

GENERAL NOTES

- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS. ALL CONSTRUCTION SHALL BE COMPLETED FOLLOWING CURRENT CITY STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE NOTICE TO UTILITY COMPANIES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION, AS FOLLOWS:
KANSAS ONE-CALL 687-2470
THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:
AT&T 1-800-246-8464
BLACK HILLS ENERGY (GAS) 1-800-694-8989
CITY OF WICHITA WATER & SEWER 1-316-219-8921
CITY OF WICHITA STORMWATER 1-316-268-4090
CITY OF WICHITA TRAFFIC 1-316-268-4034
COX COMMUNICATIONS 1-888-249-3530
KANSAS GAS SERVICE 1-888-482-4950
WESTAR ENERGY 1-800-544-4857
- UTILITY SERVICE LINES, POLES, ETC. ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS, IN THE OPINION OF THE ENGINEER, THAT WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WILL REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WILL REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
- TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE CITY ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
- THE ENGINEERING DIVISION SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR AT HIS OWN EXPENSE. VALVE BOXES AND WATER METERS WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO MATCH FIELD GRADES BY THE CONTRACTOR.
- IF TRAFFIC WILL BE IMPACTED BY CONSTRUCTION, A TRAFFIC CONTROL PLAN MUST BE SUBMITTED AND APPROVED BY THE CITY TRAFFIC ENGINEER, BRIAN COON AT traffic@wichita.gov. BEFORE CONSTRUCTION CAN BEGIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL MEASURES TO FACILITATE CONSTRUCTION. ALL CONSTRUCTION ZONE MARKINGS AND SIGNAGE SHALL CONFORM TO THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS PUBLISHED BY THE US DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION. ALL COSTS ASSOCIATED WITH CONSTRUCTION MARKINGS AND SIGNAGE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- ALL AREAS DISTURBED DURING CONSTRUCTION THAT WILL NOT BE UNDER PROPOSED PAVEMENT SHALL BE SEEDED AND MULCHED. COST SHALL BE CONSIDERED SUBSIDIARY TO PROJECT SEEDING.
- CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS COMPANIES AND IS EITHER FROM COMPANY UTILITY DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
- A PORTION OF EXCESS EXCAVATED MATERIAL SHALL BE MOUND AROUND MANHOLES WHICH EXTEND MORE THAN ONE (1) FOOT ABOVE THE EXISTING GROUND. SUCH MOUND SHALL BE CONSTRUCTED WITH NEW DEVELOPMENT A SIX (6) FOOT DIAMETER FLAT TOP WITH 4 TO 1 SIDE SLOPES DOWN TO THE ORIGINAL GROUND. THE ELEVATION OF THE FLAT TOP OF THE MOUND SHALL BE 0.4 FOOT BELOW THE TOP OF THE MANHOLE.
- CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.
- ALL STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE IN THE SAME MANNER AS RISERS.
- THE CONTRACTOR SHALL PREVENT ANY CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS FLOW OF SEWAGE THROUGH CONSTRUCTION. CONTRACTOR'S PROPOSED METHOD FOR MAINTAINING SEWAGE FLOW SHALL BE SUBMITTED AND APPROVED BY THE SEWER MAINTENANCE DIVISION (316-268-4073) PRIOR TO STARTING AND BY-PASSING OF SEWAGE FLOWS.
- ALL TRAFFIC CONTROL DEVICES IN THE WORK ZONE (INCLUDING MARKINGS AND SIGNS) AND THEIR INSTALLATION AND MAINTENANCE SHALL COMPLY WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL TRAFFIC CONTROL DEVICES IN THE TRAVELED WAY OR CLEAR ZONE SHALL BE CRASHWORTHY (NCHRP REPORT 350 OR MASH COMPLIANT).
<http://safety.fhwa.dot.gov/roadwaydept/policy/guide/roadhardware/wzd>
- ALL CONSTRUCTION EQUIPMENT, INCLUDING VEHICLES, MATERIALS, AND DEBRIS, SHALL BE STORED OUTSIDE OF THE CLEAR ZONE. WHERE THIS CANNOT BE ACHIEVED THE CONTRACTOR SHALL PLACE APPROPRIATE SIGNS, SUBJECT IDENTIFIERS, AND/OR BARRICADES IN COMPLIANCE WITH MUTCD.
- EXCEPT WHEN REQUIRED FOR SAFETY, TRAFFIC CONTROL SHALL NOT BLOCK ANY LANES OR SIDEWALKS WHEN WORK IS NOT BEING PERFORMED.
- FOLLOW THE LINK BELOW FOR DETAILS ON SPECIFIC CITY OF WICHITA STANDARD DETAILS:
<http://www.wichita.gov/PWU/Pages/Regulations.aspx>
- DEVELOPER FOR THIS PROJECT IS:
TASE, LLC & TCRS, LLC
401 W. 47TH ST.
WICHITA, KS 67217
JEFF LANGE
316.529.3100
- EXISTING GROUND SHOWN ON THESE DRAWINGS ARE FROM SURVEYED INFORMATION PRIOR TO ANY IMPROVEMENTS. PROPOSED GROUND IS CURRENTLY BEING CONSTRUCTED BY A PUBLIC MASS GRADING PROJECT AND CONTRACTED TO BE COMPLETE BY NOVEMBER 2, 2018.
- THIS CONTRACTOR SHALL COORDINATE THEIR OPERATIONS AND ACCOMMODATE THE PUBLIC MASS GRADING CONTRACTOR AS WELL AS THE GENERAL CONTRACTOR FOR THE PRIVATE DEVELOPMENT OF LOTS 8-9, BLOCK 1.
- THE PUBLIC MASS GRADING AND DEMOLITION PROJECT HAS ABANDONED EXISTING WATER LINES, SANITARY SEWER, STORM SEWER AND FRANCHISE UTILITIES, WHICH MAY BE ENCOUNTERED DURING PROPOSED SANITARY SEWER TRENCHING OPERATIONS. EXISTING UTILITIES THAT ARE UNCOVERED SHALL BE DISPOSED OF PER NOTE #4 ABOVE. THE WORK IS SUBSIDIARY TO "SITE CLEARING".
- CONTRACTOR SHALL PROVIDE ANTI-BUOYANCY CALCULATIONS, SEALED BY A PROFESSIONAL ENGINEER, FOR ALL MANHOLES TO BE CONSTRUCTED WITHIN THE ANTICIPATED GROUNDWATER TABLE.
- EXISTING ON-SITE SAND MATERIAL MAY BE USED FOR SAND BACKFILLING AS LONG AS CONTRACTOR CAN PROVIDE GRADATIONS SHOWING COMPLIANCE WITH REQUIREMENTS SET FOR WITHIN THE STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL PROVIDE TWO (2) TOPOGRAPHIC SURVEYS FROM MH1-1 TO MH1-8, ONE BEFORE CONSTRUCTION AND ONE AFTER TRENCH BACKFILLING IS COMPLETE. THE SURVEY LIMITS SHOULD BE 50' WIDE (25' EITHER SIDE OF SEWER LINE). THE CONTRACTOR SHALL ENSURE THAT THE GROUND, AFTER TRENCH BACKFILLING, IS RE-ESTABLISHED.

SANITARY SEWER

TO SERVE

STEEPLE BAY ADDITION

LATERAL 102, MAIN 1, SW15

PROJECT NO. 468-85317

THE CITY OF WICHITA, KANSAS

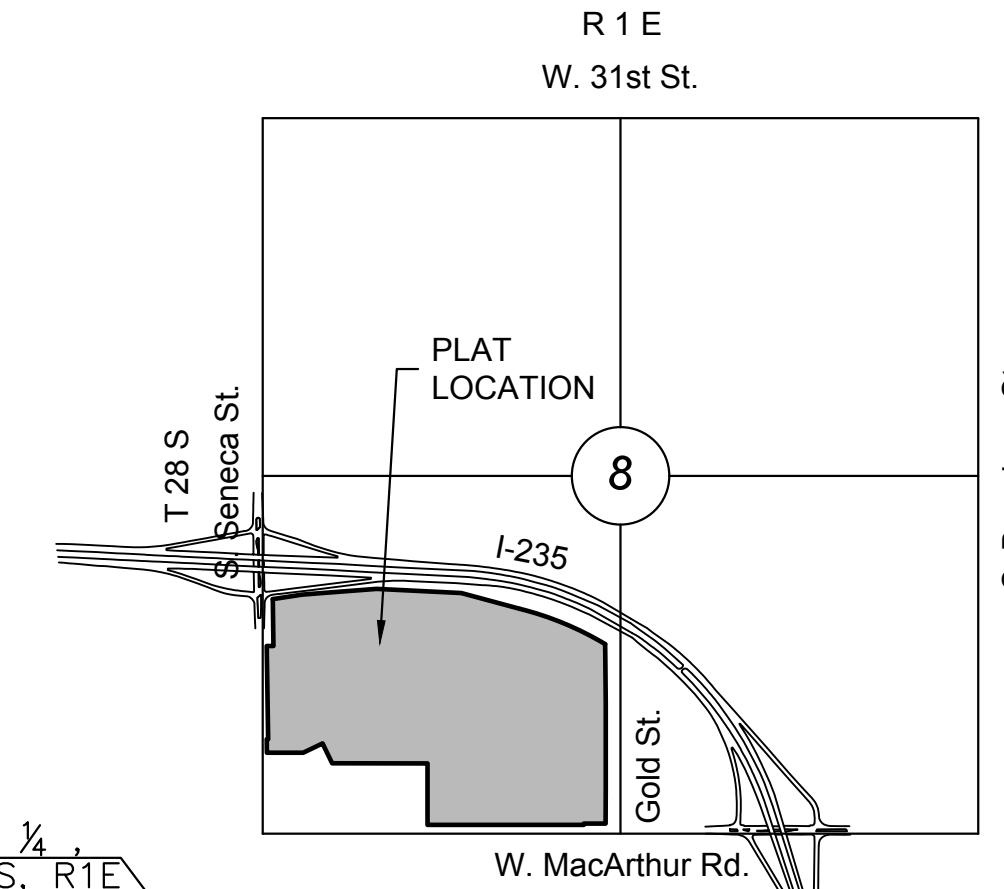
GARY JANZEN, P.E. - CITY ENGINEER

OCA NO. 744474

CONSTRUCTION SEQUENCING

- SANITARY SEWER LINE 1 FROM MH1-1 TO MH1-4 SHALL BE COMPLETE BY NOVEMBER 16, 2018.
- SANITARY SEWER LINE 1 FROM MH1-4 TO MH1-8 SHALL BE COMPLETE BY DECEMBER 14, 2018.

Nowak Construction - Contractor
K. Yale - City of Wichita, Field Project Engineer
T. DeCicco - MKEC, Inspector
 As-built
 Release Date (for connection purposes only): 10/30/2019
 Completion Date:
 pdf: 10/30/2019 apr



VICINITY MAP

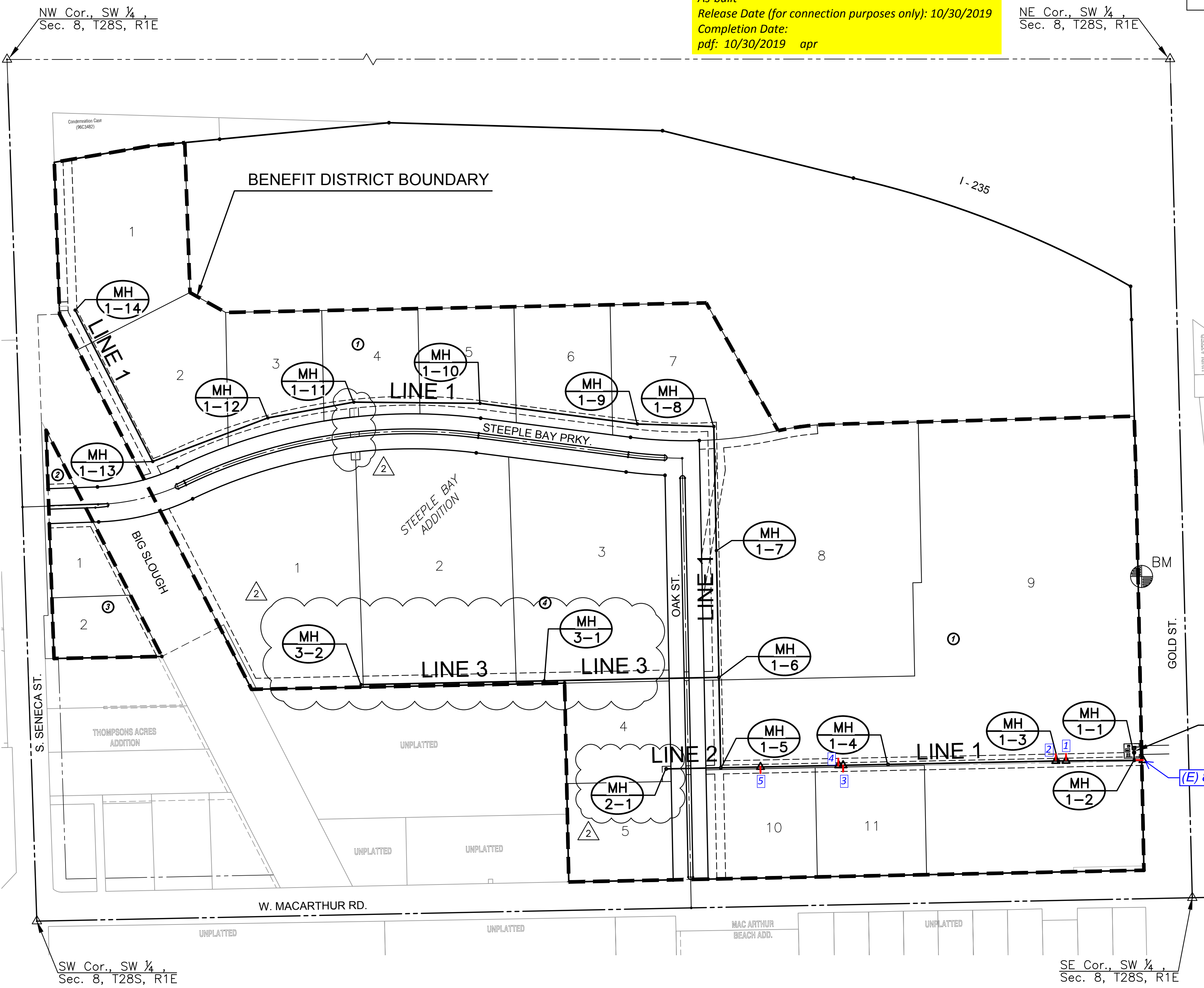
No Scale

INDEX TO DRAWINGS

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12-16	ELECTRICAL
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24-25	FINAL PLAT

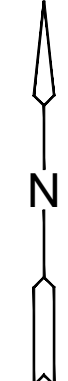
BENCHMARKS

North rim of sanitary sewer manhole on west side of Gold Street, 700 feet north of the intersection of Gold Street and MacArthur Road. 15 feet north of the north edge of access drive going west into mobile home park. 70 feet west of the west edge of Gold Street. Manhole top is 2.5 feet above existing ground.
Elev.=1280.01 NAVD88



LIFT STATION

(E) 8" Stub



SCALE: 1" = 150'



SANITARY SEWER PLANS FOR
STEEPLE BAY ADDITION
 WICHITA, KANSAS

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TITLE SHEET

PROJECT NO.	468-85317	
DATE	AUGUST 2018	
SCALE	1"=150'	
DESIGNED	DRAWN	CHECKED
SPE	MKB	SPE
2	PROFILE CHANGES	10-04-18
NO.	REVISION	DATE

SHEET NO.
01 OF 25

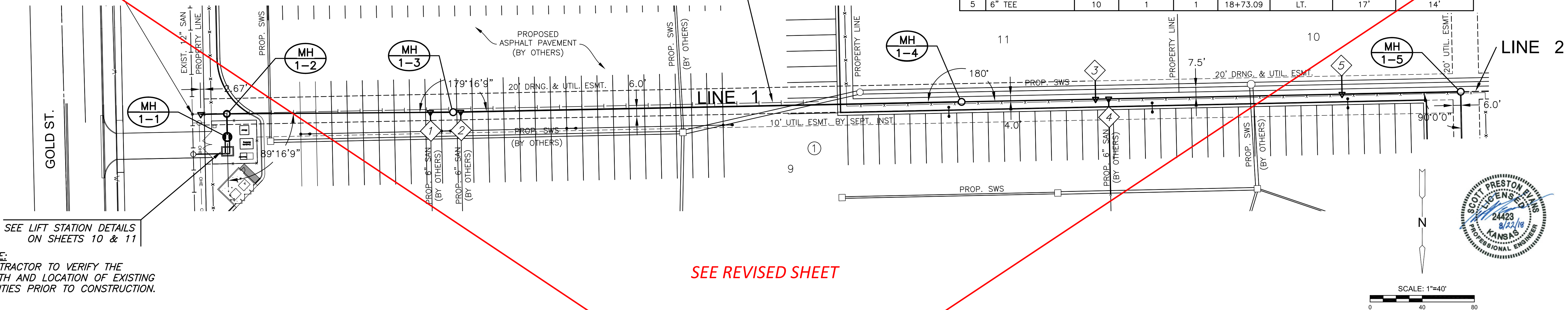
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PLOTED: Wednesday, August 22, 2018 @ 09:30AM

MHS TOP=1275.88
 N 12" CLAY FL=1271.08
 S 12" CLAY FL=1271.08
 W 8" CLAY FL=1271.38

ABANDONED
 SANITARY LINE
 TO BE REMOVED

SEWER SERVICE RISER TABLE							FOR INFORMATION ONLY	
NO.	TYPE	LOCATION			STATION	DIRECTION	APPROXIMATE LENGTH	
		LOT NO.	BLOCK NO.	LINE NO.			VERTICAL (FT)	HORIZONTAL (FT)
1	6" TEE	9	1	1	11+73.80	RT.	19'	6'
2	6" TEE	9	1	1	11+97.07	RT.	19'	6'
3	6" TEE	11	1	1	16+84.04	LT.	18'	14'
4	6" TEE	9	1	1	16+94.04	RT.	18'	6'
5	6" TEE	10	1	1	18+73.09	LT.	17'	14'

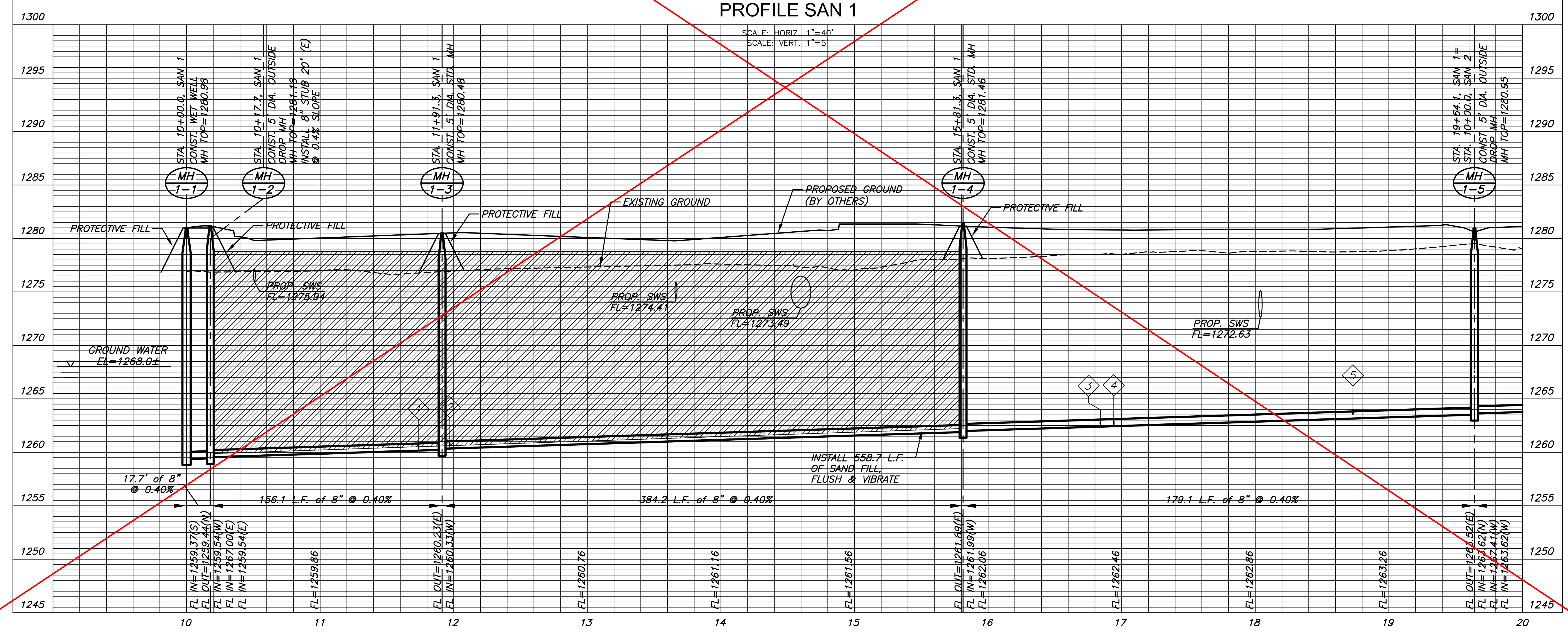


SEE LIFT STATION DETAILS
 ON SHEETS 10 & 11

NOTE:
 CONTRACTOR TO VERIFY THE
 DEPTH AND LOCATION OF EXISTING
 UTILITIES PRIOR TO CONSTRUCTION.

SEE REVISED SHEET

PLAN SAN 1
 PROFILE SAN 1



SANITARY SEWER PLANS FOR
STEEPLE BAY ADDITION
 WICHITA, KANSAS

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SAN LINE 1	
PROJECT NO.	468-85317
DATE	JULY 2018
SCALE	1"=40'
DESIGNED	DRAWN
SPE	MKB
CHECKED	SPE
NO.	REVISION
DATE	
SHEET NO.	
05 OF 25	

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SAN LINE 1

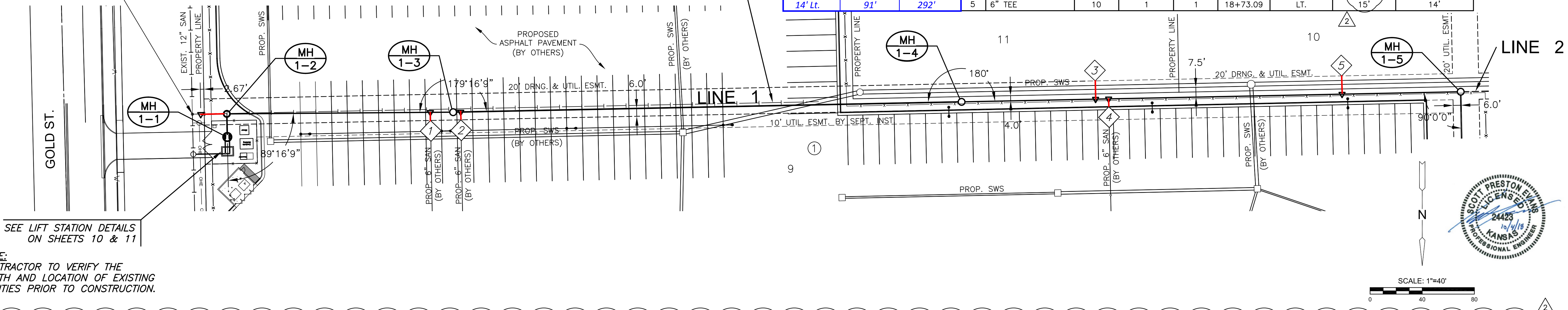
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DATE	AUGUST 2018	
SCALE	1"=40'	
DESIGNED	DRAWN	CHECKED
SPE	MKB	SPE

2	PROFILE CHANGES	10-04-18
NO.	REVISION	DATE

Distance from Main to Riser (Lt./Rt.)	Distance from		SEWER SERVICE RISER TABLE						FOR INFORMATION ONLY		
	Upstream MH	Downstream MH	NO.	TYPE	LOT NO.	BLOCK NO.	LINE NO.	STATION	DIRECTION	VERTICAL (FT)	HORIZONTAL (FT)
6' Rt.	17'	156'	1	6" TEE	9	1	1	11+73.80	RT.	17'	6'
6' Rt.	384'	6'	2	6" TEE	9	1	1	11+97.07	RT.	17'	6'
14' Lt.	280'	103'	3	6" TEE	11	1	1	16+84.04	LT.	16'	14'
6' Rt.	270'	113'	4	6" TEE	9	1	1	16+94.04	RT.	16'	6'
14' Lt.	91'	292'	5	6" TEE	10	1	1	18+73.09	LT.	15'	14'

MHSS TOP=1275.88
N 12" CLAY FL=1271.08
S 12" CLAY FL=1271.08
W 8" CLAY FL=1271.38

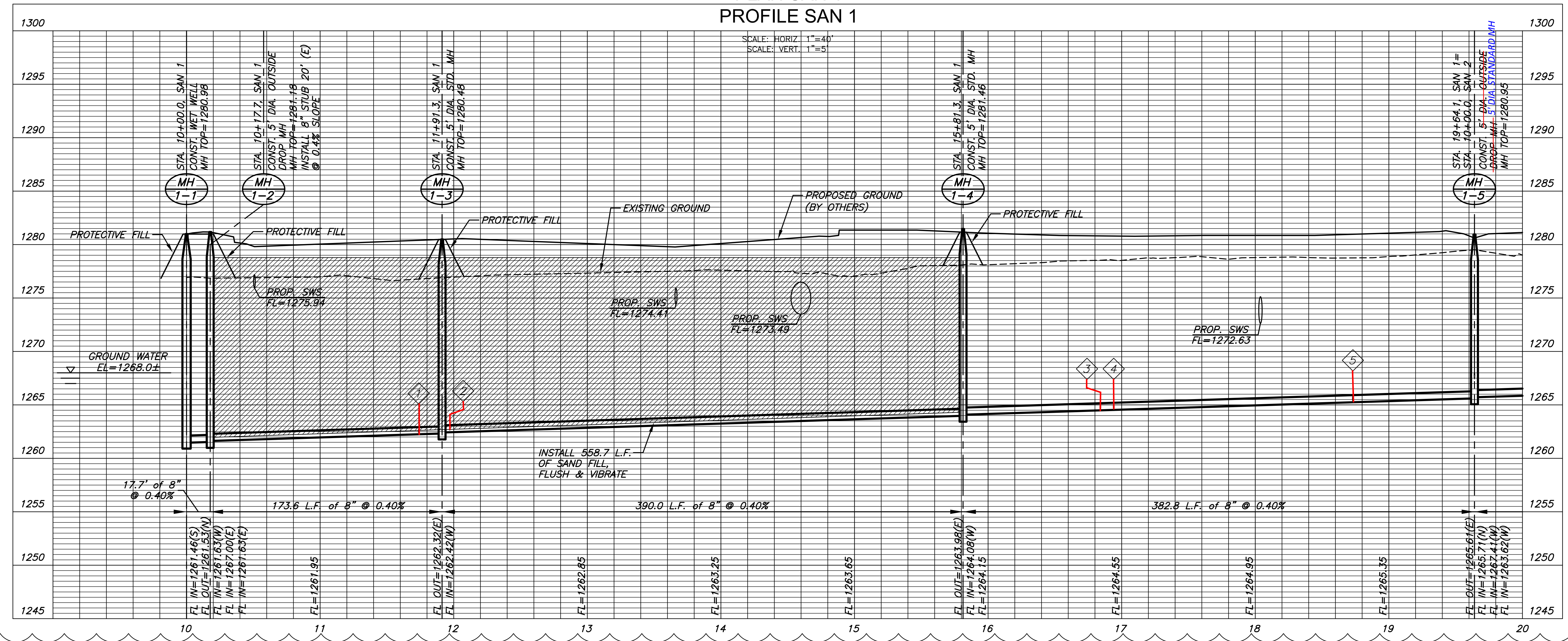
ABANDONED SANITARY LINE TO BE REMOVED



SEE LIFT STATION DETAILS ON SHEETS 10 & 11

NOTE:
CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

**PLAN SAN 1
PROFILE SAN 1**

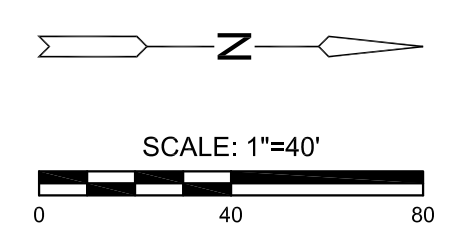
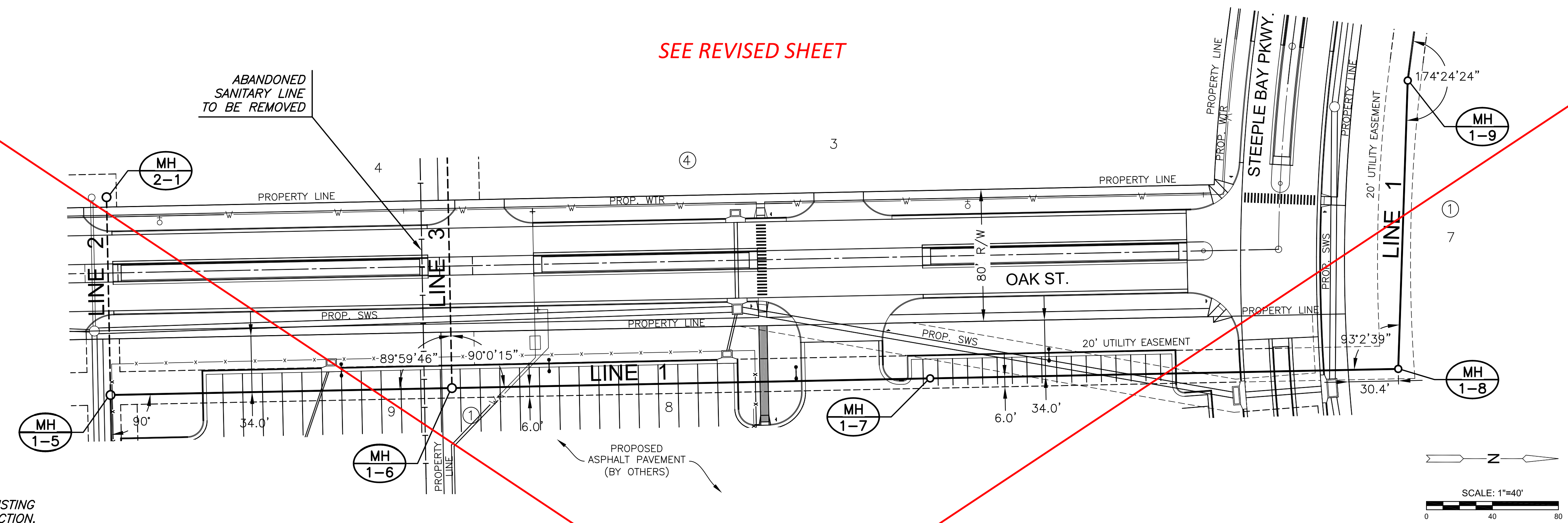


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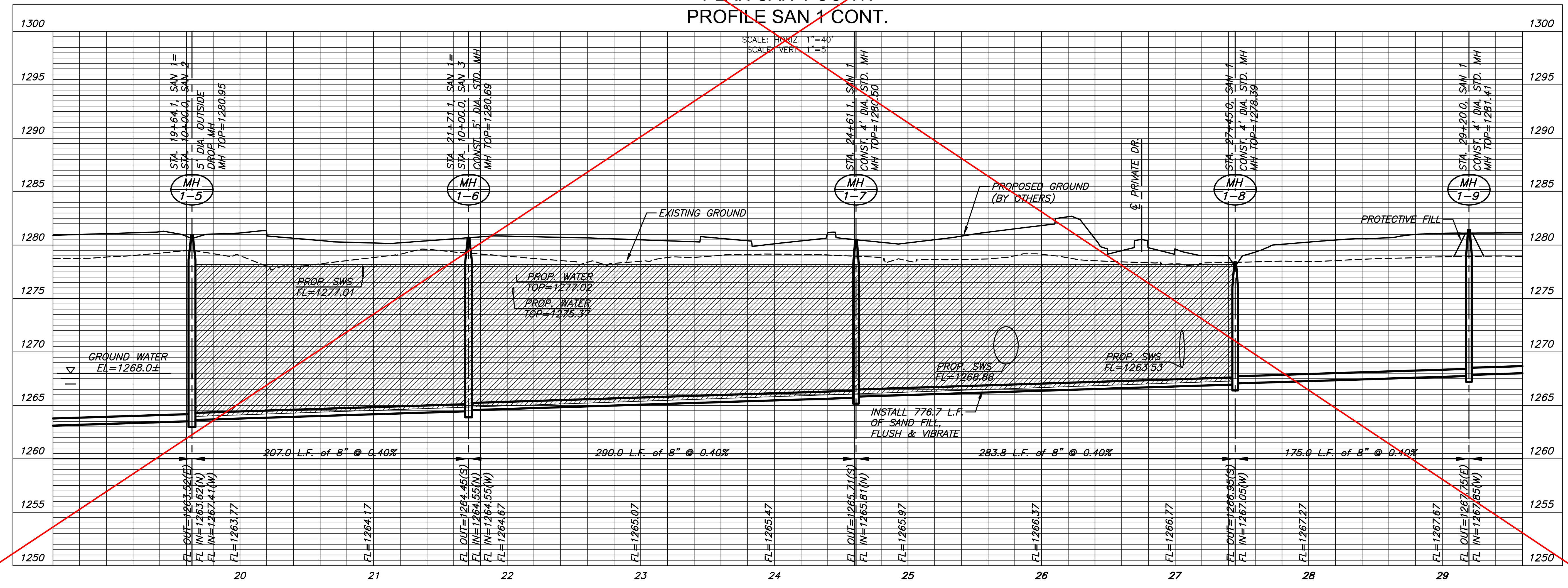
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SEE REVISED SHEET



NOTE:
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PLAN SAN 1 CONT.
PROFILE SAN 1 CONT.



SANITARY SEWER PLANS FOR

STEEPLE BAY ADDITION

WICHITA, KANSAS

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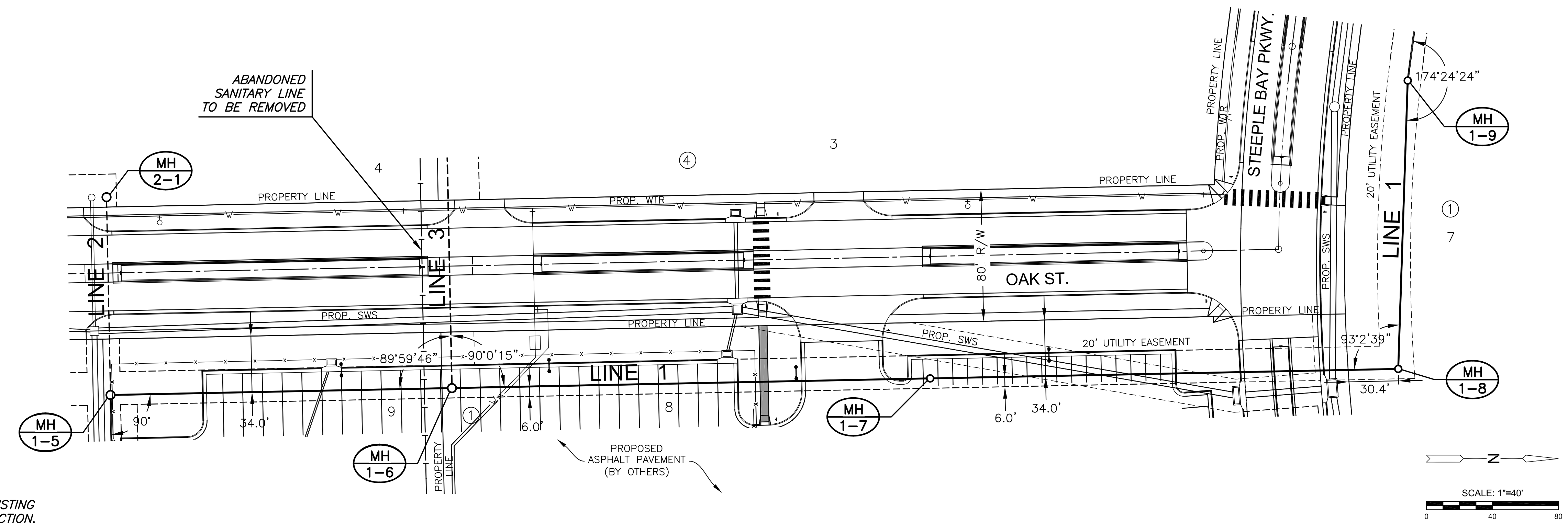
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SPE	MKB	SPE

NO.	REVISION	DATE

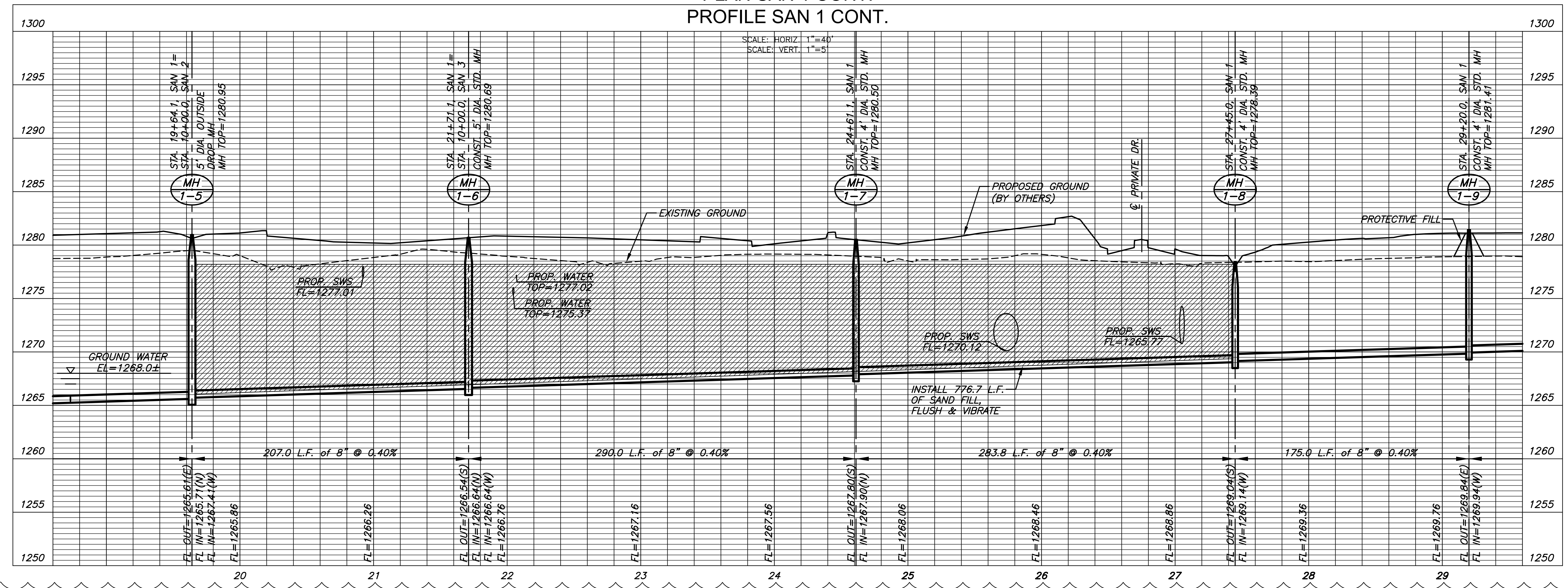
SHEET NO.
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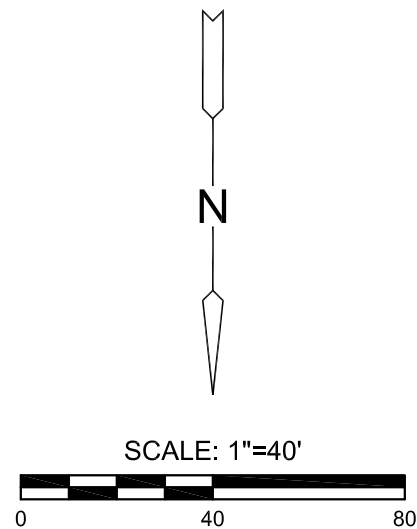
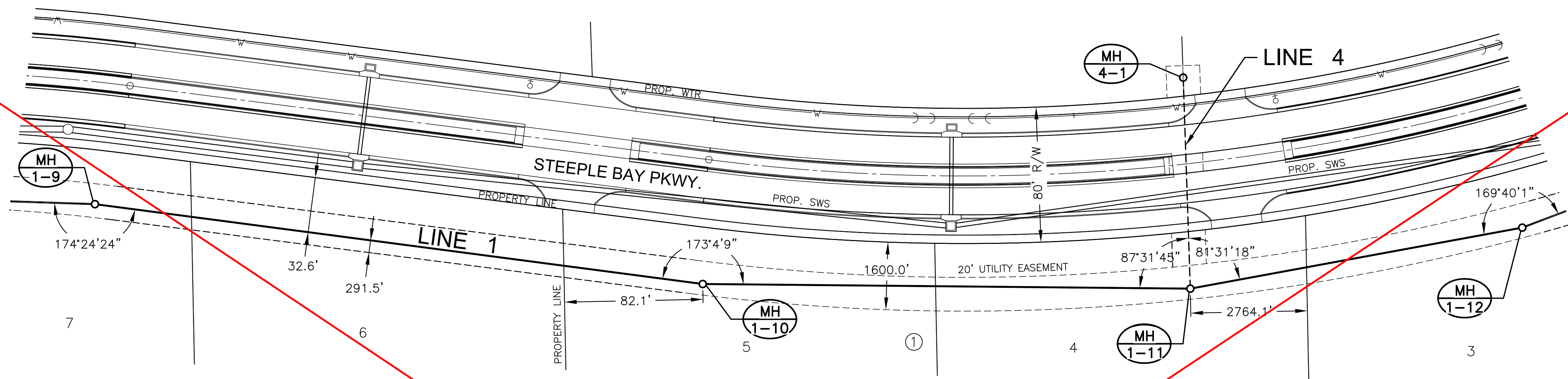
PLAN SAN 1 CONT.
PROFILE SAN 1 CONT.



SANITARY SEWER PLANS FOR
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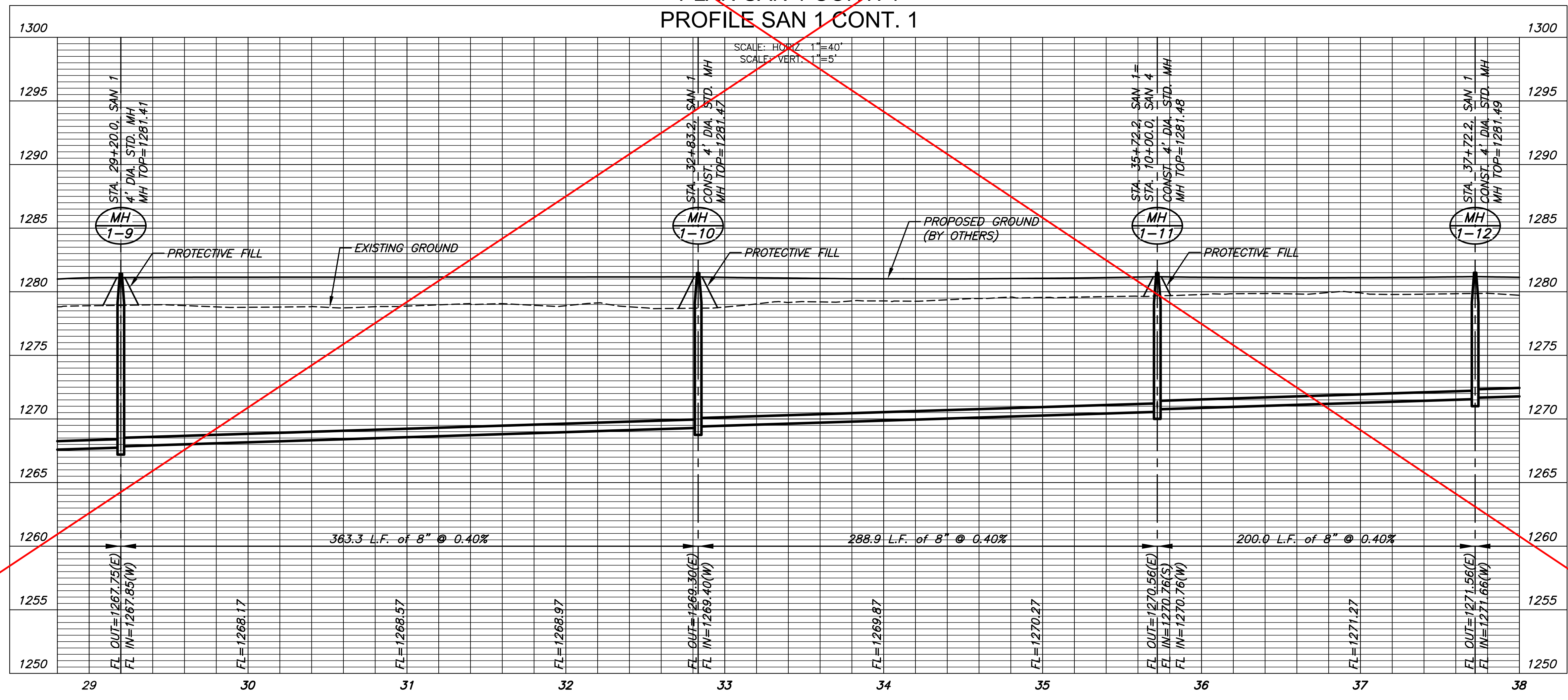
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DATE	AUGUST 2018
SCALE	1"=40'
DESIGNED	DRAWN
SPE	MKB
CHECKED	SPE
2 PROFILE CHANGES	10-04-18
NO. REVISION	DATE
SHEET NO. 06 OF 25	



NOTE:
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SEE REVISED SHEET

PLAN SAN 1 CONT. 1
PROFILE SAN 1 CONT. 1

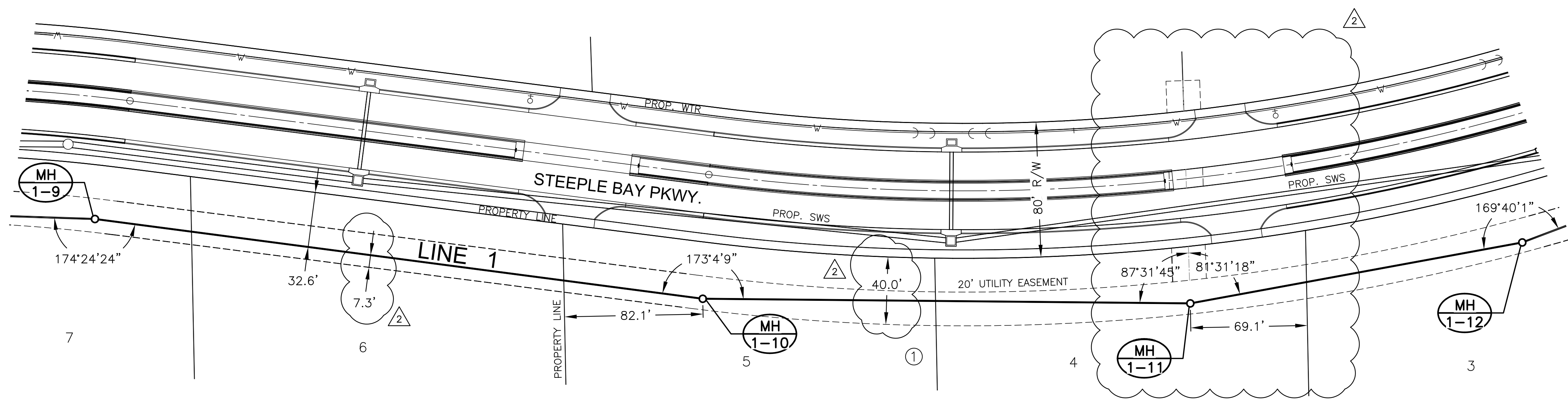


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SAN LINE 1 CONT.		
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DATE	JULY 2018	
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07 OF 25		

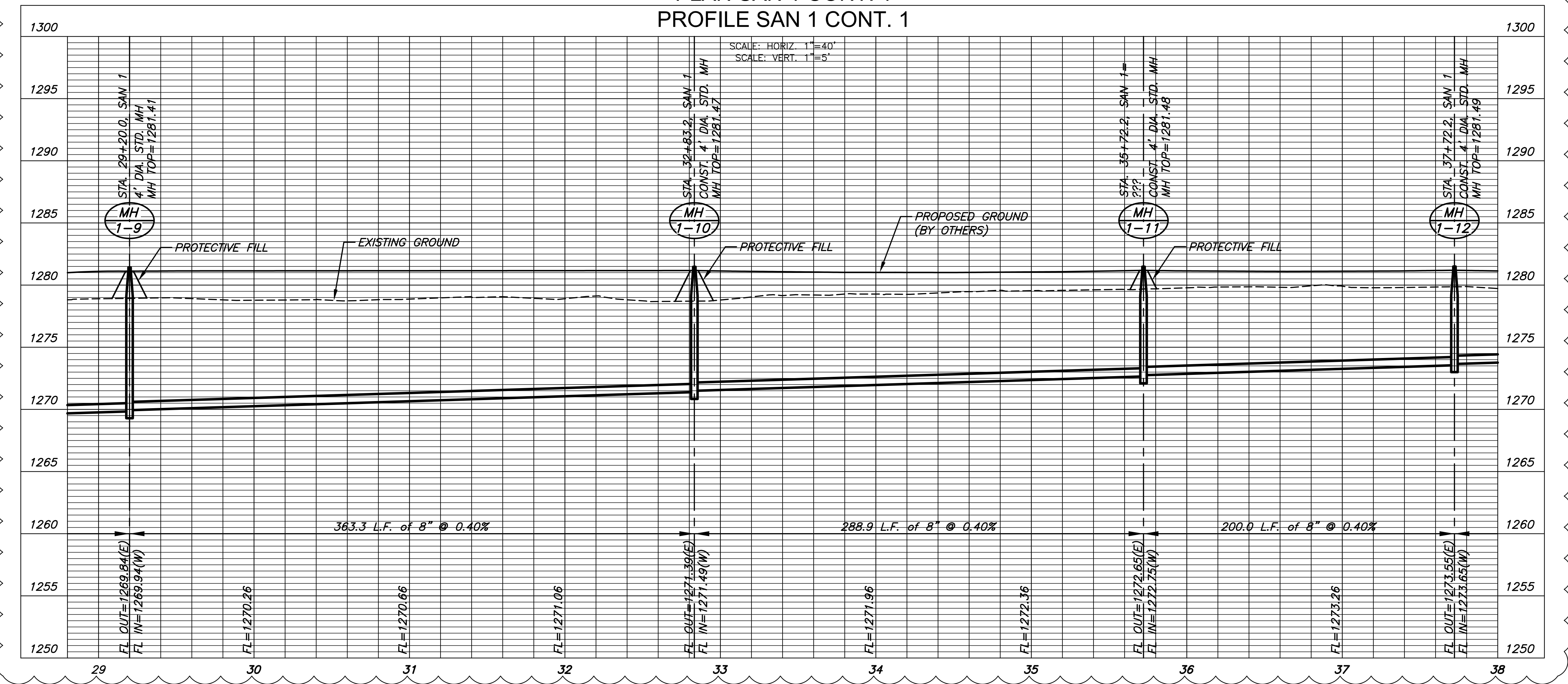
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PLAN SAN 1 CONT. 1
PROFILE SAN 1 CONT. 1



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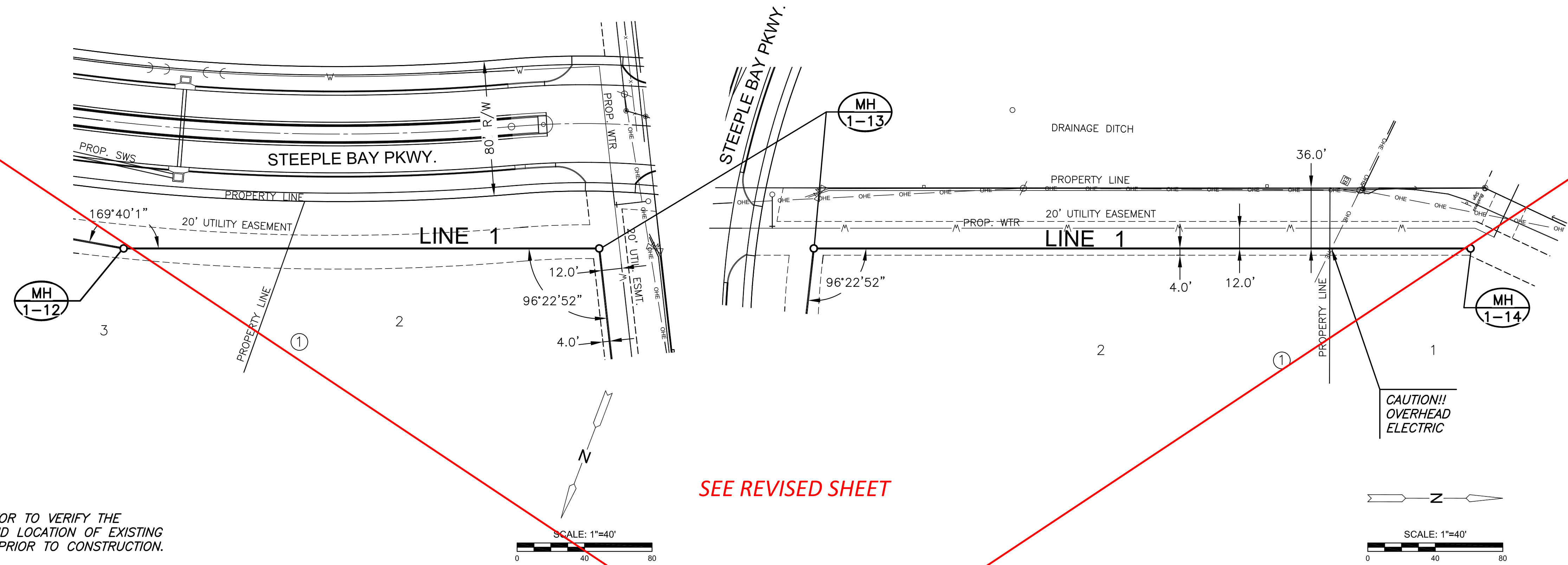
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DATE	AUGUST 2018	
SCALE	1"=40'	
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2	PROFILE CHANGES	10-04-18
NO.	REVISION	DATE
SHEET NO.		07 OF 25

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SANITARY SEWER PLANS FOR
STEEPLE BAY ADDITION
WICHITA, KANSAS

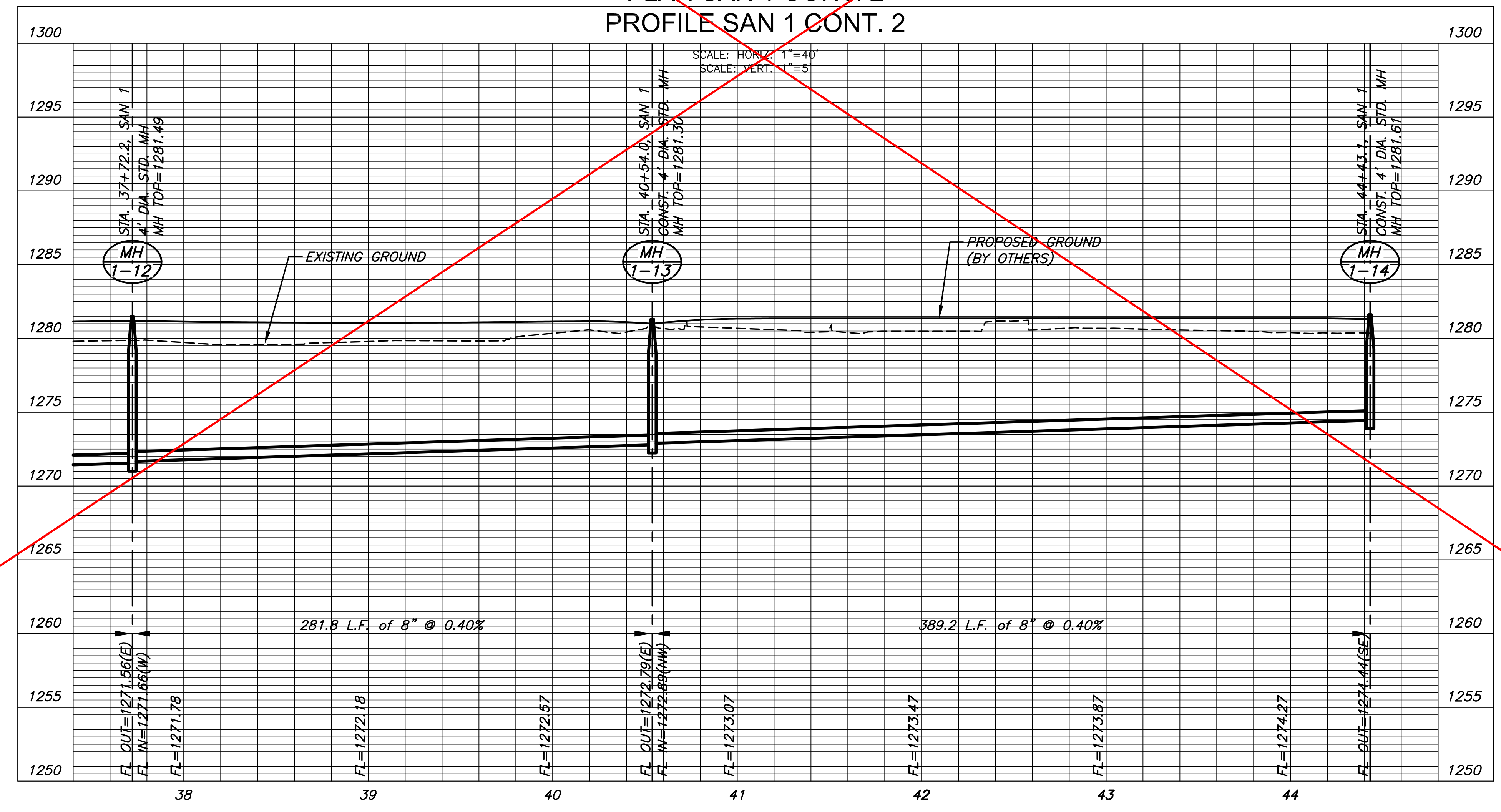


NOTE:
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SEE REVISED SHEET



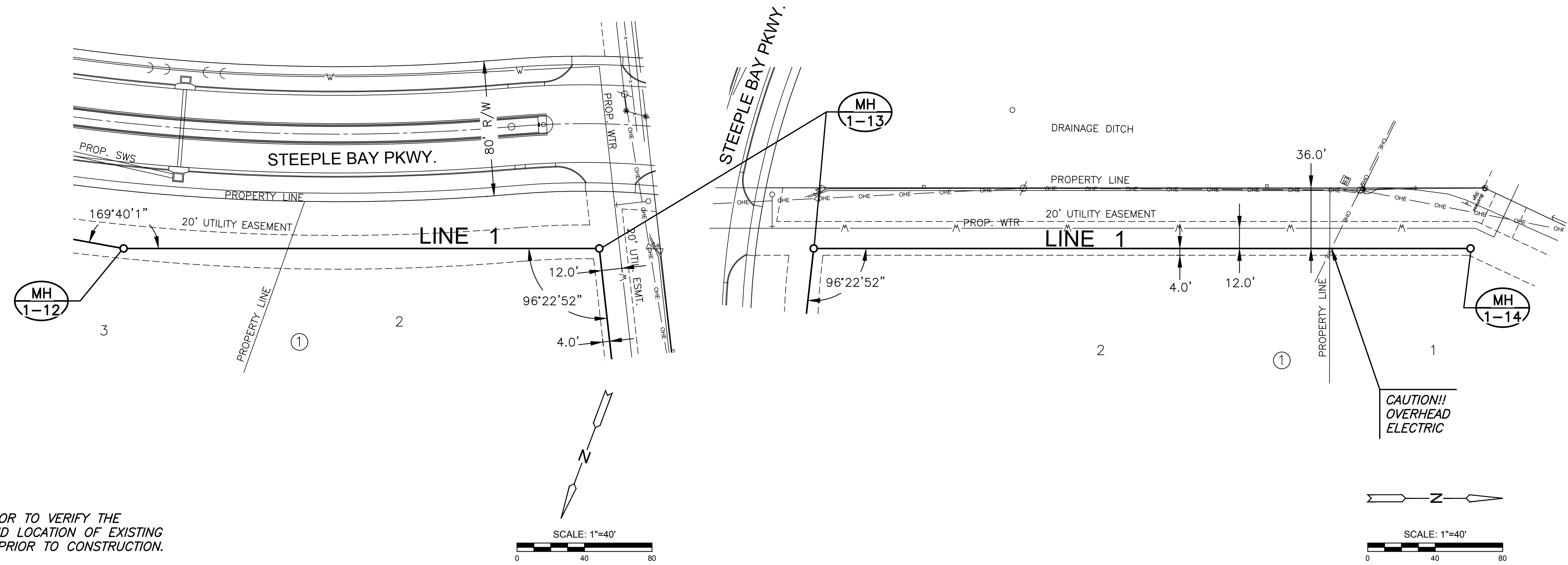
PLAN SAN 1 CONT. 2
PROFILE SAN 1 CONT. 2



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SAN LINE 1 CONT.		
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DATE	JULY 2018	
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NO.	REVISION	DATE
SHEET NO. 08 OF 25		

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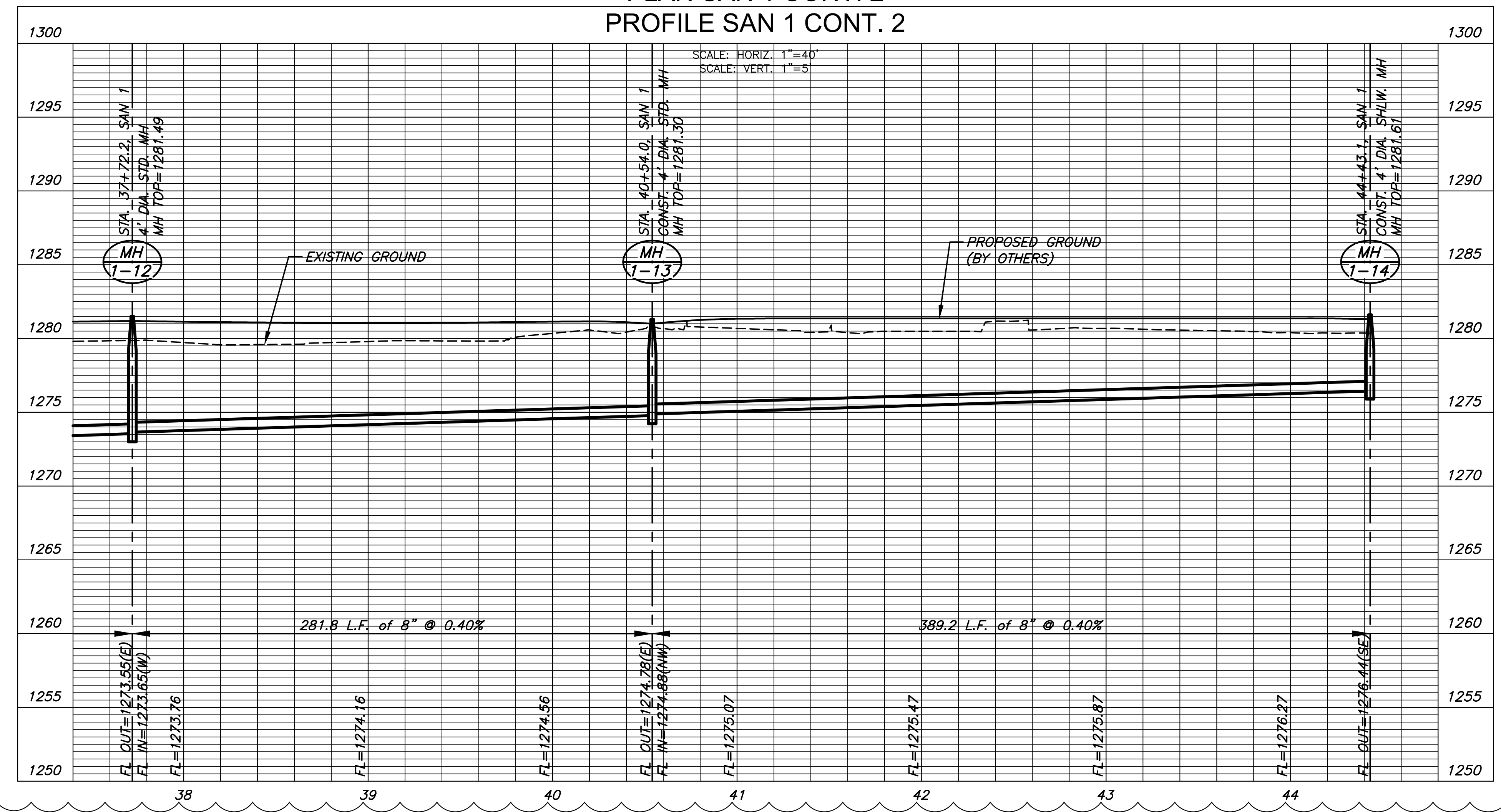


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UTILITIES PRIOR TO CONSTRUCTION.



SANITARY SEWER PLANS FOR
STEEPLE BAY ADDITION
WICHITA, KANSAS

PLAN SAN 1 CONT. 2
PROFILE SAN 1 CONT. 2

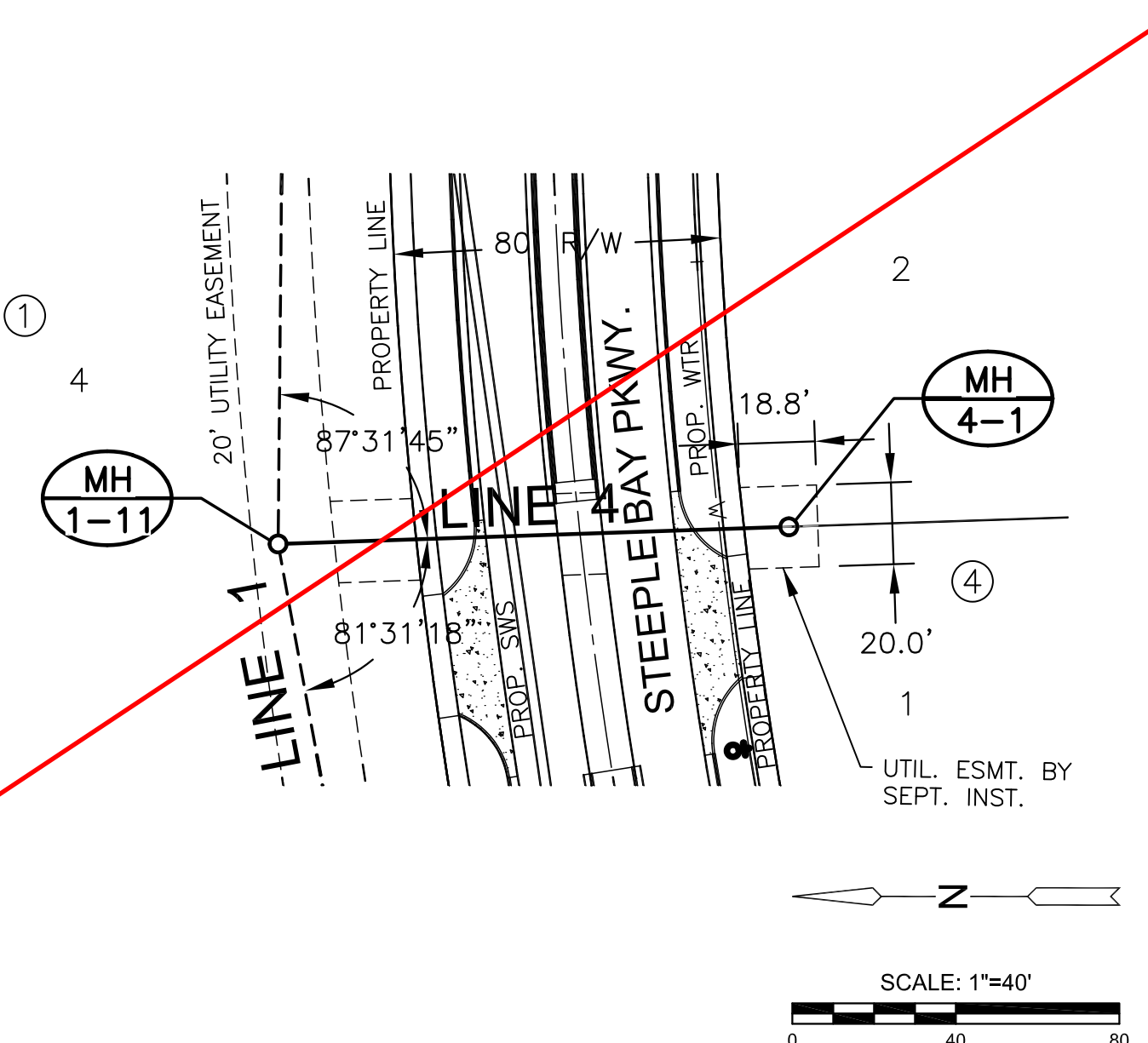
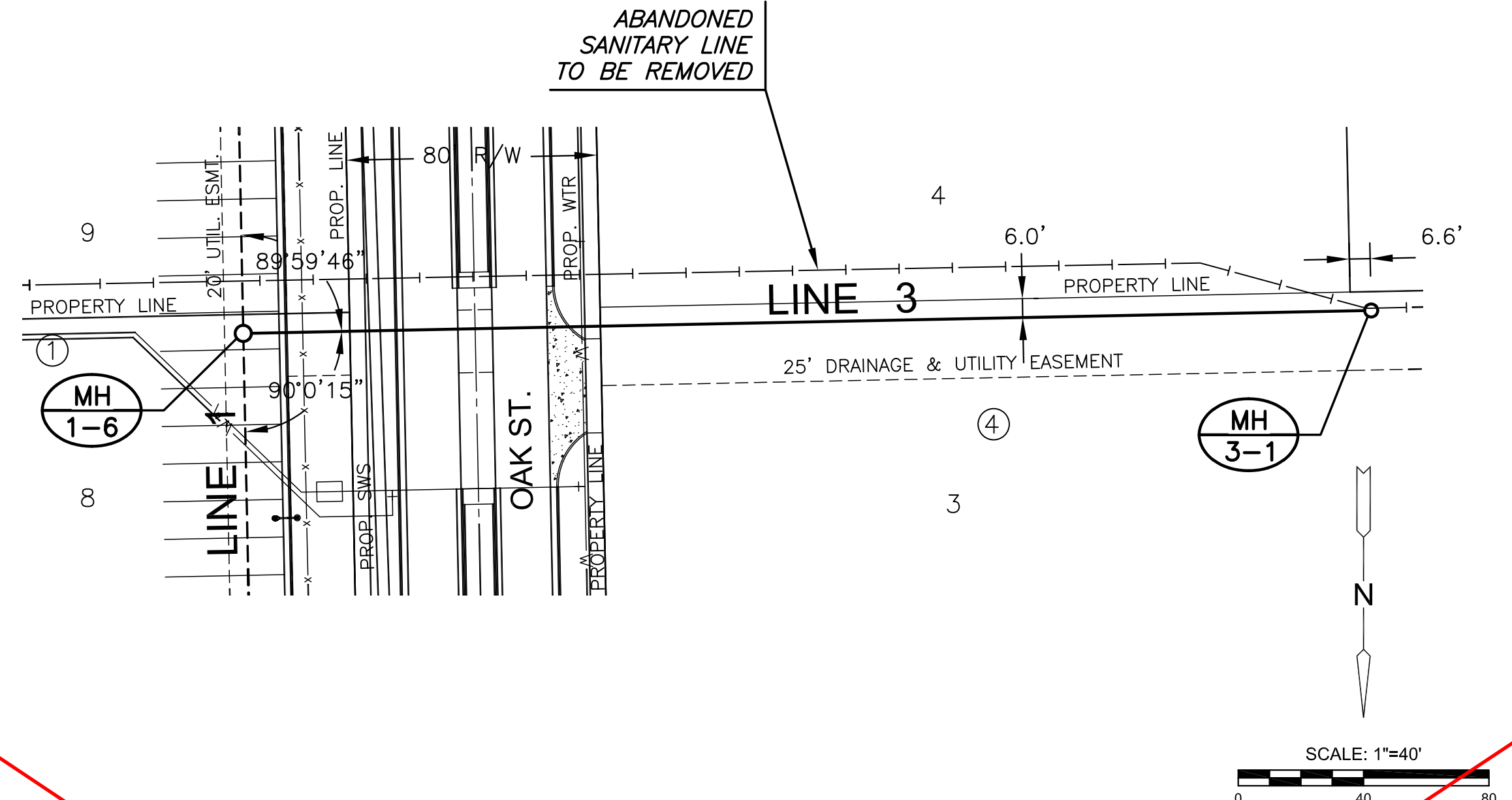
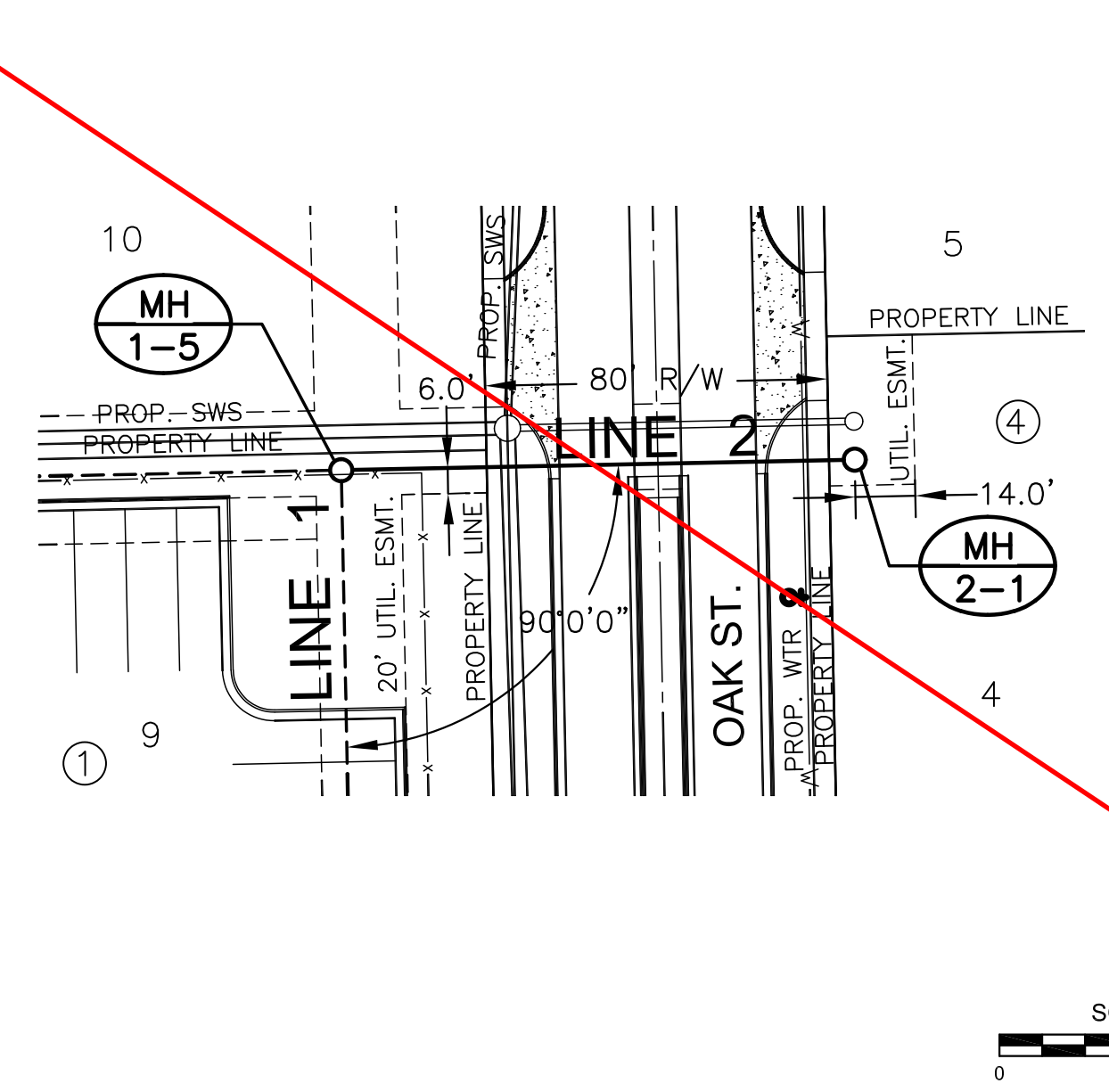


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SAN LINE 1 CONT.		
PROJECT NO.	468-85317	
DATE	AUGUST 2018	
SCALE	1"=40'	
DESIGNED	DRAWN	CHECKED
SPE	MKB	SPE
2	PROFILE CHANGES	10-04-18
NO.	REVISION	DATE
SHEET NO.		
08 OF 25		

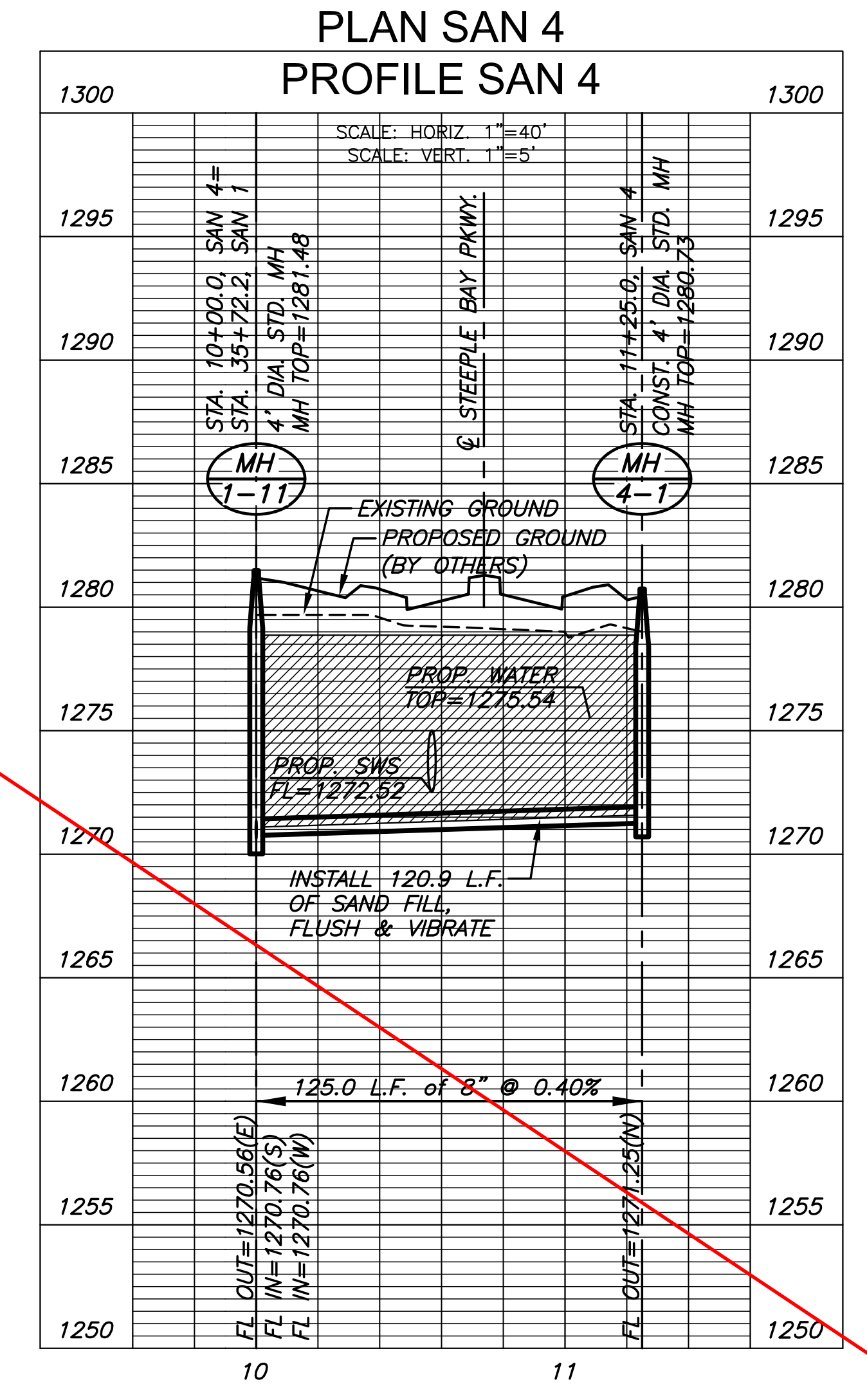
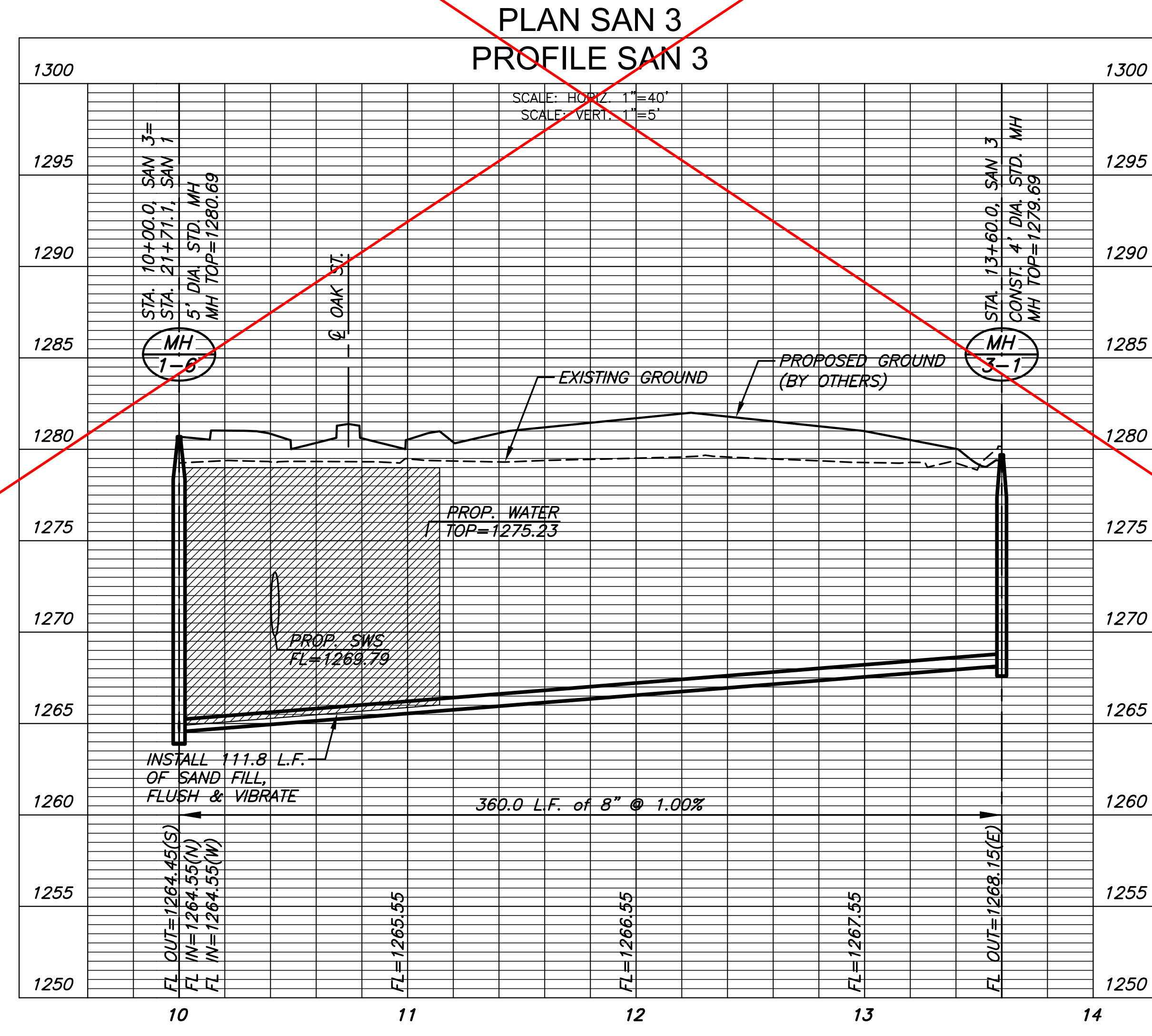
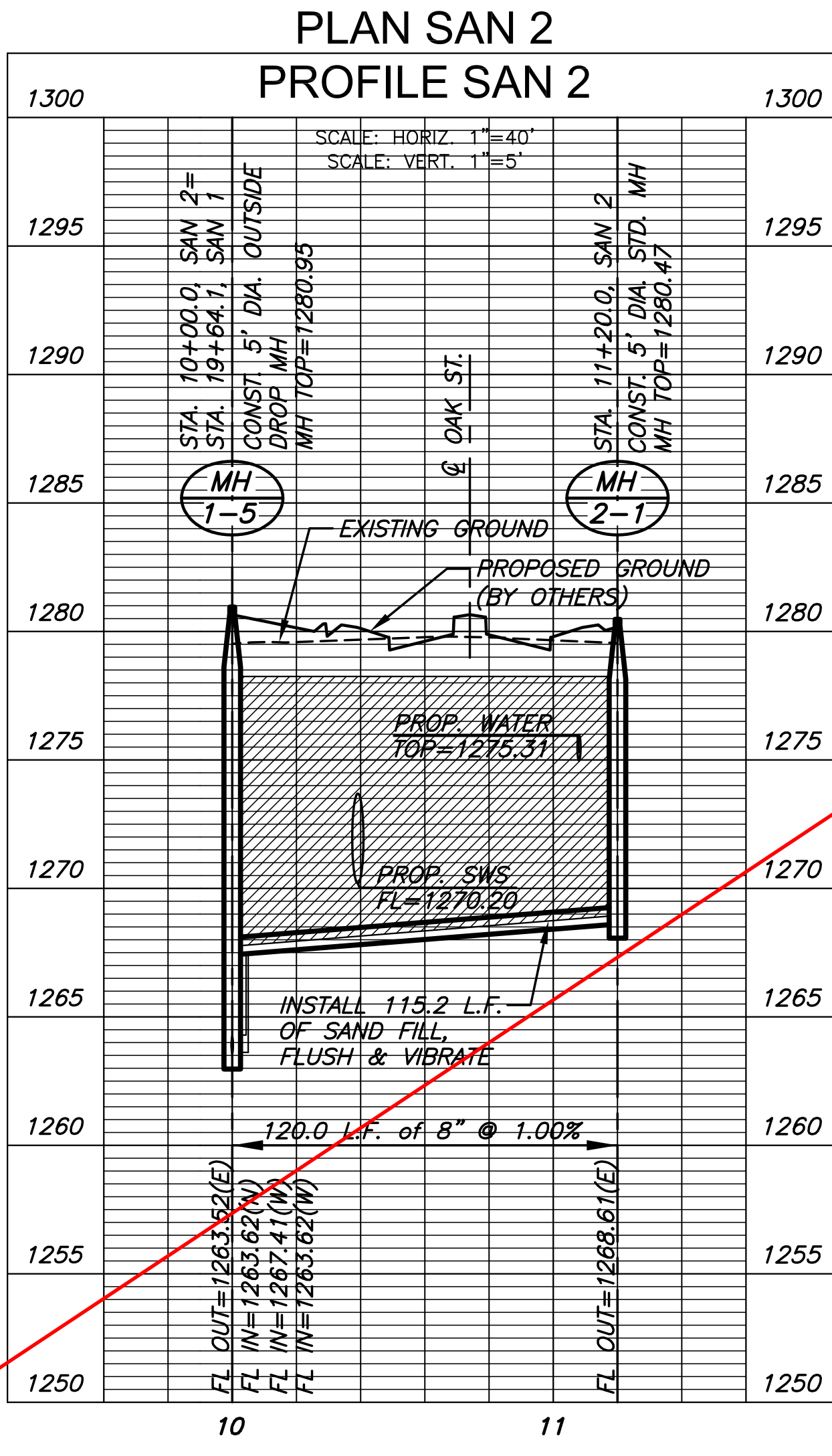
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SEE REVISED SHEET



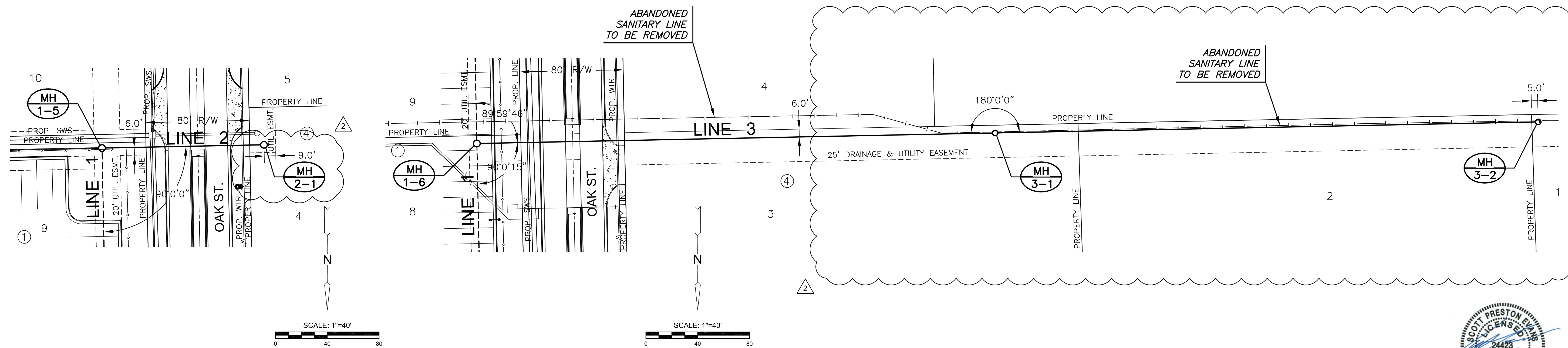
NOTE:
CONTRACTOR TO VERIFY THE
DEPTH AND LOCATION OF EXISTING
UTILITIES PRIOR TO CONSTRUCTION.



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SAN LINE 2, LINE 3 & LINE 4		
PROJECT NO.	468-85317	
DATE	AUGUST 2018	
SCALE	1"=40'	
DESIGNED	DRAWN	CHECKED
SPE	MKB	SPE
NO.	REVISION	DATE
SHEET NO. 09 OF 25		

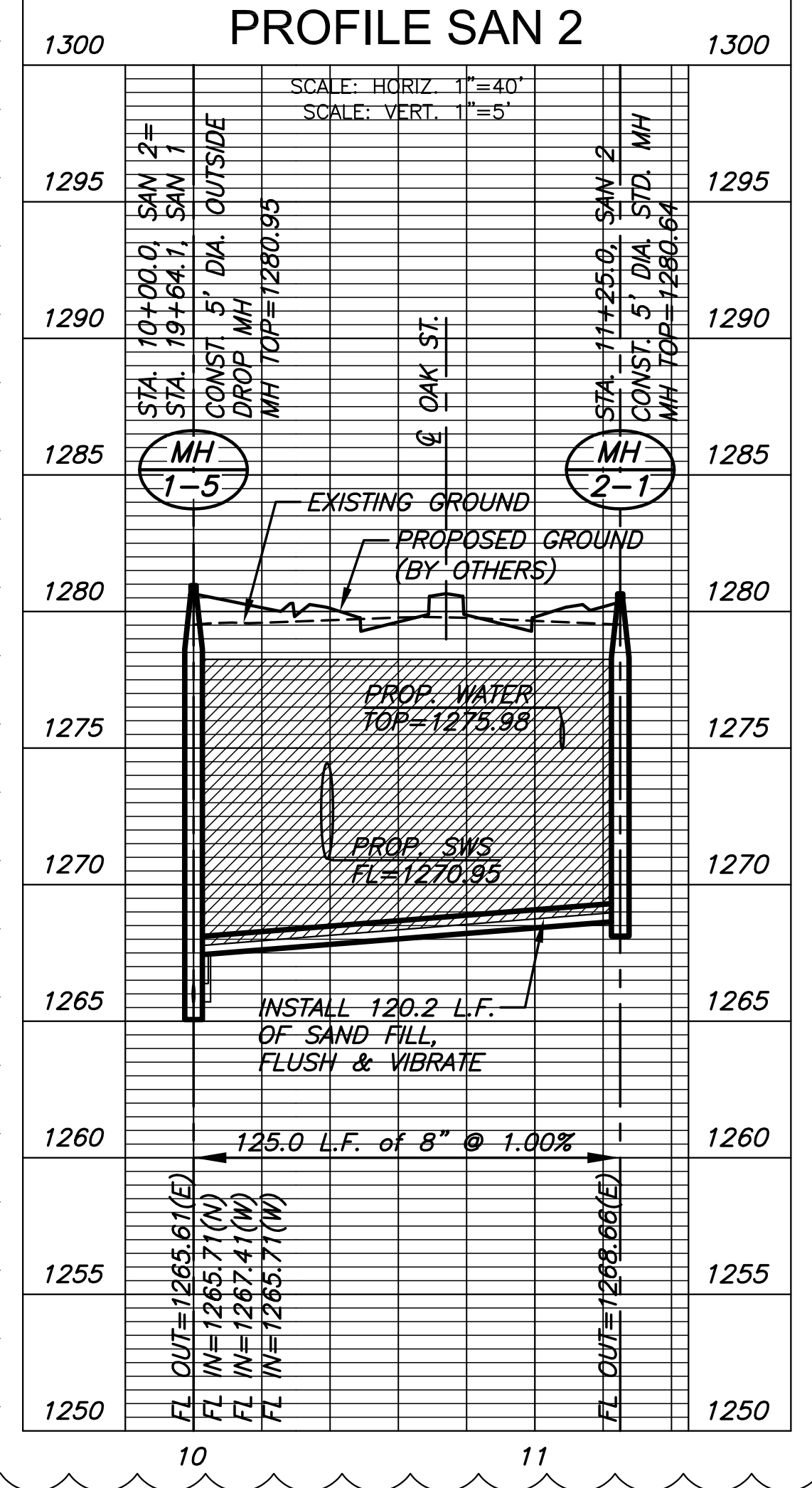
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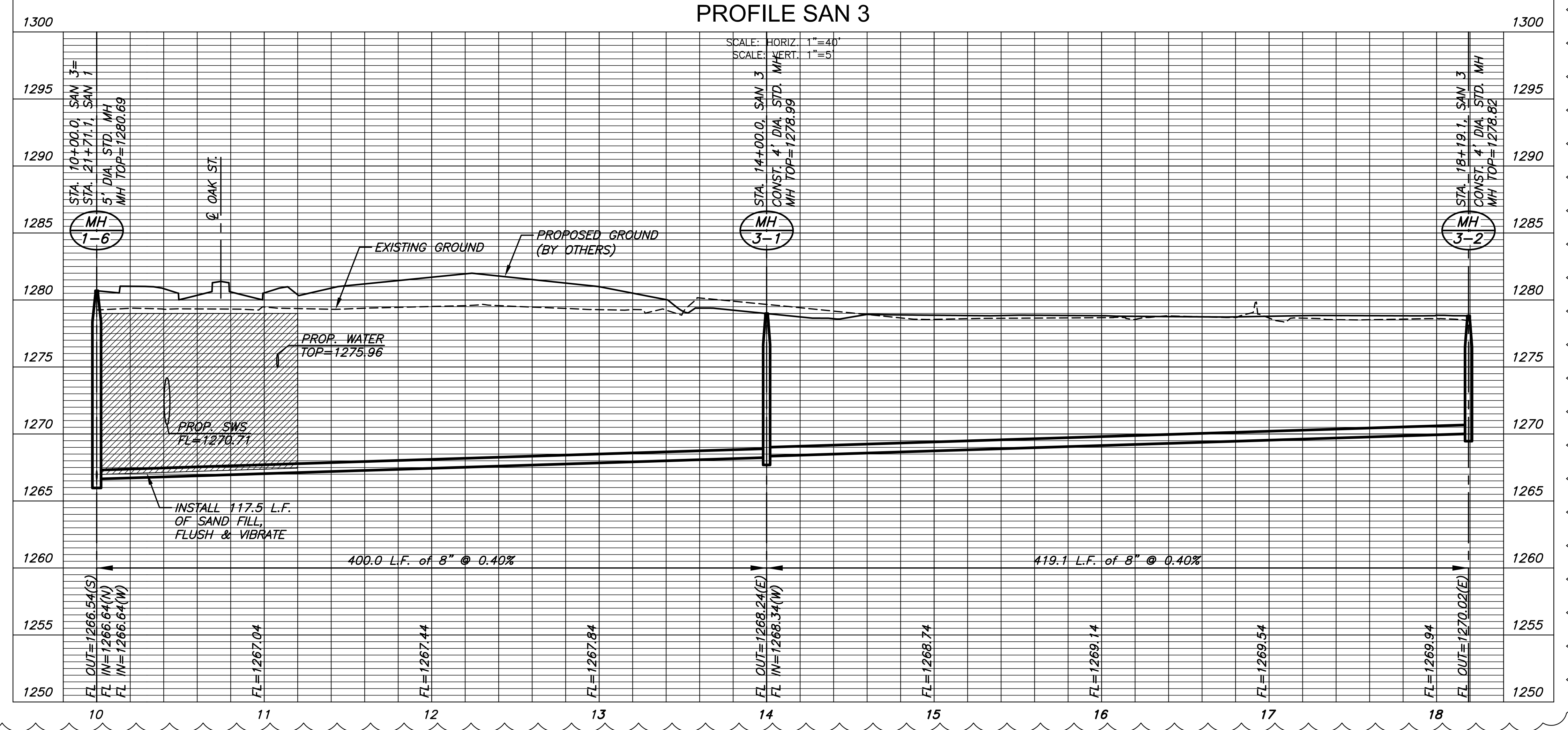
NOTE:
CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.



PLAN SAN 2
PROFILE SAN 2



PLAN SAN 3
PROFILE SAN 3



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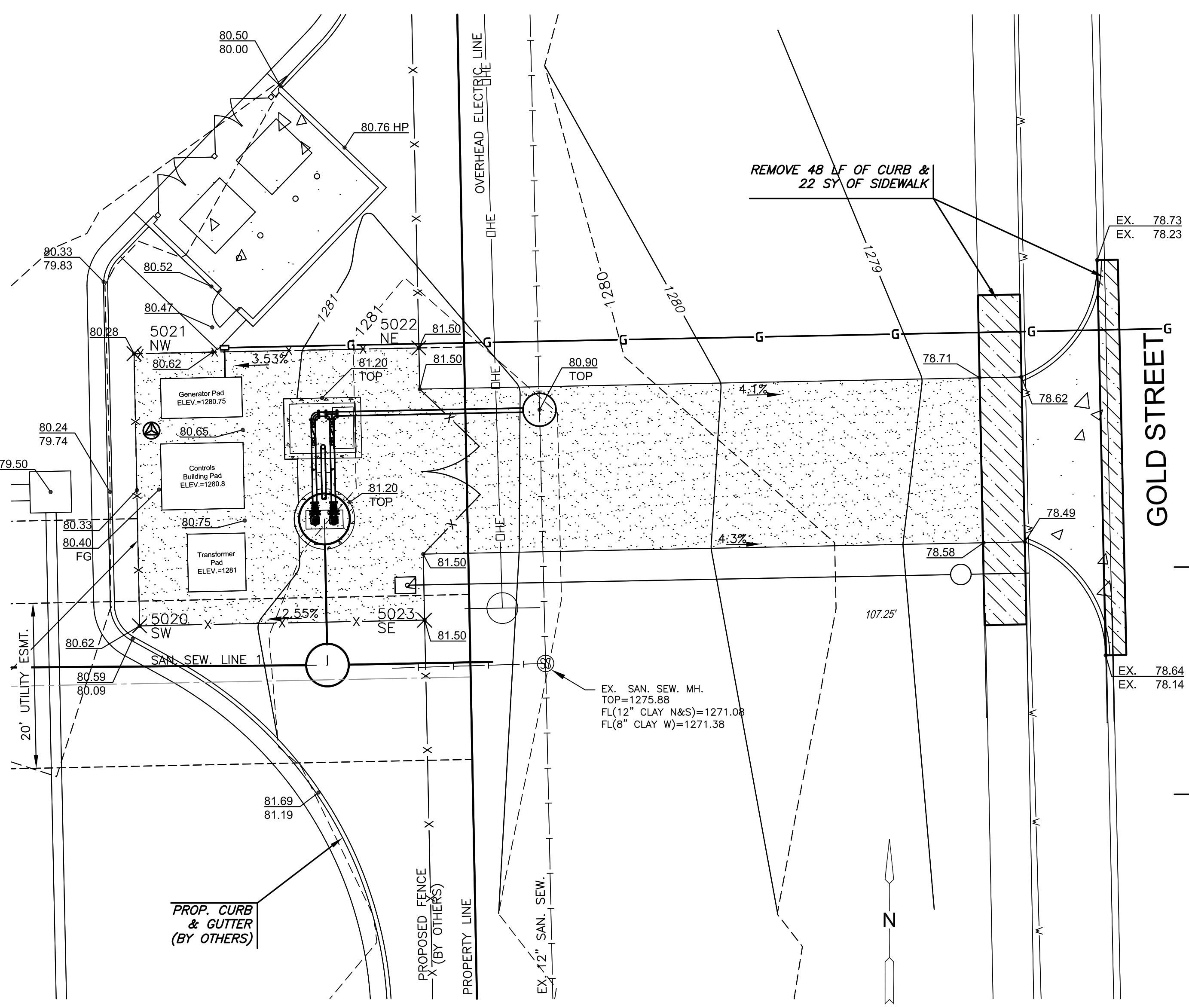
SAN LINE 2 & LINE 3

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DATE	AUGUST 2018	
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DESIGNED	DRAWN	CHECKED
SPE	MKB	SPE

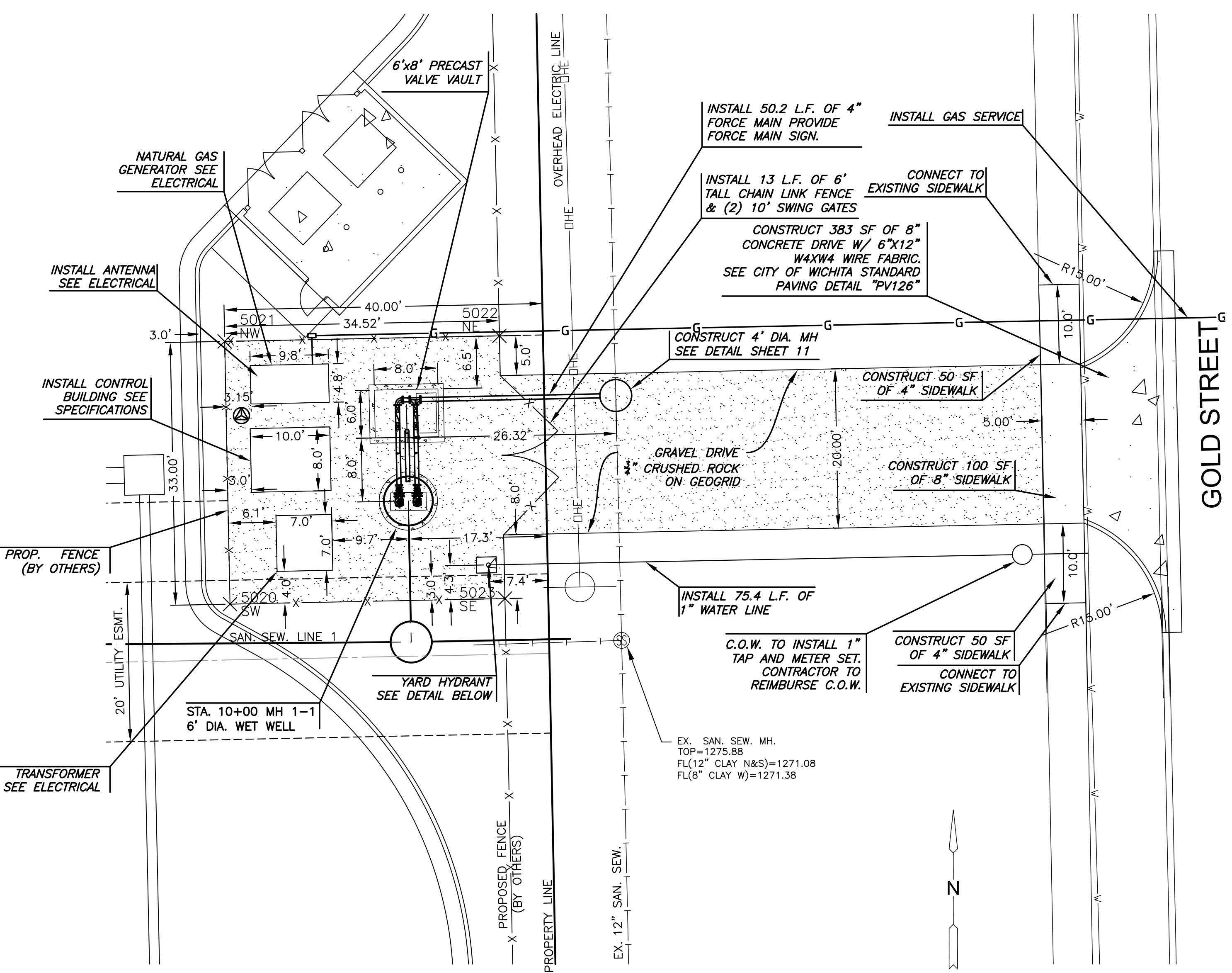
2	PROFILE CHANGES	10-04-18
NO.	REVISION	DATE

SANITARY SEWER PLANS FOR
STEEPLE BAY ADDITION
WICHITA, KANSAS

PLOTTED: Wednesday, August 22, 2018 @ 11:17AM
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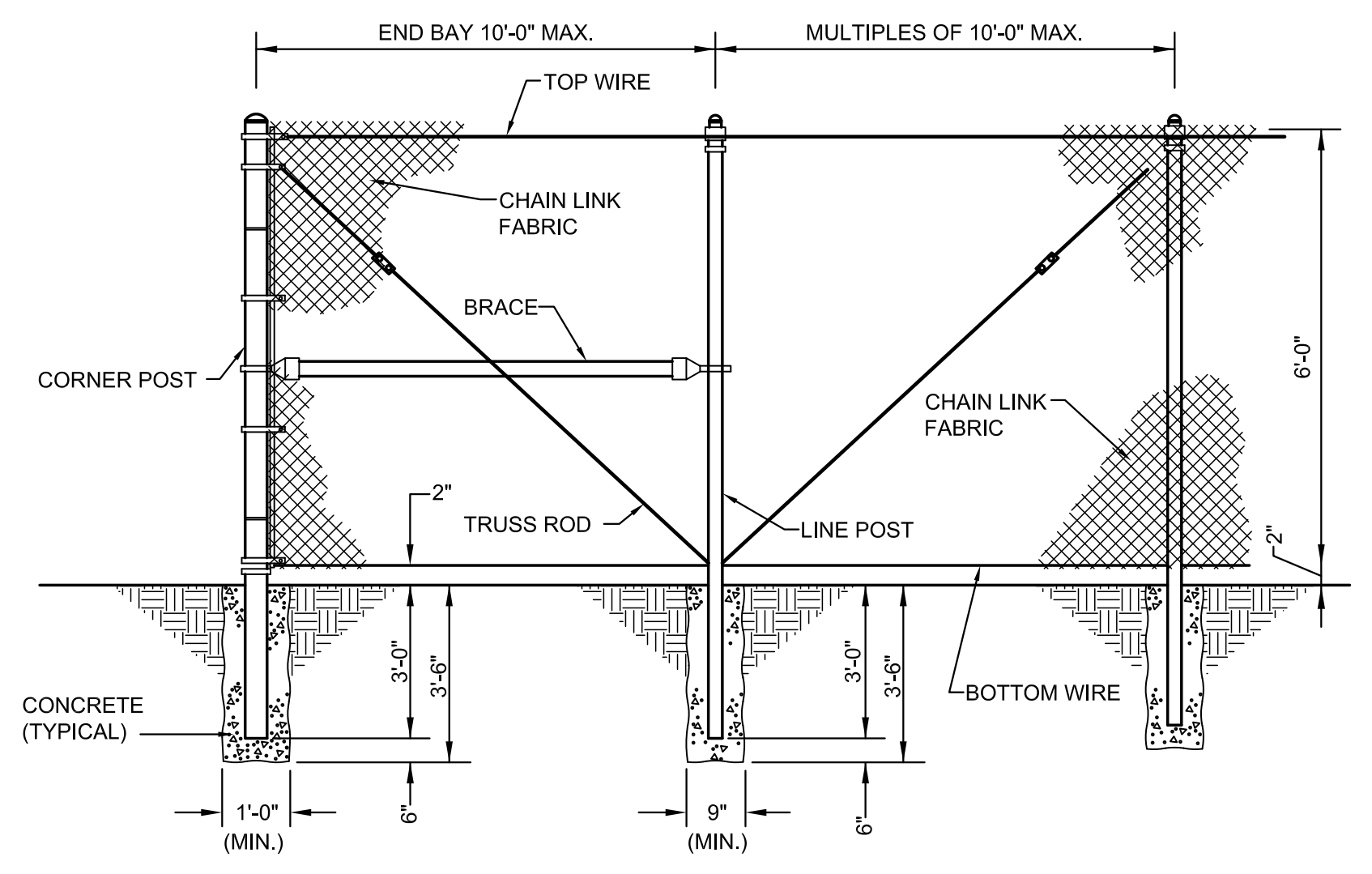


GRADING PLAN
SCALE: 1"=10'

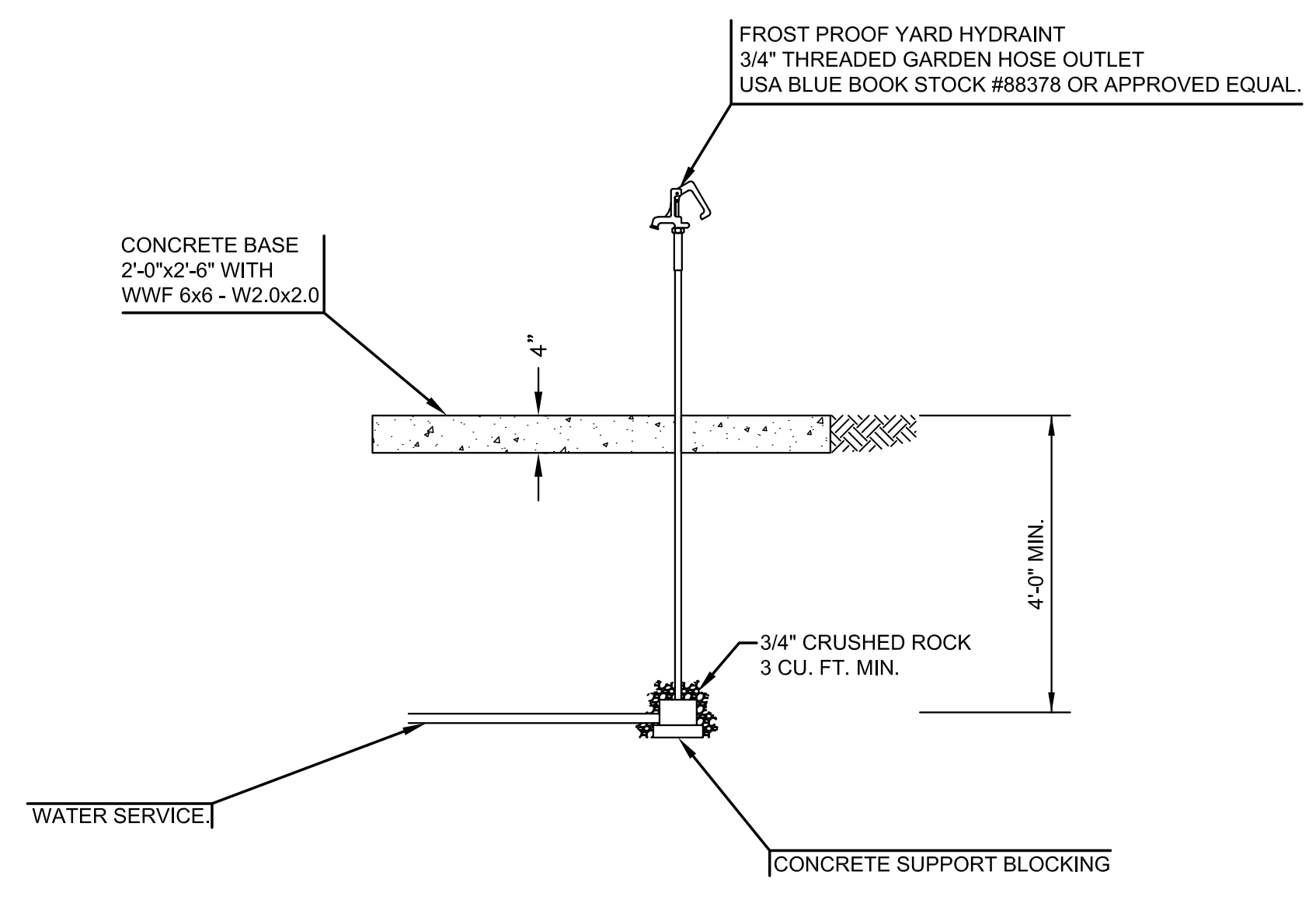
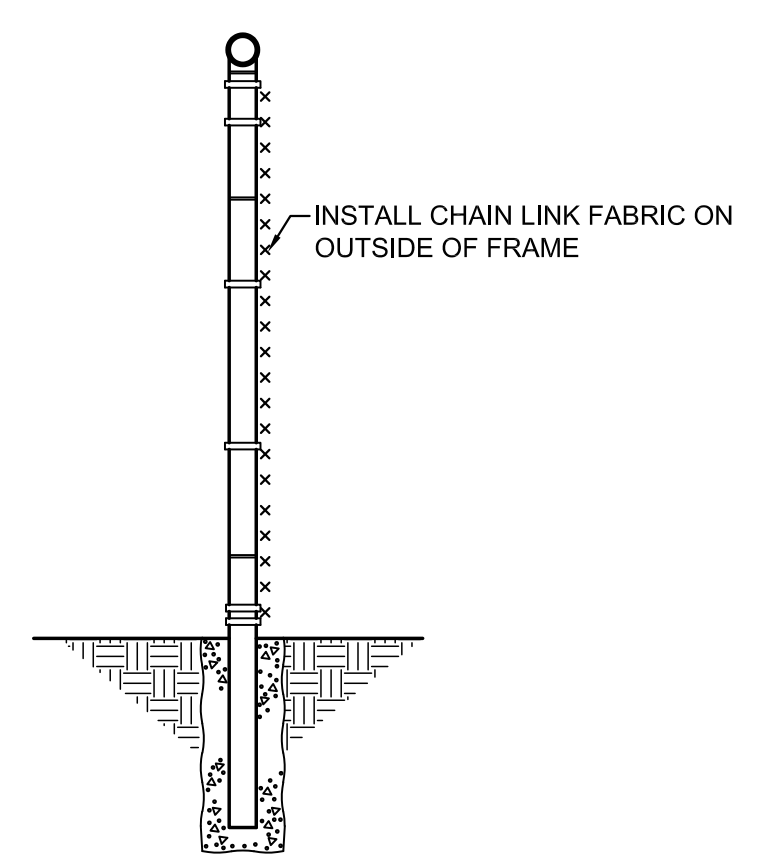


SITE PLAN
SCALE: 1"=10'

NOTE: CHAIN LINK FENCE TO BE AMERISTAR PERMACOAT PC20 (COLOR: BLACK) OR APPROVED EQUAL BY OWNER.



1 CHAIN LINK FENCE 6' HEIGHT
SCALE: NTS



2 POST HYDRANT DETAIL
SCALE: NTS



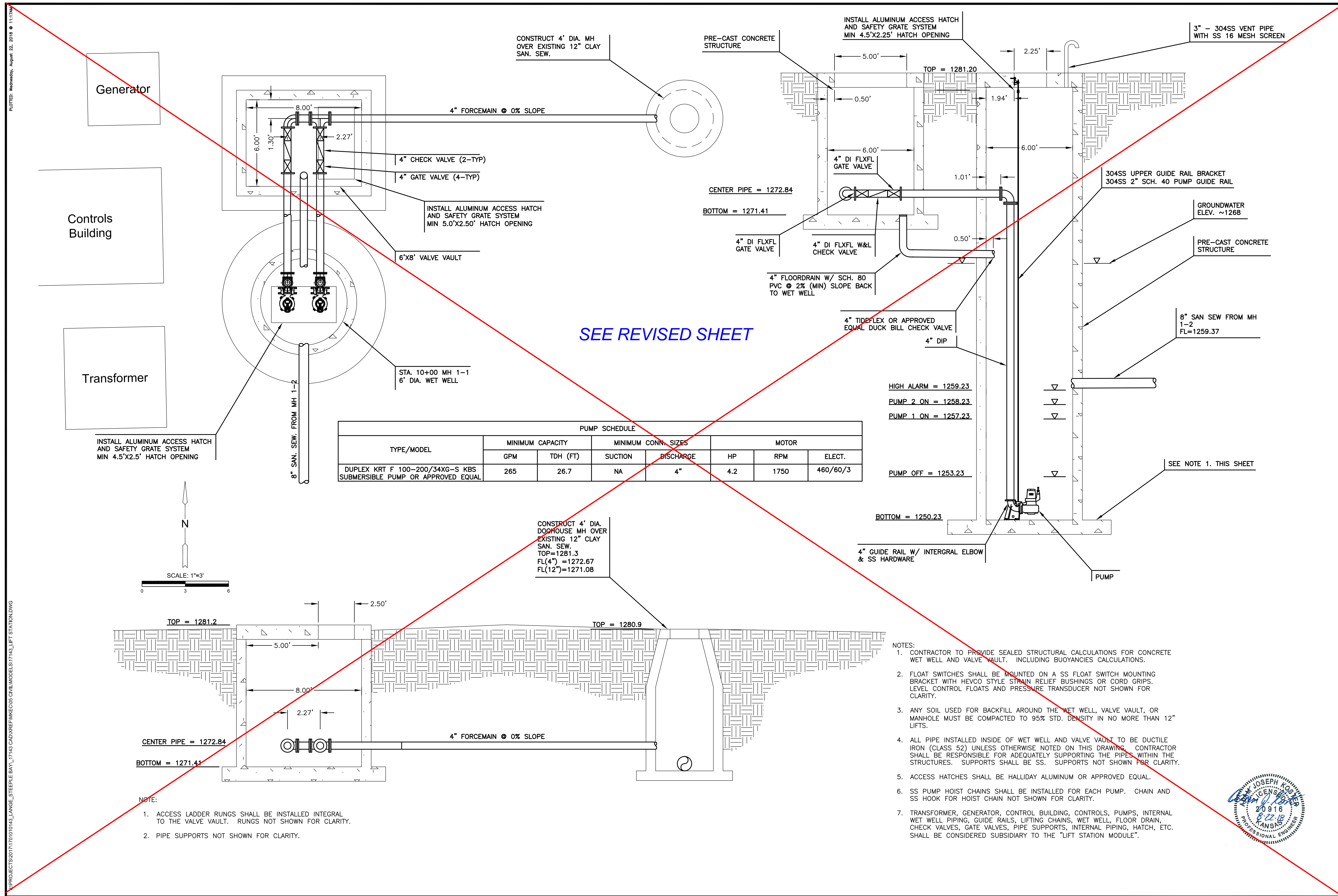
FENCE POINTS			
Point #	Northing	Easting	Desc.
5020	1662963.91	1647390.63	SW
5021	1662996.91	1647389.97	NW
5022	1662997.61	1647424.48	NE
5023	1662964.62	1647425.18	SE

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LIFT STATION PLAN

PROJECT NO.	468-85317	
DATE	AUGUST 2018	
SCALE	1" = 10'	
DESIGNED	DRAWN	CHECKED
AJK	AJK	AJK

NO.	REVISION	DATE



SEE REVISED SHEET

TYPE/MODEL	MINIMUM CAPACITY		MINIMUM CONN. SIZES		MOTOR		
	GPM	TDH (FT)	SUCTION	DISCHARGE	HP	RPM	ELECT.
DUPLX KRT F 100-200/34XG-S KBS SUBMERSIBLE PUMP OR APPROVED EQUAL	265	26.7	NA	4"	4.2	1750	460/60/3

- HIGH ALARM = 1259.23
- PUMP 2 ON = 1258.23
- PUMP 1 ON = 1257.23
- PUMP OFF = 1253.23

- NOTES:
- CONTRACTOR TO PROVIDE SEALED STRUCTURAL CALCULATIONS FOR CONCRETE WET WELL AND VALVE VAULT. INCLUDING BUOYANCIES CALCULATIONS.
 - FLOAT SWITCHES SHALL BE MOUNTED ON A SS FLOAT SWITCH MOUNTING BRACKET WITH HEVCO STYLE STRAIN RELIEF BUSHINGS OR CORD GRIPS. LEVEL CONTROL FLOATS AND PRESSURE TRANSDUCER NOT SHOWN FOR CLARITY.
 - ANY SOIL USED FOR BACKFILL AROUND THE WET WELL, VALVE VAULT, OR MANHOLE MUST BE COMPACTED TO 95% STD. DENSITY IN NO MORE THAN 12" LIFTS.
 - ALL PIPE INSTALLED INSIDE OF WET WELL AND VALVE VAULT TO BE DUCTILE IRON (CLASS 52) UNLESS OTHERWISE NOTED ON THIS DRAWING. CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SUPPORTING THE PIPES WITHIN THE STRUCTURES. SUPPORTS SHALL BE SS. SUPPORTS NOT SHOWN FOR CLARITY.
 - ACCESS HATCHES SHALL BE HALLIDAY ALUMINUM OR APPROVED EQUAL.
 - SS PUMP HOIST CHAINS SHALL BE INSTALLED FOR EACH PUMP. CHAIN AND SS HOOK FOR HOIST CHAIN NOT SHOWN FOR CLARITY.
 - TRANSFORMER, GENERATOR, CONTROL BUILDING, CONTROLS, PUMPS, INTERNAL WET WELL PIPING, GUIDE RAILS, LIFTING CHAINS, WET WELL, FLOOR DRAIN, CHECK VALVES, GATE VALVES, PIPE SUPPORTS, INTERNAL PIPING, HATCH, ETC. SHALL BE CONSIDERED SUBSIDIARY TO THE "LIFT STATION MODULE".



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LIFT STATION DETAILS

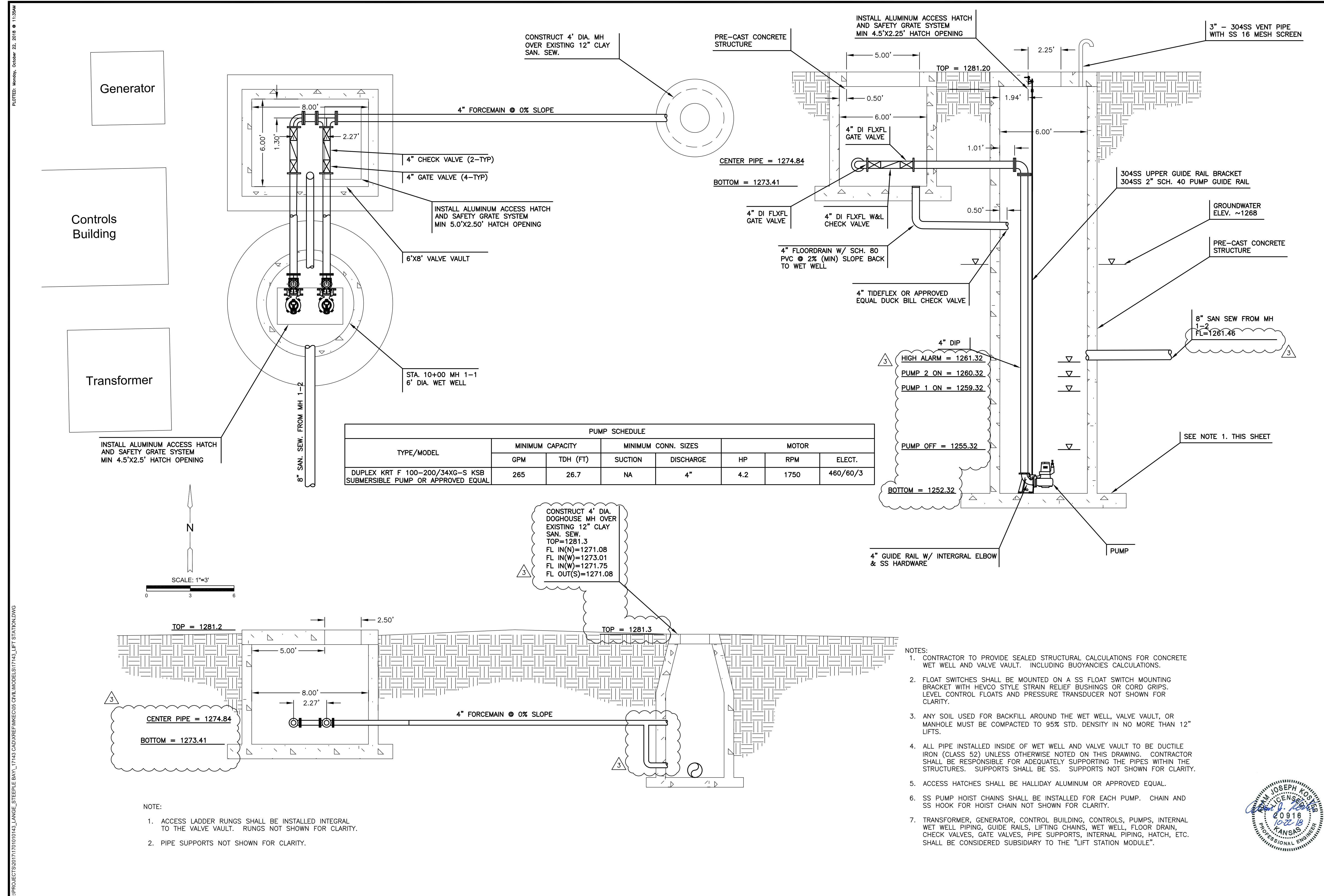
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DATE	AUGUST 2018	
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DRAWN	AJK	
CHECKED	AJK	
NO.	REVISION	DATE

LIFT STATION DETAILS

PROJECT NO.	468-85317	
DATE	AUGUST 2018	
SCALE	Custom	
DESIGNED	DRAWN	CHECKED
AJK	AJK	AJK

NO.	REVISION	DATE
3	WET WELL REVISION	10-22-18

SHEET NO.



PLOTTED: Monday, October 22, 2018 @ 11:35AM
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 PLOTTED: Wednesday, August 22, 2018 @ 10:21AM

ELECTRICAL GENERAL NOTES

- A. COORDINATION WITH OTHER TRADES:**
- CONTRACTOR SHALL VERIFY ALL EQUIPMENT LOCATIONS WITH CIVIL PLANS, ELEVATIONS AND REVIEWED SHOP DRAWINGS PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION.
 - ELECTRICAL CONTRACTOR SHALL VERIFY TOTAL CONNECT LOAD/HP WITH MECHANICAL AND ALL OTHER CONTRACTORS PRIOR TO WIRING OF ALL EQUIPMENT. MAKE ANY CHANGES TO OVERCURRENT DEVICES OR FEED SIZE PER THE NATIONAL ELECTRICAL CODE, APPLICABLE VERSION.
- B. CONDUIT AND WIRE:**
- ALL POWER WIRING OF ALL SYSTEMS SHALL BE COPPER WITH INSULATED GROUND WIRE IN STEEL CONDUIT AND STEEL BOXES UNLESS SPECIFICALLY NOTED OTHERWISE. ALL EXTERIOR, EXPOSED CONDUIT SHALL BE PVC-COATED RGS. ALL INTERIOR CONDUIT SHALL BE RGS. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC WITH RGS ELBOWS.
 - ALL CONNECTIONS TO EQUIPMENT SUBJECT TO MOVEMENT OR VIBRATIONS SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT, NOT LESS THAN 12" IN LENGTH, NOR GREATER THAN 36" IN LENGTH.
 - MULTIPLE CIRCUITS ON THE SAME PHASE SHALL NOT BE COMBINED IN A SINGLE RACEWAY UNLESS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS. SINGLE PHASE BRANCH CIRCUIT HOME RUNS MAY BE COMBINED AT THE CONTRACTOR'S DISCRETION NOT GREATER THAN THREE CIRCUITS CONSISTING OF (3) PHASE CONDUCTORS, (3) NEUTRAL CONDUCTORS, AND GROUNDING CONDUCTOR.
 - THE MINIMUM WIRE SIZE SHALL BE #12 FOR ALL POWER CIRCUITS. EACH CIRCUIT SHALL HAVE A SEPARATE AND DEDICATED NEUTRAL FROM THE PANEL. SEE BRANCH CIRCUIT VOLTAGE DROP TABLE FOR SIZING OF CONDUCTORS.
 - THE MINIMUM CONDUIT SIZE IS 0.5".
 - UNDER-SLAB CONDUIT SHALL NOT BE IN THE SLAB, BUT BELOW IT IN THE DENSE GRADE AGGREGATE, AND PARALLEL TO THE SLAB.
 - ALL CONDUIT UNDER GROUND SHALL BE A MINIMUM OF 1". THIS APPLIES FOR BOTH LINE VOLTAGE AND DATA/COMMUNICATIONS. ALL BENDS UNDERGROUND, HORIZONTAL OR VERTICAL, SHALL BE RIGID GALVANIZED STEEL. NO EXCEPTION.
 - MAINTAIN MAXIMUM SPACE BETWEEN LOW VOLTAGE CABLES WITH METAL CONDUCTORS AND SOURCES OF INTERFERENCE INCLUDING: POWER WIRING, ALL LIGHT FIXTURES, AND ESPECIALLY MOTORS AND TRANSFORMERS. ELECTRICAL INTERFERENCE IS REDUCED BY DISTANCE FROM SOURCES. FEEDER ROUTING INDICATED ON THE DRAWINGS DOES NOT INDICATE NEC CODE REQUIRED PULL BOXES. E.C. SHALL BE RESPONSIBLE FOR LOCATING AND INSTALLING REQUIRED PULL BOXES FOR EACH FEEDER.
- D. DEVICES AND BOXES:**
- WEATHERPROOF WHILE IN USE RECEPTACLE COVERS SHALL BE METAL, AND PAINTABLE UNLESS OTHERWISE NOTED.
- E. ELECTRICAL-OTHER:**
- ALL PANELS SHALL BE PANELBOARD CONSTRUCTION WITH BOLT ON BREAKERS. TANDEM BREAKERS SHALL NOT BE USED.
 - UPON COMPLETION OF PROJECT, E.C. SHALL PROVIDE A FULL TYPED AND UPDATED PANEL DIRECTORY FOR EACH PANELBOARD AFFECTED BY THE SCOPE OF THIS PROJECT.

PROJECT GENERAL NOTES

- ALL WORK SHALL COMPLY WITH CURRENT FEDERAL, STATE, AND LOCAL CODES AND ORDINANCES AS WELL AS THE CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL REPORT ANY CONFLICTS TO THE ENGINEER AS SOON AS THEY ARE DISCOVERED.
- THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE A.D.A.A.C. (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES).
- THE CONTRACTOR SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS PRIOR TO BIDDING JOB AND DURING CONSTRUCTION. EXCEPT AS OTHERWISE NOTED, THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, AND LABOR FOR A COMPLETE PROJECT AS SHOWN IN THE DRAWINGS AND SPECIFICATIONS. DRAWINGS AND SPECIFICATIONS CARRY EQUAL IMPORTANCE AND ITEMS LISTED IN EITHER SHALL BE FURNISHED AS IF LISTED IN BOTH. ALSO REVIEW DETAILS AND RISER DIAGRAMS FOR ADDITIONAL ITEMS/INSTRUCTIONS WHETHER SPECIFICALLY REFERRED TO ON PLANS OR NOT.
- THE CONTRACTOR MUST VISIT THE SITE TO FAMILIARIZE HIMSELF WITH THE EXISTING SITE CONDITIONS WHICH WILL BE AFFECTED DURING CONSTRUCTION PRIOR TO SUBMITTING HIS BID PROPOSAL, INCLUDING THE EXTENT OF DEMOLITION AND CONFLICTS WITH PLANS.
- DRAWINGS ARE DIAGRAMMATIC IN NATURE AND SHOW THE GENERAL INSTALLATION OF EQUIPMENT AND MATERIALS IN RELATIONSHIP TO STRUCTURE AND OTHER TRADES. THEY MAY NOT SHOW EVERY REQUIRED OFFSET, FITTING, ETC. CONTRACTOR SHALL FIELD VERIFY ACTUAL JOB CONDITIONS AND COORDINATE WORK WITH OTHER TRADES PRIOR TO BIDDING JOB AND PRIOR TO ORDERING EQUIPMENT, FABRICATION OF MATERIALS, OR STARTING WORK. CONTRACTOR SHALL NOT SCALE THE DRAWINGS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL ITEMS THAT AFFECT OTHER DISCIPLINES WITH THE CORRESPONDING CONTRACTOR AND THE GENERAL CONTRACTOR IF EQUIPMENT, MATERIALS, ETC. OTHER THAN THOSE SCHEDULED AND SPECIFIED (PENDING PRE-APPROVAL) ARE FURNISHED.
- CHANGE ORDERS WILL NOT BE GRANTED DUE TO LACK OF COORDINATION WITH JOB CONDITIONS AND/OR OTHER CONTRACTORS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR STORAGE OF RELOCATED EQUIPMENT AND MATERIALS DURING CONSTRUCTION. ITEMS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- UPON COMPLETION OF THE PROJECT THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS TO THE OWNER, ARCHITECT, AND ENGINEER SHOWING EQUIPMENT, ETC. THAT DIFFERS FROM CONSTRUCTION DOCUMENTS AS THEY ARE ACTUALLY INSTALLED.
- THE RESPONSIBILITY OF EACH CONTRACTOR IS NOT LIMITED TO THEIR SPECIFIC DISCIPLINE'S DRAWING SHEETS. REFER TO OTHER DISCIPLINES' DRAWING SHEETS AS REQUIRED FOR ADDITIONAL INFORMATION/INSTRUCTIONS.
- FIRE STOP ALL PENETRATIONS THROUGH RATED WALLS. SLEEVE IN ENTIRETY WITH APPROPRIATE SLEEVE MATERIAL.

LINETYPES LEGEND

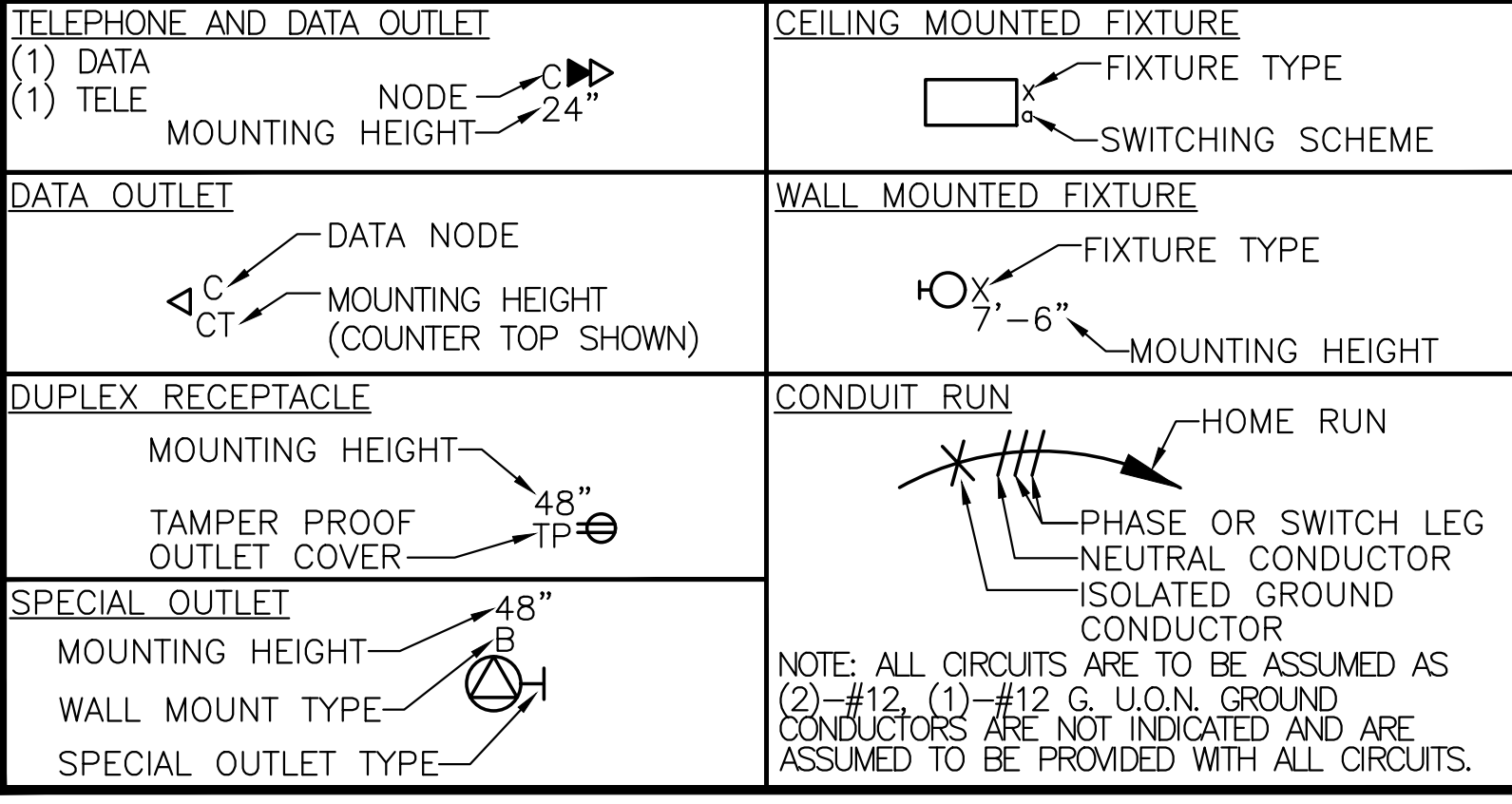
- EXISTING/REFERENCE
- - - - - EXISTING TO BE DEMOLISHED
- WORK TO BE DONE

ELECTRICAL SYMBOL LIST

SYMBOL	DESCRIPTION	MOUNTING OR AS INDICATED
	FIXTURE W/LETTER DESIGNATION	SURFACE OR RECESSED
	FIXTURE W/EM POWER W/LETTER DESIGN.	SURFACE OR RECESSED
	FIXTURE W/LETTER DESIGNATION	WALL,SURFACE,SUSPENDED
	FIXTURE W/EMERGENCY POWER W/LETTER DESIGN.	WALL,SURFACE,SUSPENDED
	FIXTURE W/LETTER DESIGNATION	RECESSED OR SURFACE
	FIXTURE W/EM POWER W/LETTER DESIGNATION	RECESSED OR SURFACE
	FIXTURE W/LETTER DESIGNATION	WALL
	FIXTURE W/EM POWER W/LETTER DESIGNATION	WALL
	EMERGENCY LIGHT FIXTURE W/LTR. DESIGN.	WALL-12" BELOW CLG
	SINGLE POLE SWITCH	WALL-48" AFF TO TOP
	THREE-WAY SWITCH	WALL-48" AFF TO TOP
	DUPLEX RECEPTACLE (20A)	WALL-18" AFF
	QUAD-PLEX RECEPTACLE	WALL-18" AFF
	GFI DUPLEX RECEPTACLE (20 AMP)	WALL-18" AFF
	GFI QUAD RECEPTACLE	WALL-18" AFF
	SPECIAL OUTLET (SEE SCHEDULE)	WALL, FLOOR
	TELEPHONE OUTLET	WALL-18" AFF
	DATA OUTLET	WALL-18" AFF
	COMBINATION DATA AND TELEPHONE OUTLET	WALL-18" AFF
	CONNECT TO EXISTING	AS NOTED
	JUNCTION BOX	AS NOTED
	PULL BOX	AS NOTED
	SAFETY SWITCH (NON-FUSED)	4'-0" AFF
	SAFETY SWITCH (FUSED)	4'-0" AFF
	TOGGLE DISCONNECT SWITCH	WALL
	COMBINATION STARTER	4'-0" AFF
	STARTER	WALL
	MOTOR	AS NOTED
	ELECTRICAL UTILITY METER	AS NOTED

- SYMBOLS LIST NOTES:**
- ALL MOUNTINGS APPLY UNLESS OTHERWISE NOTED.
 - TTB SHALL BE MINIMUM VOID FREE, A/C 3/4" PLYWOOD WITH A FACE SHOWING, KILN DRIED WITH MAXIMUM 15% MOISTURE CONTENT, SECURELY ATTACHED TO WALL FRAMING MEMBERS, WITH FIRE RETARDANT COATING, OR INTUMESCENT WHITE PAINT. COVER WALL WITH TTB PLYWOOD FROM FLOOR TO 8' AFF.
 - LIGHT FIXTURE CAPITAL LETTER DESIGNATIONS KEY TO MATCHING ENTRIES IN THE LIGHTING FIXTURE SCHEDULE.
 - LIGHT FIXTURE SMALL CASE LETTER DESIGNATIONS (IF SHOWN) REPRESENT SWITCHING REQUIREMENTS.
 - ALL MOUNTING HEIGHTS SHALL BE TO CENTERLINE OF DEVICE U.O.N.

CIRCUITING LEGEND



CODE INFORMATION

2017 NATIONAL ELECTRICAL CODE

ELECTRICAL CONTACTS

ELECTRICAL:	ELECTRICAL UTILITY:
JOEL WHEELER, P.E. PHONE: 316.684.9600x1255 EMAIL: JWHEELER@MKEC.COM	ENNIDH GARCIA PHONE: 316.261.6859 EMAIL: ENNIDH.GARCIA@WESTARENERGY.COM

ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
A	AMPERES	MCP	MOTOR CIRCUIT PROTECTOR (MAGNETIC TRIP)
AFF	ABOVE FINISHED FLOOR	MFS	MAXIMUM FUSE SIZE
AFG	ABOVE FINISHED GRADE	(N)	NEW
AIC	AMPERES INTERRUPTING CAPACITY (K IS *1000)	NC	NORMALLY CLOSED
ATS	AUTOMATIC TRANSFER SWITCH	NL	NIGHT LIGHT
BFC	BELOW FINISHED CEILING	NO	NORMALLY OPEN
BFG	BELOW FINISHED GRADE	NTS	NOT TO SCALE
C	CONDUIT	OCP	OVERCURRENT PROTECTION
CB	CIRCUIT BREAKER	P	POLE
CT	6" ABOVE COUNTERTOP	PH	PHASE
DN	DOWN	RLA	RUNNING LOAD AMPS
(E)	EXISTING	SPD	SURGE PROTECTIVE DEVICE
EC	ELECTRICAL CONTRACTOR	SR	SAFETY RECEPTACLE
EM	INDICATES DEVICE ON EMERGENCY CIRCUIT OR W/ AN EMERGENCY BATTERY	T-STAT	THERMOSTAT
FLA	FULL LOAD AMPS	TCC	TEMPERATURE CONTROLS CONTRACTOR
GC	GENERAL CONTRACTOR	TP	TAMPER PROOF/SAFETY OUTLET OR COVERS
GFI/GFCI	GROUND FAULT INTERRUPTER	TYP	TYPICAL
GND	GROUND	UCT	MOUNTED UNDER COUNTER WITHIN 12" OF TOP.
HOA	HAND-OFF-AUTO SELECTOR SWITCH	UON	UNLESS OTHERWISE NOTED
HP	HORSE POWER	V	VOLTS
IG	ISOLATED GROUND	VFD	VARIABLE FREQUENCY DRIVE
J-BOX	JUNCTION BOX	W	WIRE
KW	KILOWATT	WP	WEATHER PROOF
LTG	LIGHTING	WPI	WP IN SERVICE (WITH PLUG INSERTED)
MC	MECHANICAL CONTRACTOR	WR	WEATHER RESISTANT TYPE DEVICE
MCA	MINIMUM CIRCUIT AMPACITY		
MCOP	MAXIMUM OVERCURRENT PROTECTION		

- ABBREVIATION SCHEDULE NOTES:**
- SOME MAY NOT BE USED IN THIS SET OF PLANS.
 - ABBREVIATIONS MAY BE WITH OR WITHOUT PERIODS.

BRANCH VOLT DROP TABLE

FOR COPPER SINGLE PHASE 3% VOLTAGE DROP, 20A CIRCUIT BREAKER

MAXIMUM DISTANCE	PHASE AND NEUTRAL SIZE	EQUIPMENT GROUND SIZE
120V	277V	
100'	250'	#12
175'	400'	#10
275'	600'	#8
475'	1000'	#6

- VOLTAGE DROP TABLE NOTES:**
- DISTANCE GIVEN IS THE MAXIMUM FOR THE LONGEST RUN FOR ANY BRANCH, PANEL TO LOAD.
 - THE DISTANCES ARE FOR THE ENTIRE RUN IN THE GIVEN WIRE SIZE.
 - WIRE REDUCTIONS (WHERE REQUIRED BY DEVICE CONSTRUCTION) SHALL BE MADE WITHIN 3 FEET OF THE SOURCE OR LOAD, AND SHALL BE ONLY DOWN TO THE LARGEST WIRE SIZE THE DEVICE ALLOWS.
 - OTHER NEC DERATING FACTORS ARE NOT INCLUDED IN THE WIRE SIZES IN THIS TABLE.

ELECTRICAL SHEET INDEX

12	ELECTRICAL COVERSHEET
13	LIFT STATION ELECTRICAL PLAN
14	ELECTRICAL DETAILS
15	ELECTRICAL DETAILS
16	ELECTRICAL SCHEDULES



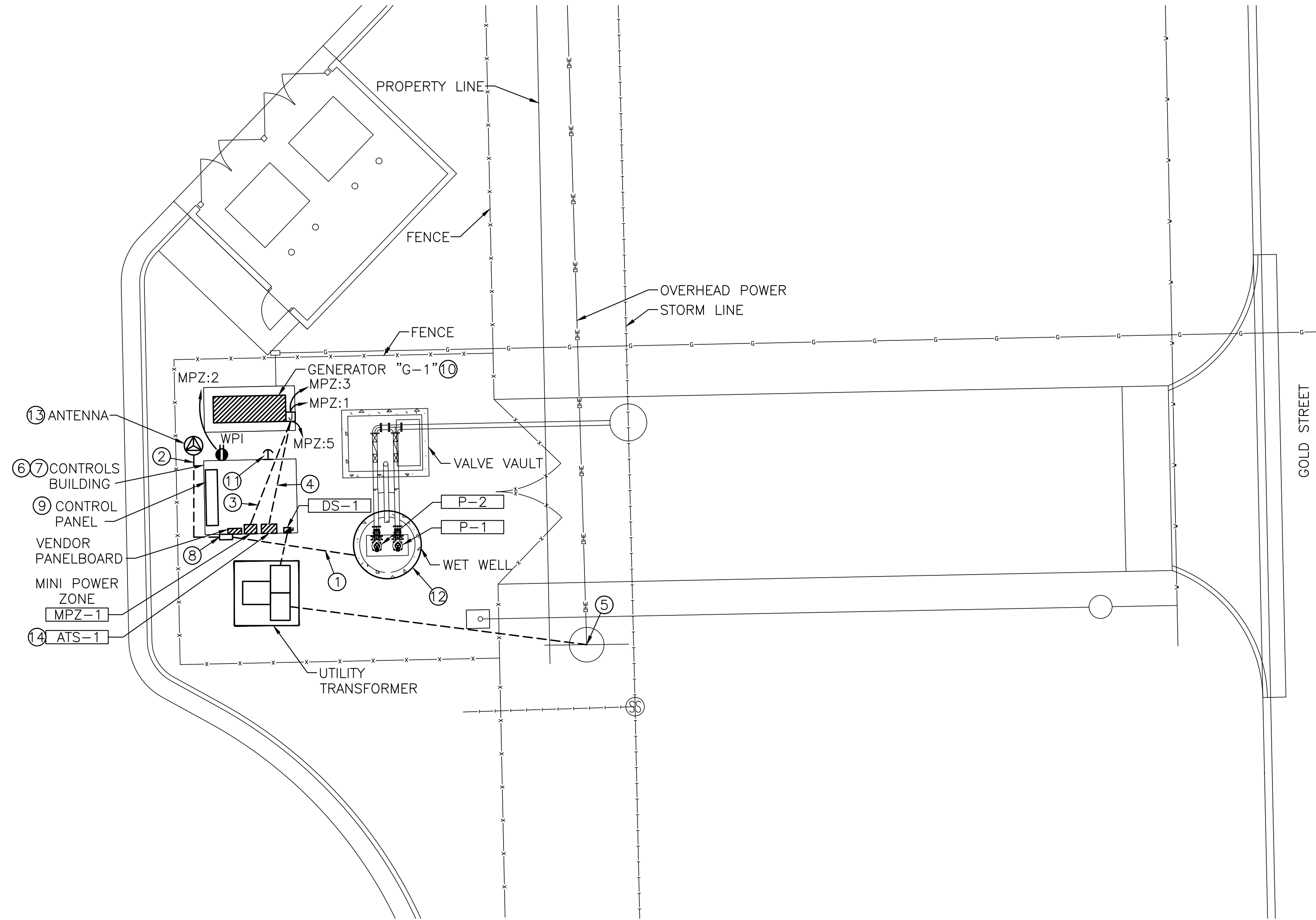
SANITARY SEWER PLANS FOR
STEEPLE BAY ADDITION
 WICHITA, KANSAS



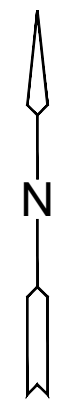
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ELECTRICAL COVERSHEET

PROJECT NO.	468-85317	
DATE	AUGUST 2018	
SCALE	NO SCALE	
DESIGNED	DRAWN	CHECKED
JRBW	ECW	JRBW
NO.	REVISION	DATE



A ELECTRICAL SITE PLAN
 SCALE: 1/8" = 1'-0"
 SCALE: 1/8"=1'-0"
 0 2 4 8 16



KEYED NOTES

1. PROVIDE PVC-COATED RMC CONDUIT BETWEEN CONTROLS BUILDING ENCLOSURE AND WET WELL FOR CONTROLS AND POWER CABLING. STUB INTO JUNCTION BOX MOUNTED ON BUILDING EXTERIOR. PROVIDE CONDUIT SEALS ON CONDUIT BETWEEN EXIT FROM GROUND AND FIRST CONDUIT JOINT.
2. PROVIDE CABLE IN CONDUIT BETWEEN CONTROLS BUILDING AND ANTENNA FOR SCADA CABLING. SIZE PER NEC CABLE FILL REQUIREMENTS. COORDINATE ALL REQUIREMENTS WITH CONTROLS CONTRACTOR.
3. ROUTE 120V GENERATOR CIRCUITS UNDERGROUND FROM MPZ-1 TO G-1.
4. PROVIDE (1)-1.25" C. UNDERGROUND FROM ATS-1 TO G-1 FOR GENERATOR CONTROLS CABLING.
5. PROVIDE (1)-4" UNDERGROUND PVC CONDUIT FOR UTILITY PRIMARY TO UTILITY--PROVIDED DIP ON OVERHEAD POLE. COORDINATE LOCATION AND ALL REQUIREMENTS WITH WESTAR.
6. EC SHALL VERIFY INTERIOR LAYOUT OF CONTROL BUILDING WITH BUILDING VENDOR PRIOR TO ROUGH-IN AND INSTALLATION OF UNDERGROUND CONDUIT. ALL NEC CLEARANCES AND WORKING SPACE SHALL BE PROVIDED.
7. CONTROLS BUILDING, INCLUDING PANELBOARD, INTERIOR LIGHTING, EXTERIOR LIGHTING, LIGHTING CONTROLS, AND HVAC TO BE PROVIDED, INSTALLED, AND PRE-WIRED BY PUMP VENDOR. CONTROL PANEL TO BE PROVIDED BY PUMP VENDOR AND INSTALLED BY EC. TELEMETRY PANEL TO BE PROVIDED BY CONTROLS CONTRACTOR AND INSTALLED BY EC. PROVIDE ALL REQUIRED CONNECTIONS BETWEEN TELEMETRY PANEL AND CONTROL PANEL. COORDINATE WITH PUMP VENDOR AND CONTROLS CONTRACTOR.
8. PROVIDE NEMA 4X, STAINLESS STEEL ENCLOSURE WITH TERMINAL BLOCKS AS REQUIRED FOR CONNECTION OF PUMP AND INSTRUMENTATION CABLES TO FIELD WIRING. SIZE OF ENCLOSURE AND QUANTITY OF BLOCKS TO BE DETERMINED WITH PUMP SYSTEM VENDOR PRIOR TO CONSTRUCTION.
9. PROVIDE PVC-COATED RMC STEEL CONDUITS BETWEEN ENCLOSURE AND VENDOR SUPPLIED CONTROL PANEL. SIZE AND QUANTITY AS REQUIRED BY NEC. PROVIDE ALL FIELD WIRING REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM.
10. SEE DETAIL 2/14 FOR PAD CONSTRUCTION. SEE CIVIL DRAWINGS FOR NATURAL GAS CONNECTION.
11. PROVIDE AND INSTALL REMOTE STOP SWITCH FOR 'G-1'.
12. WET WELL PUMPS, FLOAT SWITCHES, AND INSTRUMENTATION TO BE PROVIDED BY PUMP VENDOR. INSTALL FLOAT SWITCHES AND ALL INSTRUMENTATION. PROVIDE ALL REQUIRED ELECTRICAL AND CONTROLS CONNECTIONS FOR A COMPLETE AND FUNCTIONAL SYSTEM. PROVIDE STAINLESS STEEL GRIPS AND SUPPORTS FOR CONDUIT AND CABLE WITHIN WET WELL. SUPPORT PER NEC REQUIREMENTS.
13. PROVIDE AND INSTALL ANTENNA AND ALL REQUIRED CONNECTIONS FROM TELEMETRY PANEL FOR WIRELESS SCADA SYSTEM. COORDINATE ALL REQUIREMENTS WITH CONTROLS CONTRACTOR.
14. PROVIDE CONNECTION FROM ATS-1 NETWORK INTERFACE TO TELEMETRY PANEL TO COMMUNICATE GENERATOR STATUS TO SCADA SYSTEM.



SANITARY SEWER PLANS FOR
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 WICHITA, KANSAS



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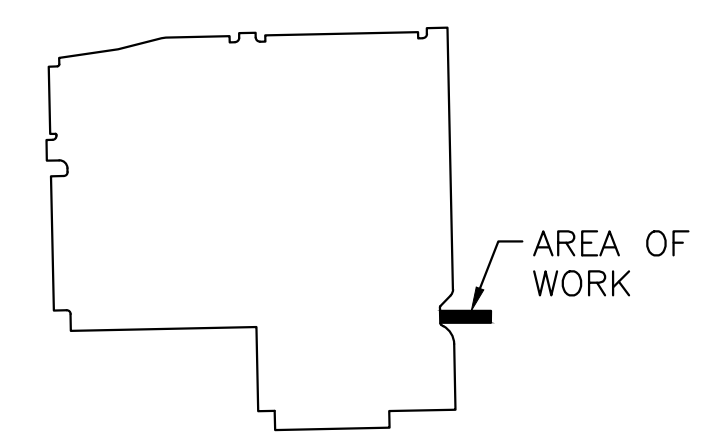
LIFT STATION ELECTRICAL PLAN

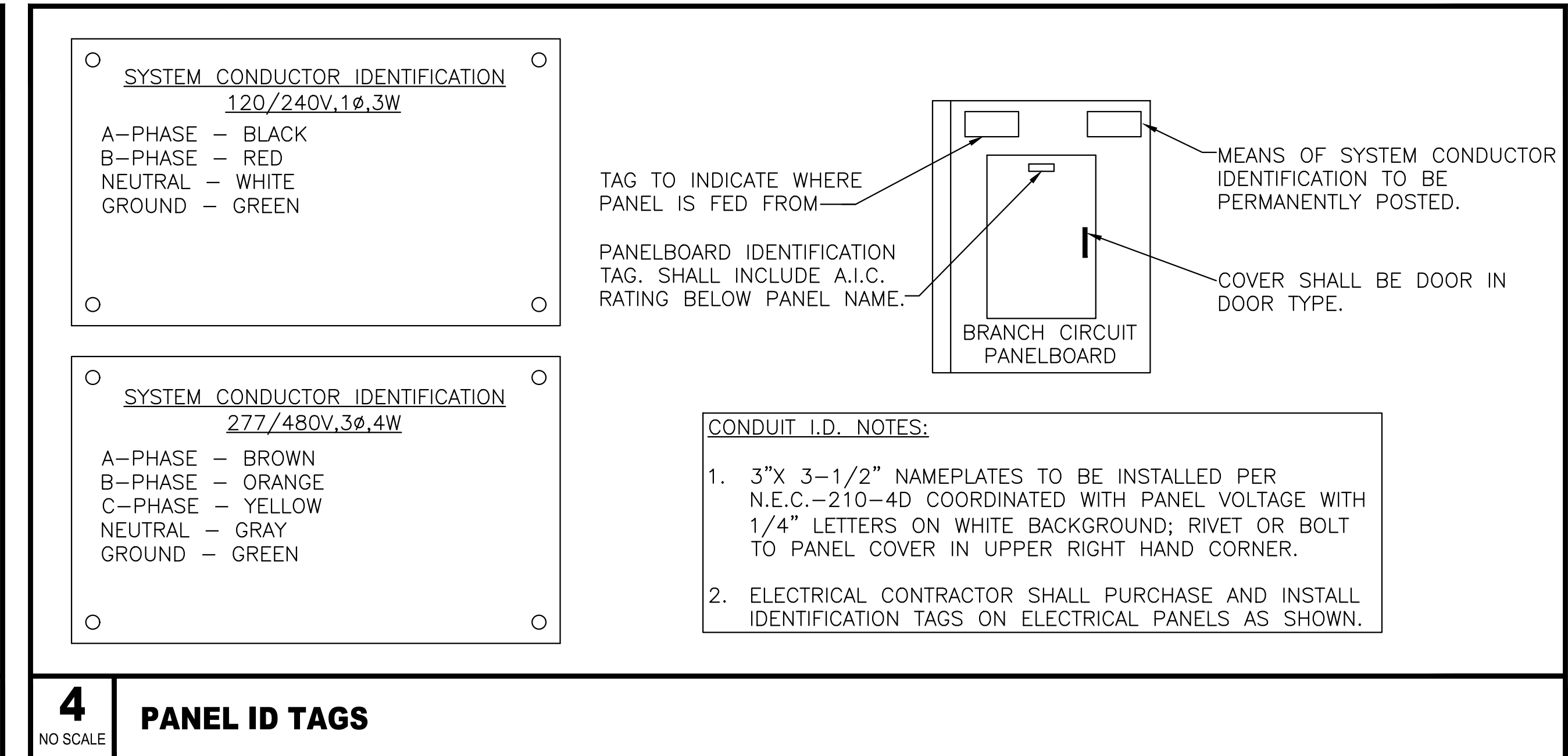
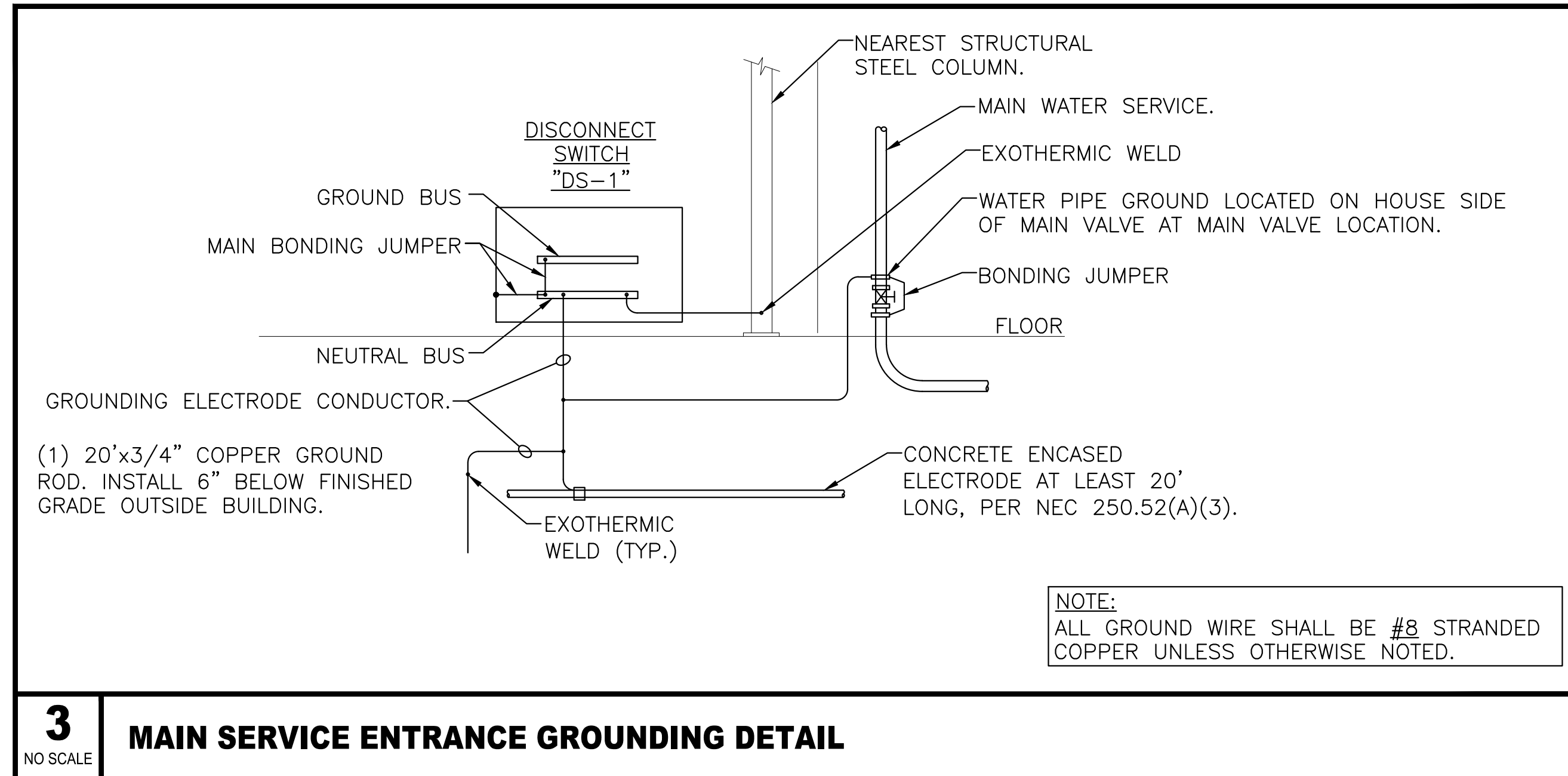
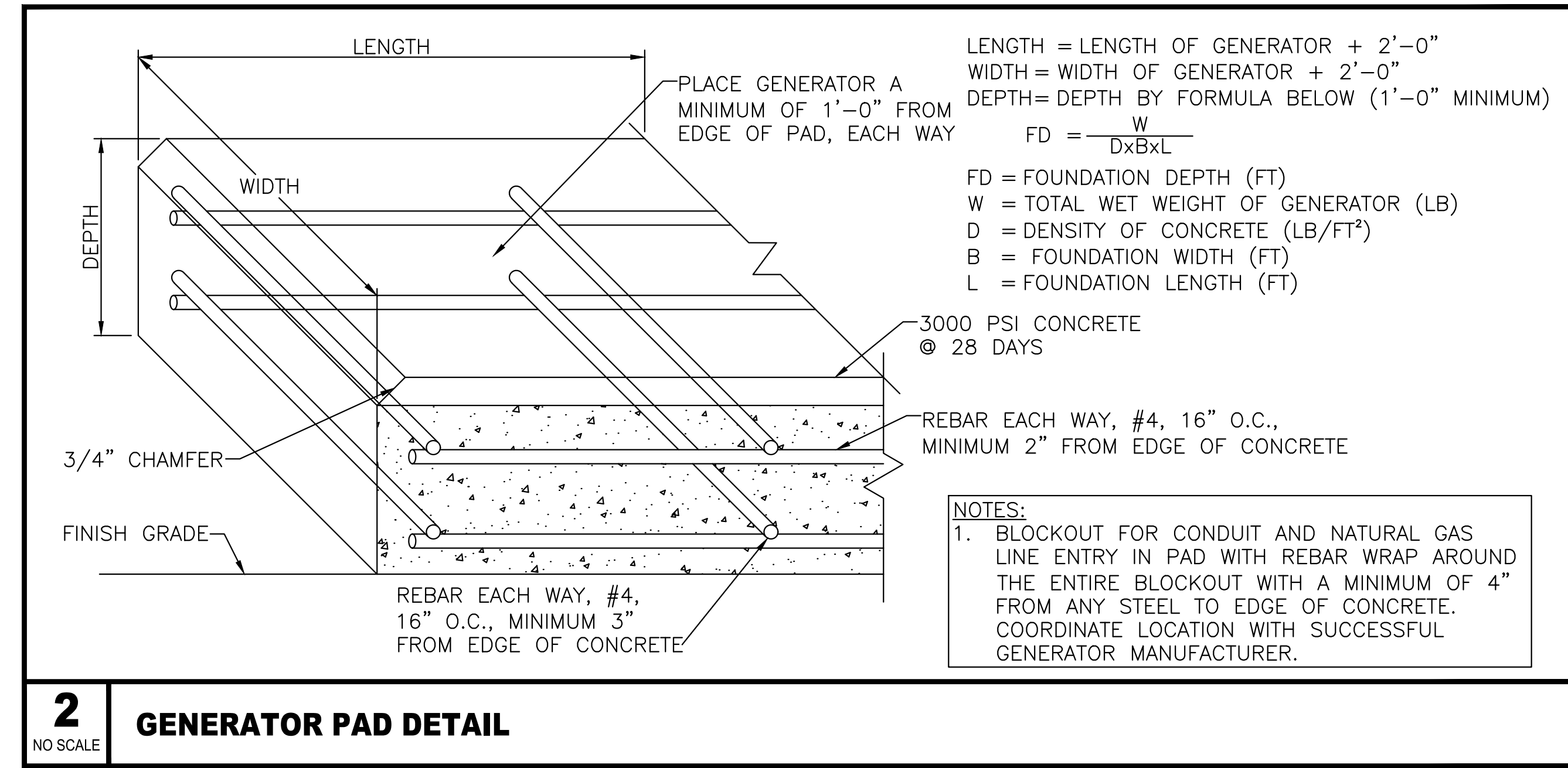
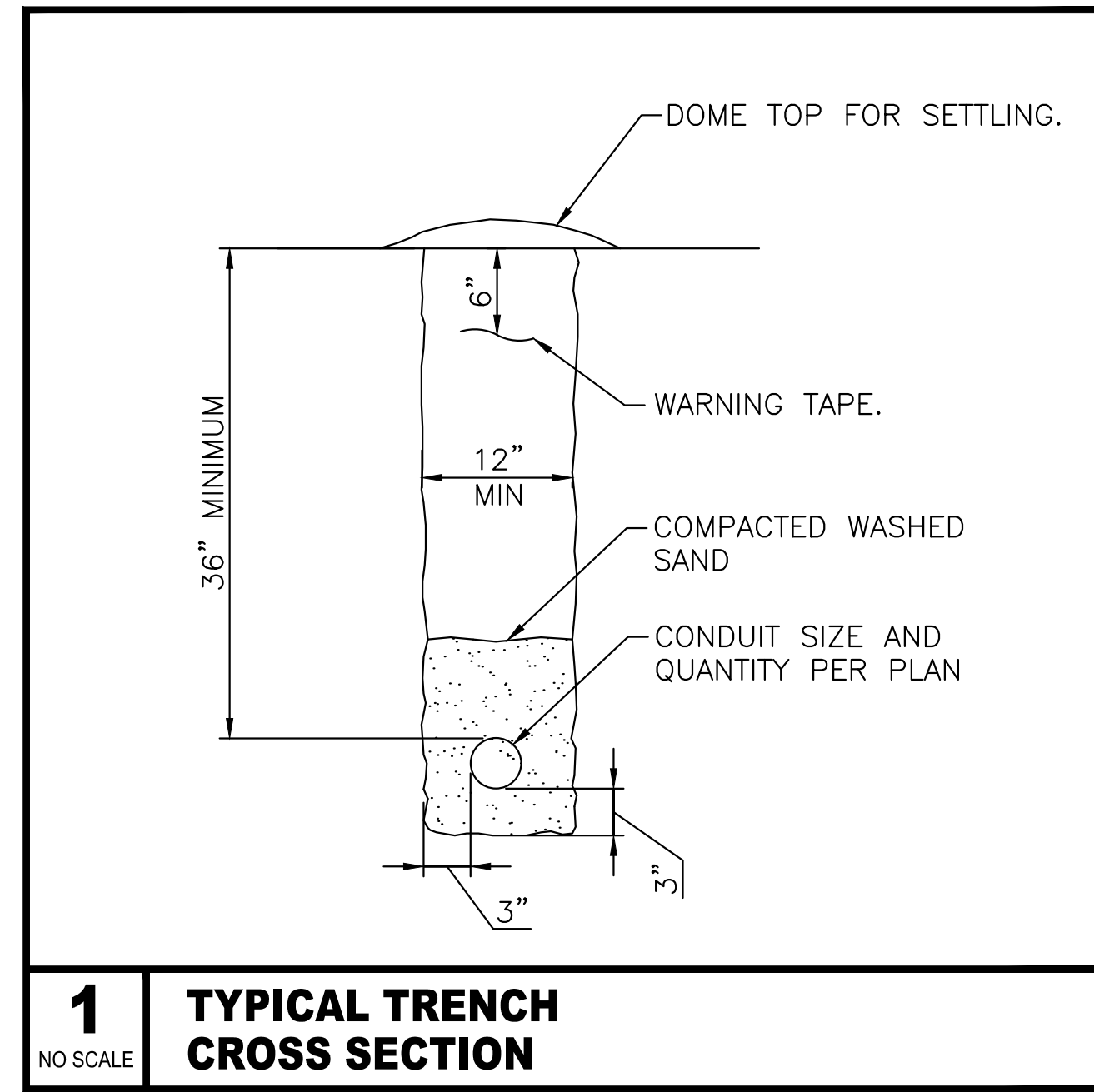
PROJECT NO.	468-85317
DATE	JULY 2018
SCALE	1/8" = 1'-0"
DESIGNED	JRBW
DRAWN	ECW
CHECKED	JRBW

NO.	REVISION	DATE
1	ADDENDUM-1	08/30/18

SHEET NO.
 13 OF 25

KEY PLAN



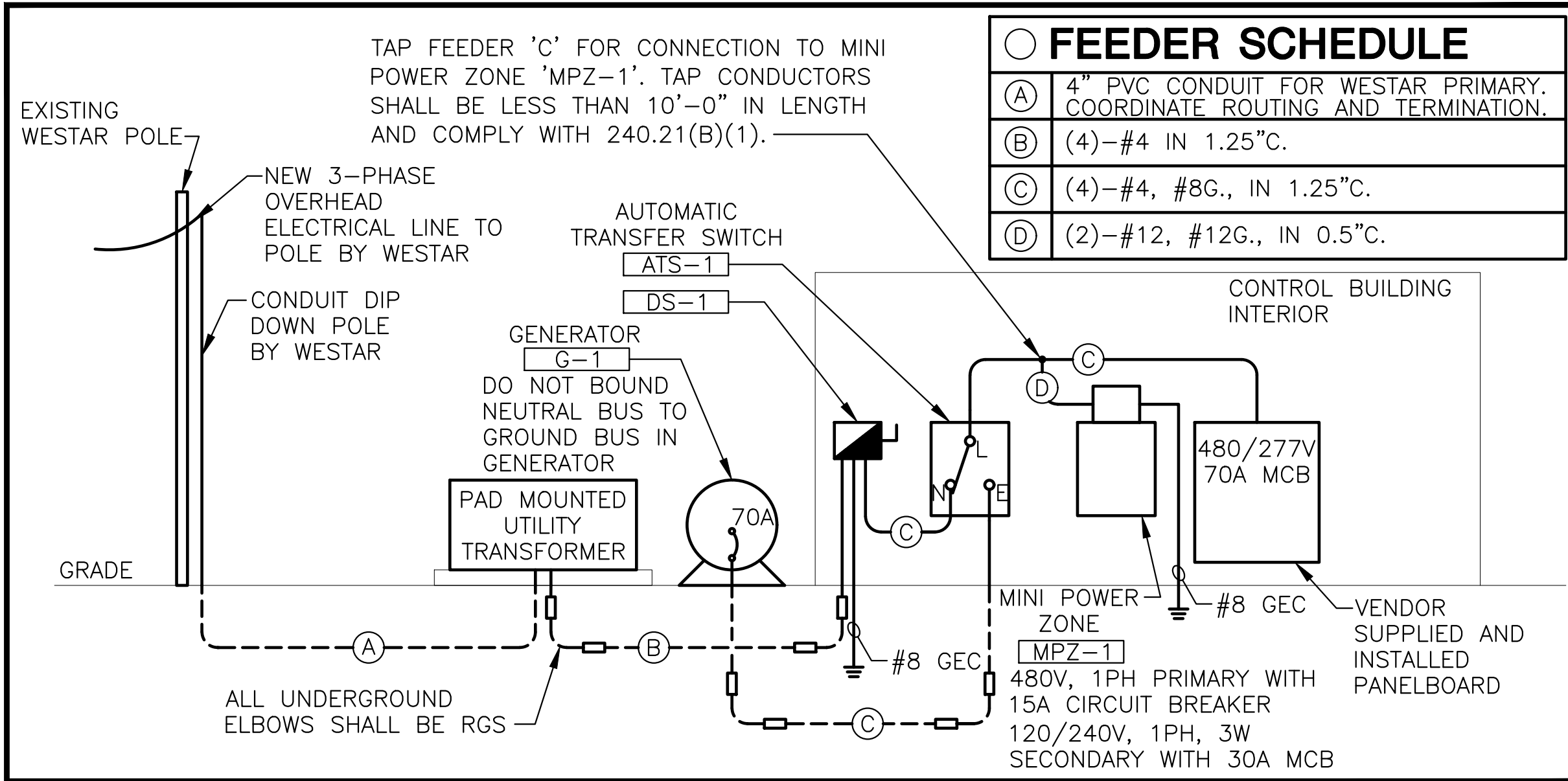


ELECTRICAL DETAILS

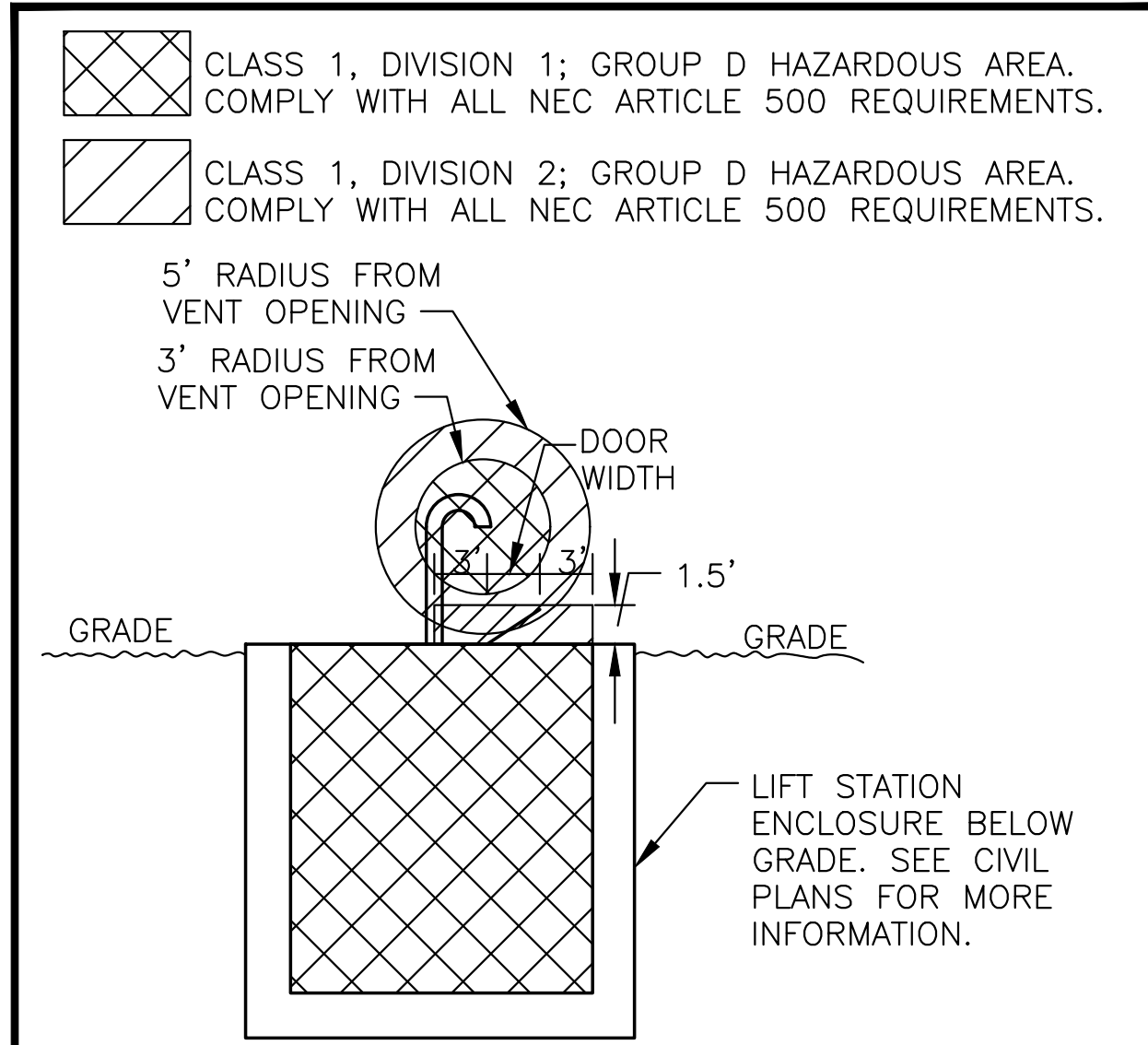
PROJECT NO.	468-85317	
DATE	JULY 2018	
SCALE	NO SCALE	
DESIGNED	DRAWN	CHECKED
JRBW	ECW	JRBW

NO.	REVISION	DATE

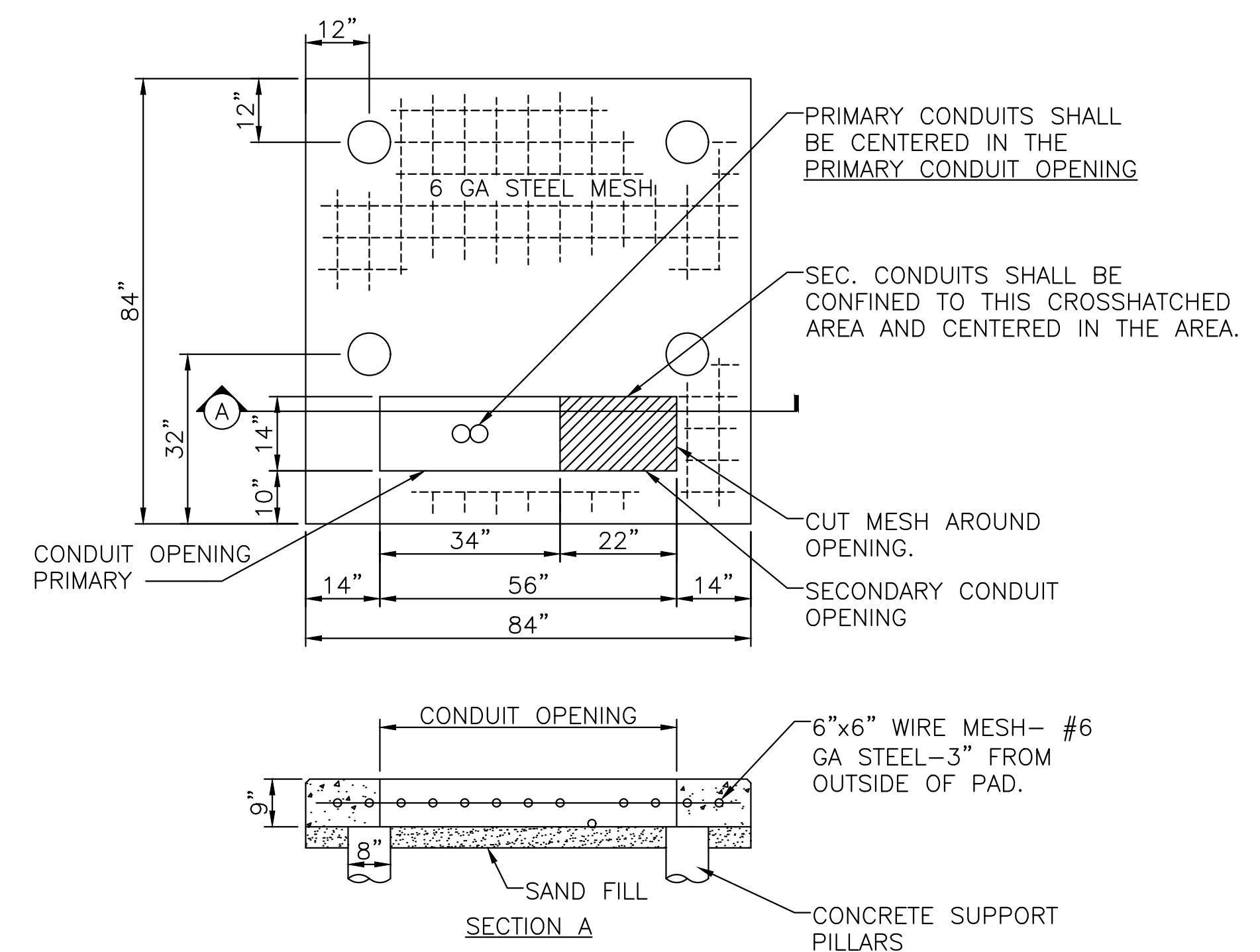
PLOTTED Wednesday, August 22, 2018 @ 01:28PM



1 NO SCALE **ONE-LINE DIAGRAM**



3 NO SCALE **TYPICAL LIFT STATION CLASSIFIED LOCATIONS SECTION**



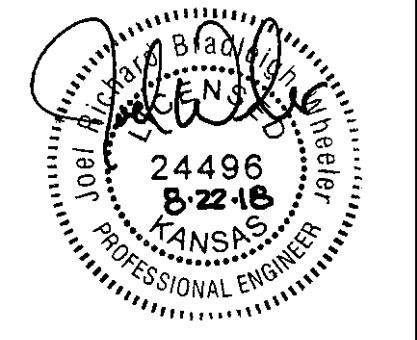
- NOTES:**
- PAD LOCATION SHALL BE APPROVED BY WESTAR ENERGY.
 - TRANSFORMER SHALL BE INSTALLED NEAR THE CUSTOMER'S SERVICE ENTRANCE.
 - IF TRANSFORMER PAD IS INSTALLED IN AN AREA SUBJECT TO VEHICULAR TRAFFIC, THE INSTALLATION SHALL BE PROTECTED WITH A PIPE-RAIL GUARD.
 - CONTRACTOR SHALL EXTEND FORMS DOWN TO AT LEAST 3" BELOW AVERAGE GROUND LINE.
 - CONCRETE SHALL BE A MINIMUM OF 3,000 LB. MIX.
 - TOP OF THE TRANSFORMER PAD SHALL RECEIVE A SMOOTH TROWEL FINISH. CORNERS AND EDGES SHALL BE ROUNDED OR BEVELED.
 - CONDUIT OPENINGS SHALL BE FREE AND CLEAR OF CONCRETE.
 - TOPS OF THE CONDUITS SHALL BE FLUSH WITH THE TOP OF THE CONCRETE PAD.
 - PILLARS ARE FORMED BY AUGERING AN 8" DIAMETER HOLE TO A DEPTH OF UNDISTURBED EARTH. A SEPARATOR, SUCH AS TAR PAPER, SHOULD BE PLACED BETWEEN THE PILLAR AND THE PAD SO THAT THE PAD CAN BE LEVELED AT A LATER TIME IF NECESSARY.
 - THIS DETAIL IS SHOWN FOR REFERENCE. COORDINATE WITH STRUCTURAL.

2 NO SCALE **500 KVA TRANSFORMER PAD**

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SANTARY SEWER PLANS FOR
STEEPLE BAY ADDITION
WICHITA, KANSAS



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ELECTRICAL DETAILS

PROJECT NO.	468-85317	
DATE	JULY 2018	
SCALE	NO SCALE	
DESIGNED	DRAWN	CHECKED
JRBW	ECW	JRBW

NO.	REVISION	DATE

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 PLOTTED Thursday, August 30, 2018 @ 01:18PM

EQUIPMENT CONNECTION SCHEDULE																	
MARK	DESCRIPTION	UNIT VOLTAGE	PHASE	FULL LOAD AMPS	MOCF	CIRCUIT NUMBER	# OF POLES	DISCONNECT			STARTER			FEEDER		CONTROLLER	REMARKS
								TYPE	ENCL RATING (NEMA)	FUSE SIZE AMPS*	TYPE	ENCL RATING (NEMA)	NEMA SIZE	SETS	WIRE AND CONDUIT		
P-1	PUMP	480	3	12.6	PWE	-	3		PWE					1	(3) - #12, #12 G., 1" C.	E/M CONTROLS	1
P-2	PUMP	480	3	12.6	PWE	-	3		PWE					1	(3) - #12, #12 G., 1" C.	E/M CONTROLS	1

REMARKS AND TABLE ABBREVIATIONS:

GENERAL	STARTERS	DISCONNECTS	CONTROLLERS
ENCL - ENCLOSURE	MS - MAGNETIC OR SOLID STATE	S - SAFETY SWITCH	I - INTERLOCK
PWE - PROVIDED WITH EQUIPMENT. WIRING CONNECTIONS BY EC.	2 - 2-SPEED, ADDED TO PREVIOUS	T - TOGGLE TYPE	BCS - BUILDING CONTROL SYSTEM
PBO - PROVIDED BY OTHERS.	VFD - VARIABLE FREQUENCY DRIVE	P - CORD AND PLUG	E/M - EQUIPMENT MANUFACTURER CONTROLS
•- SEE SPECIFICATIONS FOR TYPE.	C - COMBINATION STYLE	CB - CIRCUIT BREAKER	C - COMBINATION STYLE
	R - INTERPOSING RELAY		
	M (OR T) - MANUAL - SEE DISCONNECT FOR T.		

REMARKS
 (1) PROVIDE BRANCH CIRCUIT FROM STARTER IN CONTROL PANEL IN CONTROLS BUILDING THROUGH EXTERIOR ENCLOSURE TO PUMPS. STARTER PROVIDED AND INSTALLED IN CONTROL PANEL BY PUMP VENDOR. BRANCH CIRCUIT BREAKER PROVIDED AND INSTALLED IN VENDOR PANELBOARD. PROVIDE CIRCUIT FROM VENDOR PANELBOARD TO STARTER.

GENERATOR SCHEDULE											
MARK	MANUFACTURER	MODEL NUMBER	ALTERNATOR	VOLTAGE	PHASE / WIRE	CIRCUIT BREAKER	POWER FACTOR	SITE KW RATING (STANDBY)	FUEL SYSTEM	ENCLOSURE	NOTES
G-1	CUMMINS	C30N6	CA115-S14	480/277	3/4	70	0.9	30	NATURAL GAS	LEVEL 1 - SANDSTONE	

NOTES:

- E/M SHALL PROVIDE BATTERY CHARGER PREWIRED TO GENERATOR CONNECTION BOX.
- E/M SHALL PROVIDE A 1500W BLOCK HEATER PREWIRED TO GENERATOR CONNECTION BOX.
- E/M SHALL PROVIDE A BATTERY WARMING PAD PREWIRED TO GENERATOR CONNECTION BOX.
- PROVIDE GENERATOR SET TO COMPLY WITH TIER 3 EPA REGULATIONS AND MEET 2009 EPA EMISSIONS REGULATIONS
- PROVIDE (1) MAIN CIRCUIT BREAKER MOUNTED ON GENERATOR SET.
- PROVIDE WITH REMOTE STOP SWITCH TO BE FIELD INSTALLED BY E.C. STOP SWITCH SHALL BE INSTALLED A MINIMUM OF 20 FEET FROM GENERATOR.

GENERATOR/ALTERNATOR COMBINATION SHALL BE SIZED TO PROPERLY SERVE THE FOLLOWING LOAD STEP SCHEDULE:

STEP #	LOAD DESCRIPTION	LOAD	PERMITTED FREQUENCY DIP %	PERMITTED VOLTAGE DIP %	NOTES
GENERATOR G-1					
1.1	P-1, P-2	12.6KW	10	30	
1.2	HEATER	3.3KW	10	30	
1.3	CONTROL PANEL	7.7KW	10	30	

AUTOMATIC TRANSFER SWITCH SCHEDULE								
MARK	MANUFACTURER	MODEL NUMBER	VOLTAGE	CONT. AMP RATING	POLES	SWITCHED NEUTRAL	NEMA ENCLOSURE	ACCESSORIES
ATS-1	CUMMINS	OTPC	480/277	70A	3	NO	1	SP, IL, MH, ES, TD, EG, FA, OT/1P, L1, PC

ACCESSORIES:

- SP SWITCH POSITION CONTACTS
- IL INDICATOR LAMPS
- MH MECHANICALLY HELD - ELECTRICALLY OPERATED
- ES ENGINE START CONTACTS
- TD TIME DELAY TRANSFER (ADJUSTABLE)
- EG EQUIPMENT GROUND LUG
- FA FRONT ACCESS ONLY SWITCH
- OT/1P OPEN TRANSITION-IN-PHASE
- L1 LEVEL 1 CONTROL PACKAGE
- PC POWER COMMAND NETWORK INTERFACE

PANEL 'MPZ-1'													BRANCH PANELBOARD - NORMAL POWER												
LOCATION: CONTROL BLDG						VOLTAGE: 240/120						A.I.C.: 65 kA						Load Type							
FED FROM: ATS						PHASE: Single						MAINS: 30 A						L= Lighting, R=Receptacle, M=Motors, Ho= Hospital K=Kitchen, H=Heat, Mi=Misc							
MOUNTING: Surface						WIRES: 3W + G						M.C.B.: 30 A													
ENCLOSURE: Type 3R																									
CKT	LOAD DESCRIPTION	TRIP	POLE	TYPE	PHASE:	A	PHASE:	B	TYPE	POLE	TRIP	LOAD DESCRIPTION	CKT												
1	BLOCK HEATER	20	1	H	1500	180			R	1	20	RECEPT	2												
3	BATTERY WARMING PAD	20	1	H			600			1	20	SPARE	4												
5	BATTERY CHARGER	20	1	Mi	500					1	20	SPARE	6												
7	SPARE	20	1							1	20	SPARE	8												
9	SPARE	20	1							1	20	SPARE	10												
TOTAL LOAD (KVA)						2.18			0.6																
TOTAL AMPS/PHASE						18.17			5.00																

NOTES:

- PROVIDE PANELBOARD WITH HINGED FRONT COVER.
- PROVIDE SQUARE D MINI-POWER ZONE 5 KVA #MPZB5S40F65K WITH 480/1Ø PRIMARY AND 120/240V, 3W, 1Ø SECONDARY.

DISCONNECT SWITCH SCHEDULE								
MARK	EQUIPMENT SERVED	VOLTAGE	SWITCH		FUSE		NEMA ENCLOSURE	ACCESSORIES
			AMPS	POLES	AMPS	TYPE		
DS-1	CONTROLS BUILDING	480/277	100	3	70	RK1	1	EGK, SNA, SE

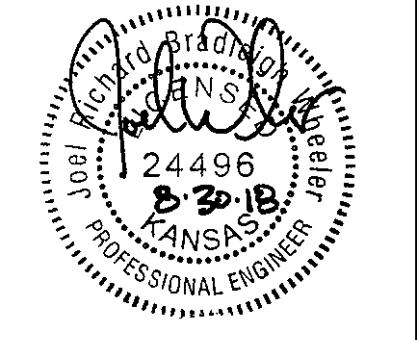
ACCESSORIES

- EGK EQUIPMENT GROUNDING KIT
- SNA SOLID NEUTRAL KIT
- SE SERVICE ENTRANCE RATED

LOAD SUMMARY				
LOAD TYPES	CONNECTED LOAD (KVA)	DEMAND FACTOR	DEMAND (KVA)	PANEL TOTALS
LIGHTS	0.0	1.25 Continuous	0.0	
RECEPTACLES	0.2	Per NEC Table 220	0.2	TOTAL CONN. LOAD (KVA) 2.8
MOTORS	0.0	Per NEC Table 220	0.0	TOTAL DEMAND LOAD (KVA) 2.8
HOSPITAL	0.0	Per NEC Table 220	0.0	TOTAL CONN. CURRENT 11.6
KITCHEN	0.0	Per NEC Table 220	0.0	TOTAL DEMAND CURRENT 11.6
HEAT	2.1	Per NEC Table 220	2.1	
MISC	0.5		0.5	

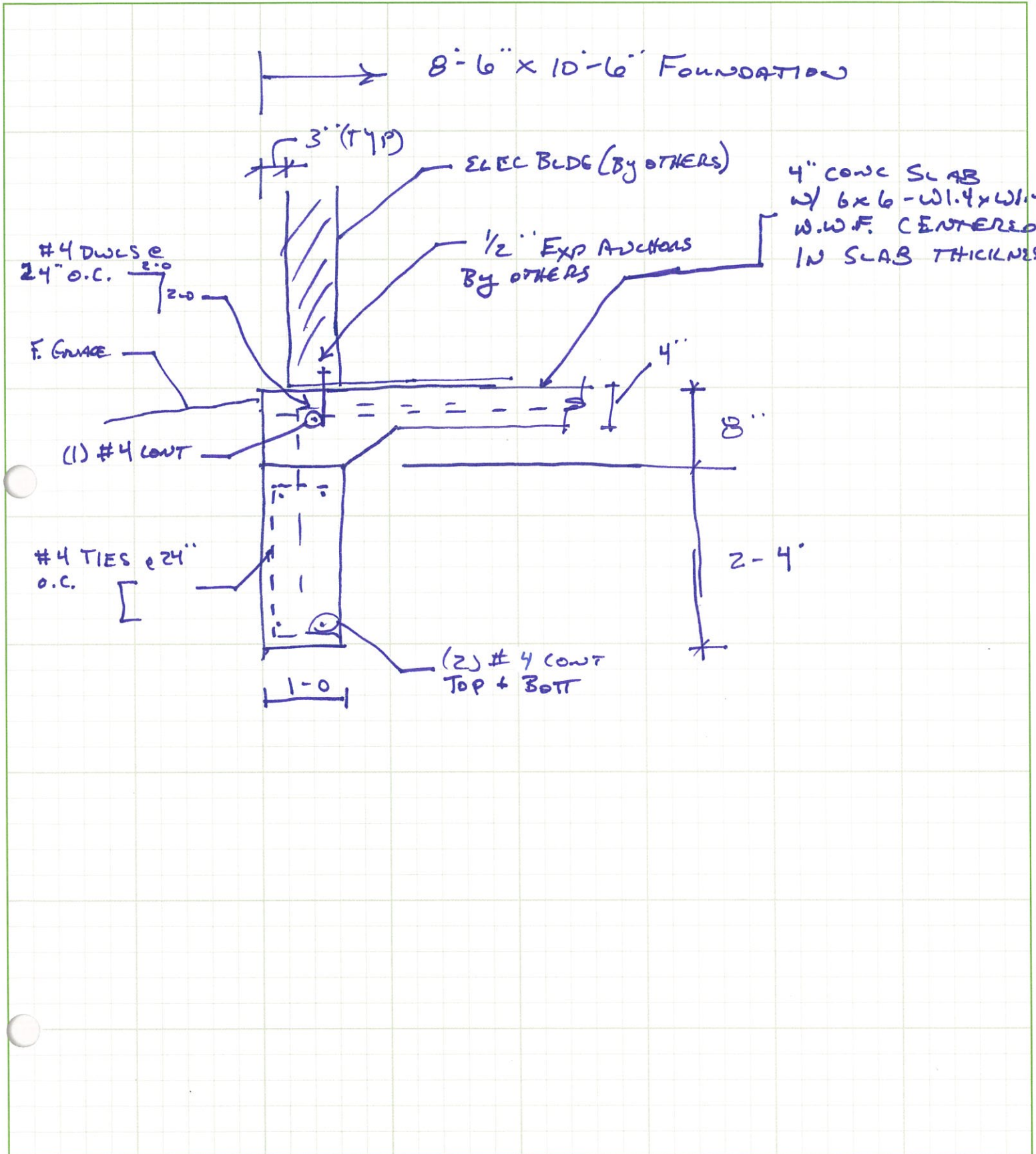


SANITARY SEWER PLANS FOR
STEEPLE BAY ADDITION
 WICHITA, KANSAS

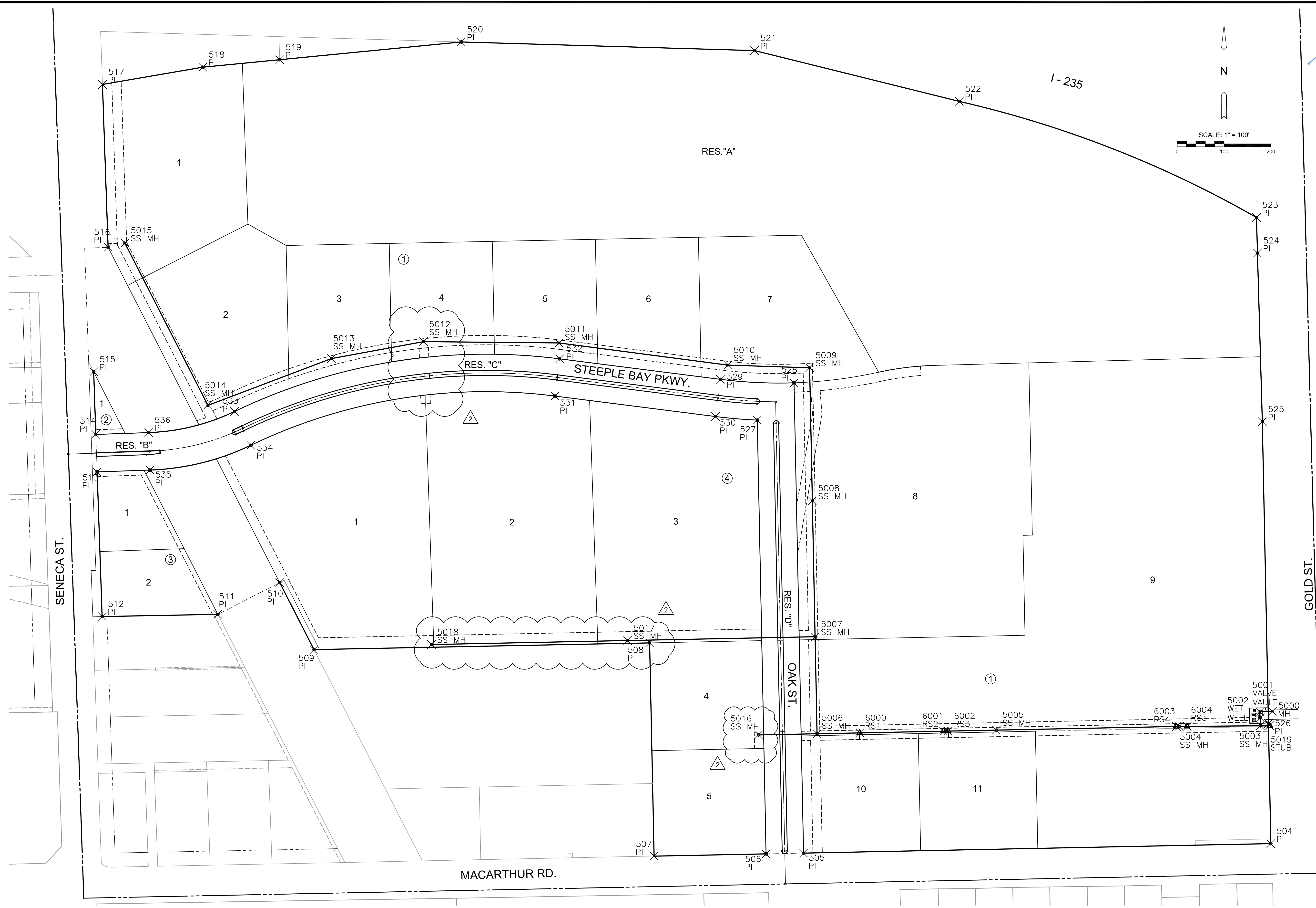


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ELECTRICAL SCHEDULES	
PROJECT NO.	468-85317
DATE	JULY 2018
SCALE	NO SCALE
DESIGNED	DRAWN
JRBW	ECW
CHECKED	JRBW
SHEET NO.	
16 OF 25	



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 PLOTTED: Thursday, October 04, 2018 @ 02:12PM



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BUBBLE MAP

PROJECT NO.	468-85317	
DATE	AUGUST 2018	
SCALE	1" = 100'	
DESIGNED	DRAWN	CHECKED
SPE	MKB	SPE

NO.	REVISION	DATE
2	PROFILE CHANGES	10-04-18

SHEET NO.
 17 OF 25

EVERY ATTEMPT HAS BEEN MADE TO INSURE ALL COORDINATE VALUES SHOWN ARE AN ACCURATE AND TRUE REPRESENTATION OF THE CURRENT PLANS. ALL VALUES ARE TO BE CONFIRMED WITH THE FINAL SIGNED PLAN SET BEFORE USE.



PLAT POINTS			
Point #	Northing	Easting	Desc.
504	1662707.77	1647435.64	PI
505	1662687.56	1646438.34	PI
506	1662685.93	1646358.36	PI
507	1662681.09	1646119.38	PI
508	1663136.00	1646109.81	PI
509	1663121.71	1645393.49	PI
510	1663264.60	1645320.32	PI
511	1663196.91	1645188.14	PI
512	1663192.24	1644941.29	PI
513	1663500.79	1644930.59	PI
514	1663580.75	1644927.82	PI
515	1663714.27	1644923.19	PI
516	1663979.89	1644954.00	PI
517	1664327.32	1644941.95	PI
518	1664364.11	1645156.06	PI
519	1664380.14	1645320.34	PI
520	1664417.95	1645707.88	PI
521	1664399.58	1646333.92	PI
522	1664291.22	1646770.78	PI

PLAT POINTS			
Point #	Northing	Easting	Desc.
523	1664043.60	1647405.11	PI
524	1663967.63	1647407.13	PI
525	1663607.93	1647417.58	PI
526	1662964.02	1647430.64	PI
527	1663611.32	1646339.60	PI
528	1663690.84	1646418.00	PI
529	1663698.26	1646260.71	PI
530	1663618.91	1646250.59	PI
531	1663662.65	1645907.62	PI
532	1663742.01	1645917.74	PI
533	1663629.73	1645223.99	PI
534	1663557.62	1645258.62	PI
535	1663504.71	1645043.54	PI
536	1663584.66	1645040.77	PI

SANITARY POINTS			
Point #	Northing	Easting	Desc.
5000	1662990.15	1647439.10	MH
5001	1662987.87	1647412.82	VALVE VAULT
5002	1662976.87	1647413.04	WET WELL
5003	1662959.16	1647413.40	SS MH
5004	1662957.86	1647239.85	SS MH
5005	1662949.95	1646849.93	SS MH
5006	1662942.19	1646467.19	SS MH
5007	1663149.18	1646462.99	SS MH
5008	1663439.12	1646457.11	SS MH
5009	1663722.90	1646451.36	SS MH
5010	1663728.65	1646276.45	SS MH
5011	1663775.92	1645916.28	SS MH
5012	1663778.67	1645627.36	SS MH
5013	1663742.55	1645430.65	SS MH
5014	1663642.77	1645167.09	SS MH
5015	1663989.15	1644989.70	SS MH
5016	1662939.66	1646342.21	SS MH
5017	1663141.05	1646063.07	SS MH
5018	1663132.52	1645644.08	SS MH
5019	1662959.55	1647433.40	STUB

SANITARY RISER POINTS			
Point #	Northing	Easting	Desc.
6000	1662944.04	1646558.17	RS1
6001	1662947.67	1646737.18	RS2
6002	1662947.87	1646747.18	RS3
6003	1662957.74	1647234.05	RS4
6004	1662957.99	1647257.32	RS5

SANITARY SEWER PLANS FOR
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BUBBLE MAP POINTS

PROJECT NO.	468-85317	
DATE	AUGUST 2018	
SCALE	N/A	
DESIGNED	DRAWN	CHECKED
SPE	MKB	SPE

2	PROFILE CHANGES	10-04-18
NO.	REVISION	DATE

SHEET NO.
 18 OF 25