

HARRIS CREEK INTERCEPTOR IMPROVEMENTS

ROLESVILLE, NORTH CAROLINA

PROJECT NUMBER: AWH-21002

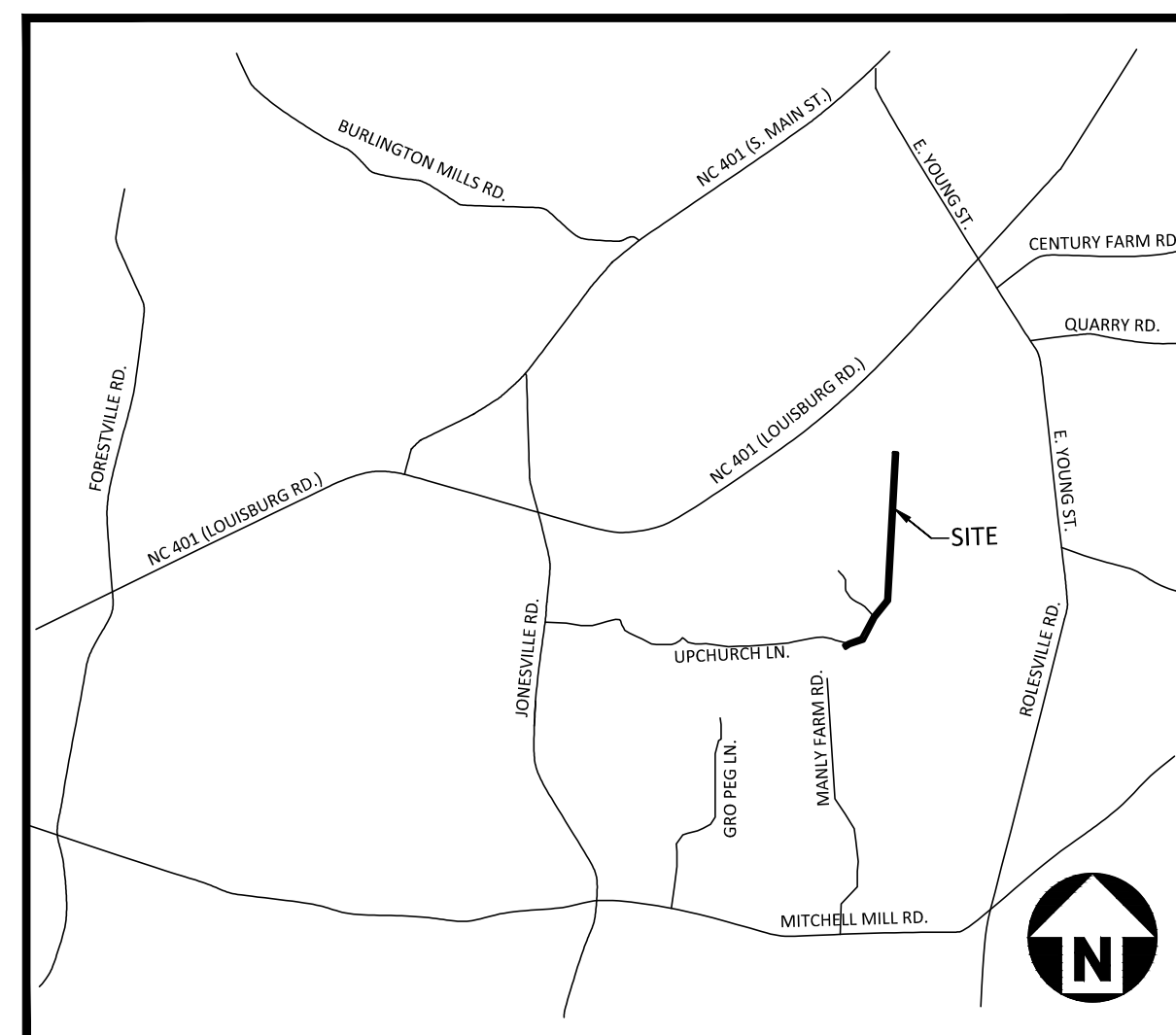
DATE: xxxxx

SURVEY BY:
 BATEMAN CIVIL SURVEY COMPANY
 2424 RELIANCE AVENUE, APEX, NC 27539
 TOPOGRAPHIC DECEMBER 22, 2019
 ALTA SURVEY DECEMBER 12, 2019
 STEVEN P CARSON, PLS
 NC LICENSE # 4752
 919-577-1081

SHEET INDEX	
C0.00	PROJECT NOTES AND SITE DETAILS
C5.00	PLAN AND PROFILE - HARRIS CREEK INTERCEPTOR STA. 34+00.00 THRU STA. 43+00.00
C5.01	PLAN AND PROFILE - HARRIS CREEK INTERCEPTOR STA. 43+00.00 THRU STA. 53+00.00
C5.02	PLAN AND PROFILE - HARRIS CREEK INTERCEPTOR STA. 52+00.00 THRU STA. 61+00.00
C5.03	PLAN AND PROFILE - HARRIS CREEK INTERCEPTOR STA. 61+00.00 THRU STA. 64+00.00
C8.01	SANITARY SEWER DETAILS
C8.02	EROSION CONTROL DETAILS

PUBLIC UTILITY IMPROVEMENT QUANTITIES OF SEWER MAIN & MANHOLES

SIZE	LENGTH
18" PVC (LF)	418 LF
24" PVC (LF)	3,469 LF
NUMBER OF MANHOLES = 13	



VICINITY MAP
 N.T.S.

SITE PERMITTING APPROVAL

Water and Sewer Permits (if applicable)
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 City of Raleigh Development Approval _____
 City of Raleigh Review Officer _____

THE ASSIGNED PERMIT NUMBER HAS BEEN ADDED TO THE PLANS

The assigned permit number for this is S-4979.



MCADAMS
 The John R. McAdams Company, Inc.
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 fax 919. 361. 2269
 license number: C-0293, C-187
 www.mcadamsco.com

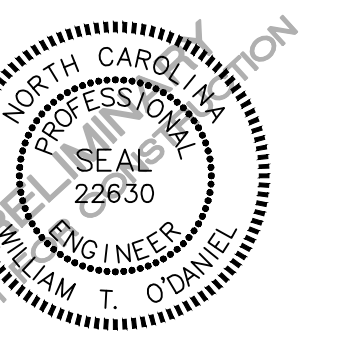
CONTACT

MIKE SANCHEZ
 sanchez@mcadamsco.com
 PHONE: 919. 361. 5000

CLIENT

ASHTON RALEIGH RESIDENTIAL, LLC.
 5711 SIX FORKS ROAD, SUITE 300
 RALEIGH, NORTH CAROLINA 27609
 PHONE: 919. 232. 3695
 CONTACT: BOB MISHLER

PROJECT DIRECTORY



REVISIONS

NO. DATE

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ROLESVILLE, NORTH CAROLINA
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**CITY OF RALEIGH PUBLIC UTILITIES
STANDARD UTILITY NOTES (AS APPLICABLE)**

1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)
2. UTILITY SEPARATION REQUIREMENTS:
 - a. A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
 - b. WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
 - c. WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
 - d. 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER.
 - e. MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS, WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & 5-49).
 - f. ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
3. ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
4. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
5. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
6. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
7. INSTALL 3/4" COPPER WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE.
8. INSTALL 4" PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM.
9. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
10. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDM, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
11. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
12. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BEASLEY AT (919) 996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
13. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION.

NOTES:

DEEDS OF EASEMENT FOR SANITARY SEWER PURPOSES TO CITY OF RALEIGH RECORDED IN BOOK 12249, PAGE 864 AND BOOK 12466, PAGE 1149 AND AS SHOWN ON RECORDED PLAT IN BOOK OF MAPS 2006, PAGES 2216 AND 2217, WAKE COUNTY REGISTRY.

(DEED OF EASEMENT SUPERSEDED BY BM 2008 PG 480 & 481)

RIGHT OF WAY AND UTILITY EASEMENTS RECORDED IN BOOK 13736, PAGES 1287 AND 1294 AND AS SHOWN ON RECORDED PLAT IN BOOK OF MAPS 2009, PAGE 1091, WAKE COUNTY REGISTRY.

(AS SHOWN ON SURVEY)

DEEDS OF EASEMENT FOR SANITARY SEWER PURPOSES TO CITY OF RALEIGH RECORDED IN BOOK 12249, PAGE 860 AND BOOK 12466, PAGE 1171 AND AS SHOWN ON RECORDED PLAT IN BOOK OF MAPS 2006, PAGES 2216 AND 2217, WAKE COUNTY REGISTRY.

BY-PASS PUMPING NOTES

- ALL
1. DEVELOPER SHALL PROVIDE 30 DAYS ADVANCE WRITTEN NOTICE TO PROPERTY OWNER FOR ANY WORK REQUIRED WITHIN AN EXISTING CITY OF RALEIGH UTILITY EASEMENT TRAVERSING PRIVATE PROPERTY.
 2. A BYPASS PLAN SEALED BY A NC PROFESSIONAL ENGINEER MUST BE SUBMITTED TO CITY OF RALEIGH PUBLIC UTILITIES PRIOR TO PUMPING OPERATIONS TO COORDINATE WITH ENGINEERING STAFF. PUMPS SHOULD BE SIZED TO HANDLE THE PEAK FLOW(2.5 TIMES THE AVERAGE DAILY FLOW) FOR THE LINE OR AREA OF WORK. THE CONTRACTOR SHALL SECURE THE PUMPS FROM A PUMP SUPPLIER ACCORDING TO THE PROVIDED FLOW INFORMATION. PUMPING OPERATIONS MUST BE MONITORED 24 HOURS A DAY FOR EACH OF THE PUMPING OPERATION BY QUALIFIED PERSONNEL IN ORDER TO RESPOND TO PROBLEMS OR FAILURES. 100% REDUNDANCY IS REQUIRED FOR PUMPING OPERATIONS. IN ADDITION, BACK UP PUMPS ARE TO BE CONNECTED TO THE BYPASS FORCE MAIN TO FACILITATE IMMEDIATE USE UPON FAILURE OF THE PRIMARY PUMPS.



McADAMS

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\\images\Ashton Woods logo.jpg

**HARRIS CREEK INTERCEPTOR
IMPROVEMENTS**
TOWN OF ROLESVILLE, WAKE FOREST TOWNSHIP,
WAKE COUNTY, NORTH CAROLINA



SITE PERMITTING APPROVAL

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City of Raleigh Development Approval _____
City of Raleigh Review Officer

REVISIONS

NO. DATE

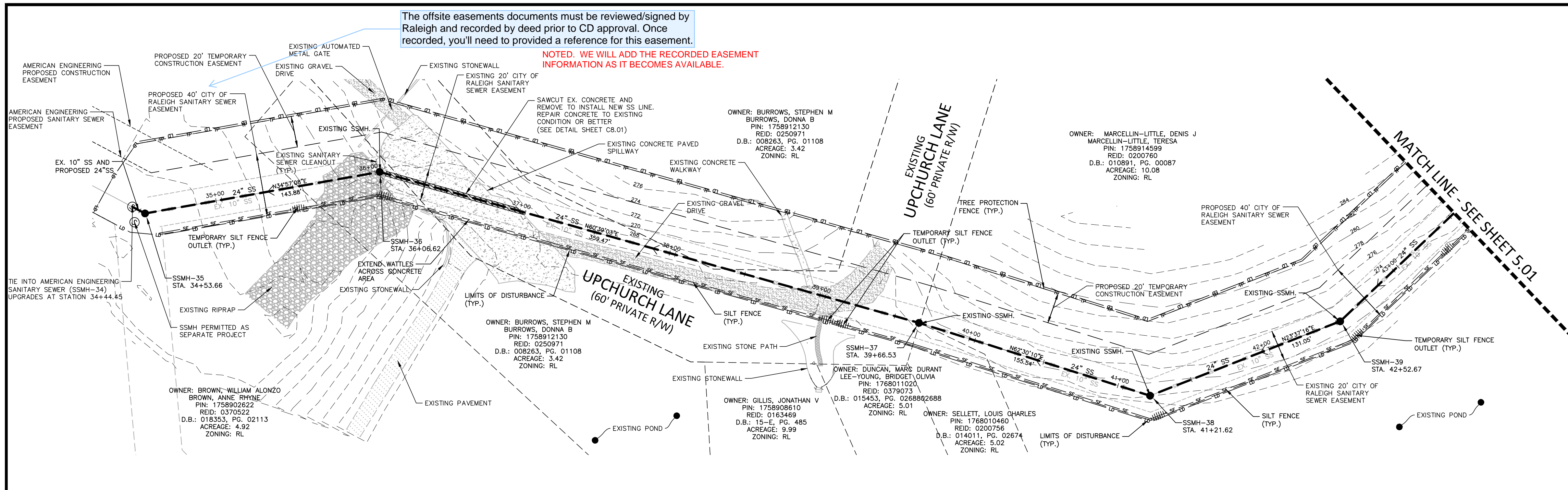
PLAN INFORMATION

PROJECT NO. AWH-20000
FILENAME AWH20000-N1
CHECKED BY .
DRAWN BY .
SCALE N.T.S.
DATE 10.12.2021

SHEET

PROJECT NOTES

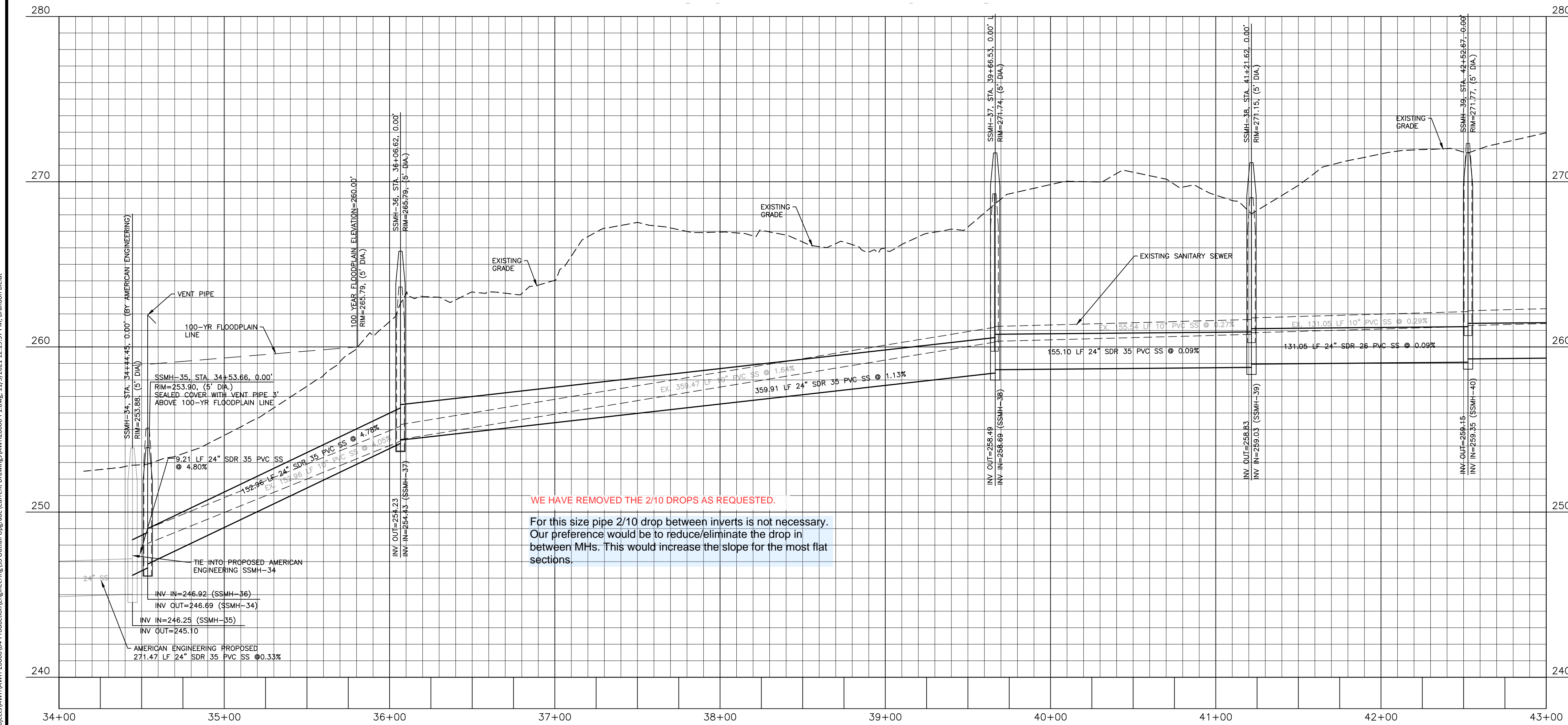
CO.00



The offsite easements documents must be reviewed/signed by Raleigh and recorded by deed prior to CD approval. Once recorded, you'll need to provide a reference for this easement.

NOTED: WE WILL ADD THE RECORDED EASEMENT INFORMATION AS IT BECOMES AVAILABLE.

HARRIS CREEK INTERCEPTOR



WE HAVE REMOVED THE 2/10 DROPS AS REQUESTED.

For this size pipe 2/10 drop between inverts is not necessary. Our preference would be to reduce/eliminate the drop in between MHS. This would increase the slope for the most flat sections.

Please provide a chart or diagram with Qpeak and the suction and discharge MHS for bypass pumping for each segment that will be replaced.

THE PUMPING CHART HAS BEEN ADDED TO EACH PLAN AND PROFILE SHEET AS REQUESTED.

What is your Q for the future build out? Please provide a percentage for this future Q / full 24" pipe Q to demonstrate that a 24" pipe is justified. Normally, with a replacement we like to see that the Qpeak with the development over Q full for the new pipe is around 25%.

THE SANITARY SEWER STUDY HAS BEEN REVISED TO SHOW THIS INFORMATION AND IS INCLUDED WITH THIS RE-SUBMITTAL.

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FINAL DRAWING - NOT RELEASED FOR CONSTRUCTION

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CLIENT
NAME
ADDRESS
ADDRESS
PHONE: XXX. XXX. XXXX

REVISIONS

NO.	DATE	REVISION DESCRIPTION
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2	XX.XX.XXXX	REVISION DESCRIPTION



HARRIS CREEK INTERCEPTOR IMPROVEMENTS

CONSTRUCTION DRAWINGS

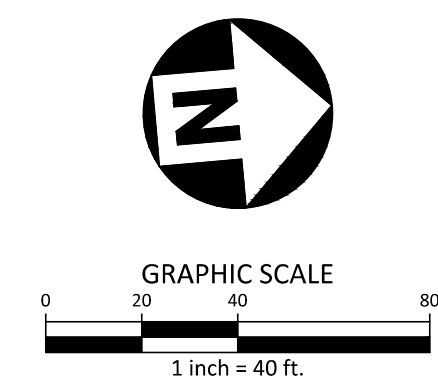
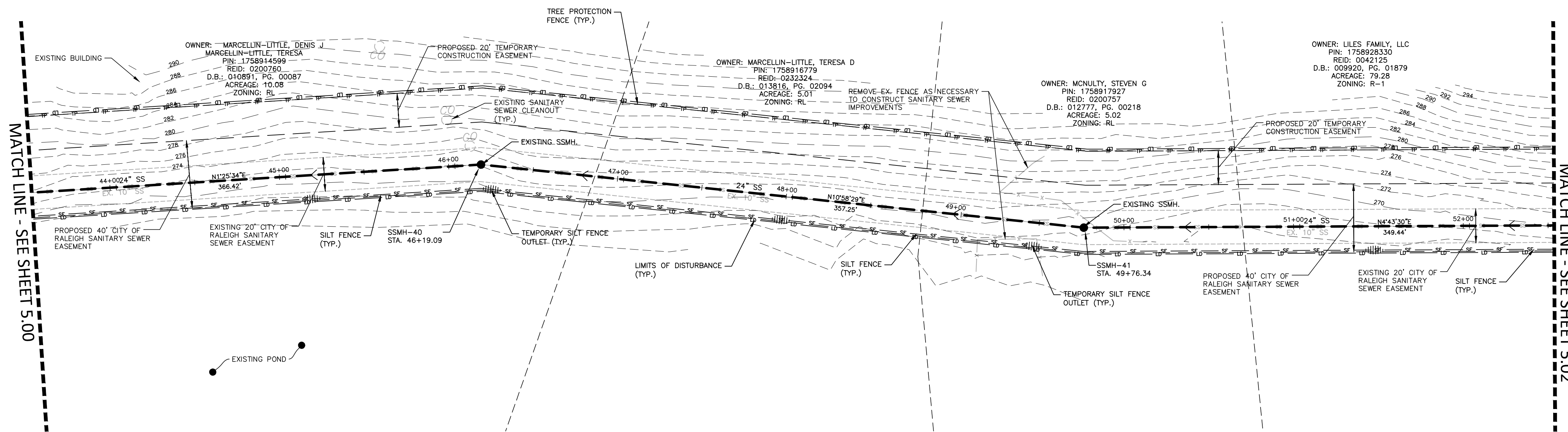
TOWN OF ROLESVILLE, WAKE FOREST TOWNSHIP,
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PLAN INFORMATION

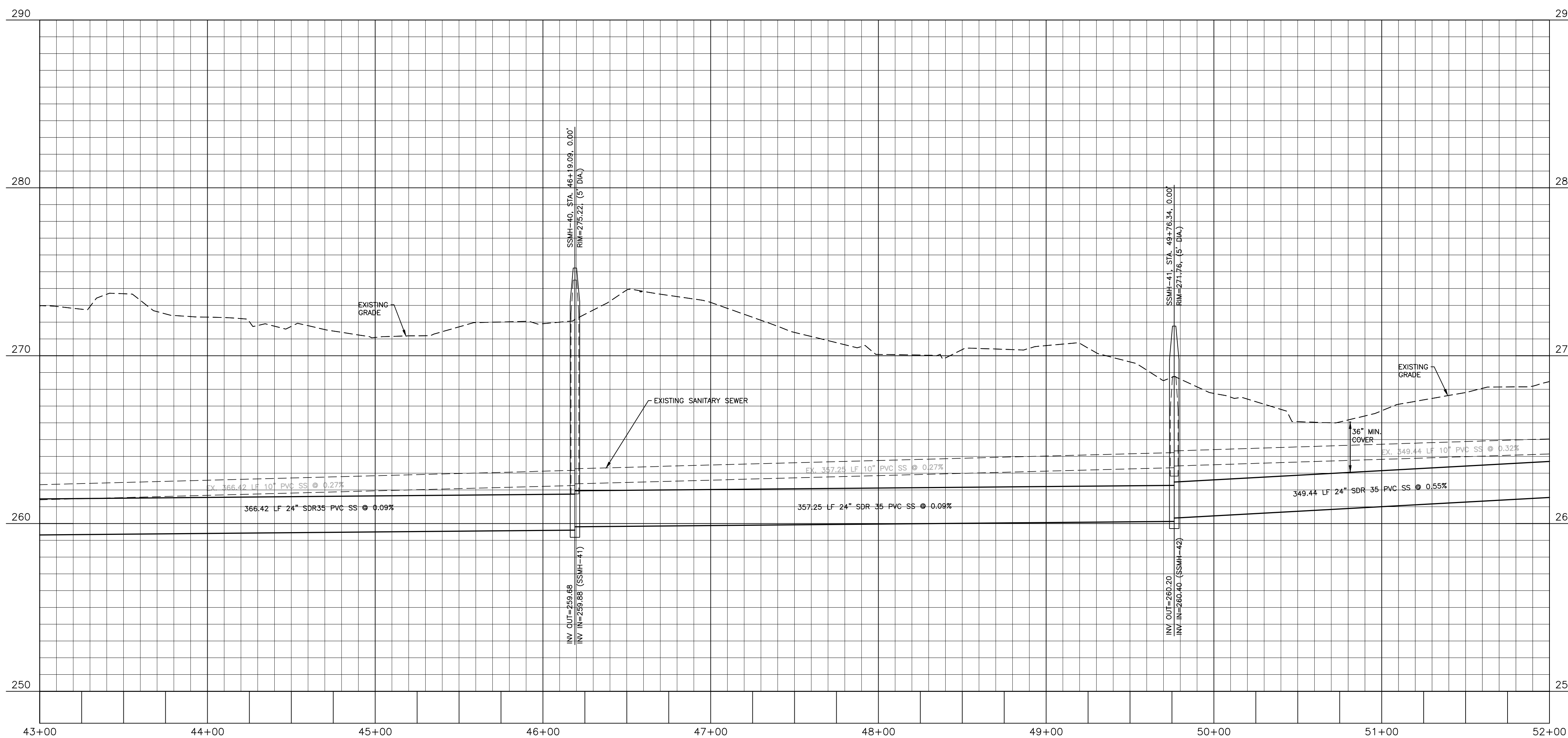
PROJECT NO.	AWH20000
FILENAME	AWH20000-P1
CHECKED BY	WTO
DRAWN BY	BB
SCALE	1"=40'/1"=4'
DATE	10. 12. 2021

PLAN AND PROFILE
HARRIS CREEK INTERCEPTOR
STA. 34+00 THRU STA. 43+00

C5.00



HARRIS CREEK INTERCEPTOR



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CLIENT

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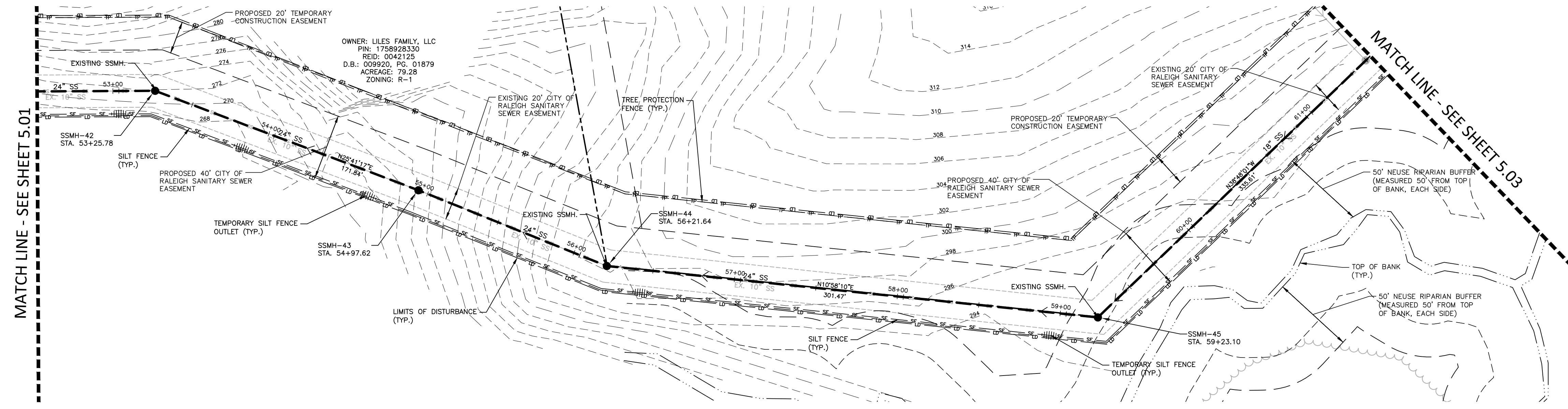
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DRAWN BY BB
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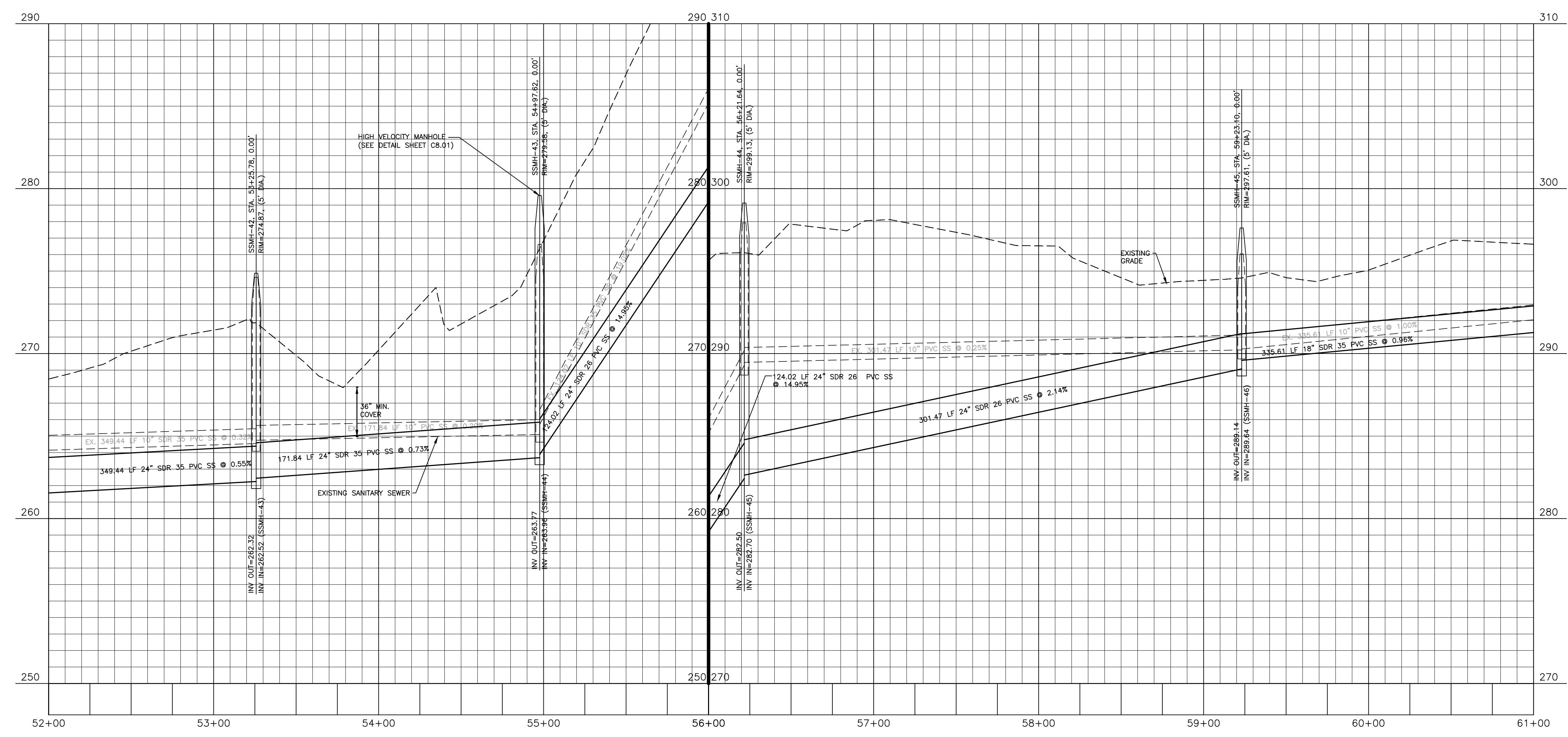
PLAN AND PROFILE
HARRIS CREEK INTERCEPTOR
STA. 43+00 THRU STA. 52+00

C5.01

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CLIENT

NAME
 ADDRESS
 ADDRESS
 PHONE: XXX. XXX. XXXX

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HARRIS CREEK INTERCEPTOR IMPROVEMENTS

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 WAKE COUNTY, NORTH CAROLINA

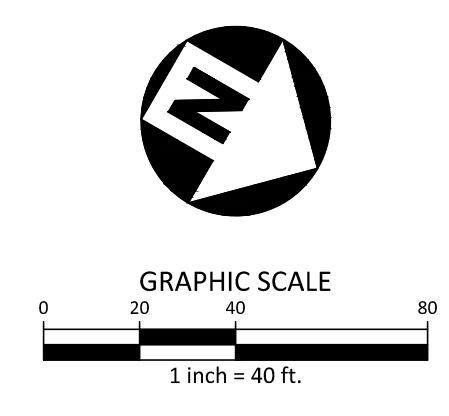
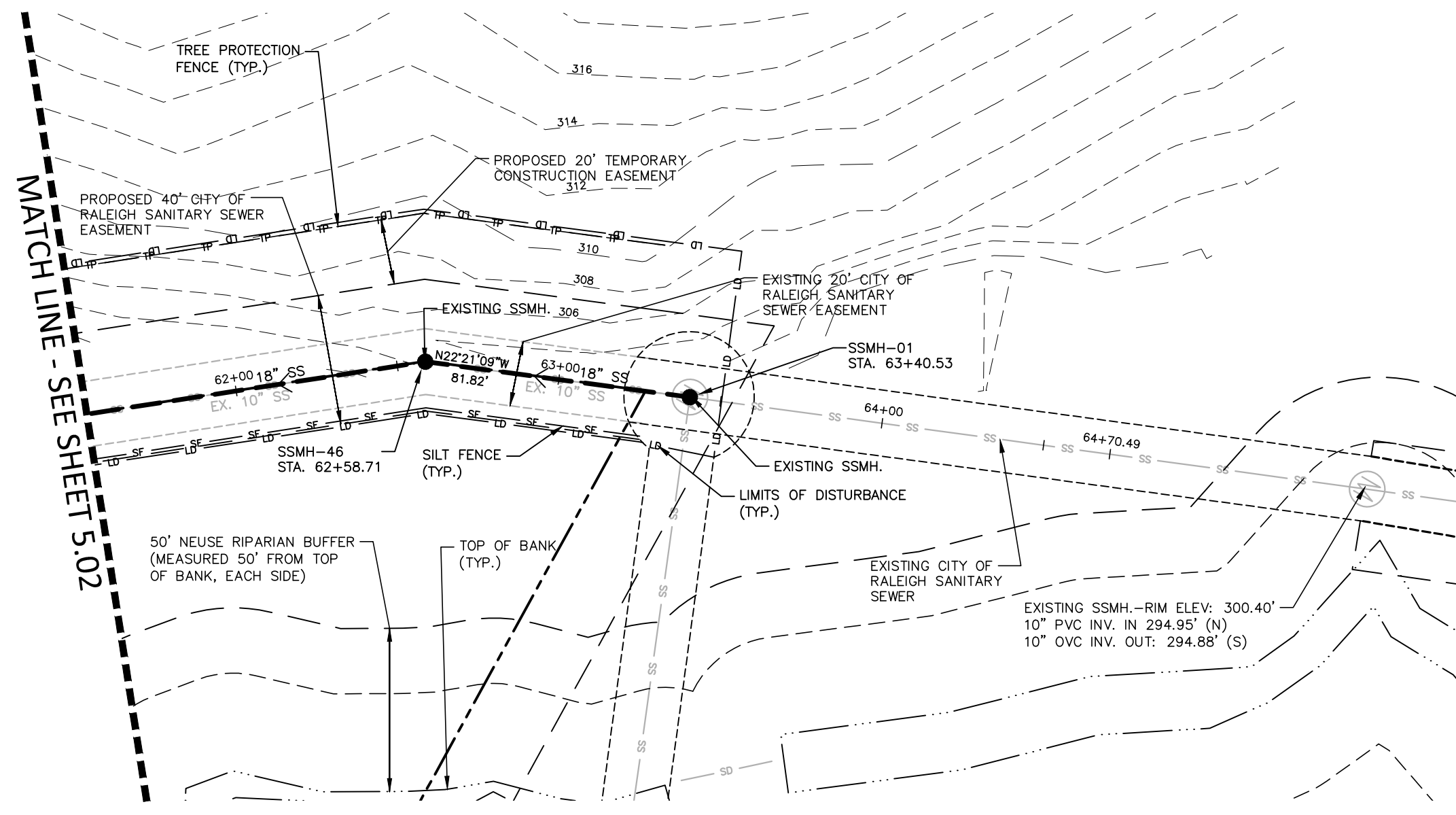
PLAN INFORMATION

PROJECT NO.	AWH20000
FILENAME	AWH20000-P1
CHECKED BY	WTO
DRAWN BY	BB
SCALE	1"=40'/1"=4'
DATE	10. 12. 2021

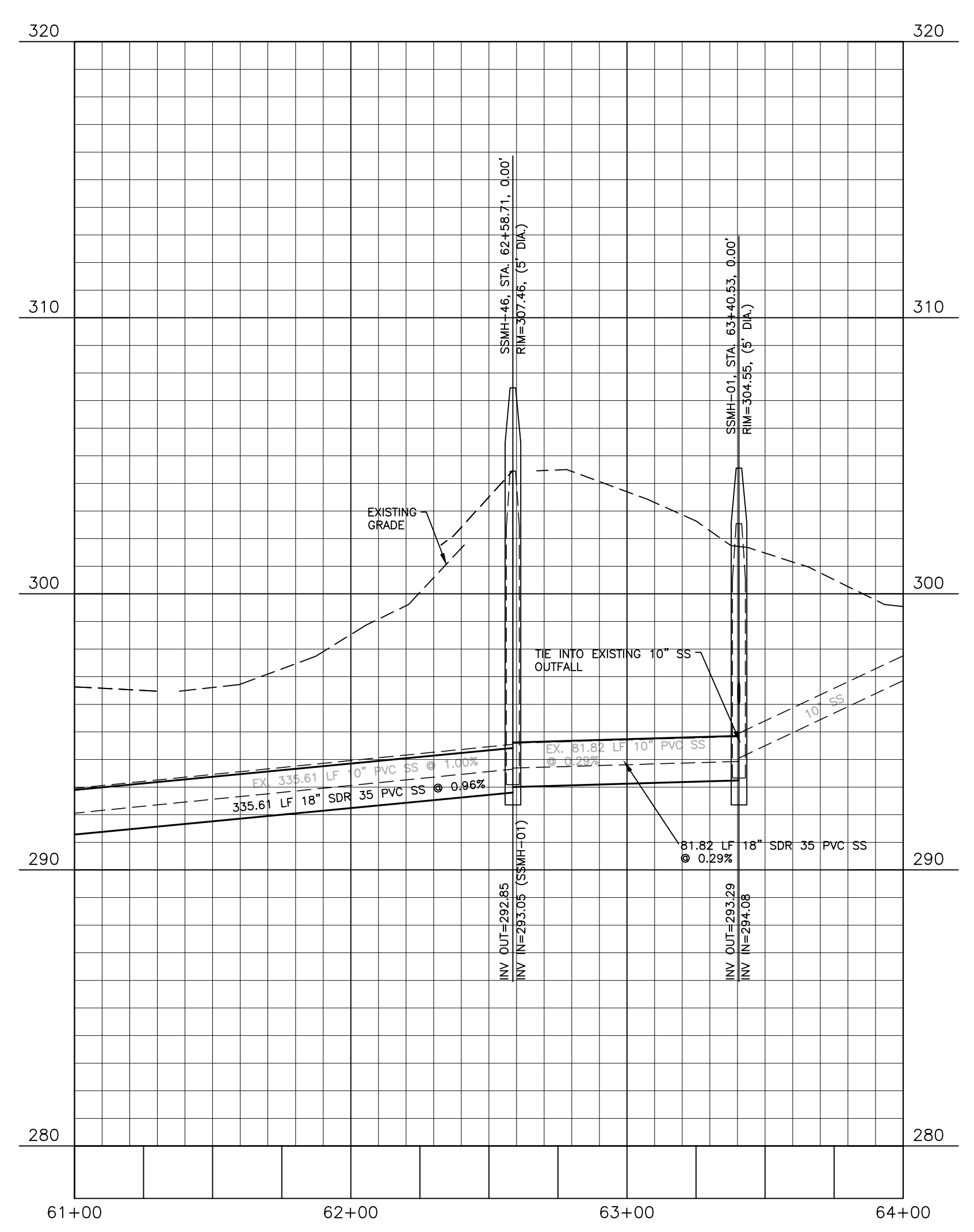
PLAN AND PROFILE
 HARRIS CREEK INTERCEPTOR
 STA. 52+00 THRU STA. 61+00

C5.02

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City of Raleigh Development Approval _____
 City of Raleigh Review Officer _____

FINAL DRAWING - NOT RELEASED FOR CONSTRUCTION

M:\Projects\AWH\AWH-20000\04-Production\Engineering\SS-Outfall\Upgrade\Current Drawings\AWH20000-P1.dwg, 11/5/2021 12:22:22 PM, Brandon Bickel



The John R. McAdams Company, Inc.
 2905 Meridian Parkway
 Durham, NC 27713

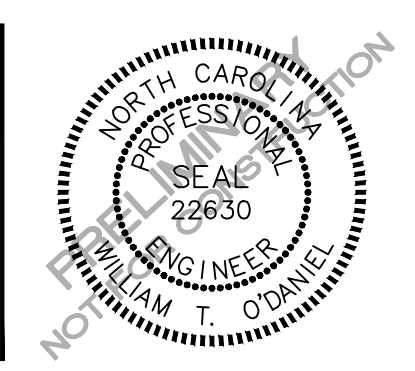
 phone 919. 361. 5000
 fax 919. 361. 2269
 license number: C-0293, C-187

 www.mcadamsco.com

CLIENT
 NAME
 ADDRESS
 ADDRESS
 PHONE: XXX. XXX. XXXX

REVISIONS

NO.	DATE	REVISION DESCRIPTION
1	XX.XX.XXXX	REVISION DESCRIPTION
2	XX.XX.XXXX	REVISION DESCRIPTION



HARRIS CREEK INTERCEPTOR IMPROVEMENTS

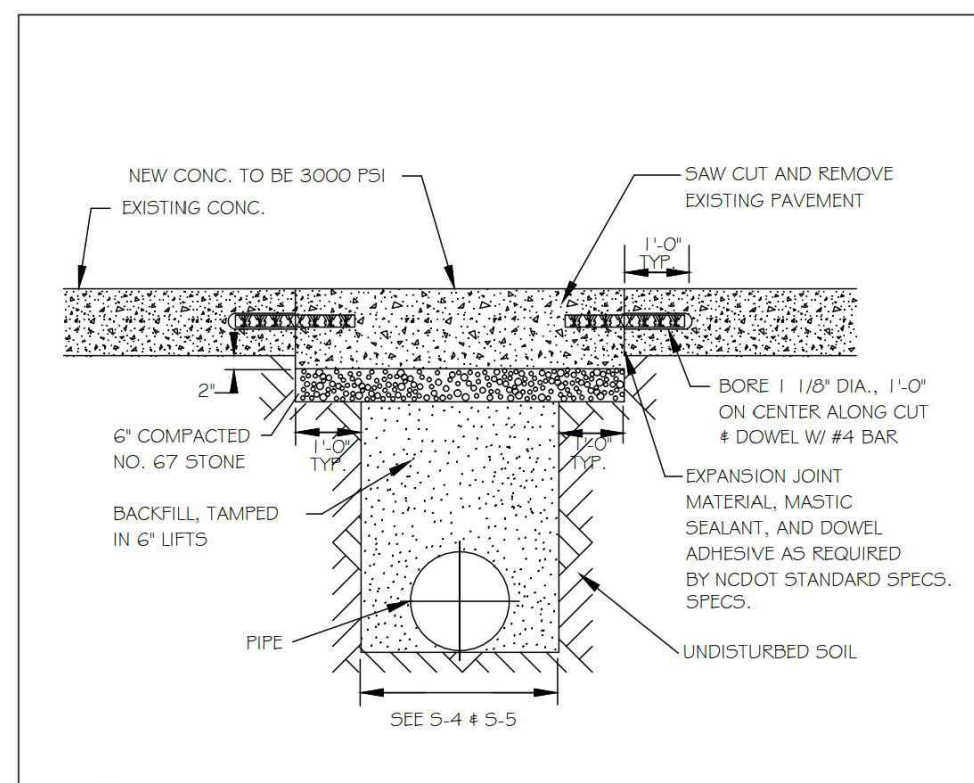
CONSTRUCTION DRAWINGS

TOWN OF ROLESVILLE, WAKE FOREST TOWNSHIP, WAKE COUNTY, NORTH CAROLINA

PLAN INFORMATION
 PROJECT NO. AWH20000
 FILENAME AWH20000-P1
 CHECKED BY WTO
 DRAWN BY BB
 SCALE 1"=40'/1"=4'
 DATE 10. 12. 2021

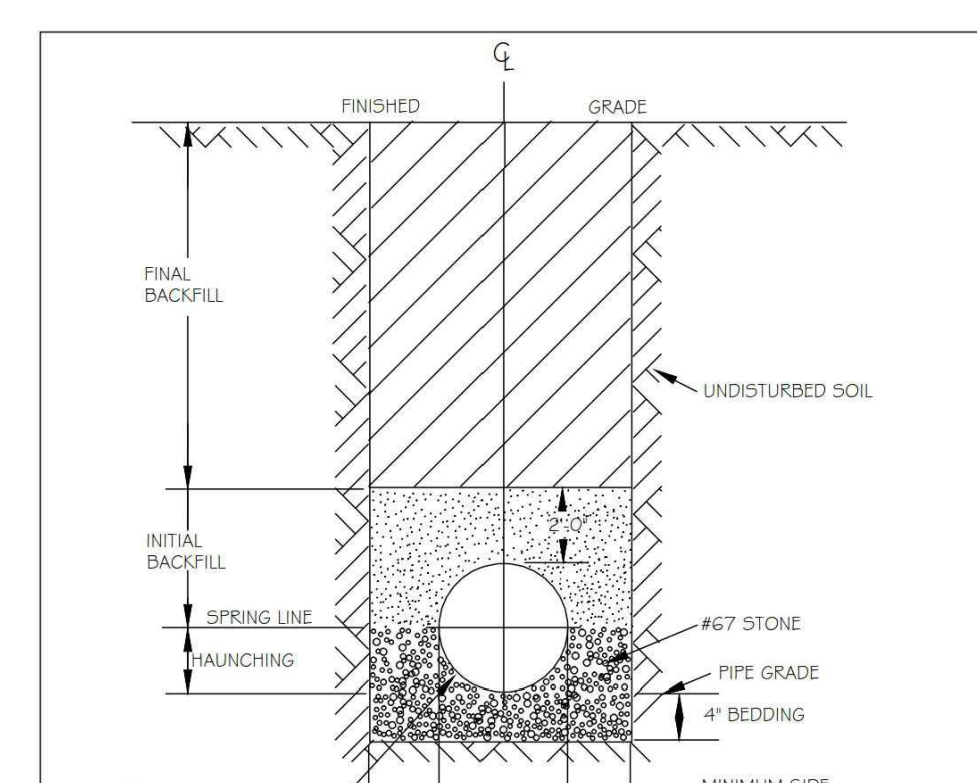
PLAN AND PROFILE
 HARRIS CREEK INTERCEPTOR
 STA. 61+00 THRU STA. 64+00

C5.03



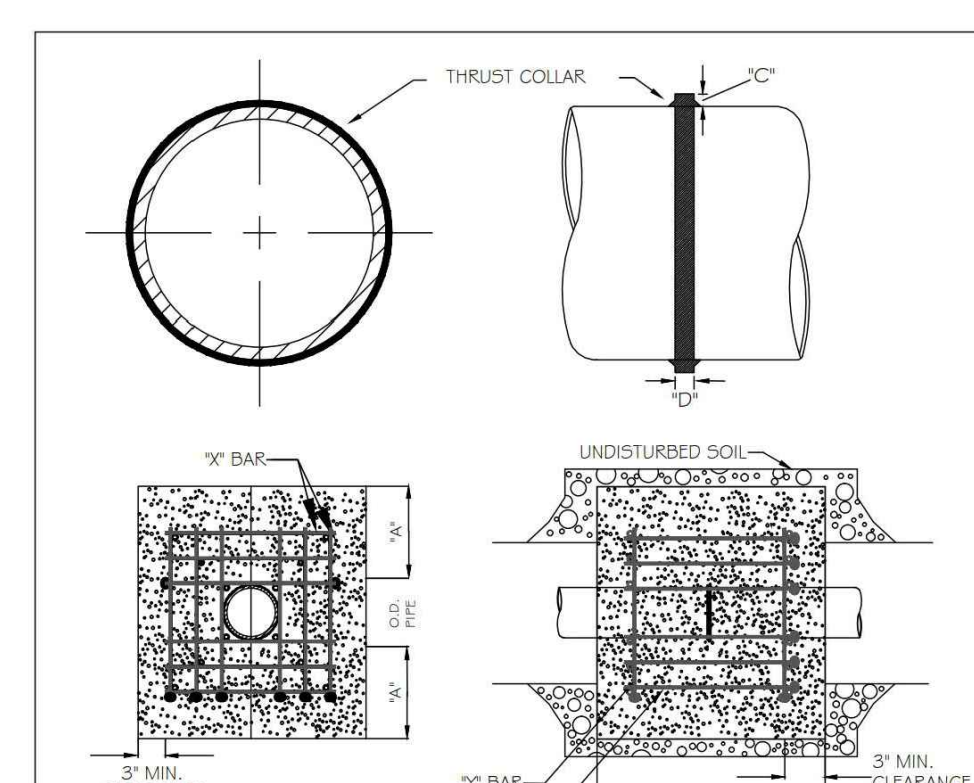
NOTES:
 1. See City of Raleigh standards for trenches and pipe bedding (S-4 & S-5) for additional details.
 2. Pavement cuts over 5'-0" in width shall be reinforced to N.C.D.O.T. standards.
 3. Pavement cuts shall be made with an appropriate saw cut machine.
 4. Pavement cuts when NCDOT ROW shall conform to the approved on site encroachment permit.

CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES STANDARD CONCRETE PAVEMENT PATCH DETAIL				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-2	D.W.C. R.H.	6-23-99	A.B.B. J.P.S.	4-19-04 0-6-10



NOTES:
 1. FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
 2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
 3. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
 4. BACKFILL SHALL BE TAMPED IN 6" LIFTS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS.

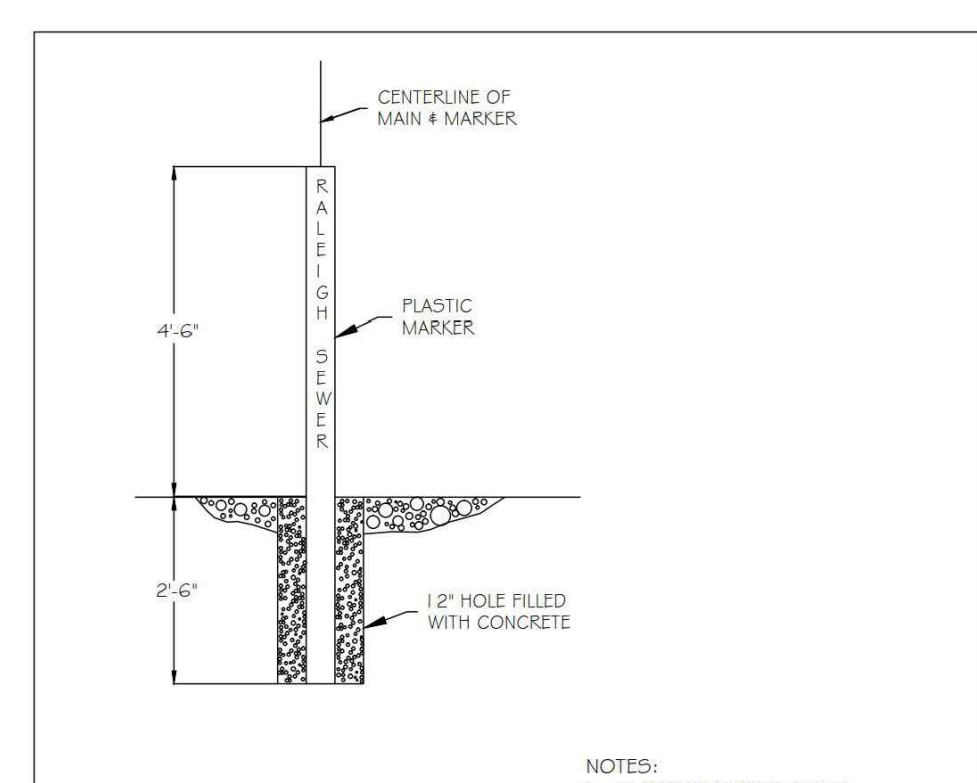
CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES TRENCH BOTTOM DIMENSIONS AND BACKFILL REQUIREMENTS FOR PVC GRAVITY SEWER MAIN				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-5	D.W.C. R.H.	3-1-97	A.B.B. R.H.	9-3-99 3-30-00



REINFORCING REQUIREMENTS					
I.D. PIPE	WALL THICKNESS	PIPE LENGTH	NO. BARS	BAR WEIGHT	NO. REQUIRED
12" - 36"	1/2"	5'-0" < L < 10'-0"	10	11 LB. EACH	2,24, 112
48" < L < 60"	1/2"	10'-0" < L < 15'-0"	10	11 LB. EACH	2,24, 112

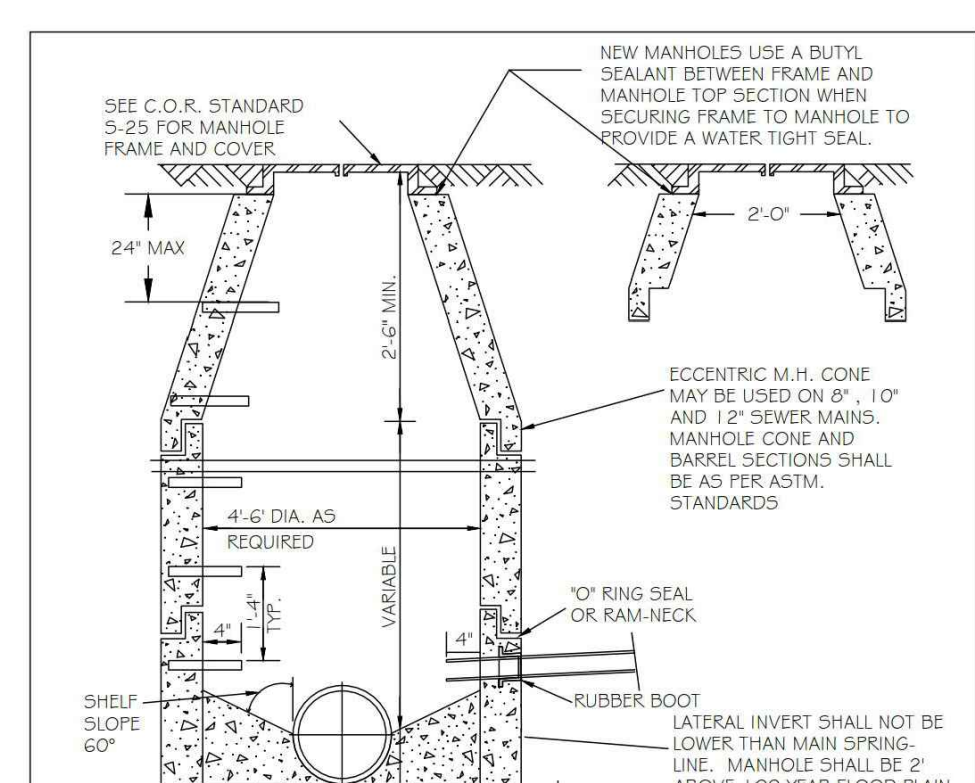
NOTES:
 1. CONCRETE SHALL BE 3000 PSI AND TRANSIT MIXED.
 2. REINFORCING BARS SHALL BE DEFORMED AND TIED TOGETHER.
 3. TRENCH BOTTOM WIDTH IN VICINITY OF THRUST BLOCK INSTALLATION SHALL BE THE MINIMUM WIDTH AS SHOWN ON STANDARD DETAIL W-5.
 4. BACKFILL TAMPED IN 6" LIFTS PER STANDARD DETAIL W-5.
 5. THRUST COLLAR MUST BE FACTORY WELDED ON BOTH SIDES ALONG BOTH EDGES OF COLLAR AROUND CIRCUMFERENCE.

CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES RESTRAINING COLLAR DESIGN DATA FOR SEWER FORCE MAIN				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-6	D.H.L.	1-21-00	D.H.L.	6-18-05



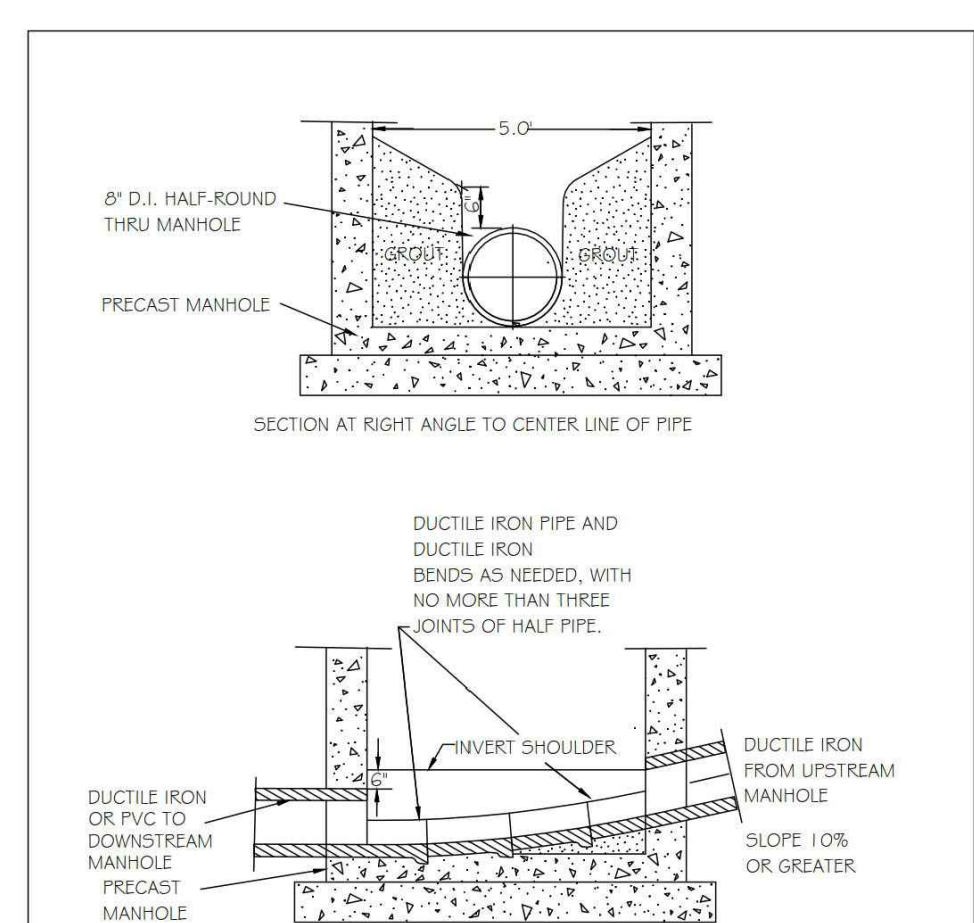
NOTES:
 1. PLASTIC MARKER SHALL BE GREEN IN COLOR.
 2. MARKERS SHALL BE LABELED "RALEIGH SEWER".
 3. TO BE SPACED EVERY 300 FEET ON EACH SIDE OF ANY ROADWAY OR JUNCTION.
 4. MARKERS SHALL BE ROUND 4" IN DIAMETER.

CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES STANDARD MAIN MARKER FOR SEWER FORCE MAINS IN EASEMENTS				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-8	R.H.	3-30-00	D.H.L.	4-16-05



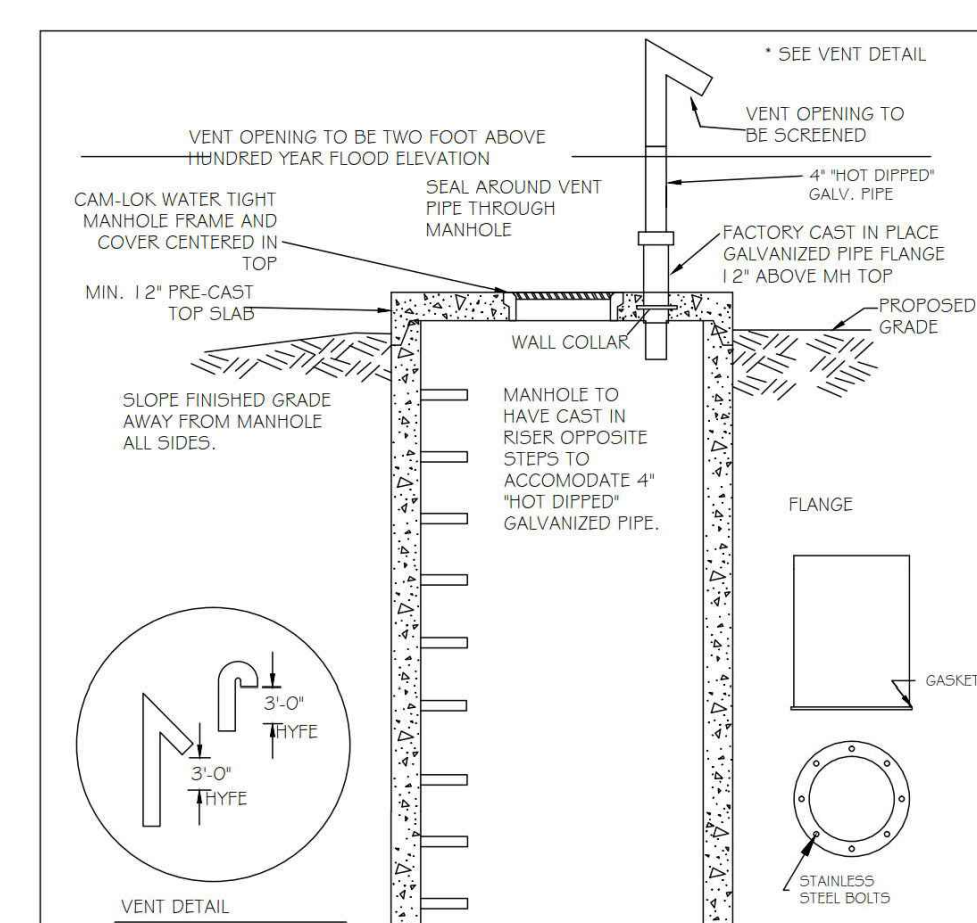
NOTES:
 1. LATERAL INVERT SHALL NOT BE LOWER THAN MAIN SPRING-LINE. MANHOLE SHALL BE 2' ABOVE 100 YEAR FLOOD PLAIN OR SEALED AND VENT TO BE 2' ABOVE 100 YEAR FLOOD PLAIN, WHEN MANHOLE TOPS ARE IN EXCESS OF 3' ABOVE GRADE. OUTSIDE STEPS MUST BE PROVIDED. SEE STANDARD S-29 FOR STEP DETAIL. IN NON TRAFFIC AREAS, TOP OF FRAME AND COVER SHALL BE INSTALLED A MIN. OF 1' ABOVE FINISHED GROUND SURFACE.
 2. SEE SEWER DESIGN SECTION.
 3. MIN. 9" COMPACTED #67 STONE BASE TO BE INSTALLED UNDER NEW MANHOLE.

CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES STANDARD PRECAST SANITARY SEWER MANHOLE				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-20	T.C.A. R.H.	12-31-92	A.B.B. D.H.L.	3-31-00 4-16-05



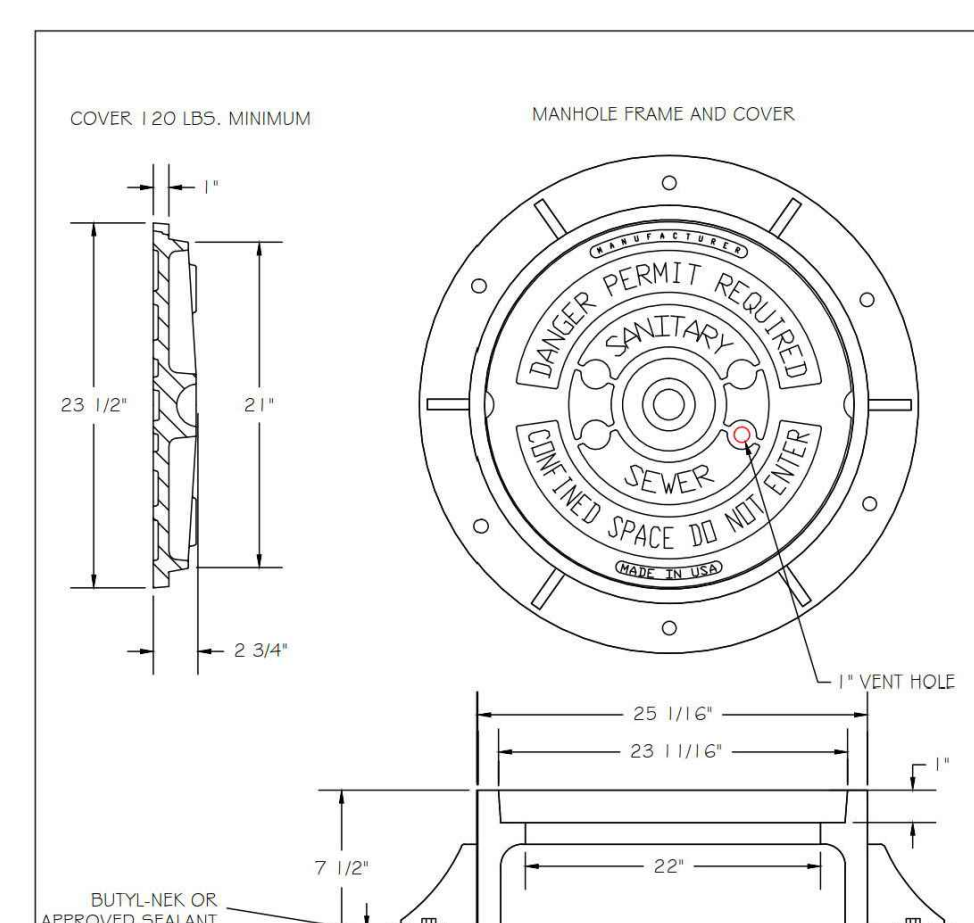
NOTE:
 NO HORIZONTAL ALIGNMENT CHANGE CAN BE MADE WITH IN THIS MANHOLE TYPE. USE ON GRADES 1.0% OR GREATER.

CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES STANDARD HIGH VELOCITY MANHOLE INVERT				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-23	T.C.A.	3-1-97	R.H.	3-30-00



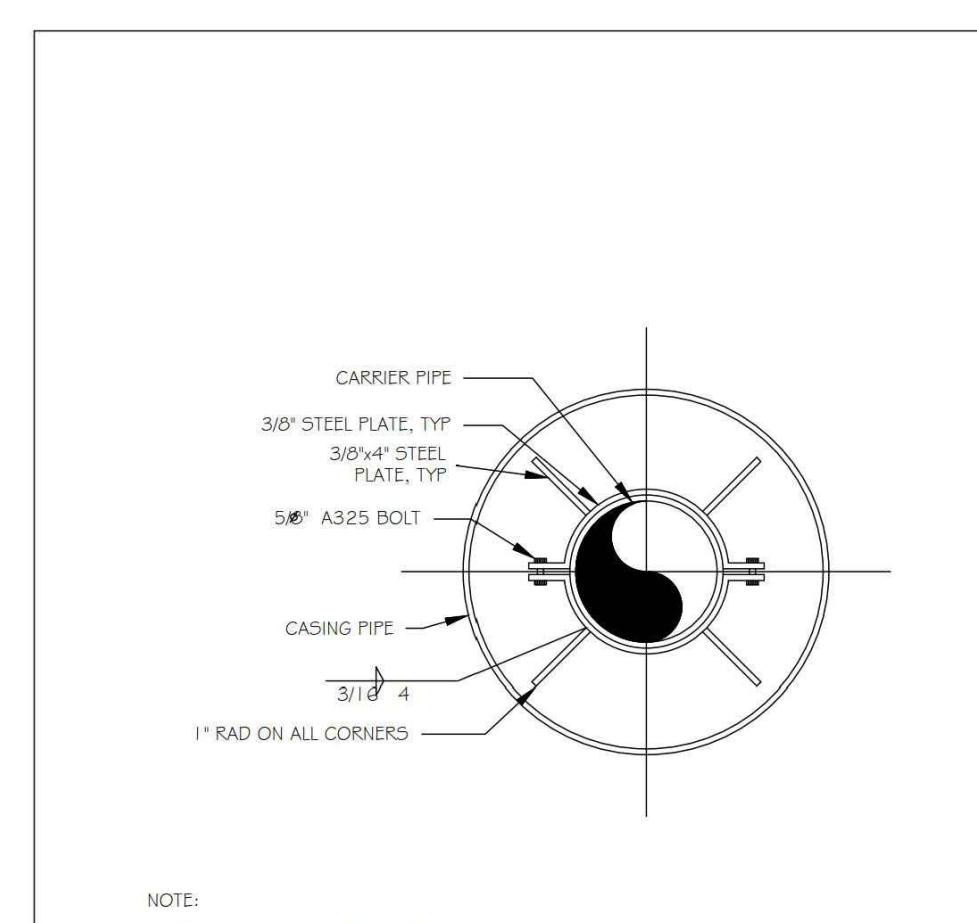
NOTES:
 1. VENT MUST BE FACTORY WELDED FABRICATED AND "HOT DIPPED" GALVANIZED.
 2. TYPE - Hundred Year Flood elevation

CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES STANDARD SEAL TIGHT MANHOLE WITH VENTED STACK				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-24	R.H.	6-7-99	A.B.B. D.H.L.	4-15-04 6-16-05



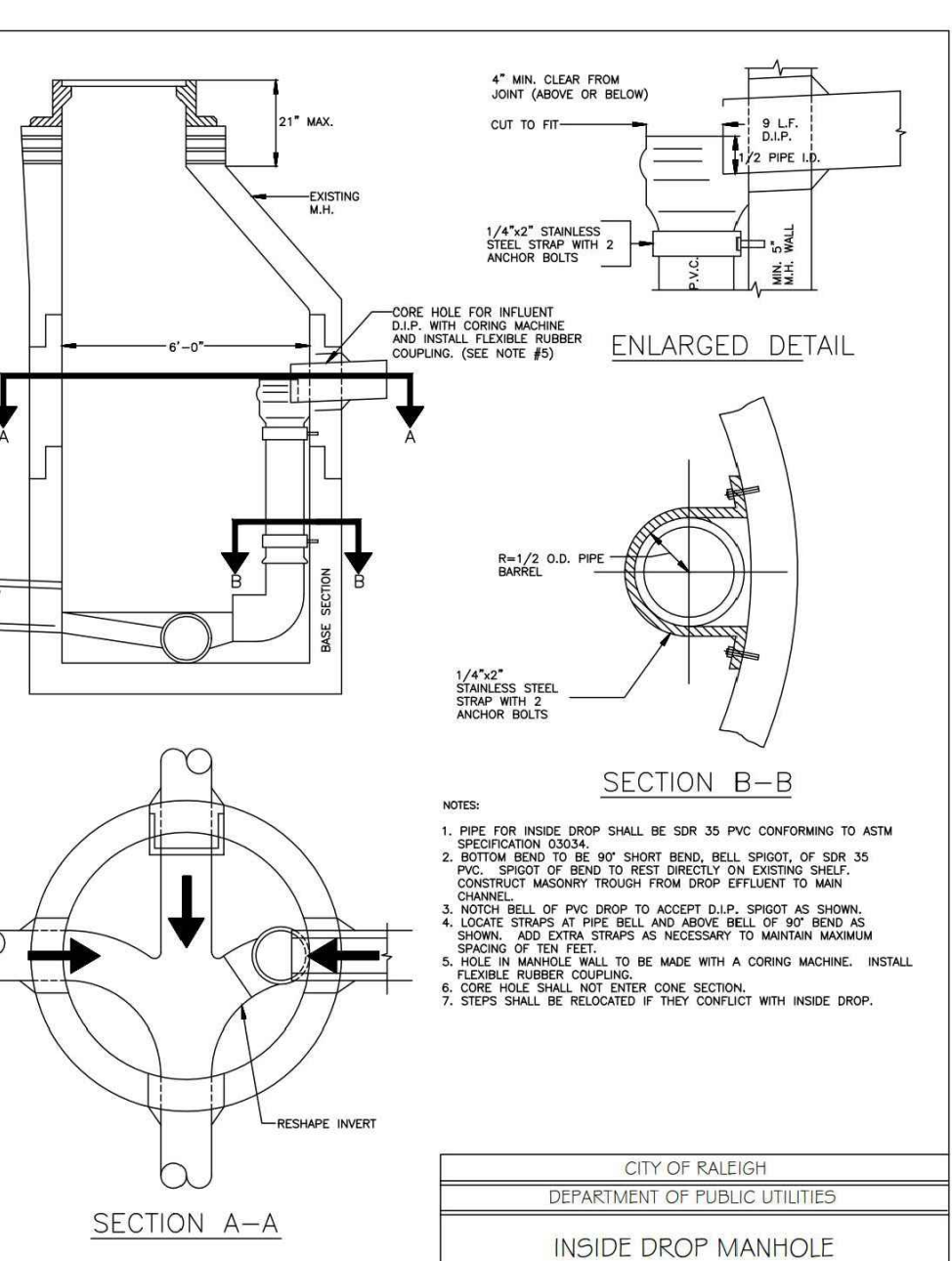
NOTES:
 1) ALL MANHOLE FRAMES SHALL BE DOMESTICALLY CAST.
 2) FRAME SHALL BE A MINIMUM WEIGHT OF 162 LBS. WITHIN PUBLIC ROW AND 160 LBS. WITHIN EASEMENTS.
 3) COVER SHALL WEIGH A MIN. OF 120 LBS.
 4) ALL MANHOLE FRAMES OUTSIDE OF PAVED SURFACES SHALL BE BOLTED TO THE CONE SECTION OR RING WITH A MINIMUM OF 4 BOLTS PER FRAME.

CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES STANDARD MANHOLE COVER				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-25	R.H.	3-1-97	A.B.B. D.H.L.	2-9-05 6-18-05

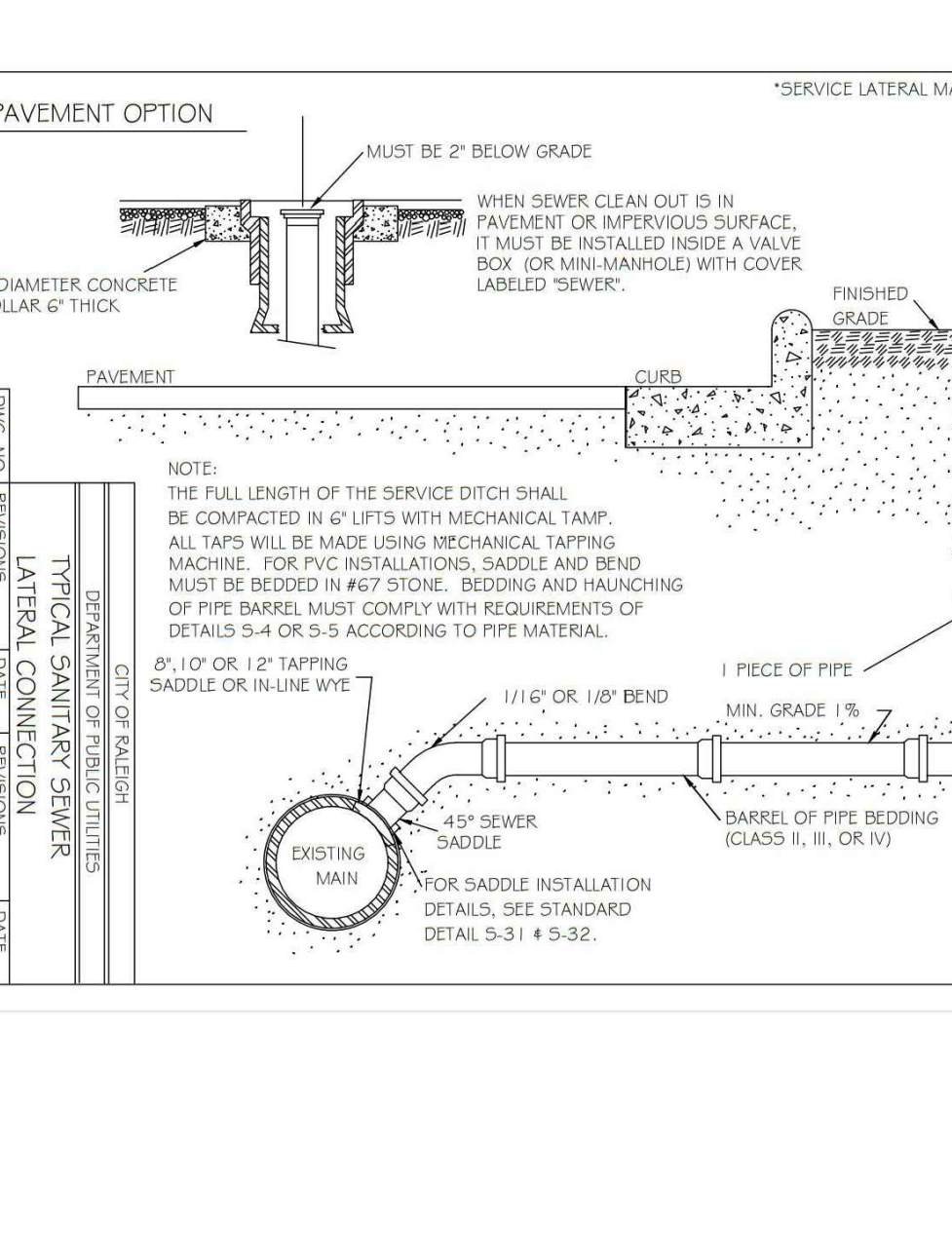


NOTE:
 1) USE A MINIMUM OF TWO SPIDERS PER PIPE JOINT ONE FOURTH OF THE PIPE JOINT LENGTH IN FROM BOTH THE BELL AND SPIGOT ENDS.

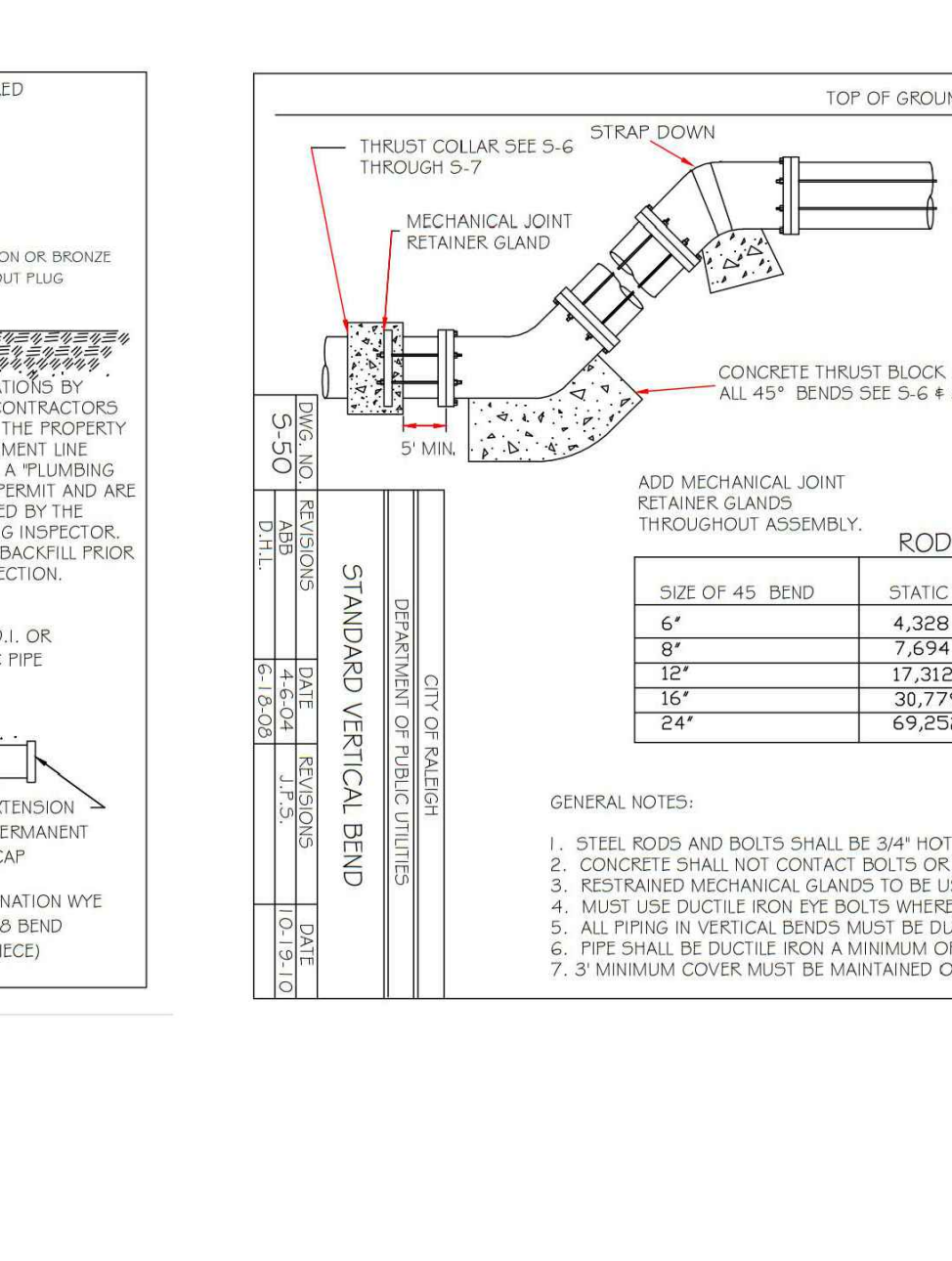
CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES PIPE ALIGNMENT GUIDE				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-39	R.H. A.B.B.	3-31-00	A.B.B. D.H.L.	4-16-04



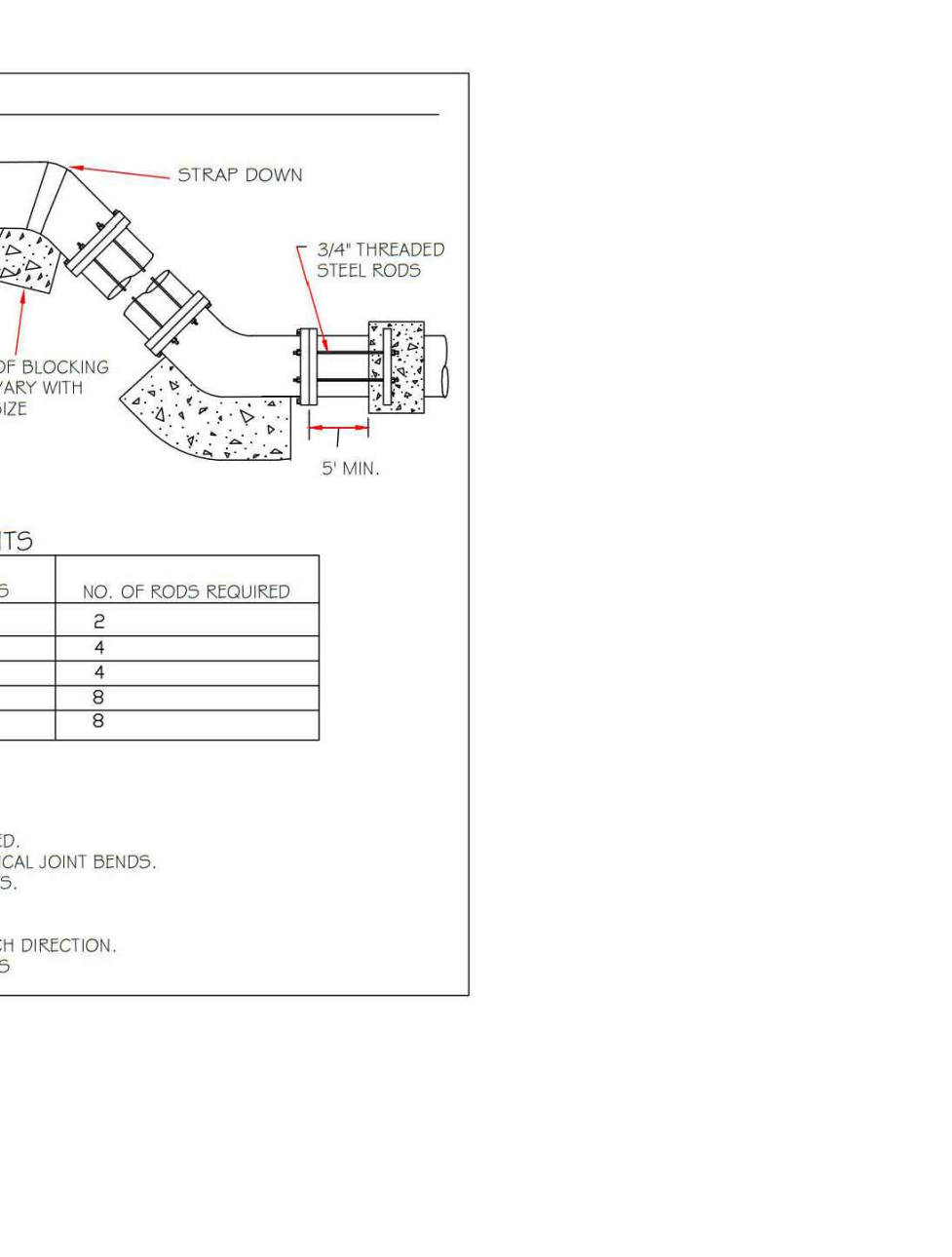
CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES INSIDE DROP MANHOLE				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-53	M.A.B.	11-6-13		



CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES TYPICAL SANITARY SEWER LATERAL CONNECTION				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-30	R.H.	3-30-00	D.H.L.	10-20-05



CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES STANDARD VERTICAL BEND				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-31	R.H.	3-30-00	D.H.L.	10-20-05



ROD REQUIREMENTS			
SIZE OF 45° BEND	STATIC THRUST IN POUNDS	NO. OF RODS	NO. OF RODS REQUIRED
6"	4,328	2	
8"	7,294	4	
12"	17,312	4	
15"	30,779	8	
24"	69,252	8	

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REVISIONS	
NO.	DATE

PLAN INFORMATION
 PROJECT NO. AWH-20000
 FILENAME AWH20000-D1
 CHECKED BY .
 DRAWN BY .
 SCALE N.T.S.
 DATE 10.12.2021
 SHEET
 SANITARY SEWER
 DETAILS
C8.01
 FINAL DRAWING - NOT RELEASED FOR CONSTRUCTION

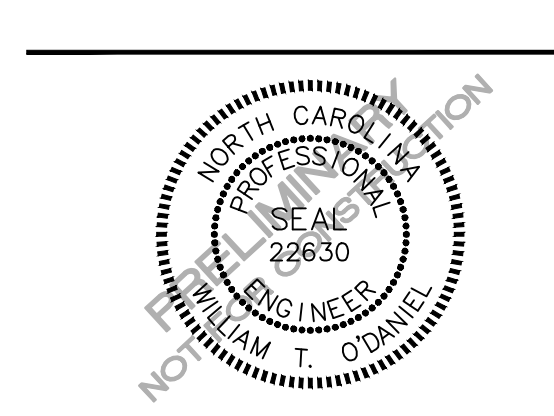


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CLIENT
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 5711 SIX FORKS ROAD, SUITE 300
 RALEIGH, NORTH CAROLINA 27609
 PHONE: 919. 232. 3695
 CONTACT: BOB MISHLER



**HARRIS CREEK INTERCEPTOR
 IMPROVEMENTS**
 TOWN OF ROLESVILLE, WAKE FOREST TOWNSHIP,
 WAKE COUNTY, NORTH CAROLINA



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McADAMS

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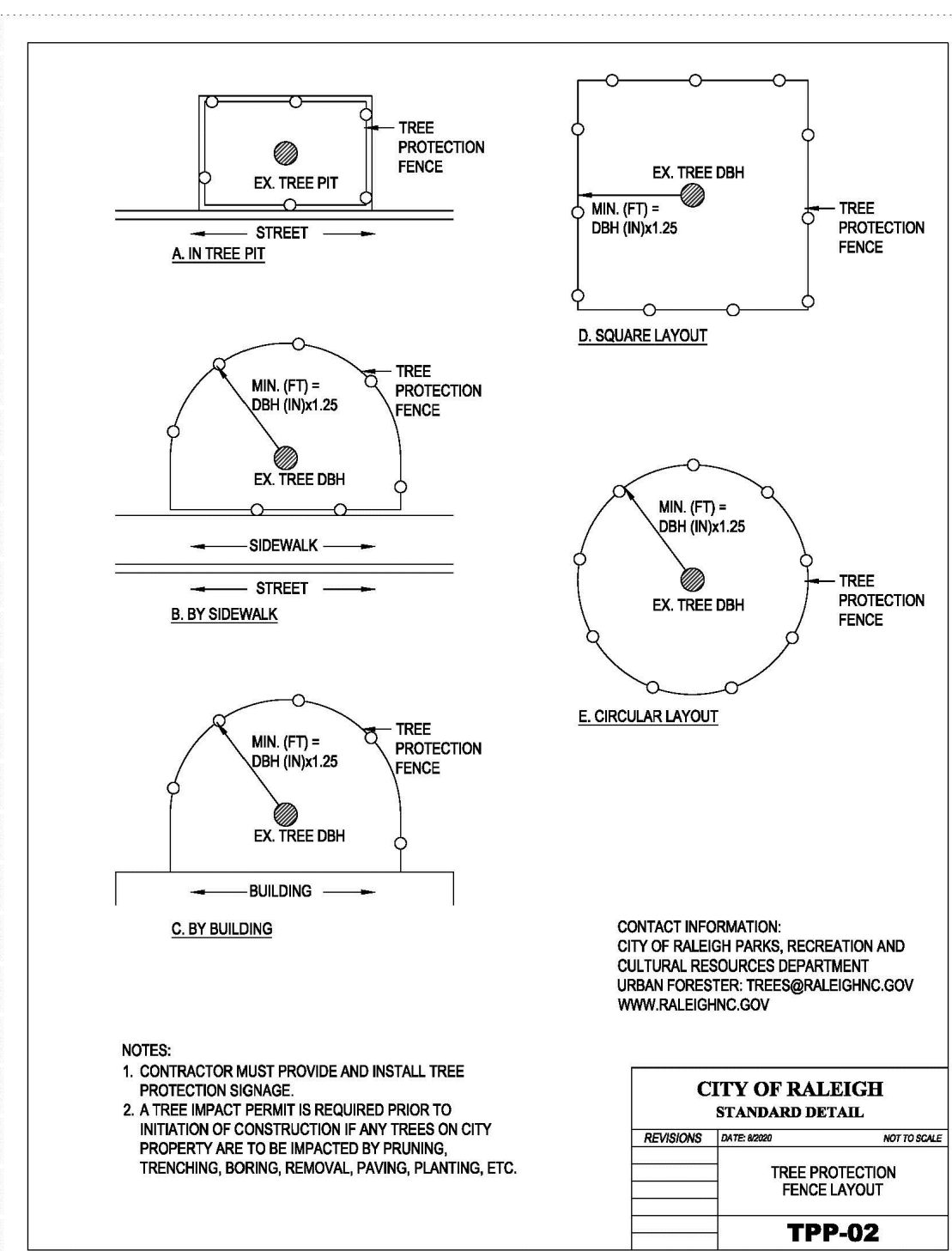
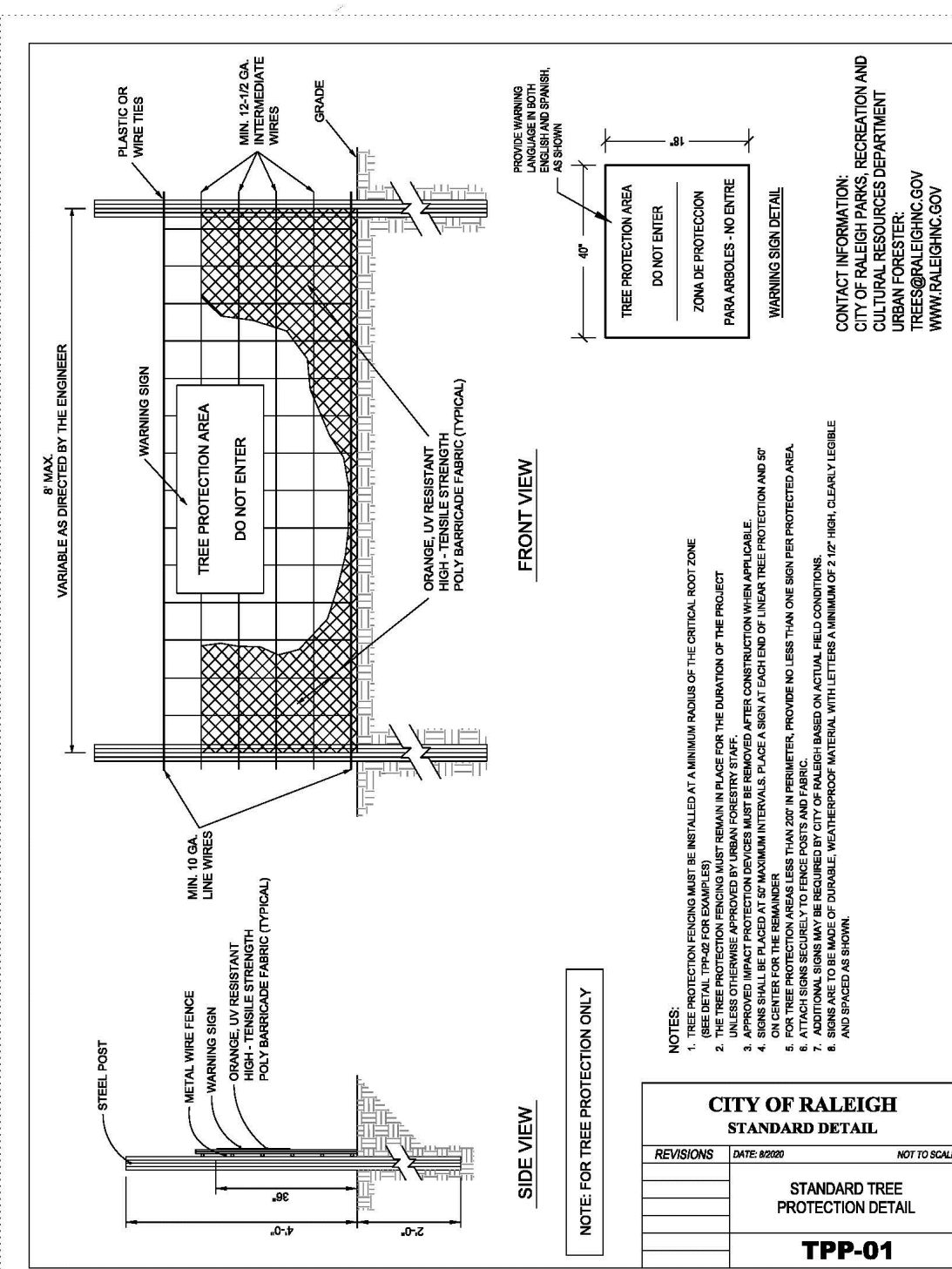
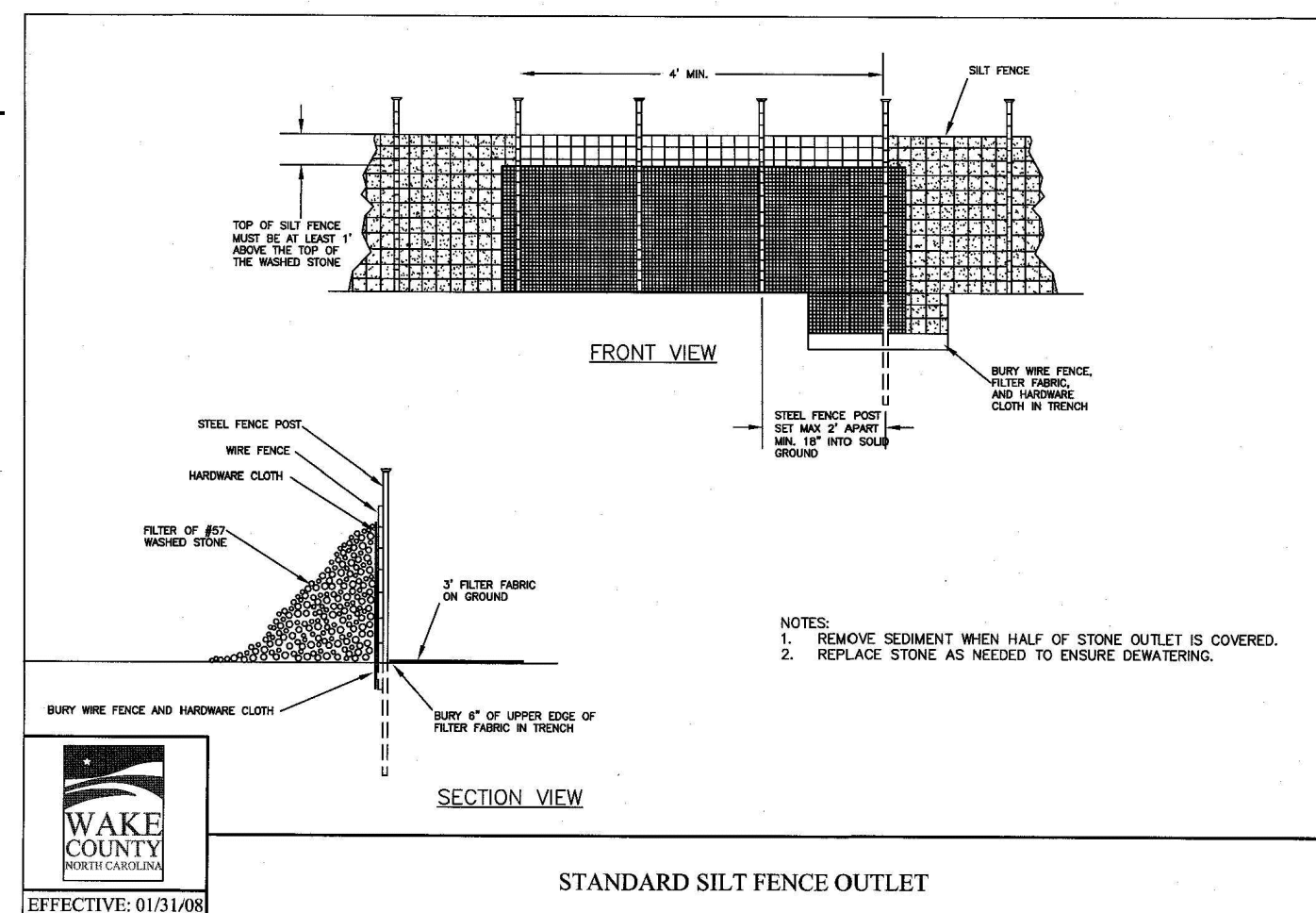
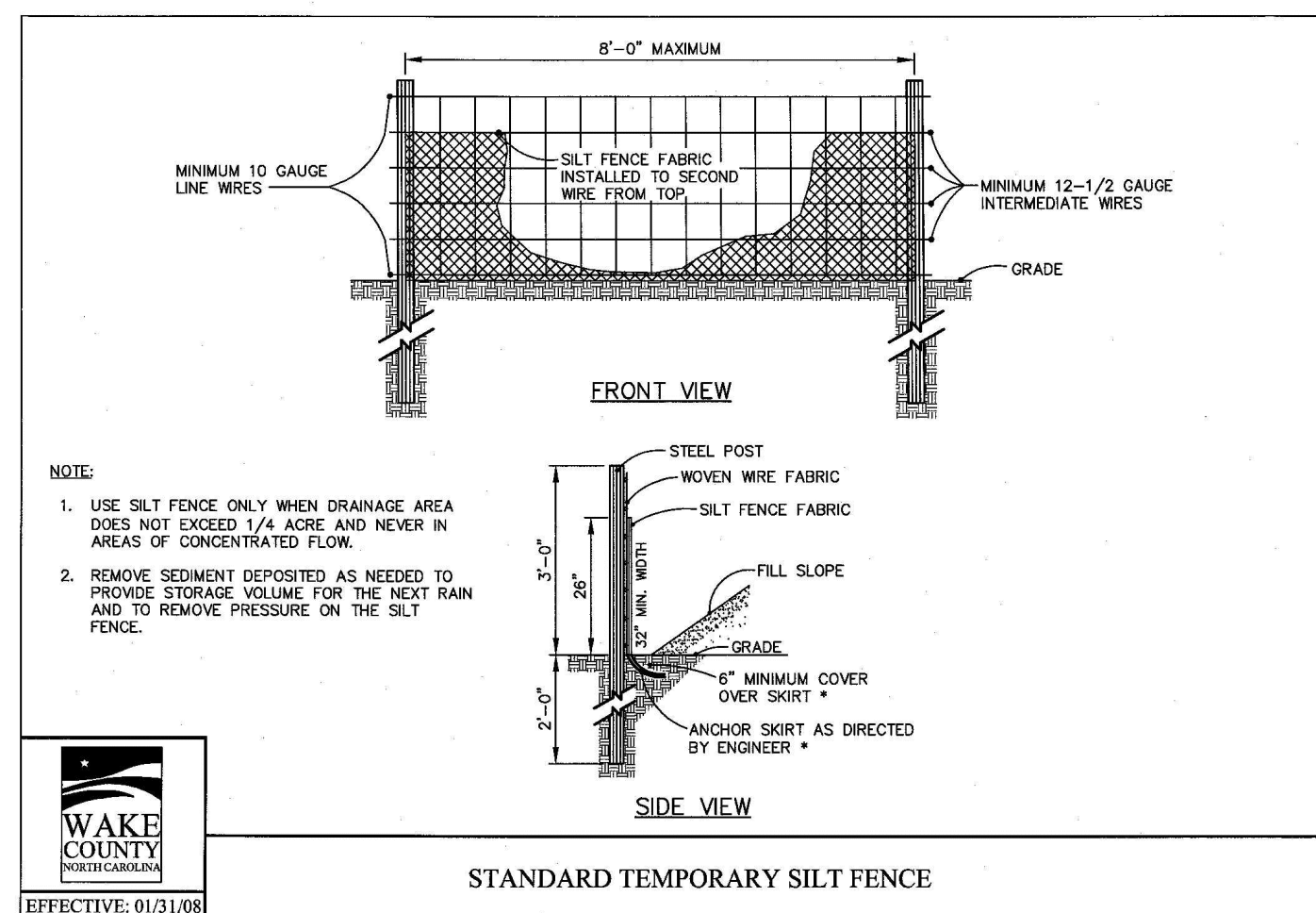
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TOWN OF ROLESVILLE, WAKE FOREST TOWNSHIP,
WAKE COUNTY, NORTH CAROLINA



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City of Raleigh Review Officer

REVISIONS

NO.	DATE

PLAN INFORMATION

PROJECT NO.	AWH-20000
FILENAME	AWH20000-D1
CHECKED BY	.
DRAWN BY	.
SCALE	N.T.S.
DATE	10.12.2021

EROSION CONTROL DETAILS
C8.02

M:\Projects\AWH\AWH-20000\04-Production\Engineering\SS-Detail\Upgrade\Current Drawings\AWH20000-D1.dwg, 11/5/2021, 12:26:29 PM, Brandon Blisset