

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN IN THESE DRAWINGS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE CONTRACT SPECIFICATIONS.
2. THE CONTRACTOR SHALL PROVIDE ALL UTILITIES AS NECESSARY TO SUCCESSFULLY COMPLETE ALL CONSTRUCTION ACTIVITIES.
3. ALL EXISTING AND PROPOSED DIMENSIONS DEPICTED HEREIN SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO STARTING WORK.
4. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER ON ALL CONSTRUCTION ACTIVITIES.
5. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITIES, WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED TO THE ENGINEER'S SATISFACTION AT THE CONTRACTOR'S SOLE EXPENSE WITHOUT ADDITIONAL COMPENSATION.
6. THE CONTRACTOR SHALL POSSESS THE CLASS, OR CLASSES, OF LICENSE AS SPECIFIED IN THE NOTICE TO CONTRACTORS.
7. THE CONTRACTOR IS TO EXPOSE THE ENDS OF EXISTING BURIED UTILITIES FOR SURVEYORS TO VERIFY LOCATION AND ELEVATION PRIOR TO PLACEMENT OF NEW UTILITIES. ALL COSTS OF SUCH EXCAVATION AND BACKFILL SHALL BE INCLUDED IN THE PRICE PAID FOR VARIOUS ITEMS OF WORK.
8. ALL APPLICABLE FEES TO BE PAID AND PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR BEFORE COMMENCEMENT OF CONSTRUCTION.
9. THE TYPES, LOCATIONS, SIZES, AND DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE IMPROVEMENT PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES, HOWEVER, TVCE CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT DEPICTED ON THESE DRAWINGS.
10. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.
11. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY MEMBERS OF U.S.A. TWO WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK BY CALLING THE TOLL FREE NUMBER 1-800-227-2600.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
13. UNDOCUMENTED PIPING EXPOSED DURING CONSTRUCTION SHALL BE LOCATED AND MARKED BY THE CONTRACTOR FOR INCLUSION IN AS-BUILT DRAWINGS.
14. ALL NEW BURIED PIPING SHALL HAVE A MINIMUM OF 3 FEET OF COVER UNLESS OTHERWISE SPECIFIED.

CULTURALLY SENSITIVE AREAS:

1. AREAS WITHIN THE PROJECT PERIMETER THAT ARE CULTURALLY SENSITIVE SHALL BE PROTECTED AGAINST DAMAGE FROM CONSTRUCTION ACTIVITIES. AT NO TIME SHALL SUCH CULTURALLY SENSITIVE AREAS BE ENTERED, PARKED UPON, STOCK PILED UPON, OR HAVE ANY OTHER ACTIVITY ASSOCIATED WITH THE CONSTRUCTION OF THIS PROJECT IN ANY WAY INFRINGE UPON, DETERIORATE, DESTROY, OR RENDER TO A STATE OR CONDITION UNACCEPTABLE ANY CULTURALLY SENSITIVE AREA. THE CONTRACTOR AGREES TO PROTECT ALL SUCH AREAS DURING ANY AND ALL ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION OF THIS PROJECT.

QUANTITIES:

1. QUANTITIES AND LENGTHS OF ITEMS PROVIDED WITHIN THIS PLAN SET ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ACTUAL QUANTITIES OF COMPONENTS REQUIRED FOR THE SUCCESSFUL AND SATISFACTORY COMPLETION OF THE PROJECT.

TRAFFIC CONTROL NOTES:

1. WHENEVER THE WORK AREA IS ADJACENT TO A TRAFFIC LANE AND THERE IS A CUT, DITCH OR TRENCH MORE THAN TWO INCHES DEEP, THE CONTRACTOR SHALL MAINTAIN CONTINUOUS BARRICADES SPACED AT APPROXIMATELY 20-FOOT INTERVALS FOR THE FIRST 100 FEET FROM THE BEGINNING OF THE CUT, DITCH OR TRENCH, AND AT APPROXIMATELY 50-FOOT INTERVALS THEREAFTER. IF THE CUT, DITCH OR TRENCH IS MORE THAN TEN FEET FROM A TRAFFIC LANE, THE BARRICADED SPACING MAY BE GREATER BUT SHALL NOT EXCEED 200 FEET.
2. UNLESS SPECIFICALLY SET FORTH AS SPECIAL PROVISIONS, ALL MARKED LANES OF TRAFFIC SHALL BE UNOBSTRUCTED IN EACH DIRECTION DURING THE PEAK TRAFFIC HOURS OF 7:00 TO 8:30AM AND 3:30 TO 6:00 PM.
3. SAFE VEHICULAR AND PEDESTRIAN ACCESS SHALL BE PROVIDED AT ALL TIMES DURING CONSTRUCTION.
4. TRACK MOUNTED VEHICLES SHALL NOT BE OPERATED ON PAVED ROADS.

AGGREGATE BASE ROCK NOTES:

1. AGGREGATE BASE SHALL BE CALTRANS CLASS II.
2. AGGREGATE BASE SHALL BE INSTALLED PER SECTION 26 OF THE CALTRANS STANDARD SPECIFICATIONS.
3. AGGREGATE BASE SHALL BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION PER CAL 316.

ASPHALT CONCRETE NOTES:

1. ASPHALT CONCRETE SHALL BE 1/2" MAXIMUM RADIUS HOT MIX TYPE A.
2. ASPHALT CONCRETE SHALL BE INSTALLED IN STRICT ACCORDANCE WITH SECTION 39 OF THE CALTRANS STANDARD SPECIFICATIONS.
3. ASPHALT CONCRETE SHALL BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION AS VERIFIED PER CAL 216.
4. EXISTING AC SURFACES SHALL BE CUT TO A NEAT STRAIGHT LINE PARALLEL WITH THE CENTERLINE AND THE EXPOSED EDGE SHALL BE TACKED WITH EMULSION PRIOR TO PAVING. THE EXPOSED BASE MATERIAL SHALL BE GRADED, RE-COMPACTED, AND RESEALED PRIOR TO PAVING.

ELECTRIC GENERAL NOTES:

1. ALL ELECTRIC FACILITIES AND WORK TO BE IN STRICT COMPLIANCE WITH APPLICABLE LAWS AND MUST MEET PACIFIC GAS AND ELECTRIC (PG&E) REQUIREMENTS PER CURRENT GREEN BOOK.
2. REFER TO PG&E SITE PLAN FOR ADDITIONAL DETAILS NOT EXPRESSED ON THIS SHEET.
3. CONTRACTOR TO COORDINATE WITH PG&E FOR ALL REQUIRED TESTING/INSPECTION AND FOR PG&E INSTALLED FACILITIES.
4. OWNER HAS THE RESPONSIBILITY OF PAYING ALL FEES TO PG&E DIRECT FOR THEIR SERVICES/FACILITIES UNDER THE ORIGINAL APPLICATION FOR THIS PROJECT. ADDITIONAL COSTS RESULTING DIRECTLY FROM THE CONTRACTOR'S ACTIVITIES AND NOT EXPRESSLY COVERED UNDER THE ORIGINAL APPLICATION WILL BE THE SOLE EXPENSE OF THE CONTRACTOR.
5. POWER/ELECTRICAL FACILITIES DEPICTED ON THESE PLAN SETS ARE FOR GENERAL LOCATION PURPOSES, ACTUAL HARDWARE, ALIGNMENTS, PLACEMENT, AND DESIGN TO BE PROVIDED BY PACIFIC GAS & ELECTRIC (PG&E). CONTRACTOR TO COORDINATE WITH PG&E FOR DESIGN AND INSTALLATION OF REQUIRED COMMUNICATION FACILITIES.

COMMUNICATIONS GENERAL NOTES:

1. ALL COMMUNICATIONS FACILITIES AND WORK TO BE IN STRICT COMPLIANCE WITH APPLICABLE LAWS AND MUST MEET ALL FRONTIER REQUIREMENTS AS APPLICABLE UNDER CPUC.
2. CONTRACTOR TO COORDINATE WITH FRONTIER FOR ALL REQUIRED TESTING/INSPECTION AND FOR FRONTIER INSTALLED FACILITIES.
3. OWNER HAS THE RESPONSIBILITY OF PAYING ALL FEES TO FRONTIER DIRECT FOR THEIR SERVICES/FACILITIES UNDER THE ORIGINAL APPLICATION FOR THIS PROJECT. ADDITIONAL COSTS RESULTING DIRECTLY FROM THE CONTRACTOR'S ACTIVITIES AND NOT EXPRESSLY COVERED UNDER THE ORIGINAL APPLICATION WILL BE THE SOLE EXPENSE OF THE CONTRACTOR.
4. TELEPHONE/COMMUNICATION FACILITIES DEPICTED ON THESE PLAN SETS ARE FOR GENERAL LOCATION PURPOSES, ACTUAL HARDWARE, ALIGNMENTS, PLACEMENT, AND DESIGN TO BE PROVIDED BY FRONTIER. CONTRACTOR TO COORDINATE WITH FRONTIER FOR DESIGN AND INSTALLATION OF REQUIRED COMMUNICATION FACILITIES.

DUST CONTROL NOTES:

1. THE CONTRACTOR SHALL IMPLEMENT ONE OR BOTH OF THE FOLLOWING MEASURES FOR DUST CONTROL ON THIS SITE:
 - 1.1 SPRAYING OF WATER SO AS NOT TO GENERATE ADDITIONAL RUNOFF. NO DUST PALLIATIVE MATERIALS OTHER THAN WATER WILL BE USED ON THIS PROJECT. IF NON-POTABLE WATER IS TO BE USED, IT MUST BE CONVEYED IN TANKS OR PIPES CLEARLY LABELED AS "NON-POTABLE WATER - DO NOT DRINK".
 - 1.2 COVERS FOR EXPOSED AREAS.

EQUIPMENT & MATERIALS STORAGE NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL MATERIALS AND EQUIPMENT STORED ONSITE SHALL HAVE ADEQUATE COVERINGS AND CONTAINMENT TO PREVENT LEAKAGE AND SPILLS.
2. ALL MATERIALS AND EQUIPMENT SHALL BE STORED IN DESIGNATED AND APPROVED AREAS. THE AREA SHALL BE BERMED WITH EARTH DIKES THAT THE CONTRACTOR SHALL INSPECT AND MAINTAIN WEEKLY.
3. ALL FLAMMABLE, REACTIVE, AND/OR IGNITABLE LIQUIDS MUST COMPLY WITH LOCAL FIRE CODES.
4. DURING THE RAINY SEASON (OCTOBER THROUGH APRIL) THE CONTRACTOR SHALL ENSURE THAT MATERIALS ARE COVERED.
5. NO CHEMICALS, DRUMS, OR BAGGED MATERIALS SHALL BE STORED DIRECTLY ON THE GROUND; ITEMS SHALL BE PLACED ON PALLETS AND/OR IN SECONDARY CONTAINMENT.
6. IF DRUMS MUST BE KEPT UNCOVERED, THE CONTRACTOR SHALL STORE THEM AT A SLIGHT ANGLE TO REDUCE PONDING OF RAINWATER AND REDUCE CORROSION.
7. WHEN DANGEROUS MATERIALS AND/OR LIQUID CHEMICALS ARE UNLOADED ONSITE, THE CONTRACTOR SHALL HAVE EMPLOYEES TRAINED IN EMERGENCY SPILL CLEANUP PROCEDURES PRESENT.

VEHICLE MAINTENANCE NOTES:

1. EQUIPMENT AND VEHICLES TRAVELING ONSITE SHALL BE INSPECTED REGULARLY FOR LEAKS AND BE REPAIRED IMMEDIATELY; DO NOT ALLOW LEAKING VEHICLES ONSITE. KEEP VEHICLES AND EQUIPMENT CLEAN (DO NOT ALLOW EXCESSIVE BUILDUP OF OIL AND GREASE).
2. USE OFFSITE REPAIR SHOPS WHENEVER POSSIBLE; IF ONSITE REPAIRS ARE NECESSARY, USE A DESIGNATED AREA SURROUNDED BY EARTH BERMS. THE CONTRACTOR SHALL INSPECT THIS AREA WEEKLY AND AFTER EACH RAINSTORM EVENT TO ENSURE THAT THE EARTH BERMS ARE IN PLACE AND FUNCTIONING PROPERLY; ANY NON-FUNCTIONING BERMS SHALL BE REPAIRED IMMEDIATELY.
3. USE DRY CLEAN-UP METHODS FOR SPILLS AS MUCH AS POSSIBLE; USE ABSORBENT MATERIALS FOR SMALL SPILLS AND DISPOSE OF PROPERLY. USE A SECONDARY CONTAINMENT DURING FLUID CHANGES AND REPAIRS TO CATCH SPILLS.
4. SEGREGATE AND RECYCLE WASTES (INCLUDING BUT NOT LIMITED TO: USED OIL AND OIL FILTERS, BATTERIES, ETC.). KEEP HAZARDOUS WASTES SEPARATE FROM NON-HAZARDOUS WASTES; AFTER REPAIRS, ETC., PROMPTLY TRANSFER USED FLUIDS AND WASTES TO THEIR PROPER CONTAINMENT AREAS AND CONTAINERS.

SUMMARY OF QUANTITIES:			
ITEM	DESCRIPTION	PLAN QUANTITY TOTAL	UNIT
001	TEMPORARY FACILITIES	1	LS
002			
003			
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REV	DATE	DESCRIPTION	DWN BY	ISS BY	APP BY

VALADAO, ET AL
1820 PICKETT ROAD
MCLELLAN, CA 95519
APR 5 10:38 AM '02

NOTES

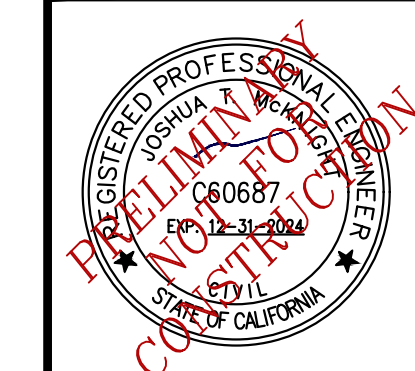
HUMBOLDT, CALIFORNIA

DATE OF ISSUE:
FEB 2023

SCALE:
AS SHOWN

PROJECT NO:
873.01

DRAWING NO:
C01



AGENT/SURVEYOR:
MICHAEL J. O'HERN
KELLY-O'HERN ASSOCIATES
3240 MOORE AVENUE
EUREKA, CA 95501
(707)442-7283

OWNER:
DANE VALADAO, ET AL
1804 PICKETT ROAD
MCKINLEYVILLE, CA 95519
(707)834-6282

TOPOGRAPHIC AND BOUNDARY SURVEY PROVIDED BY:
KELLY-O'HERN ASSOCIATES
EUREKA, CALIFORNIA

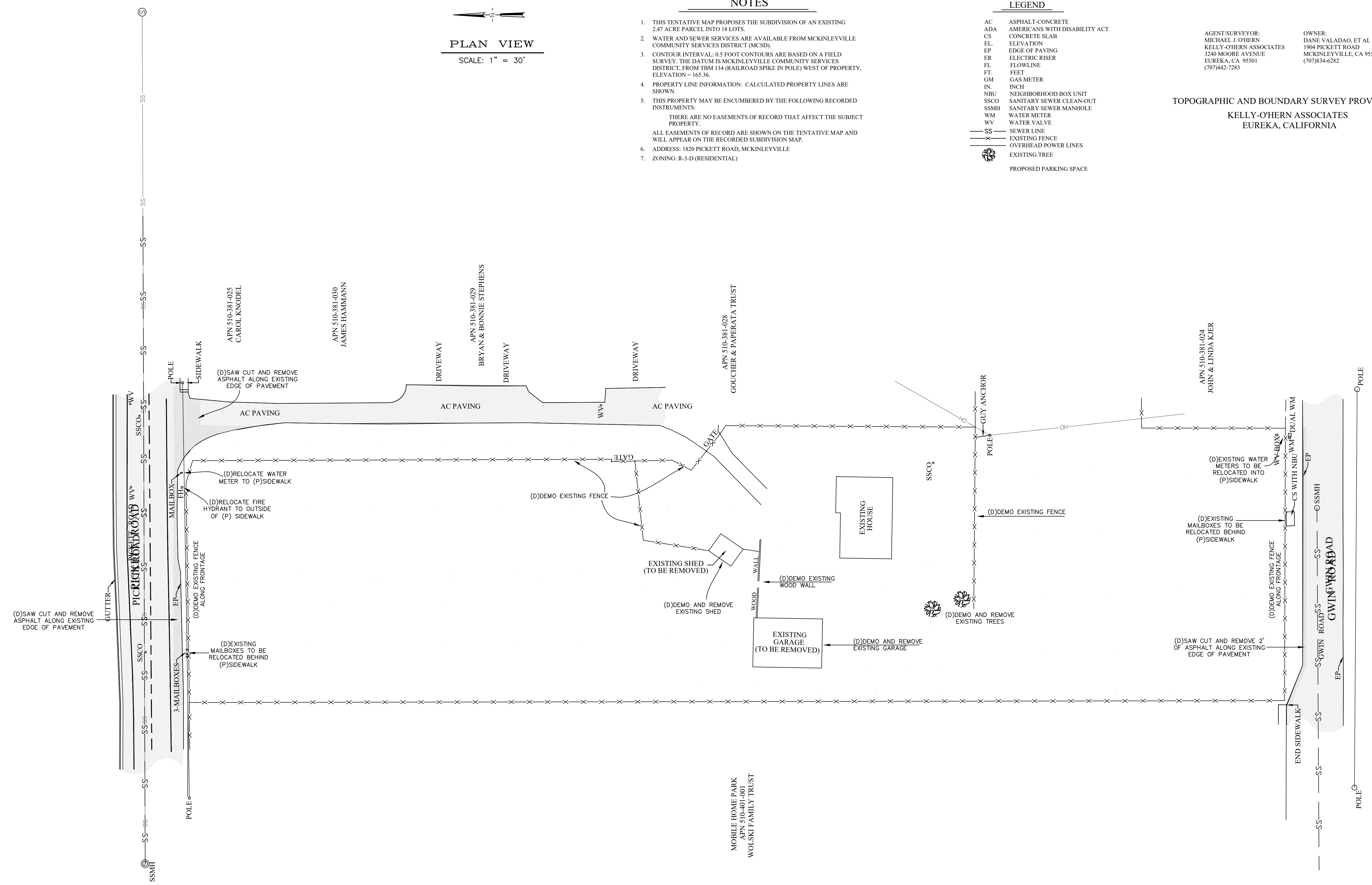
NOTES

- THIS TENTATIVE MAP PROPOSES THE SUBDIVISION OF AN EXISTING 2.47 ACRE PARCEL INTO 18 LOTS.
- WATER AND SEWER SERVICES ARE AVAILABLE FROM MCKINLEYVILLE COMMUNITY SERVICES DISTRICT (MCS D).
- CONTOUR INTERVAL: 0.5 FOOT CONTOURS ARE BASED ON A FIELD SURVEY. THE DATUM IS MCKINLEYVILLE COMMUNITY SERVICES DISTRICT, FROM TBM 134 (RAILROAD SPIKE IN POLE) WEST OF PROPERTY, ELEVATION = 165.36.
- PROPERTY LINE INFORMATION: CALCULATED PROPERTY LINES ARE SHOWN.
- THIS PROPERTY MAY BE ENCUMBERED BY THE FOLLOWING RECORDED INSTRUMENTS:
THERE ARE NO EASEMENTS OF RECORD THAT AFFECT THE SUBJECT PROPERTY.
ALL EASEMENTS OF RECORD ARE SHOWN ON THE TENTATIVE MAP AND WILL APPEAR ON THE RECORDED SUBDIVISION MAP.
- ADDRESS: 1820 PICKETT ROAD, MCKINLEYVILLE
- ZONING: R-3-D (RESIDENTIAL)

LEGEND

- AC ASPHALT-CONCRETE
- ADA AMERICANS WITH DISABILITY ACT
- CS CONCRETE SLAB
- EL ELEVATION
- EP EDGE OF PAVING
- ER ELECTRIC RISER
- FL FLOWLINE
- FT FEET
- GM GAS METER
- IN INCH
- NBU NEIGHBORHOOD BOX UNIT
- SSCO SANITARY SEWER CLEAN-OUT
- SSMH SANITARY SEWER MANHOLE
- WM WATER METER
- WV WATER VALVE
- SS SEWER LINE
- X EXISTING FENCE
- OH OVERHEAD POWER LINES
- EXISTING TREE
- PROPOSED PARKING SPACE

PLAN VIEW
SCALE: 1" = 30'



REV	DATE	DESCRIPTION	CHK BY	APP BY

EXISTING CONDITIONS

VALADAO, ET AL
1820 PICKETT ROAD
MCKINLEYVILLE, CA 95519
APN 510-381-021

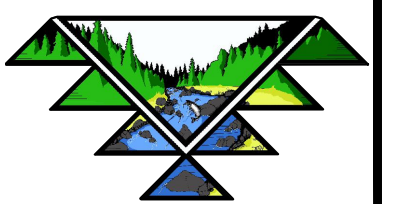
HUMBOLDT, CALIFORNIA

DATE OF ISSUE:
FEB 2023

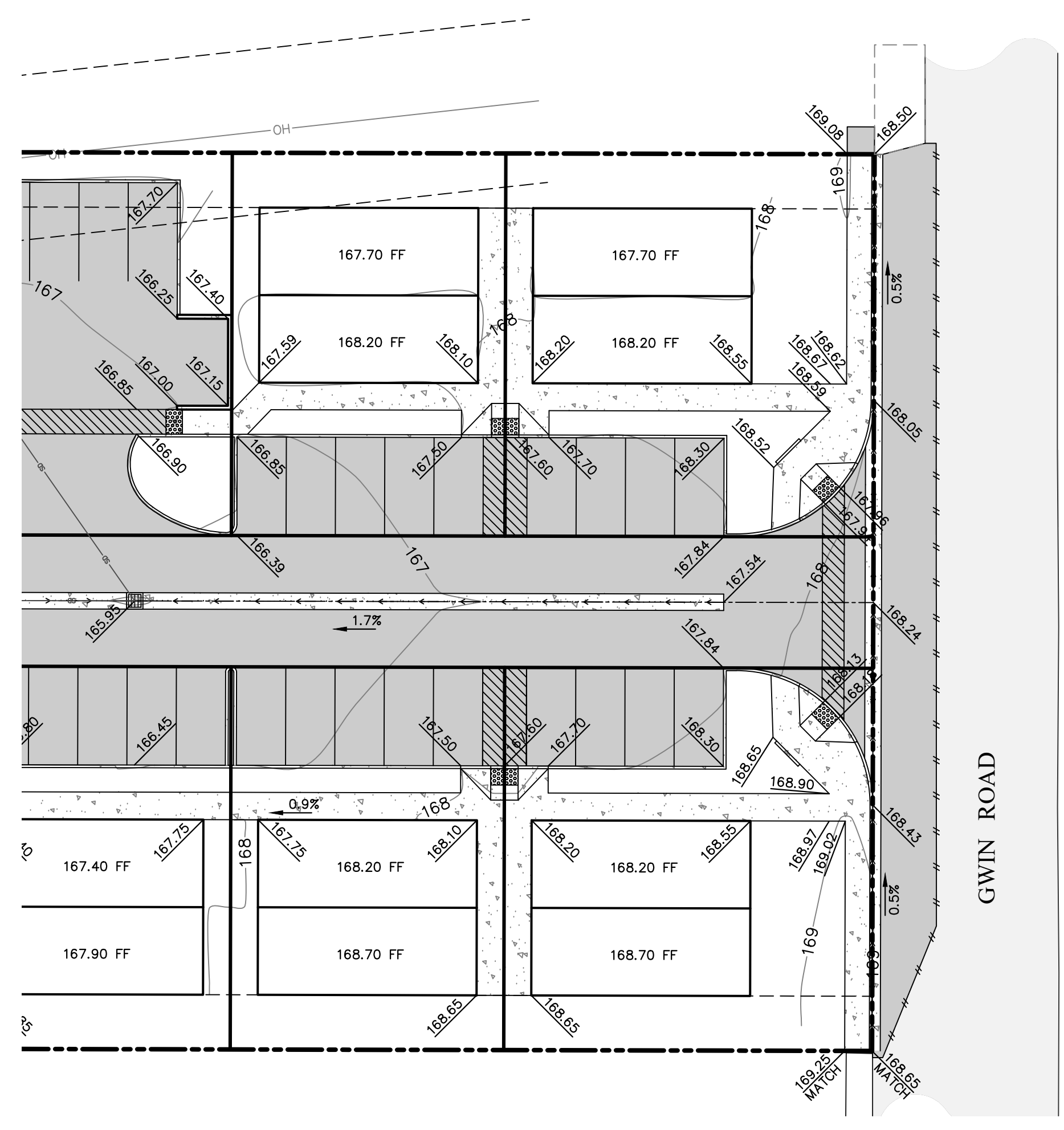
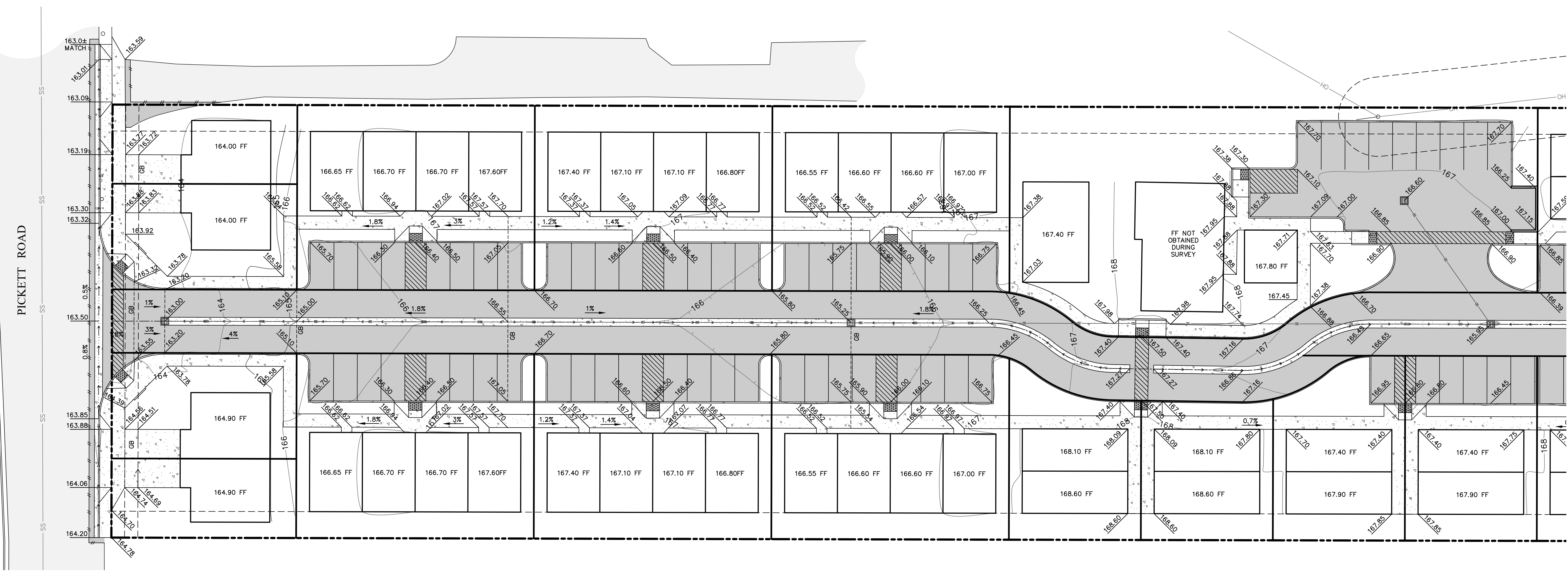
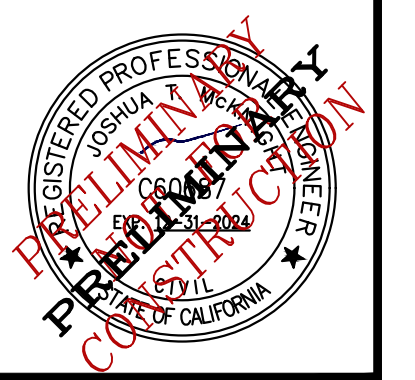
SCALE:
1" = 30'

PROJECT NO:
873.01

DRAWING NO:
C2.0



67 WALNUT WAY
PO BOX 1567
WILLOW CREEK, CA 95573
P:(530)629-3000
F:(530)629-3011

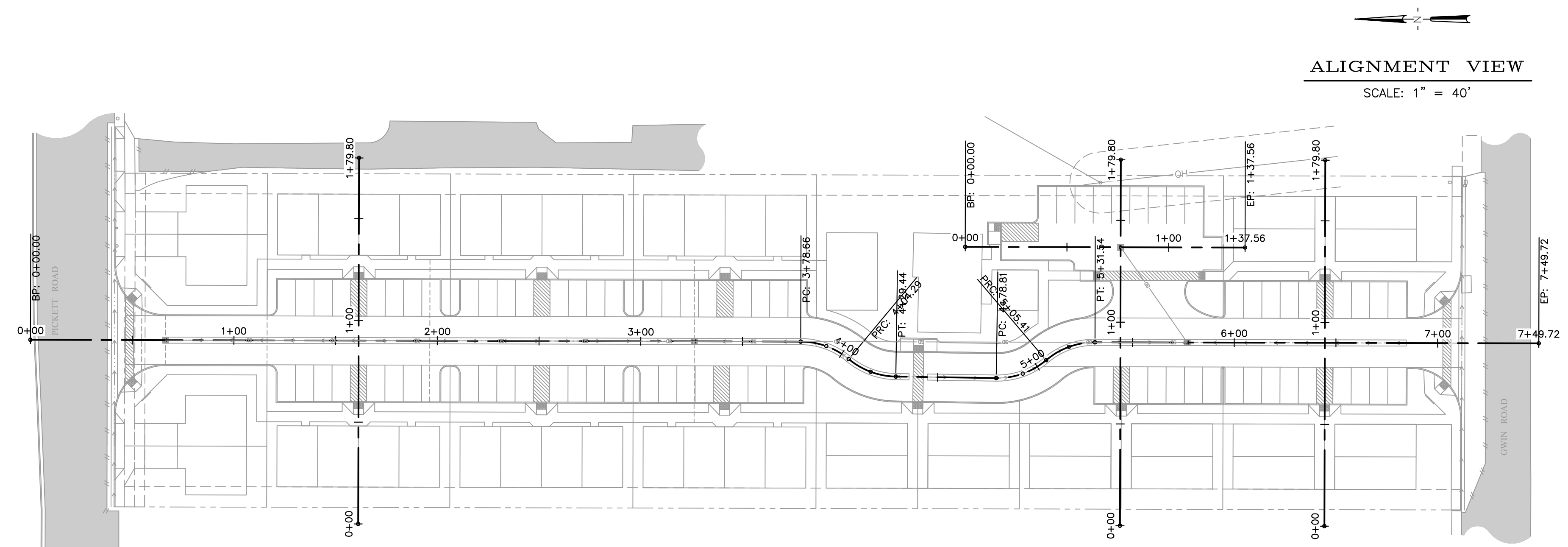


EARTHWORK QUANTITIES:

DEGRUB 12" OF TOPSOIL ACROSS SITE
CUT (CY): ±4850 (TOPSOIL DEGRUB)
FINISHED SURFACE POST DEGRUB
FILL (CY): ±4320

NOTE:
CUT AND FILL QUANTITIES ONSITE TO BE PERMANENT

PLAN VIEW
SCALE: 1" = 20'



ALIGNMENT VIEW
SCALE: 1" = 40'

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

VALADAO, ET AL
1800 PICKETT ROAD
MCCLUREVILLE, CA 95519
APN 510-361-021

GRADING PLAN
HUMBOLDT, CALIFORNIA

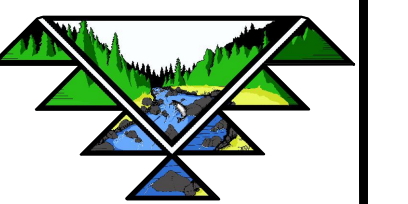
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FEB 2023

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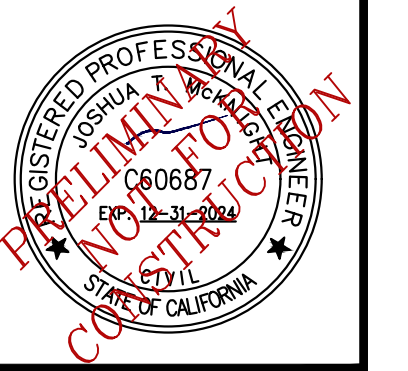
PROJECT NO:
873.01

DRAWING NO:
C3.0

TVCE



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REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

VALADAO, ET AL
1820 TICKET ROAD
MCLELLAN, CA 95519
APN 510-381-021

SECTIONS

HUMBOLDT, CALIFORNIA

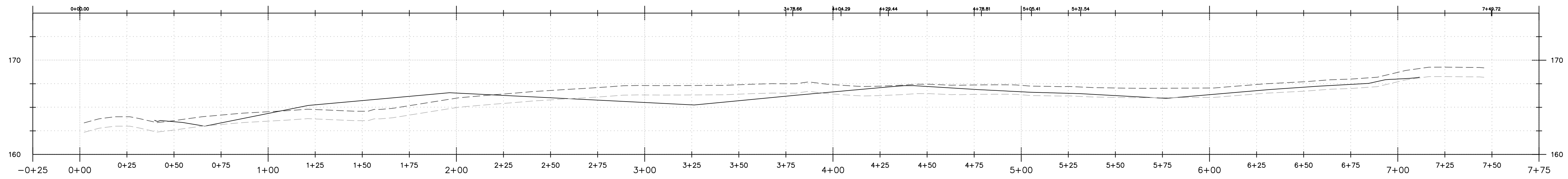
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FEB 2023

SCALE:
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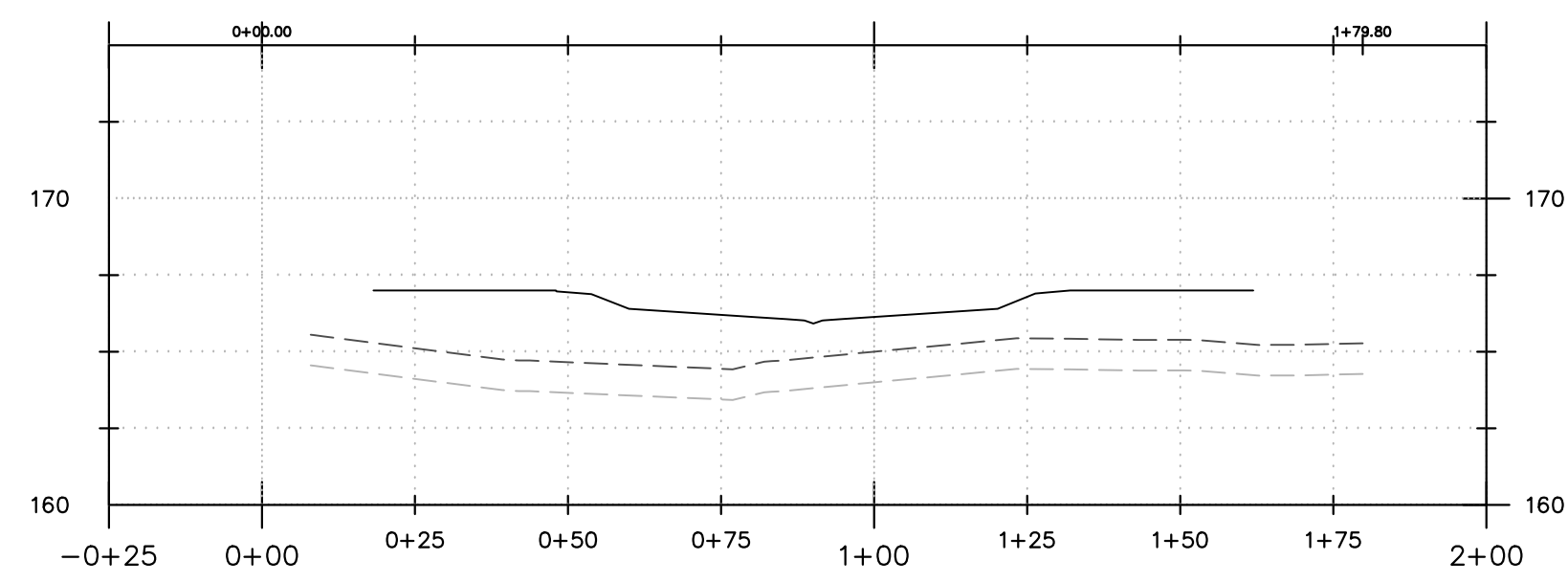
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873.01

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C3.1

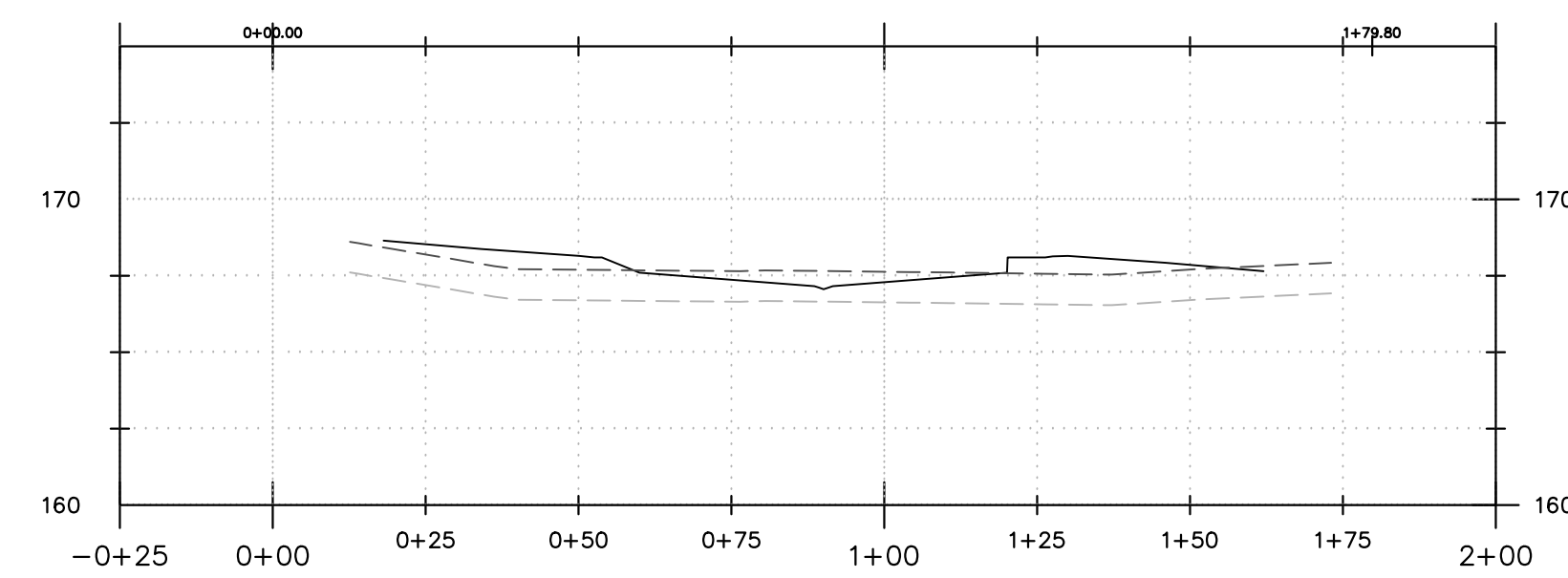
CENTERLINE



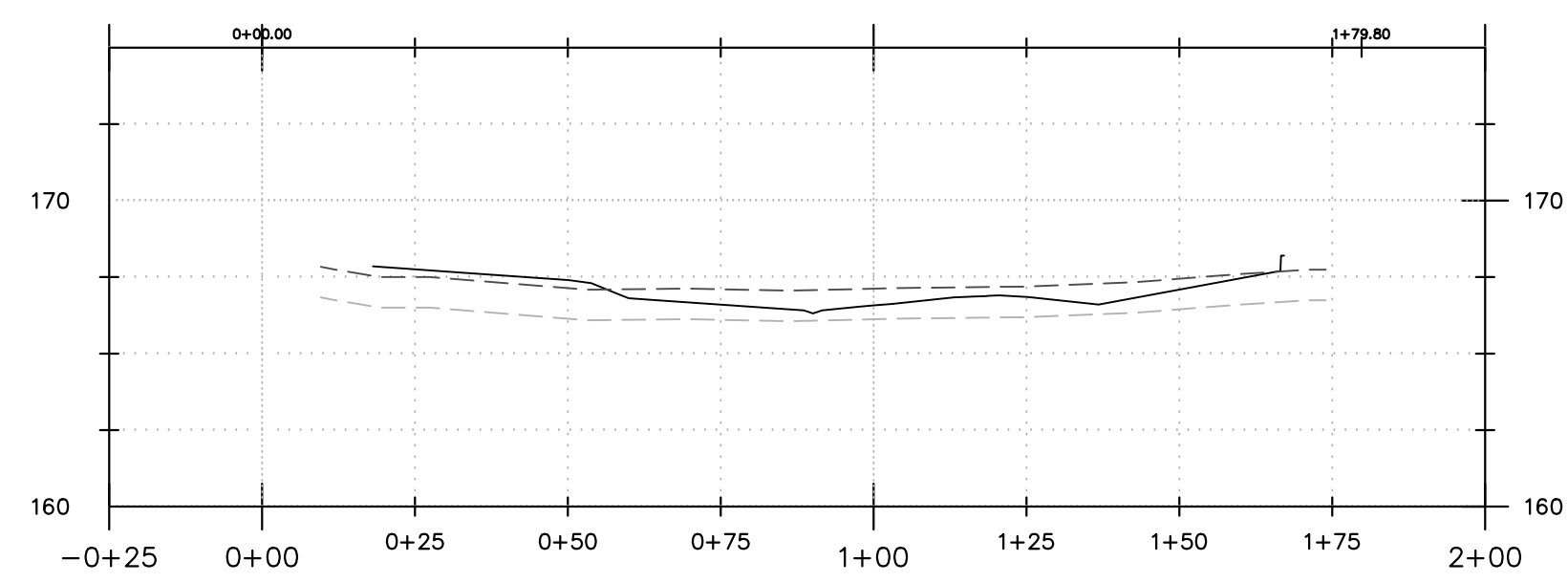
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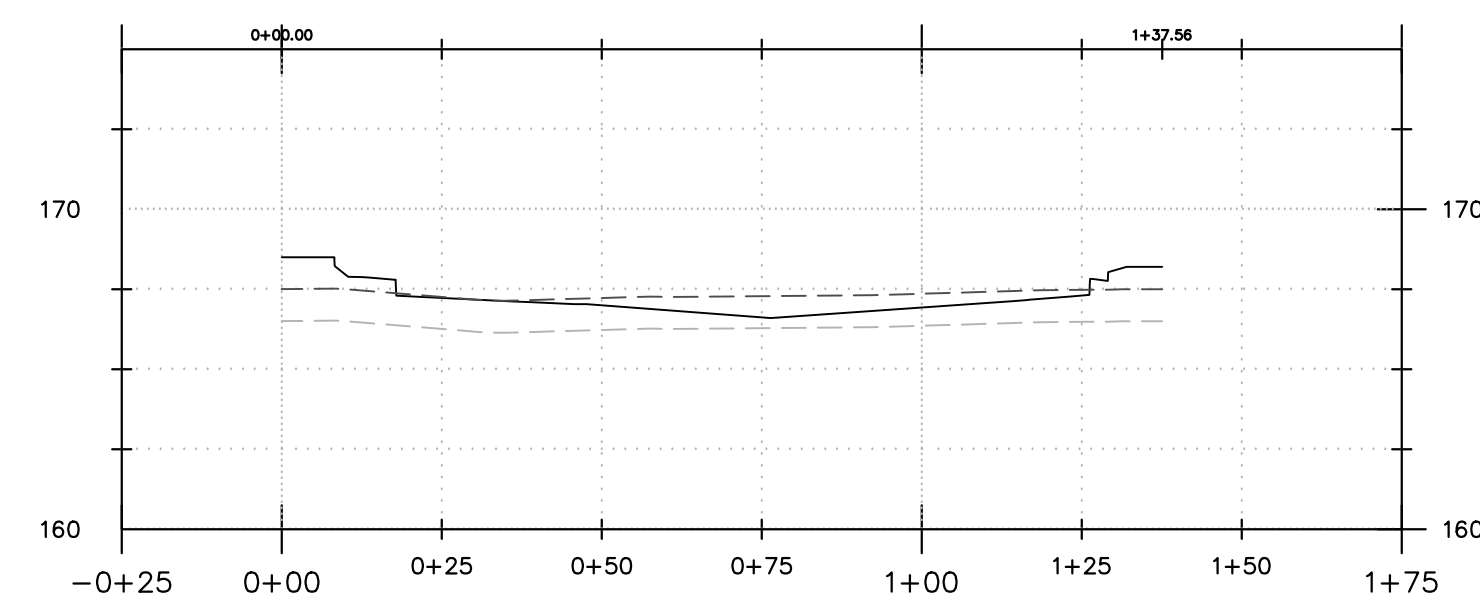
SOUTH CROSS SECTION



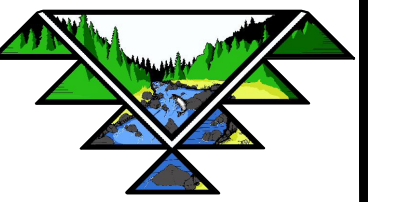
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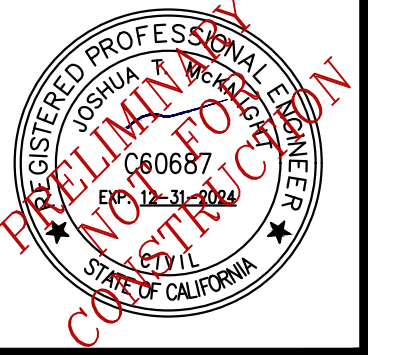
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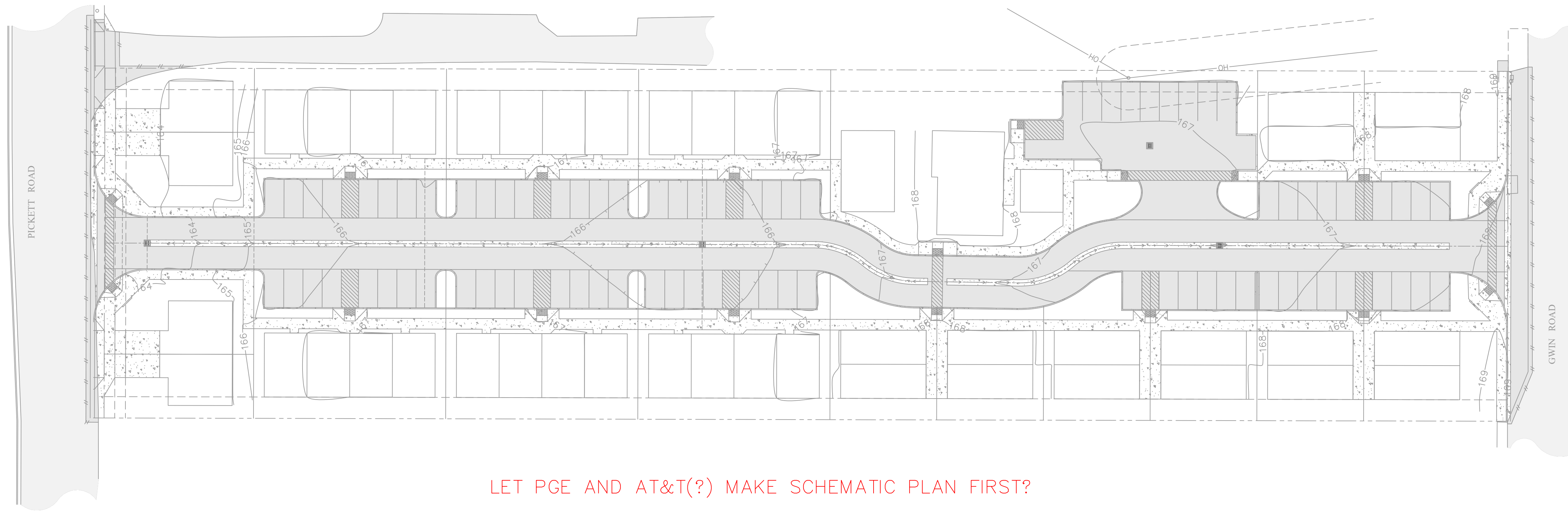
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PLAN VIEW
 SCALE: 1" = 30'



LET PGE AND AT&T(?) MAKE SCHEMATIC PLAN FIRST?

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 1820 PICKETT ROAD
 MCCLUREVILLE, CA 95519
 APN 510-381-021

ELECTRIC AND TELECOM PLAN

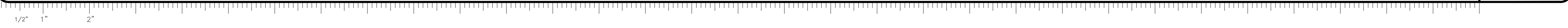
HUMBOLDT, CALIFORNIA

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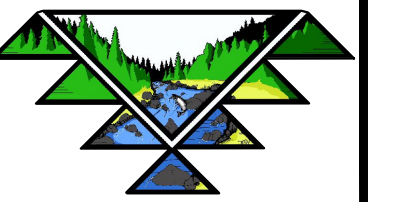
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PROJECT NO:
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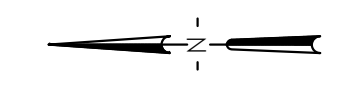
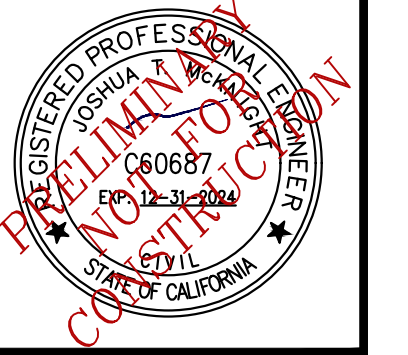
DRAWING NO:
C4.0



TVCE

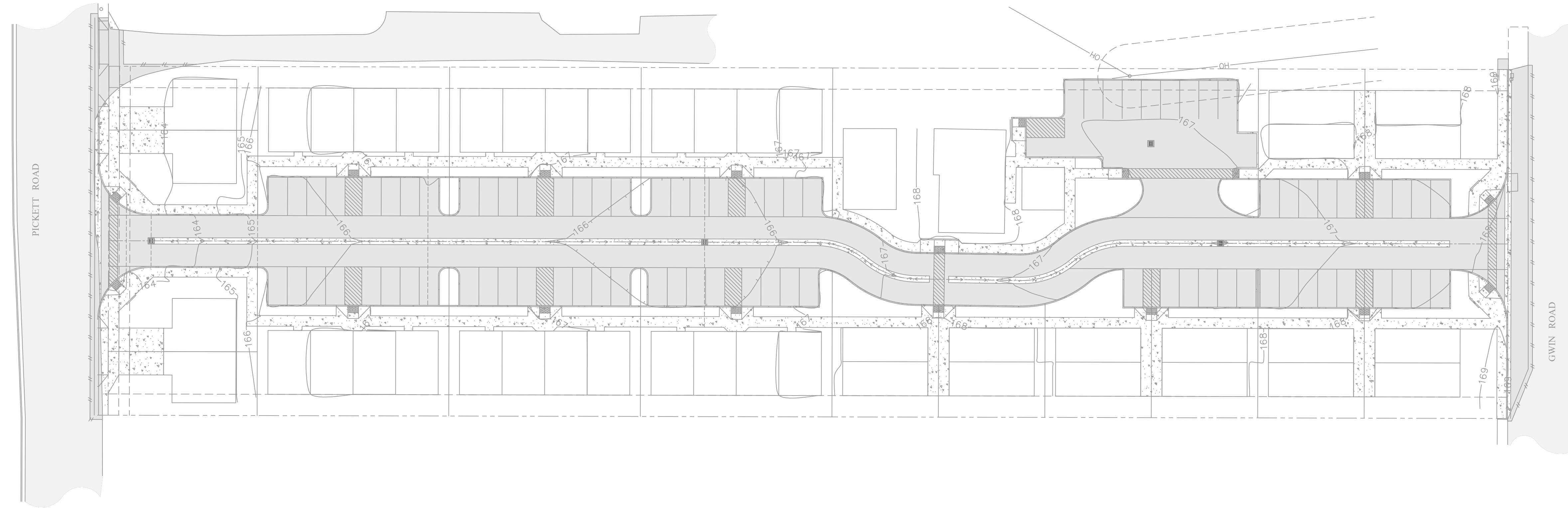


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PLAN VIEW

SCALE: 1" = 30'



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 APN 510-381-021

WATER PLAN

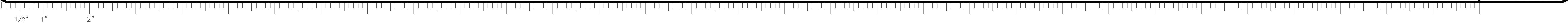
HUMBOLDT, CALIFORNIA

DATE OF ISSUE:
 FEB 2023

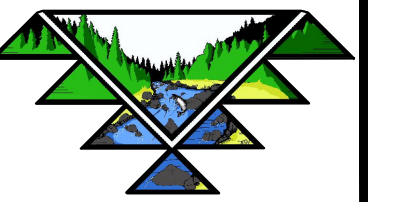
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 873.01

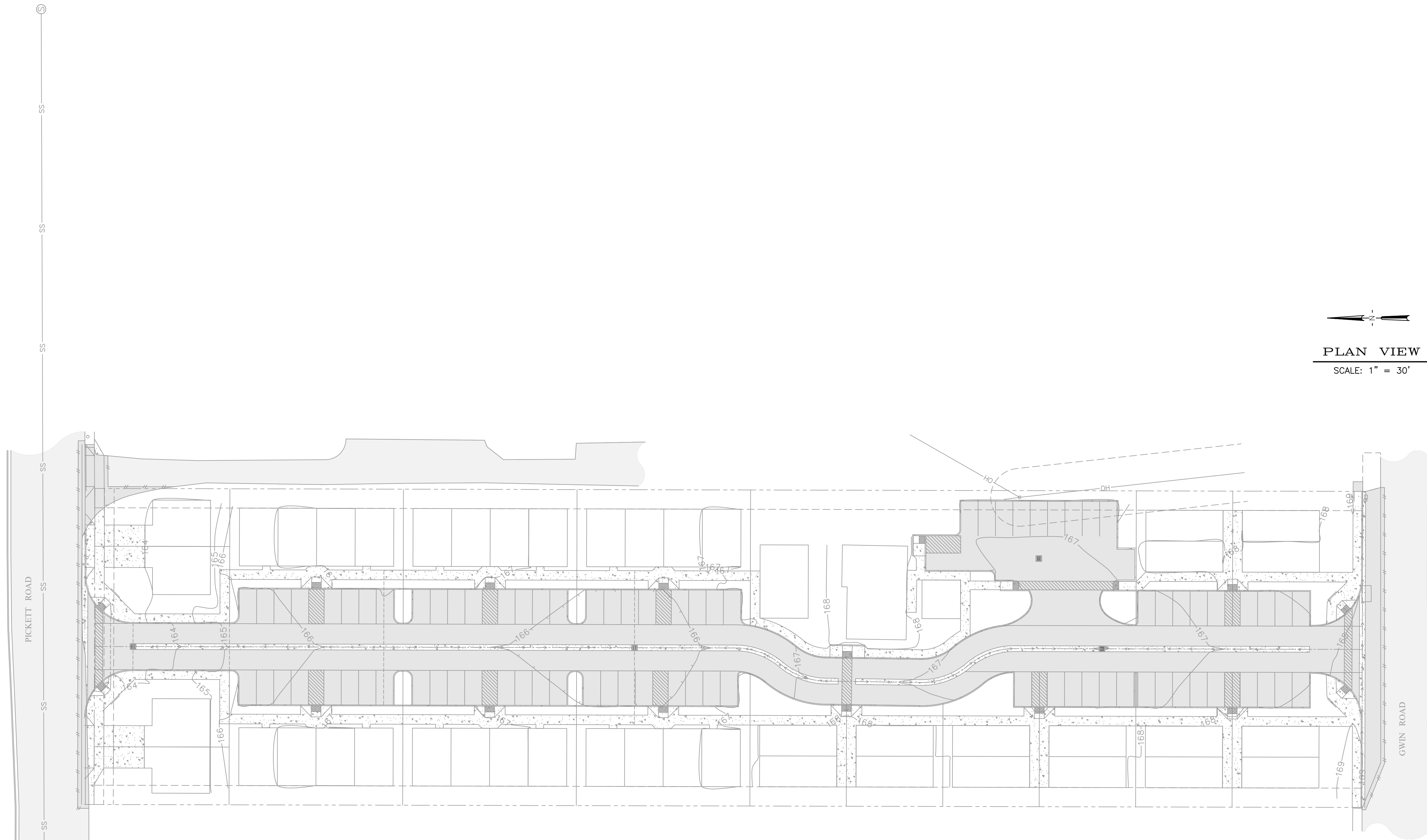
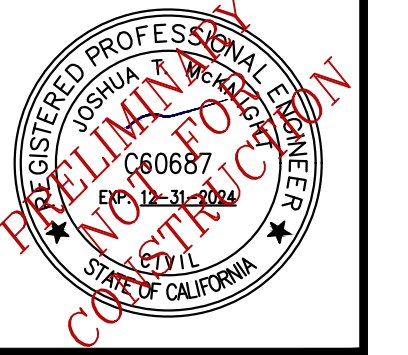
DRAWING NO:
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PLAN VIEW
 SCALE: 1" = 30'

NEED EXISTING SEWER INVERTS TO MOVE FORWARD

REV	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APP. BY

VALADAO, ET AL
 1820 PICKETT ROAD
 MCLELLAN, CA 95519
 APN 510-381-021

SANITARY SEWER PLAN

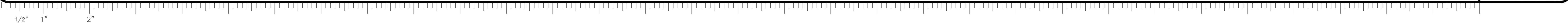
HUMBOLDT, CALIFORNIA

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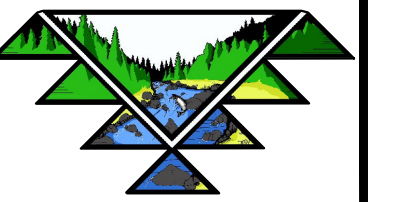
SCALE:
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PROJECT NO:
 873.01

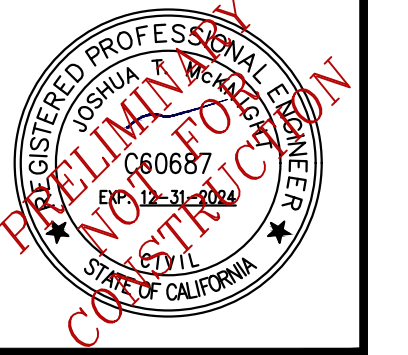
DRAWING NO:
C4.2



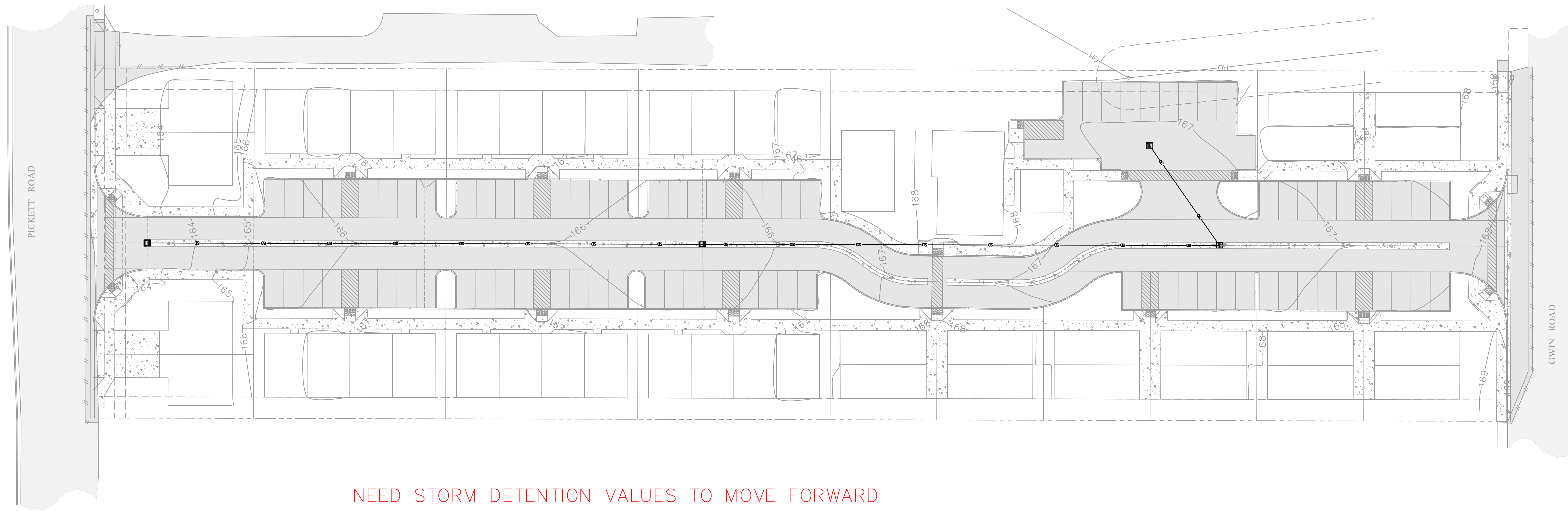
TVCE



67 WALNUT WAY
 PO BOX 1587
 WILLOW CREEK, CA 95573
 P:(530)629-3000
 F:(530)629-3011



PLAN VIEW
 SCALE: 1" = 30'



NEED STORM DETENTION VALUES TO MOVE FORWARD

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

VALADAO, ET AL
 1820 PICKETT ROAD
 MC DONALD, CA 95519
 APN 510-381-021

STORM WATER PLAN

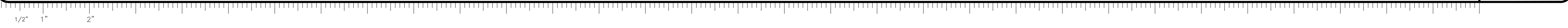
HUMBOLDT, CALIFORNIA

DATE OF ISSUE:
 FEB 2023

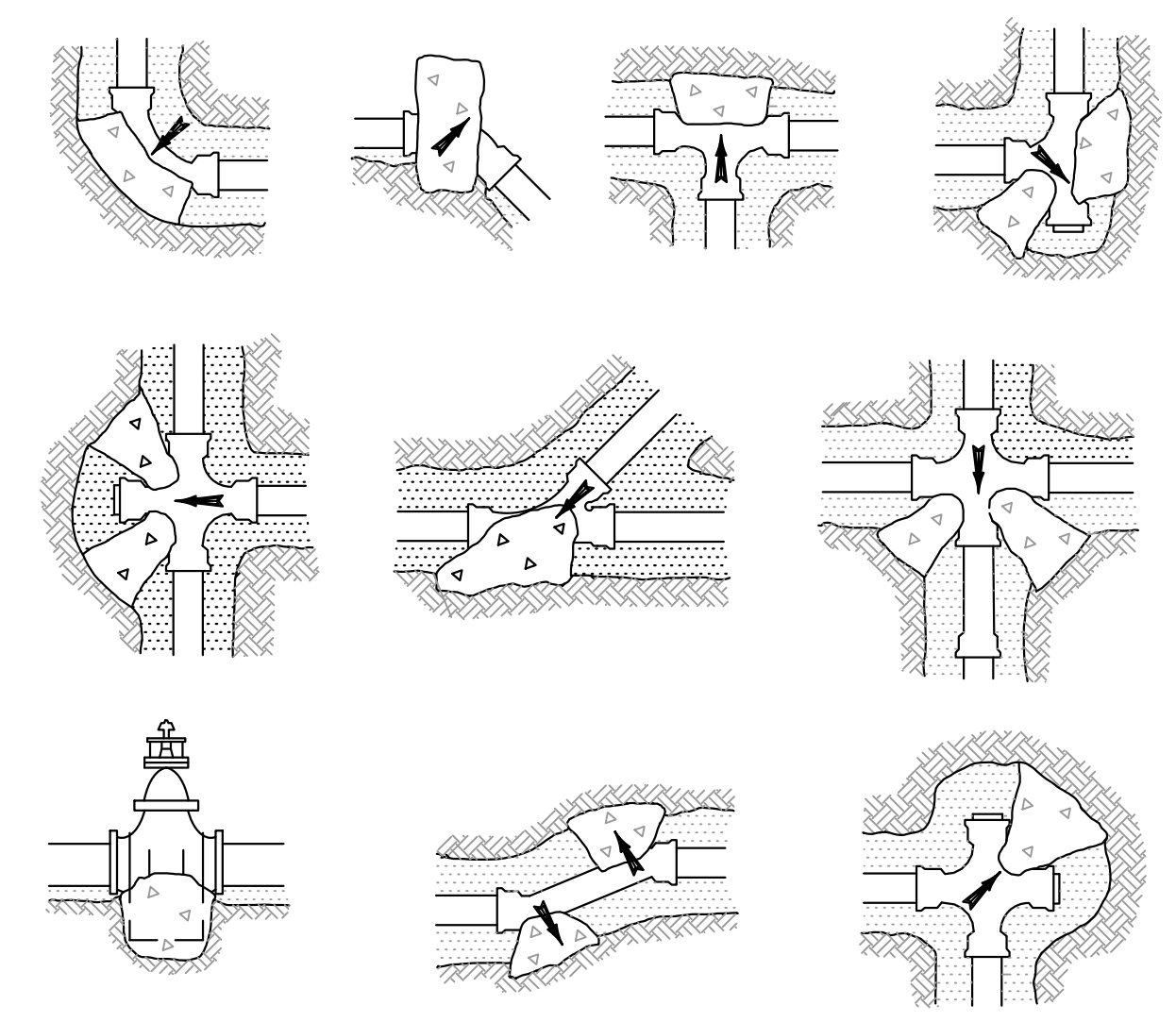
SCALE:
 1" = 30'

PROJECT NO:
 873.01

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C4.3



TVCE
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15 LOCATION OF THRUST BLOCKS
 4.0 4.1 NTS

TABLE I
 THRUST (T) AT FITTINGS, IN POUNDS AT 100 PSI WATER PRESSURE

PIPE SIZE	TEE OR DEAD END	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
1 1/2"	284	401	217	111	56
2"	443	627	339	173	87
2 1/2"	649	918	497	253	127
3"	962	1361	736	375	189
4"	1810	2559	1385	706	355
6"	3739	5288	2862	1459	733
8"	6433	9097	4923	2510	1261
10"	9677	13685	7406	3776	1897
12"	13685	19353	10474	5340	2683
14"	18385	26001	14072	7174	3604
16"	23779	33628	18199	9278	4661

TABLE II
 SAFE BEARING LOADS (B)

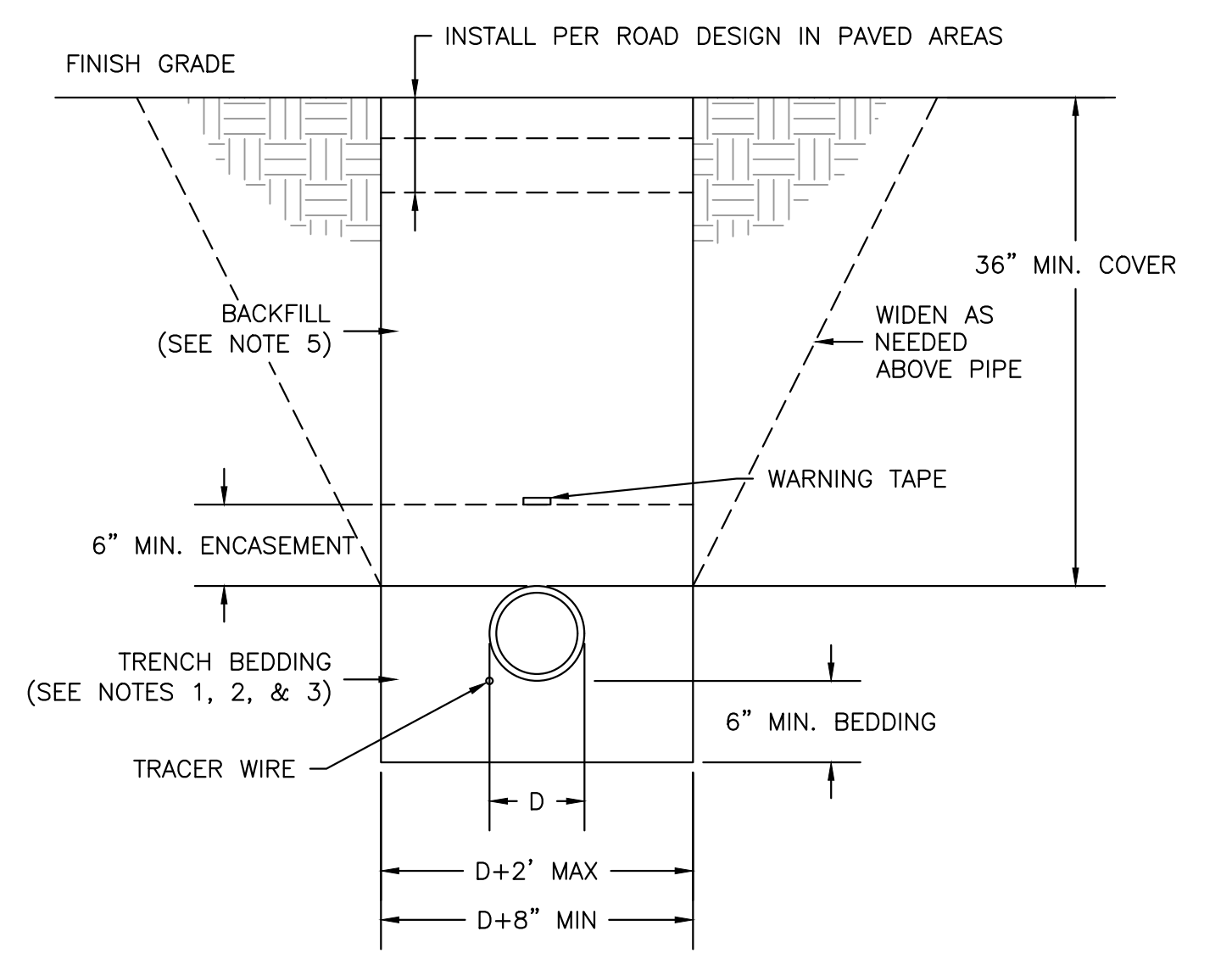
SOIL	SAFE BEARING LOAD, POUNDS PER SQ. FT.
SOUND SHALE	10000
CEMENTED SAND AND GRAVEL	4000
COARSE AND FINE COMPACTED SAND	3000
MEDIUM CLAY (CAN BE SPADED)	2000
SOFT CLAY	1000
MUCK	0

WHERE:
 $A_{SB} = \frac{T}{B} \times \frac{P.T.}{100}$
 A_{SB} = AREA OF BLOCK BEARING AGAINST UNDISTURBED TRENCH MATERIAL IN SQ. FT.
 T = THRUST FACTOR FROM TABLE I IN POUNDS AT 100 PSI
 B = SAFE BEARING LOAD FROM TABLE II IN POUNDS/SQ. FT.
 P.T. = PRESSURE USED FOR PIPELINE TEST IN PSI

16 THRUST BLOCK SIZING
 4.0 4.1 NOT TO SCALE

- THRUST BLOCK NOTES:**
- THRUST BLOCKS SHALL BE CONSTRUCTED SO THAT MAJOR BEARING SURFACE IS IN DIRECT LINE WITH THE MAJOR FORCE CREATED BY THE PIPE OR FITTINGS.
 - ALL CONCRETE SHALL BE CLASS 470-C-2500 PER "GREENBOOK".
 - CONCRETE SHALL BE FLUID ENOUGH SO THAT IT MAY BE WORKED AROUND THE FITTINGS. A DOUBLE LAYER OF 6 MIL POLYETHYLENE FILM SHALL BE PLACED BETWEEN CONCRETE AND METAL FITTINGS.
 - CONCRETE SHALL BE KEPT BEHIND THE BELL OF THE FITTINGS.
 - ALL THRUST BLOCKS FOR PIPES LARGER THAN 12" SHALL BE ENGINEERED.
 - A CONCRETE PAD SHALL BE PLACED UNDER ALL VALVES 12" AND LARGER FOR SUPPORT.
 - ALL ANCHOR BLOCKS SHALL BE CONSTRUCTED WITH A MINIMUM OF (2) #4 REBAR STRAPS.

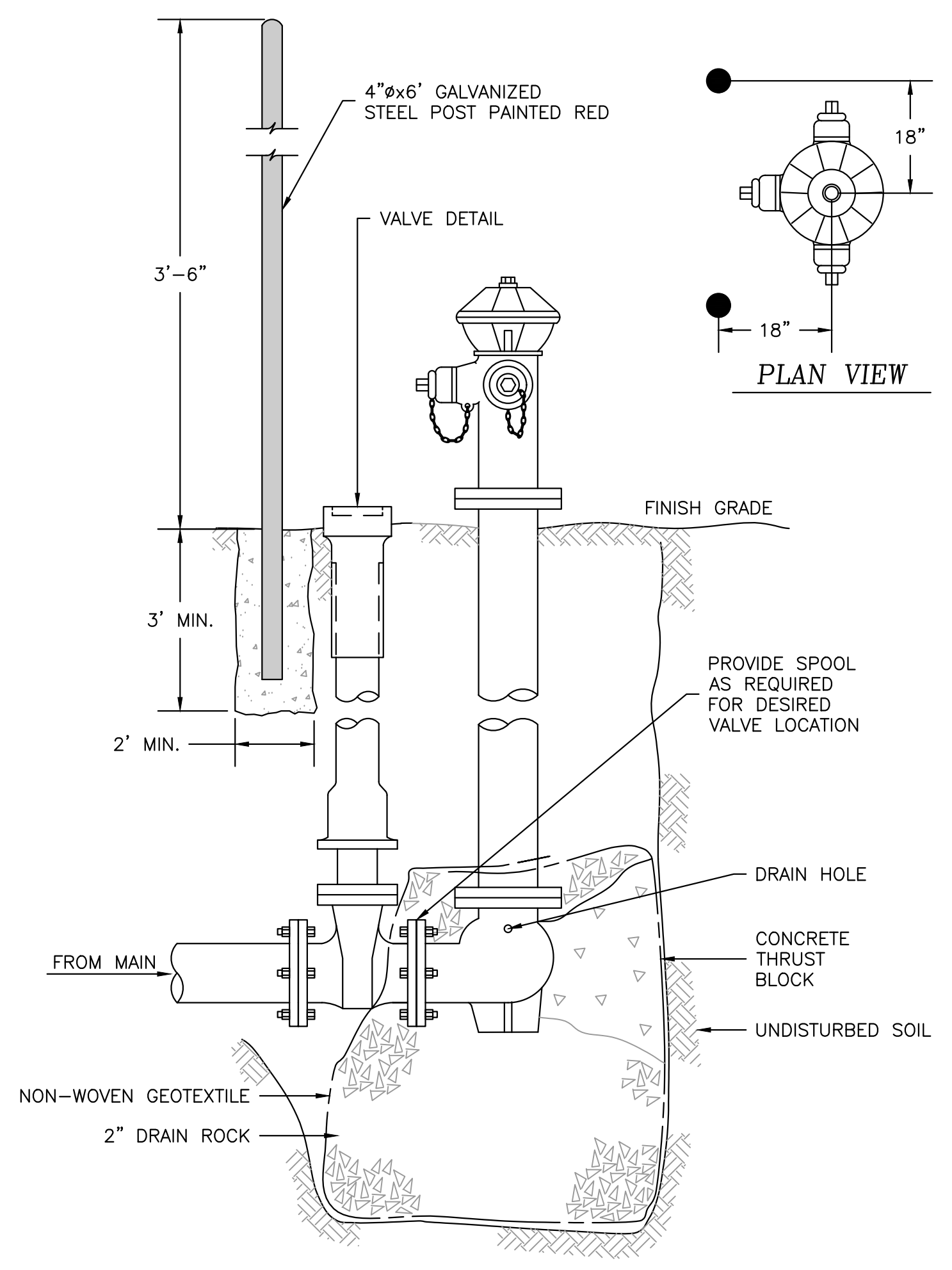
17 THRUST BLOCK DETAIL
 4.0 4.1 NTS



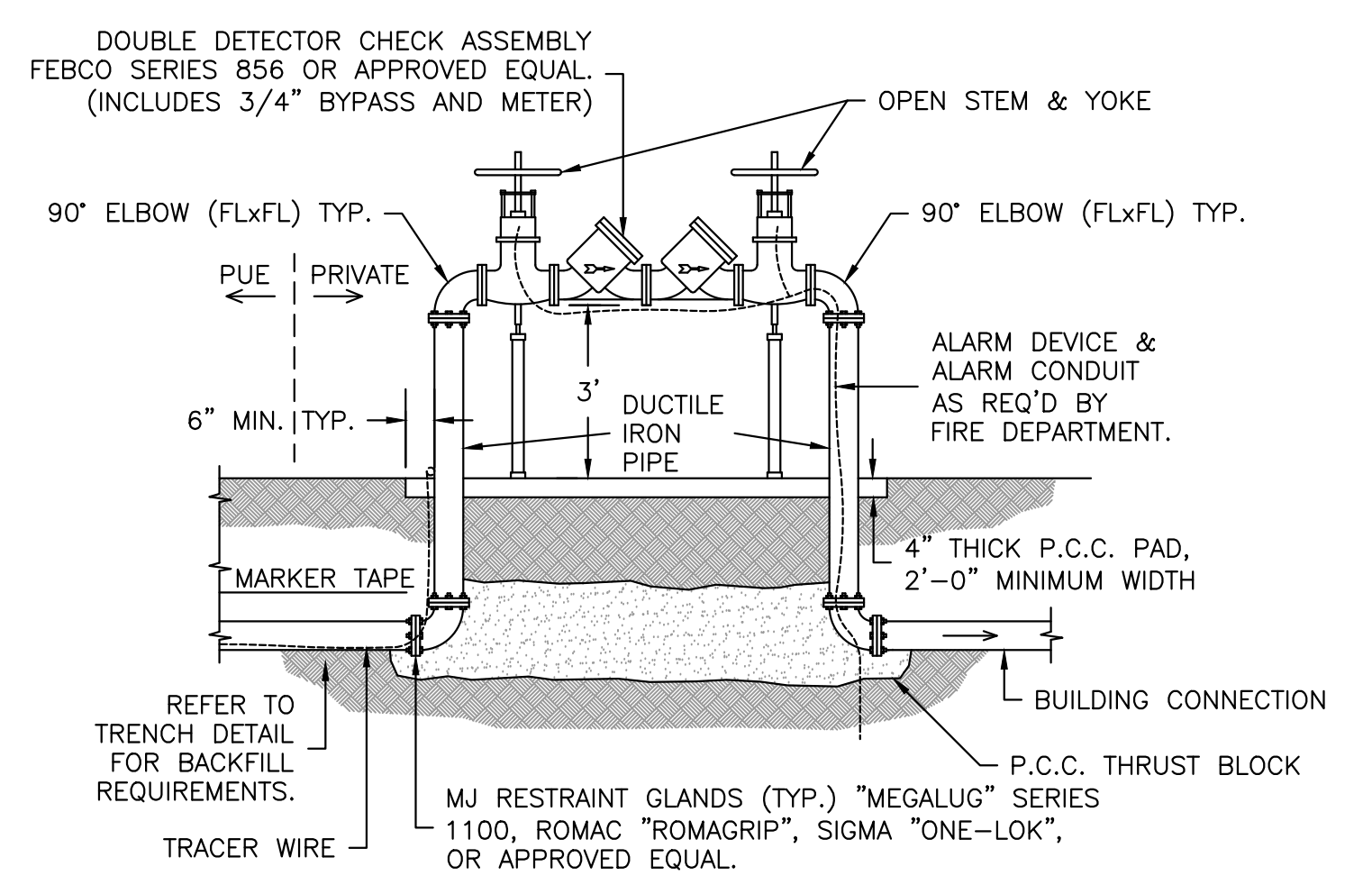
18 PIPE TRENCH NOTES:

- ALL TRENCHING WORK TO BE IN STRICT COMPLIANCE WITH 29 CFR 1926 PART P.
- BACKFILL BY HAND, COMPACT OR CONSOLIDATE TO PROVIDE SOLID BEDDING UNDER AND AROUND PIPE.
- BEDDING MATERIAL SHALL BE SAND OR CRUSHED ROCK AND SHALL HAVE A MAXIMUM SIZE OF 3/4" AND BE REASONABLY GRADED FROM COARSE TO FINE WITH A MINIMUM SAND EQUIVALENT OF 28.
- IMPORT GRAVEL BACKFILL SHALL BE STREAM GRAVEL OR CRUSHED ROCK AND BE REASONABLY WELL GRADED FROM COARSE TO FINE WITH A MAXIMUM SIZE OF 1-1/2" AND A MINIMUM SAND EQUIVALENT GREATER THAN 28.
- JETTING WILL NOT BE ALLOWED.
- IN ROAD CROSSINGS BACKFILL ABOVE PIPE SHALL BE 3/4" MINUS CLASS 2 AGGREGATE BASE. BASE CONSOLIDATION SHALL BE 95% RELATIVE COMPACTION PER ASTM 2922. A 2-SACK CONCRETE SLURRY MAY BE USED IN PLACE OF AB.

18 PIPE TRENCH DETAIL
 4.0 4.1 NTS



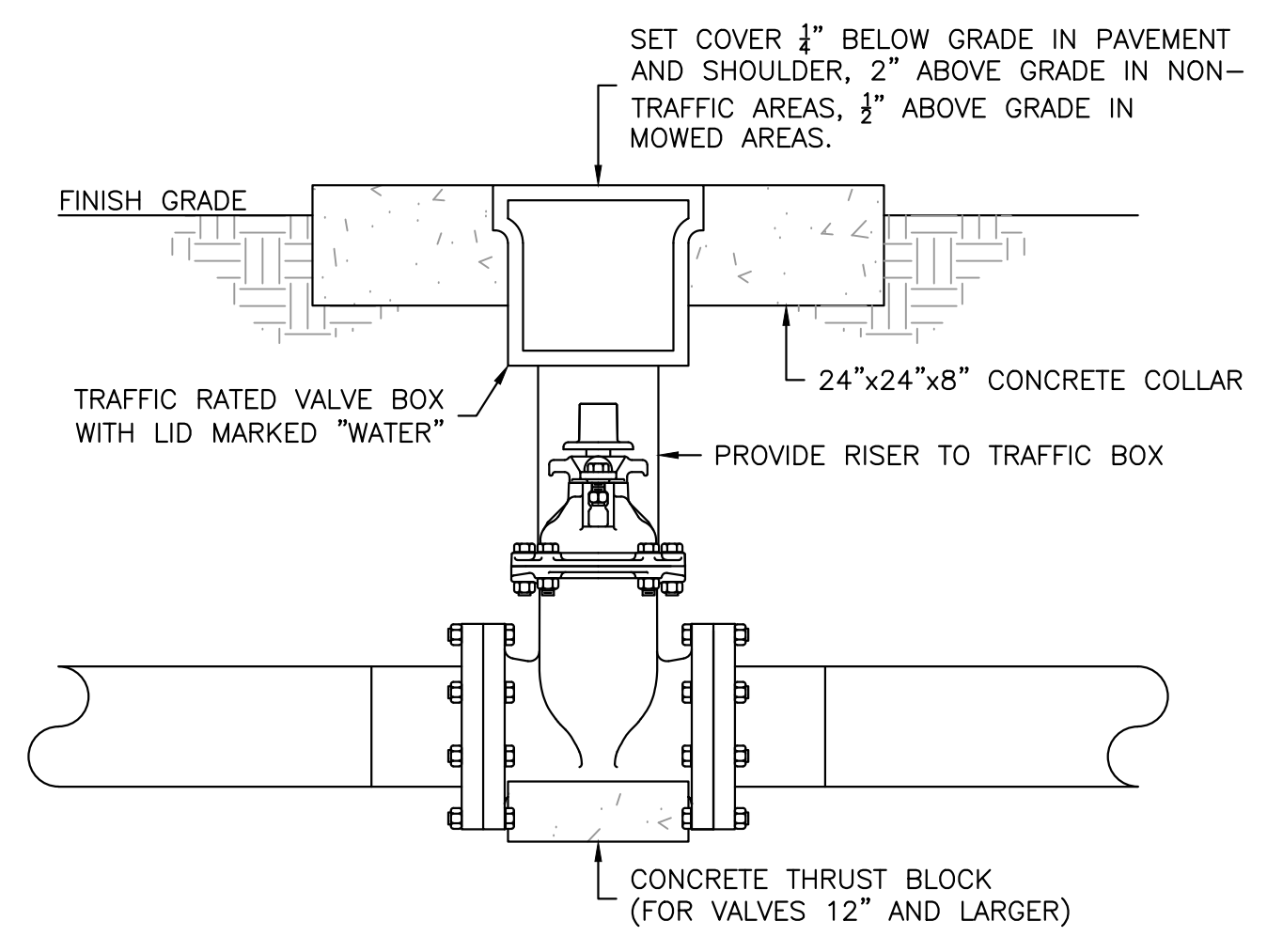
19 DRY BARREL FIRE HYDRANT DETAIL
 4.0 4.1 NTS



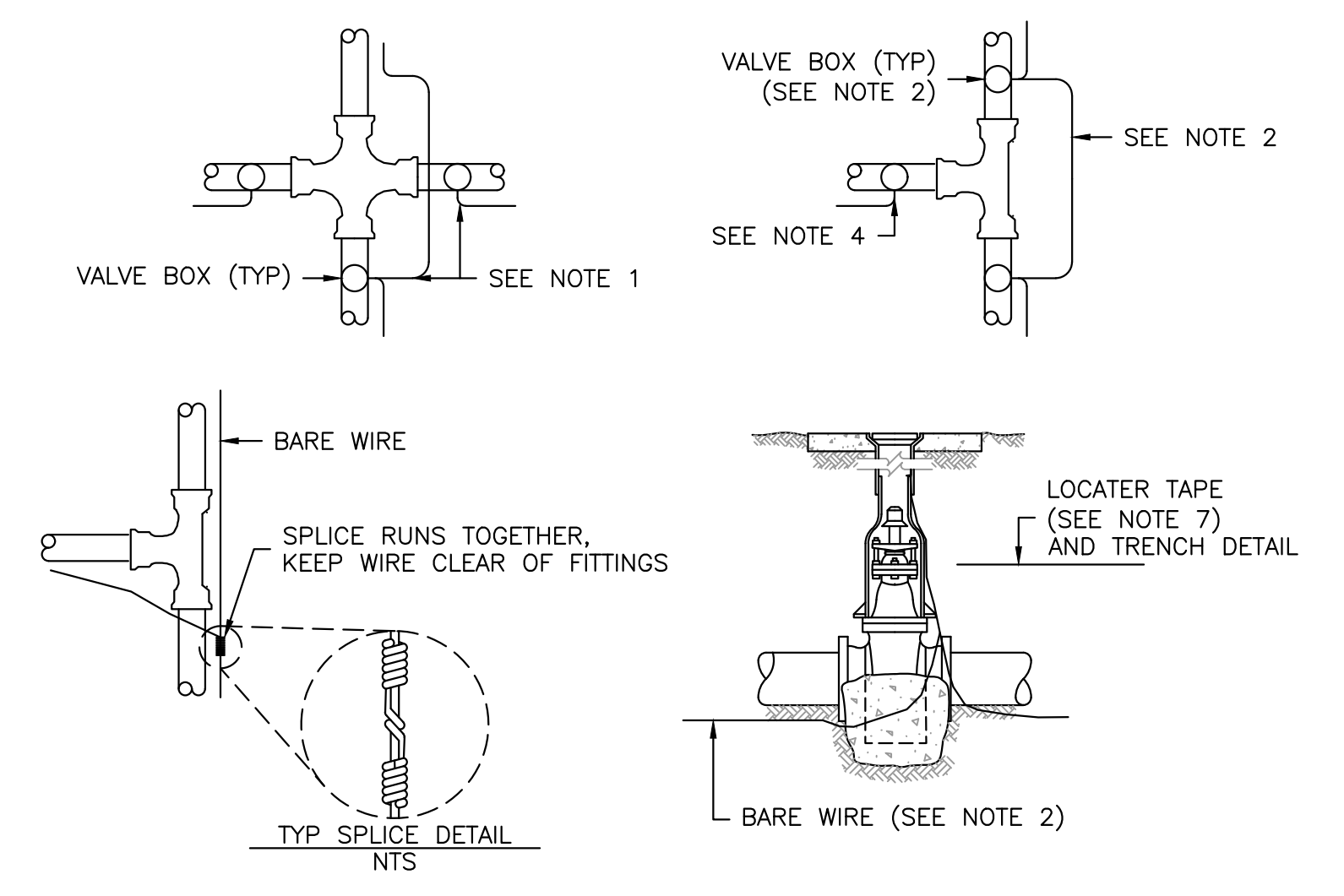
20 DOUBLE DETECTOR CHECK VALVE
 4.0 4.1 NTS

- DDCA NOTES:**
- THE DOUBLE DETECTOR CHECK ASSEMBLY SHALL BE REQUIRED FOR USE IN CLASS I AND CLASS II FIRE SPRINKLER SYSTEMS ONLY. CLASS I AND II AUTOMATIC FIRE SPRINKLER SYSTEMS ARE THOSE WITH DIRECT CONNECTION TO THE PUBLIC WATER MAIN ONLY; NO RESERVOIRS OR AUXILIARY SOURCES, NO ANTIFREEZE OR ADDITIVES OF ANY KIND, AND ALL SPRINKLER DRAINS DISCHARGE TO THE ATMOSPHERE OR OTHER SAFE OUTLETS (AWWA MANUAL NO. M-14).
 - ASSEMBLY SHALL BE PROTECTED FROM DAMAGE BY VEHICLES AND MAY REQUIRE BOLLARDS.
 - FIRE SPRINKLER SYSTEM ALARM MONITORING SHALL BE PER CURRENT STATE AND LOCAL FIRE CODES.

20 DOUBLE DETECTOR CHECK VALVE
 4.0 4.1 NTS



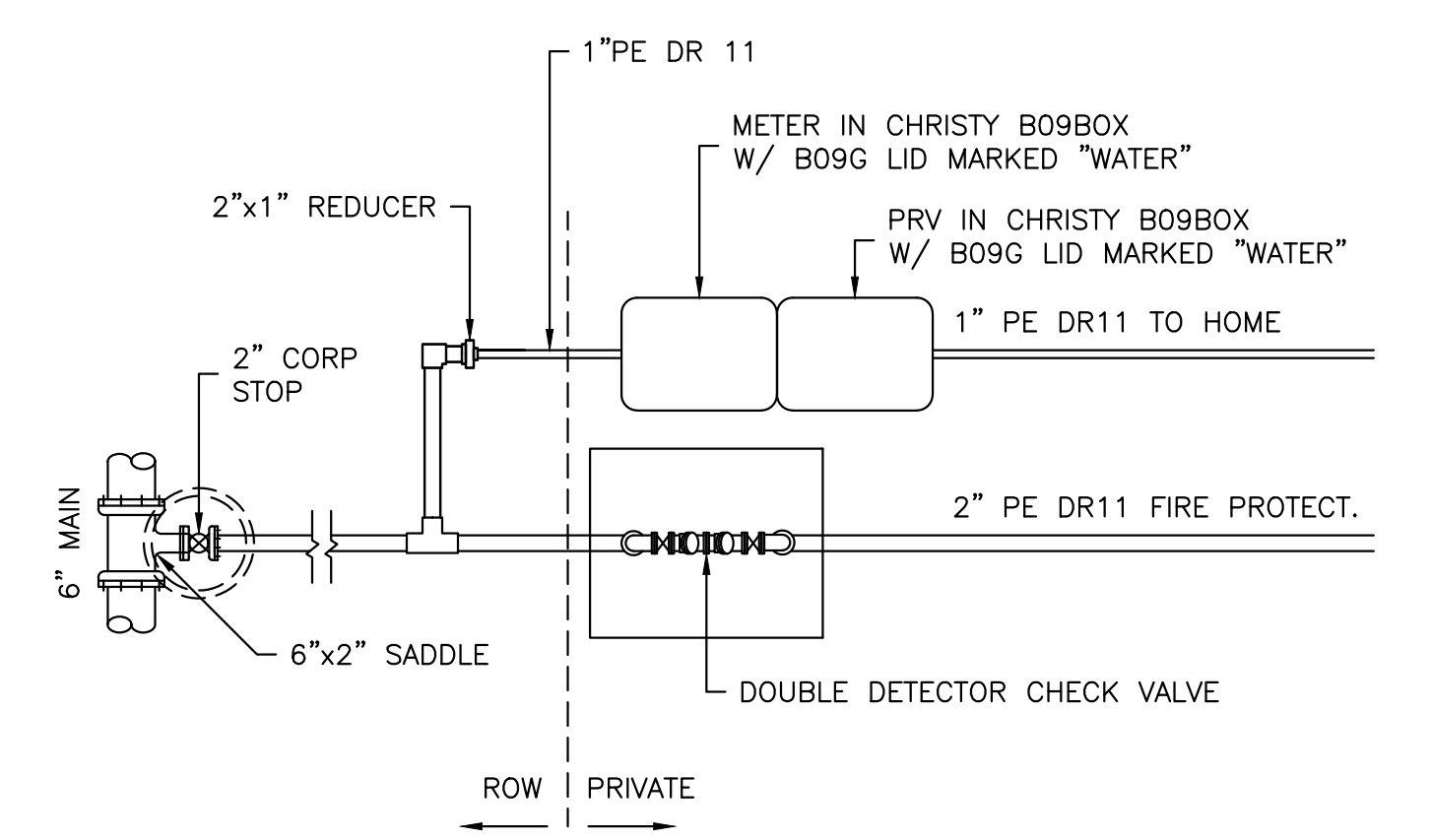
21 GATE VALVE DETAIL
 4.0 4.1 NTS



LOCATING WIRE AND WARNING TAPE NOTES:

- WIRE SHALL BE CONTINUOUS BETWEEN VALVE BOXES, EXCEPT WHERE BOXES ARE WITHIN TEN (10) FEET OF PIPE INTERSECTION.
- BARE WIRE SHALL NOT TOUCH VALVES OR FITTINGS.
- LOCATING WIRE SHALL BE PLACED AT BOTTOM OF TRENCH, NEXT TO PIPE. (DO NOT ATTACH WIRE TO PIPE).
- IF WIRE ENDS AT A VALVE, A SINGLE INSULATED WIRE SHALL EXTEND UP TO WITHIN 12" OF BOX COVER.
- ALL VALVES, INCLUDING FIRE HYDRANT VALVES, SHALL HAVE LOCATING WIRES.
- LOCATING WIRE SHALL BE BARE #6 AWG SOLID COPPER, SOFT DRAWN WIRE. WIRE SHALL BE INSTALLED WITH ALL NON-METALLIC MAINS AND SERVICES.
- WARNING TAPE SHALL BE A DETECTABLE METALLIZED 2" WIDE WARNING TAPE. BLUE COLOR CODED, IMPRINTED WITH "CAUTION-BURIED WATER LINE BELOW" SHALL BE INSTALLED 6" MINIMUM ABOVE ALL WATER MAINS IN OFF ROAD INSTALLATIONS. LINEGUARD DETECTABLE MARKING TAP, TYPE III OR APPROVED EQUAL.

22 TRACER WIRE & WARNING TAPE DETAIL
 4.0 4.1 NTS



WATER SERVICE NOTES:

- SET METER BOX COVER FLUSH WITH FINISHED SURFACE.
- PIPE OPENINGS IN METER BOX SHALL BE CUT - DO NOT USE HAMMER. PRIOR TO BACKFILLING, PIPE OPENINGS SHALL BE GROUTED.
- TRACER WIRE REQUIRED FROM GATE VALVE AT MAIN TO HOME.

23 WATER SERVICE DETAIL
 4.0 4.1 NTS

REV	DATE	DESCRIPTION	APP'D BY	CHK'D BY

WATER DETAILS
 VALADAO, ET AL
 1820 PICKETT ROAD
 MCSPRICKET, CA 95819
 APRN 510-381-021
 HUMBOLDT, CALIFORNIA

DATE OF ISSUE:
 FEB 2023
 SCALE:
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C04.4

