



2025 Standard Details

Plan Title

DWG No.

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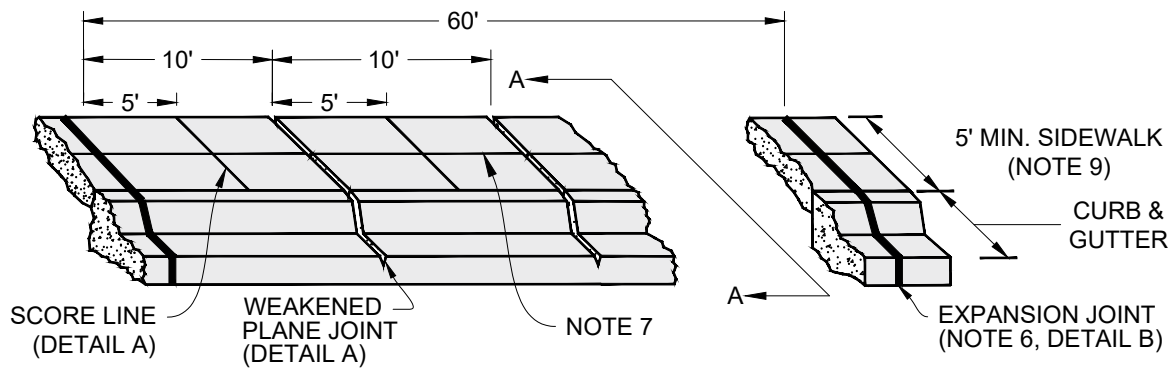
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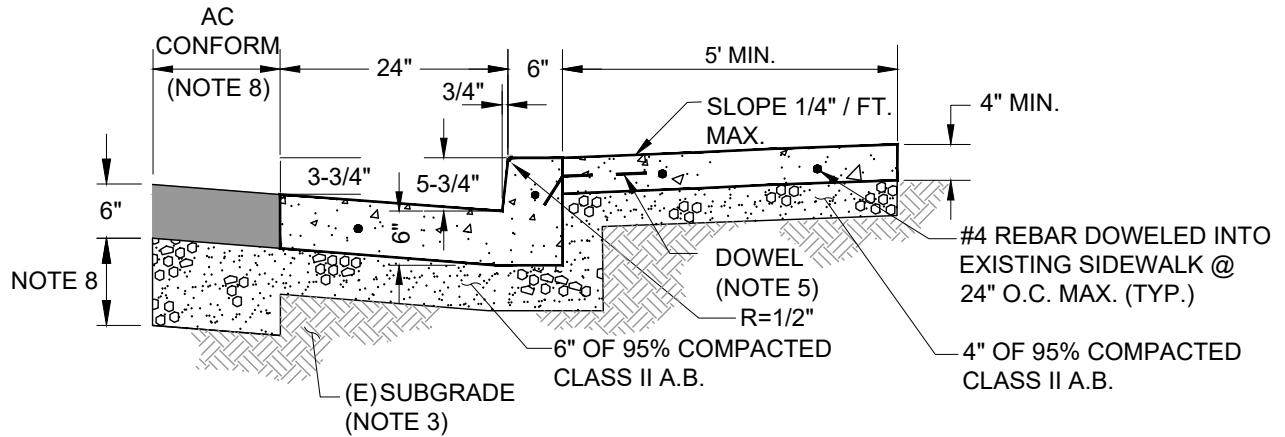
Plan Title	DWG No.
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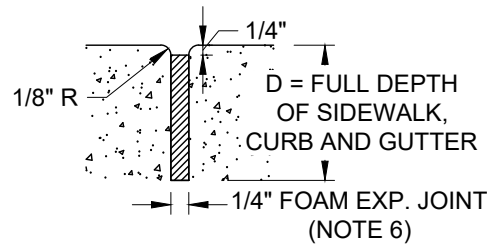
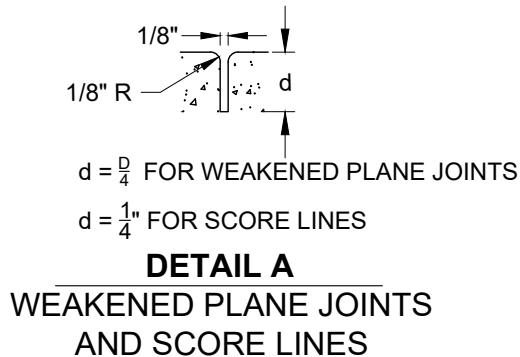
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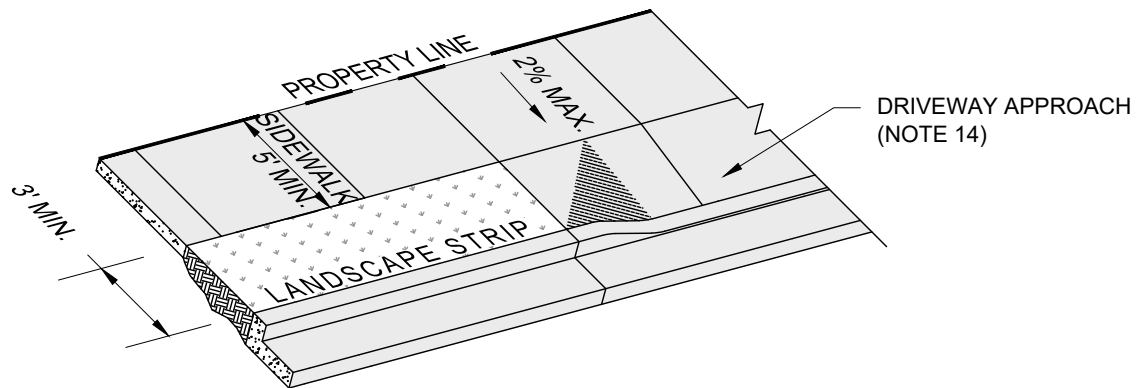


SECTION A-A



DETAIL B

EXPANSION JOINT



SIDEWALK LANDSCAPE STRIP INSTALLATION

1 of 2



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

CURB, GUTTER AND SIDEWALK DETAILS

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: G- 1.1

NOTES:

1. ALL CONCRETE TO BE SIX SACK, CLASS "A" CONCRETE, PER LATEST CALTRANS SPECIFICATIONS.
2. BROOM FINISH THE SURFACE OF SIDEWALK PERPENDICULAR TO THE PATH OF TRAVEL.
3. REMOVE SOFT OF SPONGY SUBGRADE MATERIAL TO A DEPTH OF 6 INCHES BELOW THE SUBGRADE ELEVATION FOR CURB AND GUTTER AND 3 INCHES FOR SIDEWALK.
4. STANDARD CURB, GUTTER AND SIDEWALK SHALL BE A MONOLITHIC POUR UNLESS CURB AND GUTTER ARE EXISTING.
5. IF ANY CURB, GUTTER OR SIDEWALK ARE EXISTING, DOWEL INTO EXISTING CONCRETE EVERY 24".USE 18" LONG #4 REBAR DOWELS, INSERT 4" INTO CURB. BEND DOWEL AT BACK OF CURB AS SHOWN.
6. EXPANSION JOINTS SHALL COMPLY WITH ASTM D1751. AS AN ALTERNATIVE, A SEMI-RIGID, CLOSED-CELL POLYPROPYLENE FOAM, PREFORMED JOINT FILLER THAT COMPLIES WITH ASTM D8139 MAY BE USED.
7. LONGITUDINAL SCORE LINES SHALL BE MADE ALONG THE CENTERLINE OF SIDEWALKS 8' OR MORE IN WIDTH
8. WIDTH OF A.C. CONFORM SHALL BE A MINIMUM OF 2 FEET. A.C. CONFORM SHALL BE A MINIMUM OF 6" THICK. CLASS II A.B. BELOW CONFORM SHALL BE 6" FOR RESIDENTIAL ROADS AND 9" FOR COLLECTOR/ARTERIAL ROADS.
9. CITY ENGINEER MAY REQUIRE MODIFICATIONS OF MINIMUM WIDTH TO CONFORM TO SURROUNDING NEIGHBORHOOD.
10. SIDEWALK SHALL BE REPLACED UP TO AN EXISTING SCORE LINE OR JOINT. DO NOT REPLACE SIDEWALK IN-BETWEEN EXISTING SCORE LINES OR JOINTS.
11. FOR ALL UTILITY BOXES IN THE SIDEWALK, WEAKENED PLANE JOINT ON BOTH SIDES OF THE BOX. WEAKENED PLANE JOINT SHALL EXTEND THE ENTIRE WIDTH OF THE SIDEWALK.
12. PROPERTIES THAT HAVE A 8 FT. OR GREATER PROPERTY LINE SETBACK FROM THE BACK OF CURB WILL BE REQUIRED TO INSTALL A LANDSCAPE STRIP.
13. 4' WIDE LANDSCAPE STRIP REQUIRED FOR STANDARD STREET TREE INSTALLATION. IF A 4' WIDE LANDSCAPE STRIP CANNOT BE ACHIEVED, SMALLER STATURE STREET TREES MAY BE PLANTED FROM THE CITY APPROVED LIST. CONTACT THE CITY ARBORIST FOR MORE INFORMATION.
13. SLOPE SIDEWALK AND LANDSCAPING STRIP TOWARD CURB AT 1/4" / FT. (2%) MAX.
14. FOR DRIVEWAY APPROACH CONSTRUCTION SEE CITY STANDARD DETAIL G2 TYPE "A" DRIVEWAY WITH PLANTER.

2 of 2

CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

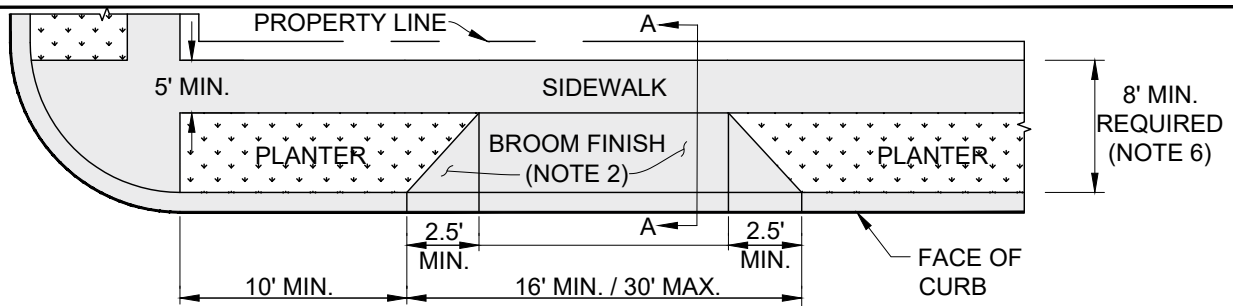
CURB, GUTTER AND SIDEWALK
GENERAL NOTES

CITY ENGINEER: _____

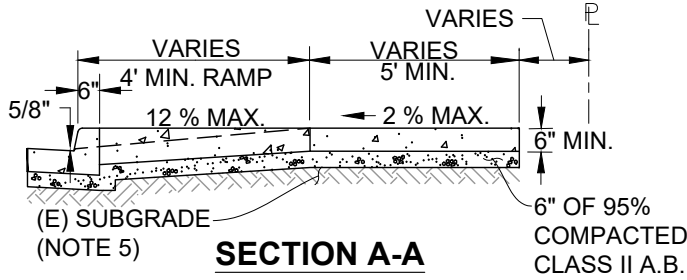
REV. DATE: Jun 2025

SCALE: N.T.S.

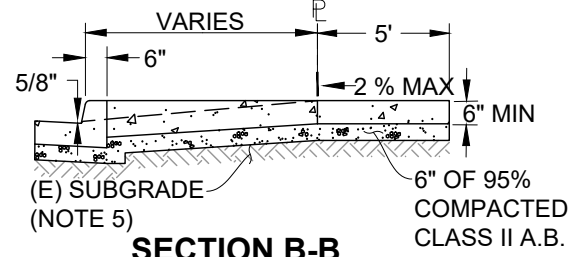
DWG. NO: G- 1.2



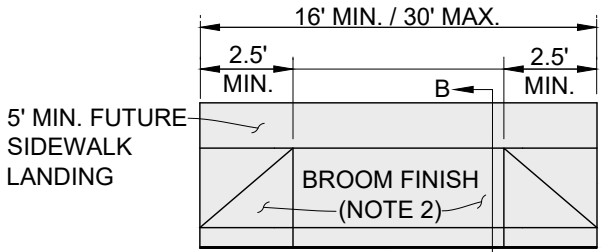
PLAN
TYPE "A" DRIVEWAY WITH PLANTER
AND 8' OR WIDER SIDEWALK



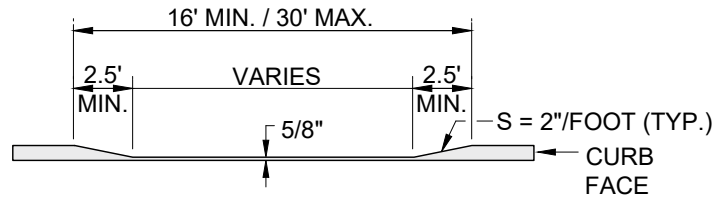
SECTION A-A



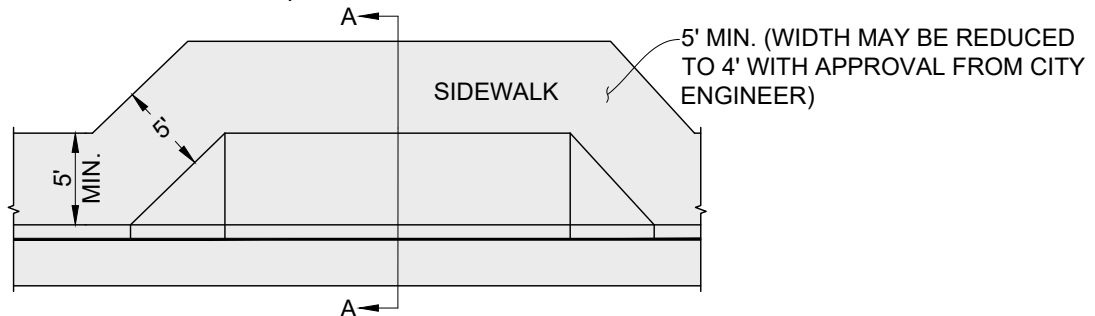
SECTION B-B



PLAN
TYPE "B" DRIVEWAY
(WITH FUTURE SIDEWALK)



TYPICAL ELEVATION
TYPE A, B & C DRIVEWAY



PLAN
TYPE "C" DRIVEWAY

NOTES:

1. SIDEWALK AREA ADJACENT TO DRIVEWAY APPROACH SHALL HAVE A < 2% CROSS SLOPE.
2. BROOM FINISH THE SURFACE OF DRIVEWAY APPROACH PERPENDICULAR TO THE PATH OF TRAVEL.
3. ALL CONCRETE TO BE SIX SACK, CLASS "A" CONCRETE, PER LATEST CALTRANS SPECIFICATIONS.
4. ALL CONCRETE SHALL BE REINFORCED WITH #4 REBAR AT 18" O.C. BOTH WAYS. MAINTAIN 2" OF COVER FOR REINFORCEMENT.
5. REMOVE SOFT OF SPONGY SUBGRADE MATERIAL TO A DEPTH OF 6 INCHES BELOW THE SUBGRADE ELEVATION FOR DRIVEWAYS.
6. PLANTER STRIP SHALL NOT BE INSTALLED IF WIDTH BETWEEN CURB AND BACK OF SIDEWALK IS LESS THAN 8'.



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ENGINEERING DIVISION

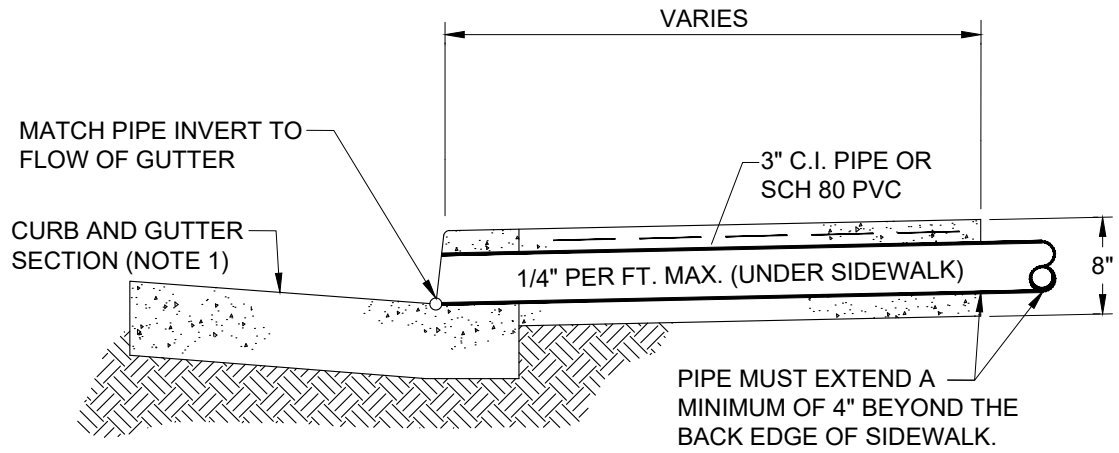
DRIVEWAY APPROACH

CITY ENGINEER: _____

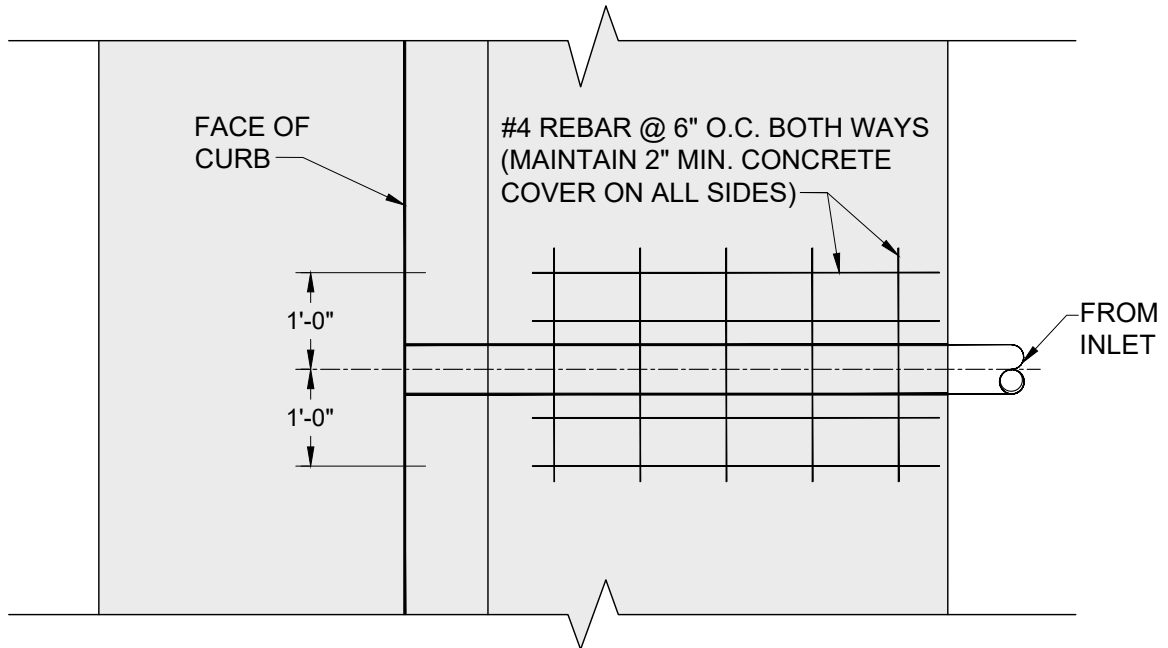
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: G- 2



SECTION



PLAN

NOTES:

1. SEE CITY STANDARD DETAIL G-1 FOR CURB, GUTTER AND SIDEWALK INSTALLATION.
2. 8" THICK SIDEWALK WILL EXTEND A MINIMUM OF 1'-0" EACH SIDE OF PIPE.
3. MAY CORE DRILL EXISTING CURB.



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ENGINEERING DIVISION

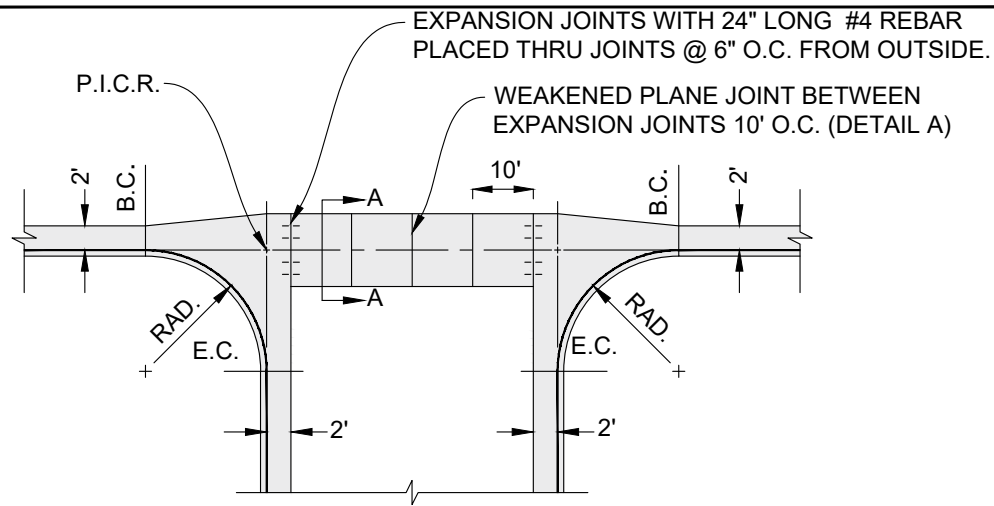
SIDEWALK CURB DRAIN

CITY ENGINEER: _____

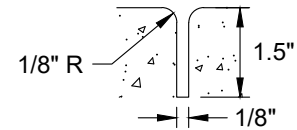
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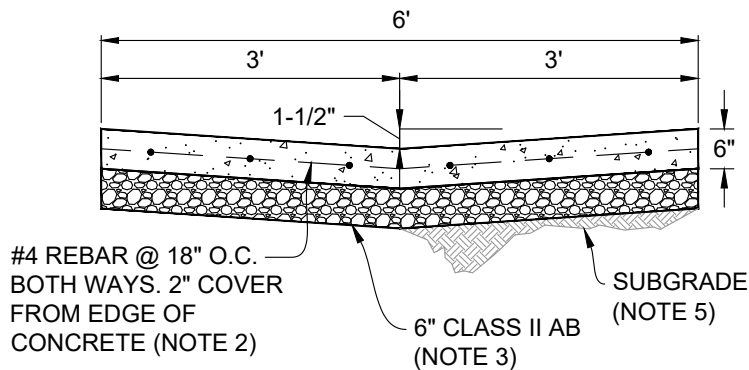
DWG. NO: G- 3



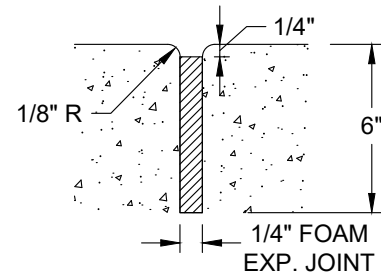
VALLEY GUTTER - PLAN



DETAIL A
WEAKENED PLANE JOINT



VALLEY GUTTER - SECTION A-A



DETAIL B
EXPANSION JOINT

NOTES:

1. FLOW LINE MUST BE CHECKED IN THE PRESENCE OF THE CITY ENGINEER OR THE CITY INSPECTOR.
2. INSTALL REBAR IN VALLEY GUTTER AND RETURN APRONS.
3. COMPACT CLASS II AB TO 95% RELATIVE COMPACTION
4. VALLEY GUTTER SHALL BE REPLACED UP TO AN EXISTING SCORE LINE. DO NOT REPLACE VALLEY GUTTER IN-BETWEEN EXISTING SCORE LINES.
5. EARTHWORK UNDER THE TRAVELED WAY SHALL BE COMPACTED TO 95% RELATIVE COMPACTION AT OPTIMUM MOISTURE CONTENT TO A DEPTH OF 2.5' BELOW FINISHED GRADE, PER LATEST CALTRANS SPECIFICATIONS. OTHERWISE EXCAVATE TO 12" BELOW TOP OF SUBGRADE AND REPLACE WITH CLASS II AGGREGATE BASE AND COMPACT.
6. DO NOT PLACE CONCRETE UNTIL FORMS HAVE BEEN INSPECTED AND APPROVED BY THE CITY ENGINEER, OR THE CITY INSPECTOR.
7. ALL CONCRETE TO BE SIX SACK, CLASS "A" CONCRETE, PER LATEST CALTRANS SPECIFICATIONS.
8. BROOM FINISH THE SURFACE OF VALLEY GUTTER AND RETURN APRON PERPENDICULAR TO PATH OF TRAVEL.



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PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

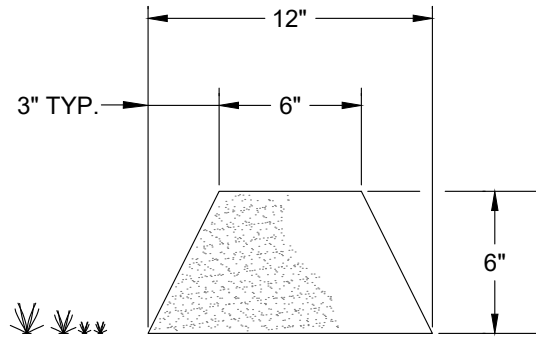
VALLEY GUTTER

CITY ENGINEER: _____

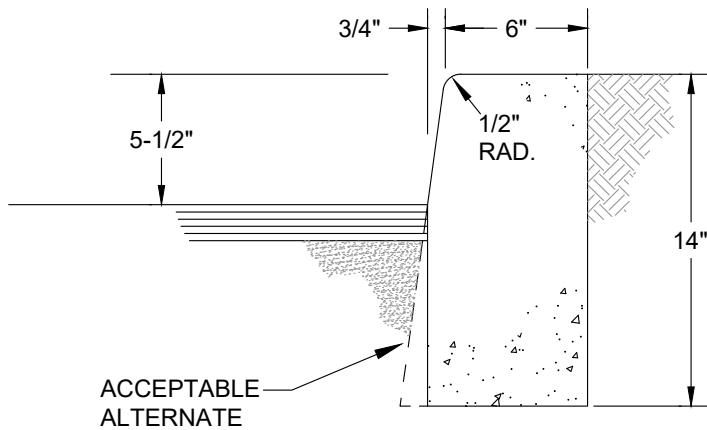
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: G- 4



STANDARD A.C. BERM



CURB TO MATCH STANDARD CURB AND GUTTER

NOTES:

1. ALL CONCRETE TO BE SIX-SACK, CLASS "A" CONCRETE, PER LATEST CALTRANS SPECIFICATIONS.
2. ALL DIMENSIONS ARE TRUE, ALLOWANCE FOR NOMINAL MEASURE HAS BEEN GIVEN.
3. PLACE EXPANSION JOINTS EVERY 60 FEET, COLD JOINTS EVERY 20 FEET.
4. FOR A.C. BERM, TYPE "B" ASPHALT CONCRETE WILL BE USED WITH A MAXIMUM AGGREGATE SIZE OF 1/4 INCH.
5. APPLY RS-1 ASPHALTIC EMULSION BELOW A.C. BERM



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PUBLIC WORKS DEPARTMENT
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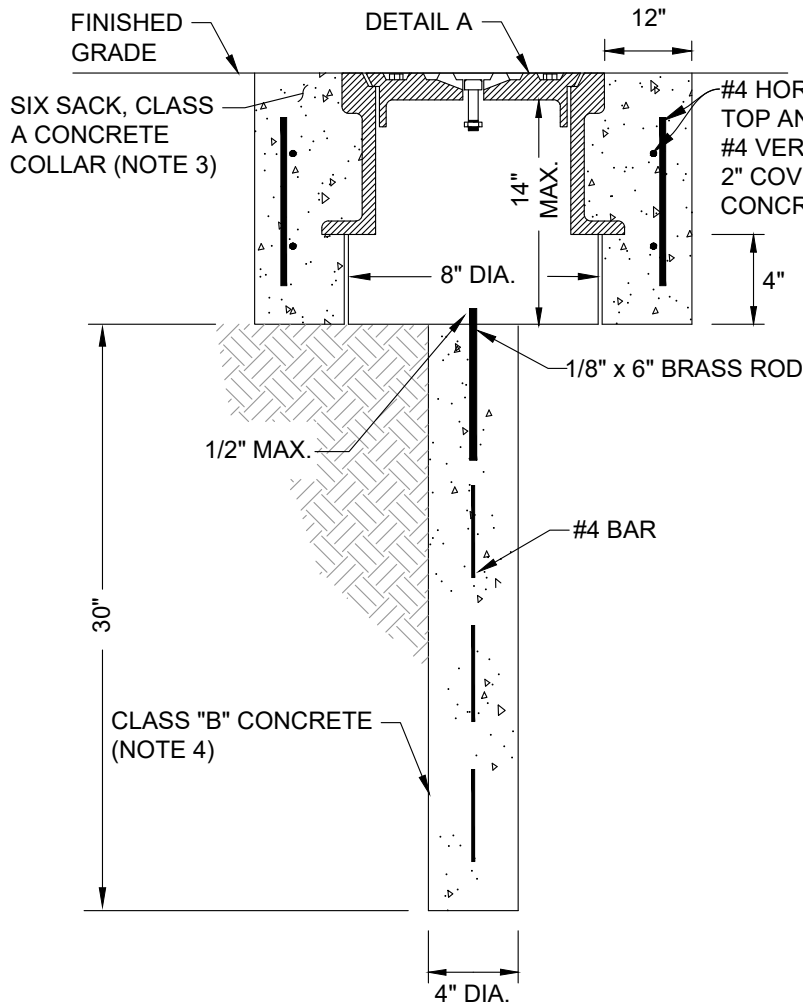
CURB AND BERM

CITY ENGINEER: _____

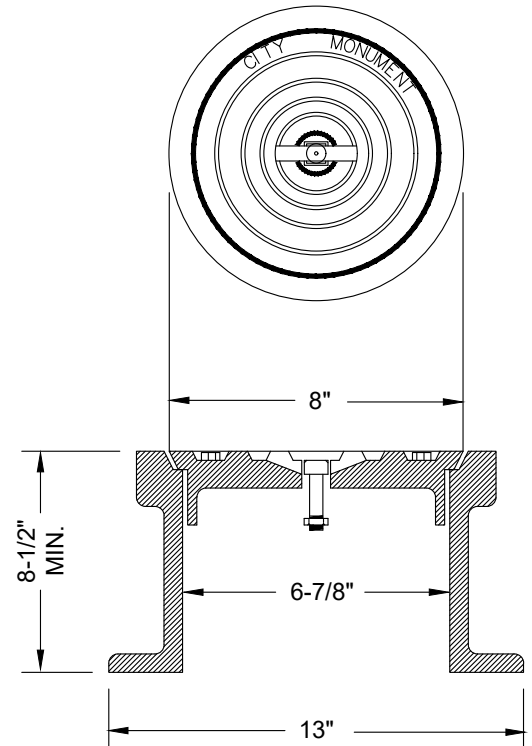
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: G - 5



DETAIL A - FRAME AND COVER



DETAIL A - FRAME AND COVER

NOTES:

1. FRAME AND COVER SHALL BE D&L SUPPLY COMPANY K-6001 OR APPROVED EQUAL.
2. "CITY MONUMENT" SHALL BE CLEARLY STAMPED ON ALL COVERS.
3. CONCRETE SHALL BE DYED LAMP BLACK COLOR. PIGMENT LOADING SHALL BE 5% OF TOTAL CEMENTITIOUS MATERIAL WEIGHT. CONCRETE COLLAR SURFACE SHALL HAVE BROOM FINISH PARALLEL TO THE CIRCUMFERENCE OF THE FRAME. SEAL THE CONCRETE WITH A BRICKFORM CONCRETE SEALER.
4. CONCRETE FOR MONUMENT MAY BE FORMED BY METAL SLEEVE, WAXED CARDBOARD OR BY DRILLING THRU HOLE MADE FOR MONUMENT BOX. IF THERE IS AN OVERCUT THEN THE OVERCUT SHALL BE FILLED WITH CONCRETE.



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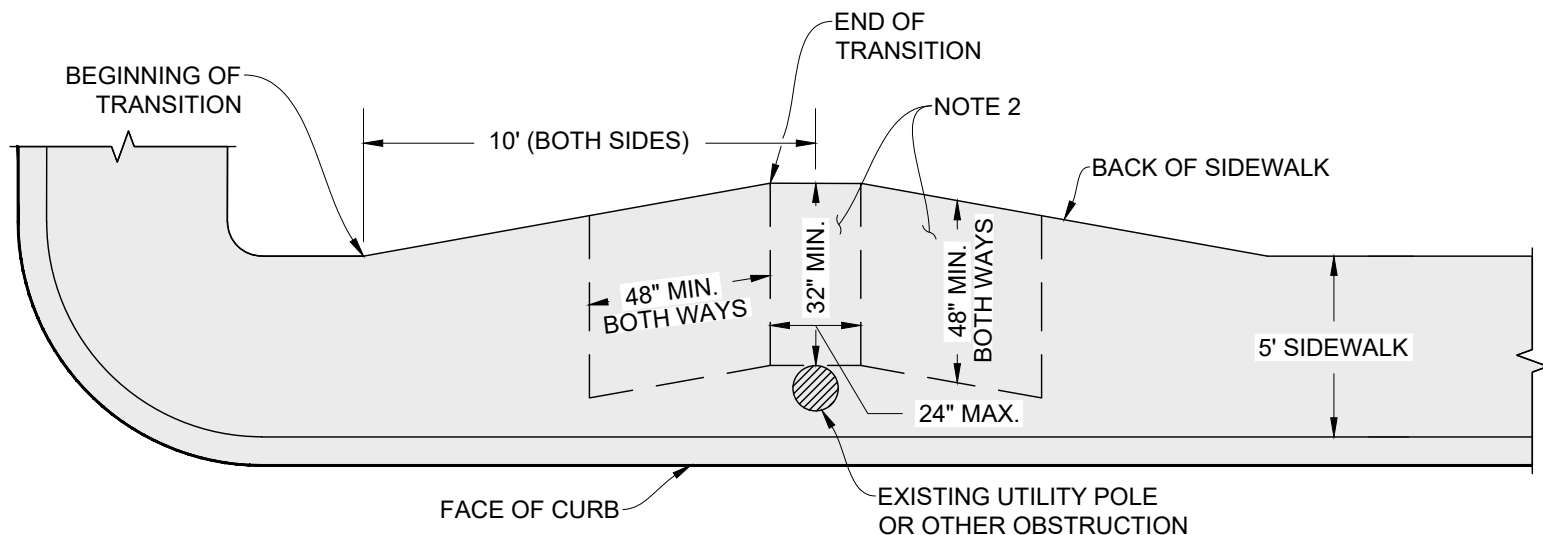
SURVEY MONUMENT

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: G - 6



SIDEWALK TRANSITION AT OBSTRUCTION

NOTES:

1. PROVIDE A 5' CLEAR SIDEWALK PER THIS DETAIL AT ALL UTILITY POLES OR OTHER OBSTRUCTIONS WHICH CANNOT BE PLACED BEHIND THE SIDEWALK.
2. CLEAR WIDTH BEHIND OBSTRUCTION MAY BE REDUCED TO 32" MINIMUM FOR A LENGTH OF 24" MAXIMUM PROVIDED THAT REDUCED WIDTH SEGMENTS ARE SEPARATED BY SEGMENTS THAT ARE MINIMUM 48" LONG AND 48" WIDE.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

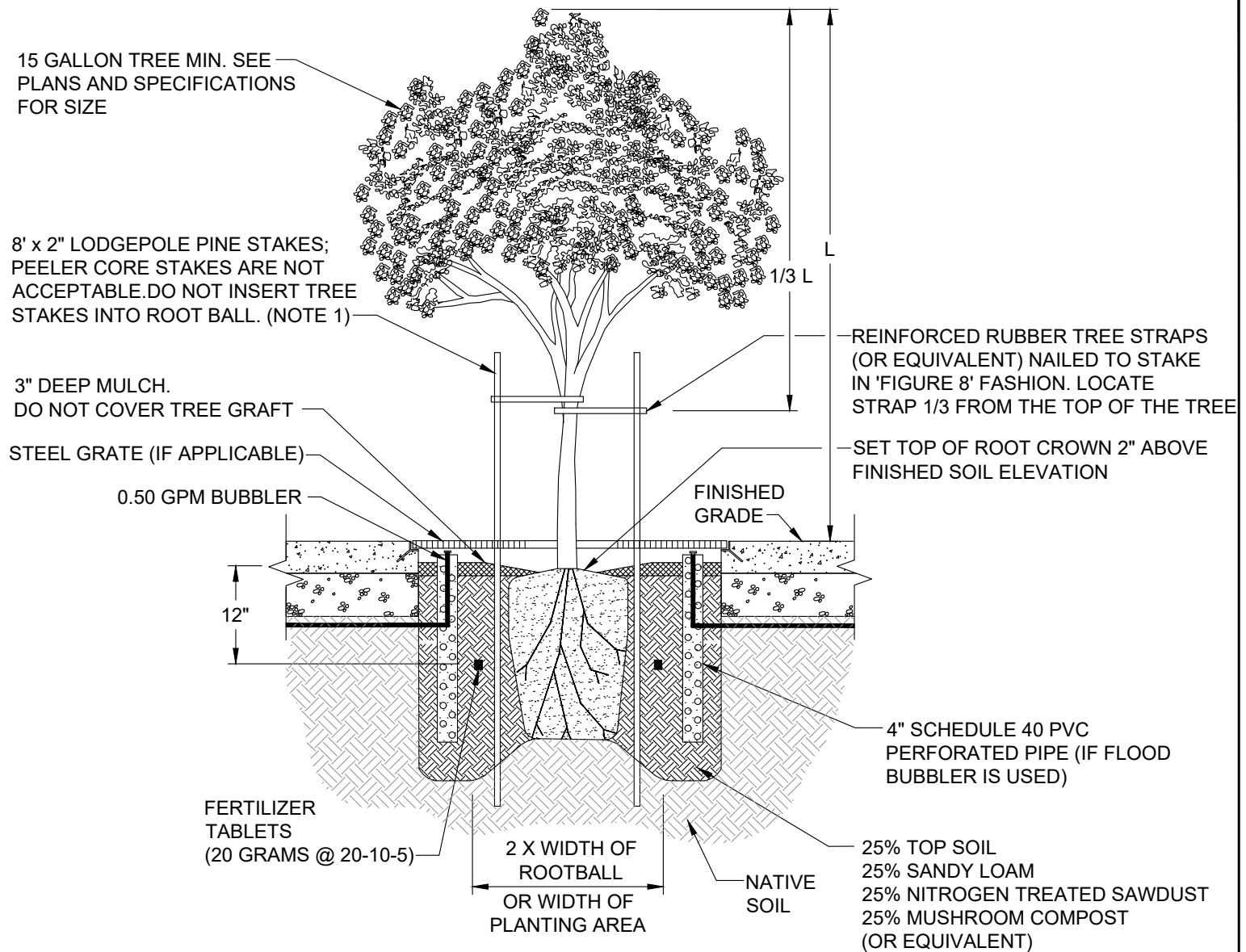
SIDEWALK OBSTRUCTION

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: G- 7



NOTES:

1. STREET TREE SHALL BE A SPECIES FROM THE CITY APPROVED TREE LIST. CONTACT THE OFFICE OF THE URBAN FORESTER AT (831) 420-5270 FOR MORE INFORMATION.
2. MAINTAIN 5' MINIMUM CLEARANCE BETWEEN GRATE OPENING AND BACK OF WALK.
3. CONTRACTOR SHALL REMOVE NURSERY STAKE(S) AND TAGS FROM TREES UPON COMPLETION OF STAKING.
4. AS DIRECTED BY THE CITY THE TREE GRATE SHALL BE A CAST IRON NEENAH FOUNDRY CO. NO. R8710 (48" x 48") WITH U-FRAME AND ACCESS HOLE.
5. TREE WELL SHALL BE IRRIGATED WITH BUBBLER HEAD AND A QUICK COUPLER EVERY 100'.
6. TREES TO BE INSPECTED AND APPROVED BY URBAN FORESTER - BEFORE AND AFTER PLANTING.
7. CONTRACTOR SHALL REMOVE ALL WIRE, STRING AND NURSERY WRAPS.
8. LEAVE SUBGRADE UNDISTURBED TO PROVIDE A FIRM BASE FOR ROOTBALL
9. SHAPE SOIL SURFACE TO PROVIDE WATERING RING.
10. ADJUST TREE TIES TO ALLOW ROOM FOR GROWTH DURING ESTABLISHMENT (ALLOW SLACK).
11. INSTALLATION INCLUDES REMOVAL OF STAKES 1-2 YEARS AFTER INSTALLATION (OR WHEN TREE TRUNK IS THE SAME DIAMETER AS THE TREE STAKE).



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

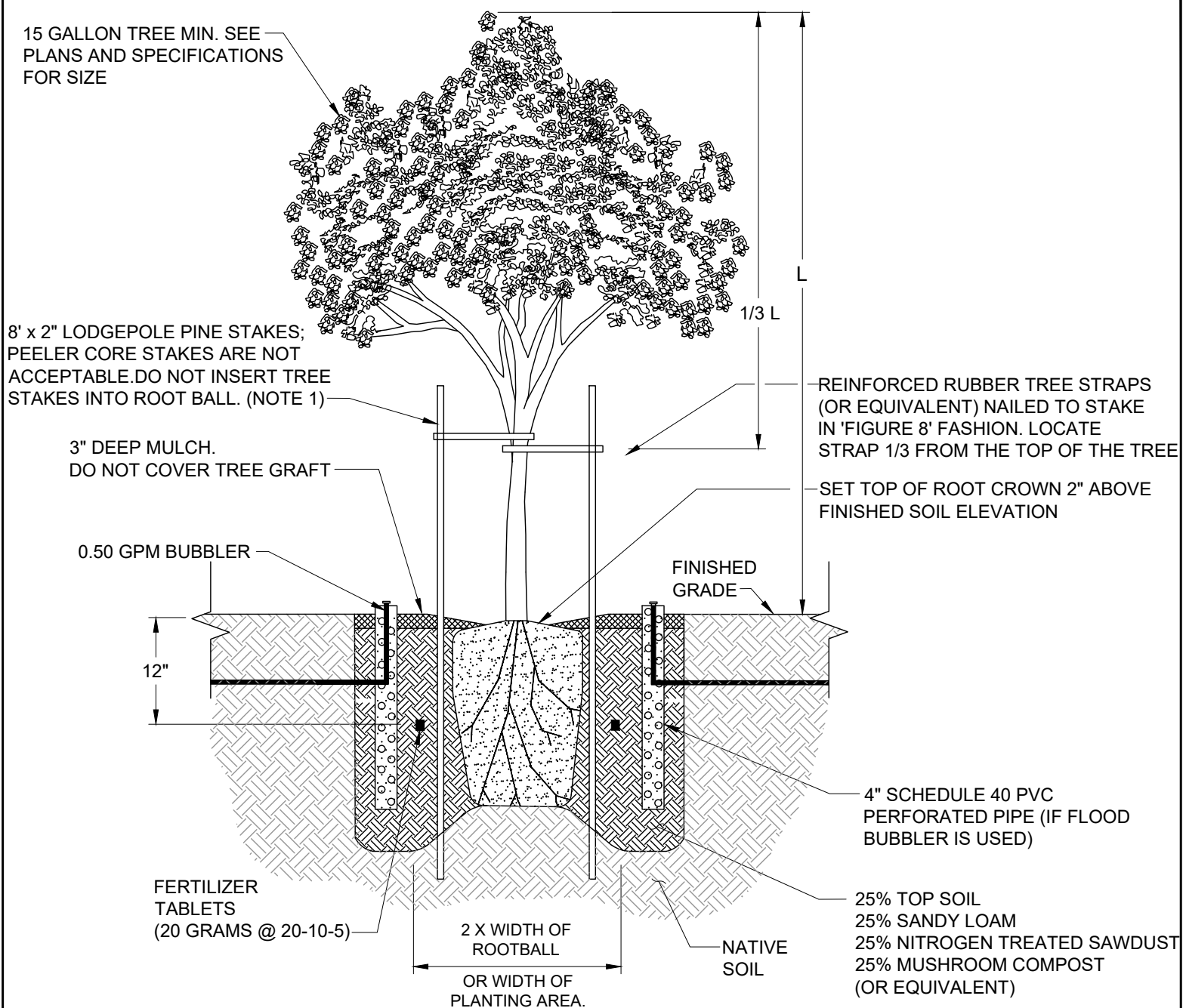
TREE PLANTING
STREET RIGHT-OF-WAY

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: G - 8



NOTES:

1. CONTRACTOR SHALL REMOVE NURSERY STAKE(S) AND TAGS FROM TREES UPON COMPLETION OF STAKING.
2. TREE WELL SHALL BE IRRIGATED WITH BUBBLER HEAD AND A QUICK COUPLER EVERY 100'
3. TREES TO BE INSPECTED AND APPROVED BY CITY ARBORIST - BEFORE AND AFTER PLANTING.
4. CONTRACTOR SHALL REMOVE ALL WIRE, STRING AND NURSERY WRAPS.
5. LEAVE SUBGRADE UNDISTURBED TO PROVIDE A FIRM BASE FOR ROOTBALL
6. SHAPE SOIL SURFACE TO PROVIDE WATERING RING.
7. ADJUST TREE TIES TO ALLOW ROOM FOR GROWTH DURING ESTABLISHMENT (ALLOW SLACK)
8. INSTALLATION INCLUDES REMOVAL OF STAKES 1-2 YEARS AFTER INSTALLATION (OR WHEN TREE TRUNK IS THE SAME DIAMETER AS THE TREE STAKE).



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

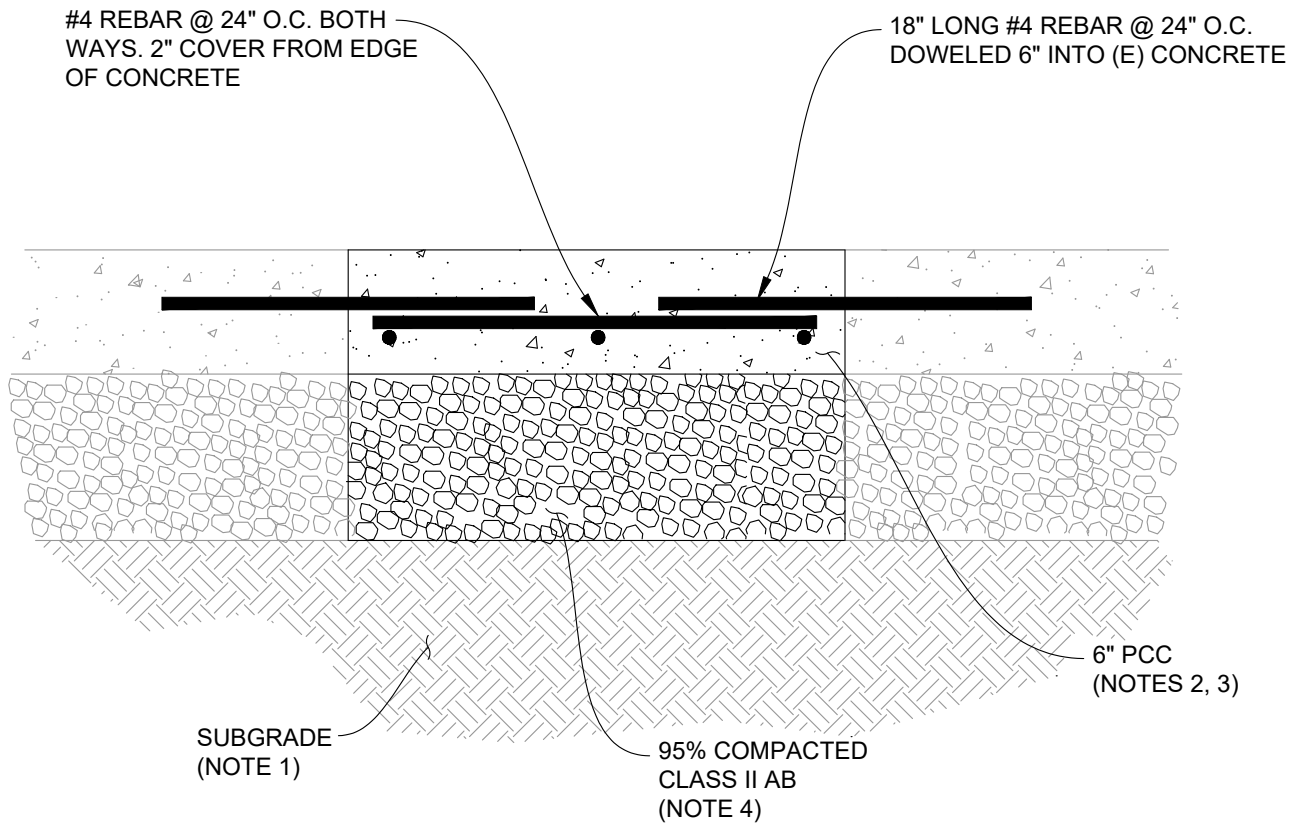
TREE PLANTING PLANTER AREA

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: G- 9



NOTES:

1. EARTHWORK UNDER THE TRAVELED WAY SHALL BE COMPACTED TO 95% RELATIVE COMPACTION AT OPTIMUM MOISTURE CONTENT TO A DEPTH OF 2.5' BELOW FINISHED GRADE, PER LATEST CALTRANS SPECIFICATIONS. OTHERWISE EXCAVATE TO 12" BELOW TOP OF SUBGRADE AND REPLACE WITH CLASS II AGGREGATE BASE AND COMPACT.
2. ALL CONCRETE TO BE SIX SACK CLASS "A" CONCRETE, PER LATEST CALTRANS SPECIFICATIONS.
3. CONCRETE PAVEMENT SHALL BE MEDIUM BROOM FINISH WITH DEEP JOINTS EVERY 20 FEET AND EXPANSION JOINTS EVERY 60 FEET.
4. DEPTH OF CLASS II AB SHALL BE 6" FOR RESIDENTIAL ROADS AND 9" FOR COLLECTOR/ARTERIAL ROADS.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

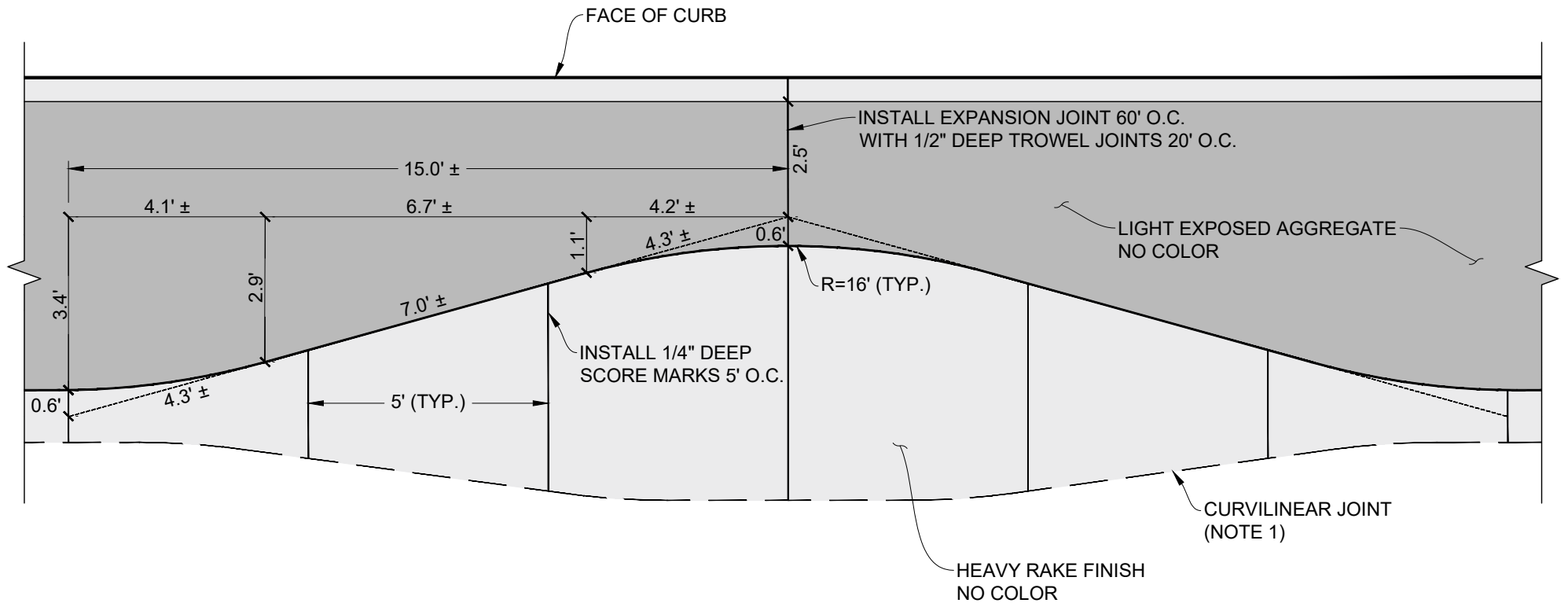
CONCRETE PAVEMENT RESTORATION

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: G- 10



NOTE:

1. WHEN SIDEWALK EXCEEDS 16' INSTALL CURVILINEAR JOINT IN THE MIDDLE OF THE HEAVY RAKE FINISH CONCRETE. LAYOUT OF CURVILINEAR JOINT SHALL BE APPROVED BY THE ENGINEER PRIOR TO EXECUTION



CITY OF SANTA CRUZ
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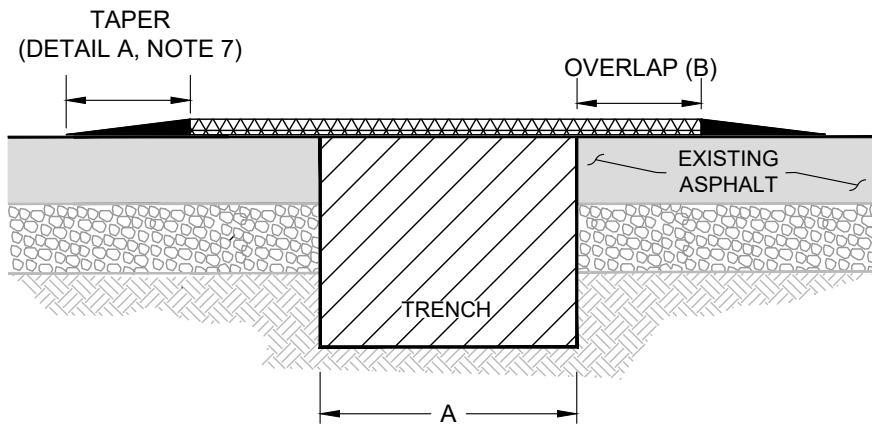
SIDEWALK WAVE PATTERN

CITY ENGINEER: _____

REV. DATE: Jun 2025

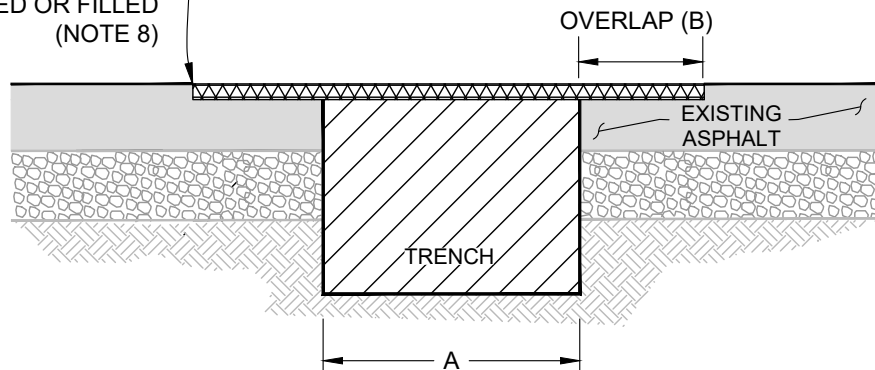
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DWG. NO: G - 11

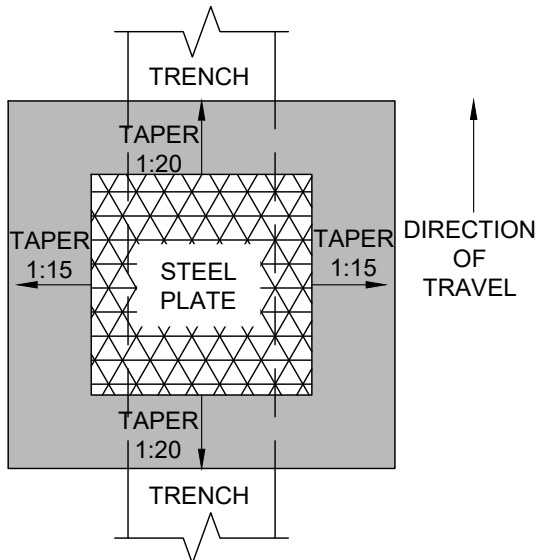


OPTION A - STEEL PLATE ON TOP OF EXISTING ROADWAY

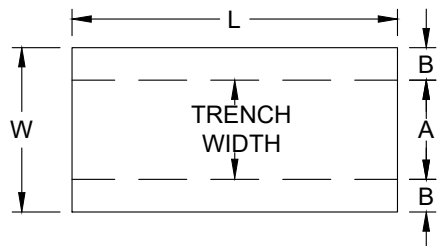
RECESSED DEPTH TO MATCH PLATE THICKNESS. ALL GAPS AROUND STEEL PLATE SHALL BE PATCHED OR FILLED (NOTE 8)



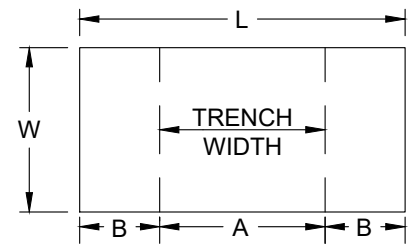
OPTION B - RECESSED STEEL PLATE ON EXISTING ROADWAY



**DETAIL A -
ASPHALT TAPER**



**DETAIL B -
LONGITUDINAL STEEL PLATE**



**DETAIL C -
TRANSVERSE STEEL PLATE**



TABLE 1 - STEEL PLATE SIZE						
LONGITUDINAL		TRANSVERSE				
(A)	(B)	(A)	(B)	PLATE THICKNESS	(W)	(L)
12"	18"	58"	19"	1"	4'	8'
12"	18"	58"	31"	1"	4'	10'
24"	18"	70"	25"	1"	5'	10'
36"	18"	44"	38"	1"	6'	10'
48"	18"	52"	34"	1"	7'	10'
60"	18"	58"	31"	1"	8'	10'
12"	18"	88"	47"	1-1/4"	4'	15'
24"	18"	104"	20"	1-1/4"	5'	12'
36"	18"	66"	39"	1-1/4"	6'	12'
36"	18"	66"	63"	1-1/4"	6'	16'
48"	18"	76"	33"	1-1/4"	7'	12'
48"	18"	76"	58"	1-1/4"	7'	16'
60"	18"	86"	29"	1-1/4"	8'	12'
60"	18"	86"	47"	1-1/4"	8'	15'
60"	18"	86"	63"	1-1/4"	8'	16'
60"	18"	86"	77"	1-1/4"	8'	20'
60"	18"	102"	69"	1-3/8"	8'	20'

NOTES:

THIS DETAIL APPLIES TO ALL EXCAVATIONS IN CITY STREETS

1. OPTION A IS ONLY PERMITTED WHEN DURATION IS LESS THAN 7 DAYS, UNLESS APPROVED BY THE CITY ENGINEER.
2. STEEL PLATE BRIDGING SHALL BE INSTALLED TO OPERATE WITH MINIMUM NOISE.
3. THE TRENCH SHALL BE ADEQUATELY SHORED TO SUPPORT THE BRIDGING AND TRAFFIC LOADS.
4. NO MORE THAN 300 LINEAR FEET OF STEEL PLATES ARE ALLOWED AT ONE TIME.
5. PROVIDE ADVANCED WARNING SIGNS (UNEVEN PAVEMENT - C46(CA); OR STEEL PLATE AHEAD SIGN - W8-24) PER THE LATEST EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
6. STEEL PLATES SHALL BE SKID RESISTANT AND SHALL HAVE A SURFACE THAT WAS MANUFACTURED WITH A NOMINAL COEFFICIENT OF FRICTION (COF) OF 0.35 AS DETERMINED BY CALIFORNIA TEST METHOD 342.
7. MATERIAL FOR TAPER SHALL BE BASED ON DURATION OF PLATING:
 < 7 DAYS: COLD PATCH MATERIAL WHICH RESISTS SHOVING
 > 7 DAYS: HOT MIX ASPHALT
8. STEEL PLATES SHALL BE SECURED AGAINST DISPLACEMENT AND RATTLING BY USING ADJUSTABLE CLEATS, SHIMS, WELDING TOGETHER OF STEEL PLATES OR OTHER METHODS/DEVICES APPROVED BY THE CITY INSPECTOR.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE STEEL PLATES, SHORING, AND ASPHALT CONCRETE RAMPS.

2 of 2



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

STEEL PLATE OVER TRENCH
TABLE AND NOTES

CITY ENGINEER: _____

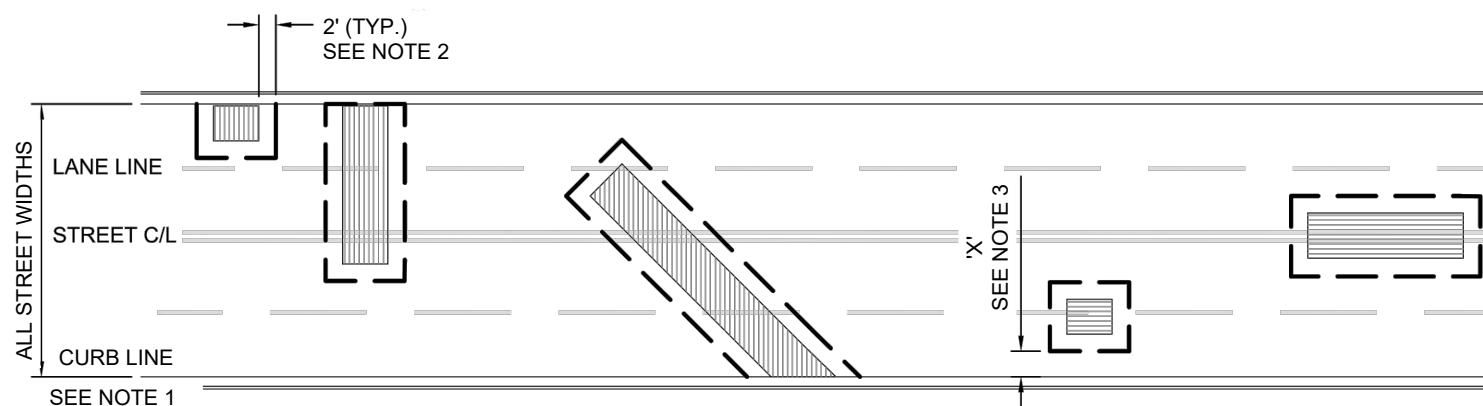
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: G- 12.2

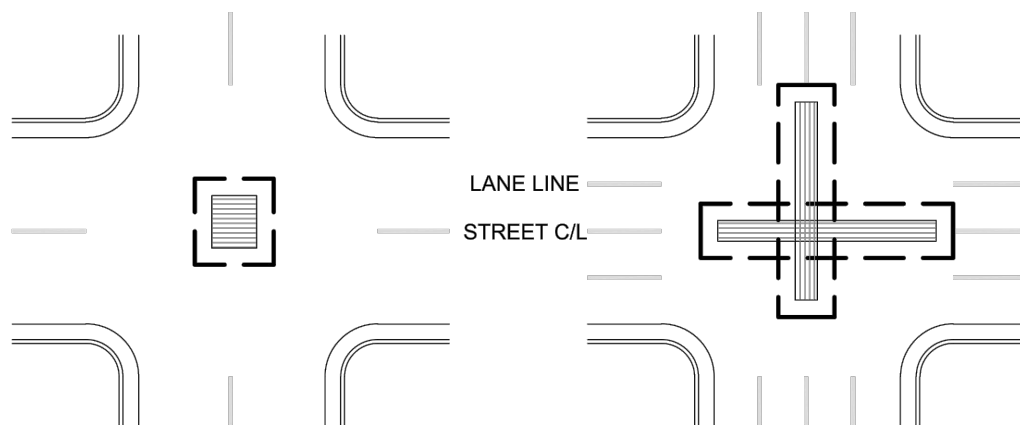
GENERAL NOTES:

1. THIS DETAIL APPLIES TO ALL ASPHALT PAVEMENT RESTORATION IN CITY STREETS DUE TO STREET OPENING WORK. CONCRETE STREETS AND ASPHALT OVERLAY ON EXISTING CONCRETE STREETS ARE EXEMPT FROM THIS DETAIL. THE FINAL LIMITS OF RESTORATION ARE TO BE DETERMINED BY THE CITY INSPECTOR BASED ON EXISTING PAVEMENT CONDITIONS. THE MOST CURRENT PAVEMENT CONDITION INDEX (PCI) WILL BE PROVIDED BY THE PUBLIC WORKS DEPARTMENT.
2. EXISTING ASPHALT CONCRETE PAVEMENT TO BE REMOVED SHALL BE SAW CUT ALONG NEAT LINES AROUND THE PERIMETER TO THE DIMENSIONS DIRECTED PER THIS DETAIL. THE MATERIAL REMOVED FROM THE ROADWAY SURFACE AND REMNANTS OR SLIVERS OF OLD ASPHALT CONCRETE LIFT, INCLUDING MATERIAL DEPOSITED IN EXISTING GUTTERS, DRIVEWAYS, AROUND STRUCTURES, OR ON THE ADJACENT TRAVELED WAY, SHALL BE REMOVED AND DISPOSED OF APPROPRIATELY.
3. TEMPORARY ASPHALT TAPERS SHALL BE PROVIDED WHERE TRANSVERSE JOINTS ARE PLANED IN THE PAVEMENT AT CONFORM LINES. NO DROP-OFF SHALL REMAIN BETWEEN THE EXISTING PAVEMENT AND THE PLANED AREA WHEN THE PAVEMENT IS OPENED TO PUBLIC TRAFFIC. ASPHALT CONCRETE FOR TEMPORARY TAPERS SHALL BE PLACED TO THE LEVEL OF THE EXISTING PAVEMENT AND TAPERED ON A SLOPE OF 1:30 (VERTICAL: HORIZONTAL) OR FLATTER TO THE LEVEL OF THE PLANED AREA.
4. TEMPORARY ASPHALT CONCRETE TAPERS SHALL BE COMPLETELY REMOVED, INCLUDING THE REMOVAL OF ALL LOOSE MATERIAL FROM THE UNDERLYING SURFACE, BEFORE PLACING THE PERMANENT SURFACING.
5. THE GRADE OF ASPHALT BINDER MIXED WITH AGGREGATE FOR HMA TYPE A MUST BE PG 64-10 ONLY. THE AGGREGATE FOR HMA TYPE A SHALL COMPLY WITH THE LATEST CALTRANS STANDARD SPECIFICATIONS.
6. THE AGGREGATE FOR HMA TYPE A FOR OVERLAYS MUST COMPLY WITH THE ½-INCH AGGREGATE GRADATION, AS SHOWN ON THE LATEST CALTRANS STANDARD SPECIFICATIONS. MAXIMUM COMPACTED LIFT THICKNESS SHALL BE 3", UNLESS OTHERWISE DIRECTED BY THE CITY INSPECTOR.
7. APPLY TACK COAT TO EXISTING PAVEMENT SURFACES PRIOR TO OVERLAY AND BETWEEN LIFTS OF NEW PAVEMENT.
8. ANY TRAFFIC STRIPING LINES REMOVED SHALL BE REPLACED IN KIND. ANY TRAFFIC MARKINGS PARTIALLY REMOVED SHALL HAVE THE ENTIRE MARKING GROUND AND FULLY REPLACED.
9. BIKE LANES SHALL BE REPAVED TO THEIR FULL WIDTH TO AVOID SEAM WITHIN THE BIKE LANE.



TRAVERSE CUT

LONGITUDINAL CUT



ALL INTERSECTIONS

LEGEND

- TRENCH LIMITS
- RESTORATION LIMITS

NOTE

1. LINE CAN REPRESENT EXISTING CURB, LIP OF GUTTER OR EDGE OF PAVEMENT
2. MINIMUM ON EACH SIDE OF TRENCH
3. IF 'X' IS WITHIN 3 FT OF RESTORATION LIMIT. EXTEND LIMIT TO CURB, LIP OF GUTTER OR EDGE OF PAVEMENT

ASPHALT TRENCH RESTORATION LIMITS FOR STREETS WITH PCI RANGE OF 0-49

1 of 4



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

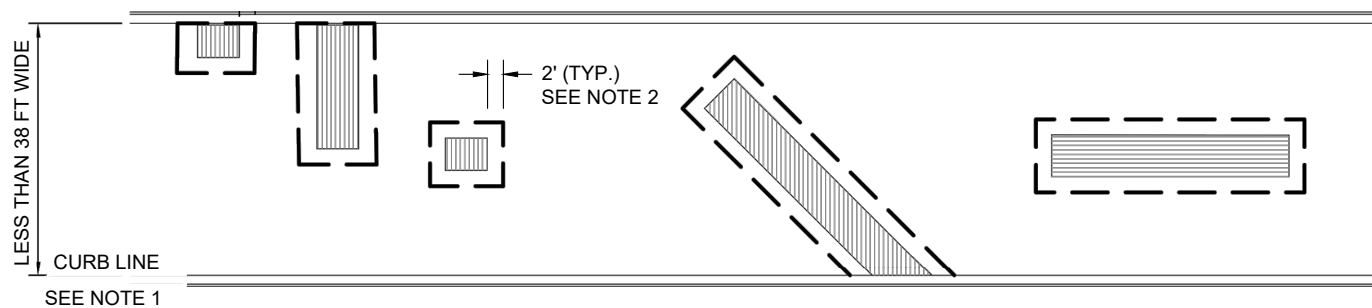
ASPHALT PAVEMENT RESTORATION LIMITS GENERAL NOTES AND PCI RANGE OF 0-49

CITY ENGINEER: _____

REV. DATE: Jun 2025

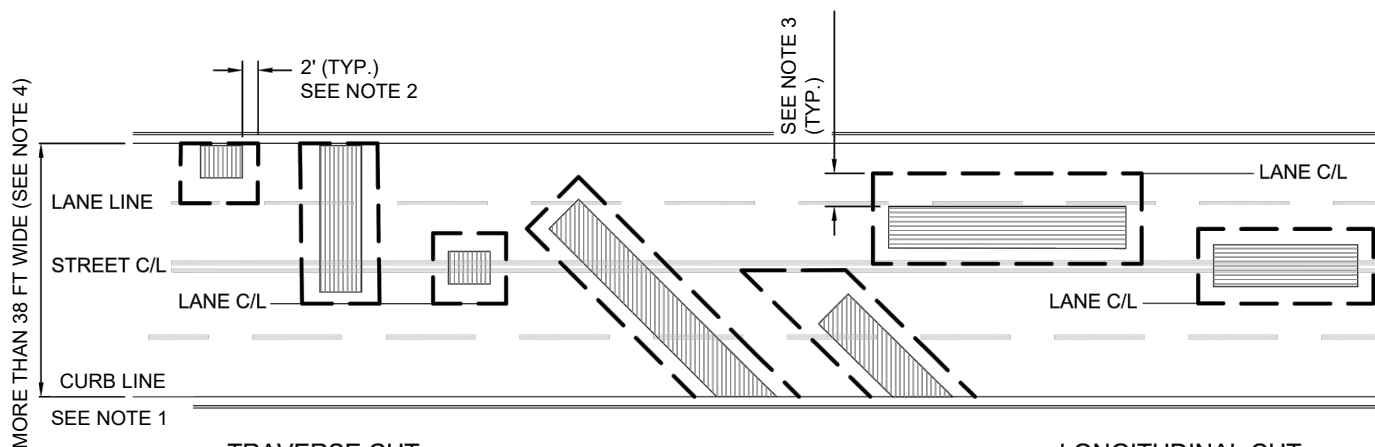
SCALE: N.T.S.

DWG. NO: G- 13.1



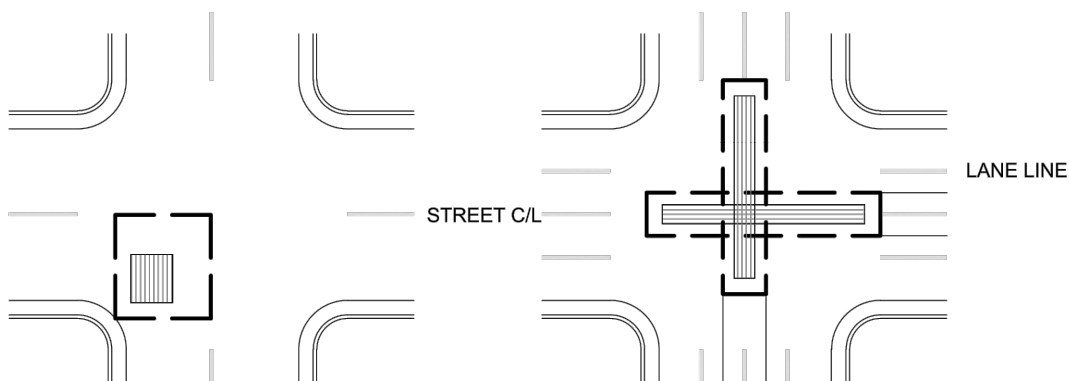
TRAVERSE CUT

LONGITUDINAL CUT



TRAVERSE CUT

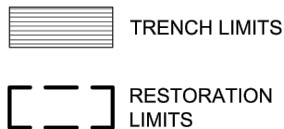
LONGITUDINAL CUT



INTERSECTION ON STREET
LESS THAN 38 FT WIDE
SEE NOTE 4

INTERSECTION ON STREET
MORE THAN 38 FT WIDE
SEE NOTE 4

LEGEND

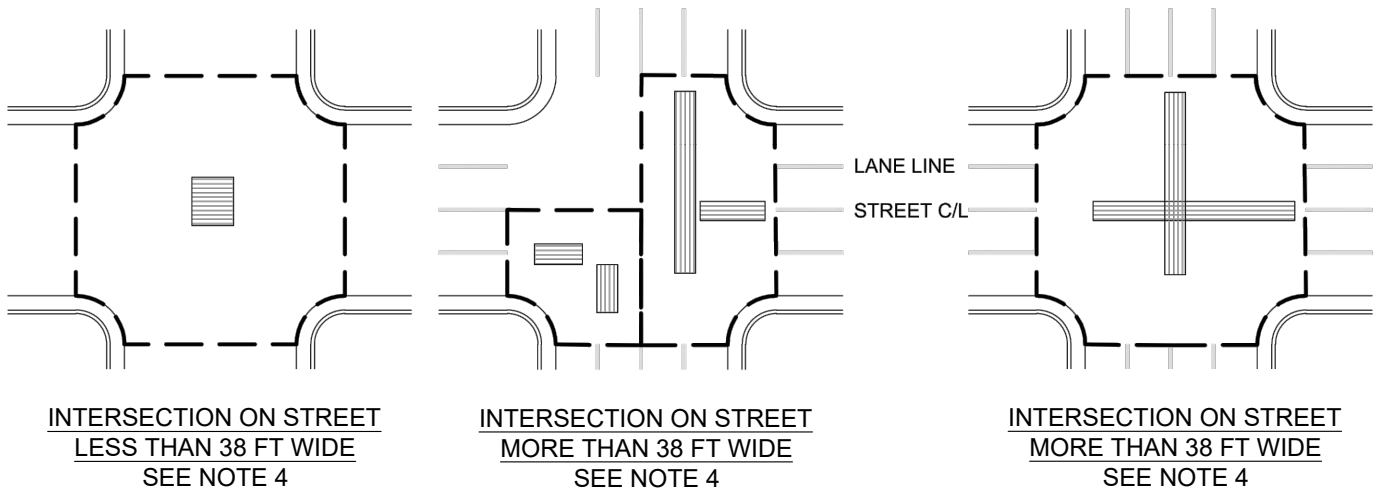
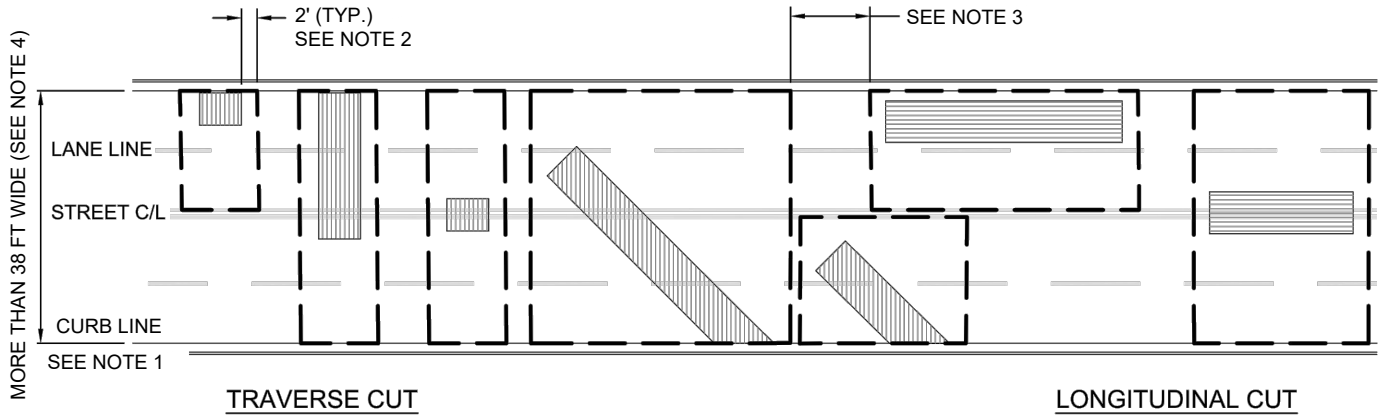
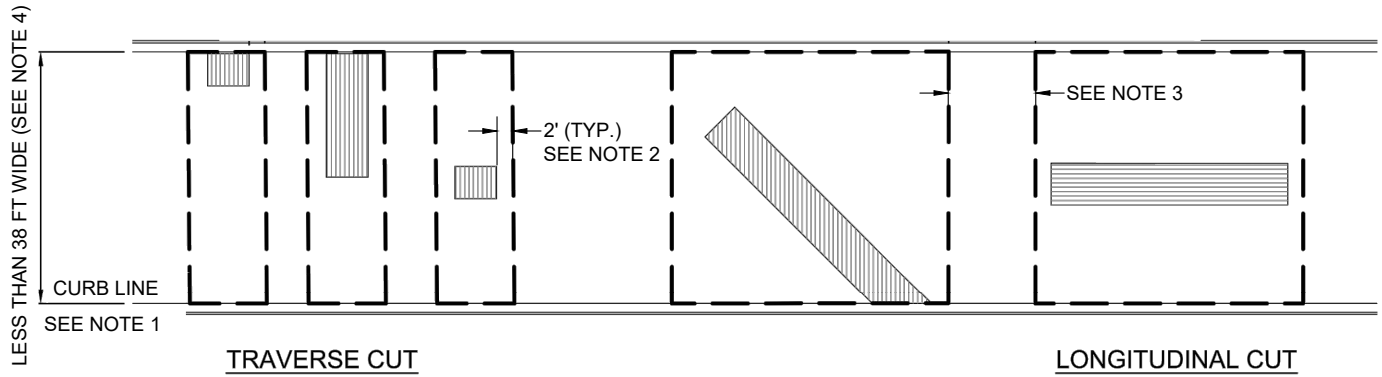


NOTE

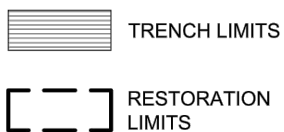
1. LINE CAN REPRESENT EXISTING CURB, LIP OF GUTTER OR EDGE OF PAVEMENT
2. MINIMUM, ON EACH SIDE OF TRENCH
3. RESTORATION LIMIT TO CLEAR THE APPARENT WHEEL PATH AND EXTEND TO THE CLOSEST JOINT AS DETERMINED BY THE CITY
4. SEE SHEET 4 OF ASPHALT TRENCH RESTORATION LIMITS
DETAIL FOR TRENCH CAP HEIGHT TOLERANCE

ASPHALT TRENCH RESTORATION LIMITS FOR STREETS WITH PCI RANGE OF 50-89





LEGEND



NOTE

1. LINE CAN REPRESENT EXISTING CURB, LIP OF GUTTER OR EDGE OF PAVEMENT
2. MINIMUM, ON EACH SIDE OF TRENCH
3. COMBINE RESTORATION LIMIT IF ANOTHER TRENCH IS WITHIN 10 FT
4. SEE SHEET 4 OF ASPHALT TRENCH RESTORATION LIMITS
DETAIL FOR TRENCH CAP HEIGHT TOLERANCE

ASPHALT TRENCH RESTORATION LIMITS FOR STREETS WITH PCI RANGE OF 90-100

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CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

ASPHALT PAVEMENT RESTORATION LIMITS PCI RANGE OF 90-100

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

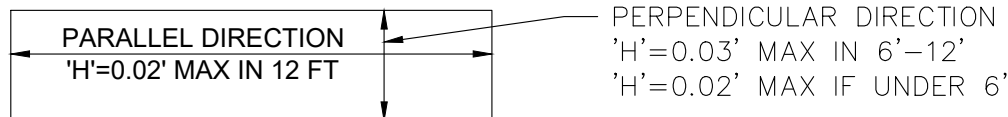
DWG. NO: G- 13.3

ASPHALT TRENCH CAP TOLERANCE MEASUREMENT:

1. PER CALTRANS SPECIFICATIONS, A 12' STRAIGHT EDGE IS TO BE USED FRO TOLERANCE MEASUREMENT, CAP AND ALL INTERFACES WITH EXISTING AC SHALL MEET TOLERANCES.
2. FOR THE PURPOSE OF THIS DETAIL, 'H' INDICATES GRADE DIFFERENCE (RAISE OR DROP)

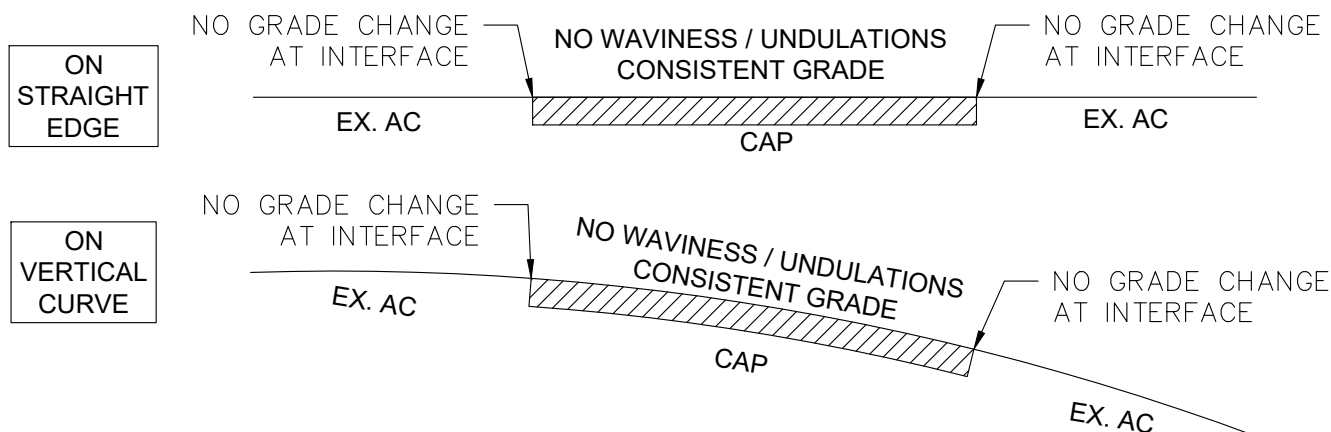
'H' SHALL NOT EXCEED:

- PARALLEL WITH ROAD: 0.02' MAX (1/4"±) IN 12'
- PERPENDICULAR WITH THE ROAD: 0.03' MAX (3/8"±) IN 12'
OR 0.02' (1/4"±) FOR ANY DIMENSION UNDER 6'

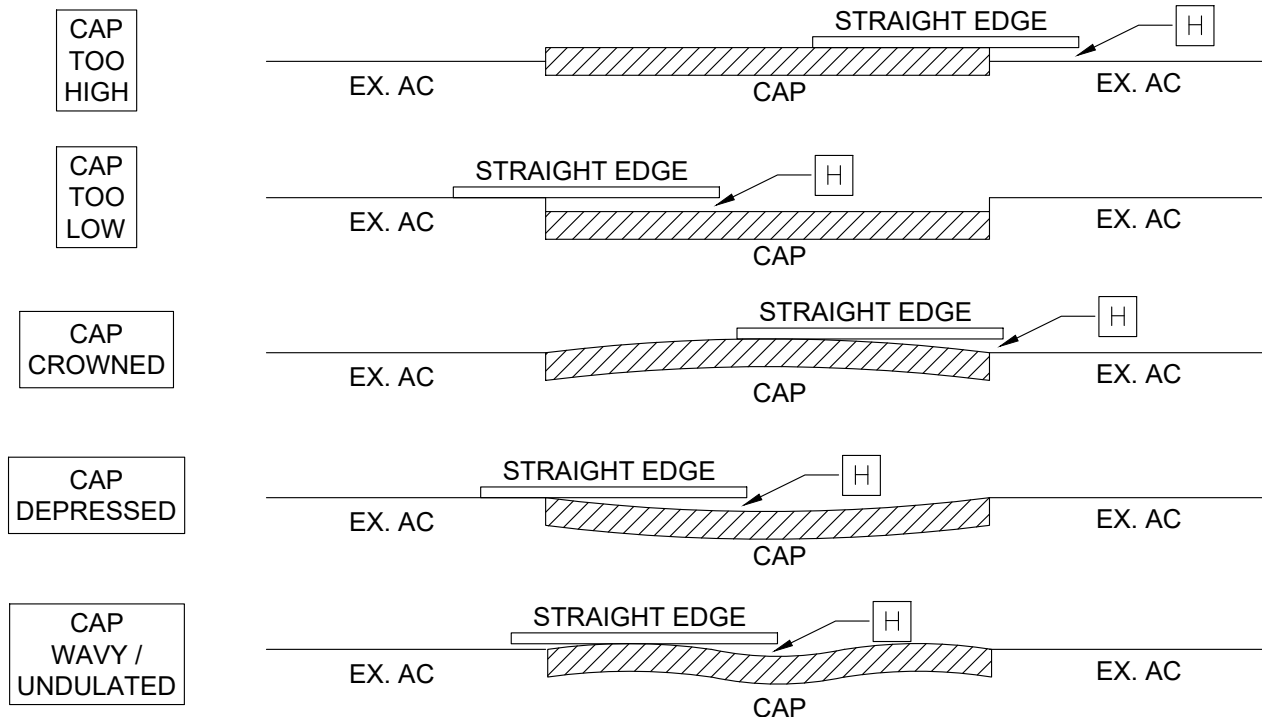


TIP: IF PAVEMENT SECTION CAN BE HEARD OR FELT WHEN DRIVING OVER INTERFACE, PAVEMENT IS OUT OF SPEC.

EXAMPLES OF CORRECTLY DONE TRENCH CAPS:



EXAMPLES OF INCORRECTLY DONE TRENCH CAPS ('H' EXCEEDS TOLERANCES):



4 of 4



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

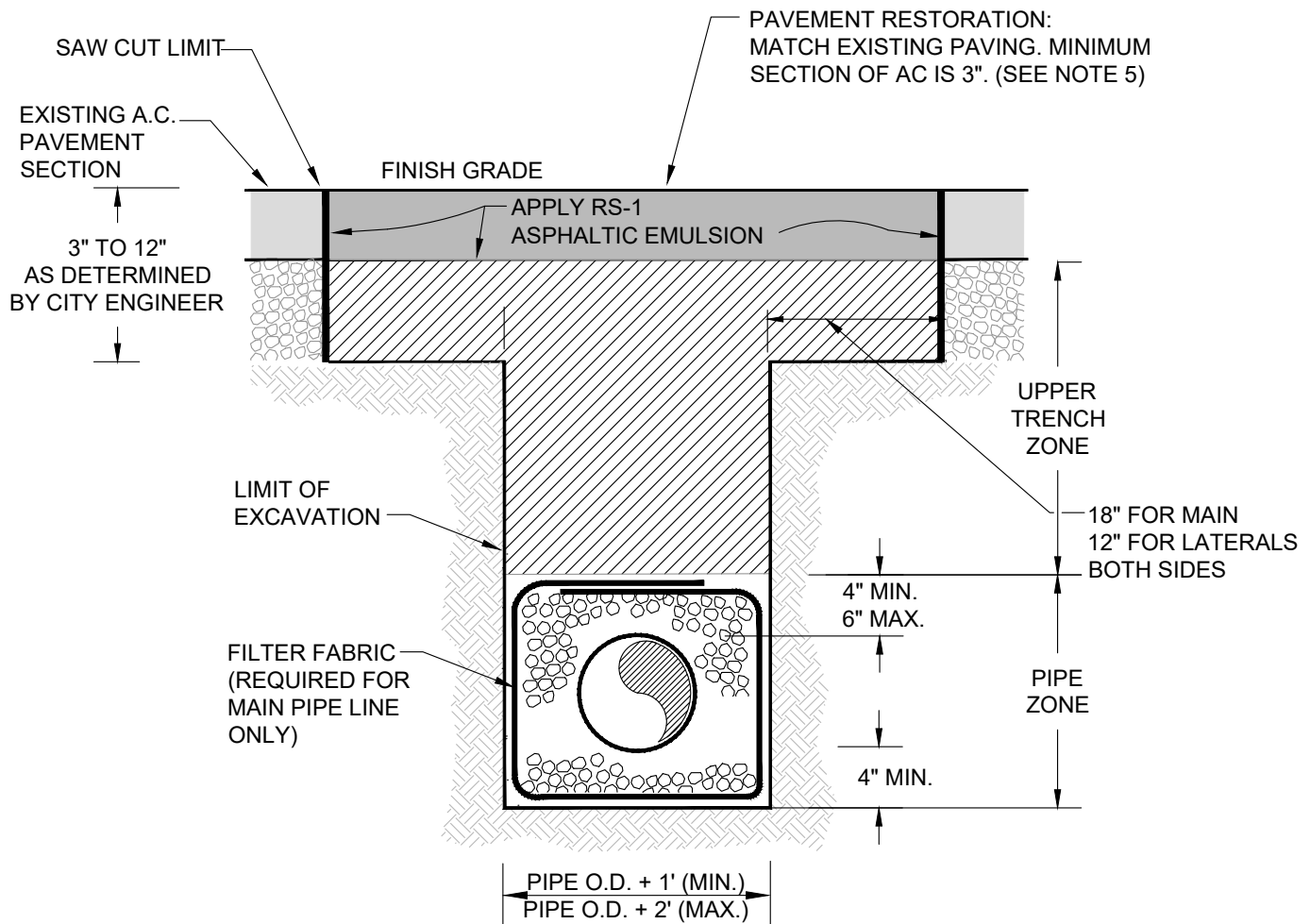
ASPHALT PAVEMENT RESTORATION LIMITS TRENCH CAP TOLERANCE

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: G- 13.4



NOTES:

THIS DETAIL APPLIES TO ALL EXCAVATIONS IN CITY STREETS OR SIDEWALKS.

1. PIPE ZONE BACK FILL SHALL BE:

- A.** $\frac{3}{4}$ " CRUSHED OR ANGULAR ROCK WITH 100% PASSING 1", 90-100% PASSING $\frac{3}{4}$ ", 0-30% PASSING NO. 4 SIEVE, AND 0-10% PASSING NO. 8 SIEVE.
- B.** ROCK SHALL BE ENVELOPED WITH FILTER FABRIC FOR MAIN PIPE ONLY.

2. UPPER TRENCH MATERIAL SHALL BE:

- A.** CLSM (1 SACK CEMENT SAND SLURRY); OR
- B.** CLASS 2 AGGREGATE BASE PER CALTRANS SPECIFICATIONS.

IF AGGREGATE BASE IS USED THE UPPER 2' SHALL BE COMPACTED TO 95% RELATIVE COMPACTION. REMAINING MATERIAL SHALL BE COMPACTED TO 90%. A CIVIL ENGINEER HIRED BY THE CONTRACTOR MUST CERTIFY THAT COMPACTION REQUIREMENTS ARE MET.

3. SHOVEL-SLICE PIPE BEDDING UNDER THE HAUNCHES OF THE PIPE.

4. ALL TRAFFIC STRIPING SHALL BE REINSTALLED PER CURRENT CALTRANS STANDARDS.

5. PAVEMENT RESTORATION SHALL FOLLOW CITY STANDARD DETAIL G13.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

GENERAL TRENCH ASPHALT ROADWAY

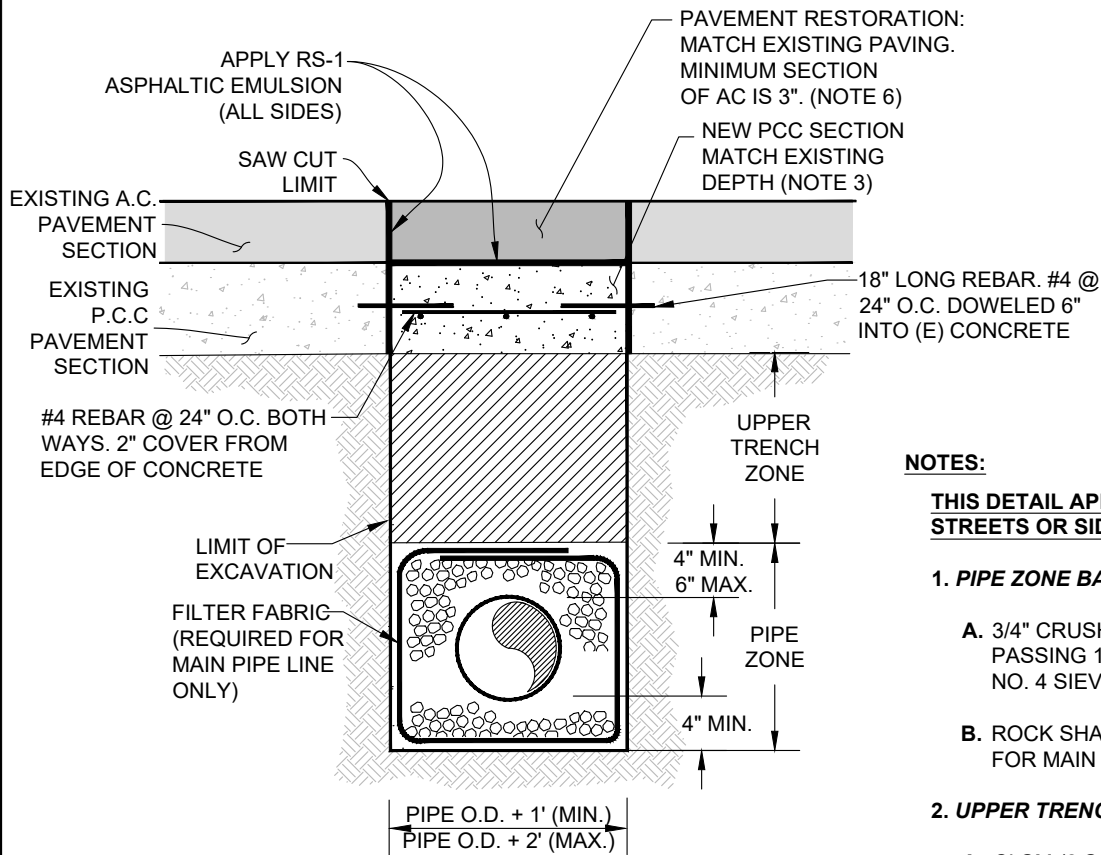
CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: S - 1

ASPHALT OVER CONCRETE PAVEMENT



NOTES:

THIS DETAIL APPLIES TO ALL EXCAVATIONS IN CITY STREETS OR SIDEWALKS.

1. PIPE ZONE BACK FILL SHALL BE:

- A. 3/4" CRUSHED OR ANGULAR ROCK WITH 100% PASSING 1", 90-100% PASSING 3/4", 0-30% PASSING NO. 4 SIEVE, AND 0-10% PASSING NO. 8 SIEVE.
- B. ROCK SHALL BE ENVELOPED WITH FILTER FABRIC FOR MAIN PIPE ONLY.

2. UPPER TRENCH MATERIAL SHALL BE:

- A. CLSM (2 SACK CEMENT SAND SLURRY); OR
- B. CLASS 2 AGGREGATE BASE PER CALTRANS SPECIFICATIONS.

IF AGGREGATE BASE IS USED THE UPPER 2' SHALL BE COMPACTED TO 95% RELATIVE COMPACTION. REMAINING MATERIAL SHALL BE COMPACTED TO 90%. A CIVIL ENGINEER HIRED BY THE CONTRACTOR MUST CERTIFY THAT COMPACTION REQUIREMENTS ARE MET.

3. NEW PCC SECTION SHALL BE $\frac{3}{4}$ " ROCK, SIX SACK, CLASS "A" PLANT MIXED PCC.

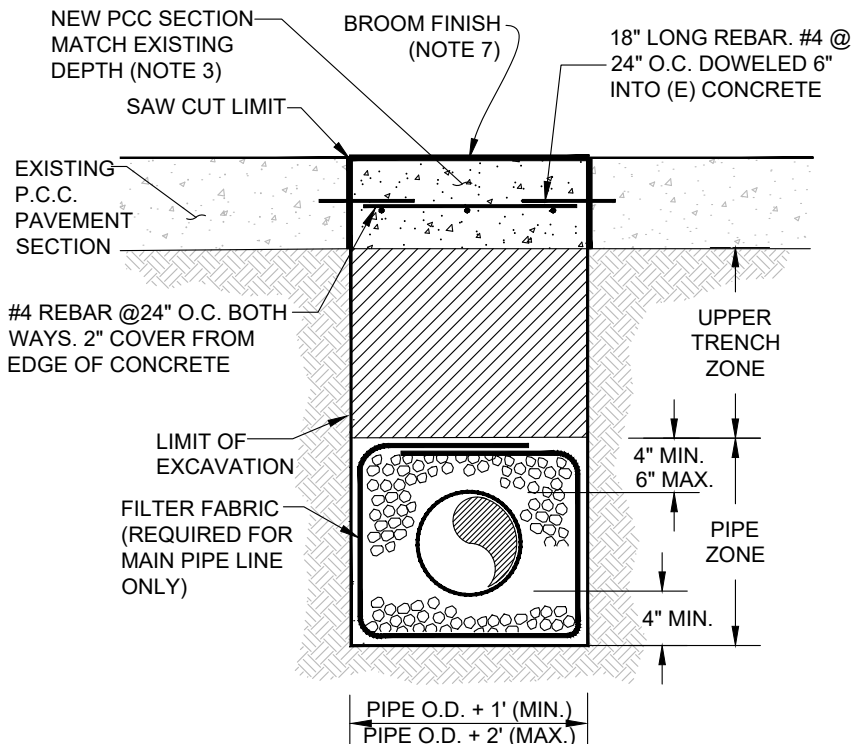
4. SHOVEL-SLICE PIPE BEDDING UNDER THE HAUNCHES OF THE PIPE.

5. ALL TRAFFIC STRIPING SHALL BE REINSTALLED PER CALTRANS STANDARDS.

6. PAVEMENT RESTORATION SHALL FOLLOW CITY STANDARD DETAIL G13.

7. MAKE BROOM FINISH PERPENDICULAR TO THE PATH OF TRAVEL.

CONCRETE PAVEMENT



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

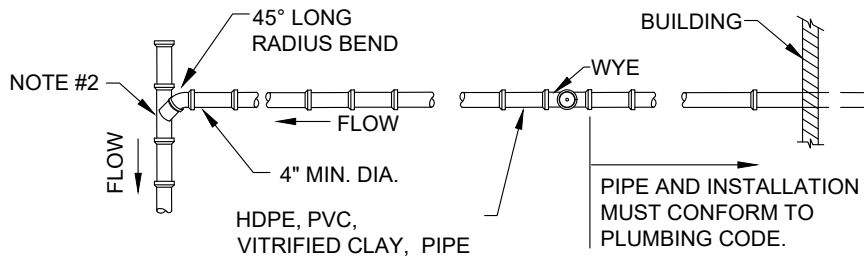
GENERAL TRENCH CONCRETE ROADWAY

CITY ENGINEER: _____

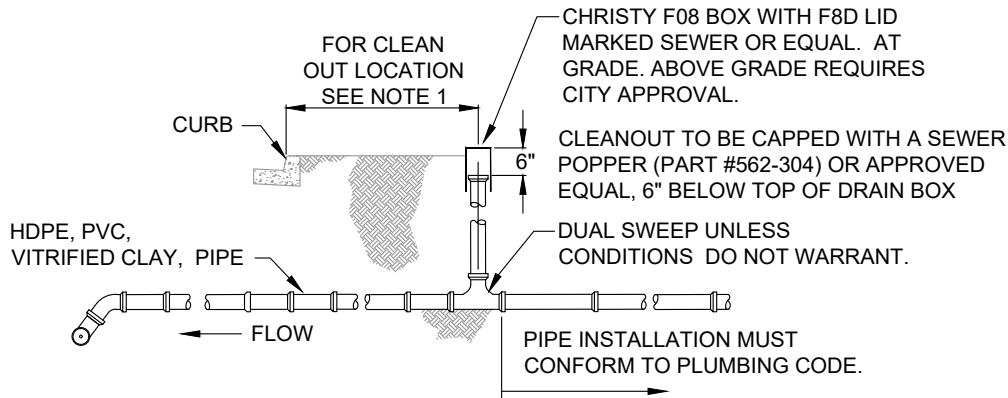
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: S - 2



TOP VIEW



SIDE VIEW

NOTES:

1. LOCATE CLEANOUT BOX IN SIDEWALK OR DRIVEWAY. IF THERE IS NO SIDEWALK, LOCATE CLEANOUT 10" TO 12" BEHIND FACE OF CURB. CITY MAY REQUIRE INSTALLATION OF 6" CONCRETE COLLAR IF SITE CONDITIONS WARRANT. IF LOCATED IN A DRIVEWAY, BOX SHALL HAVE A TRAFFIC RATED LID.
2. LATERAL CONNECTIONS:
 - 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.
 - C) **LATERAL 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.
4. PIPE SHALL BE:
 - 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
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 2-SACK SLURRY.
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 TELEVIEWED 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.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

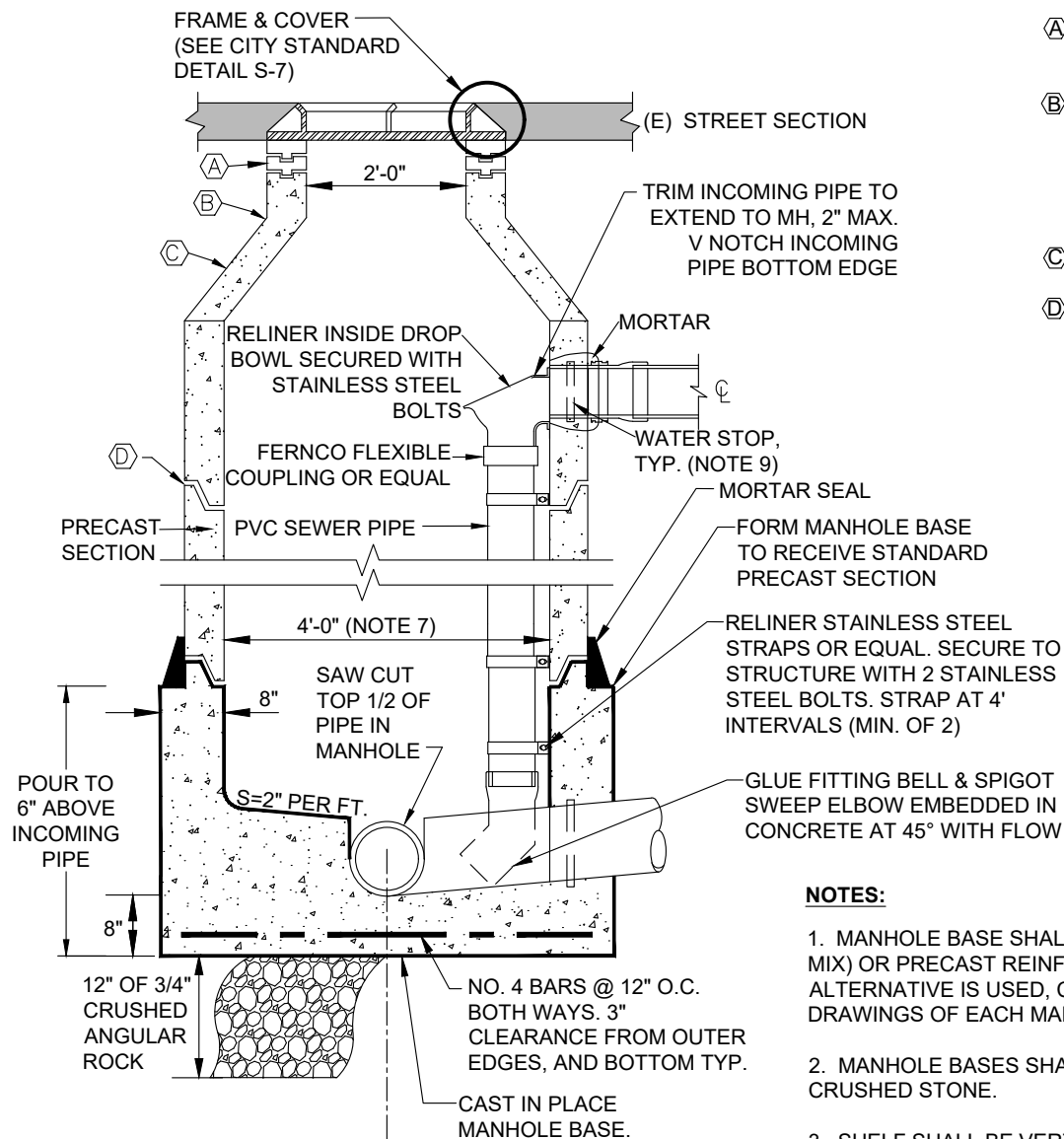
SEWER LATERAL

CITY ENGINEER: _____

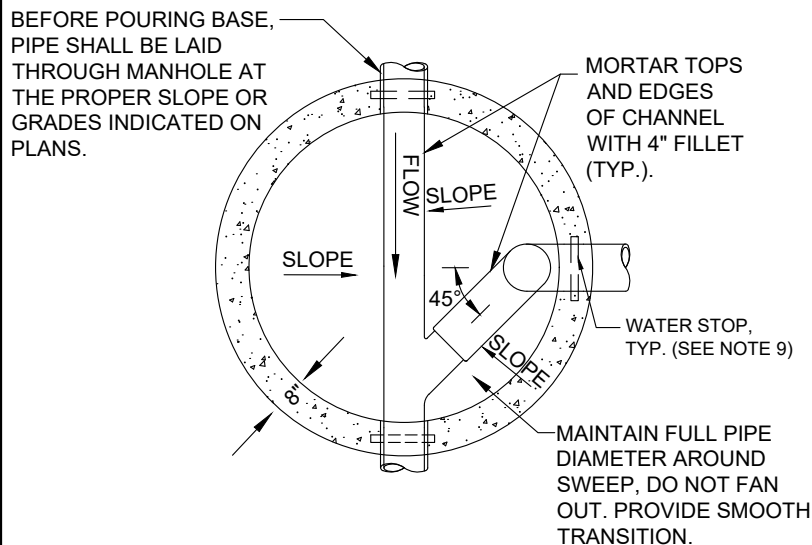
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: S - 3

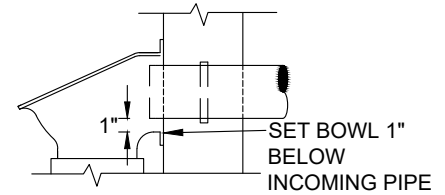


MANHOLE ELEVATION



DETAIL A - MANHOLE BASE PLAN

- (A) ADJUSTMENT RINGS, MIN 3" TO MAX 9" (SEE NOTE 10)
- (B) USE OF ECCENTRIC CONES WILL ONLY BE ALLOWED WITH SPECIAL APPROVAL BY THE ENGINEER IF USED. VERTICAL WALL SHALL BE SITUATED OPPOSITE OUTLET PIPE
- (C) PRECAST TAPERED SECTION
- (D) 2" WIDE RAMNEK OR APPROVED EQUAL. GROUT INSIDE (TYP. ALL JOINTS).



DETAIL B - INSTALLATION

NOTES:

1. MANHOLE BASE SHALL BE CAST IN PLACE (SIX SACK 3/4" ROCK MIX) OR PRECAST REINFORCED CONCRETE. IF PRECAST ALTERNATIVE IS USED, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF EACH MANHOLE TO THE ENGINEER FOR APPROVAL.
2. MANHOLE BASES SHALL BE CAST OR PLACED AGAINST 12" OF CRUSHED STONE.
3. SHELF SHALL BE VERTICAL FROM PIPE SPRINGLINE TO HEIGHT OF CROWN. THE SHELF (SLOPED AT 2" / FT.) SHALL HAVE A BROOM FINISH.
4. VERTICAL RISER AND TAPER SECTIONS TO BE REINFORCED CONCRETE PER ASTM C478.
5. FOR SANITARY SEWERS PROVIDE DROP INLET WHERE GRADE OF ENTERING LINE IS 24" OR MORE ABOVE THE FLOW LINE OF THE SEWER MANHOLE.
6. HOUSE LATERALS ARE NOT TO CONNECT TO THE MANHOLE WITHOUT THE PERMISSION OF THE CITY ENGINEER.
7. MANHOLES WITH PIPE GREATER THAN 24" SHALL HAVE DIAMETER OF 5'-0" AND VERTICAL REINFORCEMENT IN MANHOLE BASE.
8. FALSE CHANNELS SHALL BE INSTALLED AS NEEDED TO ALLOW INSERTION OF VIDEO CAMERA INTO PIPES.
9. PRESS-SEAL GASKET CORPORATION, WS SERIES WATERSTOP GROUTING RINGS OR APPROVED EQUAL TO BE INSTALLED.
10. ADJUSTMENT RINGS SHALL BE:
 - A. EXPANDED POLYPROPYLENE (EPP) - CRETEX PRO-RING OR APPROVED EQUAL
 - B. PRECAST CONCRETE CONFORMING TO ASTM C-478



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

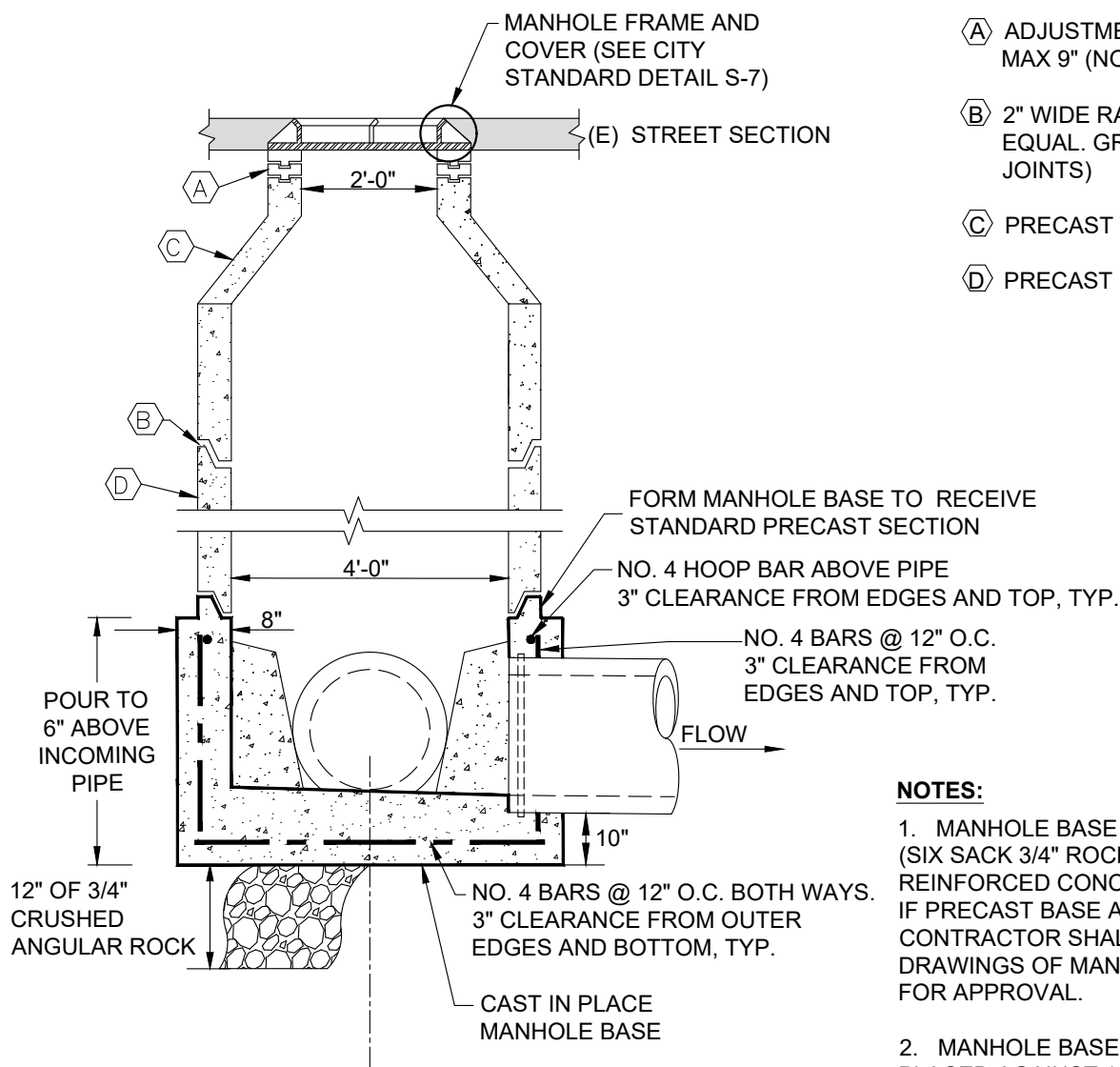
STANDARD SEWER MANHOLE
PIPES LESS THAN 24" DIAMETER

CITY ENGINEER: _____

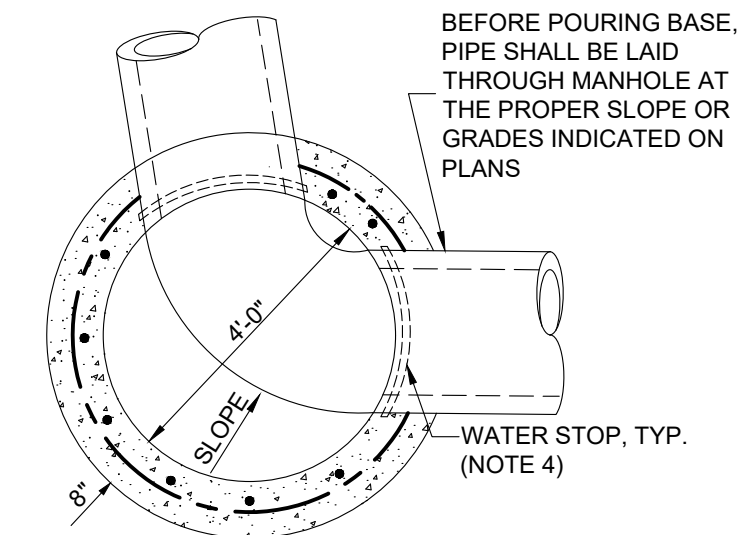
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: S - 4



MANHOLE ELEVATION



DETAIL A - MANHOLE BASE PLAN

- (A) ADJUSTMENT RINGS, MIN 3" TO MAX 9" (NOTE 7)
- (B) 2" WIDE RAMNEK OR APPROVED EQUAL. GROUT INSIDE (TYP. ALL JOINTS)
- (C) PRECAST TAPERED SECTION
- (D) PRECAST RISER SECTION

NOTES:

1. MANHOLE BASE SHALL BE CAST IN PLACE (SIX SACK 3/4" ROCK MIX) OR PRECAST REINFORCED CONCRETE. IF PRECAST BASE ALTERNATIVE IS USED, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF MANHOLE TO THE ENGINEER FOR APPROVAL.
2. MANHOLE BASES SHALL BE CAST OR PLACED AGAINST 12" OF CRUSHED STONE.
3. VERTICAL RISER AND TAPER SECTIONS TO BE REINFORCED CONCRETE PER ASTM C478.
4. PRESS-SEAL GASKET CORPORATION, WS SERIES WATERSTOP GASKET OR APPROVED EQUAL TO BE INSTALLED.
5. MANHOLES WITH PIPES GREATER THAN 36" SHALL HAVE DIAMETER OF 5'-0".
6. MAINTAIN SLOPE THROUGH MANHOLE CHANNEL TOWARDS OUTLET.
7. ADJUSTMENT RINGS SHALL BE:
 - A. EXPANDED POLYPROPYLENE (EPP) - CRETEX PRO-RING OR APPROVED EQUAL
 - B. PRECAST CONCRETE CONFORMING TO ASTM C-478



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

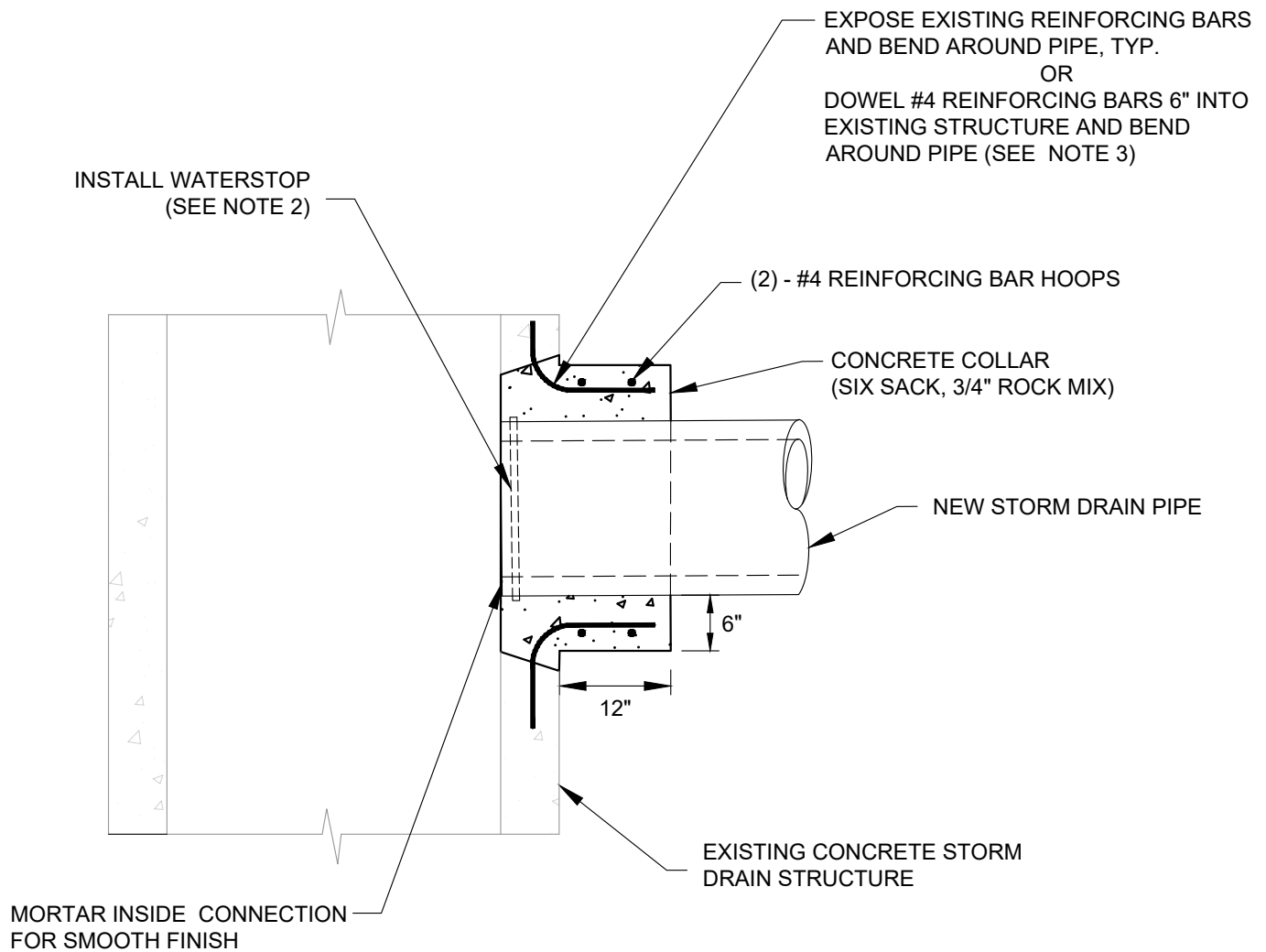
STANDARD STORM DRAIN MANHOLE
PIPES LESS THAN 36" DIAMETER

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: S - 5



NOTES:

1. MAINTAIN 2" CLEARANCE BETWEEN REINFORCEMENT BAR AND ALL EDGES.
2. PRESS-SEAL CORPORATION, WS SERIES WATERSTOP RING OR APPROVED EQUAL TO BE INSTALLED.
3. FOR PIPES LESS THAN 12" Ø, DOWEL (4) #4 REINFORCING BARS EVENLY SPACED.
FOR PIPES LESS THAN 24" Ø, DOWEL (6) #4 REINFORCING BARS EVENLY SPACED.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

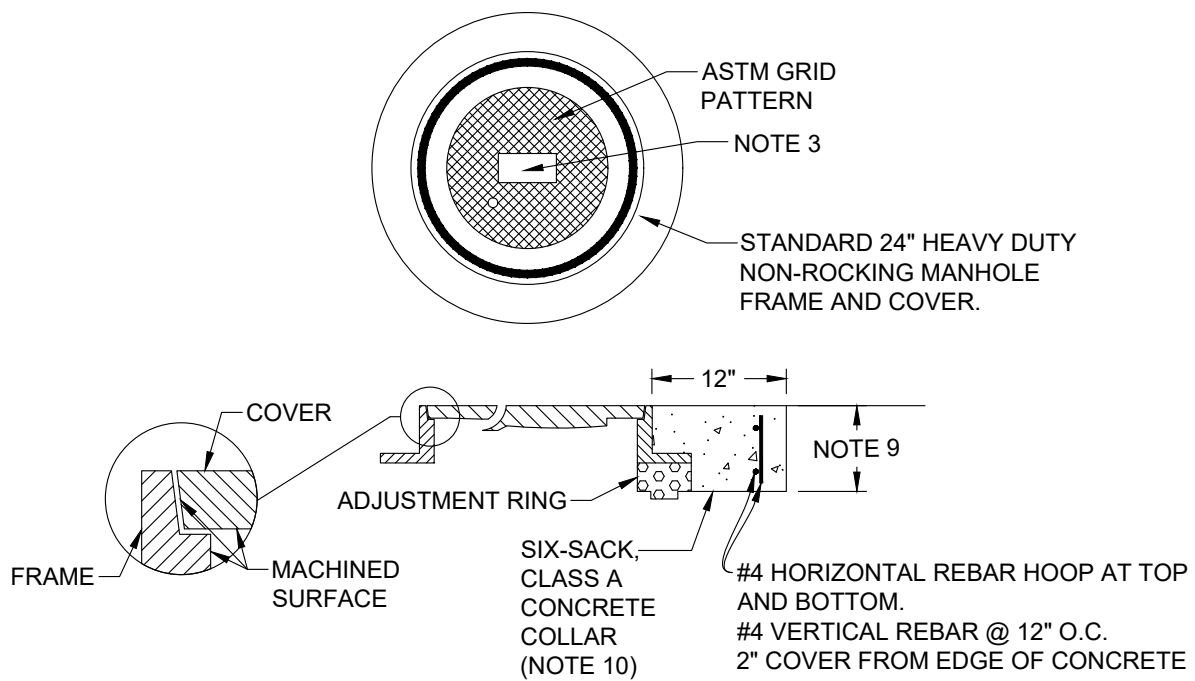
**STORM DRAIN CONNECTION
INTO EXISTING STORM DRAIN STRUCTURE**

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: S - 6



NOTES:

1. FRAME AND COVER SHALL BE BY THE SAME MANUFACTURER. FOUNDRY NAME SHALL BE STAMPED ON FRAME AND COVER. FRAME AND COVER TO BE PHEONIX IRON WORKS CAT No. P-1090, OR D & L SUPPLY No.A-1024, OR APPROVED SUBMITTED EQUAL. FOR MAIN LINES 54" AND ABOVE, FRAME AND COVER SHALL BE D & L SUPPLY No. A-1462 FOR SEWER MAIN LINES AND A-1463 FOR STORM DRAIN MAIN LINES, OR APPROVED SUBMITTED EQUAL.
2. FRAMES & COVERS SHALL BE FULLY MACHINED ON A TOTAL OF FIVE SURFACES TO ENSURE INTER-CHANGEABILITY AND A CLOSE, QUIET FIT. MACHINED VERTICAL SURFACES SHALL BE SLOPED.
3. COVER SHALL BE MARKED "SANITARY SEWER" OR "STORM DRAIN" AS APPROPRIATE.
4. COVER SURFACE SHALL BE SKID RESISTANT PER ASTM SPECIAL PUBLICATION.
5. ALL CASTINGS SHALL BE DIPPED IN ASPHALT PAINT.
6. ALL MATERIAL USED IN MANUFACTURING SHALL CONFORM TO ASTM SPECIFICATION A159-64T-G3000 OR OF UNITED STATES GOVERNMENT SPECIFICATION QQ1-653, MANUFACTURED UNDER U.S. PATENT No. 3289556.
7. STORM DRAIN MANHOLE COVERS SHALL HAVE OPEN PICKHOLES. SANITARY SEWER MANHOLE COVERS SHALL HAVE CLOSED PICKHOLES. BOTTOM GASKETS MAY BE REQUIRED BY CITY ENGINEER ON SANITARY SEWER MANHOLE COVERS TO PREVENT INFILTRATION.
8. APPROXIMATE WEIGHT COMPONENTS: COVER - 140lbs.
FRAME - 130 lbs.
TOTAL - 270 lbs.
9. CONCRETE COLLAR SHALL BE POURED FROM BOTTOM OF ADJUSTMENT RING TO TOP OF GRADE.
10. CONCRETE SHALL BE DYED LAMP BLACK COLOR. PIGMENT LOADING SHALL BE 5% OF TOTAL CEMENTITIOUS MATERIAL WEIGHT. CONCRETE COLLAR SURFACE SHALL HAVE BROOM FINISH PARALLEL TO THE CIRCUMFERENCE OF THE FRAME. SEAL THE CONCRETE WITH A BRICKFORM CONCRETE SEALER.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

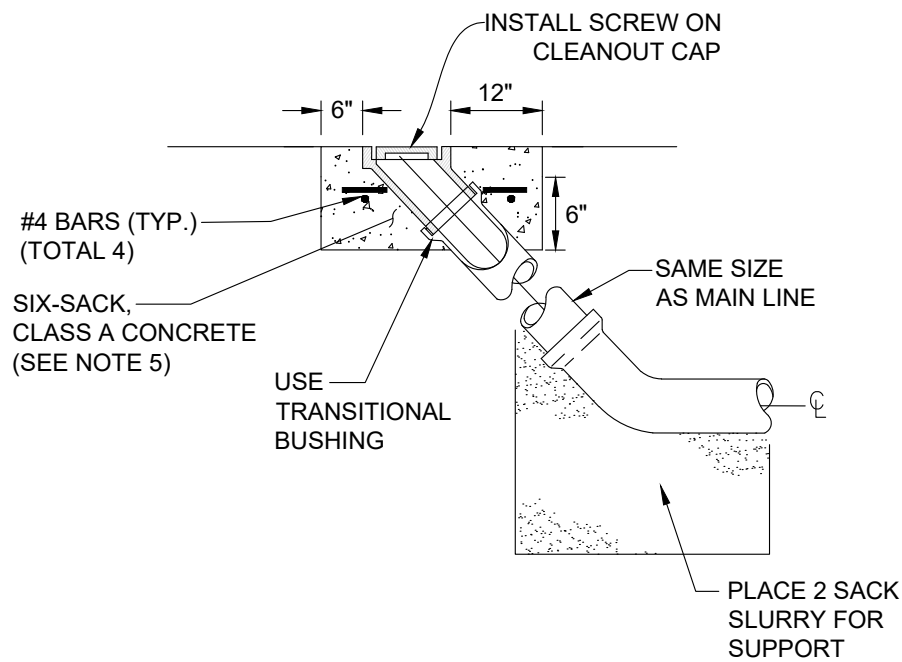
MANHOLE FRAME AND COVER

CITY ENGINEER: _____

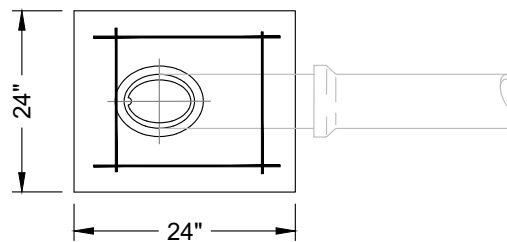
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: S - 7



SECTION



PLAN

NOTES:

1. USE OF TERMINAL CLEANOUT WILL ONLY BE ALLOWED FOR 6" AND 8" SEWER MAIN PIPELINE.
2. WHEN IN ROADWAY, TOP OF FLUSHING BRANCH TO BE LEVEL WITH PAVEMENT IN OTHER LOCATIONS, TOP OF FLUSHING BRANCH TO BE 2" ABOVE SURROUNDING GRADE.
3. FRAME AND COVER TO BE: D&L SUPPLY MODEL H6520 OR APPROVED EQUAL.
4. USE 2 SACK CEMENT / SAND SLURRY WITH AN UNCONFINED COMPRESSIVE STRENGTH OF NO LESS THAN 50 PSI AND NO MORE THAN 150 PSI.
5. CONCRETE COLLAR SURFACE SHALL HAVE BROOM FINISH PARALLEL TO THE CIRCUMFERENCE OF THE FRAME. CONCRETE SHALL BE DYED LAMP BLACK COLOR.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
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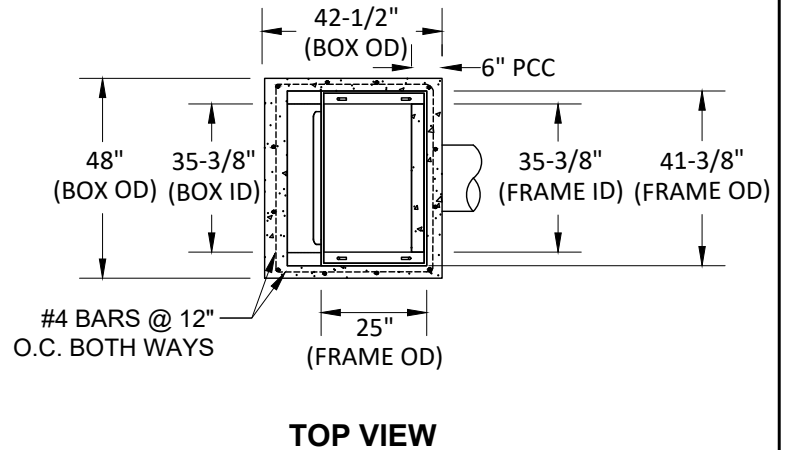
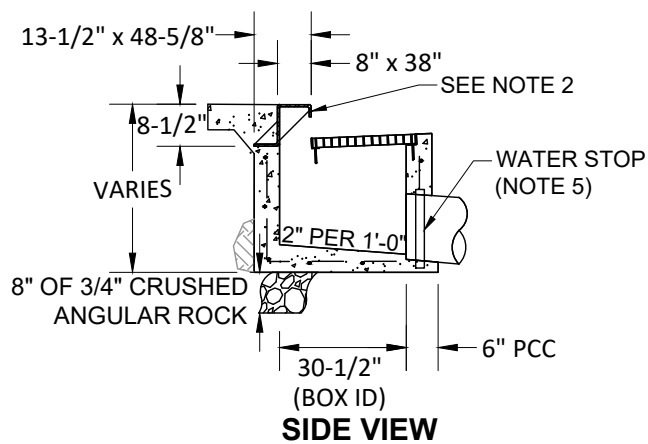
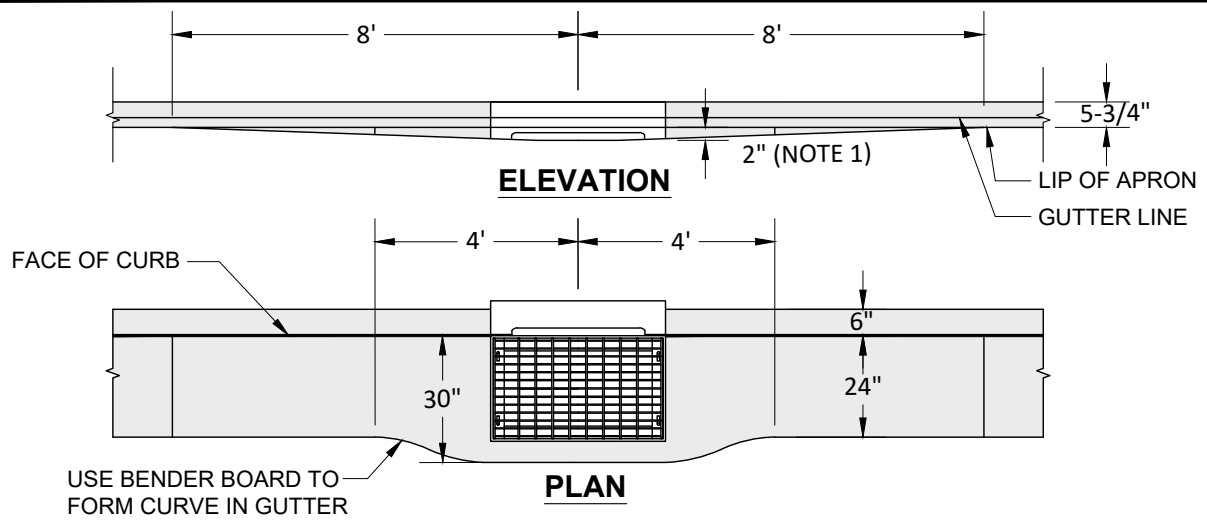
TERMINAL CLEANOUT

CITY ENGINEER: _____

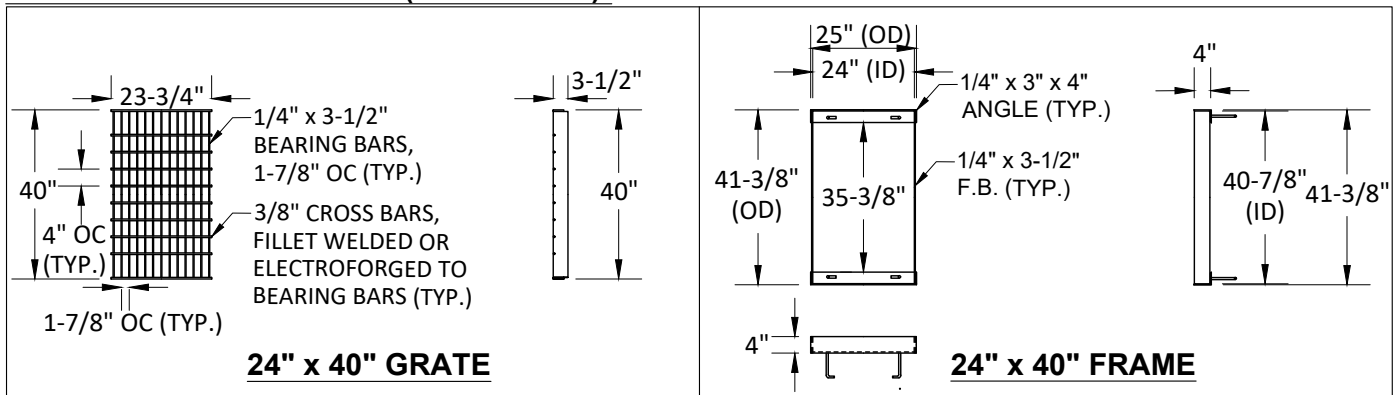
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: S - 8



FRAME & GRATE DETAILS (SEE NOTE 3):



NOTES:

1. GUTTER FLOWLINE SHALL DROP 2" MINIMUM FROM 8' ON EACH SIDE OF CATCH BASIN. BROOM FINISH GUTTER DEPRESSION PERPENDICULAR TO PATH OF TRAVEL. SIDEWALK TO BE CONSTRUCTED PER CITY STANDARD DETAIL G-1.
2. REAR-OPENING HOOD TO BE D&L SUPPLY #I-3602, OR APPROVED EQUIVALENT.
3. FRAME & GRATE TO BE SOUTH BAY FOUNDRY STEEL (ASTM A-36), HOT DIP GALVANIZED FINISH (ASTM 123), HEAVY TRAFFIC BICYCLE PROOF; GRATE ITEM # E2020, FRAME ITEM # E2060, OR APPROVED EQUIVALENT (PER CURRENT CALTRANS BICYCLE PROOF GRATE DETAILS, TYPE 24-13 GRATE & FRAME). ADA GRATE MAY BE REQUIRED IN ROADWAYS NEAR PEDESTRIAN PATHWAYS AND BIKE LANES (SOUTH BAY FOUNDRY ADA GRATE # E2021 ADA).
4. CONCRETE TO BE SIX SACK, CLASS "A" PLANT MIXED PCC.
5. PRESS-SEAL GASKET CORPORATION, WS SERIES WATERSTOP GROUTING RINGS OR APPROVED EQUAL.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

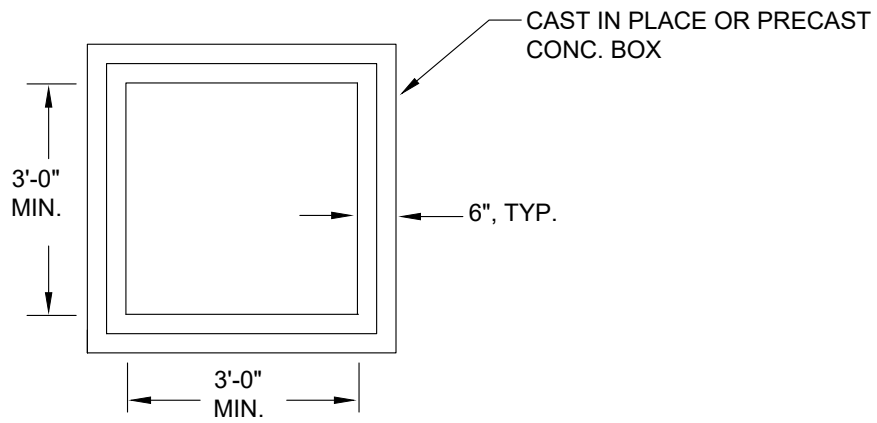
CATCH BASIN TYPE B

CITY ENGINEER: _____

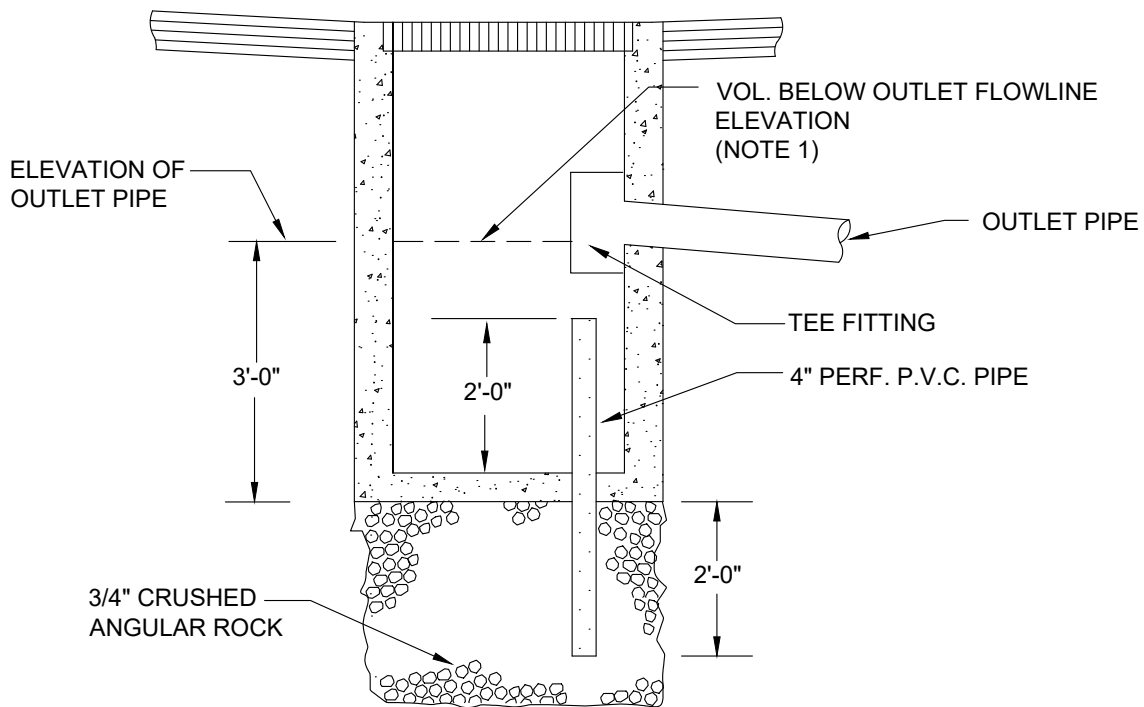
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: S - 9



PLAN



SECTION

NOTES:

1. SUMP SHALL BE SIZED TO PROVIDE 1 CUBIC YARD OF VOLUME PER ACRE OF PAVED AREA.
2. CONCRETE AND STEEL REINFORCEMENT REQUIREMENTS SHALL BE DETERMINED BY A REGISTERED CIVIL ENGINEER. DETAIL SHALL BE USED AS A GUIDE ONLY.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

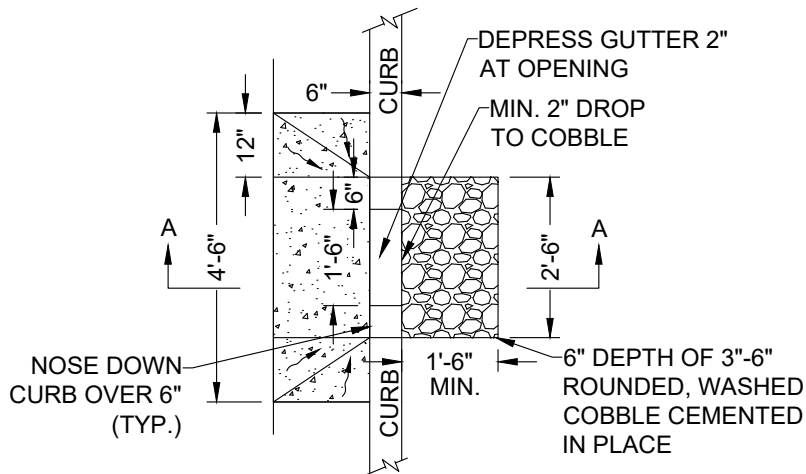
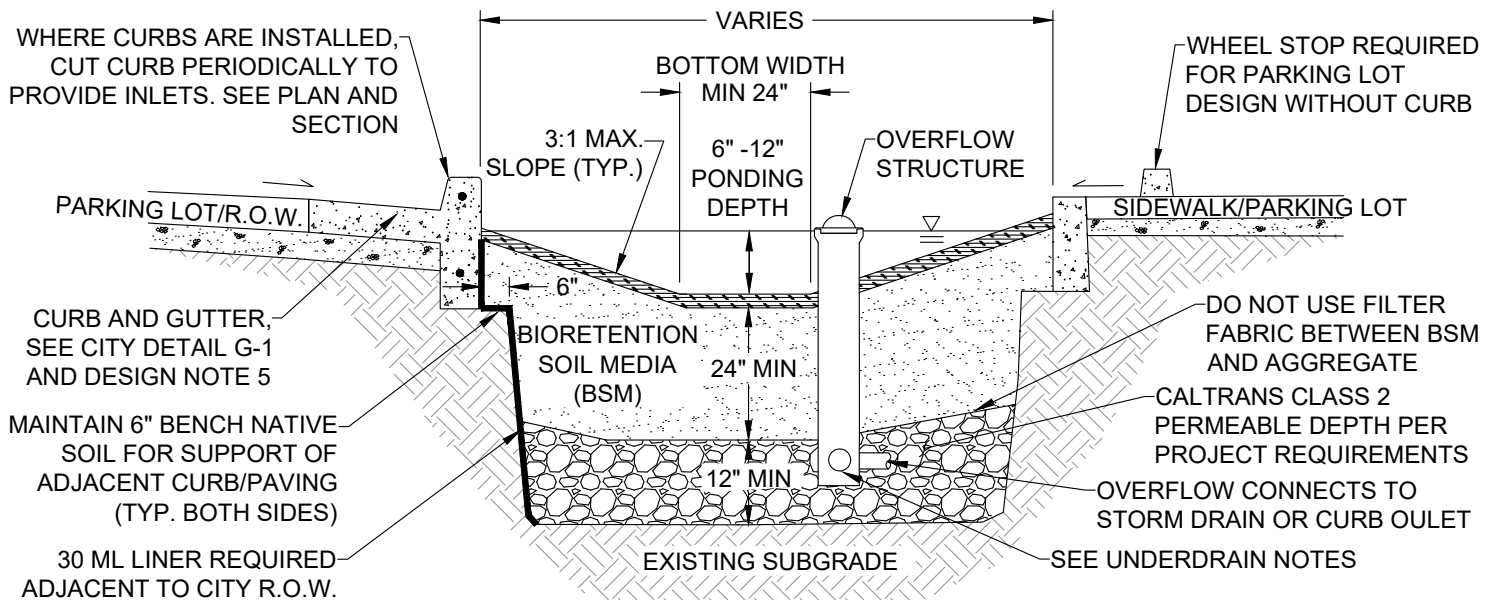
SILT AND GREASE TRAP
STORM DRAIN INLET IN PAVED AREA

CITY ENGINEER: _____

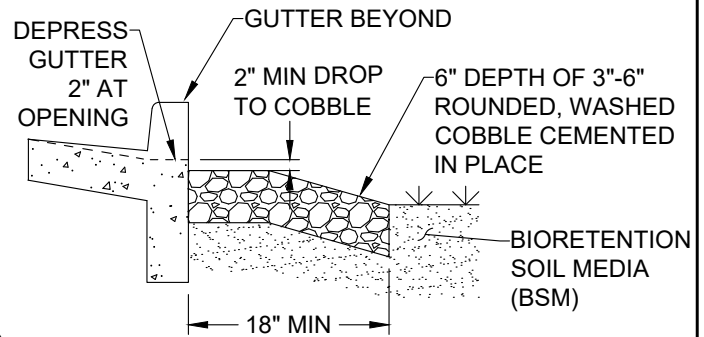
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: S - 10



CURB CUT INLET - PLAN



CURB CUT INLET - SECTION A-A

DESIGN NOTES:

1. FACILITY DESIGN AND SIZING SHALL MEET REQUIREMENTS IN CHAPTER 6B, STORM WATER BEST MANAGEMENT PRACTICES FOR PRIVATE AND PUBLIC DEVELOPMENT PROJECTS, OF THE BEST MANAGEMENT PRACTICES MANUAL FOR THE CITY'S STORM WATER MANAGEMENT PROGRAM.
2. MULCH DEPTH 2-3", USE OF MULCH BELOW PONDING HIGH WATER MARK IS OPTIONAL. PREFERRED MULCH TYPE: AGED, STABILIZED, NON-FLOATING.
3. MINIMIZE LONGITUDINAL SLOPE. MAXIMUM SLOPE OF BOTTOM: 6% WITH CHECK DAMS AND/OR STAIR STEPPING.
4. BIORETENTION SOIL MEDIA (BSM): MINIMUM INFILTRATION RATE 5 IN/HR. USE CONCRETE SAND (60-70%) MEETING ASTM C33 SPECIFICATIONS AND STABLE, WEED-FREE COMPOST (30-40%) MIXTURE.
5. MINIMUM CURB DEPTH ALONG CITY RIGHT-OF-WAY SHALL BE 24". STEEL REINFORCEMENT IS REQUIRED FOR PLANTER WALLS INSTALLED ALONG CITY RIGHT-OF-WAY.

CONSTRUCTION NOTES:

1. SCARIFY SUBGRADE BEFORE INSTALLING BIORETENTION AREA AGGREGATE AND BSM.
2. COMPACT EACH 6" LIFT OF BSM WITH LANDSCAPE ROLLER OR BY LIGHTLY WETTING. IF WETTING, ALLOW TO DRY OVERNIGHT BEFORE PLANTING.
3. DO NOT WORK WITHIN BIORETENTION AREA DURING RAIN OR UNDER WET CONDITIONS.
4. KEEP HEAVY MACHINERY OUTSIDE BIORETENTION AREA LIMITS.

UNDERDRAIN NOTES:

1. USE MIN. 4" DIA. PVC SDR36 PERFORATED PIPE. INSTALL NEAR THE TOP OF AGGREGATE LAYER WITH HOLES FACING DOWN.
2. UNDERDRAIN DISCHARGE SHALL BE NO LOWER THAN THE TOP OF THE AGGREGATE LAYER. UNDERDRAIN SLOPE MAY BE FLAT.
3. PROVIDE 4" MIN. DIAMETER CAPPED AND THREADED PVC CLEANOUT FOR UNDERDRAIN, WITH SWEEP BEND.



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ENGINEERING DIVISION

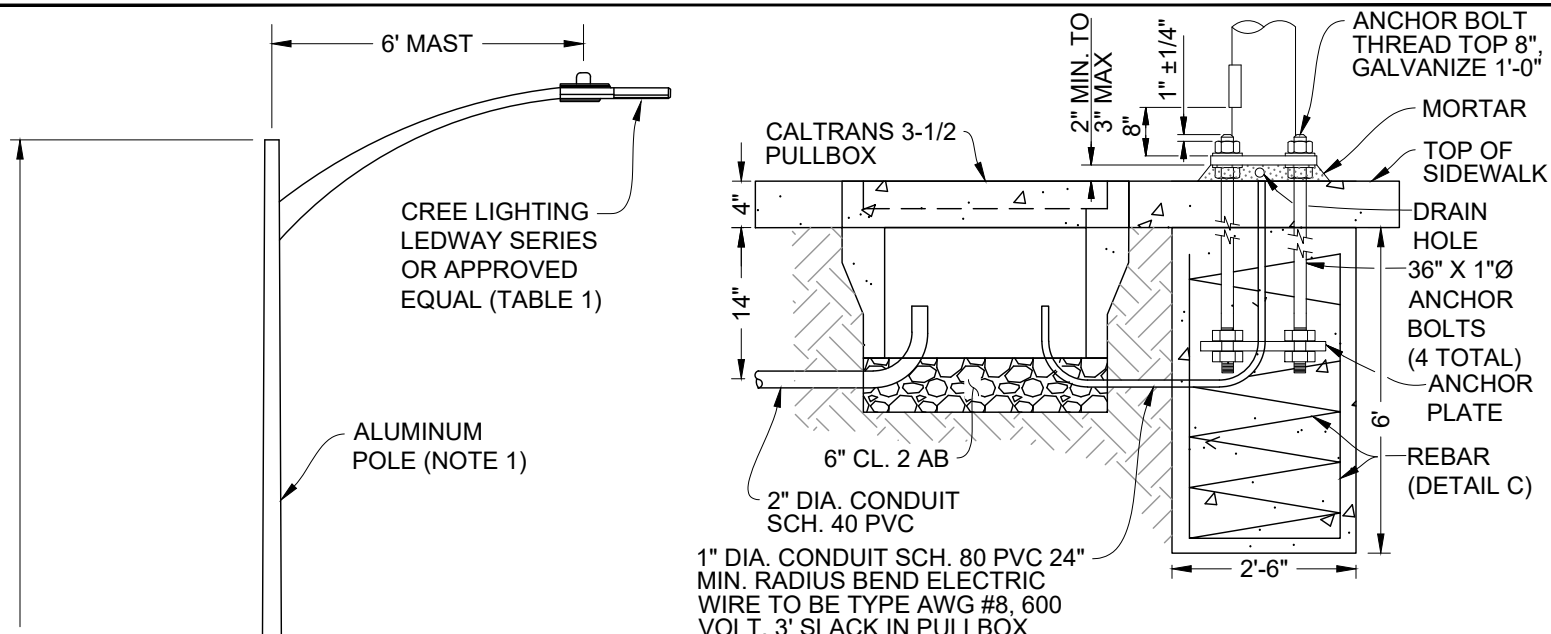
BIORETENTION FACILITY

CITY ENGINEER: _____

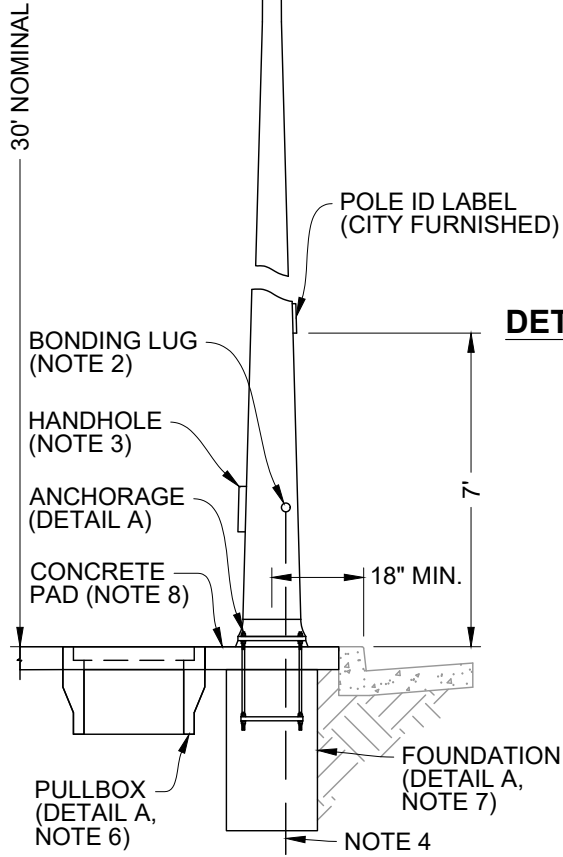
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: S - 11



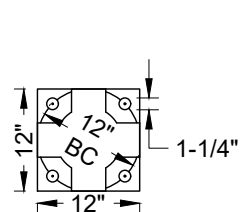
DETAIL A - FOUNDATION AND PULLBOX SECTION



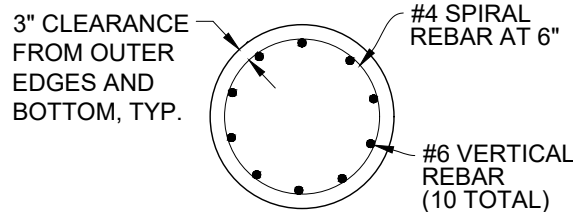
POLE ELEVATION

OPTIC	3M
LED COUNT	30
VOLTAGE	UL
COLOR	SV
DRIVE CURRENT	525
OPTIONS	R / UTL / 40K

TABLE 1 - LIGHTING OPTIONS



DETAIL B - POLE BASE PLAN



DETAIL C - FOUNDATION PLAN

NOTES:

1. 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.
2. FOR NON-SLIP POLES ATTACH BONDING LUG INSIDE POLE OR TAP HOLE IN REINFORCING FOR BONDING BOLT.
3. 4" x 6-1/2" ROUNDED RECTANGLE HANDHOLE REINFORCED WITH RING WELDED TO OUTSIDE OF POLE. 1/8" COVER PLATE.
4. 5/8" DIA. x 8'-0" COPPER WELD GROUND ROD OR 15' #6 BARE CU. GROUND WIRE, COIL AND SECURE TO ELECTROLIER GROUND NUT. COVER WITH 12" OF SOIL PRIOR TO POURING BASE.
5. VERIFY DIMENSIONS OF ANCHOR BASE FROM TEMPLATE FURNISHED WITH POLE ORDER.
6. LABEL COVER "STREET LIGHT". FUSE IN PULLBOX OR HANDHOLE, FUSED SPLICE CONNECTOR RATED 30 AMPS, 600 VOLTS, WITH TWO 5 AMPS FUSES.
7. FOUNDATION SHALL BE CLASS "A" CONCRETE FIELD CAST, 4,500 PSI MIN.
8. CONCRETE PAD SHALL BE CLASS "A" CONCRETE FIELD CAST, 36" x 36" x 4", 4,000 PSI. CONCRETE PAD SHALL BE POURED SEPARATELY FROM FOUNDATION AND INSTALLED AFTER LEVELING POLE.
9. MAINTAIN 4' MINIMUM (5' RECOMMENDED) CLEARANCE BETWEEN EDGE OF POLE AND BACK OF WALK.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

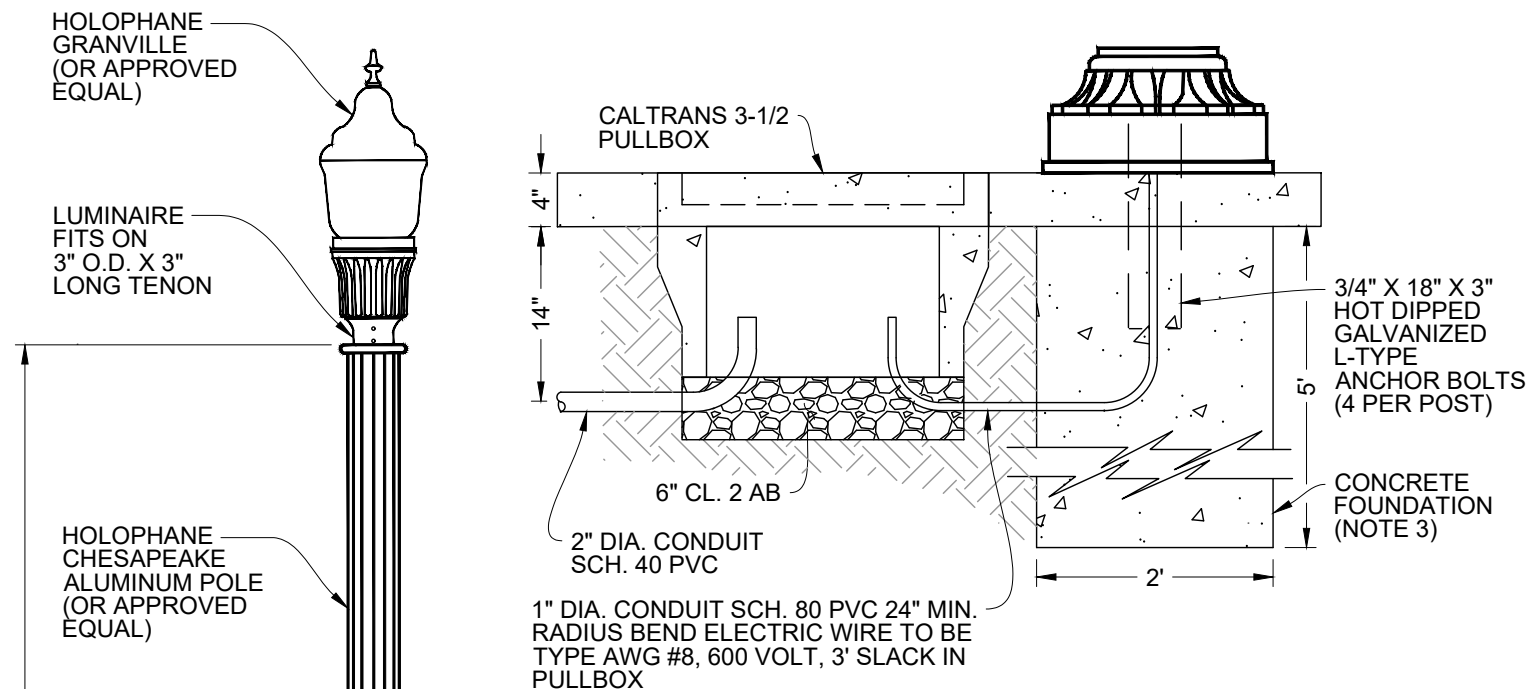
ELECTROLIER

CITY ENGINEER: _____

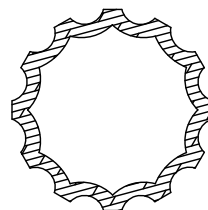
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 1



DETAIL A - FOUNDATION AND PULLBOX SECTION

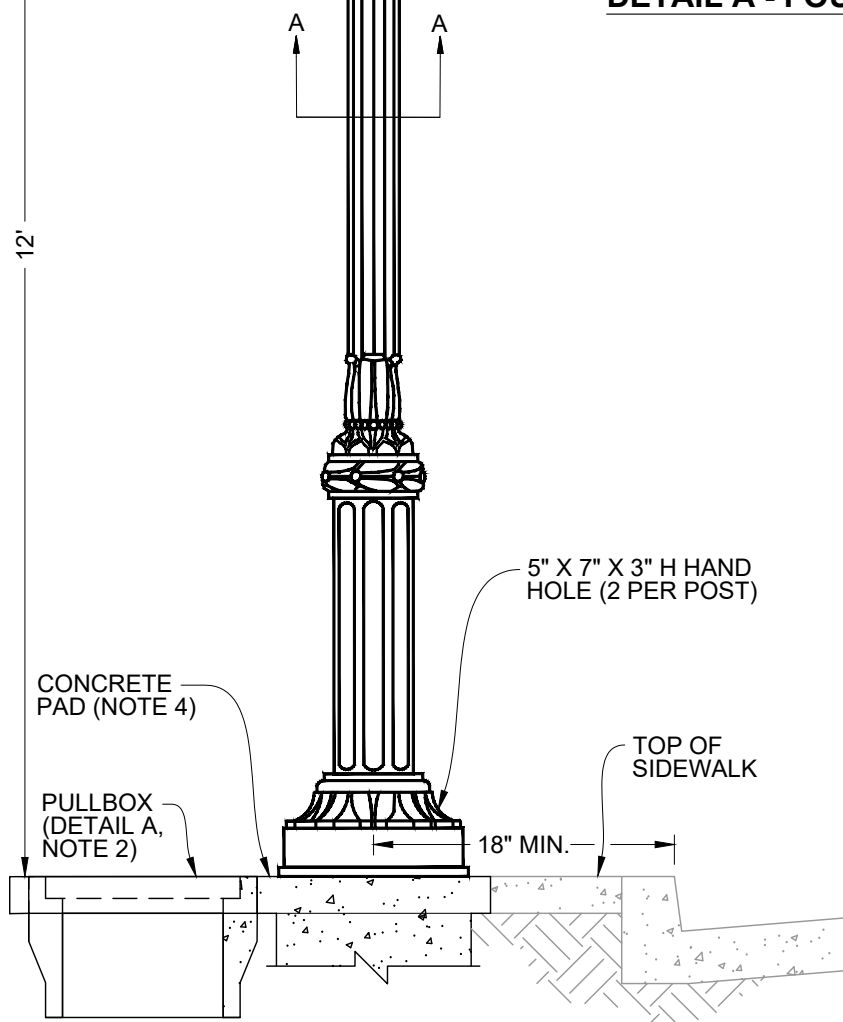


SECTION A-A

5" DIA. FLUTED

NOTES:

1. DECORATIVE STREET LIGHT MODELS VARY BY LOCATION. CONTACT PUBLIC WORKS DEPARTMENT AT (831) 420-5160 FOR DETAILED SPECIFICATIONS.
2. LABEL COVER "STREET LIGHT".
3. FOUNDATION SHALL BE CLASS "A" CONCRETE FIELD CAST, 4,500 PSI MIN. REINFORCING NOT REQUIRED.
4. CONCRETE PAD SHALL BE CLASS "A" CONCRETE FIELD CAST, 36" x 36" x 4", 4,000 PSI. CONCRETE PAD SHALL BE POURED SEPARATELY FROM FOUNDATION AND INSTALLED AFTER LEVELING POLE.
5. MAINTAIN 4' MINIMUM (5' RECOMMENDED) CLEARANCE BETWEEN EDGE OF POLE AND BACK OF WALK.



DECORATIVE STREET LIGHT ELEVATION



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

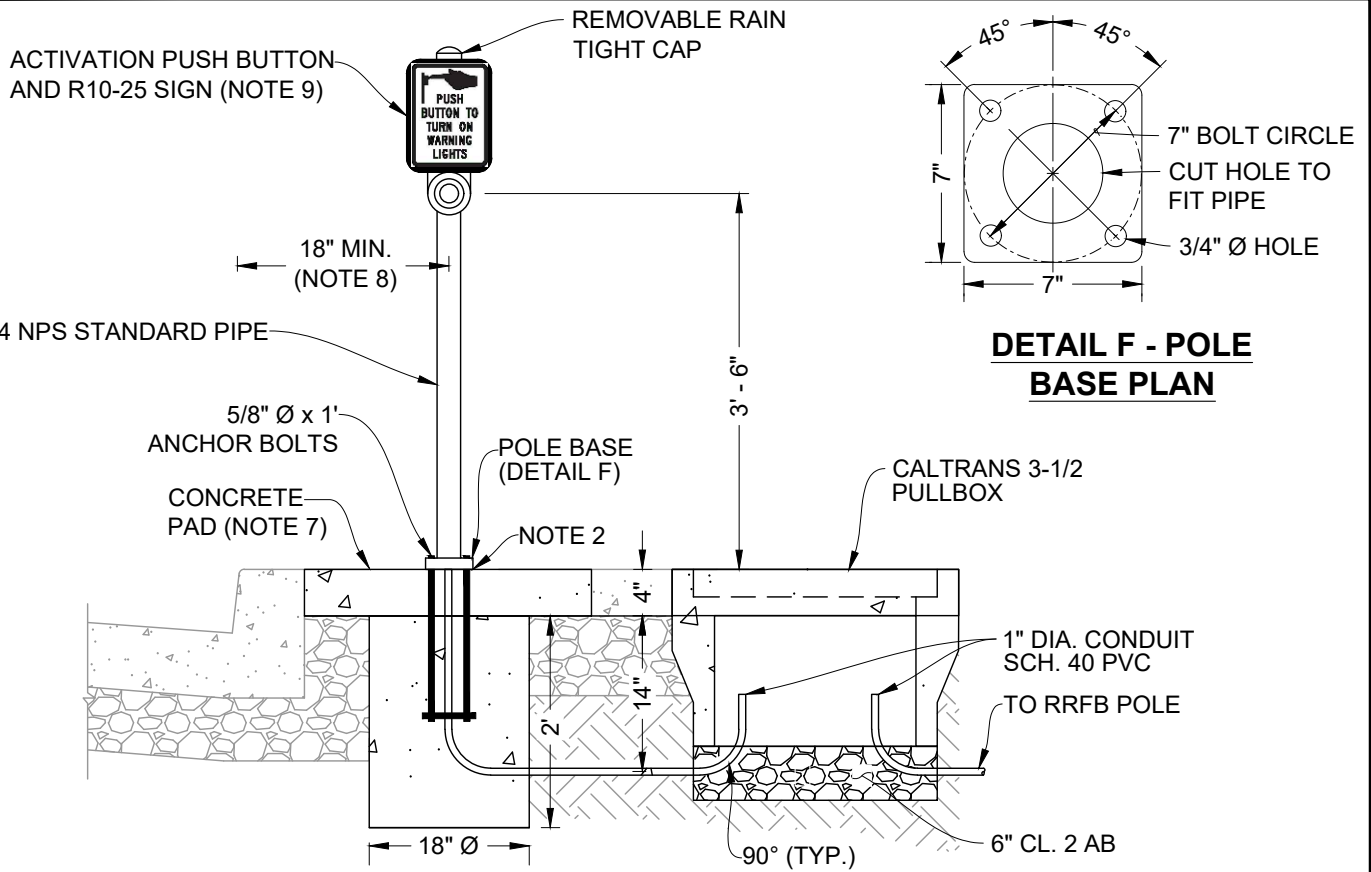
DECORATIVE STREET LIGHT

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 2



DETAIL E - PUSH BUTTON ASSEMBLY POLE

SIGN	SIGN DIMENSIONS		
	DIMENSION (INCHES)		
	MINIMUM ≤ 25 mph	CONVENTIONAL*	OVERSIZED
W11-2	30X30	36X36	48X48
S1-1	30X30	36X36	48X48
W16-7P	24X12	24X12	30X18

*CONVENTIONAL DIMENSION SHALL BE USED
UNLESS SPECIFIED OTHERWISE

TABLE 1 - SIGN DIMENSIONS

NOTES:

- ALL EQUIPMENT AND APPURTENANCES TO BE INSTALLED PER MANUFACTURER SPECIFICATION AND LATEST CALTRANS STANDARD PLANS.
- GROUT FLUSH WITH BASE PLATE.
- 4' MINIMUM (5' RECOMMENDED) CLEARANCE BETWEEN EDGE OF POLE AND BACK OF WALK.
- EDGE OF SIGN SHALL BE SET BACK 6" MIN. FROM FACE OF CURB. SIGN MAY BE MOUNTED OFF CENTER FROM POST TO ACCOMMODATE THE 6" SETBACK.
- SIGN SHALL HAVE A FLUORESCENT YELLOW-GREEN BACKGROUND WITH BLACK LEGEND AND BORDER.
- CONCRETE FOUNDATION SHALL BE CLASS "A" CONCRETE FIELD CAST, 4,500 PSI MIN.
- CONCRETE PAD SHALL BE CLASS "A" CONCRETE FIELD CAST, 36" x 36" x 4", 4,000 PSI. CONCRETE PAD SHALL BE POURED SEPARATELY FROM FOUNDATION AND INSTALLED AFTER LEVELING POLE.
- LOCATION OF POLES AND PEDESTRIAN PUSH BUTTON SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION.
- PEDESTRIAN PUSH BUTTON SHALL BE EQUIPPED WITH AUDIBLE INFORMATION AND BE COMPLIANT WITH THE LATEST MUTCD AND ADA GUIDELINES.

2 of 2



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

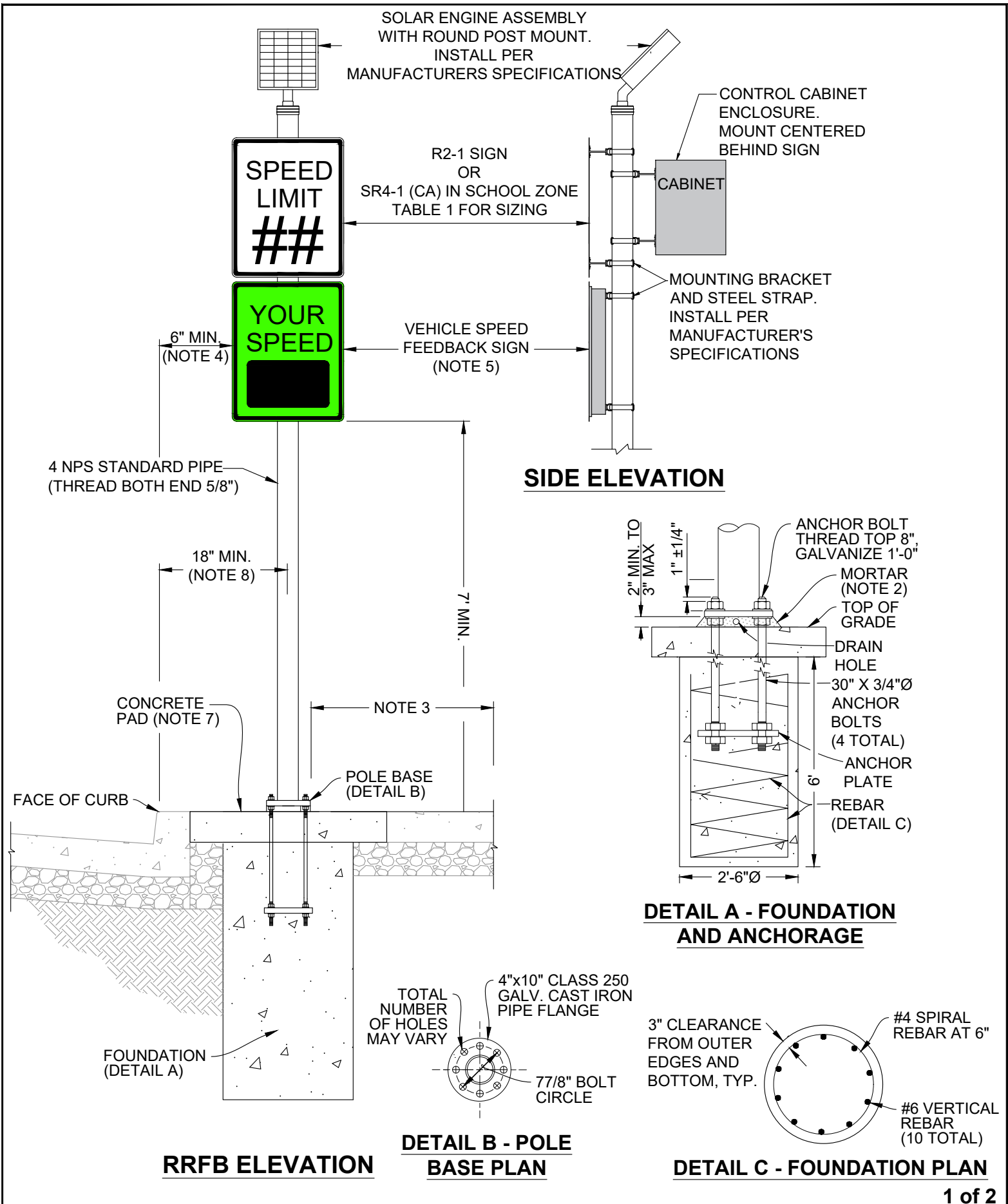
RECTANGULAR RAPID FLASHING BEACON
PUSH BUTTON, TABLE AND NOTES

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 3.2



1 of 2



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SPEED FEEDBACK SIGN ELEVATION AND FOUNDATION

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 4.1

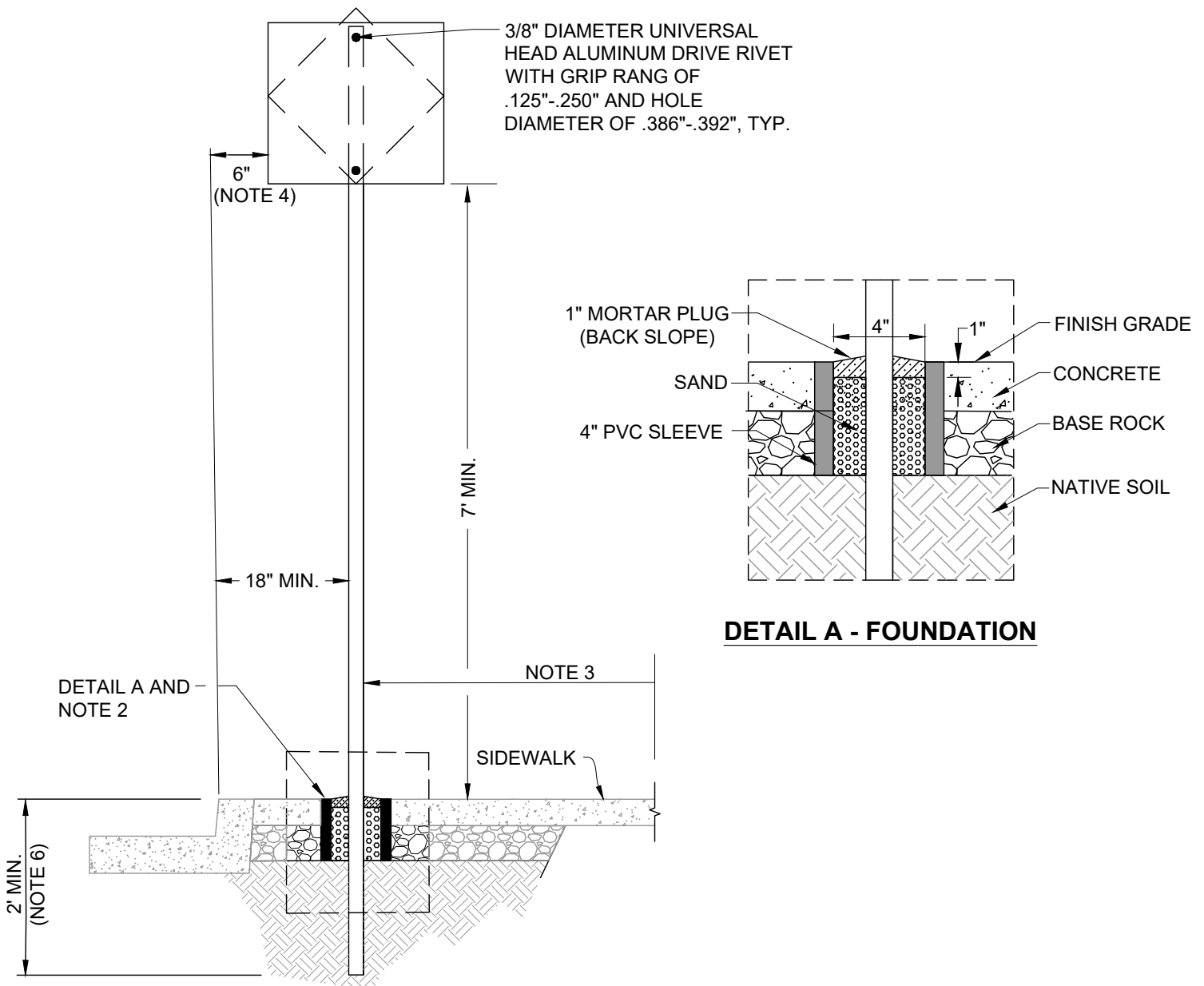
SIGN DIMENSIONS		
SIGN	DIMENSION (INCHES)	SIGN TYPE
1 LANE	24 X 30	R2-1
2 LANE OR >30 MPH	30 X 36	R2-1
SCHOOL ZONE	36 X 72	SR4-1 (CA)

TABLE 1 - SIGN DIMENSIONS

NOTES:

1. ALL EQUIPMENT AND APPURTENANCES TO BE INSTALLED PER MANUFACTURER SPECIFICATION AND LATEST CALTRANS STANDARD PLANS.
2. GROUT FLUSH WITH BASE PLATE
3. 4' MINIMUM (5' RECOMMENDED) CLEARANCE BETWEEN EDGE OF POST AND BACK OF WALK.
4. EDGE OF SIGN SHALL BE SET BACK 6" MIN. FROM FACE OF CURB. SIGN MAY BE MOUNTED OFF CENTER FROM POST TO ACCOMMODATE THE 6" SETBACK.
5. VEHICLE SPEED FEEDBACK SIGN SHOULD BE RETRO REFLECTIVE FLOURESCENT YELLOW GREEN. INSTALL SIGN PER MANUFACTURER SPECIFICATIONS.
6. CONCRETE FOUNDATION SHALL BE CLASS "A" CONCRETE FIELD CAST, 4,500 PSI MIN.
7. CONCRETE PAD SHALL BE CLASS "A" CONCRETE FIELD CAST, 36" x 36" x 4", 4,000 PSI. CONCRETE PAD SHALL BE POURED SEPARATELY FROM FOUNDATION AND INSTALLED AFTER LEVELING POLE.
8. LOCATION OF POLE SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION.





DETAIL A - FOUNDATION

POST ELEVATION

NOTES:

1. CITY STANDARD POST SHALL BE 2" X 2" UNISTRUT "TELESPAR" PRE-DRILLED SQUARE TUBING OR APPROVED EQUAL.
2. CONTRACTOR HAS THE OPTION TO:
 - (A) 4" CORE DRILL TO NATIVE SOIL AFTER POURING CONCRETE OR
 - (B) INSTALL 4" PVC SLEEVE PRIOR TO POURING CONCRETE.
3. 4' MINIMUM CLEARANCE BETWEEN EDGE OF POST AND BACK OF WALK. POST MAY BE INSTALLED AT BACK OF WALK IF 4' CLEARANCE CAN NOT BE MET.
4. SIGN MAY BE MOUNTED OFF CENTER FROM POST TO ACCOMMODATE THE 6" SETBACK.
5. LOW PROFILE ALTERNATIVE IS 2' BELOW GRADE WITH 5' TO TOP OF SIGN (NOT ALLOWED IN PEDESTRIAN AREAS).
6. POST INSTALLED IN THE MEDIAN OR CROSSING ISLAND SHALL BE INSTALLED 2' MIN. FROM TOP OF GRADE.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

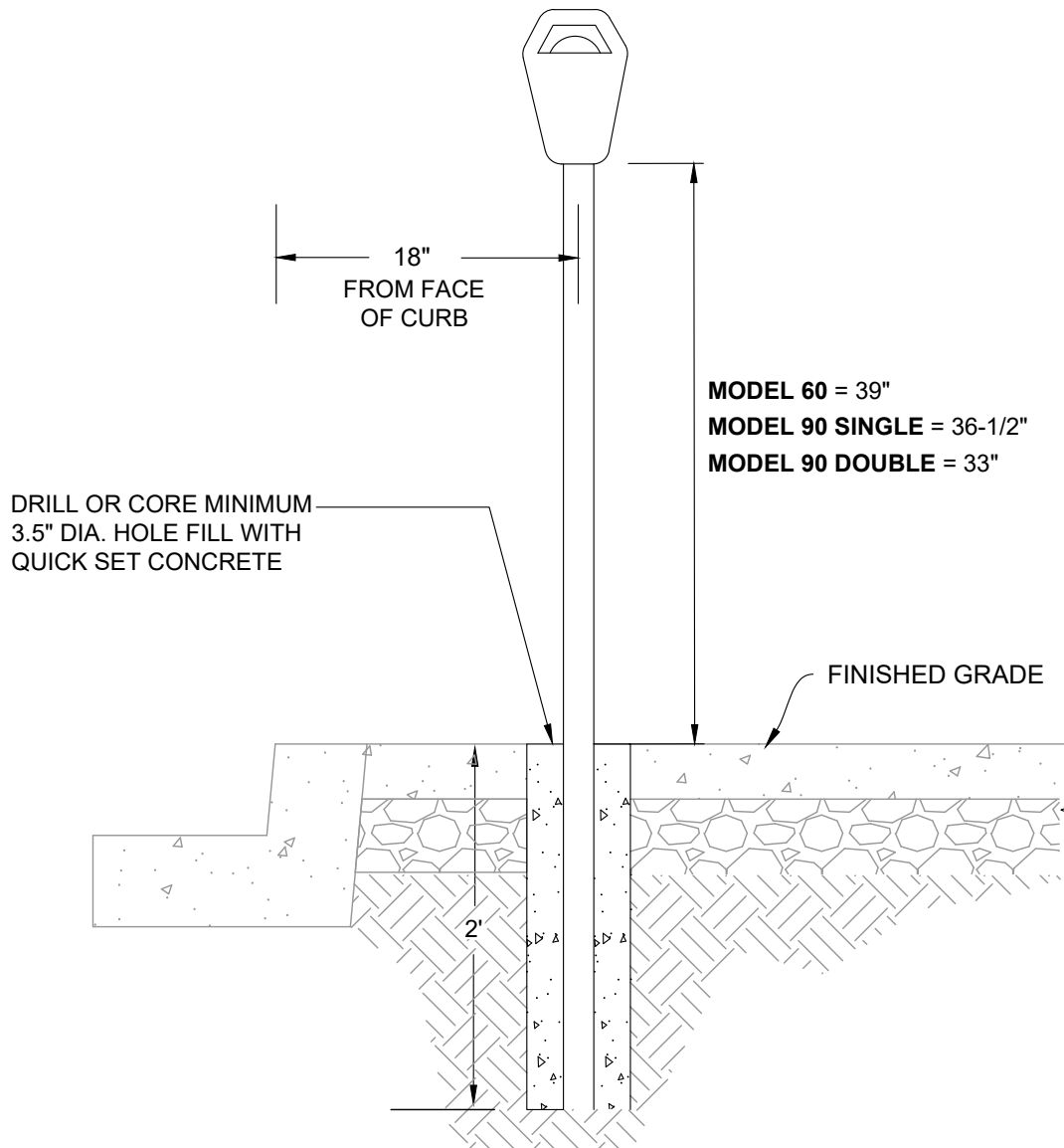
SIGN AND POST

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 5



NOTES:

1. PARKING METER POST SHALL BE 2" GALVANIZED WATER PIPE WITH 1" X 1/4" X +/-3" FLAT STOCK WELDED AS A FIN. EXPOSED END SHALL BE SMOOTH AND FREE OF BURRS.
2. MODEL INFORMATION PROVIDED BY CITY. PLEASE CONTACT PARKING MAINTENANCE FIELD CREW LEADER @ 420-5598.
3. MAINTAIN 4' MINIMUM (5' RECOMMENDED) CLEARANCE BETWEEN EDGE OF POST AND BACK OF WALK.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

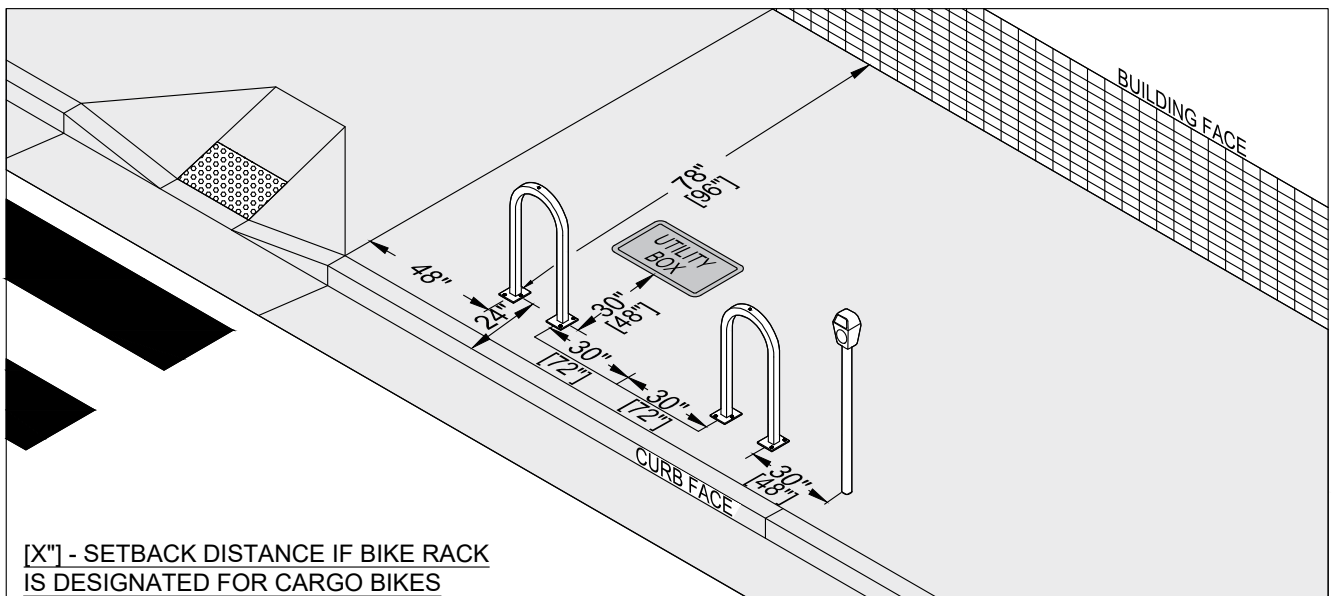
PARKING METER

CITY ENGINEER: _____

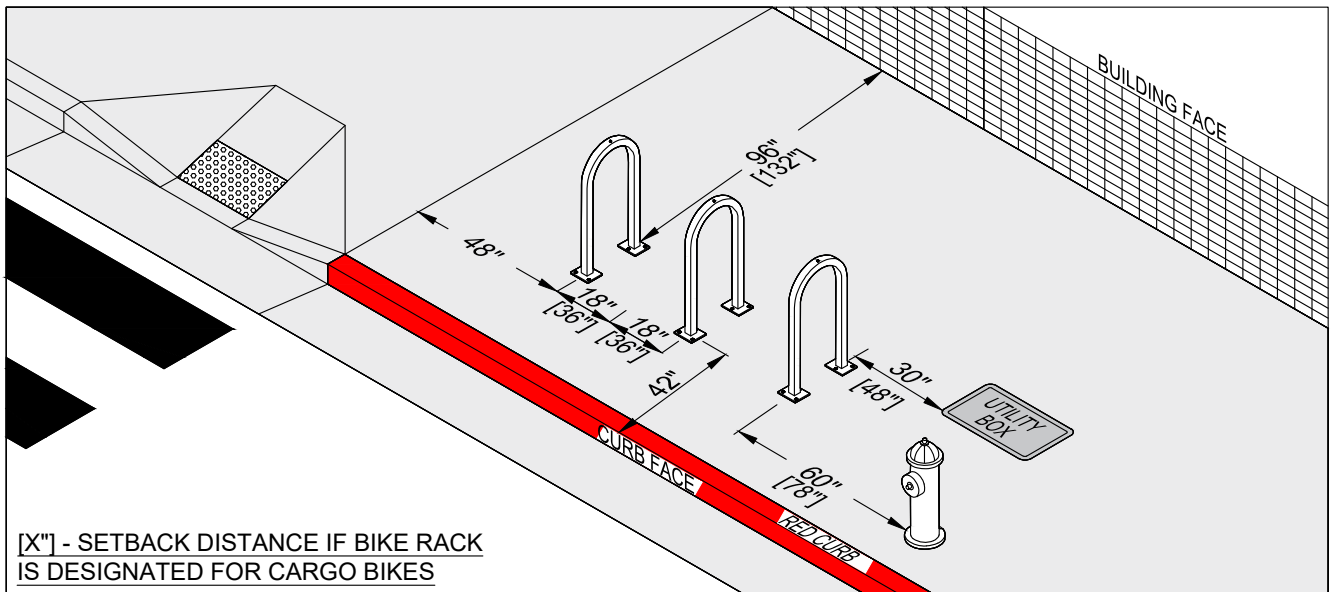
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 6



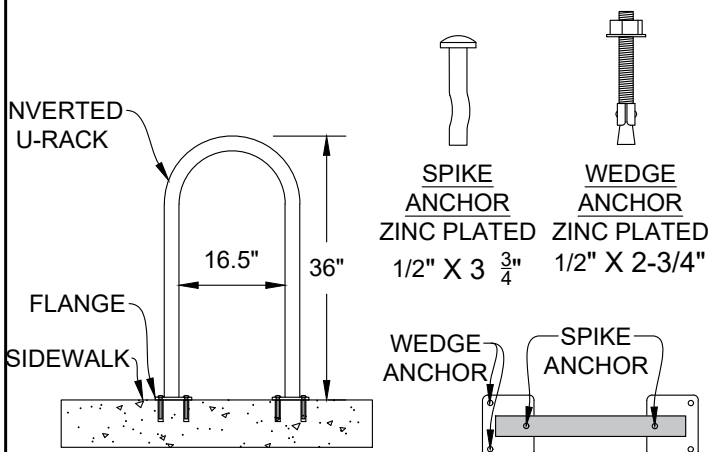
PARALLEL BIKE RACKS



PERPENDICULAR BIKE RACKS

NOTES:

- BIKE RACKS SHALL BE INSTALLED PER MANUFACTURER SPECIFICATIONS.
- BIKE RACK COLOR SHALL BE SHERMAN WILLIAMS "DARK NIGHT" SW6237 OR APPROVED EQUAL.
- ALL DIMENSIONS ARE MINIMUMS AND SHOULD BE EXCEEDED WHERE POSSIBLE.
- ALL SETBACK DISTANCES ARE MEASURED FROM THE CENTER OF THE RACK FLANGE TO THE LEADING EDGE OF OBSTRUCTION.
- BIKE RACK LOCATION SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION.



SECTION VIEW

PLAN VIEW

OBSTRUCTION TYPE	MINIMUM SETBACK DISTANCE
LIGHT POLE, SIGN POLE, MAILBOX, TREE WELL, UTILITY POLE	30" [48"]
CURB RAMP, STORM DRAIN INLET, DRIVEWAY	48"
FIRE HYDRANT	60" [78"]

TABLE 1 - SETBACKS



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

BICYCLE RACK ON SIDEWALK

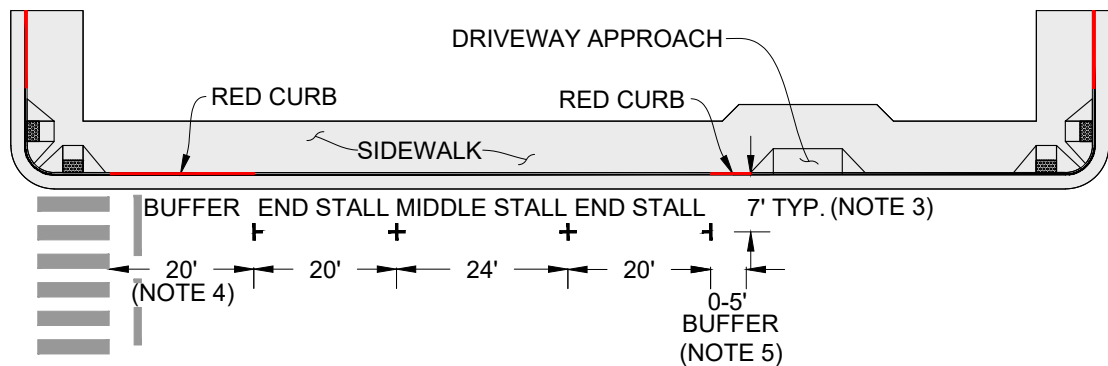
CITY ENGINEER: _____

REV. DATE: Jun 2025

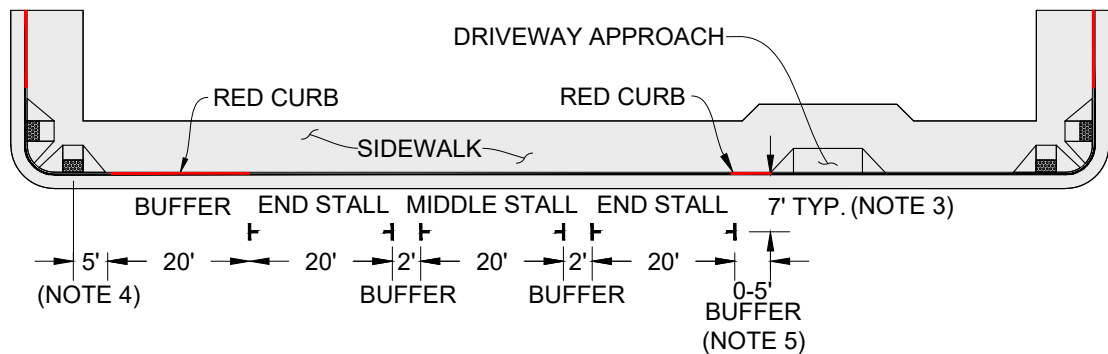
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DWG. NO: T - 7

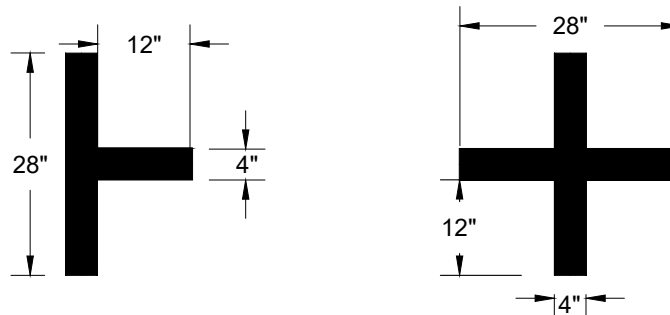
**OPTION-A
LAYOUT
(WITH
MARKED
CROSSWALK)**



**OPTION-B
LAYOUT
(WITHOUT
MARKED
CROSSWALK)**



MARKING DETAILS



NOTES:

1. ALL STRIPING AND MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
2. PARKING TEE MARKINGS MUST BE WHITE AND 4 INCH WIDE. TYPICAL LAYOUT SHALL FOLLOW OPTION-A LAYOUT. OPTION-B LAYOUT SHALL ONLY BE INSTALLED AS DIRECTED BY THE CITY ENGINEER.
3. ALL PARKING STALLS MUST BE A MINIMUM OF 20 FEET LONG, 7 FEET FROM THE FACE OF CURB, WITH A TOTAL 4 FOOT BUFFER AREA FOR MIDDLE STALLS. PARKING TEE MARKINGS 8 FEET FROM FACE OF CURB SHALL ONLY BE INSTALLED IF APPROVED BY THE CITY ENGINEER.
4. FOR SIGHT DISTANCE, BUFFER ZONE AT INTERSECTIONS AND CROSSWALKS SHALL BE A MINIMUM OF 20 FEET FROM A MARKED OR UNMARKED CROSSWALK. IF THE CROSSWALK IS UNMARKED, BEGIN THE BUFFER ZONE 5 FEET FROM THE CENTER LANDING AREA OF THE CURB RAMP.
5. FOR SIGHT DISTANCE, BUFFER ZONES AT DRIVEWAY APPROACHES VARY BETWEEN 0 FEET AND 5 FEET AND SHALL BE DETERMINED BY THE CITY ENGINEER.
6. BUFFER ZONES AT FIRE HYDRANTS SHALL BE A MINIMUM OF 15 FEET ON BOTH SIDES OF FIRE HYDRANTS (30 FEET IN TOTAL).
7. CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.



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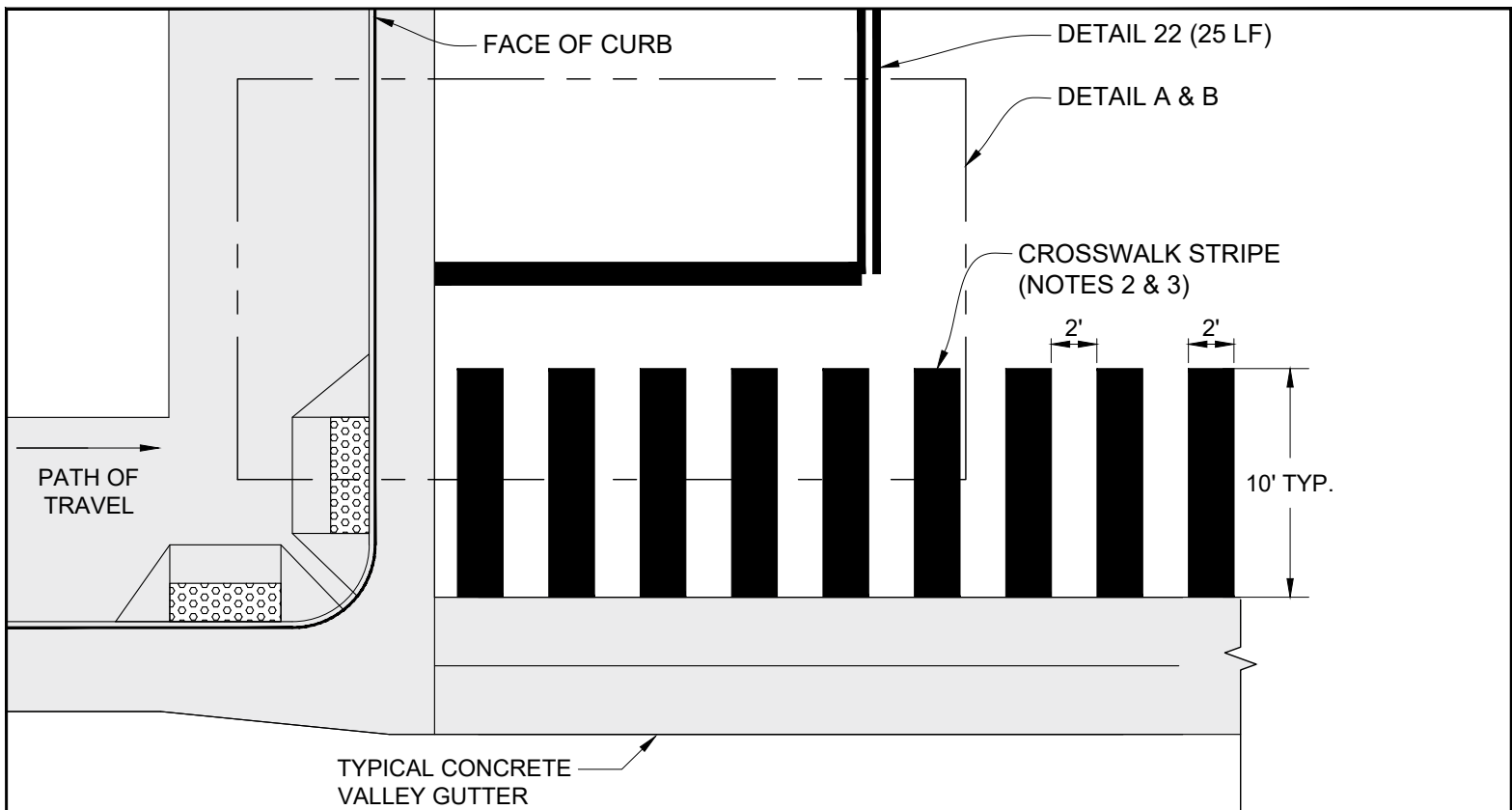
PARKING TEE

CITY ENGINEER: _____

REV. DATE: Jun 2025

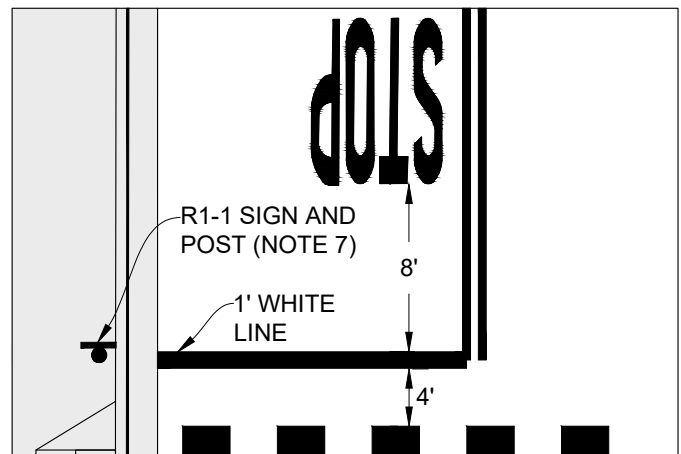
SCALE: N.T.S.

DWG. NO: T - 8

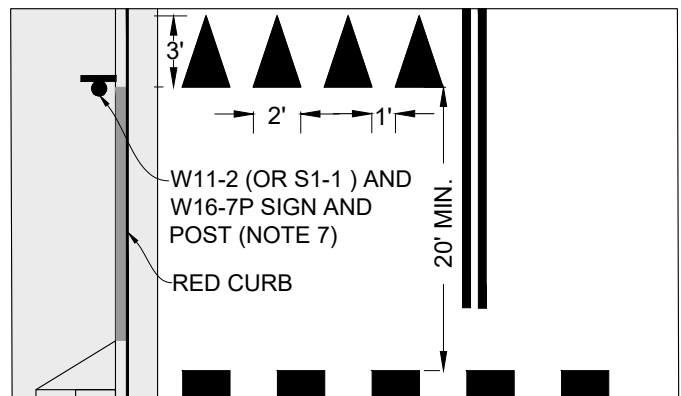


NOTES:

1. ALL CROSSWALK MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
2. PRIOR TO INSTALLING THERMOPLASTIC ON TO ANY CONCRETE, CLEAN AND APPLY PRIMER.
3. TYPICAL CROSSWALK STRIPE SHALL BE 2 FOOT WIDE WITH 2 FOOT GAP.
4. BEGIN STRIPE WITHIN 3 FEET OF FACE OF CURB RAMP. INSTALL PERPENDICULAR TO PATH OF TRAVEL OR AS DIRECTED BY THE CITY ENGINEER.
5. TYPICAL CROSSWALK WIDTH IS 10 FEET BUT MAY VARY WIDER OR NARROWER BY LOCATION AND ON PLANS. NO CROSSWALK SHALL BE LESS THAN 8 FEET WIDE.
6. ALL CROSSWALK MARKING MUST BE WHITE EXCEPT THOSE NEAR SCHOOLS. PER CA MUTCD - A MARKED PEDESTRIAN CROSSWALK MAY BE YELLOW IF THE NEAREST POINT OF THE CROSSWALK IS NOT MORE THAN 600 FEET FROM A SCHOOL. INSTALL YELLOW AS DIRECTED BY THE CITY ENGINEER.
7. SEE CITY STANDARD DETAIL T-5 FOR SIGN AND POST INSTALLATION.
8. CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.



DETAIL A - STOP LINE



DETAIL B - YIELD LINE



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

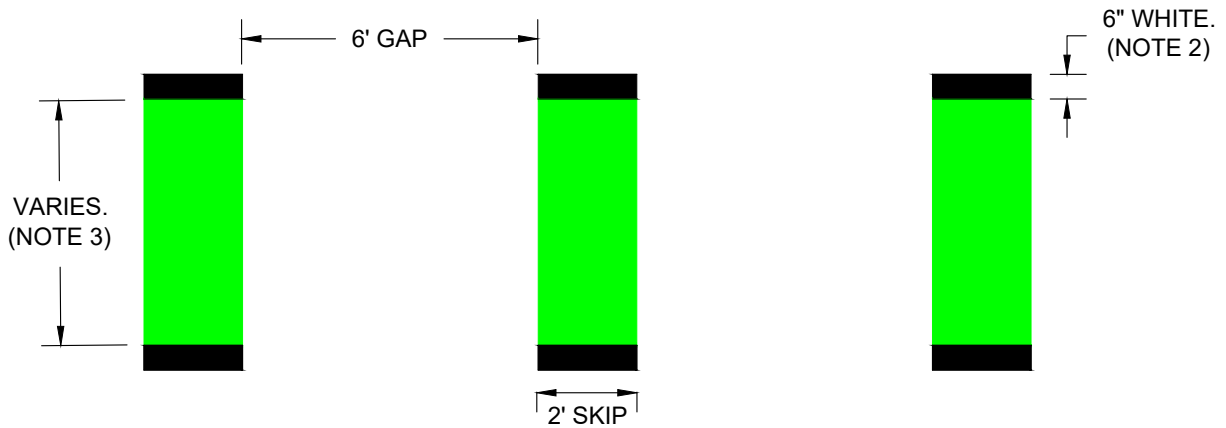
CONTINENTAL CROSSWALK

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 9



NOTES:

1. DETAIL TYPICALLY INSTALLED IN AREAS WHERE BIKE FACILITY CROSSING TRAFFIC LANES OR CONFLICT ZONES.
2. WHITE THERMOPLASTIC SHALL BE APPLIED TO AC ONLY. FOR CONCRETE AREAS, USE WHITE PAINT.
3. INSTALL PER PLAN OR AS DIRECTED BY THE ENGINEER. WIDTH SHALL BE 4' FEET MINIMUM / 6' PREFERRED, IF NOT SHOWN ON PLAN.
4. GREEN STRIPING SHALL BE ENNIS-FLINT PREMARK VIZIGRIP OR APPROVED EQUAL.
5. ALL STRIPING AND MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
6. CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

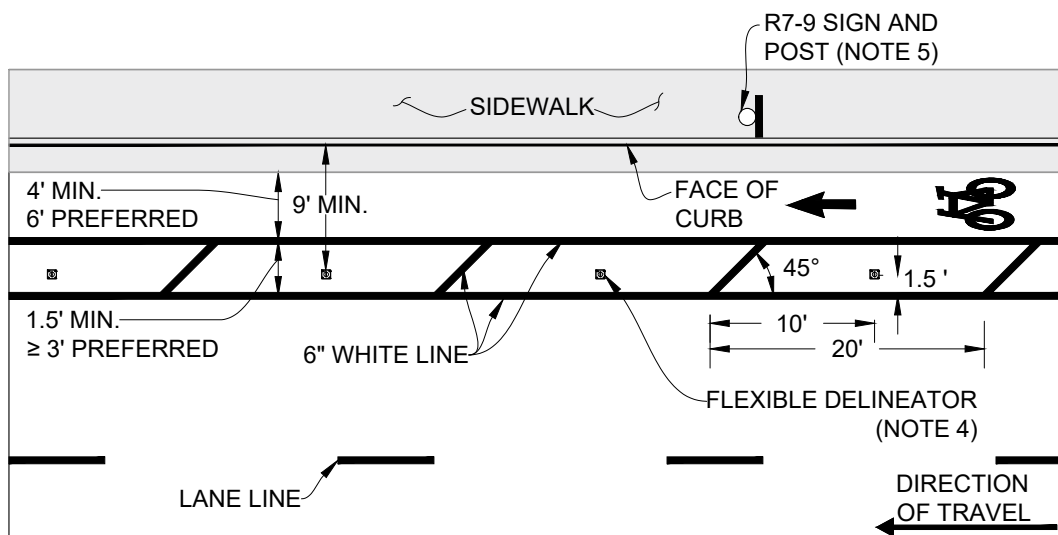
BICYCLE CONFLICT ZONE
MODIFIED DETAIL 39Z MARKING

CITY ENGINEER: _____

REV. DATE: Jun 2025

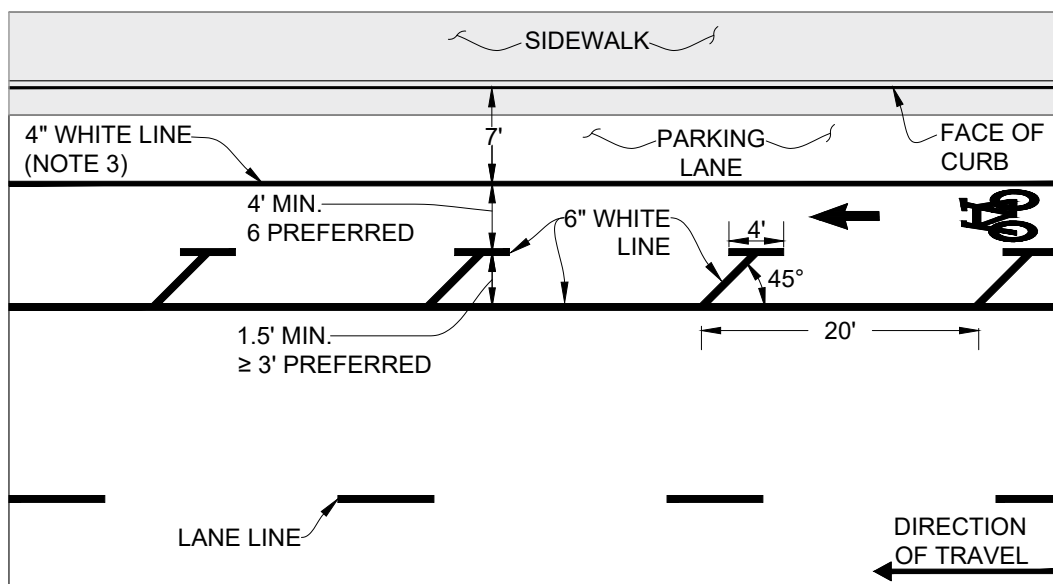
SCALE: N.T.S.

DWG. NO: T - 10



R7-9
12"x18"

OPTION A - (SEPARATED BIKE LANE)



OPTION B - (BUFFERED BIKE LANE)

NOTES:

1. ALL STRIPING AND MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
2. CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.
3. CITY ENGINEER MAY REQUIRE PARKING TEES IN PLACE OF 4" CONTINUOUS WHITE LINE. SEE CITY STANDARD DETAIL T-8.
4. INSTALL 4"x36" WHITE FLEXIBLE DELINEATOR (SHORT SQUEEZE WITH 2 RETROREFLECTIVE BANDS) ON SURFACE MOUNT FIXED BASE, IF SHOWN ON PLANS OR DIRECTED BY THE CITY ENGINEER. DELINEATOR SHALL BE IMPACT RECOVERY TUFF POST (TP4) OR APPROVED EQUAL.
5. SEE CITY STANDARD DETAIL T-5 FOR SIGN AND POST INSTALLATION.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

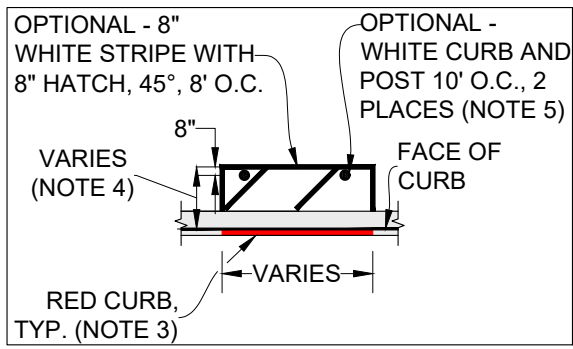
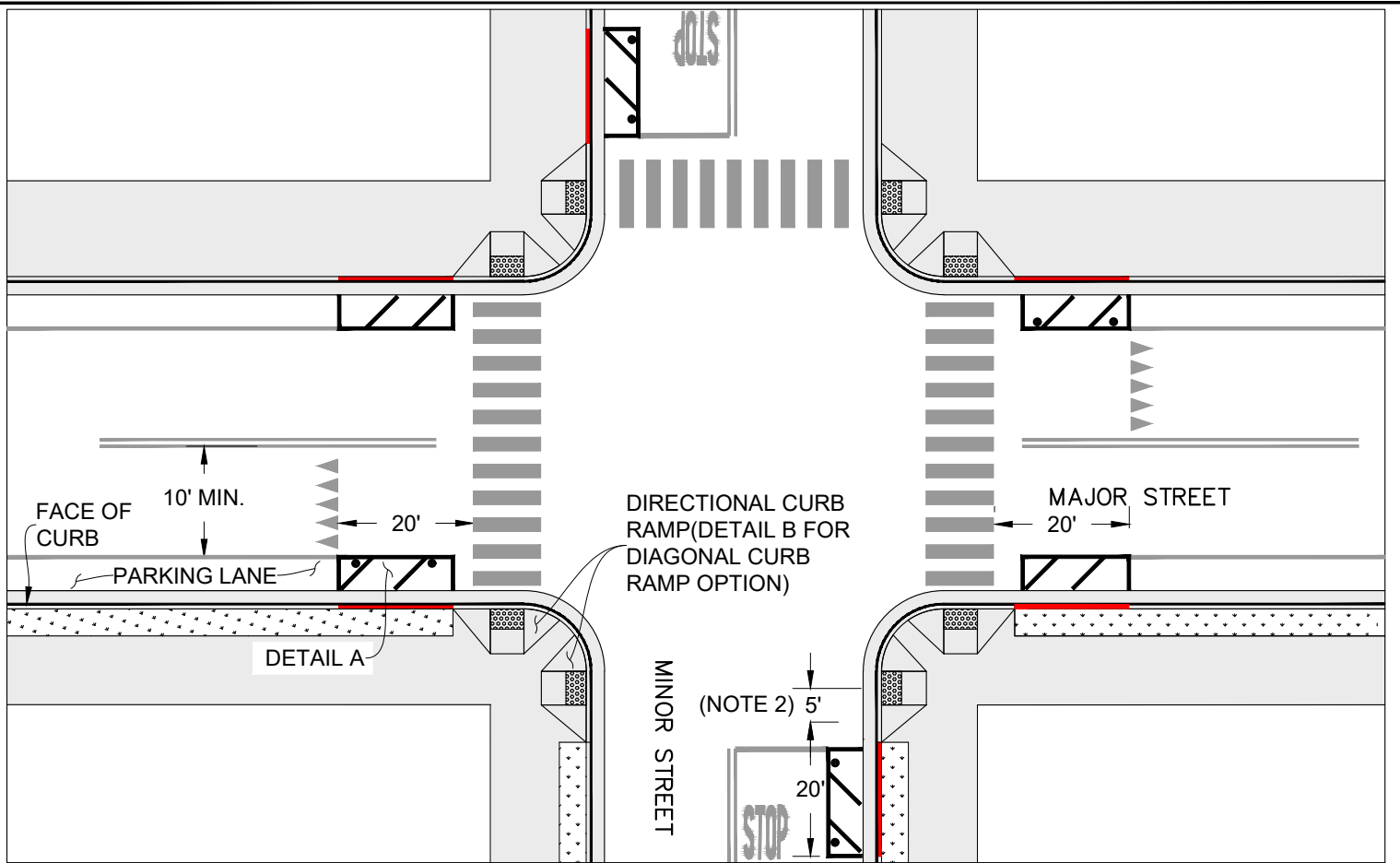
BIKEWAY

CITY ENGINEER: _____

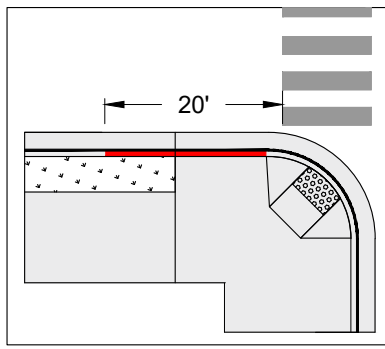
REV. DATE: Jun 2025

SCALE: N.T.S.

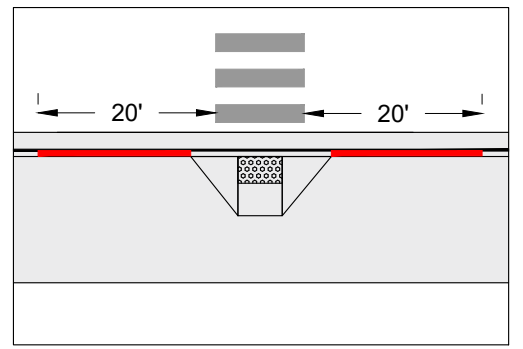
DWG. NO: T - 11



DETAIL A - DAYLIGHTING



DETAIL B - DIAGONAL CURB RAMP



DETAIL C - MIDBLOCK CROSSWALK

NOTES:

1. DAYLIGHTING SHALL BE A MINIMUM 20' (15' WITH A CURB EXTENSION PRESENT), BEGINING AT THE MARKED CROSSWALK.
2. IF THE CROSSWALK IS UNMARKED, DAYLIGHTING SHALL BEGIN 5' FROM THE MIDPOINT OF THE CURB RAMP.
3. RED CURB SHALL BEGIN AT THE TOP OF CURB RAMP WING.
4. WIDTH SHALL BE PER PLAN OR AS DIRECTED BY THE CITY ENGINEER. IF NOT SHOWN ON PLANS, WIDTH SHALL BE A MINIMUM 7'.
5. INSTALL 4"x36" WHITE FLEXIBLE DELINEATOR (SHORT SQUEEZE WITH 2 RETROREFLECTIVE BANDS) ON SURFACE MOUNT FIXED BASE, IF SHOWN ON PLANS OR DIRECTED BY THE CITY ENGINEER. DELINEATOR SHALL BE IMPACT RECOVERY TUFF POST (TP4) OR APPROVED EQUAL.
6. ALL STRIPING AND MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
7. CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

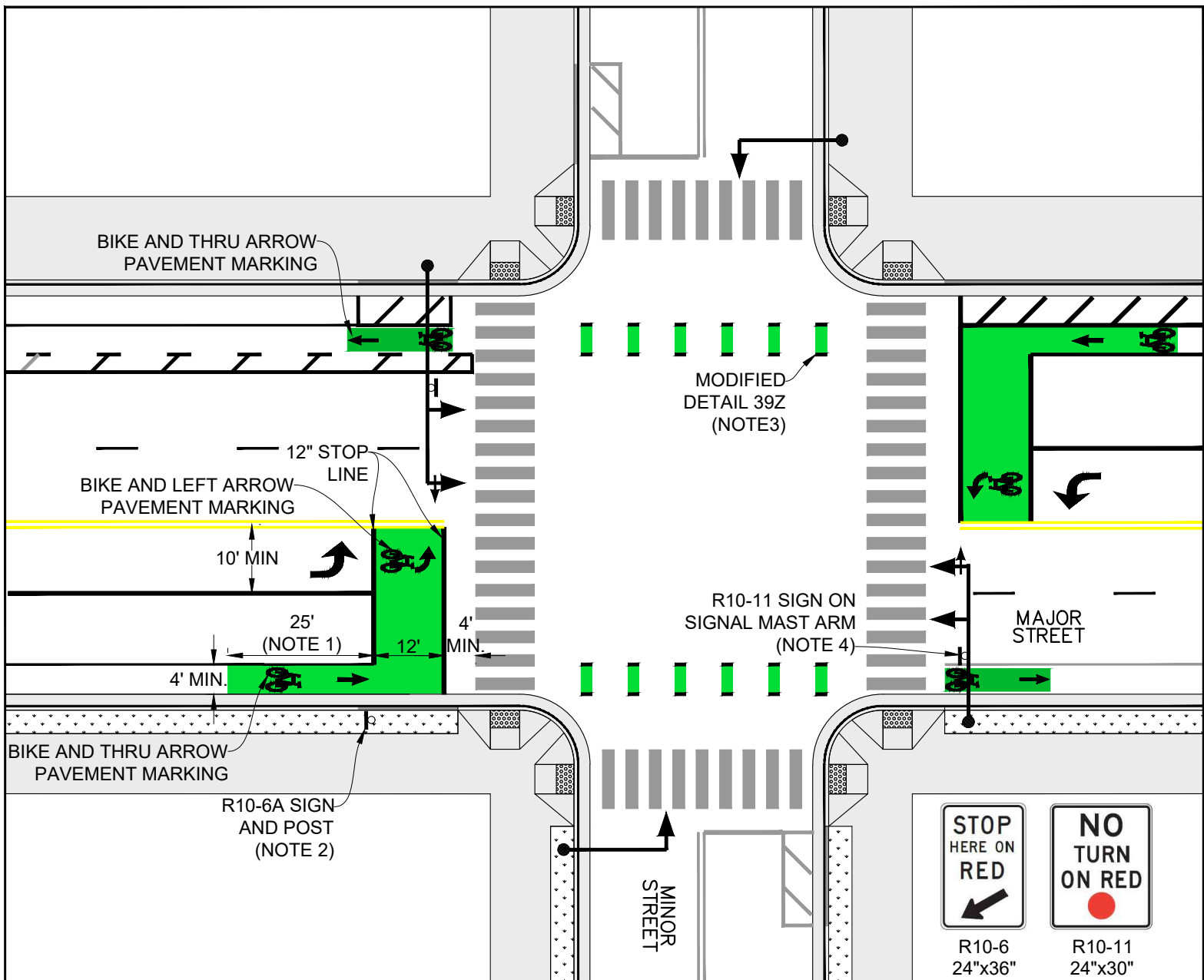
DAYLIGHTING

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 12



NOTES:

1. INGRESS LANE SHOULD BE USED TO DEFINE THE BICYCLE SPACE. COLORED PAVEMENT SHOULD BE USED. IF USED, LENGTH SHALL BE 25' MINIMUM.
2. SEE CITY STANDARD DETAIL T-5 FOR SIGN AND POST INSTALLATION.
3. SEE CITY STANDARD DETAIL T-10 FOR MODIFIED DETAIL 39Z INSTALLATION.
4. INSTALL "NO TURN ON RED" SIGN TO PREVENT VEHICLES FROM ENTERING THE BIKE BOX.
5. GREEN STRIPING SHALL BE ENNIS-FLINT PREMARK VIZIGRIP OR APPROVED EQUAL.
6. ALL STRIPING AND MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
7. CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

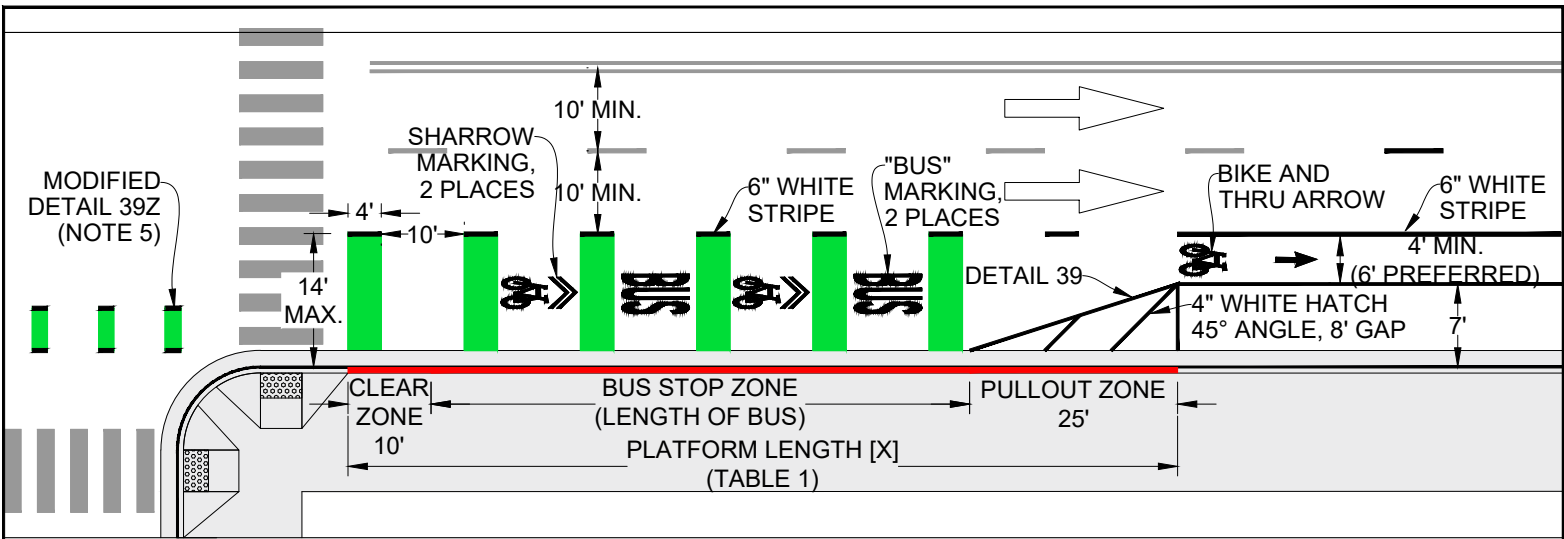
**BICYCLE FACILITY
AT SIGNALIZED INTERSECTION**

CITY ENGINEER: _____

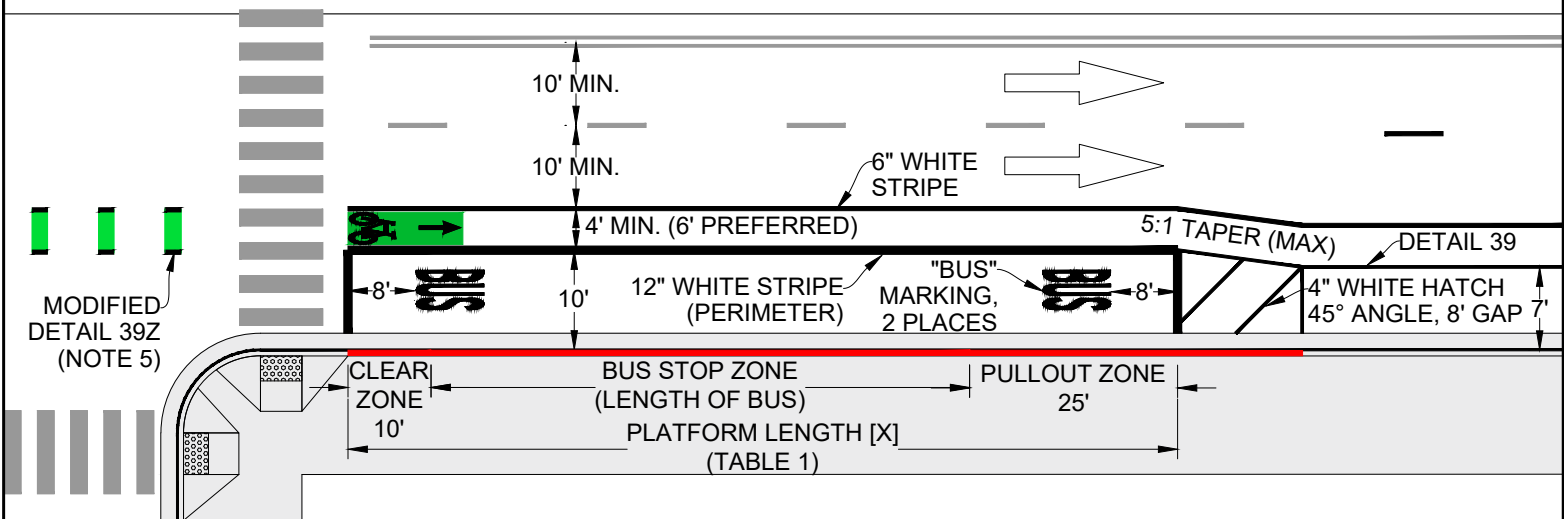
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 13



FAR-SIDE BUS STOP WITH SHARED BUS-BIKE LANE



FAR-SIDE BUS STOP WITH BIKE LANE

PLATFORM LENGTH [X] (FEET)		
STOP POSITION	40' BUS	60' BUS
NEAR-SIDE	75	95
FAR-SIDE	75	95
MID-BLOCK	90	110

TABLE 1 - BUS PLATFORM LENGTH

NOTES:

1. IF THE ALLOWED WIDTH FOR THE BUS STOP IS $\geq 14'$, USE "FAR-SIDE BUS STOP WITH BIKE LANE" OPTION .
2. GREEN STRIPING SHALL BE ENNIS-FLINT PREMARK VIZIGRIP OR APPROVED EQUAL.
3. ALL STRIPING AND MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
4. CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.
5. SEE CITY STANDARD DETAIL T-10 FOR MODIFIED DETAIL 39Z INSTALLATION.



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

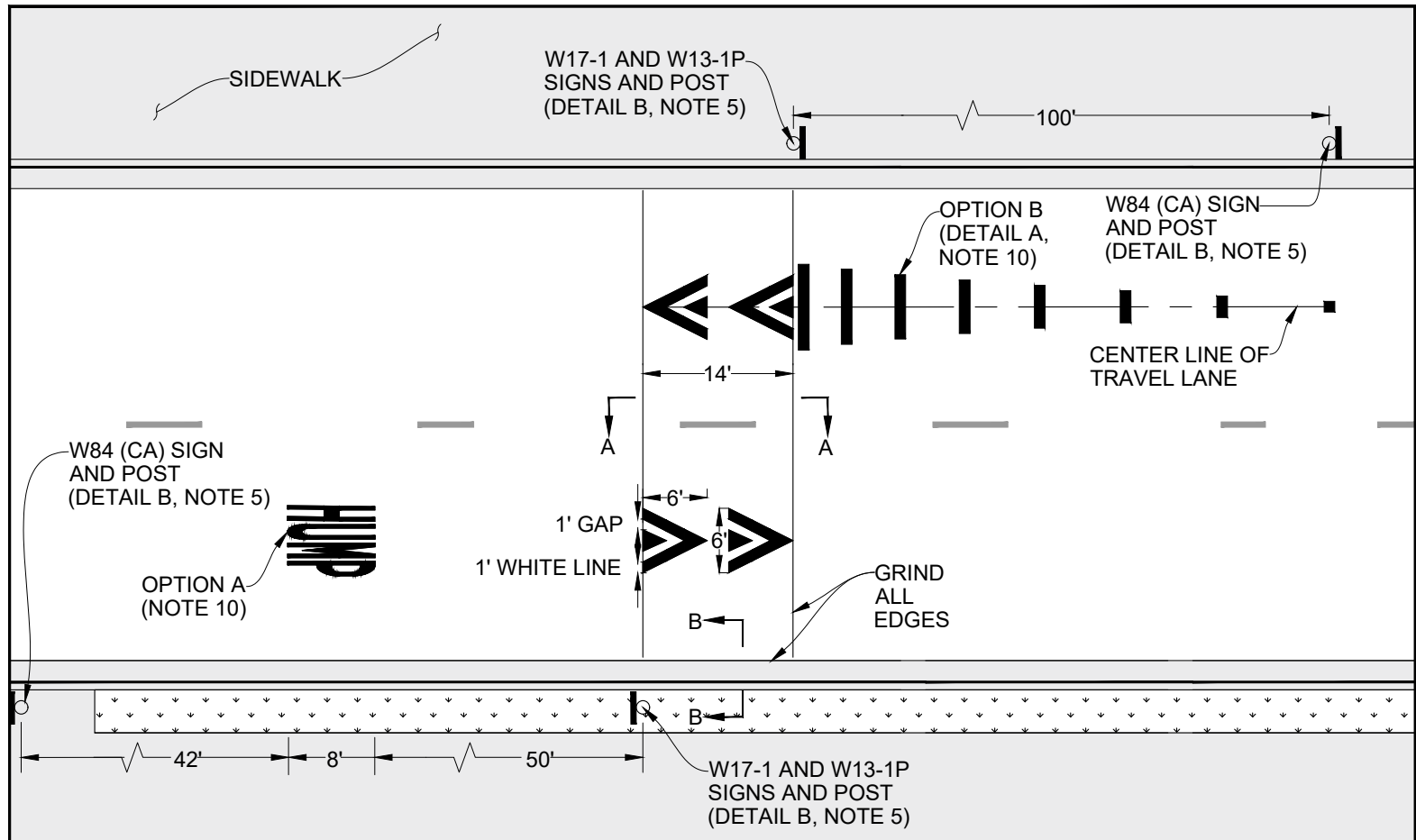
BUS STOP

CITY ENGINEER: _____

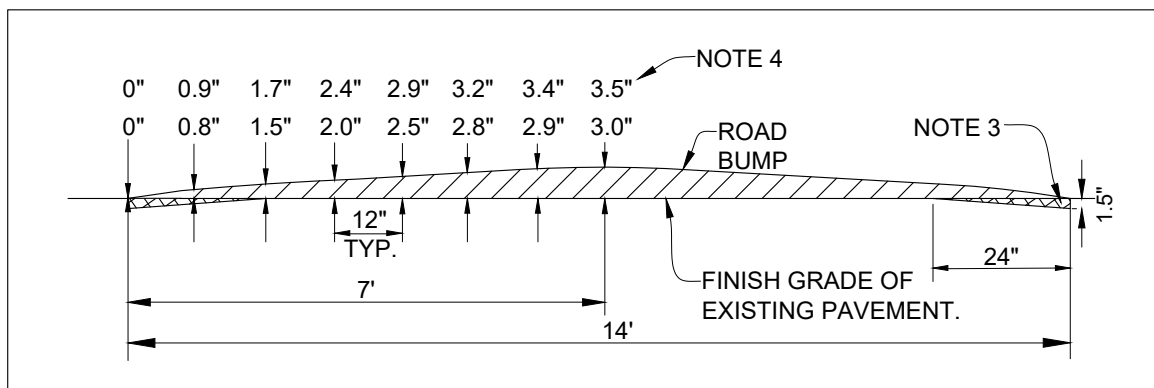
REV. DATE: Jun 2025

SCALE: N.T.S.

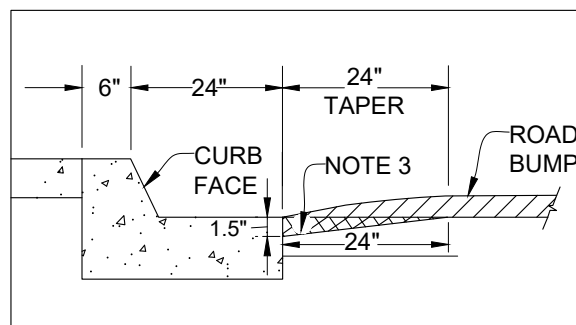
DWG. NO: T - 14



PLAN

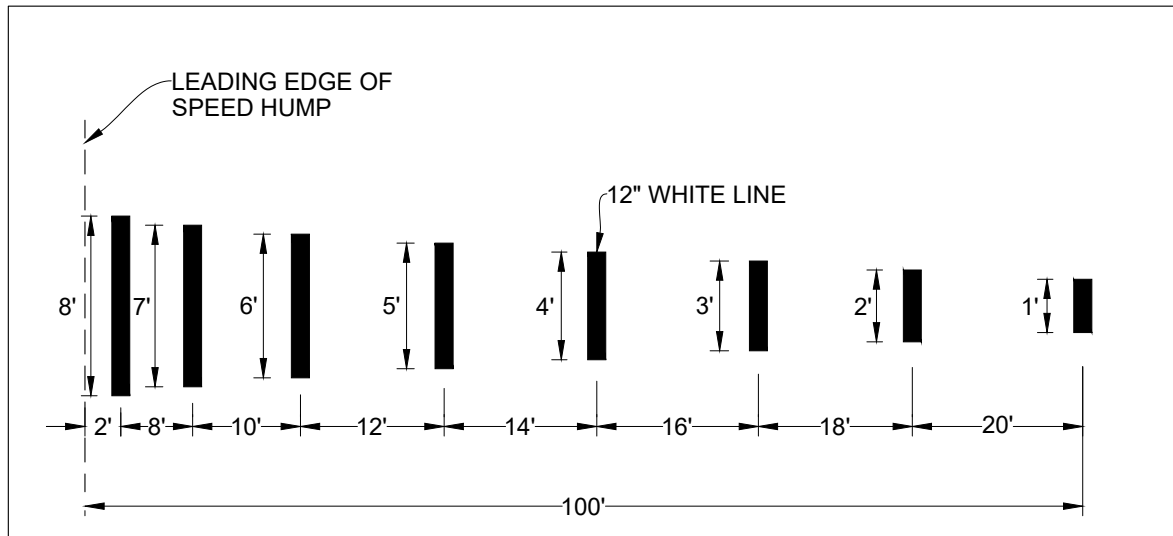


SECTION A-A



SECTION B-B





DETAIL A - ADVANCED WARNING MARKING



W17-1
30"x30"



W84 (CA)
30"x30"



W13-1P
18"x18"



W84 (CA)
30"x30"
(NOTE 6)



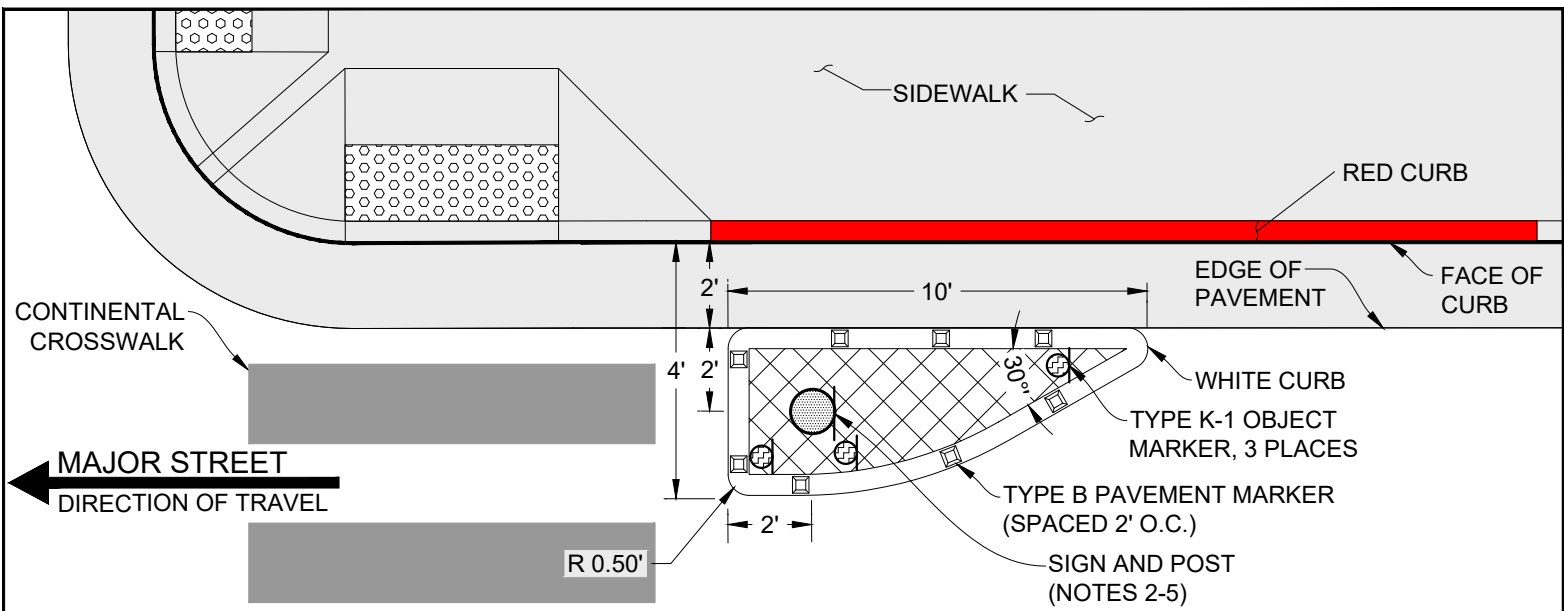
W85 (CA)
30"x30"
(NOTE 7)

DETAIL B - TRAFFIC SIGNS

NOTES:

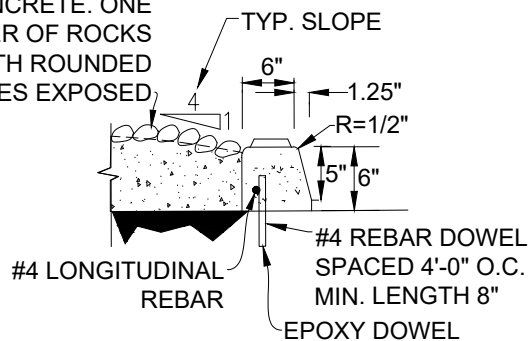
1. PLACE SPEED HUMP IN TWO LIFTS.
2. TYPE B A.C. AR-8000, MAXIMUM AGGREGATE SIZE 1/2".
3. GRIND TO KEY IN ALL EDGES (1.5" BY 24").
4. INSTALL 3.5" HUMP UNLESS OTHERWISE DIRECTED BY ENGINEER.
5. SEE CITY STANDARD DETAIL T-5 FOR SIGN AND POST INSTALLATION.
6. IF A SERIES OF SPEED HUMPS EXIST IN CLOSE PROXIMITY, W84 (CA) SIGN MAY REPLACE THE FIRST SPEED HUMP IN THE SERIES (PROVIDED ADDITIONAL SIGNS ARE PLACED AT SPEED HUMPS).
7. IF SPEED HUMPS EXIST ON A NETWORK OF STREETS, AN OPTIONAL W85 (CA) SIGN MAY BE PLACED AT EACH ACCESS POINT.
8. ENGINEER TO APPROVE LOCATION OF ALL SIGNS PRIOR TO INSTALLATION.
9. ALL STRIPING AND MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
10. ADVANCE WARNING MARKING SHALL USE OPTION A, UNLESS DIRECTED BY CITY ENGINEER TO USE OPTION B.
11. CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.





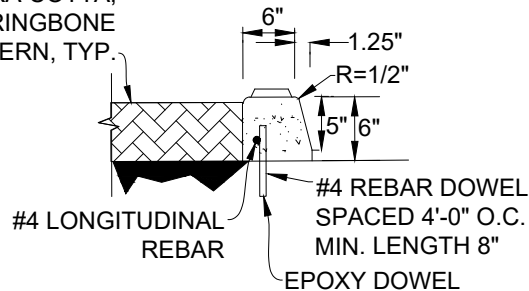
TYPICAL CROSSING ISLAND LAYOUT (PARK LANE)

4" TO 6" DIA. GRAY RIVER ROCK EMBEDDED 2" - 3" INTO WET CONCRETE. ONE LAYER OF ROCKS WITH ROUNDED SIDES EXPOSED



OPTION 1 - RIVER ROCK

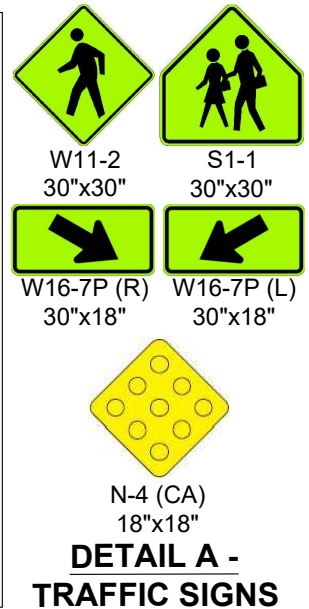
STAMPED CONCRETE DAVIS COLOR TERRA COTTA, HERRINGBONE PATTERN, TYP.



OPTION 2 - STAMPED CONCRETE

SECTION A-A

*ENGINEER SHALL DETERMINE OPTION BEFORE CONSTRUCTION



NOTES:

- ENGINEER TO APPROVE LAYOUT FOR ALL ISLANDS AND MARKERS PRIOR TO INSTALLATION. ENGINEER MAY REQUIRE MODIFICATION TO ISLAND DIMENSIONS TO CONFORM TO SURROUNDING AREA.
- SEE CITY STANDARD DETAIL T-5 FOR SIGN AND POST INSTALLATION.
- IF POST CANNOT BE INSTALLED DUE TO UTILITY CONFLICT, INSTALL SURFACE-MOUNTED TYPE Q (CA) OBJECT MARKER.
- SIGNS SHALL BE:
 - W11-2 (OR S1-1 IF NEAR A SCHOOL ZONE) AND W16-7P ON MAJOR STREET. BACKGROUND SHALL BE FLUORESCENT YELLOW-GREEN WITH BLACK LEGEND AND BORDER.
 - N-4 (CA) [18" X 18"] ON MINOR STREET. BACKGROUND SHALL BE YELLOW.
- W16-7P SHALL BE:
 - POINTED DOWNWARD TO THE LEFT IF SIGN IS INSTALLED ON THE RIGHT SIDE OF THE STREET (RELATIVE TO DIRECTION OF TRAVEL).
 - POINTED DOWNWARD TO THE RIGHT IF SIGN IS INSTALLED ON THE LEFT SIDE OF THE STREET (RELATIVE TO DIRECTION OF TRAVEL).
- ALL CONCRETE TO BE SIX SACK, CLASS "A" CONCRETE, PER LATEST CALTRANS SPECIFICATIONS.



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PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

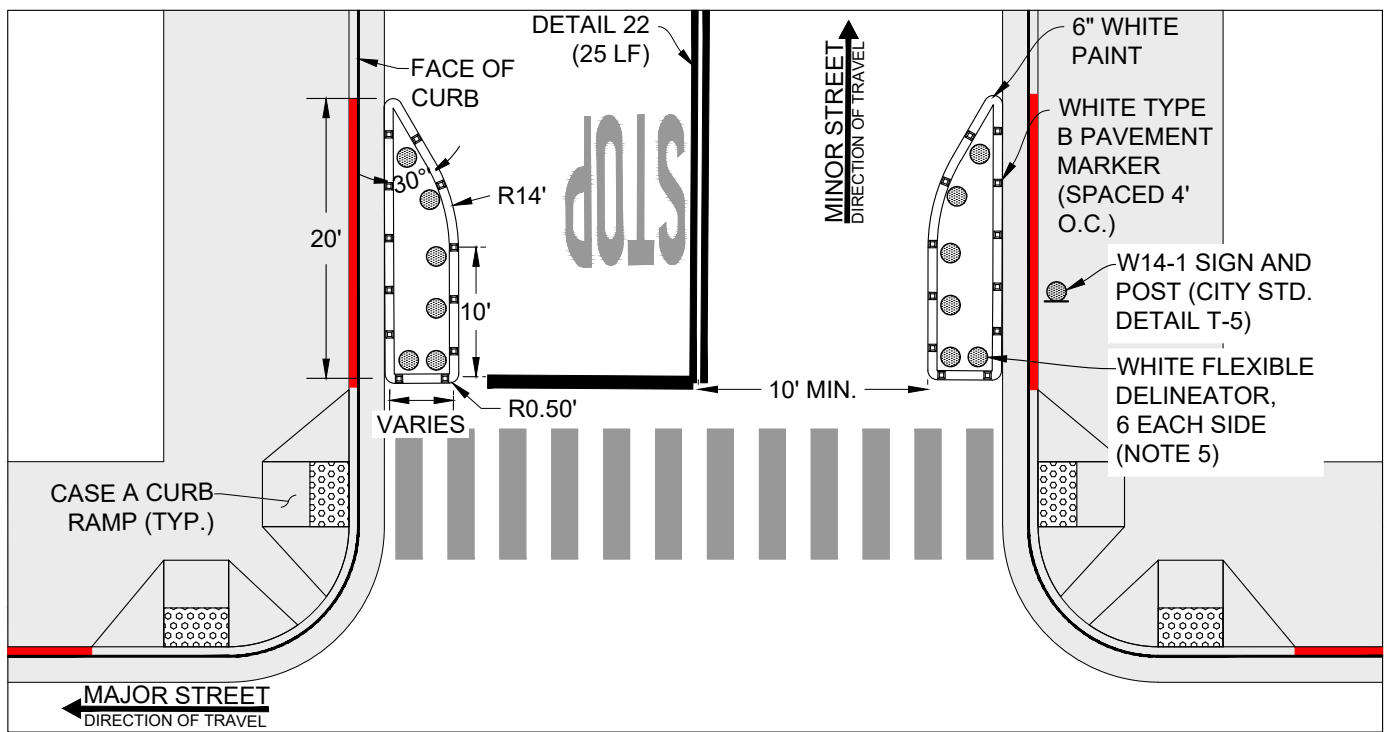
CROSSING ISLAND

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

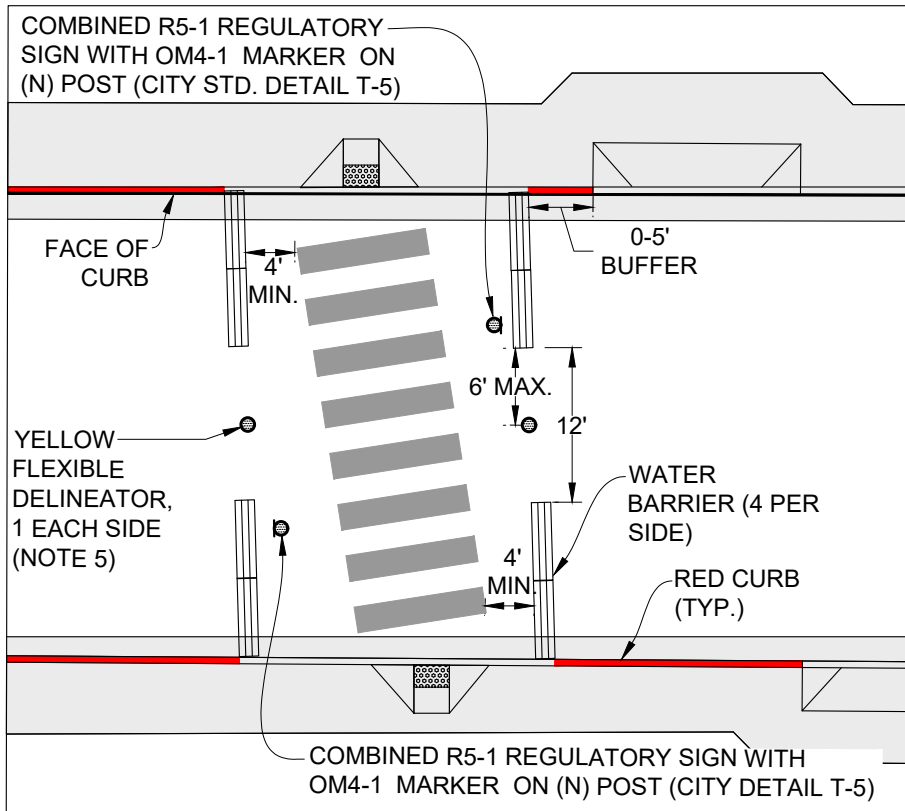
DWG. NO: T - 16



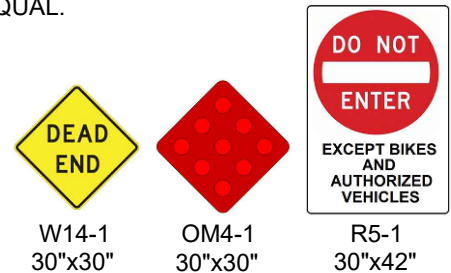
STRIPED CROSSING ISLAND AT INTERSECTION

NOTES:

- ENGINEER TO APPROVE LAYOUT FOR ALL PAINTED ISLANDS, BARRIERS AND DELINEATORS PRIOR TO INSTALLATION. ENGINEER MAY REQUIRE MODIFICATION TO DIMENSIONS TO CONFORM TO SURROUNDING AREA.
- ALL STRIPING AND MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
- WATER BARRIERS SHALL BE TRAFIX WATER WALL 45032-O OR APPROVED EQUAL.
- WATER BARRIERS SHALL BE INSTALLED MIN 15' FROM FIRE HYDRANTS.
- INSTALL 4"x36" FLEXIBLE DELINEATOR (SHORT SQUEEZE WITH 2 RETROREFLECTIVE BANDS) ON SURFACE MOUNT FIXED BASE, IF SHOWN ON PLANS OR DIRECTED BY THE CITY ENGINEER. DELINEATOR SHALL BE IMPACT RECOVERY TUFF POST (TP4) OR APPROVED EQUAL.



MID-BLOCK CLOSURE



DETAIL A - TRAFFIC SIGNS



CITY OF SANTA CRUZ
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

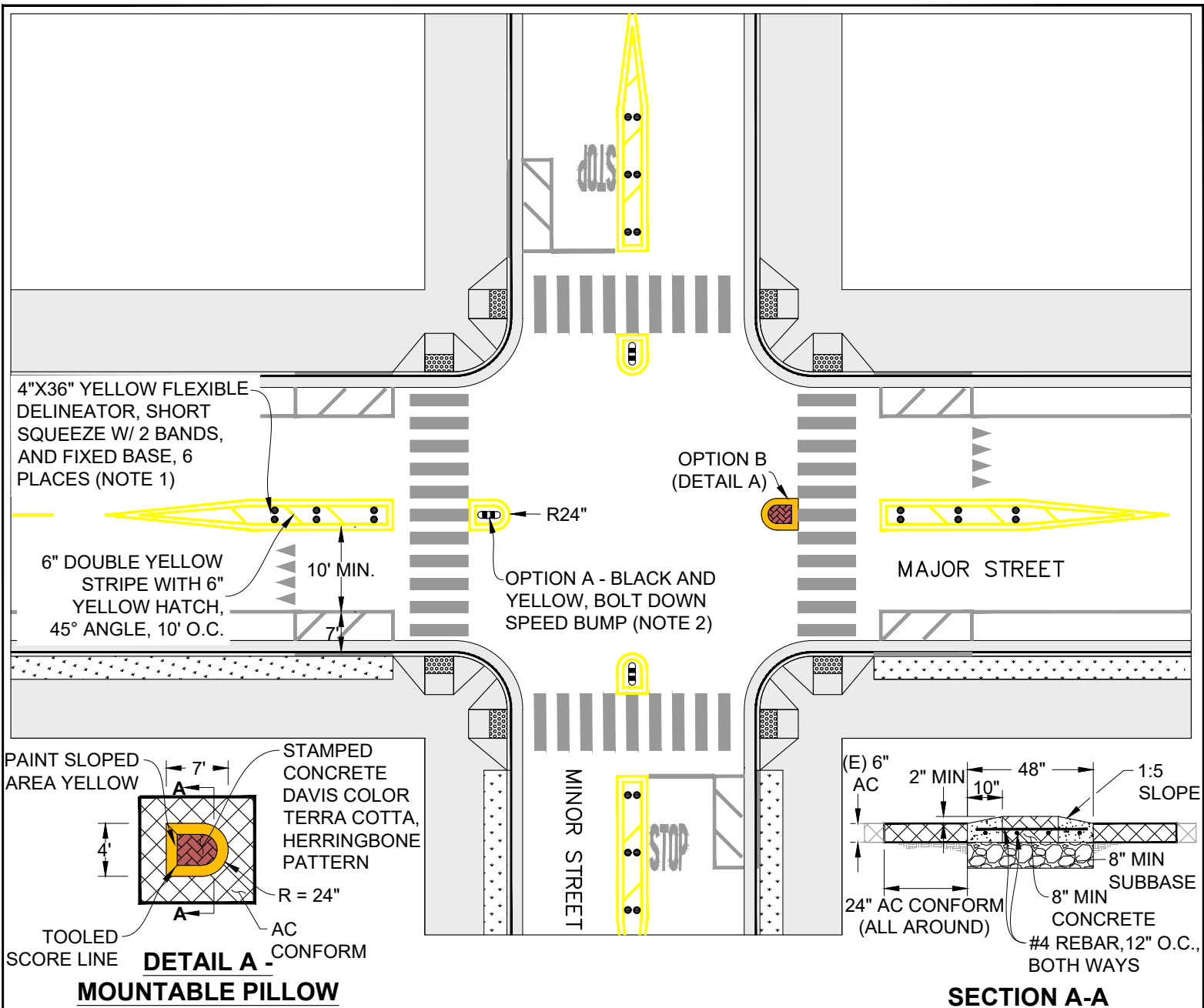
MID-BLOCK CLOSURE

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 17



NOTES:

1. SURFACE-MOUNT FLEXIBLE DELINEATORS SHALL BE IMPACT RECOVERY TUFF POST OR APPROVED EQUAL.
2. OPTION A SHALL BE USED, UNLESS DIRECTED BY THE CITY ENGINEER TO USE OPTION B. BLACK AND YELLOW SPEED BUMP SHALL BE TREE TOP PRODUCTS PREMIUM RECYCLED RUBBER SPEED BUMP OR APPROVED EQUAL.
3. ALL STRIPING AND MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
4. CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.
5. ALL CONCRETE TO BE SIX SACK, CLASS "A" CONCRETE, PER LATEST CALTRANS SPECIFICATIONS.
6. COMPACT SUBBASE SOIL TO 95% RELATIVE COMPACTION AT OPTIMUM MOISTURE CONTENT TO A DEPTH OF 6".



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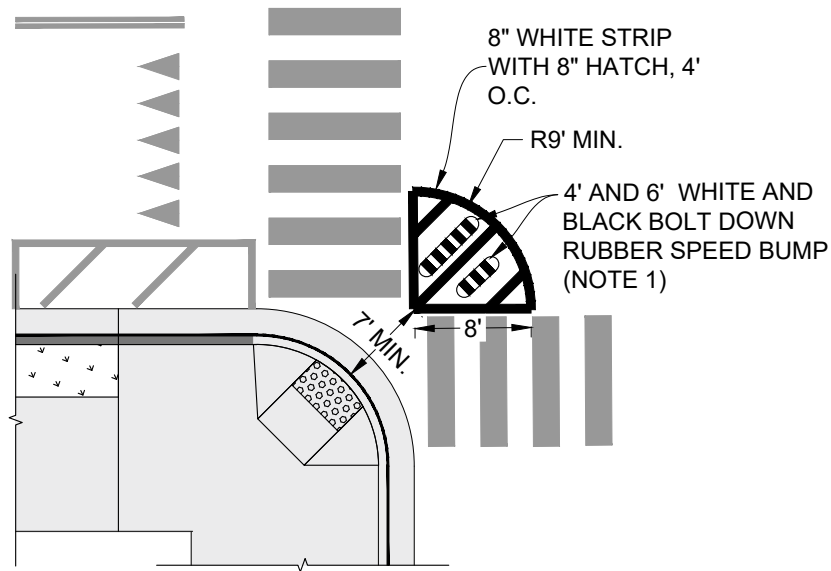
INTERSECTION TREATMENT STRIPED MEDIAN

CITY ENGINEER: _____

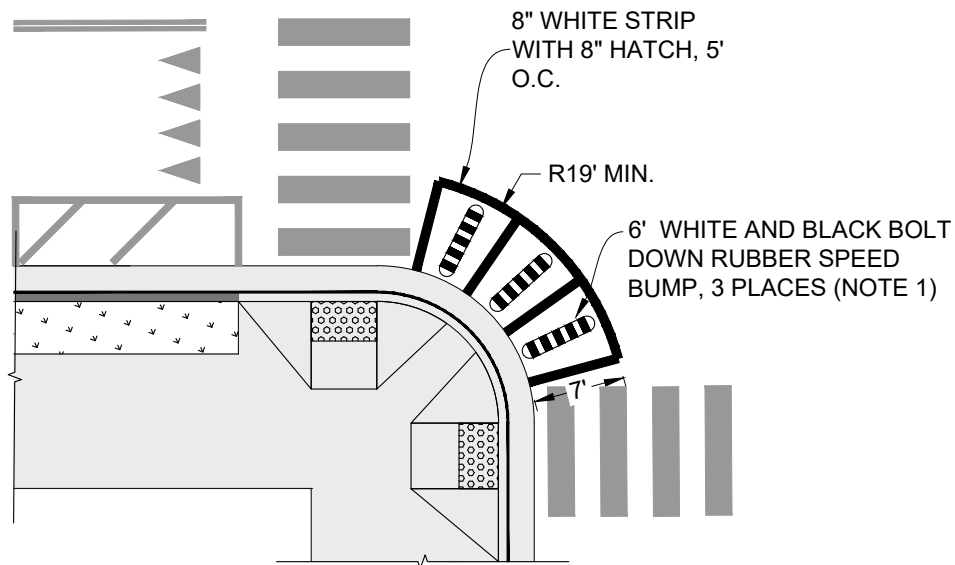
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 18



TURN WEDGE FOR DIAGONAL CURB RAMP



TURN WEDGE FOR DIRECTIONAL CURB RAMP

NOTES:

1. RUBBER SPEED BUMP SHALL BE TREE TOP PRODUCTS PREMIUM RECYCLED RUBBER SPEED BUMP OR APPROVED EQUAL.
2. ALL STRIPING AND MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
3. CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.



CITY OF SANTA CRUZ
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ENGINEERING DIVISION

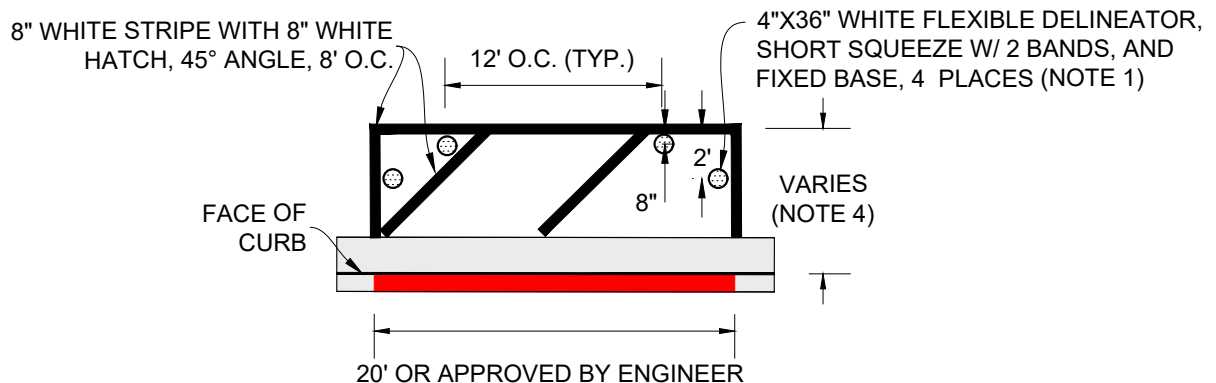
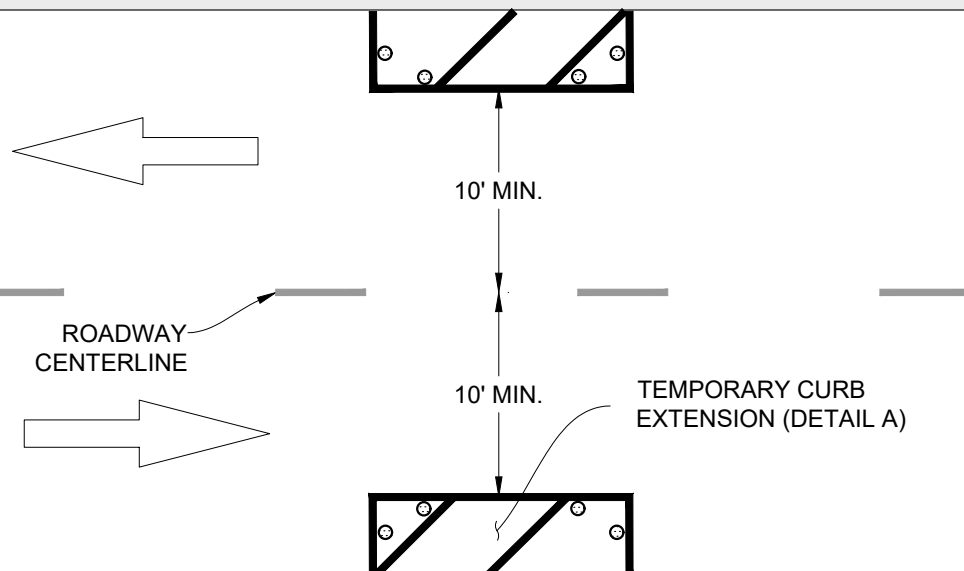
**INTERSECTION TREATMENT
TURN WEDGE**

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 19



DETAIL A - CURB EXTENSION

NOTES:

1. SURFACE-MOUNT FLEXIBLE DELINEATORS SHALL BE IMPACT RECOVERY TUFF POST OR APPROVED EQUAL.
2. ALL STRIPING AND MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
3. CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.
4. WIDTH OF CURB EXTENSION SHALL MATCH WIDTH OF EXISTING PARKING LANE. IF UNKNOWN, USE 7'.



CITY OF SANTA CRUZ
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ENGINEERING DIVISION

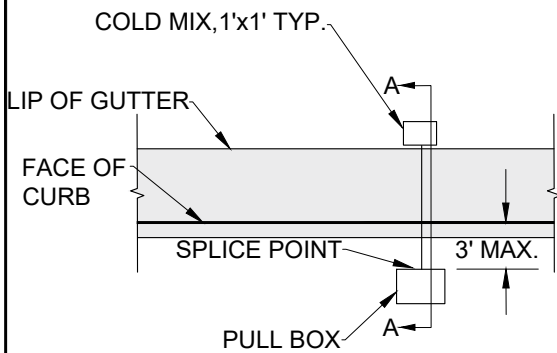
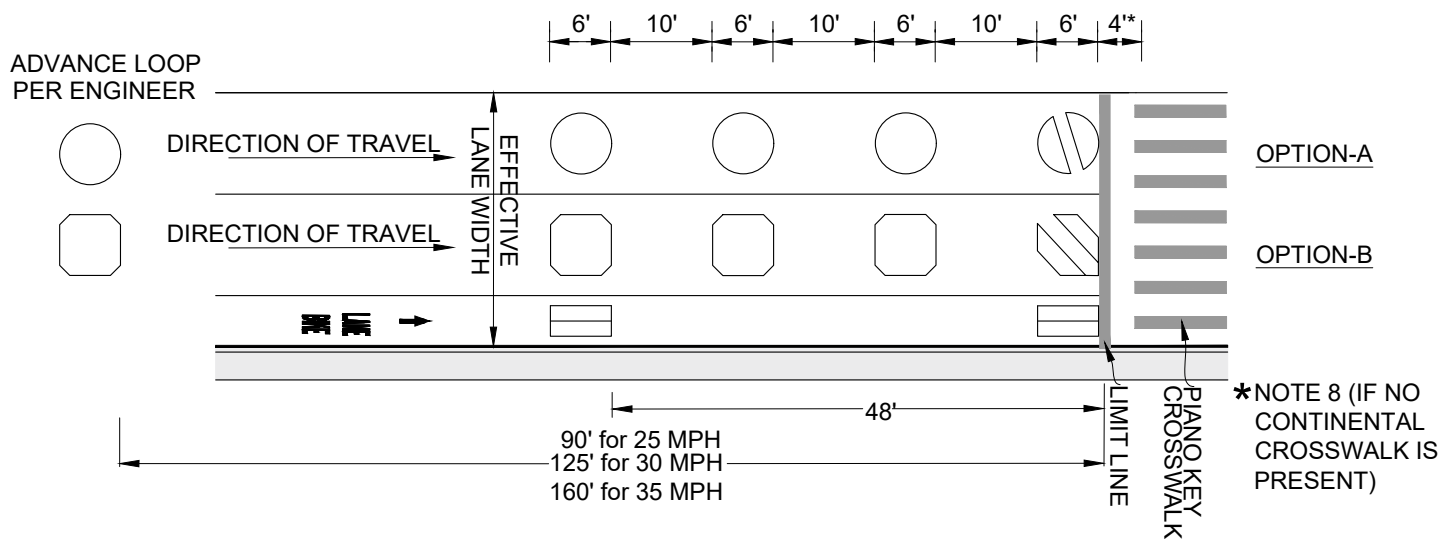
ROADWAY PINCH POINT

CITY ENGINEER: _____

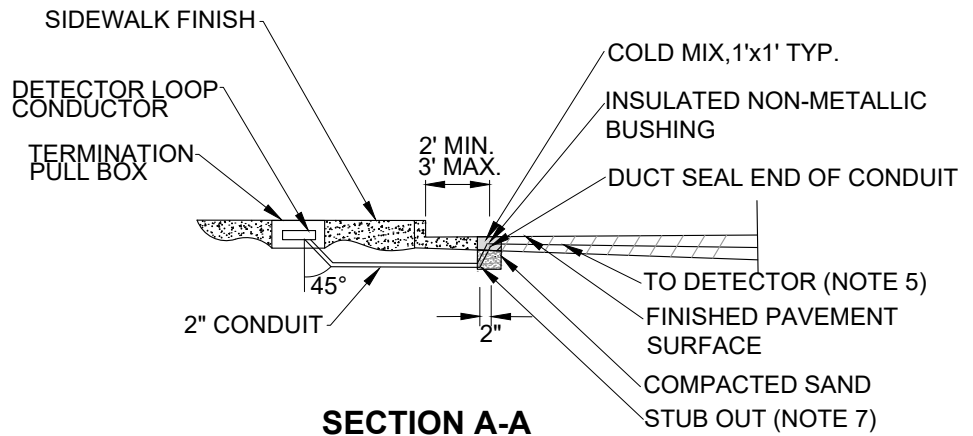
REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 20

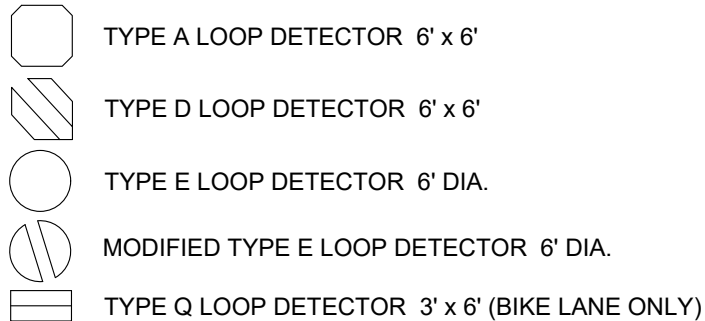


PLAN



SECTION A-A

LEGEND



NOTES:

1. ALL INSTALLATIONS TO BE IN COMPLIANCE WITH CURRENT CALTRANS STANDARD PLANS AND SPECIFICATIONS.
2. FOR NEW LANE DETECTION, INSTALL OPTION-A OR OPTION-B.
3. OPTION-A: MODIFIED TYPE E LOOP DETECTORS SHALL ONLY BE FOLLOWED WITH TYPE E LOOP DETECTORS.
OPTION-B: TYPE D LOOP DETECTORS SHALL ONLY BE FOLLOWED WITH TYPE A LOOP DETECTORS.
4. INSTALL TYPE Q LOOP DETECTORS IN BIKE LANES ONLY.
5. LOOP DETECTORS SHALL BE SEALED IN HOT MELT ONLY. EMULSION SHALL NOT BE ALLOWED.
6. ALL LOOP DETECTORS SHALL SPLICE INTO DLC DETECTORS LEAD ON CABLE ADJACENT SIDEWALK J-BOX.
7. STUB OUT SHALL BE LOCATED 2" BEYOND LIP OF GUTTER IN PAVEMENT, 4" BELOW FINISHED SURFACE.
8. BEGIN LOOP DETECTORS 3' BEHIND LIMIT LINE IF NO PIANO CONTINENTAL CROSSWALK IS PRESENT.



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ENGINEERING DIVISION

LOOP DETECTOR

CITY ENGINEER: _____

REV. DATE: Jun 2025

SCALE: N.T.S.

DWG. NO: T - 21