

# THE CITY OF ALEXANDER CITY

## MULTI AGENCY WASTEWATER SOLUTIONS PROJECT "B"

### AL. HIGHWAY 128 SEWER FORCE MAIN BID # 24 - 03 PROJECT CS - 010329 - 05

OCTOBER 2023



ALEXANDER  
CITY  
ALABAMA

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Municipal  
Consultants,  
Inc. Birmingham, Alabama

**BID SET**



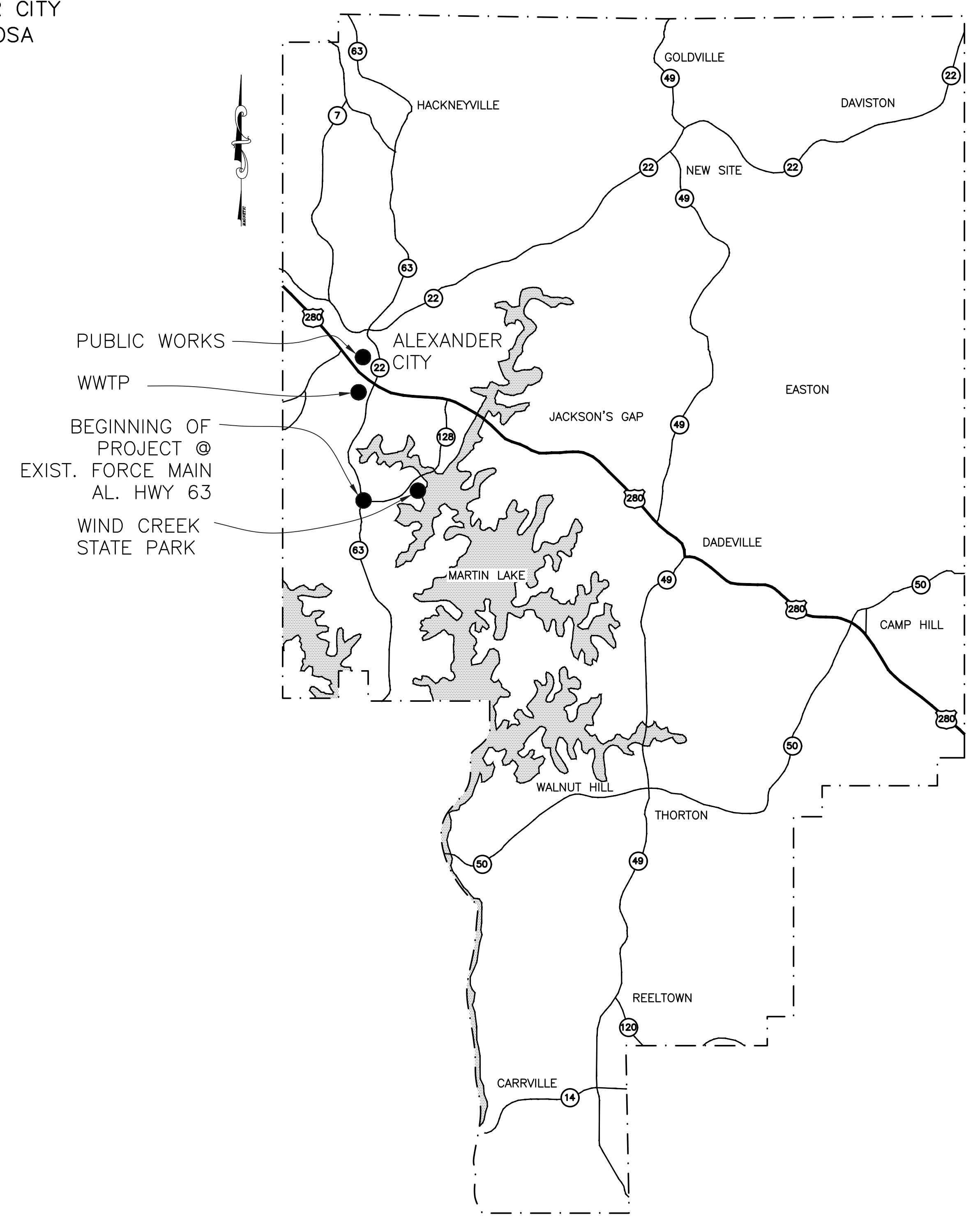
10/02/2023

### LEGEND

—●— PROPOSED SEWER FORCE MAIN	⊙ LIGHT POLE
— W — PROPOSED WATER MAIN	⊗ RAILROAD CROSSING
—●— PROPOSED FIRE HYDRANT	⊘ EASEMENT MARKER
—●— PROPOSED VALVE	⊙ EXISTING WATER MANHOLE
--- ESMNT --- ACQUIRED EASEMENT (ESMNT)	⊗ EXISTING GAS VALVE (OR METER)
— PL — EXISTING PROPERTY (PL)	⊗ EXISTING WATER VALVE
— SS — EXISTING SANITARY SEWER	⊗ EXISTING FIRE HYDRANT
— W — EXISTING WATER MAIN (EW)	⊙ EXISTING WATER METER
— 8"W — EXISTING 8" WATER	⊙ BORE HOLE LOCATION
— 12"W — EXISTING 12" WATER	⊙ TREE OR SHRUB
— FM — EXISTING SANITARY SEWER FORCE MAIN	⊙ CP 1 SURVEY CONTROL POINT
— FOC — EXIST. UNDERGROUND FIBER OPTIC CABLE (FOC)	⊙ BENCH MARK
— UT — EXIST. UNDERGROUND TELEPHONE	⊙ 11.25° BEND
— G — EXIST. UNDERGROUND GAS MAIN	⊙ 22.5° BEND
— FOC — EXISTING FIBER OPTIC CABLE (FOC)	⊙ 45° BEND
--- ACQUIRED EASEMENT	⊙ 90° BEND
--- ROW --- EXISTING RIGHT OF WAY	⊙ TEE
--- OP --- EXISTING OVERHEAD ELECTRICAL	⊙ WYE
— BL — BASE LINE (BL) FOR SFM CONST	⊙ CAP OR PLUG
— EOP — EXISTING EDGE OF PAVEMENT (EOP)	⊙ REDUCER
~ ~ ~ SLOPE DIRECTION INDICATOR	⊙ PROPERTY PIN
— x — TREE LINE	⊙ ROW MONUMENT
— o — FENCE (TYPE VARIES)	⊙ MAILBOX
--- EXISTING STORM PIPE	▬ ASPHALT ROAD OR DRIVE
⊙ CONCRETE HEAD WALL	▬ GRAVEL ROAD OR DRIVE
⊙ EXISTING STORM SEWER INLET	▬ CASING
⊙ CATCH BASIN	▬ CONCRETE
⊙ GUIDE WIRE ANCHOR	▬ RIP RAP
⊙ UTILITY POLE	▬ RAILROAD
⊙ TELEPHONE PEDESTAL	▬ SILT FENCE
⊙ SIGN	--- T --- COMM/FIBER OPTIC
⊙ ISOLATION VALVE ASSEMBLY	--- UC --- UNDERGROUND CABLE
⊙ PROPOSED AIR VALVE ASSEMBLY	--- FOC --- UNDERGROUND FIBER OPTIC CABLE

### ABBREVIATIONS

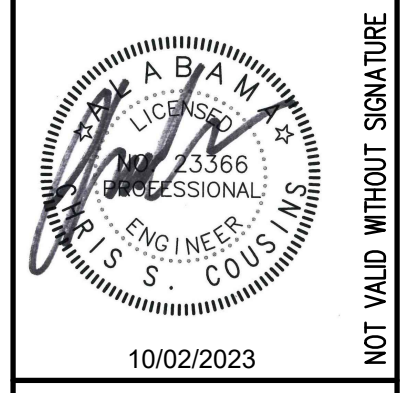
⊙ AL, ALUM APPROX ASPH ASSY	AT ALUMINUM APPROXIMATE ASPHALT ASSEMBLY	H,HGT,HT HEIGHT HORIZ HORIZONTAL HWL HIGH WATER LEVEL HWY HIGHWAY HZ HERTZ	R,RAD RADIUS RCP REINFORCED CONC PIPE RED REDUCER REINF REINFORCING REQD REQUIRED RJ RESTRAINED JOINT ROW, R/W RIGHT-OF-WAY RS RESILIENT SEAT RT RIGHT
BL BLDG BLK BM BOT, BTM BS	BASILINE (SFM) BUILDING BLOCK BENCHMARK BOTTOM BOTH SIDES	ID IF IN INV JT LEN LIN LG LOC LT	S SCH SECT SF SFM SHT SPECS SQ SS STA STD ST STL,SS SS
CCP CI CIP CJ CL CONC CONN CONT	CONCRETE CULVERT PIPE CAST IRON CAST IRON PIPE CONSTRUCTION JOINT CENTER LINE CONCRETE MASONRY UNIT CLASS CONCRETE CONNECTION CONTINUOUS	MANUF MAX MGD MH MIN MISC MJ	T&B T&B T&B THK TOC TOW TYP
DIA DI DIP DWN DWG EA EF ELEC EL, ELEV EQ EW EX,EXIST EXP EXT	DIAMETER DUCTILE IRON DUCTILE IRON PIPE DOWN DRAWING EACH EACH FACE ELECTRICAL ELEVATION EQUAL EACH WAY EXISTING EXPANSION EXTINGUISHER	N NIC NO, # NPW NTS	UH V VERT VT W W/ W/O WL WS WTM WWF WTP WWTP
FH FIN GR FL FLG FT FTG GALV GL GR GRVL GY	FIRE HYDRANT FINISH GRADE FLOW LINE FLANGED FOOT FOOTING GALVANIZED GAS LINE GRADE GRAVEL GATE VALVE	OC OD OF OHP	X BY



## TALLAPOOSA COUNTY, ALABAMA

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**THE CITY OF ALEXANDER CITY**  
MULTI AGENCY WASTEWATER SOLUTION  
PROJECT "B" HIGHWAY 128 SEWER FORCE MAIN  
BID #24-03 (SRF PROJECT CS-010329.05)  
2023



BAR = 1"

Title	LOCATION MAP	BID SET
Drawing Project No.	10 - 2023	NONE
Date	10 - 2023	02
Scale	NONE	02
Sheet	NONE	02

NOT VALID WITHOUT SIGNATURE

**PROJECT SPECIFIC NOTES:**

- ALL PROPOSED, BURIED, VALVES SHALL BE SUITABLE FOR BURIED SERVICE AND BE RATED FOR 250 PSI. ENDS FOR BURIED VALVES SHALL BE MECHANICAL JOINT WITH MEGA-LUG RESTRAINING GLANDS (BY EBAA FOUNDRY OR EQUAL). GATE VALVES SHALL BE RESILIENT SEAT.
- ALL PIPE FITTINGS SHALL BE COMPACT (AWWA C153), MECHANICAL JOINT, DUCTILE IRON WITH MEGA-LUG RESTRAINING GLANDS (BY EBAA FOUNDRY OR EQUAL) UNLESS INDICATED OTHERWISE. IN AREAS WHERE RESTRAINED JOINT PIPE IS NOT SPECIFICALLY CALLED FOR INTO OR OUT OF A FITTING, A FULL JOINT OF PUSH ON JOINT PIPE WILL BE REQUIRED OUT OF EACH END OF THE FITTING (PLAN AHEAD). CONTRACTOR SHALL COORDINATE AS REQUIRED IN FIELD AND WITH PIPE SUPPLIER AND FIELD ENGINEER. ALL PIPE FITTINGS AND VALVES SHALL BE RODED TO THE NEAREST FITTING(S), VALVE(S), THRUST COLLARS(S), AND/OR CASING UNLESS INDICATED OTHERWISE. SEE THE ROD SCHEDULE IN DETAILS FOR SIZE AND REQUIREMENTS.
- ALL PIPING 3" THROUGH 12" TO BE CLASS 200 PVC.
- TESTING OF LINES AND APPURTENANCES SHALL BE AS SPECIFIED. CONTRACTOR MAY USE CLOSED VALVES OR TEMPORARILY PLUGGED LINES AT HIS OPTION TO TEST THE INSTALLED FACILITIES IN ACCORDANCE WITH HIS CONSTRUCTION SCHEDULE AND ACTIVITIES. ALL TEST SEGMENTS AND PRESSURES SHALL BE APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL AIR FROM THE FACILITIES BEFORE ANY TESTING IS PERFORMED. THE CONTRACTOR SHALL PROVIDE ADDITIONAL FLUSH POINTS, AIR RELEASE POINTS, ETC. (WITH ENGINEER'S APPROVAL) TO ADEQUATELY TEST THE NEW LINES. THE CONTRACTOR SHALL RECEIVE APPROVAL FROM OWNER FOR ALL FLUSHING AND TESTING PLANS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING EROSION, RUN-OFF, AND SEDIMENT CONTROL IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS, CODES AND REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING AND IMPLEMENTING ALL APPROPRIATE BEST MANAGEMENT PRACTICES (BMP'S) FOR THE PREVENTION AND CONTROL OF NONPOINT SOURCES OF POLLUTANTS DURING AND AFTER PROJECT IMPLEMENTATION. THE CONTRACTOR, AT A MINIMUM, MUST IMPLEMENT BMP'S AS PROVIDED IN THE ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL & STORMWATER MANAGEMENT ON CONSTRUCTION SITES & URBAN AREAS, AS AMENDED, AND ALL APPLICABLE EPA STORMWATER POLLUTION PREVENTION PLANS AND BEST MANAGEMENT PRACTICES PUBLICATIONS, AS AMENDED. ADDITIONAL DEVICES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER AS REQUIRED TO PREVENT SILTATION, EROSION, & OTHER DEGRADATION OR POLLUTION TO SITE OR ADJACENT PROPERTIES, STREAMS, DITCHES, PUBLIC ROADWAYS, ETC. CONTRACTOR IS RESPONSIBLE FOR THE RENEWAL OF ALL NPDES PERMITS AS REQUIRED FOR THE PROJECT. ALL COSTS ASSOCIATED WITH BMP PLANS, IMPLEMENTING BMP'S, PERMIT FEES, ETC. SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE INCLUDED IN THE BID. CONTRACTOR SHALL OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AS REQUIRED.
- AT ALL LOCATIONS WHERE THE SOIL IS REMOVED IN CLOSE PROXIMITY TO AN EXISTING CONCRETE KICKER OR THRUST BLOCK, FILL SHALL BE PLACED IN 8" LOOSE LIFTS AND COMPACTED TO 98% SPD.
- THE CONTRACTOR SHALL INCLUDE ALL COSTS FOR HOLDING AND BRACING UTILITY POLES AS REQUIRED.
- THE CONTRACTOR SHALL CLEAR AND GRUB RIGHT OF WAY (ON THE SIDE THAT THE PROPOSED SEWER FORCE MAIN IS LOCATED ON) AND EASEMENTS. CLEARING AND GRUBBING DEBRIS SHALL BE DISPOSED OF OFF-SITE BY CONTRACTOR. CONTRACTOR SHALL CLEAR AND GRUB ENTIRE EASEMENT & A MINIMUM OF 20' OF RIGHT OF WAY UNLESS INDICATED OTHERWISE. ALL TREES, ROOTS, STUMPS, BRUSH, ETC. SHALL BE COMPLETELY REMOVED AND AREA SMOOTHLY GRADED AND GRASSED TO ALLOW OWNER TO MAINTAIN (I.E. BUSH HOG) EASEMENTS & RIGHT OF WAYS AFTER CONSTRUCTION. SEE CLEARING AND GRUBBING DRAWINGS. LARGE TREE CLEARING AND GRUBBING WITHIN ALDOT RIGHT OF WAY SHALL BE PAID SEPARATELY. ALL OTHER CLEARING AND GRUBBING IS INCLUDED IN THE LINEAR FOOTAGE OR LUMP SUMS OF THE PIPE FOR THIS PROJECT. SEE CLEARING & GRUBBING PLANS.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND STAKING THE EXISTING R.O.W. LINES AND EASEMENTS SHOWN ON THE DRAWINGS FOR THE ENTIRE PROJECT. ALL WORK SHALL BE WITHIN EXISTING R.O.W. OR EASEMENTS.
- THE CONTRACTOR AND CONTRACTORS SUBCONTRACTORS SHALL REVIEW ALL INSURANCE REQUIREMENTS AND CONTRACTOR SHALL ENSURE THAT HE HAS INCLUDED MONEY NECESSARY TO OBTAIN INSURANCE AS CALLED FOR IN THE SPECIFICATIONS.
- TOPSOIL REMOVED FROM SUBGRADE SHALL BE STOCKPILED AND REUSED FOR FINAL CLEANUP AND GRASSING.
- PROPERTY LINES AND PROPERTY NAMES SHOWN IN THE DRAWINGS ARE FROM COUNTY TAX MAPS/RECORDS AND MAY NOT REFLECT ACTUAL PROPERTY LINE LOCATIONS AND/OR CURRENT PROPERTY OWNERS.
- DISTANCE FROM TOP OF PIPE TO GROUND IS SHOWN APPROXIMATELY IN THE DRAWINGS. APPROXIMATE DEPTHS OF CUT MAY BE OBTAINED BY ADDING PIPE DIAMETER PLUS REQUIRED BEDDING BELOW THE PIPE PLUS THE MINIMUM REQUIRED DEPTH (4 FEET) TO TOP OF PIPE UNLESS SHOWN OTHERWISE. DUE TO DIFFERENT HORIZONTAL AND VERTICAL SCALES ON DRAWINGS, DO NOT USE SCALED DISTANCES FROM THE GROUND PERPENDICULAR TO BOTTOM OF PIPE TO OBTAIN REQUIRED DEPTHS OF CUT. THE CONTRACTOR IS RESPONSIBLE FOR CALCULATING ALL CUTS AND INSTALLING PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS TO ACHIEVE PIPELINE PROFILE SHOWN IN THE DRAWINGS. NO BID ITEMS ARE ESTABLISHED FOR VARYING PIPE DEPTHS. DEEPENING OF SFM, WHERE REQUIRED, SHALL BE ACHIEVED BY DEFLECTION OF THE PIPE. NO VERTICAL BENDS WILL BE ALLOWED UNLESS SHOWN. FITTINGS AND RESTRAINED JOINT PIPE INSTALLED BUT NOT SHOWN, INDICATED OR REQUIRED BY THE PLANS AND SPECIFICATIONS, MUST BE PRE-APPROVED BY THE ENGINEER TO RECEIVE PAYMENT FOR THE ADDITIONAL ITEM(S).
- FORMED (I.E. PLYWOOD FORMS) CONCRETE THRUST BLOCKS ARE REQUIRED AGAINST ALL FITTINGS AND ARE TO BE POURED AGAINST UNDISTURBED EARTH. ALL FITTINGS SHALL BE WRAPPED IN FELT PAPER OR PLASTIC BEFORE CONCRETE THRUST BLOCKS ARE POURED. ALL PIPE BRACING SHALL BE LEFT UNCOVERED UNTIL INSPECTED BY THE ENGINEER. CONCRETE THRUST BLOCKS AND COLLARS MUST BE CURED A MINIMUM OF 5 DAYS PRIOR TO CUTTING AN EXISTING LINE OR APPLYING TEST PRESSURES TO THE NEW LINE.
- NO BLASTING IS ALLOWED WHEN THE PROPOSED LINE AND APPURTENANCES IS ON THE SAME SIDE OF THE ROADWAY AS THE EXISTING WATER LINES. ALL BLASTING WITHIN ROW SHALL REQUIRE A PERMIT FROM ALDOT. CONTRACTOR SHALL OBTAIN ALL REQUIRED BLASTING PERMITS.
- THE CONTRACTOR SHALL INSTALL PROPOSED LINE AND APPURTENANCES AS SHOWN AND SHALL MAINTAIN SPACING IN BACK OF EASEMENT AREAS OF THE PROJECT AS NEEDED TO PROVIDE ADEQUATE ROOM FOR FUTURE MAINTENANCE. CONTRACTOR SHALL NOT MODIFY ROUTE WITHOUT PRE-APPROVAL OF ENGINEER AND OWNER. IF THE PROPOSED LINE IS NOT INSTALLED AS SHOWN OR APPROVED, THE CONTRACTOR MAY BE REQUIRED TO REMOVE AND REINSTALL ANY PORTIONS OF THE LINE THAT WOULD INTERFERE WITH THE PLANNED FUTURE MAINTENANCE. THE ENTIRE EASEMENT SHALL BE CLEARED, GRUBBED, AND GRADED AS CALLED FOR SO THE OWNER WILL HAVE ACCESS.
- CONTRACTOR SHALL CLEAR EASEMENTS AND RIGHTS OF WAY AS REQUIRED. EASEMENTS SHALL BE CLEARED FOR THEIR ENTIRE WIDTH. COST OF CLEARING SHALL BE SUBSIDIARY TO THE PROJECT AND ALL CLEARING COST SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE.

**GENERAL NOTES:**

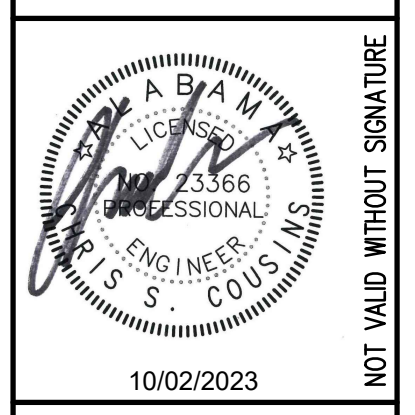
- THE LOCATION AND TYPE OF EXISTING LINES & OTHER BURIED UTILITIES IS APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING LINE LOCATIONS, SIZES, AND MATERIALS OF PIPE BEFORE ORDERING MATERIALS FOR CONNECTIONS. SPECIAL TRANSITION GASKETS AND/OR ACCESSORIES MAY BE REQUIRED, NO EXTRA PAYMENTS SHALL BE MADE FOR SUCH MATERIALS AND WORK.
- ALL CONNECTIONS TO EXISTING LINES OR SERVICES ARE TO BE COORDINATED WITH OWNER (AND OWNERS OF SERVICES, IF APPLICABLE) TO MINIMIZE INTERRUPTION OF SERVICE. CONTRACTOR TO COORDINATE WITH THE OWNER AND INFORM ALL POTENTIAL CUSTOMERS WHEN EXISTING MAINS WILL BE OUT OF SERVICE. AT OWNER'S SOLE DISCRETION, CONNECTIONS MAY BE REQUIRED BETWEEN 10:00 PM AND 6:00 AM. CONNECTIONS ARE PROHIBITED ON FRIDAYS, WEEKENDS, AND HOLIDAYS.
- ALL EXISTING UTILITY LINE LOCATIONS ARE APPROXIMATE AND MAY NOT BE SHOWN ON THE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE AGENCY THE MINIMUM REQUIRED DAYS (APPROX. 2 WORKING DAYS) BEFORE DIGGING COMMENCES TO VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES, DRAINAGE, AND OBSTRUCTIONS AS REQUIRED BY ALABAMA STATE LAW. ALABAMA ONE CALL, INC. MAY BE CONTACTED AT 1-800-292-8525, AT 252-4444 IN BIRMINGHAM, OR 811. CONTRACTOR SHALL REPAIR AND/OR REPLACE LIKE-KIND ANY SUCH ITEMS THAT ARE DAMAGED BY HIS CREWS DURING CONSTRUCTION.
- THE CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES (WHETHER OR NOT THEY ARE SHOWN) AT CONNECTION AND UTILITY CROSSING LOCATIONS PRIOR TO PERFORMING ANY WORK. WHERE UTILITIES MIGHT CONFLICT WITH THE WORK, THE CONTRACTOR SHALL VERIFY THE DEPTH OF THE UTILITY BY EXCAVATION AND COORDINATE WITH FIELD ENGINEER AND LAYOUT PROPOSED FACILITIES IN A MANNER THAT WILL BE ACCEPTABLE TO OWNER. DEEPEN THE PROPOSED FACILITIES AS REQUIRED TO AVOID THE CONFLICT. THERE SHALL BE NO EXTRA PAYMENT FOR DEEPENING THE FACILITIES. ALL ELEVATIONS SHALL BE FINALIZED BEFORE PIPE IS LAID IN THE VICINITY.
- CONTRACTOR SHALL LOCATE AND UNCOVER ALL POTENTIALLY CONFLICTING UTILITIES BEFORE CONSTRUCTION GRADES OR DEPTHS ARE FINALIZED AND PIPE IS LAID.
- UTILITIES ON PLANS (AND IF SHOWN ON PROFILES) ARE SHOWN IN APPROXIMATE LOCATIONS AND MAY BE AT ASSUMED ELEVATIONS. CONTRACTOR TO VERIFY ALL.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE LOCATION, TYPE, AND SIZE OF ALL EXISTING UTILITIES, OBSTRUCTIONS, FENCING, DRAINAGE, ETC. CONSULT WITH UTILITY COMPANIES WHEN WORKING CLOSE TO THEIR LINES.
- FITTINGS REQUIRED IN THE FIELD BUT NOT SHOWN ON THE DRAWINGS MUST BE AUTHORIZED BY THE ENGINEER.
- RIGHT OF WAYS ARE SHOWN APPROXIMATELY ON DRAWINGS. ALL PIPE, FITTINGS, VAULTS, MARKERS, MANHOLES, VALVES, ETC. SHALL BE INSTALLED WITHIN RIGHT OF WAY OR PERMANENT EASEMENTS.
- ALL RESTRAINED JOINT PIPE SHALL BE FULLY EXTENDED FROM THE ADJOINING PIPE BELL DURING INSTALLATION.
- PIPE SHALL BE LAID ON RISING OR FALLING GRADES WITH SUFFICIENT DEPTH TO ELIMINATE AIR POCKETS THROUGHOUT PROJECT UNLESS AN AIR RELEASE VALVE IS SHOWN. NO AIR RELEASE VALVES WILL BE ADDED TO PROJECT WITHOUT APPROVAL OF THE ENGINEER.
- CONTRACTOR SHALL COORDINATE WITH OWNER BEFORE MAKING CONNECTIONS TO EXISTING WATER MAINS.
- ALL ROCK SHALL BE UNDERCUT A MINIMUM OF 12" BELOW THE PIPE INVERT AND PIPE IS TO BE BEDDED IN STONE - SEE DETAILS. PIPE BEDDING MATERIAL SHALL BE #57 CRUSHED STONE COMPACTED TO 95% STANDARD PROCTOR DENSITY. IF THE EDGE OF TRENCH IS WITHIN 4 FEET OF ROADWAY, FOR WHATEVER REASON, 12" OF #57 STONE CUSHION IS STILL REQUIRED AS A BASE. SEE ALDOT SPECIFICATIONS.
- ALL OPEN CUT TRAFFIC WAYS, ROADWAYS, PARKING LOTS, DRIVES, FUTURE DRIVES, ETC., AND ALL AREAS LYING WITHIN PRISM OF TRAFFIC WAYS SHALL BE BACKFILLED WITH #610 STONE AND COMPACTED TO 100% STANDARD PROCTOR DENSITY MINIMUM WITH VIBRATORY COMPACTOR (MAX. 6" LIFTS) FOR ITS ENTIRE TRENCH HEIGHT AND WIDTH TO PREVENT SETTLEMENT. ALL ASPHALT AND CONCRETE TO BE NEAT SAW CUT.
- ANY PROPERTY (I.E. FENCING, LANDSCAPING, SHRUBBERY, DRIVEWAYS, ACCESS ROADS, STRUCTURES, ETC.) THAT IS DAMAGED, REMOVED, AND/OR DISTURBED DURING CONSTRUCTION SHALL BE REPLACED OR RESTORED LIKE-KIND (AS A MINIMUM) IN A TIMELY MANNER FOLLOWING COMPLETION OF CONSTRUCTION IN THAT AREA. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL SHRUBBERY, SOD, SPRINKLER HEADS, ETC. LIKE-KIND (WHETHER OR NOT THEY ARE SHOWN ON THE DRAWINGS) THAT IS DAMAGED, REMOVED, AND/OR DISTURBED DURING CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL REIMBURSE THE PROPERTY OWNER FOR THE VALUE OF ANY IRREPLACEABLE PROPERTY LOCATED ON PRIVATE PROPERTY (I.E. NOT WITHIN R.O.W. OR EASEMENTS) THAT HAS BEEN REMOVED OR DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ACCESS TO CONSTRUCTION SITES FOR MOVEMENT OF MATERIALS, CREWS, AND OTHER REQUIREMENTS TO CONSTRUCT THE PROJECT WHEN EXISTING EASEMENTS AND PUBLIC ACCESS DOES NOT SATISFY CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF ANY ROW MONUMENTS OR PROPERTY PINS DISTURBED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL STATUTES AND REGULATIONS GOVERNING BLASTING ON HIGHWAY RIGHTS-OF-WAY. SEE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR OBTAINING ANY BLASTING PERMITS REQUIRED FOR CONSTRUCTION. THERE IS NO GUARANTEE THAT THE CONTRACTOR WILL BE ABLE TO OBTAIN A BLASTING PERMIT AND THE OWNER WILL NOT BE PARTY TO A BLASTING PERMIT FOR THE CONTRACTOR. SEISMOGRAPH TESTING REQUIRED FOR ALL BLASTING EVENTS AND CONTRACTOR IS FULLY RESPONSIBLE FOR DESIGNING AND PERMITTING HIS BLASTING OPERATIONS TO PREVENT DAMAGE TO SURROUNDING PROPERTIES, UTILITIES, STRUCTURES, ETC. CONTRACTOR SHALL COORDINATE ALL BLASTING ACTIVITIES WITH THE OWNER AT LEAST 24 HOURS IN ADVANCE. BLASTING MAY BE PROHIBITED NEAR EXISTING WATER LINES AT THE DISCRETION OF THE OWNER AND/OR ENGINEER.
- UNLESS SHOWN OTHERWISE, HIGHWAY DEPARTMENT REQUIRES MINIMUM OF 36" COVER FOR PIPE WITHIN ITS RIGHT OF WAY, MINIMUM 48" COVER UNDER ROADWAYS WITHIN ITS RIGHT OF WAY, AND A MINIMUM OF 60" OF SEPARATION UNDER MAJOR DRAINAGE STRUCTURES FOR 12" BEFORE & AFTER EXISTING DRAINAGE PIPES & STRUCTURES PARALLEL TO THE PROPOSED SFM & 12" BEFORE AND AFTER CROSSING EXISTING DRAINAGE PIPES & STRUCTURES. OWNER WILL PROVIDE WATER FOR FLUSHING.
- CONTRACTOR SHALL CONTINUALLY MAINTAIN TRAFFIC FLOW AND MINIMIZE DISRUPTION OF ACCESS TO ALL BUSINESSES AND RESIDENCES. CONTRACTOR SHALL COORDINATE AS REQUIRED WITH PROPERTY OWNERS TO ENSURE UNOBSTRUCTED ACCESS DURING SPECIFIC/CRITICAL TIMES OF DAY IF NECESSARY.
- THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR SAFETY. THE ENGINEER IS NOT RESPONSIBLE FOR SAFETY. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA STANDARDS AND RECOMMENDATIONS, ETC., APPLICABLE TO ALL WORK AND COMPONENTS ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR SHALL CONTINUOUSLY UTILIZE SAFETY PRACTICES THAT MAY BE NEEDED FOR THE FULL PROTECTION OF ALL PERSONS INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION PERSONNEL, THE OWNER'S PERSONNEL, INSPECTORS, AND THE GENERAL PUBLIC, ETC.
- ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE ALEXANDER CITY AGENCIES, TALLAPOOSA COUNTY AGENCIES, THE MUTCD, ALDOT SPES AND STANDARDS & ALABAMA HIGHWAY DEPARTMENT RULES AND REGULATIONS, AS APPLICABLE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL EXCESS MATERIALS RESULTING FROM THE WORK.
- FINE GRADE ALL DISTURBED AREAS TO LEAVE THE AREA FREE OF DRAINAGE PROBLEMS.
- RIP-RAP SHALL BE PLACED IN THE LOCATIONS SHOWN ON THE DRAWINGS, INFERRED FROM THE SPECIFICATIONS, OR AS DIRECTED BY THE ENGINEER. RIP-RAP SHALL BE THE SIZE INDICATED ON THE DRAWINGS. IF NO SIZE IS CALLED OUT, CLASS 1 SHALL BE USED. NO CLASS II OR LARGER RIP RAP IS ALLOWED IN CLEAR ZONE PER ALDOT RULES.
- THE WIDTH OF THE TRENCH FOR LINE INSTALLATION SHALL BE SUFFICIENT TO INSTALL AND MAINTAIN PROPOSED LINES AND PROPERLY BACKFILL AND COMPACT PER THE DRAWINGS AND SPECIFICATIONS. IN AREAS WHERE ROCK IS ENCOUNTERED, THE TRENCH SHALL BE AT LEAST 1 FOOT ON EACH SIDE OF THE PIPE BELL OUTSIDE DIAMETER WITH PIPE IN CENTER OF TRENCH (I.E. 1 FOOT + PIPE BELL O.D. + 1 FOOT).
- KEEP PIPE CLEAN AND REMOVE ALL DEBRIS AND DIRT FROM INSIDE OF PIPE TO BE INSTALLED AND PREVIOUS PIPES INSTALLED IN ORDER TO MINIMIZE FLUSHING WATER REQUIRED WHEN PIPE INSTALLATION IS COMPLETE. WHEN PIPE LAYING IS NOT IN PROGRESS, INCLUDING BREAK PERIODS, THE OPEN ENDS OF THE PIPE SHALL BE CLOSED BY PLUGS OR APPROVED MEANS.

**ALABAMA HIGHWAY DEPARTMENT GENERAL NOTES:**

- CONTACT DISTRICT ADMINISTRATOR 48 HOURS PRIOR TO BEGINNING WORK ON ALDOT RIGHT-OF-WAY AND PROVIDE ON-SITE CONTACT INFORMATION. THE DISTRICT ADMINISTRATOR IS CRAIG PHILLIPS PHONE 256-234-8480.
- ONSITE REPRESENTATIVE WILL HAVE ON HAND AT ALL TIMES THE COMPLETE APPROVED PERMIT AND PLANS.
- ALL EXISTING UTILITIES IN THE PROPOSED WORK AREA SHALL BE PHYSICALLY LOCATED BOTH HORIZONTALLY AND VERTICALLY BEFORE WORK BEGINS.
- APPLICANT WILL BE RESPONSIBLE FOR SETTING BOUNDARY MONUMENTS ALONG ALDOT ROW TO NOTE PROPERTY CORNERS AND ROW CHANGES ALONG PROPERTY LINE OF ROW.
- DO NOT DISTURB SURVEY MARKERS LOCATED ON ALDOT RIGHT-OF-WAY. ANY RIGHT OF WAY MARKERS DISTURBED DURING CONSTRUCTION SHALL BE RE-ESTABLISHED BY AN ALABAMA LICENSED PROFESSIONAL SURVEYOR AT THE APPLICANT'S EXPENSE.
- THE PERMIT APPLICANT IS HELD RESPONSIBLE AND LIABLE FOR ALL DAMAGES AND ACTIONS OF THEIR APPOINTED CONTRACTORS, APPOINTEES, OR DESIGNEES FOR WORK CONDUCTED ON RIGHT OF WAY.
- ANY UTILITY RELOCATION NECESSARY DUE TO THE WORK BEING PERFORMED WILL BE THE RESPONSIBILITY OF THE APPLICANT. ANY UTILITY WORK ON ROW WILL REQUIRE A SEPARATE APPROVED PERMIT WHICH SHOULD BE OBTAINED BY THE UTILITY COMPANY PRIOR TO UTILITY WORK BEING PERFORMED.
- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) EDITION. (IF PERMIT REQUIRES LANE CLOSURES, LANE CLOSURE MUST BE PART OF THE TRAFFIC CONTROL PLAN).
- NO STRUCTURES, SIGNS, PARKING AREAS, ETC. WILL BE PLACED ON ALDOT ROW AT ANY TIME.
- PRIOR TO ANY TRAFFIC CONTROL DEVICES BEING INSTALLED ON ROW, SOMEONE WITH THE RESPONSIBILITY OF TRAFFIC CONTROL SHALL CONTACT THE ALDOT OFFICE AT 256-234-8480 OR 256-234-4265 48 HOURS IN ADVANCE OF THE FIRST INSTALLATION.
- ALDOT MUST ALSO BE CONTACTED 48 HOURS PRIOR TO ANY LANE CLOSURES.
- ALL PAINT STRIPING MATERIALS, MEANS, AND METHODS SHALL BE IN ACCORDANCE TO ALDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION LATEST EDITION AND STATE OF ALABAMA SPECIAL AND STANDARD HIGHWAY DRAWINGS.
- PAVEMENT MARKINGS, SIGNS, ETC. WILL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION AND STATE OF ALABAMA SPECIAL AND STANDARD HIGHWAY DRAWINGS.
- POST-DEVELOPMENT DRAINAGE FROM BEYOND ROW, DIRECTED TOWARDS THE ROADWAY WILL NOT BE GREATER THAN PRE-DEVELOPMENT RUNOFF.
- ALL ACCESSES SHOULD SLOPE AWAY FROM THE HIGHWAY A MINIMUM OF 1/2 PER FOOT TO THE DITCH SECTION.
- ROADWAY PAVEMENT SHALL NOT BE DISTURBED WHEN CONSTRUCTING AN ACCESS.
- ALL DISTURBED AREAS WILL BE DRESSED AND PERMANENT VEGETATION ESTABLISHED AS DIRECTED BY THE DEPARTMENT OF TRANSPORTATION'S DISTRICT ADMINISTRATOR.
- ALL MATERIALS USED ON ALDOT ROW WILL CONFORM WITH ALDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION LATEST EDITION.
- ANY DAMAGE TO RIGHT OF WAY DURING CONSTRUCTION BY APPLICANT OR DESIGNEE WILL BE REPAIRED BY THE APPLICANT IN ACCORDANCE WITH ALDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION LATEST EDITION.
- ALL AREAS ON ROW WITHIN THE APPLICANT'S WORK LIMITS SHALL BE NEATLY GRADED, DRESSED, AND GRASSED IN A MANNER TO ESTABLISH POSITIVE FLOW AND PERMANENT VEGETATION.
- THE APPLICANT SHALL BE RESPONSIBLE FOR ANY ORNAMENTAL VEGETATIVE LANDSCAPING (SHRUBS, FLOWERS, ORNAMENTAL GRASS, ETC.) DISTURBED DURING CONSTRUCTION AND SHOULD BE REPLACED OR TRANSPLANTED AS DIRECTED BY THE ALABAMA DEPARTMENT OF TRANSPORTATION DISTRICT ADMINISTRATOR.
- THE APPLICANT WILL MAINTAIN ANY APPROVED PLANTS OR LANDSCAPE INSTALLED ON RIGHT OF WAY.
- THE APPLICANT SHALL BE RESPONSIBLE FOR ANY SOLID WASTE (I.E., WOOD, STUMPS, ETC.) TO BE DISPOSED OF AND MUST BE IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM).
- MUD AND DEBRIS ARE TO BE KEPT OUT OF HIGHWAYS, INLETS, DITCHES, AND RIGHT OF WAY.
- FUEL TANKS SHALL NOT BE STORED ON THE RIGHTS OF WAY AND VEHICLES TRANSPORTING FUEL, CHEMICALS, FERTILIZER, ETC. ONTO THE RIGHT OF WAY SHALL NOT BE LEFT UNATTENDED. 8/11/2021.
- ALL WORK ON RIGHT OF WAY SHALL MEET OR EXCEED ALDOT SPECIFICATIONS.
- UPON COMPLETION AND ANY TIME HEREFTER, ALDOT RETAINS THE RIGHT TO REQUEST A SET OF AS-BUILT PLANS OF ANY PERMITTED WORK IN SAID DEPARTMENT'S ROW.
- EROSION CONTROL DEVICES WILL BE INSTALLED AND MAINTAINED DURING THE WORK TO BE PERFORMED AND SHOULD MEET REQUIREMENTS OF ALDOT AND ADEM STANDARDS AND SPECIFICATIONS.
- APPLICANT MUST PROVIDE EROSION CONTROL PRODUCTS AND MULCH THAT ARE COGON GRASS AND JOHNSON GRASS FREE.
- APPLICANTS THAT NEED A QUALIFIED CREDENTIAL INSPECTOR FOR THEIR PROJECT SHALL PROVIDE THIS PERSON'S NAME, QQ NUMBER, AND CONTACT INFORMATION TO THE ALDOT DISTRICT OFFICE. A PRELIMINARY REVIEW SHALL BE DONE ON SITE PRIOR TO WORK ON ROW WITH ALDOT AND REVIEWS SHALL BE DONE IN ACCORDANCE TO ADEM REGULATIONS. A STORM WATER REVIEW SHALL BE DONE WEEKLY AND AFTER 1/2 RAIN EVENT.
- A BEST MANAGEMENT PLAN SHALL AT MINIMUM RETURN ALL EXPOSED AREAS TO ORIGINAL OR BETTER CONDITION WITH PERMANENT STABILIZATION.
- CONSTRUCTION EXIT PADS SHOULD BE GRADED TO DIRECT RUNOFF AWAY FROM THE HIGHWAY AND USE APPROPRIATE SIZE STONE TO PREVENT MUD/SOIL FROM BEING DEPOSITED ON THE HIGHWAY. CONSTRUCTION EXIT PADS SHOULD BE INSPECTED AND MAINTAINED BY THE APPLICANT THROUGHOUT WORK PERIOD.
- ON DENIED ACCESS, ALL INGRESS AND EGRESS TO WORKSITE SHALL BE FROM APPLICANT'S PROPERTY. IF DENIED ACCESS FENCE IS CUT, IT SHALL BE CLOSED AT THE END OF EACH DAY'S WORK. WHEN WORK IS COMPLETED, THE DENIED ACCESS FENCE SHALL BE RESTORED TO ITS ORIGINAL CONDITION.
- EQUIPMENT AND MATERIALS SHALL NOT BE STORED ON INTERSTATE RIGHT OF WAY.
- CLASS 2 RIP RAP OR LARGER SHALL NOT BE INSTALLED IN THE CLEAR ZONE.
- EQUIPMENT, MATERIAL, DEBRIS, ETC. SHOULD NOT BE LEFT IN THE CLEAR ZONE OVERNIGHT. IF UNABLE TO MEET THIS REQUIREMENT, SEE DELINEATING DETAIL FOR EQUIPMENT PARKING OR STORING AREA.
- PERMITS ISSUED BY ALDOT ARE FOR WORK ON ALDOT RIGHT OF WAY ONLY.

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 200 Cahulay Park, South, Suite 212  
 Birmingham, Alabama 35226  
 (205) 822-0387

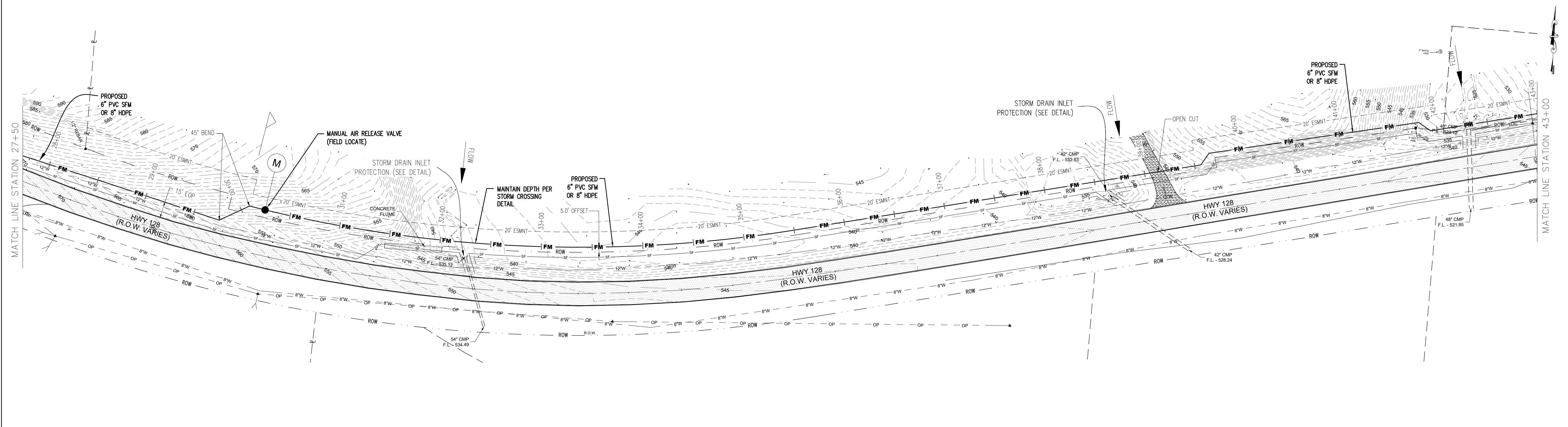
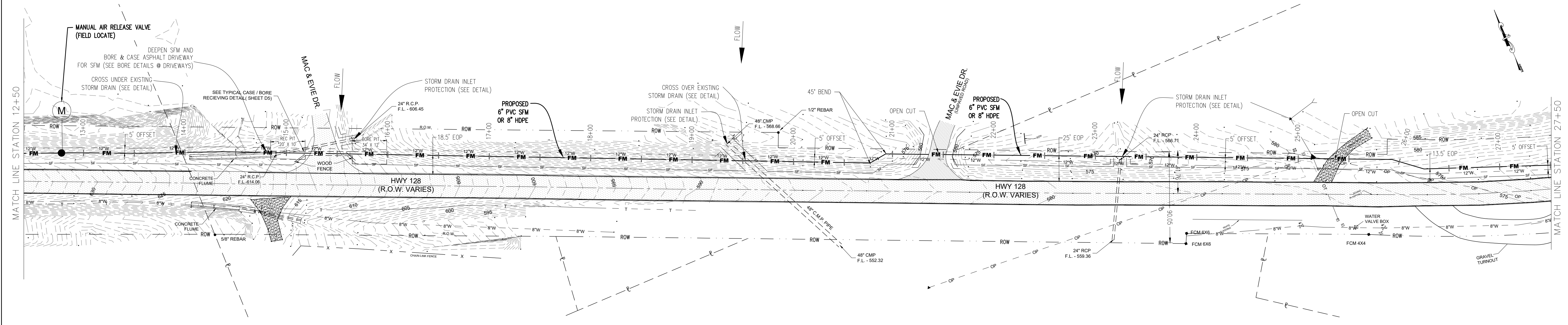
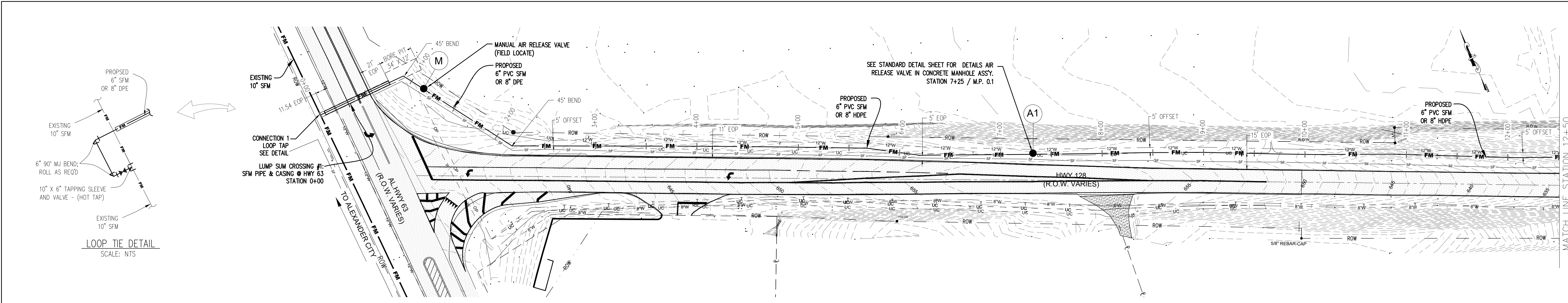
**THE CITY OF ALEXANDER CITY**  
 MULTI AGENCY WASTEWATER SOLUTION  
 PROJECT "B" HIGHWAY 128 SEWER FORCE MAIN  
 BID #24-03 (SRF PROJECT CS-010329-05)  
 2023



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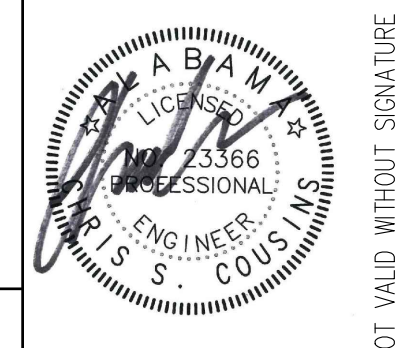
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Scale	Sheet		

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 (609) 822-0387

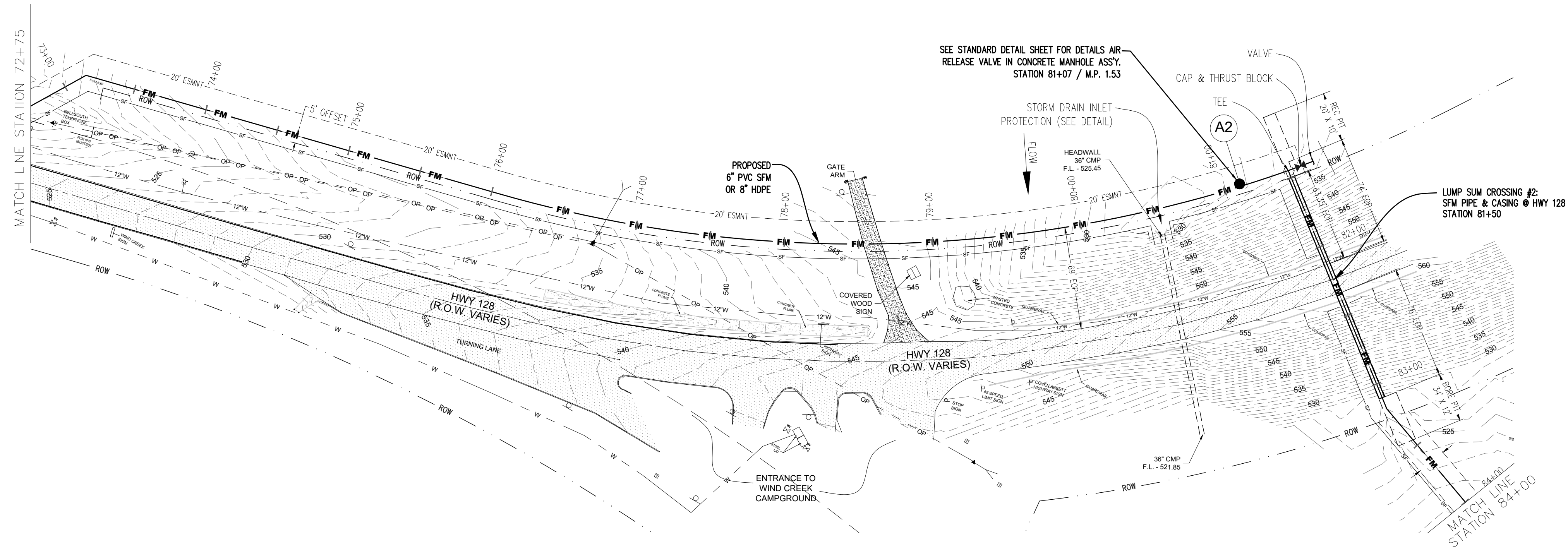
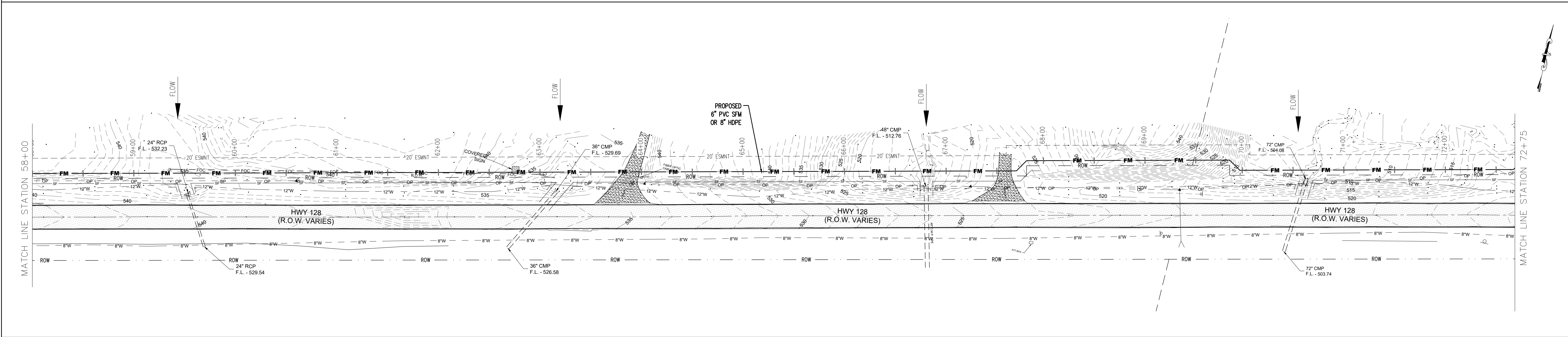
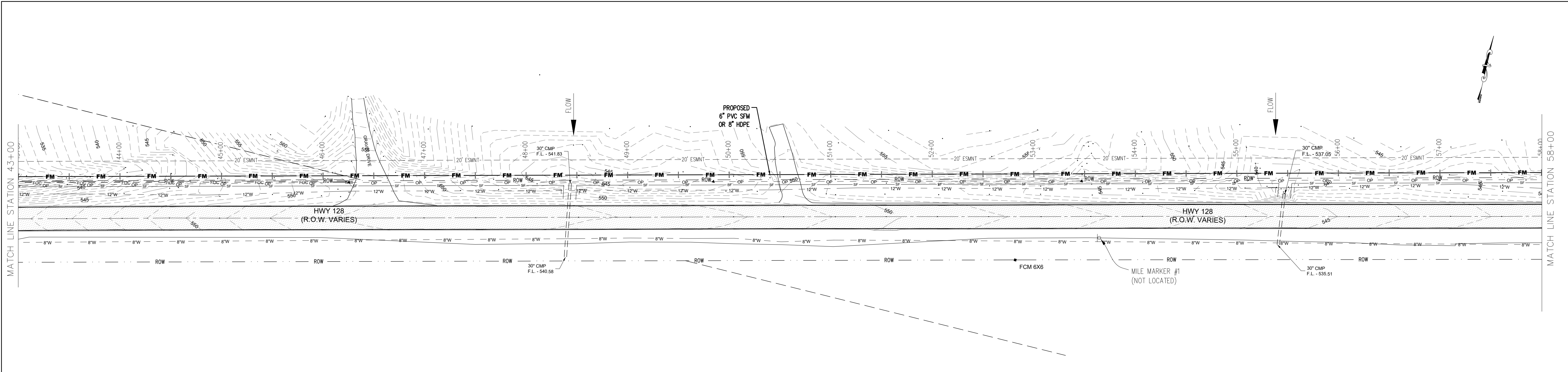
**THE CITY OF ALEXANDER CITY**  
 MULTI AGENCY WASTEWATER SOLUTION  
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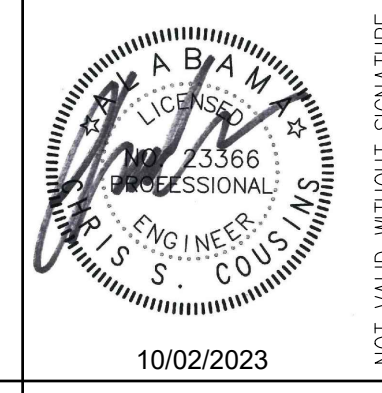
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**Municipal Consultants, Inc.**  
 200 Century Park South, Suite 212  
 Brea, California 92626  
 (951) 852-0387

**THE CITY OF ALEXANDER CITY**  
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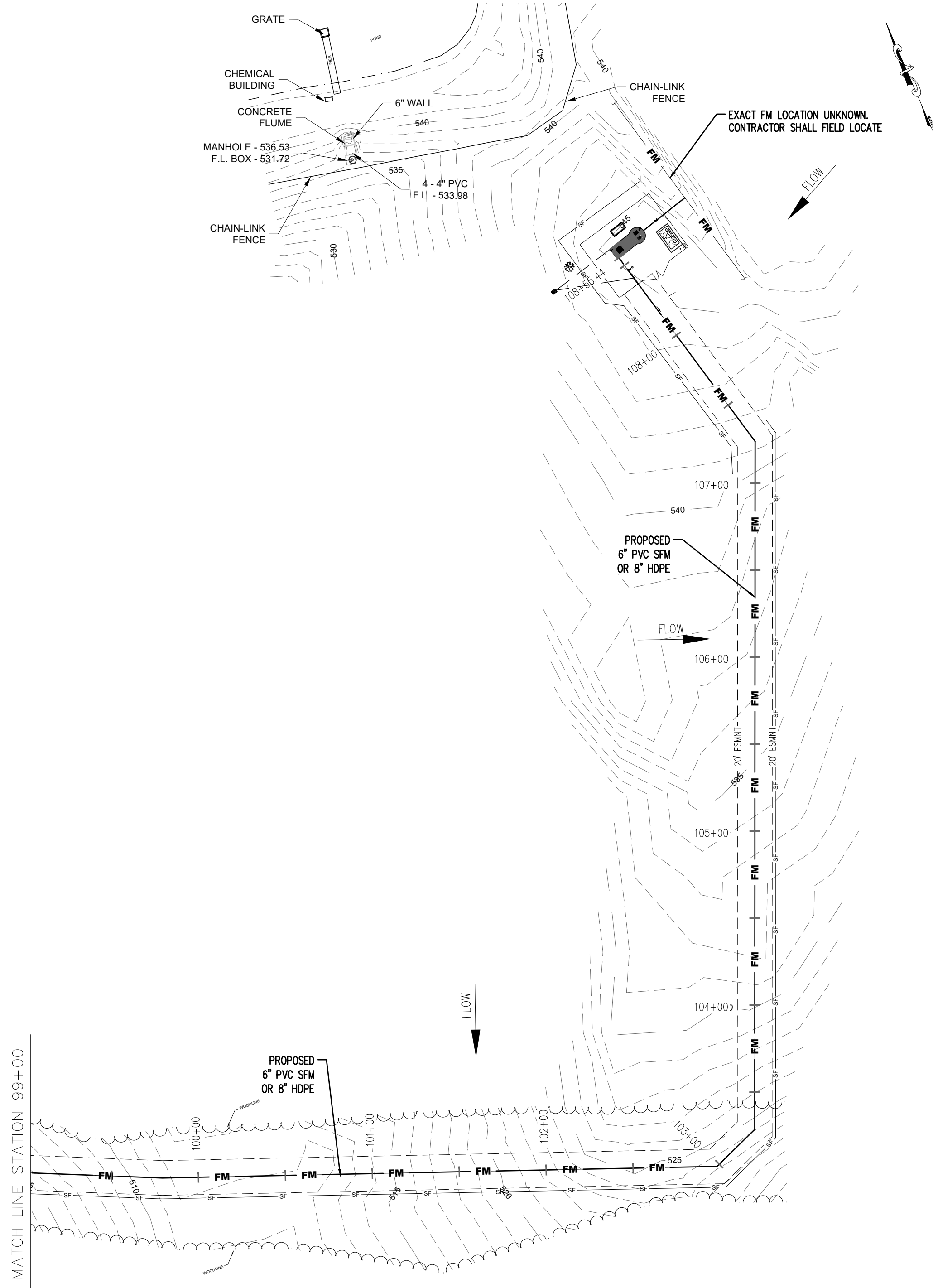
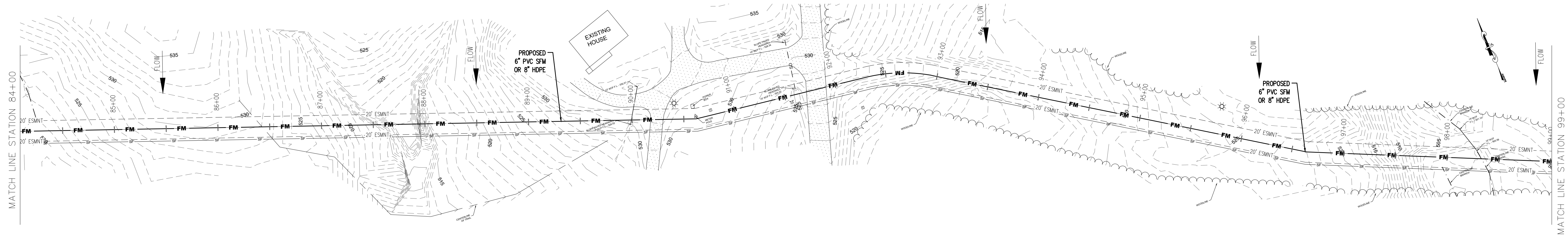


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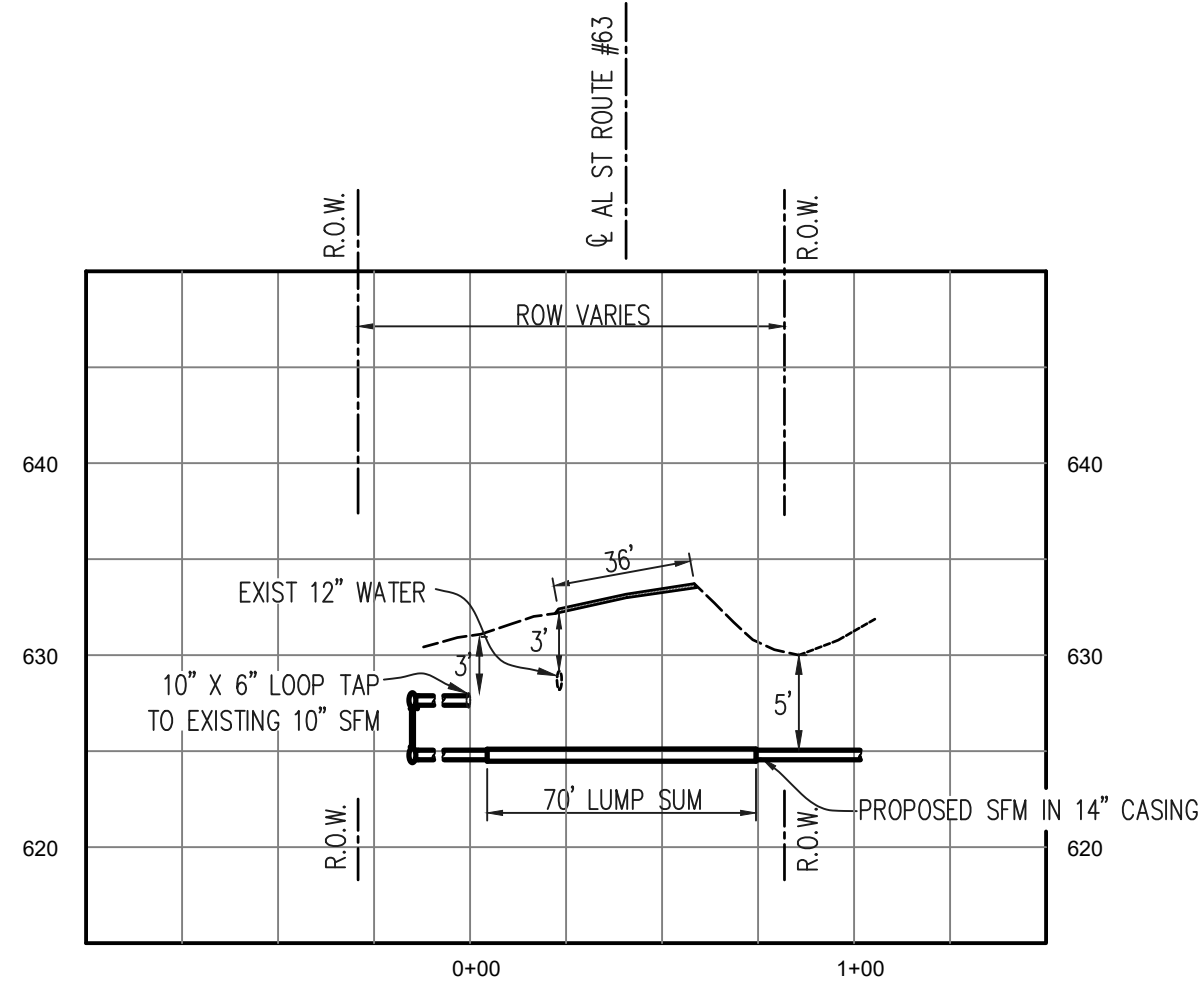
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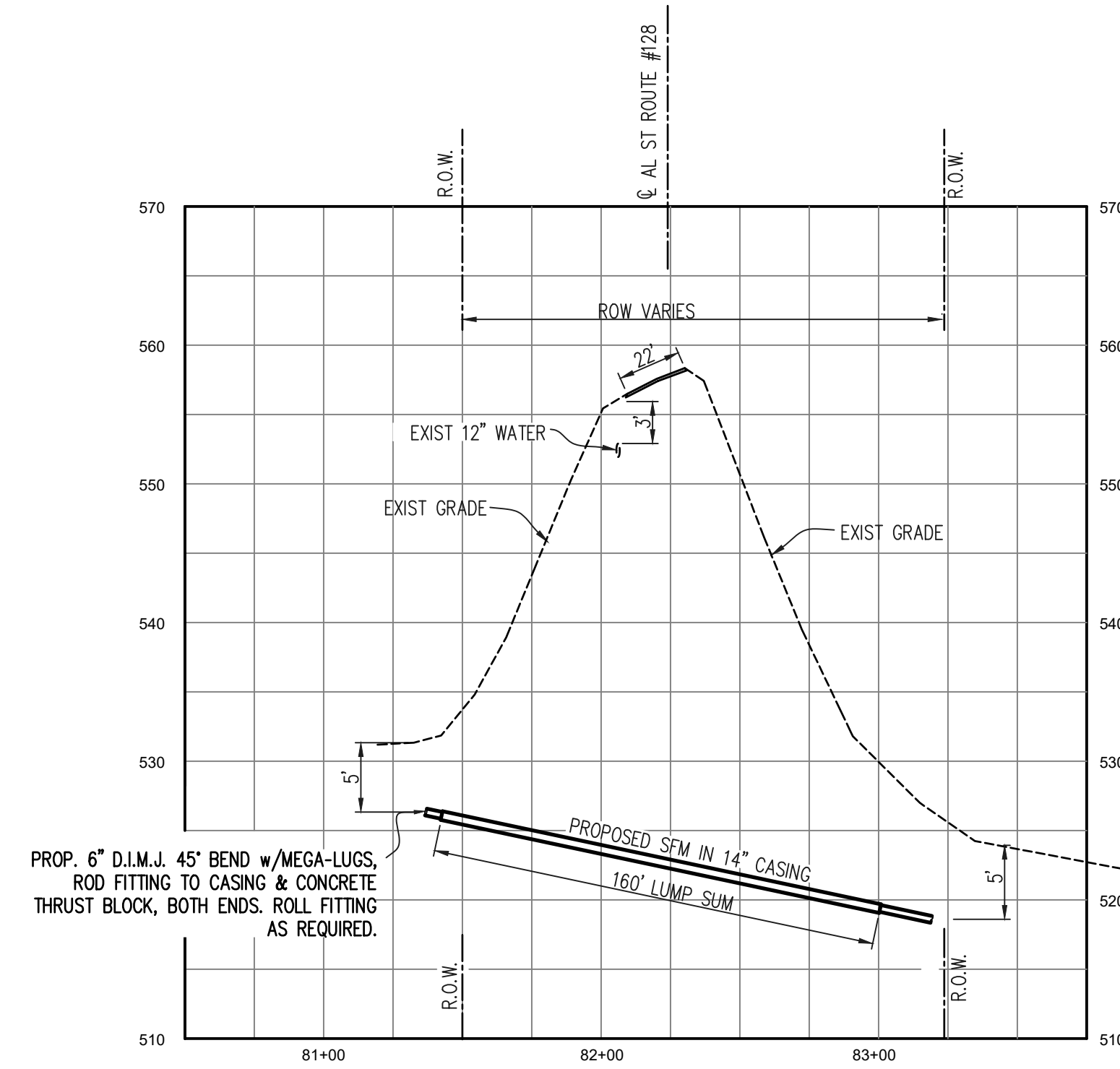
**THE CITY OF ALEXANDER CITY**  
 MULTI AGENCY WASTEWATER SOLUTION  
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 200 Century Park South, Suite 212  
 Atlanta, Georgia 30326  
 (404) 822-0387



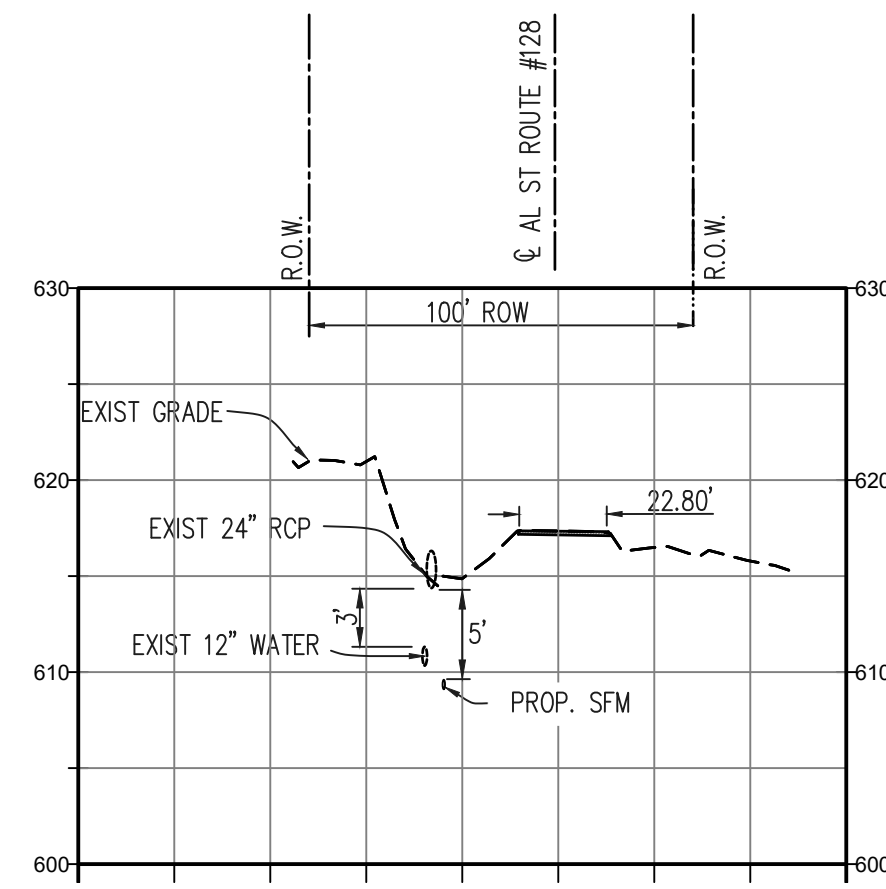
LUMP SUM CROSSING #1:  
 70' of 14" x .25" STEEL CASING & ALL INCIDENTALS  
 REQUIRED FOR PIPE INSTALLATION (SPACERS, END SEALS,  
 ETC.). 6" D.I. PIPE (LENGTH AS REQUIRED), TAPPING  
 SLEEVE & VALVE, 6" GATE VALVE, ETC., ARE INCLUDED IN  
 THE LUMP SUM FOR THE CROSSING.

**PROFILE - CROSSING #1**  
 SCALE: HORIZONTAL 1" = 50'  
 VERTICAL 1" = 10'  
 STATION 81+45 (MILE MARKER 1.54)

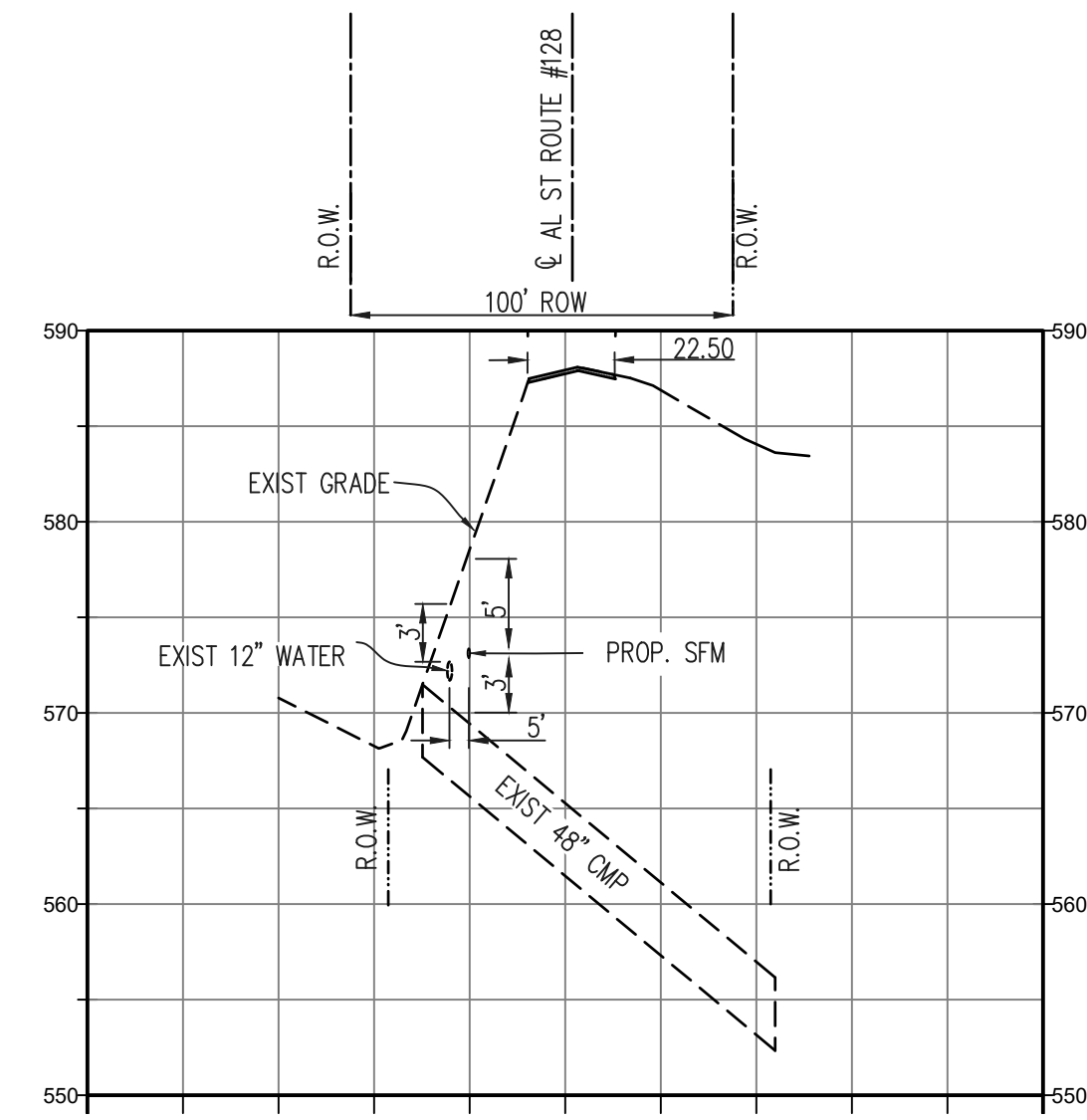


LUMP SUM CROSSING #2:  
 160' of 14" x .25" STEEL CASING & ALL INCIDENTALS  
 REQUIRED FOR PIPE INSTALLATION (SPACERS, END SEALS,  
 ETC.). 6" D.I. PIPE (LENGTH AS REQUIRED), TAPPING  
 SLEEVE & VALVE, 6" GATE VALVE, ETC., ARE INCLUDED IN  
 THE LUMP SUM FOR THE CROSSING.

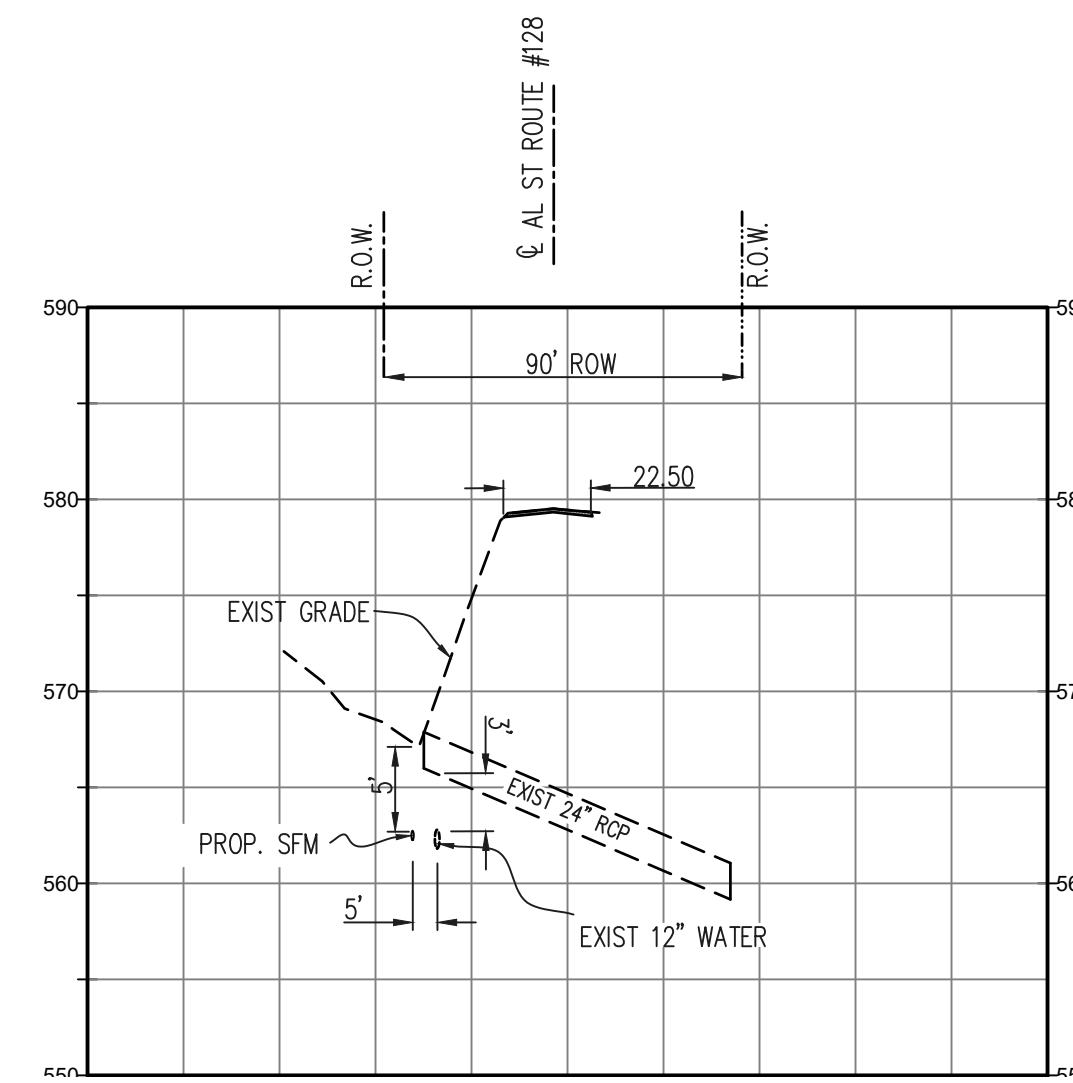
**PROFILE - CROSSING #2**  
 SCALE: HORIZONTAL 1" = 50'  
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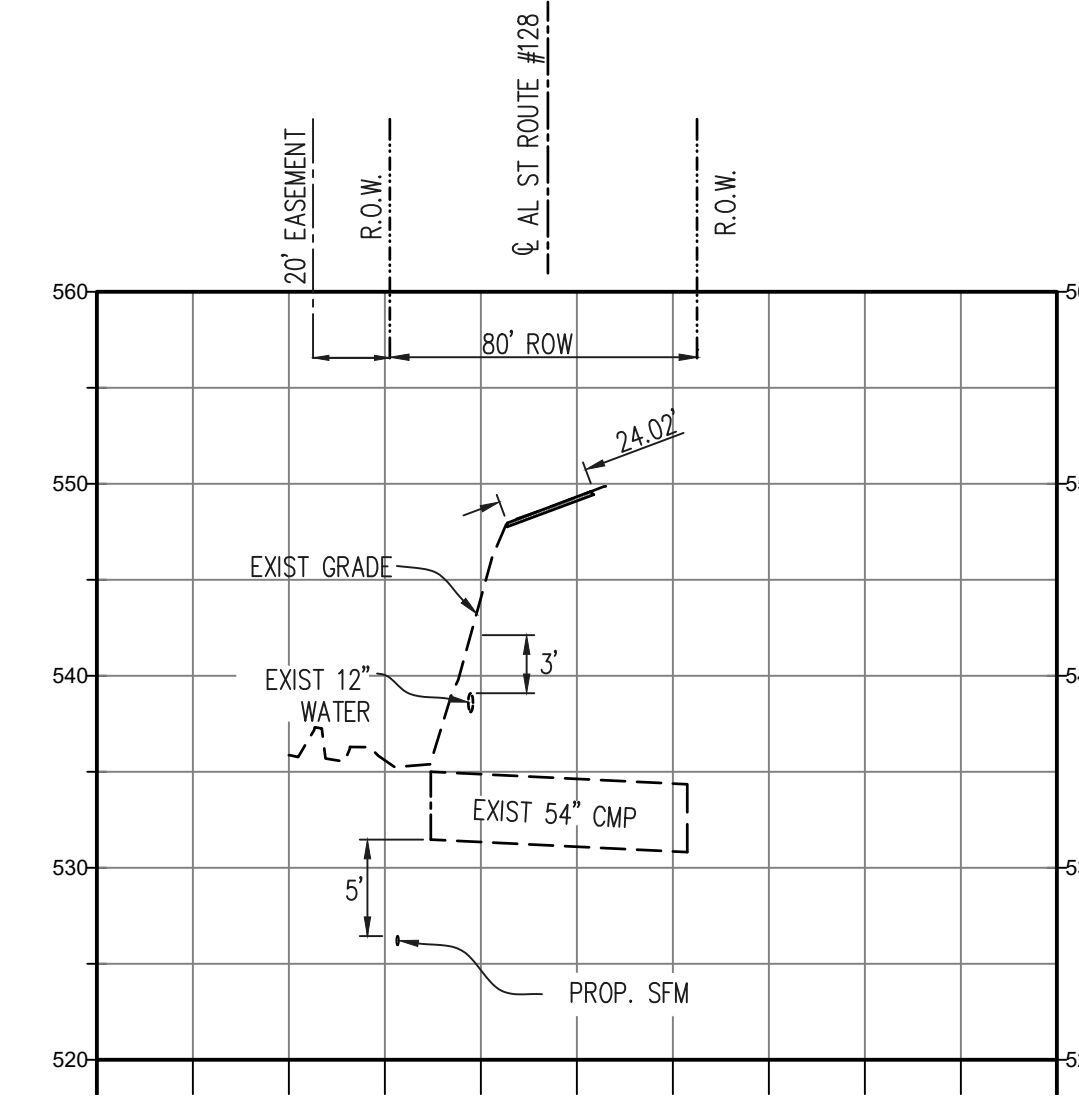
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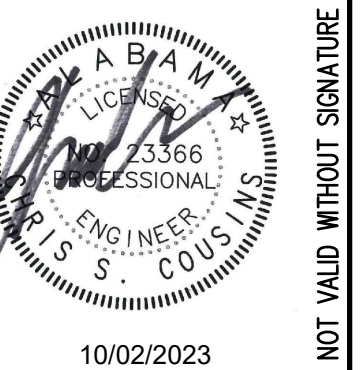
**STORM DETAIL - AL ST #128 STA 19+25**  
 SCALE: HORIZONTAL 1" = 50'  
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 (MILE MARKER 0.36)



**STORM DETAIL - AL ST #128 STA 23+25**  
 SCALE: HORIZONTAL 1" = 50'  
 VERTICAL 1" = 10'  
 (MILE MARKER 0.44)



**STORM DETAIL - AL ST #128 STA 32+25**  
 SCALE: HORIZONTAL 1" = 50'  
 VERTICAL 1" = 10'  
 (MILE MARKER 0.61)



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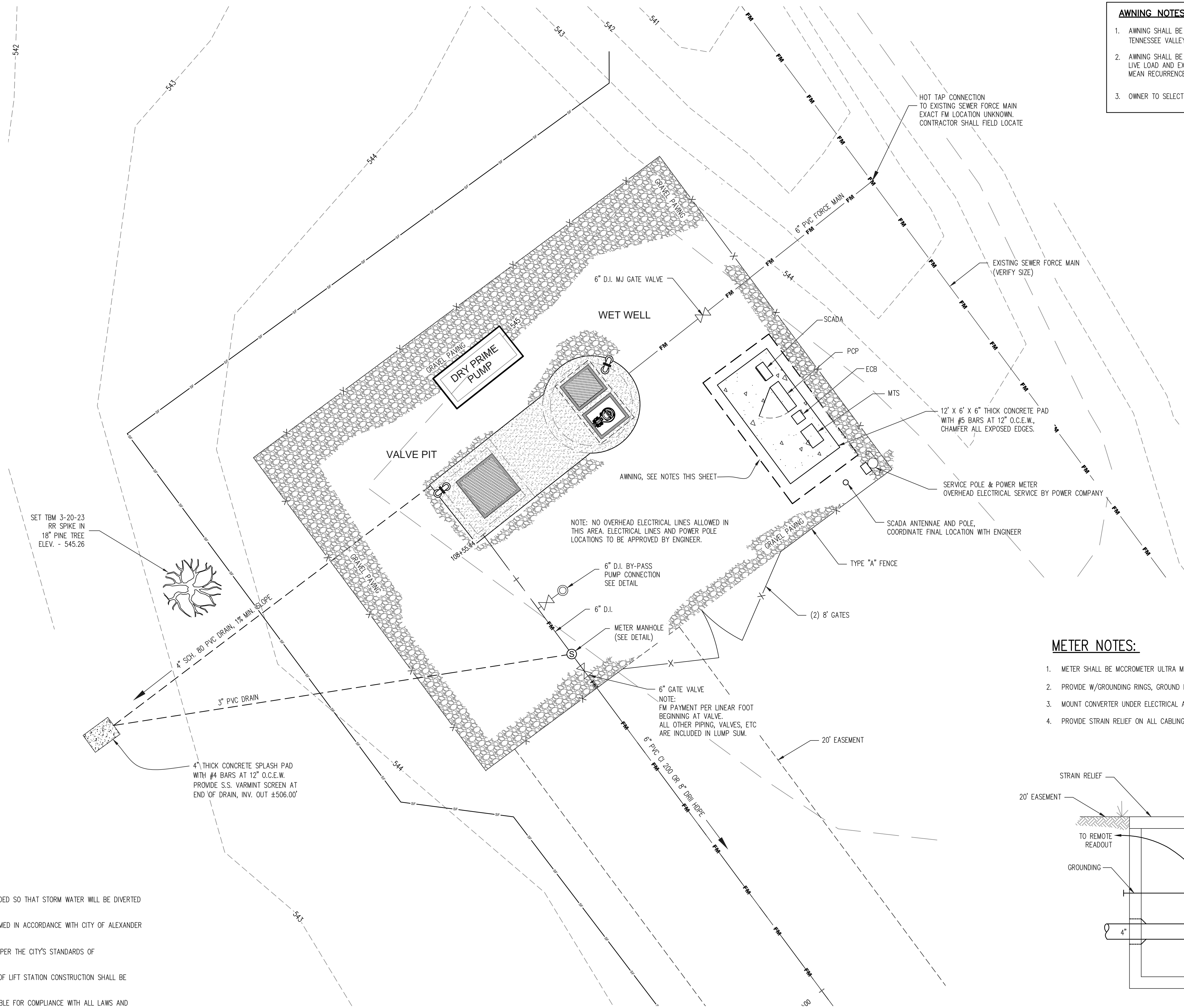
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**NOTES:**

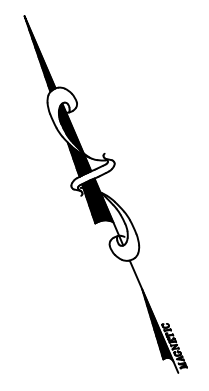
- LIFT STATION SITE SHALL BE GRADED SO THAT STORM WATER WILL BE DIVERTED AROUND SITE.
- CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF ALEXANDER CITY RULES AND REGULATIONS.
- SEWERS SHALL BE CONSTRUCTED PER THE CITY'S STANDARDS OF CONSTRUCTION.
- AREAS DISTURBED AS A RESULT OF LIFT STATION CONSTRUCTION SHALL BE DRESSED AND REGRASSED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL LAWS AND REGULATIONS REGARDING THE CONTROL AND PREVENTION OF STORM WATER RUNOFF AND POLLUTION.
- SAFETY IS THE RESPONSIBILITY SOLELY OF THE CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR SAFETY NOR THE MEANS AND METHODS OF THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND PAYING FOR THE INSTALLATION OF ALL UTILITIES.



**LIFT STATION SITE PLAN**  
SCALE: 1" = 5'

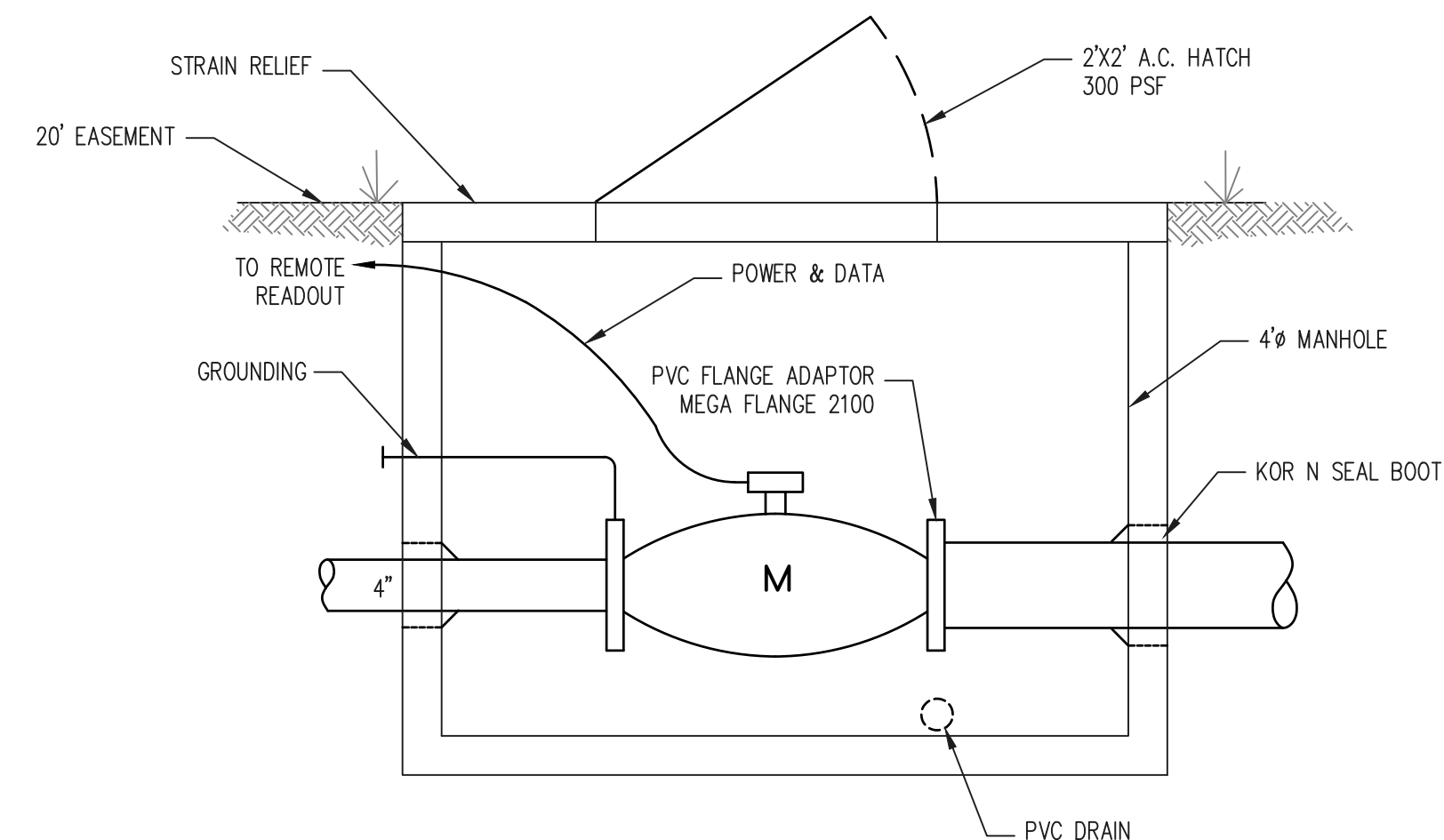
**AWNING NOTES:**

- AWNING SHALL BE ALUMINUM WITH S.S. ANCHORS AND HARDWARE. AWNING SHALL BE BY TENNESSEE VALLEY METALS (TVM) OR EQUAL.
- AWNING SHALL BE DESIGNED BY THE AWNING MANUFACTURER FOR A MIN. 30 PSF LIVE LOAD AND EXTREME WIND LOADING IN ACCORDANCE WITH SBCCI 100 YEAR MEAN RECURRENCE INTERVAL AND AN UPLIFT SHAPE FACTOR OF 1.5.
- OWNER TO SELECT COLORS DURING SUBMITTAL PROCESS.



**METER NOTES:**

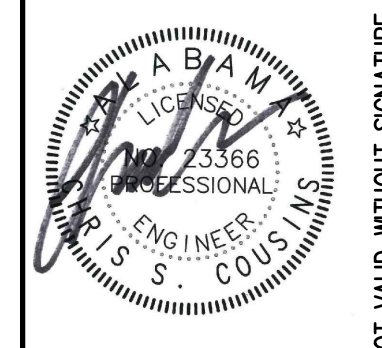
- METER SHALL BE METERMETER ULTRA MAG OR EQUAL, 30FT SUB. RATING
- PROVIDE W/GROUNDING RINGS, GROUND METER AND ACCESSORIES AS RECOMMENDED.
- MOUNT CONVERTER UNDER ELECTRICAL AWNING.
- PROVIDE STRAIN RELIEF ON ALL CABLING.



**METER MANHOLE**  
SCALE: NOT TO SCALE

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Alexandria, Louisiana 71302  
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**THE CITY OF ALEXANDER CITY**  
MULTI AGENCY WASTEWATER SOLUTION  
PROJECT "B" HIGHWAY 128 SEWER FORCE MAIN  
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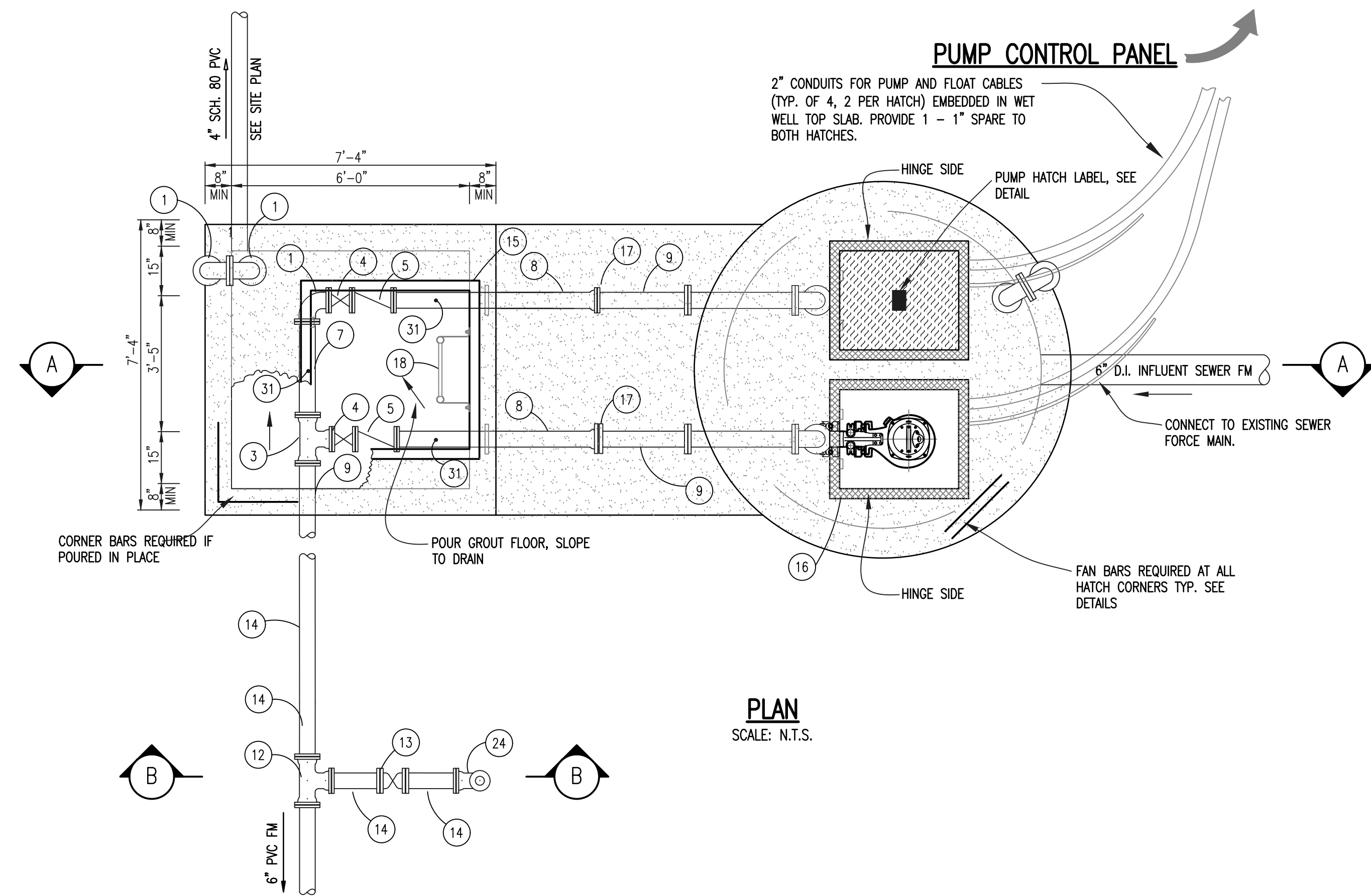


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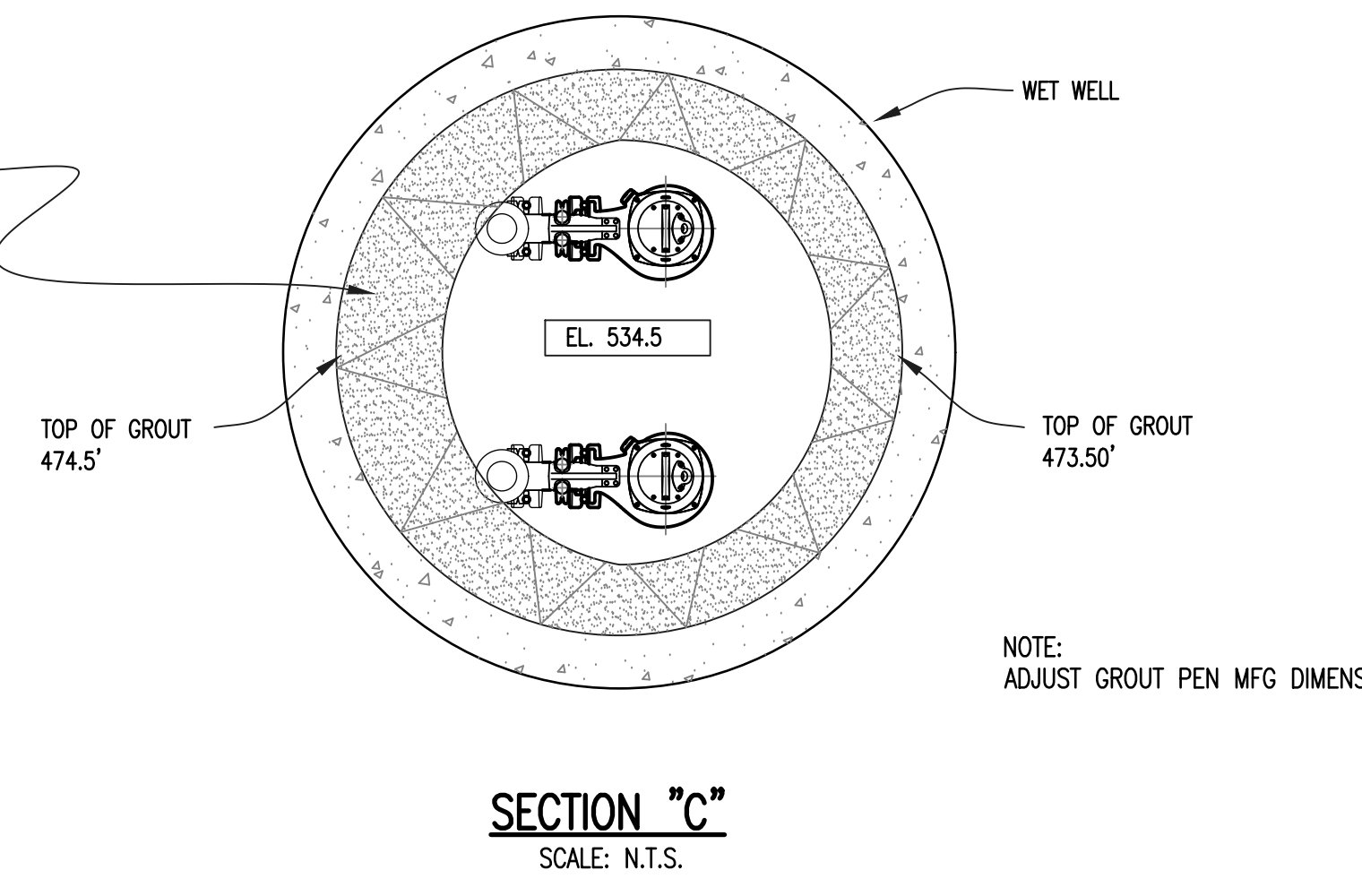
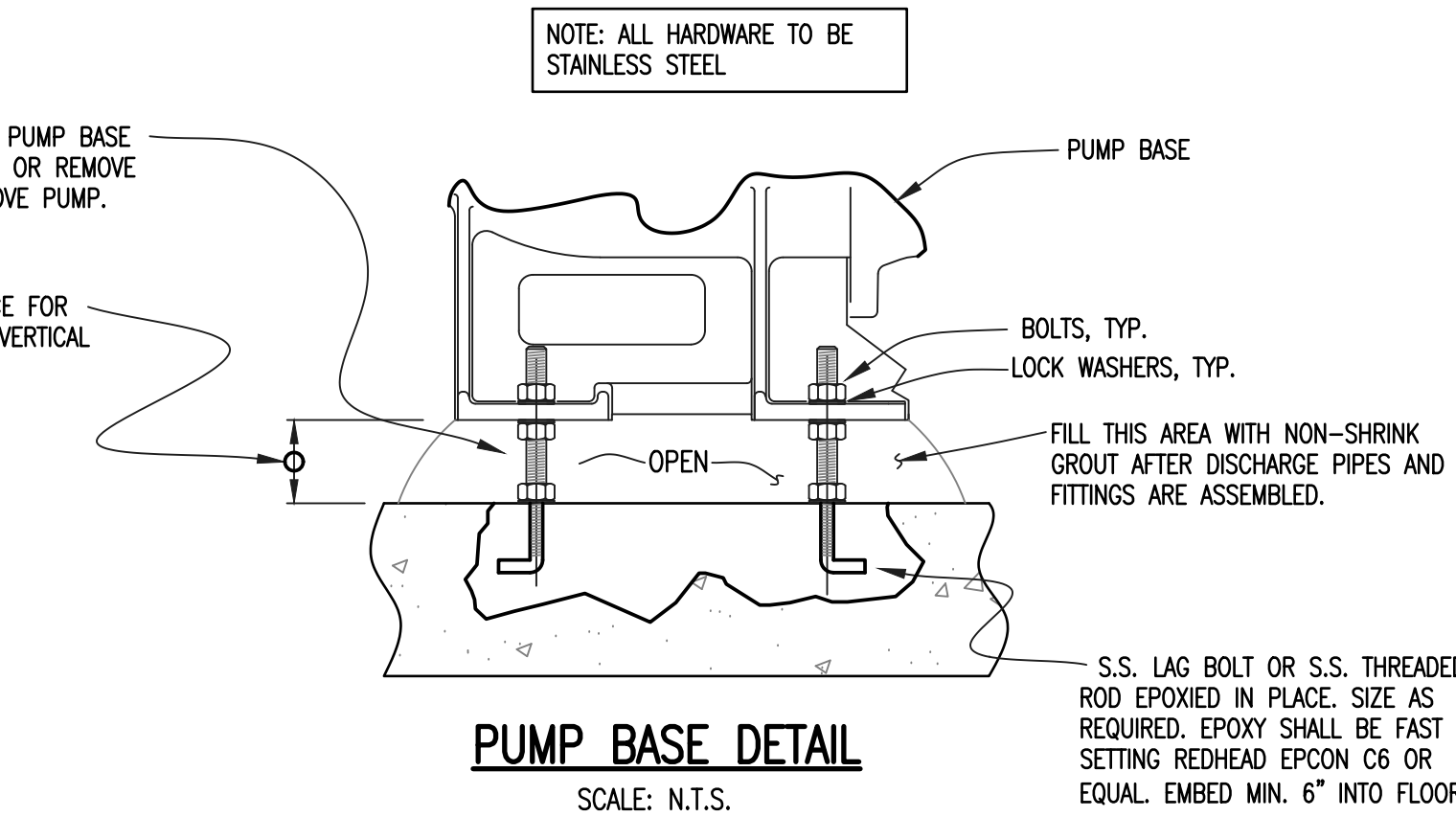
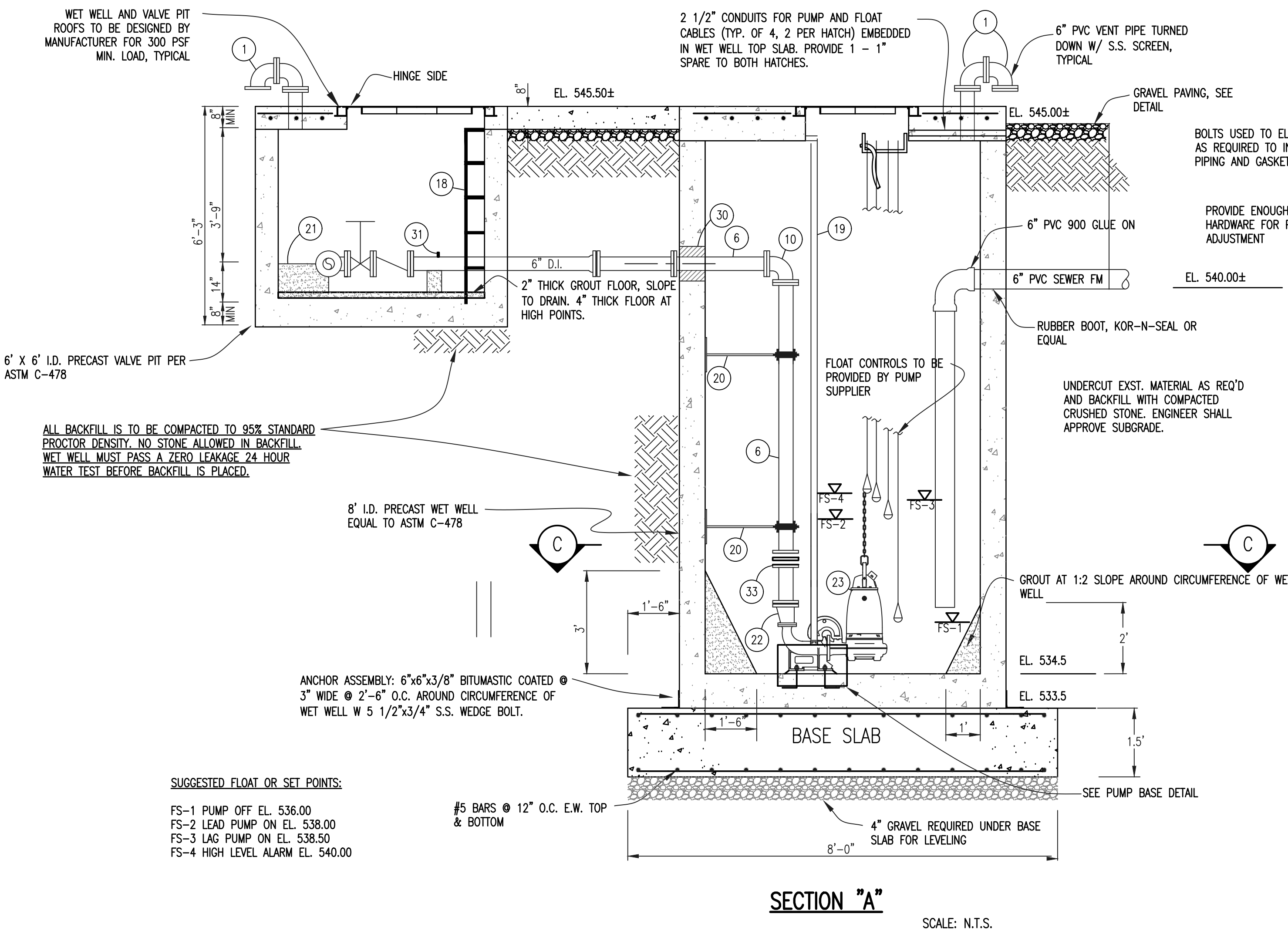


**NOTES:**

- SAFETY IS THE RESPONSIBILITY SOLEY OF THE CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR SAFETY NOR THE MEANS AND METHODS OF THE CONTRACTOR.
- SEE ELECTRICAL PLAN FOR POWER ROUTING.
- PUMP EQUIPMENT SHALL BE CONSTRUCTED TO MEET EXPLOSION PROOF REQUIREMENTS FOR USE IN HAZARDOUS LOCATIONS DEFINED AS CLASS 1, DIVISION 1, GROUPS C AND D (GASSES AND VAPORS), CLASS 2, DIVISION 1, GROUPS E AND G (DUSTS), CLASS 3, DIVISION 1 (FIBERS AND FLYINGS). ALL EQUIPMENT SHALL BE APPROVED AND LABELED BY FACTORY MUTUAL SYSTEMS OR OTHER ENGINEER APPROVED FIRMS.
- ALL PIPE OPENINGS THROUGH CONCRETE WALLS SHALL HAVE RUBBER BOOTS AS MANUFACTURED BY KOR-N-SEAL OR EQUAL UNLESS SPECIFIED OTHERWISE.
- ALL BOLTS, NUTS, AND HARDWARE SHALL BE 316 STAINLESS STEEL.
- ALL HATCHES SHALL BE LOCKABLE AND SHALL BE KEPT LOCKED DURING CONSTRUCTION.
- WET WELL SHALL BE TYPE II CEMENT.
- CONTRACTOR SHALL PROTECT THE STATION FROM FLOTATION DURING CONSTRUCTION.
- SHOP DRAWINGS SHALL BE APPROVED BY CITY OF ALEXANDER CITY BEFORE ORDERING OF MATERIALS.
- UNI-FLANGES, OR EQUIVALENT, WILL NOT BE ALLOWED.
- ALL MECHANICAL JOINT FITTINGS SHALL HAVE RETAINER GLANDS BY EBAA IRON OR EQUAL.
- ALL DUCTILE IRON PIPE IN THE VALVE PIT AND WET WELL SHALL HAVE EXTERIOR PRIME COATED WITH TNEVEC SERIES N140 (FOR A DRY FILM THICKNESS OF 6.0-8.0 MILS) AND TOP COATED WITH TNEVEC SERIES 446 PERMA-SHIELD MCO (FOR A DRY FILM THICKNESS OF 14.0-20.0 MILS), OR EQUAL. THIS SHALL ALSO INCLUDE THE VENT PIPES AND THE PUMP BASE ELBOWS.
- MEGALUG RESTRAINING GLANDS (EBAA IRON OR EQUAL) SHALL BE PROVIDED FOR ALL DUCTILE IRON MECHANICAL JOINT VALVES AND FITTINGS. CONCRETE KICKERS SHALL BE PROVIDED FOR ALL FITTINGS WHERE REQUIRED.

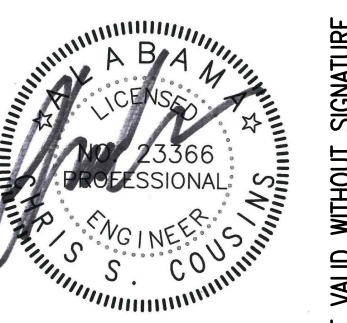
**PARTIAL MATERIAL LIST**

- 6" 90° BEND, FLG.
  - RESERVED
  - 6" TEE, FLG
  - 6" R.S. GATE VALVE, FLG, HANDWHEEL OPERATOR
  - 6" CHECK VALVE, FLG, LEVER ARM OPERATOR WITH AIR CUSHION
  - 6" SCH. 10 316L S.S., FLG X FLG, LENGTH AS REQ'D
  - 6" SPOOL, FLG, LENGTH AS REQ'D, D.I.
  - 6" WALL PIPE, FLG X MJ, LENGTH AS REQ'D, D.I.
  - 6" PIPE, FLG X PE, LENGTH AS REQ'D, D.I.
  - 6" S.S. 90° BEND, FLG. OR WELDED
  - RESERVED
  - 6" X 6" D.I. TEE, MJ
  - 6" D.I. RS GATE VALVE, MJ
  - 6" D.I. PIPE, PE X PE, LENGTH AS REQ'D
  - 4' X 4' LOCKABLE ALUMINUM HATCH, 300 PSF DESIGN LOAD W/ SAFETY GRATING
  - 3' X 2' LOCKABLE ALUMINUM HATCH, 300 PSF DESIGN LOAD W/ SAFETY GRATING
  - 4" MEGA-LUG
  - 18" ALUMINUM LADDER BOLTED TO WALL WITH INTEGRAL SAFETY GRAB BAR EXTENSIONS ON EACH SIDE OF LADDER, BY U.S.F. FABRICATION OR EQUAL
  - S.S. GUIDE BARS - SIZED PER MANUFACT. RECOMMENDATIONS
  - S.S. PIPE CLAMP AND 3/4" S.S. RODS ATTACHED TO S.S. WALL PLATE. ATTACH WALL PLATE TO WET WELL WALL WITH S.S. EXPANSION ANCHORS.
  - CONCRETE THRUST BLOCK
  - 4" X 6" SCH. 10 316L S.S. INCREASER, ECCENTRIC FLANGE.
  - FLYGT SUBMERSIBLE PUMP WITH BASE ELBOW AND 316 S.S. LIFTING CHAIN, TYP. OF 2
  - 6" D.I. 90° BEND, MJ
  - RESERVED
  - 6" D.I. PIPE, FLG X PE, CTSIF
  - 6" D.I. 90° BEND, FLG
  - VALVE LID BOX
  - CONCRETE VALVE PAD/MARKER
  - DOUBLE LINK SEAL AS REQUIRED FOR 4" SS PIPE. CORE OR CAST OPENING IN CONCRETE AS REQUIRED.
  - TAP AND GAUGE ASSEMBLY, SEE DETAIL
  - S.S. 1" FILLER FLANGE (MAY BE OMITTED DURING FINAL ASSEMBLY)
  - 6" X 4" D.I. ECCENTRIC REDUCER, FLG
  - FLANGED X BAUER QUICK RELEASE COUPLING, SIZE AS REQUIRED
  - BAUER COUPLING CAP/COVER
- NOTE: PARTIAL MATERIAL LIST ITEMS 34 THRU 37 ARE RESERVED



**PUMP CRITERIA**

PUMP	FLOW	HEAD
FLYGT NP3171 SH	226 GPM	210' TDH



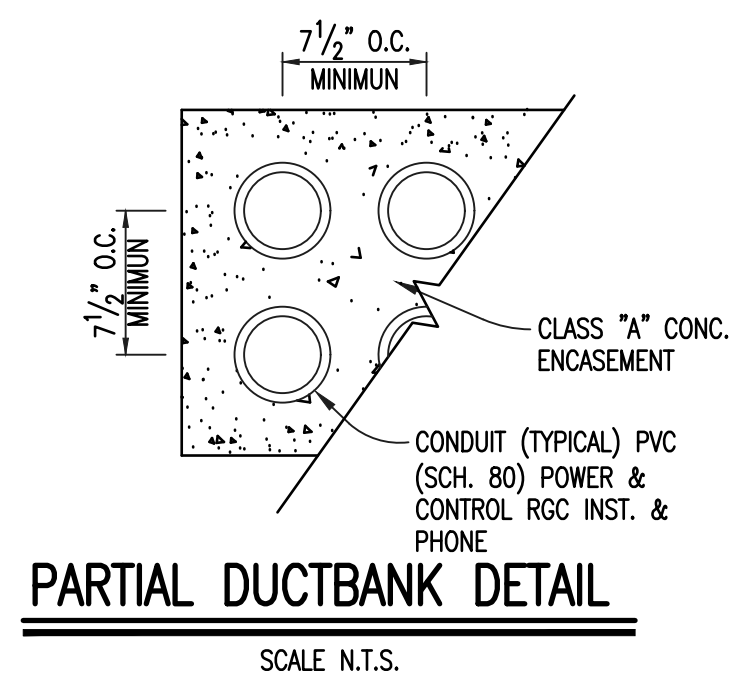
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**GENERAL ELECTRICAL CONTROL INSTRUMENTATION & SCADA REQUIREMENTS**

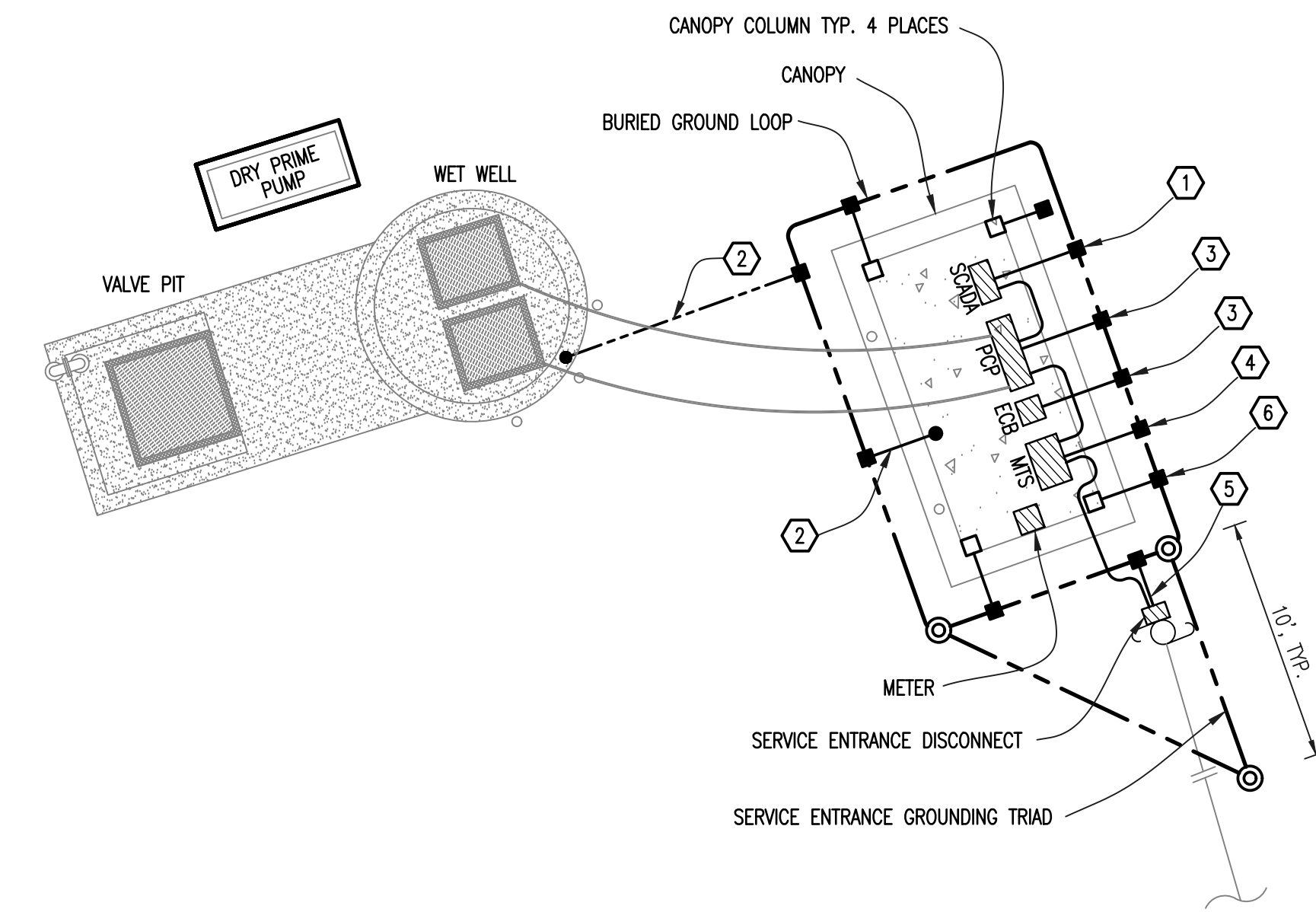
- SAFETY, INCLUDING BUT BY NO MEANS LIMITED TO COORDINATION WITH OTHERS FOR CIRCUITS OR EQUIPMENT THAT IS LIVE OR MAY BECOME LIVE, IS THE RESPONSIBILITY SOLELY OF THE CONTRACTOR. THE OWNER OR THE ENGINEER ARE NOT RESPONSIBLE FOR SAFETY.
- CONTRACTOR SHALL PROVIDE ALL MEANS, METHODS, AND MISCELLANEOUS APPURTENANCES, ETC., AS REQUIRED TO PERFORM AND PROPERLY COMPLETE THE WORK.
- DO ALL WORK IN COMPLIANCE WITH ALL APPLICABLE CODES, LAWS, AND ORDINANCES, THE NATIONAL ELECTRICAL CODE AND THE REGULATIONS OF THE LOCAL UTILITY COMPANIES. OBTAIN AND PAY FOR ANY AND ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATES OF INSPECTIONS AND APPROVAL, AND THE LIKE.
- PROVIDE GROUNDING AS REQUIRED BY CODE.
- INSTALL PULL CORD ("PC") IN EMPTY CONDUITS.
- ALL EXPOSED AND/OR VISIBLE CONDUIT, FITTINGS, WIREWAYS, GUTTERS, APPURTENANCES, ETC. SHALL BE ALUMINUM, EXCEPT LOW VOLTAGE CIRCUITS. CONDUIT BETWEEN PANELS MAY BE SEAL TITE FLEX CONDUIT WHERE NECESSARY.
- ALL HANGERS, UNISTRUT, CABLE TRAYS (WHERE AND IF SHOWN ON DRAWINGS), BRACKETS, ATTACHMENTS, CLAMPS, SCREWS, BOLTS, ANCHOR BOLTS, NUTS, WASHERS, HARDWARE, AND APPURTENANCES, ETC., USED SHALL BE STAINLESS STEEL OR ALUMINUM.
- ALL EXTERIOR DISCONNECT SWITCHES, EXTERIOR SAFETY SWITCHES, EXTERIOR LOCAL OPERATING SWITCHES, AND OTHER EXTERIOR DEVICES SHALL BE IN NEMA 4X STAINLESS STEEL ENCLOSURES, UNLESS OTHERWISE SPECIFICALLY CALLED OUT.
- PROVIDE GFCI RECEPTACLES ON ALL CIRCUITS POWERING RECEPTACLES THAT ARE OUTSIDE (INCLUDING THOSE UNDER SHEDS OR PARTIALLY ENCLOSED AREAS, ETC.), IN WET AREAS, OR IN POTENTIALLY WET AREAS, ETC. ALL SUCH RECEPTACLES SHALL BE WATERPROOF.
- THESE PLANS DO NOT, IN GENERAL, SHOW EXACT LOCATIONS OR CONFIGURATIONS OF CONDUIT ROUTING AND METHODS, INCLUDING THE METHOD OF ACCESSING STRUCTURES. THE CONTRACTOR SHALL PROPOSE TO THE ENGINEER AND OWNER HIS REQUESTED ROUTING (FOR BOTH NEW AND EXISTING STRUCTURES) FOR THEIR APPROVAL OR DENIAL OF APPROVAL. ROUTING WILL HAVE TO BE ADJUSTED IN THE FIELD TO AVOID NEW, PROPOSED, OR EXISTING PIPING, STRUCTURES, AND EQUIPMENT CONFLICTS, ETC.
- COORDINATE ALL WORK WITH INSTRUMENTATION AND SCADA.
- NO CONDUIT OR ELECTRICAL FACILITY OR APPURTENANCE SHALL BE INSTALLED IN A MANNER THAT CREATES A POTENTIAL TRIPPING HAZARD OR AN OBSTRUCTION TO PASSAGE OR HEADROOM, ETC.
- PROVIDE O & M MANUALS ON ALL ELECTRICAL GEAR AND CONTROL PANELS, ETC.
- PROPERLY PROTECT ALL CONDUIT AND WIRING FROM CONCRETE OR OTHER CORROSIVE MATERIALS.
- PROVIDE PERMANENT ENGRAVED LABELS ON ALL PANELS MOUNTED TO PANELS WITH S.S. SCREWS. COORDINATE FINAL WORDING OF LABELS WITH ENGINEER. PROVIDE ADDITIONAL WARNING LABELS ON PANELS OR BOXES OR MCC'S, ETC., WHERE POWER IS FED FROM MORE THAN ONE SOURCE OR WHERE TURNING OFF THE MAIN BREAKER OR SWITCH DOES NOT AUTOMATICALLY KILL ALL POWER INSIDE THE PANEL.
- PROVIDE REMOVABLE SEALANT (UNLESS PERMANENT SEALANT CALLED FOR) AT ALL CONDUIT ENTRY POINTS INTO WET WELLS, SUMPS, CHANNELS, TANKS, CHLORINE ROOMS, PANELS WHERE THE CONDUITS CARRY CIRCUITS THAT CONNECT (EITHER DIRECTLY OR INDIRECTLY) FROM SUCH AREAS AS THOSE JUST LISTED, ETC. TYPICAL.
- ALL SYSTEMS, ASSEMBLIES, AND COMPONENTS SHALL BE UL LISTED.
- KEEP FREE ENDS OF CABLE TIGHTLY CLOSED TO PREVENT THE ENTRANCE OF ANY MOISTURE DURING STORAGE AND AT ALL TIMES WHEN CABLE IS NOT BEING PULLED OFF A REEL, ETC.
- MANUFACTURERS OF ELECTRICAL EQUIPMENT, GEAR, CONTROL PANELS, MCC'S, CONTROLS, STARTERS, ETC., SHALL DESIGN AND SELECT THE PROPER TIMERS AND TIMING RELAYS ETC. REQUIRED TO PROVIDE FOR PROPER OPERATION OF ALL CONTROLLED EQUIPMENT AND MOTORS, ETC. TIME DELAYS ON MOTOR RESTARTS SHALL BE ADJUSTABLE UP TO ONE HOUR. LONGER DELAYS SHALL BE PROVIDED ON LARGER MOTORS OR WHERE THE MOTOR MANUFACTURER RECOMMENDS A LONGER PERIOD. THE CONTRACTOR SHALL PROPERLY ADJUST ALL THE TIMERS AT PROJECT STARTUP TO STAGGER EQUIPMENT STARTS AND TO PREVENT PROBLEMS DURING POWER TRANSFERS.
- THE CONTRACTOR SHALL ADJUST ALL EQUIPMENT, CONTROLS, RELAYS, APPURTENANCES, TIMERS, FLOATS, SETPOINTS, AND ALARMS, ETC., PRIOR TO STARTUP SUCH THAT THEY PROPERLY SERVE THEIR INTENDED PURPOSE AND DO NOT RESULT IN NUISANCE TRIPS OR ALARMS. COORDINATE WITH EQUIPMENT MANUFACTURERS AND PROVIDERS, ENGINEER, AND OWNER. ADJUST AS NECESSARY AFTER STARTUP.
- THE LOCATIONS SHOWN ON THE DRAWINGS FOR PANELS, STARTER, DISCONNECTS, AND ALL OTHER ELECTRICAL EQUIPMENT ARE CONCEPTUAL. TYPICAL FOR ALL EQUIPMENT: ACTUAL EQUIPMENT LAYOUT, SIZE, AND EQUIPMENT CONTROL PANEL LOCATION WILL VARY FROM THAT INDICATED. STUB UP ALL CONDUITS PER FINAL APPROVED SUBMITTAL DRAWINGS. THE CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS FOR ALL EQUIPMENT. THE FINAL LOCATION SHALL BE BASED ON THE DIMENSIONS AND LOCATION OF THE ACTUAL EQUIPMENT FURNISHED AND SHALL PROVIDE THE CLEARANCES REQUIRED BY THE CODE, ETC. ALL GEAR AND PANELS, ETC., MUST FIT IN THE SPACE INDICATED ON THE DRAWINGS AND IN THE SPACE AVAILABLE.
- CONNECT SINGLE PHASE AND OTHER LOADS IN A MANNER TO BALANCE PHASE LOADING ON THE PANELS AND TRANSFORMERS.
- CONTROL DIAGRAMS AND SCHEMATICS CONTAINED IN THESE DRAWINGS ARE PROVIDED FOR CONCEPT ONLY. THESE DRAWINGS SHOW ONLY SOME OF THE REQUIREMENTS OF THE PROJECT. ALL DETAILS AND REQUIRED CONTROLS ARE NOT SHOWN. THE PANEL MANUFACTURER SHALL DESIGN THE PANELS AND PROVIDE ADDITIONAL RELAYS, SWITCHES, TIME DELAY RELAYS, AND OTHER COMPONENTS AND CIRCUITRY AS REQUIRED. COORDINATE WITH THE MANUFACTURERS OF ALL CONNECTING OR CONTROLLED EQUIPMENT FOR REQUIRED COMPONENTS. AS A MINIMUM, COORDINATE WITH MOTOR AND EQUIPMENT MANUFACTURERS, SCADA MANUFACTURER, VALVE MANUFACTURER, AND MANUFACTURERS OF INSTRUMENTATION ASSOCIATED WITH EQUIPMENT. THESE DRAWINGS AND THE SPECIFICATIONS SHALL BE USED BY THE STARTER MANUFACTURER TO DESIGN THE CONTROL DIAGRAMS AND WIRING, ETC. THE PANEL MANUFACTURER IS RESPONSIBLE FOR THE DETAILED DESIGN OF THE CONTROL SYSTEMS.
- CONTRACTOR SHALL VERIFY APCO SERVICE'S AVAILABLE FAULT CURRENT WITH APCO PRIOR TO MANUFACTURING PANELS AND INCREASE KAIC RATING(S) AS REQUIRED.



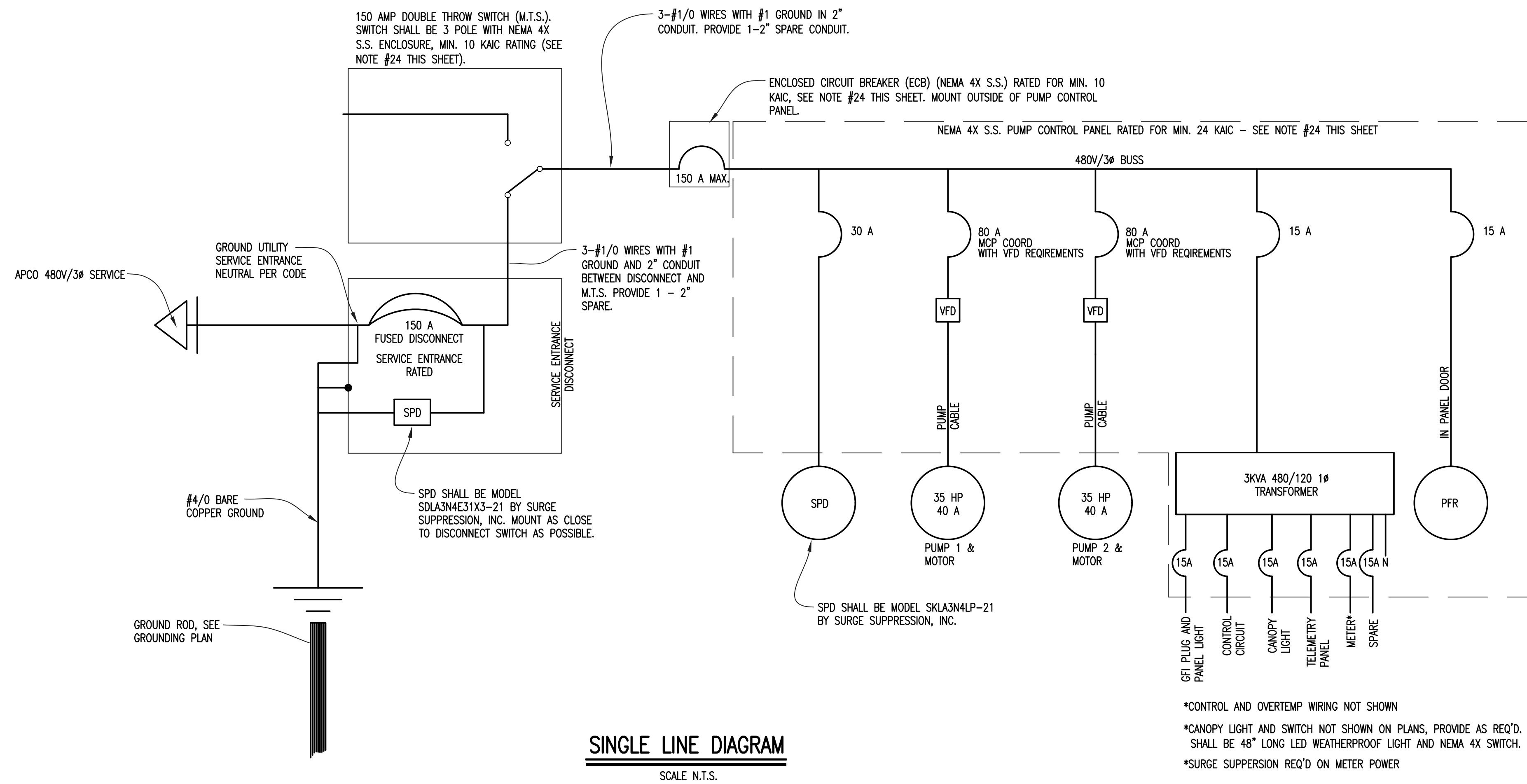
- SEE PLANS FOR NUMBER OF CONDUITS IN DUCTBANKS.
- ALL BURIED CONDUIT SHALL BE CONCRETE ENCASED AND MARKED WITH BURIED MARKER TAPE.

GROUNDING SYSTEM LEGEND	
⊙	GROUND ROD - 3/4" x 10'-0" COPPER CLAD.
■	GROUND CONNECTION - CADWELD WHERE BELOW GRADE OR CONCEALED - TWO BOLT LUG BOLTED WHERE EXPOSED.
①	4/0 BARE COPPER GROUND WIRE - BOND TO SCADA PANEL.
②	4/0 BARE COPPER GROUND WIRE - BOND TO STRUCTURAL STEEL OR REBAR.
③	4/0 BARE COPPER GROUND WIRE - BOND TO PANEL, MOTOR, OR EQUIPMENT FRAME.
④	4/0 BARE COPPER GROUND WIRE - BOND TO MTS.
⑤	4/0 BARE COPPER GROUND WIRE - BOND TO MAIN SERVICE ENTRANCE.
⑥	1/0 BARE COPPER GROUND WIRE - TO HANDRAIL OR H.R. COLUMN, AWNING COLUMN, HATCH, LIGHT POLE & FIXTURE, ETC.

ELECTRICAL GROUNDING NOTES	
1.	ALL GROUND WIRES SHALL BE INSTALLED A MINIMUM OF 24" BELOW FINAL GRADE & 3'-0" MINIMUM FROM STRUCTURES WHERE POSSIBLE.
2.	ALL GROUND WIRES FROM FINAL GRADE TO FINAL TERMINATION POINTS SHALL BE ROUTED IN NEW STRUCTURAL REINFORCED CONCRETE POUR UNLESS APPROVED OTHERWISE BY THE ENGINEER (PRIOR TO THE CONCRETE POUR).
3.	GROUND WIRES THAT ARE EXPOSED (NEAR FINAL TERMINATION) SHALL BE NEATLY ROUTED AND SHALL NOT POSE TRIPPING HAZARDS OR INTERFERE WITH DAILY OPERATIONS OR MAINTENANCE.
4.	GROUND WIRE PATHS ALONG EXISTING CONCRETE (I.E. MUST BE EXPOSED, SEE NOTE #3) MAY REQUIRE CORE DRILLED PATHS THROUGH EXISTING CONCRETE (WALLS, ELEVATED CANTILEVERED SLABS, ETC.).



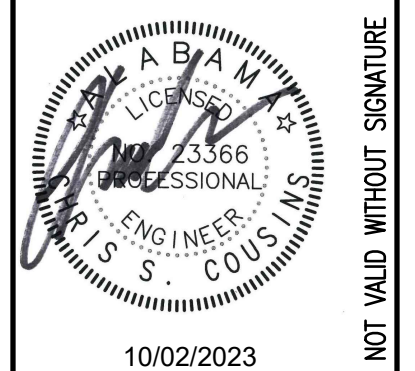
**GROUNDING PLAN**  
SCALE N.T.S.



**SINGLE LINE DIAGRAM**  
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200 Cahaba Park South, Suite 212  
Birmingham, Alabama 35226  
(205) 822-0387

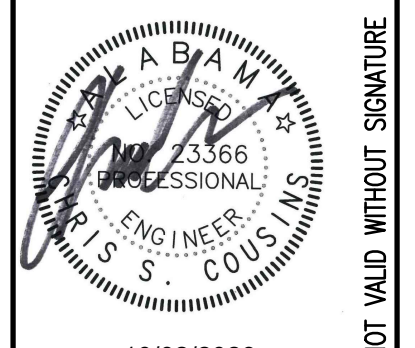
**THE CITY OF ALEXANDER CITY**  
MULTI AGENCY WASTEWATER SOLUTION  
PROJECT "B" HIGHWAY 128 SEWER FORCE MAIN  
BID #24-03 (SRF PROJECT CS-010329-05)  
2023



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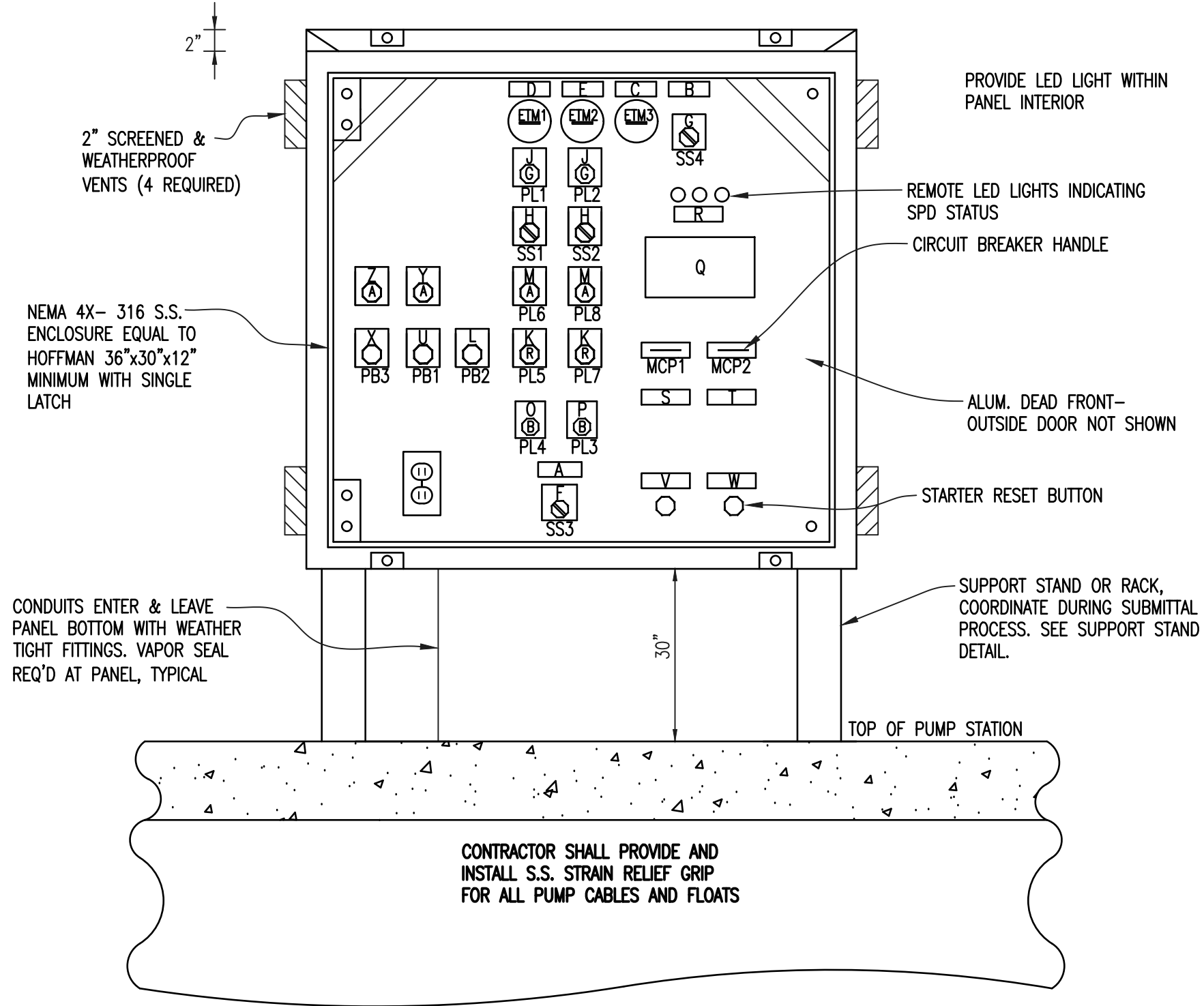
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\*CONTROL AND OVERTEMP WIRING NOT SHOWN  
\*CANOPY LIGHT AND SWITCH NOT SHOWN ON PLANS, PROVIDE AS REQ'D. LIGHT SHALL BE 48" LONG LED WEATHERPROOF LIGHT AND NEMA 4X SWITCH.  
\*SURGE SUPPRESSION REQ'D ON METER POWER

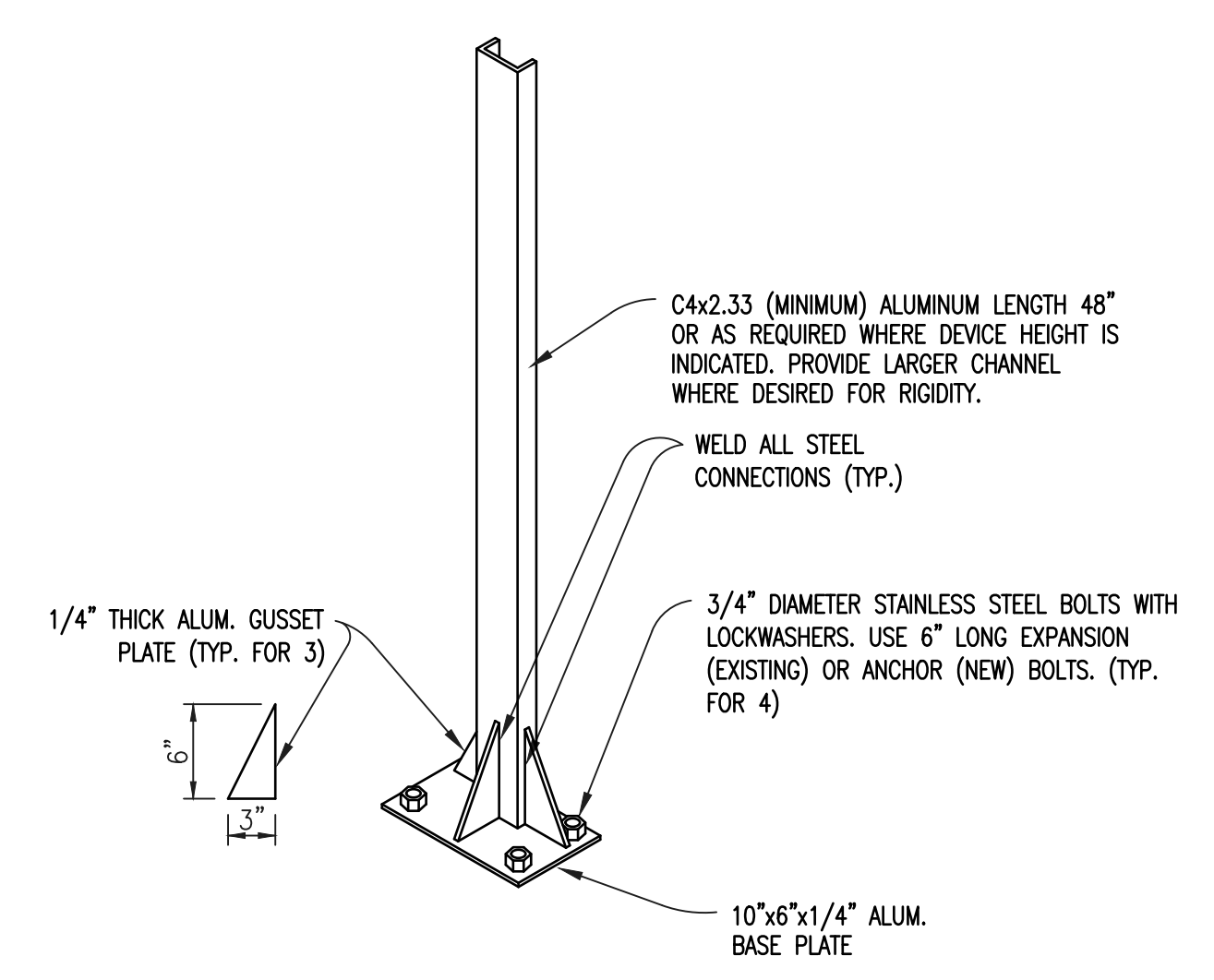


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**TYPICAL PUMP CONTROL PANEL**  
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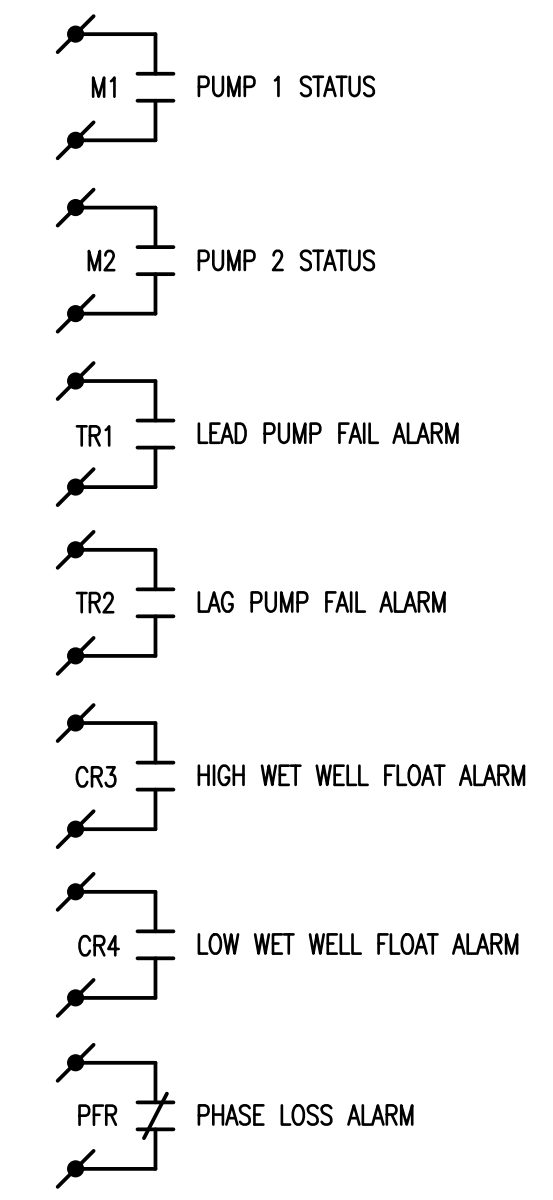


**SUPPORT STAND DETAIL**  
 SCALE N.T.S.

- NOTE:
1. DETAIL FOR LOCAL OPERATOR STATIONS, FLOWMETERS, SMALL DISCONNECT SWITCHES, AND OTHER SIMILAR SMALL DEVICES.
  2. PROVIDE DUAL SUPPORT STANDS WITH FRAME FOR INSTRUMENTS WHERE LARGER PANELS OR TWO OR MORE DEVICES OR COMPONENTS ARE MOUNTED AT A SINGLE LOCATION, OR WHERE DESIRED FOR RIGIDITY.
  3. COORDINATE AND INSTALL CONDUITS AND STANDS, ETC., SUCH THAT NO POTENTIAL TRIPPING HAZARD IS CREATED.
  4. NEATLY GRIND SHARP EDGES AND CORNERS OF STANDS AND FRAMES, ETC.
  5. PROVIDE ADDITIONAL SUPPORT OR BRACING WHERE NEEDED FOR RIGIDITY. INSTALL IN A MANNER SUCH THAT NO POTENTIAL TRIPPING HAZARD IS CREATED.

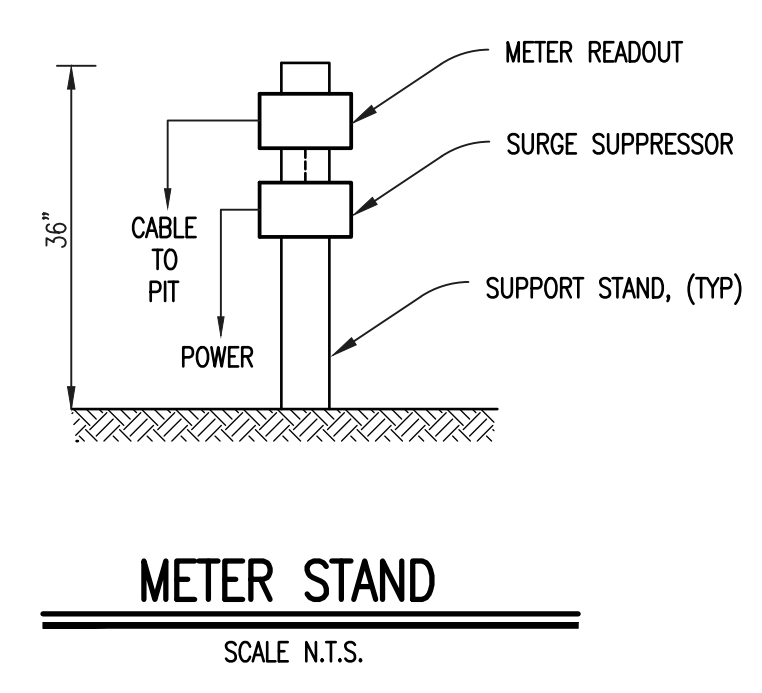
ENGRAVING SCHEDULE	
ID NO.	WORDING
A	LEAD PUMP
B	PFR
C	PUMP 1 AND PUMP 2
D	PUMP NO.1
E	PUMP NO.2
F	NO. 1 - ALT - NO. 2
G	NORMAL
H	EMERGENCY BYPASS
J	HAND/OFF/AUTO
K	RUNNING
L	OVERTEMP
M	OVERTEMP RESET
N	SEAL FAILURE
O	LEAD PUMP CALLED
P	LAG PUMP CALLED
Q	WARNING-WHEN SELECTOR SWITCHES IN HAND POSITION. ALL PROTECTIVE DEVICES EXCEPT BREAKERS AND HEATERS ARE BYPASSED. DO NOT OPERATE IN HAND POSITION WITH STATION UNATTENDED.
R	MAIN SURGE PROTECTOR
S	PUMP NO. 1 BREAKER
T	PUMP NO. 2 BREAKER
U	HIGH LEVEL ALARM RESET
V	PUMP NO. 1 OVERLOAD RESET
W	PUMP NO. 2 OVERLOAD RESET
X	LOW LEVEL ALARM RESET
Y	HIGH WATER LEVEL ALARM
Z	LOW WATER LEVEL ALARM

- ADDITIONAL CONTROL PANEL NOTES:
1. CONTROL LOGIC SHALL BE SIMPLE RELAY LOGIC, A PROGRAMMABLE CONTROLLER/RELAY IS NOT ALLOWED.
  2. PANEL COMBINATION HEATER/FAN AND DEDICATED CIRCUIT BREAKER IS NOT SHOWN, PROVIDE AS REQUIRED.
  3. ALL LIGHTS SHALL BE INDIVIDUAL LED PUSH TO TEST LIGHTS.
  4. ALL POWER WIRING SHALL BE BLACK, ALL CONTROL WIRING SHALL BE RED, NO POWER WIRING LESS THAN #12 GA.
  5. ALL PANELS SHALL BE PAD-LOCKABLE.

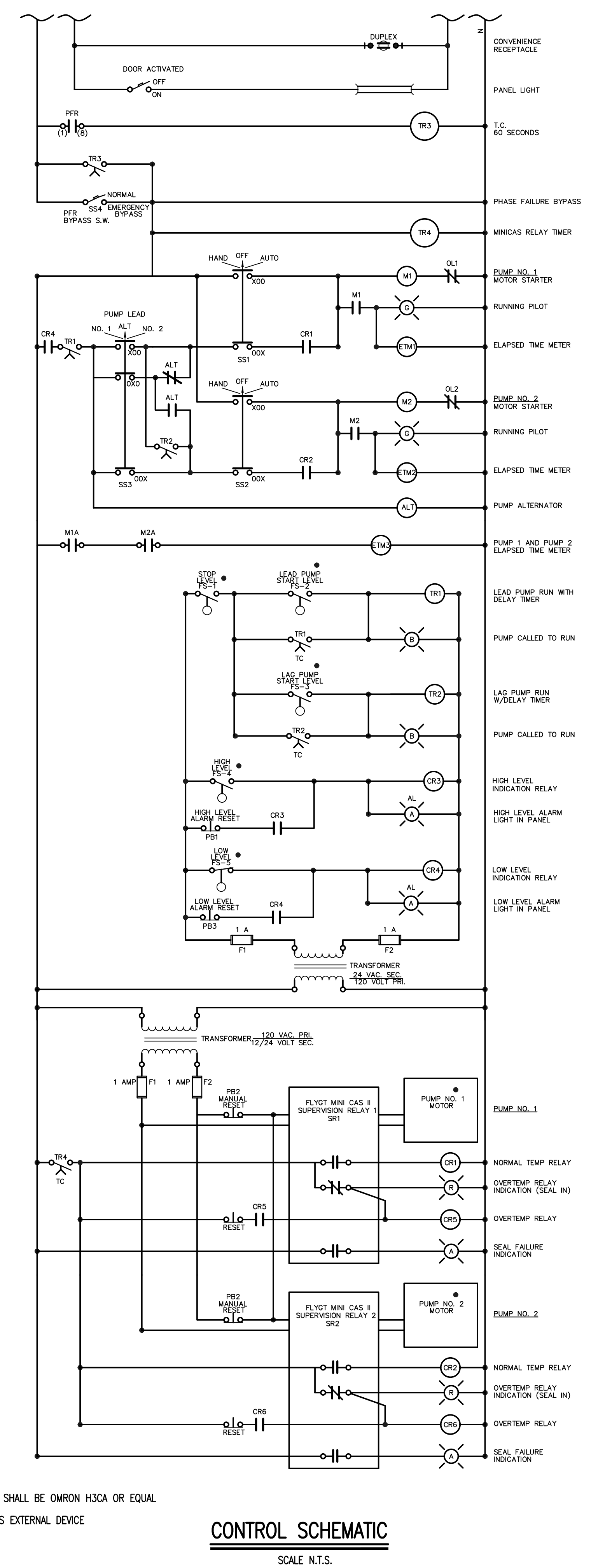


**SCADA CONTACTS**

NOTE: SCADA PANEL SHALL BE MANUFACTURED BY HIGH TIDE TECHNOLOGIES - 435 METROPLEX DR. NASHVILLE TN 37211 (615) 903-0362. PANEL SHALL BE UL LISTED, NEMA 4X S.S. WITH SINGLE LATCH (I.E. NO DOOR CLIPS). PANEL BACKPLANE SHALL BE MODEL D-RTU, GEN IV WITH 8 DIGITAL INPUTS, 8 DIGITAL OUTPUTS, 8 ANALOG INPUTS, 1 ANALOG OUTPUT, 4 COUNTER INPUTS, AND 2 COMM PORTS. PANEL SHALL BE EQUIPPED WITH BACK UP BATTERY POWER AND ALL OTHER COMPONENTS NECESSARY COMMUNICATE TROUBLE-FREE WITH THE CITY'S EXISTING SCADA SYSTEM. DFA SHALL PROVIDE ALL PROGRAMMING REQUIRED TO INCORPORATE THE ADDITIONAL LIFT STATION ONTO THE CITY'S SCADA SYSTEM SEAMLESSLY.

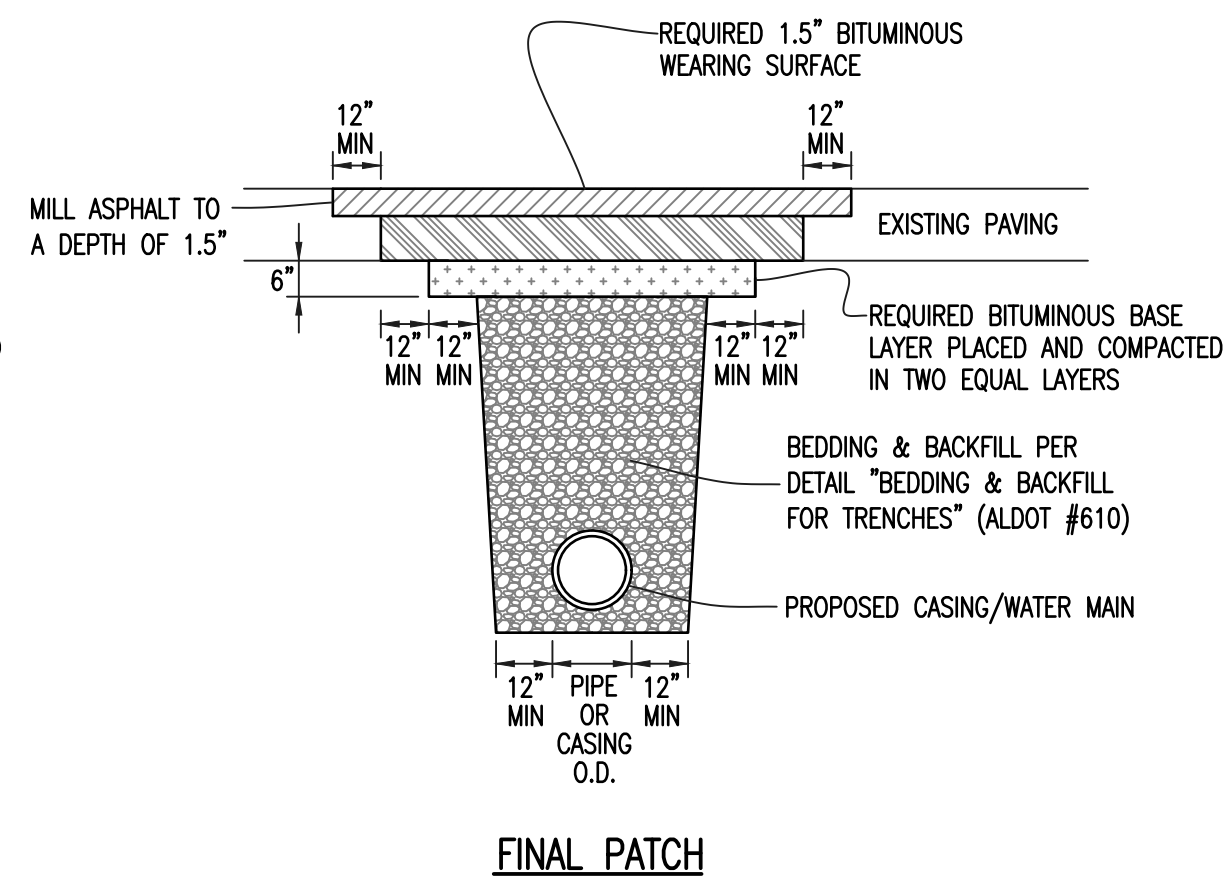
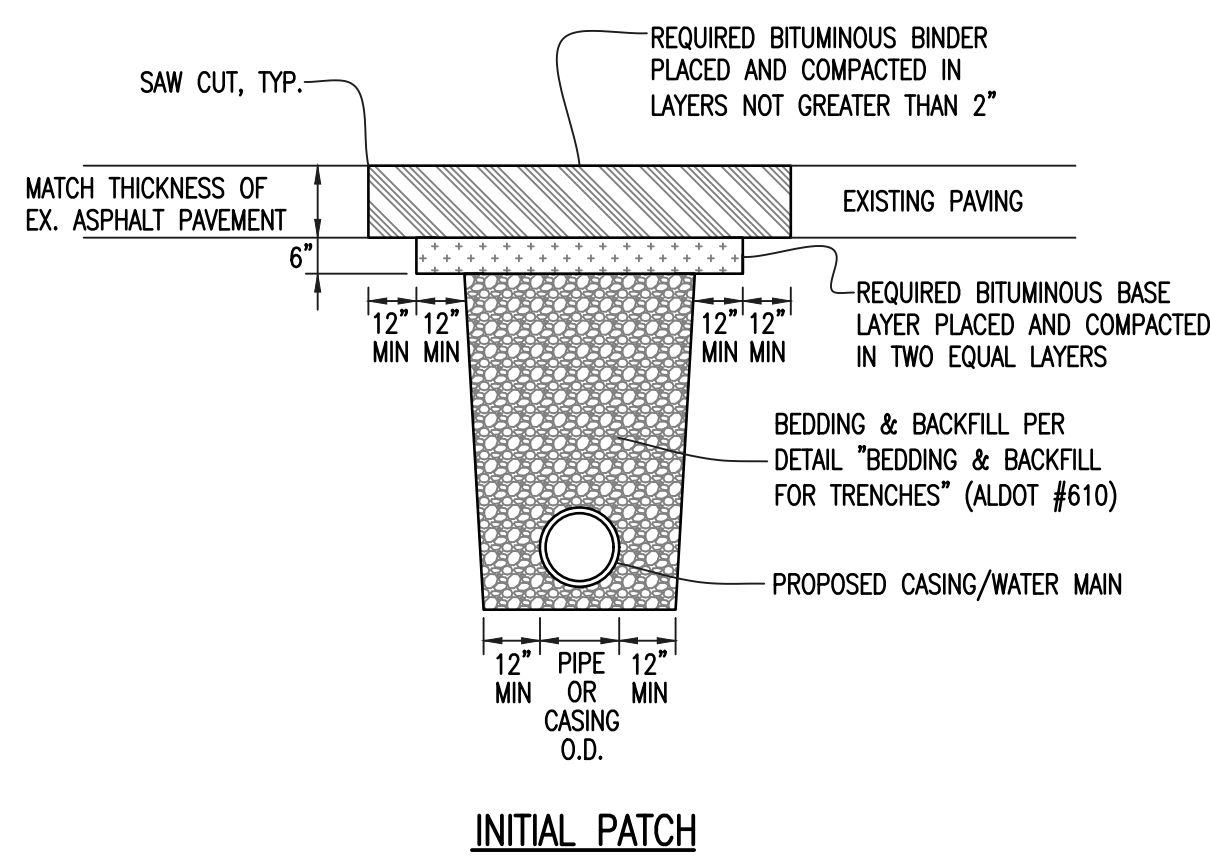


**METER STAND**  
 SCALE N.T.S.



NOTE: TIMERS SHALL BE OMRON H3CA OR EQUAL  
 • REPRESENTS EXTERNAL DEVICE

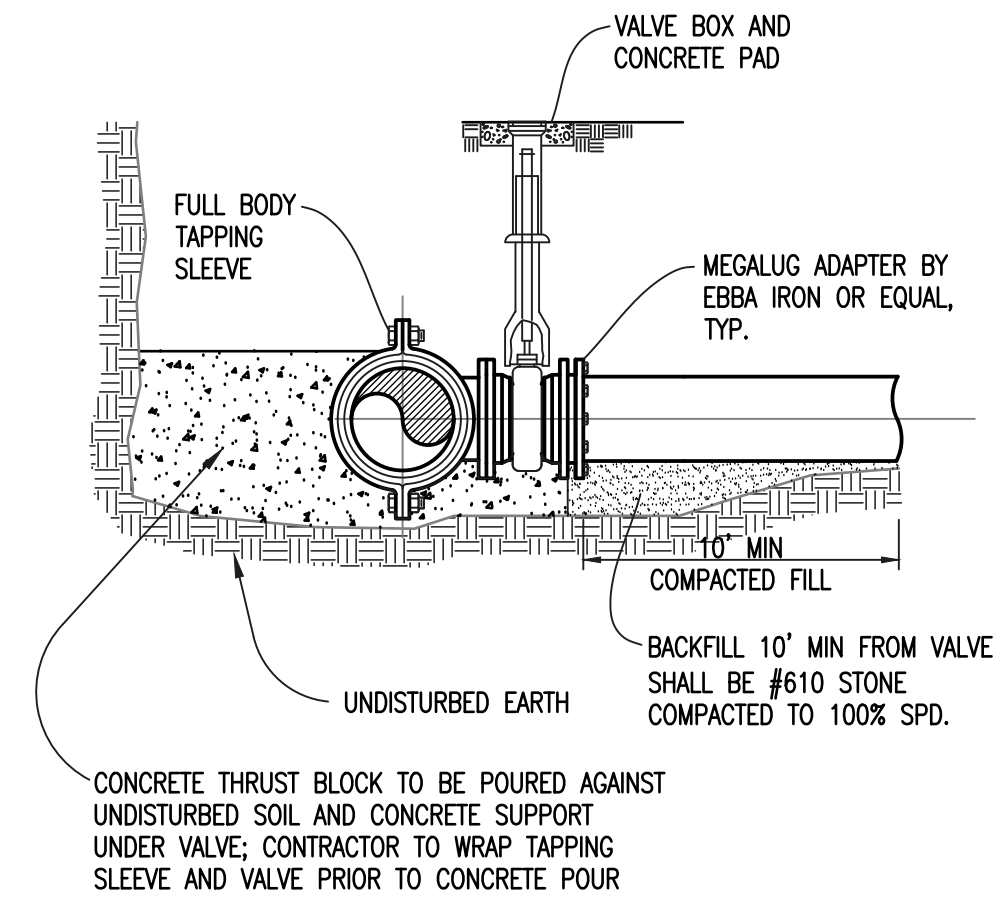
**CONTROL SCHEMATIC**  
 SCALE N.T.S.



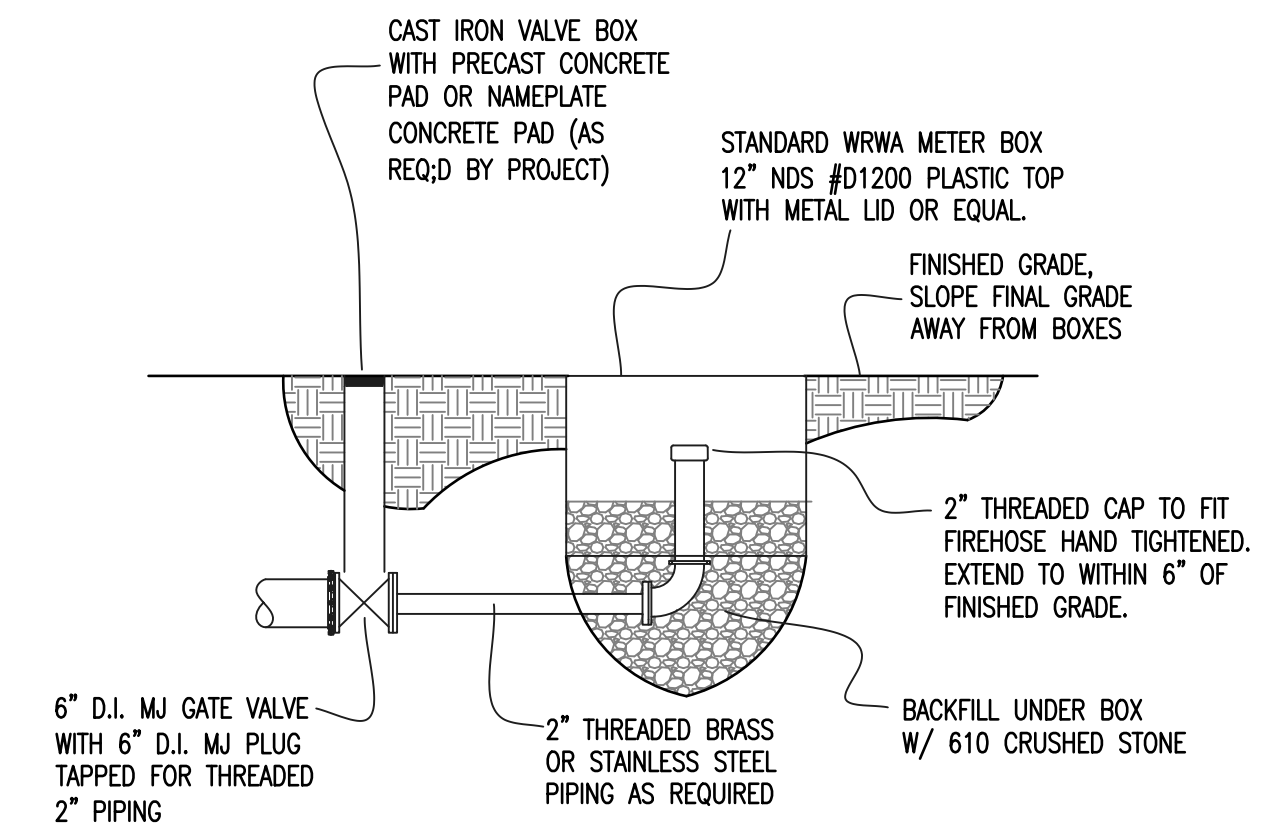
**TYP. ROAD CROSSING BY OPEN CUT DETAIL**  
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**NOTES:**

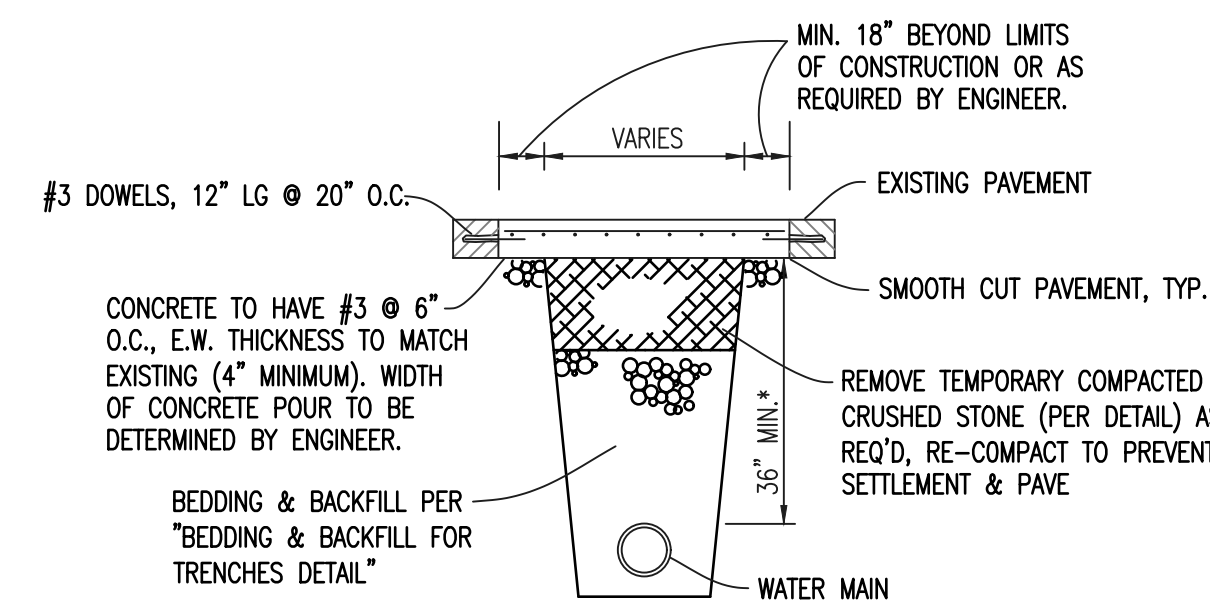
1. TRAFFIC CONTROL SHALL BE REQUIRED FOR THE DURATION OF PROJECT, WITH SIGNS FURNISHED AS REQUIRED BY THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES - PART VI, THE ALDOT AND THE COUNTY. ONLY ONE LANE AT A TIME MAY BE CLOSED. ROAD PLATES SHALL BE USED ONLY IF ALLOWED BY ALEXANDER CITY. AT THE COMPLETION OF WORK EACH DAY, THE TRENCH SHALL BE BACKFILLED WITH 610 STONE LEVEL WITH THE ROAD AND ROAD PUT BACK INTO SERVICE UNLESS A DETOUR PLAN IS ALLOWED FOR THE CROSSING. CONTRACTOR SHALL PROVIDE PYLONS, LIGHTS, FLAGMEN, SIGNAGE, DETOURS, ESCORT TRUCK(S), ETC. AS REQUIRED. COORDINATE WITH OWNER AS REQUIRED.
2. CONTRACTOR SHALL MAINTAIN SAFE PUBLIC ACCESS FOR ROADS/DRIVEWAYS AT ALL TIMES. ONCE WORK WITHIN A ROADWAY IS INITIATED, CONTRACTOR SHALL WORK EXPEDITIOUSLY UNTIL ALL WORK IS COMPLETED. CONTRACTOR SHALL WAIT UNTIL OWNER APPROVES (30 DAYS MIN.) AFTER INSTALLATION OF INITIAL PATCH BEFORE MILLING AND INSTALLING FINAL WEARING SURFACE.
3. WHEN RETURNING TO PERFORM FINAL PAVING, CONTRACTOR SHALL MILL TEMPORARY PATCH AS REQUIRED TO FULL EXTENTS OF FINAL PAVING AREA AS DETERMINED BY THE ENGINEER (SEE PLANS). FULL PAYMENT FOR ALL WORK (BACKFILL, TEMPORARY PATCHING, MILLING, FINAL PAVING) WILL BE PAID BASED ON FINAL PAVED AREA ONLY OR SHALL BE INCLUDED IN LUMP SUM, AS APPLICABLE.
4. ALL COMPACTIONS SHALL BE IN ACCORDANCE WITH COUNTY SPECIFICATIONS.



**TAPPING SLEEVE AND VALVE DETAIL**  
SCALE: N.T.S.



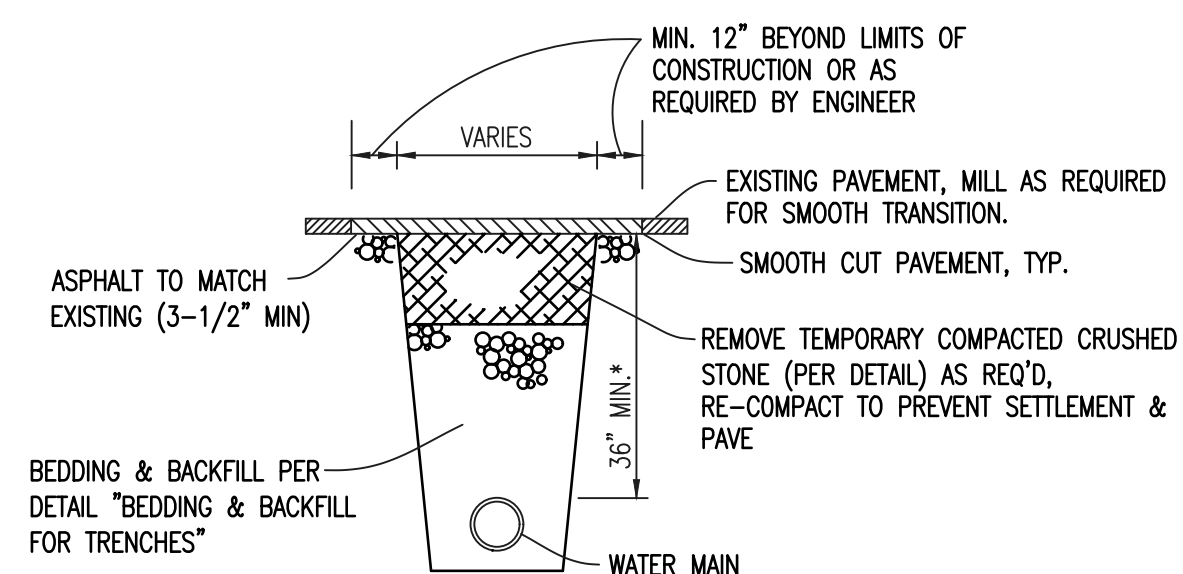
**2" FLUSHING ASSEMBLY**  
SCALE N.T.S.



**CONCRETE PAVED AREAS AND DRIVEWAYS**

**NOTES:**

1. CONTRACTOR SHALL MAINTAIN SAFE PUBLIC ACCESS FOR ROADS/DRIVEWAYS AT ALL TIMES. TEMPORARY COMPACTED 610 BACKFILL REQUIRED UNTIL FINAL DRIVEWAY REPAIRS ARE INSTALLED. WORK SCHEDULE SHALL BE COORDINATED WITH AND APPROVED BY OWNER AND ENGINEER.
2. WHEN REPAVING DRIVEWAYS, NEW PAVING SHALL BE COMPLETED FROM THE ROAD TO 12-18" BEYOND THE BACKSIDE CUT FOR THE PIPE TRENCH, INCLUDING ANY DRIVEWAY APRONS.

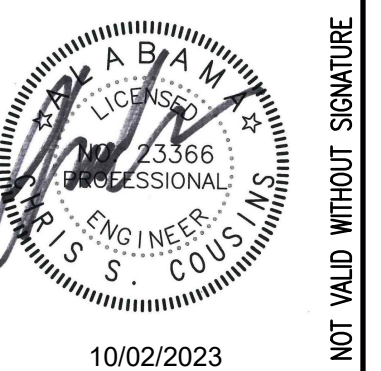


**ASPHALT PAVED AREAS AND DRIVEWAYS**

**TYP. DRIVEWAY CROSSING BY OPEN CUT DETAIL**  
SCALE: N.T.S.

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**THE CITY OF ALEXANDER CITY**  
MULTI AGENCY WASTEWATER SOLUTION  
PROJECT "B" HIGHWAY 128 SEWER FORCE MAIN  
BID #24-03 (SRF PROJECT CS-010329-05)  
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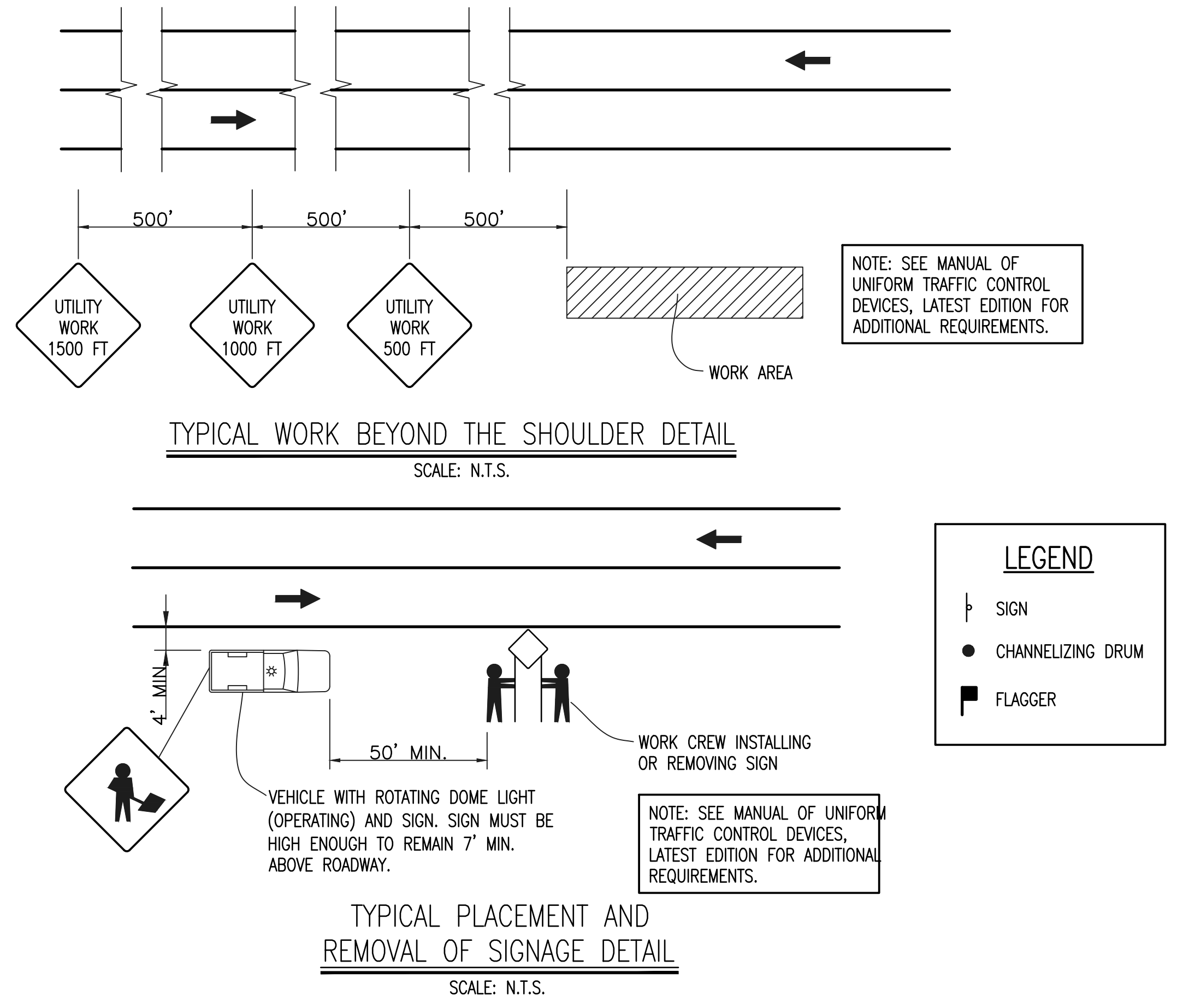
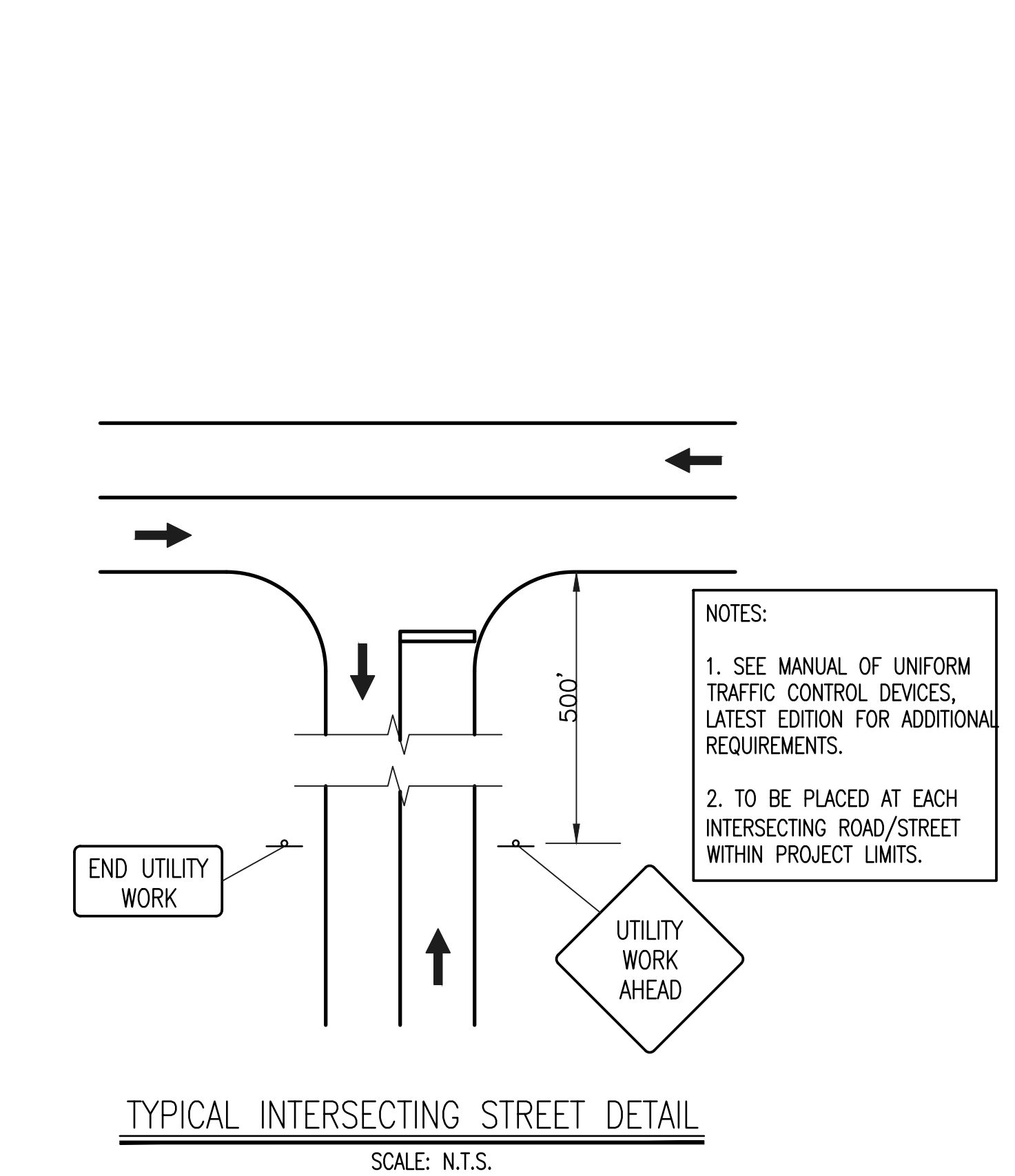
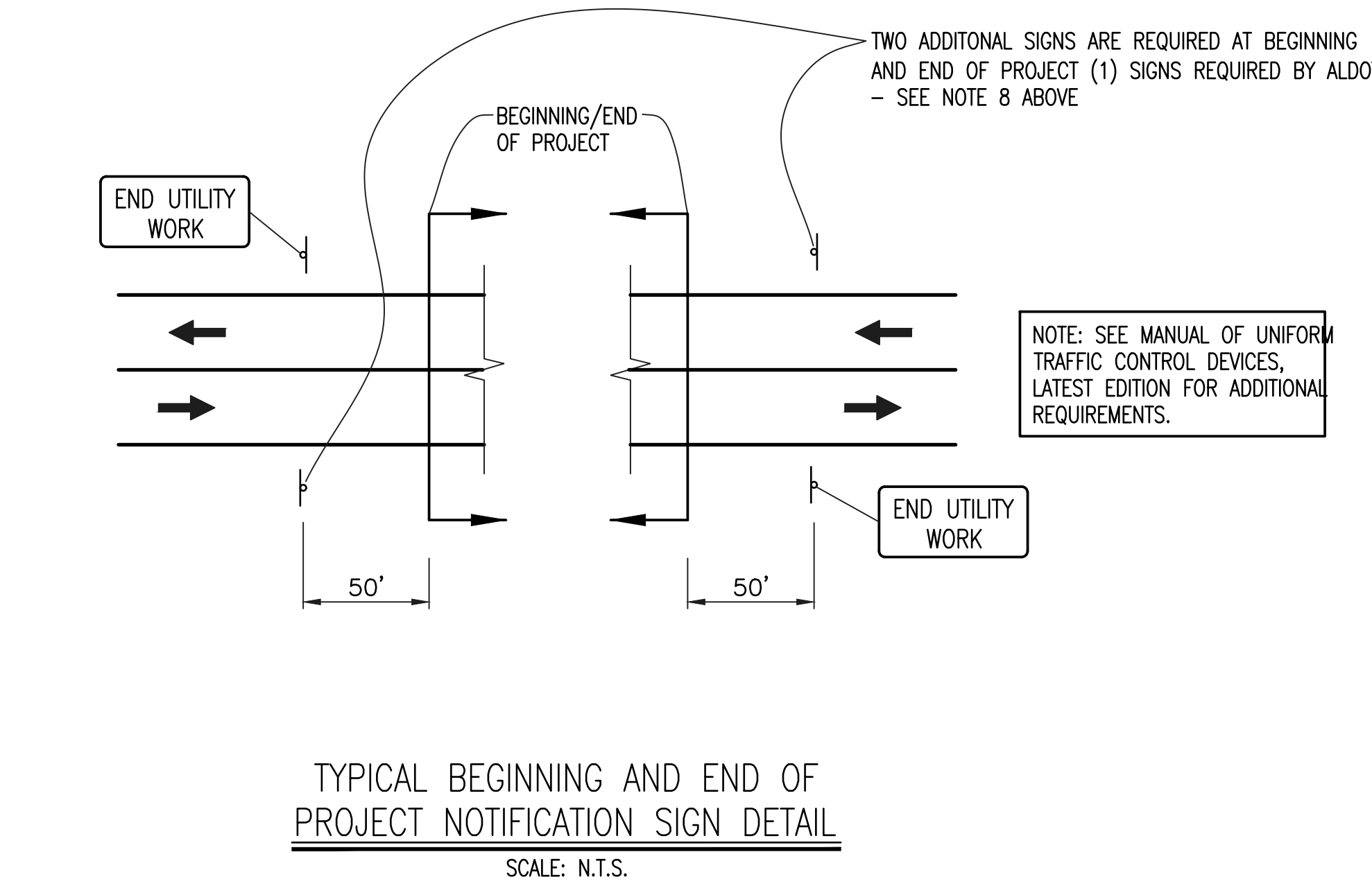
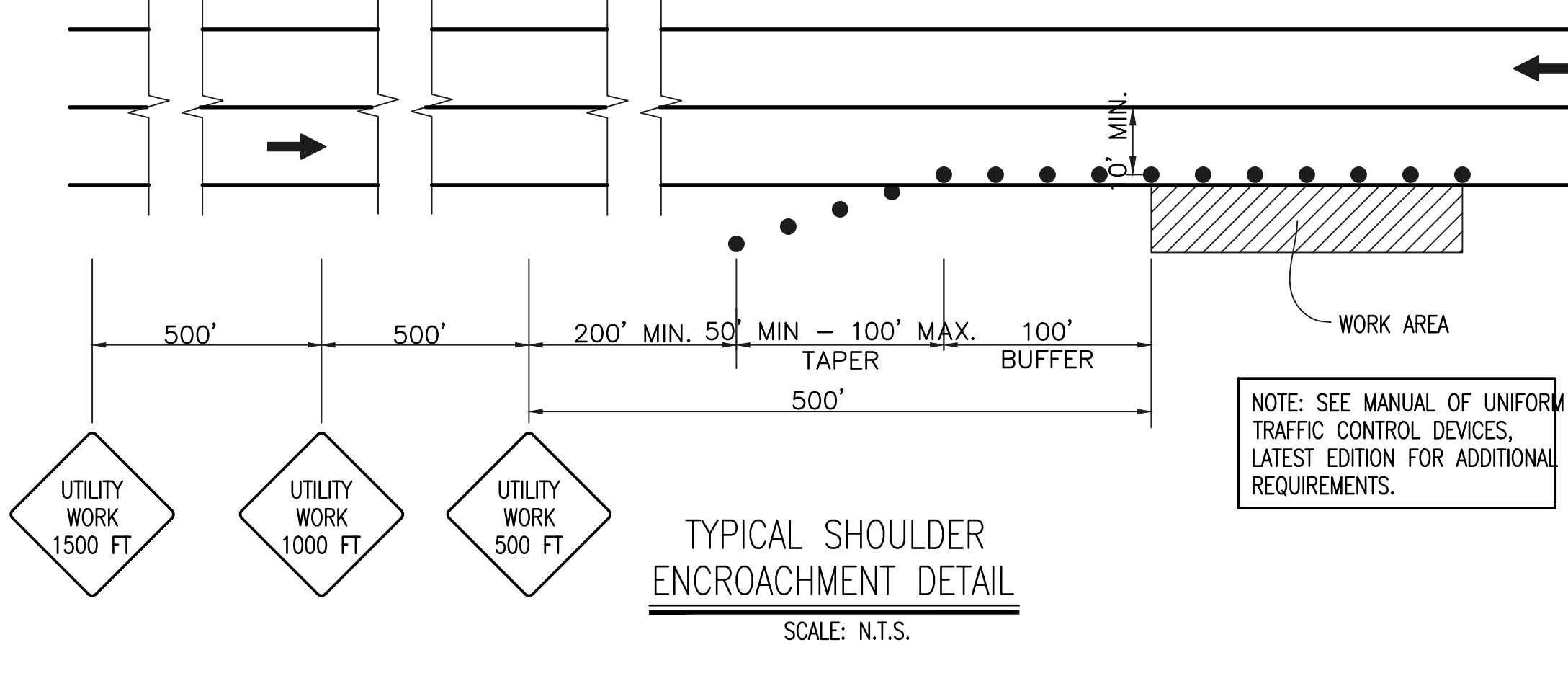
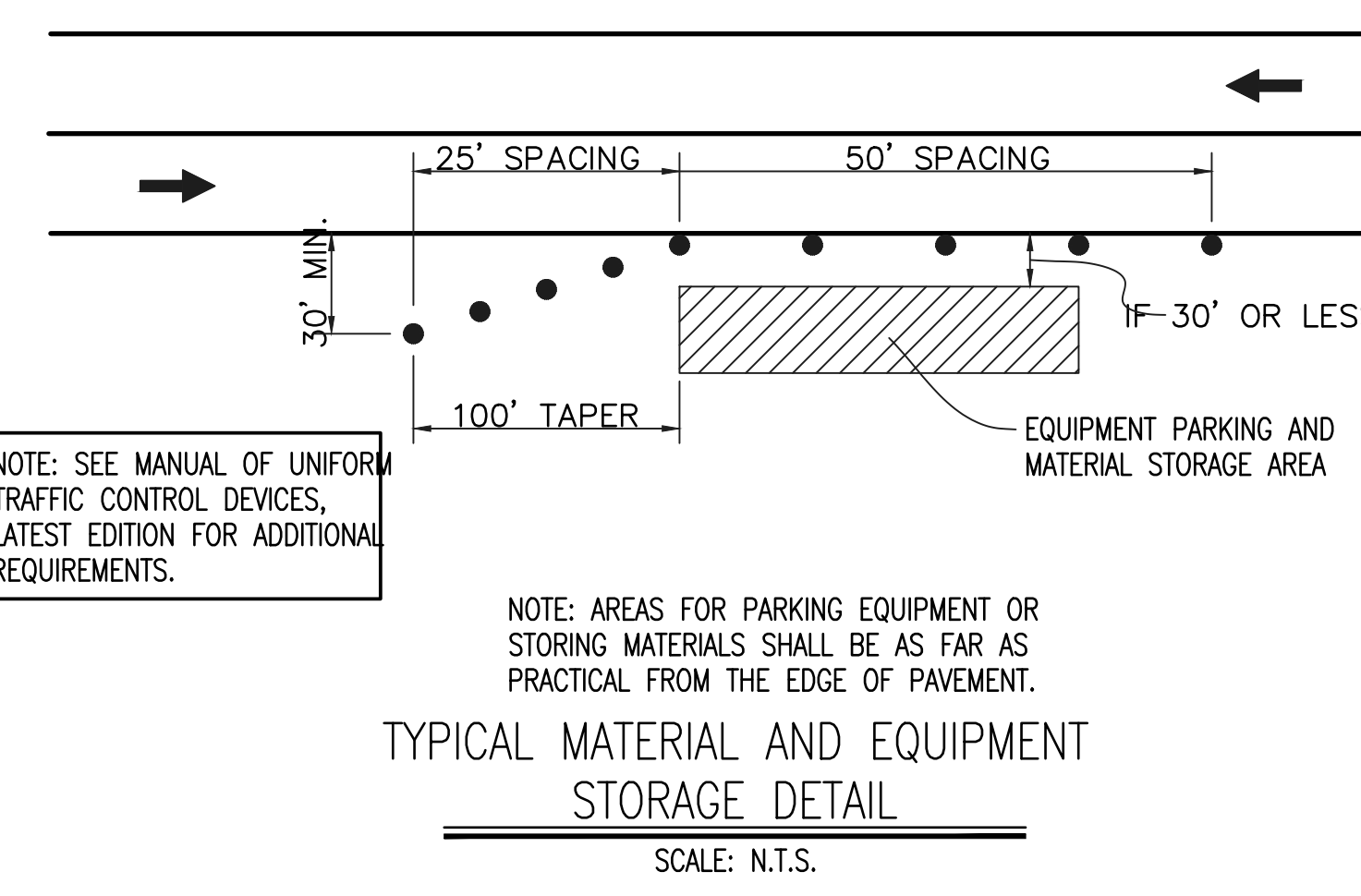
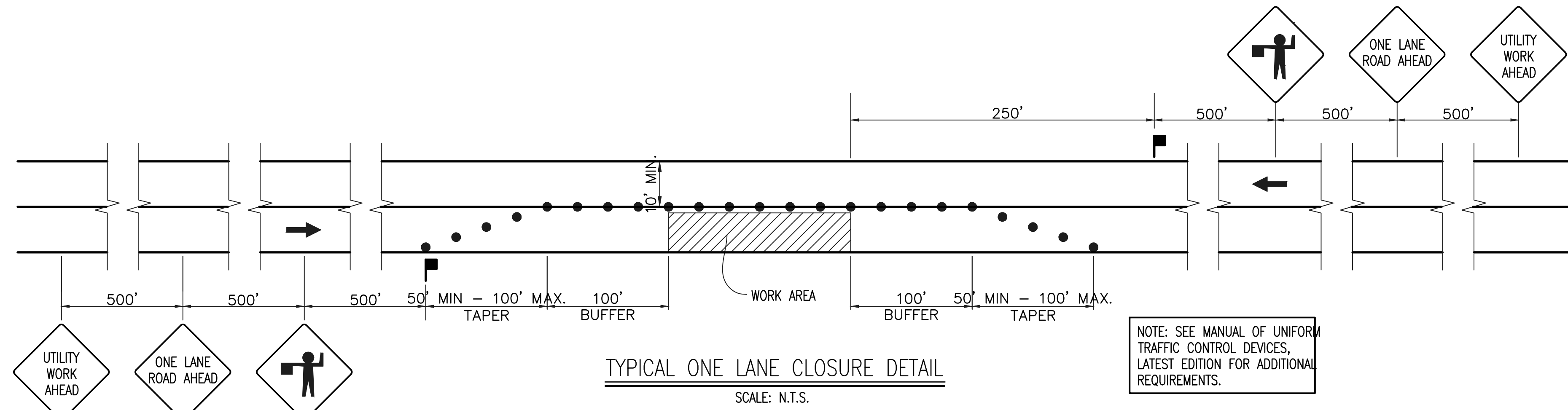
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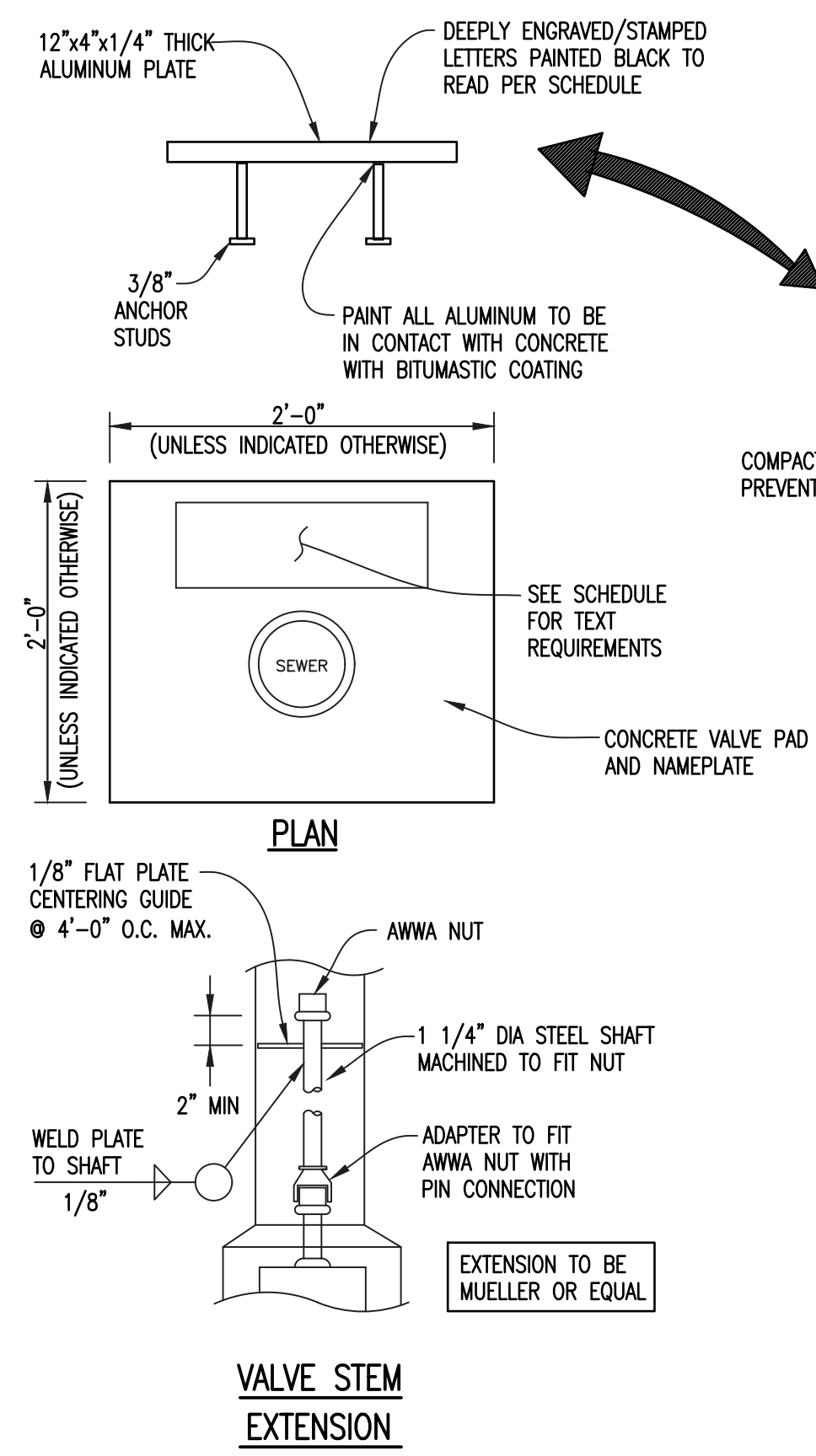
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**TRAFFIC CONTROL NOTES:**

1. NO ONE SET OF TEMPORARY TRAFFIC CONTROL (TTC) DEVICES CAN SATISFY ALL CONDITIONS FOR A GIVEN PROJECT OR INCIDENT. AT THE SAME TIME, DEFINING DETAILS THAT WOULD BE ADEQUATE TO COVER ALL APPLICATIONS IS NOT PRACTICAL. INSTEAD, THESE DETAILS DISPLAY TYPICAL APPLICATIONS THAT DEPICT COMMON APPLICATIONS OF TTC DEVICES. THE TTC SELECTED FOR EACH SITUATION DEPENDS ON MANY FACTORS SUCH AS: THE TYPE OF HIGHWAY, ROAD USER CONDITIONS, DURATION OF OPERATION, PHYSICAL CONSTRAINTS, THE NEARNESS OF THE WORK SPACE OR INCIDENT MANAGEMENT ACTIVITY TO ROAD USERS, ETC. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR PLANNING AND COORDINATING ALL TRAFFIC CONTROL DETAILS AND THEIR SUCCESSFUL IMPLEMENTATION IN ACCORDANCE WITH THE ALDOT REQUIREMENTS AND THE MOST CURRENT EDITION OF PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS A MINIMUM.
2. THE CONTRACTOR SHALL PREPARE HIS OWN SPECIFIC DETAILED TTC PLAN, PREPARED BY PERSON(S) TRAINED AND CERTIFIED IN PROPER TTC PRACTICES AND PRINCIPLES. PLAN SHALL HAVE DETAILS OF PLANNED WORK AND TTC MEASURES TO BE EMPLOYED BASED ON THE CONTRACTOR'S PLANNED MEANS AND METHODS OF CONSTRUCTION. THE CONTRACTOR'S PLAN SHALL BE SUBMITTED TO THE ALDOT FOR REVIEW AND APPROVAL BEFORE BEGINNING ANY WORK ON THE PROJECT. ANY CHANGES IN THE FINAL APPROVED TTC PLAN SHOULD BE APPROVED BY THE ALDOT.
3. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR SAFETY. THE ENGINEER IS NOT RESPONSIBLE FOR SAFETY. THE CONTRACTOR SHALL CONTINUOUSLY UTILIZE SAFETY PRACTICES THAT MAY BE NEEDED FOR FULL PROTECTION OF ALL PERSONS INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION PERSONNEL, THE OWNER'S PERSONNEL, FIELD ENGINEERS, INSPECTORS, THE GENERAL PUBLIC, ETC.
4. ALL WORKERS SHOULD BE TRAINED ON HOW TO WORK NEXT TO MOTOR VEHICLE TRAFFIC IN A WAY THAT MINIMIZES THEIR VULNERABILITY. WORKERS HAVING SPECIFIC TTC RESPONSIBILITIES SHOULD BE TRAINED IN TTC TECHNIQUES, DEVICE USAGE, PLACEMENT, ETC.
5. TO PROVIDE ACCEPTABLE LEVELS OF OPERATIONS, ROUTINE DAY AND NIGHT INSPECTIONS OF TTC ELEMENTS SHOULD BE PERFORMED BY THE CONTRACTOR. INDIVIDUALS THE CONTRACTOR EMPLOYS FOR TTC SHOULD BE KNOWLEDGEABLE (FOR EXAMPLE, TRAINED AND/OR CERTIFIED) IN THE PRINCIPLES OF PROPER TTC AND SHOULD BE ASSIGNED RESPONSIBILITY FOR SAFETY IN TTC ZONES. THESE INDIVIDUALS SHOULD CHECK THAT ALL TTC DEVICES OF THE PROJECT ARE CONSISTENT WITH THE TTC PLAN; ARE EFFECTIVE FOR MOTORISTS, BICYCLISTS, PEDESTRIANS, AND WORKERS; MEET ALDOT REQUIREMENTS; CONDUCT HAZARD ASSESSMENTS; DETERMINE WHETHER ENGINEERING, ADMINISTRATIVE, OR PERSONAL PROTECTION MEASURES SHOULD BE IMPLEMENTED; ENSURE CONFORMANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AS A MINIMUM; ENSURE CONFORMANCE WITH OSHA REQUIREMENTS; ETC.
6. SPECIAL PLANS PREPARATION AND COORDINATION WITH HIGHWAY AGENCIES, LAW ENFORCEMENT AND OTHER EMERGENCY UNITS, UTILITIES, SCHOOLS, TRUCKING COMPANIES, INDUSTRIES, OSHA, ETC. MIGHT BE NEEDED TO REDUCE UNEXPECTED AND UNUSUAL ROAD USER OPERATION SITUATIONS.
7. ALL PERSONS WHO ARE EXPOSED EITHER TO TRAFFIC OR WORK VEHICLES AND CONSTRUCTION EQUIPMENT WITHIN THE TTC ZONE SHALL WEAR HIGH VISIBILITY SAFETY APPAREL AS SPECIFIED BY THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AS A MINIMUM.
8. PROJECT NOTIFICATION SIGNS ARE REQUIRED AT EACH END OF THE SITE, STATING THE SPONSOR, TYPE OF CONSTRUCTION, START DATE, AND DURATION, PLACED A MINIMUM OF ONE WEEK IN ADVANCE OF COMMENCING CONSTRUCTION. SIGN AND PLACEMENT OF SIGN SHALL BE AS APPROVED BY THE ALDOT.
9. RESERVED.
10. ROADS MUST REMAIN OPEN AT ALL TIMES DURING THE ENTIRE CONSTRUCTION PROJECT. SINGLE LANE CLOSURES SHALL BE COORDINATED WITH ALDOT WHEN NECESSARY FOR CONSTRUCTION ACTIVITIES. THESE LOCATIONS AND PLANNED DETAILS SHOULD BE SHOWN IN THE CONTRACTOR'S TRAFFIC CONTROL PLANS SUBMITTED TO THE ALDOT. LANE CLOSURES ARE NOT ALLOWED AT NIGHT OR DURING THE MORNING AND AFTERNOON PEAK TRAVEL TIMES.
11. DURING NON-WORKING HOURS NO EQUIPMENT OR MATERIAL SHALL BE PARKED OR STORED CLOSER THAN 30 FEET FROM THE EDGE OF ANY ROADWAY CARRYING TRAFFIC IF POSSIBLE. CHANNELIZING DRUMS ARE TO BE LOCATED ALONG THE EDGE OF THE ROADWAY (SEE TYPICAL MATERIAL AND EQUIPMENT STORAGE DETAIL THIS SHEET) WHEN EQUIPMENT OR MATERIAL IS STORED LESS THAN 30' FROM ROADWAY. ALL CONTRACTOR'S EMPLOYEES' PERSONAL VEHICLES, AND CONTRACTOR'S EQUIPMENT NOT IN OPERATION, SHALL BE PARKED A MINIMUM OF 30 FEET FROM THE TRAVELED ROADWAY DURING WORKING HOURS, AS NOT TO CREATE A HAZARD.
12. WHERE THE LOCATION OF A REQUIRED SIGN FALLS IN A DRIVEWAY, SIDEWALK, BRIDGE, ETC., OR WHERE THE VISIBILITY OF A SIGN IS LIMITED TO THE TRAVELING PUBLIC, THE LOCATION SHALL BE ADJUSTED AS APPROVED BY THE ALDOT.
13. WHEN FLAGGERS ARE REQUIRED TO BE USED THEY SHALL BE TRAINED AND MEET ALL REQUIREMENTS AND FOLLOW ALL PROCEDURES OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AS A MINIMUM AND THE HAND SIGNALING DEVICES AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AS A MINIMUM.
14. ALL TRAFFIC CONTROL DEVICES (SIGNS, SIGNALS, MARKINGS, CHANNELIZING DEVICES, LIGHTS, TEMPORARY TRAFFIC BARRIERS, AND OTHER DEVICES); THERE PLACEMENTS; AND THERE MAINTENANCE SHALL BE PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AS A MINIMUM.
15. ANYTIME PIPE IS STRUNG OUT WITHIN 10 FEET OF THE ROAD, TRAFFIC DRUMS, ACCEPTABLE TO ALDOT ARE REQUIRED TO BE PLACED BETWEEN THE ROAD AND THE PIPE AT SPACING APPROVED BY ALDOT.



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	10-2023	NONE	13		



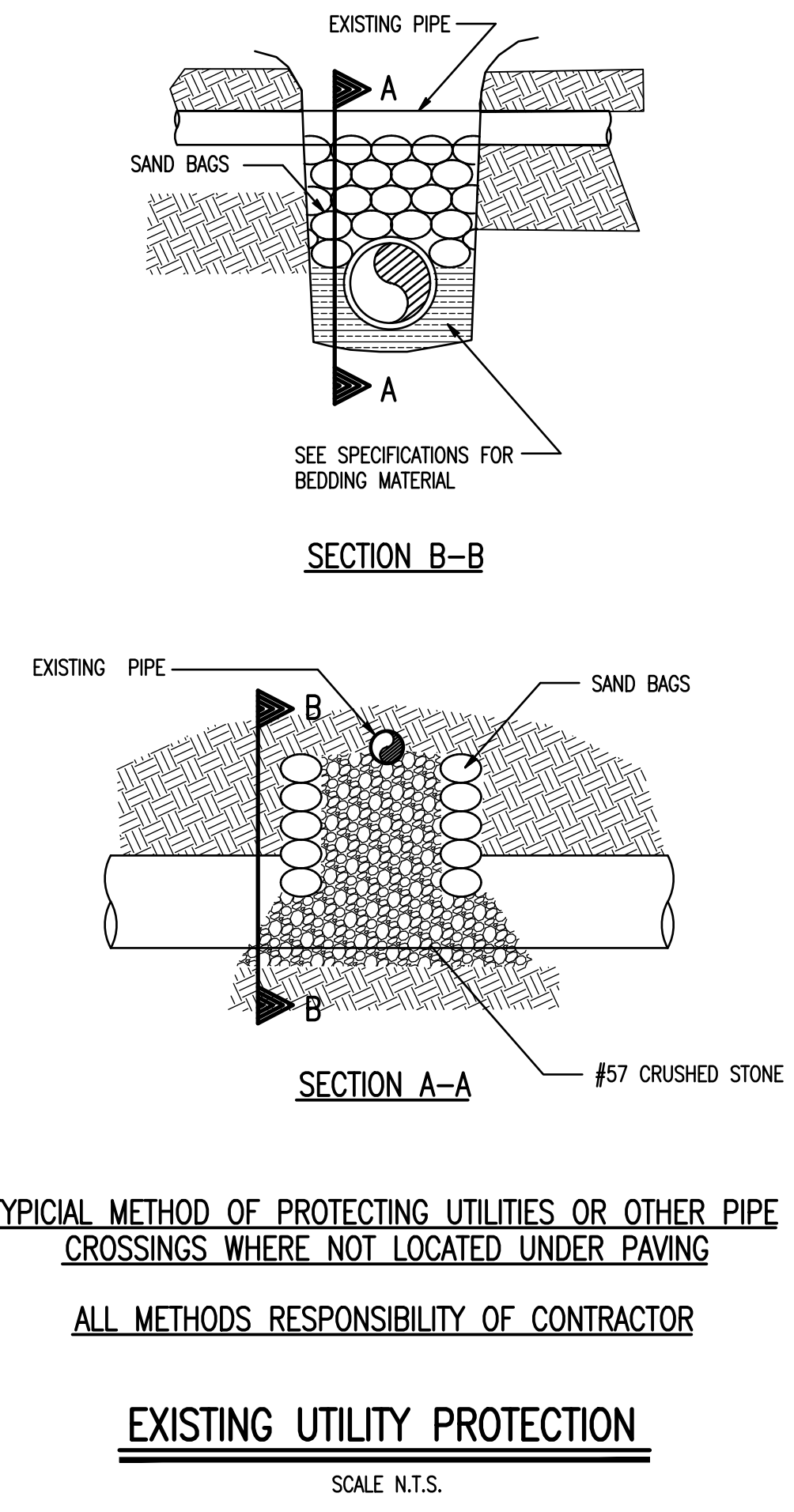
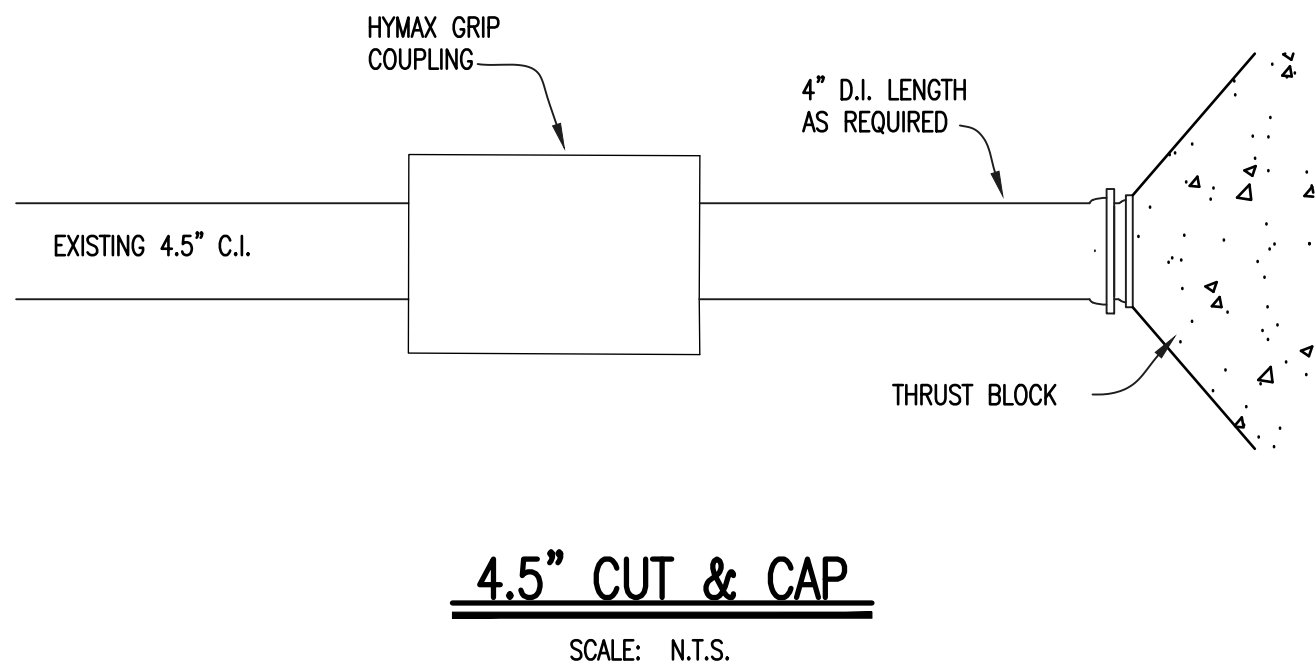
**NOTES:**  
 1. VALVE STEM EXTENSION REQUIRED WHERE DEPTH TO OPERATE EXCEEDS 4'-0". FINAL DEPTH OF OPERATOR NUT BELOW FINAL GRADE SHALL NOT EXCEED 4'-0".  
 2. VALVE NAMEPLATES REQ'D FOR ALL VALVES AND SHALL READ ACCORDING TO SCHEDULE.

**ENGRAVING SCHEDULE**

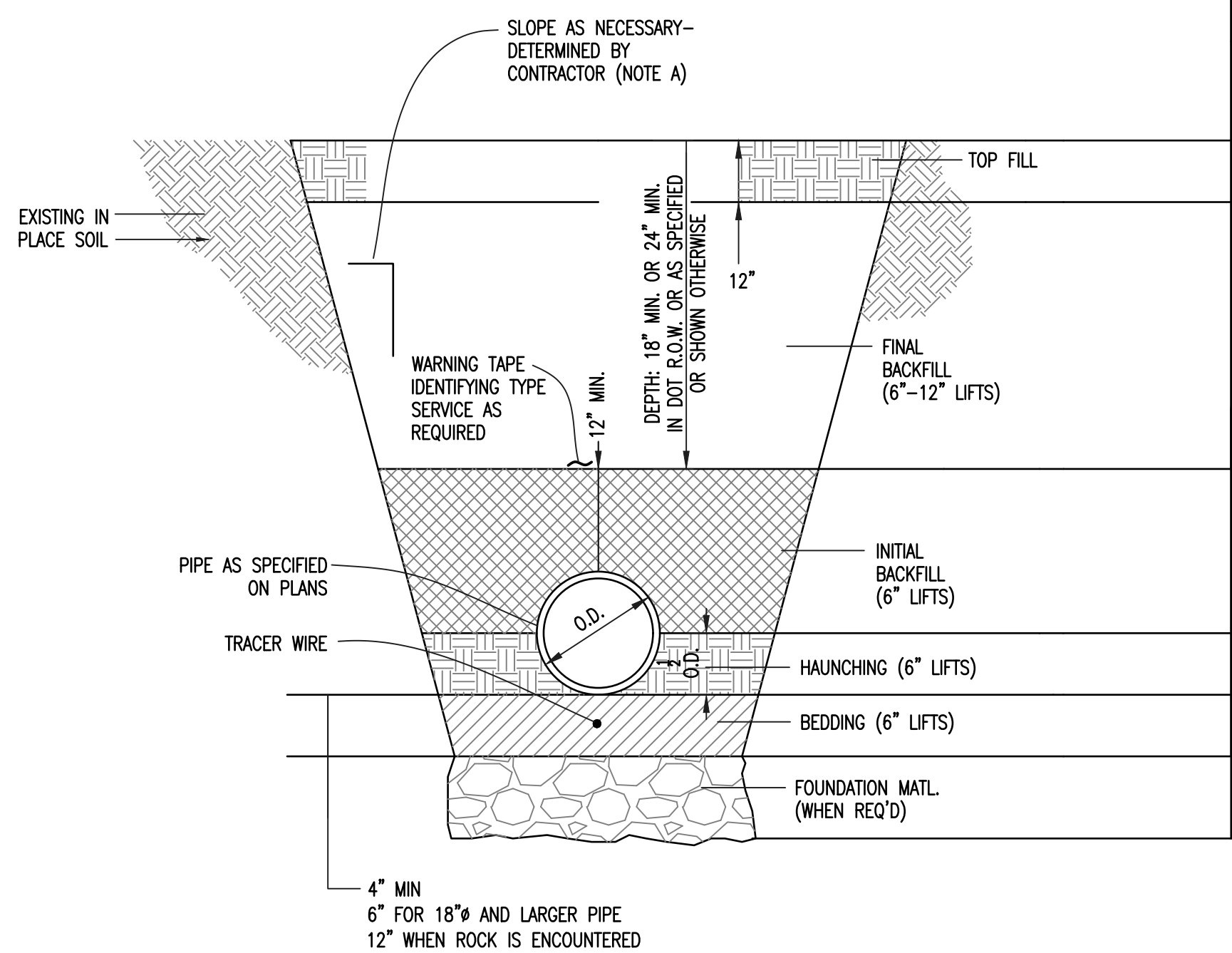
LINE VALVES	ENGRAVING TO READ
24" EXISTING FM - VALVE	SWSG FM1 24" - *
20" EXISTING FM - VALVE	SWSG FM1 20" - *
24" EXIST. FM - 16" DRAIN/BYPASS VALVE	SWSG FM1 16" DRAIN/BYPASS - *
24" EXISTING FM - 6" DRAIN VALVE	SWSG FM1 6" DRAIN - *
20" FM CROSS CONNECT - VALVE	SWSG FM C.C. 20" - *
24" NEW FM - VALVE	SWSG FM2 24" - *
24" NEW FM - 6" DRAIN VALVE	SWSG FM2 6" DRAIN - *

\* NUMBER OF TURNS TO OPEN/CLOSE VALVE

**ENGRAVING NOTES:**  
 1. COORDINATE THE NUMBER FOR TURNS TO OPEN/CLOSE A VALVE WITH SUBMITTALS AND SPECIFIC LOCATION/VALVE. COORDINATE WITH ENGINEER DURING SUBMITTAL PROCESS. PROVIDE SUBMITTAL OF NUMBERING PLAN.  
 2. FOR EXISTING VALVES THAT ARE CALLED TO HAVE CONCRETE VALVE PAD AND NAMEPLATES ADDED TO THEM, THE CONTRACTOR SHALL COORDINATE WITH SWSG TO DETERMINE THE NUMBER OF TURNS TO CLOSE THESE VALVES.



TYPICAL METHOD OF PROTECTING UTILITIES OR OTHER PIPE CROSSINGS WHERE NOT LOCATED UNDER PAVING  
 ALL METHODS RESPONSIBILITY OF CONTRACTOR



	TYPE 1 AND 2 TRENCH			TYPE 3 TRENCH	TYPE 4 AND 5 TRENCHES		GRAVITY LINES			PAVED AREAS		
	DI	HDPE	PVC		DI	CONC	PVC	DI	HDPE	PVC		
TOP FILL	4	4	4	4	4 OR 5	4	4	4	5**	5**	5**	
FINAL BACKFILL (6"-12" LIFTS)	3	3	3	3	3	3	3	5**	5**	5**		
INITIAL BACKFILL (6" LIFTS)	2	1	1	2***	1	2	2	1	5**	5**	5**	
HAUNCHING (6" LIFTS)	2	1	1	2***	1	1	1	1	5**	5**	5**	
BEDDING (6" LIFTS)	2*	1	1	2***	1	1	1	1	1	1	1	
FOUNDATION MATL. (WHEN REQ'D)	RIP-RAP OR CRUSHED STONE CLASS 1B (USCS IN ASTM D2487)											

\* BEDDING NOT REQUIRED FOR PRESSURE MAINS UNLESS IN AREAS OF ROCK EXCAVATION OR UNSUITABLE SOIL; BELL HOLES REQ'D FOR PIPES GREATER THAN 4" DIA.  
 \*\* ALL BACKFILL UNDER PAVED AREAS SHALL BE COMPACTED TO 98% STANDARD PROCTOR DENSITY (MINIMUM). FOR TEMPORARY PATCHES, PLACE COMPACTED COLD-MIX ASPHALT, THICKNESS TO MATCH EXISTING ASPHALT (BUT IN NO CASE LESS THAN 2" THICK), UNTIL THE HOT-MIX ASPHALT PATCH CAN BE PLACED. NO SHINGLES ALLOWED IN HOT-MIX.  
 \*\*\* PIPE BEDDED IN 6-INCH MINIMUM LOOSE SOIL UNDER THE PIPE. BACKFILL CONSOLIDATED TO TOP OF PIPE. ALL BACKFILL IS NATIVE MATERIAL FREE OF 1" & LARGER ROCKS AND FOREIGN MATERIAL (APPROXIMATELY 80% STANDARD PROCTOR, AASHTO T-99). WHEN ROCK IS ENCOUNTERED USE 12" STONE UNDER PIPE. BELL HOLE MUST BE EXCAVATED FOR EACH JOINT OF PIPE.

**BEDDING AND BACKFILL FOR TRENCHES DETAIL (OPEN CUT)**  
SCALE: N.T.S.

MATERIALS	DESCRIPTION
1	CRUSHED STONE, ASTM-448 NO. 610
2	SELECT EXCAVATED MATERIAL REASONABLY DRY (WITHIN LIMITS REQ'D FOR COMPACTION) NEAR OPTIMUM MOISTURE CONTENT ±2%, OR MAY USE DAMPENED #610 STONE (UNWASHED) NO STONES GREATER THAN 1" DIA.
3	EXCAVATED MATERIAL REASONABLY DRY (WITHIN LIMITS REQ'D FOR COMPACTION) NEAR OPTIMUM MOISTURE CONTENT ±2%, OR MAY USE DAMPENED #610 STONE (UNWASHED) NO STONES GREATER THAN 12" DIA.
4	SELECT TOPSOIL MATERIAL TO SUPPORT VEGETATION, NO STONES GREATER THAN 1/2" DIA.
5	CRUSHED STONE, DAMPENED #610 STONE (UNWASHED)

NOTE: IN AREAS WHERE ROCK IS ENCOUNTERED, 12" MIN. CRUSHED STONE IS REQUIRED UNDER ALL TYPES/KINDS OF PIPE

**JOB SPECIFIC NOTES**  
 A. FOR ALL PIPE: A PIPE TRENCH 1/2 IS SUFFICIENT EXCEPT IN PAVED AREAS OR IF SPECIFIED OTHERWISE. IN ALL AREAS WHERE DEPTH OF COVER EXCEEDS 10 FEET, A TYPE 3 TRENCH IS REQUIRED, UNLESS SHOWN TO BE A TYPE 4/5 TRENCH.  
 B. IF PIPE DEPTH IS INDICATED SUCH THAT TRENCH TYPE CHANGES FROM THAT SHOWN IN DRAWINGS (SEE PREVIOUS NOTES), THE CONTRACTOR SHALL USE THE CORRECT TRENCH AT NO ADDITIONAL COST TO THE OWNER.

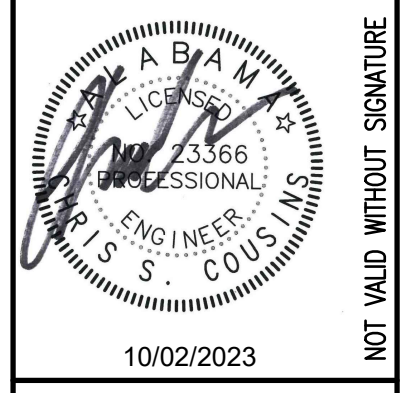
**STANDARD NOTES:**  
 A. SLOPE, BENCHING, SHORING, ETC. AS DETERMINED AND DESIGNED BY THE CONTRACTOR. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE OSHA REGULATIONS FOR "OPEN TRENCH EXCAVATIONS". ALSO, TO THE EXTENT POSSIBLE, AS DETERMINED BY THE CONTRACTOR, TRENCH WALL SHORING METHODS SHALL BE USED IN PAVED AREAS TO MINIMIZE PAVING REPAIR REQUIREMENTS.  
 B. ALL MATERIALS SHALL BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY AT 2%± OPTIMUM MOISTURE CONTENT TO PREVENT SETTLEMENT, UNLESS STATED OTHERWISE. MATERIALS UNDER PAVING, CONCRETE, STRUCTURES, ETC. SHALL BE COMPACTED TO A MINIMUM 98-100% STANDARD PROCTOR DENSITY. MECHANICAL COMPACTION SHALL BE BY VIBRATORY SHEEPSFOOT OR OTHER EQUIPMENT SPECIFICALLY DESIGNED FOR THE COMPACTION OF EARTH. COMPACTION EQUIPMENT SHALL BE ON-SITE PRIOR TO BEGINNING OF WORK. MECHANICAL COMPACTION SHALL BE COMPLETED IN LOOSE LIFTS AS SHOWN ON DETAILS.  
 C. BEDDING REQUIRED FOR ALL GRAVITY LINES, ALL PVC LINES, AND ALL CONCRETE LINES. BEDDING REQUIRED IN ALL AREAS OF ROCK EXCAVATION OR UNSUITABLE SOILS. BELL HOLES REQUIRED FOR PIPES GREATER THAN 4" DIAMETER.  
 D. FOR DRIVEWAY, ROAD CROSSINGS, OR PAVED AREAS, COMPACTED #610 STONE BACKFILL IS REQUIRED TO THE DESIRED GRADE THEN TOPPED WITH COMPACTED COLD-MIX ASPHALT (THICKNESS TO BE EQUAL TO THE EXISTING PAVING, MINIMUM 2"). COLD-MIX ASPHALT SHALL BE MAINTAINED WITHIN 1" OF THE TRAVEL SURFACE). FOR AREAS TO BE GRASSED THAT #610 STONE BACKFILL IS REQUIRED OR USED, A MINIMUM OF 6" OF TOPSOIL IS REQUIRED.  
 E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING AND UTILIZING APPROPRIATE MEANS AND METHODS OF CONSTRUCTION TO ENSURE THAT THE ENTIRE AREAS UNDER THE HAUNCHES OF THE PIPE ARE FILLED WITH THE REQUIRED MATERIALS AND COMPACTED APPROPRIATELY.  
 F. ADDITIONAL AND/OR SPECIAL REQUIREMENTS MAY BE REQUIRED BY THE PLANS, SPECIFICATIONS, AND/OR CONTRACT DOCUMENTS. CONTRACTOR SHALL MEET REQUIREMENTS OF ALEXANDER CITY ROADS AND TRANSPORTATION DEPARTMENT (SEE NOTES).

**TIE ROD SCHEDULE**

TEST PRESSURE	250 PSI OR LESS	
	PIPE DIA. (IN.)	TIE RODS (DIA. (IN.) NO. REQ'D)
2	5/8	2
3	5/8	2
6	3/4	2
8	3/4	2
10	3/4	4
12	3/4	4
14	3/4	5
16	3/4	6
18	3/4	6
20	3/4	7
24	3/4	8
30	1	8
36	1	10
42	1-1/4"	10
48	1-1/4"	12

NOTE:  
 1. TIE RODS SHALL CONFORM TO ASTM A193 GRADE B7 AND NUTS SHALL CONFORM TO ASTM A194 GRADE 2H.

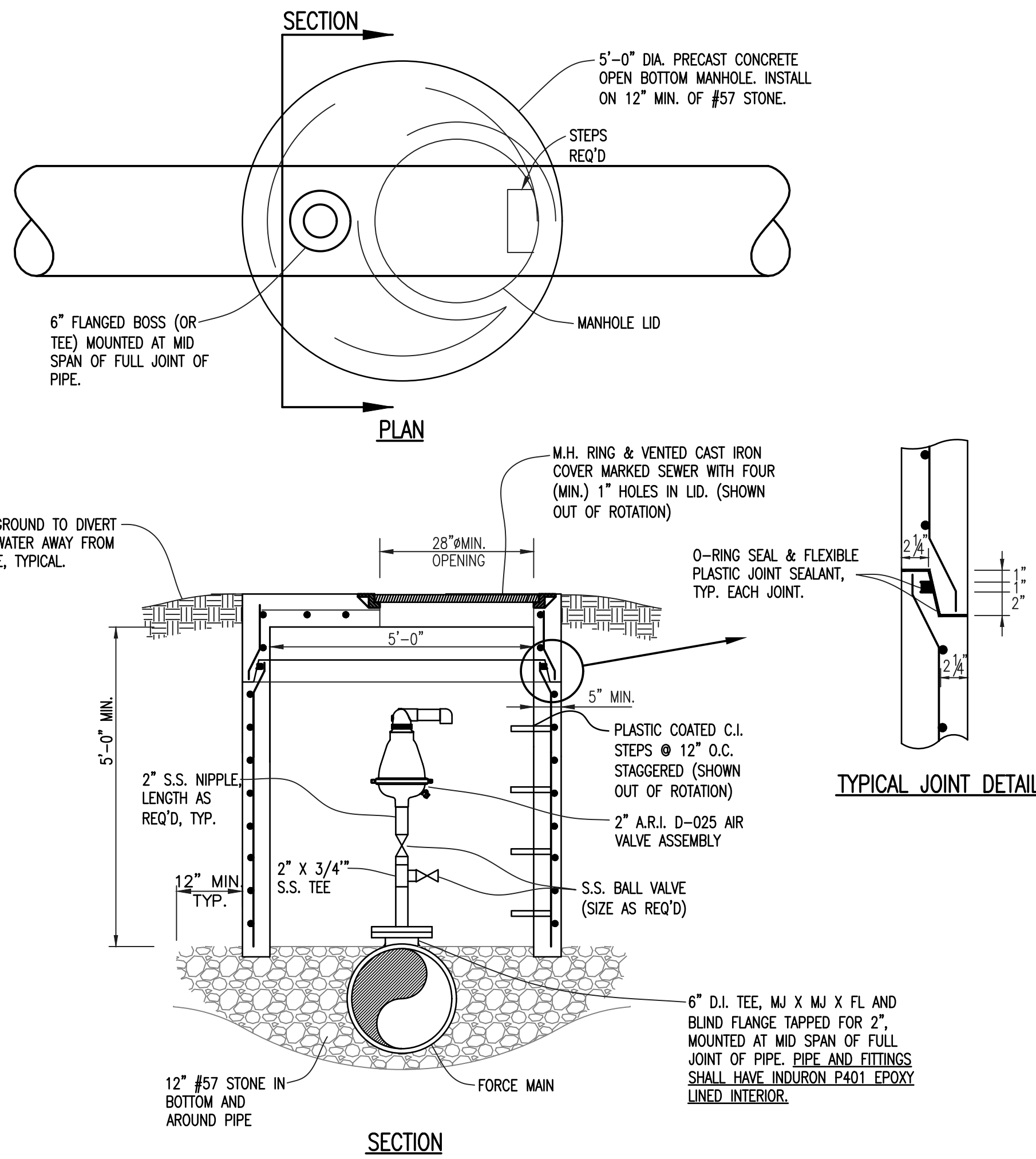
**TIE-ROD SCHEDULE**  
SCALE: N.T.S.



10/02/2023  
 BAR = 1"

Drawing	Title	STANDARD DETAILS	NONE	D1	
	Project No.				
	Date				10-2023
	Scale				NONE
	Sheet				D1

NOT VALID WITHOUT SIGNATURE

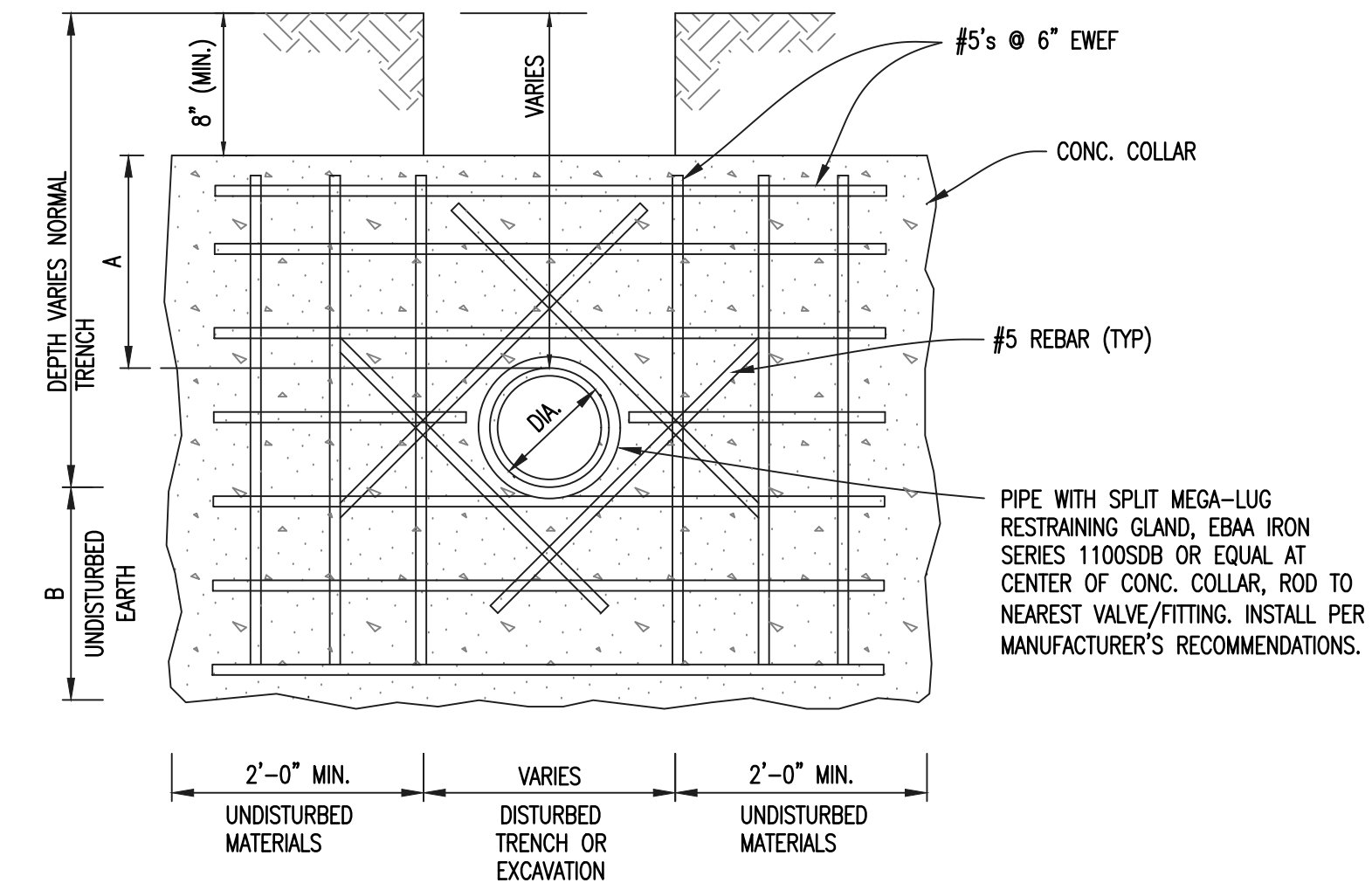


- NOTES:
1. PLACE ALL ARV ASSEMBLIES ON HIGH POINT OF LINES AS INDICATED, COORDINATE FINAL LOCATION WITH ENGINEER.
  2. ARV ASSEMBLIES MUST BE ON FULL JOINT AND IN MIDSPAN OF PIPE. CONTRACTOR SHALL LAY PIPE SUCH THAT ARV ASSEMBLY IS LOCATED AT HIGH POINT.
  3. ALL BOLTS AND HARDWARE SHALL BE STAINLESS STEEL. CONTRACTOR SHALL APPLY ANTI-SEIZE SPECIFICALLY DESIGNED FOR S.S. TO ALL BOLTS AND HARDWARE.
  4. ALL DUCTILE IRON PIPE AND FITTINGS SHALL HAVE INTERIOR INDURON PRTOECTO 401 EPOXY LINER (OR EQUAL).

**FORCE MAIN AIR RELEASE VALVE ASSEMBLY DETAIL**

SCALE: N.T.S.

PIPE DIA. (IN.)	A (IN.)*	B (IN.)*	THICK.(IN.)	#MATS STL
0 - 12	12	12	12	1
14 - 24	18	18	18	2
>24	24	24	24	2



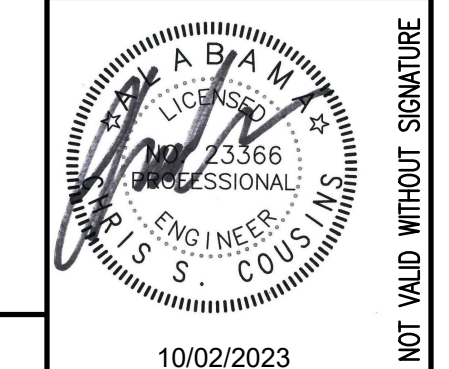
\* MIN. DIMENSION CONC. THRUST COLLAR MUST BE IN UNDISTURBED MATERIAL & POURED AGAINST FIRM UNDISTURBED EARTH. USE SUFFICIENT COLLAR & REBAR LENGTHS SUCH THAT MIN. DIMENSION IS OBTAINED ON BOTH SIDES OF DISTURBED TRENCH OR EXCAVATION.

**THRUST COLLAR DETAIL**

SCALE: N.T.S.

**Municipal Consultants, Inc.**  
200 Cahaba Park, South, Suite 212  
Birmingham, Alabama 35226  
(205) 822-0387

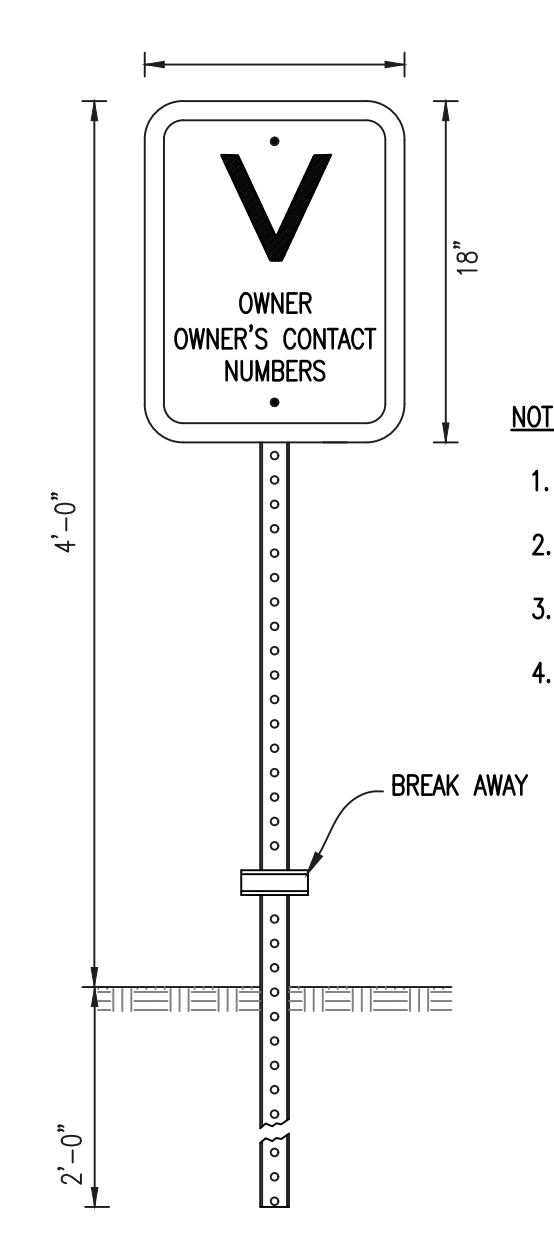
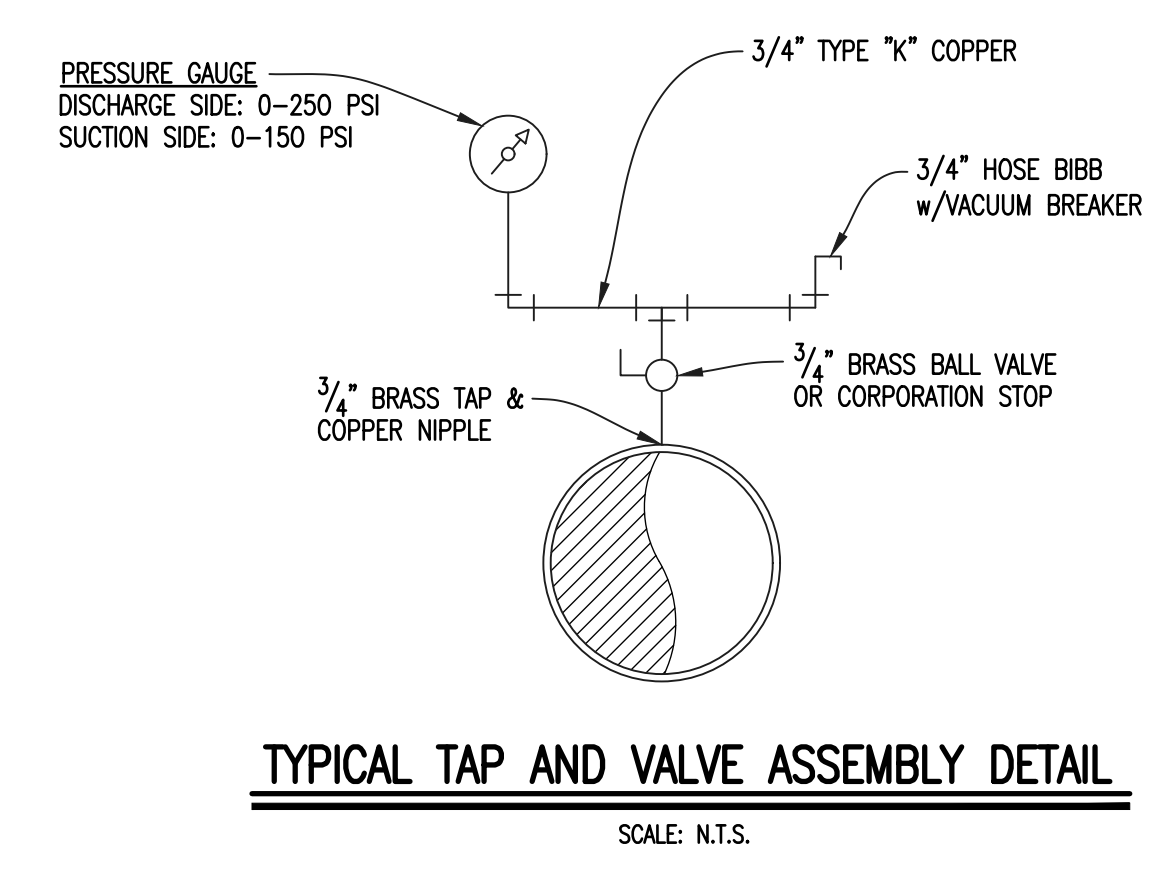
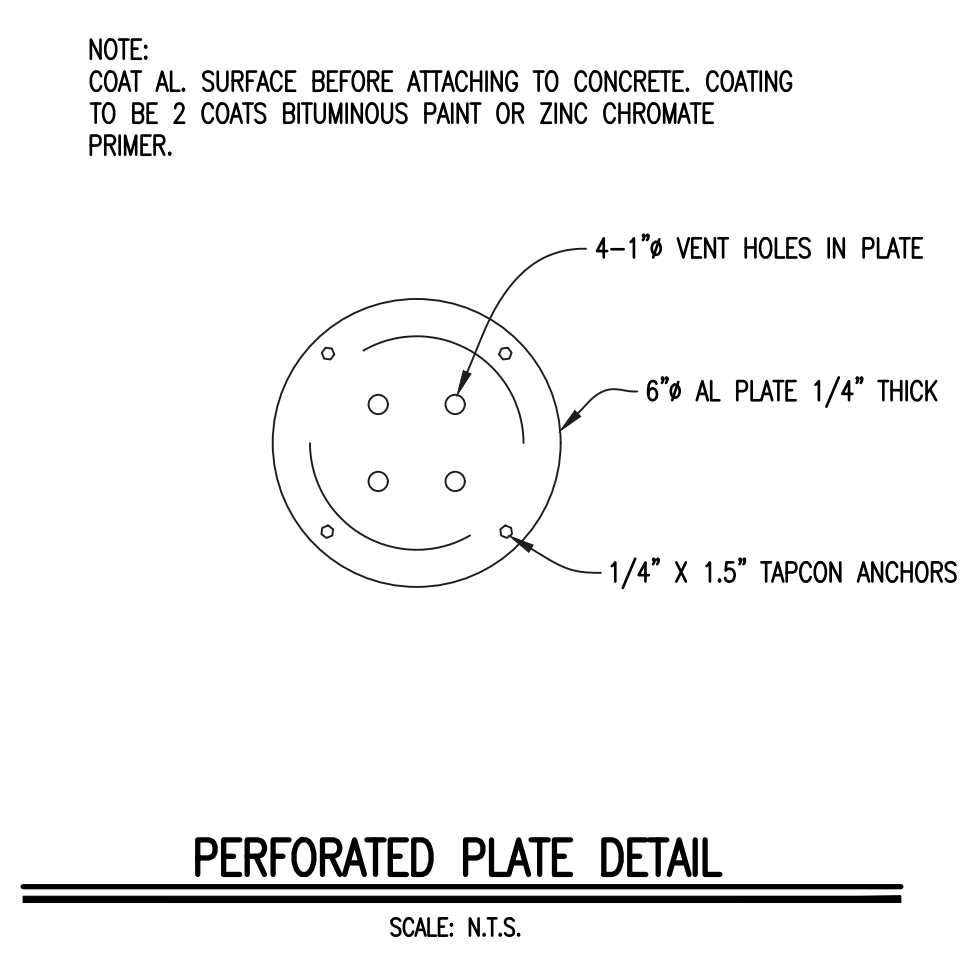
**THE CITY OF ALEXANDER CITY**  
MULTI AGENCY WASTEWATER SOLUTION  
PROJECT "B" HIGHWAY 128 SEWER FORCE MAIN  
BID #24-03 (SRF PROJECT CS-010329-05)  
2023



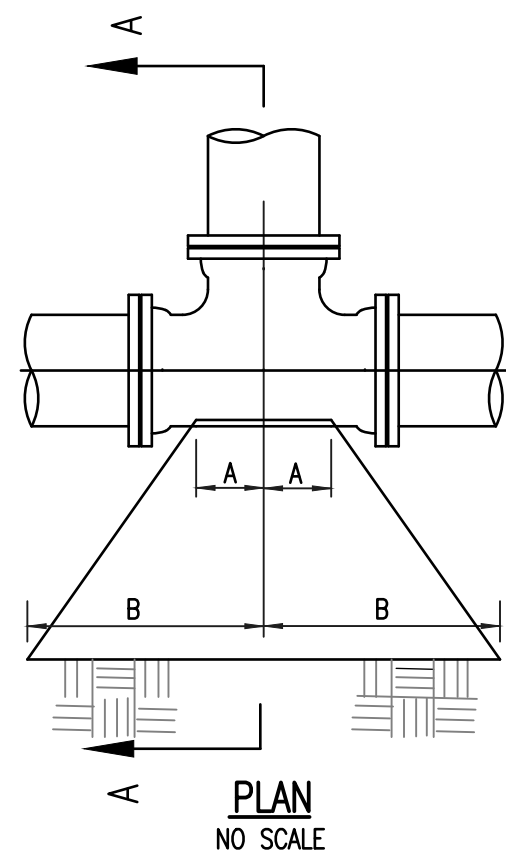
10/02/2023

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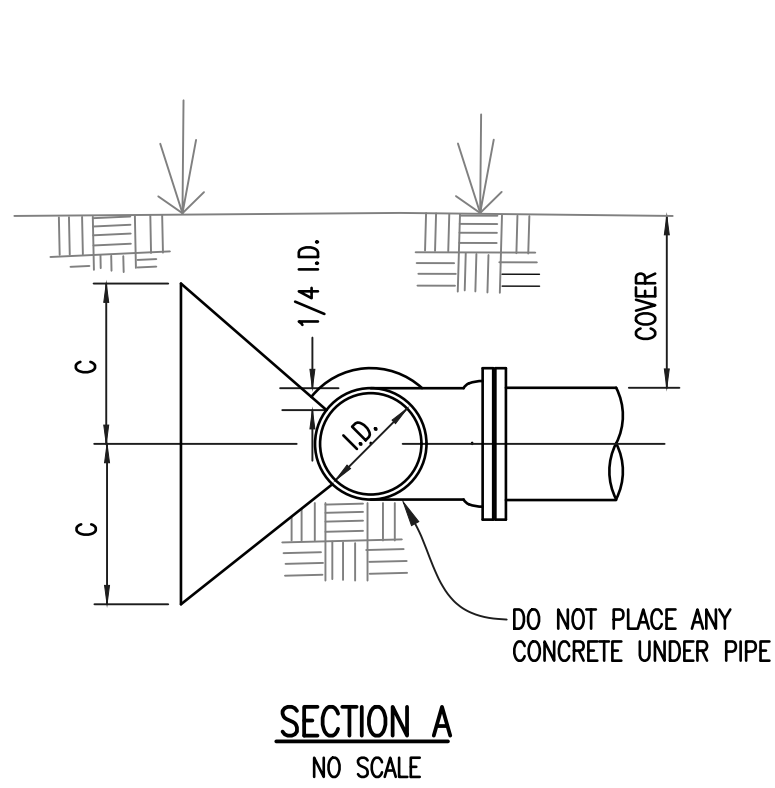
Drawing Project No.	10-2023	Title	
		STANDARD DETAILS	BID SET
Date	NONE	Sheet	
Scale	D2		



- NOTES:
1. VALVE MARKERS SHALL BE LOCATED AT EACH BURIED ISOLATION VALVE.
  2. THE SIGN SHALL BE BREAK AWAY STYLE AS APPROVED BY THE A.L.D.O.T.
  3. SIGN SHALL BE PLACED ON THE OPPOSITE SIDE OF THE VALVE FROM TRAFFIC.
  4. INFORMATION ON SIGN SHALL BE APPROVED BY OWNER.



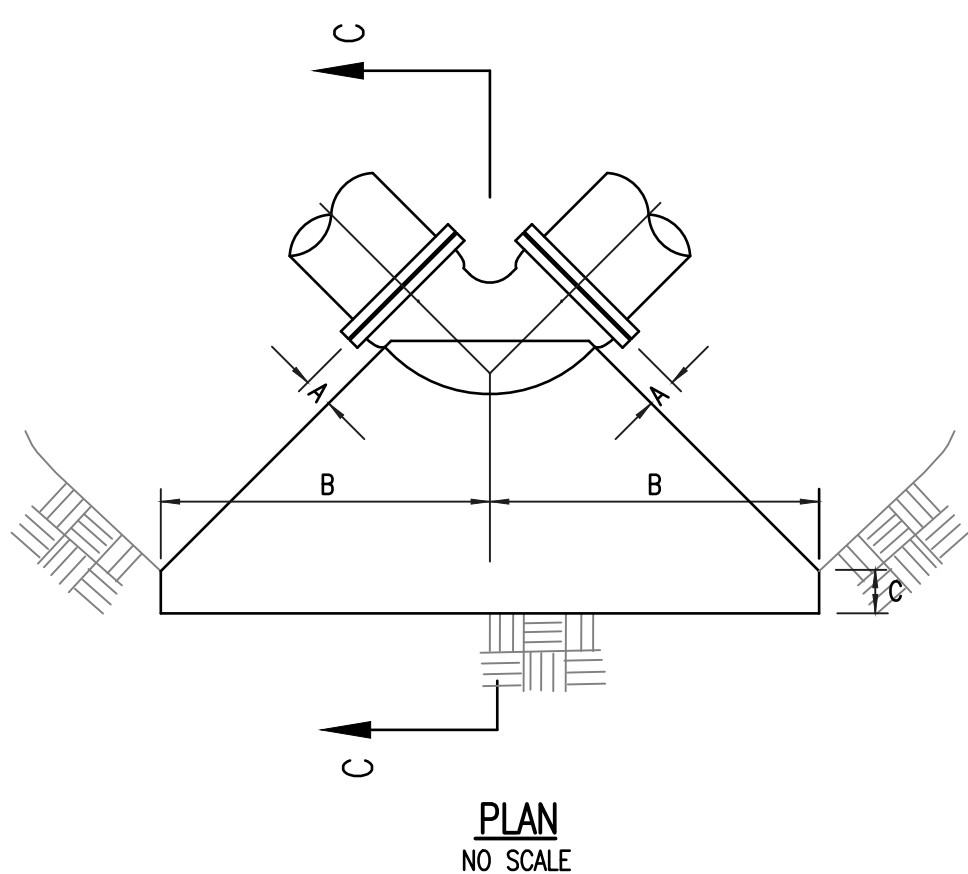
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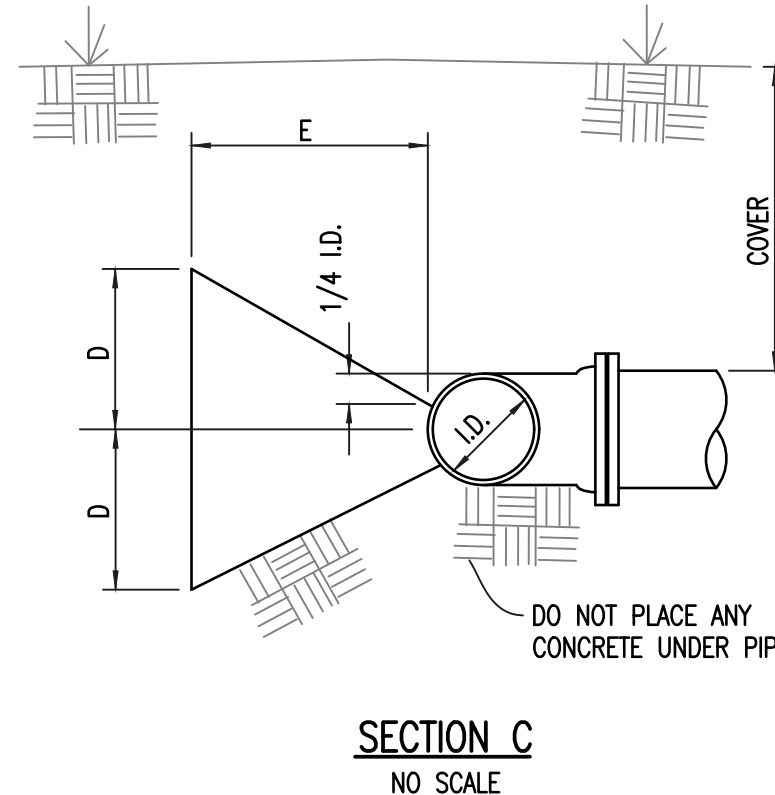
SECTION A  
NO SCALE

TYPICAL CONCRETE BRACING FOR TEES

PIPE DIA.	A	B	C	MIN. COVER
4"	5"	1'-0"	1'-0"	2'-6"
6"	6"	1'-0"	1'-0"	2'-6"
8"	8"	1'-6"	1'-6"	2'-6"
10"	10"	2'-0"	2'-0"	3'-0"
12"	10"	2'-0"	2'-0"	3'-0"
14"	1'-0"	2'-6"	2'-6"	3'-0"
16"	1'-0"	3'-0"	3'-0"	3'-0"
18"	1'-2"	3'-6"	3'-6"	3'-6"
20"	1'-4"	3'-6"	3'-6"	3'-6"
24"	1'-7"	4'-6"	3'-6"	3'-6"



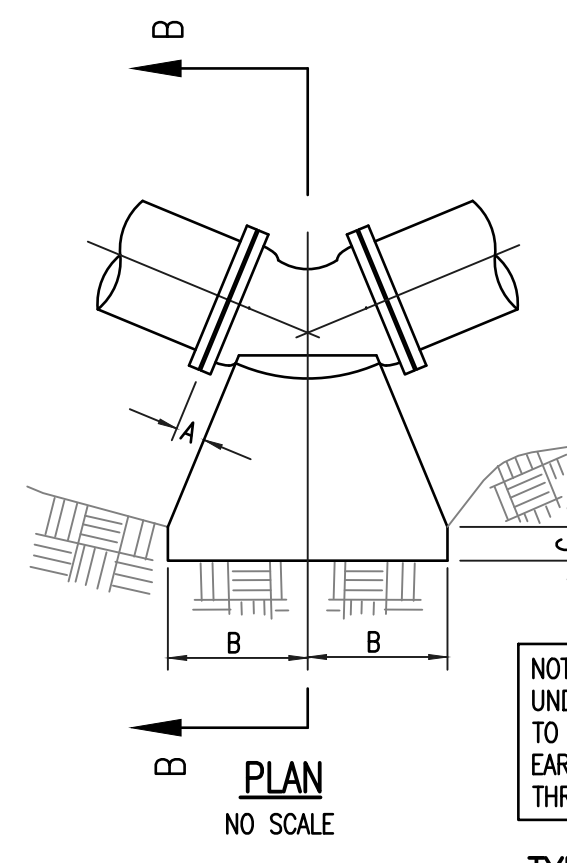
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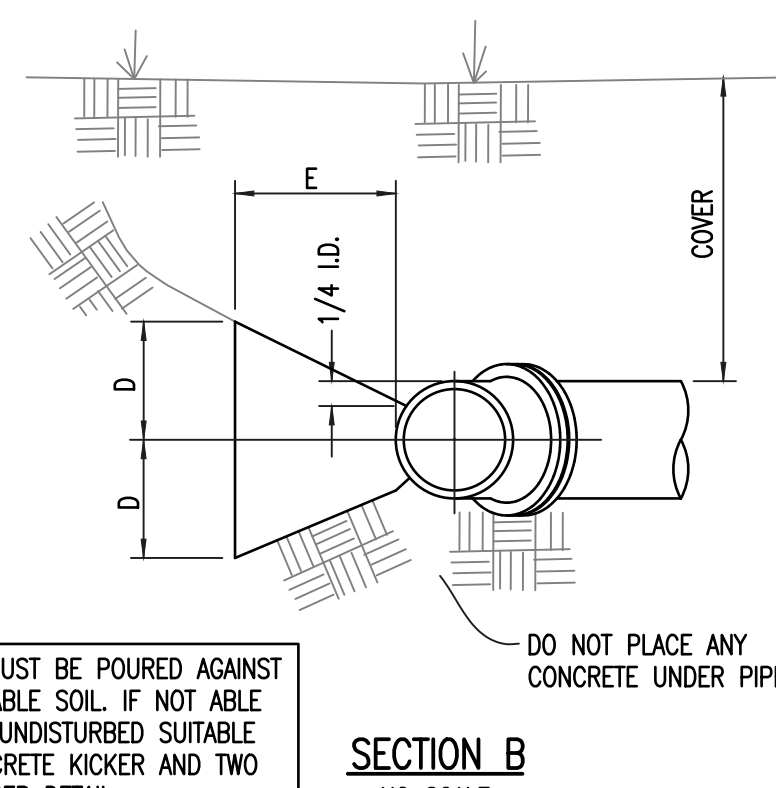
SECTION C  
NO SCALE

TYPICAL CONCRETE BRACING FOR 90° BENDS

PIPE DIA.	A	B	C	D	E	MIN. COVER
4"	4-1/2"	1'-0"	1'-8"	1'-0"	2'-0"	2'-6"
6"	4-1/2"	1'-6"	1'-7"	1'-0"	2'-0"	2'-6"
8"	4-1/2"	2'-0"	1'-6"	1'-6"	2'-6"	2'-6"
10"	4-1/2"	2'-0"	1'-1"	2'-0"	2'-6"	3'-0"
12"	4-1/2"	2'-6"	1'-0"	2'-6"	2'-6"	3'-0"
14"	6"	3'-0"	1'-2"	2'-6"	2'-6"	3'-0"
16"	6"	3'-6"	1'-0"	3'-0"	2'-6"	3'-0"
18"	6"	4'-0"	10"	3'-6"	3'-0"	3'-6"
20"	6"	4'-6"	11"	3'-6"	3'-0"	3'-6"
24"	7"	5'-6"	8"	3'-6"	3'-0"	3'-6"



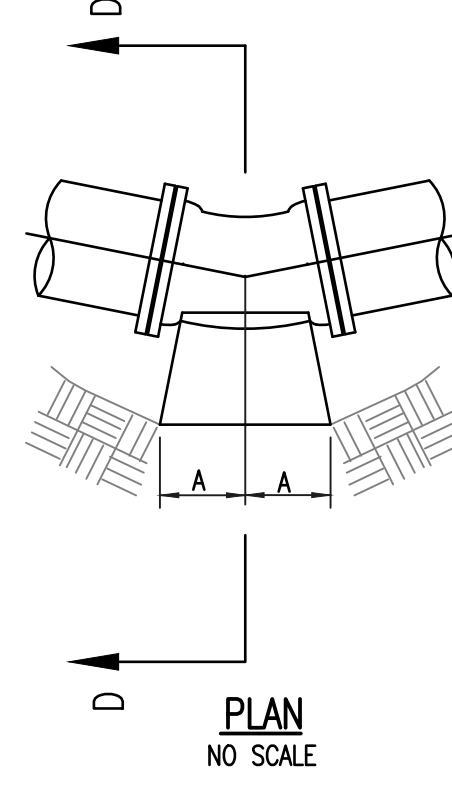
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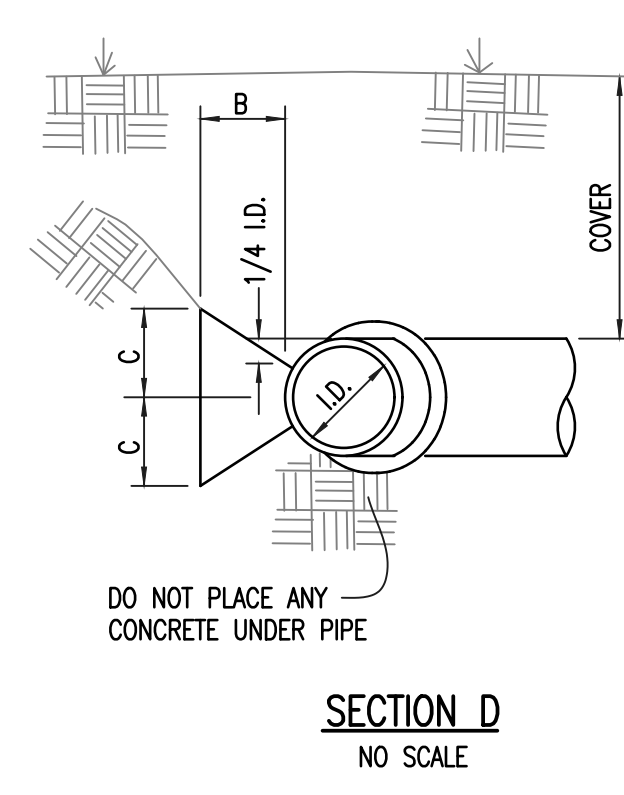
SECTION B  
NO SCALE

TYPICAL CONCRETE BRACING FOR 45° BENDS

PIPE DIA.	A	B	C	D	E	MIN. COVER
4"	4 1/2"	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"
6"	4 1/2"	1'-0"	9"	1'-0"	1'-2"	2'-6"
8"	4 1/2"	1'-6"	3"	1'-0"	1'-2"	2'-6"
10"	4 1/2"	1'-6"	-	1'-6"	1'-6"	3'-0"
12"	6"	2'-0"	-	2'-0"	2'-0"	3'-0"
14"	6"	2'-6"	-	2'-0"	2'-0"	3'-0"
16"	6"	2'-6"	-	2'-6"	2'-0"	3'-0"
18"	6"	3'-0"	-	2'-6"	2'-6"	3'-6"
20"	6"	3'-0"	-	3'-0"	2'-6"	3'-6"
24"	7"	3'-6"	-	3'-6"	2'-10"	3'-6"



PLAN  
NO SCALE



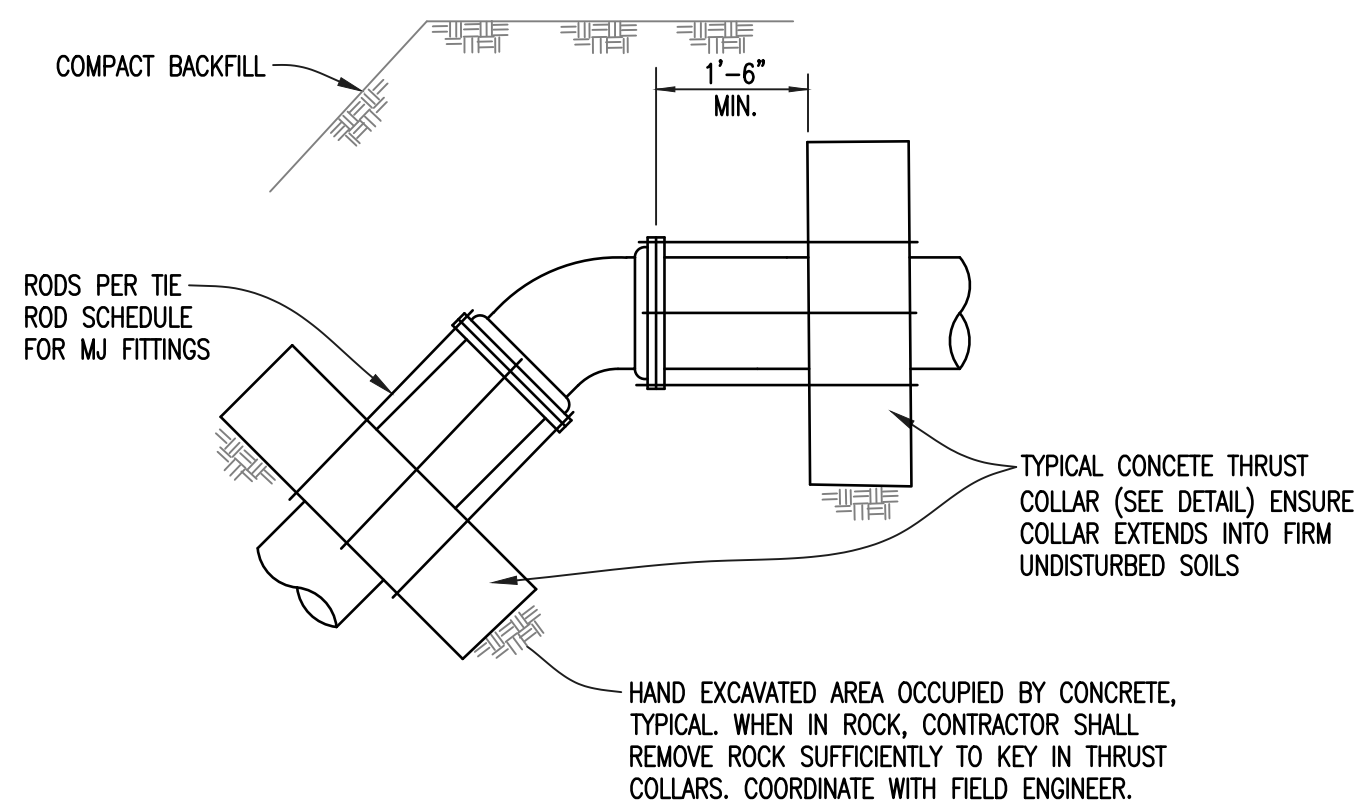
SECTION D  
NO SCALE

TYPICAL CONCRETE BRACING FOR 11 1/4° & 22 1/2° BENDS

22 1/2° BENDS						11 1/4° BENDS			
PIPE DIA.	A	B	C	MIN. COVER		A	B	C	MIN. COVER
4"	6"	1'-0"	6"	2'-6"	6"	1'-0"	1'-0"	6"	2'-6"
6"	1'-0"	1'-0"	6"	2'-6"	1'-0"	1'-0"	6"	2'-6"	
8"	1'-0"	1'-0"	1'-0"	2'-6"	1'-0"	1'-0"	1'-0"	2'-6"	
10"	1'-0"	1'-6"	1'-0"	3'-0"	1'-0"	1'-0"	1'-0"	3'-0"	
12"	1'-6"	2'-0"	1'-0"	3'-0"	1'-0"	1'-6"	1'-0"	3'-0"	
14"	1'-6"	2'-0"	1'-6"	3'-0"	1'-6"	1'-6"	1'-0"	3'-0"	
16"	2'-0"	2'-0"	1'-6"	3'-0"	1'-6"	1'-6"	1'-0"	3'-0"	
18"	2'-0"	2'-6"	2'-0"	3'-6"	1'-6"	2'-0"	1'-6"	3'-6"	
20"	2'-6"	2'-6"	2'-0"	3'-6"	1'-6"	2'-0"	1'-6"	3'-6"	
24"	2'-6"	3'-0"	2'-6"	3'-6"	2'-0"	2'-0"	2'-0"	3'-6"	

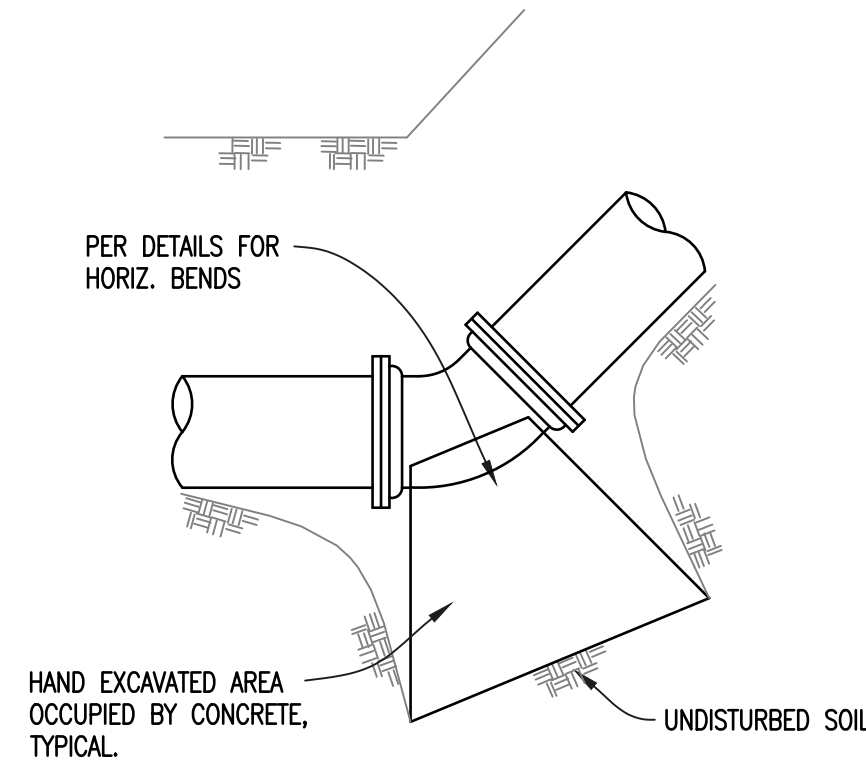
TYPICAL CONCRETE KICKER DETAILS

SCALE: N.T.S.



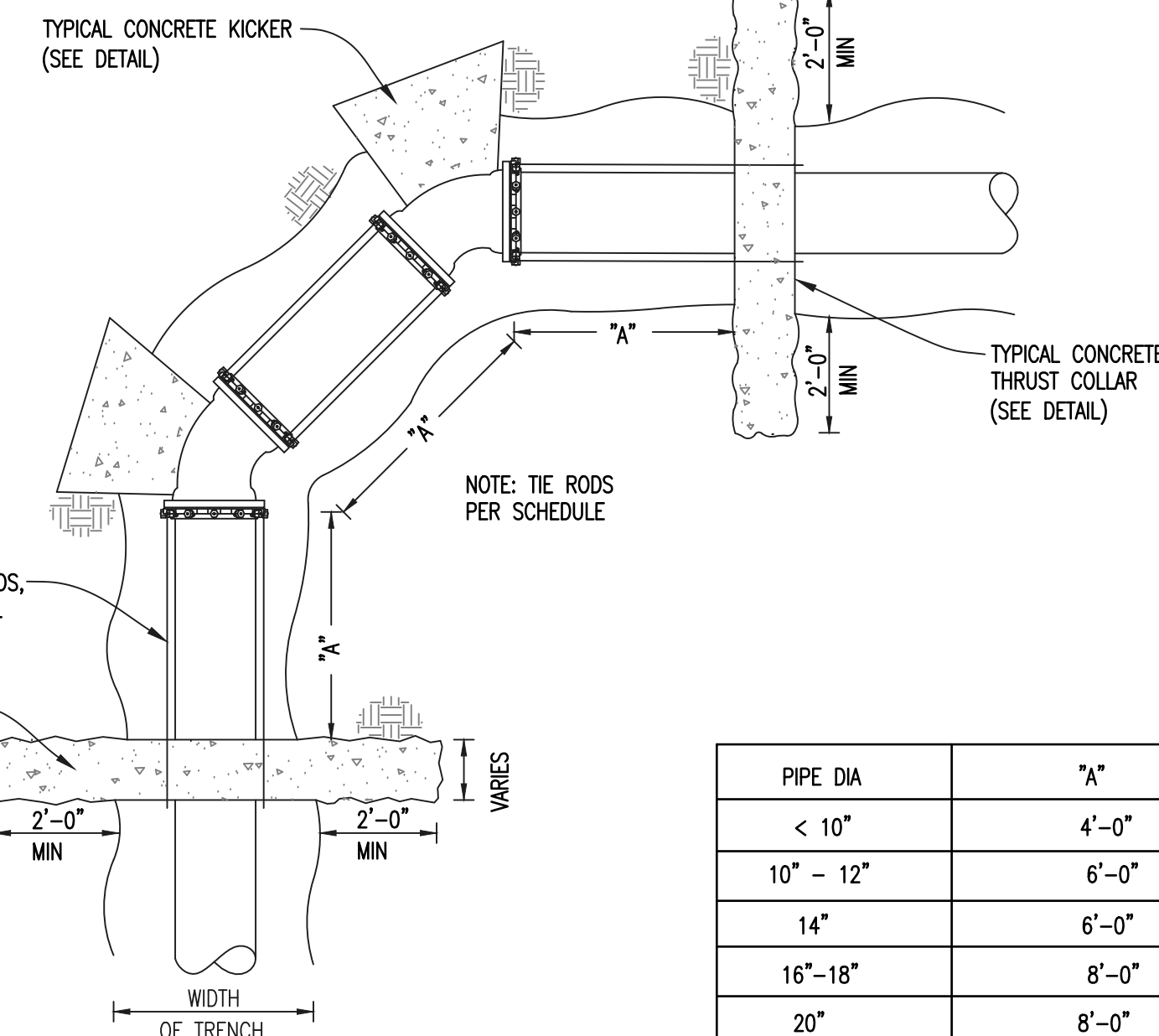
CONCRETE BRACING FOR VERTICAL BENDS DETAIL

SCALE: N.T.S.



GENERAL NOTES:

1. GENERAL DIMENSIONS SHALL BE CONSIDERED AS MINIMUMS. CONTRACTOR SHALL BE RESPONSIBLE FOR INCREASING DIMENSIONS AS REQUIRED FOR ACTUAL FIELD CONDITIONS ENCOUNTERED. CONTRACTOR TO ENSURE ALL THRUST RESTRAINT IS ADEQUATE.
2. ALL CONCRETE FOR THRUST RESTRAINT SHALL BEAR AGAINST FIRM UNDISTURBED SOILS.
3. CONTRACTOR SHALL WRAP ALL ACCESSORIES BOLTS, NUTS, CONNECTIONS, ETC. IN PLASTIC SUCH THAT THEY CAN BE REMOVED WITHOUT THE NEED FOR CONCRETE REMOVAL.
4. UNLESS INDICATED OTHERWISE IN PLANS, ALL FITTINGS SHALL BE MJ WITH RESTRAINING FOLLOWER GLANDS. RESTRAINING FOLLOWER GLANDS SHALL BE MEGA-LUG OR EQUAL. RETAINER GLANDS NOT ALLOWED.

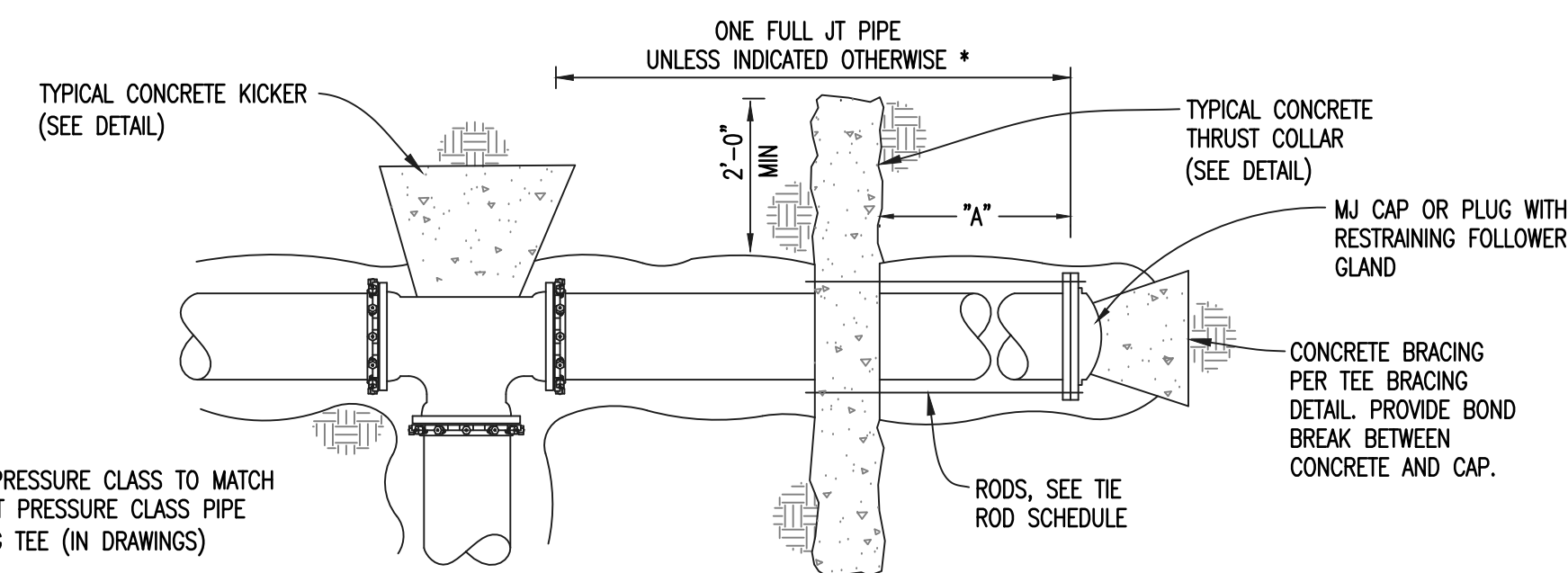


TYPICAL AT TWO 45° BENDS

SCALE: N.T.S.

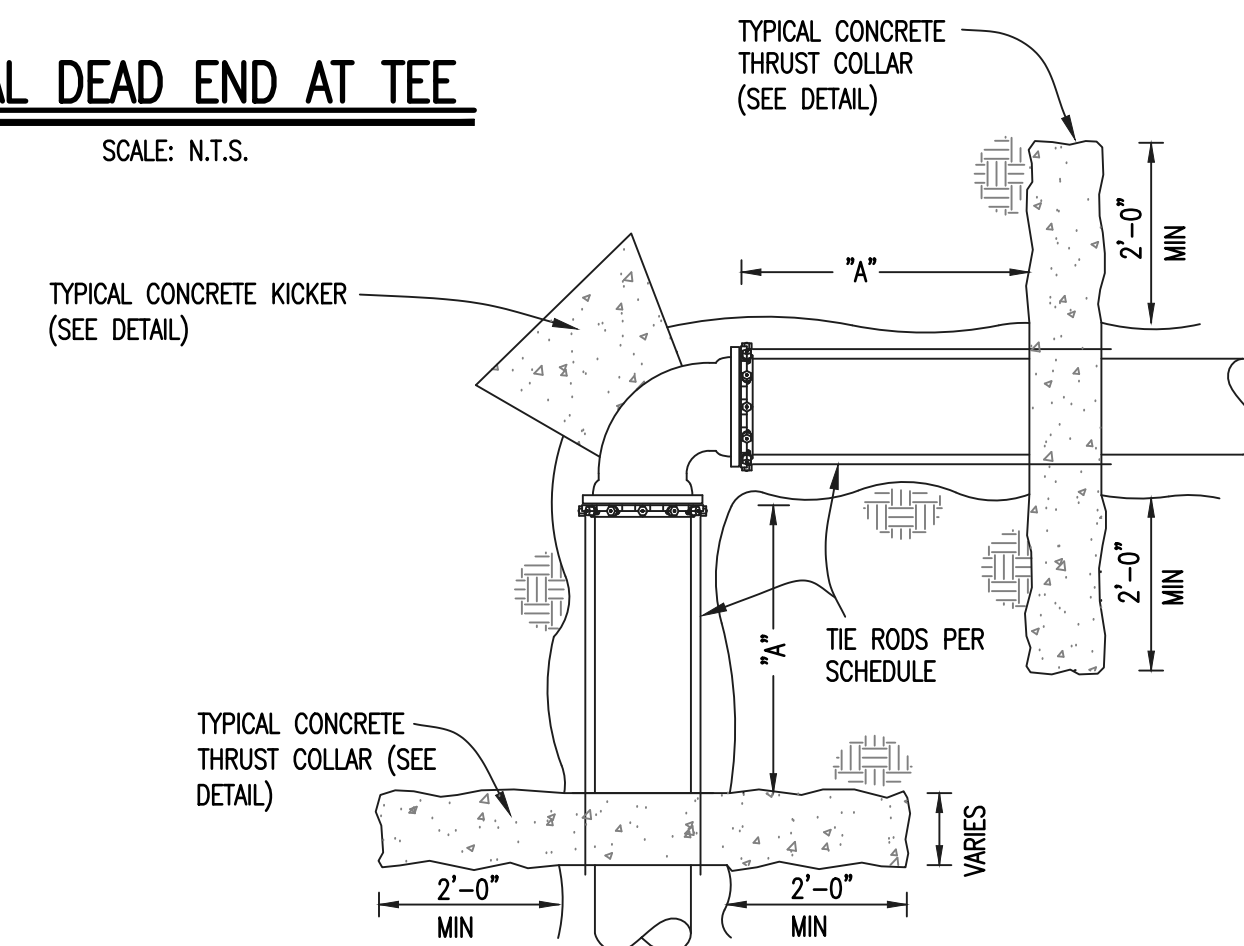
PIPE DIA	"A"	# RODS*
< 10"	4'-0"	2
10" - 12"	6'-0"	4
14"	6'-0"	5
16"-18"	8'-0"	6
20"	8'-0"	7
24"-30"	12'-0"	8

\* SEE TIE ROD SCHEDULE



TYPICAL DEAD END AT TEE

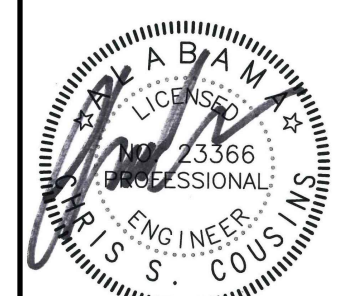
SCALE: N.T.S.



TYPICAL 90° BEND

SCALE: N.T.S.

NOTE: ENSURE ALL THRUST COLLARS ARE POURED AGAINST FIRM UNDISTURBED SOILS. HAND EXCAVATED AREA OCCUPIED BY CONCRETE, TYPICAL WHEN IN ROCK, CONTRACTOR SHALL REMOVE ROCK SUFFICIENTLY TO KEY IN THRUST COLLARS. COORDINATE WITH FIELD ENGINEER.



10/02/2023

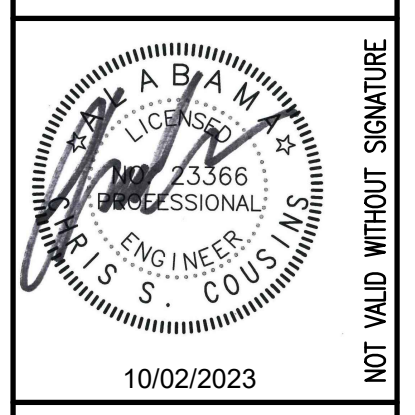
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BAR = 1"

Title  
STANDARD DETAILS  
BID SET

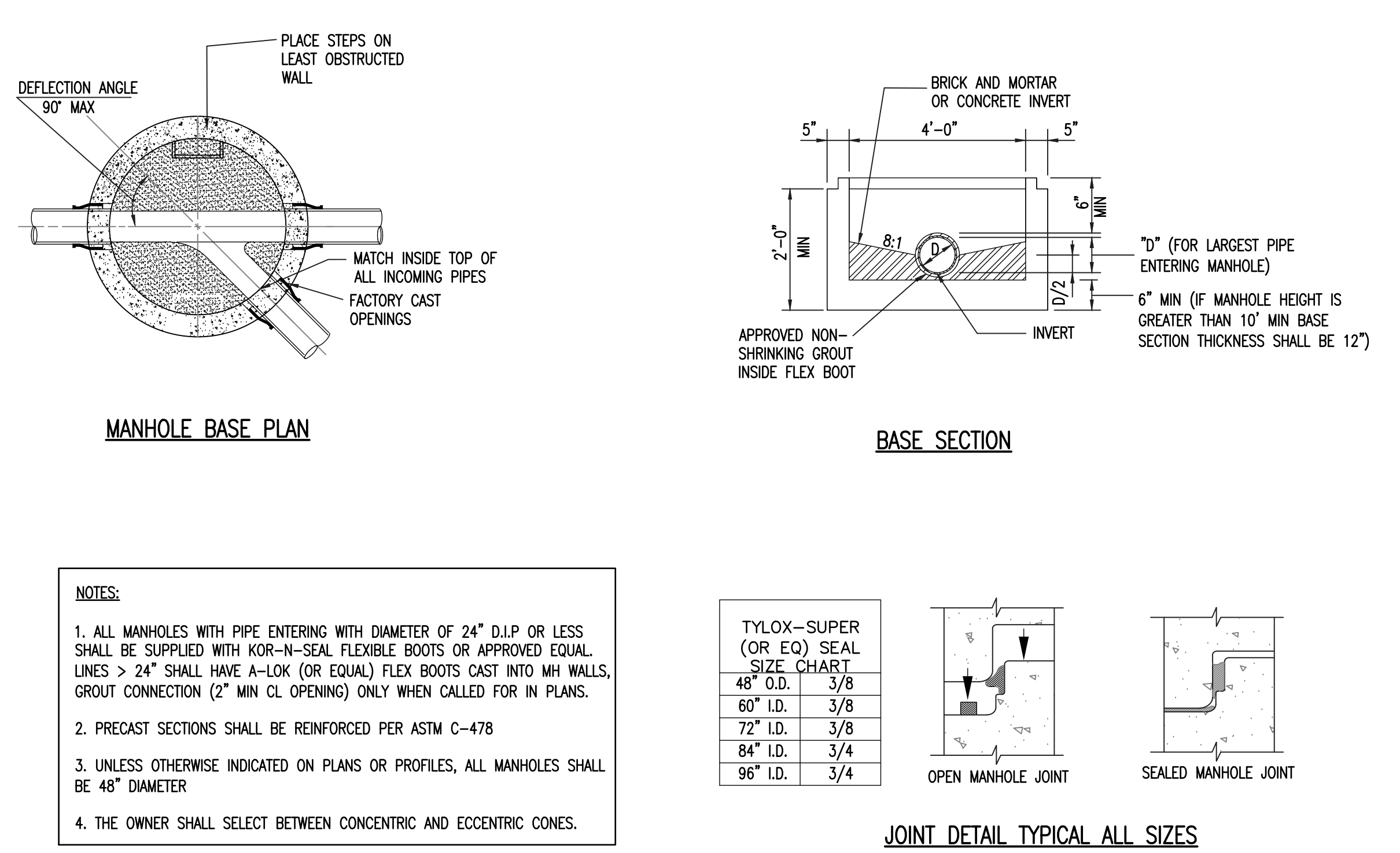
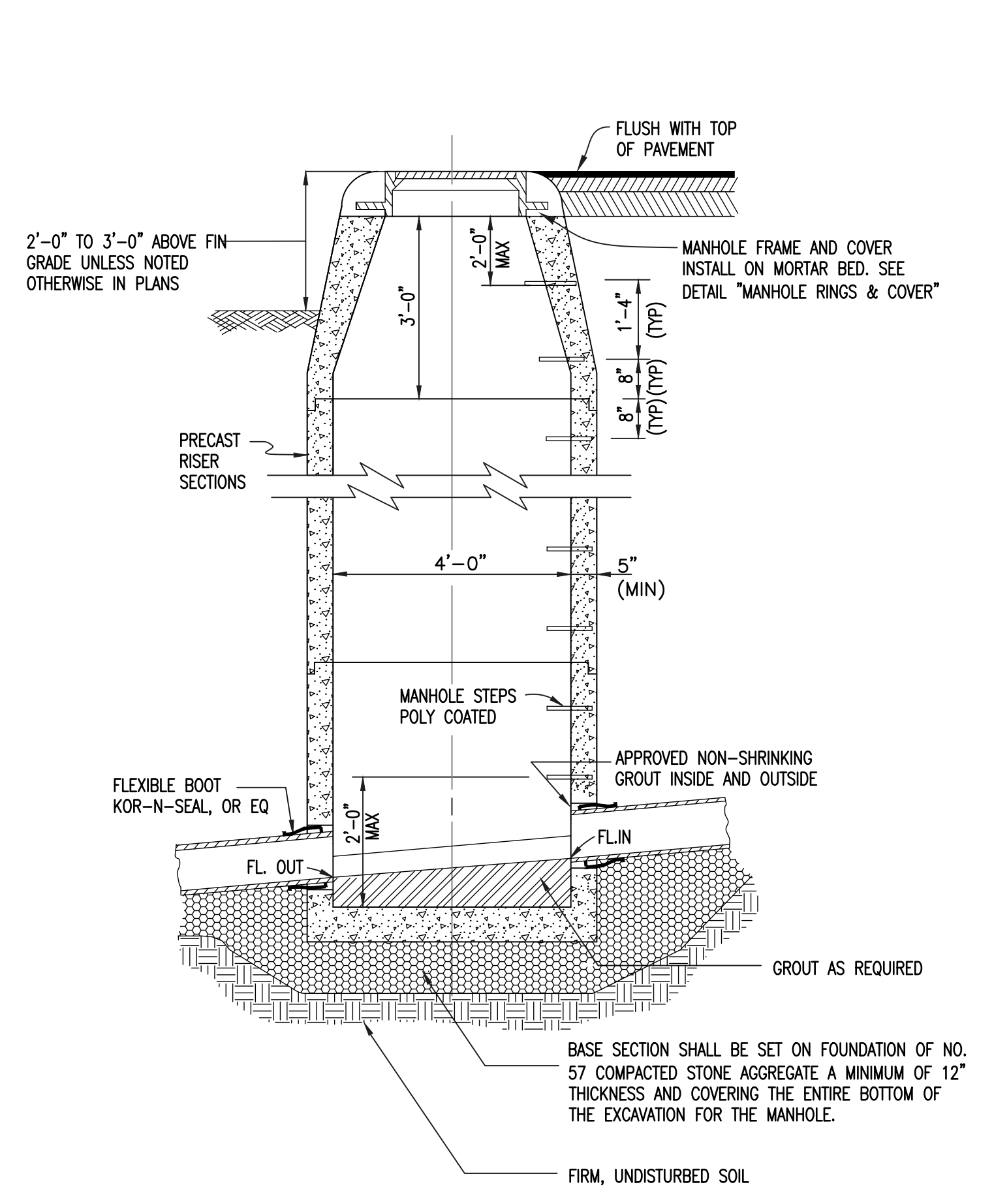
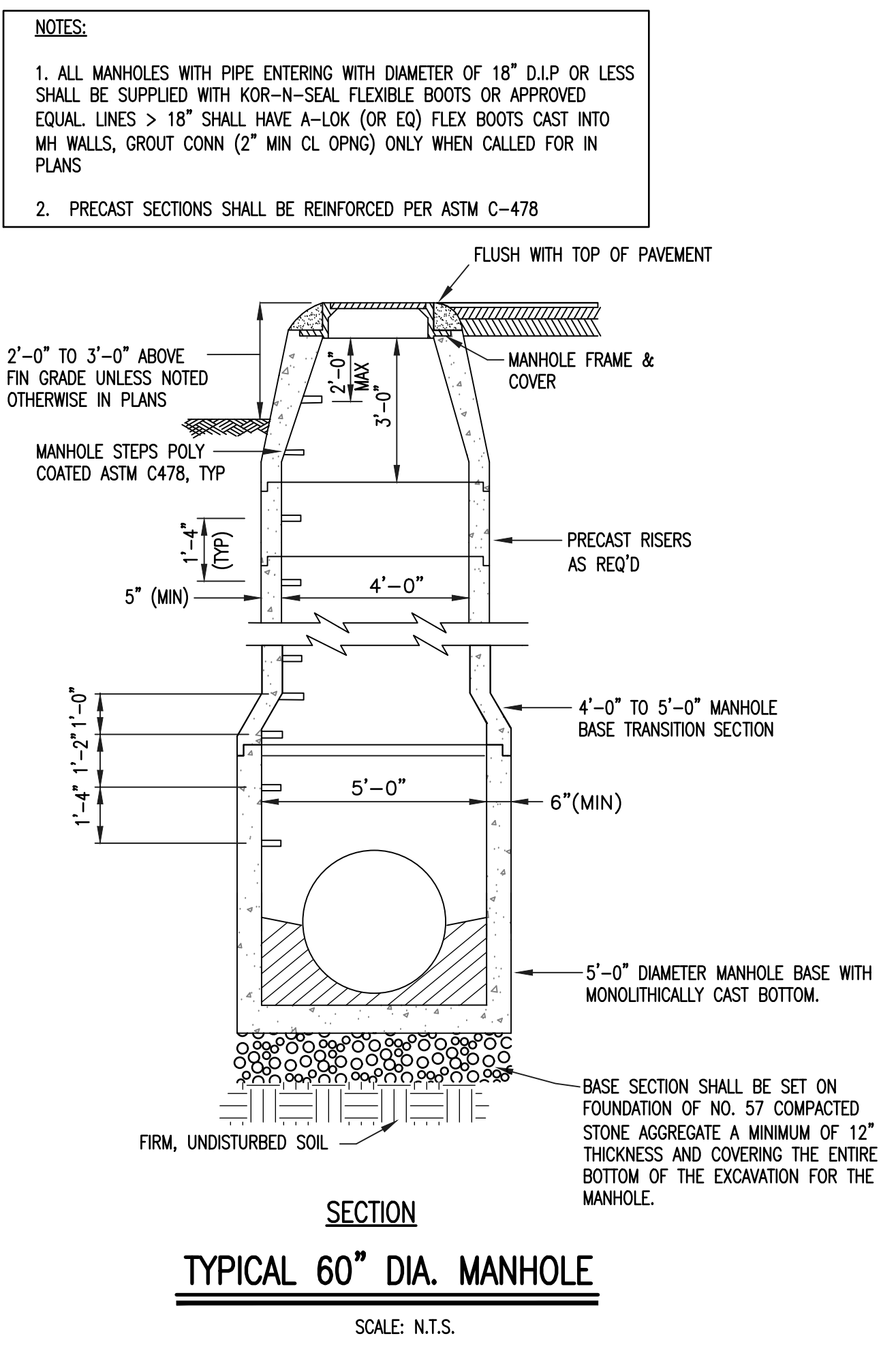
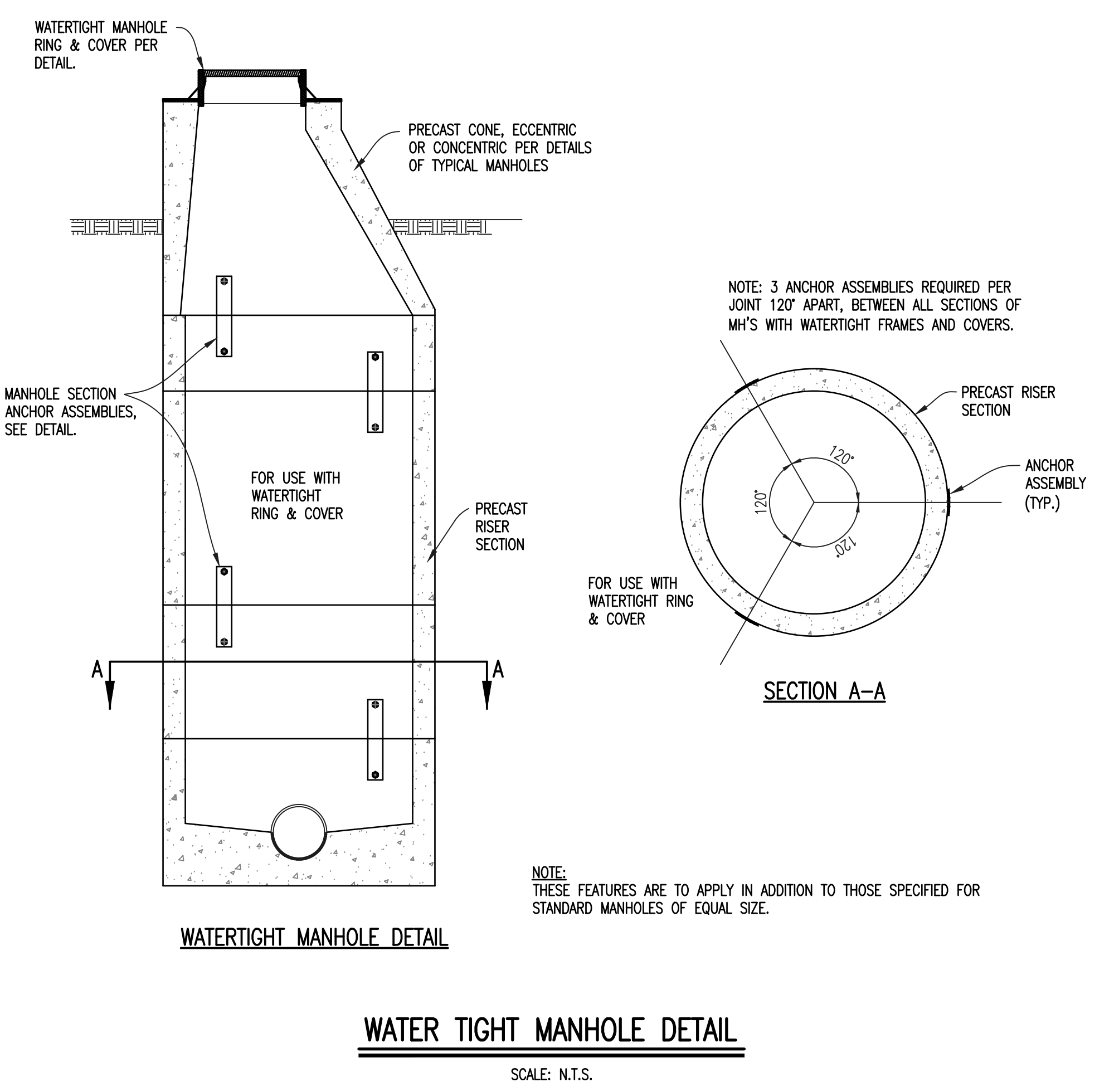
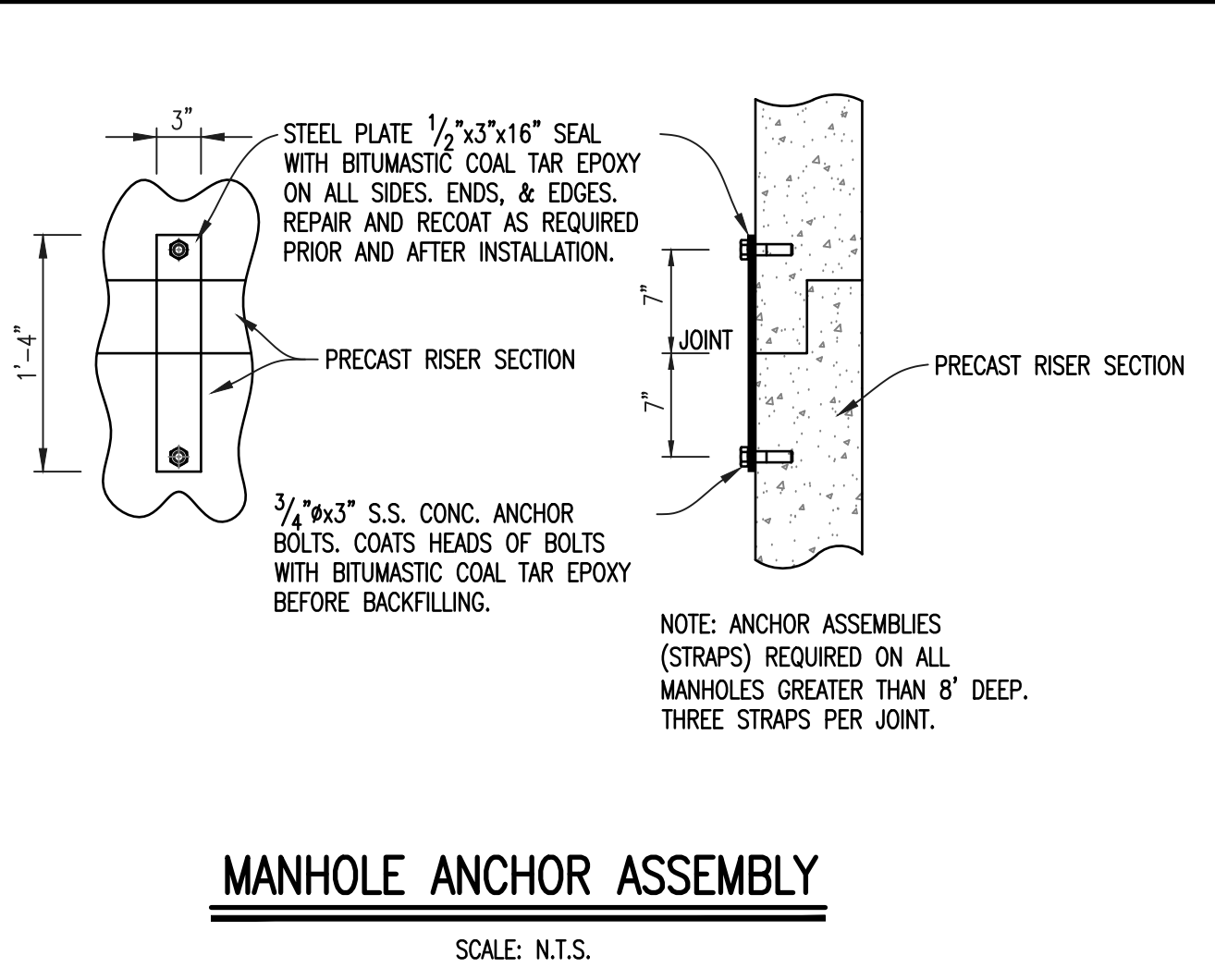
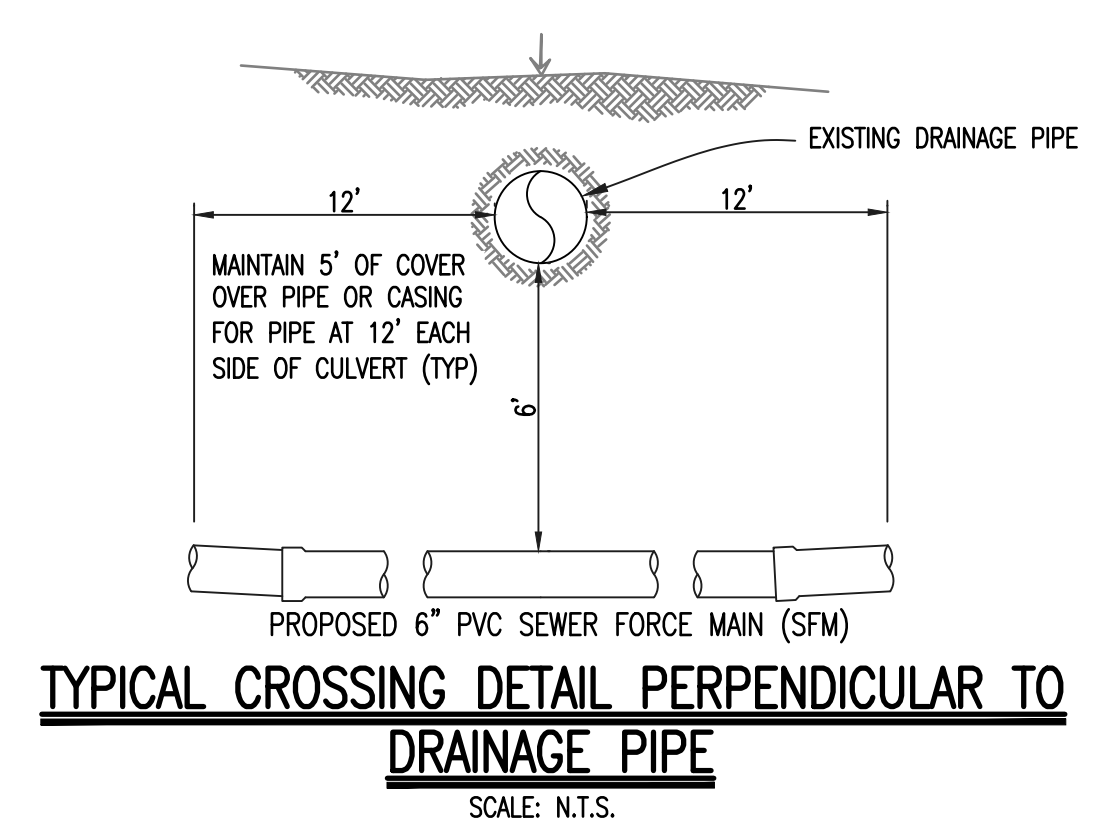
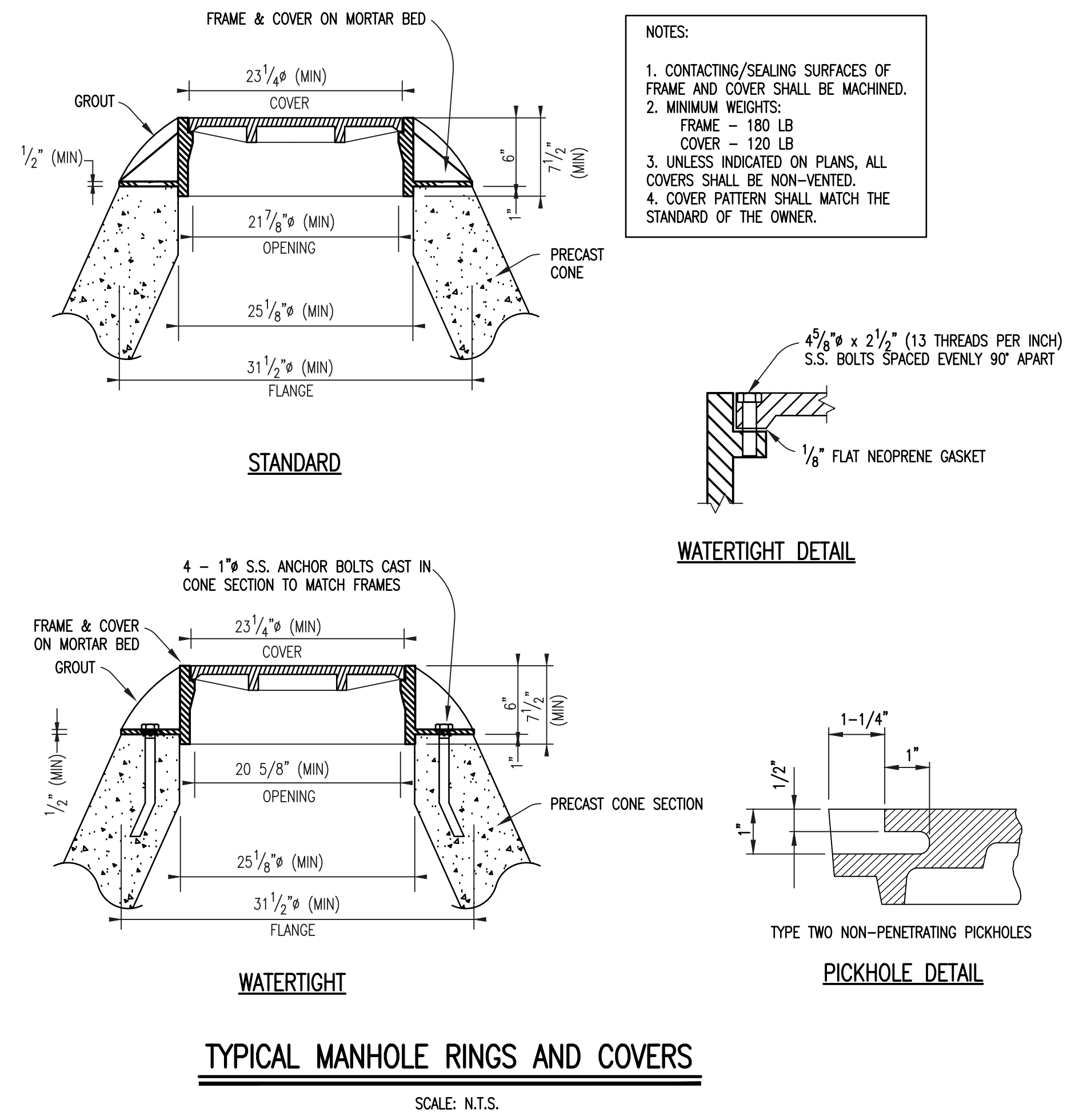
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Project No. 10-2023  
Date NONE  
Scale NONE  
Sheet D3

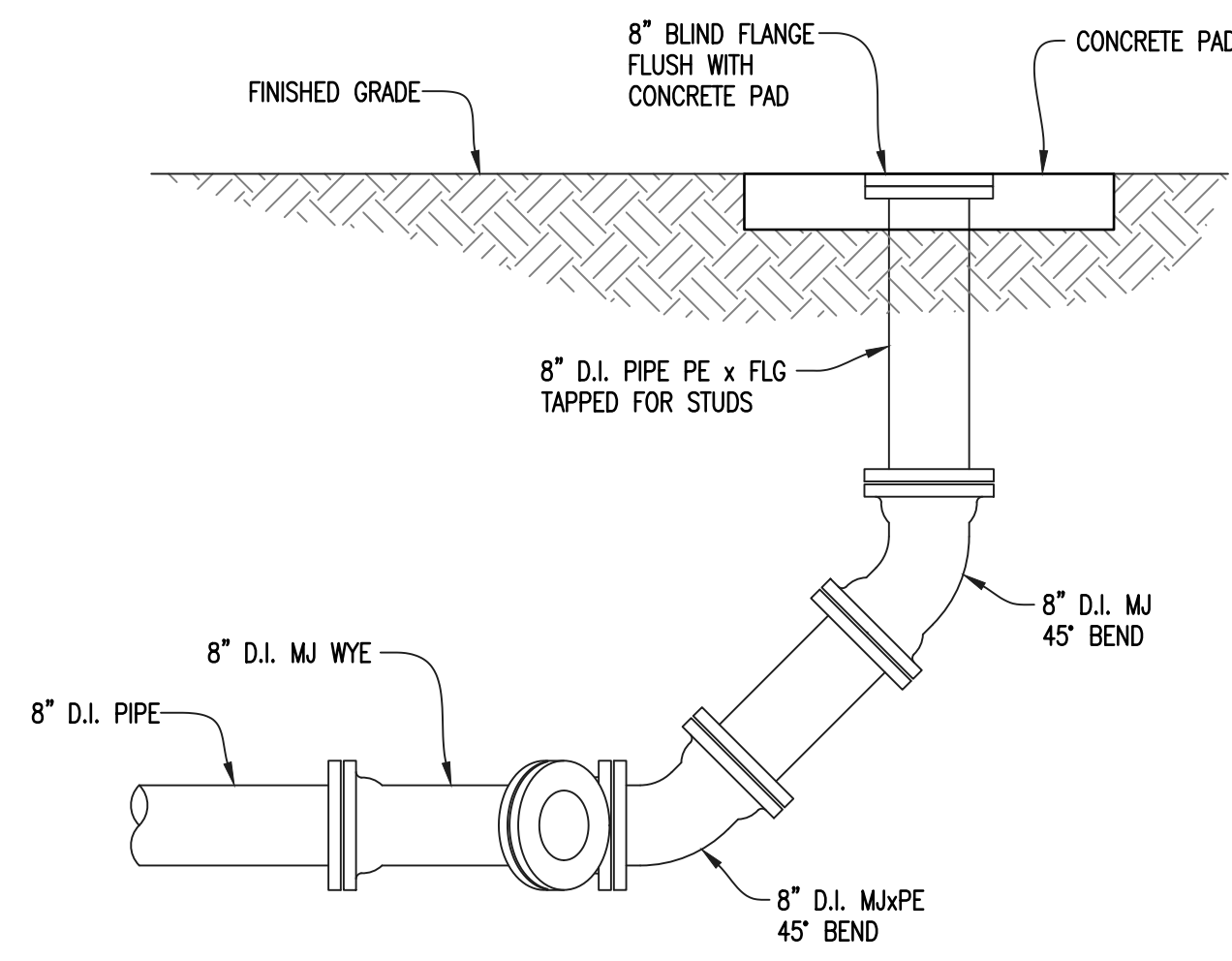




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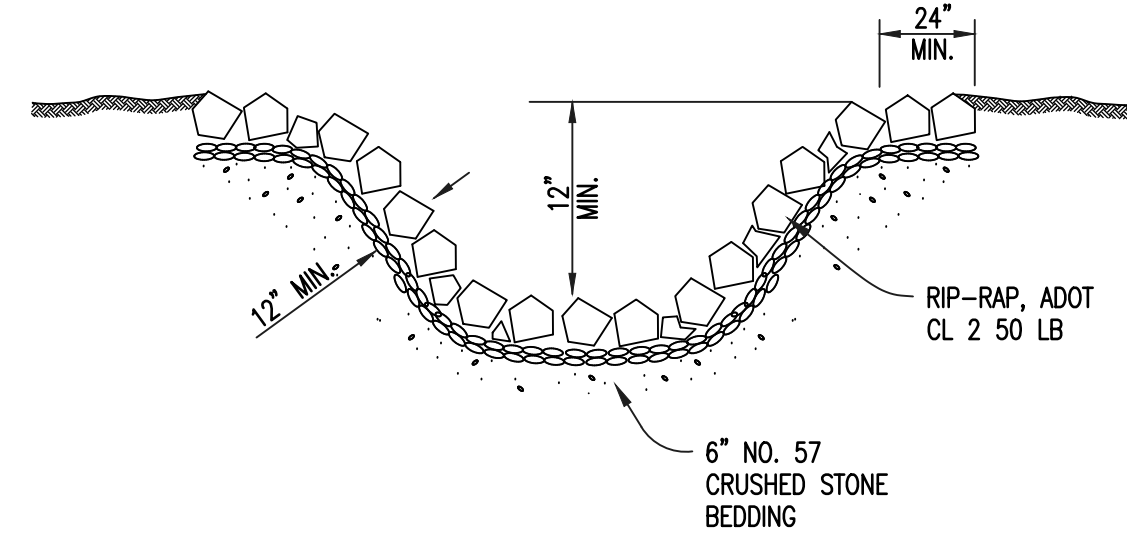
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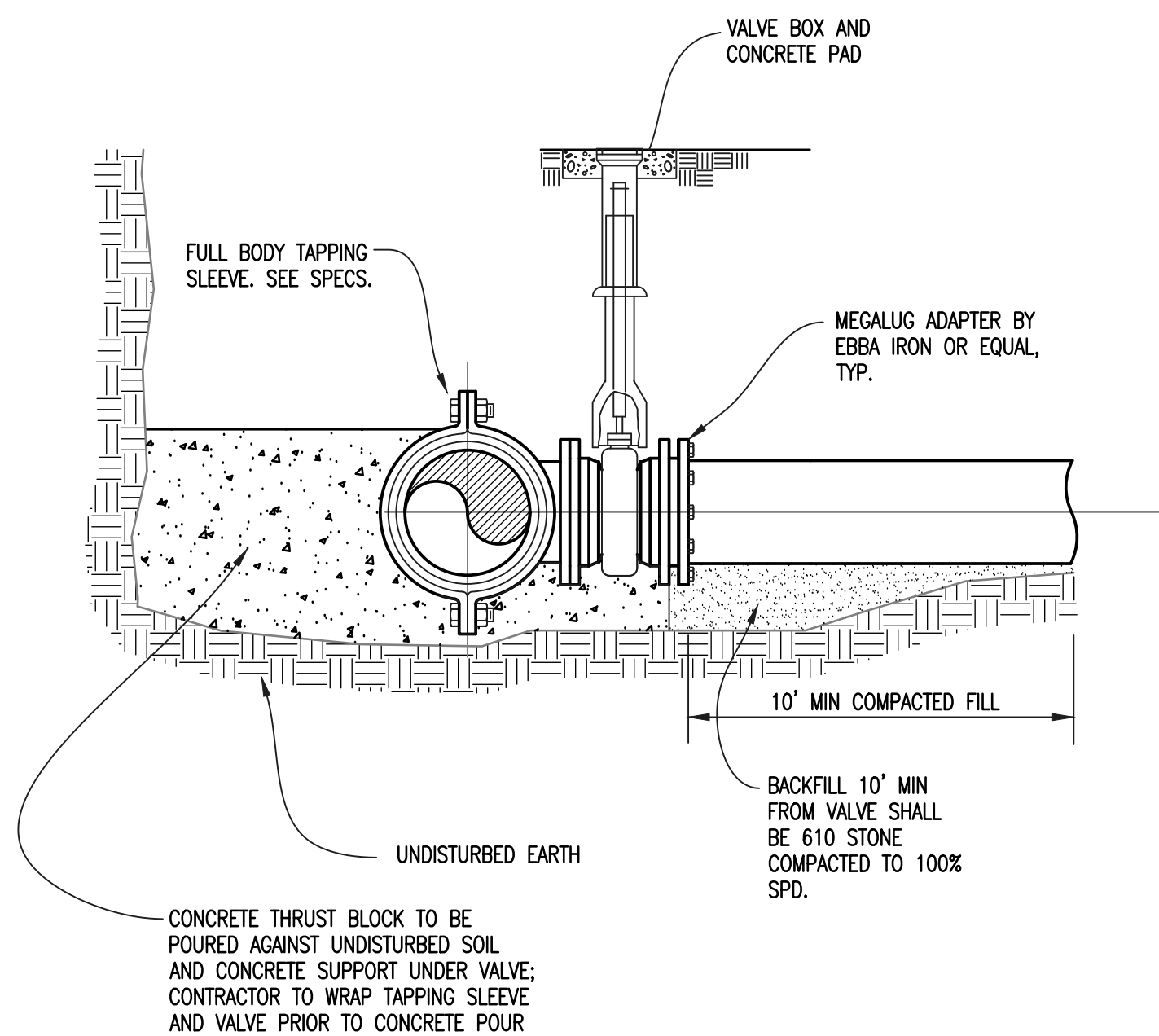
**CLEANOUT DETAIL FOR D.I. PIPE**

SCALE: N.T.S.



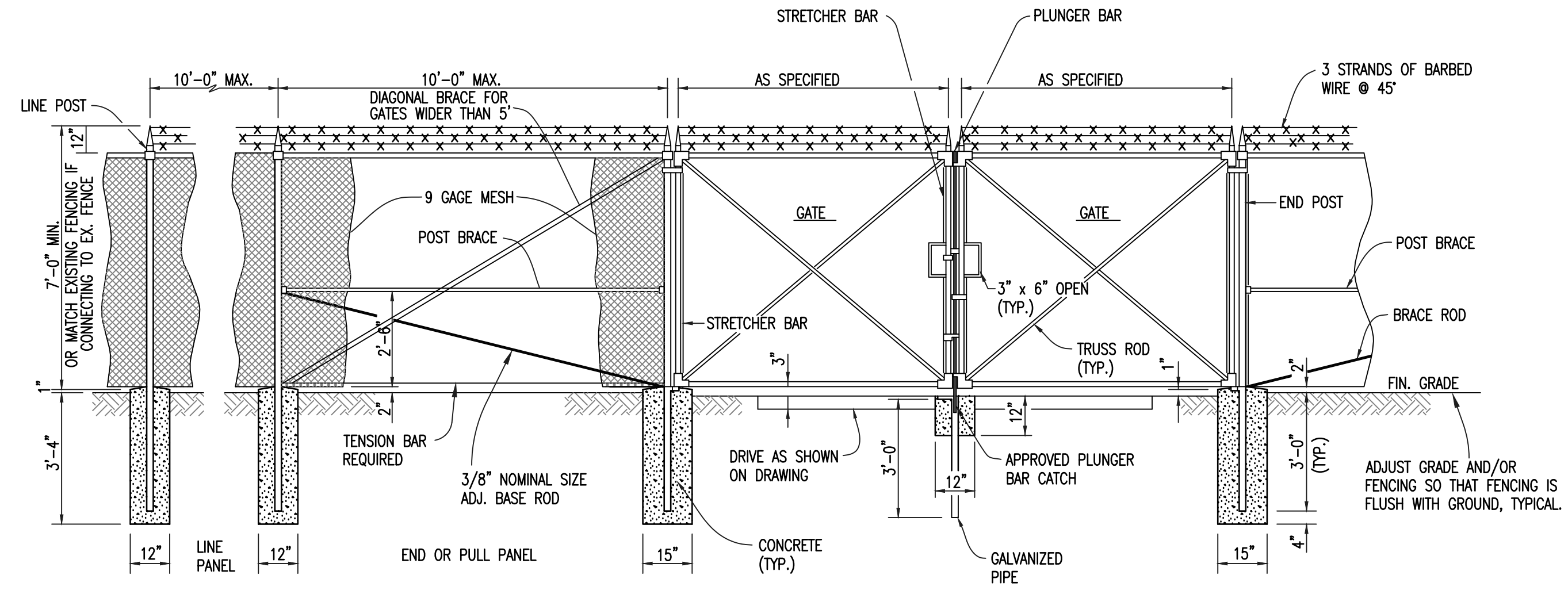
**RIP-RAP DITCH SECTION**

SCALE: N.T.S.



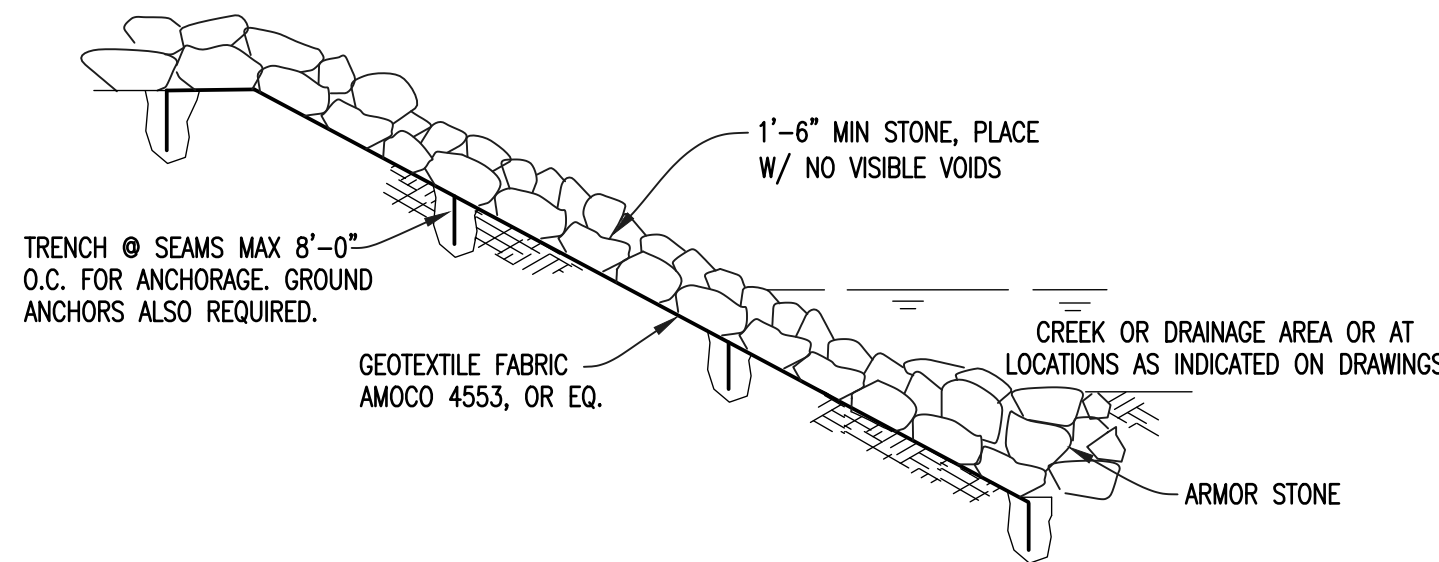
**TAPPING SLEEVE AND VALVE DETAIL**

SCALE: N.T.S.



**TYPE "A" CHAIN LINK FENCE DETAIL**

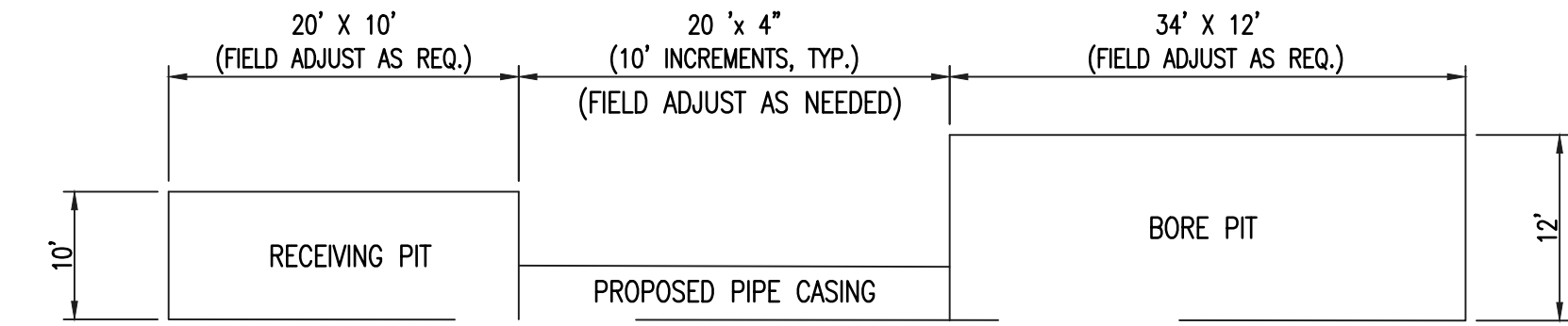
SCALE N.T.S.



- NOTES:
- STONE FOR CHANNEL PROTECTION RIP RAP SHALL BE SELECTED LIMESTONE ROCK CONSISTING OF WELL GRADED STONE WEIGHING FROM 10 POUNDS TO 200 POUNDS EACH WITH AT LEAST 50% WEIGHING OVER 80 POUNDS. BOTH WIDTH AND THICKNESS SHOULD BE 1/3 THE LENGTH FOR EACH STONE. NOT MORE THAN 10% BY TOTAL WEIGHT SHALL WEIGH LESS THAN 10 POUNDS AND NOT MORE THAN 10% BY TOTAL WEIGHT SHALL WEIGH MORE THAN 200 POUNDS.
  - RIP-RAP ALL DISTURBED AREAS ALONG CREEK BANKS, ANY DRAINAGE AREA WITH SLOPES GREATER THAN 3:1, AND OTHER AREAS AS INDICATED ON THE DRAWINGS OR DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

**TYPICAL SLOPE PROTECTION USING RIP-RAP DETAIL**

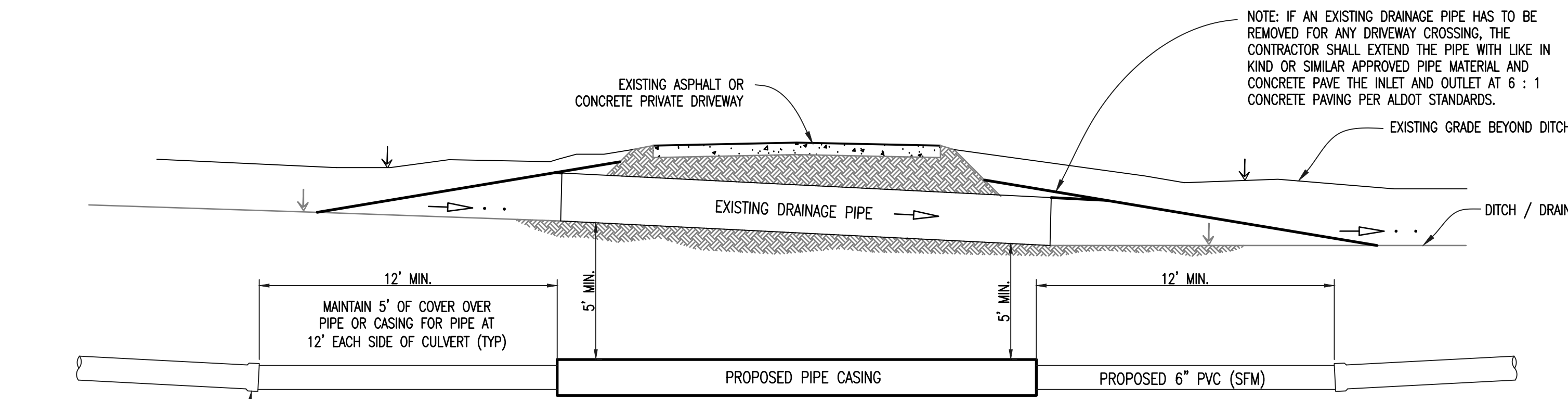
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**TYPICAL CASE & BORE / RECEIVING PIT DETAIL**

PLAN VIEW

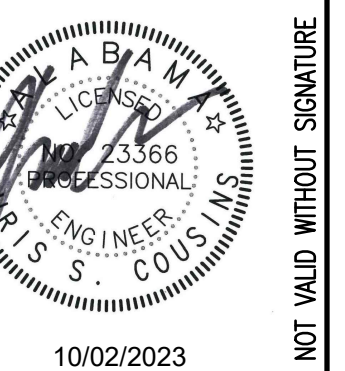
SCALE: N.T.S.



**TYPICAL DRIVEWAY & EXIST. CROSS DRAIN BORE / CROSSING DETAIL PARALLEL TO DRAINAGE PIPE - ALDOT R.O.W.**

SCALE: N.T.S.

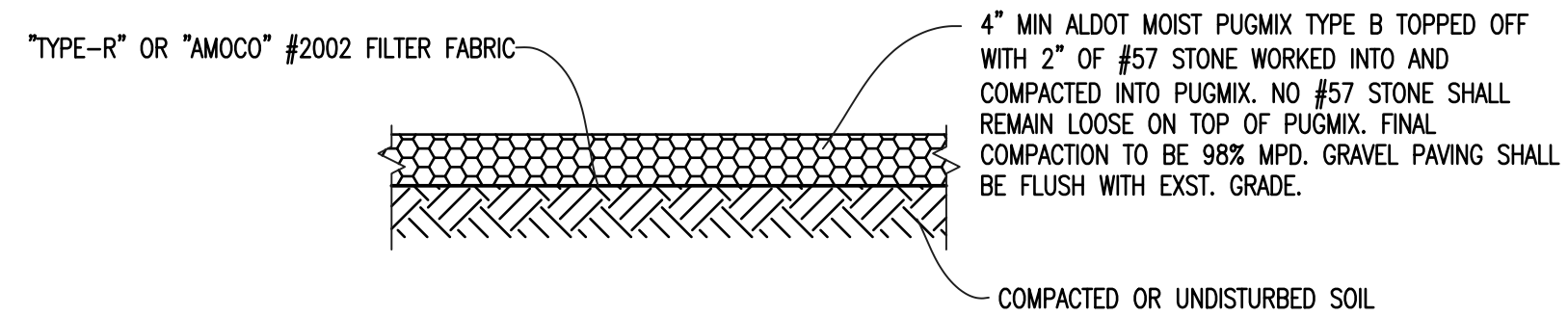
NOTE: ALL DISTURBED AREAS IN THE ALDOT RIGHT OF WAY SHALL BE COMPACTED TO ORIGINAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS. ALL AREAS DISTURBED IN THE ALDOT - AL #63 ROADWAY PRISM SHALL BE COMPACTED TO 98% SPD AND OR ALDOT STANDARDS WHICHEVER IS MORE STRINGENT. TYPICAL.



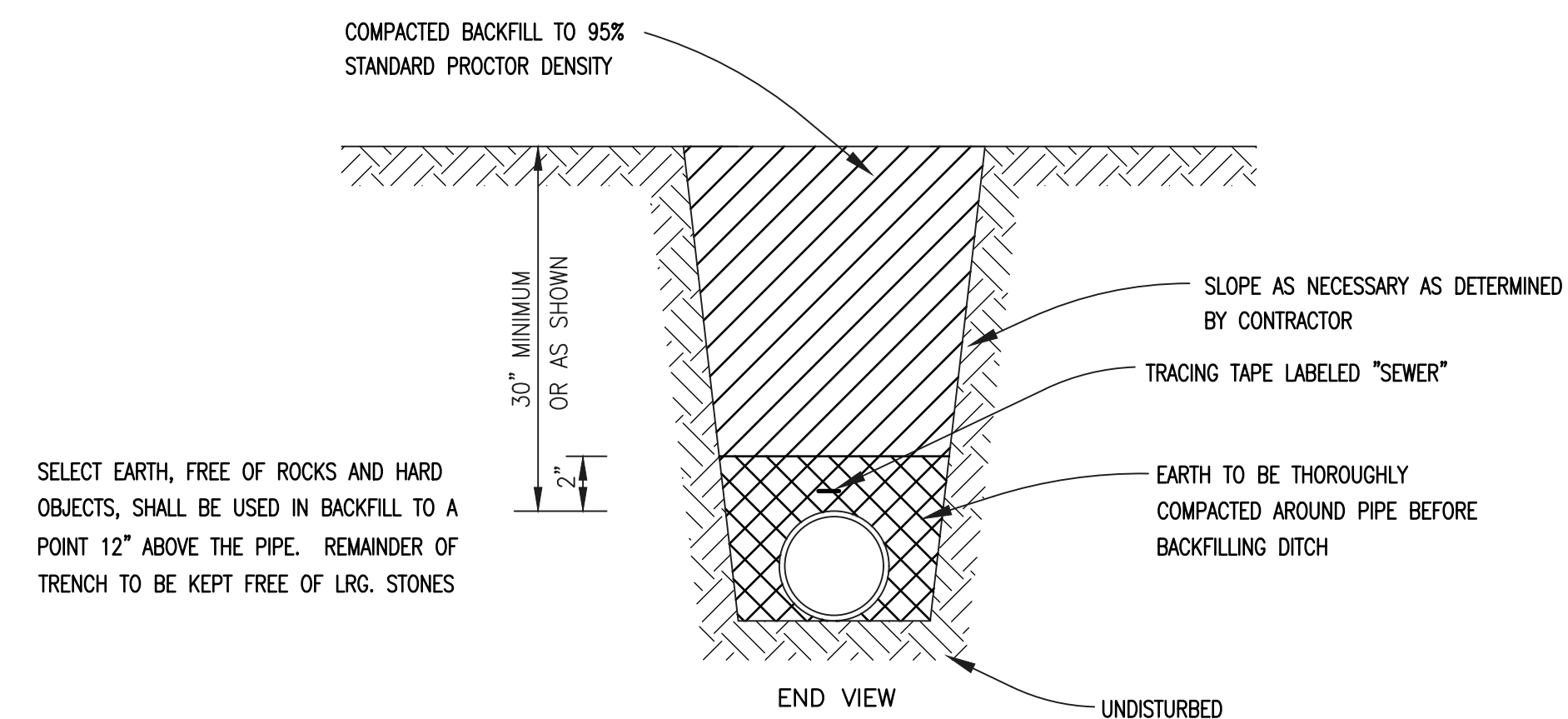
10/02/2023

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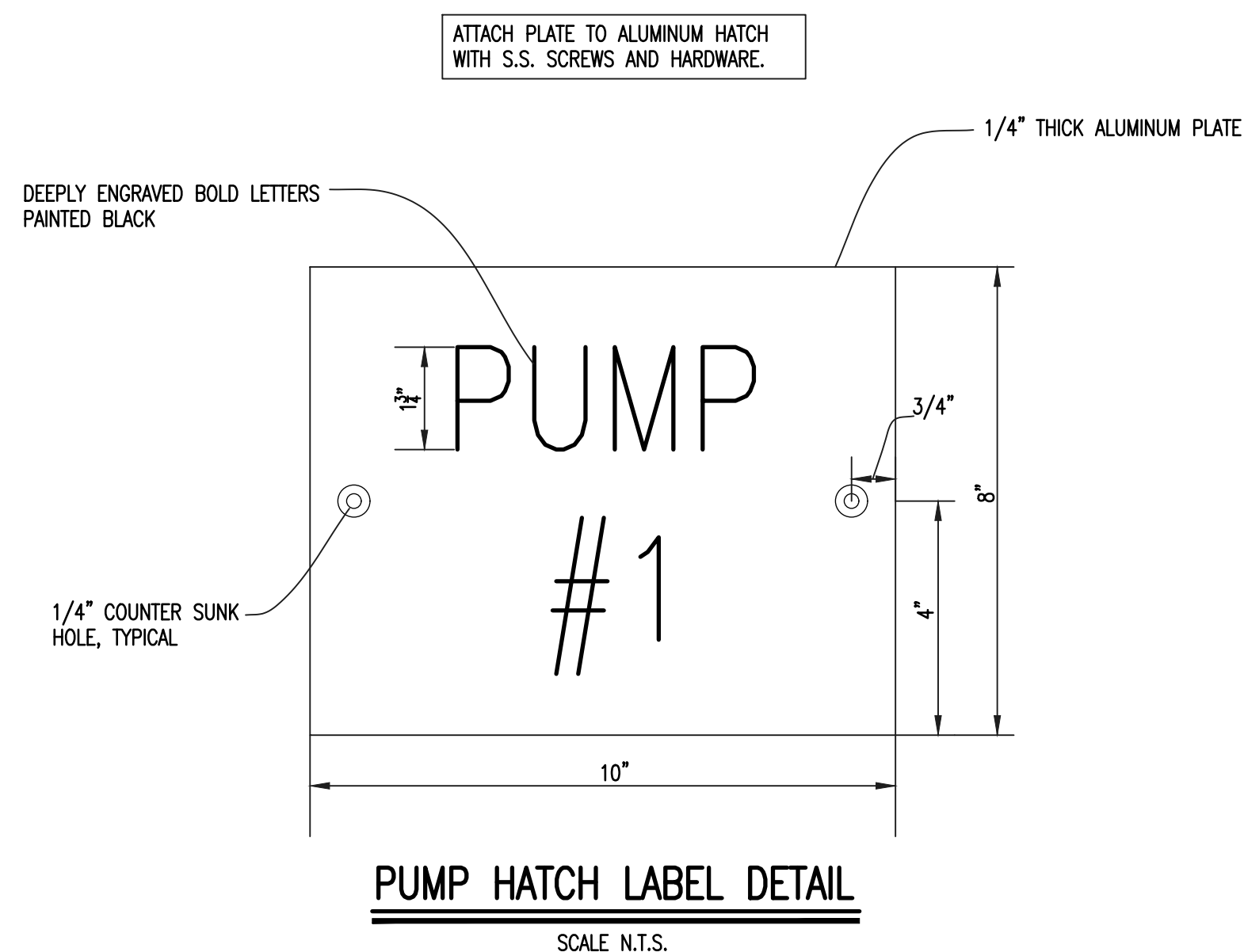
Title		STANDARD DETAILS		BID SET	
Drawing	Project No.	Date	Scale	Sheet	
	10-2023	NONE	D5		



**GRAVEL PAVED AREAS**  
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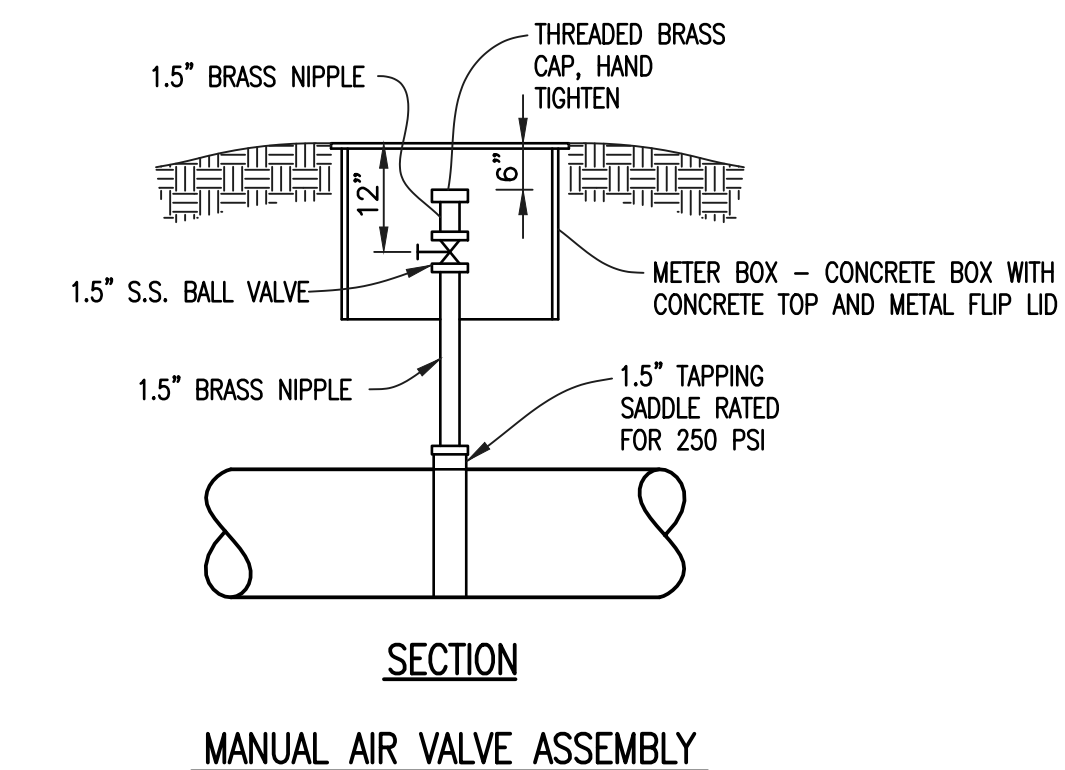


**TYP. PRESSURE PIPE INSTALLATION**  
SCALE: N.T.S.



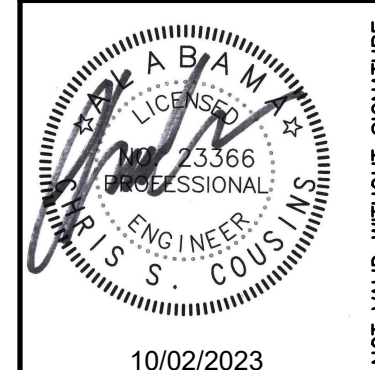
**NOTES FOR AIR VALVE ASSEMBLIES:**

1. PLACE ALL AIR VALVE ASSEMBLIES WHERE SHOWN OR AS DIRECTED BY ENGINEER.
2. AIR VALVE ASSEMBLIES MUST BE ON FULL JOINT AND IN MIDSPAN OF PIPE. CONTRACTOR MUST LAY PIPE SUCH THAT AIR VALVE ASSEMBLY WILL BE ON HIGH SPOT.



**Municipal Consultants, Inc.**  
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Birmingham, Alabama 35226  
(205) 822-0387

**THE CITY OF ALEXANDER CITY**  
MULTI AGENCY WASTEWATER SOLUTION  
PROJECT "B" HIGHWAY 128 SEWER FORCE MAIN  
BID #24-03 (SRF PROJECT CS-010329-05)  
2023



10/02/2023

BAR = 1"

Drawing	Title	
	STANDARD DETAILS	
Project No.	10-2023	BID SET
Date	NONE	
Scale	D6	
Sheet		

**BMP GENERAL NOTES:**

THE FOLLOWING REQUIREMENTS ARE TO BE CONSIDERED MINIMUM STANDARDS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS, CODES AND REGULATIONS. THE CONTRACTOR SHALL OBTAIN AN NPDES PERMIT FOR THE PROPOSED WORK AS REQUIRED BY THE ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM). BY BIDDING THE PROJECT, THE CONTRACTOR IS CERTIFYING THAT IF AWARDED THE CONTRACT, HE WILL BE THE SOLE PERMITEE ON THIS PERMIT AND THAT HE SHALL INDEMNIFY THE OWNER AGAINST AND SHALL BE SOLELY RESPONSIBLE FOR ANY FINES OR MONETARY DAMAGES ASSOCIATED WITH STORMWATER RUNOFF AND CONTROL.

1. THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES (BMP'S) FOR THE PREVENTION AND CONTROL OF NONPOINT SOURCES OF POLLUTANTS DURING AND AFTER PROJECT IMPLEMENTATION. THE CONTRACTOR, AT A MINIMUM, MUST IMPLEMENT BMP'S AS PROVIDED IN THE ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL & STORMWATER MANAGEMENT ON CONSTRUCTION SITES & URBAN AREAS, AS AMENDED, AND THE EPA STORMWATER POLLUTION PREVENTION FOR CONSTRUCTION ACTIVITIES—DEVELOPING POLLUTION PREVENTION PLANS AND BEST MANAGEMENT PRACTICES, AS AMENDED. THE EROSION CONTROL DEVICES SHOWN ON THIS PLAN ARE A MINIMUM. ADDITIONAL DEVICES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER AS REQ'D TO PREVENT SILTATION, EROSION, & OTHER DEGRADATION OR POLLUTION TO SITE OR ADJACENT PROPERTIES, STREAMS, DITCHES, PUBLIC ROADWAYS, ETC.

2. SITE GRADING SHALL BE MAINTAINED SO THAT NO SLOPE DRAINAGE ENTERS EXCAVATED OR DISTURBED AREAS.

3. TO THE EXTENT PRACTICAL, THE CONTRACTOR SHALL SCHEDULE HIS ACTIVITIES TO MINIMIZE THE AMOUNT OF AREA DISTURBED AT ANY ONE TIME.

4. ALL STOCKPILE EXCAVATED MATERIAL SHALL BE GRASSED OR COVERED WITHIN 72 HOURS OF STOCKPILING. GRASSING AND FERTILIZATION OF STOCKPILED SOILS SHALL BE AS PER THE ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL & STORMWATER MANAGEMENT ON CONSTRUCTION SITES & URBAN AREAS. SEED RATES SPECIFIED IN THE MANUAL SHALL BE DOUBLED.

5. CONTRACTOR SHALL AS A MINIMUM INSPECT STORMWATER CONTROLS ONCE EVERY TWO WEEKS AND FOLLOWING A 1/2" OR GREATER RAINFALL IN ANY 24 HOUR PERIOD. SILT FENCING SHALL ALSO BE CHECKED WHEN WIND GUSTS EXCEED 25 MPH. DEFICIENCIES FOUND IN STORMWATER CONTROLS SHALL BE CORRECTED IMMEDIATELY. THE CONTRACTOR SHALL MAINTAIN A LOG OF ALL INSPECTION ACTIVITIES.

6. THE CONTRACTOR SHALL INSTALL SILT FENCING AROUND THE PROJECT PERIMETER AS REQUIRED PRIOR TO COMMENCING PROJECT. IN THE EVENT THAT THE PROJECT REQUIRES TEMPORARY CHANNELIZATION OF STORMWATER RUNOFF, THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN APPROPRIATE BMP CONTROLS (SETTLING BASINS, CHECK DAMS, ETC.)

7. PERMANENT VEGETATION OF ALL DISTURBED AREAS IS REQUIRED. ONCE ALL LAND DISTURBANCES HAVE CEASED & ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED, EROSION CONTROL DEVICES SHALL BE REMOVED.

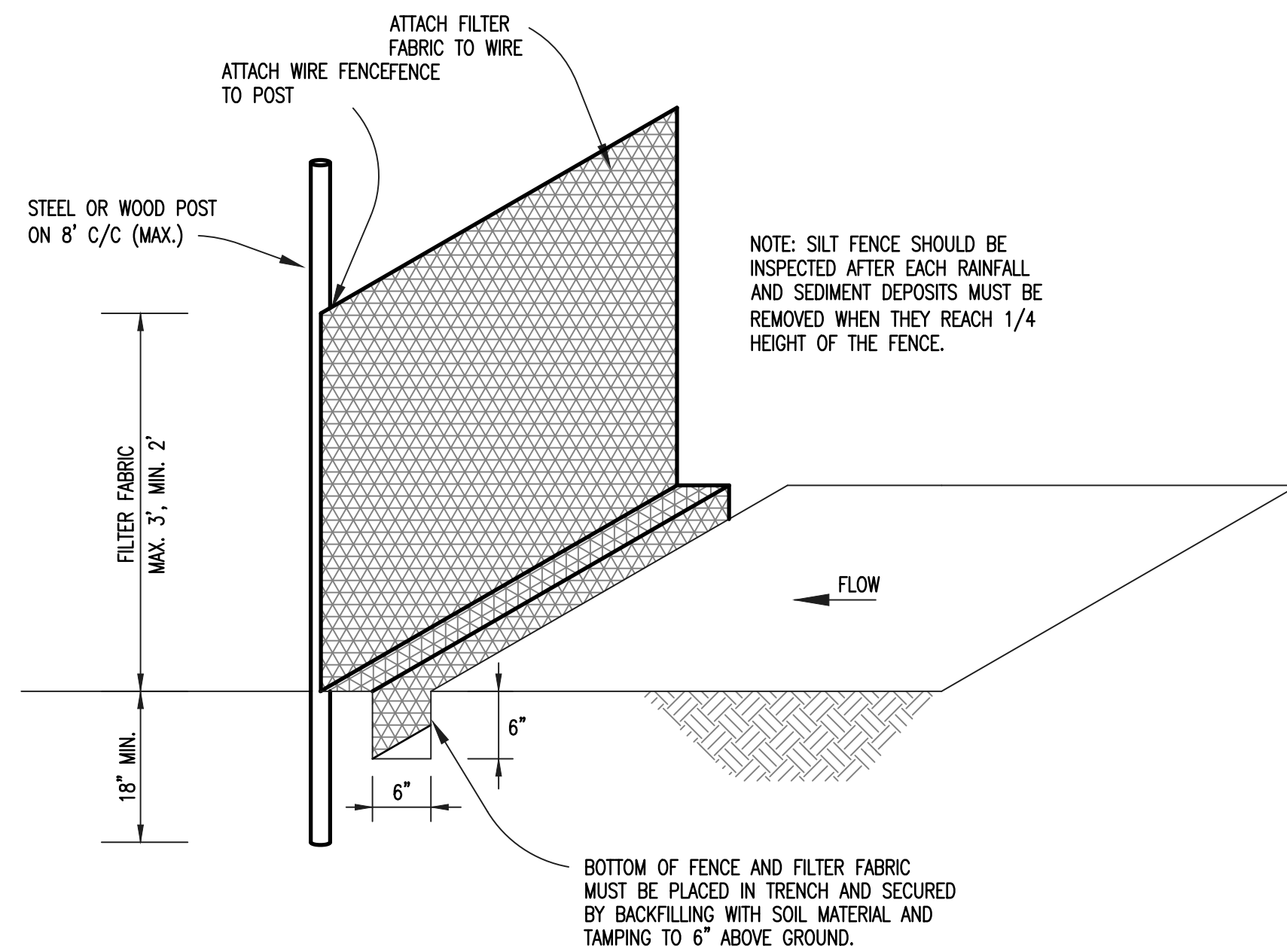
8. THE CONTRACTOR SHALL REMOVE ANY SEDIMENT TRACKED ON PUBLIC ROADWAYS IMMEDIATELY.

9. ALL DISTURBED AREAS LEFT INACTIVE FOR LONGER THAN 13 DAYS SHALL BE TEMPORARILY GRASSED OR COVERED TO PREVENT EROSION.

10. PERMANENT TURF REINFORCEMENT MATS ARE REQUIRED ON ALL SLOPES 2:1 OR STEEPER, AS WELL AS ALL DITCH LINES & SIDES.

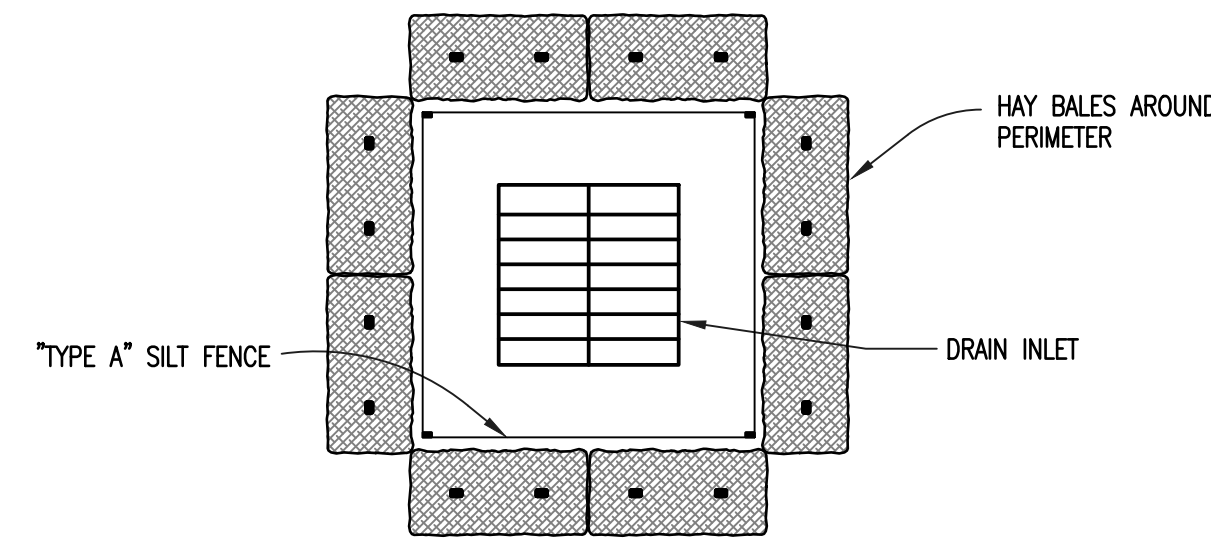
11. BMP MEASURES MAY BE SHOWN OUTSIDE OF CONSTRUCTION LIMITS AND/OR RIGHTS OF WAY FOR CLARITY. CONTRACTOR SHALL NOT INSTALL BMP'S BEYOND PROJECT BOUNDARIES.

12. CONTRACTOR IS RESPONSIBLE FOR THE RENEWAL OF ALL NPDES PERMITS AS REQUIRED FOR THE PROJECT.



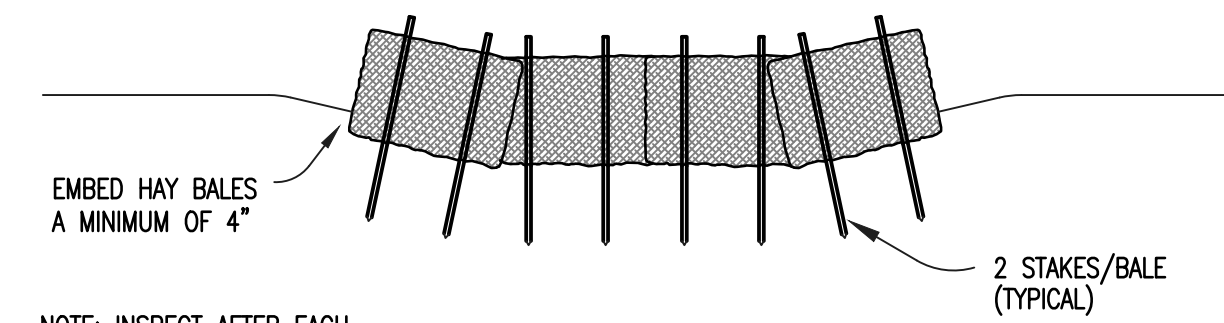
**SILT FENCE DETAIL**

SCALE: N.T.S.



**INLET PROTECTION DETAIL**

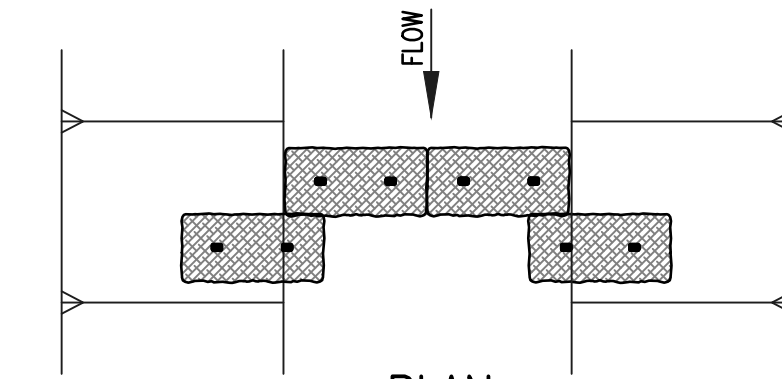
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**SECTION**

SCALE: N.T.S.

NOTE: INSPECT AFTER EACH RAINFALL AND REMOVE ANY SEDIMENT DEPOSIT

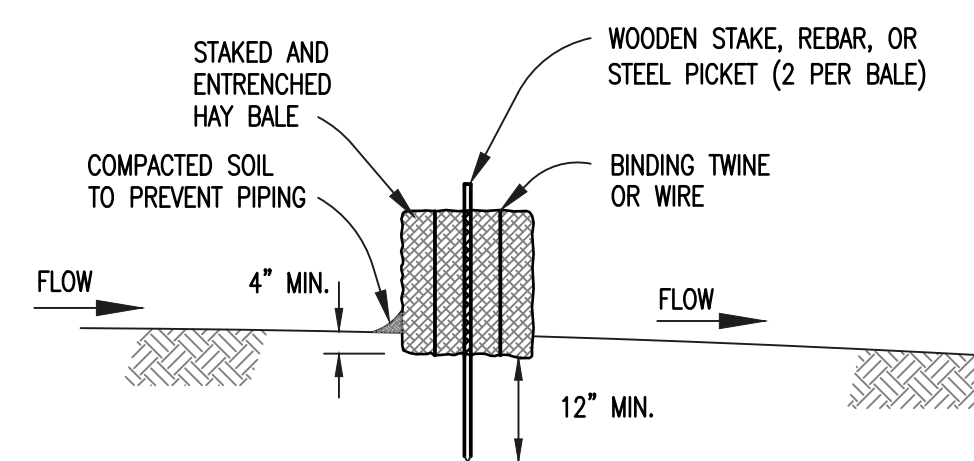


**PLAN**

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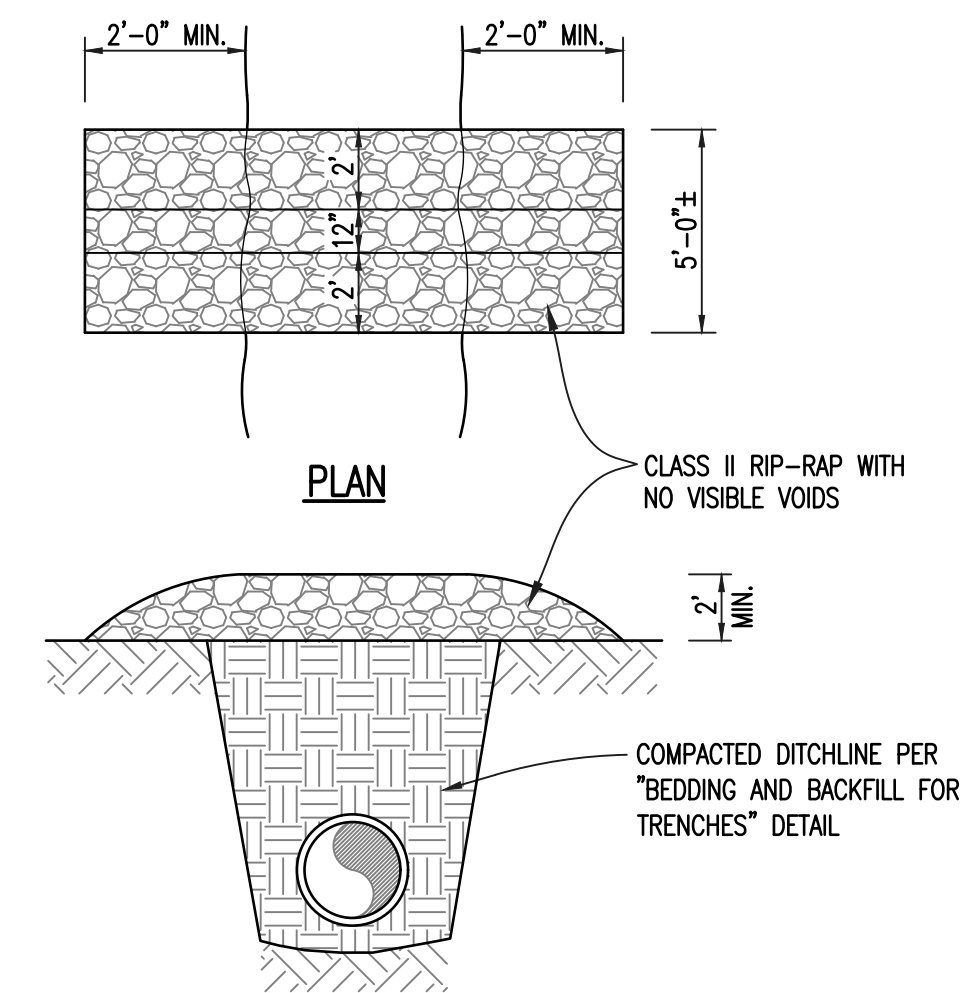
**HAY BALE DITCH CHECK DETAIL**

SCALE: N.T.S.



**HAY BALE STAKING DETAIL**

SCALE: N.T.S.



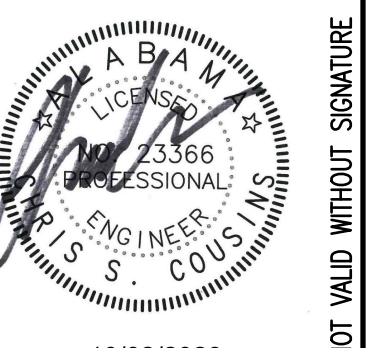
**SECTION**

SCALE: N.T.S.

**RIP-RAP DITCH CHECK DETAIL**

SCALE: N.T.S.

**NOTE:**  
EROSION CONTROL WITHIN ROW SHOULD ADHERE TO ALDOT STANDARDS



10/02/2023

NOT VALID WITHOUT SIGNATURE

BAR = 1"

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STANDARD DETAILS		BID SET