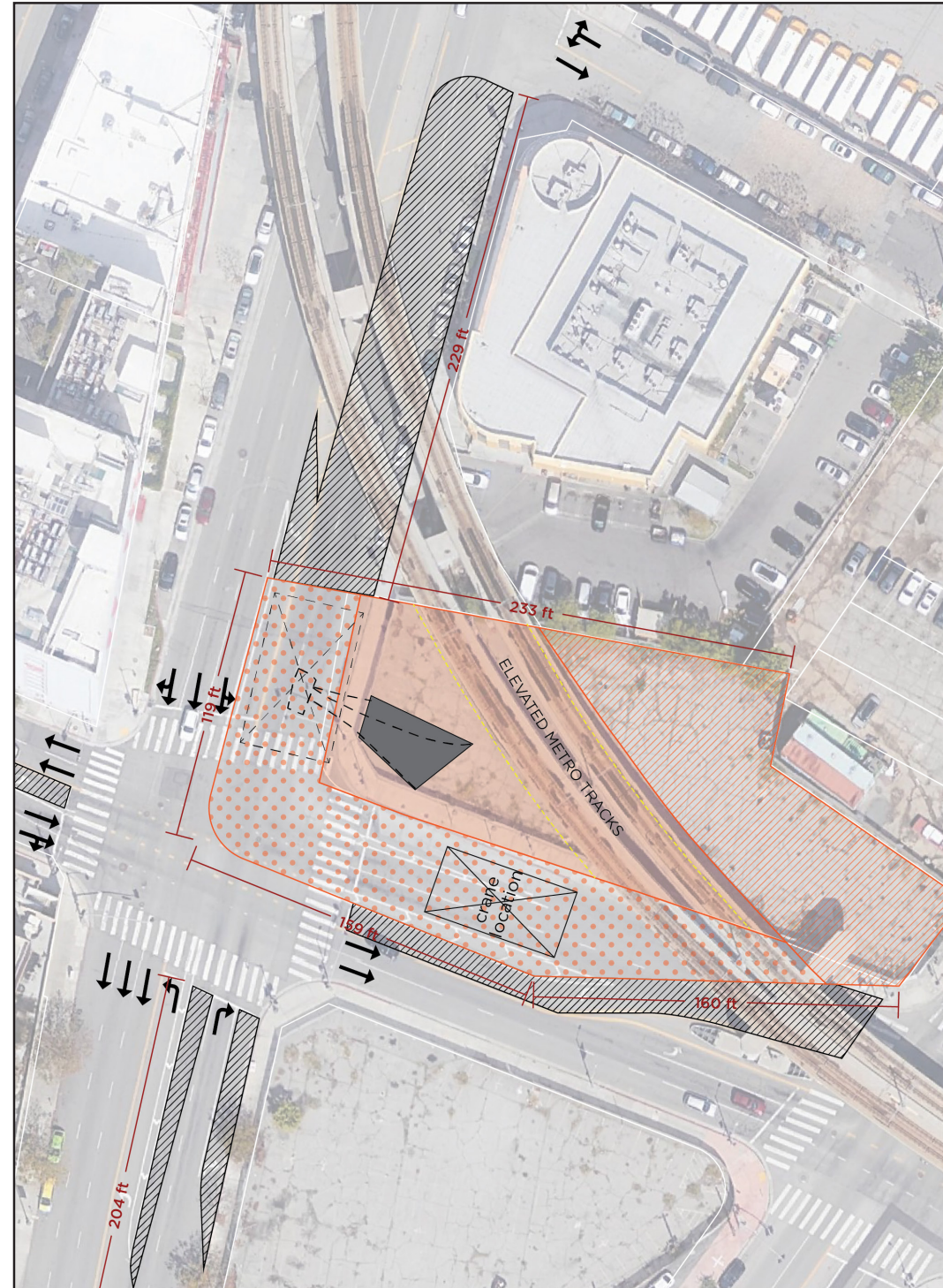


Construction Hours

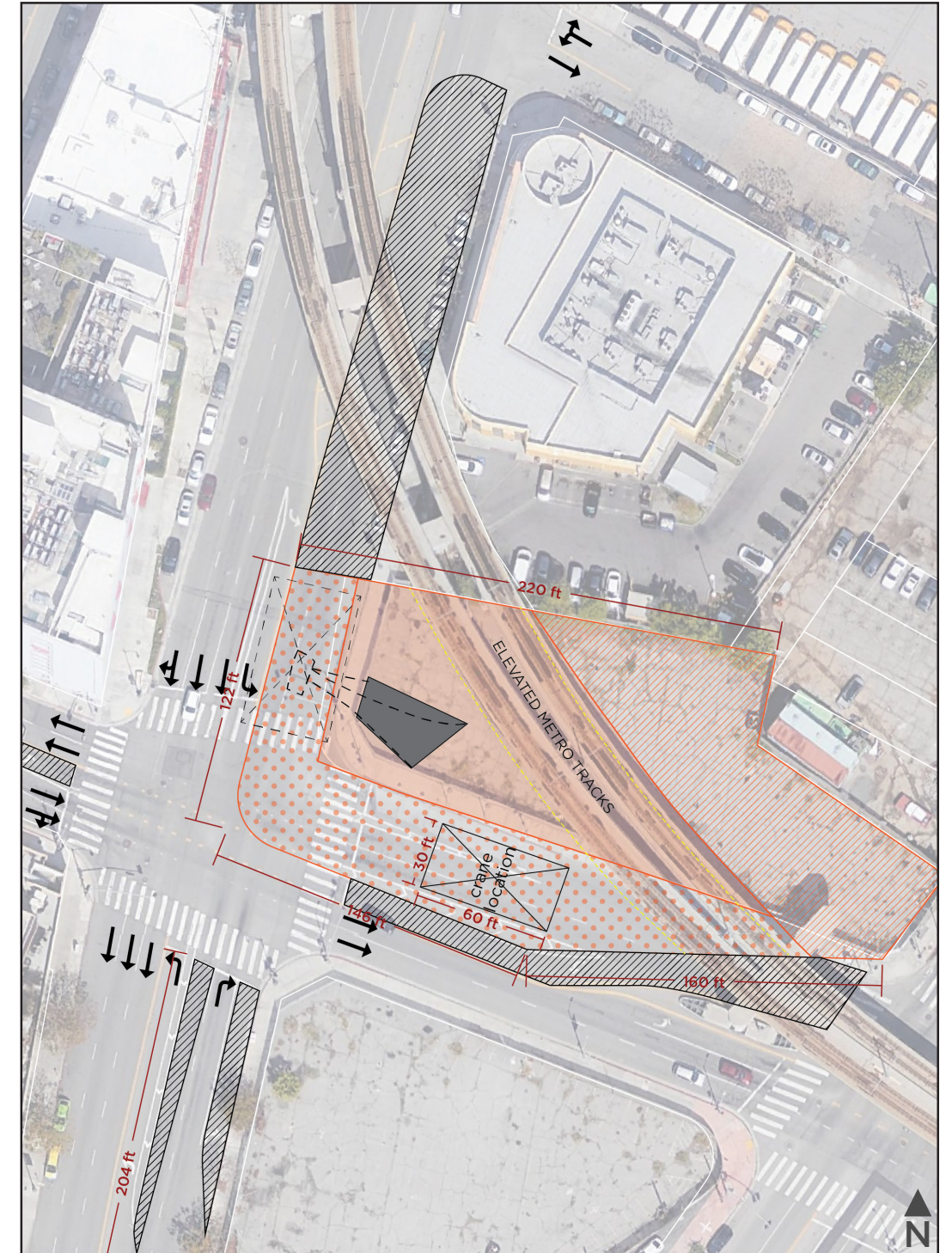


Non-Construction Hours

### Construction Hours | 10 hrs/day



### Non-Construction Hours | 14 hrs/day

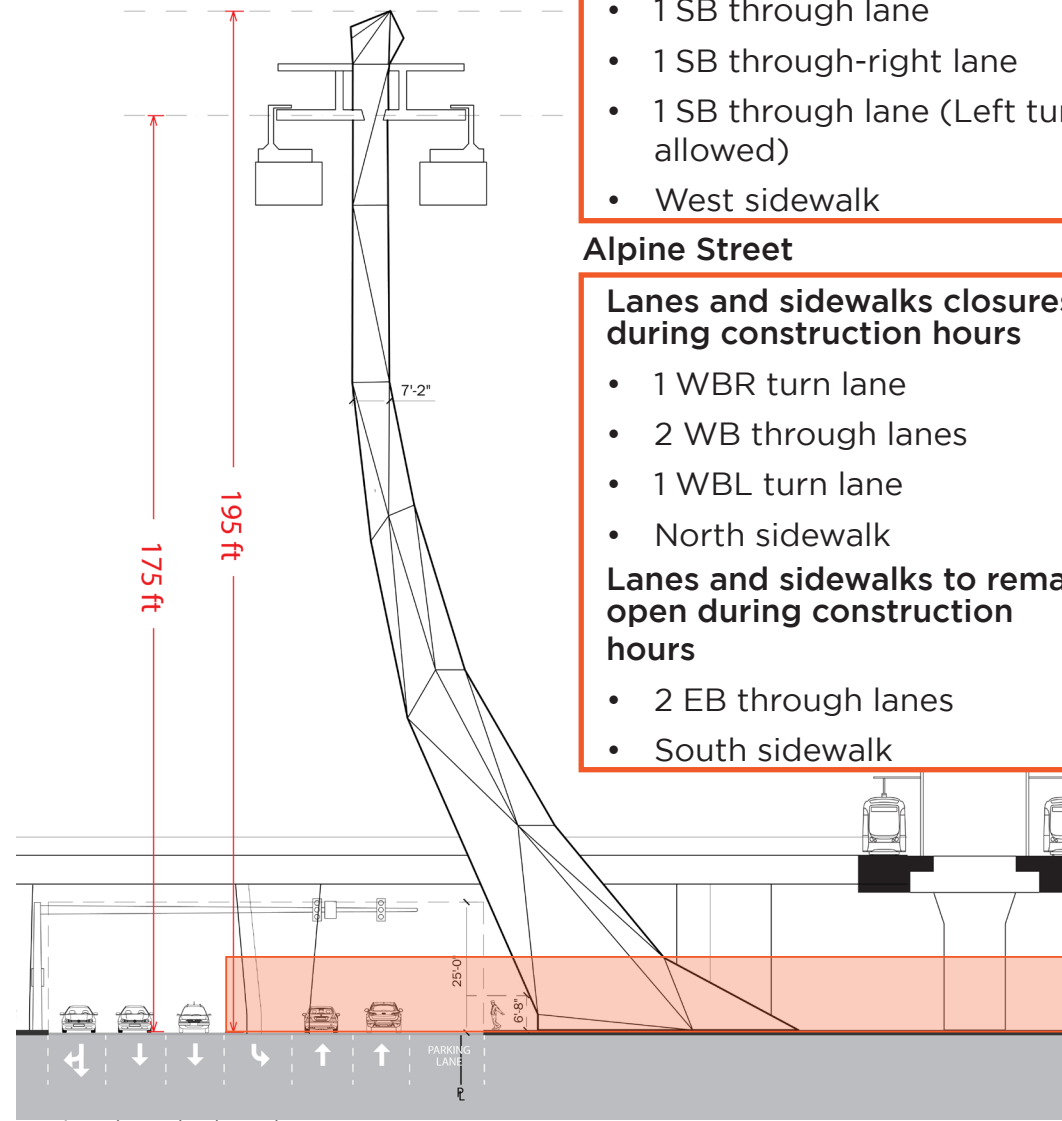


# Alpine Tower

# Construction Hours

Structural Steel and Gondola Equipment Erection  
 Weeks 4 - 28 of 28 total weeks of Structural Steel and Gondola  
 Equipment Erection, 10 hrs/day

Required area for Construction  
 38,700 sqft



Section Through Alameda Street

### Alameda Street

#### Lanes and sidewalks closures during construction hours

- 2 NB through lanes
- 1 SBL turn lane
- East sidewalk
- NB parallel parking

#### Lanes and sidewalks to remain open during construction hours

- 1 SB through lane
- 1 SB through-right lane
- 1 SB through lane (Left turn allowed)
- West sidewalk

### Alpine Street

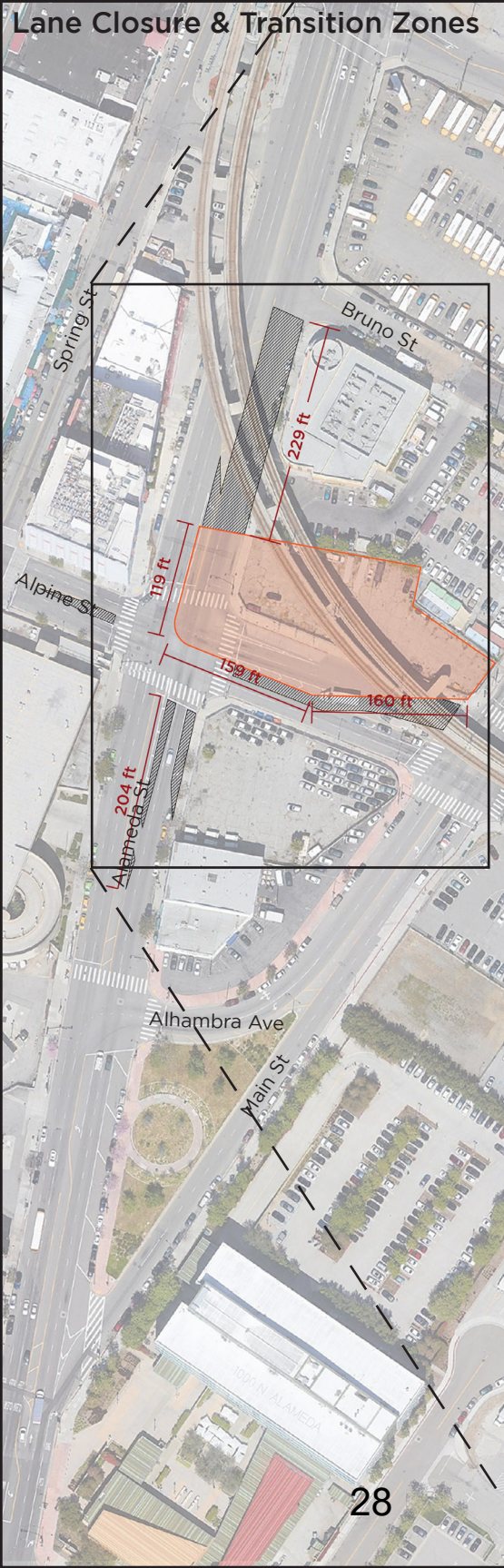
#### Lanes and sidewalks closures during construction hours

- 1 WBR turn lane
- 2 WB through lanes
- 1 WBL turn lane
- North sidewalk

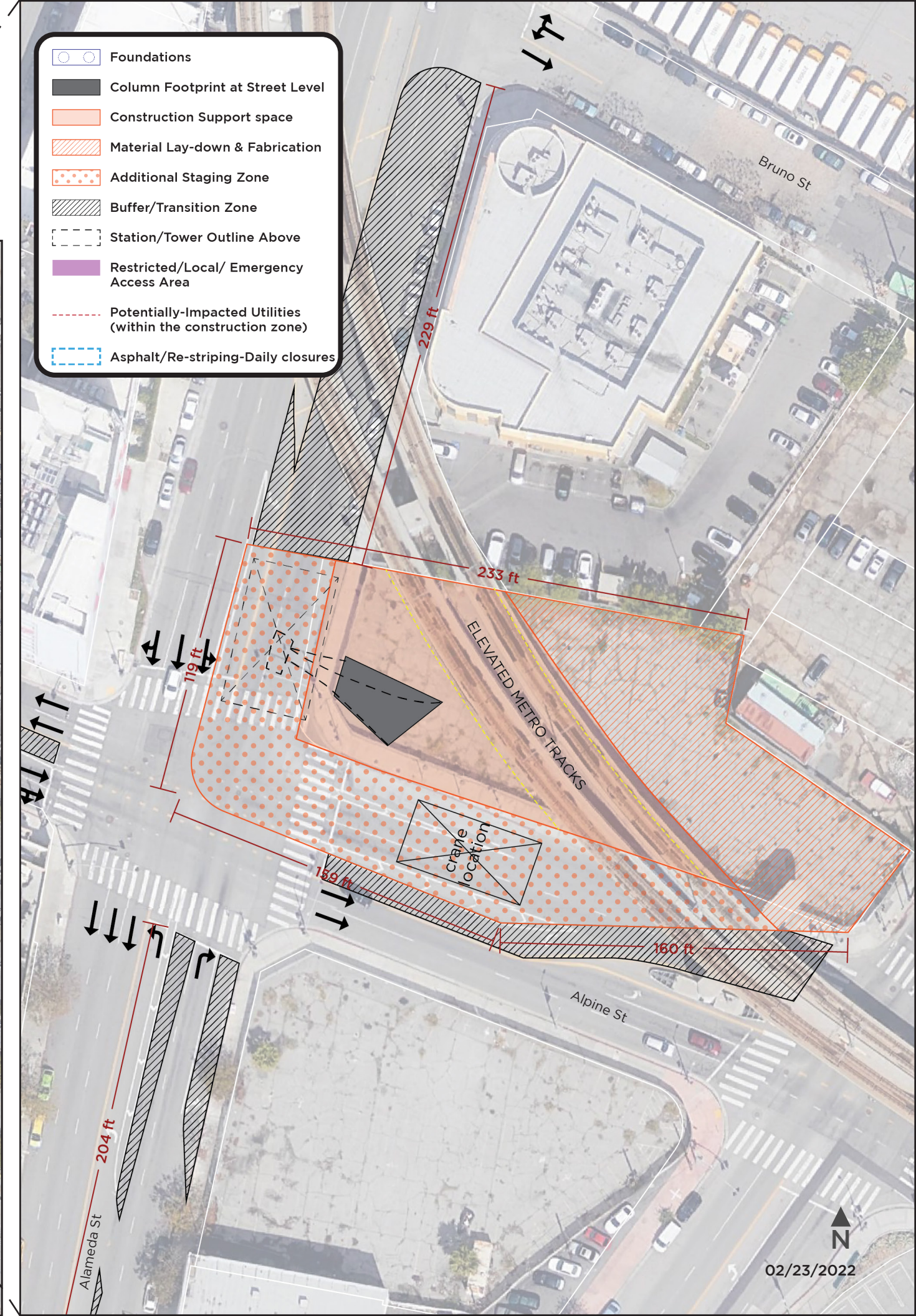
#### Lanes and sidewalks to remain open during construction hours

- 2 EB through lanes
- South sidewalk

### Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Asphalt/Re-striping-Daily closures



# Alpine Tower

# Non-Construction Hours

Structural Steel and Gondola Equipment Erection  
 Weeks 4 - 28 of 28 total weeks of Structural Steel and Gondola  
 Equipment Erection, 14 hrs/day

Required area for Construction  
 37,100 sqft

### Alameda Street

Lanes and sidewalks closures during non-construction hours

- 2 NB through lanes
- East sidewalk
- NB parallel parking lane

Lanes and sidewalks to remain open during non-construction hours

- 1 SBL turn lane
- 2 SB through lanes
- 1 SB through-right lane
- West sidewalk

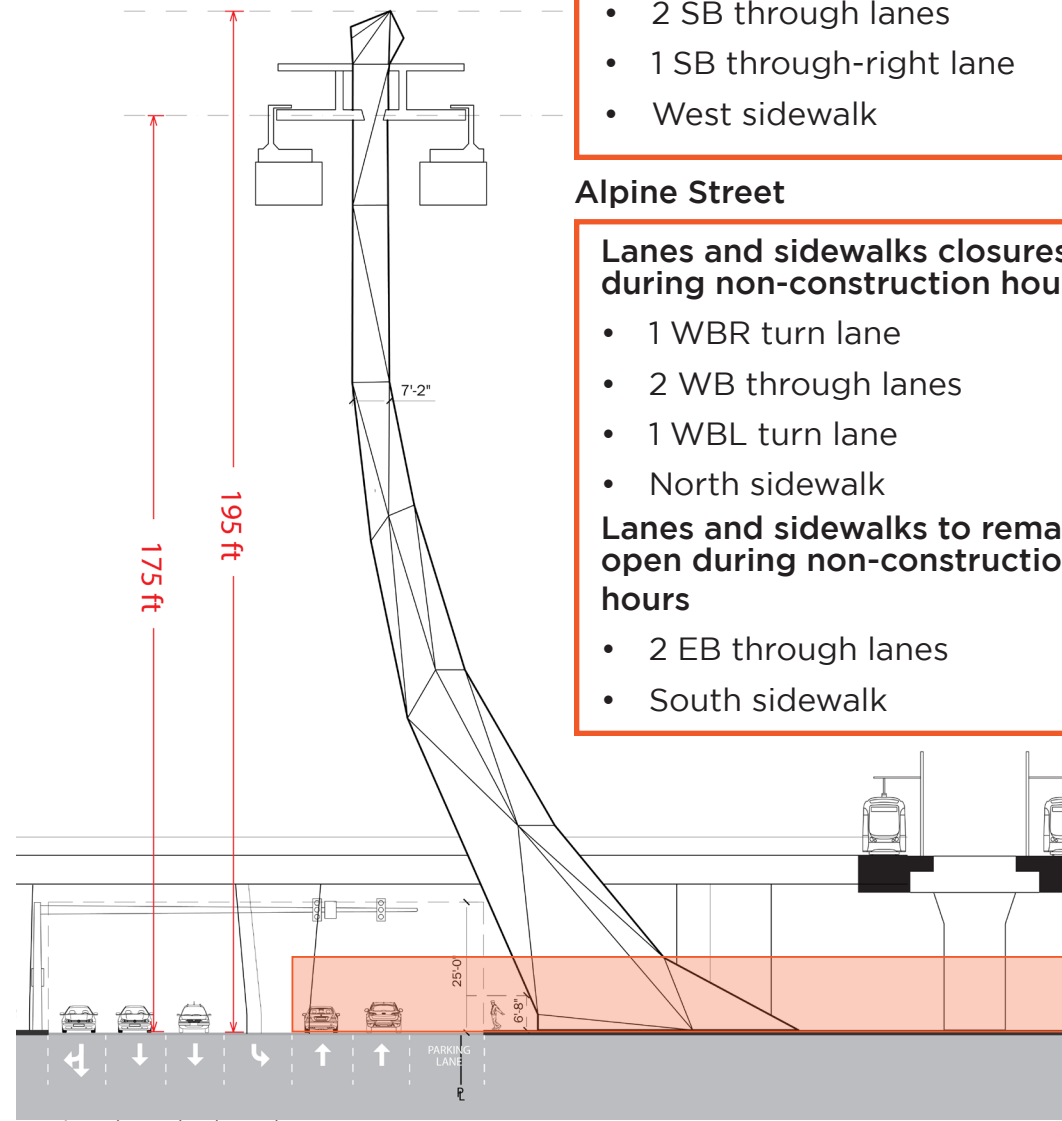
### Alpine Street

Lanes and sidewalks closures during non-construction hours

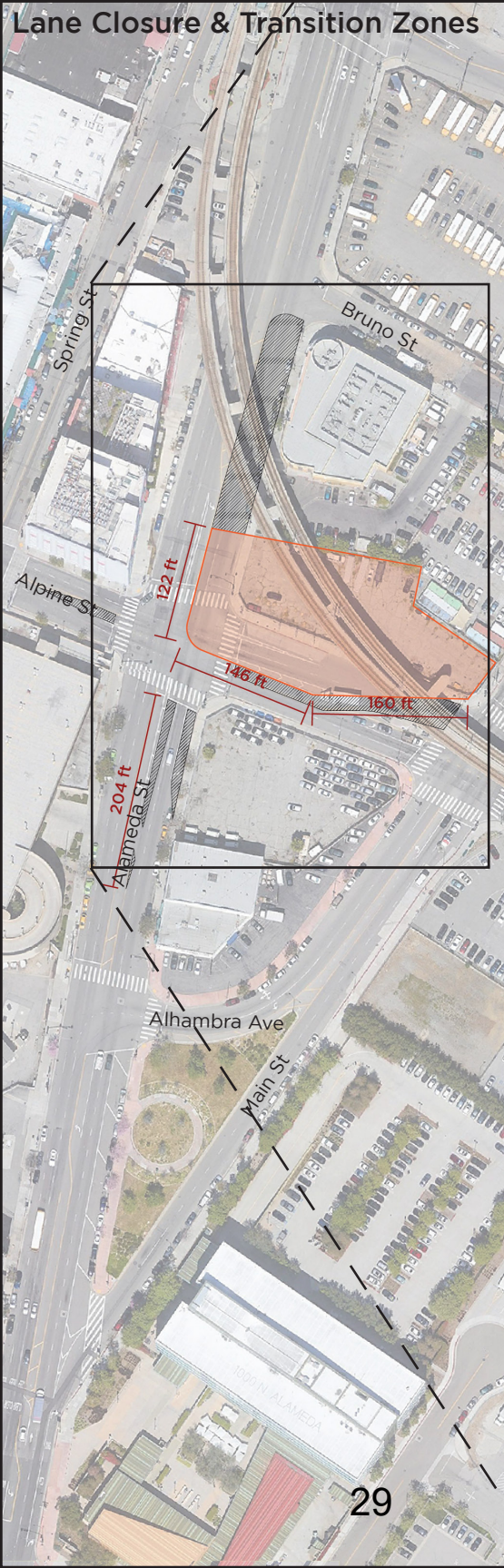
- 1 WBR turn lane
- 2 WB through lanes
- 1 WBL turn lane
- North sidewalk

Lanes and sidewalks to remain open during non-construction hours

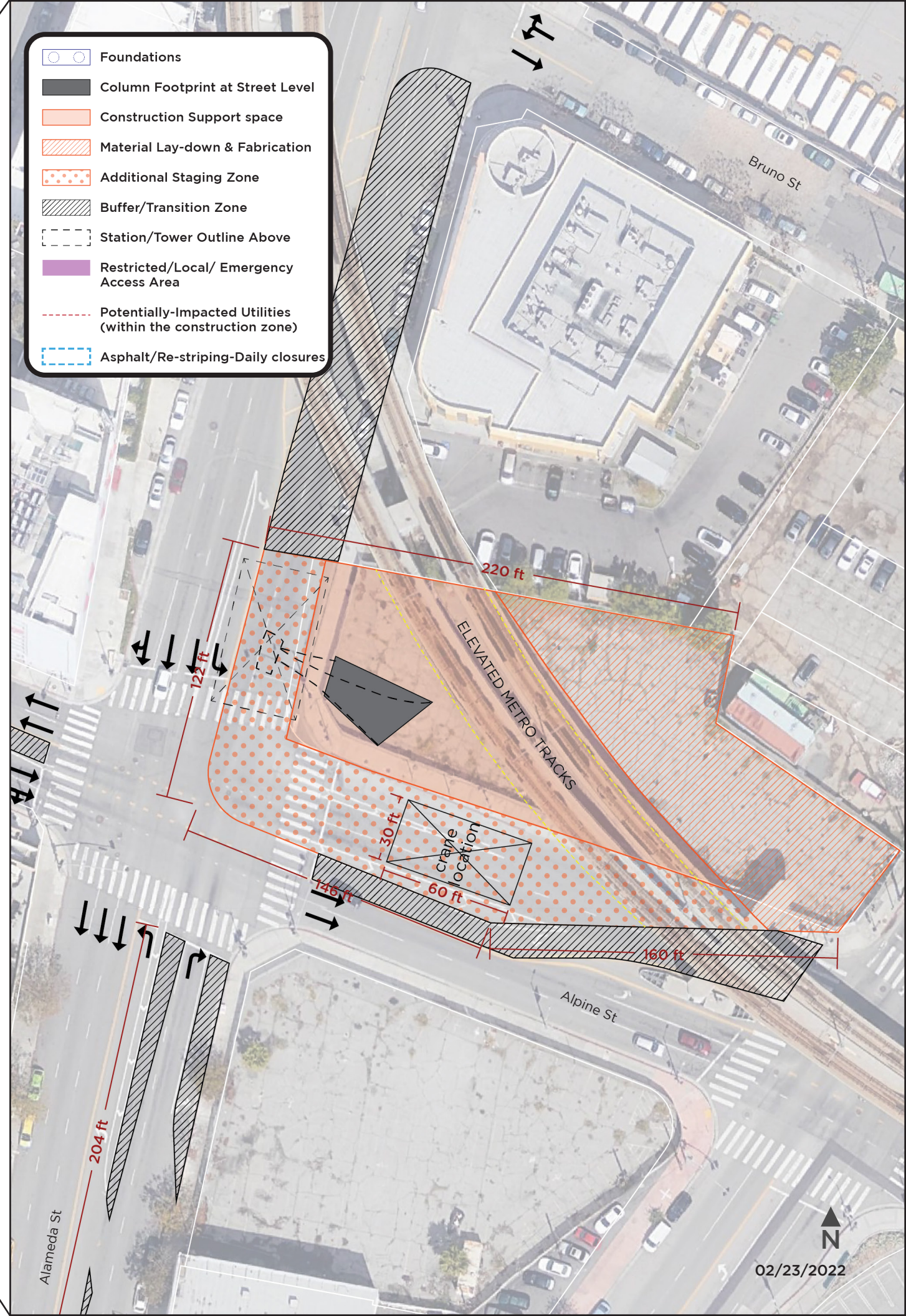
- 2 EB through lanes
- South sidewalk



### Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Asphalt/Re-striping-Daily closures

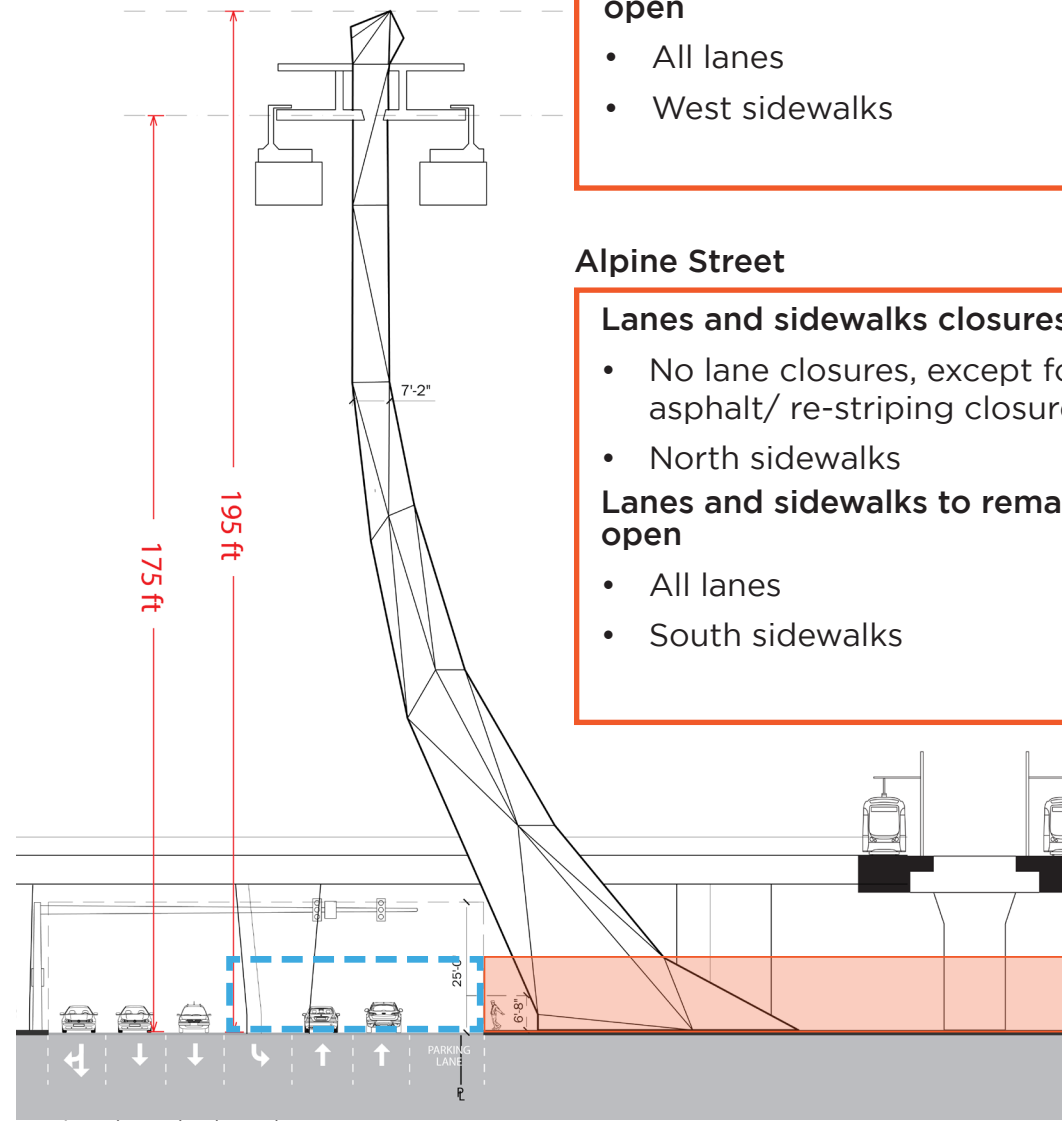


# Alpine Tower

## Hardscape and Landscape/ Interior Work 12 weeks

**Curbs, Medians, Asphalt & Re-striping Periodic Closures for 10 working days within a 12-week duration period**

Required area for Construction  
24,400 sqft



Section Through Alameda Street

### Alameda Street

#### Lanes and sidewalks closures

- No lane closures, except for asphalt/ re-striping closures
- East sidewalks

#### Lanes and sidewalks to remain open

- All lanes
- West sidewalks

### Alpine Street

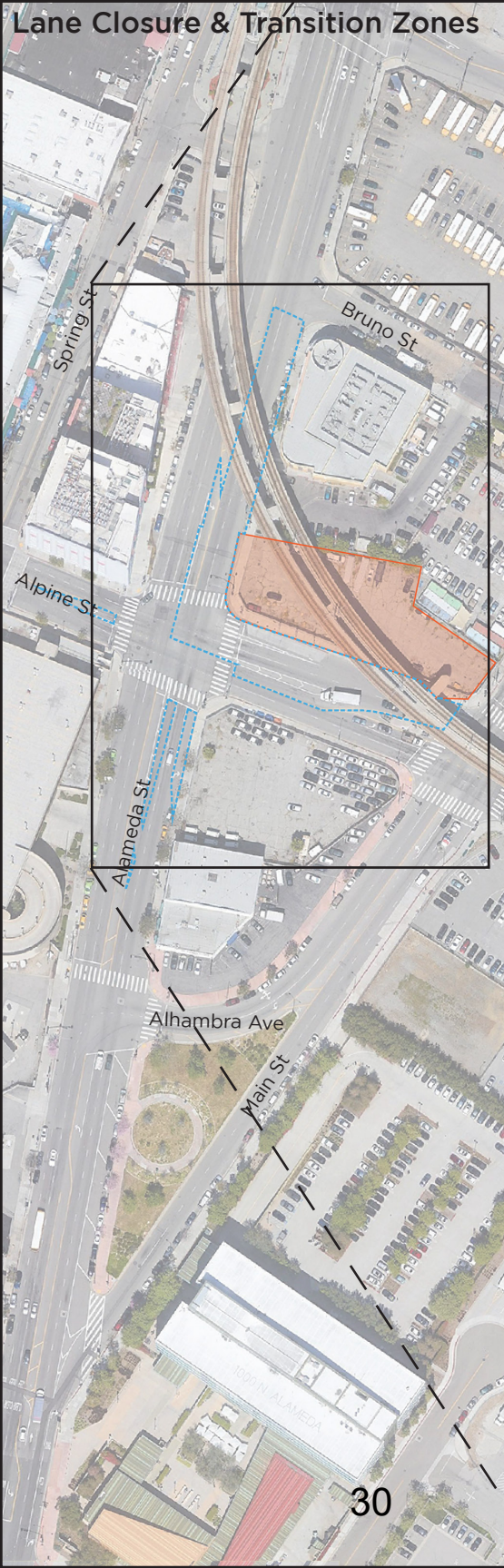
#### Lanes and sidewalks closures

- No lane closures, except for asphalt/ re-striping closures
- North sidewalks

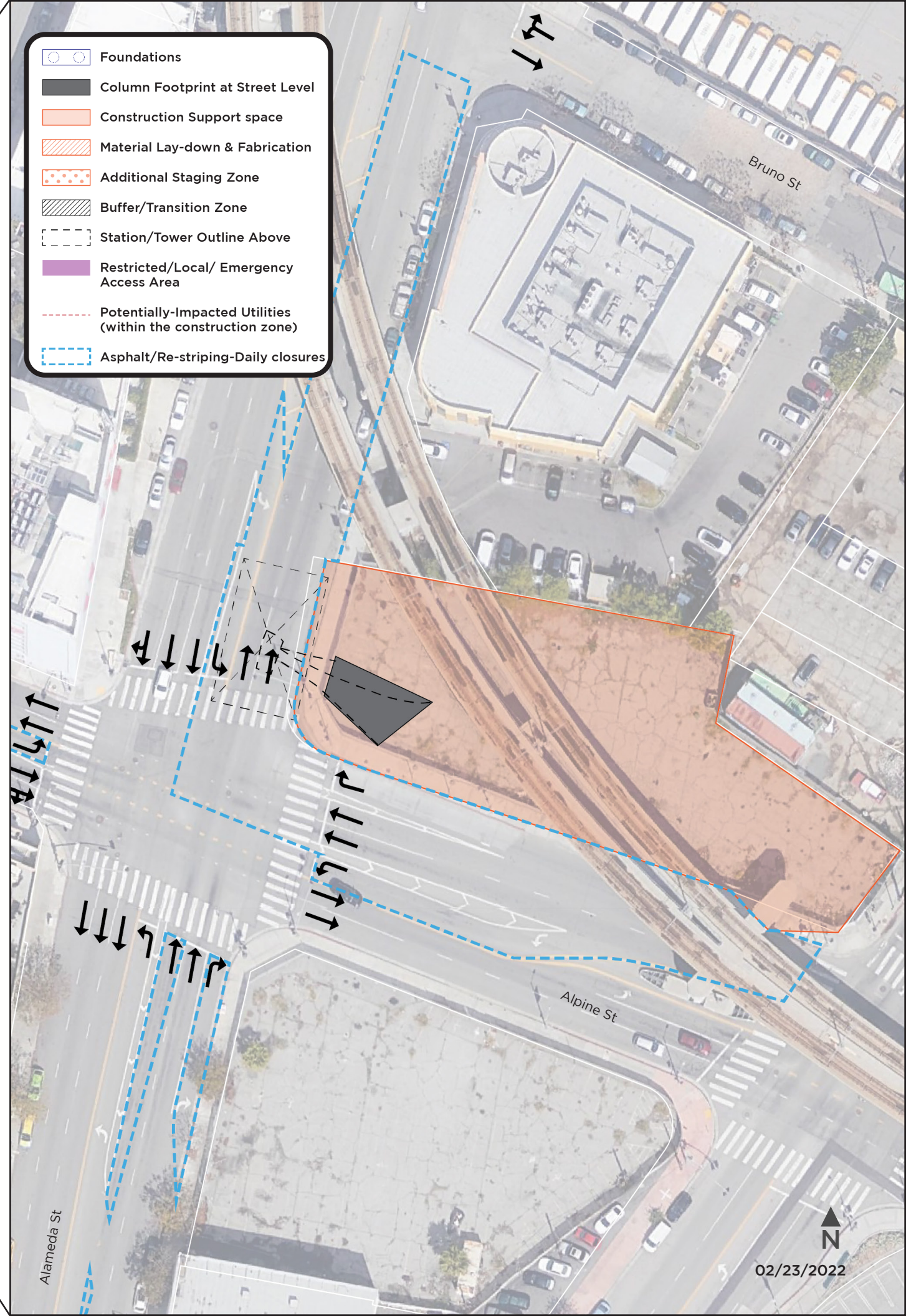
#### Lanes and sidewalks to remain open

- All lanes
- South sidewalks

### Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Asphalt/Re-striping-Daily closures



# Alpine Tower

# Build-Out

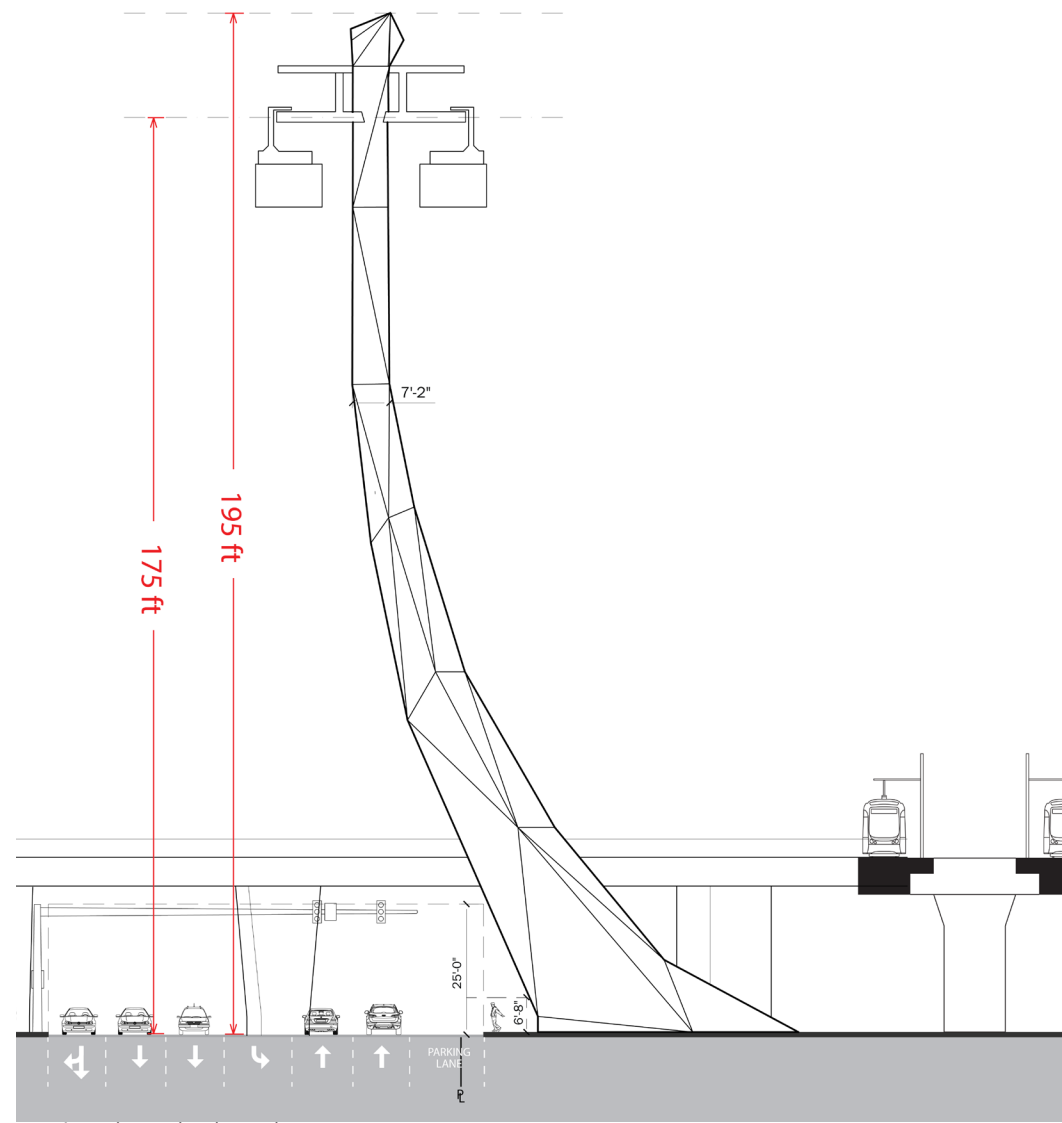
## Build-Out Conditions

Build-out conditions for Alameda Street at the proposed location for Alpine Tower:

- 2 NB through lanes
- 1 SBL turn lane
- 2 SB through lanes
- 1 SB through-right lane

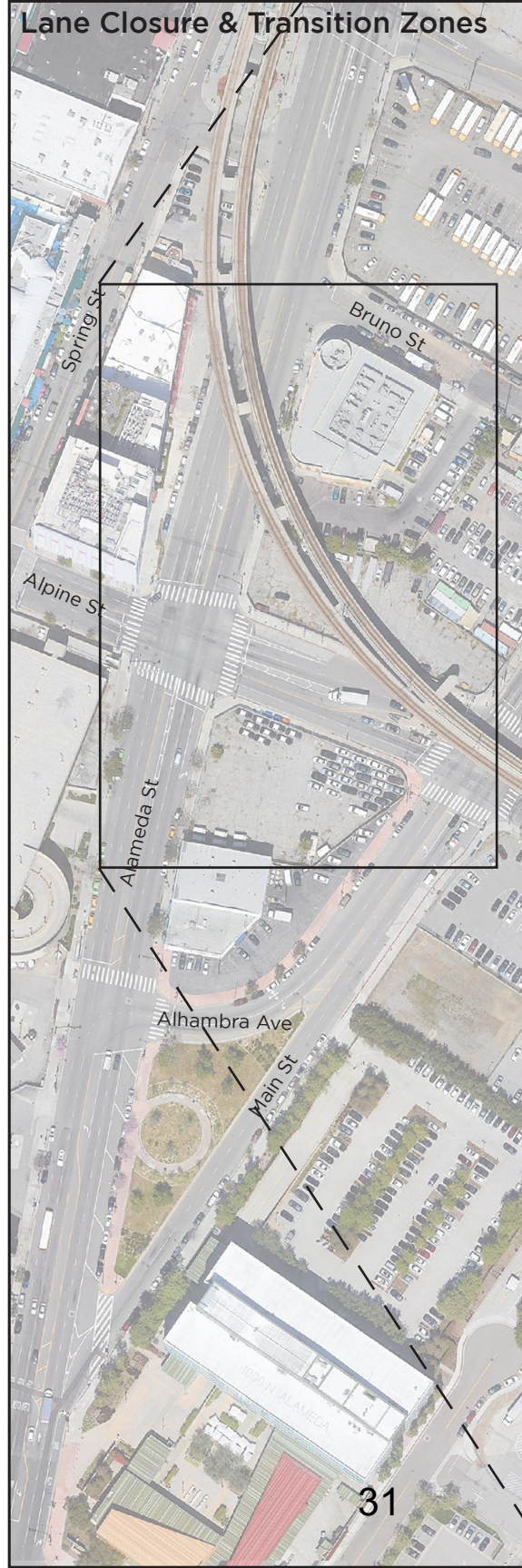
Build-out conditions for Alpine Street along the proposed location for Alpine Tower:

- 2 WB through lanes
- 1 WBL turn lane
- 1 WBR turn lane
- 2 EB through lanes

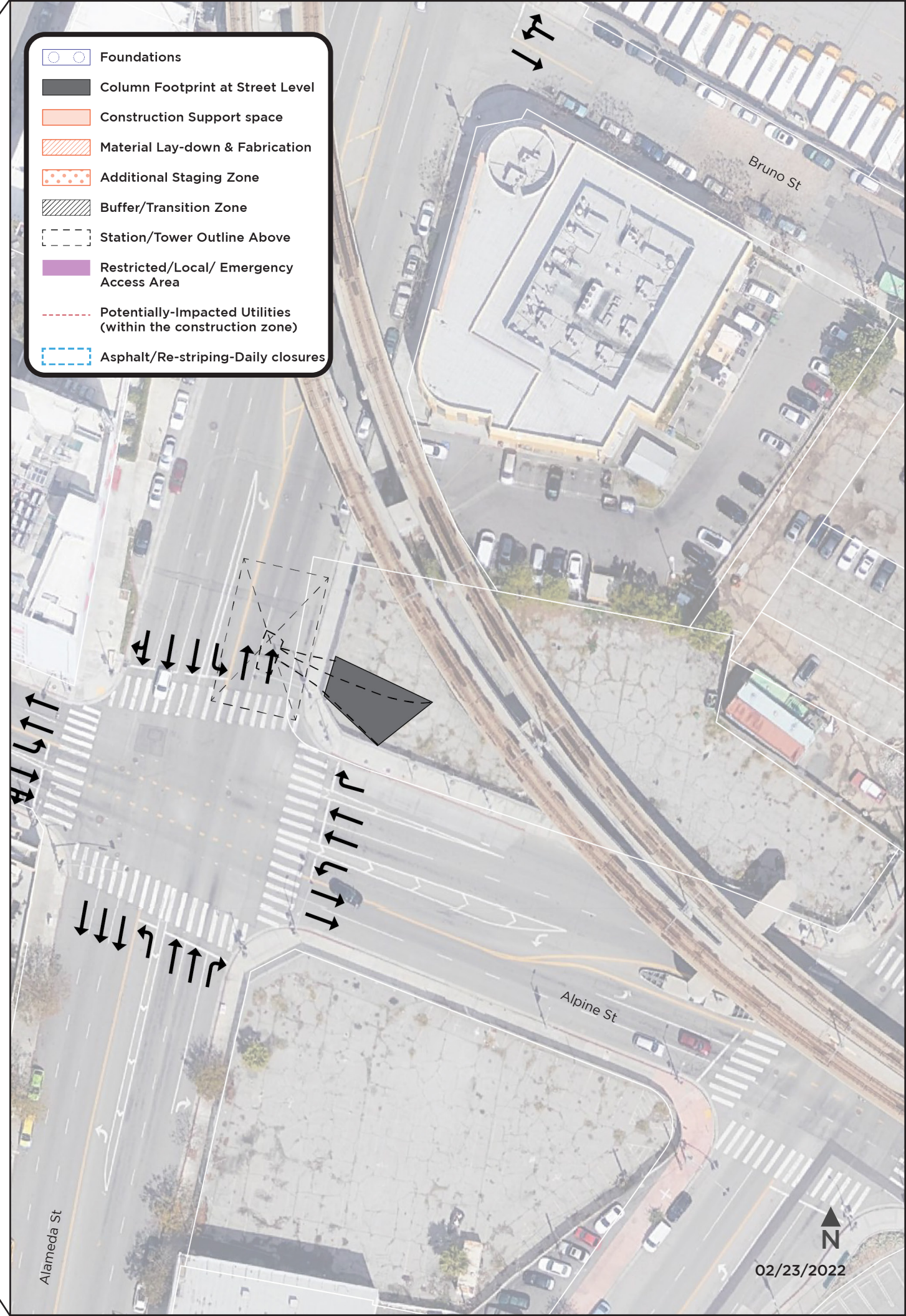


Section Through Alameda Street

## Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Asphalt/Re-striping-Daily closures





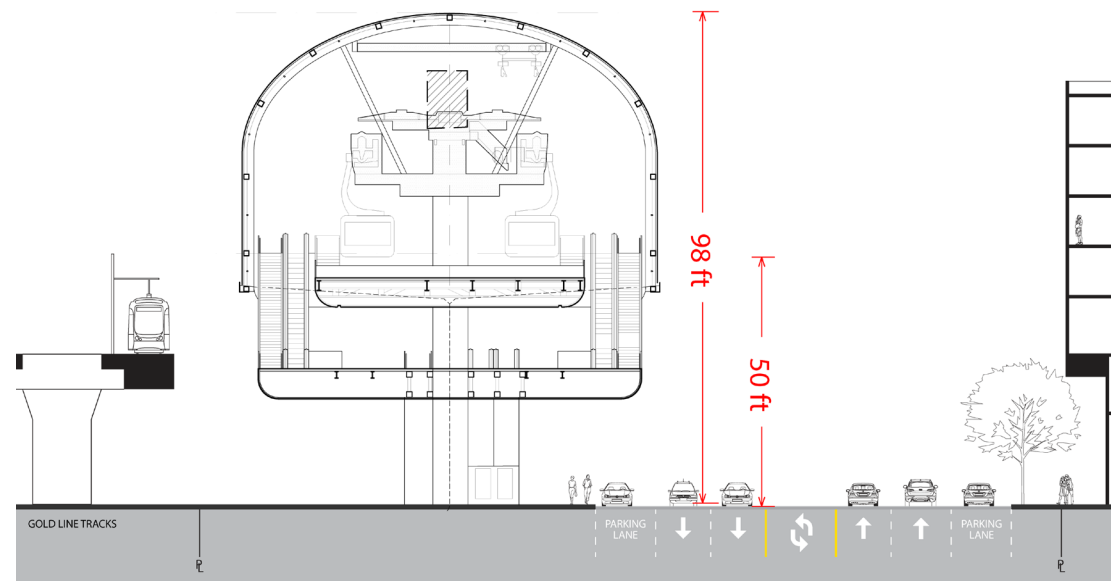


# Chinatown / State Park Station | Existing

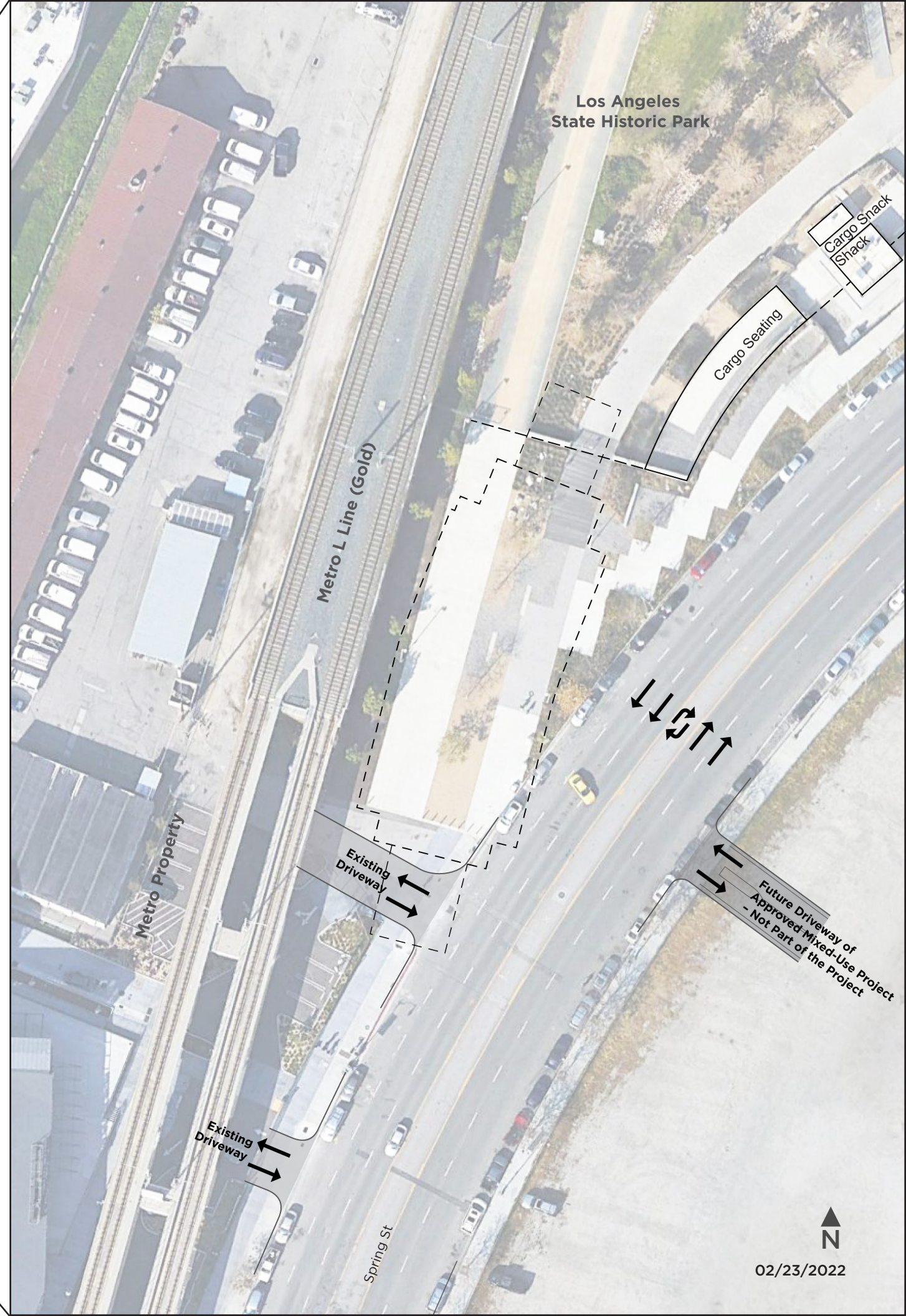
## Existing Conditions

Existing conditions for Spring Street at the proposed location for Chinatown / State Park Station:

- Two-Way left turn lane
- 2 NB through lanes + parallel parking lane
- 2 SB through lanes + parallel parking lane



Lane Closure & Transition Zones



# Chinatown / State Park Station

## Foundations and Columns 21 weeks

Required area for Construction  
60,800 sqft

### Lanes and sidewalks closures

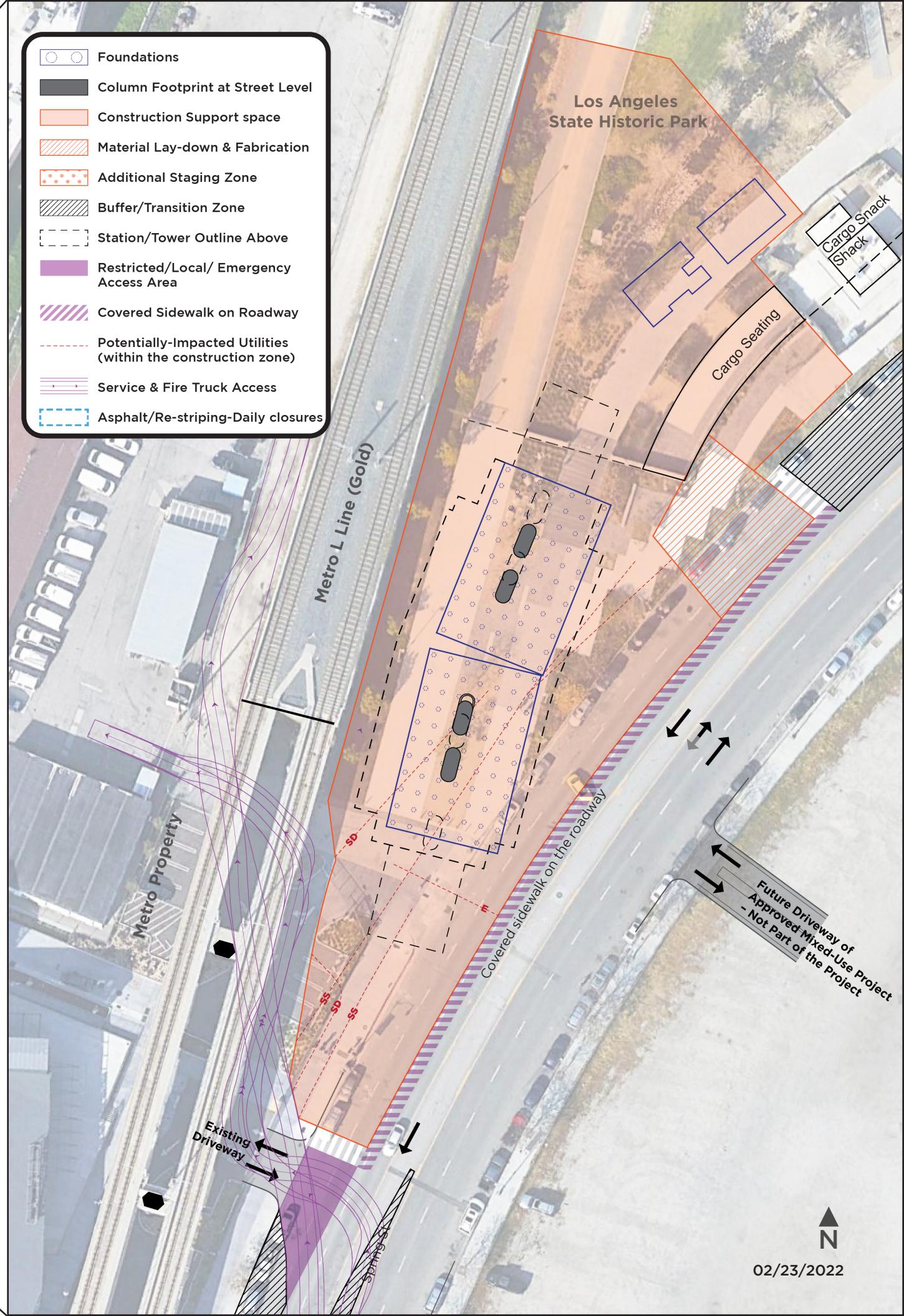
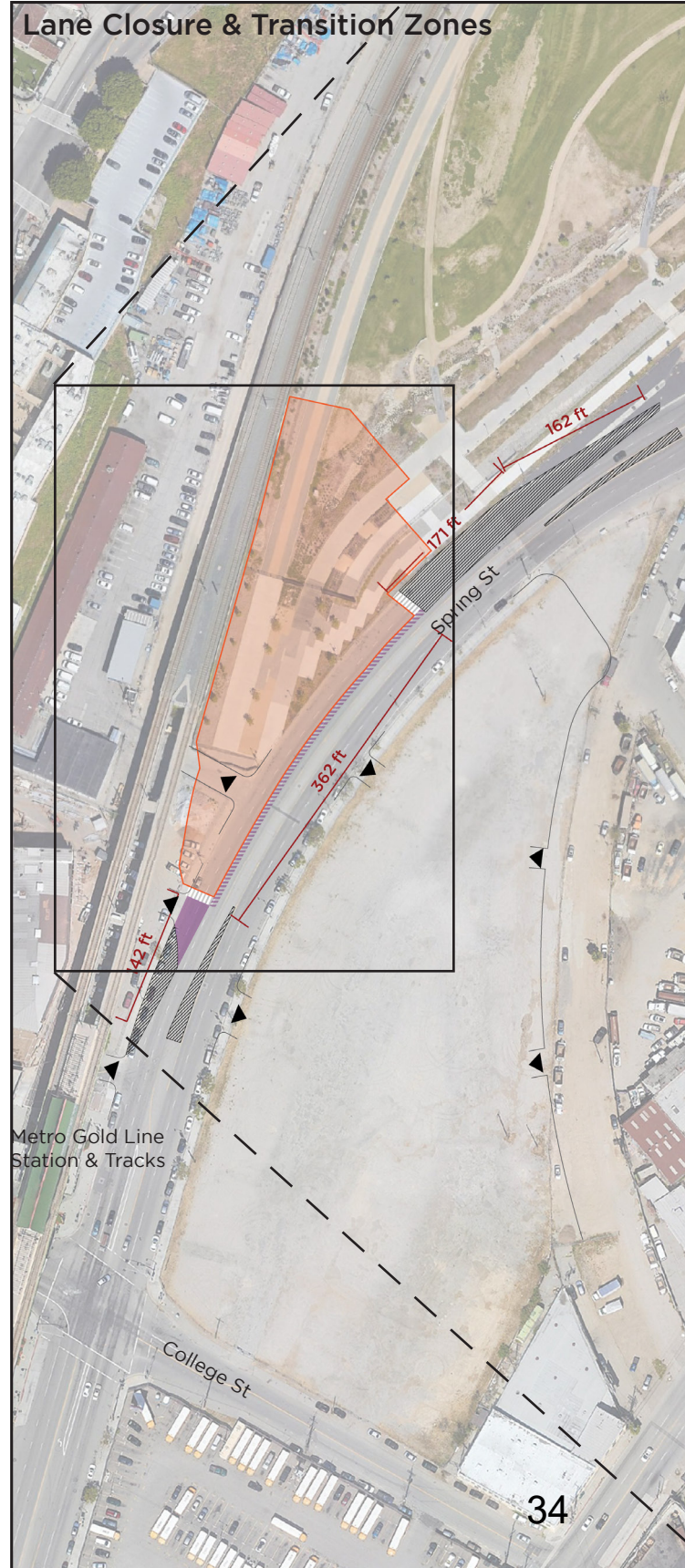
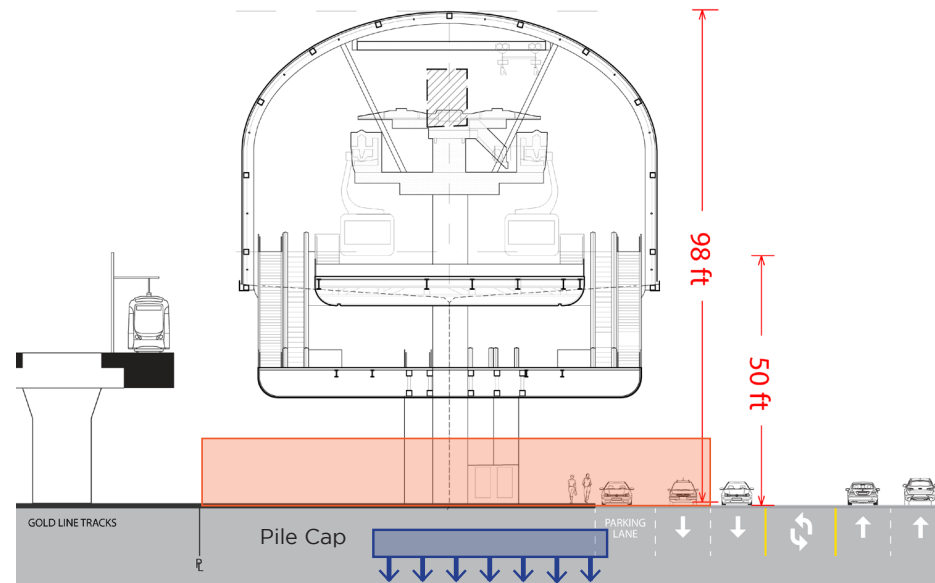
- 2 SB through lanes
- Two-Way left turn lane
- SB parallel parking lane
- West sidewalk (Partial sidewalk detour required)

### Pile Overview

154 total piles; each 2' DIA, up to 80 ft deep below the pile cap

### Lanes and sidewalks to remain open

- 1 SB through lane (Two-Way left turn lane will be used as a SB through lane during construction)
- 1 reversible through lane to be used in the peak direction (e.g. SB in the AM, NB in the PM) in 1 NB through lane during construction
- 1 NB through lane
- NB parallel parking lane
- East sidewalk



# Chinatown / State Park Station

## Structural Steel and Gondola Equipment Erection 28 weeks

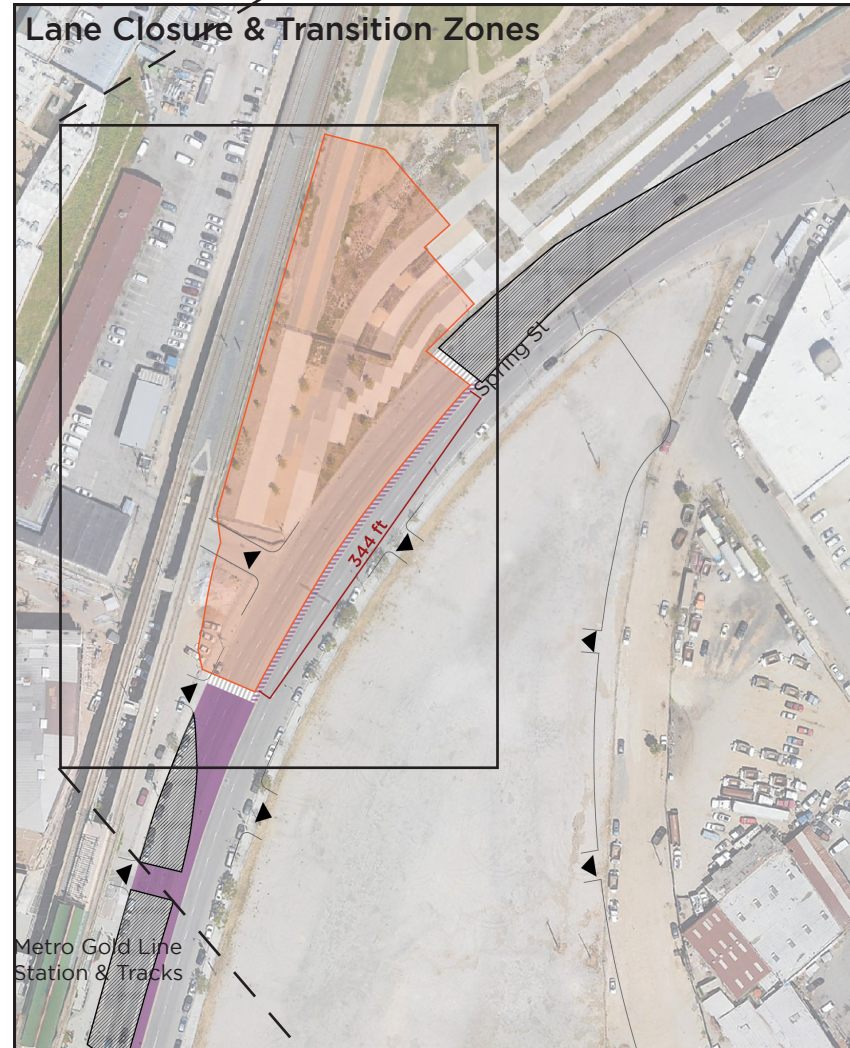
Required area for Construction  
69,000 sqft

### Lanes and sidewalks closures

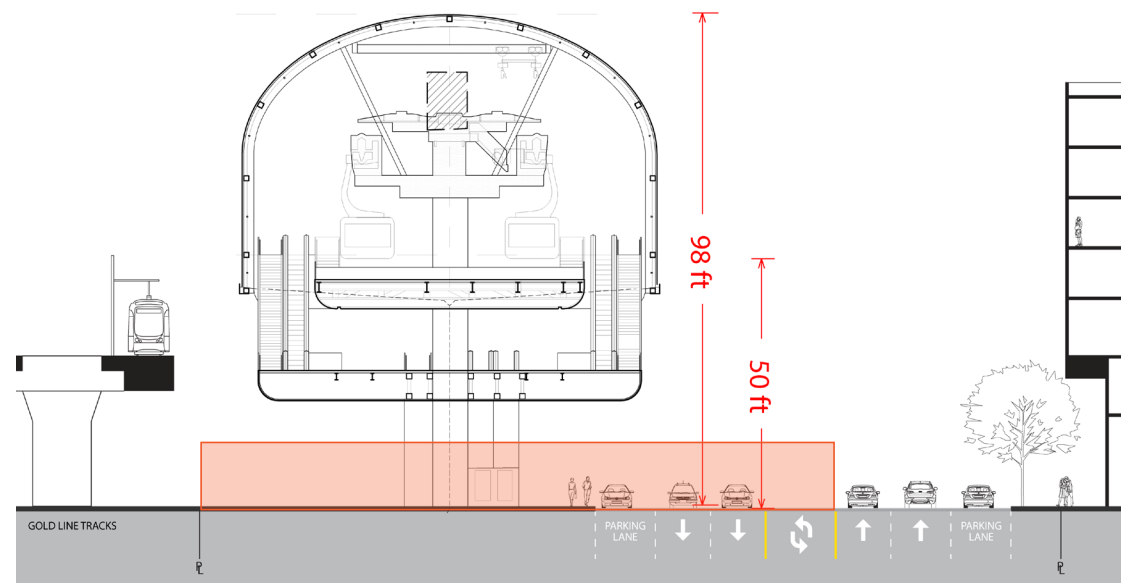
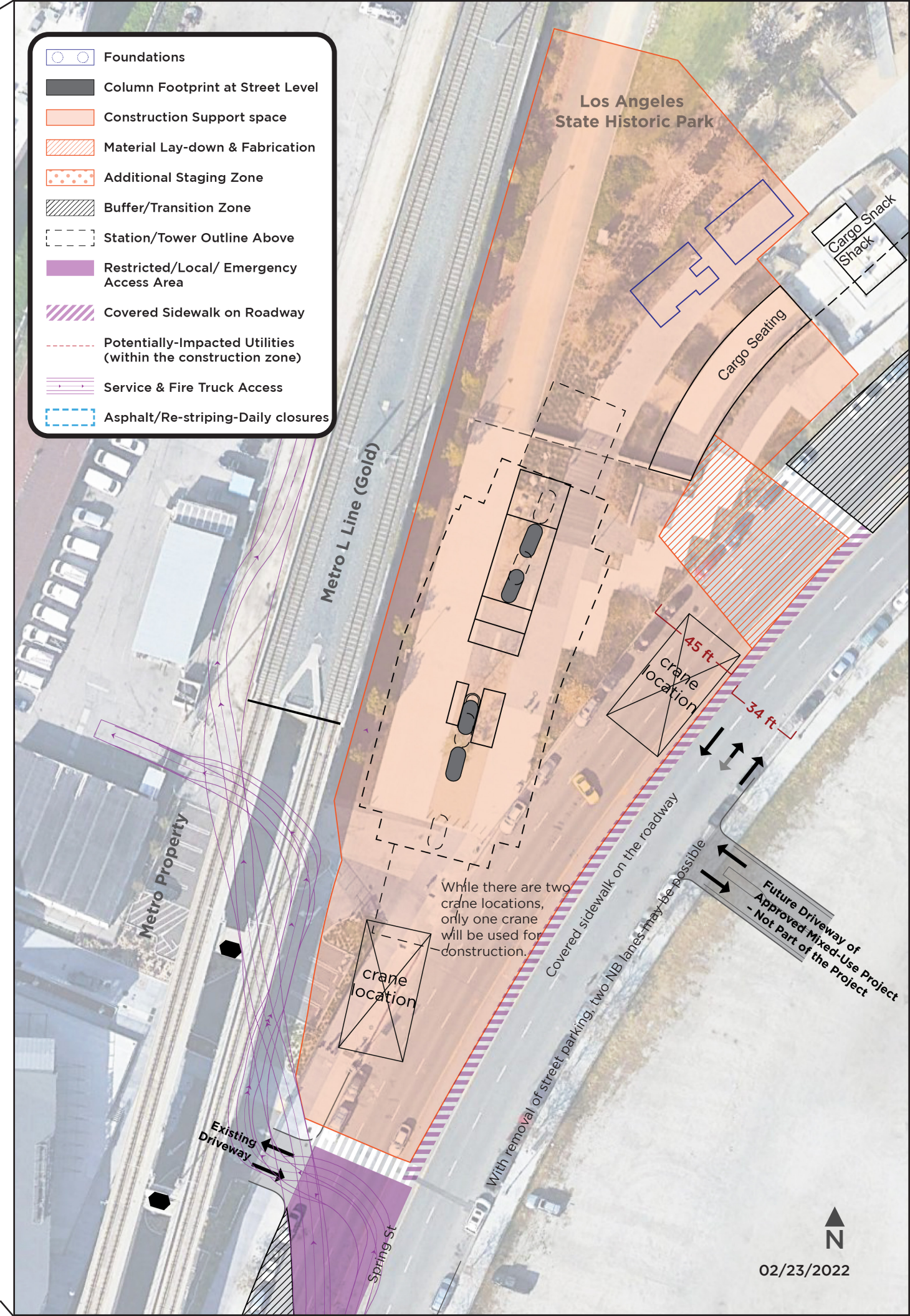
- Two-Way left turn lane
- 2 SB through lanes
- SB parallel parking lane
- 1 NB parallel parking lane
- 1 NB through lane
- West sidewalk (Partial sidewalk detour required)

### Lanes and sidewalks to remain open

- 1 NB through lane (parallel parking lane will be used as a NB through lane during construction)
- 1 SB through lane (Two-Way left turn lane/ portions of 1 NB through lane will be used as a SB through lane during construction)
- 1 reversible through lane to be used in the peak direction (e.g. SB in the AM, NB in the PM) in 1 NB through lane during construction
- East sidewalk



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Covered Sidewalk on Roadway
	Potentially-Impacted Utilities (within the construction zone)
	Service & Fire Truck Access
	Asphalt/Re-striping-Daily closures



# Chinatown / State Park Station

## Vertical Circulation/ Hardscape and Landscape/ Interior Work 40 weeks

**Curbs, Medians, Asphalt & Re-striping Periodic Closures for 10 working days within a 21-week duration period**

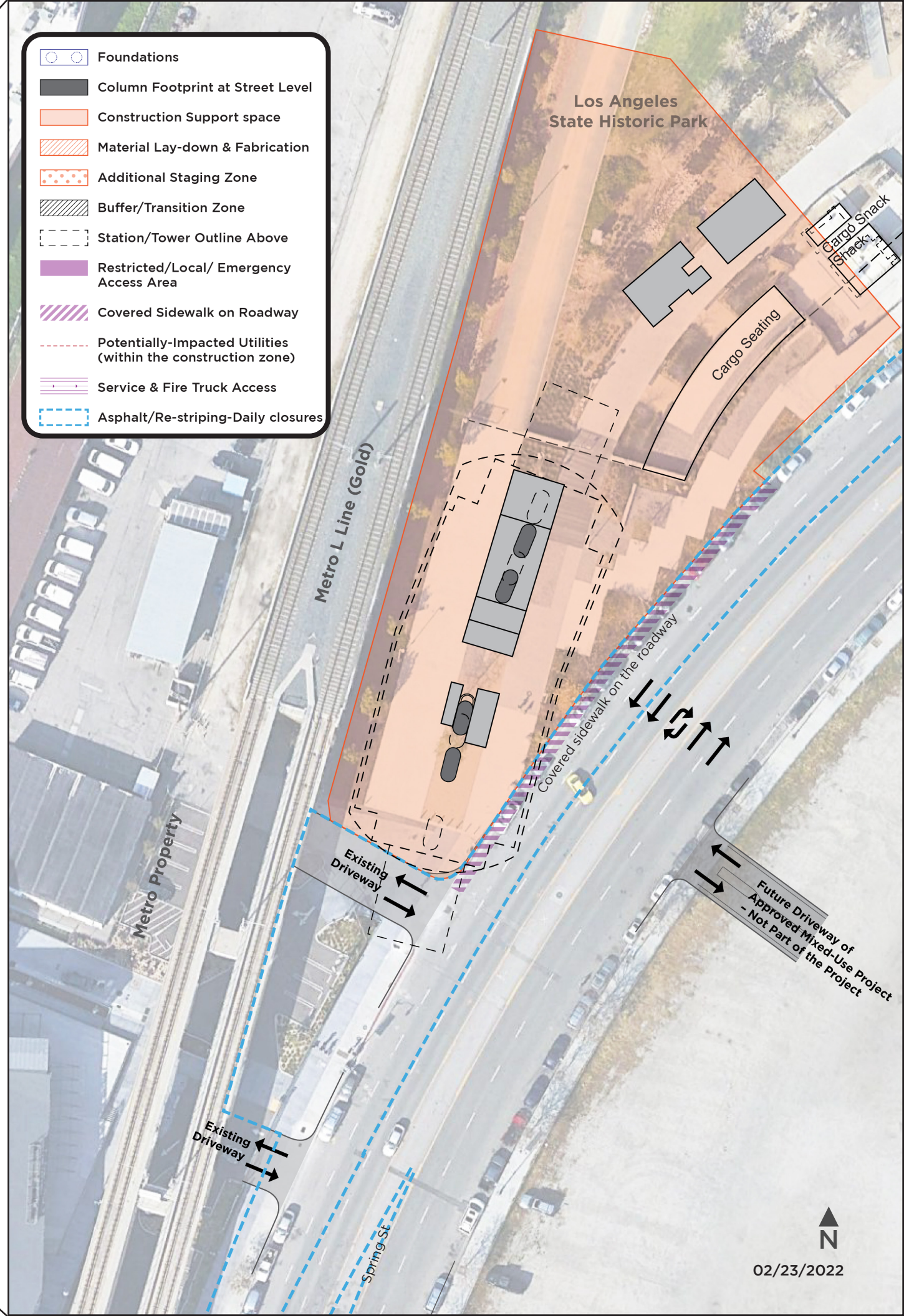
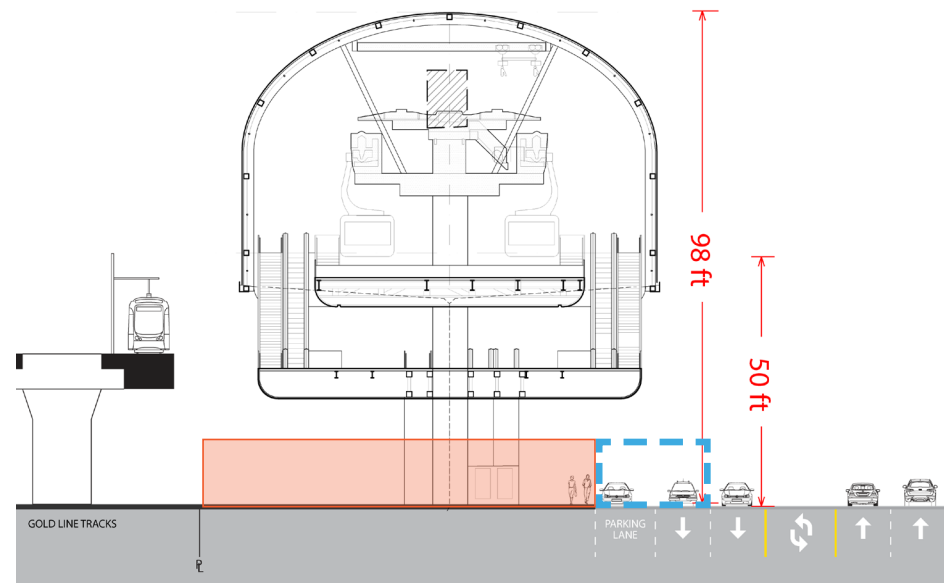
Required area for Construction  
48,800 sqft

### Lanes and sidewalks closures

- No lane closures, except for asphalt/ re-striping closures
- West sidewalk (Partial sidewalk detour required)
- 1 SB parallel parking lane

### Lanes and sidewalks to remain open

- All lanes
- East sidewalk

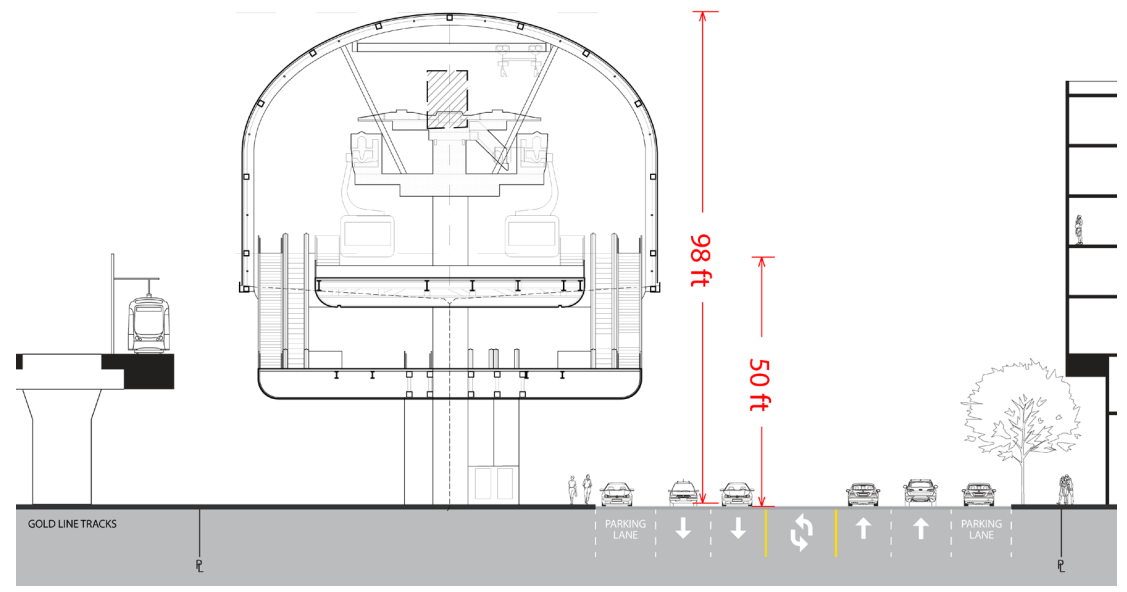


# Chinatown / State Park Station | Build-Out

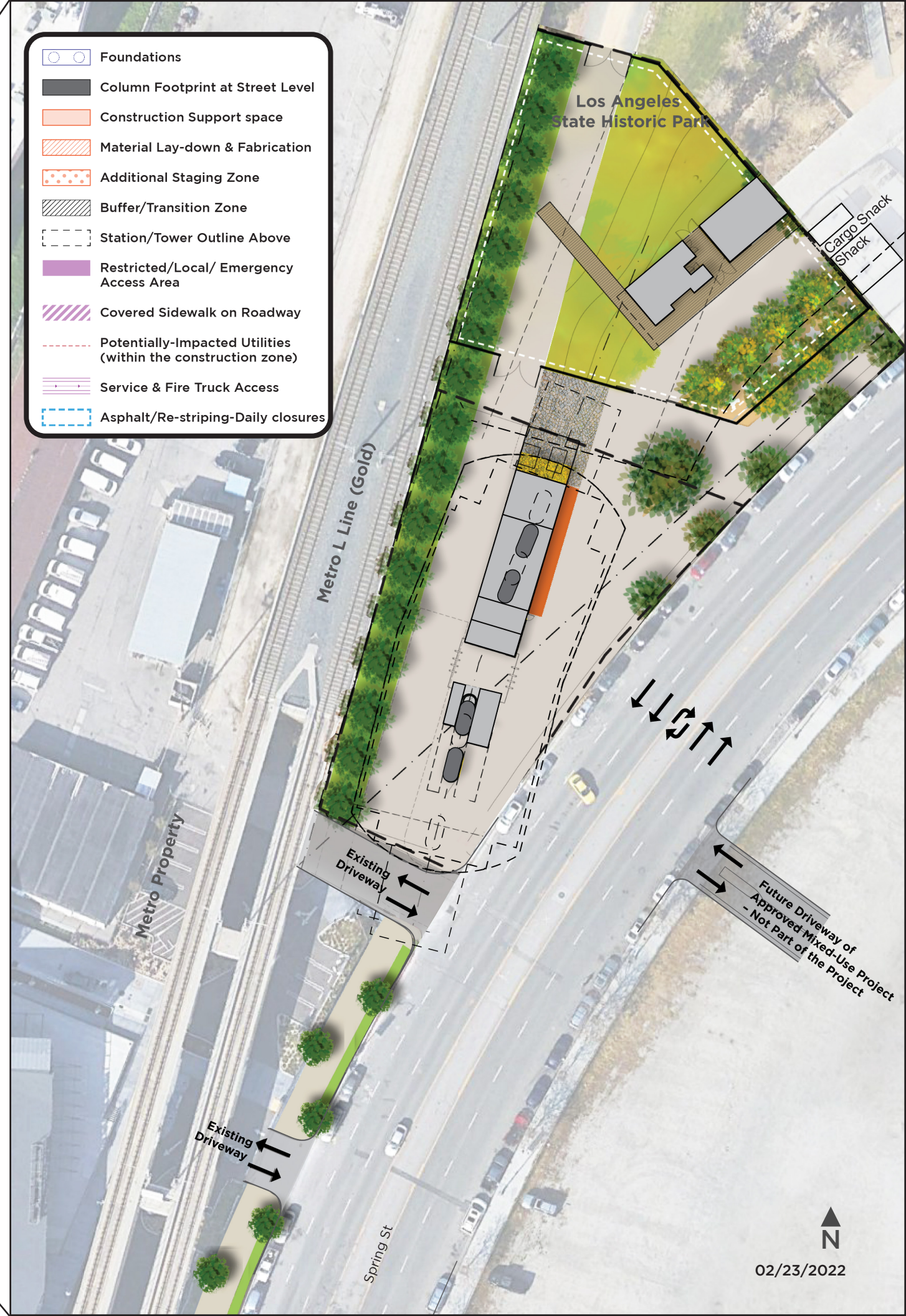
## Build-Out Conditions

Build-out conditions for Spring Street at the proposed location for Chinatown / State Park Station:

- Two-Way left turn lane
- 2 NB through lanes + parallel parking lane
- 2 SB through lanes + parallel parking lane



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Covered Sidewalk on Roadway
	Potentially-Impacted Utilities (within the construction zone)
	Service & Fire Truck Access
	Asphalt/Re-striping-Daily closures





# Broadway Junction | Existing

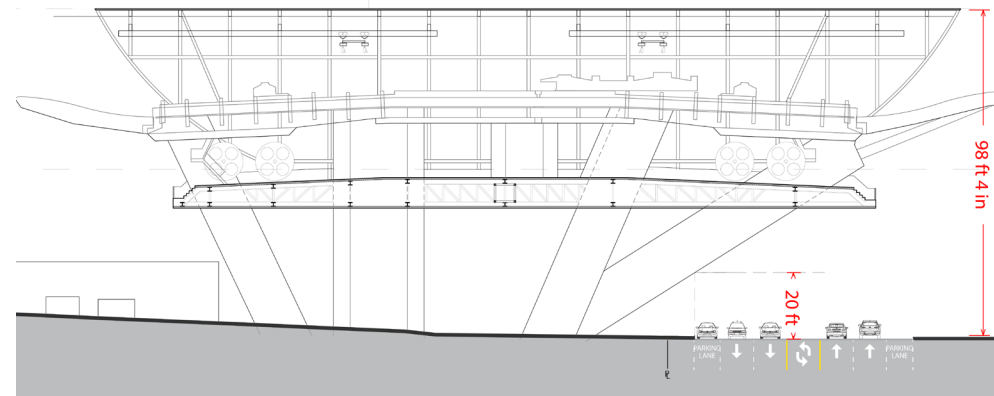
## Existing Conditions

Existing conditions for North Broadway along the proposed location for the Broadway Junction:

- 1 NBL turn lane
- 2 NB through lanes
- 1 SB through lane
- 1 SB through-right lane

Existing conditions for Bishops Road along the proposed location for the Broadway Junction:

- 1 WB through lane
- 1 shared EBL/ EBR turn lane



# Broadway Junction

## Foundations and Columns 28 weeks

Required area for Construction  
50,500 sqft

### Pile Overview

45 total piles; each 3' DIA,  
up to 120 ft deep below the  
pile cap

### North Broadway

#### Lanes and sidewalks closures

- 1 NBL turn lane
- SB parallel parking lane
- West sidewalk (Partial sidewalk detour required)

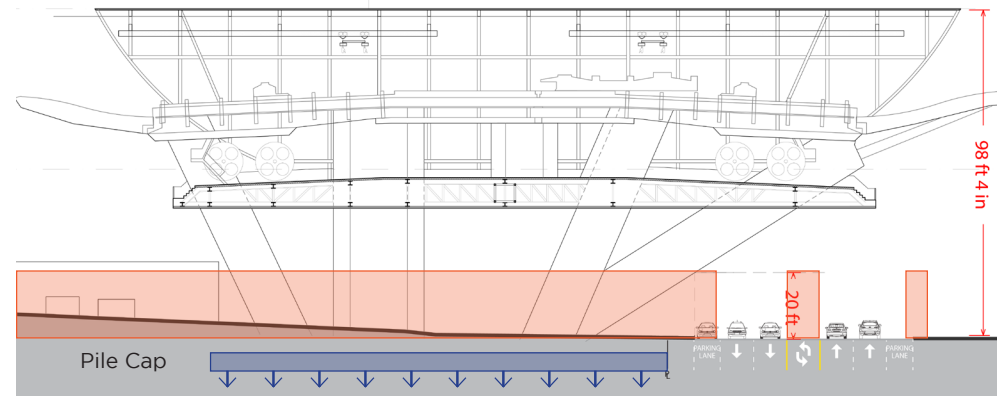
#### Lanes and sidewalks to remain open

- 2 NB through lanes (Left turn allowed)
- 1 SB through lane
- 1 SB through-right lane
- East sidewalk

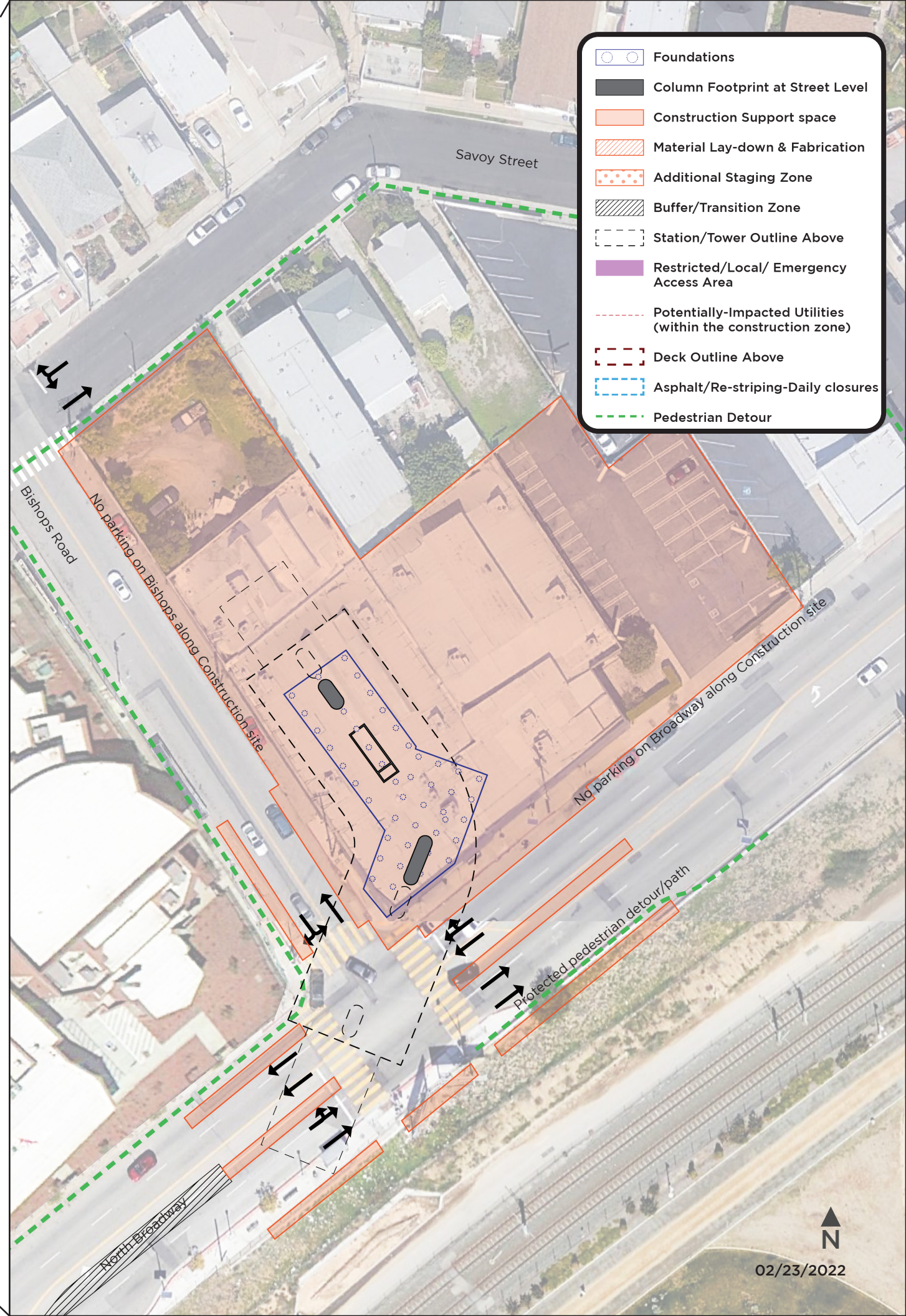
### Bishops Road

#### Lanes and sidewalks to remain open

- All travel lanes
- South sidewalk



### Lane Closure & Transition Zones





# Broadway Junction

## Deck Shoring, Cribbing & Erection 2 weeks

Required area for Construction  
65,000 sqft

### North Broadway

#### Lanes and sidewalks closures

- 1 NBL turn lane/center left turn lane
- 2 NB through lanes
- 1 SB through lane
- 1 SB through-right lane
- NB and SB parallel parking lanes
- West sidewalk (Partial sidewalk detour required)

#### Lanes and sidewalks to remain open

- No lanes open
- East sidewalk

### Bishops Road

#### Lanes and sidewalks closures during

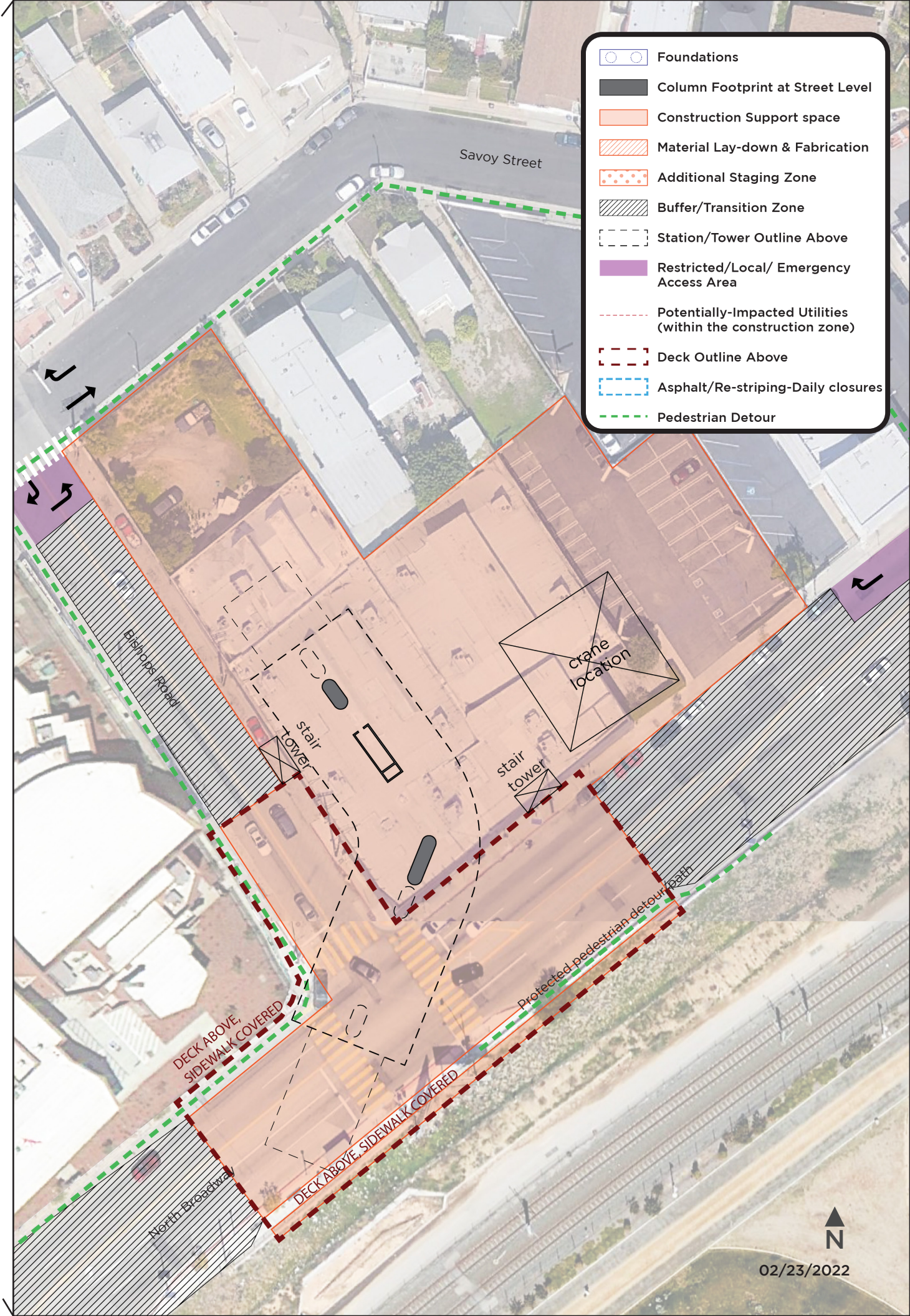
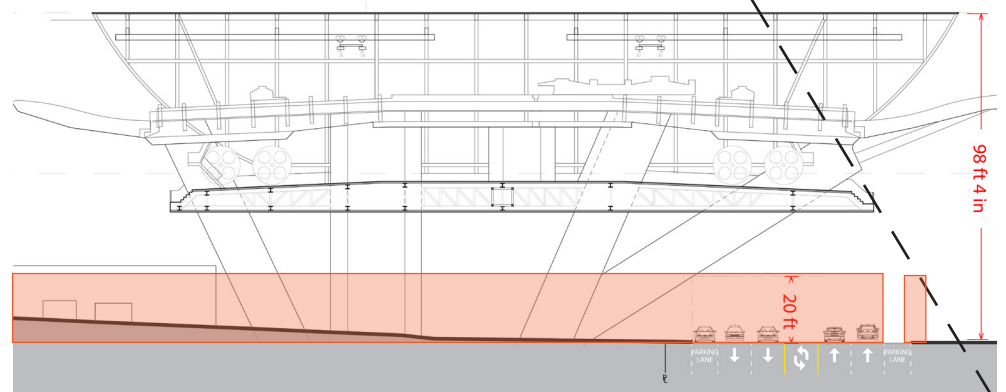
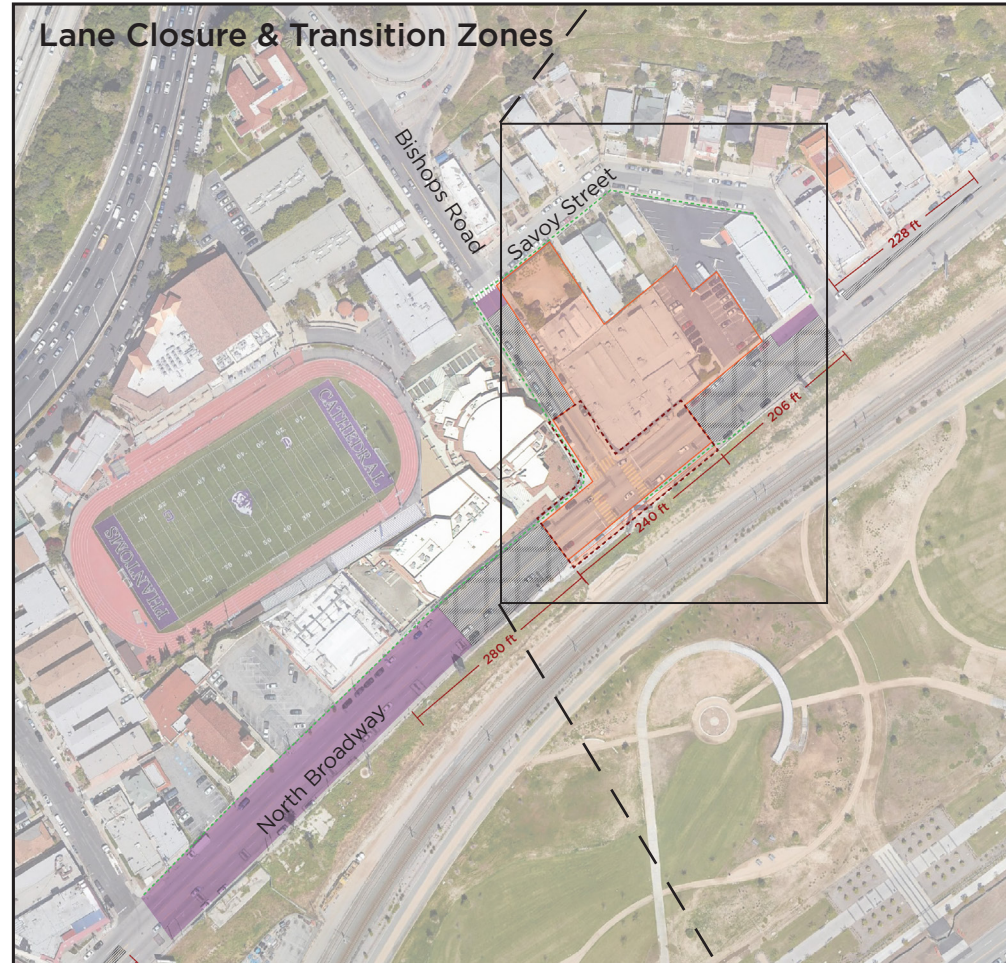
- 1 shared EBL/ EBR turn lane
- 1 WB through lane
- EB parallel parking lane

#### Lanes and sidewalks to remain open

- No lanes open (Potential use as drop-off area subject to LADOT approval given u-turn limitations of roadway cross-section)
- South sidewalk

#### Restricted/Local/Emergency Access

Provide restricted/local/ Emergency Access for adjacent properties.



# Broadway Junction

## Structural Steel and Gondola Equipment Erection 38 weeks

Required area for Construction  
50,500 sqft

### North Broadway

#### Lanes and sidewalks closures

- 1 NBL turn lane
- SB parallel parking lane
- West sidewalk (Partial sidewalk detour required)

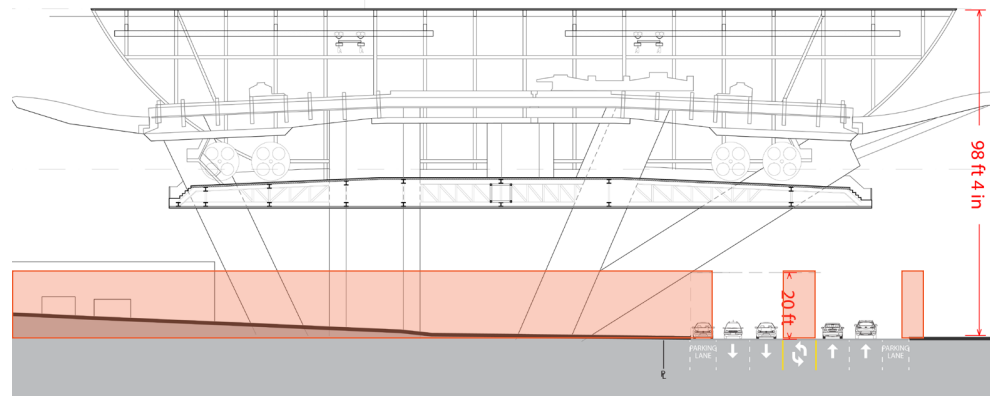
#### Lanes and sidewalks to remain open

- 2 NB through lanes (Left turn permitted)
- 1 SB through lane
- 1 SB through-right lane
- East sidewalk

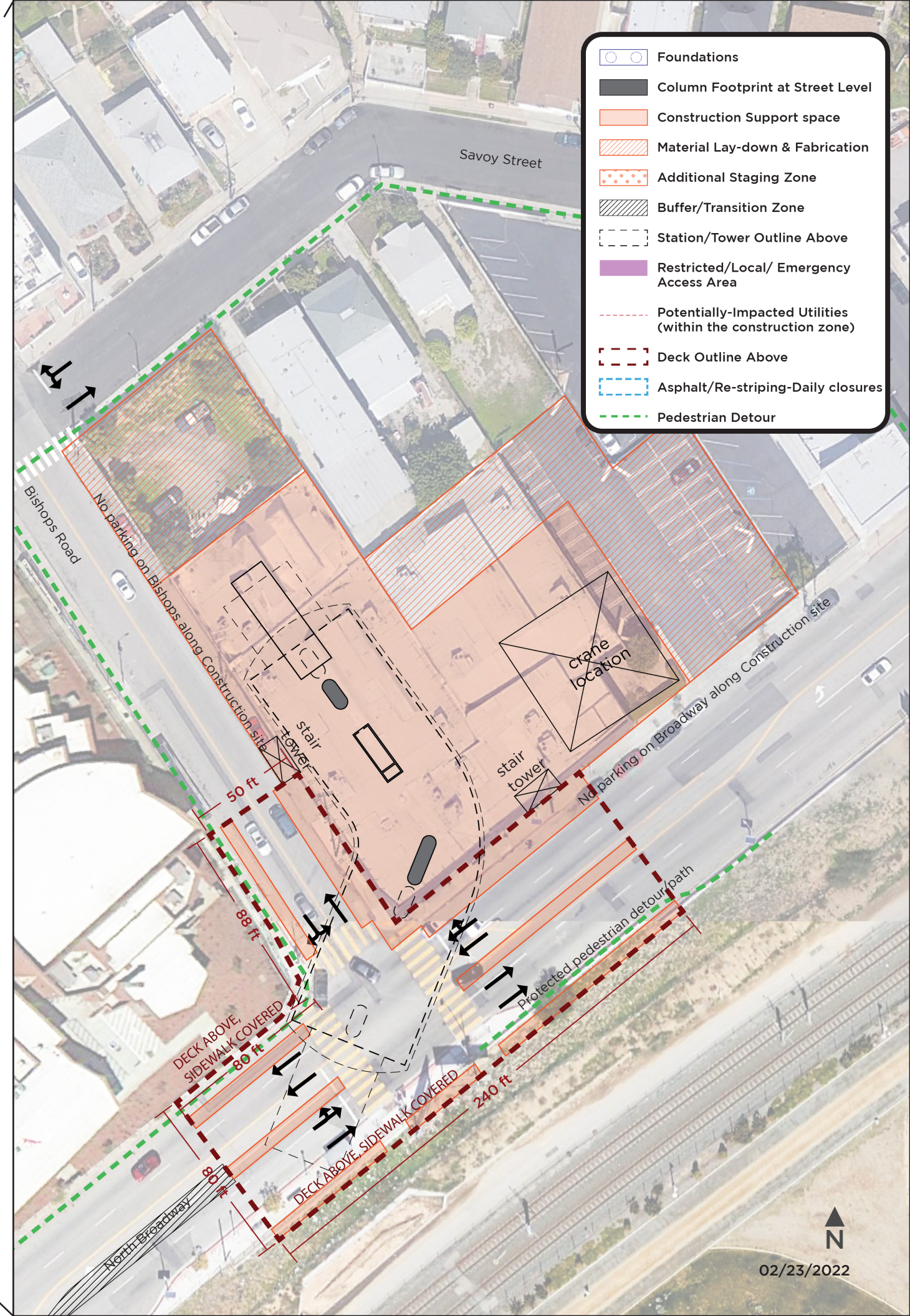
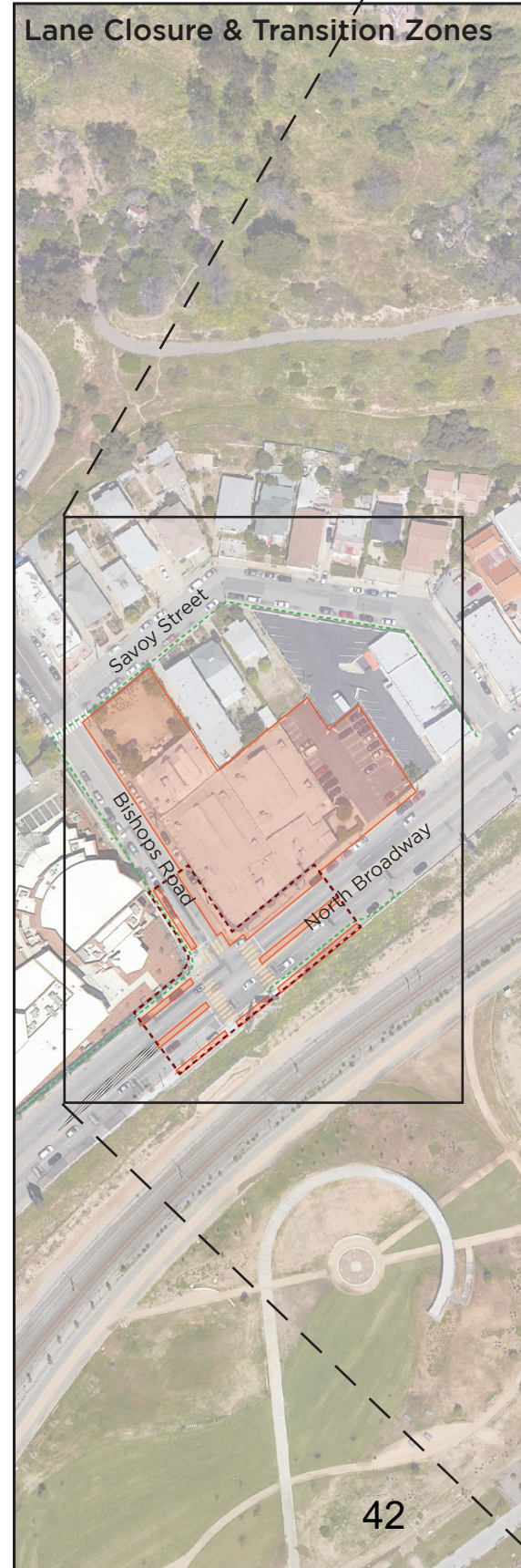
### Bishops Road

#### Lanes and sidewalks to remain open

- All travel lanes
- South sidewalk



### Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Deck Outline Above
	Asphalt/Re-striping-Daily closures
	Pedestrian Detour

# Broadway Junction

## Deck Removal

**3 weeks** (Overlaps with Vertical Circulation/ Hardscape and Landscape/ Interior Work)

Required area for Construction  
65,000 sqft

### North Broadway

#### Lanes and sidewalks closures

- 1 NBL turn lane/center left turn lane
- 2 NB through lanes
- 1 SB through lane
- 1 SB through-right lane
- NB and SB parallel parking lanes
- West sidewalk (Partial sidewalk detour required)

#### Lanes and sidewalks to remain open

- No lanes open
- East sidewalk

### Bishops Road

#### Lanes and sidewalks closures during

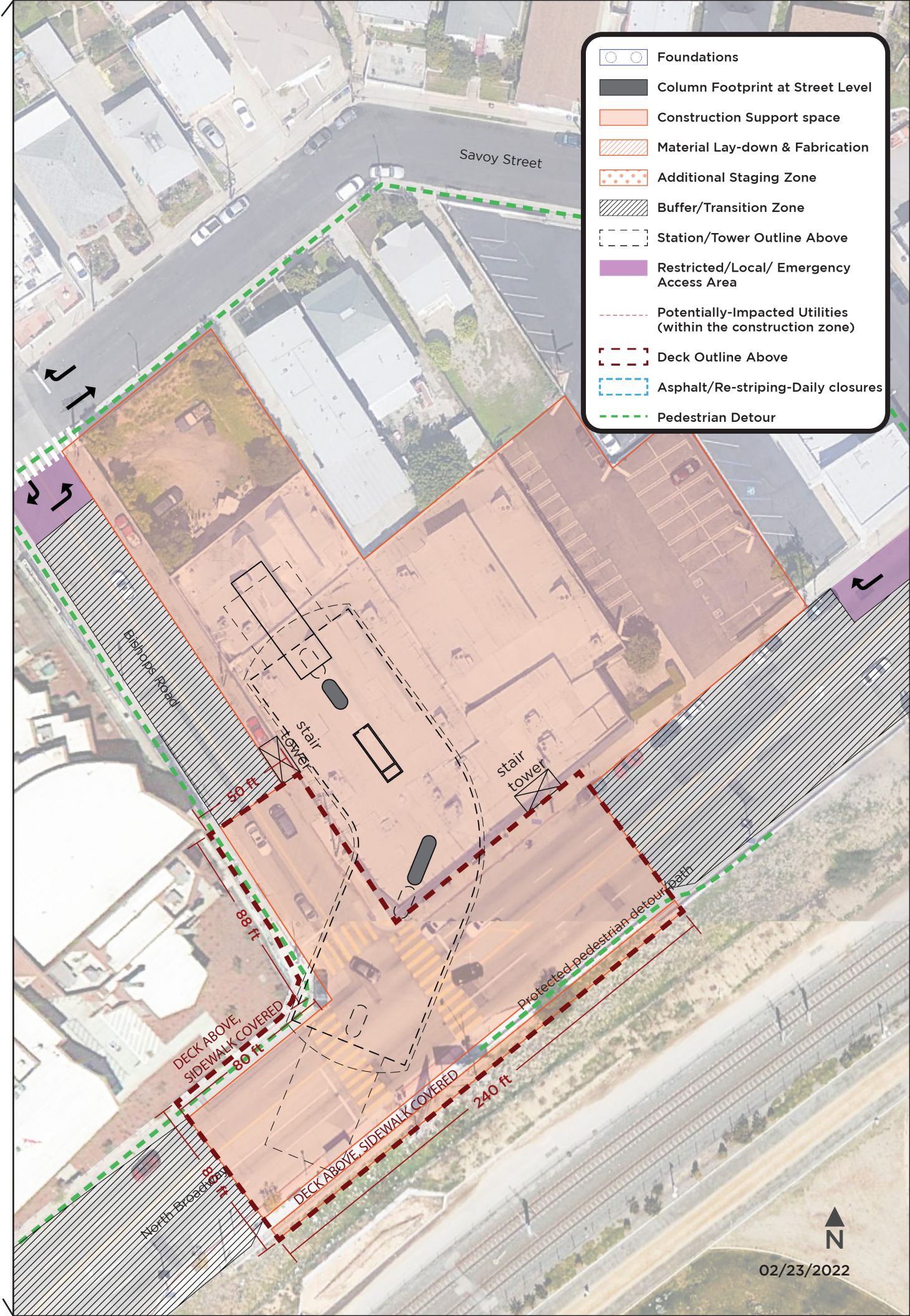
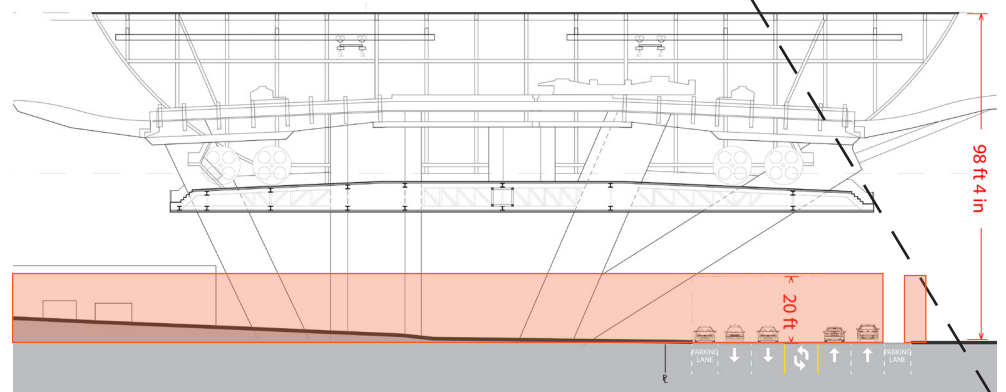
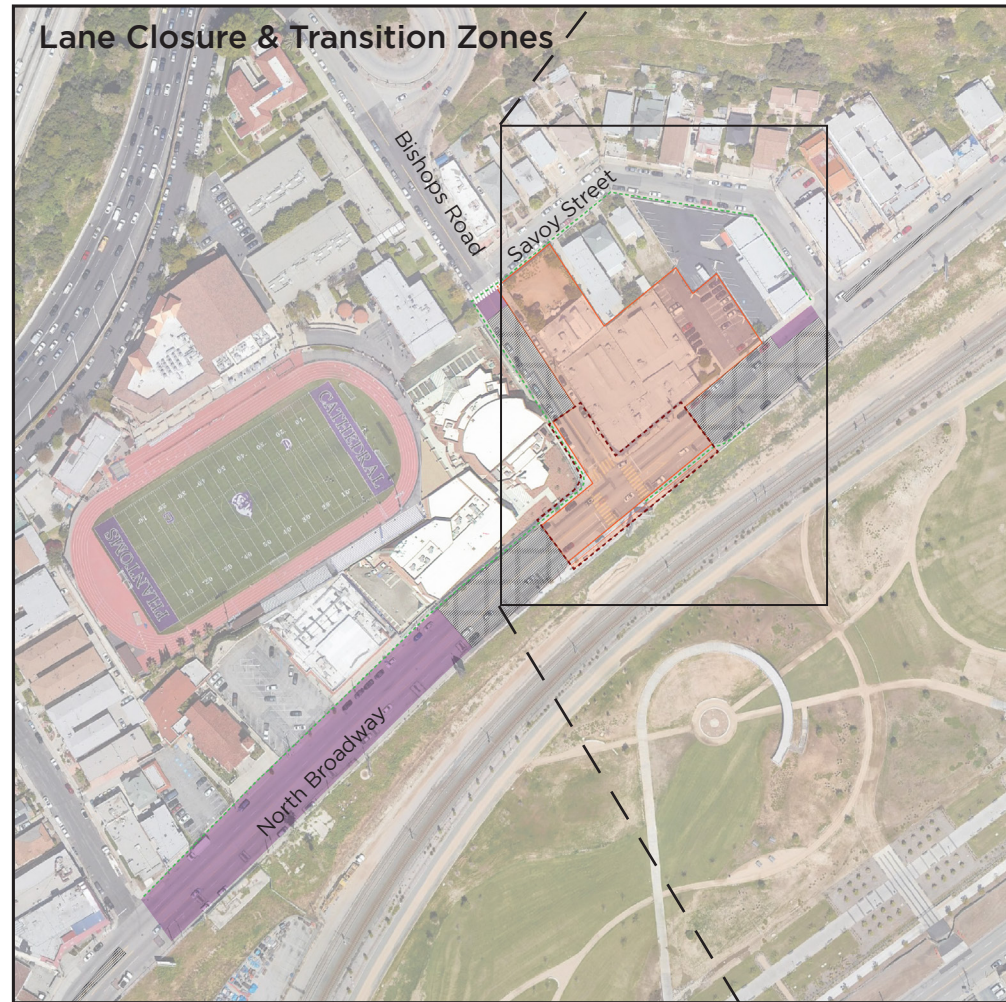
- 1 shared EBL/ EBR turn lane
- 1 WB through lane
- EB parallel parking lane

#### Lanes and sidewalks to remain open

- No lanes open (Potential use as drop-off area subject to LADOT approval given u-turn limitations of roadway cross-section)
- South sidewalk

### Restricted/Local/Emergency Access

Provide restricted/local/ Emergency Access for adjacent properties.



# Broadway Junction

## Vertical Circulation/ Hardscape and Landscape/ Interior Work 29 weeks

**Curbs, Medians, Asphalt & Re-striping Periodic Closures for 10 working days within a 10-week duration period**

Required area for Construction  
41,900 sqft

### North Broadway

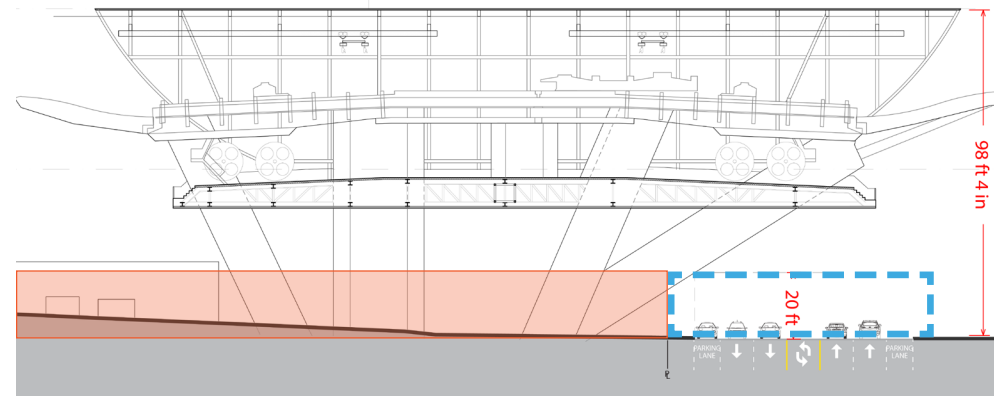
#### Lanes and sidewalks closures

- No lane closures, except for asphalt/ re-striping closures
- West sidewalk for asphalt/ re-striping closures

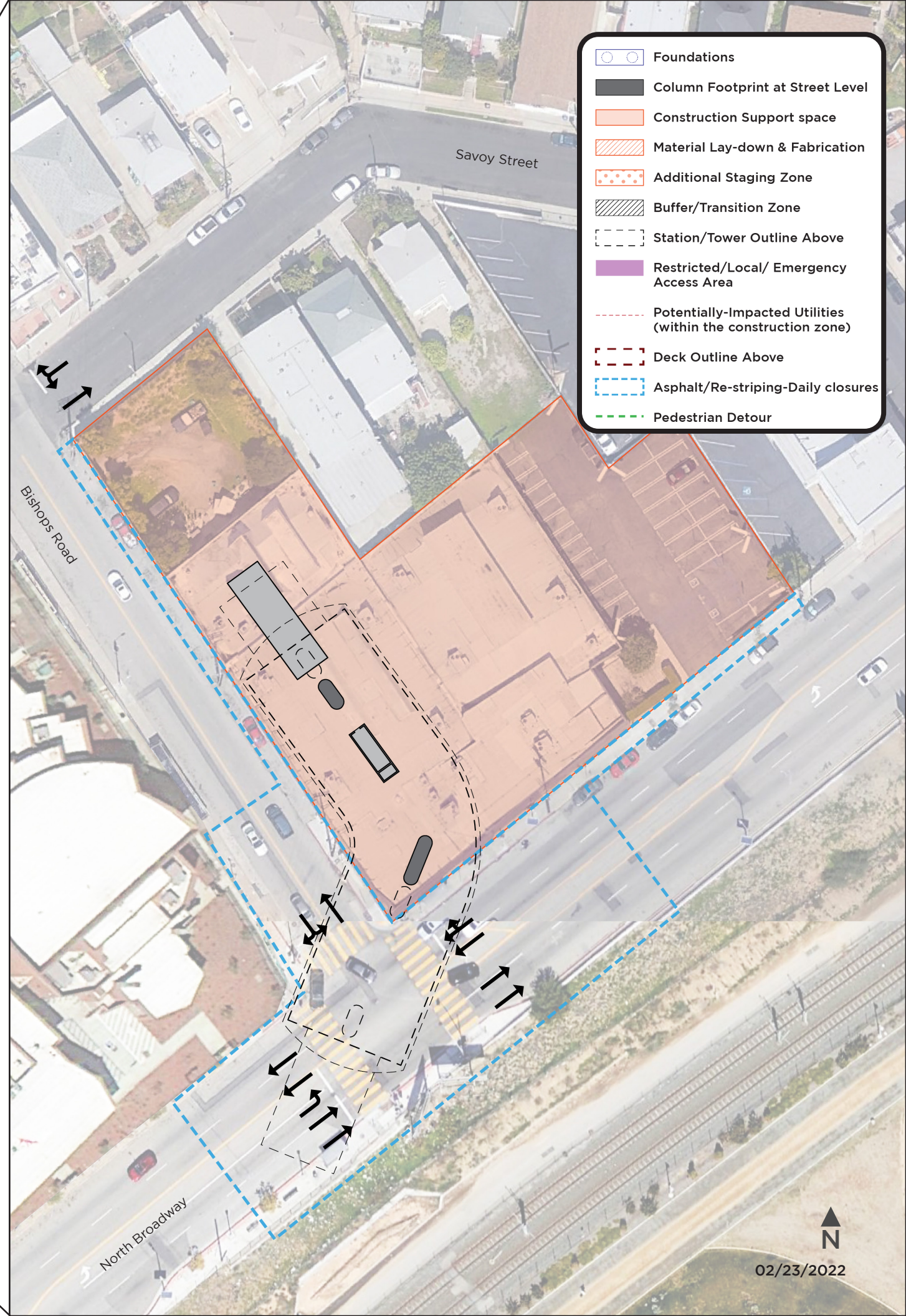
### Bishops Road

#### Lanes and sidewalks closures

- No lane closures, except for asphalt/ re-striping closures



### Lane Closure & Transition Zones



	Foundations
	Column Footprint at Street Level
	Construction Support space
	Material Lay-down & Fabrication
	Additional Staging Zone
	Buffer/Transition Zone
	Station/Tower Outline Above
	Restricted/Local/ Emergency Access Area
	Potentially-Impacted Utilities (within the construction zone)
	Deck Outline Above
	Asphalt/Re-striping-Daily closures
	Pedestrian Detour

# Broadway Junction | Build-Out

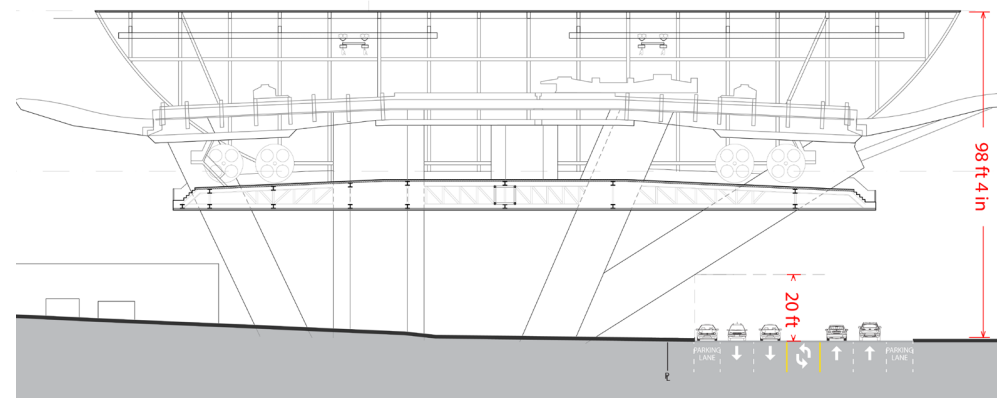
## Build-Out Conditions

Build-out conditions for North Broadway along the proposed location for the Broadway Junction:

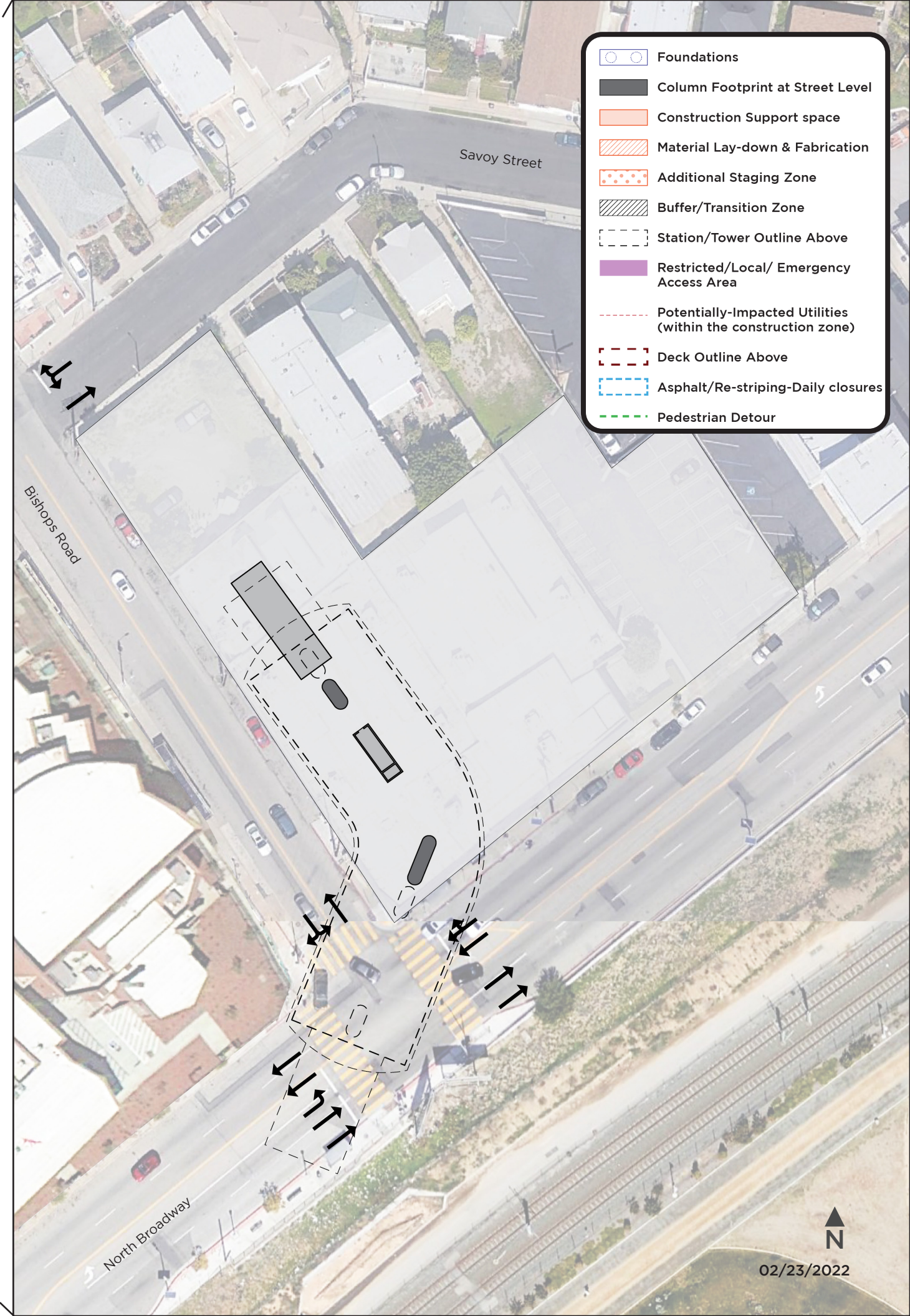
- 1 NBL turn lane
- 2 NB through lanes
- 1 SB through lane
- 1 SB through-right lane

Build-out conditions for Bishops Road along the proposed location for the Broadway Junction:

- 1 WB through lane
- 1 shared EBL/ EBR turn lane



Lane Closure & Transition Zones





# Stadium Tower

# Full-Time Construction Conditions

52 weeks

Required area for Construction  
23,500 sqft

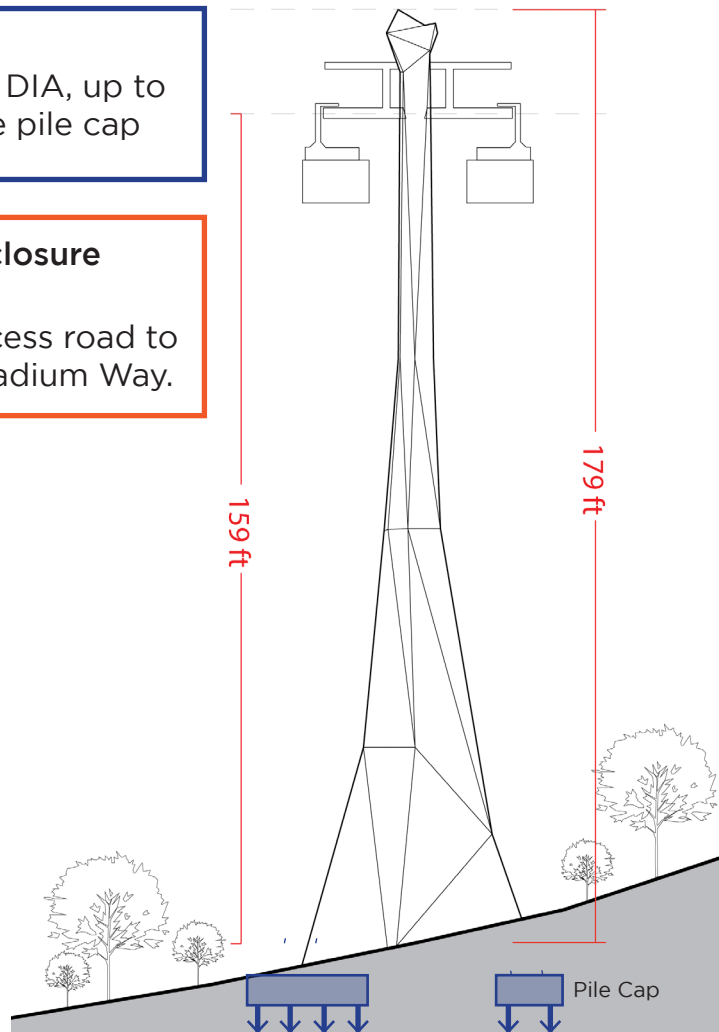
Foundations and Columns - 15 weeks  
Structural Steel and Gondola Equipment Erection - 26 weeks  
Hardscape and Landscape / Interior Work - 11 weeks

### Pile Overview

22 total piles; each 3' DIA, up to 120 ft deep below the pile cap

**No lane or sidewalk closure required.**

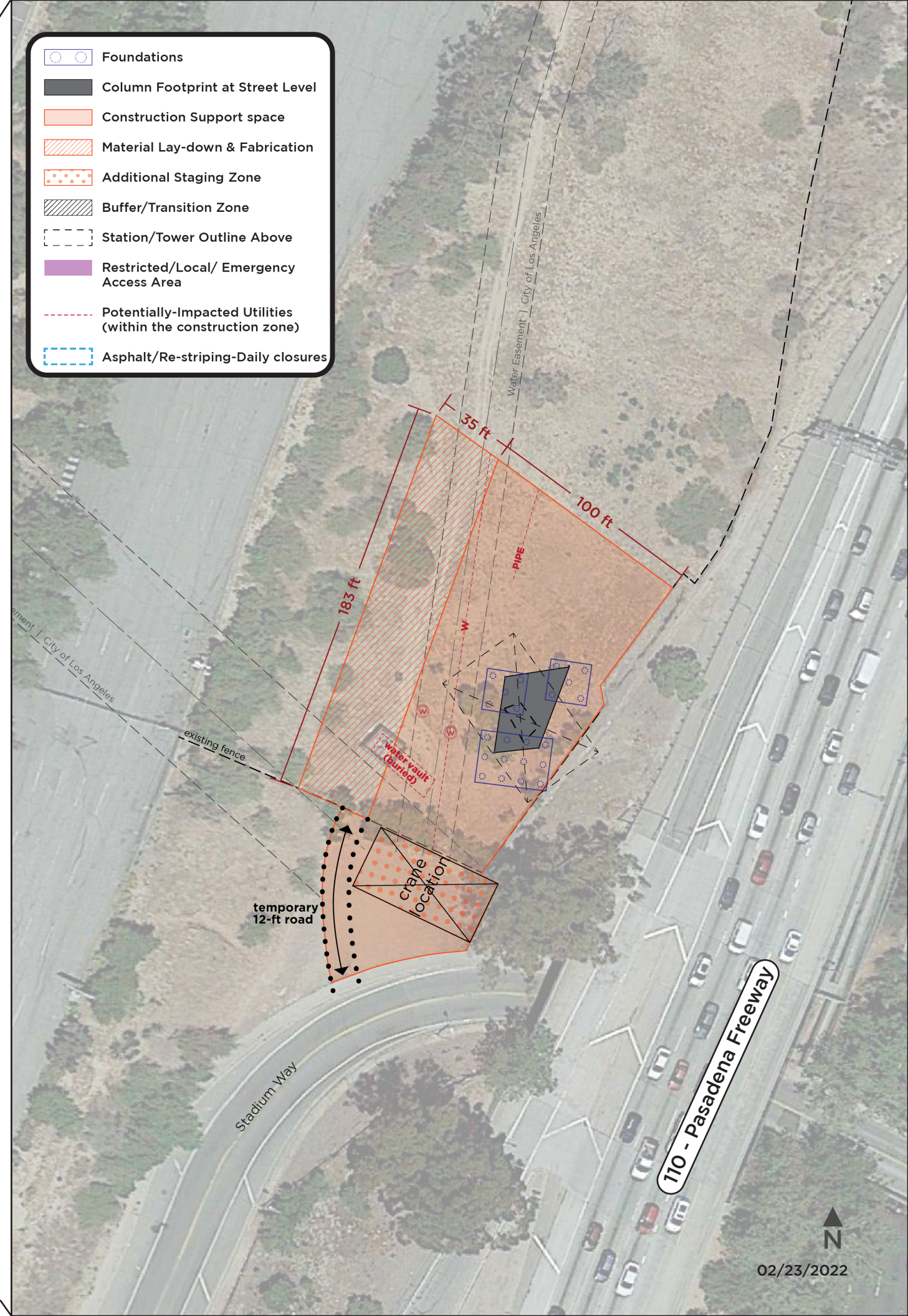
A temporary 12-ft access road to be provided off of Stadium Way.



### Lane Closure & Transition Zones



- Foundations
- Column Footprint at Street Level
- Construction Support space
- Material Lay-down & Fabrication
- Additional Staging Zone
- Buffer/Transition Zone
- Station/Tower Outline Above
- Restricted/Local/ Emergency Access Area
- Potentially-Impacted Utilities (within the construction zone)
- Asphalt/Re-striping-Daily closures



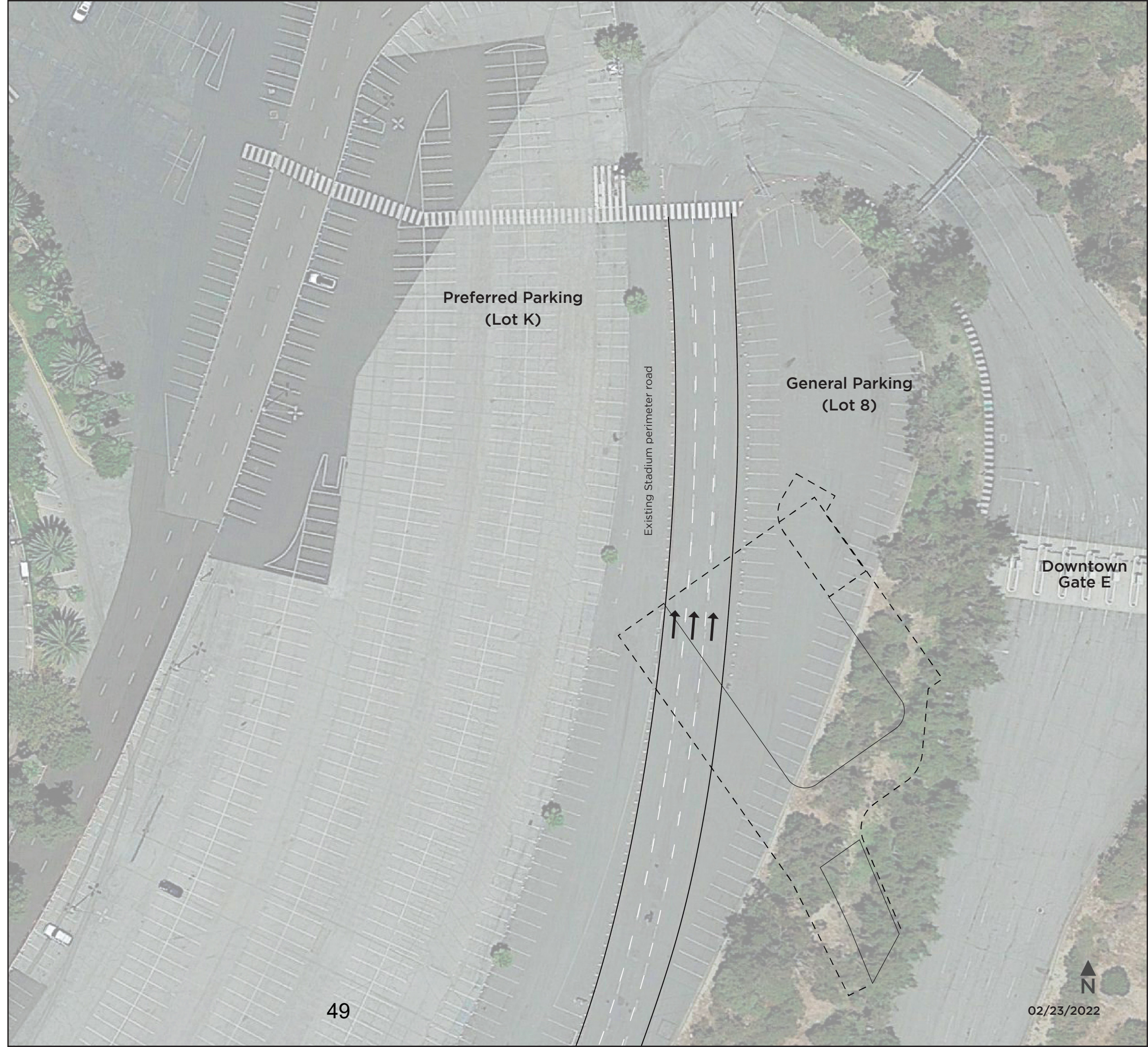
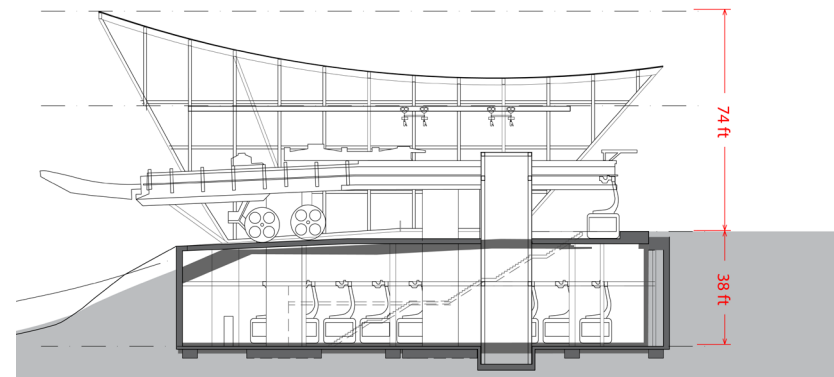




# Dodger Stadium Station

## Existing Conditions

The proposed location for the Dodger Stadium Station covers a portion of General Parking Lot 8 near Downtown Gate E.



# Dodger Stadium Station

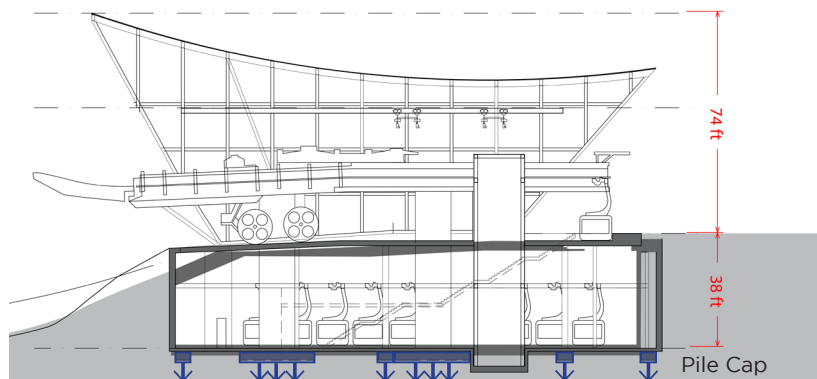
## Foundations and Columns 31 weeks

Required area for Construction  
87,000 sqft

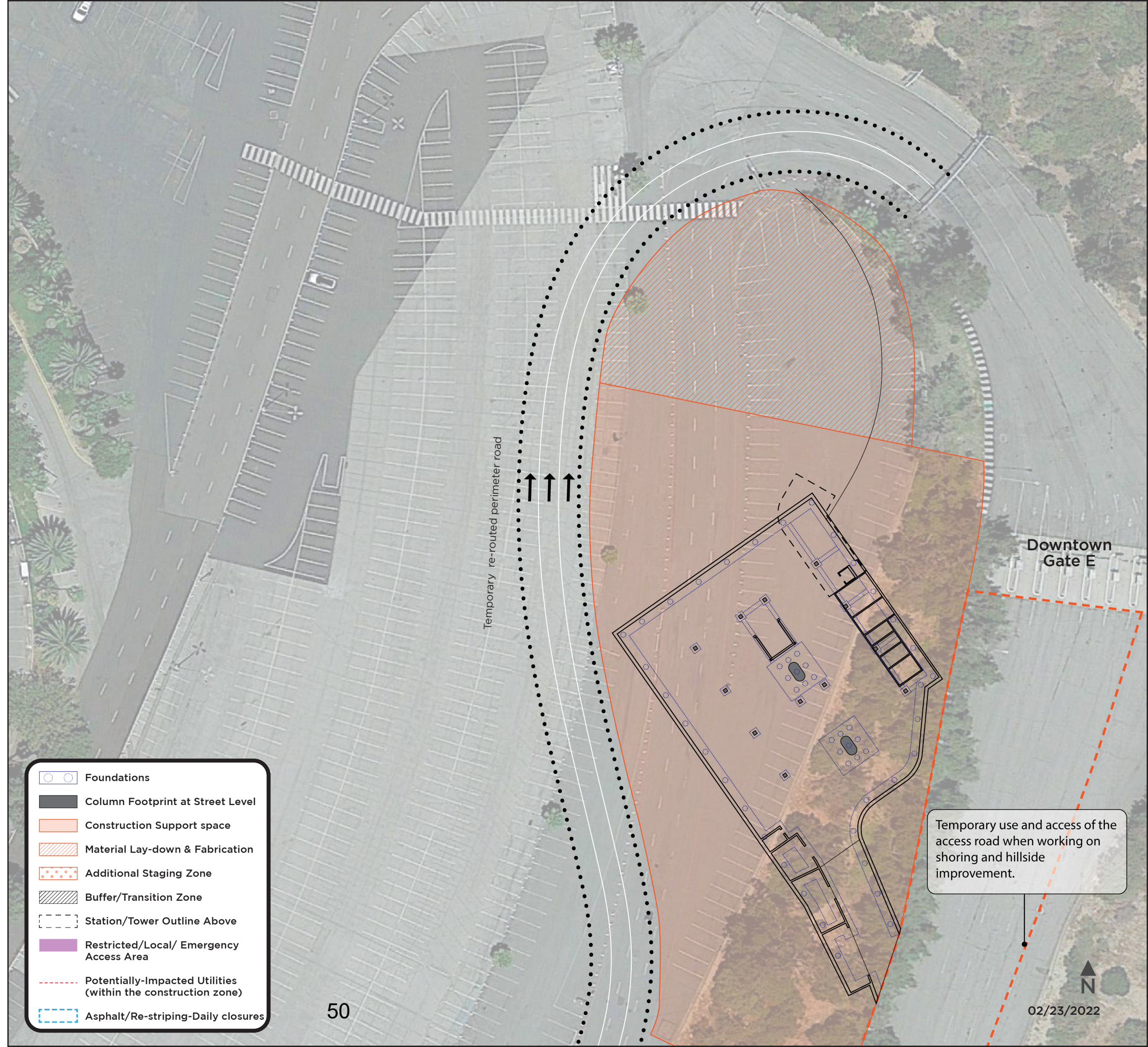
During construction, the existing Stadium perimeter road will be re-routed around the construction and staging zones.

### Pile Overview

64 total piles; each 3' DIA,  
18 of 64 total piles up to 40 ft deep below the pile cap;  
34 of 64 total piles up to 50 ft deep below the pile cap;  
12 of 64 total piles up to 55 ft deep below the pile cap.



- Foundations
- Column Footprint at Street Level
- Construction Support space
- Material Lay-down & Fabrication
- Additional Staging Zone
- Buffer/Transition Zone
- Station/Tower Outline Above
- Restricted/Local/ Emergency Access Area
- Potentially-Impacted Utilities (within the construction zone)
- Asphalt/Re-striping-Daily closures



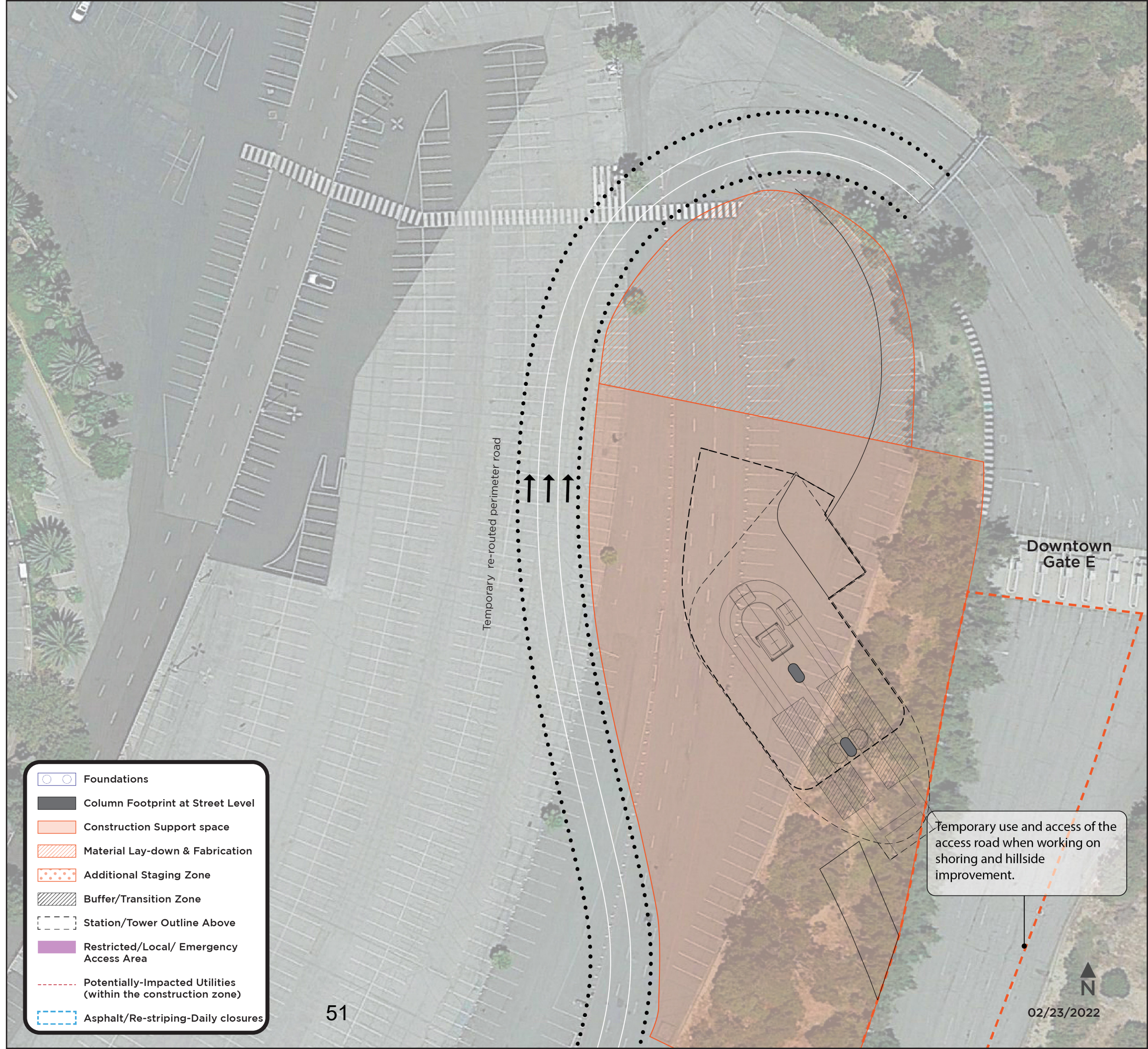
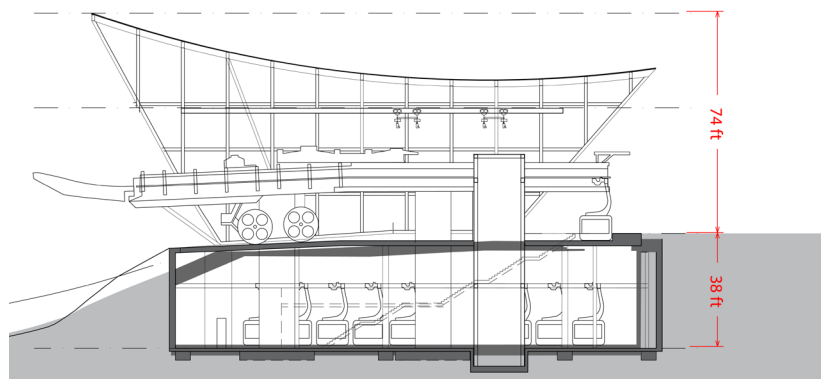
Temporary use and access of the access road when working on shoring and hillside improvement.











# Dodger Stadium Station

## Structural Steel and Gondola Equipment Erection 24 weeks

Required area for Construction  
87,000 sqft

During construction, the existing Stadium perimeter road will be re-routed around the construction and staging zones.



-  Foundations
-  Column Footprint at Street Level
-  Construction Support space
-  Material Lay-down & Fabrication
-  Additional Staging Zone
-  Buffer/Transition Zone
-  Station/Tower Outline Above
-  Restricted/Local/ Emergency Access Area
-  Potentially-Impacted Utilities (within the construction zone)
-  Asphalt/Re-striping-Daily closures

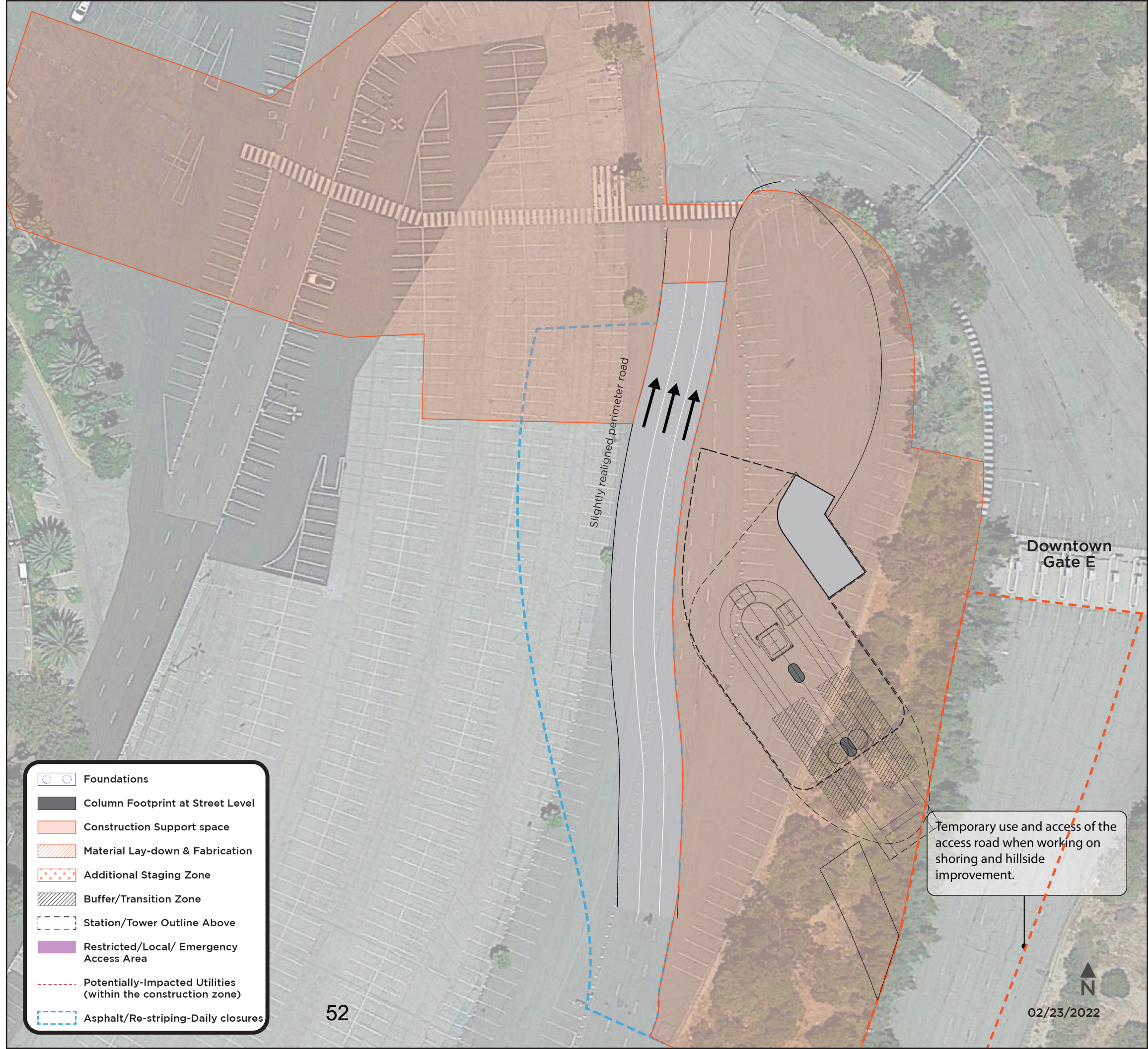
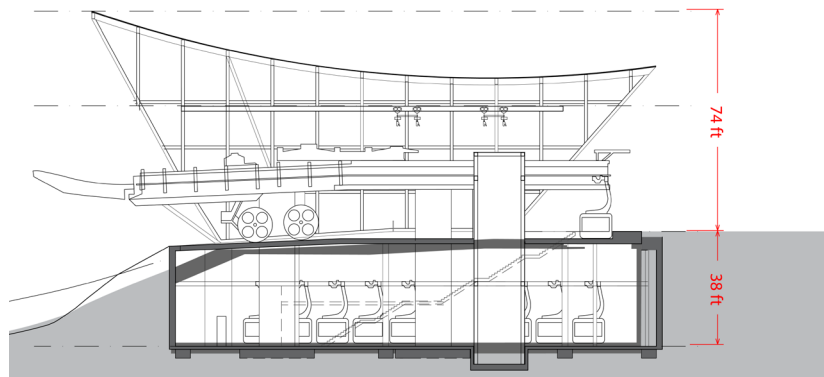
Temporary use and access of the access road when working on shoring and hillside improvement.











# Dodger Stadium Station

Vertical Circulation/ Hardscape  
and Landscape/ Interior Work  
33 weeks

 **Curbs, Medians, Asphalt & Re-stripping**  
**Periodic Closures for 10 working days**  
**within a 17-week duration period**

Required area for Construction  
142,600 sqft

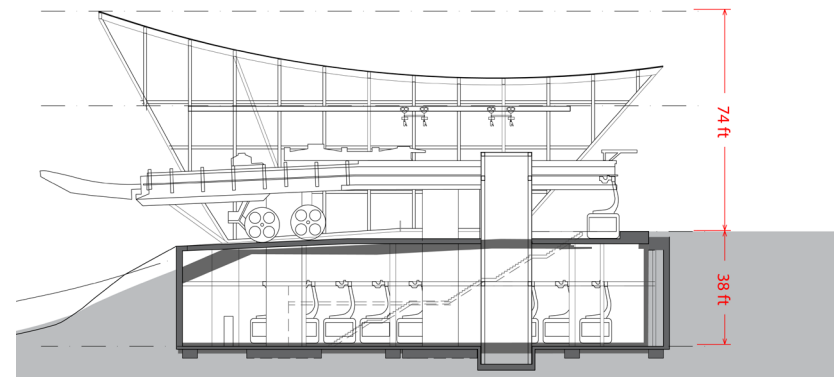


-  Foundations
-  Column Footprint at Street Level
-  Construction Support space
-  Material Lay-down & Fabrication
-  Additional Staging Zone
-  Buffer/Transition Zone
-  Station/Tower Outline Above
-  Restricted/Local/ Emergency Access Area
-  Potentially-Impacted Utilities (within the construction zone)
-  Asphalt/Re-stripping-Daily closures

# Dodger Stadium Station

## Build-Out Conditions

After completion of construction, the Stadium perimeter road will be slightly realigned to wrap around the western side of the Dodger Stadium Station and its surrounding hardscape and landscape improvements.



- Foundations
- Column Footprint at Street Level
- Construction Support space
- Material Lay-down & Fabrication
- Additional Staging Zone
- Buffer/Transition Zone
- Station/Tower Outline Above
- Restricted/Local/ Emergency Access Area
- Potentially-Impacted Utilities (within the construction zone)
- Asphalt/Re-striping-Daily closures

**EXHIBIT 2**  
**Construction Equipment Assumptions With Temporary Deck at**  
**Alameda Station**



**Broadway Alignment  
With Deck @ Alameda  
With Deck @ Broadway**

Project Component	Phase	Duration (Weeks)	Equipment List for Noise, Vibration, Air Quality, and Greenhouse Gas Modeling Equipment List	Quantity of Equipment Specified in Column D	Equipment List for Worst Case Noise Analysis	Typical Number of Days Equipment Will Be Used	Percentage of Day in Use	Typical Number of Construction Workers Per Day	Total Number of Roundtrip Shuttle Trips Per Day (Shuttling Construction Workers)	Typical Number of Truck Trips Per Day to Project Component Site (Materials, Deliveries, and On-Road Equipment)	Peak Truck Trips During Either Concrete Pour or Steel Delivery (Days per Phase: Daily Number of Trips:)	Maximum Depth (Excavation and Drilled Piles)	Depth of Site Work	Amount of Excavation (Cubic Yards)	Amount of Export (Including Cement and Soils) (Cubic Yards)	Amount Reused On-Site (Including Soils) (Cubic Yards)																																																																																																																																																					
Utilities		7	See Equipment Details Below						5	0	2	During Concrete Pours and Excavation Hauling Days per Phase: 7 Daily Number of Trips: 24	10'	10'	1000	1000	0																																																																																																																																																				
			Backhoe	1	1	35	75	Concrete Saw	1	0	7	50	Vibrating Hopper	1	0	7	75	Compactor (ground)	1	0	7	100	Concrete Mixer Truck	2	1	7	25	Pickup Truck	5	1	7	25	Roller	1	0	7	100	Gradall/Forklift	1	1	35	50	Flat Bed Truck	1	0	7	25	Dump Truck	1	1	7	25	Front End Loader	1	1	15	50	Vacuum Street Sweeper	1	1	35	25	Shuttle (Passenger)	0	0	35	25	Vehicles	0	0	35	25	Warning Horn	2	2	35	25																																																																																								
			Foundations and Columns		16	See Equipment Details Below						25	10	10	During Concrete Pours and Excavation Hauling Days per Phase: 3 Daily Number of Trips: 80	Foundations: 10' Piles: 125'	3'	2728	2295	433																																																																																																																																																	
						Auger Drill Rig*	1	0	32	75	Backhoe	2	0	80	50	Chain Saw	1	0	11	50	Compactor (ground)	2	0	5	75	Compressor (air)	2	0	9	25	Concrete Mixer Truck	2	2	34	25	Concrete Pump Truck	1	1	2	50	Concrete Saw	1	0	11	100	Crane	1	1	80	25	Dozer*	0	0	32	100	Drill Rig Truck	1	0	32	25	Dump Truck*	3	0	32	100	Excavator	2	0	34	50	Flat Bed Truck	1	1	30	25	Generator	0	0	0	0	Generator (<25KVA, VMA isms)	0	0	0	0	Gradall	1	1	80	75	Hydra Break Ram	1	0	1	50	Jackhammer*	1	0	10	50	Pavement Scarifier	1	0	1	100	Paver	1	0	1	100	Pickup Truck	10	1	80	25	Pneumatic Tools	2	0	9	25	Pumps	1	0	16	75	Roller*	1	0	1	100	Truck	1	1	5	50	Vacuum Street Sweeper	1	1	16	75	Vibrating Hopper	2	2	5	50	Vibratory Concrete Mixer	6	0	34	25	Warning Horn	4	3	80	25	Shuttle (Passenger)	1	0	80	25	Welder / Torch	1	1	30	25
						Deck Shoring, Cribbing, and Erection Structural Steel		2	See Equipment Details Below						12	6	5																																																																																																																																																				
									Gradall	2	1	10	75	Crane	1	1	10	75	Pickup Truck	5	1	10	25	Flat Bed Truck	3	1	10	50	Scissor Lift	2	2	10	50	Welder / Torch	1	1	5	50	Compressor (air)	2	2	10	50	Pneumatic Tools	2	2	10	50	Chain Saw	1	1	4	50	Shuttle (Passenger)	1	0	10	25	Warning Horn	3	2	10	25	Vacuum Street Sweeper	1	1	1	25																																																																																																	
									Structural Steel and Gondola Equipment Erection		28	See Equipment Details Below						25	10	10	During Steel Erection Days per Phase: 115 Daily Number of Trips: 2	n/a	n/a	n/a	n/a	n/a																																																																																																																																											
												Backhoe	2	0	14	25	Compactor (ground)	2	0	14	50	Compressor (air)	1	1	140	25	Concrete Mixer Truck	2	2	14	25	Concrete Pump Truck	1	0	14	50	Crane	1	1	140	75	Flat Bed Truck	1	1	140	25	Generator	0	0	0	0	Generator (<25KVA, VMA isms)	0	0	0	0	Gradall	1	1	140	75	Pickup Truck	5	1	140	25	Pneumatic Tools	2	2	140	25	Vacuum Excavator (Vac-)	1	0	5	50	Vacuum Street Sweeper	1	1	28	25	Ventilation Fan	1	1	140	75	Vibrating Hopper	2	0	14	25	Vibratory Concrete mixer	4	0	14	25	Warning Horn	4	4	140	25	Hand Held Metal Saw	1	0	50	50	Shuttle (Passenger)	1	0	140	25	Manlifts	2	0	120	75	Welder / Torch	4	4	140	25																																												
												Deck Removal		3	See Equipment Details Below						12	6	10																																																																																																																																														
															Gradall	2	2	15	75																																																																																																																																																		



**Broadway Alignment  
With Deck @ Alameda  
With Deck @ Broadway**

Activity	Equipment	Quantity		Hours		Days per Phase	Daily Number of Trips	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	Phase 9	Phase 10	
		1	2	1	2													
Asphalt & Re-Striping	Crane	1	1	15	50													
	Vacuum Street Sweeper		1	1	25													
	Flat Bed Truck	3	1	15	50													
	Scissor Lift	2	2	15	50													
	Welder / Torch	1	1	7	50													
	Compressor (air)	2	2	15	50													
	Pneumatic Tools	5	2	15	50													
	Shuttle (Passenger)	1	0	15	25													
	Warning Horn	3	2	15	25													
	Pickup Truck	5	1	15	25													
Asphalt & Re-Striping	2 See Equipment Details Below				10	0	0	During Paving Days per Phase: 1 Daily Number of Trips: 10	n/a	1'	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Paver	1	1	10	100													
	Roller	1	1	10	100													
	Ground compactor	2	0	5	50													
	Warning Horn	2	2	10	25													
	Excavators	0	0	0	0													
	Pickup Truck	5	1	10	25													
	Dump Truck	2	1	5	25													
	Flat Bed Truck	1	0	5	25													
	Backhoe	2	2	10	25													
Vertical Circ. / Hardscape & Landscape/ Interior Work	27 See Equipment Details Below				20	10	10	During Hardscape Days per Phase: 20 Daily Number of Trips: 10	n/a	8'	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Backhoe	1	1	54	50													
	Compactor (ground)	1	1	15	25													
	Concrete Mixer Truck	1	1	15	25													
	Crane	1	1	50	50													
	Generator	0	0	0	0													
	Dump Truck	1	1	50	25													
	Flat Bed Truck	1	1	65	25													
	Pickup Truck	5	1	80	25													
	Gradall	1	0	135	50													
Utilities	2 See Equipment Details Below				5	0	2	During Concrete Pours and Excavation Hauling Days per Phase: 2 Daily Number of Trips: 5	10'	10'	160	160	0					
	Backhoe	1	1	11	75													
	Concrete Saw	1	0	2	50													
	Vibrating Hopper	1	0	2	75													
	Compactor (ground)	1	0	2	100													
	Concrete Mixer Truck	2	1	2	25													
	Pickup Truck	5	1	2	25													
	Roller	1	0	2	100													
	Gradall/Forklift	1	1	35	50													
	Flat Bed Truck	1	0	7	25													
Foundations and Columns	16 See Equipment Details Below				25	10	10	During Concrete Pours and Excavation Hauling Days per Phase: 3 Daily Number of Trips: 80	Foundations: 10' Piles: 120'	3'	2850	2292	558					
	Auger Drill Rig*	1	0	32	75													
	Backhoe	2	0	80	50													
	Chain Saw	1	0	1	50													
	Compactor (ground)	2	0	5	75													
	Compressor (air)	2	0	9	25													
	Concrete Mixer Truck	2	2	34	25													
	Concrete Pump Truck	1	1	2	50													
	Concrete Saw	1	0	1	100													
	Crane	1	1	80	25													
Alameda Tower	26 See Equipment Details Below				25	10	10	During Steel Erection Days per Phase: 95 Daily Number of Trips: 2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Backhoe	2	0	13	25													
	Compactor (ground)	2	0	13	50													
	Compressor (air)	1	1	130	25													
	Concrete Mixer Truck	2	2	13	25													
	Concrete Pump Truck	1	0	13	50													
	Crane	1	1	130	75													





**Broadway Alignment  
With Deck @ Alameda  
With Deck @ Broadway**

Activity	Equipment	Quantity	Days	Hours	Volume	Phase	Trips	Rate	Notes	Other	Other	Other	Other	Other	
Structural Steel and Gondola Equipment Erection	Flat Bed Truck	1	1	130	25										
	Generator	0	0	0	0										
	signs	0	0	0	0										
	Gradall	1	1	130	75										
	Pickup Truck	5	1	130	25										
	Pneumatic Tools (truck)	2	2	130	25										
	Vacuum Street Sweeper	1	1	26	25										
	Ventilation Fan	1	1	130	75										
	Vibrating Hopper	2	0	13	25										
	Vibratory Concrete mixer	4	0	13	25										
	Warning Horn	4	4	130	25										
	Hand Held Metal Saw	1	0	45	25										
	Shuttle (Passenger)	2	0	130	25										
Manlifts	2	0	110	25											
Welder / Torch	4	4	130	25											
Asphalt & Re-Striping	2 See Equipment Details Below					10	0	0	0	During Paving Days per Phase: 1 Daily Number of Trips: 10	n/a	1'	n/a	n/a	n/a
	Paver	1	1	10	100										
	Roller	1	1	10	100										
	Ground compactor	2	0	5	50										
	Warning Horn	2	2	10	25										
	Excavators	0	0	0	0										
	Pickup Truck	5	1	10	25										
	Dump Truck	2	1	10	25										
	Flat Bed Truck	1	0	5	25										
	Backhoe	2	2	10	75										
	Shuttle (Passenger)	2	0	10	25										
	Vacuum Street Sweeper	1	1	2	25										
	Hardscape & Landscape/ Interior Work	14 See Equipment Details Below					20	10	10	10	During Hardscape Days per Phase: 20 Daily Number of Trips: 10	n/a	n/a	n/a	n/a
Backhoe		2	2	28	50										
Compactor (ground)		1	1	15	25										
Concrete Mixer Truck		1	1	15	25										
Generator		0	0	0	0										
Dump Truck		1	1	28	50										
Pickup Truck		5	1	70	25										
Gradall		1	1	70	50										
Welders		1	0	70	25										
Flat Bed Truck		1	1	70	25										
Shuttle (Passenger)		2	0	70	25										
Vehicles		2	0	70	25										
Warning Horn		3	2	70	25										
Vacuum Street Sweeper		1	1	20	25										
Utilities	3 See Equipment Details Below					5	0	2	2	During Concrete Pours and Excavation Hauling Days per Phase: 3 Daily Number of Trips: 5	10'	10'	1000	1000	0
	Backhoe	1	1	13	75										
	Concrete Saw	1	0	3	50										
	Vibrating Hopper	1	0	3	75										
	Compactor (ground)	1	0	3	100										
	Concrete Mixer Truck	2	1	3	25										
	Pickup Truck	5	1	3	25										
	Roller	1	0	3	100										
	Gradall/Forklift	1	1	35	50										
	Flat Bed Truck	1	0	7	25										
	Dump Truck	1	1	7	25										
	Front End Loader	1	1	15	50										
	Vacuum Street Sweeper	1	1	35	25										
	Shuttle (Passenger)	0	0	35	25										
	Vehicles	3	2	70	25										
	Warning Horn	2	2	13	25										
	Foundations and Columns	15 See Equipment Details Below					25	10	10	10	During Concrete Pours and Foundations: 10' Piles: 120'	3'	3606	2887	719
Auger Drill Rig*		1	0	30	75										
Backhoe		2	0	75	50										
Chain Saw		1	0	1	50										
Compactor (ground)		2	0	5	75										
Compressor (air)		2	0	9	25										
Concrete Mixer Truck		2	2	32	25										
Concrete Pump Truck		1	1	2	50										
Concrete Saw		1	0	1	100										
Crane		1	1	75	25										
Dozer*		0	0	30	100										
Drill Rig Truck		1	0	30	25										
Dump Truck*		3	0	30	100										
Excavator		2	0	32	50										
Flat Bed Truck		1	1	30	25										
Generator		0	0	0	0										
Generator (<25KVA, VMA)		0	0	0	0										
Gradall		1	1	75	75										
Hydra Break Ram		1	0	1	50										
Jackhammer*		1	0	10	50										
Pavement Scarifier		1	0	1	100										
Paver		1	0	1	100										
Pickup Truck		10	1	75	25										
Pneumatic Tools		2	0	9	25										
Pumps		1	0	15	75										
Roller*		1	0	1	100										
Vacuum Excavator (Vac-)		1	1	5	50										
Vacuum Street Sweeper		1	1	15	75										
Vibrating Hopper		2	2	5	50										
Vibratory Concrete Mixer		6	0	32	25										
Warning Horn		4	3	75	25										
Shuttle (Passenger)		1	0	80	25										
Welder / Torch		1	1	30	25										
Alpine Tower	28 See Equipment Details Below					25	10	10	10	During Steel Erection	n/a	n/a	n/a	n/a	n/a
	Backhoe	2	0	14	25										
	Compactor (ground)	2	0	14	50										
	Compressor (air)	1	1	140	25										
	Concrete Mixer Truck	2	2	14	25										
	Concrete Pump Truck	1	0	14	50										
Crane	1	1	140	75											



**Broadway Alignment  
With Deck @ Alameda  
With Deck @ Broadway**

Activity	Equipment	Quantity		Hours		Days per Phase	Daily Number of Trips	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	Phase 9	Phase 10	
		1	2	1	2													
Structural Steel and Gondola Equipment Erection	Flat Bed Truck	1	1	140	25													
	Generator	0	0	0	0													
	Generator (<25KVA, VMA)	0	0	0	0													
	Gradall	1	1	140	75													
	Pickup Truck	5	1	140	25													
	Pneumatic Tools	2	2	140	25													
	Vacuum Excavator (Vac-	1	0	5	50													
	Vacuum Street Sweeper	1	1	28	25													
	Ventilation Fan	1	1	140	75													
	Vibrating Hopper	2	0	14	25													
	Vibratory Concrete mixer	4	0	14	25													
	Warning Horn	4	4	140	25													
	Hand Held Metal Saw	1	0	70	25													
	Shuttle (Passenger)	1	0	140	25													
	Manlifts	2	0	120	25													
	Welder / Torch	4	4	140	25													
		See Equipment Details Below					10	0	0	During Paving	n/a	1'	n/a	n/a	n/a	n/a	n/a	n/a
Asphalt & Re-Striping	Paver	1	1	10	100													
	Roller	1	1	10	100													
	Ground compactor	2	0	5	50													
	Warning Horn	2	2	10	25													
	Excavators	0	0	0	0													
	Pickup Truck	5	1	10	25													
	Dump Truck	2	1	4	50													
	Flat Bed Truck	1	0	10	25													
	Backhoe	2	2	10	50													
	Shuttle (Passenger)	0	0	10	25													
	Vacuum Street Sweeper	1	1	2	25													
		See Equipment Details Below					20	10	10	During Hardscape	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Vertical Circ. / Hardscape & Landscape/ Interior Work	Backhoe	1	2	24	50													
	Compactor (ground)	1	1	15	25													
	Concrete Mixer Truck	1	1	15	25													
	Generator	0	0	0	0													
	Dump Truck	1	1	24	25													
	Flat Bed Truck	1	1	30	25													
	Pickup Truck	5	1	80	25													
	Gradall	1	1	60	50													
	Welders	1	0	60	25													
	Vehicles	1	0	60	25													
	Warning Horn	3	2	60	25													
	Vacuum Street Sweeper	1	1	20	25													
	See Equipment Details Below					5	0	2	During Concrete Pours and Excavation Hauling Days per Phase: 2	10'	10'	160	160	0				
Utilities	Backhoe	1	1	11	75													
	Concrete Saw	1	0	2	50													
	Vibrating Hopper	1	0	2	75													
	Compactor (ground)	1	0	2	100													
	Concrete Mixer Truck	2	1	2	25													
	Pickup Truck	5	1	2	25													
	Roller	1	0	2	100													
	Gradall/Forklift	1	1	35	50													
	Flat Bed Truck	1	0	7	25													
	Dump Truck	1	1	7	25													
	Front End Loader	1	1	15	50													
	Vacuum Street Sweeper	1	1	35	25													
Shuttle (Passenger)	0	0	35	25														
Vehicles	0	0	35	25														
Warning Horn	2	2	11	25														
	See Equipment Details Below					25	10	10	During Concrete Pours and Excavation Hauling Days per Phase: 7	Foundations: 10' Piles: 80'	3'	6267	4567	1700				
Foundations and Columns	Auger Drill Rig*	1	0	42	75													
	Backhoe	2	0	105	50													
	Chain Saw	1	0	1	50													
	Compactor (ground)	2	0	5	75													
	Compressor (air)	2	0	9	25													
	Concrete Mixer Truck	2	2	44	25													
	Concrete Pump Truck	1	1	2	50													
	Concrete Saw	1	0	1	100													
	Crane	1	1	105	25													
	Dozer*	0	0	42	100													
	Drill Rig Truck	1	0	42	25													
	Dump Truck*	3	0	42	100													
	Excavator	2	0	44	50													
	Flat Bed Truck	0	1	30	25													
	Generator	0	0	0	0													
	Generator (<25KVA, VMA)	0	0	0	0													
	Gradall	1	1	105	75													
	Hydra Break Ram	1	0	1	50													
	Jackhammer*	1	0	10	50													
	Pavement Scarifier	1	0	1	100													
	Paver	1	0	1	100													
	Pickup Truck	10	1	105	25													
	Pneumatic Tools	2	0	9	25													
	Pumps	1	0	21	75													
	Roller*	1	0	11	100													
	truck)	1	1	5	50													
	Vacuum Street Sweeper	1	1	21	75													
	Vibrating Hopper	2	2	5	50													
	Vibratory Concrete Mixer	6	0	44	25													
	Warning Horn	4	3	105	25													
	Shuttle (Passenger)	1	0	80	25													
	Welder / Torch	1	1	30	25													
	See Equipment Details Below					25	10	10	During Steel Erection Days per Phase: 180	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Chinatown / State Park Station	Backhoe	2	0	14	50													
	Compactor (ground)	2	0	14	50													
	Compressor (air)	1	1	140	25													
	Concrete Mixer Truck	2	2	14	25													
	Concrete Pump Truck	1	0	14	50													



**Broadway Alignment  
With Deck @ Alameda  
With Deck @ Broadway**

Activity	Equipment	Quantity	Days	Hours	Phase	Days per Phase	Hours per Phase	Notes	Other	Other	Other	Other	Other	
Structural Steel and Gondola Erection	Crane	1	1	140	75									
	Flat Bed Truck	1	1	140	25									
	Generator	0	0	0	0									
	Generator (<25KVA, VMA)	0	0	0	0									
	Gradall	1	1	140	75									
	Pickup Truck	5	1	140	25									
	Pneumatic Tools	2	2	140	25									
	Vacuum Excavator (Vac-)	1	0	5	50									
	Vacuum Street Sweeper	1	1	28	25									
	Ventilation Fan	1	1	140	75									
	Vibrating Hopper	2	0	14	25									
	Vibratory Concrete mixer	4	0	14	25									
	Warning Horn	4	4	140	25									
	Hand Held Metal Saw	1	0	45	25									
Shuttle (Passenger)	1	0	140	25										
Manlifts	2	0	120	50										
Welder / Torch	4	4	140	25										
Asphalt & Re-Striping	2 See Equipment Details Below													
	Paver	1	1	10	100									
	Roller	1	1	10	100									
	Ground compactor	2	0	10	50									
	Warning Horn	2	2	10	25									
	Excavators	0	0	0	0									
	Pickup Truck	5	1	10	25									
	Dump Truck	2	1	4	50									
	Flat Bed Truck	1	0	10	25									
	Backhoe	2	2	10	50									
	Shuttle (Passenger)	0	0	10	25									
	Vacuum Street Sweeper	1	1	2	25									
	Vertical Circ. / Hardscape & Landscape/ Interior Work	40 See Equipment Details Below												
		Backhoe	1	1	80	50								
Compactor (ground)		1	1	15	25									
Concrete Mixer Truck		1	1	15	25									
Crane		1	1	100	50									
Generator		0	0	0	0									
Pickup Truck		5	1	80	25									
Dump Truck		1	1	50	25									
Flat Bed Truck		1	1	120	25									
Gradall		1	0	200	50									
Welders		1	1	135	25									
Vehicles		1	0	200	25									
Warning Horn		3	2	200	25									
Vacuum Street Sweeper		1	1	20	25									
Utilities	8 See Equipment Details Below													
	Backhoe	1	1	38	75									
	Concrete Saw	1	0	8	50									
	Vibrating Hopper	1	0	8	75									
	Compactor (ground)	1	0	8	100									
	Concrete Mixer Truck	2	1	8	25									
	Pickup Truck	5	1	8	25									
	Roller	1	0	8	100									
	Gradall/Forklift	1	1	35	50									
	Flat Bed Truck	1	0	7	25									
	Dump Truck	1	1	7	25									
	Front End Loader	1	1	15	50									
	Vacuum Street Sweeper	1	1	35	25									
	Shuttle (Passenger)	1	0	35	25									
Vehicles	1	0	35	25										
Warning Horn	2	2	38	25										
Demo Building (Overlaps w/Foundations and Columns Phase)	3 See Equipment Details Below													
	Backhoe	2	1	15	50									
	Hydra Break Ram	1	1	1	50									
	Chain Saw	1	1	1	100									
	Concrete Saw	1	1	1	100									
	Dozer*	1	1	12	50									
	Dump Truck*	70	5	12	1									
	Excavator	2	2	15	50									
	Jackhammer*	1	1	10	50									
	Pickup Truck	10	2	15	25									
	Vacuum Street Sweeper	1	1	15	75									
	Warning Horn	3	1	15	25									
	Shuttle (Passenger)	1	0	15	25									
	Vehicles	1	0	15	25									
Welder / Torch	1	1	5	25										
Foundations and Columns	28 See Equipment Details Below													
	Auger Drill Rig*	1	0	56	75									
	Backhoe	2	0	140	50									
	Chain Saw	1	0	1	50									
	Compactor (ground)	2	0	5	75									
	Compressor (air)	2	0	9	25									
	Concrete Mixer Truck	2	2	58	25									
	Concrete Pump Truck	1	1	2	50									
	Concrete Saw	1	0	1	100									
	Crane	1	1	140	25									
	Dozer*	0	0	56	100									
	Drill Rig Truck	1	0	56	25									
	Dump Truck*	3	0	56	100									
	Excavator	2	0	58	50									
	Flat Bed Truck	1	1	30	25									
	Generator	0	0	0	0									
	Generator (<25KVA, VMA)	0	0	0	0									
	Gradall	1	1	140	75									
	Hydra Break Ram	1	0	1	50									
	Jackhammer*	1	0	10	50									
	Pavement Scarifier	1	0	1	100									
					25	10	10	During Concrete Pours and Excavation Hauling Days per Phase: 12	18" to bottom of the slab on grade	18"	0	9008	0	
					25	10	10	During Concrete Pours and Excavation Hauling Days per Phase: 8	Foundations: 7' Piles: 120'	8'	6407	5379	1028	



**Broadway Alignment  
With Deck @ Alameda  
With Deck @ Broadway**

Activity	Equipment	Quantity				Days	Trips	Phase	Daily Trips	Rate	Total	Notes		
		1	2	3	4									
Broadway Junction	Paver	1	0	1	100									
	Pickup Truck	10	1	140	25									
	Pneumatic Tools	2	0	19	25									
	Pumps	1	0	28	75									
	Roller*	1	0	1	100									
	Vacuum Excavator (Vac-	1	1	5	50									
	Vacuum Street Sweeper	1	1	28	75									
	Vibrating Hopper	2	2	5	50									
	Vibratory Concrete Mixer	6	0	58	25									
	Warning Horn	4	3	140	25									
Shuttle (Passenger)	1	0	80	25										
Welder / Torch	1	1	30	25										
Deck Shoring, Cribbing, and Erection	See Equipment Details Below					12	6	5						
	Gradall	2	2	10	75									
	Crane	1	1	10	75									
	Vacuum Street Sweeper	1	1	10	25									
	Flat Bed Truck	3	1	10	50									
	Scissor Lift	2	2	10	50									
	Welder / Torch	1	1	5	50									
	Compressor (air)	2	2	10	50									
	Pneumatic Tools	2	2	10	50									
	Chain Saw	1	1	4	50									
Shuttle (Passenger)	1	0	10	25										
Warning Horn	3	2	10	25										
Pickup Truck	5	1	0	25										
Structural Steel and Gondola Equipment Erection	See Equipment Details Below					25	10	10	During Steel Erection Days per Phase: 140 Daily Number of Trips: 2	n/a	n/a	n/a	n/a	
	Backhoe	2	0	19	25									
	Compactor (ground)	2	0	19	50									
	Compressor (air)	1	1	190	25									
	Concrete Mixer Truck	2	2	19	25									
	Concrete Pump Truck	1	0	19	50									
	Crane	1	1	190	75									
	Flat Bed Truck	1	1	190	25									
	Generator	0	0	0	0									
	Generator (25KVA, VMA	0	0	0	0									
Gradall	1	1	190	75										
Pickup Truck	5	1	190	25										
Pneumatic Tools	2	2	190	25										
Vacuum Excavator (Vac-	1	0	5	50										
Vacuum Street Sweeper	1	1	38	25										
Ventilation Fan	1	1	190	75										
Vibrating Hopper	2	0	19	25										
Vibratory Concrete mixer	4	0	19	25										
Warning Horn	4	4	190	25										
Hand Held Metal Saw	1	0	38	50										
Shuttle (Passenger)	1	0	190	25										
Manlifts	2	0	170	50										
Welder / Torch	4	4	190	25										
Deck Removal	See Equipment Details Below					12	6	10						
	Gradall	2	2	15	75									
	Crane	1	1	15	50									
	Vacuum Street Sweeper	1	1	11	25									
	Flat Bed Truck	3	1	15	50									
	Scissor Lift	2	2	15	50									
	Welder / Torch	1	1	7	50									
	Compressor (air)	2	2	15	50									
	Pneumatic Tools	5	2	15	50									
	Shuttle (Passenger)	1	0	15	25									
Warning Horn	3	2	15	25										
Pickup Truck	5	1	15	25										
Asphalt & Re-Striping	See Equipment Details Below					10	0	0	During Asphalt Days per Phase: 1 Daily Number of Trips: 10	n/a	1'	n/a	n/a	n/a
	Paver	1	1	10	100									
	Roller	1	1	10	100									
	Ground compactor	2	0	5	50									
	Warning Horn	2	2	10	25									
	Excavators	0	0	0	0									
	Pickup Truck	5	1	10	25									
	Dump Truck	2	1	5	25									
	Flat Bed Truck	1	0	5	25									
	Backhoe	2	2	10	75									
Shuttle (Passenger)	0	0	10	25										
Vacuum Street Sweeper	1	1	2	25										
Vertical Circ. / Hardscape & Landscape/ Interior Work	See Equipment Details Below					20	10	10	During Hardscape Days per Phase: 20 Daily Number of Trips: 10	n/a	6'	n/a	n/a	n/a
	Backhoe	1	1	58	50									
	Compactor (ground)	1	1	15	25									
	Concrete Mixer Truck	1	1	15	25									
	Crane	1	1	58	50									
	Generator	0	0	0	0									
	Dump Truck	1	1	87	25									
	Flat Bed Truck	1	1	116	25									
	Pickup Truck	5	1	80	25									
	Gradall	1	0	145	50									
Welders	1	1	135	25										
Vehicles	1	0	145	25										
Warning Horn	3	2	145	25										
Vacuum Street Sweeper	1	1	20	25										
Utilities	See Equipment Details Below					5	0	2	During Concrete Pours and Excavation Hauling Days per Phase: 3 Daily Number of Trips: 5	10'	10'	3500	3500	0
	Backhoe	1	1	13	75									
	Concrete Saw	1	0	3	50									
	Vibrating Hopper	1	0	3	75									
	Compactor (ground)	1	0	3	100									
	Pickup Truck	5	1	0	25									
	Concrete Mixer Truck	2	1	3	25									
	Roller	1	0	3	100									
	Gradall/Forklift	1	1	35	50									
	Flat Bed Truck	1	0	7	25									
Dump Truck	1	1	7	25										
Front End Loader	1	1	15	50										



**Broadway Alignment  
With Deck @ Alameda  
With Deck @ Broadway**

Activity	Equipment	Quantity		Hours		Days per Phase	Daily Number of Trips	Phase	Foundation	Pile	Length	Width	Area	Volume	Notes											
		1	2	1	2																					
Stadium Tower	Foundations and Columns	Vacuum Street Sweeper	1	1	35	25																				
		Shuttle (Passenger)	1	0	35	25																				
		Vehicles	1	0	35	25																				
		Warning Horn	2	2	13	25																				
		15 See Equipment Details Below															25	10	10	During Concrete Pours and Excavation Hauling Days per Phase: 4	Foundations: 7'			1286	1202	84
		Auger Drill Rig*	1	0	30	75																				
		Backhoe	2	0	75	50																				
		Chain Saw	1	0	1	50																				
		Compactor (ground)	2	0	5	75																				
		Compressor (air)	2	0	9	25																				
		Concrete Mixer Truck	2	2	32	25																				
		Concrete Pump Truck	1	1	2	50																				
		Concrete Saw	1	0	1	100																				
		Crane	1	1	75	25																				
		Dozer*	0	0	30	100																				
Drill Rig Truck	1	0	30	25																						
Dump Truck*	3	0	30	100																						
Excavator	2	0	32	50																						
Flat Bed Truck	1	1	30	25																						
Generator	0	0	0	0																						
Generator (<25KVA, VMA)	0	0	0	0																						
Gradall	1	1	75	75																						
Hydra Break Ram	1	0	1	50																						
Jackhammer*	1	0	10	50																						
Pavement Scarifier	1	0	1	100																						
Paver	1	0	1	100																						
Pickup Truck	10	1	75	25																						
Pneumatic Tools	2	0	9	25																						
Pumps	1	0	15	75																						
Roller*	1	0	1	100																						
Vacuum Excavator (Vac-	1	1	5	50																						
Vacuum Street Sweeper	1	1	15	75																						
Vibrating Hopper	2	2	5	50																						
Vibratory Concrete Mixer	6	0	32	25																						
Warning Horn	4	3	75	25																						
Shuttle (Passenger)	1	0	80	25																						
Welder / Torch	1	1	30	25																						
26 See Equipment Details Below															25	10	10	During Steel Erection Days per Phase: 175	n/a	n/a	n/a	n/a	n/a			
Backhoe	2	0	13	25																						
Compactor (ground)	2	0	13	50																						
Compressor (air)	1	1	130	25																						
Concrete Mixer Truck	2	2	13	25																						
Concrete Pump Truck	1	0	13	50																						
Crane	1	1	130	75																						
Flat Bed Truck	1	1	130	25																						
Generator	0	0	0	0																						
Generator (<25KVA, VMA)	0	0	0	0																						
Gradall	1	1	130	75																						
Pickup Truck	5	1	130	25																						
Pneumatic Tools	2	2	130	25																						
Vacuum Excavator (Vac-	1	0	5	50																						
Vacuum Street Sweeper	1	1	26	25																						
Ventilation Fan	1	1	130	75																						
Vibrating Hopper	2	0	13	25																						
Vibratory Concrete mixer	4	0	13	25																						
Warning Horn	4	4	130	25																						
Hand Held Metal Saw	1	0	26	50																						
Shuttle (Passenger)	1	0	130	25																						
Manlifts	2	0	110	50																						
Welder / Torch	4	4	130	25																						
Asphalt & Re-Striping															0	0	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
11 See Equipment Details Below															20	10	10	n/a	n/a	n/a	n/a	n/a	n/a			
Backhoe	2	2	22	50																						
Compactor (ground)	1	1	15	25																						
Concrete Mixer Truck	1	1	15	25																						
Generator	0	0	0	0																						
Dump Truck	1	1	33	25																						
Flat Bed Truck	1	1	44	25																						
Pickup Truck	5	1	80	25																						
Gradall	1	1	55	50																						
Welders	1	0	55	25																						
Vehicles	1	0	55	25																						
Warning Horn	3	2	55	25																						
Vacuum Street Sweeper	1	1	20	25																						
5 See Equipment Details Below															5	0	2	During Concrete Pours and Excavation Hauling Days per Phase: 5	10'	10'		1600	1600	0		
Backhoe	1	1	25	75																						
Concrete Saw	1	0	5	50																						
Vibrating Hopper	1	0	5	75																						
Compactor (ground)	1	0	5	100																						
Pickup Truck	5	1	0	25																						
Concrete Mixer Truck	2	1	5	25																						
Roller	1	0	5	100																						
Gradall/Forklift	1	1	35	50																						
Flat Bed Truck	1	0	7	25																						
Dump Truck	1	1	7	25																						
Front End Loader	1	1	15	50																						
Vacuum Street Sweeper	1	1	35	25																						
Warning Horn	2	2	25	25																						
31 See Equipment Details Below															25	10	10	During Concrete Pours and Excavation Hauling Days per Phase: 24	Foundations: 42'	3'		44313	44001	312		
Auger Drill Rig*	1	0	62	75																						
Backhoe	2	0	155	50																						
Chain Saw	1	0	1	50																						
Compactor (ground)	2	0	5	75																						



**EXHIBIT 3**  
**Construction Equipment Assumptions Without Temporary Deck at  
Alameda Station**

Project Component	Phase	Duration (Weeks)	Equipment List for Noise, Vibration, Air Quality, and Greenhouse Gas Modeling Equipment List	Quantity of Equipment Specified in Column D	Equipment List for Worst Case Noise Analysis	Typical Number of Days Equipment Will Be Used	Percentage of Day in Use	Typical Number of Construction Workers Per Day	Total Number of Roundtrip Shuttle Trips Per Day (Shuttling Construction Workers)	Typical Number of Truck Trips Per Day to Project Component Site (Materials, Deliveries, and On-Road Equipment)	Peak Truck Trips During Either Concrete Pour or Steel Delivery (Days per Phase: Daily Number of Trips:)	Maximum Depth (Excavation and Drilled Piles)	Depth of Site Work	Amount of Excavation (Cubic Yards)	Amount of Export (Including Cement and Soils) (Cubic Yards)	Amount of Reused On-Site (Including Soils) (Cubic Yards)			
Alameda Station	Utilities	7	See Equipment Details Below						5	0		2	10'	10'	1000	1000	0		
			Backhoe	1	1	35	75												
			Concrete Saw	1	0	7	50												
			Vibrating Hopper	1	0	7	75												
Alameda Station	Foundations and Columns	16	See Equipment Details Below						25	10	10	3	3'	2728	2295	433			
			Auger Drill Rig*	1	0	32	75												
			Backhoe	2	0	80	50												
			Chain Saw	1	0	11	50												
Alameda Station	Structural Steel and Gondola Equipment Erection	30	See Equipment Details Below						25	10	10	2	n/a	n/a	n/a	n/a	n/a		
			Backhoe	2	0	15	25												
			Compactor (ground)	2	0	15	50												
			Compressor (air)	1	0	150	25												
Alameda Station	Asphalt & Re-Stripping	2	See Equipment Details Below						10	0	0	1	1'	n/a	n/a	n/a			
			Paver	1	1	10	100												
			Roller	1	1	10	100												
			Ground compactor	1	0	10	50												
Alameda Station		27	See Equipment Details Below						20	10	10	20	8'	n/a	n/a	n/a			
			Backhoe	1	1	54	50												





**Broadway Alignment  
With Deck @ Alameda  
With Deck @ Broadway**

Activity	Equipment	Qty	Days	Hours	Cost	Construction Details															
						5	0	2	10'	10'	160	160	0								
Vertical Circ. / Hardscape & Landscape/ Interior Work	Compactor (ground)	1	1	15	25																
	Concrete Mixer Truck	1	1	15	25																
	Crane	1	1	50	50																
	Generator	0	0	0	0																
	Dump Truck	1	1	50	25																
	Flat Bed Truck	1	1	65	25																
	Pickup Truck	5	1	80	25																
	Grassall	1	0	135	50																
	Welders	1	1	135	25																
	Vehicles	1	0	135	25																
	Warning Horn	3	2	135	25																
	Vacuum Street Sweeper	1	1	20	25																
	Utilities	2 See Equipment Details Below					5	0	2	10'	10'	160	160	0							
		Backhoe	1	1	11	75															
		Concrete Saw	1	0	2	50															
Vibrating Hopper		1	0	2	75																
Compactor (ground)		1	0	2	100																
Concrete Mixer Truck		2	1	2	25																
Pickup Truck		5	1	2	25																
Roller		1	0	2	100																
Grassall/Forklift		1	1	35	50																
Flat Bed Truck		1	0	7	25																
Dump Truck		1	1	7	25																
Front End Loader		1	1	15	50																
Vacuum Street Sweeper		1	1	35	25																
Shuttle (Passenger)		0	0	35	25																
Vehicles		0	0	35	25																
Warning Horn	2	2	11	25																	
Foundations and Columns	16 See Equipment Details Below					25	10	10	10'	3'	2850	2292	558								
	Auger Drill Rig*	1	0	32	75																
	Backhoe	2	0	80	50																
	Chain Saw	1	0	1	50																
	Compactor (ground)	2	0	5	75																
	Compressor (air)	2	0	9	25																
	Concrete Mixer Truck	2	2	34	25																
	Concrete Pump Truck	1	1	2	50																
	Concrete Saw	1	0	1	100																
	Crane	1	1	80	25																
	Dozer*	0	0	32	100																
	Drill Rig Truck	1	0	32	25																
	Dump Truck*	3	0	32	100																
	Excavator	2	0	34	50																
	Flat Bed Truck	1	1	30	25																
	Generator	0	0	0	0																
	Generator (<25KVA, VMA)	0	0	0	0																
	Grassall	1	1	80	75																
	Hydra Break Ram	1	0	1	50																
	Jackhammer*	1	0	10	50																
	Pavement Scarifier	1	0	1	100																
	Paver	1	0	1	100																
	Pickup Truck	10	1	80	25																
	Pneumatic Tools	2	0	9	25																
	Pumps	1	0	16	75																
	Roller*	1	0	1	100																
	truck)	1	1	5	50																
	Vacuum Street Sweeper	1	1	16	75																
	Vibrating Hopper	2	2	5	50																
	Vibratory Concrete Mixer	6	0	34	25																
	Warning Horn	4	3	80	25																
	Vehicles	1	0	80	25																
	Welder / Torch	1	1	30	25																
	Structural Steel and Gondola Equipment Erection	26 See Equipment Details Below					25	10	10	n/a	n/a	n/a	n/a	n/a							
		Backhoe	2	0	13	25															
Compactor (ground)		2	0	13	50																
Compressor (air)		1	1	130	25																
Concrete Mixer Truck		2	2	13	25																
Concrete Pump Truck		1	0	13	50																
Crane		1	1	130	75																
Flat Bed Truck		1	1	130	25																
Generator		0	0	0	0																
signs)		0	0	0	0																
Grassall		1	1	130	75																
Pickup Truck		5	1	130	25																
Pneumatic Tools		2	2	130	25																
truck)		1	0	5	50																
Vacuum Street Sweeper		1	1	25	25																
Ventilation Fan		1	1	130	75																
Vibrating Hopper		2	0	13	25																
Vibratory Concrete mixer		4	0	13	25																
Warning Horn		4	4	130	25																
Hand Held Metal Saw		1	0	45	25																
Shuttle (Passenger)		2	0	130	25																
Manlifts		2	0	110	25																
Welder / Torch		4	4	130	25																
Asphalt & Re-Striping		2 See Equipment Details Below					10	0	0	1'	n/a	n/a	n/a								
		Paver	1	1	10	100															
		Roller	1	1	10	100															
		Ground compactor	2	0	5	50															
		Warning Horn	2	2	10	25															
		Excavators	0	0	0	0															
		Pickup Truck	5	1	10	25															
		Dump Truck	2	1	5	25															



**Broadway Alignment  
With Deck @ Alameda  
With Deck @ Broadway**

Activity	Equipment	Quantity				Days per Phase	Daily Number of Trips	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
		1	2	3	4										
Hardscape & Landscape/ Interior Work	Flat Bed Truck	1	0	5	25										
	Backhoe	2	2	10	75										
	Shuttle (Passenger)	2	0	10	25										
	Vacuum Street Sweeper	1	1	2	25										
	14	See Equipment Details Below				20	10	10	During Hardscape	n/a	n/a	n/a	n/a	n/a	n/a
	Backhoe	2	2	28	50				Days per Phase: 20						
	Compactor (ground)	1	1	15	25				Daily Number of Trips: 10						
	Concrete Mixer Truck	1	1	15	25										
	Generator	0	0	0	0										
	Dump Truck	1	1	28	50										
	Pickup Truck	6	1	70	25										
	Gradall	1	1	70	50										
	Welders	1	0	70	25										
	Flat Bed Truck	1	1	70	25										
Shuttle (Passenger)	2	0	70	25											
Vehicles	3	2	70	25											
Warning Horn	3	2	70	25											
Vacuum Street Sweeper	1	1	20	25											
Utilities	3	See Equipment Details Below				5	0	2	During Concrete Pours and						
	Backhoe	1	1	13	75				Excavation Hauling						
	Concrete Saw	1	0	3	50				Days per Phase: 3						
	Vibrating Hopper	1	0	3	75				Daily Number of Trips: 5	10'	10'	1000	1000		
	Compactor (ground)	1	0	3	100										
	Concrete Mixer Truck	2	1	3	25										
	Pickup Truck	5	1	3	25										
	Roller	1	0	3	100										
	Gradall/Forklift	1	1	35	50										
	Flat Bed Truck	1	0	7	25										
	Dump Truck	1	1	7	25										
	Front End Loader	1	1	15	50										
	Vacuum Street Sweeper	1	1	35	25										
	Shuttle (Passenger)	2	0	35	25										
Vehicles	2	2	13	25											
Warning Horn	2	2	13	25											
Foundations and Columns	15	See Equipment Details Below				25	10	10	During Concrete Pours and	Foundations: 10'	3'	3606	2887	719	
	Auger Drill Rig*	1	0	30	75				Piles: 120'						
	Backhoe	2	0	75	50										
	Chain Saw	1	0	1	50										
	Compactor (ground)	2	0	5	75										
	Compressor (air)	2	0	9	25										
	Concrete Mixer Truck	2	2	32	25										
	Concrete Pump Truck	1	1	2	50										
	Concrete Saw	1	0	1	100										
	Crane	1	1	75	25										
	Dozer*	0	0	30	100										
	Drill Rig Truck	1	0	30	25										
	Dump Truck*	3	0	30	100										
	Excavator	1	0	32	50										
	Flat Bed Truck	1	1	30	25										
	Generator	0	0	0	0										
	Generator (<25KVA, VMA)	0	0	0	0										
	Gradall	1	1	75	75										
	Hydra Break Ram	1	0	1	50										
	Jackhammer*	1	0	10	50										
	Pavement Scarifier	1	0	1	100										
	Paver	1	0	1	100										
	Pickup Truck	10	1	75	25										
	Pneumatic Tools	2	0	9	25										
	Pumps	1	0	15	75										
	Roller*	1	0	1	100										
	Vacuum Excavator (Vac-	1	1	5	50										
	Vacuum Street Sweeper	1	1	15	75										
	Vibrating Hopper	2	2	5	50										
	Vibratory Concrete Mixer	6	0	32	25										
	Warning Horn	4	3	75	25										
	Shuttle (Passenger)	1	0	80	25										
	Welder / Torch	1	1	30	25										
	28	See Equipment Details Below				25	10	10	During Steel Erection	n/a	n/a	n/a	n/a	n/a	
Backhoe	2	0	14	25											
Compactor (ground)	2	0	14	50											
Compressor (air)	1	1	140	25											
Concrete Mixer Truck	2	2	14	25											
Concrete Pump Truck	1	0	14	50											
Crane	1	1	140	75											
Flat Bed Truck	1	1	140	25											
Generator	0	0	0	0											
Generator (<25KVA, VMA)	0	0	0	0											
Gradall	1	1	140	75											
Pickup Truck	5	1	140	25											
Pneumatic Tools	2	2	140	25											
Vacuum Excavator (Vac-	1	0	5	50											
Vacuum Street Sweeper	1	1	28	25											
Ventilation Fan	1	1	140	75											
Vibrating Hopper	2	0	14	25											
Vibratory Concrete mixer	4	0	14	25											
Warning Horn	4	4	140	25											
Hand Held Metal Saw	1	0	70	25											
Shuttle (Passenger)	1	0	140	25											
Manlifts	2	0	120	25											
Welder / Torch	4	4	140	25											
2	See Equipment Details Below				10	0	0	During Paving	n/a	1'	n/a	n/a	n/a		
Paver	1	1	10	100											
Roller	1	1	10	100											
Ground compactor	2	0	5	50											
Warning Horn	2	2	10	25											
Excavators	0	0	0	0											
Pickup Truck	2	1	10	25											
Dump Truck	2	1	4	50											
Flat Bed Truck	1	0	10	25											
Backhoe	2	2	10	50											
Shuttle (Passenger)	0	0	10	25											



**Broadway Alignment  
With Deck @ Alameda  
With Deck @ Broadway**

		Vacuum Street Sweeper	1	1	2	25										
Vertical Circ. / Hardscape & Landscape / Interior Work	12	See Equipment Details Below				20	10	10	During Hardscape	n/a	n/a	n/a	n/a	n/a	n/a	
		Backhoe	1	2	24	50										
		Compactor (ground)	1	1	15	25										
		Concrete Mixer Truck	1	1	15	25										
		Generator	0	0	0	0										
		Dump Truck	1	1	24	25										
		Flat Bed Truck	1	1	30	25										
		Pickup Truck	5	1	80	25										
		Gradall	1	1	60	50										
		Welders	1	0	60	25										
		Vehicles	1	0	60	25										
		Warning Horn	3	2	60	25										
Vacuum Street Sweeper	1	1	20	25												
Utilities	2	See Equipment Details Below				5	0	2	During Concrete Pours and Excavation Hauling Days per Phase: 2 Daily Number of Trips: 5	10'	10'	160	160	0		
		Backhoe	1	1	11	75										
		Concrete Saw	1	0	2	50										
		Vibrating Hopper	1	0	2	75										
		Compactor (ground)	1	0	2	100										
		Concrete Mixer Truck	2	1	2	25										
		Pickup Truck	5	1	2	25										
		Roller	1	0	2	100										
		Gradall/Forklift	1	1	35	50										
		Flat Bed Truck	1	0	7	25										
		Dump Truck	1	1	7	25										
		Front End Loader	1	1	15	50										
		Vacuum Street Sweeper	1	1	35	25										
		Shuttle (Passenger)	0	0	35	25										
		Warning Horn	2	2	11	25										
Foundations and Columns	21	See Equipment Details Below				25	10	10	During Concrete Pours and Excavation Hauling Days per Phase: 7 Daily Number of Trips: 80	Foundations: 10' Piles: 80'	3'	6267	4567	1700		
		Auger Drill Rig*	1	0	42	75										
		Backhoe	2	0	105	50										
		Chain Saw	1	0	11	50										
		Compactor (ground)	2	0	5	75										
		Compressor (air)	2	0	9	25										
		Concrete Mixer Truck	2	2	44	25										
		Concrete Pump Truck	1	1	2	50										
		Concrete Saw	1	0	11	100										
		Crane	1	1	105	25										
		Dozer*	0	0	42	100										
		Drill Rig Truck	1	0	42	25										
		Dump Truck*	3	0	42	100										
		Excavator	2	0	44	50										
		Flat Bed Truck	1	1	30	25										
		Generator	0	0	0	0										
		Generator (<25KVA, VMA)	1	1	105	75										
		Gradall	1	1	105	75										
		Hydra Break Ram	1	0	1	50										
		Jackhammer*	1	0	10	50										
		Pavement Scarifier	1	0	1	100										
		Paver	1	0	1	100										
		Pickup Truck	10	1	105	25										
		Pneumatic Tools	2	0	9	25										
		Pumps	1	0	21	75										
		Roller*	1	0	1	100										
		truck)	1	1	5	50										
		Vacuum Street Sweeper	1	1	21	75										
		Vibrating Hopper	2	2	5	50										
		Vibratory Concrete Mixer	6	0	44	25										
		Warning Horn	4	3	105	25										
		Shuttle (Passenger)	1	0	80	25										
Welder / Torch	1	1	30	25												
Structural Steel and Gondola Equipment Erection	28	See Equipment Details Below				25	10	10	During Steel Erection Days per Phase: 180 Daily Number of Trips: 2	n/a	n/a	n/a	n/a	n/a		
		Backhoe	2	0	14	25										
		Compactor (ground)	2	0	14	50										
		Compressor (air)	1	1	140	25										
		Concrete Mixer Truck	2	2	14	25										
		Concrete Pump Truck	1	0	14	50										
		Crane	1	1	140	75										
		Flat Bed Truck	1	1	140	25										
		Generator	0	0	0	0										
		Generator (<25KVA, VMA)	0	0	0	0										
		Gradall	1	1	140	75										
		Pickup Truck	5	1	140	25										
		Pneumatic Tools	2	2	140	25										
		Vacuum Excavator (Vac)	1	0	5	50										
		Vacuum Street Sweeper	1	1	28	25										
		Ventilation Fan	1	1	140	75										
		Vibrating Hopper	2	0	14	25										
		Vibratory Concrete mixer	4	0	14	25										
		Warning Horn	4	4	140	25										
		Hand Held Metal Saw	1	0	45	25										
Shuttle (Passenger)	1	0	140	25												
Manlifts	2	0	120	50												
Welder / Torch	4	4	140	25												
Asphalt & Re- Striping	2	See Equipment Details Below				10	0	0	During Paving Days per Phase: 1 Daily Number of Trips: 10	n/a	1'	n/a	n/a	n/a		
		Paver	1	1	10	100										
		Roller	1	1	10	100										
		Ground compactor	2	0	10	50										
		Warning Horn	2	2	10	25										
		Pickup Truck	5	1	10	25										



**Broadway Alignment  
With Deck @ Alameda  
With Deck @ Broadway**

Activity	Equipment	Quantity		Hours		Days per Phase	Daily Number of Trips	Phase	Width	Height	Notes	Other	Other	Other	
		1	2	1	2										
Vertical Circ. / Hardscape & Landscape/ Interior Work	Dump Truck	2	1	4	50										
	Flat Bed Truck	1	0	10	25										
	Backhoe	2	2	10	50										
	Shuttle (Passenger)	0	0	10	25										
	Vacuum Street Sweeper	1	1	2	25										
	40	See Equipment Details Below				20	10	10	During Hardscape Days per Phase: 20						
	Backhoe	1	1	80	50				6'		n/a	n/a	n/a		
	Compactor (ground)	1	1	15	25										
	Concrete Mixer Truck	1	1	15	25										
	Crane	1	1	100	50										
	Generator	0	0	0	0										
	Pickup Truck	5	1	80	25										
	Dump Truck	1	1	50	25										
	Flat Bed Truck	1	1	120	25										
	Gradall	1	0	200	50										
Welders	1	1	135	25											
Vehicles	1	0	200	25											
Warning Horn	3	2	200	25											
Vacuum Street Sweeper	1	1	20	25											
Utilities	See Equipment Details Below				5	0		During Concrete Pours and Excavation Hauling Days per Phase: 8							
	Backhoe	1	1	38	75			2	Daily Number of Trips: 5	10'	10'		111	111	
	Concrete Saw	1	0	8	50										
	Vibrating Hopper	1	0	8	75										
	Compactor (ground)	1	0	8	100										
	Concrete Mixer Truck	2	1	8	25										
	Pickup Truck	5	1	8	25										
	Roller	1	0	8	100										
	Gradall/Forklift	1	1	35	50										
	Flat Bed Truck	1	0	7	25										
	Dump Truck	1	1	7	25										
	Front End Loader	1	1	15	50										
	Vacuum Street Sweeper	1	1	35	25										
	Shuttle (Passenger)	1	0	35	25										
	Vehicles	1	0	35	25										
Warning Horn	2	2	38	25											
Demo Building (Overlaps w/Foundations and Columns Phase)	See Equipment Details Below				5	10	10	During Material Hauling Days per Phase: 12	18" to bottom of the slab on grade	18"		0	9008	0	
	Backhoe	2	1	15	50										
	Hydra Break Ram	1	1	1	50										
	Chain Saw	1	1	1	100										
	Concrete Saw	1	1	1	50										
	Dozer*	1	1	12	50										
	Dump Truck*	70	5	12	1										
	Excavator	2	2	15	50										
	Jackhammer*	1	1	10	50										
	Pickup Truck	10	2	15	25										
	Vacuum Street Sweeper	1	1	15	75										
	Warning Horn	3	1	15	25										
	Shuttle (Passenger)	1	0	15	25										
	Vehicles	1	0	15	25										
	Welder / Torch	1	1	5	25										
Foundations and Columns	See Equipment Details Below				25	10	10	During Concrete Pours and Excavation Hauling Days per Phase: 8	Foundations: 7' Piles: 120'	8'		6407	5379	1028	
	Auger Drill Rig*	1	0	56	75										
	Backhoe	2	0	140	50										
	Chain Saw	1	0	1	50										
	Compactor (ground)	2	0	5	75										
	Compressor (air)	2	0	9	25										
	Concrete Mixer Truck	2	2	58	25										
	Concrete Pump Truck	1	1	2	50										
	Concrete Saw	1	0	1	100										
	Crane	1	1	140	25										
	Dozer*	0	0	56	100										
	Drill Rig Truck	1	0	56	25										
	Dump Truck*	3	0	56	100										
	Excavator	2	0	58	50										
	Flat Bed Truck	1	1	30	25										
	Generator	0	0	0	0										
	Generator (<25KVA, VMA)	0	0	0	0										
	Gradall	1	1	140	75										
	Hydra Break Ram	1	0	1	50										
	Jackhammer*	1	0	10	50										
	Pavement Scarifier	1	0	1	100										
	Paver	1	0	1	100										
	Pickup Truck	10	1	140	25										
	Pneumatic Tools	2	0	9	25										
	Pumps	1	0	28	75										
	Roller*	1	0	1	100										
	Vacuum Excavator (Vac)	1	1	5	50										
	Vacuum Street Sweeper	1	1	28	75										
	Vibrating Hopper	2	2	5	50										
	Vibratory Concrete Mixer	6	0	58	25										
	Warning Horn	4	3	140	25										
	Shuttle (Passenger)	1	0	80	25										
	Welder / Torch	1	1	30	25										
	Broadway Junction Deck Shoring, Cribbing, and Erection	See Equipment Details Below				12	6	5							
		Gradall	2	2	10	75									
Crane		1	1	10	75										
Vacuum Street Sweeper		1	1	1	25										
Flat Bed Truck		3	1	10	50										
Scissor Lift		2	2	10	50										
Welder / Torch		1	1	5	50										
Compressor (air)		2	2	10	50										
Pneumatic Tools		2	2	10	50										
Chain Saw		1	1	4	50										
Shuttle (Passenger)		1	0	10	25										



**Broadway Alignment  
With Deck @ Alameda  
With Deck @ Broadway**

Activity	Equipment	Days	Hours	Volume	Days per Phase	Daily Number of Trips	Phase	Other	Other	Other	Other	Other	
Structural Steel and Gondola Equipment Erection	Warning Horn	3	2	10	25								
	Pickup Truck	5	1	0	25								
	38	See Equipment Details Below				25	10	10	During Steel Erection Days per Phase: 140				
	Backhoe	2	0	19	25			Daily Number of Trips: 2	n/a	n/a	n/a	n/a	
	Compactor (ground)	2	0	19	50								
	Compressor (air)	1	1	190	25								
	Concrete Mixer Truck	2	2	19	25								
	Concrete Pump Truck	1	0	19	50								
	Crane	1	1	190	75								
	Flat Bed Truck	1	1	190	25								
	Generator	0	0	0	0								
	Generator (<25KVA, VMA)	0	0	0	0								
	Gradall	1	1	190	75								
	Pickup Truck	5	1	190	25								
	Pneumatic Tools	2	2	190	25								
	Vacuum Excavator (Vac-)	1	0	5	50								
	Vacuum Street Sweeper	1	1	38	25								
	Ventilation Fan	1	1	190	75								
	Vibrating Hopper	2	0	19	25								
	Vibratory Concrete mixer	4	0	19	25								
	Warning Horn	4	4	190	25								
	Hand Held Metal Saw	1	0	38	50								
	Shuttle (Passenger)	1	0	190	25								
	Manlifts	2	0	170	50								
	Welder / Torch	4	4	190	25								
4	See Equipment Details Below				12	6	10						
Gradall	2	2	15	75									
Crane	1	1	15	50									
Vacuum Street Sweeper	1	1	11	25									
Flat Bed Truck	3	1	15	50									
Scissor Lift	2	2	15	50									
Welder / Torch	1	1	7	50									
Compressor (air)	2	2	15	50									
Pneumatic Tools	5	2	15	50									
Shuttle (Passenger)	1	0	15	25									
Warning Horn	3	2	15	25									
Pickup Truck	5	1	15	25									
2	See Equipment Details Below				10	0	0	During Asphalt Days per Phase: 1					
Paver	1	1	10	100			0	Daily Number of Trips: 10	n/a	1'	n/a	n/a	
Roller	1	1	10	100									
Ground compactor	2	0	5	50									
Warning Horn	2	2	10	25									
Escalators	0	0	0	0									
Pickup Truck	5	1	10	25									
Dump Truck	2	1	5	25									
Flat Bed Truck	1	0	5	25									
Backhoe	2	2	10	75									
Shuttle (Passenger)	0	0	10	25									
Vacuum Street Sweeper	1	1	2	25									
29	See Equipment Details Below				20	10	10	During Hardscape Days per Phase: 20					
Backhoe	1	1	58	50			10	Daily Number of Trips: 10	n/a	6'	n/a	n/a	
Compactor (ground)	1	1	15	25									
Concrete Mixer Truck	1	1	15	25									
Crane	1	1	58	50									
Generator	0	0	0	0									
Dump Truck	1	1	87	25									
Flat Bed Truck	1	1	116	25									
Pickup Truck	5	1	80	25									
Gradall	1	0	145	50									
Welders	1	1	135	25									
Vehicles	1	0	145	25									
Warning Horn	3	2	145	25									
Vacuum Street Sweeper	1	1	20	25									
3	See Equipment Details Below				5	0	2	During Concrete Pours and Excavation Hauling Days per Phase: 3					
Backhoe	1	1	13	75			2	Daily Number of Trips: 5	10'	10'	3500	3500	
Concrete Saw	1	0	3	50									
Vibrating Hopper	1	0	3	75									
Compactor (ground)	1	0	3	100									
Pickup Truck	5	1	0	25									
Concrete Mixer Truck	2	1	3	25									
Roller	1	0	3	100									
Gradall/Forklift	1	1	35	50									
Flat Bed Truck	1	0	7	25									
Dump Truck	1	1	7	25									
Front End Loader	1	1	15	50									
Vacuum Street Sweeper	1	1	35	25									
Shuttle (Passenger)	1	1	35	25									
Vehicles	1	0	35	25									
Warning Horn	2	2	13	25									
15	See Equipment Details Below				25	10	10	During Concrete Pours and Excavation Hauling Days per Phase: 4	Foundations: 7'				
Auger Drill Rig*	1	0	30	75			Daily Number of Trips: 20	Piles: 120'	3'	1286	1202	84	
Backhoe	2	0	75	50									
Chain Saw	1	0	1	50									
Compactor (ground)	2	0	5	75									
Compressor (air)	2	0	9	25									
Concrete Mixer Truck	2	2	32	25									
Concrete Pump Truck	1	1	2	50									
Concrete Saw	1	0	1	100									
Crane	1	1	75	25									
Dozer*	0	0	30	100									
Drill Rig Truck	1	0	30	25									
Dump Truck*	3	0	30	100									
Excavator	2	0	32	50									
Flat Bed Truck	1	1	30	25									
Generator	0	0	0	0									
Generator (<25KVA, VMA)	0	0	0	0									
Gradall	1	1	75	75									
Hydra Break Ram	1	0	1	50									

Activity	Equipment	Quantity	Days	Hours	Days per Phase	Hours per Phase	Days per Phase	Hours per Phase	Days per Phase	Hours per Phase	Days per Phase	Hours per Phase	Days per Phase	Hours per Phase	
Stadium Tower	Jackhammer*	1	0	10											
	Pavement Scarifier	1	0	1											
	Paver	1	0	1											
	Pickup Truck	10	1	75											
	Pneumatic Tools	2	0	9											
	Pumps	1	0	15											
	Roller*	1	0	1											
	Vacuum Excavator (Vac-	1	1	5											
	Vacuum Street Sweeper	1	1	15											
	Vibrating Hopper	2	2	5											
	Vibratory Concrete Mixer	6	0	32											
	Warning Horn	4	3	75											
	Shuttle (Passenger)	1	0	80											
	Welder / Torch	1	1	30											
	Structural Steel and Gondola Equipment Erection	See Equipment Details Below				25	10	10	During Steel Erection Days per Phase: 175 Daily Number of Trips: 2	n/a	n/a	n/a	n/a	n/a	n/a
		Backhoe	2	0	13										
		Compactor (ground)	2	0	13										
		Compressor (air)	1	1	130										
		Concrete Mixer Truck	2	2	13										
Concrete Pump Truck		1	0	13											
Crane		1	1	130											
Flat Bed Truck		1	1	130											
Generator		0	0	0											
Generator (<25KVA, VMA)		0	0	0											
Grapple		1	1	130											
Pickup Truck		5	1	130											
Pneumatic Tools		2	2	130											
Vacuum Excavator (Vac-		1	0	5											
Vacuum Street Sweeper		1	1	26											
Ventilation Fan		1	1	130											
Vibrating Hopper		2	0	13											
Vibratory Concrete mixer		4	0	13											
Warning Horn		4	4	130											
Hand Held Metal Saw		1	0	26											
Shuttle (Passenger)		1	0	130											
Manlifts		2	0	110											
Welder / Torch		4	4	130											
Asphalt & Re-Striping		0	n/a	n/a	n/a	0	0	0	n/a	n/a	n/a	n/a	n/a	n/a	
Vertical Circ. / Hardscape & Landscape/ Interior Work		See Equipment Details Below				20	10	10	n/a	n/a	n/a	n/a	n/a	n/a	
		Backhoe	2	2	22										
	Compactor (ground)	1	1	15											
	Concrete Mixer Truck	1	1	15											
	Generator	0	0	0											
	Dump Truck	1	1	33											
	Flat Bed Truck	1	1	44											
	Pickup Truck	5	1	80											
	Grapple	1	1	55											
	Welders	1	0	55											
	Vehicles	1	0	55											
Warning Horn	3	2	55												
Vacuum Street Sweeper	1	1	20												
Utilities	See Equipment Details Below				5	0	2	During Concrete Pours and Excavation Hauling Days per Phase: 5 Daily Number of Trips: 5	10'	10'	1600	1600	0		
	Backhoe	1	1	25											
	Concrete Saw	1	0	5											
	Vibrating Hopper	1	0	5											
	Compactor (ground)	1	0	5											
	Pickup Truck	5	1	0											
	Concrete Mixer Truck	2	1	5											
	Roller	1	0	5											
	Grapple/Forklift	1	1	35											
	Flat Bed Truck	1	0	7											
	Dump Truck	1	1	7											
	Front End Loader	1	1	15											
	Vacuum Street Sweeper	1	1	35											
Warning Horn	2	2	25												
Foundations and Columns	See Equipment Details Below				25	10	10	During Concrete Pours and Excavation Hauling Days per Phase: 24 Daily Number of Trips: 80	Foundations: 42' Piles: 55'	3'	44313	44001	312		
	Auger Drill Rig*	1	0	62											
	Backhoe	2	0	155											
	Chain Saw	1	0	1											
	Compactor (ground)	2	0	5											
	Compressor (air)	2	0	9											
	Concrete Mixer Truck	2	2	64											
	Concrete Pump Truck	1	1	2											
	Concrete Saw	1	0	1											
	Crane	1	1	155											
	Dozer*	0	0	62											
	Drill Rig Truck	1	0	62											
	Dump Truck*	3	0	62											
	Excavator	2	0	64											
	Flat Bed Truck	1	1	30											
	Generator	0	0	0											
	Generator (<25KVA, VMA)	0	0	0											
	Grapple	1	1	155											
	Hydra Break Ram	1	0	1											
	Jackhammer*	1	0	10											
	Pavement Scarifier	1	0	1											
	Paver	1	0	1											
	Pickup Truck	10	1	155											
	Pneumatic Tools	2	0	9											
	Pumps	1	0	31											
	Roller*	1	0	1											
	Vacuum Excavator (Vac-	1	1	5											
	Vacuum Street Sweeper	1	1	31											
	Vibrating Hopper	2	2	5											
	Vibratory Concrete Mixer	6	0	64											
	Warning Horn	4	3	155											
Dodger Stadium Station															



**Broadway Alignment  
With Deck @ Alameda  
With Deck @ Broadway**

		Welder / Torch	1	1	30	25										
Structural Steel and Gondola Equipment Erection	24	See Equipment Details Below				25	10	10	During Steel Erection Days per Phase: 90 Daily Number of Trips: 2	n/a	n/a	n/a	n/a	n/a		
		Backhoe	2	0	12	25										
		Compactor (ground)	2	0	12	50										
		Compressor (air)	1	1	120	25										
		Concrete Mixer Truck	2	2	12	25										
		Concrete Pump Truck	1	0	12	50										
		Crane	1	1	120	75										
		Flat Bed Truck	1	1	120	25										
		Generator	0	0	0	0										
		Generator (<25KVA, VMA)	0	0	0	0										
		Gradaal	1	1	120	75										
		Pickup Truck	5	1	120	25										
		Pneumatic Tools	2	2	120	25										
		Vacuum Excavator (Vac-	1	0	5	50										
		Vacuum Street Sweeper	1	1	24	25										
		Ventilation Fan	1	1	120	75										
		Vibrating Hopper	2	0	12	25										
		Vibrator Concrete mixer	4	0	12	25										
		Warning Horn	4	4	120	25										
		Hand Held Metal Saw	1	0	24	50										
		Nails/ite	2	0	100	50										
		Welder / Torch	4	4	120	25										
		Asphalt & Re-Striping	2	See Equipment Details Below				10	0	0	During Asphalt Days per Phase: 1 Daily Number of Trips: 10	n/a	1'	n/a	n/a	n/a
				Paver	1	1	10	100								
Roller	1			1	10	100										
Ground compactor	2			0	5	50										
Warning Horn	2			2	10	25										
Excavators	0			0	0	0										
Pickup Truck	5			1	10	25										
Dump Truck	2			1	5	25										
Flat Bed Truck	1			0	5	25										
Backhoe	2			2	10	75										
Vacuum Street Sweeper	1			1	2	25										
Vertical Circ. / Hardscape & Landscape/ Interior Work	33	See Equipment Details Below				20	10	10	During Hardscape Days per Phase: 20 Daily Number of Trips: 10	n/a	6'	n/a	n/a	n/a		
		Backhoe	1	1	66	50										
		Compactor (ground)	1	1	15	25										
		Crane	1	1	66	50										
		Concrete Mixer Truck	1	1	15	25										
		Generator	0	0	0	0										
		Pickup Truck	5	1	80	25										
		Dump Truck	1	1	99	25										
		Flat Bed Truck	1	1	132	25										
		Gradaal	1	0	165	50										
		Welders	1	1	135	25										
		Warning Horn	3	2	165	25										
		Vacuum Street Sweeper	1	1	20	25										

**EXHIBIT 4**  
**Potential Location for Mesa Lot Construction and Gondola Staging**





Main Jobsite  
Office Park

Gondola  
Equipment  
Laydown  
Area

PCL  
General  
Laydown  
Area

30' Proctor Spaces for Office Parkers

STATE office

Safety / Check-in

Inspectors

Owner & Designer

Gondola Sub

Steel Sub

Concrete Sub

Electrical Sub

Plumb Sub

Mech Sub

**EXHIBIT 5**  
**Construction Schedule**

## Draft Construction, Rope Pulling, and System Testing Schedule for the Proposed Project

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25																			
<b>Project Component/Activity</b>	<b>Total Project Duration 25 months</b>																																											
Alameda Station	17 months																																											
Alameda Tower							12 months																																					
Alpine Tower			11 months																																									
Chinatown/State Park Station	19 months																																											
Broadway Junction	19 months																																											
Stadium Tower				12 months																																								
Dodger Stadium Station	20 months																																											
Rope Pulling																		5 months																										
<i>Alameda Station to Broadway Junction</i>																		10 weeks																										
<i>Broadway Junction to Dodger Stadium Station</i>																				10 weeks																								
System Testing																									4 months																			

Notes:

1. This construction schedule does not include utility relocations which will occur prior to the start of construction.
2. System testing includes fine tuning of the system and hanging of the cabins.

**APPENDIX B**

**CONSTRUCTION ASSUMPTIONS**

**- Rope Pulling and System**

**Testing Memorandum**



## MEMORANDUM

**TO:** David DeRosa, AECOM  
**FROM:** Mike Deiparine  
**DATE:** March 01, 2022  
**PROJECT:** LA ART  
**SUBJECT:** Rope Pulling and System Testing

This memo provides preliminary information on anticipated rope pulling and system testing activities for the proposed Los Angeles Aerial Rapid Transit project ("LA ART" or "Project").

### 1. OVERVIEW OF CABLES AND ROPEWAY TECHNOLOGY

The proposed Project would use a tri-cable (3S) system, which relies on three steel cables to support and move the cabins. The proposed Project's tri-cable technology would be comprised of two stationary cables (track ropes) that provide support for the running wheels of the cabins, and a third cable (haul rope) that would circulate continuously around the system. The haul rope, which is the propulsion rope, is moved by the turning of a large sheave known as a "drive bull wheel". The drive bull wheel is turned by motors located at the station or junction. The haul rope is looped around a drive bull wheel at one station/junction and a return bull wheel at the opposing station/junction. Five cables are needed for a 3S system: 2 track ropes on the outbound side, 2 track ropes on the inbound side, and the continuous haul rope loop.

Due to the length and geometry of the proposed Project, it is anticipated that two such ropeway systems would be used. The first section would carry passengers from the Alameda Station to the Broadway Junction. The second section would carry passengers from the Broadway Junction to the Dodger Stadium Station. The transition between the two systems would occur in the Junction, in a manner inconspicuous to the passengers. This system transition requires one haul rope loop from the Alameda Station to the Broadway Junction and one haul rope from the Broadway Junction to the Dodger Stadium Station. It is anticipated that the track ropes will also extend from the Alameda Station to the Broadway Junction and the Broadway Junction to the Dodger Stadium Station.

Accordingly, it is anticipated the Project will require 10 cables: four track ropes and one haul rope from the Alameda Station to the Broadway Junction and four track ropes and one haul rope from the Broadway Junction to the Dodger Stadium Station. It is, however, possible that the track ropes could be terminated at each station and junction, which would add four additional track ropes for the portion of the alignment between Chinatown/State Historic Park Station and Broadway Junction.

## **2. ROPE PULLING**

The “pulling” of the cables requires the placement of an initial thin, light line rope from one end to the other, which will be used to pull progressively larger cables. The initial placement is anticipated to be flown either by drone or helicopter. Rope pulling activities for each of the two ropeway systems would require temporary closure of roadways underneath each ropeway system of the Project alignment. In order to minimize traffic disruption, rope pulling activities for each ropeway system would not occur contemporaneously. Rope pulling activities for the ropeway system from Alameda Station to Broadway Junction would require temporary closure of Alameda Street, Spring Street and North Broadway, as well as portions of roadways that intersect with these roadways, for up to two non-consecutive days. Rope pulling activities for the ropeway system from Broadway Junction to Dodger Stadium Station would require temporary closure of North Broadway, Bishops Road, Savoy Street, SR-110, and Stadium Way, for up to two non-consecutive days. The Project will coordinate with the rope pulling specialist to minimize closures during rope pulling. Coordination will seek to minimize closures, including during peak hours.

Once the initial rope is placed and secured at each end, one end of the rope is attached to the next larger rope, which is then pulled from its spool to the pulling location. Once the second rope has been pulled, it is secured, then one end is attached to the next rope and the process is repeated until the final cable is in place. We anticipate there will be approximately two intermediate rope sizes between the initial rope and the final cable. Temporary protection and supports, such as cranes to support the ropes, may be required at locations between towers and stations/junctions.

We estimate 10 weeks will be required from the start of rope pulling activities to the end of rope pulling activities, per system. The pulls of the two systems will not be simultaneous.

The pulling activities will require a 50-100 hp diesel hydrostat winch at each end. There will be ancillary power needs, likely supplied by a ~5kW skid mounted generator or utility power. We anticipate a Conex or similar apparatus with a variety of tools, rigging equipment, and other supplies. Each of the 10 cables will be delivered on its own spool of 20-40 tons. These will be received and moved around as needed by a crane. A tractor or lift will be required to move the skid generator, winches, and other heavy items. We estimate 10 workers will be at each end of the rope during each pull for a total of 20 workers.

## **3. SYSTEM TESTING**

After the system construction and erection are complete, technicians will make fine adjustments to machinery, controls, tower heads, and other relevant components. The system would undergo formal testing as prescribed by the California Division of Occupational Safety and Health (Cal/OSHA) and appropriate ropeway standards.

Throughout the testing period, technicians of various disciplines will be on site, as will inspectors. We have assumed testing will occur over a period of 2 months for each system. We estimate testing will require an average of 10 technicians and will involve an average of 10-15 additional people during demonstration activities.