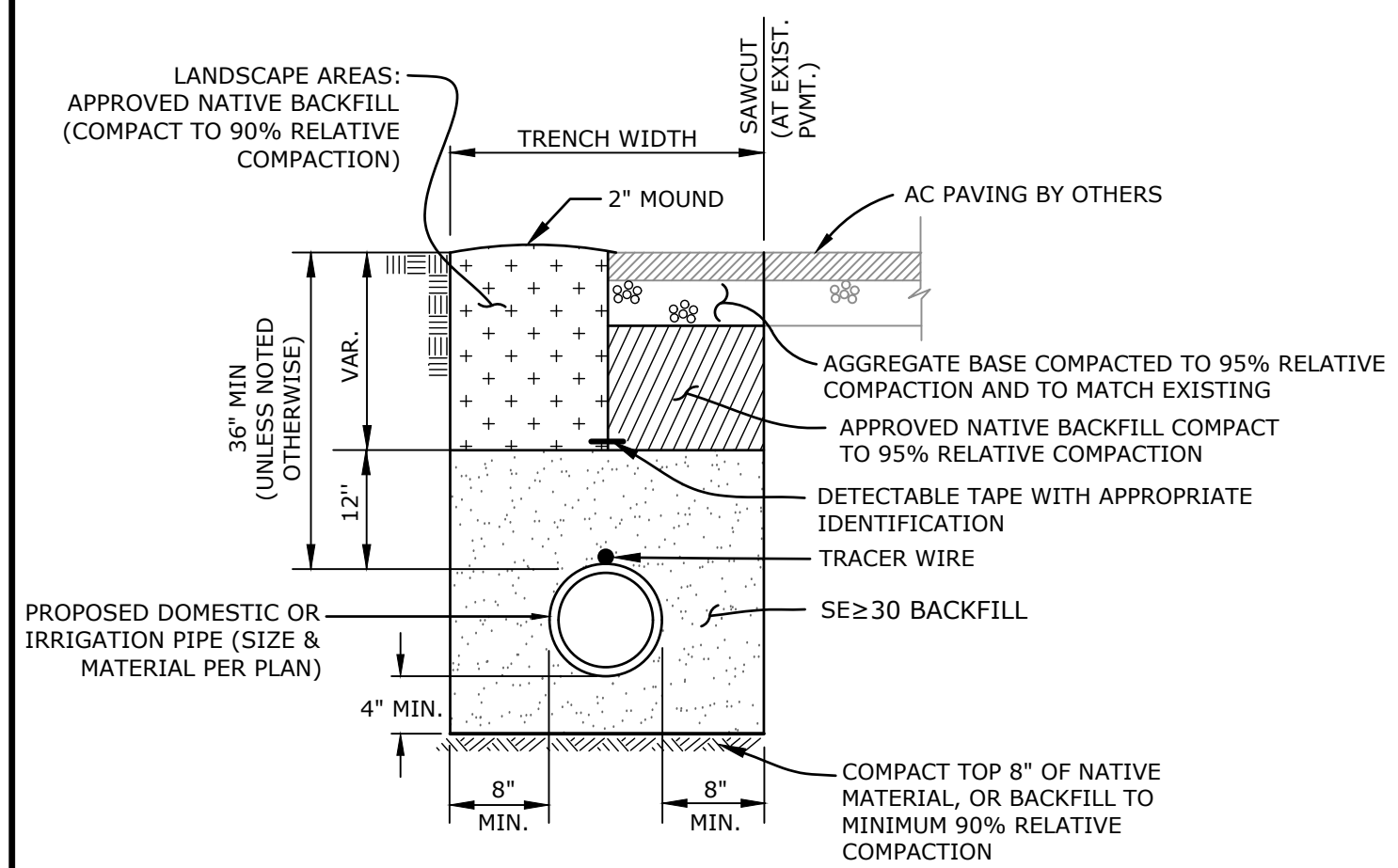
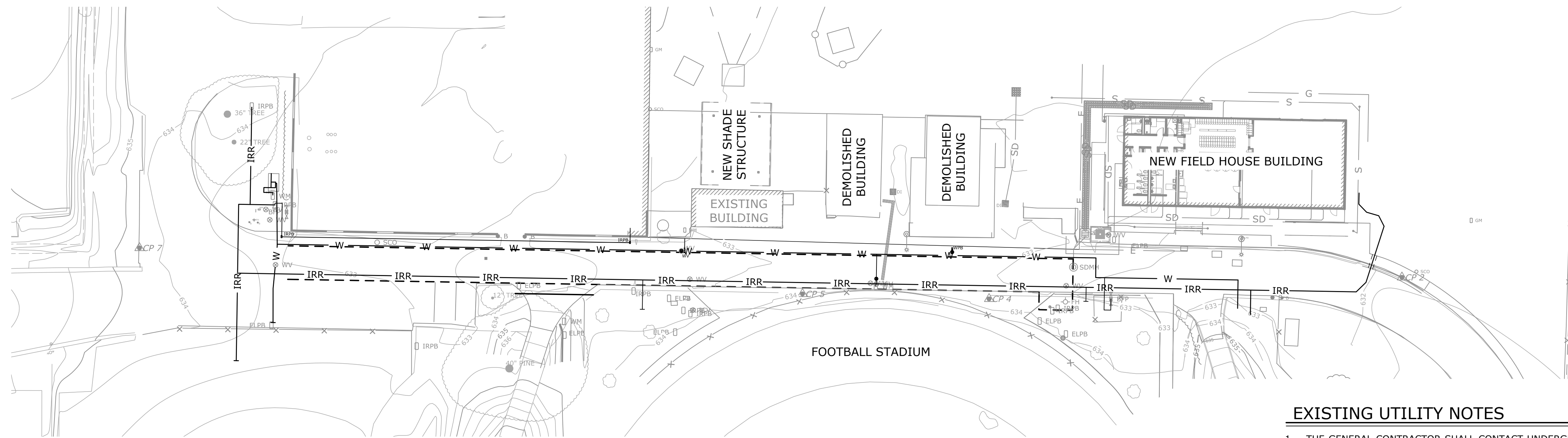
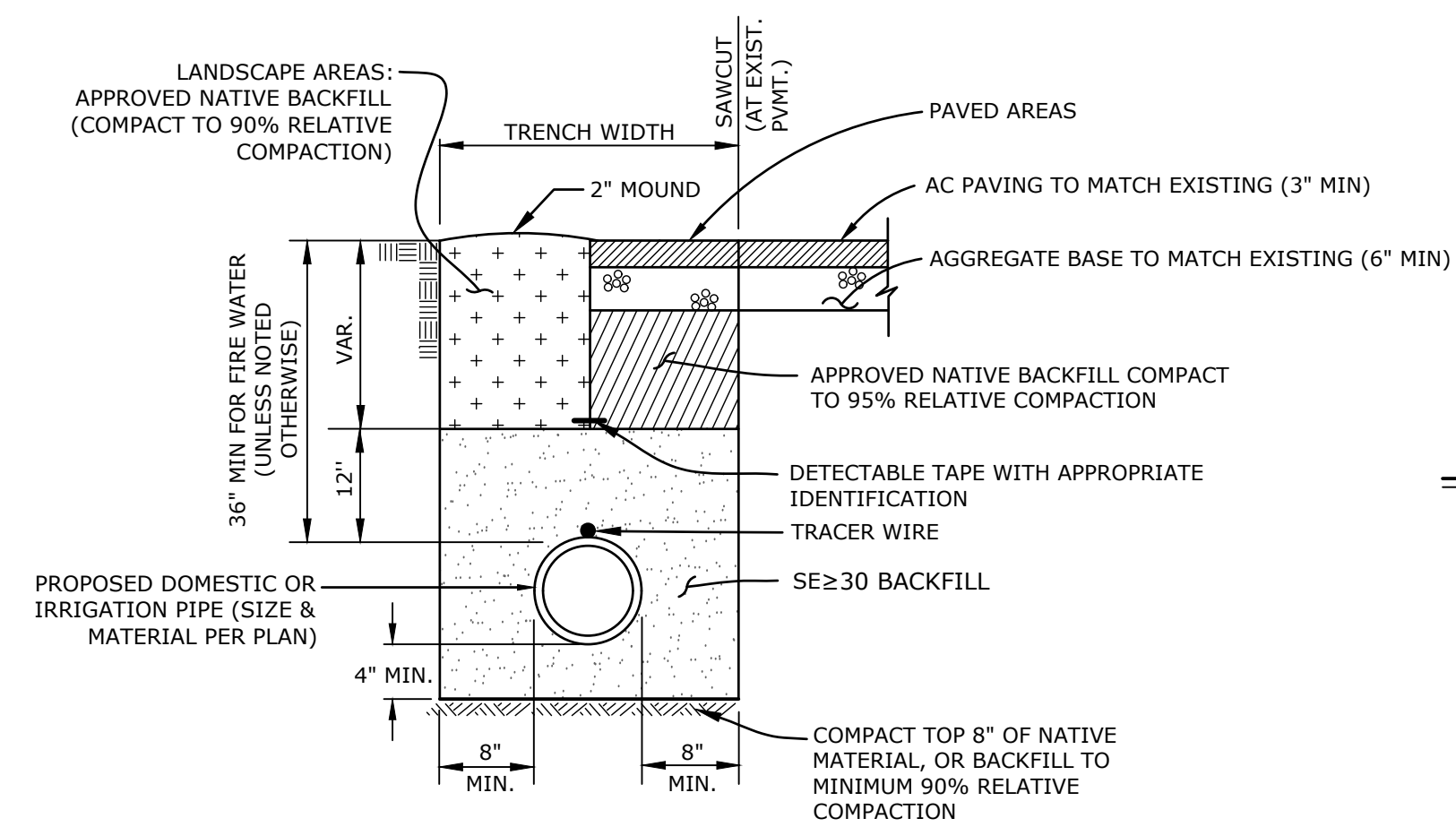


MOORPARK COLLEGE STADIUM ROAD WATERLINE REPLACEMENT BID 589



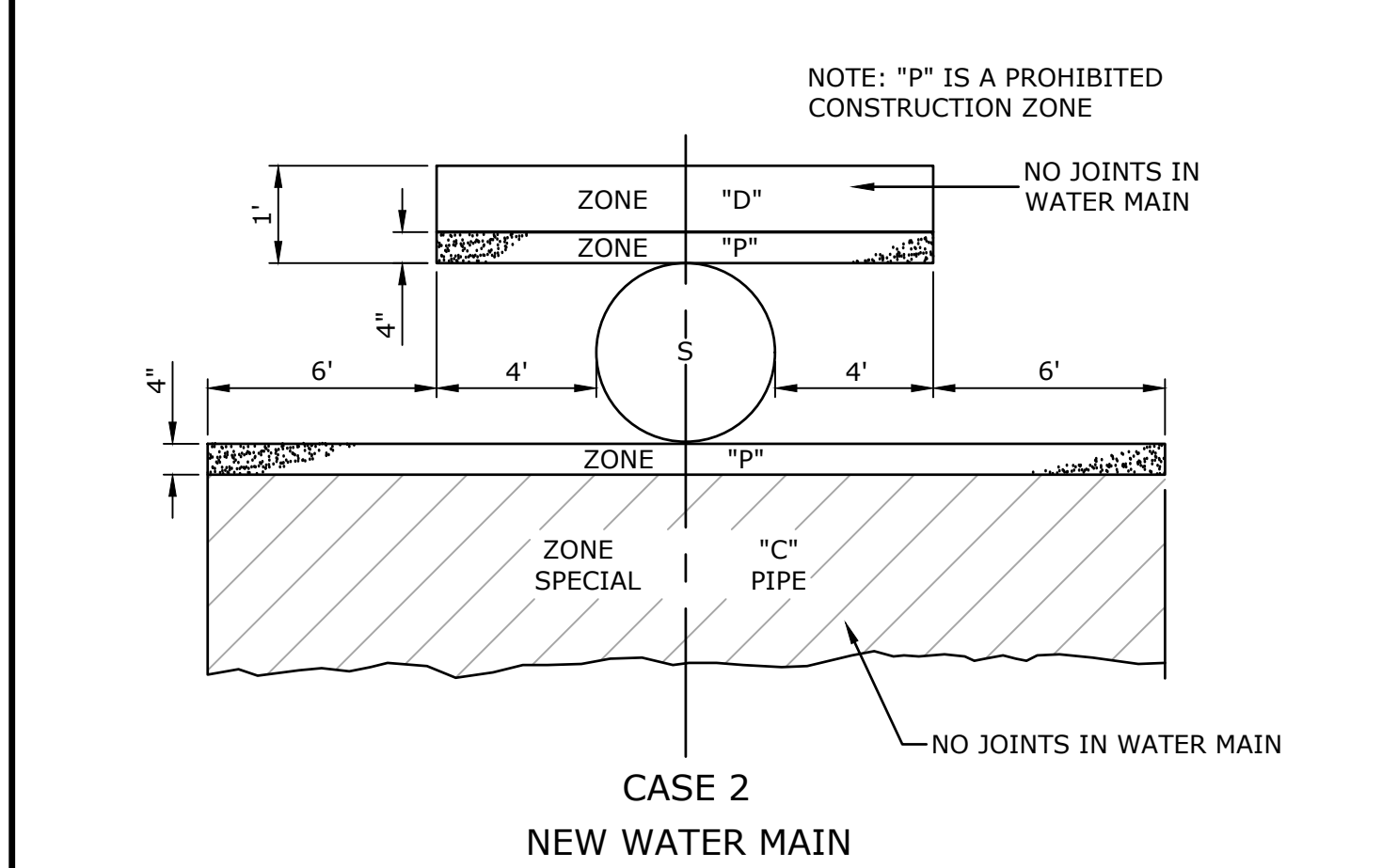
TYPICAL PVC WATER OR IRRIGATION TRENCH SECTION (PIPE DIAMETER 3" OR LARGER)

SCALE: N.T.S.

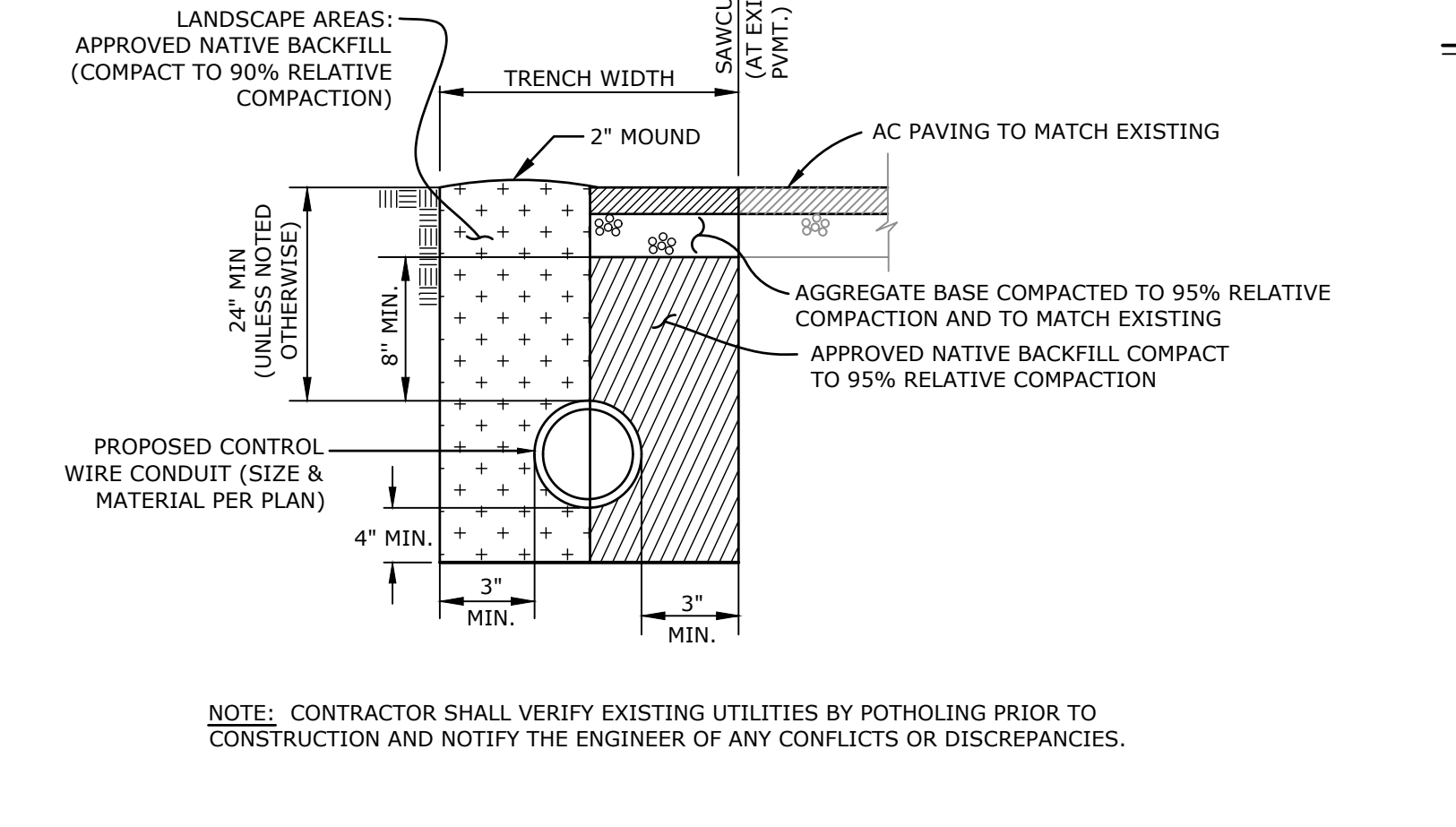


TYPICAL PVC WATER OR IRRIGATION TRENCH SECTION (PIPE DIAMETER 3" OR LARGER)

SCALE: N.T.S.



SEWER CROSSING DETAIL
SEE VENTURA COUNTY SEWER MANUAL, APPENDIX II FOR FURTHER GUIDANCE



PVC CONTROL WIRE CONDUIT TRENCH SECTION

SCALE: N.T.S.

SHEET INDEX

- TITLE SHEET AND GENERAL NOTES
- DEMOLITION PLAN
- WATER PLAN
- EROSION CONTROL PLAN

SURVEY NOTES

- MAPPING
TOPOGRAPHIC MAPPING WAS COMPILED AT A SCALE OF 1"=10', WITH A 1 FOOT CONTOUR INTERVAL FROM DATA COLLECTED IN A FIELD SURVEY PERFORMED USING CONVENTIONAL EQUIPMENT AND PROCEDURES IN JUNE, 2019, AT THE REQUEST OF MOORPARK COLLEGE.
- BASIS OF BEARINGS AND COORDINATES
THE BASIS OF BEARINGS AND COORDINATES SHOWN ON THIS MAP ARE REFERENCED TO THE CALIFORNIA COORDINATE SYSTEM, NAD 83, ZONE 5 GRID (EPOCH 2011.0), DEFINED LOCALLY BY GPS TIES TO CONTINUOUSLY OPERATING REFERENCE STATION (CORS) TOST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC).
- ELEVATIONS
THE VERTICAL DATUM OF THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), PER GPS TIES & GEOID MODELING (GEOID12B) CORS STATION.
- UTILITIES
SURFACE UTILITY FEATURES SHOWN HEREON WERE LOCATED AS A PART OF THE FIELD SURVEY PERFORMED BY ECG BASED ON VISIBILITY ON THE DATE OF SURVEY. NO RESEARCH OR MAPPING OF SUBSURFACE UTILITIES HAS BEEN PERFORMED.

CONTROL TABLE

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1931617.11	6308311.38	631.40	SET 2X2 HUB W/ NAIL
2	1931886.77	6308160.24	632.25	SET MAG NAIL IN TC
3	1931614.00	6308454.86	632.38	SET SCRIBED X
4	1931877.14	6307975.36	633.57	SET SCRIBED X
5	1931879.36	6307891.80	633.94	SET SCRIBED X
6	1932041.71	6307886.42	633.95	SET 2X2 W/ MAG
7	1931899.92	6307594.90	634.32	SET MAG

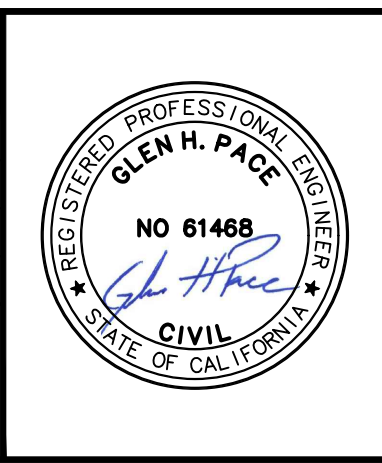
EXISTING UTILITY NOTES

- THE GENERAL CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT AND NOTIFY APPROPRIATE UTILITY AGENCIES TO VERIFY AND LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE COMMENCING ANY EXCAVATION.
- THE GENERAL CONTRACTOR SHALL POTHOLE TO LOCATE AND VERIFY ALL EXISTING UTILITIES, POINT OF CONNECTIONS, AND CROSSINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNERS REPRESENTATIVE.
- THE LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY; ALL UTILITIES MAY NOT BE SHOWN.
- SOME IRRIGATION PIPING AND ELECTRICAL CONDUIT LOCATIONS AND SIZES ARE UNKNOWN AND NOT IDENTIFIED HEREON.
- SUBSURFACE UTILITIES SHOWN HEREON HAVE BEEN COMPILED FROM RECORD INFORMATION GATHERED FROM VARIOUS SOURCES. THE SUBSURFACE INFORMATION, INCLUDING LOCATION, SIZES, AND CAPACITIES IS AN ESTIMATION BASED ON AVAILABLE DATA AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS. ENCOMPASS CONSULTANT GROUP DOES NOT WARRANT THE ACCURACY OF COMPLETENESS OF SAID RECORD INFORMATION.
- THE CONTRACTOR, BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO, UNDERSTANDS THAT THEY AGREE TO ASSUME LIABILITY, AND AGREE TO HOLD THE UNDERSIGNED HARMLESS FOR ANY LIABILITY FOR DAMAGE RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED, NOT INDICATED ON THE RECORDS PROVIDED, LOCATED AT VARIANCE WITH THAT REPORTED OR SHOWN ON AVAILABLE RECORDS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING TO WORK.
- THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICES TO BUILDINGS OR OTHER STRUCTURES INTENDED TO REMAIN IN OPERATIONAL SERVICE DURING THE COURSE OF CONSTRUCTION.

GENERAL DEMOLITION NOTES

- DEMOLITION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO REMOVE EXISTING STRUCTURES, UTILITIES, AND ALL OTHER MATERIAL FROM THE PROJECT SITE.
- DISPOSAL OF MATERIALS SHALL BE DONE IN A SAFE AND LEGAL MANNER AND SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.
- THE CONTRACTOR SHALL CONTINUOUSLY CLEAN AND REMOVE DEMOLISHED MATERIALS FROM THE SITE EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE. DO NOT ALLOW MATERIALS TO ACCUMULATE ON SITE.
- EXISTING UNDERGROUND UTILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPLACE IN-KIND ANY ITEMS DAMAGED DURING THE DEMOLITION PROCESS THAT ARE INTENDED TO REMAIN.
- SAWCUT EXISTING PAVEMENT FULL DEPTH TO A CLEAN STRAIGHT EDGE.

REVISIONS			
MARK	DATE	DESCRIPTION	BY



ECG
Encompass Consultant Group
333 N. LANTANA ST, SUITE 287, CAMARILLO, CA 93010
PHONE: 805.322.4443 WEBSITE: WWW.ECGCIVIL.COM

GLEN H. PACE DATE: 07/05/2019
PROJECT ENGINEER
R.C.E. 61,468

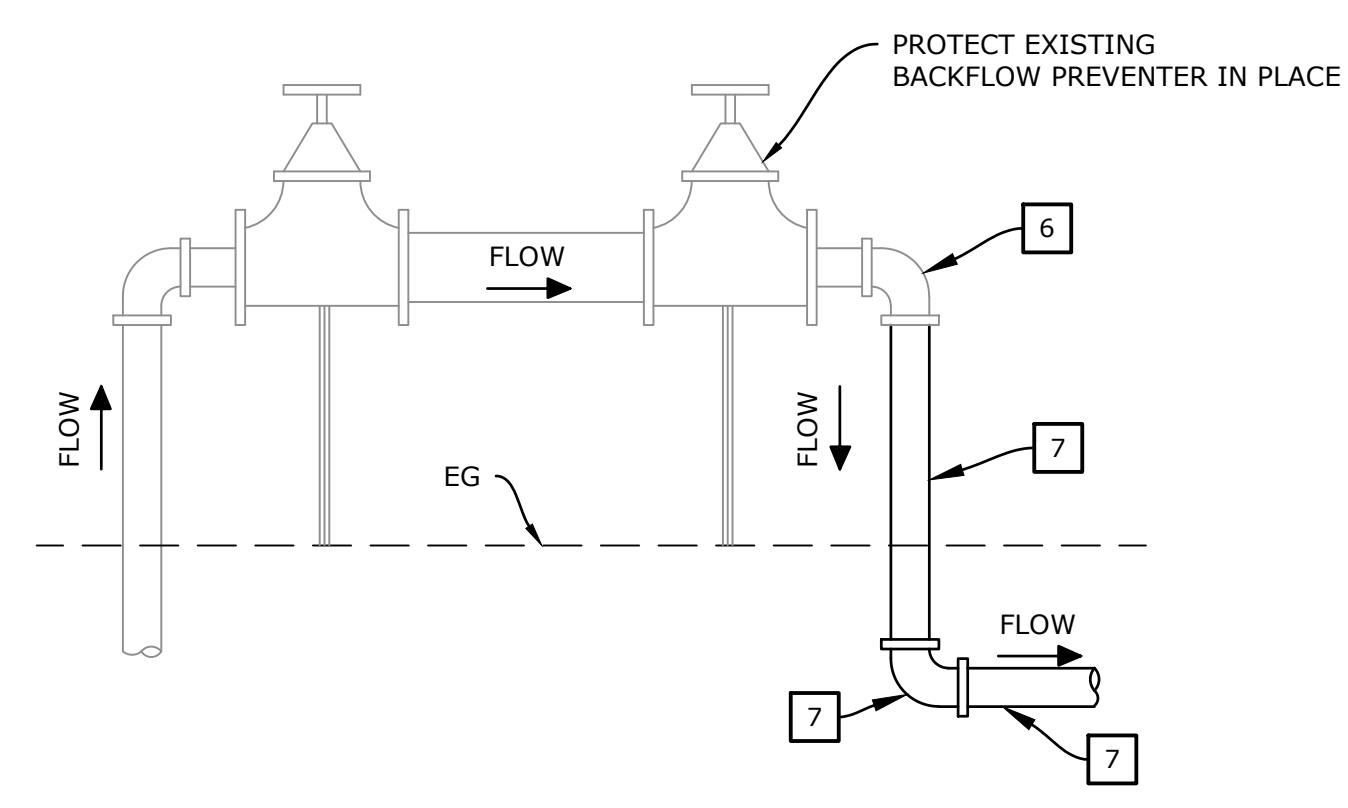
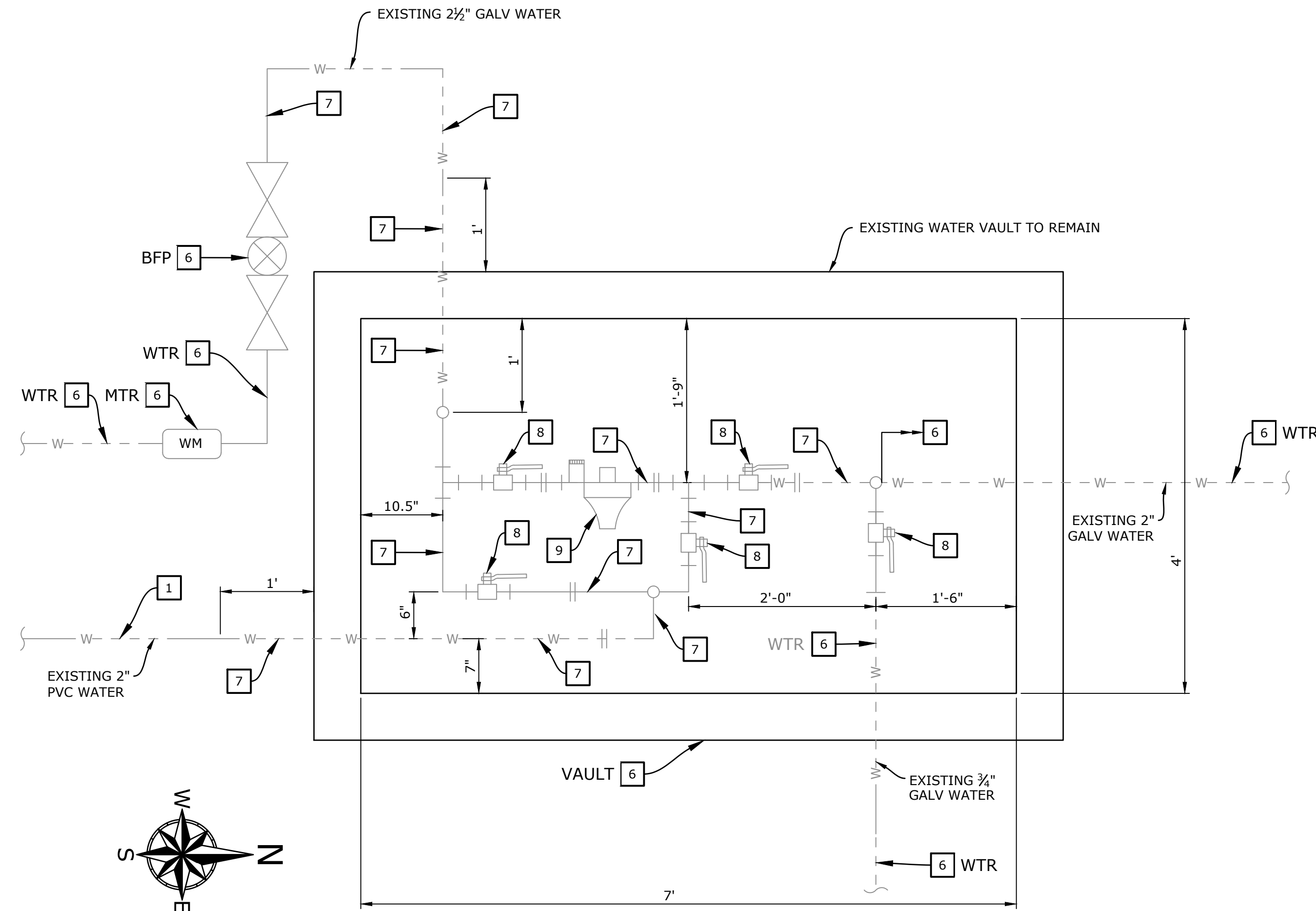
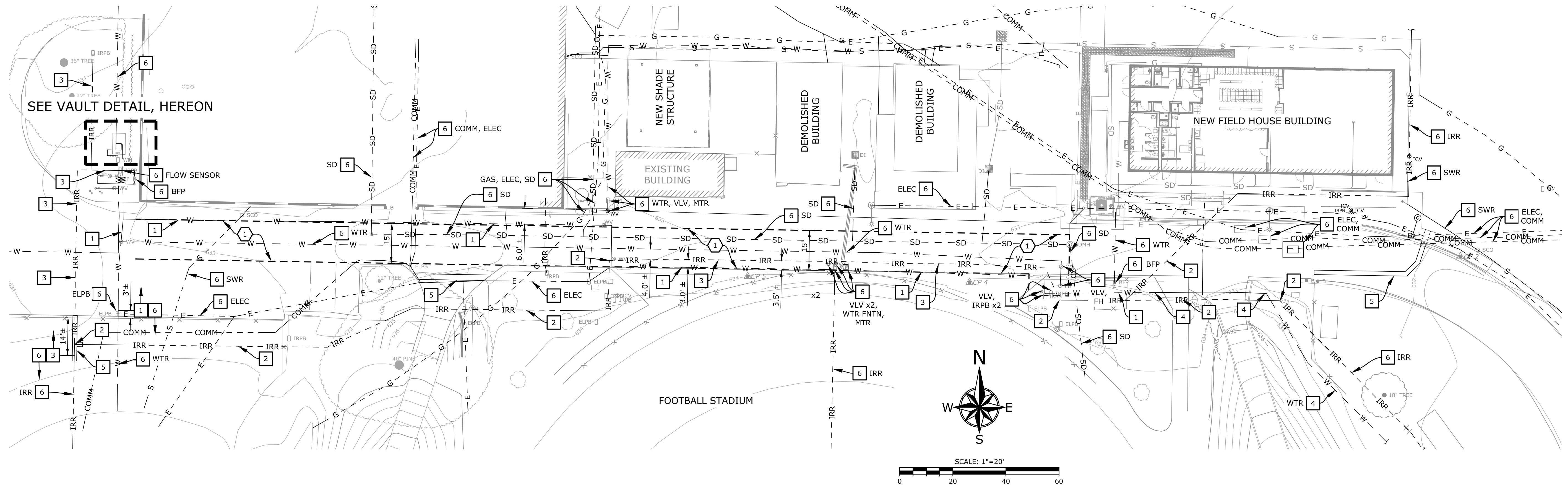
STADIUM ROAD WATERLINE REPLACEMENT
TITLE SHEET
MOORPARK COLLEGE
MOORPARK, CA

SCALE: HORIZ. 20 VERT. VERT

WORK ORDER 0075.05
DRAWN BY: JEA
CHECKED BY: GHP

SHEET NO. 1 OF 4

DRAWING: n:\projects\0075\05_waterline\engineering\acad\improvements\0075_water_1rr.dwg



DEMOLITION NOTES

- 1 CUT EXISTING WATERLINE AT POINTS OF CONNECTION AND REMOVE EXISTING WATERLINE. CONTRACTOR SHALL RESPONSIBLY DISPOSE OF MATERIAL.
- 2 CUT EXISTING IRRIGATION MAINLINE AT POINTS OF CONNECTION AND ABANDON IN PLACE PER VENTURA COUNTY WATERWORKS STANDARD PLATE W-16.
- 3 CUT EXISTING IRRIGATION MAINLINE AT POINTS OF CONNECTION AND REMOVE EXISTING IRRIGATION MAINLINE. CONTRACTOR SHALL RESPONSIBLY DISPOSE OF MATERIAL.
- 4 CUT EXISTING WATERLINE AT POINTS OF CONNECTION AND ABANDON IN PLACE PER VENTURA COUNTY WATERWORKS STANDARD PLATE W-16.
- 5 SAWCUT TO PROPOSED UTILITY TRENCH LIMITS AS SHOWN PER PLAN AND DETAILS "B" AND "C" ON SHEET 1. COLD PLANE 12" BEYOND SAWCUT LIMITS TO A MINIMUM DEPTH OF 1.5".
- 6 PROTECT EXISTING UTILITY IN PLACE.
- 7 REMOVE EXISTING GALVANIZED STEEL WATERLINE, FITTINGS, AND APPURTENANCES TO NEAREST PROTECT JOINT. CONTRACTOR SHALL RESPONSIBLY DISPOSE OF MATERIAL.
- 8 REMOVE EXISTING GATE OR BALL VALVE. CONTRACTOR SHALL RESPONSIBLY DISPOSE OF MATERIAL.
- 9 REMOVE EXISTING PRESSURE REDUCING VALVE. CONTRACTOR SHALL RESPONSIBLY DISPOSE OF MATERIAL.

EASEMENT LEGEND

- 1 EXISTING 15-FOOT WIDE EASEMENT IN FAVOR OF VENTURA COUNTY WATERWORKS FOR MAINTENANCE OF FIREWATER LINE.

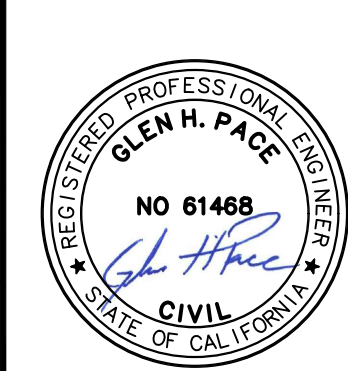
WATER UTILITY VAULT DETAIL

SCALE: 1" = 1'

BACKFLOW PREVENTER CONNECTION DETAIL

SCALE: NTS

REVISIONS			
MARK	DATE	DESCRIPTION	BY

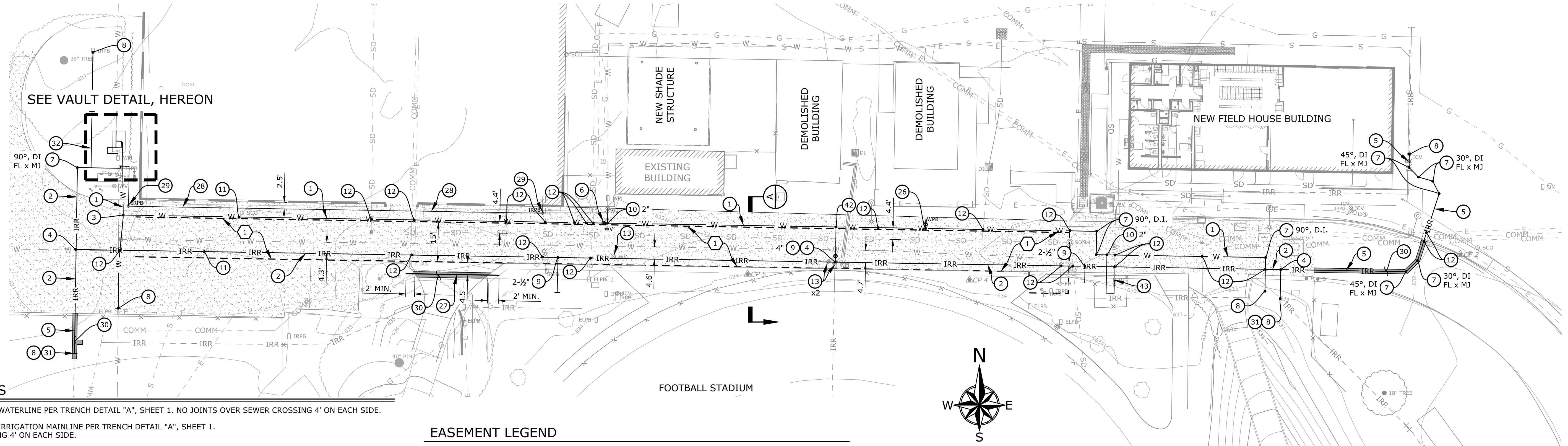


**STADIUM ROAD WATERLINE REPLACEMENT
DEMOLITION PLAN
MOORPARK COLLEGE
MOORPARK, CA**

SCALE: HORIZ. 20 VERT. VERT
 WORK ORDER: 0075.05
 DRAWN BY: JEA
 CHECKED BY: GHP
 SHEET NO. 2 OF 4

GLEN H. PACE DATE: 07/05/2019
 PROJECT ENGINEER
 R.C.E. 61,468

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CONSTRUCTION NOTES

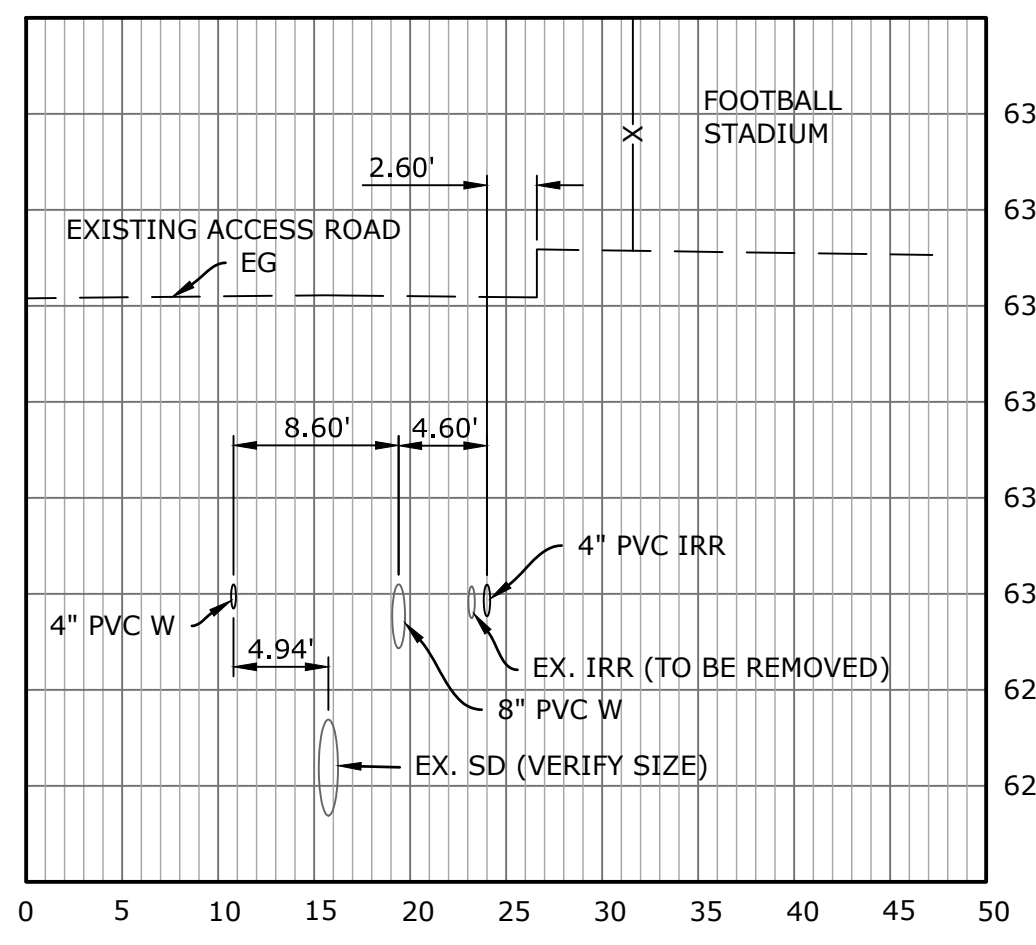
- 1 CONSTRUCT 4" C900 CL 235 PVC WATERLINE PER TRENCH DETAIL "A", SHEET 1. NO JOINTS OVER SEWER CROSSING 4' ON EACH SIDE.
- 2 CONSTRUCT 4" C900 CL 235 PVC IRRIGATION MAINLINE PER TRENCH DETAIL "A", SHEET 1. NO JOINTS OVER SEWER CROSSING 4' ON EACH SIDE.
- 3 INSTALL 4" DUCTILE IRON TEE AND CONCRETE THRUST BLOCK PER VENTURA COUNTY WATERWORKS STANDARD PLATES W-15 AND W-19.
- 4 INSTALL 4" DUCTILE IRON TEE AND CONCRETE THRUST BLOCK PER VENTURA COUNTY WATERWORKS STANDARD PLATES W-15 AND W-19. FLANGE x MECHANICAL JOINT ON ALL SIDES. LEEMCO EPOXY COATED OR APPROVED EQUAL.
- 5 CONSTRUCT 4" C900 CL 235 PVC IRRIGATION MAINLINE PER TRENCH DETAIL "B", SHEET 1. NO JOINTS OVER SEWER CROSSING 4' ON EACH SIDE.
- 6 CONSTRUCT 4" RESILIENT WEDGE GATE VALVE WITH VALVE BOX PER VENTURA COUNTY WATERWORKS PER STANDARD PLATE W-2.
- 7 CONSTRUCT HORIZONTAL BENDS WITH CONCRETE THRUST BLOCK PER VENTURA COUNTY WATERWORKS STANDARD PLATE W-19. ANGLE AND MATERIAL PER PLAN. LEEMCO EPOXY COATED OR APPROVED EQUAL.
- 8 CONNECT TO EXISTING WATERLINE/IRRIGATION MAINLINE.
- 9 POINT OF CONNECTION TO IRRIGATION LATERAL. CONSTRUCT PVC CL 315 IRRIGATION LATERAL WITH END CAP. DIAMETER PER PLAN.
- 10 POINT OF CONNECTION TO WATER LATERAL. CONSTRUCT SCH 80 PVC WATER LATERAL. DIAMETER PER PLAN.
- 11 CONSTRUCT SEWER CROSSING PER DETAIL "C", SHEET 1 AND VENTURA COUNTY SEWER MANUAL, APPENDIX II. WATERLINE SHALL NOT HAVE JOINTS WITHIN 4' ON EACH SIDE OF SEWER LINE.
- 12 CONSTRUCT UTILITY CROSSING PER VENTURA COUNTY WATERWORKS STANDARD PLATE W-18. CONTRACTOR SHALL POTHOLE ALL UTILITY CROSSINGS TO VERIFY SIZE, DEPTH, AND LOCATION AND SHALL THE ENGINEER OF ANY PROPOSED UTILITY CONFLICTS.
- 13 REPLACE IRRIGATION GATE VALVE AS NECESSARY PER VENTURA COUNTY WATERWORKS STANDARD PLATE W-2.
- 14 CONSTRUCT 3" GALVANIZED STEEL PIPE WATERLINE.
- 15 CONSTRUCT 3/4" GALVANIZED STEEL PIPE WATERLINE.
- 16 INSTALL 3" DUCTILE IRON BALL VALVE WITH INSULATION KIT.
- 17 INSTALL 3" PRESSURE REDUCING VALVE WITH INSULATION KIT.
- 18 CONSTRUCT 3" GALVANIZED STEEL ELBOW.
- 19 INSTALL 3/4" DUCTILE IRON BALL VALVE WITH INSULATION KIT.
- 20 INSTALL 3" GALVANIZED STEEL FEMALE-FEMALE THREADED JOINT OR GALVANIZED STEEL COMPRESSION JOINT IF CONNECTING TO NON-THREADED OR PLASTIC PIPE.
- 21 CONSTRUCT 3" GALVANIZED STEEL RISER WITH TWO GALVANIZED STEEL ELBOWS. RISER LENGTH PER PLAN.
- 22 CONSTRUCT 3" x 2" GALVANIZED STEEL REDUCER. IF OTHER METAL IS USED INSTALL WITH INSULATION KIT.
- 23 INSTALL 3/4" GALVANIZED STEEL FEMALE-FEMALE THREADED JOINT OR GALVANIZED STEEL COMPRESSION JOINT IF EXISTING PIPE IS NOT THREADED.
- 24 CONSTRUCT 3" GALVANIZED STEEL UNION FITTING.
- 25 CONSTRUCT 3" GALVANIZED STEEL TEE.
- 26 CONSTRUCT 3-FOOT, 2" SCH 80 PVC WATER LATERAL WITH RESILIENT WEDGE GATE VALVE AND BROOKS 3MB CONCRETE METER BOX WITH TRAFFIC RATED LID OR APPROVED EQUAL. CAP END OF LATERAL FOR FUTURE CONNECTION.
- 27 CONSTRUCT 3" SCH 40 PVC IRRIGATION CONTROL WIRE CONDUIT PER DETAIL "D", SHEET 1. ENDS OF CONDUIT SHALL EXTEND 2 FEET BEYOND THE EXISTING BACK OF CURB. CAP BOTH ENDS OF CONDUIT FOR FUTURE USE.
- 28 CONSTRUCT 1" SCH 40 PVC IRRIGATION CONTROL WIRE CONDUIT PER DETAIL "D", SHEET 1.
- 29 INSTALL J&R CONCRETE NO 3-1/2-T SERIES PULL BOX WITH H-20 COVER OR APPROVED EQUAL.
- 30 CONSTRUCT AC PAVEMENT STRUCTURAL SECTION TO MATCH EXISTING (3" AC OVER 6" AB MIN).
- 31 INSTALL 4" MEGA-COUPLING RESTRAINED JOINT SERIES 3804, OR APPROVED EQUAL.
- 32 CONSTRUCT 1-1/4" SCH 40 PVC IRRIGATION LINE PER TRENCH DETAIL "B", SHEET 1.
- 33 CONSTRUCT 2-1/2" GALVANIZED STEEL PIPE WATERLINE.
- 34 INSTALL 2-1/2" x 3" GALVANIZED STEEL REDUCER.
- 35 CONSTRUCT 3" GALVANIZED STEEL PIPE WATERLINE PER TRENCH DETAIL "B", SHEET 1.
- 36 CONSTRUCT 2" x 3/4" GALVANIZED STEEL REDUCER. IF OTHER METAL IS USED INSTALL WITH INSULATION KIT.
- 37 INSTALL 2" DUCTILE IRON BALL VALVE WITH INSULATION KIT.
- 38 CONSTRUCT 2" GALVANIZED STEEL UNION FITTING.
- 39 CONSTRUCT 2" GALVANIZED STEEL PIPE WATERLINE.
- 40 CONSTRUCT 2" GALVANIZED STEEL TEE.
- 41 CONSTRUCT 2" GALVANIZED STEEL RISER WITH TWO GALVANIZED STEEL ELBOWS. RISER LENGTH PER PLAN.
- 42 CONSTRUCT 2 1/2" SCH 80 PVC WATER LATERAL WITH RESILIENT WEDGE GATE VALVE TO SERVE DRINKING FOUNTAIN.
- 43 CONNECT TO EXISTING BACKFLOW DEVICE.

EASEMENT LEGEND

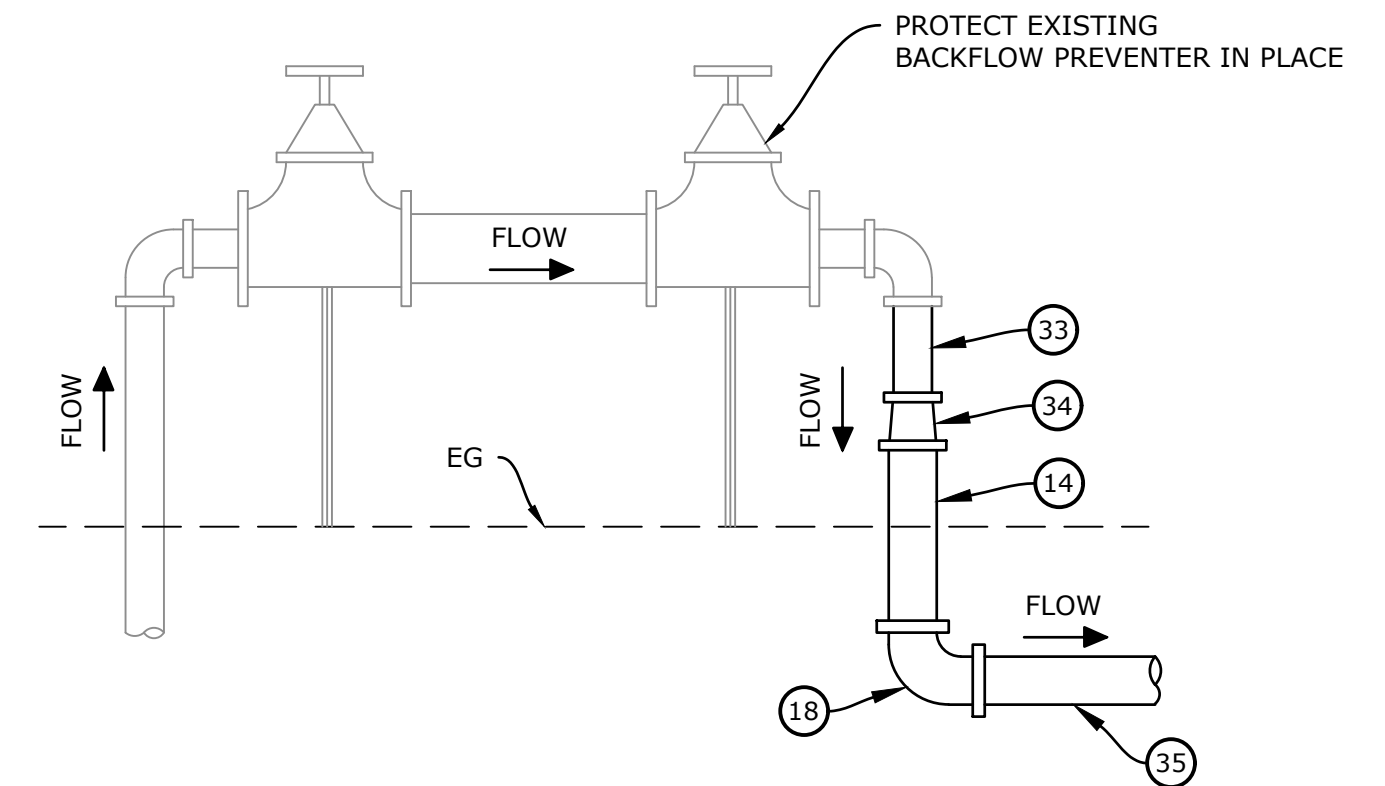
- 1 EXISTING 15-FOOT WIDE EASEMENT IN FAVOR OF VENTURA COUNTY WATERWORKS FOR MAINTENANCE OF FIREWATER LINE.

HATCH LEGEND

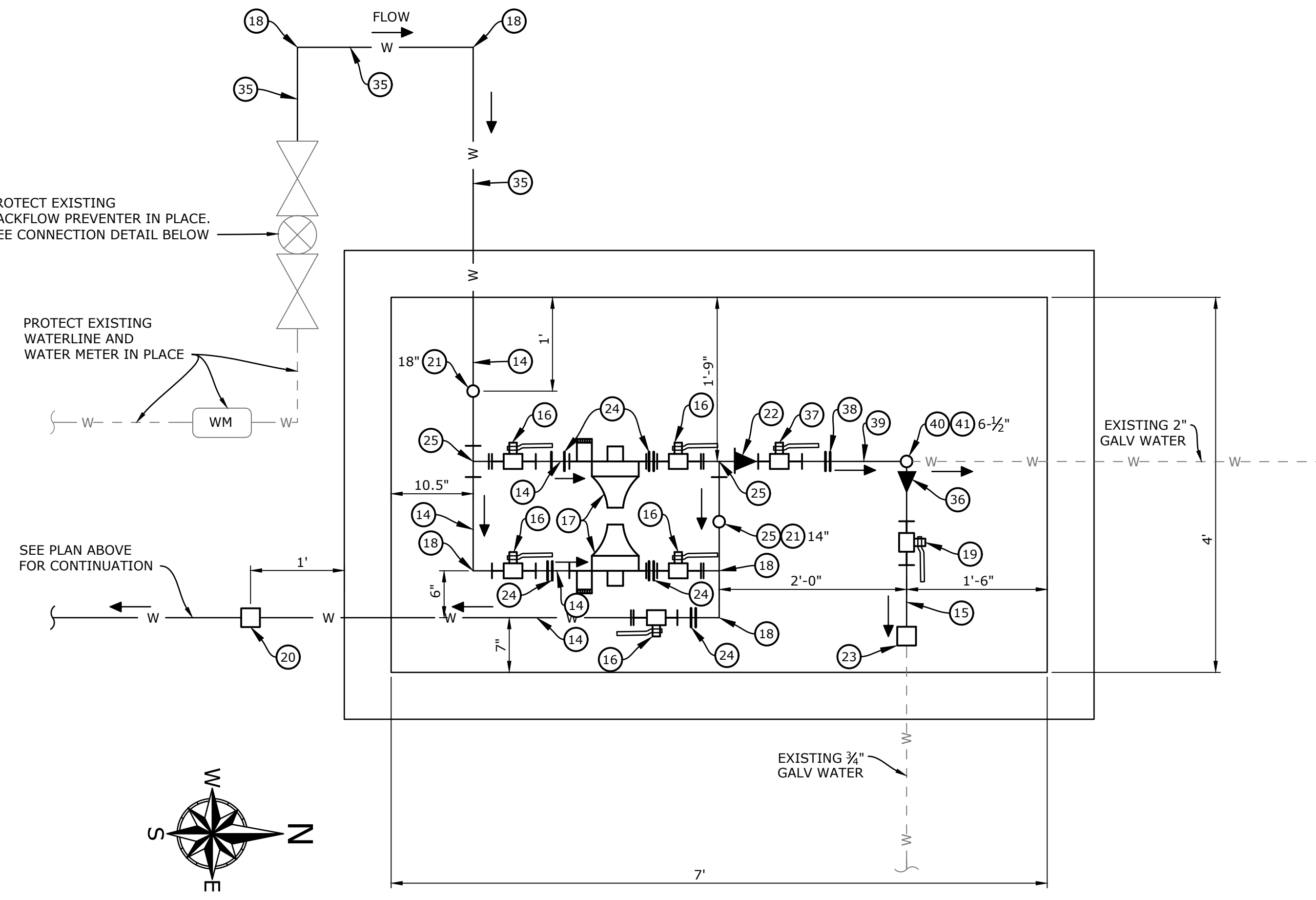
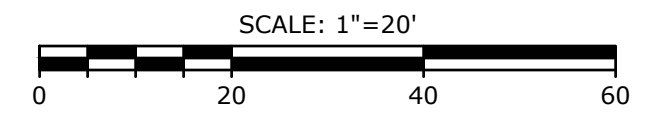
- AC PAVING BY OTHERS
- CONSTRUCT AC PAVEMENT STRUCTURAL SECTION TO MATCH EXISTING



UTILITY SEPARATION DETAIL
 HORIZ: 1" = 10'
 VERT: 1" = 2'

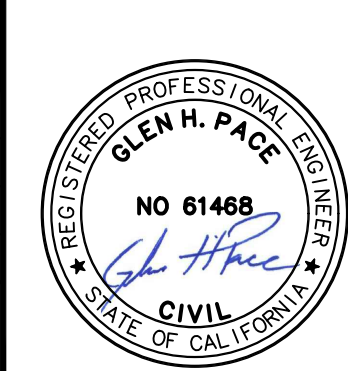


BACKFLOW PREVENTER CONNECTION DETAIL
 SCALE: NTS



WATER UTILITY VAULT DETAIL
 SCALE: 1" = 1'

REVISIONS			
MARK	DATE	DESCRIPTION	BY



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GLEN H. PACE DATE: 07/05/2019
 PROJECT ENGINEER
 R.C.E. 61,468

STADIUM ROAD WATERLINE REPLACEMENT WATER PLAN MOORPARK COLLEGE MOORPARK, CA

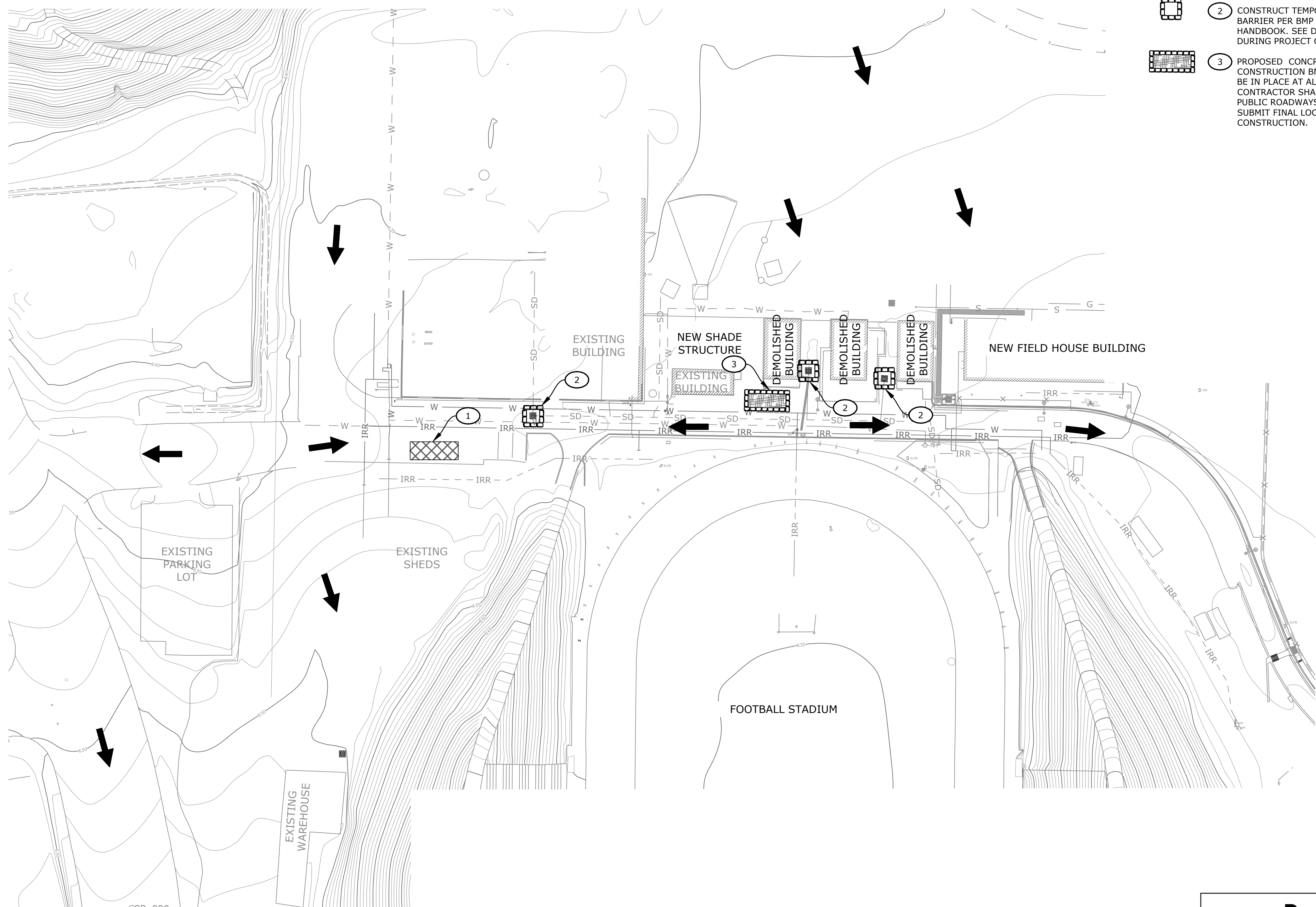
SCALE: HORIZ. 20 VERT. VERT

WORK ORDER 0075.05
 DRAWN BY: JEA
 CHECKED BY: GHP

SHEET NO. 3 OF 4

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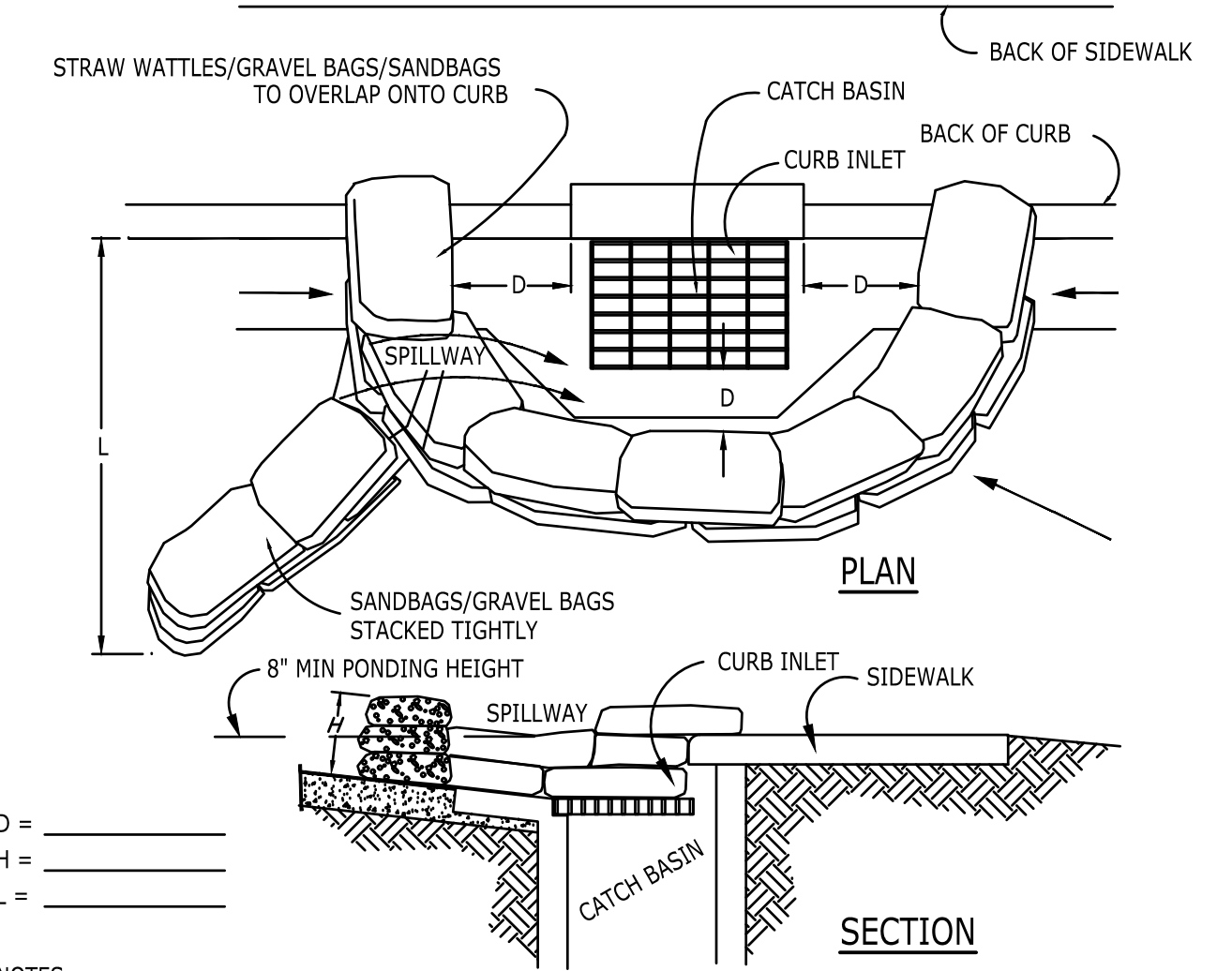
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EROSION CONTROL CONSTRUCTION NOTES

- 1. PROPOSED STOCKPILE AND MATERIAL STORAGE AREA PER BMP WM-1 AND WM-3 IN CURRENT CASQA CONSTRUCTION BMP HANDBOOK AND DETAIL "D" HEREON.
- 2. CONSTRUCT TEMPORARY GRAVEL BAG CHECK DAM OR CATCH BASIN SEDIMENT BARRIER PER BMP SE-4 AND SE-10 IN CURRENT CASQA CONSTRUCTION BMP HANDBOOK. SEE DETAIL "A" HEREON. ALL GRAVEL BAGS MUST BE IN PLACE DURING PROJECT CONSTRUCTION.
- 3. PROPOSED CONCRETE WASH-OFF AREA PER BMP WM-8 IN CURRENT CASQA CONSTRUCTION BMP HANDBOOK AND DETAIL "C" HEREON. WASH-OFF AREA SHALL BE IN PLACE AT ALL TIMES DURING GRADING AND PAVING OPERATIONS. CONTRACTOR SHALL NOT TRACK SOLIDS OR CONCRETE WASH OUT OR DEBRIS ON PUBLIC ROADWAYS. RECOMMENDED LOCATION SHOWN, CONTRACTOR SHALL SUBMIT FINAL LOCATION TO SCHOOL'S REPRESENTATIVE FOR APPROVAL PRIOR TO CONSTRUCTION.

A CATCH BASIN/INLET PROTECTION SE-10



- NOTES:
- CATCH BASIN/INLET PROTECTION SHALL BE INSTALLED WHEREVER THERE IS A POTENTIAL OF STORMWATER OR NON-STORMWATER BEING DISCHARGED INTO IT.
 - INLET PROTECTION IS REQUIRED ALONG WITH OTHER POLLUTION PREVENTION MEASURES SUCH AS; EROSION CONTROL, SOIL STABILIZATION, AND MEASURES TO PREVENT TRACKING ONTO PAVED SURFACES.
 - MODIFY INLET PROTECTION AS NEEDED TO AVOID CREATING TRAFFIC HAZARDS.
 - INCLUDE INLET PROTECTION MEASURES AT HILLSIDE V-DITCHES AND MISC. DRAINAGE SWALES.
 - INLET PROTECTION SHALL BE INSPECTED AND ACCUMULATED SEDIMENTS REMOVED. SEDIMENT SHALL BE DISPOSED OF PROPERLY AND IN A MANNER THAT ASSURES THAT THE SEDIMENT DOES NOT ENTER THE STORM DRAIN SYSTEM.
 - DAMAGED BAGS SHALL BE REPLACED IMMEDIATELY.
 - ADDITIONAL SANDBAG SEDIMENT TRAPS SHALL BE PLACED AT INTERVALS AS INDICATED ON SITE PLAN.

C CONCRETE WASTE MANAGEMENT WM-8



- NOTES:
- EXCESS AND WASTE CONCRETE SHALL NOT BE WASHED INTO THE STREET OR INTO A DRAINAGE SYSTEM.
 - FOR WASHOUT OF CONCRETE AND MORTAR PRODUCTS, A DESIGNATED CONTAINMENT FACILITY OF SUFFICIENT CAPACITY TO RETAIN LIQUID AND SOLID WASTE SHALL BE PROVIDED ON SITE.
 - SLURRY FROM CONCRETE AND ASPHALT SAW CUTTING SHALL BE VACUUMED OR CONTAINED, DRIED, PICKED UP AND DISPOSED OF PROPERLY.
 - CONCRETE WASHOUT AREA SHALL BE LINED WITH A MINIMUM 10 MIL. POLYETHYLENE SHEETING. REFER TO BMP #WM-8 FROM THE 2013 CALIFORNIA CONSTRUCTION BMP HANDBOOK

STREET MAINTENANCE SE-7

- NOTES:
- REMOVE ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS IMMEDIATELY.
 - SWEEP PAVED AREAS THAT RECEIVE CONSTRUCTION TRAFFIC WHENEVER SEDIMENT BECOMES VISIBLE.
 - PAVEMENT WASHING WITH WATER IS PROHIBITED IF IT RESULTS IN A DISCHARGE TO THE STORM DRAIN SYSTEM.

D MATERIAL STORAGE AND DELIVERY WM-1

APPLY BMP WM-1 FROM THE 2013 CALIFORNIA STORMWATER BMP HANDBOOK FOR CONSTRUCTION AVAILABLE AT www.cabmphandbooks.com.

MINIMUM REQUIREMENTS FROM WM-1:

- MATERIAL DELIVERY AND STORAGE AREAS SHOULD BE LOCATED NEAR THE CONSTRUCTION ENTRANCES, AWAY FROM WATERWAYS OR DRAINAGE PATHS. PREFERRED METHOD OF MATERIAL STORAGE IS INDOORS WITHIN EXISTING STRUCTURES OR SHEDS WHEN AVAILABLE. AT A MINIMUM, MATERIAL STORAGE AREA SHALL BE SURROUNDED WITH PROTECTIVE BERMS.
- MATERIALS SHOULD BE STORED IN THEIR ORIGINAL CONTAINERS AND THE ORIGINAL PRODUCT LABELS SHOULD BE MAINTAINED IN PLACE IN A LEGIBLE CONDITION.
- MATERIALS SHOULD BE STORED ON PALLETS AND SHOULD NOT BE ALLOWED TO ACCUMULATE ON THE GROUND. SECONDARY CONTAINMENT SHALL BE PROVIDED, WHEN POSSIBLE, TO PROVIDE PROTECTION FROM WIND AND RAIN. MATERIALS SHOULD BE COVERED DURING NON-WORKING DAYS AND PRIOR TO AND DURING RAIN OR WIND EVENTS.
- EMPLOYEES AND SUBCONTRACTORS SHALL BE TRAINED ON PROPER MATERIAL DELIVERY AND STORAGE PRACTICES AND IN EMERGENCY SPILL CLEANUP PROCEDURES.

REVISIONS			
MARK	DATE	DESCRIPTION	BY

REVIEWED BY: _____ DATE: _____

_____ DATE: _____



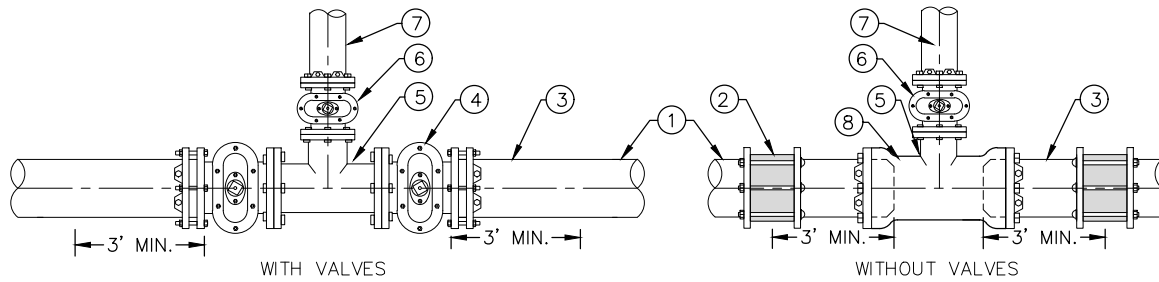
STADIUM ROAD WATERLINE REPLACEMENT
EROSION CONTROL PLAN
MOORPARK COLLEGE
MOORPARK, CA

SCALE: HORIZ. 40 VERT. VERT

WORK ORDER 0075.05
DRAWN BY: JEA
CHECKED BY: GHP

SHEET NO. 4 OF 4

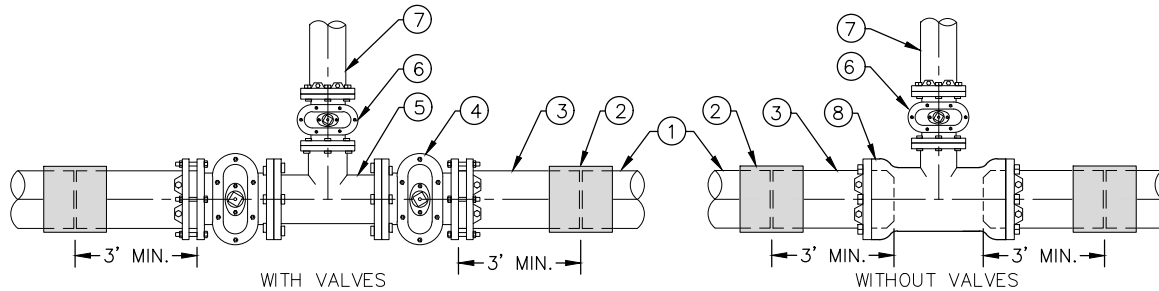
GLEN H. PACE DATE: 07/05/2019
PROJECT ENGINEER
R.C.E. 61,468



CONDITION NO. 1
TEE – TYPICAL CONNECTION FOR AC PIPE

CONDITION # 1
CONSTRUCTION NOTES:

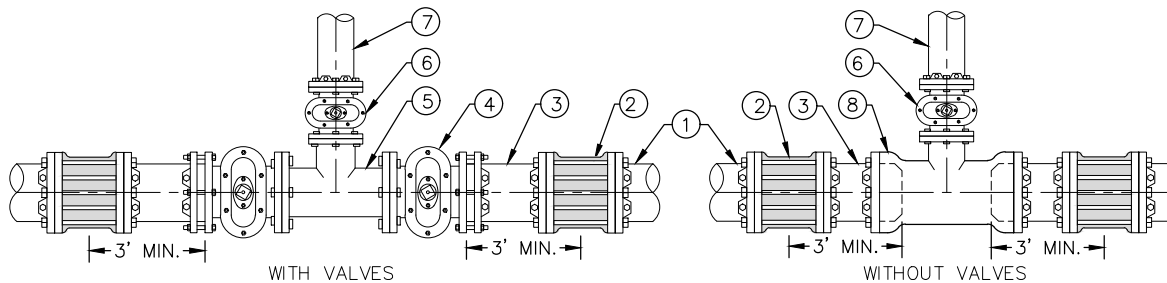
- ① EXISTING PIPE.
- ② TRANSITION COUPLING (ROMAC OR EQUIVALENT)
- ③ 3' SECTION, PVC C-900 DR 14 (NO BEVEL END).
- ④ MAIN SIZE-IN LINE VALVE, FLG X MJ WITH RESTRAINER.
- ⑤ TEE, MAIN SIZE X LATERAL SIZE, FLG X FLG.
- ⑥ LATERAL VALVE, FLG X MJ.
- ⑦ LATERAL PIPE
- ⑧ TEE, MAIN SIZE X LATERAL SIZE, MJ X FLG.



CONDITION NO. 2
TEE – TYPICAL CONNECTION FOR PVC

CONDITION # 2
CONSTRUCTION NOTES:

- ① EXISTING PIPE.
- ② PVC SLIP COUPLING, PIPE SIZE.
- ③ 3' SECTION – MILLED END, PVC C-900 DR 14.
- ④ MAIN SIZE-IN LINE VALVE, FLG X MJ WITH RESTRAINER.
- ⑤ TEE, MAIN SIZE X LATERAL SIZE, FLG X FLG.
- ⑥ LATERAL VALVE, FLG X MJ.
- ⑦ LATERAL PIPE
- ⑧ TEE, MAIN SIZE X LATERAL SIZE, MJ X FLG.




CONDITION NO. 3
TEE – TYPICAL CONNECTION FOR DUCTILE IRON PIPE

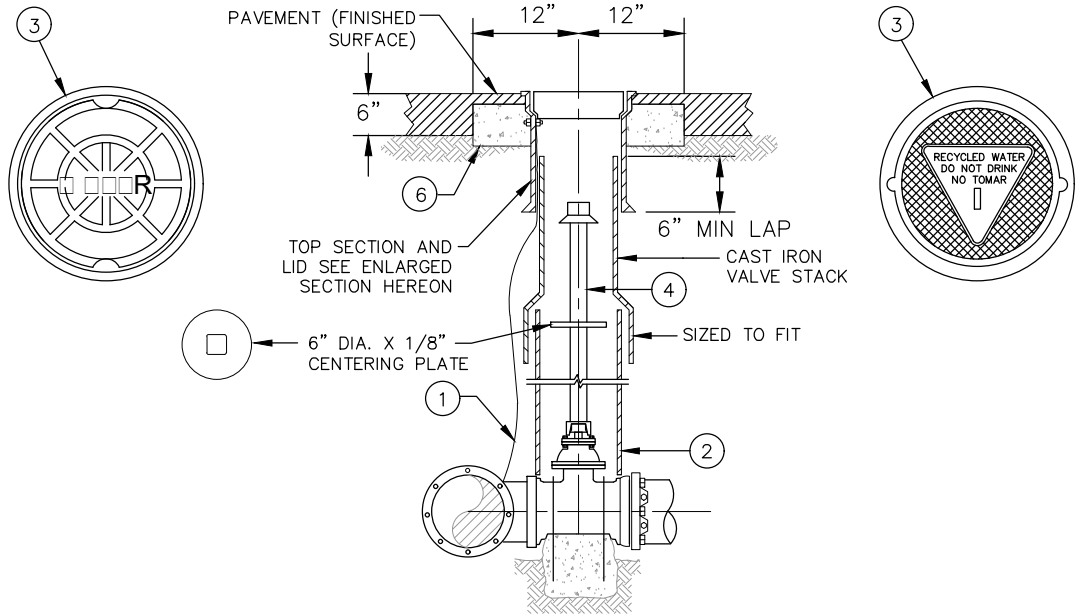
CONDITION # 3
CONSTRUCTION NOTES:

- ① EXISTING PIPE.
- ② SOLID DUCTILE IRON MJ SLEEVE WITH RESTRAINER.
- ③ 3' SECTION – DUCTILE IRON CLASS 350.
- ④ MAIN SIZE-IN LINE VALVE, FLG X MJ WITH RESTRAINER.
- ⑤ TEE, MAIN SIZE X LATERAL SIZE, FLG X FLG.
- ⑥ LATERAL VALVE, FLG X MJ.
- ⑦ LATERAL PIPE
- ⑧ TEE, MAIN SIZE X LATERAL SIZE, MJ X FLG.

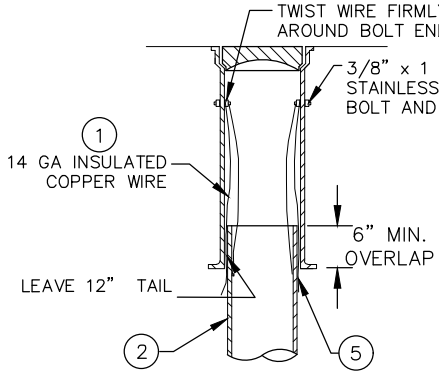
NOTES:

1. WATER MAINS IN PUBLIC STREETS SHALL BE LOCATED PARALLEL TO AND 5 FT NORTH OR WEST OF THE CENTER LINE OF THE STREET.
2. WRAP ALL METALLIC APPURTENANCES WITH 10 MIL. POLYETHYLENE ENCASEMENT PER VCWWD CONSTRUCTION STANDARDS.
3. SEE PLATE NO. 19 FOR ANCHOR BLOCKS AND THRUST BLOCK DETAILS.
4. SEE PLATE NO. 2 FOR VALVE BOX DETAILS.
5. COUPLINGS SHALL BE A MINIMUM OF 18" AWAY FROM ANY SERVICE OR APPURTENANCE.

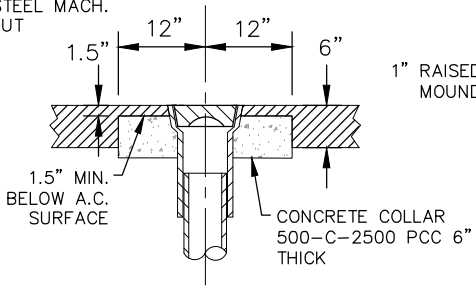
VENTURA COUNTY WATERWORKS DISTRICT NO. 1, 17, 19, & 38			
ADOPTED BOARD OF SUPERVISORS DATE: OCTOBER 2017		WATER CONSTRUCTION STANDARDS	
APPROVED BY:	DIRECTOR OF PUBLIC WORKS	CUT-IN TEE FOR PVC, AC, AND DI PIPE	 STANDARD PLAN W-15
RECOMMENDED BY:	DIRECTOR OF WATER AND SANITATION		



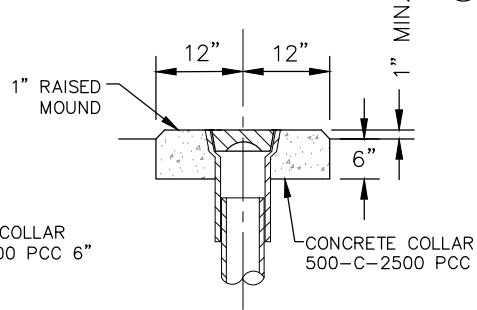
PAVED AREAS



TOP SECTION AND LID



CONCRETE COLLAR FOR VALVE BOXES IN PAVED AREAS




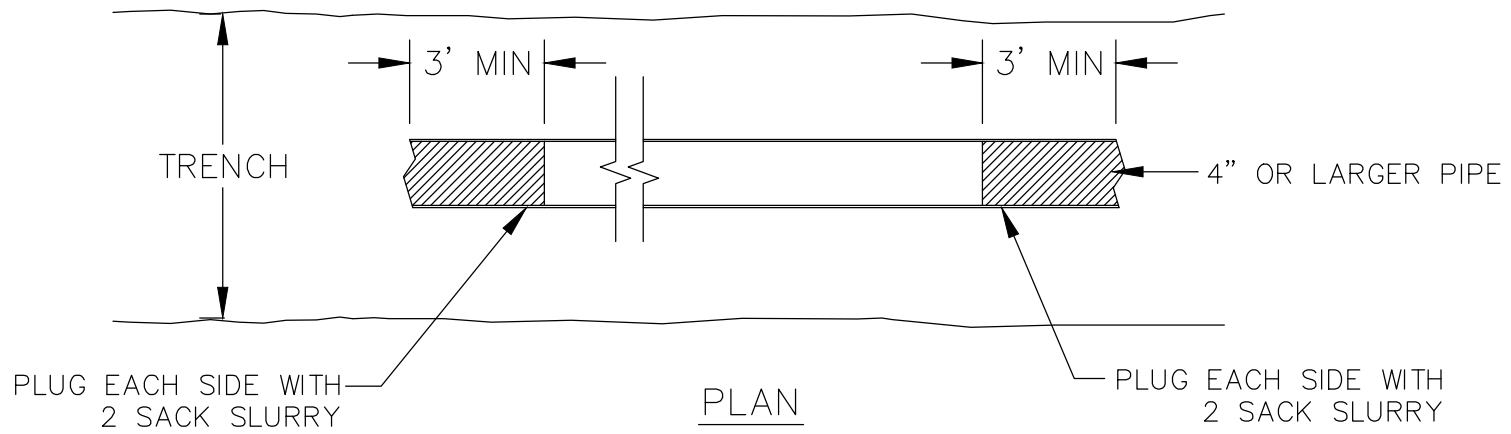
CONCRETE COLLAR FOR VALVE BOXES IN UNPAVED AREAS

CONSTRUCTION NOTES:

- ① IDENTIFICATION WIRE TO BE BARED AND ATTACHED MECHANICALLY TO TEE, VALVE AND TOP OF VALVE STACK.
- ② IF DEPTH FROM VALVE BOX TO THE TOP OF VALVE OPERATING NUT IS GREATER THAN 42", A 6" DIA., SDR-35 VALVE BOX EXTENSION SHALL BE INSTALLED (MIN. 12" OR GREATER).
- ③ VALVE COVER SHALL HAVE, "WATER" FOR POTABLE WATER AND RECYCLED WATER SHALL HAVE, "RECYCLED WATER, DO NOT DRINK – NO TOMAR" IN RAISED LETTERS. RECYCLED WATER COVERS SHALL BE PAINTED PURPLE.
- ④ 1 1/4" SQUARE SOLID STEEL STOCK FOR VALVE STEM EXTENSION.
- ⑤ PROVIDE ADEQUATE SLOT IN PIPE RISER TO ACCOMMODATE TRACER WIRE.
- ⑥ PROVIDE 24" DIA. X 6" THICK CONCRETE COLLAR.

* CURRENT MATERIALS LIST IS AVAILABLE AT THE DISTRICT OFFICE.


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ADOPTED BOARD OF SUPERVISORS DATE: OCTOBER 2017		WATER CONSTRUCTION STANDARDS	
APPROVED BY:	DIRECTOR OF PUBLIC WORKS	VALVE BOX INSTALLATION	 STANDARD PLAN W-2
RECOMMENDED BY:	DIRECTOR OF WATER AND SANITATION		

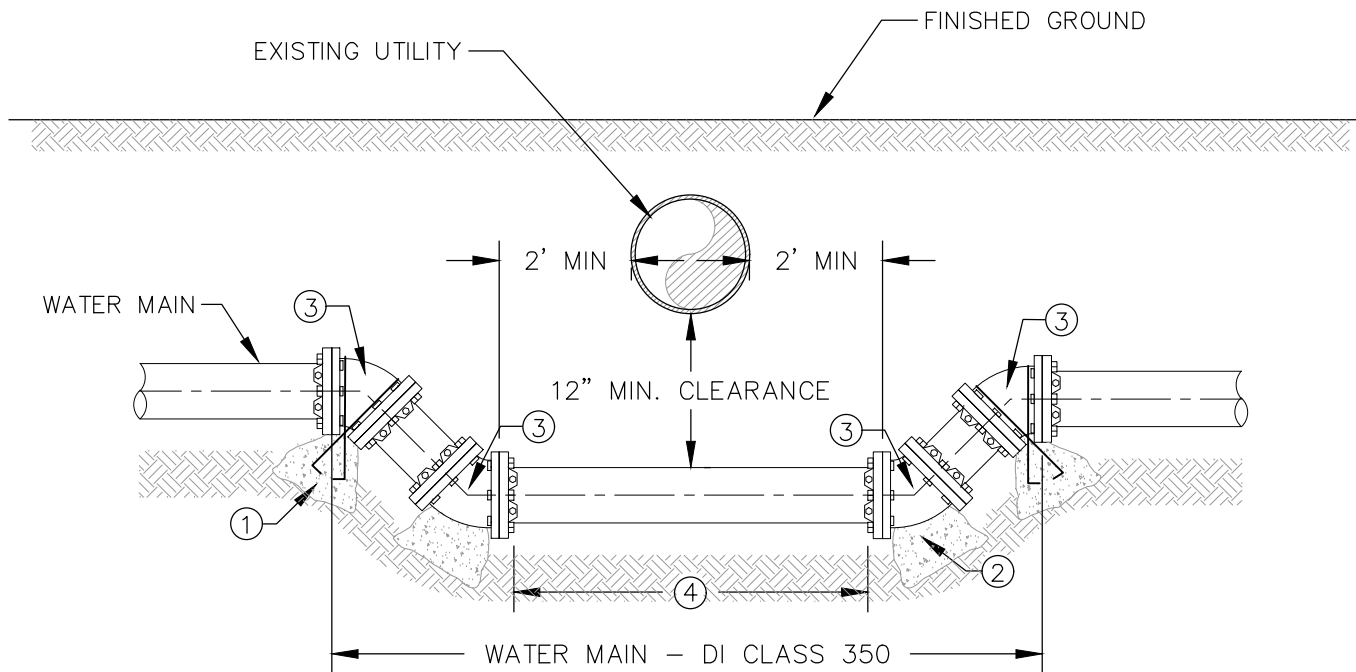


DETAIL FOR CUTTING AND PLUGGING
ABANDONED WATER MAINS

NOTES:

1. FOR PIPES SMALLER THAN 4" – CRIMP ENDS AND ABANDON IN PLACE

VENTURA COUNTY WATERWORKS DISTRICT NO. 1, 17, 19, & 38			
ADOPTED BOARD OF SUPERVISORS DATE: OCTOBER 2017		WATER CONSTRUCTION STANDARDS	
APPROVED BY:	DIRECTOR OF PUBLIC WORKS	PIPE ABANDONMENT	 STANDARD PLAN W-16
RECOMMENDED BY:	DIRECTOR OF WATER AND SANITATION		




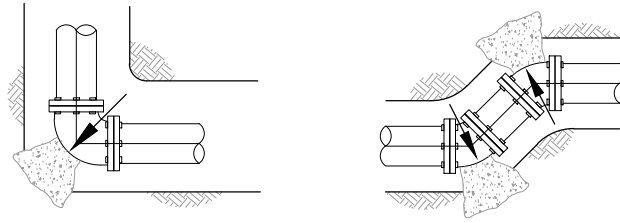
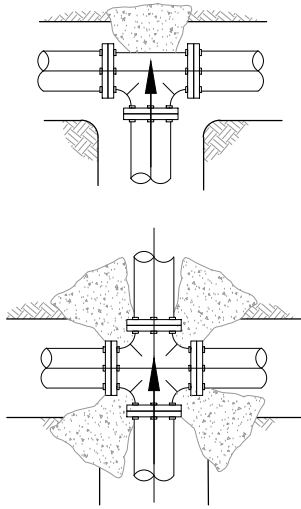
NOTES:

1. USE DUCTILE IRON (RETAINER TYPE) MECHANICAL JOINT
2. USE DUCTILE IRON PIPE, CLASS 350 THROUGHOUT.
3. SEPARATION DISTANCE IS DETERMINED BY THE TYPE OF OBSTRUCTION BEING CROSSED, REFER TO STATE WATER RESOURCE CONTROL BOARD WATER AND SEWER SEPARATION REQUIREMENTS.
4. SEE PLATE NO. W-1 FOR TRENCH DETAILS.
5. AIR RELEASE AND VACUUM BREAKER VALVE AND/OR BLOW-OFF MAY BE REQUIRED AT THE DISTRICT'S DISCRETION.
6. CURRENT MATERIAL LIST IS AVAILABLE AT THE DISTRICT OFFICE.
7. PIPE SHALL BE WRAPPED WITH POLYETHYLENE CASING (10 MIL.).

CONSTRUCTION NOTES:

- ①. INSTALL ANCHOR BLOCK PER STD. PLATE NO. 19 (TYP. 2 PLACES).
- ②. INSTALL THRUST BLOCK PER STD. PLATE NO. 19 (TYP. 2 PLACES).
- ③. INSTALL 45° ELBOW, MJ X MJ WITH RESTRAINER GLAND (TYP. 4 PLACES).
- ④. LENGTH PER STATE WATER RESOURCE CONTROL BOARD REQUIREMENTS.

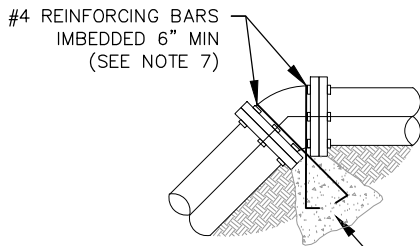
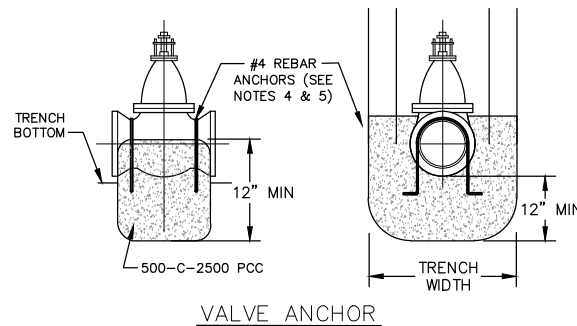
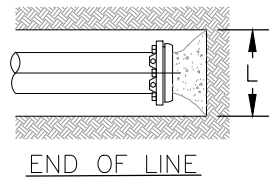
VENTURA COUNTY WATERWORKS DISTRICT NO. 1, 17, 19, & 38			
ADOPTED BOARD OF SUPERVISORS DATE: OCTOBER 2017		WATER CONSTRUCTION STANDARDS	
APPROVED BY:	DIRECTOR OF PUBLIC WORKS	UTILITY UNDERCROSSING DETAIL	 STANDARD PLAN W-18
RECOMMENDED BY:	DIRECTOR OF WATER AND SANITATION		



THRUST BLOCKING

NOTES:

1. BEARING AREA SHOWN ABOVE BASED ON SOIL CONSISTING OF SAND AND GRAVEL CEMENTED WITH CLAY – SAFE BEARING LOAD = 2000 PSF.
2. FOR SOFT CLAY MULTIPLY AREA X 4.0. FOR SAND MULTIPLY AREA X 2.0.
3. FOR SAND AND GRAVEL MULTIPLY AREA X 1.5. FOR SHALE, SANDSTONE, OR CONGLOMERATE MULTIPLY AREA X 0.4.
4. IN NO CASE SHALL THE THRUST BLOCK CONTAIN LESS THAN 3 CUBIC FEET OF CONCRETE. THRUST BLOCK SHALL BEAR ON UNDISTURBED EARTH.
5. DO NOT INTERPOLATE BEARING AREA FOR FITTINGS NOT SHOWN.
6. ANCHOR IS NOT REQUIRED FOR 6" VALVES OR SMALLER.
7. COAT REBARS WITH APPROVED BITUMASTIC COMPOUND.
8. FOR FLANGED AND MECHANICAL VALVES, KEEP CONCRETE OFF BOLTS.
9. CONCRETE SHALL BE 500-C-2500PCC
10. RESTRAIN ALL JOINTS FOR SLOPES 30 DEGREES OR STEEPER.
11. DEAD ENDS SHALL HAVE A 3' PUP WITH AN MJ CAP.
12. THRUST BLOCK BEARING AREA BASED ON 225 PSI LINE PRESSURE WITH 3'-0" COVER MINIMUM.



AREA OF THRUST DEVICE TO BE APPROVED BY THE DISTRICT ENGINEER FOR THIS TYPE OF APPLICATION

ANCHOR BLOCK

VERTICAL BEND ANCHOR						
PIPE SIZE	22 1/2" BEND L, H, AND W (IN)	VOLUME (YD ³)	THRUST (LBS)	45° BEND L, H, AND W (IN)	VOLUME (YD ³)	THRUST (LBS)
4"	26	0.4	1104	32	0.7	2165
6"	34	0.8	2483	42	1.6	4871
8"	41	1.5	4414	51	2.8	8659
10"	47	2.2	6897	59	4.4	13529
12"	53	3.2	9932	67	6.4	19482
16"	64	5.6	17657	81	11.4	34635
18"	70	7.4	22347	87	14.1	43835

PIPE SIZE	11 1/4" BEND				22 1/2" BEND				45° BEND				90° BEND / CROSSES				END OF LINE / TEES			
	L (IN)	H (IN)	AREA (IN ²)	THRUST (LBS)	L (IN)	H (IN)	AREA (IN ²)	THRUST (LBS)	L (IN)	H (IN)	AREA (IN ²)	THRUST (LBS)	L (IN)	H (IN)	AREA (IN ²)	THRUST (LBS)	L (IN)	H (IN)	AREA (IN ²)	THRUST (LBS)
4"	12	6	72	554	16	8	128	1104	23	12	276	2165	31	16	496	4000	26	13	338	2828
6"	17	9	153	1248	24	12	288	2483	34	17	578	4871	46	23	1058	9000	39	20	780	6364
8"	23	12	276	2218	32	16	512	4414	45	23	1035	8659	61	31	1891	15999	52	26	1352	11313
10"	29	15	435	3465	40	20	800	6897	56	28	1568	13529	76	38	2888	24999	64	32	2048	17677
12"	34	17	578	4990	48	24	1152	9932	67	34	2278	19482	92	46	4232	35999	77	39	3003	25455
16"	46	23	1058	8871	64	32	2048	17657	90	45	4050	34635	122	61	7442	63998	103	52	5356	45253
18"	51	26	1326	11228	72	36	2592	22347	101	51	5151	43835	137	69	9453	80997	115	58	6670	57274

VENTURA COUNTY WATERWORKS DISTRICT NO. 1, 17, 19, & 38

ADOPTED BOARD OF SUPERVISORS DATE: OCTOBER 2017		WATER CONSTRUCTION STANDARDS	
APPROVED BY:	DIRECTOR OF PUBLIC WORKS	THRUST AND ANCHOR BLOCK DETAILS	STANDARD PLAN W-19
RECOMMENDED BY:	DIRECTOR OF WATER AND SANITATION		

