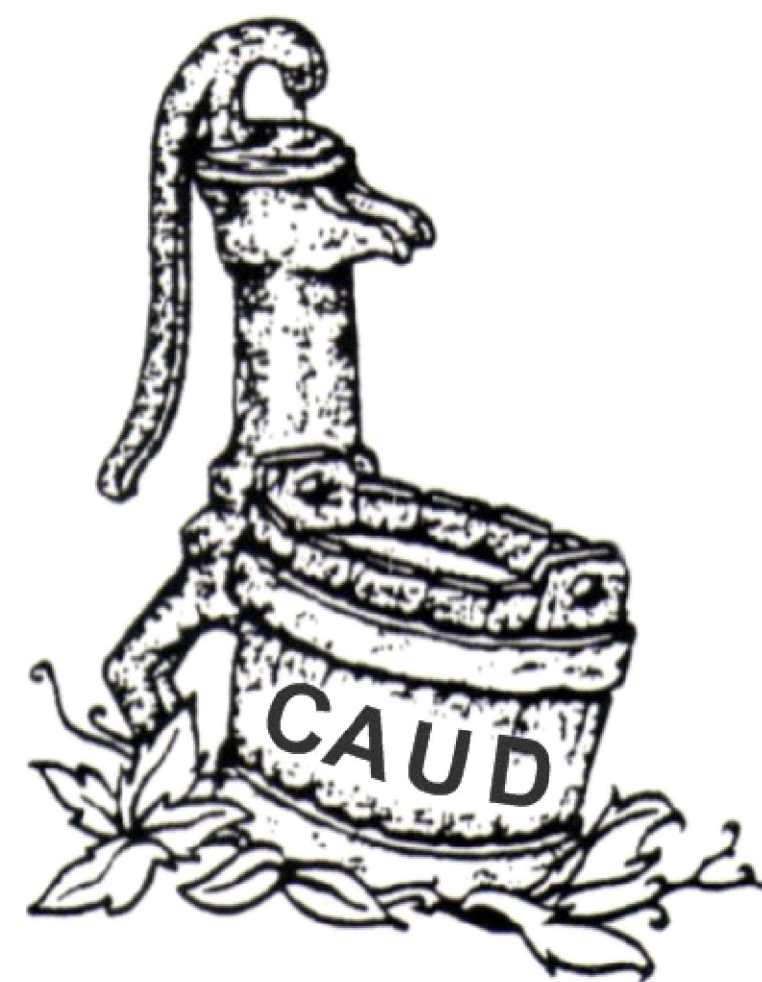


CONTRACT No. 3

# Phase 19 Sewer System Improvements Sewer Main Replacement and Rehabilitation

FOR THE

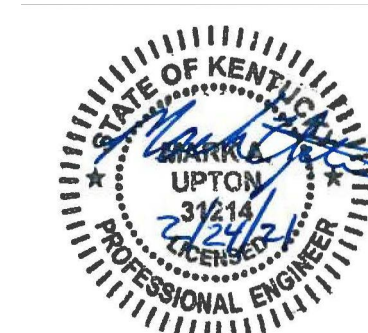
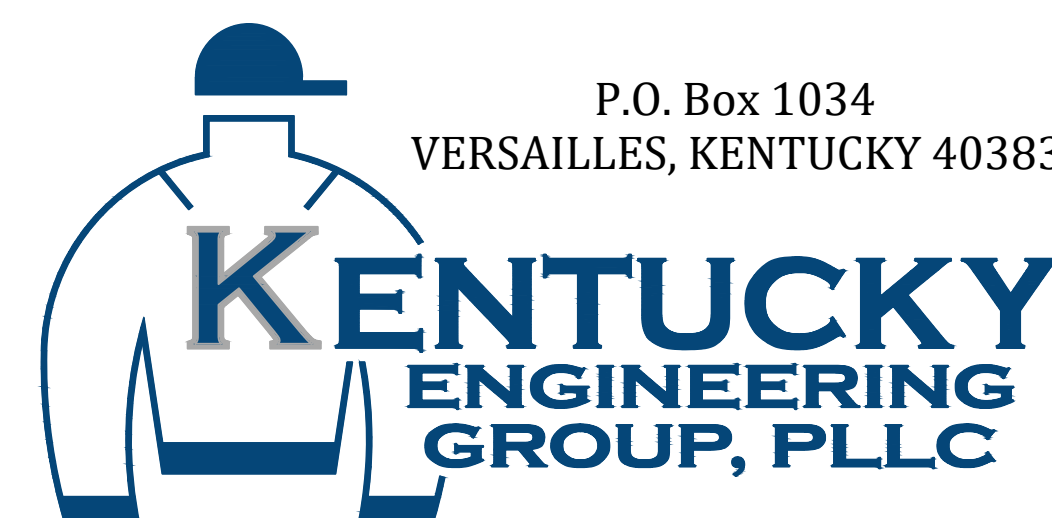


SRF PROJECT NO. - SX21001004

SRF LOAN NO. - A20-016

## Columbia-Adair Utilities District Adair County, Kentucky

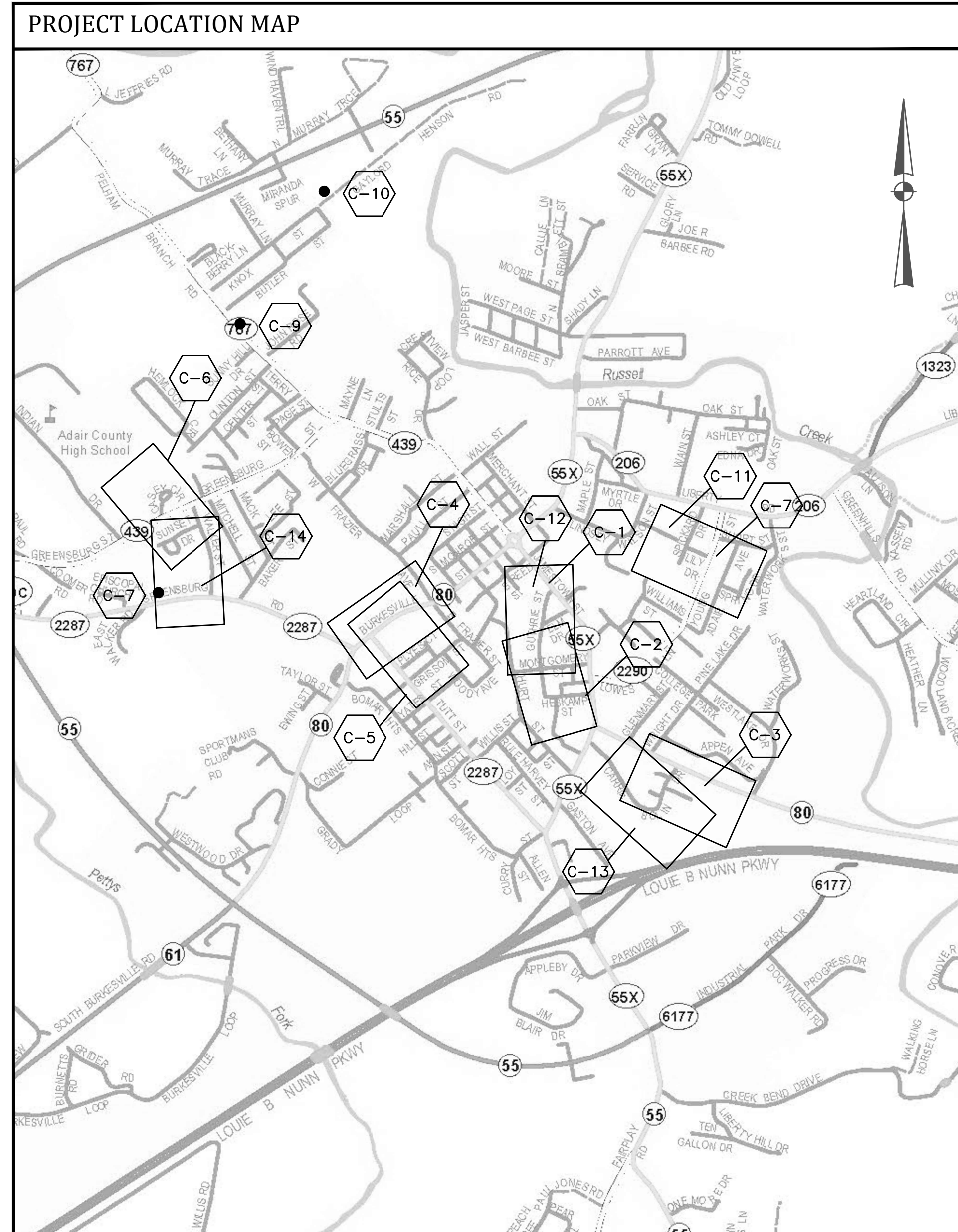
MARCH, 2021



PROJECT NO. 20001

**BID DOCUMENTS**

P:\PROJECTS\Columbia-Adair Utility District\20001 - Phase 19 - Downtown Sewer\DWG\20001 G-1.dwg KEG 2/24/21



**COLUMBIA**  
NOT TO SCALE

EXISTING	PROPOSED	DESCRIPTION
PVC	PVC	POLYVINYL CHLORIDE
DIP	DIP	DUCTILE IRON PIPE
WM	WM	WATER MAIN
⊕	⬆	HYDRANT ASSEMBLY
⊕	⬆	FLUSHING/BLOWOFF ASSEMBLY
△	▲	AIR RELEASE VALVE (ARV)
⊗	⊗	GATE VALVE (GV)
---	---	WATER MAIN (WM)
---	---	SPECIAL CROSSING OR CASING PIPE
---	---	WATER MAIN TO BE ABANDONED
R/W	R/W	RIGHT-OF-WAY LINE
---	---	CENTERLINE
---	---	PROPERTY LINE
⊙	⊙	CUSTOMER SERVICE METER
OWNER	OWNER	EDGE OF PAVEMENT (WHITE LINE)
		EASEMENT ACQUIRED

UTILITIES	
<p><b>BUD - Before You Dig</b> 1-800-752-6007 or DIAL 811</p>	<p><b>NOTE:</b> IN ACCORDANCE WITH KENTUCKY STATE LAW, ANY ACTIVITY THAT RESULTS IN MOVEMENT, PLACEMENT, BORING, PROBING OR DIGGING IN OR ON THE GROUND SHALL CONTACT THE ONE CALL CENTER FOR UNDERGROUND UTILITY LOCATIONS.</p>

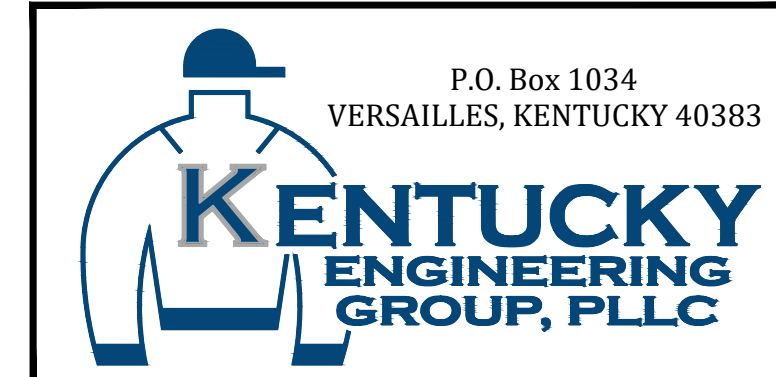
INDEX OF DRAWINGS	
SHT. NO.	DESCRIPTION:
--	COVER
G-1	LOCATION MAP, LEGEND, UTILITY OWNERS and INDEX OF DRAWINGS
G-2	GENERAL NOTES
C-1	PLAN - PROFILE ELM STREET
C-2	PLAN - PROFILE GUTHRIE STREET
C-3	PLAN - PROFILE HANLEY LANE
C-4	PLAN - PROFILE BURKESVILLE ROAD
C-5	PLAN - PROFILE TUTT STREET
C-6	PLAN - PROFILE CASEY CIRCLE
C-7	PLAN - PROFILE HELEN FLATT DRIVE
C-8	DON FRANKLIN PUMP STATION
C-9	LONG HUNTER 1 PUMP STATION
C-10	LONG HUNTER 2 PUMP STATION
C-11	LINSEY WILSON COLLEGE SANITARY SEWER REHABILITATION
C-12	JAMESTOWN AND GUTHRIE STREET SANITARY SEWER REHABILITATION
C-13	CARRIE BOLIN DRIVE SANITARY SEWER REHABILITATION
C-14	HUDSON ST. TO GREENSBURG ST. SANITARY SEWER REHABILITATION
SD-1	STANDARD DETAILS
SD-2	STANDARD DETAILS
SD-3	STANDARD DETAILS
SD-4	ELECTRICAL DETAILS

IT IS A VIOLATION OF LAW FOR ANY PERSON TO ALTER THIS DRAWING WITHOUT WRITTEN PERMISSION FROM KENTUCKY ENGINEERING GROUP, PLLC AND ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER.

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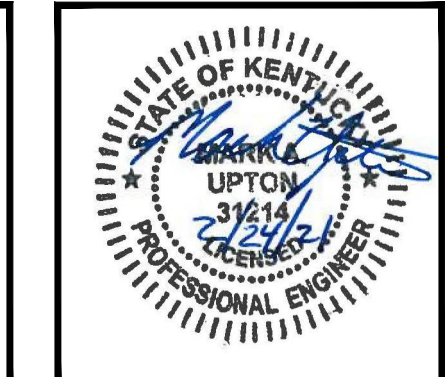
NO.	DATE	REVISIONS	BY

DATE:	MARCH 2021
PROJECT MGR:	MAU
DRAWN BY:	JAB
CHECKED BY:	JCT
SCALE:	AS NOTED
2020 © Kentucky Engineering Group, PLLC	



**PHASE 19 SEWER SYSTEM IMPROVEMENTS**  
**SEWER MAIN REPLACEMENT AND REHABILITATION**  
COLUMBIA-ADAIR UTILITIES DISTRICT

**PROJECT LOCATION MAP, UTILITIES, LEGEND and INDEX OF DRAWINGS**



PROJECT NO.	20001
SHEET NO.	G-1

BID DOCUMENTS

P:\PROJECTS\Columbia-Adair Utility District\20001 - Phase 19- Downtown Sewer\DWG\20001 G-2.dwg REG 2/24/21

SANITARY SEWER CONSTRUCTION NOTES	
1.	THE GRAVITY SEWER SHALL BE PLACED AT THE TOE OF THE SLOPE, THE BASE OF THE CUT, THE BOTTOM OF THE DITCH OR 5 FT. BEHIND THE GUARDRAIL IF THERE IS A MINIMUM OF 10 FT. OF SHOULDER. WHERE THE LINE IS TO BE PLACED SHALL BE NOTED ON EACH PLAN SHEET.
2.	THE GRAVITY SEWER SHALL GO AROUND OR UNDER ANY DRAINAGE STRUCTURES AND NOT OVER THEM.
3.	ANY DRAINAGE STRUCTURE THAT IS DAMAGED MUST BE RESTORED.
4.	ANY ENTRANCE PIPE UNDER 15" THAT IS REMOVED AND REPLACED MUST BE REPLACED WITH A 15" CMP OR LARGER IF NEEDED.
5.	CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND THE ENGINEER TWO WORKING DAYS (MINIMUM) BEFORE BEGINNING CONSTRUCTION.
6.	CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH CITY, COUNTY AND STATE REQUIREMENTS.
7.	THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION PLANS ON THE JOB SITE DURING ALL PHASES OF CONSTRUCTION.
8.	ALL CONSTRUCTION AND INSTALLATION OF MATERIALS BEING USED SHALL BE IN CONFORMANCE WITH THE PLANS PREPARED BY THE ENGINEER OF RECORD. SUBSTITUTION AND DEVIATION SHALL BE PERMITTED ONLY WHEN WRITTEN APPROVAL HAS BEEN ISSUED BY THE ENGINEER.
9.	THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND OTHER IMPROVEMENTS SHOWN ON THESE PLANS AND ALL OTHER UTILITIES AND OTHER IMPROVEMENTS NOT SHOWN. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR REPAIRS OF UTILITIES AND OTHER IMPROVEMENTS DAMAGED DURING CONSTRUCTION.
10.	SANITARY SEWER SLOPES ARE BASED ON THE DIFFERENCE OF ELEVATION AND DISTANCE BETWEEN M.H. CENTERLINES. (I.E. 345.60 @ 0.002 ft/ft)
11.	ALL MANHOLES SHALL BE CONSTRUCTED WITH THE COVER FLUSH WITH THE EXISTING GRADE.
12.	ALL FORCE MAIN SHALL BE PVC, CLASS 200, SDR 21 UNLESS OTHERWISE NOTED ON THE PLANS.
13.	ALL GRAVITY SEWER SHALL BE PVC, SDR 35 UNLESS OTHERWISE NOTED ON THE PLANS.
14.	UNLESS OTHERWISE NOTED, A SEPARATE BID ITEM HAS NOT BEEN ESTABLISHED FOR FITTINGS. THE FITTINGS INCLUDED BUT NOT LIMITED TO ARE: TEES, BENDS, PLUGS, REDUCERS, CROSSES, COUPLINGS, ETC. CONTRACTORS SHALL INCLUDE THE COST OF THESE ITEMS IN THE UNIT PRICE FOR THE PIPE.
15.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE K.D.O.T. RIGHT-OF-WAY STAKED BEFORE CONSTRUCTION BEGINS.
16.	EXISTING UTILITIES HAVE BEEN SHOWN IN AN APPROXIMATE LOCATION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH A REPRESENTATIVE WHEN WORKING NEAR EXISTING UTILITIES.
17.	PROVIDE 36" MINIMUM COVER FOR ALL GRAVITY SEWER. PROVIDE 42" MINIMUM COVER FOR ALL GRAVITY SEWER IN KDOT R/W.
18.	ROCK SOUNDINGS WERE NOT PERFORMED BY THE ENGINEER, THE CONTRACTOR SHALL TAKE APPROPRIATE ACTION TO DETERMINE SUBSURFACE CONDITIONS.
19.	SANITARY SEWER SERVICE LINES SHALL BE SIX (6) INCH DIAMETER AND TERMINATE WITH A WATERTIGHT PLUG EXTENDING TWO FEET INSIDE PROPERTY LINE.
20.	A MINIMUM SLOPE OF 1/8 INCH PER FOOT AND NOT MORE THAN 1/4 INCH PER FOOT SHALL BE USED ON ALL SERVICE LATERALS, AND A MINIMUM COVER OF 18 INCHES.
21.	ALL EXISTING PRIVATE SANITARY SEWERS AND PRIVATE SEPTIC TANKS MUST BE MAINTAINED IN OPERATING ORDER DURING CONSTRUCTION OF THE NEW SANITARY SEWER SYSTEM. AFTER CONSTRUCTION OF THE TRUNK LINES IS COMPLETE AND TESTED, CONNECTIONS FOR EACH RESIDENCE MAY BEGIN.
22.	CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THE EXACT LOCATION OF THE SEWER SERVICE LINE AT EACH HOUSE. THE LATERAL FROM THE MAIN SHALL BE PAID PER LINEAR FOOT. THE ACTUAL CONNECTION TO THE SERVICE LATERAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
23.	ALL SERVICE LATERALS INSTALLED FROM THE SEWER MAIN TO THE CONNECTION POINT SHALL BE INSTALLED BY A LICENSED PLUMBER AND IN ACCORDANCE WITH LOCAL AND STATE PLUMBING CODE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES.
<b>FINAL CLEANUP AND RESTORATION</b>	
UNLESS SPECIFICALLY APPROVED BY THE OWNER AND ENGINEER, CLEANUP OF DISTURBED AREAS SHALL BE KEPT CURRENT WITH CONSTRUCTION AND RESTORATION EFFORTS BY THE CONTRACTOR INITIATED NO LONGER THAN SEVEN (7) DAYS AFTER THE TRENCH EXCAVATION WORK HAS STARTED. ALL EXCAVATED MATERIAL NOT REQUIRED FOR BACKFILLING OF THE TRENCH AND ANY LARGE ROCKS, STONES OR DEBRIS SHALL BE REMOVED FROM THE SITE, AND SHALL NOT BE A BURDEN TO THE PROPERTY OWNER(S) AND/OR ADJACENT PROPERTIES. THE CONTRACTOR MAY WINDROW OR TRACK-IN THE EXCAVATED MATERIAL OVER THE TRENCH PRIOR TO FINAL CLEANUP TO ALLOW FOR AND TO ASSIST IN THE INITIAL SETTLEMENT OF THE TRENCH. ALL DISTURBED AREAS MUST BE SEEDED AT LEAST WITH A TEMPORARY SEED MIX IF FOR SOME REASON THE AREA CANNOT BE PERMANENTLY SEEDED WITHIN TWO (2) WEEKS.	

GENERAL NOTES	
1.	<b>GENERAL PROJECT REQUIREMENTS</b> - IN THE EVENT OF A CONFLICT BETWEEN ANY PORTION OF THE CONTRACT DOCUMENTS, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.
2.	<b>PROJECT COMMUNICATIONS / INSPECTION</b> - THE ENGINEER SHALL BE THE OWNER'S DESIGNATED SITE REPRESENTATIVE. ALL COMMUNICATION FROM THE CONTRACTOR AND TO THE CONTRACTOR, SHALL BE THROUGH THE ENGINEER.
3.	<b>SAFETY</b> - THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL SELECT THE MEANS, METHODS, SEQUENCES, AND TECHNIQUES OF CONSTRUCTION HE DEEMS APPROPRIATE FOR ACCOMPLISHING THE WORK IN A SAFE MANNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO PERSONS AND PROPERTY RESULTING FROM HIS ACTIVITIES.
4.	<b>EMERGENCY SHUTOFF</b> - THE CONTRACTOR SHALL LOCATE EXISTING WATER AND GAS VALVES PRIOR TO STARTING WORK SO THAT IN THE EVENT OF AN EMERGENCY THE UTILITY SERVICE MAY BE QUICKLY SHUT OFF.
5.	<b>EASEMENTS AND RIGHT-OF-WAY</b> - THE OWNER IS RESPONSIBLE FOR THE PROCUREMENT OF ALL PERMANENT EASEMENTS NECESSARY OR REQUIRED FOR THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY EASEMENTS FOR HIS STAGING AREAS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBSERVE THE CONDITIONS OF THESE AGREEMENTS AND CONFINE HIS ACTIVITIES TO THE LIMITS OF THE EASEMENTS. CONTRACTOR TO OBTAIN COPIES OF EASEMENTS OBTAINED BY OWNER AND ABIDE BY THE CONDITIONS OF THESE EASEMENTS DURING CONSTRUCTION.
6.	<b>EXCAVATION</b> - IT SHALL BE DISTINCTLY UNDERSTOOD THAT ANY REFERENCE TO ROCK, EARTH, OR ANY OTHER MATERIALS ON THE PLANS WHETHER IN NUMBERS, WORDS, LETTERS, OR LINES, IS SOLELY FOR THE OWNER'S INFORMATION AND SHALL NOT BE TAKEN AS AN INDICATION OF CLASSIFIED EXCAVATION OR THE QUANTITY OF EITHER ROCK, EARTH OR ANY OTHER MATERIAL INVOLVED. THE BIDDER MUST DRAW HIS OWN CONCLUSIONS AS TO THE CONDITIONS TO BE ENCOUNTERED. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION NECESSARY OR REQUIRED FOR COMPLETION OF THE PROJECT. THIS WORK SHALL INCLUDE THE REMOVAL AND PROPER DISPOSAL OF ALL MATERIALS OF WHATEVER NATURE ENCOUNTERED. EXCAVATION FOR UTILITIES SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WORK AND SHALL NOT BE MEASURED FOR PAYMENT.
7.	<b>TOTAL SITE RESPONSIBILITY</b> - IN OCCUPYING THE SITE AND COMMENCING WORK IN ACCORDANCE WITH THE NOTICE TO PROCEED, THE CONTRACTOR ASSUMES TOTAL AND COMPLETE RESPONSIBILITY FOR THE WORK UNTIL FINAL PAYMENT AND RELEASE OF CLAIMS. ANY PORTION OF THE WORK DAMAGED IN THIS TIME PERIOD BY ACTS OF GOD, OR ACTS OF THE OWNER, ACTS OF OTHER CONTRACTORS, FIRES, FLOODS, EPIDEMICS, QUARANTINE, STRIKES, FREIGHT EMBARGOS, VANDALISM AND ABNORMAL WEATHER SHALL BE CORRECTED, REPAIRED, OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
8.	<b>ACCESS TO WORK</b> - THE ENGINEER, HIS REPRESENTATIVES, AND REPRESENTATIVES OF THE OWNER SHALL HAVE FULL ACCESS TO THE WORK AT ALL TIMES.
9.	<b>BLASTING</b> - NO BLASTING SHALL BE ALLOWED ON THIS PROJECT.
10.	<b>BURNING</b> - BURNING SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE, AND FEDERAL ORDINANCES.
11.	<b>WASTE AREAS</b> - THE CONTRACTOR WILL NECESSARILY GENERATE WASTE MATERIALS IN THE FORM OF BRUSH CLIPPINGS, OVERSIZE BOULDERS, MUCK, ETC. THE CONTRACTOR SHALL SUBMIT A WRITTEN PLAN DETAILING THE MANNER IN WHICH WASTE MATERIALS WILL BE HANDLED. THE CONTRACTOR SHALL STRICTLY COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS PERTAINING TO THE DISPOSITION OF CONSTRUCTION RELATED WASTE PRODUCTS. IN NO EVENT SHALL WASTE MATERIALS BE PLACED IN A REGULATORY FLOODWAY (OR FLOODPLAIN) WITHOUT A DOW PERMIT TO CONSTRUCT ALONG OR ACROSS A STREAM. OWNER WILL NOT ASSUME RESPONSIBILITY FOR WASTE AREAS.
12.	<b>SILT CONTROL</b> - THE CONTRACTOR SHALL CONDUCT HIS WORK IN AN ENVIRONMENTALLY SOUND MANNER AND SHALL UTILIZE "BEST MANAGEMENT PRACTICES" TO MINIMIZE EROSION. THE CONTRACTOR SHALL HOLD HARMLESS THE OWNER FROM ANY VIOLATIONS ASSOCIATED WITH THE CLEAN WATER ACT.
13.	<b>DRAINAGE</b> - CONTRACTOR SHALL MAINTAIN DRAINAGE WORK AREAS DURING ALL PHASES OF CONSTRUCTION. THE OWNER MAY DIRECT THE CONTRACTOR TO CONSTRUCT DITCHES OR BERMS TO ALLEVIATE SITE DRAINAGE PROBLEMS. CONSTRUCTION AND MAINTENANCE OF MINOR DRAINAGE WORKS SHALL BE CONSIDERED AN INTEGRAL PART OF THE OVERALL ACCOMPLISHMENTS OF THE PROJECT AND SHALL NOT BE MEASURED FOR SEPERATE PAYMENT.
14.	<b>ADHERENCE TO PERMITS</b> - PERMITS REQUIRED BY THE OWNER ARE: <ul style="list-style-type: none"> <li>a. DIVISION OF WATER CONSTRUCTION PERMIT FOR SEWER LINE EXTENSIONS.</li> <li>b. DEPARTMENT OF HIGHWAYS ENCROACHMENT PERMIT WHERE APPLICABLE.</li> </ul> <p>THE CONTRACTOR SHALL CONDUCT HIS ACTIVITIES IN STRICT ACCORDANCE WITH THESE PERMITS AT ALL TIMES. IN PARTICULAR, THE CONTRACTOR SHALL STRICTLY OBSERVE THE 401 WATER QUALITIES CERTIFICATION KEY REQUIREMENTS OF THE 401 CERTIFICATION WHICH INCLUDE:</p> <ul style="list-style-type: none"> <li>a. RE-VEGETATION AND CLEANUP OF AREA ADJACENT TO STREAMS SHALL OCCUR CONCURRENTLY WITH THE PROGRESS OF THE WORK. CONCURRENTLY IS HEREIN DEFINED TO MEAN THAT RE-VEGETATION AND CLEANUP.</li> <li>b. BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED. TO MINIMIZE SEDIMENT RUNOFF AND SOIL EROSION TO THE WATER COURSE.</li> <li>c. EXTREME CARE SHALL BE TAKEN TO PREVENT SPILLS OF FUELS AND LUBRICANT INTO WATERCOURSES. EQUIPMENT WORKS FROM THE STREAM BANK.</li> </ul>
15.	<b>EXISTING UTILITIES AND UNDERGROUND FACILITIES</b> - THE CONTRACTOR'S ATTENTION IS CALLED TO THE PRESENCE OF EXISTING UTILITIES IN CLOSE PROXIMITY TO THE PROJECT SITE. THE CONTRACTOR IS ADVISED TO CAREFULLY REVIEW THE PROJECT REQUIREMENTS REGARDING UTILITY RELOCATIONS. THE CONTRACTOR CAN CALL 1-800-752-6007 A MINIMUM OF TWO AND NO MORE THAN TEN BUSINESS DAYS PRIOR TO EXCAVATION FOR INFORMATION ON THE LOCATION OF EXISTING UNDERGROUND UTILITIES WHICH SUBSCRIBE TO THE BEFORE-U-DIG (BUD) SERVICE. ALL UTILITY REPAIR AND RELOCATION WORK SHALL BE INCIDENTAL TO OTHER ITEMS OF WORK. THE EXISTING CONTRACTOR MUST MAKE DILIGENT EFFORT TO MAINTAIN THE SERVICE OF EXISTING UTILITIES. THE CONTRACTOR SHALL PROVIDE BY-PASS PUMPING OF WASTEWATER TO THE NEAREST PUBLIC SANITARY SEWER WHENEVER HIS ACTIVITIES INTERRUPT THE FLOW OF AN EXISTING SANITARY WASTEWATER DISPOSAL FACILITY (SEWER, SEPTIC TANK, LEACH FIELD, ETC.) BY-PASS PUMPING SHALL BE CONSIDERED AN INCIDENTAL PART OF THE PIPE LAYING ACTIVITY AND SHALL NOT BE MEASURED FOR SEPERATE PAYMENT.

GENERAL NOTES (continued)	
16.	<b>REPLACEMENT OF EXISTING FACILITIES</b> - THE CONTRACTOR SHALL REPLACE EXISTING ENTRANCE PIPES, RETAINING WALLS, CATCH BASINS, FENCES AND OTHER PROPERTY IMPROVEMENTS, DITCHES, ETC., THAT ARE DAMAGED BY CONSTRUCTION UNLESS SAID FACILITIES ARE SPECIFICALLY SHOWN TO BE REMOVED. IN PARTICULAR, ALL DRAINAGE DITCHES SHALL BE RESTORED TO A CONDITION EQUAL OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION. UNLESS SAID FACILITY REPLACEMENT IS IDENTIFIED AS A PAY ITEM IN THE DESIGN DRAWINGS OR TECHNICAL SPECIFICATIONS, THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF LAYING PIPE AND SHALL NOT BE MEASURED FOR PAYMENT
17.	<b>DAMAGE TO GUARDRAILS, SIGNS, FENCES, STORM DRAINS, ETC.</b> - ALL GUARDRAIL, SIGNS, FENCES, STORM DRAINS, ETC., DAMAGED AS A RESULT OF THE CONSTRUCTION SHALL BE RESTORED IN LIKE KIND AND CHARACTER TO THE SATISFACTION OF THE OWNER. UNLESS SAID REPLACEMENT IS IDENTIFIED AS A PAY ITEM IN THE DESIGN DRAWINGS OR TECHNICAL SPECIFICATIONS, THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF LAYING PIPE AND SHALL NOT BE MEASURED FOR PAYMENT.
18.	<b>STREAM CROSSING</b> - THE LAST EIGHTEEN (18) INCHES OF BACKFILL IN ALL STREAM BEDS SHALL CONSIST OF KENTUCKY DEPARTMENT OF HIGHWAY CHANNEL LINING CLASS III UNLESS OTHERWISE NOTED.
19.	<b>THRUST BLOCKS</b> - CONCRETE THRUST BLOCKS OR 'KICKER' BLOCKS SHALL BE INSTALLED IN ALL PRESSURIZED LINES AT INTERSECTION AND CHANGES OF DIRECTION TO RESIST FORCES ACTING UPON THE PIPELINE. THRUST BLOCKS ARE CONSIDERED INCIDENTAL TO THE PIPELINE
20.	<b>ANCHORS</b> - CONCRETE ANCHORS SHALL BE PROVIDED WHEN THE PIPE SLOPE IS TWENTY (20) PERCENT OR GREATER. ANCHORS ARE CONSIDERED INCIDENTAL TO THE PIPELINE INSTALLATION.
21.	<b>SEPARATION OF WATER AND SEWER</b> - HORIZONTAL- SEWERS SHALL BE LAID AT LEAST TEN (10) FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THIS DISTANCE SHALL BE MEASURED EDGE TO EDGE. IF FIELD CONDITIONS DO NOT ALLOW THIS SEPARATION, THE SEWER SHALL BE LOCATED SUCH THAT THE CROWN OF THE SEWER PIPE IS EIGHTEEN (18) INCHES BELOW THE INVERT OF THE WATER LINE. IF FIELD CONDITIONS DO NOT ALLOW THIS CONDITION TO BE MET THEN THE SEWER SHALL BE CONSTRUCTED OF MECHANICAL JOINT DUCTILE IRON PIPE (PRESSURE TESTED TO 150 PSI) AND ENCASED IN CONCRETE.
22.	<b>CROSSING</b> - SEWERS SHALL CROSS UNDER WATER MAINS WITH A MINIMUM OF EIGHTEEN (18) INCHES OF SEPARATION BETWEEN THE CROWN OF THE SEWER AND THE INVERT OF THE WATER MAIN. IF FIELD CONDITIONS ARE SUCH THAT THIS SEPARATION CAN NOT BE MAINTAINED, THE SEWER SHALL BE CONSTRUCTED OF MECHANICAL JOINT DUCTILE IRON PIPE WHICH SHALL BE PRESSURE TESTED TO 150 PSI. THE DUCTILE IRON PIPE MUST BE CENTERED ON THE CROSSING SO THAT THE JOINTS ARE AT LEAST TEN (10) FEET ON EITHER SIDE OF THE CROSSING. NO SEPARATE PAYMENT SHALL BE MADE FOR WORK TO INSURE COMPLIANCE WITH THIS SEPARATION CRITERION. MAINTENANCE OF ADEQUATE SEPARATION SHALL BE CONSIDERED AN INTEGRAL PART OF THE UNIT PRICE BID FOR SEWER PIPE.
23.	<b>TESTING</b> - THE SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS IN THE PRESENCE OF THE ENGINEER AND THE OWNER.
24.	<b>NOTICE</b> - THE CONTRACTOR SHALL NOT MOVE EQUIPMENT OR MATERIAL TO THE WORK SITE, NOR BEGIN ANY CONSTRUCTION PRIOR TO THE DATE SPECIFIED IN THE 'NOTICE TO PROCEED'. THE CONTRACTOR MUST NOTIFY THE OWNER AND ENGINEER PRIOR TO OCCUPYING THE SITE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TECHNICAL SPECIFICATIONS.
25.	<b>TRAFFIC CONTROL</b> - THE CONTRACTOR'S WORK WILL DISTURB NUMEROUS PRIVATE DRIVEWAYS AND SUBSTANTIAL PORTIONS OF PUBLIC THOROUGHFARES. THE TERRAIN DOES NOT LEND ITSELF TO DETOURS. CONSEQUENTLY, THE CONTRACTOR MUST OBSERVE THE FOLLOWING TRAFFIC PRINCIPLES: <ul style="list-style-type: none"> <li>a. ACCESS TO RESIDENCE DRIVE MAY NOT BE INTERRUPTED FOR MORE THAN THREE (3) HOURS AT ANY ONE TIME</li> <li>b. ACCESS TO ALL DRIVEWAYS AND PUBLIC THOROUGHFARES MUST BE RESTORED AT THE END OF EACH WORKDAY.</li> <li>c. WORK WITHIN THE LIMITS OF PUBLIC THROUGHFARE MAY ONLY BE CONDUCTED BETWEEN THE HOURS OF 8:30 A.M. AND 12:00 NOON, BETWEEN 12:30 P.M. AND 3:30 P.M., AND BETWEEN 6:00 P.M. AND 9:30 P.M. THE CONTRACTOR MUST POST SIGNS ADJACENT TO THE WORK STATING THE ROADWAY WILL BE CLOSED DURING THE POSTED HOURS AT LEAST ONE (1) DAY IN ADVANCE OF THE PROPOSED ROAD CLOSURE.</li> <li>d. THE CONTRACTOR MUST MAKE SPECIAL PROVISIONS FOR ACCESS FOR EMERGENCY VEHICLES: POLICE, FIRE AND AMBULANCE.</li> <li>e. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY DEVICES IN THE FORM OF SIGNS, FLASHERS, BARRICADES, ETC. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CLAIMS ARISING FROM THE PUBLIC WITH RESPECT TO HIS TRAFFIC CONTROL ACTIVITIES.</li> </ul>
26.	<b>SEEDING</b> - ALL DISTURBED AREAS SHALL BE SEEDED IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS.
27.	<b>PROTECTION OF TREES</b> - CARE SHALL BE TAKEN DURING CONSTRUCTION TO AVOID DAMAGE TO VEGETATION. ORNAMENTAL SHRUBBERY AND TREE BRANCHES SHALL BE TEMPORARILY TIED BACK, WHERE APPROPRIATE, TO MINIMIZE DAMAGE. TREES WHICH RECEIVE DAMAGE TO THE BRANCHES SHALL BE TRIMMED OF THOSE BRANCHES TO IMPROVE THE APPEARANCE OF THE TREE. TREE TRUNKS RECEIVING DAMAGE FROM EQUIPMENT SHALL BE TREATED WITH A TREE DRESSING.

KYDOH NOTES	
1.	IN SOME LOCATIONS, KYDOH HAS A WIDE CLEARLY DELINEATED RIGHT-OF-WAY, ON RELATIVELY LEVEL GROUND. CONTRACTOR SHALL CONSTRUCT SANITARY SEWER AS AS POSSIBLE TO THE BACK SIDE OF THE RIGHT-OF-WAY IN THESE AREAS.
2.	TRACK VEHICLES MUST BE ISOLATED FROM PAVEMENT WITH AN EARTH CUSHION OR PROTECTIVE MAT. IN NO EVENT SHALL TRACK VEHICLES BE OPERATED DIRECTLY ON PAVED SURFACES.
3.	NO VALVES (OR AIR RELEASES) IN HIGHWAY DITCHES! VALVES SHALL BE FIELD LOCATED (PREFERABLY IN THE EDGES OF DRIVEWAYS OF THE BACK SIDE OF ENTRANCE PIPES).
4.	ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE CURRENT KYDOH STANDARD DRAWINGS AND THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
5.	ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE KYDOH ENCROACHMENT PERMIT ISSUED FOR THE PROJECT. THE CONTRACTOR SHALL MAINTAIN A COPY OF THIS PERMIT ON SITE AT ALL TIMES.
6.	ALL ITEMS OF WORK NECESSARY TO MAINTAIN AND CONTROL TRAFFIC SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
7.	THE CONTRACTOR SHALL COMPLETELY COVER ANY SIGNS, EITHER EXISTING, PERMANENT, OR TEMPORARY, WHICH DO NOT APPLY TO THE CURRENT TRAFFIC PHASING, AND SHALL MAINTAIN THE COVERING UNTIL THE SIGNS ARE APPLICABLE OR ARE REMOVED.
8.	IN GENERAL, ALL TRAFFIC CONTROL DEVICES SHALL BE PLACED STARTING AND PROCEEDING IN THE DIRECTION OF FLOW OF TRAFFIC AND REMOVED STARTING AND PROCEEDING IN THE DIRECTION OPPOSITE TO THE FLOW OF TRAFFIC.
9.	IF TRAFFIC SHOULD BE STOPPED DUE TO CONSTRUCTION OPERATIONS, AND AN EMERGENCY VEHICLE ON AN OFFICIAL EMERGENCY RUN ARRIVES ON THE SCENE, THE CONTRACTOR SHALL MAKE PROVISIONS FOR THE PASSAGE OF THAT VEHICLE AS QUICKLY AS POSSIBLE.
10.	PROVIDE 36" MINIMUM COVER FOR ALL GRAVITY SEWER AND FORCE MAINS.
11.	PROVIDE 42" MINIMUM COVER FOR ALL GRAVITY SEWER AND FORCE MAINS IN KDOT R/W.

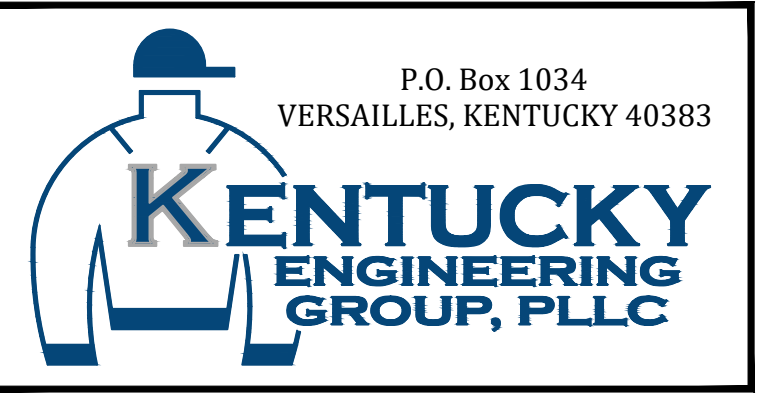
CONTAMINATION PREVENTION REQUIREMENTS	
1.	ALL PIPING, VALVES, FITTINGS, ETC. DELIVERED TO THE JOB SITE SHALL BE STORED ELEVATED ABOVE THE GROUND AND SHALL BE COVERED WITH PLASTIC, TARPS OR SIMILAR MEANS TO PROTECT FROM EXPOSURE TO DUST AND DEBRIS.
2.	ALL PIPING, FITTINGS AND VALVES SHALL BE THOROUGHLY CLEANED OF DUST, DIRT AND DEPOSITS BY SWABBING OR OTHER MEANS ACCEPTABLE TO THE OWNER. EACH COMPONENT SHALL BE CLEANED ON THE SAME DAY IT IS TO BE INSTALLED.
3.	ALL OPENINGS IN THE PIPELINE SHALL BE CLOSED WITH AN APPROVED WATERTIGHT PLUG AT THE END OF EACH DAY WHEN PIPE LAYING HAS STOPPED, OR FOR OTHER REASONS SUCH AS REST OR MEAL BREAKS.

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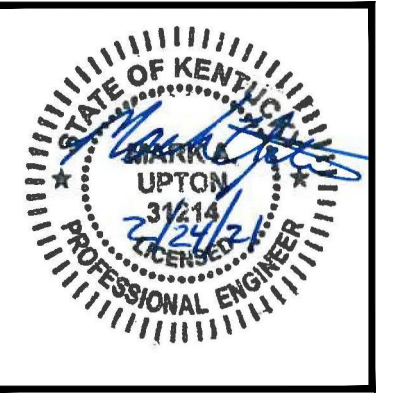
NO.	DATE	REVISIONS	BY

DATE:	MARCH 2021
PROJECT MGR:	MAU
DRAWN BY:	JAB
CHECKED BY:	JCT
SCALE:	AS NOTED
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PHASE 19 SEWER SYSTEM  
IMPROVEMENTS  
SEWER MAIN REPLACEMENT AND  
REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT

GENERAL NOTES

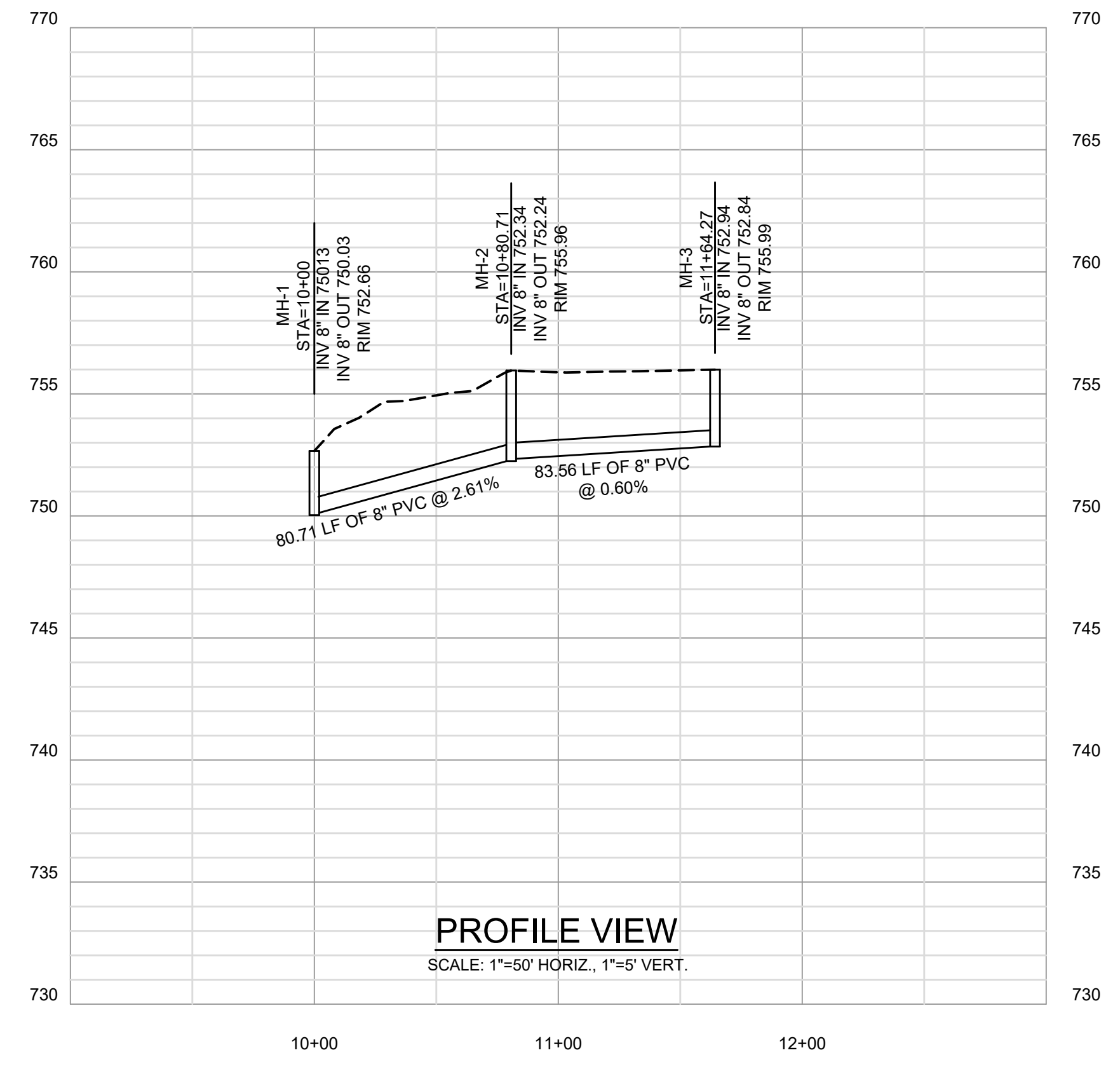


PROJECT NO.	20001
SHEET NO.	G-2

BID DOCUMENTS



- GENERAL NOTES:**
1. CONTRACTOR TO RECONNECT LATERALS TO MANHOLE.
  2. CONTRACTOR TO VERIFY LOCATION OF EXISTING CONNECTION AND MATCH LOCATION OF NEW MAIN AND DOGHOUSE MANHOLE (LOCATION SHOWN IS APPROXIMATE).
  3. SEE SHEET C-12 FOR REHABILITATION WORK IN AREA AND COORDINATE.
  4. NEW GRAVITY MAIN INSTALLED IN EXISTING TRENCH. ELEVATIONS WILL VARY FROM EXISTING WHICH MAY REQUIRE ROCK REMOVAL.
  5. CONTRACTOR RESPONSIBLE FOR MAINTAINING SERVICE DURING INSTALLATION OF NEW SEWER.
  6. EXISTING PIPE AND MANHOLES TO BE REMOVED AND DISPOSED OF PROPERLY. MATERIALS FROM DEMOLISHED STRUCTURES MAY NOT BE USED AS FILL MATERIAL.



**PROFILE VIEW**  
SCALE: 1"=50' HORIZ., 1"=5' VERT.

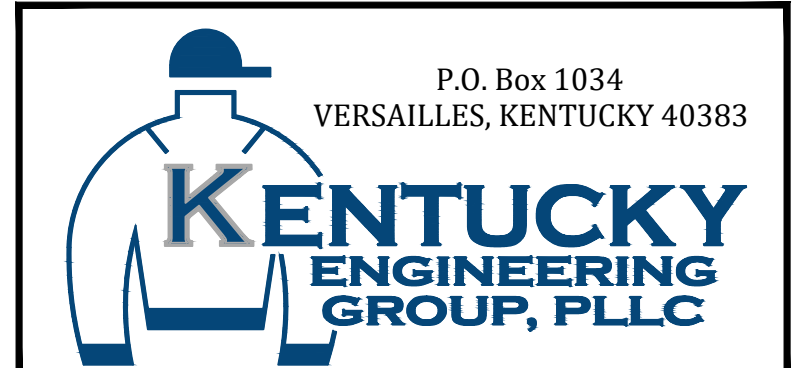
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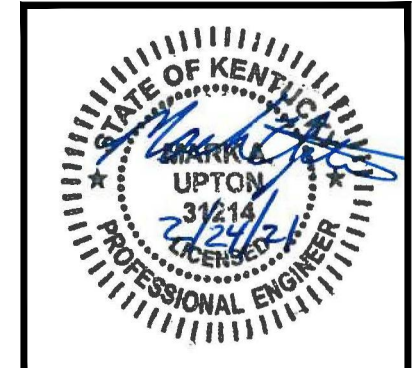
NO.	DATE	REVISIONS	BY

DATE:	MARCH 2021
PROJECT MGR:	MAU
DRAWN BY:	JAB
CHECKED BY:	JCT
SCALE:	AS NOTED
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**PHASE 19 SEWER SYSTEM IMPROVEMENTS**  
SEWER MAIN REPLACEMENT AND REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT

**ELM STREET PLAN - PROFILE**



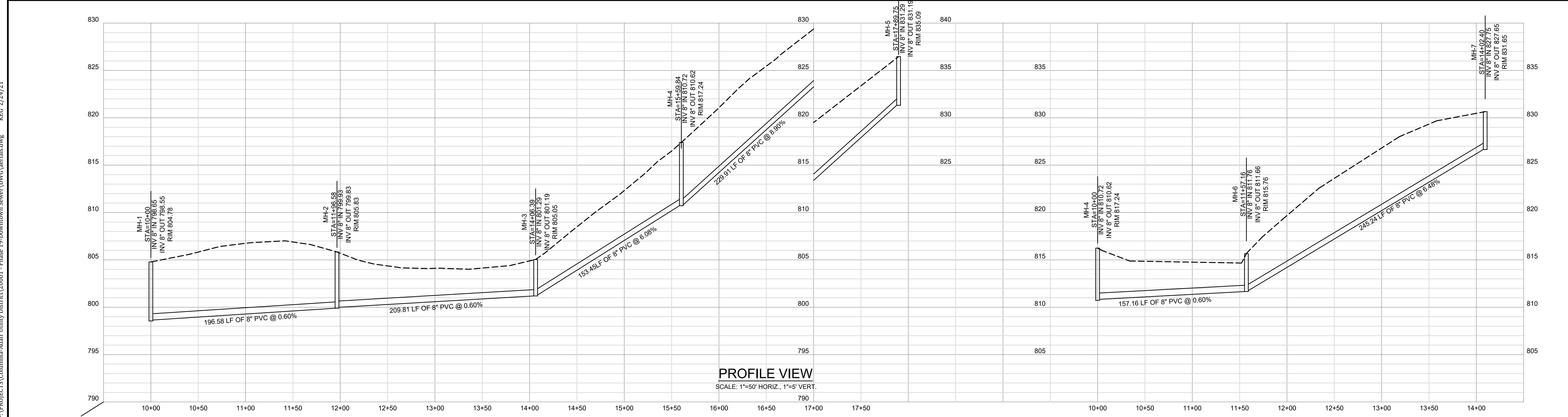
PROJECT NO.	20001
SHEET NO.	C-1

BID DOCUMENTS



**GENERAL NOTES:**

1. CONTRACTOR SHALL VERIFY ALL SERVICE LATERAL LOCATIONS AND ELEVATIONS PRIOR TO INSTALLATION OF SEWER. ANY CONFLICTS SHALL BE BROUGHT TO THE OWNER/ENGINEER'S ATTENTION IMMEDIATELY.
2. NEW GRAVITY MAIN INSTALLED IN EXISTING TRENCH. ELEVATIONS WILL VARY FROM EXISTING WHICH MAY REQUIRE ROCK REMOVAL.
3. CONTRACTOR RESPONSIBLE FOR MAINTAINING SERVICE DURING INSTALLATION OF NEW SEWER.
4. ALL DEMOLISHED STRUCTURES TO BE REMOVED AND DISPOSED OF PROPERLY. MATERIAL MAY NOT BE USED AS BACKFILL.
5. SEE SHEET C-12 FOR REHAB. CONTRACTOR TO COORDINATE WORK.

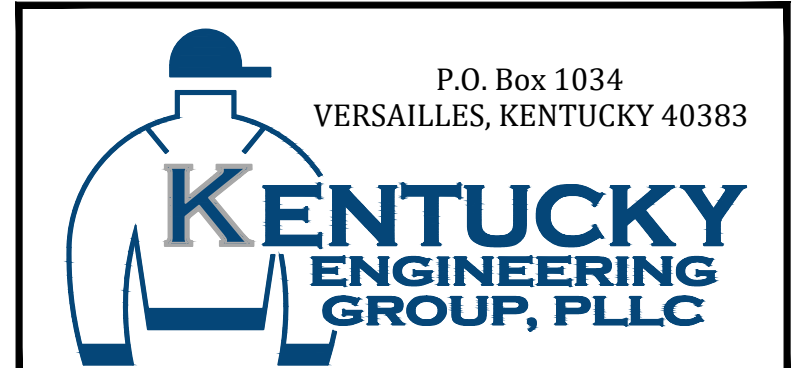


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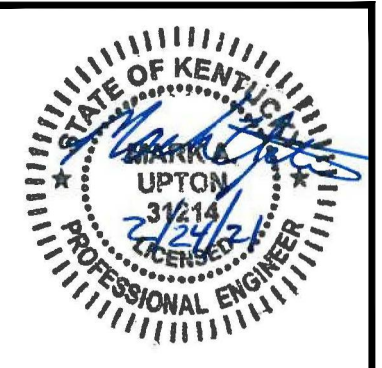
NO.	DATE	REVISIONS	BY

DATE: MARCH 2021  
 PROJECT MGR: MAU  
 DRAWN BY: JAB  
 CHECKED BY: JCT  
 SCALE: AS NOTED  
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PHASE 19 SEWER SYSTEM IMPROVEMENTS  
 SEWER MAIN REPLACEMENT AND REHABILITATION  
 COLUMBIA-ADAIR UTILITIES DISTRICT

GUTHRIE ST. / HESKAMP ST.  
 PLAN - PROFILE

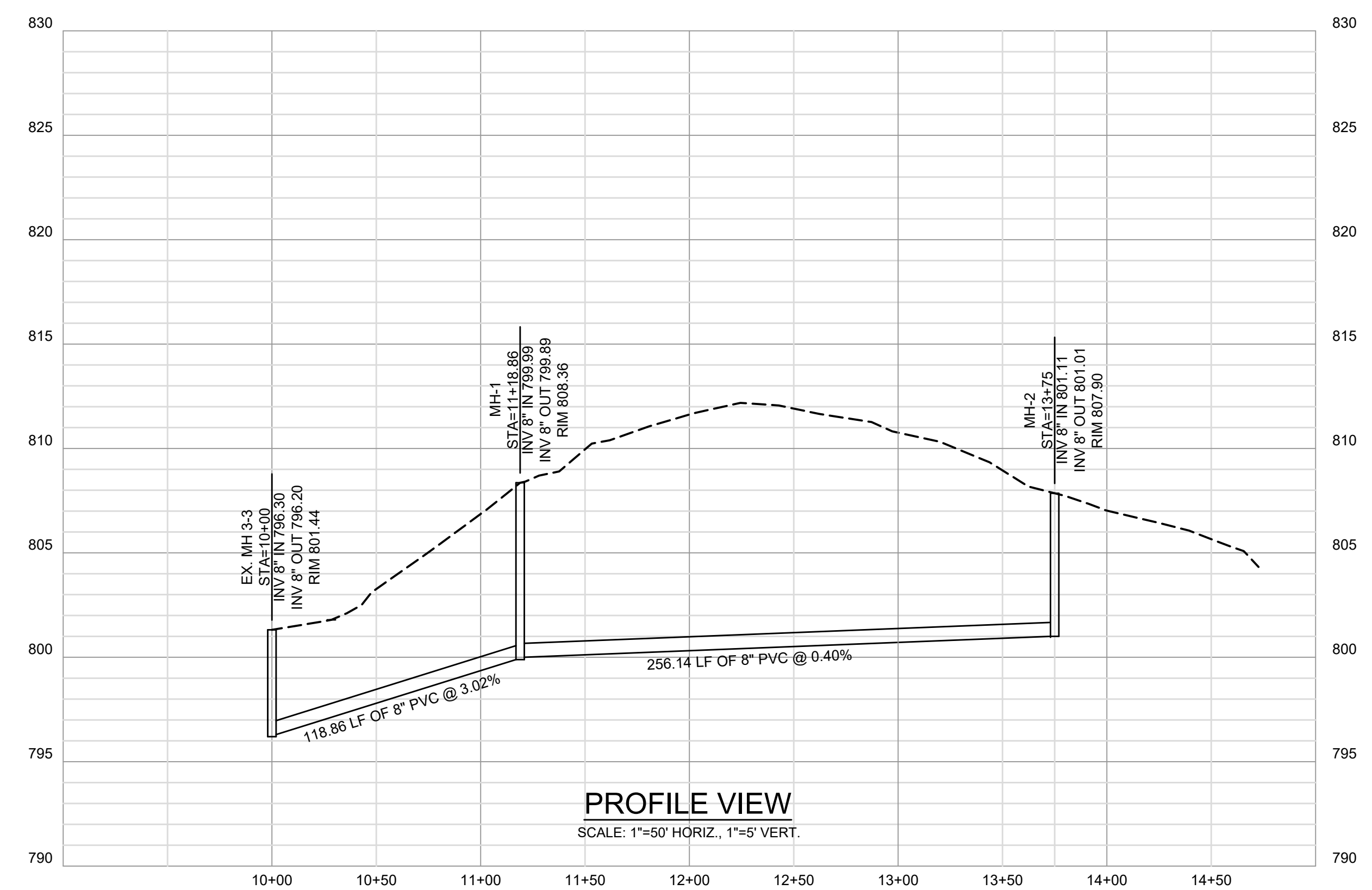
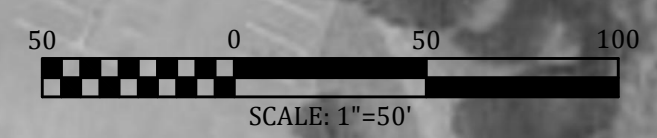


PROJECT NO.  
20001

SHEET NO.  
C-2



- GENERAL NOTES:**
1. CONTRACTOR SHALL VERIFY ALL SERVICE LATERAL LOCATIONS AND ELEVATIONS PRIOR TO INSTALLATION OF SEWER. ANY CONFLICTS SHALL BE BROUGHT TO THE OWNER/ENGINEER'S ATTENTION IMMEDIATELY.
  2. NEW GRAVITY MAIN INSTALLED IN EXISTING TRENCH. ELEVATIONS WILL VARY FROM EXISTING WHICH MAY REQUIRE ROCK REMOVAL.
  3. SEE SHEET C-13 FOR REHABILITATION WORK IN AREA AND COORDINATE.
  4. CONTRACTOR RESPONSIBLE FOR MAINTAINING SERVICE DURING INSTALLATION OF NEW SEWER.



**PROFILE VIEW**  
SCALE: 1"=50' HORIZ., 1"=5' VERT.

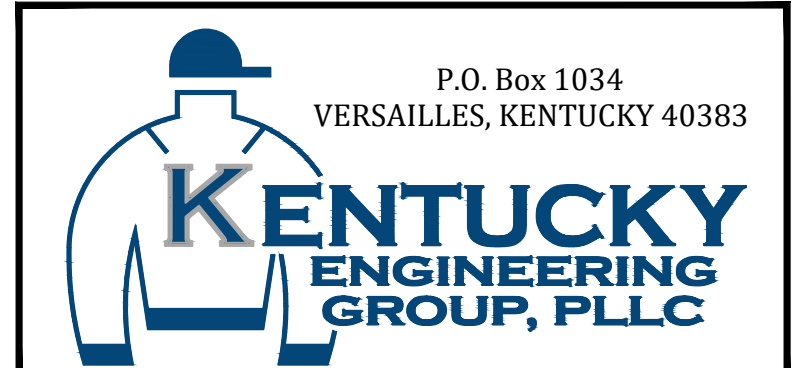
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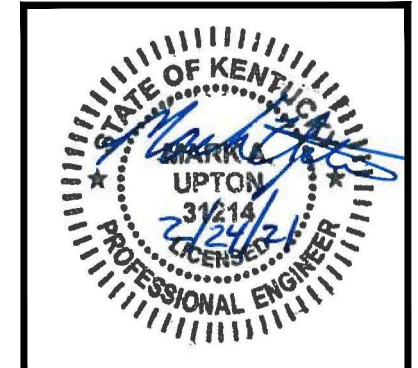
NO.	DATE	REVISIONS	BY

DATE:	MARCH 2021
PROJECT MGR:	MAU
DRAWN BY:	JAB
CHECKED BY:	JCT
SCALE:	AS NOTED
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**PHASE 19 SEWER SYSTEM IMPROVEMENTS**  
**SEWER MAIN REPLACEMENT AND REHABILITATION**  
COLUMBIA-ADAIR UTILITIES DISTRICT

**HANLEY LANE**  
**PLAN - PROFILE**



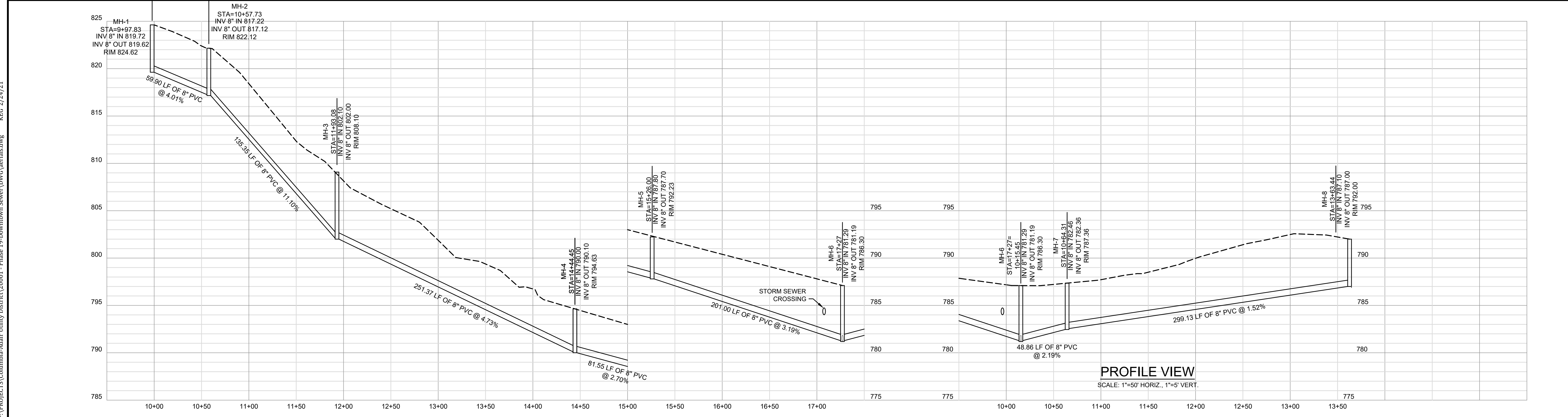
PROJECT NO.	20001
SHEET NO.	C-3

BID DOCUMENTS



**GENERAL NOTES:**

1. CONTRACTOR SHALL VERIFY ALL SERVICE LATERAL LOCATIONS AND ELEVATIONS PRIOR TO INSTALLATION OF SEWER. ANY CONFLICTS SHALL BE BROUGHT TO THE OWNER/ENGINEER'S ATTENTION IMMEDIATELY.
2. CONTRACTOR RESPONSIBLE FOR MAINTAINING SERVICE DURING INSTALLATION OF NEW SEWER.
3. CONTRACTOR TO UNCOVER EX. MH. AT MH-8 AND VERIFY ALL DEPTHS PRIOR TO CONSTRUCTION.
4. TRENCH CROSSING KY 80 TO BE BACKFILLED WITH FLOWABLE FILL AND COVERED WITH CONCRETE CAP AS SHOWN ON SHEET SD-02
5. EXISTING FORCE MAIN DISCHARGE MANHOLE, MH-1, MH-2, MH-3, AND MH-4 SHALL ALL HAVE EPOXY COATINGS APPLIED TO THE INTERIOR.
6. SEWERLINE BETWEEN EXISTING FORCE MAIN DISCHARGE MH AND MH-1 SHALL BE CCTV'D AND VIDEO PROVIDED TO THE ENGINEER FOR REHABILITATION RECOMMENDATIONS.

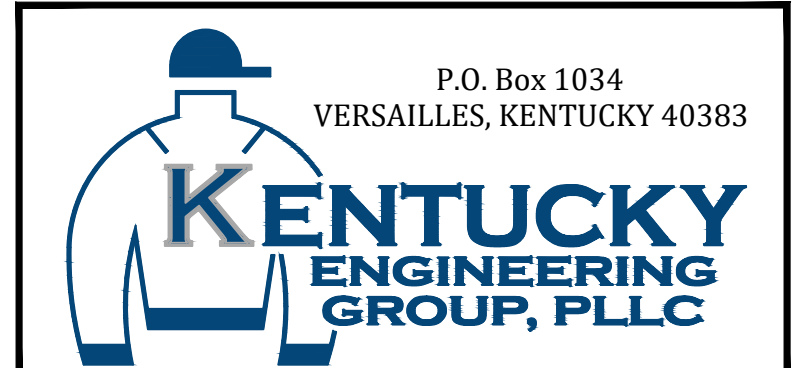


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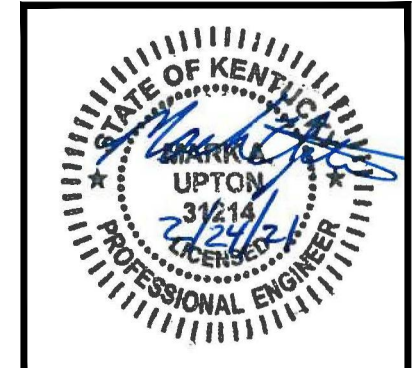
NO.	DATE	REVISIONS	BY

DATE:	MARCH 2021
PROJECT MGR:	MAU
DRAWN BY:	JAB
CHECKED BY:	JCT
SCALE:	AS NOTED
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PHASE 19 SEWER SYSTEM IMPROVEMENTS  
SEWER MAIN REPLACEMENT AND REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT

BURKESVILLE ST.  
PLAN - PROFILE



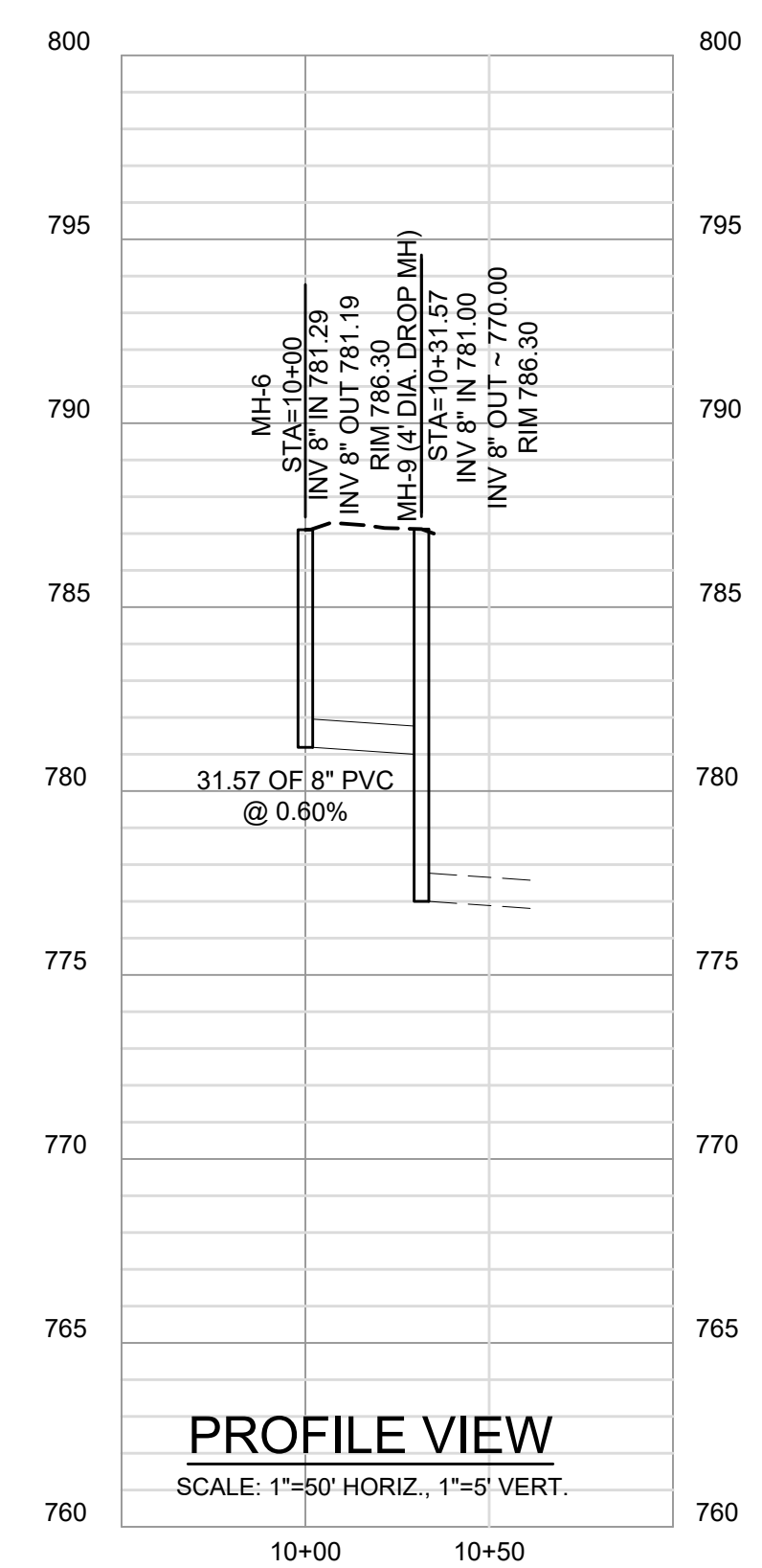
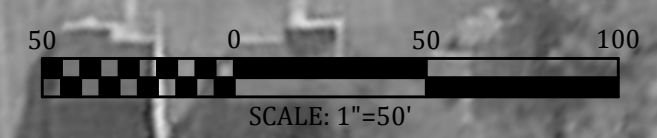
PROJECT NO.	20001
SHEET NO.	C-4

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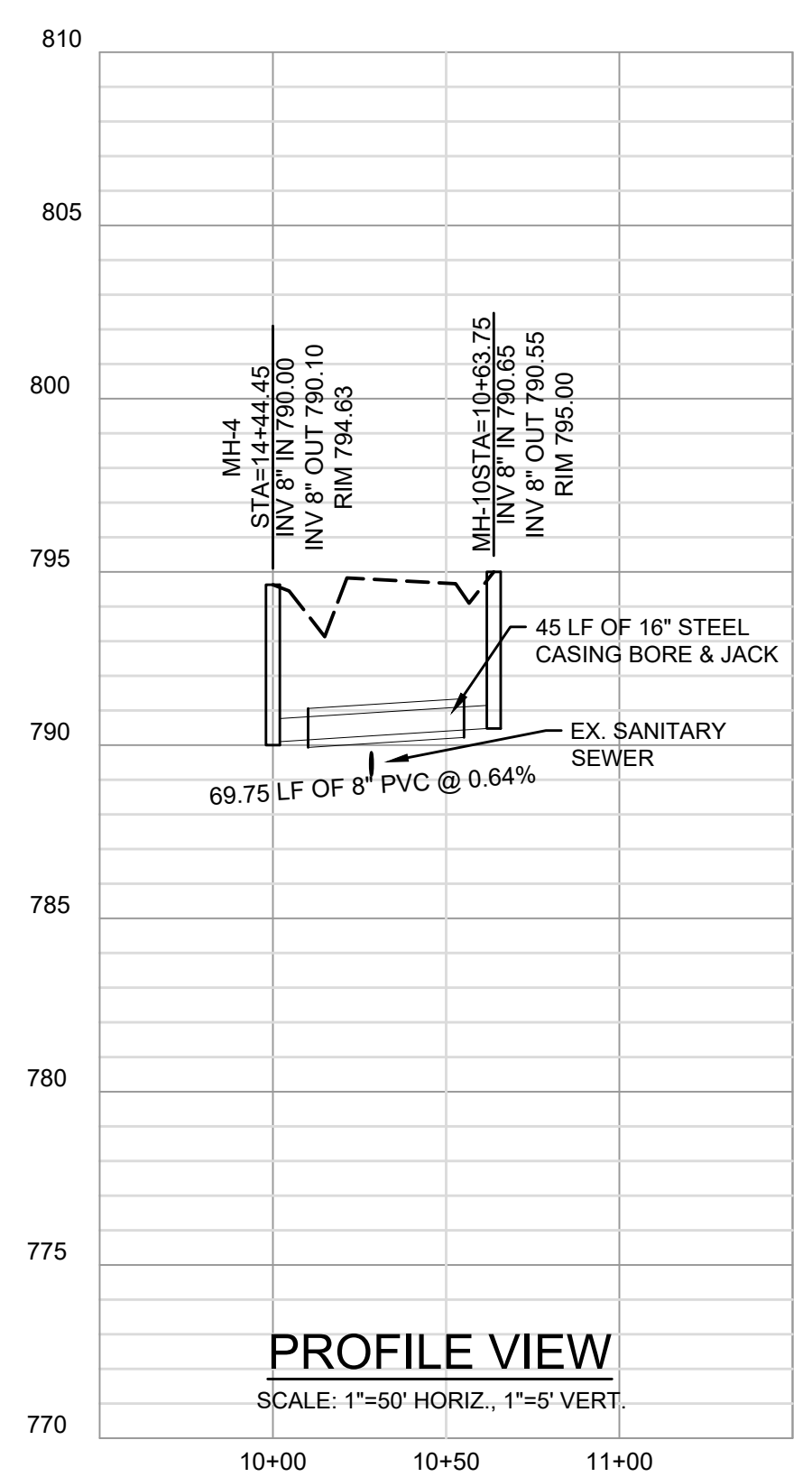
BID DOCUMENTS



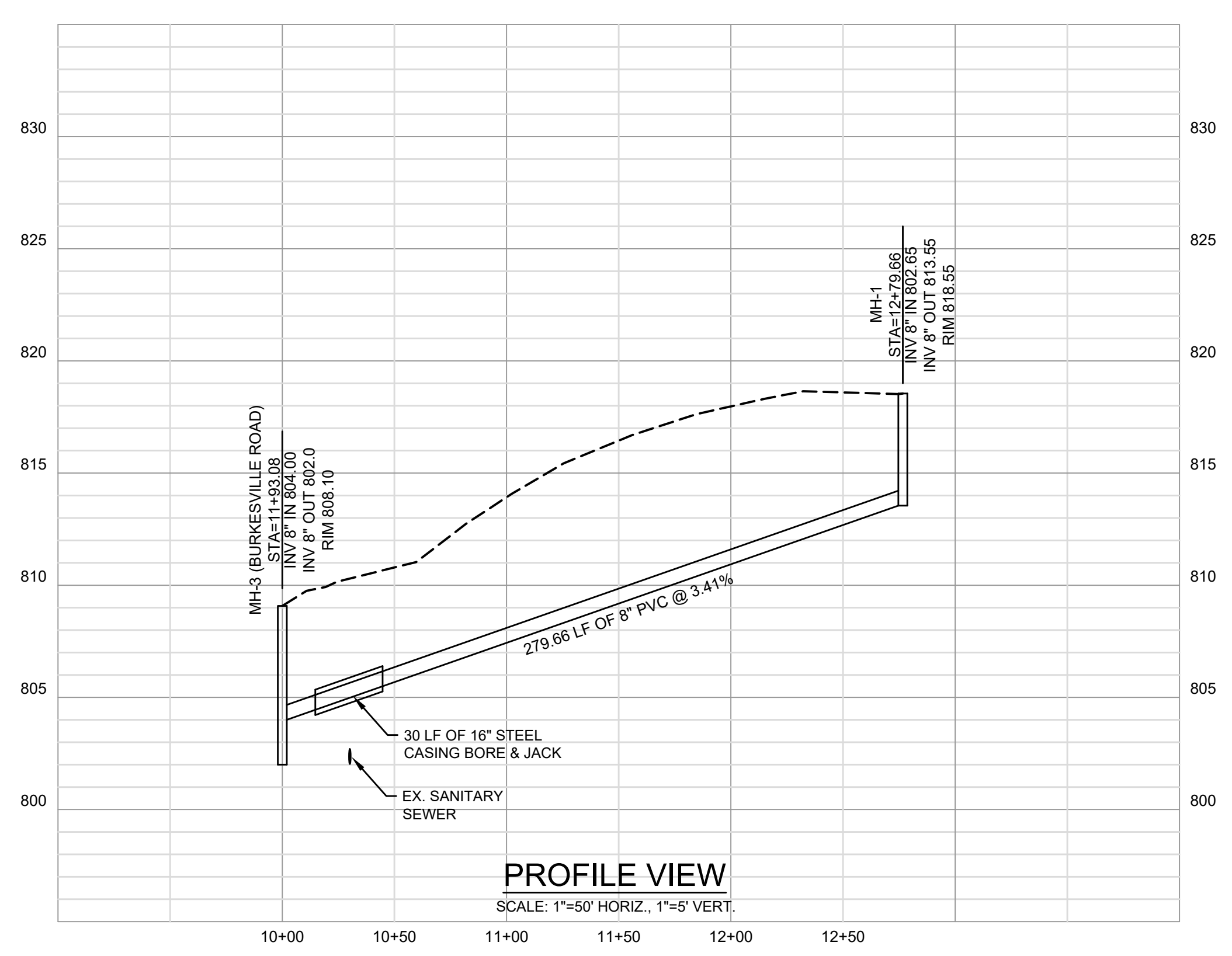
**GENERAL NOTES:**  
 1. CONTRACTOR TO UNCOVER MANHOLE AND CONFIRM DEPTH OF ANY LATERAL CONNECTIONS.



**PROFILE VIEW**  
 SCALE: 1"=50' HORIZ., 1"=5' VERT.



**PROFILE VIEW**  
 SCALE: 1"=50' HORIZ., 1"=5' VERT.



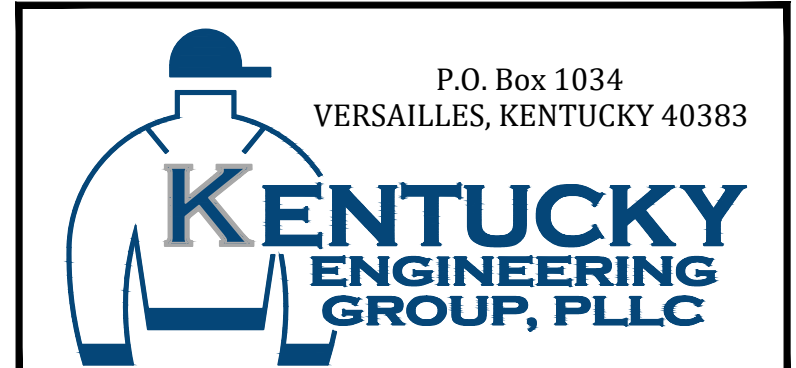
**PROFILE VIEW**  
 SCALE: 1"=50' HORIZ., 1"=5' VERT.

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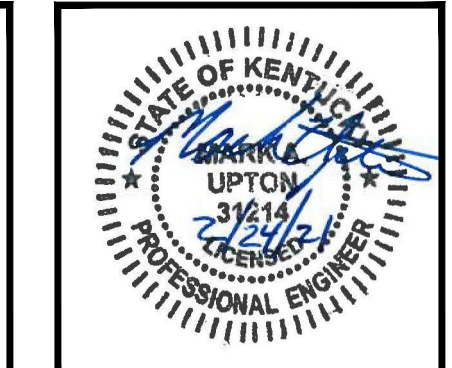
NO.	DATE	REVISIONS	BY

DATE:	MARCH 2021
PROJECT MGR:	MAU
DRAWN BY:	JAB
CHECKED BY:	JCT
SCALE:	AS NOTED
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**PHASE 19 SEWER SYSTEM IMPROVEMENTS**  
**SEWER MAIN REPLACEMENT AND REHABILITATION**  
 COLUMBIA-ADAIR UTILITIES DISTRICT

**TUTTLE ST.**  
**PLAN - PROFILE**

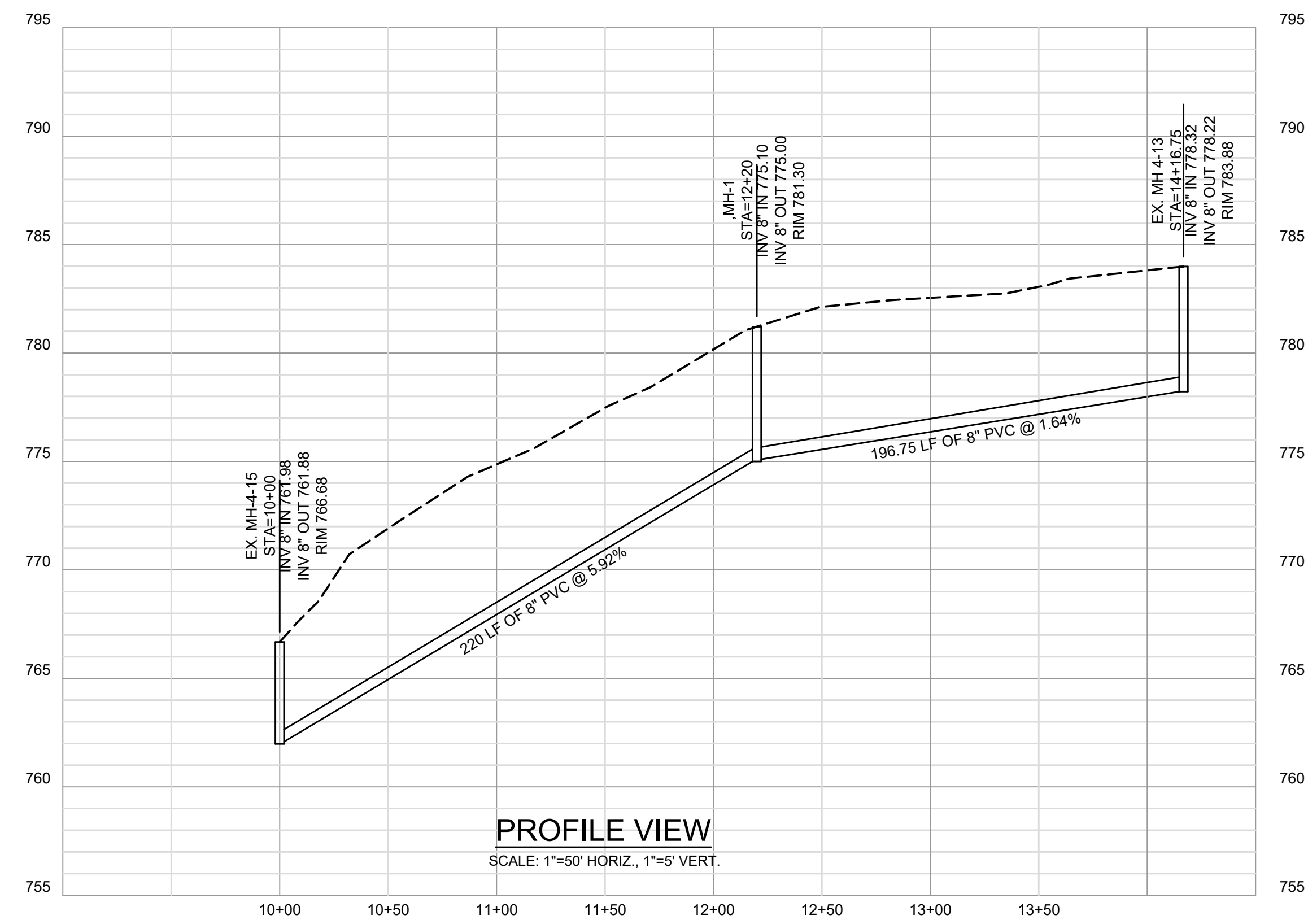
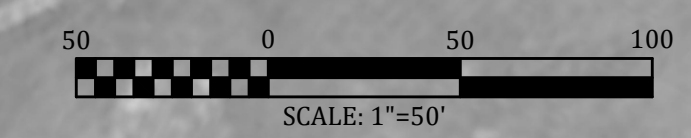


PROJECT NO.	20001
SHEET NO.	C-5





- GENERAL NOTES:**
- SEE SHEET C-14 FOR REHABILITATION WORK IN AREA AND COORDINATE.
  - CONTRACTOR SHALL COORDINATE WORK WITH SCHOOLS AS TO NOT CAUSE ANY CONFLICTS WITH NORMAL OPERATION.
  - CONTRACTOR SHALL KEEP ONE SIDE OF PAVED LOOP OPEN AT ALL TIMES DURING INSTALLATION OF SEWER.



**PROFILE VIEW**  
SCALE: 1"=50' HORIZ., 1"=5' VERT.

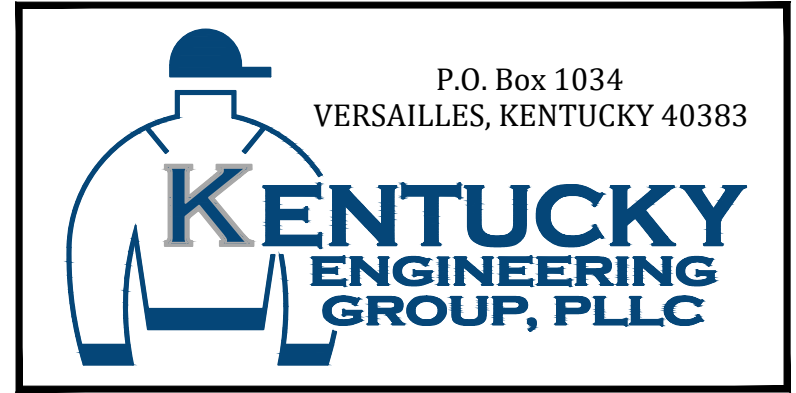
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NO.	DATE	REVISIONS	BY

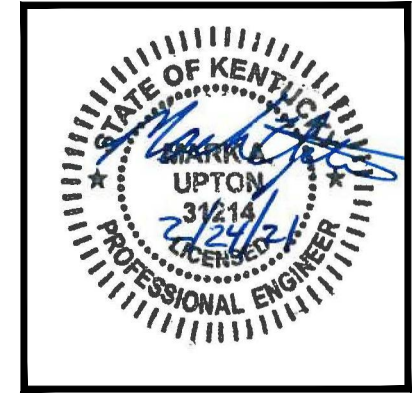
DATE:	MARCH 2021
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**PHASE 19 SEWER SYSTEM IMPROVEMENTS**  
**SEWER MAIN REPLACEMENT AND REHABILITATION**  
COLUMBIA-ADAIR UTILITIES DISTRICT

**CASEY CIRCLE**  
**PLAN - PROFILE**



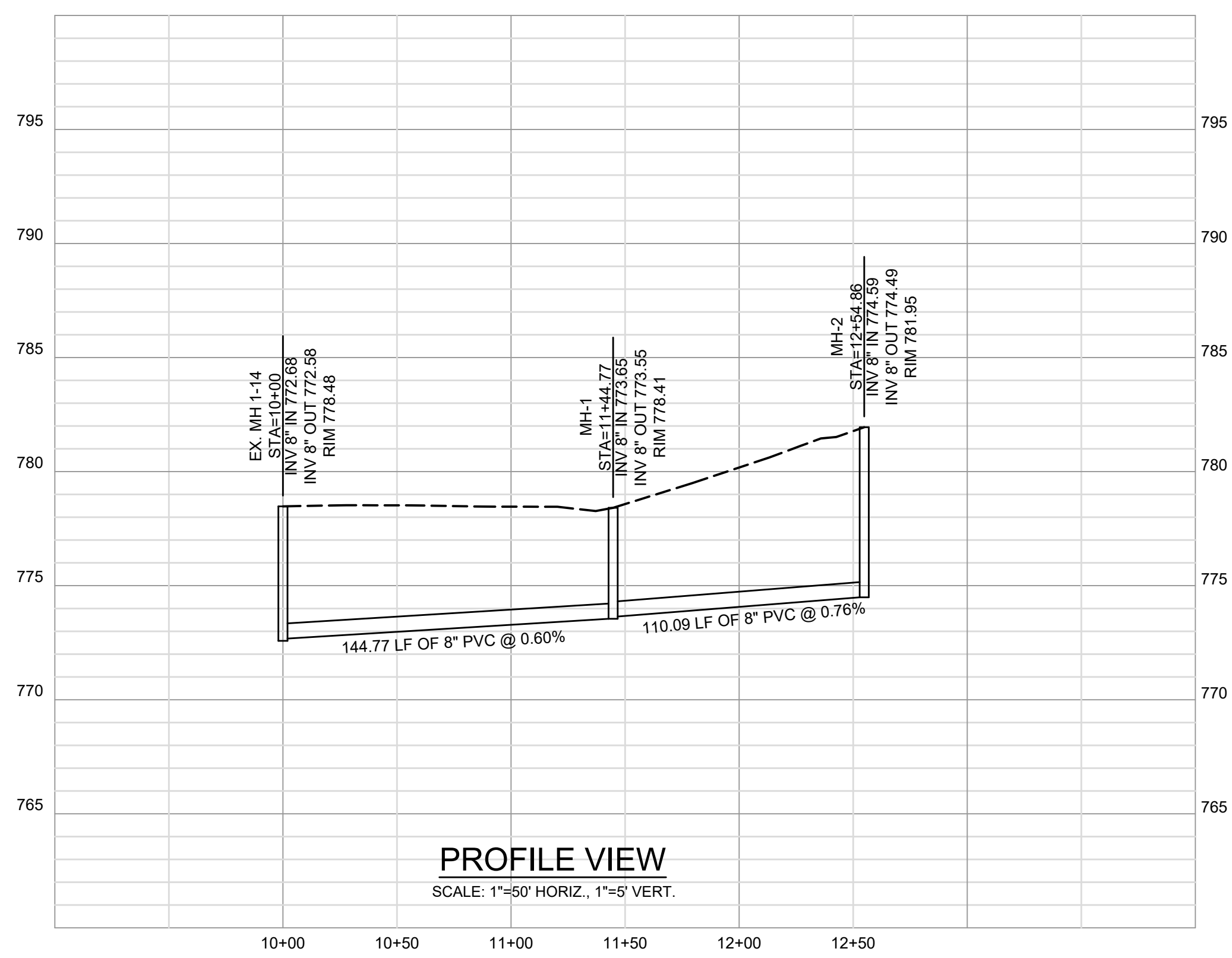
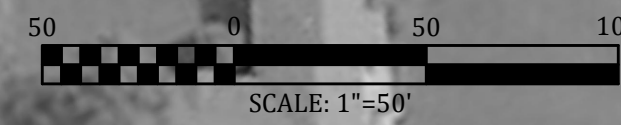
PROJECT NO.	20001
SHEET NO.	C-6

BID DOCUMENTS



**GENERAL NOTES:**

1. SEE SHEET C-11 FOR REHABILITATION WORK IN AREA AND COORDINATE.
2. NEW GRAVITY MAIN INSTALLED IN EXISTING TRENCH. ELEVATIONS WILL VARY FROM EXISTING WHICH MAY REQUIRE ROCK REMOVAL.
3. EXISTING PIPE AND MANHOLES TO BE REMOVED AND DISPOSED OF PROPERLY. MATERIALS FROM DEMOLISHED STRUCTURES MAY NOT BE USED AS FILL MATERIAL.



**PROFILE VIEW**  
SCALE: 1"=50' HORIZ., 1"=5' VERT.

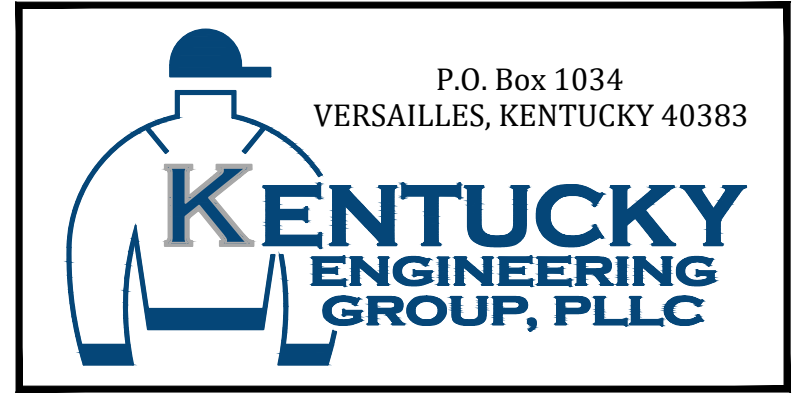
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**PHASE 19 SEWER SYSTEM IMPROVEMENTS**  
SEWER MAIN REPLACEMENT AND REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT

**HELEN FLATT DRIVE PLAN - PROFILE**



PROJECT NO.	20001
SHEET NO.	C-7

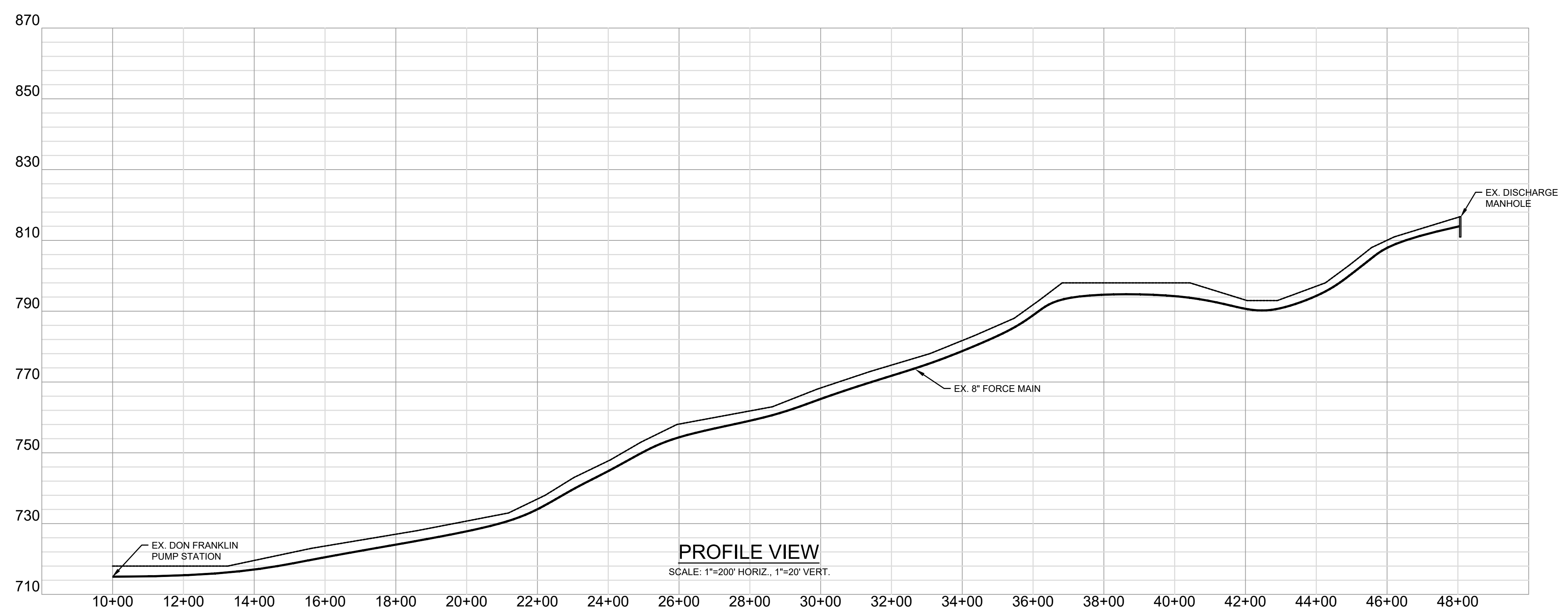
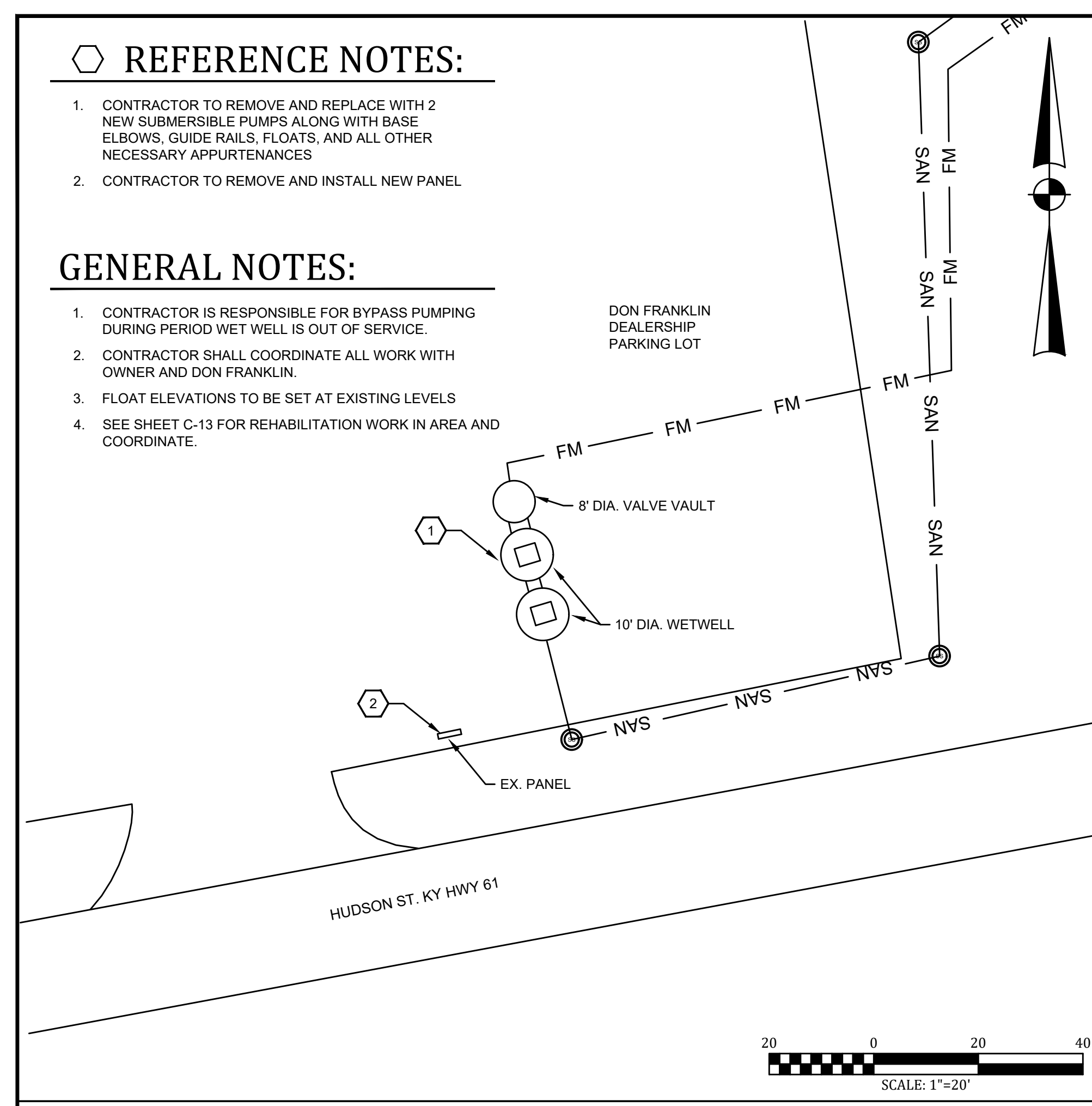
BID DOCUMENTS

**REFERENCE NOTES:**

1. CONTRACTOR TO REMOVE AND REPLACE WITH 2 NEW SUBMERSIBLE PUMPS ALONG WITH BASE ELBOWS, GUIDE RAILS, FLOATS, AND ALL OTHER NECESSARY APPURTENANCES.
2. CONTRACTOR TO REMOVE AND INSTALL NEW PANEL.

**GENERAL NOTES:**

1. CONTRACTOR IS RESPONSIBLE FOR BYPASS PUMPING DURING PERIOD WET WELL IS OUT OF SERVICE.
2. CONTRACTOR SHALL COORDINATE ALL WORK WITH OWNER AND DON FRANKLIN.
3. FLOAT ELEVATIONS TO BE SET AT EXISTING LEVELS.
4. SEE SHEET C-13 FOR REHABILITATION WORK IN AREA AND COORDINATE.



**PROFILE VIEW**  
SCALE: 1"=200' HORIZ., 1"=20' VERT.

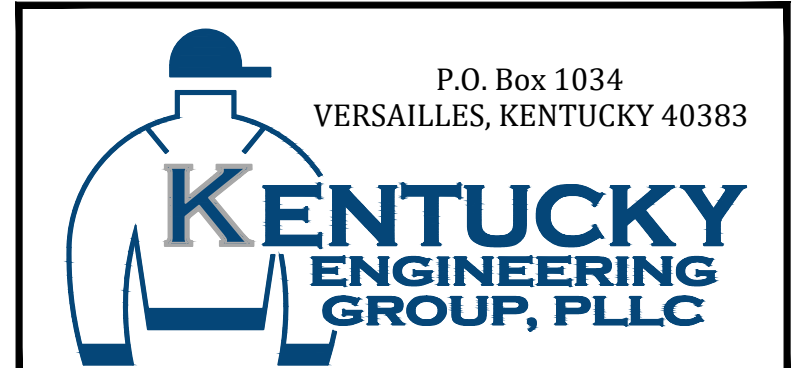
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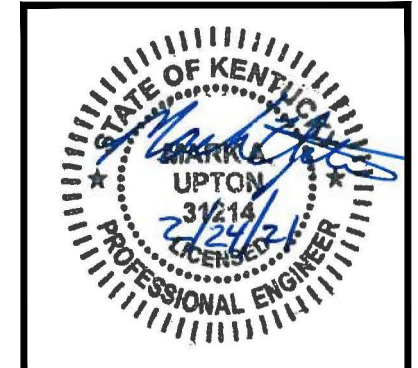
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DATE:	MARCH 2021
PROJECT MGR:	MAU
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SCALE:	AS NOTED
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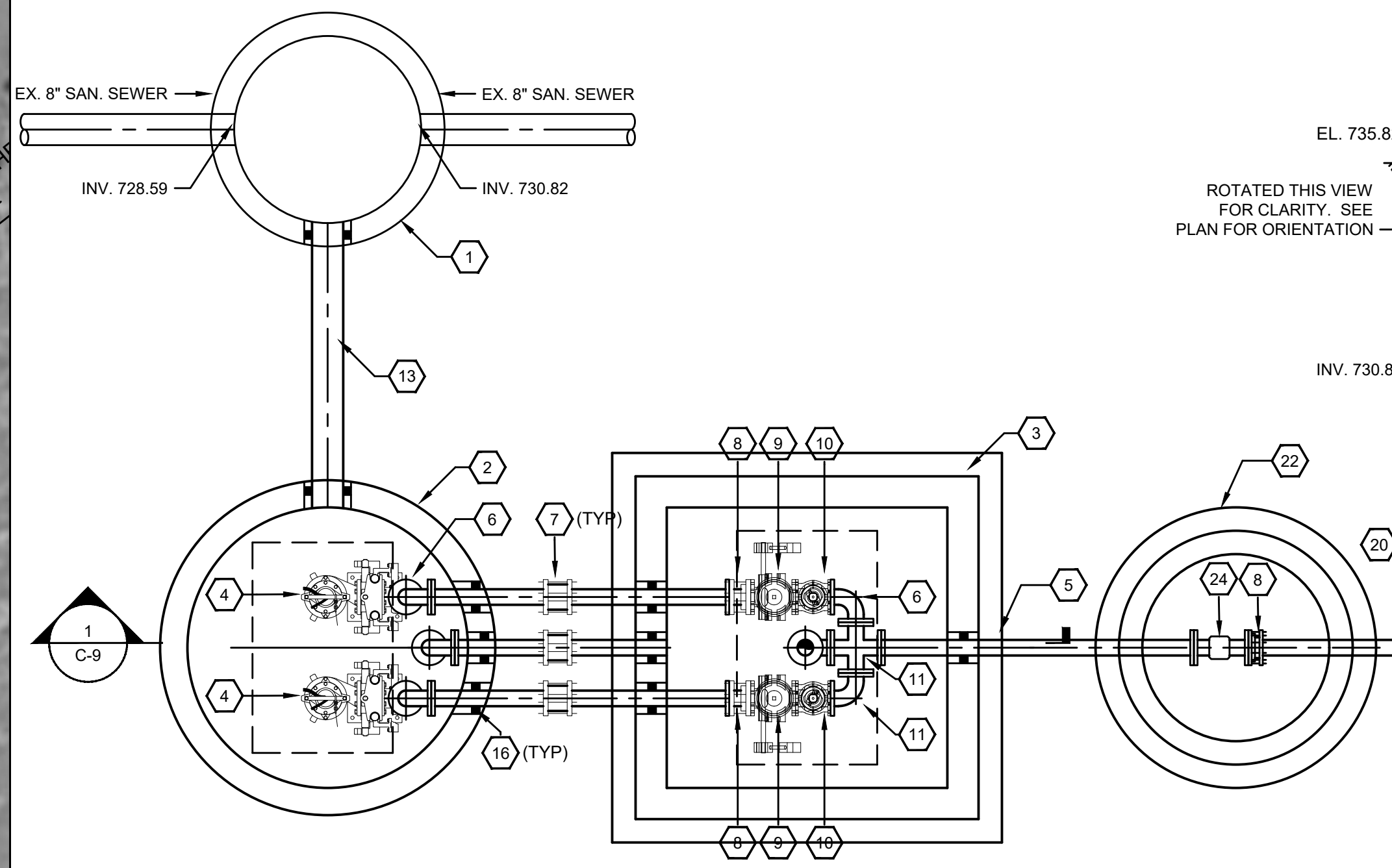
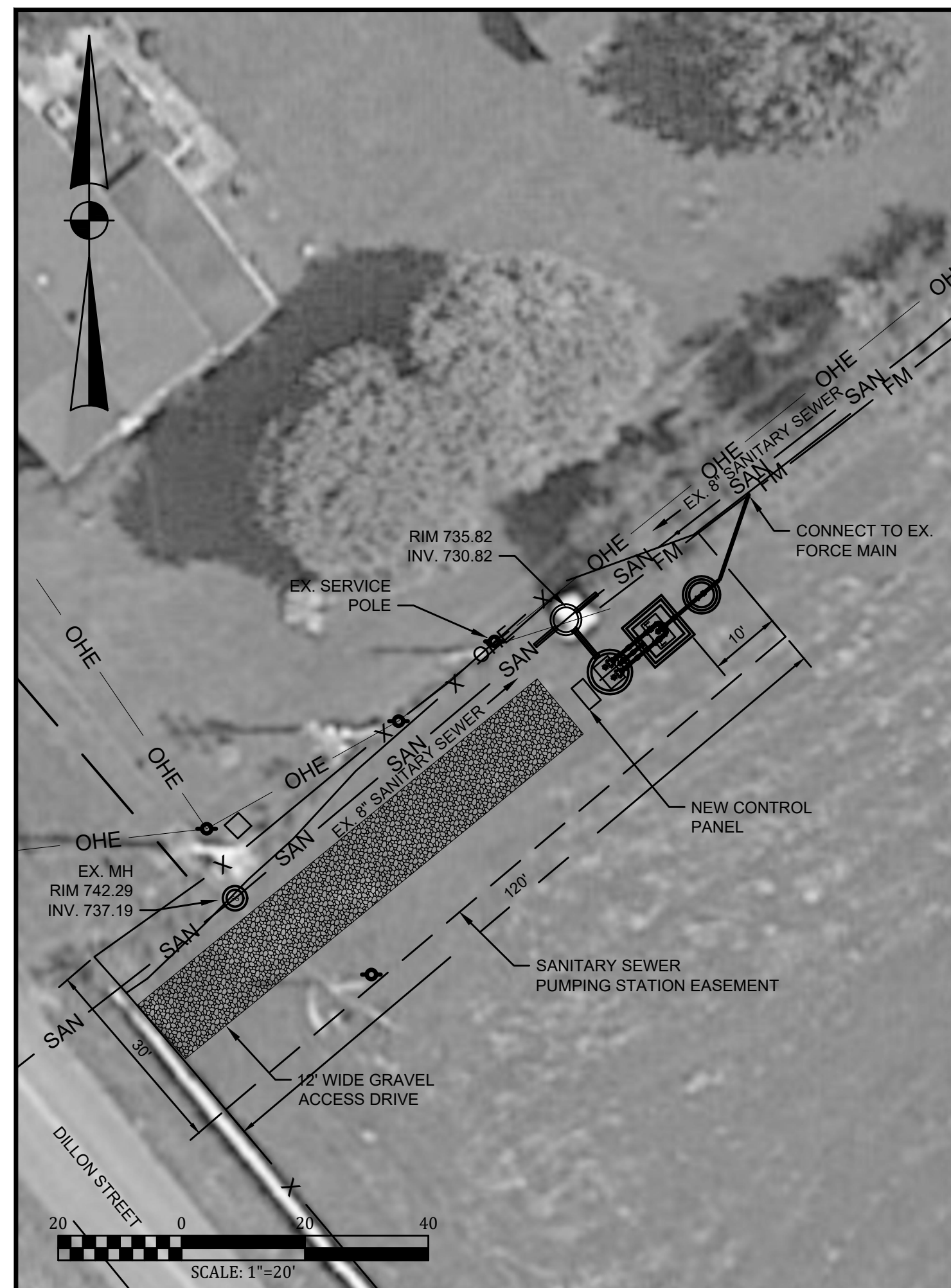
**PHASE 19 SEWER SYSTEM IMPROVEMENTS**  
SEWER MAIN REPLACEMENT AND REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT

**SITE PLAN, AERIAL PLAN**  
**FORCE MAIN PROFILE**  
**DON FRANKLIN PUMP STATION**



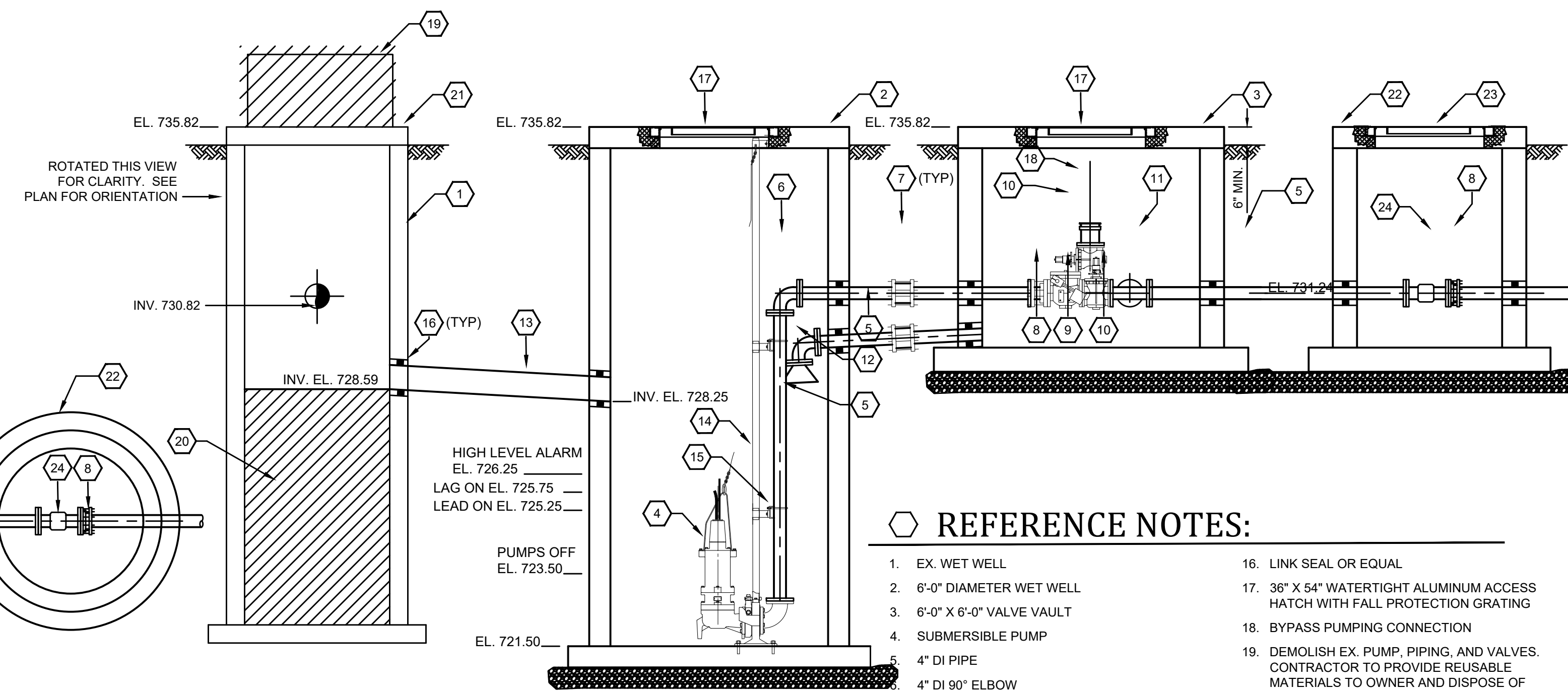
PROJECT NO.	20001
SHEET NO.	C-8

BID DOCUMENTS



**LONG HUNTER 1  
PUMP STATION - PLAN**

SCALE: 3/8"=1'-0"



**LONG HUNTER 1  
PUMP STATION SECTION**

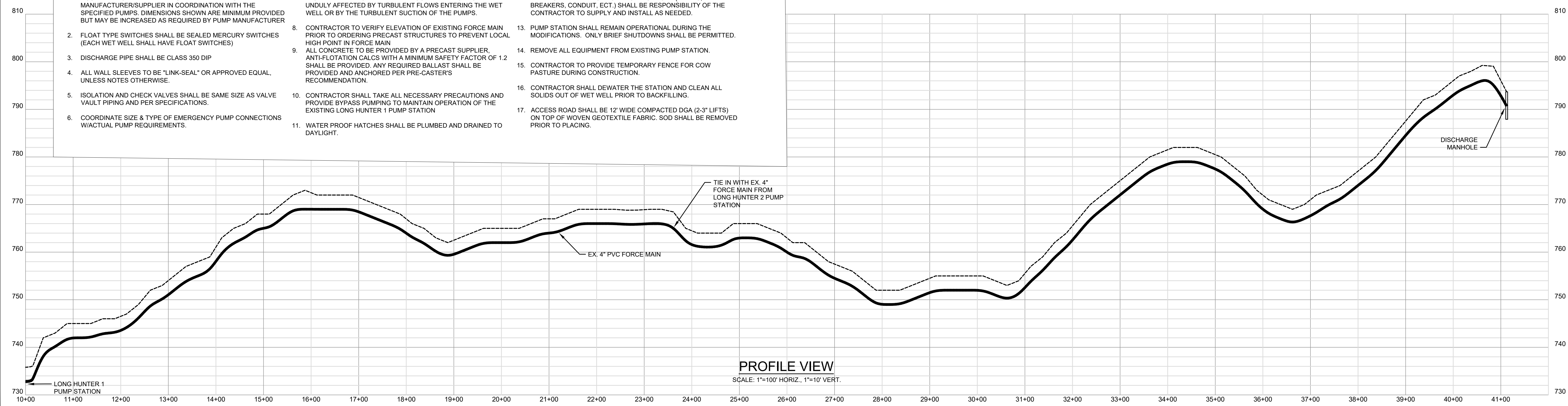
SCALE: 3/8"=1'-0"

**REFERENCE NOTES:**

1. EX. WET WELL
2. 6'-0" DIAMETER WET WELL
3. 6'-0" X 6'-0" VALVE VAULT
4. SUBMERSIBLE PUMP
5. 4" DI PIPE
6. 4" DI 90° ELBOW
7. 4" FLEXIBLE COUPLING ADAPTER
8. 4" FLANGE COUPLING ADAPTER
9. 4" SWING CHECK VALVE
10. 4" PLUG VALVE
11. 4" DI CROSS
12. 4" TIDE FLEX CHECK VALVE OR EQUAL
13. 8" PVC PIPE
14. GUIDE RAIL
15. GUIDE RAIL SUPPORT BRACKET
16. LINK SEAL OR EQUAL
17. 36" X 54" WATERTIGHT ALUMINUM ACCESS HATCH WITH FALL PROTECTION GRATING
18. BYPASS PUMPING CONNECTION
19. DEMOLISH EX. PUMP, PIPING, AND VALVES. CONTRACTOR TO PROVIDE REUSABLE MATERIALS TO OWNER AND DISPOSE OF ALL OTHER.
20. FILL EX. WET WELL WITH AGGREGATE AND CONCRETE CAP
21. REPLACE WET WELL TOP SLAB
22. 4'-0" DIAMETER MAG METER VAULT
23. 30"X30" WATER TIGHT ALUMINUM ACCESS HATCH
24. 4" MAGNETIC FLOW METER

**GENERAL NOTES:**

1. ACCESS HATCHES SHALL BE SUPPLIED BY THE PUMP MANUFACTURER/SUPPLIER IN COORDINATION WITH THE SPECIFIED PUMPS. DIMENSIONS SHOWN ARE MINIMUM PROVIDED BUT MAY BE INCREASED AS REQUIRED BY PUMP MANUFACTURER
2. FLOAT TYPE SWITCHES SHALL BE SEALED MERCURY SWITCHES (EACH WET WELL SHALL HAVE FLOAT SWITCHES)
3. DISCHARGE PIPE SHALL BE CLASS 350 DIP
4. ALL WALL SLEEVES TO BE "LINK-SEAL" OR APPROVED EQUAL, UNLESS NOTES OTHERWISE.
5. ISOLATION AND CHECK VALVES SHALL BE SAME SIZE AS VALVE VAULT PIPING AND PER SPECIFICATIONS.
6. COORDINATE SIZE & TYPE OF EMERGENCY PUMP CONNECTIONS W/ACTUAL PUMP REQUIREMENTS.
7. FLOAT TYPE SWITCHES SHALL BE LOCATED AS NOT TO BE UNDULY AFFECTED BY TURBULENT FLOWS ENTERING THE WET WELL OR BY THE TURBULENT SUCTION OF THE PUMPS.
8. CONTRACTOR TO VERIFY ELEVATION OF EXISTING FORCE MAIN PRIOR TO ORDERING PRECAST STRUCTURES TO PREVENT LOCAL HIGH POINT IN FORCE MAIN
9. ALL CONCRETE TO BE PROVIDED BY A PRECAST SUPPLIER. ANTI-FLOTATION CALCS WITH A MINIMUM SAFETY FACTOR OF 1.2 SHALL BE PROVIDED. ANY REQUIRED BALLAST SHALL BE PROVIDED AND ANCHORED PER PRE-CASTER'S RECOMMENDATION.
10. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AND PROVIDE BYPASS PUMPING TO MAINTAIN OPERATION OF THE EXISTING LONG HUNTER 1 PUMP STATION
11. WATER PROOF HATCHES SHALL BE PLUMBED AND DRAINED TO DAYLIGHT.
12. ALL NECESSARY ELECTRICAL MODIFICATIONS (WIRING, BREAKERS, CONDUIT, ECT.) SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY AND INSTALL AS NEEDED.
13. PUMP STATION SHALL REMAIN OPERATIONAL DURING THE MODIFICATIONS. ONLY BRIEF SHUTDOWNS SHALL BE PERMITTED.
14. REMOVE ALL EQUIPMENT FROM EXISTING PUMP STATION.
15. CONTRACTOR TO PROVIDE TEMPORARY FENCE FOR COW PASTURE DURING CONSTRUCTION.
16. CONTRACTOR SHALL DEWATER THE STATION AND CLEAN ALL SOLIDS OUT OF WET WELL PRIOR TO BACKFILLING.
17. ACCESS ROAD SHALL BE 12' WIDE COMPACTED DGA (2-3" LIFTS) ON TOP OF WOVEN GEOTEXTILE FABRIC. SOD SHALL BE REMOVED PRIOR TO PLACING.



**PROFILE VIEW**  
SCALE: 1"=100' HORIZ., 1"=10' VERT.

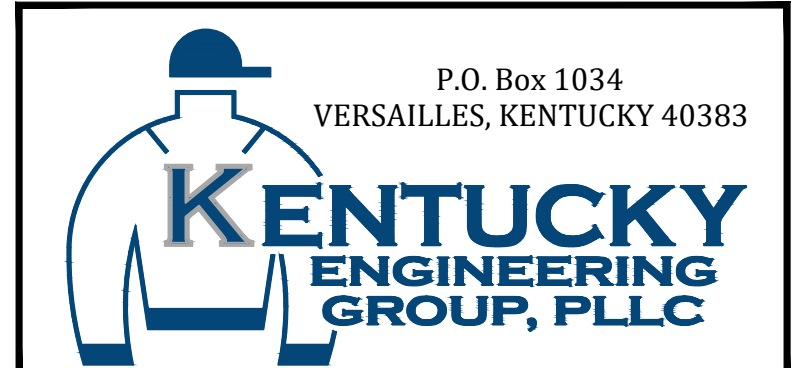
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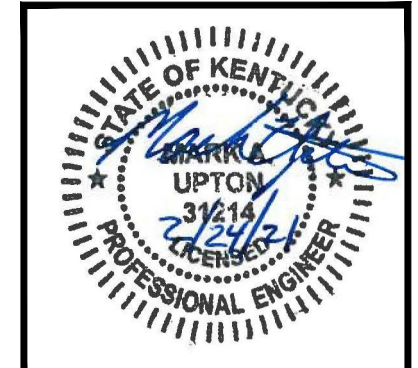
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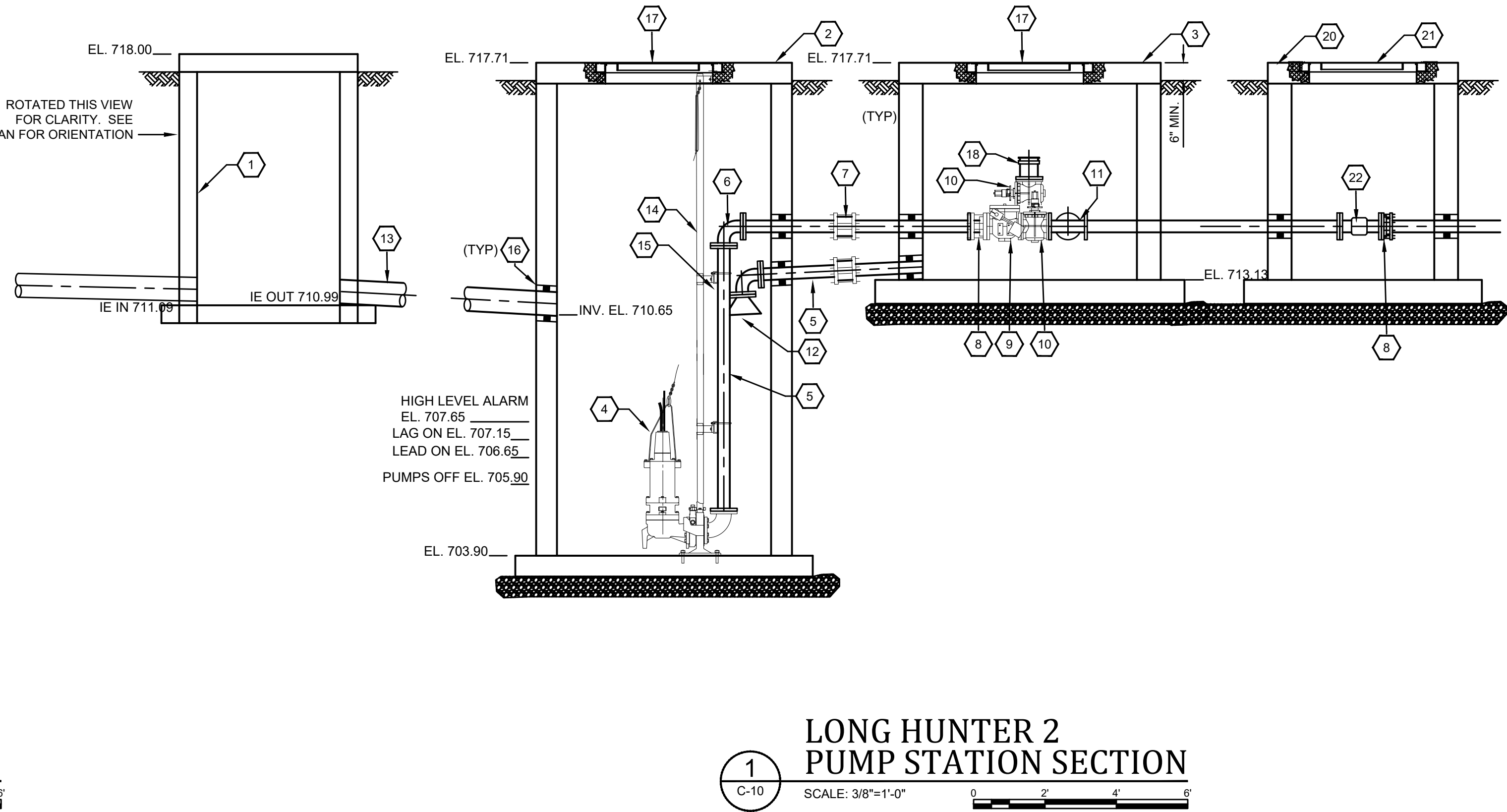
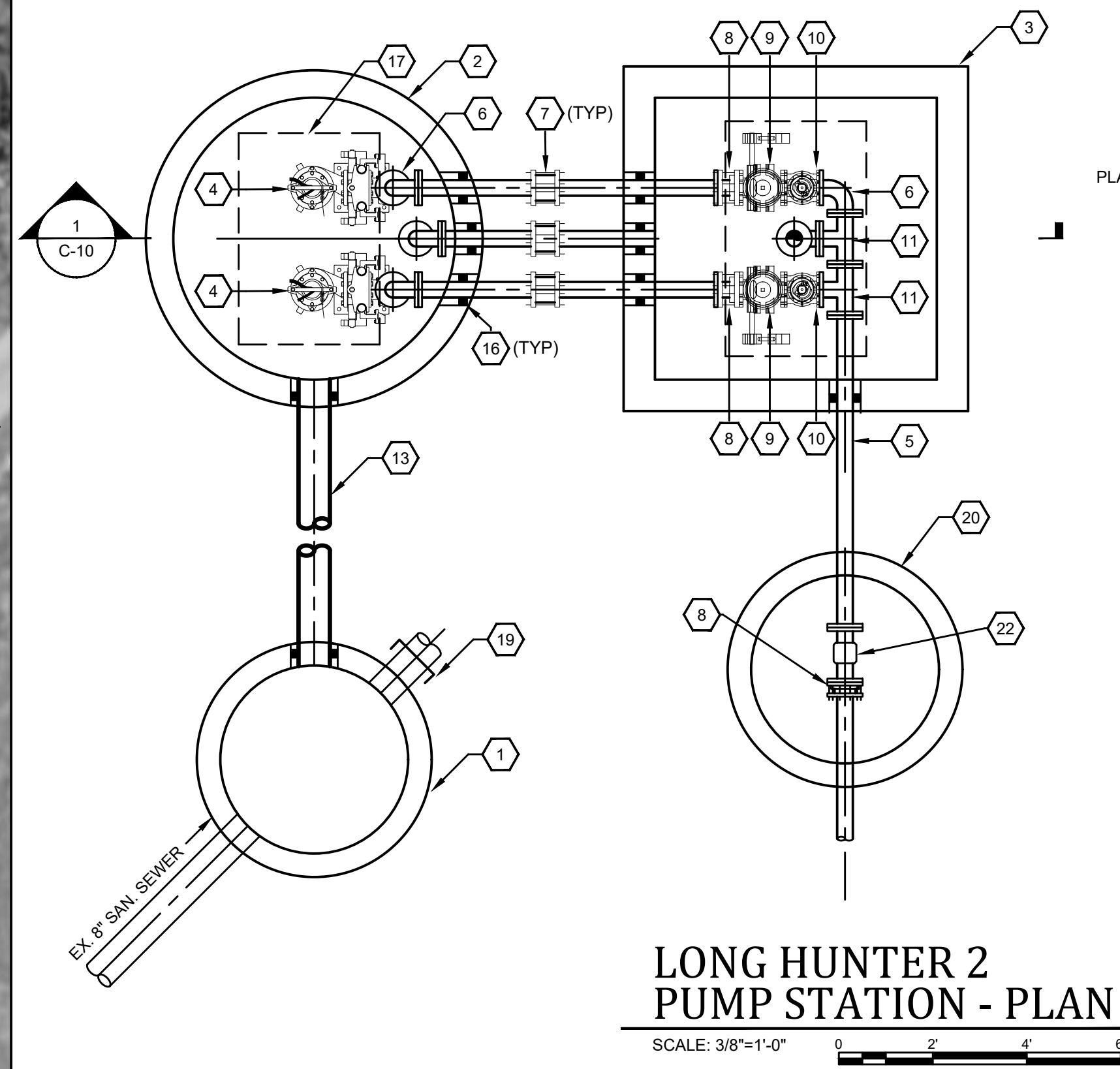
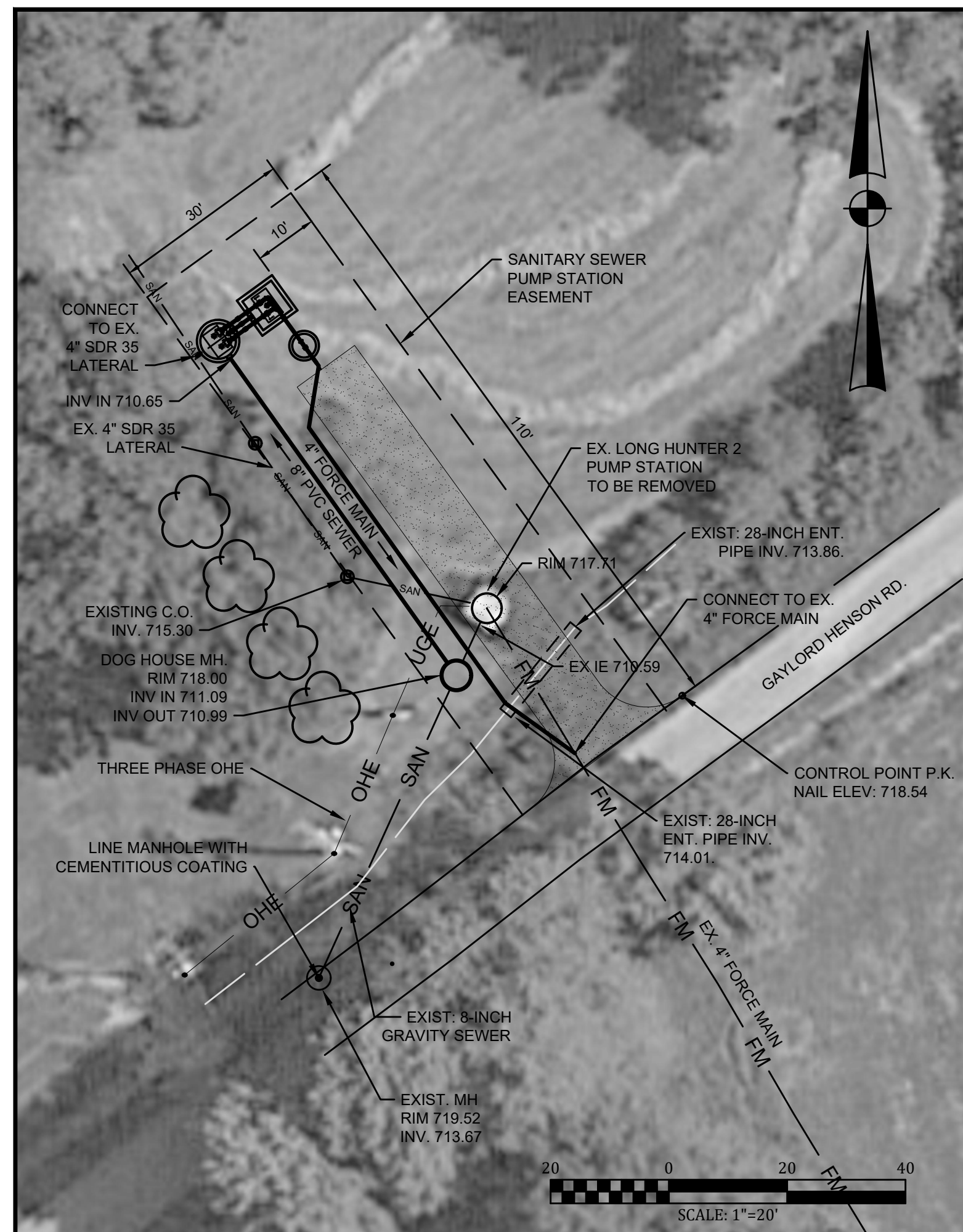
**PHASE 19 SEWER SYSTEM  
IMPROVEMENTS  
SEWER MAIN REPLACEMENT AND  
REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT**

**SITE PLAN, PLAN & SECTION,  
FORCE MAIN PROFILE  
LONG HUNTER 1  
PUMP STATION**



PROJECT NO.	20001
SHEET NO.	C-9

BID DOCUMENTS

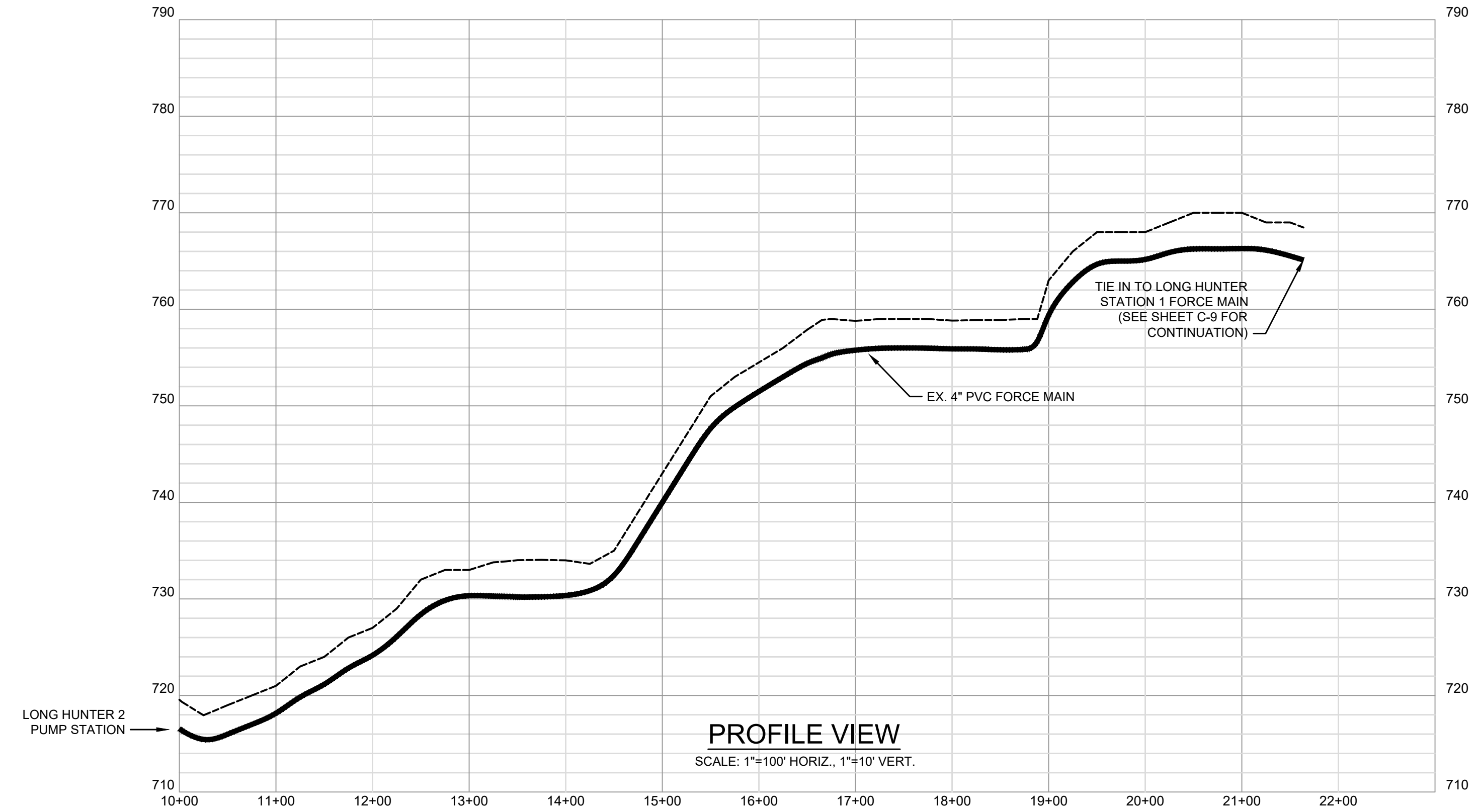


**LONG HUNTER 2 PUMP STATION - PLAN**  
SCALE: 3/8"=1'-0"

**LONG HUNTER 2 PUMP STATION SECTION**  
SCALE: 3/8"=1'-0"

**REFERENCE NOTES:**

1. DOG HOUSE MANHOLE
2. 6'-0" DIAMETER WET WELL
3. 6'-0" X 6'-0" VALVE VAULT
4. SUBMERSIBLE PUMP
5. 4" DI PIPE
6. 4" DI 90° ELBOW
7. 4" FLEXIBLE COUPLING ADAPTER
8. 4" FLANGE COUPLING ADAPTER
9. 4" SWING CHECK VALVE
10. 4" PLUG VALVE
11. 4" DI TEE
12. 4" TIDE FLEX CHECK VALVE OR EQUAL
13. 8" PVC PIPE
14. GUIDE RAIL
15. GUIDE RAIL SUPPORT BRACKET
16. LINK SEAL OR EQUAL
17. 36" X 54" WATERTIGHT ALUMINUM ACCESS HATCH WITH FALL PROTECTION GRATING
18. BYPASS PUMPING CONNECTION
19. CUT AND PLUG EX. SEWER
20. 4'-0" DIAMETER MAG METER VAULT
21. 30"X30" WATERTIGHT ALUMINUM ACCESS HATCH
22. 4" MAGNETIC FLOW METER



**PROFILE VIEW**  
SCALE: 1"=100' HORIZ., 1"=10' VERT.

**GENERAL NOTES:**

1. ACCESS HATCHES SHALL BE SUPPLIED BY THE PUMP MANUFACTURER/SUPPLIER IN COORDINATION WITH THE SPECIFIED PUMPS. DIMENSIONS SHOWN SHALL BE THE MINIMUM PROVIDED BUT MAY BE INCREASED AS REQUIRED BY PUMP MANUFACTURER
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4. ALL WALL SLEEVES TO BE "LINK-SEAL" OR APPROVED EQUAL, UNLESS NOTES OTHERWISE.
5. ISOLATION AND CHECK VALVES SHALL BE SAME SIZE AS VALVE VAULT PIPING AND PER SPECIFICATIONS.
6. COORDINATE SIZE & TYPE OF EMERGENCY PUMP CONNECTIONS W/ACTUAL PUMP REQUIREMENTS.
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9. ALL CONCRETE TO BE PROVIDED BY A PRECAST SUPPLIER. ANTI-FLOTATION CALCS WITH A MINIMUM SAFETY FACTOR OF 1.2 SHALL BE PROVIDED. ANY REQUIRED BALLAST SHALL BE PROVIDED AND ANCHORED PER PRE-CASTER'S RECOMMENDATION.
10. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AND PROVIDE BYPASS PUMPING TO MAINTAIN OPERATION OF THE EXISTING LONG HUNTER 2 PUMP STATION
11. WATER PROOF HATCHES SHALL BE PLUMBED AND DRAINED TO DAYLIGHT.
12. ALL NECESSARY ELECTRICAL MODIFICATIONS (WIRING, BREAKERS, CONDUIT, ECT.) SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY AND INSTALL AS NEEDED.
13. PUMP STATION SHALL REMAIN OPERATIONAL DURING THE MODIFICATIONS. ONLY BRIEF SHUTDOWNS SHALL BE PERMITTED.
14. REMOVE ALL EQUIPMENT FROM EXISTING PUMP STATION. REMOVE LID AND TOP BARREL SECTION OF WET WELL, CAP AND PLUG INFLUENT PIPE, AND FILL WITH CRUSH AGGREGATE. CONTRACTOR TO PROVIDE REUSABLE MATERIALS TO OWNER AND DISPOSE OF ALL OTHER.
15. ACCESS ROAD SHALL BE 12' WIDE COMPACTED DGA (2-3' LIFTS) ON TOP OF WOVEN GEOTEXTILE FABRIC. SOD SHALL BE REMOVED PRIOR TO PLACING.

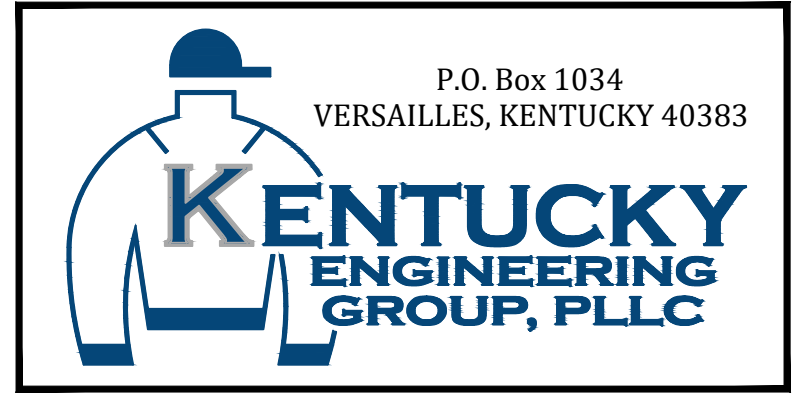
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**PHASE 19 SEWER SYSTEM IMPROVEMENTS**  
SEWER MAIN REPLACEMENT AND REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT

**SITE PLAN, PLAN & SECTION,**  
FORCE MAIN PROFILE  
LONG HUNTER 2 PUMP STATION



PROJECT NO.	20001
SHEET NO.	C-10

BID DOCUMENTS

**GENERAL NOTES:**

- 1) SEE SPEC SECTION 99998 FOR MANHOLE REHABILITATION INFORMATION
- 2) SEE SPEC SECTION 99999 FOR MAIN LINE REHABILITATION INFORMATION
- 3) SEE SHEET 7 FOR MAIN LINE REPLACEMENT IN THE VICINITY AND COORDINATE



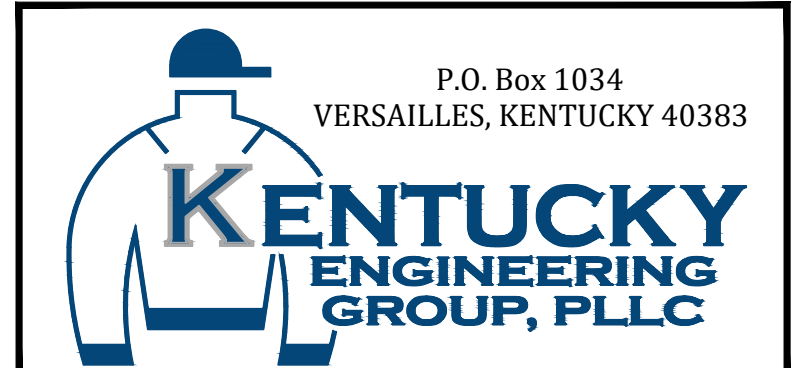
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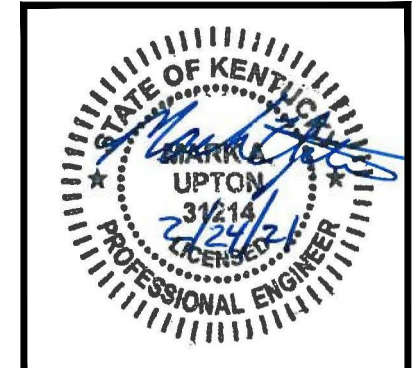
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**PHASE 19 SEWER SYSTEM IMPROVEMENTS**  
SEWER MAIN REPLACEMENT AND REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT

LINDSAY WILSON COLLEGE  
SANITARY SEWER REHABILITATION



PROJECT NO.	20001
SHEET NO.	C-11

BID DOCUMENTS

**GENERAL NOTES:**

- 1) SEE SPEC SECTION 99998 FOR MANHOLE REHABILITATION INFORMATION
- 2) SEE SPEC SECTION 99999 FOR MAIN LINE REHABILITATION INFORMATION
- 3) SEE SHEETS C-1 AND C-2 FOR MAIN LINE REPLACEMENT IN THE VICINITY AND COORDINATE



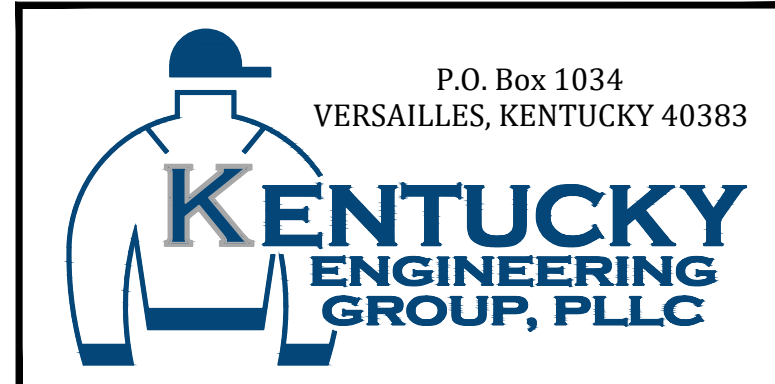
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**PHASE 19 SEWER SYSTEM IMPROVEMENTS**  
SEWER MAIN REPLACEMENT AND REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT

**JAMESTOWN AND GUTHRIE STREET**  
SANITARY SEWER REHABILITATION



PROJECT NO.	20001
SHEET NO.	C-12

BID DOCUMENTS

**GENERAL NOTES:**

- 1) SEE SPEC SECTION 99988 FOR MANHOLE REHABILITATION INFORMATION
- 2) SEE SPEC SECTION 99999 FOR MAIN LINE REHABILITATION INFORMATION
- 3) SEE SHEET C-3 FOR MAIN LINE REPLACEMENT IN THE VICINITY AND COORDINATE



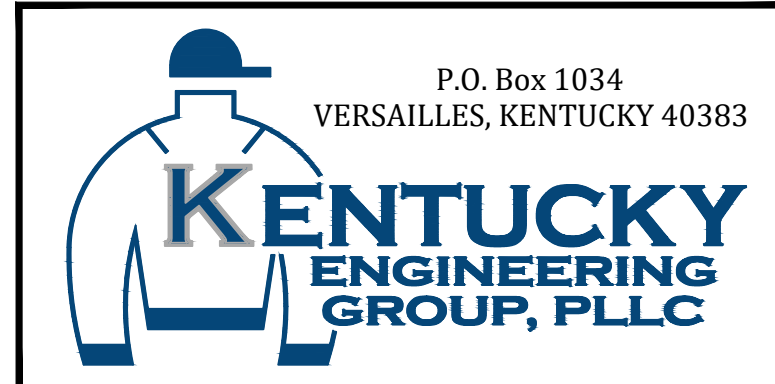
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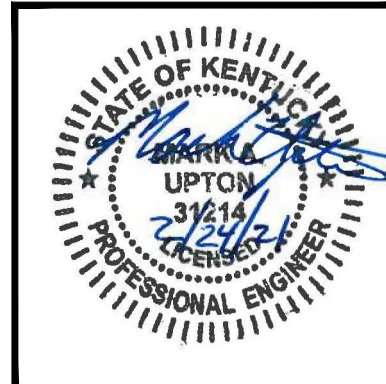
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**PHASE 19 SEWER SYSTEM IMPROVEMENTS**  
SEWER MAIN REPLACEMENT AND REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT

**CARRIE BOLIN DRIVE**  
SANITARY SEWER REHABILITATION



PROJECT NO.	20001
SHEET NO.	C-13

BID DOCUMENTS



**GENERAL NOTES:**

- 1) SEE SPEC SECTION 99998 FOR MANHOLE REHABILITATION INFORMATION
- 2) SEE SPEC SECTION 99999 FOR MAIN LINE REHABILITATION INFORMATION
- 3) SEE SHEET C-6 FOR MAIN LINE REPLACEMENT IN THE VICINITY AND COORDINATE



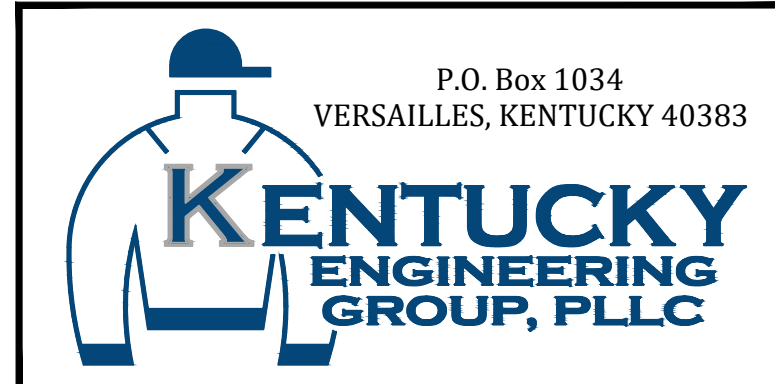
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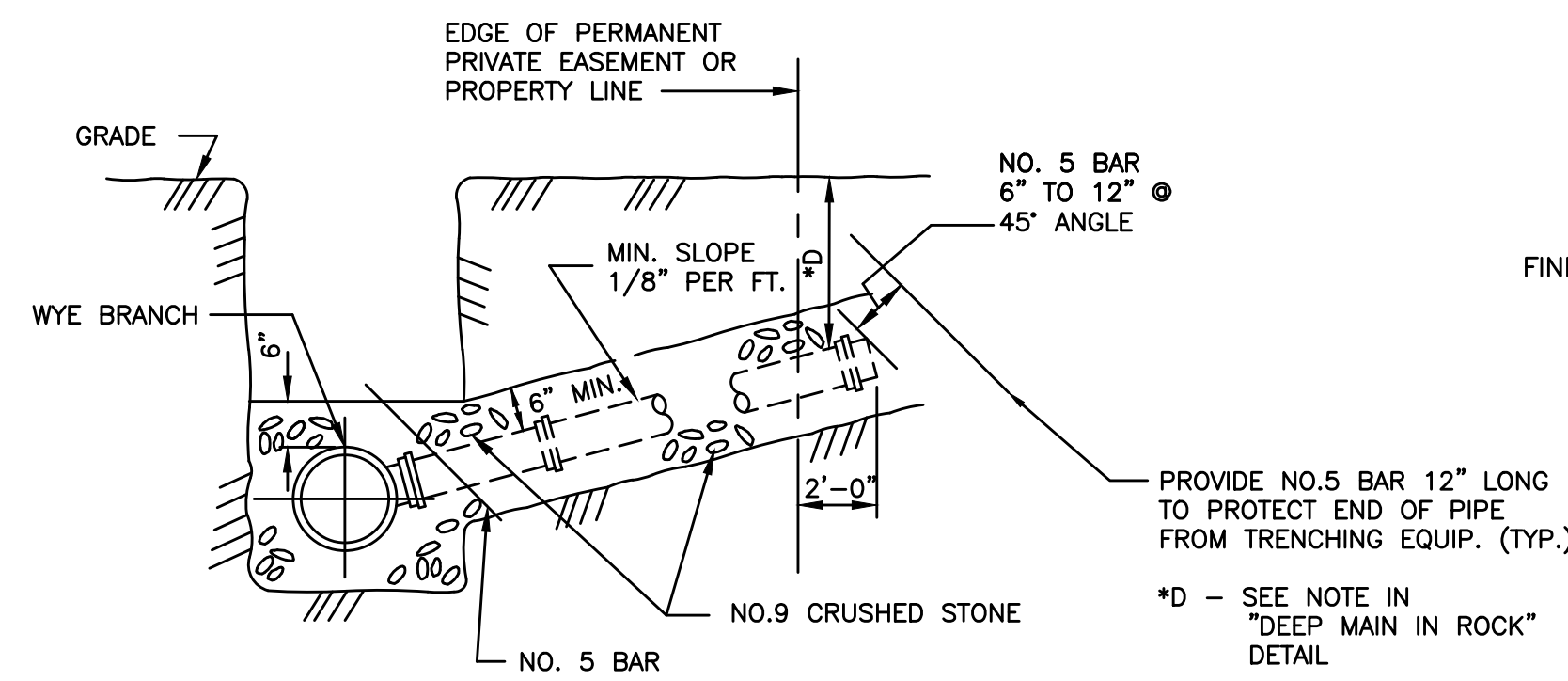
**PHASE 19 SEWER SYSTEM IMPROVEMENTS**  
SEWER MAIN REPLACEMENT AND REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT

**HUDSON STREET TO GREENSBURG STREET SANITARY SEWER REHABILITATION**



PROJECT NO.	20001
SHEET NO.	C-14

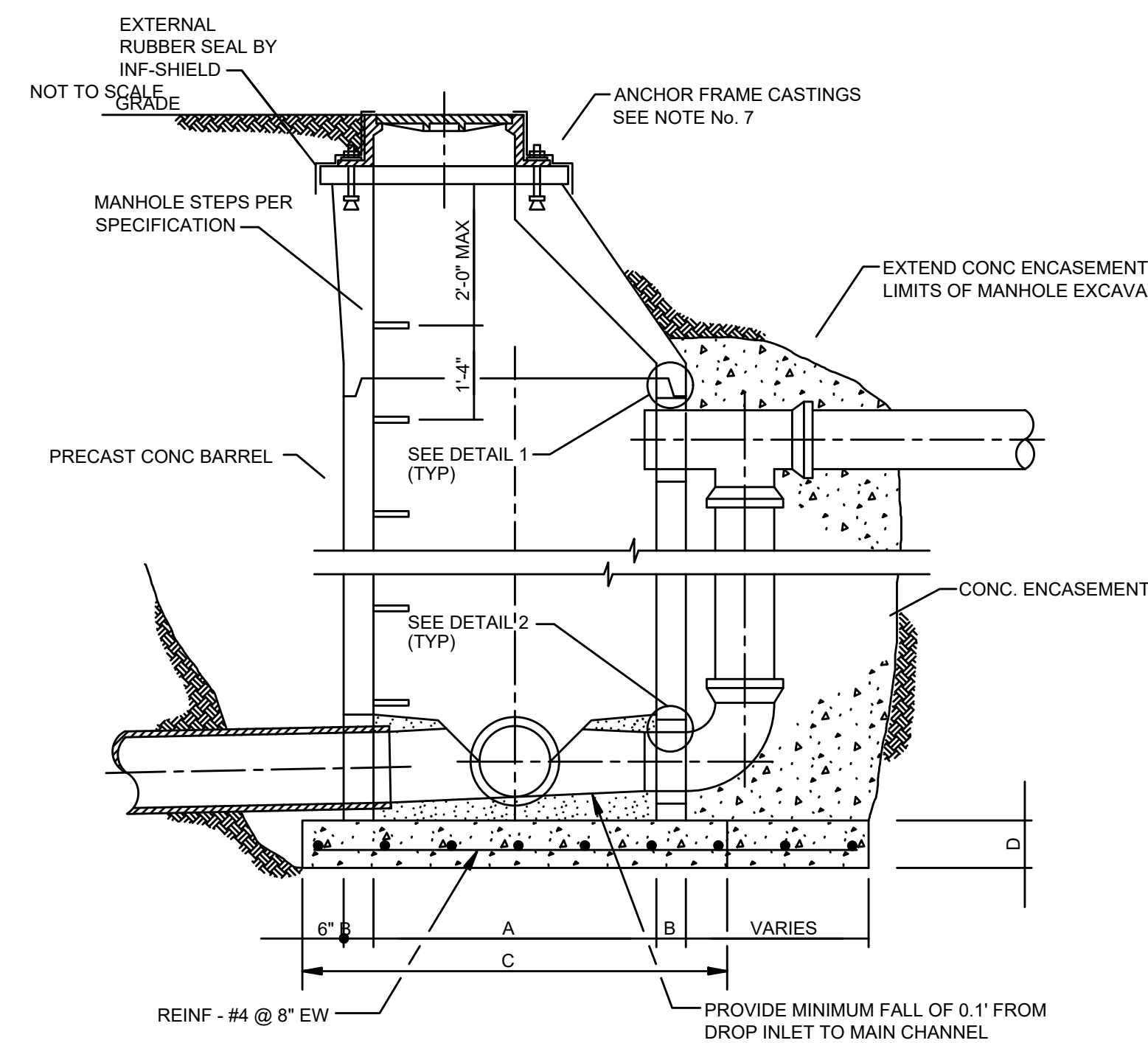
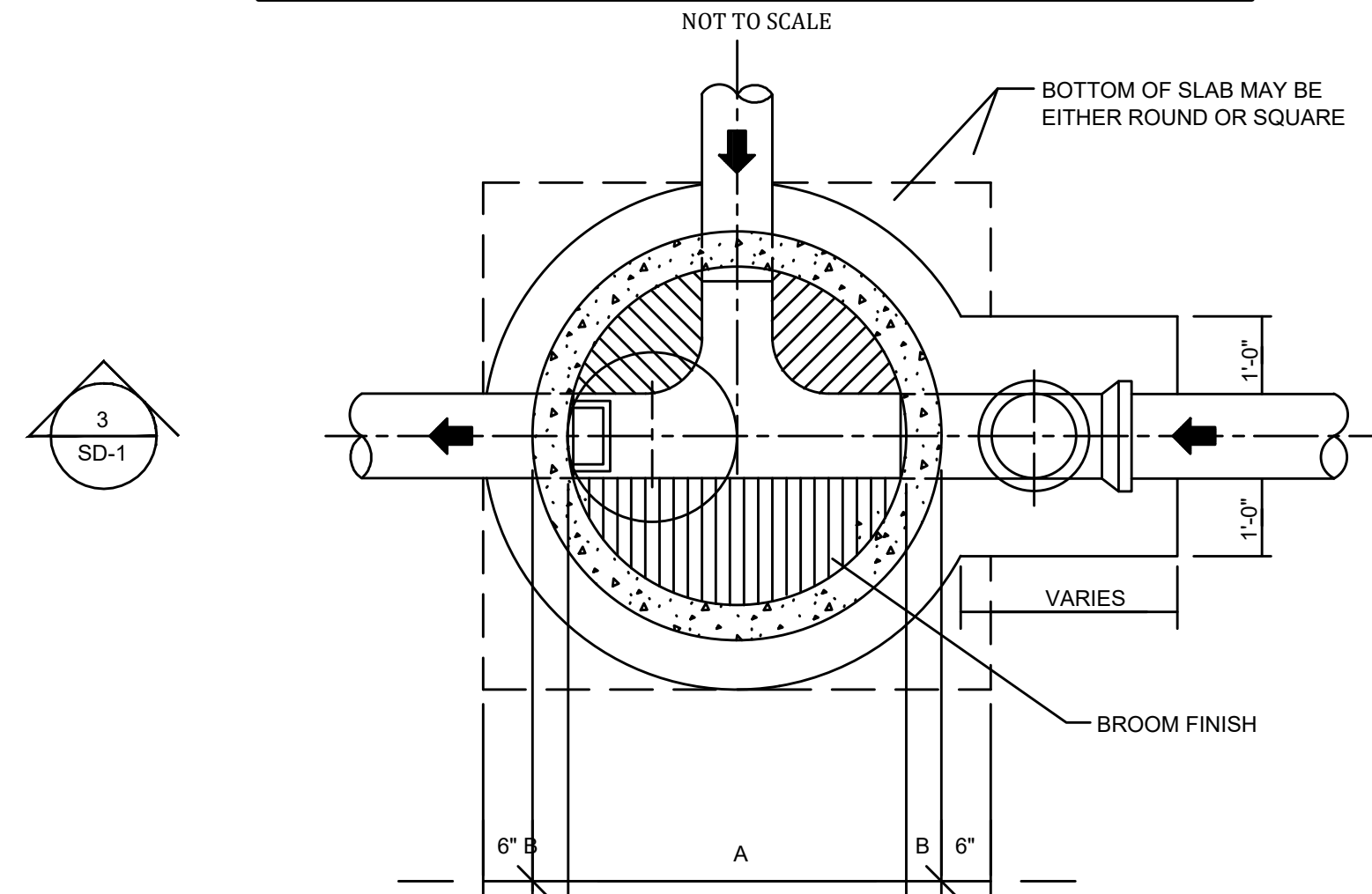
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**NOTES:**

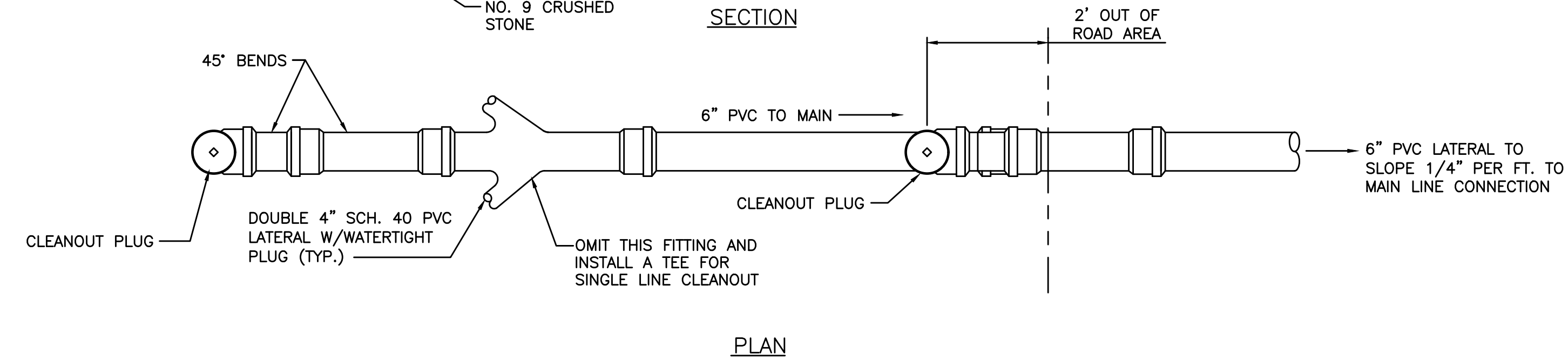
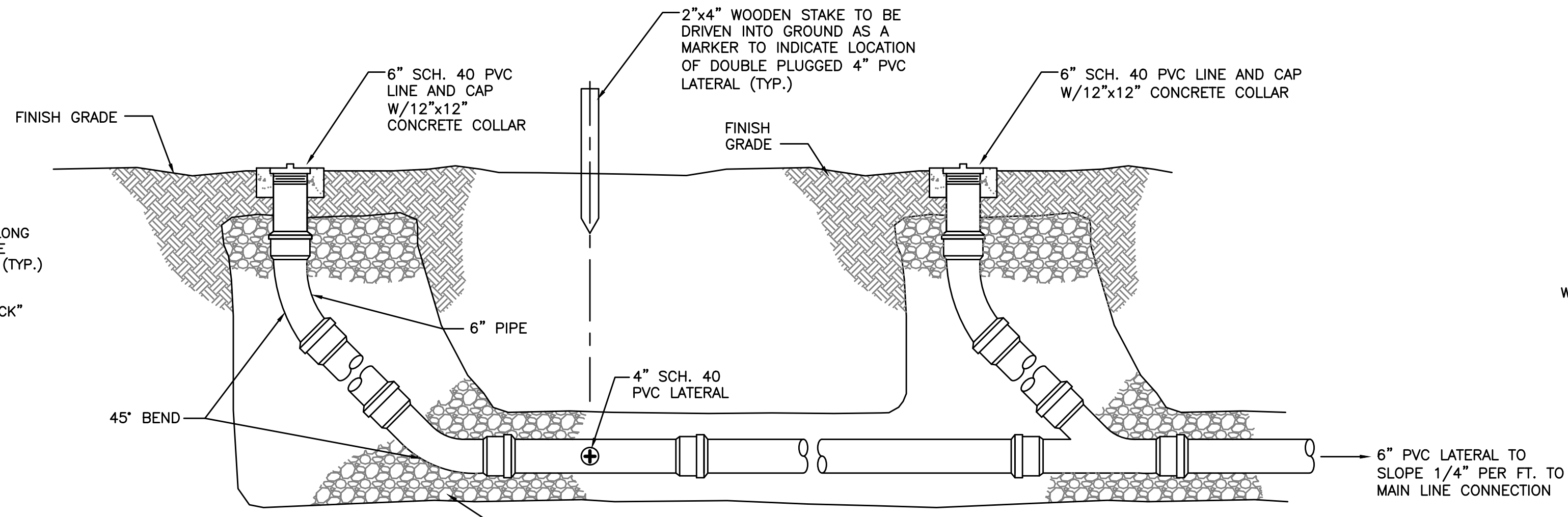
1. FOR MAINS LAID ON PRIVATE PROPERTY, ONLY THE WYE BRANCH AND PLUG SHALL BE INSTALLED, UNLESS OTHERWISE SHOWN ON THE PLANS.
2. FOR MAINS LAID ON PUBLIC RIGHT-OF-WAY, THE LATERAL SHALL BE LAID TO THE PROPERTY LINE AND BEYOND TO THE DISTANCE INDICATED.

**WYE BRANCH OR LATERAL FOR SHALLOW (0-6') IN EARTH OR ROCK**

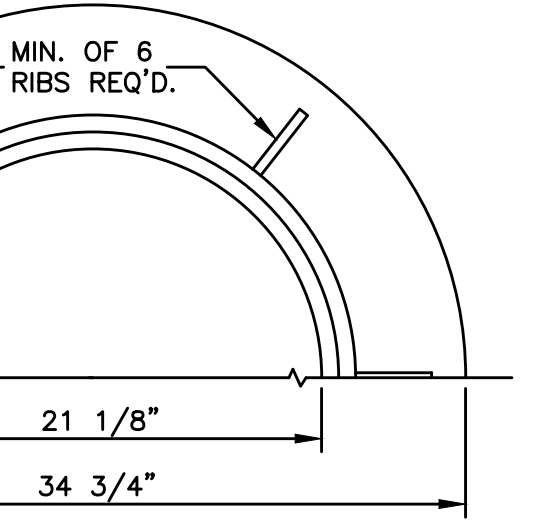
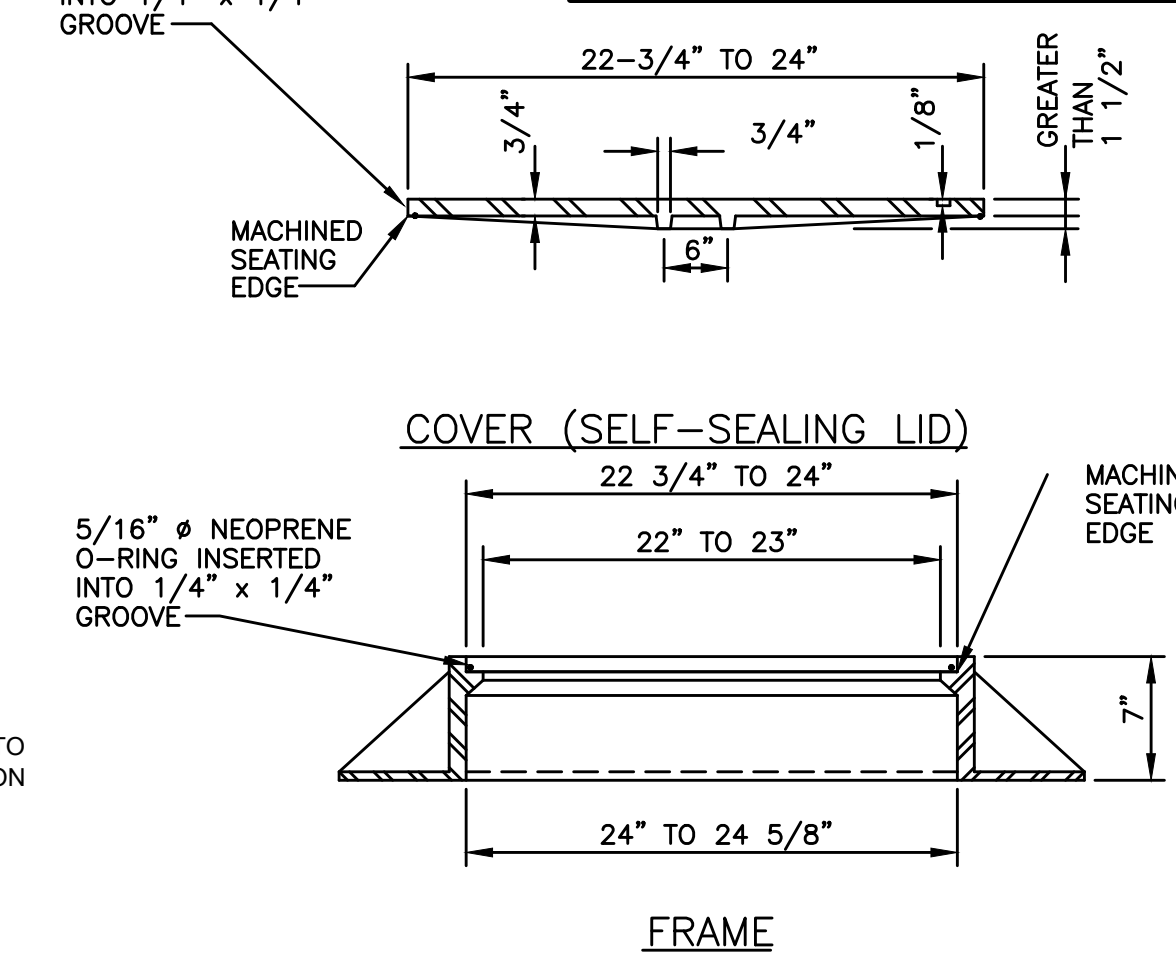


**DROP MANHOLE**

NOT TO SCALE

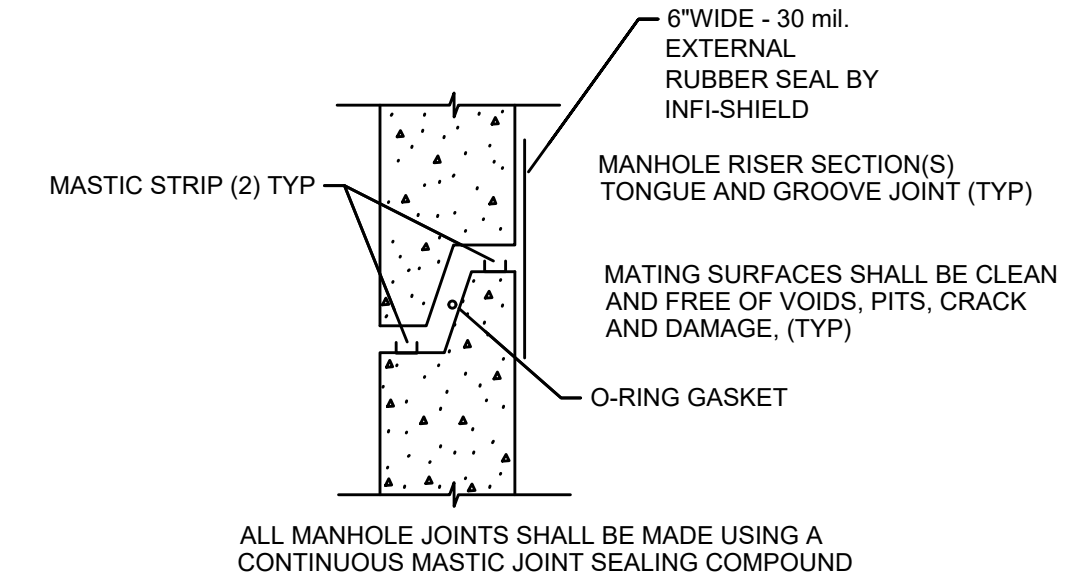


**DOUBLE LATERAL WITH EXTERIOR CLEANOUTS**



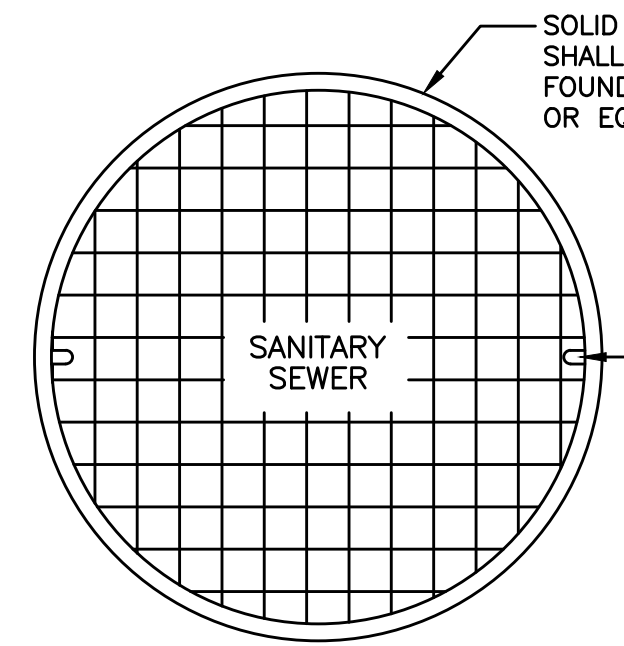
**STANDARD MANHOLE FRAME and COVER**

NOT TO SCALE



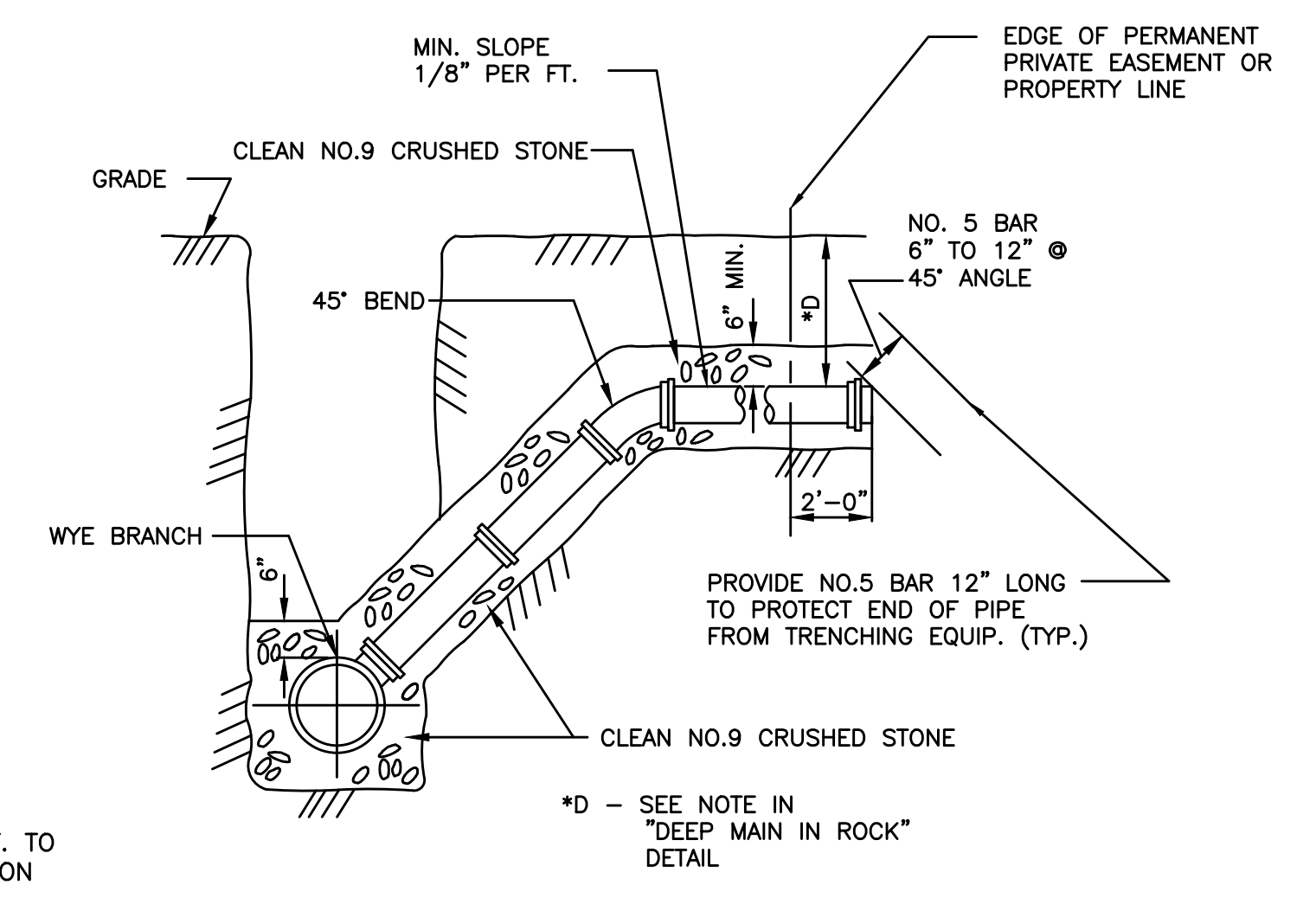
**1 DETAIL**

NOT TO SCALE

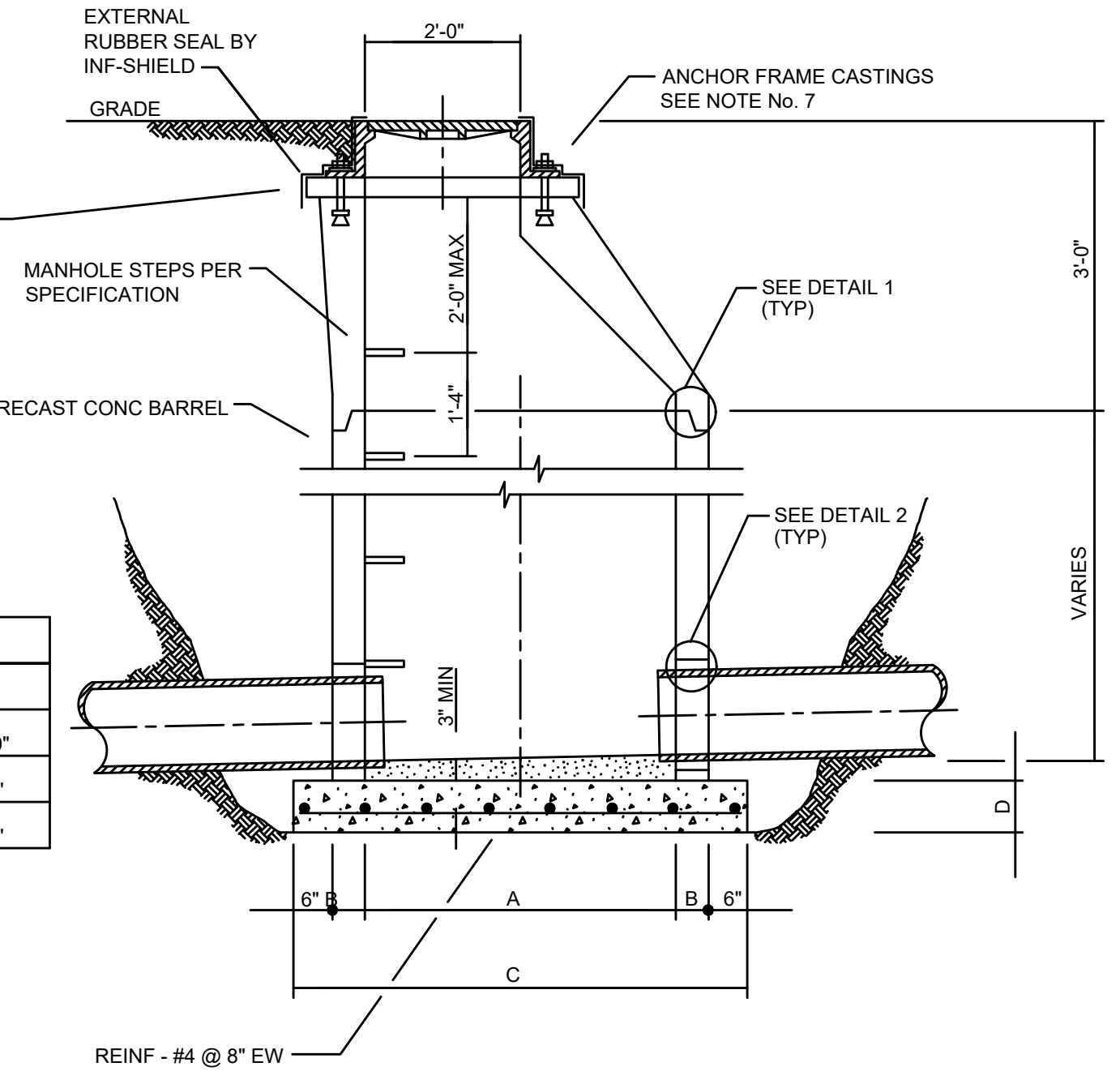
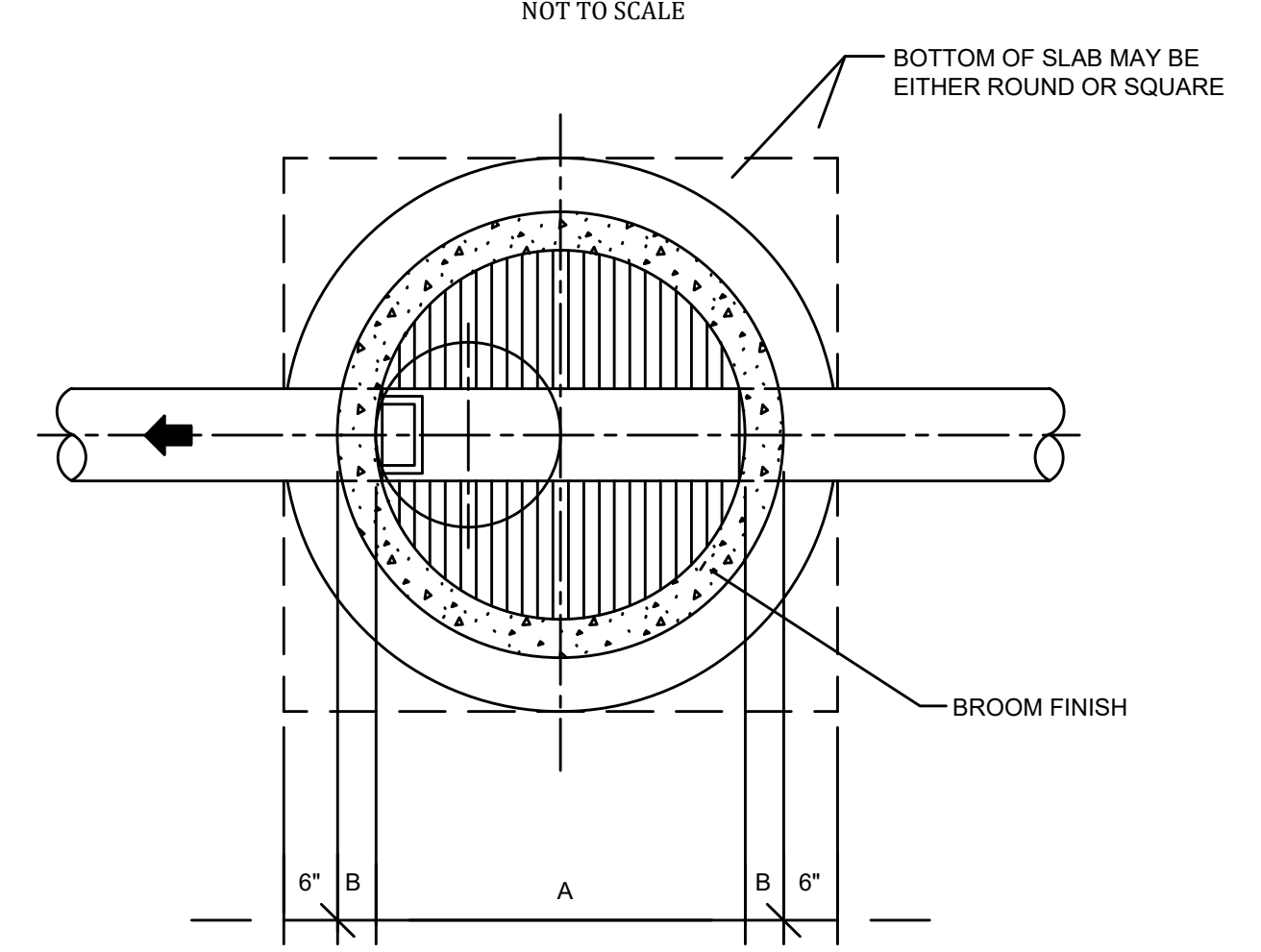


MANHOLE DIMENSIONS SCHEDULE				
INSIDE MH DIA.	A	B	C	
4'-0"	4'-0"	5"	5'-10"	
5'-0"	5'-0"	6"	7'-0"	
6'-0"	6'-0"	7"	8'-2"	

MANHOLE DEPTH	D
0' - 10'	6"
10' - 15'	8"
15' - 20'	10"
20' - 25'	12"
25' - 30'	14"



**STACK LATERAL FOR DEEP MAIN (OVER 6') IN EARTH**



**STANDARD MANHOLE**

NOT TO SCALE

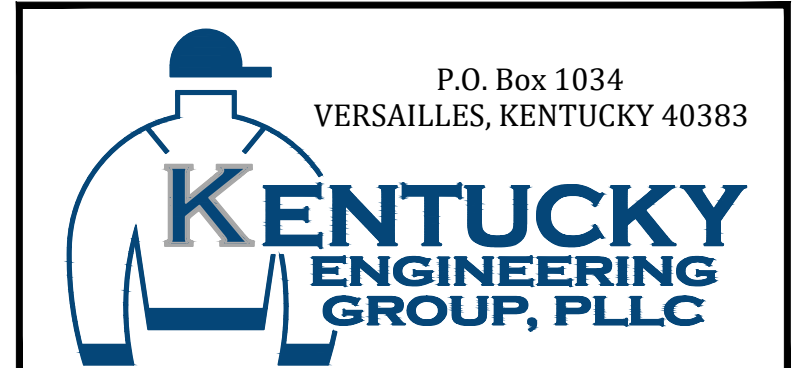
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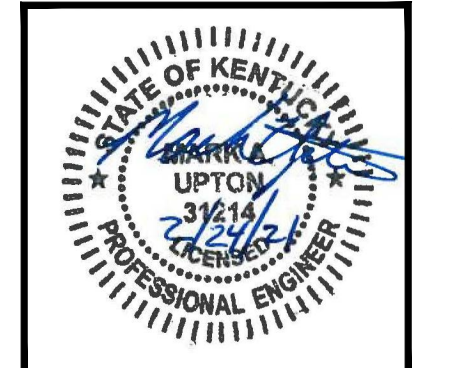
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PHASE 19 SEWER SYSTEM IMPROVEMENTS  
SEWER MAIN REPLACEMENT AND REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT

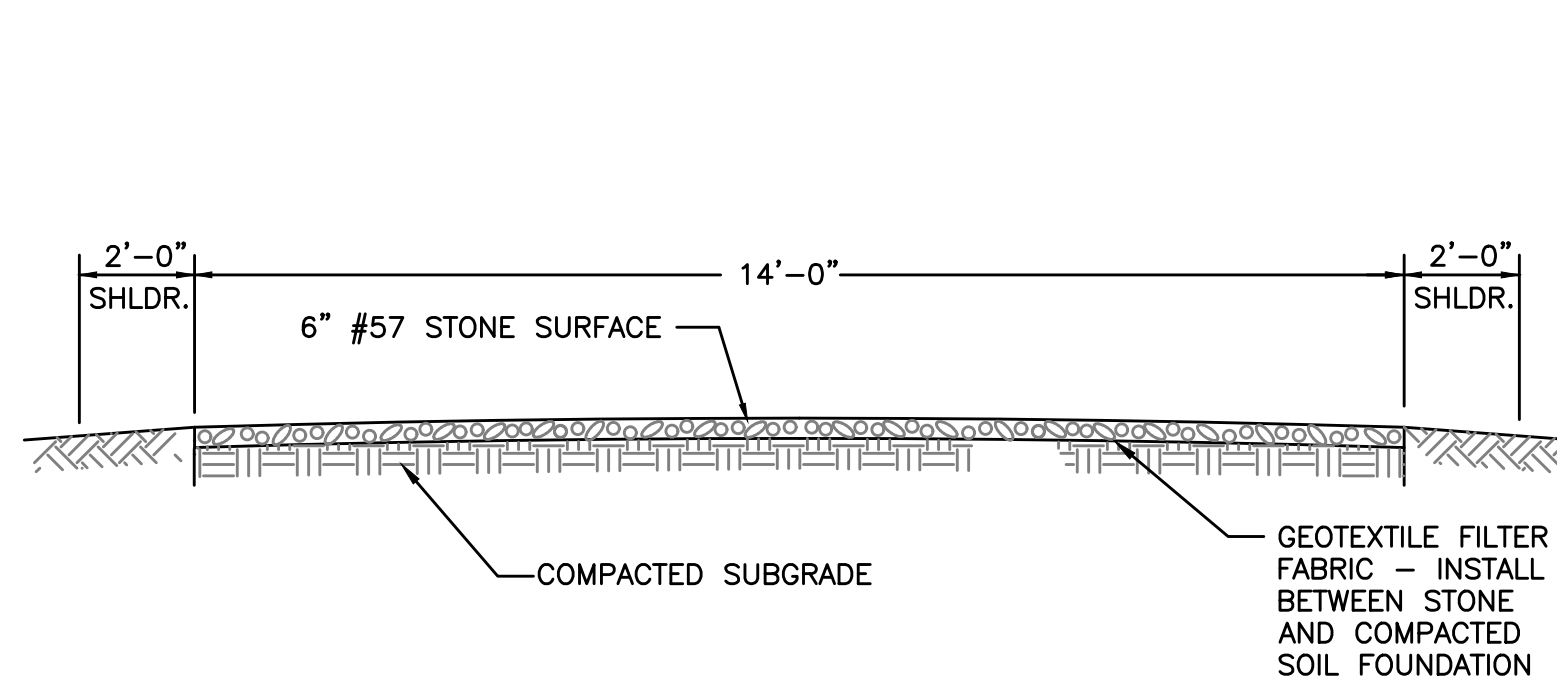
STANDARD DETAILS



PROJECT NO.	20001
SHEET NO.	SD-1

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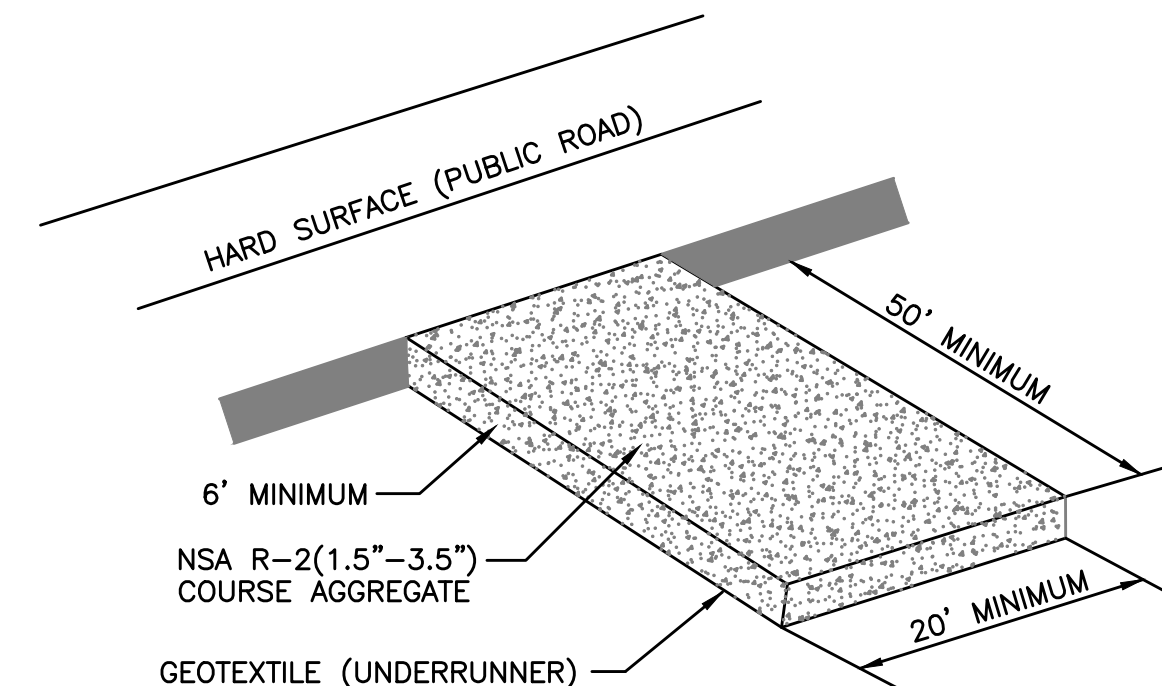


### CONSTRUCTION ROAD STABILIZATION

NOT TO SCALE

#### NOTES:

- TREES, STUMPS, ROOTS, BRUSH, WEEDS, AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED FROM THE WORK AREA.
- UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE ROADBED AND PARKING AREAS.
- GRADING, SUBGRADE PREPARATION, AND COMPACTION SHALL BE DONE AS NEEDED. FILL MATERIAL SHALL BE DEPOSITED IN LAYERS NOT TO EXCEED 9 INCHES AND COMPACTED WITH THE CONTROLLED MOVEMENT OF COMPACTING AND EARTH MOVING EQUIPMENT.
- THE ROADBED SHALL BE GRADED TO THE REQUIRED ELEVATION. SUBGRADE PREPARATION AND PLACEMENT OF THE SURFACE COURSE SHALL BE IN ACCORDANCE WITH SOUND ROADWAY CONSTRUCTION.
- ALL CUT AND FILLS SHALL BE 2:1 OR FLATTER TO THE EXTENT POSSIBLE.
- WATER BREAKS OR BARS MAY BE USED TO CONTROL SURFACE RUNOFF.
- ROADS SHALL BE LAID OUT ACCORDING TO GOOD LANDSCAPE MANAGEMENT PRINCIPLES.
- ALL ROADSIDE DITCHES, CUTS, FILLS, AND DISTURBED AREAS ADJACENT TO ROADS SHALL BE STABILIZED WITH APPROPRIATE TEMPORARY OR PERMANENT VEGETATION.



#### NOTES:

- A STABILIZED ENTRANCE PAD OF CRUSHED STONE SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
- GEOTEXTILE (KYTC TYPE III) SHALL BE USED AS A BASE FOR THE CONSTRUCTION ENTRANCE.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS WARRANT AND REPAIR OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- ANY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC STREETS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- WHEN APPROPRIATE, WHEELS MUST BE CLEANED TO REMOVED SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.

### STABILIZED CONSTRUCTION ENTRANCE

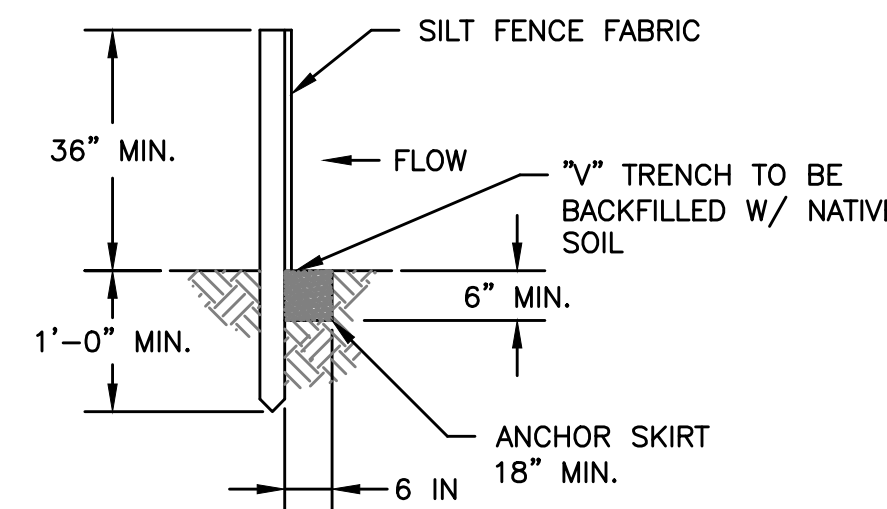
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### EROSION CONTROL NOTES

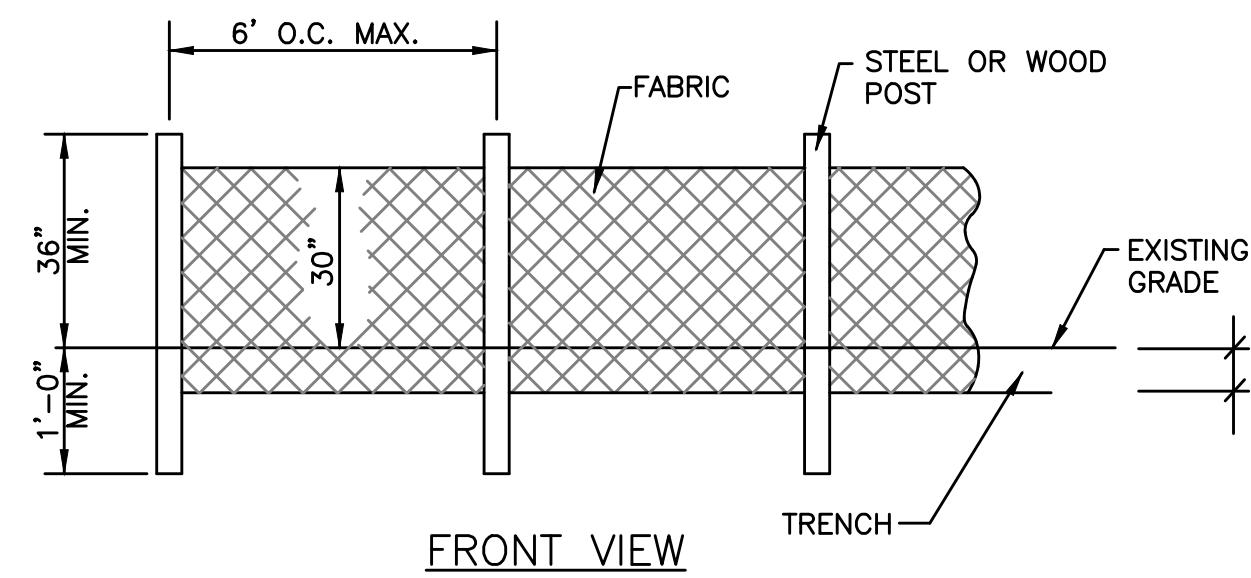
- A KPDES STORMWATER PERMIT IS REQUIRED FOR THIS PROJECT. COVERAGE STARTS WHEN THE KY DIVISION OF WATER ACKNOWLEDGES RECEIPT OF A NOTICE OF INTENT FOR COVERAGE.
- THE KPDES PERMIT REQUIRES THAT THE PERMITTEE SHALL MINIMIZE DISTURBANCE AND THE PERIOD OF TIME THAT THE DISTURBED AREA IS WITHOUT STABILIZATION PRACTICES.
- FINAL STABILIZATION SHALL BEGIN WITHIN 14 DAYS ON AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED OR HAVE BEEN SUSPENDED FOR MORE THAN 180 DAYS. WHEN SNOW COVER CAUSES DELAYS, STABILIZATION SHALL BEGIN AS SOON AS POSSIBLE. STABILIZATION PRACTICES INCLUDE SEEDING, MULCHING, PLACING SOD, PLANTING TREES OR SHRUBS, AND USING GEOTEXTILE FABRICS AND OTHER APPROPRIATE MEASURES. SEEDING RATES, DATES, AND MATERIALS MAY BE OBTAINED FROM THE LOCAL NATURAL RESOURCES CONSERVATION SERVICE FIELD OFFICE.
- FOR ALL CRITICAL AREAS (WITHIN 25' OF A STREAM), SOIL STABILIZATION TECHNIQUES SHALL BE IMPLEMENTED WITHIN 24 HOURS OR AS SOON AS PRACTICAL AFTER COMPLETION OF GRADING OR DISTURBANCE. TEMPORARY STABILIZATION PRACTICES SHALL BE INITIATED WITHIN 14 DAYS OF CESSATION OF CONSTRUCTION ACTIVITIES.
- A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE DEVELOPED AND IMPLEMENTED AS OUTLINED IN THE KPDES STORMWATER PERMIT KYR 10.
- SEDIMENT BASINS (DEBRIS BASINS, DESILTING BASINS, OR SEDIMENT TRAPS) SHALL BE PROPERLY DESIGNED.
- SEDIMENT BASINS (DEBRIS BASINS, DESILTING BASINS, OR SEDIMENT TRAPS) SHALL BE INSTALLED DURING THE INITIAL GRADING AT LOCATIONS THAT WILL PROVIDE THE BEST PROTECTION FROM OFF-SITE DAMAGES.
- ALL SLOPES EXCEEDING 3:1 SHALL HAVE EXTRA SLOPE PROTECTION SUCH AS NETTING.
- A MULTI-PURPOSE BASIN USED FOR A SEDIMENT TRAP THAT IS THEN CONVERTED TO A DETENTION/RETENTION BASIN SHALL BE DREDGED PERIODICALLY DURING CONSTRUCTION ACTIVITIES AND AFTER STABILIZATION IN ORDER TO PROVIDE ADEQUATE STORAGE.
- INLET PROTECTION IS REQUIRED TO MINIMIZE DISCHARGE OF SEDIMENT LADEN WATER.
- SITE PERIMETER CONTROLS ARE REQUIRED AND SHALL BE INSTALLED TO PREVENT THE DEPOSIT OF SOIL AND DEBRIS FROM GRADED SURFACES ONTO PUBLIC STREETS, INTO DRAINAGE CHANNELS OR SEWERS, OR ONTO ADJOINING LAND.
- EROSION CONTROL MEASURES SHOWN ARE THE MINIMUM REQUIRED, CONTRACTOR SHALL PROVIDE ADDITIONAL CONTROL AND REVISE THE CONTROLS AS NEEDED.

#### INSPECTIONS AND MAINTENANCE

- ALL EROSION CONTROL MEASURES, DISCHARGE LOCATIONS, VEHICLE EXITS, DISTURBED AREAS OF THE SITE, AND MATERIALS STORAGE AREAS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. EACH INSPECTION MUST BE DOCUMENTED IN ACCORDANCE WITH THE KPDES GENERAL PERMIT FOR STORMWATER POINT SOURCE DISCHARGES FROM CONSTRUCTION ACTIVITIES (KYR10).
- SEDIMENT ACCUMULATED AT THE SILT FENCES, INLET PROTECTION AREAS, AND OTHER SILT CHECK DEVICES SHOULD BE REMOVED NO LATER THAN WHEN IT REACHES 1/3 HEIGHT OF THE FENCE OR 9 INCHES MAXIMUM.
- SEDIMENT MUST BE REMOVED FROM ANY SEDIMENT BASINS WHEN THE NO MORE THAN 1/3 VOLUME HAS BEEN FILLED WITH COLLECTED SEDIMENT.
- ALL REQUIRED REPAIRS ARE TO BE MADE IMMEDIATELY.
- REMOVED SEDIMENT MUST BE SPREAD AND VEGETATED OR OTHERWISE STABILIZED IN A MANNER THAT DOES NOT RESULT IN MUDDY RUNOFF TO NEARBY DITCHES AND WATERBODIES.
- INSPECT THE CONSTRUCTION ENTRANCE DAILY TO ENSURE NO TRACKING OR DIRT ONTO LOCAL ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS MUST BE REMOVED IMMEDIATELY. SEE NOTE 3 FOR HANDLING OF REMOVED SEDIMENT.
- MAINTAIN THE ENTRANCE AS NECESSARY TO PREVENT TRACKING OF DIRT.



#### TRENCH DETAIL FOR SILT FENCE

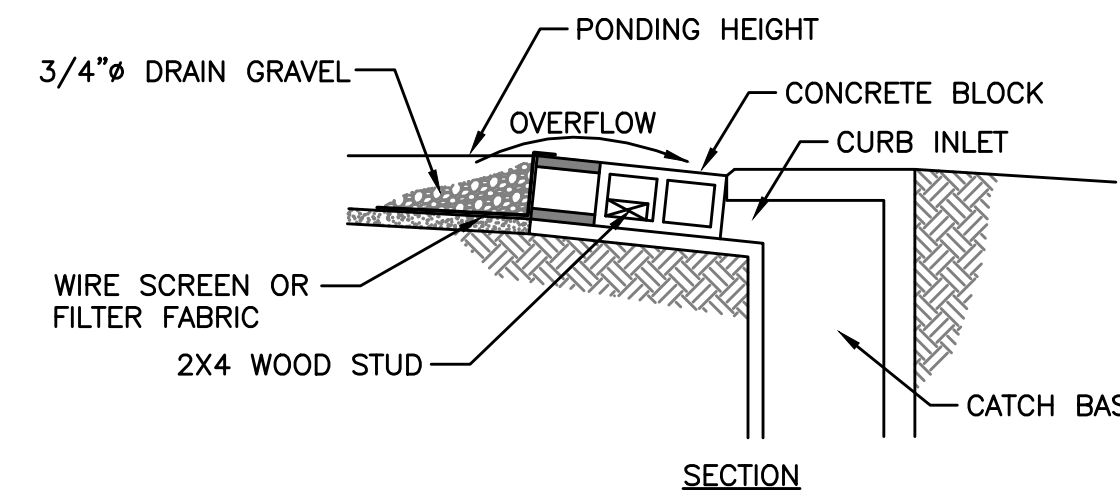
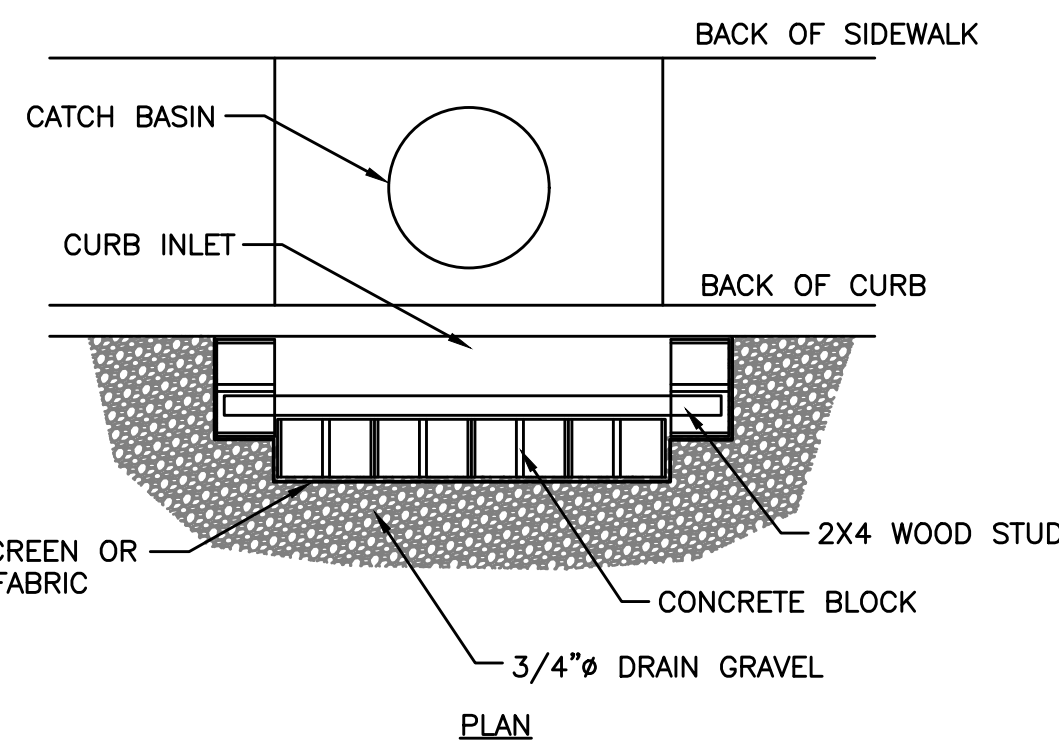


### SEDIMENT BARRIER

NOT TO SCALE

#### NOTES:

- GEOTEXTILE FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE OF THE BARRIER. WHEN JOINTS CANNOT BE AVOID, GEOTEXTILE FABRIC SHALL BE SPICED TOGETHER ONLY AT A POST WITH 3 FOOT MIN. OVERLAP, AND SECURELY SEALED.
- POSTED SHALL BE AT LEAST 5 FEET IN LENGTH
- STEEL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE AND FABRIC.
- WOOD POSTS SHALL BE 2 INCHES BY 2 INCHES OR EQUIVALENT. STEEL POSTS SHALL BE 1/33 LBS PER LINEAR FOOT.
- IF REQUIRED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH IN LENGTH, WIRE TIES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE
- TURN SILT FENCE UP SLOPE AT ENDS.

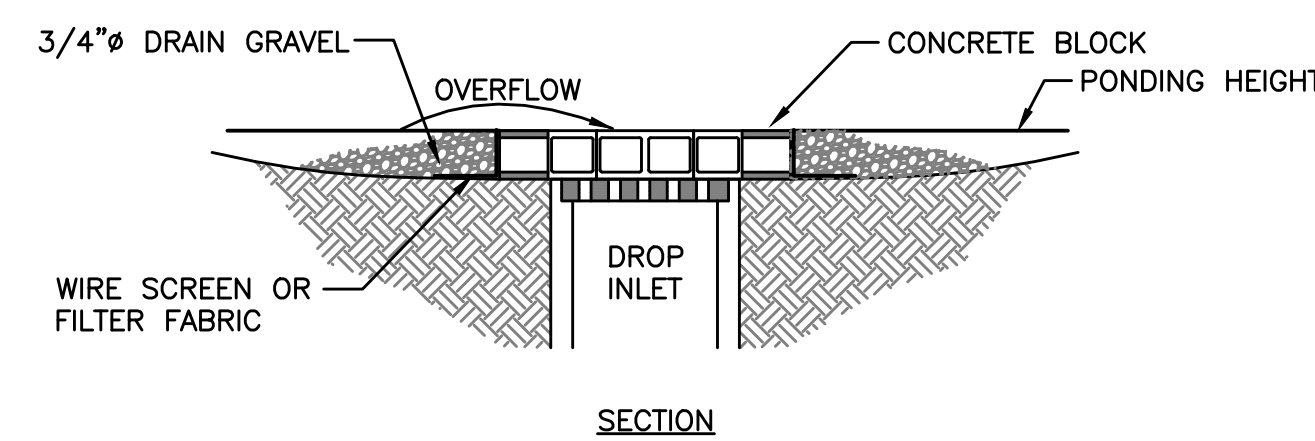
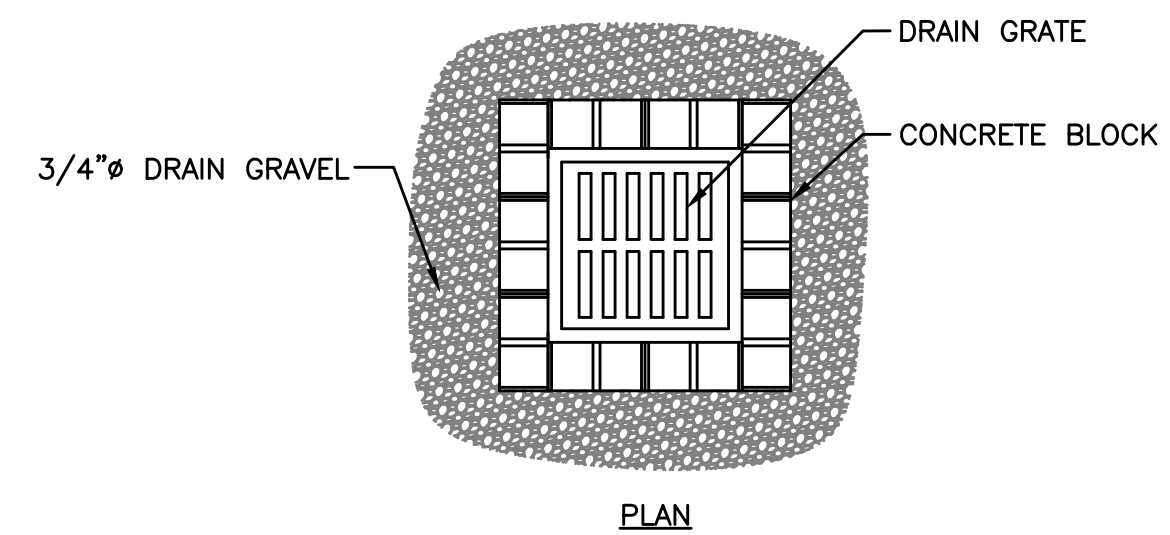


#### NOTES:

- USE BLOCK AND GRAVEL TYPE SEDIMENT BARRIER WHEN CURB INLET IS LOCATED IN GENTLY SLOPING STREET SEGMENT WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
- BARRIER SHALL ALLOW FOR OVERFLOW FROM SEVERE STORM EVENT.
- INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

### CURB INLET SEDIMENT BARRIER

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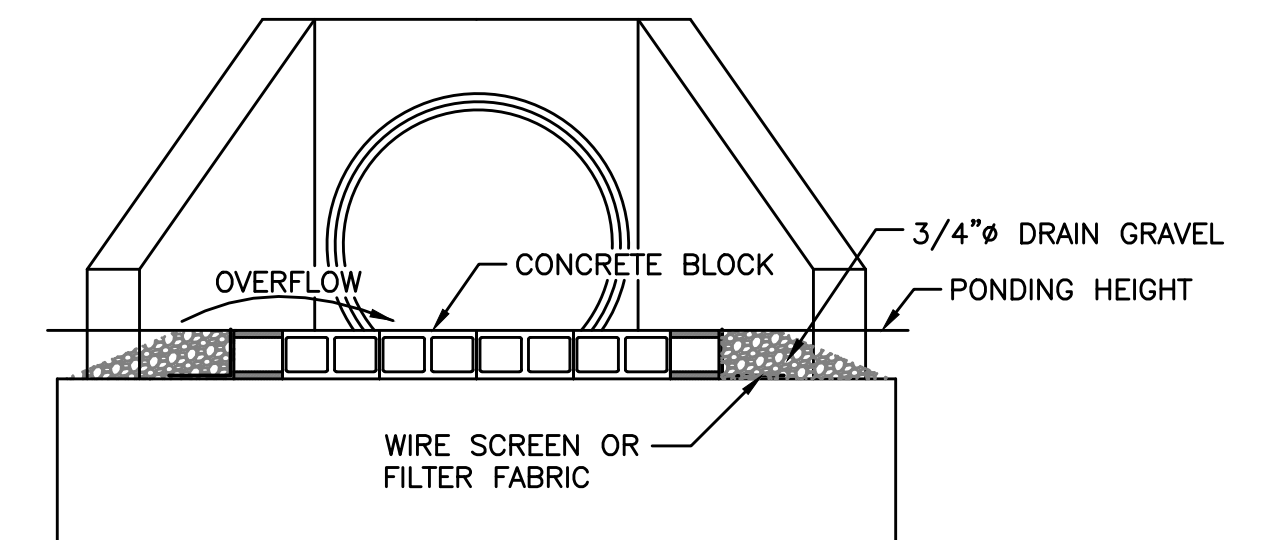
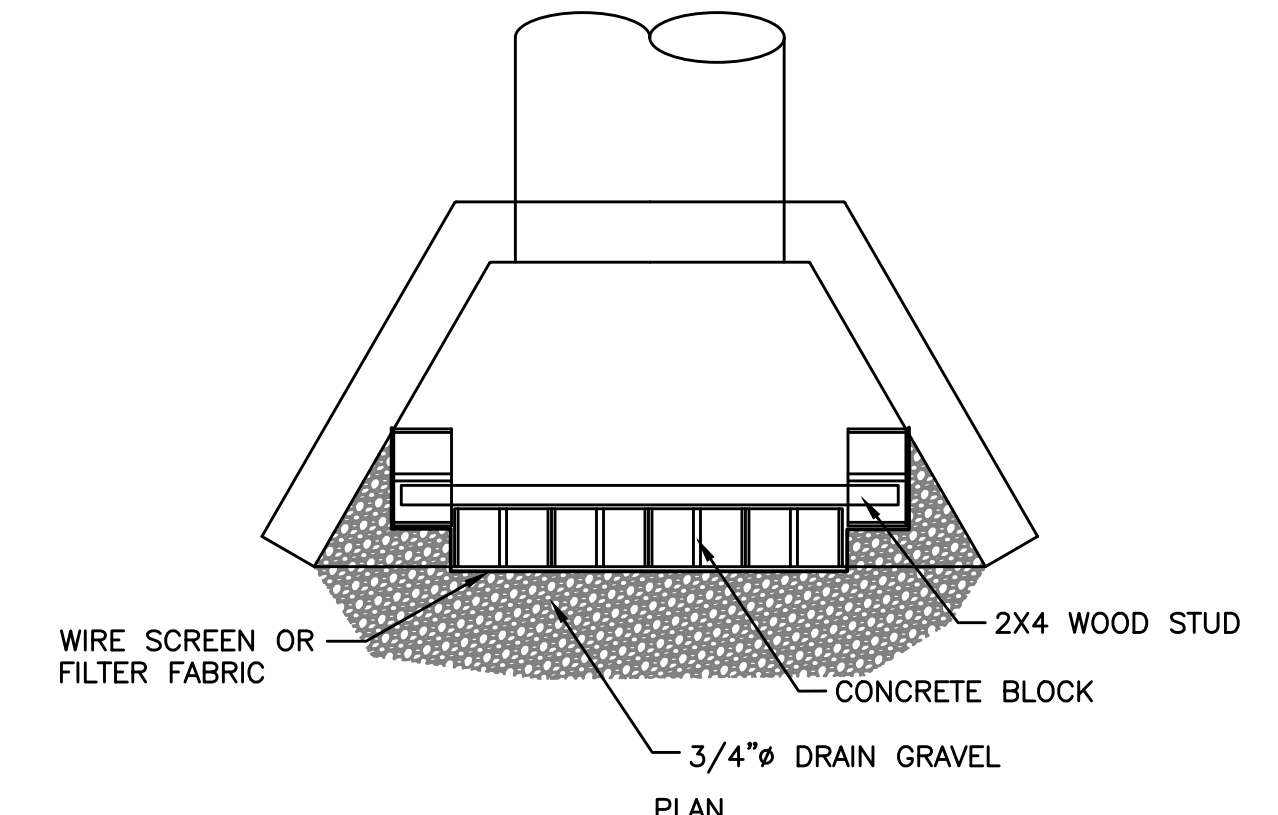


#### NOTES:

- DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS (LESS THAN 5% SLOPE)
- EXCAVATE A BASIN OF SUFFICIENT SIZE ADJACENT TO THE DROP INLET.
- THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.

### DROP INLET SEDIMENT BARRIER

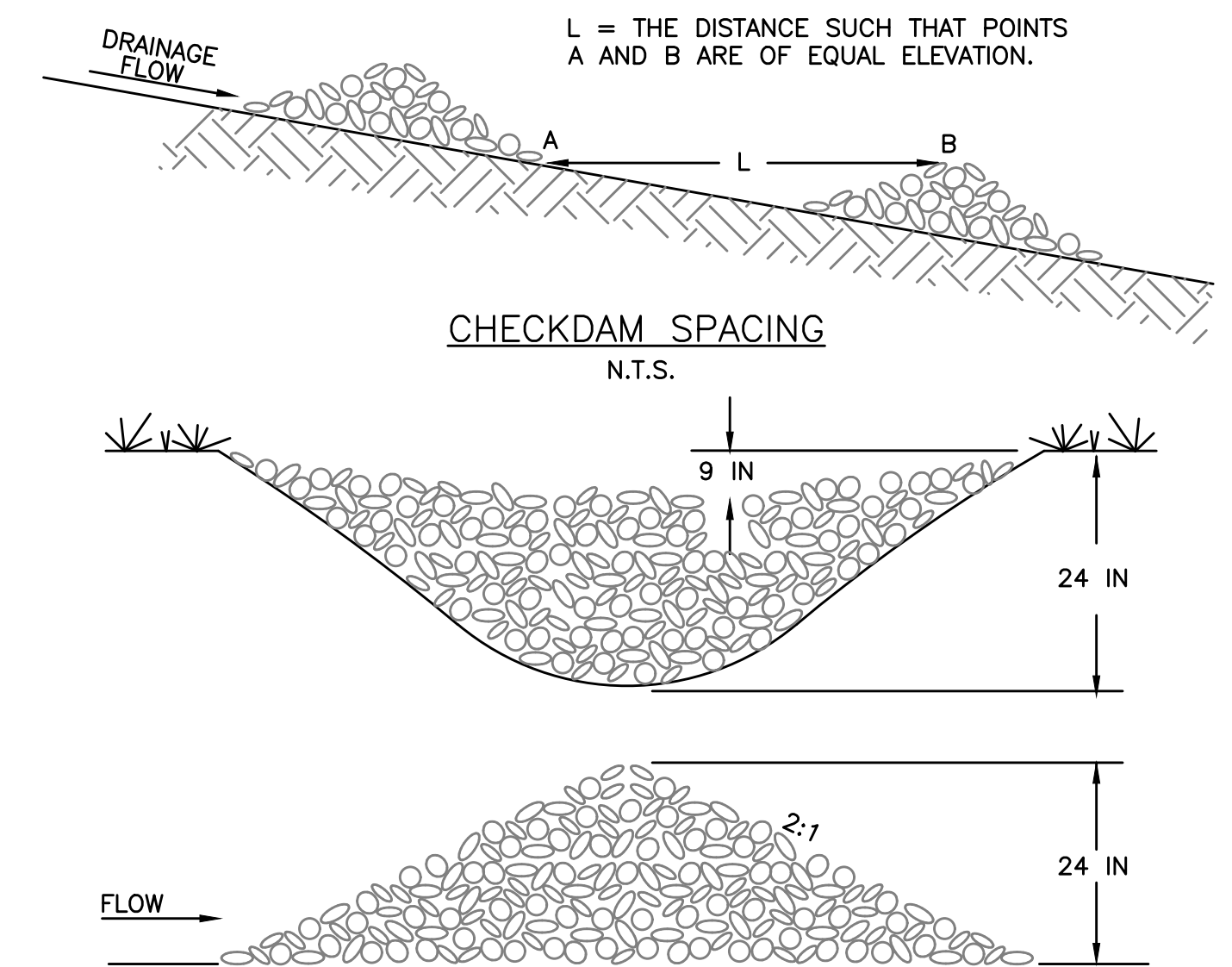
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#### NOTES:

### CULVERT INLET SEDIMENT BARRIER

NOT TO SCALE



#### NOTES:

- ROCK CHECK DAMS SHOULD BE CONSTRUCTED OF GRADED 5 TO 10 INCH STONE. MECHANICAL OR HAND PLACEMENTS SHALL BE REQUIRED TO ENSURE COMPLETE COVERAGE OF THE ENTIRE WIDTH OF DITCH OR SWALE AND THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
- INSPECT BEHIND RIPRAP CHECKDAM DAILY AND CLEAN WHEN COLLECTED DEBRIS EXCEEDS HALF OF ITS DEPTH.

### ROCK CHECK DAM

NOT TO SCALE

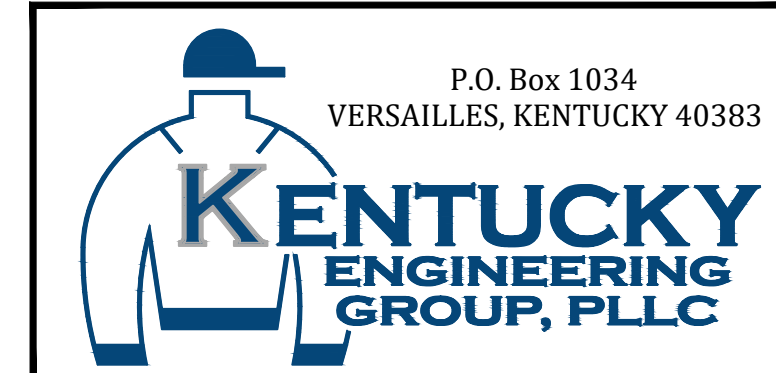
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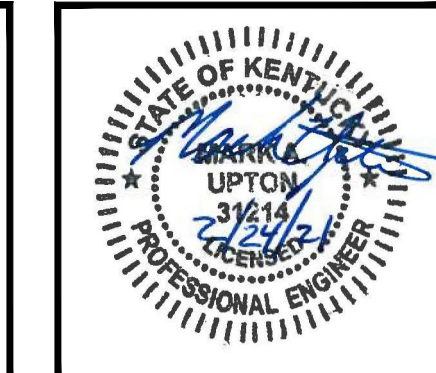
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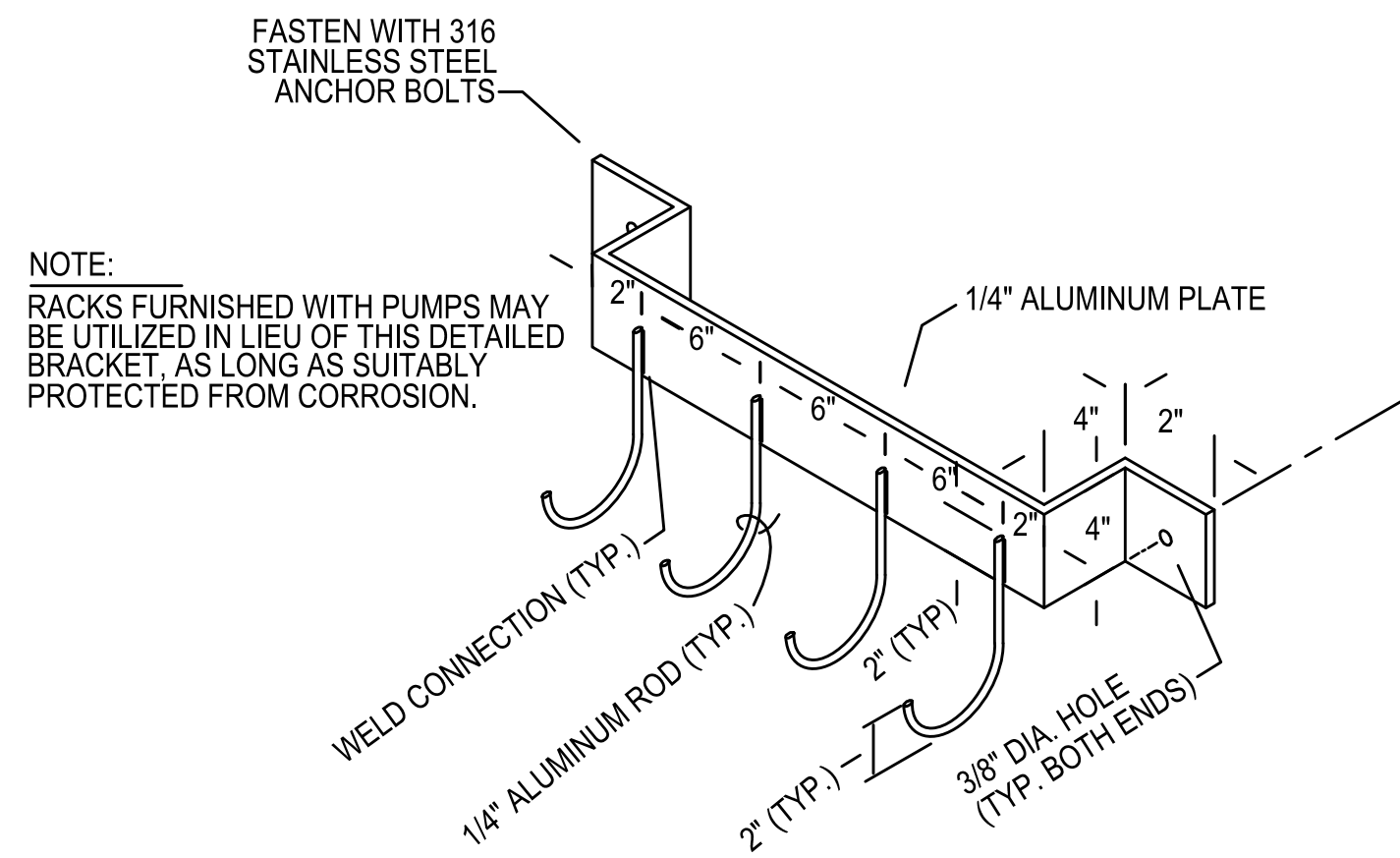
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SEWER MAIN REPLACEMENT AND  
REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT

EROSION CONTROL  
DETAILS



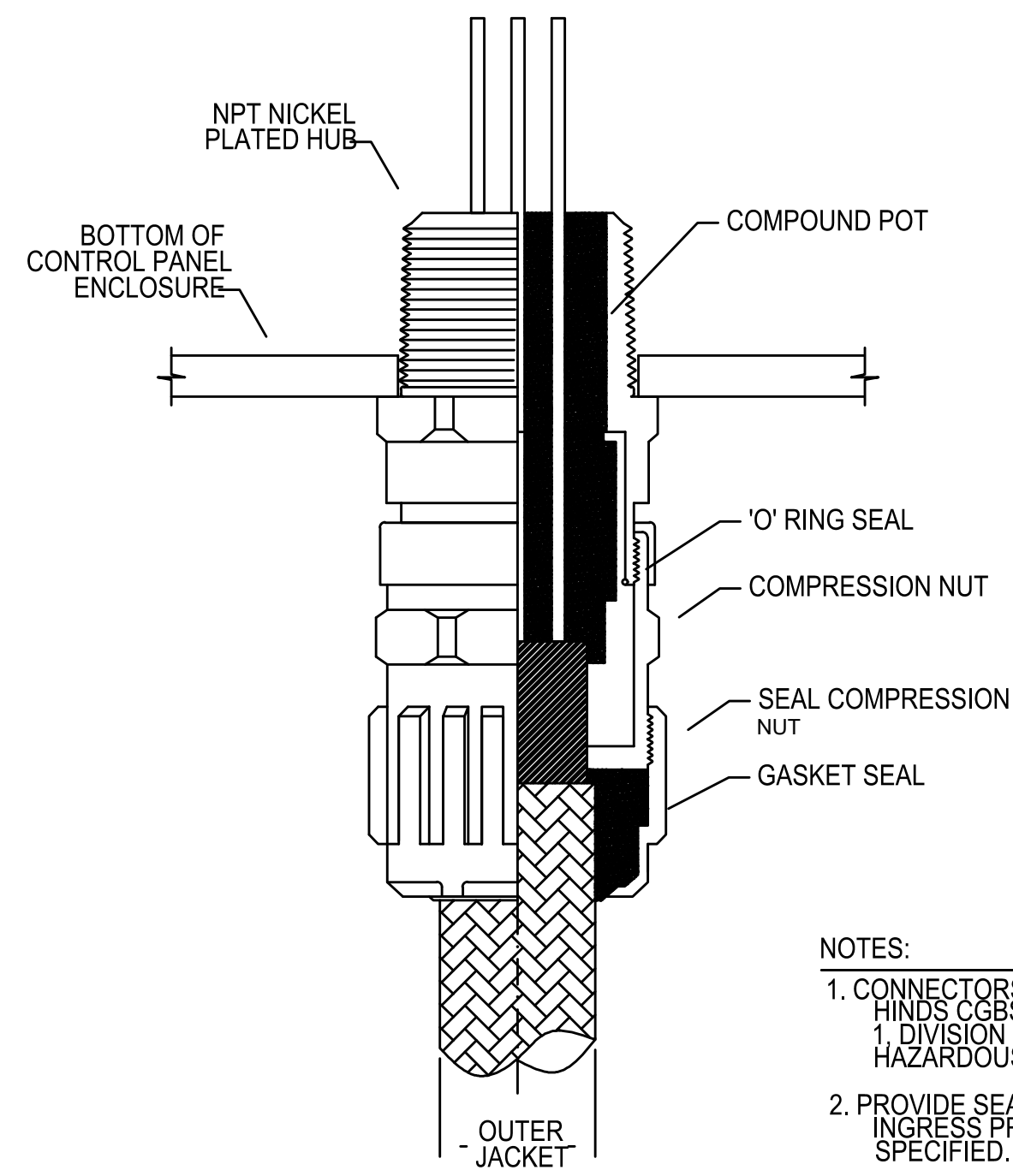
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**LEVEL SENSOR HOLDER**

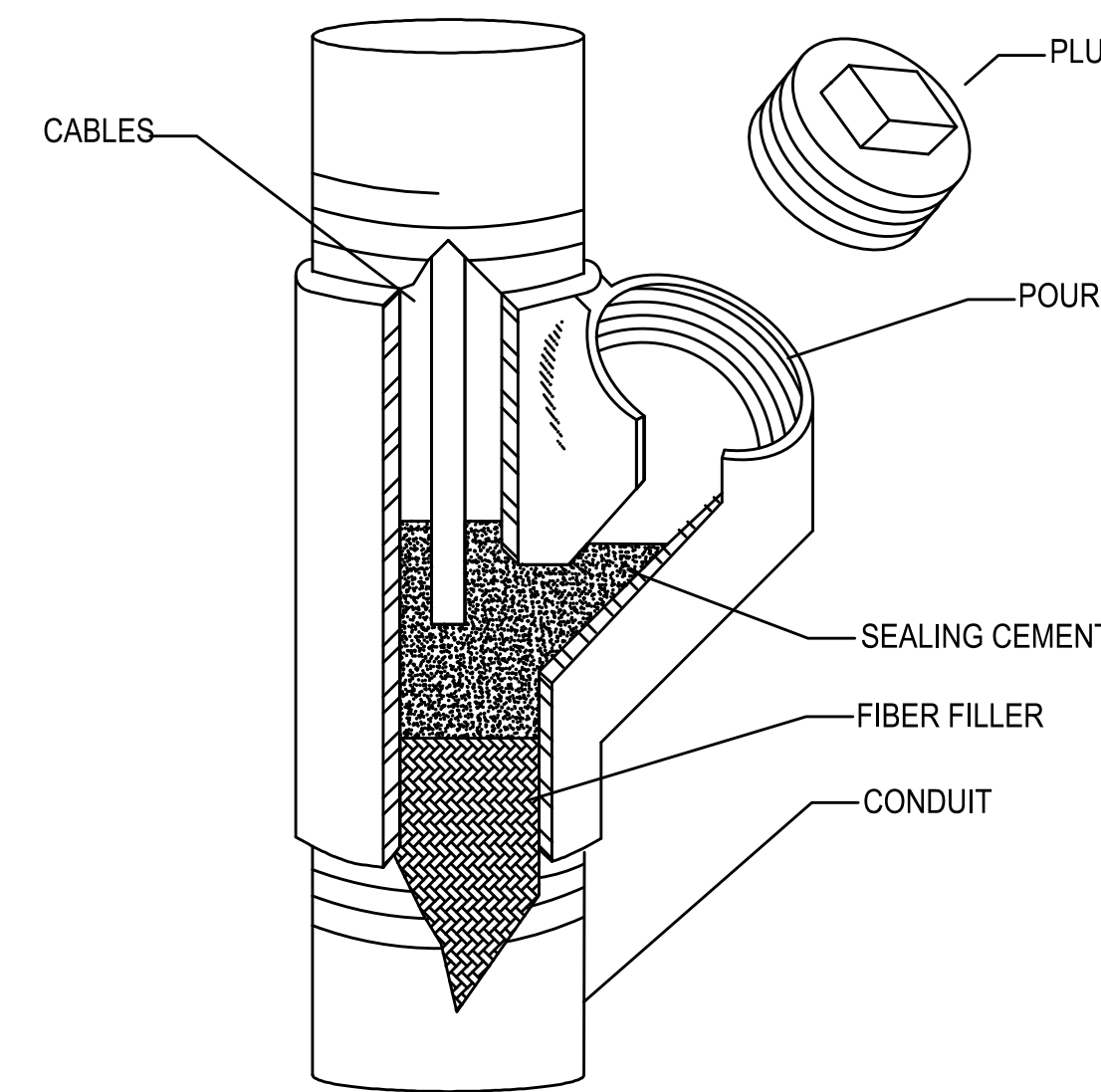
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**PUMP POWER AND CONTROL CABLE GLAND CONNECTION**

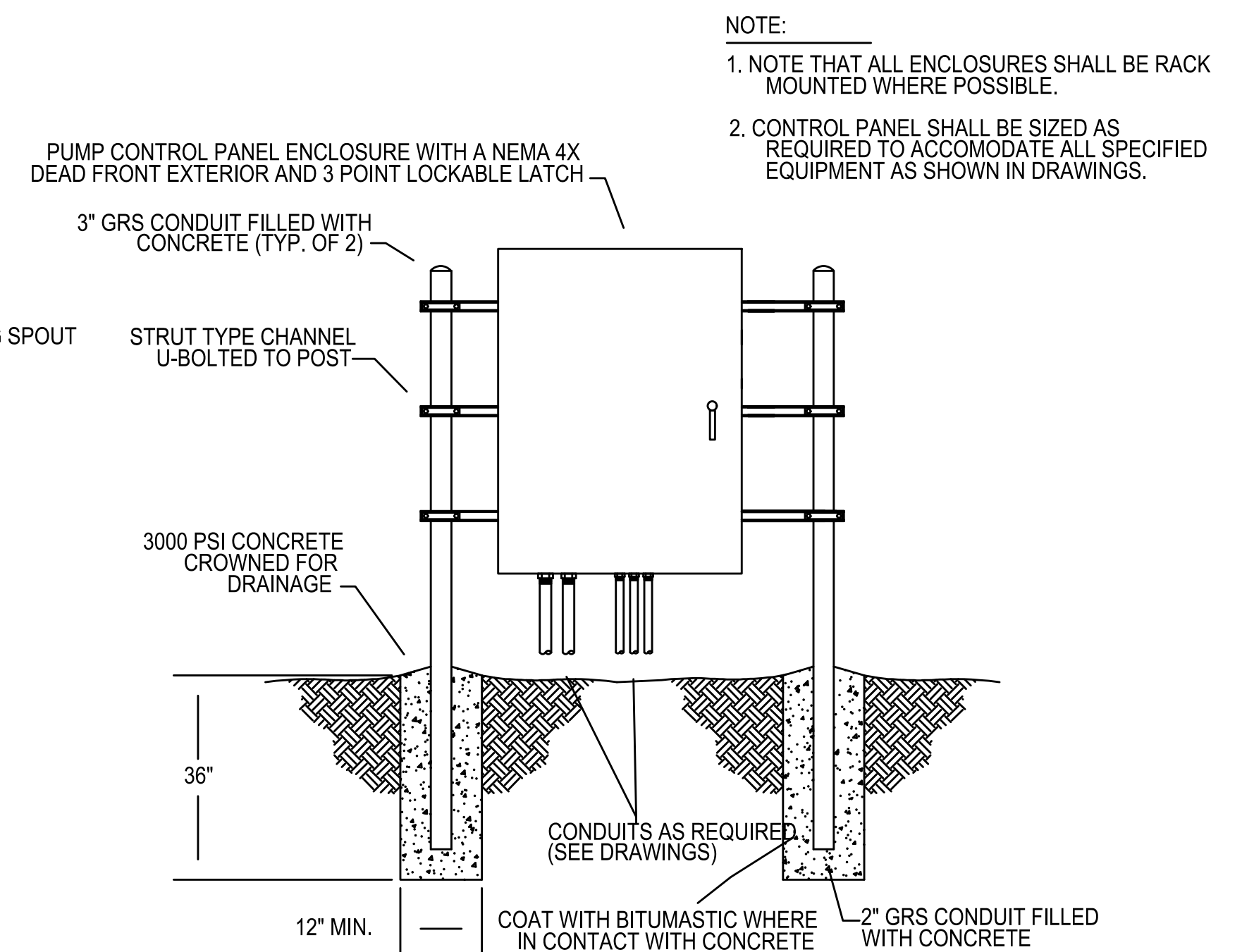
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- NOTES:
- CONNECTORS SHALL BE CROUSE HINDS CGBS OR EQUAL (CLASS 1, DIVISION 2, GROUP D, HAZARDOUS LOCATION RATED).
  - PROVIDE SEALING WASHER FOR INGRESS PROTECTION WHERE SPECIFIED.



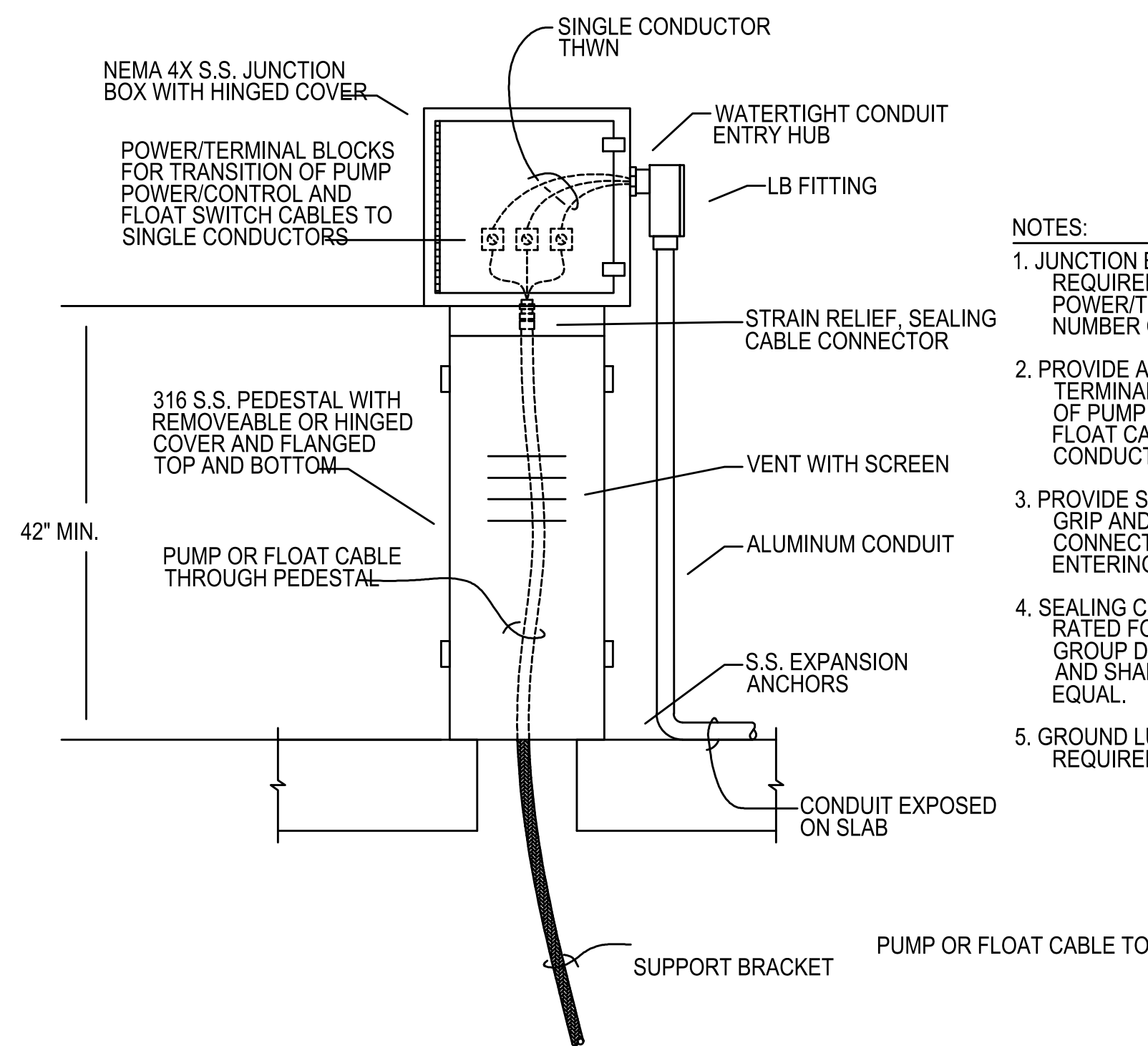
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**EQUIPMENT RACK (TYPICAL)**

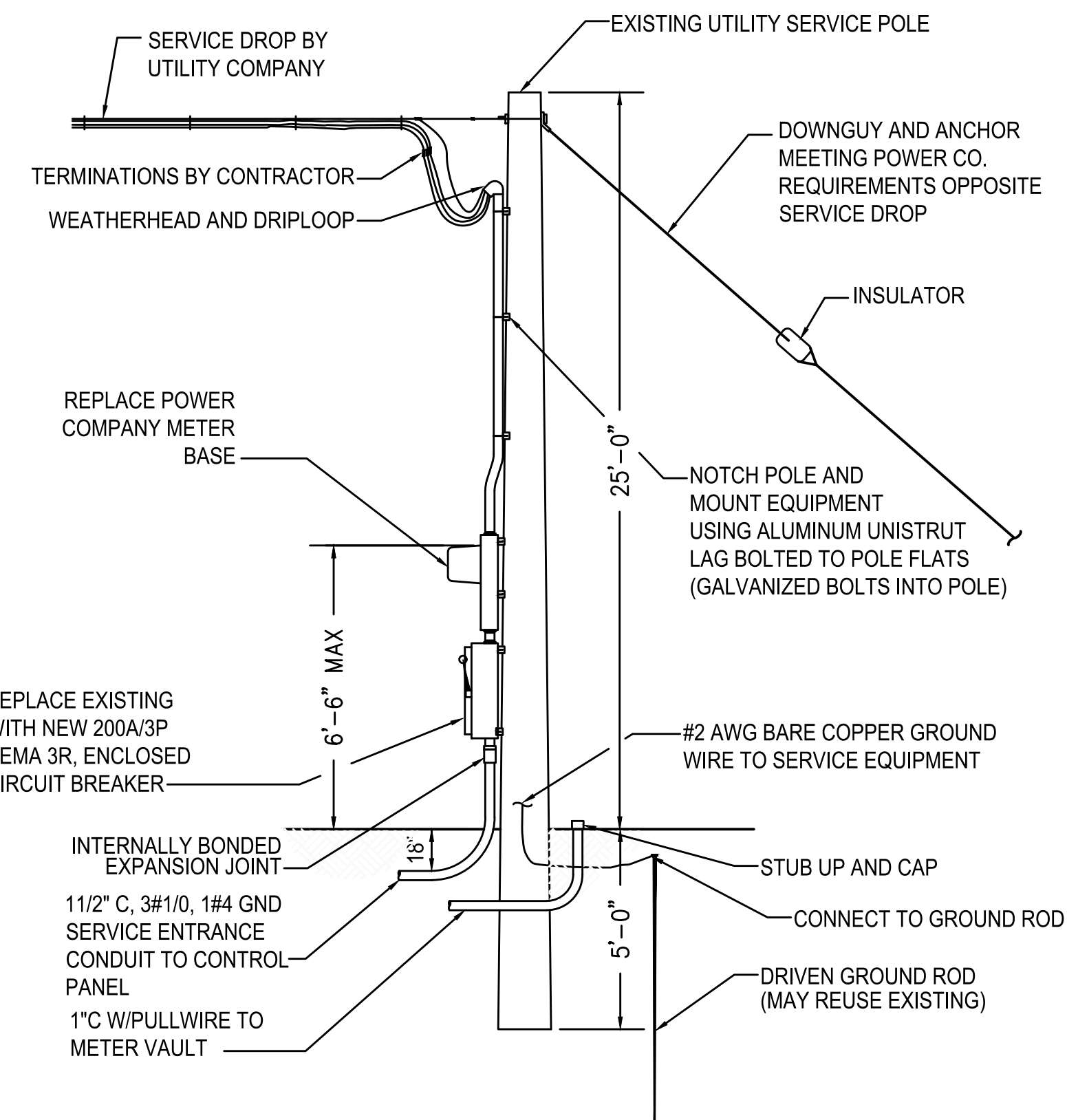
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**PUMP CABLE WETWELL JUNCTION BOX**

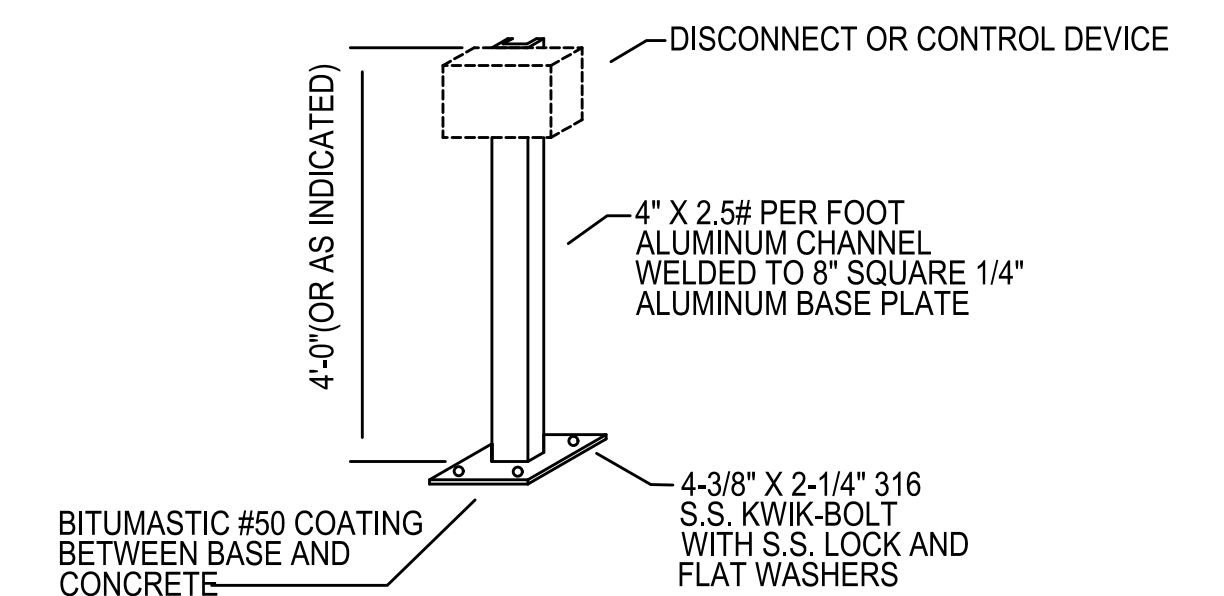
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- NOTES:
- JUNCTION BOX SHALL BE SIZED AS REQUIRED TO ACCOMMODATE POWER/TERMINAL BLOCKS AND NUMBER OF CABLES.
  - PROVIDE ADEQUATE POWER AND TERMINAL BLOCKS FOR TRANSITION OF PUMP POWER/CONTROL OR FLOAT CABLES TO SINGLE CONDUCTORS.
  - PROVIDE STRAIN RELIEF CABLE GRIP AND SEALING CABLE CONNECTORS FOR ALL CABLES ENTERING WETWELL.
  - SEALING CONNECTORS SHALL BE RATED FOR CLASS 1, DIVISION 2, GROUP D HAZARDOUS LOCATIONS AND SHALL BE HAWKE 710, OR EQUAL.
  - GROUND LUG IS NOT SHOWN, BUT IS REQUIRED.



**SERVICE/ANTENNA POLE DETAIL**

NOT TO SCALE



**EQUIPMENT SUPPORT BRACKET**

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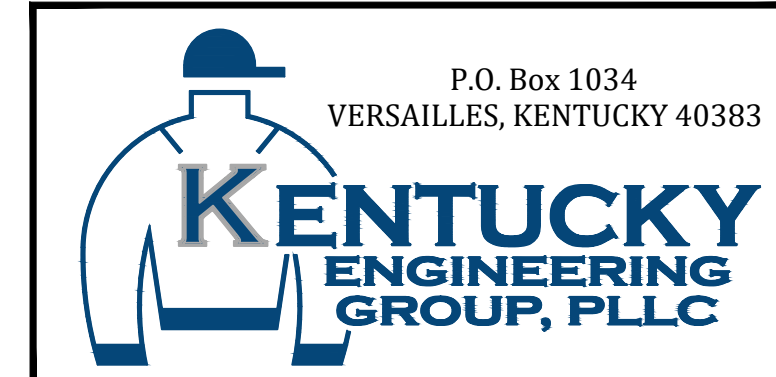
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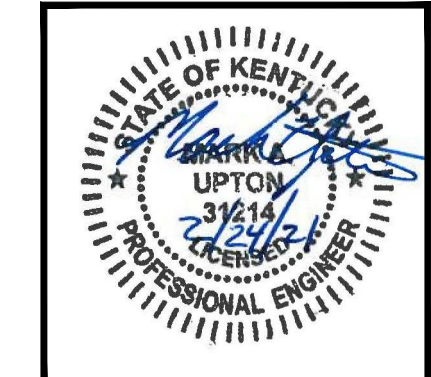
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PHASE 19 SEWER SYSTEM IMPROVEMENTS  
SEWER MAIN REPLACEMENT AND REHABILITATION  
COLUMBIA-ADAIR UTILITIES DISTRICT

ELECTRICAL DETAILS



PROJECT NO.	20001
SHEET NO.	SD-4

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