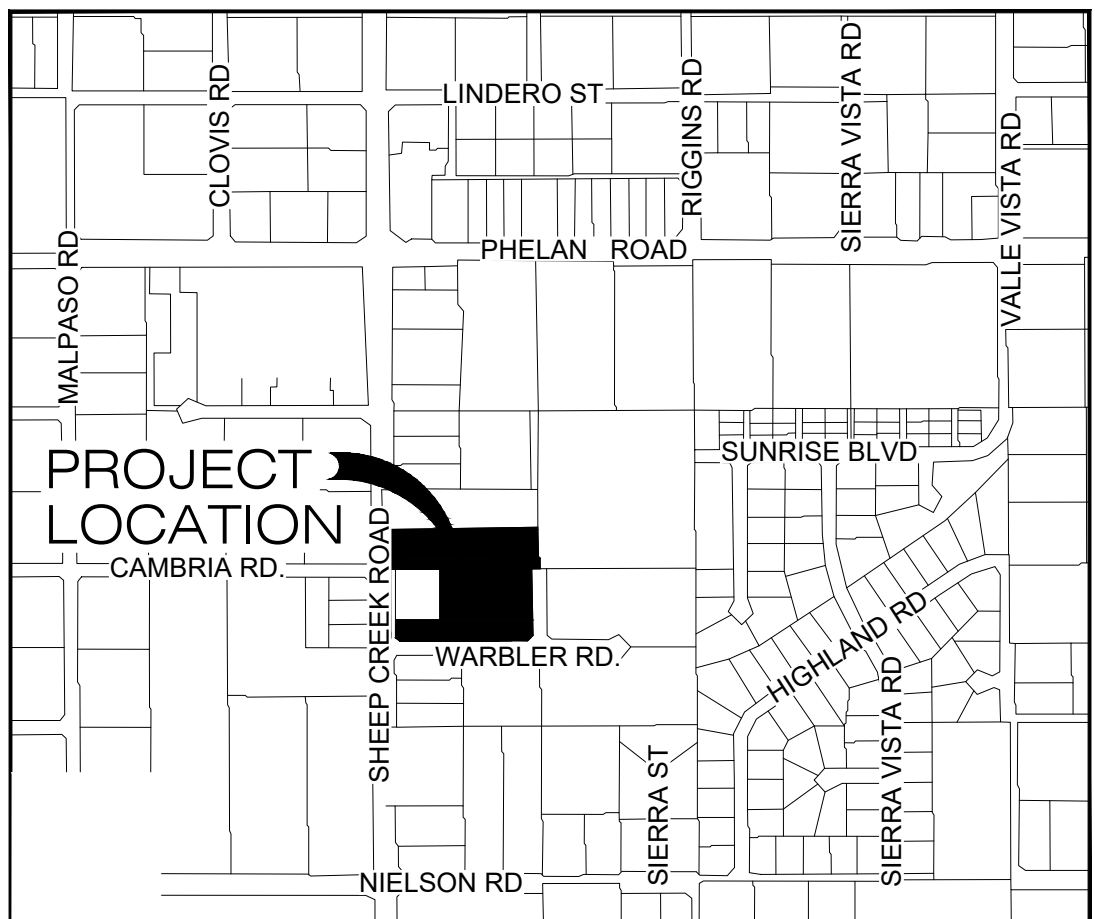


PHELAN PINON HILLS COMMUNITY SERVICES DISTRICT
PHELAN, CALIFORNIA
IN THE COUNTY OF SAN BERNARDINO
CIVIC CENTER DEVELOPMENT
FIRE WATER PLAN- PHASE 1

LEGEND

	WM WATER METER
	REDUCER
	END CAP
	JOSHUA TREE
	TREE
	PINE TREE
	SHRUB
	CACTUS
	PEDESTAL
	STREET LIGHT
	STREET SIGN
	TRAFFIC LOOP
	TRAFFIC SIGNAL BOX
	MAILBOX
	BENCHMARK
	SURVEY MONUMENT
	SEWER MANHOLE
	TELEPHONE MANHOLE
	EXISTING SEWER LINE
	EXISTING WATER LINE
	PROPOSED STORM DRAIN
	EXISTING GAS LINE
	EXISTING TELEPHONE LINE
	EXISTING FIBER OPTIC LINE
	EXISTING ELECTRICAL LINE
	EXISTING CABLE TV LINE
	EXISTING STORM DRAIN
	EXISTING SLOPE

SHEEP CREEK ROAD/ WARBLER ROAD
APN: 3066-261-10 & 3066-251-18



LOCATION MAP
NOT TO SCALE

PHELAN, CA.

LEGAL DESCRIPTION

- PARCEL NO. 3 OF PARCEL MAP NO. 4063, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 40, PAGE 80 OF PARCEL MAPS IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, TOGETHER WITH THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 24, TOWNSHIP 4 NORTH, RANGE 7 WEST, SAN BERNARDINO BASE AND MERIDIAN IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA. APN: 3066-251-18
- S 1/2, SW 1/4, NW 1/4, NW 1/4, SEC 24, T4N, R7W APN: 3066-261-10

ENGINEER'S NOTE:

ALR ENGINEERING HAS PREPARED A GEOTECHNICAL REPORT AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT ALL GRADING IN ACCORDANCE TO THIS REPORT DATED OCTOBER 30, 2013, REVISED APRIL 25, 2022.

GEOTECHNICAL ENGINEER'S NOTE:

ALR ENGINEERING AND TESTING HAS CONDUCTED A GEOTECHNICAL INVESTIGATION AND PREPARED A REPORT DATED OCTOBER 30, 2013, REVISED APRIL 25, 2022, FOR PHELAN PINON HILLS COMMUNITY SERVICES DISTRICT ON APN: 3066-261-10. ALL GRADING REQUIREMENTS ARE INCORPORATED IN THESE PLANS.

STEPHEN M. LONGORIA, PE 74782

DECLARATION OF RESPONSIBLE CHARGE:

I HEREBY DECLARE THAT I AM THE ENGINEER OF THE WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF SAN BERNARDINO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR THE PROJECT DESIGN.

TRLs ENGINEERING, INC.
10770 I AVE. STE. 108
HESPERIA, CA. 92345

Jerry L. Miles
JERRY L. MILES R.C.E. 42593
EXP: 3/31/26



08/19/2024
DATE

PRIVATE ENGINEER'S NOTE TO CONTRACTOR

THE EXISTANCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE DRAWINGS.

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE COUNTY OF SAN BERNARDINO, THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

UNAUTHORIZED CHANGES AND USES

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE

WARNING!!!!

THE LOCATION AND ELEVATION OF EXISTING PIPELINES SHOWN ON THESE PLANS ARE APPROPRIATE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION AND ELEVATION OF THE PIPELINES PRIOR TO ANY GRADING OR CONSTRUCTION NEAR EXISTING PIPELINES.

NOTE:

UNDERGROUND SERVICE ALERT
48 HOURS PRIOR TO EXCAVATION
TELEPHONE NO. : 1-800-422-4133

ESTIMATED QUANTITIES:

ESTIMATE OF QUANTITIES INCLUDED ON THESE PLANS ARE APPROXIMATE QUANTITIES AND IS INTENDED ONLY FOR PLANNING PURPOSES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING HIS OR HER OWN QUANTITIES.

PHELAN PINON HILLS COMMUNITY SERVICES DISTRICT NOTES:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS AND TO THE LATEST PHELAN PINON HILLS COMMUNITY SERVICES DISTRICT (PPHCSO OR DISTRICT) STANDARDS AND TECHNICAL SPECIFICATIONS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN A CURRENT AND APPROVED SET OF DISTRICT'S TECHNICAL SPECIFICATIONS ON THE JOB SITE AT ALL TIMES. STANDARD SPECIFICATIONS CAN BE OBTAINED ONLINE AT WWW.PPHCSO.ORG.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ARRANGEMENTS FOR CONSTRUCTION INSPECTION AT LEAST 48 HOURS PRIOR TO BEGINNING OF WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE THEMSELVES WITH THE JOB SITE AND THE LOCATION OF ALL UNDERGROUND FACILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND TO COMPARE ACTUAL CONDITIONS WITH THE DRAWINGS TO ASCERTAIN THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE CONTRACTOR SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF THE WORK. COMMENCEMENT OF WORK SHALL CONSTITUTE FULL ACCEPTANCE OF THE EXISTING SITE CONDITIONS, AND THE CONTRACTOR WILL BE UNILATERALLY RESPONSIBLE FOR ANY DAMAGE DONE TO EXISTING UTILITIES OR OTHER STRUCTURES THAT ARE SHOWN OR NOT SHOWN ON THESE PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES TO PIPE INCURRED DURING BACKFILL AND COMPACTION OPERATIONS.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS.
- THRUST BLOCKS SHALL BE INSTALLED PER PPHCSO STANDARD DRAWING NO. W-7.
- PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL CONTACT ALL UTILITY AGENCIES TO DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES WHETHER SHOWN OR NOT SHOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING FACILITIES FROM DAMAGE DURING CONSTRUCTION.
- CALL UNDERGROUND SERVICE ALERT TWO WORKING DAYS PRIOR TO ANY TRENCHING, ETC. AT 1-800-227-2600 OR 811. THE FOLLOWING AGENCIES SHALL BE CONTACTED PRIOR TO ANY CONSTRUCTION OR EXCAVATION BEGINS:

PHELAN PINON HILLS CSD	760-868-1212
SO CAL GAS COMPANY	800-427-2200
KINDER MORGAN	909-877-2414/ 213-624-9461
VERIZON	760-843-3062
VERIZON FIBER OPTIC	800-248-0133
CHARTER CABLE	760-244-1010
SOUTHERN CALIFORNIA EDISON CO.	760-244-0133
- WATER PIPELINE SHALL BE PVC C900, CLASS 200 AND INSTALLED WITH LOCATION TAPE 18" BELOW FINISH GRADE AND 14 GA. INSULATED WIRE TAPED TO PIPE AND BROUGHT TO SURFACE AT VALVE BOXES AND HYDRANTS. ALL SPLICES TO BE MADE WITH 3M CONNECTORS.
- ALL NEW FIRE HYDRANTS INSTALLED ARE TO BE COVERED AT TIME OF INSTALLATION, UNTIL THE WATER LINE IS ACTIVE.
- ANY RELOCATION OF EXISTING TYPE "A" (TWO 2-1/2" OUTLETS) AND/ OR 4-1/2" BARREL SIZE HYDRANTS MUST BE REPLACED WITH TYPE "B" (TWO 2-1/2", ONE 4" OUTLETS) 5-1/4" HYDRANT.
- ANY HYDRANTS TO BE RELOCATED REQUIRE A NEW CONNECTION FROM HYDRANT VALVE AT THE WATER MAIN TO RELOCATED HYDRANT PER PPHCSO STANDARD DRAWING NO. W-3. EXISTING AC HYDRANT LATERAL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
- ALL FIRE HYDRANTS REMOVED SHALL BE SALVAGED AND RETURNED TO THE DISTRICT'S YARD ON OASIS ROAD.
- THE CONTRACTOR SHALL COORDINATE ALL TIE-INS OF NEW WATER MAINS WITH WATER OPERATIONS MANAGER 760-868-1212 (EXT. 318) TO KEEP INTERRUPTIONS TO A MINIMUM. NO INTERRUPTIONS TO EXISTING SERVICES SHALL BE MADE UNLESS THE DISTRICT GRANTS PRIOR APPROVAL.
- THE CONTRACTOR SHALL INSURE THE UTILITY EASEMENTS, IF REQUIRED, HAVE BEEN RECORDED PRIOR TO START OF WORK.
- WATER MAIN SHALL HAVE A MINIMUM OF 48" COVER FROM TOP OF PIPE TO FINISH GRADE. TRANSMISSION PIPELINE SHALL HAVE A MINIMUM OF 60" COVER FROM TOP OF PIPE TO FINISH GRADE.
- ALL STATIONING IS BASED ON THE CENTERLINE OF THE STREET, UNLESS OTHERWISE NOTED.
- ALL SERVICE CHANGES TO BE THE RESPONSIBILITY OF THE CONTRACTOR. EXISTING SERVICE LINES TO BE REMOVED AT THE TIME OF NEW CONNECTION FROM METER TO MAIN.
- HYDRO TEST AT 200 PSI MINIMUM FOR TWO (2) HOUR DURATION AT THE LOWEST POINT IN THE NEW WATER LINE. SCHEDULE WITH DISTRICT 48-HOURS PRIOR TO TESTING.
- SERVICE LINES ARE TO BE INSTALLED PER STANDARD DRAWING NO.'S W-2A, W-2B, W-2C, AND W-2D.
- WATER METERS TO BE RELOCATED REQUIRE NEW SERVICE LINE FROM CORPORATION STOP TO RELOCATED WATER METER. NO COUPLINGS ARE ALLOWED. REFER TO PPHCSO STANDARD DRAWING NO.'S W-2A, W-2B, W-2C, AND W-2D.
- ALL VALVES INSTALLED BY THE CONTRACTOR SHALL BE ACCESSIBLE FOR OPERATION WITH COMPLETE VALVE CAN ASSEMBLY TO GRADE DIRECTLY FOLLOWING CONNECTION TO EXISTING WATER SYSTEM. SEE STANDARD DRAWING NO.'S W-5 AND W-6.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE UNDERSIGNED ENGINEER AND PHELAN PINON HILLS CSD.
- THE CONTRACTOR AGREES THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUALLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE DISTRICT AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT OR THE ENGINEER.
- ALL EXCAVATIONS SHALL BE BACKFILLED AT THE END OF EACH WORKING DAY AND ROADS OPEN TO VEHICULAR TRAFFIC UNLESS OTHERWISE APPROVED BY PHELAN PINON HILLS CSD.
- THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT OF "LETTER OF NON-OBJECTION" FROM THE COUNTY TRANSPORTATION DEPARTMENT, PERMIT SECTION, PRIOR TO ANY GRADING OR PIPELINE EXCAVATION WITHIN COUNTY RIGHT-OF-WAY.
- ALL PIPE DISTANCES SHOWN ARE HORIZONTAL.
- ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE VERTICAL AND HORIZONTAL MEASUREMENTS OF THESE PLANS AND EXISTING DESIGN STANDARDS. ADEQUATE STAKES SHALL BE SET UNDER THE DIRECTION OF A LICENSED SURVEYOR/ ENGINEER FOR THE CONTRACTOR. ALL CONSTRUCTION SURVEYING SHALL BE PERFORMED IN ACCORDANCE WITH THE SURVEYING PROCEDURE OF THE SURVEYOR/ ENGINEER OF RECORD. IF THIRD PARTY SUBCONTRACTORS PERFORM THE CONSTRUCTION LAYOUT AND SURVEYING FOR THIS PROJECT WITHOUT THE COORDINATION OF THE SURVEYOR/ ENGINEER OF RECORD, THEY SHALL HAVE ASSUMED THE POSITION OF SURVEYOR/ ENGINEER OF RECORD. THE FINAL CHECK OF THIS DESIGN IS TO BE THE CONSTRUCTION STAKING AS THE DESIGN MEETS THE EXISTING CONTROL AND ELEVATIONS. ALL EXISTING STREET CROSS SECTIONS SHALL BE VERIFIED FOR MINIMUM CROSS FALL AT TIME OF STAKING. ANY DISCREPANCIES TO THE STANDARD DESIGN CRITERIA SHALL BE BROUGHT TO THE SURVEYOR/ ENGINEER OF RECORD ATTENTION PRIOR TO PROCEEDING WITH CONSTRUCTION. IF CONSTRUCTION CONTINUES WITHOUT VERIFICATION THE CONTRACTOR ASSUMES RESPONSIBILITY OF THE CORRECTNESS OF THE INTENDED DESIGN.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL SURVEY MONUMENTS. ANY SURVEY MONUMENTS DISTURBED DURING THE COURSE OF CONSTRUCTION SHALL BE REPLACED BY A LICENSED SURVEYOR AND AT THE CONTRACTOR'S EXPENSE.
- THE METHOD AND LOCATION OF CONNECTION TO THE PUBLIC WATER SUPPLY AND REQUIREMENTS FOR BACKFLOW PROTECTION SHALL BE PROVIDED IN ACCORDANCE WITH DISTRICT REQUIREMENTS.
- ALL TRAFFIC CONTROL SHALL BE PER M.U.T.C.D. "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
- THE CONTRACTOR SHALL COORDINATE WITH OTHER UTILITIES, TRADES, AND ARCHITECTURAL PLANS TO AVOID CONFLICTS AND VERIFY BUILDING TIE-IN LOCATION.
- THE ENGINEER OF RECORD SIGNING THESE PLANS IS RESPONSIBLE FOR THE ACCURACY AND ACCEPTABILITY OF THE WORK. THE ENGINEER OF RECORD IS REQUIRED TO STAMP AND SIGN THE "DECLARATION OF ENGINEER OF RECORD" HEREON.
- THE CONTRACTOR IS NOTIFIED THAT NATIVE SOIL WITHIN THE TRENCHING AND BORING AREA MAY CONTAIN SIGNIFICANT ROCKS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL, BREAKING, AND DISPOSAL OF ANY ROCKS ENCOUNTERED THAT INTERFERE WITH THE PROPOSED WORK.
- TRENCH COMPACTION TESTING TO BE PER SECTION 1.11.08 OF THE TECHNICAL SPECIFICATIONS. ALL RELATED COSTS ARE THE RESPONSIBILITY OF THE PROJECT OWNER.

WDID# 6B36C401591



Know what's below.
Call before you dig.

BENCHMARK:

U.S.G.S. BENCHMARK H 35, LOCATED 3.0 MI NORTH ALONG JOHNSON RD. FROM THE INTERSECTION OF PHELAN RD. 49 FT NORTHEAST OF THE CENTER OF THE INTERSECTION OF DUNCAN RD. 34 FT EAST OF THE CENTER LINE OF JOHNSON RD. 32.5 FT NORTH OF THE CENTER LINE DUNCAN RD. 6.6 FT WEST OF A FENCE. 6.3 FT NORTH OF A SECTION MARKER PIPE. 0.6 FT EAST OF A WITNESS POST. ABOUT 1 FT HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING 0.4 FT ABOVE THE GROUND. ELEV= 3613.45'

Bid Set - PPHCSO Civic Center Phase 1 - Firewater Plans

NO.	REVISION	DATE	BY



JERRY L. MILES R.C.E. 42593 - EXP. 3/31/26

PLANS PREPARED BY:

TRLs ENGINEERING Inc.

10770 I AVENUE, SUITE 108
Hesperia, CA 92345
Phone: (760) 948-4900



COUNTY OF SAN BERNARDINO
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: TER	DRAWN BY: TER	CHECKED BY:	APPROVED BY:
RECOMMENDED/APPROVED BY:			ASST. DIRECTOR OF PUBLIC WORKS
LAND DEVELOPMENT ENGINEER			DIRECTOR OF PUBLIC WORKS
DATE			DATE

DRAWN BY:
TRLs
DATE:
09-04-2024

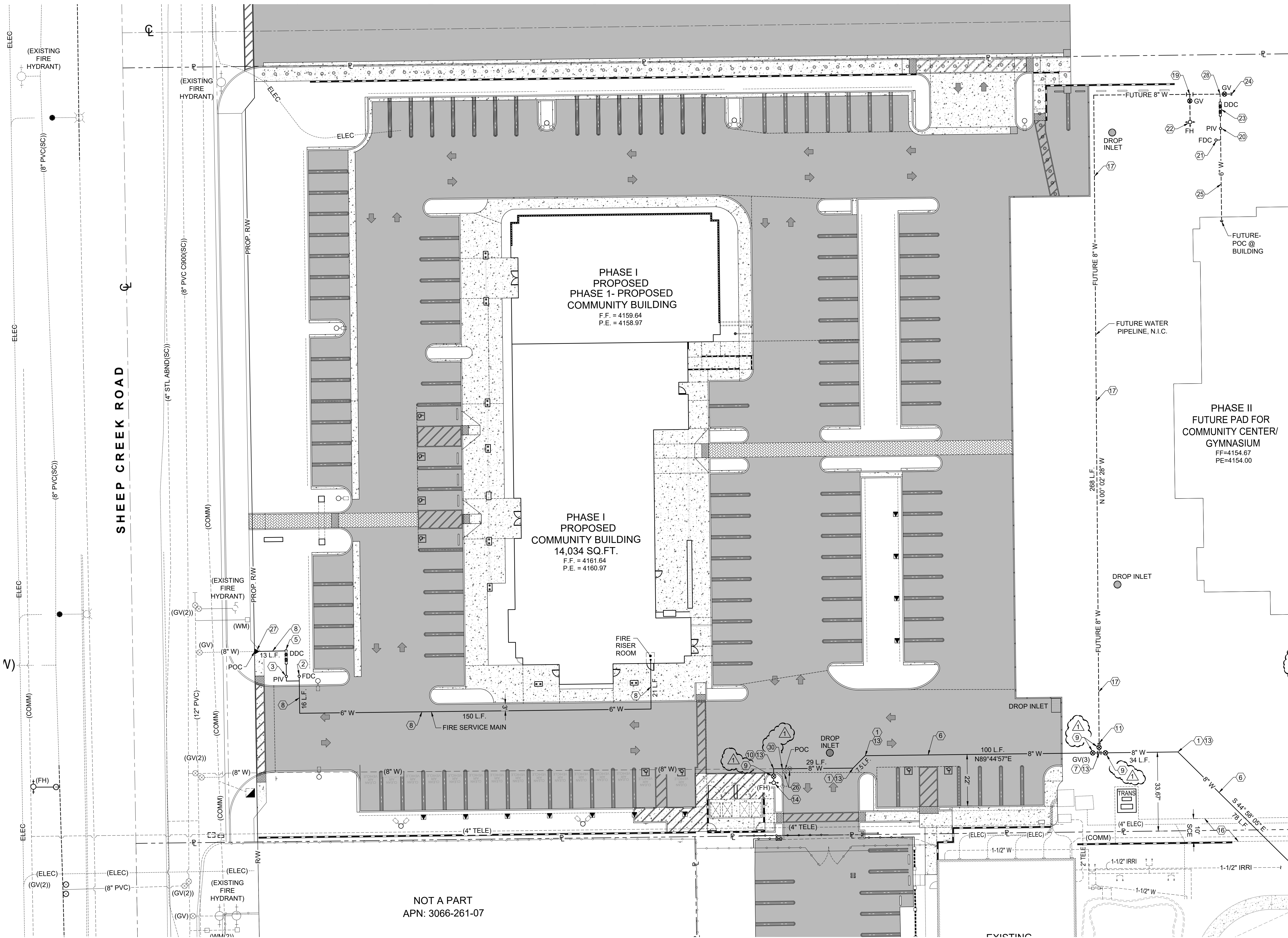
PHELAN PINON HILLS
COMMUNITY SERVICES DISTRICT
CIVIC CENTER DEVELOPMENT
PHASE 1
9535 SHEEP CREEK RD. PHELAN, CA. 92329
(APN: 3066-261-10 & 3066-251-18)

TITLE/ INDEX SHEET

SCALE:
AS SHOWN

SHEET
1 OF 4

SHEET
UF-1



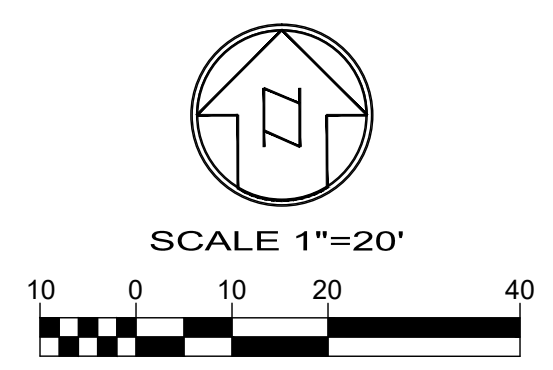
FIRE WATER LINE NOTES

1. INSTALL 45° BEND.
2. INSTALL SINGLE FIRE DEPARTMENT CONNECTION (FDC) PER SAN BERNARDINO COUNTY FIRE DEPARTMENT STD. F-4.
3. INSTALL POST INDICATOR VALVE PER SBCO FIRE DEPT. F-4.
4. INSTALL FIRE HYDRANT PER PPHCSD STD. W-3.
5. INSTALL 6" FIRE SERVICE REDUCED PRESSURE DETECTOR ASSEMBLY PER PPHCSD STANDARD STD. W-15.
6. INSTALL 8" PVC C900, CLASS 200 WATER PIPELINE PER PPHCSD STD. WITH RESTRAINED JOINTS AND FITTINGS. PIPELINE TO BE A MINIMUM DEPTH OF 36". REFER TO DISTRICT NOTES ON SHEET UF-1.
7. INSTALL 8" TEE WITH (3) 8"- VALVES PER PPHCSD STD. W-5.
8. INSTALL 6" DIA. C151/A21.51 PRESSURE CLASS 200 WATER PIPELINE WITH RESTRAINED JOINTS PER PPHCSD STD. TO LIMITS SHOWN.
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11. INSTALL 8" VALVE WITH 5 LF OF 8" WATER LINE WITH END CAP. END OF WATER PIPELINE CONSTRUCTION PHASE 1.
12. PROPOSED UTILITY CROSSING.
13. MECHANICAL RESTRAINTS TO BE UTILIZED.
14. EXISTING FIRE HYDRANT RELOCATED AS SHOWN, INSTALL PER PPHCSD STD. W-3.
15. INSTALL 8" X 8" X 8" TEE.
16. EXISTING 10' WIDE SOUTHERN CALIFORNIA EDISON (SCE) EASEMENT FOR UNDERGROUND PURPOSES.
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26. REMOVE AND DISPOSE EXISTING VALVES.
27. REMOVE EXISTING THRUST BLOCK AND END CAP AND CONNECT TO EXISTING 8" PVC WATER PIPELINE WITH AN 8" X 6" REDUCER.
28. FUTURE- INSTALL 8" X8" X 6" TEE WITH 8" GATE VALVE ON EAST OULET.
29. INSTALL 8" X 8" X 6" TEE WITH 8" GATE VALVE AND END CAP ON EAST OULET.
30. REMOVE ± 8 L.F. OF 8" WATER LINE TO THE POINT OF CONNECTION.

ENGINEER'S NOTE:

ALL WATER PIPELINES (6" AND 8") ARE TO BE INSTALLED WITH RESTRAINED JOINTS AND FITTINGS.

SEE SHEET UF-3
FOR CONTINUATION



WDID# 6B36C401591

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Bid Set - PPHCSD Civic Center Phase 1 - Firewater Plans



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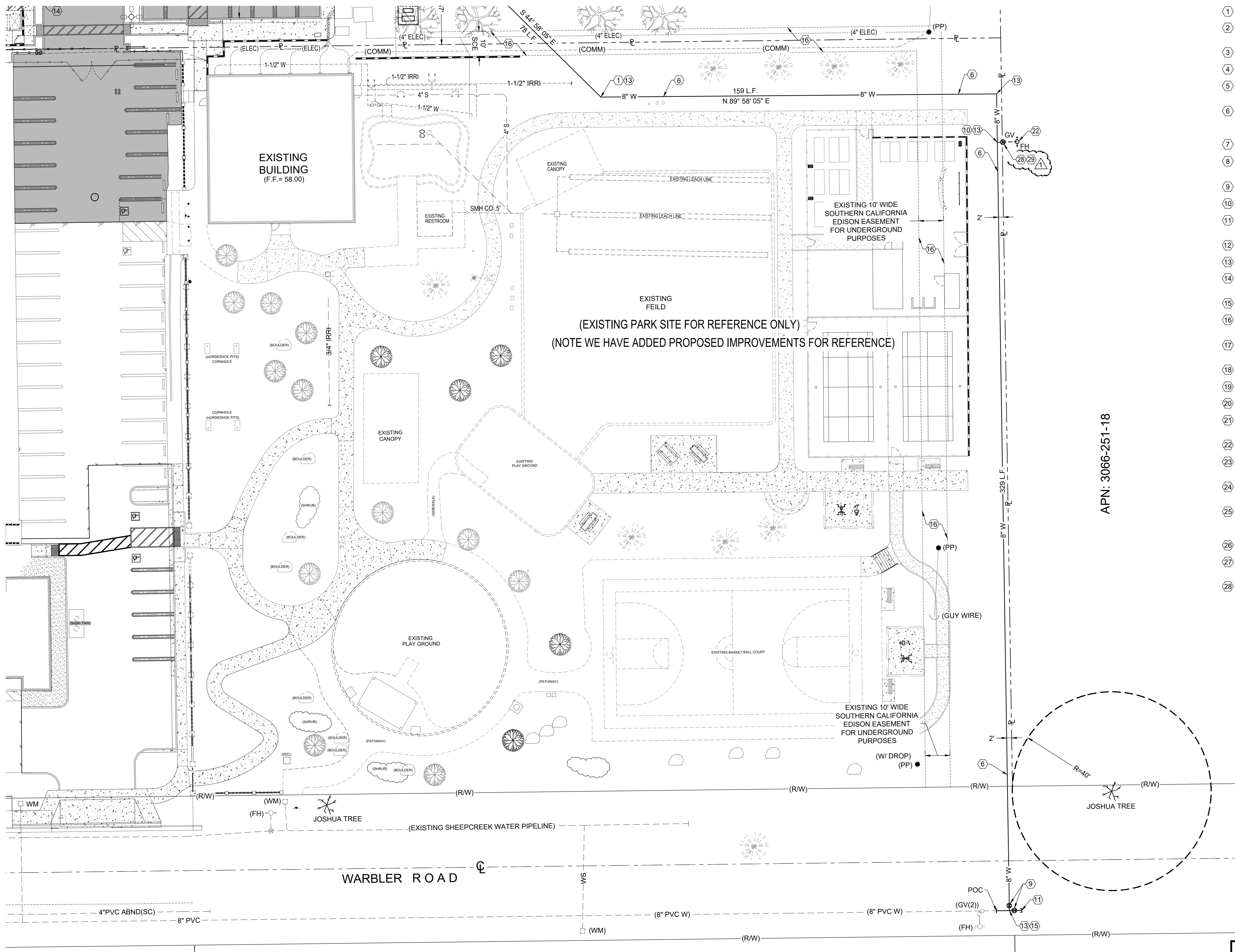
**COUNTY OF SAN BERNARDINO
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DESIGNED BY: TER	DRAWN BY: TER	CHECKED BY:	APPROVED BY:
RECOMMENDED/APPROVED BY:		ASST. DIRECTOR OF PUBLIC WORKS	
LAND DEVELOPMENT ENGINEER		DIRECTOR OF PUBLIC WORKS	

DRAWN BY: TERLS DATE: 09-04-2024	PHELAN PINON HILLS COMMUNITY SERVICES DISTRICT CIVIC CENTER DEVELOPMENT PHASE 1 9535 SHEEP CREEK RD. PHELAN, CA. 92329 (APN: 3066-261-10 & 3066-251-18)	SCALE: AS SHOWN
DESIGNED BY: TER DATE:		SHEET 2 OF 4
APPROVED BY: DATE:	FIRE WATER PLAN	SHEET UF-2



SEE SHEET UF-2 FOR CONTINUATION

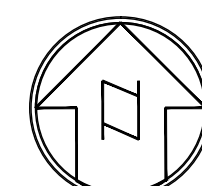


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ENGINEER'S NOTE:

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SCALE 1"=20'

WDID# 6B36C401591

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**Bid Set - PPHCSD Civic Center Phase 1
- Firewater Plans**

NO.	REVISION	DATE	BY

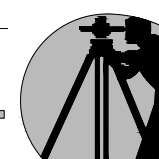


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Hesperia, CA 92345
Phone: (760) 948-4900



**COUNTY OF SAN BERNARDINO
DEPARTMENT OF PUBLIC WORKS**

DESIGNED BY: TER	DRAWN BY: TER	CHECKED BY:	APPROVED BY:
RECOMMENDED/APPROVED BY:	ASST. DIRECTOR OF PUBLIC WORKS	DIRECTOR OF PUBLIC WORKS	
LAND DEVELOPMENT ENGINEER	DATE	DATE	DATE

- GRAD-2021-00235
- PRAA-2021-00040
- DRNSTY-2021-00054

- SIP-2021-00031
- NEWNR-2021-00230
- WQMP-2021-00153

DRAWN BY:
TRLS
DATE:
09-04-2024
DESIGNED BY:
TER
DATE:
APPROVED BY:
DATE:

**PHELAN PINON HILLS
COMMUNITY SERVICES DISTRICT
CIVIC CENTER DEVELOPMENT
PHASE 1
9535 SHEEP CREEK RD. PHELAN, CA. 92329
(APN: 3066-261-10 & 3066-251-18)**

FIRE WATER PLAN

SCALE:
AS SHOWN

SHEET
3 OF 4

SHEET
UF-3



Know what's below.
Call before you dig.



SAN BERNARDINO COUNTY FIRE DEPARTMENT
COMMUNITY SAFETY DIVISION
620 South 'E' Street
San Bernardino, CA 92415-0179
(909) 386-8400

Standard Number
F-4
Revision Date:
3-22-16



SAN BERNARDINO COUNTY FIRE DEPARTMENT
COMMUNITY SAFETY DIVISION
620 South 'E' Street
San Bernardino, CA 92415-0179
(909) 386-8400

Standard Number
F-4
Revision Date:
3-22-16



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3-22-16

DIAGRAM F-4.2: SINGLE 4" X 2 1/4" X 2 1/4" FDC DETAIL

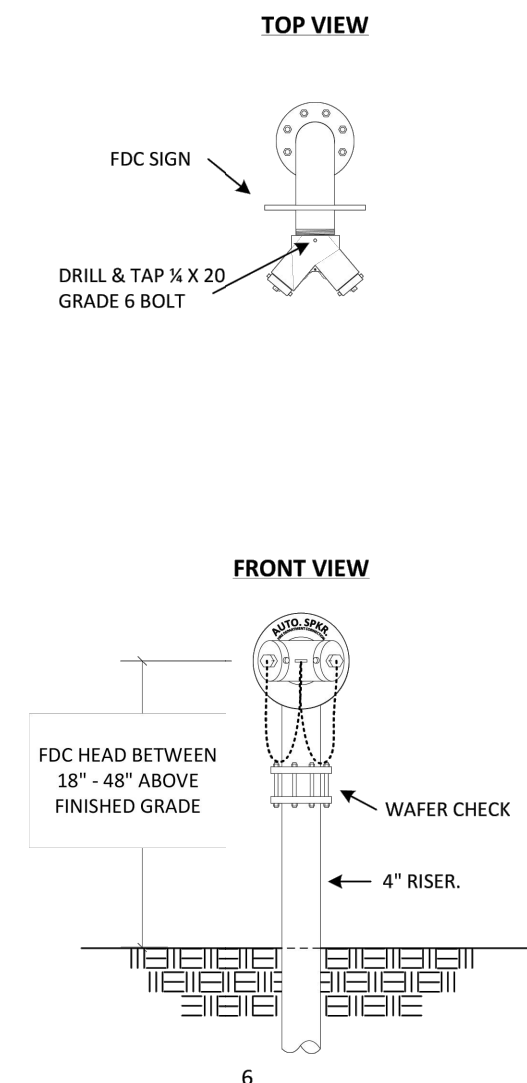


DIAGRAM F-4.3: COMBINED 6" X 4" X 2 1/4" X 2 1/4" FDC DETAIL

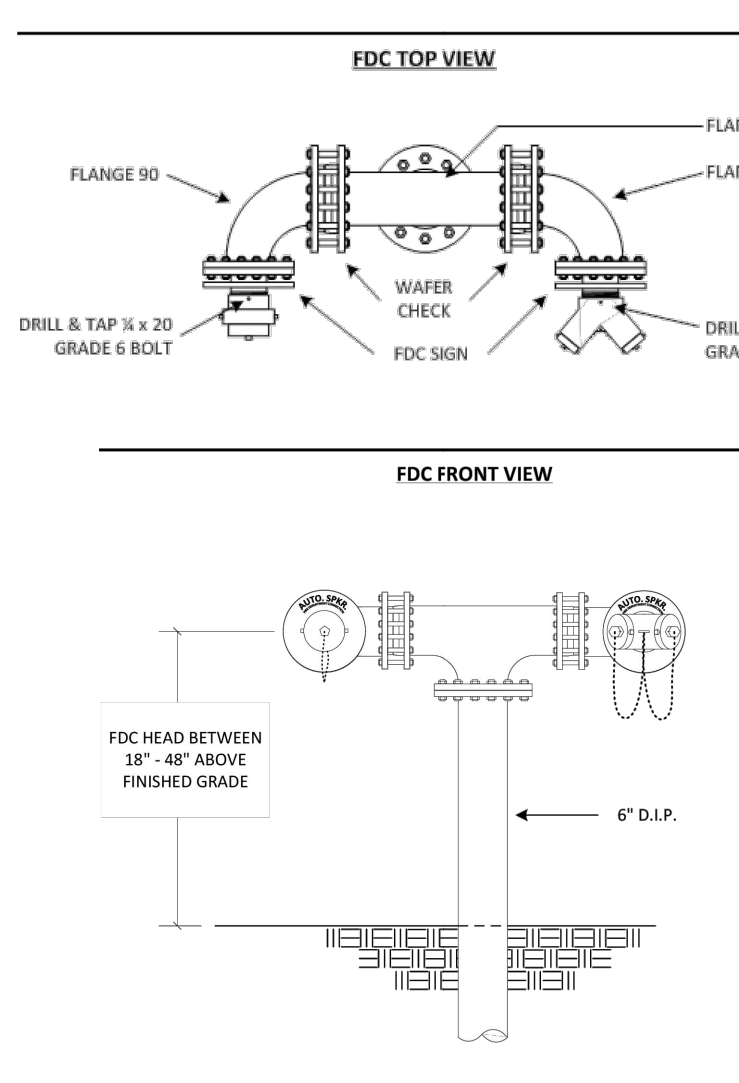


DIAGRAM F-4.4: FDC CHECK VALVE DETAIL

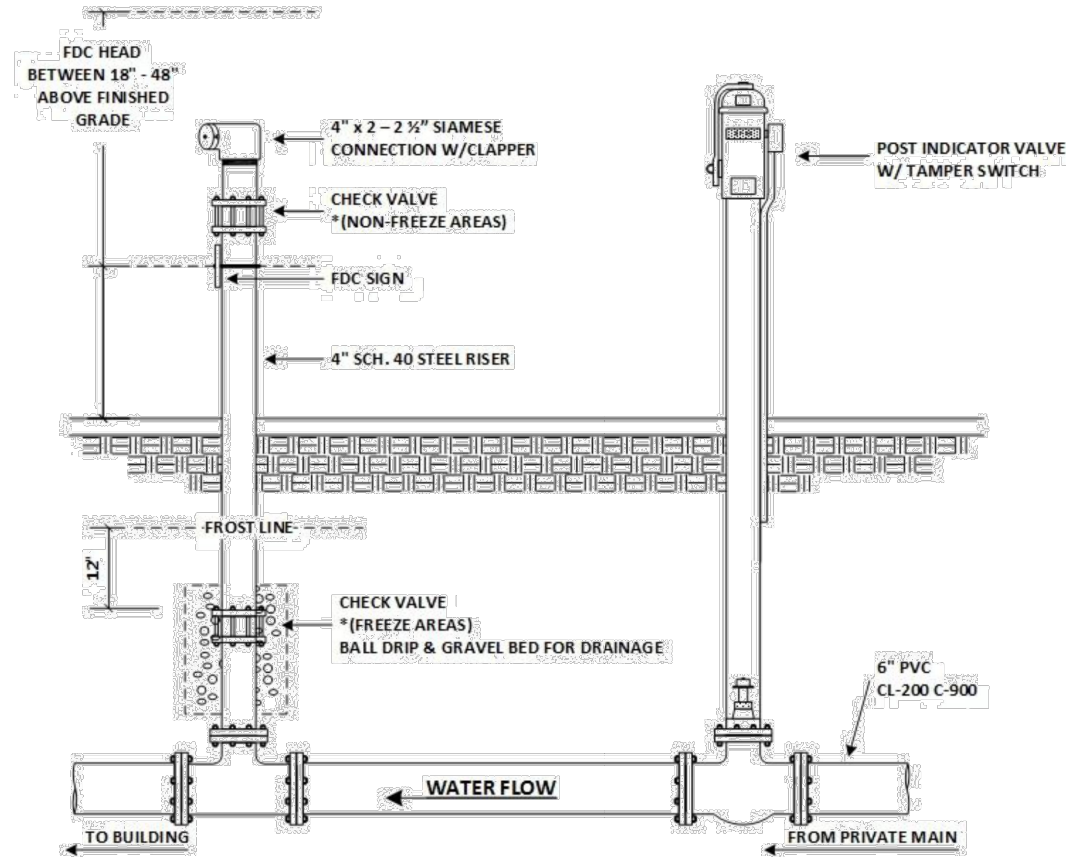


DIAGRAM F-4.5: FDC ON DOUBLE DETECTOR CHECK VALVE ASSEMBLY

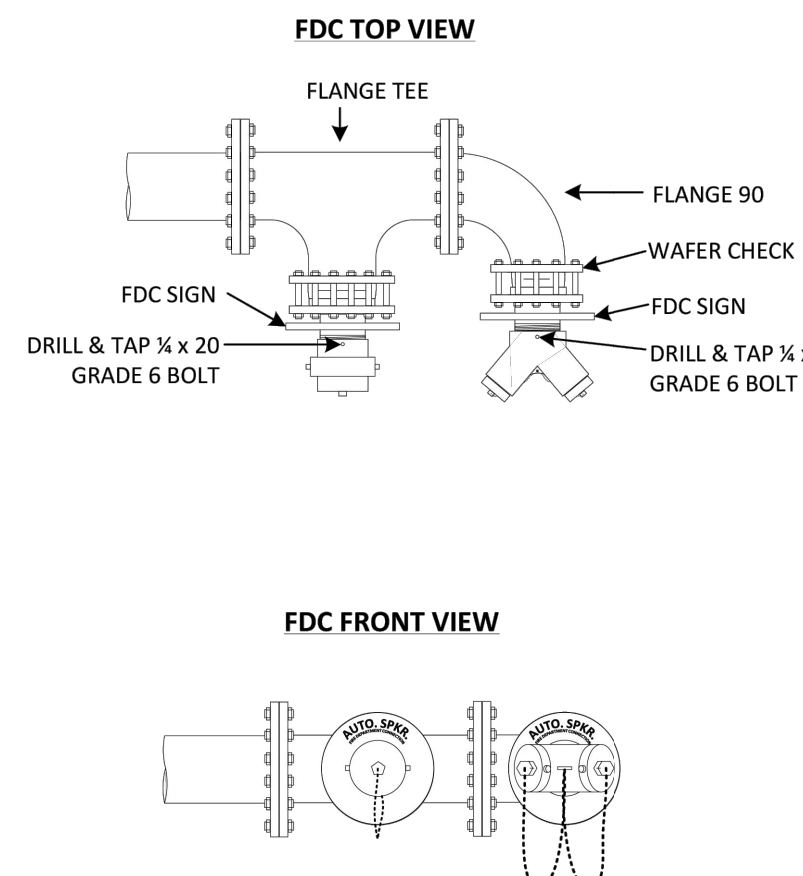
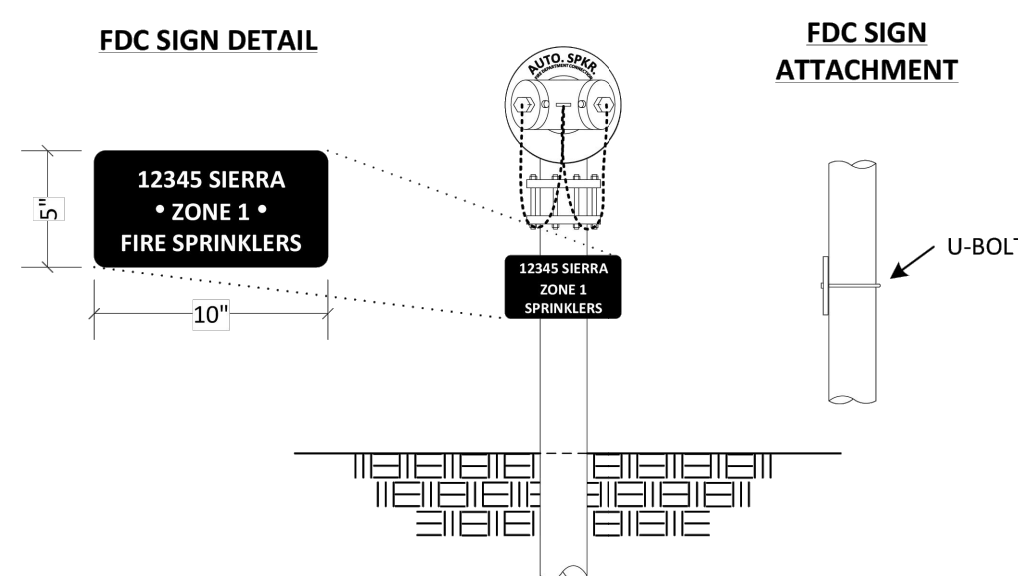
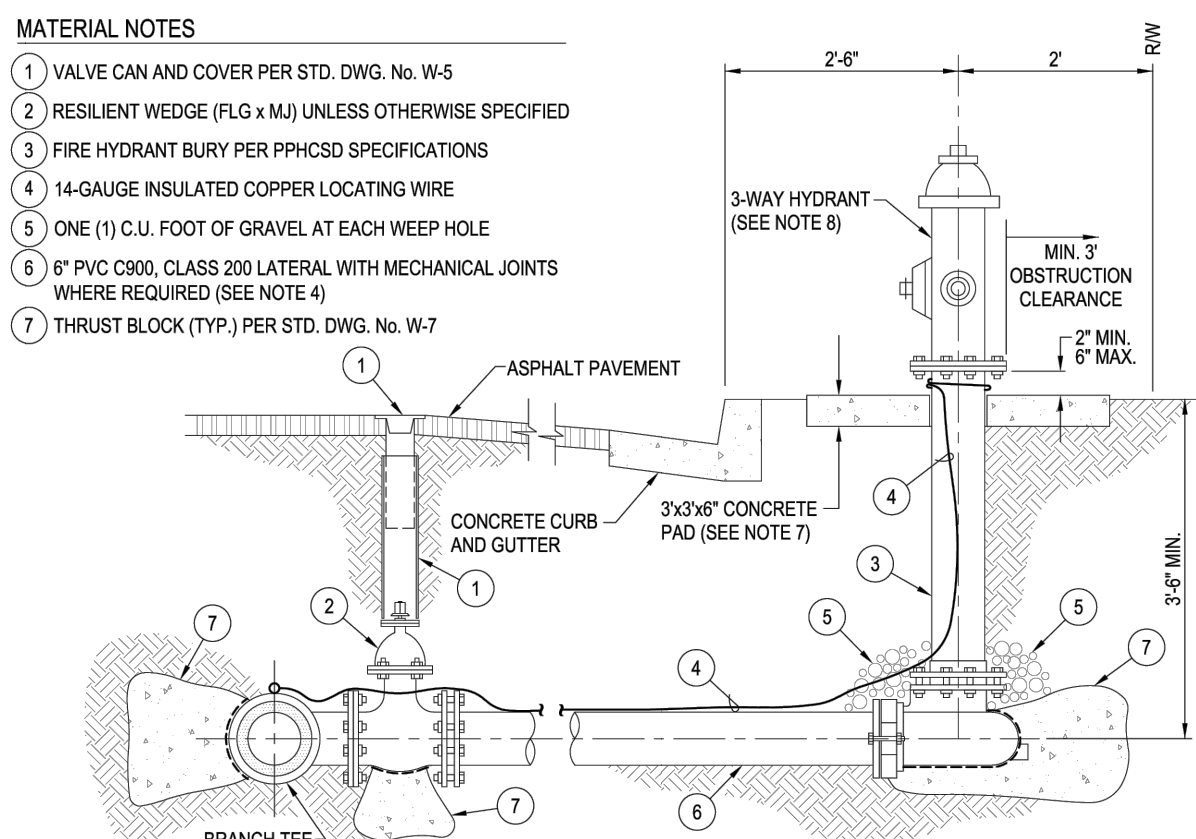


DIAGRAM F-4.6: FDC IDENTIFICATION SIGNAGE DETAIL



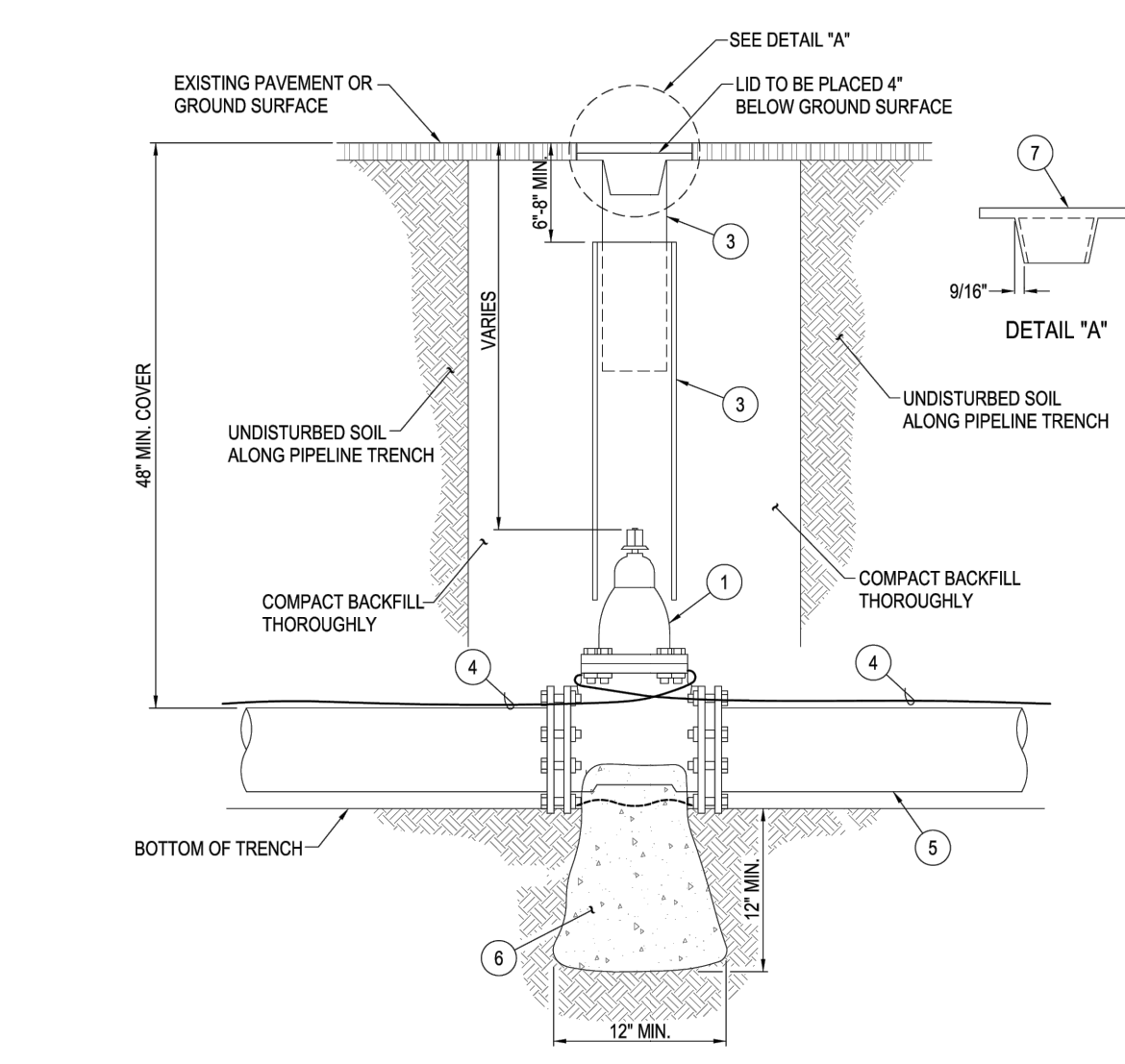
- GENERAL NOTES
1. WRAP 8 MIL POLYETHYLENE AROUND PARTS REQUIRING THRUST BLOCK OR PIERS.
 2. WEEP HOLE ON HYDRANT BARREL MUST BE CLEAR OF OBSTRUCTIONS.
 3. CENTER OF HYDRANT IS TO BE PLACED AT PROPERTY LINE, AND 2' FROM RIGHT-OF-WAY WHERE CURB, GUTTER AND SIDEWALK IS NOT TO BE CONSTRUCTED. WHERE CURB, GUTTER AND SIDEWALK IS EXISTING OR TO BE CONSTRUCTED, CENTER OF HYDRANT IS TO BE LOCATED PER PHCSD OR COUNTY REQUIREMENTS.
 4. 6" PVC C900 CLASS 200 HYDRANT LATERAL LENGTH IS VARIABLE. TO BE SPECIFIED ON PLAN DRAWINGS. LATERAL MUST BE INSTALLED LEVEL, WITH NO DEFLECTIONS AT JOINTS ALLOWED. ALL JOINTS TO BE RESTRAINED.
 5. ALL PVC HYDRANT LATERALS SHALL INCLUDE RESILIENT WEDGE VALVES (FLG x MJ) MUELLER A2360-16 OR APPROVED EQUAL AND MECHANICAL JOINT (MJ) FIRE HYDRANT SHOES.
 6. LOCATING WIRE TO RUN FROM MAIN, TIED IN WITH 3M CONNECTORS (3M DBR DIRECT BURY SPLICE KIT) ALONG HYDRANT LATERAL, UP TO, AND CONNECT WITH HYDRANT CAP CHAIN.
 7. ELEVATION OF FIRE HYDRANT CONCRETE PAD SHALL BE DETERMINED BY PROPOSED CONSTRUCTION PLANS OR EXISTING GROUND ELEVATIONS IN PREVIOUSLY DEVELOPED AREAS.
 8. 3-WAY HYDRANTS TO BE MUELLER SUPER CENTURION No. A-423, OR APPROVED EQUAL.
 9. HYDRANT ASSEMBLY TO BE INSTALLED PLUMB, LATERAL TO BE INSTALLED LEVEL AND STRAIGHT.
 10. HYDRANT SHALL BE PAINTED YELLOW (P.D. No. 13855 OR/AY YELLOW, HIGH VISIBILITY).
 11. MECHANICAL JOINT(S) (MJ) TO BE EBBA IRON MEGALUG, ROMAC GRIP RING OR APPROVED EQUAL.
 12. DEAD END LINES REQUIRE A FIRE HYDRANT AT THE END OF PIPE FOR CUL-DE-SACS. DEAD END LINES FOR MAIN LINE EXTENSIONS REQUIRE TEE AT FIRE HYDRANT LATERAL WITH INLINE VALVE, 5-FOOT STUB WITH END CAP.
 13. HYDRANT SHALL NOT HAVE MORE THAN ONE (1) EXTENSION TO RAISE TO PROPER HEIGHT.
 14. ALL MATERIALS SHALL BE NEW.



Revised April 22, 2020
RECOMMENDED BY: REV. DATE BY
Engineering: Date
APPROVED BY: Date
Operations: Date
PHELAN PIÑON HILLS
COMMUNITY SERVICES DISTRICT
5-1/4" FIRE HYDRANT ASSEMBLY
STD. DWG. No. W-3

- GENERAL NOTES
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RAISING VALVE CANS AFTER STREET PAVING OR GRADING IS COMPLETED.
 2. GATE VALVES ARE NOT TO BE INSTALLED UNLESS APPROVED BY THE DISTRICT.
 3. 14-GAUGE INSULATED COPPER LOCATING WIRE TO BE TAPED TO TOP OF PIPE EVERY 5-PIPE AND RUN ALONG OUTSIDE OF VALVE CAN.
 4. THRUST BLOCK SHALL ALWAYS BE INSTALLED ON VALVES.
 5. PROVIDE VALVE STEM EXTENSIONS WHERE DEPTH OF OPERATOR "NUT" EXCEEDS 90".
 6. ALL MATERIALS SHALL BE NEW.
 7. WRAP 8 MIL POLYETHYLENE AROUND PARTS REQUIRING THRUST BLOCKS OR PIERS.

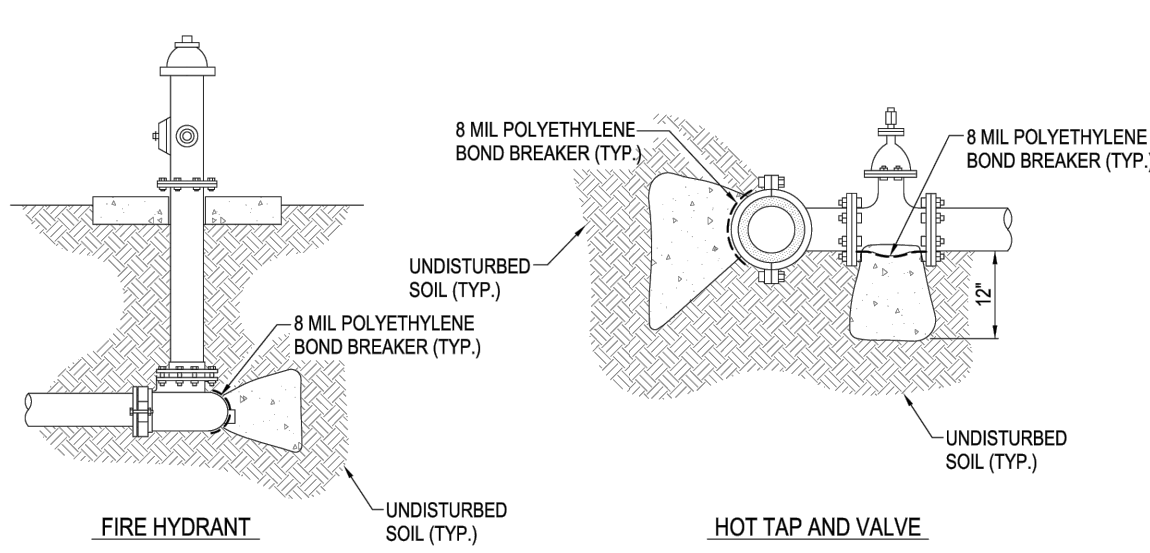
- MATERIAL NOTES
1. AWWA C-905 (LATEST) MJ RESILIENT WEDGE GATE VALVE, MANUFACTURED BY MUELLER OR APPROVED EQUAL.
 2. RESILIENT DIAMETER SDR 35 PIPE (LENGTH VARIES).
 3. FIRE HY18" GALVANIZED SLIP CAN (ADJUST TO GRADE).
 4. LOCATING WIRE (SEE NOTE 3).
 5. PROPOSED WATER PIPELINE (PVC OR D.I.P. CLASS 200).
 6. CONCRETE THRUST BLOCK PER STD. DWG. No. W-7.
 7. 8" O.D. CAST IRON VALVE CAN LID MARKED "WATER".



Revised April 22, 2020
RECOMMENDED BY: REV. DATE BY
Engineering: Date
APPROVED BY: Date
Operations: Date
PHELAN PIÑON HILLS
COMMUNITY SERVICES DISTRICT
VALVE CAN ASSEMBLY FOR
D.I.P. AND PVC PIPE INSTALLATION
STD. DWG. No. W-5

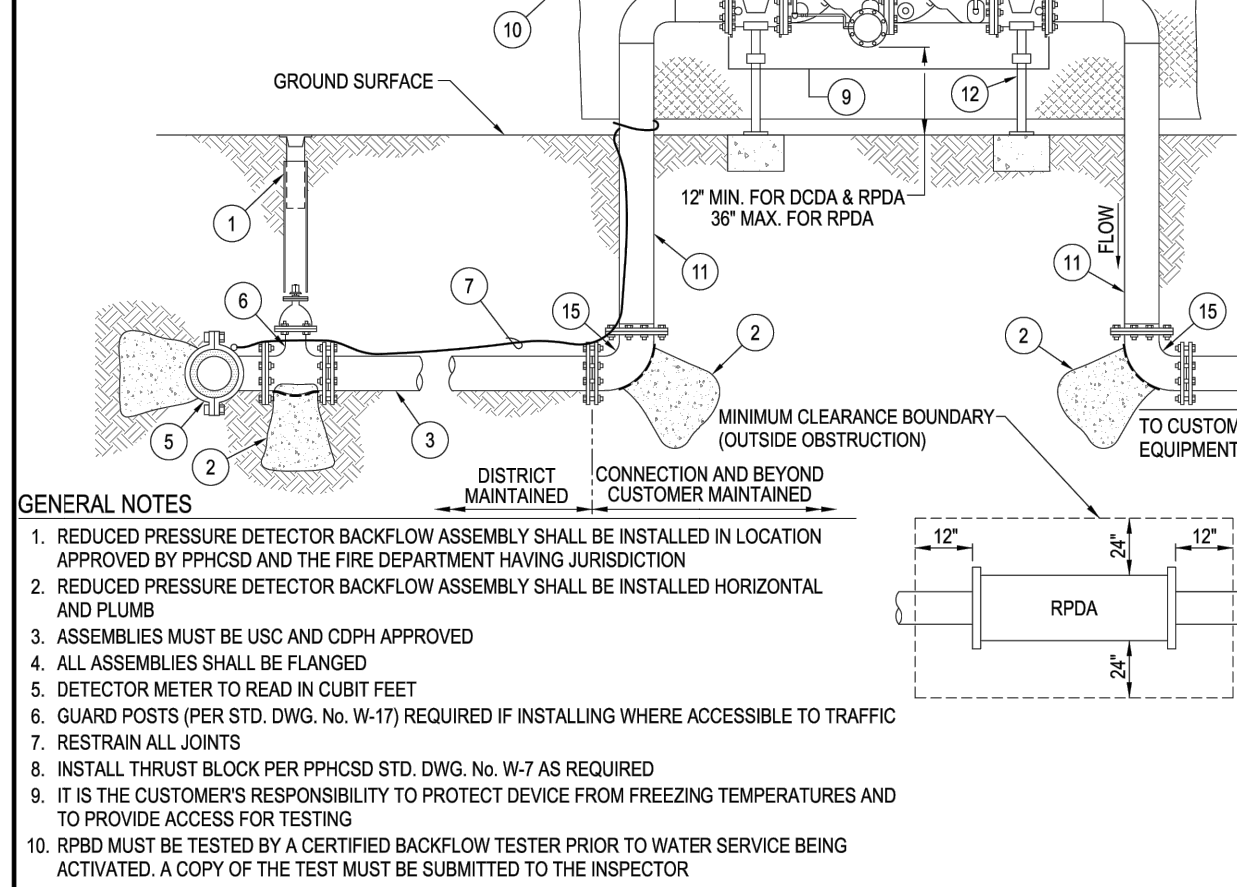
- GENERAL NOTES
1. PIPE INSTALLED UNDER CONDITIONS DIFFERENT FROM THOSE NORMALLY ENCOUNTERED SHALL REQUIRE THRUST BLOCK DESIGNED FOR THOSE PARTICULAR CONDITIONS.
 2. ALL THRUST BLOCKS SHALL BE CLASS 500-C-2000 CONCRETE AND PLACED AGAINST UNDISTURBED SOIL. PHCSD WILL DETERMINE SIZES NOT SHOWN.
 3. THRUST BLOCKS ON CROSSES SHALL BE USED WHENEVER PIPE SIZES DIFFER OR WHEN ONE OR MORE OPENINGS ARE PLUGGED, OR AS DIRECTED BY PHCSD.
 4. REINFORCING STEEL SHALL CONFORM TO A.S.T.M. SPECIFICATIONS A15 AND A305 INTERMEDIATE GRADE.
 5. ALL FITTINGS TO BE WRAPPED WITH 8 MIL POLYETHYLENE, PER PHCSD SPECIFICATIONS.
 6. ALL MATERIALS SHALL BE NEW.

PIPE SIZE	11 1/4"	22 1/2"	45"	90"	TEE OR DEAD END
6"	1.0	1.5	2.5	4.5	3.5
8"	1.5	2.5	4.5	8.0	4.5
12"	3.0	4.5	9.0	16.5	12.0



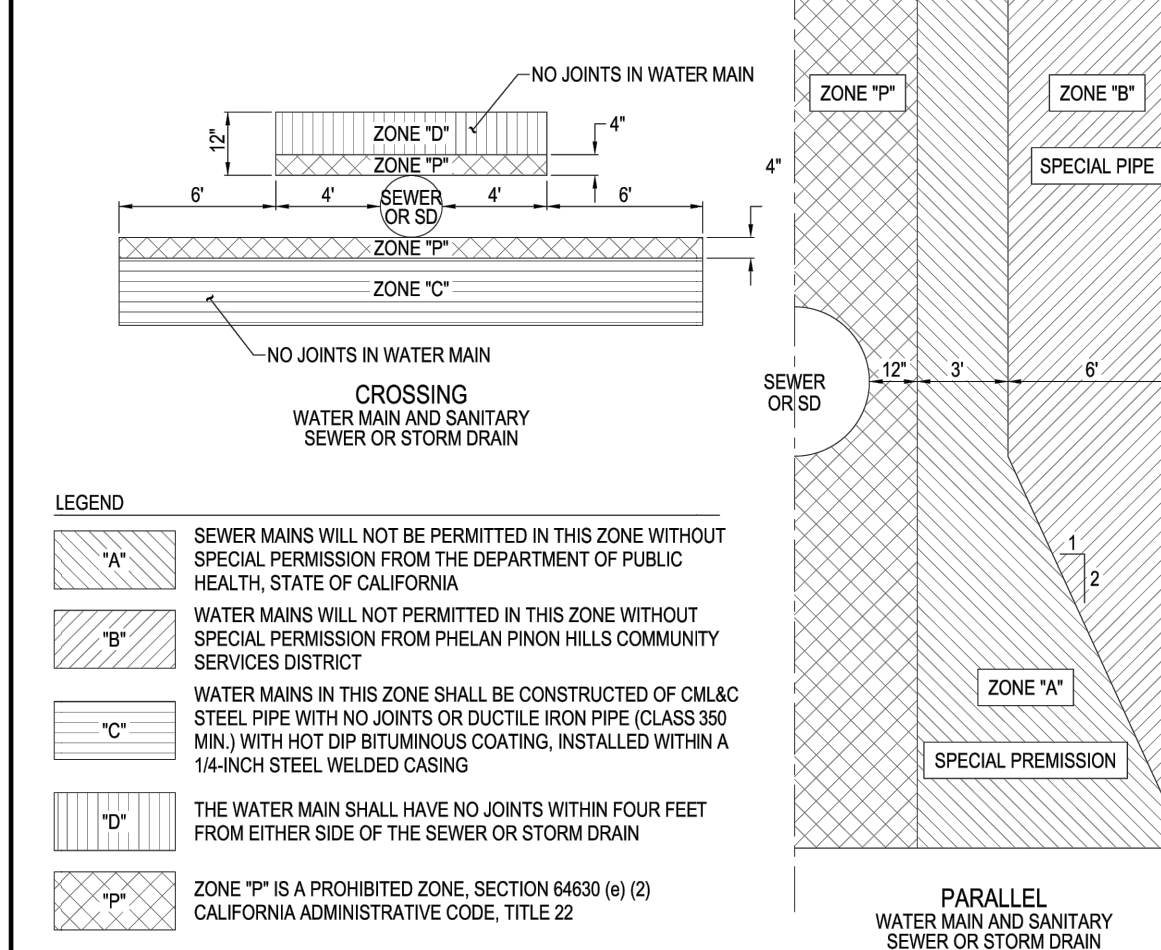
Revised April 22, 2020
RECOMMENDED BY: REV. DATE BY
Engineering: Date
APPROVED BY: Date
Operations: Date
PHELAN PIÑON HILLS
COMMUNITY SERVICES DISTRICT
CONCRETE THRUST BLOCK DETAILS
STD. DWG. No. W-7

- MATERIAL NOTES
1. VALVE CAN AND COVER PER STD. DWG. No. W-5.
 2. THRUST BLOCK (TYP.) PER STD. DWG. No. W-7.
 3. C-900 PVC OR D.I.P. PIPE (LENGTH VARIES) WITH ADAPTOR FLANGES AND RESTRAINT COUPLINGS (EBBA ADAPTORS AND RESTRAINT COUPLINGS OR PHCSD APPROVED EQUAL).
 4. INSTALL CHAIN WITH BREAK AWAY LOCKS (YALE 196).
 5. TAPPING SLEEVE PER STD. DWG. No. W-12.
 6. RESILIENT WEDGE GATE VALVE (FLG x MJ) MUELLER A-2360-16 OR APPROVED EQUAL.
 7. 14-GAUGE COATED COPPER LOCATING WIRE. CONNECT TO WATER MAIN LOCATING WIRE RUN ALONG FIRE SERVICE LATERAL, WRAP AROUND FIRST VALVE. ALL SPLICES TO THE LOCATING WIRE REQUIRES A 3M DBR SPLICE KIT.
 8. STD. STEEL OR D.I.P. 90° ELBOW (WELDED OR FLANGED).
 9. REDUCED PRESSURE DETECTOR ASSEMBLY (PER U.S.C. 1317 OF APPROVED BACKFLOW PREVENTION ASSEMBLIES) WITH OS AND Y VALVES AND TAMPER SWITCHES.
 10. THERMAL INSULATING COVER WITH RESISTANT/WEATHER-PROOF EXTERIOR, TEAR-PROOF INTERIOR, BACKFLOW BUDDY, BOI, OR APPROVED EQUAL.
 11. STD. STEEL PIPE, WELDED (FLG x PE OR FLG x FLG).
 12. ADJUSTABLE PIPE SUPPORT (REQUIRED FOR 6" AND LARGER).
 13. BY-PASS LINE ASSEMBLY WITH 3/4" METER (TO BE READ IN C.U. FT.) REDUCED PRESSURE PRINCIPLE ASSEMBLY FOR REDUCED DETECTOR ASSEMBLY.
 14. DUCTILE IRON 90° ELBOW (MJ x FLG).



Revised April 22, 2020
RECOMMENDED BY: REV. DATE BY
Engineering: Date
APPROVED BY: Date
Operations: Date
PHELAN PIÑON HILLS
COMMUNITY SERVICES DISTRICT
4" TO 10" FIRE SERVICE - REDUCED PRESSURE DETECTOR ASSEMBLY
STD. DWG. No. W-15

- GENERAL NOTES
1. DIMENSIONS ARE FROM OUTSIDE OF WATER PIPE TO OUTSIDE OF SEWER OR STORM DRAIN (SD) PIPE.
 2. WATER SERVICE LATERALS SHALL BE INSTALLED 4" OR MORE ABOVE SEWER MAIN OR STORM DRAIN. IF THIS CONDITION CANNOT BE MET, SPECIAL CONSTRUCTION WILL BE REQUIRED.



Revised April 22, 2020
RECOMMENDED BY: REV. DATE BY
Engineering: Date
APPROVED BY: Date
Operations: Date
PHELAN PIÑON HILLS
COMMUNITY SERVICES DISTRICT
SEPARATION CRITERIA FOR NEW WATER MAINS
FROM EXISTING SEWER AND STORM DRAINS
STD. DWG. No. W-19



Know what's below.
Call before you dig.

BENCHMARK:

U.S.G.S. BENCHMARK H 35, LOCATED 3.0 MI NORTH ALONG JOHNSON RD. FROM THE INTERSECTION OF PHELAN RD. 49 FT NORTHEAST OF THE CENTER OF THE INTERSECTION OF DUNCAN RD. 34 FT EAST OF THE CENTER LINE OF JOHNSON RD. 32.5 FT NORTH OF THE CENTER LINE DUNCAN RD. 6.6 FT WEST OF A FENCE, 6.3 FT NORTH OF A SECTION MARKER PIPE, 0.6 FT EAST OF A WITNESS POST, ABOUT 1 FT HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING 0.4 FT ABOVE THE GROUND.
ELEV= 3613.45'

Bid Set - PPHCSD Civic Center Phase 1 - Firewater Plans

NO.	REVISION	DATE	BY



JERRY L. MILES R.C.E. 42593 - EXP. 3/31/26

PLANS PREPARED BY:

TRLS ENGINEERING Inc.

10770 I AVENUE, SUITE 108
Hesperia, CA 92345
Phone: (760) 948-4900



COUNTY OF SAN BERNARDINO
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: TER	DRAWN BY: TER	CHECKED BY:	APPROVED BY:
RECOMMENDED/APPROVED BY:		ASST. DIRECTOR OF PUBLIC WORKS	
LAND DEVELOPMENT ENGINEER		DIRECTOR OF PUBLIC WORKS	
DATE		DATE	

- GRAD-2021-00235
- PRAA-2021-00040
- DRNSTY-2021-00054
- SIP-2021-00031
- NEWNR-2021-00230
- WQMP-2021-00153

DRAWN BY: TRLS
DATE: 09-04-2024
DESIGNED BY: TER
DATE:
APPROVED BY:
DATE:
PHELAN PIÑON HILLS
COMMUNITY SERVICES DISTRICT
CIVIC CENTER DEVELOPMENT
PHASE 1
9535 SHEEP CREEK RD. PHELAN, CA. 92329
(APN: 3066-261-10 & 3066-251-18)
FIRE WATER DETAIL
SCALE: AS SHOWN
SHEET 4 OF 4
SHEET UF-4

WDID# 6B36C401591