

BRIAR CHAPEL

PHASE 7

PRELIMINARY PLAT SUBMITTAL

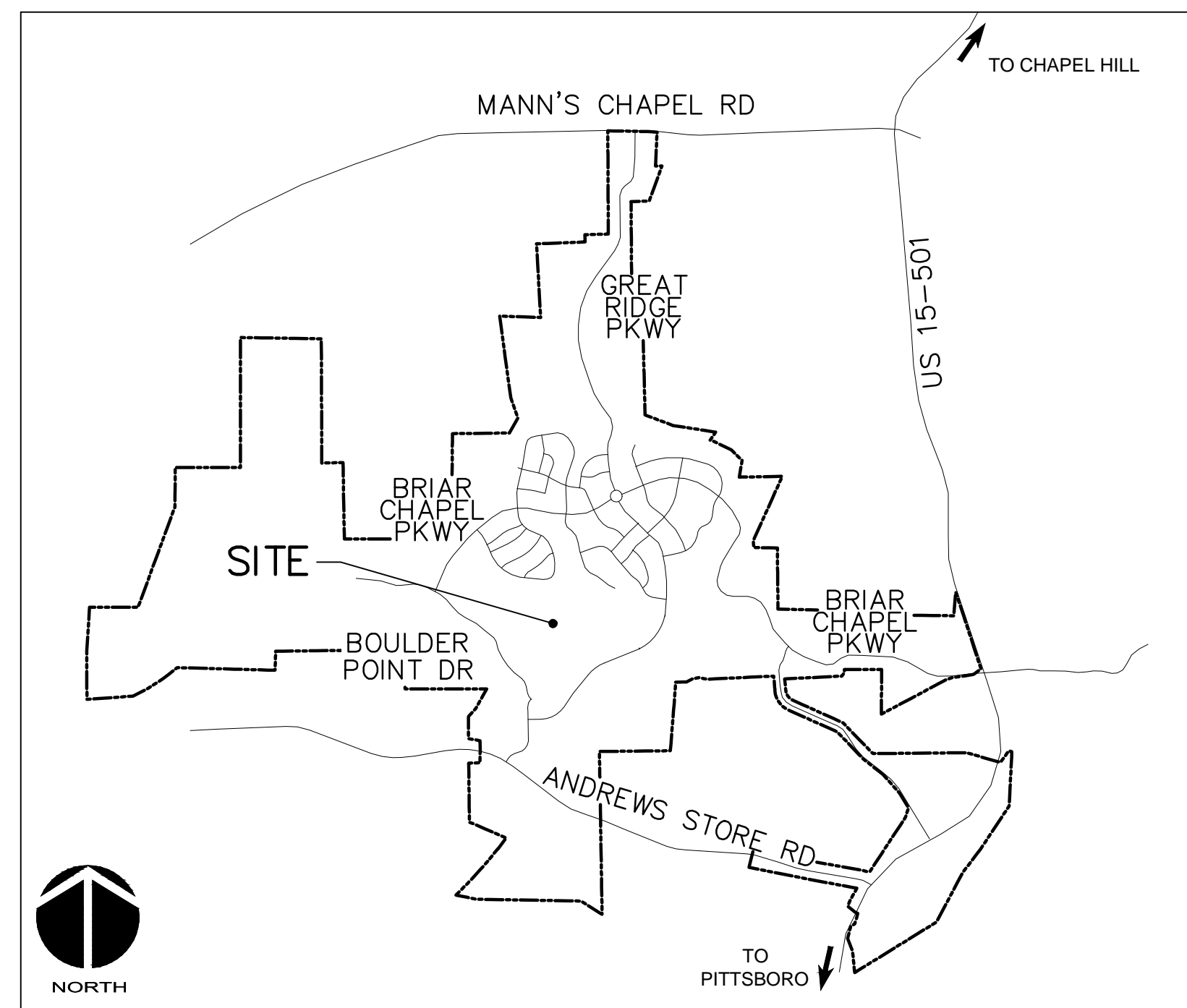
U.S. HWY 15-501 and MANN'S CHAPEL ROAD

CHATHAM COUNTY, NORTH CAROLINA

DATE: APRIL 10, 2013

COUNTY AND AGENCY CONTACTS

- | | |
|---|--|
| <p>A. Chatham County
 Planning Department
 Dunlap Building
 80 East Street
 Pittsboro, NC 27312
 (919) 542-8204 phone
 Contact: Jason Sullivan
 Email: jason.sullivan@chathamnc.org</p> | <p>D. NCDOT
 Division 8, District 1
 300 DOT Drive
 P.O. Box 1164
 Asheboro, NC 27204
 (336) 318-4000 phone
 Contact: Jeff B. Loflin, PE
 Email: jloflin@ncdot.gov</p> |
| <p>B. Chatham County
 Environmental Services
 Dunlap Building
 80 East Street
 Pittsboro, NC 27312
 (919) 542-0945 phone
 Contact: Dan LaMontagne, PE
 Email: dan.lamontagne@chathamnc.org</p> | <p>E. NCDENR
 Division of Water Quality
 2321 Crabtree Blvd., Suite 250
 Raleigh, NC 27604
 (919) 791-4200 phone
 Contact: Annette Lucas
 Email: Annette.Lucas@ncdenr.gov</p> |
| <p>C. Chatham County
 Soil Erosion and Sedimentation Control
 Dunlap Building
 80 East Street
 Pittsboro, NC 27312
 (919) 545-8339 phone
 Contact: Rachael Thorn
 Email: rachael.thorn@chathamnc.org</p> | <p>F. NCDENR
 Division of Environmental Health
 Public Water Supply Section
 1634 Mail Service Center
 Raleigh, NC 27699-1634
 (919) 715-3226 phone
 Contact: Henri Ou
 Email: heinrich.ou@ncdenr.gov</p> |



VICINITY MAP

NTS

PROJECT DATA

NAME OF PROJECT:
 PHASE 7
 CHATHAM COUNTY, NORTH CAROLINA

OWNER:
 NNP BRIAR CHAPEL, LLC
 16 WINDY KNOLL CIRCLE
 CHAPEL HILL, NC 27516
 PHONE: (919) 951-0700
 FAX: (919) 240-4963
 CONTACT: KEVIN GRAHAM
 EMAIL: kgraham@newlandco.com

PREPARED BY:
 MCKIM & CREED
 1730 VARSITY DRIVE, SUITE 500
 RALEIGH, NORTH CAROLINA 27606
 PHONE: (919) 233-8091
 FAX: (919) 233-8031
 CONTACT: GRANT LIVENGOOD, PE
 EMAIL: glivengood@mckimcreed.com

PROJECT AREA: 53.54 AC

These improvements shall be constructed in accordance with the following plans, and the Standard Specifications of NCDOT and Chatham County.

SHEET INDEX

C0.1	COVER SHEET
C0.2	EXISTING CONDITIONS PLAN
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C3.3	GRADING, DRAINAGE & EROSION CONTROL PLAN
C4.1	PLAN & PROFILE ROAD S
C4.2	PLAN & PROFILE ROAD P
C4.3	PLAN & PROFILE ROAD K
C4.4	PLAN & PROFILE ROAD R
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C4.6	PLAN & PROFILE ROAD N
C4.7	PLAN & PROFILE ROAD L
C4.8	PLAN & PROFILE ROAD L & ROAD B
C4.9	PLAN & PROFILE ROAD M, ROAD C, & SD OUTFALL
C4.10	PLAN & PROFILE ROAD A
C4.11	PLAN & PROFILE ROAD B
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C4.13	PLAN & PROFILE ROAD O & ALLEY MN-2
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C4.15	PLAN & PROFILE ALLEY ML-1, ML-3
C4.16	PLAN & PROFILE ALLEY ML-2, MN-1, MN-3
C4.17	PLAN & PROFILE ROAD A SECTION 2
D1.1	DETAILS-EROSION AND SEDIMENTATION CONTROL
D1.2	DETAILS-EROSION AND SEDIMENTATION CONTROL
D2.1	DETAILS-NCDOT ROADWAY
D2.2	DETAILS-NCDOT DRAINAGE
D2.3	DETAILS-ROADWAY TYPICAL SECTIONS
D3.1	DETAILS-UTILITY
D3.2	DETAILS-UTILITY
D4.1	DETAILS-LEVEL SPREADER/VEGETATED FILTER STRIP
D4.2	STORM DRAINAGE/SANITARY SEWER TABLE



by
 Newland COMMUNITIES

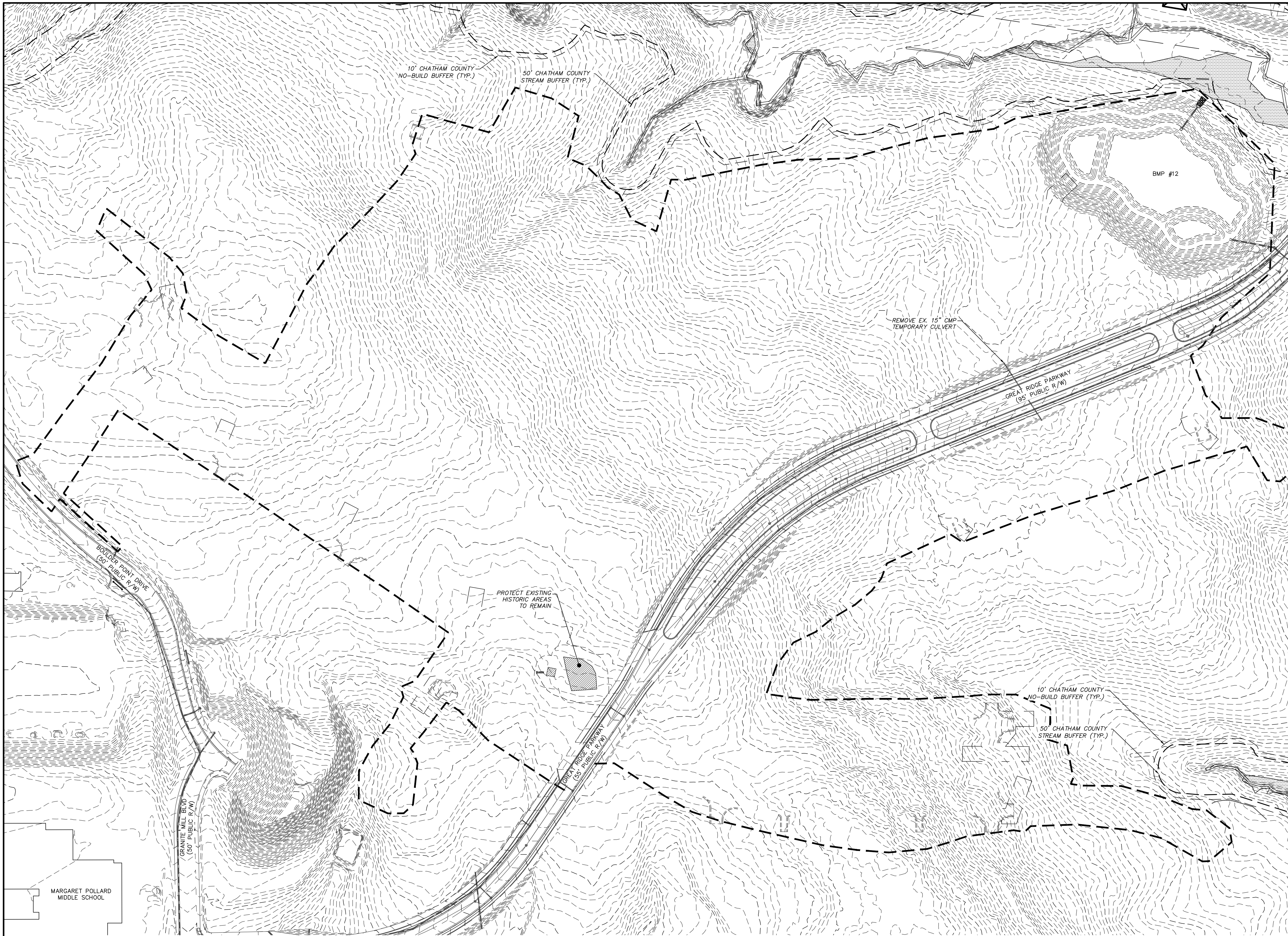


1730 Varsity Drive, Suite 500
 Raleigh, North Carolina 27606
 Phone: (919)233-8091, Fax: (919)233-8031
 F-1222

www.mckimcreed.com



FINAL DRAWINGS
 NOT RELEASED FOR CONSTRUCTION



GENERAL NOTES:

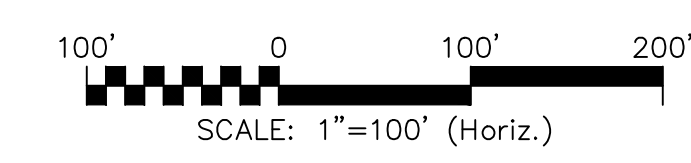
- REFER TO THE FOLLOWING MCKIM & CREED, INC. CONSTRUCTION PLANS, AND ALL SUBSEQUENT CONSTRUCTION BULLETINS FOR INFORMATION ON EXISTING SITE INFRASTRUCTURE:
 - BRIAR CHAPEL - GRANITE MILL BOULEVARD AND BOULDER POINT DRIVE CONSTRUCTION PLANS SEALED JUNE 8, 2010
 - BRIAR CHAPEL - PHASE 5 NORTH CONSTRUCTION PLANS SEALED MARCH 30, 2012
 - BRIAR CHAPEL - PHASE 6 SOUTH CONSTRUCTION PLANS SEALED JANUARY 27, 2012
 - BRIAR CHAPEL - BRIAR CHAPEL PARKWAY AND BOULDER POINT DRIVE EXTENSION SEALED JANUARY 1, 2012
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 - BRIAR CHAPEL - PHASE 4 - POD D CONSTRUCTION PLANS SEALED SEPT. 17, 2007
 - BRIAR CHAPEL - PHASE 3 & 4 EROSION CONTROL PLANS SEALED JULY 26, 2007
 - BRIAR CHAPEL - PHASE 5 SOUTH SECTION 1 CONSTRUCTION PLANS SEALED NOVEMBER 9, 2009
 - BRIAR CHAPEL - PHASE 5 SOUTH SECTION 2 CONSTRUCTION PLANS SEALED OCTOBER 8, 2009
 - BRIAR CHAPEL - PHASE 6 NORTH SECTIONS 1 AND 2 CONSTRUCTION PLANS SEALED OCTOBER 8, 2012
- THIS PROPERTY IS ZONED CC-CUD.
- ALL DISTANCES SHOWN ARE HORIZONTAL MEASUREMENTS.
- BEARINGS SHOWN HEREON ARE BASED ON NC GRID NAD83. THIS PROJECT IS LOCALIZED ABOUT NCGS MONUMENT "MEACHAM" HAVING NC GRID COORDINATES N: 766,395.12'; E: 1,963,424.93' USING A COMBINED FACTOR OF 0.99990676.
- EXISTING TOPOGRAPHIC DATA IS BASED ON AERIAL MAPPING PERFORMED BY AVIOMAGE MAPPING SERVICES IN FEBRUARY 2010. ELEVATIONS ARE BASED ON NAVD 88 NCGS MONUMENT "F-92" WITH AN ELEVATION OF 476.06'.
- HORIZONTAL AND VERTICAL CONTROL FOR THIS SITE WAS INSTALLED BY GPA PROFESSIONAL LAND SURVEYORS OF NC.
- PROJECT IS LOCATED IN THE CAPE FEAR RIVER BASIN.
- STREAM AND WETLAND LOCATIONS ARE BASED ON DELINEATIONS PROVIDED BY SOIL AND ENVIRONMENTAL CONSULTANTS IN RALEIGH, NC - CONTACT NIKKI THOMSON AT 919-846-5900.
- A PORTION OF THIS PROPERTY IS LOCATED IN SPECIAL FLOOD HAZARD AREA "AE" AS SHOWN ON FEMA FIRM MAP #3710976500J DATED FEBRUARY 2, 2007.

DEMOLITION NOTES:

- NO EARTH-DISTURBING ACTIVITIES SHALL COMMENCE UNTIL ALL PERIMETER EROSION CONTROL MEASURES ARE IN PLACE IN ACCORDANCE WITH THE EROSION CONTROL SEQUENCE SHOWN IN THESE PLANS.
- NO EARTH-DISTURBING ACTIVITY OR OTHER WORK SHALL TAKE PLACE WITHIN WETLAND AREAS NOT ON SURVEY. CONTRACTOR SHALL FIELD VERIFY WETLAND LIMITS FLAGGING IS IN PLACE AND SHALL NOT ENTER WETLAND AREAS. IF WETLAND FLAGGING IS MISSING OR OTHERWISE DAMAGED, IT IS CONTRACTOR'S RESPONSIBILITY TO NOTE WETLAND LIMITS AND PREVENT DISTURBANCE OR OTHER ACTIVITY WITHIN WETLANDS.
- THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL PROPERTY CORNER MONUMENTS, AND SHALL HAVE, AT HIS EXPENSE, ALL CORNER MONUMENTS REPLACED WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES.
- CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS, AT HIS EXPENSE, DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE PUBLIC DURING CONSTRUCTION, WHICH INCLUDES, BUT IS NOT LIMITED TO, CONSTRUCTION FENCING, BARRICADES, SIGNAGE, ETC.
- CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH ALL REGULATIONS GOVERNING THE DEMOLITION, REMOVAL, TRANSPORTATION AND DISPOSAL OF ALL DEMOLITION DEBRIS.
- CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS FOR EXCAVATION AND TRENCHING PROCEDURES. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, ETC. AS NECESSARY FOR THESE OPERATIONS, AND SHALL COMPLY WITH ALL OSHA PERFORMANCE CRITERIA.
- CONTRACTOR SHALL TAKE SPECIAL CARE TO PROTECT ALL UTILITIES AND APPURTENANCES TO REMAIN.

LEGEND:

- EXISTING WETLANDS
- PERMANENT PERMITTED STREAM IMPACTS
- TEMPORARY PERMITTED STREAM IMPACTS
- 10' NO BUILD BUFFER LINE
- STREAM BUFFER LINE
- EX. CONTOUR
- EX. POWER LINE EASEMENT
- OVERHEAD POWER LINE
- EX. FORCE MAIN EASEMENT
- EX. SANITARY SEWER FORCE MAIN
- EX. REUSE IRRIGATION MAIN
- EX. WATER MAIN
- EX. STORM DRAINAGE PIPE
- PROJECT LIMITS



REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
2	ISSUED FOR PERMITTING	01/23/2013
1	FOR REVIEW BY CLIENT	01/10/2013

SEAL

SEAL

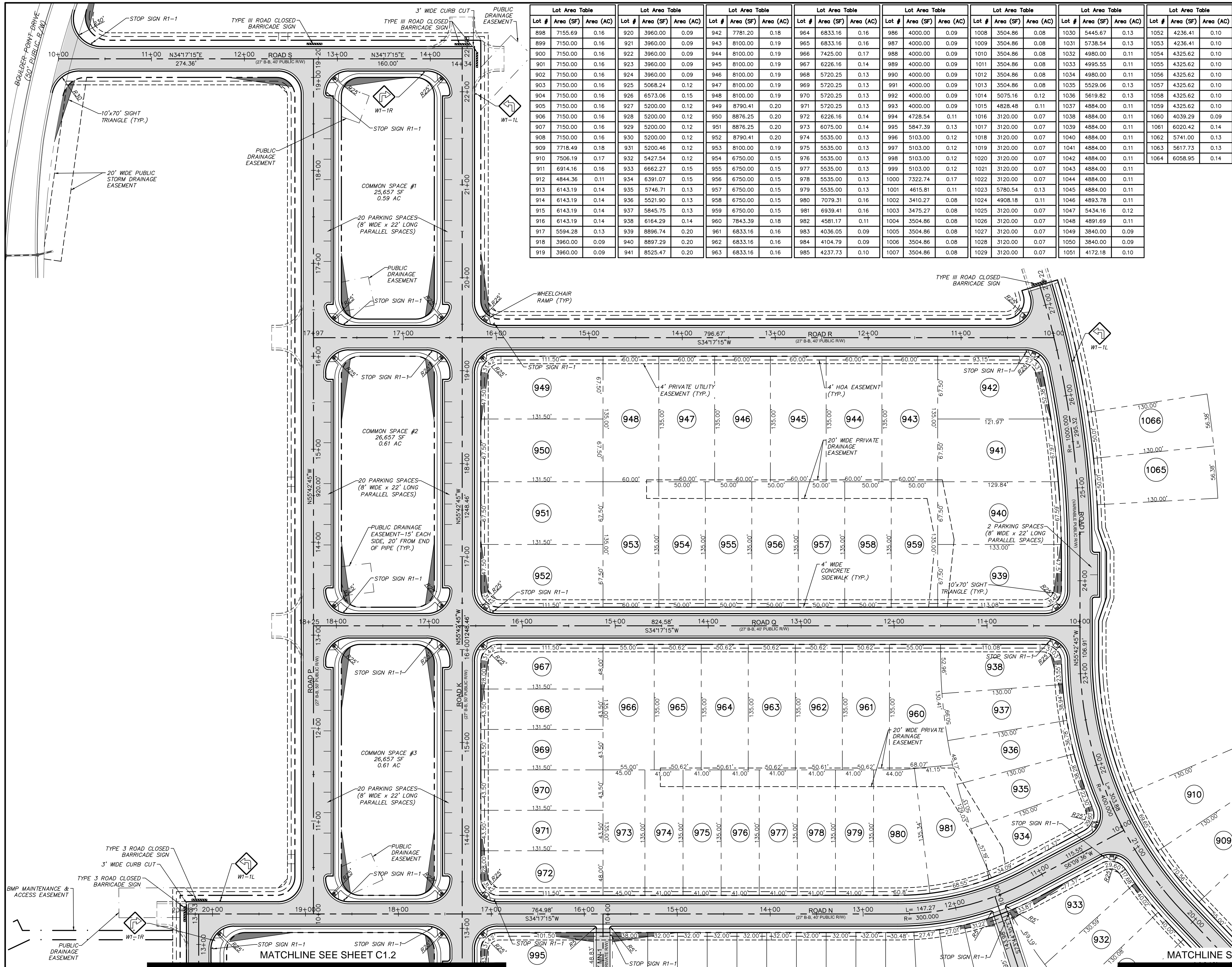
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by
Newland COMMUNITIES

**BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA**

**EXISTING CONDITIONS/
DEMOLITION PLAN**

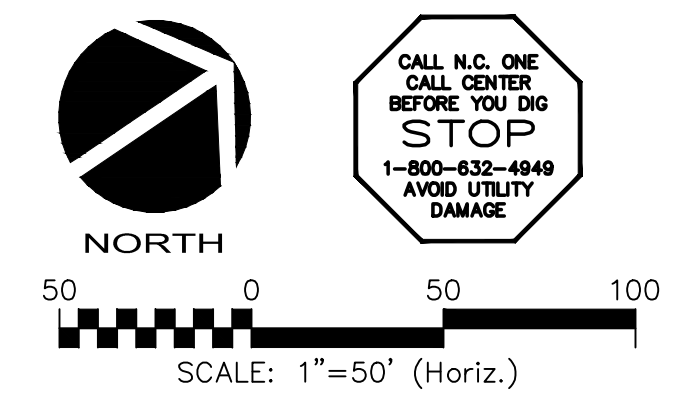
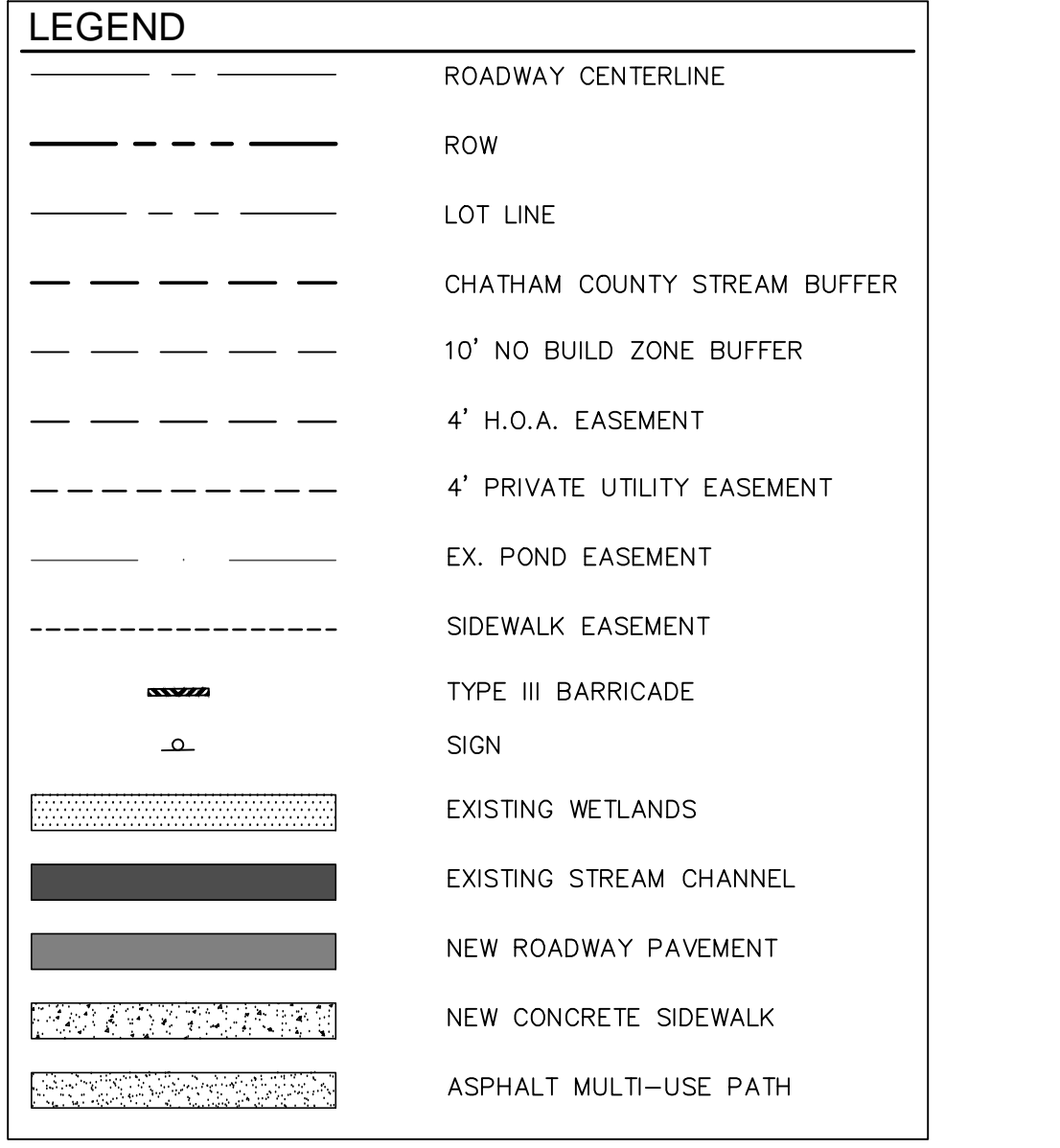
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MCE PROJ. # 02735-0090	VERTICAL: N/A	DRAWING NUMBER: CO.2
DRAWN: GCA		
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION		REVISION: 4



Lot Area Table			Lot Area Table			Lot Area Table			Lot Area Table			Lot Area Table			Lot Area Table			Lot Area Table					
Lot #	Area (SF)	Area (AC)	Lot #	Area (SF)	Area (AC)	Lot #	Area (SF)	Area (AC)	Lot #	Area (SF)	Area (AC)	Lot #	Area (SF)	Area (AC)	Lot #	Area (SF)	Area (AC)	Lot #	Area (SF)	Area (AC)			
898	7155.69	0.16	920	3960.00	0.09	942	7781.20	0.18	964	6833.16	0.16	986	4000.00	0.09	1008	3504.86	0.08	1030	5445.67	0.13	1052	4236.41	0.10
899	7150.00	0.16	921	3960.00	0.09	943	8100.00	0.19	965	6833.16	0.16	987	4000.00	0.09	1009	3504.86	0.08	1031	5738.54	0.13	1053	4236.41	0.10
900	7150.00	0.16	922	3960.00	0.09	944	8100.00	0.19	966	7425.00	0.17	988	4000.00	0.09	1010	3504.86	0.08	1032	4980.00	0.11	1054	4325.62	0.10
901	7150.00	0.16	923	3960.00	0.09	945	8100.00	0.19	967	6226.16	0.14	989	4000.00	0.09	1011	3504.86	0.08	1033	4995.55	0.11	1055	4325.62	0.10
902	7150.00	0.16	924	3960.00	0.09	946	8100.00	0.19	968	5720.25	0.13	990	4000.00	0.09	1012	3504.86	0.08	1034	4980.00	0.11	1056	4325.62	0.10
903	7150.00	0.16	925	5068.24	0.12	947	8100.00	0.19	969	5720.25	0.13	991	4000.00	0.09	1013	3504.86	0.08	1035	5529.06	0.13	1057	4325.62	0.10
904	7150.00	0.16	926	6573.06	0.15	948	8100.00	0.19	970	5720.25	0.13	992	4000.00	0.09	1014	5075.16	0.12	1036	5619.82	0.13	1058	4325.62	0.10
905	7150.00	0.16	927	5200.00	0.12	949	8790.41	0.20	971	5720.25	0.13	993	4000.00	0.09	1015	4828.48	0.11	1037	4884.00	0.11	1059	4325.62	0.10
906	7150.00	0.16	928	5200.00	0.12	950	8876.25	0.20	972	6226.16	0.14	994	4728.54	0.11	1016	3120.00	0.07	1038	4884.00	0.11	1060	4039.29	0.09
907	7150.00	0.16	929	5200.00	0.12	951	8876.25	0.20	973	6075.00	0.14	995	5847.39	0.13	1017	3120.00	0.07	1039	4884.00	0.11	1061	6020.42	0.14
908	7150.00	0.16	930	5200.00	0.12	952	8790.41	0.20	974	5535.00	0.13	996	5103.00	0.12	1018	3120.00	0.07	1040	4884.00	0.11	1062	5741.00	0.13
909	7718.49	0.18	931	5200.46	0.12	953	8100.00	0.19	975	5535.00	0.13	997	5103.00	0.12	1019	3120.00	0.07	1041	4884.00	0.11	1063	5617.73	0.13
910	7506.19	0.17	932	5427.54	0.12	954	6750.00	0.15	976	5535.00	0.13	998	5103.00	0.12	1020	3120.00	0.07	1042	4884.00	0.11	1064	6058.95	0.14
911	6914.16	0.16	933	6662.27	0.15	955	6750.00	0.15	977	5535.00	0.13	999	5103.00	0.12	1021	3120.00	0.07	1043	4884.00	0.11			
912	4844.36	0.11	934	6391.07	0.15	956	6750.00	0.15	978	5535.00	0.13	1000	7322.74	0.17	1022	3120.00	0.07	1044	4884.00	0.11			
913	6143.19	0.14	935	5746.71	0.13	957	6750.00	0.15	979	5535.00	0.13	1001	4615.81	0.11	1023	5780.54	0.13	1045	4884.00	0.11			
914	6143.19	0.14	936	5521.80	0.13	958	6750.00	0.15	980	7079.31	0.16	1002	3410.27	0.08	1024	4908.18	0.11	1046	4893.78	0.11			
915	6143.19	0.14	937	5845.75	0.13	959	6750.00	0.15	981	6939.41	0.16	1003	3475.27	0.08	1025	3120.00	0.07	1047	5434.16	0.12			
916	6143.19	0.14	938	6164.29	0.14	960	7843.39	0.18	982	4581.17	0.11	1004	3504.86	0.08	1026	3120.00	0.07	1048	4891.69	0.11			
917	5594.28	0.13	939	8896.74	0.20	961	6833.16	0.16	983	4036.05	0.09	1005	3504.86	0.08	1027	3120.00	0.07	1049	3840.00	0.09			
918	3960.00	0.09	940	8897.29	0.20	962	6833.16	0.16	984	4104.79	0.09	1006	3504.86	0.08	1028	3120.00	0.07	1050	3840.00	0.09			
919	3960.00	0.09	941	8525.47	0.20	963	6833.16	0.16	985	4237.73	0.10	1007	3504.86	0.08	1029	3120.00	0.07	1051	4172.18	0.10			

- SITE GENERAL NOTES:**
- ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER IF ANY DISCREPANCIES EXIST PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR PAID TO THE CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
 - REFER TO THE FOLLOWING MCKIM & CREED, INC. CONSTRUCTION PLANS, AND ALL SUBSEQUENT CONSTRUCTION BULLETINS FOR INFORMATION ON EXISTING SITE INFRASTRUCTURE:
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 - A PORTION OF THIS PROPERTY IS LOCATED IN SPECIAL FLOOD HAZARD AREA "AE" AS SHOWN ON FEMA FIRM MAP #3710976500J DATED FEBRUARY 2, 2007.
 - ALL PROPOSED ROADWAY DIMENSIONS AS SHOWN ARE MEASURED FROM BACK OF CURB TO BACK OF CURB, ALL PROPOSED ALLEY DIMENSIONS AS SHOWN ARE MEASURED FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT, UNLESS NOTED OTHERWISE.
 - BEFORE STARTING ANY CONSTRUCTION OF IMPROVEMENTS WITHIN ANY NCDOT STREET OR HIGHWAY RIGHT-OF-WAY, CONTACT NCDOT DISTRICT OFFICE AND OBTAIN ALL PERMITS AND ENCROACHMENTS. KEEP COPIES ON CONSTRUCTION SITE. ALSO CONTACT NCDOT DISTRICT OFFICE 24 HOURS IN ADVANCE BEFORE PLACING CURB AND GUTTER AT 336-629-1423.
 - REFER TO PLAN AND PROFILE SHEETS FOR DETAILED SANITARY SEWER AND STORM DRAINAGE INFORMATION WITHIN PUBLIC ROADS AND PRIVATE ALLEYS.

- CHATHAM COUNTY REQUIRED SITE NOTES**
- PROPERTY OWNER/DEVELOPER:
NMP BRIAR CHAPEL, LLC
16 WINDY KNOLL CIRCLE
CHAPEL HILL, NC 27516
PHONE: (919) 951-0700
 - SITE AKPAR #: 82826



REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
2	ISSUED FOR PERMITTING	01/23/2013
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BRIAR CHAPEL™
by **Newland COMMUNITIES**

**BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA**

SITE PLAN

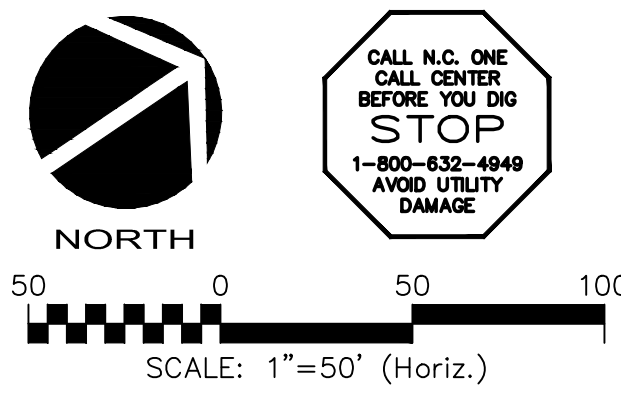
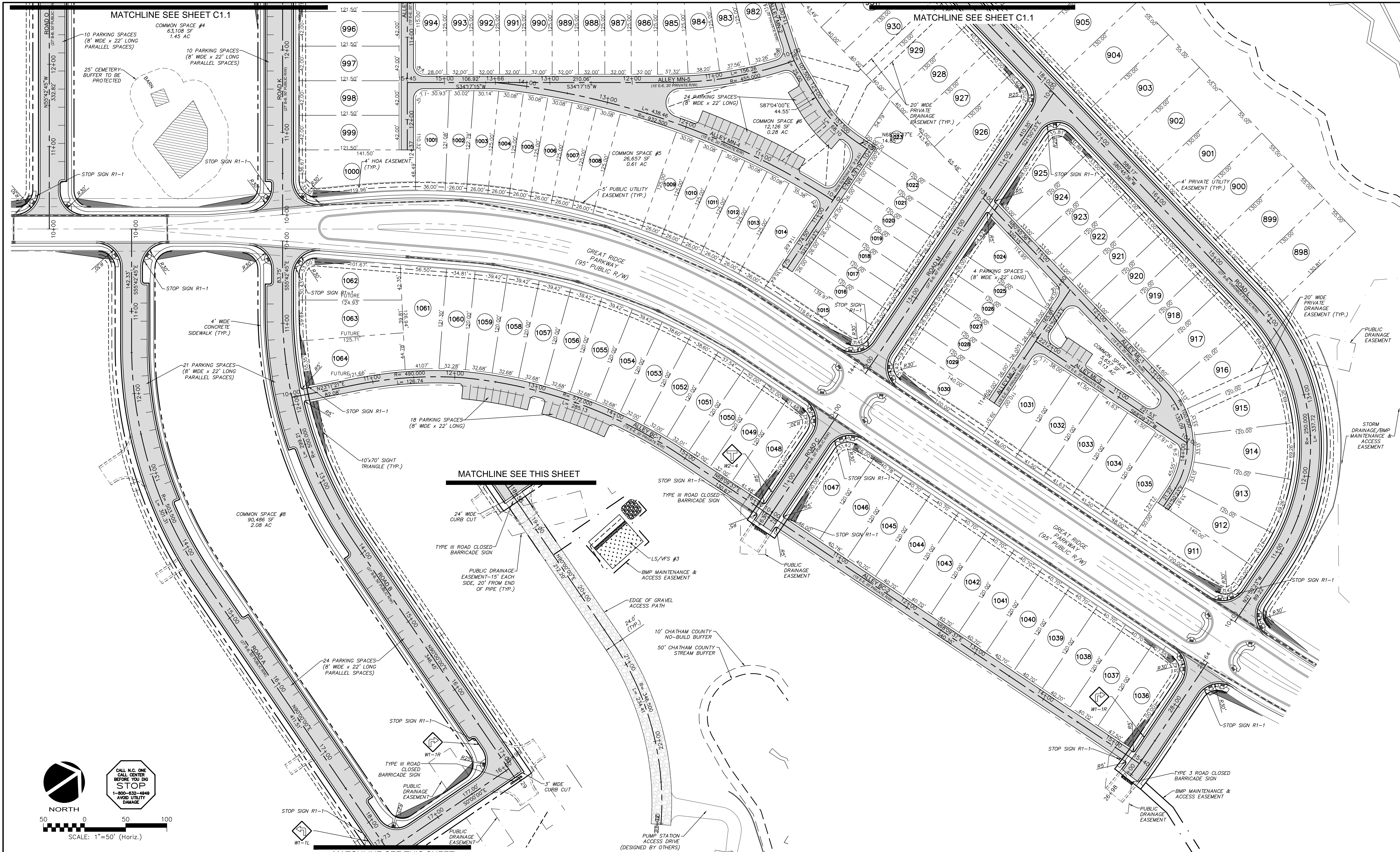
DATE: JANUARY 18, 2013
MCE PROJ. #: 02735-0090
DRAWN: GCA
DESIGNED: GCA
CHECKED: CHS
PROJ. MGR.: CHS

SCALE: HORIZONTAL: 1" = 50'
VERTICAL: N/A

STATUS: FINAL DRAWINGS
NOT RELEASED FOR CONSTRUCTION

REVISION: 4

MFC FILE NUMBER: CR101
DRAWING NUMBER: C1.1



CALL N.C. ONE
CALL CENTER
BEFORE YOU DIG
STOP
1-800-832-4649
AVOID UTILITY
DAMAGE

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
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2	ISSUED FOR PERMITTING	01/23/2013
1	FOR REVIEW BY CLIENT	01/10/2013

SEAL

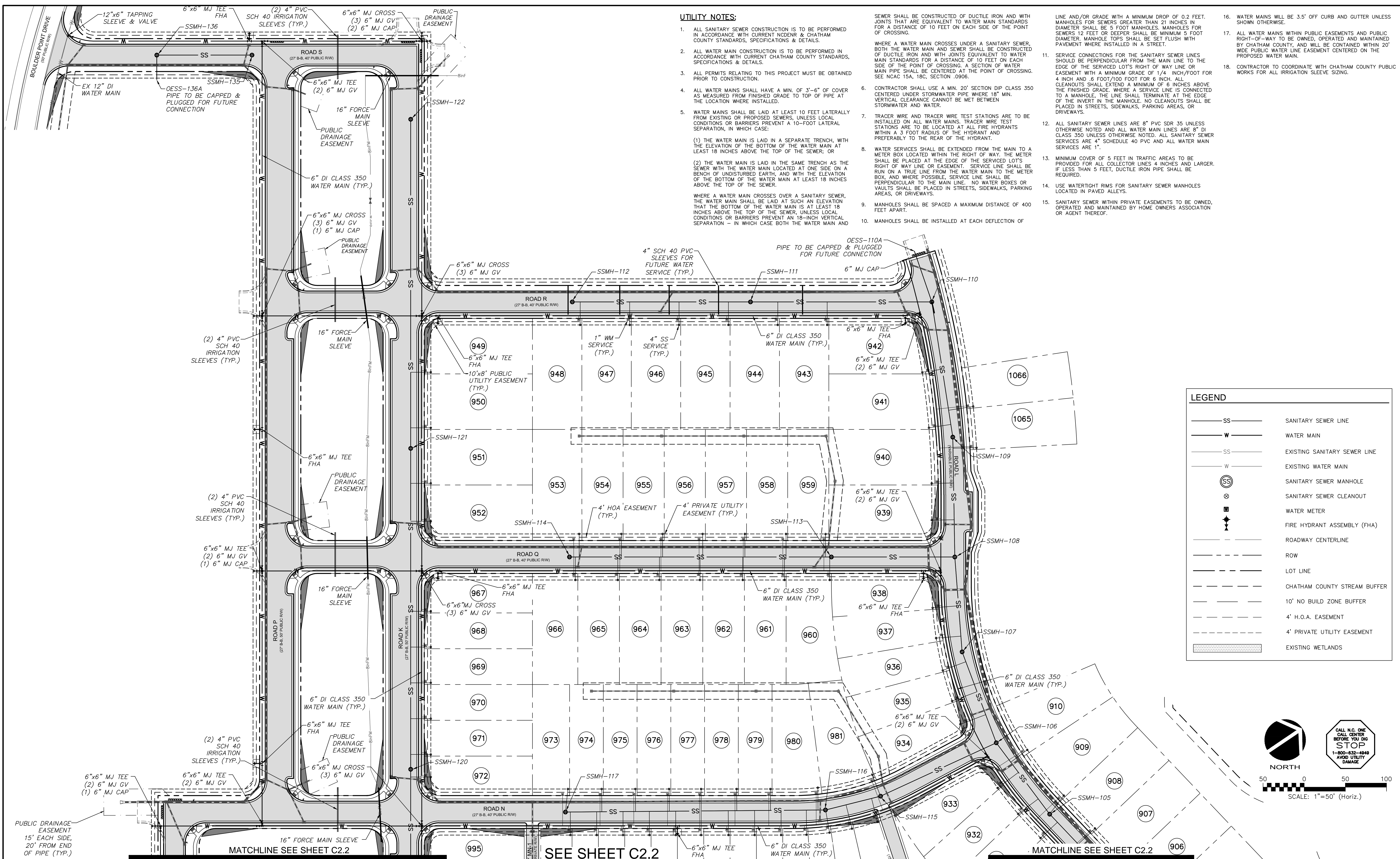
MCKIM & CREED
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Raleigh, North Carolina 27606
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BRIAR CHAPEL™
by
Newland COMMUNITIES

**BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA**

SITE PLAN

DATE: JANUARY 18, 2013	SCALE: HORIZONTAL: 1" = 50'	M&C FILE NUMBER: CR101
M&C PROJ. # 02735-0090	VERTICAL: N/A	DRAWING NUMBER: C1.2
DRAWN: GCA		
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR: CHS		
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION	REVISION: 4	



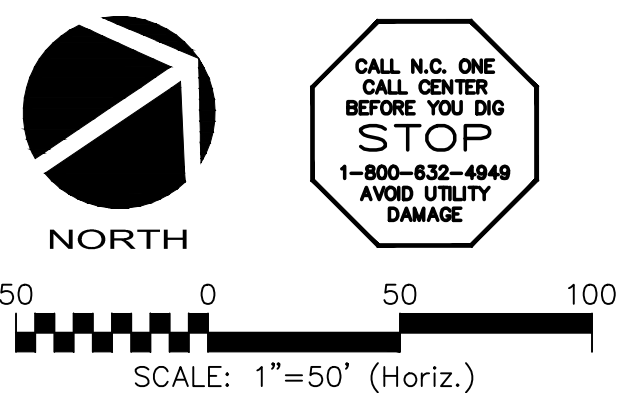
UTILITY NOTES:

- ALL SANITARY SEWER CONSTRUCTION IS TO BE PERFORMED IN ACCORDANCE WITH CURRENT NCDENR & CHATHAM COUNTY STANDARDS, SPECIFICATIONS & DETAILS.
 - ALL WATER MAIN CONSTRUCTION IS TO BE PERFORMED IN ACCORDANCE WITH CURRENT CHATHAM COUNTY STANDARDS, SPECIFICATIONS & DETAILS.
 - ALL PERMITS RELATING TO THIS PROJECT MUST BE OBTAINED PRIOR TO CONSTRUCTION.
 - ALL WATER MAINS SHALL HAVE A MIN. OF 3'-6" OF COVER AS MEASURED FROM FINISHED GRADE TO TOP OF PIPE AT THE LOCATION WHERE INSTALLED.
 - WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWERS, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10'-FOOT LATERAL SEPARATION, IN WHICH CASE:
 - THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER; OR
 - THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
- WHERE A WATER MAIN CROSSES OVER A SANITARY SEWER, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18-INCH VERTICAL SEPARATION - IN WHICH CASE BOTH THE WATER MAIN AND
- SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
 - WHERE A WATER MAIN CROSSES UNDER A SANITARY SEWER, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING. SEE NCAC 15A, 18C, SECTION 0906.
 - CONTRACTOR SHALL USE A MIN. 20' SECTION DIP CLASS 350 CENTERED UNDER STORMWATER PIPE WHERE 18" MIN. VERTICAL CLEARANCE CANNOT BE MET BETWEEN STORMWATER AND WATER.
 - TRACER WIRE AND TRACER WIRE TEST STATIONS ARE TO BE INSTALLED ON ALL WATER MAINS. TRACER WIRE TEST STATIONS ARE TO BE LOCATED AT ALL FIRE HYDRANTS WITHIN A 3 FOOT RADIUS OF THE HYDRANT AND PREFERABLY TO THE REAR OF THE HYDRANT.
 - WATER SERVICES SHALL BE EXTENDED FROM THE MAIN TO A METER BOX LOCATED WITHIN THE RIGHT OF WAY. THE METER SHALL BE PLACED AT THE EDGE OF THE SERVICED LOT'S RIGHT OF WAY LINE OR EASEMENT. SERVICE LINE SHALL BE RUN ON A TRUE LINE FROM THE WATER MAIN TO THE METER BOX, AND WHERE POSSIBLE, SERVICE LINE SHALL BE PERPENDICULAR TO THE MAIN LINE. NO WATER BOXES OR VAULTS SHALL BE PLACED IN STREETS, SIDEWALKS, PARKING AREAS, OR DRIVEWAYS.
 - MANHOLES SHALL BE SPACED A MAXIMUM DISTANCE OF 400 FEET APART.
 - MANHOLES SHALL BE INSTALLED AT EACH DEFLECTION OF

- LINE AND/OR GRADE WITH A MINIMUM DROP OF 0.2 FEET. MANHOLES FOR SEWERS GREATER THAN 21 INCHES IN DIAMETER SHALL BE 5 FOOT MANHOLES. MANHOLES FOR SEWERS 12 FEET OR DEEPER SHALL BE MINIMUM 5 FOOT DIAMETER. MANHOLE TOPS SHALL BE SET FLUSH WITH PAVEMENT WHERE INSTALLED IN A STREET.
- SERVICE CONNECTIONS FOR THE SANITARY SEWER LINES SHOULD BE PERPENDICULAR FROM THE MAIN LINE TO THE EDGE OF THE SERVICED LOT'S RIGHT OF WAY LINE OR EASEMENT WITH A MINIMUM GRADE OF 1/4" INCH/FOOT FOR 4 INCH AND .6 FOOT/100 FOOT FOR 6 INCH. ALL CLEANOUTS SHALL EXTEND A MINIMUM OF 6 INCHES ABOVE THE FINISHED GRADE. WHERE A SERVICE LINE IS CONNECTED TO A MANHOLE, THE LINE SHALL TERMINATE AT THE EDGE OF THE INVERT IN THE MANHOLE. NO CLEANOUTS SHALL BE PLACED IN STREETS, SIDEWALKS, PARKING AREAS, OR DRIVEWAYS.
- ALL SANITARY SEWER LINES ARE 8" PVC SDR 35 UNLESS OTHERWISE NOTED AND ALL WATER MAIN LINES ARE 8" DI CLASS 350 UNLESS OTHERWISE NOTED. ALL SANITARY SEWER SERVICES ARE 4" SCHEDULE 40 PVC AND ALL WATER MAIN SERVICES ARE 1".
- MINIMUM COVER OF 5 FEET IN TRAFFIC AREAS TO BE PROVIDED FOR ALL COLLECTOR LINES 4 INCHES AND LARGER. IF LESS THAN 5 FEET, DUCTILE IRON PIPE SHALL BE REQUIRED.
- USE WATERTIGHT RIMS FOR SANITARY SEWER MANHOLES LOCATED IN PAVED ALLEYS.
- SANITARY SEWER WITHIN PRIVATE EASEMENTS TO BE OWNED, OPERATED AND MAINTAINED BY HOME OWNERS ASSOCIATION OR AGENT THEREOF.
- WATER MAINS WILL BE 3.5' OFF CURB AND GUTTER UNLESS SHOWN OTHERWISE.
- ALL WATER MAINS WITHIN PUBLIC EASEMENTS AND PUBLIC RIGHT-OF-WAY TO BE OWNED, OPERATED AND MAINTAINED BY CHATHAM COUNTY, AND WILL BE CONTAINED WITHIN 20' WIDE PUBLIC WATER LINE EASEMENT CENTERED ON THE PROPOSED WATER MAIN.
- CONTRACTOR TO COORDINATE WITH CHATHAM COUNTY PUBLIC WORKS FOR ALL IRRIGATION SLEEVE SIZING.

LEGEND

SS	SANITARY SEWER LINE
W	WATER MAIN
SS	EXISTING SANITARY SEWER LINE
W	EXISTING WATER MAIN
⊗	SANITARY SEWER MANHOLE
⊗	SANITARY SEWER CLEANOUT
⊕	WATER METER
⊕	FIRE HYDRANT ASSEMBLY (FHA)
---	ROADWAY CENTERLINE
---	ROW
---	LOT LINE
---	CHATHAM COUNTY STREAM BUFFER
---	10' NO BUILD ZONE BUFFER
---	4' H.O.A. EASEMENT
---	4' PRIVATE UTILITY EASEMENT
---	EXISTING WETLANDS



REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
2	ISSUED FOR PERMITTING	01/23/2013
1	FOR REVIEW BY CLIENT	01/10/2013

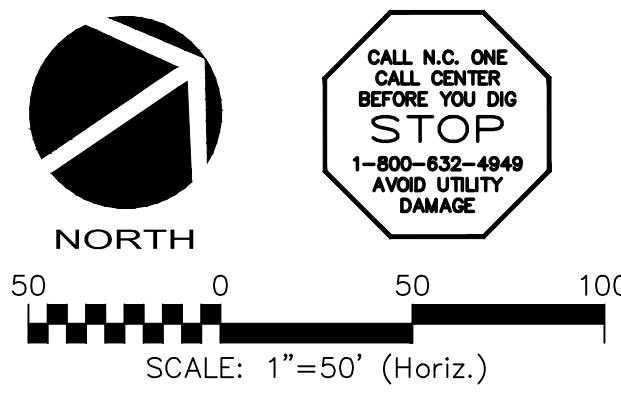
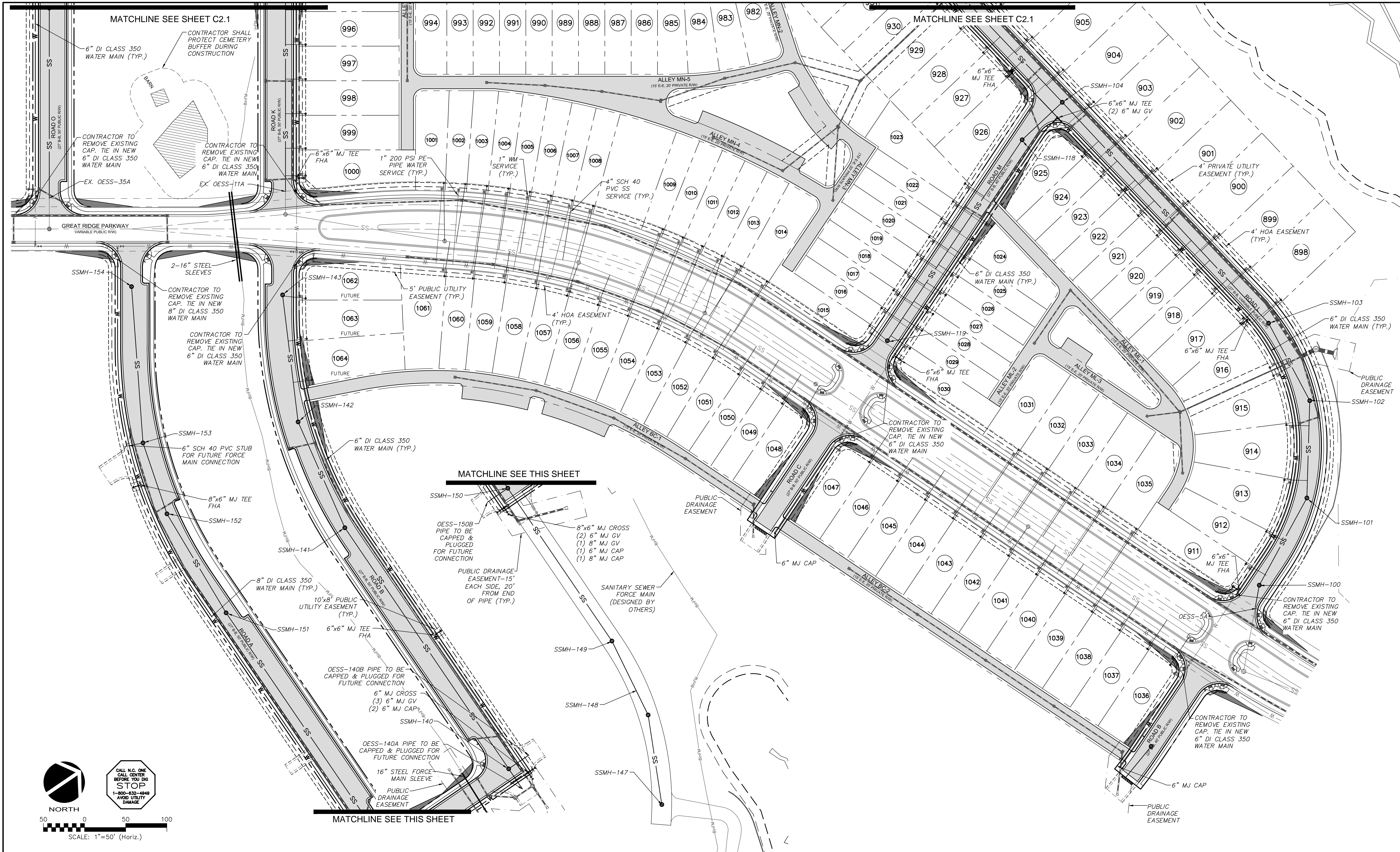
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**BRIAR CHAPEL
 PHASE 7
 CHATHAM COUNTY, NORTH CAROLINA**
UTILITY PLAN

DATE: JANUARY 18, 2013	SCALE: HORIZONTAL: 1" = 50'	M&C FILE NUMBER: C2.X
M&C PROJ. #: 02735-0090	VERTICAL: N/A	DRAWING NUMBER: C2.1
DRAWN: GCA		
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION	REVISION: 4	



CALL N.C. ONE
CALL CENTER
BEFORE YOU DIG
STOP
1-800-832-4649
AVOID UTILITY
DAMAGE

REV. NO.	DESCRIPTIONS	DATE
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SEAL	SEAL

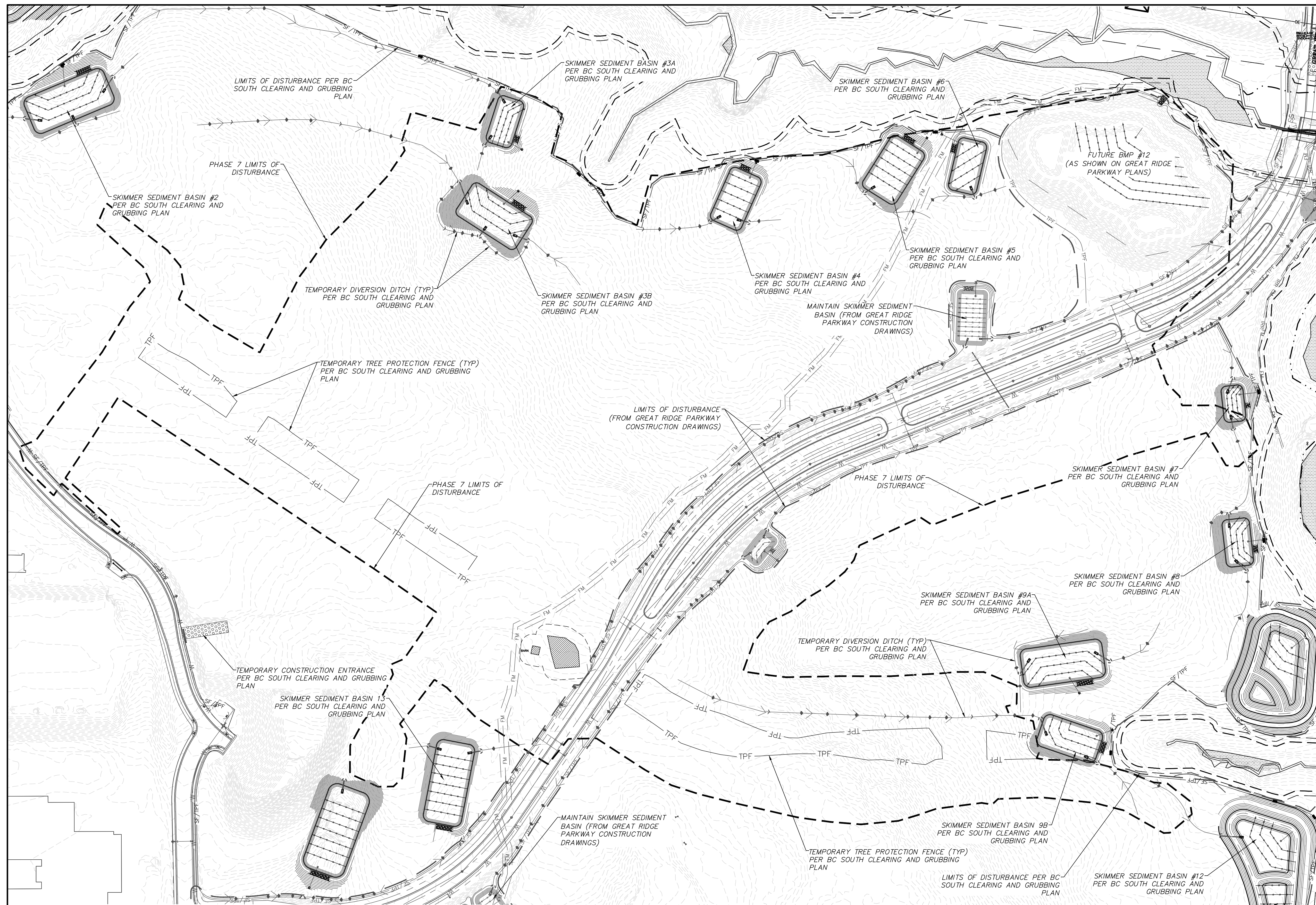
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**BRIAR CHAPEL
 PHASE 7
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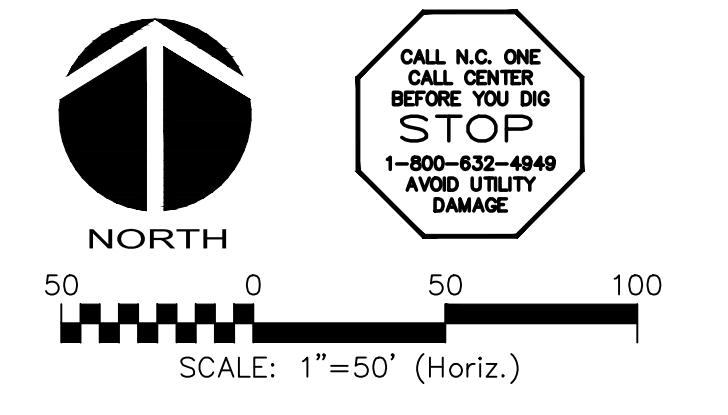
UTILITY PLAN

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PLAN FOR REFERENCE ONLY

- LEGEND:**
- TEMPORARY CONSTRUCTION ENTRANCE
 - RIPRAP OUTLET PROTECTION
 - COMBINATION SILT/TREE PROTECTION FENCE
 - TREE PROTECTION FENCE
 - TEMPORARY DIVERSION DITCH
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - EX. LIMITS OF DISTURBANCE
 - LIMITS OF DISTURBANCE
 - SEDIMENT BASIN BAFFLE
 - CHECK DAM



REV. NO.	DESCRIPTION	DATE
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1	FOR REVIEW BY CLIENT	01/16/2013

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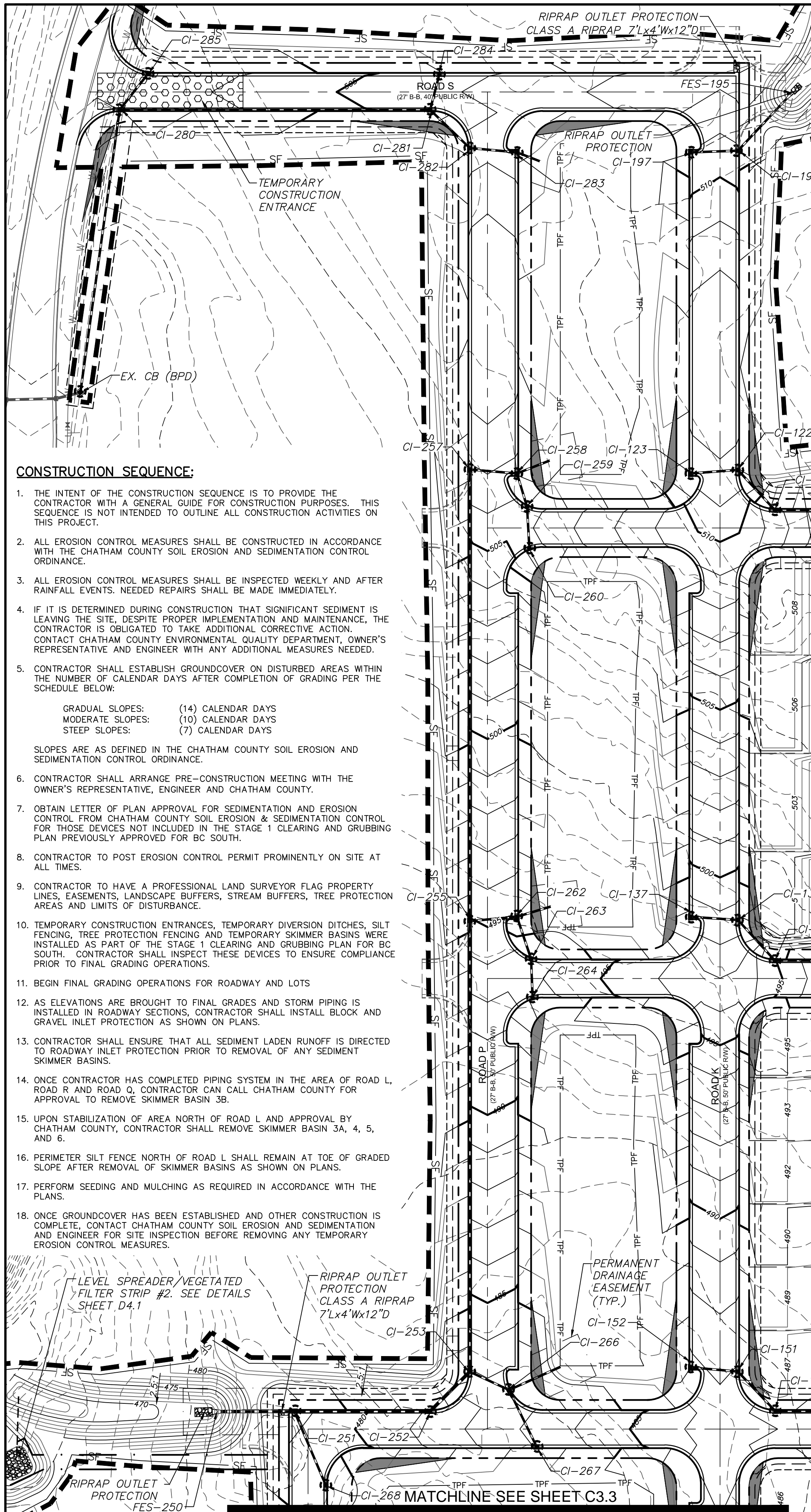
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**BRIAR CHAPEL
 PHASE 7
 CHATHAM COUNTY, NORTH CAROLINA**

**GRADING, DRAINAGE &
 EROSION CONTROL PLAN**

DATE: JANUARY 18, 2013	SCALE: HORIZONTAL: 1" = 50'	VERTICAL: N/A	PLC FILE NUMBER: C3.1
MCE PROJ. # 02735-0090	DRAWN: GCA	DESIGNED: GCA	CHECKED: CHS
PROJ. MGR: CHS	STATUS: FINAL DRAWINGS		REVISION: 4
NOT RELEASED FOR CONSTRUCTION			



GENERAL NOTES:

- ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER IF ANY DISCREPANCIES EXIST PRIOR TO CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE PAID TO CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- CONTRACTOR SHALL NOTIFY "NORTH CAROLINA ONE CALL AT 1-800-632-4949 AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR TO CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NORTH CAROLINA ONE CALL".
- OVERHEAD ELECTRIC LINES MAY EXIST ON THE SITE. CONTRACTOR SHALL CONTACT DUKE POWER AT (336) 634-4633 PRIOR TO COMMENCING ANY ACTIVITY WITHIN 200'-FT OF DUKE POWER RIGHT OF WAY.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL ARRANGE AND ATTEND A PRECONSTRUCTION CONFERENCE WITH CHATHAM COUNTY, OWNER AND ENGINEER.
- EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON BEST AVAILABLE RECORD DRAWINGS.
- SOIL UNDER BUILDINGS, PAVED AREAS AND WITHIN SLOPES GREATER THAN 3:1 (H:V) SHALL BE APPROVED, PLACED AND COMPACTED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. THESE SOILS SHALL BE COMPACTED TO THE STANDARD PROCTOR MAXIMUM DRY DENSITY UNLESS OTHERWISE RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- ALL GRADED AREAS SHALL BE SLOPED SUCH THAT NO AREAS OF STANDING WATER OCCUR AND ALL AREAS POSITIVELY DRAIN TO DRAINAGE STRUCTURES, SWALES OR STORMWATER MANAGEMENT FACILITIES.
- CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS AND SHALL REPLACE ALL MARKERS REMOVED IF DAMAGED DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING AS NECESSARY THROUGHOUT CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL PERMIT CONDITIONS, MONITORING AND REPORTING REQUIREMENTS.
- REFER TO SHEET D-2.2 FOR PROPOSED ROAD CROSS SECTION DETAILS AND PAVEMENT SCHEDULE.
- ALLEYS ARE LOCATED INSIDE 20' PRIVATE EASEMENTS. ALL OTHER STREETS WITHIN PHASE 7 ARE INSIDE 40' OR 50' PUBLIC RIGHT-OF-WAYS.
- GRADED SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH CURLEX SINGLE NET (CURLEX I) MATTING BY AMERICAN EXCELSIOR COMPANY OR APPROVED EQUAL.
- STREAM AND WETLAND LOCATIONS ARE BASED ON DELINEATIONS PROVIDED BY SOIL AND ENVIRONMENTAL CONSULTANTS IN RALEIGH, NC - CONTACT SEAN CLARK AT 919-846-5900.
- A PORTION OF THIS PROPERTY IS LOCATED IN SPECIAL FLOOD HAZARD AREA "AE" AS SHOWN ON FEMA FIRM MAP #3710976500J DATED FEBRUARY 2, 2007.
 - BRIAR CHAPEL PARKWAY AND BOULDER POINT DRIVE EXTENSION SEALED JANUARY 1, 2012
 - GREAT RIDGE PARKWAY PLANS SEALED DECEMBER 19, 2012
 - BC SOUTH CLEARING & GRUBBING PLANS SEALED JANUARY 16, 2013
- BEFORE STARTING ANY CONSTRUCTION OF IMPROVEMENTS WITHIN ANY NCDOT STREET OR HIGHWAY RIGHT-OF-WAY, CONTACT NCDOT DISTRICT OFFICE AND OBTAIN ALL PERMITS AND ENCROACHMENTS AND KEEP COPIES ON CONSTRUCTION SITE AT ALL TIMES. ALSO CONTACT NCDOT DISTRICT OFFICE 24 HOURS IN ADVANCE BEFORE PLACING CURB AND GUTTER AT (336) 629-1423.

LIMITS OF DISTURBANCE NOTES:

- SILT FENCE AND TREE PROTECTION FENCE LINES ALSO DELINEATE THE LIMITS OF DISTURBANCE. ALL SILT FENCING OR TREE PROTECTION FENCING SHALL BE INSTALLED INSIDE LIMITS OF DISTURBANCE.
- TOTAL PROJECT AREA: 53.54 ACRES

SELF INSPECTION NOTICE:

NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM:
 THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TOOK EFFECT OCTOBER 1, 2010. THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE WEEKLY SELF-MONITORING PROGRAM OF THE NCDOT'S STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN. THE INSPECTIONS MUST BE CONDUCTED AFTER EACH PHASE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCS 113A-54.1 AND 15A NCA 48.0131. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FROM [HTTP://WWW.DLR.NC.GOV/FILES/SEDIMENTATION_NEW.HTML](http://www.dlr.nc.gov/FILES/SEDIMENTATION_NEW.HTML). IF YOU HAVE QUESTIONS OR CANNOT ACCESS THE FORM, PLEASE CONTACT THIS OFFICE AT (919) 791-4200.

STORM DRAINAGE NOTES:

- STORM DRAINAGE PIPES SHALL BE:
 - RCP/CLASS III FOR STORM DRAINAGE INSIDE PUBLIC RIGHT-OF-WAY OR CONNECTING INTO STRUCTURE INSIDE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH NCDOT STANDARDS.
 - A-2000 PVC FOR PRIVATE STORM LINES WITHIN PRIVATE ALLEYS. ALL STORM DRAINAGE CONSTRUCTION FOR A-2000 PVC SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURER'S SPECIFICATIONS. PIPE JOINTS SHALL BE WATER-TIGHT PER ASTM D3212. PIPE AND FITTINGS SHALL BE INSTALLED PER AASHTO SECTION 30 AND AASHTO SECTION 12.
- ALL CONCRETE SHALL MEET A MINIMUM 3,000 PSI COMPRESSIVE STRENGTH.
- ALL PIPE IN STORM DRAIN STRUCTURES SHALL BE STRUCK EVEN WITH INSIDE WALL.
- THE INTERIOR SURFACES OF ALL STORM DRAINAGE STRUCTURES SHALL BE POINTED UP AND SMOOTHED TO AN ACCEPTABLE STANDARD USING MORTAR MIXED TO MANUFACTURER'S SPECIFICATIONS.
- ALL BACKFILL SHALL BE NON-PLASTIC IN NATURE, FREE FROM ROOTS, VEGETATION, WASTE CONSTRUCTION MATERIAL OR OTHER OBJECTIONABLE MATERIAL. UTILIZED MATERIAL SHALL BE CAPABLE OF BEING COMPACTED BY MECHANICAL MEANS AND SHALL HAVE NO TENDENCY TO FLOW OR BEHAVE IN A PLASTIC MANNER UNDER THE DAMPED BLOWS OR PROOF ROLLING.
- MATERIALS DEEMED AS UNSUITABLE FOR BACKFILL PURPOSES BY THE OWNER'S REPRESENTATIVE SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL.
- BACKFILLING OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PIPE IS Laid. THE FILL AREA TO BE BACKFILLED SHALL BE THOROUGHLY COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY OBTAINABLE WITH THE STANDARD PROCTOR TEST. THE TOP EIGHT (8) INCHES SHALL BE COMPACTED TO 100% STANDARD PROCTOR.
- UNDER NO CIRCUMSTANCES SHALL WATER BE ALLOWED TO RISE IN UNBACKFILLED TRENCHES AFTER PIPE HAS BEEN PLACED.
- ALL FLARED END SECTIONS DISCHARGING INTO WATER QUALITY PONDS WILL HAVE A CONCRETE PAD POURED UNDERNEATH THE FLARED END SECTION IN ACCORDANCE WITH PROVIDED CONSTRUCTION DETAILS.
- RIM ELEVATIONS OF STORM DRAIN STRUCTURES SHALL BE FIELD VERIFIED.
- RIM ELEVATIONS FOR GRATE INLETS WITHIN ALLEYS SHALL MATCH INITIAL LIFT OF BINDER COURSE. AT TIME OF FINAL SURFACE LIFT OF ASPHALT, CONTRACTOR SHALL RAISE GRATE INLET TOPS TO MATCH FLUSH WITH FINAL SURFACE PAVEMENT ELEVATION.
- STORM DRAINAGE WITHIN PRIVATE EASEMENTS TO BE OWNED, OPERATED AND MAINTAINED BY HOME OWNER'S ASSOCIATION OR AGENT THEREOF.
- LENGTHS SHOWN FOR STORM DRAINAGE PIPES ARE MEASURED FROM CENTER OF STORM STRUCTURES AND TO ENDS OF FLARED END SECTIONS. SLOPES CALCULATED ARE BASED ON THIS LENGTH.
- CB DENOTES CATCH BASINS TO BE INSTALLED IN THE CENTERS OF PAVED ALLEYS AND NON-PAVED AREAS. REFER TO NCDOT DETAILS 840.19 AND 840.24 ON SHEET D-2.2.
- CI DENOTES CURB INLETS TO BE INSTALLED IN THE CURB LINES OF ROADWAYS. REFER TO NCDOT DETAILS 840.02 AND 840.03 ON SHEET D-2.2.

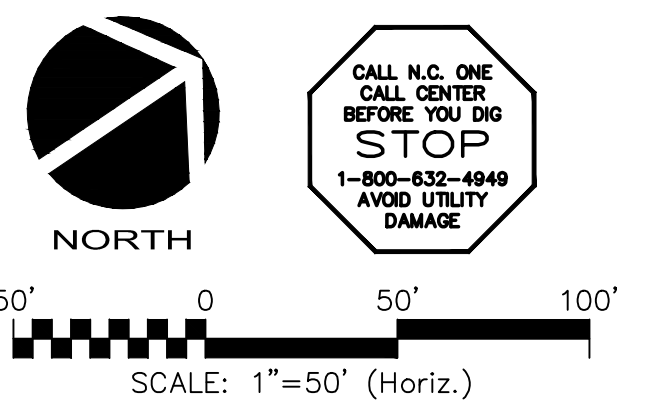
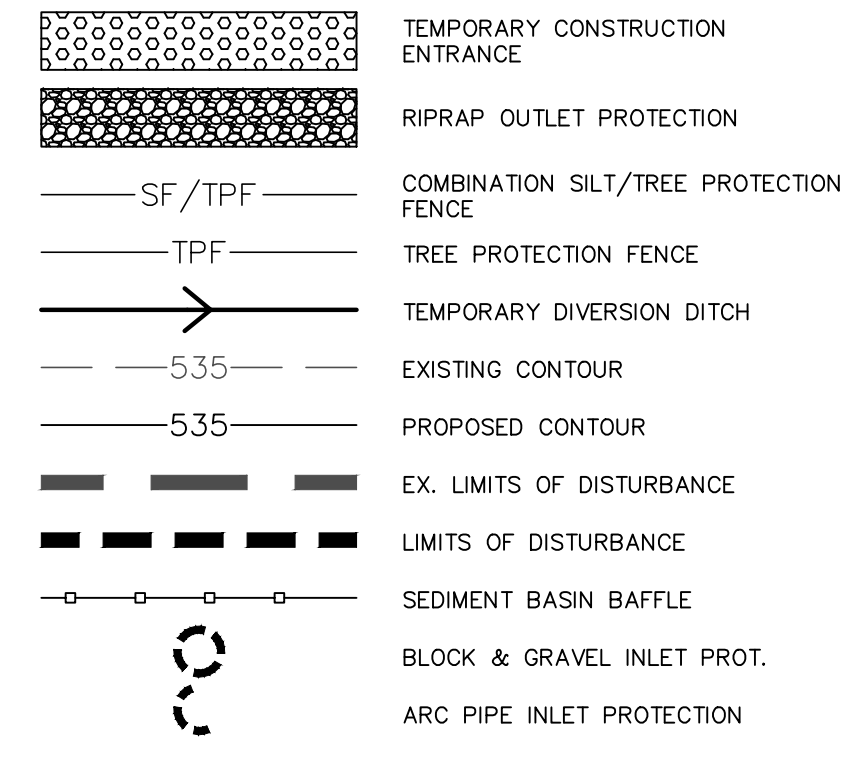
CONSTRUCTION SEQUENCE:

- THE INTENT OF THE CONSTRUCTION SEQUENCE IS TO PROVIDE THE CONTRACTOR WITH A GENERAL GUIDE FOR CONSTRUCTION PURPOSES. THIS SEQUENCE IS NOT INTENDED TO OUTLINE ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.
- ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER RAINFALL EVENTS. NEEDED REPAIRS SHALL BE MADE IMMEDIATELY.
- IF IT IS DETERMINED DURING CONSTRUCTION THAT SIGNIFICANT SEDIMENT IS LEAVING THE SITE, DESPITE PROPER IMPLEMENTATION AND MAINTENANCE, THE CONTRACTOR IS OBLIGATED TO TAKE ADDITIONAL CORRECTIVE ACTION. CONTACT CHATHAM COUNTY ENVIRONMENTAL QUALITY DEPARTMENT, OWNER'S REPRESENTATIVE AND ENGINEER WITH ANY ADDITIONAL MEASURES NEEDED.
- CONTRACTOR SHALL ESTABLISH GROUND COVER ON DISTURBED AREAS WITHIN THE NUMBER OF CALENDAR DAYS AFTER COMPLETION OF GRADING PER THE SCHEDULE BELOW:

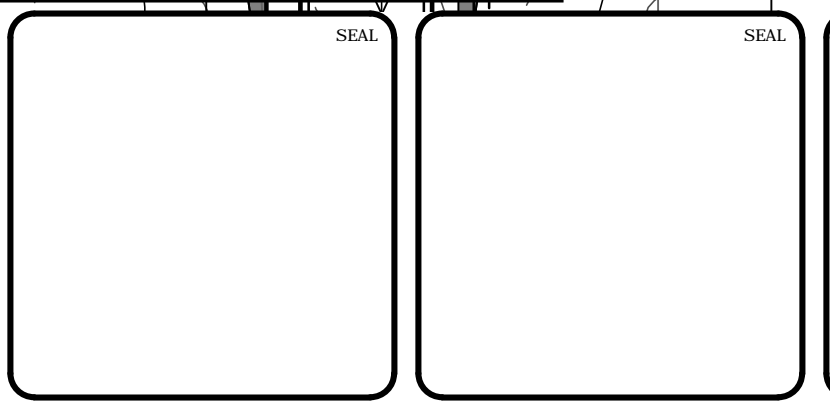
GRADUAL SLOPES:	(14) CALENDAR DAYS
MODERATE SLOPES:	(10) CALENDAR DAYS
STEEP SLOPES:	(7) CALENDAR DAYS

 SLOPES ARE AS DEFINED IN THE CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.
- CONTRACTOR SHALL ARRANGE PRE-CONSTRUCTION MEETING WITH THE OWNER'S REPRESENTATIVE, ENGINEER AND CHATHAM COUNTY.
- OBTAIN LETTER OF PLAN APPROVAL FOR SEDIMENTATION AND EROSION CONTROL FROM CHATHAM COUNTY SOIL EROSION & SEDIMENTATION CONTROL FOR THOSE DEVICES NOT INCLUDED IN THE STAGE 1 CLEARING AND GRUBBING PLAN PREVIOUSLY APPROVED FOR BC SOUTH.
- CONTRACTOR TO POST EROSION CONTROL PERMIT PROMINENTLY ON SITE AT ALL TIMES.
- CONTRACTOR TO HAVE A PROFESSIONAL LAND SURVEYOR FLAG PROPERTY LINES, EASEMENTS, LANDSCAPE BUFFERS, STREAM BUFFERS, TREE PROTECTION AREAS AND LIMITS OF DISTURBANCE.
- TEMPORARY CONSTRUCTION ENTRANCES, TEMPORARY DIVERSION DITCHES, SILT FENCING, TREE PROTECTION FENCING AND TEMPORARY SKIMMER BASINS WERE INSTALLED AS PART OF THE STAGE 1 CLEARING AND GRUBBING PLAN FOR BC SOUTH. CONTRACTOR SHALL INSPECT THESE DEVICES TO ENSURE COMPLIANCE PRIOR TO FINAL GRADING OPERATIONS.
- BEGIN FINAL GRADING OPERATIONS FOR ROADWAY AND LOTS
- AS ELEVATIONS ARE BROUGHT TO FINAL GRADES AND STORM PIPING IS INSTALLED IN ROADWAY SECTIONS, CONTRACTOR SHALL INSTALL BLOCK AND GRAVEL INLET PROTECTION AS SHOWN ON PLANS.
- CONTRACTOR SHALL ENSURE THAT ALL SEDIMENT LADEN RUNOFF IS DIRECTED TO ROADWAY INLET PROTECTION PRIOR TO REMOVAL OF ANY SEDIMENT SKIMMER BASINS.
- ONCE CONTRACTOR HAS COMPLETED PIPING SYSTEM IN THE AREA OF ROAD L, ROAD R AND ROAD Q, CONTRACTOR CAN CALL CHATHAM COUNTY FOR APPROVAL TO REMOVE SKIMMER BASIN 3B.
- UPON STABILIZATION OF AREA NORTH OF ROAD L AND APPROVAL BY CHATHAM COUNTY, CONTRACTOR SHALL REMOVE SKIMMER BASIN 3A, 4, 5, AND 6.
- PERIMETER SILT FENCE NORTH OF ROAD L SHALL REMAIN AT TOE OF GRADED SLOPE AFTER REMOVAL OF SKIMMER BASINS AS SHOWN ON PLANS.
- PERFORM SEEDING AND MULCHING AS REQUIRED IN ACCORDANCE WITH THE PLANS.
- ONCE GROUND COVER HAS BEEN ESTABLISHED AND OTHER CONSTRUCTION IS COMPLETE, CONTACT CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION AND ENGINEER FOR SITE INSPECTION BEFORE REMOVING ANY TEMPORARY EROSION CONTROL MEASURES.

LEGEND:



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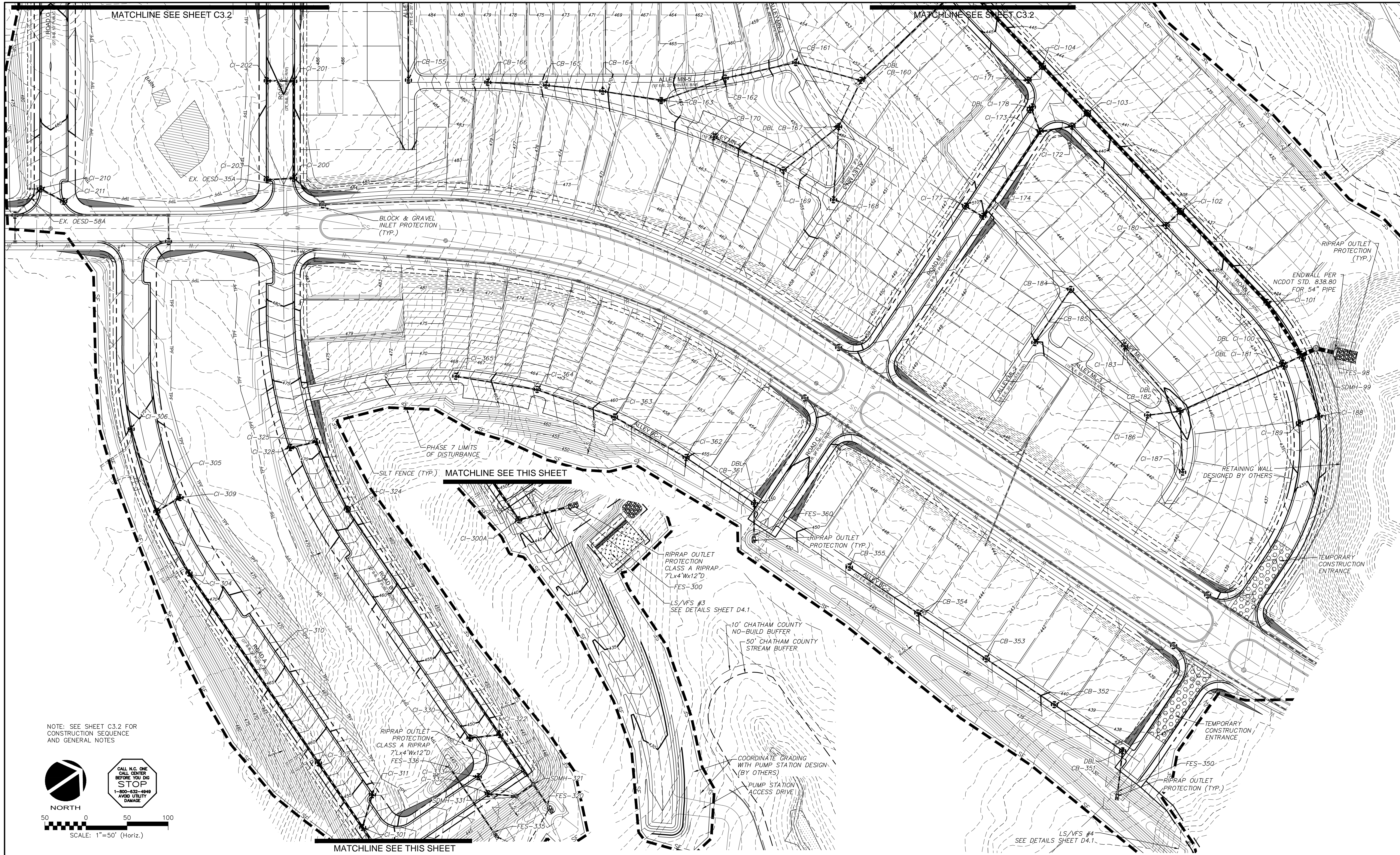


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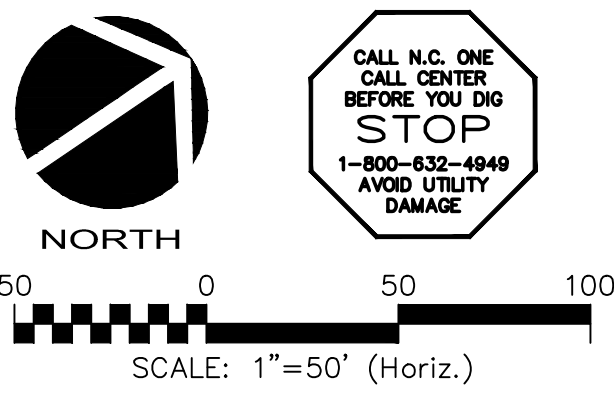
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**BRIAR CHAPEL
 PHASE 7
 CHATHAM COUNTY, NORTH CAROLINA**
**GRADING, DRAINAGE &
 EROSION CONTROL PLAN**

DATE: JANUARY 18, 2013	SCALE: HORIZONTAL: 1" = 50'	MFC FILE NUMBER: C3.X
MCE PROJ. #: 02735-0090	VERTICAL: N/A	DRAWING NUMBER: C3.2
DRAWN: GCA		
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION	REVISION: 4	



NOTE: SEE SHEET C3.2 FOR CONSTRUCTION SEQUENCE AND GENERAL NOTES



CALL N.C. ONE
BEFORE YOU DIG
STOP
1-800-832-4649
AVOID UTILITY DAMAGE

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
2	ISSUED FOR PERMITTING	01/23/2013
1	FOR REVIEW BY CLIENT	01/10/2013

SEAL	SEAL

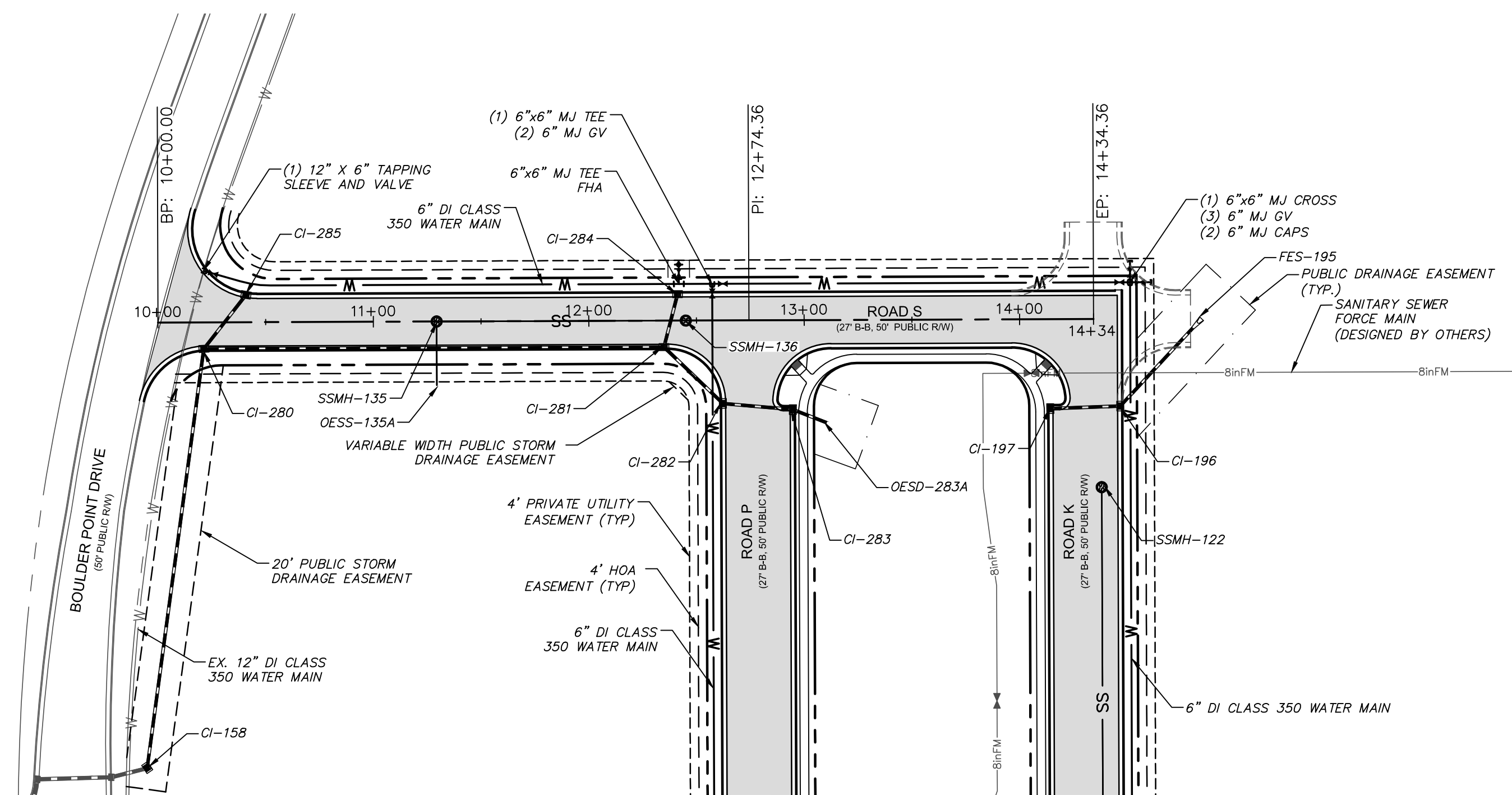
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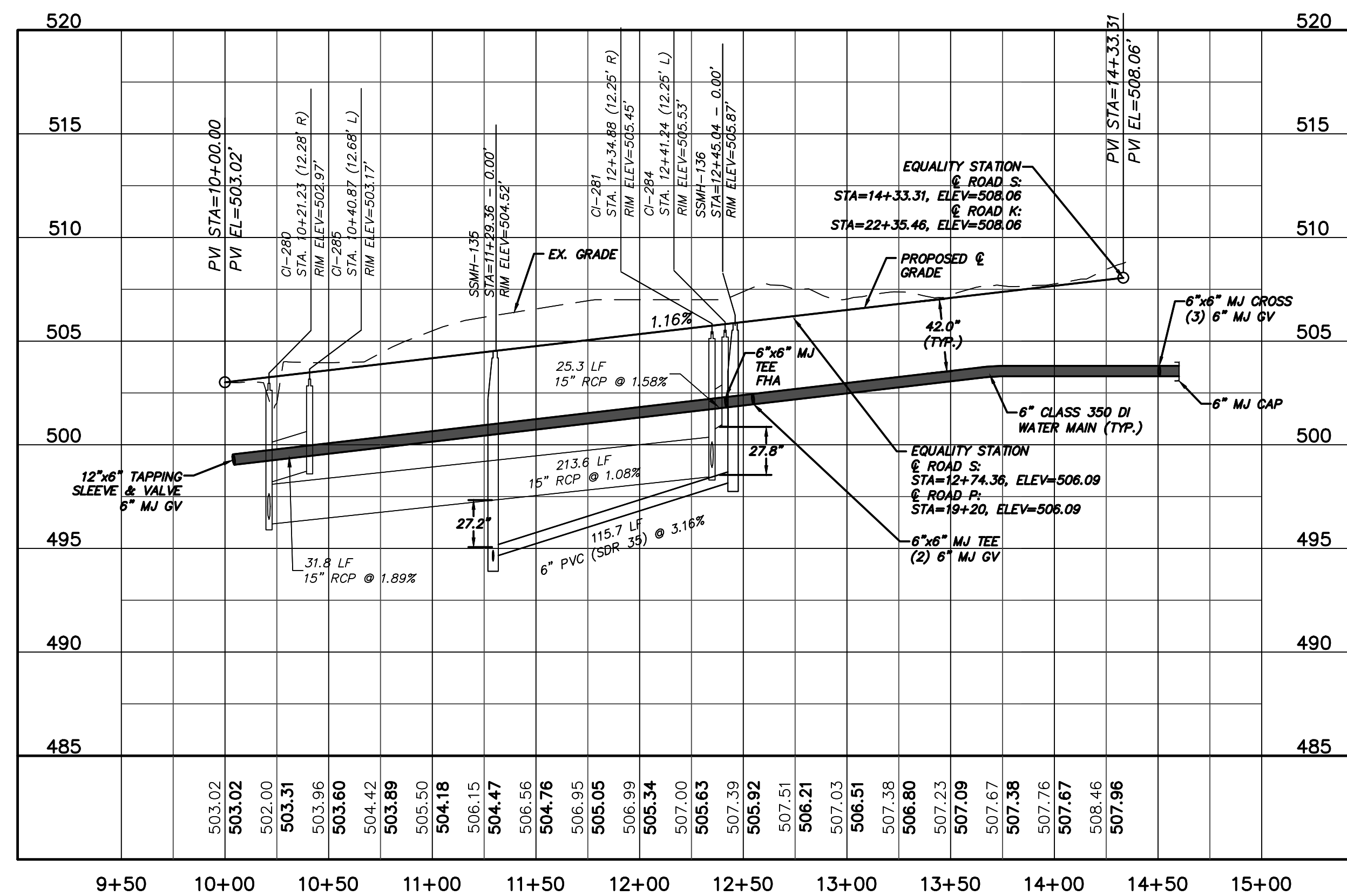
**BRIAR CHAPEL
 PHASE 7
 CHATHAM COUNTY, NORTH CAROLINA**

**GRADING, DRAINAGE &
 EROSION CONTROL PLAN**

DATE: JANUARY 18, 2013	SCALE: HORIZONTAL: 1" = 50'	M&C FILE NUMBER: C3.X
M&C PROJ. #: 02735-0090	VERTICAL: N/A	DRAWING NUMBER: C3.3
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STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION	REVISION: 4	

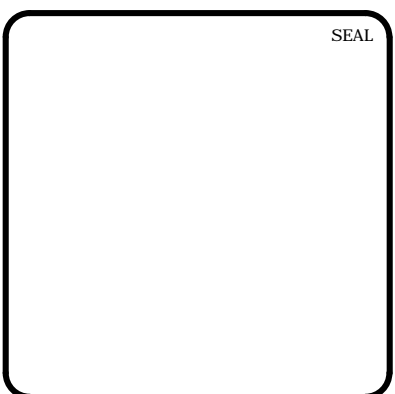
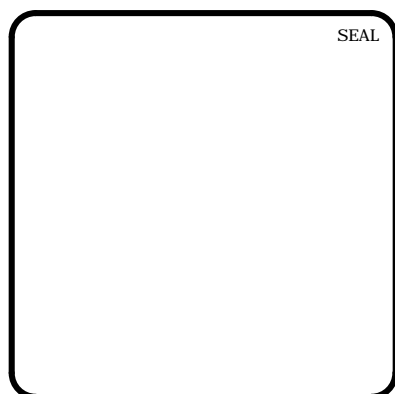


ROAD S PLAN
 (VARIABLE WIDTH PUBLIC R/W, STA. 10+00 TO 14+34.36)
 SCALE: 1"=50'



ROAD S PROFILE
 (STA. 10+00 TO 14+34.36)
 SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
2	ISSUED FOR PERMITTING	01/23/2013
1	FOR REVIEW BY CLIENT	01/18/2013



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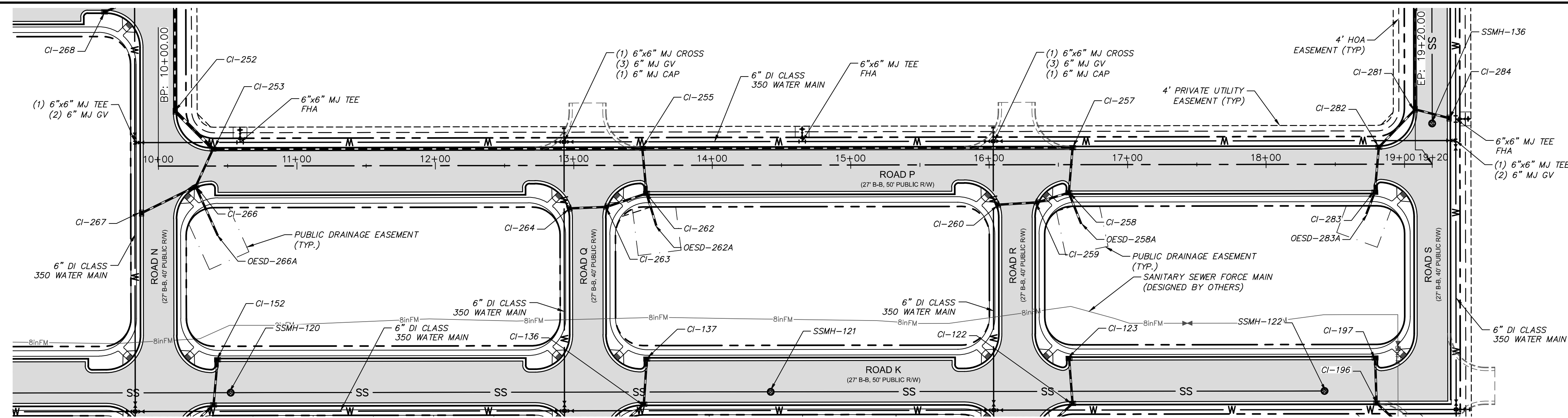
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**BRIAR CHAPEL
 PHASE 7
 CHATHAM COUNTY, NORTH CAROLINA**
 PLAN & PROFILE
 ROAD S
 STA. 10+00 TO STA. 14+34.36

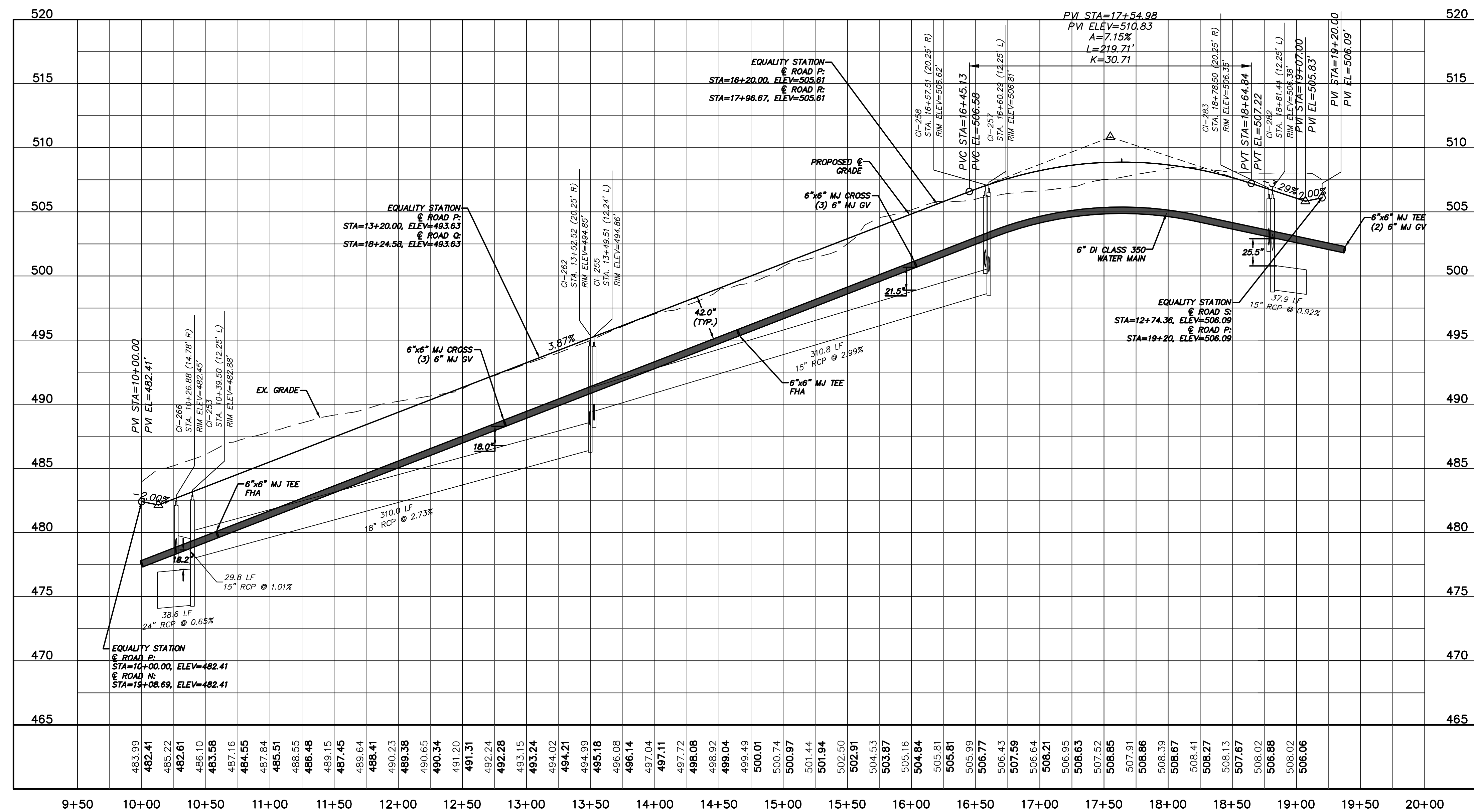
DATE:	JANUARY 18, 2013
MCE PROJ. #	02735-0090
DRAWN	GCA
DESIGNED	GCA
CHECKED	CHS
PROJ. MGR.	CHS

SCALE	C4.X
HORIZONTAL:	1" = 50'
VERTICAL:	N/A
REVISION	4

STATUS: FINAL DRAWINGS
 NOT RELEASED FOR CONSTRUCTION

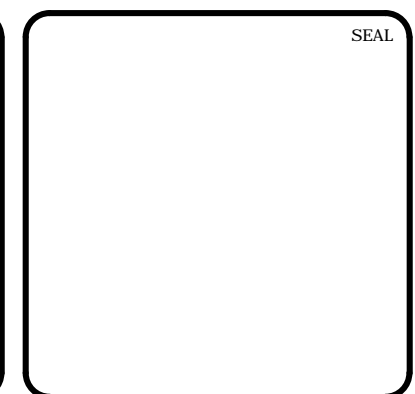
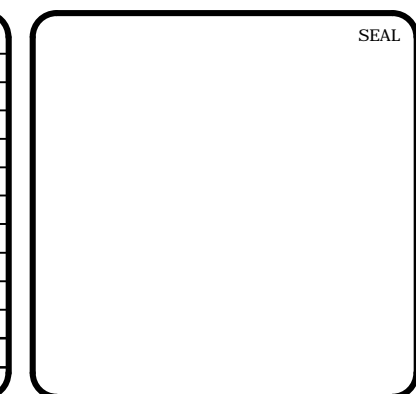


ROAD P PLAN
(VARIABLE WIDTH PUBLIC R/W, STA. 10+00 TO 19+20.00)
SCALE: 1"=50'



ROAD P PROFILE
(STA. 10+00 TO 19+20.00)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
2	ISSUED FOR PERMITTING	01/23/2013
1	FOR REVIEW BY CLIENT	01/18/2013

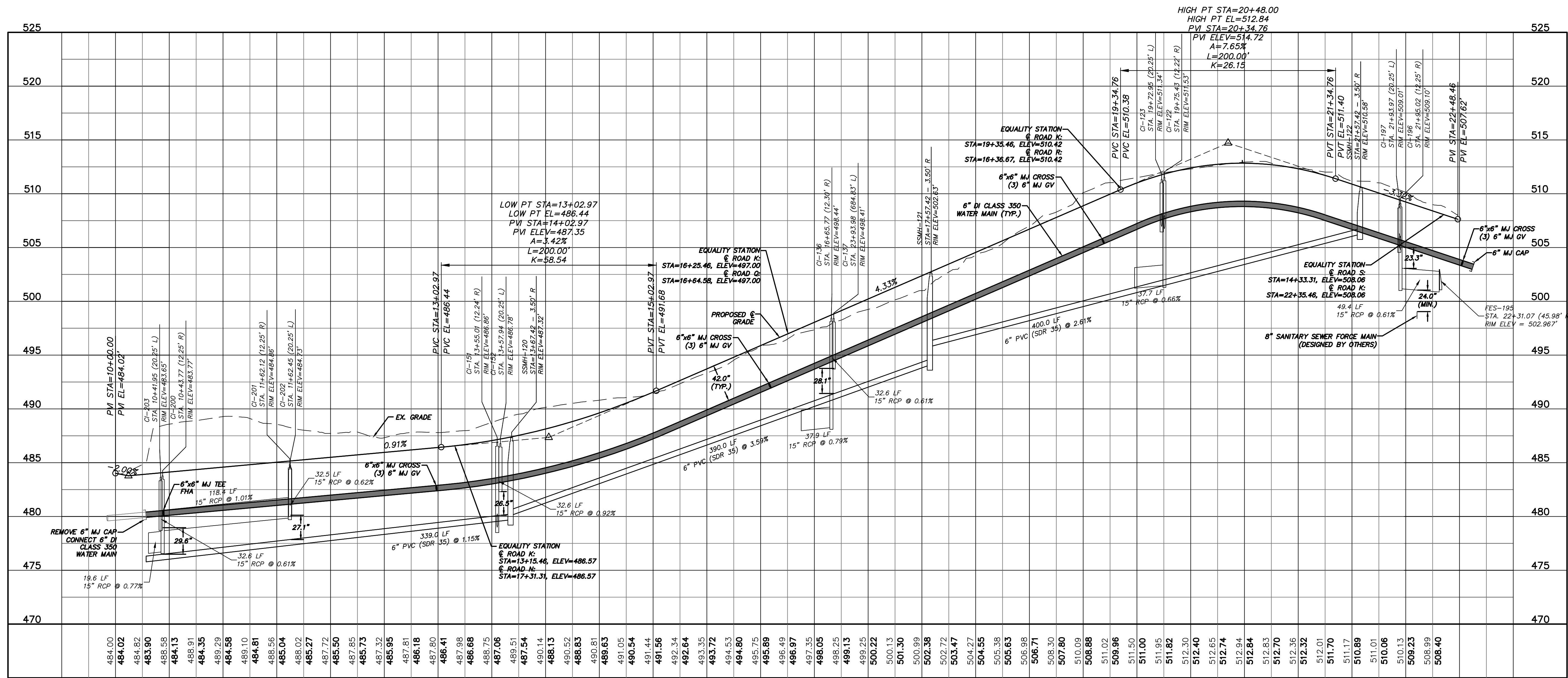
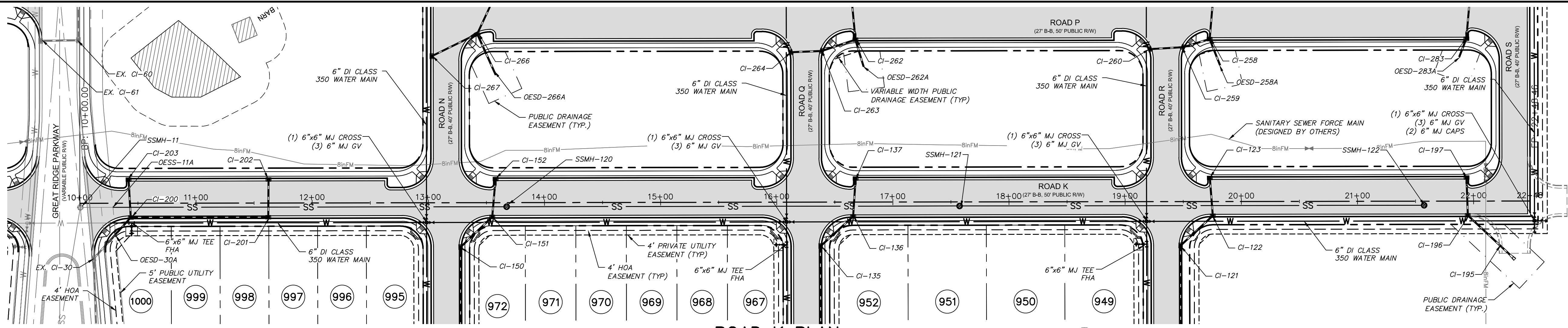


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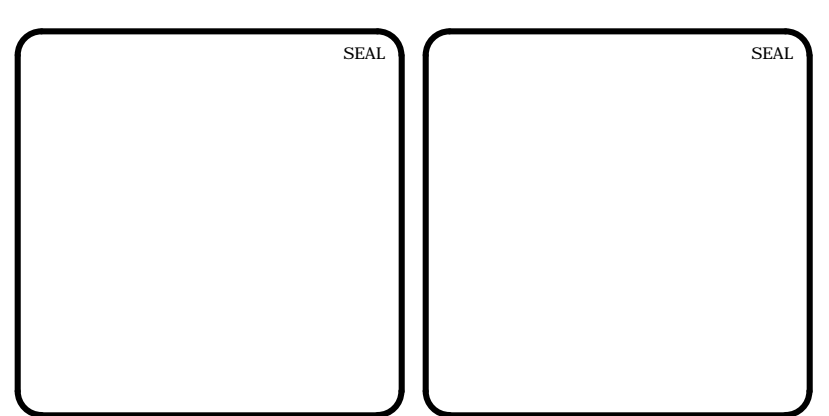
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**BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA**
PLAN & PROFILE
ROAD P
STA. 10+00 TO STA. 19+20.00

DATE: JANUARY 18, 2013	SCALE: 1"=50'	PAC FILE NUMBER: C4.X
MCE PROJ. # 02735-0090	HORIZONTAL: 1"=50'	DRAWING NUMBER: C4.2
DRAWN: GCA	VERTICAL: N/A	REVISION: 4
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION		



REV. NO.	DATE	DESCRIPTIONS	REVISIONS
4	04/10/2013	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	
3	03/20/2013	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	
2	02/21/2013	ISSUED FOR PERMITTING	
1	01/18/2013	FOR REVIEW BY CLIENT	

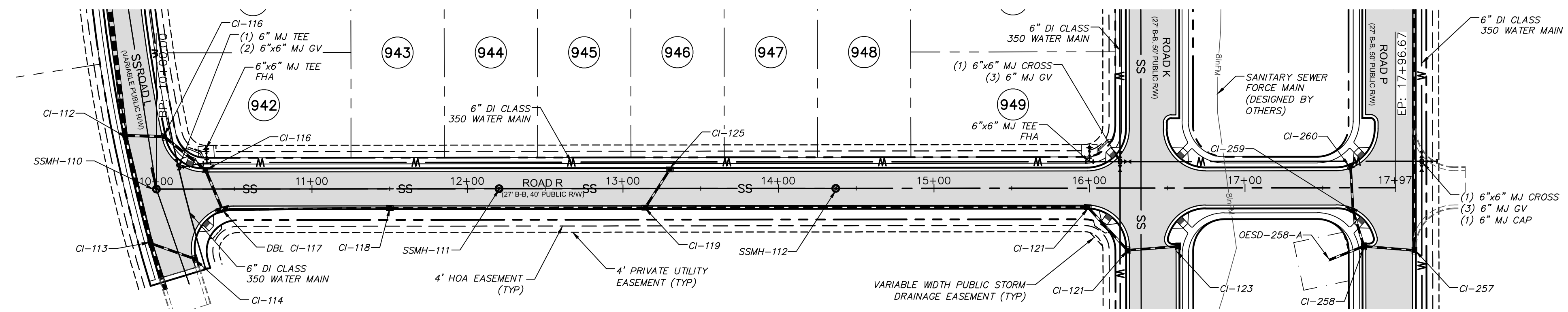


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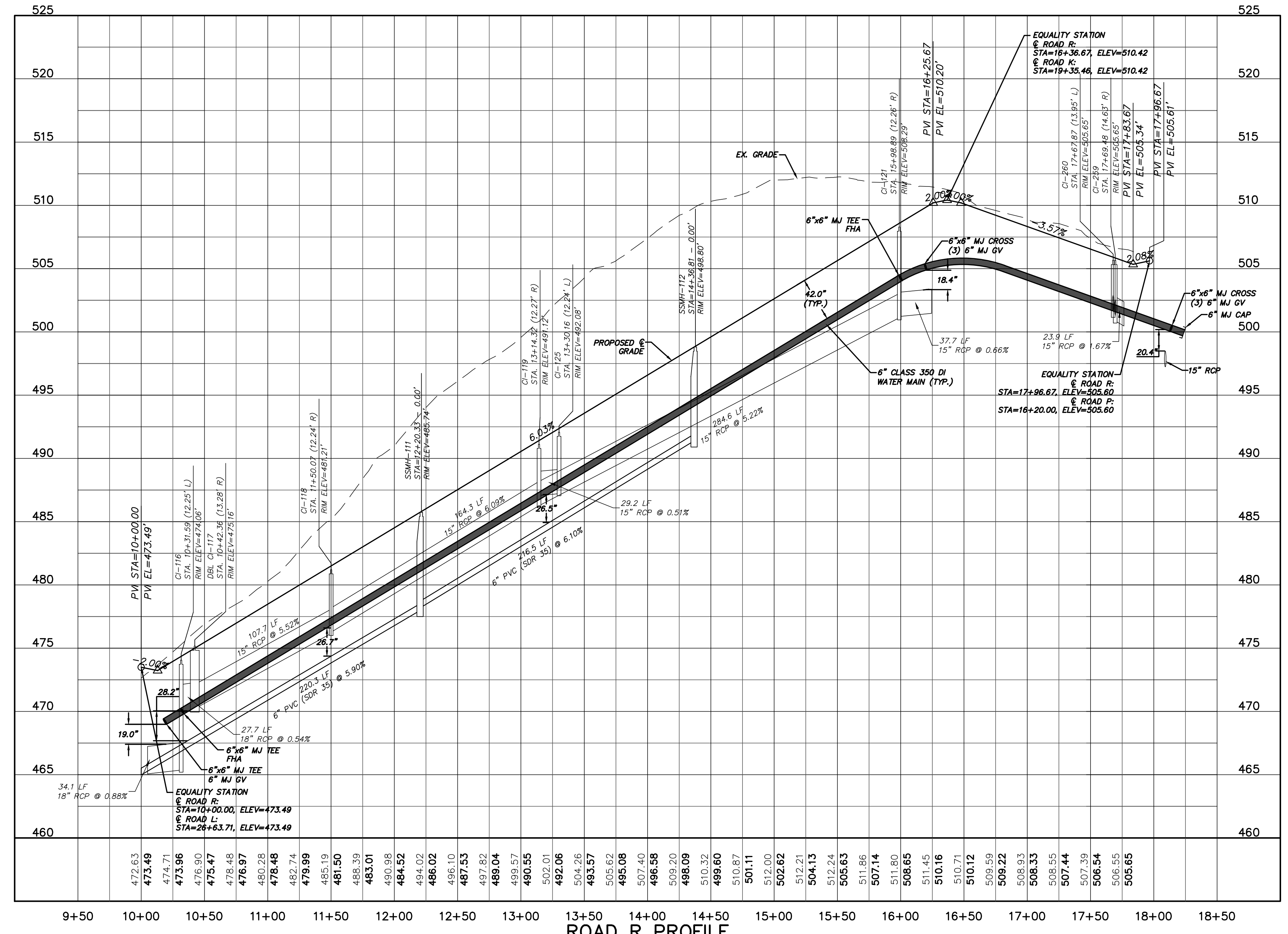


BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA
PLAN & PROFILE
ROAD K
STA. 10+00 TO STA. 19+20.00

DATE: JANUARY 18, 2013	SCALE: 1"=50'	M&C FILE NUMBER: C4.X
M&C PROJ. # 02735-0090	HORIZONTAL: 1"=50'	DRAWING NUMBER: C4.3
DRAWN: GCA	VERTICAL: N/A	
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PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION	REVISION: 4	

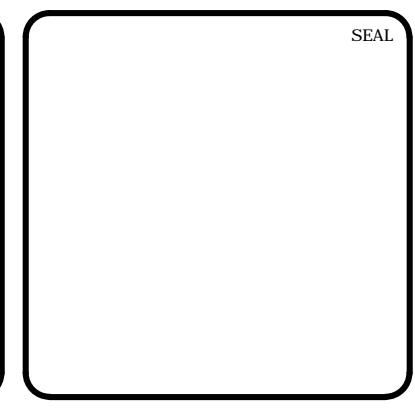
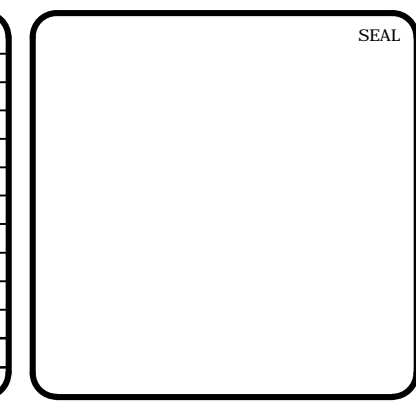


ROAD R PLAN
 (40' WIDTH PUBLIC R/W, STA. 10+00 TO 17+97)
 SCALE: 1"=50'



ROAD R PROFILE
 (STA. 10+00 TO 17+97)
 SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
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2	ISSUED FOR PERMITTING	01/23/2013
1	FOR REVIEW BY CLIENT	01/18/2013



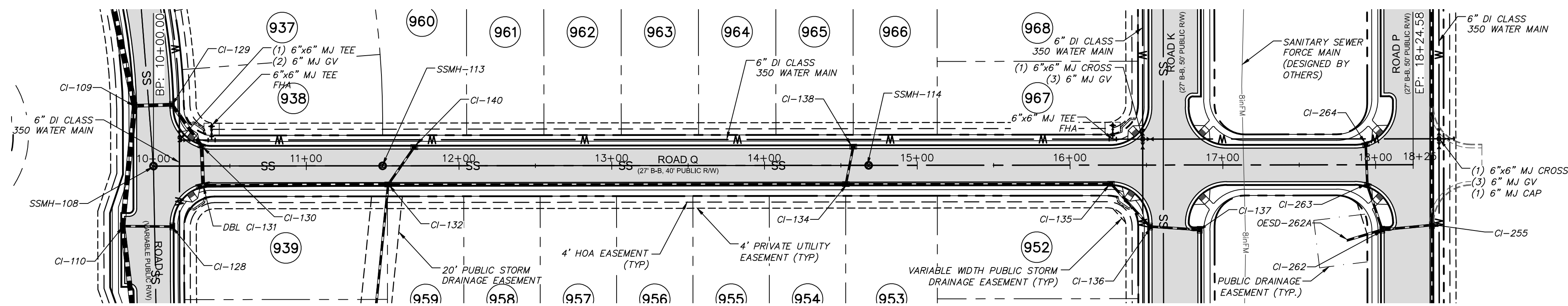
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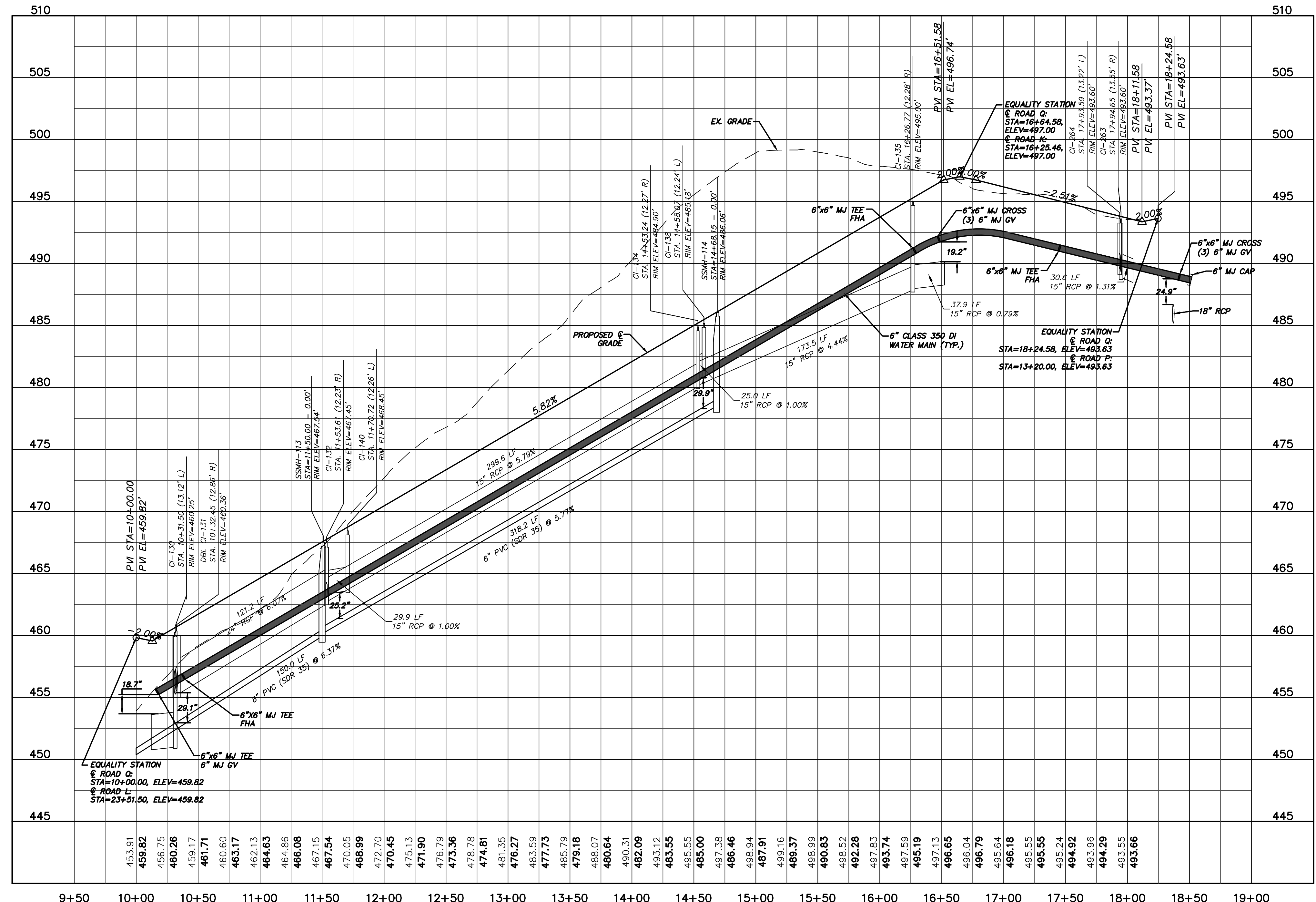
BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA
PLAN & PROFILE
ROAD R
STA. 10+00 TO STA. 17+97

DATE: JANUARY 18, 2013	SCALE: C4.X
MCE PROJ. # 02735-0090	HORIZONTAL: 1" = 50'
DRAWN: GCA	VERTICAL: N/A
DESIGNED: GCA	REVISION: 4
CHECKED: CHS	
PROJ. MGR.: CHS	

STATUS: FINAL DRAWINGS
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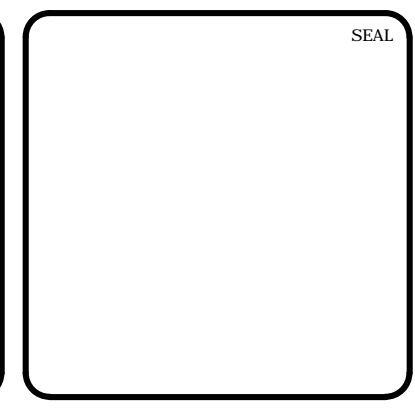
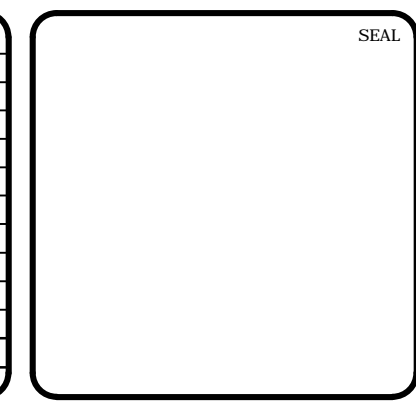


ROAD Q PLAN
(40' WIDTH PUBLIC R/W, STA. 10+00 TO 18+25)
SCALE: 1"=50'



ROAD Q PROFILE
(STA. 10+00 TO 18+25)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV. NO.	DESCRIPTION	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
2	ISSUED FOR PERMITTING	01/23/2013
1	FOR REVIEW BY CLIENT	01/18/2013

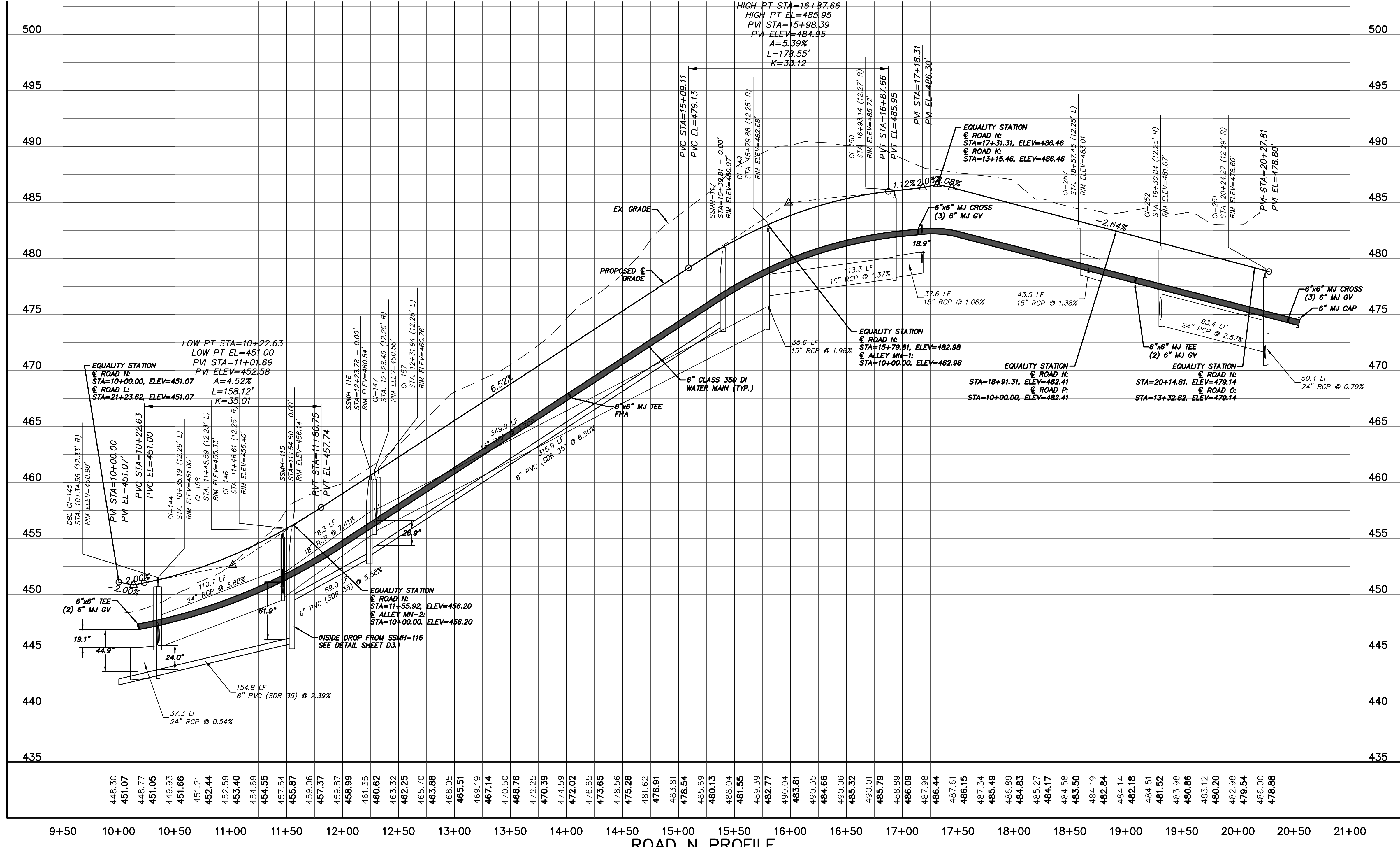
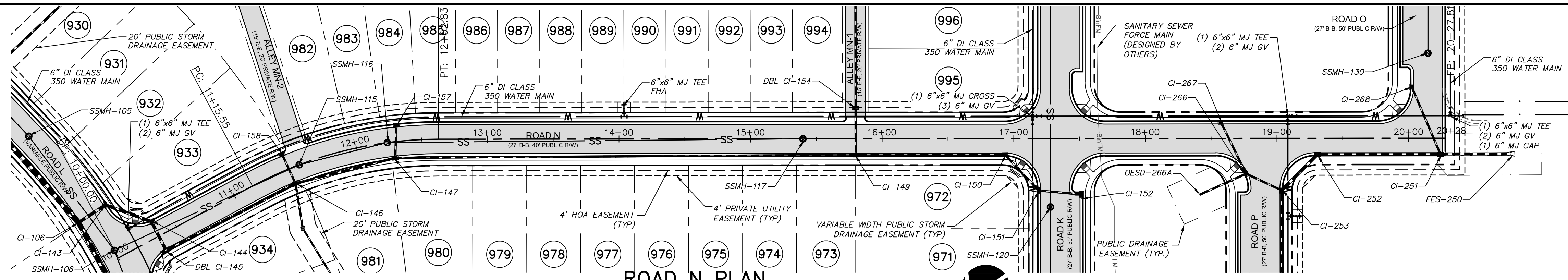


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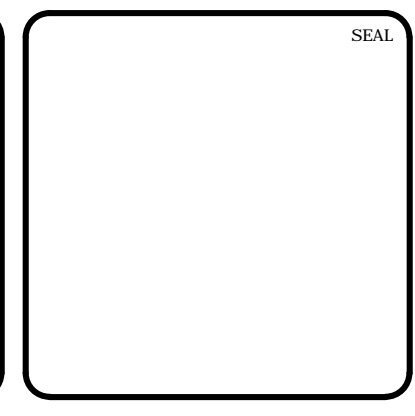
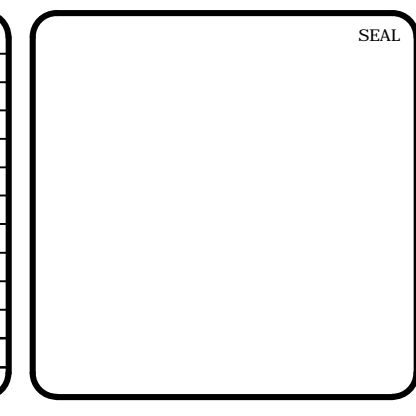
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**BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA**
PLAN & PROFILE
ROAD Q
STA. 10+00 TO STA. 18+25

DATE: JANUARY 18, 2013	SCALE: 1"=50'	PAC FILE NUMBER: C4.X
MCE PROJ. # 02735-0090	HORIZONTAL: 1"=50'	DRAWING NUMBER: C4.5
DRAWN: GCA	VERTICAL: N/A	
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION	REVISION: 4	



REV. NO.	DESCRIPTION	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
2	ISSUED FOR PERMITTING	01/23/2013
1	FOR REVIEW BY CLIENT	01/18/2013

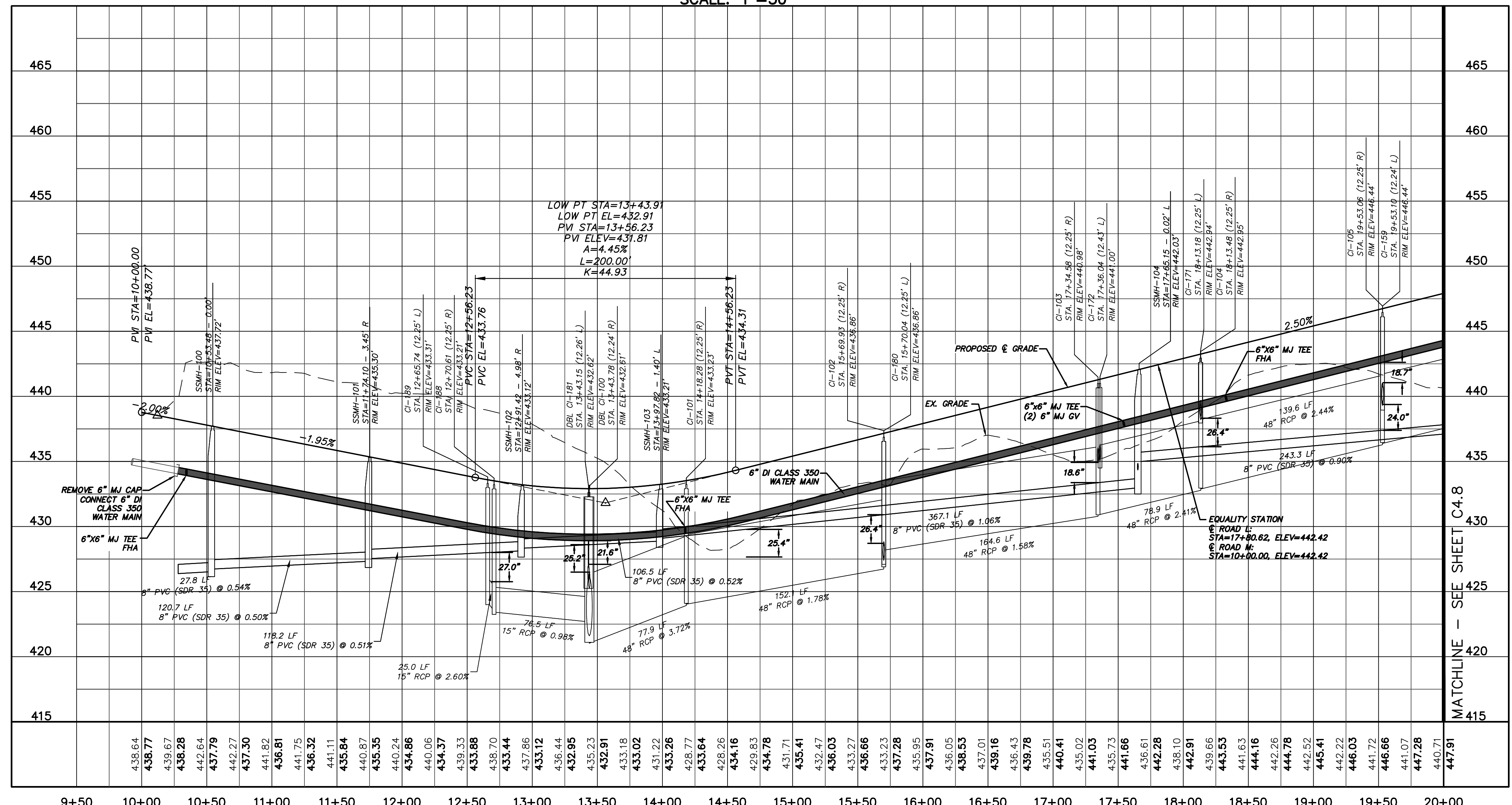
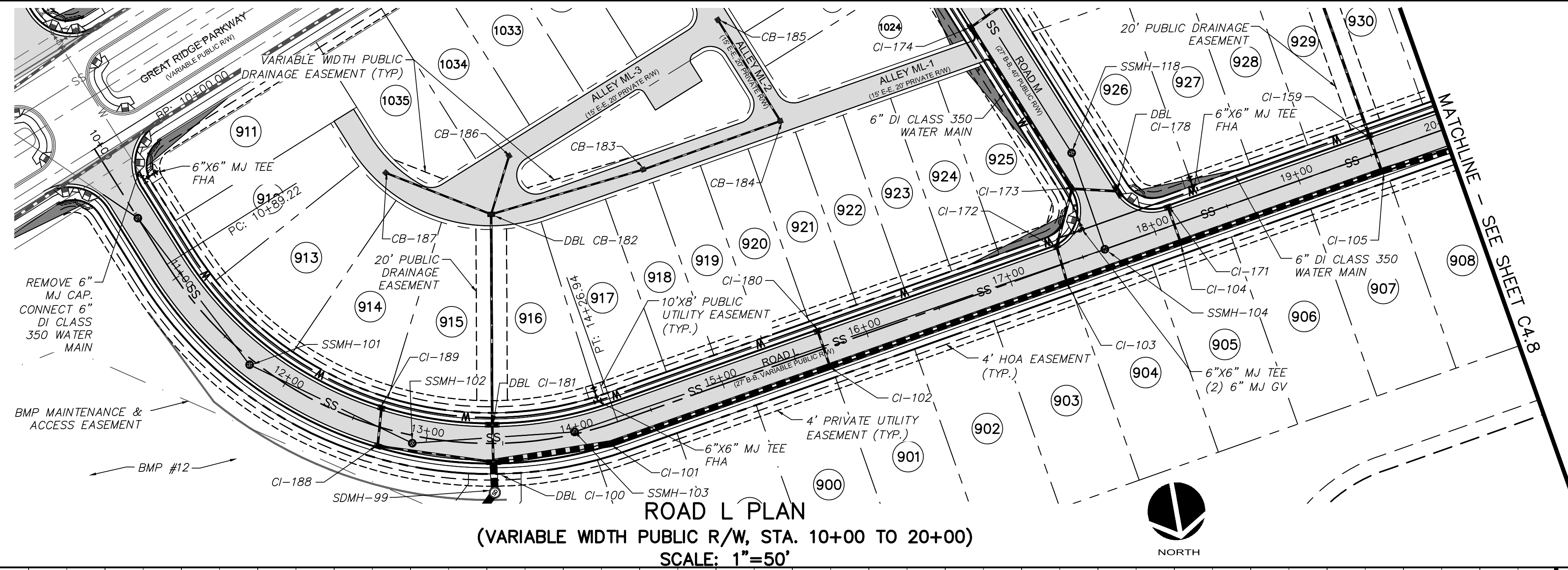


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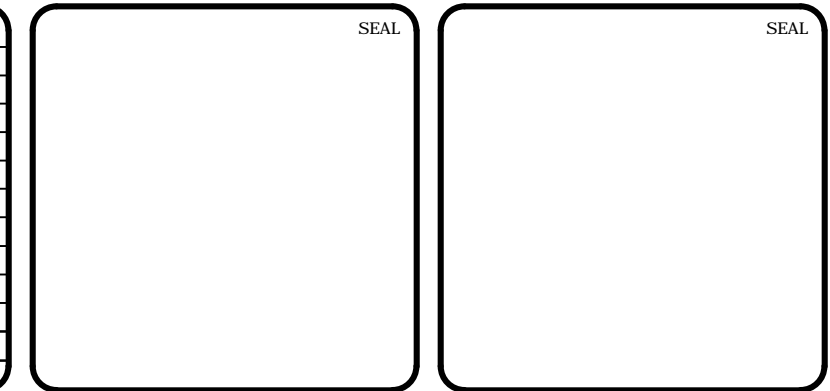
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**BRIAR CHAPEL
 PHASE 7
 CHATHAM COUNTY, NORTH CAROLINA
 PLAN & PROFILE
 ROAD N
 STA. 10+00 TO STA. 20+27.81**

DATE: JANUARY 18, 2013	SCALE: 1"=50'	PAC FILE NUMBER: C4.X
MCE PROJ. # 02735-0090	HORIZONTAL: 1"=50'	DRAWING NUMBER: C4.6
DRAWN: GCA	VERTICAL: N/A	
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION	REVISION: 4	



REV. NO.	DESCRIPTION	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
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2	ISSUED FOR PERMITTING	01/23/2013
1	FOR REVIEW BY CLIENT	01/18/2013

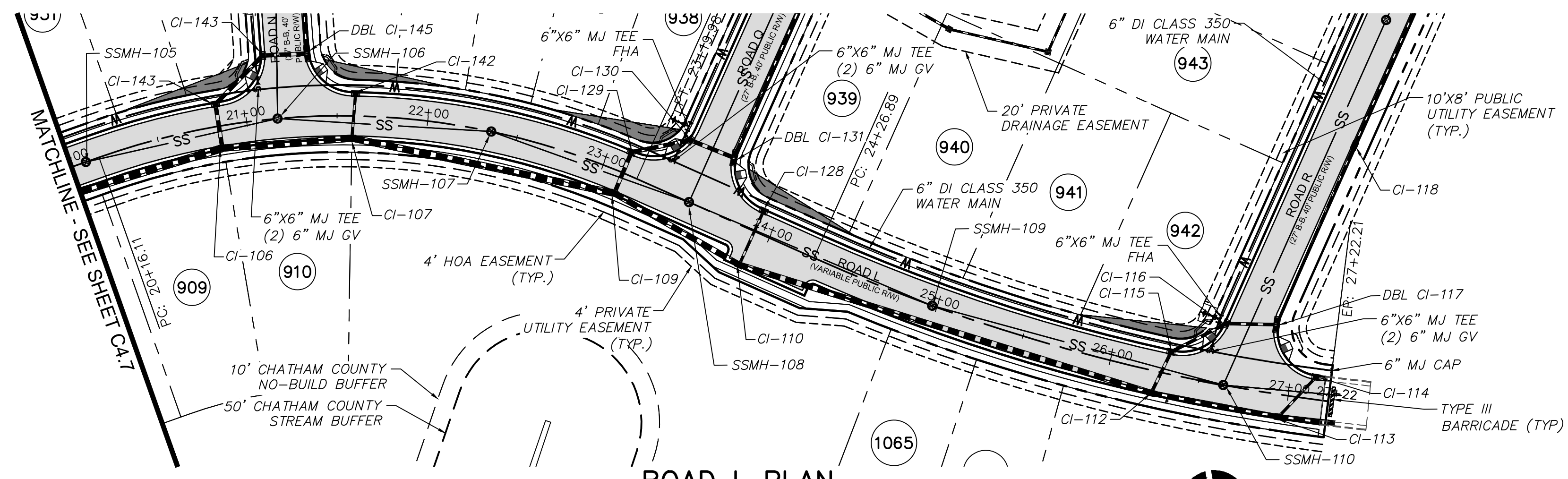


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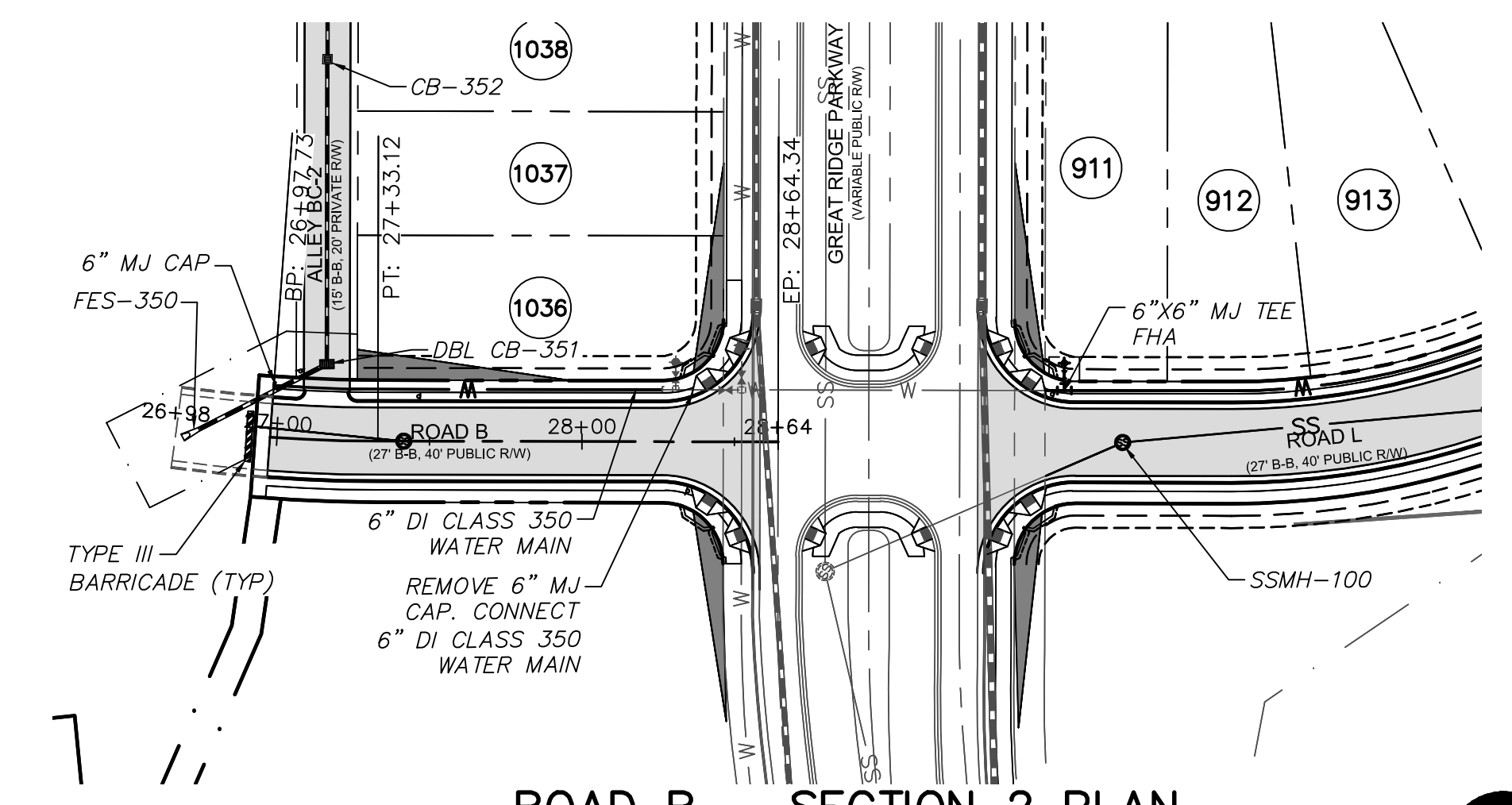
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**BRIAR CHAPEL
 PHASE 7
 CHATHAM COUNTY, NORTH CAROLINA
 PLAN & PROFILE
 ROAD L
 STA. 10+00 TO STA. 20+00**

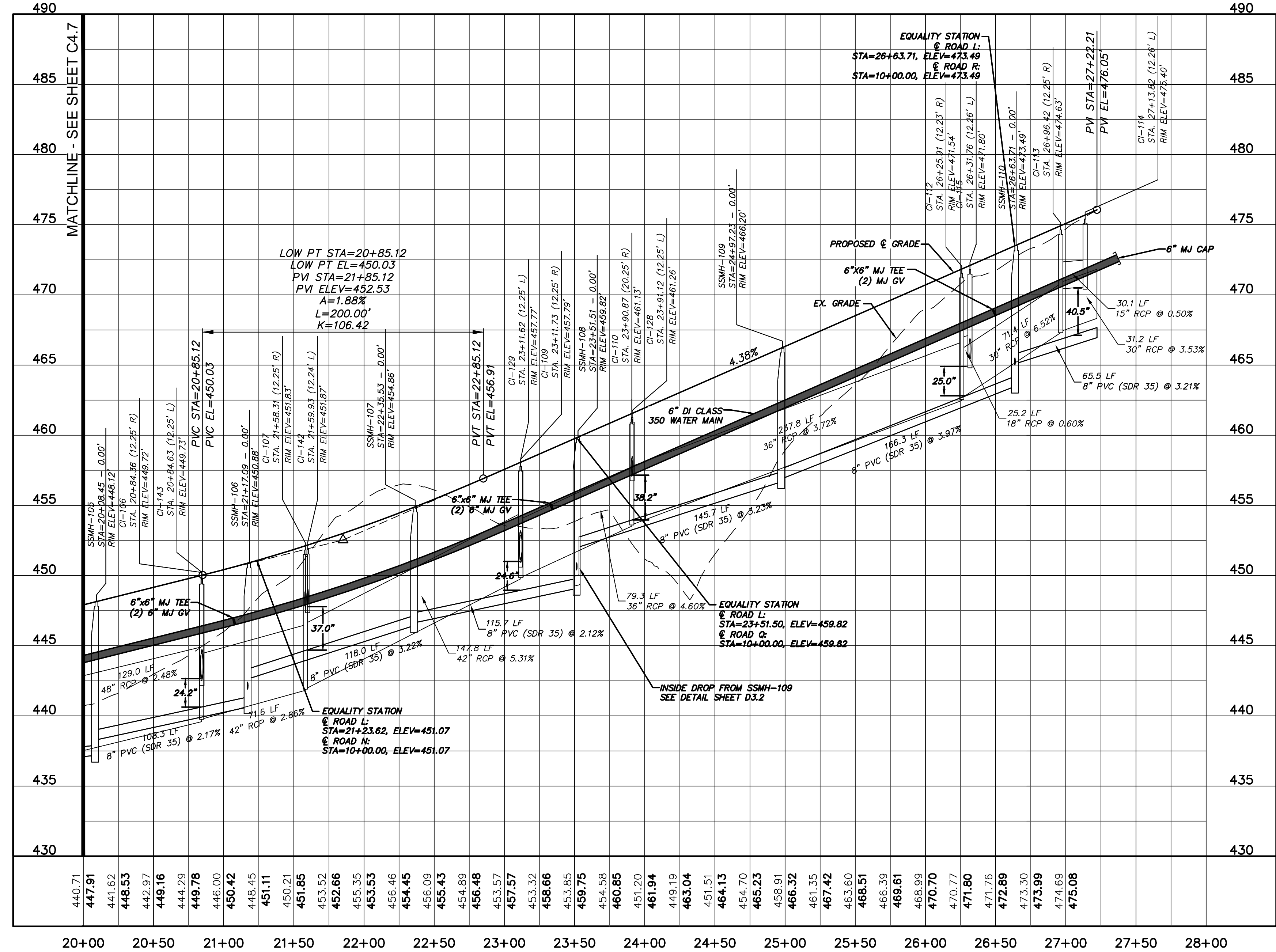
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PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION	REVISION: 4	



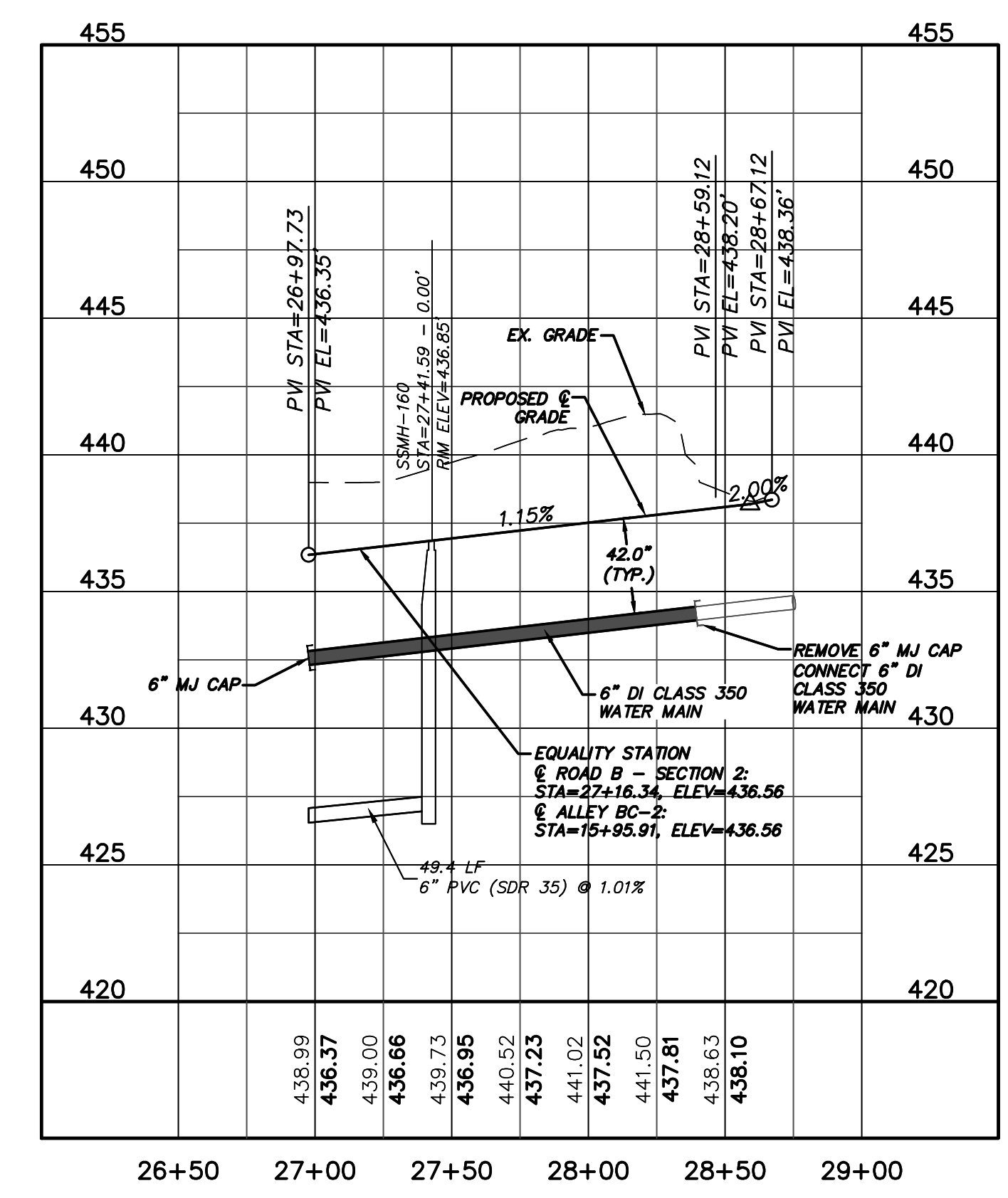
ROAD L PLAN
(VARIABLE WIDTH PUBLIC R/W, STA. 10+00 TO 20+00)
SCALE: 1"=50'



ROAD B - SECTION 2 PLAN
(VARIABLE WIDTH PUBLIC R/W, STA. 26+98 TO 28+64.34)
SCALE: 1"=50'

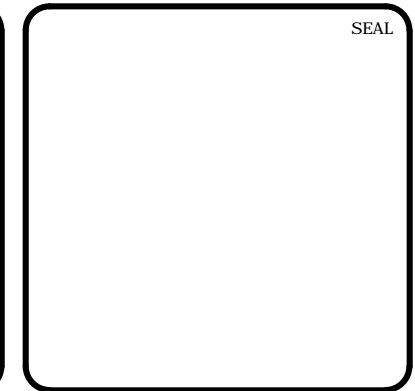
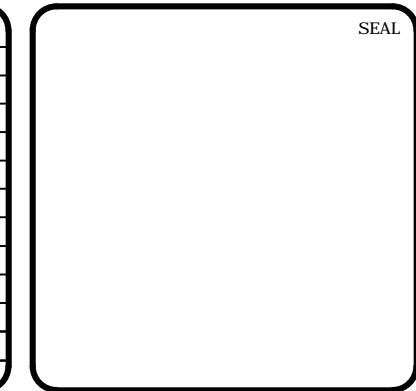


ROAD L PROFILE
(STA. 10+00 TO 20+00)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'



ROAD B - SECTION 2 PROFILE
(STA. 26+98 TO 28+64.34)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV. NO.	DESCRIPTION	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/26/2013
2	ISSUED FOR PERMITTING	03/23/2013
1	FOR REVIEW BY CLIENT	01/18/2013



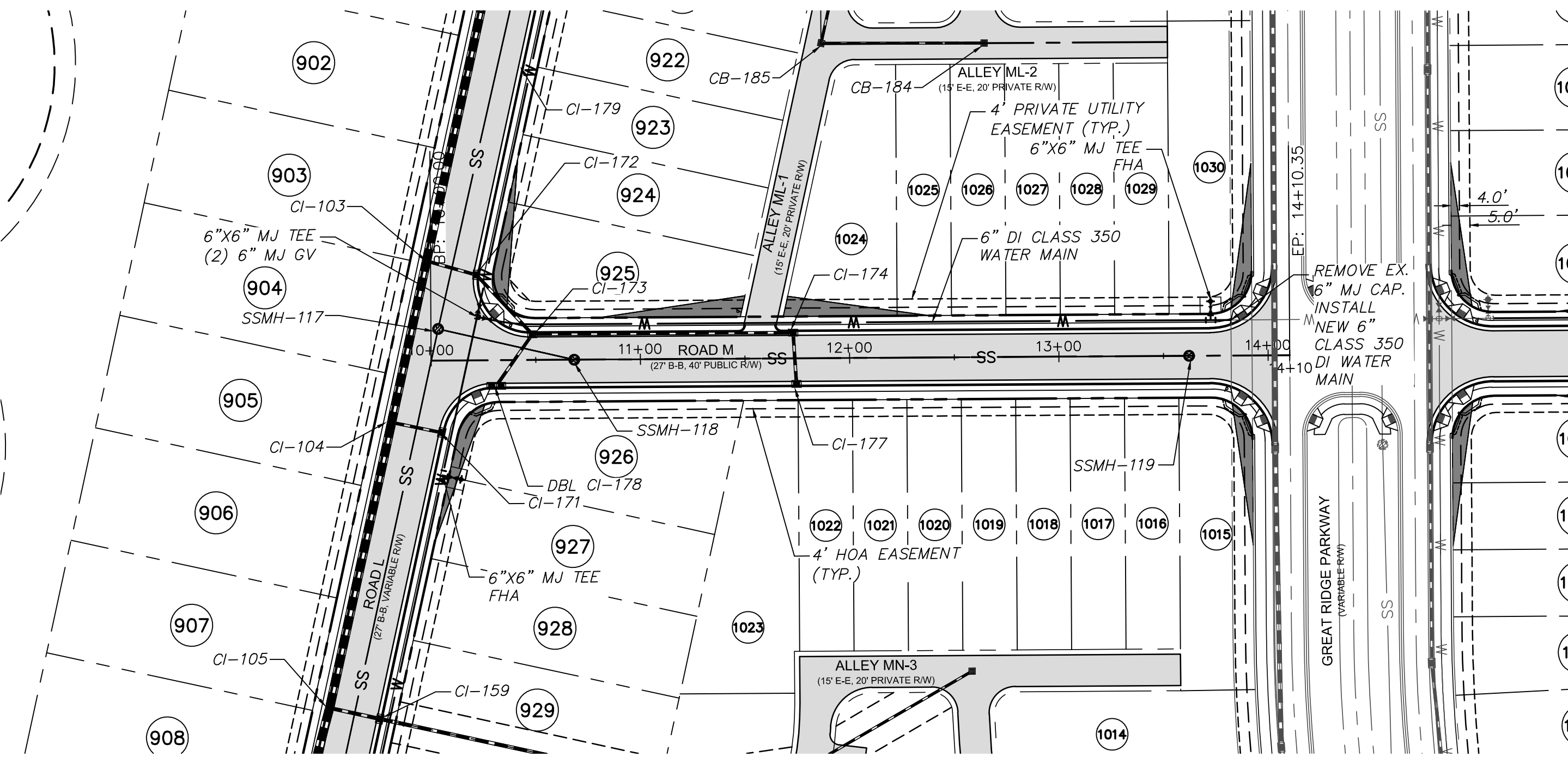
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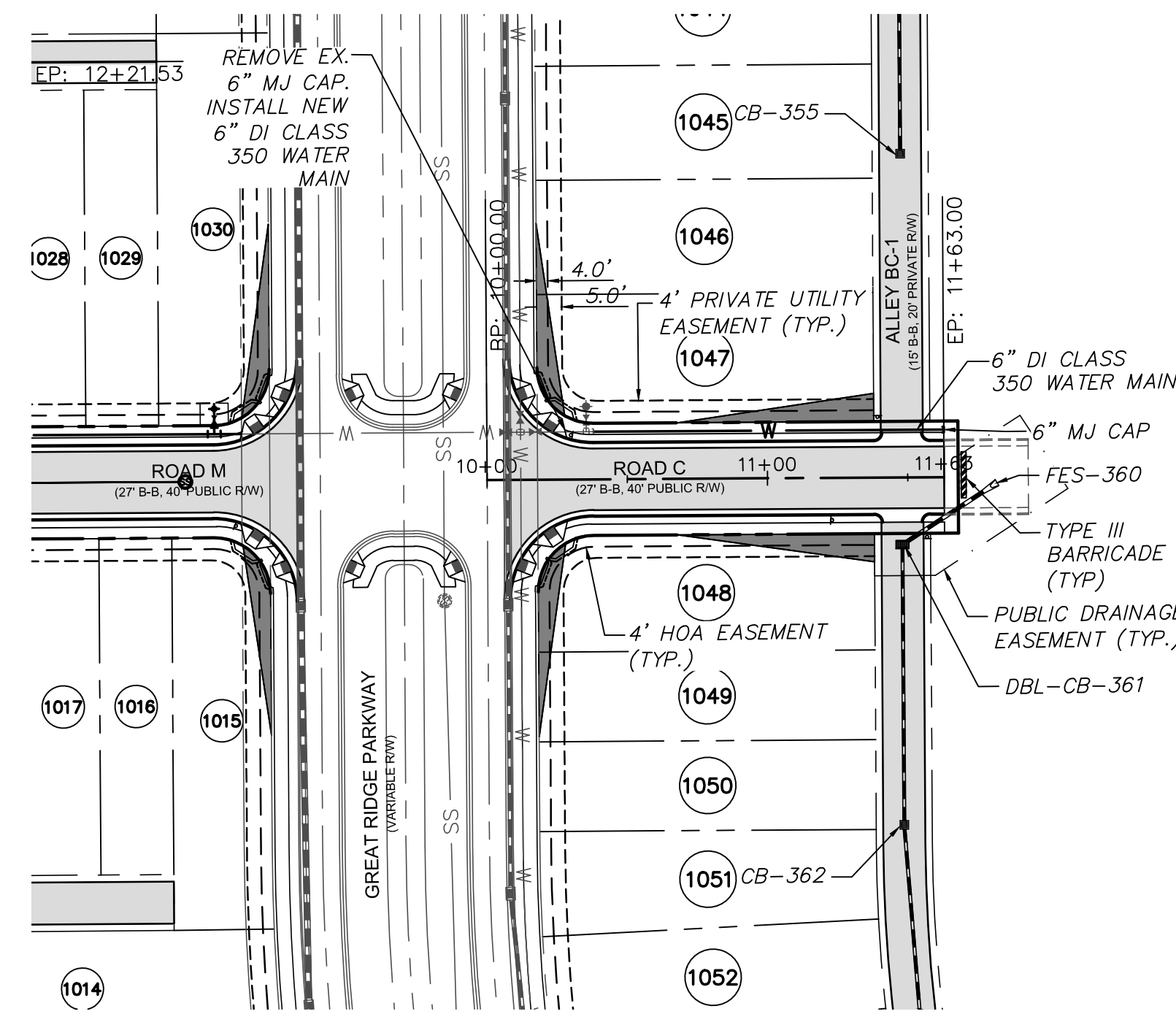
**BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA
PLAN & PROFILE**
ROAD L - STA. 20+00 TO STA. 27+22.21
ROAD B SECT. 2 - STA. 26+98 TO STA. 28+64.34

DATE: JANUARY 18, 2013	SCALE: C4.7X
MCE PROJ. # 02735-0090	DRAWING NUMBER
DRAWN: GCA	1" = 50'
DESIGNED: GCA	VERTICAL: C4.8
CHECKED: CHS	N/A
PROJ. MGR: CHS	

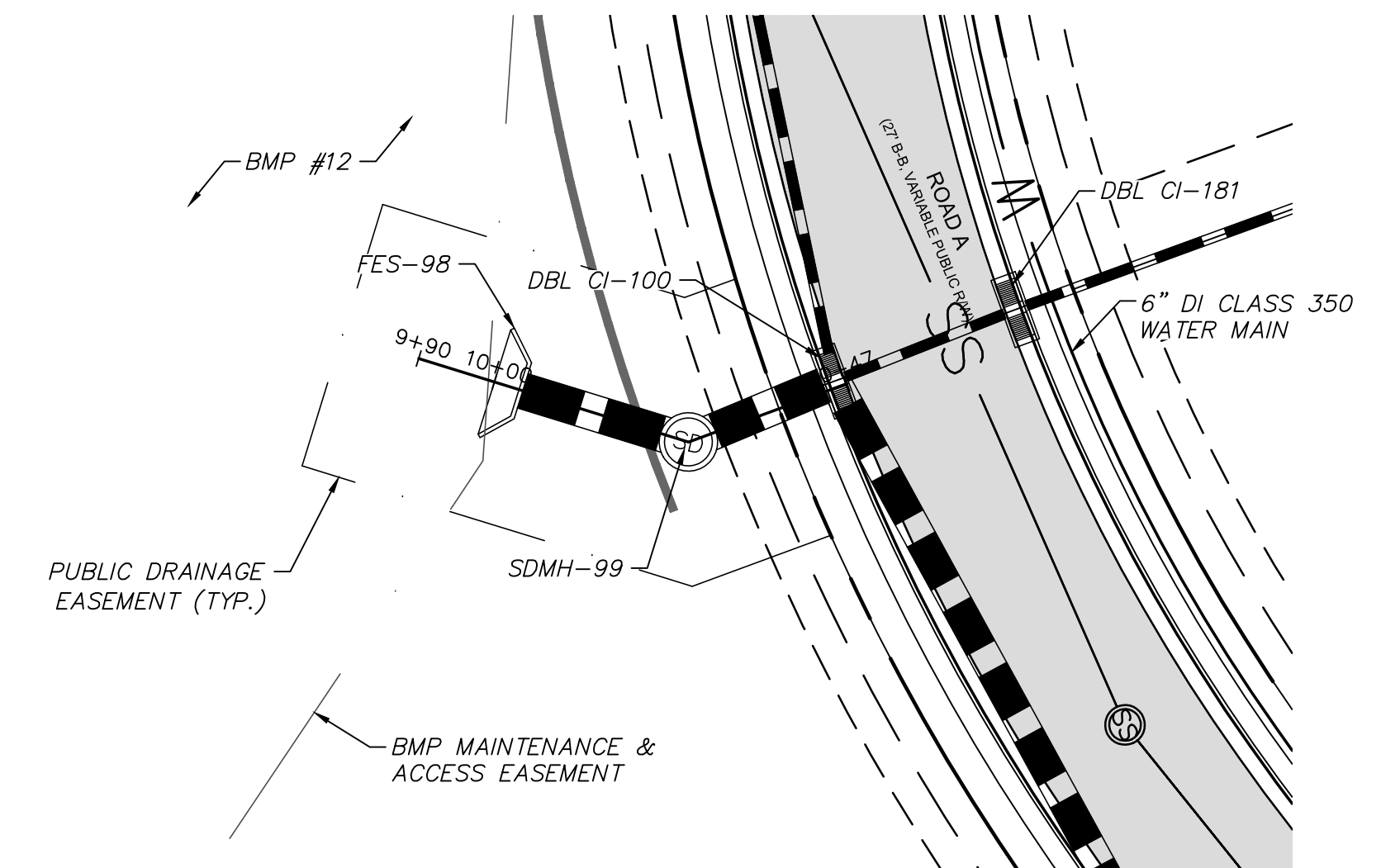
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION	REVISION: 4
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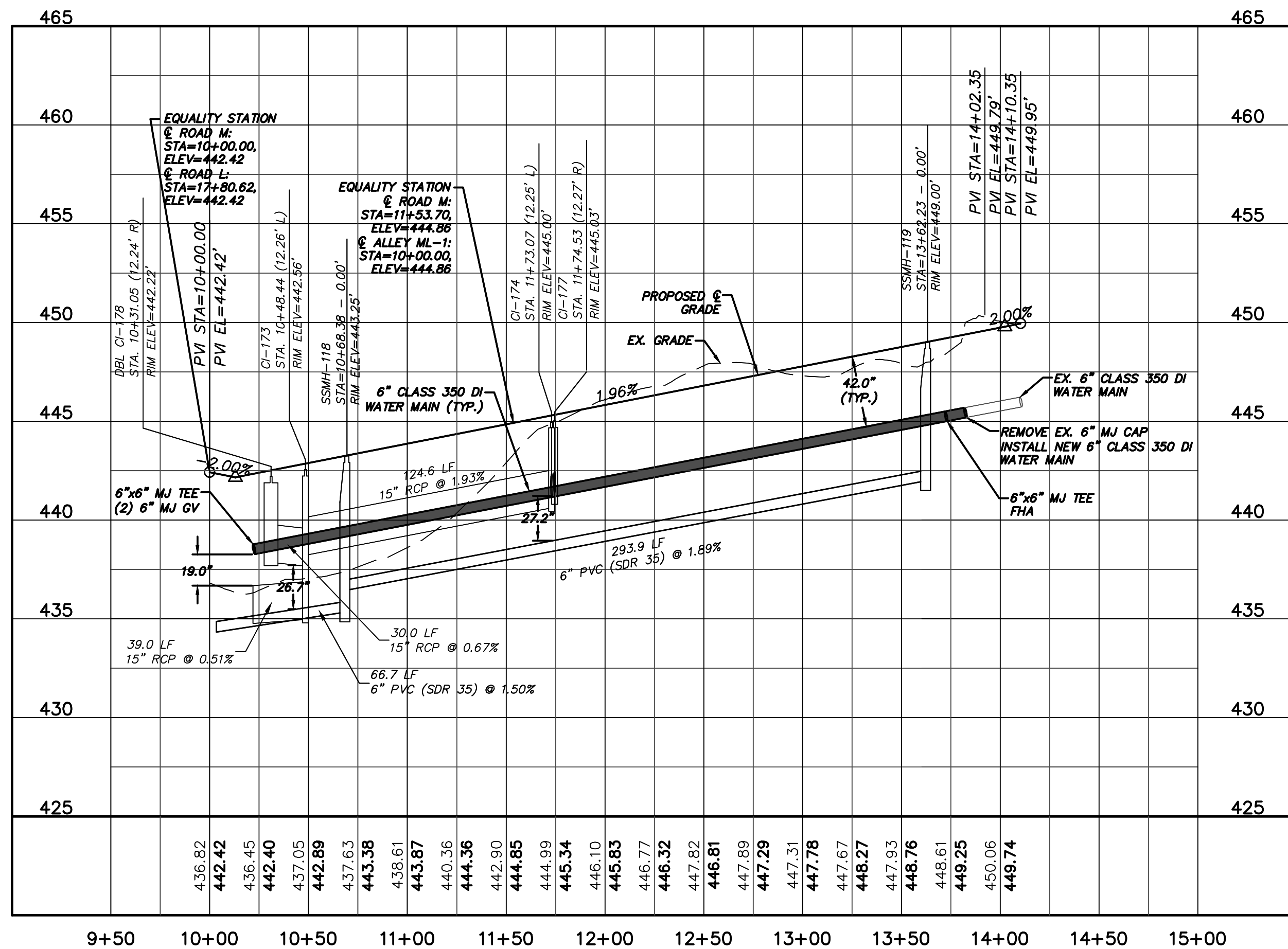
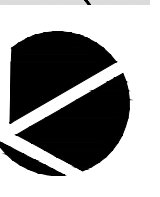
ROAD M PLAN
(40' WIDTH PUBLIC R/W, STA. 10+00 TO 14+10)
SCALE: 1"=50'



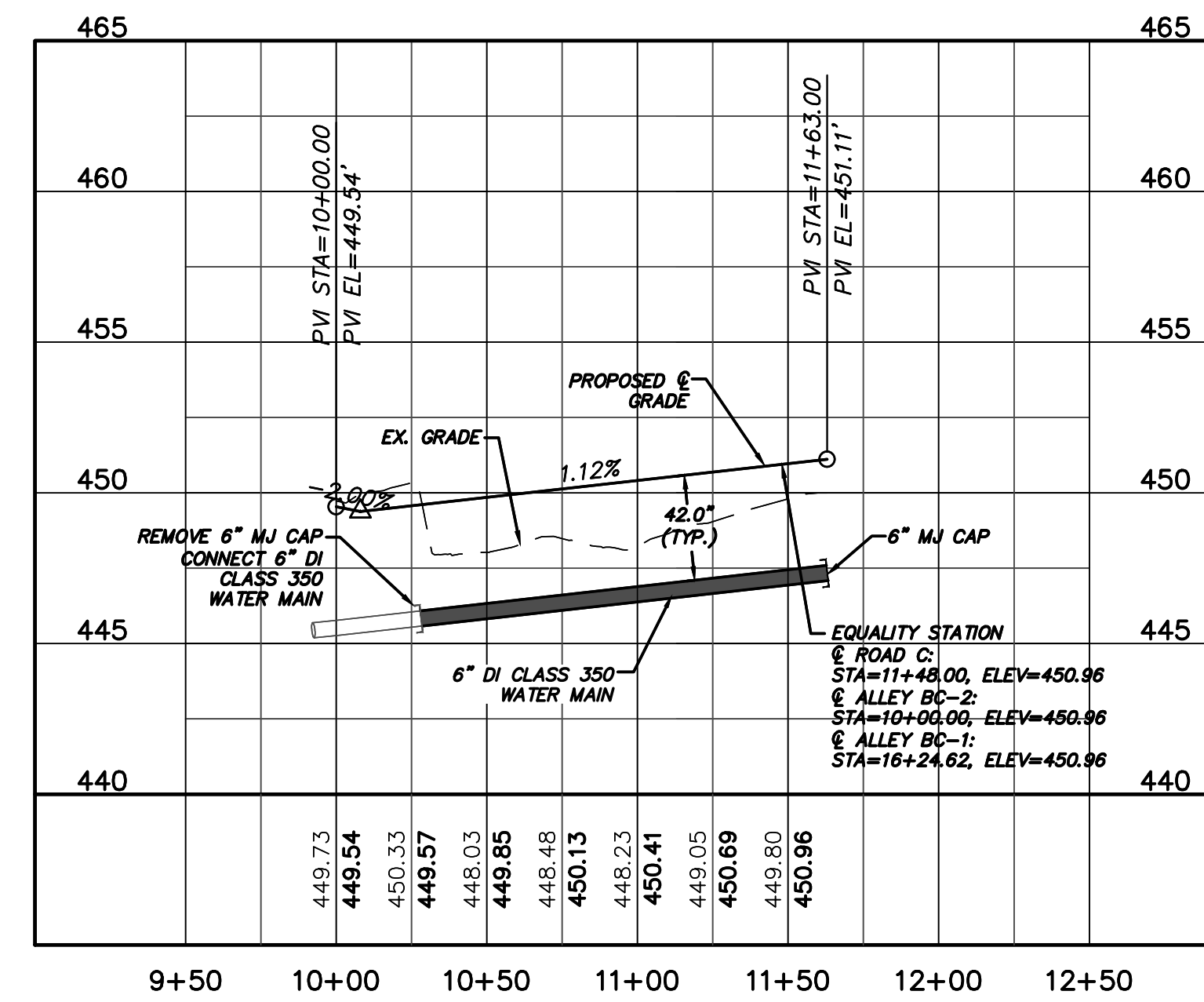
ROAD C PLAN
(50' PUBLIC R/W, STA. 10+00 TO 11+63)
SCALE: 1"=50'



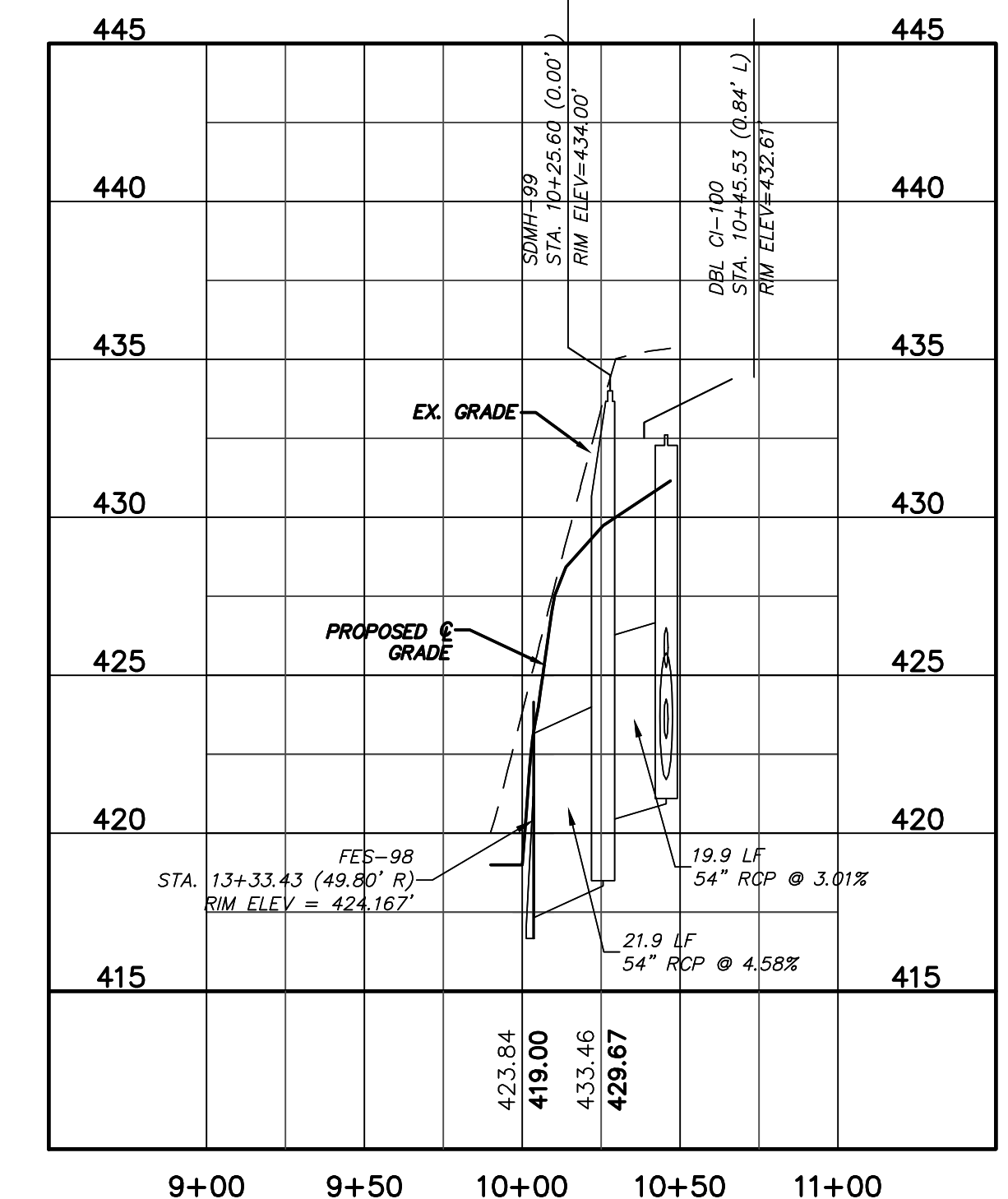
STORM DRAINAGE OUTFALL PLAN
(STA. 9+90 TO 10+46.91)
SCALE: 1"=20'



ROAD M PROFILE
(STA. 10+00 TO 14+10)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

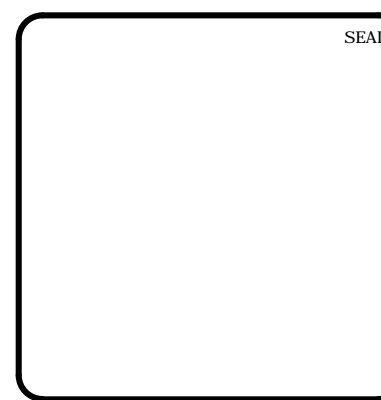
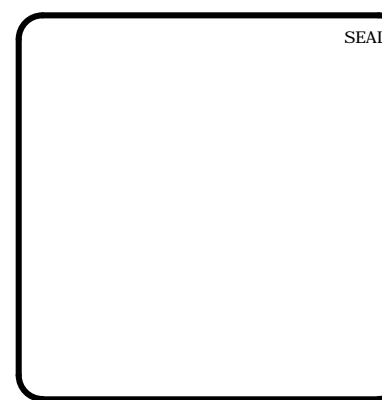


ROAD C PROFILE
(STA. 10+00 TO 11+63)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'



STORM DRAINAGE OUTFALL PROFILE
(STA. 9+90 TO 10+46.91)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/26/2013
2	ISSUED FOR PERMITTING	03/23/2013
1	FOR REVIEW BY CLIENT	01/18/2013

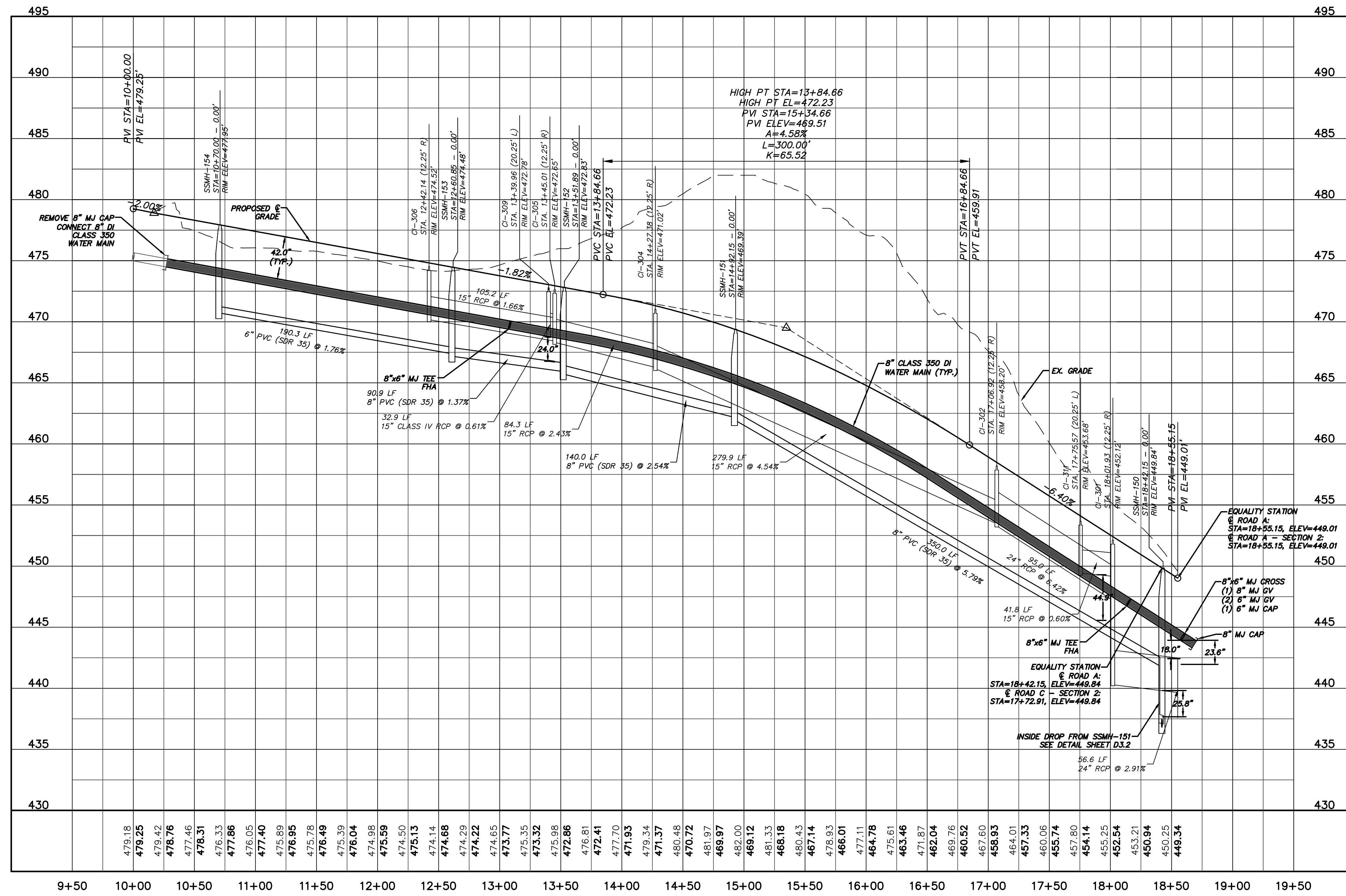
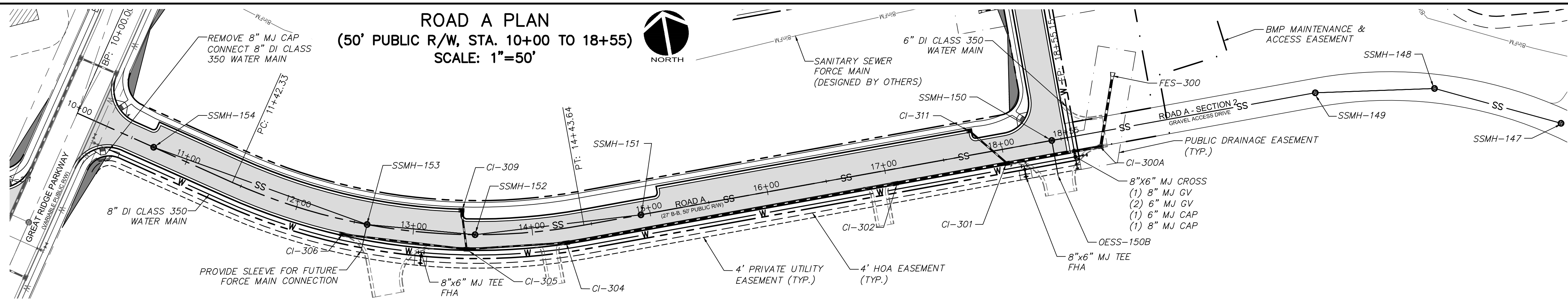


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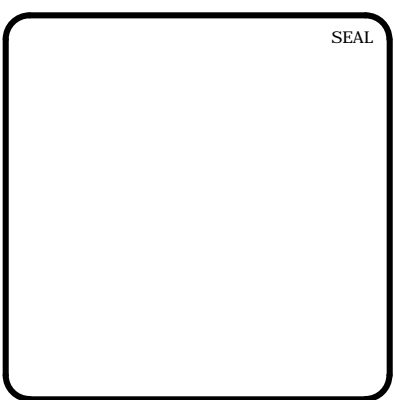
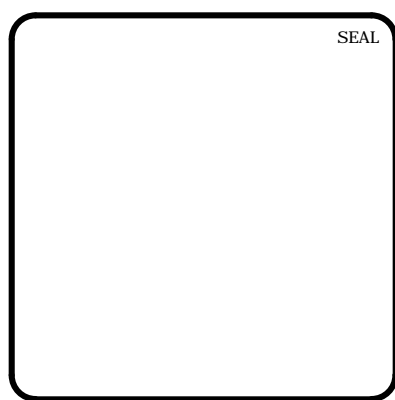
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**BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA**
**PLAN & PROFILE
ROAD C, ROAD M
STORM DRAINAGE OUTFALL**

DATE: JANUARY 18, 2013	SCALE: HORIZONTAL: 1"=50' VERTICAL: N/A	PROJECT NUMBER: C4.7X DRAWING NUMBER: C4.9
MCE PROJ. # 02735-0090	DESIGNED: GCA	STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION
CHECKED: CHS	PROJ. MGR. CHS	REVISION: 4



REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/26/2013
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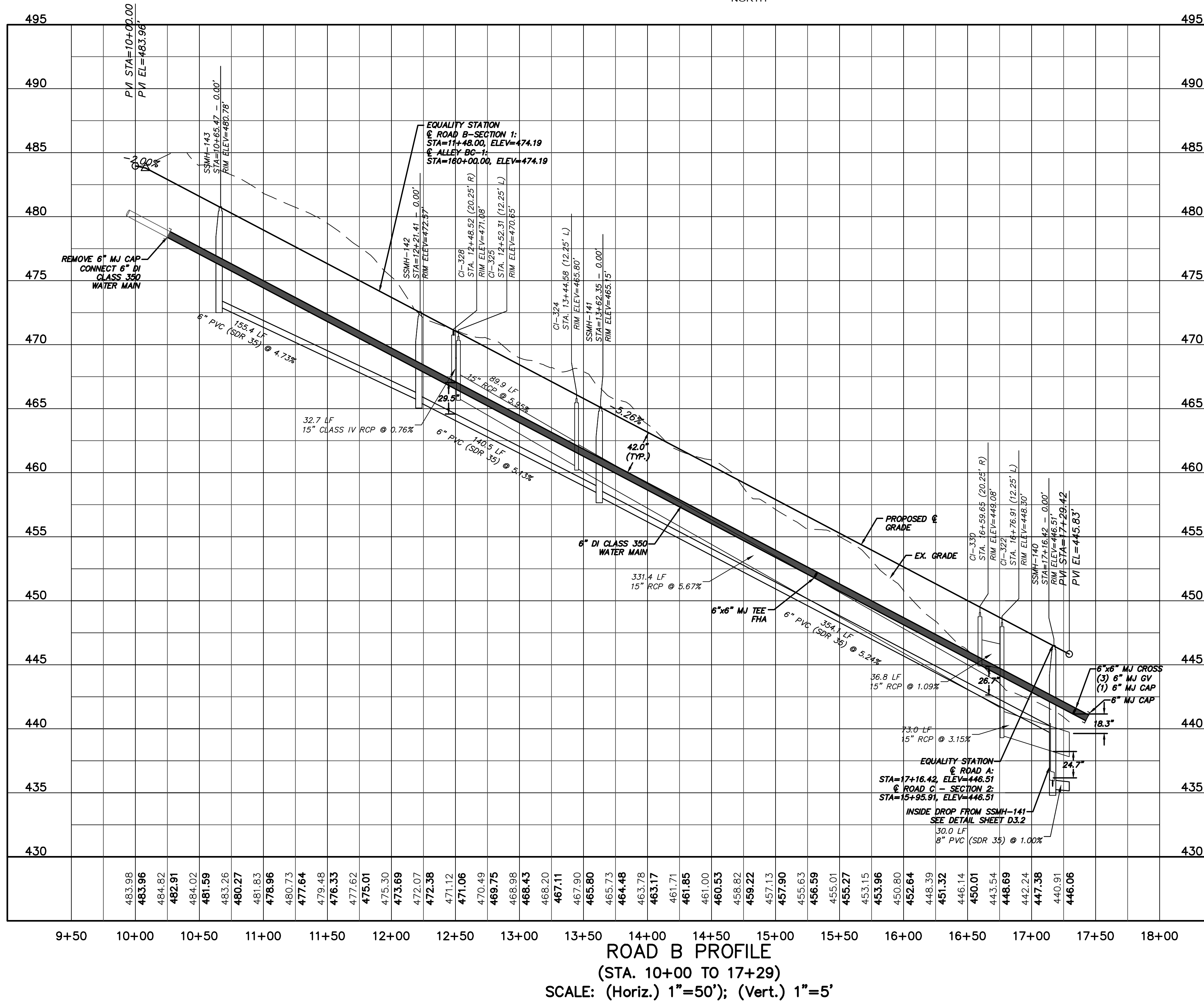
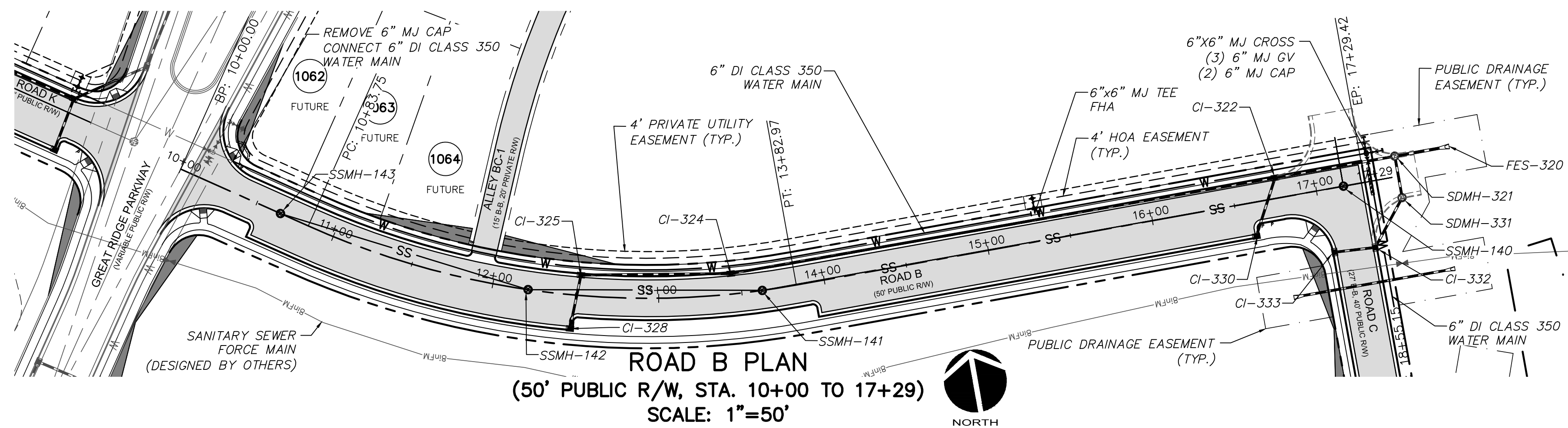
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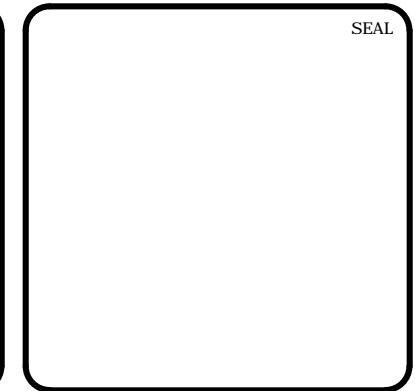
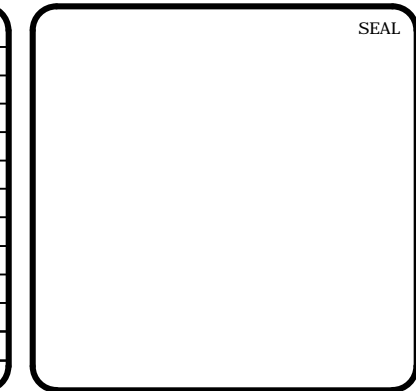
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Newland COMMUNITIES

**BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA
PLAN & PROFILE
ROAD A
STA. 10+00 TO STA. 18+55.15**

DATE: JANUARY 18, 2013	SCALE: 1" = 50'	M&C FILE NUMBER: C4.7X
M&C PROJ. # 02735-0090	HORIZONTAL: 1" = 50'	DRAWING NUMBER: C4.10
DRAWN: GCA	VERTICAL: N/A	
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION		REVISION: 4



REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
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1	FOR REVIEW BY CLIENT	01/18/2013

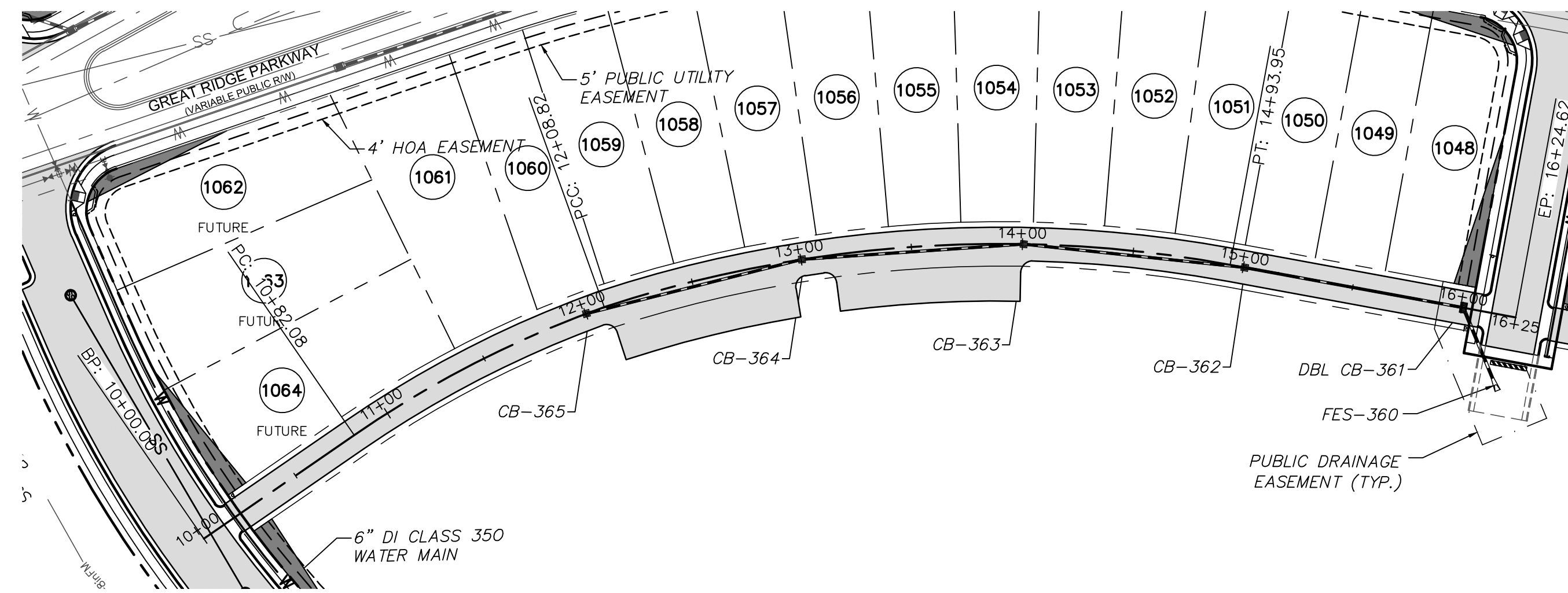


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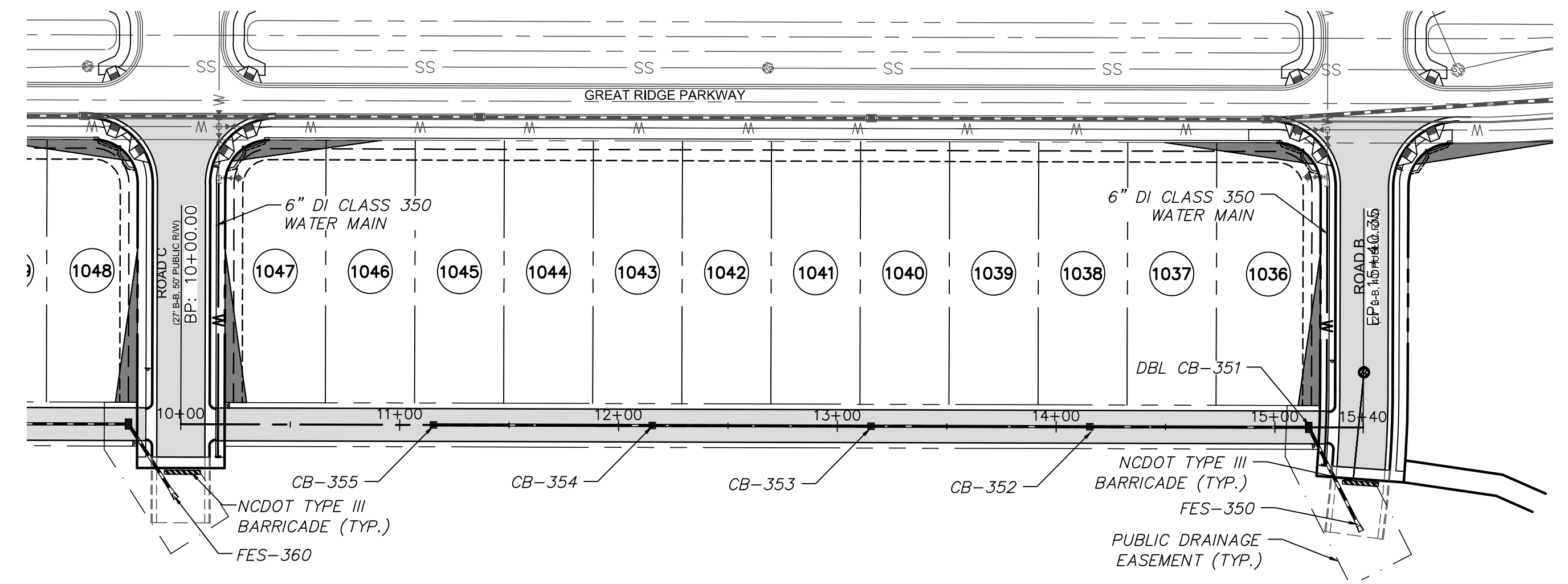
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**BRIAR CHAPEL
 PHASE 7
 CHATHAM COUNTY, NORTH CAROLINA
 PLAN & PROFILE
 ROAD B
 STA. 10+00 TO STA. 17+29.42**

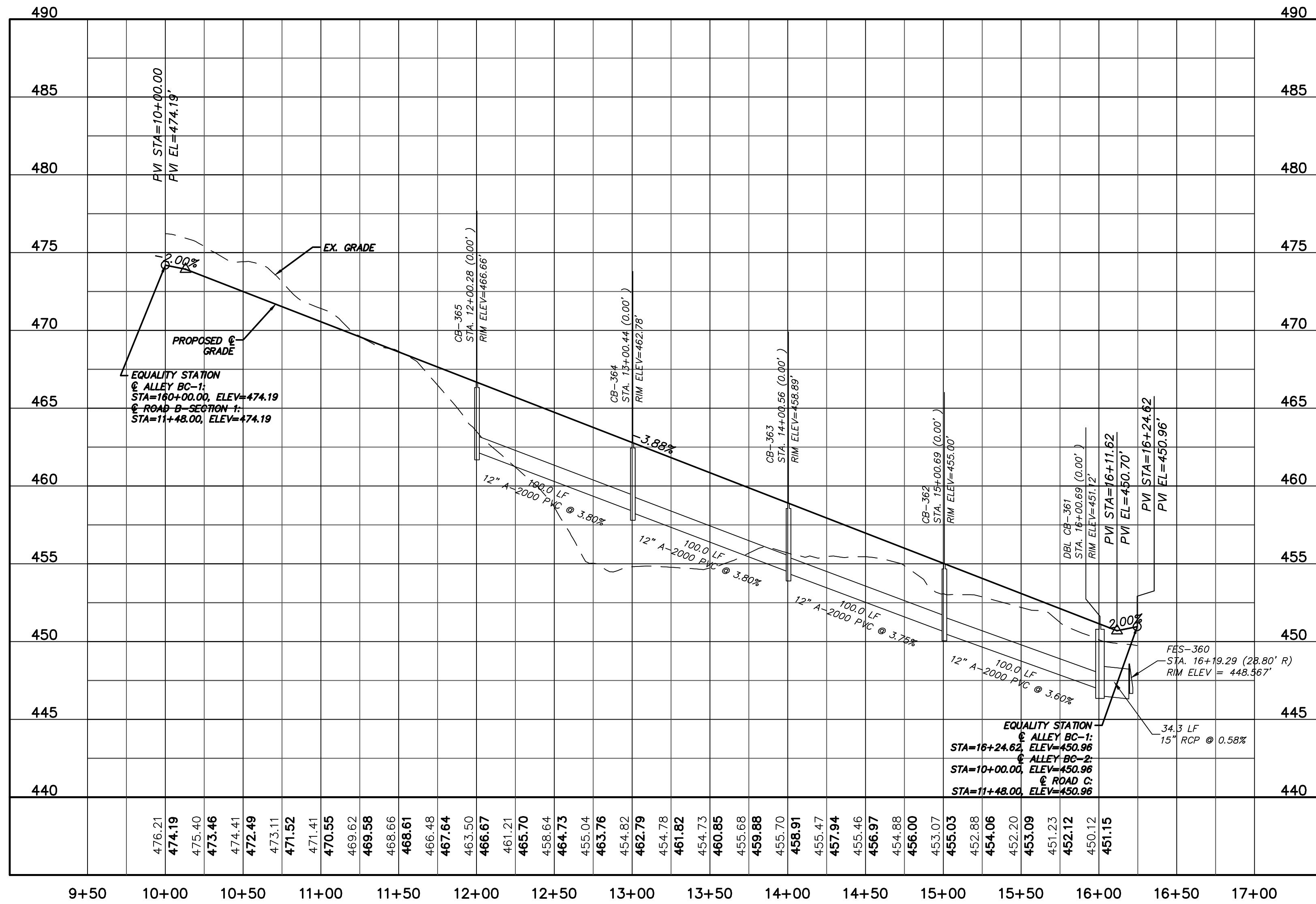
DATE: JANUARY 18, 2013	SCALE: 1" = 50'	MAC FILE NUMBER: C4.7X
MCE PROJ. # 02735-0090	HORIZONTAL: 1" = 50'	DRAWING NUMBER: C4.11
DRAWN: GCA	VERTICAL: N/A	
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION	REVISION: 4	



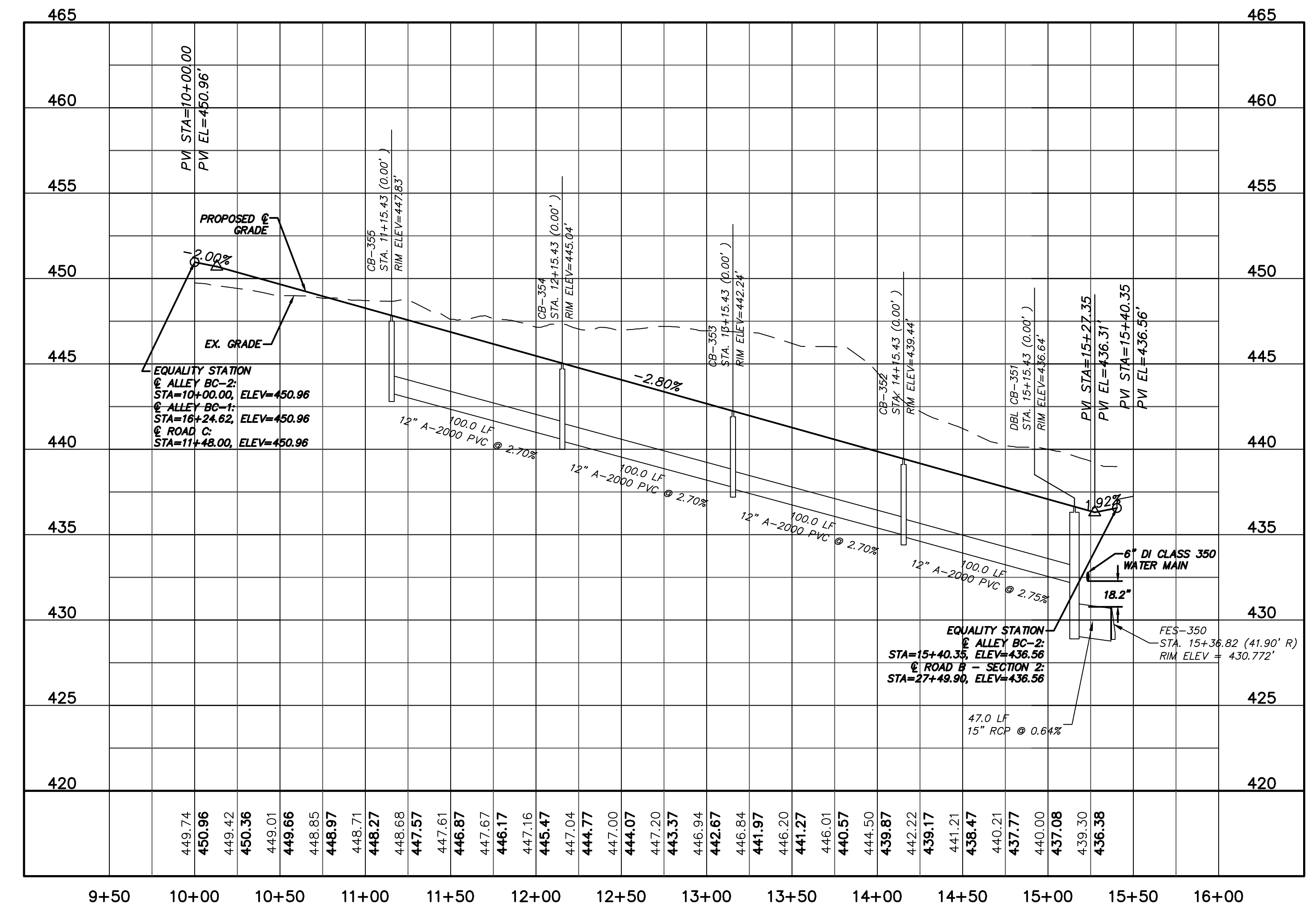
ALLEY BC-1 PLAN
(20' PRIVATE R/W, STA. 10+00 TO 16+24.62)
SCALE: 1"=50'



ALLEY BC-2 PLAN
(20' PRIVATE R/W, STA. 10+00 TO 15+40.35)
SCALE: 1"=50'

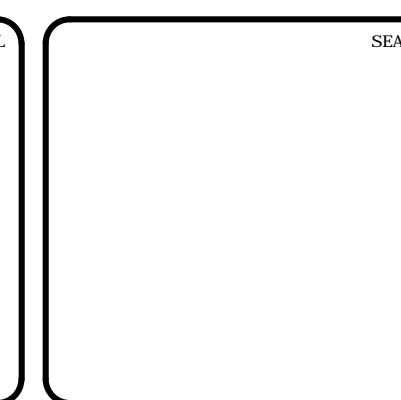
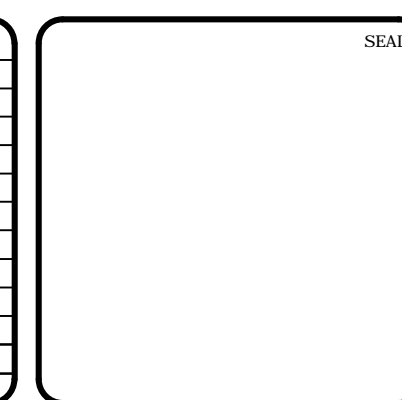


ALLEY BC-1 PROFILE
(STA. 10+00 TO 16+24.62)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'



ALLEY BC-2 PROFILE
(STA. 10+00 TO 15+40.35)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
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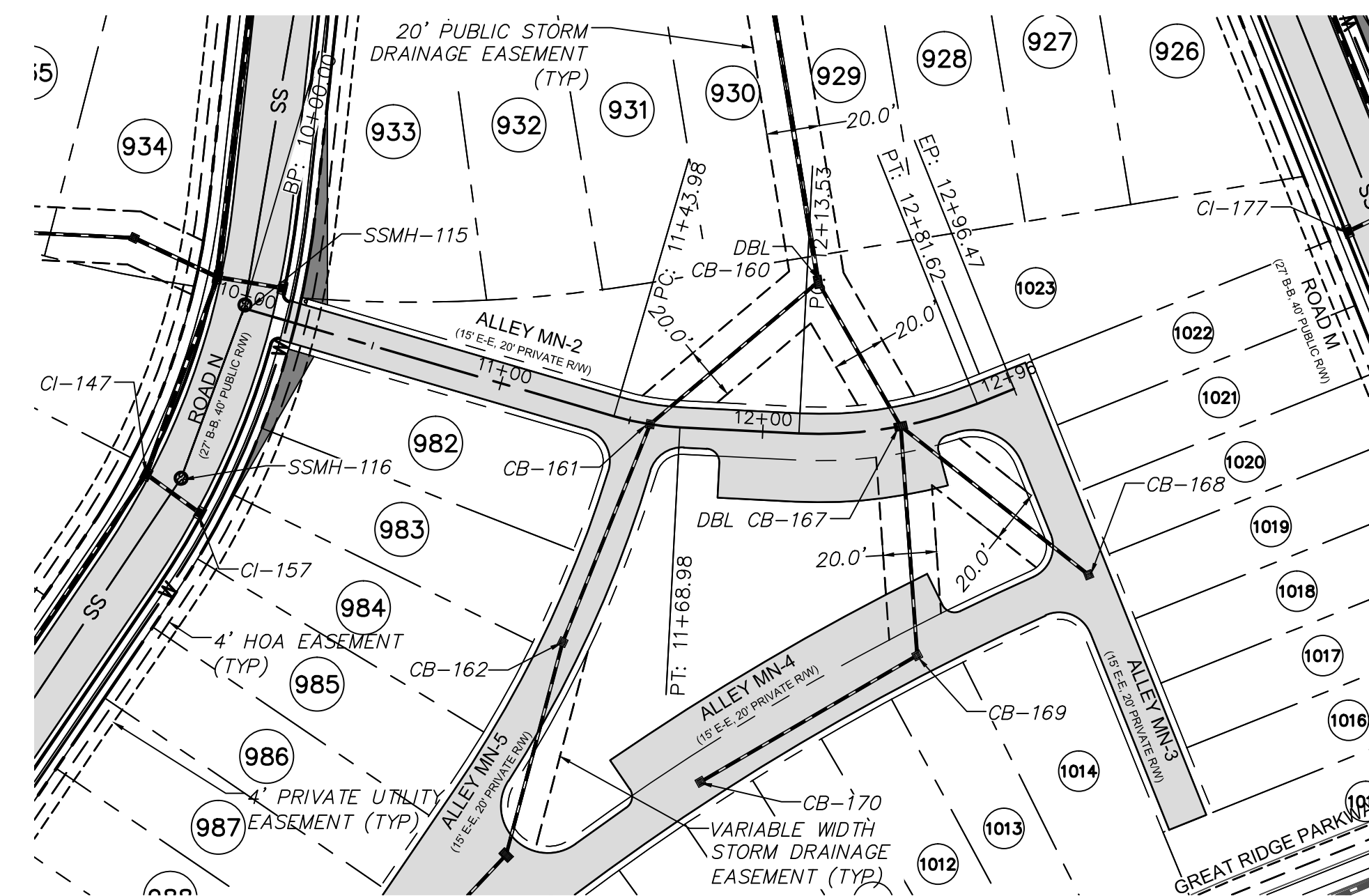
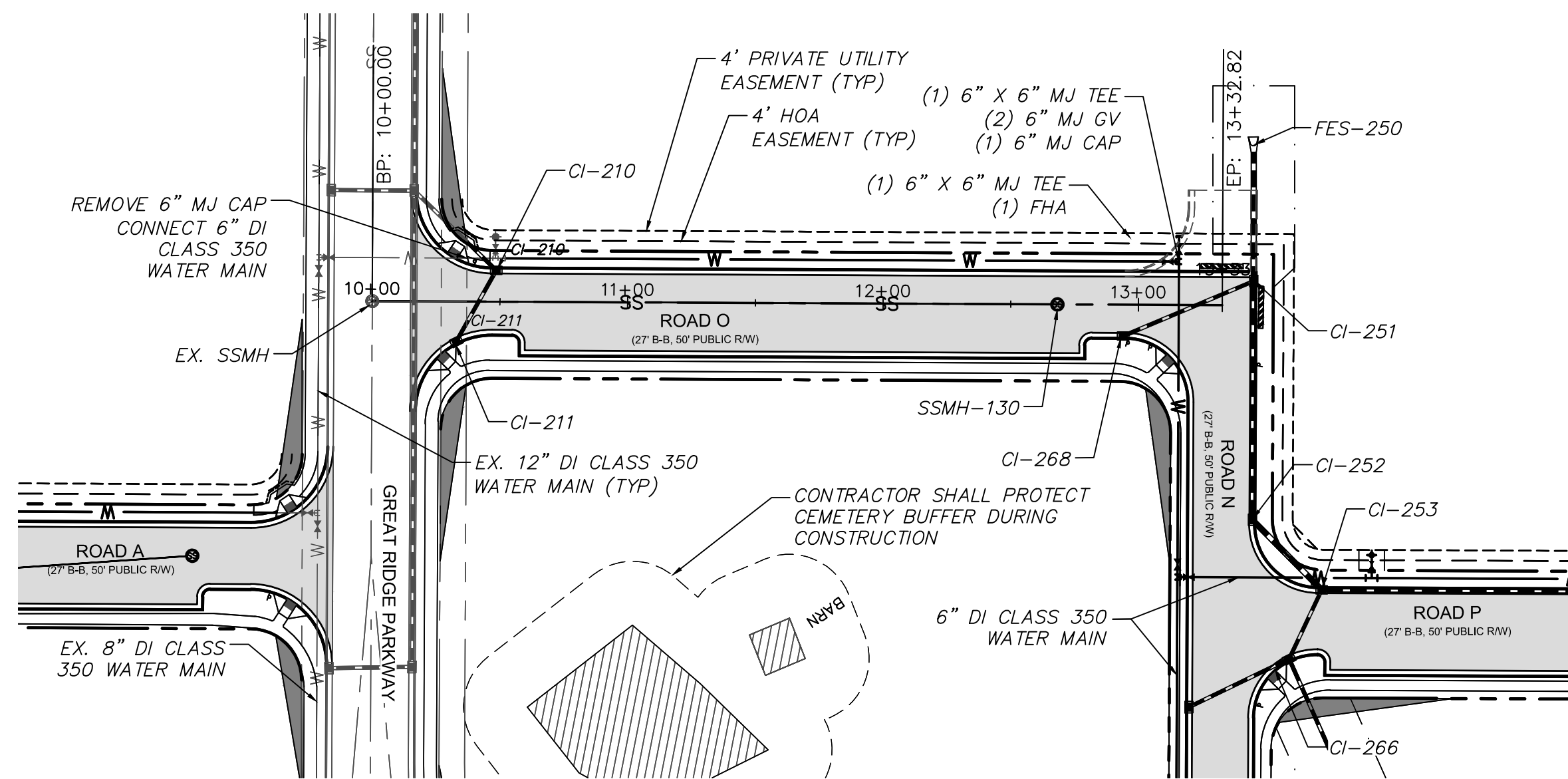
**BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA
PLAN & PROFILE**
ALLEY BC-1 STA. 10+00 TO STA. 16+24.62
ALLEY BC-2 STA. 10+00 TO STA. 15+40.35

DATE: JANUARY 18, 2013
MCE PROJ. # 02735-0090
DRAWN: GCA
DESIGNED: GCA
CHECKED: CHS
PROJ. MGR. CHS

SCALE: HORIZONTAL: 1"=50' VERTICAL: N/A

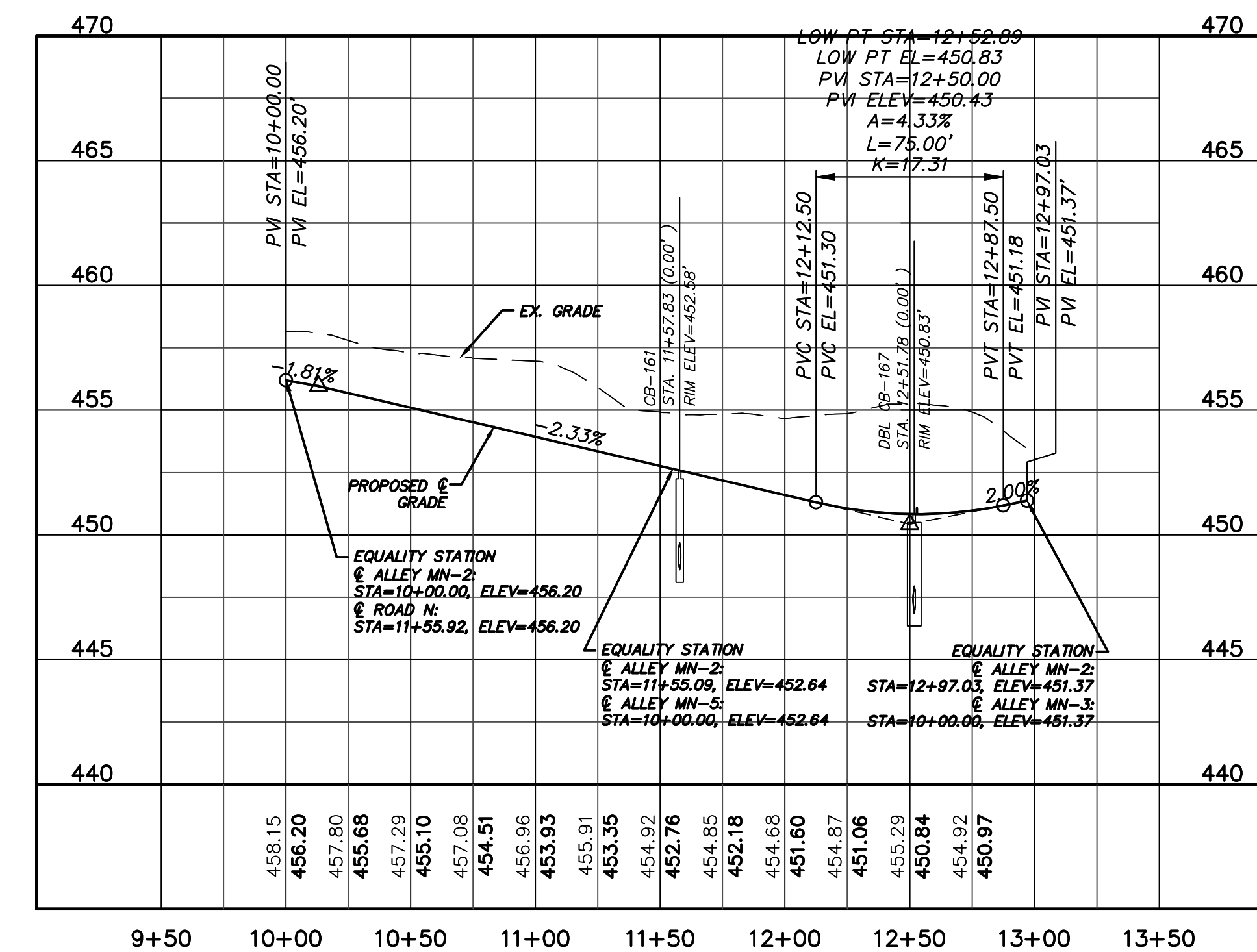
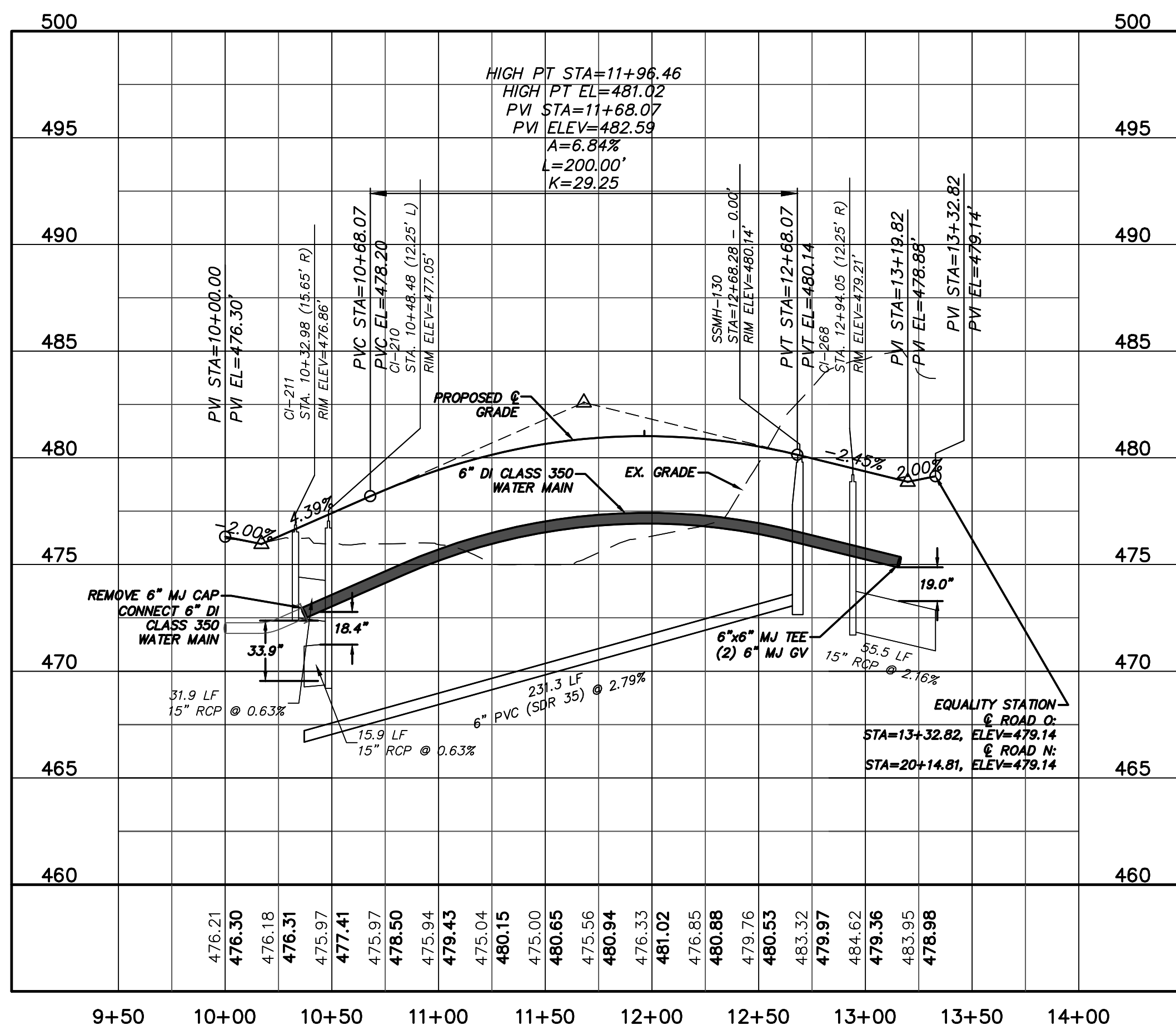
MAC FILE NUMBER: C4.7X
DRAWING NUMBER: C4.12

STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION
REVISION: 4



ROAD O PLAN
(50' PUBLIC R/W, STA. 10+00 TO 13+32.82)
SCALE: 1"=50'

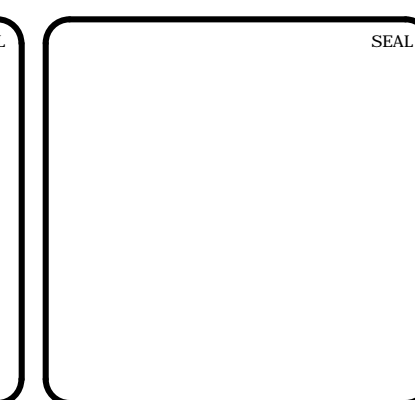
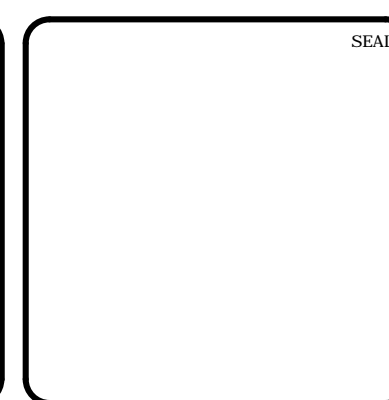
ALLEY MN-2 PLAN
(20' PRIVATE R/W, STA. 10+00 TO 12+96.47)
SCALE: 1"=50'



ROAD O PROFILE
(STA. 10+00 TO 13+32.82)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

ALLEY MN-2 PROFILE
(STA. 10+00 TO 12+96.47)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
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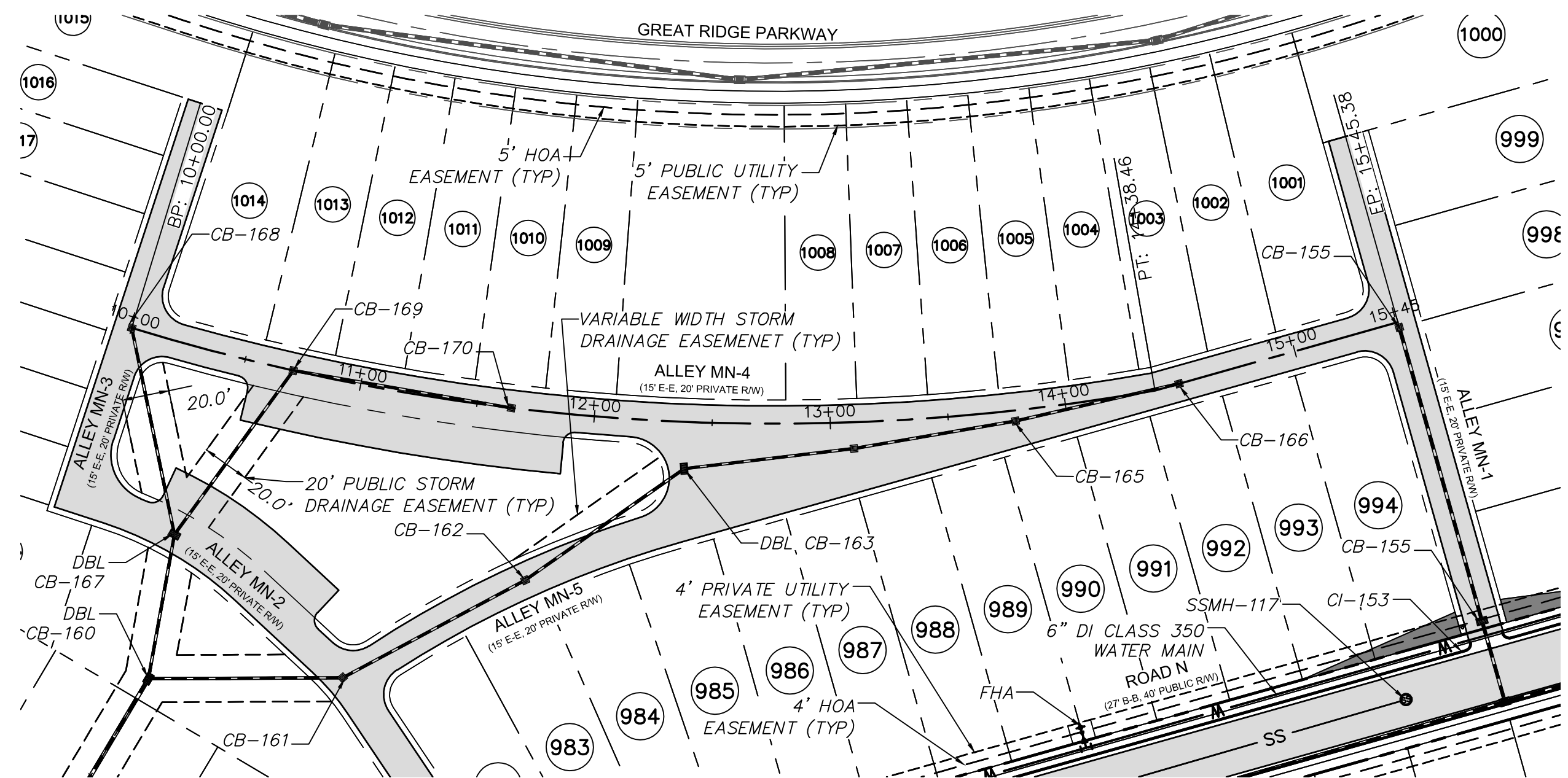


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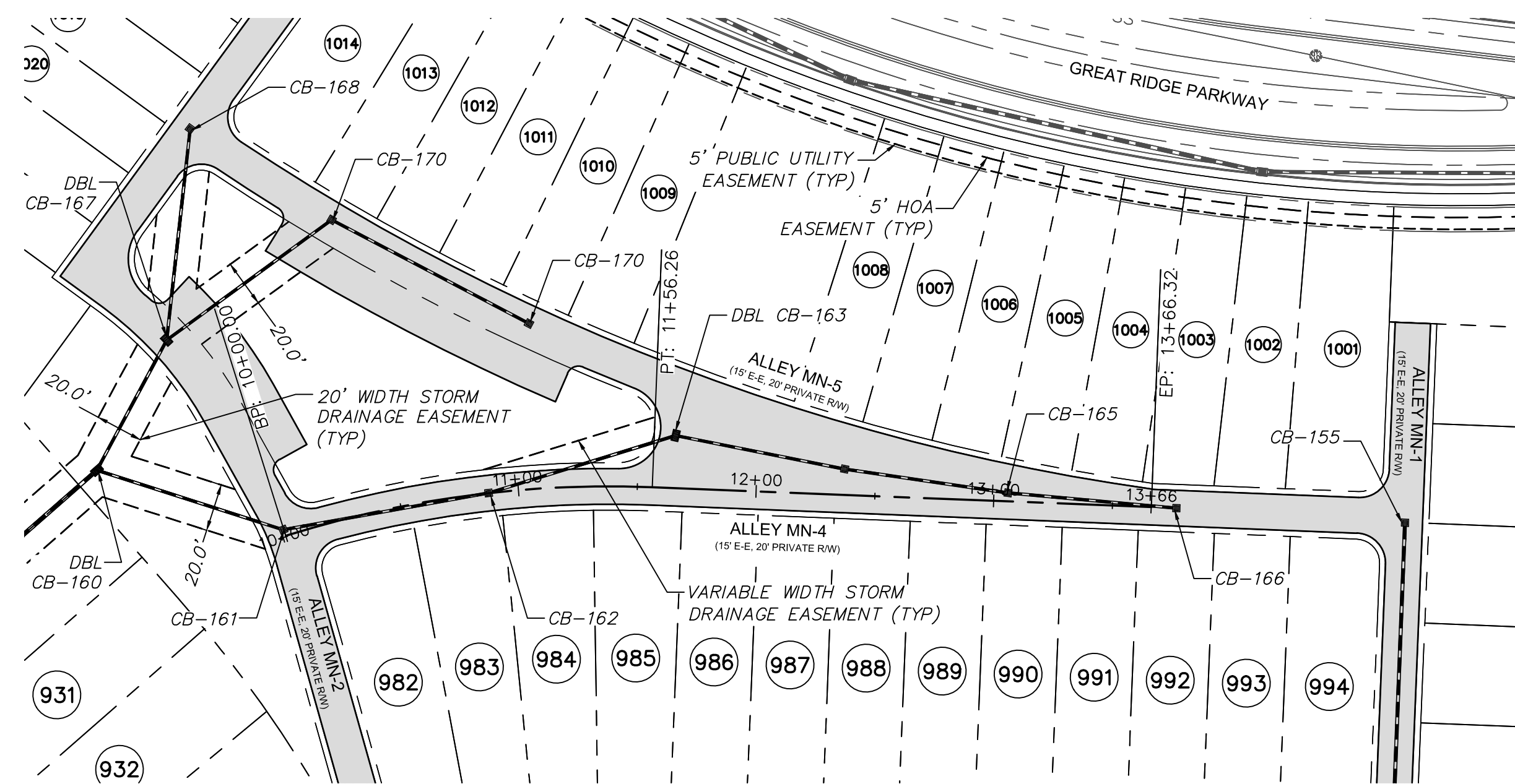
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**BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA
PLAN & PROFILE
ROAD O - STA. 10+00 TO 13+32.82
ALLEY MN-2 - STA. 10+00 TO 12+96.47**

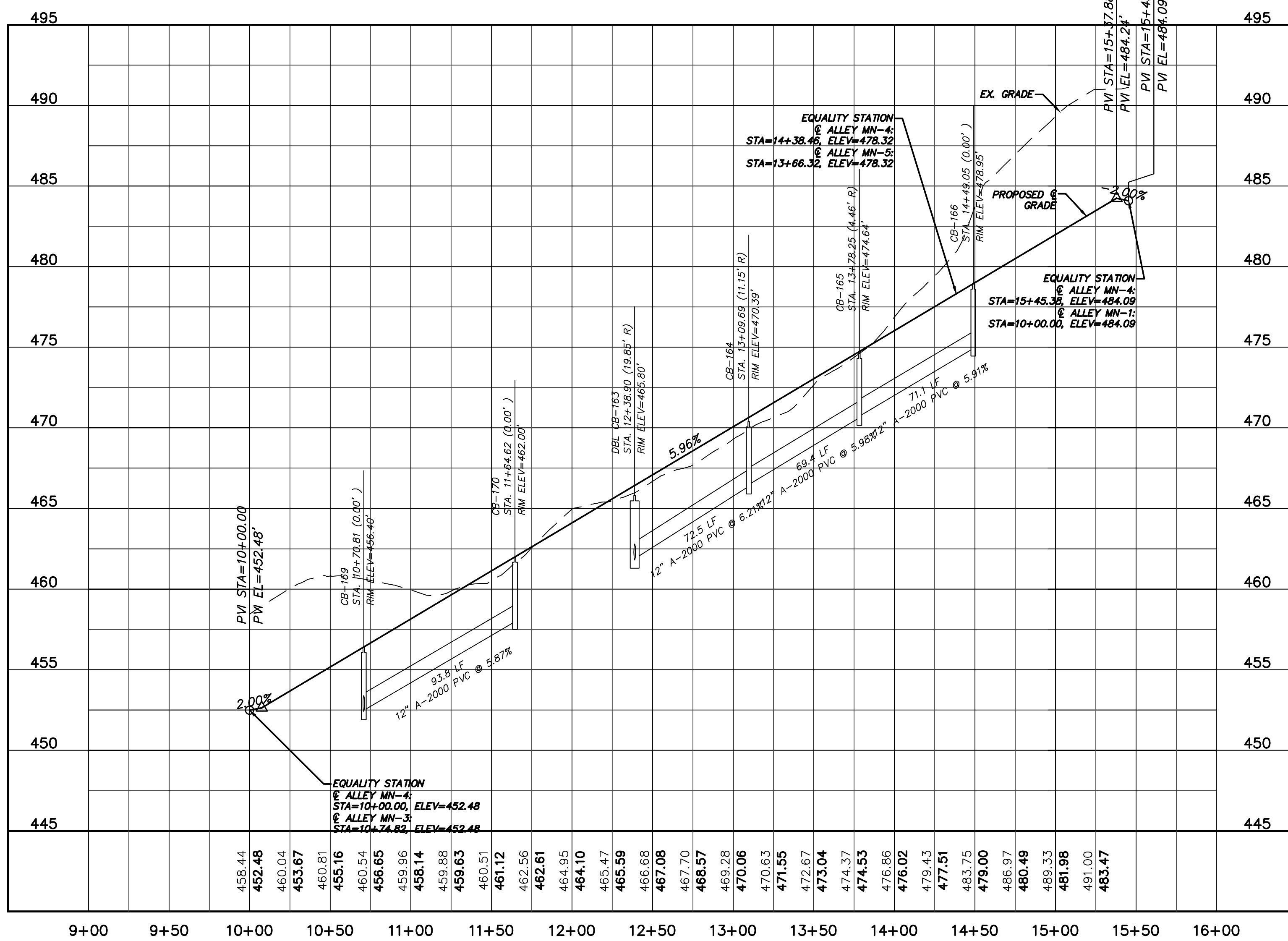
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DESIGNED: GCA	CHECKED: CHS	VERTICAL: N/A
PROJ. MGR: CHS		
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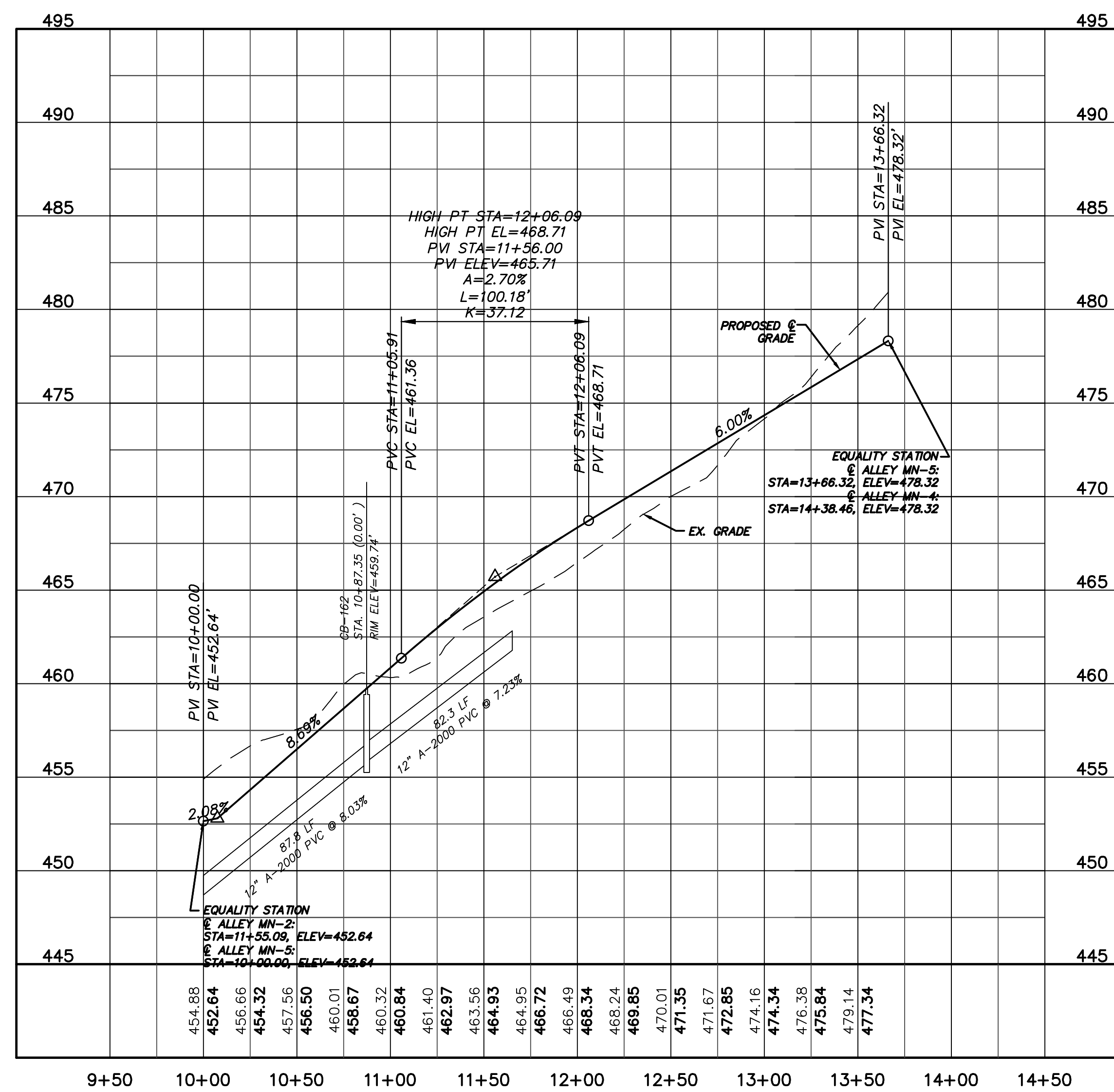
ALLEY MN-4 PLAN
 (20' PRIVATE R/W, STA. 10+00 TO 15+45.38)
 SCALE: 1"=50'



ALLEY MN-5 PLAN
 (20' PRIVATE R/W, STA. 10+00 TO 13+66.32)
 SCALE: 1"=50'

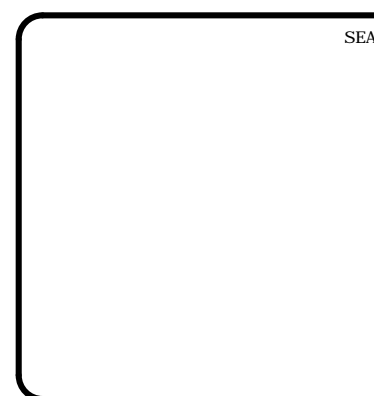
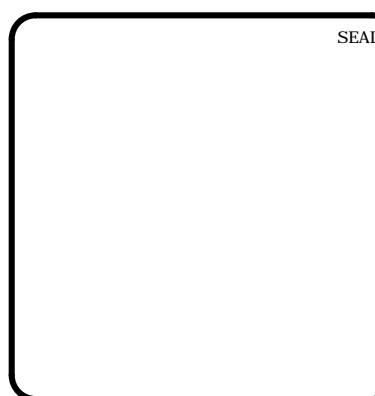


ALLEY MN-4 PROFILE
 (STA. 10+00 TO 15+45.38)
 SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'



ALLEY MN-5 PROFILE
 (STA. 10+00 TO 13+66.32)
 SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
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2	ISSUED FOR PERMITTING	03/23/2013
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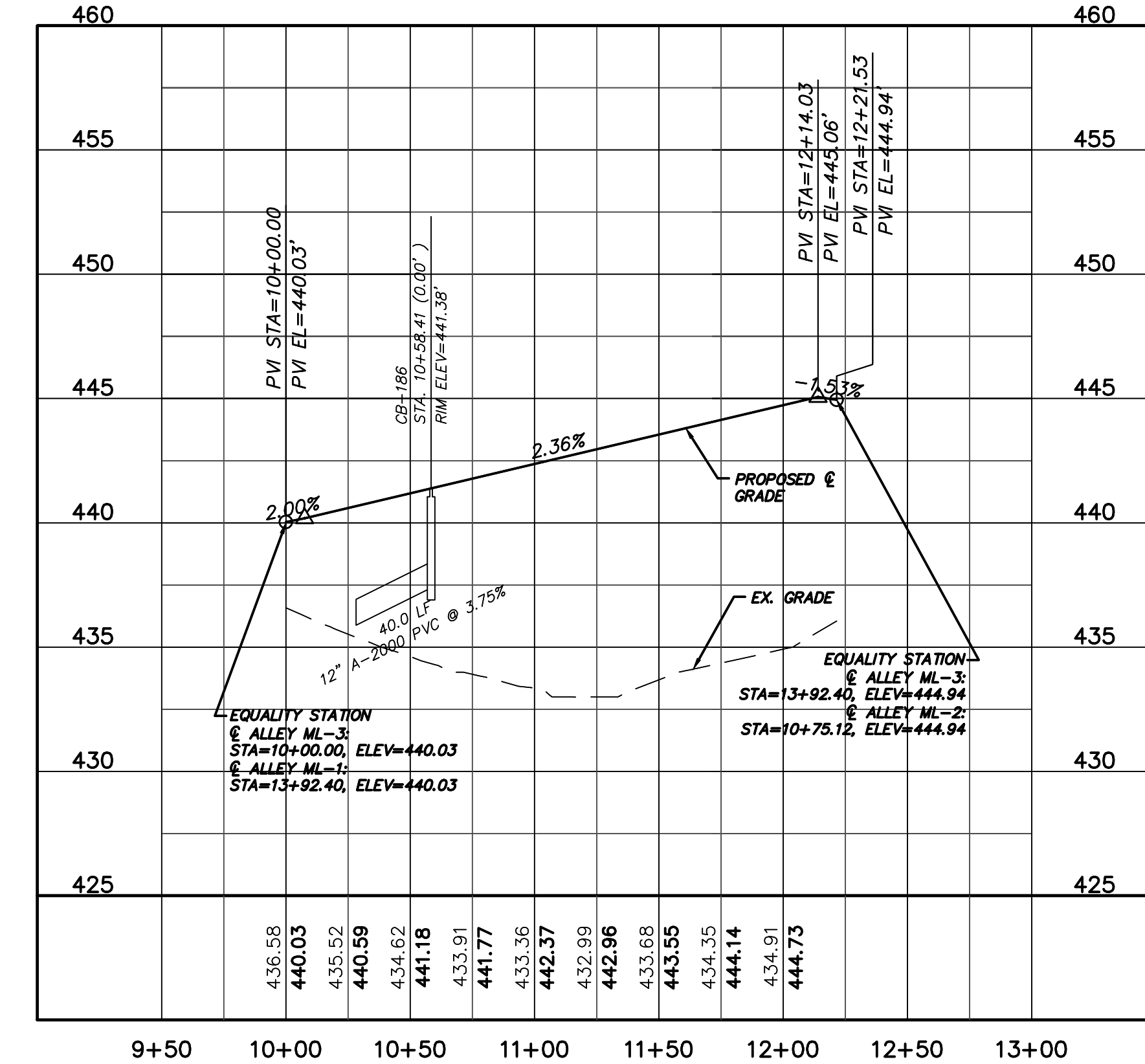
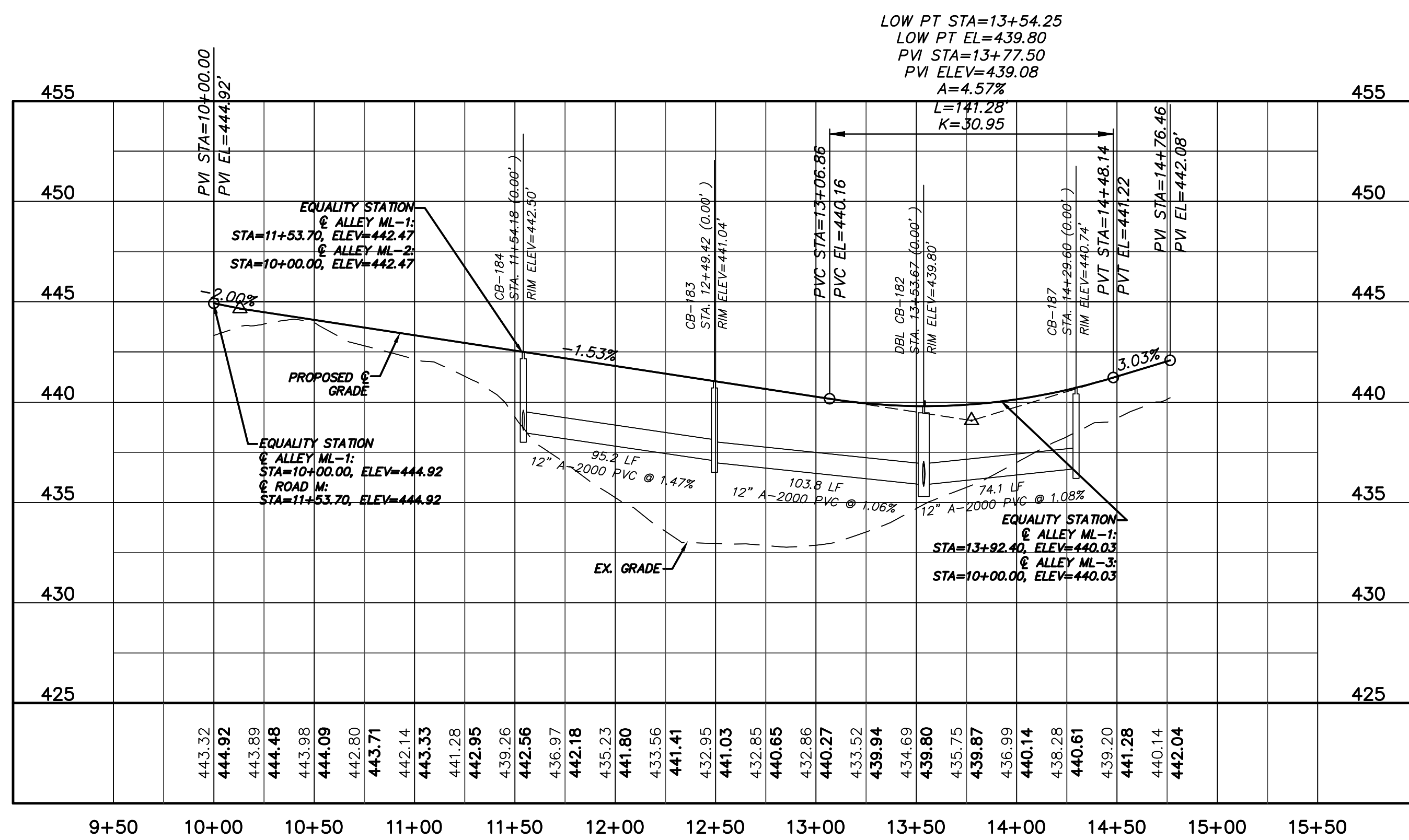
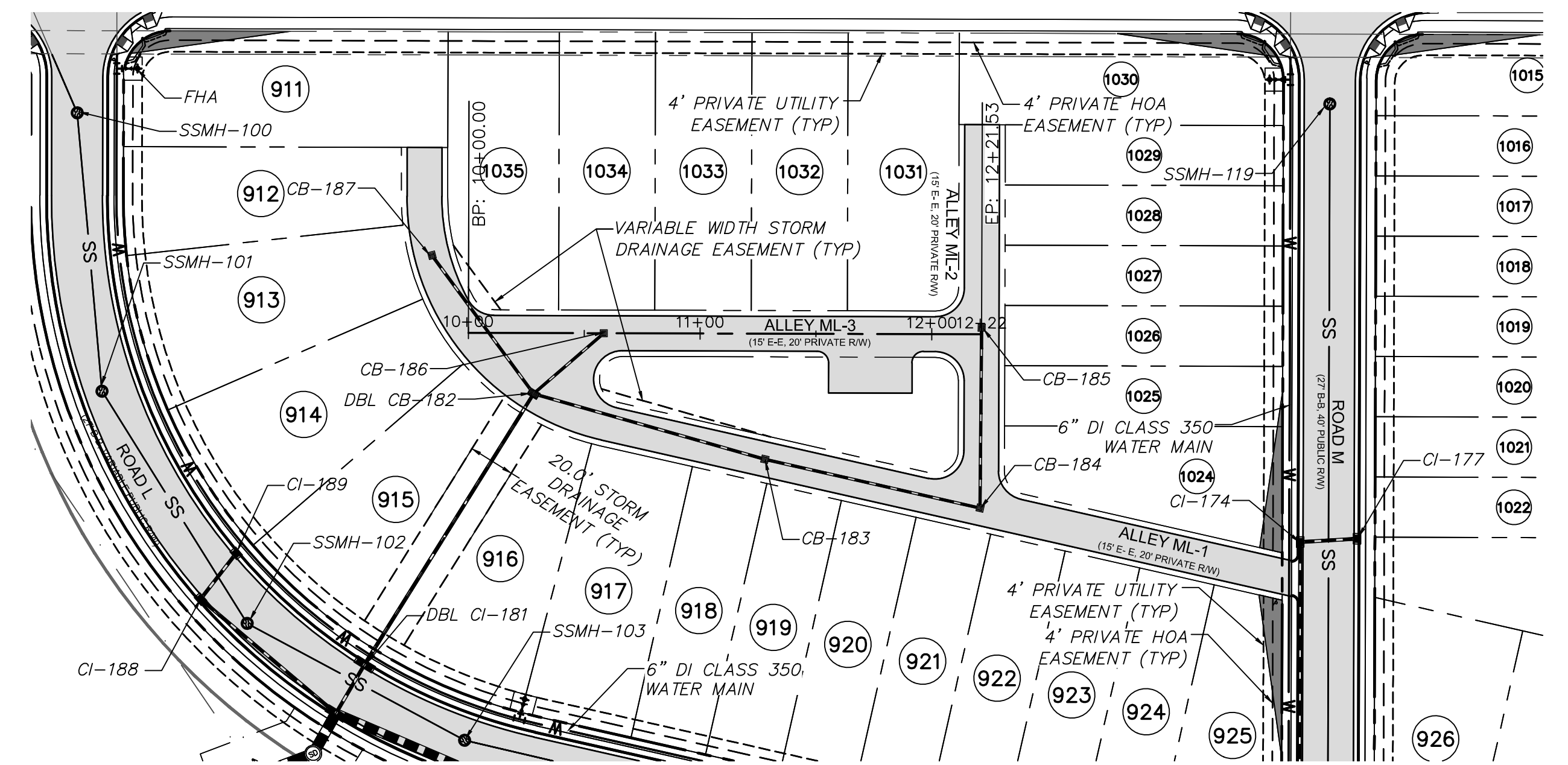
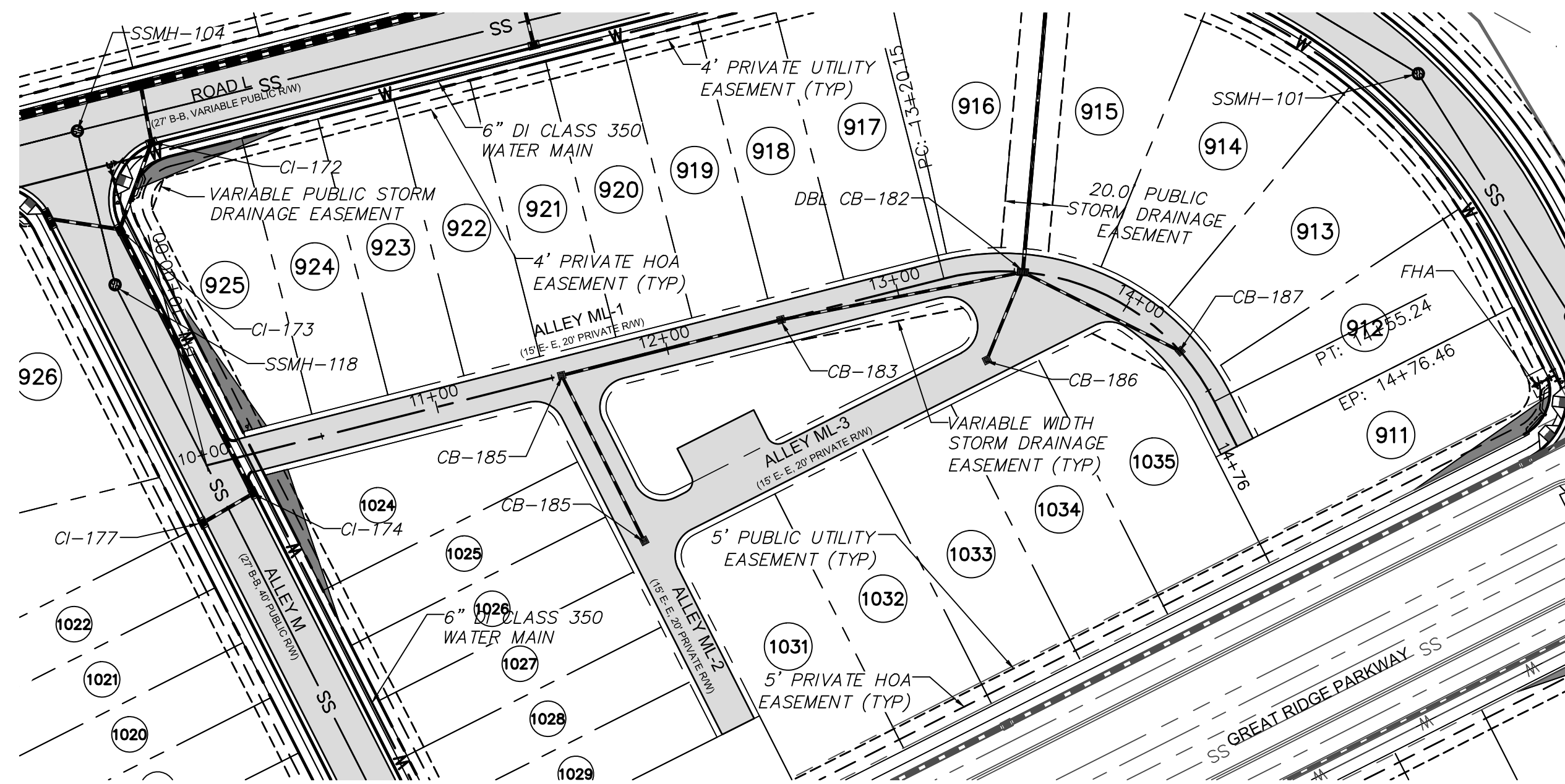
BRIAR CHAPEL
 PHASE 7
 CHATHAM COUNTY, NORTH CAROLINA
PLAN & PROFILE
 ALLEY MN-4 - STA. 10+00 TO 15+45.38
 ALLEY MN-5 - STA. 10+00 TO 13+66.32

DATE:	JANUARY 18, 2013
MCE PROJ. #	02735-0090
DRAWN:	GCA
DESIGNED:	GCA
CHECKED:	CHS
PROJ. MGR.	CHS

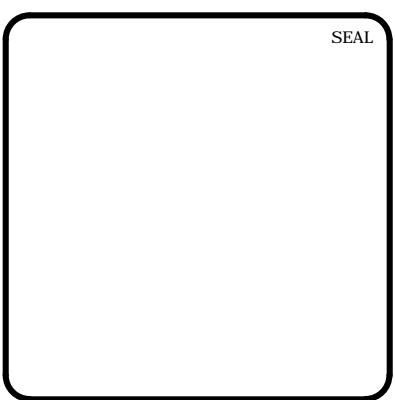
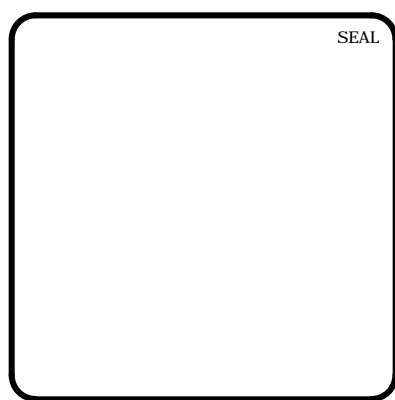
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VERTICAL:	N/A

M&C FILE NUMBER	C4.13X
DRAWING NUMBER	C4.14

STATUS:	FINAL DRAWINGS	REVISION	4
NOT RELEASED FOR CONSTRUCTION			



REV. NO.	DESCRIPTION	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
2	ISSUED FOR PERMITTING	03/23/2013
1	FOR REVIEW BY CLIENT	01/18/2013



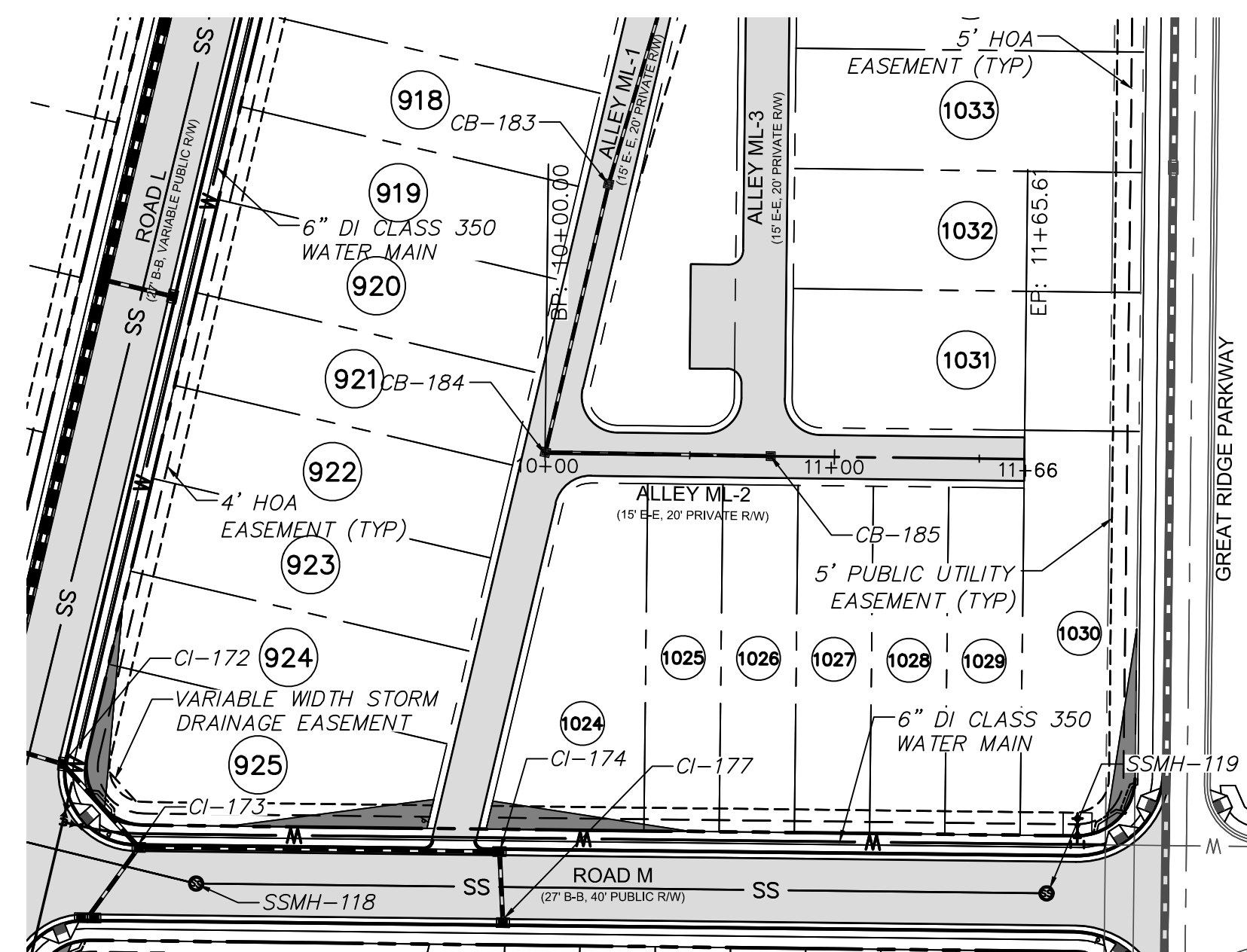
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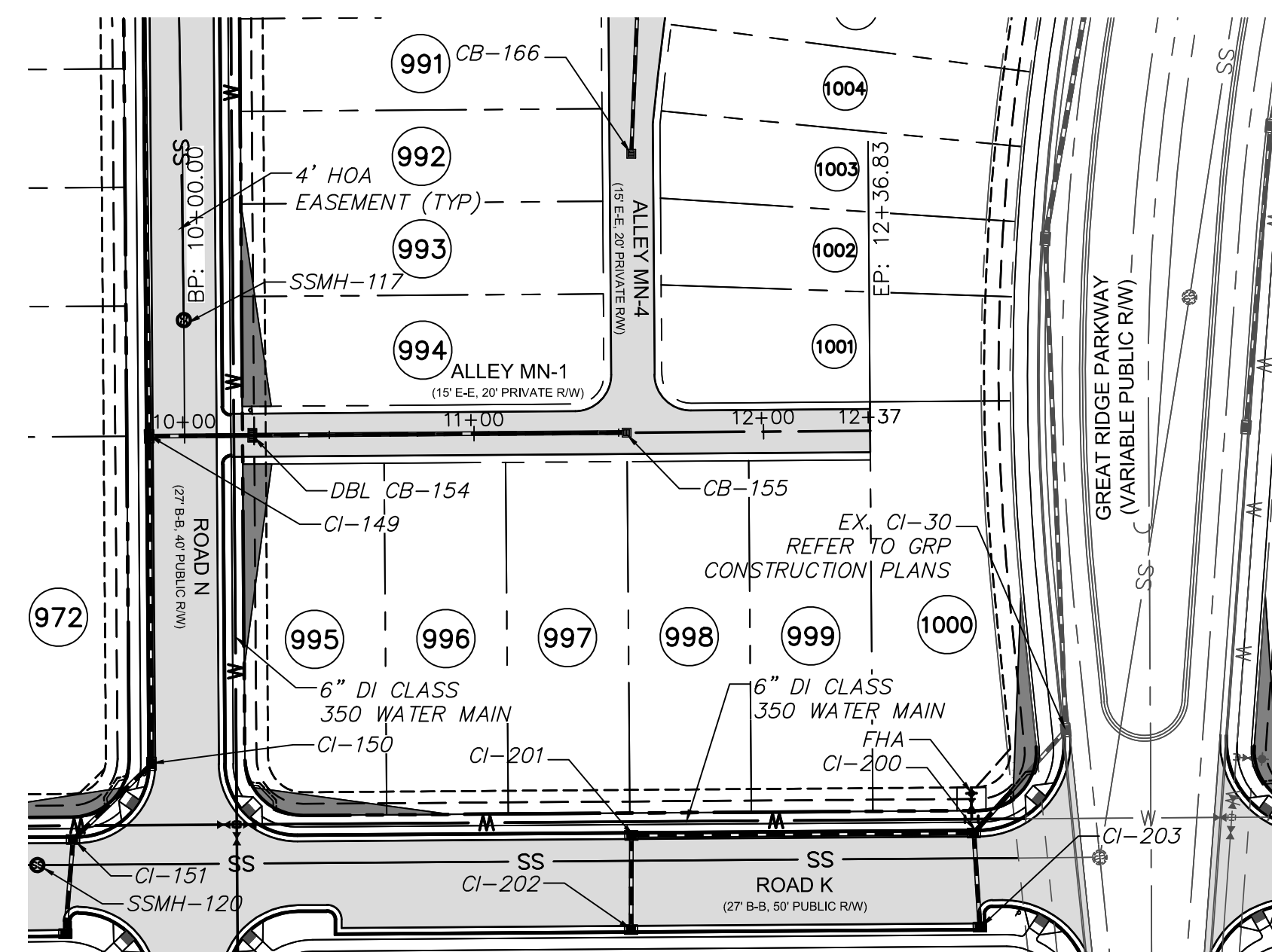
**BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA
PLAN & PROFILE**
ALLEY ML-1 - STA. 10+00 TO 14+76.46
ALLEY ML-3 - STA. 10+00 TO 12+21.53

DATE: JANUARY 18, 2013	SCALE: 1"=50'	M&C FILE NUMBER: C4.13X
M&C PROJ. # 02735-0090	HORIZONTAL: 1"=50'	DRAWING NUMBER: C4.15
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DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR: CHS		

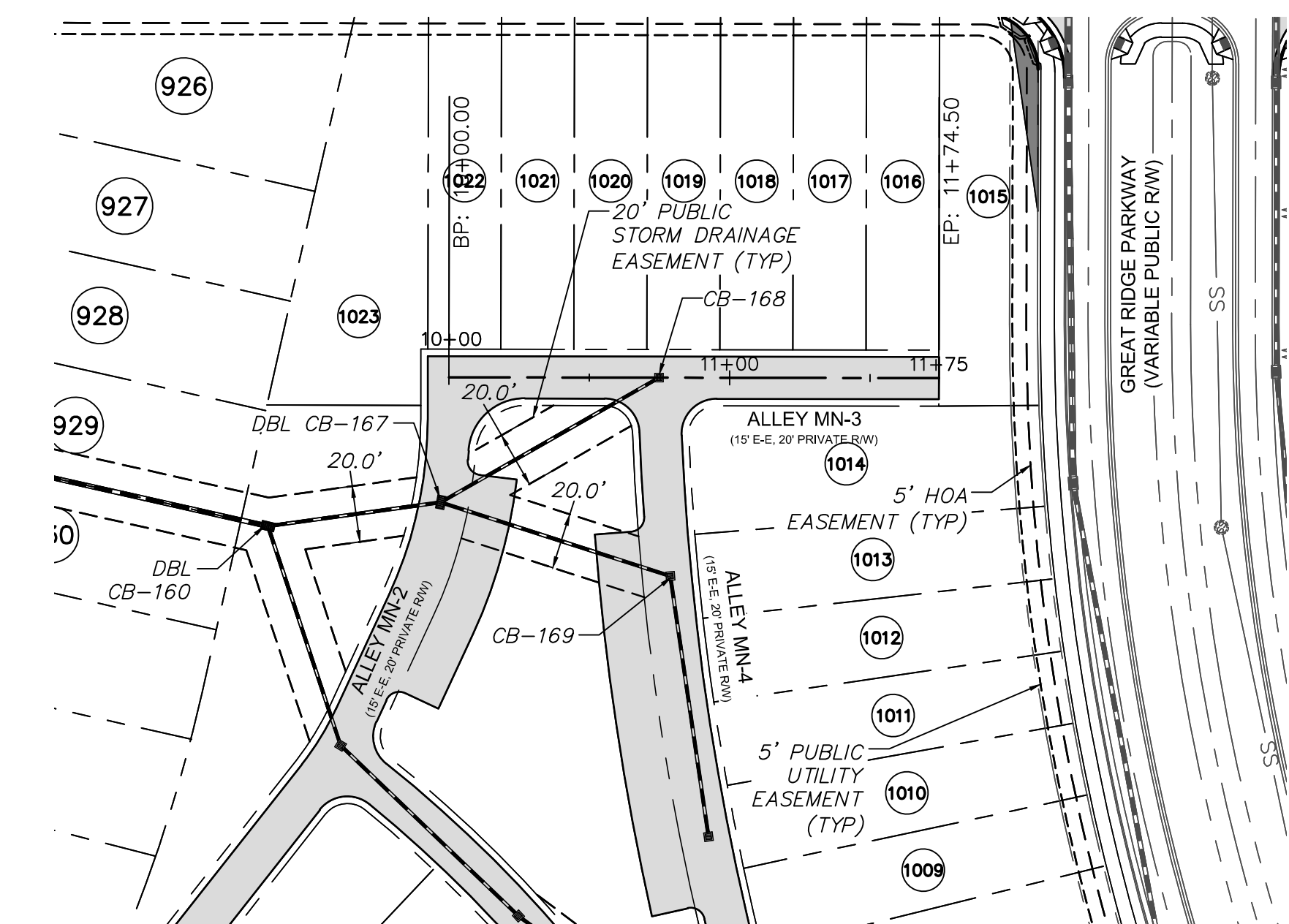
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION	REVISION: 4
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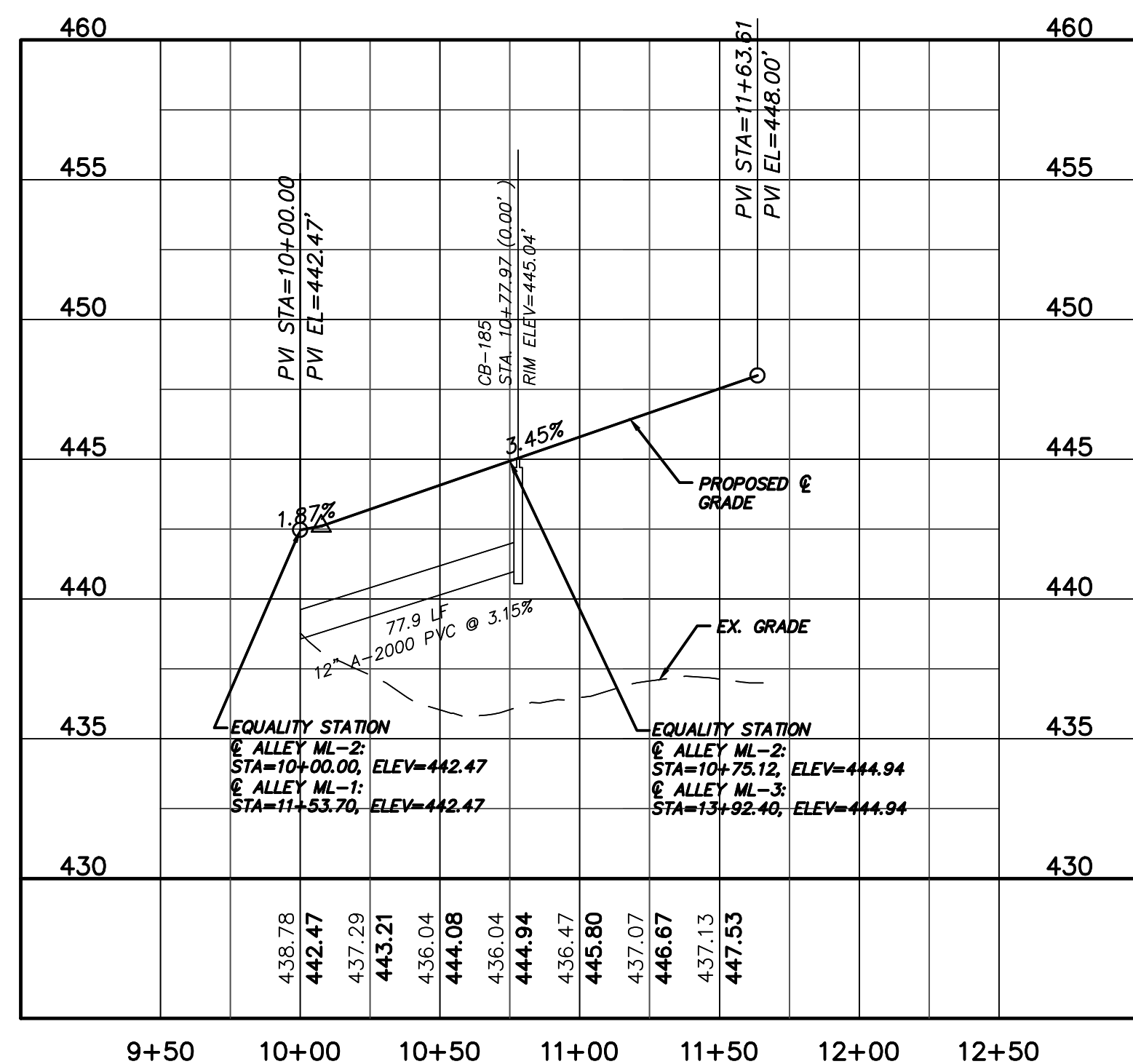
ALLEY ML-2 PLAN
(20' PRIVATE R/W, STA. 10+00 TO 11+65.61)
SCALE: 1"=50'



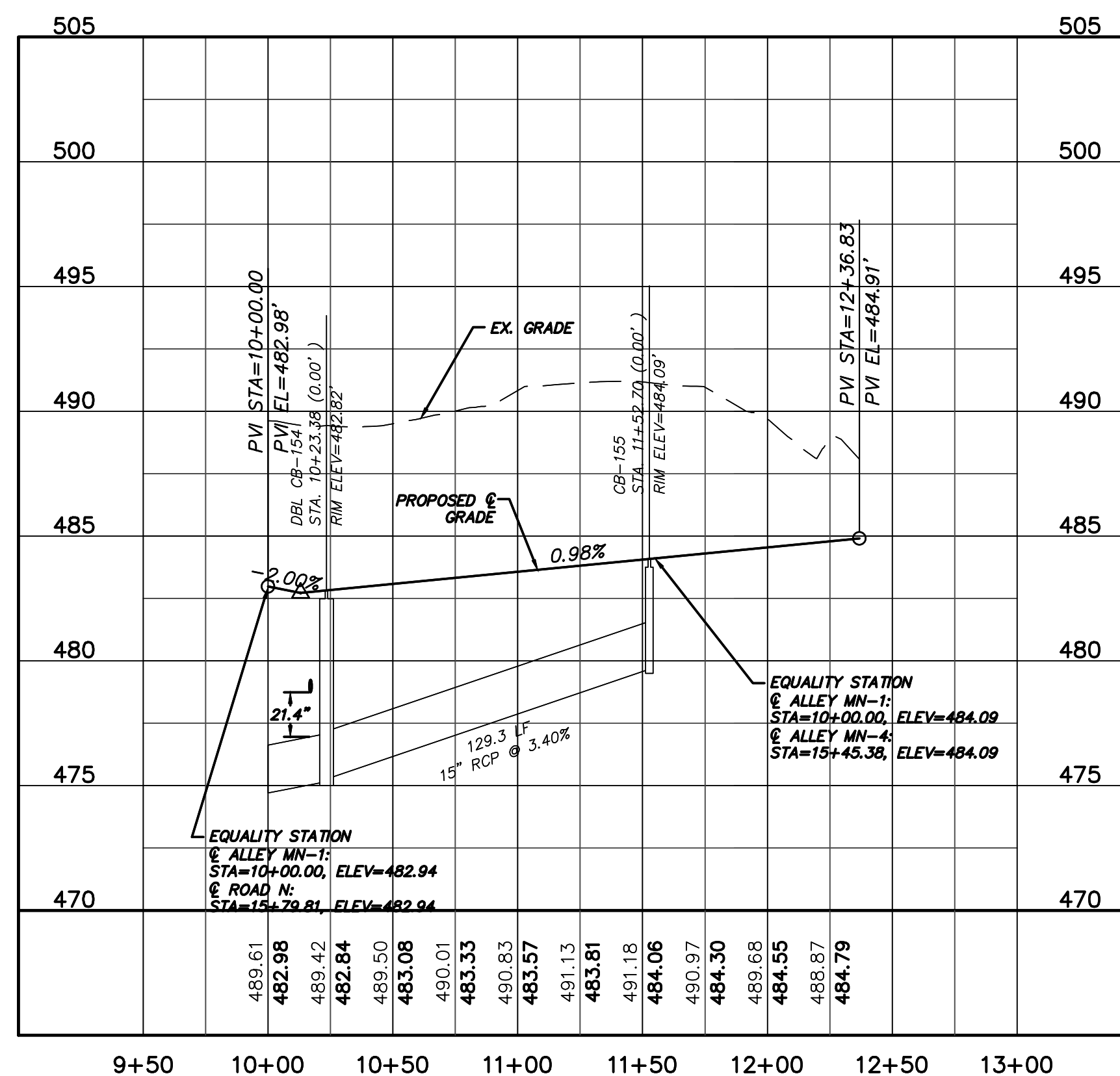
ALLEY MN-1 PLAN
(20' PRIVATE R/W, STA. 10+00 TO 12+36.83)
SCALE: 1"=50'



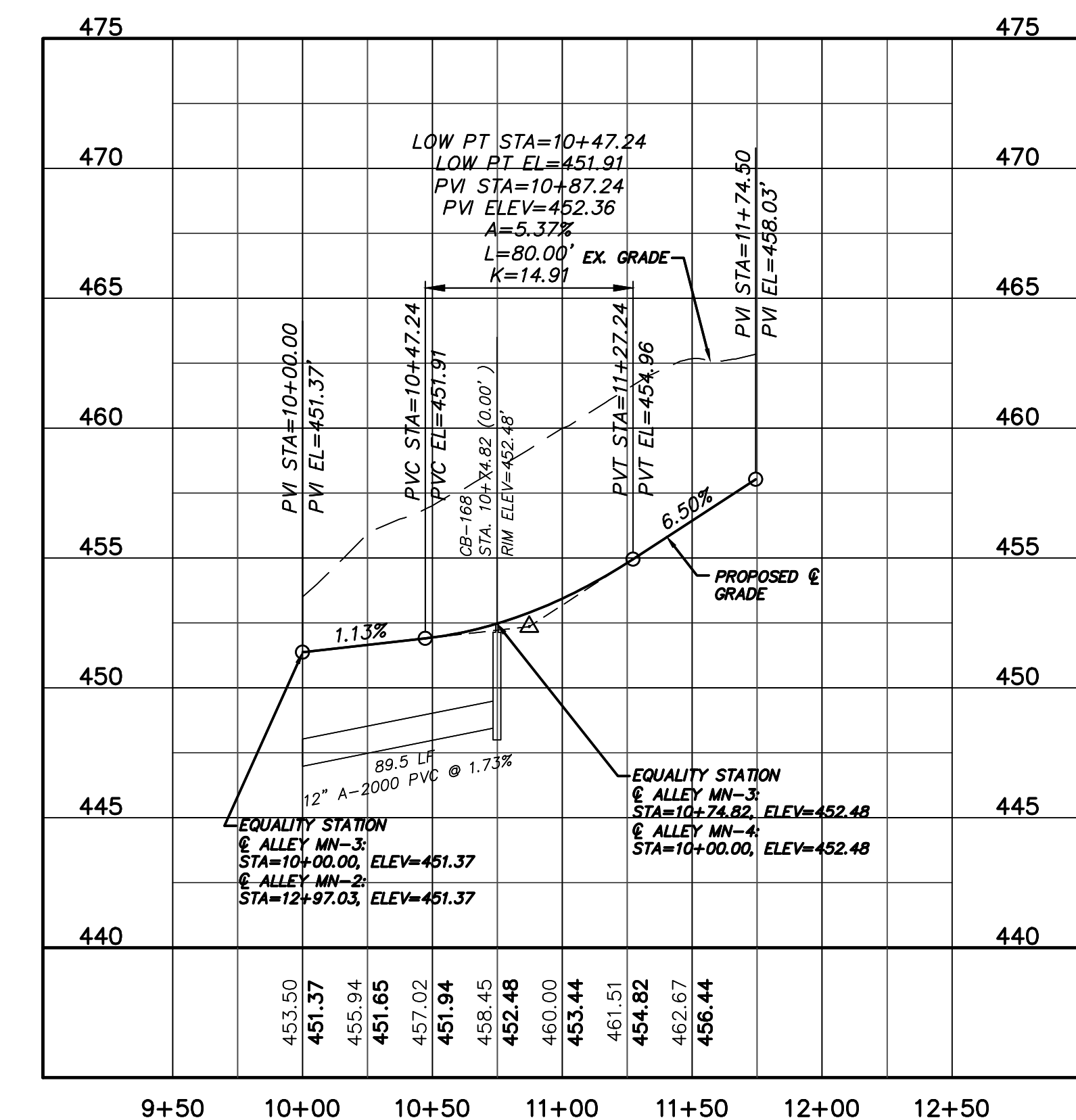
ALLEY MN-3 PLAN
(20' PRIVATE R/W, STA. 10+00 TO 11+74.50)
SCALE: 1"=50'



ALLEY ML-2 PROFILE
(STA. 10+00 TO 11+65.61)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'



ALLEY MN-1 PROFILE
(STA. 10+00 TO 12+36.83)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'



ALLEY MN-3 PROFILE
(STA. 10+00 TO 11+74.50)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
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1	FOR REVIEW BY CLIENT	01/18/2013

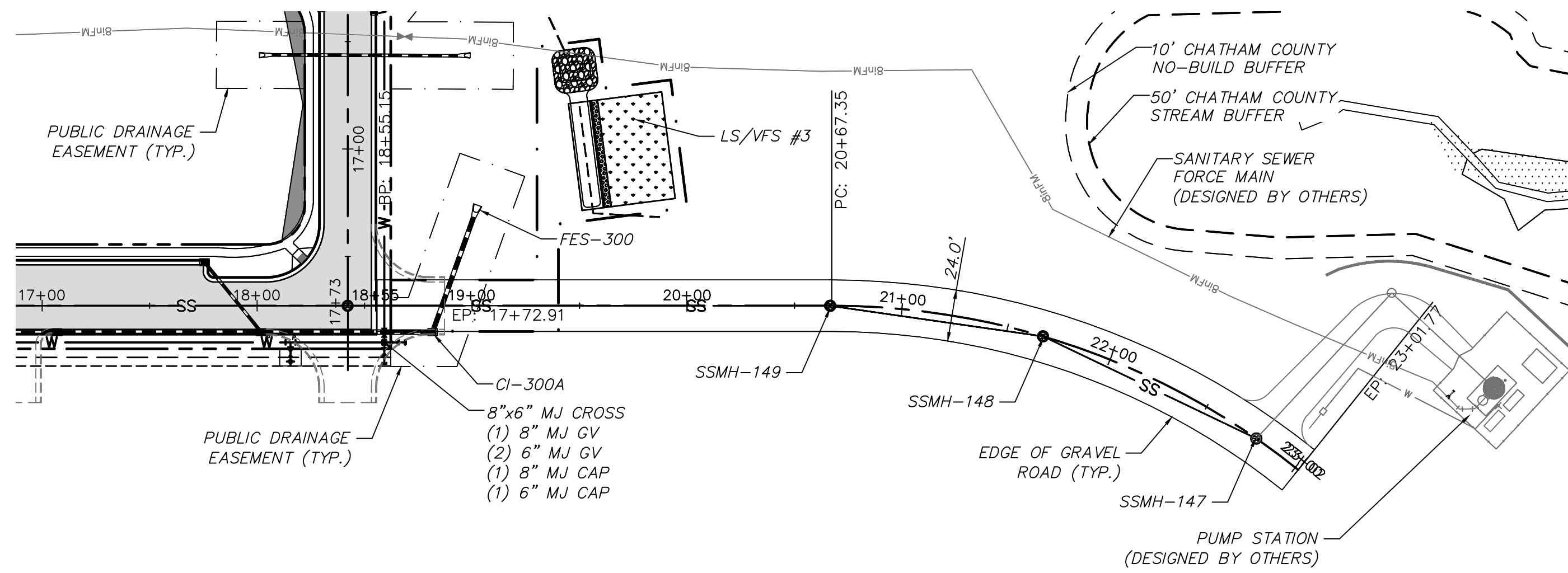
SEAL	DATE

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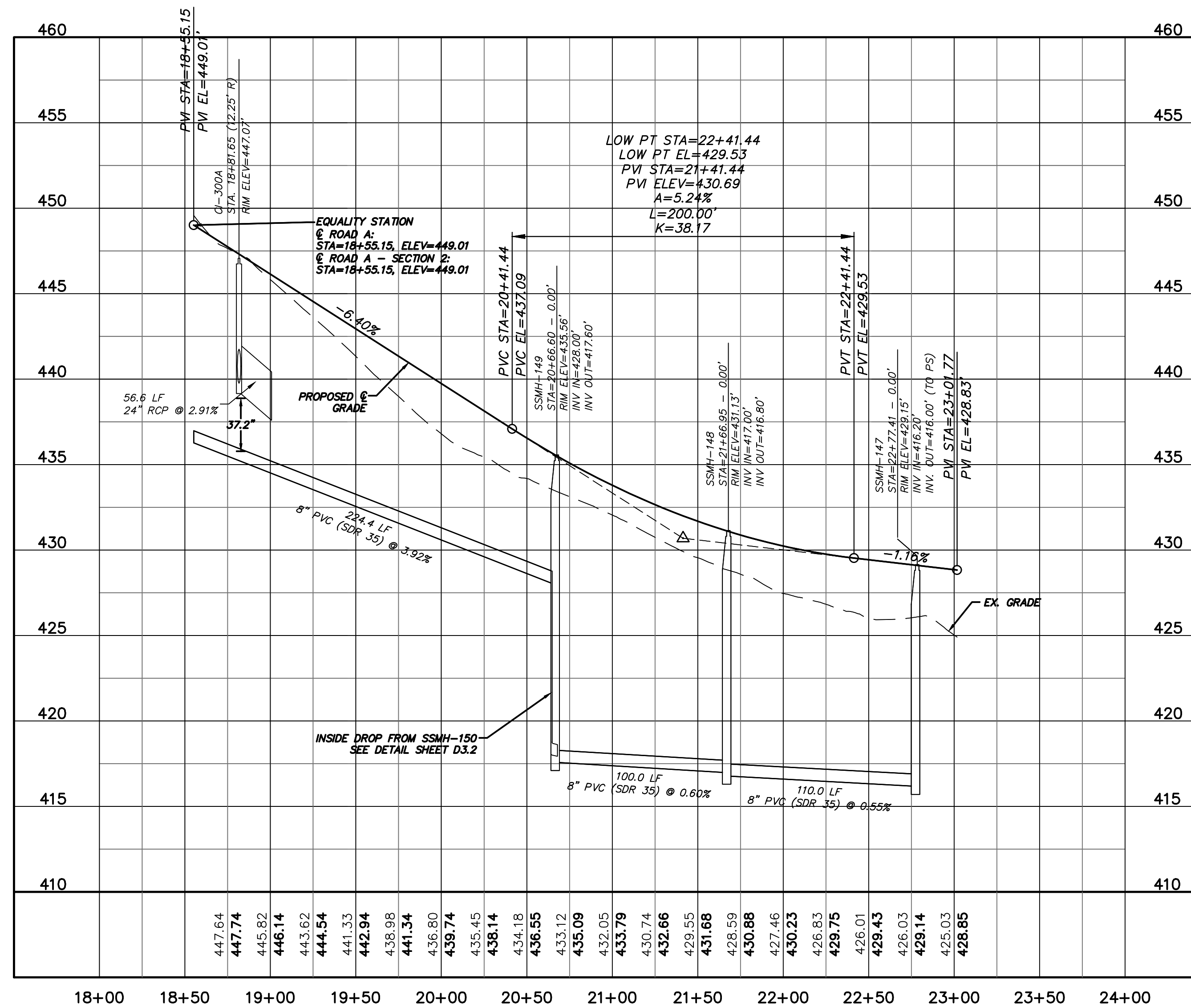
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**BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA
PLAN & PROFILE
ALLEY ML-2, ALLEY MN-1 &
ALLEY MN-3**

DATE: JANUARY 18, 2013	SCALE: 1"=50'	MISC FILE NUMBER: C4.13X
MCE PROJ. # 02735-0090	HORIZONTAL: 1"=50'	DRAWING NUMBER: C4.16
DRAWN: GCA	VERTICAL: N/A	
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR. CHS		
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION	REVISION: 4	

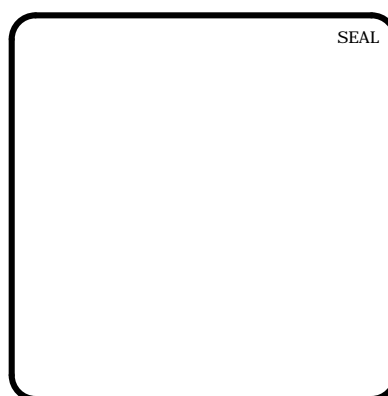
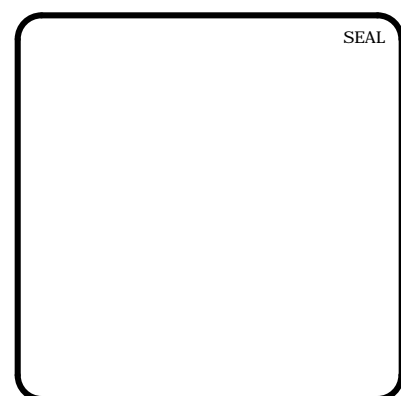


ROAD A-SECTION 2 PLAN
(STA. 18+55.15 TO 23+01.77)
SCALE: 1"=50'



ROAD A-SECTION 2 PROFILE
(STA. 18+55.15 TO 23+01.77)
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV. NO.	DESCRIPTIONS	DATE
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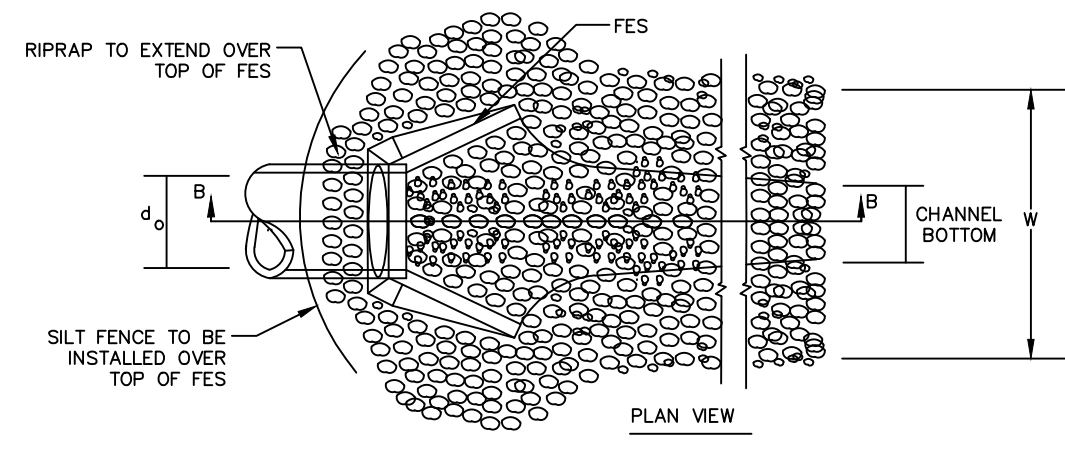
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BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA

PLAN & PROFILE
ROAD A SECTION 2

DATE:	JANUARY 18, 2013
MCE PROJ. #	02735-0090
DRAWN	GCA
DESIGNED	GCA
CHECKED	CHS
PROJ. MGR.	CHS

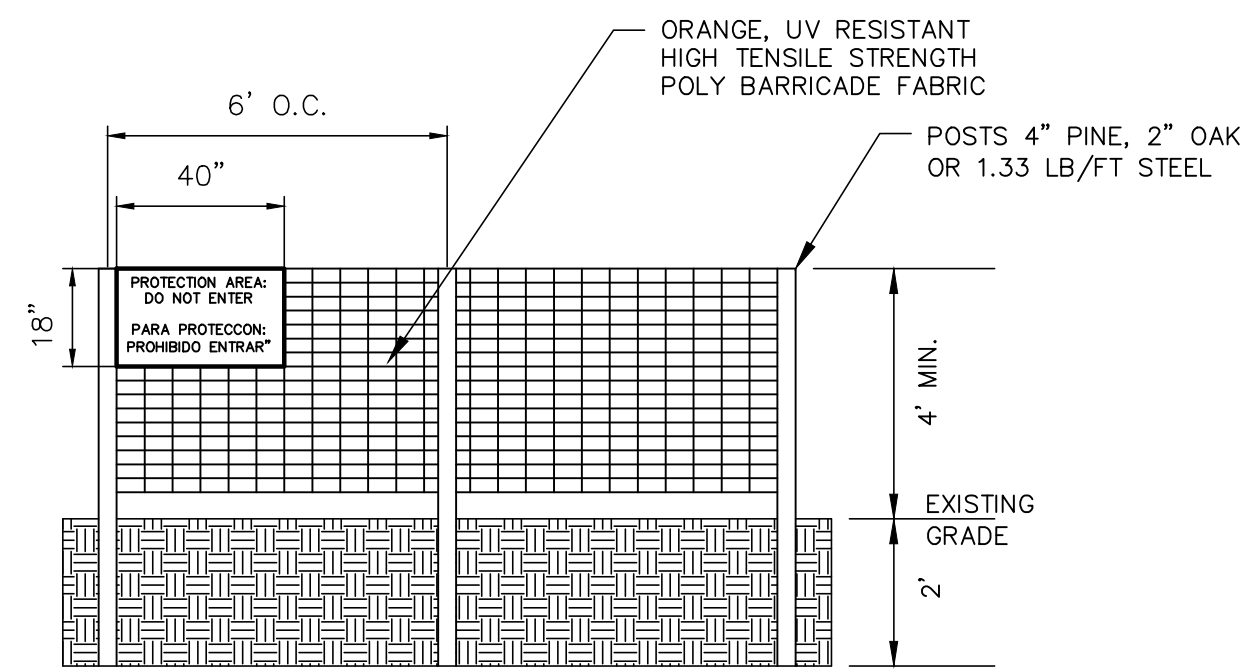
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HORIZONTAL	1" = 50'
VERTICAL	N/A
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DRAWING NUMBER	C4.17
STATUS:	FINAL DRAWINGS
NOT RELEASED FOR CONSTRUCTION	REVISION 4



OUTLET NO.	Do (IN.)	Lo (FT.)	W (FT.)	DEPTH (IN.)	LINING CLASSIFICATION
FES-98	54	45.0	14.0	36	CLASS 2
FES-195	15	7.5	4.0	22	CLASS B
FES-250	24	16.0	6.0	24	CLASS 1
FES-300	24	16.0	6.0	24	CLASS 1
FES-320	18	9.0	5.0	22	CLASS B
FES-335	15	7.5	4.0	22	CLASS B
FES-350	15	7.5	4.0	22	CLASS B
FES-360	15	7.5	4.0	22	CLASS B

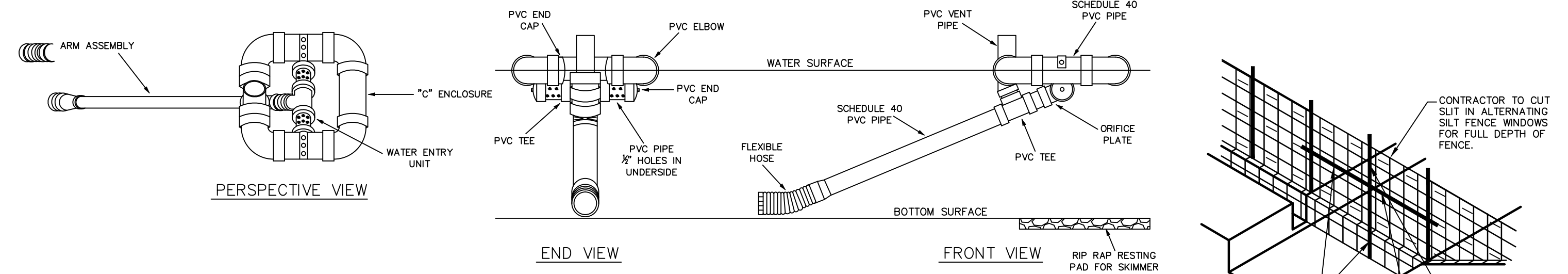
STONE CLASSIFICATIONS OF CLASS B REQUIRE A SUBLAYER OF FILTER FABRIC OR FS-2 FILTER STONE WITH A BEDDING THICKNESS OF 6".

RIPRAP OUTLET PROTECTION
NTS

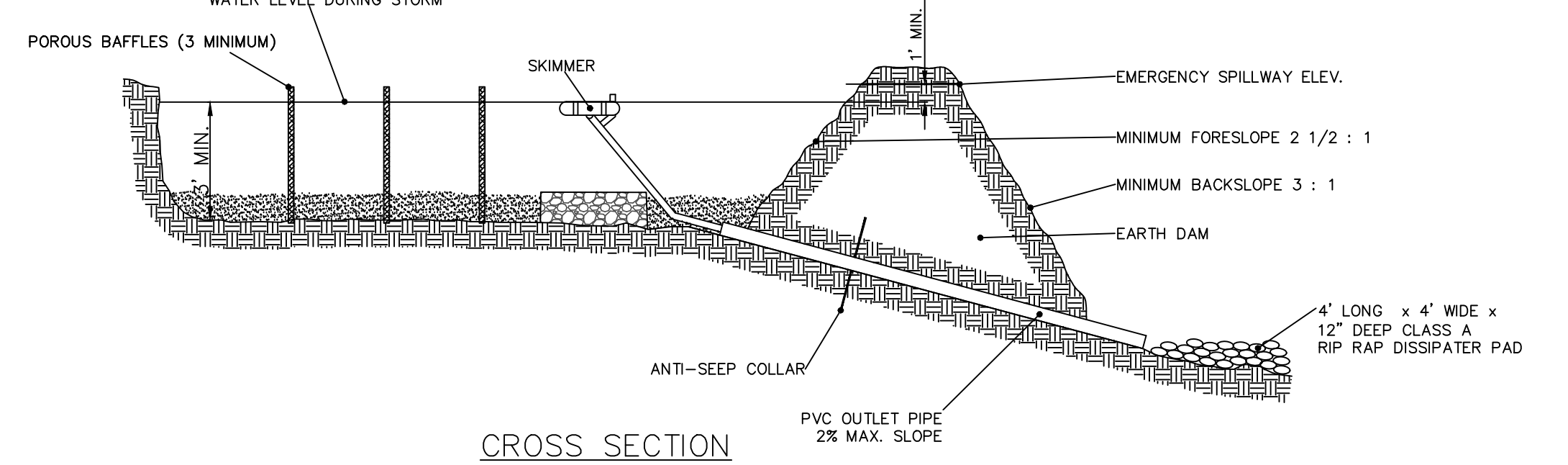
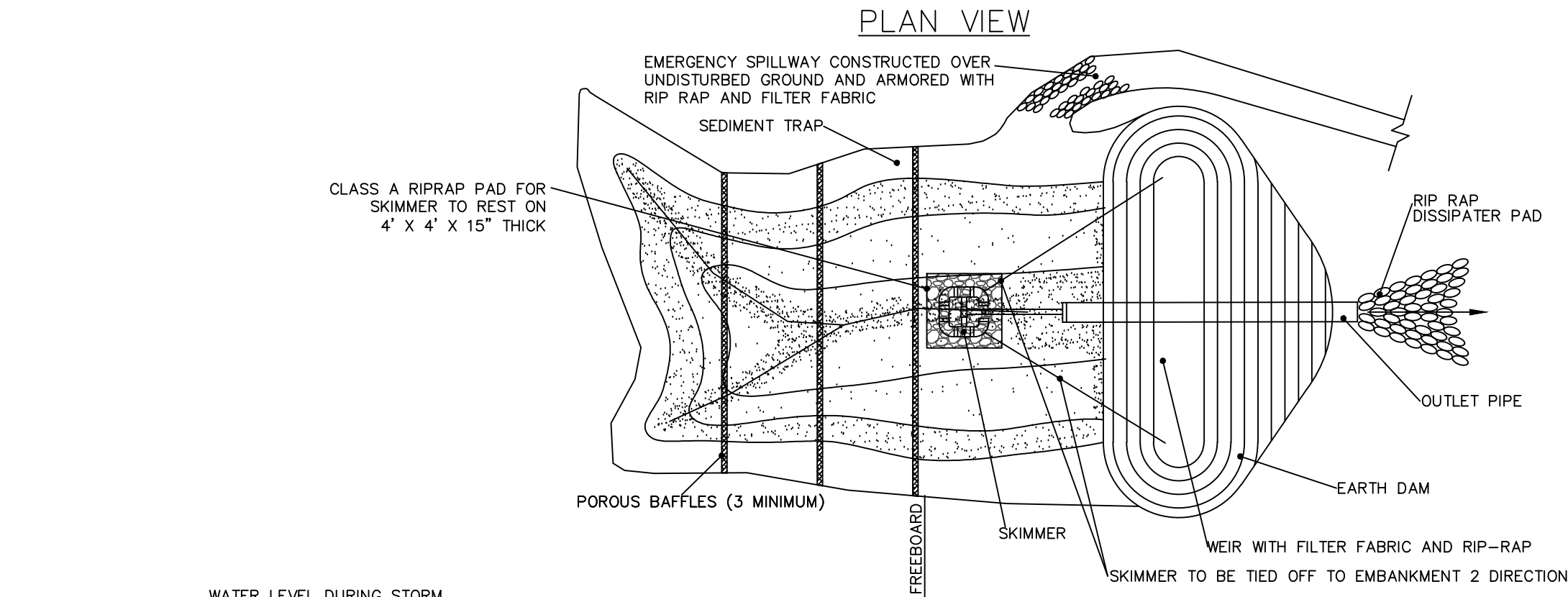


- WARNING SIGNS TO BE MADE OF DURABLE WATERPROOF PLASTIC.
- ALL LETTERS TO BE AT LEAST 3" HIGH, CLEARLY LEGIBLE AND SPACED APPROPRIATELY.
- SIGNS TO BE PLACED AT EACH END OF LINER PROTECTION AREA AND 200' ON CENTER (MAX.) THEREAFTER FOR PROTECTION AREA LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA AND/OR SIDE.
- ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. FABRIC MUST BE ATTACHED TO APPROVED POSTS ONLY. DO NOT ATTACH TO TREES.
- ADDITIONAL FENCING MAY BE REQUIRED BASED ON FIELD CONDITIONS.
- FAILURE TO MAINTAIN PROTECTION FENCING MAY RESULT IN CIVIL PENALTIES.

TREE PROTECTION FENCE
NTS



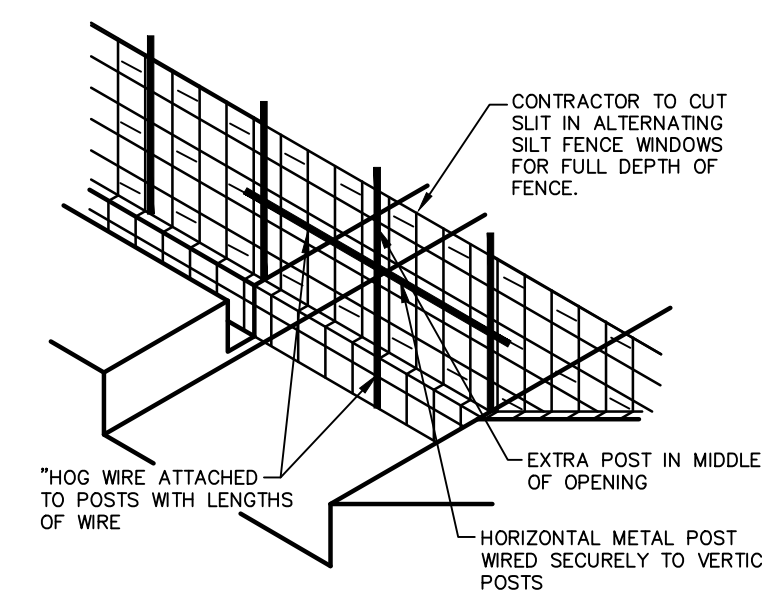
SKIMMER DETAIL



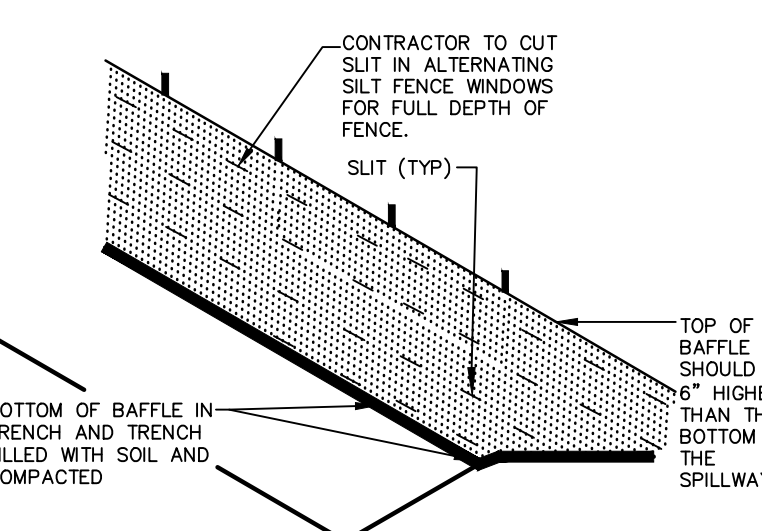
CROSS SECTION

- NOTES:**
- IF SEDIMENT IS FOUND TO BE LEAVING THE SITE, BMP #12 MAY BE RETROFITTED WITH A SKIMMER, AS DIRECTED BY THE ENGINEER IN ORDER AND IN ACCORDANCE WITH THIS DETAIL.
 - ANY EXISTING SKIMMER SEDIMENT BASINS PREVIOUSLY APPROVED SHALL MAINTAINED PER THEIR ORIGINAL DIMENSIONS AND IN ACCORDANCE WITH THIS DETAIL.

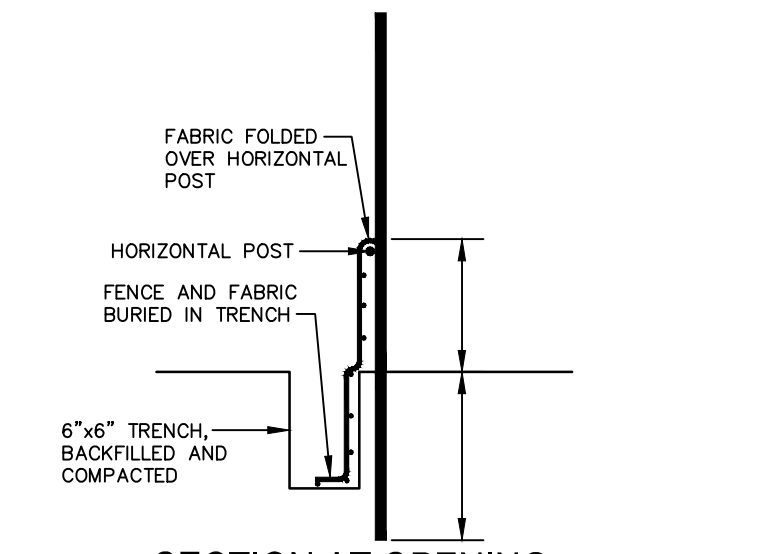
TEMPORARY SKIMMER SEDIMENT BASIN
NTS



BAFFLE INSTALLATION - STEP 1



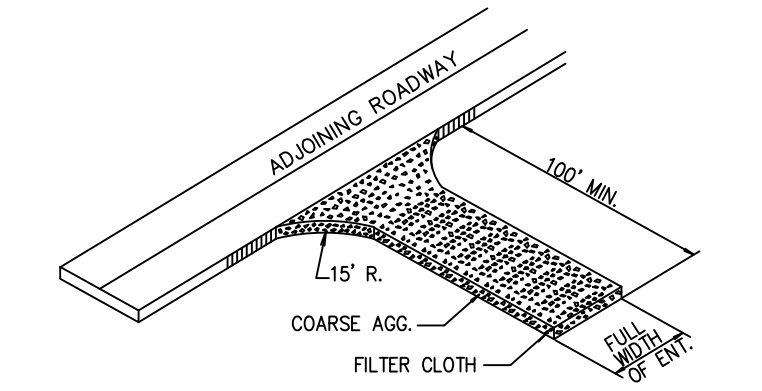
BAFFLE INSTALLATION - STEP 2



SECTION AT OPENING

- NOTES:**
- DRIVE STEEL FENCE POST AT LEAST 18" INTO SOLID GROUND.
 - WOOD POSTS ARE NOT ACCEPTABLE.
 - USE STAPLES 1" APART TO ATTACH FABRIC TO "HOG WIRE".
 - BAFFLE SPACED AS PER APPROVED PLAN.

BAFFLE INSTALLATION DETAIL

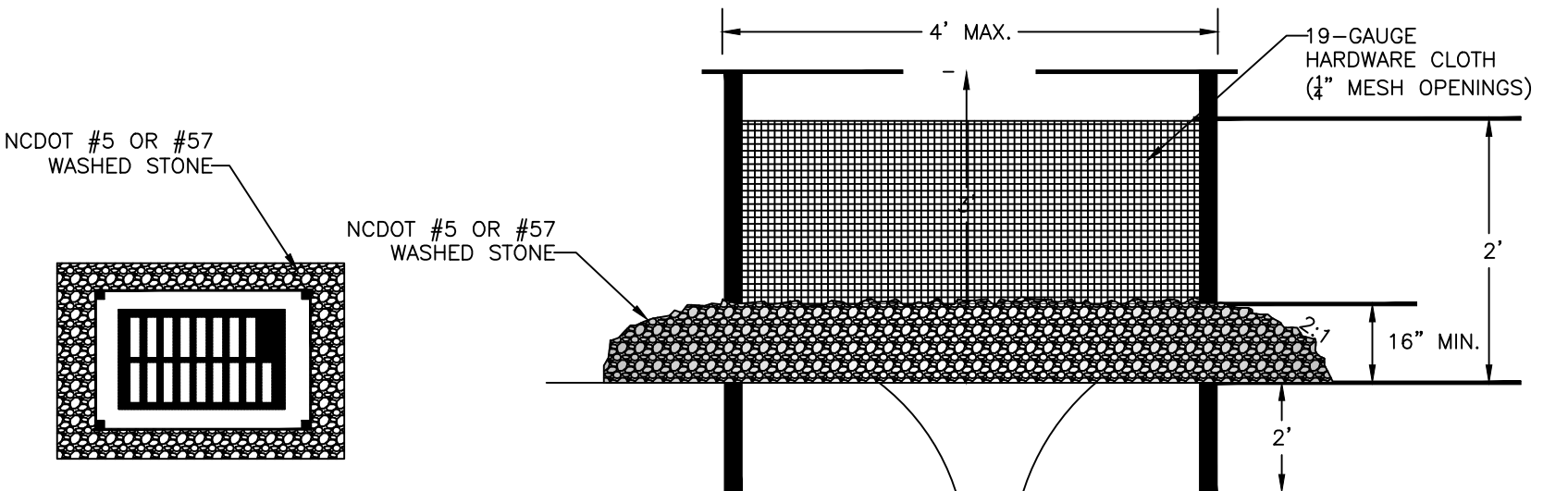


- COARSE AGGREGATE (2"-3" STONE) SHALL BE USED. PAD TO BE 100' X 25' X 6" D MIN. PLACE A MINIMUM OF 3" OF STONE IN A CUT SECTION TO HELP SECURE FILTER CLOTH.
- TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS IS TO BE PROVIDED.
- ENTRANCES SHOULD BE LOCATED TO PROVIDE FOR MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES.
- MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOP DRESSING MAY BE NECESSARY. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT UP AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.
- TEMPORARY PADS MUST BE LOCATED ON EACH SIDE OF ADJOINING ROADWAY.

TEMPORARY CONSTRUCTION ENTRANCE
NTS

NOTES:

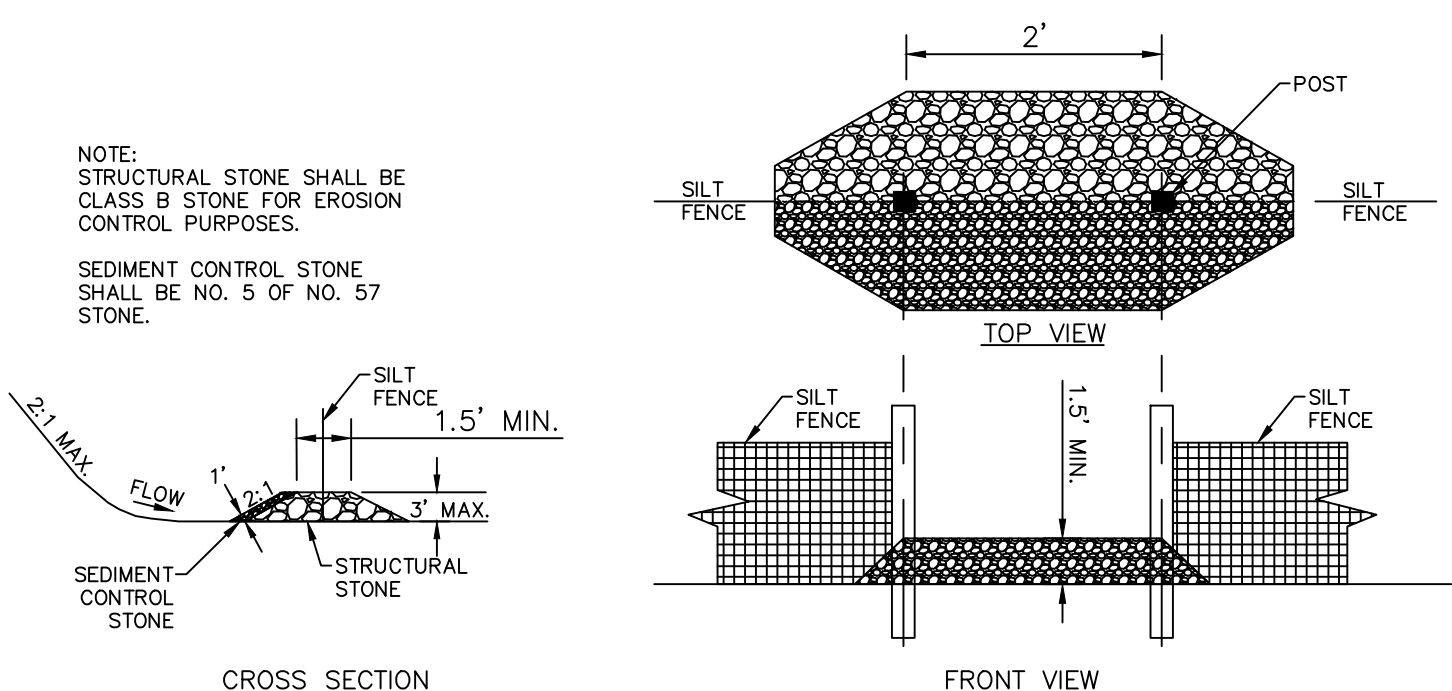
- UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
- DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
- SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
- PLACE CLEAN GRAVEL (NC DOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
- ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
- COMPACT THE AREA PROPERLY AND STABILIZED IT WITH GROUND COVER.



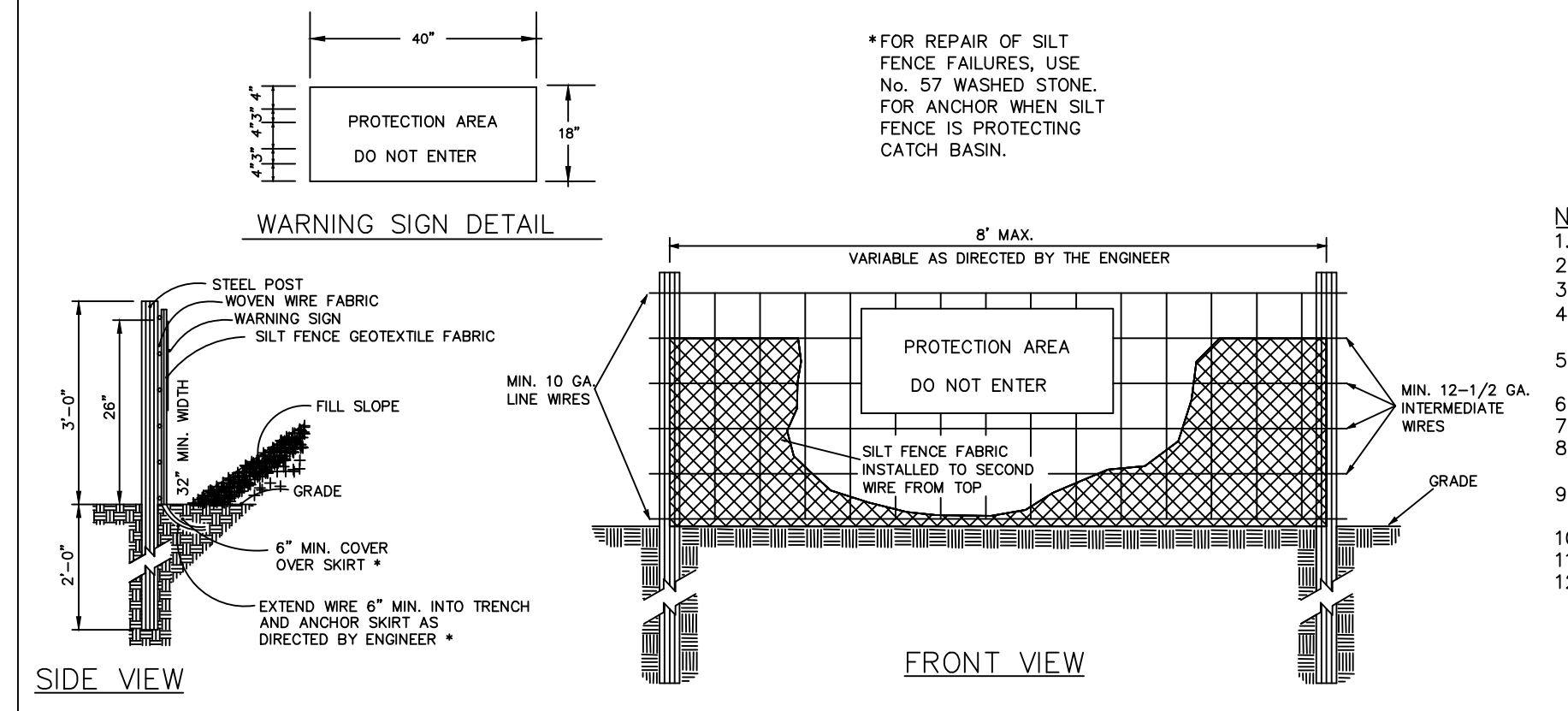
PLAN VIEW

CROSS SECTION

HARDWARE CLOTH & GRAVEL INLET PROTECTION
NTS



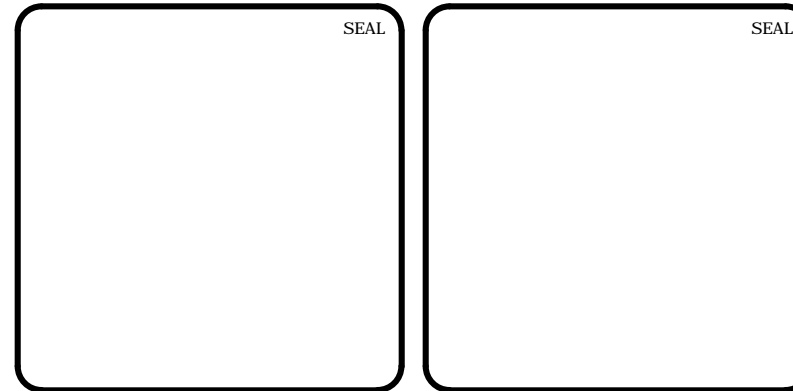
SILT FENCE OUTLET
NTS



COMBINATION SILT/TREE PROTECTION FENCE
NTS

- NOTES:**
- WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL.
 - LETTERS TO BE 3" HIGH MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
 - SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS.
 - PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER.
 - FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.
 - ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
 - MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.
 - ADDITIONAL SIGNS MAY BE REQUIRED BY CHATHAM COUNTY BASED ON ACTUAL FIELD CONDITIONS.
 - PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER.
 - FLOW SHALL NOT RUN PARALLEL WITH THE FENCE.
 - END OF SILT FENCE NEEDS TO BE TURNED UPHILL.
 - SEE NCDENR PRACTICE & SPECIFICATIONS MANUAL SEDIMENTS FENCE SECTION FOR CONDITIONS WHERE PRACTICE APPLIES AND DESIGN CRITERIA.

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
2	ISSUED FOR PERMITTING	02/23/2013
1	FOR REVIEW BY CLIENT	01/18/2013



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Newland COMMUNITIES

BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA
EROSION AND SEDIMENTATION
CONTROL DETAILS

DATE: JANUARY 18, 2013	SCALE: HORIZONTAL: 1" = 50'	MSC FILE NUMBER: D1.X
MCE PROJ. # 02735-0090	VERTICAL: N/A	DRAWING NUMBER: D1.1
DRAWN: GCA		
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS	REVISION: 4	
NOT RELEASED FOR CONSTRUCTION		

RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING

SEEDING MIXTURE
 SPECIES RATE (lb./acre)
 TALL FESCUE 80
 KOBE LESPEDEZA 40

NURSE PLANTS:
 BETWEEN MAY 1 AND AUG. 15, ADD 10 lb/acre GERMAN MILLET OR 15 lb/acre SUDANGRASS. PRIOR TO MAY 1 OR AFTER AUG. 15, ADD 40 lb/ac RYE (GRAIN)

SEEDING DATES:
 BEST: AUG. 15 - SEPT. 15
 LATE WINTER: FEB. 15 - MAR. 21

POSSIBLE:
 AUG. 20 - OCT. 25
 FEB. 1 - APR. 15.

FALL IS BEST FOR TALL FESCUE AND LATER WINTER FOR LESPEDEZAS. OVERSEEDING OF KOBE LESPEDEZA OVER FALL-SEEDED TALL FESCUE IS VERY EFFECTIVE.

SOIL AMENDMENTS:
 FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10-10-10 FERTILIZER

MULCH:
 APPLY 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE:
 REFERTILIZE IN THE SECOND YEAR UNLESS GROWTH IS FULLY ADEQUATE. MAY BE MOWED ONCE OR TWICE A YEAR, BUT MOWING IS NOT NECESSARY. RESEED, FERTILIZE AND MULCH DAMAGED AREAS IMMEDIATELY.

RECOMMENDATIONS FOR GRASS-LINED CHANNELS

SEEDING MIXTURE
 SPECIES RATE (lb./acre)
 TALL FESCUE 200

NURSE PLANTS:
 BETWEEN MAY 1 AND AUG. 15, ADD 10 lb/acre SUDANGRASS OR 15 lb/acre GERMAN MILLET. PRIOR TO MAY 1 OR AFTER AUG. 15, ADD 40 lb/ac RYE (GRAIN)

SEEDING DATES:
 BEST: AUG. 25 - OCT.
 POSSIBLE: FEB. - APR. 15

AVOID SEEDING FROM NOV. TO JAN. IF SEEDING MUST BE DONE AT THIS TIME, ADD 40 lb/acre RYE GRAIN AND USE A CHANNEL LINING THAT OFFERS MAXIMUM PROTECTION

SOIL AMENDMENTS:
 FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 4,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 1,000 lb/acre 10-10-10 FERTILIZER

MULCH:
 USE ROLLED EROSION CONTROL PRODUCT TO COVER THE BOTTOM OF THE CHANNELS AND DITCHES, AND STAPLE SECURELY. THE LINING SHOULD EXTEND ABOVE THE HIGHEST CALCULATED DEPTH OF FLOW. ON CHANNEL SIDE SLOPES ABOVE THIS HEIGHT, AND IN DRAINAGES NOT REQUIRING TEMPORARY LININGS, APPLY 4,000 lb/acre GRAIN STRAW, AND ANCHOR STRAW BY STAPLING NETTING OVER THE TOP.

MULCH AND ANCHORING MATERIALS MUST NOT BE ALLOWED TO WASH DOWN SLOPES WHERE THEY CAN CLOG DRAINAGE DEVICES.

MAINTENANCE:
 INSPECT AND REPAIR MULCH FREQUENTLY. REFERTILIZE IN LATE WINTER OF THE FOLLOWING YEAR; USE SOIL TESTS OR APPLY 150 lb/acre 10-10-10. MOW REGULARLY TO A HEIGHT OF 2-4 INCHES.

NOTE:
 SEE NCDENR'S EROSION AND SEDIMENT CONTROL PLANNING DESIGN MANUAL SECTION 6.11 FOR ADDITIONAL PERMANENT SEEDING OPTIONS.

PERMANENT SEEDING SCHEDULE

NTS

RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING

SEEDING MIXTURE
 SPECIES RATE (lb./acre)
 RYE (GRAIN) 120
 ANNUAL LESPEDEZA (KOBE IN PIEDMONT & COASTAL PLAIN, KOREAN IN MOUNTAINS) 50

OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE

SEEDING DATES:
 MOUNTAINS (ABOVE 2,500'): FEB. 15 - MAY 15
 (BELOW 2,500'): FEB. 1 - MAY 1
 PIEDMONT: JAN. 1 - MAY 1
 COASTAL PLAIN: DEC. 1 - APR. 15

SOIL AMENDMENTS:
 FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10-10-10 FERTILIZER

MULCH:
 APPLY 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE:
 REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

RECOMMENDATIONS FOR SUMMER

SEEDING MIXTURE
 SPECIES RATE (lb./acre)
 GERMAN MILLET 40

IN THE PIEDMONT AND MOUNTAINS, A SMALL-STEMMED SUDANGRASS MAY BE SUBSTITUTED AT A RATE OF 50 lb/acre.

SEEDING DATES:
 MOUNTAINS: MAY 15 - AUG. 15
 PIEDMONT: MAY 1 - AUG. 15
 COASTAL PLAIN: APR. 15 - AUG. 15

SOIL AMENDMENTS:
 FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10-10-10 FERTILIZER

MULCH:
 APPLY 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE:
 REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

RECOMMENDATIONS FOR FALL

SEEDING MIXTURE
 SPECIES RATE (lb./acre)
 RYE (GRAIN) 120

SEEDING DATES:
 MOUNTAINS: AUG. 15 - DEC. 15
 COASTAL PLAIN AND PIEDMONT: AUG. 15 - DEC. 30

SOIL AMENDMENTS:
 FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10-10-10 FERTILIZER

MULCH:
 APPLY 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE:
 REPAIR AND REFERTILIZE DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 lb/acre OF NITROGEN IN MARCH. IF IT IS NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 lb/acre KOBE (PIEDMONT AND COASTAL PLAIN) OR KOREAN (MOUNTAINS) LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH.

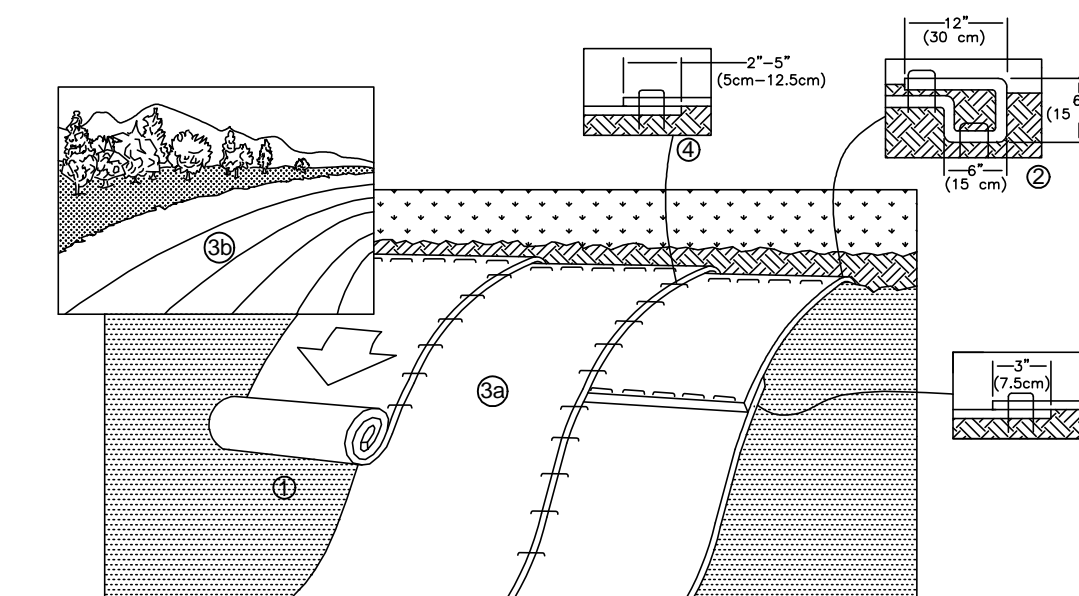
TEMPORARY SEEDING SCHEDULE

NTS

- CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
 - RIP THE ENTIRE AREA TO 6 INCHES DEPTH.
 - REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
 - APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW*).
 - CONTINUE TILLAGE UNTIL A WELL - PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
 - MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
 - INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
 - CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
- * APPLY: AGRICULTURAL LIMESTONE - 2 TONS/ACRE OR 3 TONS/ACRE IN CLAY SOILS
 FERTILIZER - 1000 LBS/ACRE (10-10-10)
 SUPERPHOSPHATE - 500 LBS/ACRE (20%)
 MULCH - 2 TONS/ACRE (SMALL GRAIN STRAW)ANCHOR - ASPHALT EMULSION AT 450 GAL./ACRE

SEEDBED PREPARATION

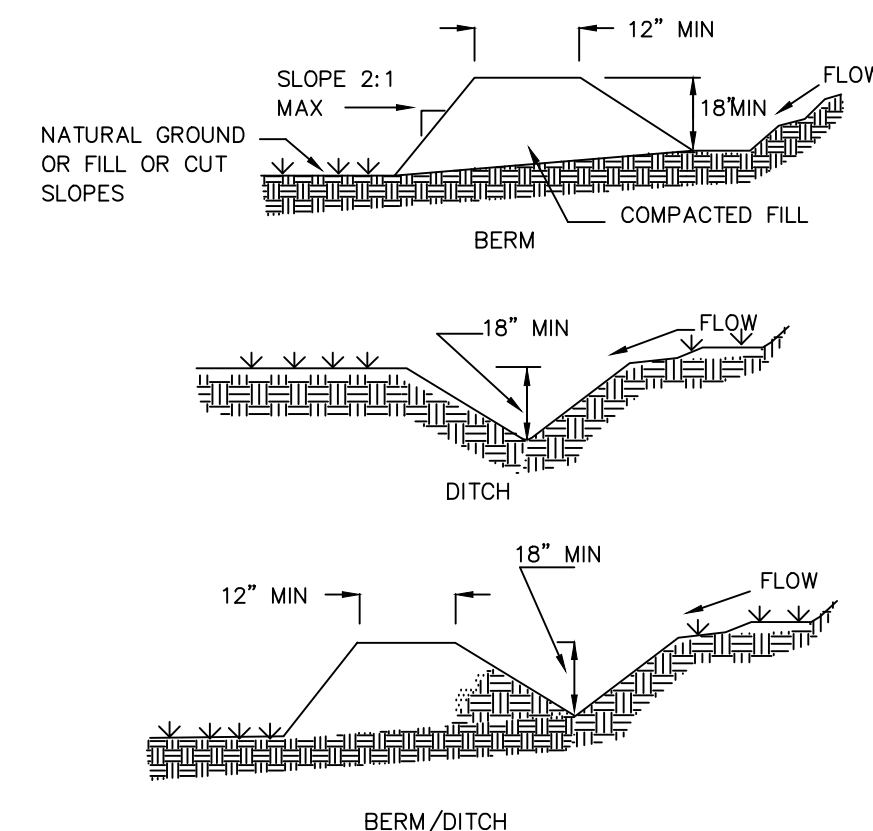
NTS



- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPs), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPs IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF RECPs EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPs WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECPs BACK OVER SEED AND COMPACTED SOIL. SECURE RECPs OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECPs.
 - ROLL THE RECPs (A.) DOWN (FOR SLOPES 3:1 OR GREATER) OR (B.) HORIZONTALLY (FOR SLOPES LESS THAN 3:1) ACROSS THE SLOPE. RECPs WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPs MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 - THE EDGES OF PARALLEL RECPs MUST BE STAPLED WITH APPROXIMATELY 2" -5" (5 CM -12.5 CM) OVERLAP DEPENDING ON RECP'S TYPE.
 - CONSECUTIVE RECPs SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WIDTH.
- NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECPs.

TEMPORARY STABILIZATION FOR SLOPES GREATER THAN 10 FEET

NTS



TEMPORARY DIVERSION/CLEAN WATER DIVERSION DITCH

NTS

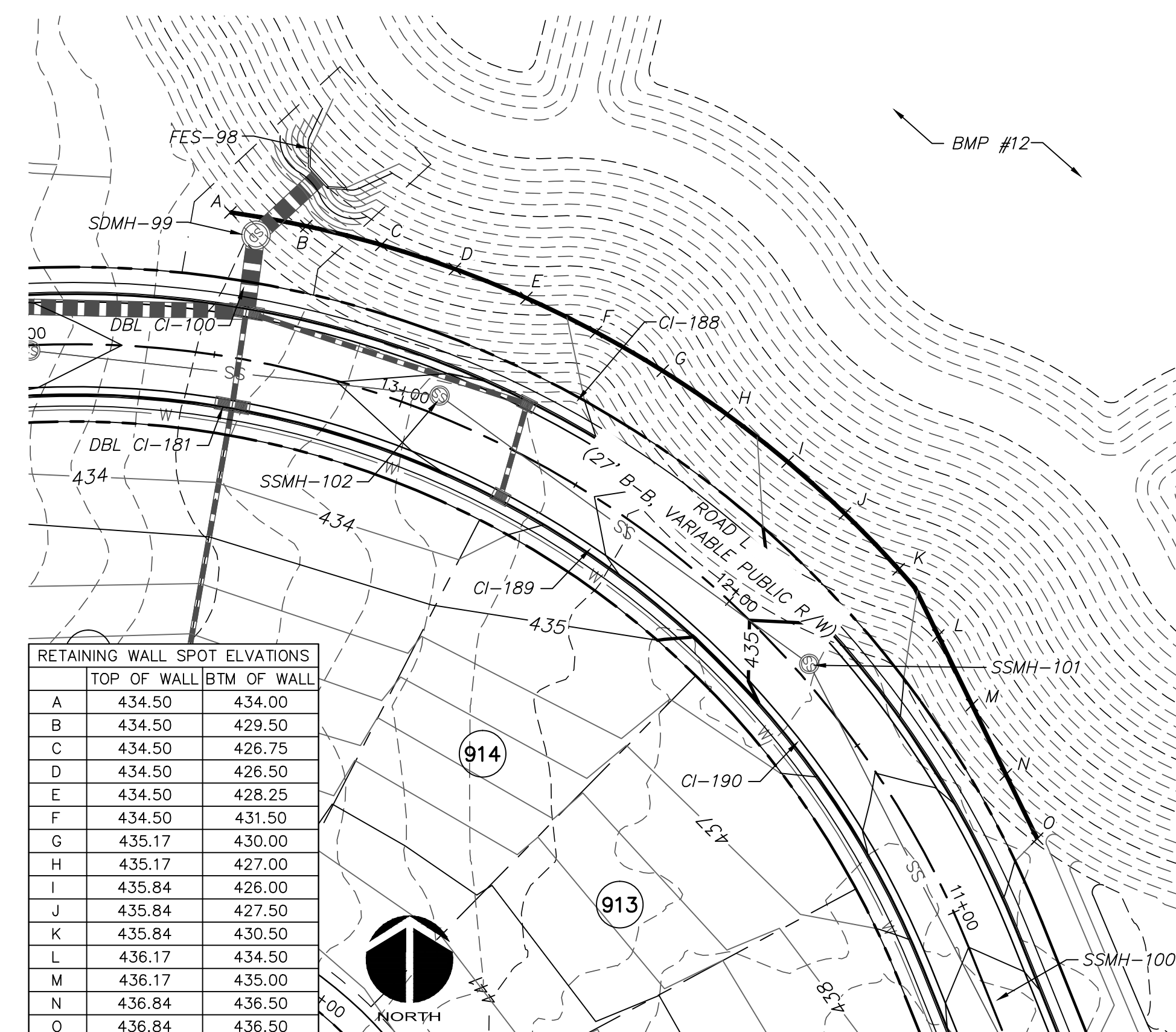
NOTES:

POSITIVE GRADE MUST BE PROVIDED TO ASSURE DRAINAGE. IF SLOPE EXCEEDS 2%, SEED AND MULCH DIVERSION. TRY NOT TO EXCEED 5% MAXIMUM D.A. = 5 ACRES WITHOUT SUPPORTING CALCS. DIVERSIONS AT THE TOP OF SLOPES MUST EMPTY INTO AN APPROVED SLOPE DRAIN. BERM/DITCH IS MOST COMMONLY USED.

- MACHINE COMPACTION OF ALL FILL IS REQUIRED. DIVERSIONS SUFFICIENT TO DIRECT ALL SEDIMENT - LADEN STORMWATER INTO A SEDIMENT CONTROL DEVICE MUST BE INSTALLED PRIOR TO CLEARING AND GRUBBING OF THE AREA (OR IN CONJUNCTION WITH THIS OPERATION) IF SEDIMENT CONTROLS AND DIVERSIONS ARE INSTALLED AS EACH CRITICAL POINT IS REACHED).
- DIVERSIONS SHOULD BE LOCATED TO MINIMIZE DAMAGES BY CONSTRUCTION OPERATIONS.
- DIVERSIONS SHOULD BE SEEDED AND MULCHED IF THEY ARE TO REMAIN IN PLACE OVER 30 DAYS.
- CHECK DEVICE AFTER EACH RAIN, BUT ONCE A WEEK REGARDLESS. REPAIR AS NECESSARY.

MAINTENANCE

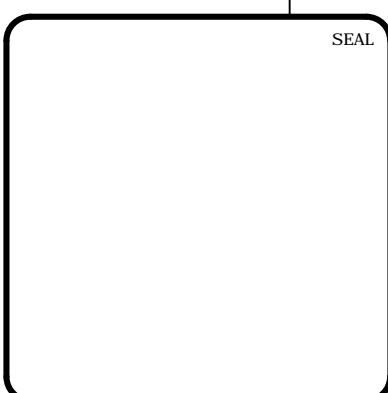
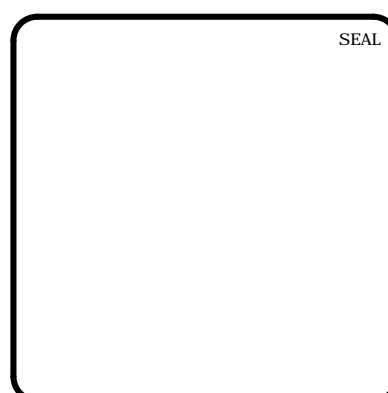
- INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.
- ALL TEMPORARY DIVERSION AND CLEAN WATER DITCHES SHALL BE MAINTAINED PER THEIR ORIGINAL DESIGN DIMENSIONS DURING PHASE 7 CONSTRUCTION ACTIVITIES. ANY DITCHES THAT REQUIRE REMOVAL OR RELOCATION SHALL RECEIVE APPROVAL FROM CHATHAM COUNTY EROSION CONTROL INSPECTOR.



RETAINING WALL ELEVATION DETAIL

1" = 30'

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
2	ISSUED FOR PERMITTING	01/23/2013
1	FOR REVIEW BY CLIENT	01/18/2013
	REVISIONS	



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Newland COMMUNITIES

**BRIAR CHAPEL
 PHASE 7
 CHATHAM COUNTY, NORTH CAROLINA**

**EROSION AND SEDIMENTATION
 CONTROL DETAILS**

DATE: JANUARY 18, 2013	SCALE: D1.X	MIC. FILE NUMBER:
MCE PROJ. # 02735-0090	HORIZONTAL: 1" = 50'	DRAWING NUMBER: D1.2
DESIGNED: GCA	VERTICAL: N/A	
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS	REVISION: 4	
NOT RELEASED FOR CONSTRUCTION		

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR PROPOSED CURB AND GUTTER

CURB RAMP

SECTION A-A
SECTION B-B

ISOMETRIC VIEW

DETECTABLE WARNING DOMES

GENERAL NOTES:
1. DETECTABLE WARNING DOMES WILL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FROM THE BEGINNING TO THE END OF THE RAMP.
2. DETECTABLE WARNING DOMES WILL CONTRAST VISIBLY WITH ADJACENT SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SCHEMES COVERING THE ENTIRE RAMP.

TABLE 1: RAMP WIDTHS

A	B	MIN. RAMP WIDTH	MIN. RAMP WIDTH
1	1	3.0	3.0
1	2	3.0	3.0
1	3	3.0	3.0
1	4	3.0	3.0
1	5	3.0	3.0
1	6	3.0	3.0
1	7	3.0	3.0
1	8	3.0	3.0
1	9	3.0	3.0
1	10	3.0	3.0
1	11	3.0	3.0
1	12	3.0	3.0
1	13	3.0	3.0
1	14	3.0	3.0
1	15	3.0	3.0
1	16	3.0	3.0
1	17	3.0	3.0
1	18	3.0	3.0
1	19	3.0	3.0
1	20	3.0	3.0
1	21	3.0	3.0
1	22	3.0	3.0
1	23	3.0	3.0
1	24	3.0	3.0
1	25	3.0	3.0
1	26	3.0	3.0
1	27	3.0	3.0
1	28	3.0	3.0
1	29	3.0	3.0
1	30	3.0	3.0

PLAN VIEW

GENERAL NOTES:
1. DETECTABLE WARNING DOMES WILL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FROM THE BEGINNING TO THE END OF THE RAMP.
2. DETECTABLE WARNING DOMES WILL CONTRAST VISIBLY WITH ADJACENT SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SCHEMES COVERING THE ENTIRE RAMP.

SECTION 1 OF 3
848.05

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR PROPOSED CURB AND GUTTER

CONCRETE CURB, GUTTER AND GUTTER

SECTION VIEW OF CURBS OR CURBS AND GUTTERS

GENERAL NOTES:
1. PLACE CONTRACTION JOINTS AT 10' INTERVALS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS.
2. JOINT SPACING MAY BE ALTERED IF REQUIRED BY THE ENGINEER.
3. CONTRACTION JOINTS MAY BE INSTALLED WITH THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS.
4. CONSTRUCT NON-TEMPLATE FORMED JOINTS A MIN. OF 1 1/2" DEEP.
5. FILL ALL CONTRACTION JOINTS, EXCEPT IN 8" X 6" MEDIAN CURB, WITH JOINT FILLER AND SEALER.
6. SPACE EXPANSION JOINTS AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.

SECTION 1 OF 3
846.01

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR PAVEMENT MARKINGS LINE TYPES AND OFFSETS

PAVEMENT MARKINGS

CONTINUOUS LINES

10'-30'/SP SKIP LINE

2'-6'/SP MINI-SKIP LINE

3'-3'/SP MINI-SKIP LINE

3'-9'/SP MINI-SKIP LINE

GENERAL NOTES:
1. USE OF LANE, EDGE, AND CENTER LINES ON ALL FULL CONTROL OF ACCESS FACILITIES AND OTHER ROUTES AS DIRECTED BY THE ENGINEER.
2. LANE LINES INDICATED AS "WIDE" ON THE ROADWAY STANDARD DRAWINGS SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.
3. GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.

SECTION 1 OF 2
1205.01

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR PROPOSED CURB AND GUTTER

CURB RAMP

DETAIL SHOWING TYPICAL LOCATION OF CURB RAMP, PEDESTRIAN CROSSWALKS AND STOP LINES FOR TEE INTERSECTIONS

DETAIL SHOWING TYPICAL LOCATION OF CURB RAMP, PEDESTRIAN CROSSWALKS AND STOP LINES

GENERAL NOTES:
1. DETECTABLE WARNING DOMES WILL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FROM THE BEGINNING TO THE END OF THE RAMP.
2. DETECTABLE WARNING DOMES WILL CONTRAST VISIBLY WITH ADJACENT SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SCHEMES COVERING THE ENTIRE RAMP.

SECTION 2 OF 3
848.05

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR MOUNTING OF 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

GENERAL NOTES:
1. SIGNS TYPE 'D', 'E', AND 'F' SHALL BE MOUNTED WITH THE REAR EDGE OF THE SIGN 50 FT FROM THE TRAVEL LANE. EXCEPT ALL OTHER 'D', 'E', AND 'F' SIGNS WITH THE REAR EDGE OF THE SIGN ON THE SIDE OF THE ROADWAY (E.G. TRAVEL LANE), OR ON OVERPASS OR PLAN SHEETS.
2. SIGNS TYPE 'D', 'E', AND 'F' SHALL BE MOUNTED WITH THE BOTTOM OF SIGN ASSEMBLY AT LEAST 7 FT. ABOVE THE TOP OF THE TRAVEL LANE ON ROADWAYS WITH ONE LANE AND AT LEAST 5 FT. ON OTHER ROUTES. THE VERTICAL CLEARANCE IS 8 FT. MINUS REQUIRED FOR POSITIONING TRAFFIC AND/OR PASSENGER VEHICLES.
3. THE VERTICAL CLEARANCE BETWEEN MOUNTING HOLES CENTERS ON ALL TYPES 'D', 'E', AND 'F' SIGNS IS 18" MINIMUM. EACH SIGN PANEL HAS A MINIMUM OF 2 BOLTS PER SUPPORT.
4. ATTACH SIGNS BY 3/8" HEX HEAD BOLT, NUTS, WASHERS, SPACER, FLAT WASHER, LOCK WASHER, HEX NUT AND LOCKWASHER OF THE SIGN SHALL BE PROVIDED. SEE ASSEMBLY DETAIL SHEET 2 OF 3 OF 846.01.
5. FINISH AND INSTALL CROSS-BRACES AS SHOWN IN DETAIL. PAINT ENDS OF CROSS BRACES BY APPROVED ZINC PAINT.
6. DETAILS FOR COMBINATION TYPE 'D' AND 'E' SIGNS.
7. THE SHIELD HEIGHTS IN THESE ASSEMBLIES CAN NOT BE LONGER THAN 24".

SECTION 1 OF 2
904.50

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR PAVEMENT MARKINGS LINE TYPES AND OFFSETS

EDGE LINE OFFSET DETAIL

CENTER LINE OFFSET DETAIL

LANE LINE OFFSET DETAIL

TABLE 1: EDGE LINE OFFSETS FOR 2-LANE, 2-WAY ROADWAYS WITH UNPAVED SHOULDERS

WIDTH (W) OF TRAVEL PAVEMENT FROM E.O.T.	MAX. EDGE LINE OFFSET	MINIMUM LANE WIDTH (L)
10' - 18'	2'	8' - 9'
19' - 20'	3'	10'
21' - 22'	4'	10'
23' - 24'	5'	10.5'
25' - 26'	6'	11'
27' - 28'	7'	12'
29' - 30'	8'	12'
31' - 32'	9'	12'

SECTION 2 OF 2
1205.01

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR CURB RAMPS

GENERAL NOTES:
1. CONSTRUCT THE RAMP SURFACE TO BE STABLE, FIRM, AND SLIP RESISTANT. CONSTRUCT THE CURB RAMP TYPE AS SHOWN IN THE PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER.
2. LOCATE CURB RAMPS AND PLACE PEDESTRIAN CROSSWALK MARKINGS AS SHOWN IN THE PAVEMENT MARKING PLANS. WHEN FIELD ADJUSTMENTS REQUIRE MOVING CURB RAMPS OR MARKINGS AS SHOWN, CONTACT THE SIGNALING AND DELINEATION UNIT OR LOCATE AS DIRECTED BY THE ENGINEER.
3. COORDINATE THE CURB RAMP AND THE PEDESTRIAN CROSSWALK MARKINGS SO A 4' X 4' CLEAR SPACE AT THE BASE OF THE CURB RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.
4. SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL LANE IS 4' MINIMUM.
5. REFER TO THE PAVEMENT MARKING PLANS FOR STOP BAR LOCATIONS AT SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR LOCATE AS DIRECTED BY THE ENGINEER.
6. TERMINATE PARKING A MINIMUM OF 20' BACK OF A PEDESTRIAN CROSSWALK.
7. CONSTRUCT CURB RAMPS A MINIMUM OF 4' WIDE.
8. CONSTRUCT THE RUNNING SLOPE OF THE RAMP 8.33% MAXIMUM.
9. ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMPS WILL BE 2% MAXIMUM.
10. CONSTRUCT THE SIDE FLARE SLOPE A MAXIMUM OF 10% MEASURED ALONG THE CURB LINE.
11. CONSTRUCT THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE BASE OF THE CURB RAMP A MAXIMUM OF 5% AND MAINTAIN A SMOOTH TRANSITION.
12. CONSTRUCT LANDINGS FOR SIDEWALK A MINIMUM OF 4' X 4' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. CONSTRUCT LANDINGS FOR MEDIAN ISLANDS A MINIMUM OF 5' X 5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
13. TO USE A MEDIAN ISLAND AS A PEDESTRIAN REFUGE AREA, MEDIAN ISLANDS WILL BE A MINIMUM OF 6' WIDE. CONSTRUCT MEDIAN ISLANDS TO PROVIDE PASSAGE OVER OR THROUGH THE ISLAND.
14. SMALL CHANNELIZATION ISLANDS THAT CAN NOT PROVIDE A 5' X 5' LANDING AT THE TOP OF A RAMP, WILL BE CUT THROUGH LEVEL WITH THE SURFACE STREET.
15. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED.
16. PLACE A 1/2" EXPANSION JOINT WHERE THE CONCRETE CURB RAMP JOINS THE CURB AS SHOWN IN ROADWAY STANDARD DRAWING 848.01
17. PLACE ALL PEDESTRIAN PUSH BUTTON ACTUATORS AND CROSSING SIGNALS AS SHOWN IN THE MUTCO.
18. CURB RAMPS THROUGH MEDIAN ISLANDS, SINGLE RAMPS AT DUAL CROSSWALKS OR LIMITED R/W SITUATIONS, WILL BE HANDLED BY SPECIAL DETAILS. CONTACT THE CONTRACT STANDARDS AND DEVELOPMENT UNIT FOR THE DETAILS OR FOR A SPECIAL DESIGN.

SECTION 3 OF 3
848.05

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR MOUNTING OF 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

GENERAL NOTES:
1. SIGNS TYPE 'D', 'E', AND 'F' SHALL BE MOUNTED WITH THE REAR EDGE OF THE SIGN 50 FT FROM THE TRAVEL LANE. EXCEPT ALL OTHER 'D', 'E', AND 'F' SIGNS WITH THE REAR EDGE OF THE SIGN ON THE SIDE OF THE ROADWAY (E.G. TRAVEL LANE), OR ON OVERPASS OR PLAN SHEETS.
2. SIGNS TYPE 'D', 'E', AND 'F' SHALL BE MOUNTED WITH THE BOTTOM OF SIGN ASSEMBLY AT LEAST 7 FT. ABOVE THE TOP OF THE TRAVEL LANE ON ROADWAYS WITH ONE LANE AND AT LEAST 5 FT. ON OTHER ROUTES. THE VERTICAL CLEARANCE IS 8 FT. MINUS REQUIRED FOR POSITIONING TRAFFIC AND/OR PASSENGER VEHICLES.
3. THE VERTICAL CLEARANCE BETWEEN MOUNTING HOLES CENTERS ON ALL TYPES 'D', 'E', AND 'F' SIGNS IS 18" MINIMUM. EACH SIGN PANEL HAS A MINIMUM OF 2 BOLTS PER SUPPORT.
4. ATTACH SIGNS BY 3/8" HEX HEAD BOLT, NUTS, WASHERS, SPACER, FLAT WASHER, LOCK WASHER, HEX NUT AND LOCKWASHER OF THE SIGN SHALL BE PROVIDED. SEE ASSEMBLY DETAIL SHEET 2 OF 3 OF 846.01.
5. FINISH AND INSTALL CROSS-BRACES AS SHOWN IN DETAIL. PAINT ENDS OF CROSS BRACES BY APPROVED ZINC PAINT.
6. DETAILS FOR COMBINATION TYPE 'D' AND 'E' SIGNS.
7. THE SHIELD HEIGHTS IN THESE ASSEMBLIES CAN NOT BE LONGER THAN 24".

SECTION 2 OF 2
904.50

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

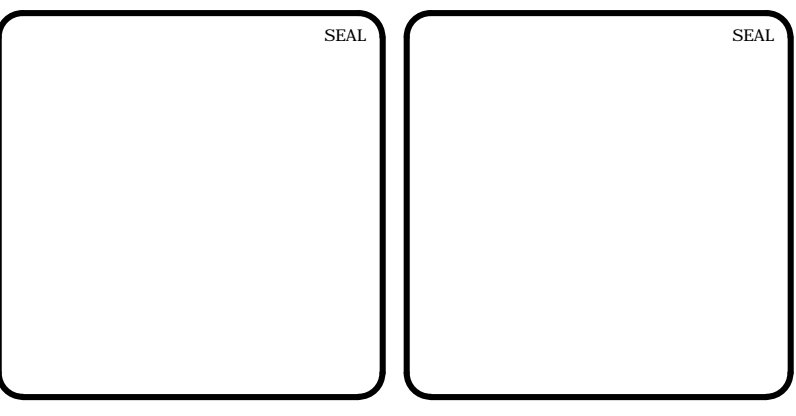
ENGLISH STANDARD DRAWING FOR BARRICADES TYPE - III

TYPE III BARRICADE

GENERAL NOTES:
1. HORIZONTAL RAILS FOR MAY BE CONSTRUCTED OF APPROVED COMPOSITE, HOLLOW/COAGULATED, EXTENDED RESID POLYETHYLENE, OR OTHER NOTIC APPROVED MATERIAL.
2. BARRICADE SHALL BE LIMITED TO A MAXIMUM LENGTH OF 8 FT UNLESS NCHRP 350 CRASH TESTED FOR CATEGORY II DEVICES AND NOTIC APPROVED.
3. ONLY NOTIC APPROVED COMPOSITE AND ROLL-UP SIGNS MAY BE MOUNTED ON THE BARRICADE RAILS. MOUNT SIGNS TO BARRICADE RAILS TO ENSURE SIGN WILL NOT BECOME DETACHED UNDER NORMAL WIND AND TRAFFIC CONDITIONS.
4. SIGNS SHALL BE MOUNTED A MINIMUM OF 1 FOOT FROM THE GROUND TO THE BOTTOM OF THE SIGN UNLESS SIGNS R11-3 OR R11-4 ARE REQUIRED BY THE PLANS OR DIRECTED BY THE ENGINEER.
5. USE TYPE VII OR HIGHER PRISMATIC RETROREFLECTIVE SHEETING ON BOTH SIDES OF THE BARRICADE RAILS.
6. BARRICADE MUST BE NCHRP 350 FOR CATEGORY II DEVICES AND NOTIC APPROVED WITH STABILIZER BAR OR ADEQUATE LATERAL BRACING.
7. ASSEMBLY OF THE GENERIC BARRICADES MUST BE SELF CERTIFIED BY THE ASSEMBLER.
8. BARRICADES USED TO CLOSE A ROADWAY SHALL EXTEND ACROSS THE ENTIRE ROADWAY, WHERE LOCAL TRAFFIC MUST BE MAINTAINED, THEY MAY BE PLACED IN A STAGGERED PATTERN.
9. STRIPES ON WORK ZONE BARRICADE RAILS SHALL BE ALTERNATE ORANGE AND WHITE RETROREFLECTIVE STRIPES, SLOPED DOWNWARD TOWARDS THE SIDE WHICH TRAFFIC IS TO PASS OR TURN IN DETOURING. WHERE NO TURNS ARE INTENDED, THE STRIPES SHOULD SLOPE DOWNWARD TOWARDS THE CENTER OF THE BARRICADES OR BARRICADES.
10. USE RED AND WHITE STRIPES FOR PERMANENT BARRICADES.
11. SEE THE DEPARTMENT'S APPROVED PRODUCTS LIST AT <http://www.ncdot.gov/extra/ncdotprod/ncdotprod.htm>.
12. PLACE MANUFACTURER'S NAME AND FEDERAL HIGHWAY ADMINISTRATION'S NCHRP 350 APPROVAL LETTER NUMBER ON BARRICADE FRAME.
13. PLACE SANDRAGS OR OTHER APPROVED BALLASTING METHODS ON THE FEET OF THE FRAME. DO NOT PLACE SANDRAGS OR OTHER APPROVED BALLASTING METHODS ON STABILIZER BAR. DO NOT PLACE BARRICADES BY HEAVY OBJECTS SUCH AS ROCKS, CHAINS OF CONCRETE OR OTHER ITEMS THAT WOULD CAUSE DAMAGE IF THE BARRICADE IS STRUCK BY A VEHICLE.

SECTION 1 OF 1
1145.01

REV. NO.	DESCRIPTION	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
2	ISSUED FOR PERMITTING	01/23/2013
1	FOR REVIEW BY CLIENT	01/16/2013



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F-1222

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BRIAR CHAPEL

by Newland COMMUNITIES

BRIAR CHAPEL
PHASE 7
CHATHAM COUNTY, NORTH CAROLINA

NCDOT ROADWAY DETAILS

DATE: JANUARY 18, 2013
MCE PROJ. # 02735-0090
DRAWN: GCA
DESIGNED: GCA
CHECKED: CHS
PROJECT MGR: CHS

SCALE: HORIZONTAL: N/A
VERTICAL: N/A

FILE NUMBER: D2.X
DRAWING NUMBER: D2.1

STATUS: FINAL DRAWINGS
NOT RELEASED FOR CONSTRUCTION

REVISION: 4

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR CONCRETE JUNCTION BOX (WITH OPTIONAL MANHOLE)

12" THRU 66" PIPE

GENERAL NOTES:
CHAMFER ALL EXPOSED CORNERS 1".
USE CLASS "B" CONCRETE THROUGHOUT.
OPTIONAL CONSTRUCTION - MONOLITHIC FORM, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
USE FORMS TO CONSTRUCT THE BOTTOM SLAB.
IF REINFORCED CONCRETE PIPE IS SET IN BASE SLAB OF BOX, ADD TO BASE AS SHOWN ON STANDARD NO. 840.00.
PROVIDE ALL JUNCTION BOXES OVER 2' 6" IN DEPTH WITH STEPS 12" ON CENTERS IN ACCORDANCE WITH STD. NO. 840.66.
ADJUST THE STEEL, CONCRETE AND BRICK MASONRY QUANTITIES TO INCLUDE THE ADDITION OF THE MANHOLE (I.E. STAINLESS STEEL SHORTED AROUND OPENING IN TOP SLAB, ADDITIONAL VARIABLE HEIGHT BRICK MASONRY, OPENING IN TOP SLAB).
MAX. DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 12 FEET.

DIMENSIONS OF BOX AND PIPE		REINFORCEMENT BARS "A"		TOP SLAB DIMENSIONS		CURT VARS IN BOX		WALL		TOTAL QUANTITIES FOR ONE BOX AND SLAB		DEDUCTIONS FOR ONE PIPE (Q) VOL.			
PIPE	SPAN	WIDTH	HEIGHT	NO.	LENGTH	E	F	TOP SLAB	BOTTOM SLAB	FT. OF R.C.	LSB.	REINF.	CU. YDS. CONC.	C.S.	R.C.
12"	2'-0"	2'-0"	2'-3"	12	2'-9"	3'-0"	3'-0"	0.167	0.167	0.185	22	0.750	0.016	0.024	
18"	2'-0"	2'-3"	2'-6"	12	3'-0"	3'-3"	3'-3"	0.196	0.196	0.204	24	0.802	0.023	0.036	
18"	3'-0"	2'-6"	2'-6"	14	3'-3"	3'-6"	3'-6"	0.227	0.227	0.232	30	1.066	0.033	0.048	
24"	3'-0"	3'-0"	3'-3"	16	3'-9"	4'-0"	4'-0"	0.296	0.296	0.259	40	1.434	0.058	0.085	
30"	3'-6"	3'-6"	3'-9"	18	4'-3"	4'-6"	4'-6"	0.375	0.375	0.296	51	1.980	0.092	0.127	
36"	4'-0"	4'-0"	4'-3"	20	4'-9"	5'-0"	5'-0"	0.463	0.463	0.353	64	2.341	0.132	0.178	
42"	4'-6"	4'-6"	4'-9"	22	5'-3"	5'-6"	5'-6"	0.560	0.560	0.370	77	2.878	0.180	0.243	
48"	5'-0"	5'-0"	5'-3"	24	5'-9"	6'-0"	6'-0"	0.743	0.743	0.407	111	3.623	0.235	0.317	
54"	5'-10"	5'-10"	5'-9"	26	6'-7"	6'-10"	6'-10"	0.865	0.865	0.444	128	4.293	0.297	0.401	
60"	6'-6"	6'-6"	6'-3"	30	7'-3"	7'-6"	7'-6"	1.042	1.042	0.481	145	5.090	0.367	0.495	
66"	7'-1"	7'-1"	6'-9"	32	7'-10"	8'-1"	8'-1"	1.210	1.210	0.518	169	5.917	0.444	0.589	

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR CONCRETE GRATED DROP INLET TYPE 'D'

12" THRU 36" PIPE

GENERAL NOTES:
USE CLASS "B" CONCRETE THROUGHOUT.
PROVIDE ALL DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.
OPTIONAL CONSTRUCTION - MONOLITHIC FORM, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.
CONSTRUCT WITH PIPE CHAMFER MATCHING.
MAX. DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 12 FEET.
USE STANDARD FRAMES AND GRATES 840.22 (SHOWN), 840.24 (SHOWN), 840.20, 840.25, AND 840.23.
SEE STANDARD DRAWING 840.25 FOR ATTACHMENT OF FRAMES AND GRATES NOT SHOWN.
CHAMFER ALL EXPOSED CORNERS 1".
DRAWING NOT TO SCALE.

DIMENSIONS OF BOX AND PIPE		REINFORCEMENT BARS "A"		TOP SLAB DIMENSIONS		CURT VARS IN BOX		WALL		TOTAL QUANTITIES FOR ONE BOX		DEDUCTIONS FOR ONE PIPE			
PIPE	SPAN	WIDTH	HEIGHT	NO.	LENGTH	E	F	TOP SLAB	BOTTOM SLAB	FT. OF R.C.	LSB.	REINF.	CU. YDS. CONC.	C.S.	R.C.
12"	3'-0"	2'-0"	1'-8"	0.382	0.247	0.381	0.753	0.050	0.032						
15"	3'-0"	2'-0"	1'-11"	0.382	0.247	0.453	0.915	0.053	0.036						
18"	3'-0"	2'-0"	2'-2"	0.382	0.247	0.515	0.977	0.053	0.048						
24"	3'-0"	2'-0"	2'-8"	0.382	0.247	0.659	1.021	0.059	0.085						
30"	3'-0"	2'-0"	3'-2"	0.382	0.247	0.782	1.144	0.068	0.127						
36"	3'-0"	2'-0"	3'-8"	0.382	0.247	0.905	1.266	0.132	0.178						

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR CONCRETE CATCH BASIN

12" THRU 54" PIPE

GENERAL NOTES:
USE CLASS "B" CONCRETE THROUGHOUT.
PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.
OPTIONAL CONSTRUCTION - MONOLITHIC FORM, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.
USE TYPE "E", "F" AND "G" GRATES UNLESS OTHERWISE INDICATED.
FOR 4'-0" IN HEIGHT OR LESS USE #5 WALLS AND BOTTOM SLAB. OVER 4'-0" IN HEIGHT USE #4 WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.
CONSTRUCT WITH PIPE CHAMFER MATCHING.
CHAMFER ALL EXPOSED CORNERS 1".
DRAWING NOT TO SCALE.

DIMENSIONS OF BOX AND PIPE		REINFORCEMENT BARS "A"		TOP SLAB DIMENSIONS		CURT VARS IN BOX		WALL		TOTAL QUANTITIES FOR ONE BOX		DEDUCTIONS FOR ONE PIPE			
PIPE	SPAN	WIDTH	HEIGHT	NO.	LENGTH	E	F	TOP SLAB	BOTTOM SLAB	FT. OF R.C.	LSB.	REINF.	CU. YDS. CONC.	C.S.	R.C.
12"	3'-0"	2'-0"	1'-8"	0.382	0.247	0.381	0.753	0.050	0.032						
15"	3'-0"	2'-0"	1'-11"	0.382	0.247	0.453	0.915	0.053	0.036						
18"	3'-0"	2'-0"	2'-2"	0.382	0.247	0.515	0.977	0.053	0.048						
24"	3'-0"	2'-0"	2'-8"	0.382	0.247	0.659	1.021	0.059	0.085						
30"	3'-0"	2'-0"	3'-2"	0.382	0.247	0.782	1.144	0.068	0.127						
36"	3'-0"	2'-0"	3'-8"	0.382	0.247	0.905	1.266	0.132	0.178						

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR MANHOLE FRAME AND COVER

12" THRU 54" PIPE

GENERAL NOTES:
SOLID COVER SHOWN PERFORATED. PERFORATED AVAILABLE IF SPECIFIED.
STATE USE OF SYSTEM ON COVER (I.E.: SEWER, STORM DRAIN, ELECTRICAL).

MINIMUM WEIGHTS - LBS.
FRAME - 180
COVER - 120
TOTAL - 300

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR FRAMES AND NARROW SLOT SAG GRATES

12" THRU 54" PIPE

NOTE:
SEE STD. DWG. 840.25 FOR FRAME ANCHORAGE.

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR CONCRETE CATCH BASIN

12" THRU 54" PIPE

MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN. HEIGHT, N, WITH NO RISER)

DIMENSIONS OF BOX AND PIPE		COVER DIMENSIONS		BASE V		BASE H		TOTAL		CU. YDS. CONC. IN BOX		DEDUCTIONS			
PIPE	SPAN	WIDTH	HEIGHT	E	F	NO.	LENGTH	NO.	LENGTH	FT. OF R.C.	LSB.	REINF.	CU. YDS. CONC.	C.S.	R.C.
12"	3'-0"	2'-0"	1'-8"	0.382	0.247	0.381	0.753	0.050	0.032						
15"	3'-0"	2'-0"	1'-11"	0.382	0.247	0.453	0.915	0.053	0.036						
18"	3'-0"	2'-0"	2'-2"	0.382	0.247	0.515	0.977	0.053	0.048						
24"	3'-0"	2'-0"	2'-8"	0.382	0.247	0.659	1.021	0.059	0.085						
30"	3'-0"	2'-0"	3'-2"	0.382	0.247	0.782	1.144	0.068	0.127						
36"	3'-0"	2'-0"	3'-8"	0.382	0.247	0.905	1.266	0.132	0.178						

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR FRAME, GRATES, AND HOOD FOR USE ON STANDARD CATCH BASIN

12" THRU 72" PIPE - 90° SKEW

NOTE: USE TYPE "E", "F" AND "G" GRATE UNLESS OTHERWISE NOTED.

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR PRECAST CONCRETE ENDWALL FOR SINGLE 12" THRU 72" PIPE - 90° SKEW

DETAIL SHOWING TYPES OF GRATES
DETAIL ACCORDING TO WATER FLOW.

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR PRECAST CONCRETE ENDWALL FOR SINGLE 12" THRU 72" PIPE - 90° SKEW

ENDWALL DIMENSIONS

PIPE DIA.	MINIMUM BAR SIZE	MIN./MAX. H1 (FT.)	MIN./MAX. H2 (FT.)	MIN./MAX. D (FT.)	MIN./MAX. W1	MIN./MAX. W2
1.0	#5 @ 8"	1.25/2.00	2.00/3.75	1.25/1.75	3.00/3.75	5.50/6.00
1.25	#5 @ 8"	1.25/2.00	3.00/3.75	1.25/2.00	3.50/3.75	6.50/6.75
1.50	#5 @ 8"	1.25/2.00	3.00/4.25	1.50/2.50	3.50/3.75	6.50/6.75
2.0	#5 @ 8"	1.50/2.50	4.00/4.75	1.75/2.50	4.00/4.25	7.50/8.25
2.5	#5 @ 8"	2.50/3.50	4.00/6.00	2.00/3.00	4.50/5.00	10.00/11.50
3.0	#5 @ 8"	3.00/3.50	5.00/6.00	2.75/3.50	5.25/5.75	11.50/11.75
3.5	#5 @ 8"	3.25/4.50	6.00/6.75	3.25/3.50	6.00/6.75	12.00/13.25
4.0	#5 @ 8"	3.50/4.50	6.50/7.50	3.25/3.50	6.50/6.75	13.00/13.25
4.5	#5 @ 8"	4.00/5.00	6.50/8.50	3.25/4.00	7.00/9.25	13.50/15.75
5.0	#5 @ 8"	4.50/5.00	7.00/8.50	3.25/4.00	7.25/9.25	13.75/15.75
5.5	#5 @ 8"	4.50/5.00	7.50/8.50	3.25/4.00	7.25/9.25	14.00/15.75
6.0	#5 @ 8"	4.50/5.00	7.50/8.50	3.25/4.00	7.75/9.25	14.75/16.75

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
3	REVISIONS PER COMMENTS FROM CHATHAM COUNTY FIRE DEPARTMENT/COORDINATION WITH GREAT RIDGE PARKWAY REVISIONS	03/20/2013
2	ISSUED FOR PERMITTING	01/23/2013
1	FOR REVIEW BY CLIENT	01/10/2013

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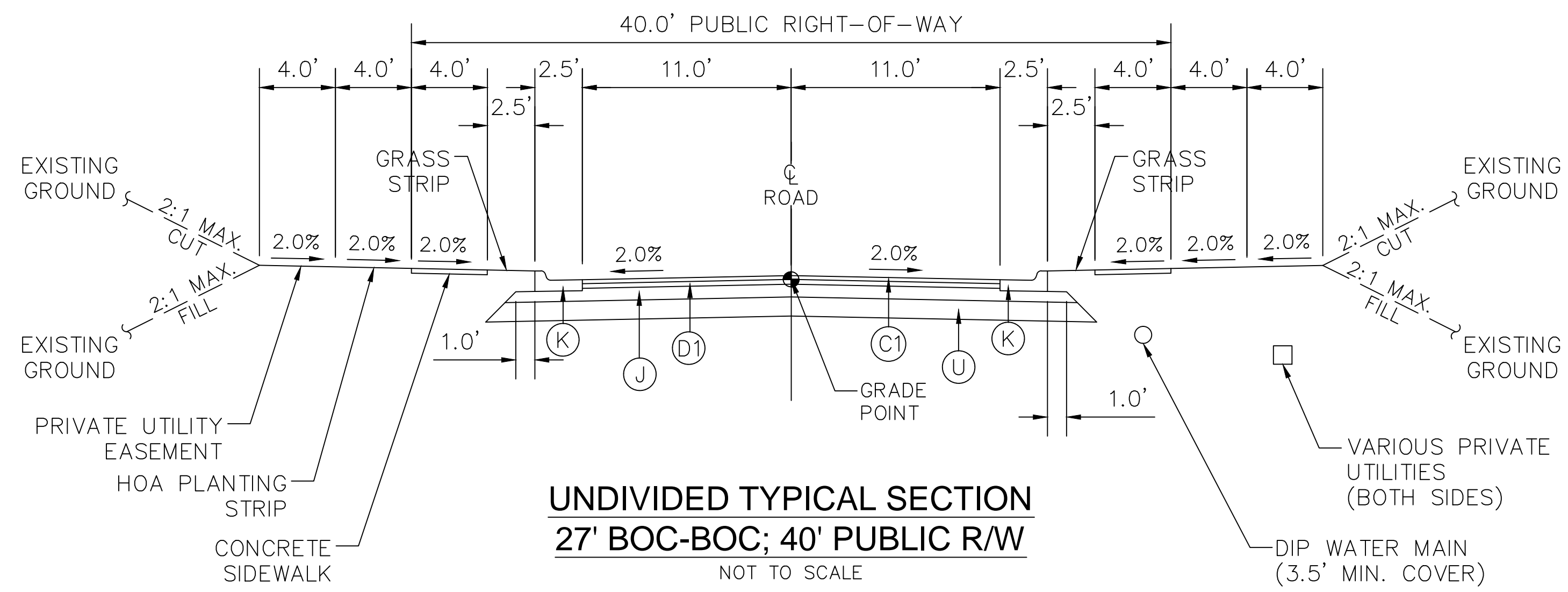
NCDOT DRAINAGE DETAILS

DATE: JANUARY 18, 2013
MCE PROJ. # 02735-0090
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DESIGNED: GCA
CHECKED: CHS
PROJ. MGR: CHS

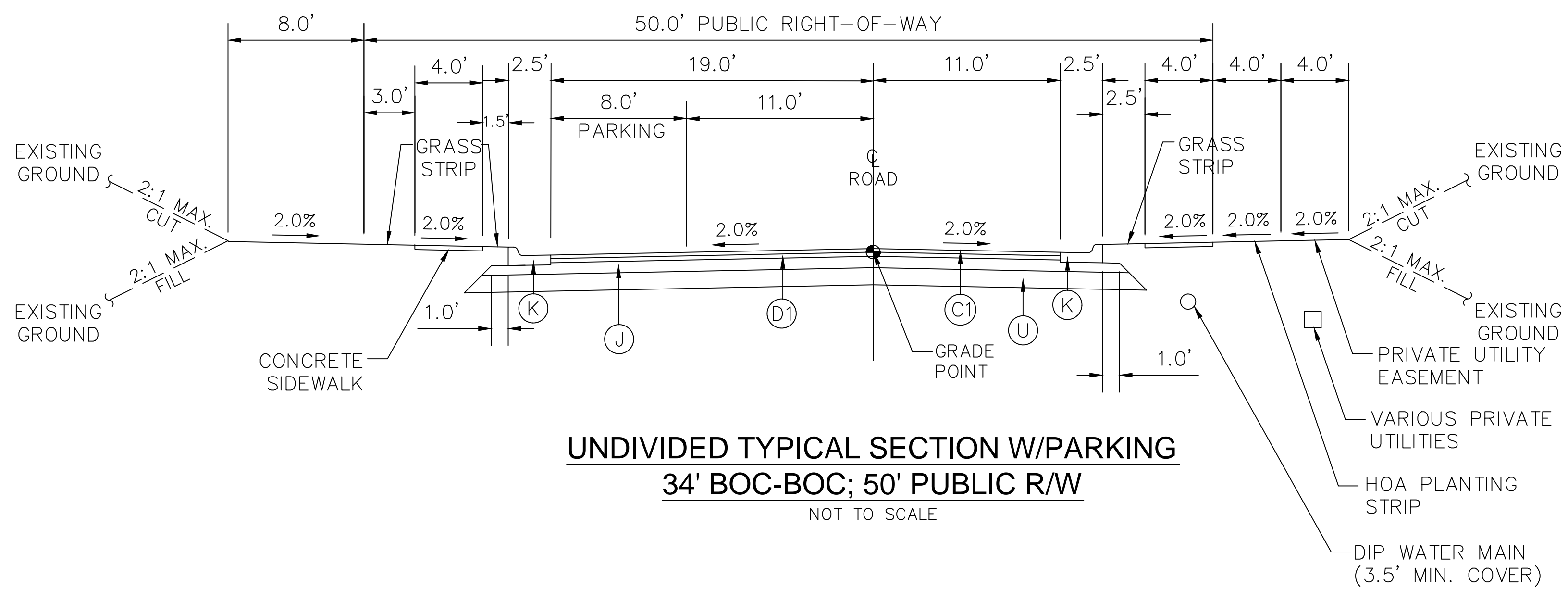
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VERTICAL: N/A

STATUS: FINAL DRAWINGS
NOT RELEASED FOR CONSTRUCTION

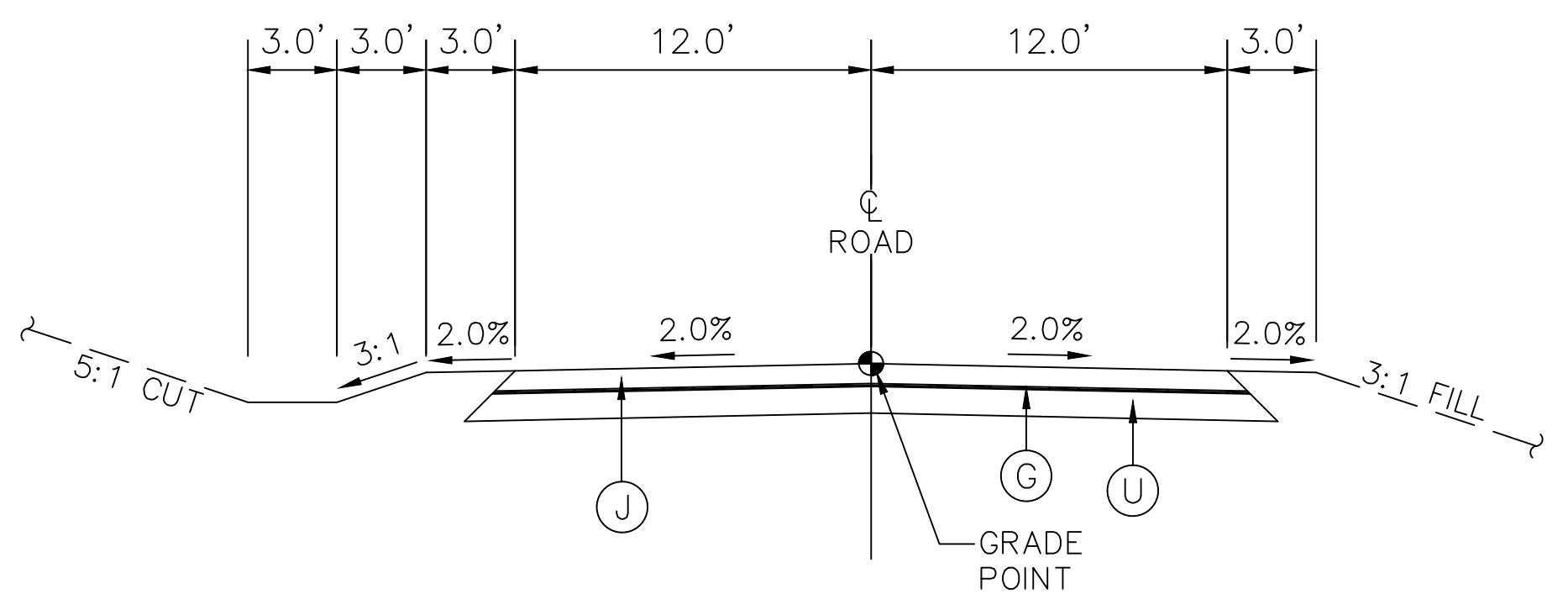
REVISION: 4



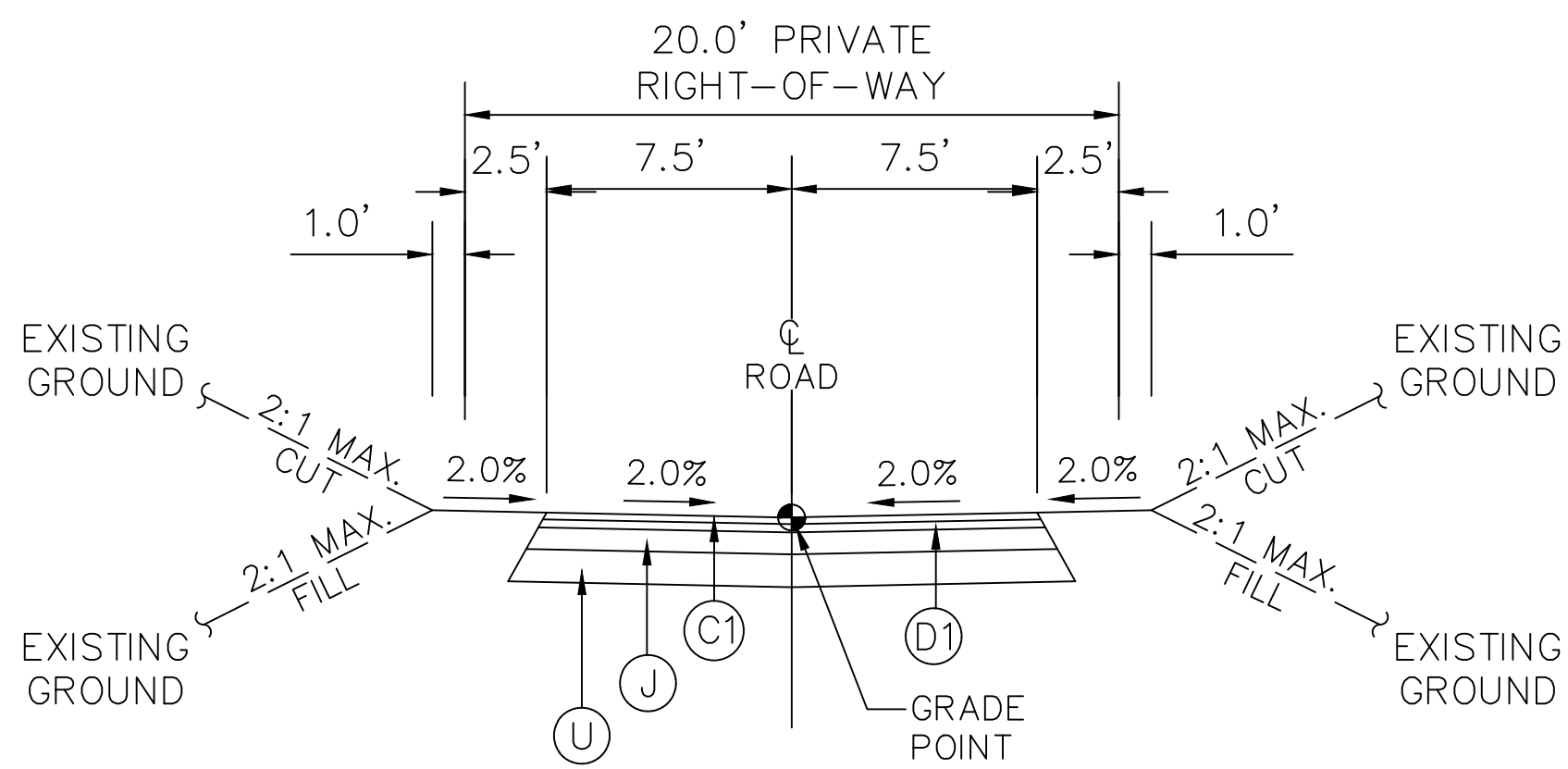
UNDIVIDED TYPICAL SECTION
27' BOC-BOC; 40' PUBLIC R/W
 NOT TO SCALE



UNDIVIDED TYPICAL SECTION W/PARKING
34' BOC-BOC; 50' PUBLIC R/W
 NOT TO SCALE



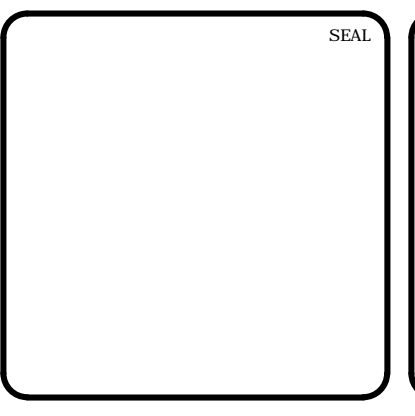
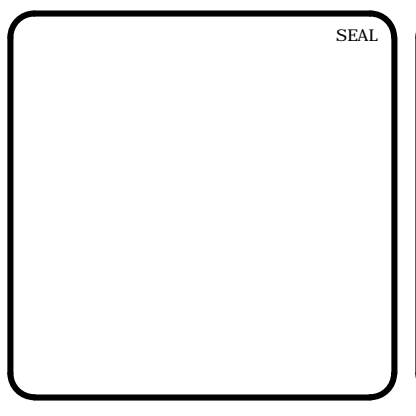
24' WIDE GRAVEL DRIVE
 NOT TO SCALE



PRIVATE ALLEY TYPICAL SECTION
15' EOP-EOP; 20' PRIVATE R/W
 NOT TO SCALE

PAVEMENT SCHEDULE	
(C1)	1.0" SF9.5A ASPHALT SURFACE COURSE AT AN AVERAGE RATE OF 110 LBS. PER SQ. YARD.
(D1)	2.0" S9.5B ASPHALT SURFACE COURSE AT AN AVERAGE RATE OF 224 LBS. PER SQ. YARD.
(J)	8" COMPACTED ABC STONE BASE COURSE
(K)	30" CURB AND GUTTER
(U)	COMPACTED SUBGRADE
(G)	GEOTEXTILE FABRIC (IF NECESSARY) COORDINATE WITH GEOTECHNICAL ENGINEER

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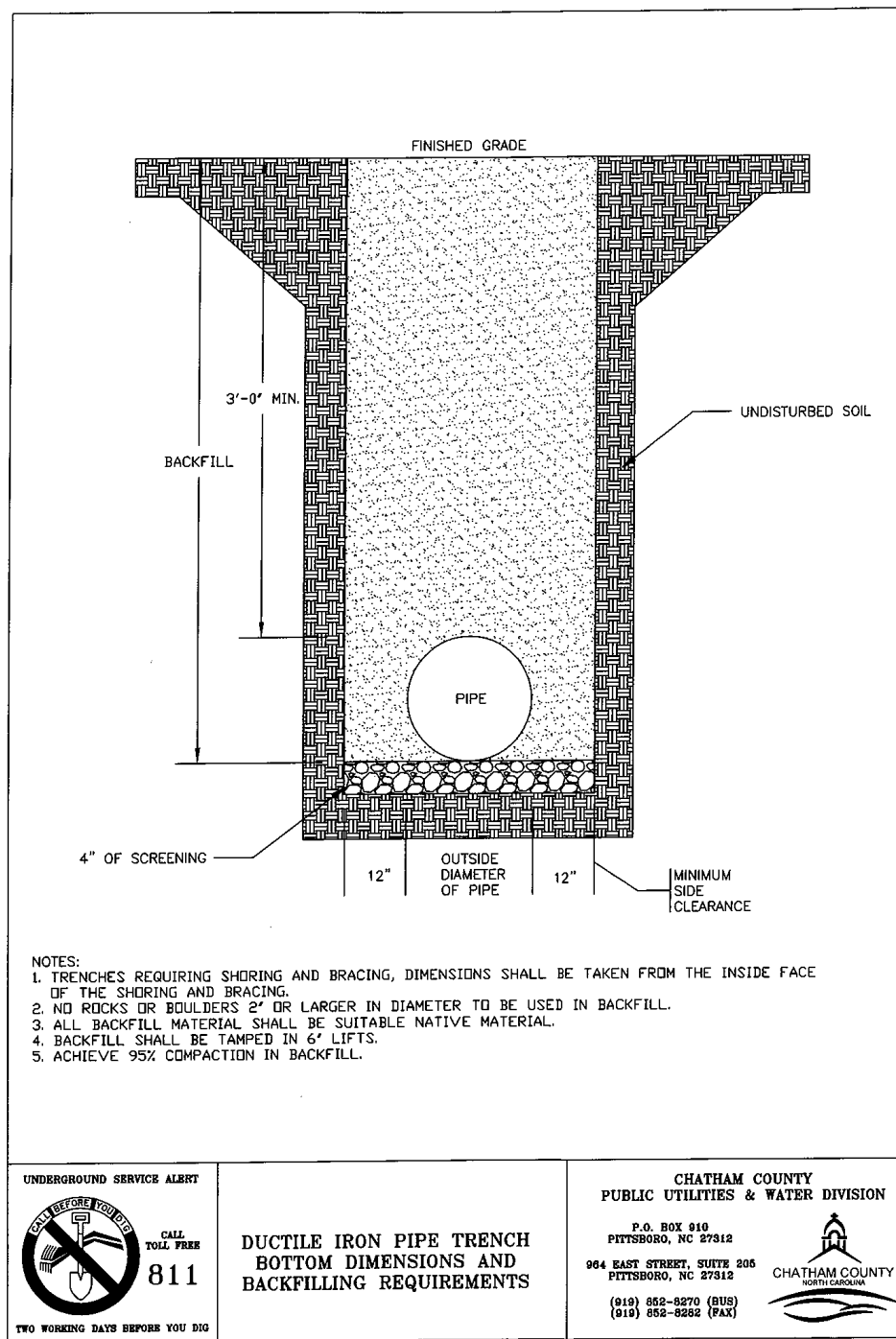


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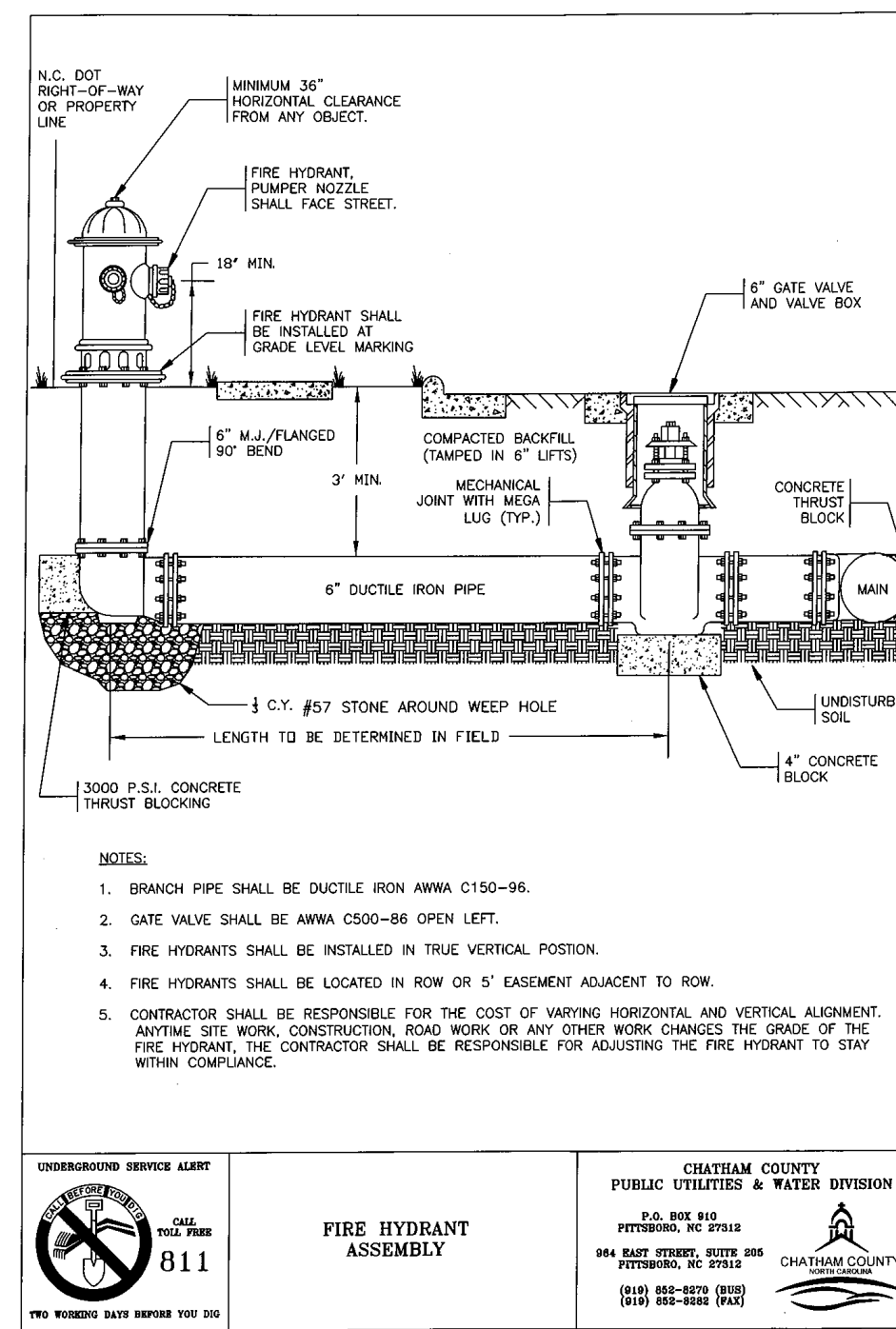
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ROADWAY TYPICAL SECTIONS

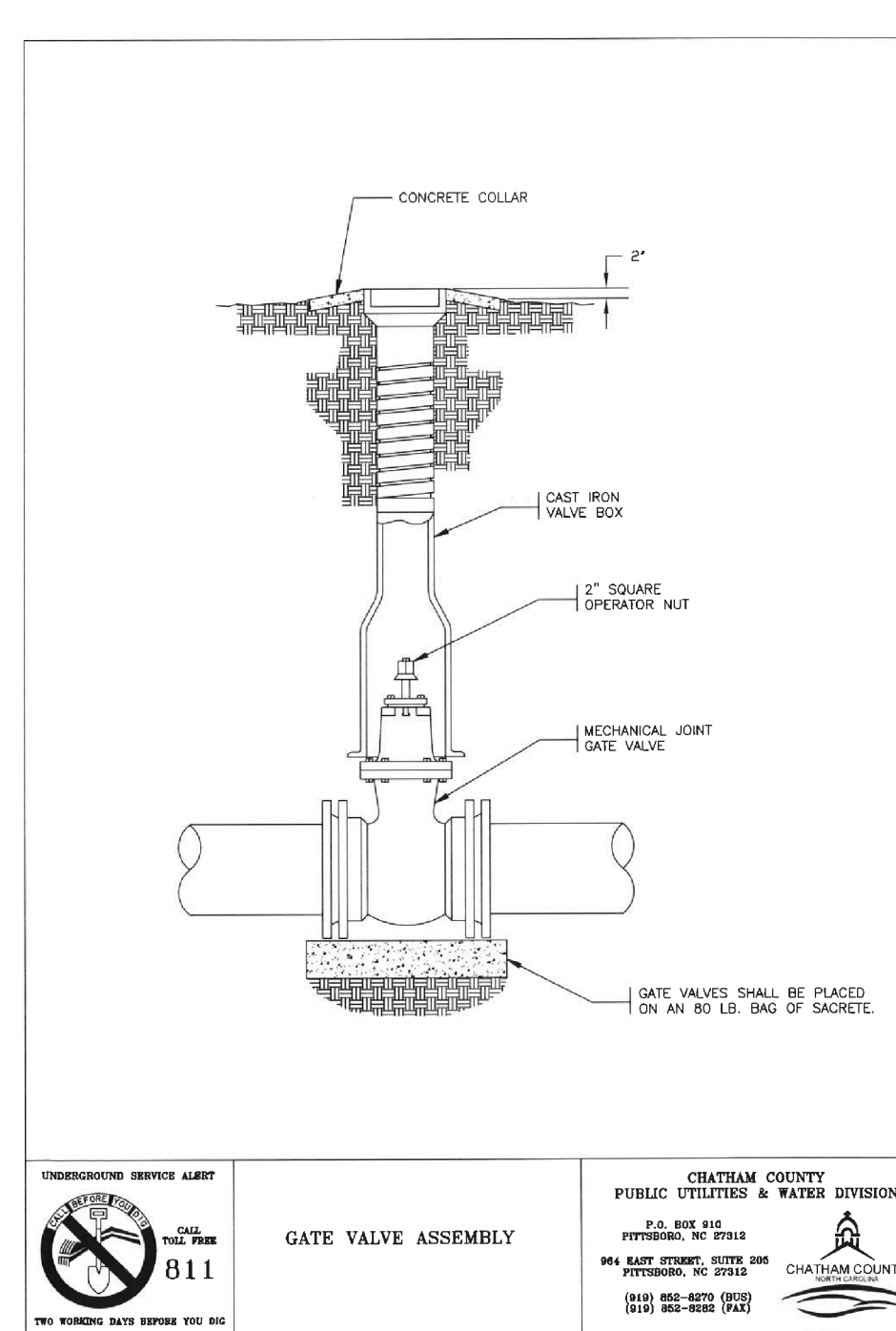
DATE: JANUARY 18, 2013	SCALE: D2.X
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DRAWN: GCA	VERTICAL: D2.3
DESIGNED: GCA	
CHECKED: CHS	
PROJ. MGR.: CHS	
STATUS: FINAL DRAWINGS NOT RELEASED FOR CONSTRUCTION	
REVISION: 4	



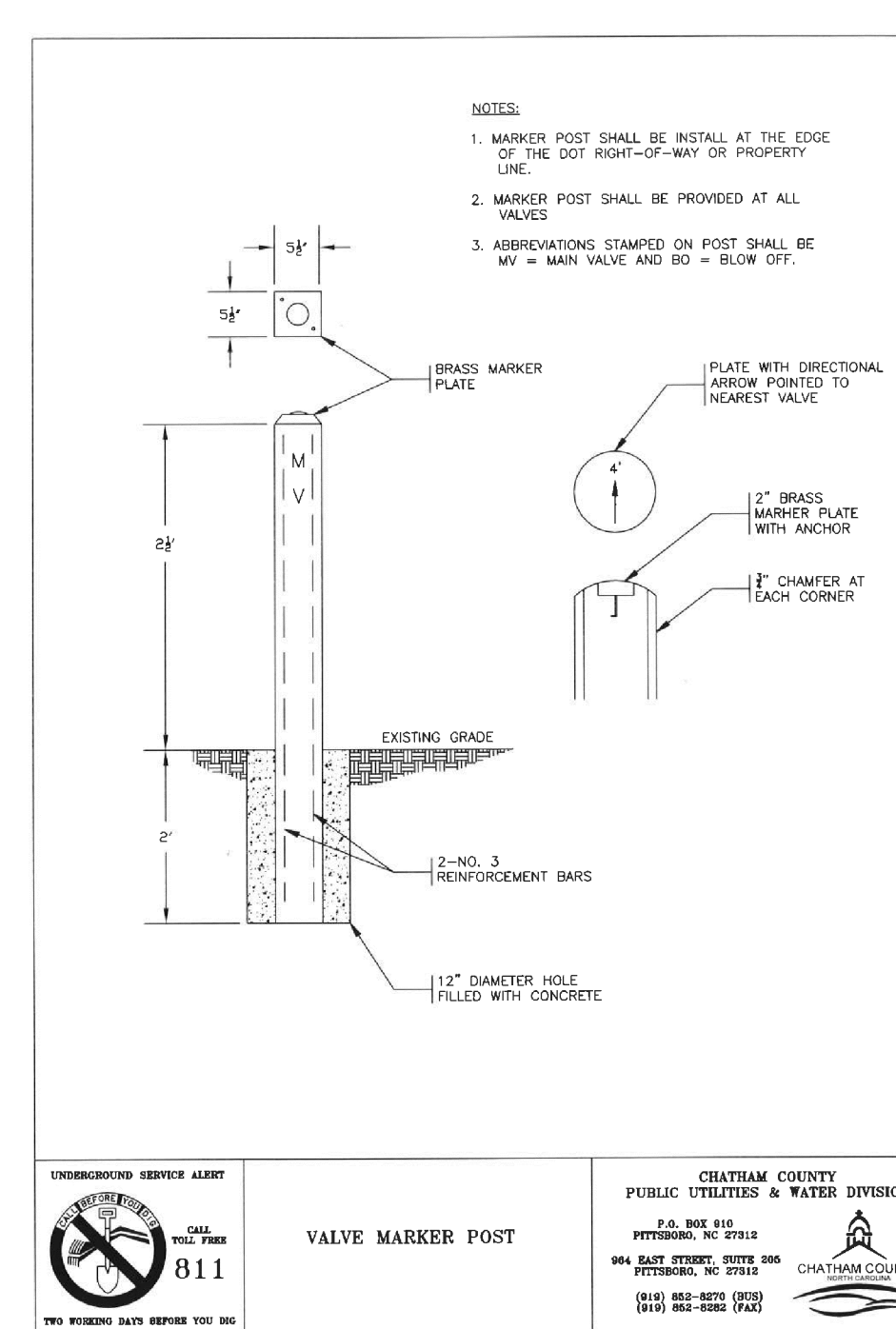
UNDERGROUND SERVICE ALERT
 CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION
DUCTILE IRON PIPE TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS



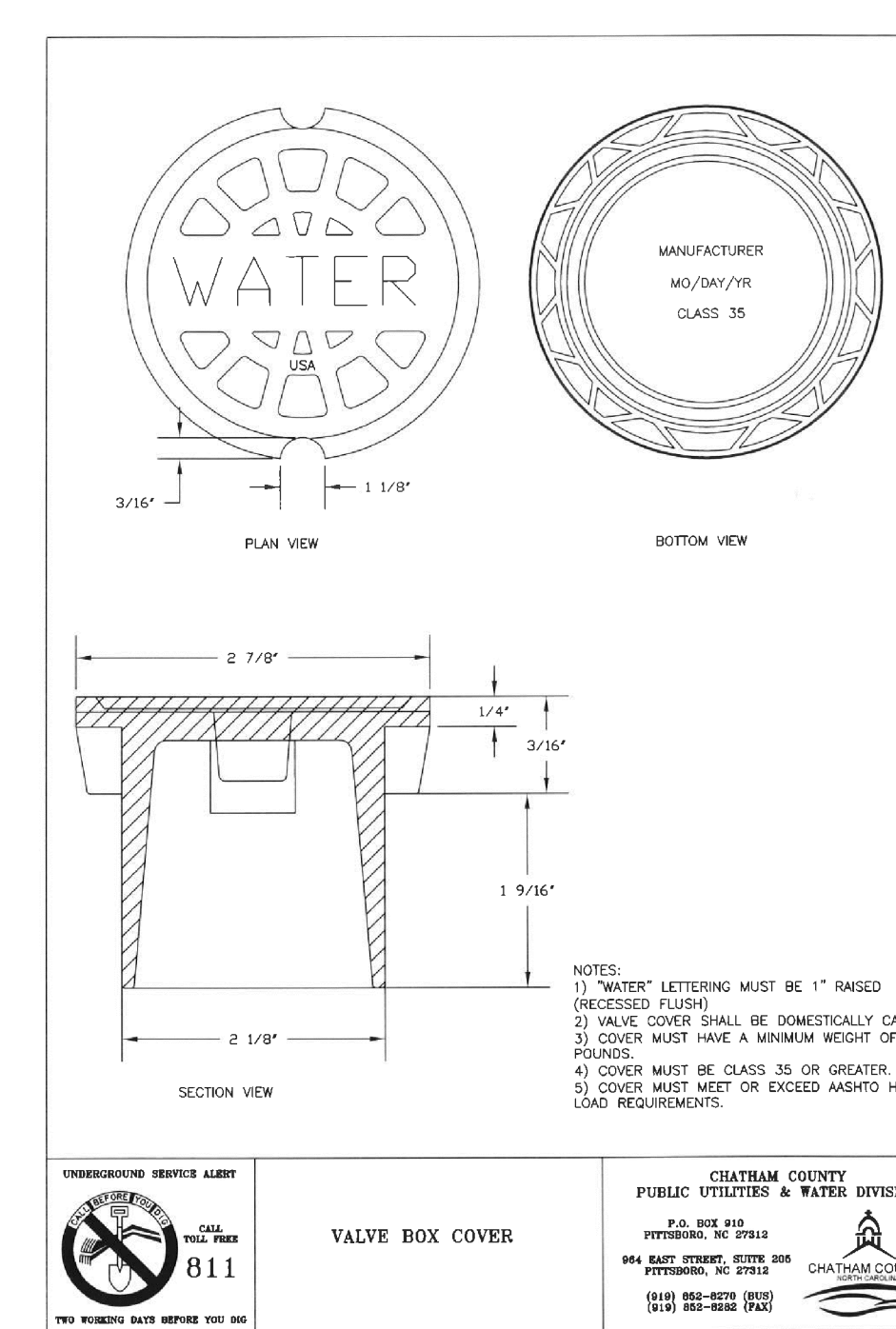
UNDERGROUND SERVICE ALERT
 CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION
FIRE HYDRANT ASSEMBLY



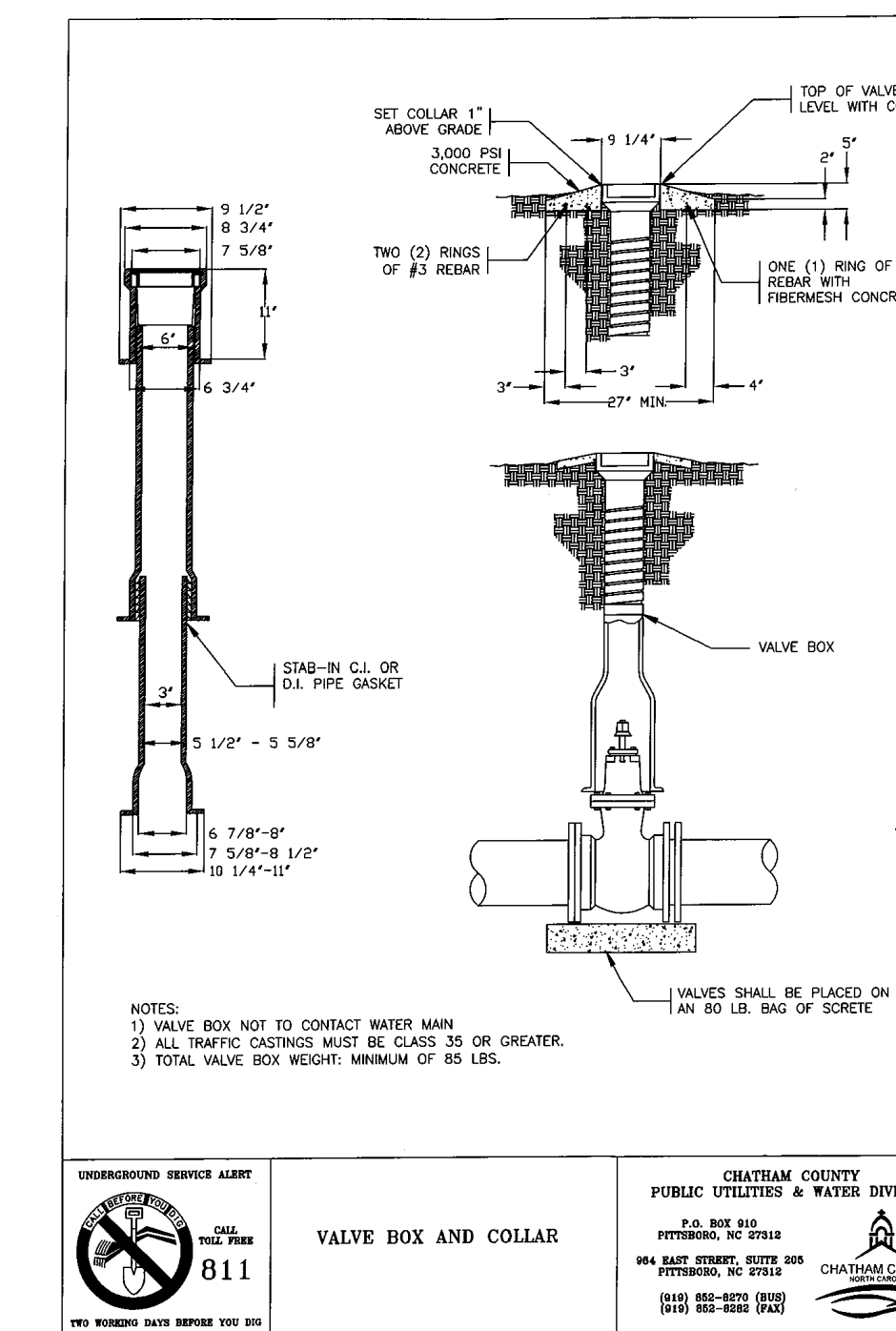
UNDERGROUND SERVICE ALERT
 CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION
GATE VALVE ASSEMBLY



UNDERGROUND SERVICE ALERT
 CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION
VALVE MARKER POST



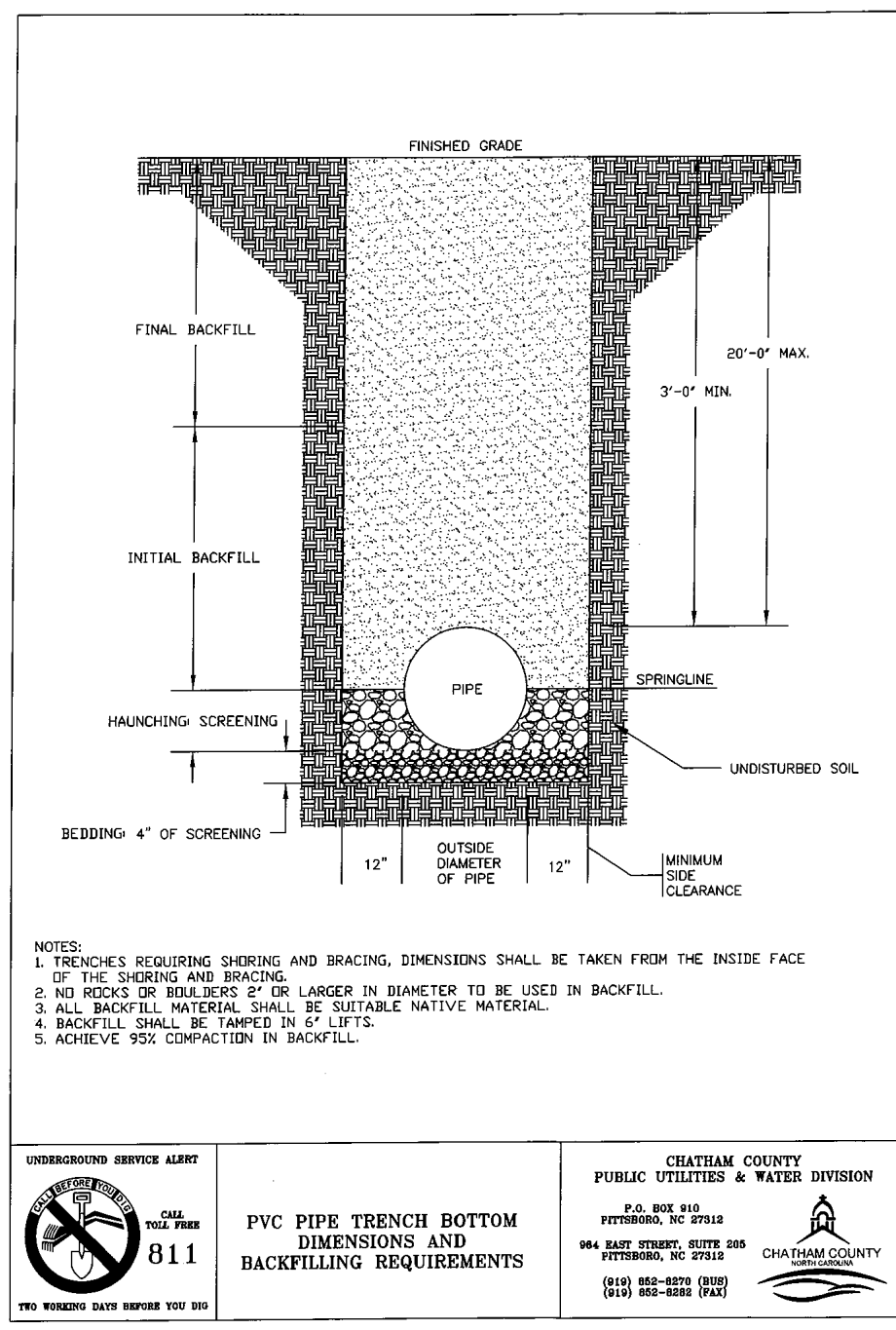
UNDERGROUND SERVICE ALERT
 CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION
VALVE BOX COVER



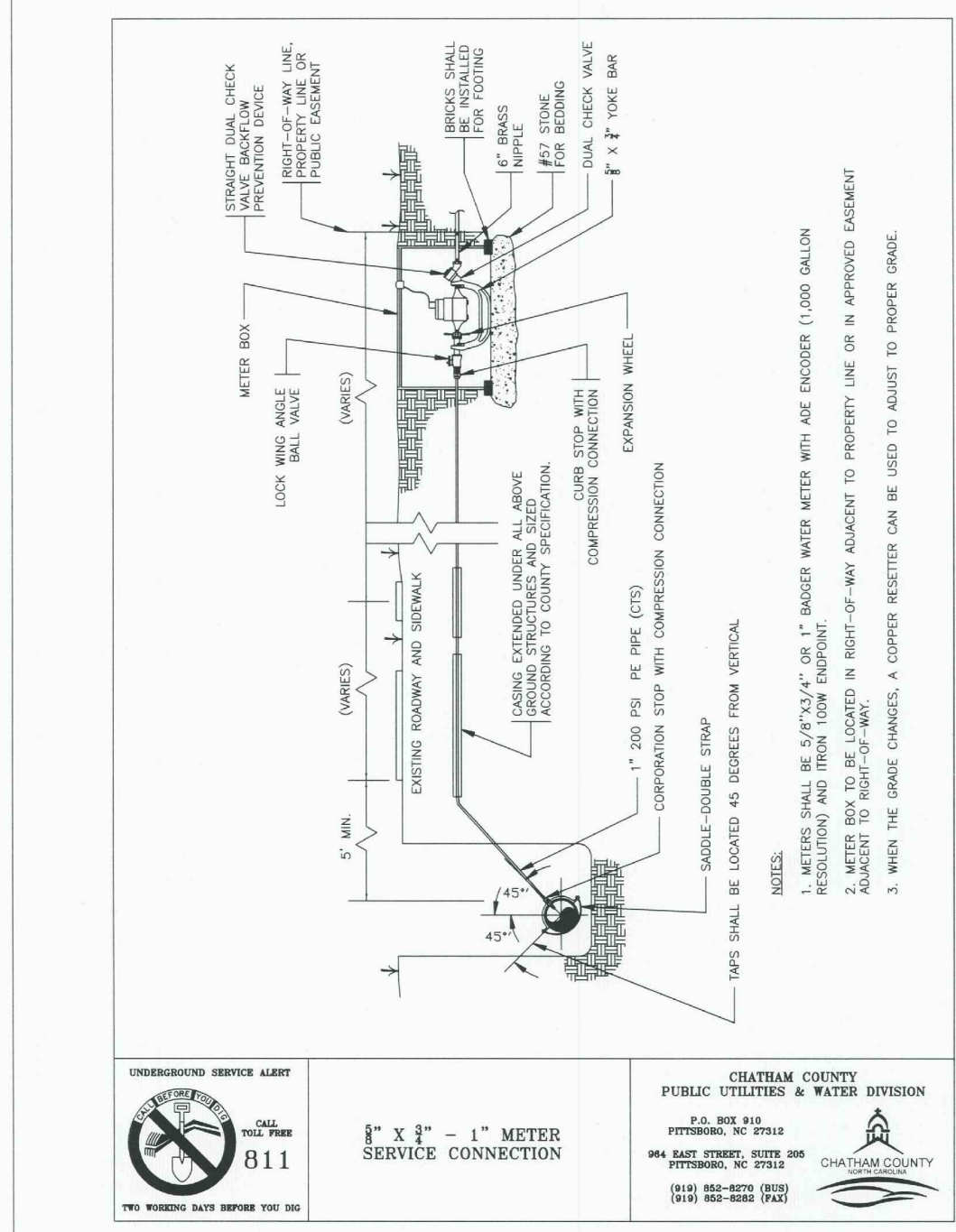
UNDERGROUND SERVICE ALERT
 CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION
VALVE BOX AND COLLAR

- DETECTABLE WARNING TAPE NOTES:**
1. THE TAPE SHALL BE AN INERT, BONDED LAYER PLASTIC WITH A METALIZED FOIL CORE AND SHALL BE HIGHLY RESISTANT TO ALKALIS, ACID, OR OTHER DESTRUCTIVE CHEMICAL COMPONENTS LIKELY TO BE ENCOUNTERED IN SOILS.
 2. THE TAPE SHALL BE BRIGHTLY COLORED TO CONTRAST WITH SOIL AND SHALL BEAR AN IMPRINT IDENTIFYING THE TYPE OF LINE BURIED BELOW. THE TAPE SHALL BE A MINIMUM OF 2" WIDE.
 3. THE TAPE SHALL BE BURIED A MINIMUM OF 6" AND A MAXIMUM OF 12" BELOW THE GROUND SURFACE DIRECTLY ABOVE THE WATER LINE WITH PRINTED SIDE UP.

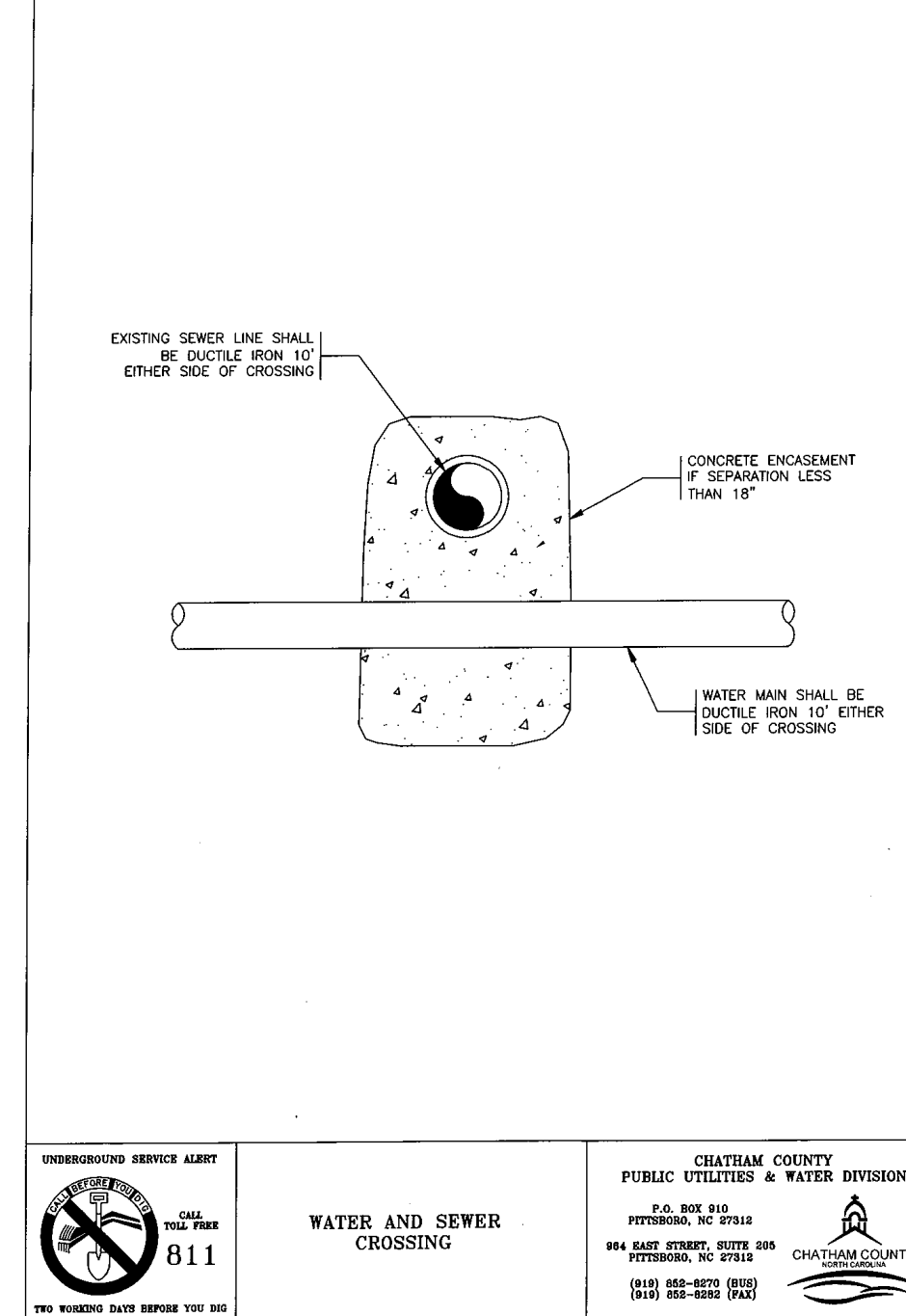
- TRACER WIRE NOTES:**
1. TRACER WIRE IS TO BE STANDARD NO. 12 GAUGE COATED COPPER WIRE.
 2. LOCATION WIRE CONNECTIONS ARE TO BE A WATER TIGHT CONNECTION USING TWISTER DB PLUS WATERPROOF WIRE CONNECTORS OR AN APPROVED EQUAL.



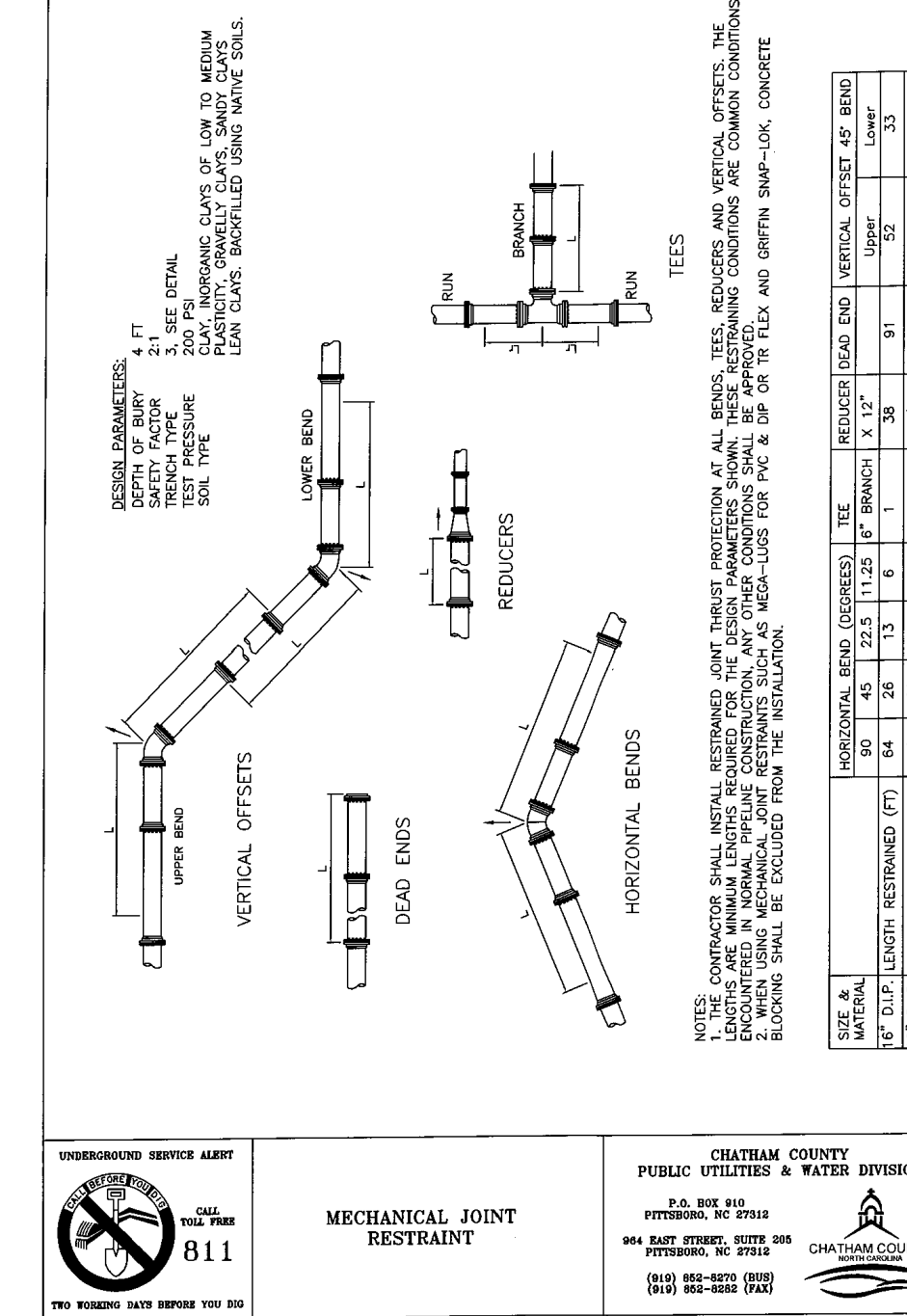
UNDERGROUND SERVICE ALERT
 CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION
PVC PIPE TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS



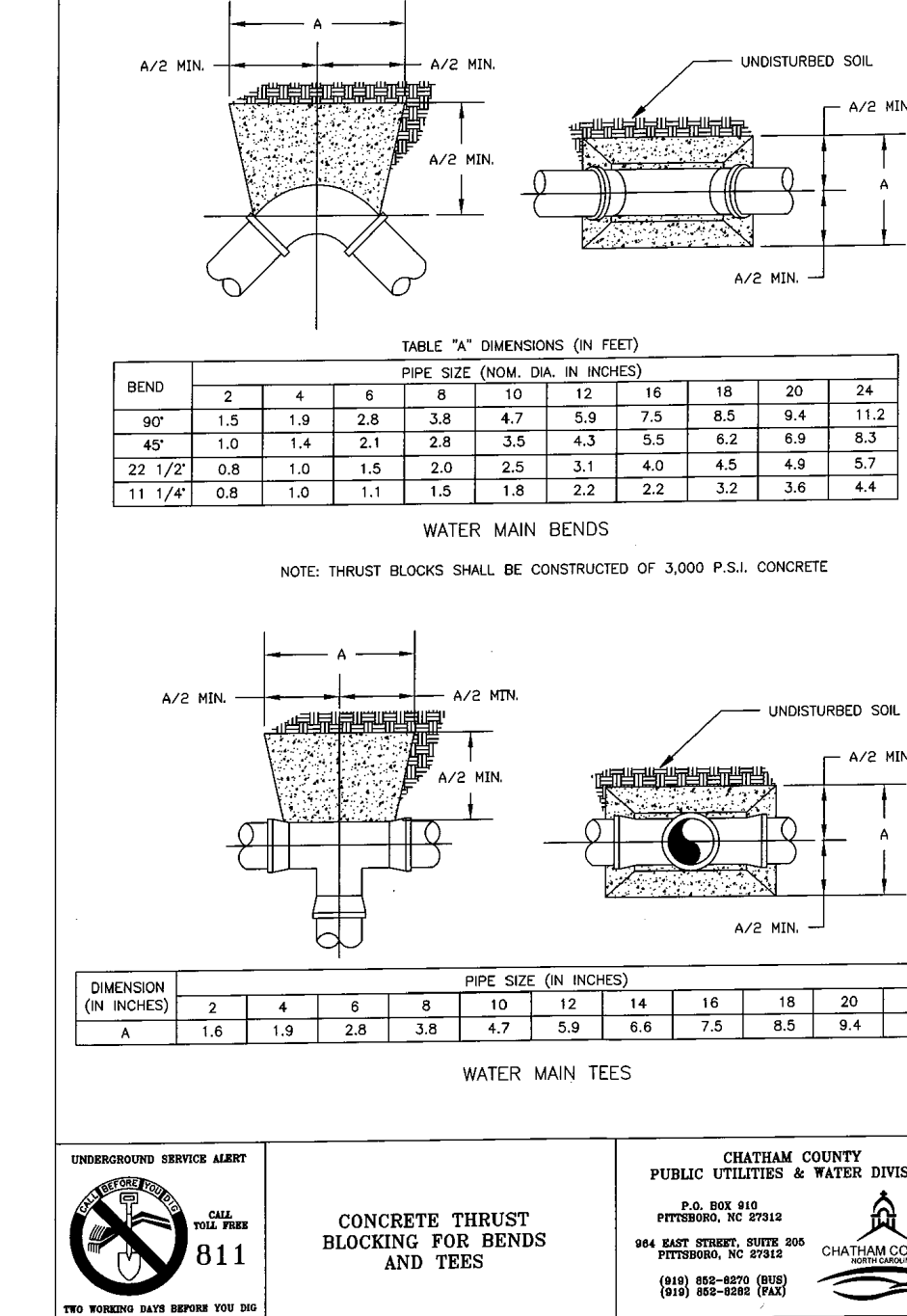
UNDERGROUND SERVICE ALERT
 CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION
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UNDERGROUND SERVICE ALERT
 CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION
WATER AND SEWER CROSSING



UNDERGROUND SERVICE ALERT
 CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION
MECHANICAL JOINT RESTRAINT



UNDERGROUND SERVICE ALERT
 CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION
CONCRETE THRUST BLOCKING FOR BENDS AND TEES

REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS
 BASED ON TEST PRESSURE OF 300 P.S.I.
 ALL AREAS GIVEN IN SQUARE FEET.

SIZE AND READER OF BEND	STATIC THRUST IN TONS		MINIMUM REACTION BEARING AREAS IN SQ. FT. CLAY		MINIMUM REACTION BEARING AREAS IN SQ. FT. SAND	
	1/2\"/>					
6"						
11 1/4"	1,108	1	1	1	1	1
22 1/2"	2,207	1	2	2	1	1
45"	4,328	2	3	3	1	2
90"	7,996	2	4	5	1	2
PLUG	5,655	2	3	4	1	2
12"						
11 1/4"	1,970	1	2	1	1	1
22 1/2"	3,922	1	2	3	1	1
45"	7,694	2	4	5	1	2
90"	14,215	4	8	9	2	4
PLUG	10,053	3	5	6	2	3
16"						
11 1/4"	4,433	2	3	3	1	2
22 1/2"	8,826	3	5	6	2	3
45"	17,312	5	9	11	3	5
90"	31,983	8	16	19	4	8
PLUG	22,619	6	12	14	3	6
20"						
11 1/4"	7,891	2	4	5	1	2
22 1/2"	15,691	4	8	10	2	4
45"	30,779	8	16	19	4	8
90"	56,861	15	29	35	8	15
PLUG	40,213	10	21	25	5	10

REACTION BEARING AREAS ARE IN SQUARE FEET MEASURED IN A VERTICAL PLANE IN THE TRENCH SIDE AT AN ANGLE OF 90° TO THE THRUST VECTOR.
 USE 6" - 30 BEARING BENCH VALUE FOR HYDRANTS FOR ADDITIONAL SAFETY FACTOR.

UNDERGROUND SERVICE ALERT
 CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION
CONCRETE THRUST BLOCKING QUANTITY TABLE

REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
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1	FOR REVIEW BY CLIENT	01/18/2013

NO.	DATE	BY	DESCRIPTION
1	01/18/2013		

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UTILITY DETAILS

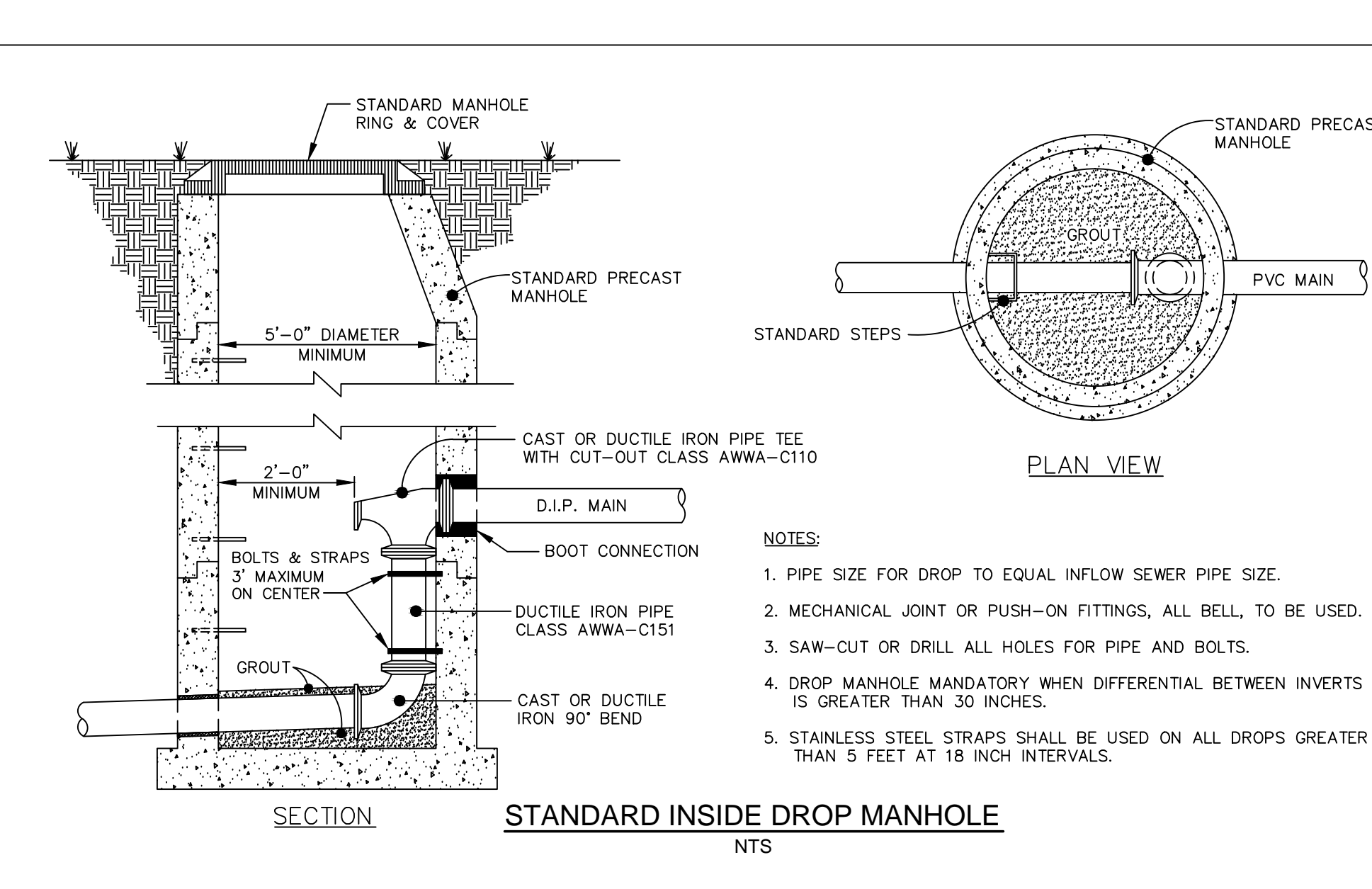
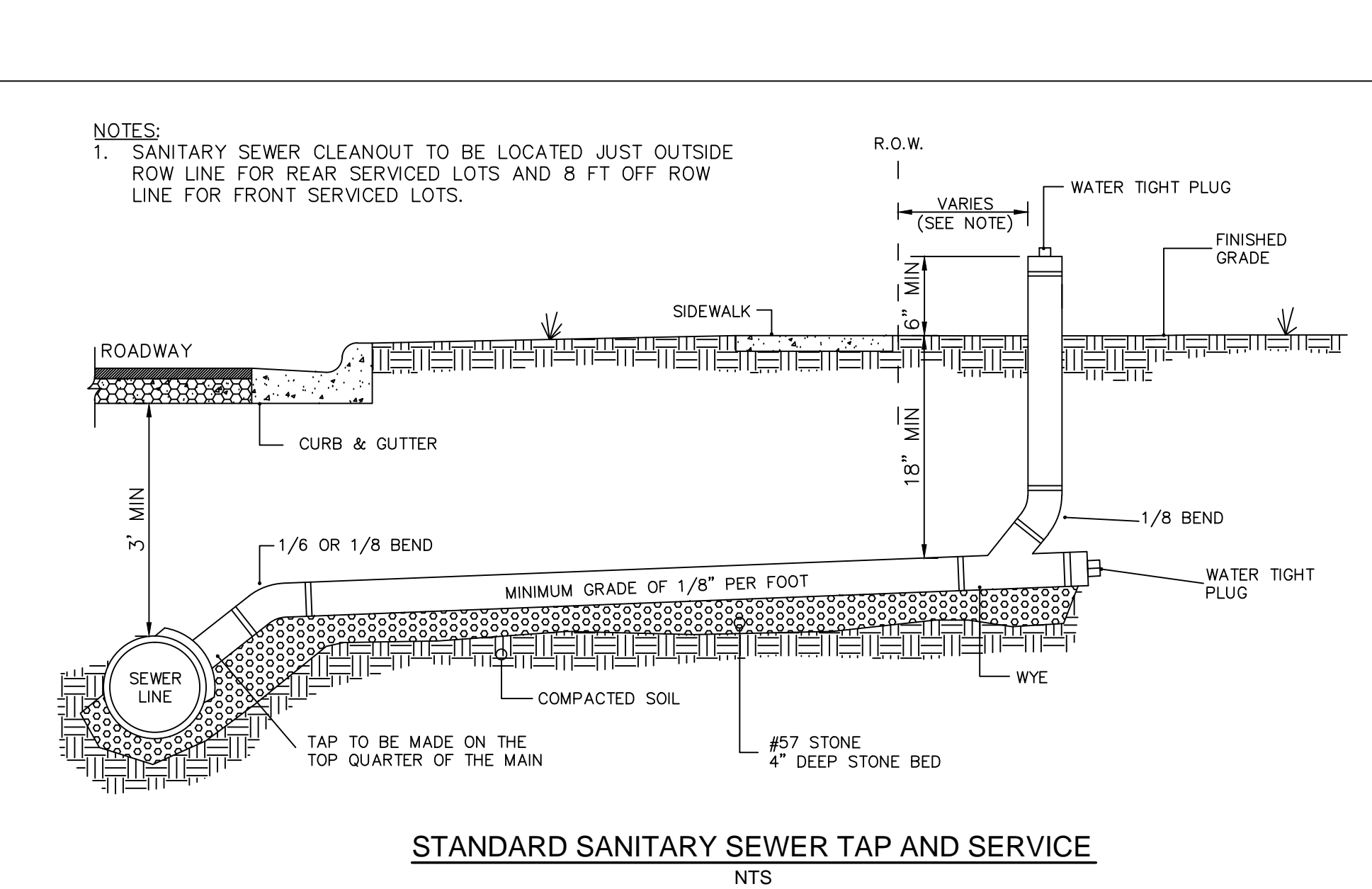
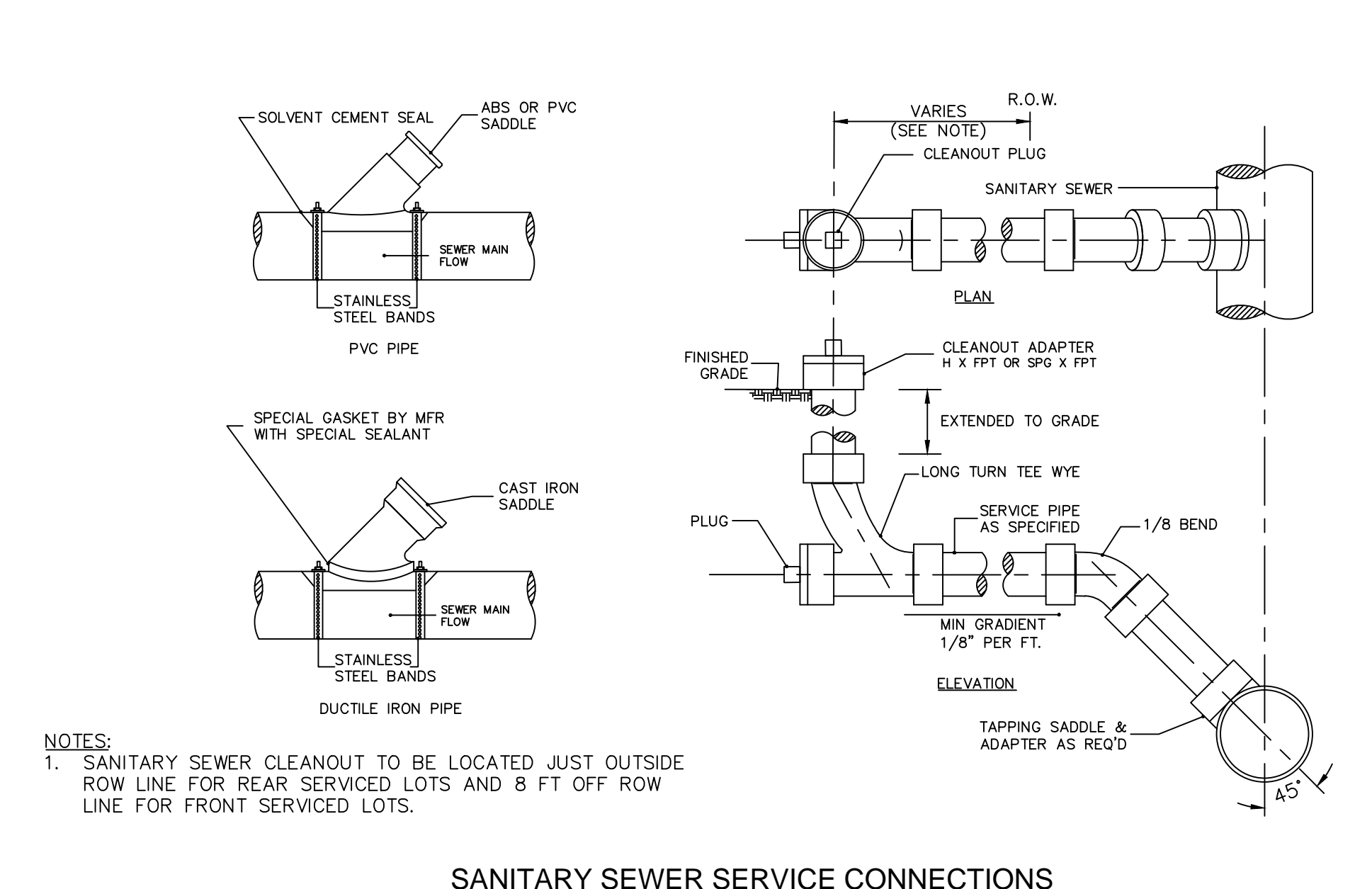
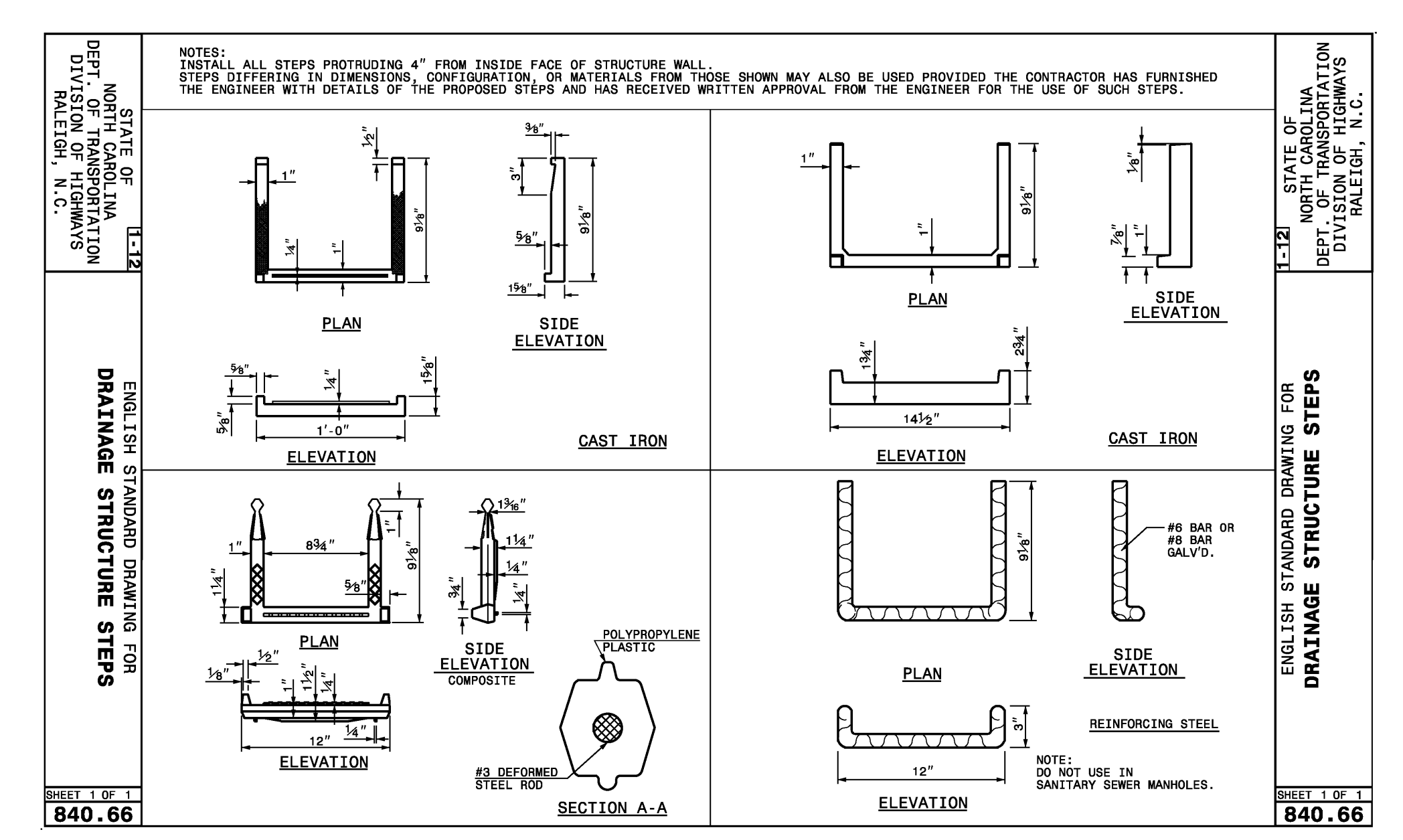
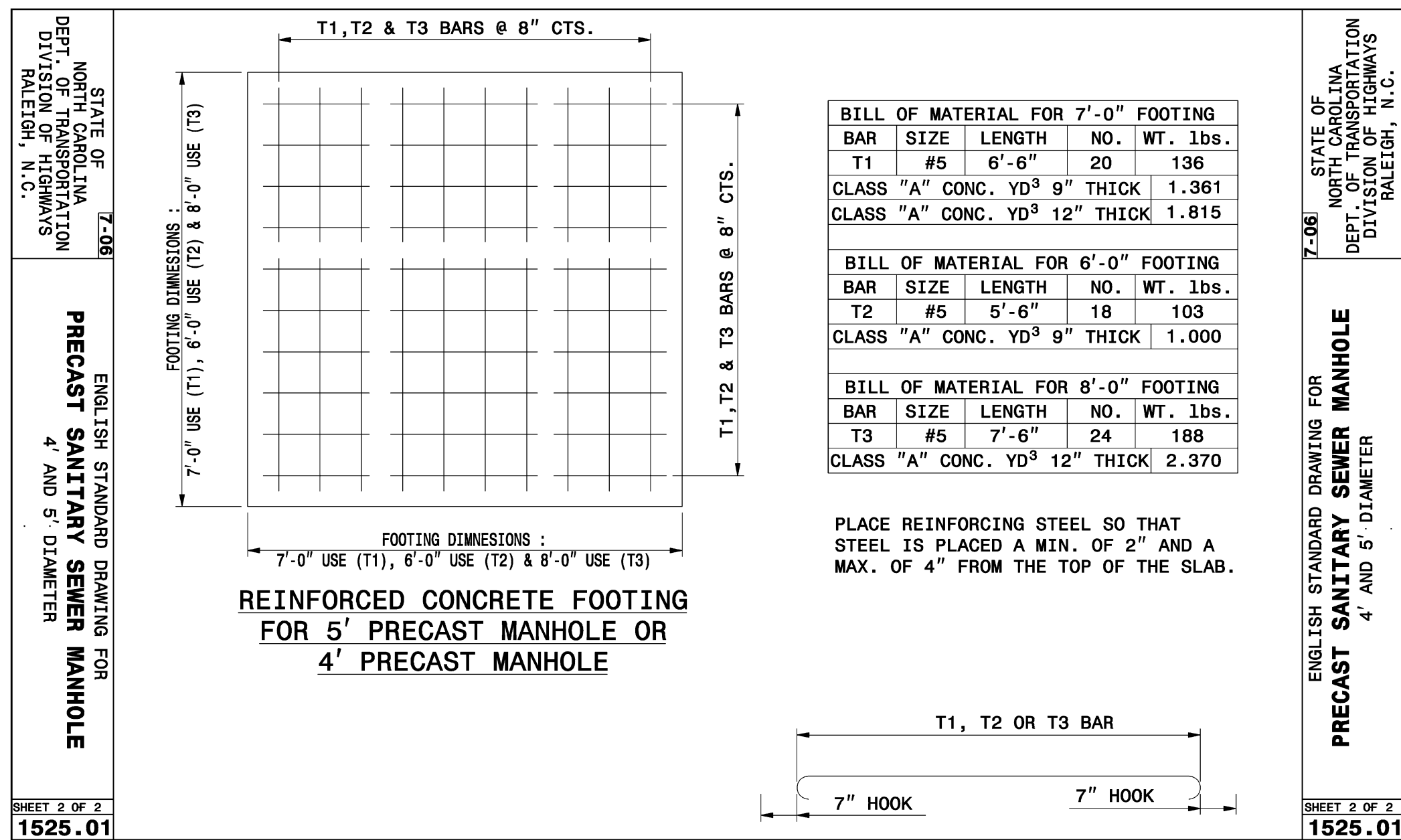
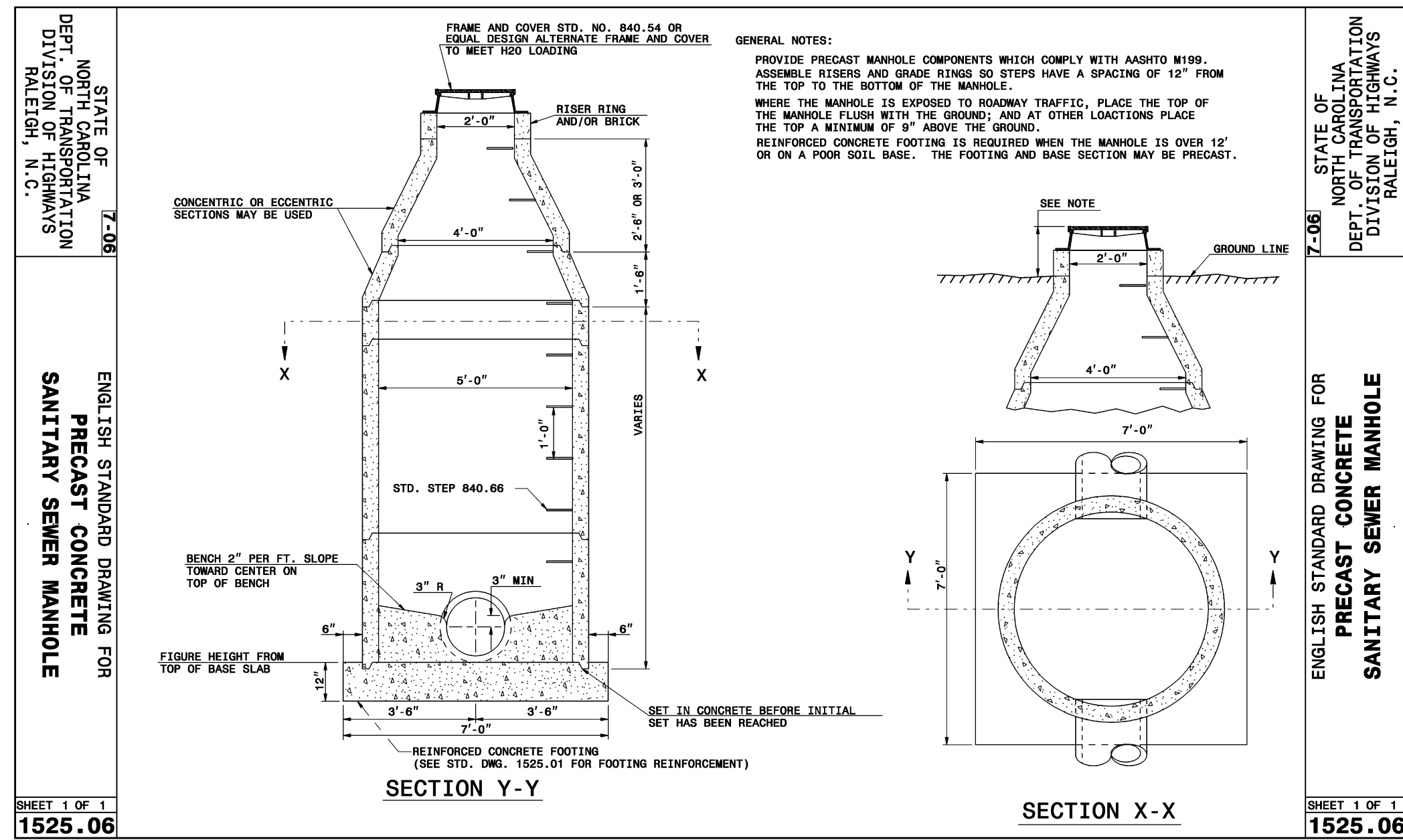
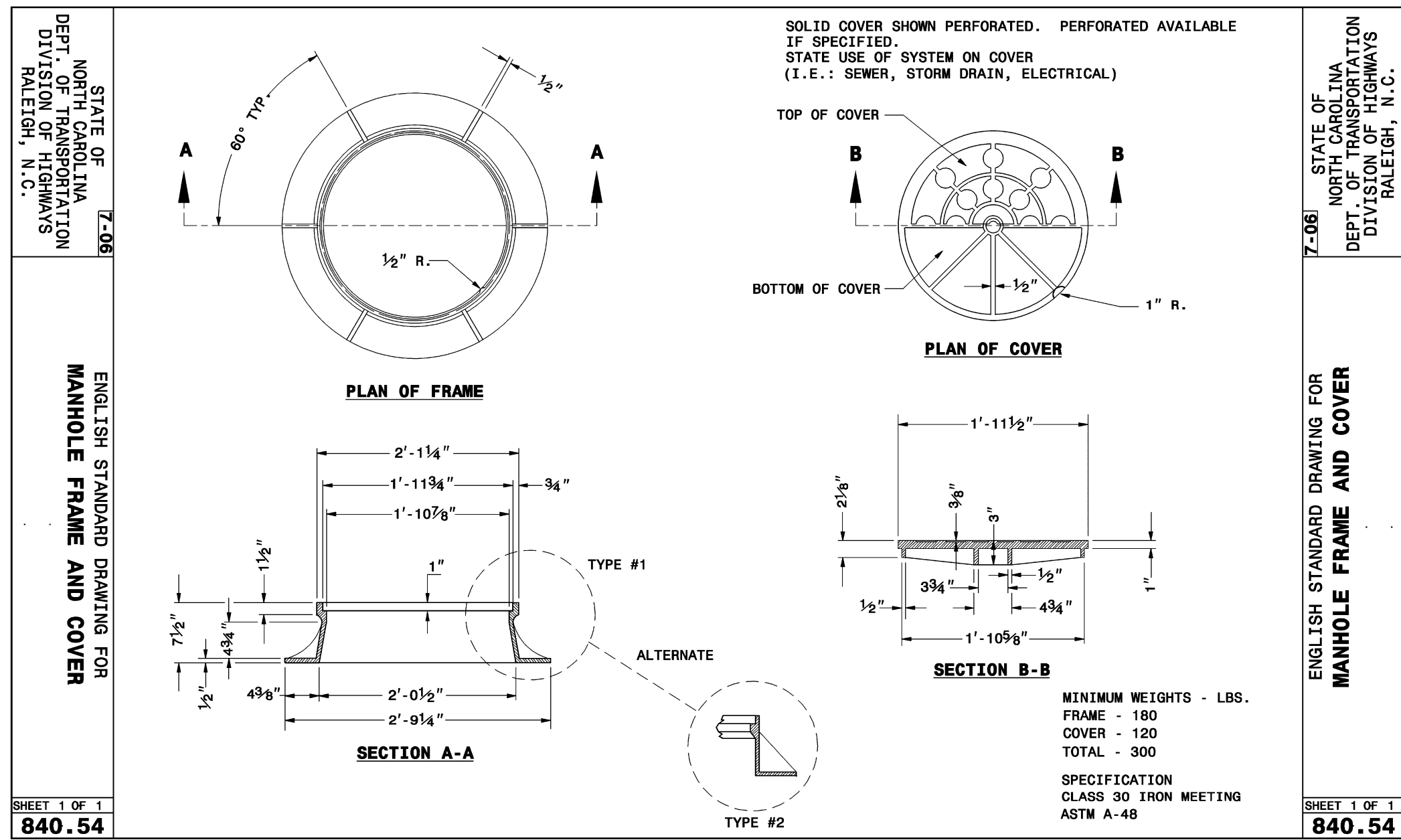
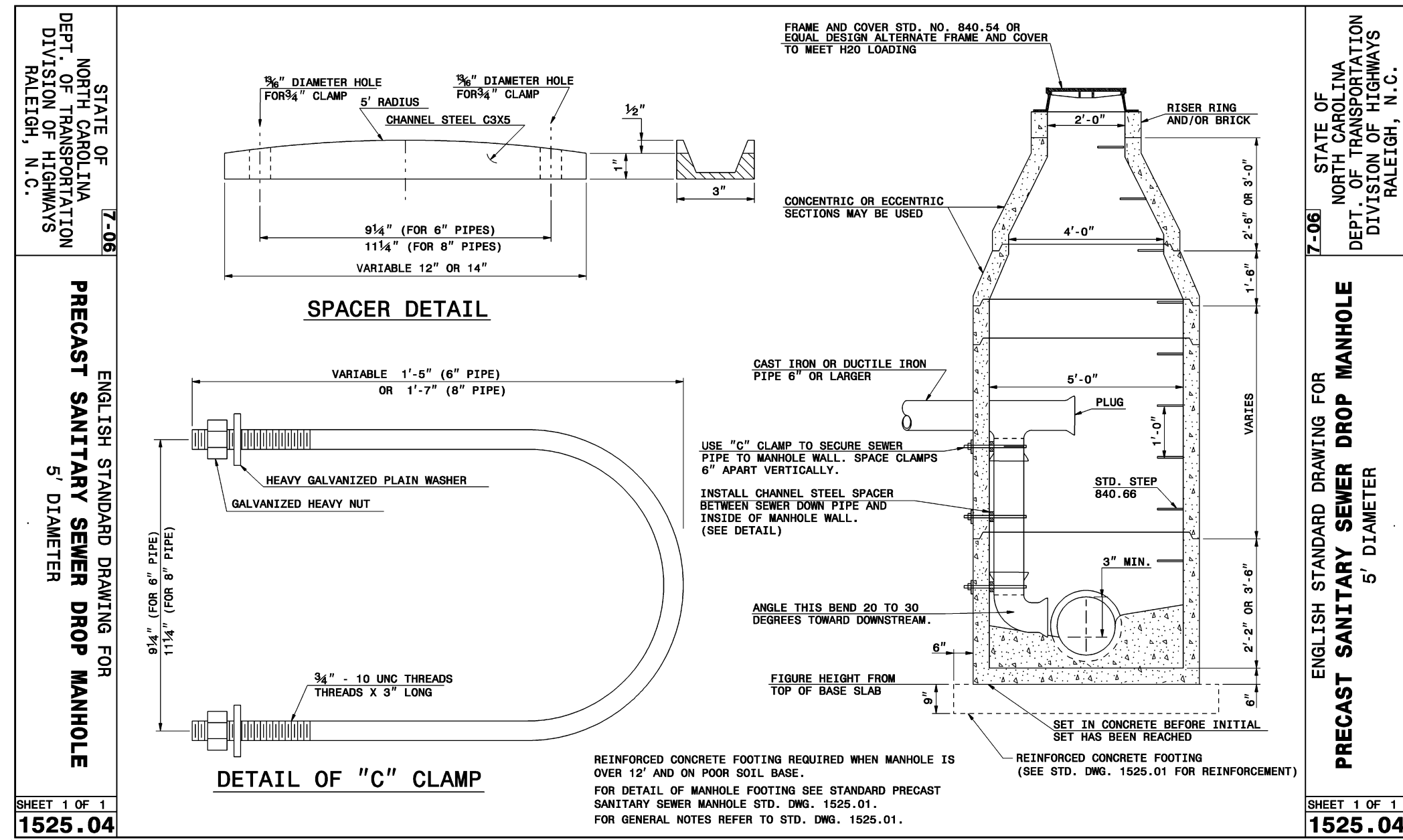
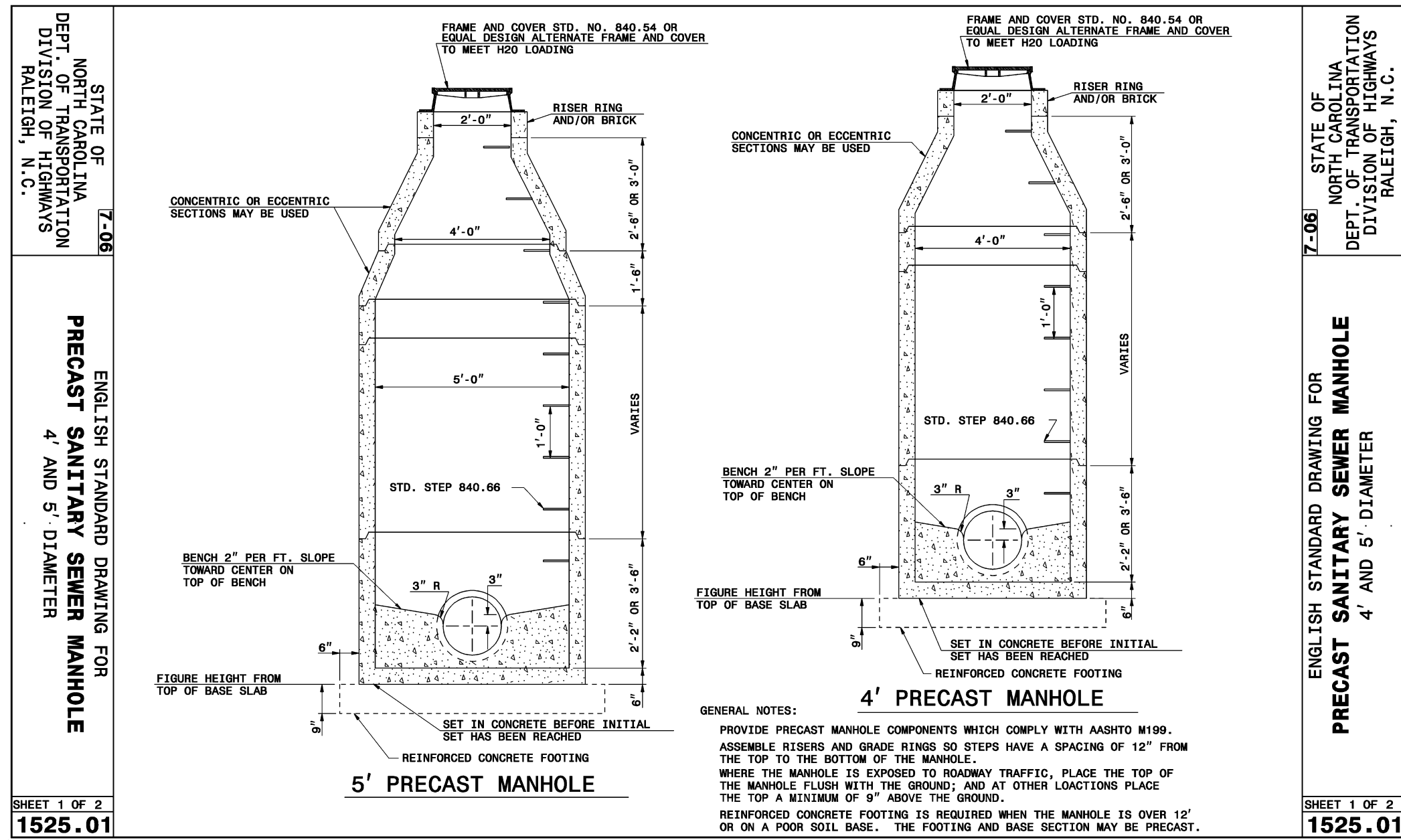
DATE: JANUARY 18, 2013
 MCE PROJ. # 02735-0090
 DRAWN: GCA
 DESIGNED: GCA
 CHECKED: CHS
 PROJ. MGR.: CHS

SCALE: HORIZONTAL: N/A
 VERTICAL: N/A

MSC FILE NUMBER: D3.X
 DRAWING NUMBER: D3.1

STATUS: FINAL DRAWINGS
 NOT RELEASED FOR CONSTRUCTION

REVISION: 4



REV. NO.	DESCRIPTIONS	DATE
4	REVISIONS PER COMMENTS FROM NCDOT RECEIVED 04/09/2013	04/10/2013
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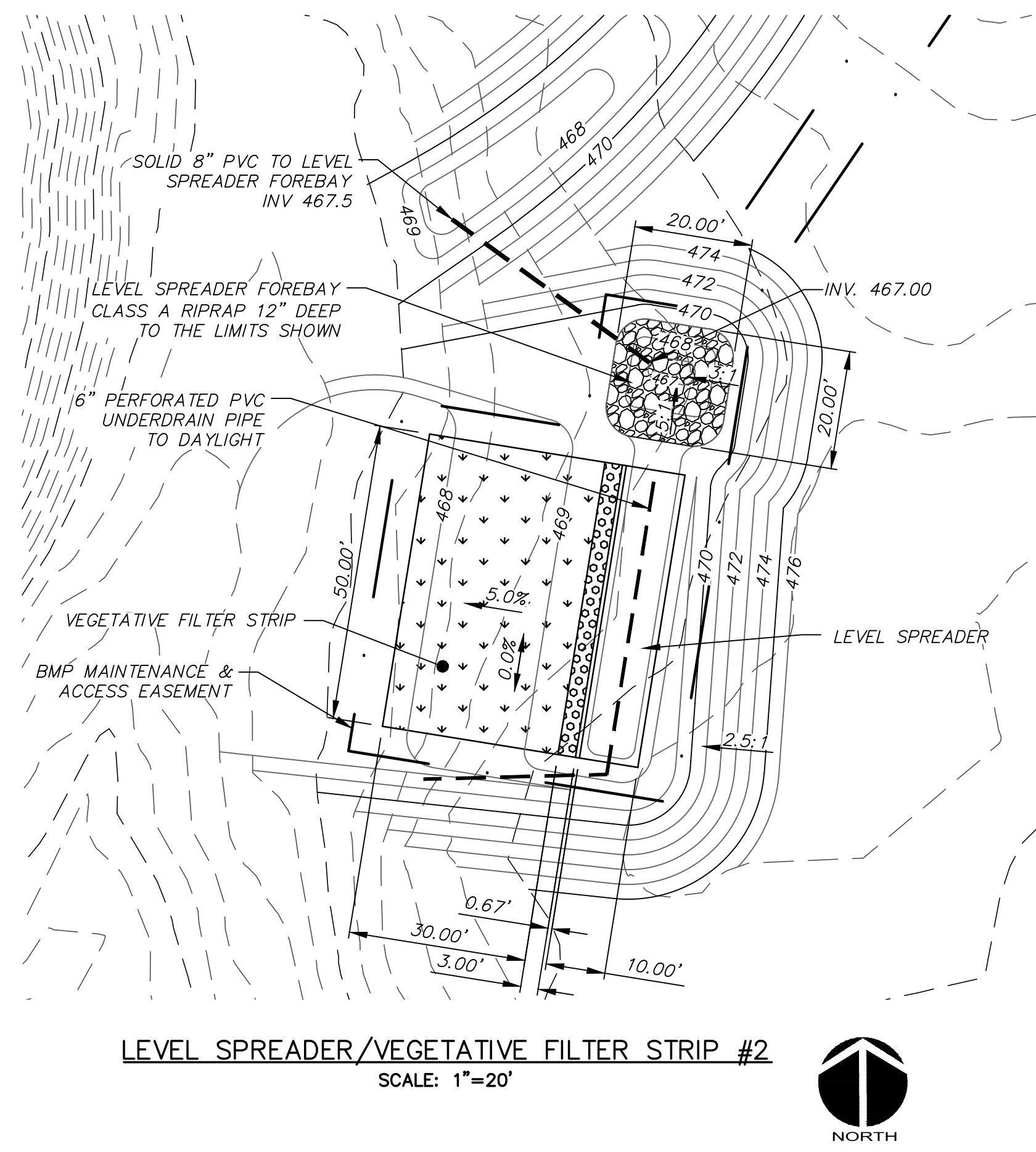
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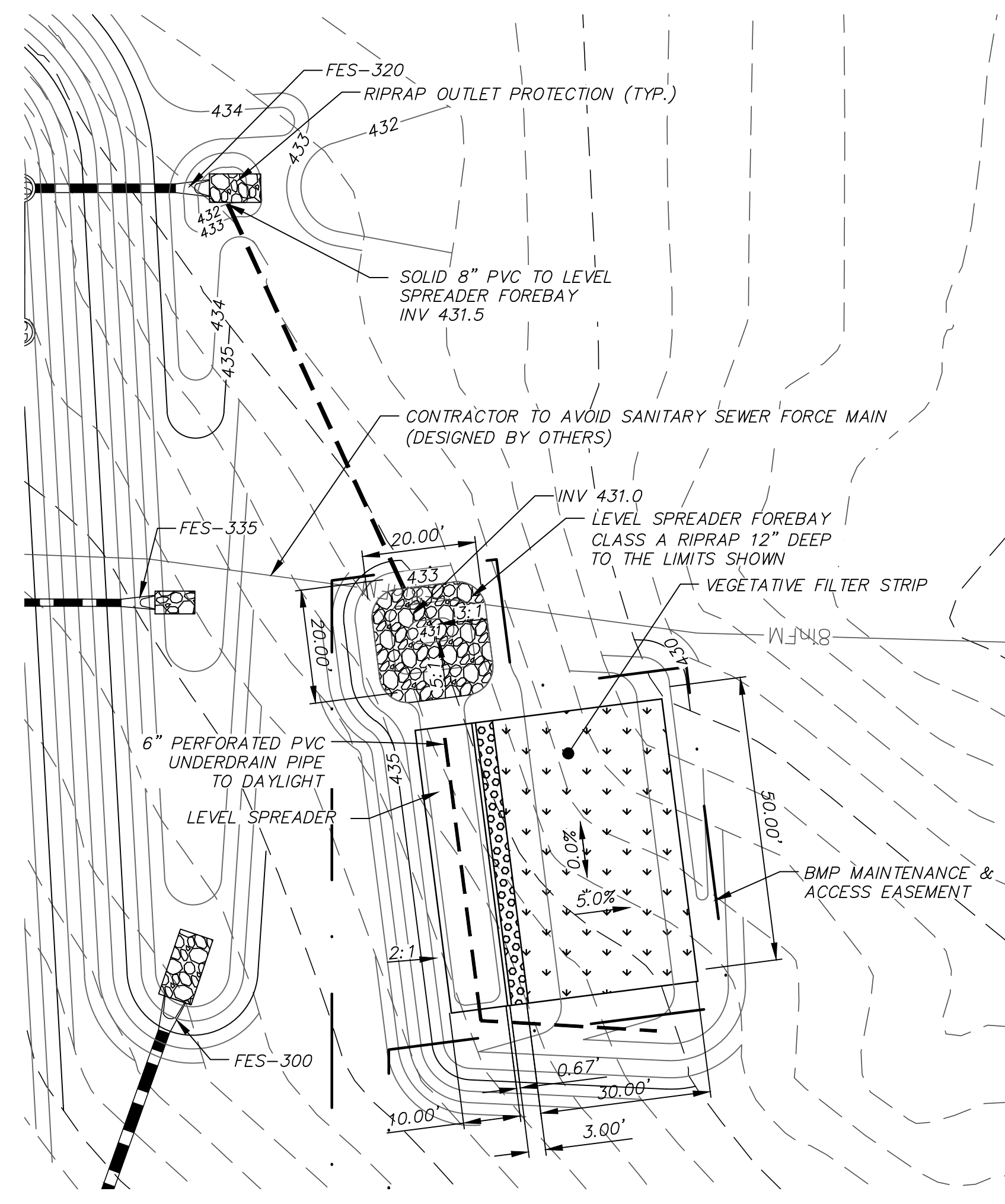
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CHATHAM COUNTY, NORTH CAROLINA**

UTILITY DETAILS

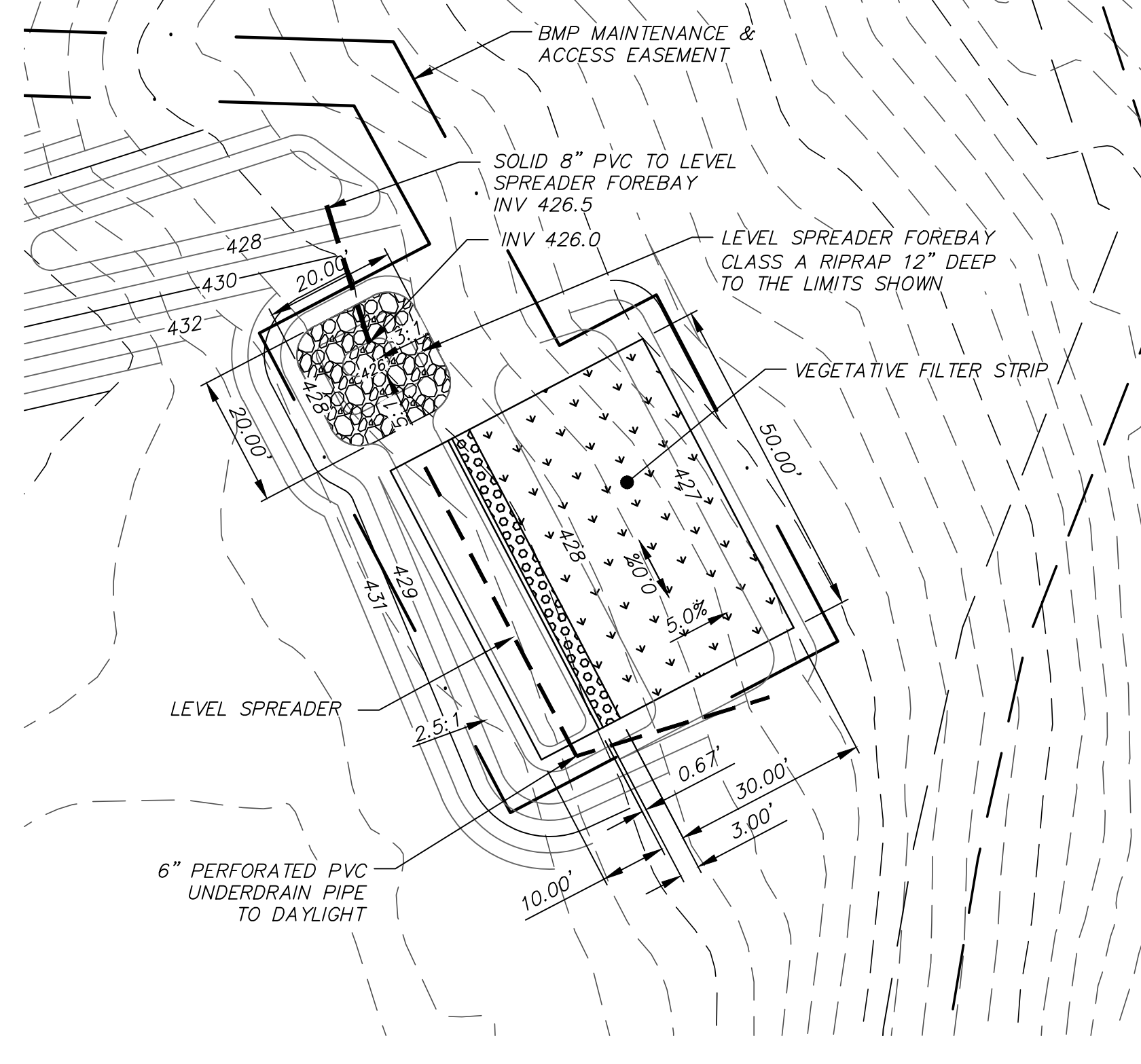
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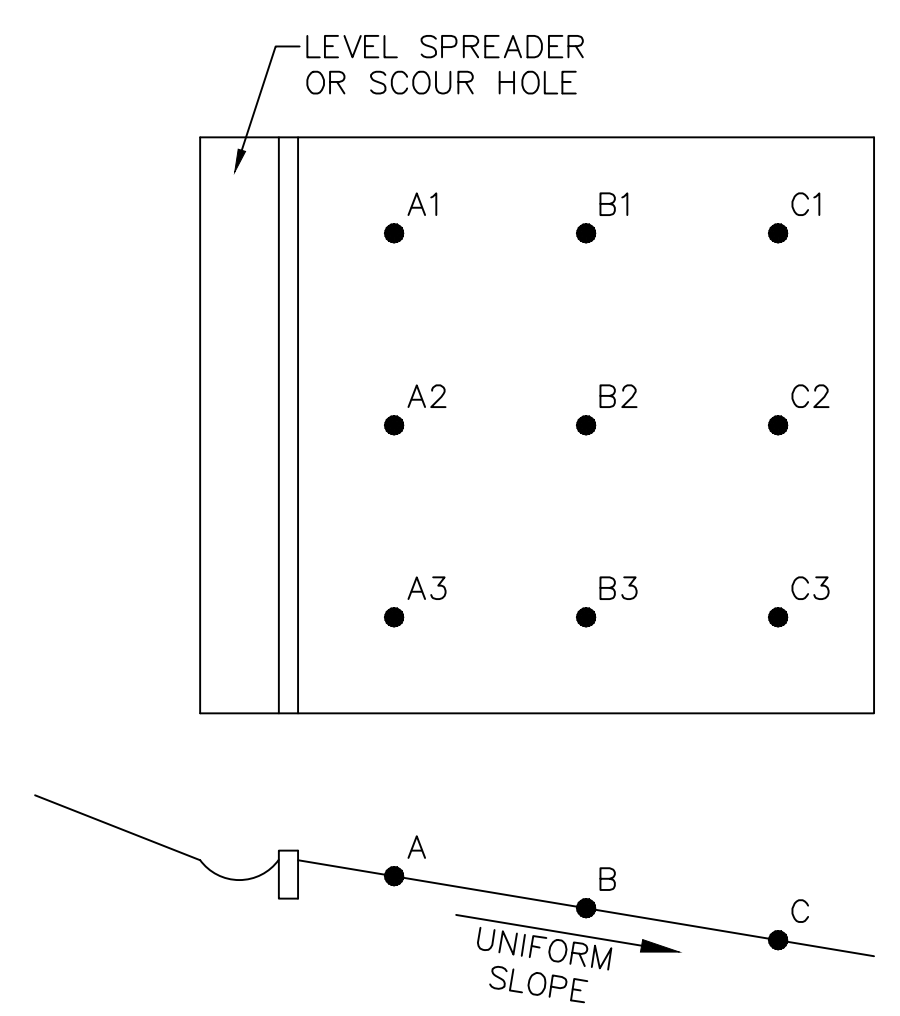
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SCALE: 1"=20'



LEVEL SPREADER/VEGETATIVE FILTER STRIP #3
SCALE: 1"=20'



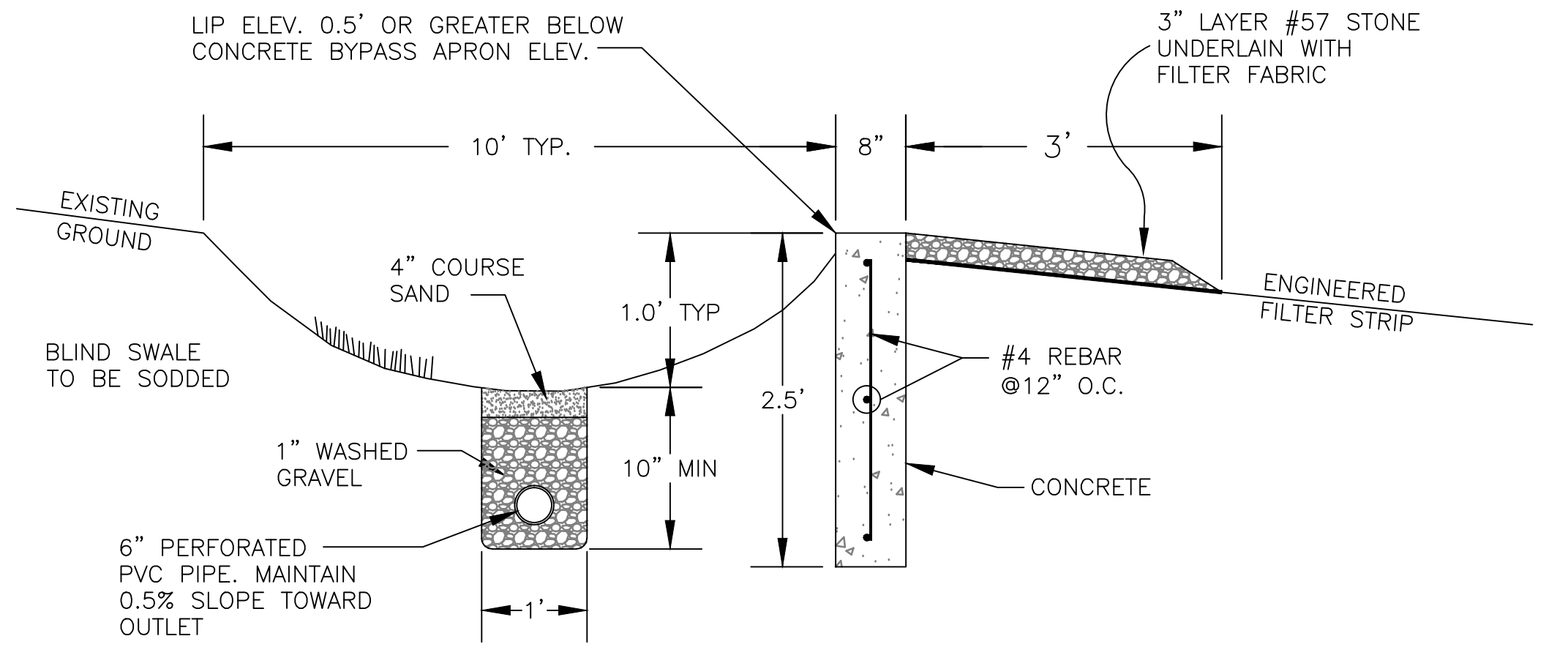
LEVEL SPREADER/VEGETATIVE FILTER STRIP #4
SCALE: 1"=20'



NOTES:

1. THE VEGETATED FILTER STRIP SHALL HAVE A UNIFORMLY GRADED SLOPE. ALL SLOPES A1-A3, B1-B3 & C1-C3 SHALL HAVE EQUAL ELEVATIONS.
2. THE VEGETATED FILTER STRIP SHALL BE GRADED PER THE SLOPES SHOWN ON THE PLAN VIEWS.
3. THE VEGETATED FILTER STRIP AND ANY ADJOINING SIDE SLOPES SHOULD BE COVERED WITH A MINIMUM OF 6" OF TOPSOIL.
4. THE TOPSOIL SHOULD BE AMENDED WITH:
-2 CUBIC YARDS OF PEAT MOSS/1,000 SF OF TOPSOIL
-75 LBS GROUND LIMESTONE/1,000 SF OF TOPSOIL
-40 LBS 5-10-10 STARTER FERTILIZER/1,000 SF OF TOPSOIL
5. VEGETATED FILTER STRIP SHALL BE PLANTED WITH TALL FESCUE SOD ON TOP OF AMENDED TOPSOIL. SOD SHOULD BE GROWN IN NON-CLAYEY SOILS OR SHOULD BE WASHED SOD.
6. THE SOD SHOULD BE WATERED SEVERAL TIMES A WEEK FOR 1 TO 3 WEEKS, KEEPING THE TOP 1.5 INCHES OF SOIL MOIST, UNTIL ROOTS BEGIN TO BECOME ESTABLISHED.

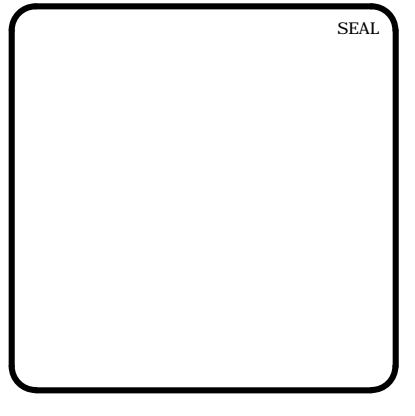
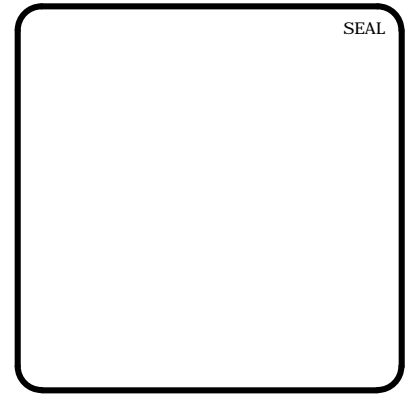
VEGETATIVE FILTER STRIP
NTS



LEVEL SPREADER	BLIND SWALE BOTTOM EL.	CONCRETE LIP TOP EL.
2	468.25'	469.25'
3	427.25'	428.25'
4	432.25'	433.25'

LEVEL SPREADER SECTION VIEW
NTS

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BMP DETAILS
LEVEL SPREADER/
VEGETATIVE FILTER STRIP

DATE: JANUARY 18, 2013	SCALE: D4.X	MISC FILE NUMBER: D4.1
MCE PROJ. # 02735-0090	HORIZONTAL: AS NOTED	DRAWING NUMBER: D4.1
DRAWN: GCA	VERTICAL: N/A	
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CHECKED: CHS		
PROJ. MGR.: CHS		

STATUS: FINAL DRAWINGS
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