

# PUBLIC WORKS DEPARTMENT PACIFIC BEACH ROUNDABOUT ENHANCEMENTS

CITY PROJECT NO. c402507

Pacific Avenue and Beach Street

## PROJECT DIRECTORY

PHONE: (805) 543-3850

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#### OWNER AND CLIENT

PUBLIC WORKS DEPARTMENT PHONE: (831) 420-5160 CONTACT: RICARDO VALDES FAX: (831) 420-5161

#### LANDSCAPE ARCHITECT

RRM DESIGN GROUP 32332 CAMINO CAPISTRANO, SUITE 205

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#### **CIVIL ENGINEER**

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SAN JUAN CAPISTRANO, CA 92675
CONTACT: NOAH WALTERS
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#### **ELECTRICAL ENGINEER**

THOMA ELECTRIC 3562 EMPLEO ST. SAN LUIS OBISPO, CA CONTACT: JEFF THOMA

#### STRUCTURAL ENGINEER

MESITI-MILLER ENGINEERING 224 WALNUT ST, SUITE B SANTA CRUZ, CA 95060

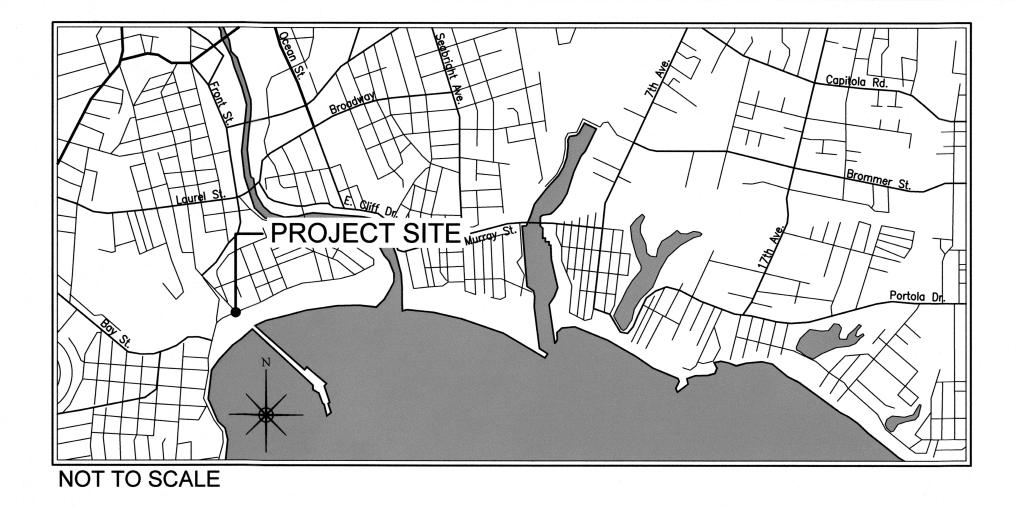
CONTACT: DALE HENDSBEE

#### **RAIL ENGINEER**

ZEPHYR UAS/RAIL (ZUI)
725 W TOWN & COUNTRY RD, SUITE 550 PHONE: (714) 835-6355
ORANGE, CA 92868

CONTACT: MARC CAÑAS

## VICINITY MAP



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#### BID-READY CONSTRUCTION DOCUMENTS SUBMITTAL

APPROVED BY:

ASSISTANT DIRECTOR / CITY ENGINEER
CITY OF SANTA CRUZ

R.C.E. NO. CE 74847

REFERENCES	DATE	02/24/2025	SCALE	AS SHOWN	
FIELD BOOK:	DRAWN			TS-1.01	
DRAWING #:	DESIGN		VAULT N	O.	
2.000	CHECKED		7170		

#### AGENCY / UTILITY CONTACTS

**CITY OF SANTA CRUZ:** PHONE: (831) 420-5160 PUBLIC WORKS ENGINEERING PHONE: (831) 420-5522 STREET MAINTENANCE - RICH SMITH

ARBORIST - LESLIE KEEDY SEWER AND STORM MAINTENANCE - ROME NORMAN WATER DEPARTMENT - JASON SEGAL CITY REFUSE AND RECYCLING DIVISION SANTA CRUZ METRO - ADMINISTRATION OFFICE

PHONE: (831) 420-5245 PHONE: (831) 420-6036 PHONE: (831) 420-5173 PHONE: (831) 420-5545

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EMAIL: rsmith@santacruzca.gov EMAIL: lkeedy@santacruzca.gov EMAIL: rnorman@santacruzca.gov EMAIL: jsegal@santacruzca.gov

**EMERGENCY CONTACT:** 

POLICE DEPARTMENT DISPATCH FIRE DEPARTMENT DISPATCH

PHONE: (831) 471-1130, EMERGENCY 911 PHONE: (831) 471-1170, EMERGENCY 911

**WATER SUPPLY:** 

WATER DEPARTMENT PORTABLE METER 212 LOCUST ST, SANTA CRUZ, CA 95060

**UTILITIES:** 

PG&E GAS - THERESE VETERE PG&E ELECTRIC - JESSE GONZALEZ AT&T - REY MARTINEZ COMCAST - JORGE SOTO

PHONE: (831) 359-9933 EMAIL: TXVE@pge.com PHONE: (831) 676-1970 EMAIL: J8GN@pge.com PHONE: (831) 905-5984

EMAIL: rx2927@att.com EMAIL: Jorge\_Soto@comcast.com

TRAIN AND RAILROAD:

ROARING CAMP - TODD MANOFF

PHONE: (831) 335-4484, ext. 137 EMAIL: todd@roaringcamp.com

RTC - RILEY GERBRANDT

EMAIL: rgerbrandt@sccrtc.org

#### CONTRACTOR TO COORDINATE WORK WITH AFFECTED RESIDENTS AND BUSINESSES:

- 1. COWELL'S BEACH SURF SHOP
- 2. BEACH BOUTIQUE AT 109 BEACH ST
- 3. BEACH LIQUORS AT 111 BEACH ST
- 4. RESIDENTS AT 24 FRONT ST
- 5. RESIDENTS AT 38 FRONT ST

CONTRACTOR MUST CHECK ROARING CAMP BEACH TRAIN SCHEDULE BEFORE COMMENCING CONSTRUCTION

#### GENERAL NOTES

- 1. PRIOR TO START OF CONSTRUCTION AND AS NECESSARY THROUGHOUT THE PROGRESS OF THE WORK, CONTACT THE UNDERGROUND SERVICE ALERT WITH MINIMUM 48 HOURS NOTICE, AND HAVE ALL UNDERGROUND UTILITIES AND FACILITIES MARKED IN THE FIELD. ALSO, PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY, BY POTHOLING THE TYPES, LOCATIONS SIZES AND/OR DEPTH OF EXISTING UTILITIES WITHIN THE WORK AREA. IN THE EVENT EXISTING UTILITIES ARE DISCOVERED TO BE IN CONFLICT WITH THE WORK REQUIRED OF THE CONTRACT DOCUMENTS, IMMEDIATELY NOTIFY THE AUTHORIZED REPRESENTATIVE AND THE UTILITY OWNER IN THE MOST EXPEDITIOUS MEANS AVAILABLE AND LATER CONFIRM IN WRITING. THE CONTRACTOR SHALL DETERMINE EXACT LOCATIONS OF ALL UTILITIES AND FACILITIES IMPLEMENT APPROPRIATE AND EFFECTIVE MEASURES TO PROTECT THEM. NOTE: RAILROAD IS NOT PART OF USA MARKING.
- 2. PROTECT ALL EXISTING MONUMENTS AND OTHER SURVEY MARKERS ON THE PROJECT SITE. RECORD THE LOCATION OF ALL MONUMENTS AND OTHER SURVEY MARKERS PRIOR TO THE START OF WORK. ALL SUCH MONUMENTS OR MARKERS DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED BY A LICENSED SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- 3. REMOVAL AND REPLACEMENT LIMITS OF ANY EXISTING FEATURE SHOWN ON THE DRAWINGS ARE FOR GENERAL REFERENCE ONLY. ACTUAL LIMITS SHALL BE AS REQUIRED BY THE NEW WORK AND SHALL BE VERIFIED IN THE FIELD WITH THE CITY.
- 4. CONTRACTOR SHALL COORDINATE DIRECTLY WITH SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION (SCCRTC) AND ROARING CAMP PRIOR TO PERFORMING ANY WORK WITHIN THE RAIL CORRIDOR, INCLUDING MARKING EXISTING RAILROAD UTILITIES.
- EXISTING UTILITY DATA IS DEPICTED BASED ON VARYING COMBINATIONS OF SURFACE AND SUBSURFACE INVESTIGATIONS PERFORMED FOR THIS PROJECT, EQUIVALENT TO LEVEL B AND LEVEL C AS DEFINED IN CI/ASCE 38-02 - STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA.

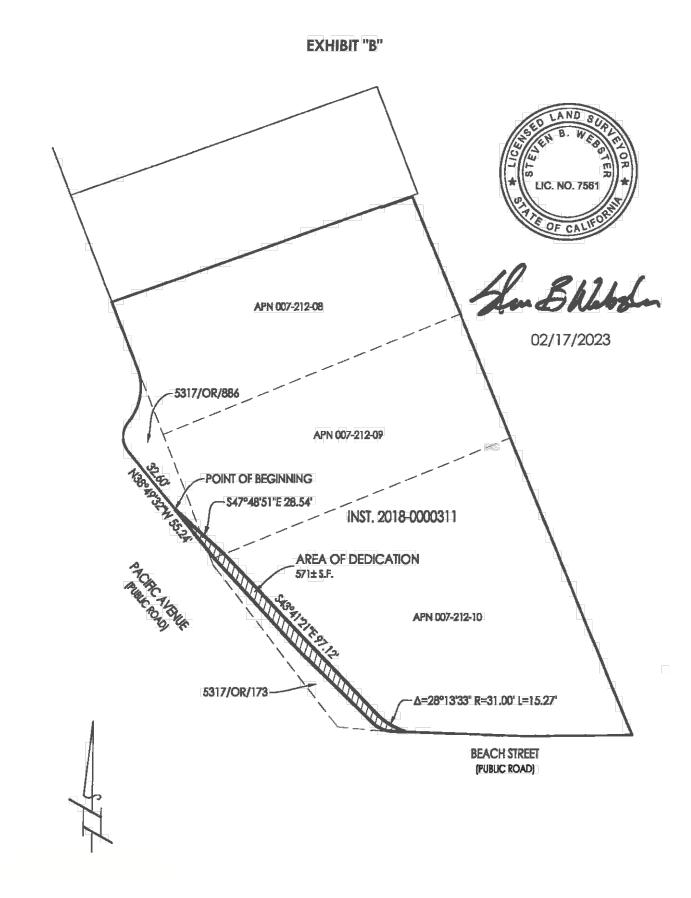
#### CONSTRUCTION NOTES

**REVISIONS** 

- 1. CONSTRUCTION (INCLUDING BUT NOT LIMITED TO CONSTRUCTION ACTIVITIES, AND MATERIALS AND/OR EQUIPMENT STORAGE) IS PROHIBITED OUTSIDE OF THE DEFINED CONSTRUCTION, STAGING, AND STORAGE AREAS.
- 2. THE CONSTRUCTION SITE SHALL MAINTAIN GOOD CONSTRUCTION SITE HOUSEKEEPING CONTROLS AND PROCEDURES (E.G., CLEAN UP ALL LEAKS, DRIPS, AND OTHER SPILLS IMMEDIATELY; KEEP MATERIALS COVERED AND OUT OF THE RAIN (INCLUDING COVERING EXPOSED PILES OF SOIL AND WASTES); DISPOSE OF ALL WASTES PROPERLY, PLACE TRASH RECEPTACLES ON SITE FOR THAT PURPOSE, AND COVER OPEN TRASH RECEPTACLES DURING WET WEATHER; REMOVE ALL CONSTRUCTION DEBRIS FROM THE SITE; ETC.).
- 3. ALL EROSION AND SEDIMENT CONTROLS SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AS WELL AS AT THE END OF EACH WORKDAY.

#### SYMBOL LEGEND

SYMBOL	DESCRIPTION
	CITY RIGHT OF WAY
	EXISTING MAJOR CONTOUR EXISTING MINOR CONTOUR
	EXISTING FENCE
	EXISTING METAL RAILING
SS SS	EXISTING SANITARY SEWER
SD SD SD	EXISTING STORM DRAIN
G G G	EXISTING GAS
w w w	EXISTING WATER
E E E	EXISTING ELECTRICAL
COM	EXISTING COM
	EXISTING SIGN
: <b>⊕</b> :	EXISTING STREET LIGHT
	EXISTING RAILROAD GATE
	EXISTING RAILROAD SIGNAL MAST
	SAWCUT LINE, JOIN EXISTING PAVING
- -	RETAINING WALL WITH RAILING
	DRAINAGE INFRASTRUCTURE
•	DECORATIVE STREET LIGHT



#### **ABBREVIATIONS**

AGGREGATE BASE OR ANCHOR BOLT

MASONRY

	AD	Addition both	MAS	MAJONKI
ADJ		AROVE		MAXIMUM
A.1T	AC	ASPHALTIC CONCRETE	MFR	MANUFACTURE(R)
APPROVAPPY APPROXIMATE APPROVAPPY APPROXIMATE BC/BC BRECOV BRECOV GLURB BLOW BRECOV BR	ADJ	ADJACENT	MIN	MINIMUM
APPROX.APPK			MISC	MISCELLANEOUS
BCFROC   BACK OF CURB   BEL   BELOW   NIC   NOT IN CONTRACT				
BEL BELOW NIC NOT IN CONTRACT  BLDG BUILDING BUILDING NOM NUMBER  BLDG BUILDING NOM NOMINAL  BLK BLOCK NITS NOT TO SCALE  BOT BOTTOM OC ON CHETER  BOW BACK OF WALK OD OUTSIDE DIAMETER  BR BOTTOM OF FRAMP OPT OPTOMAL  CB CATCH BASIN PA PA PLANTING AREA  CF CUBIC FOOT PC PC POINT OF CUBYE  CF CLEAR OUT PBC PC POINT OF BECINNING  COM CONCRETE PD PC POINT OF BECINNING  CONC COLCEAN OUT PBC POINT OF BECINNING  CONC CONCRETE PT POINT OF BECINNING  CONT CONTRIBUIS, CONTINUE R, RAD  CR CUB RETURN REBAR REINFORCING BAR  CR CUB RETURN REP REFERENCE  CR CUB RETURN REP REPREDICTION REGION  DIM DIMENSION S SIOPE  DIA DIAMATER ROW RIGHT OF WAY  DIM DIMENSION S SIOPE  BANDAL SCHOOL SANTA CRUZ COUNTY REGIO  DIM DIMENSION S SCHOOL SANTA CRUZ COUNTY REGION  DE DOWN SPOUT SCCRET SANTA CRUZ COUNTY REGION  DE DOWN SPOUT SCCRET SANTA CRUZ COUNTY REGION  DE DOWN SPOUT SCCRET SANTA CRUZ COUNTY REGION  DE POINT OF CUBY STANDARD  FOR COUNTY SCCRET SANTA CRUZ COUNTY REGION  DE POINT OF CUBY STANDARD  FOR COUNTY SCCRET SANTA CRUZ COUNTY REGION  DE POINT OF CUBY STANDARD  FOR COUNTY SCCRET SANTA CRUZ COUNTY REGION  DE POINT OF CUBY STANDARD  FOR COUNTY SCCRET SANTA CRUZ COUNTY REGION  DE POINT OF CUBY STANDARD  FOR COUNTY SCCRET SANTA CRUZ COUNTY REGION  DE POINT OF CUBY STANDARD  FOR COUNTY SCCRET SANTA CRUZ COUNTY REGION  DE POINT OF CUBY SANTA CRUZ COUNTY REGION  TO STANDARD  TO STANDARD  TO STANDARD  TO STANDARD  TO STANDARD  T				
BF   FOF   BOTTOM OF FOOTING   NO   NUMBER   BULD   BULD   BULD   BULD   SULLDING   NOM   NOMINAL   BULK   BUCK   NTS   NOT TO SCALE   OC   OC   OC   CASTER   SOW   BACK OF WALK   OD   OUTSIDE DIAMETER   OPT   OPTIONAL   OC   ON CENTER   SOW   BACK OF WALK   OD   OUTSIDE DIAMETER   OUTSIDE DIAMETER   OF   OPTIONAL   OC   OUTSIDE DIAMETER   OUTSIDE DIA	BC/BOC	BACK OF CURB	(N)	NEW
BF   FOF   BOTTOM OF FOOTING   NO   NUMBER   BULD   BULD   BULD   BULD   SULLDING   NOM   NOMINAL   BULK   BUCK   NTS   NOT TO SCALE   OC   OC   OC   CASTER   SOW   BACK OF WALK   OD   OUTSIDE DIAMETER   OPT   OPTIONAL   OC   ON CENTER   SOW   BACK OF WALK   OD   OUTSIDE DIAMETER   OUTSIDE DIAMETER   OF   OPTIONAL   OC   OUTSIDE DIAMETER   OUTSIDE DIA	BEL	BELOW	NIC	NOT IN CONTRACT
BLUC   BULDING				
BILK BOOCK NTS NOTTO SCALE BOT BOTTOM OC ON CONTENTER BOW BACK OF WALK BR BOTTOM OF RAMP OPT OPTIONAL BR BOTTOM OF RAMP OPT OPTIONAL BR BOTTOM OF RAMP OPT OPTIONAL CREATED AND AND AND AND AND AND AND AND AND AN				
BOTT         BOTTOM         OC         ON CENTER           BOW         BACK OF WALK         OD         OUTSIDE DIAMETER           BR         BOTTOM OF RAMP         OPT         OPTIONAL           CB         CATCH BASIN         PA         PLANTING AREA           CF         CUBIC FOOT         PC         PONT OF CURVE           CP         CAST IN PILACE         PERF         PERFORATE (D)           CV         CENTERLINE         PERF         PERFORATE (D)           CL         CINETRELINE         PL         PROPERTY LINE           CLE         CLEAR         POB         POINT OF ESIGNING           CMU         CONCRETE MASONRY UNIT         POC         POINT OF CONNECTION           COL         CLEAN OUT         PPC         POINT OF CONNECTION           COL         COLGUMN         PROPOSE CURVE           CONC         CONGERIE         PT         POR           CONT         CONTRUCTON         PROPOSE CURVE           CONT         CONTRUCTON         PAPE PROPOSE CURVE           CONT         CONTRUCTON         PROPOSE CURVE           CONT         CONTRUCTON         PROPOSE CURVE           CONT         CONTRUCTON         PROPOSE CURVE				
BOW         BACK OF WALK         OD         OUTSIDE DIAMETER           BR         BOTTOM OF RAMP         OPT         OPTIONAL           CB         CATCH BASIN         PA         PLAYING AREA           CF         CUBIC FOOT         PC         POINT OF CURVE           CP         CAST IN PLACE         PERP         PERPONDELULAR           CL         CENTERLINE         PL         PROPERTY LINE           CL         CILEAN         POB         POINT OF REVERSE CURVE           CMU         CONCESTER         POB         POINT OF REVERSE CURVE           COL         COLUMN         PROP         POINT OF REVERSE CURVE           CONC         CONCESTE         PT         POINT OF REVERSE CURVE           CONT         CONTRUCTION         PWIJEYING         PAYEMENT OR PAYING           CONT         CONTRUCTION         PWIJEYING         PAYEMENT OR PAYING <td< td=""><td>BLK</td><td>BLOCK</td><td>NTS</td><td>NOT TO SCALE</td></td<>	BLK	BLOCK	NTS	NOT TO SCALE
BR         BOTTOM OF RAMP         OPT         OPTIONAL           CB         CATCH BASIN         PA         PLANTING AREA           CF         CUBIC FOOT         PC         POINT OF CURVE           CIP         CAST IN PLACE         PERP         PERPORATE (D)           C/L         CENTERLINE         PL         PERPORTE (D)           CL         CENTERLINE         PL         PROPERIY LINE           CL         CLEAR         PO         PONT OF BEDINNING           CMU         CONCRETE         PL         PROPERIY LINE           CMU         CONCRETE         PC         POINT OF REVERSE CURVE           COL         CLEAN OUT         PRC         POINT OF REVERSE CURVE           COL         CLOUMN         PROP         PROPOSED           CONC         CONCRETE         PT         POINT, POINT OF REVERSE CURVE           CONC         CONCRETE         PT         POINT, POINT OF REVERSE CURVE           CONT         CONTRUCTION         PARTIPYMS         PAYEMENT OR PAYING           CONT         CONTRUCTION         PROPOP PROPOSED           CONT         CONTRUCTION         PROPOP PROPOSED           CONT         CONTRUCTION         PROPOP PROPOSED	BOT	BOTTOM	OC	ON CENTER
BR         BOTTOM OF RAMP         OPT         OPTIONAL           CB         CATCH BASIN         PA         PLANTING AREA           CF         CUBIC FOOT         PC         POINT OF CURVE           CIP         CAST IN PLACE         PERP         PERPORATE (D)           C/L         CENTERLINE         PL         PERPORTE (D)           CL         CENTERLINE         PL         PROPERIY LINE           CL         CLEAR         PO         PONT OF BEDINNING           CMU         CONCRETE         PL         PROPERIY LINE           CMU         CONCRETE         PC         POINT OF REVERSE CURVE           COL         CLEAN OUT         PRC         POINT OF REVERSE CURVE           COL         CLOUMN         PROP         PROPOSED           CONC         CONCRETE         PT         POINT, POINT OF REVERSE CURVE           CONC         CONCRETE         PT         POINT, POINT OF REVERSE CURVE           CONT         CONTRUCTION         PARTIPYMS         PAYEMENT OR PAYING           CONT         CONTRUCTION         PROPOP PROPOSED           CONT         CONTRUCTION         PROPOP PROPOSED           CONT         CONTRUCTION         PROPOP PROPOSED	ROW	BACK OF WALK	OD	OUTSIDE DIAMETER
GB         CATCH BASIN         PA         PLANTING AREA           CF         CUBIC FOOT         PC         POINT OF CURVE           CIP         CAST IN PLACE         PERF         PERFORATE (D)           CL         CENTERLINE         PL         PROPER PERFONICULAR           CL         CLEAR         POB         POINT OF ERENDICULAR           CMU         CONCRETE MASONRY UNIT         POC         POINT OF CONNECTION           COL         CULUMN         PROP         PROPOSED           CONC         CONCRETE         PT         POINT, POINT OF TANGENCY           CONT         CONSTRUCTION         PAVEWENT OF PAVING           CONT         CONTROLLING CONTROLLING         REBAR         REINFORCING BAR           CR         CUBR RETURN         REF         REFERENCE           CTR         CUBR RETURN         REF         REFERENCE           DETAIL <td< td=""><td></td><td></td><td></td><td></td></td<>				
CF         CUBLE FOOT         PC         POINT OF CURVE           CIP         CAST IN PLACE         PERP         PERPP         PERPRODICULAR           CIL         CENTERLINE         PL         PROPERTY LINE           CLE         CLEAR         POB         POINT OF EEGINNING           CMU         CONCRETE MASONRY UNIT         POC         POINT OF EEGINNING           CO         CLEAN OUT         PRC         POINT OF EEGINNING           COL         COLANDIN         PROP         PROPOSED           CONC         CONCRETE         PT         POINT, POINT OF TANKENCY           CONT         CONTRUCION         PVAT/PVMC         PAYEMENT OR PAYING           CONT         CONTRUCION         PVAT/PVMC         PAYEMENT OR PAYING           CONT         CONTRUCION         REBAR         REINTORCING BAR           CR         CUBR BETURN         REF         REFERENCE           CTR         CENTER POINT         REBAR         REINTORCING BAR           CTR         CENTER POINT         REBAR         REINTORCING BAR           CTR         CUBR BETURN         REF         REFERENCE           CTR         CENTER POINT         REM         REMOVE           DET         DETAI				
CPP         CAST IN PLACE         PERF         PERFORATE (D)           C/L         CENTERLINE         PERP         PERP PERPENDICULAR           CL         CENTERLINE         PL         PROPERTY LINE           CL         CLEAR         POB         POINT OF BEGINNING           CMU         CONCRETE         POC         POINT OF CONNECTION           CO         CLEAN OUT         PRC         POINT OF CONNECTION           CONC         CONCRETE         PT         POINT, POINT OF PAYERSE CURVE           CONC         CONCRETE         PT         POINT, POINT OF PAYERSE CURVE           CONT         CONSTRUCTION         PAYEMENT OR PAYERSE CURVE           CONT         CONSTRUCTION         PAYEMENT OR PAYERSE           CONT         CONSTRUCTION         PAYEMENT OR PAYERSE           CONT         CONTRUCTION         PAYEMENT OR PAYERSE           CONT         CONTRUCTION         PAYEMENT OR PAYERSE           CONT         CONTRUCTION         PAYEMENT OR PAYERS           CONT         CONTRUCTION         PAYEMENT OR PAYERS           CONT         CONTRUCTION         REBAR         REINOCIC ON PAYERS           COR         CUBR RETURN         REEAR         REINOCIC ON PAYERS           COR </td <td></td> <td>CATCH BASIN</td> <td></td> <td></td>		CATCH BASIN		
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CMU         CONCRETE MASONRY UNIT         POC         POINT OF CONNECTION           CO         CLEAN OUT         PRC         POINT OF REVERSE CURVE           CONC         CONCRETE         PT         POINT OF REVERSE CURVE           CONC         CONCRETE         PT         POINT, POINT OF TANCENCY           CONT         CONTRUCTION         PYMI/PYNG         PAYEMENT OR PAYING           CONT         CONTINUOUS, CONTINUE         R, RAD         RADIUS           CP         CENTER POINT         REBAR         REINFORCING BAR           CR         CURB RETURN         REF         REFERENCE           CTR         CENTER         REM         REMOVE           DETAIL         REQ         REQUIRED           DI         DRAIN INLET         REV         REVISIONIS, REVISED           DIA         DIAMETER         ROW         RICHT OF WAY           DIM         DIMINISION         S         SLOPE           DS         DOWN SPOUT         SCCRIC         SANTA CRUZ COUNTY REGIO           DWG         DRAWING         TRANSPORTATION COMMISSI           EA         EACH         SCH         SCHEDULE           ELEV         ELEVATION         SF         SQUARE FEET				
CO         CLEAN OUT         PRC         POINT OF REVERSE CURVE           COL         COLUMN         PROP         PROPOSED           CONST         CONSTRUCTION         PYMI/PVING         PAVEMENT OR PAVING           CONT         CONSTRUCTION         PYMI/PVING         PAVEMENT OR PAVING           CONT         CONTINUOUS, CONTINUE         R. RAD         RADIUS           CP         CENTER POINT         REBAR         REHPORCING BAR           CR         CURB RETURN         REF         REFERENCE           CTR         CENTER         REM         REMOVE           DET         DETAIL         REQ'D         REQUIRED           DI         DRAIN INLET         REV         REVISION(S), REVISED           DIM         DIMENSION         S         SLOPE           DS         DOWN SPOUT         SCCRIC         SANTA CRUZ COUNTY REGION           DWG         DRAWING         TRANSPORTATION COMMISSI           EA         EACH         SCH         SCHEDULE           ELECT         ELECTICAL         SD         STORM DRAIN           ELECT         ELECTICAL         SD         STORM DRAIN           ELEY         ELECTICAL         SD         STORM DRAIN	CLR	CLEAR	POB	POINT OF BEGINNING
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ELECT ELECTRICAL  ELEV ELEVATION SF SQUARE FEET  ENCL ENCLOSURE  EP EDGE OF PAVEMENT  EQ EQUAL  EX EXISTING  EXIST STREET  FFE FINISHED FLOOR ELEVATION  ST STREET  FFE FINISHED FLOOR ELEVATION  ST STREET  FFE FINISHED FLOOR ELEVATION  ST STREET  FOW FACE OF WALL  FOW FACE OF WALL  FIND  FOUNDATION  FOUNDATION  STRUC  STRUCTURE/ STRUCTURE/  STRUCTURE/ STRUCTURE/  STRUCTURE/ STRUCTURAL  FIND  FOUNDATION  STRUC  STRUCTURE/ STRUCTURAL  FITG FOOTING  FOOTING  FOOTING  FOOTING  GAUGE  GAUGE  GAUGE  GAUGE  GAUGE  GAUGE  GAUGE  GALUANIZED  TEP TOP BACK OF CURB  GALUANIZED  TOP BACK OF CURB  GALUANIZED  TOP BACK OF CURB  GALUANIZED  TOP FOOTING  GR  GRATE  TO PO FOOTING  GR  GRATE  TO TOP OF CURB  HOR, HORZ  HOR, HORZONTAL  HP HIGH POINT  TYP  TYPICAL  HIGH POINT  HT  HEIGHT  UON  UNLESS OTHERWISE NOTED  UN UNLESS OTHERWISE NOTED  UN INSIDE DIAMETER  VAR VARIES  INV INVERT  EXISTER  FRIEGATION  W WATER  INV INVERT  LENGTH  LENGTH  LENGTH  LENGTH  LE LENGTH  LIP OF GUITER PAN   @ AT  LINEAR FEET			SCH	
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ENCL ENCLOSURE  EP EDGE OF PAVEMENT  EQ EQUAL  EX EXISTING  EXIST  EXISTING  EXIST EXISTINC  EXIST EXIST EXIST  EXIST  EXIST EXIST  EXIST EXIST  EXIST EXIST  EXIST EXIST  EXIST EXIST  EXIST EXIST  EXIST  EXIST EXIST  E	ELECT	ELECTRICAL		
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EP EDGE OF PAVEMENT SIM SIMILAR  EQ EQUAL EQUAL SL SLOPE  EX EXISTING SPEC SPECIFICATION(S)  EXIST EXISTING SQ SQUARE  (E) EXISTING SS SANITARY SEWER  FC / FOC FRONT OF CURB S/S STAINLESS STEEL  FFE FINISHED FLOOR ELEVATION ST STREET  FG FINISHED GRADE STA STATION  FL FLOWLINE STD STADARD  FOW FACE OF WALL STIL STEEL  FND FOUNDATION STRUC STRUCTURE/ STRUCTURAL  FS FINISHED SURFACE OF PAVING/SURFACING SURF SURFACE  FTG FOOTING SWCL SIDEWALK CENTERLINE  FTTG FOOTING SWCL SIDEWALK CENTERLINE  FUT FUTURE SYS SYSTEM  GAA GAUGE TBC TOP BACK OF CURB  GB GRADE BREAK TC TOP DF CURB  GALV GALVANIZED TF TOP OF FOOTING  GR GRATE TR TOP OF FOOTING  HOR, HORZ HORIZONTAL TW TOP OF WALL  HP HIGH POINT TYP TYPICAL  HP HIGH POINT TYP TYPICAL  HT HEIGHT UON UNLESS OTHERWISE NOTED  ID INSIDE DIAMETER VAR VARIES  INV INVERT VERTICAL  IR, IRR, IRRG IRRIGATION W WATER  IR, IRR, IRRG IRRIGATION W WATER  IL LENGTH WATERLINE  LE LENGTH WATERLINE  LIP UP OF GUITER PAN @ AT  LIF LINEAR FEET CENTERLINE  ILIP UP OF GUITER PAN  LIF LINEAR FEET CENTERLINE  ILIP LINEAR FEET CENTERLINE  ILIP LINEAR FEET  ILIP LINEAR FEET  INV WATERLINE	FNCI	ENCLOSURE	SHT	SHEET
EQ EQUAL SLOPE  EX EXISTING SPEC SPECIFICATION(S)  EXIST EXISTING SQ SQUARE  (E) EXISTING SS SANITARY SEWER  FC / FOC FRONT OF CURB S/S STAINLESS STEEL  FFE FINISHED GRADE STA STATION  FIL FLOWLINE STD STANDARD  FOW FACE OF WALL STIL STEEL  FND FOUNDATION STRUCT STRUCTURE/ STRUCTURE/ STRUCTURAL  FS FINISHED SURFACE OF PAVING/SURFACING SURF SURFACE  FTG FOOTING SWCL SIDEWALK CENTERLINE  FUT FUTURE SYS SYSTEM  GA GAUGE TBC TOP BACK OF CURB  GB GRADE BREAK TC TOP DOF CURB  GALV GALVANIZED TF / TOP OF CURB  GALV GALVANIZED TF / TOP OF CURB  GRATE TR TOP OF WALL  HP HIGH POINT TYP TYPICAL  HP HIGH POINT TYP TYPICAL  HT HEIGHT UON UNLESS OTHERWISE NOTED  INV INVERT VERTICAL  IR, IRR, IRRG IRRIGATION W WATER  INV INVERT VERTICAL  IR, IRR, IRRG IRRIGATION W WATER  ILR LENGTH WW/ WITHOUT  LOC LOCATION, LOCATE  LIP LIP OF GUTTER PAN @ AT  LIF LINEAR FEET			SIM	SIMILAR
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(E) EXISTING  (E) EXISTING  (F) FC / FOC FRONT OF CURB  FC / FOC FRONT OF CURB  FFE FINISHED FLOOR ELEVATION  FG FINISHED GRADE  FL FL FLOWLINE  FOW FACE OF WALL  FND FOUNDATION  FTG FINISHED SURFACE OF PAVING/SURFACING  FTG FOOTING  GA GAUGE  GA GAUGE  GRADE BREAK  GA GAUGE  GRADE BREAK  GALV  GALVANIZED  GRATE  HOR, HORZ  HORZ  HORZ  HORZ  HOR  HOR, HORZ  HORIZONTAL  HT HEIGHT  INV INVERT  INV INVERT  IR, IRR, IRRG  IRR, IRRG  IRRGATION, LOCATE  LIP  LOC  LOCATION, LOCATE  LIP  LIP OF GUITER PAN  LEF  LINEAR TEET  STA STARINES  STANDARD  STRUC  STRUC STRUCTURE/  STRUC STRUCTURAL  STRUC TOP OF CURB  FOOTING  SWCL SIDEWALK CENTERLINE  FUT TOP OF CURB  TRC TOP BACK OF CURB  TF / TOP OF FOOTING  TYP TYPICAL  UON UNLESS OTHERWISE NOTED  VAR VARIES  INV WATER  LENGTH  LENGTH  W WATER  LENGTH  LENGTH  LIP OF GUITER PAN  LEF LINEAR FEET   € CENTERLINE	EX	EXISTING		, ,
(E) EXISTING SS SANITARY SEWER FC / FOC FRONT OF CURB FC / FOC FRONT OF CURB FFE FINISHED FLOOR ELEVATION ST STREET FG FINISHED GRADE STA STATION FL FL FLOWLINE STL STEEL FND FOUNDATION STRUC STRUCTURE/ STRUCTURE/ FND FOUNDATION STRUC STRUCTURE/ STRUCTUREL FS FINISHED SURFACE OF PAVING/SURFACING SWCL SIDEWALK CENTERLINE FTG FOOTING SWCL SIDEWALK CENTERLINE FUT FUTURE SYS SYSTEM GA GAUGE TBC TOP BACK OF CURB GB GRADE BREAK TC TOP BACK OF CURB GB GALV GALVANIZED TF / TOF OF FOOTING GR GRATE TR TOP OF RAMP HOR, HORZ HORIZONTAL TW TOP OF RAMP HOR, HORZ HORIZONTAL TW TOP OF WALL HP HIGH POINT TYP TYPICAL HT HEIGHT UON UNLESS OTHERWISE NOTED ID INSIDE DIAMETER VAR VARIES INV INVERT VERTICAL IR, IRR, IRRG IRRIGATION W WATER IR, IRR, IRRG RENGATION W WATER L LENGTH W/O WITHOUT LOC LOCATION, LOCATE LIP LIP OF GUITER PAN LF LINEAR FEET	EXIST	EXISTING	SQ	SQUARE
FC / FOC FRONT OF CURB  FFE FINISHED FLOOR ELEVATION  FG FINISHED GRADE  FL FLOWLINE  FOW FACE OF WALL  FND FOUNDATION  FS FINISHED SURFACE OF PAVING/SURFACING  FTG FOOTING  FUT FUTURE  GA GAUGE  GRADE  GRADE  GRADE  GRADE  FTG FOOTING  FTG FOOTING  FTG FOOTING  GRADE  GRADE  FTG FOOTING  GRADE  FUT FUTURE  GA GAUGE  GRADE  HORI, HORZ  HORIZONTAL  HP  HICH POINT  HT  HEIGHT  UON  UNLESS OTHERWISE NOTED  ID  INSIDE DIAMETER  INV  INVERT  KERT, IRRG  IRRGATION  W WATER  L  LAG BOLT  LOC  LOCATION, LOCATE  LIP  LIP OF GUITER PAN   LINEAR FEET   STA  STAINLES  STAINLESS  STAINLES  STAINLESS  STAINLESS  STAINLESS  STAINLESS  STAINLESS  STAINLES  STAINLESS  STAINLES  STAINLESS  STAINLESS  STAINLESS  STAINLES  STAINLESS  STAINLES  STAINLES  STAINLES  STAINLES  STAINLESS  STAINLES  STAINLES  STAINCE  STAINCE  STRUCTURE  STANDARD  STRUCTURE  STRUCTURE  STRUCTURE  STRUCTURE  STRUCTURE  STRUCTURE  STANDARD  STRUC  STRUCTURE  STANDARD  STRUC  STRUCTURE  STANDARD  STRUC  STRUCTURE  STANDARD  STRUCTURE  STANDARD  STAINCE  STAINCE  STAINCE  STRUCTURE  STANDARD  STRUCTURE  STRUCTURA  STRUCTURE  STANDARD  STRUCTURE  STRUCTURE  STANDARD  STRUCTURE  STRUCTURE  STANDAR  SURFACE  SURFACE  SURFACE  SURFACE  SURFACE  SURFACE  SURFACE  SURFACE  SURFACE  SURFA			SS	SANITARY SEWER
FFE FINISHED FLOOR ELEVATION ST STREET  FG FINISHED GRADE  FL FLOWLINE  FOW FACE OF WALL  FND FOUNDATION  FS FINISHED SURFACE OF PAVING/SURFACING  FTG FOOTING  FUTURE  GA GAUGE  GA GAUGE  GALV GALVANIZED  GR GRATE  HOR, HORZ  HOR, HORZ  HOR, HORZ  HOR, HORZ  IN SIDE DIAMETER  INV  IN VIERT  LE LENGTH  LE COMMANDED  STAM STRUC  STA STRET  STA  STA  STA  STA  STRET  STA  STRET  STA  STA  STA  STA  STA  STA  STA  S			\$/\$	STAINI ESS STEFI
FIG. FINISHED GRADE FL FLOWLINE FL FLOWLINE FOW FACE OF WALL FND FOUNDATION FS FINISHED SURFACE OF PAVING/SURFACING FS FINISHED SURFACE OF PAVING/SURFACING FTTG FOOTING FUT FUTURE GA GAUGE GB GRADE BREAK GALV GALVANIZED FOR GRATE HOR, HORZ HORIZONTAL HP HIGH POINT HT HEIGHT HT HEIGHT UNN INVERT IR, IRRG IRRIGATION  IR, IRR, IRRG IRRIGATION  LE LENGTH LB LAG BOLT LIP OF GUTTER PAN LIF LINEAR FEET  STA STATION STANDARD STRUCTURE/STRUCTURE/STRUCTURAL STRUCTURE/STRUCTURAL STRUCTURAL STRUCTURE/STRUCTURAL STRUCTURAL STRUCTURA STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTUR				
FIL FLOWLINE FOW FACE OF WALL FND FOUNDATION FS FINISHED SURFACE OF PAVING/SURFACING FTG FOOTING FUT FUTURE GA GAUGE GALV GALVANIZED GR HOR, HORZ HOR, HORZ HOR, IRR, IRRG IRR, IRRG IRR, IRRG IRR IRR IRR IRR IRR IRR IRR IRR IRR	FFE	FINISHED FLOOR ELEVATION		
FL FLOWLINE FOW FACE OF WALL FND FOUNDATION FS FINISHED SURFACE OF PAVING/SURFACING FTG FOOTING FUT FUTURE GA GAUGE GALV GALVANIZED GR GRATE HOR, HORZ HOR, HORZ HOR, INSIDE DIAMETER INV INVERT LE LENGTH LB LAG BOLT LIP LIP OF GUTTER PAN LE LIP LIP OF GUTTER STRUCTURAL STRUC SURF SURFACE SURFACE SURFACE SURFACE SURFACE STRUC STRUC STRUC SURFACE SURFACE SURFACE SURFACE STRUC STRUC STRUC STRUC STRUC STRUC STRUC STRUC SURFACE SURFACE SURFACE SURFACE STRUC STRUC STRUCTURE/STRUCTURAL STRUC SURFACE SURFACE SURFACE STRUC STRUCTURE/STRUCTURAL SURFACE SURFACE SURFACE STRUCTURE/STRUCTURAL STRUCTURAL SURFACE STRUCTURAL STRUCTURA	FG	FINISHED GRADE	STA	STATION
FOW FACE OF WALL FND FOUNDATION FOUNDATION FS FINISHED SURFACE OF PAVING/SURFACING FTG FOOTING FUT FUTURE GA GAUGE GB GRADE BREAK GALV GALVANIZED GR GRATE HOR, HORZ HORLONTAL HP HIGH POINT HT HEIGHT UON UNLESS OTHERWISE NOTED ID INSIDE DIAMETER IR, IRRG IRRIGATION  L LB LENGTH LB LAG BOLT LF LIP OF GUTTER PAN LF LIP OF GUTTER PAN LF LIP OF GUTTER PAN LE LINE STRUC TURE STRUC SURF SURF SURF SURF SURF SURF SURF SURF			STD	STANDARD
FND FOUNDATION  FS FINISHED SURFACE OF PAVING/SURFACING FTG FOOTING  FUT FUTURE  GA GAUGE GB GRADE BREAK GALV GALVANIZED  HOR, HORZ HOR, HORZ HOR HIGH POINT  HT HEIGHT  ID INSIDE DIAMETER  IR, IRR, IRRG IRRIGATION  LE LENGTH  LB LAG BOLT  LF LIP OF GUTTER PAN  ETC  SYS SYSTEM  TBC TOP BACK OF CURB TBC TOP OF CURB TF / TOF TOP OF FOOTING TF / TOF TOP OF FOOTING TOP OF RAMP TOP OF RAMP TOP OF WALL TW TOP OF WALL TYP TYPICAL UON UNLESS OTHERWISE NOTED WW WATER  WW WATER  WW WATER  LENGTH  LIP LIP OF GUTTER PAN  LEF LINE LINE LINE LINE LINE LINE LINE LINE			STI	STEFI
FS FINISHED SURFACE OF PAVING/SURFACING SWCL SIDEWALK CENTERLINE FTG FOOTING SWCL SIDEWALK CENTERLINE FUT FUTURE SYS SYSTEM  GA GAUGE TBC TOP BACK OF CURB GB GRADE BREAK TC TOP OF CURB  GALV GALVANIZED TF / TOF TOP OF FOOTING GR GRATE TR TOP OF RAMP  HOR, HORZ HORIZONTAL TW TOP OF WALL  HP HIGH POINT TYP TYPICAL  HT HEIGHT UON UNLESS OTHERWISE NOTED  ID INSIDE DIAMETER VAR VARIES  INV INVERT VERTICAL  IR, IRR, IRRG IRRIGATION W WATER  L LENGTH W/ WITH  LB LAG BOLT W/O WITHOUT  LOC LOCATION, LOCATE  LIP LIP OF GUTTER PAN  LINEAR FEET Q. CENTERLINE				
FTG FOOTING FUT FUTURE  GA GAUGE GB GRADE BREAK TC TOP OF CURB GALV GALVANIZED TRR TOP OF FOOTING TR TOP OF FOOTING GR GRATE HOR, HORZ HORIZONTAL TYP HIGH POINT TYP HT HEIGHT UON UNLESS OTHERWISE NOTED ID INSIDE DIAMETER VAR VAR INV INVERT VERT L LENGTH LB LAG BOLT LOC LIP OF GUTTER PAN  © AT  SWCL SIDEWALK CENTERLINE  SWCL SIDEWALK CENTERLINE  FBC SYS SYSTEM TOP OF BACK OF CURB TOP OF CURB TOP OF FOOTING TOP OF SAKE	FND	FOUNDATION		
FUT FUTURE  GA GAUGE  GB GRADE BREAK  TC TOP DECK OF CURB  GB GRADE BREAK  TC TOP OF CURB  GR GRATE  HOR, HORZ  HORIZONTAL  HP HIGH POINT  HT HEIGHT  ID INSIDE DIAMETER  INV INVERT  IR, IRR, IRRG  IRRIGATION  L LENGTH  LB LAG BOLT  LOC  LIP LIP OF GUITER PAN  LINEAR FEET  SYS  SYSTEM  TBC  TOP DACK OF CURB  TC TOP OF CURB  TR TOP OF FOOTING  TF / TOF  TOP OF FOOTING  TYP TOP OF FAMP  TOP OF FOOTING  TR TOP OF FOOTING  TR TOP OF FOOTING  TV TOP OF CURB  TOP BACK OF CURB  TOP OF	FS	FINISHED SURFACE OF PAVING/SURFACING		
FUT FUTURE  GA GAUGE  GB GRADE BREAK  GALV GALVANIZED  GR GRATE  HOR, HORZ HORIZONTAL  HP HIGH POINT  HIGH POINT  ID INSIDE DIAMETER  INV  INVERT  L LENGTH  LB LAG BOLT  LOC  LIP GUITER  GALV  GALVANIZED  TC  TOP OF CURB  TF / TOF  TOP OF FAMP  TOP OF RAMP  TW  TOP OF WALL  TW  TOP OF WALL  TYP  TYPICAL  UON  UNLESS OTHERWISE NOTED  VAR  VARIES  VAR  VARIES  VERT  VERT  VERTICAL  W/O  WITH  WATER  LIP LIP OF GUITER PAN  LINEAR FEET  E CENTERLINE	FTG	FOOTING	SWCL	SIDEWALK CENTERLINE
GA GAUGE TOP BACK OF CURB  GB GRADE BREAK TC TOP OF CURB  GALV GALVANIZED TF/TOF TOP OF FOOTING  GR GRATE TR TOP OF RAMP  HOR, HORZ HORIZONTAL TW TOP OF WALL  HP HIGH POINT TYP TYPICAL  HT HEIGHT UON UNLESS OTHERWISE NOTED  ID INSIDE DIAMETER VAR VARIES  INV INVERT VERTICAL  IR, IRR, IRRG IRRIGATION W WATER  L LENGTH W/O WITH  LB LAG BOLT W/O WITHOUT  LOC LOCATION, LOCATE  LIP LIP OF GUITER PAN  LF LINEAR FEET   GE CENTERLINE			SYS	SYSTEM
GB GRADE BREAK TC TOP OF CURB  GALV GALVANIZED TF / TOF TOP OF FOOTING  GR GRATE TR TOP OF RAMP  HOR, HORZ HORIZONTAL TW TOP OF WALL  HP HIGH POINT TYP TYPICAL  HT HEIGHT UON UNLESS OTHERWISE NOTED  ID INSIDE DIAMETER VAR VARIES  INV INVERT VERTICAL  IR, IRR, IRRG IRRIGATION W WATER  L LENGTH W/ WITH  LB LAG BOLT W/O WITHOUT  LOC LOCATION, LOCATE  LIP LIP OF GUTTER PAN  LF LINEAR FEET			TRC	TOP BACK OF CURB
GALV GALVANIZED  GR GRATE  HOR, HORZ  HORIZONTAL  HP HIGH POINT  TYP  TYPICAL  HT HEIGHT  UON  UNLESS OTHERWISE NOTED  ID INSIDE DIAMETER  INV  INVERT  L LENGTH  LB LAG BOLT  LOC  LOCATION, LOCATE  LIP  LIP OF GUTTER PAN  LENGTH  LINEAR FEET  TOP OF FOOTING  TF / TOF  TOP OF FOOTING  TOR OF FOOTING  T		GAUGE		
GR GRATE TOP OF RAMP HOR, HORZ HORIZONTAL TW TOP OF WALL HP HIGH POINT TYP TYPICAL HT HEIGHT UON UNLESS OTHERWISE NOTED ID INSIDE DIAMETER VAR VARIES INV INVERT VERTICAL IR, IRR, IRRG IRRIGATION W WATER L LENGTH W/ WITH LB LAG BOLT W/O WITHOUT LOC LOCATION, LOCATE LIP LIP OF GUTTER PAN LF LINEAR FEET   TR TOP OF RAMP TOP OF WALL TW TOP OF RAMP TOP OF RAMP TW WO WALL TOP OF RAMP TW WO WALL TOP OF RAMP TOP OF WALL TOP OF WALL UNLESS OTHERWISE NOTED WAR VARIES WATER UNLESS OTHERWISE NOTED WATER LIP OF GUTTER PAN LIP OF GUTTER	GB	GRADE BREAK		
GR GRATE TR TOP OF RAMP HOR, HORZ HORIZONTAL TW TOP OF WALL HP HIGH POINT TYP TYPICAL HT HEIGHT UON UNLESS OTHERWISE NOTED ID INSIDE DIAMETER VAR VARIES INV INVERT VERTICAL IR, IRR, IRRG IRRIGATION W WATER L LENGTH W/O WITH LB LAG BOLT W/O WITHOUT LOC LOCATION, LOCATE LIP LIP OF GUTTER PAN LF LINEAR FEET Q CENTERLINE	GALV	GALVANIZED	TF / TOF	TOP OF FOOTING
HOR, HORZ HOR HORIZONTAL HP HIGH POINT TYP TYPICAL UON UNLESS OTHERWISE NOTED ID INSIDE DIAMETER INV INVERT VERT VERT VERTICAL IR, IRR, IRRG IRRIGATION W WATER L LENGTH LB LAG BOLT LOC LOCATION, LOCATE LIP LIP OF GUTTER PAN LF LINEAR FEET  TW TOP OF WALL TOP OF WALL TYP TYPICAL WAR VARIES WAR VARIES WARE VARIES WARE VARIES WATER WATER WENTICAL WATER WITH WATERLINE AT CENTERLINE		CRATE	TR	TOP OF RAMP
HP HIGH POINT HT HEIGHT UON UNLESS OTHERWISE NOTED ID INSIDE DIAMETER INV INVERT VERT VERT VERT VERTICAL IR, IRR, IRRG IRRIGATION W WATER L LENGTH LB LAG BOLT LOC LOCATION, LOCATE LIP OF GUTTER PAN LF LINEAR FEET  TYP TYPICAL WAR VARIES WVAR VARIES WAR VERT VERTICAL WM WATER WM WATER W/O WITH WATERLINE  CENTERLINE			TW	TOP OF WALL
HT HEIGHT  ID INSIDE DIAMETER  INV INVERT  IR, IRR, IRRG  IRRIGATION  L LENGTH  LB LAG BOLT  LOC  LOCATION, LOCATE  LIP OF GUTTER PAN  LF LINEAR FEET  UON  UNLESS OTHERWISE NOTED  VAR  VAR  VAR  VAR  VAR  VAR  VARIES  WATER  WENTICAL  WENTH  VERTICAL  WATER  WATER  WATER  WI  WATER  WATER  WATER  WATER  WATER  AT  CENTERLINE				
ID INSIDE DIAMETER  INV INVERT  IR, IRR, IRRG  IRRIGATION  L  LENGTH  LOC  LOCATION, LOCATE  LIP OF GUTTER PAN  LF  LINSIDE DIAMETER  VAR  VAR  VARIES  VERT  VERTICAL  W  WATER  W/  WATER  W/  WITH  WATERLINE  AT  CENTERLINE	HP	HIGH POINT		
INV INVERT VERT VERTICAL  IR, IRR, IRRG IRRIGATION W WATER  L LENGTH W/O WITH  LB LAG BOLT W/O WITHOUT  LOC LOCATION, LOCATE  LIP OF GUTTER PAN  LF LINEAR FEET   VERT VERTICAL  WATER  WATER  WATER  VERT VERTICAL  WATER  WATER  WATER  VERT VERTICAL  WATER  WATER  VERT VERTICAL  WATER  WATER  VERTICAL  WATER  WATER  WATER  AT  CENTERLINE	HT	HEIGHT		UNLESS OTHERWISE NOTED
INV INVERT VERT VERTICAL  IR, IRR, IRRG IRRIGATION W WATER  L LENGTH W/O WITH  LB LAG BOLT W/O WITHOUT  LOC LOCATION, LOCATE  LIP OF GUTTER PAN  LF LINEAR FEET   VERTICAL  W WATER  WATER  WATER  WITH  WATERLINE  AT  CENTERLINE			VAR	VARIES
IR, IRR, IRRG IRRIGATION W WATER  L LENGTH W/O WITH  LB LAG BOLT W/O WITHOUT  LOC LOCATION, LOCATE  LIP OF GUTTER PAN @ AT  LF LINEAR FEET   WATER  W			VERT	VERTICAL
L LENGTH W/ WITH  LB LAG BOLT  LOC LOCATION, LOCATE  LIP OF GUTTER PAN  LF LINEAR FEET  W/O WITHOUT  WATERLINE  AT  CENTERLINE				
LB LAG BOLT W/O WITHOUT  LOC LOCATION, LOCATE  LIP LIP OF GUTTER PAN  LF LINEAR FEET  W/O WITHOUT  WATERLINE  AT  CENTERLINE	IR, IRR, IRRG	IRRIGATION		
LB LAG BOLT W/O WITHOUT LOC LOCATION, LOCATE LIP OF GUTTER PAN @ AT LF LINEAR FEET   W/O WITHOUT WATERLINE CENTERLINE	L	LENGTH	•	
LOC LOCATION, LOCATE  LIP LIP OF GUTTER PAN  LF LINEAR FEET  WL WATERLINE  AT  CENTERLINE	LB		W/O	WITHOUT
LIP LIP OF GUTTER PAN  LIF LINEAR FEET			WL	WATERLINE
LF LINEAR FEET © CENTERLINE				
LP LOW POINT	LF	LINEAR FEET	Æ	CENTEKLINE
	LP	LOW POINT		





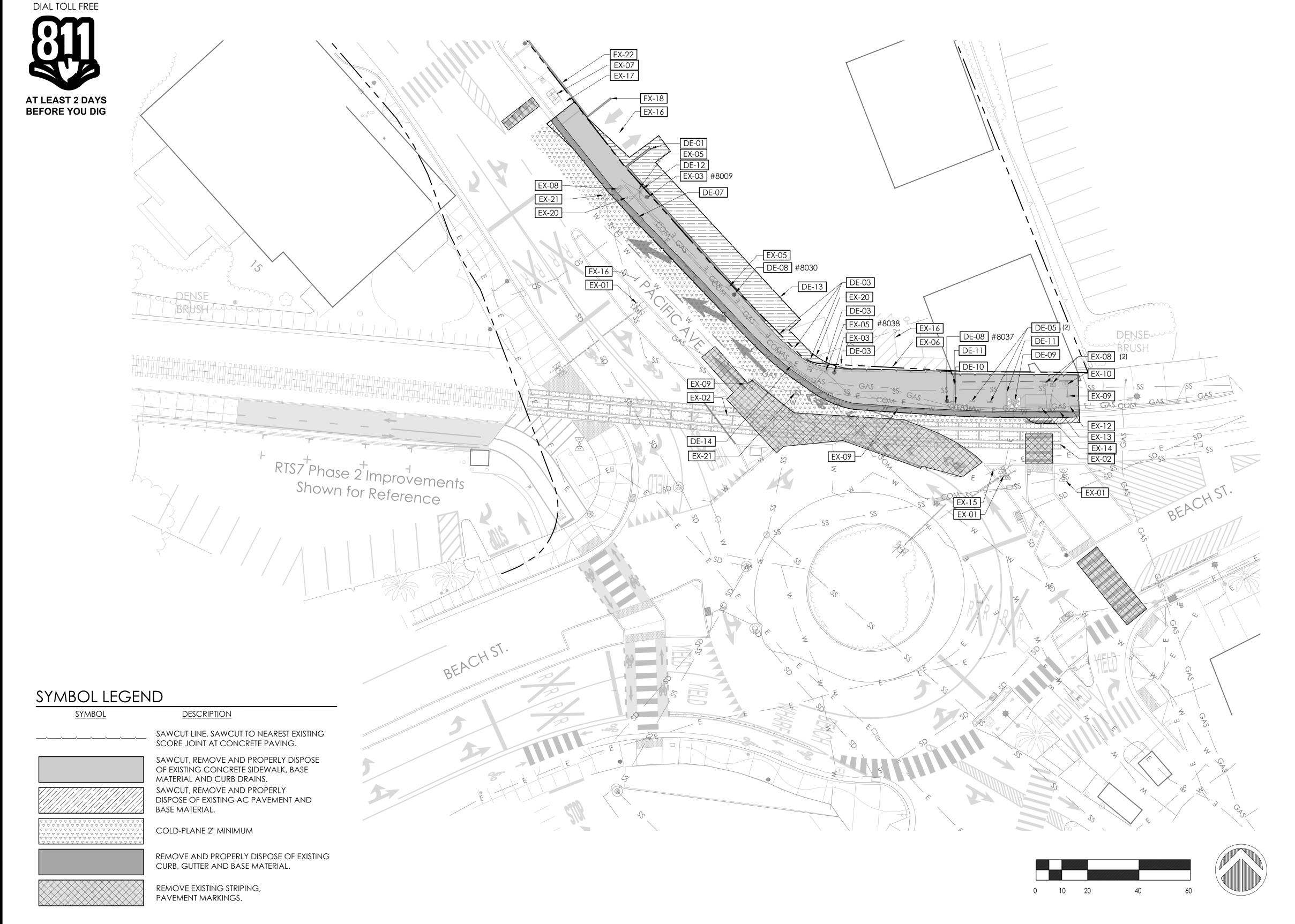


PACIFIC BEACH

ROUNDABOUT ENHANCEMENTS GENERAL NOTES & ABBREVIATIONS

REFERENCES	DATE	02/24/2025	SCALE
IELD BOOK:	DRAWN		RS-1.01
PRAWING #:	DESIGN		VAULT NO.
710 (VVIII (O II).	CHECKED		7170





#### REFERENCE NOTES SCHEDULE

CODE DESCRIPTION

#### **DEMOLITION**

- DE-01 REMOVE AND DISPOSE OF EXISTING RETAINING WALL AND FOOTING. REMOVE AND RETAIN EXISTING METAL RAILING FOR RELISE
- DE-03 REMOVE AND RETAIN EXISTING BOLLARDS AND CHAIN FOR REUSE.
- DE-05 REMOVE AND RETAIN EXISTING BIKE RACKS FOR REUSE.
- DE-07 REMOVE AND DISPOSE OF EXISTING CATCH BASIN.
- DE-08 REMOVE AND RETAIN EXISTING LIGHT POLE AND FIXTURE FOR REUSE.
- DE-09 REMOVE AND RETAIN EXISTING SIGNAL MAST FOR REUSE.
- DE-10 REMOVE AND RETAIN EXISTING PULL BOX FOR REUSE.
- DE-11 REMOVE AND DISPOSE OF EXISTING CURB DRAIN UP TO SAWCUT LINE.
- DE-12 REMOVE AND DISPOSE OF EXISTING CURB DRAIN.
  CONTRACTOR TO CONFIRM NO UPSTREAM CONNECTION.
- DE-13 SAWCUT ADJACENT ASPHALT AS NEEDED TO ALLOW FOR

CLEAN TRANSITION TO PROPOSED FLATWORK.

DE-14 COMCAST TO REMOVE AND RETAIN COMCAST PULLBOX FOR REUSE.

#### EXISTING TO REMAIN

- EX-01 PROTECT IN PLACE EXISTING RAILROAD SIGNAL.
- EX-02 PROTECT IN PLACE EXISTING RAILS AND TRACK PANELS.
- EX-03 PROTECT IN PLACE EXISTING LIGHT POLE.
- EX-05 PROTECT IN PLACE EXISTING PULL BOX.
- EX-06 PROTECT IN PLACE EXISTING BOLLARDS AND CHAIN.
- EX-07 PROTECT IN PLACE EXISTING PG&E VAULT.
- EX-08 PROTECT IN PLACE EXISTING WATER METER.
- EX-09 PROTECT IN PLACE EXISTING WATER VALVE.
- EX-10 PROTECT IN PLACE EXISTING FIRE HYDRANT.
- EX-12 PROTECT IN PLACE EXISTING GAS LINE.
- EX-13 PROTECT IN PLACE EXISTING WATER LINE.
- EX-14 PROTECT IN PLACE EXISTING ELECTRICAL LINE.
- EX-15 PROTECT IN PLACE EXISTING SIGN.
- EX-16 PROTECT IN PLACE EXISTING ASPHALT PAVING.
- EX-17 PROTECT IN PLACE EXISTING CONCRETE SIDEWALK, CURB
- AND GUTTE
- EX-18 PROTECT IN PLACE EXISTING RETAINING WALL AND GUARDRAIL.
- EX-20 PROTECT IN PLACE EXISTING SANITARY SEWER CLEAN OUT.
- EX-21 PROTECT IN PLACE EXISTING SANITARY SEWER MANHOLE
- LID.

EX-22 PROTECT IN PLACE EXISTING RETAINING WALL AND RAILING.

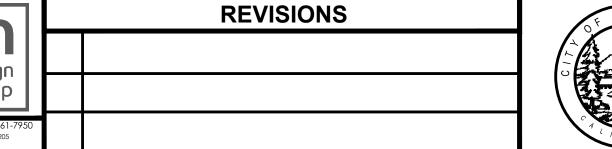
#### **DEMOLITION NOTES**

- ALL EXISTING UTILITIES WERE PLOTTED FROM RECORD INFORMATION AND FIELD TOPOGRAPHY. ACTUAL LOCATIONS MAY VARY AND ADDITIONAL CROSSINGS MAY EXIST IN THE FIELD. IT IS IMPERATIVE THAT "U.S.A. LOCATING SERVICES" AND "SUMMIT" LOCATE AND MARK EXISTING UTILITIES PRIOR TO THE START OF EXCAVATION.
- THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN EXPOSING EXISTING UTILITY CROSSINGS AND SERVICES.
- ANY DAMAGE TO EXISTING UTILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.



**DIG ALERT** 







## SANTACRUZ C WORKS DEPARTMENT 809 Center Street, Room 201

Santa Cruz, CA 95060

PACIFIC BEACH
ROUNDABOUT ENHANCEMENTS
DEMOLITION PLANS

REFERENCES
FIELD BOOK:

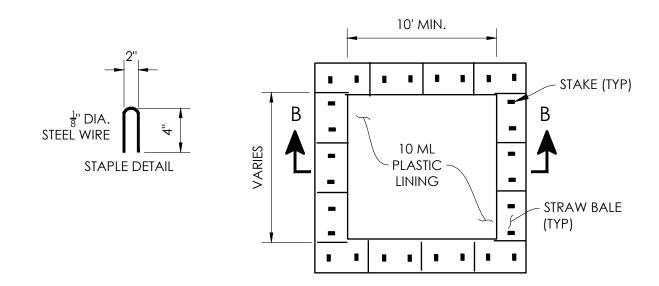
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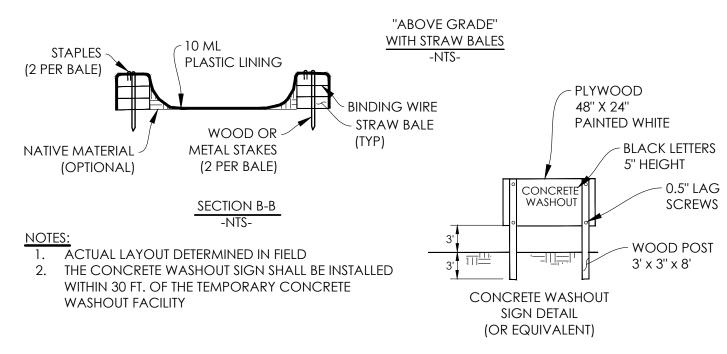
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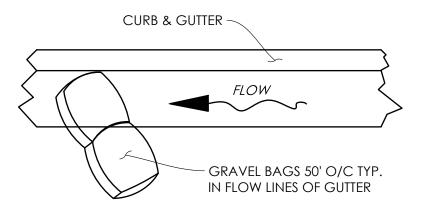
DESIGN MS VAULT NO.

CHECKED DC 7170

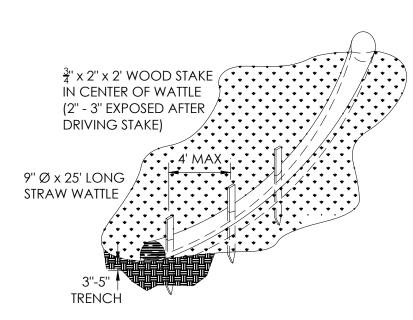




CONCRETE WASTE MANAGEMENT WM-8



SE-6 GRAVEL BAGS IN FLOW LINE DETAIL



NOTES:
PLACE NET-WRAPPED STRAW WATTLE IN TRENCH. WATTLE TO BE TIGHTLY BUTTED END TO END BUT NOT OVERLAPPING. MINIMUM 6 STAKES PER 25' OF WATTLE.

STRAW WATTLE DETAIL

#### GOOD HOUSEKEEPING PRACTICES

- 1. THE CONTRACTOR SHALL IMPLEMENT GOOD HOUSEKEEPING PRACTICES AS OUTLINED IN THE GENERAL
- 2. THE CONTRACTOR SHALL CONDUCT AN INVENTORY OF THE PRODUCTS USED AND/OR EXPECTED TO BE USED AND THE END PRODUCTS THAT ARE PRODUCED AND/OR EXPECTED TO BE PRODUCED.
- 3. COVER AND BERM LOOSE STOCKPILED CONSTRUCTION MATERIALS THAT ARE NOT ACTIVELY BEING USED. 4. STORE CHEMICALS IN WATERTIGHT CONTAINERS (WITH APPROPRIATE SECONDARY CONTAINMENT TO PREVENT ANY SPILLAGE OR LEAKAGE) OR IN A STORAGE SHED (COMPLETELY ENCLOSED).
- 5. ALL EQUIPMENT AND VEHICLE FUELING AND MAINTENANCE PROCEDURES SHALL BE DONE IN THE AREA SHOWN ON THE SITE PLANS OR OTHER LOCATION WHERE THE APPROPRIATE BMP'S HAVE BEEN INSTALLED TO PREVENT ANY CONTAMINATION OF THE SOILS.
- 6. THE CONTRACTOR SHALL USE SOME TYPE OF GROUND COVER OR OTHER DEVISES TO INSURE NO PETROLEUM PRODUCTS COME IN CONTACT WITH SOILS DURING FUELING AND MAINTENANCE.
- 7. THE CONTRACTOR SHALL PROVIDE APPROPRIATE CONTAINMENT AROUND ANY SANITARY TOILETS THAT PREVENT CONTAMINATION TO THE SOILS.
- 8. ANY BUILDING MATERIALS THAT ARE STORED ON-SITE THAT HAVE THE POTENTIAL TO CONTRIBUTE NON-VISIBLE POLLUTANTS TO THE STORM WATER RUNOFF SHALL BE STORED IN WATERTIGHT CONTAINERS OR UNDER THE COVER OF SHELTERS THAT PROVIDE PROTECTION FROM RAINS.
- 9. CONSTRUCTION MATERIAL WASTES SHALL BE CLEANED UP DAILY AND STORED IN COVERED CONTAINERS PRIOR TO DISPOSAL.

#### AIR QUALITY CONTROL NOTES

#### THE FOLLOWING PRACTICES ARE TO BE USED AT ALL TIMES DURING CONSTRUCTION:

- 1. REDUCE THE AMOUNT OF DISTURBED AREA WHERE POSSIBLE.
- 2. USE WATER TRUCKS OR SPRINKLER SYSTEMS IN SUFFICIENT QUANTITY TO PREVENT AIRBORNE DUST FROM LEAVING THE SITE. INCREASED WATERING FREQUENCY WILL BE REQUIRED WHENEVER WIND SPEEDS EXCEED 15MPH. RECLAIMED (NON-POTABLE WATER) WATER SHOULD BE USED WHENEVER POSSIBLE.
- PERMANENT DUST CONTROL MEASURES IDENTIFIED IN THE APPROVED PROJECT PLANS SHALL BE IMPLEMENTED AS SOON AS POSSIBLE FOLLOWING COMPLETION OF ANY SOIL DISTURBING ACTIVITIES.
- 4. ALL ROADWAYS, DRIVEWAYS, SIDEWALKS, ETC. TO BE PAVED SHOULD BE COMPLETED AS SOON AS POSSIBLE. IN ADDITION, BUILDING PADS SHOULD BE LAID AS SOON AS POSSIBLE AFTER GRADING UNLESS SEEDING OR SOIL BINDERS ARE USED.
- VEHICLE SPEED FOR ALL CONSTRUCTION VEHICLES SHALL NOT EXCEED 15MPH ON ANY UNPAVED SURFACE AT THE CONSTRUCTION SITE.
- 6. ALL TRUCKS HAULING DIRT, SAND, SOIL, OR OTHER LOOSE MATERIAL ARE TO BE COVERED OR SHOULD MAINTAIN AT LEAST TWO FEET OF FREEBOARD (MINIMUM VERTICAL DISTANCE BETWEEN TOP OF LOAD AND TOP OF TRAILER) IN ACCORDANCE WITH THE CALIFORNIA VEHICLE CODE SECTION 23114.
- SWEEP STREETS AT THE END OF EACH DAY IF VISIBLE SOIL MATERIAL IS CARRIED ONTO ADJACENT PAVED ROADS. WATER SWEEPERS WITH RECLAIMED WATER SHOULD BE USED
- 8. A DESIGNATED DUST CONTROL MONITOR SHALL BE CHOSEN. THEY SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF ALL DUST CONTROL MEASURES. THE MONITOR SHALL BE AVAILABLE DURING WEEKENDS AND HOLIDAYS. THE NAME AND PHONE NUMBER OF THE MONITOR SHALL BE PROVIDED TO THE CITY AND MBARD.

#### GENERAL EROSION CONTROL NOTES

- 1. THE CONTRACTOR SHALL COORDINATE A PRECONSTRUCTION MEETING WITH THE CONSTRUCTION TEAM (SUBCONTRACTORS AND PERTINENT CONSTRUCTION STAFF) AND CITY STAFF TO REVIEW THE REQUIRED BEST MANAGEMENT PRACTICES (BMPs) DURING CONSTRUCTION PER THE REGIONAL WATER QUALITY CONTROL BOARD CONSTRUCTION GENERAL PERMIT AND GOVERNING MS4 PERMIT.
- 2. IF FAILURE OF ANY OF THE BMP'S SHOULD RESULT IN NTU'S THAT EXCEED THE LIMITS OF THE GENERAL PERMIT REQUIREMENTS, THE QSP SHALL IMPLEMENT THE CHANGES NECESSARY TO KEEP THE VIOLATION FROM HAPPENING AGAIN, AND REPORT THE VIOLATION VIA THE SMARTS SYSTEM PER THE REQUIREMENTS OF THE GENERAL PERMIT.
- 3. IF WATER MONITORING BECOMES NECESSARY PER THE REQUIREMENTS OF THE GENERAL PERMIT, THEN THE PERSON OR PERSONS DOING THE MONITORING SHALL HAVE THE APPROPRIATE TRAINING AND QUALIFICATION TO PERFORM SUCH MONITORING.
- 4. THE QSP SHALL ASSURE ALL SAFETY PRECAUTIONS NECESSARY HAVE BEEN IMPLEMENTED TO DO THE WATER MONITORING.
- 5. A STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON (OCTOBER 15 THROUGH APRIL 15). NECESSARY MATERIALS SHALL BE AVAILABLE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS
- 6. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY EROSION CONTROL MEASURES AS SHOWN ON THIS PLAN AND/OR AS DIRECTED BY THE CITY TO CONTROL DRAINAGE WHICH HAS BEEN AFFECTED BY GRADING AND/OR TRENCHING
- 7. THE CONTRACTOR WILL BE ON CALL IN THE EVENT IT IS NECESSARY TO IMPLEMENT EROSION CONTROL MEASURES OR IN THE EVENT OF AN EMERGENCY.
- 8. ALL STORMWATER CONTROL MEASURES THAT ARE IDENTIFIED IN THE REAP SHALL BE IN PLACE MIN. OF 24 HRS. PRIOR TO FORECAST RAINS.
- 9. AFTER A RAINSTORM, ALL BMP'S SHALL BE INSPECTED AND ANY BUILDUP OF SEDIMENTS SHALL BE
- REMOVED AND DISPOSED OF IN AN APPROVED MANNER.
- 10. THE ENGINEER OF RECORD, QSD OR AN AUTHORIZED REPRESENTATIVE MAY REQUIRE THE CONTRACTOR AT ANY TIME TO INSTALL AND/OR CONSTRUCT ADDITIONAL DRAINAGE STRUCTURES AS NECESSARY TO PREVENT OR CONTROL EROSION.
- 11. THE EROSION CONTROL DEVICES ON THIS PLAN ARE A GENERAL CONCEPT OF WHAT MAY BE REQUIRED. EROSION CONTROL DEVICES MAY BE RELOCATED, DELETED OR ADDITIONAL ITEMS MAY BE REQUIRED DEPENDING ON THE ACTUAL SOIL CONDITIONS ENCOUNTERED. EROSION CONTROL DEVICES MAY BE PLACED AT THE DISCRETION OF THE CITY AS APPROVED BY THE CITY.
- 12. THE CONTRACTOR IS RESPONSIBLE TO KEEP IN FORCE ALL EROSION CONTROL DEVICES AND TO MODIFY THOSE DEVICES AS SITE PROGRESS DICTATES.
- 13. THE CONTRACTOR SHALL MONITOR THE EROSION CONTROL DEVICES DURING STORMS AND MODIFY THEM IN ORDER TO PREVENT PROGRESS OF ANY ONGOING EROSION.
- 14. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING ANY EROSION OR DEBRIS SPILLING ONTO A PUBLIC
- 15. THE CONTRACTOR SHALL CONTACT THE CITY IN THE EVENT THAT THE EROSION CONTROL PLAN AS
- DESIGNED REQUIRES ANY SUBSTANTIAL REVISIONS. 16. DURING GRADING OPERATIONS IF AN AREA OF DISTURBANCE IS TO REMAIN IDLE FOR A PERIOD OF 2 OR
- MORE WEEKS, THE DISTURBED AREAS SHALL BE COVERED WITH MULCH, STRAW OR SOME OTHER TYPE OF BMP TO PREVENT EROSION DURING RAIN EVENTS.
- 17. THE CONTRACTOR SHALL PROVIDE STREET SWEEPING ONGOING DURING CONSTRUCTION TO PREVENT ANY SEDIMENTS FROM BEING TRACKED OFF-SITE OR TO AREAS THAT MAY CONTRIBUTE TO SEDIMENTS BEING DEPOSITED INTO THE STORM DRAIN SYSTEM.
- 18. GRAVEL BAGS ORIENTED TO SLOW THE FLOW OF STORM WATER RUNOFF SHALL BE PLACED IN THE CONCRETE GUTTERS IN THE ON-SITE ROADWAY TO HELP FILTER OUT ANY SEDIMENTS. THESE GRAVEL BAGS SHALL BE PLACED 50' O/C MAX. SEDIMENTS THAT ACCUMULATE AT THE GRAVEL BAGS SHALL BE REMOVED AFTER EACH RAIN EVENT.
- 19. THE CONTRACTOR SHALL IMPLEMENT EFFECTIVE WIND EROSION CONTROLS.
- 20. IN THE EVENT OF A RELEASE OF A REPORTABLE QUANTITY OF A POLLUTANT, THE CONTRACTOR SHALL ADVISE THE OWNER TO NOTIFY THE NATIONAL RESPONSE CENTER AND THE CITY. IF NECESSARY, THIS POLLUTION PREVENTION PLAN SHOULD BE REVISED TO REFLECT THE CHANGE IN CONDITIONS OF THE CONSTRUCTION ACTIVITY. A REPORTABLE QUANTITY IS ESTABLISHED BY THE 40 CODE OF FEDERAL REGULATIONS (CRI) 1117.3 OR 40 CFR 302.4.
- 21. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AND MAINTAINED TO THE SATISFACTION OF THE BUILDING OFFICIAL AND PUBLIC WORKS DIRECTOR DURING ALL DEMOLITIONS, CONSTRUCTION AND GROUND DISTURBING ACTIVITIES.
- 22. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WHEN PERMANENT IMPROVEMENTS, PLANTINGS, AND FACILITIES ARE IN PLACE. TEMPORARY MEASURES SHALL BE REMOVED PRIOR TO FINAL
- 23. STOCKPILE MANAGEMENT SHALL BE IN CONFORMANCE WITH GENERAL PERMIT AND THE CASQA BMP
- 24. IF DURING CONSTRUCTION DEWATERING OPERATIONS BECOME NECESSARY, ALL DEWATERING SHALL BE DONE IN COMPLIANCE WITH THE REQUIREMENTS OUTLINED THE NPDES GENERAL PERMIT AND PER THE CASQA BMP HANDBOOK FOR BMP SC-11. DISCHARGES SHALL BE TREATED FOR EXCESSIVE SEDIMENTS PRIOR TO LEAVING THE SITE AND/OR ENTERING THE CITY'S STORM DRAIN SYSTEM.





**REVISIONS** 

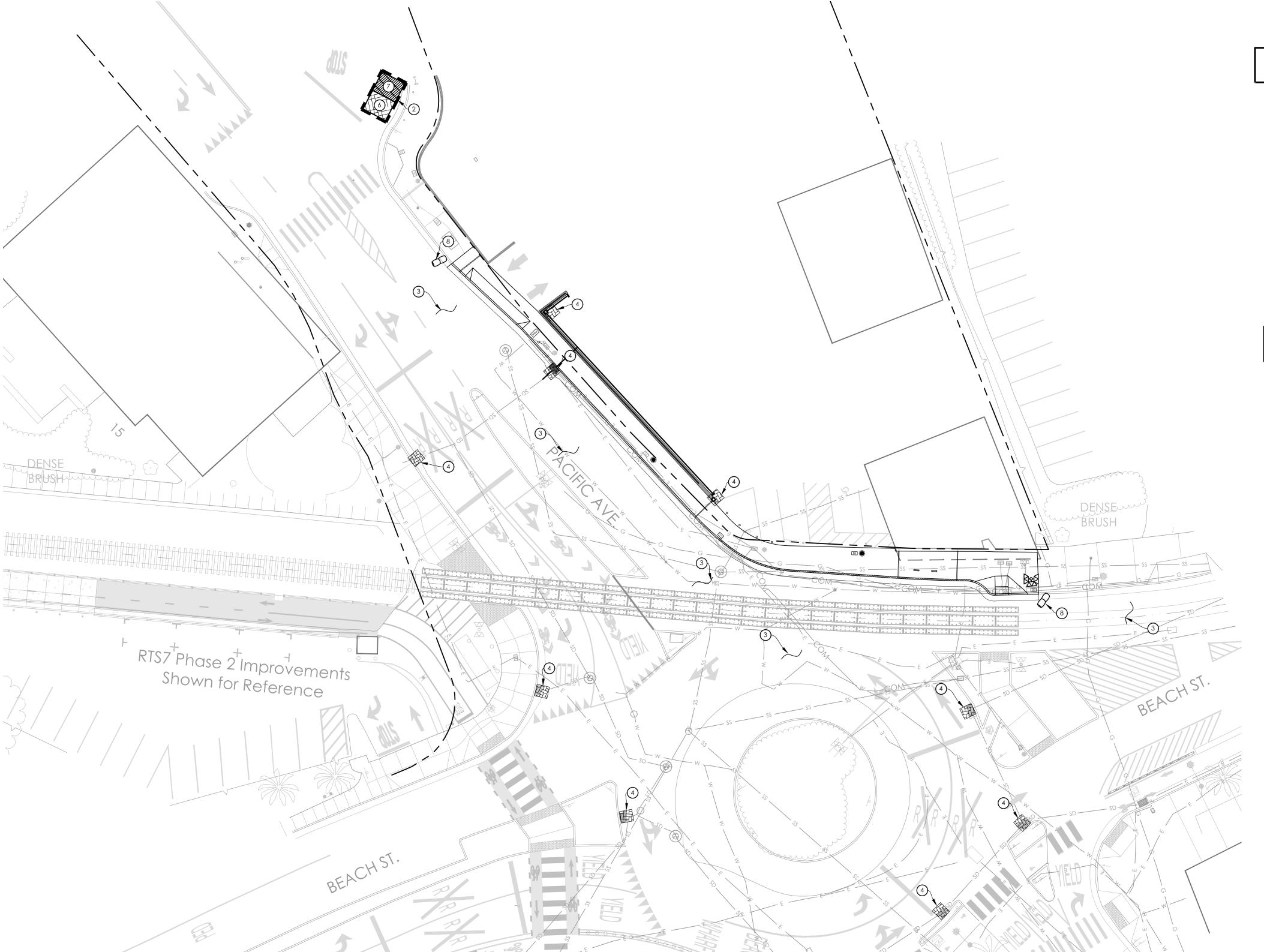


UBLIC WORKS DEPARTMENT 809 Center Street, Room 201 Santa Cruz, CA 95060

PACIFIC BEACH ROUNDABOUT ENHANCEMENTS

**EROSION CONTROL NOTES** 

REFERENCES	DATE 02/24/2025	SCALE AS SHOWN
ELD BOOK:	drawn <b>NW</b>	EC-1.00
RAWING #:	design <b>DC</b>	VAULT NO.
C-0193-07	CHECKED <b>DC</b>	7170



#### CASQA BMP'S

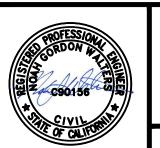
#	BMP SYMBOL	NAME	LEGEND
	SE-1	SILT FENCE	-xx-
2	SE-5	STRAW WATTLE	
3	SE-7	STREET SWEEPING AND VACUUMING	
4	SE-10	STORM DRAIN INLET PROTECTION (TYPE 5)	
5	TC-1/TC-3	STABILIZED CONSTRUCTION ENTRANCE	
6	WM-1/WM-2	MATERIAL DELIVERY & STORAGE/ MATERIAL USE	
7	WM-8	CONCRETE WASTE MANAGEMENT	
8	SE-6	GRAVEL BAGS	

#### CONSTRUCTION NOTES

- 1. PERIMETER CONTROL BMP'S SHALL BE IN PLACE PRIOR TO ANY GROUND DISTURBANCE.
- 2. THESE PLANS ARE INTENDED TO REPRESENT DIFFERENT PHASES DURING CONSTRUCTION. THE CONTRACTOR SHALL IMPLEMENT THE BMP'S SHOWN AND/OR ANY OTHER MEASURES NECESSARY DURING CONSTRUCTION TO BE IN COMPLIANCE WITH THE CONSTRUCTION GENERAL PERMIT. IMPLEMENTATION OF THE THE BMP'S SHOWN ON THESE PLANS DO NOT RELIEVE THE OWNER OR HIS/HER REPRESENTATIVE FROM RESPONSIBILITY OF IMPLEMENTING ALL MEASURES NEEDED TO BE IN COMPLIANCE WITH THE CONSTRUCTION GENERAL PERMIT.
- 3. THE CONTRACTOR SHALL USE 3" 6" STONES FOR THE STABILIZED CONSTRUCTION ENTRANCE OR ALTERNATE METHODS THAT ACHIEVE THE DESIRED RESULTS. THIS BMP SHALL BE IMPLEMENTED AS SOON AS PRACTICAL.
- 4. CONSTRUCTION THAT INCLUDES DEMOLITION AND REPLACEMENT OF EXISTING ASPHALT SHALL BE COMPLETED WHEN THERE IS NO FORECAST RAIN EVENTS. AREAS THAT WILL BE IDLE FOR EXTENDED PERIODS OF TIME SHALL BE COVERED WITH TEMPORARY ASPHALT PATCHING, (COLD MIX).
- 5. GRAVEL BAGS SHOWN IN THE CURB AND GUTTER FLOW LINES SHALL BE ORIENTED TO TEMPORARILY SLOW AND DAM THE FLOWING STORM WATER IN THE GUTTERS TO HELP FILTER OUT ANY SEDIMENT. THESE GRAVEL BAGS SHALL BE SPACED AT 50' O/C OR CLOSER AS CONDITIONS WARRANT.
- 6. ANY SEDIMENT TRACKED OFFSITE SHALL BE CLEANED DAILY BY MEANS OF MOBILE STREET SWEEPERS.7. THE LOCATIONS SHOWN FOR THE EQUIPMENT AND MATERIAL DELIVERY STORAGE
- 7. THE LOCATIONS SHOWN FOR THE EQUIPMENT AND MATERIAL DELIVERY STORAGE AREAS AND CONCRETE WASTE CLEANOUT MAY BE RELOCATED DURING CONSTRUCTION WITH WRITTEN APPROVAL BY THE CITY.
- 8. THE CONTRACTOR SHALL SUBMIT THE LOCATION OF THE CONSTRUCTION STAGING AREA AND ANY REQUIRED TRAFFIC CONTROL PLANS TO THE CITY FOR APPROVAL PRIOR TO ANY CONSTRUCTION ACTIVITY.









**REVISIONS** 



## SANTACRUZ PUBLIC WORKS DEPARTMENT 809 Center Street, Room 201 Santa Cruz, CA 95060

PACIFIC BEACH
ROUNDABOUT ENHANCEMENTS
EROSION CONTROL PLANS

REFERENCES
FIELD BOOK:

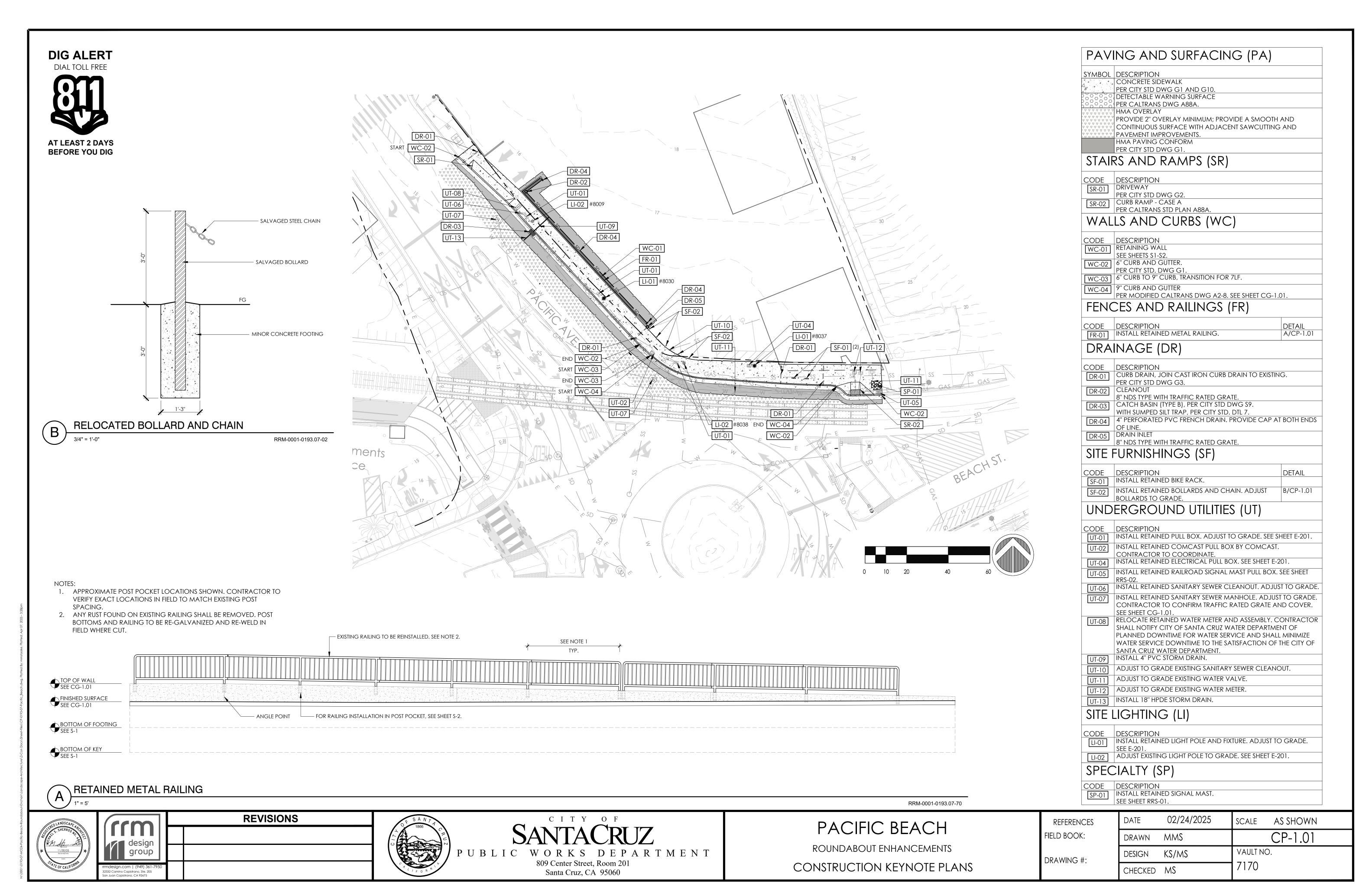
DRAWING #:
EC-0193-07

 DATE
 02/24/2025
 SCALE 1" = 20'-0"

 DRAWN RPE
 EC-1.01

 DESIGN
 VAULT NO.

 CHECKEDDC
 7170



SIFIC BEACH ENHANCEMENTS BID-READY CONSTRUCTION DOCUMENTS - 02/24/2025



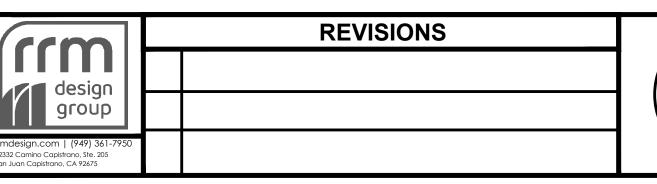
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5	PT	1812737.4580	6116334.9850
6	CL	1812723.8791	6116336.9697
7	PT	1812705.5592	6116347.2106
9	WALL PT	1812721.0457	6116352.5097
10	DI BEGIN WALL	1812701.8206 1812728.1823	6116358.684
11	BC BC	1812647.0310	6116401.0786
12	BC	1812651.1000	6116405.488
13	STRIPE	1812655.7449	6116395.3746
14	BC	1812648.9258	6116419.074
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18	PT	1812627.5062	6116427.8176
19	PT	1812632.9389	6116416.8182
20	EC	1812626.1957	6116435.2468
21	PT	1812623.3766	6116477.5652
22	PT	1812618.2950	6116482.2314
23	ВС	1812616.8501	6116464.4575
24	EC	1812608.1453	6116482.1776
25	ВС	1812622.8779	6116487.3172
26	ВС	1812610.0535	6116487.0794
27	EC	1812603.0210	6116489.7300
28	PT	1812602.8756	6116505.3000
29	EC	1812617.4467	6116505.5702
30	PRC	1812622.5383	6116500.7063
31	PT EC	1812622.9470	6116526.2796
33	PRC	1812622.5460 1812623.6982	6116510.8242
34	BC	1812627.5391	6116500.6532
35	PT	1812628.5011	6116475.7929
36	EC	1812630.8647	6116440.3730
37	PT	1812638.8620	6116476.4740
38	PT	1812637.4976	6116525.790
39	CURB RAMP	1812622.6528	6116515.7429
40	PT	1812604.6945	6116455.6894
41	PT	1812613.7892	6116427.224
42	PT	1812670.3064	6116367.4118
43	PT	1812622.7358	6116519.5652
44	LIGHT FC	1812629.2612	6116464.4015
45	LIGHT FC	1812667.5502	6116390.3082

POINT TABLE





PROFESSIONAL PROPERTY OF THE P	
OF CALIFORNI	r
	3





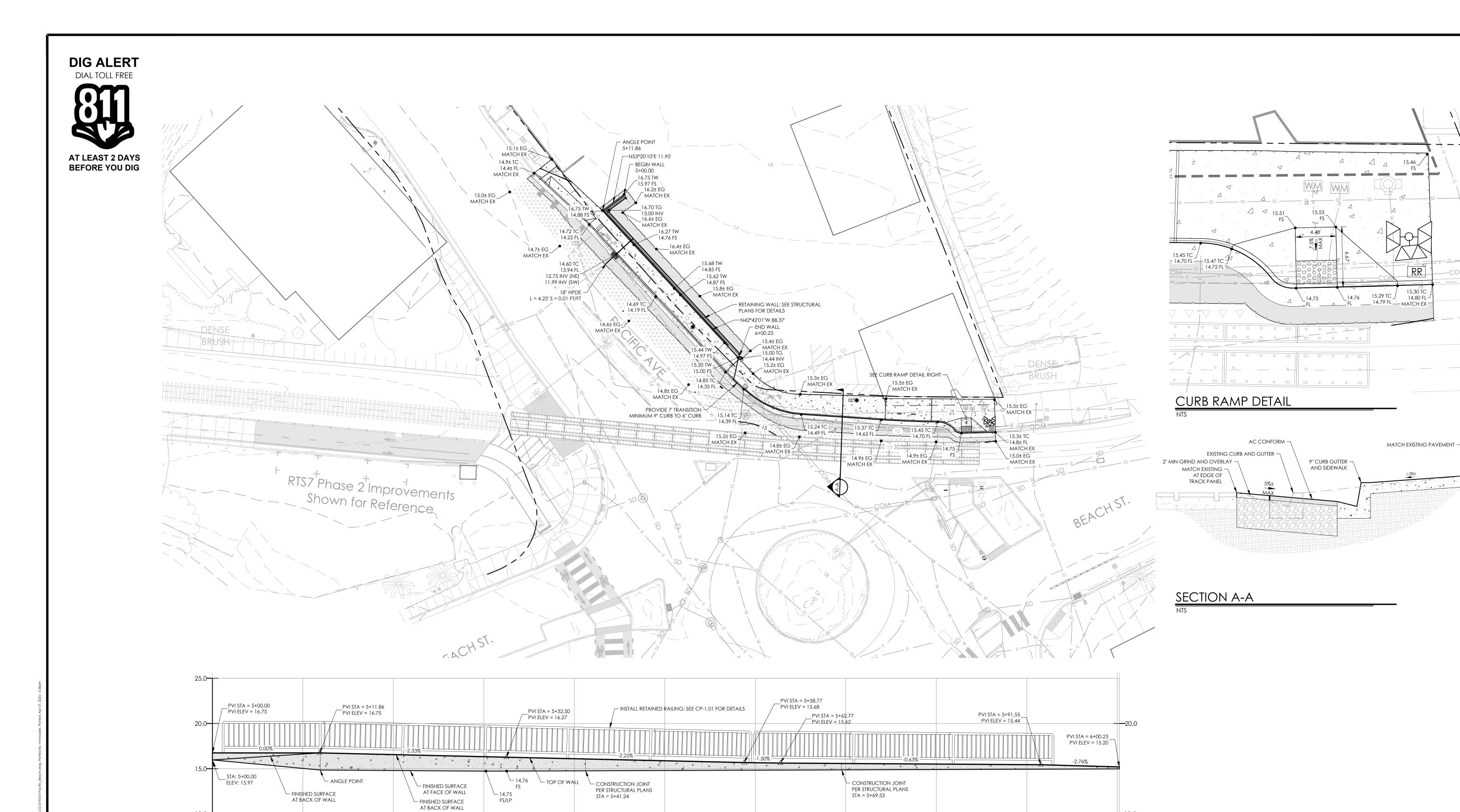
SANTACRUZ

PUBLIC WORKS DEPARTMENT
809 Center Street, Room 201
Santa Cruz, CA 95060

PACIFIC BEACH
ROUNDABOUT ENHANCEMENTS
HORIZONTAL CONTROL PLAN

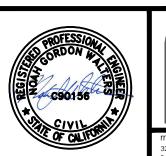
references	
FIELD BOOK:	
DRAWING #: HC-0193-07	

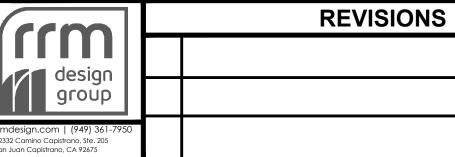
O2/24/2025	SCALE 1" = 20'-0"
rawn <b>NW</b>	HC-1.01
esign <b>DC</b>	VAULT NO.
CHECKEDDC	7170











WALL PROFILE



809 Center Street, Room 201 Santa Cruz, CA 95060

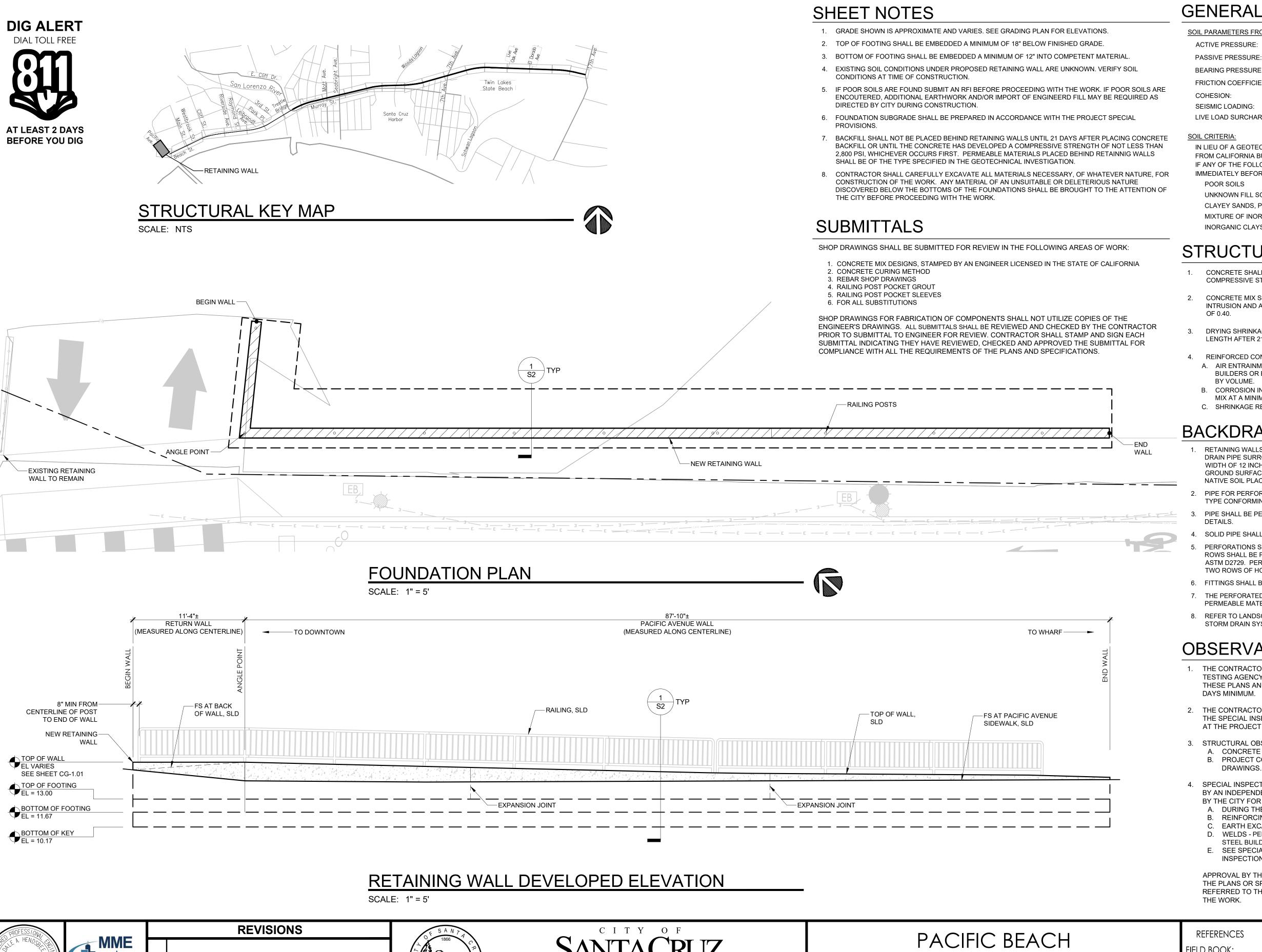
### PACIFIC BEACH

ROUNDABOUT ENHANCEMENTS

ROUND/ BOOT EINT/ (140EMEINTO	
GRADING AND DRAINAGE PLANS	

references
FIELD BOOK:
DRAWING #: CG-0193-07
CG-0193-01

ATE	02/24/2025	SCALE 1" = 20'-0"
rawn <b>N</b> V	<b>N</b>	CG-1.01
esign <b>D</b> (	2	VAULT NO.
HECKED <b>D</b> (	C	7170



#### **GENERAL DESIGN NOTES**

SOIL PARAMETERS FROM CBC TABLE 1806.2 FOR CLASS 4 MATERIAL:

Pp = 150 PCF

MATERIALS: **ACTIVE PRESSURE:** Pa = 45 PCF

f'c = 4,000 psi

Fy = 60,000 psi

**BEARING PRESSURE** Q = 2,000 PSFFRICTION COEFFICIENT:  $\mu = 0.25$ 0 PSF COHESION:

SEISMIC LOADING: LIVE LOAD SURCHARGE: 120 PSF

#### SOIL CRITERIA:

IN LIEU OF A GEOTECHNICAL INVESTIGATION, RRM HAS DIRECTED MME TO USE ASSUMED SOIL CRITERIA FROM CALIFORNIA BUILDING CODE SECTIONS 1610.1 AND TABLE 1806.2 (BELOW) AS THE BASIS OF DESIGN. IF ANY OF THE FOLLOWING SOILS ARE ENCOUNTERED DURING EXCAVATION, NOTIFY THE CITY IMMEDIATELY BEFORE PROCEEDING WITH THE WORK:

#### POOR SOILS

UNKNOWN FILL SOILS

CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXES (SC)

MIXTURE OF INORGANIC SILT AND CLAY (ML-CL)

INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY (CL)

#### STRUCTURAL CONCRETE

- CONCRETE SHALL BE CONSTRUCTED OF NORMAL WEIGHT CONCRETE, AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
- 2. CONCRETE MIX SHALL PROVIDE LOW PERMEABILITY, DURABILITY AND RESISTANCE TO SALTWATER INTRUSION AND AS A MINIMUM SHALL HAVE TYPE II CEMENT WITH A MAXIMUM WATER/CEMENT RATIO
- DRYING SHRINKAGE LIMIT: 0.04 PERCENT. DRYING SHRINKAGE LIMIT IS PERCENTAGE OF CHANGE IN LENGTH AFTER 21 DAYS OF DRYING WHEN TESTED PER ASTM C157.
- 4. REINFORCED CONCRETE SHALL CONTAIN THE FOLLOWING ADMIXTURES:
- A. AIR ENTRAINMENT: ASTM C260; "DARAVAIR", "MICRO-AIR", MANUFACTURED BY W.R. GRACE, MASTER BUILDERS OR EQUAL. AIR-ENTRAINING ADMIXTURES SHALL PROVIDE AIR CONTENT FROM 2% TO 4% BY VOLUME.
- B. CORROSION INHIBITOR: CALCIUM NITRITE BASED CORROSION INHIBITOR SHALL BE ADDED TO THE MIX AT A MINIMUM DOSAGE OF 2 GALLONS PER CUBIC YARD.
- C. SHRINKAGE REDUCING ADMIXTURE MANUFACTURED BY W.R. GRACE, MASTER BUILDERS OR EQUAL.

#### **BACKDRAIN NOTES**

- RETAINING WALLS SHALL BE CONSTRUCTED WITH A BACKDRAIN SYSTEM INCLUDING PERFORATED DRAIN PIPE SURROUNDED BY CALTRANS CLASS 2 TYPE A PERMEABLE MATERIAL WITH A MINIMUM WIDTH OF 12 INCHES AND EXTENDING FOR THE FULL HEIGHT OF THE WALL TO WITHIN 1 FOOT OF THE GROUND SURFACE. THE TOP OF THE PERMEABLE MATERIAL SHALL BE COVERED WITH COMPACTED NATIVE SOIL PLACED TO THE GROUND SURFACE.
- 2. PIPE FOR PERFORATED PIPES SHALL BE A MINIMUM OF 4 INCH RIGID SDR 35 PVC BELL AND SPIGOT TYPE CONFORMING TO ASTM D3034.
- 3. PIPE SHALL BE PERFORATED ONLY WHERE ENCAPSULATED IN PERMEABLE MATERIAL SHOWN ON THE
- SOLID PIPE SHALL BE USED FOR CONNECTION TO POINTS OF DISCHARGE.
- PERFORATIONS SHALL BE TWO ROWS OF 1/2 INCH DIAMETER HOLES, ROWS ARE 120 DEGREES APART ROWS SHALL BE PARALLEL TO THE AXIS OF THE PIPE AND HOLES SHALL BE ON 5 INCH CENTERS PER ASTM D2729. PERFORATED DRAIN PIPE SHALL BE PLACED WITH THE SHORT SEGMENT BETWEEN THE
- 6. FITTINGS SHALL BE RUBBER-RING GASKET-TYPE

TWO ROWS OF HOLES FACING DOWN.

- 7. THE PERFORATED DRAIN PIPE SHALL BE INSTALLED WITHIN 3 INCHES OF THE BOTTOM OF THE PERMEABLE MATERIAL
- 8. REFER TO LANDSCAPE PLANS FOR BACKDRAIN OUTLETS, CLEANOUTS AND CONNECTIONS TO SITE STORM DRAIN SYSTEM.

#### **OBSERVATIONS AND INSPECTIONS**

- 1. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE CITY STAFF, SPECIAL INSPECTION AND TESTING AGENCY AND ENGINEER OF REQUIRED INSPECTIONS AND OBSERVATIONS LISTED ON THESE PLANS AND OTHER CONTRACT DOCUMENTS. ADEQUATE ADVANCE NOTICE IS REQUIRED, 4 DAYS MINIMUM.
- 2. THE CONTRACTOR SHALL REVIEW THE APPROVED PLANS AND SPECIFICATIONS, BECOME AWARE O THE SPECIAL INSPECTION REQUIREMENTS & SHALL KEEP THE APPROVED PLANS & SPECIFICATIONS AT THE PROJECT SITE FOR THE SPECIAL INSPECTOR AND BUILDING INSPECTOR'S USE.
- 3. STRUCTURAL OBSERVATION IS REQUIRED AT THE FOLLOWING CONSTRUCTION MILESTONES: A. CONCRETE CONSTRUCTION: REINFORCING STEEL PLACEMENT PRIOR TO PLACING CONCRETE B. PROJECT COMPLETION: AT COMPLETION OF ALL WORK INDICATED ON THE STRUCTURAL
- 4. SPECIAL INSPECTION PER SECTION 1705 OF THE CALIFORNIA BUILDING CODE WILL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY THE LOCAL JURISDICTION AND PAID FOR BY THE CITY FOR THE FOLLOWING AREAS OF WORK:
  - A. DURING THE PLACEMENT OF CONCRETE AND TAKING OF TEST SPECIMENS B. REINFORCING STEEL PLACEMENT PRIOR TO PLACEMENT OF CONCRETE
  - C. EARTH EXCAVATIONS, GRADING AND FILLING AND FOUNDATION CONSTRUCTION
  - D. WELDS PER AISC 360, SECTION N5, "MINIMUM REQUIREMENTS FOR INSPECTION OF STRUCTURAL

E. SEE SPECIAL INSPECTION AND TESTING AGREEMENT FOR COMPLETE LISTING OF TESTS AND

APPROVAL BY THE SPECIAL INSPECTOR DOES NOT MEAN APPROVAL OF FAILURE TO COMPLY WITH THE PLANS OR SPECIFICATIONS. ANY DETAIL THAT FAILS TO BE CLEAR OR IS AMBIGUOUS MUST BE REFERRED TO THE ENGINEER FOR INTERPRETATION OR CLARIFICATION PRIOR TO PERFORMING THE WORK.

3		
	No. S3549  No. S3549  No. S3549  No. S3549	C 2

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Santa Cruz, CA 95060

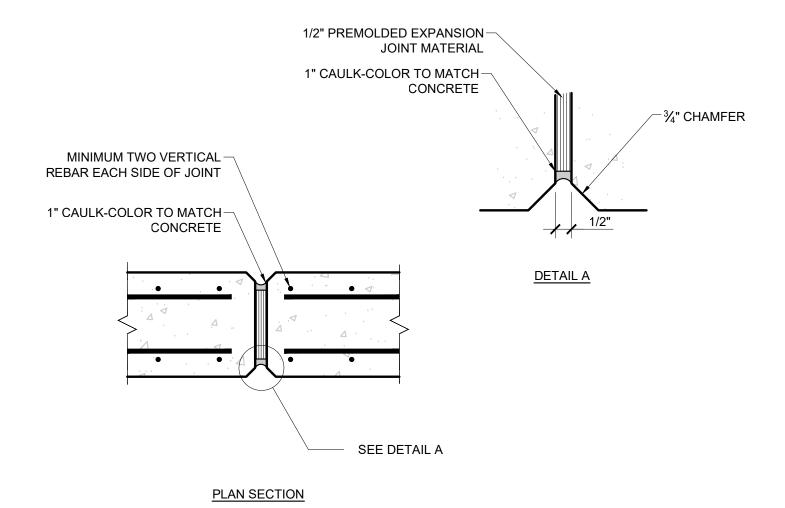
ROUNDABOUT ENHANCEMENTS

GENERAL NOTES, PLAN & PROFILE

**REFERENCES** FIELD BOOK:

DRAWING #:

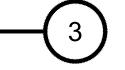
02/24/2025 SCALE AS NOTED **S1** EDD DRAWN VAULT NO. DESIGN EDD/PD CHECKED

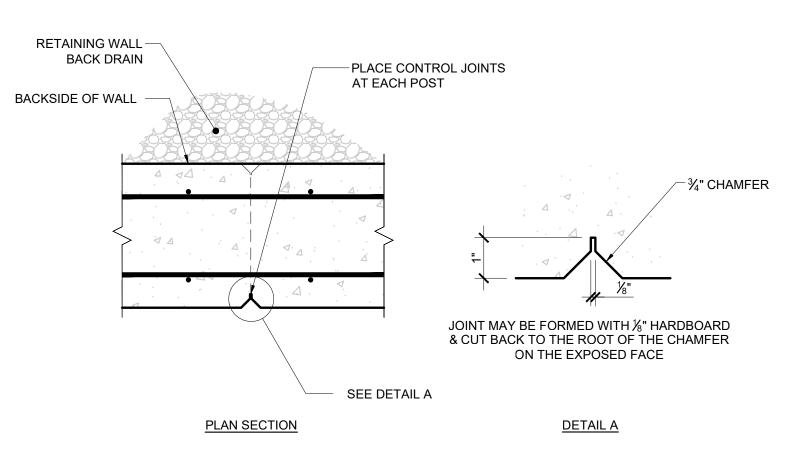


NOTE: JOINT IS CONTINUOUS FROM TOP OF WALL TO BOTTOM OF FOOTING. CAULK MAY BE OMITTED AT FOOTING

### VERTICAL EXPANSION JOINT

SCALE: 1 1/2" = 1'-0"



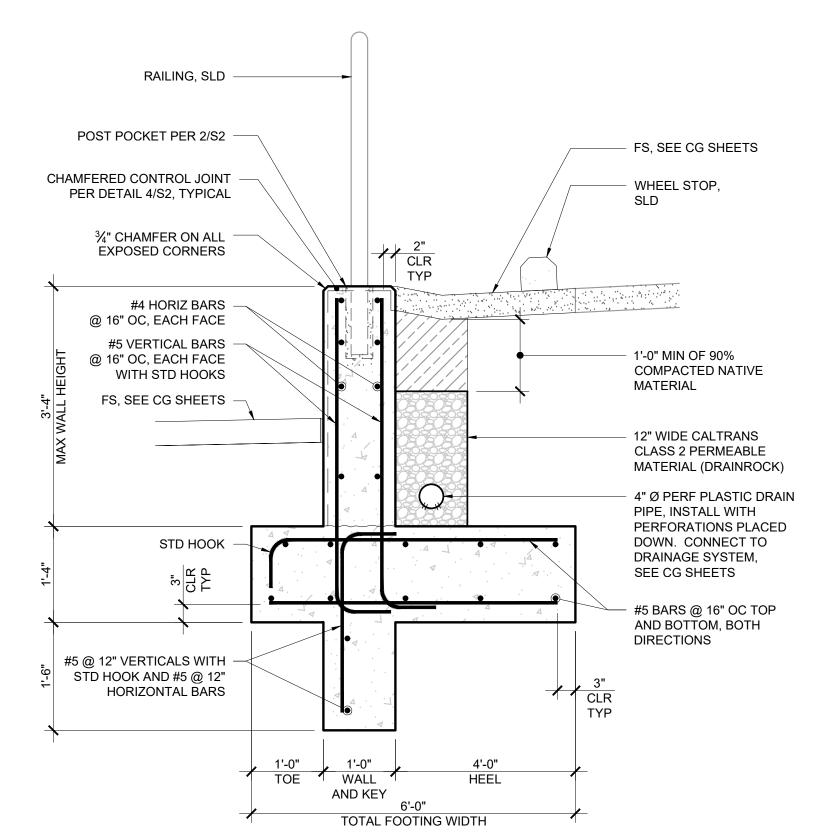


NOTE:

**REVISIONS** 

 PLACE VERTICAL JOINT AT LOCATIONS OF ALL GUARDRAIL POSTS.
 CONTINUE JOINT OVER TOP OF WALL AND BACKSIDE OF WALL. JOINT MAY BE TERMINATED 4" BELOW FINISHED GRADE ON BACKSIDE OF WALL.



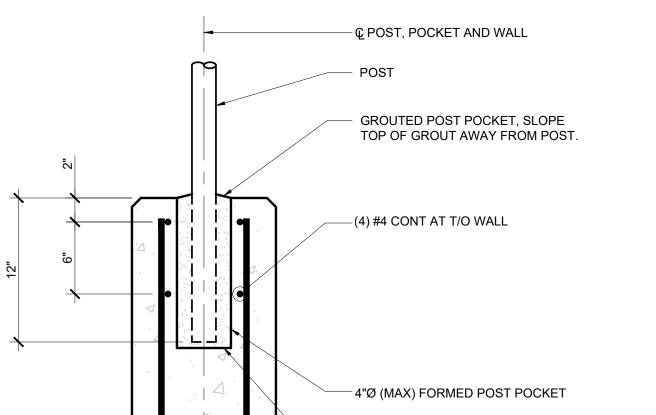


NOTE:

 DRAIN ROCK SHALL BE PLACED IN MAXIMUM 2-FOOT LIFTS AND COMPACTED WITH FLAT VIBRATORY COMPACTOR.

#### **RETAINING WALL**

SCALE: 3/4" = 1'-0"





SCALE: 1 1/2" = 1'-0"

REFERENCES
FIELD BOOK:

DRAWING #:

− IF POST POCKET FORM IS TO REMAIN,

USE NON-FERROUS MATERIALS ONLY

DATE 02/24/2025 SCALE AS NOTED

DRAWN EDD S2

DESIGN EDD/PD VAULT NO.

CHECKED

PROFESSIONAL AND PROFES

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SANTACRUZ

U B L I C W O R K S D E P A R T M E N T

809 Center Street, Room 201

Santa Cruz, CA 95060

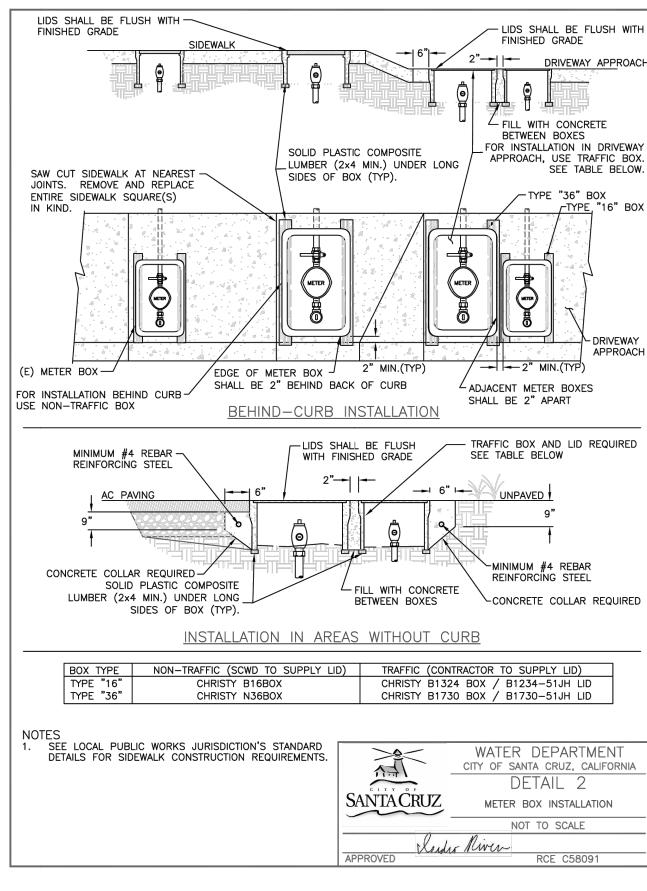
PACIFIC BEACH ROUNDABOUT ENHANCEMENTS

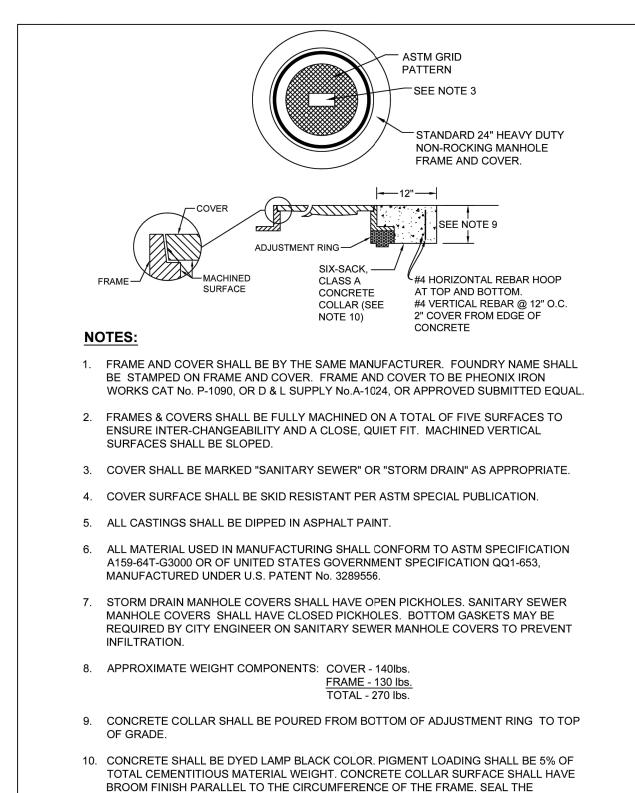
STRUCTURAL DETAILS

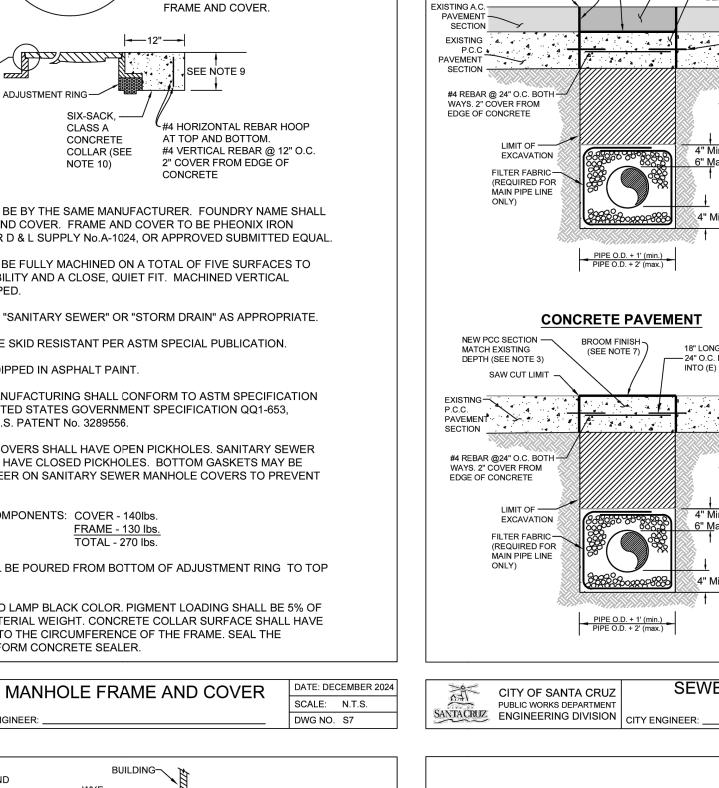
AILS

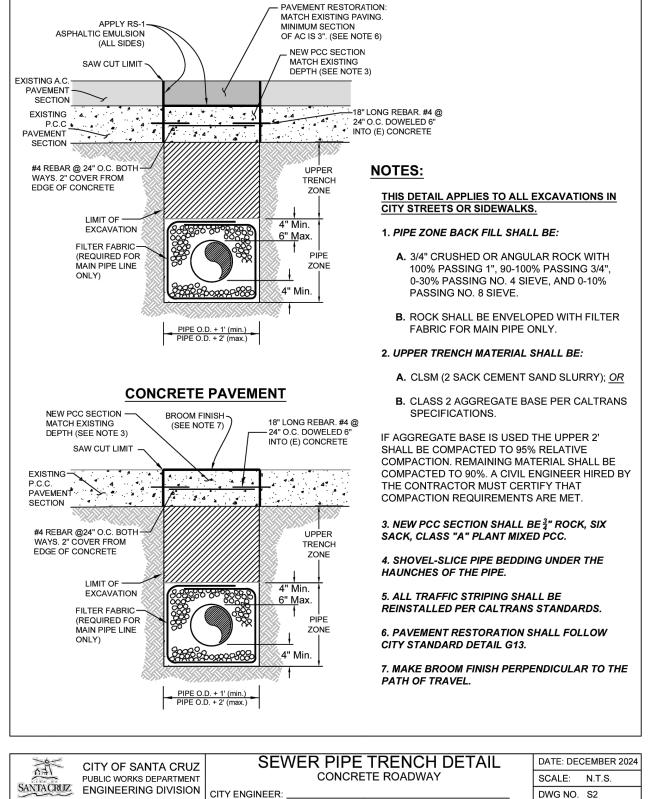
I:\ 19166 RRM - Santa Cruz Rail Trail Segments 8 and 9\SubTask Z.02-

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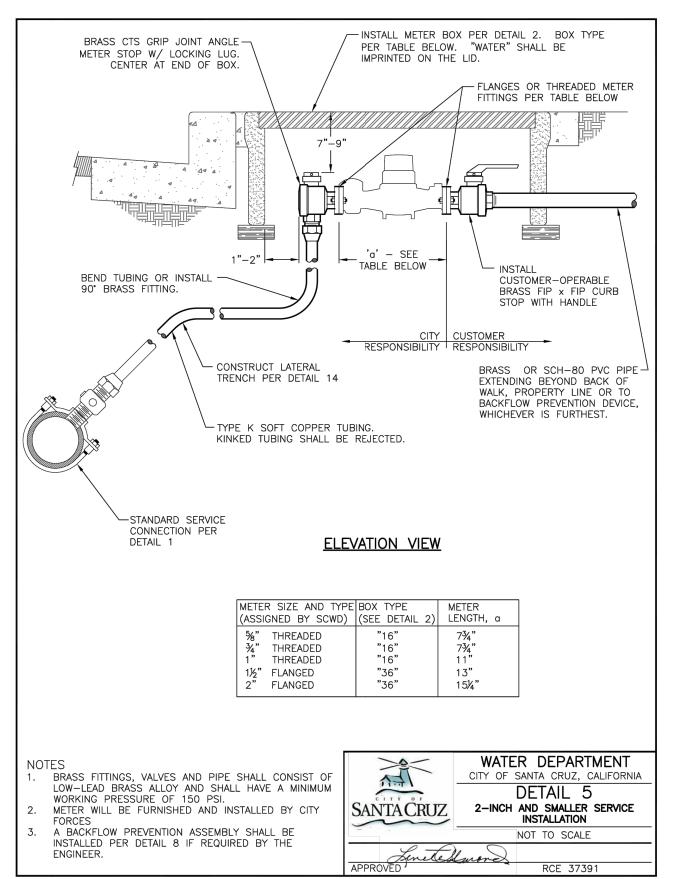




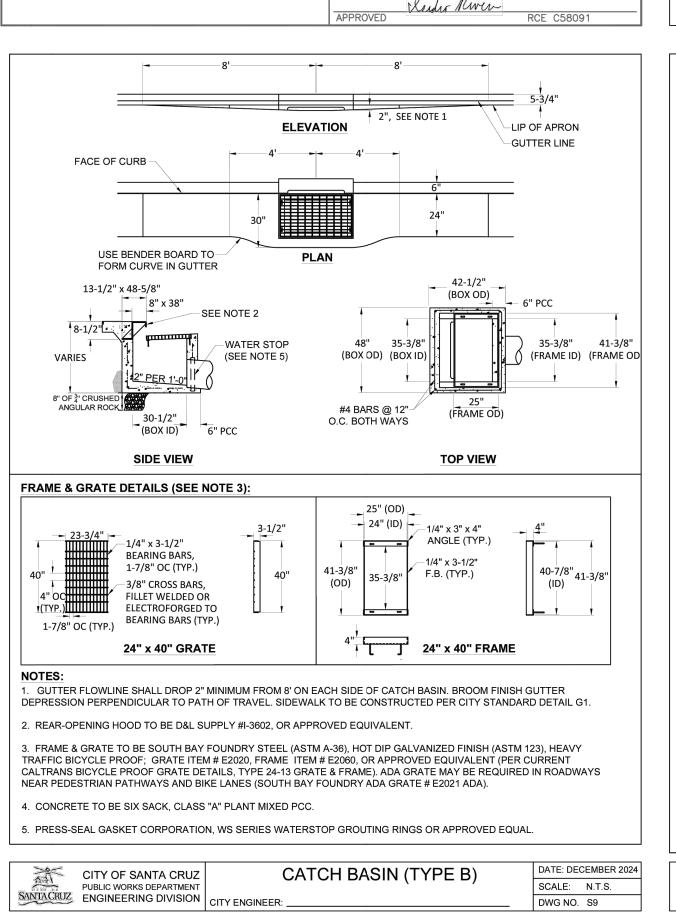


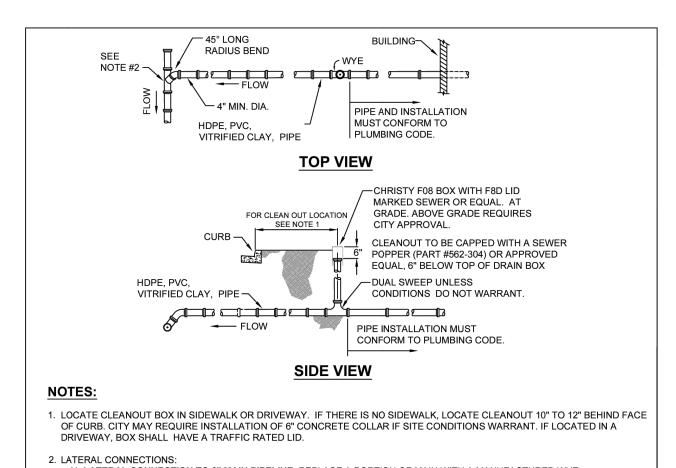
**ASPHALT OVER** 

**CONCRETE PAVEMENT** 



**REVISIONS** 





A) LATERAL CONNECTION TO 6" MAIN PIPELINE: REPLACE A PORTION OF MAIN WITH A MANUFACTURED WYE. B) LATERAL CONNECTION TO 8" AND 10" MAIN PIPELINE: CORE DRILL AND USE A ROMAC "CB" SEWER SADDLE OR USE A NDS FLEXIBLE SADDLE WHEN RECONNECTING AT EXISTING LATERAL CONNECTION LOCATION. CULATERAL CONNECTION TO 12" AND LARGER MAIN PIPELINE, WITH APPROVAL BY THE PUBLIC WORKS INSPECTOR, THE CONTRACTOR SHALL CORE DRILL AND USE INSERTA TEE INSTALLED BY CERTIFIED INSERTA TEE™INSTALLER. D) LATERALS SHALL BE CONNECTED TO CIPP SEWER MAINS BY ROMAC SEWER SADDLE OR INSERTA-TEE. CONNECTIONS SHALL BE MADE TO THE EXPOSED CIPP DIRECTLY AND NOT THE HOST PIPE

3. ANY PIPE REPAIR COUPLING SHALL BE *FERNCO* SHEER BAND WITH 24 GAUGE STAINLESS STEEL BANDS AND SHEAR BAND OR APPROVED EQUAL.

A) HDPE - SOLID WALL SDR 26, OR B) PVC SDR 26 GASKET SEWER PIPE ASTM 3034, OR C) VITRIFIED CLAY SEWER PIPE ASTM C 700, WITH COMPRESSION JOINT ASTM C 425

CONCRETE WITH A BRICKFORM CONCRETE SEALER.

CITY OF SANTA CRUZ

PUBLIC WORKS DEPARTMENT

SANTACRUZ ENGINEERING DIVISION CITY ENGINEER

5. PROVIDE THREE FEET OF COVER UNLESS PROPER SLOPE TO SEWER MAIN DICTATES LESS COVER.

6. IF CONNECTION TO MAIN PIPELINE IS GREATER THAN 8 FEET DEEP USE A CHIMNEY CONNECTION FULLY SUPPORTED WITH A

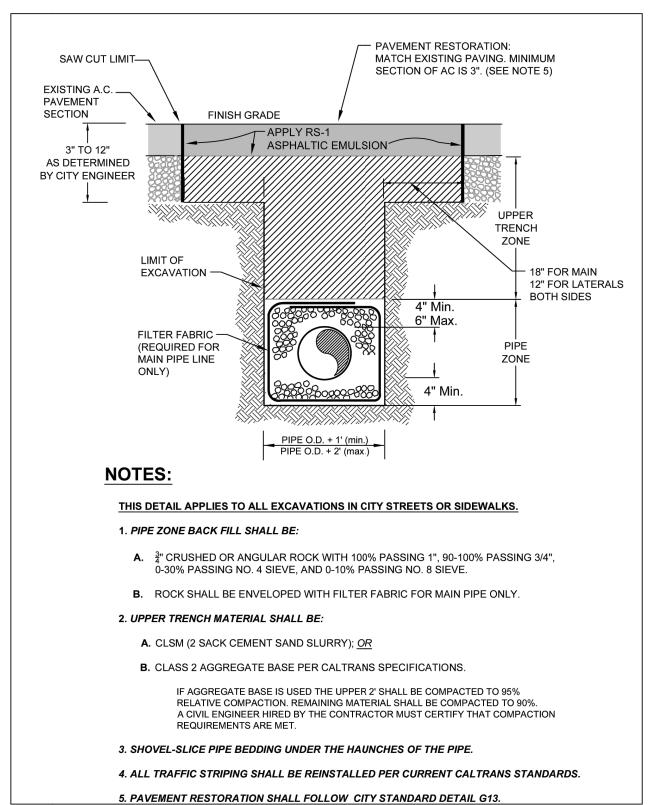
7. SLOPE SHALL NOT BE LESS THAN  $\frac{1}{4}$ " PER FOOT.

8. A MINIMUM OF 2" OF BEDDING SHALL BE PROVIDED. FOLLOW CITY TYPICAL PIPE TRENCH DETAIL

9. IF THE RIM OF ANY FIXTURE ( IN THE BUILDING ) IS BELOW THE ELEVATION OF THE NEXT UPSTREAM SEWER MANHOLE COVER, THEN A BACKWATER VALVE IS REQUIRED. VALVE SHALL BE LOCATED BETWEEN THE BUILDING AND CLEANOUT. USE CLEAN CHECK BACK FLOW PREVENTION DEVICE OR APPROVED EQUAL.

10.ALL PIPES REHABILITATED WITH THE LINING PROCESS SHALL BE TELEVISED TO SHOW THE FULL LENGTH OF LINING AND THE CONNECTION AT THE MAIN. INSPECTION SHALL BE PERFORMED WHILE THE PUBLIC WORKS INSPECTOR IS ON SITE, OR A TAPE OR DVD SHALL BE PROVIDED TO THE INSPECTOR FOR REVIEW.

DATE: MARCH 2025 SEWER LATERAL CITY OF SANTA CRUZ SCALE: N.T.S. PUBLIC WORKS DEPARTMENT SANTACRUZ ENGINEERING DIVISION CITY ENGINEER: DWG NO. S3











Santa Cruz, CA 95060

PACIFIC BEACH

ROUNDABOUT ENHANCEMENTS

CITY STANDARD CONSTRUCTION DETAILS

**REFERENCES** FIELD BOOK:

DRAWING #:

CITY OF SANTA CRUZ

PUBLIC WORKS DEPARTMENT

SANTACRUZ ENGINEERING DIVISION CITY ENGINEER

02/24/2025 SCALE CD-1.01 DRAWN MMS VAULT NO. KS/MS DESIGN CHECKED MS

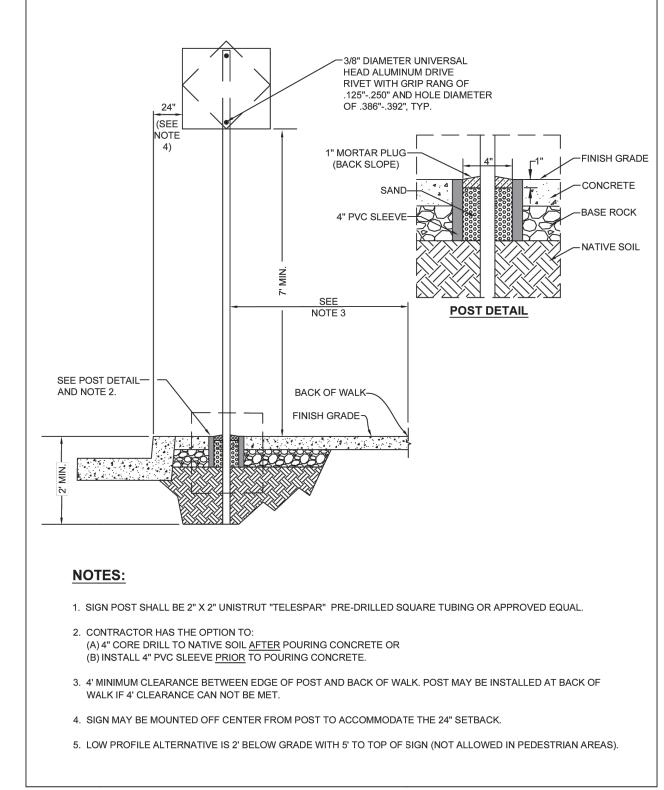
SEWER PIPE TRENCH DETAIL

ASPHALT ROADWAY

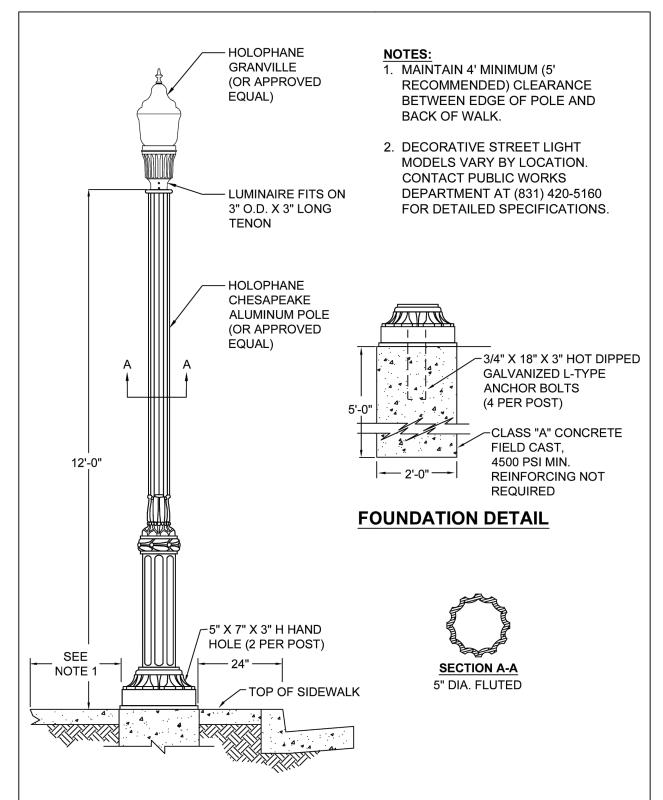
DATE: DECEMBER 2024

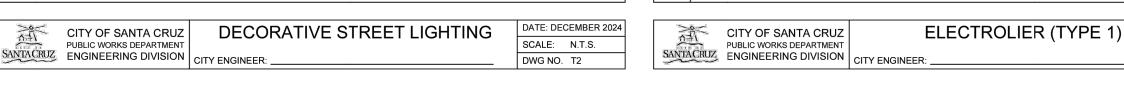
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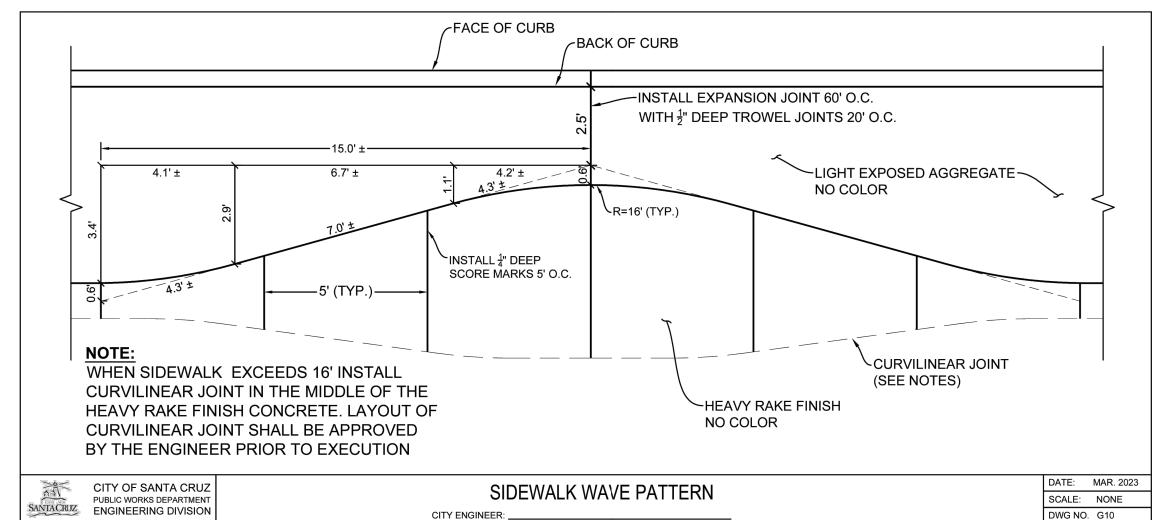
DWG NO. S1

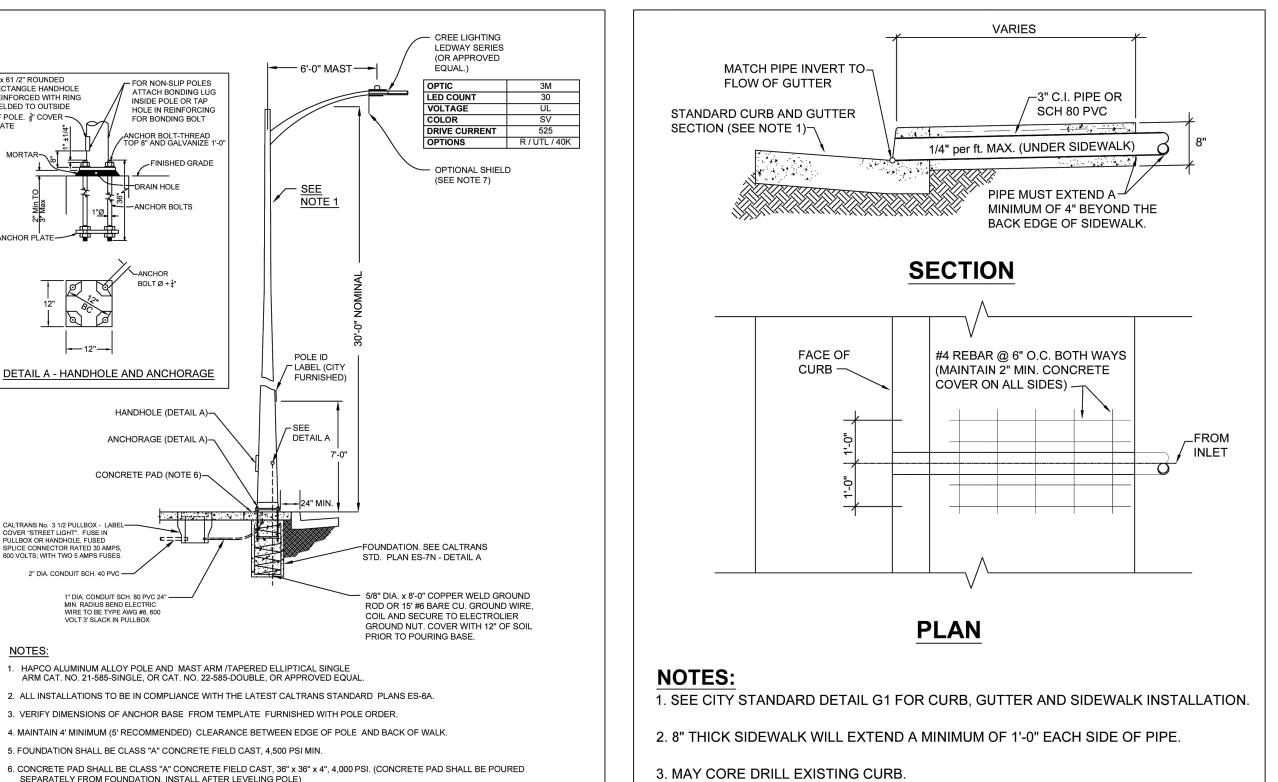


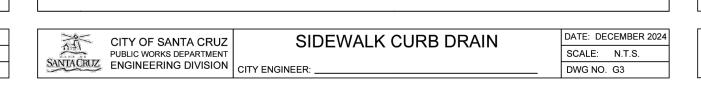


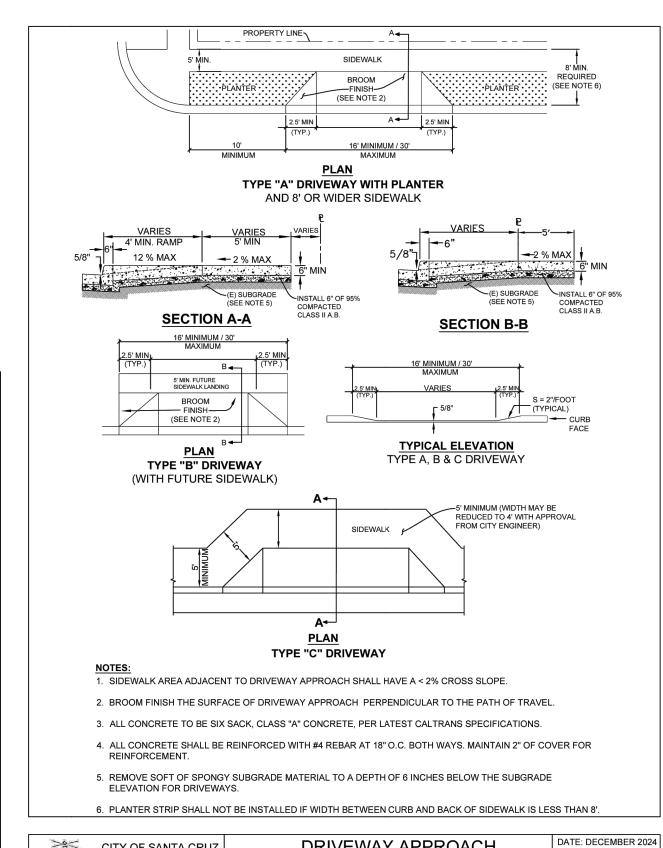


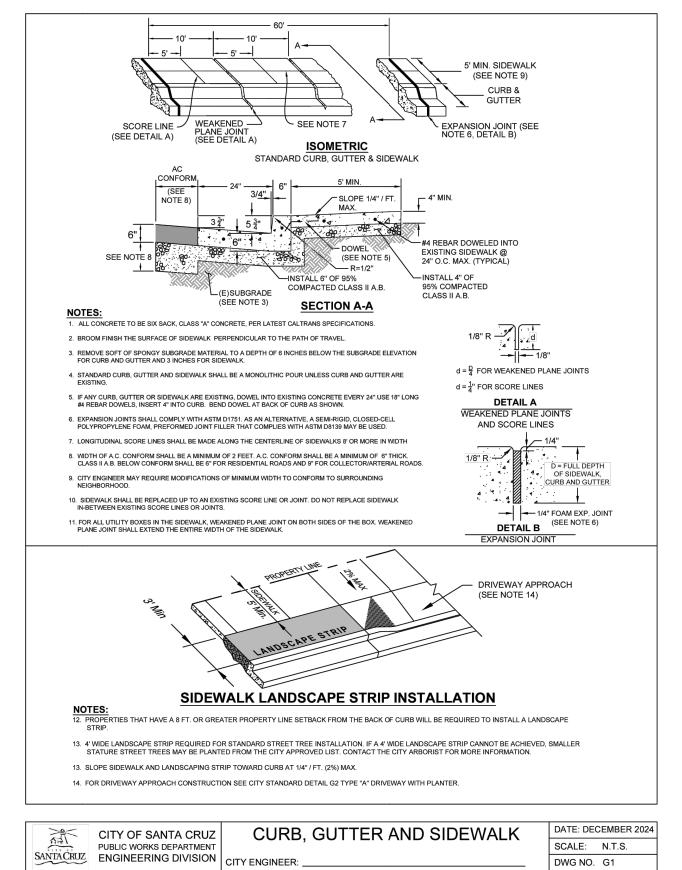












DRIVEWAY APPROACH

SCALE: N.T.S.

DWG NO. G2

CITY OF SANTA CRUZ

PUBLIC WORKS DEPARTMENT

SANTACRUZ ENGINEERING DIVISION CITY ENGINEER







PACIFIC BEACH ROUNDABOUT ENHANCEMENTS

CONSTRUCTION DETAILS

REFERENCES FIELD BOOK: DRAWING #:

CD-0193-07

02/24/2025 SCALE CD-1.02 drawn MMS VAULT NO. DESIGN KS/MS 7170 CHECKED MS

**REVISIONS** 

PUBLIC WORKS DEPARTMENT 809 Center Street, Room 201 Santa Cruz, CA 95060

FOR NON-SLIP POLES

HOLE IN REINFORCING

ATTACH BONDING LUINSIDE POLE OR TAP

FOR BONDING BOLT

DRAIN HOLE

ANCHOR BOLTS

HANDHOLE (DETAIL A)-

ANCHORAGE (DETAIL A)-

HAPCO ALUMINUM ALLOY POLE AND MAST ARM /TAPERED ELLIPTICAL SINGLE ARM CAT. NO. 21-585-SINGLE, OR CAT. NO. 22-585-DOUBLE, OR APPROVED EQUAL

5. FOUNDATION SHALL BE CLASS "A" CONCRETE FIELD CAST, 4,500 PSI MIN

SEPARATELY FROM FOUNDATION. INSTALL AFTER LEVELING POLE)

CONCRETE PAD (NOTE 6)

LABEL (CITY FURNISHED)

/ SEE DETAIL A

DATE: MARCH 2025

SCALE: N.T.S.

DWG NO. T1

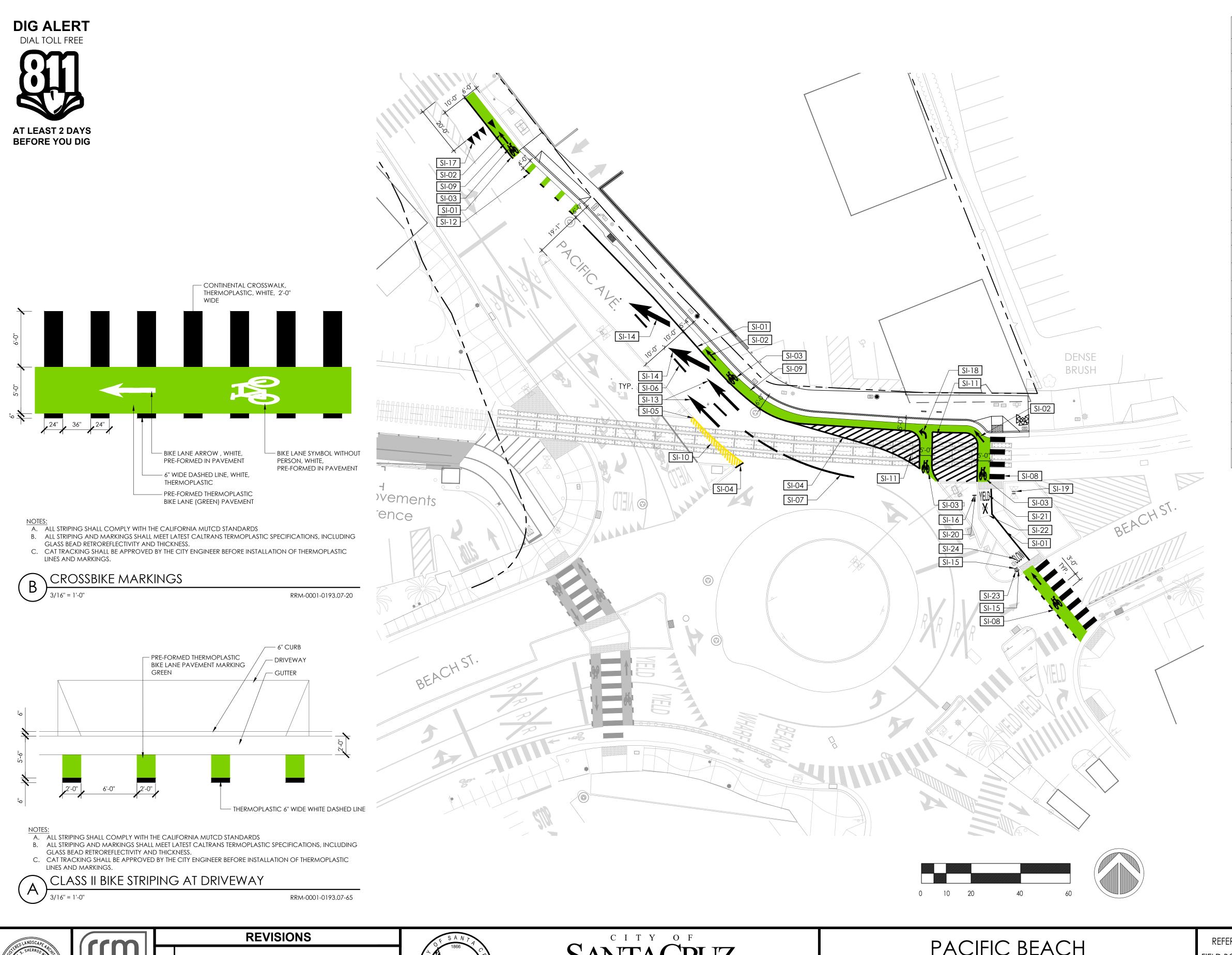
REINFORCED WITH RING WELDED TO OUTSIDE

OF POLE. 1 COVER PLATE

ANCHOR PLATE

**DETAIL A - HANDHOLE AND ANCHORAGE** 

2" DIA. CONDUIT SCH. 40 PVC ----



SIGNAGE AND STRIPING (SI) DETAIL CODE DESCRIPTION BIKE LANE LINE CALTRANS DWG A20D DTL 39. BIKE LANE ARROW CALTRANS DWG A24A. BIKE LANE SYMBOL WITHOUT PERSON CALTRANS DWG A24C.
RIGHT EDGE LINE CALTRANS DWG A20B DTL 27B. LEFT EDGE LINE CALTRANS DWG A20B, DETAIL 24. LANE LINES CALTRANS DWG A20A DTL 9. CHANNELIZER LINE CALTRANS DWG A20B DTL 38. B/SP-1.01 CROSSBIKE MARKINGS SI-09 GREEN THERMOPLASTIC MUTCD IA14 MEMORANDUM. 6" YELLOW THERMOPLASTIC STRIPING 12" O.C. 6" WHITE THERMOPLASTIC, 24" O.C. CLASS II STRIPING AT DRIVEWAY A/SP-1.01 TYPE I 18'-0" ARROW CALTRANS DWG A24A.
TYPE VI ARROW CALTRANS DWG A24A. R9-7 SIGN FACE (DOUBLE SIDED) INSTALLED ON EXISTING STREETLIGHT. R9-7 SIGN AND POST (DOUBLE SIDED) PER CITY STD. DWG T3. YIELD LINE PER CALTRANS DWG A24G. BIKE LANE LEFT ARROW CALTRANS DWG A20D DTL 39 (MODIFIED). R15-8 SIGN FACE (DOUBLE SIDED) INSTALLED ON EXISTING RAILROAD SIGNAL MAST. R1-2 SIGN FACE INSTALLED ON POST. "YIELD" MARKING CALTRANS DWG A24D (4' TALL) RAILROAD CROSSING MARKING CALTRANS DWG A24B (4' TALL). W11-15 AND W16-7P (R) FLUORESCENT YELLOW-GREEN BACKGROUND COLOR INSTALLED ON EXISTING STREETLIGHT. "SLOW" MARKING CALTRANS DWG A24D (4' TALL)



CAMUTCD R9-7 12" x 18"

SOUTH SIDE OF POST:

BIKES-L

PEDS-R



CAMUTCD R1-2 18" x 18" x 18" SOUTH SIDE OF POST



CAMUTCD R15-8 18" x 9" NORTH AND SOUTH SIDE OF POST



CAMUTCD R9-7

CAMUTCD W11-15 30" x 30" SOUTHWEST SIDE OF POST



CAMUTCD W16-7P (R) 30" x 18" SOUTHWEST SIDE OF POST



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PACIFIC BEACH

ROUNDABOUT ENHANCEMENTS STRIPING AND SIGNAGE PLANS

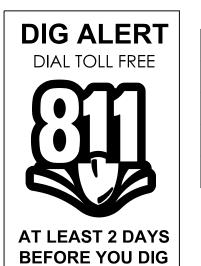
REFERENC
FIELD BOOK:

DRAWING #: SP-0193-07

			- - - - - -
DATE	02/24/2025	scale AS SHOWN	
DRAWN	MS	SP-1.01	\ \ \
DESIGN	KS/MS	VAULT NO.	(
CHECKED	MS	7170	(

3

HXP-3R (HXP) 970 HZ, 8 KHZ RSI



MINIMUM WARNING TIME 20 SEC. 5 SEC. BUFFER TIME 12 SEC. CLEARANCE TIME 5 SEC. EQUIPMENT REACTION TIME 42 SEC. TOTAL APPROACH TIME

37 SEC. @ 10 MPH INCLUDES 5 SEC. EQPT REACTION TIME

AC SERVICE T1-DC+970 HZ FSS-1F/2F

> 6' X 6' SIGNAL HOUSE 3C#2 3C#6, 7C#6, 7C#14 GATE C AC SERVICE ◀

GATE A 7C#6, 7C#14 3C#6, 7C#6, 7C#14 GATE D GATE B 7C#6, 7C#14 7C#6

FLASHER E 2C#6 TW 2C#6 TW → FLASHER F → FLASHER G → R1/R2

(X) - 4" SCH 80 PVC CONDUIT; "X" = # OF CONDUITS

P - (1) 2" SCH 80 CONDUIT

PACIFIC AVENUE & BEACH STREET AAR/DOT #768230A MP 20.11

**GENERAL NOTES:** 

TIE TO EXISTING -

1. SEE CIVIL DRAWINGS FOR FLASHER PLACEMENT LOCATION

2. MINIMUM 12' CLEARANCE FROM EDGE OF SIGNAL

EQUIPMENT TO CENTERLINE OF TRACK, PER CA MUCTD

FIGURE 8C-2

3. ENSURE COMPACTION TO 90% MINIMUM PROCTOR OR AS

REQUIRED BY CIVIL PLAN. IN CASE OF CONFLICT CIVIL SPECIFICATION

WILL PREVAIL.

4. COORDINATE WITH RAILROAD FOR FLASHER HEAD ALIGNMENT & SIGHTING

234.249 GROUND TESTS, 234.253 FLASHING LIGHT UNITS AND LAMP

5. PERFORM AND COMPLY AT MINIMUM WITH 49 CFR 234 SPECIFICALLY

VOLTAGES 234.257 WARNING SYSTEMS OPERATION, 234.267 INSULATION

RESISTANCE TEST COORDINATE WITH RAILROAD TO INSURE INSPECTIONS

AND TESTS MEET THEIR REQUIRMENTS PER 234.273 AND ANY OTHER APPLICABLE

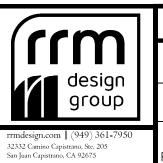
CFR TESTING REQUIRMENTS AND SIGNAL TESTING PROCEDURES.

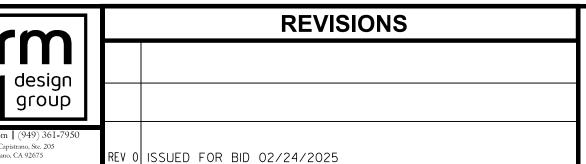
#### **FOUNDATION NOTES:**

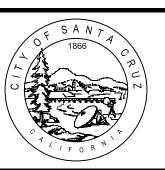
1. INSTALL 48" HIGH GALVANIZED FLASHER PYRAMID FOUNDATION (9-1/2" & 11-11/16" BOLT SPACING) WITH LEVELING HARDWARE (1" DIAMETER LEVELING BOLT KIT FOR 11-11/16" SPACING ONLY) HARDWARE TO BE ZINC YELLOW FINISH OR STAINLESS STEEL INSTALL RODENT COVER ON BASE.

ZPHYR RAIL









C I T Y O F PUBLIC WORKS DEPARTMENT 809 Center Street, Room 201 Santa Cruz, CA 95060

PACIFIC BEACH **ROUNDABOUT ENHANCEMENTS** 

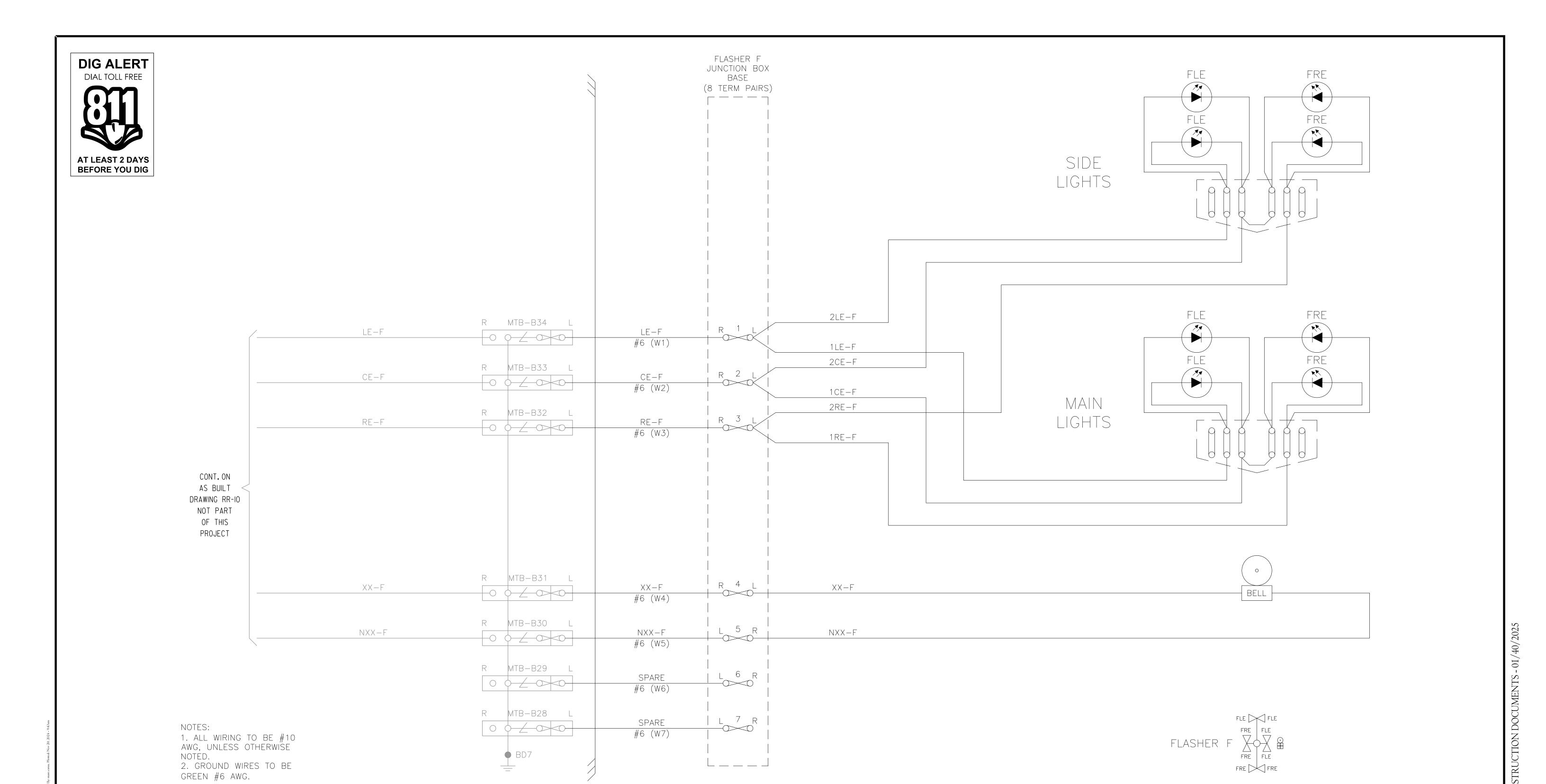
RAILROAD SIGNAL LAYOUT

REFERENCES FIELD BOOK: DRAWING #:

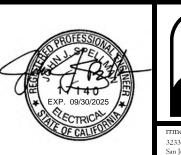
NONE DATE FEBRUARY 24, 2025 SCALE RRS-01 DRAWN ZEPHYR VAULT NO. DESIGN ZEPHYR CHECKED J. SPELLMAN

970 HZ

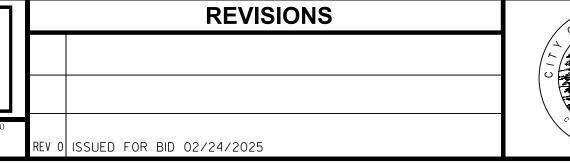
FSS-1F/2F



ZPHYR RAIL









## SANTA CRUZ PUBLIC WORKS DEPARTMENT 809 Center Street, Room 201 Santa Cruz, CA 95060

PACIFIC BEACH
ROUNDABOUT ENHANCEMENTS
RAILROAD FLASHER F CIRCUITS

REFERENCES	DAT
FIELD BOOK:	DRA
DRAWING #:	DES
Diditi II (O II)	CHE

DATE	FEBRUARY 24, 2025	SCALE	NONE	. \ 1
DRAWN	ZEPHYR		RRS-02	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
DESIGN	ZEPHYR	VAULT NO.		נו יייו
CHECKED	J. SPELLMAN			

**BEFORE YOU DIG** 

#### **GENERAL NOTES**

- CODE COMPLIANCE: ALL WORK SHALL CONFORM TO AND BE PERFORMED IN ACCORDANCE WITH CODES, STANDARDS, AND ORDINANCES AS SET FORTH BY THE AUTHORITIES HAVING JURISDICTION AND THEIR LATEST ADOPTED EDITIONS (IN EFFECT AT TIME OF BUILDING PERMIT APPLICATION) OF THE FOLLOWING PUBLICATIONS:
  - CALIFORNIA CODE OF REGULATIONS TITLE 24; INCLUDES 2022 CALIFORNIA ELECTRICAL CODE, 2022 CALIFORNIA FIRE CODE, 2022 CALIFORNIA BUILDING CODE, ETC. WITH LOCAL AMENDMENTS AS APPLICABLE.
  - AMERICANS WITH DISABILITIES ACT (ADA).
- SAFETY: THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL EQUIPMENT IN A SAFE AND RESPONSIBLE MANNER. KEEP DEAD FRONT EQUIPMENT IN PLACE WHILE EQUIPMENT IS ENERGIZED. CONDUCT ALL CONSTRUCTION OPERATIONS IN A SAFE MANNER FOR EMPLOYEES AS WELL AS OTHER WORKPERSONS OR ANYONE VISITING THE JOB SITE. PROVIDE BARRIERS, FLAGS, TAPE, ETC. AS REQUIRED FOR SAFETY. THE CONTRACTOR SHALL HOLD ALL PARTIES HARMLESS OF NEGLIGENT SAFETY PRACTICES, WHICH MAY CAUSE INJURY TO OTHERS ON OR NEAR THE JOB SITE.
- FIRE RATED ASSEMBLIES SHALL MAINTAIN RATINGS AS SPECIFIED IN THE CALIFORNIA BUILDING CODE CHAPTER 7. CONTRACTOR SHALL PROVIDE AND INSTALL PHYSICAL ENCLOSURE AROUND FIXTURES, PANELS, ETC. AS REQUIRED. ALL ASSEMBLIES TO BE PENETRATED SHALL BE INSTALLED WITH APPLICABLE THROUGH-PENETRATION FIRESTOP SYSTEM AS DETERMINED BY UL CLASSIFICATION. BEFORE CONSTRUCTION, VERIFY AND COMPLY WITH REQUIREMENTS OF LOCAL AUTHORITY HAVING JURISDICTION.
- MOUNTING HEIGHTS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  - +15" AFF: RECEPTACLES, TELEPHONE, TV & DATA OUTLETS. (MEASURED BOTTOM OF OUTLET BOX)
  - +46" AFF: OUTLET ABOVE COUNTER (MEAUSRED TOP OF OUTLET BOX)
  - +48" AFF: LIGHT SWITCHES. (MEASURED TOP OF OUTLET BOX)
  - +48" AFF: FIRE ALARM MANUAL PULL STATIONS, T-STATS. (MEASURED TOP OF OUTLET BOX) THE LOWER OF +80" AFF TO BOTTOM OF LENS, OR 6" BELOW CEILING: FIRE ALARM VISUALS.

ELECTRICAL SWITCHES: CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHT AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE OUTLET BOX NOR LESS THAN 15 INCHES MEASURED FROM THE BOTTOM OF THE OUTLET BOX TO THE LEVEL OF THE FINISH FLOOR OR WORKING PLATFORM. [CBC 11B-308.1.1]

ELECTRICAL RECEPTACLE OUTLETS: ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING NOR LESS THAN 15 INCHES MEASURED FROM THE BOTTOM OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING TO THE LEVEL OF THE FINISH FLOOR OR WORKING PLATFORM [CBC

BEFORE ROUGH-IN, VERIFY ALL MOUNTING HEIGHTS AND EXACT LOCATIONS FOR ALL EQUIPMENT ELECTRICAL CONNECTIONS, STUB-UPS, RECEPTACLES, OUTLETS, ETC. WITH ARCHITECT OR OWNER. PLACE DEVICES LOCATED ABOVE COUNTERS, SHELVING, ETC. AND IN BATHROOMS SO AS NOT TO CONFLICT WITH EDGES OF WAINSCOTING, COUNTER SPLASH, SHELVING, ETC. ARCHITECTURAL SHEETS SHALL GOVERN.

- LABEL PANELS, CABINETS, BACKBOARDS, MAIN DEVICES, SAFETY SWITCHES, CONTACTORS AND OTHER SPECIFICALLY DESIGNATED EQUIPMENT SHOWN ON PLANS. USE ENGRAVED LAMINATED PLASTIC NAMEPLATES ATTACHED BY SCREWS OR RIVETS. FOR FEEDERS, NEATLY AND INDELIBLY LABEL CONDUIT DESTINATIONS ON BOTH VISIBLE ENDS OF CONDUIT RUNS WHERE CONDUITS TERMINATE AT DESIGNATED ENCLOSURES, STRUCTURES OR EQUIPMENT (INCLUDING PULL AND SPLICE
- EQUIPMENT ANCHORAGE NOTE
- ALL MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE ANCHORED OR BRACED TO MEET THE HORIZONTAL AND VERTICAL FORCES PRESCRIBED IN THE 2022 CBC, SECTIONS 1613A AND 1616A AND ASCE 7-10 SECTIONS 13.3, 13.4 & 13.6.

THE ATTACHMENT OF THE FOLLOWING ITEMS SHALL BE DESIGNED TO RESIST THE FORCES PRESCRIBED ABOVE, BUT NEED NOT BE DETAILED ON THE PLANS PER 2022 CBC SECTION 1616A.1.18:

- A. FURNITURE(EXCEPT STORAGE CABINETS AS NOTED IN 2022 CBC TABLE 13.5-1)
- TEMPORARY OR MOVABLE EQUIPMENT WITH EXCEPTIONS NOTED IN 2022 CBC SECTION 1616A.1.18 ITEM 2.
- ARCHITECTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS IN SEISMIC DESIGN CATEGORIES D, E, OR F THAT MEET ALL OF THE CRITERIA LISTED IN 2022 SECTION 1616A.1.18 ITEM 3.
- EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUPPORTED BY VIBRATION ISOLATORS.
- EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE MECHANICAL/ELECTRICAL ENGINEER.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO RESIST THE FORCES PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.8, 13.6.7, AND 13.6.5.5, ITEM 6, RESPECTIVELY.

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS WITH AN OPA#, SUCH AS MASON INDUSTRIES (OPA 349), OR ISAT (OPA 485) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

COPIES OF THE MANUAL SHALL BE ON THE JOBSITE PRIOR TO STARTING HANGING AND BRACING OF THE PIPE, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

#### **CONVENTIONS**

NUMBERED SHEET NOTES: REFERS TO NOTES ON SAME SHEET AS REFERENCE

DETAIL REFERENCE:

-DETAIL DESIGNATION



-SHEET NUMBER REFERENCE FEEDER SCHEDULE DESIGNATION (EXAMPLE: 3103 = 310 AMPERE, 600V, 3 CURRENT CARRYING CONDUCTORS.

'CO14' INDICATES CONDUIT ONLY,

QUANTITY (1) AND SIZE (4"))

PREFIXES: 'M' INDICATES MEDIUM VOLTAGE,

#### LEGEND

₩ wall surfacemount

PENDANT MOUNT

RECESSED DOWNLIGHT

RECESSED WALLWASH

RECESSED FIXTURE

SURFACE FIXTURE

□ DIRECTIONAL FLOOD

── STRIP FIXTURE

→ TRACK LIGHT

NOTE: INTERPRET IN CONTEXT

#### LIGHT FIXTURES POWER/COMM. O CEILING SURFACEMOUNT

SINGLE RECEPT. DUPLEX RECEPT. DUPLEX- HALF SWITCHED DOUBLE DUPLEX, HALF SWITCHED ◆ DOUBLE DUPLEX

SPECIAL CONFIGURATION FLOORMOUNT 208V, 1Ø RECEPT DUPLEX- FLOOR OUTLET GROUND FAULT CIRCUIT INTERRUPT 

JUNCTION BOX POLE LIGHT POLE LIGHT- DECORATIVE □ DATA OUTLET UPLIGHT- FLUSH IN GRADE BOLLARD ☑ TANDEM-WIRED LAMPS UNDERCABINET LIGHT

₩ WALL SURFACEMOUNT LINEAR TYPE PENDANT LINEAR FIXTURE ☐ RECESSED WALLMOUNT ☐ WALLPACK EXIT LIGHT- WALL

**SWITCHES** 

SPST

DPST

3-WAY

4-WAY

DIMMER

\$P W/PILOT LIGHT

\$<sub>K</sub> KEY OPERATED

TIMER SWITCH

\$\$ DUAL LEVEL SWITCHING

OS OCCUPANCY SENSOR

EXTERIOR

**FUTURE** 

FURNACE

FIRE ALARM

**FLUORESCENT** 

FACP FIRE ALARM CONTROL PANEL

FIRE ALARM TERMINAL

FORCED AIR UNIT

W/THERMAL OVERLOAD

SWITCHLEG DESIGNATION

▼ TELEPHONE OUTLET ▼ PHONE/DATA COMBO OUTLET \* MOUNTED ABOVE COUNTER TV TELEVISION OUTLET ☐ SAFETY DISCONNECT U ← DROP CORD RECEPT

EXIT LIGHT- CEILING (ARROW INDICATES DIRECTION) LETTER ADJACENT INDICATES FIXTURE TYPE

Jc ABOVE-CLGMOUNT J-BOX TV OUTLET-FLOORMOUNT ▼ TELEPHONE FLOOR OUTLET DATA FLOOR OUTLET (V) PHONE/DATA COMBO FLOOR OUTLET IDF INTERMEDIATE DISTRIBUTION FRAME

--- NEW --- UNDERGROUND → NEW POWER HOMERUN (3 HOTS & NEUT SHOWN) → ISOLATED GROUND ─E─ EXISTING TO REMAIN

── (E) POWER HOMERUN  $\longrightarrow$  WIRE LINE- CONTINUES • CONDUIT STUB (W/MARKER) ── VERTICAL CONDUIT RUN → CONDUIT SEAL 

-LV- LOW VOLTAGE

CONDUIT/WIRE

೨೦ CORD W/PLUG **MISCELLANEOUS** 

---- SURFACEMOUNT RACEWAY

INDICATES LINE CONTINUES

THERMOSTAT — CIRCUIT BREAKER ── FUSIBLE SWITCH GROUND

PHASE (L) CLOCK MDF MAIN DISTRIBUTION FRAME S CLOCK/SPEAKER COMBINATION (AP) ACCESS POINT ₩ WALL MOUNTED CLOCK

> H■ PUSHBUTTON FLUSHMOUNT PANEL

 SURFACEMOUNT PANEL ☐ FLUSHMOUNT CABINET □ SURFACEMOUNT CABINET DM DAMPER MOTOR ⟨H⟩ HUMIDISTAT

M MAGNETIC CONTACTOR COMBINATION STARTER

ON CENTER

OVERHEAD

OVLD OVERLOAD

OVERCURRENT PROTECTION OUTSIDE DIAMETER

OFFICE of the STATE ARCHITECT OSHPD OFFICE of STATEWIDE HEALTH

PLANNING & DEVELOPMENT

#### **ABBREVIATIONS**

Α	AMPERE	FBO	FURNISHED BY OTHERS
AB	AMP BREAKER		
	ABANDONED	FC-# FLA	FULL LOAD AMPS
ABV	ABOVE	FLR	
AC	ALTERNATING CURRENT		FLUORESCENT
AC-#	AIR CONDITIONER	FS	FUSIBLE SWITCH
ADJ	ADJACENT	FVNR	
AF	AMP FUSE, AMP FRAME	G	GROUNDING CONDUCTOR
AFF	ABOVE FINISH FLOOR	GC	GENERAL CONTRACTOR
AFG	ABOVE FINISH GRADE	GD	GARBAGE DISPOSAL
AIC	AMPERES INTERRUPTING CAPACITY	GFCI	GROUND FAULT CIRCUIT
Al	ALUMINUM		INTERRUPTER
AS	AMP SWITCH RATING	GFI	GROUND FAULT CIRCUIT
ATS	AUTOMATIC TIME SWITCH		INTERRUPTER
ATS	AUTOMATIC TRANSFER SWITCH	GND	GROUND
AV	AUDIBLE/AUDIO VISUAL	GRS	GALVANIZED RIGID STEEL
AWG	AMERICAN WIRE GAGE	GWS	GANG WITH SWITCH
BFG	BELOW FINISH GRADE	Н	HEIGHT, HIGH
BIL	BASIC IMPULSE LEVEL	HACR	HEATING, AC & REFRIG
BLDG		HID	HIGH INTENSITY DISCHARGE
C	CONDUIT	НО	HIGH OUTPUT
-C-	CATV CONDUIT	HOA	HAND-OFF-AUTO
CAB'T	CABINET	hp	HORSEPOWER
CATV	CABLE TELEVISION	np HPF HPS IC	HIGH POWER FACTOR
CB CBC	CIRCUIT BREAKER, CODE BLUE CA. BUILDING CODE	HP3	HIGH PRESSURE SODIUM INTERCOM
CEC	CA. ELECTRICAL CODE	IC ID	IDENTIFICATION
CLC	CA. ENERGY COMMISSION	IDF	INTERMEDIATE DISTRIBUTION
CF	COMPACT FLUORESCENT	וטו	FRAME
CFC	CALIFORNIA FIRE CODE	IF	INSIDE FROST
CLG	CEILING	iG	ISOLATED GROUND
CL	CENTER LINE	J-BOX	
CKT	CIRCUIT	k	QUANTITY 1000
CNT'R	CONTRACTOR	kVA	KILOVOLTAMPS
C.O.	CONDUIT ONLY (W/PULLROPE)	kW	KILOWATT
COND	CONDUIT, CONDUCTOR	LC	LIGHTING CONTACTOR
CR	CRITICAL BRANCH	LPS	LOW PRESSURE SODIUM
CSFM	CALIFORNIA SFM	LRA	LOCKED ROTOR AMPS
CT	CURRENT TRANSFORMER	LS	LIFE SAFETY BRANCH
Cu	COPPER	LT	LIGHT
CU-#	CONDENSING UNIT	LTG	LIGHTING
D	DEPTH	LV	LOW VOLTAGE
DC	DIRECT CURRENT	MC	MECHANICAL CONTRACTOR
DF	DRINKING FOUNTAIN	MCA	MINIMUM CKT AMPS
DIA DISC	DIAMETER DISCONNECT	MCB MCTB	
DIST	DISTRIBUTION	MCTC	MAIN CATV TERMINAL CABINET
DPST		MDF	MAIN DISTRIBUTION FRAME
DW	DISHWASHER	MECH	MECHANICAL
EM	EMERGENCY	MFR	MANUFACTURER
(E)	EXISTING	MFS	MAIN FUSIBLE SWITCH
ΕÁ	EACH	MH	METAL HALIDE
EB	ELECTRONIC BALLAST	MLO	MAIN LUGS ONLY
EC	ELECTRICAL CONTRACTOR	MOCP	MAXIMUM OCP
EC-#	EVAPORATIVE COOLER	MSB	MAIN SWITCHBOARD
EF-#	EXHAUST FAN	MT	MOUNT
EL	EVENING LIGHT	MT HT	MOUNTING HEIGHT
ELEC	ELECTRICAL	MTS	MANUAL TRANSFER SWITCH
EM	EMERG BATTERY BACKUP	MTTB	MAIN TELEPHONE TERMINAL BO
	EMERGENCY BALLAST	MTTC	MAIN TELEPHONE TERMINAL
	EMERGENCY		CABINET
EOL	END OF LINE	MW	MICROWAVE
	EQUIPMENT	N (N)	NEUTRAL (GROUNDED CONDUC
ES (EVNI)	ENERGY SAVING	(N)	NEW
` ,	(E) IN (N) LOCATION	N3R	NEMA 3R
(EXR)	(E) TO BE (R)	NC	NORMALLY CLOSED

PUBLIC ADDRESS PULLBOX PULL CHAIN PHOTOCELL PLUMBING CONTRACTOR PHASE PANEL POINT OF CONNECTION POWER PRIMARY POWER SECONDARY RELOCATE(D) RÉCEPT RECEPTACLE REF REFRIGERATOR RLA RATED LOAD AMPS RIGID METAL CONDUIT RPLC REPLACE RAPID START SIGNAL CABINET SHORT CKT CURRENT STATE FIRE MARSHAL SHEET SLIMLINE, SWITCH LEG SPEC SPECIFICATION SINGLE POLE SINGLE THROW SQUARE STR'G STORAGE SURF SURFACE SERVICE SWITCH TRANSFORMER, TERMINAL TELEPHONE CONDUIT (TBR) TO BE REMOVED TIME CLOCK **TELEPHONE** TELCO TELEPHONE COMPANY TIME SWITCH TIME SWITCH OVERRIDE TWISTED SHIELDED PAIR TELEPHONE TERMINAL BOARD TELEPHONE TERMINAL CABINET TRANSFORMER

TYP SIM TYPICAL SIMILAR

UNDERGROUND UGPS UNDERGROUND PULL SECTION

**VOLT AMPERES** 

VOLTAGE

XFMR TRANSFORMER

VERY HIGH OUTPUT

VANDAL-RESISTANT WIDTH, WATT, WIRE

WATER HEATER

UNDERCABINET, UNDERCOUNTER

UNDERWRITERS LABORATORIES UNLESS OTHERWISE NOTED UG SVC ALERT 800-642-2444

VOLT ALTERNATING CURRENT

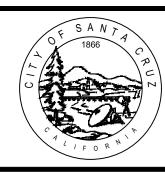
WEATHERPROOF (NEMA 3R)

INDICATES MOUNTING HEIGHT AFF

THOMA #24-8123



**REVISIONS** 



C I T Y O FPUBLIC WORKS DEPARTMENT 809 Center Street, Room 201

Santa Cruz, CA 95060

PACIFIC BEACH ROUNDABOUT ENHANCEMENTS

ELECTRICAL GENERAL NOTES, SYMBOL LEGEND AND ABBREVIATIONS

2/24/2025 DATE SCALE AS SHOWN REFERENCES FIELD BOOK: J. COOK E-001 DRAWN VAULT NO. J. COOK DESIGN DRAWING #: 7170 J. THOMA CHECKED

NATIONAL ELECTRICAL CODE

NORMAL POWER FACTOR

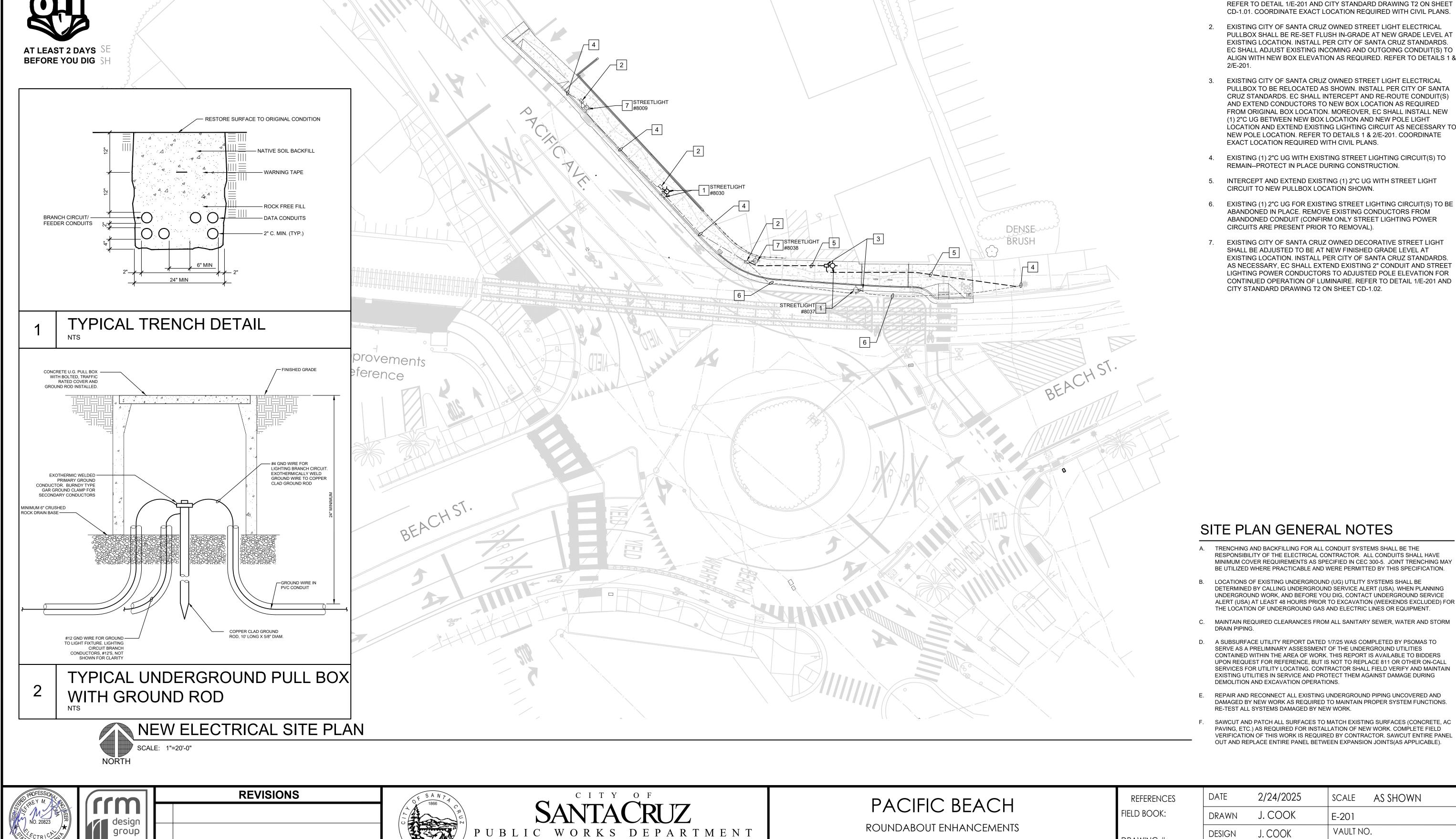
NEMA NAT'L ELEC MANUFACTURER'S

ASSOC NOT IN CONTRACT

NIGHT LIGHT

NOT TO SCALE

NORMALLY OPEN



809 Center Street, Room 201

Santa Cruz, CA 95060

NEW ELECTRICAL SITE PLAN

DRAWING #:

SCALE AS SHOWN E-201 VAULT NO. 7170 J. THOMA CHECKED

□ REFERENCE NOTES

EXISTING CITY OF SANTA CRUZ OWNED DECORATIVE STREET LIGHT TO

STANDARDS. EC SHALL RE-ROUTE 2" CONDUIT(S) AND EXTEND STREET LIGHTING POWER CONDUCTORS TO NEW LOCATION AS REQUIRED FROM ADJACENT PULLBOX FOR CONTINUED OPERATION OF LUMINAIRE

BE RELOCATED AS SHOWN. INSTALL PER CITY OF SANTA CRUZ

**DIG ALERT** 

DIAL TOLL FREE