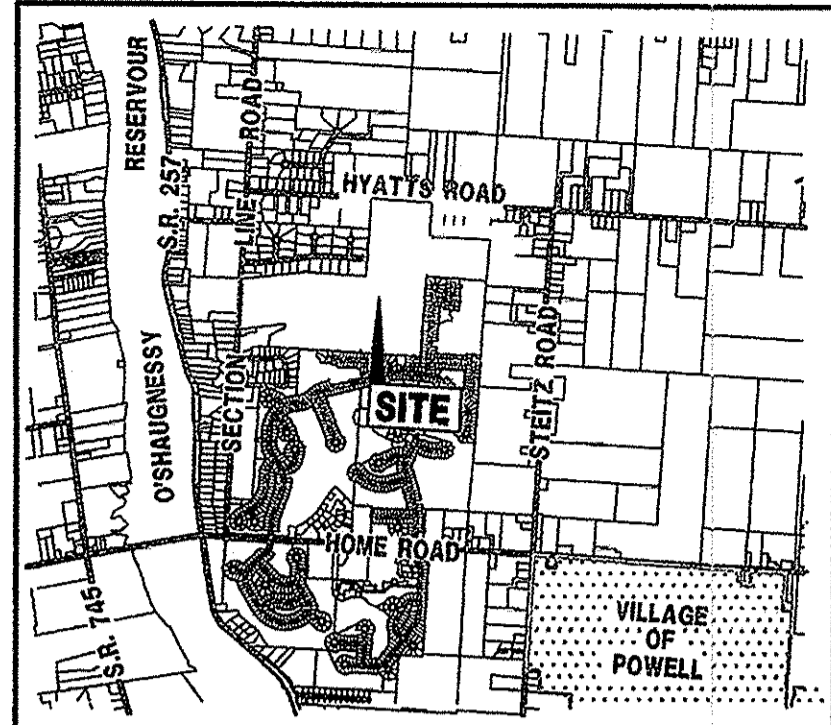


SCIOTO RESERVE EXPANSION SANITARY LIFT STATION PLAN

PART OF FARM LOTS 18 AND 19, SECTION 2, TOWNSHIP 3, RANGE 19
UNITED STATES MILITARY LANDS
CONCORD TOWNSHIP, DELAWARE COUNTY, OHIO



LOCATION MAP
SCALE: 1"=4000'

SHEET INDEX

- TITLE SHEET
- STANDARD NOTES, DETAILS & QUANTITIES
- SANITARY GRAVITY MAIN PLAN AND PROFILE
- SANITARY FORCE MAIN PLAN AND PROFILE
- GRADING & EROSION CONTROL
- LIFT STATION DETAILS
- ODOR CONTROL STATION DETAILS
- UTILITY BUILDING DETAILS
- ELECTRICAL PLAN-SCHEMATIC

OWNERS/DEVELOPER

TRIANGLE REAL ESTATE SERVICES, INC.
470 OLDE WORTHINGTON ROAD
SUITE 100
WESTERVILLE, OHIO 43082
(614) 540-2400

CONSULTANT

FLOYD BROWNE GROUP
585 SUNBURY ROAD
DELAWARE, OHIO 43015
(740) 363-6792

FLOOD DESIGNATION

SUBJECT PROPERTY LIES WITHIN ZONE "X", AN AREA DESIGNATED AS OUTSIDE THE 500 YEAR FLOODPLAIN, AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY, FIRM, COMMUNITY PANEL NO. 3901460185 J, AND PANEL NO. 3901460205 J, EFFECTIVE DATE APRIL 21, 1999

"AS-BUILT CERTIFICATION"

AS-BUILT PERTAINS TO FIELD ELEVATIONS OF PUBLIC UTILITIES. FOR EXAMPLE: TOP OF CASTINGS AND FLOW LINES, AND DOES NOT INCLUDE ANY FIELD CHECKS OF OVERLAND GRADING.

AS-BUILT ELEVATIONS FIELD CHECKED AND AMENDED.

BY: *Mark Alan Smith* DATE: 7/26/05
MARK ALAN SMITH, P.S.
PROFESSIONAL SURVEYOR NO. S-8232

UTILITY COMPANIES:

AMERICAN ELECTRIC POWER
ROBIN HAND
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
(614) 883-6839

COLUMBIA GAS OF OHIO
TARA CORBITT
1600 DUBLIN ROAD
COLUMBUS, OHIO 43215
(614) 280-7500

VERIZON
ATTN: ADAM HOLLANDHEAD
550 LEADER STREET
MARION, OHIO 43302
(740) 369-5109

DEL-CO WATER COMPANY
P.K. TUDOR
6773 GLENTANGY RIVER ROAD
DELAWARE, OHIO 43015
(740) 548-7746

DELAWARE COUNTY SANITARY ENGINEER
JACK SMELKER
50 CHANNING STREET
DELAWARE, OHIO 43015
(740) 833-2240

DELAWARE COUNTY ENGINEER
CHRIS BAUSERMAN
50 CHANNING STREET
DELAWARE, OHIO 43015
(740) 833-2400
(CONTACT AGENT)

TIME WARNER ENGINEERING
ATTN: KEVIN RICH OR RAY MAURER
P.O. BOX 2553
1266 DUBLIN ROAD
COLUMBUS, OHIO 43216
(614) 481-5263

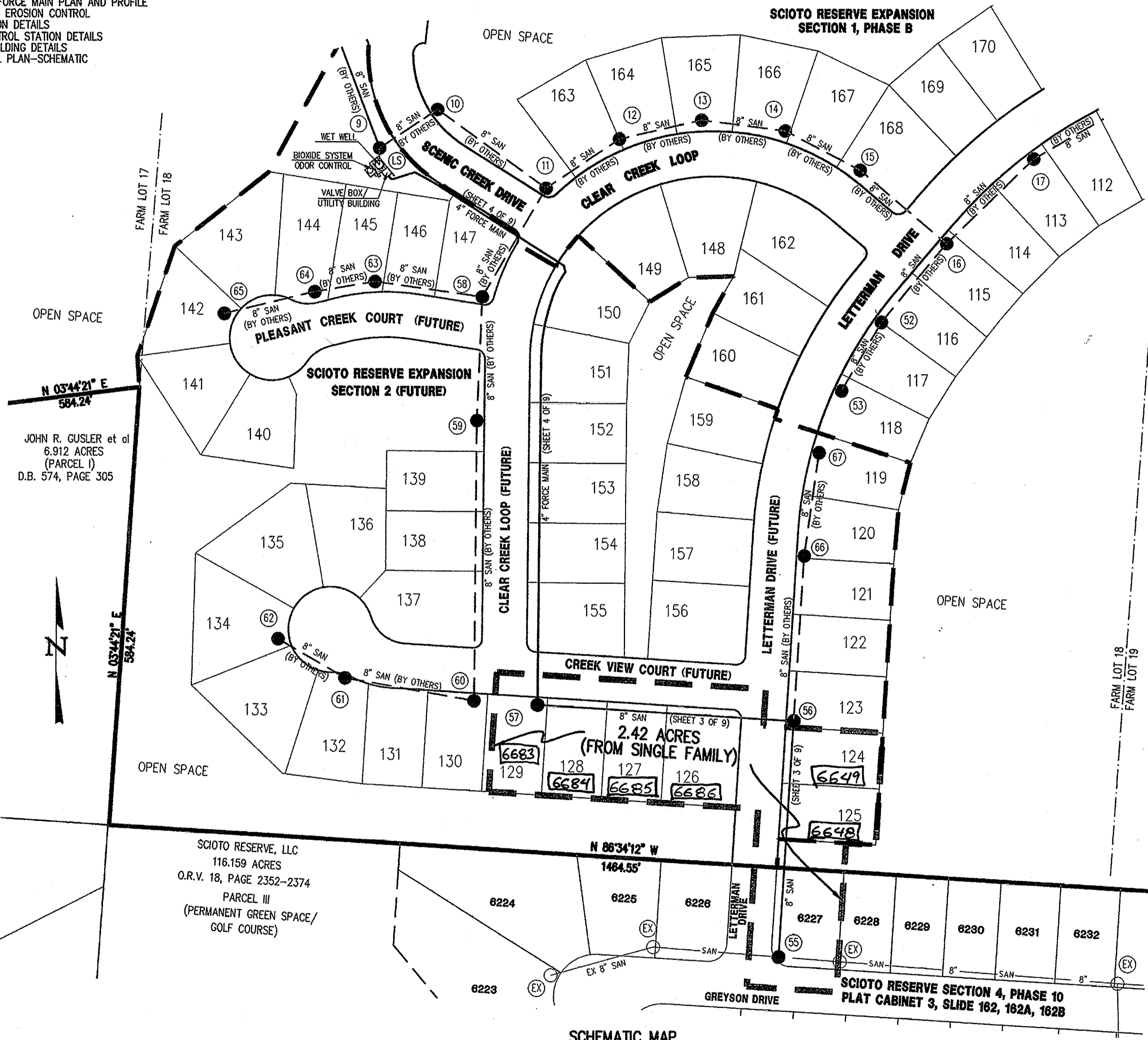
INSIGHT COMMUNICATIONS
PAUL SEYMOUR
3770 E. LIVINGSTON AVE
COLUMBUS, OHIO 43227
(614) 236-1292

SUBURBAN NATURAL GAS
AARON ROLL
2826 LEWIS CENTER ROAD
LEWIS CENTER, OH 43035
(740) 548-2450

2 WORKING DAYS
BEFORE YOU DIG
CALL TOLL FREE 800-362-2764
OHIO UTILITIES PROTECTION SERVICE

- REF NO = 1014-500-308 REF NO = 1014-500-323
- REF NO = 1014-500-318 REF NO = 1014-500-325
- REF NO = 1014-500-320 REF NO = 1014-500-328
- REF NO = 1014-500-321 REF NO = 1014-500-331

NOTE: BEFORE ANY SITE WORK BEGINS OHIO LAW REQUIRES THAT OUPS BE CONTACTED FOR LOCATION OF UNDERGROUND UTILITIES.



SCHEMATIC MAP
SCALE: 1" = 100'

CHANGE ORDER SCHEDULE

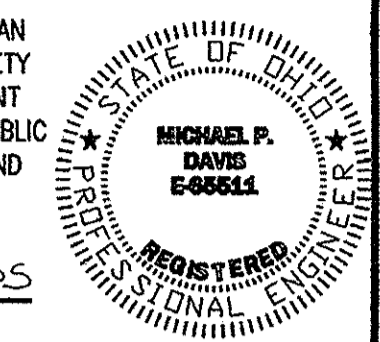
CHANGE	PREPARED	DESCRIPTION OF CHANGE	SHT NO.	APPROVED	DATE OF APPROVAL	NO.	REVISION DATA	DATE	BY	APP'D
1	MAW	WET WELL ELEV. CHANGED AND GRADING REVISED.	2	J. Smelker	3/16/06					
2	BAN	SWITCH TYPE CHANGED	9	J. Smelker	6/29/06					

DESIGN ENGINEER

THIS IS TO CERTIFY THAT GOOD ENGINEERING PRACTICES HAVE BEEN UTILIZED IN THE DESIGN OF THIS PROJECT AND IN OUR OPINION AND TO THE BEST OF OUR KNOWLEDGE THAT ALL MINIMUM STANDARDS AS DELINEATED IN THE DELAWARE COUNTY ENGINEERING AND SURVEYING STANDARDS FOR "SUBDIVISION DEVELOPMENT" HAVE BEEN MET, INCLUDING THOSE STANDARDS GREATER THAN MINIMUM WHERE, IN OUR OPINION, THEY ARE NEEDED TO PROTECT THE SAFETY OF THE PUBLIC. ANY VARIANCES TO THE ABOVE STANDARDS ARE CONSISTENT WITH SOUND ENGINEERING PRACTICE AND ARE NOT DETRIMENTAL TO THE PUBLIC SAFETY AND CONVENIENCE. THESE VARIANCES HAVE BEEN LISTED HEREIN AND HAVE BEEN APPROVED BY THE DELAWARE COUNTY ENGINEER.

Michael P. Dams
MICHAEL P. DAMS P.E. NO. E-65511

7-20-05
DATE



CONSTRUCTION PLAN APPROVAL

DELAWARE COUNTY SANITARY ENGINEER

Jack Smelker 8/2/05
JACK SMELKER, P.E. DATE

DELAWARE COUNTY ENGINEER

Chris E. Bauserman 8-10-05
CHRISTIAN E. BAUSERMAN, P.E., P.S. DATE

DELAWARE COUNTY COMMISSIONERS

Christopher W. Jordan 8-22-05
DATE

Blaine A. Jones 8-22-05
DATE

8-22-05
DATE

BENCH MARKS

REFERENCE BENCH MARK 1: THE STATION IS A BRASS TABLET SET IN CONCRETE AND STAMPED "97-112". THE STATION IS LOCATED ON HOME ROAD, 0.5 MILES WEST OF THE INTERSECTION OF LIBERTY ROAD AND 17 FEET NORTH OF THE EDGE OF PAVEMENT.

NAVD "88" = 934.25

REFERENCE BENCH MARK 2: THE STATION IS A BRASS TABLET SET IN CONCRETE AND STAMPED "97-110". THE STATION IS LOCATED ON HYATT'S ROAD, 0.3 MILES WEST OF LIBERTY ROAD AND 8 FEET SOUTH OF THE EDGE OF PAVEMENT.

NAVD "88" = 932.27

BM 1: SURVEY CONTROL POINT 85. POINT IS A 30 INCH IRON PIN WITH A RED PLASTIC CAP STAMPED: FBA, INC. TRAVERSE PT., APPROXIMATELY 250 FEET NORTH OF LOT 6228 IN SCIOTO RESERVE SUBDIVISION, SECTION 4, RESERVE 10, AND APPROXIMATELY 300 FEET WEST OF A TREE LINE.

ELEVATION = 925.20

BM 2: SURVEY CONTROL POINT 314. POINT IS A 30 INCH IRON PIN WITH A RED PLASTIC CAP STAMPED: FBA, INC. TRAVERSE PT., APPROXIMATELY 12 FEET SOUTH OF THE SOUTH PROPERTY LINE OF LOT 5724, SCIOTO HIGHLANDS SUBDIVISION, NUMBER THREE, AND 72 FEET WEST OF THE EAST LINE OF FARM LOT 17.

ELEVATION = 931.87

SOURCE OF TOPOGRAPHY

FIELD TOPOGRAPHY SHOWN HEREON WAS COMPILED BY FLOYD BROWNE ASSOCIATES, INC. OCTOBER, 2004

1 OF 9

Floyd Browne Group
Central Ohio
740.363.6792
740.363.6536 fax
800.325.7647
www.floydbrowne.com
Offices Throughout Ohio & West Virginia
DATE JULY 2005 CADD FILE
JOB NO. 04-178-01 APPROVED

TRIANGLE REAL ESTATE SERVICES, INC.
**SCIOTO RESERVE EXPANSION
SANITARY LIFT STATION PLAN**
TITLE SHEET

GENERAL NOTES

- A PRECONSTRUCTION CONFERENCE SHALL BE HELD AT THE COUNTY SANITARY ENGINEER'S OFFICE BEFORE ANY WORK IS BEGUN. REPRESENTATIVES OF THE OWNER, DESIGN ENGINEER, AND CONTRACTOR SHALL BE IN ATTENDANCE. A SCHEDULE OF SEQUENCE OF EVENTS, DURING CONSTRUCTION, MUST BE SUBMITTED FOR REVIEW PRIOR TO THIS MEETING.
- THE REQUIREMENTS OF DELAWARE COUNTY, TOGETHER WITH SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING ALL SUPPLEMENTS THERETO IN FORCE AS OF THE MOST RECENT EDITION, SHALL GOVERN ALL MATERIALS AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THESE PLANS. ONE METHOD OF PAYMENT, AS SPECIFIED THEREIN, SHALL BE SUPERSEDED BY THE UNIT PAY ITEMS IN THE DRAWINGS AND SPECIFICATIONS. ALL ITEMS OF WORK NOT SPECIFICALLY LISTED ON THE DRAWINGS AS PAY ITEMS SHALL BE INCLUDED IN ASSOCIATED WORK ITEMS FOR PAYMENT.
- THE CONTRACTOR SHALL NOTIFY THE COUNTY SANITARY ENGINEER'S OFFICE FORTY EIGHT (48) HOURS PRIOR TO ANY CONSTRUCTION.
- THE CONTRACTOR'S BID SHALL BE COMPREHENSIVE AND INCLUDE ALL LABOR AND MATERIALS NECESSARY TO COMPLETE ALL IMPROVEMENTS ACCORDING TO THE ENGINEERING PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL LOCATE ALL UTILITIES OR UNDERGROUND STRUCTURES PRIOR TO CONSTRUCTION AND NOTIFY EACH RESPECTIVE UTILITY OWNER FORTY-EIGHT HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. CONTACT O.U.P.S. AT 1-800-362-2764.
- IF A DISCREPANCY EXISTS BETWEEN THE PLANS AND SPECIFICATIONS, THE OWNER'S ENGINEER SHOULD BE NOTIFIED BEFORE WORK IS COMMENCED.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXERCISE SAFETY PRECAUTIONS AND TO PROVIDE ALL SAFETY EQUIPMENT TO SAFEGUARD WORKMEN AND ALL PERSONS ON OR NEAR THE WORK SITE.
- THE CONTRACTOR SHALL CAREFULLY EXAMINE THE WORK SITE OF HIS CONTRACT AND SHALL SATISFY HIMSELF AS TO THE CHARACTER, QUALITY AND QUANTITIES OF WORK TO BE PERFORMED.
- HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING FEATURES WITHIN THIS SUBDIVISION IS APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATION OF EXISTING FEATURES SHOWN ON PLANS, SUCH AS GAS LINES, WATER LINES AND FIELD TILE, TO PROPERLY EXECUTE THE WORK OF HIS CONTRACT. IT SHALL FURTHER BE THE RESPONSIBILITY OF THE CONTRACTOR TO EXERCISE DUE CARE AROUND EXISTING COMPLETED WORK ON THE SITE.
- THE CONTRACTOR SHALL REPAIR OR REPLACE ANY AND ALL EXISTING WORK DAMAGED DURING OR DUE TO THE EXECUTION OF THIS CONTRACT AT HIS OWN EXPENSE. ALL SAID WORK TO BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AND ENGINEER.
- SITE CLEARING SHALL COMPLY WITH O.D.O.T. ITEM 201. REMOVAL OF EXISTING PIPE, PAVEMENT, STRUCTURES AND OTHER OBSTRUCTIONS SHALL COMPLY WITH O.D.O.T. ITEM 202.
- REMOVE ALL TOPSOIL AND ROOTS FROM BENEATH THE LOCATION OF THE PROPOSED PAVEMENT AND STRUCTURES. STOCKPILE TOPSOIL ON SITE.
- THE CONTRACTOR SHALL INCLUDE IN THE UNIT PRICE BID ITEM 203, (EXCAVATION, REMOVAL AND DISPOSAL OF ALL TREES, BRUSH AND STUMPS).
- THE DELAWARE COUNTY ENGINEER OR HIS DESIGNATED REPRESENTATIVE, SHALL SUPERVISE AND APPROVE ALL SUB-BASE MATERIALS AND COMPACTION IN FILL AREAS.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DELAWARE COUNTY ENGINEER OR HIS DESIGNATED REPRESENTATIVE, IF CONSTRUCTION STAKES ARE DISTURBED.
- THE CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE PIPES OR TILES AND, IF DAMAGED, REPLACE THEM WITH THE SAME SIZE AND QUALITY OF MATERIALS AS FOUND.
- NON-ORGANIC SITE SOILS ARE ACCEPTABLE AS USE FOR STRUCTURAL FILL, PROVIDED THEY MEET ALL REQUIREMENTS OF ODOT ITEM 203. MOISTURE ADJUSTMENT MAY BE REQUIRED AND SHALL BE PERFORMED BY THE CONTRACTOR.

BACKFILLING

- UTILITY TRENCHES OUTSIDE THE RIGHT-OF-WAY ARE TO BE BACKFILLED WITH SOILS MEETING THE REQUIREMENTS OF ITEM 203 (100 PCF OR GREATER). THESE TRENCHES ARE TO BE COMPACTED TO 98% OF MAXIMUM DRY LABORATORY WEIGHT AT ±2% OF OPTIMUM MOISTURE.
- ALL UTILITY TRENCHES IN THE RIGHT-OF-WAY RUNNING PARALLEL TO THE PAVEMENT AND ARE NOT OVER FIVE FEET (5') IN DEPTH ARE TO BE BACKFILLED WITH SOILS MEETING THE REQUIREMENTS OF ITEM 203 (100 PCF OR GREATER). THESE TRENCHES ARE TO BE COMPACTED TO 98% OF DRY LABORATORY WEIGHT AT ± 2% OF OPTIMUM MOISTURE.
- ALL UTILITY TRENCHES UNDER ROAD PAVEMENT, STARTING AT A DISTANCE OF FIVE FEET (5') FROM THE EDGES OF THE PAVEMENT AND EXTENDING ONE FOOT (1') IN DISTANCE FOR EACH ONE FOOT (1') IN DEPTH ARE TO BE BACKFILLED WITH COMPACTED GRANULAR MATERIALS AS NOTED IN THE BACKFILL DETAIL (APRIL 1 TO SEPTEMBER 30) OR LOW STRENGTH MORTAR BACKFILL.
- ALL UTILITY TRENCHES OVER FIVE FEET (5') IN DEPTH WHICH RUN PARALLEL TO THE PAVEMENT OR THAT ARE IN THE AREA OF INFLUENCE OF THE REQUIREMENTS OF 203.12 AT ± 2% OF OPTIMUM MOISTURE.
- THE CONTRACTOR SHALL INCLUDE IN THE UNIT PRICE BID FOR UNDERGROUND UTILITY PIPE, ALL TRENCHING, BACKFILLING AS PER PLAN, AND THE REMOVAL AND DISPOSAL OF BRUSH, TREES, AND STUMPS WITHIN THE AREA OF EXCAVATION OF THE TRENCH.
- THE CONTRACTOR SHALL REFER TO THE UTILITY PLAN AND PROFILE SHEETS TO DETERMINE CRITICAL UTILITY CROSSINGS.
- IN PAVEMENT, SIDEWALK, AND UTILITY CROSSING AREAS THE BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL PER O.D.O.T. ITEM 304, AND ALL OTHER REMAINING AREAS TO BE BACKFILLED PER O.D.O.T. ITEM 603.08.

NOTE:
BACKFILL DETAIL AS PER DELAWARE COUNTY STANDARD DRAWINGS DCED R100.

SANITARY SEWERS

- CONTRACTOR SHALL CONSTRUCT SANITARY SEWERS IN ACCORDANCE WITH DELAWARE COUNTY SANITARY SEWER STANDARD SPECIFICATIONS AND CONDITIONS.
- MANHOLE CONES SHALL BE ROTATED TO ALLOW FOR SIDEWALK AND/OR CURB PLACEMENT.
- ALL SANITARY SEWER SHALL BE PVC (SDR-35) ASTM D-3034, REINFORCED CONCRETE PIPE, ASTM C76, OR DUCTILE IRON PIPE ANSI A21.51.
- COUNTY SANITARY ENGINEER APPROVED ALTERNATE:
- 8" SANITARY SEWER TO BE VITRIFIED CLAY (ODOT 706.08 ASTM C 700).
- 6" SERVICE SEWER TO BE VITRIFIED CLAY (ODOT 706.08 ASTM C 700).
- ROOF DRAINS, FOUNDATION DRAINS, OR OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
- SEWER TRENCHES SHALL BE DE-WATERED TO 2" BELOW THE PIPE BELL PRIOR TO INSTALLATION OF PIPE.
- WHERE THE WATER LINE DOES NOT MAINTAIN 18" VERTICAL SEPARATION OR IS BELOW THE SANITARY SEWER, THE SANITARY SEWER AND WATER LINE SHALL BE LAID SUCH THAT BOTH PIPES CROSS AT THE MIDDLE OF A PIPE LENGTH EQUIDISTANT FROM THE JOINTS.
- LATERAL SANITARY SEWERS AND MAIN LINE SANITARY SEWERS SHALL BE SUBJECTED TO AND PASS THE INFILTRATION TEST OR EXFILTRATION TEST, WHICHEVER IS APPLICABLE, BEFORE ANY CONNECTION MAY BE INSTALLED THERE. GROUNDWATER INFILTRATION THROUGH THE SEWER PIPE JOINTS SHALL NOT EXCEED 100 GALLONS PER INCH OF TRIBUTARY PIPE DIAMETER PER 24 HOURS PER MILE OF LENGTH OR THE COMPUTED EQUIVALENT FOR SHORTER LENGTHS AND SHORTER PERIODS OF TIME. MINIMUM TEST TIME SHALL BE SIX (6) HOURS.
- SANITARY SEWERS MUST BE SUBJECTED TO AND PASS A DEFLECTION TEST. MAXIMUM PERMISSIBLE DEFLECTION IS 5%.
- THE DELAWARE COUNTY SANITARY ENGINEER SHALL WITNESS ALL INFILTRATION (LEAK) AND DEFLECTION TESTING. NOTIFY THE SANITARY ENGINEER AT LEAST 48 HOURS BEFORE COMMENCING TESTING.
- FINISH GRADE AT ALL SANITARY MANHOLES SHALL BE 6" BELOW TOP OF CASTING TO AVOID UNNECESSARY INFILTRATION INTO THE SANITARY SEWERS.
- CONTRACTOR SHALL PROVIDE AND INSTALL WYE POLES AT ALL WYE LOCATIONS AS CONSTRUCTED. WYE POLES SHALL BE A MINIMUM OF 2 X 2 CONSTRUCTION AND SHALL EXTEND ABOVE EXISTING OR PROPOSED GRADE WHICHEVER IS GREATER A MINIMUM OF 2 FEET.
- MANHOLE TOP OF CASTINGS SHALL BE FIELD ADJUSTED AT THE TIME OF CONSTRUCTION TO BE 6" ABOVE FINISHED GRADE.
- NO CONNECTION SHALL BE MADE TO THE RECEIVING SANITARY SYSTEM UNTIL THE PROJECT HAS BEEN FULLY INSTALLED, TESTED AND APPROVED.
- SERVICE RISERS SHALL BE INSTALLED WHERE THE END OF SERVICE ELEVATION IS GREATER THAN 10' BELOW FINISH GRADE ELEVATION TO AN ELEVATION OF 10' OR LESS OR WHEN OTHERWISE NOTED.

ESTIMATE OF QUANTITIES

ESTIMATED QUANTITIES ARE LISTED FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR(S) SHALL CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. IT IS RECOMMENDED THAT CONTRACTOR(S) ESTABLISH QUANTITIES RELATED TO THE PLANS AND NOT RELY SOLELY ON FLOYD BROWNE ASSOCIATES, INC., QUANTITY LISTS.

BEDDING AND GRANULAR BACKFILL

THE CONTRACTOR(S) IS TO INCLUDE THE COST OF BEDDING AND GRANULAR BACKFILL IN ODOT ITEMS 603 AND 604. THE UNIT COSTS SHALL INCLUDE ANY BACKFILL REQUIRED, EITHER AS SHOWN ON THE PLANS OR AS DEEMED NECESSARY BY THE ENGINEER OR INSPECTOR. GRANULAR BACKFILL IS SHOWN ON THE PLANS ONLY TO ASSIST THE BIDDER. FLOYD BROWNE ASSOCIATES, INC., IS NOT RESPONSIBLE FOR PAYMENT TO BE MADE FOR ANY EXTRA GRANULAR BACKFILL RELATED TO FIELD CONDITIONS.

ROCK EXCAVATION

THE CONTRACTOR(S) IS TO INCLUDE THE COST OF ROCK EXCAVATION IN ODOT ITEMS 604, 706 AND 707. THE UNIT COSTS SHALL INCLUDE ANY ROCK EXCAVATION, EITHER AS SHOWN ON THE PLANS OR AS DEEMED NECESSARY.

QUANTITIES

EARTHWORK		UNIT	TOTAL
201	CLEARING AND GRUBBING	/ LUMP	1
207	SEEDING AND MULCHING	/ SY	6653
SANITARY		UNIT	TOTAL
604	48" SANITARY MANHOLE TYPE A, 5' TO 10' DEEP	/ EA	2
604	48" SANITARY MANHOLE TYPE A, 10' TO 15' DEEP	/ EA	1
707	8" SANITARY SEWER PIPE (PVC), 5' TO 10' DEEP	/ LF	216
707	8" SANITARY SEWER PIPE (PVC), 10' TO 15' DEEP	/ LF	454
707	4" SANITARY FORCE MAIN	/ LF	863-865
707	6" LATERALS	/ LF	88
707	6" RISERS	/ LF	3
707	8"x6" WYES, WITH PLUGS AND POLES	/ EA	4
SPEC	45' BEND	/ EA	7
SPEC	22.5' BEND	/ EA	1
SPEC	CONNECT TO EX. SANITARY	/ EA	1
EROSION CONTROL		UNIT	TOTAL
671	SILT FENCE	/ LF	2137
SPEC	GRAVEL CONSTRUCTION ENTRANCE	/ EA	1
ROADWAY		UNIT	TOTAL
304	AGGREGATE BASE	/ CY	20-37
499	CLASS C CONCRETE	/ CY	16
402	ASPHALT CONCRETE	/ CY	4-6
404	ASPHALT CONCRETE	/ CY	7-6
408	TACK COAT (0.10 GAL/SF)	/ GAL	69-
SPEC	CURB CUT	/ LF	65

SEEDING & MULCHING

GENERAL:

THE SEEDING, EITHER PERMANENT OR TEMPORARY, SHALL COMMENCE WITHIN 14 DAYS AFTER THE GRADING IS COMPLETED.

THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO ACCOMPLISH BOTH TEMPORARY AND PERMANENT SEEDING.

ALL DITCHES, DIVERSIONS, SEDIMENT BASINS / TRAPS, RIGHT-OF-WAY AREAS, AND AREAS DISTURBED DURING CONSTRUCTION SHALL BE SEEDDED AND MULCHED OR SOODED.

SEEDING SHALL BE DONE TO A DISTANCE 5' OUTSIDE OF THE WORK LIMITS OR RIGHT-OF-WAY, WHICHEVER IS GREATER. ALL AREAS NOT DESIGNATED TO BE SOODED SHALL REMAIN UNDER EXISTING GROUND COVER. THOSE AREAS DISTURBED OUTSIDE THE SEEDING LIMITS SHALL BE SEEDDED AND MULCHED AT THE CONTRACTOR'S EXPENSE.

PAYMENT FOR TEMPORARY SEEDING SHALL BE INCLUDED UNDER "EROSION CONTROL".

OTHER EROSION AND SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL THEY ARE ORDERED REMOVED BY THE ENGINEER OR AS DIRECTED BY THE "SEQUENCE OF CONSTRUCTION"

SEED TYPE	SEEDING DATES	PER 1000 SQ. FT.	PER ACRE
CREEPING RED FESCUE plus DOMESTIC RYE plus KENTUCKY BLUEGRASS	MARCH-MAY, AUGUST-SEPTEMBER	1/2 POUND	20 POUNDS
		1/4 POUND	10 POUNDS
		1/4 POUND	10 POUNDS
TALL FESCUE		1 POUND	40 POUNDS
DWARF (TURF) FESCUE		1 POUND	40 POUNDS

TEMPORARY SEEDING

OATS or PERENNIAL RYE	MARCH 1- AUGUST 15	3 POUNDS	40 BUSHELS
TALL FESCUE	MARCH 1- AUGUST 15	1 POUND	40 POUNDS
RYE or WHEAT or PERENNIAL RYE	MARCH 1- AUGUST 15	3 POUNDS	2 BUSHELS
	AUGUST 16- NOVEMBER 1	1 POUND	40 POUNDS
TALL FESCUE	AUGUST 16- NOVEMBER 1	1 POUND	40 POUNDS

INSTALLATION:

- GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. AFTER THE GRADING OPERATION, SPREAD TOPSOIL WHERE NEEDED.
- WHERE COMPACTED SOILS OCCUR, THEY SHOULD BE BROKEN UP SUFFICIENTLY TO CREATE A FAVORABLE ROOTING DEPTH OF 6" TO 8" MINIMUM.
- FOR PERMANENT SEEDING, PLACE TOPSOIL TO A DEPTH OF 4" MINIMUM.
- APPLY LIME AT A RATE AS RECOMMENDED BY THE SOIL TESTS, OR AT A RATE OF 100 POUNDS PER 1000 SQUARE FEET OR TWO TONS PER ACRE OF AGRICULTURAL GROUND LIMESTONE. FOR BEST RESULTS, A SOIL TEST IS RECOMMENDED.
- APPLY FERTILIZER AT A RATE AS RECOMMENDED BY THE SOIL TESTS, OR AT A RATE OF 25 POUNDS PER 1000 SQUARE FEET OR 1/2 TON PER ACRE OF 10-10-10. FOR BEST RESULTS, A SOIL TEST IS RECOMMENDED.
- WORK THE LIME AND FERTILIZER INTO THE SOIL WITH A DISK HARROW, SPRING TOOTH HARROW, OR OTHER SUITABLE FIELD EQUIPMENT TO A DEPTH OF 3". ON SLOPING LAND, THE FINAL OPERATION SHALL BE ON THE CONTOUR.
- APPLY THE SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY MAY INCLUDE SEED AND FERTILIZER) PREFERABLY ON A FIRM, MOIST SEEDBED. SEED WHEAT OR RYE NO DEEPER THAN 1". SEED RYEGRASS NO DEEPER THAN 1/4".

H. WHEN FEASIBLE, EXCEPT WHERE A CULTIPACKER TYPE SEEDER IS USED, THE SEEDBED SHALL BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A CULTIPACKER, ROLLER, OR LIGHT DRAG. ON SLOPING LAND, SEEDING OPERATIONS SHOULD BE ON THE CONTOUR WHEREVER POSSIBLE.

I. APPLY MULCH AT A RATE OF 2 TONS PER ACRE OR 100 POUNDS (TWO TO THREE BALES) PER 1000 SQUARE FEET.

J. SPREAD THE MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED.

K. ANCHOR MULCH BY ONE OF THE FOLLOWING METHODS:

- MECHANICAL - USE OF A DISK, CRIMPER, OR SIMILAR TYPE TOOL SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL.
- ASPHALT EMULSION - APPLY AT A RATE OF 160 GALLONS PER ACRE INTO THE MULCH AS IT IS BEING APPLIED.
- MULCH NETTINGS - USE ACCORDING TO THE MANUFACTURE'S RECOMMENDATIONS. USE IN AREAS OF WATER CONCENTRATION TO HOLD MULCH IN PLACE.

MAINTENANCE:

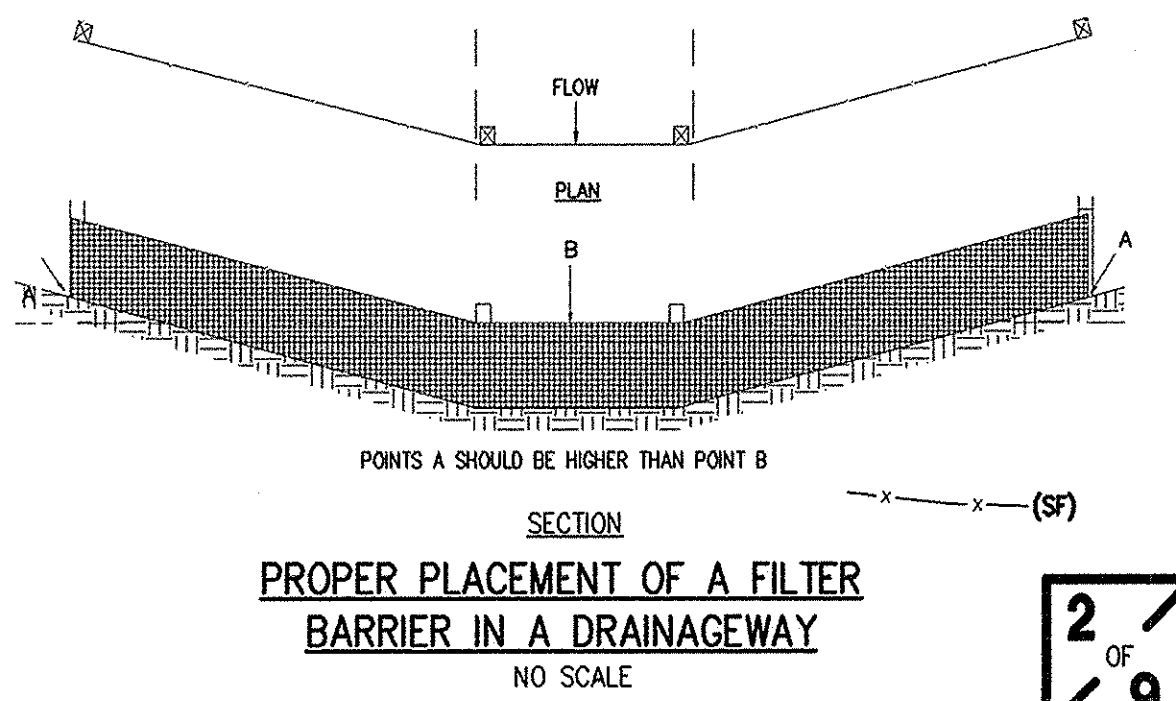
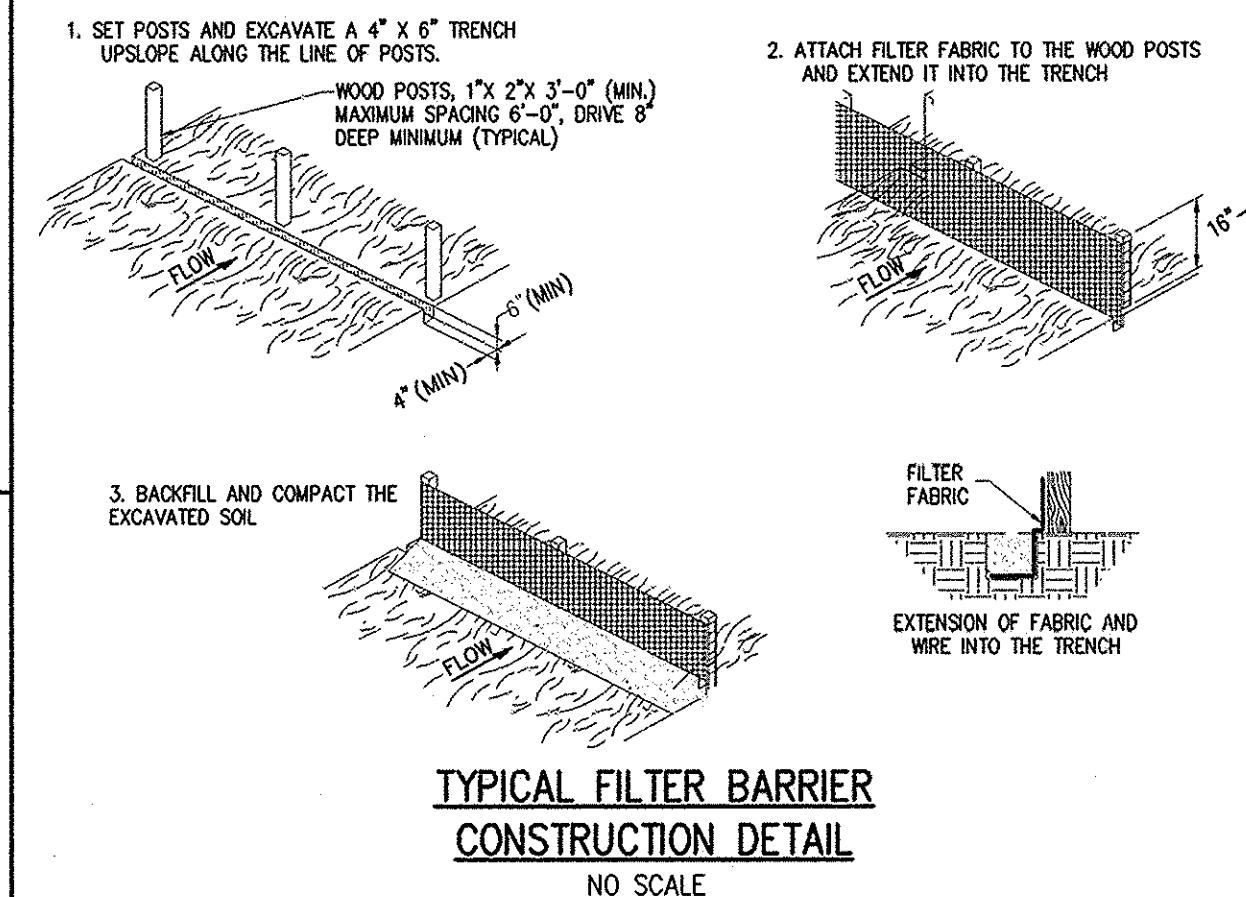
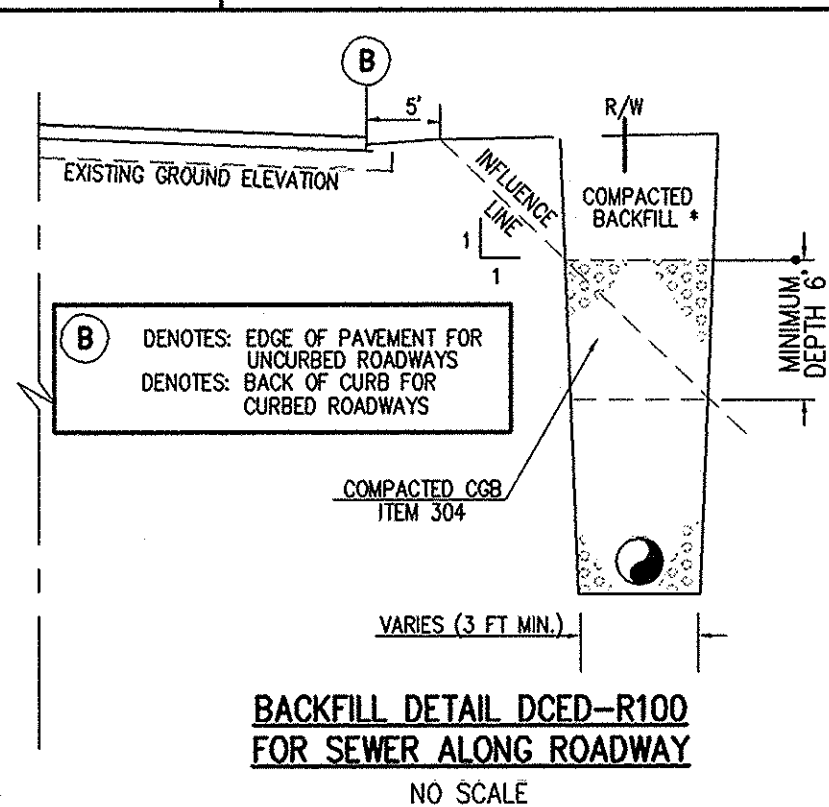
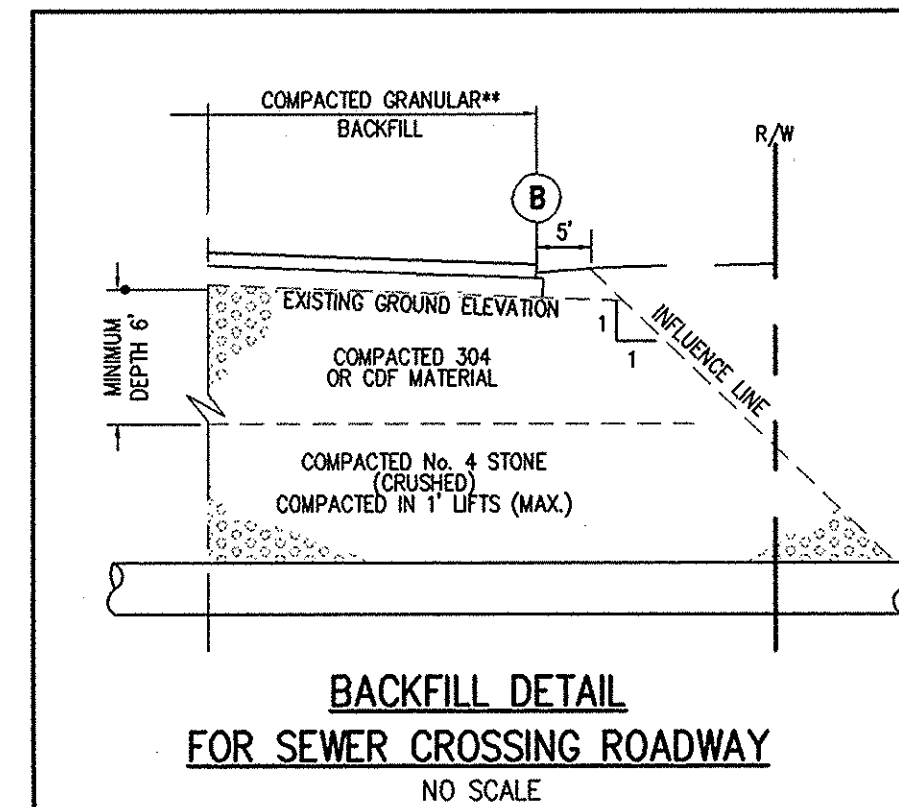
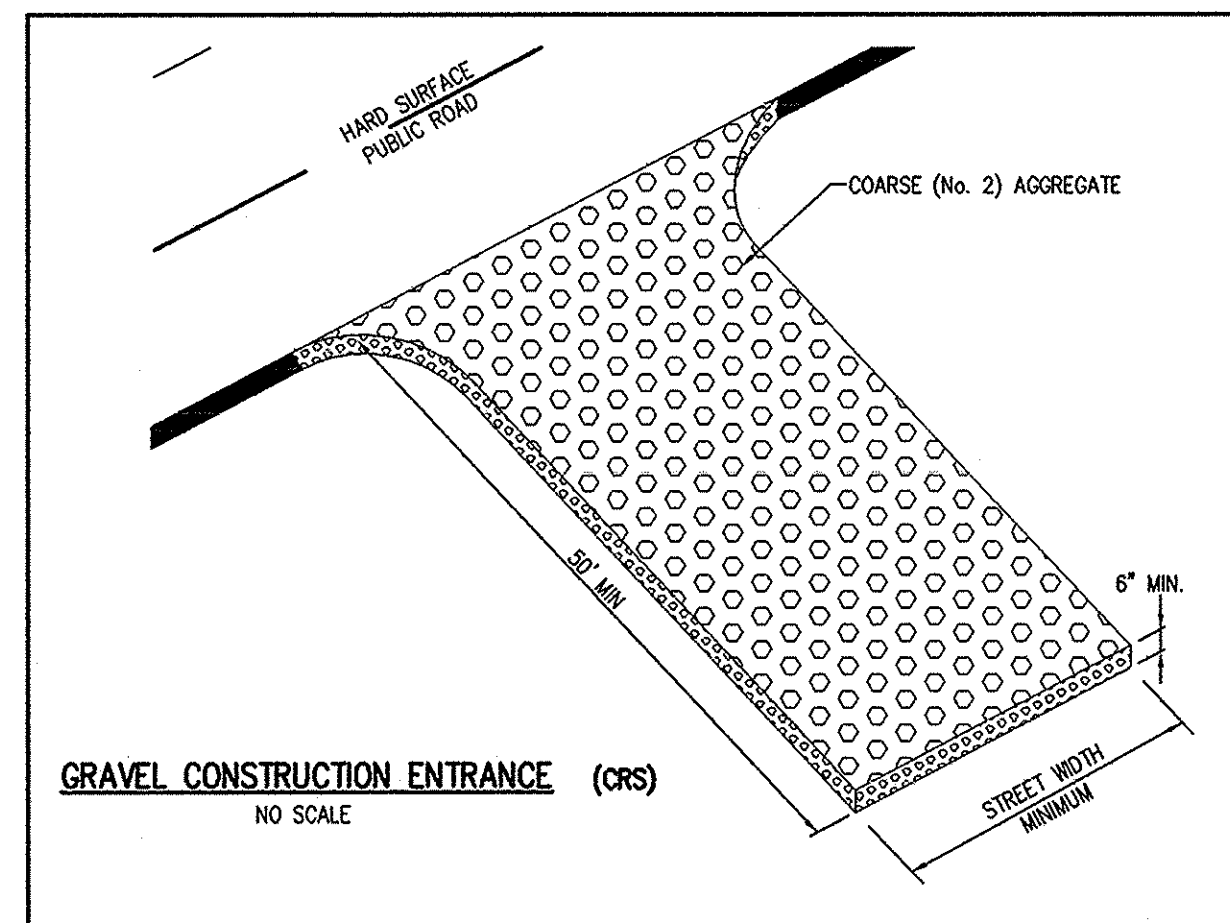
A. IRRIGATION -- IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, OR ON ADVERSE SITES.

B. REPAIRS - INSPECT ALL SEEDDED AREAS FOR FAILURES AND MAKE NECESSARY REPAIRS, REPLACEMENTS, RESEEDING, AND REMULCHING WITHIN THE PLANTING SEASON, IF POSSIBLE.

- IF STAND IS INADEQUATE, OVERSEED AND FERTILIZE, USING HALF OF THE RATES ORIGINALLY APPLIED, AND MULCH.
- IF STAND IS OVER 60 PERCENT DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER, SEEDBED PREPARATION, SEEDING RECOMMENDATIONS, AND MULCHING RECOMMENDATIONS.

MAINTENANCE FERTILIZATION AND MOWING FOR PERMANENT SEEDING

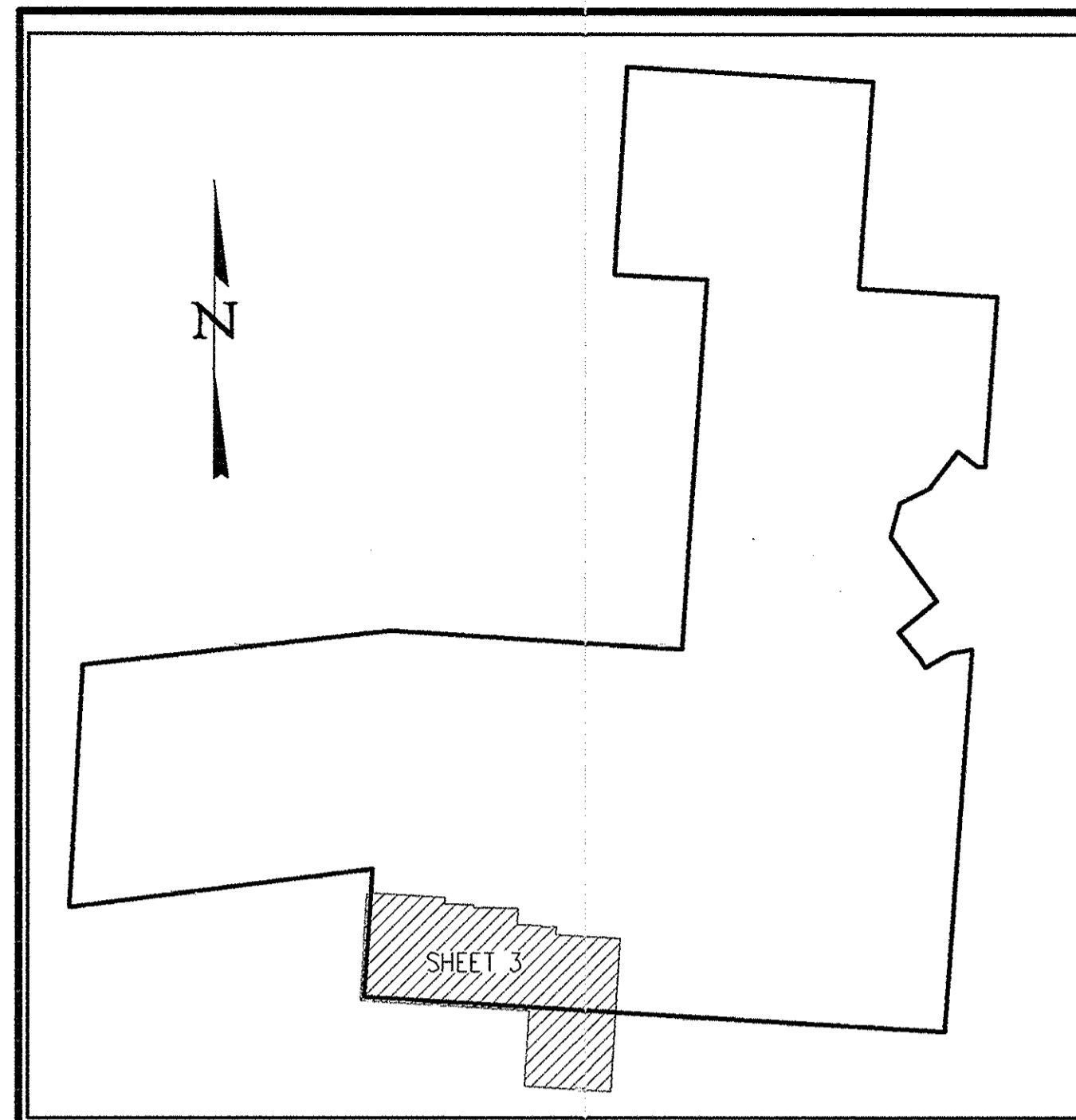
MIXTURE	FERTILIZER RATE			TIME	MOWING
	FORMULA	Lbs/ACRE	Lbs/1000 FT ²		
CR. RED FESCUE RYEGRASS KY BLUEGRASS	10-10-10	500	12	FALL YEARLY OR AS NEEDED	NOT CLOSER THAN 3"
DWARF (TURF) FESCUE	10-10-10	500	12	FALL YEARLY OR AS NEEDED	NOT CLOSER THAN 2"
FLATPEA AND CROWNVEICH W/ FESCUE	0-20-20	400	10	SPRING YEARLY FOLLOWING ESTABLISHMENT AND EVERY 4-7 YEARS THEREAFTER	DO NOT MOW



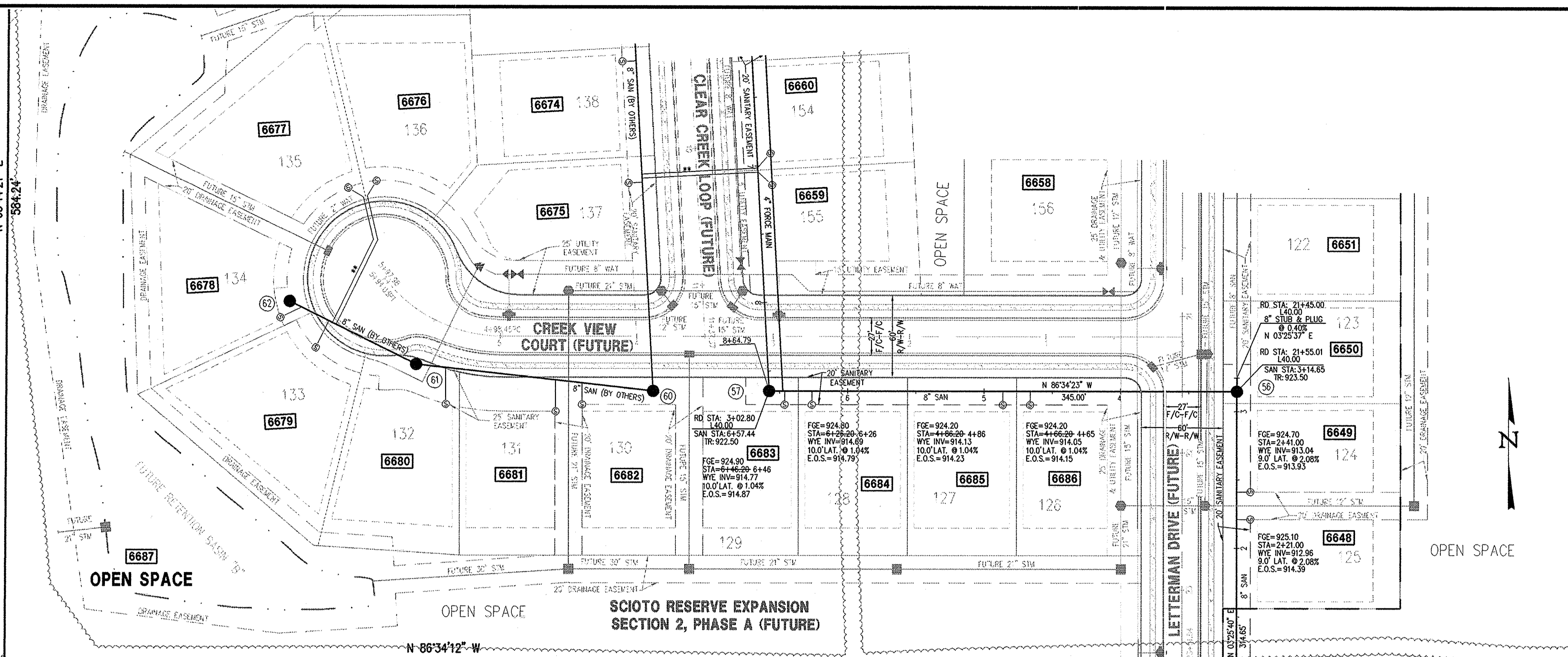
NO.	REVISION DATA	DATE	BY	APP'D
1	QUANTITIES REVISED	2/24/06	MAW	

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JOB NO. 04-178-01

TRIANGLE REAL ESTATE
SCIOTO RESERVE EXPANSION
SANITARY LIFT STATION PLAN
STANDARD NOTES, DETAILS & QUANTITIES

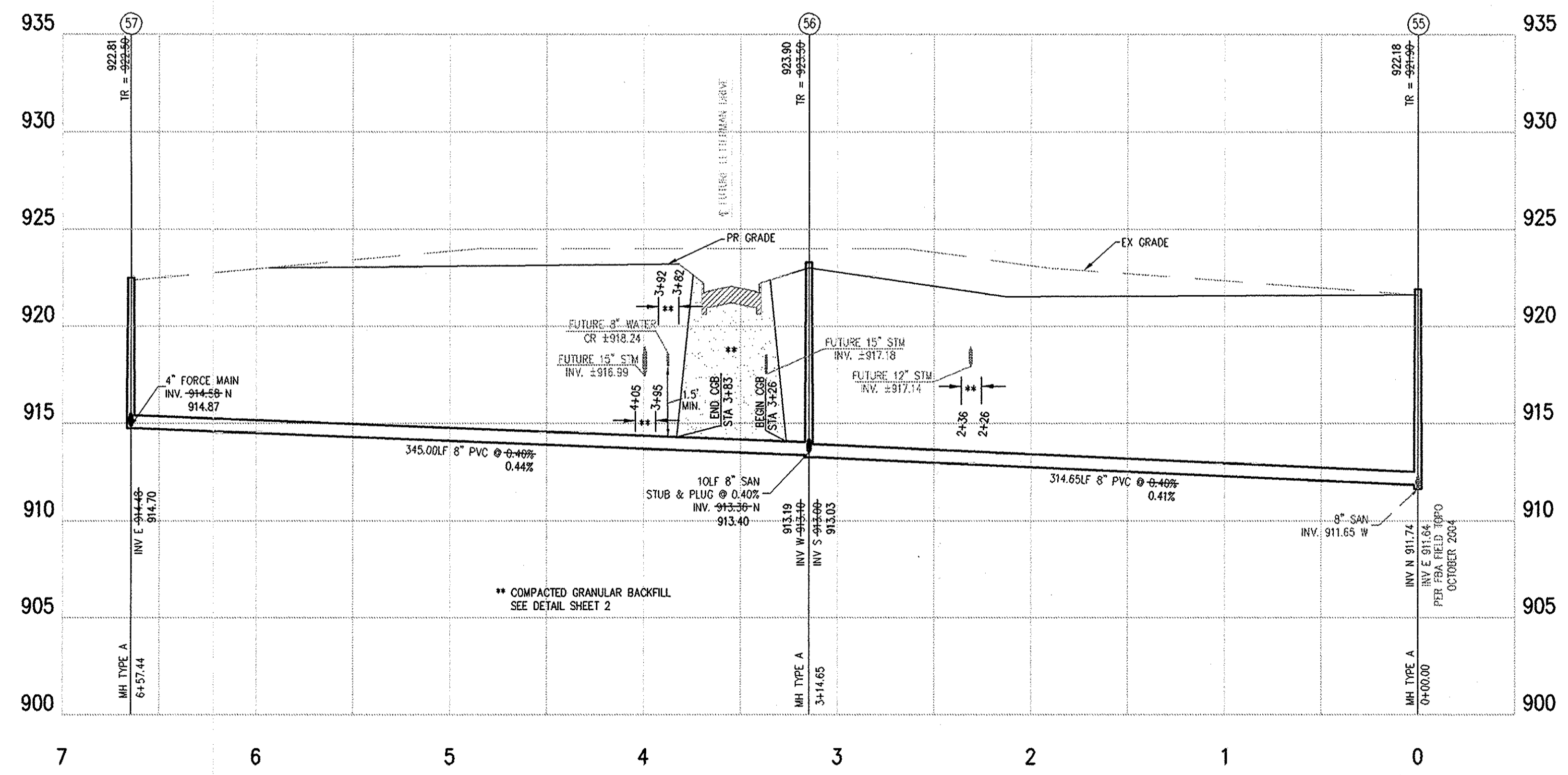


JOHN R. GUSLER et al
6.912 ACRES
(PARCEL 1)
D.B. 574, PAGE 305



LEGEND

SAN	SANITARY	STM	STORM
●	SANITARY MANHOLE	■	STORM CATCH BASIN
○	SANITARY SERVICE	○	STORM MANHOLE
②	SANITARY STRUCTURE NUM	CR	CROWN ELEVATION (WATER)
WAT	WATER	TR	TOP OF RIM
⊕	FIRE HYDRANT	FGE	FINISH GRADE ELEVATION
⊕	WATER VALVE	---	TREE-LINE
⊕	WATER SERVICE	█	COMPACTED GRANULAR BACKFILL
		-x-x-	SILT FENCE
		- - -	POND BOUNDARY



- NOTE:**
MANHOLE 55 IS TO BE INSERTED ON A "LIVE" LINE. CONTRACTOR SHOULD FOLLOW THE "SUGGESTED METHOD OF CONSTRUCTION FOR MH 55" FOUND ON THIS SHEET.
- NOTE:**
ALL SANITARY LATERALS SHALL BE AT 2.08% SLOPE UNLESS OTHERWISE NOTED. ALL SANITARY RISERS SHALL BE SET AT A 45° ANGLE FROM VERTICAL UNLESS OTHERWISE NOTED.
- NOTE:**
A MINIMUM OF 1.5 FEET, VERTICAL CLEARANCE, WILL SEPARATE THE SANITARY SERVICES FROM THE STORM LINES.
- NOTE:**
ALL MANHOLE CASTINGS SHALL HAVE "DELAWARE COUNTY REGIONAL SEWER DISTRICT" STAMPED INTO THEM.
- NOTE:**
NO UTILITY WILL BE LAID CLOSER THAN 10 FEET ON EITHER SIDE OF THE SEWER MAIN.
- NOTE:**
CONTRACTOR TO SUBMIT A TRENCH DETAIL TO THE DEVELOPER FOR ALL UTILITIES DEEPER THAN 10' (FOR APPROVAL). TOP TRENCH WIDTH SHALL BE A MAXIMUM OF 20' UNLESS OTHERWISE APPROVED.
- NOTE:**
ALL MANHOLES TO BE WATER TESTED UNLESS OTHERWISE NOTED.

SUGGESTED METHOD OF CONSTRUCTION FOR MH 55:

1. CONTRACTOR SHOULD NOTIFY THE OWNERS OF LOTS 6225, 6226, 6227 AND 6228 OF SCIOTO RESERVE SECTION 4, PHASE 10 A MINIMUM OF 48 HOURS PRIOR TO INSTALLING THE PLUG IN THE EXISTING MANHOLE ON LOT 6225.
2. TEMPORARILY PLUG THE EXISTING MANHOLE ON LOT 6225 IN ORDER TO KEEP WASTE WATER FROM ENTERING THE DOWNSTREAM SANITARY SEWER.
3. CONTRACTOR SHALL FURNISH A PUMP FOR BYPASSING FLOW (IF NECESSARY) DURING CONSTRUCTION, THIS PUMP WILL DRAW FROM THE EXISTING MANHOLE, ON LOT 6225, AND WILL PUMP TO THE EXISTING MANHOLE ON LOT 6228. (APPROXIMATELY 250 FEET).
4. INSTALL PROPOSED MANHOLE 55 (CORED AND BOOTED) INLINE WITH THE EXISTING LINE. THE MANHOLE WILL THEN BE VACUUM TESTED. ONCE IT HAS PASSED TESTING, THE TEMPORARY PLUG, LOCATED IN THE EXISTING UPSTREAM MANHOLE, CAN BE REMOVED. THE EXISTING LATERAL FOR LOT 6227 SHALL BE REMOVED AND REPLACED AND ITS LOCATION AND ELEVATION TO BE REPLACED PER THIS PLAN.

"AS-BUILT CERTIFICATION"
AS-BUILT PERTAINS TO FIELD ELEVATIONS OF PUBLIC UTILITIES.
FOR EXAMPLE: TOP OF CASTINGS AND FLOW LINES, AND DOES NOT INCLUDE ANY FIELD CHECKS OF OVERLAND GRADING.
AS-BUILT ELEVATIONS FIELD CHECKED AND AMENDED.
BY: *Mark Alan Smith* DATE: 7/13/06
MARK ALAN SMITH, P.S.
PROFESSIONAL SURVEYOR NO. 5-8232
ADD LOT ADS.

NO.	REVISION DATA	DATE	BY	APP'D

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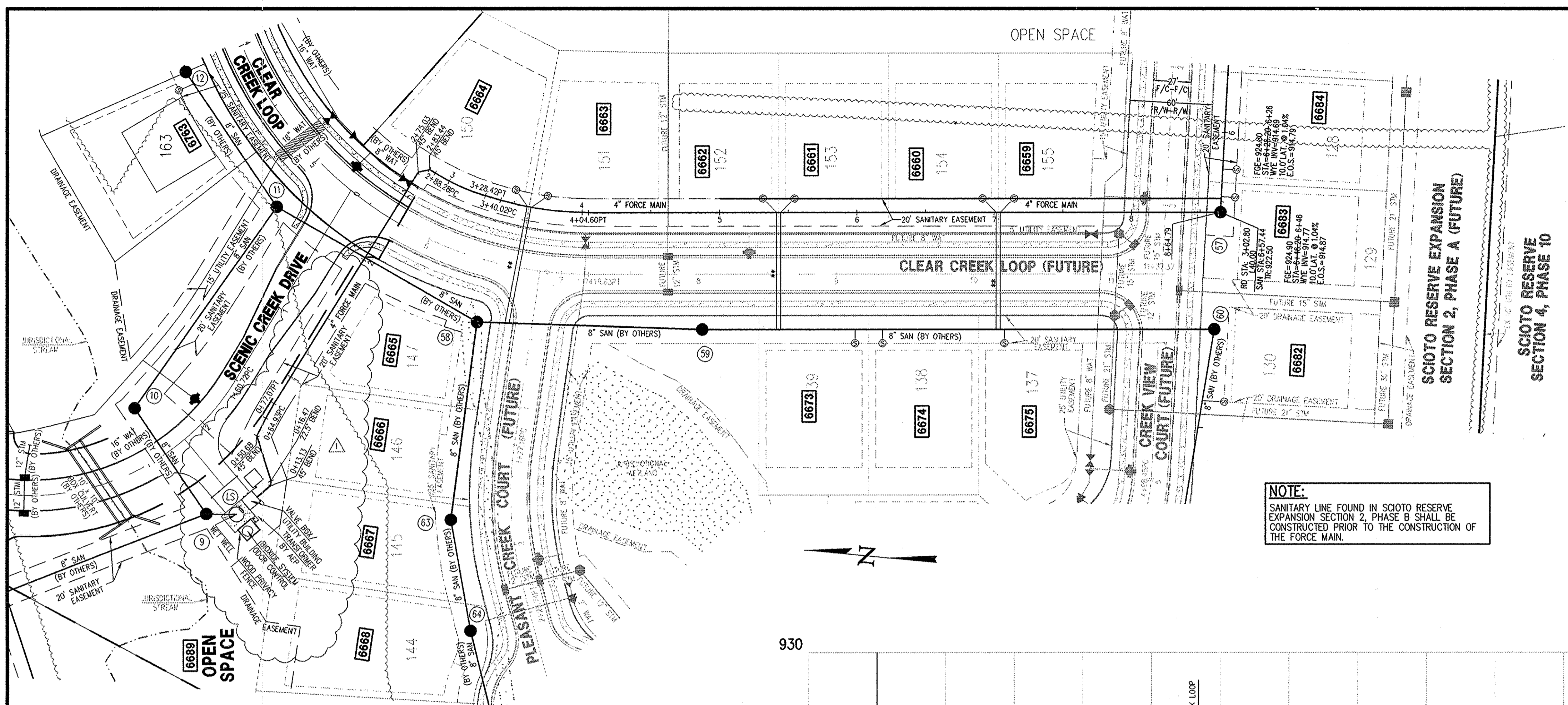
DATE: JULY 2005
JOB NO. 04-178-01

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TRIANGLE REAL ESTATE SERVICES, INC.
SCIOTO RESERVE EXPANSION LIFT STATION PLAN
SANITARY GRAVITY MAIN PLAN AND PROFILE

Fig. 4. UEL\CL\CLIENT\TRANGLE COMMUNITIES\04-04-178-01\PLAN SETS\SAN\LIFT STATION\03-SSWR-PLPR-C-4.DWG - Jul 13, 2006 11:38am

Fig. 4, DELTA CLIENT TRIANGLE COMMUNITIES (4104-178-01) PLAN SET, SANITARY STATION 03-SSWP-PLP-(C-4) DWG - JUL 13, 2006 1:38pm



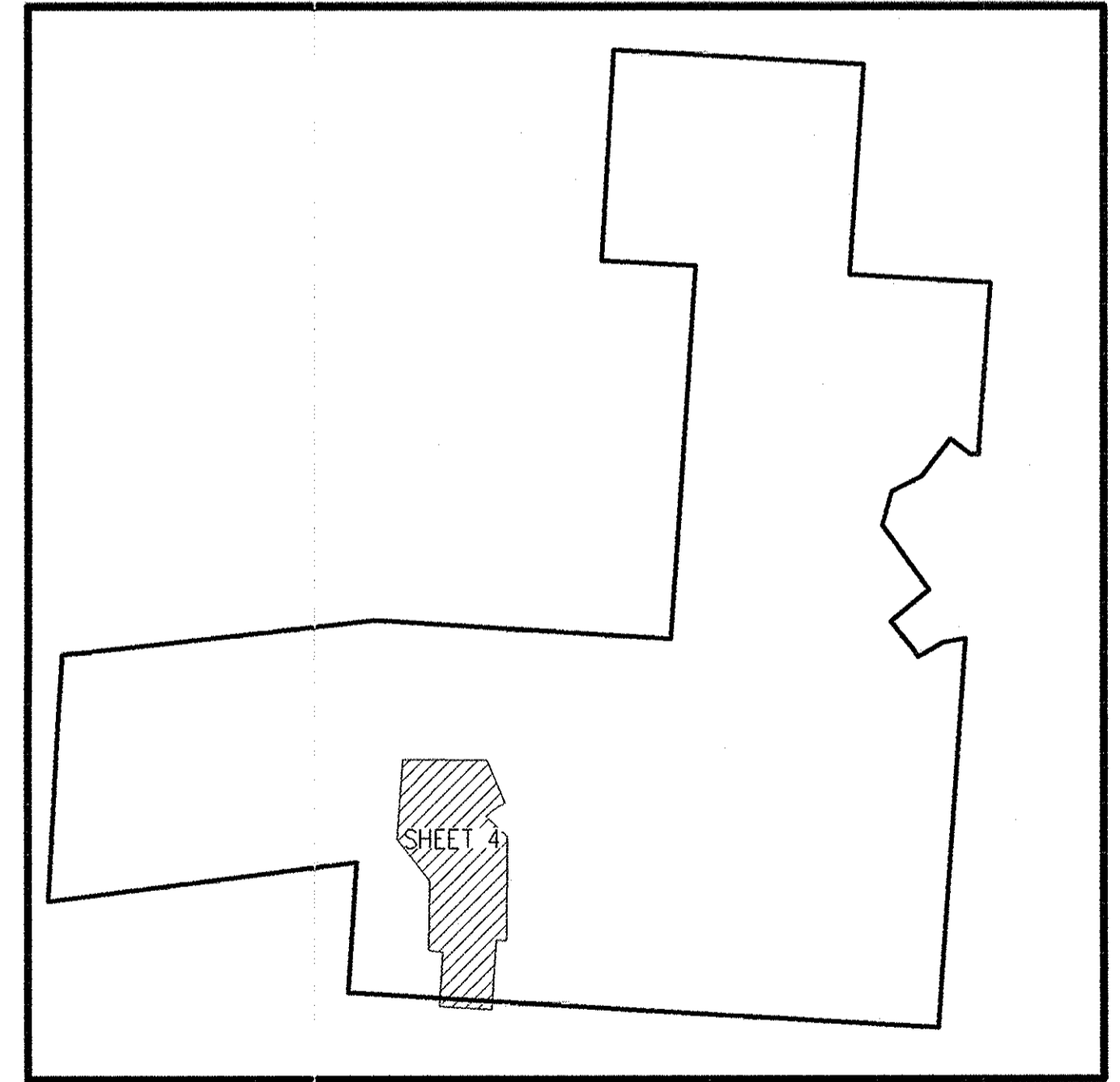
LEGEND

- SAN SANITARY
- SANITARY MANHOLE
- SANITARY SERVICE
- ② SANITARY STRUCTURE NUM
- WAT WATER
- FIRE HYDRANT
- WATER VALVE
- WATER SERVICE
- STORM
- STORM CATCH BASIN
- STORM MANHOLE
- CR CROWN ELEVATION (WATER)
- TR TOP OF RIM
- FGE FINISH GRADE ELEVATION
- TREE-LINE
- COMPACTED GRANULAR BACKFILL
- - - SILT FENCE
- - - POND BOUNDARY

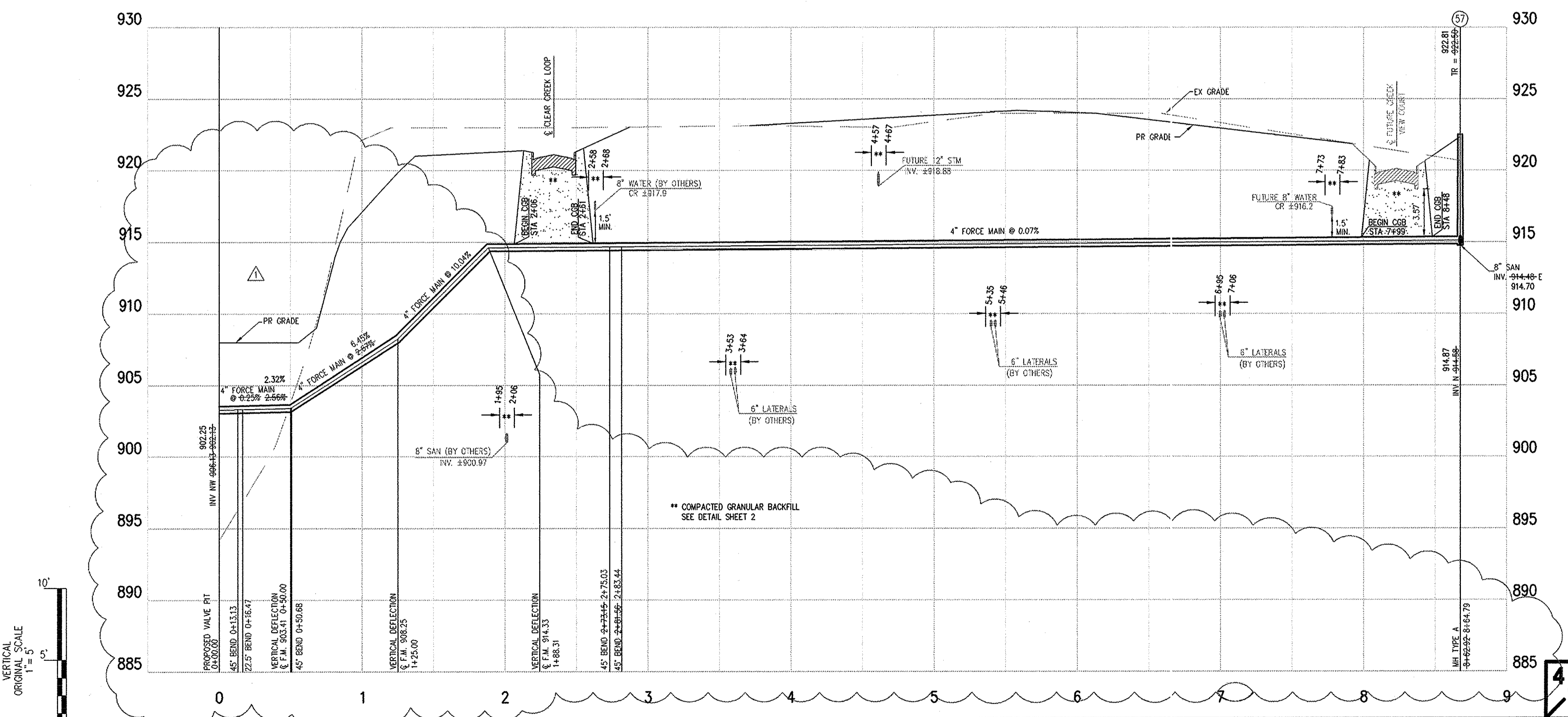
- NOTE:**
ALL SANITARY LATERALS SHALL BE AT 2.08% SLOPE UNLESS OTHERWISE NOTED.
ALL SANITARY RISERS SHALL BE SET AT A 45° ANGLE FROM VERTICAL UNLESS OTHERWISE NOTED.
- NOTE:**
A MINIMUM OF 1.5 FEET, VERTICAL CLEARANCE, WILL SEPARATE THE SANITARY SERVICES FROM THE STORM LINES.
- NOTE:**
ALL MANHOLE CASTINGS SHALL HAVE "DELAWARE COUNTY REGIONAL SEWER DISTRICT" STAMPED INTO THEM.
- NOTE:**
NO UTILITY WILL BE LAID CLOSER THAN 10 FEET ON EITHER SIDE OF THE SEWER MAIN.
- NOTE:**
CONTRACTOR TO SUBMIT A TRENCH DETAIL TO THE DEVELOPER FOR ALL UTILITIES DEEPER THAN 10' (FOR APPROVAL). TOP TRENCH WIDTH SHALL BE A MAXIMUM OF 20' UNLESS OTHERWISE APPROVED.
- NOTE:**
CONTRACTOR TO INSTALL A TRACER LINE WITH THE PLACEMENT OF THE FORCE MAIN FOR LOCATION PURPOSES.

- NOTE:**
CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES.
- NOTE:**
ALL MANHOLES TO BE WATER TESTED UNLESS OTHERWISE NOTED.

NOTE:
SANITARY LINE FOUND IN SCIOTO RESERVE EXPANSION SECTION 2, PHASE B SHALL BE CONSTRUCTED PRIOR TO THE CONSTRUCTION OF THE FORCE MAIN.



SHEET INDEX
NO SCALE



"AS-BUILT CERTIFICATION"
AS-BUILT PERTAINS TO FIELD ELEVATIONS OF PUBLIC UTILITIES.
FOR EXAMPLE: TOP OF CASTINGS AND FLOW LINES, AND DOES NOT INCLUDE ANY FIELD CHECKS OF OVERLAND GRADING.
AS-BUILT ELEVATIONS FIELD CHECKED AND AMENDED.
BY: *Mark Alan Smith* DATE: *7/13/06*
MARK ALAN SMITH, PS
PROFESSIONAL SURVEYOR NO. S-8232
Added lot #'s

NO.	REVISION DATA	DATE	BY	APP'D
1	FORCE MAIN LOCATION ADJUSTED AND RE-STATIONED. PROFILE UPDATED.	2/24/06	MAW	

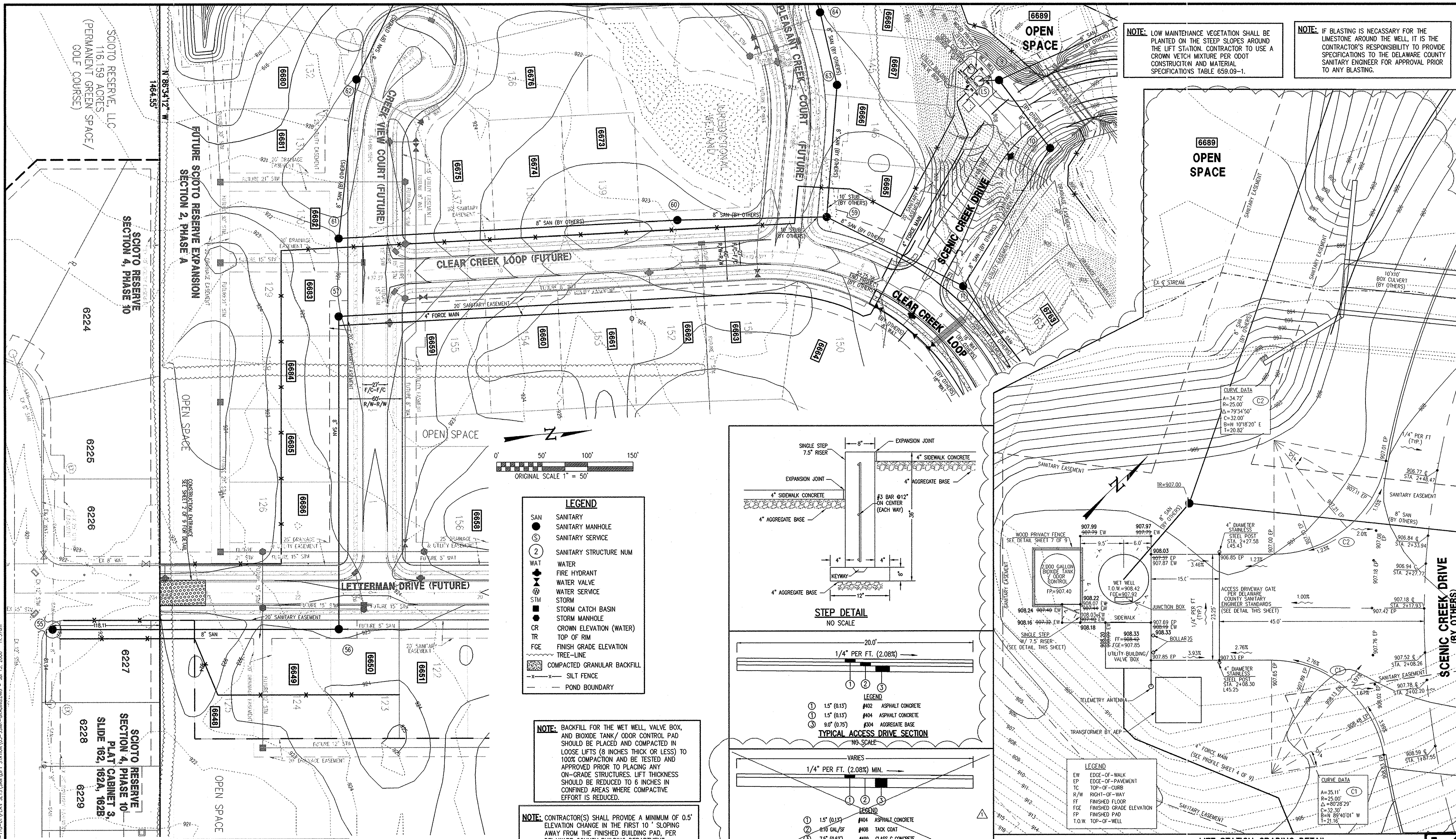
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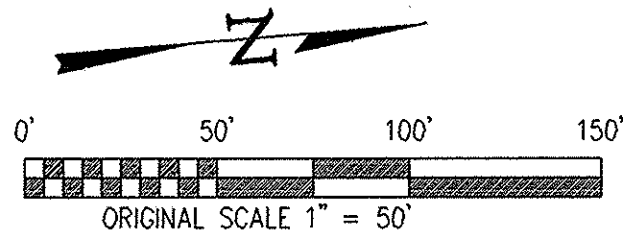
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SCIOTO RESERVE EXPANSION
LIFT STATION PLAN
SANITARY FORCE MAIN
PLAN AND PROFILE



NOTE: LOW MAINTENANCE VEGETATION SHALL BE PLANTED ON THE STEEP SLOPES AROUND THE LIFT STATION. CONTRACTOR TO USE A CROWN VETCH MIXTURE PER ODOT SPECIFICATION AND MATERIAL SPECIFICATIONS TABLE 659.09-1.

NOTE: IF BLASTING IS NECESSARY FOR THE LIMESTONE AROUND THE WELL, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SPECIFICATIONS TO THE DELAWARE COUNTY SANITARY ENGINEER FOR APPROVAL PRIOR TO ANY BLASTING.



- LEGEND**
- SAN SANITARY
 - SM SANITARY MANHOLE
 - SS SANITARY SERVICE
 - (2) SANITARY STRUCTURE NUM
 - WAT WATER
 - FH FIRE HYDRANT
 - WV WATER VALVE
 - WS WATER SERVICE
 - STM STORM
 - SCB STORM CATCH BASIN
 - SMH STORM MANHOLE
 - CR CROWN ELEVATION (WATER)
 - TR TOP OF RIM
 - FGE FINISH GRADE ELEVATION
 - TL TREE-LINE
 - CGB COMPACTED GRANULAR BACKFILL
 - SF SILT FENCE
 - PB POND BOUNDARY

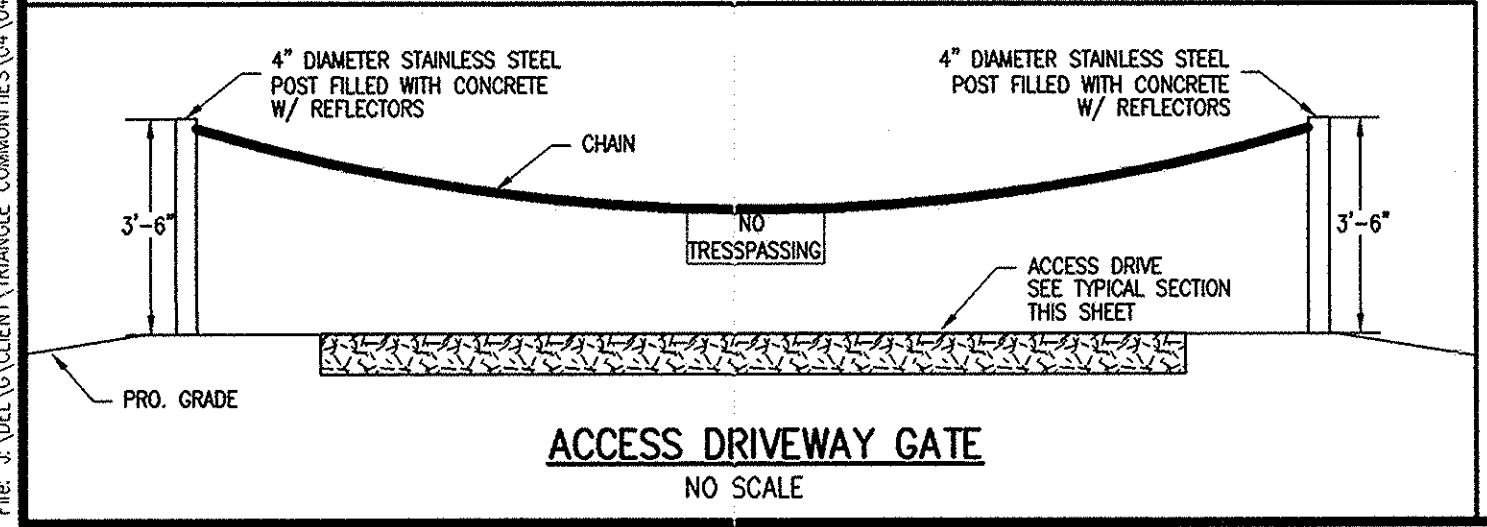
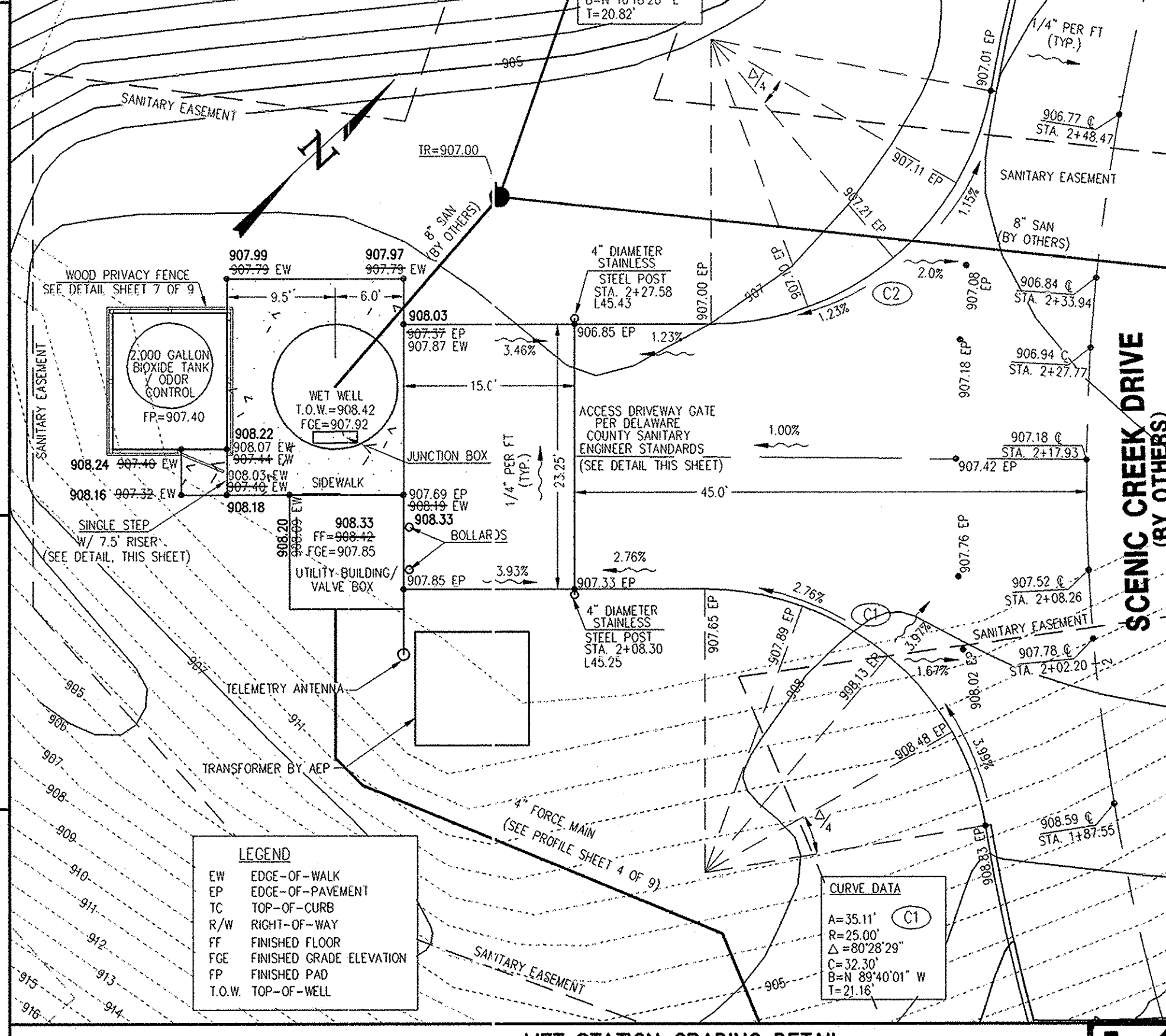
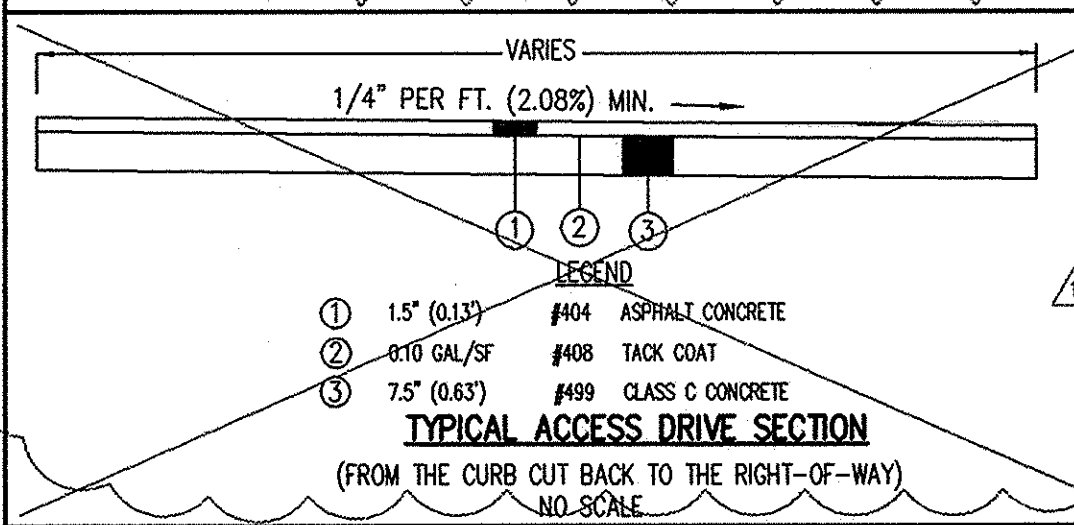
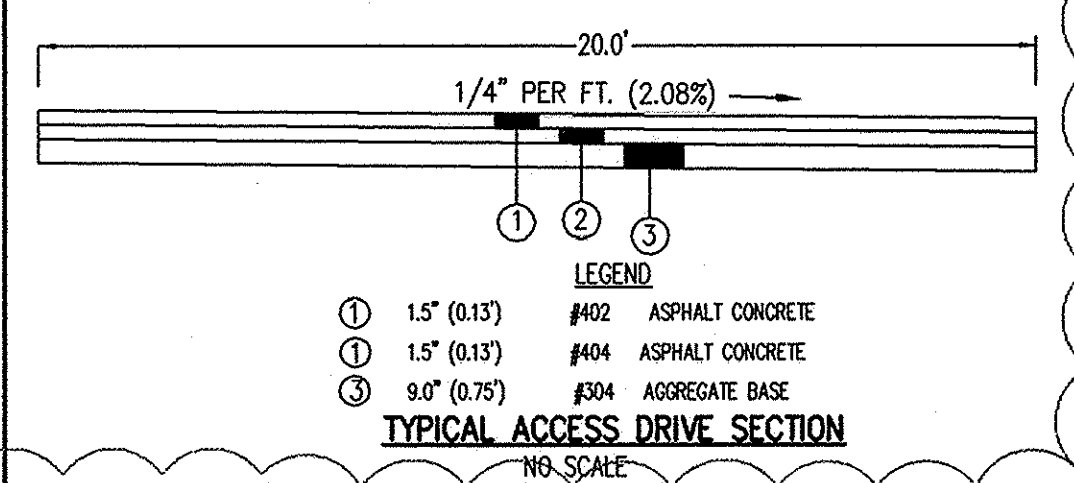
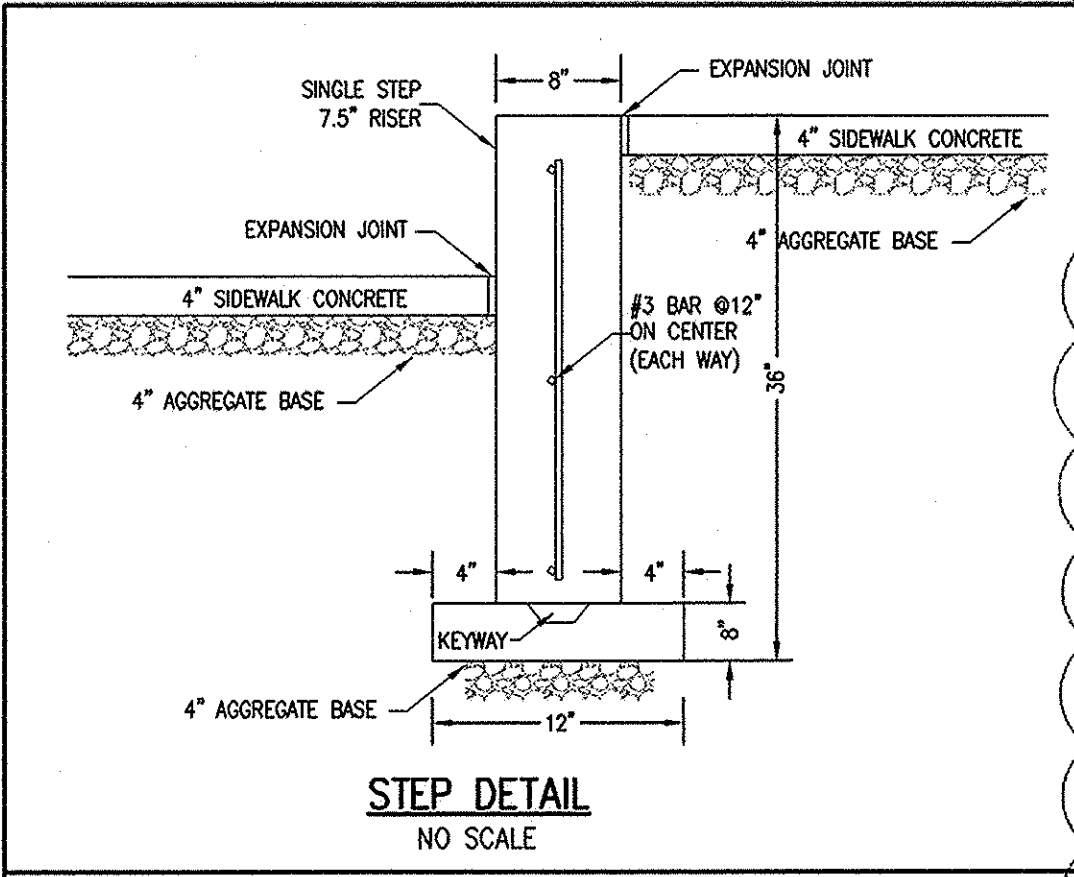
NOTE: BACKFILL FOR THE WET WELL, VALVE BOX, AND BIOXIDE TANK/ ODOR CONTROL PAD SHOULD BE PLACED AND COMPACTED IN LOOSE LIFTS (8 INCHES THICK OR LESS) TO 100% COMPACTION AND BE TESTED AND APPROVED PRIOR TO PLACING ANY ON-GRADE STRUCTURES. LIFT THICKNESS SHOULD BE REDUCED TO 6 INCHES IN CONFINED AREAS WHERE COMPACTIVE EFFORT IS REDUCED.

NOTE: CONTRACTOR(S) SHALL PROVIDE A MINIMUM OF 0.5' ELEVATION CHANGE IN THE FIRST 10' SLOPING AWAY FROM THE FINISHED BUILDING PAD, PER DELAWARE COUNTY BUILDING DEPARTMENT.

NOTE: CONTRACTOR(S) SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND STRUCTURES PRIOR TO CONSTRUCTION.

NOTE: CONTRACTOR TO INSTALL SEDIMENT CONTROL PRIOR TO CONSTRUCTION.

"AS-BUILT CERTIFICATION"
 AS-BUILT PERTAINS TO FIELD ELEVATIONS OF PUBLIC UTILITIES. FOR EXAMPLE: TOP OF CASTINGS AND FLOW LINES, AND DOES NOT INCLUDE ANY FIELD CHECKS OF OVERLAND GRADING.
 AS-BUILT ELEVATIONS FIELD CHECKED AND AMENDED.
 BY: *Mark Alan Smith* DATE: 7/13/06
 MARK ALAN SMITH, P.S.
 PROFESSIONAL SURVEYOR NO. S-8232 * Add lot nos.



NO.	REVISION DATA	DATE	BY	APP'D
1	LIFT STATION GRADING REVISED. TYPICAL ACCESS DRIVE DETAIL REMOVED.	2/24/06	MAW	

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TRIANGLE REAL ESTATE SERVICES, INC.
SCIOTO RESERVE EXPANSION LIFT STATION PLAN
GRADING & EROSION CONTROL

Fig. 3. LEVEL CLIENT: TRIANGLE COMMENTS: (A) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (B) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (C) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (D) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (E) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (F) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (G) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (H) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (I) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (J) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (K) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (L) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (M) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (N) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (O) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (P) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (Q) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (R) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (S) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (T) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (U) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (V) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (W) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (X) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (Y) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING. (Z) V-178-01 PLAN SETS SANITARY LIFT STATION AND GRADING.

GENERAL NOTES:

1. FINISH FLOOR ELEVATION OR SLAB THICKNESS SHOWN IS AT HIGH POINT OF SLABS, NORMALLY AT WALLS, PARTITIONS AND STAIRS, UNLESS NOTED. SLOPE TOP OF EXTERIOR WALKS AND LANDINGS 1/8" TO 12"; UNLESS NOTED.
2. ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4 INCHES, UNLESS NOTED.
3. PROVIDE CONTINUOUS 6" WATERSTOP AT CONSTRUCTION JOINTS AS INDICATED ON THE DRAWINGS. PROVIDE 9" HOLLOW CENTER BULB WATERSTOP AT EXPANSION AND CONSTRUCTION JOINTS.
4. SIZE AND LOCATION OF EQUIPMENT OPENINGS, BASES, ANCHORS, CASTINGS, GRATING, ETC. SHOWN ON ARCH., ELEC., PROCESS, STRUCT., AND PLUMBING HVAC DRAWINGS SHALL CONFORM TO MANUFACTURER'S DETAILS.
5. CONCRETE COVER OVER REINFORCING BARS SHALL BE 2" FOR WALLS, BASE SLABS AND SLABS IN CHANNELS; 1-1/2" FOR BEAMS, COLUMNS AND THE BOTTOM MAT OF SLABS WHERE CONTINUOUS CONCRETE INSERTS ARE USED; ONE INCH FOR WALKWAYS AND FLOOR SLABS; 3" FOR CONCRETE POURED AGAINST EARTH, UNLESS NOTED.
6. REINFORCING BARS SHALL BE GRADE 60 KSI, UNLESS NOTED. REINFORCING BARS MAY BE SPLICED ONLY AT POINTS AUTHORIZED BY RESIDENT REPRESENTATIVE OR AS SHOWN ON THE DRAWINGS. SPlice WELDED WIRE FABRIC (WWF) A MINIMUM OF ONE COMPLETE MESH + 2". LAP BARS AT SPLICES AS INDICATED IN THE CONTRACT SPECIFICATIONS.
7. STEEL REINFORCEMENT SHALL BE SUPPORTED OR SECURED IN POSITION USING STANDARD BAR SUPPORTS AT INTERIOR LOCATIONS AND PLASTIC TIP BAR SUPPORTS AT EXTERIOR LOCATIONS AS DETAILED IN ACI "MANUAL OF STANDARD PRACTICE", UNLESS NOTED. AT FOUNDATION SLABS SUPPORT UPPER LAYER OF REINFORCING FROM LOWER LAYER BY BENT #4 BAR. SPACE VERTICAL LAYERS OF WALL REINFORCING FROM FORMS BY TIES AND SPACERS. MAINTAIN SPACE BETWEEN LAYERS BY BENT & TIED #3 BARS THUS:
8. IN EACH REINFORCING PLANE PROVIDE ONE #5 BAR AROUND ALL OPENINGS 4'-0" LONGER THAN OPENING AND ONE #4x4'-0" DIAGONALLY AT EACH CORNER, UNLESS NOTED.

PRECAST STRUCTURAL NOTES:

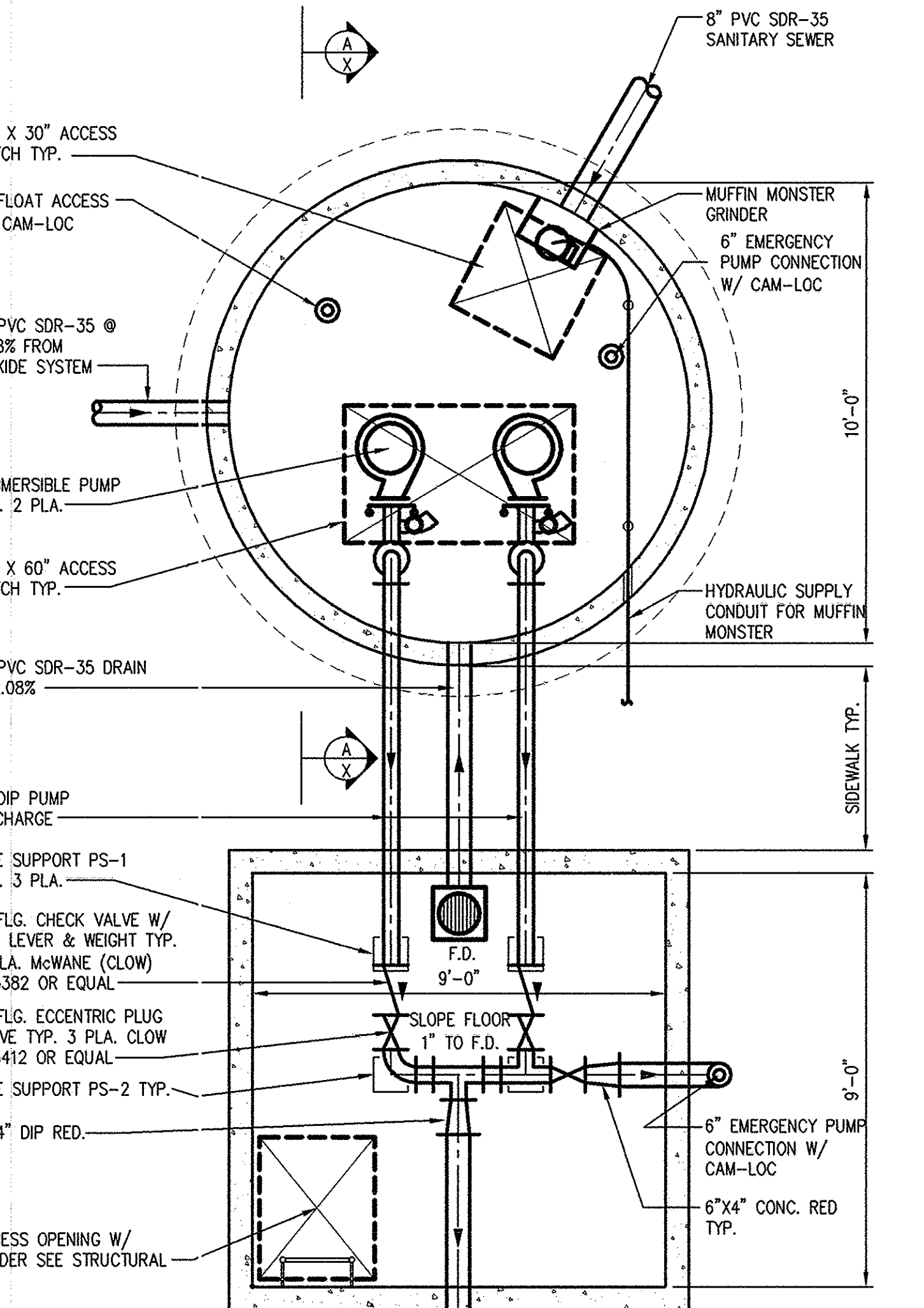
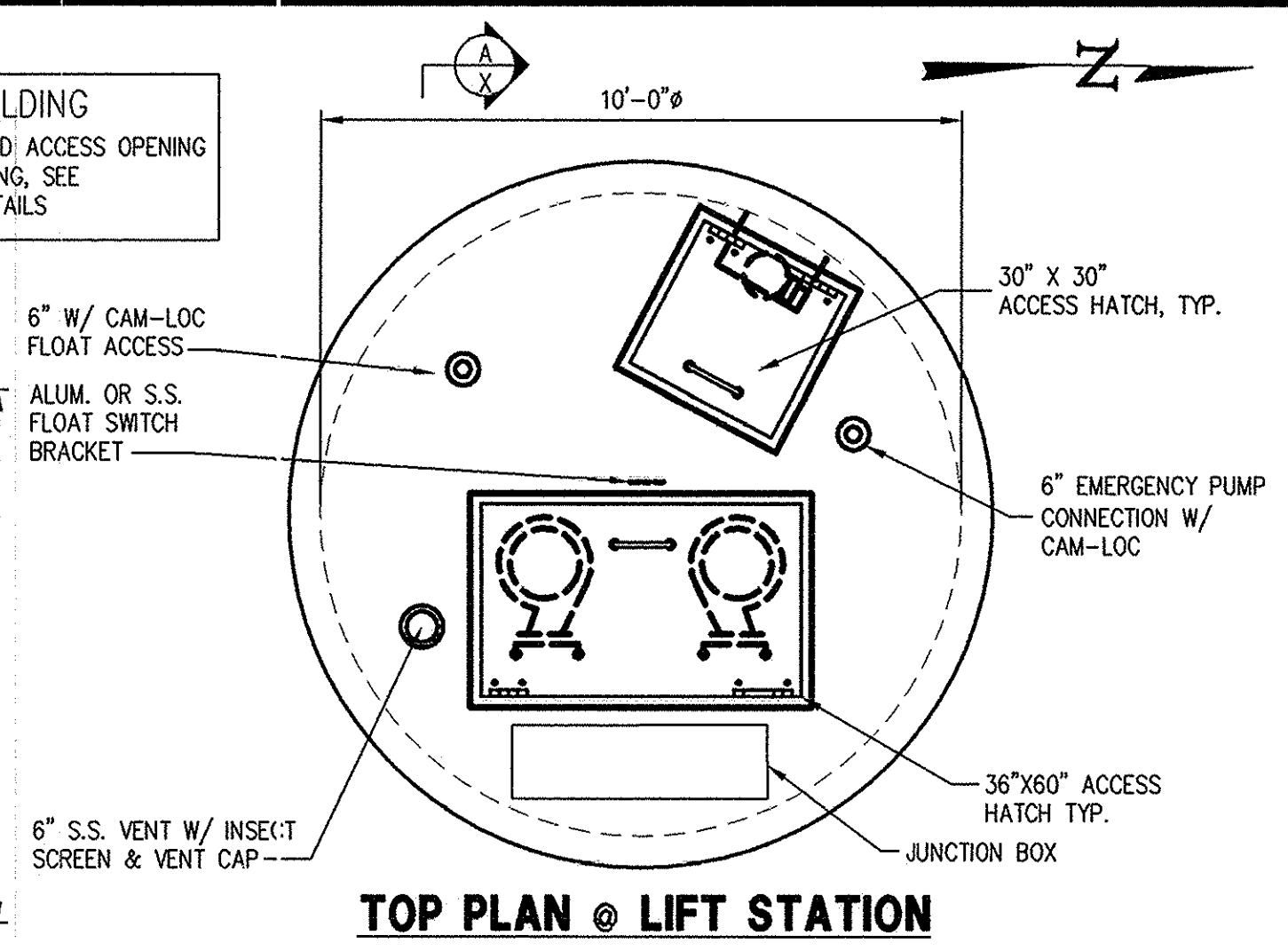
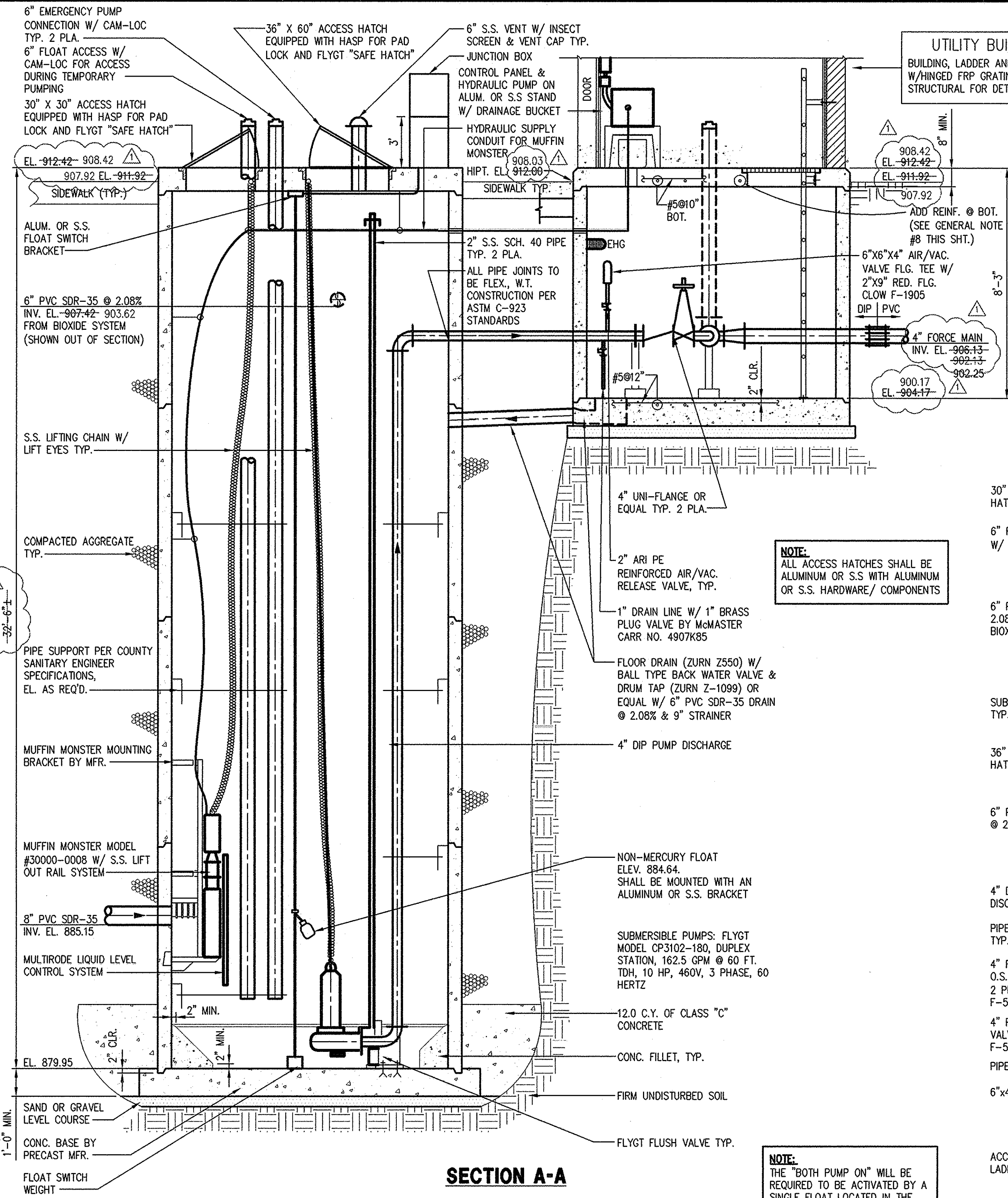
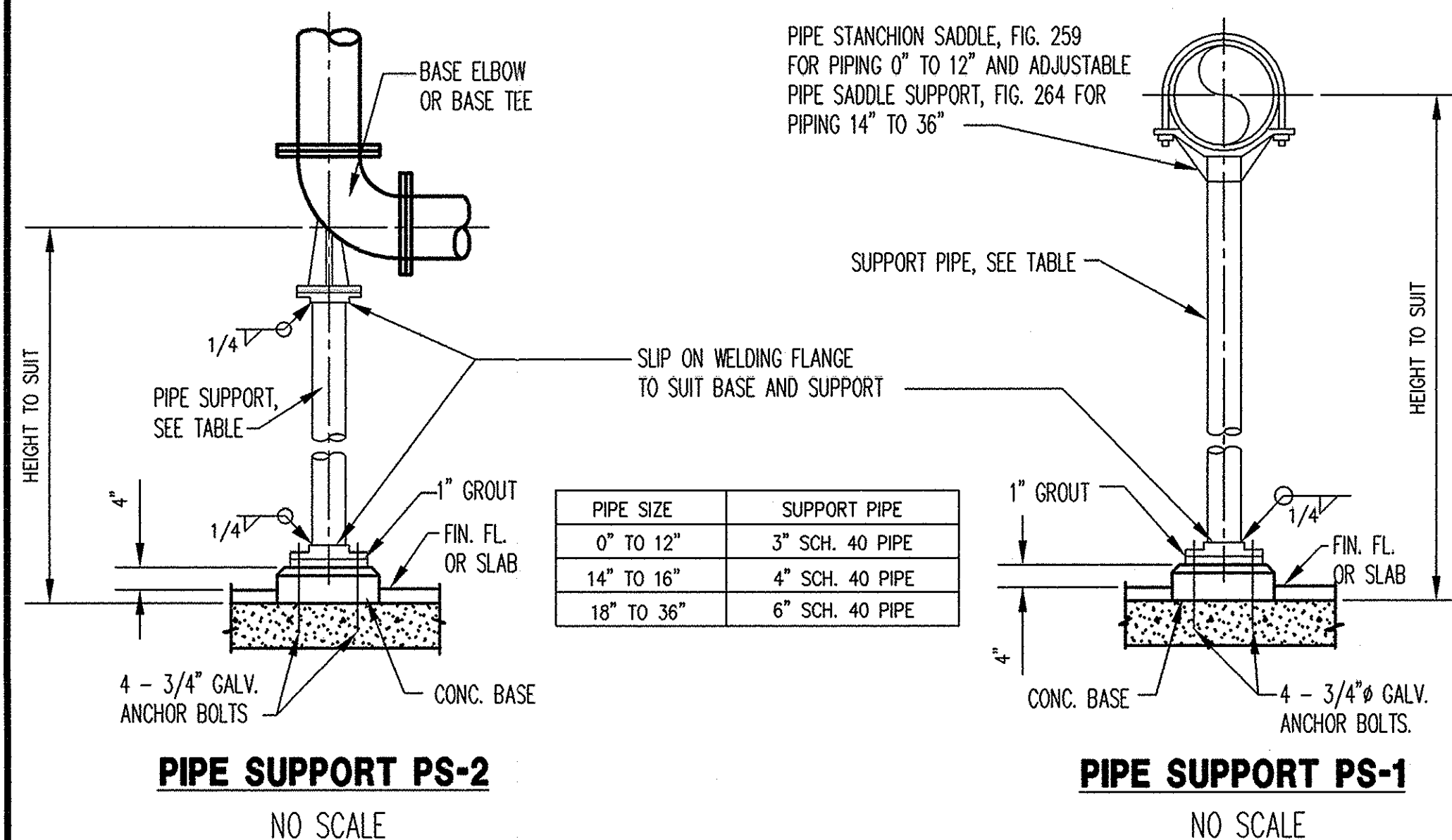
1. PRECAST CONCRETE STRUCTURE LOADS AND FLOTATION RESISTANCE REQUIRED.
2. THE CONTRACTOR SHALL FURNISH CERTIFICATION BY A REGISTERED PROFESSIONAL ENGINEER THAT THE STRUCTURE WILL WITHSTAND THE LOADS AND PRESSURES FROM:
 - A. WATER LEVEL INSIDE AT EL. 911.92.
 - B. SATURATED SOIL OUTSIDE AS INDICATED ON THE DRAWINGS SIMULTANEOUSLY WITH GROUND WATER AT EL. 911.92 AND THE STRUCTURE EMPTY.
 - C. FLOTATION CAUSED BY WATER OUTSIDE AT EL. 911.92 AND THE STRUCTURE EMPTY.
3. CONTRACTOR SHALL PREVENT UPLIFT OF STRUCTURE DURING CONSTRUCTION BY PREVENTING WATER FROM ENTERING EXCAVATION UNTIL STRUCTURE IS STABILIZED BY BACKFILL.

NOTE:

ALUMINUM IN CONTACT WITH CONCRETE SHALL BE COVERED WITH A BITUMASTIC COATING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANTI-FLOTATION METHODS NEEDED DURING CONSTRUCTION UNIT EARTH BACKFILL IS PROPERLY PLACED.

REINFORCING STEEL SHOWN IN SLABS IS MINIMUM. PRECAST CONCRETE MANUFACTURER SHALL PROVIDE AND SUBMIT STRUCTURAL DESIGN BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OHIO.



NOTE:
ALL ACCESS HATCHES SHALL BE ALUMINUM OR S.S. WITH ALUMINUM OR S.S. HARDWARE/COMPONENTS

NOTE:
THE "BOTH PUMP ON" WILL BE REQUIRED TO BE ACTIVATED BY A SINGLE FLOAT LOCATED IN THE WET WELL.

PUMP SETTINGS

PUMP OFF/ALTERNATE	EL. 881.57
1ST PUMP ON	EL. 883.64
HIGH WATER ALARM	EL. 884.14
2ND PUMP ON	EL. 884.64

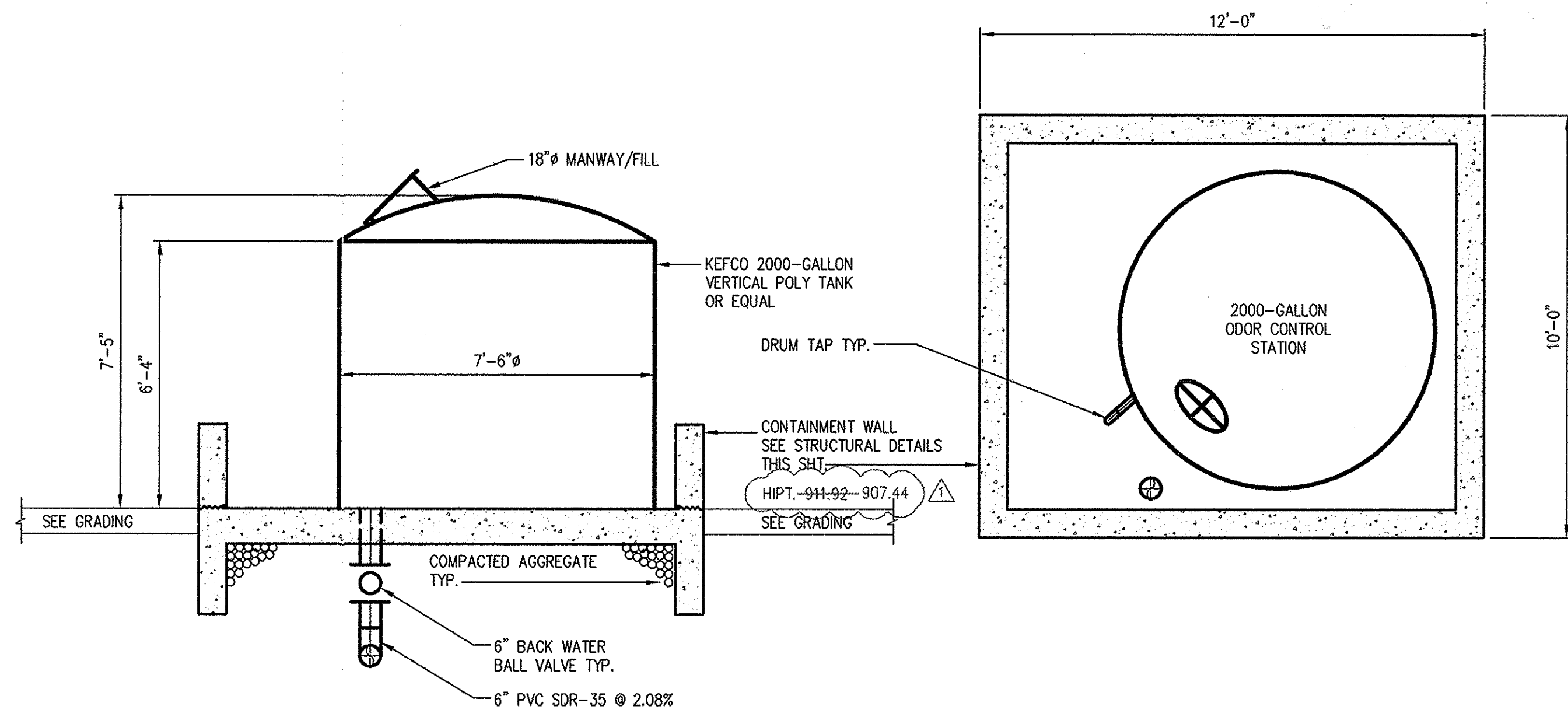
- NOTE 1:** A STAINLESS STEEL LIFTING CHAIN OF A SIZE RECOMMENDED BY THE MANUFACTURER AND LENGTH AS INDICATED ON THE DRAWINGS SHALL BE PROVIDED FOR EACH EQUIPMENT.
- NOTE 2:** NO ARTIFICIAL HIGH POINTS SHALL BE CREATED ON THE FORCE MAIN.
- NOTE 3:** THE CONTRACTOR SHALL GRADE SITE AWAY FROM THE LIFT STATION - A MINIMUM 6" FALL WITHIN FIRST 10 FEET.

"AS-BUILT CERTIFICATION"
AS-BUILT PERTAINS TO FIELD ELEVATIONS OF PUBLIC UTILITIES.
FOR EXAMPLE: TOP OF CASTINGS AND FLOW LINES, AND DOES NOT INCLUDE ANY FIELD CHECKS OF OVERLAND GRADING.
AS-BUILT ELEVATIONS FIELD CHECKED AND AMENDED.
BY: *Mark Alan Smith* DATE: 7/6/06
MARK ALAN SMITH, P.S.
PROFESSIONAL SURVEYOR NO. S-8232

NO.	REVISION DATA	DATE	BY	APP'D
1	ELEVATIONS AND DEPTHS REVISED.	2/24/06	MAW	

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CADD FILE LISTSTA
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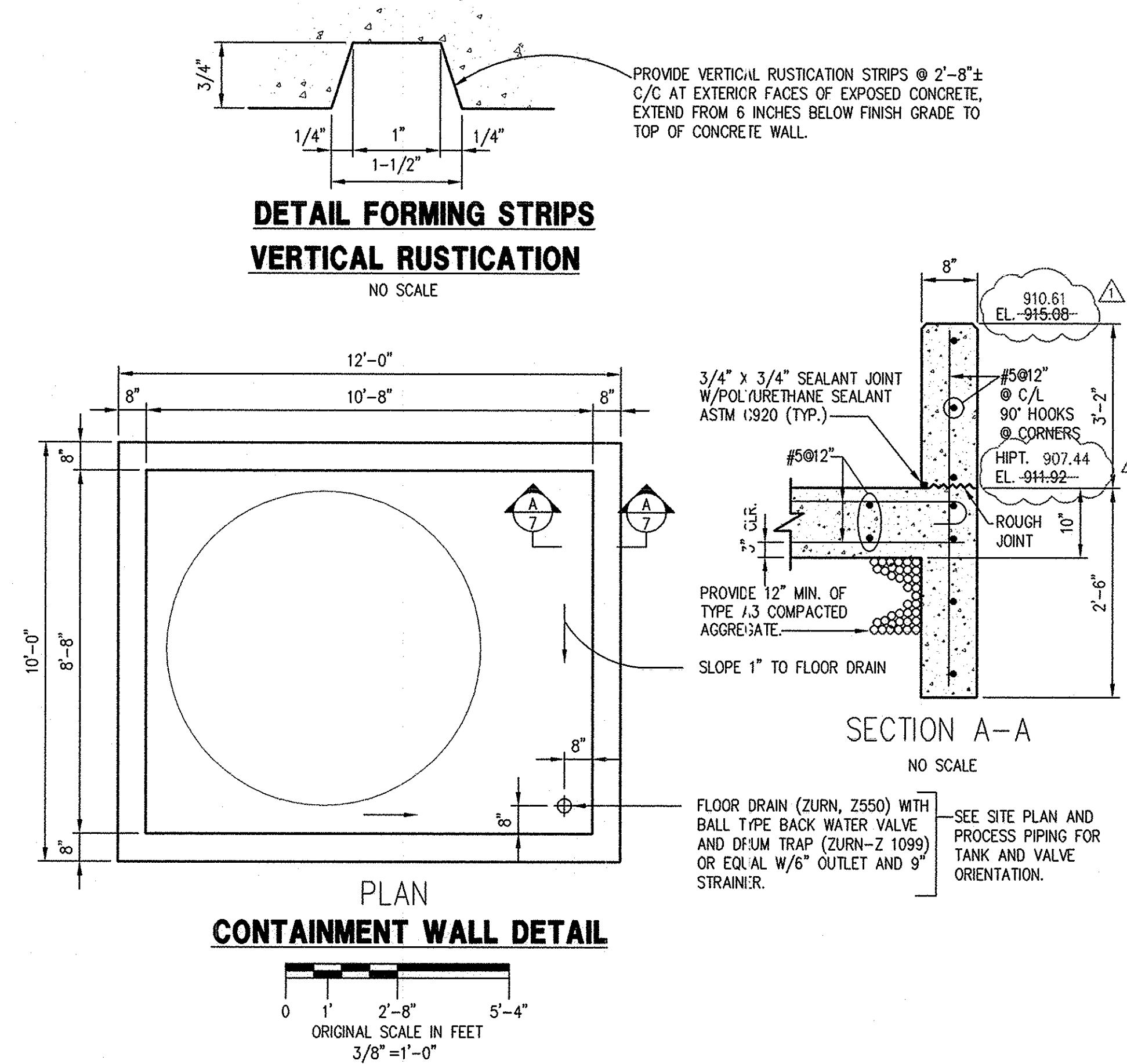
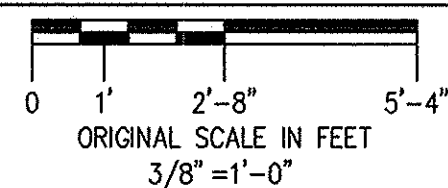
TRIANGLE REAL ESTATE SERVICES, INC.
SCIOTO RESERVE LIFT STATION
LIFT STATION
PLAN-SECTION-DETAILS
PROCESS-STRUCTURAL



ELEVATION

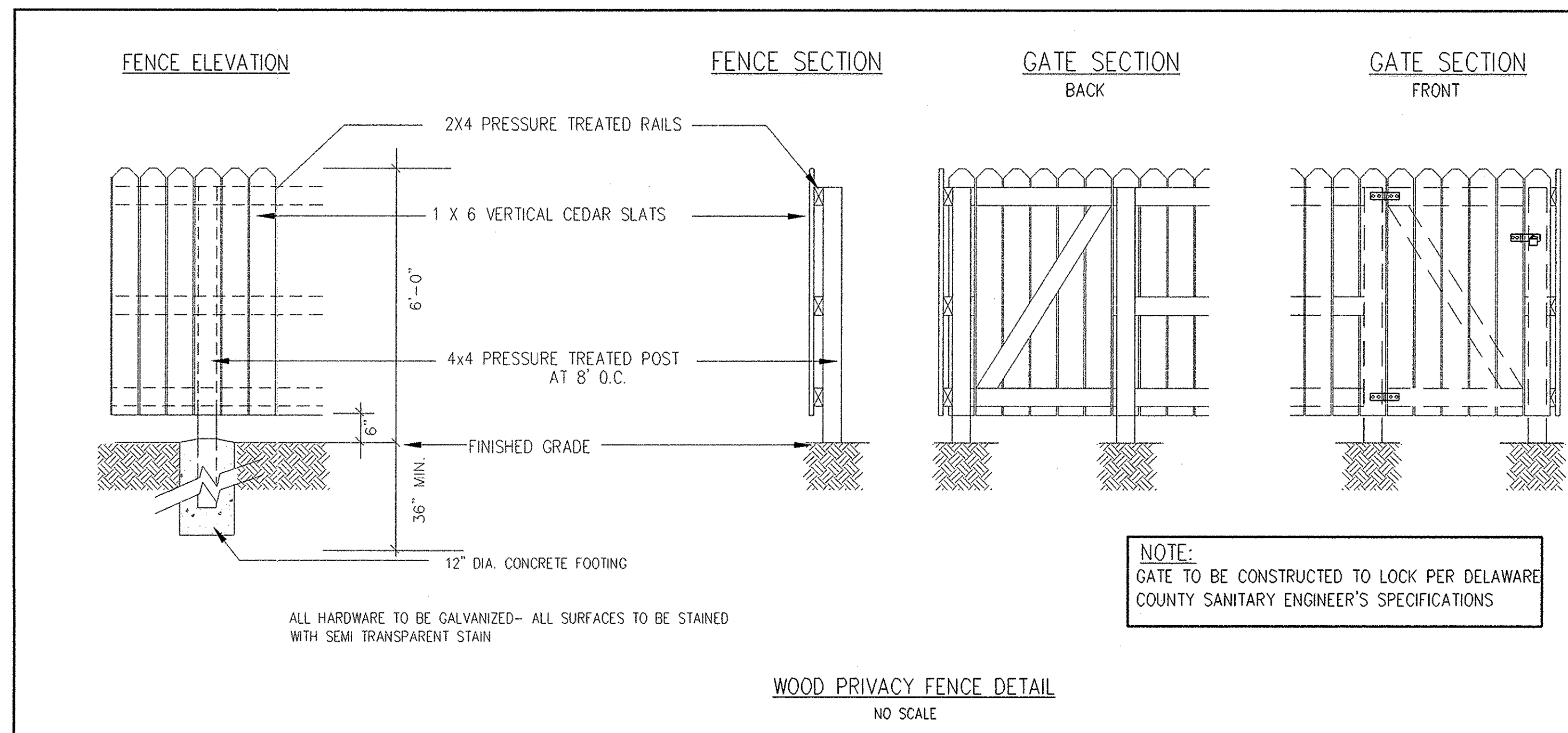
TOP PLAN

ODOR CONTROL STATION



**DETAIL FORMING STRIPS
VERTICAL RUSTICATION**

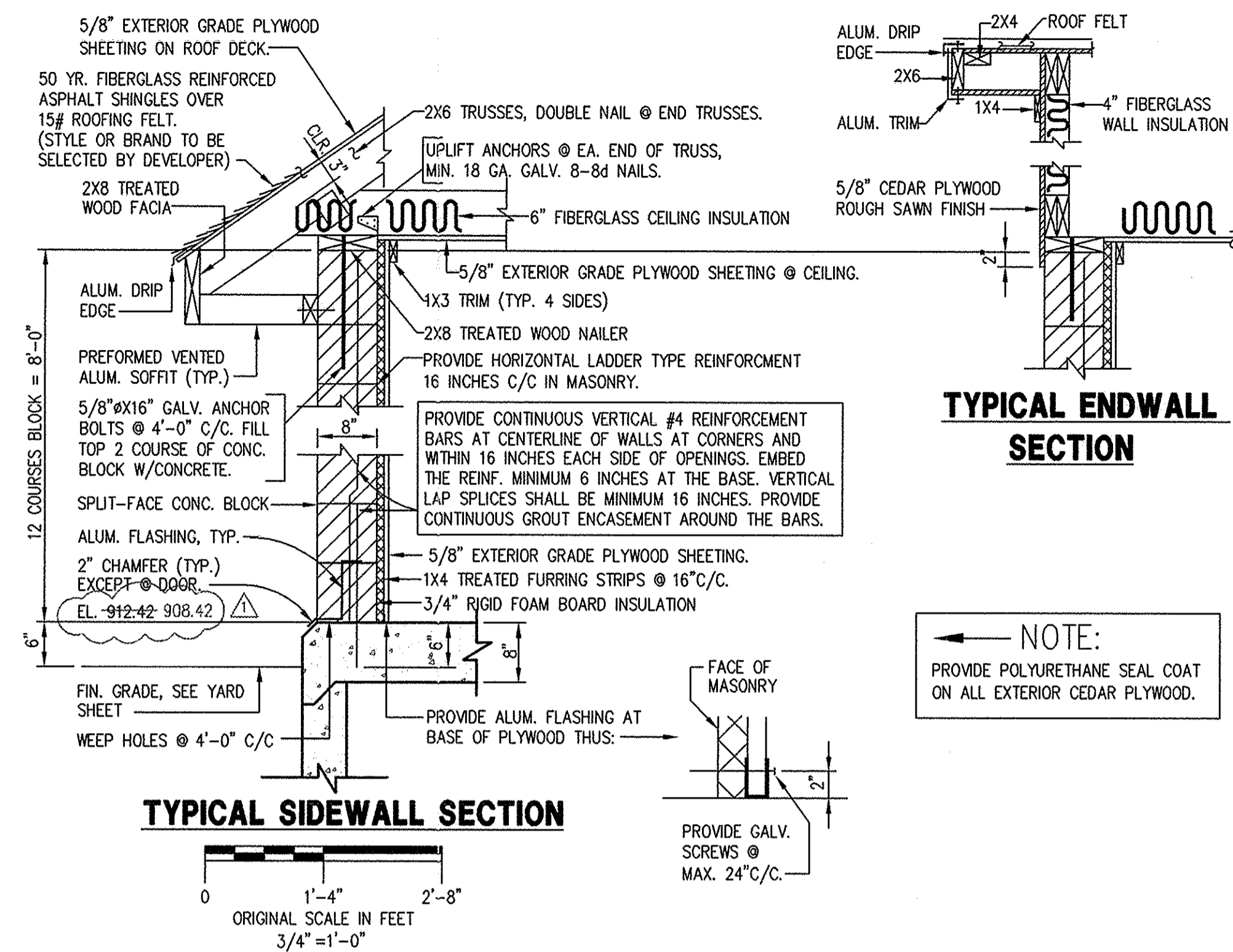
CONTAINMENT WALL DETAIL



NO.	REVISION DATA	DATE	BY	APP'D
1	ELEVATIONS REVISED.	2/24/06	MAW	

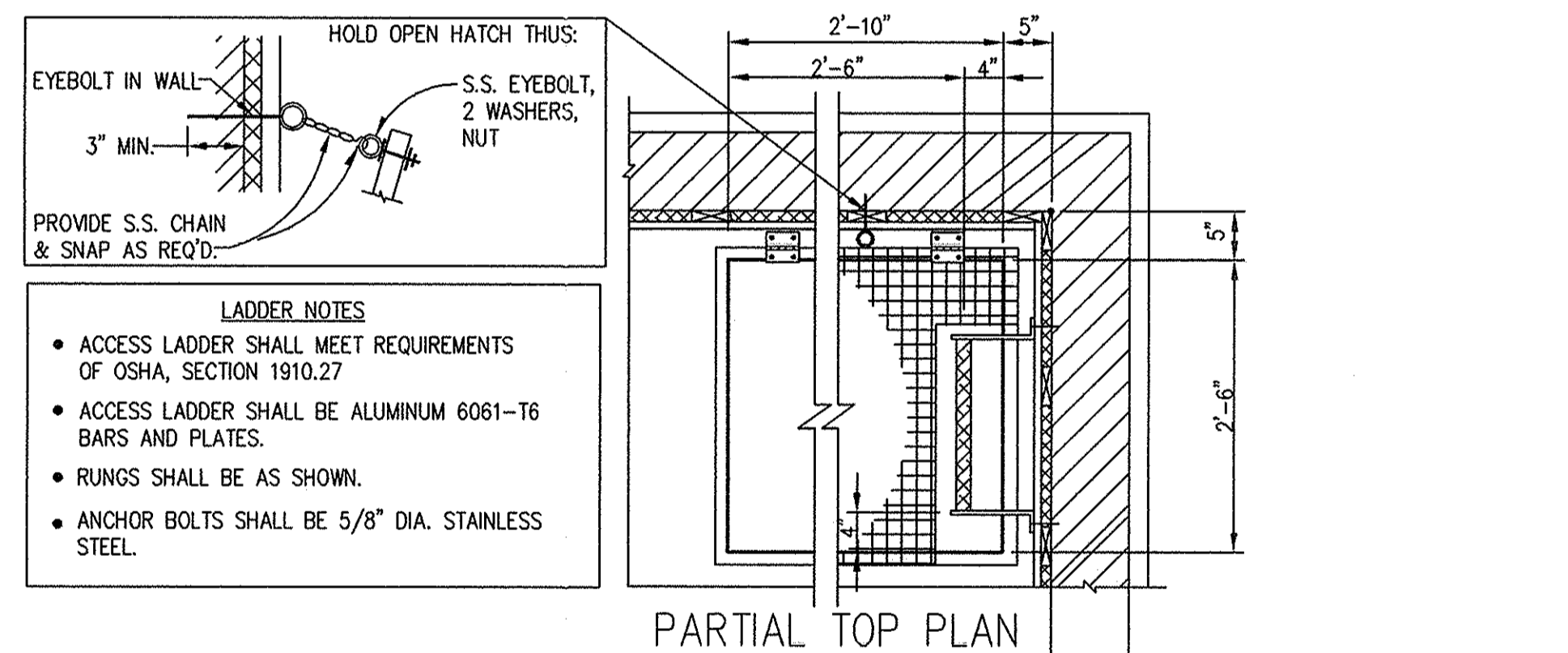
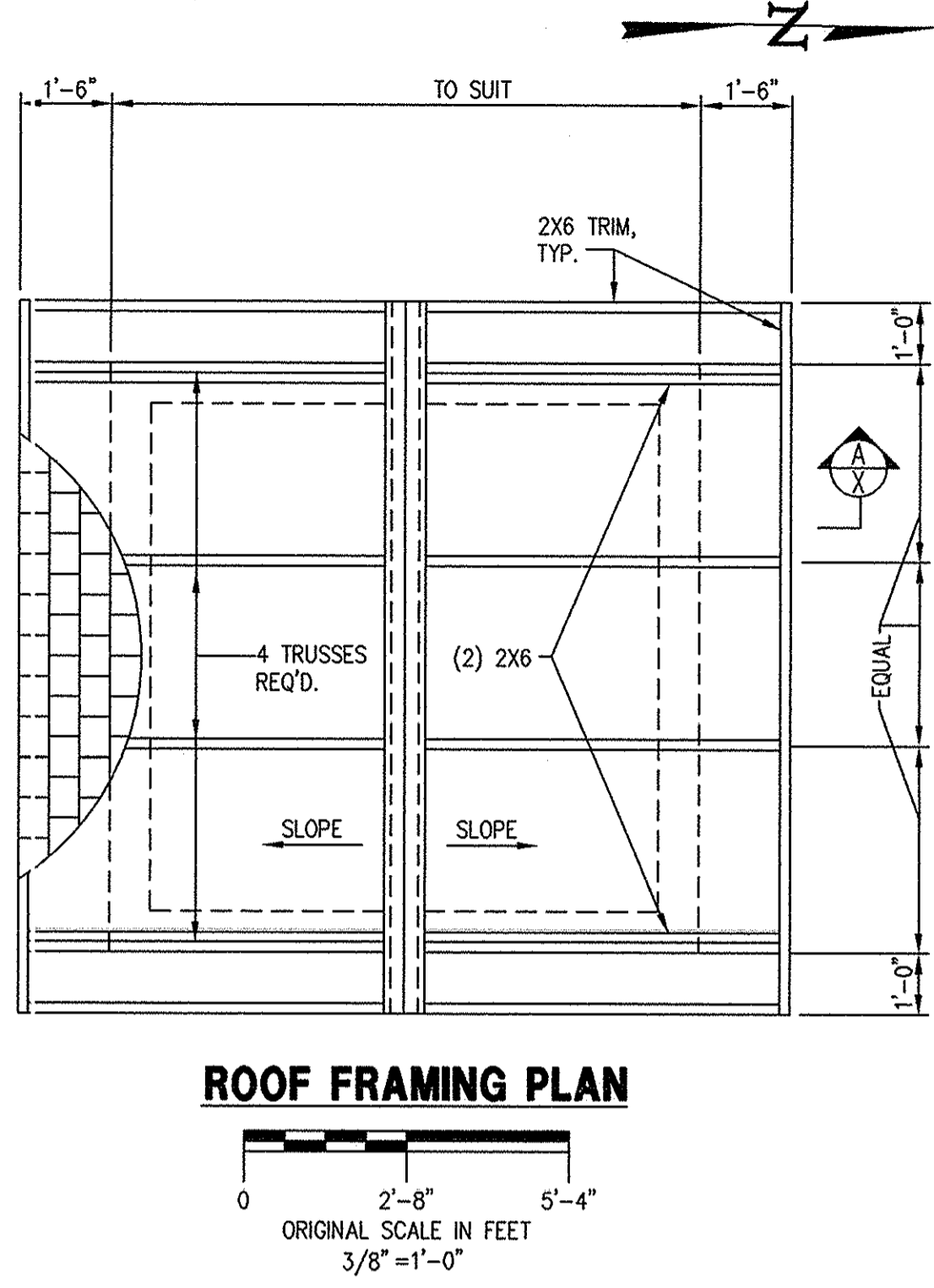
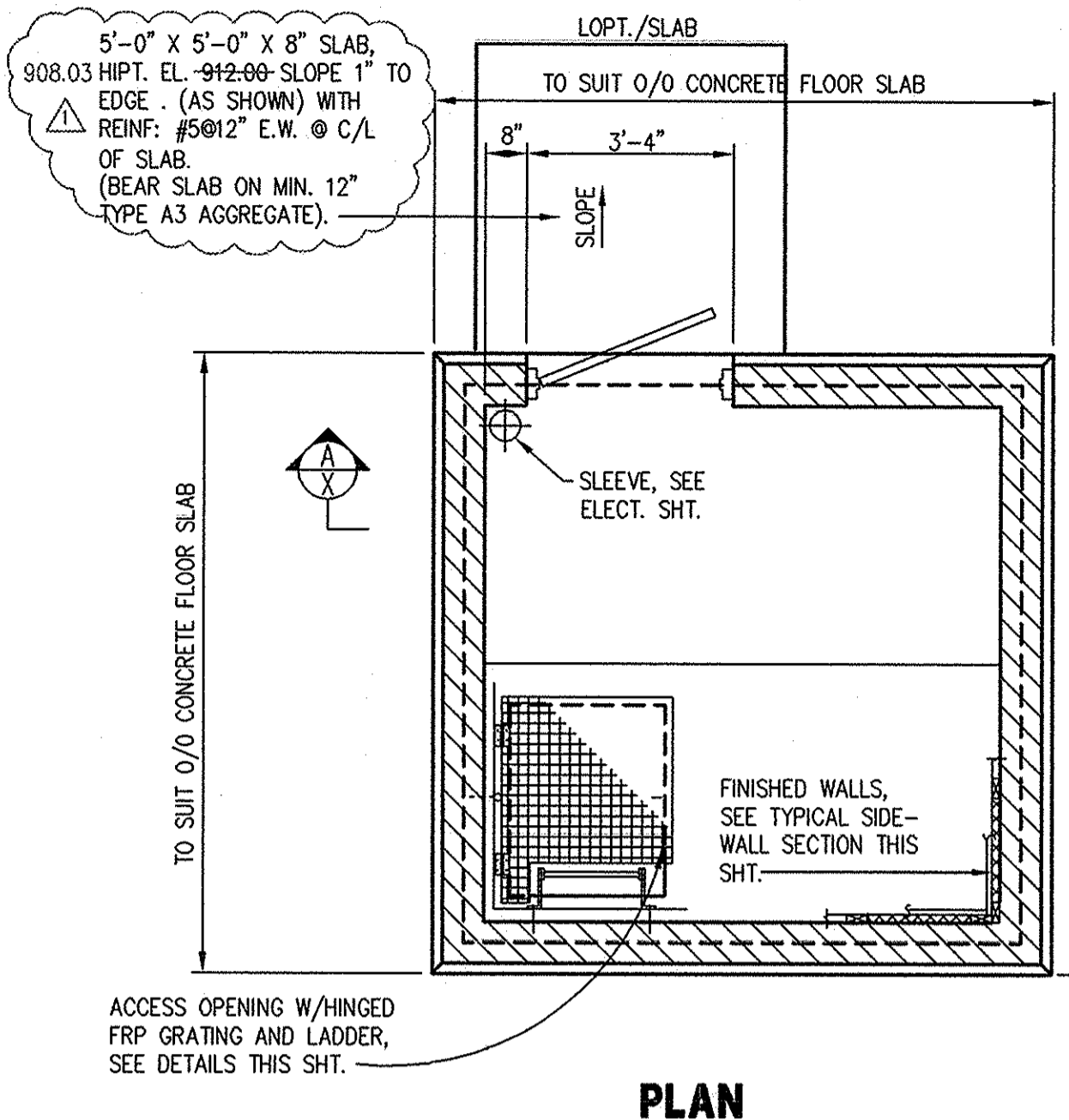
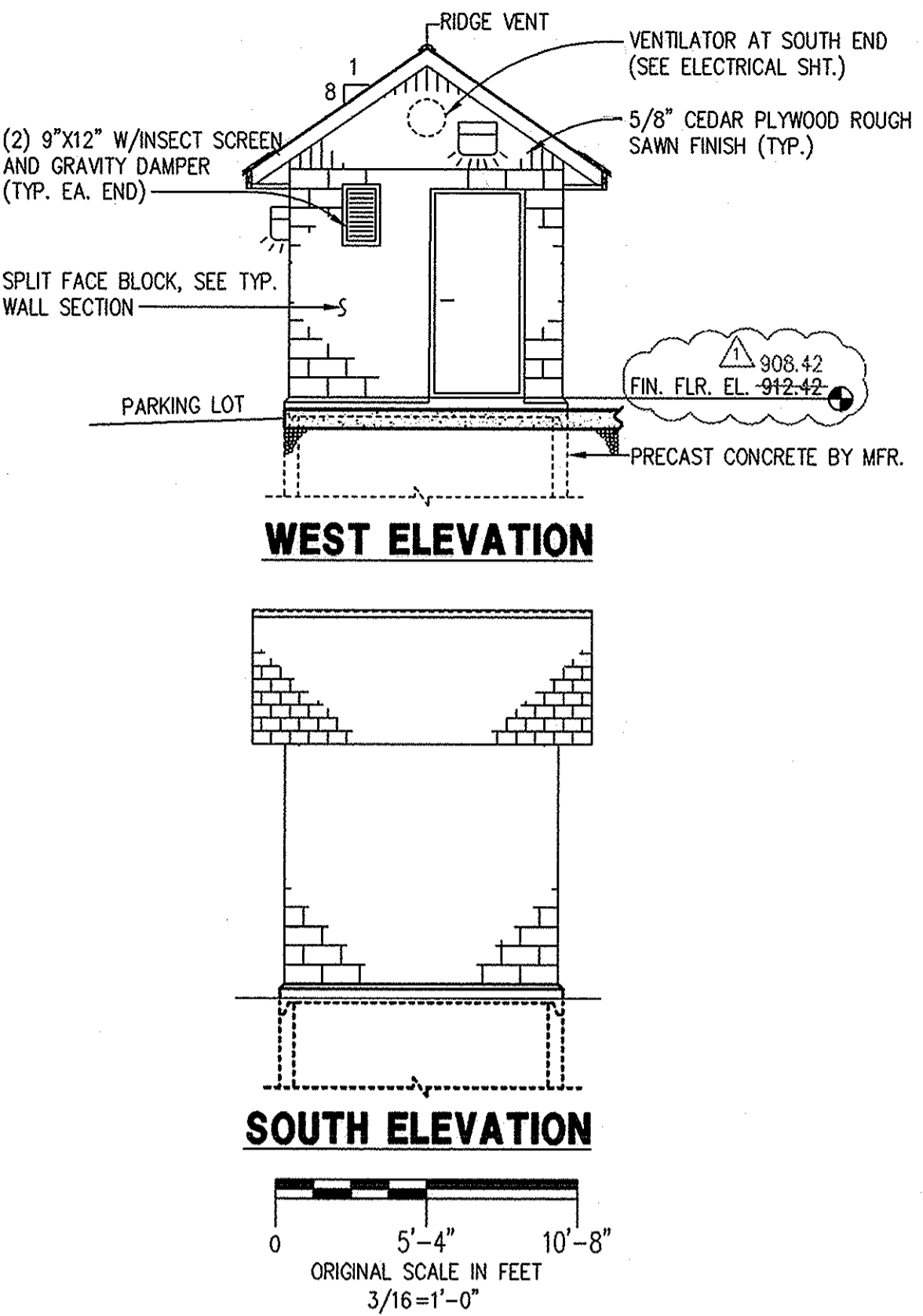
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 800.325.7647
 www.floydbrowne.com
 Offices Throughout Ohio & West Virginia
 DATE: JULY 2005
 CADD FILE: LIFTSTA
 JOB NO. 04-178-01
 APPROVED

TRIANGLE REAL ESTATE SERVICES, INC.
**SCIOTO RESERVE LIFT STATION
 ODOR CONTROL STATION**
**PLAN-SECTION-ELEVATION-DETAIL
 PROCESS-STRUCTURAL**



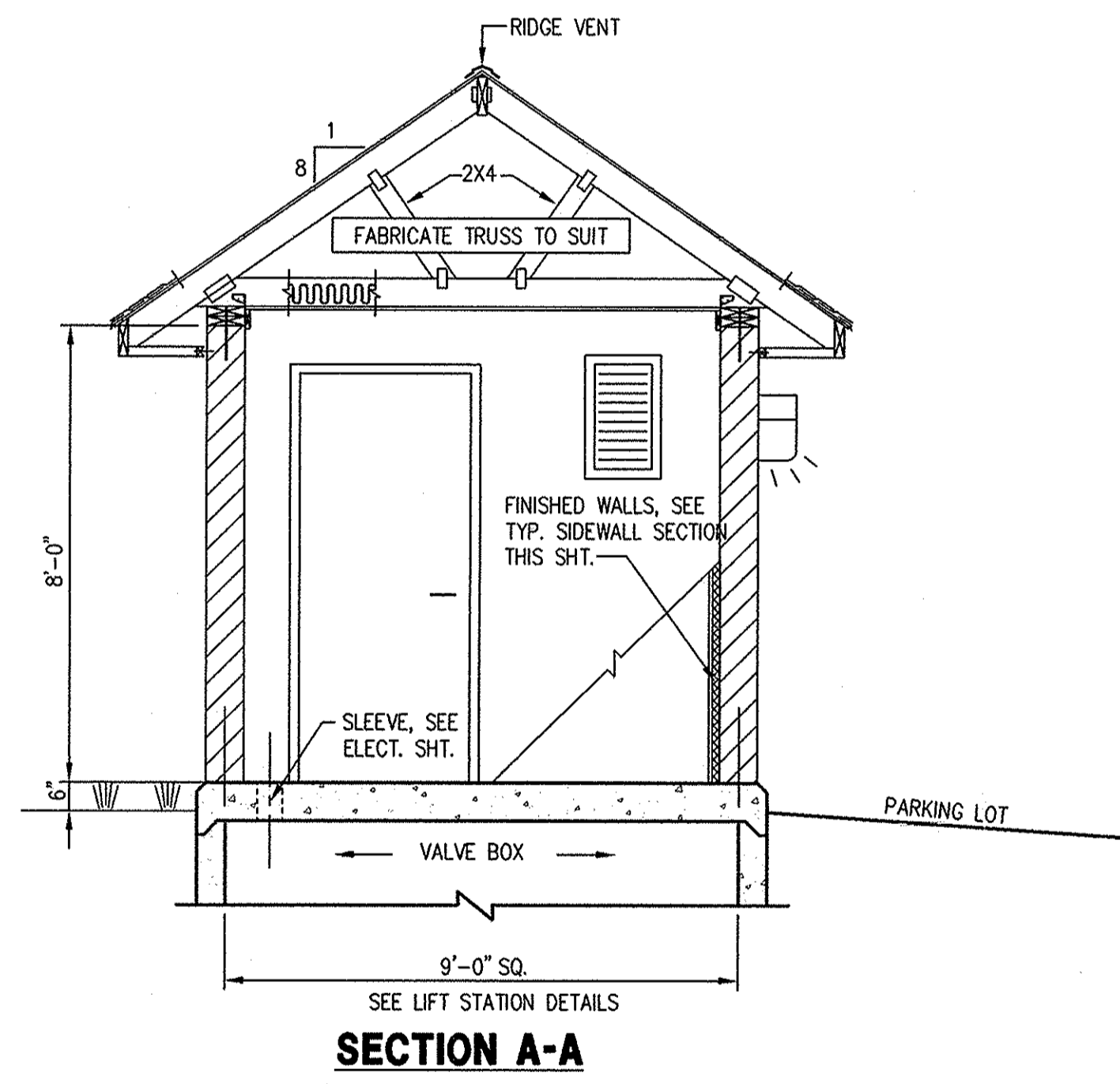
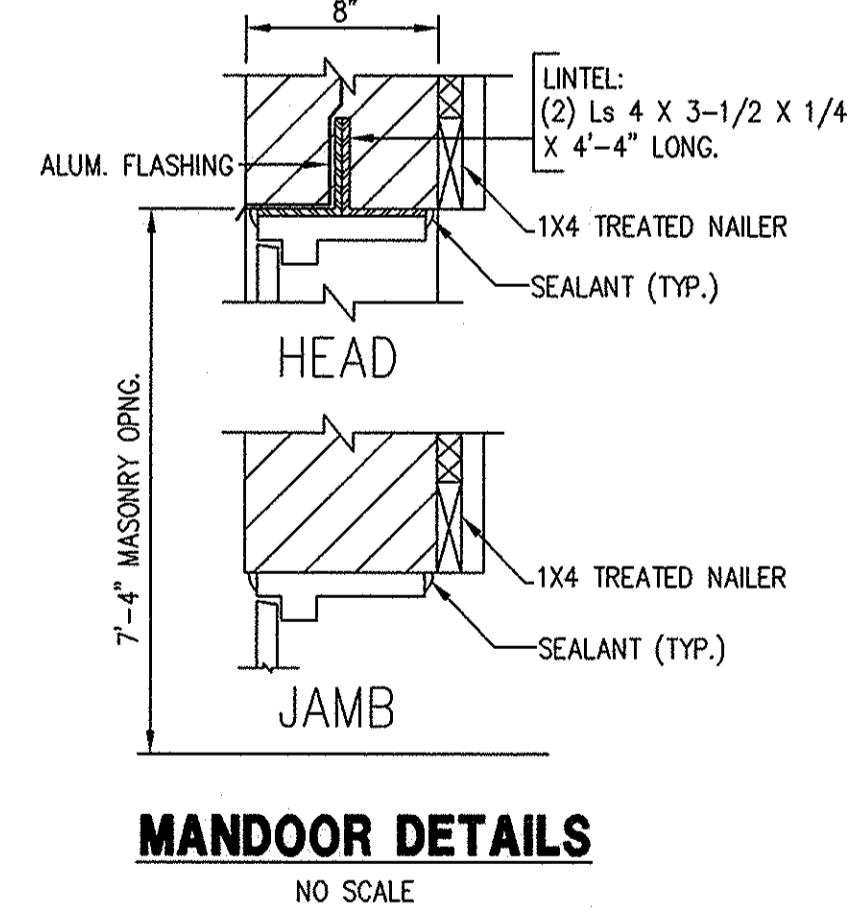
TYPICAL ENDWALL SECTION

NOTE:
 PROVIDE POLYURETHANE SEAL COAT ON ALL EXTERIOR CEDAR PLYWOOD.

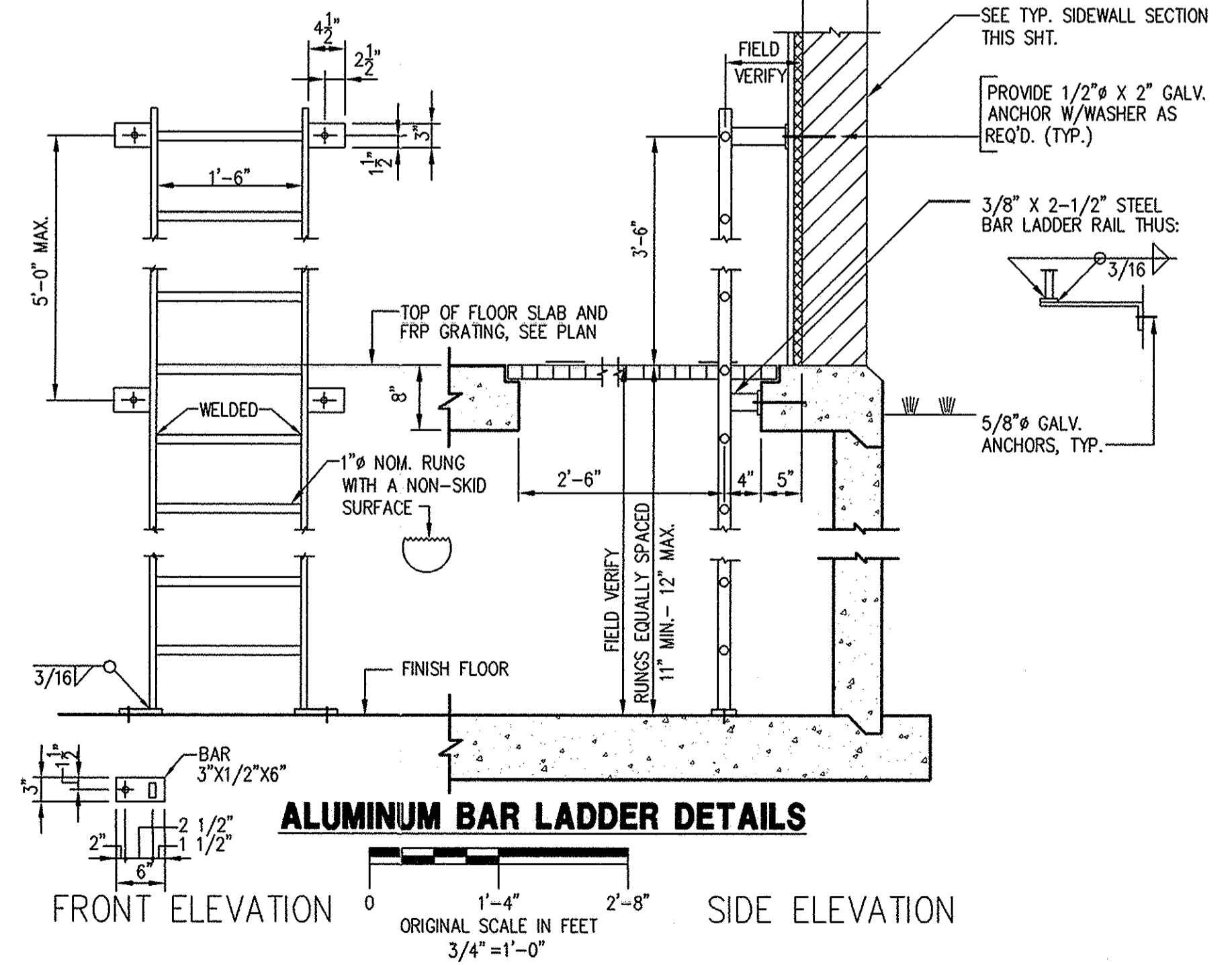


- LADDER NOTES**
- ACCESS LADDER SHALL MEET REQUIREMENTS OF OSHA, SECTION 1910.27
 - ACCESS LADDER SHALL BE ALUMINUM 6061-T6 BARS AND PLATES.
 - RUNGS SHALL BE AS SHOWN.
 - ANCHOR BOLTS SHALL BE 5/8" DIA. STAINLESS STEEL.

- DOOR AND HARDWARE:**
- DOOR LOCK: KEYED TO SUIT OWNERS MASTER KEY SYSTEM.
 - MORTISE LOCK SET SHALL BE ANSI-F12, OPERATED W/LEVERS.
 - BUTTS SHALL BE STEEL, 1-1/2 PAIRS.
 - DOOR CONSTRUCTION SHALL BE STEEL, MINIMUM 1-3/8" THICK, INSULATED.
 - DOOR SHALL BE PRIMED PAINTED, THEN RECEIVE A FINISH COAT (COLOR SELECTED BY OWNER).
 - PROVIDE CAST ALUM. THRESHOLD FIVE INCHES WIDE, 1/2 INCH HIGH AND HAVE OXID GRAINS EVENLY AND PERMANENTLY EMBEDDED IN THE SURFACE. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.



2002 OBC, PLUS REVISIONS	DESIGN LOADS
USE GROUP.....F2	SOIL BEARING CAPACITY.....2000 PSF
TYPE OF CONSTRUCTION.....III B	FLOOR LIVE LOADS.....100 PSF
BUILDING AREA.....100 S.F.	ROOF LIVE LOAD.....20 PSF
OCCUPANT LOAD:	SNOW LOADS:
MAXIMUM OF 1 OCCUPANTS	GROUND SNOW LOAD.....20 PSF
	SLOPING ROOF SNOW LOAD.....11.2 PSF
	SNOW EXPOSURE FACTOR.....1.0
	SNOW LOAD IMPORTANCE FACTOR.....1.0
	SNOW THERMAL FACTOR.....1.0
	WIND LOADS:
	BASIC WIND SPEED.....90 MPH
	WIND IMPORTANCE FACTOR.....1.0
	WIND EXPOSURE CLASSIFICATION....."C"
	EARTHQUAKE DESIGN DATA:
	SEISMIC USE GROUP II ; I _e = 1.25
	S _{ds} = 6.73 ; S _{d1} = 3.94
	SITE CLASS D
	BASIC S-FORCE-RESISTING SYSTEM(S) : 1H
	DESIGN BASE SHEAR: 2.1 qk
	ANAL PROC ASCE 7-98 (SEC. 9.5.3)



NO.	REVISION DATA	DATE	BY	APP'D
1	ELEVATIONS REVISED.	2/24/06	MAW	

Floyd Browne Group
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TRIANGLE REAL ESTATE SERVICES, INC.
SCIOTO RESERVE LIFT STATION UTILITY BUILDING
PLAN-SECTION-ELEVATION-DETAIL STRUCTURAL

