

GENERAL NOTES:

- ALL WORK SHALL CONFORM TO THESE IMPROVEMENT PLANS, THE PROJECT SPECIFICATIONS, THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC) "GREEN BOOK" AND CALTRANS STANDARDS, IN THE EVENT OF A CONFLICT THE MOST STRINGENT STANDARD SHALL PREVAIL.
- APPROVAL OF THESE PLANS BY THE CITY OR ITS AGENTS DOES NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR THE CORRECTIONS OF ERRORS OR OMISSIONS DISCOVERED DURING CONSTRUCTION. ALL APPROPRIATE PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE CITY ENGINEER FOR THE REVIEW AND APPROVAL PRIOR TO CONTINUANCE OF THE AFFECTED IMPROVEMENTS.
- NO DEVIATION FROM THESE PLANS SHALL BE MADE UNLESS A CHANGE ORDER IS APPROVED BY THE CITY ENGINEER AND NOTED IN THE REVISION BLOCK OF EACH SHEET WHERE SUCH APPROVAL HAS BEEN GIVEN. THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FOR WORK WITHIN THE PUBLIC WAY PRIOR TO THE START OF ANY CONSTRUCTION.
- NOT USED
- CONTRACTORS SHALL COMPLY WITH ALL APPLICABLE DIVISIONS OF INDUSTRIAL REGULATIONS (CAL-OSHA) SAFETY STANDARDS. IF REQUIRED BY THE INSPECTOR, THE CONTRACTORS SHALL PROVIDE PROOF OF A PERMIT FROM SAID DIVISION.
- CONTRACTORS SHALL NOTIFY THE CITY PUBLIC WORKS INSPECTOR 48 HOURS PRIOR TO COMMENCING CONSTRUCTION AND 24 HOURS IN ADVANCE OF SPECIFIC INSPECTION NEEDS DURING THE COURSE OF THE WORK.
- ALL WORK SHALL BE PERFORMED DURING CITY WORKING HOURS AND WILL BE SUBJECT TO INSPECTION BY THE PUBLIC WORKS DEPARTMENT. WHERE OVERTIME INSPECTION IS NEEDED, SUBJECT TO THE AVAILABILITY OF AN INSPECTOR AND APPROVED BY THE CITY ENGINEER, THE CONTRACTORS WILL BE ELIGIBLE FOR SAID INSPECTION SERVICES.
- CONTRACTORS SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OR CONTINUANCE OF WORK.
- CONTRACTORS SHALL LOCATE, PROTECT, AND SAVE ANY AND ALL SURVEY MONUMENTS THAT WILL BE OR MAY BE DAMAGED OR DESTROYED BY THESE OPERATIONS. ONCE FOUND, THE CONTRACTOR ALL THEN NOTIFY BOTH THE CITY AND ENGINEER OF RECORD. THE SUPERVISING CIVIL ENGINEER OR HIS LICENSED SURVEYOR DESIGNEE SHALL RESET ALL SAID MONUMENTS PER THE REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYORS' ACT.
- UTILITY LOCATION AND DEPTHS SHOWN HEREON HAVE BEEN PLOTTED IN ACCORDANCE WITH DATA FURNISHED BY THE UTILITY COMPANIES. NEITHER THE CITY NOR THE ENGINEER ASSUMES RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION RECEIVED FROM EACH COMPANY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PUBLIC AND PRIVATE PROPERTY INsofar AS IT MAY BE AFFECTED BY THESE OPERATIONS. ALL COSTS FOR PROTECTING, REMOVING, AND RESTORING EXISTING IMPROVEMENTS SHALL BE BORNE BY THE CONTRACTOR.
- EXISTING TRAFFIC SIGNS ARE NOT TO BE REMOVED WITHOUT PRIOR NOTIFICATION AND APPROVAL OF THE CITY ENGINEER. TRAFFIC CONTROL PLANS SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 5 OF THE CALTRANS TRAFFIC MANUAL. A TRAFFIC CONTROL PLAN MUST BE SUBMITTED TO THE CITY ENGINEER 20 DAYS PRIOR TO IMPLEMENTATION OF THE TRAFFIC CONTROL. THE CITY ENGINEER'S WRITTEN APPROVAL MUST BE OBTAINED PRIOR TO IMPLEMENTATION OF THE TRAFFIC CONTROL.
- DUST CONTROL SHALL BE MAINTAINED AT ALL TIMES. EROSION CONTROL MEASURES SHALL BE PROVIDED FOR ALL WORK IN CONFORMANCE WITH NPDES REQUIREMENTS.
- ALL UNDERGROUND UTILITIES AND SERVICE LATERALS SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF CURBS- GUTTERS, SIDEWALKS, AND PAVING.
- THE STRUCTURAL SECTIONS HAVE BEEN ESTABLISHED BY THE GEOTECHNICAL/SOILS ENGINEER. ALL AGGREGATE BASE, ASPHALT, AND CONCRETE MIX DESIGNS SHALL BE SUBMITTED FOR THE CITY ENGINEER'S APPROVAL NO LESS THAN 20 DAYS PRIOR TO THE START OF FINISH GRADING OF THE BASEMENT SOIL WITHIN THE STREET RIGHT-OF-WAY.
- AGGREGATE BASE SHALL BE CRUSHED AGGREGATE BASE OR CRUSHED MISCELLANEOUS BASE PER SSPWC. BASE PLACEMENT SHALL NOT COMMENCE UNTIL OBTAINING CITY ENGINEER'S APPROVAL OF COMPACTION REPORTS WITH ALL OTHER APPROPRIATE TEST RESULTS (E.G. SIEVE ANALYSIS, SAND EQUIVALENT, R-WALL) PREPARED BY THE GEOTECHNICAL ENGINEER AND THE STREET STRUCTURAL SECTION AND STREET LIGHTS SHALL BE INSTALLED BY SOUTHERN CALIFORNIA EDISON IN ACCORDANCE WITH APPROVED EDISON AND COUNTY OF ORANGE PLANS.
- ABOVE GROUND STRUCTURES IN THE SIDEWALK, INCLUDING, BUT NOT LIMITED TO, FACILITIES OWNED BY THE CITY, ANY UTILITY COMPANY OR DISTRICT, AND THE U.S. POSTAL SERVICE SHALL BE CONSISTENT WITH MINIMUM REQUIREMENTS FOR HANDICAP ACCESS. THE TOP OF CURB WIDTH SHALL NOT BE INCLUDED WHEN MEASURING SIDEWALK WIDTH.
- TRAFFIC SIGNS AND STRIPING SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE APPROVED PLANS AND TO THE SATISFACTION OF THE CITY ENGINEER.
- PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL JOIN CONDITIONS FOR GRADING AND DRAINAGE WORK. IF CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND SHALL NOT BEGIN CONSTRUCTION UNTIL THE CHANGED CONDITIONS HAVE BEEN EVALUATED.
- THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITY INFORMATION SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA.
- THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
- THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS, THE SOILS AND/OR GEOLOGY REPORTS, AND THE SITE CONDITIONS PRIOR TO COMMENCING WORK.
- SHOULD CONFLICTING INFORMATION BE FOUND ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER BEFORE PROCEEDING WITH THE WORK IN QUESTION.
- THE CONTRACTOR SHALL OBTAIN AN O.S.H.A PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO THE CONSTRUCTION OF TRENCHES OR EXCAVATIONS WHICH ARE 5 FEET OR DEEPER.
- CONTRACTOR SHALL COMPLY WITH THE "CALIFORNIA STORM WATER BEST MANAGEMENT PRACTICE HANDBOOK".

- THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER A MINIMUM OF 48 HOURS IN ADVANCE TO REQUEST A PRE-CONSTRUCTION MEETING TO DISCUSS THE CITY'S CONSTRUCTION POLICIES AND PROCEDURES. THIS MEETING SHALL BE ATTENDED BY THE CONTRACTOR PROJECT CIVIL AND GEOTECHNICAL ENGINEERS.
- THE CONTRACTOR SHALL SUBMIT A TRAFFIC PHASING PLAN NO LESS THAN 20 DAYS BEFORE THE PRE-CONSTRUCTION MEETING. THIS PLAN SHALL BE REVIEWED AND APPROVED BY THE CITY ENGINEER PRIOR TO COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING PROPERTIES FROM DAMAGE IN ACCORDANCE WITH SECTION 7-1.11 SSPWC. ACCESS TO PROPERTIES ADJACENT TO ALL AREAS OF WORK SHALL BE MAINTAINED AT ALL TIMES.
- ALL PAVEMENT JOIN LINES SHALL BE SAW-CUT IN STRAIGHT LINES EITHER PARALLEL TO THE CURB OR AT RIGHT ANGLES TO THE ALIGNMENT OF THE STREET CENTERLINE.
- A.C. PAVEMENT LONGITUDINAL JOIN LINES SHALL BE CONSTRUCTED AT THE EDGES OF TRAFFIC LANES. JOINS WILL NOT BE PERMITTED UNDER THE WHEEL PATHS OF VEHICLES.
- A TACK COAT SHALL BE APPLIED AT ALL SAW-CUT AND JOIN LINES UNDER THE A.C. OVERLAYS AS SPECIFIED IN SECTION 39-402 OF THE STANDARD SPECIFICATIONS.
- RESET SEWER MANHOLES, STORM DRAIN MANHOLES, WATER VALVES, AND GAS VALVES PER THE STANDARDS OF THE RESPECTIVE UTILITY AGENCY AT THE END TO THE FINISHED GRADE OF THE PAVEMENT.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) TOLL FREE AT 1-800-227-2800, AT LEAST 48 HOURS PRIOR TO ANY WORK.
- THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL NECESSARY CONSTRUCTION SURVEYING NECESSARY TO COMPLETE THE WORK.
- UNLESS NOTED OTHERWISE, STATIONING ON PLANS WILL BE CENTERLINE STATIONING.
- THE BACKFILLING OF ALL TRENCHES SHALL BE TESTED AND MEET THE APPROVAL OF THE GEOTECHNICAL ENGINEER. BACKFILLING SHALL MEET THE REQUIREMENTS OF SSPWC.
- ALL CONCRETE SIDEWALKS OR CURBS THAT ARE DAMAGED OR NOT CONSTRUCTED TO LINE AND GRADE SHALL BE SAW-CUT TO THE NEAREST TRANSVERSE SCORE MARK OR ADJUSTABLE CONTROL JOINT OR WEAKENED PLANE JOINT. REMOVED AND REPLACED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF A.P.W.A. STANDARD PLANS. CURB AND GUTTER, SIDEWALK AND ALL OTHER VISIBLE CONCRETE WITHIN THE STREET SHALL BE CONSIDERED DAMAGED AND DEFECTIVE IF ANY OF THE FOLLOWING DEFECTS ARE NOTED: TWO OR MORE PITS GREATER THAN 1/4" IN DIAMETER, SCRAPES OR GOUGES DEEPER THAN 1/2" IN DEPTH OR 4" IN LENGTH WITH ANY FIVE FOOT LONG SECTION OR DEVIATION FROM LINE OR GRADE OF MORE THAN 1/8" WITHIN 10 FEET.
- THE CONTRACTOR SHALL MAINTAIN ALL ADJACENT STREETS IN A NEAT, CLEAN, DUST FREE AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE CITY ENGINEER. THE ADJACENT STREETS SHALL BE KEPT CLEAN OF DEBRIS, CONTROLLING DUST AND OTHER NUISANCES AT ALL TIMES. DEVELOPER SHALL BE RESPONSIBLE FOR ALL CLEAN UP ON ADJACENT STREETS AFFECTED BY THE CONSTRUCTION. STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS. THERE WILL BE NO STOCKPILING OF BUILDING MATERIALS WITHIN THE CITY RIGHT-OF-WAY WITHOUT THE PERMISSION OF THE CITY ENGINEER.
- IRWD FACILITIES SHALL BE INSTALLED OR ADJUSTED PER IRWD STANDARD DRAWINGS AND CONSTRUCTION MANUAL & PROCEDURE GUIDELINES.

SIGNING AND STRIPING NOTES:

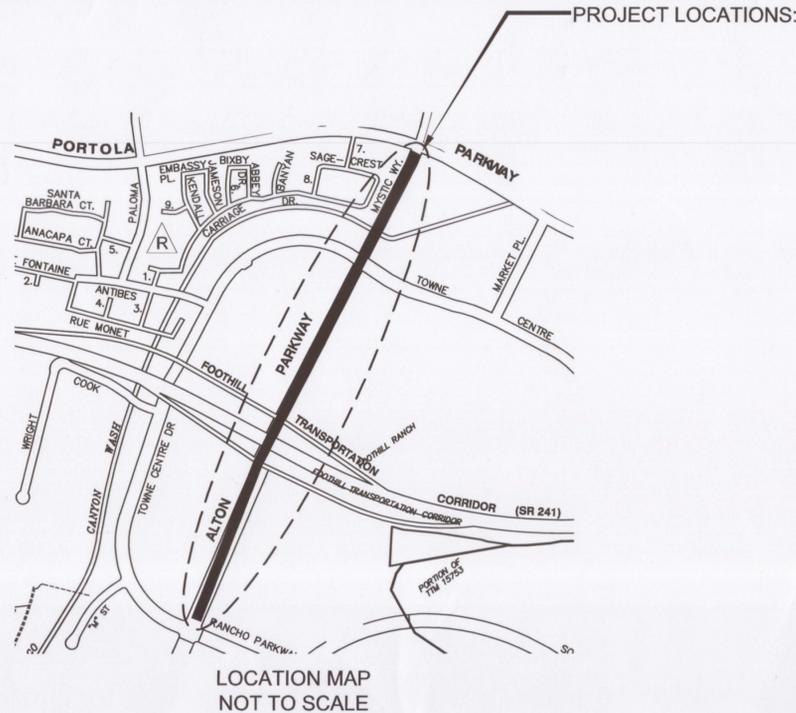
- ALL WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD PLANS AND SPECIFICATIONS, PROJECT SPECIAL PROVISIONS, AND THIS PLAN SHEET.
- ALL STRIPING AND PAVEMENT LEGENDS SHALL BE INSTALLED PER CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD), CURRENT EDITION. NEW STRIPING SHALL NOT BE PLACED UNTIL SPOTTED AND APPROVED BY THE CITY OR APPROVED REPRESENTATIVE.
- ALL CONFLICTING STRIPING SHALL BE REMOVED BY WET SANDBLASTING OR METHOD APPROVED BY THE CITY OR APPROVED REPRESENTATIVE.
- ALL WORK SHALL BE COORDINATED WITH AND COMPLETED TO THE SATISFACTION OF THE CITY OR APPROVED REPRESENTATIVE.
- NEW STRIPING SHALL HAVE RAISED PAVEMENT MARKERS (RPM). RPM'S SHALL BE TYPE G, FOR LANE LINES AND WHITE STRIPES; TYPE H, FOR ALL YELLOW STRIPING; BLUE FOR FIRE HYDRANTS, INSTALLED IN THE FIRST ADJACENT TRAVEL LANE, CENTERED.
- ALL PAVEMENT LEGENDS SHALL BE PLACED IN THE CENTER OF THE TRAVEL LANE, OR AS DIRECTED BY THE CITY OR APPROVED REPRESENTATIVE.
- ALL TRAFFIC LANES, PAVEMENT LEGENDS, AND CROSSWALKS SHALL BE PAINT, UNLESS OTHERWISE SPECIFIED.
- TRAFFIC LOOPS ARE TO BE INSTALLED AS INDICATED, PER CALTRANS STANDARD PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE CITY OR APPROVED REPRESENTATIVE.
- ALL STRIPING TO BE REPLACED IN KIND TO MATCH EXISTING. CONTRACTOR TO VERIFY EXISTING IN FIELD PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR TO NOTIFY THE CITY OR APPROVED REPRESENTATIVE OF ALL DISCREPANCIES BETWEEN PLANS AND ACTUAL SITE CONDITIONS.
- CONTRACTOR TO VERIFY EXISTING LOOP QUANTITY AND LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR TO REPLACE ALL STREET SIGNS OF EVERY SHAPE/TYPE/SIZE WITHIN THE PROJECT LIMITS AS PART OF THIS PROJECT.
- ALL FRONT STOP BAR LOOPS SHALL BE BICYCLE SENSITIVE PER CA MUTCD.
- CONTRACTOR SHALL CONFIRM CURB TO CURB WIDTH IN THE FIELD AND LANE WIDTHS TO BE CONFIRMED WITH CITY STAFF PRIOR TO FINAL STRIPING.

ABBREVIATIONS

AC	ASPHALT CONCRETE
ARHM	ASPHALT RUBERIZED HOT MIX
CL	CENTERLINE
C&G	CURB AND GUTTER
EXIST	EXISTING
DRWY	DRIVEWAY
PCC	PORTLAND CEMENT CONCRETE
ROW	RIGHT OF WAY
RPM	RAISED PAVEMENT MARKER
SDWK	SIDEWALK
SSPWC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREEN BOOK")
SD	STORM DRAIN
S	SEWER



CITY OF LAKE FOREST
DEPARTMENT OF PUBLIC WORKS
ALTON PARKWAY REHABILITATION PROJECT
FROM PORTOLA PARKWAY TO RANCHO PARKWAY SOUTH
FEDERAL PROJECT NO. STPL- 5469 (018), ADVANTAGE ID 1216000043



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SIGNING & STRIPING CONSTRUCTION NOTES:

- INSTALL 8" CHANNELIZING LANE LINE PER DETAIL 38A CALTRANS STANDARD PLANS A20D
- INSTALL 4" SOLID WHITE LANE LINE PER DETAIL 9 CALTRANS STANDARD PLANS A20A
- INSTALL 4" WHITE LANE LINE EXTENSIONS PER DETAIL 37B CALTRANS STD PLAN A20D.
- INSTALL 4" SOLID WHITE STRIPE, PER CALTRANS STANDARD PLANS A20A.
- INSTALL 4" SOLID DOUBLE YELLOW LANE LINE PER DETAIL 29 CALTRANS STANDARD PLANS A20B.
- INSTALL 4" SOLID DOUBLE YELLOW LANE LINE PER DETAIL 22 CALTRANS STANDARD PLAN A20A
- INSTALL 12" WIDE SOLID YELLOW PAINT CROSSWALK PER CALTRANS STANDARD PLAN 24E WITH 12" SPACING BETWEEN LINES
- INSTALL "STOP" LEGEND WITH 12" SOLID WHITE LINE PER CALTRANS STANDARD PLANS A24D
- INSTALL "SLOW SCHOOL XING" LEGEND PER CALTRANS STANDARD PLANS A24D
- INSTALL ARROW PER PLAN IN ACCORDANCE WITH CALTRANS STANDARD PLANS A24A
- INSTALL TRAFFIC LOOP INDICATED TYPE E PER CALTRANS STANDARDS AND SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER
- INSTALL FIRE HYDRANT LOCATION PAVEMENT MARKER BLUE RETROREFLECTIVE RAISED PAVEMENT MARKER (RPM) PER FIGURE 6-44 CALTRANS TRAFFIC MANUAL
- INSTALL 12" WIDE SOLID WHITE PAINT CROSSWALK LINES PER CALTRANS STANDARD PLANS A24E
- INSTALL 12" WIDE SOLID WHITE PAINT LIMIT LINE PER CALTRANS STANDARD PLANS A24E
- INSTALL TRAFFIC LOOP INDICATED TYPE D PER CALTRANS STANDARDS AND SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER
- INSTALL "SIGNAL AHEAD" LEGEND PER CALTRANS STANDARD PLAN A24D
- INSTALL 8" ROUND, RAISED, CERAMIC PAVEMENT MARKERS TYPE AY YELLOW
- INSTALL "STOP AHEAD" LEGEND PER CALTRANS STANDARD PLAN A24D
- INSTALL 4" WHITE LANE LINE EXTENSIONS PER DETAIL 40 CALTRANS STD PLAN A20D.
- INSTALL 8" YELLOW CHEVRON LINE PER DETAIL 38A (MODIFIED) CALTRANS STANDARD PLANS A20D
- INSTALL RAISED MEDIUM NOSE STRIPING PER DETAIL 1 ON SHEET 2.
- INSTALL "BIKE LANE" LEGEND PER CALTRANS STANDARD PLAN A24D AND 5' ARROW TYPE 1 PER CALTRANS STANDARD PLANS A24A (MODIFIED)
- INSTALL BIKE LANE LINE PER DETAIL 39 AND 39A CALTRANS STANDARD PLAN A20D

CONSTRUCTION NOTES

- PROTECT IN PLACE
- COLDMILL 2" EXISTING AC PAVEMENT
- CONSTRUCT 2" RUBBERIZED HOT MIX ASPHALT CONCRETE (ARHM AC)
- SAWCUT, REMOVE AND REPLACE 4" PCC SIDEWALK PER SPPWC STD PLAN 112-2 AND 113-2
- SAWCUT, REMOVE AND RECONSTRUCT CURB AND GUTTER PER SPPWC STD PLAN 120-2
- SAWCUT AND REMOVE EXIST AC PAVT. REPLACE WITH 2" ARHM AC/5/4C/5/4B
- REMOVE AND REPLACE WITH NEW VALVE BOX FRAME AND COVER PROVIDED BY IRWD, SET COVER TO FINISHED GRADE PER IRWD STD. PLAN W-22
- ADJUST EXIST MANHOLE FRAME AND COVER TO FINISH GRADE PER IRWD STD PLAN S-1
- ADJUST EXIST MANHOLE FRAME AND COVER TO FINISH GRADE PER CITY STD PLAN OR PER APWA STD PLAN.
- SAWCUT, REMOVE AND RECONSTRUCT PCC ACCESS RAMP, COMPLETED IN PLACE PER SPPWC STD PLAN 111-4
- REMOVE AND RECONSTRUCT COMMERCIAL DRIVEWAY APPROX (F PCC) PER SPPWC STD PLAN 110-2

LEGEND

○ GV	EXIST GAS VALVE
● EMH	EXIST EDISON MANHOLE
○ SDMH	EXIST STORM DRAIN MANHOLE
● SMH	EXIST SEWER MANHOLE
○ TMH	EXIST TELEPHONE MANHOLE
● WMH	EXIST WATER MANHOLE
○ TSPB	TRAFFIC SIGNAL PULLBOX
○ WV	EXIST WATER VALVE
□ EX	EXIST EDISON VAULT
□ FH	EXIST FIRE HYDRANT
□ C&G	COLDMILL AND OVERLAY LIMITS
□ R&R	REMOVE AND REPLACE LIMITS
□ SL	STREET LIGHT
□ TR	TRAFFIC SIGNAL

UTILITY CONTACT INFORMATION

SCE (SOUTHERN CALIFORNIA EDISON) TIM BRENNAN	(949) 458-4667
AT&T VALENTINA GIPSON	(714) 666-5467
COX COMMUNICATIONS SINA MUCKENFUSS	(949) 546-2485
EL TORO WATER DISTRICT BRIAN MILLER	(949) 837-7050 EXT. 224
THE GAS COMPANY (SEMPRA). BRAD MORRISON	(714) 643-3061
IRVINE RANCH WATER DISTRICT KELLY LEW	(949) 453-5586
TRABUCO CANYON WATER DISTRICT HECTOR RUIZ	(949) 858-0277
TRAFFIC SIGNAL MAINTENANCE (COMPUTER SERVICE COMPANY) JEFF TELANDER	(714) 981-7989

IRVINE RANCH WATER DISTRICT

FOR APPROVAL OF DOMESTIC WATER AND SANITARY SEWER SYSTEM FACILITIES.

PROJECT Nos. 3990, 3991. IRWD CODE 6178

APPROVED BY: *[Signature]* DATE 6/11/16

SUPERVISED BY: _____ DATE _____

REVIEWED BY: _____ DATE _____



APA Engineering, Inc.
Civil Engineering Planning Surveying Project Management

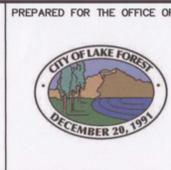
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REVISIONS

REFERENCES

NUMBER	DATE	INITIALS	APP'VD



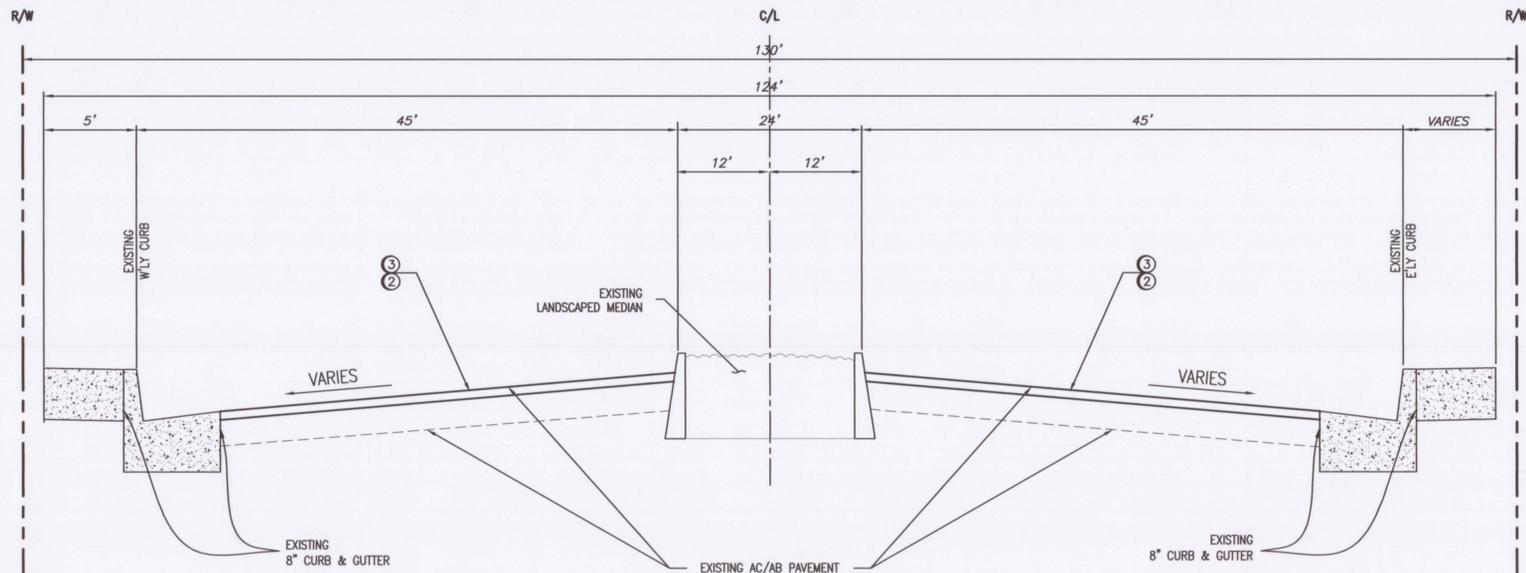
CITY OF LAKE FOREST CITY HALL 25550 COMMERCENTRE DRIVE LAKE FOREST, CA 92630	DATE 01/14/16
DRAWN BY AWD	CHECKED BY AP
DESIGNED BY AWD	APPROVED FOR CONSTRUCTION IN PUBLIC RIGHT-OF-WAY ONLY

THOMAS E. WHEELER, P.E.
PUBLIC WORKS DIRECTOR/
CITY ENGINEER

ALTON PARKWAY REHABILITATION PROJECT
FROM PORTOLA PARKWAY TO RANCHO PARKWAY SOUTH
FEDERAL PROJECT NO. STPL- 5469 (018), ADVANTAGE ID 1216000043

TITLE SHEET
CITY OF LAKE FOREST
PUBLIC WORKS DEPARTMENT

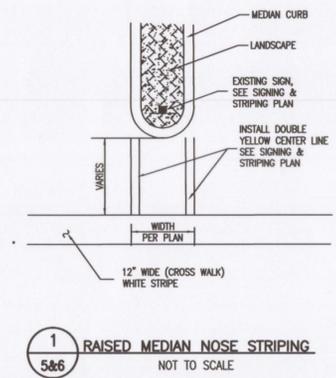
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TYPICAL ALTON PARKWAY CROSS SECTION - AC OVERLAY REHABILITATION
 (SOUTH TOWN CENTER DRIVE TO PORTOLA PARKWAY)
 SCALE: NOT TO SCALE

CONSTRUCTION NOTES

- ① PROTECT IN PLACE
- ② COLDMILL 2" EXISTING AC PAVEMENT
- ③ CONSTRUCT 2" RUBBERIZED HOT MIX ASPHALT CONCRETE (ARHM AC)
- ④ SAWCUT, REMOVE AND REPLACE 4" PCC SIDEWALK PER SPPWC STD PLAN 112-2 AND 113-2
- ⑤ SAWCUT, REMOVE AND RECONSTRUCT CURB AND GUTTER PER SPPWC STD PLAN 120-2
- ⑥ SAWCUT AND REMOVE EXIST AC PAVT. REPLACE WITH 2" ARHM AC/5"AC/5"AB
- ⑦ REMOVE AND REPLACE WITH NEW VALVE BOX FRAME AND COVER PROVIDED BY IRWD, SET COVER TO FINISH GRADE PER IRWD STD. PLAN W-22
- ⑧ ADJUST EXIST MANHOLE FRAME AND COVER TO FINISH GRADE PER IRWD STD PLAN S-1
- ⑨A ADJUST EXIST MANHOLE FRAME AND COVER TO FINISH GRADE PER CITY STD PLAN OR PER APWA STD PLAN.
- ⑩ SAWCUT, REMOVE AND RECONSTRUCT PCC ACCESS RAMP, COMPLETED IN PLACE PER SPPWC STD PLAN 111-4
- ⑪ REMOVE AND RECONSTRUCT COMMERCIAL DRIVEWAY APRON (6" PCC) PER SPPWC STD PLAN 110-2



LEGEND

- ⊙ GV EXIST GAS VALVE
- ⊙ EMH EXIST EDISON MANHOLE
- ⊙ SDMH EXIST STORM DRAIN MANHOLE
- ⊙ SMH EXIST SEWER MANHOLE
- ⊙ TMH EXIST TELEPHONE MANHOLE
- ⊙ WMH EXIST WATER MANHOLE
- TSPB TRAFFIC SIGNAL PULLBOX
- ⊙ WV EXIST WATER VALVE
- EV EXIST EDISON VAULT
- ⊙ EXIST FIRE HYDRANT
- ▨ COLDMILL AND OVERLAY LIMITS
- ▨ REMOVE AND REPLACE LIMITS
- ⊙ STREET LIGHT
- ⊙ TRAFFIC SIGNAL

IRWD STANDARD DOMESTIC WATER NOTES

- A. ALL WATER SYSTEM WORK SHALL CONFORM TO THE DISTRICT'S "PROCEDURAL GUIDELINES AND GENERAL DESIGN REQUIREMENTS" AND "CONSTRUCTION MANUAL", AS LAST REVISED.
- B. A PRE-CONSTRUCTION CONFERENCE OF REPRESENTATIVES FROM AFFECTED UTILITIES, AGENCIES AND THE CONTRACTOR SHALL BE HELD ON THE JOB SITE (OR A LOCATION APPROVED BY THE DISTRICT) AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO THE START OF WORK.
- C. THE DISTRICT ENGINEERING OFFICE SHALL BE CALLED FOR INSPECTION FORTY-EIGHT (48) HOURS BEFORE START OF WORK AT (949) 453-5615 OR (949) 453-5300.
- D. THE PROPOSED WATER SYSTEM IS TO BE STAKED AT A MINIMUM 50-FOOT STATIONING IF THERE ARE NO EXISTING CURBS.
- E. WATER METERS SHALL NOT BE LOCATED WITHIN A DRIVEWAY OR SIDEWALK. ALL WATER SERVICE LATERALS SHALL BE CONSTRUCTED PERPENDICULAR TO THE WATER MAIN WITHOUT BENDS OR ANGLES FROM THE CONNECTION POINT ON THE MAIN.
- F. ALL MAIN LINE VALVES SHALL BE MAINTAINED SO AS TO BE ACCESSIBLE DURING TRACT DEVELOPMENT AND CONSTRUCTION. ALL VALVE STEM TOPS HAVING OVER 84-INCHES OF COVER REQUIRE AN EXTENSION MEETING DISTRICT STANDARDS.
- G. IN RESIDENTIAL STREETS, THE TOP OF THE PIPE, 10-INCHES AND SMALLER, SHALL BE A MINIMUM OF 42-INCHES BELOW THE FINISHED STREET SURFACE AND 48-INCHES BELOW FINISHED STREET SURFACE FOR ALL PIPE 12-INCHES IN DIAMETER AND LARGER.
- H. ALL FIRE HYDRANTS SHALL BE SET WITH THE BOTTOM FLANGE 4-INCHES ABOVE THE CONCRETE PAD OR SIDEWALK USING ONE SCORED-SPOOL AS INDICATED IN THE CONSTRUCTION MANUAL AND SHALL BE LOCATED A MINIMUM OF 3 FEET FROM THE ECR OR BCR AT INTERSECTION.
- I. ALL WATER MAINS 4-INCHES THROUGH 12-INCHES SHALL BE DR-14 OR THICKER, AWWA C-900 PVC, UNLESS OTHERWISE APPROVED BY THE DISTRICT.
- J. NO "HOT-TAPS" OR OTHER TIE-IN CONNECTIONS SHALL BE MADE TO EXISTING DISTRICT WATER MAINS PRIOR TO CONDUCTING AND PASSING AN APPROVED PRESSURE TEST AND A BACTERIOLOGICAL TEST ON THE NEW WATER DISTRIBUTION SYSTEM.
- K. TAPPING SLEEVES, WHERE CALLED FOR ON THE PLANS, SHALL BE PRESSURE TESTED IN AN APPROVED MANNER IN THE FIELD, IN THE PRESENCE OF THE DISTRICT REPRESENTATIVE, PRIOR TO TAPPING THE MAIN LINE. TAPPING OF THE MAIN LINE SHALL NOT PROCEED UNLESS A DISTRICT REPRESENTATIVE IS PRESENT. SIZE ON SIZE TAPS OF WATER MAINS ARE NOT ALLOWED.
- L. WHERE METERS AND METER BOXES ARE LOCATED WITHIN SLOPES, THE ANGLE METER STOPS SHALL BE LOCATED SUCH THAT THE METERS AND BOXES ARE PARALLEL AND FLUSH, WITH THE FINISHED SURFACE. WHEREVER THE SURROUNDING GRADE EXCEEDS EIGHT (8%) PERCENT, OR IN THE OPINION OF THE DISTRICT REPRESENTATIVE, THE ADJACENT SLOPE IS TOO GREAT, A SMALL RETAINING WALL, CLEAR OF THE METER BOX, SHALL BE CONSTRUCTED TO THE SATISFACTION OF THE DISTRICT REPRESENTATIVE.
- M. CURB FACES SHALL BE INSCRIBED WITH THE LETTER "W" INDICATING LOCATIONS OF ALL DOMESTIC WATER SERVICES. LETTER INSCRIPTION SHALL BE MADE USING A 4-INCH POWER TOOL WHEEL GRINDER.
- N. INDIVIDUAL PRESSURE REGULATORS ARE REQUIRED BY THE UNIFORM PLUMBING CODE IF AVERAGE STATIC PRESSURE IN THE MAIN IS 80 PSI OR MORE.
- O. CURBS SHALL BE INSCRIBED WITH THE DOWNS FOR ALL VALVE LOCATIONS. LETTER INSCRIPTIONS SHALL BE MADE USING A 4-INCH POWER TOOL WHEEL GRINDER.
- P. THE CONTRACTOR SHALL EXPOSE ALL POINTS OF CONNECTION TO THE EXISTING DOMESTIC WATER SYSTEM FOR VERIFICATION OF HORIZONTAL AND VERTICAL LOCATION BEFORE CONSTRUCTION.
- Q. FINAL INSPECTION FOR WATERLINES MUST INCLUDE WATER SAMPLES THAT WILL BE TESTED FOR THE PRESENCE OF BACTERIA, CONDUCTIVITY, TURBIDITY AND ODOR. THE TURBIDITY MUST BE LESS THAN 2.5 NTU AND THE ODOR MUST BE LESS THAN 1.0 TON, NOT TO INCLUDE CHLORINE ODOR, TO BE ACCEPTABLE. TWO (2) CONSECUTIVE "PASSING" SAMPLES ARE REQUIRED FOR ACCEPTANCE.
- R. THE CONTRACTOR WORKING ON IRWD WATERLINES MUST HAVE A C-34 LICENSE ISSUED BY THE STATE CONTRACTOR'S LICENSE BOARD OR CLASS "A" GENERAL CONTRACTORS LICENSE (WITH SPECIAL APPROVAL OF THE DISTRICT, BASED UPON ACTUAL WATER AND SEWER PIPELINE CONSTRUCTION EXPERIENCE.)
- S. CONTRACTOR SHALL OBTAIN AND SHOW PROOF OF A CONSTRUCTION DEWATERING PERMIT FROM THE STATE OF CALIFORNIA, REGIONAL WATER QUALITY CONTROL BOARD PRIOR TO THE START OF CONSTRUCTION.
- T. ALL BUTTERFLY VALVES 12-INCHES IN DIAMETER AND LARGER SHALL BE FLANGED AND SHALL BE BI-DIRECTIONALLY TESTED WITH THE OPERATOR INSTALLED IN ACCORDANCE WITH THE DISTRICT'S REQUIREMENTS OUTLINED IN THE CONSTRUCTION MANUAL.

IRWD STANDARD SEWER NOTES

- A. THE SEWER SYSTEM IS TO BE INSTALLED BY THE DEVELOPER. ALL SEWER WORK SHALL CONFORM TO THE DISTRICT'S "PROCEDURAL GUIDELINES AND GENERAL DESIGN REQUIREMENTS" AND "CONSTRUCTION MANUAL", AS LAST REVISED.
- B. THE SEWER CONTRACTOR SHALL HAVE A COPY OF THE DISTRICT'S CONSTRUCTION MANUAL ON THE JOB.
- C. THE CONTRACTOR SHALL OBTAIN A CITY OR COUNTY PERMIT FOR WORK DONE ON PUBLIC RIGHT-OF-WAY.
- D. THE DISTRICT ENGINEERING OFFICE SHALL BE CALLED FOR INSPECTION FORTY EIGHT (48) HOURS BEFORE START OF WORK AT (949) 453-5615 OR (949) 453-5300.
- E. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD 48 HOURS BEFORE STARTING CONSTRUCTION WORK.
- F. THE CONTRACTOR SHALL EXPOSE ALL JOIN POINTS TO THE EXISTING SEWER SYSTEM FOR VERIFICATION OF LOCATION AND ELEVATION BEFORE CONSTRUCTION.
- G. STATIONS SHOWN AS 0+00.00 ARE SEWER STATIONS AND ARE INDEPENDENT OF ALL OTHER STREET AND PIPELINE STATIONS.
- H. ALL LATERALS ARE TO BE STAKED BY A SURVEYOR BEFORE TRENCHING AND A COMPLETE SET OF CUT SHEETS SUPPLIED TO THE DISTRICT REPRESENTATIVE.
- I. ALL SEWER MANHOLE LIDS ARE TO HAVE "IRWD" CAST THEREON AS SHOWN IN THE DISTRICT STANDARD DRAWINGS.
- J. THE DISTRICT WILL INSPECT AND TEST THE SEWER COLLECTION SYSTEM AND LATERAL SEWERS TO THE LATERAL CONNECTION AT PROPERTY LINE CLEAN-OUT, TERMINAL CLEAN-OUT OR MANHOLE. PRIVATELY OWNED SEWER LATERALS, HOUSE LATERALS OR BUILDING SEWER LATERALS FROM THE PROPERTY LINE CLEAN-OUT ONTO PRIVATE PROPERTY WILL BE INSPECTED AND TESTED BY THE APPROPRIATE CITY OR COUNTY BUILDING AGENCY.
- K. INFILTRATION AND AIR TESTING OF SEWER LINES SHALL BE IN ACCORDANCE WITH THE DISTRICT'S "PROCEDURAL GUIDELINES AND GENERAL DESIGN REQUIREMENTS" AND "CONSTRUCTION MANUAL", AS LAST REVISED.
- L. ALL SEWER LINES SHALL BE CLEANED VIA "HYDRO-JET CLEANER" OR "WAYNE BALL" IN THE PRESENCE OF THE DISTRICT REPRESENTATIVE BEFORE COMPLETION OF ALL LEAKAGE TESTS.
- M. PIPELINE LEAKAGE TESTS SHALL BE MADE IN THE PRESENCE OF THE DISTRICT REPRESENTATIVE, ONLY AFTER BACKFILL HAS BEEN COMPLETED, COMPACTION TESTS ON BACKFILL HAVE BEEN MADE, AND THE BACKFILL HAS BEEN ACCEPTED BY THE DISTRICT REPRESENTATIVE AND HAS RECEIVED WRITTEN CERTIFICATION FROM THE GEOTECHNICAL ENGINEER.
- N. ALL SEWER MAIN LINES SHALL BE INSPECTED BY THE DISTRICT AND THEN SHALL BE CCTV VIDEO INSPECTED (BY IRWD FORCES OR AN APPROVED PRIVATE CONTRACT COMPANY UNDER THE OBSERVATION OF THE DISTRICT REPRESENTATIVE) USING A HIGH-RESOLUTION CLOSED CIRCUIT TELEVISION SYSTEM. A DVD VIDEO RECORDING SHALL BE MADE OF THE INSPECTION AND PROVIDED TO THE DISTRICT REPRESENTATIVE.
- O. THE CONTRACTOR IS TO PROVIDE THE DISTRICT WITH AN AS-BUILT SET OF CONSTRUCTION PLANS.
- P. BEFORE FINAL ACCEPTANCE, THE DEVELOPER'S ENGINEER SIGNING THE PLANS SHALL FURNISH THE DISTRICT WITH A SET OF AS-BUILT MYLARs, A PDF SCAN OF THE RED-LINE MARK-UP AND AN AS-BUILT CAD FILE OF THE SEWER PLAN.
- Q. CURBS SHALL BE INSCRIBED WITH AN "S" INDICATING LOCATIONS OF ALL SEWER LATERALS USING A 4-INCH POWER TOOL WHEEL-GRINDER.
- R. CURBS SHALL BE INSCRIBED WITH THE DOWNS FOR ALL MANHOLE LOCATIONS USING A 4-INCH POWER TOOL WHEEL-GRINDER.
- S. THE CONTRACTOR WORKING ON IRWD SEWER MAINS MUST HAVE A C-34 LICENSE OR A CLASS A CONTRACTORS LICENSE.
- T. MANHOLES DEEPER THAN TWENTY (20') FEET SHALL HAVE STEEL-REINFORCED CONCRETE BASES. REINFORCEMENT SHALL BE PROVIDED FOR THE SPECIFIC SOILS CONDITIONS AT EACH DEEP MANHOLE LOCATION. THE REINFORCEMENT DESIGN SHALL BE SUBMITTED TO THE DISTRICT UNDER THE SIGNATURE AND STAMP OF A LICENSED CALIFORNIA CIVIL ENGINEER.
- U. MAXIMUM SLOPE ON SEWER LATERALS IS 10%.

IRVINE RANCH WATER DISTRICT

FOR APPROVAL OF DOMESTIC WATER AND SANITARY SEWER SYSTEM FACILITIES.

PROJECT Nos. 3990, 3991. IRWD CODE 6178

APPROVED BY: *[Signature]* DATE 6/11/16

SUPERVISED BY: _____ DATE _____

REVIEWED BY: _____ DATE _____

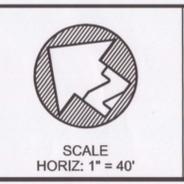


APA Engineering, Inc.
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9880 IRVINE CENTER DRIVE
 IRVINE, CA 92618
 PH: (949) 679-2600 FX: (949) 679-2601
 WEBSITE: WWW.APAENG.COM

REVISIONS				
NUMBER	DATE	INITIALS	DESCRIPTION	APPV'D

REFERENCES	



DRAWN BY	CHECKED BY	DESIGNED BY	DATE
AWD	AP	AWD	01/14/16

APPROVED FOR CONSTRUCTION IN PUBLIC RIGHT-OF-WAY ONLY

[Signature]
 THOMAS E. WHEELER, P.E.
 PUBLIC WORKS DIRECTOR/
 CITY ENGINEER

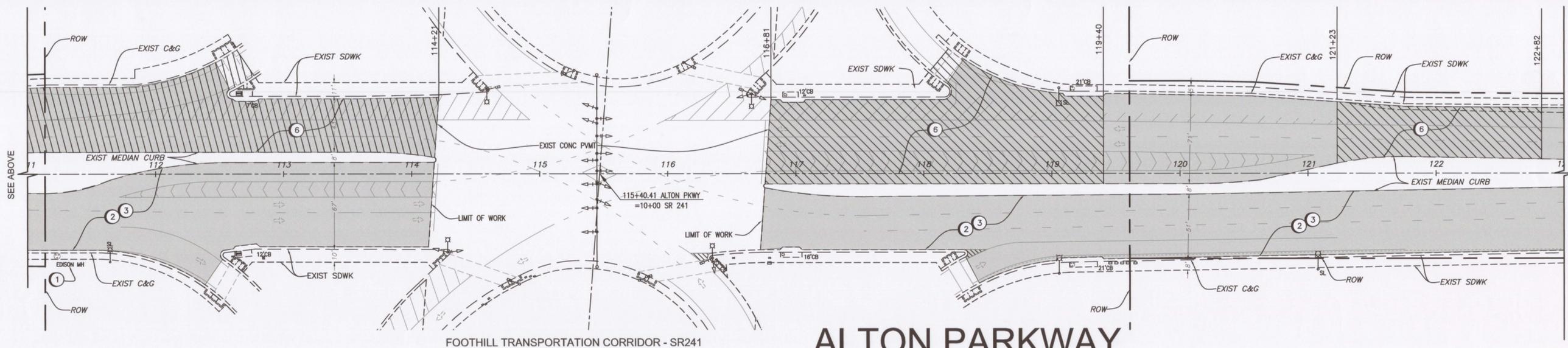
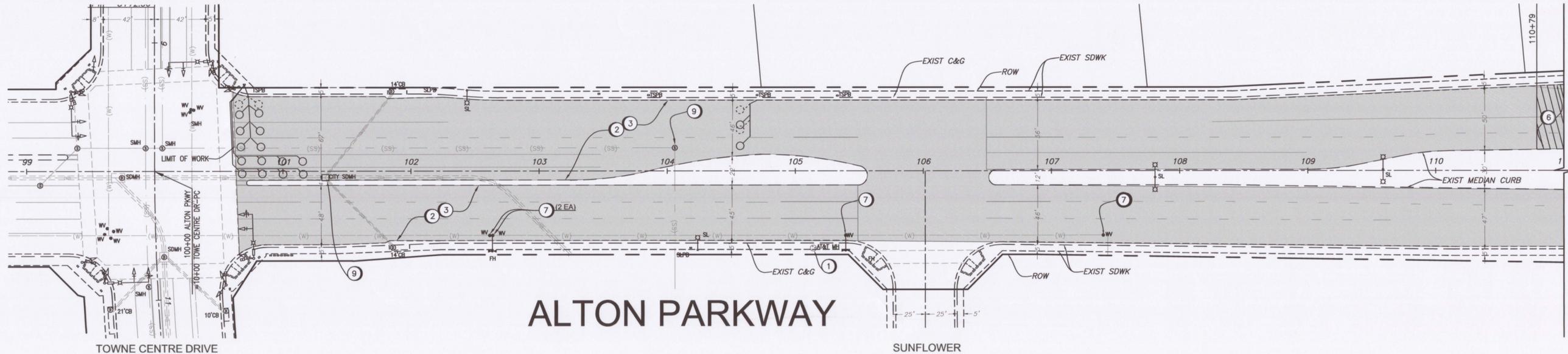
ALTON PARKWAY REHABILITATION PROJECT
 FROM PORTOLA PARKWAY TO RANCHO PARKWAY SOUTH
 FEDERAL PROJECT NO. STPL- 5469 (018), ADVANTAGE ID 1216000043

DETAILS AND NOTES

CITY OF LAKE FOREST
 PUBLIC WORKS DEPARTMENT

2
 SHEET 2 OF 12

IRWD CODE: 6178

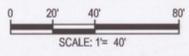


CONSTRUCTION NOTES

- 1 PROTECT IN PLACE
- 2 COLDMILL 2" EXISTING AC PAVEMENT
- 3 CONSTRUCT 2" RUBBERIZED HOT MIX ASPHALT CONCRETE (ARHM AC)
- 4 SAWCUT, REMOVE AND REPLACE 4" PCC SIDEWALK PER SPPWC STD PLAN 112-2 AND 113-2
- 5 SAWCUT, REMOVE AND RECONSTRUCT CURB AND GUTTER PER SPPWC STD PLAN 120-2
- 6 SAWCUT AND REMOVE EXIST AC PVMT. REPLACE WITH 2" ARHM AC/5"AC/5"AB
- 7 REMOVE AND REPLACE WITH NEW VALVE BOX FRAME AND COVER PROVIDED BY IRWD, SET COVER TO FINISHED GRADE PER IRWD STD. PLAN W-22
- 9 ADJUST EXIST MANHOLE FRAME AND COVER TO FINISH GRADE PER IRWD STD PLAN S-1
- 9A ADJUST EXIST MANHOLE FRAME AND COVER TO FINISH GRADE PER CITY STD PLAN OR PER APWA STD PLAN.
- 11 SAWCUT, REMOVE AND RECONSTRUCT PCC ACCESS RAMP, COMPLETED IN PLACE PER SPPWC STD PLAN 111-4
- 12 REMOVE AND RECONSTRUCT COMMERCIAL DRIVEWAY APRON (6" PCC) PER SPPWC STD PLAN 110-2

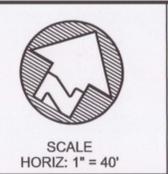
LEGEND

- ⊙ GV EXIST GAS VALVE
- ⊙ EMH EXIST EDISON MANHOLE
- ⊙ SDMH EXIST STORM DRAIN MANHOLE
- ⊙ SMH EXIST SEWER MANHOLE
- ⊙ TMH EXIST TELEPHONE MANHOLE
- ⊙ WMH EXIST WATER MANHOLE
- TSPB TRAFFIC SIGNAL PULLBOX
- ⊙ WV EXIST WATER VALVE
- ⊙ EV EXIST EDISON VAULT
- ⊙ EXIST FIRE HYDRANT
- COLDMILL AND OVERLAY LIMITS
- ▨ REMOVE AND REPLACE LIMITS
- ⊙ STREET LIGHT
- ⊙ TRAFFIC SIGNAL



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REFERENCES	



PREPARED FOR THE OFFICE OF:
 CITY OF LAKE FOREST CITY HALL
 25550 COMMERCENTRE DRIVE
 LAKE FOREST, CA 92630

DRAWN BY: AWD
 CHECKED BY: AP
 DESIGNED BY: AWD

DATE
 01/14/16

APPROVED FOR CONSTRUCTION IN PUBLIC RIGHT-OF-WAY ONLY

Thomas E. Wheeler
 THOMAS E. WHEELER, P.E.
 PUBLIC WORKS DIRECTOR/
 CITY ENGINEER

IRVINE RANCH WATER DISTRICT

FOR APPROVAL OF DOMESTIC WATER AND SANITARY SEWER SYSTEM FACILITIES.

PROJECT Nos. 3990, 3991. IRWD CODE 6178

APPROVED BY: *Ali Pakzad* DATE: 6/11/16

SUPERVISED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____



APA Engineering, Inc.
 Civil Engineering Planning Surveying Project Management

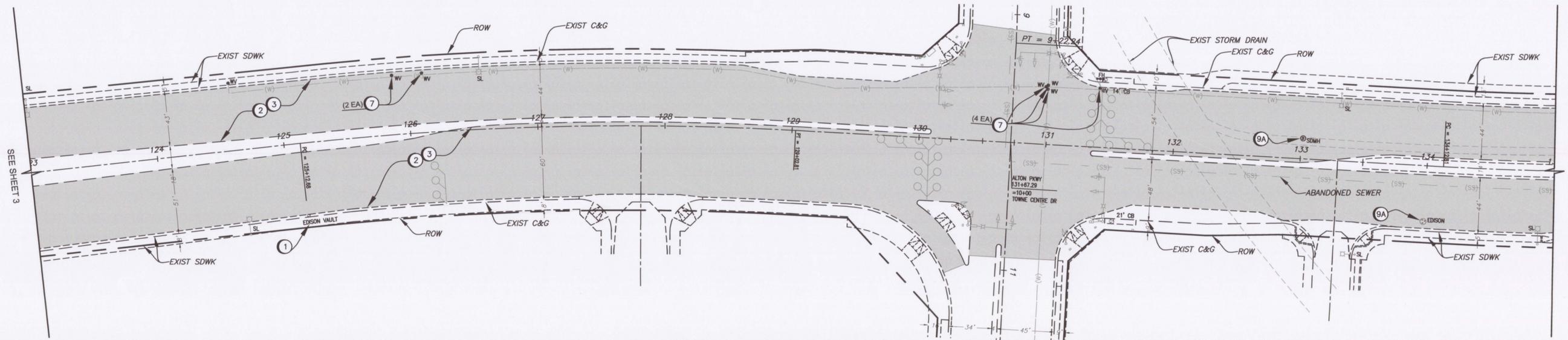
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ALTON PARKWAY REHABILITATION PROJECT
 FROM PORTOLA PARKWAY TO RANCHO PARKWAY SOUTH
 FEDERAL PROJECT NO. STPL- 5469 (018), ADVANTAGE ID 1216000043

ALTON PKWY STREET IMPROVEMENTS

CITY OF LAKE FOREST
 PUBLIC WORKS DEPARTMENT

IRWD CODE: 6178



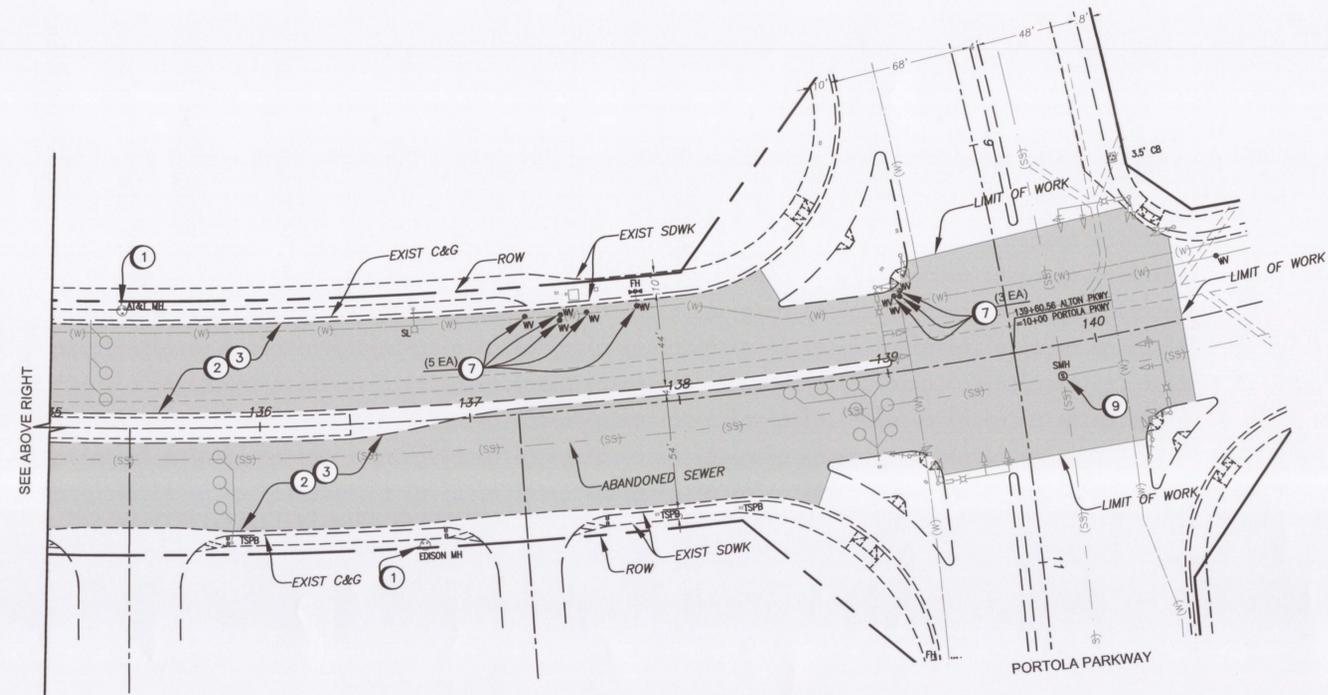
ALTON PARKWAY

CONSTRUCTION NOTES

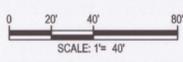
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ALTON PARKWAY



IRVINE RANCH WATER DISTRICT
 FOR APPROVAL OF DOMESTIC WATER AND SANITARY SEWER SYSTEM FACILITIES.
 PROJECT Nos. 3990, 3991. IRWD CODE 6178
 APPROVED BY: *Kelly J.* DATE: 01/16
 SUPERVISED BY: _____ DATE: _____
 REVIEWED BY: _____ DATE: _____



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PREPARED FOR THE OFFICE OF:
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 25550 COMMERCENTRE DRIVE
 LAKE FOREST, CA 92630
 DRAWN BY: AWD
 CHECKED BY: AP
 DESIGNED BY: AWD

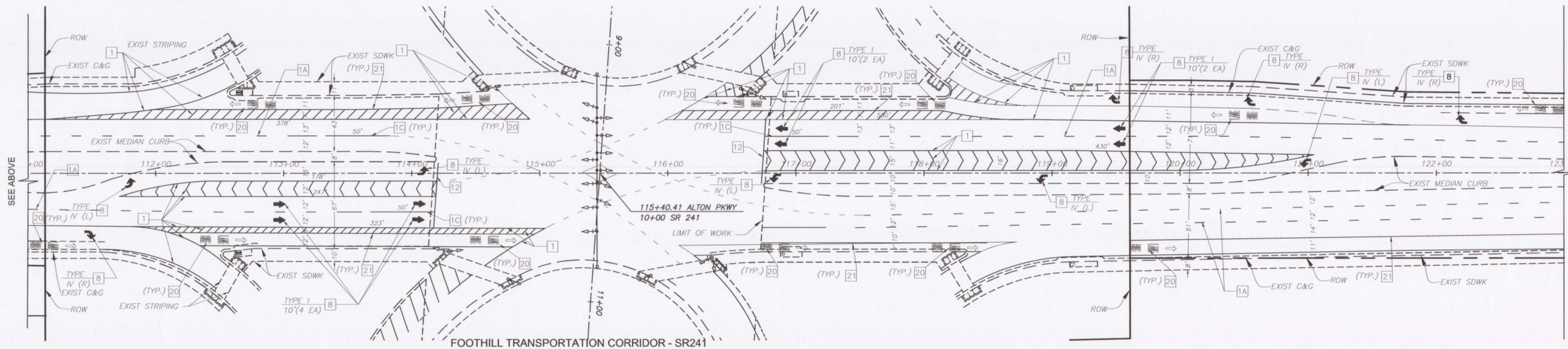
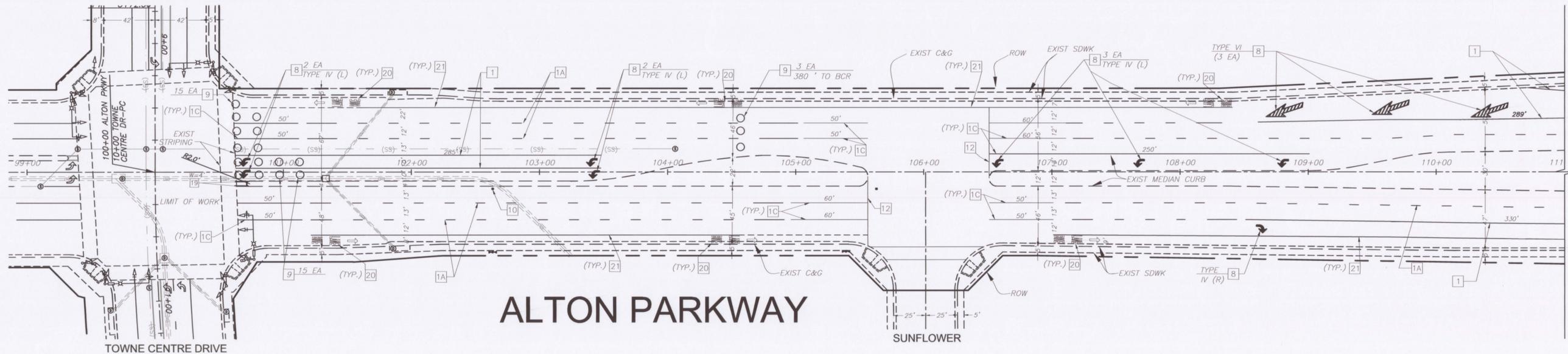
DATE
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APPROVED FOR CONSTRUCTION IN PUBLIC RIGHT-OF-WAY ONLY
 THOMAS E. WHEELER, P.E.
 PUBLIC WORKS DIRECTOR/
 CITY ENGINEER

ALTON PARKWAY REHABILITATION PROJECT
 FROM PORTOLA PARKWAY TO RANCHO PARKWAY SOUTH
 FEDERAL PROJECT NO. STPL- 5469 (018), ADVANTAGE ID 1216000043
ALTON PKWY STREET IMPROVEMENTS
 CITY OF LAKE FOREST
 PUBLIC WORKS DEPARTMENT

4
SHEET 4 OF 12

IRWD CODE: 6178



ALTON PARKWAY

SIGNING & STRIPING CONSTRUCTION NOTES:

- 1 INSTALL 8" CHANNELIZING LANE LINE PER DETAIL 38A CALTRANS STANDARD PLANS A20D
- 1A INSTALL 4" SOLID WHITE LANE LINE PER DETAIL 9 CALTRANS STANDARD PLANS A20A
- 1B INSTALL 4" WHITE LANE LINE EXTENSIONS PER DETAIL 37B CALTRANS STD PLAN A20D.
- 1C INSTALL 4" SOLID WHITE STRIPE, PER CALTRANS STANDARD PLANS A20A.
- 2 INSTALL 4" SOLID DOUBLE YELLOW LANE LINE PER DETAIL 29 CALTRANS STANDARD PLANS A20B.
- 3 INSTALL 4" SOLID DOUBLE YELLOW LANE LINE PER DETAIL 22 CALTRANS STANDARD PLAN A20A
- 4 INSTALL 12" WIDE SOLID YELLOW PAINT CROSSWALK PER CALTRANS STANDARD PLAN 24E WITH 12' SPACING BETWEEN LINES
- 5 INSTALL "STOP" LEGEND WITH 12" SOLID WHITE LINE PER CALTRANS STANDARD PLANS A24D
- 6 INSTALL "SLOW SCHOOL XING" LEGEND PER CALTRANS STANDARD PLANS A24D
- 8 INSTALL ARROW PER PLAN IN ACCORDANCE WITH CALTRANS STANDARD PLANS A24A
- 9 INSTALL TRAFFIC LOOP INDICATED TYPE E PER CALTRANS STANDARDS AND SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER
- 10 INSTALL FIRE HYDRANT LOCATION PAVEMENT MARKER BLUE RETROREFLECTIVE RAISED PAVEMENT MARKER (RPM) PER FIGURE 6-44 CALTRANS TRAFFIC MANUAL
- 11 INSTALL 12" WIDE SOLID WHITE PAINT CROSSWALK LINES PER CALTRANS STANDARD PLANS A24E
- 12 INSTALL 12" WIDE SOLID WHITE PAINT LIMIT LINE PER CALTRANS STANDARD PLANS A24E
- 13 INSTALL TRAFFIC LOOP INDICATED TYPE D PER CALTRANS STANDARDS AND SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER
- 14 INSTALL "SIGNAL AHEAD" LEGEND PER CALTRANS STANDARD PLAN A24D
- 15 INSTALL 8" ROUND, RAISED, CERAMIC PAVEMENT MARKERS TYPE AY YELLOW
- 16 INSTALL "STOP AHEAD" LEGEND PER CALTRANS STANDARD PLAN A24D
- 17 INSTALL 4" WHITE LANE LINE EXTENSIONS PER DETAIL 40 CALTRANS STD PLAN A20D.
- 18 INSTALL 8" YELLOW CHEVRON LINE PER DETAIL 38A (MODIFIED) CALTRANS STANDARD PLANS A20D
- 19 INSTALL RAISED MEDIAN NOSE STRIPING PER DETAIL 1 ON SHEET 2.
- 20 INSTALL "BIKE LANE" LEGEND PER CALTRANS STANDARD PLAN A24D AND 5' ARROW TYPE I PER CALTRANS STANDARD PLANS A24A (MODIFIED)
- 21 INSTALL BIKE LANE LINE PER DETAIL 39 AND 39A CALTRANS STANDARD PLAN A20D

REVISIONS				
NUMBER	DATE	INITIALS	DESCRIPTION	APP'VD

REFERENCES	

SCALE
HORIZ: 1" = 40'

PREPARED FOR THE OFFICE OF:

CITY OF LAKE FOREST CITY HALL
25550 COMMERCENTRE DRIVE
LAKE FOREST, CA 92630

DATE: 01/14/16

DRAWN BY	AWD
CHECKED BY	AP
DESIGNED BY	AWD

APPROVED FOR CONSTRUCTION IN PUBLIC RIGHT-OF-WAY ONLY

THOMAS E. WHEELER, P.E.
PUBLIC WORKS DIRECTOR/
CITY ENGINEER

IRVINE RANCH WATER DISTRICT

FOR APPROVAL OF DOMESTIC WATER AND SANITARY SEWER SYSTEM FACILITIES.

PROJECT Nos. 3990, 3991. IRWD CODE 6178

APPROVED BY: DATE: 01/16

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FEDERAL PROJECT NO. STPL- 5469 (018), ADVANTAGE ID 1216000043
ALTON PKWY STRIPING PLAN

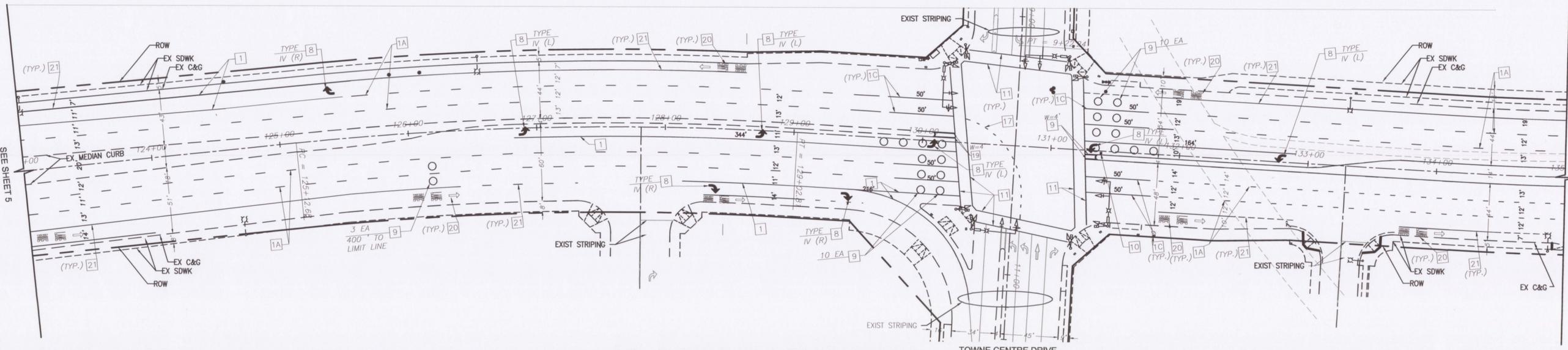
CITY OF LAKE FOREST
PUBLIC WORKS DEPARTMENT

5
SHEET 5 OF 12

SEE BELOW

SEE SHEET 6

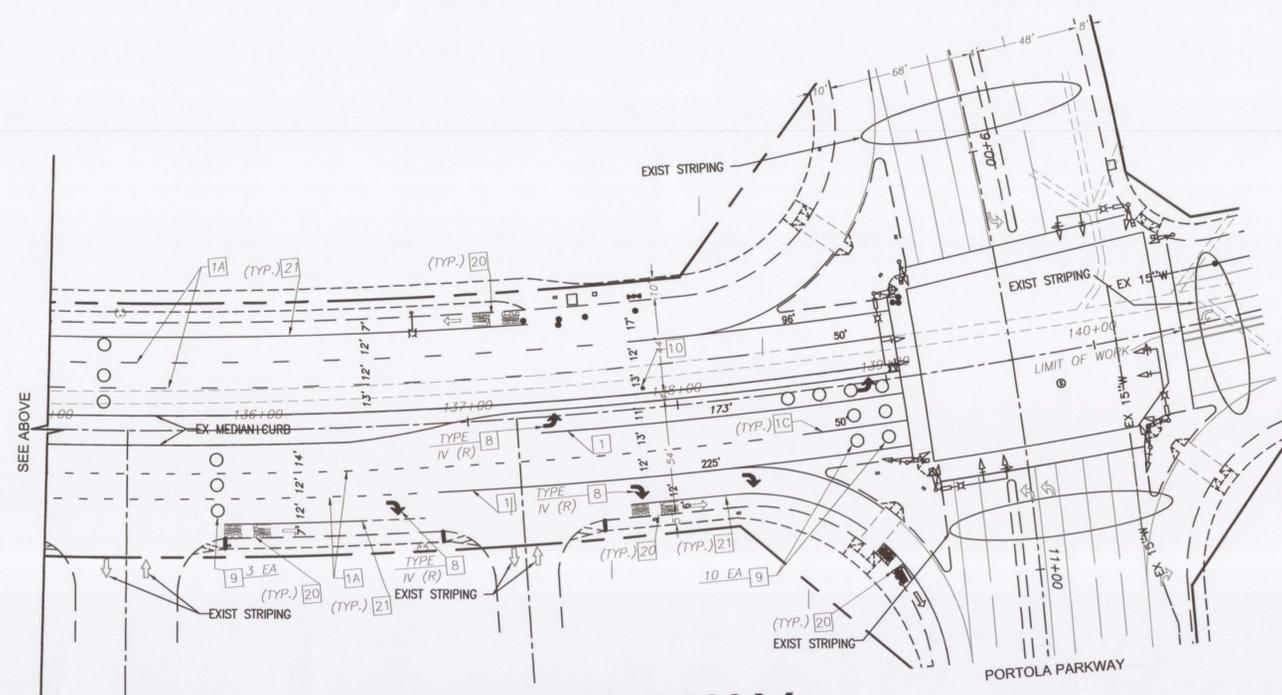
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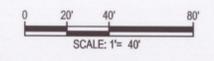
ALTON PARKWAY

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ALTON PARKWAY



IRVINE RANCH WATER DISTRICT

FOR APPROVAL OF DOMESTIC WATER AND SANITARY SEWER SYSTEM FACILITIES.

PROJECT Nos. 3990, 3991. IRWD CODE 6178

APPROVED BY: *Kelly J...* DATE: *01/16*

SUPERVISED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

REGISTERED PROFESSIONAL ENGINEER

ALI PAKZAD

No. C50382

Exp. 09/30/18

CIVIL

SITE SPEC. CALIFORNIA

APA Engineering, Inc.

9880 IRVINE CENTER DRIVE
IRVINE, CA 92618
Ph: (949) 679-2600 Fx: (949) 679-2601
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REVISIONS			
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REFERENCES	

SCALE
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PREPARED FOR THE OFFICE OF:

CITY OF LAKE FOREST CITY HALL
25550 COMMERCENTRE DRIVE
LAKE FOREST, CA 92630

DATE	01/14/16
DRAWN BY	AWD
CHECKED BY	AP
DESIGNED BY	AWD

APPROVED FOR CONSTRUCTION IN PUBLIC RIGHT-OF-WAY ONLY

Thomas E. Wheeler

THOMAS E. WHEELER, P.E.

PUBLIC WORKS DIRECTOR/
CITY ENGINEER

ALTON PARKWAY REHABILITATION PROJECT

FROM PORTOLA PARKWAY TO RANCHO PARKWAY SOUTH

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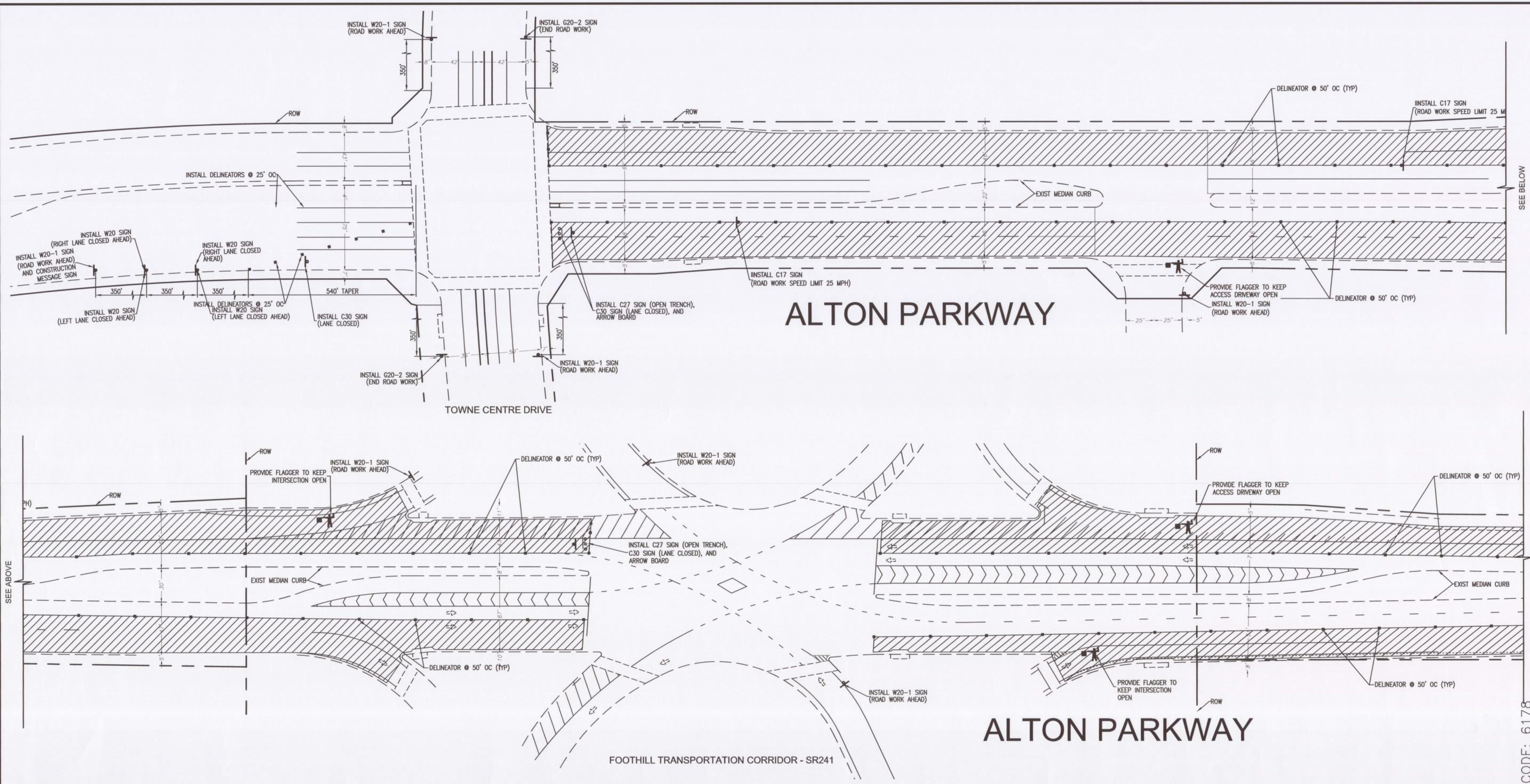
ALTON PKWY STRIPING PLAN

CITY OF LAKE FOREST
PUBLIC WORKS DEPARTMENT

6

SHEET 6 OF 12

IRWD CODE: 6178



CONSTRUCTION LEGEND:

-  CONSTRUCTION WORK SPACE
-  TEMPORARY REGULATORY SIGN (TYPE AS NOTED)
-  TUBULAR DELINEATOR
-  TYPE III BARRICADE UNLESS SPECIFIED ON PLAN
-  FLAGGER



IRVINE RANCH WATER DISTRICT

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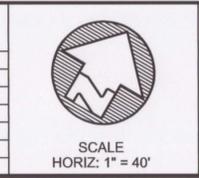


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CITY OF LAKE FOREST CITY HALL
 25550 COMMERCENTRE DRIVE
 LAKE FOREST, CA 92630

DATE: 01/14/16

DRAWN BY: AWD
 CHECKED BY: AP
 DESIGNED BY: AWD

APPROVED FOR CONSTRUCTION IN PUBLIC RIGHT-OF-WAY ONLY

[Signature]
 THOMAS E. WHEELER, P.E.
 PUBLIC WORKS DIRECTOR/
 CITY ENGINEER

ALTON PARKWAY REHABILITATION PROJECT
 FROM PORTOLA PARKWAY TO RANCHO PARKWAY SOUTH
 FEDERAL PROJECT NO. STPL- 5469 (018), ADVANTAGE ID 1216000043
ALTON PKWY TRAFFIC CONTROL PLAN - STAGE 1

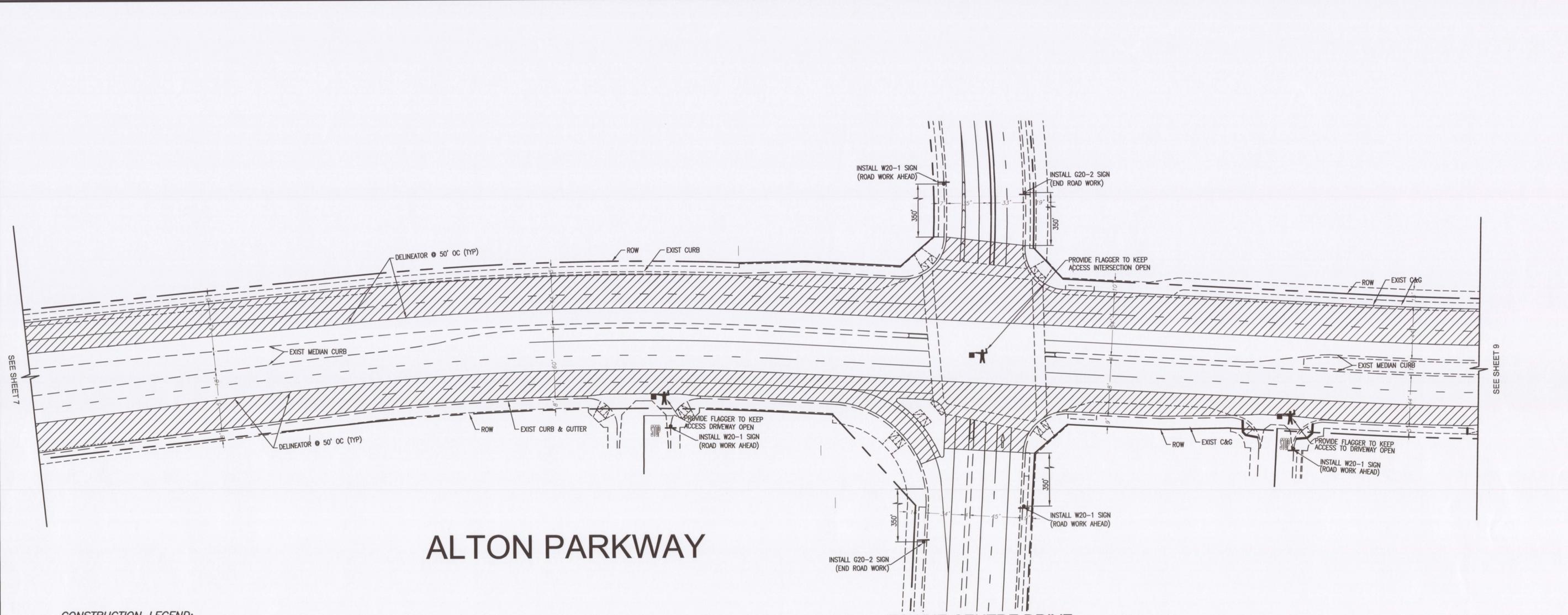
CITY OF LAKE FOREST
 PUBLIC WORKS DEPARTMENT

7
 SHEET 7 OF 12

SEE BELOW

SEE SHEET 8

IRWD CODE: 6178

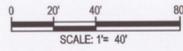


ALTON PARKWAY

TOWNE CENTRE DRIVE

CONSTRUCTION LEGEND:

-  CONSTRUCTION WORK SPACE
-  TEMPORARY REGULATORY SIGN (TYPE AS NOTED)
-  TUBULAR DELINEATOR
-  TYPE III BARRICADE UNLESS SPECIFIED ON PLAN
-  FLAGGER



IRVINE RANCH WATER DISTRICT

FOR APPROVAL OF DOMESTIC WATER AND SANITARY SEWER SYSTEM FACILITIES.

PROJECT Nos. 3990, 3991. IRWD CODE 6178

APPROVED BY: *[Signature]* DATE *01/16*

SUPERVISED BY: _____ DATE _____

REVIEWED BY: _____ DATE _____

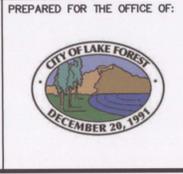
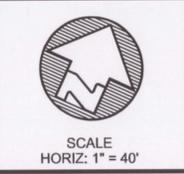


APA Engineering, Inc.
 Civil Engineering Planning Surveying Project Management

9880 IRVINE CENTER DRIVE
 IRVINE, CA 92618
 PH: (949) 679-2600 FX: (949) 679-2601
 WEBSITE: WWW.APAENG.COM

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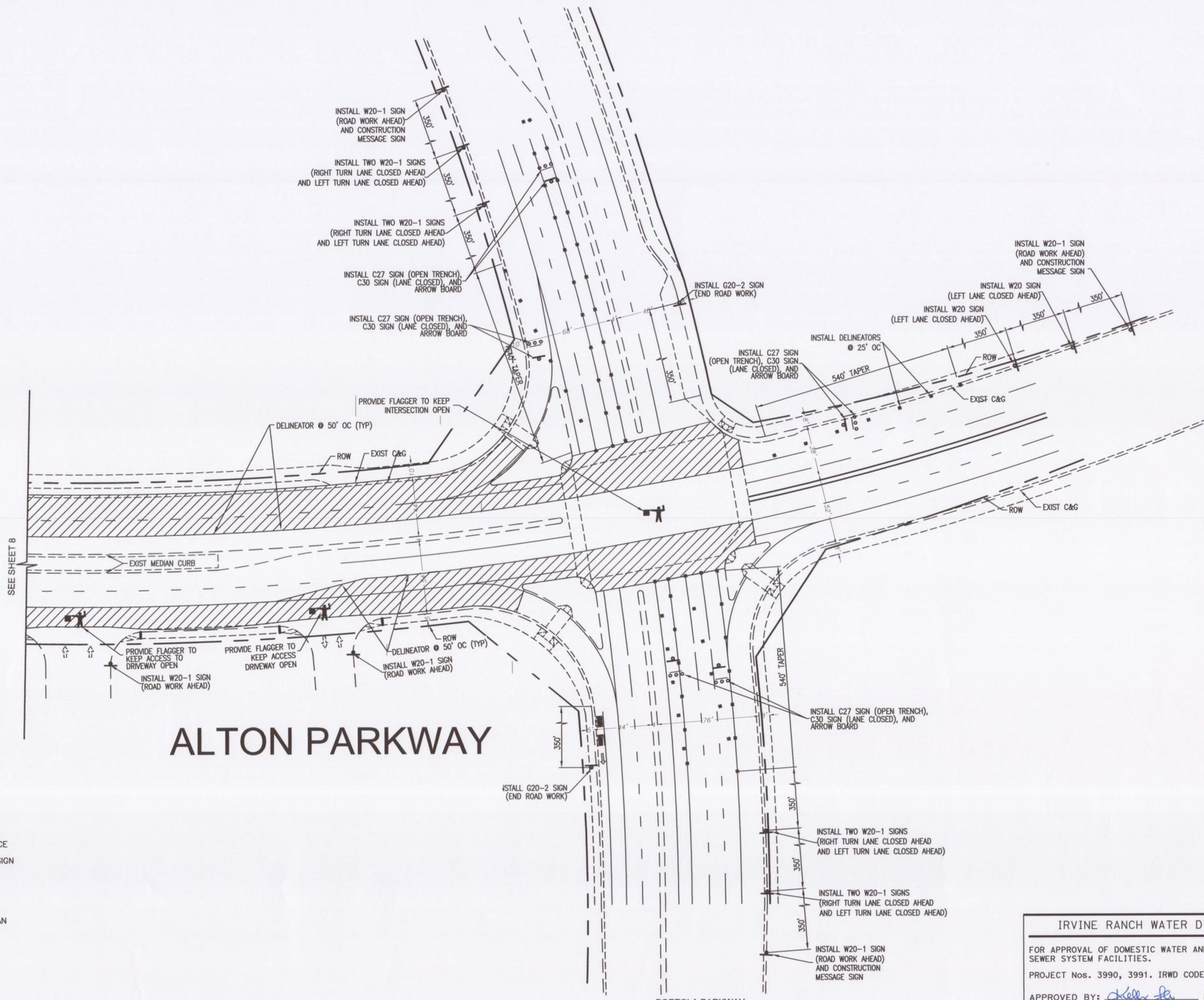
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CITY OF LAKE FOREST
 PUBLIC WORKS DEPARTMENT

8
SHEET 8 OF 12

IRWD CODE: 6178

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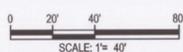


ALTON PARKWAY

PORTOLA PARKWAY

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-  FLAGGER



IRVINE RANCH WATER DISTRICT
 FOR APPROVAL OF DOMESTIC WATER AND SANITARY SEWER SYSTEM FACILITIES.
 PROJECT Nos. 3990, 3991. IRWD CODE 6178
 APPROVED BY: *Kelly J...* DATE *6/11/16*
 SUPERVISED BY: _____ DATE _____
 REVIEWED BY: _____ DATE _____



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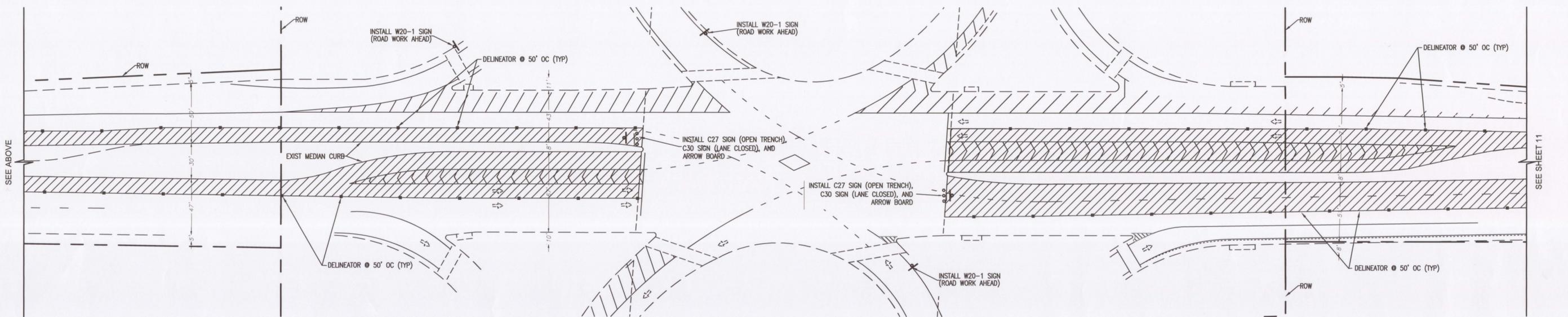
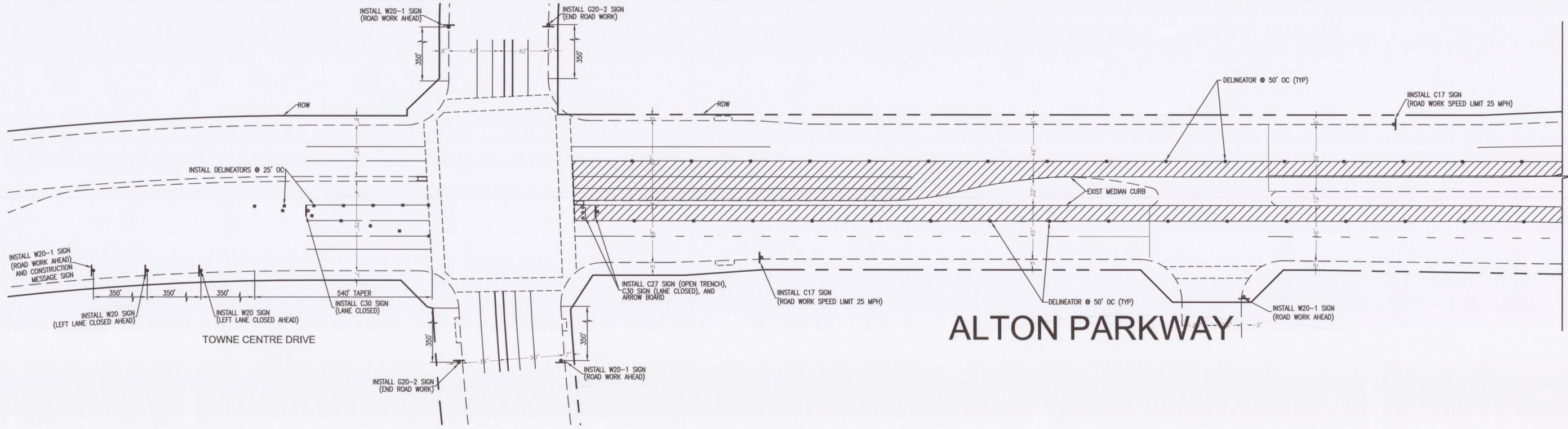
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CITY OF LAKE FOREST
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SHEET 9 OF 12

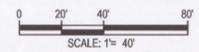
IRWD CODE: 6178



ALTON PARKWAY FOOTHILL TRANSPORTATION CORRIDOR - SR241

CONSTRUCTION LEGEND:

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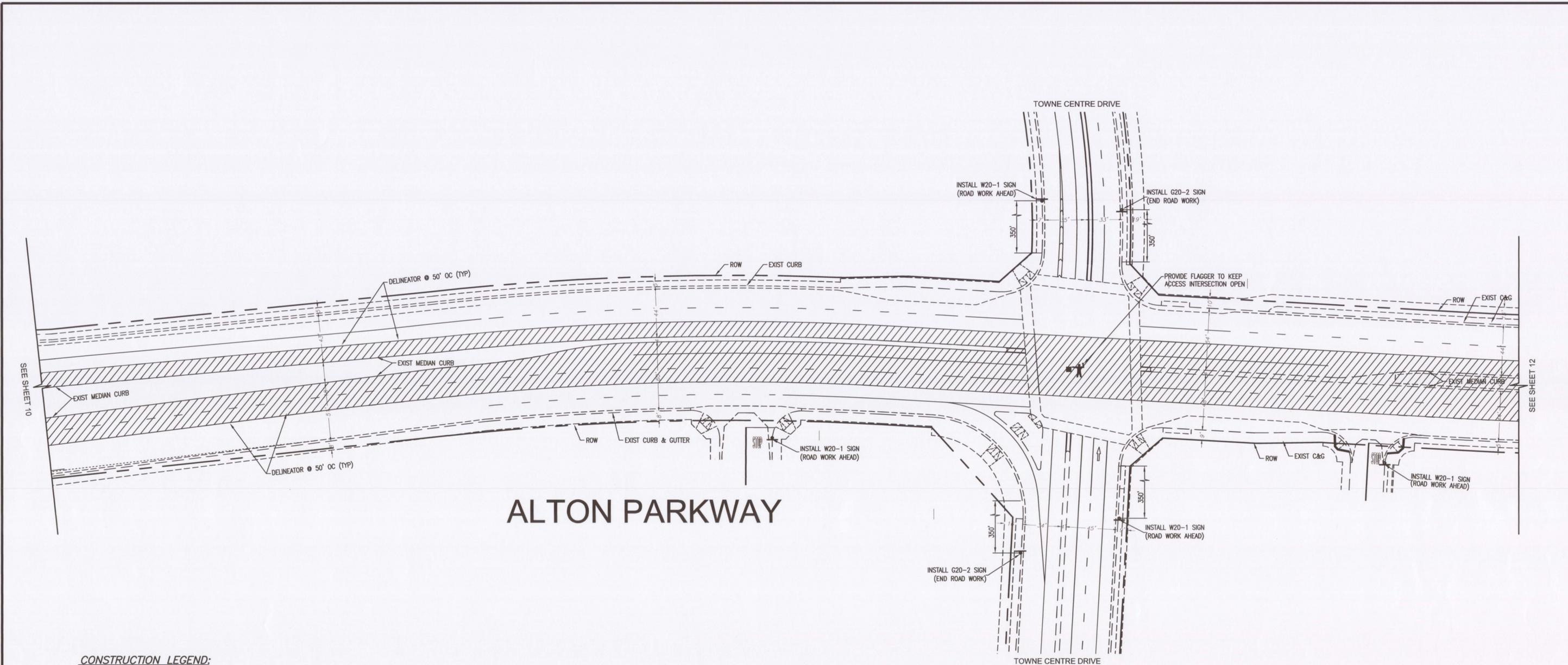
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 CITY OF LAKE FOREST
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 SHEET 10 OF 12

IRWD CODE: 6178



ALTON PARKWAY

CONSTRUCTION LEGEND:

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IRVINE RANCH WATER DISTRICT

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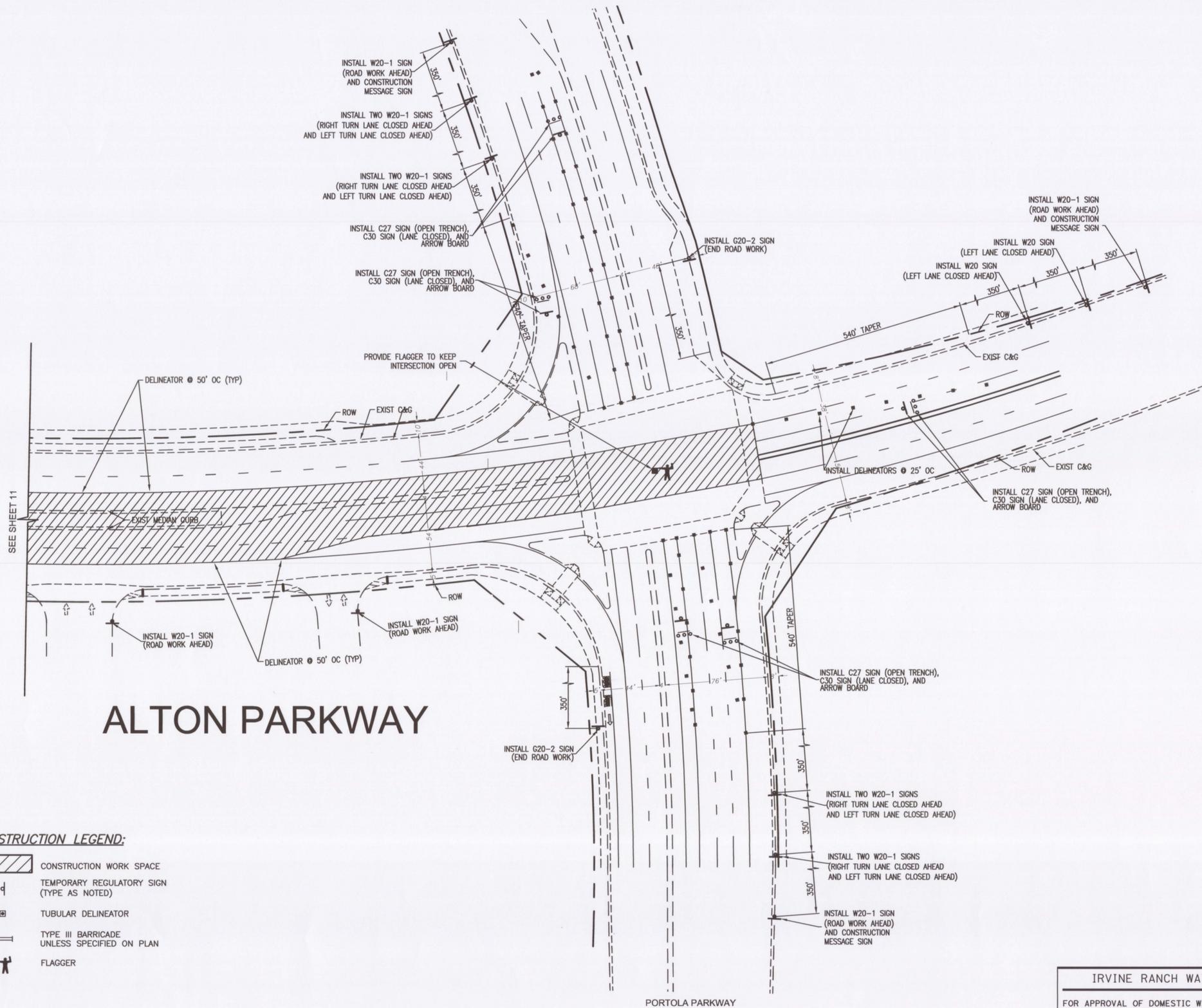
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CITY OF LAKE FOREST
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11
 SHEET 11 OF 12

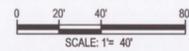
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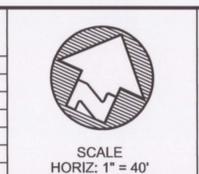


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