



Santa Cruz County Regional Transportation Commission's
Elderly & Disabled Transportation Advisory Committee
(Also serves as the Social Service Transportation Advisory Council)

AGENDA

1:30pm - 3:30pm

Tuesday, April 12, 2022

NOTE: TELECONFERENCE

Join the online meeting to see presentations:

<https://us02web.zoom.us/j/84171055424>

Meeting ID: 841 7105 5424

Dial by your location: +1 669 900 9128 US (San Jose)

Members of the public may not attend this meeting in person. Comments and questions may be shared with the Committee through teleconference audio in real time, or by prior written submission to amarino@sccrtc.org.

Due to precautions associated with COVID-19, and following current state law (AB 361) regarding the Brown Act, all RTC and committee meetings until further notice will be held by teleconference only. Members of the public can listen and participate in meetings over the phone and through the internet.

- 1. 1:30pm — Call to Order**
- 2. 1:30pm — Introductions**
- 3. 1:35pm — Oral communications**
- 4. 1:40pm — Additions or deletions to the consent or regular agenda**

1:42pm- CONSENT AGENDA

All items appearing on the consent agenda are considered to be minor or non-controversial and will be acted upon in one motion if no member of the E&D TAC or public wishes an item be removed and discussed on the regular agenda. Members of the E&D TAC may raise questions, seek clarification or add directions to Consent Agenda items without removing

the item from the Consent Agenda as long as no other E&D TAC member objects to the change.

- 5. Approve Minutes from February 8, 2022 — pg. 4**
- 6. Receive RTC Meeting Highlights — pg. 10**
- 7. Receive E&D TAC Membership Roster — pg. 13**
- 8. Receive Information Items — pg. 14**
 - a. California Air Resources Board UCLA Center for Neighborhood Knowledge Transportation Disparities Mapping Tool User Guide
 - b. Pediatric Disaster Surge Training Flyer

REGULAR AGENDA

- 9. 1:55 pm — Receive Program Updates — pg. 38**
 - a. Volunteer Center – TDA Summary Report
 - b. Community Bridges
 - c. Santa Cruz Metro
 - d. SCCRTC
 - e. Pedestrian Ad-hoc Subcommittee
 - i. Pedestrian Hazard Report
- 10. Chair and Vice Chair Elections— pg. 44**
- 11. Draft 2022 Unmet Transit and Paratransit Needs List— pg. 45**
- 12. Coastal Rail Trail Segments 8 through 12 Schematic Plans — pg. 57**
- 13. Measure D Active Transportation- Monterey Bay Sanctuary Scenic Trail Network (MBSST)/Coastal Rail Trail Five-Year Program of Projects— pg. 62**
- 14. City of Watsonville, Freedom Blvd Reconstruction Project— pg. 73**
- 15. 3:30 pm — Adjourn**

Next meeting: Special Meeting 1:30 pm, May 10, 2022 via teleconference.

HOW TO REACH US

*Santa Cruz County Regional Transportation Commission
1101 Pacific Avenue. Suite 250,
Santa Cruz, CA 95060
Phone: (831) 460-3200 / fax (831) 460-3215
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ACCOMMODATIONS FOR PEOPLE WITH DISABILITIES

The Santa Cruz County Regional Transportation Commission does not discriminate on the basis of disability and no person shall, by reason of a disability, be denied the benefits of its services, programs, or activities. This meeting location is an accessible facility. If you wish to attend this meeting and require special assistance in order to participate, please contact RTC staff at 460-3200 (CRS 800/735-2929) at least three working days in advance of this meeting to make arrangements. People with disabilities may request a copy of the agenda in an alternative format. As a courtesy to those person affected, please attend the meeting smoke and scent-free.

SERVICIOS DE TRADUCCIÓN/TRANSLATION SERVICES

Si gusta estar presente o participar en esta junta de la Comisión Regional de Transporte del condado de Santa Cruz y necesita información o servicios de traducción al español por favor llame por lo menos con tres días laborables de anticipo al (831) 460-3200 para hacer los arreglos necesarios. (Spanish language translation is available on an as needed basis. Please make advance arrangements (at least three days in advance by calling (831) 460-3200.

TITLE VI NOTICE

The RTC operates its programs and services without regard to race, color and national origin in accordance with Title VI of the Civil Rights Act. Any person believing to have been aggrieved by the RTC under Title VI may file a complaint with RTC by contacting the RTC at (831) 460-3212 or 1523 Pacific Avenue, Santa Cruz, CA, 95060 or online at www.sccrtc.org. A complaint may also be filed directly with the Federal Transit Administration to the Office of Civil Rights, Attention: Title VI Program Coordinator, East Building, 5th Floor-TCR, 1200 New Jersey Ave., SE, Washington, DC 20590.

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Santa Cruz County Regional Transportation Commission's
Elderly & Disabled Transportation Advisory Committee

(Also serves as the Social Service Transportation Advisory Council)

Draft MINUTES

1:30pm - 3:30pm

Tuesday, February 8, 2022

NOTE: Meeting was held as teleconference

1. Roll call

The meeting was called to order at 1:34 p.m.

Members present:

Patty Talbott, Social Services Provider — Seniors
Tara Ireland, Social Service Provider-Persons of Limited Means
Lisa Berkowitz, CTSA (Community Bridges)
Jesus Bojorquez, CTSA (Lift Line)
Eileen Wagley, SCMTD (Metro)
Daniel Zaragoza SCMTD (Metro) Alternate
Michael Pisano, Potential transit User (60+)
Caroline Lamb, Potential Transit User (Disabled)
Janet Edwards, 1st District
Veronica Elsea, 3rd District
Patricia Fohrman, 4th District

Unexcused absences:

Alex Weske, Social Service Provider – Disabled
Paul Elerick, 2nd District
Ed Hutton, 5th District

RTC staff present:

Amanda Marino, Transportation Planner
Rachel Moriconi, Senior Transportation Planner

Others present:

Becky Steinbruner, Cabrillo Host Lions Club
Daniel Young, Member of the Public
Sean Shrum, Member of the Public
Joshua Spangrud, City of Santa Cruz
Alex Yasbek, City of Watsonville

Kailash Mozumder, City of Capitola
Gus Alfaro, Caltrans D5
Abraham Carmona, Caltrans D5
Dan Estranero, City of Santa Cruz
Amelia Conlen, Ecology Action Planner

2. Introductions

3. Oral communications

Daniel Young, disabled veteran senior citizen, expressed his opposition for the Greenway initiative.

Committee Member Janet Edwards announced the opportunity to provide input on the aesthetic design elements for Highway 1 Bay Ave/Porter Street to State Park Dr. Auxiliary Lanes Project.

Sean Shrum, member of the public, stated the need for freight and emergency services on the rail line.

Becky Steinbruner, member of the public representing Cabrillo Host Lions Club, expressed interest in partnering with the E&D TAC and serving on the committee, as well as providing assistance with funding pedestrian projects. Ms. Steinbruner contacted Erik Riera, Behavioral Health Director County of Santa Cruz, regarding providing wheelchair accessible taxi service.

4. Additions or deletions to consent and regular agendas

Move Item 17. Caltrans D5 Hybrid Beacons on Mission St. before Item 11.

CONSENT AGENDA

5. Approved minutes from January 11, 2022

A motion (Edwards, Berkowitz) was made to approve the minutes with corrections to the spelling of "Talbot" and revising oral communications. The motion passed with members Patty Talbot, Tara Ireland, Lisa Berkowitz, Jesus Bojorquez, Michael Pisano, Caroline Lamb, Janet Edwards, Veronica Elsea, and Patricia Fohrman voting in favor.

6. Received RTC Meeting Highlights

7. Received Transportation Development Act Revenues Report
8. Received FY 22-23 TDA Claims Calendar
9. Received Notice of Chair and Vice Chair Election
10. Received Information Items
 - a. Regional E-Bike Rebate Summary Flyer

A motion (Pisano/Edwards) was made to approve the consent agenda. The motion passed with members Patty Talbott, Tara Ireland, Lisa Berkowitz, Jesus Bojorquez, Michael Pisano, Caroline Lamb, Janet Edwards, and Veronica Elsea voting in favor. Patricia Fohrman was not present for the vote.

REGULAR AGENDA

17. *(Item moved before Item 11.)* Caltrans D5 Hybrid Beacons on Mission St.

Gus Alfaro and Abraham Carmona, Caltrans D5 Staff, presented to the E&D TAC information to replace and upgrade the existing pedestrian flashing beacons at Mission & Olive / Mission & Berkshire with Pedestrian Hybrid Flashing Beacons (PHFB). The committee provided input that includes ensuring that the cabinet location allows sidewalk wheelchair access and audible accessible features on beacons.

No action taken.

11. Received Program Updates

- a. Volunteer Center

Tara Ireland announced that volunteers are required to wear K-N95 masks while transporting participants in personal vehicles as well as providing K-N95 masks to participants in the programs.

- b. Community Bridges

Jesus Bojorquez provided a program update that Lift Line is continuing their program providing free rides to Covid-19 vaccinations sites. Drivers and participants are required to wear a mask.

- c. Santa Cruz Metro

Eileen Wagley informed the committee that Metro is currently in the

process of evaluating applicants for a CEO. Additionally, ParaCruz ridership has reached 80% of pre-Covid ridership levels, hired three new drivers, and one dispatcher.

d. SCCRTC

Amanda Marino, Transportation Planner, notified the committee of the date of the next the next Budget and Administration/Personnel (BAP) Committee that will meet on March 10th as requested at the last E&D TAC meeting. Ms. Marino informed the committee that the E&D TAC may need to hold a special meeting in March to provide input on the Coastal Rail Trail.

e. Pedestrian Ad-Hoc Subcommittee

i. Pedestrian Hazard Report

ii. Letter to the City of Santa Cruz Public Works Department

Chair Veronica Elsea communicated that the subcommittee continues to regularly review the pedestrian hazard reports and will be scheduling another meeting in the next few weeks.

Committee member Janet Edwards announced that the Kaiser project has been delayed and will be continuing in the Spring of 2022. This project will involve rezoning for housing, sidewalk, and signal improvements. Ms. Edwards additionally provided an update on the Chanticleer Bridge and Highway 1 Auxiliary Lanes and Bus-on-Shoulder Project.

12. Committee Appointments

Amanda Marino, Transportation Planner, provided an overview of the eight applicants expressing interest to fill vacancies on the E&D TAC shown in the February 2022 membership roster.

A motion (Edwards/Lamb) was made to recommend approval to the RTC to appoint new members to the E&D TAC. The motion passed with members Patty Talbott, Tara Ireland, Lisa Berkowitz, Jesus Bojorquez, Michael Pisano, Caroline Lamb, Janet Edwards, and Veronica Elsea voting in favor. Patricia Fohrman was not present for the vote.

13. Preliminary Draft 2022 Unmet Needs List

Chair Veronica Elsea and Amanda Marino, Transportation Planner, provided a background and importance of identifying Unmet Transit and Paratransit Needs. The Unmet Needs List is used to support recommendations for funding prioritization, and to provide input to

service providers. The committee provided input on the Preliminary Draft 2022 Unmet Needs List.

No action taken.

14. City of Santa Cruz Regional Bike Share Program

Alex Yasbek, staff from the City of Watsonville, shared information on the status of the City of Santa Cruz in partnership with the Cities of Capitola and Watsonville, the County of Santa Cruz, UCSC, and Cabrillo College Electric Bike Share Program. The E&D TAC provided input on bike parking including recommendations on how to ensure pedestrians and individuals with disabilities navigate the bikes properly.

No action taken.

15. City of Santa Cruz TDA Funded Rectangular Rapid Flashing Beacons

Dan Estranero, staff from the City of Santa Cruz, provided updated information on the Rectangular Rapid Flashing Beacons (RRFB) and informed the committee that they are looking for future funding to upgrade the beacons installed to include audible functions. The City of Santa Cruz is installing six more RRFBs and will consider adding audible functions.

No action taken.

16. City of Santa Cruz's Chestnut Storm Drain and Pavement Rehabilitation Project

Joshua Spangrud, staff from City of Santa Cruz gave an overview of the Chestnut Street Storm Drain Replacement and Pavement Rehabilitation Project highlighting improvements to pedestrian and bicycle infrastructure. The E&D TAC asked questions on topics regarding pedestrian accessibility.

No action taken.

18. Capitola's Draft Design for Clares & 41st Ave Projects

Kailash Mozumder, City of Capitola, presented Capitola's Draft Design for Clares & 41st Ave Projects emphasizing the complete streets elements. The committee asked questions and provided input including the need for Rapid Flashing Beacons to have audible components and accessible placement of push buttons. Additionally, the committee provided comments on the need to improve sidewalk condition and accessibility for pedestrians using mobility devices.

No action taken.

19. Draft Santa Cruz County Active Transportation Plan

Due to time constraints this item will be solicited for input via email aconlen@ecoact.org.

No action taken.

20. Draft 2022 RTC Legislative Program

Rachel Moriconi, Senior Transportation Planner delivered an overview of the Draft 2022 RTC Legislative Program to the committee. Committee members provided input and are encouraged to review the preliminary draft 2022 Legislative Program and email rmoriconi@scrtc.org by February 11, 2022 any changes the RTC should consider.

No action taken.

Meeting adjourned at approximately 4:07 pm.

The next E&D TAC meeting is scheduled for Tuesday, April 12, 2022 at 1:30 p.m. NOTE: Teleconference may be necessary due to COVID-19.

Respectfully submitted, Amanda Marino, Staff



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Guy Preston, Executive Director
Luis Pavel Mendez, Deputy Director*

Santa Cruz County Regional Transportation Commission (RTC) March 3, 2022 Meeting Highlights

RTC Committee Appointments

The Commission approved appointments of Commissioners to the RTC's Budget and Administration/Personnel Committee, the California Association of Councils of Government (CALCOG), and the Coast Rail Coordinating Council (CRCC). The Budget and Administration/Personnel Committee is the RTC's only standing committee and it serves to review and monitor issues relating to the budget, work program, and other administrative and personnel functions of the RTC and makes recommendations to the Commission regarding such items. The RTC is a member of CALCOG, which provides public policy advocacy and intergovernmental coordination with the state legislature, state agencies, the League of California Cities, California State Association of Counties, California's Congressional Delegation, and federal officials. The RTC also has a representative on the CRCC, which advocates for increased passenger rail service between Los Angeles and the San Francisco Bay Area, which would serve Pajaro, and has been successful in securing regular intercity passenger rail service between Los Angeles and San Luis Obispo.

Measure D Taxpayer Oversight Committee Appointments

Measure D, which was approved by over 2/3 of Santa Cruz County voters in November 2016, includes the formation of an oversight committee. In 2021, the two committee members representing Districts 2 & 3 were reappointed to the committee for a two-year term. At that time, three new members representing Districts 1, 4, & 5 were appointed to two-year terms to fill vacancies. In 2022, one year into their two-year terms, the committee members representing Districts 2 & 4 resigned their positions creating vacancies on the committee. The RTC appointed two new committee members representing Districts 2 & 4 to the Measure D Taxpayer Oversight Committee for a two-year term.

Caltrans Update

Caltrans District 5 Deputy Director Scott Eades provided information on the Governor's Office announcement regarding the award of 105 local projects approved for nearly \$300 million in Clean California grants for communities throughout the state, including two projects within Santa Cruz County limits.

The City of Santa Cruz was awarded \$727,862 for the Main Street Bathroom Renovation Project.

This project will provide for the complete renovation of the Main Beach Public Restrooms from foundation to roof to fix the deteriorating structures. New ADA compliant, water-conserving fixtures will be added, including a bottle-filling station. Two 20' x 7'-foot tile mosaic wall murals will be developed through outreach with disadvantaged neighborhoods. Picnic tables, trash/recycling receptacles and signage to discourage littering will be added. Security cameras to monitor litter on the adjacent beach will be installed to deter crime, and study coastal resiliency to sea-level rise.

Additionally, the County of Santa Cruz was awarded \$5,000,000 for The Green Valley Road Multi-Use Trail Improvements Project (GVR MUP). This project will replace a dilapidated pedestrian trail with a pervious, two-way, multi-use trail to provide a safe, accessible connection between the City of Watsonville and Santa Cruz unincorporated counties to nearby schools, parks, social services, and numerous transit stops. The 2-mile-long path will be 10' in width and will be protected by a landscaped buffer or bioswale, containing native and drought tolerant plants. The project will upgrade 5 METRO bus stops with shelters and one more with an accessible landing, all upgrades will include trash receptacles. Non-infrastructure elements include education programs at Amesti Elementary, community events at the parks, and community-driven art installation(s). All education will also include litter abatement curriculum.

City of Santa Cruz Presentation

City of Santa Cruz Assistant Public Works Director Nathan Nguyen provided an update to the Commission on the City's transportation projects. Past construction includes: an overlay (.82 miles) and surface seal (37 local/residential roads) project; Pacific Avenue Sidewalk project (180 lineal feet of new sidewalk & bike lanes); and Rail Trail Segment 7, Phase I. Present construction includes: Highway 1/9 intersection improvements; and the Riverwalk Lighting project. Future construction includes: Rail Trail Segment 7, Phase II; Chestnut Storm Drain and Road Rehab project; and the Murray Street Bridge Seismic Retrofit project.

Final Draft 2045 Santa Cruz County Regional Transportation Plan (RTP)

The Commission reviewed and approved revisions for the Final 2045 RTP. The RTP identifies transportation needs and priorities in Santa Cruz County over the next 25 years. It sets policy and a vision for the transportation system and estimates the amount of funding that will be available for planned transportation projects. The plan is an essential first step in securing funding from federal, state, and local sources. The RTP includes discussion of highways, local streets and roads, bicycle and pedestrian facilities, transit services, specialized transportation services for seniors and people with disabilities, airports, and goods movement. Proposed revisions for the Final 2045 RTP were based on comments received from members of the public, RTC Commissioners, RTC Committees, resource agencies, public interest groups, and partner agencies. Recommended changes included updates to text; updates to the project list based on revised project cost estimates from project sponsors, revised project descriptions, and deletion of completed projects; and updates to financial estimates based on more recent financial information. The Commission is scheduled to adopt the Final 2045 RTP in June 2022.

Upcoming RTC and Committee Meetings

Due to precautions associated with COVID-19 (coronavirus), **all RTC and committee meetings have been held by video conference.** On September 16, 2021, Governor Newsom signed AB 361 which continues the Brown Act waivers

and allows the RTC to continue Commission and committee meetings in a virtual format. The RTC will continue to hold its commission meetings in a virtual format until further notice. Please check the RTC website [<https://sccrtc.org/meetings/calendar/>] or call 460-3200 to confirm meeting and video conference information for future meetings. Agendas are posted to the website at least 3 days before the meeting and will also include attendance information. Meetings may be canceled if there are no action items to be considered by the committee.

The RTC is committed to its compliance with the Americans with Disabilities Act (ADA) during this time of national emergency. Please contact the RTC at least 3 days in advance of a meeting if special accommodations are needed. If any document, webpage, meeting, or recording is inaccessible to you, kindly notify us at info@sccrtc.org or by calling 831-460-3200.

Regional Transportation Commission Meeting

Thursday, April 7, 2022, 9:00 a.m.

Budget, Administration & Personnel Committee Meeting

Thursday, March 10, 2022, 1:30 p.m.

Safe on 17 – TOS

Thursday, March 16, 2022, 1:30 p.m.

Transportation Policy Workshop

Thursday, March 17, 2022, 9:00 a.m.

Interagency Technical Advisory Committee

Thursday, March 17, 2022, 1:30 p.m.

Bicycle Advisory Committee

Monday, April 11, 2022, 6:00 p.m.

Elderly & Disabled Transportation Advisory Committee

Tuesday, April 12, 2022, 1:30 p.m.

Public input on transportation issues is welcomed and encouraged. For more information, visit the SCCRTC website at www.sccrtc.org or call 460-3200. Some Regional Transportation Commission meetings are televised countywide by Community TV of Santa Cruz. Consult www.communitytv.org or call 831-425-8848 for schedule and station information.



Santa Cruz County Regional Transportation Commission
ELDERLY & DISABLED TRANSPORTATION ADVISORY COMMITTEE (E&D TAC)
SOCIAL SERVICES TRANSPORTATION ADVISORY COUNCIL (SSTAC)

Membership Roster
April 2022
 (Membership Expiration Date)

Members	Representing	Alternate
Clay Kempf (2025)	Social Services Provider - Seniors	Patty Talbot (2025)
Alicia Morales (2025)	Social Services Provider - Seniors (County)	vacant
Alex Weske (2023)	Social Service Provider - Disabled	vacant
vacant	Social Service Provider - Disabled (County)	vacant
Tara Ireland (2024)	Social Service Provider - Persons of Limited Means	vacant
Lisa Berkowitz (2025)	CTSA (Community Bridges)	vacant
Jesus Bojorquez (2025)	CTSA (Lift Line)	Nadia Noriega (2025)
Eileen Wagley (2024)	SCMTD (Metro)	Daniel Zaragoza (2025)
Michael Pisano (2023)	Potential Transit User (60+)	Patricia McVeigh (2023)
Caroline Lamb (2023)	Potential Transit User (Disabled)	Vacant

Supervisory District Representatives		
Members	Representing	Alternate
Janet Edwards, Vice Chair (2023)	1st District (Koenig)	Phil Kipnis (2023)
Paul Elerick (2023)	2nd District (Friend)	vacant
Veronica Elsea, Chair (2025)	3rd District (Coonerty)	vacant
Martha Rubbo (2023)	4th District (Caput)	Patricia Fohrman (2023)
Ed Hutton (2023)	5th District (McPherson)	Vacant

Staff: Amanda Marino, Regional Transportation Commission



TRANSPORTATION DISPARITIES MAPPING TOOL USER GUIDE

California Air Resources Board
UCLA Center for Neighborhood Knowledge

Draft Version 4.6.2021
800-242-4450 | helpline@arb.ca.gov
1001 I Street, Sacramento, CA 95814 | P.O. Box 2815, Sacramento, CA 95812

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ABOUT THE TOOL

What is the Transportation Disparity Mapping Tool?



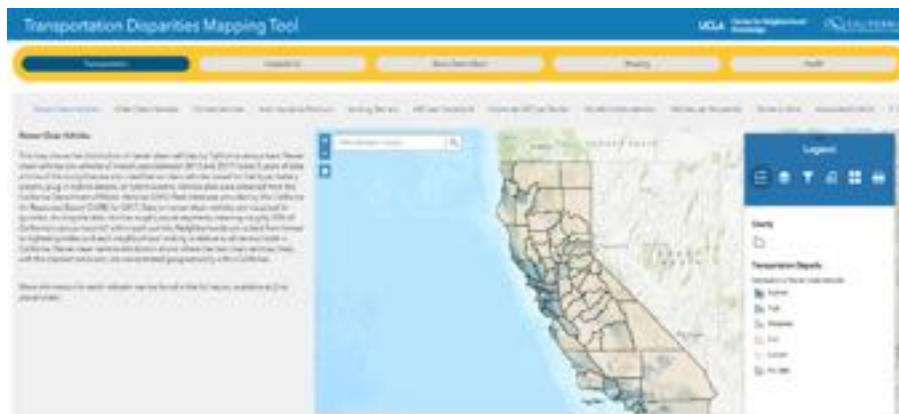
The Transportation Disparity Mapping Tool is a project developed to better understand transportation disparities and built environment-related determinants of health in California. It is a component of larger initiatives of the California Air Resources Board (CARB). According to Senate Bill 150, CARB is mandated to assess progress toward meeting greenhouse gas reduction goals. While striving to meet these goals, CARB also aims to ensure all segments of society benefit from CARB's climate change agenda, including disadvantaged communities (SB 535 and AB 617). In accordance with CARB goals, this mapping tool is a web-based information visualization portal that contains indicators related to the causes, characteristics, and consequences of transportation disparities. This tool provides useful indicators for CARB and other organizations to help fulfill state mandates related to climate change, greenhouse gas emissions, and environmental justice, and to evaluate progress towards a more sustainable and environmentally just future.

This tool was developed with an advisory committee and analyzed four major categories of disparities, including private vehicle ownership, public transit, active transportation, and transportation networks. The advisory committee, which aimed to provide stakeholder engagement, included representation from health experts, academics and researchers, and community organizations. The advisory committee also assisted in selecting which indicators and disparities should be prioritized and with the overall construction of the mapping tool. Additionally, a team of researchers and academics, led by Principal Investigator Paul Ong of UCLA Center for Neighborhood Knowledge (CNK), developed and visualized the indicators used in this tool. The development of this guide was funded in part by the **California Initiative for Health Equity and Action**.

This guide shows where to find documentation and methodology for each indicator. It provides guidance on how to navigate the map so that the user can work through the features and see the full scope of the information.

As a land grant institution, the authors acknowledge the Gabrielino and Tongva peoples as the traditional land caretakers of Tovaangar (Los Angeles basin, Southern Channel Islands), and recognize that their displacement has enabled the flourishing of UCLA.

MAPPING TOOL



The Transportation Disparities Mapping Tool is available [here](#).

► Data Highlights

This mapping tool includes four domains of transportation disparities and multiple built environment determinants of health. Here is a select list of the indicators included in each of the primary data domains of the mapping tool:



Transportation

- Newer Clean Vehicles
- Vehicles per Household
- % Public Transportation for Job Commute

Accessibility Measures

- Access to High-Quality Transit Locations
- Accessibility to Employment Opportunities
- Jobs-Housing Fit

Socio-Demo-Econ

- Largest Ethnoracial Group
- Job Density
- Neighborhood Change, Socioeconomic Variables

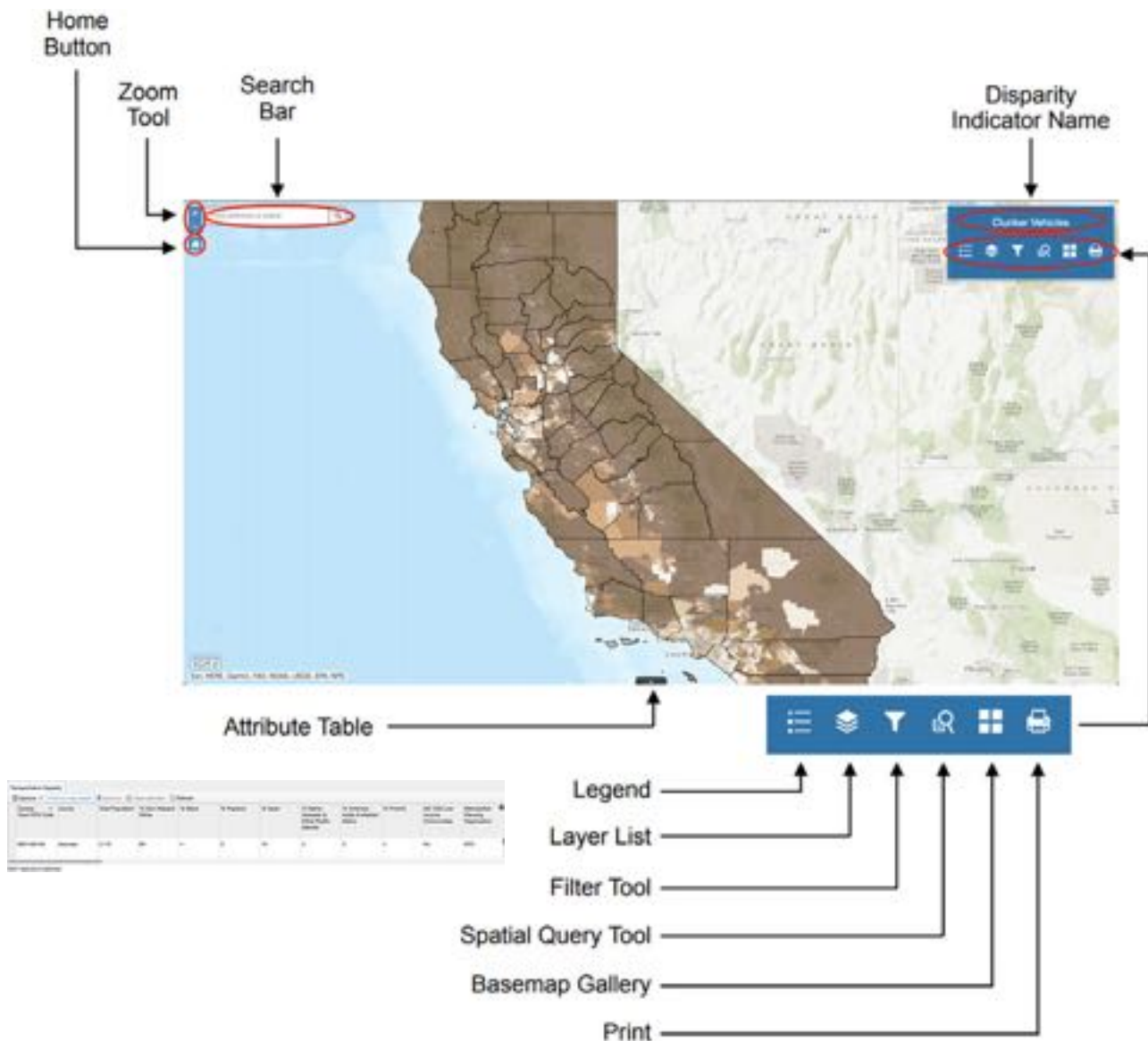
Housing

- % Multi-Family Housing Units
- % Households Paying 50% or More of Income Towards Housing Costs
- % Renter-Occupied Households

Health

- Traffic Collisions per Weighted Roadways
- Primary Care Shortage Areas
- Cardiovascular Disease

► Main Navigation Overview



Use the tools on the top corners to navigate the mapping tool. On the top right, there are widgets that allow you to search for an area of interest and on the top left, you will find various tools to conduct your analysis.

We recommend exploring the different tools on the platform first before diving straight into the next section of the user guide, which provides detailed information and instructions.

Who to contact?

Please contact CARB at helpline@arb.ca.gov if you have any questions or feedback regarding the mapping tool.

How do I use the mapping tool?



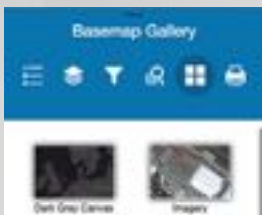
To search for a specific location, type a county, city, zip code, address, or place into the search bar and the map will automatically zoom to that location. Once you have typed your desired search location, you can either select it from the options that appear below the search bar or click on the magnifying glass icon to zoom to that location.

To zoom, use the boxes with the + and - symbols on the lefthand side of the map to zoom in and out. Clicking the "+" will zoom in to wherever your page is centered around, and clicking the "-" will zoom out. You can also place your mouse over a desired location and swipe with two fingers on your trackpad to zoom in and out. Alternatively, you can click and hold your mouse anywhere on the map while dragging to pan around the screen.

Click the **home button** with the home icon at any time to return to the original map extent.

To change the basemap, click on the highlighted icon composed of 4 white squares titled "Basemap Gallery," the fifth icon from the left. From there, a list of 12 optional basemaps will appear below. You can select whichever basemap you prefer and can change the basemap at any point without affecting your other selections/zoom.

Find address or place



Joel Muniz

▷ Pop-Up Window

Click on any tract within the map and a pop-up window will appear. Within it, you will see:

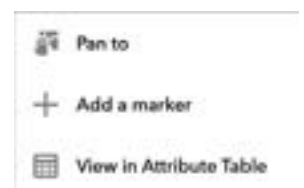
1. The title, indicating what indicator this map is displaying
2. The unique Census Tract number
3. What category the specific census tract falls under for your given indicator (listed as a decile, number, etc.)
4. The total population number
5. Demographics of the population within that census tract.



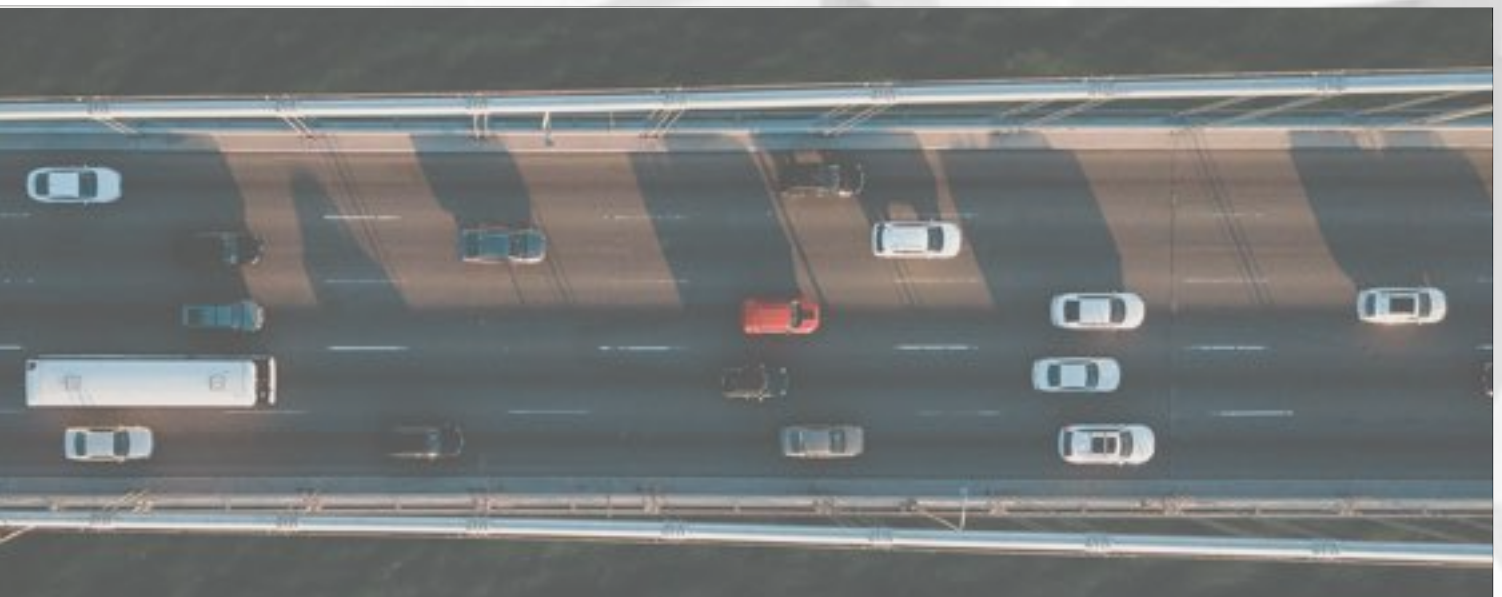
Census Tract	
Census Tract	050710001
Census Tract (Decile)	05 to 70
Total Population	2,115
% Non-Hispanic White	48
% Black	9
% Hispanic	34
% Asian	3
% Native Hawaiian & Other Pacific Islander	0
% American Indian & Alaska Native	0
% Poverty	36

Press “Zoom to” in the bottom left corner to zoom the map scale to the selected tract. Press the three dots in the bottom right corner for a list of options:


1. “Pan to” re-centers the selected tract to the middle of your screen
2. “Add a marker” places a marker on the tract so that it may be located easily if zoomed out to a greater extent
3. “View in Attribute Table” will cause the attribute table with information to appear at the bottom of your screen which can be exported if desired




Close the pop-up window by pressing the X in the top right corner of the window box.



► Turning on Data Filtering Tools

Select the **Filter Tool**  from the main panel of widgets. You can utilize a single filter or a combination of filters to analyze patterns across California. Once filters have been

selected, make sure the switch within the legend at the top of the filter list is green, indicating that the map has been turned 'on'.  The various filters operate as follows:

Geography Filters

- County is: (select a county)
- Metropolitan Planning Organization is: (select an MPO)
- SB 535 Disadvantaged Communities is: (select yes or no)
- AB 1550 Low-Income Communities is: (select yes or no)
- Area Median Income (Regionally Adjusted) is: (select a percentage range)

Socio-Demo-Econ

- Median Household Income is Between: (enter a range of values)
- % Poverty is between: (enter a range between 0 and 100)
- Largest Ethnoracial Group is: (select an option)
- Population Density (Decile) is: (select a range of deciles)
- Job Density (Decile) is: (select a range of deciles)
- Neighborhood Change, Socioeconomic Variables (Decile) is: (select a range of deciles)

Transportation

- Auto Insurance Premium (Decile) is: (select a range of deciles)
- Lending Barriers (Decile) is: (select a range of deciles)
- Newer Clean Vehicles (Decile) is: (select a range of deciles)
- Older Clean Vehicles (Decile) is: (select a range of deciles)
- Clunker Vehicles (Decile) is: (select a range of deciles)
- Average VMT per Household (Decile) is: (select a range of deciles)
- Average Commute VMT (Decile) is: (select a range of deciles)
- Vehicles per Household is between: (enter a range of values)
- % Households with No Vehicle is between: (enter a range of values)
- % Drove Alone for Job Commute is between: (enter a range between 0 and 100)
- % Carpooled for Job Commute is between: (enter a range between 0 and 100)
- % Public Transportation for Job Commute is between: (enter a range between 0 and 100)
- % Bike for Job Commute is between: (enter a range between 0 and 100)
- % Walk for Job Commute is between: (enter a range between 0 and 100)
- Average Travel Time to Work (Minutes) is between: (enter a range of values)

Accessibility Measures

- Access to High-Quality Transit Locations is: (select an option; consult guidebook) *see note below
- Availability of Weighted Bikeways per Population is: (select an option; consult guidebook) *see note below
- Availability of Parks & Public Open Space per Population (Decile) is: (select a range of deciles)
- Accessibility to Employment Opportunities (Decile) is: (select a range of deciles)
- Jobs-Housing Fit (Decile) is: (select a range of deciles)

Housing

- Housing Unit Density (Decile) is: (select a range of deciles)
- % Multi-Family Housing Units is between: (enter a range between 0 and 100)
- % Renter-Occupied Households is between: (enter a range between 0 and 100)
- % Households Paying 30 - 49% of Income Towards Housing Costs is: (enter a range between 0 and 100)
- % Households Paying 50% or More of Income Towards Housing Costs is: (enter a range between 0 and 100)
- Neighborhood Change, Housing Variables (Decile) is: (select a range of deciles)

Health

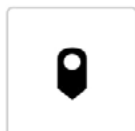
- % with Medicaid Health Insurance Only is between: (enter a range between 0 and 100)
- % No Health Insurance is between: (enter a range between 0 and 100)
- Life Expectancy at Birth is between: (enter a range of values, in years)
- Traffic Collisions per Weighted Roadways (Decile) is: (select a range of deciles)
- Primary Care Shortage Areas is: (select yes or no)
- Walkability Index (Decile) is: (select a range of deciles)
- Asthma Prevalence (Decile) is: (select a range of deciles)
- Cardiovascular Disease (Decile) is: (select a range of deciles)

**Both high-quality-transit location and availability of bikeways indicators cannot be reported as decile rankings due to the nature of the data (see report for further details). For both of these indicators, the higher the filter value the more access to a high-quality-transit location or more availability of bikeway infrastructure. A value of "0" represents no access to a high-quality-transit location or no availability of bikeway infrastructure.*

More information for each indicator can be found in the full report, available at: [link placeholder]

► Exploring Data with Spatial Query Tools

The **spatial query tool** can be used to select and analyze certain census tracts or groups of tracts. Shapes can be drawn over the map, then tracts that intersect with the shape's area can be analyzed. There are 10 different methods of drawing points or shapes, depending on how you want to spatially filter the data. These specifications can be found under the "Tasks" section of the spatial query tool:



Point: The point tool allows you to place a point anywhere on the map and analyze the census tract in which the point is placed. Select the point icon, then select anywhere on the map. You will see a small gray point appear where you clicked on the map. If you want to place your point somewhere else, simply reselect the point icon and click a new location on the map where you prefer to analyze.



Line: The line tool allows you to draw a straight line anywhere on the map and then analyze tracts that intersect with that line. Select the line icon, then click and hold anywhere on the map. Continue holding as you drag your cursor for a desired length and direction over the map. Release when you are satisfied with the line. You should see a blue dotted line appear where you drew. If you want to change the location of your line, simply reselect the line icon and follow the same steps for a new location.



Polyline: The polyline tool allows you to draw multiple segments of straight, connected lines anywhere on the map and then analyze tracts that intersect with that line. Select the polyline icon, then click anywhere on the map. Move your cursor to your desired location and click again to complete a segment. Continue clicking and releasing for each segment. Once satisfied with your polyline, double-click to complete the line. If you want to change the location of your polyline, simply click the polyline tool again and follow the same steps for a new location.



Freehand Polyline: The freehand polyline tool allows you to draw a freehand line (not necessarily straight) anywhere on the map and then analyze tracts that intersect with that line. Select the freehand polyline tool, then click and hold anywhere on the map. Continue holding as you move your cursor around the map. The freehand polyline will trace where you move your cursor. Release when you are satisfied with the line. You should see a blue dotted line appear where you drew. If you want to change the location of your line, simply reselect the freehand polyline icon and follow the same steps for a new location.



Triangle: The triangle tool allows you to draw a triangle of any size anywhere on the map and then analyze tracts that intersect that triangle. Select the triangle tool, then click and hold anywhere on the map. Continue holding as you move your cursor out and in, changing the size of the triangle but remaining centered around your initial click location. Release when you are satisfied with the triangle. You should see a translucent blue triangle appear on the map. You may also simply click and release immediately for a generic sized triangle shape. If you want to change the location of your triangle, simply reselect the triangle icon and follow the same steps for a new location.



Extent: The extent tool allows you to draw a rectangle of any size anywhere on the map and then analyze tracts that intersect that triangle. Select the rectangular extent tool, then click and hold anywhere on the map. Continue holding as you move your cursor around, changing the size of the rectangle while one corner remains anchored around your initial click location. Release when you are satisfied with the extent. You should see a translucent blue rectangle appear on the map. If you want to change the location of your extent, simply reselect the extent icon and follow the same steps for a new location.



Circle: The circle tool allows you to draw a circle of any size anywhere on the map and then analyze tracts that intersect that circle. Select the circle tool, then click and hold anywhere on the map. Continue holding as you move your cursor out and in, changing the size of the circle but remaining centered around your initial click location. Release when you are satisfied with the circle. You should see a translucent blue circle appear on the map. You may also simply click and release immediately for a generic sized circle shape. If you want to change the location of your circle, simply reselect the circle icon and follow the same steps for a new location.



Ellipse: The ellipse tool allows you to draw an ellipse of any size on the map and then analyze tracts that intersect that ellipse. Select the ellipse tool, then click and hold anywhere on the map. Continue holding as you move your cursor out and in, changing the size of the ellipse but remaining centered around your initial click location. Release when you are satisfied with the ellipse. You should see a translucent blue ellipse appear on the map. You may also click and release immediately for a generic sized ellipse shape. If you want to change the your ellipse's location, reselect the ellipse icon and follow the same steps.



Polygon: The polygon tool allows you to draw a polygon of any size or shape with straight edges anywhere on the map and then analyze tracts that intersect that polygon. Select the polygon tool, then click anywhere on the map. Move your cursor to your desired location and click again to complete a segment. Move and click again to add another side. Continue adding your desired number of sides then double-click when you are satisfied. Note that the polygon must have at least 1 side (two clicks) making a line. If you cross sides over one another, a negative area may appear. You should see a blue translucent polygon specifying the areas of analysis appear on the map. If you want to change the location of your polygon, simply click the polygon tool again and follow the same steps for a new location.



Freehand Polygon: The freehand polygon tool allows you to draw a polygon of any size or shape with anywhere on the map and then analyze tracts that intersect that polygon. Select the freehand polygon tool, then click and hold anywhere on the map. Move your cursor to draw a freehand polygon shape and release when completed. If you cross sides over one another, a negative area may appear. You should see a blue translucent polygon specifying the areas of analysis appear on the map. If you want to change the location of your polygon, simply click the tool again and follow the same steps for a new location.



Clear: If at any point you want to clear a drawn shape, either select your desired tool and redraw, or press the red icon with the exclamation point within a triangle to clear the drawn shapes.

▷ Applying a Search Distance



1. After a shape is drawn, you can specify a search distance to increase the area of analysis. Check the box labeled "Apply a search distance" and type a number and select the units.



2. You will see your shape along with a slightly more translucent blue border around it, visualizing the specified search distance. If you do not want a search distance, either uncheck the box or type a value of zero.



3. Once satisfied, you may rename the resulting layer (optional). Then select the green button at the bottom labeled "Apply"



4. Upon pressing "Apply", the tool will bring you to the "Results" section of the spatial query tool and zoom to the selection of tracts that you selected with your shape. You can then click on any tract in the list to zoom to that specific tract.



5. To show or hide the information about a tract in the results window, click on the small up arrow in the upper right corner of the tract's information section. If you want to display or hide the information for all tracts, press the symbol consisting of lines and an arrow. This will either collapse or expand all results depending on if you have your information sections open or closed currently.

Note:

You can only draw one singular spatial-filter shape at any time. Once you begin to draw a new shape, whether of the same type as the previous shape or a new type, your old shape will disappear and be replaced by the new drawing. **24**

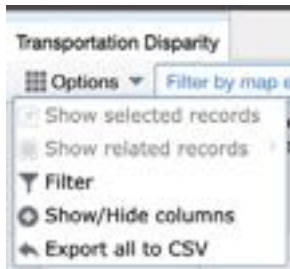
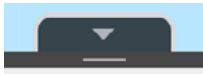
► How do I export data?

How do I export as a CSV file?

Click on the small black box with the arrow at the bottom of the page to bring up a table with data on indicators by census tract. You can drag the top of the table up and down to change how much of it you want to see, and at any point you can click the black arrow again to hide the table and return to the map view.

Within this table, you can choose to filter the tracts by clicking "Options" -> "Filter". You can also choose to show or hide column options by clicking "Options" -> "Show/Hide columns" then checking the columns you desire in the window that pops up.

To export the data table as a comma separated value file (.csv), click "Options" -> "Export all to CSV" then click "OK" in the window that pops up.



How do I export a map image?

To print the map, select the "Print" widget from the list of options. Within the widget, you can specify the Map title, Layout, and Format. The following file type options are available under "Format":

- AIX
- EPS
- GIF
- JPG
- PDF
- PNG32
- PNG8
- SVG
- SVGZ

(PDF, JPG, and PNG are the most common formats)

Customize your map using the options in the "Advanced" window as follows:

1. Preserve:

- Map scale: the level of zoom will be preserved
- Map extent: the extent of the map seen on screen will be preserved
- Forced scale: type your own scale, or press current to use the current scale

2. Output spatial reference WKID:

- Enter the WKID for the spatial reference. For example, "WGS_1984_Web_Mercator_Auxiliary_Sphere" has a WKID of 102100

3. Layout metadata:

- Check or uncheck "Include legend"
- Scale bar unit: Miles, Kilometers, Meters, or Feet

Once desired options have been selected, click "**Print**". Once completed, a map image file will be displayed. Click on it to send to a printer or download in the file format specified. Press "**Clear prints**" to remove previous print layouts.





TRANSPORTATION CASE EXAMPLES



The following are four case examples that use data from the Transportation Disparities Database to explore the relationship between transportation and health, and the causes, characteristics, and consequences of transportation disparities. The examples highlight how different stakeholders working on related policies, plans, and programs, used the information to enhance the effectiveness of transportation-related investments, interventions, and other efforts to improve employment, educational, and health outcomes.

Case Examples



1. Bikeway Planning in the South Bay
2. Understanding Transit Barriers to Health Care Access in Oakland
3. Determinants of Active Transportation in California
4. Heterogeneity Among Disadvantaged Neighborhoods

► Bikeway Planning in the South Bay

- Indicators of use: Availability of Weighted Bikeways per Population; Traffic Collisions per Weighted Roadways
- Purpose: Informing bikeway planning

This case example describes a plan for full implementation of a master bikeway plan in Los Angeles County's South Bay. The South Bay is a coastal area in southwest Los Angeles County that includes the relatively affluent cities of Hermosa Beach, Manhattan Beach, and Redondo Beach. The community group South Bay Bicycle Coalition (SBBC) is advocating for these bikeways to promote more active transportation and improved safety in these cities. SBBC is a 501(c)(3) nonprofit founded in 2009 by a group of bike-loving advocates. The areas where the proposed bikeway would exist is relatively high income and predominantly non-Hispanic White.

Specifically in Redondo Beach, SBBC hopes to implement its 38.8 miles Bicycle Master Plan that would connect existing bikeway infrastructure to their proposed bike paths, lanes, and routes. The Bicycle Master Plan in Redondo Beach is aimed at connecting schools, businesses, services, and recreation venues as a way to promote wellness, increase access to low-cost transportation, and reduce traffic and greenhouse gas emissions.

The analysis involved:

-
1. **REVIEW OF CARB INDICATOR MAPS:** SBBC analyzed "availability of bikeway" and "vehicle accident" indicator maps to get a better understanding of the area's need and ability to support new bikeways.
-
2. **GATHERING MORE DATA:** SBBC supplemented the indicator maps with additional data on "bicycle accidents". SBBC used UCLA-CARB metadata to find the source of the accident data, which allowed them to better understand where the greatest bicycle safety concerns were located.
-
3. **ANALYSIS OF SUPPLEMENTAL DATA:** SBBC further analyzed 2019 and 2020 cycle counts to complement the "availability of bikeway" indicator maps. While the availability maps provided a picture of the supply of bikeway infrastructure, the raw 2019 and 2020 cycling counts provides a picture of the demand (usage) of bikeways.
-
4. **COLLABORATION WITH REGIONAL OFFICES:** Working alongside the regional office of the Los Angeles County public health department, the analysis of cycling counts showed that there was an increase in cycling in Redondo beach during the COVID-19 pandemic.
-
5. **PRESENTATION OF DATA ANALYSIS TO CITY:** Using UCLA CARB and supplemental data, the SBBC presented this information to the Redondo Beach City Council and city staff to increase awareness and encourage bikeway development.
-

- 6. RESULTS:** Starting with UCLA CARB data, the SBBC used their supplementary data to construct two maps of the north and south portions of North Redondo Beach (see Map 1.1 and Map 1.2, respectively) that showed existing and proposed bikeways. The organization documented existing bikeways and illustrated where new paths, lanes, and routes should be developed. The South Bay Bicycle Master Plans was developed into a presentation to be pitched at the upcoming Commission and City council meetings.

*Map 1.1: North Redondo Beach
Existing and Proposed Bikeways*



*Map 1.2: South Redondo Beach
Existing and Proposed Bikeways*



► Understanding Transit Barriers to Health Care Access in Oakland

- Indicators of use: Availability of Weighted Bikeways per Population; Traffic Collisions per Weighted Roadways; % No Health Insurance; Primary Care Shortage Areas
- Purpose: Enhancing health service provision

This case example develops a service area profile using demographic data from the Transportation Disparities Database to measure geographic access to medical care by public transit and understand transit barriers. The purpose of the analysis was to help Asian Health Services gain a better understanding of the population and health-care providers within a reasonable bus trip from their clinic to enhance their health service provision. Asian Health Services in Oakland aims to serve the underserved, especially Asian immigrants and refugees, and provides health care services in 15 languages as well as advocacy services.

The analysis involved five steps:

- 1. DEFINING A SERVICE AREA OF INTEREST:** To define the service area and boundary, we used the location of Asian Health Services' medical clinic in Oakland as our starting point to define a "catchment area," a proxy for a reasonable service area within a bus ride.
- 2. OVERLAY OF CENSUS GEOGRAPHIES:** Next, we determined what constitutes a reasonable bus trip. The U.S. Department of Health and Human Services deems that 30 minute is a reasonable travel time to access health care. To determine the geographic areas within the allowable travel time, we use the Google Maps API platform to identify all census block groups reachable during a 30-minute bus trip from the clinic. The block groups are subunits of census tracts, which make it easy to join our "catchment area" with other census-based products and the Transportation Disparities Database. Map 2.1 provides an overview of the boundaries of our catchment area of interest.
- 3. LOCATING & MERGING VARIABLES FROM TRANSPORTATION DISPARITIES DATABASE:** We identified four variables from the Transportation Disparities Database that are relevant to helping us understand the providers and characteristics of the population within a 30 minute bus ride from Asian Health Services:
 - population race/ethnic breakdown
 - % of the population in poverty
 - % of households without a car
 - % residents without health insurance
- 4. LINKING WITH EXTERNAL DATA:** In SAS, we linked the Transportation Disparities Database variables of interest to our catchment area using the census tract ID and other external data of interest, including the number of primary care physicians providers that accept Medi-Cal, a public health care program for those with limited income.

- 5. RESULTS:** We produced three types of statistics as part of our profile. The first summarizes the geographical characteristics of the catchment area. The area is about 31 square miles and the distance accessible within a 30-minute bus ride is less than 4 miles. The second statistics are selected demographic characteristics of the area, which shows the service area is disproportionately people of color, low income and transit dependent relative to California. Finally, the third set measures the number of Medi-Cal enrollees and Medi-Cal providers, and health insurance coverage. The data indicate there is about 1 medical provider per 70 people in the catchment area. About 11% of the population does not have health insurance coverage within the service area (see Map 2.1 and Table 2.1).

Map 2.1: Asian Health Services Catchment Area



Table 2.1: Transit-Accessible Service Area Profile

Area Accessible Within a 30-minute Bus Ride from Oakland Clinic		
Area (mi ²)		30.6
Median Distance (mi)		3.3
Mean Distance (mi)		3.7
Demographic Characteristics of Area		
	Catchment Area	California
Total Population	340,339	38,982,847
Non-Hispanic White	29.5%	37.9%
Non-Hispanic Black	18.7%	5.5%
Non-Hispanic Asian	21.2%	13.9%
Hispanic	24.2%	38.8%
Below Federal Poverty Level	19.8%	15.1%
Households w/o vehicle	18.8%	7.4%
Medical Care Characteristics of Area		
Percent Population with Medicaid Only	19.8%	18.9%
Percent Population Not Insured	10.8%	10.5%
Total Medi-Cal Providers	955	52,539
Medi-Cal Providers to Medicaid-only Population	1:70	1:138

► **Determinants of Active Transportation in California**

- Indicators of use: Availability of Parks & Public Open Space per Population; Access to High-Quality Transit Locations
- Purpose: Academic research on walking

This case example uses data from the California Health Interview Survey at the zip code tabulation area (ZCTA) and accessibility measures from the Transportation Disparities Database to examine the determinants of walking in California's neighborhoods. The analysis uses ecological regression models to inform both disciplinary knowledge and professional practice related equitable community development policies and practices.

The statistical analysis involved three steps:

1. LOCATING & MERGING VARIABLES FROM TRANSPORTATION DISPARITIES DATABASE:

We identified four variables from the Transportation Disparities Database that are relevant to helping us understand determinants of walking in California's neighborhoods: park and open space availability, EPA Walkability, high-quality transit locations, and % households without a vehicle.

2. LINKING WITH EXTERNAL DATA: In SAS, we linked the variables of interest from the Transportation Disparities Database to information from the California Health Interview Survey and the American Community Survey at the ZCTA level. The Transportation Disparities indicators, which are at the census tract level, were allocated to the ZCTA geographies using area weights.

3. RESULTS: Using multivariate ecological regression, we modeled the propensity of walking on the linear combination of variables related to demographic, health, socioeconomic status, environmental, and the accessibility measures from the Transportation Disparities Database. The measures were subsequently reviewed to assess the relative importance in the prediction of walking propensity. The regression results are presented in Table 3.1 for three models. The first model examines only the relationship between ethnoracial composition and walking. The second model includes controls for other relevant measures, and the final parsimonious model includes only variables that are statistically significant as well as racial and ethnic composition.

The regression models indicate that neighborhoods with higher percentages of Latinos correlate with a lower propensity of walking, but the direction of the relationship for Latinos changes when controlling for other factors as does the magnitude of the coefficients, as shown in model 2 and the parsimonious model 3. There is an unexpected positive correlation between propensity of walking and heart disease. The negative correlation between walking and lifetime asthma prevalence is not significant and an inverse relationship between walking and child dependency, air pollution, and poor access to parks is observed. Measures of socioeconomic status and access to neighborhood resources perform as expected. For instance, higher household income and educational attainment is associated with an increase in walking. While not shown, there is also a threshold effect for parkland access.

Neighborhoods with the worst parkland access ("park deserts") play a detrimental effect on walking. However, there is no relationship between park-rich areas and walking. There is also a positive relationship between walking in neighborhoods with a higher proportion of workers that commute to work by walking, with no vehicle, and with access to public transit. One interesting relationship is the positive association with bike/pedestrian collisions, which could indicate people are walking in higher-risk environments. Traffic collisions are higher along major arterials, and this is often where commercial, retail, and other neighborhood resources may be located and where people would walk in these neighborhoods (see Table 3.1).

Table 3.1: Walking Ordinary Least Squares Regression

	Model 1: Ethnorace	Model 2: Full	Model 3: Parsimonious
Independent Variables	n = 1,489	n = 1,403	n = 1,413
Demographic			
% Asian	0.106 ***	-0.024 +	-0.019 *
% Black	0.075 ***	-0.005	-0.001
% Latino	-0.029 ***	0.062 ***	0.065 ***
% Other	0.020	0.099 ***	0.093 ***
Child dependency ratio		-0.024 *	-0.029 **
Elderly dependency ratio		0.007	
Foreign born		0.001	
Other Health Indicators			
% Lifetime asthma		-0.046	
% Heart disease prevalence		0.174 **	0.199 ***
Socioeconomic Position			
Median household income (log)		0.017 ***	0.016 ***
% College degree		0.117 ***	0.124 ***
Chemical Environment			
Ozone ppm		-0.981 ***	-0.945 ***
PM2.5 µg/m3		-0.002 ***	-0.002 ***
Average heat days		0.000	
Built Environment			
Park desert		-0.009 ***	-0.008 ***
Bike + ped/bike network density		1.850 ***	1.904 ***
EPA walkability (1-20)		0.000	
Accessibility to Neighborhood Resources			
% Workers commute by walking		0.060 **	0.060 **
% Households with no vehicle		0.183 ***	0.190 ***
% Pop with high-quality transit access		0.051 ***	0.054 ***
Constant	0.316 ***	0.106 *	0.114 **
Adjusted R-Squared	0.100	0.632	0.640

Probabilities: +p < 0.10; *p < 0.05; **p < 0.01; ***p < 0.001.

► Heterogeneity Among Disadvantaged Neighborhoods

- Indicators of use: UCLA Center for Neighborhood Knowledge's Regional Area Median Income (AMI); Availability of Weighted Bikeways per Population; Traffic Collisions per Weighted Roadways
- Purpose: Promoting active transportation in disadvantaged neighborhoods by identifying neighborhoods most in need of bikeway funding (hypothetical scenario)

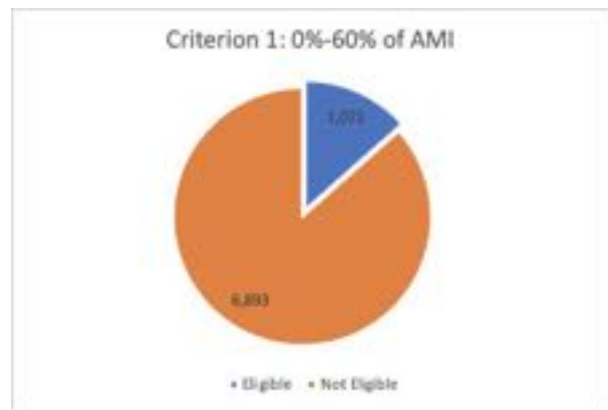
Although disadvantaged neighborhoods are similar in many ways, they can differ from one another in the causes, characteristics, and consequences of transportation disparities. It is therefore critical to be able to differentiate disadvantaged neighborhoods by their specific transportation needs, challenges, and opportunities. The transportation disparity dataset can be used to reveal this heterogeneity among disadvantaged neighborhoods. We provide an example of this using a hypothetical scenario.

The hypothetical statewide policy goal is to increase active transportation in the poorest neighborhoods by funding bikeways. Because of limited funds, the public agency must identify and prioritize places that are invited to submit a proposal.

There are three initial steps:

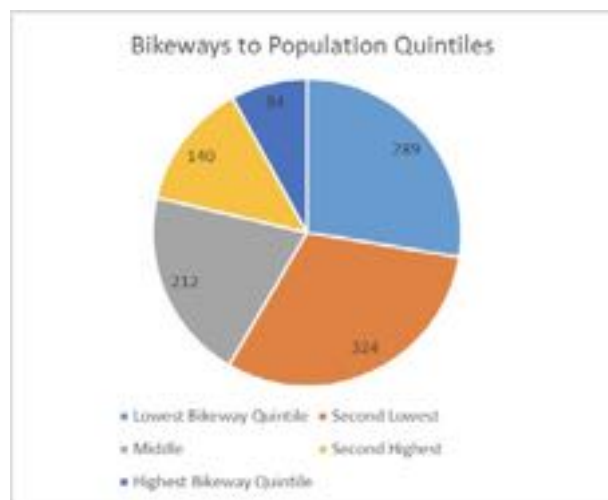
1. **The first step** is identifying the eligible neighborhoods by defining poorest tracts as having median household income that is no more than 60% of the regional median household income. Out of 7,966 tracts with AMI data, 1,071 or 13.4% fulfill this criterion (see Figure 4.1).

Figure 4.1



2. **The second step** is identifying the poorest tracts (those with no more than 60% of regional AMI) with the lowest bikeway-to-population ratio, which is defined as those falling into the lowest quintile for the bikeway-to-population index. It is important not to wrongly assume a priori that all low-income neighborhoods are the same in bikeway infrastructure. The data show considerable heterogeneity or diversity among poor neighborhoods, with at least some tracts falling into each of the bikeway-to-population categories. Nonetheless, the lowest-income tracts are disproportionately more likely to fall into the quintile with the least bikeway resources. Among the 1,049 lowest-income tracts with data on bikeways, 289 or 27.0% fall into the lowest bikeway quintiles, and these neighborhoods fulfill the second criterion (see Figure 4.2).

Figure 4.2



3. **The final step** is to prioritize choices among the 289 tracts by promoting safety. Here, we use traffic collisions per weighted roadways by quintile to categorize risk in the neighborhoods. Again, the data shows heterogeneity among the places, although all are among the poorest in income and bikeways. There are 29 tracts in the lowest quintile (safest), 14 in the second lowest, and 30 in the middle segment. Which neighborhoods are invited to compete depends on other considerations such as the amount of available funding and the agency's capacity to review applications.

What else can the Mapping Tool be used for?

▷ Policy

Simulations of different criteria and standards to examine which neighborhoods would be covered by a policy. For example, users can use two or more filters and thresholds to simultaneously identify areas that would be covered by a policy.

▷ Program

Identifying neighborhoods or other areas that fulfill **programmatic criteria**. For instance, using the spatial filters to highlight census tracts with few clean vehicles.

▷ Professional Practice

Develop profiles of the transportation resources and transportation needs of a neighborhood that may be used for **community planning efforts**. This can be done by identifying two or more census tracts that constitute a planning site.

▷ Individual Stakeholders

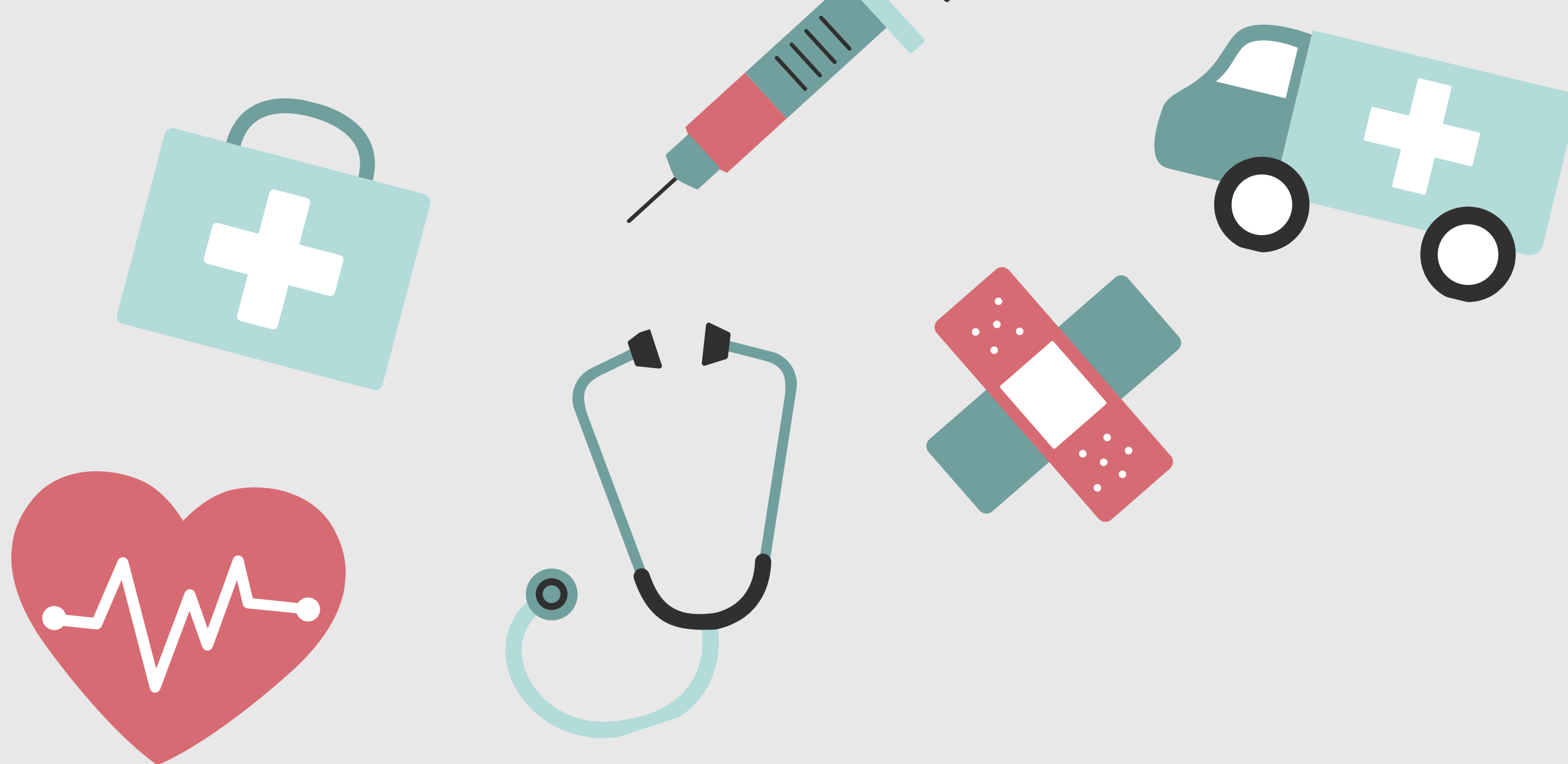
Look up information about their specific neighborhood. For example, a user can use the address search bar to locate their neighborhood and learn more about the resources or issues impacting their neighborhood.



Haseeb Jamil

Principal Investigator: Paul M. Ong
Research Team: Silvia R. González, Megan Potter,
Chhandara Pech, Abigail Fitzgibbon,
Jonathan Ong





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TRAINING LOCATION TO FOLLOW



Volunteer Center Q2 Report Narrative FY 21_22

Purpose and Standard

Every quarter, we gather, review and report activity and outcome information to our leaders, community leadership and our funders. The purpose of the narratives is to highlight the positive impact of our work and to paint a brief picture of what is happening in our programs.

1. Inspiring Quotes:

Consistently, Transportation and, especially, Grocery Shopper Program participants reach out to us to share anecdotes of the companionship and warmth they receive from their friendship with volunteers. Two standouts this quarter were from Laura and Pat.

Laura shared that, "The person that's been shopping for me is just a very kind hearted person. She is sociable and that helps me since I've been in isolation for quite some time since my best friend/husband passed away due to COVID-19. So she's just been...it's really been great to have her to socialize with a bit. Thank you, so much."

Similarly, Pat shared that, "I wanted to pass along a good report of [my volunteer]. He took me grocery shopping and he just made it go by so fast. It just wasn't so hard with him helping me. He was wonderful...I think you folks are great. You've all been so kind to me over the phone and you must be terribly busy. I'll say one last thing: He made grocery shopping fun and that's hard to do. So please pass that along to all of your volunteers and staff. Thank all of you for all that you do for all of us. We really appreciate you folks. You have no idea."

2. We're proud of...

In partnership with the Volunteer Center's holiday Adopt-A-Senior program, fifteen Transportation and Grocery Shopper Program clients were matched with donors from the community who provided wrapped, holiday gifts for their senior participants. As we heard from many of the participants, these gifts meant the world to them.

From Joslyn, "Thank you so much for coordinating these wonderful Christmas gifts. I was alone this season and opening these presents meant the world to me."

From Ariana, "After [the] unexpected death of my beloved cat...it's been an extremely difficult holiday season. Your thoughtfulness to include me in your Holiday Gifts for Seniors...truly was a blessing amidst grief."

3. We're out in the community...

(Presentations, publications, campaigns and new partnerships)

During the past quarter, our Transportation Program was featured in another article published in the Santa Cruz Sentinel. We also mailed a seasonal newsletter to all of our clients and volunteers around the Thanksgiving Holiday which introduced new volunteers and provided program updates.

4. Other News...

This quarter we continued to see a steady increase in the number of ride requests (as opposed to grocery requests) we received. The number of ride requests received increased by 35% while the number of grocery requests dipped slightly to 95% of the previous quarter. We expect this trend to continue in the 3rd and 4th quarters of the year as more seniors feel comfortable navigating the world again.

Powerful Story Tips

A story is never a description of what you or we did, **a story is a brief description about how a person, group or partner of ours changed or accomplished something.** We are telling inspiring stories of transformation only!

We are never the star or the hero of the story, but we are essential to the transformation. We are the Fairy Godmother in Cinderella, or the Genie in Alladin. **We are the person or tool that facilitates the hero's change.**

A story has a **beginning** that describes the person or partner who is the star or hero – including their challenges and/or their goals;
a **middle** that describes the actions taken with or through us;
a **happy ending** that summarizes what is different or better for that person, group or in the community.

Do Not...

- ...use jargon or trade language
- ...use clinical language
- ...refer to yourself directly – *I did this*
- ...refer to yourself or another staff member by title – *The Coordinator did...*
- ...Simply describe program activities

Do...

- ...Quote thank-yous and positive feedback directly
- ...use clear, simple language
- ...be personal and descriptive
- ...use first names and personal pronouns
- ...refer to your program by name or use the pronouns *We & Our*
- ...use the names of specific volunteers

Accurate, but not great	Much Better!!!!
<i>Gloria expressed her gratitude for</i>	<i>"I can't thank you enough" wrote Gloria</i>
<i>MH has social anxiety disorder and anger management issues that interfered with school and work</i>	<i>MH struggled in school, couldn't keep a job and had trouble making friends because of her disability</i>
<i>One parent we helped needed</i>	<i>Joe needed; JS needed</i>
<i>When I first met Jane, she was withdrawn</i>	<i>When Jane first came to College Connection</i>
<i>After 6 months with a volunteer tutor</i>	<i>Our volunteer Blanca tutored her for 6 months</i>

Volunteer Center of Santa Cruz County
Transportation Program - TDA funding

Volunteer Center Transportation/Grocery Shopper Program

	Q2 2021-2022			
	<u>Santa Cruz</u>	<u>San Lorenzo Vale</u>	<u>Watsonville</u>	<u>Totals</u>
Active Volunteers	70	10	5	85
Total Participants	99	13	14	126
Total Requests	681	234	220	1135
Requests unable to fill				52
Unfilled requests referred other agencies				17
Requests cancelled by client				82
<u>Fulfilled "Rides"/Destination by Purpose</u>	<u>October</u>	<u>November</u>	<u>December</u>	
Physician	42	32	34	108
Shopping and Medications	712	754	625	2091
Low Vision Center	0	0	0	0
Clinishare Dialysis Rides	2	4	2	8
Other	0	0	0	
Total				2207
<u>Avg trip length (Q1)</u>	18			
<u>Total Miles driven (Q1)</u>	14,109			

E & D TAC Pedestrian Hazard Reports

4/5

Date	First Name	Last Name	Location	Cross Street	City	Category	Additional Comments	Forwarded to	Forwarded Date	Response
03/04/22	Becky	Steinbruner	Freedom Blvd	Soquel Dr	Santa Cruz	Ped: Other	The Cabrillo Lions Club volunteers maintain the World War I Veterans Memorial Monument Garden at the corner of Freedom Boulevard and Soquel Drive. We have experienced close-calls with motorists on Freedom Boulevard who approach the intersection to make a right turn onto westbound Soquel Drive, especially if the traffic signal at the intersection is green for the Freedom Boulevard approach to Highway One. Several times some of our elderly volunteers have had near-collisions with vehicles speeding close by, preparing to make a right turn onto Soquel Drive. We have also witnessed pedestrians crossing there to access the Metro stop nearby nearly being hit. We have determined it is a dangerous area, and are especially concerned about sight-impaired pedestrians being especially at-risk of potentially fatal accidents at this crossing. As a public service organization whose primary goal is to help low-vision and blind people, the Lions Club volunteers are worried about the safety of this intersection and hope that ADA accessible lights with audible crossing signalization can be installed very soon to improve public safety. I hope that you will respond to let me know what improvements, if any, may already be scheduled for this intersection.	DPW	03/07/22	3/7/22 Jana Vargas: Good afternoon, Thank you for your email. I will forward to our Traffic Division for review and response. 3/7/22 Becky Steinbruner: Dear Dept. of Public Works, Thank you for looking into this hazardous situation.
03/03/22	Connie	Wilson	148 Delaveaga Park Dr	N/A	Santa Cruz	Ped: Plant overgrowth or interference, Lack of sidewalk, Excessive driveway slope, Other	We walk in this section multiple times a week as we walk into delaveaga park above prospect At this particular intersection cars are traveling at a fast rate of speed downhill and often look to their left and roll stop or do not stop at all. We have had multiple near misses. The stop sign is somewhat covered with a branch of a shrub and the pavement marked stop needs attention and repainting. There is no sidewalk and following the rules of the road we walk on the opposing side of traffic - facing on coming traffic. Please address this concern before someone is injured. There are many pedestrians in our area. Thank you.	Claire Gallogly, Nathan Nguyen, Dan Estranero	03/07/22	4/4/22 Dan Estranero: We are looking into changing layout of the intersection to reduce speeds of vehicles going south from Upper park and turning right onto Delaveaga. The design is not completed yet, but we are working on it.
02/24/22	T	D	544 W Cliff Dr	N/A	Santa Cruz	Ped: Lighting problem	Dark. Need more lights to be safe on the bike trail at night.	Claire Gallogly, Nathan Nguyen, Dan Estranero	03/07/22	No response requested
02/22/22	Warren	Forest	River St	Front St	Santa Cruz	Ped: Other	Homeless person living on bus bench. Even if this person leaves, I would not want to use the bench without it being cleaned.	Forwarded to Metro	04/04/22	Sent to new contact at METRO on 4/4/22
02/02/22	Debbie	Bulger	Laurel St	California St	Santa Cruz	Ped: Plant overgrowth or interference, Debris on sidewalk	There is a nice wide sidewalk here which would allow pedestrians to walk farther away from speeding vehicles, but most of the sidewalk width is blocked by overgrown plants. The sidewalk should be cleared all the way to the wall. Also water is running down the sidewalk which makes the walkway very slippery. The water is most likely related to the vegetation and lack of maintenance. You can see the water in the photo. In the past during cold weather, there has been ice and people have slipped and injured themselves.	Claire Gallogly, Nathan Nguyen, Dan Estranero	02/08/22	2/8/22 Dan Estranero: We will send a letter to the property owner to trim the vegetation.

E & D TAC Pedestrian Hazard Reports

4/5

Date	First Name	Last Name	Location	Cross Street	City	Category	Additional Comments	Forwarded to	Forwarded Date	Response
02/02/22	Janine	Honey	3940 Glen Haven Rd	N/A	Soquel	Ped: Other	Wire hangs down from utility pole and sometimes blows into bike path and roadway.	DPW	02/08/22	3/7/22 Jana Vargas: Good morning, Thank you for your email. I will forward to our Road Maintenance Department for review and response. 2/9/22 Road Maintenance Dispatch: Crew notified.
01/21/22	Richard	Stover	111 Mission St	Cedar St	Santa Cruz	Ped: Traffic signal problem	The ped crossing button at this corner has an LED to indicate it is activated but the LED does not light. This type of button normal make a noise when the button is pushed but the sound does not happen. This type of button does not move when pushed, so without the other indicators there is no way for the ped to know if the crossing ped head will be activated. I've seen peds dash across the street at this corner with the broken crossing button.	Claire Gallogly, Nathan Nguyen, Dan Estranero	01/24/21	1/25/22 Dan Estranero: We will have our Street Maintenance crew take a look at this.
01/21/22	Richard	Stover	Front St	Soquel Ave	Santa Cruz	Ped: Traffic signal problem	Ped head at Soquel and Front (New Leaf corner) has been rotated so it is not visible to peds trying to cross Front.	Claire Gallogly, Nathan Nguyen, Dan Estranero	01/24/21	1/25/22 Dan Estranero: We will forward this to our Street Maintenance department.

TO: Elderly and Disabled Transportation Advisory Committee (E&D TAC)
FROM: Amanda Marino, Transportation Planner
RE: Elect Committee Chair and Vice Chair

RECOMMENDATIONS

Staff recommends that the E&D TAC solicit nominations, then elect a chair and vice chair for the committee for a period of one or two years.

BACKGROUND

Below is an excerpt from the RTC/Committee's rules and regulations:

A Chairperson and Vice Chairperson for each Committee shall be elected to serve for a term of one year. The Committee shall elect its officers at the first meeting following the March SCCRTC meeting of every year. Election shall be by a roll call vote. The Chairperson shall preside at all meetings of the Committee. The Chairperson shall maintain order and decorum at the meetings, decide all questions of order, and announce the Committee's decisions. The Vice Chairperson shall perform the duties of the Chairperson in his or her absence. In the event both officers are absent from the Committee, the majority of quorum may appoint a presiding officer for that meeting. All officers shall continue in their respective offices until their successors have been elected and have assumed office.

DISCUSSION

At the April 12 meeting, nominations for chair and vice chair will be solicited. Members may self nominate. An election will be held, and the chair will begin presiding immediately.

Staff recommends that the E&D TAC solicit nominations, then elect a chair and vice chair for the committee for a period of one or two years.

TO: Elderly & Disabled Transportation Advisory Committee
FROM: Amanda Marino, Transportation Planner
RE: Draft 2022 Unmet Transit and Paratransit Needs List

RECOMMENDATION

Staff recommends that the Elderly & Disabled Transportation Advisory Committee review the *Draft 2022 Unmet Transit and Paratransit Needs List* (Attachment 1), provide amendments as necessary and forward the list to the RTC for their consideration on May 5, 2022.

BACKGROUND

Local sales taxes in the amount of ¼ cent per dollar are collected by the State and allocated to the region according to the Transportation Development Act (TDA). The Regional Transportation Commission (RTC) allocates these funds according to formula as adopted in its Rules and Regulations. The majority of TDA funding is apportioned to the Santa Cruz Metropolitan Transit District. Other amounts are apportioned to Community Bridges, the Volunteer Center and to local jurisdictions for bicycle and pedestrian projects.

TDA statutes require transportation planning agencies allocating TDA funds to local streets and roads, to implement a public process, including a public hearing, to identify unmet transit needs of transit dependent or disadvantaged persons, and determine if unmet transit needs can be reasonably met. TDA statutes also require transportation planning agencies to consult with their designated social services transportation advisory councils to annually identify transit needs. Although the RTC does not allocate TDA funds to local streets and roads, and therefore is not required to perform this analysis, the RTC endeavors to solicit regular input on unmet transit and paratransit needs to provide a useful tool to assess and prioritize needs in the region. The *Unmet Needs List* related to paratransit and transit needs is used to prioritize projects as funds become available.

DISCUSSION

Serving as the social services transportation advisory council, the E&D TAC regularly hears and considers unmet transit and paratransit needs in Santa Cruz County. Unmet transit and paratransit needs are those transportation requests which are not being met by the current public transit system, a transportation request that has community support, and transportation request that does not duplicate transit services provided publically or privately.

The E&D TAC considered the *Preliminary Draft 2022 Unmet Transit and Paratransit Needs List* at the February 8, 2022 meeting. The *Draft 2022 Unmet Transit and Paratransit Needs List* is included as Attachment 1. Revisions from the *Preliminary Draft* to the *Draft* are shown using underline and strikeout and reflect recommendations made

by the E&D TAC at their February 8, 2022 meeting, comments from Santa Cruz Metro and Community Bridges staff, and input from members of the public, and RTC staff.

Staff recommends that the Elderly & Disabled Transportation Advisory Committee (E&D TAC) provide input on the *Draft 2022 Unmet Transit and Paratransit Needs List (Attachment 1)* and recommends the Regional Transportation Commission adopt the *Final 2022 Unmet Transit and Paratransit Needs* list following a public hearing on May 5, 2022. RTC staff also recommends that the E&D TAC identify one or two areas to focus on addressing in 2022.

SUMMARY

TDA statutes require transportation planning agencies to consult with their designated social services transportation advisory councils to annually identify transit needs. Although the RTC does not allocate TDA funds to local streets and roads, and therefore is not required to perform an analysis of unmet transit needs, the RTC endeavors to solicit regular input on unmet paratransit and transit needs to provide a useful tool to prioritize needs in the region. RTC staff recommends that the E&D TAC provide input on the *Draft 2022 Unmet Transit and Paratransit Needs List* and recommends the Regional Transportation Commission adopt the *Final 2022 Unmet Transit and Paratransit Needs* list following a public hearing on May 5, 2022.

Attachment 1: *Draft 2022 Unmet Transit and Paratransit Needs List*

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2022 Draft Unmet Transit and Paratransit Needs List

Prioritization of Need:

H - High priority items are those items that fill a gap or absence of ongoing of service.

M - Medium priority items that supplement existing service.

L - Low priority items should become more specific and then be planned for, as funds are available.

1-3 Graduated scale indicates to what extent the need, if addressed, would: increase the number of individuals who are within a 30-minute transit trip to key destinations; improve safety; support economic vitality by way of decreasing transportation costs; or, improve cost-effectiveness of transportation services.

Strategies:

- Proposals and suggestions to address need, including programs and projects.
- **Updates since the 2021 Unmet Transit and Paratransit Needs list are shown using underline and strikeouts.**

General

1. **H1** - Safe travel paths between senior and/or disabled living areas, medical facilities, educational facilities, employment locations, retail centers, entertainment venues, bus stops, and/or railroad crossings.
 - Improve accessibility at and to bus stops - such as, but not limited to, sidewalk and crosswalk improvements connecting destinations frequented by senior and disabled individuals and transit stops such as, but not limited to, those identified in the RTC Safe Paths of Travel Final Report.
 - Secure funding assistance to make Safe Paths of Travel improvements.
 - Expand publicity regarding sidewalk maintenance.
2. **H1** - Transportation services to areas with high concentrations of seniors, disabled and low income individuals.
 - Support alternative transportation programs, such as vanpool programs, serving low income and senior housing areas outside of the transit service area in south county.
 - Explore pilot projects, such as regularly scheduled paratransit trips two-three times per week, to serve residents.
 - Secure funding for taxi voucher programs for senior and low income individuals.
 - Provide affordable and desirable housing for seniors and low income individuals within the existing transit service area.

- Provide incentives for senior and social services and medical and social services providers to be located in existing transit service areas.
 - Support programs that encourage ridesharing to destinations popular with seniors or high concentrations of seniors.
 - Seek volunteer drivers to provide transportation services.
 - Evaluate on-demand transit services.
 - Increase bus service near senior living facilities.
3. **H3** - Transportation services for low-income families with children, including transportation for people transitioning from welfare to work.
- Support welfare to work programs and training programs.
 - Support transportation programs dedicated to serving low-income families with children.
 - Seek volunteer drivers for transportation family members to visits at detention facilities.
 - Provide taxi vouchers to low income families.
 - Reinstate ride to work programs.
 - Provide youth bus passes to low income households
4. **H1** - Transportation services for caregivers of senior and disabled clients.
- Support programs providing transportation for caregivers to clients.
 - Provide taxi voucher to caregivers.
 - Reinstate ride to work programs.

Paratransit/Specialized Transportation Services

5. **H1** - Coordinated and seamless-to-the-public system of specialized transportation with a Mobility Management Center (central information point, one stop shop).
- Assess feasibility and seek funds for development/start-up of the center, and assess entities already providing information and referral services).
 - Utilize information technology solutions to provide transit information that is accessible to all users.
6. **H1** - Wheel chair accessible vehicles for taxis and transportation network company services
- Monitor the Transportation Network Company (TNC) Access for All program.
 - Evaluate other comparable options to provide services (i.e new companies, subcontract with services equipped with wheelchair vehicles).
 - Provide on demand paratransit service.
 - Ensure accessible public taxi service for those using mobility devices.

- Ensure accessible on demand ride share service for those using mobility devices.

7. **M1** - Paratransit service for the people who lost paratransit service due to changes in Santa Cruz Metro ParaCruz program in 2015.
 - Support policies that expand ADA mandated paratransit service area.
 - Support programs providing specialized transportation to areas outside the ADA-mandated paratransit service area for a fee or at no cost.
 - Expand taxi voucher program.
8. **H2** - Access to paratransit services on all holidays.
 - Extend existing paratransit services to holidays.
 - Support taxi voucher programs.
9. **H12** - Specialized transportation for areas outside the ADA-mandated paratransit service area for medical, non-medical trips.
 - Secure funding for taxi voucher programs.
 - Provide affordable and desirable housing for seniors and disabled individuals within ADA paratransit service area.
 - Provide incentives for senior and social services to be located in transit service areas.
 - Support programs providing specialized transportation to areas outside the ADA-mandated paratransit service area for a fee or at no cost.
 - Support continuous funding for transportation to medical services.
 - Seek volunteer drivers to provide transportation services from areas not served by transit or ADA paratransit service.
 - Identify priority origins and destinations outside the ADA service area.
10. **H12**- Free or low-cost paratransit options.
 - Provide funding for programs that provide discounted and free paratransit rides.
 - Support programs that provide on-demand ADA accessible rides.
 - Support increased specialized transportation services to low-income and disabled individuals for educational and work opportunities at higher education institutions (UCSC and Cabrillo).
11. **H2** - Direct paratransit and accessible transit connections with neighboring counties- including Monterey (Pajaro), San Benito, Santa Clara and other points north.

- Establish direct inter-regional fixed route accessible transit service.
 - Develop plan to coordinate between agencies providing specialized transportation services in neighboring counties.
 - Support programs providing inter-regional specialized transportation for a fee or at no cost.
 - Establish feeder services to inter-regional accessible transit services.
12. **M1** - Affordable transportation for dialysis and other medical appointments, including 'same day' specialized transportation services for medical trips, on a continuous basis.
- Support continuous funding for 'same day' transportation to medical services.
 - Support continuous funding for no or low-cost specialized transportation to medical appointments.
 - Increase capacity of existing programs providing transportation to dialysis and other medical appointments.
 - Secure funding for taxi voucher programs.
13. **M2** - Transportation for programs that promote senior and disabled individuals health, safety and independence including, but not limited to, all senior meal sites in the county, the stroke centers, medical facilities, and senior activity centers.
- Support continuous funding for transportation services to meal sites.
 - Provide transit and paratransit services to medical service centers.
 - Support volunteer drivers to provide transportation services.
14. **M2** – Conduct targeted outreach to seniors, people living with disabilities, and transportation service providers to provide information about transportation options and safety.
- Provide safe driving and transit information at locations with concentrations of seniors.
 - Support field trips to events by bus ("Mobility Trainer" and "Bus by Choice" models)
 - Annual updates to transportation service providers including, but not limited to, providers included in the Guide for Specialized Transportation about paratransit service options.
15. **L2** - Publicity about existing specialized transportation services including ADA paratransit, non-ADA paratransit, taxi services, Medi-Cal rides and mobility training for people to use regular fixed route buses.
- Streamline communication activities by establishing a central point of contact within health providers to disseminate information about specialized transportation services.

- Support continuous funding for communication and outreach activities.
16. **H2** - Volunteer drivers in Santa Cruz County particularly in south-county and San Lorenzo Valley.
 - Expand outreach efforts to recruit drivers and promote services.
 - Support for the Volunteer Center Transportation Program.
 17. **M2** - Affordable special care trips and gurney vehicle for medically fragile individuals and those needing "bed to bed" transportation.
 - Provide vouchers for specialized care trips.
 - Identify a service provider for gurney trips and assist in procurement of a vehicle for services.
 - Partner with assisted living and hospice care to provide services.
 - Publicize availability of services, if available.
 18. **M3** - Ongoing provision of ADA Paratransit certification, provided by Santa Cruz Metro, at group facilities.
 - Provide on-site services to reach a greater number of individuals.
 19. **M3** - Specialized transportation services for people living with a cognitive impairments, dementia or mental health diagnosis.
 - Provide on demand transportation services for people living with a mental health diagnosis.
 - Provide services designated to assisting people with mental illness navigate transit and paratransit eligibility requirements.
 20. **L1** - Specialized transportation for 'same day' low cost non-medical trips.
 - Expand taxi voucher program.
 - Support "on-call" volunteer drive programs.
 21. **L3** - Anticipate growing demand for services by projecting funding needs for specialized transportation (including fixed route, ADA and non-ADA Paratransit) to provide transportation services to the senior population expected to increase over the next 15 to 30 years.
 - Identify funding needs for paratransit over a 15-30 year horizon.
 - Designated funding source for paratransit service.
 22. **M1** - Provide increased UCSC on-campus paratransit service between campus to campus destinations.
 - Increase existing UCSC specialized transportation services to supplement increased demand.

Paratransit/Specialized Transportation Capital

23. **H1** - ParaCruz operating facilities.
 - Acquire and develop permanent operations and maintenance facility for ParaCruz to reduce operating cost.
 - Increase funding opportunities for paratransit capital projects.
24. **M2** - Consolidated Transportation Services Agency operating facilities.
 - Increase funding opportunities for paratransit capital projects.
25. **H2** - Paratransit vehicle replacements.
 - Increase funding opportunities for paratransit capital projects including funding for electric vehicles and/or zero emission vehicles.
 - Take measures to include electric vehicles as option for purchase in the Section 5310 grant program.
26. **H2** – Electric Vehicle Charging Stations
 - Support funding for electric vehicle charging infrastructure.
Provide an electric vehicle emergency preparedness plan that includes battery storage, vehicles, and facilities.

Transit Services

27. **H1** – Greater frequency and span of transit service in densely populated areas with a mix of land uses.
 - Increase service level between downtown Santa Cruz and Capitola Mall Transit Center through the Live Oak corridor.
 - Enhance service on Mission Street.
 - Extend transit service hours later in the evening and early in the morning serving Cabrillo College and commercial centers of Santa Cruz/Live Oak/ Watsonville.
 - Enhance service to employment entities.
 - Enhance service on Scotts Valley Drive.
 - Enhance service in Soquel and Old San Jose Road.
 - Enhance service in Aptos.
 - Enhance service in Corralitos.
28. **H1** – Greater evening frequency and span of transit service in coverage-oriented areas, in keeping with METRO service standards.
 - San Lorenzo Valley Route 35 variants (Mt. Store and Country Club)
 - Local Watsonville services
 - La Selva Beach

- Consider creating “All Nighter” circular bus network providing late-night and early-morning bus service in downtown areas.

29. **M1** – More transit service to UCSC.

- Increase weekend and weekday UCSC service.
- Increase service to UCSC campus.
- Increase service to the University of Santa Cruz employment center in Scotts Valley.

30. **H1** - More interregional and cross county transit services.

- Increase Hwy 17 weekend service frequency.
- Provide transit service from Santa Cruz County to Los Gatos.
- Provide direct transit service to San Jose Airport.
- Enhance Monterey County to Santa Cruz County service including connections to the Salinas Intermodal Transportation Center-
- Support for an integrated transit network, which includes transit services on a dedicated transit facility on the rail right-of-way consistent with the Unified Corridor Investment Study and the Transit Corridor Alternatives Analysis.
- Provide direct bus transit service from San Lorenzo Valley to Los Gatos.
- Provide direct transit connection between Live Oak and San Jose Diridon Station.

31. ~~**H1M1**~~ – Free and low-cost transportation options, including fixed-route transit services.

- Support programs that provide transportation services, including, but not limited to bus services, for a reduced or no fee.
- Seek volunteer drivers to provide transportation services.
- ~~Support programs that allow seniors, and disabled, and low-income~~ individuals to ride free during designated time periods.

32. **M12** – More transit service between primary destinations in Santa Cruz County.

- Provide service between Capitola Mall and Cabrillo.
- Expand transit service to new residential and commercial areas in Watsonville.
- Improve north - south transit connections (ex. Soquel Ave/Drive \ to coastal communities).
- Support for an integrated transit network, which includes transit services on a dedicated transit facility on the rail right-of-way

consistent with Unified Corridor Investment Study and the Transit Corridor Alternatives Analysis.

- Provide single trip service.
- Provide express bus service from Watsonville to Scotts Valley.
- Increase bus service to libraries and other public venues.

33. **M2** - More transit service to facilities providing medical, health and other social services.

- Provide transit service to medical facilities.
- Provide medical, health, and social services within the existing transit service area.

34. **M2** - Access to transportation services on all holidays.

- Provide regular Santa Cruz Metro service on holidays.
- Support taxi voucher programs.
- Support volunteer transportation services.

35. **H2M2** - Easier and faster transit trips system wide.

- Enhance connections through increasing the span and frequency of service.

36. **H2M2** - Faster run times on transit routes.

- Investigate opportunities for transit priority lanes and signal priority.
- Pursue right turn pockets for bypass lanes for buses service and transit priority on Soquel Ave/Drive and Freedom consistent with the Unified Corridor Investment Study.
- Consider direct services between more locations, reducing need for transfers.

37. **M2** - Intra-community service in Santa Cruz County communities.

- Develop San Lorenzo Valley circulator.
- Develop Scotts Valley circulator.
- Investigate need for intra-community and neighborhood transit services
- Consider partnerships with ride-hail and/or taxi services for first/last mile connections.
- Develop Micro Transit programs in San Lorenzo Valley, Scotts Valley, Soquel, Aptos, and Watsonville.

38. **L2** - Transit service to major tourist destinations.

- Provide transit service to Waddell Creek and North Coast and Highway 17 direct service to Boardwalk on weekends.

39. **H2L2** - Commuter transit service.

- Extend Highway 17 service to Watsonville, or improve connections between Watsonville-Santa Cruz service and Highway 17 service.
- Provide faster commute option for transit riders between SLV and Santa Cruz.

40. **L3** - Special event services.

- Establish program to coordinate with Santa Cruz Visitor Center and partner agencies to provide special event services.

Transit Capital

41. **H3M1** – Bus stops.

- Provide ADA compliant bus stops.
- Prioritize bus stop improvements and shelter replacement based on high usage by seniors and people with disabilities.
- Install braille and raised numbers on bus signage at bus stops indicating which bus routes are being offered at each stop (or a technology-based way finding alternative).
- Provide the ability to lower the height of braille for wheelchair access.
- Work with local jurisdictions to provide benches and increased lighting at bus stops and connecting crosswalks including in-pavement lighting fixtures and in-road warning lights.
- Increase sidewalk connectivity at bus stops and overhead LED lighting at connecting crosswalks.
- Reinstate and fund bus stop committee to study and monitor bus stop accessibility.
- Add bus stop at intersection of Granite Creek Rd and Santa's Village Rd.

42. **M1** – Maintenance of existing transit facilities.

- Support funding for maintenance of bus stops, parking lots, transit centers, buildings.

43. **H1** – Bus replacement: Replace buses beyond useful life as needed including buses, including buses providing rural service.

- Support funding for transit capital improvements.
- Support funding for electric vehicle bus replacements and electric vehicle charging stations.

44. **H1** - Transit station improvements.

- Investigate options for renovation or redevelopment of Santa Cruz Metro Center.

- Coordinate improvements to Capitola Transit Center with Capitola Mall ownership.
- Install bike lockers at transit stations.

45. **H2** - Faster transit travel times.

- Installation of transponders on all buses for signal priority on major corridors improving traffic flow, reducing travel time, and improving on-time performance.
- Support and seek funding for bus on shoulder on Highway 1.

46. **H1** – Dedicated transit facilities.

- Right-of-way improvements and stations along Santa Cruz Branch Rail Line if a bus rapid transit (BRT) or rail service is developed consistent with the Unified Corridor Investment Study and the Transit Corridor Alternatives Analysis.
- Multimodal transfer facilities at stations along the Santa Cruz Branch Rail Line if BRT or rail service is developed.

47. **H3** - New equipment to assist with real-time operations, security, scheduling and planning.

- Automated Vehicle Location (AVL) System to provide better monitoring of on-time performance and more accurate data reporting.
- Automatic Passenger Counting (APC) system to make mandatory reporting more efficient and improve data for service planning.
- Install audio and video surveillance system for all buses.
- Install audio and video surveillance system for all buses
- Electronic fare payment for more convenient payment options and to speed up boarding.
- Modernize planning and scheduling software for more efficient service planning and better community outreach.

48. **M1**– More multimodal connections to transit.

- Construct park and ride lots in strategic locations along inter-city routes that lack adequate feeder service.
- Bike lockers and/or bike share stations at key locations to facilitate first/last mile of travel.
- Increase amount of on-bus bike racks to facilitate first/last mile of travel.

49. **M3** - Wifi expansion on buses.

- Install wifi equipment at all facilities and on all buses.
- Partner with private companies to provide wifi.

AGENDA: April 12, 2022

TO: Elderly and Disabled Transportation Advisory Committee
FROM: Grace Blakeslee, Senior Transportation Planner
RE: Coastal Rail Trail Segments 8 through 12 Schematic Plans

RECOMMENDATIONS

Staff recommends that the Elderly and Disabled Transportation Advisory Committee provide input on the schematic plans for Coastal Rail Trail Segments 8 & 9 (Pacific Avenue to 17th), Segments 10 & 11 (17th to State Park Drive) and Segment 12 (State Park Drive to Rio Del Mar Boulevard).

BACKGROUND

The Monterey Bay Sanctuary Scenic Trail Network (MBSST) is the RTC's proposed 50-mile bicycle and pedestrian trail network. The spine of the trail network is the 32-mile Coastal Rail Trail from Davenport to Watsonville/Pajaro, to be built within the Santa Cruz Branch Rail Line (SCBRL) RTC-owned rail right-of-way. The remaining miles will be connecting paths, sidewalks, bike lanes, other roadway improvements or unpaved coastal spur trails. The MBSST Master Plan organized the trail alignment into 20 Segments with logical beginning and end points.

Segments 8 through 12 of the Coastal Rail Trail are currently under development, with each project preparing an Environmental Impact Report (EIR) and associated preliminary engineering and technical studies.

DISCUSSION

Coastal Rail Trail Segments 8 through 12

[Segments 8 & 9 of the Coastal Rail Trail](#) includes 2.5 miles of the Coastal Rail Trail between Pacific Avenue in the City of Santa Cruz and 17th Avenue in the unincorporated Live Oak area of Santa Cruz County along the SCBRL. The City of Santa Cruz is the project sponsor for Segment 8 & 9.

[Segments 10 & 11 of the Coastal Rail Trail](#) includes 4.7 miles of the MBSST's rail trail spine between 17th Avenue in Live Oak through Jade Street Park in the City of Capitola, then down the coast to State Park Drive. The County of Santa Cruz is the project sponsor for Segments 10 & 11.

[Segment 12 of the Coastal Rail Trail](#) is being developed as part of the Highway 1 Auxiliary Lanes and Bus on Shoulder Project between the State Park Drive and Freedom Boulevard Interchanges. The Coastal Rail Trail Segment 12 Project proposes to construct a 1.25-mile-long trail between State Park Drive and Rio del Mar Boulevard along the SCBL. The RTC is leading delivery of this project.

Environmental Review

The City and County of Santa Cruz released Notices of Preparation (NOPs) for Environmental Impact Reports in Fall 2021 for Segments 8 & 9 and Segments 10 & 11, respectively. The NOPs included two possible alternatives, including the Rail-with-Trail and Railbank-with-Trail alignments.

Instead of two separate alternatives, the City and County have adopted a phased approach to delivery of their respective Coastal Rail Trail projects. The phased approach includes an analysis of a single build alternative to construct the Trail Next to the Railroad Track Alignment referred to as the "Ultimate Trail Configuration", with an "Optional Interim Phase" to allow for an interim trail that would construct the Trail on the Railroad Track Alignment. The analysis will show the potential impacts of building an interim trail by itself, as well as removing/relocating the interim trail, and re-constructing the railroad tracks for a potential ultimate configuration, assuming rail service is re-activated. It would also provide a full analysis of potential impacts of building the trail next to the railroad track alignment (Ultimate Trail Configuration) without an interim first phase. A detailed discussion of the phased approach was provided to the RTC at their [February 17, 2020 Transportation Policy Workshop](#). The Draft Environmental Impact Report for the Segments 8 & 9 and Segments 10 & 11 of the Coastal Rail Trail are scheduled to be released by the end of 2022.

The Notice of Preparation of an EIR for the Highway 1 Auxiliary Lanes and Bus on Shoulder Project between the State Park Drive and Freedom Boulevard Interchanges, which includes Segment 12 of the Coastal Rail Trail, was released in 2020. The Draft Environmental Impact Report for Segments 12 will also include a single build alternative for the Ultimate Trail Configuration (i.e. Trail Next to the Railroad Track Alignment) with an optional first phase to potentially construct an interim trail (i.e. Trail on the Railroad Track Alignment) discussed previously in this staff report. The

environmental phase of the project is ongoing and is scheduled to be complete in Spring of 2023.

Preliminary Design

The City of Santa Cruz, County of Santa Cruz, and RTC are soliciting input on the designs for Coastal Rail Trail Segments 8 through 12 between Pacific Avenue and Rio Del Mar Boulevard. The City, County, and RTC are soliciting input on two Coastal Rail Trail alignments for Segments 9 through 12: a Trail Next to Railroad Track Alignment ("Ultimate Trail Configuration") and a Trail on the Railroad Track Alignment ("Interim Trail"). A virtual public open house for Segments 8 & 9 took place on March 31, 2022 and for Segments 10 & 11 a virtual public workshop is scheduled on April 6, 2022 from 5-8pm. An in-person public open house for Segments 10 & 11 is scheduled for April 13, 2022 from 5:30-8:30pm at the Live Oak Elementary Multipurpose Room.

Trail Next to the Railroad Track Alignment ("Ultimate Trail Configuration") between San Lorenzo River and State Park Drive

For Segments 9 through 11, most of the trail would be 12ft wide including paved shoulders. For Segment 12, the trail would be 16ft wide including paved shoulders throughout. Construction for Segments 8 through 12 includes new trail bridges adjacent to or cantilevered off existing railroad bridges, except the Capitola Trestle over Soquel Creek where the trail users will utilize the existing sidewalk and on-street bike facilities to travel through Capitola Village. New at-grade trail crossings would be located adjacent to the at-grade railroad crossings on existing roadways. Additional project features include construction of retaining walls along the trail and trail viaducts adjacent to the railroad track alignment. Fencing is only expected between the trail and railroad tracks and in locations where there is a grade differential between the trail and surrounding topography.

Trail on the Railroad Track Alignment ("Optional Interim Phase") between San Lorenzo River and State Park Drive

For Segments 9 through 12, most of the trail would be 16ft wide including paved shoulders and would be constructed on the existing railroad track alignment. The rails and ties would be removed, and the trail would be constructed on the railroad ballast. Fencing is only expected to be needed in locations where there is a grade differential between the trail and surrounding topography. Construction of the Trail on the Railroad Track Alignment requires railbanking the Santa Cruz Branch Rail Line to allow for

the removal of the rails and ties and construction of the trail in the existing railroad track alignment.

Railbanking is a voluntary process whereby a freight railroad company and a trail agency enter into an agreement to use a rail corridor that has been approved for abandonment as a trail (or some other use, including commuter rail with trail) until some future time when the railroad might need the corridor again for freight rail service. Rails and ties are permitted to be removed but could also remain in place. Railbanking does not preclude construction of the Trail Next to the Railroad Alignment or light or commuter passenger rail. A detailed discussion of railbanking was presented to the RTC at their [September 2, 2021](#) and [February 3, 2022](#) meetings.

Exhibits and input

Schematic plans for both [Segments 8 & 9 Ultimate Trail](#) and a [Segments 8 & 9 Interim Trail](#) alignments are available for review and comments are due on April 15, 2022. Exhibits for the Segments 10 & 11 project as well as the Segment 12 project—both the Ultimate Trail Configuration and the Interim Trail alignments—will be posted to the RTC website prior to the Elderly and Disabled Transportation Advisory Committee meeting and made available for review and comment until May 2. City, County of Santa Cruz and RTC staff will present the schematic plans to the Elderly and Disabled Transportation Advisory Committee at their April 12, 2022 meeting.

Project Delivery

The City of Santa Cruz is seeking funds for construction of Segments 8 and 9 and will submit applications for the state's Active Transportation Program (ATP) Cycle 6 funding. Cycle 6 ATP grant applications are due in June 2022. The City and County have each programmed \$1.5 million and RTC programmed \$2 million in FY23/24 Measure D funds to serve as a future grant match for construction of Segments 8 & 9. The City of Santa Cruz is also seeking additional Measure D-Active Transportation funding to complete preconstruction components of the project (*see separate agenda item*).

RTC previously programmed \$4 million in Measure D funds to the County of Santa Cruz for environmental and preliminary design of Segments 10 & 11 between FY20/21 and FY22/23. The County of Santa Cruz is seeking additional Measure D-Active Transportation funding to serve as a match to preconstruction and construction components of the project (*see separate agenda item*). The County of Santa Cruz also plans to apply for the State's Active Transportation Program (ATP) Cycle 6 funding.

RTC staff plans to pursue Senate Bill 1 (SB1) Solutions for Congested Corridors and Local Partnership Program funding for the Highway 1 Auxiliary Lanes and Bus on Shoulder Project between the State Park Drive and Freedom Boulevard Interchanges, including Segment 12 of the Coastal Rail Trail. SB1 Solutions for Congested Corridors and Local Partnership Program applications are due in November/December of 2022. Only the construction component of the project is eligible for the SB1 competitive funds, and a local match of 20-30% of the construction cost is likely needed to compete. RTC is seeking additional Measure D-Active Transportation funding to serve as a grant match (*see separate agenda item*).

SUMMARY

Segments 8 through 12 are currently under development, with each project preparing an Environmental Impact Report (EIR) and associated preliminary engineering and technical studies. The City, County of Santa Cruz, and RTC are soliciting input on the schematic plans for the Trail Next to the Railroad Track Alignment ("Ultimate Trail Configuration") and the Trail on the Railroad Track Alignment ("Optional Interim Phase") between Pacific Avenue and Rio Del Mar Boulevard.

TO: RTC Advisory Committees

FROM: RTC Staff

RE: Measure D Active Transportation- Monterey Bay Sanctuary Scenic Trail Network (MBSST)/Coastal Rail Trail Five-Year Program of Projects

RECOMMENDATIONS

Staff recommends that the RTC's Advisory Committees provide input on options and priorities for Measure D Active Transportation funds through FY26/27 (MBSST 5-Year Plan).

BACKGROUND

In November 2016, over two-thirds of Santa Cruz County voters approved a ½-cent transaction and use tax (sales tax) for transportation projects and programs (Measure D-2016). The voter-approved [Expenditure Plan](#) allocates revenues generated by formula for five categories of projects over 30 years:

- Neighborhood projects: 30% of net measure revenues:
 - \$5 million for the Highway 17 Wildlife Crossing
 - \$10 million for San Lorenzo Valley (SLV)/Highway 9 Corridor
 - Balance (approx. 28%) to cities and County by formula
- Transportation for Seniors and People with Disabilities: 20% total
 - 16% to Santa Cruz METRO and 4% to Lift Line
- Highway Corridors: 25%
- **Active Transportation (Monterey Bay Sanctuary Scenic Trail Network (MBSST)/Coastal Rail Trail): 17%**
- Rail Corridor: 8%

Each agency receiving measure revenues is required to annually develop, update, hold a public hearing on, and adopt a five-year program of projects (5-Year Plan) that identifies how they plan to use Measure revenues in the upcoming 5 years. The Regional Transportation Commission (RTC) is responsible for developing the five-year programs of projects for regional Expenditure Plan categories and projects, including the 17% designated for the Monterey Bay Sanctuary Scenic Trail Network (MBSST)/Coastal Rail Trail in the Active Transportation Category (Measure D-Active Transportation).

Agencies receiving direct formula allocations (cities, the County of Santa Cruz, Santa Cruz Metropolitan Transit District and Community Bridges/Lift

Line) typically develop and update their five-year programs of projects as part of adoption of their budgets and/or capital improvement programs each spring. Community members are encouraged to provide input on those plans directly to each recipient agency. Approved plans are posted on the RTC's website: www.sccrtc.org/move.

Although Measure D-2016 provides significant funding to deliver investments identified in the Expenditure Plan, it is insufficient to fully fund all investments. Consistent with the Measure's Ordinance and long range *Strategic Implementation Plan* (SIP), in order to expeditiously deliver regional programs and projects and to competitively position projects to leverage other grants, the 5-year plans utilize some Measure Revenues to serve as match to other grants and focuses some funds on pre-construction phases, in order to get projects "shovel-ready" and more competitive for grants and other funding opportunities.

DISCUSSION

17% of Measure D revenues are allocated to the Active Transportation category (Measure D-Active Transportation) for the Monterey Bay Sanctuary Scenic Trail Network, with the planned 32 mile Coastal Rail Trail in the Santa Cruz Branch Rail Line corridor making up the spine. Funds can be used for trail construction, trail operations and management, as well as maintenance and drainage of the corridor. As noted earlier, measure revenues will need to leverage other state and federal grants in order to complete the entire trail network.

18 miles of trail are currently under development (Attachment 2 map), however completion of Segments 8-12 (from Pacific Avenue in Santa Cruz to Rio del Mar in Aptos) in the next five to seven years is subject to securing full funding. The City of Santa Cruz and the County of Santa Cruz public works departments are submitting Active Transportation Program (ATP) grant applications for Segments 8-11, which are due to the California Transportation Commission (CTC) on June 15, 2022. In partnership with Caltrans, the County of Santa Cruz and Santa Cruz METRO, the RTC will be seeking state and federal grant funding for a multimodal project between Watsonville and Aptos that includes auxiliary and bus-on-shoulder lanes on Highway 1, electric bus purchases, Soquel Ave upgrades, and Segment 12 of the Coastal Rail Trail.

Measure-Active Transportation Category Fund Requests

RTC typically holds a public hearing on and updates 5-year funding plans for all of the Measure D regional categories at the same time. However, staff will be recommending that the RTC consider updates to the MBSST 5-year program of projects for FY22/23-FY26/27 at its May 2022 meeting in order to address some near-term cost increases, as well as to consider grant

leveraging opportunities, and future funding needs to complete and maintain the MBSST Network, and potential financing options.

Agencies have indicated that they will need additional Measure-Active Transportation funds through FY26/27 as follows:

- Segments 8 & 9 (Pacific Ave to 17th Ave): The City of Santa Cruz is requesting an additional **\$370,000** to cover part of the cost of further analysis and public input on these segments, including potential interim and ultimate (adjacent to the rail tracks) trail alignments. This is in addition to funds previously committed by the RTC (\$2 million Measure-Active Transportation), the City of Santa Cruz, and the County of Santa Cruz to serve as match to an ATP application to fund the trail adjacent to the railroad tracks (ultimate trail), though through the environmental review phase an interim trail and other designs will also be analyzed and preferred alternative selected. **The City of Santa Cruz has requested support letters from E&DTAC and Bike Committee for their ATP application.**
- Segments 10 & 11 (17th Avenue to St. Park Dr): The County of Santa Cruz has indicated that an additional **\$10 million**, including approximately \$237,000 for interim trail studies and environmental analysis and \$9.8 million for final design and construction of the trail adjacent to the railroad tracks (ultimate trail). If approved, this would bring the total Measure-Active Transportation funds programmed to Segments 10 & 11 to over \$14 million (about 20% of the total estimated \$70 million cost of the ultimate trail alignment). RTC action in May 2022 on the 5-year plan would provide more certainty to the County on how much matching funding will be available when it submits an ATP application (matching funds account for up to 5 ATP points). **The committee may provide support letters for the ATP application.**
- Segment 12 (State Park Dr. to Rio Del Mar Blvd.): Staff anticipates at least **\$10.8 million** would be needed from the Measure-Active Transportation category over the next five years (plus an extra \$1.8 million through FY28/29) for design and right-of-way, and to leverage grants for the construction of Segment 12, if the RTC chooses to construct this segment of the trail next to the railroad tracks (ultimate trail). The balance of Segment 12 costs are anticipated to come from a combination of Measure D-Highway funds and state and/or federal grants. Segment 12 is currently part of a proposed multimodal project that includes Highway 1 Freedom Blvd-State Park Drive Auxiliary Lanes and Bus-on-Shoulder, Segment 12 Coastal Rail Trail, and Soquel Drive transit, bike, pedestrian, and roadway improvements. Measure D-

Highway category funding can be used for Segment 12's bike and pedestrian crossings of Highway 1. In addition to the MBSST 5-Year Plan, staff is concurrently evaluating financing and other options to leverage grants and expedite delivery of this multimodal project (discussed below) and staff also plans to recommend that the RTC consider an updated 5-Year Plan for the Highway Corridors category in May 2022 that includes possible financing to leverage grants.

- RTC also uses Measure D-Active Transportation category funds for corridor maintenance, encroachments, planning and oversight. In FY20/21 these expenditures totaled about \$1 million, but with annual escalation and maintenance of sections of trail anticipated to be constructed through FY26/27, staff estimates an extra \$3.6 million over previously programmed amounts is needed through FY26/27. *(Beyond FY26/27, additional funding will be needed for continued anticipated corridor expenses, described below under "Other Considerations".)*

Constraints on Measure Active Transportation and Highway Categories

The Measure-Active Transportation Category currently generates about \$4.4 million annually and will not have enough funding available (funding capacity) to support the nearly \$25 million in new programming requests and prior commitments on a "pay-as-you-go" basis within the next five programming years. Based on the revenue projections and the above programming requests/estimates, the Active Transportation category would be oversubscribed and have a deficit starting in FY24/25 and through FY27/28, with a total deficit of \$9-\$10 million at the end of this 5-Year Plan period (FY26/27). However, the RTC could advance the current trail funding requests if funds are borrowed (e.g., issue revenue bonds) to bridge the gap.

The Highway Category only generates approximately \$6.5 million annually (FY22/23 revenue estimate). RTC has taken an approach to consider a portion of the Segment 12 coastal rail trail cost (~\$36 million of the total \$48 million) as Highway expenditures, because bicycle and pedestrian crossings over Highway 1 are eligible for Measure D-Highway funds. An analysis of the Highway category's pay-go capacity is also underway, to understand whether funding for right-of-way and to leverage grants for the construction for Segment 12 will be available. Based on the revenue projections and Segment 12 and Highway 1 project cost estimates, the Highway Category would be oversubscribed and have a deficit starting in FY24/25 and through FY33/34, with a total deficit of approximately \$45 million in FY27/28. Therefore, the RTC would also need to consider financing (e.g., issue revenue bonds) for the Highway Category to fund the Highway 1 – State Park to Freedom project and a portion of Segment 12 coastal rail trail.

Other Considerations for the Active Transportation Category

As to not oversubscribe the Active Transportation category long term, RTC should also consider potential future programming needs, including potential cost increases, funds needed to implement additional segments, future corridor maintenance, future grant leveraging opportunities, and debt service on any financing.

Future Trail Segments: While over 18 miles of Coastal Rail Trail are currently under development and 1.5 miles completed, pre-construction work has not yet been advanced on 12.5 miles of Coastal Rail Trail. Table 1 below list coastal rail trail segments that are not currently under development or funded. Cost estimates are only at a planning level analysis and engineering has not yet commenced. These planning level estimates were used for the Unified Corridor Investment Study (UCIS) and were escalated (3.5% per year) to estimate current year dollars (2022\$). An assumed 20% RTC-provided match to leverage grants and other funds is shown to provide an approximation of how much Measure D funds might be needed to leverage state and federal grants. Typically grant applications are more competitive the larger the match. As part of the long-range implementation plan (SIP) update, staff will return to the committee for input on future priorities.

Coastal Rail Trail Segments with Assumed Future Funding Needs

Segment #	Location & Distance	Estimated Total Cost (2022\$Millions)	20% Match (\$Millions)
Segment 6*	Wilder Ranch to Schaffer Rd (1.49 miles)	\$6.1	\$1.2
Segment 7-Phase 3	Natural Bridges Drive to Schaffer Rd (.28 miles)	\$3.6	\$0.7
Segment 13	Rio Del Mar to Hidden Beach (.85 miles)	\$18.9	\$3.8
Segment 14	Seascape (along Sumner Rd) (1.17 miles)	\$7.8	\$1.6
Segment 15	Seascape Park to Manresa State Beach (1.37 miles)	\$28.1	\$5.6
Segment 16	Manresa State Beach to Ellicott Slough (2.66 miles)	\$28.2	\$5.6
Segment 17A	Harkins Slough -Buena Vista Avenue to Lee Rd (4.00 miles)	\$83.5	\$16.7
Segment 17B	San Andreas & Beach Street from Buena Vista to Lee Street	NA	NA
Segment 18-Phase 3	Lee Rd to Segment 18- Phase 1 (.5 miles)	\$3.8	\$0.8
Segment 19	Walker Street (.47 Miles)	\$2.0	\$0.4
Segment 20	Pajaro River (.74 miles)	\$15.1	\$3.0
TOTAL		\$197	\$39

**Note: Segment 6 trail could be eliminated if there is a desire to use the existing parallel Class 1 trail on Caltrans right-of-way instead. The table above does not include Segments 1-4 extending north of the rail right-of-way from Davenport to the San Mateo County line. RTC is currently focusing on developing the 32-mile section along the rail right-of-way.*

Future Maintenance: RTC has been programming some Measure-Active Transportation Category funds to maintain each trail segment once they are completed and open for public use. Funding for maintenance of constructed trail sections (including filling potholes and periodic trail restriping and resurfacing) is not committed beyond FY26/27.

For the five year period (FY21/22 to FY26/27) a total of approximately \$1 million is programmed to maintenance for Coastal Rail Trail segments in the City of Santa Cruz, City of Watsonville and the North Coast Rail Trail. The RTC is working with local jurisdictions, State Parks, and other agencies to update long-term maintenance costs estimates for the Coastal Rail Trail. A high-level estimate for maintenance of the 18 miles of trail currently under development or recently completed is about \$1 million per year (2022\$). The RTC will need to consider Coastal Rail Trail future maintenance cost when programming Measure D funds.

The trail maintenance funding is in addition to the Measure D-Active Transportation funds used for ongoing corridor management, including oversight, encroachments, drainage and vegetation control and other corridor maintenance. These costs vary from year to year, with costs often exceeding \$1 million per year.

Options

Since there is not sufficient “pay-as-you go” revenue capacity to cover the short-term funding for the trail adjacent to the railroad tracks (ultimate trail) for all MBSST projects currently under development within the next five years, and there is uncertainty in cost of on-going projects and the needs of future projects and corridor maintenance, the RTC could:

1. Program less than the Measure D funds described above and shown in Attachment 1. Project sponsors might have to postpone projects, use more local or other funds, or request higher grant amounts.
2. Keep some Measure D funds in reserve to cover potential cost increases and maintenance of sections of trail once built.
3. Authorize debt financing, such as bonding or short term loans, against future Measure D funds to accelerate delivery of Segments 8-12 or a subset of these segments. Annual principal and interest payments (debt service) would be required to be repaid from future Active Transportation Category revenue. *(As previously noted, financing would also be needed from the Highway category with debt service repaid from the Highway category)*

4. Consider design modifications to reduce the cost of the projects, including potentially pursuing the optional interim trail until such time that funding for a rail transit project is secured.

Attachment 1 shows a potential MBSST 5-year Program of Projects (5-Year Plan) for FY22/23-26/27, based on a strategy to use Measure funds to leverage other grants to fully fund the trail adjacent to the railroad track (ultimate trail) alignment for the segments currently under development. To fund this plan, RTC would need to adopt a strategy and policy to utilize financing to cover anticipated revenue shortfalls. **Staff recommends that the committee provide input on this preliminary 5-year plan (Attachment 1), as well as other options described in this report.**

In addition to adding funds for projects and ongoing costs discussed above, Attachment 1 also reflects updated revenue estimates and project schedules for previously approved projects.

Changing Circumstances

Staff may reevaluate Measure D funding recommendations under some circumstances.

- Final construction costs may end up higher than current estimates.
- Grant Awards
 - 2022 ATP grant applications are due June 15, 2022, with awards anticipated to be announced December 2022.
 - Segments 8-9: using previously programmed Measure D and local funds as match.
 - Segments 10-11: submitting two applications: one for pre-construction and one to fully fund the project.
 - SB 1 Cycle 3: Applications due in December 2022, with CTC approvals anticipated by June 2023 (Highway 1/Segment 12).
 - If any of these applications are not approved, the RTC and project sponsors would need to work together to reevaluate funding and implementation plans.
 - If other funding and grant opportunities arise and funds secured, this could reduce Measure D needed for some sections of trail.
- Maintenance of trail sections after they are constructed. The RTC is working with cities and the County to discuss cost sharing options for continued maintenance of the trail once it is built.
- Lower cost designs are implemented.

Next Steps

The RTC's Bicycle Advisory Committee, the Elderly & Disabled Transportation Advisory Committee, and Interagency Technical Advisory Committee (ITAC) Committees are reviewing the 5-year plan for the Active Transportation category in April. They are scheduled to review updates for the other categories at August or September committee meetings.

As project cost estimates and schedules are refined, and if Measure D and other funding assumptions change, amendments to the 5-year plan may be proposed throughout the year. Modifications requiring approved funds to be shifted between fiscal years will be handled administratively. Amendments adding new projects or increasing or decreasing Measure D funds for individual projects would be subject to the availability of funding and require RTC board approval during a public meeting.

SUMMARY

In 2016 a super-majority of Santa Cruz County voters approved Measure D, a 30-year ½-cent sales tax which provides critical funding to improve local highways, construct new bicycle and pedestrian facilities, repair local roads, maintain and expand transit and paratransit services for seniors and people with disabilities, maintain and plan for the Santa Cruz Branch rail corridor, and maintain other publicly owned transportation facilities. The measure requires recipient agencies to annually prepare and update a program of projects, identifying how agencies plan to invest Measure revenues over the next 5 years. Staff recommends that the RTC's advisory committees review options for anticipated Measure-Active Transportation category funds and provide recommendations as it feels appropriate.

Attachments:

1. Potential Active Transportation (MBSST/Coastal Rail Trail) 5-year Programs of Projects (FY22/23-26/27)
2. Map

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Measure D: 5-Year Program of Projects (FY22/23-26/27)

PROPOSED SPRING 2022 UPDATES

Previously updated 6/6/19, 12/5/19, 5/7/20, 6/29/20, 9/3/20, 5/6/21, 6/3/21, 8/5/21, 10/7/21.

Category: **Active Transportation/MBSST-Coastal Rail Trail (17% of Measure D Revenues)**

	Rail Trail Project/Program	Description	Prior Years Spent*	FY21/22*	Planned ¹					Total Measure D to FY26/27	Future	2022 Proposed Updates
					FY22/23	FY23/24	FY24/25	FY25/26	FY26/27			
1	North Coast Segment 5	EIR & design consultants, legal, Environmental Health Services & ROW; RTC project mgmt, oversight, outreach and technical assistance	\$2,418,800	\$438,600	\$280,000	\$50,000	\$0	\$0	\$0	\$3,187,400	\$0	Add funds in FY22/23 and FY23/24 for anticipated staff oversight, technical assistance. Previously \$3,057,400.
2	North Coast Segment 5: trail maintenance and operations	Ongoing maintenance of sections of trail once constructed. Includes restriping, sweeping, vegetation management, mitigations, and periodic repaving.	\$0	\$0	\$0	\$125,000	\$200,000	\$200,000	\$200,000	\$725,000	\$200k/yr	Move all funds out to later years based on updated schedule. Previously \$600k.
3	North Coast Seg 5: Trail construction and reserve to match grants	Funds to serve as match to grant application(s). Includes \$125k for Davenport Crosswalk.	\$0	\$0	\$2,075,000	\$875,000	\$875,000	\$0	\$0	\$3,825,000	\$0	Shift funds out one year based on updated schedule
4	Segment 7: Natural Bridges to Bay/California (Phase I), Bay/Californiat to Wharf (Phase II), City of Santa Cruz (SC) lead	Allocation to City of Santa Cruz for Segment 7 rail trail	\$0	\$1,100,000	\$1,000,000	\$0	\$0	\$0	\$0	\$2,100,000	\$0	No change to total. Shift \$1M from FY21/22 to FY22/23 based on updated schedule for Phase 2. Phase 1 - \$1.1M invoiced in FY21/22.
5	Segment 7: Oversight and technical assistance	RTC project management, oversight, outreach and technical assistance (consultants, legal, Environmental Health Services & ROW)	\$217,144	\$40,000	\$35,000	\$35,000	\$0	\$0	\$0	\$327,144	\$0	Previously \$292k. Add \$35k in FY23/24 based on updated schedule.
6	Seg 8: San Lorenzo River trestle widening, City of Santa Cruz	Allocation to City of SC for widening of existing walkway on the existing railroad bridge over San Lorenzo River near Boardwalk	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$500,000	\$0	No change. Project completed.
7	Segment 8: Oversight and technical assistance	RTC project management, oversight, outreach and technical assistance (consultants, legal, Environmental Health Services & ROW)	\$7,149	\$0	\$0	\$0	\$0	\$0	\$0	\$7,149	\$0	No change. Project completed.
8	Seg 8/9: SC Wharf to 17th Ave., City of SC lead (partnership with County)	Allocation to City of SC: \$2M set aside to serve as match for construction grants. Joint project with County.	\$0	\$0	\$370,000	\$2,000,000	\$0	\$0	\$0	\$2,370,000	\$0	Add \$370,000 for interim trail analysis and additional public outreach. Shift construction funds out to FY23/24
9	Segment 8/9: Oversight and technical assistance	RTC project management, oversight, outreach and technical assistance (consultants, legal, Environmental Health Services & ROW)	\$29,937	\$48,685	\$40,000	\$40,000	\$40,000	\$0	\$0	\$198,621	\$0	Increase FY24/25 to \$40k. Previously \$185,481 total.
10	Trail maintenance and operations in Santa Cruz	Ongoing maintenance. Includes restriping, sweeping, vegetation management, mitigations, and periodic repaving.	\$0	\$45,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$345,000	TBD	Add funds in FY26/27.
11	Segment 10-11: Segment 10 (17th-47th/Jade St. park), Seg 11 (Monterey to St. Park Dr)	Allocation to County DPW for planning, environmental review, design, and right of way and construction. County led project.	\$254,722	\$1,800,000	\$2,182,145	\$436,814	\$1,717,570	\$6,121,456	\$1,530,364	\$14,043,071	TBD-maint.	County requesting \$9.8M to serve as match for ATP grant for ultimate trail configuration and additional \$235k for additional analysis of alignments. Previously \$4M
12	Segment 10-11 Oversight and technical assistance	RTC project mgmt, oversight, outreach and technical assistance (consultants, legal, Environmental Health Services & ROW)	\$57,083	\$55,000	\$55,000	\$55,000	\$55,000	\$40,000	\$30,000	\$347,083	TBD	Add funds in FY26/27.
13	Capitola Trestle Railroad Bridge Interim Trail analysis	Analysis of feasibility for building a trail on the bridge through Capitola Village and over Soquel Creek.	\$0	\$50,000						\$50,000	\$0	No change

	Rail Trail Project/Program	Description	Prior Years Spent*	FY21/22*	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	Total Measure D to FY26/27	Future	2022 Proposed Updates
14	Segment 12: State Park Drive to Rio Del Mar Boulevard	Design, right-of-way, and matching funds for construction grants for ultimate trail alignment. Assumes work associated with bridges over Highway 1 to be implemented with the Hwy 1 Freedom-State Park project and paid out of Measure-Highway Corridors funds.	\$0	\$0	\$128,160	\$512,640	\$7,293,600	\$1,353,833	\$1,466,000	\$10,754,233	\$1,818,167	Add \$10,043,073 (\$236,867 in FY22/23 for studies/analysis associated with the interim trail, funds in FY23/24 for Final Design and ROW; funds FY24/25-26/27 for construction of the Ultimate Trail Configuration.). Construction timing dependent on grants and Hwy & Trail catory financing
15	Segment 18: Ohlone to slough trail (Phase I), Remainder Lee to Walker (Phase II), City of Watsonville lead	Allocation to City of Watsonville for trail construction.	\$0	\$150,000	\$933,333	\$933,333	\$933,333	\$0	\$0	\$2,950,000	\$0	May shift funds out a year.
16	Segment 18: Oversight and technical assistance	RTC project management, oversight, outreach and technical assistance (consultants, legal, Environmental Health Services & ROW)	\$104,460	\$20,000	\$29,000	\$10,425	\$10,000	\$5,000	\$0	\$178,885	\$0	Add \$15k in FY22/23 to assist with right-of-way and add funds in FY25/26.
17	Trail maintenance and operations in Watsonville	Ongoing maintenance. Includes restriping, sweeping, vegetation management, mitigations, and periodic repaving.	\$0	\$10,000	\$11,000	\$11,000	\$11,000	\$11,000	\$11,000	\$65,000	TBD	Add funds in FY26/27.
18	Capitola Trail: City Hall to Monterey Ave	RTC project management, oversight, outreach and technical assistance (consultants, legal, Environmental Health Services & ROW)	\$1,793	\$13,207	\$1,000	\$1,000	\$0	\$0	\$0	\$17,000	\$0	Add funds in FY22/23-23/24.
19	Santa Cruz County Regional Conservation Investment Strategy - Grant match	Match to Wildlife Conservation Board grant for early mitigation planning for transportation projects.	\$11,382	\$5,958	\$0	\$0	\$0	\$0	\$0	\$17,340	\$0	No change.
20	Ongoing oversight, coordination, and assistance, including on development of future trail sections	Includes RTC staff and consultants work related to overall trail planning, surveys, soil investigations, Environmental Health (EHS), legal, stakeholder coordination, response to public comments, and development of future projects/grant applications	\$911,791	\$245,000	\$220,000	\$220,000	\$220,000	\$220,000	\$231,000	\$2,267,791	TBD	Add funds in FY26/27.
21	Corridor encroachments & maintenance	Ongoing corridor maintenance, including vegetation, tree removal, trash, graffiti, drainage, encroachments, storm damage repairs outside of what is required for railroad operations. <u>Includes RTC staff time and contracts.</u>	\$1,196,923	\$1,346,900	\$1,557,350	\$1,148,028	\$1,020,409	\$1,058,218	\$1,106,785	\$8,434,613	Estimated \$1.1M/year + escalation	Includes significant drainage work, add funds in FY26/27 and update other estimates. Previously \$5.4M.
Estimated 5-Year Measure D Expenditures			\$5,711,183	\$5,368,350	\$8,976,988	\$6,513,240	\$12,435,912	\$9,069,508	\$4,635,149	\$52,710,331		

1- Funds may be shifted between years based on actual expenditures/use rates when sufficient cash capacity exists.

*Prior and FY21/22 actuals and carryover to be adjusted based on audited actuals. Shown here are preliminary estimates.

Map of Coastal Rail Trail elements in development or Complete



AGENDA: April 12, 2022

TO: Elderly and Disabled Transportation Advisory Committee
FROM: Amanda Marino, Transportation Planner
RE: City of Watsonville, Freedom Blvd Reconstruction Project

RECOMMENDATIONS

Staff recommends that the Elderly and Disabled Transportation Advisory Committee provide input on the City of Watsonville's Freedom Blvd Reconstruction Project.

BACKGROUND

Freedom Blvd is on a National Highway System and was widened from an 18-foot-wide poured concrete highway to four travel lanes (two in each direction) in 1952. Many curb ramps were installed in the 1980's and do not qualify for "safe harbor" consideration. This project will remove and replace non-ADA compliant curb ramps, install high visibility crosswalks, provide sharrows, and bicycle signage. It will also include installing a bus pullout, a new traffic signal, upgrades to pedestrian actuated signals with audible countdowns, and reconstruct roadway pavement.

DISCUSSION

Currently, the METRO bus stop at Freedom Blvd/Atkinson Lane is located in the traffic lane. The new 12-foot-wide pullout with shelter will allow the bus to pull out of traffic while passengers load and unload. There are 180 units of low-income housing that is under construction (or just completed) on Atkinson Lane. This bus stop will serve these new residents in the neighborhood.

The Freedom Blvd. Reconstruction Project will update or replace 26 Curb ramps and the pedestrian actuators at signalized intersections will be accessible for wheelchair users. This project includes new high visibility crosswalks, thermoplastic striping, and a new traffic signal at Sydney Ave.

SUMMARY

The City of Watsonville is seeking input from the E&D TAC on the Freedom Blvd. Reconstruction Project that will increase pedestrian and transit user safety.

Attachments

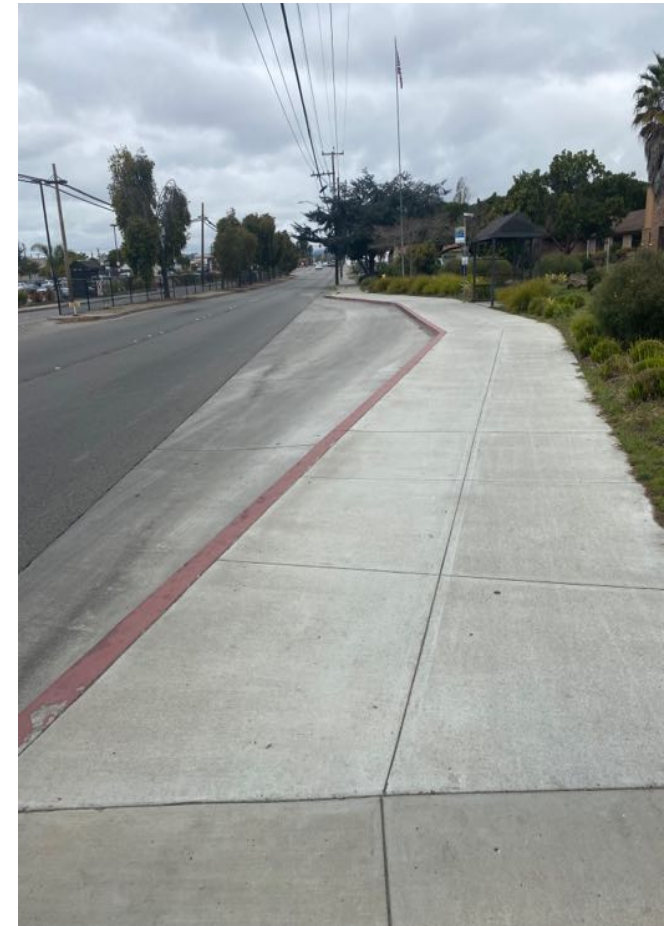
1. City of Watsonville Freedom Blvd. Reconstruction Plans



1482 Freedom Blvd frontage
location of existing bus stop



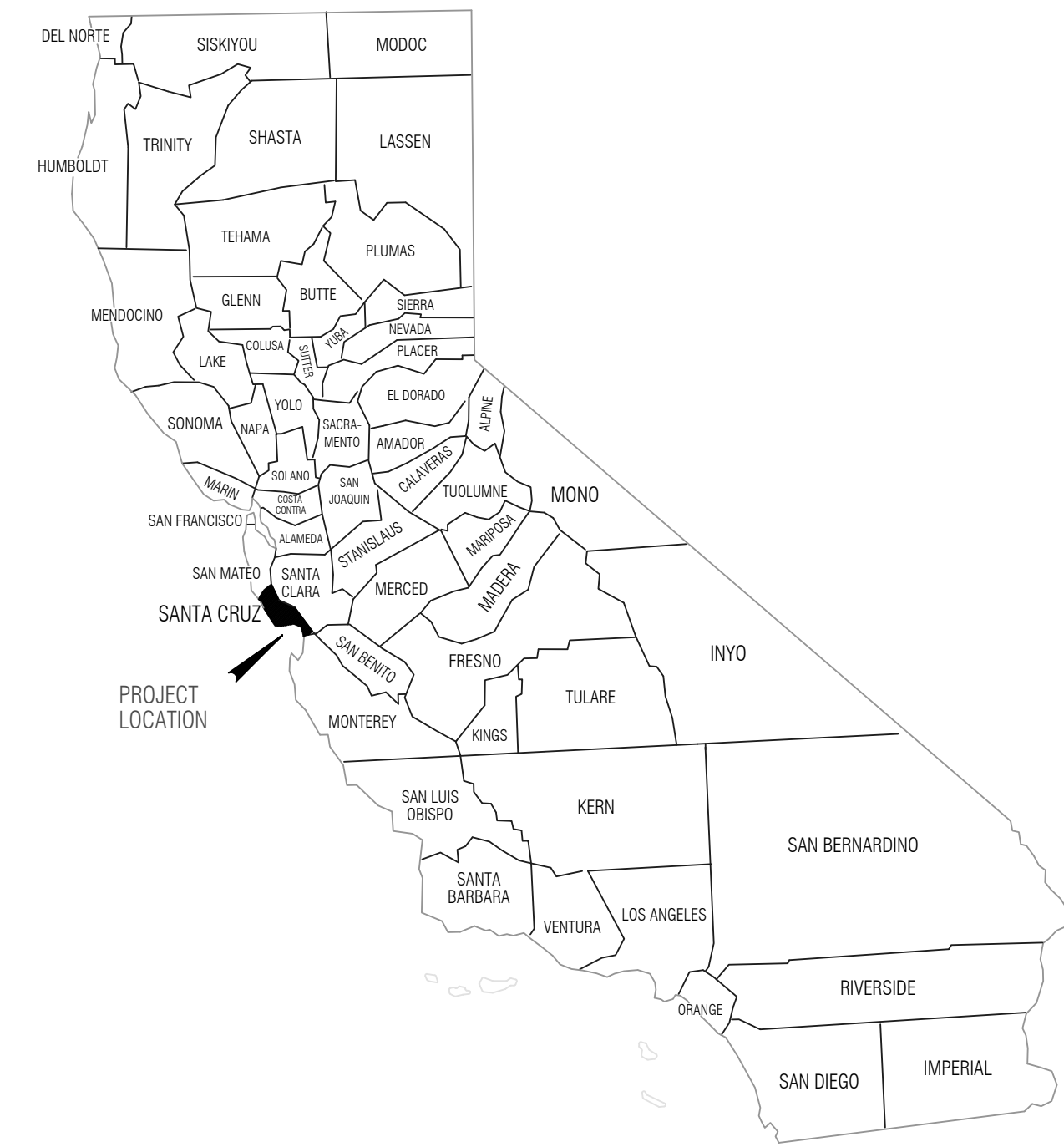
Freedom Blvd is on many bus routes



New bus pullout will be similar to pullout located at SC County Health Center, Freedom Blvd



CITY OF WATSONVILLE
SANTA CRUZ COUNTY, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS & UTILITIES

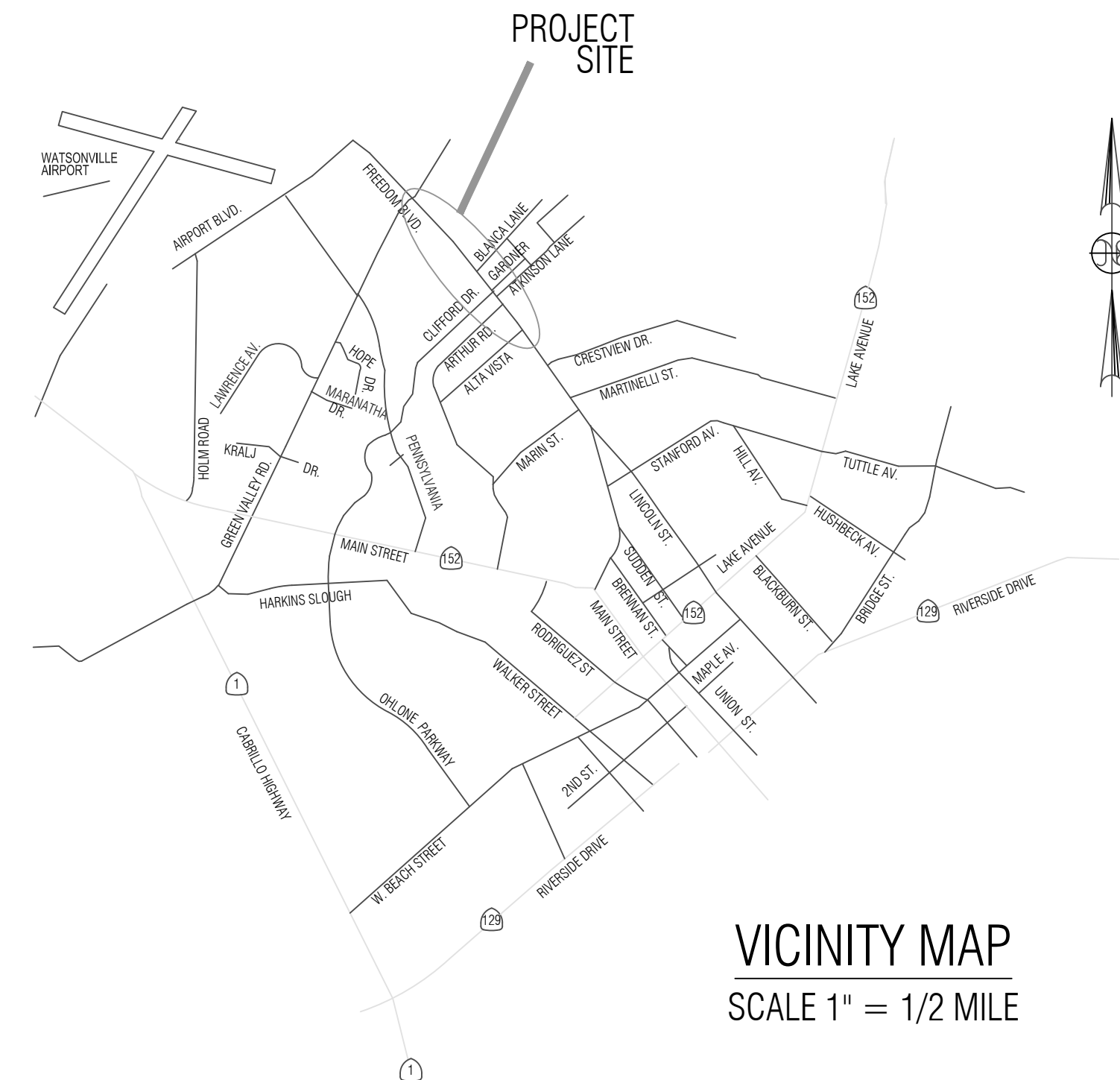


CONSTRUCTION PLANS
FREEDOM BLVD. RECONSTRUCTION
from Green Valley Rd
to Alta Vista Ave

CITY PROJECT ST-22-14838

SHEET INDEX

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
1	COVER SHEET
2	KEY MAP
3	PROJECT CONTROL
4-10	LAYOUTS
11-17	PAVEMENT DELINEATION
18-29	CONSTRUCTION DETAILS
30-31	TRAFFIC SIGNAL PLAN
32-34	CITY STANDARD DETAILS



VICINITY MAP
SCALE 1" = 1/2 MILE

KEY DATES

APPROVAL	_____
BID OPENING	_____
CONSTRUCTION	_____
COMPLETION	_____
AS BUILT	_____

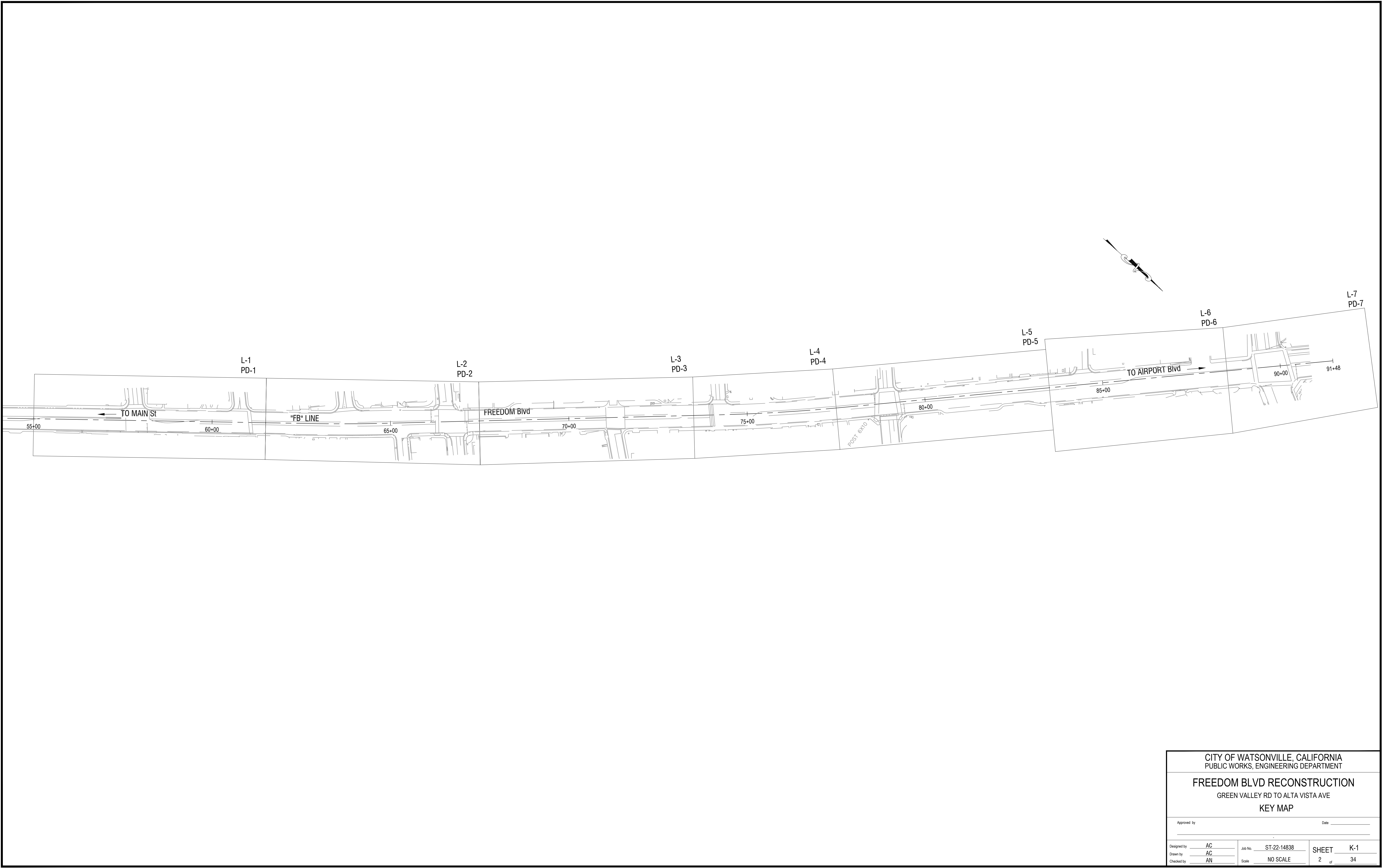
CITY OF WATSONVILLE, CALIFORNIA CITY COUNCIL		
_____	ARI PARKER, MAYOR	_____
_____	REBECCA J. GARCIA	_____
ADMINISTRATIVE STAFF		
_____	CHRISTIAN DI RENZO Director of Public Works and Utilities	_____
_____	SAMANTHA ZUTLER City Attorney	_____



APPROVED BY:

Patrice Andrea Theriot
Principal Engineer
Public Works and Utilities
INSERT DATE
Date

FREEDOM BLVD RECONSTRUCTION FROM GREEN VALLEY RD TO ALTA VISTA AVE



FREEDOM BLVD RECONSTRUCTION BETWEEN GREEN VALLEY RD AND ALTA VISTA AVE

CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE KEY MAP			
Approved by _____		Date _____	
Designed by <u>AC</u>	Job No. <u>ST-22-14838</u>	SHEET <u>K-1</u>	
Drawn by <u>AC</u>			
Checked by <u>AN</u>	Scale <u>NO SCALE</u>	2 of 34	

NOTES:

1. CONTRACTOR SHALL COMPLY WITH BUSINESS AND PROFESSIONS CODE SECTION 8771(b) REGARDING REFERENCING, PRESERVING AND RECONSTRUCTING MONUMENTS, WHETHER OR NOT MONUMENTS ARE SHOWN IN THESE PLANS.

BASIS OF COORDINATES AND BEARINGS:

PROJECT CONTROL IS BASED ON HOLDING THE HORIZONTAL COORDINATE VALUES OF CONTROL POINT 205 (HMH CONTROL POINT 611) PER THE SURVEY PERFORMED BY HMH ENGINEERS ON AUGUST 2021. ALL DISTANCES, BEARINGS, AND COORDINATES ARE BASED ON ZONE 3 OF THE CALIFORNIA COORDINATE SYSTEM (CCS), NAD83 (2018 ADJUSTMENT), EPOCH 2011.00. GROUND DISTANCES WERE OBTAINED BY DIVIDING THE GRID DISTANCES USING THE COMBINED FACTOR OF 1.0000308905 CALCULATED AT CONTROL POINT 205 (HMH CONTROL POINT 611).

BASIS OF ELEVATIONS:

THIS PROJECT IS BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).

ABBREVIATIONS:

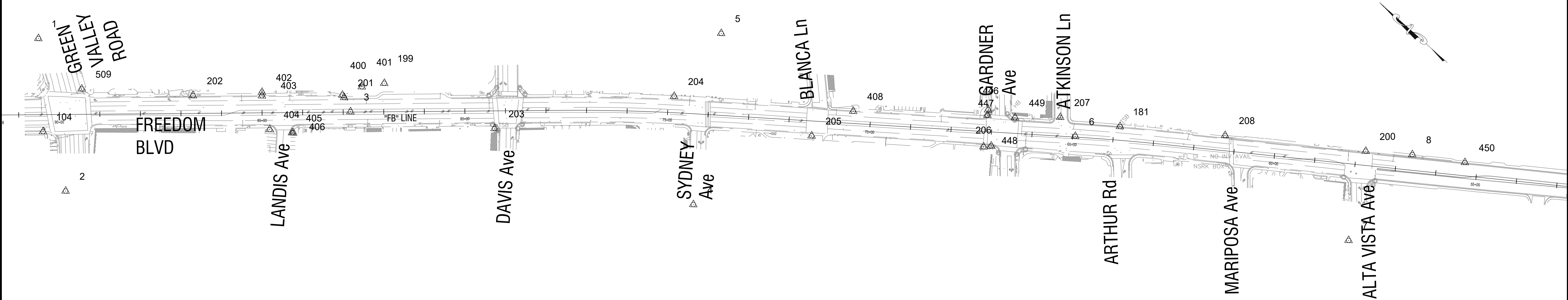
AT	SURVEY AERIAL TARGET
AC	ASPHALT
BM	SURVEY BENCH MARK
CNC	CONCRETE FINISHED SURFACE
CP	CONTROL POINT
FD	FOUND
MAG	MAGNETIC
SWK	SIDEWALK
TC	TOP OF CURB

LEGEND:

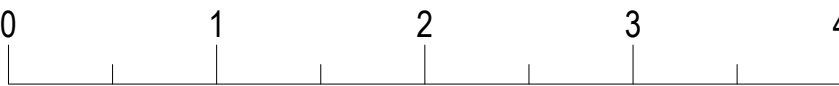
	PROJECT CONTROL MONUMENT
---	--------------------------

CONTROL FOR DESIGN AND CONSTRUCTION				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1801534.10	6189572.50	123.70	AT MAG NL/SHNR
2	1801234.49	6189335.96	125.05	AT MAG NL/SHNR
3	1800839.47	6189947.47	114.76	AT MAG NL/SHNR
4	1800054.61	6190337.96	111.94	AT MAG NL/SHNR
5	1800282.96	6190698.97	112.21	AT PID SWS END
6	1799461.90	6191088.61	97.46	AT MAG NL/SHNR
7	1798787.48	6191343.93	92.22	AT MAG NL/SHNR
8	1798810.16	6191606.18	95.31	AT PID CNC AP
104	1801373.20	6189408.47	124.52	CP SCRIBE X TC OLD JOB
181	1799395.28	6191179.69	95.64	BM 2I BC COW W-181
199	1800822.88	6190055.86	113.64	CP MAG NL/SHNR
200	1798901.69	6191536.30	96.99	CP SCRIBE X SWK
201	1800874.13	6189963.34	114.14	CP SCRIBE X TC
202	1801155.54	6189720.09	118.33	CP SCRIBE X SWK
203	1800545.22	6190152.80	113.18	CP MAG NL IN AC BOW
204	1800267.01	6190506.15	111.45	CP SCRIBE X SWK
205	1799948.65	6190658.09	106.23	CP CUT X GUTTER PAN
206	1799613.61	6190919.06	101.01	CP SCRIBE X SWK
207	1799520.47	6191099.14	97.38	CP MAG NL
208	1799186.80	6191335.28	95.54	CP SCRIBE X SWK

CONTROL FOR DESIGN AND CONSTRUCTION				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
400	1800880.68	6189965.62	114.20	FD MON N&T LS4823
401	1800858.53	6190012.66	114.38	FD CUT X CONC K MART PL
402	1801033.85	6189839.17	115.50	FD MON 1I IP LS4823
403	1801028.06	6189832.64	115.62	FD N&T LS 4823
404	1800958.97	6189783.34	115.83	FD MAG NL IN AC
405	1800912.11	6189813.65	115.13	FD MON N&T LS 6832
406	1800909.74	6189815.48	115.04	FD MON NL & WSHR LS6832
408	1799912.19	6190771.41	104.81	FD MON N&T LS2362
446	1799665.53	6190994.69	99.99	FD MON 1" IP W PLUG LS5615
447	1799658.08	6190983.79	99.58	FD SCRIBE X IN SWK
448	1799601.03	6190933.21	100.65	FD LEAD-TACK NO TAG
449	1799603.30	6191024.26	99.05	FD MAG NL IN AC
450	1798700.29	6191677.74	90.81	FD MON N&T LS 5114
509	1801371.83	6189550.30	123.74	BM 2I BC COW W-509



FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES

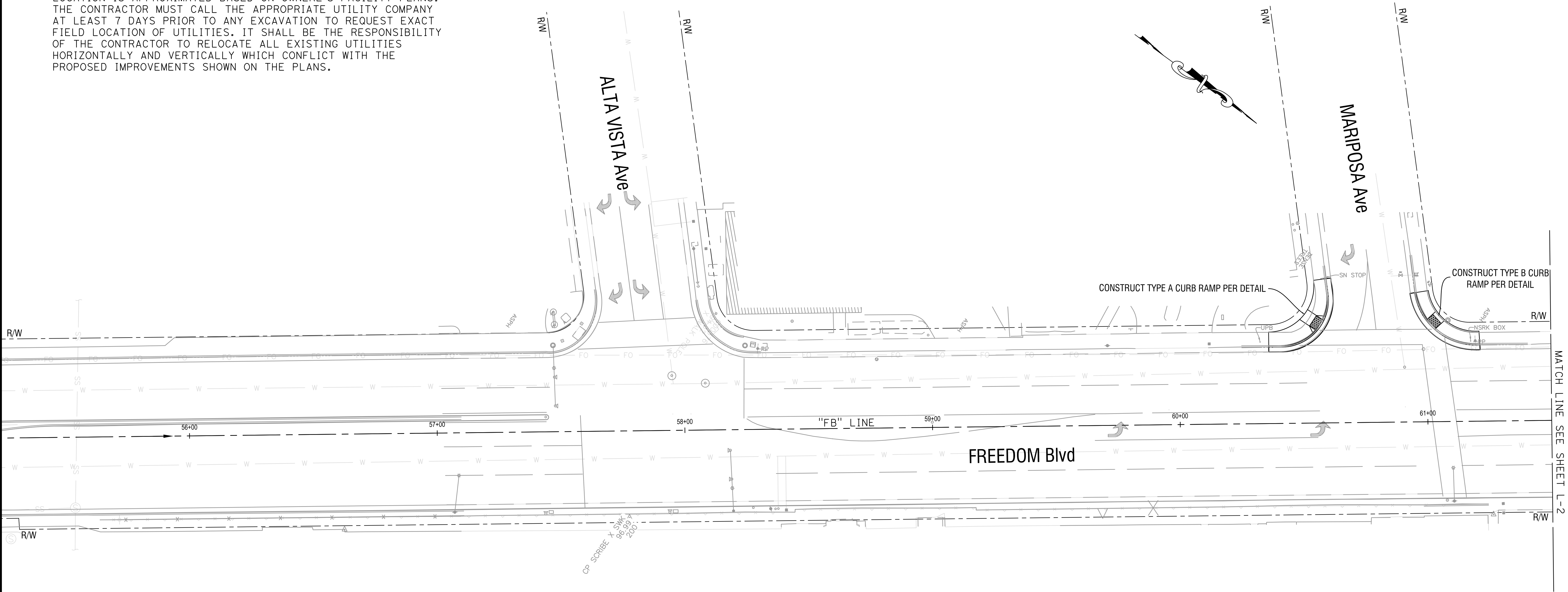


CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE PROJECT CONTROL PLAN			
Approved by _____		Date _____	
Designed by AC	Job No. ST-22-14838	SHEET 3	PC-1 of 34
Drawn by AC	Scale NO SCALE		
Checked by AN			

FREEDOM BLVD RECONSTRUCTION BETWEEN GREEN VALLEY RD AND ALTA VISTA AVE

NOTES:

- 1. LOCATION OF EXISTING UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY POTHOLING BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- 2. WHERE POTHOLE LOCATIONS WERE NOT DETERMINED, THE UTILITY LOCATION IS APPROXIMATED BASED ON OWNERS' FACILITY PLANS. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 7 DAYS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES HORIZONTALLY AND VERTICALLY WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

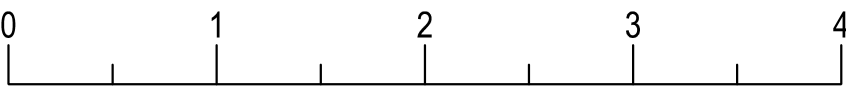


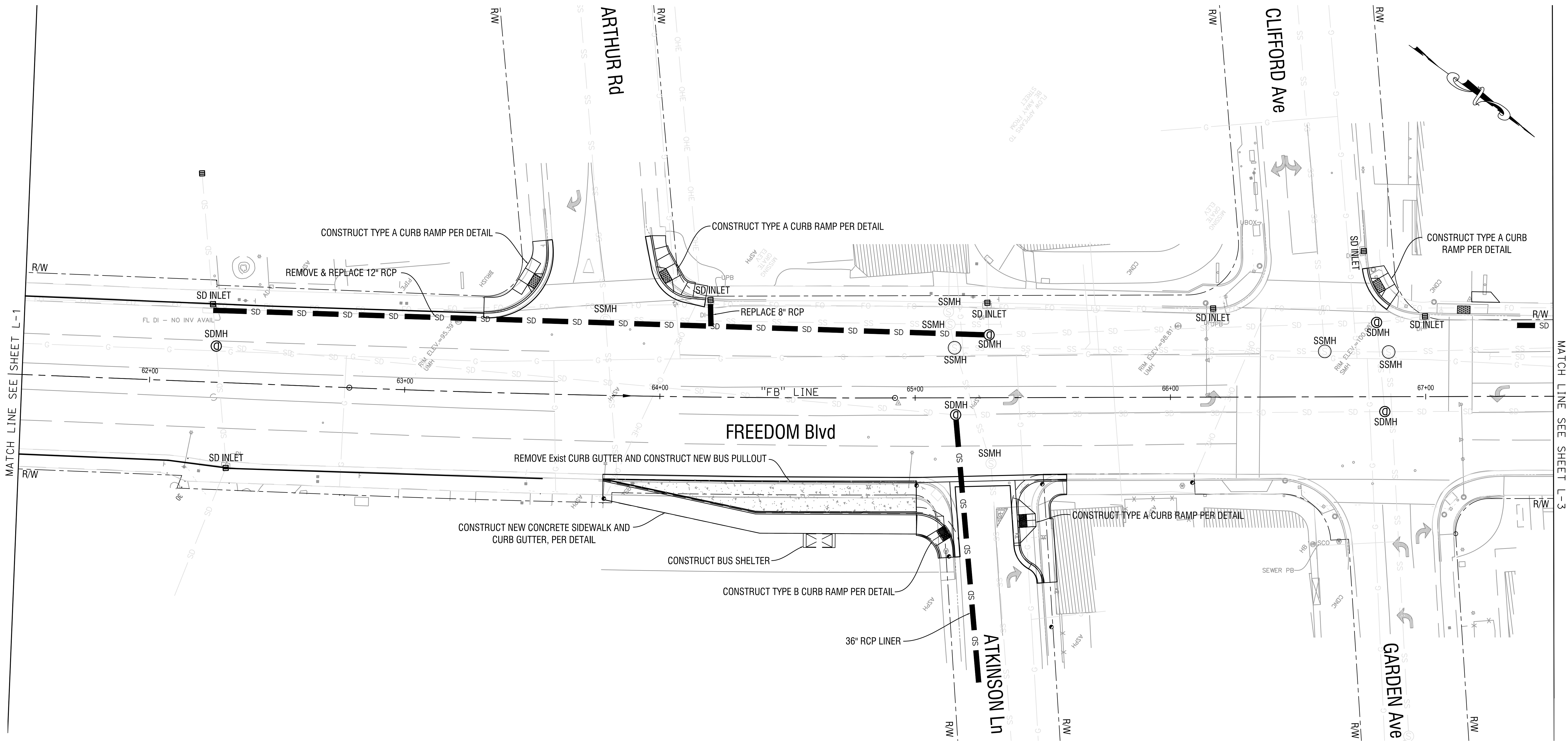
MATCH LINE SEE SHEET L-2

FREEDOM BLVD RECONSTRUCTION BETWEEN GREEN VALLEY RD AND ALTA VISTA AVE

CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE LAYOUT STA 55+00 TO 61+50			
Approved by _____		Date _____	
Designed by AC	Job No. ST-22-14838	SHEET L-1	
Drawn by AC	Scale 1"=20'	4 of 34	
Checked by AN			

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

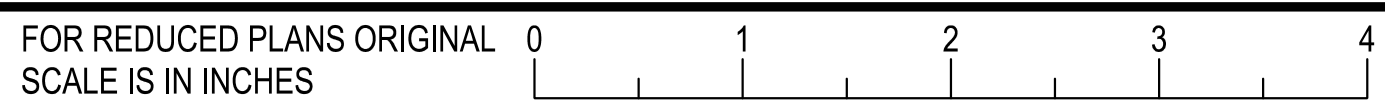


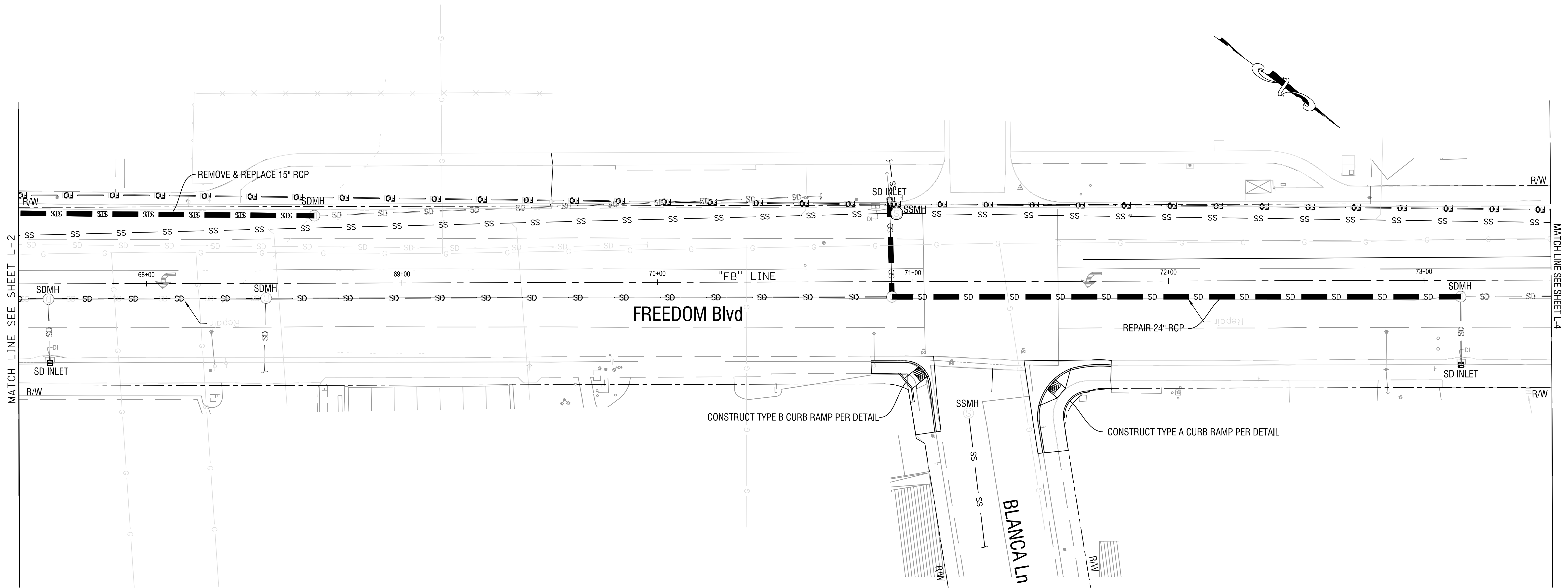


MATCH LINE SEE SHEET L-1

MATCH LINE SEE SHEET L-3

CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE LAYOUT STA 61+50 TO 67+50			
Approved by _____		Date _____	
Designed by AC	Job No. ST-22-14838	SHEET L-2	
Drawn by AC	Scale 1"=20'	5	of 34
Checked by AN			





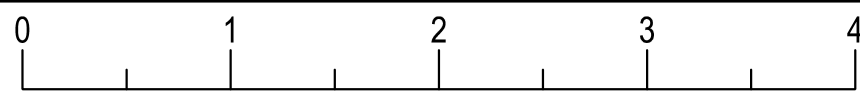
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MATCH LINE SEE SHEET L-4

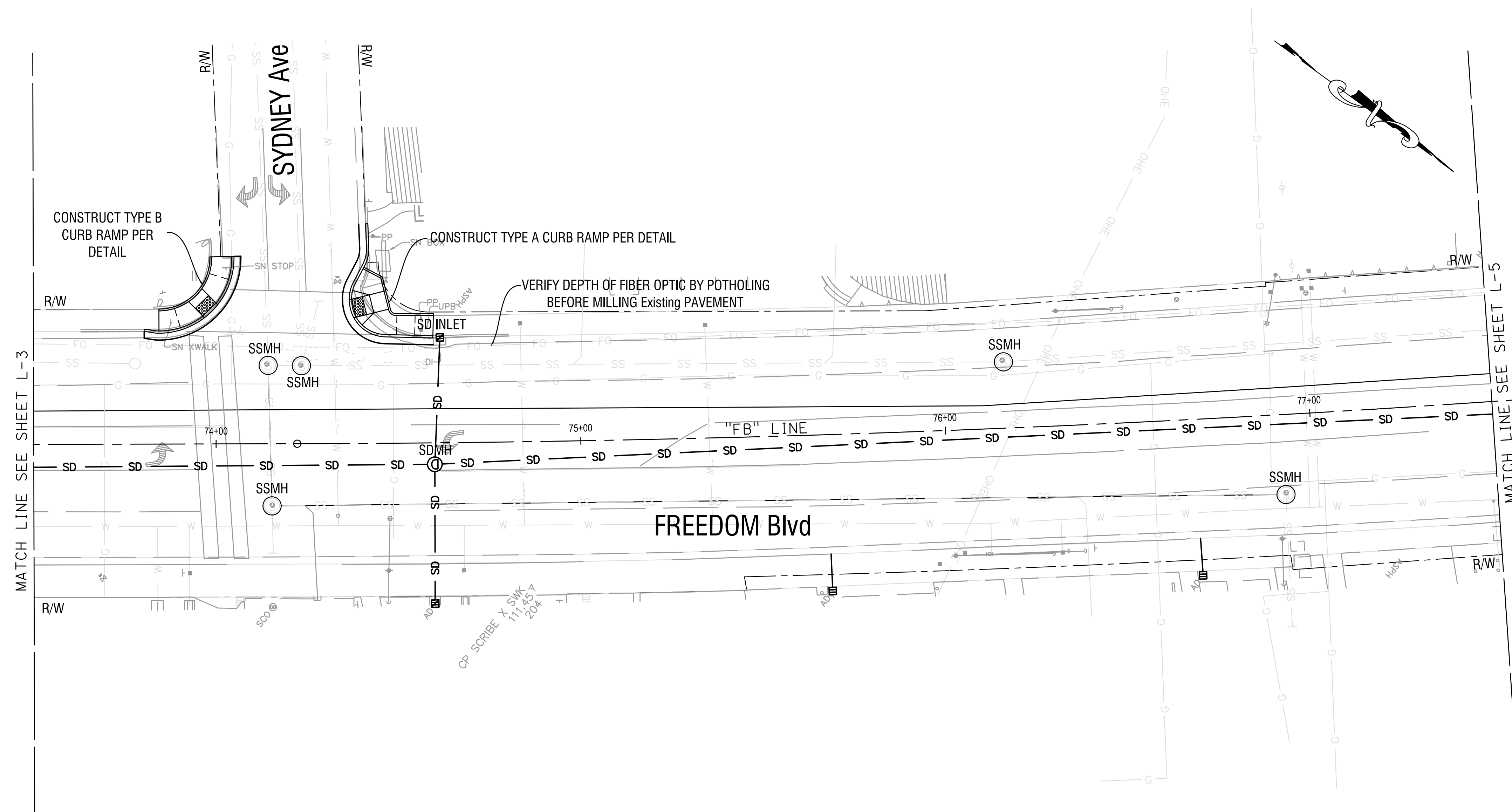
FREEDOM Blvd

BLANCA Ln

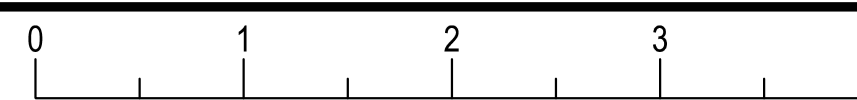
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SCALE IS IN INCHES



CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT		
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE LAYOUT STA 67+50 TO 73+50		
Approved by _____		Date _____
Designed by AC	Job No. ST-22-14838	SHEET L-3
Drawn by AC	Scale 1"=20'	6 of 34
Checked by AN		

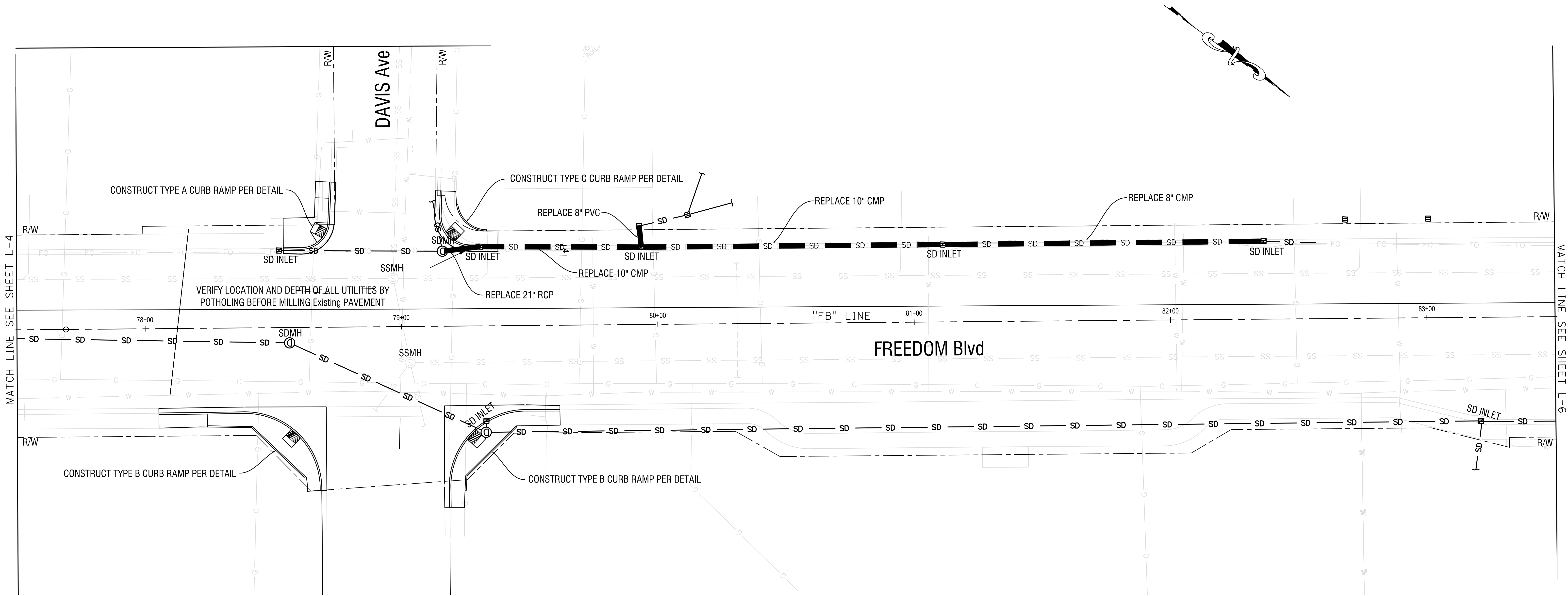


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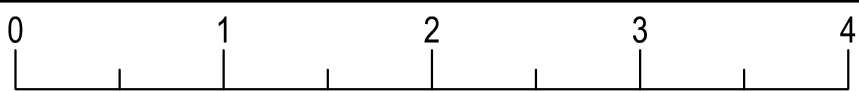


CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT							
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE LAYOUT STA 73+50 TO 77+50							
Approved by _____		Date _____					

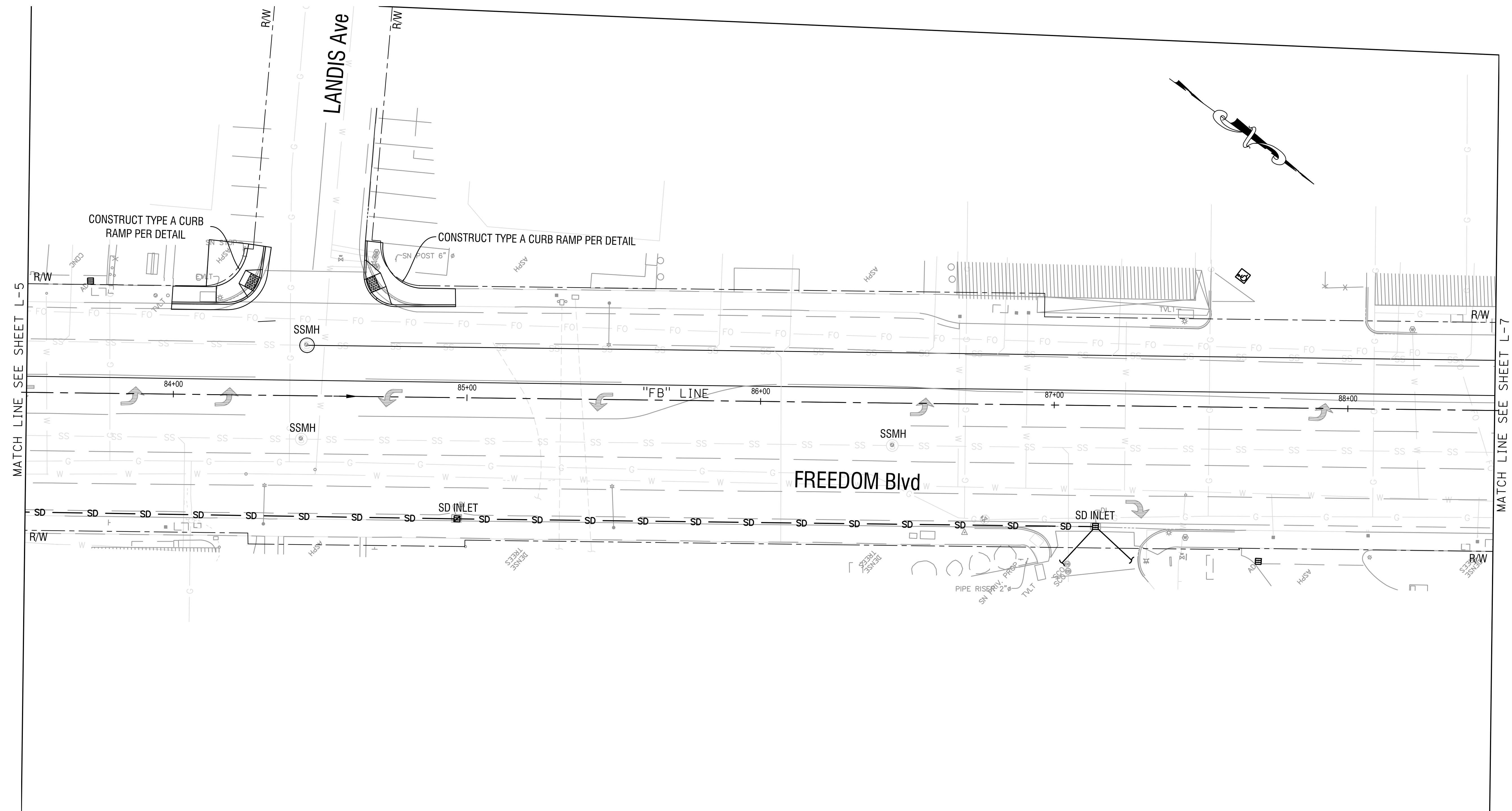
Designed by <u>AC</u> Drawn by <u>AC</u> Checked by <u>AN</u>	Job No. <u>ST-22-14838</u> Scale <u>1"=20'</u>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding: 5px;"> SHEET </td> <td style="padding: 5px;"> L-4 </td> </tr> <tr> <td style="border-right: 1px solid black; padding: 5px;"> 7 </td> <td style="padding: 5px;"> of 34 </td> </tr> </table>		SHEET	L-4	7	of 34
SHEET	L-4						
7	of 34						



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SCALE IS IN INCHES



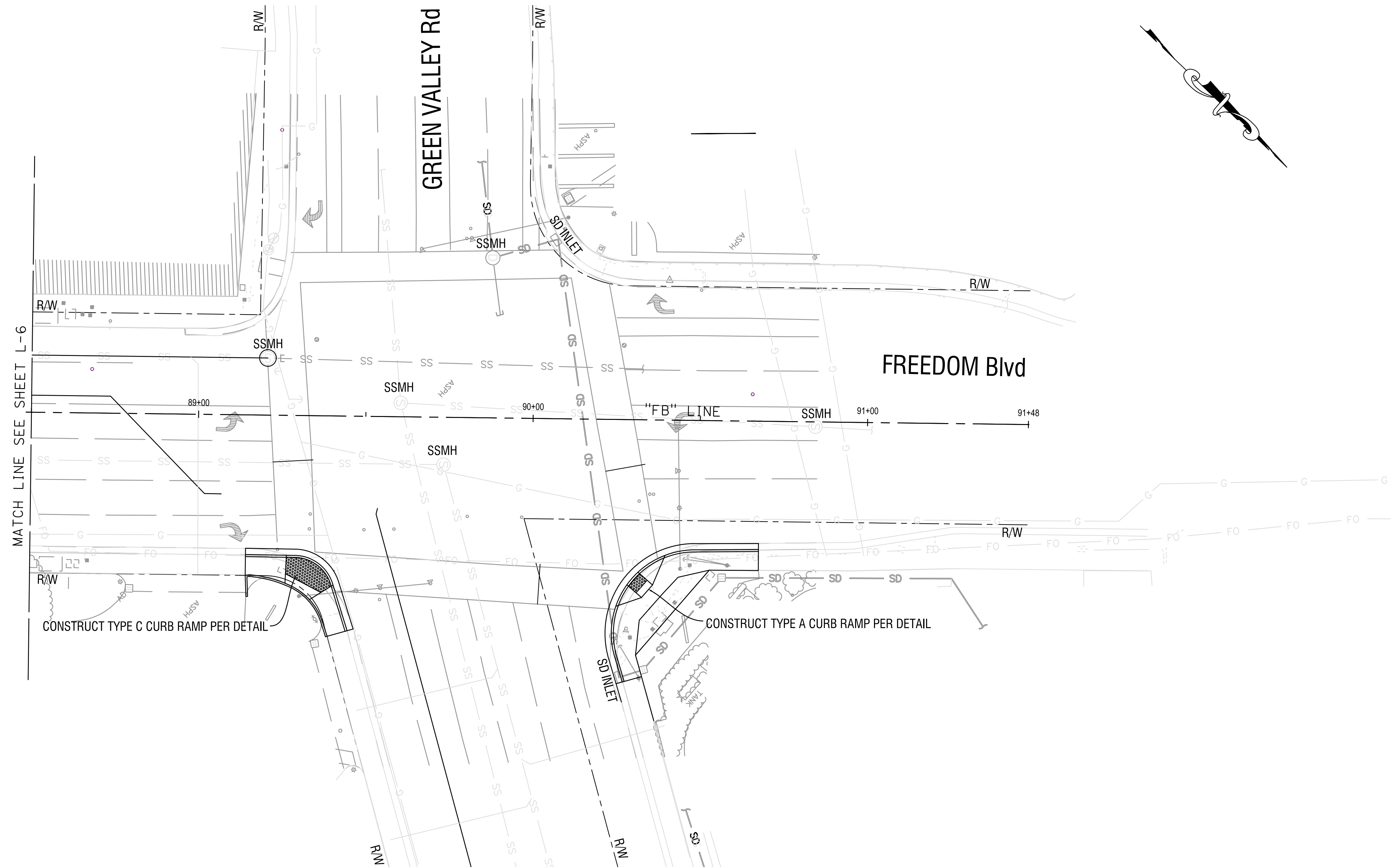
CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT		
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE LAYOUT STA 77+50 TO 83+50		
Approved by _____		Date _____
Designed by AC	Job No. ST-22-14838	SHEET L-5
Drawn by AC	Scale 1"=20'	8 of 34
Checked by AN		



CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE LAYOUT STA 83+50 TO 88+50			
Approved by _____		Date _____	

Designed by AC	Job No. ST-22-14838	SHEET L-6	
Drawn by AC	Scale 1"=20'	9 of 34	
Checked by AN			





MATCH LINE SEE SHEET L-6

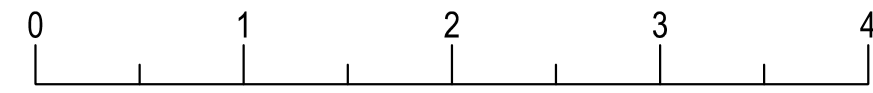
GREEN VALLEY Rd

FREEDOM Blvd

CONSTRUCT TYPE C CURB RAMP PER DETAIL







CONSTRUCT TYPE A CURB RAMP PER DETAIL

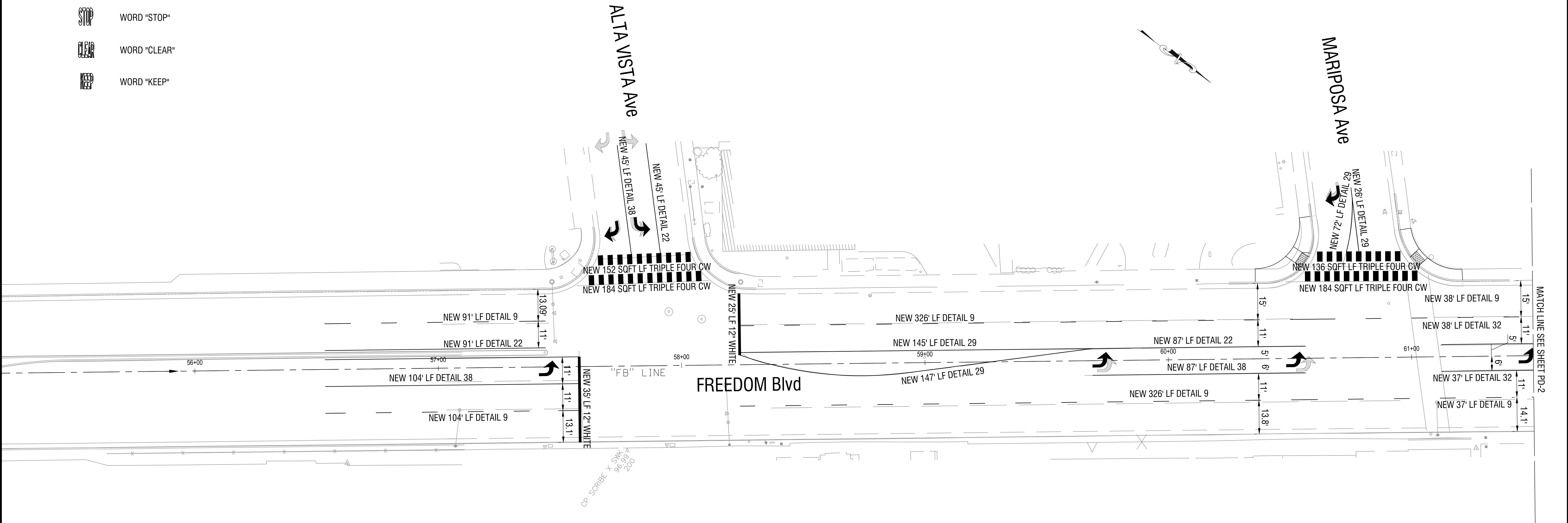
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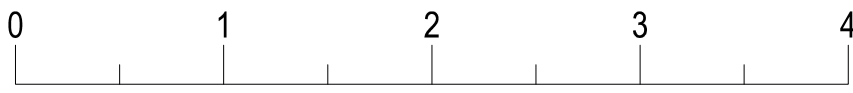
CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE LAYOUT STA 88+50 TO 91+48			
Approved by _____		Date _____	
Designed by <u>AC</u>	Job No. <u>ST-22-14838</u>	SHEET <u>L-7</u>	
Drawn by <u>AC</u>			
Checked by <u>AN</u>	Scale <u>1"=20'</u>	10 of 34	

LEGEND

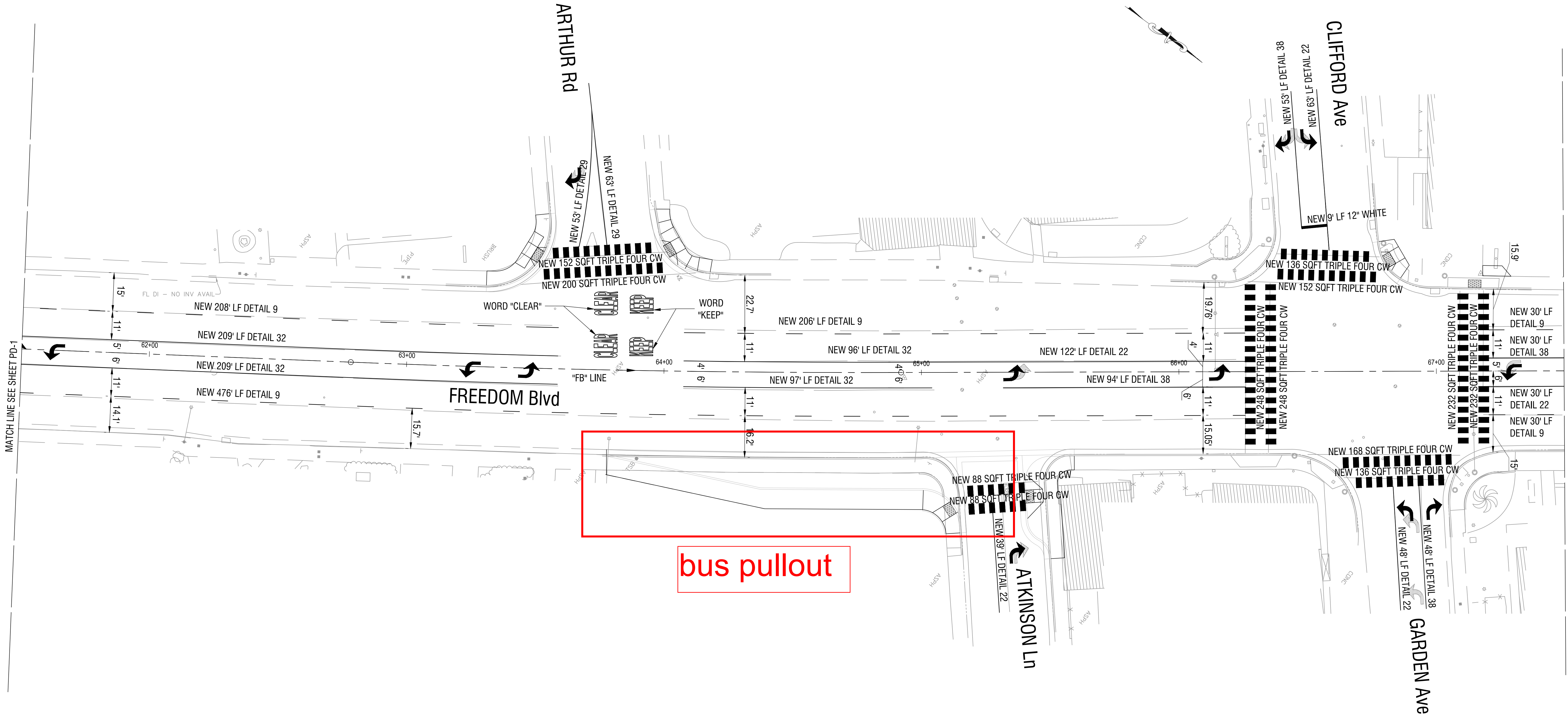
- TYPE IV (L OR R) ARROW
- BIKE LANE ARROW
- BIKE LANE SYMBOL WITH PERSON
- WORD "STOP"
- WORD "CLEAR"
- WORD "KEEP"



FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE STRIPING LAYOUT STA 55+00 TO 61+50			
Approved by _____		Date _____	
Designed by AC	Job No. ST-22-14838	SHEET	PD-1
Drawn by AC		11	of 34
Checked by AN	Scale 1"=20'		



MATCH LINE SEE SHEET PD-1

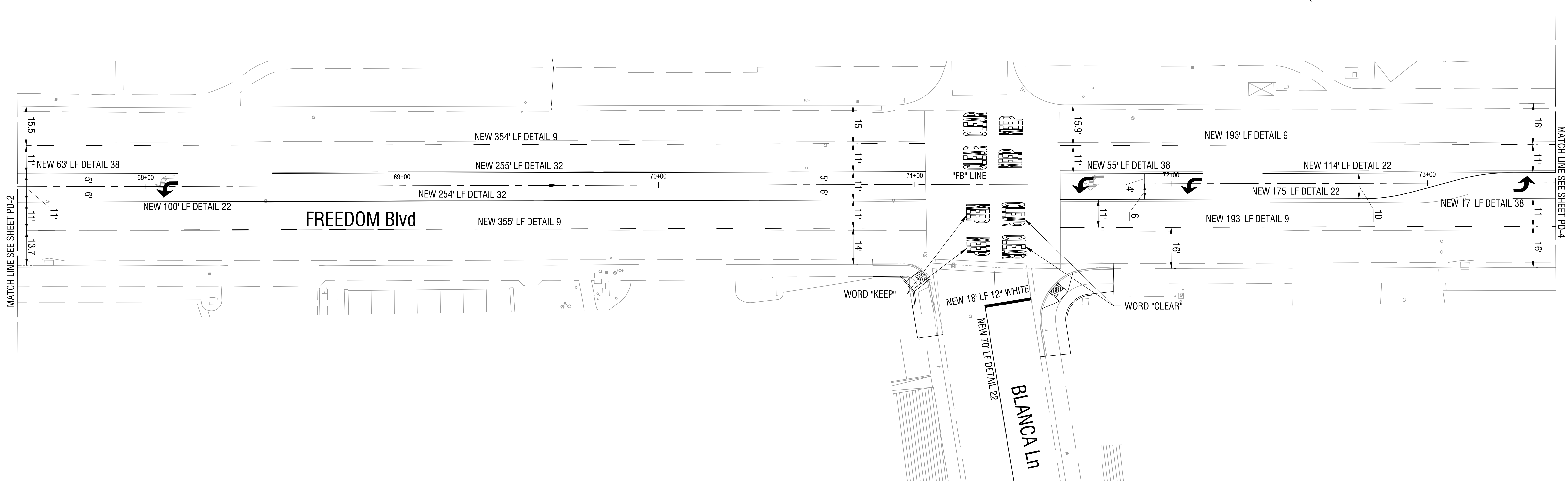
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FREEDOM BLVD RECONSTRUCTION BETWEEN GREEN VALLEY RD AND ALTA VISTA AVE

CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE STRIPING LAYOUT STA 61+50 TO 67+50			
Approved by _____		Date _____	
Designed by	AC	Job No.	ST-22-14838
Drawn by	AC	Scale	1"=20'
Checked by	AN	SHEET	PD-2
		12	of 34

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

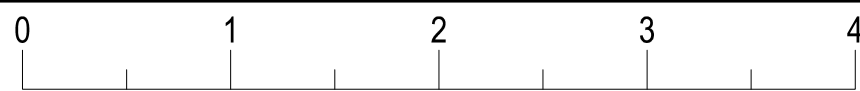




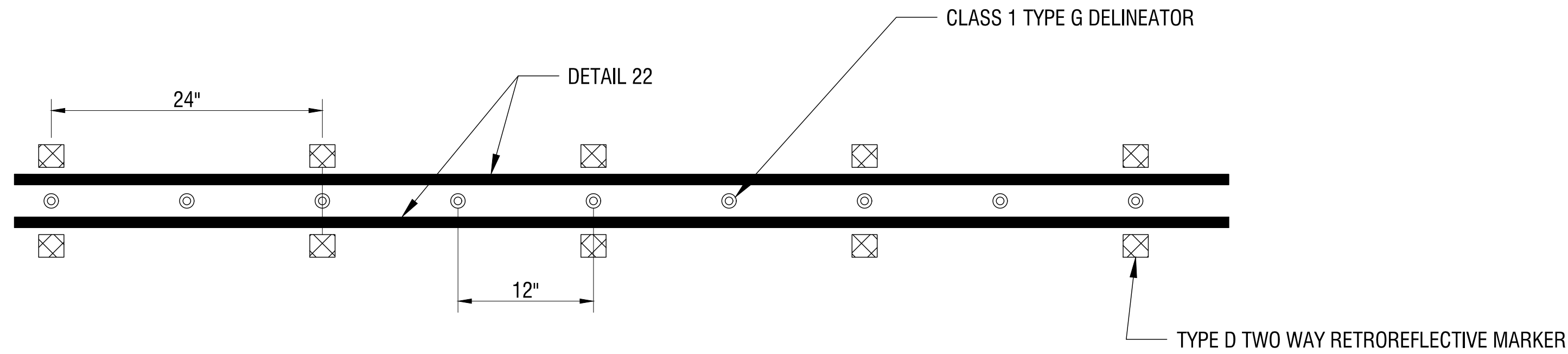
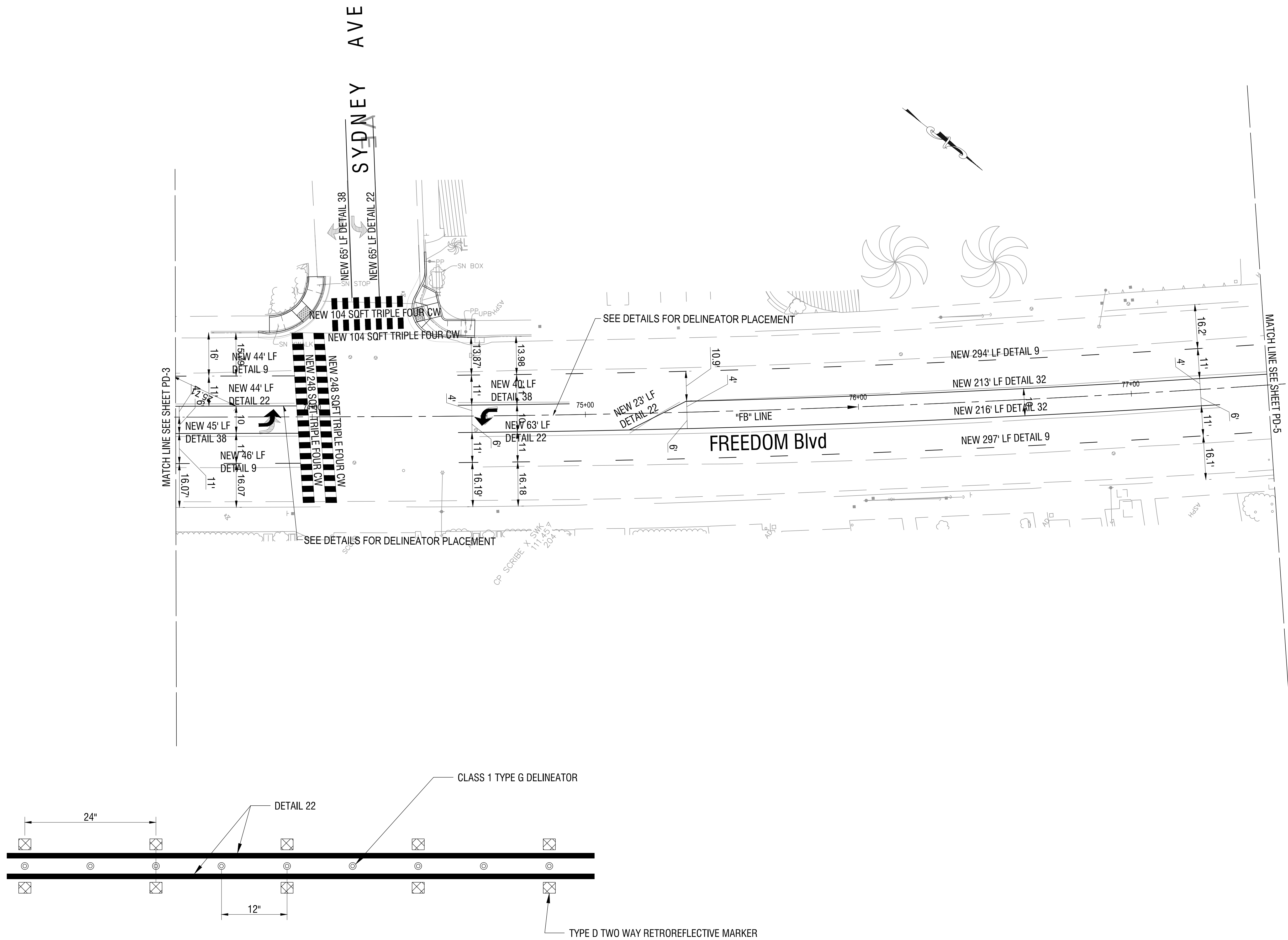
MATCH LINE SEE SHEET PD-2

MATCH LINE SEE SHEET PD-4

FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



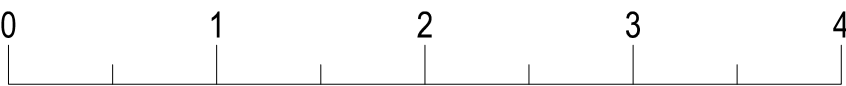
CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE STRIPING LAYOUT STA 67+50 TO 73+50			
Approved by _____		Date _____	
Designed by AC	Job No. ST-22-14838	SHEET 13	PD-3 of 34
Drawn by AC	Scale 1"=20'		
Checked by AN			



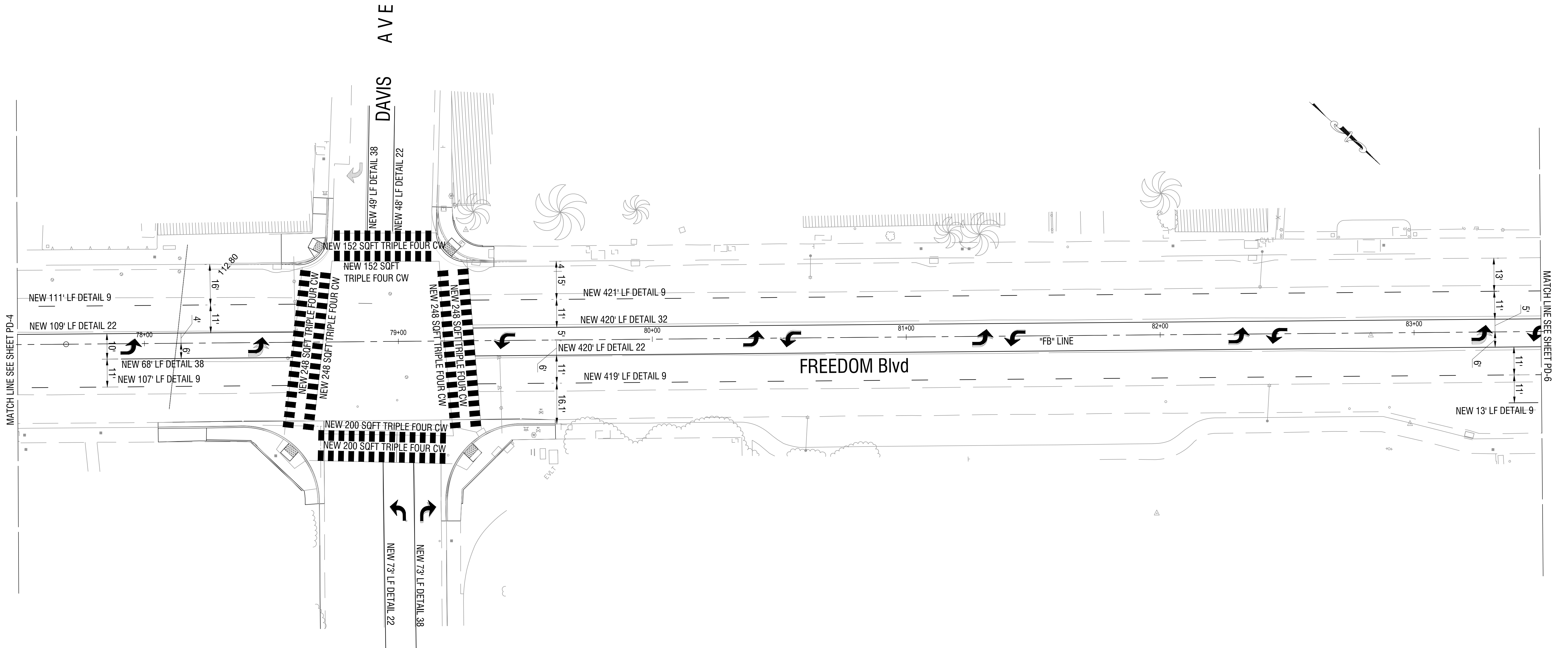
CLASS I TYPE G DELINEATOR PLACEMENT DETAILS

Sta 72+73 TO 73+94
Sta 74+53 TO 75+50

FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



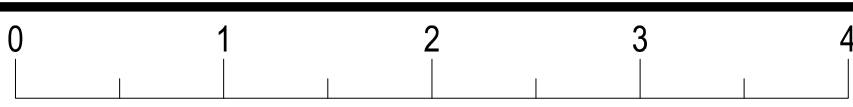
CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE STRIPING LAYOUT STA 73+50 TO 77+50			
Approved by _____		Date _____	
Designed by AC	Job No. ST-22-14838	SHEET	PD-4
Drawn by AC		14	of 34
Checked by AN	Scale 1"=20'		

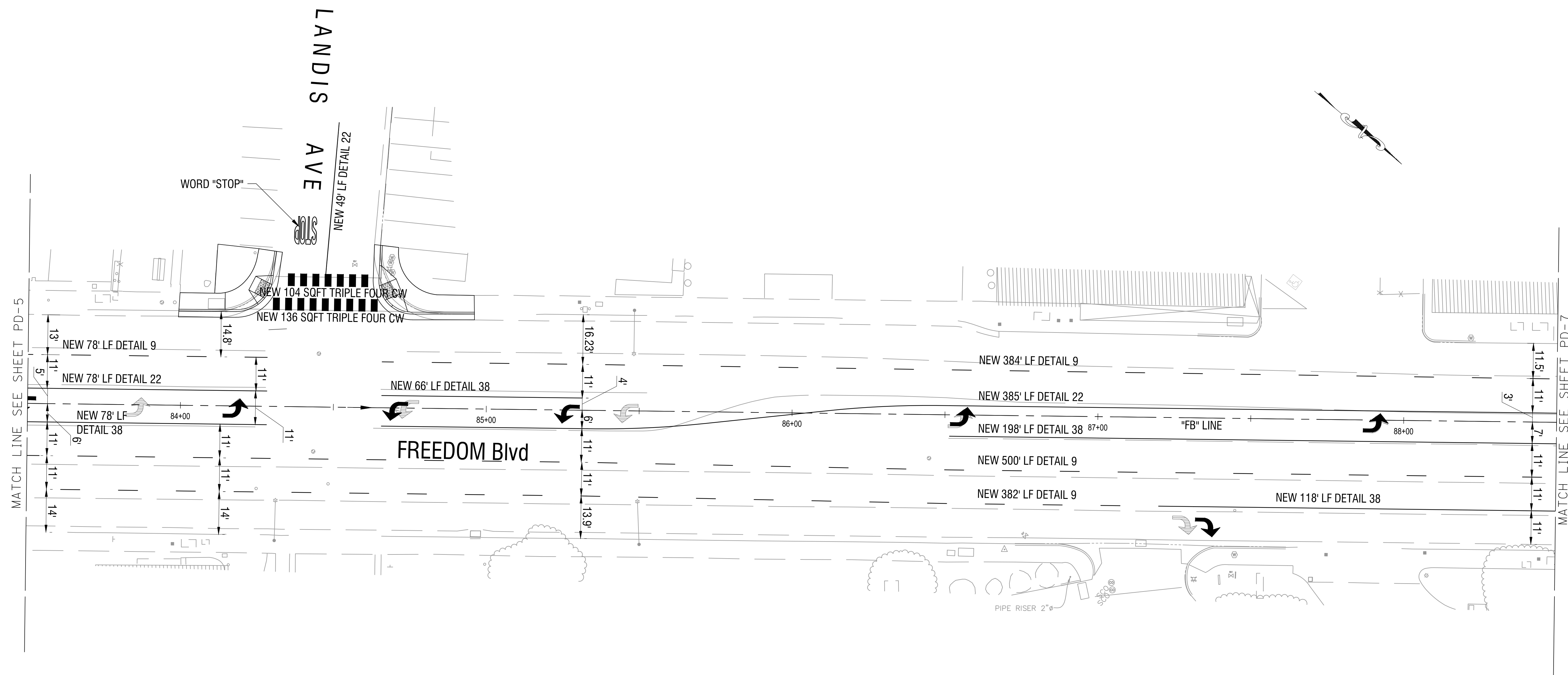


FREEDOM BLVD RECONSTRUCTION BETWEEN GREEN VALLEY RD AND ALTA VISTA AVE

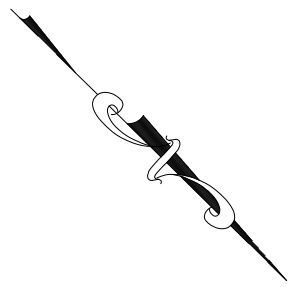
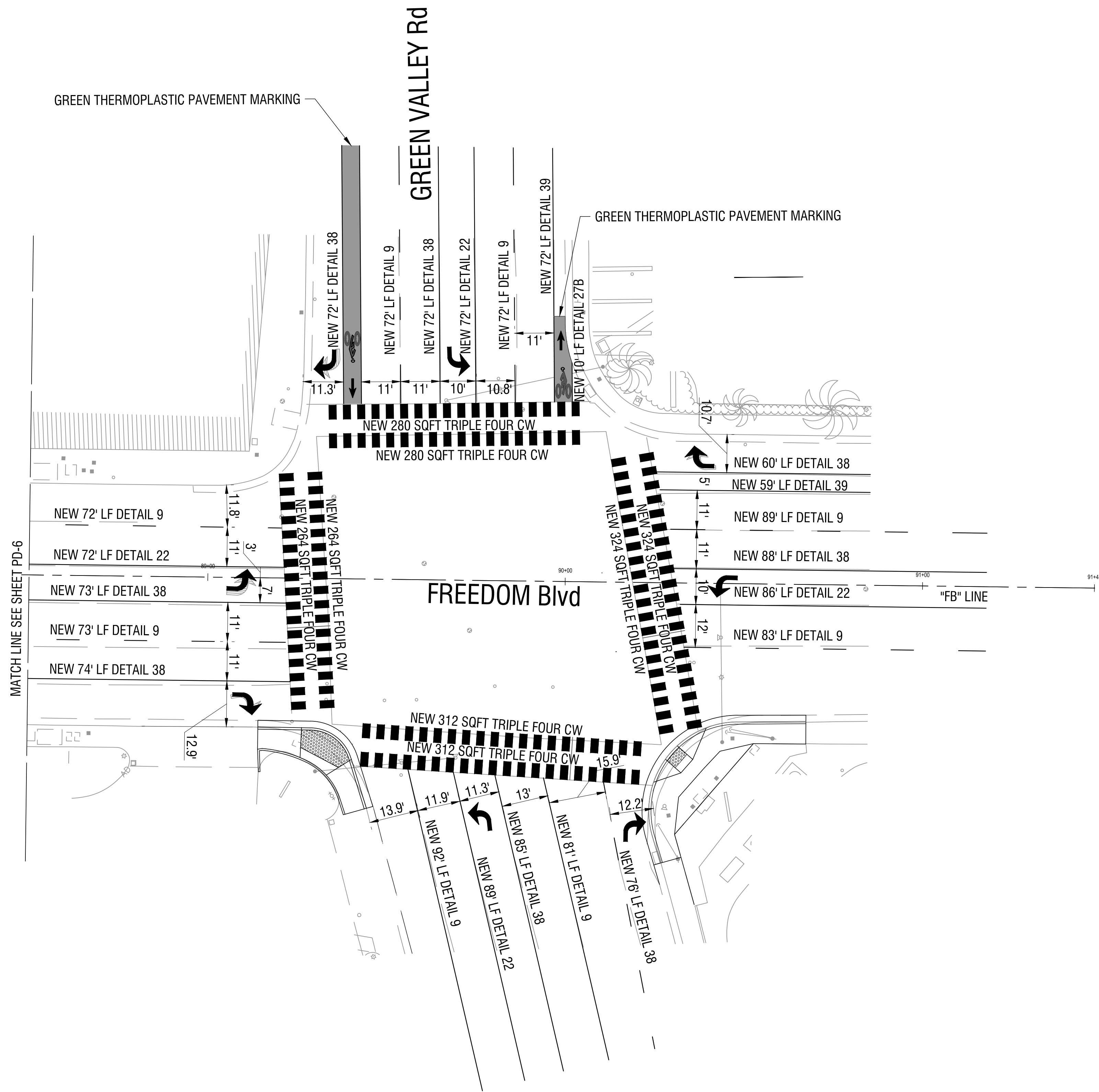
CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE STRIPING LAYOUT STA 77+50 TO 83+50			
Approved by _____		Date _____	
Designed by AC	Job No. ST-22-14838	SHEET PD-5	
Drawn by AC			
Checked by AN	Scale 1"=20'	15 of 34	

FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES

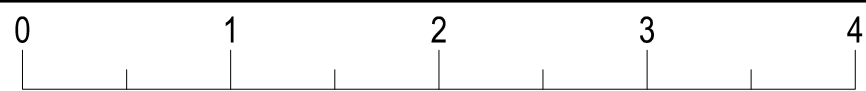




CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE STRIPING LAYOUT STA 83+50 TO 88+50			
Approved by _____		Date _____	
Designed by Drawn by Checked by	AC AC AN	Job No. Scale	ST-22-14838 1"=20'
		SHEET	PD-6 16 of 34



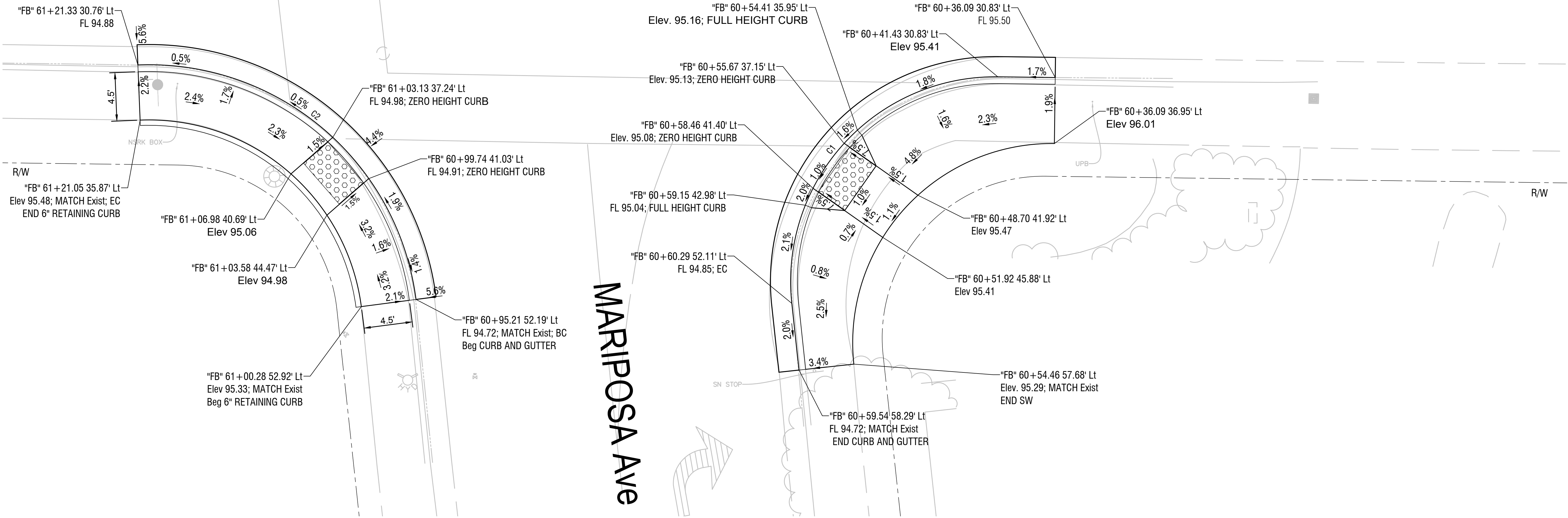
FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE STRIPING LAYOUT STA 88+50 TO 91+48			
Approved by _____		Date _____	
Designed by AC	Job No. ST-22-14838	SHEET PD-7	17 of 34
Drawn by AC	Scale 1"=20'		
Checked by AN			

FREEDOM BOULEVARD

CURVE TABLE			
CURVE No.	LENGTH	RADIUS	DELTA
C1	32.13'	19.00'	96°54'00"
C2	37.09'	25.04'	84°52'45"

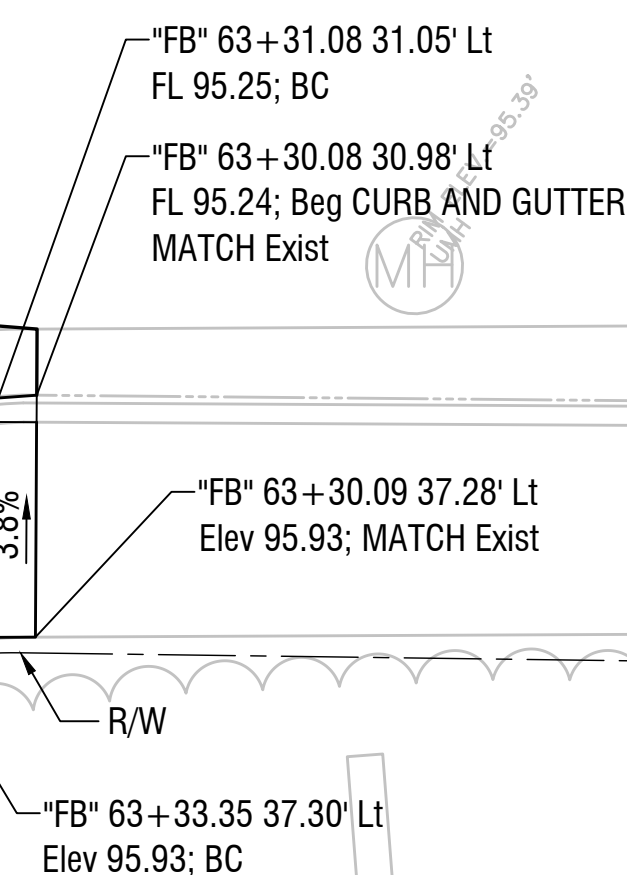
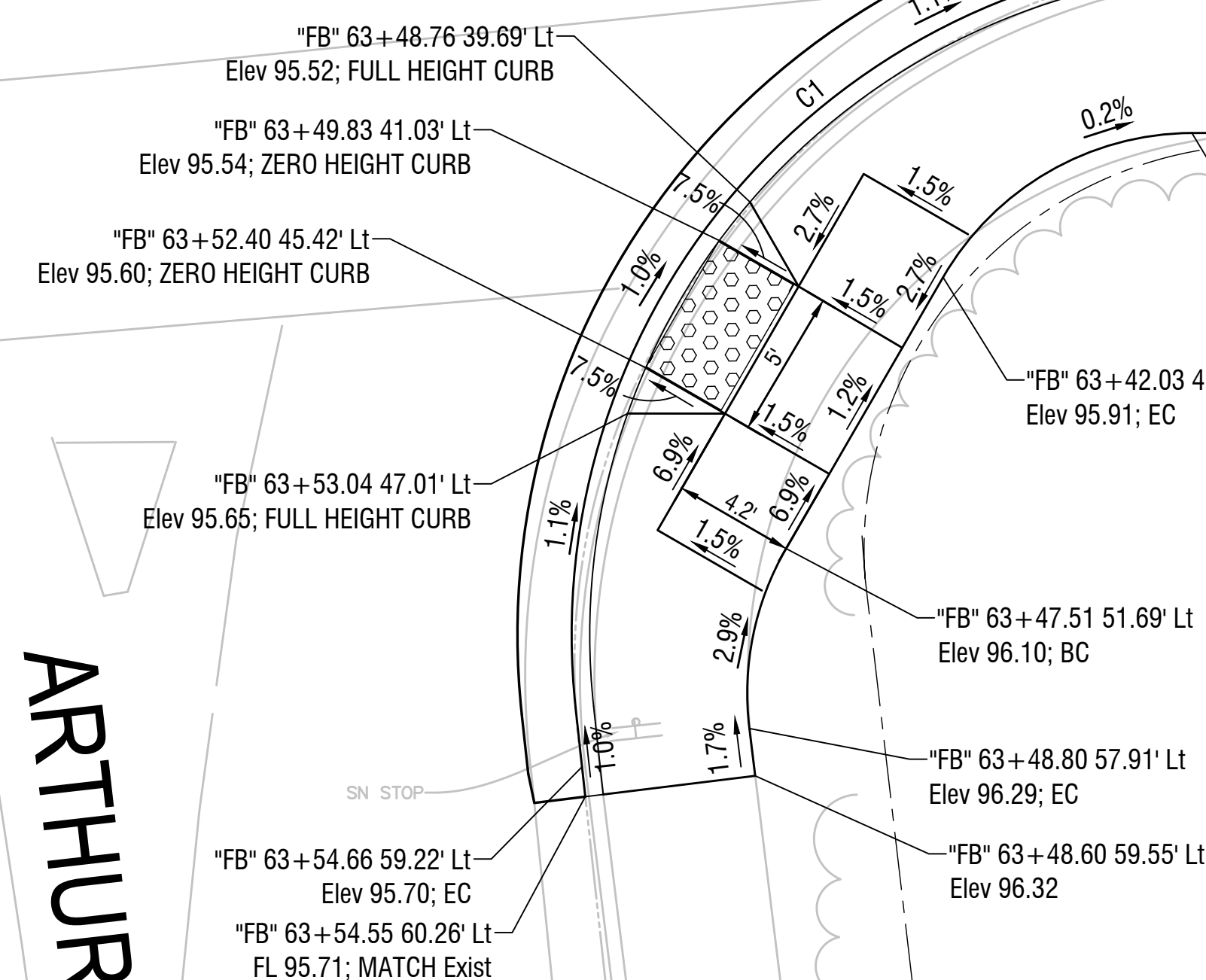
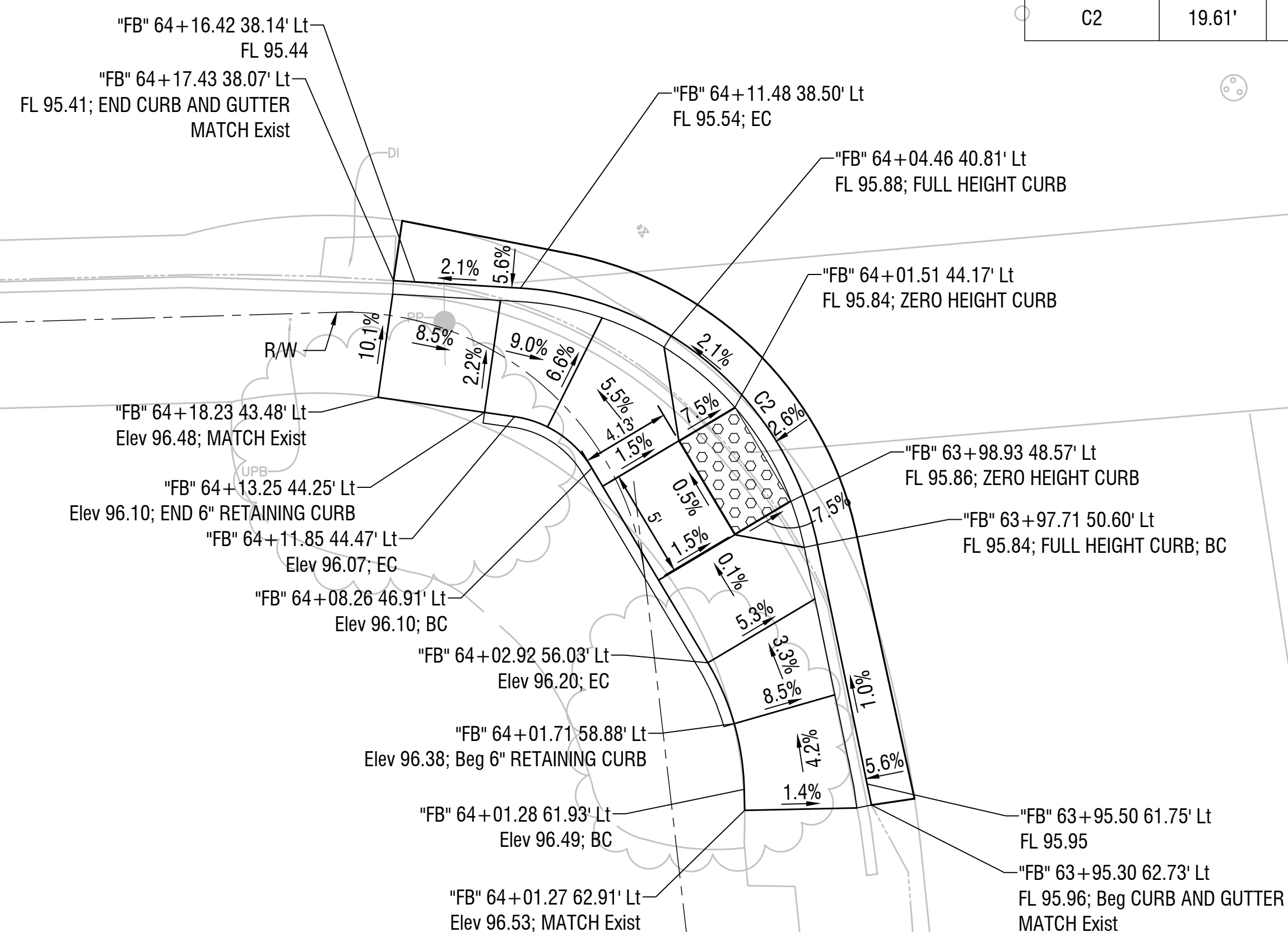


CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE MARIPOSA AVENUE INTERSECTION RAMPS			
Approved by _____		Date _____	
Designed by DS	Job No. ST-22-14838	SHEET	CD-1
Drawn by CF	Scale 1"=5'	18	of 34
Checked by AC			

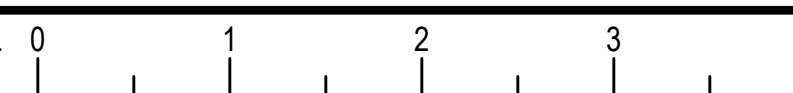
FREEDOM BLVD RECONSTRUCTION BETWEEN GREEN VALLEY RD AND ALTA VISTA AVE

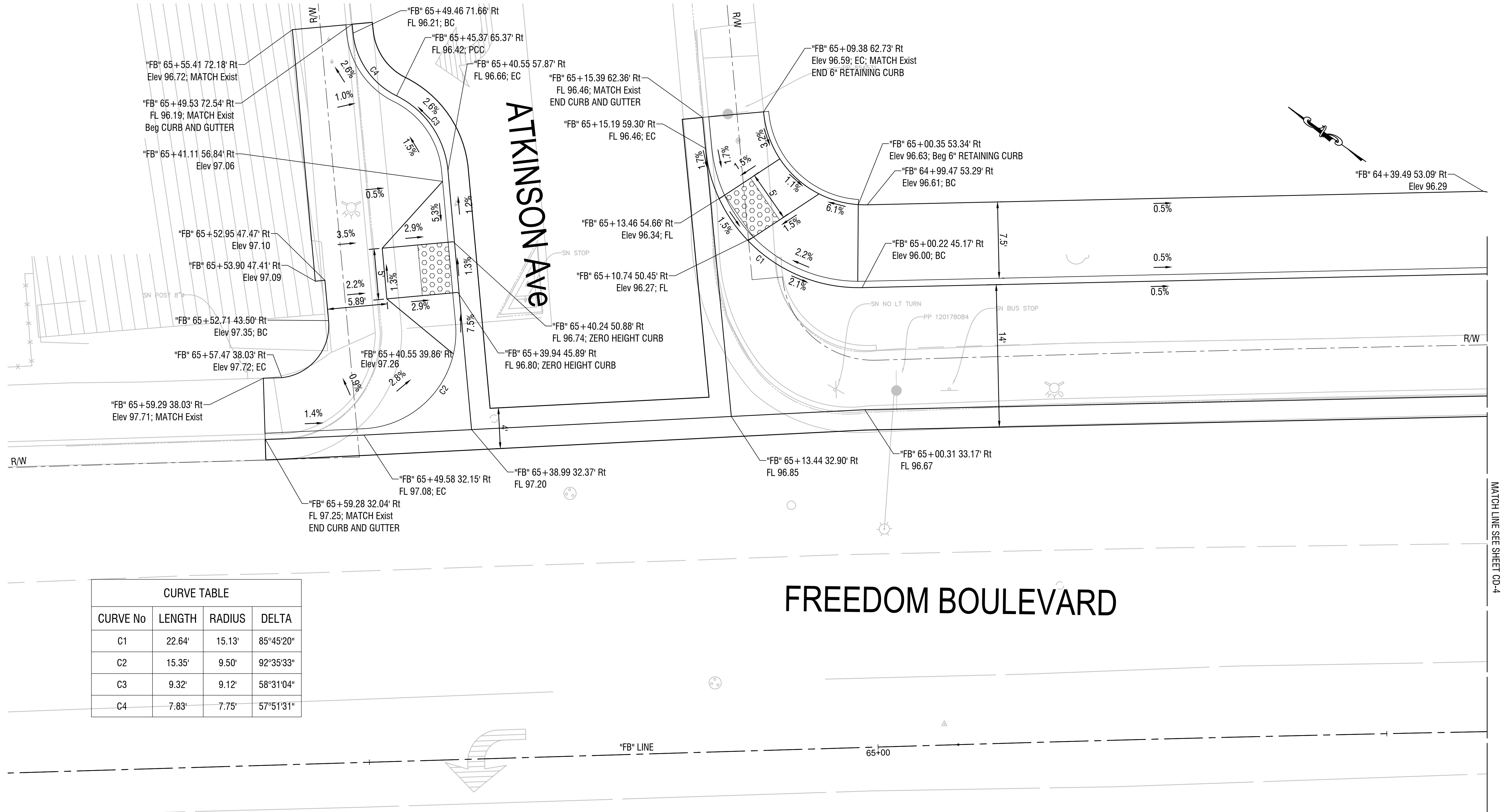
FREEDOM BOULEVARD

CURVE TABLE			
CURVE No.	LENGTH	RADIUS	DELTA
C1	39.75'	23.60'	96°31'03"
C2	19.61'	15.00'	74°53'36"



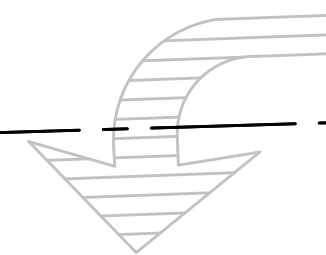
CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT			
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE FREEDOM BLVD/ARTHUR ROAD INTERSECTION RAMP			
Approved by _____		Date _____	
_____		_____	
Designed by DS Drawn by CF Checked by AC	Job No. ST-22-14838 Scale 1" = 5'	SHEET CD-2 19 of 34	



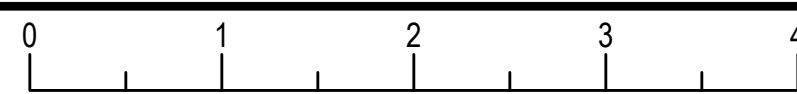


CURVE TABLE			
CURVE No	LENGTH	RADIUS	DELTA
C1	22.64'	15.13'	85°45'20"
C2	15.35'	9.50'	92°35'33"
C3	9.32'	9.12'	58°31'04"
C4	7.83'	7.75'	57°51'31"

FREEDOM BOULEVARD



FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



CITY OF WATSONVILLE, CALIFORNIA
PUBLIC WORKS, ENGINEERING DEPARTMENT

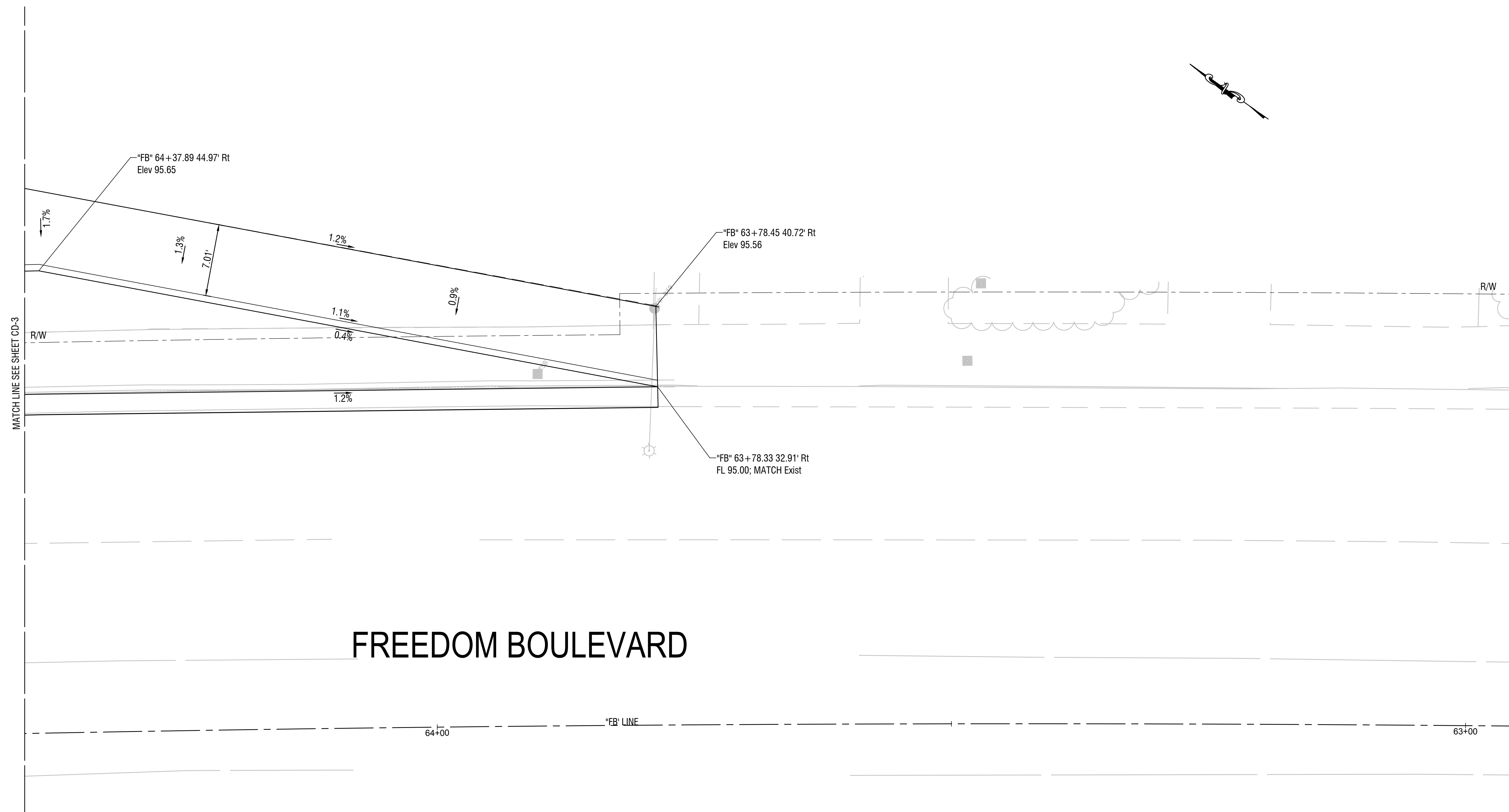
FREEDOM BLVD RECONSTRUCTION
GREEN VALLEY RD TO ALTA VISTA AVE
ATKINSON LANE/FREEDOM BLVD INTERSECTION RAMPS

Approved by _____ Date _____

Designed by VS
Drawn by CF
Checked by AC

Job No. ST-22-14838
Scale 1"=5'

SHEET CD-3
20 of 34

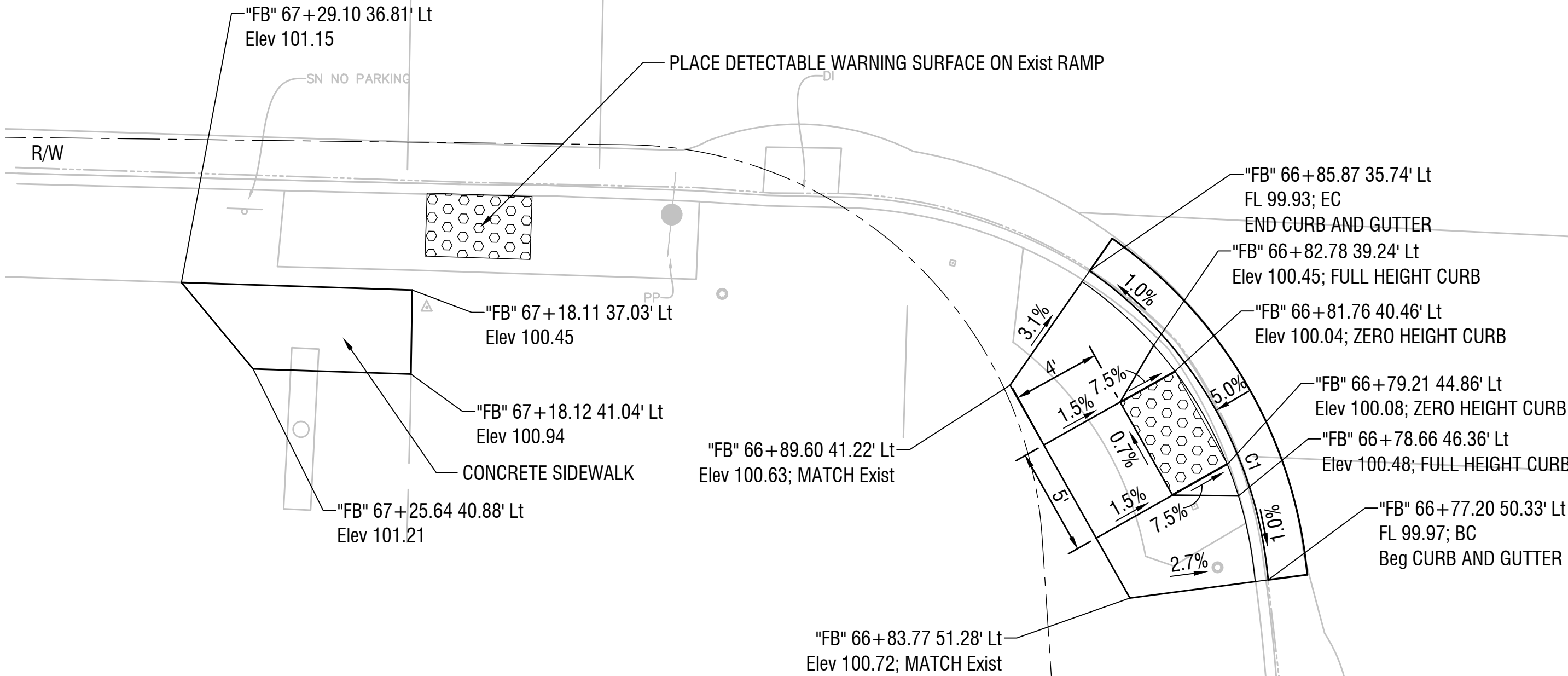


CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT	
<h2 style="margin: 0;">FREEDOM BLVD RECONSTRUCTION</h2> <h3 style="margin: 0;">GREEN VALLEY RD TO ALTA VISTA AVE</h3> <h2 style="margin: 0;">ATKINSON LANE/FREEDOM BLVD INTERSECTION RAMP</h2>	
Approved by _____	Date _____

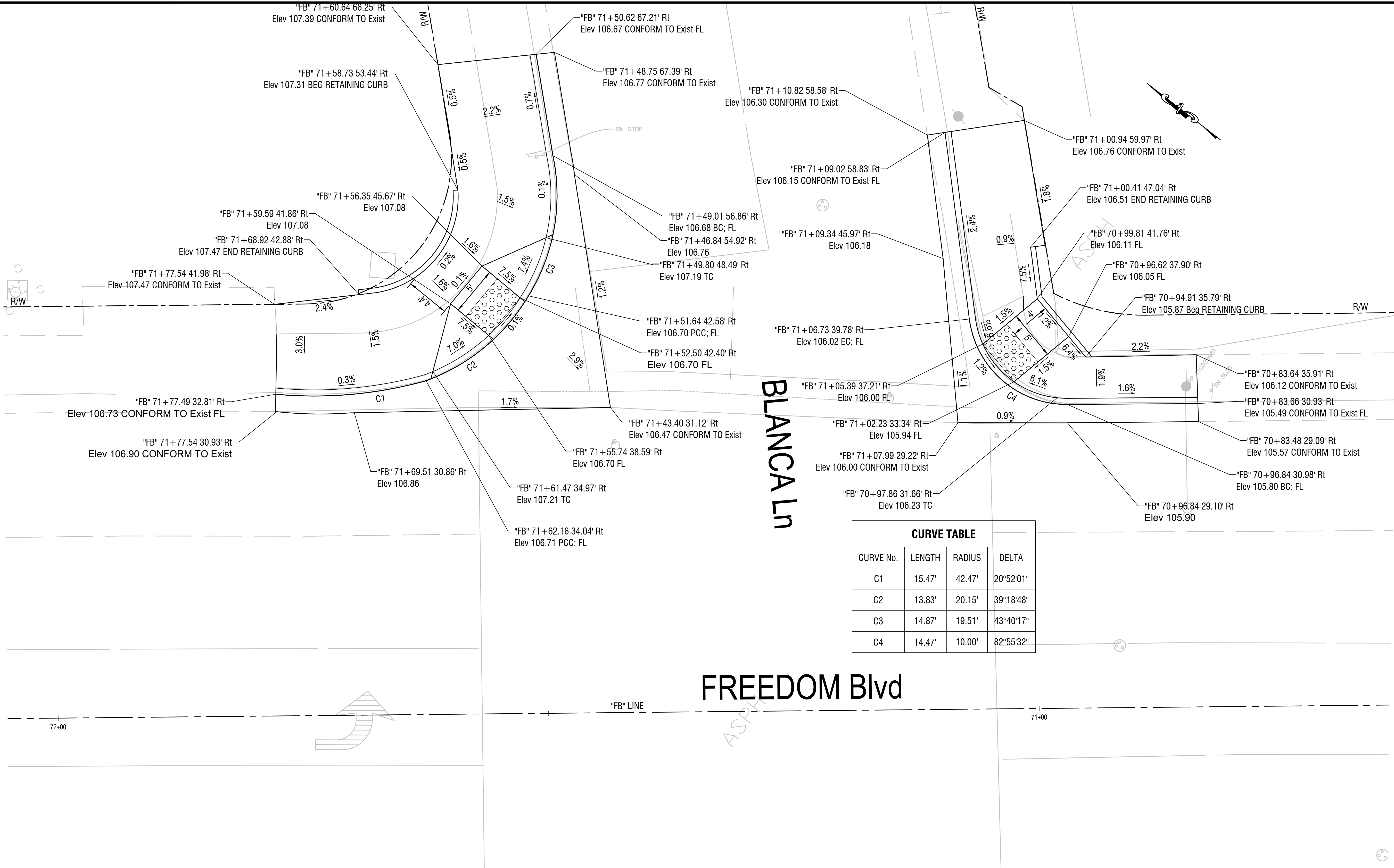
FREEDOM BOULEVARD

"FB" LINE

Curve Table			
CURVE No.	LENGTH	RADIUS	DELTA
C1	17.03'	20.00'	48°47'56"

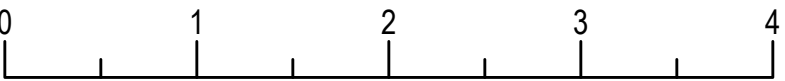


CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT		
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE CLIFFORD AVE/FREEDOM BLVD INTERSECTION RAMPS		
Approved by _____		Date _____
Designed by DS	Job No. ST-22-14838	SHEET CD-5
Drawn by GF	Scale 1"=5'	22 of 34
Checked by AC		



CURVE TABLE			
CURVE No.	LENGTH	RADIUS	DELTA
C1	15.47'	42.47'	20°52'01"
C2	13.83'	20.15'	39°18'48"
C3	14.87'	19.51'	43°40'17"
C4	14.47'	10.00'	82°55'32"

FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



CITY OF WATSONVILLE, CALIFORNIA PUBLIC WORKS, ENGINEERING DEPARTMENT		
FREEDOM BLVD RECONSTRUCTION GREEN VALLEY RD TO ALTA VISTA AVE BLANCA LN/FREEDOM BLVD INTERSECTION CURB RAMPS		
Approved by _____		Date _____
Designed by DS	Job No. ST-22-14838	SHEET CD-6
Drawn by GF	Scale 1"=5'	23 of 34
Checked by AC		

FREEDOM BLVD RECONSTRUCTION BETWEEN GREEN VALLEY RD AND ALTA VISTA AVE

FREEDOM Blvd

SYDNEY AVE

CURVE TABLE			
CURVE No.	LENGTH	RADIUS	DELTA
C1	1.59'	9.00'	10°06'28"
C2	1.57'	9.00'	10°00'00"
C3	32.80'	20.62'	91°07'00"
C4	4.71'	9.00'	30°00'00"
C5	4.71'	9.00'	30°00'00"
C6	15.06'	10.00'	86°17'20"

CITY OF WATSONVILLE, CALIFORNIA
PUBLIC WORKS, ENGINEERING DEPARTMENT

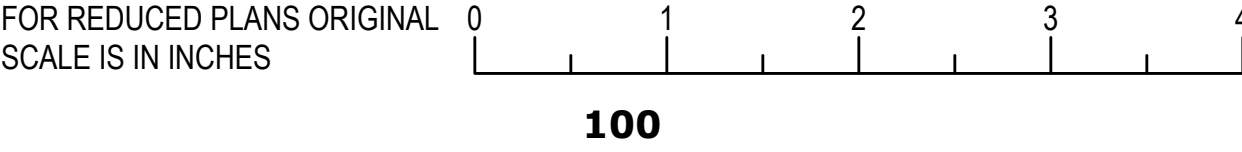
FREEDOM BLVD RECONSTRUCTION
GREEN VALLEY RD TO ALTA VISTA AVE
SYDNEY AVE/FREEDOM BLVD INTERSECTION RAMPS

Approved by _____ Date _____

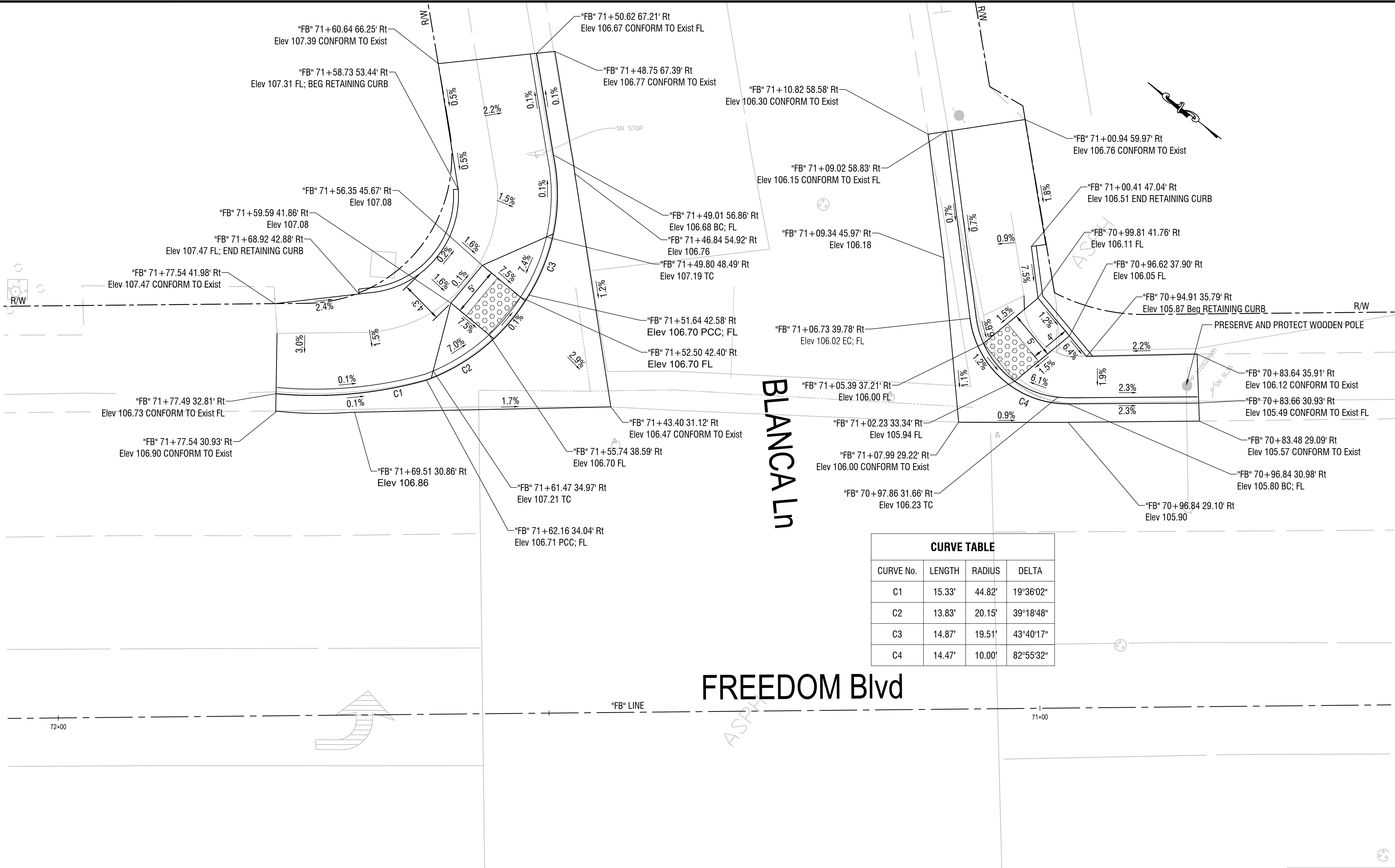
Designed by VS
Drawn by CF
Checked by AC

Job No. ST-22-14838
Scale 1"=5'

SHEET CD-7
24 of 34



FREEDOM BLVD RECONSTRUCTION BETWEEN GREEN VALLEY RD AND ALTA VISTA AVE

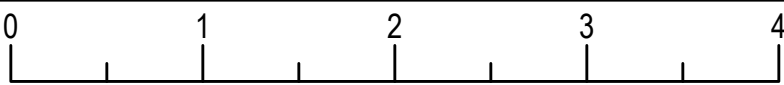


CURVE TABLE			
CURVE No.	LENGTH	RADIUS	DELTA
C1	15.33'	44.82'	19°36'02"
C2	13.83'	20.15'	39°18'48"
C3	14.87'	19.51'	43°40'17"
C4	14.47'	10.00'	82°55'32"

FREEDOM Blvd

BLANCA Ln

FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



CITY OF WATSONVILLE, CALIFORNIA
PUBLIC WORKS, ENGINEERING DEPARTMENT

FREEDOM BLVD RECONSTRUCTION
GREEN VALLEY RD TO ALTA VISTA AVE
BLANCA LN/FREEDOM BLVD INTERSECTION RAMPS

Approved by _____ Date _____

Designed by VS
Drawn by CF
Checked by AC

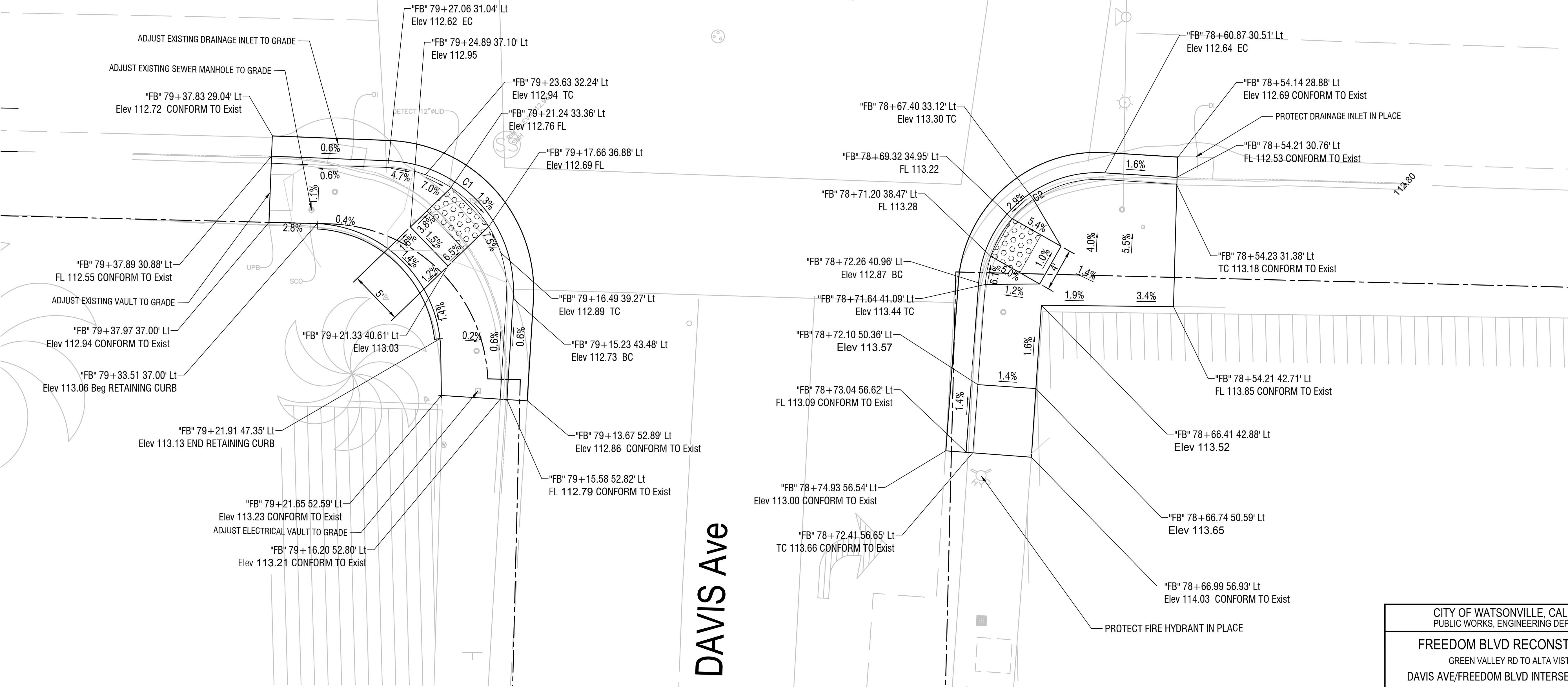
Job No. ST-22-14838
Scale 1"=5'

SHEET CD-8
25 of 34

FREEDOM Blvd

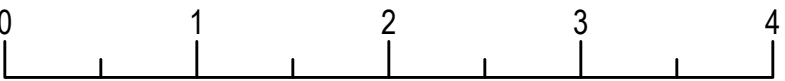
79+00 "FB" LINE

CURVE TABLE			
CURVE No.	LENGTH	RADIUS	DELTA
C1	19.12'	12.00'	91°18'13"
C2	17.15'	11.00'	89°19'20"



DAVIS Ave

FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



CITY OF WATSONVILLE, CALIFORNIA
PUBLIC WORKS, ENGINEERING DEPARTMENT

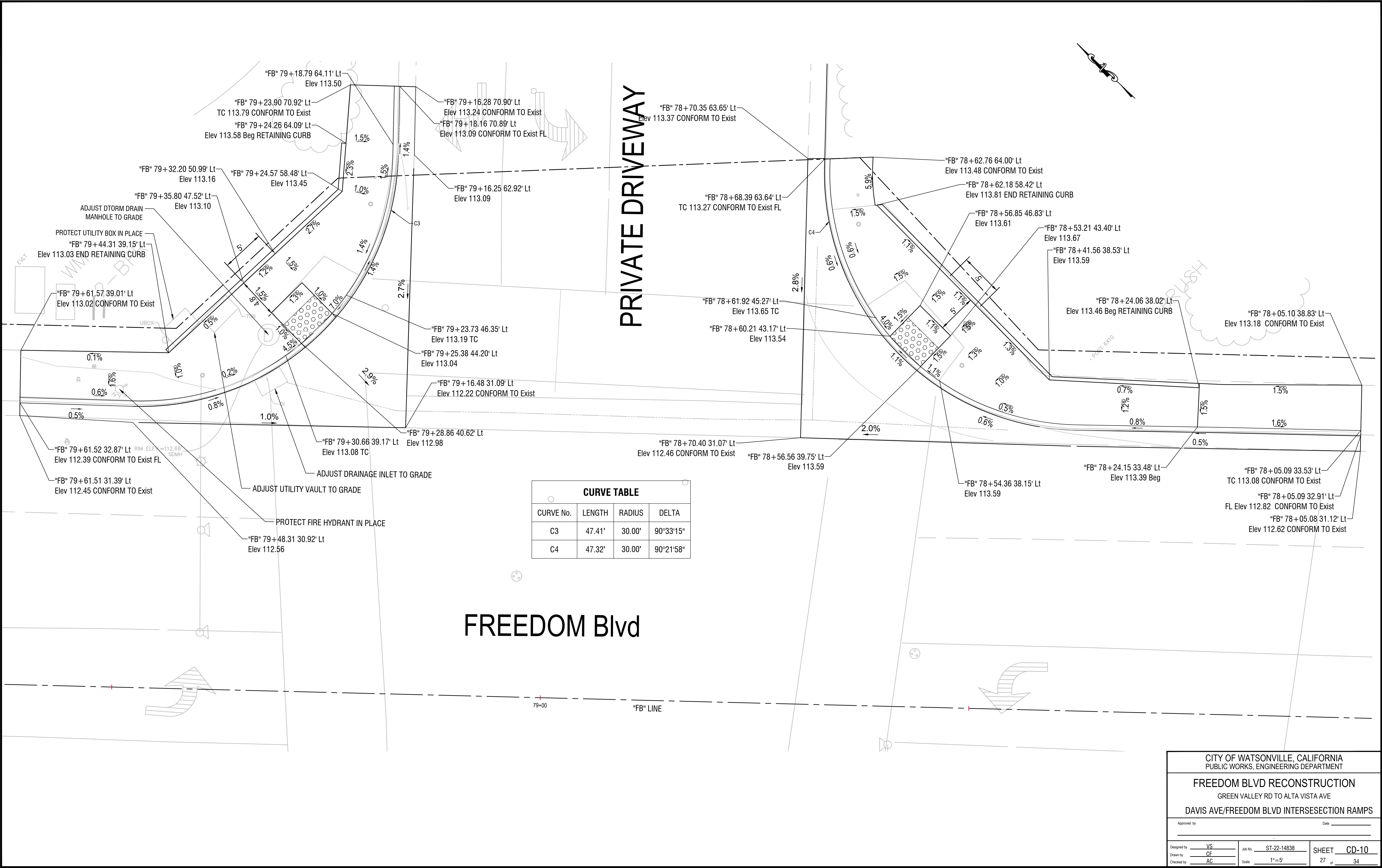
FREEDOM BLVD RECONSTRUCTION
GREEN VALLEY RD TO ALTA VISTA AVE
DAVIS AVE/FREEDOM BLVD INTERSESECTION RAMPS

Approved by _____ Date _____

Designed by VS
Drawn by CF
Checked by AC

Job No. ST-22-14838
Scale 1"=5'

SHEET CD-9
26 of 34

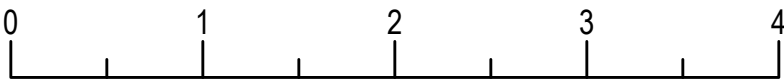


FREEDOM Blvd

PRIVATE DRIVEWAY

CURVE TABLE			
CURVE No.	LENGTH	RADIUS	DELTA
C3	47.41'	30.00'	90°33'15"
C4	47.32'	30.00'	90°21'58"

FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



CITY OF WATSONVILLE, CALIFORNIA
PUBLIC WORKS, ENGINEERING DEPARTMENT

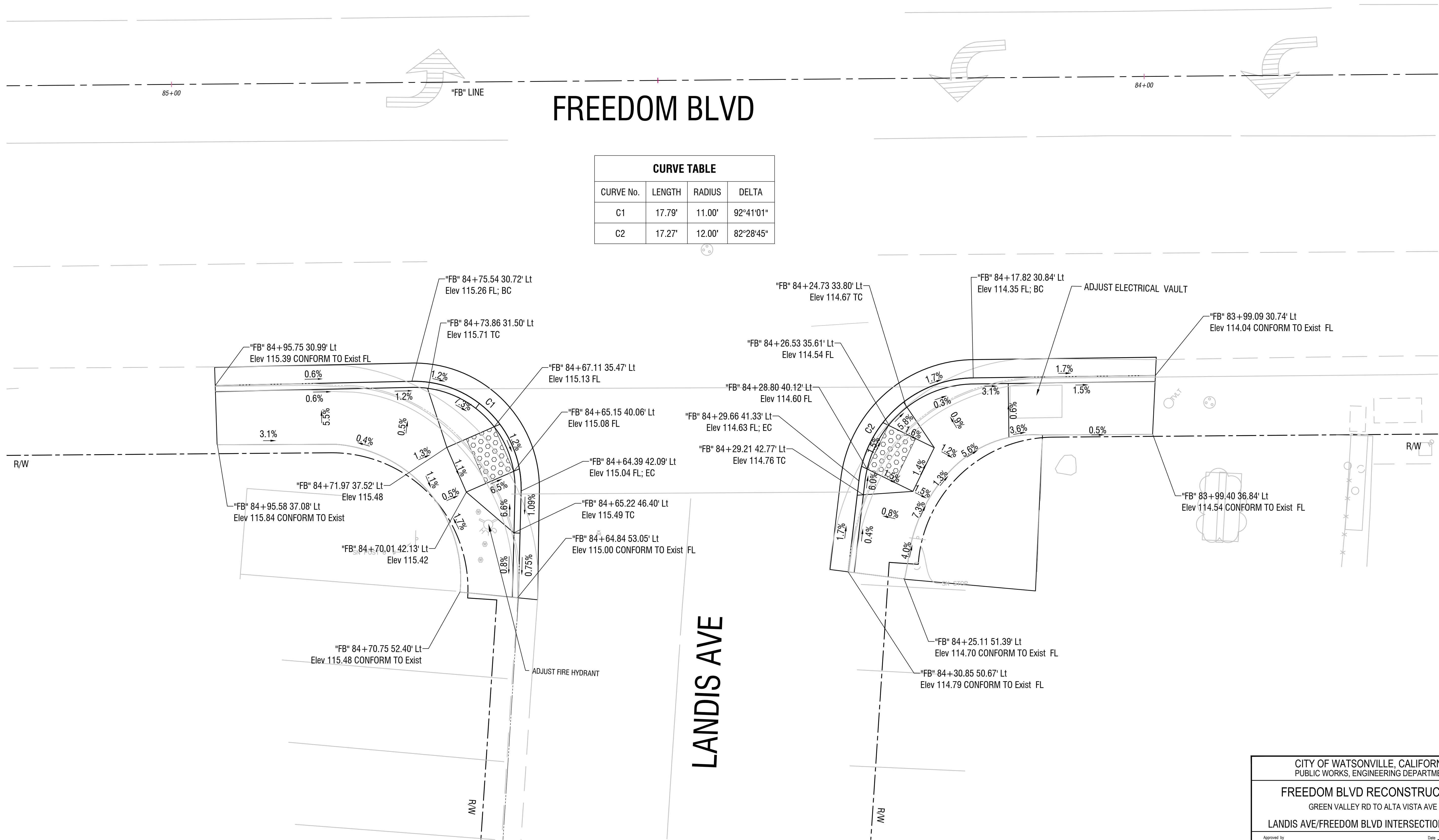
FREEDOM BLVD RECONSTRUCTION
GREEN VALLEY RD TO ALTA VISTA AVE
DAVIS AVE/FREEDOM BLVD INTERSESECTION RAMPS

Approved by _____ Date _____

Designed by VS
Drawn by CF
Checked by AC

Job No. ST-22-14838
Scale 1"=5'

SHEET CD-10
27 of 34

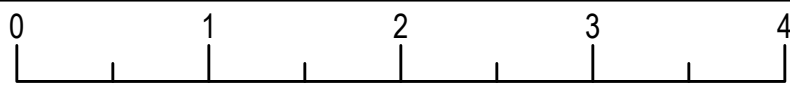


FREEDOM BLVD

CURVE TABLE			
CURVE No.	LENGTH	RADIUS	DELTA
C1	17.79'	11.00'	92°41'01"
C2	17.27'	12.00'	82°28'45"

LANDIS AVE

FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



CITY OF WATSONVILLE, CALIFORNIA
PUBLIC WORKS, ENGINEERING DEPARTMENT

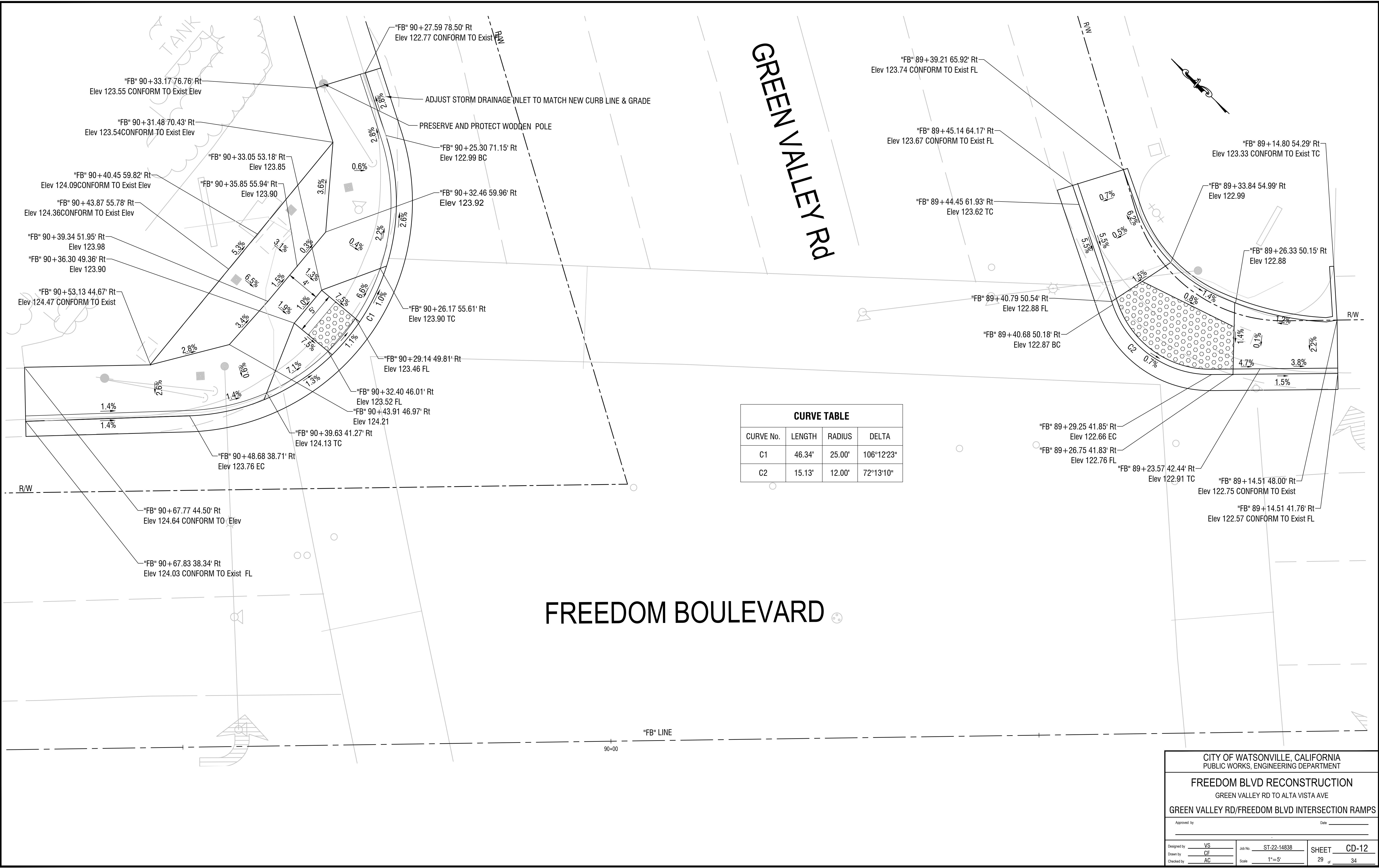
FREEDOM BLVD RECONSTRUCTION
GREEN VALLEY RD TO ALTA VISTA AVE
LANDIS AVE/FREEDOM BLVD INTERSECTION RAMP

Approved by _____ Date _____

Designed by VS
Drawn by CF
Checked by AC

Job No. ST-22-14838
Scale 1"=5'

SHEET CD-11
28 of 34



CURVE TABLE			
CURVE No.	LENGTH	RADIUS	DELTA
C1	46.34'	25.00'	106°12'23"
C2	15.13'	12.00'	72°13'10"

FREEDOM BOULEVARD

CITY OF WATSONVILLE, CALIFORNIA
PUBLIC WORKS, ENGINEERING DEPARTMENT

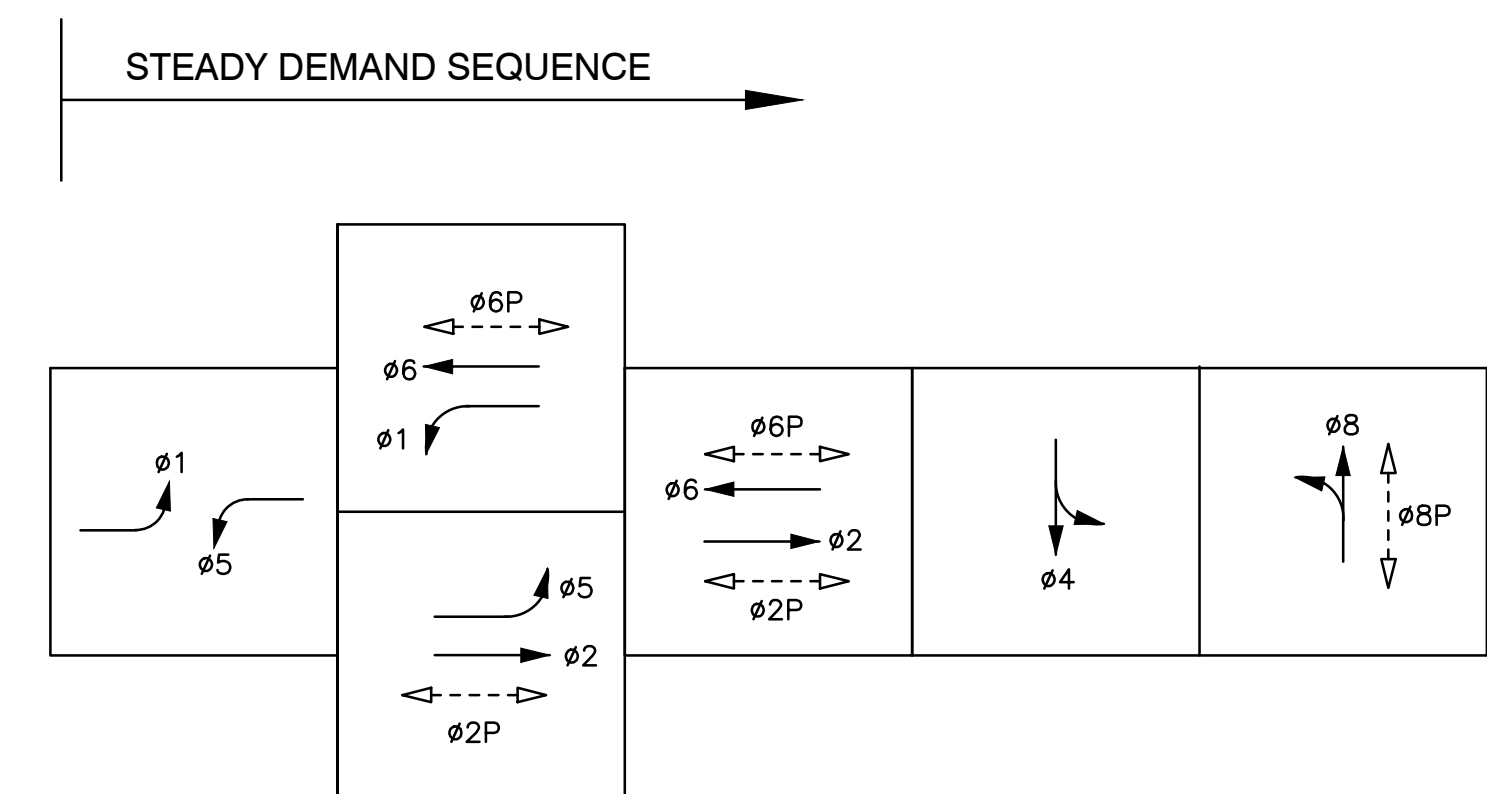
FREEDOM BLVD RECONSTRUCTION
GREEN VALLEY RD TO ALTA VISTA AVE
GREEN VALLEY RD/FREEDOM BLVD INTERSECTION RAMPS

Approved by _____ Date _____

Designed by VS
Drawn by CF
Checked by AC

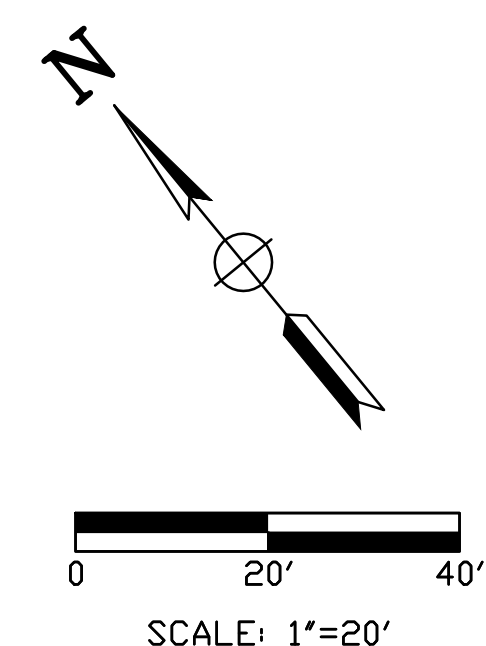
Job No. ST-22-14838
Scale 1"=5'

SHEET CD-12
29 of 34



CHANNEL A = $\phi 2 + \phi 5$
CHANNEL C = $\phi 6 + \phi 1$


- 1 FURNISH AND INSTALL TYPE P CONTROLLER CABINET ASSEMBLY, NEW FOUNDATION, 2070 CONTROLLER ASSEMBLY, AND ALL AUXILIARY EQUIPMENT TO OPERATE SIGNAL AS SHOWN ON THIS PLAN.
- 2 FURNISH AND INSTALL NEW TYPE III-AF SERVICE EQUIPMENT ENCLOSURE ON NEW FOUNDATION PER CALTRANS STANDARD PLAN RSP ES-2D.
- 3 FURNISH AND INSTALL VIDEO DETECTION CAMERA ON SIGNAL MAST ARM.
- 4 FURNISH AND INSTALL VIDEO DETECTION CAMERA ON SIGNAL POLE.




CONDUCTOR SCHEDULE										
AWG OR CABLE	CIRCUIT	CONDUIT RUN								
#14	Ø1									
	Ø2									
	Ø6									
	Ø8									
	Ø2P									
	Ø8P									
	APS(Ø2P)									
	APS(Ø8P)									
	PPB NEUTRAL									
	SPARES									
	TOTAL CABLES									
#10	LUMINAIRE									
	SIGNAL NEUTRAL									
	TOTAL NO. 10									
DLC	Ø1									
	Ø2									
	Ø6									
	Ø8									
	TOTAL DLC									
EVUD	EVUD—A									
	EVUD—B									
	EVUD—C									
SIC										
CCTV	HYBRID DATA/VIDEO									
CONDUIT SIZE (INCHES)										
% FILL										

EQUIPMENT SCHEDULE - FREEDOM BLVD AT SYDNEY AVE											
NO.	STANDARD			VEH SIG MTG		PED SIGNAL		APS		LED LUMINAIRE (WATTS)	SPECIAL REQUIREMENTS
	TYPE	SIG. M.A.	LUM. M.A.	MAST ARM	POLE	Ø	MTG	Ø	ARROW		
(A)	28—5—100	35'	15'	MAT MAS	SV—1—T	—	—	—	—	—	FURNISH AND INSTALL SNS, R3—4, EMERGENCY PRE=EMPTION DEVICE CHANNEL "C", AND VIDEO DETECTION CAMERA ON SIGNAL MAST ARM.
(B)	1—B	—	—	—	TV—2—T	6	—	6	LEFT		—
(C)	18—3—100	25'	—	MAS	SV—3—T	6 8	SP—2—T	6 8	RIGHT RIGHT	—	FURNISH AND INSTALL SNS AND VIDEO DETECTION CAMERA ON SIGNAL MAST ARM.
(D)	29—5—100	35'	15'	MAT MAS	SV—1—T	2	SP—1—T	—	—	137W	FURNISH AND INSTALL SNS, R3—4, EMERGENCY PRE=EMPTION DEVICE CHANNEL "A", AND VIDEO DETECTION CAMERA ON SIGNAL MAST ARM. FURNISH AND INSTALL VIDEO DETECTION CAMERA ON SIGNAL POLE.
(E)	PBA POST	—	—	—	—	—	—	2 8	RIGHT LEFT	—	—
(F)	1—B	—	—	—	TV—2—T	8	SP—1—T	—	—	—	—
(G)	1—B	—	—	—	TV—1—T	—	—	2	LEFT	—	—
(H)	1—B	—	—	—	TV—2—T	2	SP—1—T	—	—	—	—

NOTES:
ALL EQUIPMENT IS NEW UNLESS OTHERWISE INDICATED.
(E) = EXISTING EQUIPMENT

PREPARED BY:


30%



4305 HACIENDA DRIVE, SUITE 550
PLEASANTON, CA 94568
tjkm@tjkm.com

(925) 463-0611
Fax (925) 463-3900

△	DESCRIPTION	DATE

CITY OF WATSONVILLE, CALIFORNIA
PUBLIC WORKS, ENGINEERING DEPARTMENT

FREEDOM BLVD RECONSTRUCTION
FREEDOM BOULEVARD AND SYDNEY AVENUE
CONDUCTOR AND EQUIPMENT SCHEDULES

Approved by _____ Date _____

Designed by RJ

Drawn by VD

Checked by RP

Job No. ST-22-14838

Scale _____

SHEET TS-2

31 of 34

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

0

1

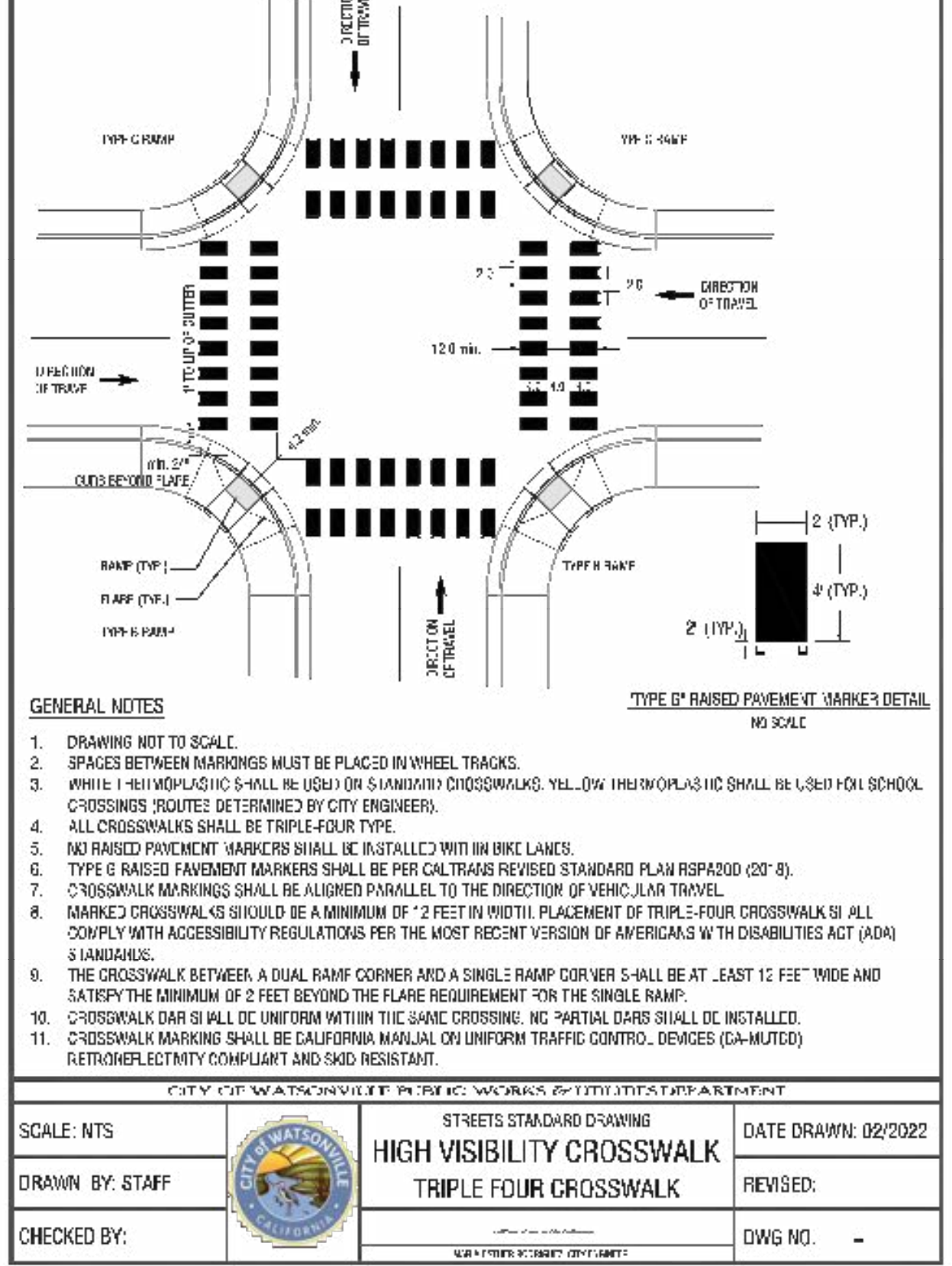
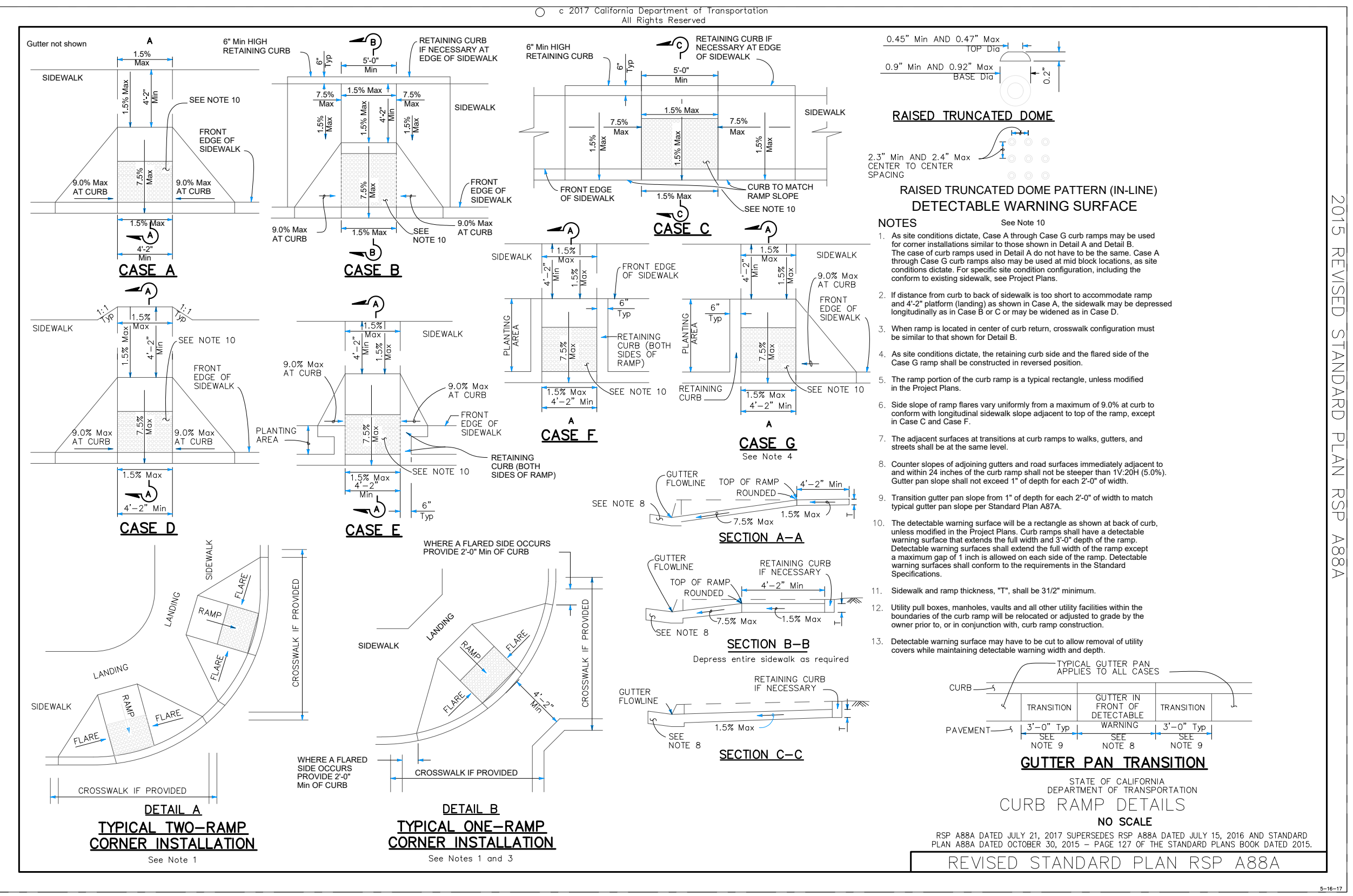
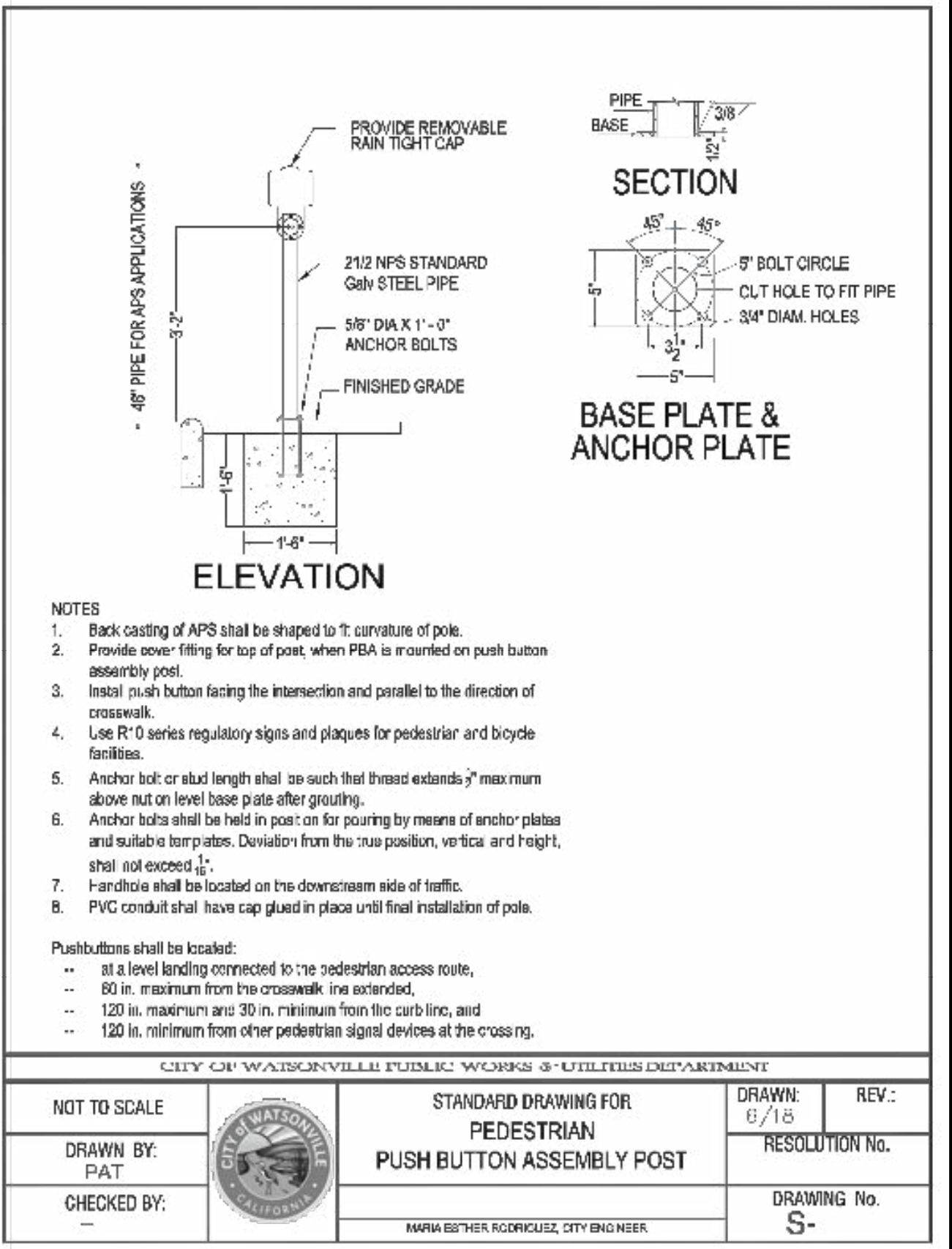
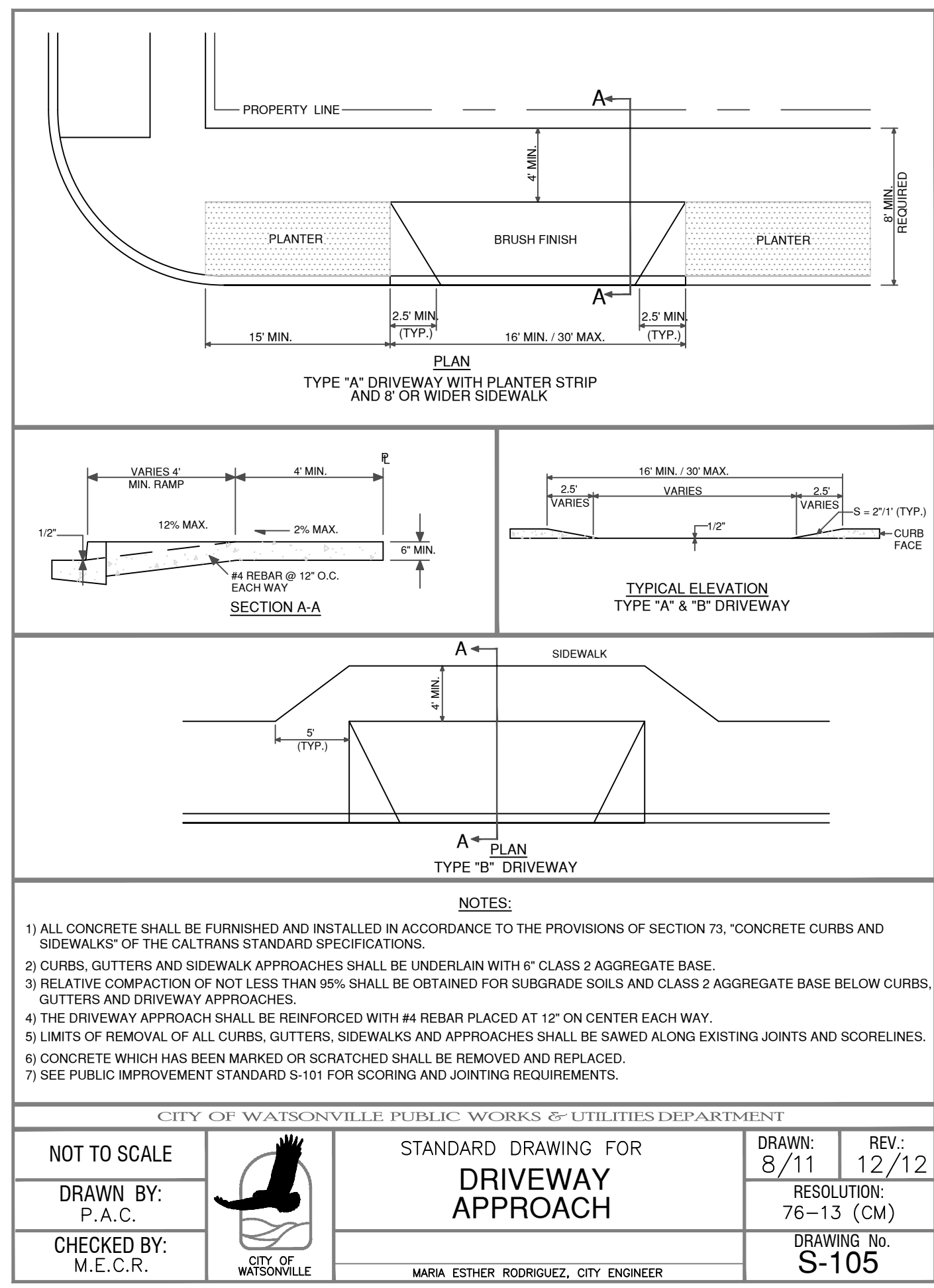
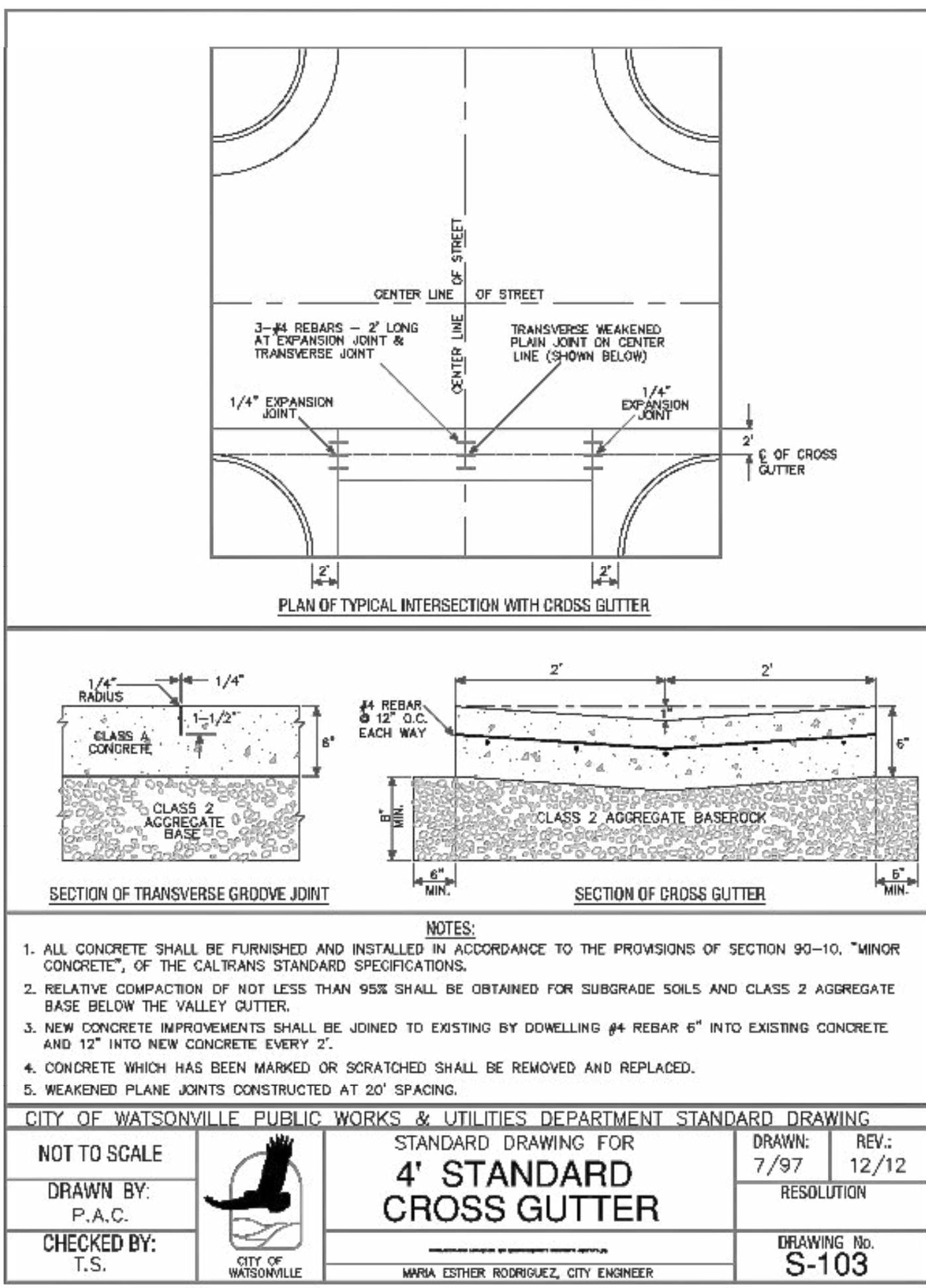
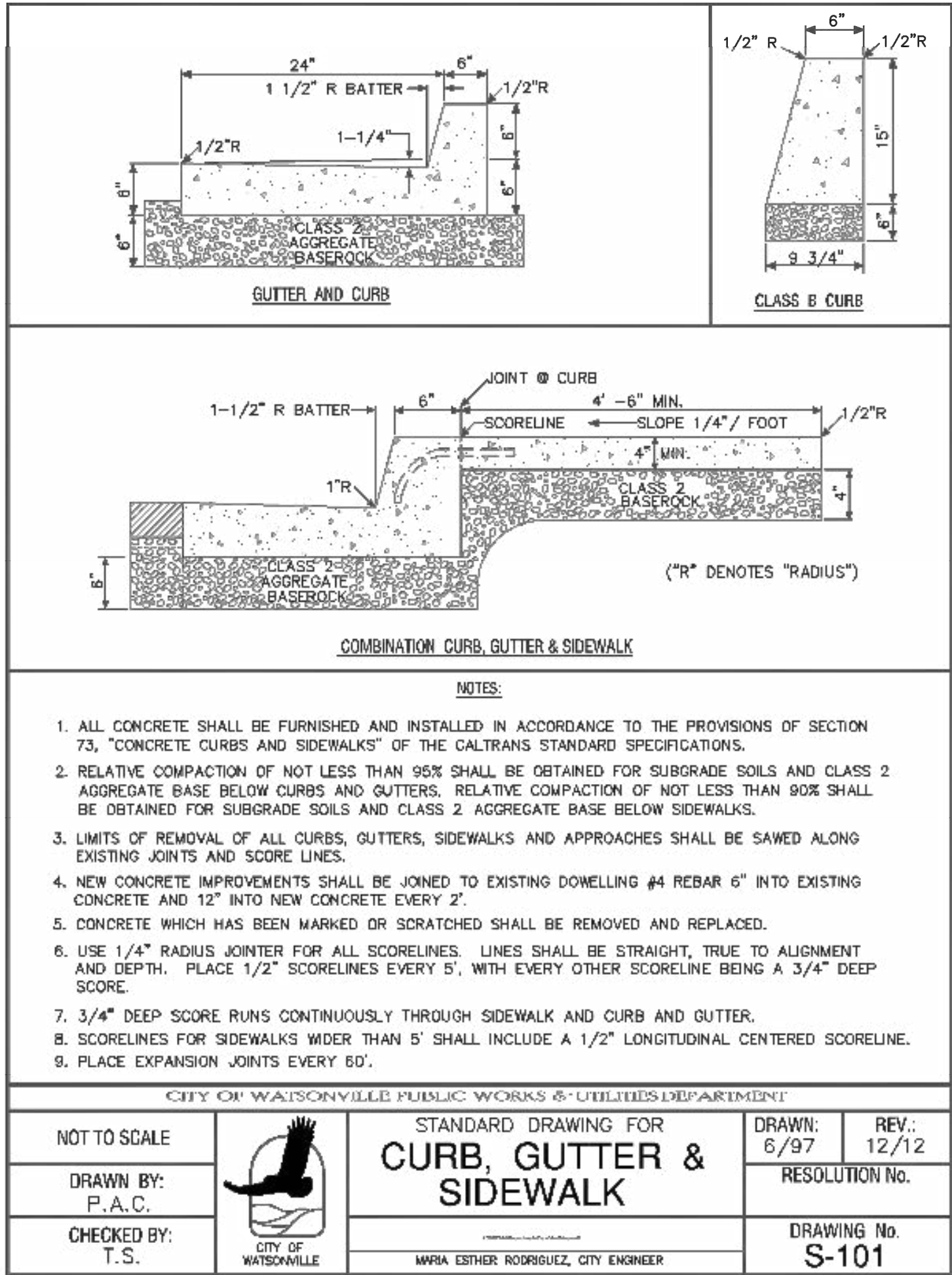
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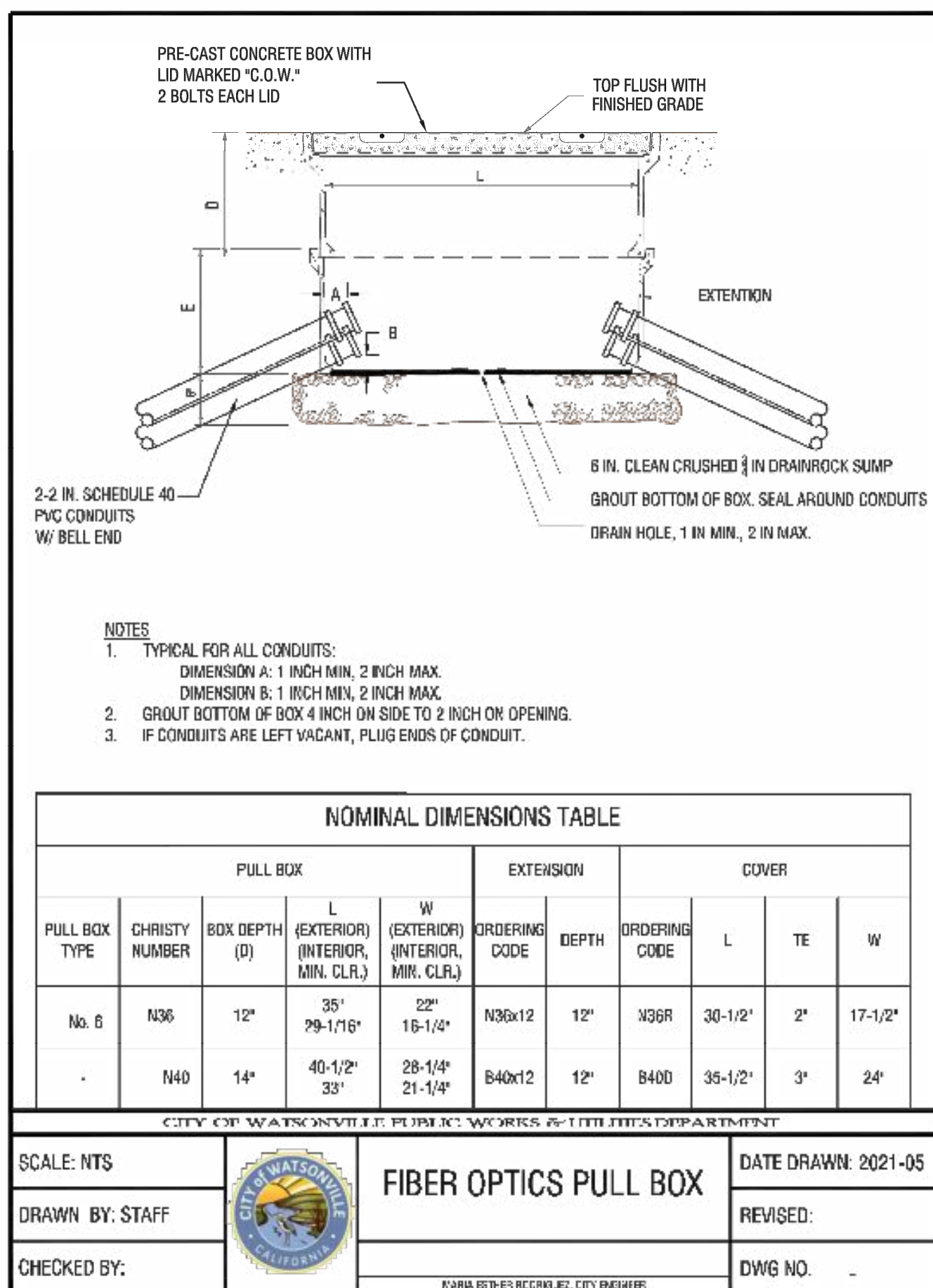
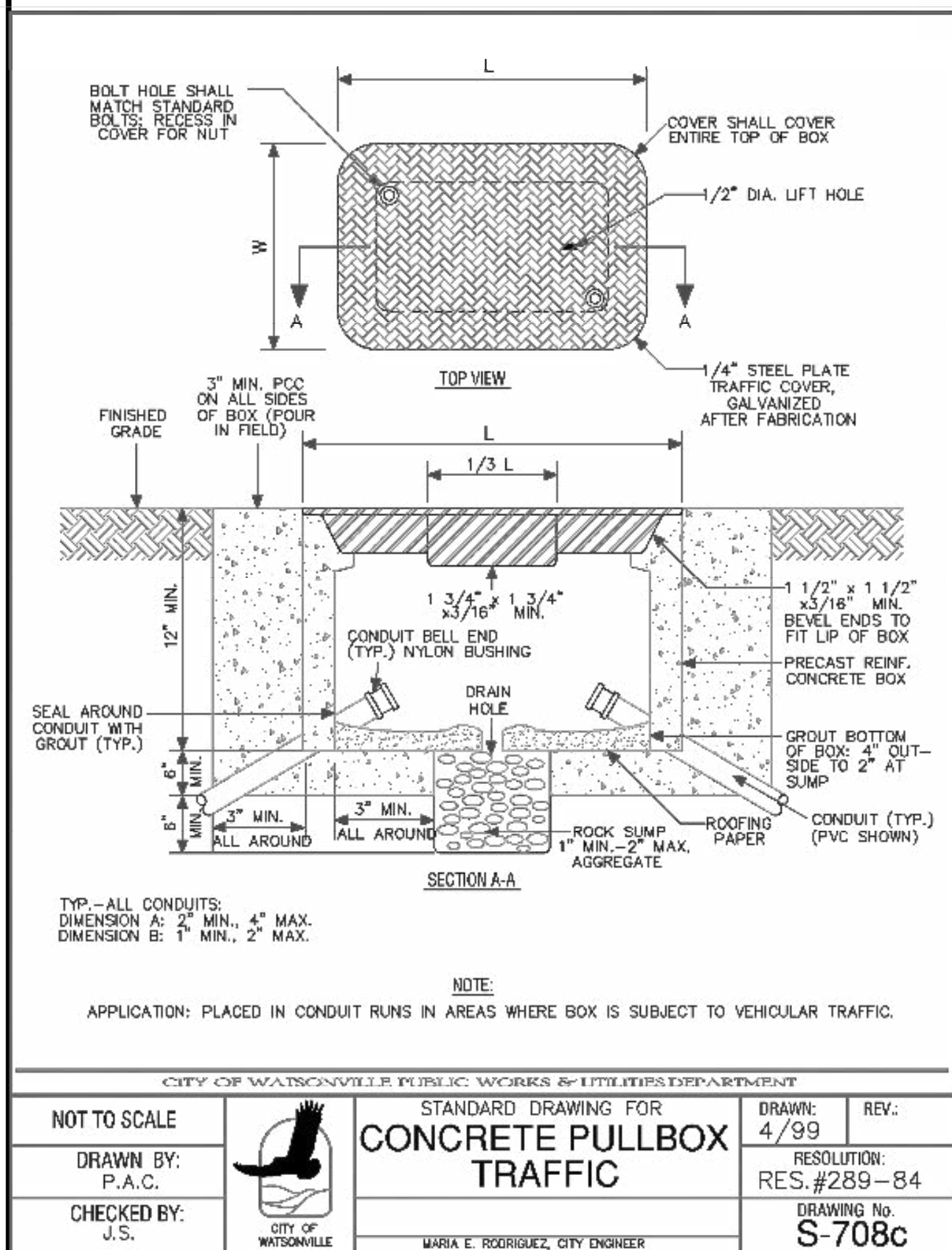
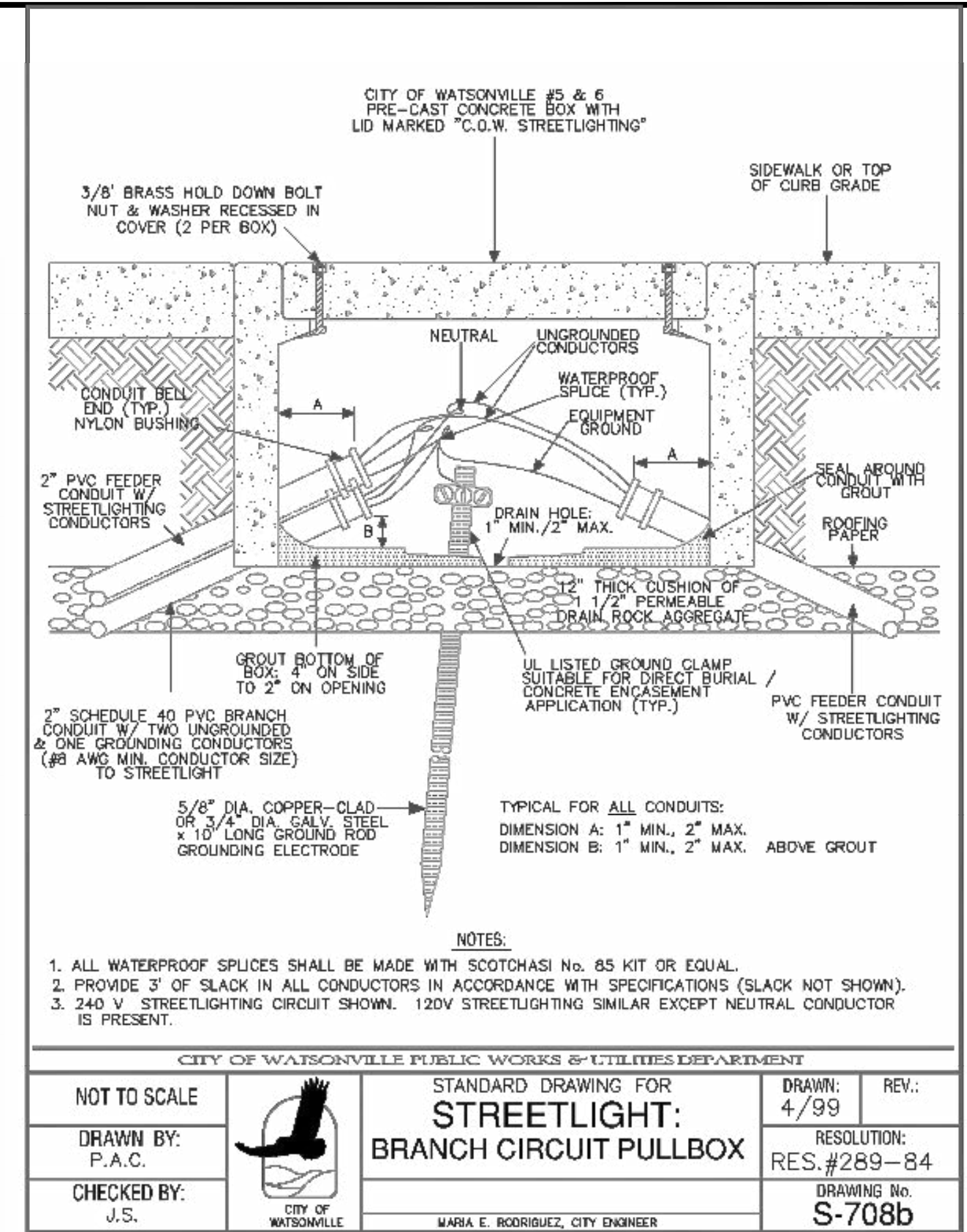
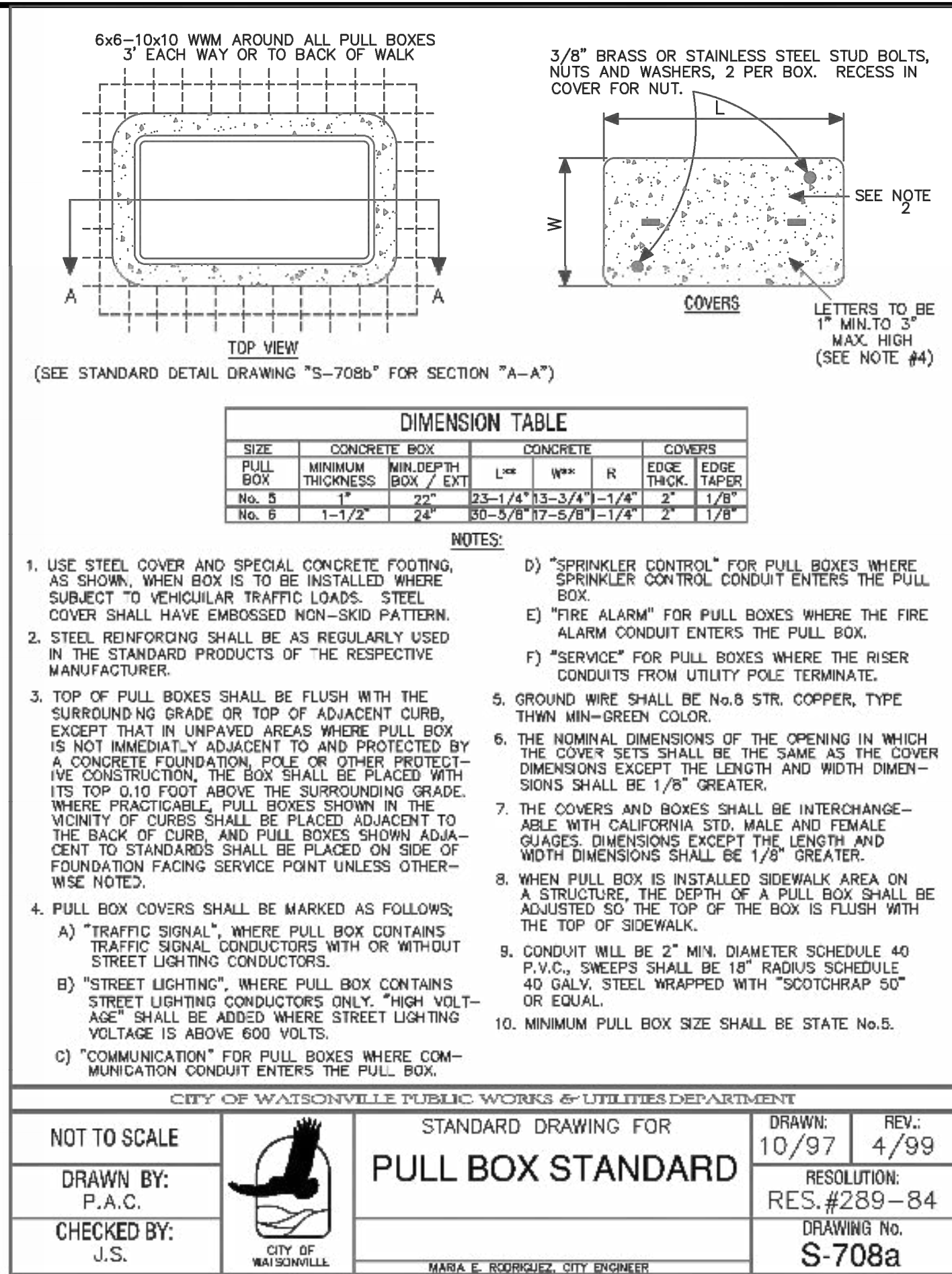
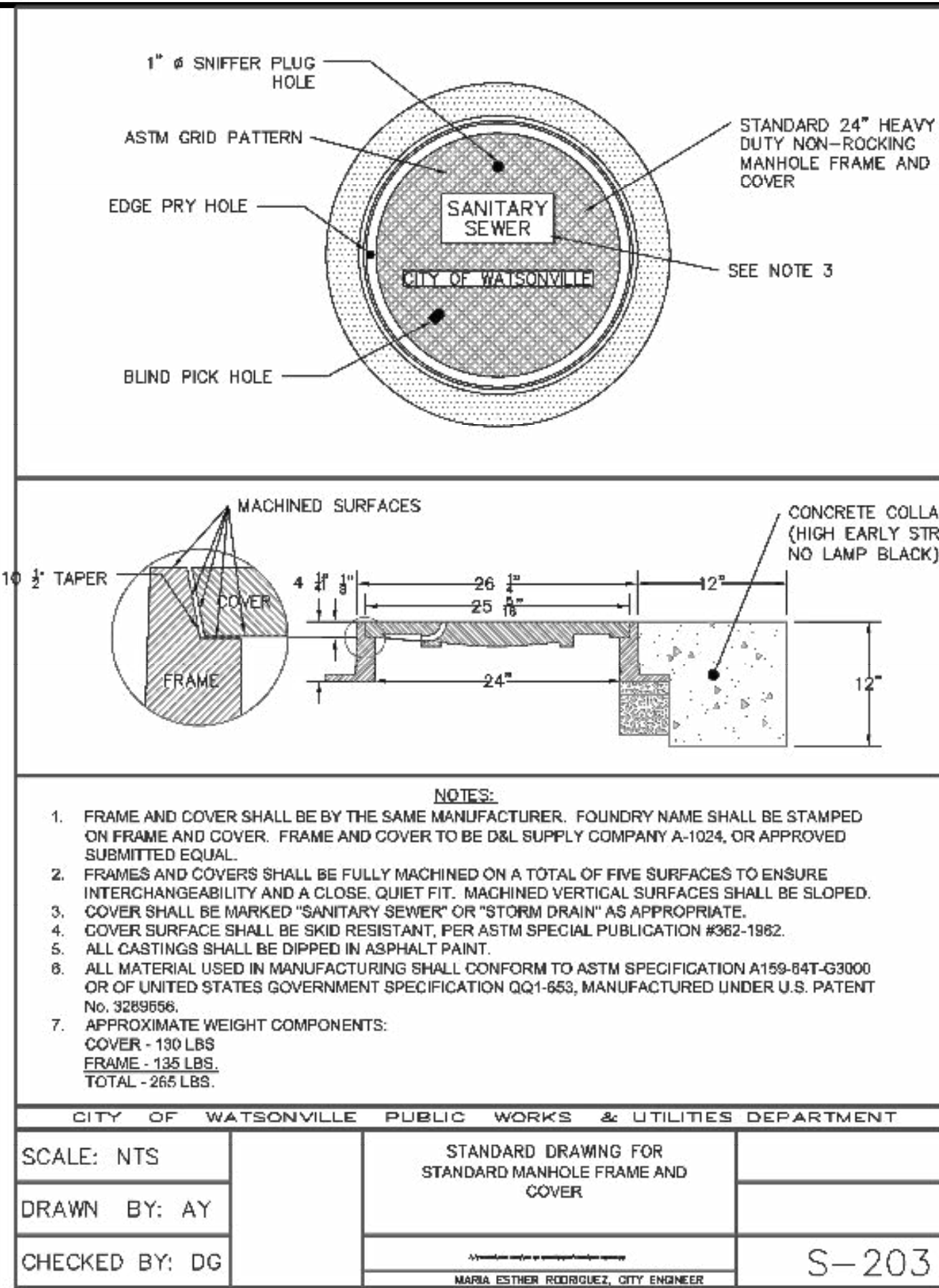
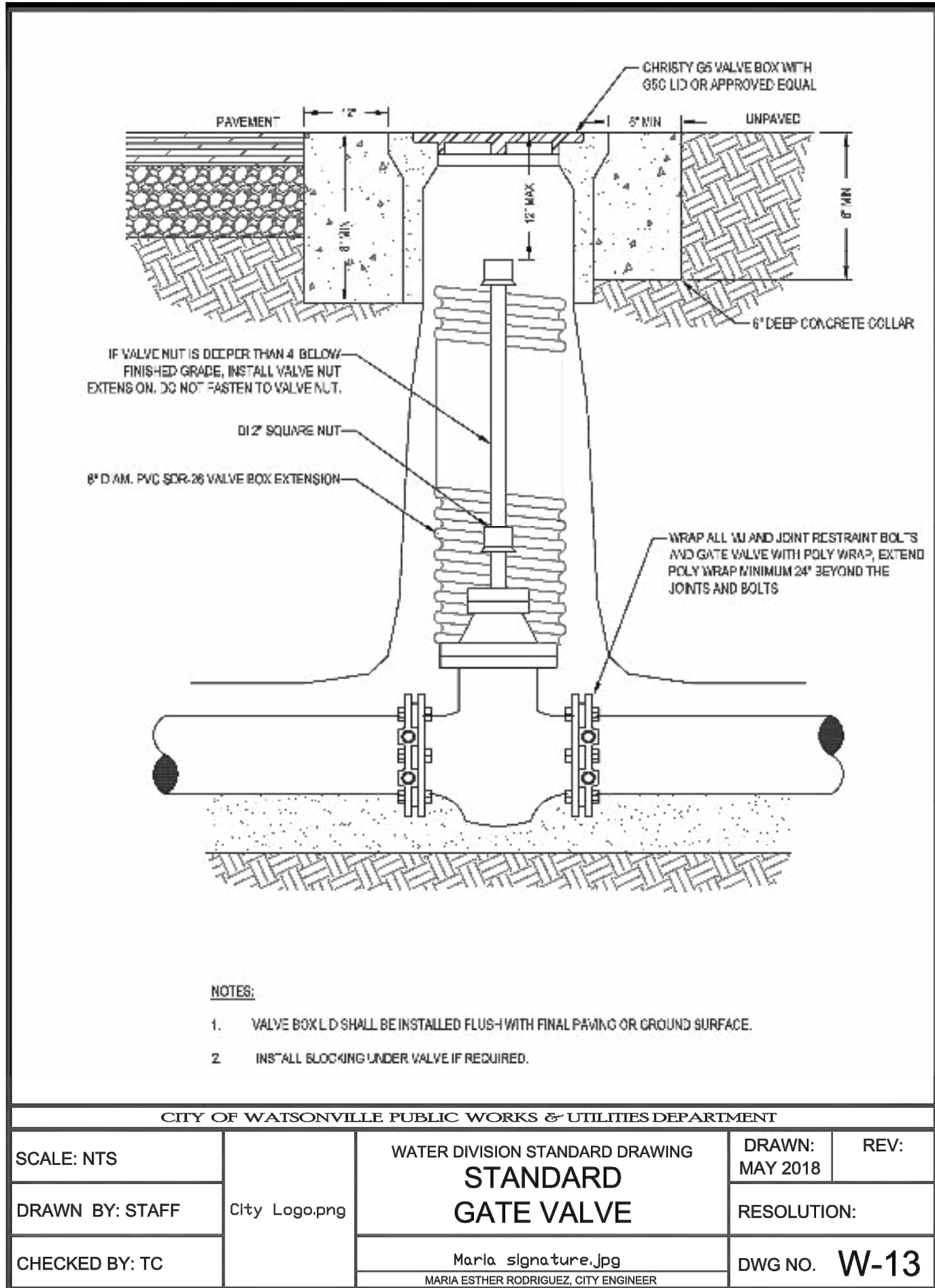
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NOTES FOR PULL BOXES AND CONDUITS

- ALL PULL BOXES FOR FIBER OPTICS SHALL BE CALTRANS SIZE No. 6 CONCRETE PULL BOX
- LIDS FOR FIBER OPTIC BOXES SHALL BE MARKED "COW"
- GROUNDING ROD OR GROUNDING WIRE SHALL BE OMITTED IN BOXES DEDICATED TO FIBER CONDUITS
- CONDUITS ARE FOR FUTURE FIBER OPTIC LINES. THE ENDS OF THE CONDUITS IN THE BOX SHALL BE CAPPED WITH PVC CAP TO PREVENT CONTAMINATION. CAPS SHALL BE SPECIFIC FOR 2" PVC CONDUIT
- PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL DEMONSTRATE THAT CONDUITS OF FREE OF CONTAMINANTS (DIRT, ROCKS, TRASH, CONCRETE, ETC) AND INSTALL NYLON PULL ROPE
- PRIOR TO ACCEPTANCE, ALL BOXES SHALL BE FREE OF CRACKS, LIDS SHALL BE CLEAN OF DIRT AND CONCRETE, BOXES SHALL SIT LEVEL WITH SURROUNDING SIDEWALK AND BE TRUE WITH ALIGNMENT
- BOXES THAT ARE CRACKED SHALL BE REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE
- LIDS THAT ARE SMEARED WITH CONCRETE SHALL BE REPLACED AT CONTRACTOR'S EXPENSE
- ALL FIBER OPTIC, SIGNAL, AND STREET LIGHTING LIDS SHALL BE BOLTED DOWN.

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

