



CITY OF SEAL BEACH STANDARD DRAWINGS



2021 Edition

STANDARD DRAWINGS FOR STREET FACILITIES

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SEAL BEACH STANDARD PLANS FOR STREETS

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DRAWN BY: A. MARTINEZ	APPROVED BY:  _____ DIRECTOR OF PUBLIC WORKS	10/7/2021 _____ DATE		<h1 style="margin: 0;">INDEX</h1>
CHECKED BY: I. LEE				
DATE: OCTOBER, 2021				
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CONSTRUCTION GENERAL NOTES:

1. THE CITY ENGINEER RESERVES THE RIGHT TO MODIFY ANY STREET STANDARD HEREIN, ON A CASE BY CASE BASIS, AS THE NEED ARISES.
2. STREET CLOSURES OR LANE CLOSURES SHALL BE CONFINED TO THE HOURS BETWEEN 9 A.M. AND 3 P.M., MONDAY THROUGH FRIDAY. ALL OTHER TIMES MUST BE APPROVED BY THE CITY ENGINEER. ALL LANES SHALL BE OPEN FOR TRAFFIC DURING NON-WORK HOURS, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER. ON MAJOR ARTERIALS, TWO THROUGH LANES, AND COLLECTORS, ONE LANE, IN EACH DIRECTION AS WELL AS LEFT TURN LANES IN EACH DIRECTION MUST BE MAINTAINED AT ALL TIMES, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
3. CONTRACTOR SHALL REPLACE ALL TRAFFIC DETECTOR LOOPS DAMAGED DURING CONSTRUCTION, PER CALTRANS STANDARD. LAYOUT OF TRAFFIC LOOP SHALL BE VERIFIED BY THE CITY PUBLIC WORKS DEPARTMENT PRIOR TO INSTALLATION. CONTACT SIGNAL OPERATIONS AT (562) 431-2527.
4. WHEREVER PAVEMENT IS OFFSET VERTICALLY BY ONE (1) INCH OR MORE, THE CONTRACTOR SHALL POST "UNEVEN PAVEMENT" SIGNS AND PLACE TEMPORARY ASPHALT RAMPING AT THE EDGE, FOR A SMOOTH TRANSITION, TO THE SATISFACTION OF THE CITY CONSTRUCTION INSPECTOR (INSPECTOR).
5. NO WATER OR OTHER HOSES SHALL BE LAID ACROSS TRAFFIC LANES AT ANY TIME. ANY HOSES LAID ACROSS SIDEWALKS OR OTHER PEDESTRIAN PATHS SHALL BE RAMPED.
6. ALL OPEN EXCAVATION ON PUBLIC STREETS SHALL BE BACKFILLED OR PROPERLY RAMPED, STEEL PLATED FOR TRAFFIC OUTSIDE OF WORKING HOURS. ALL STEEL PLATE BRIDGING SHALL HAVE A NON-SKID SURFACE, AND SHALL BE RECESSED FLUSH AND PINNED FOR ARTERIAL AND COLLECTORS.
7. NOTIFY THE CITY ENGINEER TWO WORKING DAYS IN ADVANCE FOR INSPECTION PRIOR TO STARTING WORK AT (562) 431-2527.
8. NOTIFY THE OPERATION DIVISION, TWO WORKING DAYS IN ADVANCE AT (562) 431-2527, PRIOR TO ANY WORK WITHIN 150 FEET OF A SIGNAL SYSTEM.
9. NOTIFY ORANGE COUNTY TRANSPORTATION AUTHORITY (OCTA) OR ANY OTHER AFFECTED TRANSIT SERVICES AT LEAST FIVE WORKING DAYS PRIOR TO CONSTRUCTION.
10. ALL PRIVATE DRIVEWAYS AND SIDE STREETS SHALL BE KEPT OPEN AT ALL TIMES, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
11. TRAFFIC SHALL BE RESTORED TO NORMAL CONDITIONS OUTSIDE THE WORKING HOURS.
12. THE CONTRACTOR SHALL PROVIDE A 24 HOUR CONTACT INFORMATION INCLUDING PHONE NUMBER:

13. ANY SIGN OR EQUIPMENT THAT CONTAINS "GRAFFITI" SHALL BE REPLACED BY THE CONTRACTOR.

STRIPING REQUIREMENTS:

1. STRIPING TO BE APPLIED WITHIN 2 WEEKS OF FINAL PAVING.

ARTERIAL/COLLECTOR STREETS:

ALL PAVEMENT MARKINGS, LEGENDS, AND CROSSWALKS SHALL BE THERMOPLASTIC

LOCAL/RESIDENTIAL STREETS:



ALL PAVEMENT MARKINGS, LEGENDS, AND CROSSWALKS SHALL BE PAINT, UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH), LATEST EDITION, THE CALTRANS MANUAL, ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) LATEST EDITION, AND THE CITY OF SEAL BEACH STANDARD PLANS. IN CASE OF DISCREPANCY, THIS PROVISION TAKES PRECEDENCE OVER THE WATCH, WHICH TAKES PRECEDENCE OVER THE MUTCD. WATCH IS PUBLISHED BY BUILDING NEWS, INC.
2. THE 85TH PERCENTILE SPEED SHALL BE USED TO DETERMINE DETOUR TAPER LENGTHS AND SIGN/DELINEATOR SPACING. THIS INFORMATION WILL BE SUPPLIED BY THE CITY PUBLIC WORKS DEPARTMENT UPON REQUEST.
3. CONSTRUCTION OPERATIONS SHALL BE CONDUCTED IN SUCH A MANNER AS TO CAUSE AS LITTLE INCONVENIENCE AS POSSIBLE TO PROPERTY OWNERS AND COMMUTERS, WITHIN THE VICINITY.
4. THE CONTRACTOR SHALL HAVE ALL SIGNS, DELINEATORS, BARRICADES, ETC. PROPERLY INSTALLED PRIOR TO COMMENCING CONSTRUCTION AND SHALL NOT ATTEMPT TO SWITCH TO A SUBSEQUENT PHASE DURING WORKING HOURS. ALL TRAFFIC DETOURS SHALL BE APPROVED BY THE CITY PUBLIC WORKS DEPARTMENT.
5. THE CONTRACTOR SHALL MAINTAIN, ON A 24-HOURS BASIS, ALL SIGNS, DELINEATORS, BARRICADES, ETC, WHICH SHALL BE REPAIRED, REPLACED, OR CLEANED AS NECESSARY TO PRESERVE THEIR APPEARANCE AND CONTINUITY, TO ENSURE THE SAFE MOVEMENT OF TRAFFIC AND PEDESTRIANS THROUGH OR AROUND THE WORK AREA AND PROVIDE MAXIMUM PROTECTION AND SAFETY TO CONSTRUCTION WORKERS.

SEAL BEACH STANDARD PLANS FOR STREETS

GENERAL NOTES

DRAWN BY: A. MARTINEZ	APPROVED BY:  _____ DIRECTOR OF PUBLIC WORKS	10/7/2021 _____ DATE		ST-1
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6. THE CONTRACTOR SHALL UTILIZE FLAGGERS DURING WORK HOURS AS DEEMED NECESSARY BY THE CITY.
7. FLASHING ARROW BOARDS SHALL BE USED ON ALL PRIMARY, SECONDARY, AND COLLECTOR ARTERIAL STREETS OR WHERE DEEMED NECESSARY BY THE CITY ENGINEER. THE FLASHING ARROW BOARD SHALL BE STATIONARY AND KEPT IN PLACE AT ALL TIMES. IN OR NEAR RESIDENTIAL AREAS, THE FLASHING ARROW BOARD SHALL BE SOLAR-POWERED.
8. THE CITY PUBLIC WORKS DEPARTMENT AND THE INSPECTOR RESERVE THE RIGHT TO OBSERVE THE TRAFFIC CONTROL PLANS IN USE AND REQUIRE THE CONTRACTOR MAKE ANY NECESSARY CHANGES AS FIELD CONDITIONS WARRANT.
9. IT IS THE RESPONSIBILITY OF THE CONTRACTOR PERFORMING WORK ON A PUBLIC STREET TO INSTALL AND MAINTAIN THE TRAFFIC CONTROL DEVICES TO ENSURE THE SAFE MOVEMENT OF TRAFFIC AND PEDESTRIANS THROUGH OR AROUND THE WORK AREA AND PROVIDE MAXIMUM PROTECTION AND SAFETY TO CONSTRUCTION WORKERS.
10. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED FOLLOWING COMPLETION OF EACH CONSTRUCTION STAGE AND THE PERMANENT TRAFFIC CONTROL DEVICES, INCLUDING BUT NOT LIMITED TO PAVEMENT MARKERS, PAVEMENT STRIPING AND TRAFFIC SIGNS SHALL BE RESTORED BY THE CONTRACTOR UPON COMPLETION OF PROJECT.
11. CONTRACTOR SHALL REPLACE/REPAIR ALL DAMAGED STRIPING WITH TEMPORARY STRIPING OR RAISED PAVEMENT MARKERS AT THE END OF EACH WORKING DAY.
12. CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS AT ALL TIMES.
13. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN THEIR PROPER POSITION AT ALL TIMES, AND SHALL BE REPAIRED, REPLACED, OR CLEANED AS NECESSARY TO PRESERVE THEIR APPEARANCE AND CONTINUITY.
14. ALL DELINEATORS SHALL BE EQUIPPED WITH NIGHTTIME REFLECTIVE BANDS.

15. CONTRACTOR SHALL COVER OR REMOVE ALL CONFLICTING SIGNS.



A TRAFFIC CONTROL PLAN (PLAN) IS REQUIRED WHENEVER WORK IS TO BE PERFORMED WITHIN THE PUBLIC RIGHT-OF-WAY AND IS DEEMED NECESSARY BY THE CITY ENGINEER. WORK CANNOT START UNTIL THE TRAFFIC CONTROL PLAN HAS BEEN APPROVED BY THE CITY ENGINEER.

THE PLAN SHALL BE PREPARED UNDER THE SUPERVISION OF A CALIFORNIA-REGISTERED TRAFFIC ENGINEER OR CIVIL ENGINEER, PRACTICING TRAFFIC ENGINEERING. THE PLAN, SHALL BE DESIGNED AT 1"=40' OR 1"=50' SCALE AND PRINTED ON 24"x36" SHEET(S) AND SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:

1. THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE RESPONSIBLE ENGINEERING FIRM.
2. THE ESTIMATED NUMBER OF WORKING DAYS AND WORKING HOURS TO COMPLETE THE WORK.
3. THE "CONSTRUCTION GENERAL NOTES: AND THE TRAFFIC CONTROL GENERAL NOTES".
4. THE CITY OF SEAL BEACH TITLE BLOCK.
5. A LEGEND OF THE VARIOUS TRAFFIC CONTROL DEVICES, I.E. TYPE II AND TYPE III BARRICADES, DELINEATORS, FLASHING ARROW BOARDS, AND HIGH-LEVEL WARNING DEVICES.
6. A LEGEND OF THE VARIOUS SIGNS USED ON PLAN.
7. EXISTING STRIPING AND PAVEMENT MARKINGS, STREET CENTER LINE(S) WITH STATIONS, CURB LINES, RELEVANT EXISTING SIGNS, EXISTING CURB MARKINGS, DRIVEWAYS IN CRITICAL LOCATIONS, AND TYPE OF INTERSECTION CONTROL, I.E. SIGNALS OR STOP SIGNS.
8. EXISTING AND PROPOSED LANE WIDTHS, CONSTRUCTION ZONE WIDTHS, AND OTHER DIMENSIONS.
9. THE MEANS OF TRAFFIC CONTROL BY SIGNING, STRIPING AND DELINEATION.
10. THE TAPERS OF ANY DETOUR STRIPING, I.E. 100:1, AND ALSO IDENTIFY THE LENGTH, AND BEGINNING AND END OF EACH TAPER.
11. THE LOCATIONS WHERE PARKING IS TO BE REMOVED DURING CONSTRUCTION.
12. PHASING AND SEQUENCING OF WORK.

SEAL BEACH STANDARD PLANS FOR STREETS

GENERAL NOTES

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THE FOLLOWING CONDITIONS ARE DESIGNED TO PRESERVE THE INTEGRITY OF NEW STREETS AND FORESTALL DETERIORATION BY PREVENTING STORM WATER INTRUSION AND DIFFERENTIAL SETTLEMENT THAT IS OFTEN ASSOCIATED WITH STREET PATCHING. IT IS NOT THE INTENTION OF THIS SECTION TO PROHIBIT NECESSARY IMPROVEMENTS TO THE INFRASTRUCTURE. CERTAIN EMERGENCIES MAY OCCUR THAT NECESSITATE THE OPEN CUTTING OF NEW STREET PAVEMENT. IF AN INSTALLATION OR REPAIR IS CRITICALLY NEEDED AND NO OTHER ALTERNATIVES EXIST, THE CITY ENGINEER MAY APPROVE AN OPEN CUT WITHIN NEW PAVEMENTS UNDER THE FOLLOWING CRITERIA:

STREET PAVED/OVERLAID WITHIN 5 YEARS

MINIMUM DEPTH:

- FINAL RESURFACING SHALL INCLUDE THE GRINDING OF EXISTING SURROUNDING PAVEMENT AND REPAVING AT A MINIMUM DEPTH OF 1 ½"

TRENCHES PERPENDICULAR TO TRAFFIC LANES:

- PER DETAIL BELOW

TRENCHES PARALLEL TO THE TRAFFIC LANES:

- GRIND THE ENTIRE WIDTH OF THE TRAFFIC LANE(S) FOR THE FULL LENGTH OF THE TRENCH, BUT NOT LESS THAN 100'.

TRENCHES OTHER THAN PERPENDICULAR OR PARALLEL TO TRAFFIC LANES:

- THE CITY ENGINEER SHALL ESTABLISH APPROPRIATE LIMITS OF PAVING.

TRANSVERSE PAVING JOINTS:

- PLACE PERPENDICULAR TO THE DIRECTION OF TRAVEL AND LONGITUDINAL PAVING JOINTS SHALL NOT BE PERMITTED IN VEHICLE WHEEL PATHS.

STREET SEALED WITHIN 3 YEARS (SLURRY SEAL, RUBBERIZED CHIP)

TIME FRAME:

- APPLY SEAL TO PATCHED AREA NO SOONER THAN 30 DAYS OR LATER THAN 90 DAYS AFTER THE COMPLETION OF THE PAVEMENT REPAIR.

TRENCHES PERPENDICULAR TO TRAFFIC LANES:

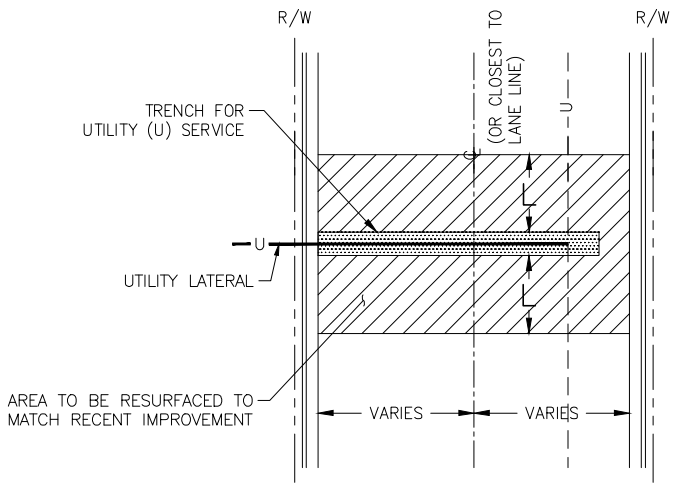
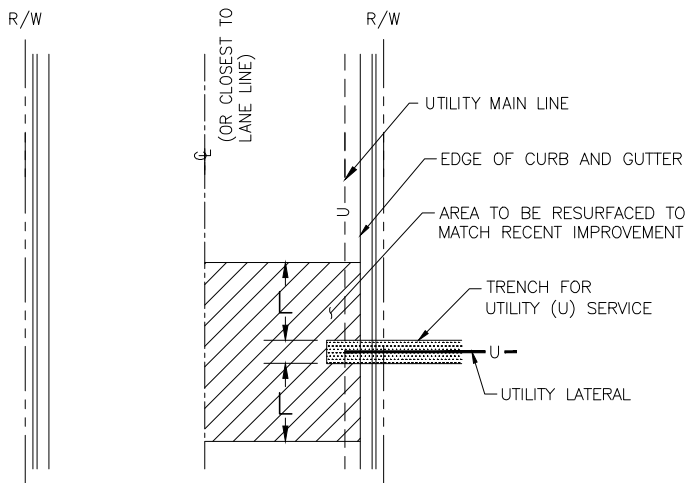
- PER DETAIL BELOW

TRENCHES PARALLEL TO THE TRAFFIC LANES:

- SEAL THE ENTIRE WIDTH OF THE TRAFFIC LANE(S) FOR THE FULL LENGTH OF THE TRENCH, BUT NOT LESS THAN 100'.

TRANSVERSE PAVING JOINTS:

- PLACE PERPENDICULAR TO THE DIRECTION OF TRAVEL AND LONGITUDINAL PAVING JOINTS SHALL NOT BE PERMITTED IN VEHICLE WHEEL PATHS.



TRENCH EXTENDS WITHIN HALF STREET

TRENCH EXTENDS PAST HALF STREET

FOR LOCAL STREETS
L = 10'



TRENCHES PERPENDICULAR TO TRAFFIC
N.T.S.

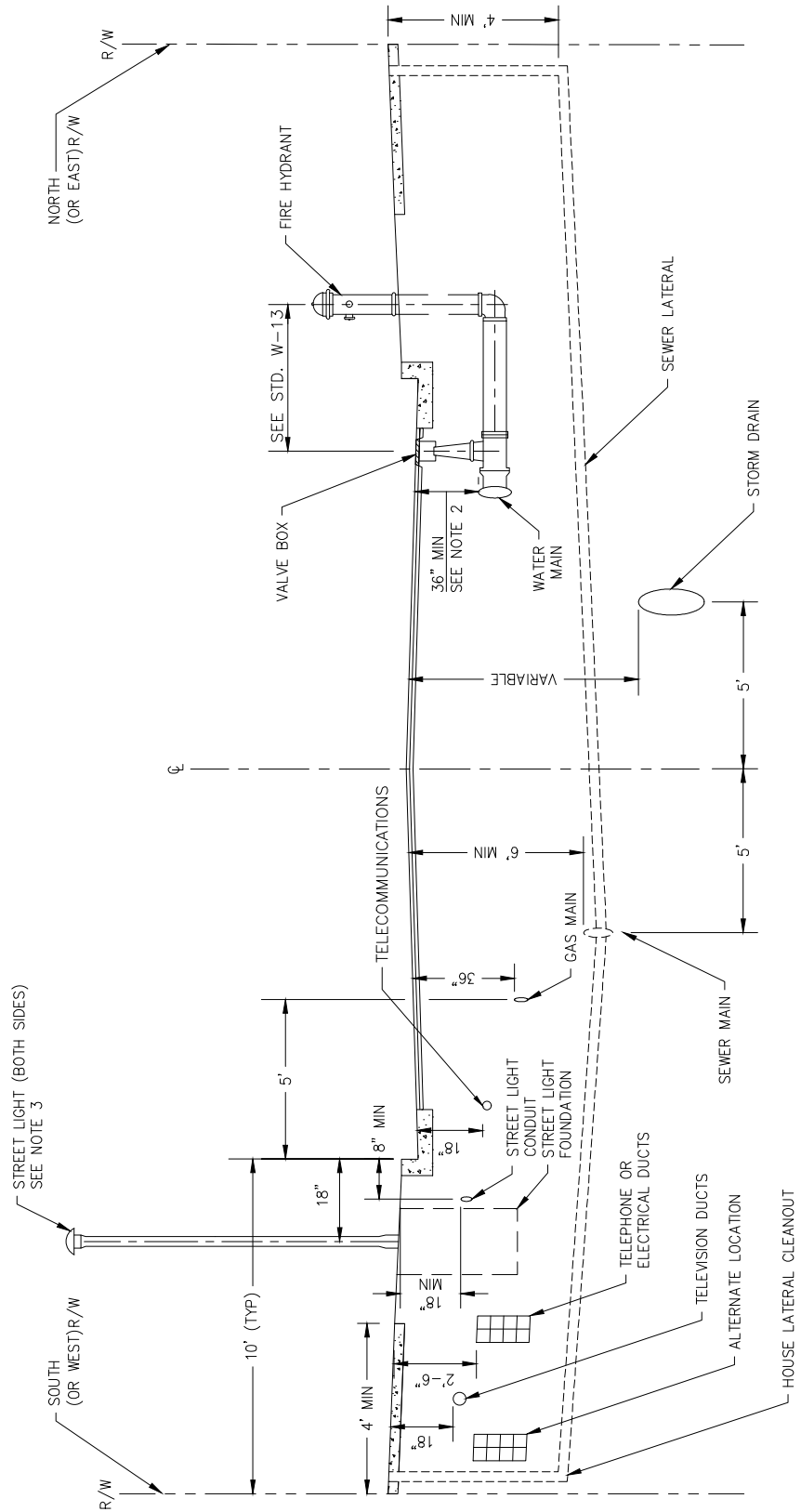
FOR ARTERIAL AND COLLECTOR STREETS
L = 50'

NOTE: FOR CONCRETE PAVEMENT, FULL PANEL REPLACEMENT SHALL BE REQUIRED.

SEAL BEACH STANDARD PLANS FOR STREETS

MORATORIUM ROADWAY TRENCH RESURFACING

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	10/7/2021 DATE		



NOTES:

1. LOCATION OF WATER MAIN WILL GOVERN THE LOCATION OF UTILITIES.
2. PROVIDE 36" MIN OF COVER FROM FINISHED GRADE FOR 12" AND SMALLER MAINS. MAINS LARGER THAN 12" MAINS IN ARTERIAL STREETS, P.V.C., H.D.P.E. AND OTHER FLEXIBLE PIPE REQUIRE SPECIAL DESIGN.
3. STREET LIGHTS MAY BE LOCATED AT BACK OF WALK WHEN SIDEWALK IS ADJACENT TO THE CURB, UPON APPROVAL OF THE PUBLIC WORKS DEPARTMENT.
4. UTILITY VENT PIPES, METER SERVICE POINTS AND ANY OTHER ABOVE-GROUND FACILITIES SHALL BE INSTALLED IN THE UNPAVED PARKWAY OR AT THE BACK OF SIDEWALK, WHILE MAINTAINING ADA CLEARANCE.
5. LOCATION OF MICRO-TRENCHED UTILITIES SHALL BE APPROVED BY THE CITY ENGINEER

SEAL BEACH STANDARD PLANS FOR STREETS

STANDARD LOCATION FOR UNDERGROUND UTILITIES

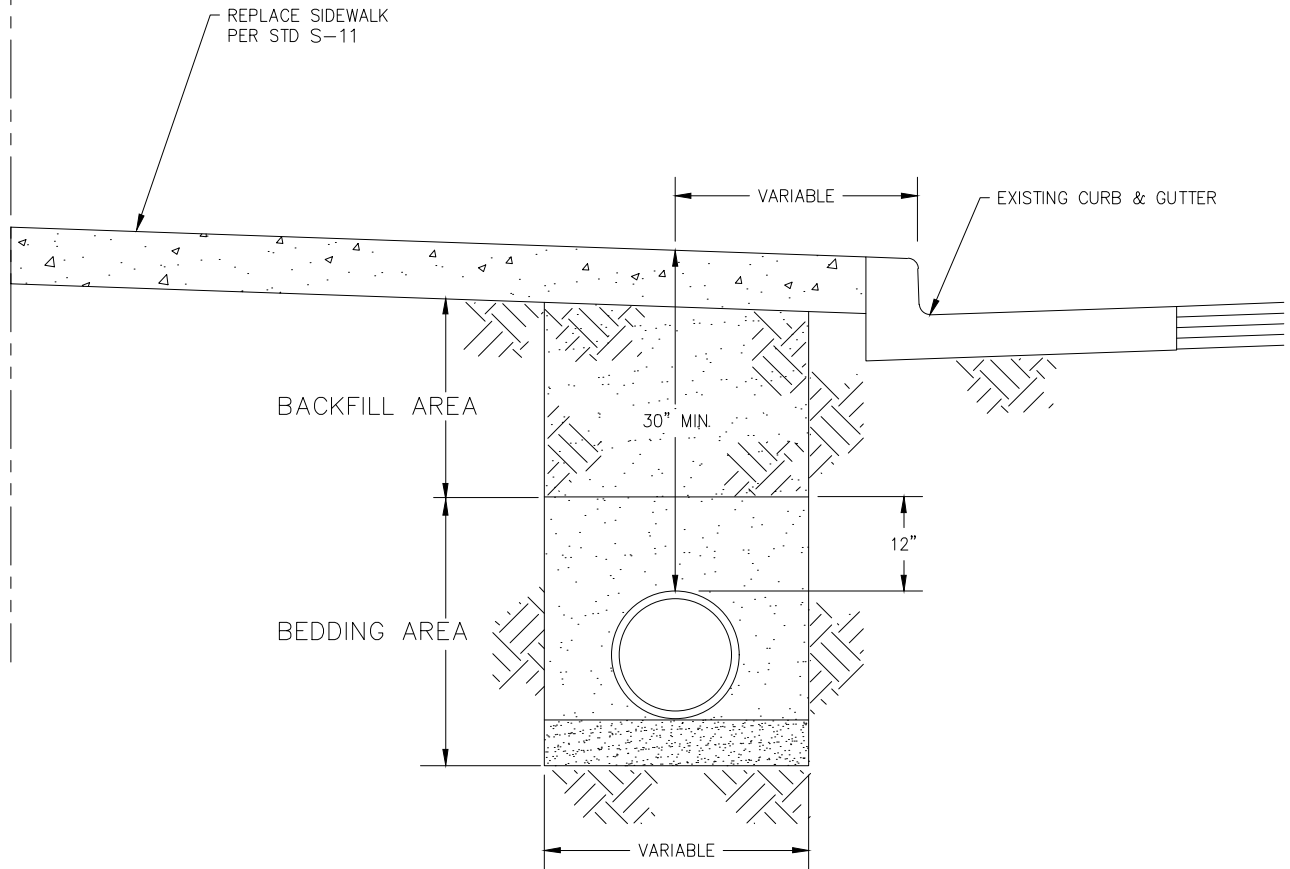
DRAWN BY:	A. MARTINEZ
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R/W




NOTES:

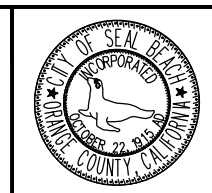
1. ANY SIDEWALK REMOVALS SHALL BE REPLACED IN FULL PANELS. IN ADDITION, ANY EXISTING CITY/PRIVATE IMPROVEMENTS /FACILITIES DAMAGED DURING THE CONSTRUCTION SHALL BE REPLACED/REPAIRED AT THE CONTRACTOR'S EXPENSE.
2. SIDEWALK SHALL BE RESTORED WITHIN ONE WEEK OF UTILITY INSTALLATION.
3. PIPE BEDDING AND BACKFILL AS DETERMINED BY THE UTILITY ENGINEER PER "GREENBOOK" SECTION 217 AND 306 AND APPROVED BY THE CITY ENGINEER.
4. THIS STANDARD IS FOR PRIVATE UTILITIES. TRENCHES FOR PUBLIC WATER, SEWER, AND/OR STORM DRAINS SHALL BE PER THOSE UTILITY STANDARDS.

SEAL BEACH STANDARD PLANS FOR STREETS

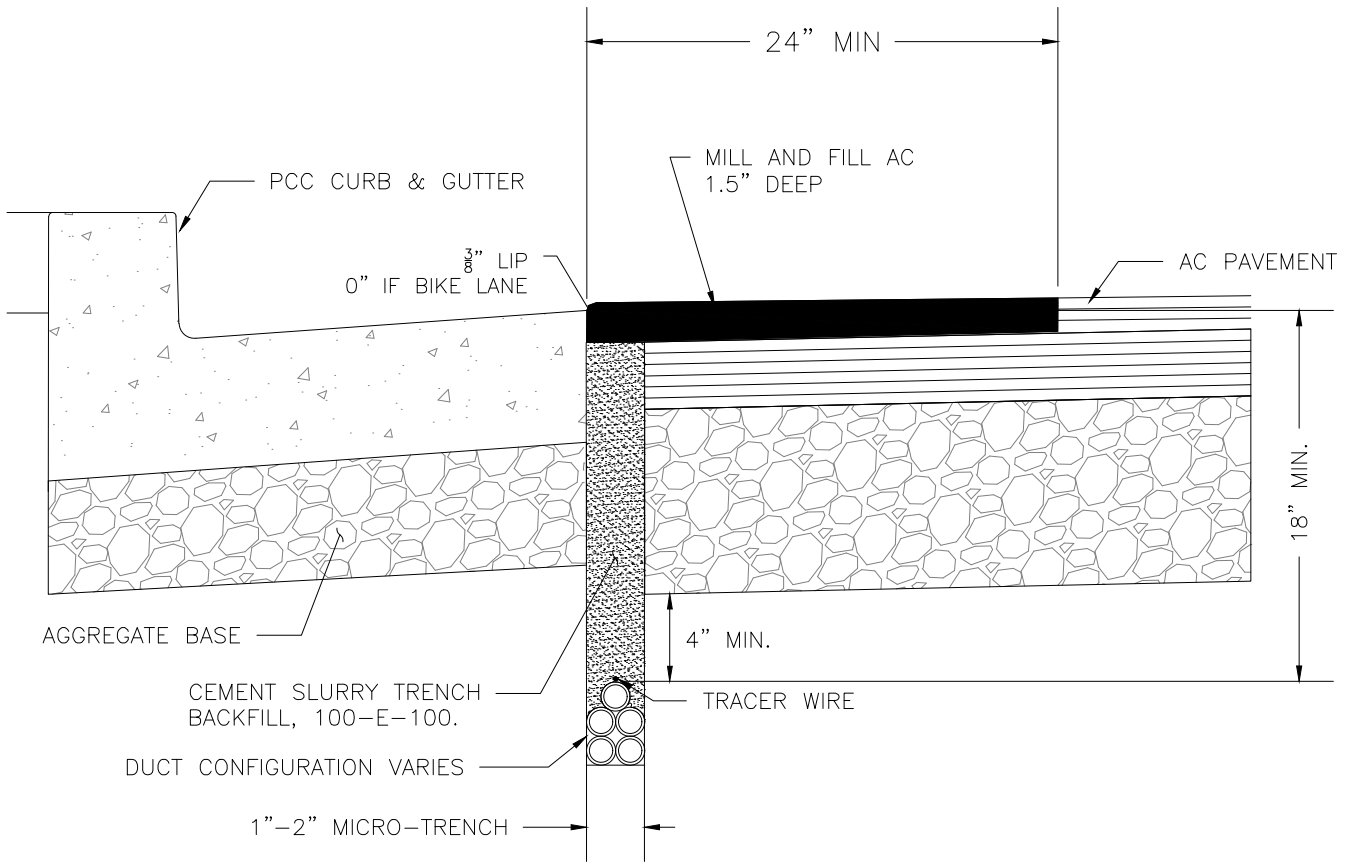
PRIVATE UTILITY TRENCH IN PARKWAY DETAIL

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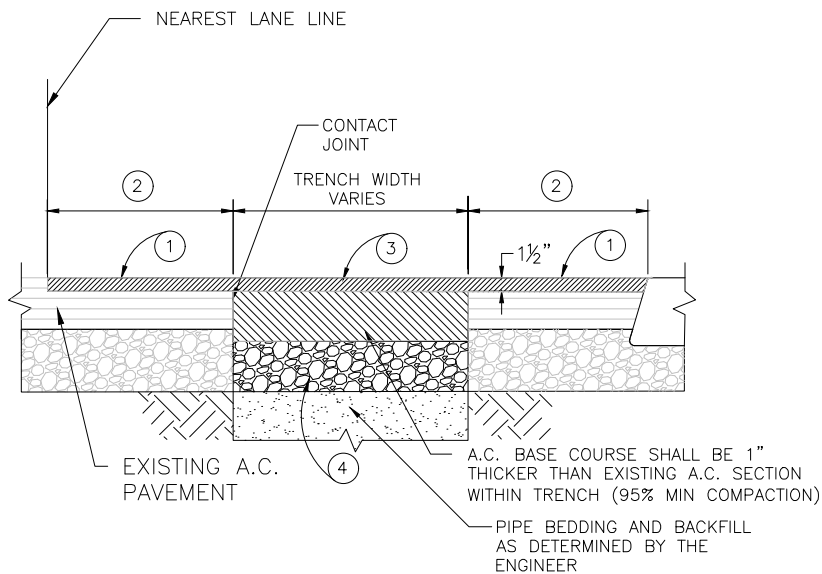
NOTES:

1. MICROTRENCHING WILL NOT BE ALLOWED IN CONCRETE OR DECORATIVE IMPROVEMENTS, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
2. DETAILED PLANS SHOWING CONDUIT RUNS SHALL BE SUBMITTED TO AND APPROVED BY THE CITY ENGINEER. CONDUIT RUNS FOR LATERALS AND STREET INTERSECTIONS MUST UTILIZE STANDARD OPEN TRENCH OR JACKING METHODS AND PROPOSED METHOD SHALL BE CALLED OUT ON PLANS.
3. TACK COAT ALL EDGES PRIOR TO REINSTATEMENT OF AC.
4. TOP OF CONDUITS MUST BE AT LEAST 4" BELOW THE ROADWAY STRUCTURAL SECTION, BUT IN NO INSTANCE SHALL BE LESS THAN 18" FROM FINISHED SURFACE.
5. CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE USED AS TRENCH BACKFILL WHEN ACCOMPANIED BY PRIVATE ENGINEER MIX DESIGN, AND UPON APPROVAL BY THE CITY ENGINEER.

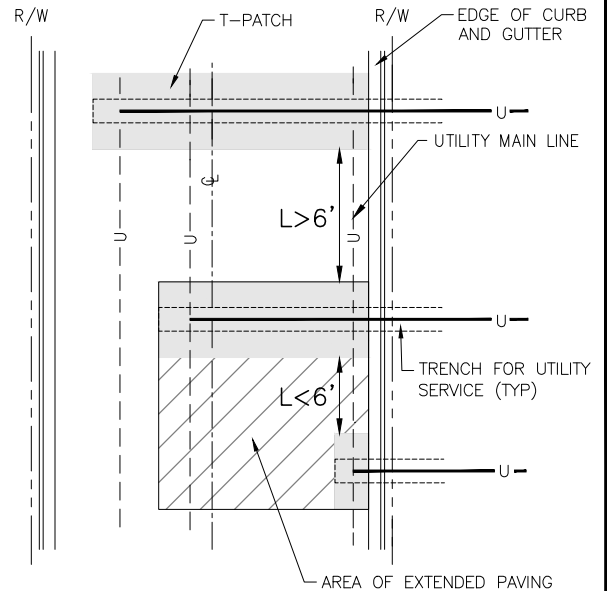
SEAL BEACH STANDARD PLANS FOR STREETS

MICRO-TRENCH DETAIL

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**MAIN LINE
TRENCH RESTORATION**



**LATERAL LINE
TRENCH RESTORATION**

DETAIL NOTES:

- ① COLD PLANE AND REPLACE A.C., SAWCUT PRIOR TO EXCAVATION IN NEAT, STRAIGHT LINES MINIMUM OF 1-1/2 INCHES DEEP.
- ② FOR MAIN LINE, REMOVE AND REPLACE A.C. TO EDGE OF GUTTER (OR CURB FACE IF NO GUTTER) AND/OR NEAREST LANE LINE. FOR LATERAL LINE, DISTANCE SHALL BE 24" MINIMUM OR EXTENDED TO ANY OTHER LATERAL TRENCH WHEN THE EDGES OF THOSE TRENCHES ARE WITHIN 6'.
- ③ USE TYPE III B2 PG 64-10 FOR AC BASE COURSE AND TYPE III C3 PG 64-10 FOR AC SURFACE COURSE. UNLESS OTHERWISE APPROVED BY CITY ENGINEER, ARHM SHALL BE USED FOR RUBBERIZED AC REPLACEMENT.
- ④ COMPACT BASE TO 95% RELATIVE COMPACTION. CONTRACTOR TO PAY FOR COMPACTION TESTS IF REQUIRED BY CITY ENGINEER.

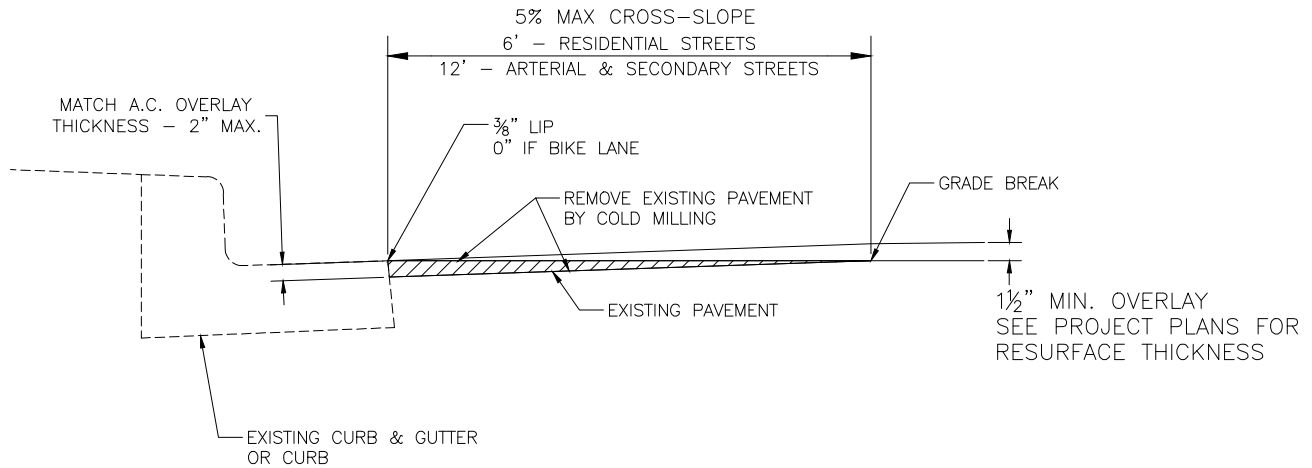
NOTES:

- 1. NO LONGITUDINAL JOINTS ARE ALLOWED IN WHEEL PATH.
- 2. RESTORE ANY TRAFFIC STRIPING PER STANDARD PLAN 100.
- 3. BACKFILL OR STEEL PLATE ALL OPEN EXCAVATIONS AT THE END OF EACH WORKDAY.
- 4. REMOVE EXCAVATED MATERIAL FROM THE JOB SITE AT CLOSE OF EACH DAY.
- 5. TEMPORARY PAVEMENT REPLACEMENT SHALL BE PLACED AT THE CONTRACTOR'S EXPENSE. IT SHALL BE PLACED LEVEL WITH THE EXISTING PAVEMENT ON COMPACTED TRENCH BACKFILL AND SHALL BE A MINIMUM OF 2 THICK.
- 6. MINIMUM 72 HOUR POSTING OF TOW-AWAY NOTICES.
- 7. CONTRACTOR TO BACK FILL TRENCH ZONE FLUSH WITH ADJACENT GRADE. WITHIN TWO WEEKS, THE AREA OF FINAL PAVING SHALL BE MILLED 1.5" DEEP AND SURFACE COURSE SHALL BE INSTALLED.
- 8. CONTACT SURFACES OF EXISTING PAVEMENT, MANHOLE FRAMES AND SHAFTS AND CONCRETE SURFACES SHALL BE GIVEN A TACK COAT BEFORE PERMANENT ASPHALT TRENCH RESURFACING IS PLACED.
- 9. STREETS RECENTLY PAVED OR SLURRIED MAY REQUIRE ADDITIONAL MITIGATION PER STD. S-2.

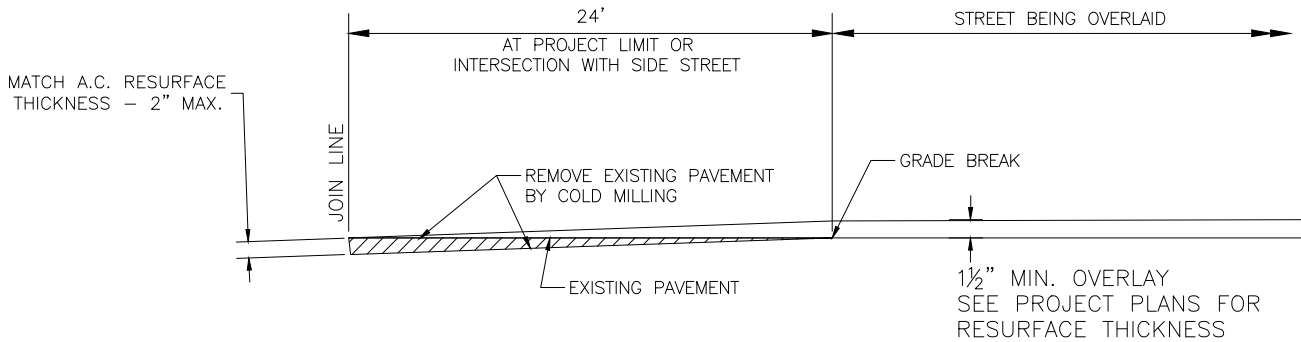
SEAL BEACH STANDARD PLANS FOR STREETS

PAVEMENT REPAIR DETAIL

DRAWN BY: A. MARTINEZ	APPROVED BY:		ST-6
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DETAIL AT CURB & GUTTER
 N.T.S.



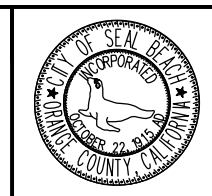
DETAIL AT PROJECT LIMITS OR INTERSECTION WITH SIDE STREETS

SEAL BEACH STANDARD PLANS FOR STREETS

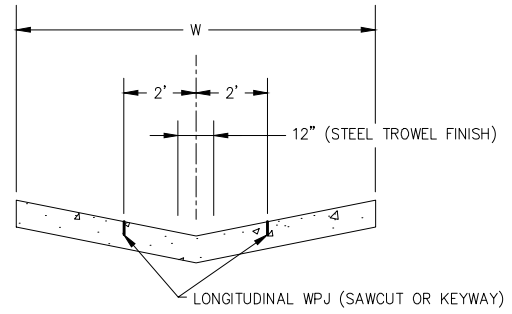
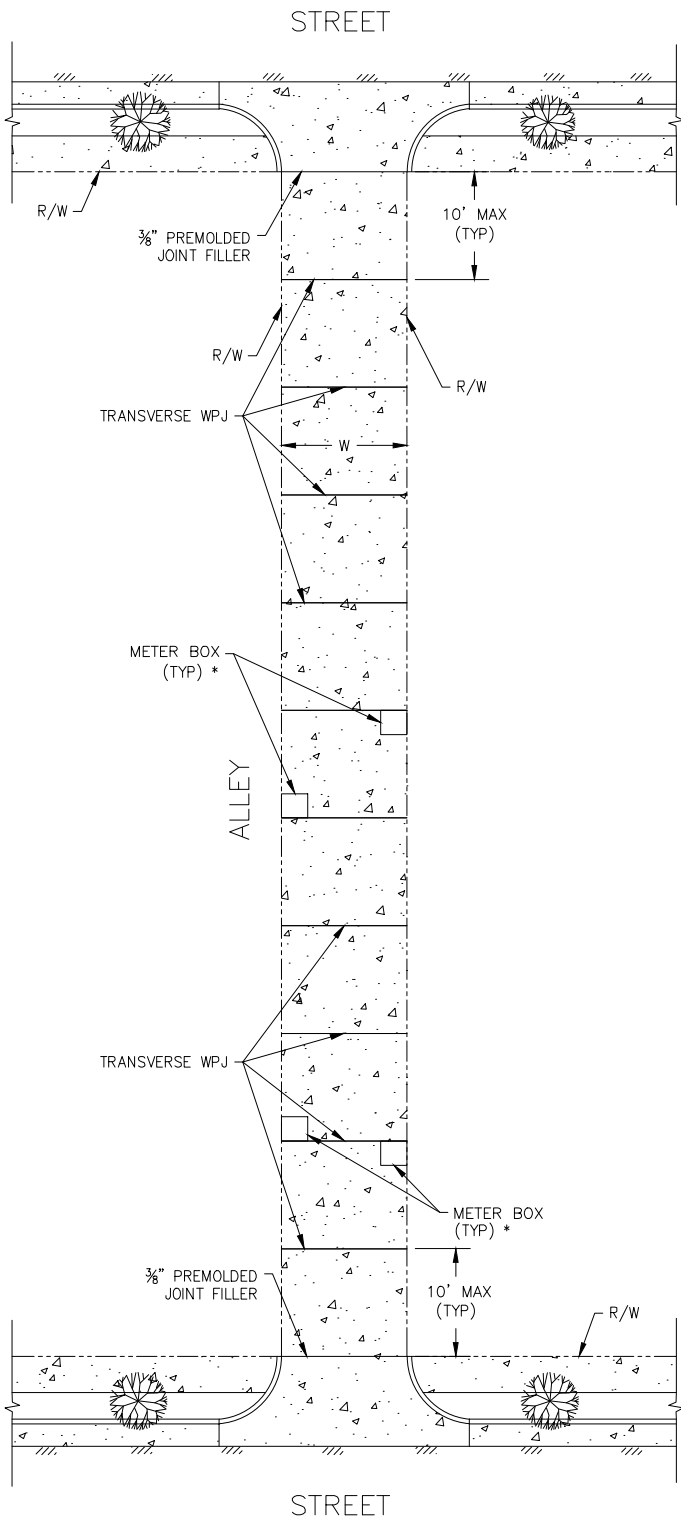
ASPHALT CONCRETE COLD MILLING DETAILS

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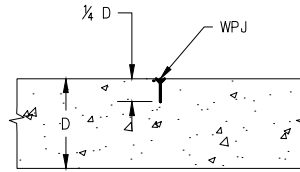
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TYPICAL PAVEMENT SECTION
N.T.S.



TYPICAL W.P.J. SECTION
N.T.S.

NOTES:

1. CONCRETE SHALL BE 560-C-3250 UNLESS OTHERWISE SPECIFIED.
2. ALLEY STRUCTURAL SECTION SHALL BE AT A MINIMUM, 6" PCC OVER 6" AB OR 8" PCC OVER 95% COMPACTED NATIVE.

W - ALLEY WIDTH
 D - DESIGN THICKNESS OF PCC PAVEMENT
 WPJ - WEAKENED PLANE JOINT
 SHALL BE POLYETHYLENE JOINT MATERIAL (QUICK-JOINT),
 SAWCUT, OR EQUAL.

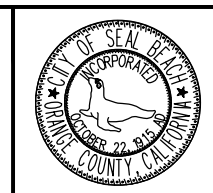
* WEAKENED PLANE JOINTS SHALL BE REQUIRED AT METER BOXES AND A MINIMUM SPACING OF 4' AND A MAXIMUM SPACING OF 10'

SEAL BEACH STANDARD PLANS FOR STREETS

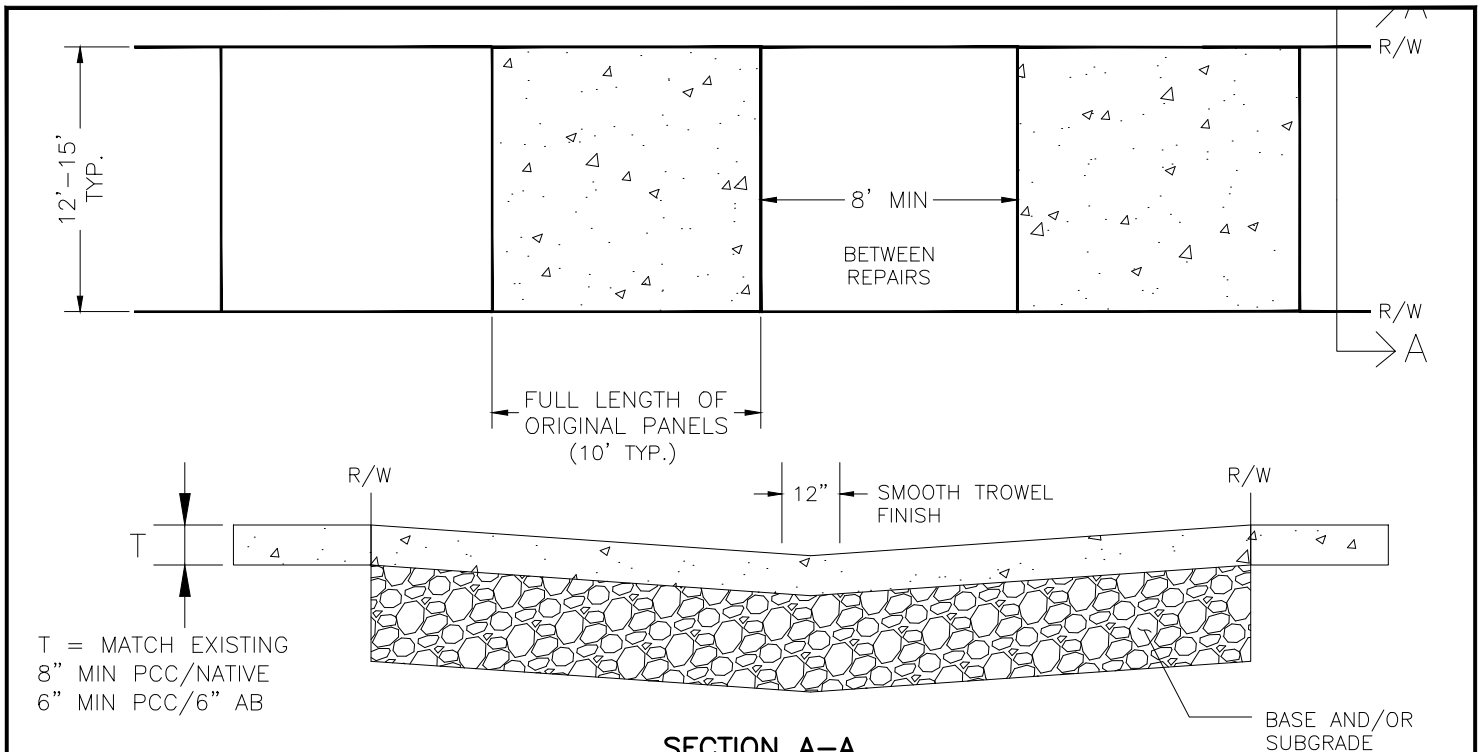
PLACEMENT OF JOINTS IN PCC ALLEY PAVEMENT

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SECTION A-A
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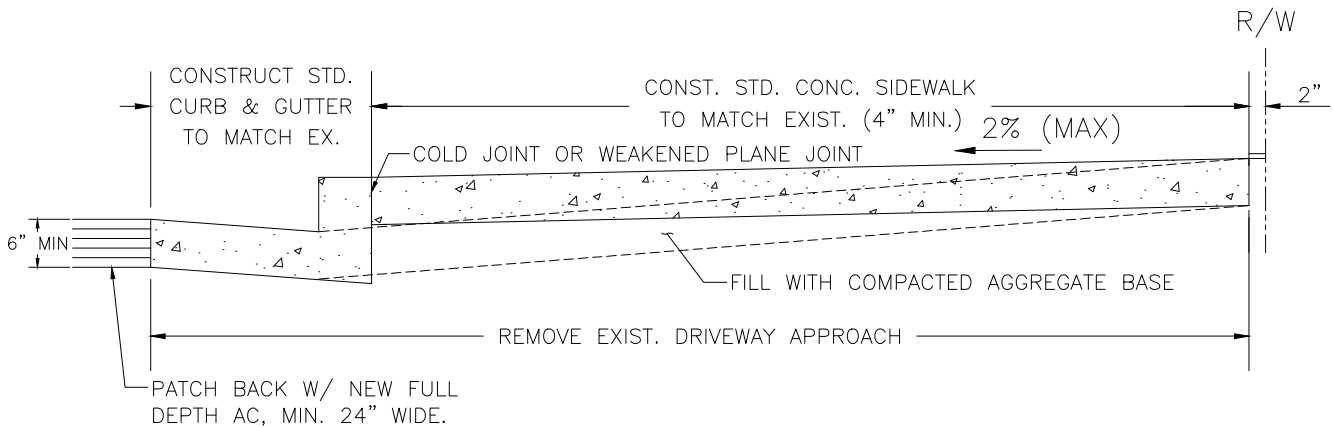
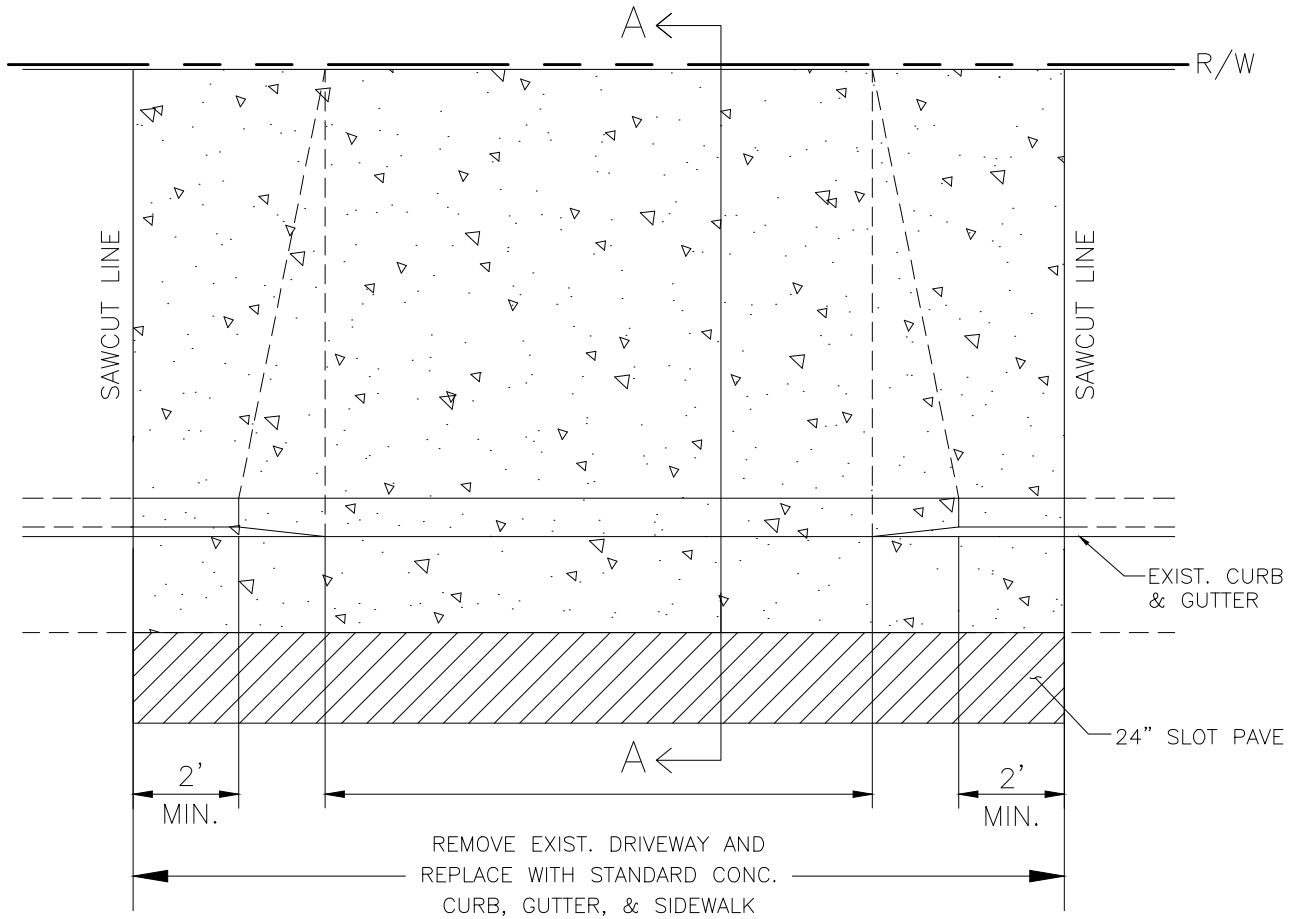
NOTES:

1. ANY CUT INTO AN EXISTING CONCRETE ALLEY SHALL REQUIRE FULL PANEL REPLACEMENT. PARTIAL TRANSVERSE REPLACEMENT IS ALLOWED AT THE DISCRETION OF THE CITY ENGINEER.
2. SAW-CUT PRIOR TO REMOVAL OF CONCRETE.
3. BACKFILL AND COMPACT SUBGRADE & BASE IN 4" LIFTS.
4. TRENCH BACKFILL SHALL BE DENSIFIED TO A MINIMUM 95% RELATIVE COMPACTION. WHEN CONCRETE IS PLACED DIRECTLY ON SUBGRADE MATERIAL OUTSIDE OF THE TRENCH ZONE, THE TOP 6" OF SUBGRADE MATERIAL SHALL BE COMPACTED TO A RELATIVE COMPACTION OF 95%. THE CONTRACTOR SHALL OVER EXCAVATE FOR POOR SOIL AND IMPORT 3/4" CRUSHED AGGREGATE BASE AS DIRECTED BY THE CITY ENGINEER.
5. CONCRETE SHALL BE CLASS 560-C-3250, UNLESS OTHERWISE NOTED.
6. MEDIUM BROOM FINISH CONCRETE, UNLESS OTHERWISE NOTED.
7. IF CONCRETE UP TO 4' ADJACENT TO THE REPAIR IS IN POOR CONDITION AND WILL BE UNDERMINED OR DAMAGED BY THE REPAIR, REPLACE ADDITIONAL CONCRETE ALLEY AT THE DIRECTION OF THE CITY ENGINEER. THE PANEL SIZE OF THE ENTIRE REPAIR CAN BE INCREASED AS LONG AS THE ADJACENT PANEL WILL NOT BE LESS THAN 8'.
8. WHEN APPLICABLE, STAMP LOCATION OF SEWER LATERAL CONNECTION WITH "S".
9. GRAFFITI ON NEWLY PLACED CONCRETE WILL REQUIRE REPLACEMENT FROM SCORELINE TO SCORELINE.
10. DURING EXCAVATION AND SUBGRADE PREPARATION, THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO ENSURE PROTECTION OF ALL IMPROVEMENTS, WHETHER PUBLIC OR PRIVATE, INCLUDING UTILITIES AND THEIR SERVICES, FROM ANY DAMAGE THAT COULD OCCUR DUE TO CONTRACTOR'S OPERATION.
11. TEMPORARY PAVEMENT REPLACEMENT SHALL BE PLACED AT CONTRACTOR'S EXPENSE. IT SHALL BE PLACED LEVEL WITH THE EXISTING PAVEMENT ON COMPACTED TRENCH BACKFILL AND BE A MINIMUM OF 2" THICK.
12. CONCRETE SHALL BE REPLACED WITHIN 2 WEEKS AND ONLY AFTER SETTLEMENT HAS TAKEN PLACE AND THE FILL SURFACE HAS SUFFICIENTLY DRIED.
13. PROVIDE ADEQUATE ALLEY CLOSURE SIGNAGE INCLUDING ROAD CLOSED SIGNS DURING CONSTRUCTION. PER LATEST EDITION OF THE CA-MUTCD OR APPROVED TRAFFIC CONTROL PLAN.

SEAL BEACH STANDARD PLANS FOR STREETS

EXCAVATION BACKFILL AND REPAIR OF CONCRETE ALLEYS



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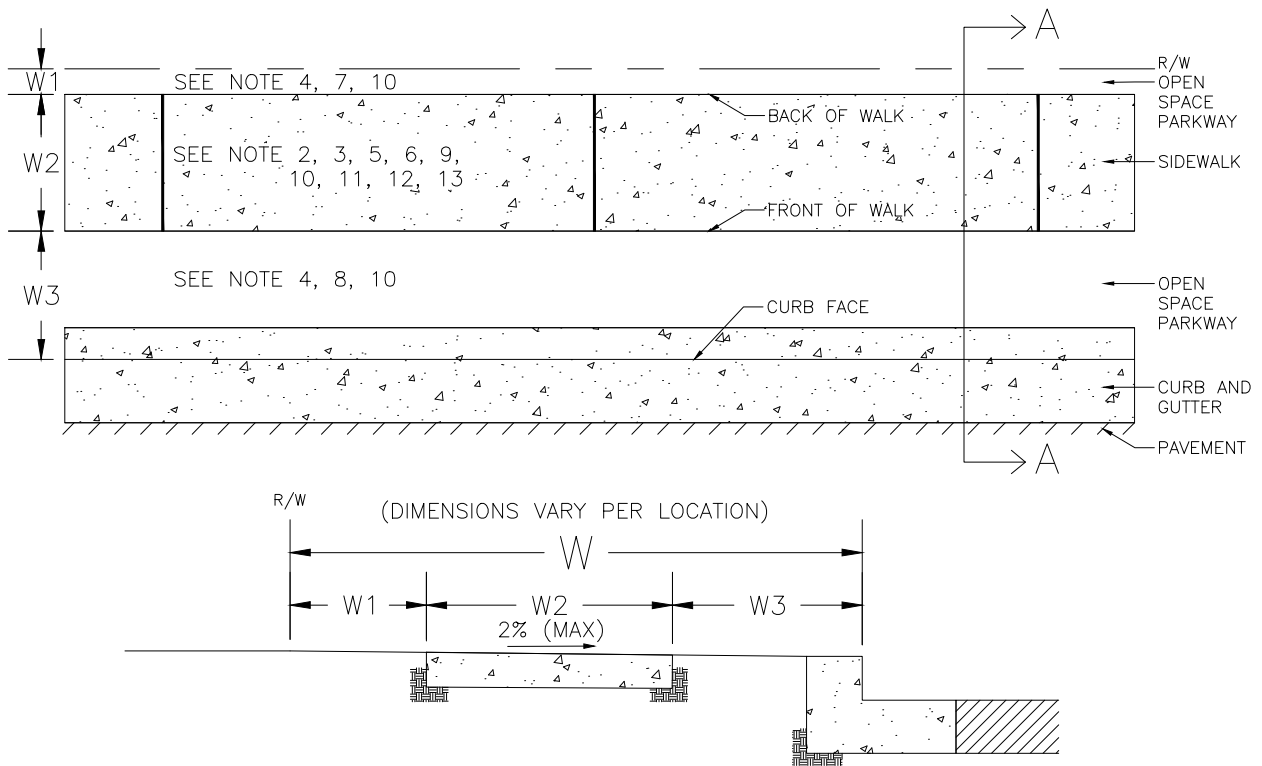


SECTION A-A
N.T.S.

SEAL BEACH STANDARD PLANS FOR STREETS

PLUG FOR ABANDONED DRIVEWAY

DRAWN BY: A. MARTINEZ CHECKED BY: I. LEE DATE: OCTOBER, 2021 SCALE: NO SCALE	APPROVED BY:  DIRECTOR OF PUBLIC WORKS		ST-10 SHEET 1 OF 1
	10/7/2021 DATE		



SECTION A-A
N.T.S.

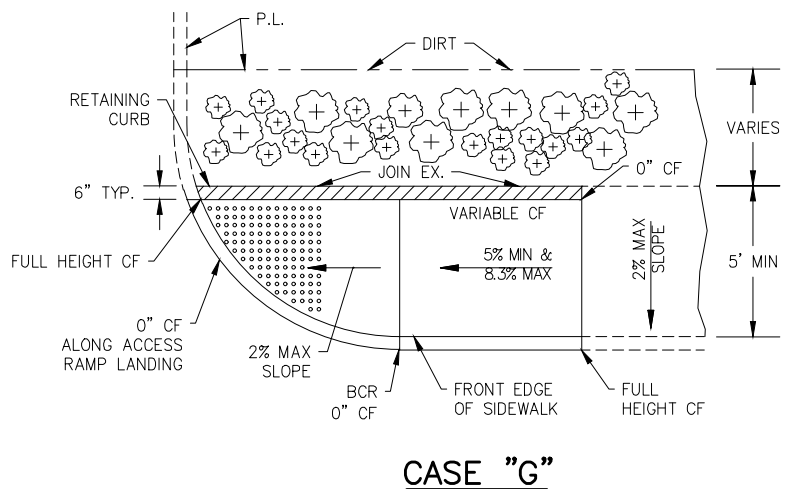
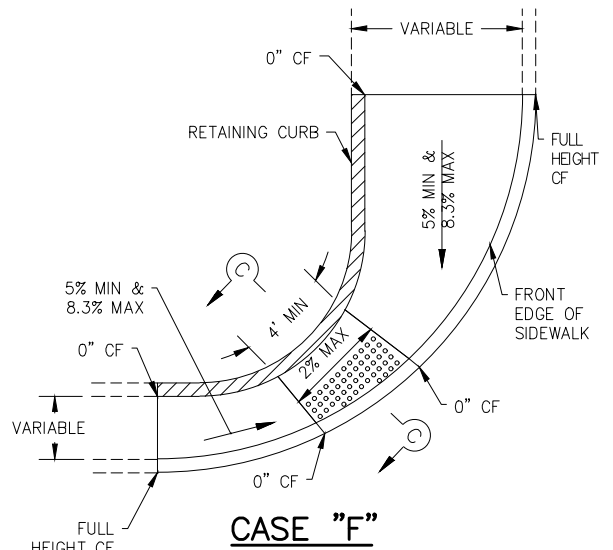
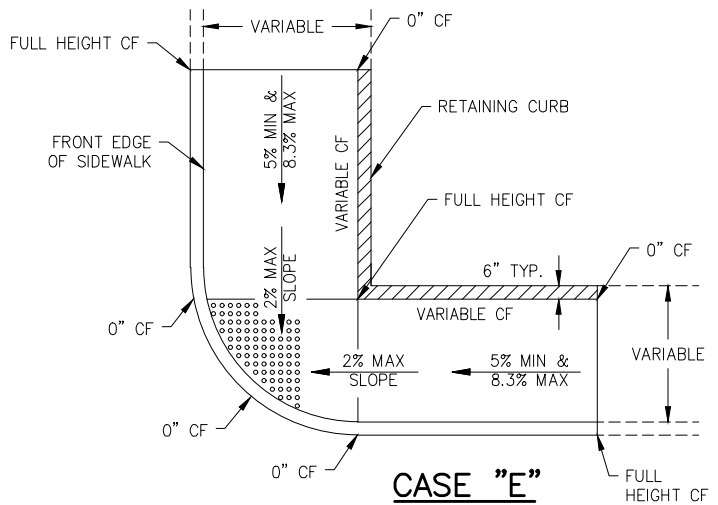
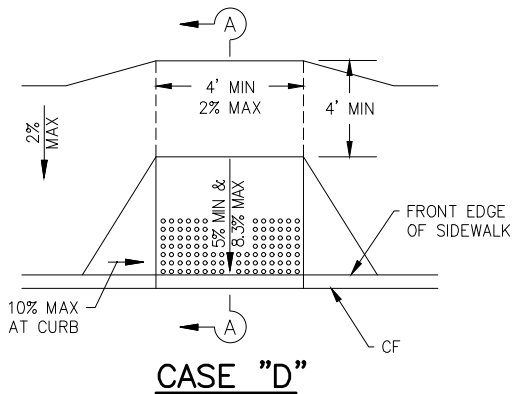
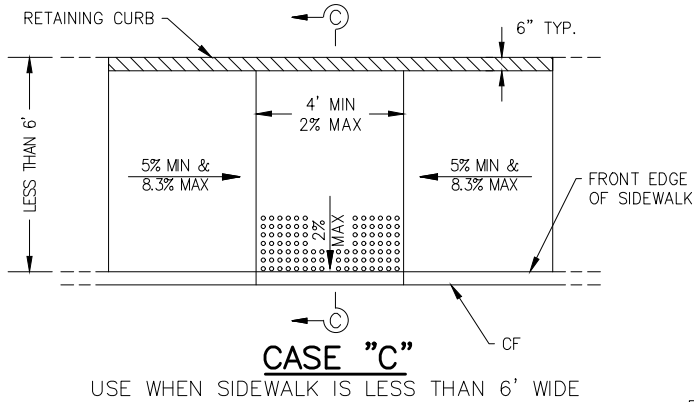
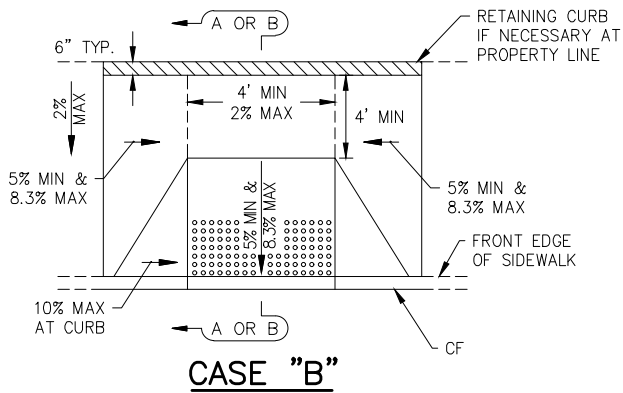
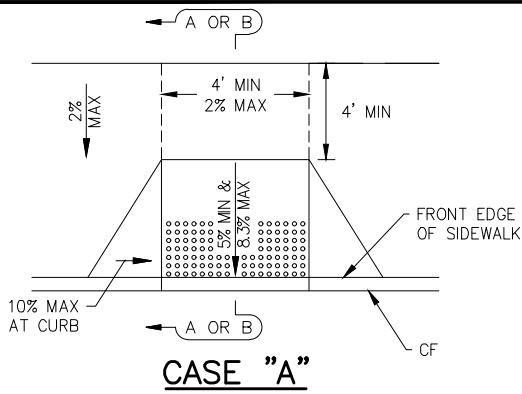
NOTES:

1. W=OVERALL PARKWAY WIDTH, W1=WIDTH OF PARKWAY FROM RIGHT OF WAY LINE TO BACK OF WALK, W2=WIDTH OF SIDEWALK, W3=WIDTH OF PARKWAY FROM CURB FACE TO FRONT OF WALK. VERIFY ACTUAL DIMENSIONS WITH ENGINEERING DIVISION.
2. CONCRETE FOR SIDEWALK SHALL BE 560-C-3250. SIDEWALK SURFACING OTHER THAN STANDARD CONCRETE REQUIRES AN ENCROACHMENT PERMIT (NON-STANDARD IMPROVEMENT).
3. THE TOP 6" SUB GRADE UNDERNEATH SIDEWALK SHALL BE COMPACTED TO 95% RELATIVE DENSITY.
4. PARKWAY SOFTSCAPE IN ZONES W1 AND W3 SHALL CONFORM TO THE SEAL BEACH MUNICIPAL CODE ZONING DEVELOPMENT STANDARDS.
5. PROVIDE ADEQUATE SIDEWALK CLOSURE INCLUDING "SIDEWALK CLOSED" AND PEDSTRIAN DETOUR SIGNAGE.
6. WEAKENED PLANE JOINTS AT 8' O.C.
7. IF APPROVED, ENCROACHMENT INTO W1 PARKWAY ZONE WITH A WALL/FENCE REQUIRES A NONSTANDARD ENCROACHMENT PERMIT.
8. ROOT BARRIERS SHALL BE USED AT TREE LOCATIONS.
9. MATCH EXISTING SIDEWALK WIDTHS (4' MIN.). NEW SIDEWALKS TO FULLY COMPLY WITH ADA.
10. CONSTRUCTION OF NEW IMPROVEMENTS FOR NEW DEVELOPMENT IN W-ZONE (PARKWAY RIGHT-OF-WAY) SHALL REQUIRE CORRECTING ALL DEFICIENCIES TO CURRENT STANDARDS INCLUDING BUT NOT LIMITED TO REMOVING ILLEGAL ENCROACHMENTS, CONCRETE PARKWAY, AND REPLACEMENT OF INADEQUATE CURB GUTTER SIDEWALK AS REQUIRED BY CITY ENGINEER.
11. GRAFFITI ON NEWLY PLACED CONCRETE WILL REQUIRE FULL PANEL REPLACEMENT, FROM SCORELINE TO SCORELINE.
12. SIDEWALK SHALL HAVE A MEDIUM BROOM FINISH.
13. MINIMUM THICKNESS FOR SIDEWALK IS 4". MINIMUM WIDTH IS 4'.
14. FOR ALL PEDESTRIAN WALKWAY AREAS INCLUDING SIDEWALKS, CROSS SLOPE SHALL NOT EXCEED 2%.

SEAL BEACH STANDARD PLANS FOR STREETS

RESIDENTIAL SIDEWALK/PARKWAY STANDARDS

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SEAL BEACH STANDARD PLANS FOR STREETS

CURB ACCESS RAMP

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DATE: OCTOBER, 2021

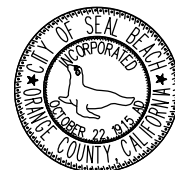
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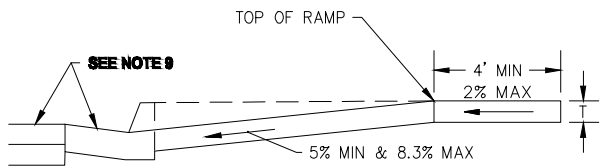
10/7/2021

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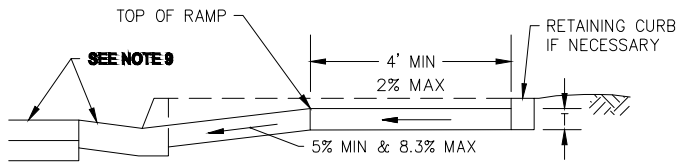


ST-12

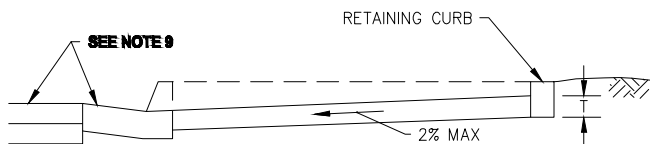
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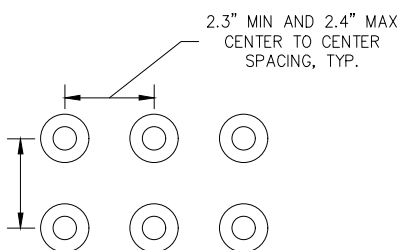
SECTION A-A



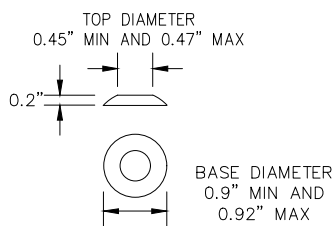
SECTION B-B
DEPRESS ENTIRE SIDEWALK AS REQUIRED



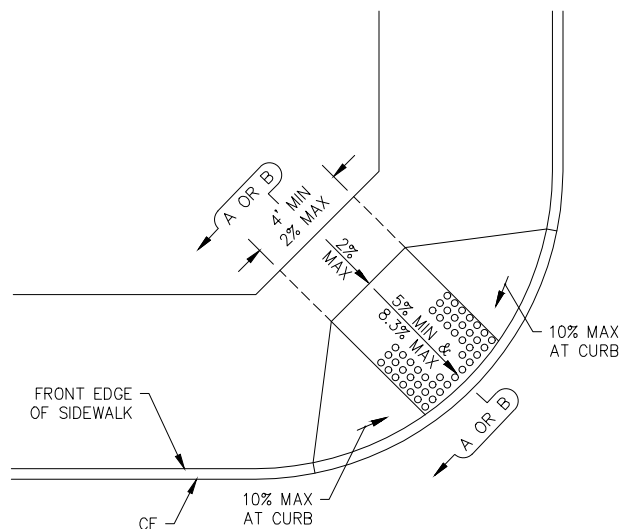
SECTION C-C



RAISED TRUNCATED DOME PATTERN (IN-LINE)



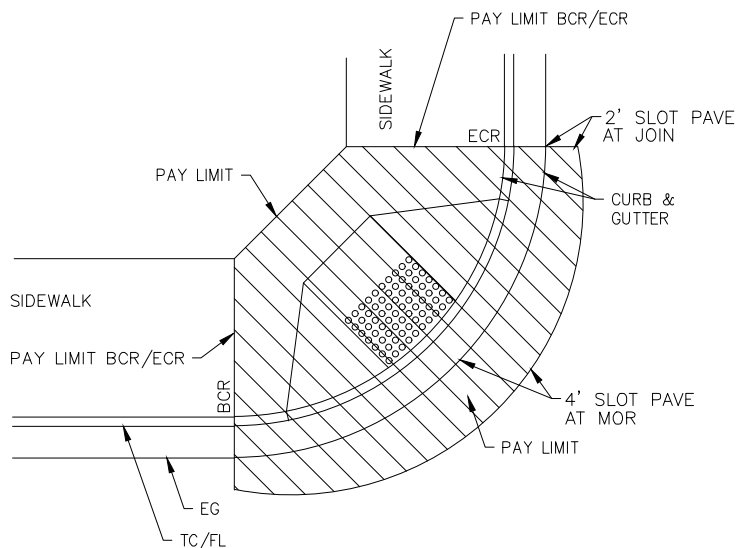
RAISED TRUNCATED DOME



CASE "H"

NOTES:

1. CURB AND GUTTER WILL BE POURED FIRST AND RAMP THE FOLLOWING DAY TO CREATE COLD JOINT.
2. LOCATIONS WITH CROSS GUTTER SHALL HAVE SPANDREL REPLACED.
3. PARKWAY LANDSCAPE AND IRRIGATION SHALL BE MODIFIED IN KIND.




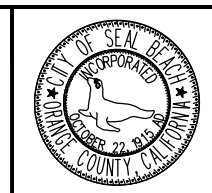
DETAIL A
CURB RAMP PAY LIMIT

SEAL BEACH STANDARD PLANS FOR STREETS

CURB ACCESS RAMP

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DATE:	OCTOBER, 2021
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	DATE





ST-12
SHEET 2 OF 3

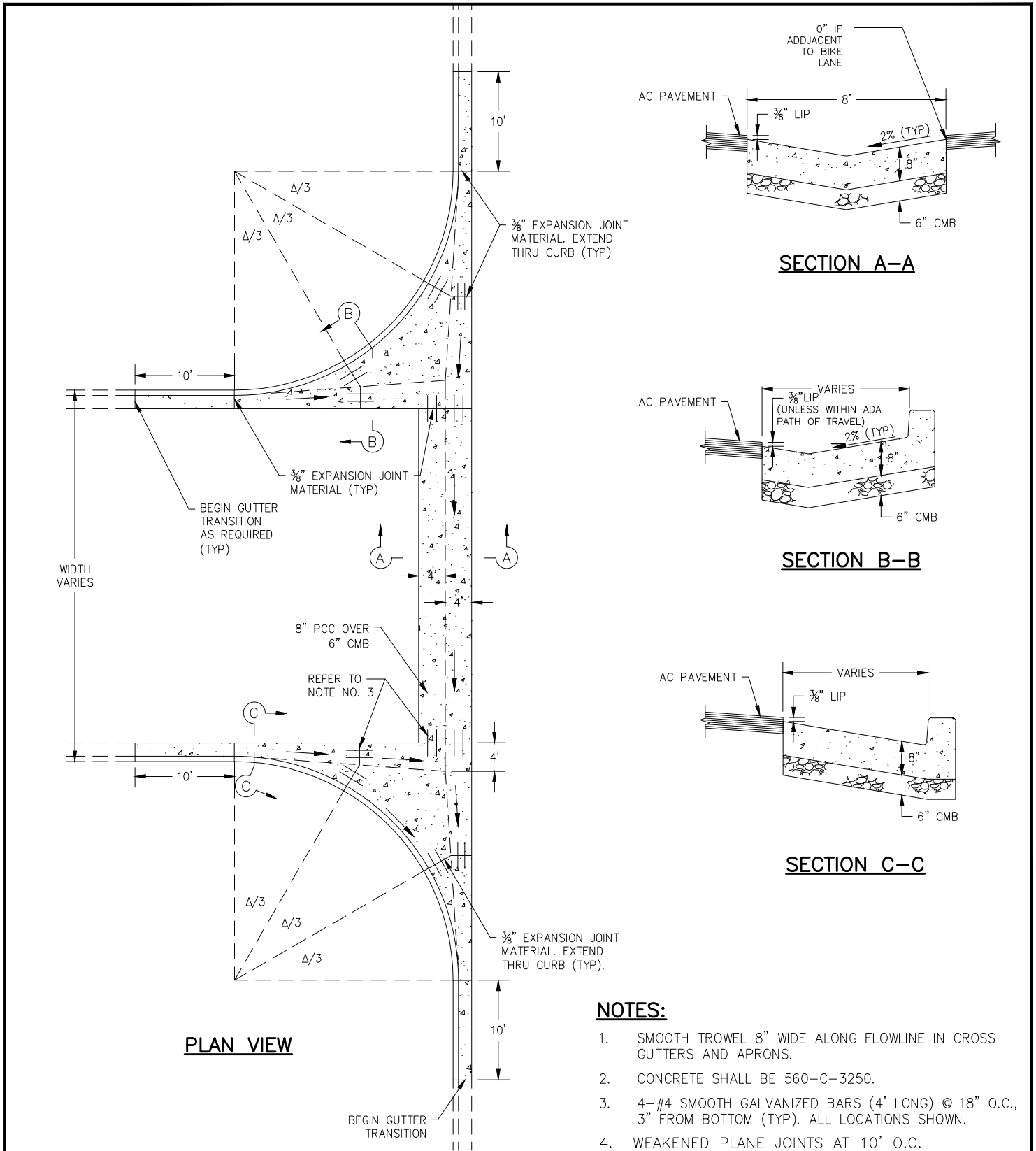
NOTES

1. IF DISTANCE FROM CURB TO BACK OF SIDEWALK IS TOO SHORT TO ACCOMMODATE RAMP AND 4' MIN PLATFORM (LANDING), AS IN CASE A, THE SIDEWALK MAY BE DEPRESSED LONGITUDINALLY OR MAY BE WIDENED AS IN CASE D, AS LONG AS SUFFICIENT R/W IS AVAILABLE. IF NOT, THEN AN EASEMENT OR STREET DEDICATION MAY BE REQUIRED.
2. IF SIDEWALK IS LESS THAN 6' WIDE, THE FULL WIDTH OF THE SIDEWALK SHALL BE DEPRESSED AS SHOWN IN CASE C.
3. THE PAY LIMITS FOR CURB ACCESS RAMPS SHALL BE AS SHOWN IN DETAIL A.
4. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
5. SIDEWALK AND RAMP THICKNESS, "T", SHALL BE 4" MIN.
6. UTILITY PULL BOXES, MANHOLES, VAULTS AND ALL OTHER UTILITY FACILITIES WITHIN THE BOUNDARIES OF THE CURB RAMP SHALL BE RELOCATED OUTSIDE OF RAMP.
7. COUNTERSLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO AND WITHIN 48" OF THE CURB FLOWLINE SHALL NOT BE STEEPER THAN 1V: 20H (5.0%).
8. DETECTABLE WARNING SURFACE SHALL BE PREFABRICATED, CAST-IN-PLACE, OR STAMPED INTO THE SURFACE OF THE CURB RAMP. DETECTABLE SURFACES THAT ARE ATTACHED TO THE TOP OF THE RAMP OR NON-FLUSH SET SURFACES ARE NOT ALLOWED. THE COLOR OF THE DETECTABLE WARNING SURFACE SHALL CONFORM TO FEDERAL STANDARD 595B.
9. DETECTABLE WARNING SURFACES SHALL BE A MINIMUM OF 48" WIDE PERPENDICULAR TO THE DIRECTION OF TRAVEL AND EXTEND 36" MINIMUM IN THE DIRECTION OF TRAVEL.

SEAL BEACH STANDARD PLANS FOR STREETS

CURB ACCESS RAMP

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SEAL BEACH STANDARD PLANS FOR STREETS

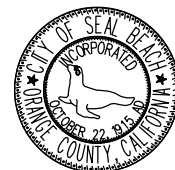
STANDARD CROSS GUTTER

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APPROVED BY:

Alle [Signature]
DIRECTOR OF PUBLIC WORKS

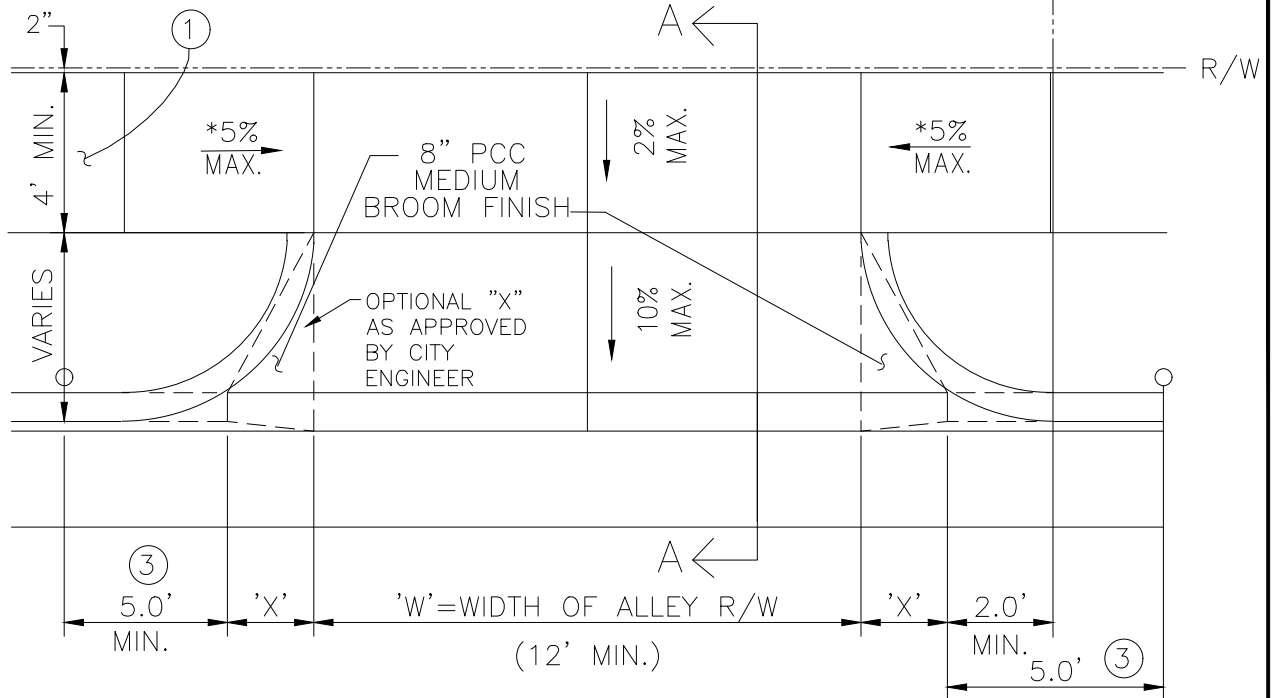
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DATE



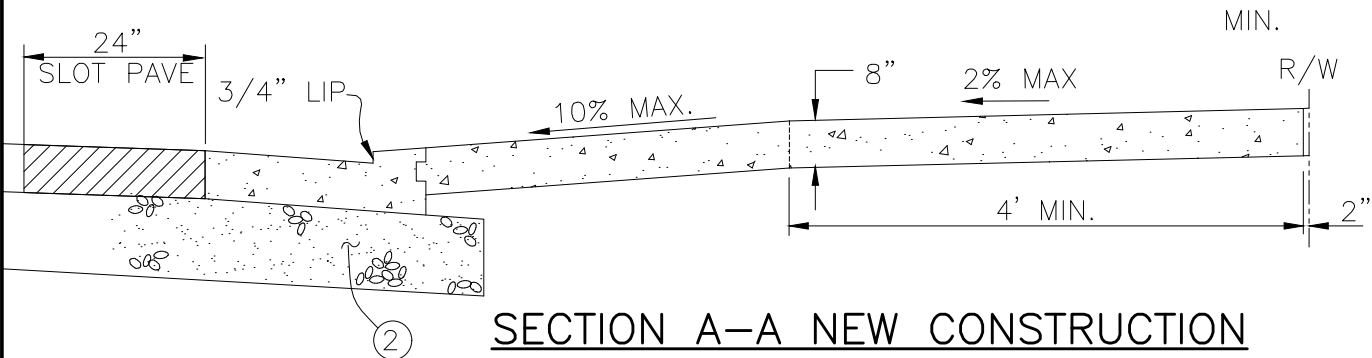
ST-13

SHEET 1 OF 1

'X' = 24" WHERE C.F. IS LESS THAN OR EQUAL TO 6".
 36" WHERE C.F. IS 8".



PLAN



SECTION A-A NEW CONSTRUCTION

NOTES:

- ① CONSTRUCT SIDEWALK PER STD. PLAN S-11.
- ② A.B. AS REQ'D, 95% COMPACTED.
- ③ 5.0' MIN. CLEARANCE FROM TOP OF 'X' TO ANY ABOVE-GROUND OBSTACLE (I.E. SIGN, POLE, TREE, ETC.)


GENERAL NOTES:

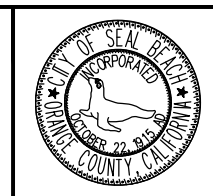
- 1. CONCRETE SHALL BE CLASS 560-C-3250
- 2. DRIVEWAY TO BE POURED SEPARATE FROM CURB AND GUTTER, TO CREATE KEYED JOINT.
- * 3. SIDEWALK MAY BE DEPRESSED (5% MAX) IF PARKWAY WIDTH IS INSUFFICIENT.

SEAL BEACH STANDARD PLANS FOR STREETS

ALLEY DRIVE APPROACH

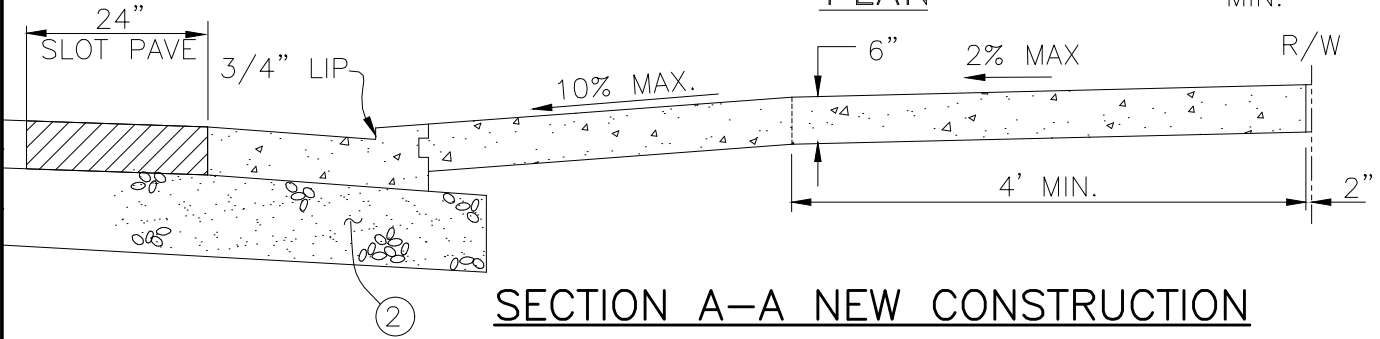
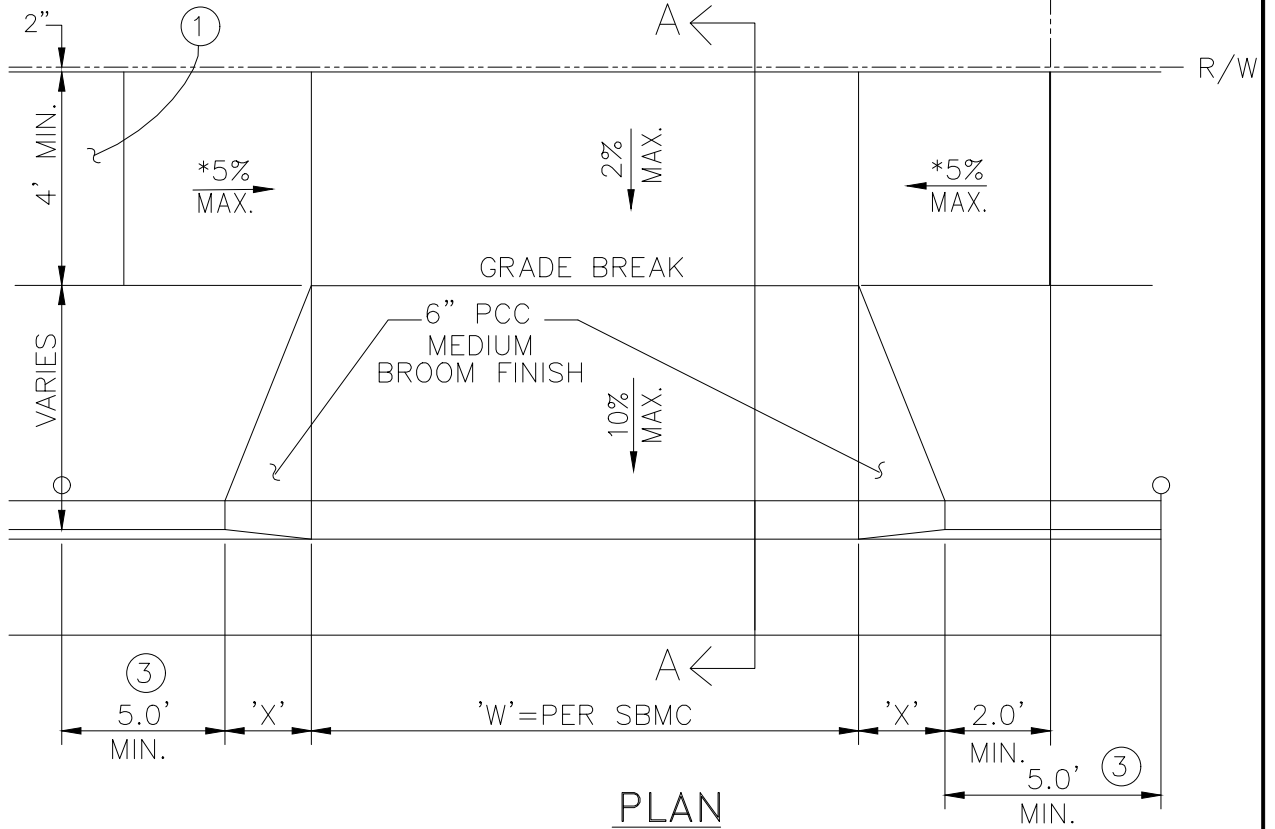
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	10/7/2021
DIRECTOR OF PUBLIC WORKS	DATE



ST-14
SHEET 1 OF 1

'X' = 24" WHERE C.F. IS LESS THAN OR EQUAL TO 6".
 36" WHERE C.F. IS 8".



NOTES:

- ① CONSTRUCT SIDEWALK PER STD. PLAN S-11.
- ② A.B. AS REQ'D, 95% COMPACTED.
- ③ 5.0' MIN. CLEARANCE FROM TOP OF 'X' TO ANY ABOVE-GROUND OBSTACLE (I.E. SIGN, POLE, TREE, ETC.)


GENERAL NOTES:

- 1. 35' MIN. OF FULL HEIGHT CURB IS REQUIRED BETWEEN DRIVEWAYS SERVING THE SAME PARCEL, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- 2. CONCRETE SHALL BE CLASS 560-C-3250.
- *3. SIDEWALK MAY BE DEPRESSED (5% MAX) IF PARKWAY WIDTH IS INSUFFICIENT.
- 4. DRIVEWAY TO BE POURED SEPARATE FROM CURB AND GUTTER, TO CREATE KEYED JOINT.

SEAL BEACH STANDARD PLANS FOR STREETS

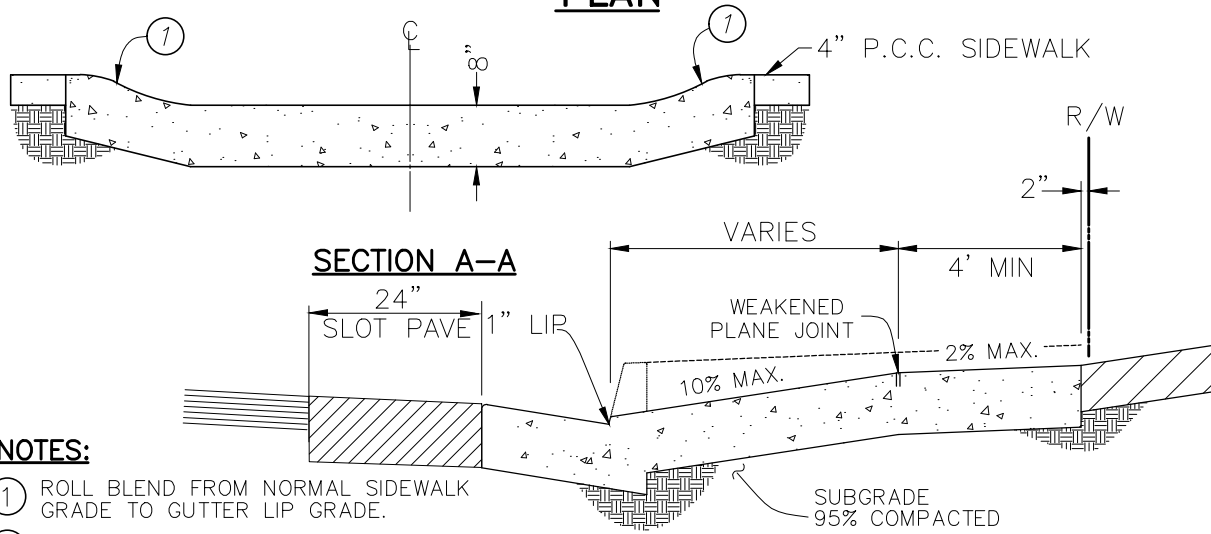
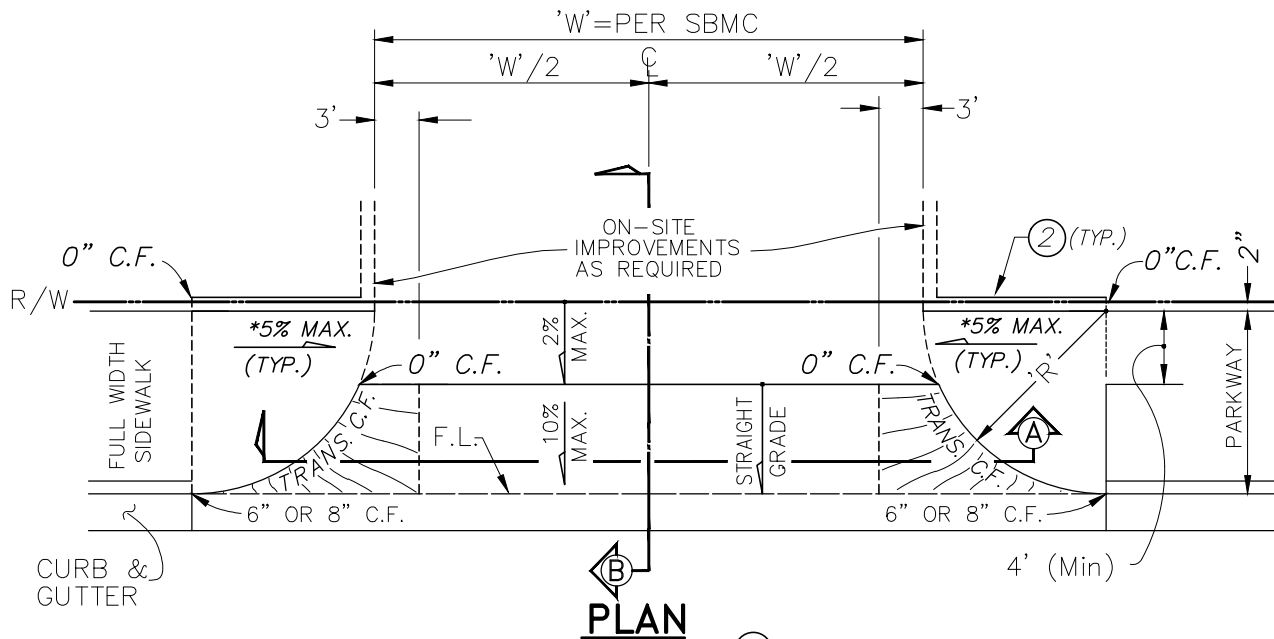
RESIDENTIAL DRIVE APPROACH

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APPROVED BY:	
	
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SHEET 1 OF 1



NOTES:

- ① ROLL BLEND FROM NORMAL SIDEWALK GRADE TO GUTTER LIP GRADE.
- ② CONSTRUCT VARIABLE HEIGHT CURB,

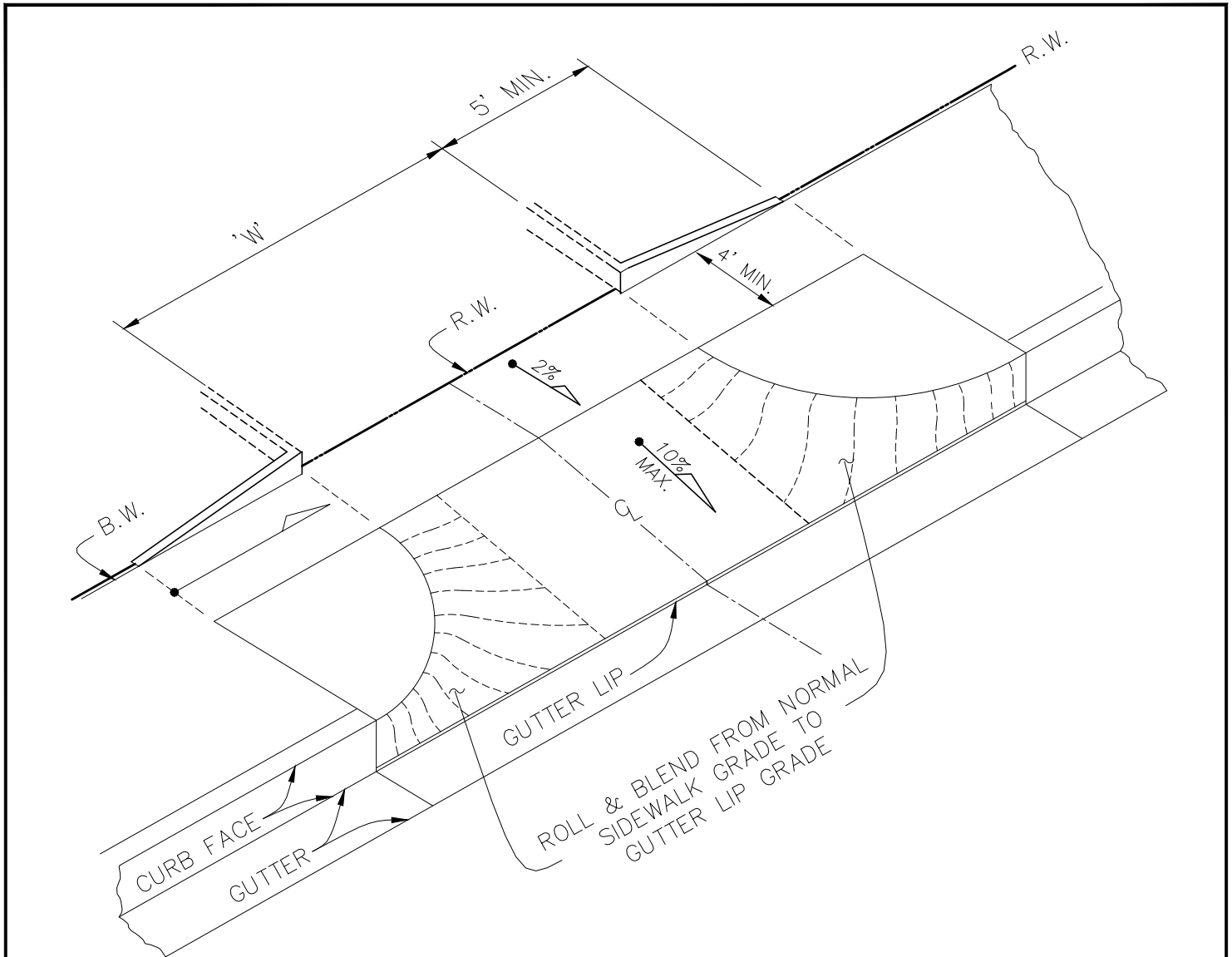
GENERAL NOTES:

1. DIMENSIONS 'W', 'R', AND PARKWAY WIDTH SHALL BE SHOWN ON PLANS.
2. 'R' EQUALS PARKWAY WIDTH BUT IT SHALL NOT BE LESS THAN 8' NOR MORE THAN 15'.
3. A COARSE BROOM FINISH TRANSVERSE TO THE LINE OF TRAFFIC SHALL BE USED ON THE APPROACH OTHER THAN THE CURB AND GUTTER AREA. THE CURB AND GUTTER AREA SHALL HAVE A LIGHT BROOM FINISH PARALLEL TO THE LINE OF TRAFFIC.
4. VERTICAL OBJECTS SUCH AS FIRE HYDRANTS AND POWER POLES SHALL BE A MINIMUM OF 5' FROM THE B.C.R. AND/OR E.C.R.
- *5. SIDEWALK MAY BE DEPRESSED (5% MAX) IF PARKWAY WIDTH IS INSUFFICIENT. SLOPES EXCEEDING 5% SHALL REQUIRE A SEPARATE DETAIL FOR THE ACCESS RAMPS.
6. CONCRETE SHALL BE 560-C-3250.

SEAL BEACH STANDARD PLANS FOR STREETS

COMMERCIAL AND INDUSTRIAL DRIVE APPROACH

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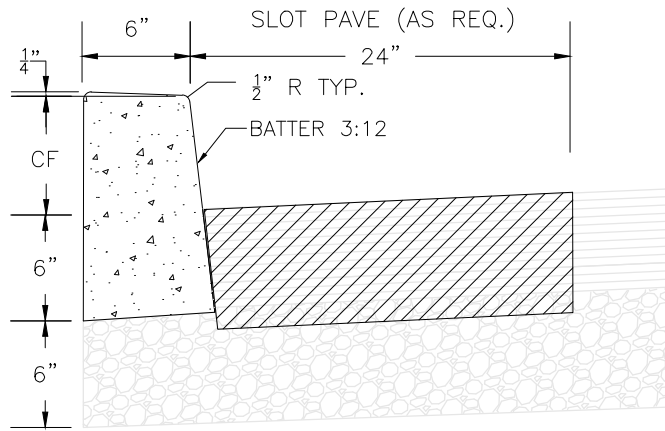
SPECIFICATION FOR LOCATION OF DRIVEWAYS:

1. FOR MINIMUM AND MAXIMUM DRIVEWAY WIDTH, REFER TO SBMC, BASE ZONING DISTRICT REGULATIONS.
2. THE SAME PARCEL SHALL HAVE 35' MINIMUM OF FULL HEIGHT CURB BETWEEN DRIVEWAYS.
3. ALL PLANNED DRIVEWAY OPENINGS SHALL BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION, FOR REVIEW AND APPROVAL. THE NUMBER OF DRIVEWAY OPENINGS SHALL BE NO MORE THAN ARE NEEDED TO ADEQUATELY SERVE THE PARCEL.

SEAL BEACH STANDARD PLANS FOR STREETS

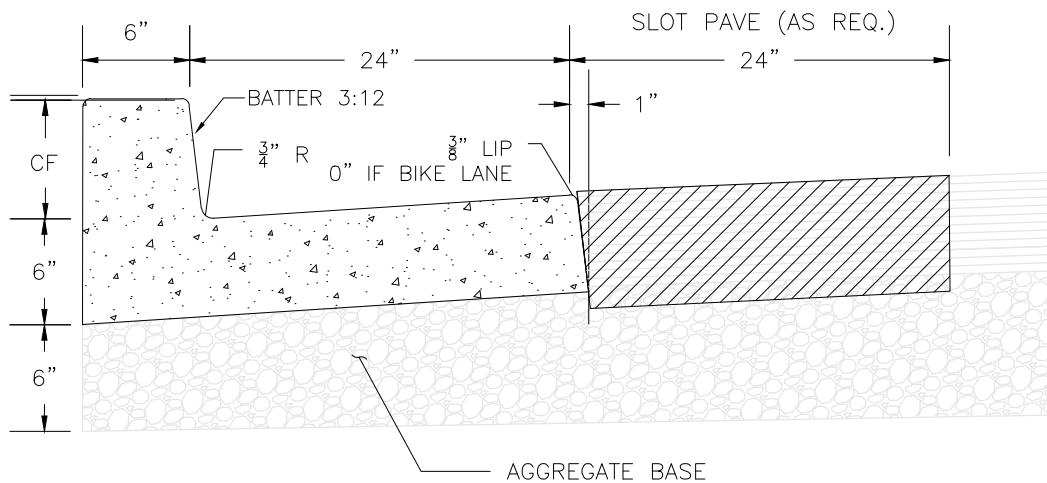
COMMERCIAL AND INDUSTRIAL DRIVE APPROACH

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CHECKED BY: I. LEE			
DATE: OCTOBER, 2021	10/7/2021		
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		DIRECTOR OF PUBLIC WORKS	SHEET 2 OF 2



TYPE A-1 P.C.C. CURB

(CURB FACE SHALL BE 6" OR 8" UNLESS OTHERWISE NOTED)
N.T.S.



TYPE A-2 P.C.C. CURB AND GUTTER

(CURB FACE SHALL BE 6" OR 8" UNLESS OTHERWISE NOTED)
N.T.S.

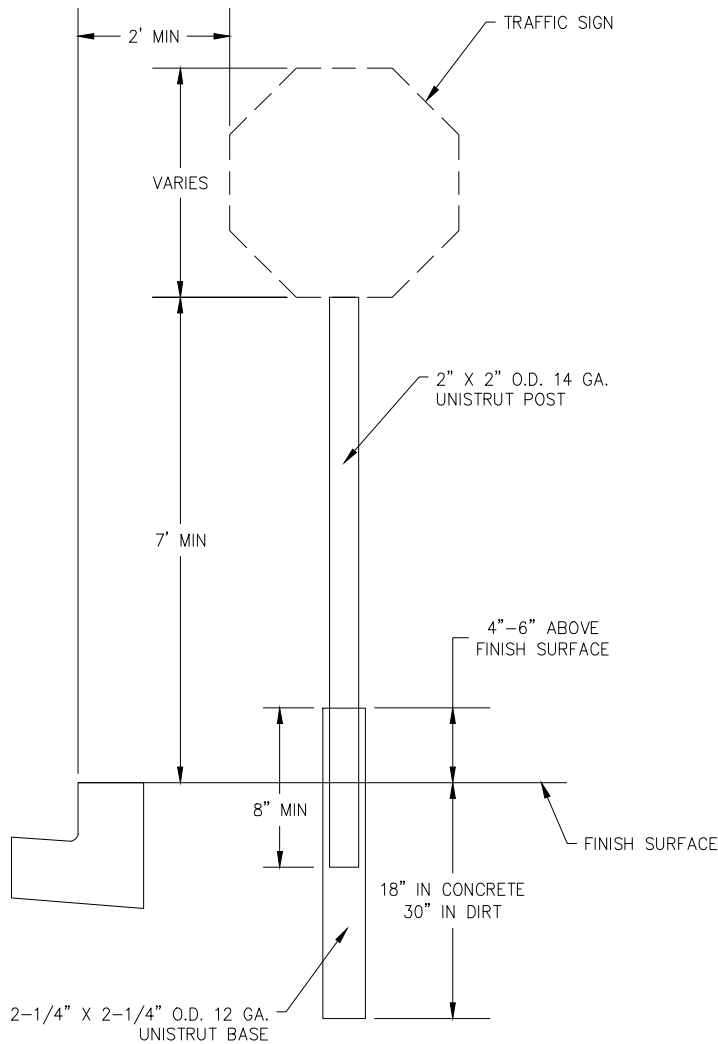
NOTES:

1. ALL CONCRETE SURFACES WITHIN 4" OF ALL GUTTER FLOW LINES SHALL BE GIVEN A STEEL TROWEL FINISH. (APPLIES TO TYPE "A" CURB).
2. PRE FORMED 3/8" THICK EXPANSION FILLER SHALL BE INSTALLED IN ALL TYPES OF CURB AT THE B.C. AND E.C. OF RETURNS, AT INTERVALS OF 60' BETWEEN RETURNS AND AT THE ENDS OF DRIVEWAYS. SIMILAR EXPANSION JOINTS SHALL BE INSTALLED IN ALL GUTTERS ADJOINING CURB. WEAKENED PLANE JOINTS SHALL BE FORMED AT INTERVALS OF 10' BETWEEN RETURNS.
3. CONCRETE SHALL BE 560-C-3250.
4. AC SHALL BE SAW-CUT A MINIMUM OF 24" BEYOND THE CONCRETE GUTTER. SUBBASE SHALL BE COMPACTED TO RELATIVE DENSITY OF 95%.
5. CURB FACE SHALL BE 6" OR 8" UNLESS PREVIOUSLY APPROVED BY CITY ENGINEER IN WRITING.
6. ALL EXPOSED CORNERS ON PCC CURBS AND GUTTERS SHALL BE ROUNDED WITH A 1/2" RADIUS.
7. PROTECT EXISTING SPRINKLER SYSTEMS, ELECTRICAL CONDUIT, WATER METERS, SERVICE LATERALS, AND ALL OTHER UNDERGROUND UTILITIES ADJACENT TO CURB & GUTTER AND CURB REPLACEMENT.
8. BACKFILL EXCAVATED AREA WITH CLEAN SUITABLE EARTH FROM EXCAVATION.
9. REPLACE ANY DAMAGED LANDSCAPE AND IMPROVEMENTS, IN KIND.

SEAL BEACH STANDARD PLANS FOR STREETS

STANDARD CURB SECTIONS TYPE A

DRAWN BY: A. MARTINEZ	APPROVED BY:		ST-17
CHECKED BY: I. LEE	<i>A. Martinez</i>		
DATE: OCTOBER, 2021	10/7/2021		
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		DATE	SHEET 1 OF 1



TYPICAL SIGN INSTALLATION

NOTES:

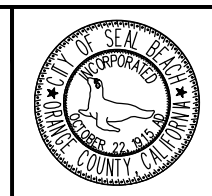
1. SIGN SHALL BE STANDARD SIZE PER THE CALIFORNIA MUTCD UNLESS OTHERWISE SHOWN. SIGN SHALL BE MADE OF ALUMINUM (0.08 INCH THICKNESS).
2. REFLECTIVE SHEETING SHALL BE 3M HIGH INTENSITY PRISMATIC (TYPE 4) OR GREATER, OR APPROVED EQUAL.
3. NEW SIGN POSTS SHALL BE 14 GAUGE, 2 INCH SQUARE (O.D.) UNISTRUT INSTALLED INTO A 12 GAUGE 2-1/4 INCH UNISTRUT (O.D.) BASE. UNISTRUT BASE SHALL BE INSTALLED AT A DEPTH OF 18 INCHES IN CONCRETE AND 30 INCHES IN DIRT. CONTRACTOR SHALL USA LOCATION PRIOR TO INSTALLING SIGN.
4. SIGN MOUNTING HARDWARE AND BRACKETS SHALL BE 5/16 INCH STAINLESS STEEL. ANTI-SEIZE LUBRICANT SHALL BE APPLIED TO MOUNTING HARDWARE PRIOR TO INSTALLATION.
5. SIGNS SHALL BE INSTALLED AT A CLEAR HEIGHT OF 7 FEET UNLESS OTHERWISE SHOWN ON PLANS. LOCATION OF SIGNS SHOWN ON PLANS IS APPROXIMATE AND SHALL BE APPROVED BY THE CITY PRIOR TO INSTALLATION.
6. INSERT SIGN POST AND RIVET IN PLACE WITH TWO (2) 3/8" UNIVERSAL HEAD RIVETS, ONE PLACED FACING DIRECTION OF TRAVEL AND ONE FACING CURB.

SEAL BEACH STANDARD PLANS FOR STREETS

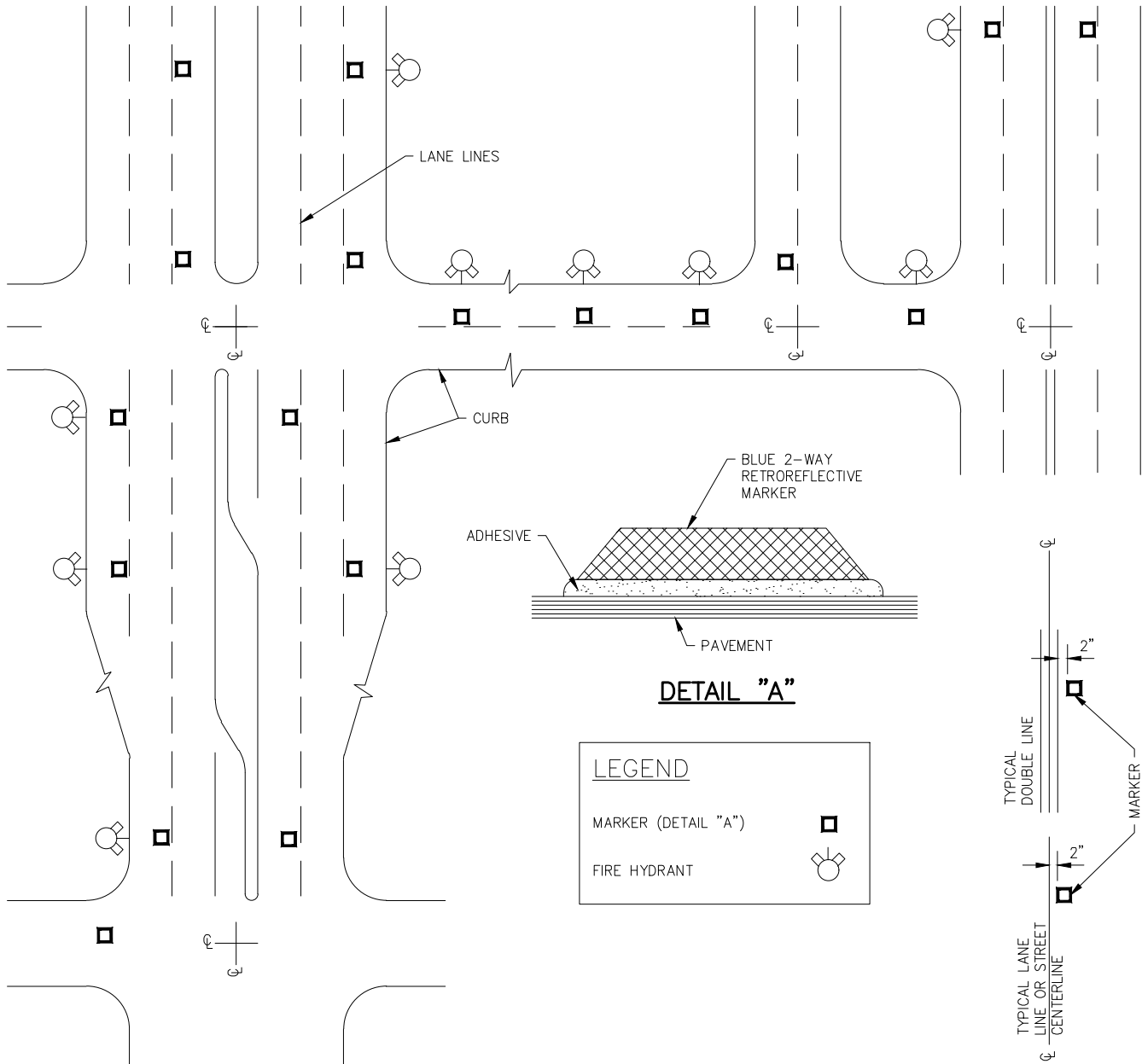
SIGN POST INSTALLATION

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DATE:	OCTOBER, 2021
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	DATE



ST-18
SHEET 1 OF 1



LEGEND	
MARKER (DETAIL "A")	
FIRE HYDRANT	

- MARKERS - SHALL BE BLUE 2-WAY RETROREFLECTIVE WITH GLASS FACES OR 3M 290 SERIES OR EQUAL.
- ADHESIVE - PER MANUFACTURER'S SPECIFICATIONS.
- SURFACES - CLEAN AND DRY PRIOR TO INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS. INSTALL MARKERS WITH RETROREFLECTIVE SURFACES FACING ONCOMING VEHICLES AND OFFSET 2" FROM LANE LINES.

DETAIL "B"

NOTES:

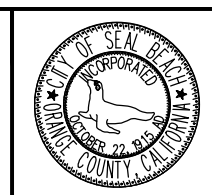
1. FIRE DEPARTMENT WILL PROVIDE LOCATION(S) FOR ALL MARKERS IN PRIVATE RESIDENTIAL DEVELOPMENTS, COMMERCIAL LOTS, AND ALL OTHER AREAS OUTSIDE OF PUBLIC RIGHT OF WAY.
2. MARKERS MUST BE INSTALLED AT ALL NEW AND RELOCATED FIRE HYDRANTS AND WITHIN ALL RESURFACING PROJECTS.
3. FOR STREETS WITHOUT LANE LINES OR STREETS WITH RAISED PAVEMENT MARKERS AND NO PAINTED LANE LINES, INSTALL MARKERS ON CENTERLINE OR IN LINE WITH EXISTING MARKERS.

SEAL BEACH STANDARD PLANS FOR STREETS

FIRE HYDRANT MARKERS

DRAWN BY:	A. MARTINEZ
CHECKED BY:	I. LEE
DATE:	OCTOBER, 2021
SCALE:	NO SCALE

APPROVED BY:	
DIRECTOR OF PUBLIC WORKS	10/7/2021 DATE



ST-19
SHEET 1 OF 1