

## MEMORANDUM

To: CHAIR AND COMMISSIONERS  
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: June 26-27, 2025

From: STEVEN KECK, Chief Financial Officer

Reference Number: 4.18, Action Item

Prepared By: Dee Lam, Chief  
Division of Local Assistance

Subject: **ACTIVE TRANSPORTATION PROGRAM – PROJECT SCOPE  
AMENDMENT AND SEGMENTING – DELAWARE STREET SAFE ROUTES TO  
SCHOOL CORRIDOR PROJECT  
RESOLUTION ATP-P-2425-11**

### **ISSUE:**

Should the California Transportation Commission (Commission) approve a project scope amendment for the Cycle 5 Active Transportation Program (ATP) Delaware Street Safe Routes to School Corridor project (PPNO 2353), in San Mateo County?

### **RECOMMENDATION:**

The California Department of Transportation (Department) recommends that the Commission approve this project scope amendment for the Cycle 5 ATP Delaware Street Safe Routes to School Corridor project (PPNO 2353), in San Mateo County.

### **DISCUSSION:**

In June 2019, the Commission approved the Metropolitan Planning Organization component of the 2019 ATP, which included \$1,661,000 in funding for the Delaware Street Safe Routes to School Corridor project (PPNO 2353), in San Mateo County. This project will replace existing underutilized Class II bicycle lanes with 0.7 miles of Class IV facilities, 0.35 miles of bicycle boulevard, crossing treatments at intersections, upgraded pedestrian facilities, and connectivity to the City of San Mateo's (City) existing and planned bicycle facilities for a fully connected portion of the planned bicycle network.

The desired outcome of the project is to encourage more bicycling activity in an area where currently only the most confident cyclists ride. This project will allow users of all ages and abilities to travel north-south through the City, and will serve nearly 1,000 elementary school students who otherwise do not have a low-stress bicycle option to access their schools.

Additionally, at the June 2025 Commission meeting, the City is requesting a project allocation for the Construction phase.

**ANALYSIS:**

The Department's analysis has deemed the City's request to be a significant scope change due to the segmenting of the proposed work.

The revised scope includes the addition of intersection timing changes at four intersections on Delaware Street, adding a Rectangular Rapid Flashing Beacon, and crosswalk improvements at one intersection. The proposed segmenting will move the proposed work onto a Department-administered project, that will connect this project to future Class IV facilities. The removal of the segmenting portion will save the project \$4,000 and the additional improvements will cost \$183,000, which will be covered by the City.

**ANALYSIS RECOMMENDATION:**

Based on the Commission's scope change and segmenting guidance, as well as the analysis of the proposed scope changes, the Department has determined that this scope change has the potential to increase overall active transportation users of the project as compared to the original scope. Therefore, the Department supports the proposed scope change for this project.

**BACKGROUND:**

Resolution G-16-29 amended the ATP Guidelines to stipulate that any agency implementing an ATP project, present scope changes to the Department for consideration prior to allocation. Therefore, the Department will make a recommendation to the Commission for final approval with the understanding that scope changes that result in a decrease in active transportation benefits may result in removal from the program.

Attachments

# Project Scope Change and Segmenting Request Caltrans' Analysis and Recommendations

Re-Submittal Date: April 17, 2025

**PROJECT NAME:** Delaware Street Safe Routes to School Corridor

**IMPLEMENTING AGENCY:** City of San Mateo

**ATP ID:** ATP5-04-107M

**FEDERAL PROJECT NO.:** 5102(053)

**PPNO:** 04-2353

**DATE OF AGENCY/CT COORDINATION MEETING:**

**FIELD REVIEW DATE (major only):** N/A

**APPROVED PROJECT DESCRIPTION:** PS&E, ROW, CON funding for design/construction of Class IV separated bike lanes and bicycle boulevard, upgrade pedestrian facilities, and connections to existing facilities.

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## **Purpose**

This document serves as supplemental information to the Exhibit 25-D REQUEST FOR PROJECT SCOPE CHANGE and SEGMENTING (attached) completed by City of San Mateo and submitted to Caltrans on 4/16//2025.

## **Caltrans' Recommendation(s)**

As a result of Caltrans' review of the City of San Mateo Scope Change Request documentation and subsequent discussion(s) with the City of San Mateo staff, Caltrans recommends the following action:

APPROVE AS A MAJOR SCOPE CHANGE

## **Scope to Be Changed**

The following is a numbered list of proposed scope changes for [Phase 1](#):

1. At Bermuda Dr, Saratoga Dr, 25th Ave and 28th Ave
  - Add intersection timing changes to 4 intersections
2. At Delaware St and Pacific Blvd intersection
  - Add Rectangular Rapid Flashing Beacon (RRFB) and crosswalk improvements

The following is a numbered list of proposed scope changes for [Phase 2](#):

1. At intersection of 19th Ave and S Delaware St (As part of the segmenting request)
  - Exchange green conflict striping through the intersection to a future non-motorized intersection redesign as part of S101/SR92 Fashion Island Blvd Mobility Hub, a joint project with San Mateo County Transportation Authority (SMCTA) ([LINK](#)), which is scheduled to break ground in summer of 2026. Currently the proposed intersection improvement will include making the intersection a protected intersection.
2. At south approach leg of 19th Ave and S Delaware Street intersection
  - Exchange Class IV bike facility at the south approach to the intersection for a future Class IV facility as part of the joint project. This scope change would also prevent significant rework from having to occur for the Delaware Safe Routes to School (SRTS) project.

## **Reason for the Scope Change**

### Phase 1

Change 1- the agency is utilizing local funds to determine timing improvements/signal improvement needs along the entire project corridor.

Change 2- the agency wants to add ATP enhancements to the intersection.

### Phase 2

Change 1 and 2- the proposed work is inside Caltrans ROW. The intersection shall instead be redesigned as a part of a joint project with SMCTA, which will likely include a fully protected intersection (at 19th/Delaware) as well as efforts to tie-in future Class IV facilities to the Delaware project. This scope change would also prevent significant rework from having to occur for the Delaware SRTS project.

## **Summary of Caltrans Analysis**

Caltrans supports this request for the following reasons:

**Proposed scope change's affect to benefits (Potential of the project to increase walking and biking as compared to the approved scope):**

**Temporary Decrease-** The proposed scope change is expected to have the following impact(s) on the project's potential to increase walking and biking as compared to the original scope.

### Phase 1

Change 1 and 2- The signal timing/safety improvements can encourage more users through improved travel times and safety, which can increase the potential of the project to increase walking and biking.

### Phase 2

Change 1 and 2- For the purposes of this scope change, the removal of these improvements will decrease the potential for the project to increase walking and biking until the completion of the segmented S101/SR92 Fashion Island Blvd Mobility Hub project. The inclusion of work at S. Delaware and 19<sup>th</sup> Ave into the future Caltrans/SMCTA project will increase the potential to increase walking and biking, in the long term.

**Proposed scope change's affect to benefits (Potential of the project to increase safety of pedestrians and bicyclists walking biking as compared to the approved scope):**

**Temporary Decrease -** The proposed scope change is expected to have the following impact(s) on the overall safety of pedestrians and bicyclists as compared to the original scope.

### Phase 1

Change 1 and 2- The intersection timing improvements and added RRFB will make intersection operations safer for non-motorized users.

### Phase 2

Change 1 and 2- For the purposes of this scope change, the removal of these improvements will decrease the project's potential to increase safety of pedestrians and bicyclists. The completion of the segmented S101/SR92 Fashion Island Blvd Mobility Hub work at S. Delaware and 19<sup>th</sup> Ave in the future Caltrans/SMCTA project will make safer improvements to the intersection, in the long term.

### **Additional Comments**

Caltrans concurs with the information provided in Attachment 1- Exhibit 25-D REQUEST FOR PROJECT SCOPE CHANGE. The agency has coordinated with Caltrans staff to provide the most accurate information possible.

### **Caltrans' Coordination with Requesting Agency**

The Scope change request appeared straight forward and driven by the safety needs of non-motorized users; therefore, no meetings were scheduled for this scope change request.

### **Impact to Project Cost**

Project scope changes would have a net increase on the overall cost of the project. All increases will be absorbed by local City funds (\$1,500,000).

The City's documentation shows the project savings of removing 200 LF @ \$20/LF to be approximately \$4,000. Which Caltrans does not recommend decreasing from the project's funding.

The other project additions, which appear to be fully ATP eligible, total \$182,700; which the agency intends to fund with local funding.

### **Impact to Project Schedule**

The Construction funds are programmed in 24/25. The current Commission construction allocation request date is shown as 5/15/2025.

### **ATTACHMENTS**

1. Exhibit 25-D REQUEST FOR PROJECT SCOPE CHANGE and SEGMENTATION- Completed by Agency
2. Original plans with changes redlined
3. Original Detailed Engineer's Estimate with changes redlined
4. MPO approval of the proposed changes

**Exhibit 25-D: Request for Project Scope Change (Local ATP Projects)**

The Request for Project Scope Change (Local ATP Projects) form, Exhibit 25-D, is used when the implementing agency is unable to complete the approved project scope as programmed. This Project Scope Change Request Form is intended to support the California Transportation Commission (CTC) “Policy on Project Amendments and Advance Project Allocations”, adopted on August 18, 2016.

**Prior to filling out this form the implementing agency is expected to:**

- 1) *Read the instructions, Exhibit 25-D1: Instructions for Request for Project Scope Change, and become familiar with all required elements of requests for scope changes*
- 2) *Hold a coordination meeting/call with Caltrans District and HQ ATP managers. See instructions for more details.*



To: <i>Xi Zhang, Teresa Mcwilliam</i>	Date: 4/16/2025
District Local Assistance Engineer	PPNO: 2353
Caltrans, Office of Local Assistance	Federal PROJECT #: 5102(053)
<i>California Department of Transportation</i>	ATP ID #: ATP5-04-107M
<i>District 4 111 Grand Ave</i>	
<i>Oakland, CA 94612</i>	

**Project Name** (Per CTC programming): *Delaware Street Safe Routes to School Corridor*

**Approved Project Description** (As submitted in Application): *The Delaware Street Safe Routes to School Corridor will replace existing underutilized Class II bicycle lanes with .7 miles of Class IV facilities, and add .35 miles of bicycle boulevard in addition to crossing treatments at intersections, upgraded pedestrian facilities, and connectivity to the City’s existing and planned bicycle facilities for a fully connected portion of the planned bicycle network.*

**Approved Project Limits** (As submitted in Application): *The project extents are South Delaware Street from 19th Avenue to Pacific Boulevard.*

**For Federally Funded Projects:** Written MPO Concurrence (see Item #7)

Current FTIP/FSTIP Description: \_\_\_\_\_

Current FTIP/FSTIP Limits: \_\_\_\_\_

Dear Xi and Teresa:

Consistent with the California Transportation Commission’s (CTC) “Policy on Project Amendments and Advance Project Allocations”, adopted on August 18, 2016, we request that Caltrans consider, and the CTC approve the proposed Project Amendments as documented below:

**REQUIRED ELEMENTS (PER CTC'S PROJECT AMENDMENT POLICY):****1) An explanation of the proposed scope change;**Phase 1:

Phase 1 will construct the first segment of this project (Segment 1) along the currently approved project alignment. There are minor changes in the approved project scope for Segment 1, as outlined in scope change request within this document. Segment 1 will be delivered as identified in the Approved Project Description, as submitted in the City's original ATP Grant Application; with minor additional scope changes outlined per the below. Construction of this segment will be funded by the ATP funds of \$1,401,000 that are currently programmed for the Construction phase of this project. To ensure the timely use of programmed funds, the City will submit the necessary Construction Allocation Request package or Time Extension Request to the District in time to be voted by the Commission no later than the regularly scheduled June 2025 California Transportation Commission Meeting.

Upon approval of the allocation request, the City will publicly bid and construct Segment 1. It is anticipated that the bidding and construction phase will occur over a period of approximately 6 months through approximately December 2025. Segment 1 will be opened to the public at this time.

Phase 2:

Phase 2 will construct the second, and final, segment of the project (Segment 2) between the intersection of 19<sup>th</sup> Ave and S Delaware St and the end of Segment 1, thereby completing the full, approved project alignment (as submitted in the application). Funding for Segment 2 will not utilize ATP funding sources. Funding for Segment 2 will pull from multiple sources (as segment 2 is part of a greater project) by the San Mateo County Transportation Authority (TA), 2023 OBAG funding, and City local funds as further described within Section 3 of this request.

Segment 2 will be constructed along the approved project alignment. From the originally proposed alignment at its northerly extent. See Attachment C for the proposed Segment 2 alignment.

Funding for Segment 2 will be provided through a partnership between the TA and the City. We expect that construction of the portion of Segment 2 will be ready for construction by approximately December 2026 and be fully constructed, and open to the public at that time.

Since Segment 2 will not be funded with ATP funds, it is important to note that construction for Segment 2 is anticipated **not to be** completed within the "timely use of funds" limitation that will be stipulated for the use of ATP funds for Segment 1. However, by the time that Segment 1 (December 2025) and Segment 2 (December 2026) are both fully constructed, the entirety of the project seeks to deliver a comprehensive "single" project in substantial conformance with the approved Project Description.

- a) Project scope reduction applies to the portion of the project that falls within Caltrans ROW, specifically at the intersection of S Delaware St and 19<sup>th</sup> Ave. Project initially proposed green conflict striping as well as new high visibility crosswalks at the subject intersection. Proposed scope change is such that the Delaware Street Safe Routes to School Corridor project will simplify the design south of the intersection (**Segment 1**). The intersection shall instead be redesigned as a part of a [joint project with SMCTA \(LINK\)](#), which will likely include a fully protected intersection (at 19<sup>th</sup>/Delaware) as well as efforts to tie-in future Class IV facilities to the Delaware

project (**Segment 2**). This scope change would also prevent significant rework from having to occur for the Delaware SRTS project.

- i) *San Mateo has determined that the scope change is minor in nature, as the future, planned improvements in Segment 2 would be far more robust and comprehensive in its approach.*
- b) Project scope additions applies to the entire project corridor, wherein the agency had used local funds to determine timing improvements/signal safety improvement needs at 4 intersections, instead of the 2 that were originally submitted and approved in the application.
  - i) *San Mateo has determined that the scope change is minor in nature and affects CON only (local funds were used for the corridor operations analysis).*
- c) Project scope addition applies to the intersection at Delaware St and Pacific Blvd intersection, where the north leg uncontrolled crossing is now proposed to be enhanced with a RRFB, instead of the 0 (for entire project) that was originally submitted and approved in the application.
  - i) *San Mateo has determined that the scope change is minor in nature.*

**2) The reason for the proposed scope change;**

- a) The reason for the proposed scope change is due to a conflicting, future project, with the goal of preventing rework of the pavement markings and striping at the subject intersection. This scope change would also result in project cost and time savings for the project.
- b) The reason for the proposed scope change (CON only, see (1)(b)(i)) is due to an understanding that the provision of Class IV bike lanes along this corridor would also require careful design considerations<sup>1</sup> for the City's intersections, meaning that a corridor analysis needed to be performed to be able to understand operational considerations pre/post-project for the existing signalized intersections.
- c) The reason for the proposed scope change is due to a desire to enhance both bike/ped safety of this crossing while providing an option for cyclists headed NB to more easily make the connection to the Hayward Park Caltrain station until the bike lanes associated with the US 101/SR 92 Mobility Hub & Smart Corridor project are implemented.

**3) The impact the proposed scope change would have on the overall cost of the project;**

*The overall cost of the project (Segment 1) is as follows (including all project delivery phases, per (b) and (c) per 100% design costs):*

- ATP funded - \$1,661,000
- Non-ATP funded (CON only, local City funds) ~\$1,500,000

Project scope changes would have a **net increase** on the overall cost of the project. All increases will be absorbed by local City funds (\$1,500,000).

- a) ~200 LF of Class IV bike lane reduction at ~\$20/linear ft (-\$4,000)
- b) Traffic Signal Improvements – Bermuda Dr (\$45,400) + Saratoga Dr (\$102,300)
- c) RRFB Installation – Pacific Blvd (\$35,000)

The overall funding plan by fund sources for the entirety of the future project (which includes **segment 2** as referenced in this document) is as follows:

Fund Source	Planned	Programmed	Allocated	Grand Total
City Match		\$ 138,636	\$ 61,364	\$ 200,000
City Congestion Relief		\$ 300,000		\$ 300,000
2022 TA Ped/Bike		\$ 1,386,364	\$ 613,636	\$ 2,000,000
LPP Formula	\$ 1,516,000			\$ 1,516,000
2025 TA Highway	\$ 9,449,000			\$ 9,449,000
2024 TA Ped/Bike			\$ 2,000,000	\$ 2,000,000
TA Oversight	\$ 401,134			\$ 401,134
2023 OBAG			\$ 3,375,000	\$ 3,375,000
2024 CPFCDs			\$ 500,000	\$ 500,000
<b>Grand Totals</b>	<b>\$ 11,366,134</b>	<b>\$ 1,825,000</b>	<b>\$ 6,550,000</b>	<b>\$ 19,741,134</b>

- 4) An estimate of the impact the proposed scope change would have on the potential of the project to increase walking and bicycling as compared to the benefits identified in the project application (increase or decrease in benefit);

Location/Element	Approved Scope	Proposed Change	Change in Walking/Bicycling Benefit
At intersection of 19 <sup>th</sup> Ave and S Delaware St	Green conflict striping through intersection and crosswalk upgrades to high-vis type	Remove high-vis crosswalks, or green conflict striping from scope due to future project at intersection.	Decrease
At south approach/south leg of 19 <sup>th</sup> Ave and S Delaware St intersection	Class IV bike facility at the south approach or NB approach direction of intersection.	Terminate Class IV south of intersection and implement in-kind class II bike lanes within Caltrans ROW. Future project will redesign and connect to Class IV facility at termination point.	Decrease
Intersection timing changes at Bermuda Dr, Saratoga Dr, 25 <sup>th</sup> Ave, and 28 <sup>th</sup> Ave	2 intersections	4 intersections	Increase
Delaware St & Pacific Blvd intersection / RRFB Installation + crosswalk improvements	0/none	1 intersection	Increase

- 5) An estimate of the impact the proposed scope change would have on the potential of the project to increase the safety of pedestrians and bicyclists as compared to the benefits identified in the project application (increase or decrease in benefit);

Location/Element	Approved Scope	Proposed Change	Change in Safety Benefit
At intersection of 19 <sup>th</sup> Ave and S Delaware St	Green conflict striping through intersection and crosswalk upgrades to high-vis type	Remove high-vis crosswalks, or green conflict striping from scope due to future project at intersection.	Decrease
At south approach/south leg of 19 <sup>th</sup> Ave and S Delaware St intersection	Class IV bike facility at the south approach or NB approach direction of intersection.	Terminate Class IV south of intersection and implement in-kind class II bike lanes within Caltrans ROW. Future project will redesign and connect to Class IV facility at termination point.	Decrease
Intersection timing changes at Bermuda Dr, Saratoga Dr, 25 <sup>th</sup> Ave, and 28 <sup>th</sup> Ave	2 intersections	4 intersections	Increase
Delaware St & Pacific Blvd intersection / RRFB Installation + crosswalk improvements	0	1 intersection	Increase

**6) An explanation of the methodology used to develop the aforementioned estimates; and**

The methodology used to develop the changes in safety and walking/bicycling benefits stem from the San Mateo’s Bicycle Master Plan 2020, where Delaware Street was identified as a major north-south connector providing bike access to key community destinations. And proposed project scope reductions were assumed to have a decrease in benefits, whereas proposed scope additions were assumed to have an increase in benefits as follows:

*[scope reduction]* Decrease in benefits: a reduction in Class IV facility length, conflict striping, and crosswalk upgrades is likely to discourage users from being able to make connections to other bike facilities while also having potential safety impacts due to existing, faded striping at the Caltrans/City intersection at 19<sup>th</sup> Ave.

*[scope additions]* Increase in benefits: The intersection timing/phasing changes to 2 additional intersections as well as the RRFB installation is likely to encourage more users to make connections to other, existing bike facilities, transit options, and other land uses. San Mateo has considered several design guidances (Caltrans/NACTO) to ensure that the implementations will bring a net safety benefit in post project conditions, which will likely also encourage users of all ages and abilities to use the new facilities.

**7) For projects programmed in the Metropolitan Planning Organization (MPO) component, evidence of MPO approval and the MPO rationale for their approval.**

N/A – Project funded in the Statewide component.

**ADDITIONAL QUESTIONS:**

**8) Does this scope change require revalidation of your environmental document? (No)**  
**If yes, what is the actual/estimated date of revalidation? \_\_\_\_\_**

Reason being that the categorical exemption for this project still stands despite the minor project scope reduction being proposed. Categorical exemption CEQA Sec. 15301 and PRC 21080.25 (SB288) reference

9) Explain the additional public outreach efforts you have made with respect to this proposed scope change and provide a summary of the public response to these efforts:

Public outreach efforts have been made with these scope changes already in mind in the earlier design changes. City performed 2 pop up outreach events, school related outreach (SMFCSD, Nueva School), public website with design focused videos, door to door canvassing.

City will also plan to conduct follow up outreach efforts prior to project’s anticipated CTC meeting in June 2025 for CON funding.

Future, joint SMCTA project that will seek to connect to the Delaware Street Safe Routes to School Corridor project will also be performing its separate outreach efforts that are led by SMCTA.

REQUIRED Attachments: (check boxes of attached required documents)

- Original plans/workplan with changes highlighted
Revised Detailed Engineer’s Est.
Revised plans/workplan
Written MPO Concurrence (see Item #7)
Original Detailed Engineer’s Est. with changes highlighted
Additional Revised Application Documentation

Required revisions to the Project’s Description and/or Limits:

The proposed Project Amendments documented above will require the following changes to the Project’s Description and/or Limits: N/A

Proposed changes to the Project Description: N/A

Proposed changes to the Project Limits: N/A

For Federally Funded Projects: N/A

Proposed changes to the FTIP/FSTIP Description:

Proposed changes to the FTIP/FSTIP Limits:

Project Delivery Status:

The following is a side-by-side comparison of the original project schedule and the current project schedule. The explanations for each milestone date change is listed below:

Original CTC Allocation Dates: (as programmed by the CTC when the application was approved for funding):

PA&ED: FY 21/22 PS&E: 1/26/23 R/W: 5/17/2024 CON: FY24/25

Actual/Currently Anticipated CTC Allocation Dates: (at the time of this request)

PA&ED: 4/19/2022 PS&E: 1/26/23 R/W: 5/17/2024 CON: 6/26/2025

Explanation for milestone changes: << Only list/explain the Allocation milestones that have changed >>

**Local Agency Certification:**

This Request for Scope Change has been prepared in accordance with the *Procedures for Administering Local Projects in the Active Transportation Program (ATP)*. I certify that the information provided in the document is accurate and correct. I understand that if the required information has not been provided this form will be returned and the request may be delayed. Please advise us as soon as the scope change has been approved.

You may direct any questions to:

\_\_\_\_\_ at \_\_\_\_\_  
Sang Hee Cho (name) (650) 522-7348 (phone number)

Signature:  Sang Hee Cho Title: Associate Engineer Date: 4/16/2025

Agency/Commission: City of San Mateo

Attachments: 100% cost estimate highlighted, 100% plans highlighted, Grant application plans + estimate, MTC concurrence letter

- Distribution:
- (1) Original -DLAE
  - (2) Copy – Division of Local Assistance, Headquarters ATP Program Manager
  - (3) Copy – MPO/RTPA/County Transportation Commission



NO PART OF THIS DOCUMENT MAY BE REPRODUCED IN ANY FORM INCLUDING PHOTOCOPY, RECORDING OR ANY INFORMATION RETRIEVABLE AND STORAGE SYSTEM, WITHOUT PERMISSION IN WRITING FROM SANDIS.

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF SAN MATEO AND THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, 2018 EDITION.
- CONTRACTOR SHALL LEAVE AN EMERGENCY PHONE NUMBER WITH THE CITY OF SAN MATEO POLICE AND FIRE DEPARTMENTS.
- CONTRACTOR SHALL POST ON THE SITE, EMERGENCY TELEPHONE NUMBERS FOR CONTRACTOR, PUBLIC WORKS, AMBULANCE, POLICE, AND FIRE DEPARTMENTS.
- CONTRACTOR IS RESPONSIBLE FOR THE INTENT OF THESE PLANS AND SHALL REPORT ANY DISCREPANCIES FOUND IN THEM TO THE ENGINEER PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL CONFINE THEIR OPERATIONS AND ACTIVITIES TO WITHIN THE PROJECT LIMITS, CONSISTING OF ROAD RIGHT OF WAY, RIGHTS OF ENTRY AND/OR PROJECT CONFORMS, AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE STANDARD PLANS, SPECIFICATIONS AND REQUIREMENTS SET FORTH IN THE CITY OF SAN MATEO'S ENGINEERING STANDARDS OR AS NOTED OTHERWISE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR/ REPLACING DAMAGED UTILITIES, UNDERGROUND FACILITIES, CURB, SIDEWALK AND PAVEMENT RESULTING FROM CONSTRUCTION AND LANDSCAPING OPERATIONS.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING GRADES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN OR NOT WITH THE APPROPRIATE UTILITY AGENCIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITY OWNERS 48 HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO THE UTILITY. CONTACT SERVICE ALERT (USA) AT 800-642-2444.
- ALL REVISIONS TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION AND SHALL BE INCORPORATED INTO THE DESIGN DOCUMENTS BY THE DESIGNER WITH THE CITY ENGINEER'S APPROVAL PRIOR TO THE INSTALLATION OF THE IMPROVEMENTS UNLESS DIRECTED OTHERWISE BY THE CITY ENGINEER.
- TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. ALL TRAFFIC CONTROL AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD), LATEST SUPPLEMENT EDITION.
- THE CONTRACTOR SHALL PROVIDE FOR CONTINUOUS INGRESS AND EGRESS TO ALL PUBLIC AND PRIVATE PROPERTIES ADJACENT TO THE WORK THROUGHOUT THE PERIOD OF CONSTRUCTION UNLESS APPROVED BY THE ENGINEER.
- EXCAVATION AND RECONSTRUCTION OF THE PAVEMENT MUST NOT EXCEED 500 LINEAR FEET AT ANY TIME. TO MINIMIZE INTERRUPTION TO THE RESIDENTS AND PUBLIC, THE CONSTRUCTION LIMITS OF PLACEMENT OF THE FINAL ASPHALT CONCRETE PAVEMENT LIFT CAN BE EXPANDED TO A FULL STREET BLOCK IF APPROVED BY THE CITY. BACKFILL ALL EXCAVATED & RECONSTRUCTED AREAS TO WITHIN 2 INCHES FROM ADJACENT GRADE BY END OF WORKING DAY.
- MATCH EXISTING STREETS, SURROUNDING LANDSCAPE, AND ALL OTHER EXISTING CONDITIONS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC., AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES OR CROSS SLOPES, LOW SPOTS AND HAZARDOUS CONDITIONS. PAVING CONFORMS MUST BE MADE AT A SMOOTHLY TRIMMED BUTT JOINT. DO NOT OVERLAP EXISTING PAVEMENT.
- NOTIFY THE CITY'S PUBLIC WORKS DEPARTMENT AT LEAST 72 HOURS PRIOR TO CUTTING AND OR REMOVING ANY TREE ROOTS LARGER THAN 1 INCH IN DIAMETER TO ALLOW CITY ARBORIST TO INSPECT AND MAKE RECOMMENDATIONS.
- HAUL ROUTES ARE ALLOWED ONLY ON COORDINATED STREETS AND MUST BE PRE-APPROVED BY THE CITY.
- NOTIFY ALL TRANSIT AGENCIES AND TRASH COLLECTION AND EMERGENCY SERVICES IN ADVANCE OF THE GRINDING AND PAVING SCHEDULES AND ALLOW FOR COORDINATION WITH THESE AGENCIES IN THE CONSTRUCTION SCHEDULE.
- RIGHT OF WAY IS APPROXIMATE FROM CITY RECORD DATA.

## DEMOLITION NOTES

- CONTRACTOR IS TO COMPLY WITH ALL GENERAL AND STATE REQUIREMENTS INVOLVING THE REMOVAL AND DISPOSAL OF HAZARDOUS MATERIAL(S).
- CONTRACTOR'S BID IS TO INCLUDE ALL VISIBLE SURFACE AND ALL SUBSURFACE FEATURES IDENTIFIED TO BE REMOVED OR ABANDONED IN THESE DOCUMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF THE DEMOLITION WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE DEMOLITION WORK.
- BACKFILL ALL DEPRESSIONS AND TRENCHES FROM DEMOLITION TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
- REMOVAL OF LANDSCAPING SHALL INCLUDE ROOTS AND ORGANIC MATERIALS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
- PRIOR TO BEGINNING DEMOLITION WORK ACTIVITIES, CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL PLAN & DETAILS AND THE PROJECT SWPPP IF APPLICABLE.
- THE CONTRACTOR SHALL MAINTAIN ALL SAFETY DEVICES, AND SHALL BE RESPONSIBLE FOR CONFORMANCE TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS LAWS AND REGULATIONS.
- THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS FACILITIES AND STRUCTURES WHICH ARE TO REMAIN. ANY ITEMS DAMAGED BY THE CONTRACTOR OR THEIR AGENTS OR ANY ITEMS REMOVED FOR HIS USE SHALL BE REPLACED IN EQUAL OR BETTER CONDITION AS APPROVED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE.
- THIS PLAN IS NOT INTENDED TO BE A COMPLETE CATALOGUE OF ALL EXISTING STRUCTURES AND UTILITIES. THIS PLAN INTENDS TO DISCLOSE GENERAL INFORMATION KNOWN BY THE ENGINEER AND TO SHOW THE LIMITS OF THE AREA WHERE WORK WILL BE PERFORMED. THIS PLAN SHOWS THE EXISTING FEATURES TAKEN FROM A FIELD SURVEY, FIELD INVESTIGATIONS AND AVAILABLE INFORMATION. THIS PLAN MAY OR MAY NOT ACCURATELY REFLECT THE TYPE OR EXTENT OF THE ITEMS TO BE ENCOUNTERED AS THEY ACTUALLY EXIST. WHERE EXISTING FEATURES ARE NOT SHOWN, IT IS NOT IMPLIED THAT THEY ARE NOT TO BE DEMOLISHED OR RELOCATED. THE CONTRACTOR SHALL PERFORM A THOROUGH FIELD INVESTIGATION AND REVIEW OF THE SITE WITHIN THE LIMIT OF WORK SHOWN IN THIS PLAN SET TO DETERMINE THE TYPE, QUANTITY AND EXTENT OF ANY AND ALL ITEMS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE EXTENT OF EXISTING STRUCTURES AND UTILITIES AND QUANTITY OF WORK INVOLVED IN REMOVING THESE ITEMS FROM THE SITE.
- PROTECT ALL EXISTING UTILITIES IN PLACE UNLESS OTHERWISE NOTED. REPLACE ANY DAMAGED UTILITY TO REMAIN TO KEEP OPERABLE DURING CONSTRUCTION.
- ALL UTILITY SHUT DOWNS ARE TO BE AVOIDED. IF SHUT DOWNS ARE NECESSARY, CONTRACTOR TO COORDINATE SHUT DOWN WITH UTILITY OWNER WITH 48 HOUR MINIMUM NOTICE.
- ALL EXISTING STORM DRAIN, SANITARY SEWER, AND WATER MAINS THAT SERVE EXISTING BUILDINGS MUST REMAIN OPERABLE DURING CONSTRUCTION. CONTRACTOR TO SET UP TEMPORARY SERVICE OR PUMP AS NECESSARY TO ENSURE UNINTERRUPTED SERVICE.

## RECORD DRAWING NOTE

THE CONTRACTOR SHALL KEEP UP-TO-DATE AND ACCURATE A COMPLETE RECORD SET OF PRINTS OF THE CONTRACT DRAWINGS SHOWING EVERY CHANGE FROM THE ORIGINAL DRAWINGS MADE DURING THE COURSE OF CONSTRUCTION INCLUDING EXACT FINAL LOCATION, ELEVATION, SIZES, MATERIALS, AND DESCRIPTION OF ALL WORK. RECORDS SHALL BE "REDLINED" ON A SET OF CONSTRUCTION PLAN DRAWINGS; A COMPLETE SET OF CORRECTED AND COMPLETED RECORD DRAWING PRINTS SHALL BE SUBMITTED TO THE CITY ENGINEER AND DEVELOPER'S CIVIL ENGINEER PRIOR TO FINAL ACCEPTANCE FOR REVIEW AND APPROVAL BY THE CITY ENGINEER.

## DISCREPANCIES

IF THERE ARE ANY DISCREPANCIES BETWEEN DIMENSIONS IN DRAWINGS AND EXISTING CONDITIONS WHICH WILL AFFECT THE WORK, THE CONTRACTOR SHALL BRING SUCH DISCREPANCIES TO THE ATTENTION OF THE ENGINEER FOR ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF ALL WORK AND FOR THE COORDINATION OF ALL TRADES, SUBCONTRACTORS, AND PERSONS ENGAGED UPON THIS CONTRACT.

## UTILITY/POTHOLE NOTE

THE TYPES, LOCATIONS, SIZES AND /OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE AND WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND FACILITIES AND UTILITIES BY POTHOLING PRIOR TO COMMENCING CONSTRUCTION.

## DIMENSIONS

ALL DIMENSIONS ON THE PLANS ARE IN FEET OR DECIMALS THEREOF UNLESS SPECIFICALLY CALLED OUT AS FEET AND INCHES.

## DUST CONTROL NOTES

- WATER TRUCKS SHALL BE PRESENT AND IN USE AT THE CONSTRUCTION SITE. ALL PORTIONS OF THE SITE SUBJECT TO BLOWING DUST SHALL BE WATERED AS OFTEN AS DEEMED NECESSARY BY THE CLIENT/INSPECTOR IN ORDER TO INSURE PROPER CONTROL OF BLOWING DUST FOR THE DURATION OF THE PROJECT.
- ALL PUBLIC STREETS AND MEDIANS SOILED OR LITTERED DUE TO THIS CONSTRUCTION ACTIVITY SHALL BE CLEANED AND SWEEPED ON A DAILY BASIS DURING THE WORK WEEK, OR AS OFTEN AS DEEMED NECESSARY BY THE CLIENT/INSPECTOR, OR TO THE SATISFACTION OF THE CITY'S DEPARTMENT OF PUBLIC WORKS.
- ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS SHALL BE COVERED WITH TARPULINS OR OTHER EFFECTIVE COVERS.
- THE CONTRACTOR SHALL DEMONSTRATE DUST SUPPRESSION MEASURES, SUCH AS REGULAR WATERING, WHICH SHALL BE IMPLEMENTED TO REDUCE EMISSIONS DURING CONSTRUCTION AND GRADING IN A MANNER MEETING THE APPROVAL OF THE CONSTRUCTION MANAGER. THIS SHALL ASSIST IN REDUCING SHORT-TERM IMPACTS FROM PARTICLES WHICH COULD RESULT IN NUISANCES THAT ARE PROHIBITED BY RULE 403 (FUGITIVE DUST).
- GRADING OR ANY OTHER OPERATIONS THAT CREATES DUST SHALL BE STOPPED IMMEDIATELY IF DUST AFFECTS ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT DUST CONTROL FOR THE ENTIRE PROJECT SITE IN ACCORDANCE WITH THE PROJECT SWPPP (IF ONE EXISTS) OR AS APPLICABLE PER LOCAL REGULATIONS AT ALL TIMES. THE SITE SHALL BE SPRINKLERED AS NECESSARY TO PREVENT DUST NUISANCE. IN THE EVENT THAT THE CONTRACTOR NEGLECTS TO USE ADEQUATE MEASURES TO CONTROL DUST, THE CLIENT RESERVES THE RIGHT TO TAKE WHATEVER MEASURES ARE NECESSARY TO CONTROL DUST AND CHARGE THE COST TO THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL MEASURES AND FOR OBTAINING ALL REQUIRED PERMITS AND APPROVALS. ALL GRADING OPERATIONS SHALL BE SUSPENDED DURING SECOND (OR WORSE) STAGE SMOG ALERTS.

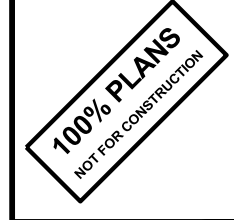
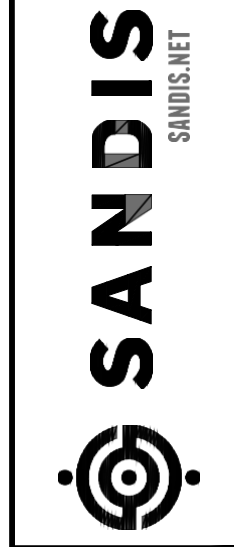
## TREE PROTECTION

- PRIOR TO BEGINNING CONSTRUCTION ON SITE, CONTRACTOR SHALL IDENTIFY AND PROTECT EXISTING TREES AND PLANTS DESIGNATED AS TO REMAIN.
- PROTECT EXISTING TREES TO REMAIN FROM SPILLED CHEMICALS, FUEL OIL, MOTOR OIL, GASOLINE AND ALL OTHER CHEMICALLY INJURIOUS MATERIAL; AS WELL AS FROM PUDDLING OR CONTINUOUSLY RUNNING WATER. SHOULD A SPILL OCCUR, STOP WORK IN THAT AREA AND CONTACT THE CITY'S ENGINEER/INSPECTOR IMMEDIATELY. CONTRACTOR SHALL BE RESPONSIBLE TO MITIGATE DAMAGE FROM SPILLED MATERIAL AS WELL AS MATERIAL CLEAN UP.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ONGOING MAINTENANCE OF ALL TREES DESIGNATED TO REMAIN AND FOR MAINTENANCE OF RELOCATED TREES STOCKPILED DURING CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO REPLACE TREES THAT DIE DUE TO LACK OF MAINTENANCE.

## PROJECT SITE MAINTENANCE

- SWEEP OR VACUUM THE STREET PAVEMENT AND SIDEWALKS ADJOINING THE PROJECT SITE AND THE ON-SITE PAVED AREAS ON A DAILY BASIS. SCRAPE CAKED-ON MUD AND DIRT FROM THESE AREAS BEFORE SWEEPING. CORNERS AND HARD TO REACH AREAS SHALL BE SWEEPED MANUALLY.
- NEVER CLEAN MACHINERY, EQUIPMENT OR TOOLS INTO A STREET, GUTTER OR STORM DRAIN.
- ENSURE THAT CEMENT TRUCKS, PAINTERS, OR STUCCO/PLASTER FINISHING CONTRACTORS DO NOT DISCHARGE WASH WATER FROM EQUIPMENT, TOOLS OR RINSE CONTAINERS INTO GUTTERS OR DRAINS.

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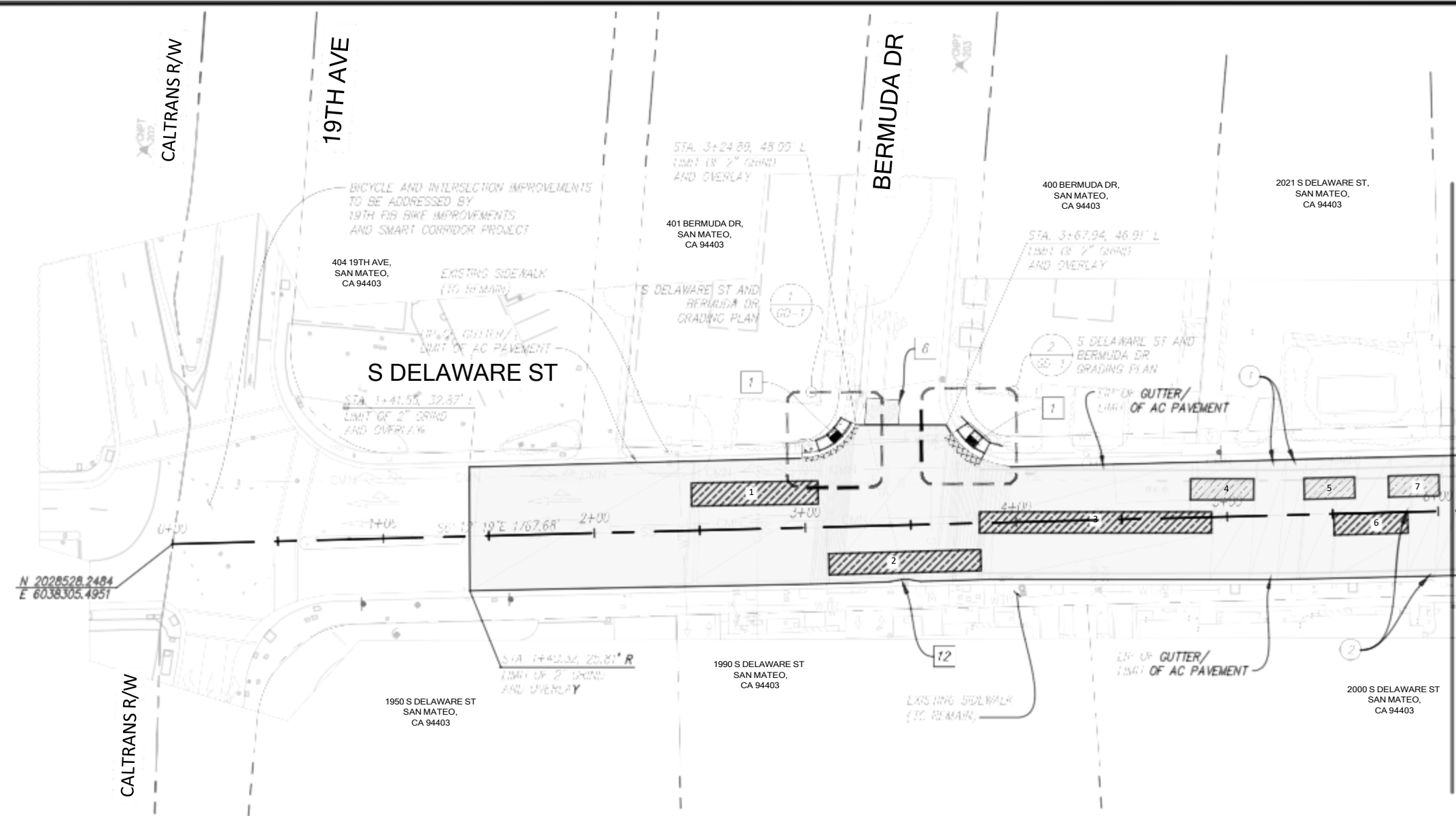


NOTES  
**DELAWARE STREET  
SAFE ROUTES TO SCHOOL**  
CITY PROJECT NO. 46R022

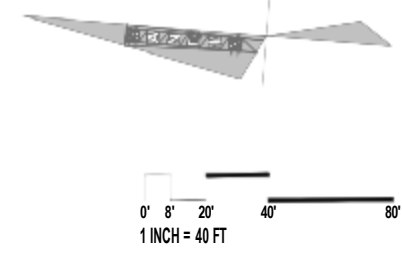


DESIGNED BY: JP	DATE
DRAWN BY: BP TS	DATE
QC CHECKED BY: RES	DATE
PROJECT No. 623971	
SCALE	
SUBMITTAL: 60%	

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MATCHLINE -SEE SHEET L-2



**LEGEND**

- CENTER LINE
- ROW LINE
- [Hatched Box] 2" GRISS AND OVERLAY (2)
- [Cross-hatched Box] AC DEPTH 18" (3)
- [Dotted Box] CONCRETE (4)
- [Diagonal Hatched Box] AC BASE REPAIR (4)
- [Stippled Box] SLURRY SEAL

BASE REPAIR TABLE		
#	LENGTH X WIDTH (FEET)*	AREA (SQUARE FEET)
	60 X 11	660
	72 X 10	720
	110 X 10	1100
	30 X 10	300
	24 X 10	240
	35 X 10	350
	24 X 10	240

\* THE DIMENSIONS LISTED ARE APPROXIMATE. THE EXISTING BASE REPAIR SHALL BE CONFIRMED IN THE FIELD BY THE INSPECTOR AND CONTRACTOR.

**GENERAL DEMOLITION NOTES**

- LIMITS OF PAVING WORK TO BE WORKED IN THE FIELD BY CITY ENGINEER.
- AT CURB/IF SIDEWALK DOES EXIST, DEMOLISH AND REMOVE SIDEWALK TO THE NEAREST SQUARE LINE.
- CONTRACTOR TO PROVIDE PERMITS AND TEMPORARY TRAFFIC CONTROL PLANS FOR CITY REVIEW AND APPROVAL PRIOR TO START OF WORK.
- ALL EXISTING SIGNS SHALL BE PROTECTED IN PLACE UNLESS SPECIFIED OTHERWISE.
- CONTRACTOR SHALL REMOVE ALL EXISTING PAVEMENT AND BASE MATERIALS AT LOCATION OF NEW PAVEMENT SECTIONS IDENTIFIED IN THESE PLANS.

**GENERAL LAYOUT NOTES**

- SEE TRAFFIC SIGNAL PLANS FOR LOCATIONS OF SIGNAL SYSTEM IMPROVEMENTS.
- SEE STRIPING PLANS FOR PAVEMENT MARKING AND STRIPING DETAILS.
- REPLACE IN MIND ANY UTILITIES DAMAGED DURING CONSTRUCTION.
- PROTECT ALL EXISTING UTILITIES UNLESS OTHERWISE SHOWN. ALL EXISTING UTILITY COVERS SHALL BE ADJUSTED TO GRADE AS NEEDED.

**DEMOLITION NOTES:**

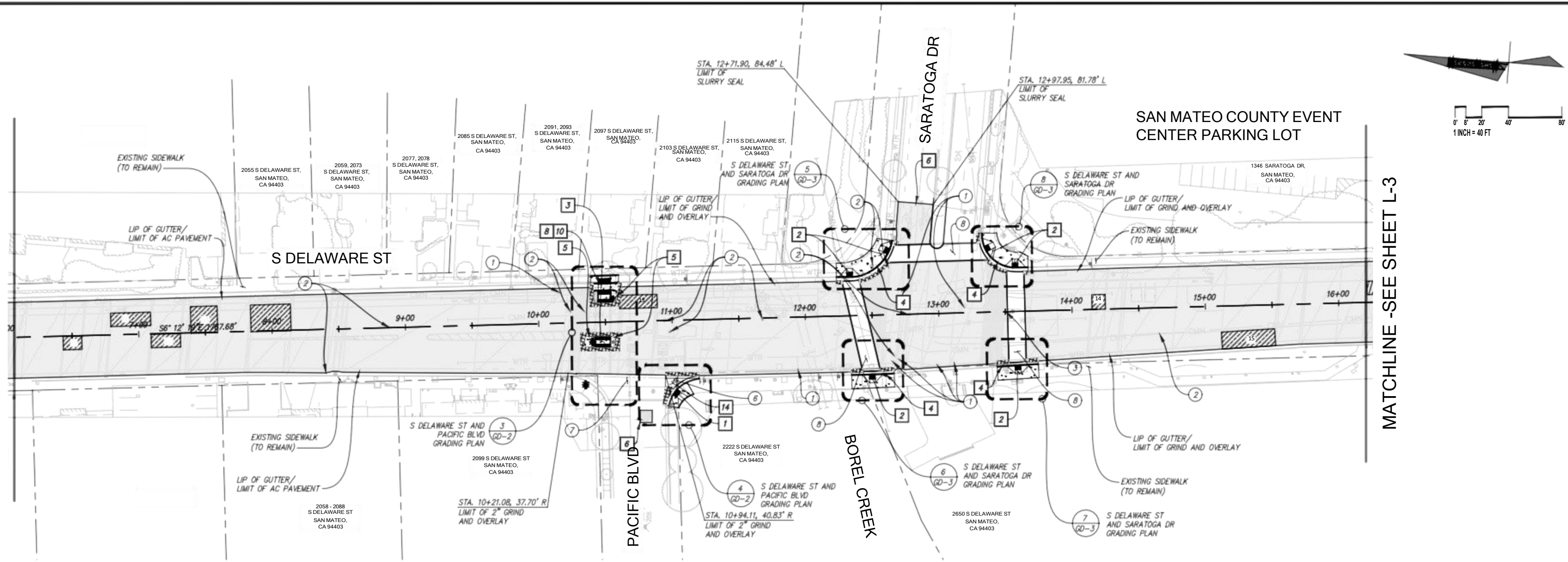
- ADJUST WAVE DOWN TO GRADE.
- REMOVE MANHOLE COVER TO GRADE.

**LAYOUT NOTES**

- USE C DUMP RAMP FOR CALTRANS STD. PLAN AREA.
- REMOVE EXISTING PAVEMENT MARKINGS AND SLURRY SEAL. SLURRY SEAL SHALL EXTEND BEYOND LIMITS OF MARKINGS IN RECTANGLE SHAPE.
- REPLACE LATCH BASIN DRAIN WITH CALTRANS D/20, TYPE 24, TRAFFIC HAZEL RECYCLED FIBERGLASS GRATE OR APPROVED EQUIVALENT.

REV. NO.	DESCRIPTION	BY	DATE
1			
<p><b>LAYOUT PLAN</b>  <b>DELAWARE STREET</b>  <b>SAFE ROUTES TO SCHOOL</b></p>			
<p>CITY PROJECT NO. 46R022</p>			
DESIGNED BY: JP	DATE	DATE	DATE
DRAWN BY: BP, JS	DATE	DATE	DATE
CC CHECKED BY: RES	DATE	DATE	DATE
PROJECT No. 623071	SCALE	SHEET	OF
SUBMITTAL 60%	36	3	36

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MATCHLINE -SEE SHEET L-3

BASE REPAIR TABLE		
#	LENGTH X WIDTH (FEET)	AREA (SQUARE FEET)
	14' X 10'	140'
	30' X 10'	300'
	22' X 10'	220'
	20' X 20'	400'
	30' X 20'	600'
	28' X 10'	280'
	11' X 10'	110'
	42' X 12'	504'

\* THE DIMENSIONS LISTED ARE APPROXIMATE. THE EXTENTS FOR BASE REPAIR SHALL BE CONFIRMED IN THE FIELD BY THE INSPECTOR AND CONTRACTOR.

**GENERAL NOTES**

1. REFER TO SHEET L-1 FOR GENERAL LAYOUT AND DEMOLITION NOTES.

**DEMOLITION NOTES:**

- 1 ADJUST VALVE COVER TO GRADE.
- 2 ADJUST MANHOLE COVER TO GRADE.
- 3 PROTECT IN PLACE DIVERSION STRUCTURE ACCESS HATCHES TO GRADE.
- 6 DEMO AND REMOVE CONCRETE TO NEAREST SCORE LINE.
- 7 PORTION OF EXISTING VALLEY GUTTER TO BE PROTECTED IN PLACE.
- 8 PROTECT IN PLACE DECORATIVE CONCRETE CROSSWALK.

**LAYOUT NOTES**

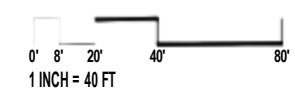
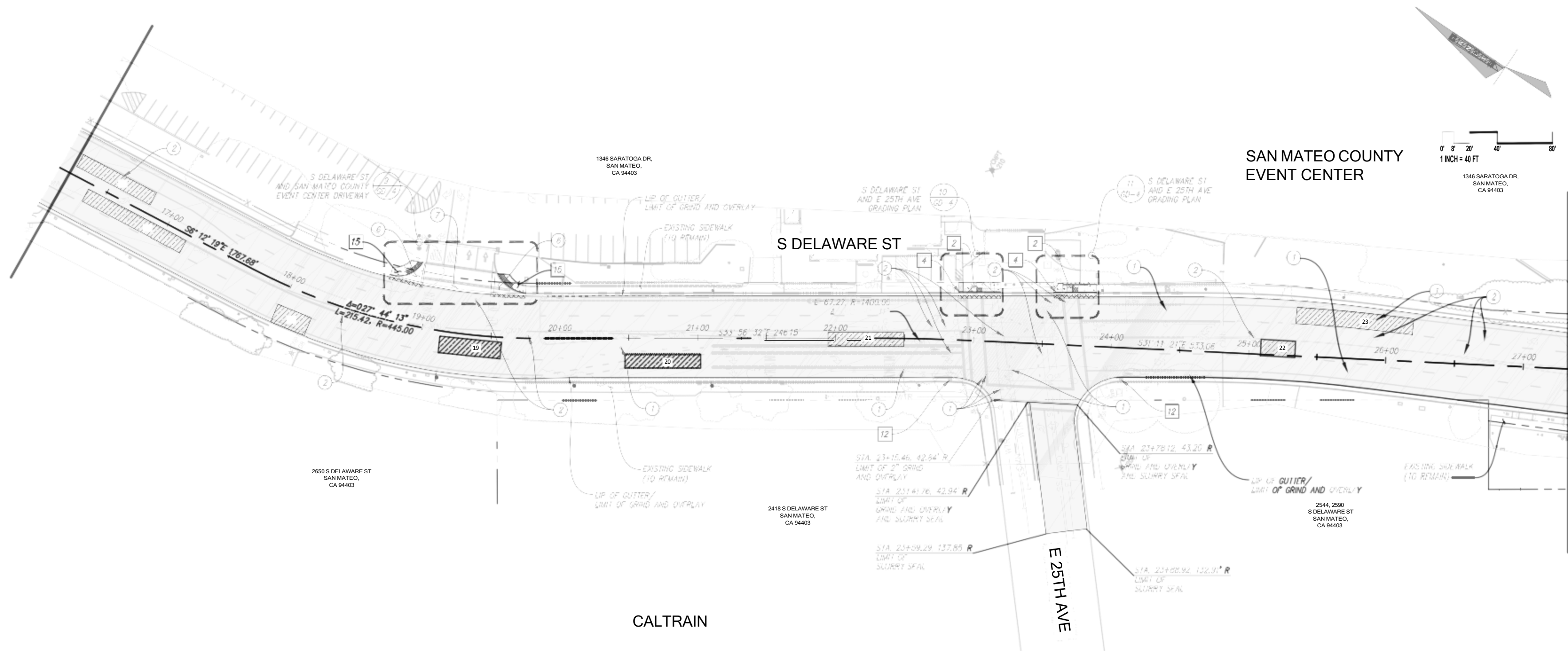
- 1 CASE C CURB RAMP PER CALTRANS STD PLAN AB8A.
- 2 CASE A CURB RAMP PER CALTRANS STD PLAN AB8A.
- 3 TYPE A PASSAGEWAY PER CALTRANS STD PLAN AB8B.
- 4 TYPE A CURB, GUTTER, AND SIDEWALK PER CITY OF SAN MATEO STANDARD PLAN 141A.
- 5 VERTICAL CURB.
- 6 GRIND EXISTING PAVEMENT MARKINGS AND SLURRY SEAL. SLURRY SEAL SHALL EXTEND BEYOND LIMITS OF MARKINGS IN RECTANGLE SHAPE.
- 8 RAISED CONCRETE CROSSWALK PER GRADING PLAN GD-2.
- 10 ZURN Z708-HDS STEEL FRAME AND GRATE TRENCH DRAIN OR APPROVED EQUIVALENT AT RAISED CONCRETE CROSSWALK CONNECTION.
- 12 REPLACE CATCH BASIN GRATE WITH CALTRANS D77B, TYPE 24, RATED BICYCLE FRIENDLY GRATE OR APPROVED EQUIVALENT.
- 14 VALLEY GUTTER PER CITY OF SAN MATEO STANDARD PLAN 145.

**LEGEND**

- CENTER LINE
- ROW LINE
- 2" GRIND AND OVERLAY
- AC DEEP LIFT
- CONCRETE
- AC BASE REPAIR
- SLURRY SEAL
- RECTANGULAR RAPID FLASHING BEACON (RRFB), SEE SHEET E-10 FOR MORE INFORMATION.
- FRAME AND GRATE TRENCH DRAIN

DATE		DESCRIPTION		REV. NO.		BY	
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<p style="margin: 0;"><b>100% PLANS</b> NOT FOR CONSTRUCTION</p>							
<p style="margin: 0;"><b>LAYOUT PLAN</b> <b>DELAWARE STREET</b> <b>SAFE ROUTES TO SCHOOL</b></p>							
<p style="margin: 0;">CITY PROJECT NO. 46R022</p>							
DESIGNED BY: JP	DATE	DRAWN BY: BP, JS	DATE	CHECKED BY: RES	DATE	PROJECT No. 625071	SCALE
<p style="margin: 0;">SHEET <b>4</b> OF <b>36</b></p>							

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MATCHLINE -SEE SHEET L-4

BASE REPAIR TABLE		
#	LENGTH X WIDTH (FEET)	AREA (SQUARE FEET)
	60 X 10'	600
	80 X 10'	800
	26 X 15	390
	42 X 12'	504
	55 X 10'	550
	55 X 10'	550
	25 X 12	300
	85 X 12'	1020'

\* THE DIMENSIONS LISTED ARE APPROXIMATE. THE LAYOUT FOR BASE REPAIR SHALL BE CORROBORATED BY THE FIELD BY THE INSPECTOR AND CONTRACTOR.

### GENERAL NOTES

1. REFER TO SHEET L-1 FOR GENERAL LAYOUT AND DEMOLITION NOTES.

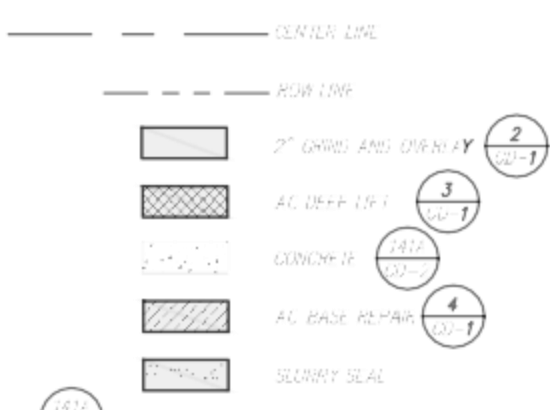
### DEMOLITION NOTES:

- 1. ADJUST VALVE COVER TO GRADE.
- 2. ADJUST MANHOLE COVER TO GRADE.
- 3. CLEAN AND REMOVE CONCRETE TO NEAREST SLOPE LINE.
- 4. PORTION OF EXISTING VALVE COVER TO BE PROTECTED IN PLACE.

### LAYOUT NOTES

- 2. USE A CURB RAMP PER CALTRANS STD. PLAN 488A.
- 4. USE A CURB GUTTER AND SIDEWALK PER CITY OF SAN MATEO STANDARD PLAN 141A.
- 12. REPLACE CATCH BASIN GRATE WITH CALTRANS TYPE 24, TRAFFIC-WALKING BOARD FRIENDLY GRATE OR APPROVED EQUIVALENT.
- 15. USE LH CURB RAMP PER CALTRANS STD. PLAN 488B.

### LEGEND



REV. NO.	DESCRIPTION	BY	DATE



LAYOUT PLAN  
**DELAWARE STREET**  
**SAFE ROUTES TO SCHOOL**  
 CITY PROJECT NO. 46R022

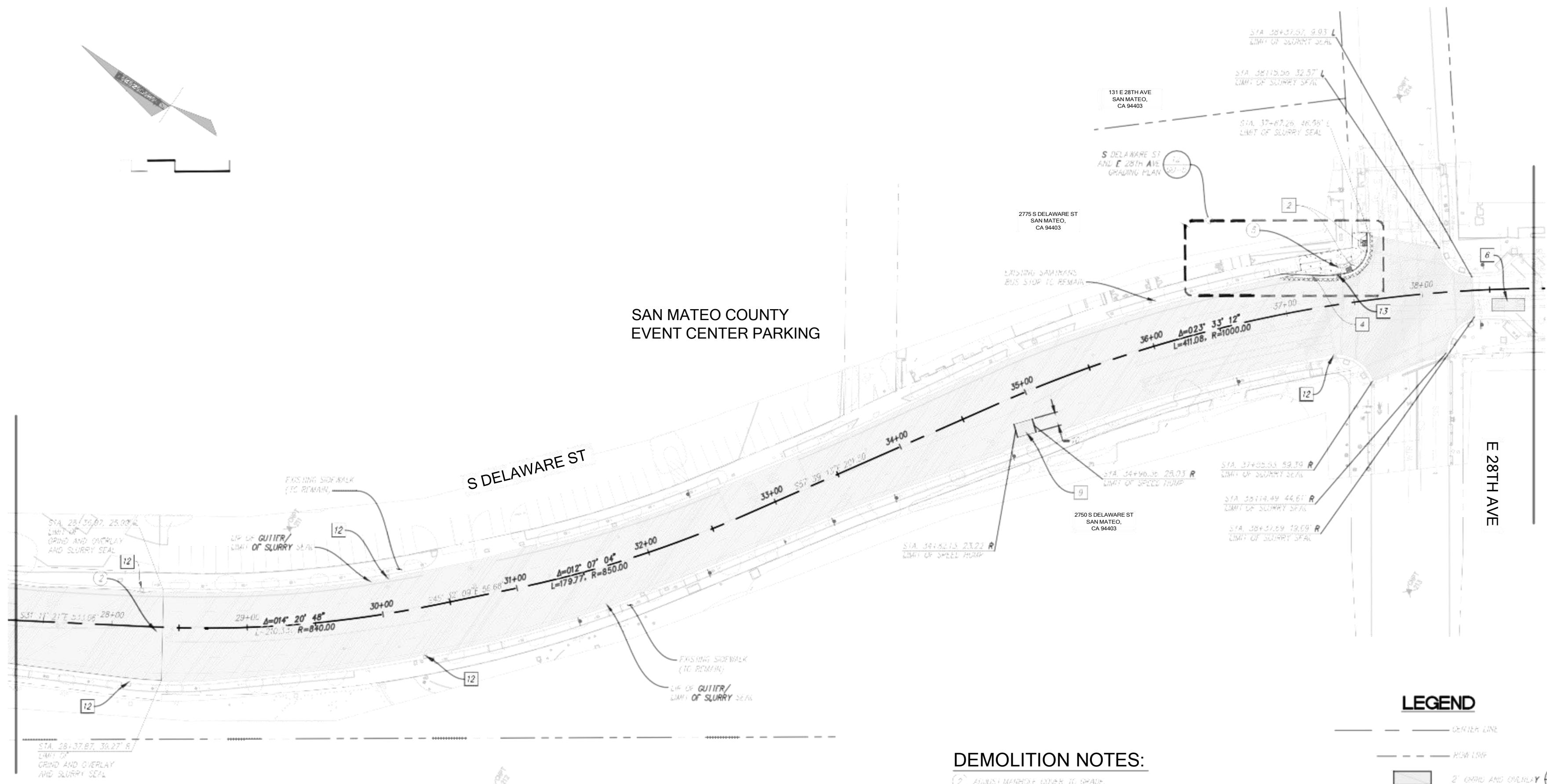


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DRAWN BY: BP, TS	DATE:
QC CHECKED BY: RES	DATE:
PROJECT NO. 623071	SCALE:
SUBMITTAL NO. 608	DATE:

L-3

SHEET 5 OF 36

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SAN MATEO COUNTY  
EVENT CENTER PARKING

S DELAWARE ST

E 28TH AVE

MATCHLINE -SEE SHEET L-5

**GENERAL NOTES**

1. REFER TO SHEET L-1 FOR GENERAL LAYOUT AND DEMOLITION NOTES.

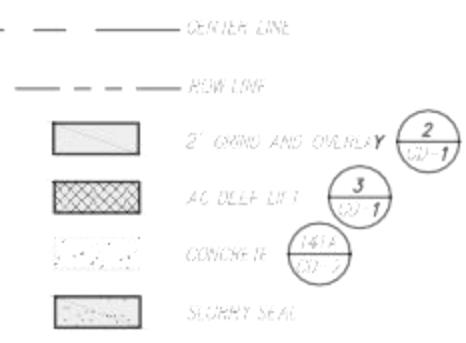
**DEMOLITION NOTES:**

- 2. ADJUST MANHOLE COVER TO GRADE.
- 3. DEMO AND REMOVE EXISTING SO COLLECTION BASIN. REMOVE PIPE CONNECTING TO EXISTING WATER MAIN. PLUS E.G. PIPE AT MANHOLE.

**LAYOUT NOTES**

- 2. CASE A CURB RAMP PER CALIFORNIA STD. PLAN 480A.
- 4. TYPE A CURB, GUTTER, AND SIDEWALK PER CITY OF SAN MATEO STANDARD PLAN 143A.
- 6. EXISTING EXTERIOR PARALLEL MARKINGS AND SLURRY SEAL. SLURRY SEAL SHALL EXTEND BEYOND LIMITS OF MARKINGS IN RECTANGULAR SHAPE.
- 9. SHOW RIGHT TURN LANE SPEED HUMP IN ADVANCE OF TURNING POINT.
- 12. REPLACE CATCH BASIN GRATE WITH CALIFORNIA D/AL TYPE 24 TRAFFIC RATED BICYCLE FRIENDLY GRATE OR APPROVED EQUIVALENT.
- 13. STORM DRAIN MANHOLE TO BE REPLACED WITH STORM DRAIN CATCH BASIN.

**LEGEND**



REV. NO.	DESCRIPTION	BY	DATE
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LAYOUT PLAN  
**DELAWARE STREET  
SAFE ROUTES TO SCHOOL**  
CITY PROJECT NO. 46R022

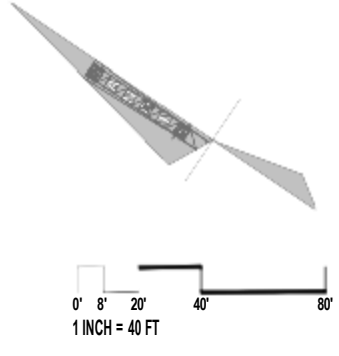
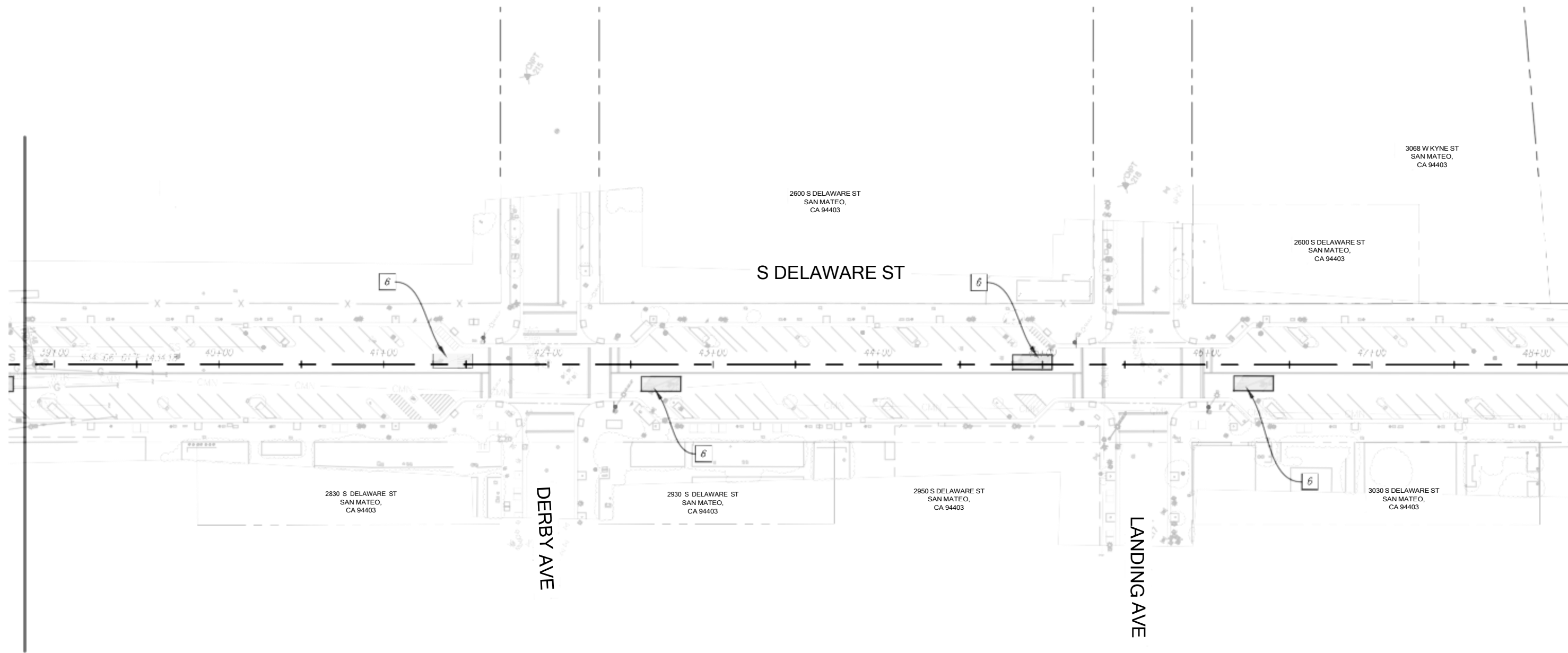


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							SUBMITTAL 606

L-4

SHEET 6 OF 36

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MATCHLINE -SEE SHEET L-6

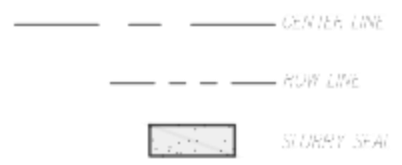
### GENERAL NOTES

1. REFER TO SHEET L-1 FOR GENERAL LAYOUT AND DEMOLITION NOTES.

### LAYOUT NOTES

6. SHOW EXISTING PARKING MARKINGS AND SLURRY SEAL. SLURRY SEAL SHALL EXTEND BEYOND LIMITS OF MARKINGS IN RECTANGLE SHAPE.

### LEGEND

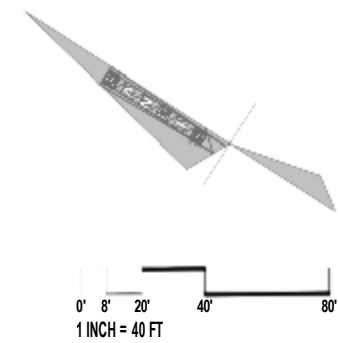
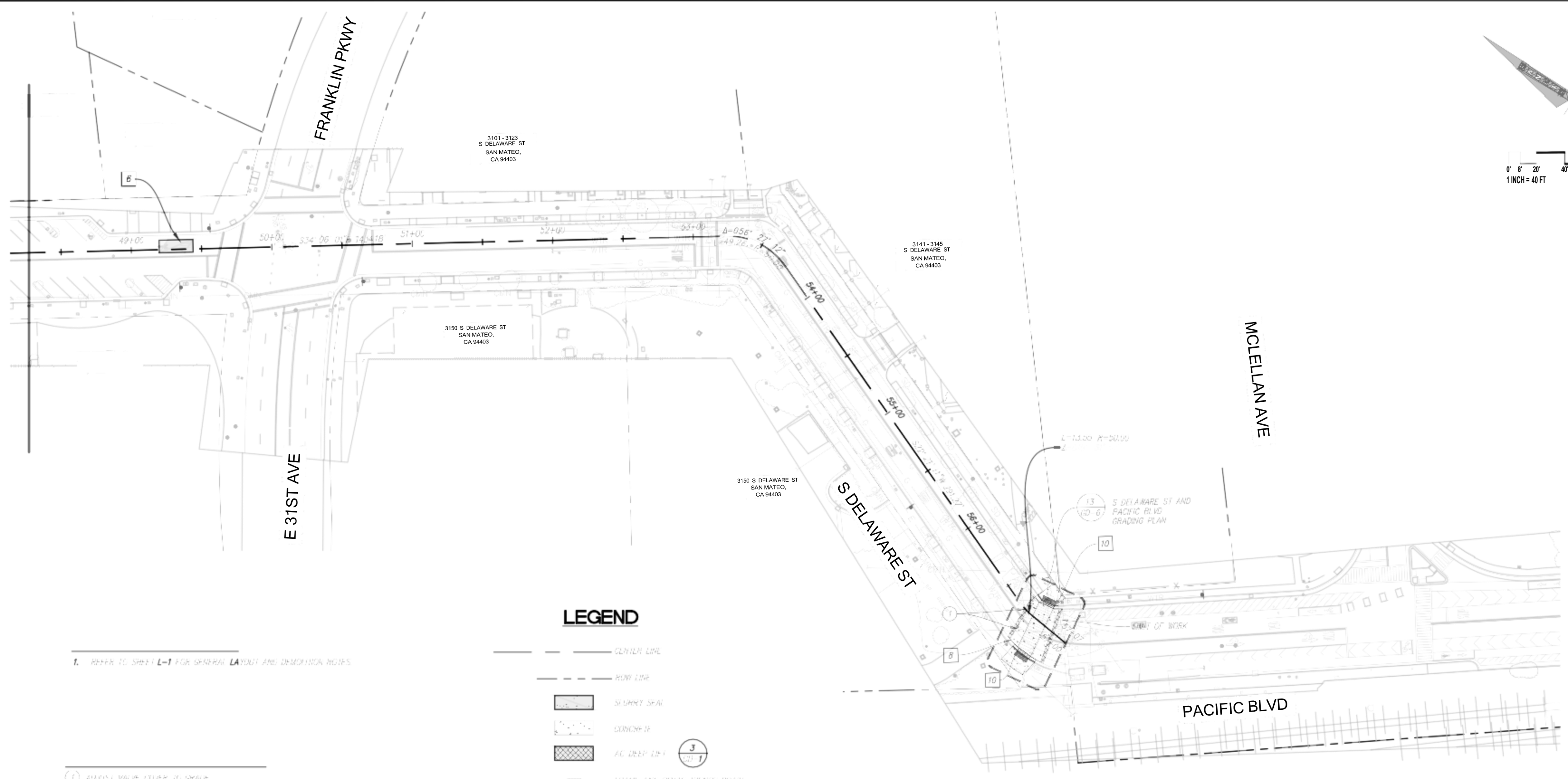


100% PLANS  
NOT FOR CONSTRUCTION

LAYOUT PLAN  
**DELAWARE STREET  
SAFE ROUTES TO SCHOOL**  
CITY PROJECT NO. 46R022



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**LEGEND**

- CENTER LINE
- R/W LINE
- [Pattern] SLOTTED SEAL
- [Pattern] CONCOURSE
- [Pattern] 40" DEEP TRENCH
- [Pattern] REPAIR FOR GRIFF TRENCH UNITS

1. REFER TO SHEET L-1 FOR GENERAL LAYOUT AND DIMENSION NOTES.

- 1) EXISTING VALVE COVER TO BE REPLACED.
- 2) EXISTING VALVE COVER TO BE PROTECTED IN PLACE.

**LAYOUT NOTES**

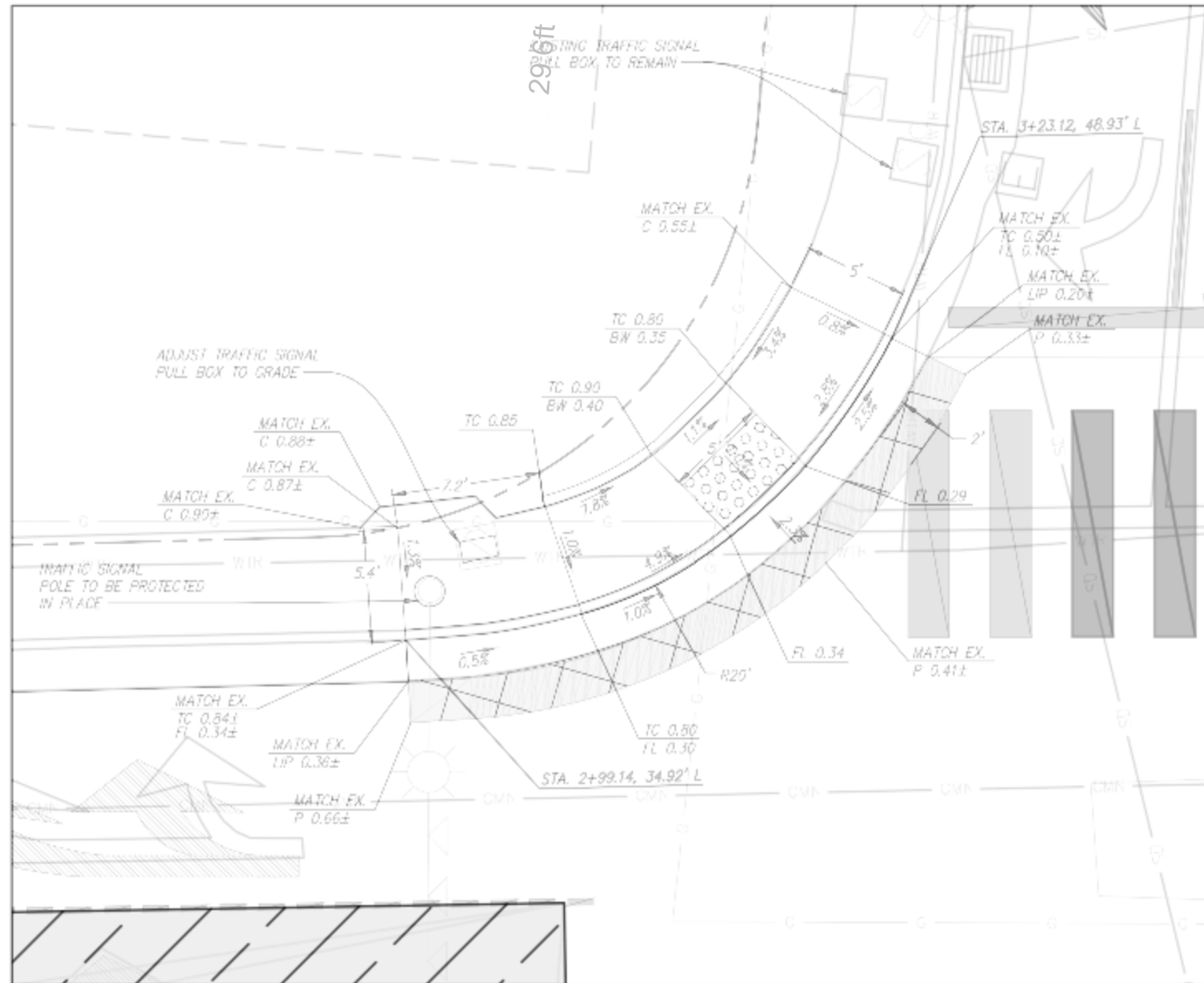
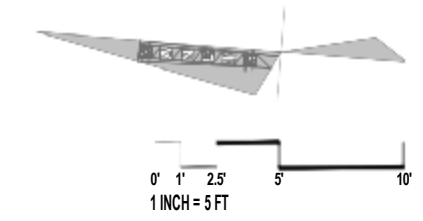
- 6) SPREAD EXISTING PAVEMENT MARKINGS AND SLOTTED SEAL. SLOTTED SEAL SHALL EXTEND BEYOND LIMITS OF MARKINGS IN RECTANGULAR SHAPE.
- 8) RAISED CONCRETE CROSSWALK PER SPREADING PLAN 60-5.
- 10) 2"X4" ZEPHYRUS STEEL FRAM. AND GRATE. TRENCH UNITS ARE APPROXIMATE EQUIVALENT AS RAISED CONCRETE CROSSWALK CONNECTION.



LAYOUT PLAN  
**DELAWARE STREET**  
SAFE ROUTES TO SCHOOL  
CITY PROJECT NO. 46R022



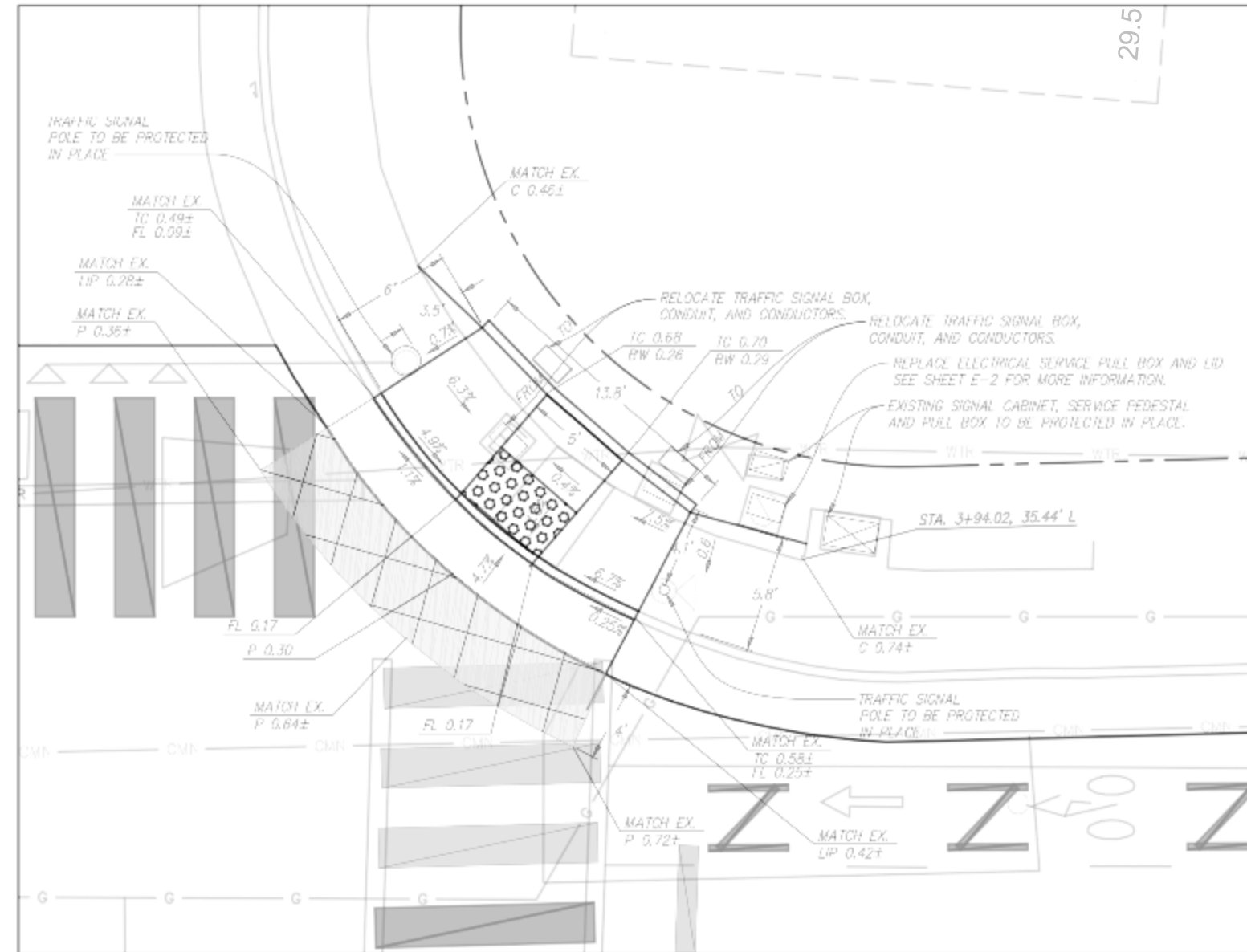
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S DELAWARE ST AND BERMUDA DR (NORTHEAST CORNER)

1"=5'

1



S DELAWARE ST AND BERMUDA DR (SOUTHEAST CORNER)

1"=5'

2

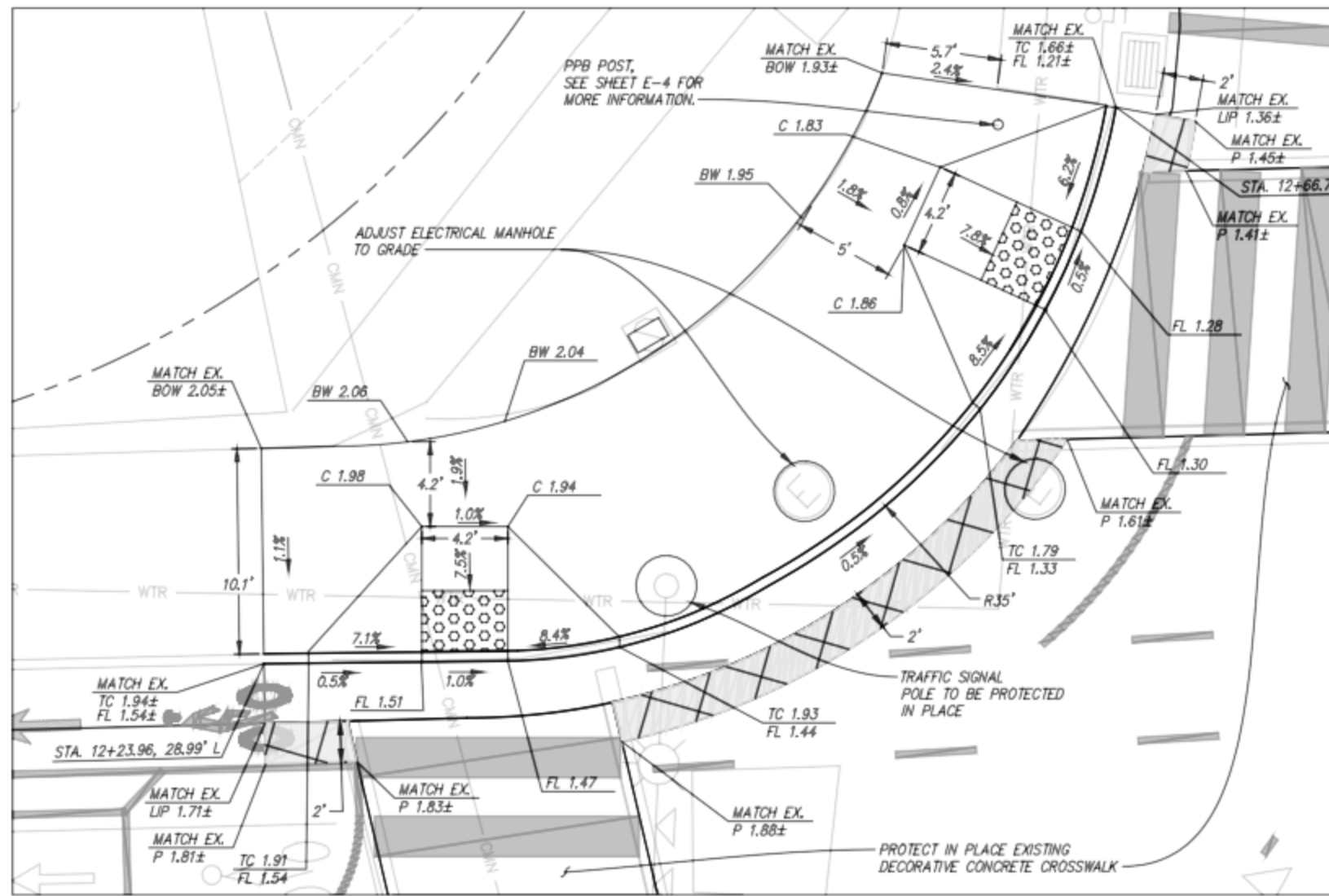


GRADING PLAN  
**DELAWARE STREET  
SAFE ROUTES TO SCHOOL**  
CITY PROJECT NO. 46R022





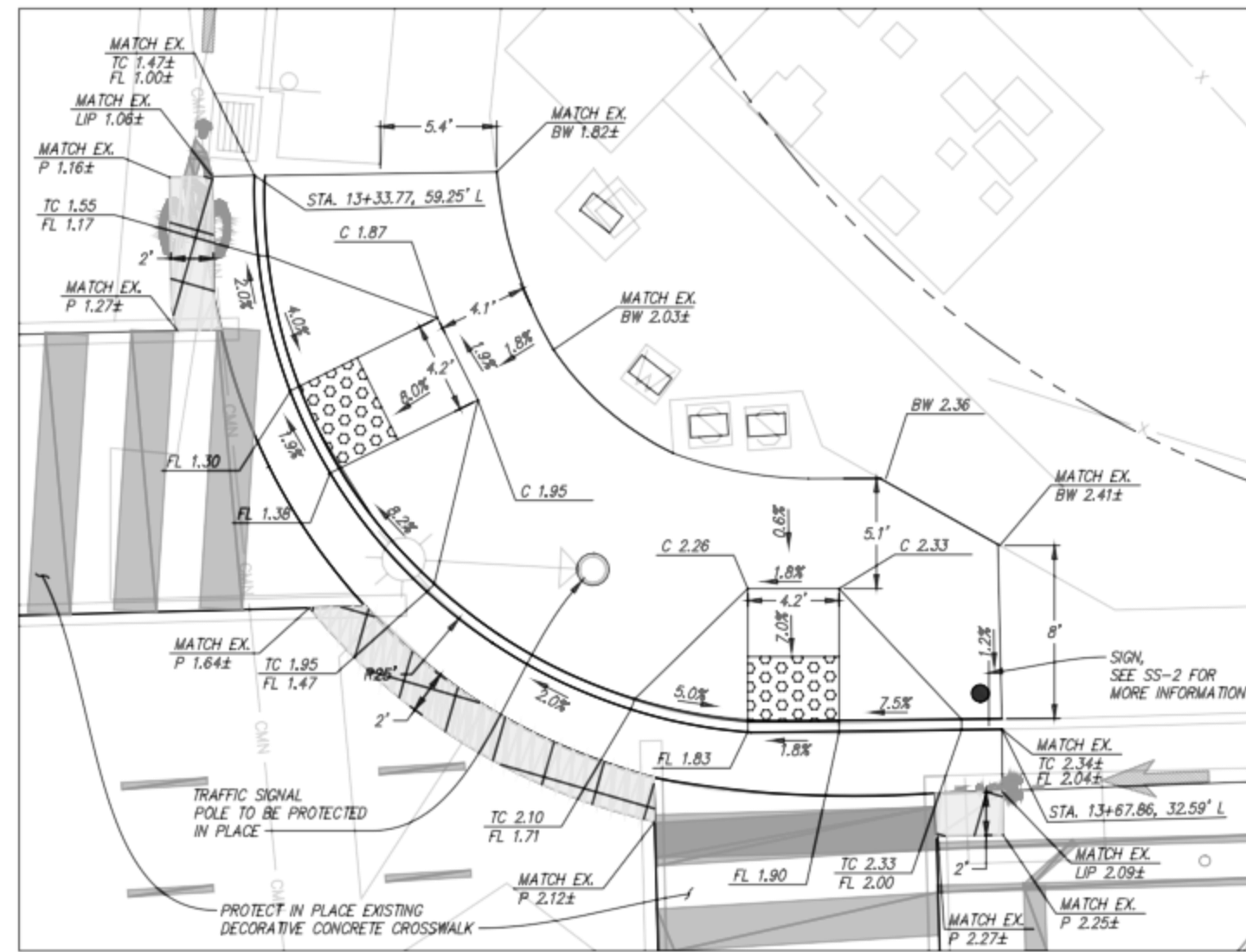
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S DELAWARE ST AND SARATOGA DR (NORTHEAST CORNER)

1"=5'

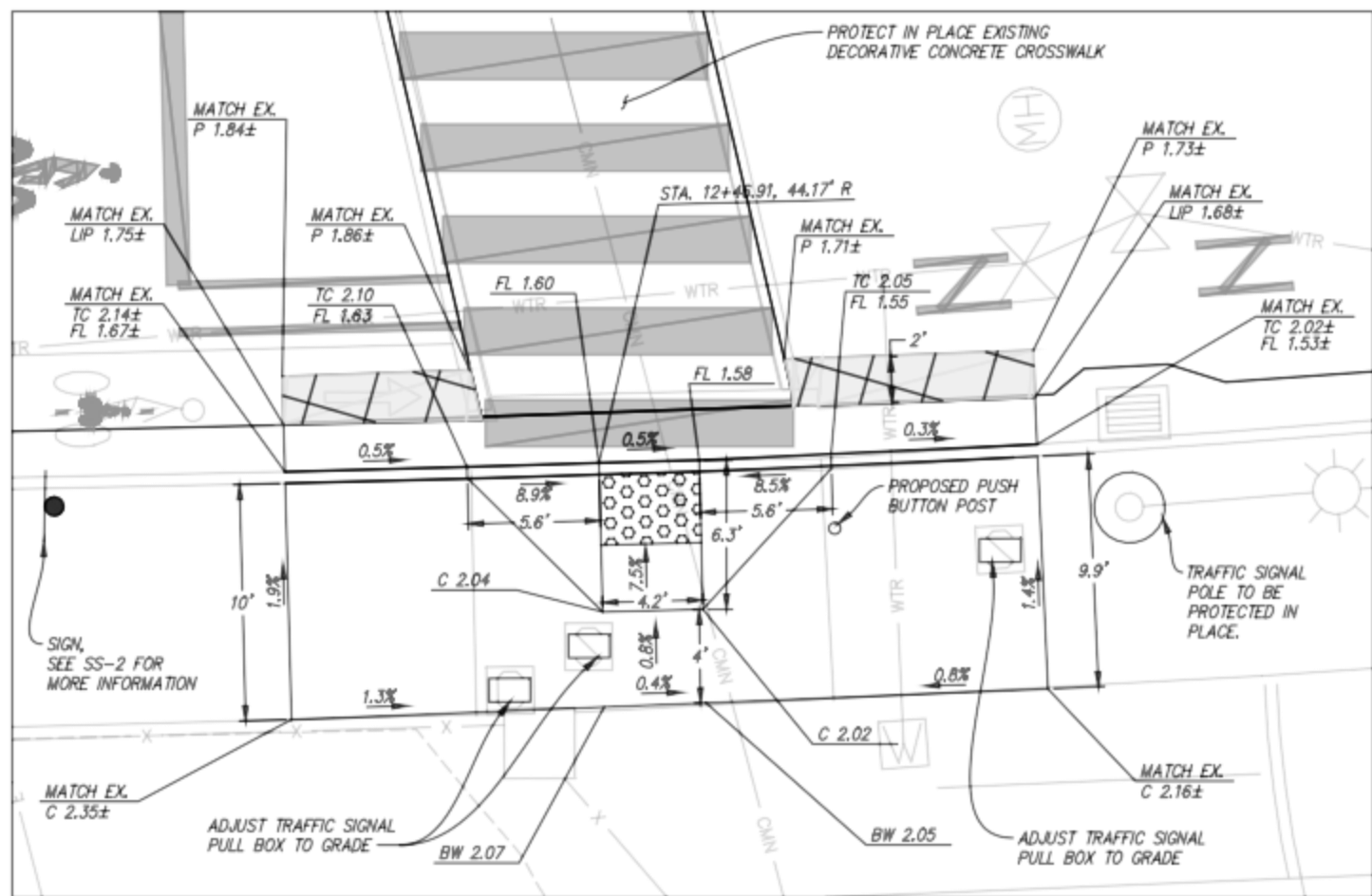
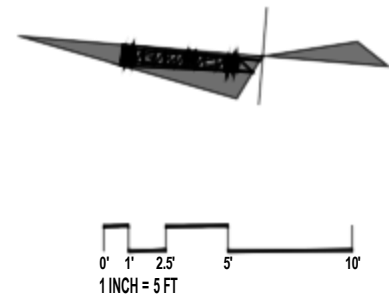
5



S DELAWARE ST AND SARATOGA DR (SOUTHEAST CORNER)

1"=5'

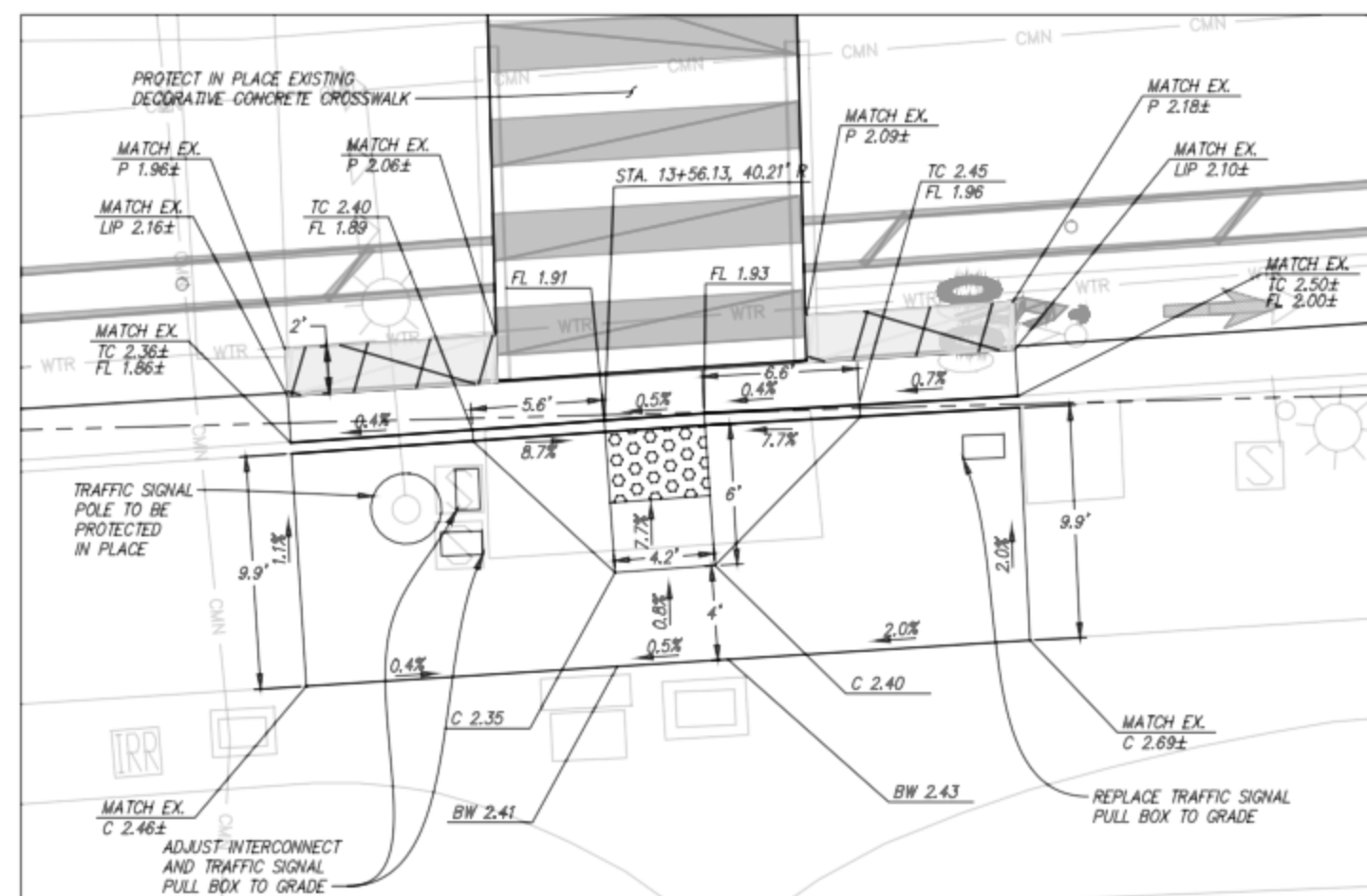
8



S DELAWARE ST AND SARATOGA DR (NORTHWEST CORNER)

1"=5'

6



S DELAWARE ST AND SARATOGA DR (SOUTHWEST CORNER)

1"=5'

7

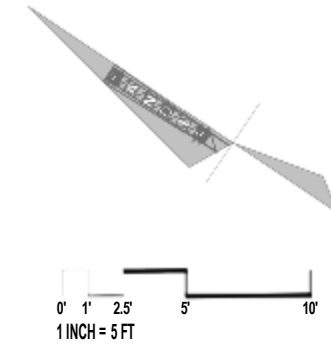
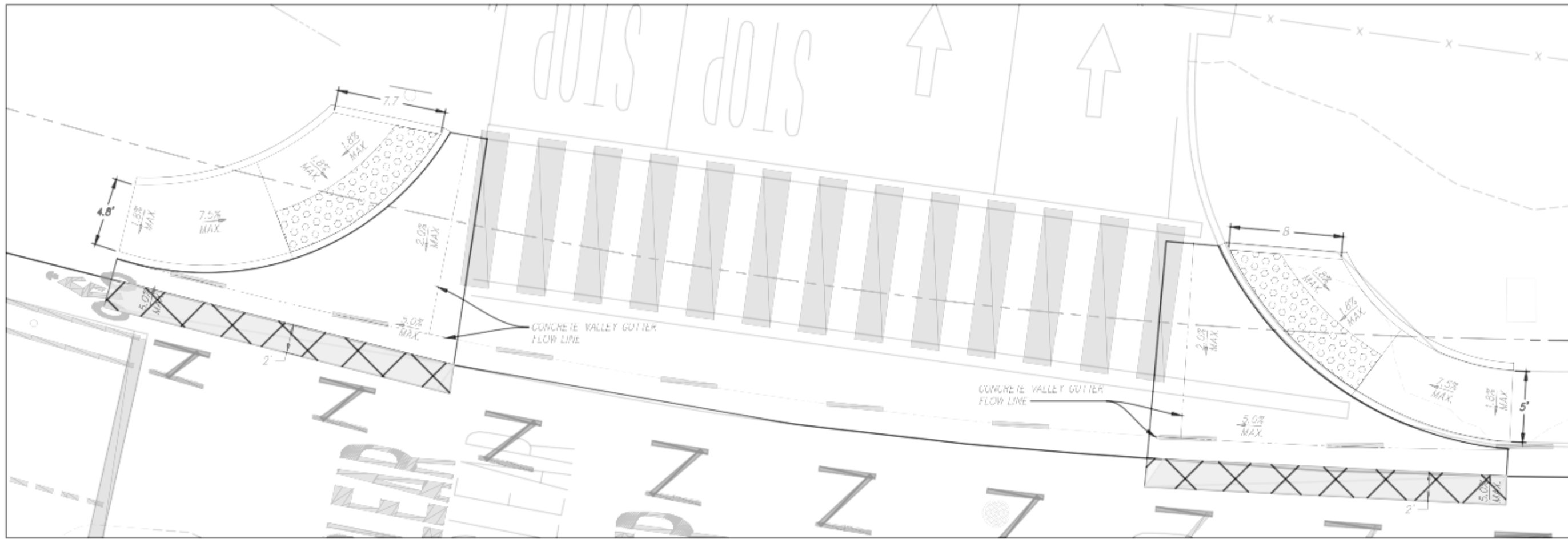


100% PLANS NOT FOR CONSTRUCTION

GRADING PLAN DELAWARE STREET SAFE ROUTES TO SCHOOL CITY PROJECT NO. 46R022

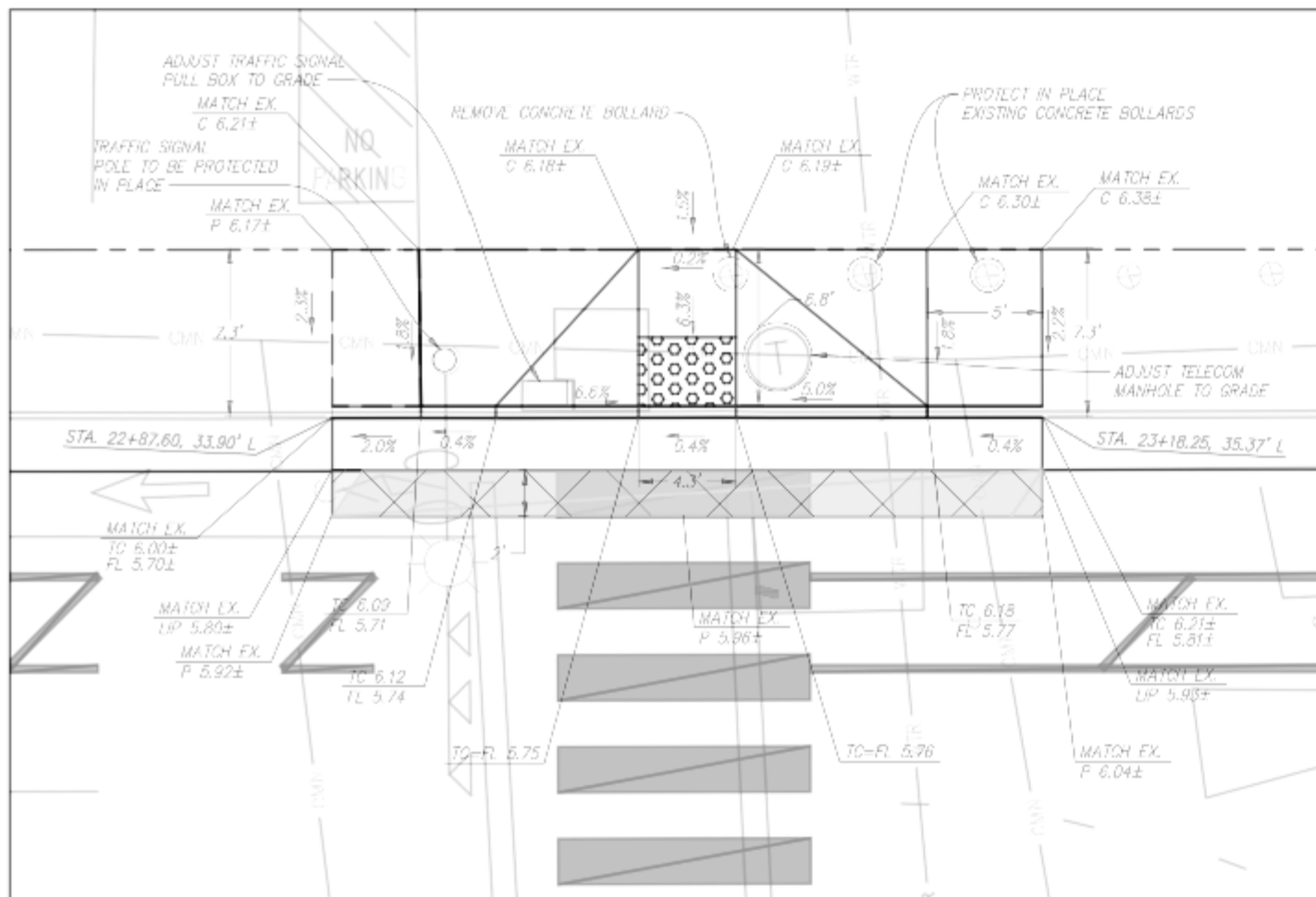


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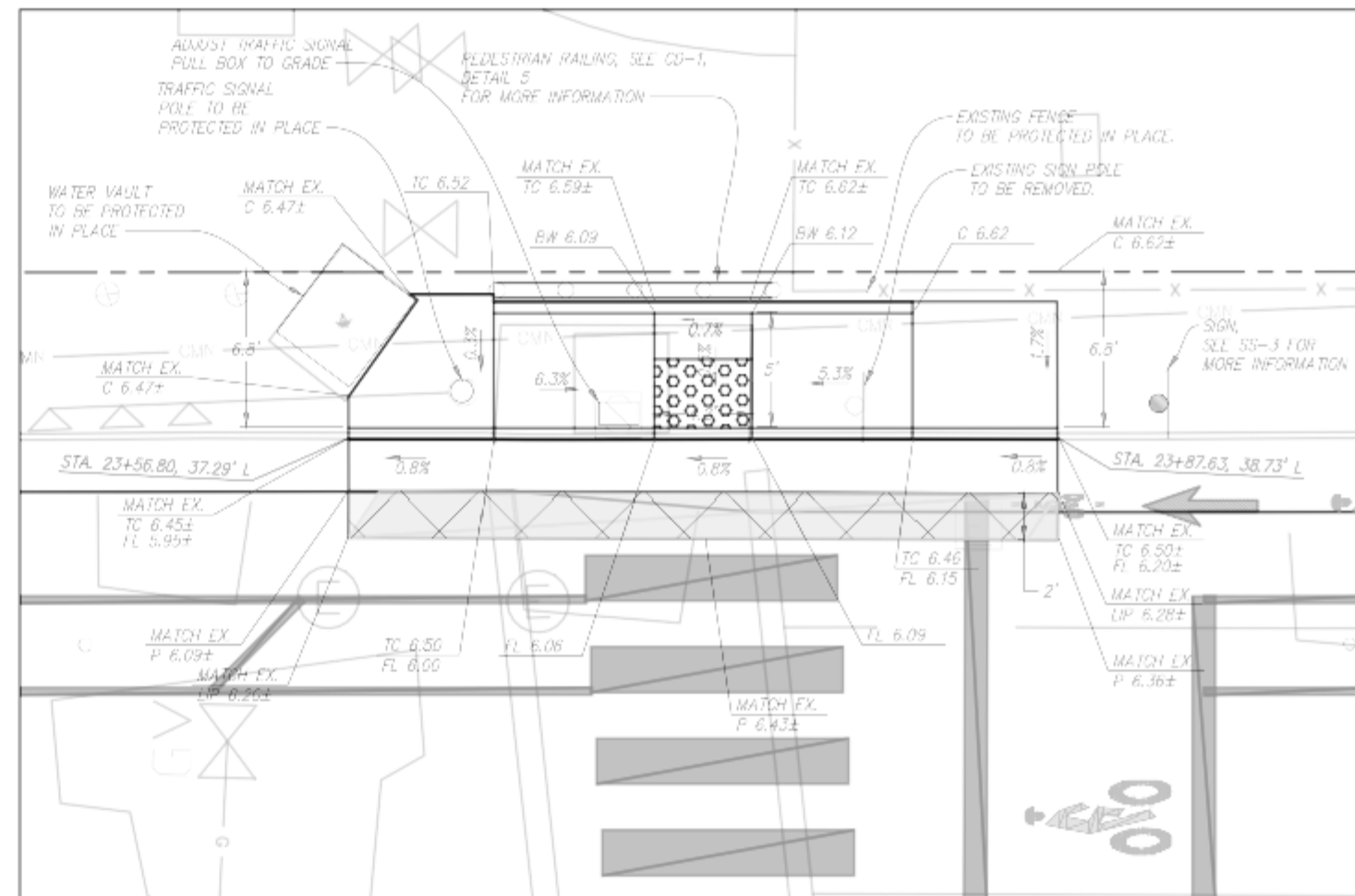
S DELAWARE ST AND  
SAN MATEO COUNTY EVENT  
CENTER DRIVEWAY

9



S DELAWARE ST AND  
E 25TH AVE  
(NORTHEAST CORNER)

10



S DELAWARE ST AND  
E 25TH AVE  
(SOUTHEAST CORNER)

11

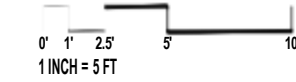


100% PLANS  
NOT FOR CONSTRUCTION

GRADING PLAN  
DELAWARE STREET  
SAFE ROUTES TO SCHOOL  
CITY PROJECT NO. 46R022



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S DELAWARE ST AND  
E 28TH AVE  
(NORTHEAST CORNER)

12



100% PLANS  
NOT FOR CONSTRUCTION

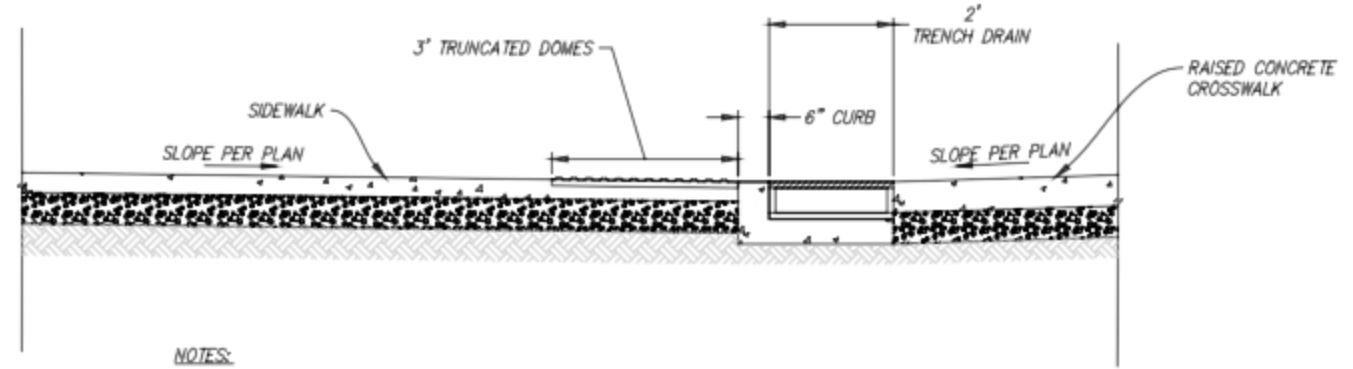
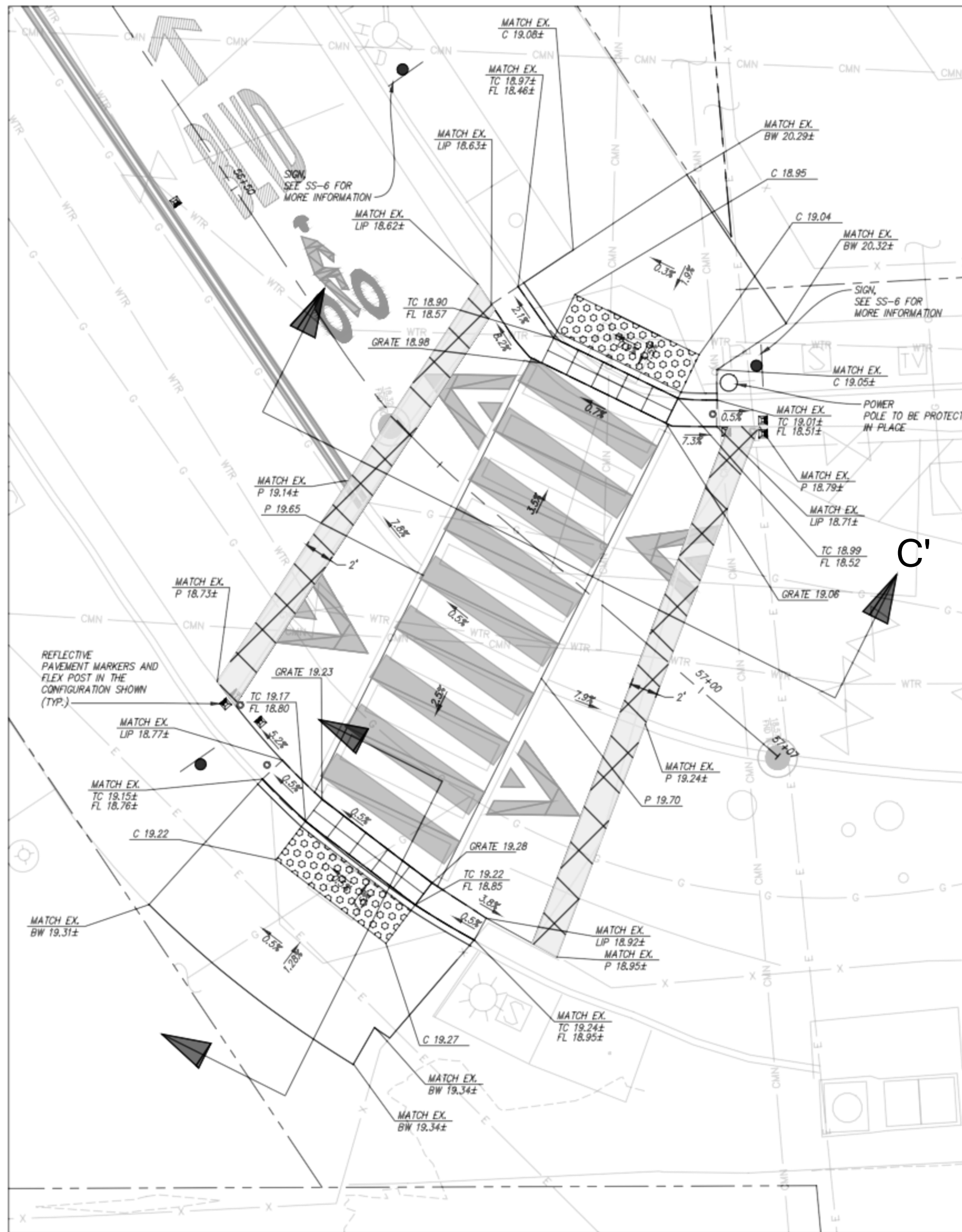
GRADING PLAN  
**DELAWARE STREET  
SAFE ROUTES TO SCHOOL**  
CITY PROJECT NO. 46R022



GD-5

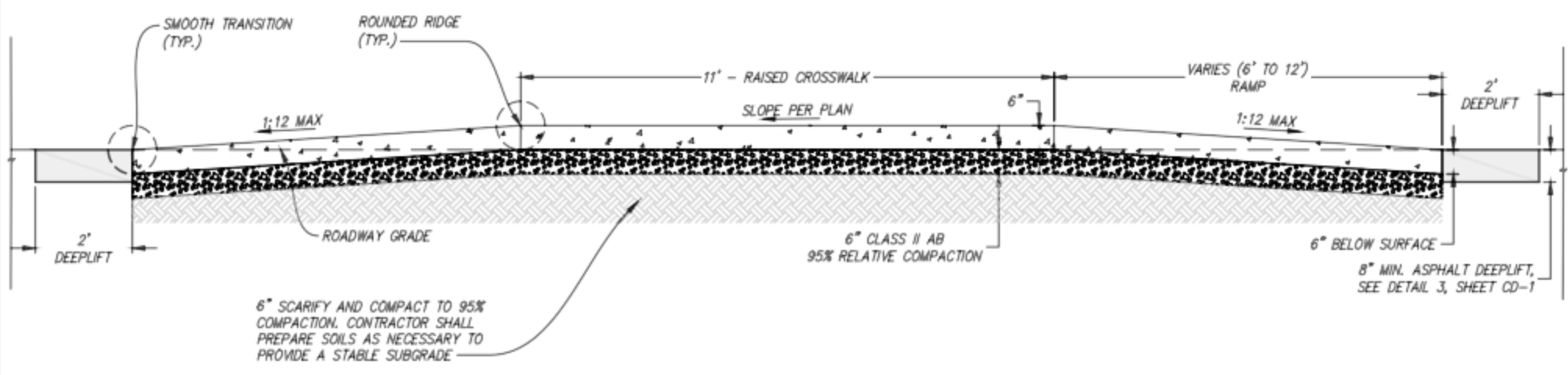
SHEET 13 OF 36

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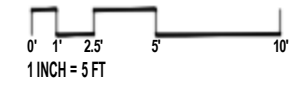
- NOTES:
- SEE CURB, GUTTER, AND SIDEWALK DETAIL 141A, SHEET CD-2, FOR SECTION DEPTHS.
  - DETECTABLE WARNING SURFACE (TRUNCATED DOMES), AS REQUIRED, PER CBC 11B-705. DETECTABLE WARNINGS SHALL BE LOCATED SO THE EDGE NEAREST THE FLUSH CURB IS 6 INCHES MIN. AND 8 INCHES MAX. FROM THE EDGE OF THE STREET OR GUTTER. DETECTABLE WARNING SHALL BE YELLOW AND APPROXIMATE FS 3353B OF FEDERAL STANDARD 595C OR APPROVED EQUIVALENT.
  - TRENCH DRAIN SHALL BE NON-SLIP, BICYCLE FRIENDLY STEEL PLATES, BOLTED IN PLACE AND REMOVABLE FOR MAINTENANCE AND CLEANING.

SECTION B-B'  
N.T.S.



- NOTES:
- RAISED CROSSWALKS SHALL BE AT LEAST 4' AWAY FROM EDGE OF DRIVEWAY.
  - ALL MARKINGS AND SIGNS SHALL BE REFLECTIVE.

SECTION C-C'  
N.T.S.

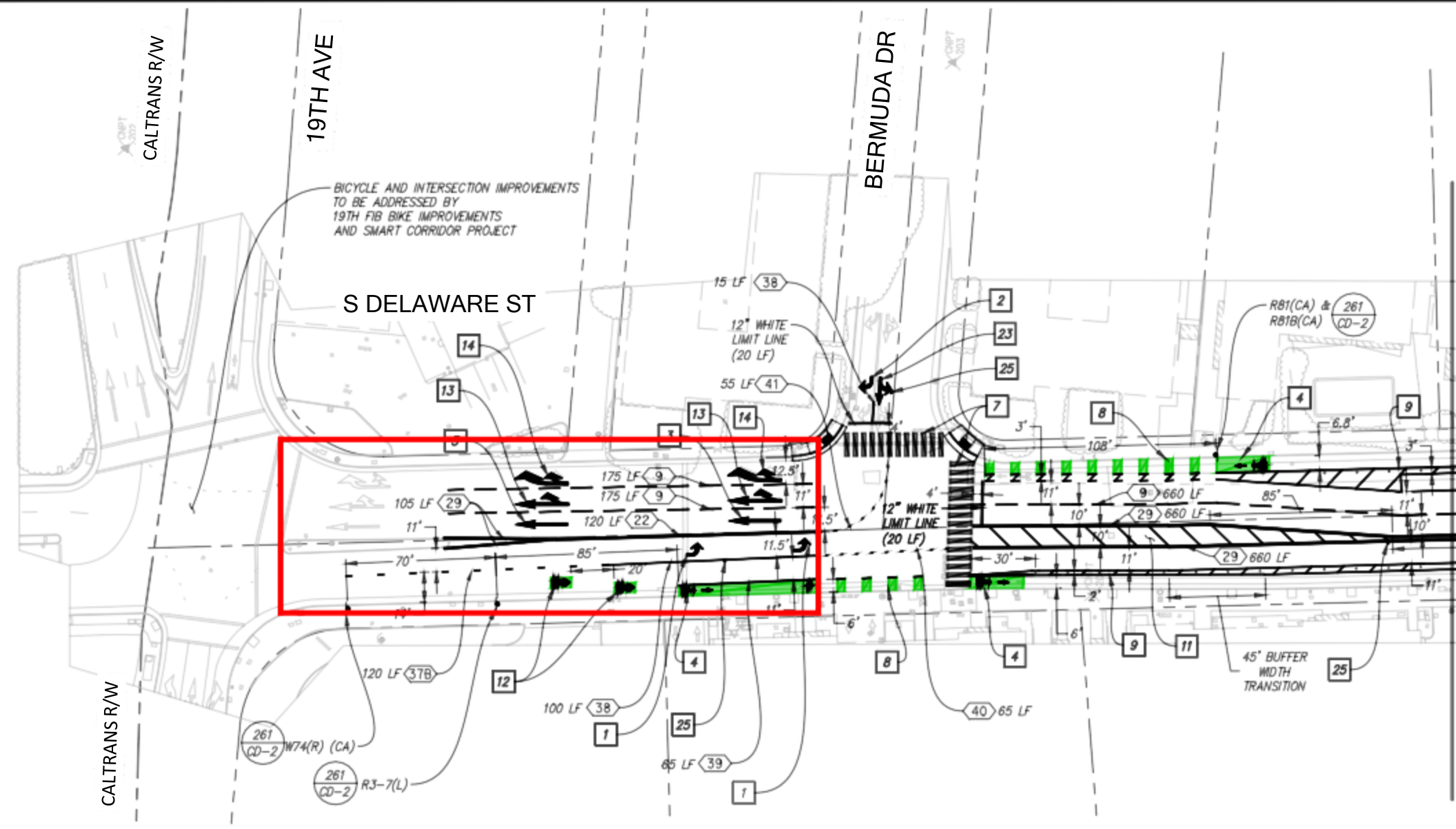


100% PLANS  
NOT FOR CONSTRUCTION

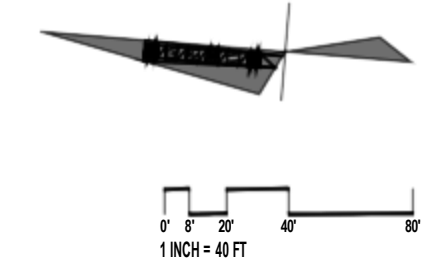
GRADING PLAN  
**DELAWARE STREET  
SAFE ROUTES TO SCHOOL**  
CITY PROJECT NO. 46R022



NO PART OF THIS DOCUMENT MAY BE REPRODUCED IN ANY FORM INCLUDING PHOTOCOPY, RECORDING OR ANY INFORMATION RETRIEVABLE AND STORAGE SYSTEM, WITHOUT PERMISSION IN WRITING FROM SANDIS.



MATCHLINE -SEE SHEET SS-2



**SIGNING AND STRIPING NOTES**

- 1 INSTALL TYPE IV (L) ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- 2 INSTALL TYPE IV (R) ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- 3 INSTALL TYPE I ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- 4 INSTALL GREEN-BACKED BIKE LANE MARKING 13  
SS-7
- 7 INSTALL CONTINENTAL CROSSWALK 5  
SS-7
- 8 INSTALL BIKE LANE CONFLICT STRIPING 1  
SS-7
- 9 INSTALL BIKE LANE BUFFER WITH FLEX POSTS 3  
SS-7
- 11 INSTALL STRIPED MEDIAN 2  
SS-7
- 12 INSTALL SHARED ROADWAY BICYCLE MARKING 4  
SS-7
- 13 INSTALL TYPE II (R) ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- 14 INSTALL TYPE III (R) MOD ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- 23 INSTALL TYPE VII (L) ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- 25 INSTALL BLUE HYDRANT RAISED PAVEMENT MARKERS 6" FROM EDGE OF STRIPE TOWARDS THE HYDRANT SIDE.

**GENERAL NOTES**

1. STRIPING DETAILS INDICATED REFER TO THE 2018 CALTRANS STANDARD PLAN PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS.
2. CONTRACTOR SHALL REMOVE STRIPING/MARKINGS THAT CONFLICT WITH THIS PLAN.
3. STRIPING, SIGNS, AND METHODS AND MATERIALS SHALL ADHERE TO THE LATEST REVISIONS OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CAMUTCD) AND PROJECT SPECIFICATIONS.
4. ALL STRIPING SHALL BE THERMOPLASTIC UNLESS SPECIFIED OTHERWISE.
5. ALL EXISTING STRIPING DISTURBED DURING CONSTRUCTION ACTIVITY SHALL BE REPLACED IN KIND UNLESS OTHERWISE NOTED ON THIS PLAN.
6. FINAL STRIPING SHALL BE VERIFIED IN THE FIELD.
7. CONTRACTOR SHALL LAY OUT/ CAT TRACK PROPOSED STRIPING AND NOTIFY ENGINEER NO LESS THAN 72 HOURS BEFORE STRIPING.
8. REFRESH ALL CURB PAINT WITHIN THE PROJECT EXTENTS IN-KIND.
9. ALL EXISTING SIGNS TO REMAIN UNLESS SPECIFIED OTHERWISE.

**SIGN SCHEDULE**

SIGN CODE	SIGN MESSAGE	PANEL SIZE	NO. OF SIGNS
W74(R) (CA)	THRU TRAFFIC MERGE RIGHT	36" X 36"	1
R3-7(L)	LEFT LANE MUST TURN LEFT	36" X 36"	1
R81 (CA)	BIKE LANE	24" X 18"	1
R81B (CA)	END	8" X 5"	1

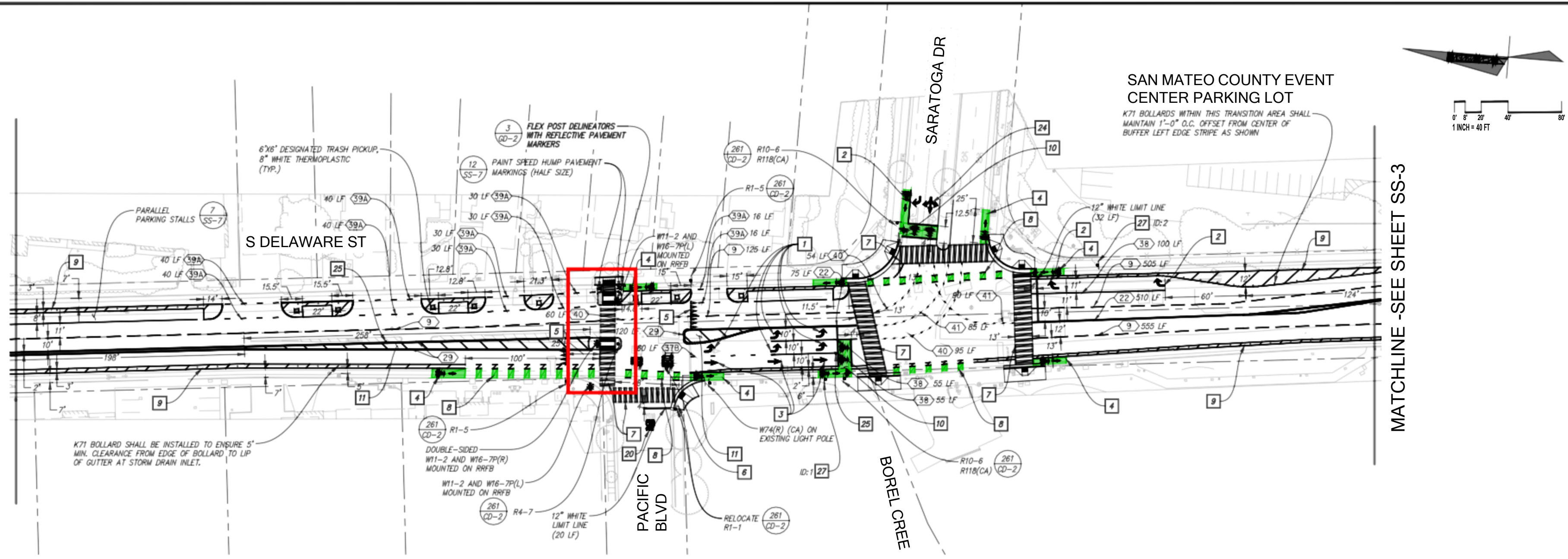
REV. NO.	DESCRIPTION	BY	DATE
1			
2			
3			
4			

100% PLANS  
NOT FOR CONSTRUCTION

**SIGNING AND STRIPING PLAN**  
**DELAWARE STREET**  
**SAFE ROUTES TO SCHOOL**

DESIGNED BY: JP	DATE:	DATE:	DATE:
DRAWN BY: BP TS	DATE:	DATE:	DATE:
QC CHECKED BY: RES	DATE:	DATE:	DATE:
PROJECT NO: 62071	SCALE:	SCALE:	SCALE:
SUBMITTAL: 60%			

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**SAN MATEO COUNTY EVENT CENTER PARKING LOT**  
 K71 BOLLARDS WITHIN THIS TRANSITION AREA SHALL MAINTAIN 1'-0" O.C. OFFSET FROM CENTER OF BUFFER LEFT EDGE STRIPE AS SHOWN

MATCHLINE - SEE SHEET SS-3

**SIGN SCHEDULE**

SIGN CODE	SIGN MESSAGE	PANEL SIZE	NO. OF SIGNS
W74(R) (CA)	THRU TRAFFIC MERGE RIGHT	36" X 36"	1
R1-5	YIELD TO PEDESTRIANS	36" X 36"	2
R10-6	STOP HERE ON RED	24" X 36"	2
R118(CA)	EXCEPT BIKE	18" X 24"	2
W11-2	PEDESTRIAN CROSSING	36" X 36"	4
W16-7P(R)	DIAGONAL ARROW	24" X 12"	2
W16-7P(L)	DIAGONAL ARROW	24" X 12"	2
R4-7	KEEP RIGHT	24" X 30"	1
CUSTOM	CITY OF SAN MATEO BIKE ROUTE SIGN AND WAYFINDING SIGN, SEE DETAIL B, SS-8	24" X 18"	2

**GENERAL NOTES**

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- STRIPING, SIGNS, AND METHODS AND MATERIALS SHALL ADHERE TO THE LATEST REVISIONS OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CAMUTCD) AND PROJECT SPECIFICATIONS.
- ALL STRIPING SHALL BE THERMOPLASTIC UNLESS SPECIFIED OTHERWISE.
- ALL EXISTING STRIPING DISTURBED DURING CONSTRUCTION ACTIVITY SHALL BE REPLACED IN KIND UNLESS OTHERWISE NOTED ON THIS PLAN.
- FINAL STRIPING SHALL BE VERIFIED IN THE FIELD.
- CONTRACTOR SHALL LAY OUT/ CAT TRACK PROPOSED STRIPING AND NOTIFY ENGINEER NO LESS THAN 72 HOURS BEFORE STRIPING.
- REFRESH ALL CURB PAINT WITHIN THE PROJECT EXTENTS IN-KIND.
- ALL EXISTING SIGNS TO REMAIN UNLESS SPECIFIED OTHERWISE.

**SIGNING AND STRIPING NOTES**

- INSTALL TYPE IV (L) ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- INSTALL TYPE IV (R) ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- INSTALL TYPE I ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- INSTALL GREEN-BACKED BIKE LANE MARKING (13 SS-7)
- INSTALL YIELD LINE PER CALTRANS STANDARD PLAN A24G
- INSTALL "KEEP CLEAR" PAVEMENT MARKING SYMBOL STANDARD PLAN A24G
- INSTALL CONTINENTAL CROSSWALK (5 SS-7)
- INSTALL BIKE LANE SKIP STRIPING (1 SS-7)
- INSTALL BIKE LANE BUFFER WITH FLEX POSTS (3 SS-7)
- INSTALL BIKE BOX (10 SS-7)
- INSTALL STRIPED MEDIAN (2 SS-7)
- INSTALL "STOP" PAVEMENT MARKING (125 CD-2)
- INSTALL TYPE VII (L) ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- INSTALL TYPE VII ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- INSTALL BLUE HYDRANT RAISED PAVEMENT MARKERS 6" FROM EDGE OF STRIPE TOWARDS THE HYDRANT SIDE.
- INSTALL "CITY OF SAN MATEO BIKE BOULEVARD WAYFINDING SIGN COMBINATION" PER ID PER PLANS. (8 SS-8)

REV. NO.	DESCRIPTION	BY	DATE
1			
2			
3			
4			

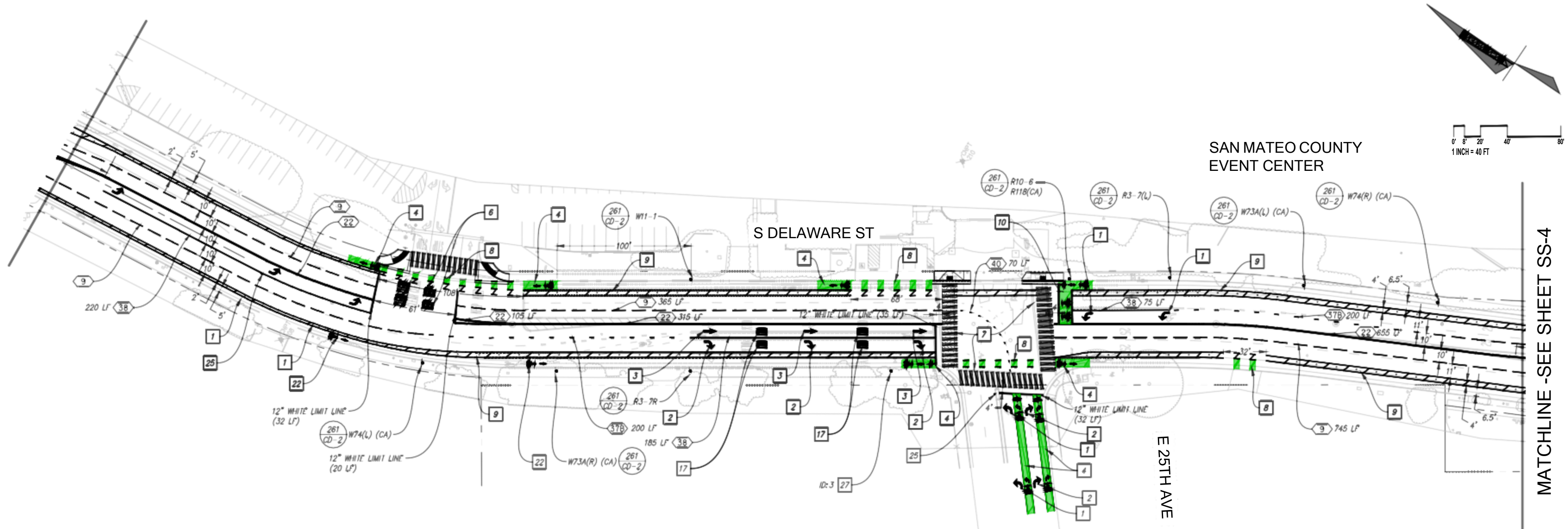
**100% PLANS**  
NOT FOR CONSTRUCTION

**SIGNING AND STRIPING PLAN**  
**DELAWARE STREET**  
**SAFE ROUTES TO SCHOOL**

DESIGNED BY: JP	DATE:	DRAWN BY: BP, TS	DATE:
OC CHECKED BY: RES	DATE:	PROJECT NO: 623071	SCALE:
SUBMITTAL: 60%		SHEET 16 OF 36	

SS-2

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### SIGN SCHEDULE

SIGN CODE	SIGN MESSAGE	PANEL SIZE	NO. OF SIGNS
W73A(L) (CA)	LEFT LANE TURNS LEFT AHEAD	36" X 36"	1
W73A(R) (CA)	RIGHT LANE TURNS RIGHT AHEAD	36" X 36"	1
W74(L) (CA)	THRU TRAFFIC MERGE LEFT	36" X 36"	1
W74(R) (CA)	THRU TRAFFIC MERGE RIGHT	36" X 36"	1
R3-7(L)	LEFT LANE MUST TURN LEFT	36" X 36"	1
R3-7(R)	RIGHT LANE MUST TURN RIGHT	36" X 36"	1
R10-6	STOP HERE ON RED	24" X 36"	1
R118(CA)	EXCEPT BIKE	18" X 24"	1
CUSTOM	CITY OF SAN MATEO BIKE ROUTE SIGN AND WAYFINDING SIGN, SEE DETAIL B, SS-8	24" X 18"	1
W11-1	BIKE	36" X 36"	1

### GENERAL NOTES

- STRIPING DETAILS INDICATED REFER TO THE 2018 CALTRANS STANDARD PLAN PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS.
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- FINAL STRIPING SHALL BE VERIFIED IN THE FIELD.
- CONTRACTOR SHALL LAY OUT/ CAT TRACK PROPOSED STRIPING AND NOTIFY ENGINEER NO LESS THAN 72 HOURS BEFORE STRIPING.
- REFRESH ALL CURB PAINT WITHIN THE PROJECT EXTENTS IN-KIND.
- ALL EXISTING SIGNS TO REMAIN UNLESS SPECIFIED OTHERWISE.

### SIGNING AND STRIPING NOTES

- INSTALL TYPE IV (L) ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- INSTALL TYPE IV (R) ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- INSTALL TYPE I ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- INSTALL GREEN BACKED BIKE LANE MARKING
- INSTALL "KEEP CLEAR" PAVEMENT MARKING SYMBOL STANDARD PLAN A24G
- INSTALL CONTINENTAL CROSSWALK
- INSTALL BIKE LANE SKIP STRIPING
- INSTALL BIKE LANE BUFFER WITH FLEX POSTS
- INSTALL BIKE BOX
- INSTALL "ONLY" PAVEMENT MARKING SYMBOL STANDARD PLAN A24G
- INSTALL BIKE LANE MARKING
- INSTALL BLUE HYDRANT RAISED PAVEMENT MARKERS 6" FROM EDGE OF STRIPE TOWARDS THE HYDRANT SIDE.
- INSTALL "CITY OF SAN MATEO BIKE BOULEVARD WAYFINDING SIGN COMBINATION" PER ID PER PLANS.

REV. NO.	DESCRIPTION	BY	DATE
1			
2			
3			
4			



SIGNING AND STRIPING PLAN  
DELAWARE STREET  
SAFE ROUTES TO SCHOOL  
CITY PROJECT NO. 46R022

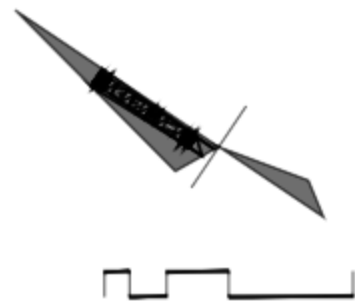


DESIGNED BY: JP	DATE:
DRAWN BY: BP, TS	DATE:
QC CHECKED BY: RES	DATE:
PROJECT NO. 623071	
SCALE:	
SUBMITTAL: 608	

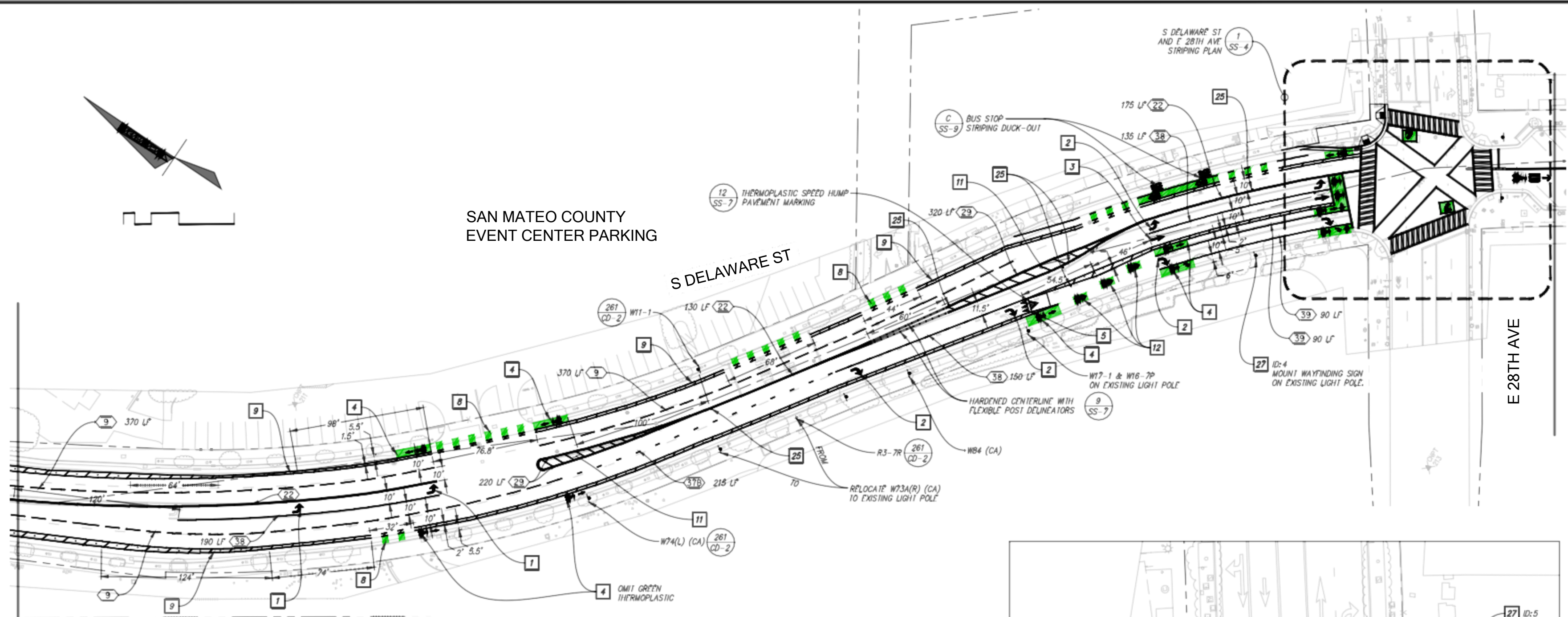
SS-3

SHEET 17 OF 36

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**SAN MATEO COUNTY  
EVENT CENTER PARKING**



MATCHLINE -SEE SHEET SS-5

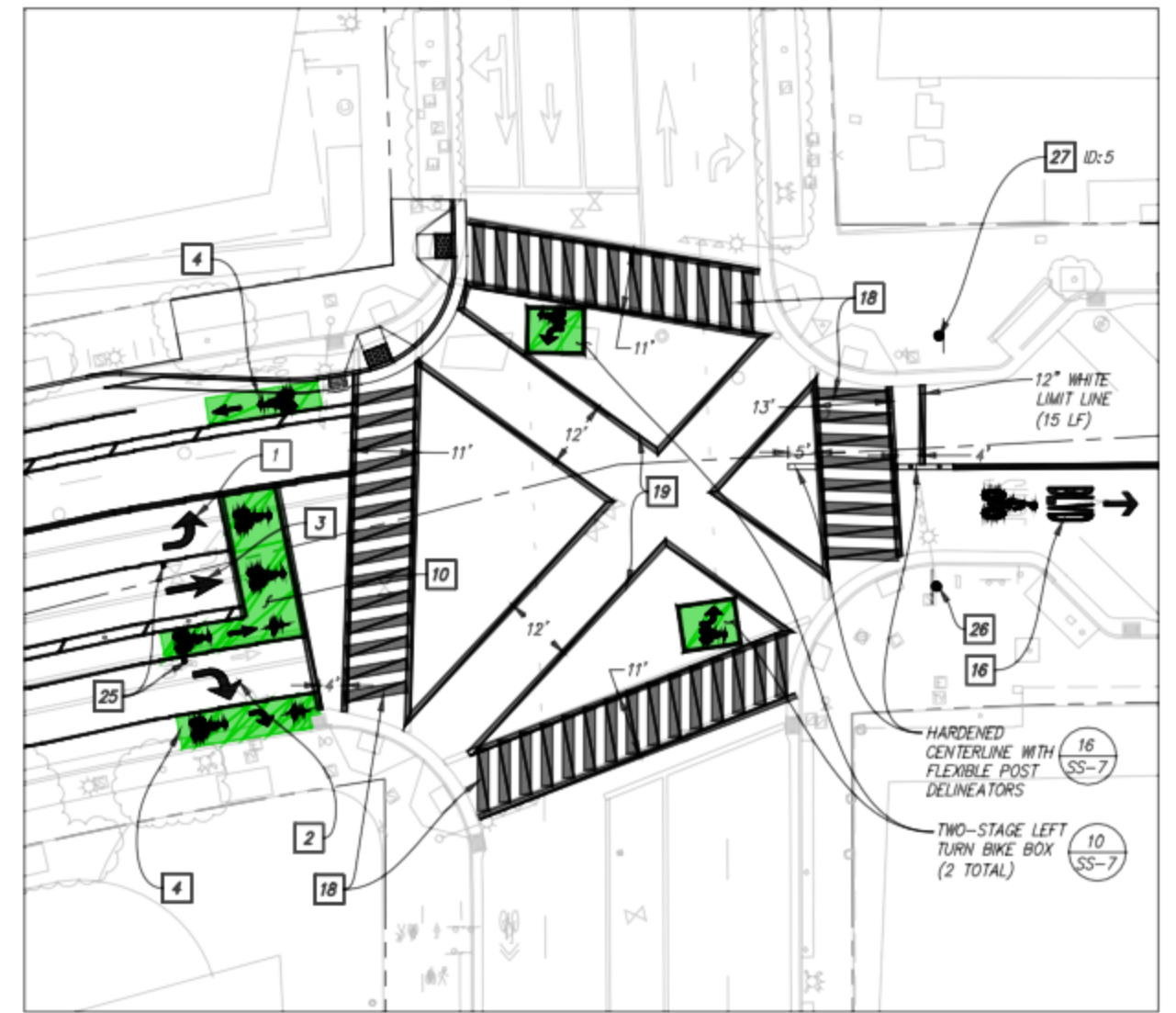
1. STRIPING DETAILS INDICATED REFER TO THE 2018 CALTRANS STANDARD PLAN PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS.
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7. CONTRACTOR SHALL LAY OUT/ CAT TRACK PROPOSED STRIPING AND NOTIFY ENGINEER NO LESS THAN 72 HOURS BEFORE STRIPING.
8. REFRESH ALL CURB PAINT WITHIN THE PROJECT EXTENTS IN-KIND.
9. ALL EXISTING SIGNS TO REMAIN UNLESS SPECIFIED OTHERWISE.

**SIGN SCHEDULE**

SIGN CODE	SIGN MESSAGE	PANEL SIZE	NO. OF SIGNS
W73A(R) (CA)	RIGHT LANE TURNS RIGHT AHEAD	36" X 36"	1
W74(L) (CA)	THRU TRAFFIC MERGE LEFT	36" X 36"	1
R3-7(R)	RIGHT LANE MUST TURN RIGHT	36" X 36"	1
CUSTOM	CITY OF SAN MATEO BIKE BLVD SIGN, SEE DETAIL A, SHEET SS-8	24" x 18"	1
CUSTOM	CITY OF SAN MATEO BIKE ROUTE SIGN AND WAYFINDING SIGN, SEE DETAIL B, SS-8	24" x 18"	1
W84 (CA)	SPEED HUMP AHEAD	36" X 36"	1
W17-1	SPEED HUMP	36" X 36"	1
W16-7P	DIAGONAL ARROW	24" X 12"	1
W11-1	BIKE	36" X 36"	1

**SIGNING AND STRIPING NOTES**

- 1 INSTALL TYPE IV (L) ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- 2 INSTALL TYPE IV (R) ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- 3 INSTALL TYPE I ARROW MARKING PER CALTRANS STANDARD PLAN A24A
- 4 INSTALL GREEN BACKED BIKE LANE MARKING (13 SS-7)
- 5 INSTALL YIELD LINE PER CALTRANS STANDARD PLAN A24G
- 6 INSTALL "KEEP CLEAR" PAVEMENT MARKING SYMBOL STANDARD PLAN A24G
- 8 INSTALL BIKE LANE SKIP STRIPING (1 SS-7)
- 9 INSTALL BIKE LANE BUFFER WITH FLEX POSTS (3 SS-7)
- 10 INSTALL BIKE BOX (10 SS-7)
- 11 INSTALL STRIPED MEDIAN (2 SS-7)
- 12 INSTALL SHARED ROADWAY BICYCLE MARKING (4 SS-7)
- 15 INSTALL "BUS" PAVEMENT MARKING SYMBOL STANDARD PLAN A24G
- 16 INSTALL "BIKE BLVD" PAVEMENT MARKING SYMBOL (8 SS-7)
- 18 INSTALL YELLOW LADDER CROSSWALK PER CALTRANS STANDARD PLAN A24F
- 19 INSTALL YELLOW BASIC CROSSWALK PER CALTRANS STANDARD PLAN A24F
- 25 INSTALL BLUE HYDRANT RAISED PAVEMENT MARKERS 6" FROM EDGE OF STRIPE TOWARDS THE HYDRANT SIDE.
- 26 INSTALL "CITY OF SAN MATEO BIKE BOULEVARD ROUTE" SIGN ON EXISTING SIGNAL POLE. (A SS-8)
- 27 INSTALL "CITY OF SAN MATEO BIKE BOULEVARD WAYFINDING SIGN COMBINATION" PER ID PER PLANS. (B SS-8)



**ENLARGEMENT 1  
S DELAWARE ST AND  
E 28TH AVE**  
1"=20'

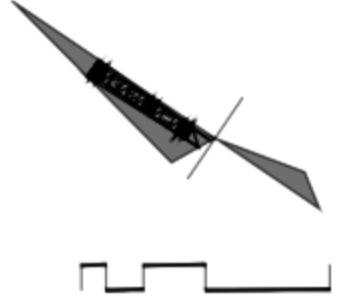
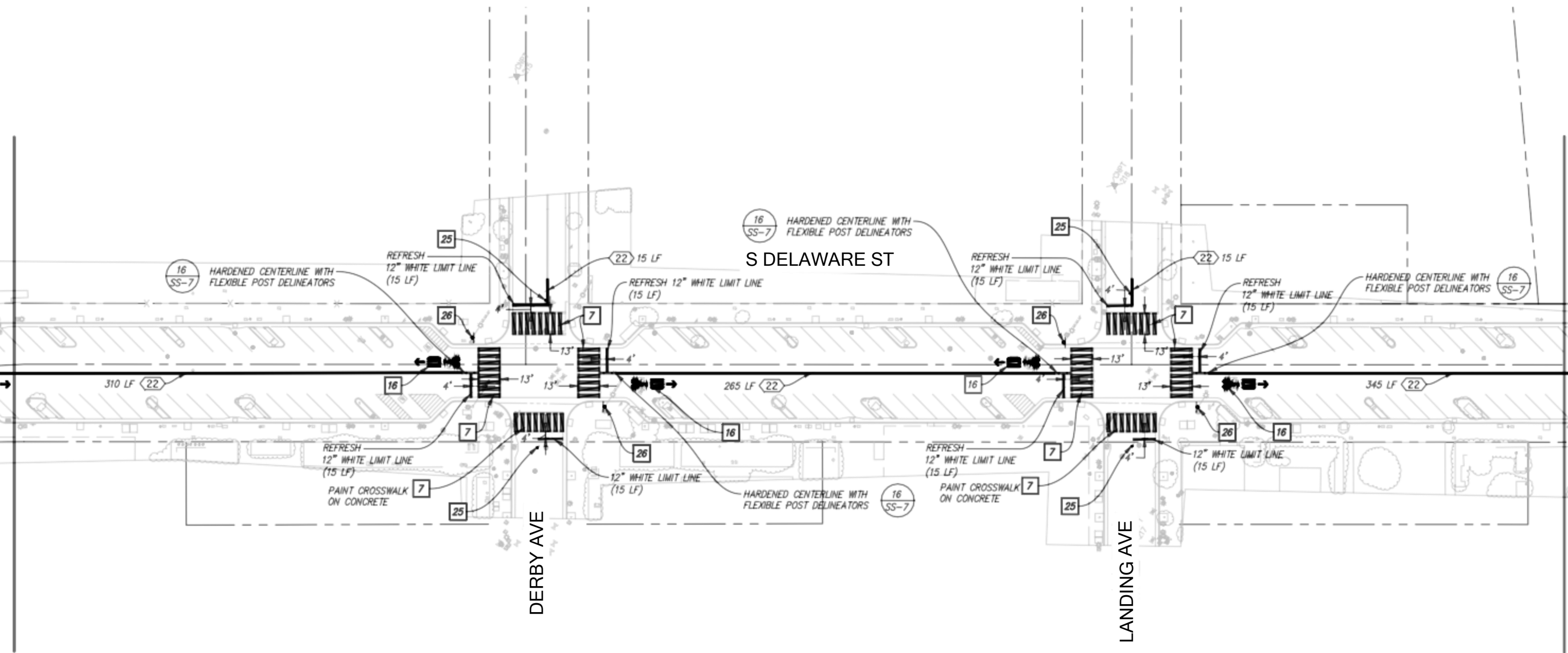
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REV. NO.	DESCRIPTION	BY	DATE
1			
<b>SIGNING AND STRIPING PLAN DELAWARE STREET SAFE ROUTES TO SCHOOL</b>			
CITY PROJECT NO. 46R022			
DESIGNED BY: JP	DATE:	DRAWN BY: BP, TS	DATE:
CHECKED BY: RES	DATE:	PROJECT NO. 62071	SCALE:
SHEET 18 OF 36	SUBMITTAL 606		

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MATCHLINE -SEE SHEET 18

MATCHLINE -SEE SHEET 20



### SIGN SCHEDULE

SIGN CODE	SIGN MESSAGE	PANEL SIZE	NO. OF SIGNS
CUSTOM	CITY OF SAN MATEO BIKE BLVD SIGN, SEE DETAIL A, SHEET SS-8	24" x 18"	4

### GENERAL NOTES

- STRIPING DETAILS INDICATED REFER TO THE 2018 CALTRANS STANDARD PLAN PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS.
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- CONTRACTOR SHALL LAY OUT/ CAT TRACK PROPOSED STRIPING AND NOTIFY ENGINEER NO LESS THAN 72 HOURS BEFORE STRIPING.
- REFRESH ALL CURB PAINT WITHIN THE PROJECT EXTENTS IN-KIND.
- ALL EXISTING SIGNS TO REMAIN UNLESS SPECIFIED OTHERWISE.

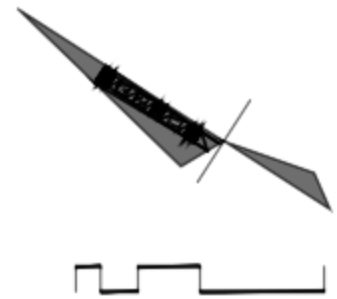
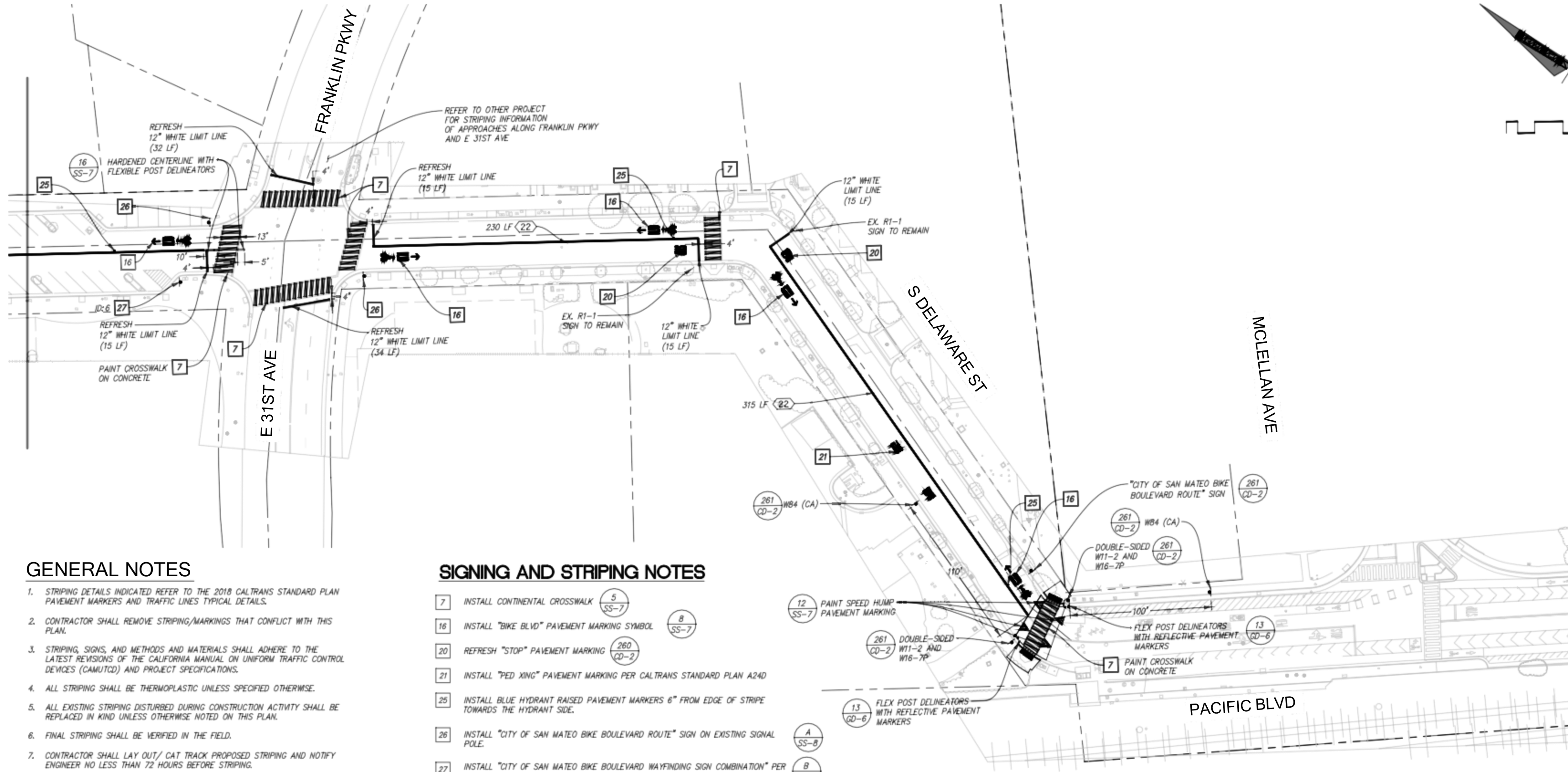
### SIGNING AND STRIPING NOTES

- 7 INSTALL CONTINENTAL CROSSWALK
- 16 INSTALL "BIKE BLVD" PAVEMENT MARKING SYMBOL
- 25 INSTALL BLUE HYDRANT RAISED PAVEMENT MARKERS 6" FROM EDGE OF STRIPE TOWARDS THE HYDRANT SIDE.
- 26 INSTALL "CITY OF SAN MATEO BIKE BOULEVARD ROUTE" SIGN ON EXISTING SIGNAL POLE.



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MATCHLINE -SEE SHEET 19



**GENERAL NOTES**

1. STRIPING DETAILS INDICATED REFER TO THE 2018 CALTRANS STANDARD PLAN PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS.
2. CONTRACTOR SHALL REMOVE STRIPING/MARKINGS THAT CONFLICT WITH THIS PLAN.
3. STRIPING, SIGNS, AND METHODS AND MATERIALS SHALL ADHERE TO THE LATEST REVISIONS OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CAMUTCD) AND PROJECT SPECIFICATIONS.
4. ALL STRIPING SHALL BE THERMOPLASTIC UNLESS SPECIFIED OTHERWISE.
5. ALL EXISTING STRIPING DISTURBED DURING CONSTRUCTION ACTIVITY SHALL BE REPLACED IN KIND UNLESS OTHERWISE NOTED ON THIS PLAN.
6. FINAL STRIPING SHALL BE VERIFIED IN THE FIELD.
7. CONTRACTOR SHALL LAY OUT/ CAT TRACK PROPOSED STRIPING AND NOTIFY ENGINEER NO LESS THAN 72 HOURS BEFORE STRIPING.
8. REFRESH ALL CURB PAINT WITHIN THE PROJECT EXTENTS IN-KIND.
9. ALL EXISTING SIGNS TO REMAIN UNLESS SPECIFIED OTHERWISE.

**SIGNING AND STRIPING NOTES**

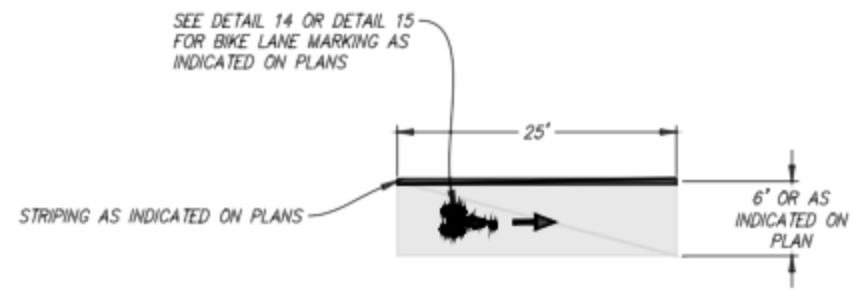
- 7 INSTALL CONTINENTAL CROSSWALK
- 16 INSTALL "BIKE BLVD" PAVEMENT MARKING SYMBOL
- 20 REFRESH "STOP" PAVEMENT MARKING
- 21 INSTALL "PED XING" PAVEMENT MARKING PER CALTRANS STANDARD PLAN A24
- 25 INSTALL BLUE HYDRANT RAISED PAVEMENT MARKERS 6" FROM EDGE OF STRIPE TOWARDS THE HYDRANT SIDE.
- 26 INSTALL "CITY OF SAN MATEO BIKE BOULEVARD ROUTE" SIGN ON EXISTING SIGNAL POLE.
- 27 INSTALL "CITY OF SAN MATEO BIKE BOULEVARD WAYFINDING SIGN COMBINATION" PER ID PER PLANS.

**SIGN SCHEDULE**

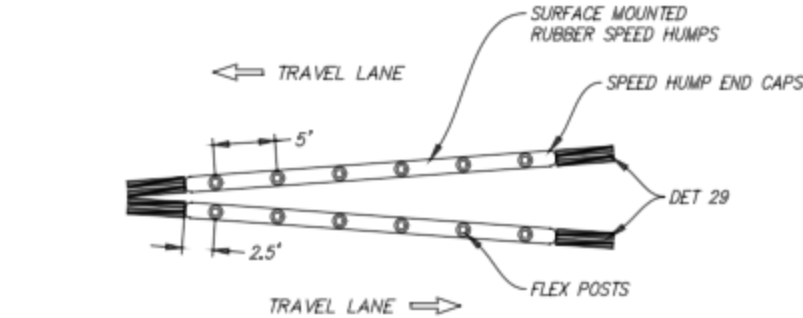
SIGN CODE	SIGN MESSAGE	PANEL SIZE	NO. OF SIGNS
W11-2	PEDESTRIAN CROSSING	36" X 36"	4
W16-7P(R)	DIAGONAL ARROW	24" X 12"	4
W16-7P(L)	DIAGONAL ARROW	24" X 12"	4
WB4 (CA)	SPEED HUMPS AHEAD	36" X 36"	2
CUSTOM	CITY OF SAN MATEO BIKE BLVD SIGN, SEE DETAIL A, SHEET SS-8	24" x 18"	3
CUSTOM	CITY OF SAN MATEO BIKE ROUTE SIGN AND WAYFINDING SIGN, SEE DETAIL B, THIS SHEET	24" x 18"	1



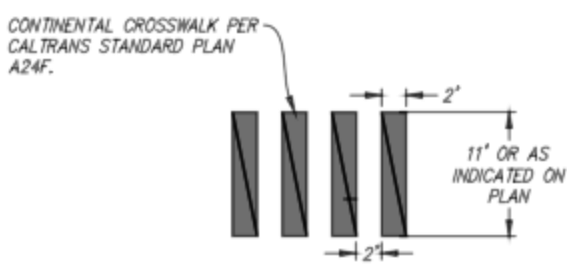
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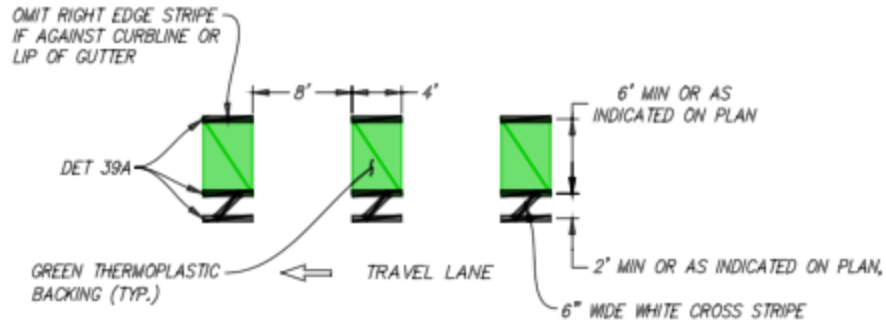
BIKE LANE W/ GREEN THERMOPLASTIC BACKING DETAIL 13  
N.T.S.



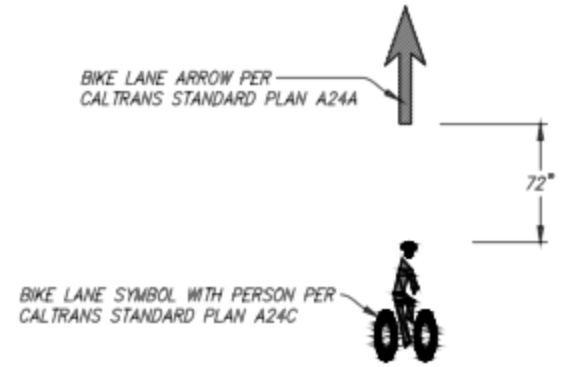
HARDENED CENTERLINE WITH FLEXIBLE POST DETAIL 9  
N.T.S.



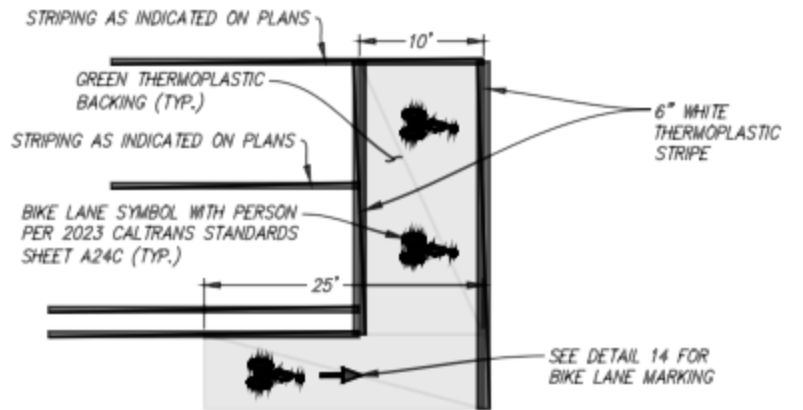
CONTINENTAL CROSSWALK DETAIL 5  
N.T.S.



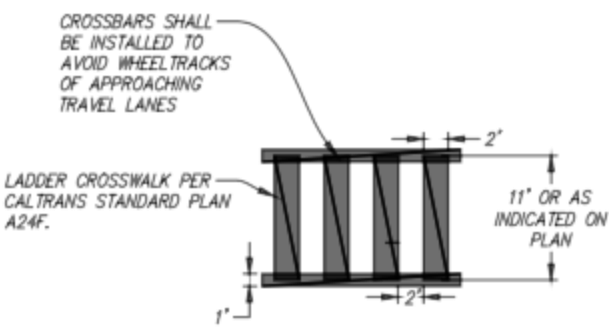
BIKE LANE CONFLICT MARKINGS 1  
N.T.S.



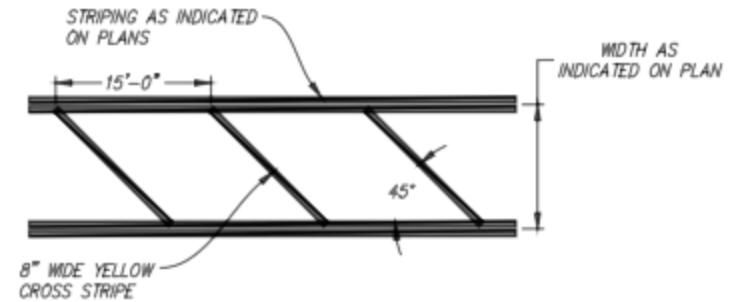
THROUGH BIKE LANE MARKING 14  
N.T.S.



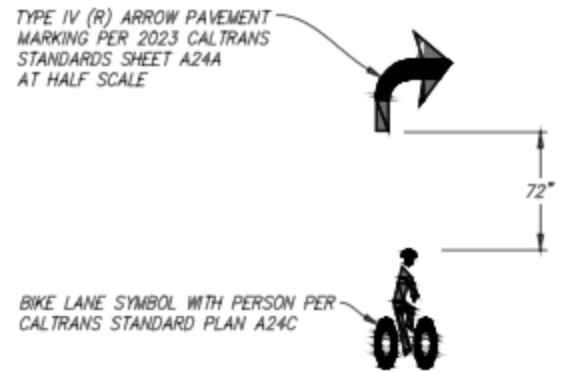
BIKE BOX W/ GREEN THERMOPLASTIC BACKING DETAIL 10  
N.T.S.



LADDER CROSSWALK DETAIL 6  
N.T.S.



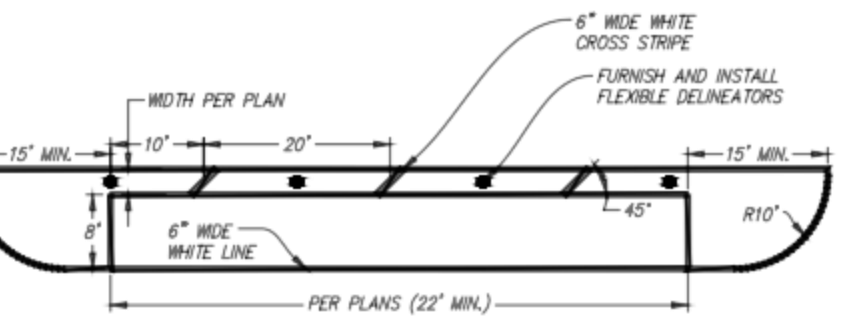
STRIPED MEDIAN DETAIL 2  
N.T.S.



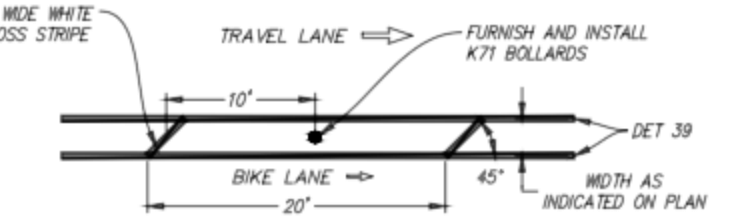
RIGHT TURN BIKE LANE MARKING 15  
N.T.S.



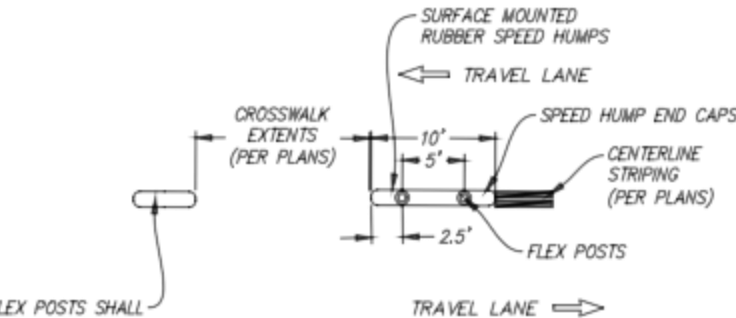
TWO-STAGE BIKE TURN-BOX W/ GREEN THERMOPLASTIC BACKING DETAIL 11  
N.T.S.



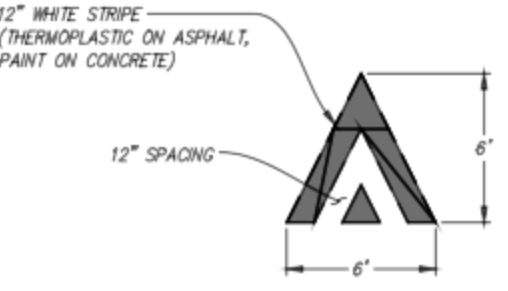
PARALLEL PARKING STALLS 7  
N.T.S.



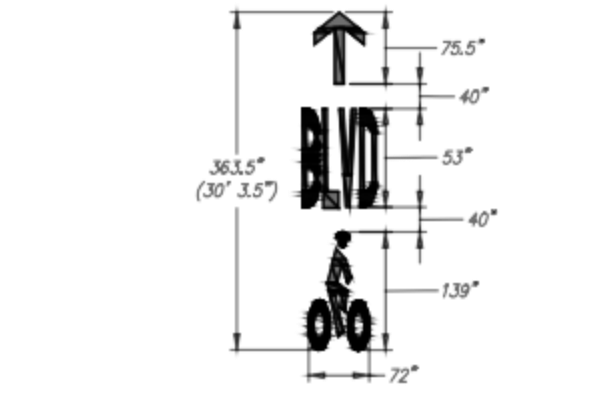
BIKE LANE BUFFER WITH FLEXIBLE POST DETAIL 3  
N.T.S.



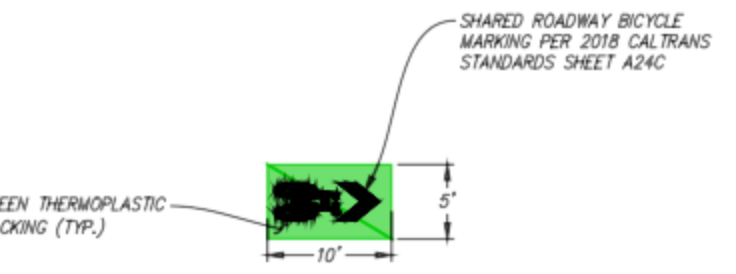
HARDENED CENTERLINE AT INTERSECTION 16  
N.T.S.



SPEED TABLE/ HUMP PAVEMENT MARKING 12  
N.T.S.



BIKE BOULEVARD PAVEMENT MARKING DETAIL 8  
N.T.S.



SHARED LANE MARKING W/ GREEN THERMOPLASTIC BACKING DETAIL 4  
N.T.S.

REV. NO.	DESCRIPTION	BY	DATE
1			
2			
3			
4			
5			



100% PLANS NOT FOR CONSTRUCTION

SIGNING AND STRIPING DETAILS  
DELAWARE STREET  
SAFE ROUTES TO SCHOOL  
CITY PROJECT NO. 46R022

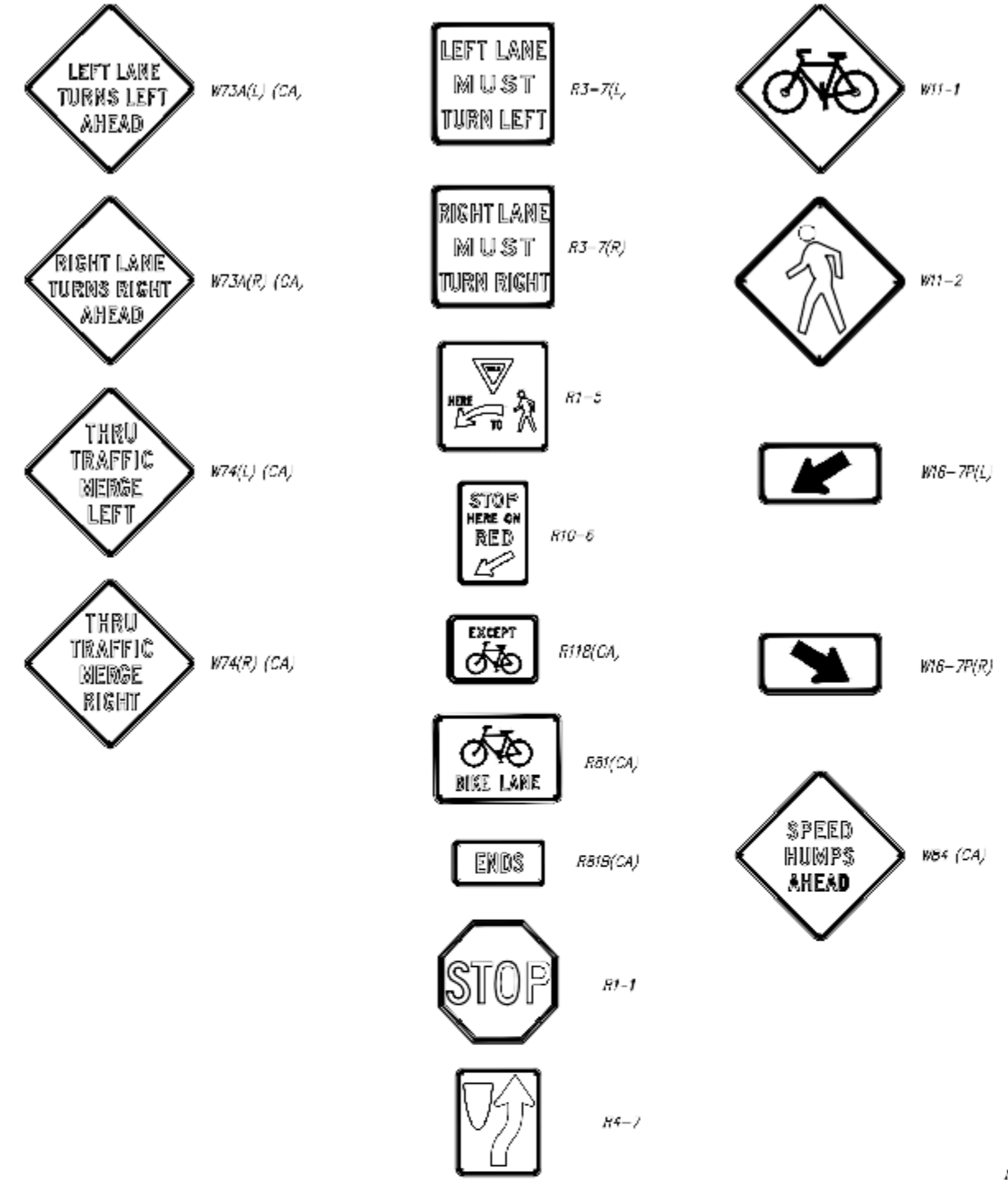


DESIGNED BY: JP	DATE	DRAWN BY: BP TS	DATE	QC CHECKED BY: RES	DATE	PROJECT NO. 62071	SCALE	SUBMITAL 606

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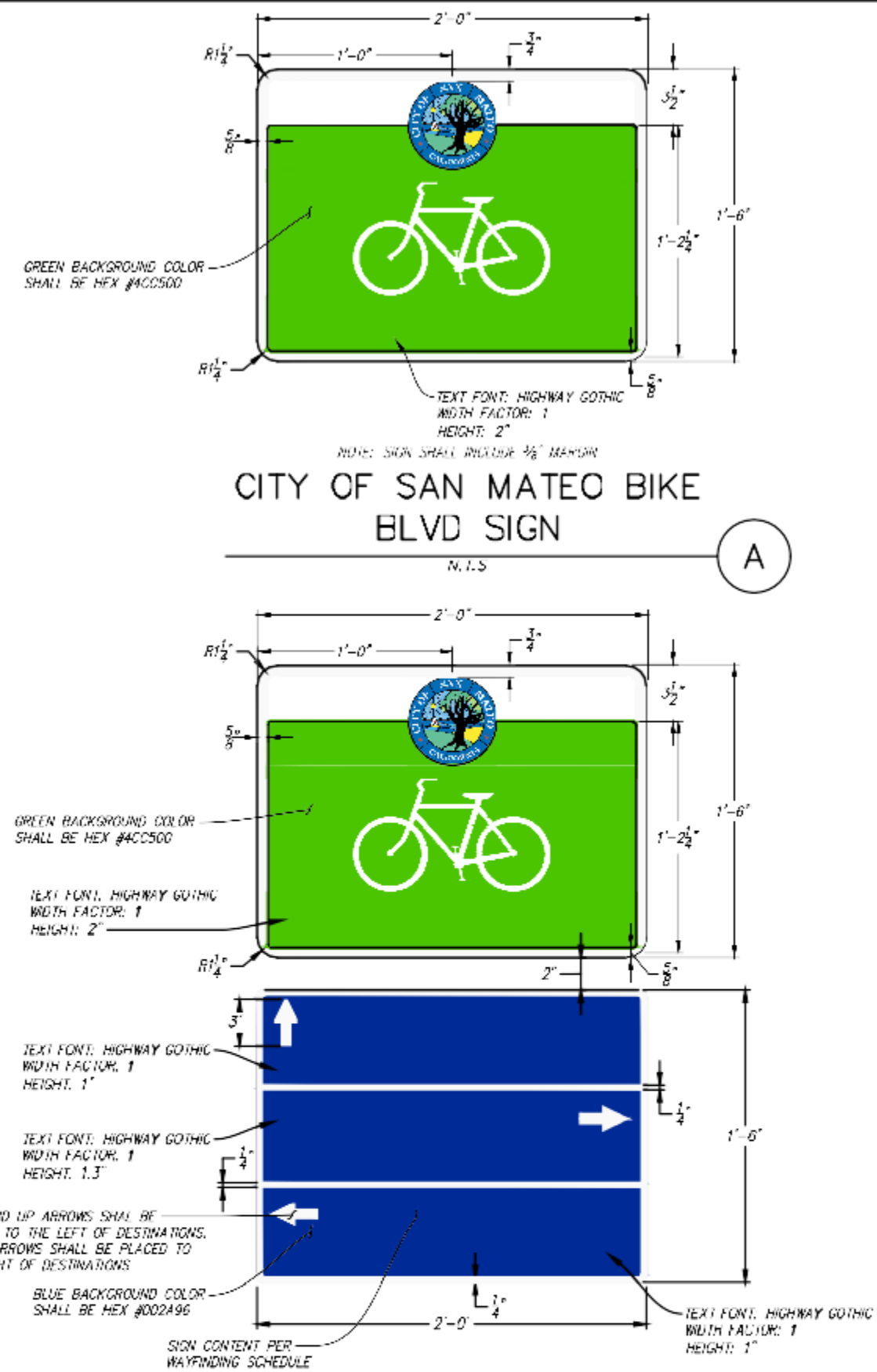
SIGN CODE	SIGN MESSAGE	PANEL SIZE	NO. OF SIGNS	SHEET NO.
W73A(L), (CA)	LEFT LANE TURNS LEFT AHEAD	36" X 36"	1	SS-3
W73A(R), (CA)	RIGHT LANE TURNS RIGHT AHEAD	36" X 36"	2	SS-3,4
W74(L), (CA)	THRU TRAFFIC MERGE LEFT	36" X 36"	2	SS-3,4
W74(R), (CA)	THRU TRAFFIC MERGE RIGHT	36" X 36"	3	SS-1,2,3
R3-7(L)	LEFT LANE MUST TURN LEFT	36" X 36"	2	SS-1,3
R3-7(R)	RIGHT LANE MUST TURN RIGHT	36" X 36"	2	SS-3,4
R1-5	YIELD TO PEDESTRIANS	36" X 36"	2	SS-2
R10-6	STOP HERE ON RED	24" X 36"	3	SS-2,3
R118(CA)	EXCEPT BIKE	18" X 24"	3	SS-2,3
W11-2	PEDESTRIAN CROSSING	36" X 36"	6	SS-2,6
W16-7P(R)	DIAGONAL ARROW	24" X 12"	6	SS-2,6
W16-7P(L)	DIAGONAL ARROW	24" X 12"	6	SS-2,6
W84 (CA)	SPEED HUMPS AHEAD	36" X 36"	2	SS-6
CUSTOM	CITY OF SAN MATEO BIKE BLVD SIGN SEE DETAIL A, THIS SHEET	24" x 18"	6	SS-4,5,6
CUSTOM	CITY OF SAN MATEO BIKE ROUTE SIGN AND WAYFINDING SIGN, SEE DETAIL B, THIS SHEET	24" x 18"	6	SS-2,3,4,6
R1-1	STOP	36" X 36"	1	SS-2
R81	BIKE LANE	12" X 8"	1	SS-1
R81B	END	8" X 5"	1	SS-1
R4-7	KEEP RIGHT	24" X 30"	1	SS-2
W11-1	BIKE	36" X 36"	1	SS-3, 4

NOTE: REFER TO TRAFFIC SIGNAL PLANS FOR SIGNAL POLE AND MOUNTING AND MOUNTED SIGNS



\*SIGN FACES SHOWN FOR REFERENCE ONLY, REFER TO NOTES FOR MORE INFORMATION ON SIGN DIMENSIONS AND INSTALLATION.

**SIGN FACES**



**CITY OF SAN MATEO BIKE BLVD SIGN**

**CITY OF SAN MATEO BIKE BLVD WAYFINDING SIGN COMBINATION**

ID	SHEET	DESTINATIONS			DISTANCES			TIMES			ARROWS		
		1	2	3	1	2	3	1	2	3	1	2	3
1	SS-2	Sar. Mateo Event Center	Hillsdale Caltrain Station	Hillsdale Shopping Center	0.6 miles	0.8 miles	1.0 miles	4 min.	5 min.	6 min.	LEFT	UP	UP
2	SS-2	Sar. Mateo Event Center	Downtown San Mateo	Hayward Park Caltrain Station	0.6 miles	1.5 miles	0.5 miles	4 min.	8 min.	4 min.	RIGHT	UP	UP
3	SS-3	Hillsdale Caltrain Station	Hillsdale Shopping Center	Hillsdale High School	0.4 miles	0.8 miles	1.5 miles	2 min.	5 min.	10 min.	UP	UP	UP
4	SS-4	Hillsdale Caltrain Station	Hillsdale Shopping Center	Beresford Park	0.1 miles	0.5 miles	0.8 miles	1 min.	4 min.	5 min.	RIGHT	RIGHT	RIGHT
5	SS-4	Hillsdale Caltrain Station	Sar. Mateo Event Center	Beresford Park	0.1 miles	1.0 miles	0.7 miles	1 min.	5 min.	5 min.	LEFT	UP	LEFT
6	SS-6	Hillsdale Caltrain Station	Hillsdale Shopping Center	Hillsdale High School	0.1 miles	0.2 miles	1.0 miles	1 min.	2 min.	6 min.	RIGHT	RIGHT	RIGHT





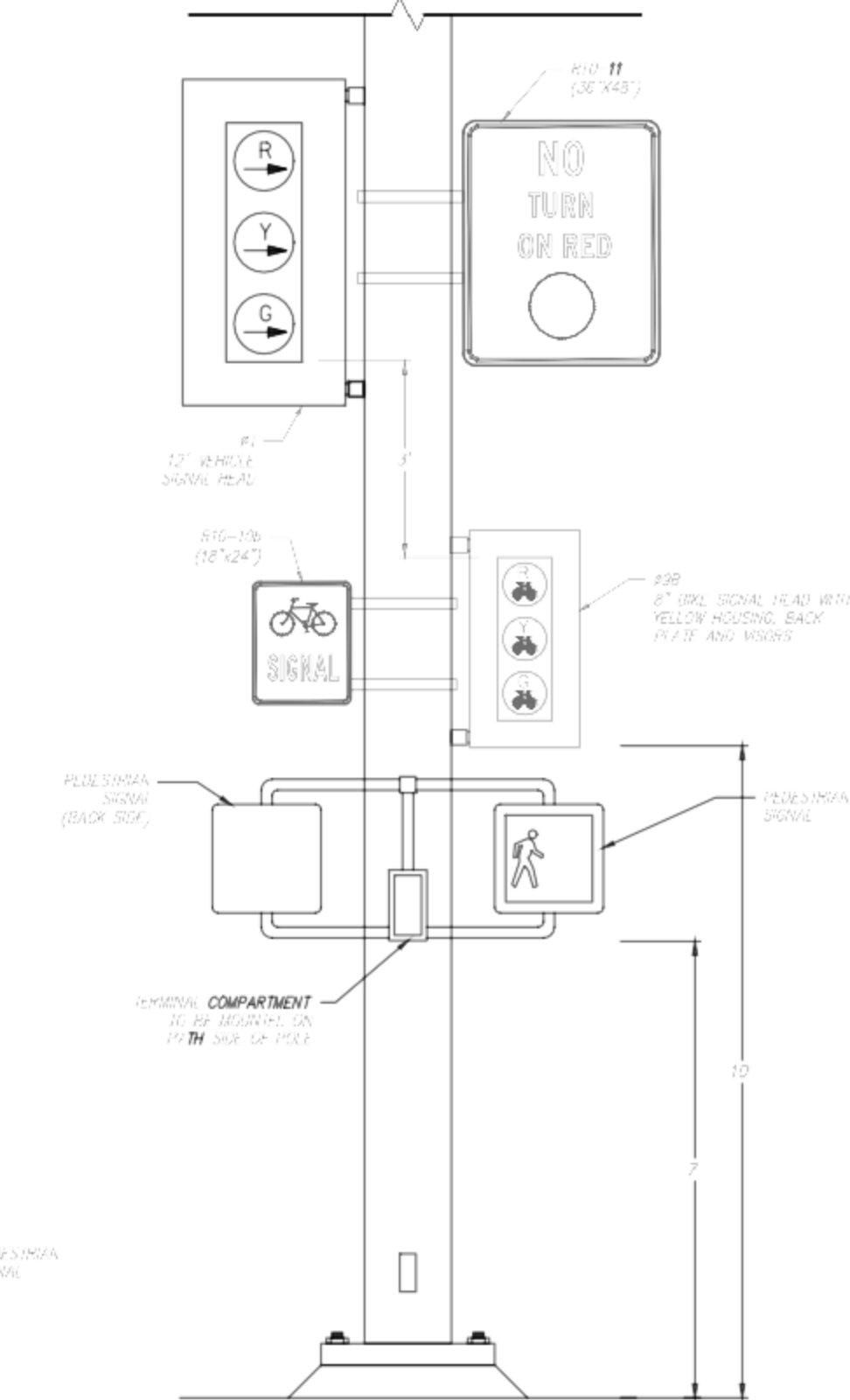
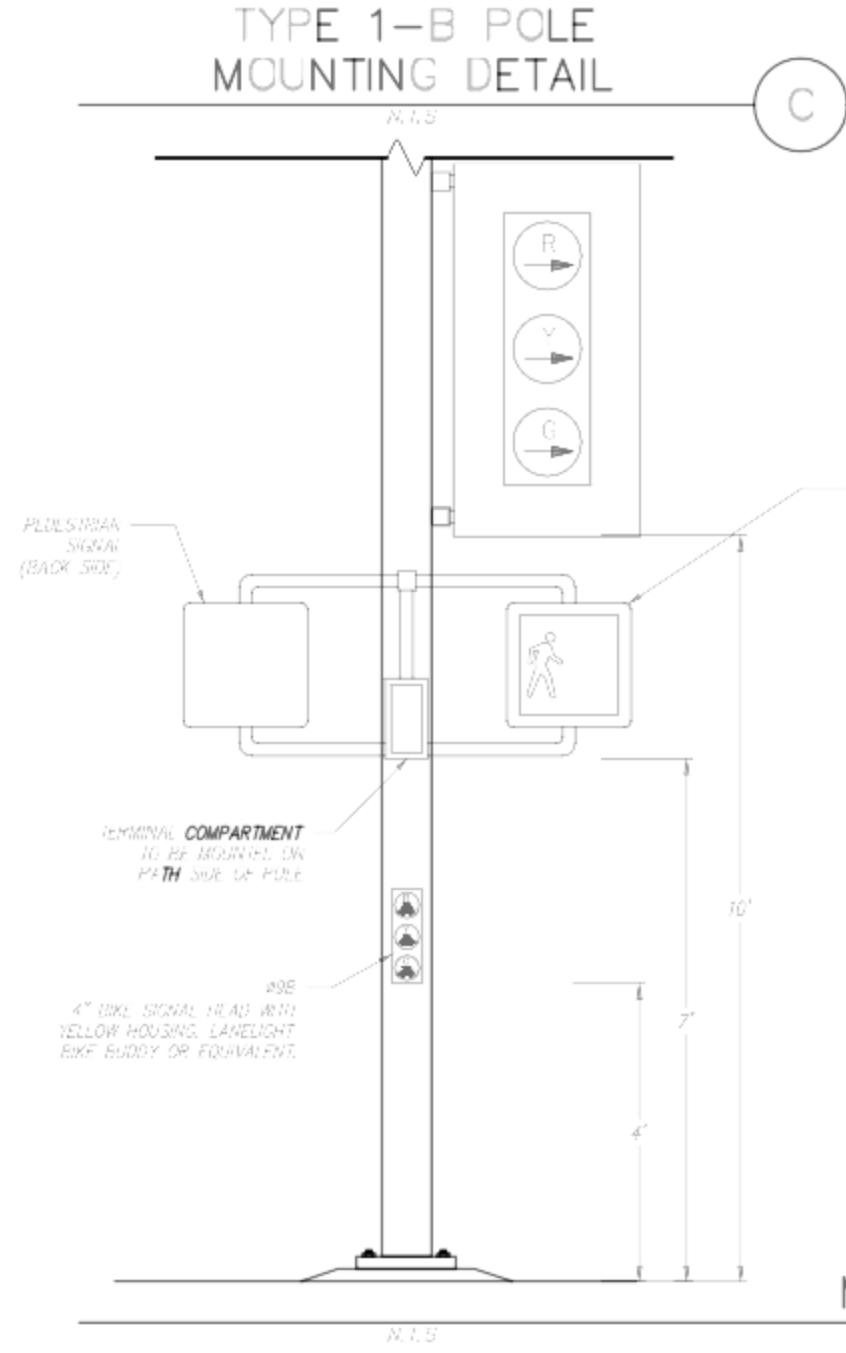
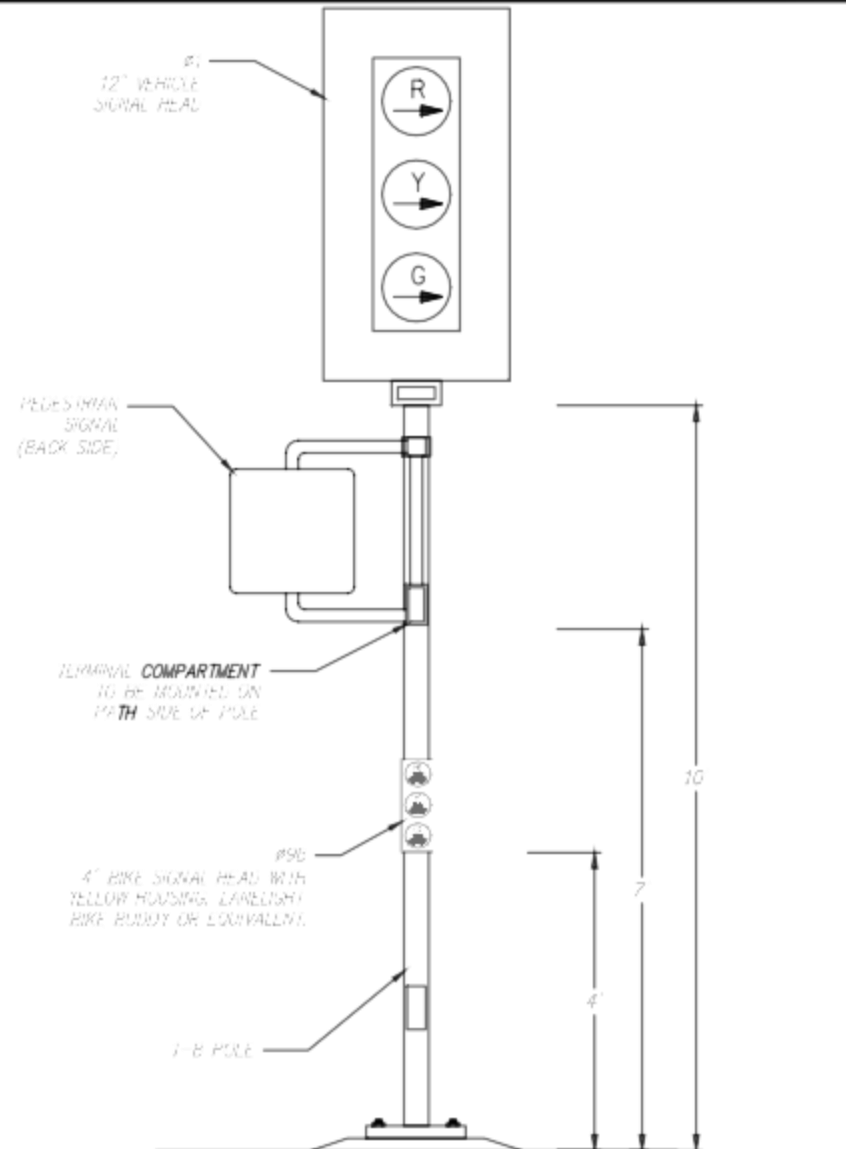
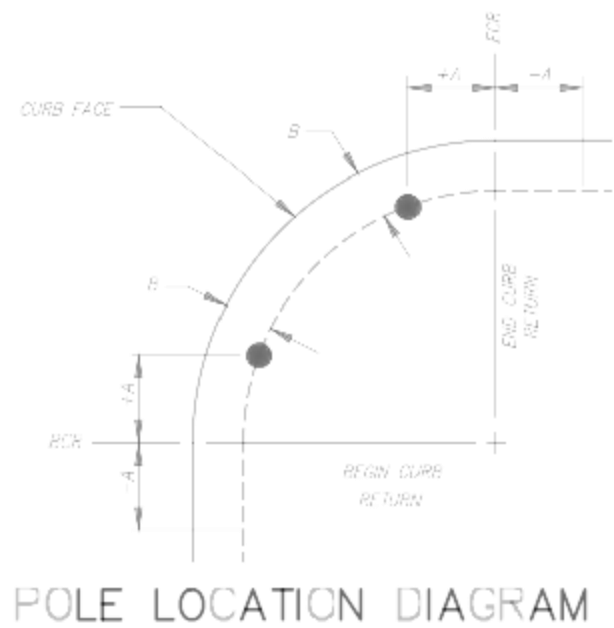
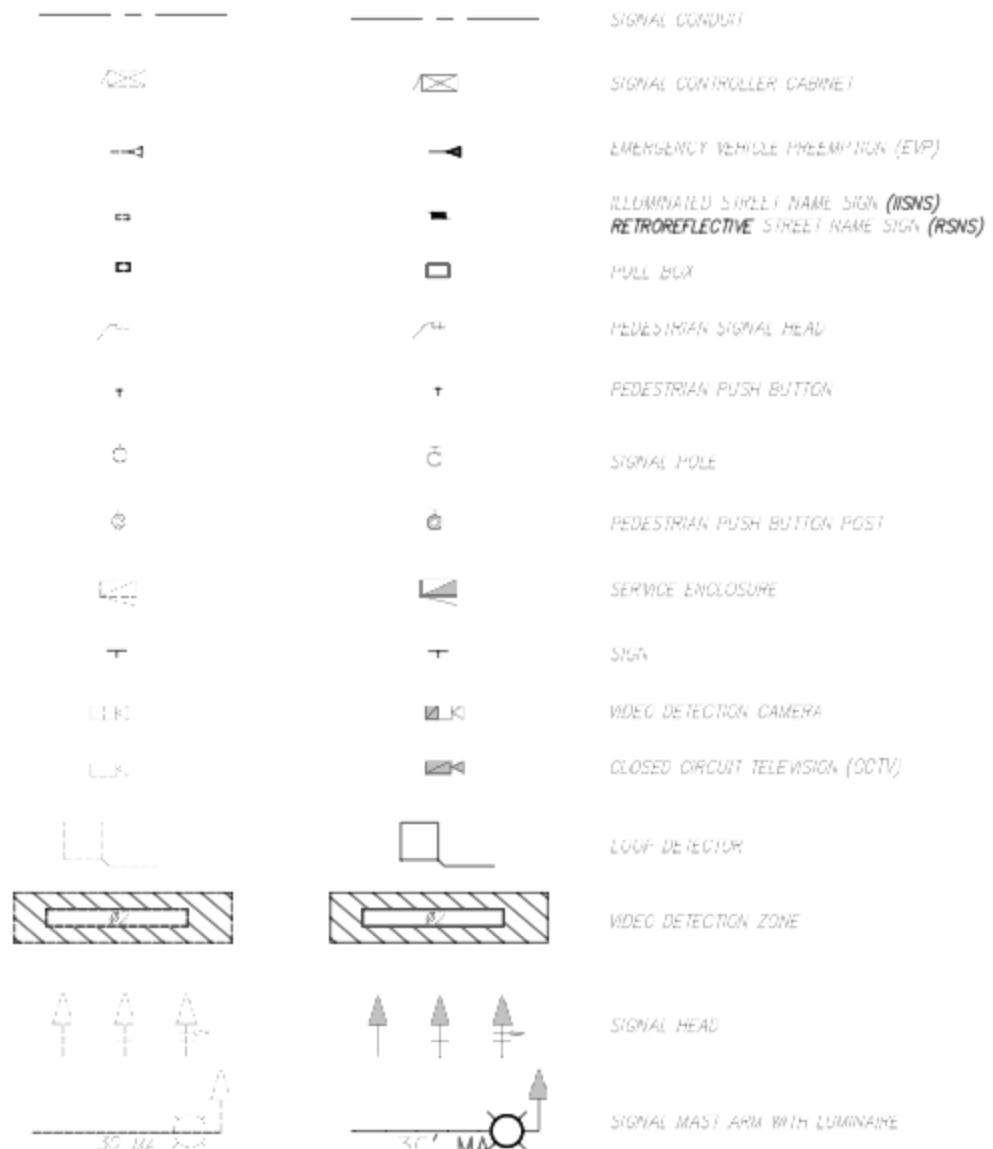
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- ALL ELECTRICAL WORK SHALL CONFORM TO THE CITY OF SAN MATEO STANDARDS, THE LATEST CALTRANS STANDARD SPECIFICATIONS AND PLANS AND SUBSEQUENT REVISED STANDARD PLANS, AND THE LATEST VERSION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD).
- FOR ANY SIGNAL EQUIPMENT STANDARDS, NOTES, ABREVIATIONS, AND LEGENDS, REFER TO CALTRANS STANDARD PLANS.
- IN CASE OF DISCREPANCIES BETWEEN CITY AND CALTRANS STANDARDS, CITY STANDARDS SHALL GOVERN.
- ALL EXISTING ELECTRICAL EQUIPMENT TO REMAIN, UNLESS OTHERWISE NOTED, IF DAMAGED BY CONSTRUCTION OPERATIONS, EQUIPMENT SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THEIR EXPENSE.
- THE CONTRACTOR SHALL CONTACT ALL UTILITIES TO VERIFY UNDERGROUND AND OVERHEAD UTILITIES. THE CONTRACTOR SHALL CALL 811 UNDERGROUND SERVICE ALERT (U.S.A.) 48 HOURS PRIOR TO ALL EXCAVATIONS.
- THE CONTRACTOR SHALL VERIFY OVERHEAD AND UNDERGROUND CLEARANCE REQUIREMENTS WITH PG&E, AT&T, AND OTHER AFFECTED UTILITIES PRIOR TO BEGINNING OF WORK.
- CONTRACTOR SHALL CONTACT PG&E FOR SIGNAL UNDERGROUND, NEW SIGNAL CONNECTIONS, AND VERIFY WITH PG&E REGARDING SURFACE PULL BOX AND CONDUIT REQUIREMENTS PRIOR TO BEGINNING OF WORK.
- THE CONTRACTOR SHALL VERIFY ALL HEIGHTS OF BAY AND EQUIPMENT INFORMATION PRIOR TO CONSTRUCTION.
- THE LOCATION OF ALL EQUIPMENT SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE SUBJECT TO CHANGE TO SITE FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
- THIS PLAN IS INTENDED FOR ELECTRICAL WORK ONLY.
- THE CONTRACTOR SHALL VERIFY EXISTING SUBURBAN CONDUITS. NEW SUBURBANS SHALL BE INSTALLED IF EXISTING CONDUITS WERE DAMAGED, AS DIRECTED BY THE ENGINEER.
- WHERE EXISTING CONDUITS UNDER PROPOSED SIDEWALK AND CURB RAMP AREAS ARE SHOWN TO REMAIN ON THE PLAN, THE CONTRACTOR SHALL PROTECT EXISTING CONDUITS WHILE RECONSTRUCTING SIDEWALK AND CURB RAMP.
- ALL NEW LOOP DETECTORS SHALL BE INSTALLED IN THE CENTER OF THE TRAFFIC LANE, UNLESS OTHERWISE NOTED ON PLAN. LOOP DETECTORS SHALL BE FIELD-ADJUSTED TO AVOID ANY CONFLICTS WITH EXISTING VALVE COVERS, MANHOLE COVERS, OR OTHER UTILITY FACILITIES.
- ALL NEW PULL BOXES SHALL BE NO. 615, UNLESS NOTED OTHERWISE.
- ALL NEW PULL BOXES SHALL BE LOCATED IN THE SIDEWALK WHERE APPLICABLE AND SHALL NOT BE INSTALLED WITHIN ADA TACTILE STRIP, RAMPS, OR LANDINGS.
- ALL NEW PEDESTRIAN SIGNAL HEADS SHALL BE LED, CORINTHIAN TYPE.
- ALL NEW VEHICLE SIGNAL HEADS SHALL BE 12" LED TYPE AND SHALL HAVE BACKPLATES.
- ALL NEW BICYCLE SIGNAL HEADS SHALL EITHER BE 4" LED TYPE WITH YELLOW HOUSING OR 8" LED TYPE WITH YELLOW HOUSING, BACKPLATES, AND VISORS. THE USE OF 4" AND 8" SHALL BE AS IDENTIFIED ON SIGNAL PLANS.
- APS SHALL BE POLARA DIS/POCO TOUCHLESS 2-WIRE PUSH BUTTONS WITH EDCO PROCESSOR, CAMPBELL ADAPTOR ACCESSIBLE PEDESTRIAN SIGNAL BY CAMPBELL OR APPROVED EQUIVALENT. FACEPLATE FOR APS SHALL BE #10-36(CA) SIGN.
- THE CONTRACTOR SHALL COVER AND REPAIR DAMAGING HOLES AND DAMAGE ON EXISTING SIGNAL STANDARDS AFTER REMOVING EXISTING EQUIPMENT FROM EXISTING SIGNAL STANDARDS.
- THE CONTRACTOR SHALL MAINTAIN THE OPERATION OF THE EXISTING SIGNALS AT ALL TIMES DURING CONSTRUCTION, UNLESS OTHERWISE APPROVED BY THE CITY.
- SIGNALS SHALL BE RETURNED TO NORMAL OPERATION AT THE END OF EACH WORKING DAY AND SHALL NOT BE LEFT IN RED FLASH UNATTENDED/ OVERNIGHT UNLESS APPROVED IN ADVANCE BY ENGINEERING.
- SALVAGED EQUIPMENT SHALL BE DELIVERED TO THE CITY OF SAN MATEO CORPORATION YARD AT 1949 PACIFIC BLVD, SAN MATEO, CA 94403. THE CONTRACTOR SHALL CALL (650)522-3355 TO ARRANGE DELIVERY PRIOR TO REMOVING EQUIPMENT.
- FLU FOR LIGHTS AT SIGNALIZED INTERSECTIONS SHALL BE TYPE IV.
- ALL CONDUCTORS AND CABLES MUST BE COPPER, UNLESS OTHERWISE NOTED.
- R/A SHOWN IS APPROXIMATE ONLY.

### ABBREVIATIONS

- AB ABANDON, IF APPLIED TO EXISTING REMOVE CONDUITS
- BC INSTALL PULL BOX IN EXISTING CONDUIT RUN
- CB INSTALL CONDUIT INTO EXISTING PULL BOX
- CC COMPLETE NEW AND EXISTING CONDUIT, REMOVE EXISTING CONDUITS AND INSTALL CONDUCTORS AS INDICATED
- FI FURNISH AND INSTALL EQUIPMENT AS INDICATED
- RC EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CITY/OWNER
- RL REMOVE EQUIPMENT
- RS REMOVE AND SALVAGE EQUIPMENT OR MATERIAL EQUIPMENT TO BECOME THE PROPERTY OF THE CITY
- RR REMOVE AND REUSE EQUIPMENT
- SC SPlice NEW TO EXISTING CONDUITS

### ELECTRICAL LEGEND



DESIGNED BY: JP	DATE
DRAWN BY: BP TS	DATE
CC CHECKED BY: RES	DATE
PROJECT NO: 625071	SCALE
SHEET 24 OF 36	SUBMITTAL 606

**SIGNAL NOTES**

**DELAWARE STREET**

**SAFE ROUTES TO SCHOOL**

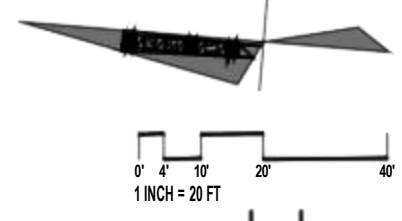
CITY PROJECT NO. 46R022

CITY OF SAN MATEO  
CALIFORNIA

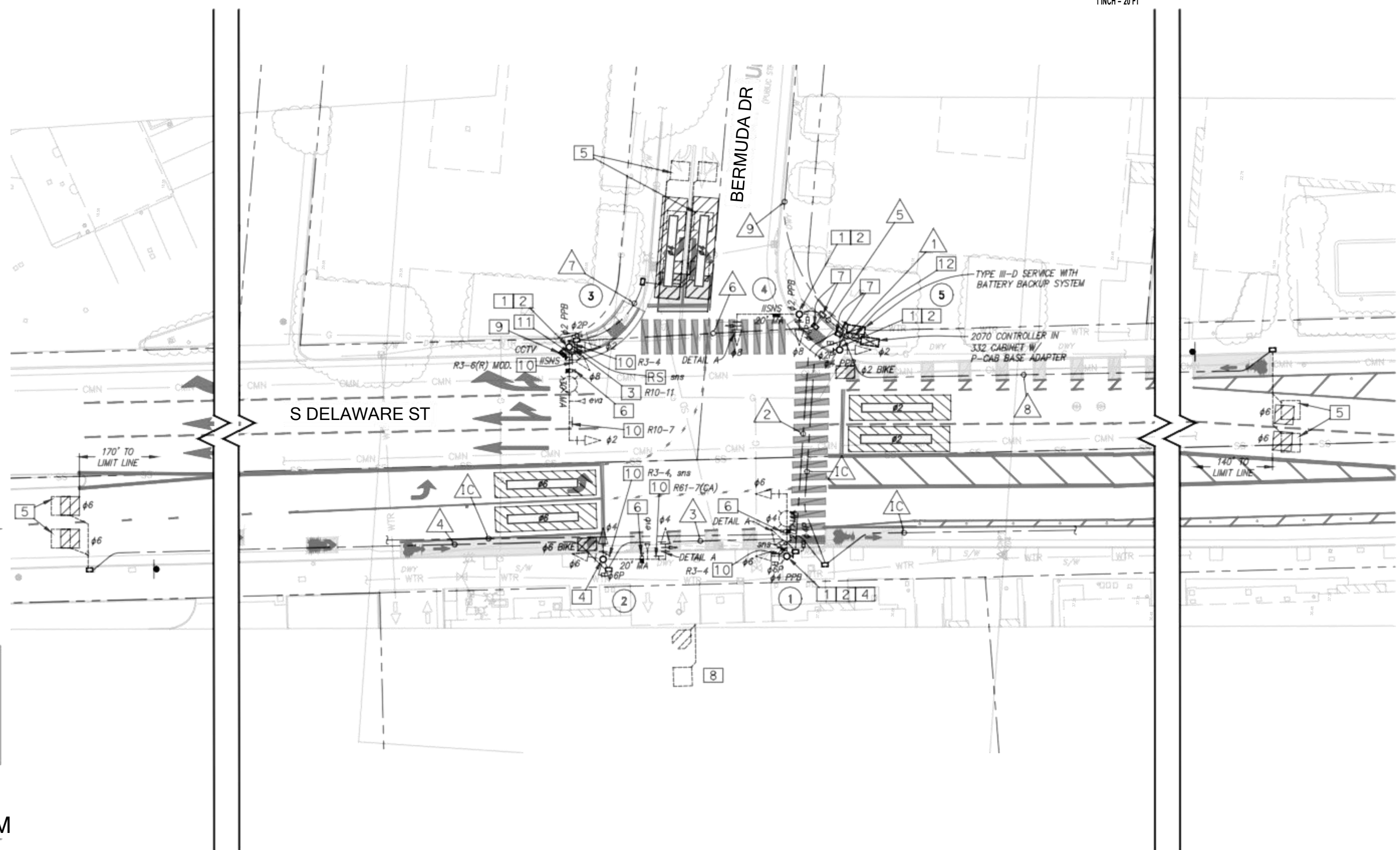
**SANDIS**  
SAN DIS.NET

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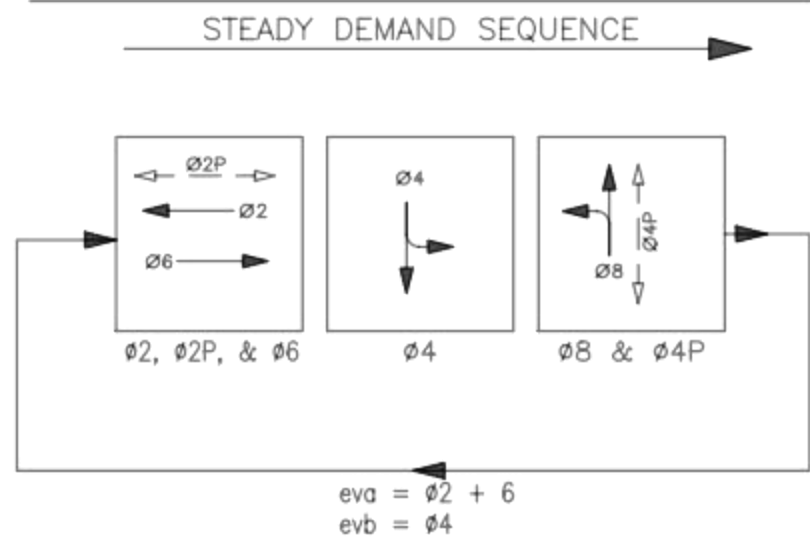
1. SEE SHEET E-1 FOR ELECTRICAL NOTES.



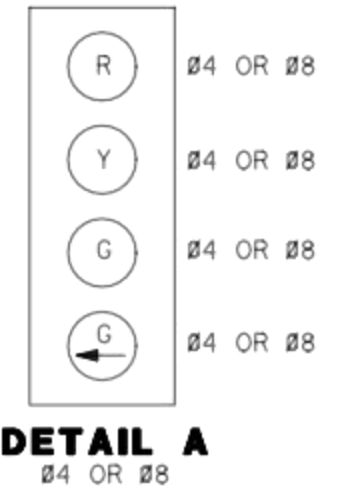
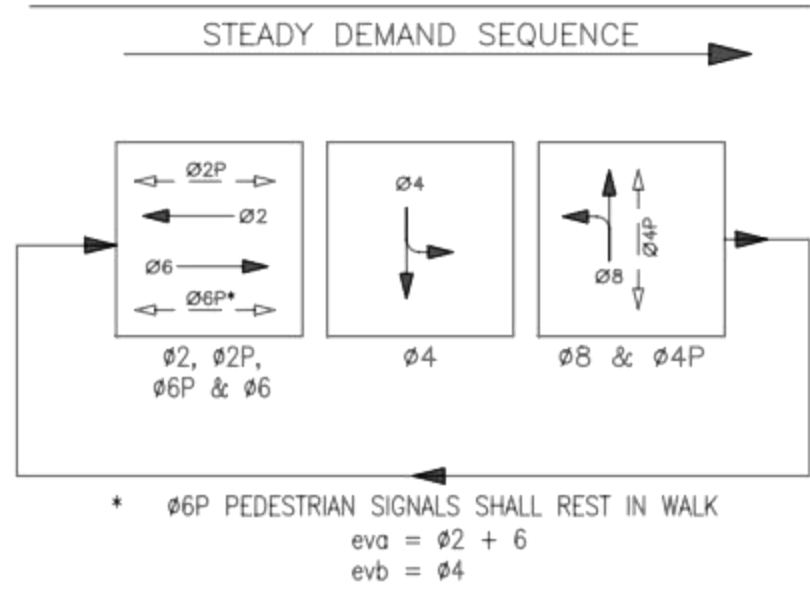
- 1 RS PEDESTRIAN PUSH BUTTON EQUIPMENT.
- 2 FI APS PEDESTRIAN PUSH BUTTON ON EXISTING POLE.
- 3 FI R10-11 "NO TURN ON RED" SIGN ON EXISTING POLE.
- 4 FI COUNTDOWN PEDESTRIAN SIGNAL HEAD.
- 5 AB LOOP DETECTORS IN PLACE.
- 6 FI ITERIS VANTAGE VECTOR VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM PER MANUFACTURER'S RECOMMENDATIONS. SEE CALTRANS STANDARD PLAN ES-7R FOR DETAILS.
- 7 RS EXISTING TRAFFIC SIGNAL PULL BOX. FI NEW #5 TRAFFIC SIGNAL PULL BOX OUTSIDE OF CURB RAMP AND RECONNECT EXISTING CONDUITS.
- 8 PROTECT IN PLACE EXISTING LOOP DETECTORS.
- 9 FI CCTV CAMERA ON SIGNAL POLE PER MANUFACTURER'S RECOMMENDATIONS.
- 10 RS EXISTING SIGN(S) AND FI SIGN(S) IN KIND, AS INDICATED.
- 11 FI MOUNT ISSNS ON ITS OWN MAST ARM PER MANUFACTURER'S RECOMMENDATIONS.
- 12 RC EXISTING ELECTRICAL PULL BOX. FI NEW #5 ELECTRICAL PULL BOX. PROTECT EXISTING CONDUITS AND CONDUITS.



### EXISTING SIGNAL PHASE DIAGRAM



### PROPOSED SIGNAL PHASE DIAGRAM



100% PLANS  
NOT FOR CONSTRUCTION

TRAFFIC SIGNAL PLAN - BERMUDA DR  
DELAWARE STREET  
SAFE ROUTES TO SCHOOL  
CITY PROJECT NO. 46R022



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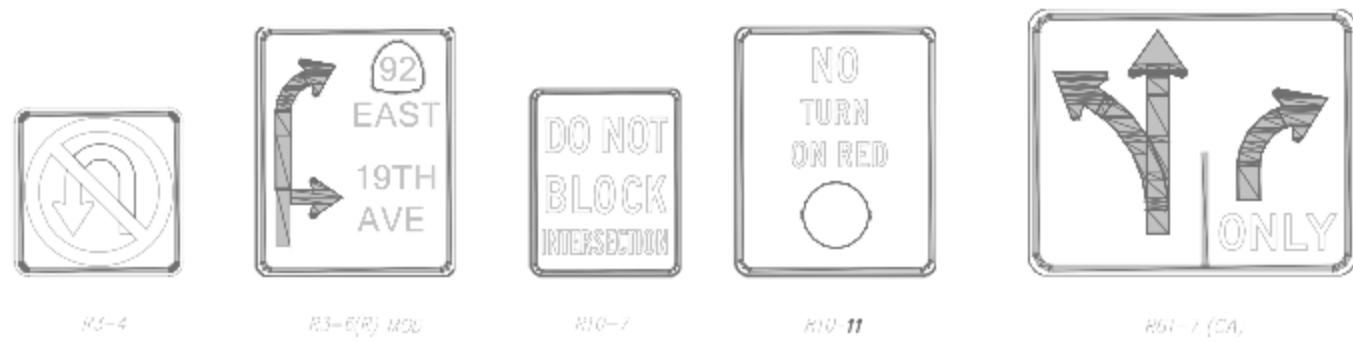
CONDUCTOR SCHEDULE																					
AWG	CONDUCTOR DESIGNATION	NUMBER OF CONDUCTORS																			
		RUA NUMBER																			
		EX.	EX.	EX.	EX.	REW.	EX.	EX.	EX.	EX.	EX.										
#14	VEHICLE																				
	Ø2	3					3	3													
	Ø4	3	3	3																	
	Ø6	3	3	3																	
	Ø8	3					3														
	PEL																				
	Ø2	2					2	2													
	Ø4	4	2				2														
	Ø6	4	4	2																	
	PPE																				
Ø2	2					2	1														
Ø4	2	1																			
SPARES	6	3	3			3	3														
TOTAL #14		32	16	11		15	9														
#12	PPE COMMON	2	1	1			1	1													
#10	ISNS	2					2														
#8	LIGHTING (240V)	4	2				2	2													
	SIGNAL COMMON (120V)	2	1	1			1	1													
	TOTAL #8		6	3	1		3	3													
DETECTOR LOOP CABLE (DLC)	Ø2	1	1																		
	TOTAL DETECTOR CABLES	1	1																		
VIDEO DETECTION CABLE (CAT 5E)	Ø2	1					1	1													
	Ø4	1	1	1																	
	Ø6	1	1																		
	TOTAL VIDEO DETECTION CABLES	3	2	1			1	1													
#6	SERVICE																			3	
EVP	OPTICUM CABLE	1					1	1													
	PULL ROPE																				1
SIL	FIBER																				1
UCIV (CAT 6)	UCIV	1						1													
	SPARE	1						1													
	TOTAL UCIV	2						2													
CONDUIT DESIGNATION	EX.	EX.	EX.	EX.	REW.	EX.	EX.	EX.	EX.	EX.	EX.	EX.	EX.	EX.	EX.	EX.	EX.	EX.	EX.	EX.	
CONDUIT SIZE (INCHES)	3 1/2"	2 1/2"	2"	1 1/2"	2 1/2"	2 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	
CONDUIT FILL (%)	21%	21%	14%	-	15%	20%	-	-	9%	1%											

- NOTES:
- CABLING AND CONDUCTOR SCHEDULES ARE SHOWN AS AN EXAMPLE OF WHAT MAY BE USED AT THE SITE. THE CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING WIRING PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NECESSARY TO PROVIDE A FULLY FUNCTIONAL SYSTEM MEETING ALL THE REQUIREMENTS OF THE CITY OF SAN MATEO. ALL PROPOSED FIELD WIRING SHALL BE APPROVED BY THE ENGINEER AND SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER OR DEVELOPER. THE CONTRACTOR SHALL PROVIDE THE CITY OF SAN MATEO WITH A WIRING AS-BUILT WHEN THE WORK IS COMPLETED.
  - NEW CONDUCTORS IN THE ABOVE TABLE IS SHOWN IN BOLD.
  - STREETLIGHT CONDUCTORS SHALL BE AWG#10 FOR POLE CONNECTION AND AWG#8 IN UNDERGROUND CONDUITS, WITH 2 CONDUCTORS.
  - ISNS TO BE FED FROM SEPARATE BREAKER IN SERVICE ENCLOSURE.

POLE AND SIGNAL SCHEDULE																
LOCATION	STANDARD			LED LUMINAIRE (MAX WATTAGE)	VEHICLE SIGNAL			PED SIGNALS			PBA		STREET NAME SIGN	POLE LOCATION (IF INCHES)		SPECIAL REQUIREMENTS
	TYPE	SIGNAL MAST ARM LENGTH	LUMINAIRE MAST ARM LENGTH		#	MAST ARM	#	POLE	#	MOUNTING	POLE QUADRANT	#		ARROW	PULL QUADRANT	
1	17-1-70	20'	15'	73 LED	6	MAS	4, 6	SV-2-TA	4, 6	SP-2-T		4	→			RS EXISTING #4 PFB, FI APE PUSH BUTTON, FI PEDESTRIAN SIGNAL HEAD
2	16-1-70	15'	-	-	4	MAS-4B	4, 6	SV-2-TA	6	SP-1-T						FI PEDESTRIAN SIGNAL HEAD
3	19-3-70	30'	15'	73 LED	2	MAS	2, 8	SV-2-TA	2	SP-2-T		2	←			RS EXISTING #2 PFB, FI APE PUSH BUTTON & ISNS ON 11C TURN MAST ARM
4	19-4-100	20'	-	-	8	MAS-4B	8	SV-1-T	4	SP-1-T		2	←			RS EXISTING #2 PFB, FI APE PUSH BUTTON & ISNS
5	1-B	-	-	-	-	-	2	TV-1-T	2	SP-1-T		4	→			RS EXISTING #4 PFB, FI APE PUSH BUTTON

PROPOSED SIGN SCHEDULE				
SIGN CODE	SIGN MESSAGE	PANEL SIZE	NO. OF SIGNS	SHEET NO.
R3-4	NO U-TURN	36"x36"	3	E-2
R3-6(R) MCO	MOVEMENT LANE CONTROL	36"x48"	1	E-2
R10-11	NO TURN ON RED	36"x48"	1	E-2
R10-7	DO NOT BLOCK INTERSECTION	24"x30"	1	E-2
R61-7 (CA)	MOVEMENT LANE CONTROL	54"x45"	1	E-2

NOTE: THE ABOVE SIGN SCHEDULE EXCLUDES STREET NAME SIGNS AND HERETIFORE ONLY THE PROPOSED SIGNS MOUNTED ON THE SIGNAL POLE AND MAST ARM.



DATE	DATE	DATE	DATE	DATE
DESIGNED BY: JP	DRAWN BY: BP TS	QC CHECKED BY: RES	PROJECT NO: 62071	SCALE
SUBMITTAL NO:				DATE
SHEET 26 OF 36				DATE

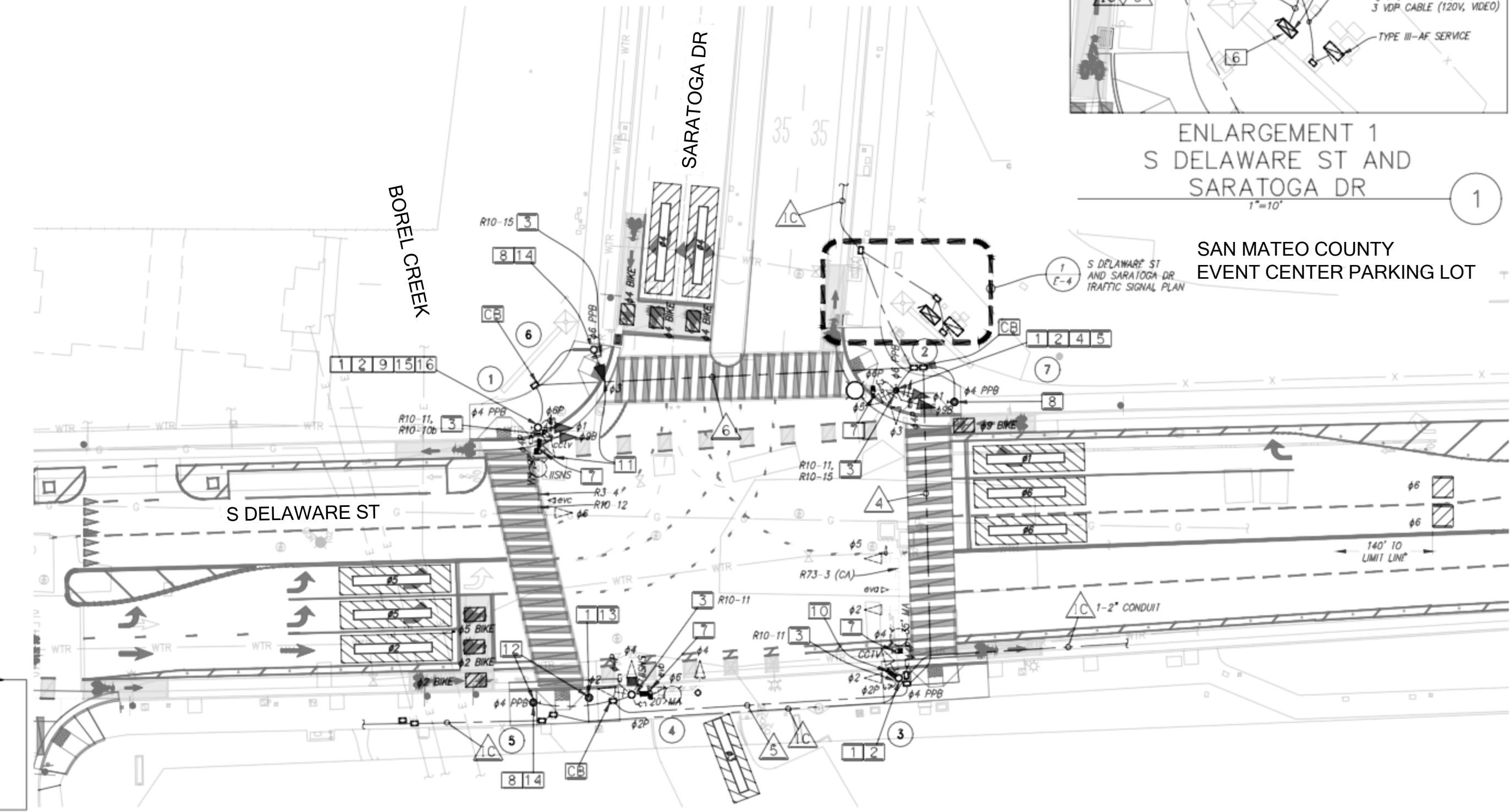
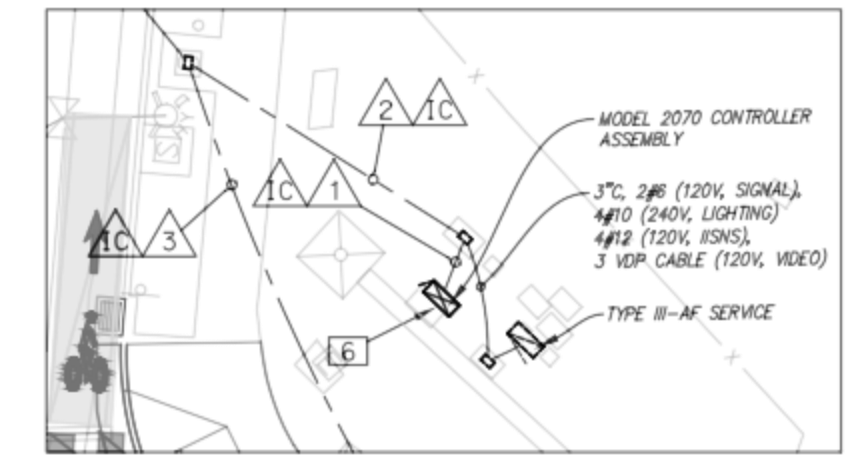
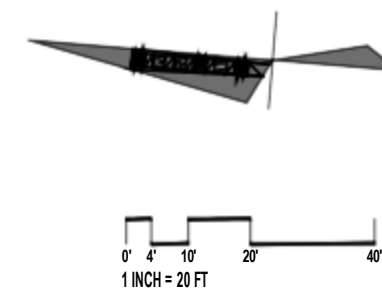
**100% PLANS**  
NOT FOR CONSTRUCTION

TRAFFIC SCHEDULE - BERMUDA DR  
DELAWARE STREET  
SAFE ROUTES TO SCHOOL

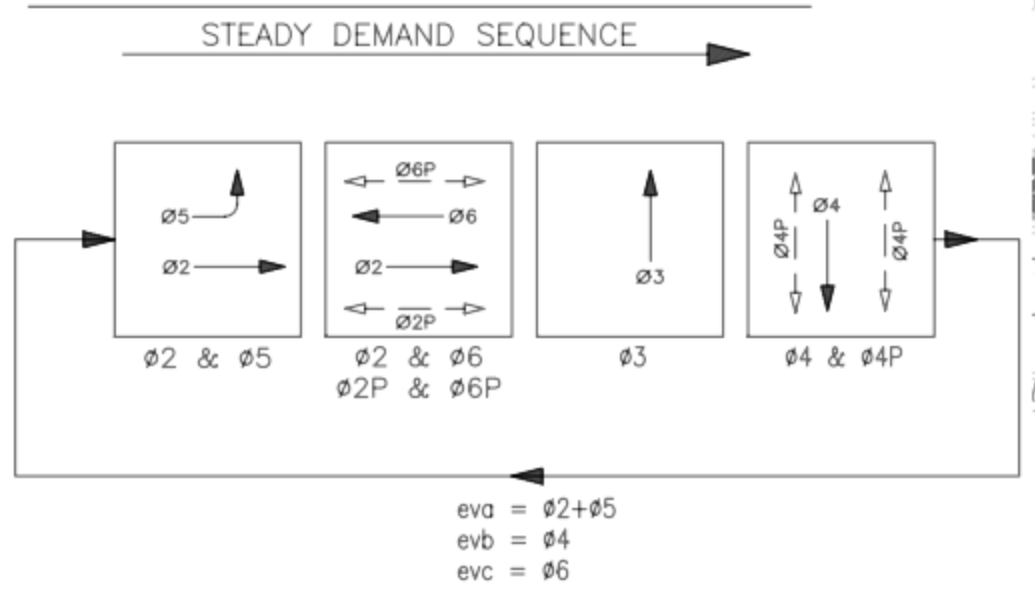
CITY PROJECT NO. 46R022

1. SEE SHEET E-1 FOR ELECTRICAL NOTES.

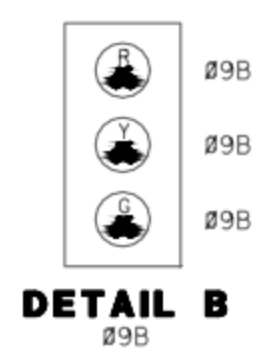
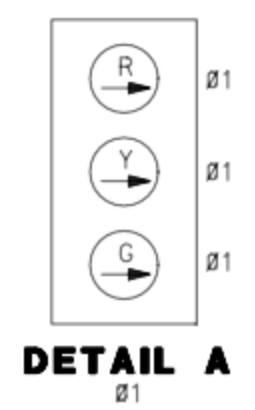
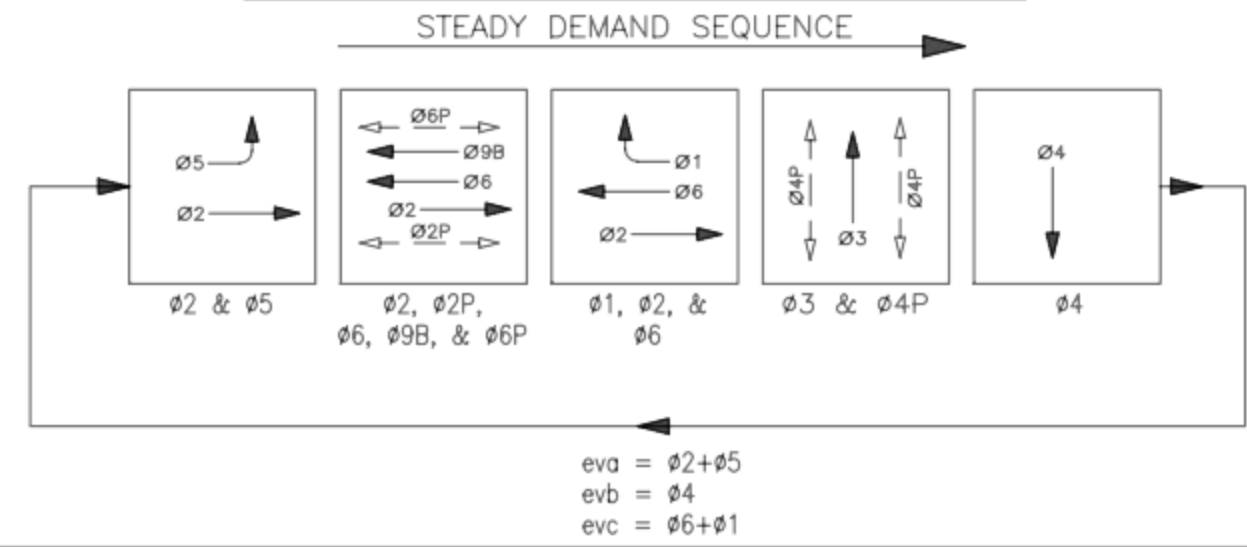
- 1 [RS] PEDESTRIAN PUSH BUTTON EQUIPMENT.
- 2 [FI] APS PEDESTRIAN PUSH BUTTON ON EXISTING POLE.
- 3 [FI] SIGN(S) AS INDICATED ON EXISTING POLE.
- 4 [FI] #98 4" BICYCLE SIGNAL HEAD ON POLE IN ACCORDANCE TO MUTCD 1A-16. SEE DETAIL B ON THIS SHEET FOR SIGNAL HEAD REFERENCE. SEE DETAIL C ON SHEET E-1 FOR MOUNTING DETAIL.
- 5 [RS] EXISTING #6 BALL LED MODULES. [FI] #1 RIGHT ARROW LED MODULES INTO EXISTING SIGNAL HOUSING. REWIRE CONDUCTORS FOR #1 IN SIGNAL CABINET. SEE DETAIL A ON THIS SHEET FOR REFERENCE.
- 6 [RS] EXISTING TRAFFIC SIGNAL CABINET. DEMOLISH EXISTING CABINET FOUNDATION. [FI] 342LX TRAFFIC SIGNAL CABINET ON NEW FOUNDATION. [RR] ALL EXISTING TRAFFIC SIGNAL EQUIPMENT TO NEW CABINET. THE TRAFFIC SIGNAL SHALL REMAIN FUNCTIONING UP TO AND AFTER THE SWITCH OVER. [RR] EXISTING BBS CABINET.
- 7 [RS] EXISTING VIDEO DETECTION SYSTEM. [FI] ITERIS VANTAGE VECTOR VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT NECESSARY TO PROVIDE A FULLY FUNCTIONAL SYSTEM INCLUDING REPLACING THE EXISTING SYSTEM.
- 8 [FI] ITERIS SMARTCYCLE BIKE INDICATOR (OR APPROVED EQUAL) ON POLE TO FACE ADJACENT BICYCLE FACILITY AT INDICATED BIKE DETECTION ZONE FOR THAT FACILITY. SMART CYCLE BIKE INDICATOR SHALL BE MOUNTED BETWEEN 4 FT AND 6 FT FROM FINISH GRADE AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND GUIDELINES.
- 9 [RS] EXISTING CCTV CAMERA. [RC] EXISTING CCTV CABLE.
- 10 [FI] CCTV CAMERA ON SIGNAL POLE PER MANUFACTURER'S RECOMMENDATIONS.
- 11 [RL] EXISTING VEHICLE HEAD AS SHOWN.
- 12 [RL] EXISTING PPB POST ON NEW FOUNDATION.
- 13 REMOVE AND DISPOSE EXISTING PPB POST FOUNDATION.
- 14 [FI] APS PEDESTRIAN PUSH BUTTON ON PROPOSED POLE/ PPB POST.
- 15 [FI] #98 8" BICYCLE SIGNAL HEAD ON POLE IN ACCORDANCE TO MUTCD 1A-16. SEE DETAIL B ON THIS SHEET FOR SIGNAL HEAD REFERENCE. SEE DETAIL D ON SHEET E-1 FOR MOUNTING DETAIL.
- 16 [RS] #6 SIGNAL HEAD. [FI] #1 SIGNAL HEAD. REUSE SALVAGED #6 SIGNAL HEAD HOUSING BY REPLACING #6 BALL LED MODULE WITH #1 RIGHT TURN ARROW LED MODULES. SEE DETAIL A ON THIS SHEET FOR REFERENCE. SEE DETAIL D ON SHEET E-1 FOR MOUNTING DETAIL.



**EXISTING SIGNAL PHASE DIAGRAM**



**PROPOSED SIGNAL PHASE DIAGRAM**



TRAFFIC SIGNAL PLAN - SARATOGA DR  
 DELAWARE STREET  
 SAFE ROUTES TO SCHOOL  
 CITY PROJECT NO. 46R022



100% PLANS  
 NOT FOR CONSTRUCTION

NO PART OF THIS DOCUMENT MAY BE REPRODUCED IN ANY FORM INCLUDING PHOTOCOPY, RECORDING OR ANY INFORMATION RETRIEVABLE AND STORAGE SYSTEM, WITHOUT PERMISSION IN WRITING FROM SANDIS.

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CONDUCTOR SCHEDULE								
AWG	CONDUCTOR DESIGNATION	NUMBER OF CONDUCTORS						
		RUN NUMBER						
		EX.	EX.	EX.	EX.	EX.	EX.	EX.
#14	VEHICLE							
	#1	3	3	3				3
	#2	3	3	3	3	3		
	#3	3	3	3				3
	#4	3	3	3	3	3		
	#5	3	3	3	3			
	#6	6	6	6	3	3	3	
	#9B	3	3	3				
	PED							
	#2	2	2	2	2	2		
	#4	4	4	4	2	2	2	
	#6	2	2	2				2
	PPB							
	#4	2	2	2	1	1	1	
	#6	1	1	1				1
PPB COMMON	2	2	2	1	1	1		
SPARES	6	6	6	3	3	3		
SMART CYCLE BIKE INDICATOR								
#2/#5 BIKE	2	2	2	2	2			
#4 BIKE	2	2	2				2	
#9 BIKE	2	2	2					
TOTAL #14	49	49	49	22	20	24		
#12	ISNS	4	4	4	2	2		
#11	SIGNAL NEUTRAL (120V)	4	4	4	2	2	2	
#8	LIGHTING (240V)	4	4	4	2	2	2	
#6	SERVICE	2						
VIDEO DETECTION CABLE (CAT 5E)	#2	1	1	1	1			
	#3	1	1	1				
	#4	1	1	1	1	1		
	#6	1	1	1			1	
	TOTAL DETECTOR CABLES	4	4	4	2	1	1	
EVF	OPTICOM CABLE	3	3	3	2	1	1	
SIC/TBS	SIGNAL INTERCONNECT+TRAILBLAZER COMM	3	3	2	2		2	
CAT 6	LCV	1	1	1	1			
	CONDUIT DESIGNATION	EX.	EX.	EX.	EX.	EX.	EX.	
	CONDUIT SIZE (INCHES)	2-3"	2-3"	2-3"	2-3"	2"	2-2"	
	CONDUIT FILL (%)	18%	17%	17%	8%	25%	26%	

**NOTES:**

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- NEW CONDUCTORS IN THE ABOVE TABLE IS SHOWN IN BOLD.
- STREETLIGHT CONDUCTORS SHALL BE AWG#10 FOR POLE CONNECTION AND AWG#8 IN UNDERGROUND CONDUITS, WITH 2 CONDUCTORS.
- ISNS TO BE FED FROM SEPARATE BREAKER IN SERVICE ENCLOSURE.
  - UNLESS NOTED OTHERWISE.

POLE AND SIGNAL SCHEDULE																	
LOCATION	STANDARD			LED LUMINAIRE (MAX WATTAGE)	VEHICLE SIGNAL			PED. SIGNALS		PBA		STREET NAME SIGN	POLE LOCATION (IN INCHES)		SPECIAL REQUIREMENTS		
	TYPE	SIGNAL MAST ARM LENGTH	LUMINAIRE MAST ARM LENGTH		#	MAST ARM	#	POLE	#	MOUNTING	PULL QUADRANT		#	ARROW		PULL QUADRANT	RSNS OF ISNS
1	SPECIAL MAST ARM	25	8'	120W LED	6	MAS	1, 9E	SV-1-T, SV-1-T	4, 6	SP-2-T			4	→			[RS] EXISTING #6 SIGNAL HEAD & #6 PPB AND ISNS. [F] #4 APS PUSH BUTTONS. [F] #1 RIGHT TURN SIGNAL HEAD, #9B 8" BIKE SIGNAL HEAD, AND ISNS. SEE DETAIL D ON SHEET E-1 FOR MOUNTING DETAIL.
2	SPECIAL POLE		8'	120W LED			1, 5, 3, 9E	SV-3-1C, SV-1-T	4, 6	SP-2-T			6	→			[RS] EXISTING #6 CALL LED MODULES, #4 PPB, #6 PPB, [F] #6 APS PUSH BUTTON, [F] #1 RIGHT TURN ARROW LED MODULES IN EXISTING #6 SIGNAL HOUSING AND #9B 4" BIKE SIGNAL HEAD. SEE DETAIL C ON SHEET E-1 FOR MOUNTING DETAIL.
3	SPECIAL MAST ARM	25	8'	120W LED	2, 5	MAS MAS	2, 4	SV-2-TB	2, 4	SP-2-T			4	→			[RS] EXISTING #4 PPB [F] APS PUSH BUTTON AND CCTV CAMERA.
4	SPECIAL MAST ARM	20	8'	120W LED	4	MAS	2, 6	SV-3-TA	2, 4	SP-2-T							[RS] ISNS. [F] ISNS.
5	PPB PUSH												4	→		4c	[F] #4 APS PUSH BUTTON AND ITERS SMARTCYCLE BIKE INDICATOR (OR APPROVED EQUAL).
6	1E						3	TV-1-T					6	→		6c	[F] #6 APS PUSH BUTTON AND ITERS SMARTCYCLE BIKE INDICATOR (OR APPROVED EQUAL), OR #3 VEHICLE HEAD.
7	PPB PUSH												4	←		-10c	[F] #4 APS PUSH BUTTON AND ITERS SMARTCYCLE BIKE INDICATOR (OR APPROVED EQUAL).

PROPOSED SIGN SCHEDULE				
SIGN CODE	SIGN MESSAGE	PANEL SIZE	NO. OF SIGNS	SHEET NO.
R10-11	NO TURN ON RED	36"x48"	4	E-4
R10-10	TURNING TRAFFIC MUST YIELD TO PEDESTRIANS	30"x30"	2	E-4
R10-10B	BIKE SIGNAL	18"x24"	1	E-4

NOTE: THE ABOVE SIGN SCHEDULE EXCLUDES STREET NAME SIGNS AND IDENTIFIERS ONLY THE PROPOSED SIGNS MOUNTED ON THE SIGNAL POLE AND MUST FIRM.



R10-11



R10-10



R10-10B

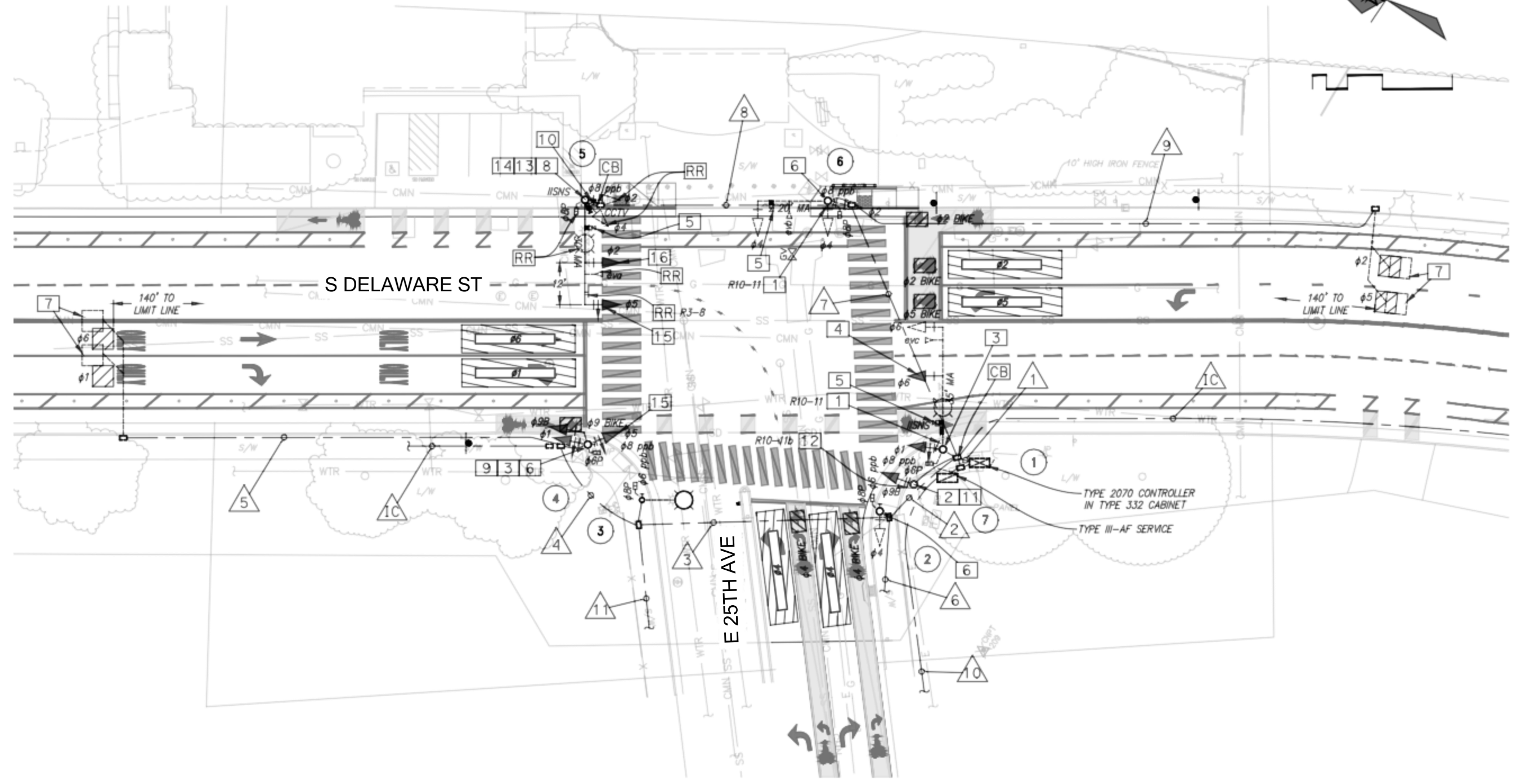
DATE	DATE	DATE	DATE
DESIGNED BY: JP	DRAWN BY: BP TS	QC CHECKED BY: RES	PROJECT No. 62071
SCALE			SUBMITTAL 60%
<b>100% PLANS</b> NOT FOR CONSTRUCTION			
TRAFFIC SCHEDULE - SARATOGA DR DELAWARE STREET SAFE ROUTES TO SCHOOL CITY PROJECT NO. 46R022			
SHEET <b>28</b> OF <b>36</b>			

**GENERAL NOTES:**

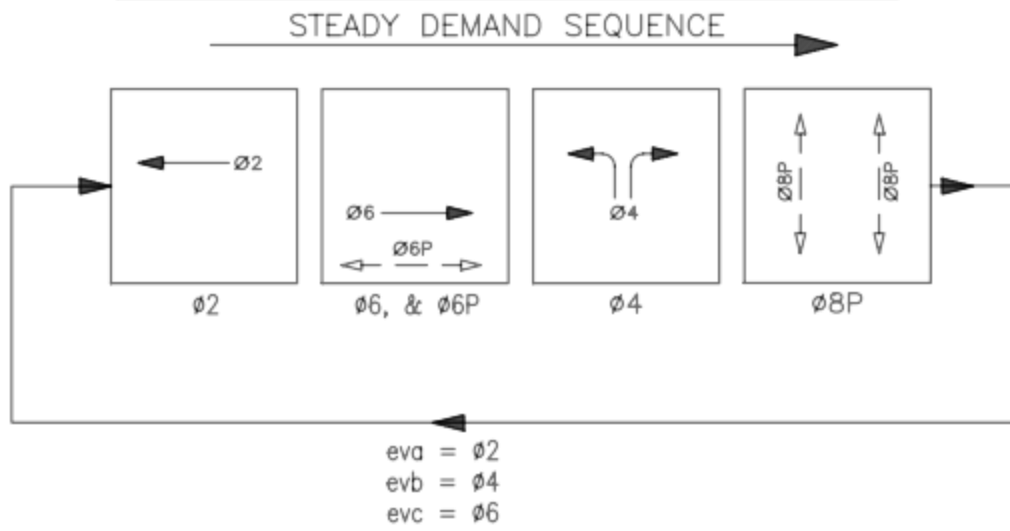
1. SEE SHEET E-1 FOR ELECTRICAL NOTES.

**SHEET NOTES:**

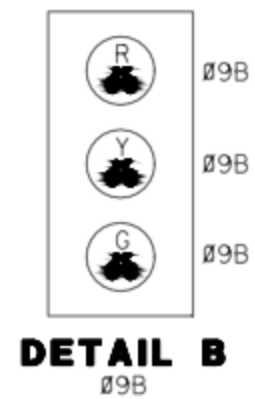
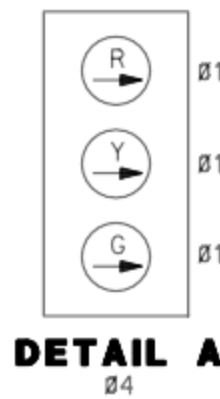
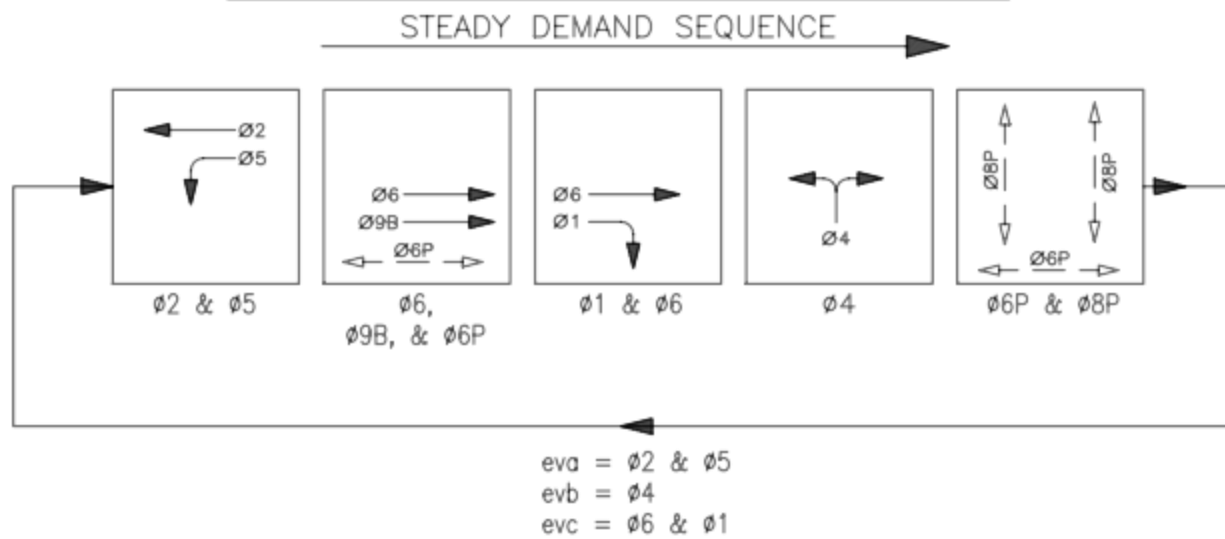
- 1 FI R10-11 "NO TURN ON RED" SIGN ON EXISTING POLE.
- 2 FI #9B 8" BICYCLE SIGNAL HEAD ON POLE IN ACCORDANCE TO MUTCD 1A-16. SEE DETAIL B ON THIS SHEET FOR REFERENCE.
- 3 RS EXISTING #6 BALL LED MODULES. FI #1 RIGHT ARROW LED MODULES INTO EXISTING SIGNAL HOUSING. SEE DETAIL A ON THIS SHEET FOR REFERENCE.
- 4 FI #6 SIGNAL HEAD ON EXISTING MAST ARM POLE 1.
- 5 RS EXISTING VIDEO DETECTION SYSTEM. FI ITERIS VANTAGE VECTOR VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT NECESSARY TO PROVIDE A FULLY FUNCTIONAL SYSTEM INCLUDING REPLACING THE EXISTING SYSTEM.
- 6 FI ITERIS SMARTCYCLE BIKE INDICATOR (OR APPROVED EQUAL) ON POLE TO FACE ADJACENT BICYCLE FACILITY AT INDICATED BIKE DETECTION ZONE FOR THAT FACILITY. SMART CYCLE BIKE INDICATOR SHALL BE MOUNTED BETWEEN 4 FT AND 6 FT FROM FINISH GRADE AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND GUIDELINES.
- 7 AB LOOP DETECTORS IN PLACE.
- 8 FI CCTV CAMERA ON SIGNAL POLE PER MANUFACTURER'S RECOMMENDATIONS.
- 9 FI #9B 4" BICYCLE SIGNAL HEAD ON POLE IN ACCORDANCE TO MUTCD 1A-16. SEE DETAIL B ON THIS SHEET FOR SIGNAL HEAD REFERENCE. SEE DETAIL C ON SHEET E-1 FOR MOUNTING DETAIL.
- 10 FI MOUNT IISNS ON ITS OWN MAST ARM PER MANUFACTURER'S RECOMMENDATIONS.
- 11 FI TYPE 1-B POLE ON NEW FOUNDATION.
- 12 FI R10-11b "BIKE SIGNAL" SIGN ON PROPOSED POLE.
- 13 RS TYPE 17-1-70 POLE AND ALL MOUNTED EQUIPMENT EXCEPT WHEN INDICATED FOR RR. REMOVE AND DISPOSE EXISTING POLE FOUNDATION.
- 14 FI TYPE 19-4-100 POLE ON NEW FOUNDATION. RR AS INDICATED ON PLAN: #9P PEDESTRIAN SIGNAL HEAD, SIGN, #2 SIGNAL HEAD, #4 SIGNAL HEAD, LUMINAIRE FIXTURE, AND EMERGENCY VEHICLE PREEMPTION (EVP) eva.
- 15 FI #5 SIGNAL HEAD WITH LEFT ARROW LED MODULES.
- 16 FI #2 SIGNAL HEAD ON MAST ARM.



**EXISTING SIGNAL PHASE DIAGRAM**



**PROPOSED SIGNAL PHASE DIAGRAM**



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CONDUCTOR SCHEDULE													
AWL	CONDUCTOR DESIGNATION	NUMBER OF CONDUCTORS											
		RUN NUMBER											
		EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX
#14	VEHICLE												
	#1	3	3	3	3								
	#2	3						3	3				
	#4	9	3					6	3				
	#5	6	3	3	3			3	3				
	#6	3	3										
	#8	3	3	3	3								
	PED												
	#5	4	2	2	2								
	#6	8	4	2				4	2				
	PPB												
	#5	2	2	1									
	#6	4	1	1	1			2	1				
	PPB COMMON	6	3	2	1			2	1				
SPARES	6	3	3	3			3	3					
SMART CYCLE BIKE INDICATOR													
#2 BIKE	2						2						
#4 BIKE	2	2											
#8 BIKE	2	2	2	2									
TOTAL #14	63	34	22	16			25	18					
#10	ISNS	4						2	2				
	SIGNAL COMMON	2	1	1	1			1	1				
	TOTAL #10	6	1	1	1			3	3				
#6	LUMINAIRES	4	2	2				2	2				
	VIDEO DETECTION CABLES (CAT 5E)												
#4 + #5	#4	1						1	1				
	#5	1						1					
	#6 + #1	1											
TOTAL DETECTOR CABLES	3						2	1					
EVP	OPTICUM CABLE	3						2	1				
#3	SERVICE											3	
	SIL	SIGNAL INTER-CONNECT (SIC)	1	1	1	1							1
	FIBER	1	1	1	1								1
CAT 6	UCCV	1						1	1				
	CONDUIT DESIGNATION	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX
	CONDUIT SIZE (INCHES)	3/4"	3/4"	2 1/2"	2 1/2"	1 1/2"	1 1/2"	2 1/2"	2 1/2"	1 1/2"	1 1/2"	1 1/2"	2"
	CONDUIT FILL (%)	26%	11%	12%	8%	-	-	28%	20%	-	12%	-	1%

- NOTES:
- CABLING AND CONDUCTOR SCHEDULES ARE SHOWN AS AN EXAMPLE OF WHAT MAY BE USED AT THE SITE. THE CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING WIRING PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NECESSARY TO PROVIDE A FULLY FUNCTIONAL SYSTEM MEETING ALL THE REQUIREMENTS OF THE CITY OF SAN MATEO. ALL PROPOSED FIELD WIRING SHALL BE APPROVED BY THE ENGINEER AND SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER OR DEVELOPER. THE CONTRACTOR SHALL PROVIDE THE CITY OF SAN MATEO WITH A WIRING AS-BUILT WHEN THE WORK IS COMPLETED.
  - NEW CONDUCTORS IN THE ABOVE TABLE IS SHOWN IN BOLD.
  - STREETLIGHT CONDUCTORS SHALL BE AWG#10 FOR POLE CONNECTION, AND AWG#8 IN UNDERGROUND CONDUITS WITH 2 CONDUCTORS.
  - ISNS TO BE FED FROM SEPARATE BREAKER INSIDE SERVICE ENCLOSURE.

POLE AND SIGNAL SCHEDULE																			
LOCATION	STANDARD			LEL LUMINAIRE (MAX WATTAGE)	VEHICLE SIGNAL				PED SIGNALS			PBA		STREET NAME SIGN	POLE LOCATION (IN INCHES)		SPECIAL REQUIREMENTS		
	TYPE	SIGNAL MAST ARM LENGTH	LUMINAIRE MAST ARM LENGTH		#	MAST ARM	#	POLE	#	MOUNTING	POLE QUADRANT	#	ARROW		POLE QUADRANT	RSNS OR ISNS		A	B
1	19-3-100	35	15'	139	6, 6	MAS MAS	1	SV-1-T	6	SP-1-T		8	←				RS EXISTING @ BALL LEL MODULES. (F) 8" RIGHT ARROW LEL MODULES IN EXISTING @ HOUSING AND @ MAS		
2	1-B						4	SV-1-T	8	SP-1-T		6	→				(F) ITEMS SMARTCYCLE BIKE INDICATOR (OR APPROVED EQUAL).		
3	15TS		15'	73					8	SP-1-T		6	←						
4	1-B						2, 1, 3/4"	1V-2-T SV-1-T	6	SP-1-T		8	→				RS EXISTING @ BALL LEL MODULES. (F) 8" RIGHT ARROW LEL MODULES IN EXISTING @ HOUSING AND @ 4" BIKE SIGNAL HEAD AND ITEMS SMARTCYCLE BIKE INDICATOR (OR APPROVED EQUAL). SEE DETAIL E ON SHEET E-1 FOR MOUNTING DETAIL.		
5	19-4-100	30	15	73	2, 5	MAS MAS	2, 4	SV-2-TA	8	SP-1-T		8	←		30		(F) ISNS CANTILEVER OFF SIGNAL POLE PERPENDICULAR TO MAST ARM (TOWARDS SOUTH)		
6	16-1-70	20	-		4	MAS	2, 4	SV-2-TA	8	SP-1-T		8	←				(F) ITEMS SMARTCYCLE BIKE INDICATOR (OR APPROVED EQUAL).		
7	1-B						3/4"	1V-1-T						204	84		(F) @ 8" BIKE SIGNAL HEAD		

SIGN CODE	SIGN MESSAGE	PANEL SIZE	NO. OF SIGNS	SHEET NO.
R10-11	NO TURN ON RED	36"x48"	2	E-6
R10-106	BIKE SIGNAL	18"x24"	1	E-4

NOTE: THE ABOVE SIGN SCHEDULE EXISTING STREET NAME SIGNS AND DENOTES ONLY THE PROPOSED SIGNS MOUNTED ON THE SIGNAL POLE AND MAST ARM.



R10-11



R10-106

SANDIS SANDIS.NET

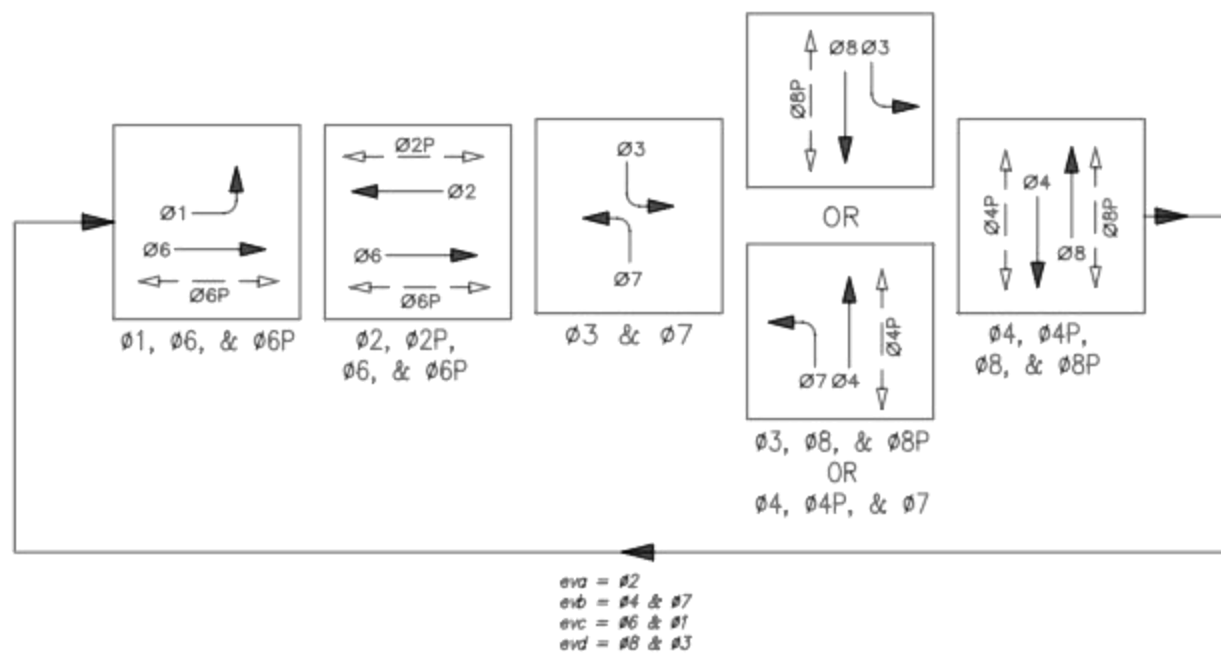


1. SEE SHEET E-1 FOR ELECTRICAL NOTES.

- 1 [RS] PEDESTRIAN PUSH BUTTON EQUIPMENT.
- 2 [F] APS PEDESTRIAN PUSH BUTTON ON EXISTING POLE.
- 3 [F] R10-11 "NO TURN ON RED" SIGN ON EXISTING POLE.
- 4 [RS] EXISTING VIDEO DETECTION SYSTEM. [F] ITERIS VANTAGE VECTOR VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT NECESSARY TO PROVIDE A FULLY FUNCTIONAL SYSTEM INCLUDING REPLACING THE EXISTING SYSTEM.
- 5 [F] ITERIS SMARTCYCLE BIKE INDICATOR (OR APPROVED EQUAL) ON POLE TO FACE ADJACENT BICYCLE FACILITY AT INDICATED BIKE DETECTION ZONE FOR THAT FACILITY. SMART CYCLE BIKE INDICATOR SHALL BE MOUNTED BETWEEN 4 FT AND 6 FT FROM FINISH GRADE AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND GUIDELINES.
- 6 [F] ITERIS SMARTCYCLE BIKE INDICATOR (OR APPROVED EQUAL) ON POLE TO FACE ADJACENT TWO-STAGE BIKE BOX AT INDICATED BIKE DETECTION ZONE FOR THAT FACILITY. SMART CYCLE BIKE INDICATOR SHALL BE MOUNTED BETWEEN 4 FT AND 6 FT FROM FINISH GRADE AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND GUIDELINES.
- 7 [F] D11-20A "BIKE LEFT TURN BOX" SIGN ON EXISTING POLE.
- 8 [F] D11-20 "BIKE LEFT TURN MAY USE TURN BOX" SIGN ON EXISTING POLE.
- 9 [RS] EXISTING SIGN ON MAST POLE. [F] R3-4 "NO U-TURN" SIGN ON EXISTING POLE.

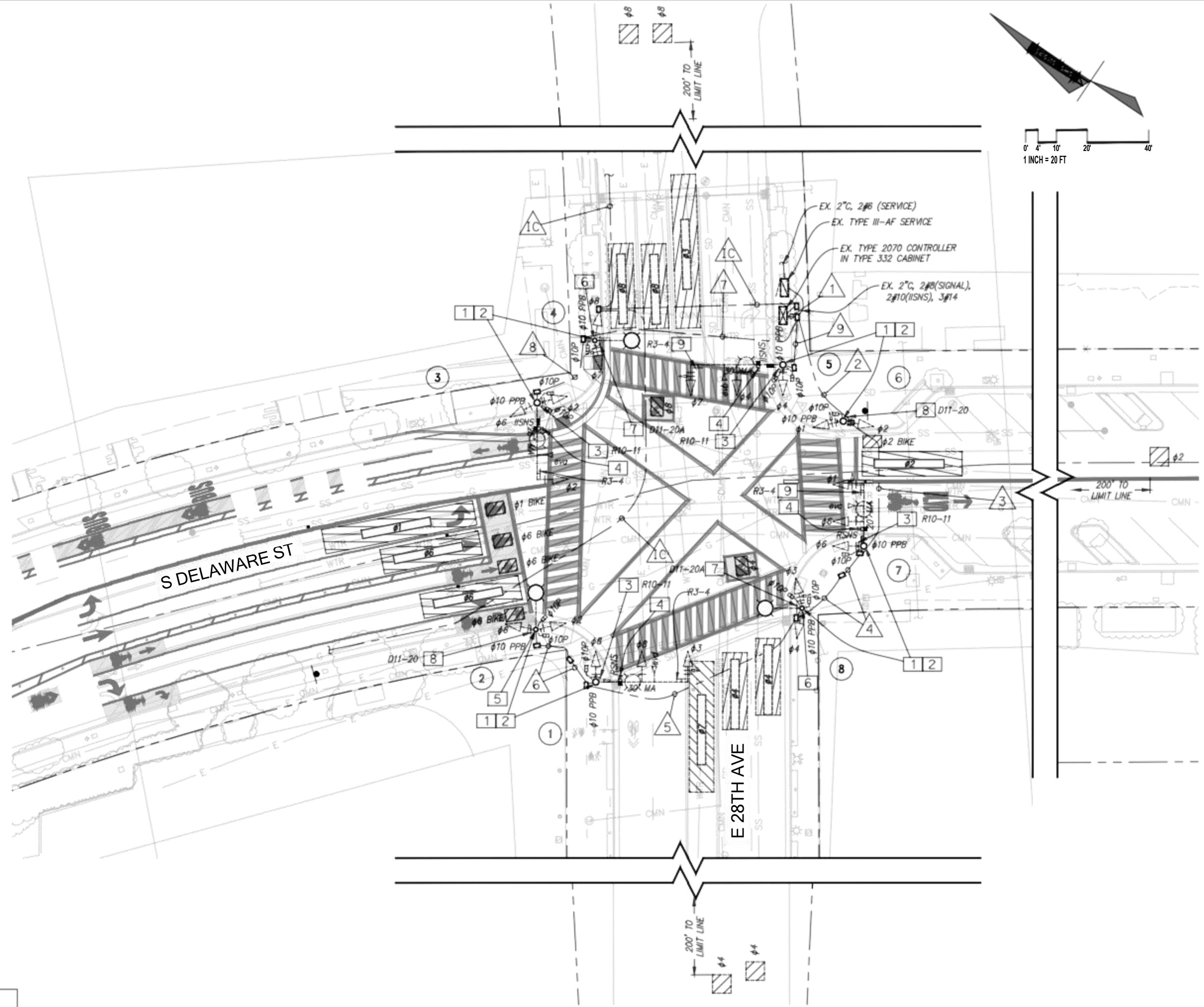
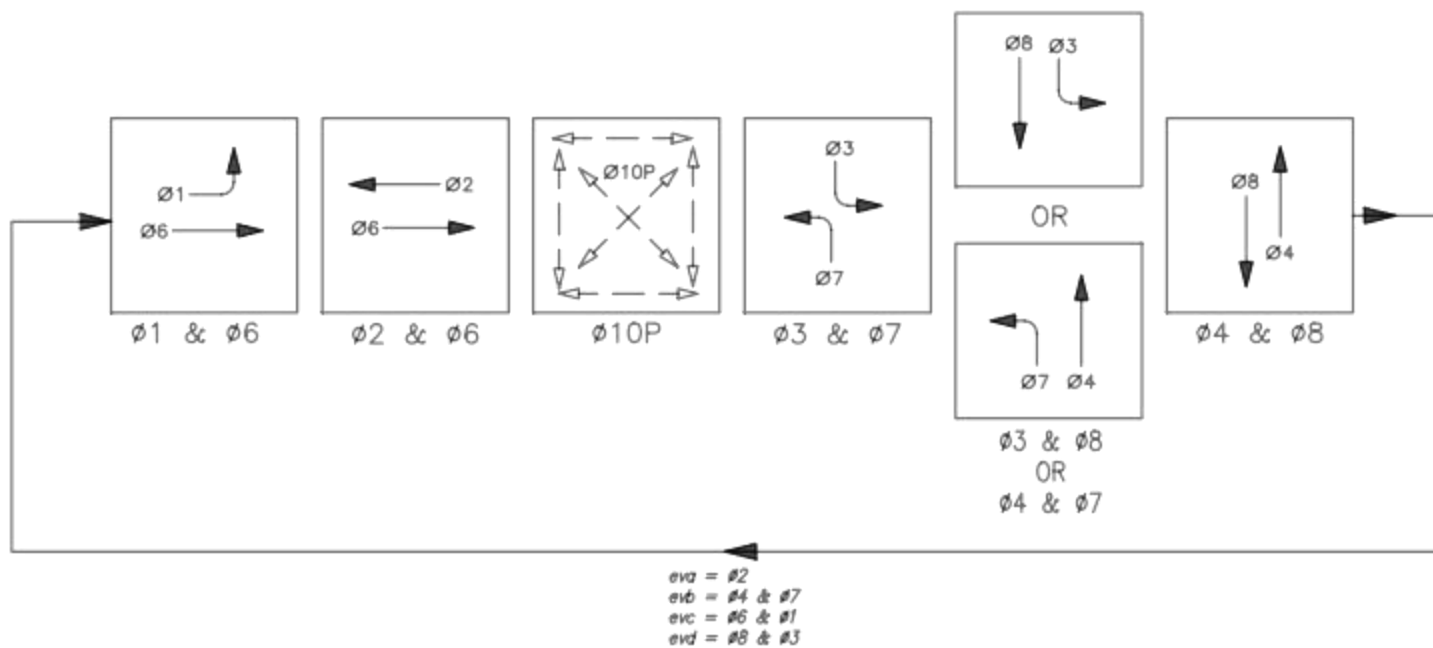
**EXISTING SIGNAL PHASE DIAGRAM**

STEADY DEMAND SEQUENCE



**PROPOSED SIGNAL PHASE DIAGRAM**

STEADY DEMAND SEQUENCE



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100% PLANS  
NOT FOR CONSTRUCTION

TRAFFIC SIGNAL PLAN - E 28TH AVE  
DELAWARE STREET  
SAFE ROUTES TO SCHOOL  
CITY PROJECT NO. 46R022



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CONDUCTOR SCHEDULE												
AWG	CONDUCTOR DESIGNATION	NUMBER OF CONDUCTORS										
		RUN NUMBER										
		EX.	EX.	EX.	EX.	EX.	EX.	EX.	EX.	EX.	EX.	
#14	VEHICLE											
	#1	6	6	3								
	#2	9	6	3	3	3	3	3	3			
	#3	6	6	6	6	3						
	#4	9	6	6	6	3				3		
	#6	9	6	6	3	3	3	3	3			
	#7	6								3	3	
	#8	6	3	3	3	3						
	PED											
	#10	14	10	8	6	4	2	4	2	2		
	PPB											
	#10	14	10	8	6	4	2	4	2	2		
	SPARES	9	3	3	3	3	3	3	3	3		
	SMART CYCLE BIKE INDICATOR											
#1/05 BIKE	2	2	2	2	2	2						
#4 BIKE (TWO-STAGE BIKE BOX)	2	2	2	2								
#8 BIKE (TWO-STAGE BIKE BOX)	2						2					
TOTAL #14	94	64	54	40	28	14	28	13	13	-		
#10	ISNS							2	2	2		
#6	LUMINAIRE		2	2	2	2	2	2	2	2		
VIDEO DETECTION CABLE (CAT 5E)	#1 #6, #1 BIKE, #2 BIKE	1	1	1								
	#2 #2 BIKE	1						1	1			
	#3 #2	1	1	1	1	1						
	#4 #7	1								1		
	TOTAL VDC	4	2	2	1	1	-	1	1	1		
EVI	OPTICUM CABLE	4	2	2	1	1		1	1	1		
	PULL ROPE	1	1	1	1	1	1	1	1	-		
SIC	FIBER									1		
	CONDUIT DESIGNATION	EX.	EX.	EX.	EX.	EX.	EX.	EX.	EX.	EX.		
	CONDUIT SIZE (INCHES)	2-3"	3"	3"	3"	3"	3"	3"	3"	3"		
	CONDUIT FILL (%)	20%	24%	22%	18%	13%	8%	14%	10%	10%		

**NOTES:**

- CABLING AND CONDUCTOR SCHEDULES ARE SHOWN AS AN EXAMPLE OF WHAT MAY BE USED AT THE SITE. THE CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING WIRING PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NECESSARY TO PROVIDE A FULLY FUNCTIONAL SYSTEM MEETING ALL THE REQUIREMENTS OF THE CITY OF SAN MATEO. ALL PROPOSED FIELD WIRING SHALL BE APPROVED BY THE ENGINEER AND SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER OR DEVELOPER. THE CONTRACTOR SHALL PROVIDE THE CITY OF SAN MATEO WITH A WIRING AS-BUILT WHEN THE WORK IS COMPLETED.
- NEW CONDUCTORS IN THE ABOVE TABLE IS SHOWN IN BOLD.
- STREETLIGHT CONDUCTORS SHALL BE AWG#10 FOR POLE CONNECTION AND AWG#6 IN UNDERGROUND CONDUITS, WITH 2 CONDUCTORS.
- ISNS TO BE FED FROM SEPARATE BREAKER IN SERVICE ENCLOSURE.

POLE AND SIGNAL SCHEDULE																	
LOCATION	STANDARD			LED LUMINAIRE (MAX WATTAGE)	VEHICLE SIGNAL			PED SIGNALS		PBA		STREET NAME SIGN	POLE LOCATION (IN INCHES)		SPECIAL REQUIREMENTS		
	TYPE	SIGNAL MAST ARM LENGTH	LUMINAIRE MAST ARM LENGTH		#	MAST ARM	#	POLE	#	MOUNTING	POLE QUADRANT		#	ARROW		PULL QUADRANT	RSNS OR ISNS
1	19-4-100	30'	8'	EX.	3, 8	MAS MAS	8	SV-1-T	10	SP-1-T		10	←		RSNS		
2	15TS		8'	EX.			2, 6	SV-2-T	10	SP-2-1		10	→				10' PED SIGNAL AND TERIS SMARTCYCLE BIKE INDICATOR (OR APPROVED EQUAL) ON EXISTING POLE.
3	19-4-100	25'	8'	EX.	2	MAS	2, 6	SV-2-T	10	SP-2-1		10	←		ISNS		10' PEC SIGNAL ON EXISTING POLE [RS RSNS] 10' ISNS
4	15TS		8'	EX.			7, 8	SV-2-T	10	SP-1-T		10	→				10' TERIS SMARTCYCLE BIKE INDICATOR (OR APPROVED EQUAL) ON EXISTING POLE.
5	19-4-100	30'	8'	EX.	4, 7	MAS MAS	4	SV-1-T	10	SP-2-1		10	←		ISNS		10' PEC SIGNAL ON EXISTING POLE [RS RSNS] 10' ISNS
6	1-B						1, 2	TV-2-T	10	SP-1-T		10	→				
7	19-4-100	20'	8'	EX.	1, 6	MAS MAS	6	SV-1-T	10	SP-1-T		10	←		RSNS		
8	15TS		8'	EX.			3, 4	SV-2-T	10	SP-2-1		10	→				10' PED SIGNAL AND TERIS SMARTCYCLE BIKE INDICATOR (OR APPROVED EQUAL) ON EXISTING POLE.

**PROPOSED SIGN SCHEDULE**

SIGN CODE	SIGN MESSAGE	PANEL SIZE	NO. OF SIGNS	SHEET NO.
R10-11	NO TURN ON RED	36"x48"	4	E-8
D11-20	LEFT TURN MAY USE TURN BOX	12"x18"	2	E-8
D11-20A	LEFT TURN BOX	12"x18"	2	E-8
R3-4	NO U-TURN	36"x36"	2	E-8

NOTE: THE ABOVE SIGN SCHEDULE EXCLUDES STREET NAME SIGNS AND HEIGHTS. ONLY THE PROPOSED SIGNS MOUNTED ON THE SIGNAL POLE AND MAST ARM.



R10-11



D11-20

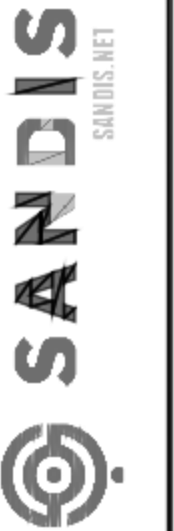


D11-20A



R3-4

REV. NO.	DESCRIPTION	BY	DATE



**100% PLANS**  
NOT FOR CONSTRUCTION

TRAFFIC SCHEDULE - E 28TH AVE  
DELAWARE STREET  
SAFE ROUTES TO SCHOOL  
CITY PROJECT NO. 46R022

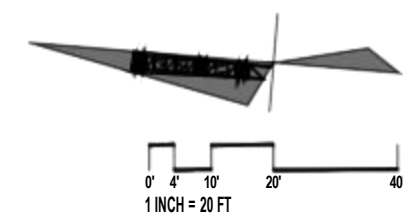
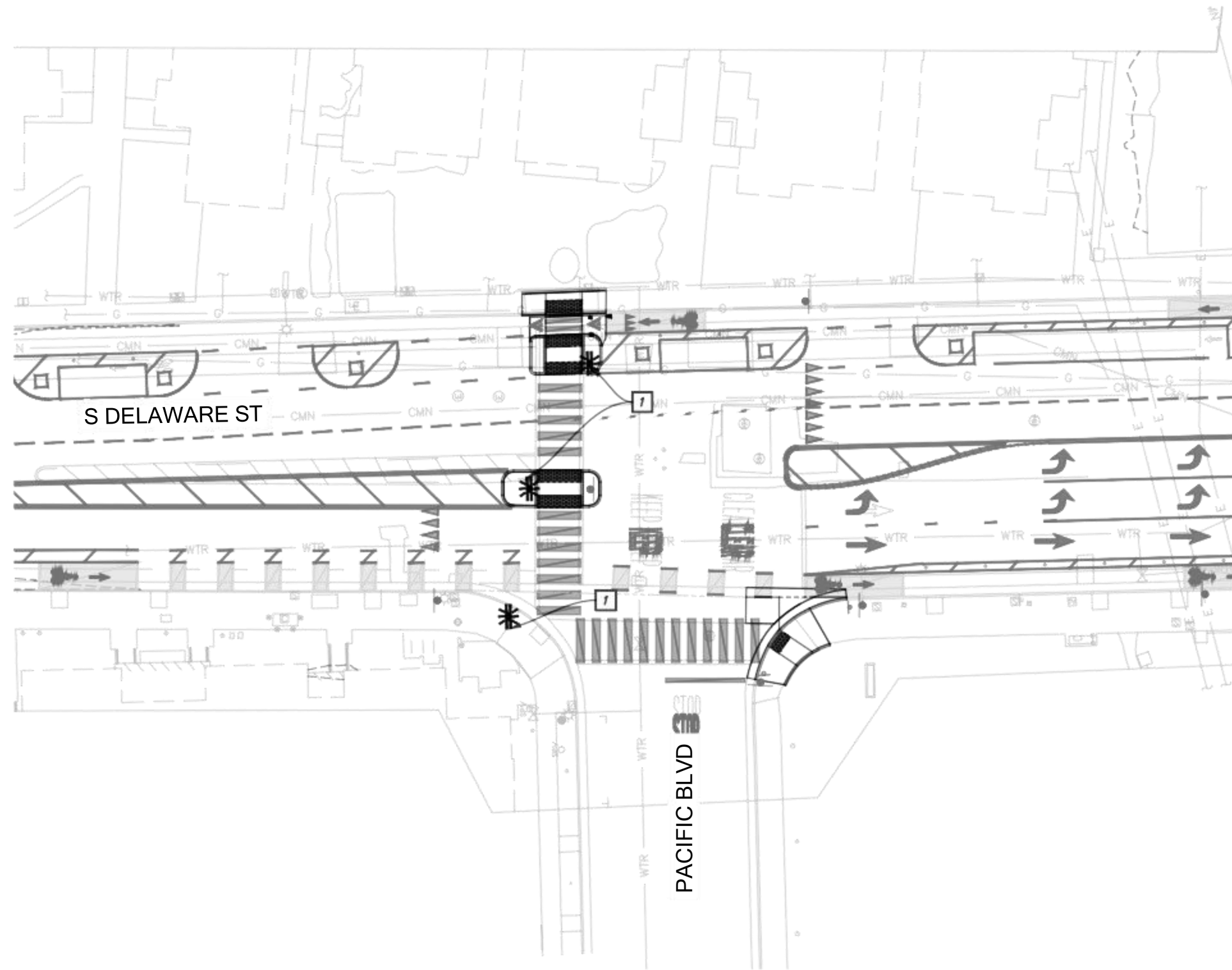


DESIGNED BY: JP	DATE
DRAWN BY: BP TS	DATE
QC CHECKED BY: RES	DATE
PROJECT NO: 623071	SCALE
SUBMITTAL NO: 606	

1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH NEC 2023, CITY OF SAN MATEO, AND CALTRANS STANDARDS AND APPLICABLE PERMITS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING EXISTING STREET LIGHTING CIRCUITS PRIOR TO CONSTRUCTION.

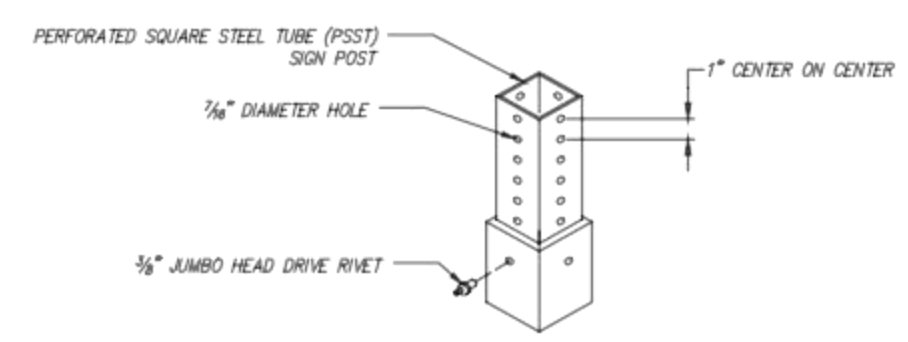
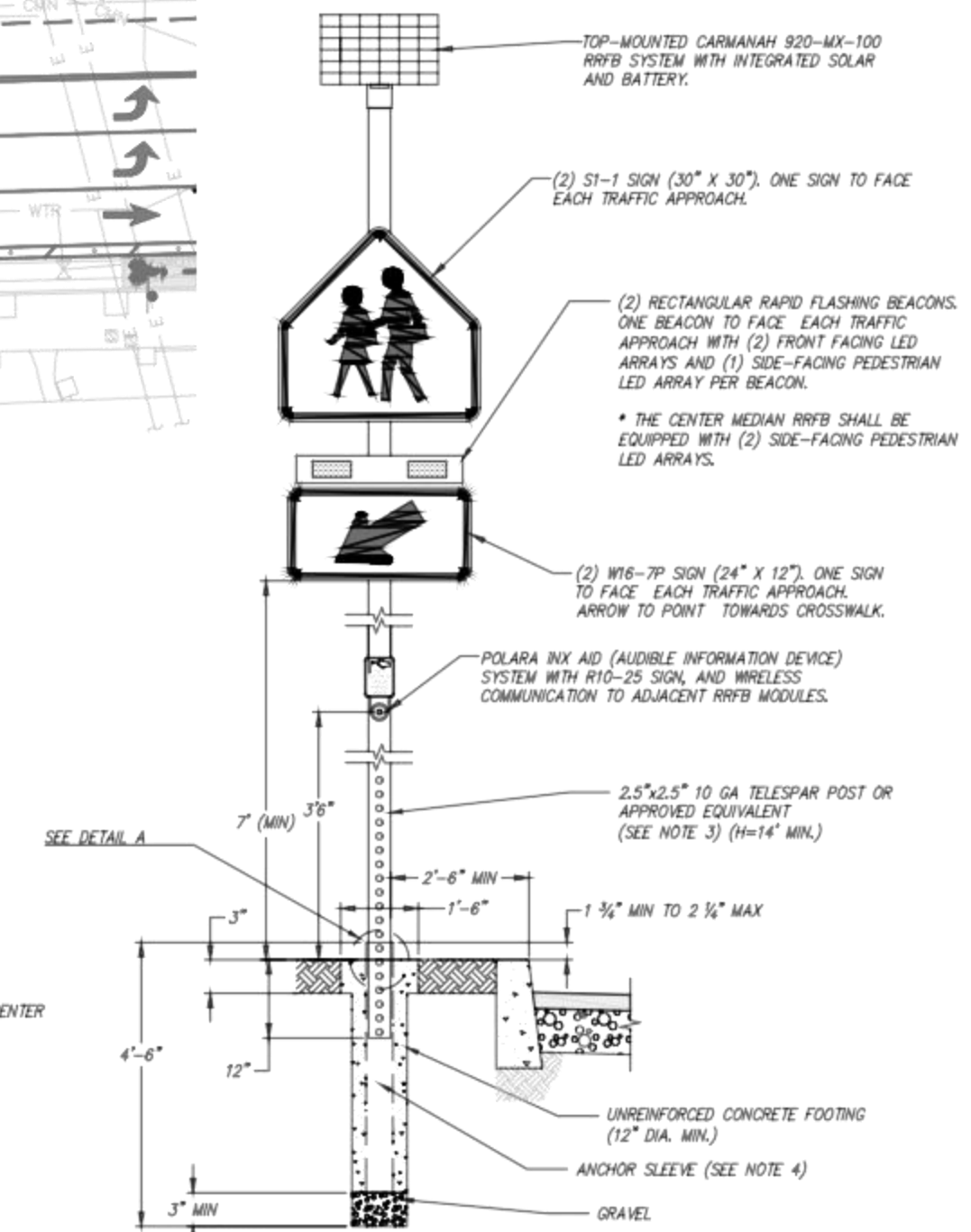
### SHEET NOTES

1. FURNISH, CONFIGURE, AND INSTALL NEW SOLAR-POWERED DOUBLE-SIDED RRFB SYSTEM WITH AUDIBLE INFORMATION DEVICE (AID) AND INDICATED SIGNAGE ON A NEW POLE AND FOUNDATION PER DETAIL 1, THIS SHEET.



### LEGEND

- \* DOUBLE-SIDED RECTANGULAR RAPID FLASHING BEACON (RRFB) ASSEMBLY.



**A TELESPAR POLE CONNECTION**

- NOTES**
1. RRFB EQUIPMENT SHALL BE DOUBLE-SIDED CARMANAH R920-MX-100 RRFB (RECTANGULAR RAPID FLASHING BEACONS) SYSTEM WITH POLARA INX AID (AUDIBLE INFORMATION DEVICE) ACTUATION BUTTON, POWERED WITH 85W SINGLE PANEL CONFIGURATION SOLAR PANEL, AND 105 AH BATTERY CAPACITY.
  2. CONTRACTOR SHALL INSTALL EQUIPMENT PER THE MANUFACTURER SPECIFICATIONS AND REQUIREMENTS.
  3. THE SIGN POST SHALL HAVE 3/8" DIAMETER PERFORATIONS 1" ON CENTER ON ALL FOUR SIDES FOR THE FULL LENGTH.
  4. ALL ANCHOR SLEEVES SHALL BE EMBEDDED IN PCC.

**1 RECTANGULAR RAPID FLASHING BEACON DETAIL**

DESIGNED BY: JP	DATE
DRAWN BY: BP TS	DATE
CC CHECKED BY: RES	DATE
PROJECT NO. 62071	SCALE
SUBMITTAL: 606	DATE

REV. NO.	DESCRIPTION	BY	DATE
1			
2			
3			
4			

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**RRFB PLAN - PACIFIC BLVD  
DELAWARE STREET  
SAFE ROUTES TO SCHOOL**

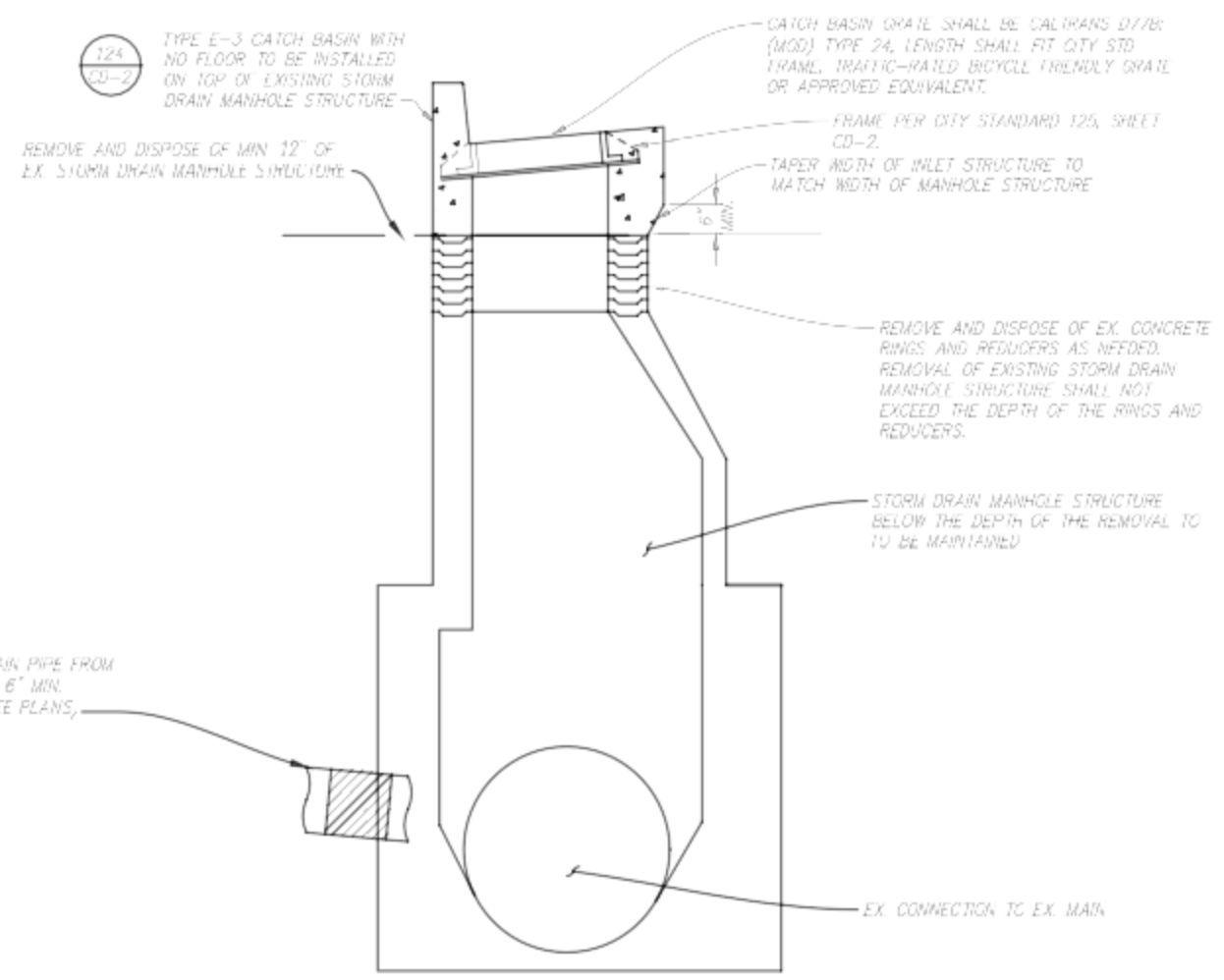
CITY PROJECT NO. 46R022

**CITY OF SAN MATEO**

SHEET **33** OF **36**

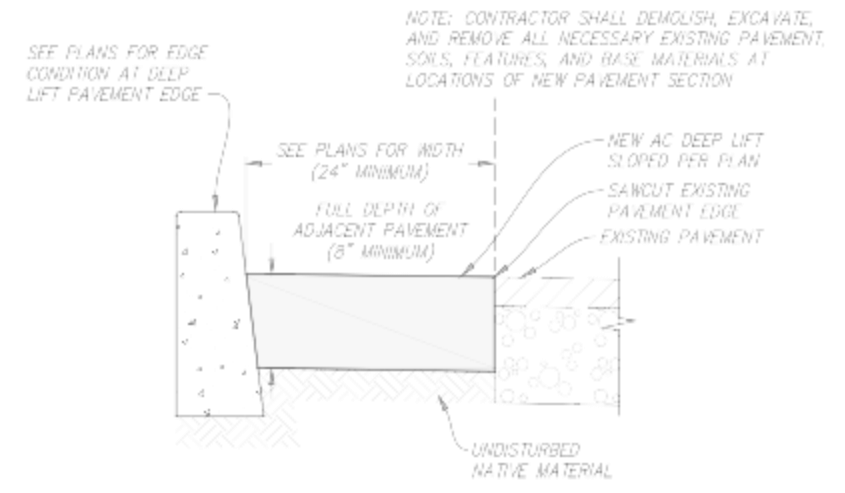
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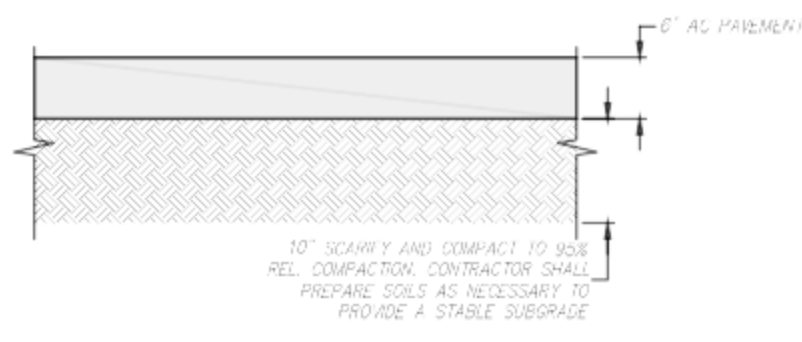
**CONVERT SD MANHOLE TO SD INLET**  
1"=1" (6)

NOTE: THE BASE OF EXISTING DRAINAGE FACILITIES TO BE ABANDONED MUST BE BROKEN SO THAT WATER IS PREVENTED FROM BEING ENTRAPPED.



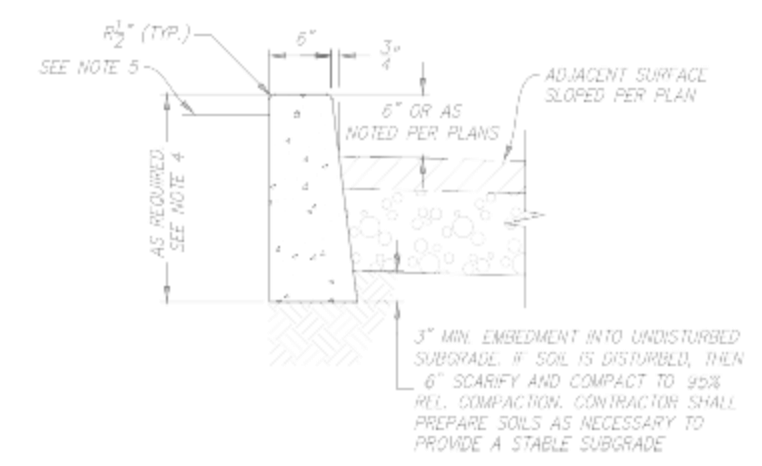
**ASPHALT DEEP LIFT**  
1"=1" (3)

NOTE: CONTRACTOR SHALL DEMOLISH, EXCAVATE, AND REMOVE ALL NECESSARY EXISTING PAVEMENT, SOILS, FEATURES, AND BASE MATERIALS AT LOCATIONS OF NEW PAVEMENT SECTION.



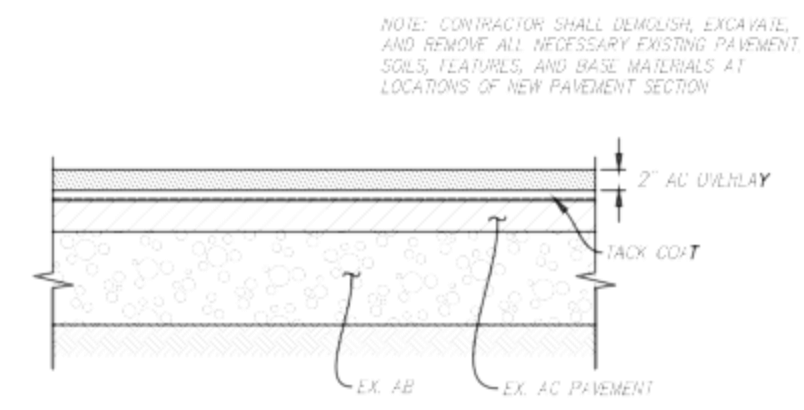
**AC BASE REPAIR**  
1"=1" (4)

NOTE: CONTRACTOR SHALL DEMOLISH, EXCAVATE, AND REMOVE ALL NECESSARY EXISTING PAVEMENT, SOILS, FEATURES, AND BASE MATERIALS AT LOCATIONS OF NEW PAVEMENT SECTION.



- NOTES:**
1. ALL EXPOSED CONCRETE EDGES (HORIZONTAL AND VERTICAL), SHALL BE 1/2" RADIUS.
  2. #4x12" SLIP DOWELS AND 1/4" EXPANSION JOINTS TO BE PROVIDED AT 20' ON CENTER ALONG THE LENGTH OF CURB. MATERIAL FOR EXPANSION JOINTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION D 1751.
  3. REFER TO PLANS FOR ADJACENT PAVEMENT SECTIONS.
  4. TOTAL CURB HEIGHT IS BASED ON ADJACENT PAVEMENT SECTION, PLUS CURB HEIGHT PER PLAN, PLUS 3" BELOW FULL PAVEMENT SECTION (14" MINIMUM).
  5. SEE PLANS FOR ADJACENT SURFACE MATERIAL AND SLOPE. GRADE SHALL BE FLUSH WITH TOP OF CURB WHEN SURFACE IS PAVED. WHEN ADJACENT TO LANDSCAPING, REFER TO LANDSCAPE PLANS FOR GRADE AT BACK OF CURB.
  6. CONTRACTOR SHALL DEMOLISH, EXCAVATE, AND REMOVE ALL NECESSARY EXISTING PAVEMENT, SOILS, FEATURES, AND BASE MATERIALS AT LOCATIONS OF NEW PAVEMENT SECTION AND CURB INSTALLATION.

**6" VERTICAL CURB**  
1"=1" (1)



**ASPHALT OVERLAY**  
1"=1" (2)

NOTE: CONTRACTOR SHALL DEMOLISH, EXCAVATE, AND REMOVE ALL NECESSARY EXISTING PAVEMENT, SOILS, FEATURES, AND BASE MATERIALS AT LOCATIONS OF NEW PAVEMENT SECTION.

REV. NO.	DESCRIPTION	BY	DATE



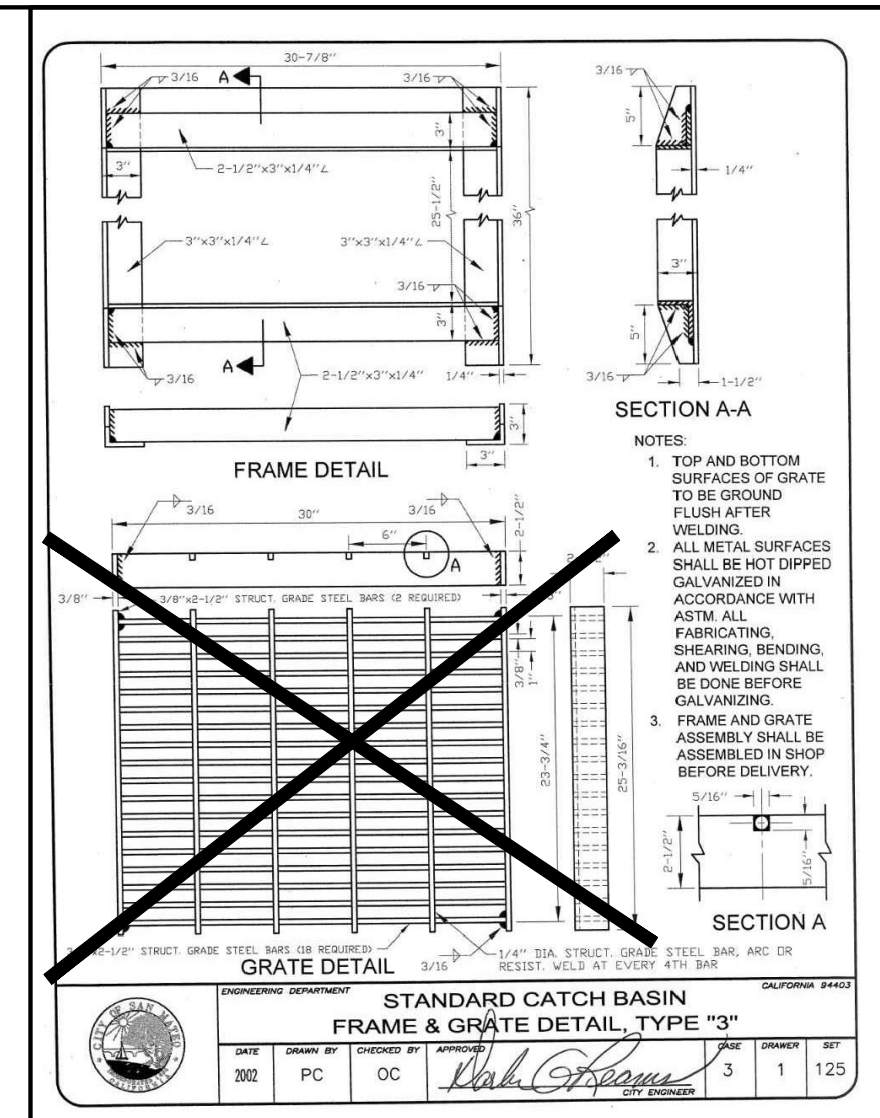
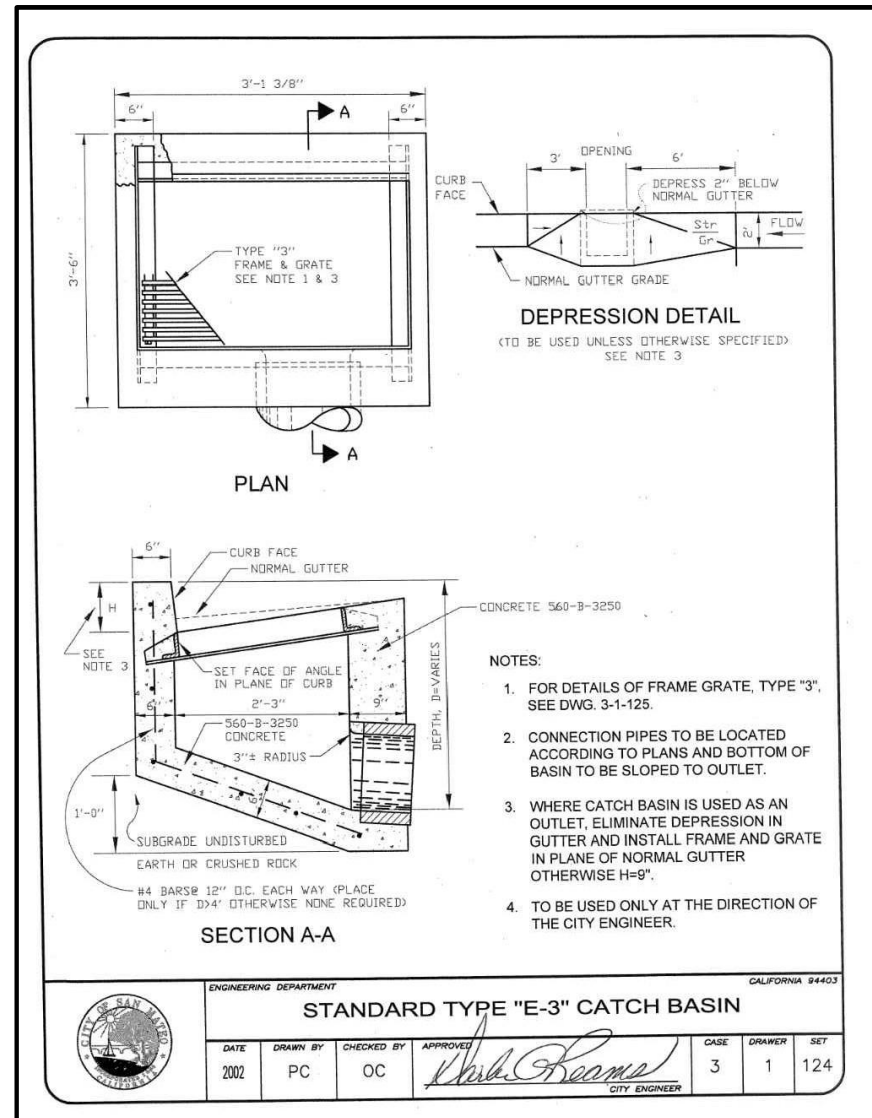
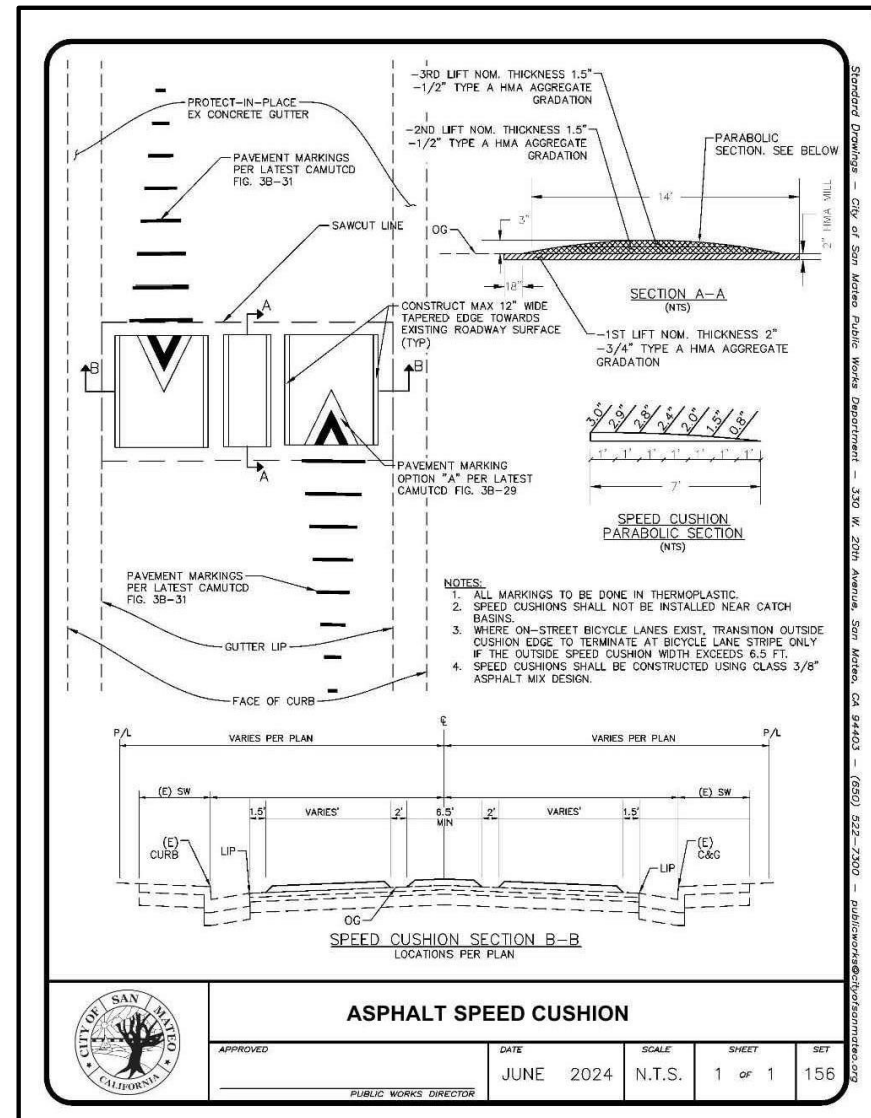
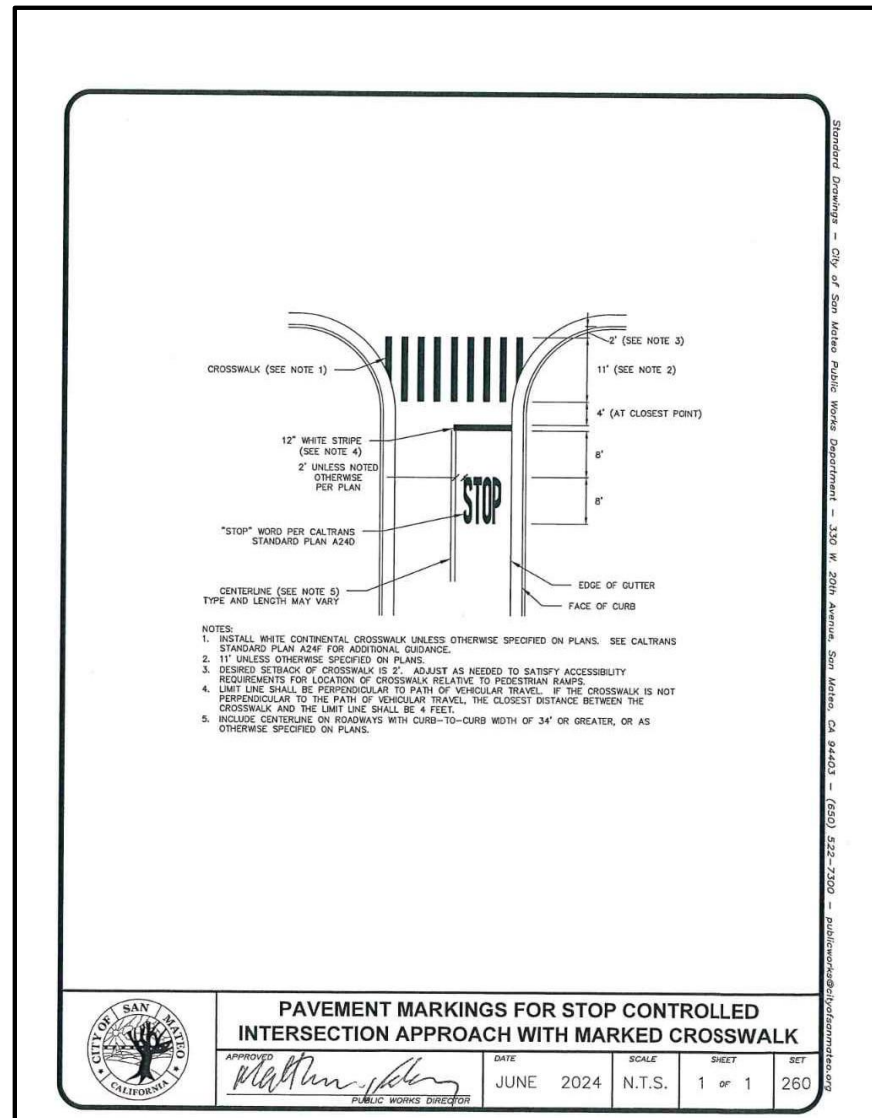
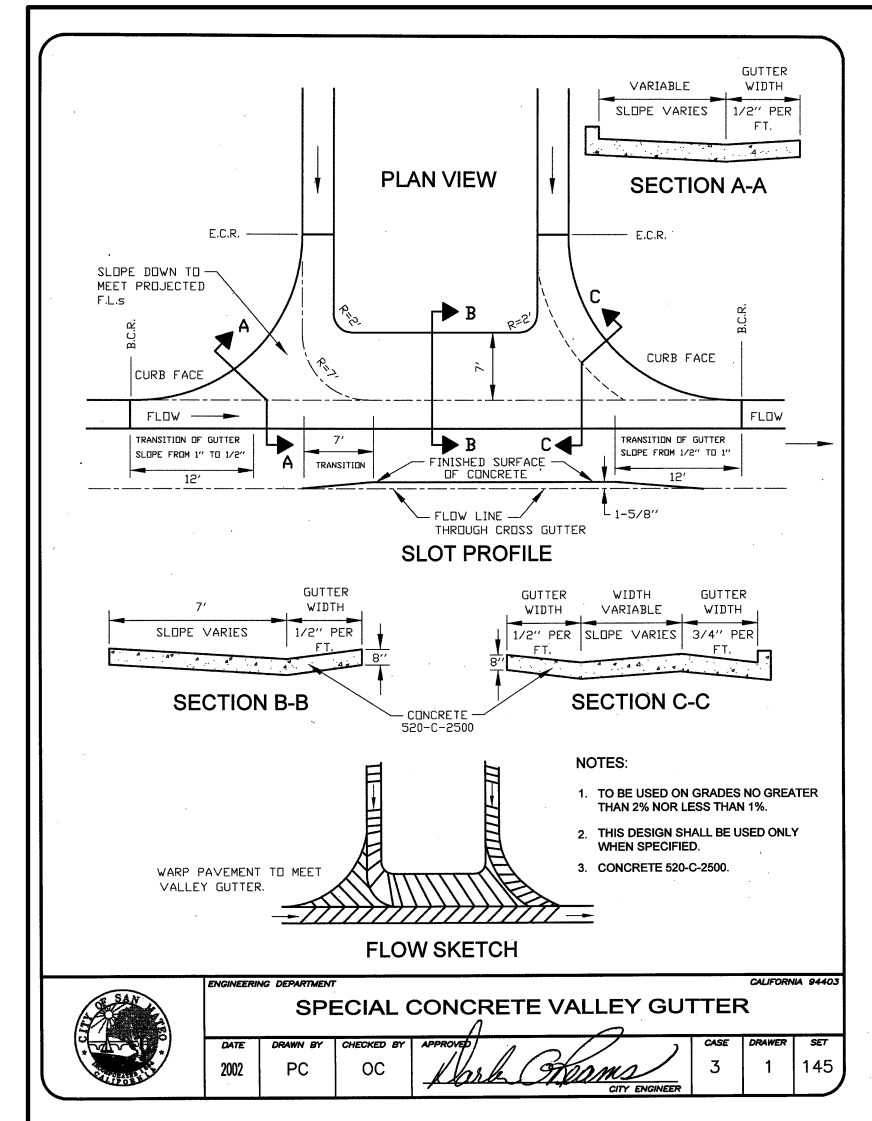
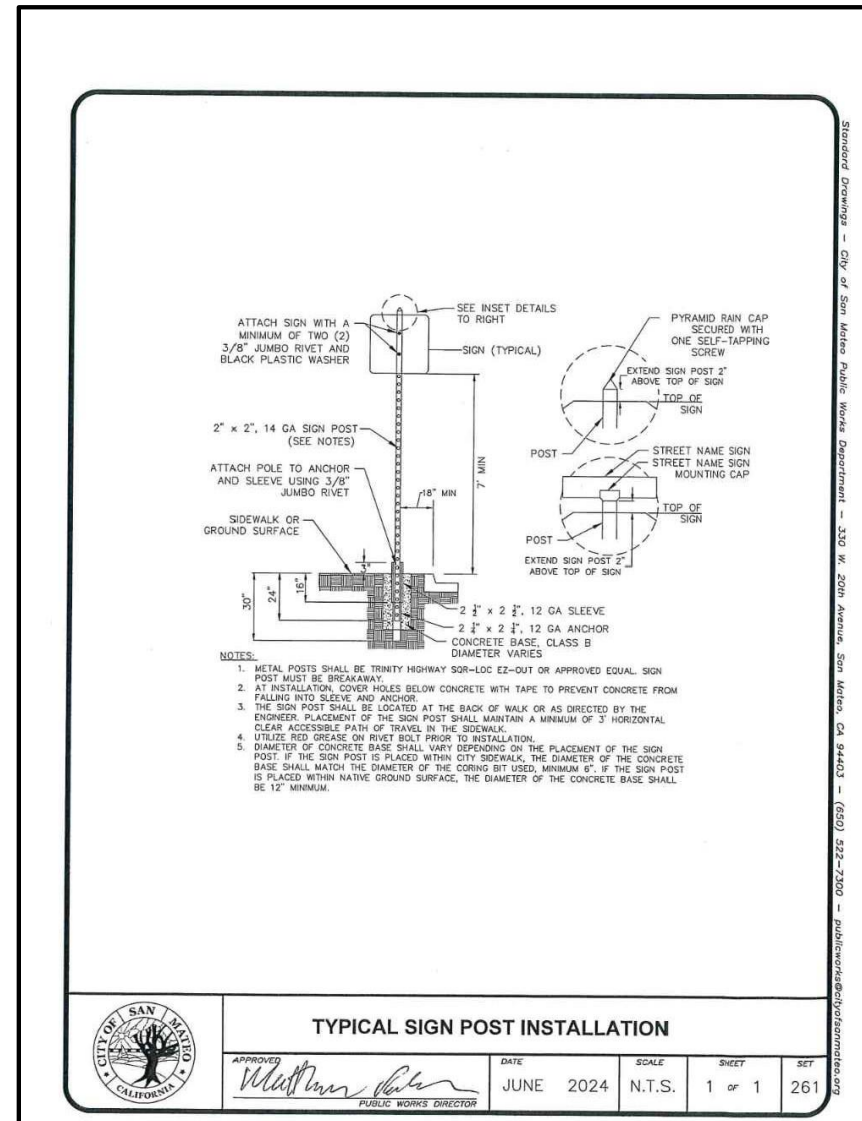
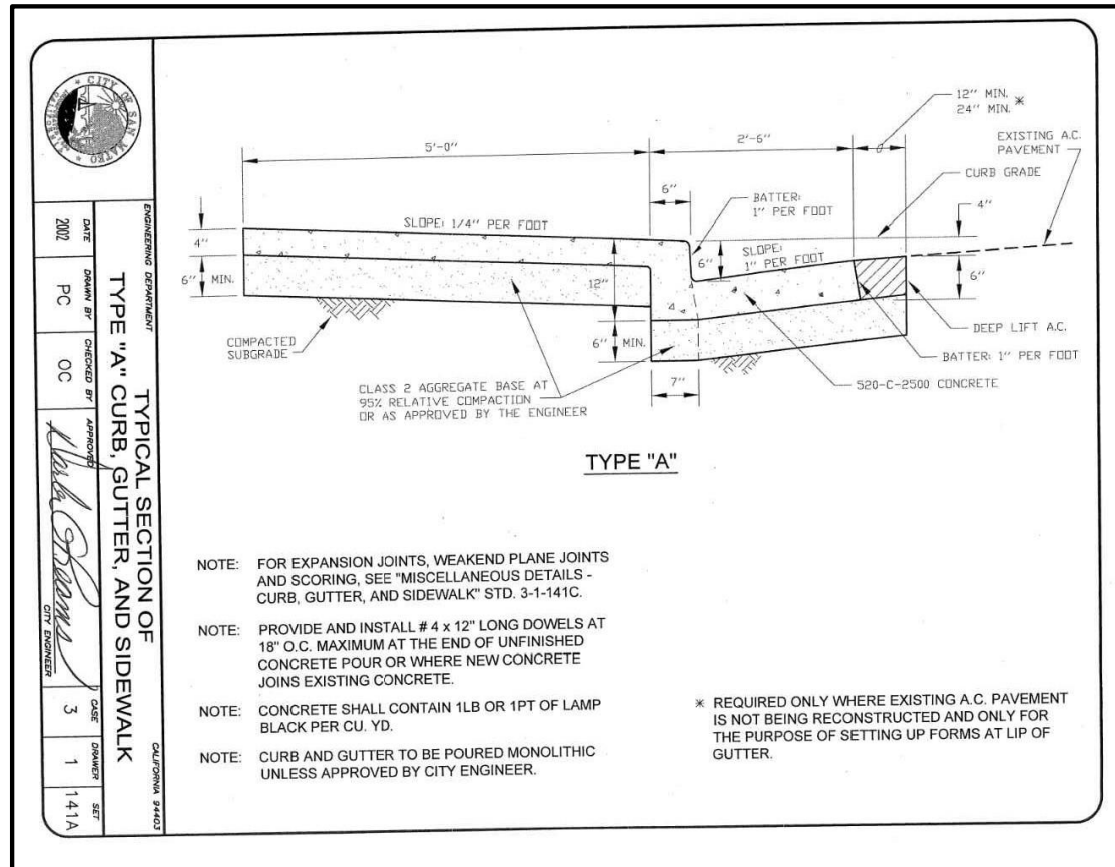
**100% PLANS**  
NOT FOR CONSTRUCTION

**CONSTRUCTION DETAILS**  
**DELAWARE STREET**  
**SAFE ROUTES TO SCHOOL**  
CITY PROJECT NO. 46R022



DESIGNED BY: JP	DATE
DRAWN BY: BP TS	DATE
QC CHECKED BY: RES	DATE
PROJECT NO. 623071	SCALE
SUBMITTAL 606	

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**CITY DETAILS DELAWARE STREET SAFE ROUTES TO SCHOOL**

CITY PROJECT NO. 46R022

CITY OF SAN MATEO CALIFORNIA

REV. NO.	DESCRIPTION	DATE
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DESIGNED BY: BP TS  
 DRAWN BY: BP TS  
 CHECKED BY: RES  
 PROJECT NO. 62071  
 SCALE  
 SUBMITAL: 60%

DATE: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 DATE: \_\_\_\_\_

CD-2 SHEET 35 OF 36



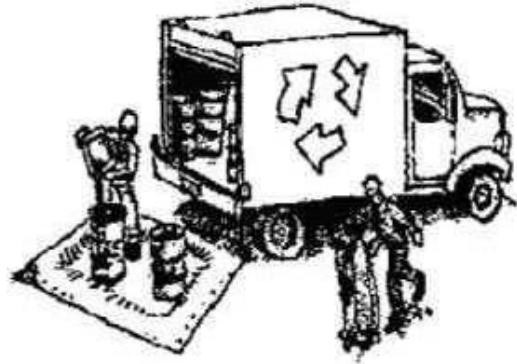
SAN MATEO COUNTYWIDE  
**Water Pollution  
Prevention Program**

Clean Water. Healthy Community.

# Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

## Materials & Waste Management



### Non-Hazardous Materials

- Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- Use (but don't overuse) reclaimed water for dust control.

### Hazardous Materials

- Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- Arrange for appropriate disposal of all hazardous wastes.

### Waste Management

- Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

### Construction Entrances and Perimeter

- Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

## Equipment Management & Spill Control



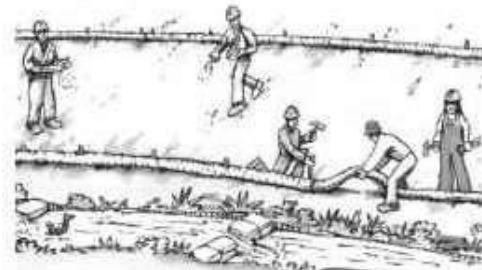
### Maintenance and Parking

- Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

### Spill Prevention and Control

- Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- Clean up spills or leaks immediately and dispose of cleanup materials properly.
- Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

## Earthmoving



- Schedule grading and excavation work during dry weather.
- Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.
- Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

### Contaminated Soils

- If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
  - Unusual soil conditions, discoloration, or odor.
  - Abandoned underground tanks.
  - Abandoned wells
  - Buried barrels, debris, or trash.

## Paving/Asphalt Work



- Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- Do not use water to wash down fresh asphalt concrete pavement.

### Sawcutting & Asphalt/Concrete Removal

- Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- Shovel, absorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- If sawcut slurry enters a catch basin, clean it up immediately.

## Concrete, Grout & Mortar Application



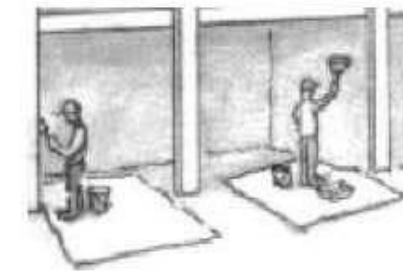
- Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

## Landscaping



- Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- Stack bagged material on pallets and under cover.
- Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

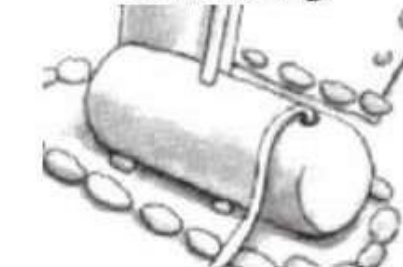
## Painting & Paint Removal



### Painting Cleanup and Removal

- Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state-certified contractor.

## Dewatering



- Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant.
- Divert run-on water from offsite away from all disturbed areas.
- When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

**Storm drain polluters may be liable for fines of up to \$10,000 per day!**

NO PART OF THIS DOCUMENT MAY BE REPRODUCED IN ANY FORM INCLUDING PHOTOCOPY, RECORDING OR ANY INFORMATION RETRIEVABLE AND STORAGE SYSTEM, WITHOUT PERMISSION IN WRITING FROM SANDIS.




BEST MANAGEMENT PRACTICES  
**DELAWARE STREET  
SAFE ROUTES TO SCHOOL**  
CITY PROJECT NO. 46R022



# Detailed Engineer's Estimate and Total Project Costs- Cycle 5 v1.2

Important: Read the Instructions in the first sheet (tab) before entering data. Do not enter data in shaded fields (with formulas).

## Project Information:

Agency: City of San Mateo	Date: 9/1/2020
Project Description: Construct a Class IV and III bikeways to enable safe access to two elementary schools.	
Project Location: South Delaware Street from 19th Avenue to Pacific Boulevard	
Licensed Engineer in responsible charge of preparing or reviewing this PSR-Equivalent Cost Estimate: Jay Yu, Engineering Manager	License #: 85383

## Engineer's Estimate and Cost Breakdown:

Engineer's Estimate (for Construction Items Only)						Cost Breakdown					
Item No.	Item	Quantity	Units	Unit Cost	Total Item Cost	ATP Eligible Costs/Items		ATP Ineligible Costs/Items		Corps/CCC to construct	
						%	\$	%	\$	%	\$
<b>General Overhead-Related Construction Items</b>											
	Mobilization	1	LS	\$ 52,418.00							
	Traffic Control	1	LS	\$ 81,000.00							
	Stormwater Protection Plan	1	LS	\$ 10,000.00							
	Construction Area Signs	1	LS	\$ 10,000.00							
			LS								
			LS								
			LS								
			LS								
			LS								
			LS								
<b>General Construction Items</b>											
11	Signs	1	LS	\$ 10,000.00	\$10,000	100%	\$10,000				
12	Striping	1	LS	\$ 434,800.00	\$434,800	100%	\$434,800				
13	AC Grind (6")	20000	SF	\$ 3.00	\$60,000	100%	\$60,000				
14	Curb and Gutter	100	LF	\$ 20.00	\$2,000	100%	\$2,000				
15	Median 12"	1200	SF	\$ 50.00	\$60,000	100%	\$60,000				
16	High Performance Delineator Buffer	800	EA	\$ 90.00	\$72,000	100%	\$72,000				
17	Speed Hump	10	EA	\$ 3,500.00	\$35,000	100%	\$35,000				
18	Traffic Control System	1	LS	\$ 300,000.00	\$300,000	100%	\$300,000				
19								100%			
20								100%			
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52								100%			
<b>Subtotal of Construction Items:</b>					<b>\$1,127,218</b>		<b>\$1,127,218</b>				
<b>Construction Item Contingencies (% of Construction Items):</b>				<b>10.00%</b>	<b>\$112,722</b>		<b>\$112,722</b>				
<b>Total (Construction Items &amp; Contingencies) cost:</b>					<b>\$1,239,940</b>		<b>\$1,239,940</b>				

## Project Delivery Costs:

Type of Project Cost	Cost \$	ATP Eligible Costs	Non-participating Costs
Preliminary Engineering (PE)			

# Detailed Engineer's Estimate and Total Project Costs- Cycle 5 v1.2

**Important: Read the Instructions in the first sheet (tab) before entering data. Do not enter data in shaded fields (with formulas).**

## Project Information:

Agency: City of San Mateo		Date: 9/1/2020	
Project Description: Construct a Class IV and III bikeways to enable safe access to two elementary schools.			
Project Location: South Delaware Street from 19th Avenue to Pacific Boulevard			
Licensed Engineer in responsible charge of preparing or reviewing this PSR-Equivalent Cost Estimate: Jay Yu, Engineering Manager		License #:	85383
Environmental Studies and Permits(PA&ED):	\$ 37,198	\$37,198	
Plans, Specifications and Estimates (PS&E):	\$ 213,189	\$213,189	"PE" costs / "CON" costs
<b>Total PE:</b>	<b>\$ 250,387</b>	<b>\$250,387</b>	<b>20%</b> <b>25% Max</b>
<b>Right of Way (RW)</b>			
Right of Way Engineering:	\$ 10,000	\$10,000	
Acquisitions and Utilities:			
<b>Total RW:</b>	<b>\$ 10,000</b>	<b>\$10,000</b>	
<b>Construction Engineering (CE)</b>			
Construction Engineering (CE):	\$ 161,192	\$161,192	"CE" costs / "CON" costs
<b>(PE+RW+CE) Total Project Delivery:</b>	<b>\$421,579</b>	<b>\$421,579</b>	<b>13%</b> <b>15% Max</b>
<b>Total Construction Costs:</b>	<b>\$1,239,940</b>	<b>\$1,401,132</b>	
<b>Total Project Cost:</b>		ATP Eligible Costs	Non-participating Costs
	<b>\$1,661,519</b>	<b>\$1,661,519</b>	

<b>Documentation of Ineligible (Non-Participating) Costs:</b>	
The Engineer's logic and/or calculations for splitting costs between ATP-Eligible and Non-participating costs must be documented in this section of the Estimate form.	
Separate logic is required for each item which is partly ineligible for ATP funding or is required for the construction of an ineligible item/element of the project.	
Item #:	Description of Engineer's Logic: (See examples shown in the Instructions)



METROPOLITAN  
TRANSPORTATION  
COMMISSION

Bay Area Metro Center  
375 Beale Street, Suite 800  
San Francisco, CA 94105  
415.778.6700  
www.mtc.ca.gov

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Executive Director

*Alix Bockelman*  
Chief Deputy Executive Director

March 26, 2025

**TIP ID**  
SM-210006

**PPNO**  
2353

Matt Fabry, Director of Public Works  
City of San Mateo  
330 W 20th Avenue  
San Mateo, CA 94403

**Re: Delaware Street Safe Routes to School Corridor Project – Minor Scope Revision**

Dear Director Fabry,

The Metropolitan Transportation Commission has received your minor scope revision request for the Delaware Street Safe Routes to School Corridor project in San Mateo County (PPNO: 2353), competitively selected in MTC's Regional Cycle 5 Active Transportation Program (ATP).

In March 2024, the California Transportation Commission (CTC) approved policies for any amendments to ATP projects. The adopted policies include required documentation of MTC's approval and rationale for approval of proposed scope changes.

Based on our evaluation of the documentation you provided, MTC staff understands that in order to maximize project delivery efficiencies with another concurrent active transportation-focused project, San Mateo plans to revise the project scope to deliver project elements originally planned for the Delaware Street Safe Routes to School Corridor project at the intersection of Delaware and 19<sup>th</sup> Avenue as a part of the US101/SR92 Fashion Island Blvd Mobility Hub project. The proposed scope change ensures that the original project benefits are preserved while allowing the concurrent project to construct safety improvements without interfering with the Delaware Street project.

The proposed scope change is estimated to result in a \$1,500,000 increase in cost. However, since the City committed to funding any cost increases with local funds and the modifications will maintain the benefits identified in the original application, MTC approves the scope revision request. MTC cautions San Mateo not to proceed with the project before securing necessary approvals from MTC, Caltrans, and the CTC, as such action may jeopardize ATP funding.

If you have any questions regarding MTC's position, please contact Karl Anderson, MTC's ATP Program Manager, at (415) 778-6645, or [kanderson@bayareametro.gov](mailto:kanderson@bayareametro.gov).

Sincerely,

A handwritten signature in blue ink that reads "Theresa Romell". The signature is fluid and cursive, with the first name being more prominent.

Theresa Romell  
Director, Funding Policy and Programs

TR:KA

cc: Xi Zhang, Caltrans District 4 Division of Local Assistance  
Teresa McWilliam, Caltrans HQ Division of Local Assistance  
Anja Aulenbacher, California Transportation Commission

J:\PROJECT\Funding\ATP\Regional ATP\2021 rATP (Cycle 5)\Actions\San Mateo - Delaware St\Scope Change\Ltr-SanMateo\_DelawareConcur\_3-25-2025.docx