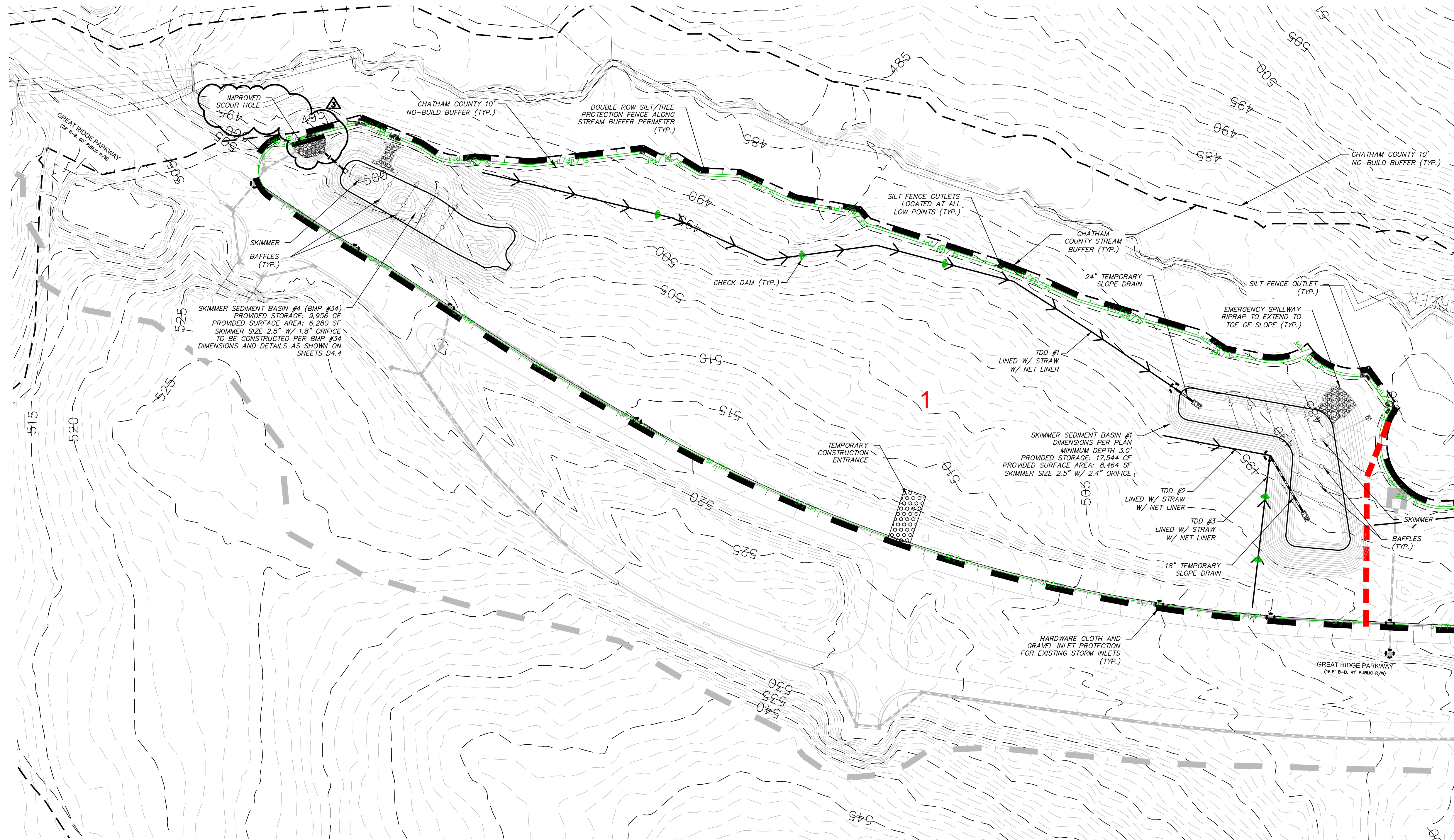
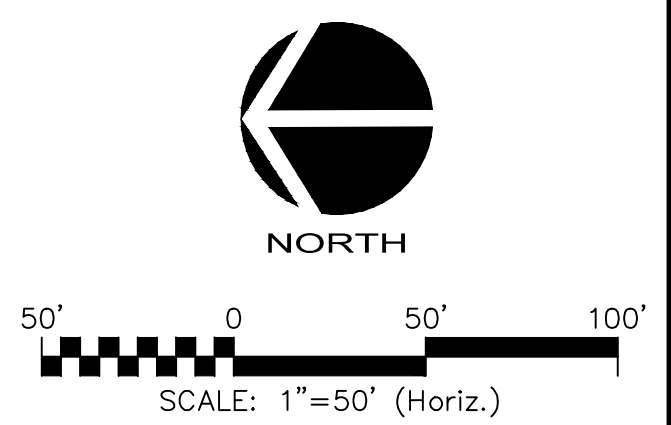


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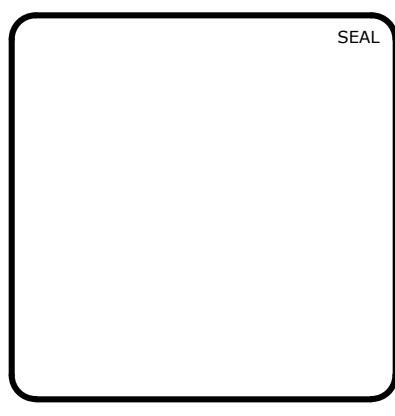
	TEMPORARY CONSTRUCTION ENTRANCE
	RIPRAP OUTLET PROTECTION
	100-YEAR FLOODPLAIN
	EXISTING WETLANDS
	EX. COMBINATION SILT/TREE PROTECTION FENCE
	EX. TEMPORARY DIVERSION DITCH
	EXISTING CONTOUR
	EX. LIMITS OF DISTURBANCE
	COMBINATION SILT/TREE PROTECTION FENCE
	TEMPORARY DIVERSION DITCH
	LIMITS OF DISTURBANCE
	SEDIMENT BASIN BAFFLE
	ARC PIPE INLET PROTECTION
	DIVERSION CHECK DAM
	SLOPE DRAIN
	TEMPORARY DIVERSION DITCH
	CLEAN WATER DIVERSION DITCH
	SILT FENCE OUTLET
	DRAINAGE AREA
	DRAINAGE AREA DELINEATION
	HARDWARE CLOTH & GRAVEL INLET PROTECTION



MATCHLINE - SEE SHEET C3.1



REV. NO.	DATE	DESCRIPTIONS	REVISIONS
3	2017.10.09	REVISIONS PER COMMENTS RECEIVED FROM COUNTY EROSION CONTROL	
2	2017.09.21	REVISIONS PER COMMENTS RECEIVED FROM MCDOT	
1	2017.09.13	REVISIONS PER COMMENTS RECEIVED FROM COUNTY EROSION CONTROL	
0	2017.07.26	SUBMITTAL TO AGENCIES	



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**BRIAR CHAPEL  
 PHASE 13 - SECTION 1 & 2  
 CHATHAM COUNTY, NORTH CAROLINA  
 STAGE 1  
 GRADING, DRAINAGE & EROSION  
 CONTROL PLAN**

DATE: JULY 26, 2017	SCALE: 1" = 50'	MSC FILE NUMBER: C3.X
MCE PROJ. # 02735-0198	HORIZONTAL: 1" = 50'	DRAWING NUMBER: C3.2
DRAWN: BSS	VERTICAL: N/A	
DESIGNED: BSS		
CHECKED: GCA		
PROJ. MGR.: CHS		
STATUS: FOR REVIEW PURPOSES ONLY	REVISION: 3	



**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.

**GENERAL NOTES (CON'T):**

- 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.

**GENERAL NOTES (CON'T):**

- CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING AS NECESSARY THROUGHOUT CONSTRUCTION. USE OF SEDIMENT BAG IS REQUIRED FOR ALL BASIN DEWATERING.
- CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL PERMIT CONDITIONS, MONITORING AND REPORTING REQUIREMENTS.
- REFER TO SHEET D2.1 FOR PROPOSED ROAD CROSS SECTION DETAILS AND PAVEMENT SCHEDULE.
- 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.
- NO PORTION OF THIS PROPERTY IS LOCATED IN SPECIAL FLOOD HAZARD AREA "AE" AS SHOWN ON FEMA FIRM MAP #3710976500J DATED FEBRUARY 2, 2007.

**GENERAL NOTES (CON'T):**

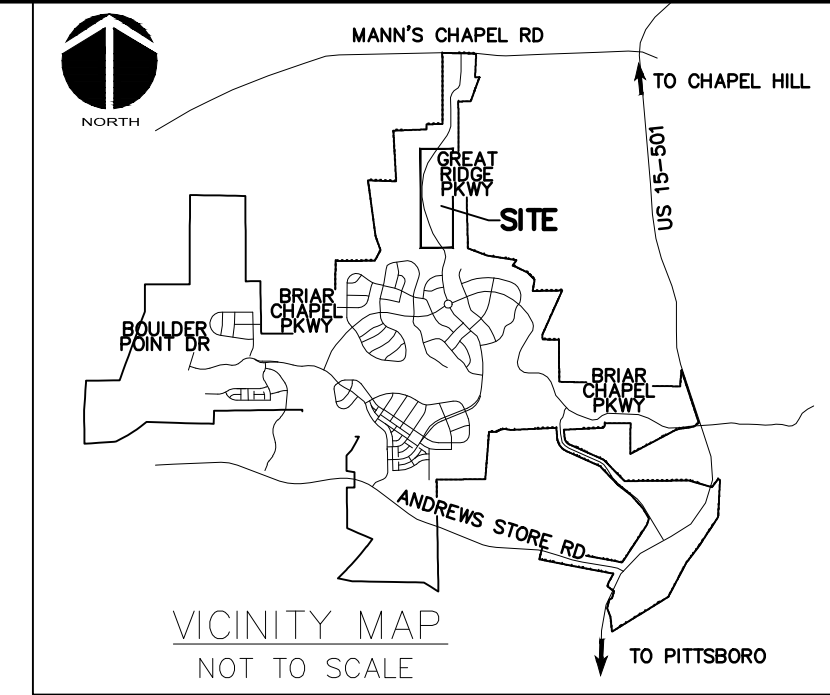
- BEFORE STARTING ANY CONSTRUCTION OF IMPROVEMENTS WITHIN ANY NCDOT STREET OR HIGHWAY RIGHT-OF-WAY, CONTACT NCDOT DISTRICT OFFICE AND OBTAIN ALL PERMITS AND ENCROACHMENTS AND KEEP COPIES ON CONSTRUCTION SITE AT ALL TIMES. ALSO CONTACT NCDOT DISTRICT OFFICE 24 HOURS IN ADVANCE BEFORE PLACING CURB AND 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.
- LIMITS OF DISTURBANCE: 11.03 ACRES

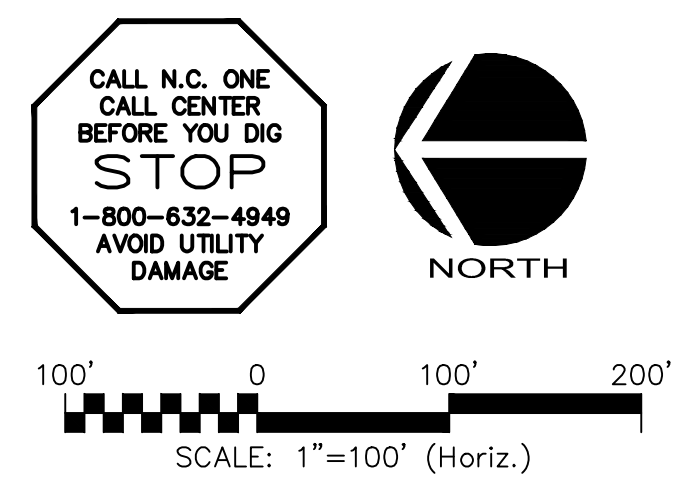
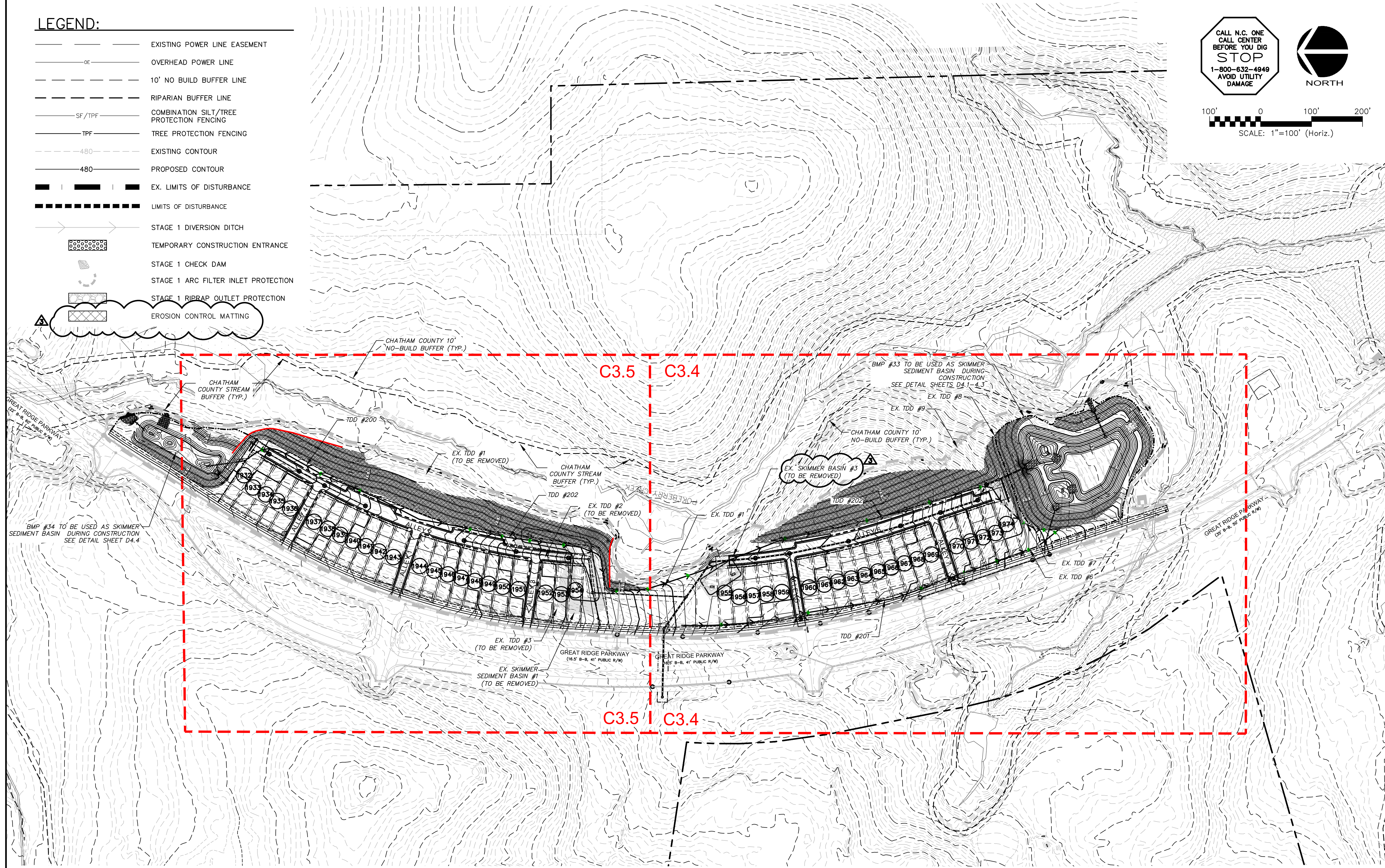
**RETAINING WALL NOTES:**

- RETAINING WALL DESIGN IS BY OTHERS. OWNER SHALL PROCURE A QUALIFIED RETAINING WALL DESIGNER FOR THE PROJECT. RETAINING WALL INFORMATION SHOWN ON THESE PLANS ARE FOR LOCATION AND GRADE INFORMATION ONLY. OWNER RESPONSIBLE FOR PROVIDING NECESSARY INFORMATION TO WALL DESIGNER AS REQUIRED FOR PROPER DESIGN OF RETAINING WALLS.
- TOP GRADE OF WALL AND BOTTOM GRADE OF WALL SPECIFIED IN PLANS ARE INTENDED TO BE THE FINISHED PAVEMENT OR EARTH GRADE. THE WALL DESIGNER SHALL ADJUST SHOP DRAWING WALL ELEVATIONS FOR THE TOP AND BOTTOM OF WALL TO MEET SPECIFIC PRODUCT DESIGN CRITERIA AND WALL GEOMETRY AS NECESSARY TO ACHIEVE DESIRED FINISHED GRADES. THE HORIZONTAL WALL LOCATION AS SHOWN IS THE FINISHED LOCATION OF THE BOTTOM OF WALL. THE WALL DESIGNER SHALL COORDINATE WITH THE ENGINEER TO VERIFY WHETHER CONFLICTS EXIST. THE WALL DESIGNER SHALL NOTIFY THE ENGINEER IN CASE OF ANY CONFLICTS, INCLUDING BUT NOT LIMITED TO EXISTING OR PROPOSED UTILITIES, WALL BATTER, GEGRID PLACEMENT, ETC., OR IF ANY ASPECT OF WALL PLACEMENT CAN NOT BE ACCOMPLISHED. ALL WORK RELATED TO THE RETAINING WALL CONSTRUCTION SHALL BE ACCOMPLISHED WITHIN THE BOUNDARIES OF THE PROJECT PROPERTY, WITHOUT IMPACTING BUFFERS.
- IT IS THE RESPONSIBILITY OF THE OWNER AND WALL DESIGNER TO ASSURE THAT THE REQUIRED SOIL BEARING PRESSURE, SUBSURFACE DRAINAGE AND SURFACE DRAINAGE ARE ACHIEVED AS RELATED TO THE RETAINING WALL DESIGN. THIS SHOULD BE VERIFIED BY A GEOTECHNICAL ENGINEER. SPECIAL ATTENTION IS REQUIRED TO ENSURE BEARING CAPACITY HAS BEEN ACHIEVED AT LOCATIONS WHERE PIPE PENETRATIONS ARE TO OCCUR. IT SHALL BE THE RESPONSIBILITY OF THE CLIENT TO PROVIDE QUALITY CONTROL / QUALITY ASSURANCE TESTING ASSOCIATED WITH THE WALL CONSTRUCTION. THE GEOTECHNICAL ENGINEER OR WALL DESIGNER SHALL PROVIDE ANY CERTIFICATIONS AS MAY BE REQUIRED TO SHOW COMPLIANCE WITH ORIGINAL DESIGN DOCUMENTS AS RELATED TO THE WALL DESIGN AND CONSTRUCTION.



**LEGEND:**

- EXISTING POWER LINE EASEMENT
- OVERHEAD POWER LINE
- 10' NO BUILD BUFFER LINE
- RIPARIAN BUFFER LINE
- COMBINATION SILT/TREE PROTECTION FENCING
- TREE PROTECTION FENCING
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EX. LIMITS OF DISTURBANCE
- LIMITS OF DISTURBANCE
- STAGE 1 DIVERSION DITCH
- TEMPORARY CONSTRUCTION ENTRANCE
- STAGE 1 CHECK DAM
- STAGE 1 ARC FILTER INLET PROTECTION
- STAGE 1 RIPRAP OUTLET PROTECTION
- EROSION CONTROL MATTING



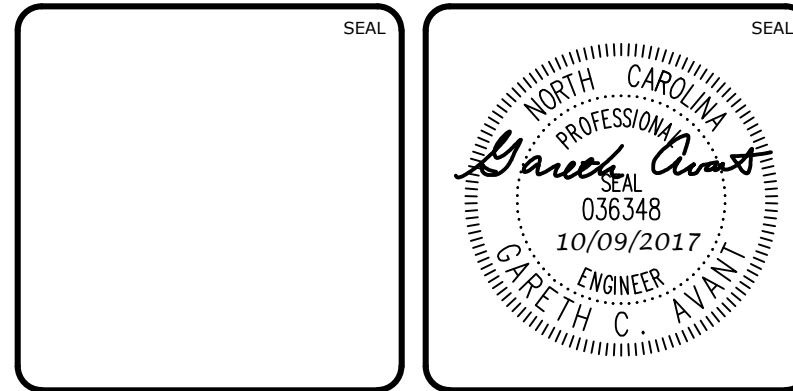
**STAGE 2 CONSTRUCTION SEQUENCE:**

- CONTRACTOR SHALL MAINTAIN ALL STAGE 1 EROSION CONTROL DEVICES THROUGHOUT CONSTRUCTION IN ACCORDANCE WITH THESE PLANS OR AS CONSTRUCTION REQUIRES THEM TO BE REMOVED, WITH APPROVAL CHATHAM COUNTY.
- GRADING OPERATIONS SHALL BE COMPLETED SUCH THAT RUNOFF CAN BE DIRECTED TOWARDS ANY OF THE APPROVED SEDIMENT BASIN OR TRAPS AT ALL TIMES DURING CONSTRUCTION.
- MASS GRADING SHALL BEGIN AT THE SOUTHERN HALF OF PHASE 13, JUST NORTH OF BMP #33, AND CONTINUE NORTH TOWARDS THE MIDDLE STREAM FINGER. AS MATERIAL IS REMOVED FROM THE SOUTHERN SECTION, IT SHALL BE PLACED IN THE NORTHERN SECTION, CLOSEST TO BMP #34 IN ORDER TO MAINTAIN POSITIVE DRAINAGE IN TDD #1 AND INTO TEMPORARY SEDIMENT BASIN #1 FOR AS LONG AS POSSIBLE.
- AS MASS GRADING ALLOWS, STAGE 2 TEMPORARY DIVERSION DITCHES SHALL BE INSTALLED AND TEMPORARY STAGE 1 MEASURES SHALL BE REMOVED ONCE CONTRIBUTING AREAS CAN BE DIVERTED TO OTHER APPROVED EROSION CONTROL DEVICES.
- TEMPORARY DIVERSION DITCH #200 SHALL BE INSTALLED, SEEDDED AND LINED IN ACCORDANCE WITH THESE PLANS AS GRADING ALLOWS TO DIVERT RUNOFF INTO BMP #34. TEMPORARY ROCK CHECK DAMS AND SLOPE DRAINAGE SHALL BE INSTALLED AT THE TIME OF INSTALLATION.
- TEMPORARY DIVERSION DITCH #201 SHALL BE INSTALLED, SEEDDED AND LINED IN ACCORDANCE WITH THESE PLANS TO PREVENT SEDIMENTATION INTO GREAT RIDGE PARKWAY DURING CONSTRUCTION.
- TEMPORARY DIVERSION DITCH #202 SHALL BE INSTALLED, SEEDDED AND LINED IN ACCORDANCE WITH THESE PLANS. IT SHALL BE EXTENDED NORTH AS GRADING ALLOWS IN ORDER TO MAINTAIN POSITIVE DRAINAGE FROM ITS BEGINNING POINT TO BMP #33. TEMPORARY SEDIMENT BASIN #1 AND TEMPORARY SEDIMENT TRAP #4 SHALL BE MUCKED OUT, AND FILLED WITH MATERIAL PLACED IN A CONTROLLED MANNER, UNDER THE SUPERVISION OF THE PROJECT'S GEOTECHNICAL ENGINEER. THE BASIN SHALL ONLY BE REMOVED WITH THE APPROVAL OF CHATHAM COUNTY.
- AS ELEVATIONS ARE BROUGHT TO FINAL GRADES AND STORM PIPING AND OTHER UTILITIES ARE INSTALLED IN ROADWAY SECTIONS, CONTRACTOR SHALL INSTALL HARDWARE CLOTH AND GRAVEL INLET PROTECTION AS SHOWN ON PLANS.
- STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISHED GRADE WITH VEGETATION, PAVING, DITCH LINING, ETC. SEED AND MULCH DENUDEED AREAS PER GROUND STABILIZATION TIME FRAMES.
- PERFORM SEEDING AND MULCHING AS REQUIRED IN ACCORDANCE WITH THE TEMPORARY AND PERMANENT SEEDING SCHEDULES LOCATED ON SHEET D1.1 AND NOTE #5 OF THIS SEQUENCE IN THE SOUTHERN HALF OF PHASE.
- 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.
- FINAL BMP CONVERSION, INCLUDING MUCKING OUT OF ACCUMULATED SEDIMENT, REMOVAL OF SKIMMERS OR Baffles AND FINAL PLANTING SHALL OCCUR AT A LATER DATE, ONCE UPSTREAM AREAS HAVE BEEN STABILIZED OR CONSTRUCTION OF HOMES ON MOST LOTS HAS BEEN COMPLETED.

**NCDOT REQUIRED DRAINAGE NOTES:**

- NCDOT DOES NOT ACCEPT MAINTENANCE RESPONSIBILITY FOR THE DRAINAGE STRUCTURES AND PIPING OUTSIDE OF NCDOT'S ROADWAY RIGHT-OF-WAY
- NCDOT ASSUMES NO RESPONSIBILITY FOR OPERATION, MAINTENANCE OR LIABILITY OF THE STRUCTURAL STORMWATER BMP'S.

REV. NO.	DESCRIPTIONS	DATE
3	REVISIONS PER COMMENTS RECEIVED FROM COUNTY EROSION CONTROL	2017.10.09
2	REVISIONS PER COMMENTS RECEIVED FROM NCDOT	2017.09.21
1	REVISIONS PER COMMENTS RECEIVED FROM COUNTY EROSION CONTROL	2017.09.13
0	SUBMITTAL TO AGENCIES	2017.07.26



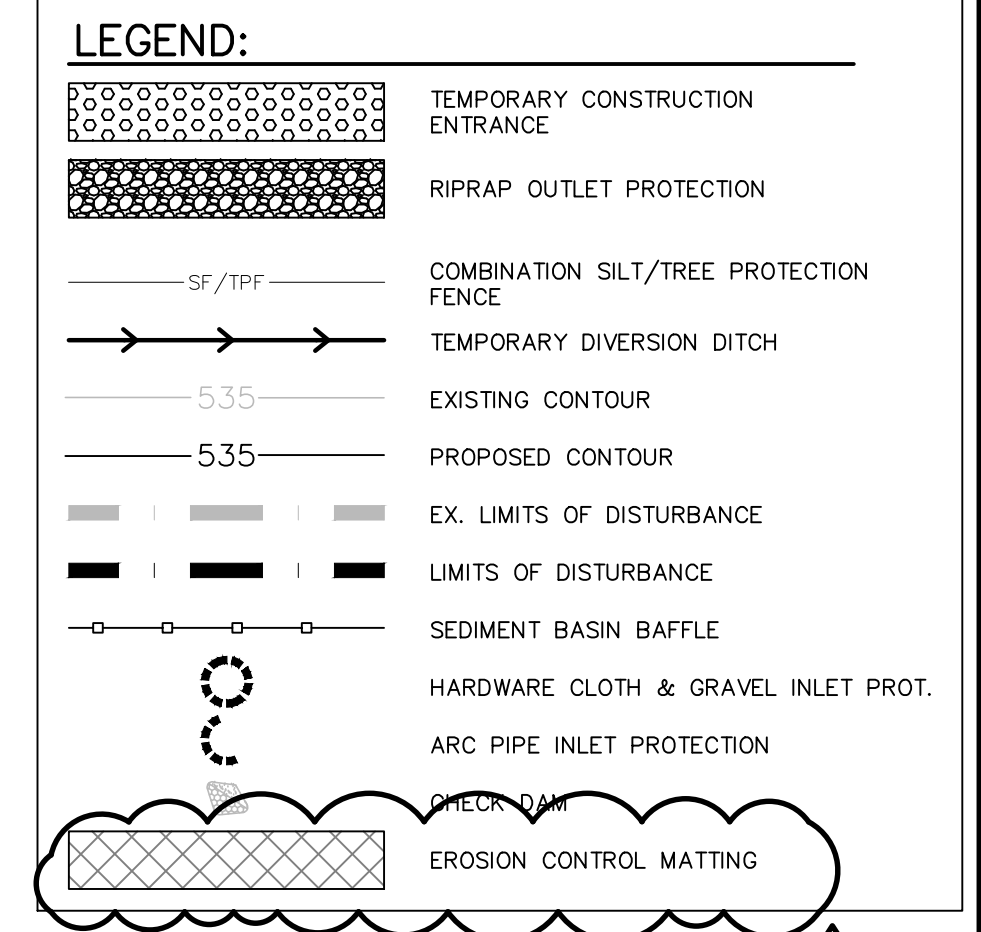
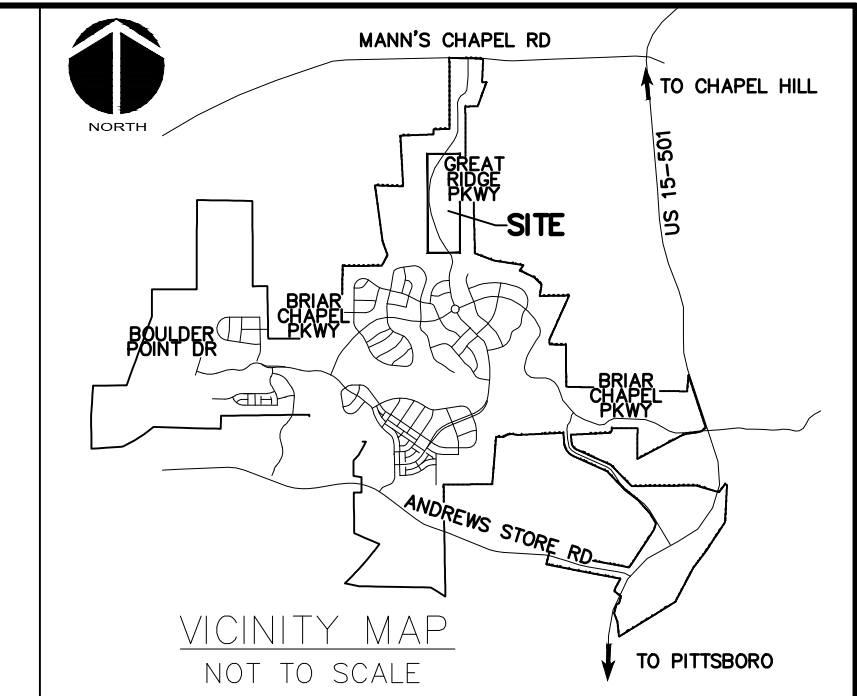
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 CHATHAM COUNTY, NORTH CAROLINA  
 OVERALL STAGE 2  
 GRADING, DRAINAGE & EROSION  
 CONTROL PLAN

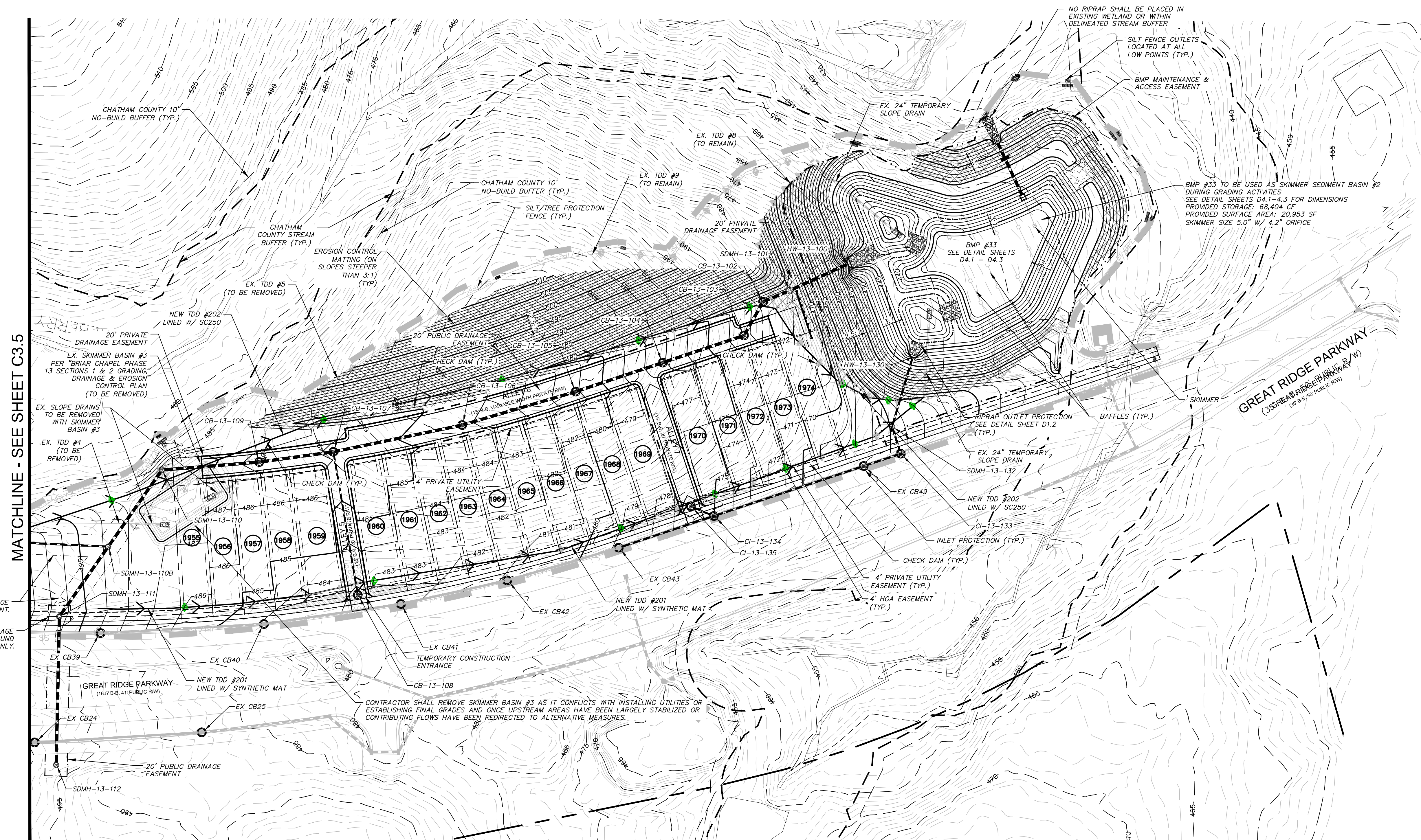
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DESIGNED: BSS		
CHECKED: GCA		
PROJ. MGR.: CHS		
STATUS: FOR REVIEW PURPOSES ONLY	REVISION: 3	





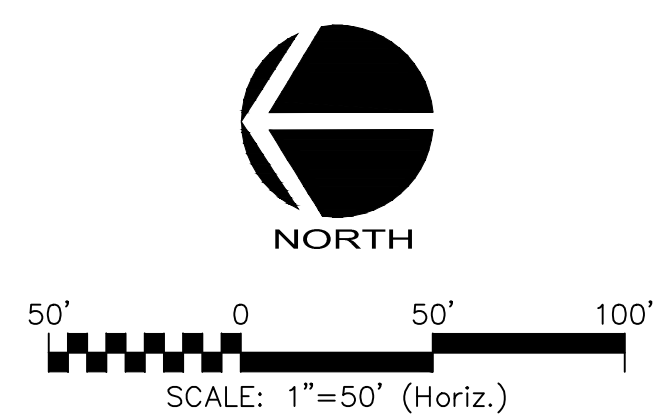
**STORM DRAINAGE NOTES:**

- 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 UNLESS NOTED OTHERWISE.
- 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 MATTER, 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 TAMPING 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 AROUND THE PIPE 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.
- 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.

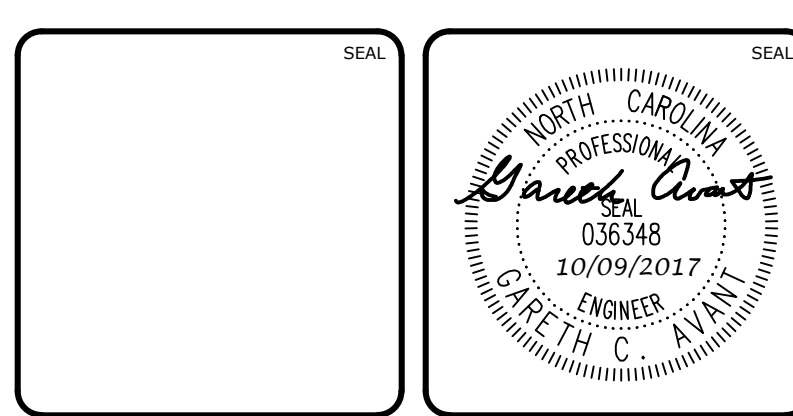


MATCHLINE - SEE SHEET C3.5

CALL N.C. ONE  
CALL CENTER  
BEFORE YOU DIG  
**STOP**  
1-800-632-4949  
AVOID UTILITY  
DAMAGE



REV. NO.	DESCRIPTIONS	DATE
3	REVISIONS PER COMMENTS RECEIVED FROM COUNTY EROSION CONTROL	2017.10.09
2	REVISIONS PER COMMENTS RECEIVED FROM NCDOT	2017.09.21
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0	SUBMITTAL TO AGENCIES	2017.07.26



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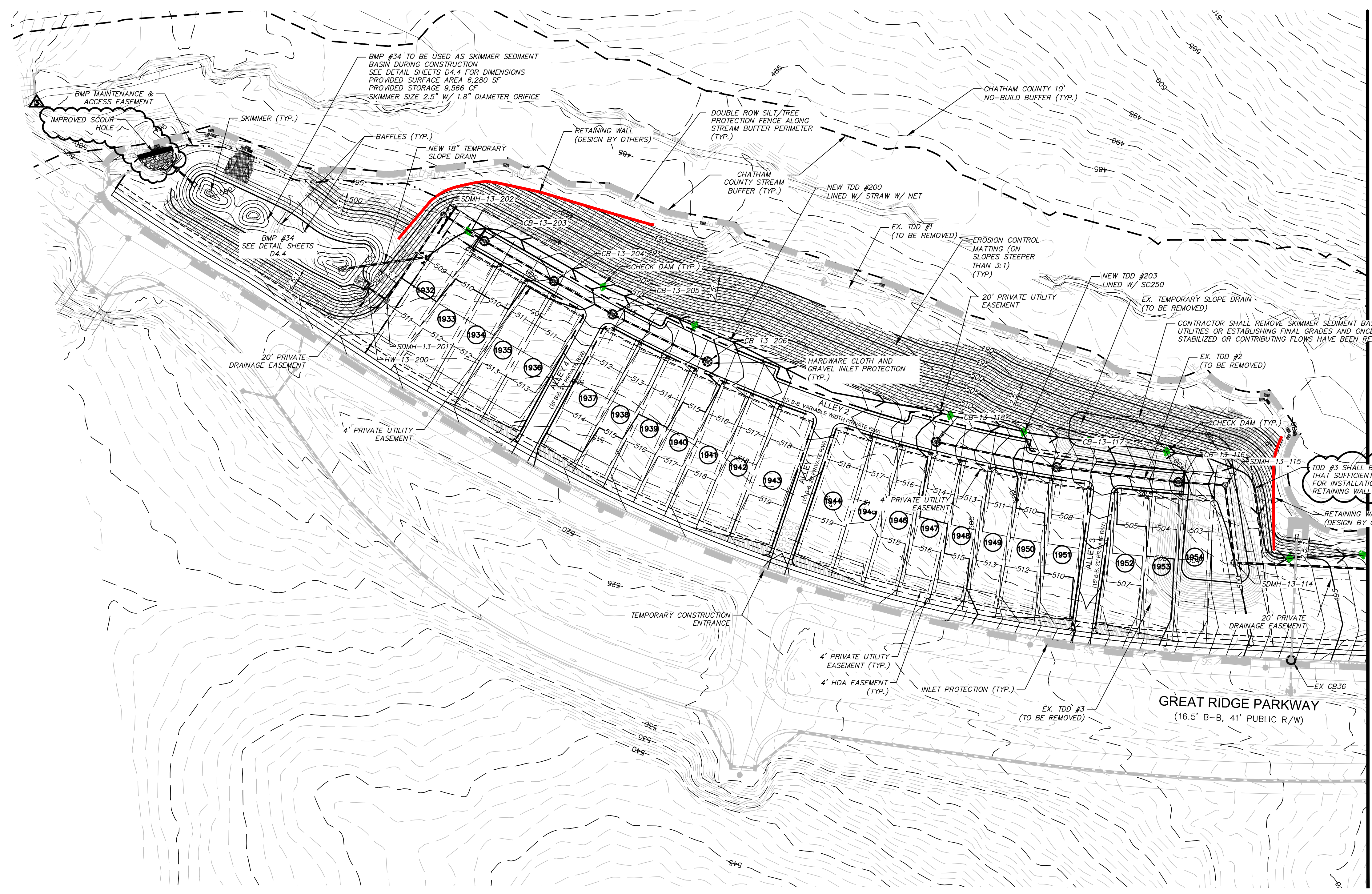
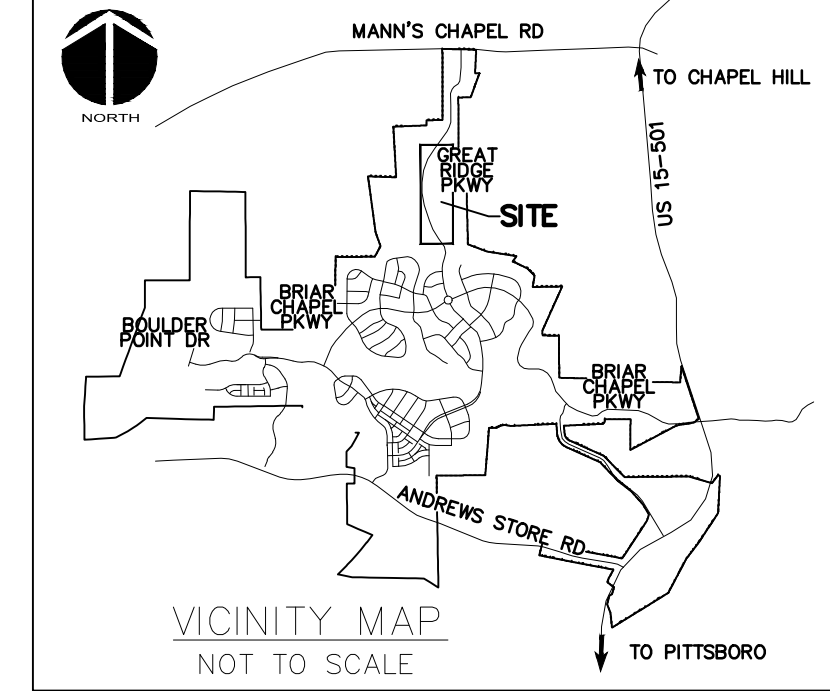
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PHASE 13 - SECTION 1 & 2  
CHATHAM COUNTY, NORTH CAROLINA  
STAGE 2  
GRADING, DRAINAGE & EROSION  
CONTROL PLAN**

DATE: JULY 26, 2017	SCALE: HORIZONTAL: 1" = 50'	MSC FILE NUMBER: C3.4
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DESIGNED: BSS		
CHECKED: GCA		
PROJ. MGR.: CHS		
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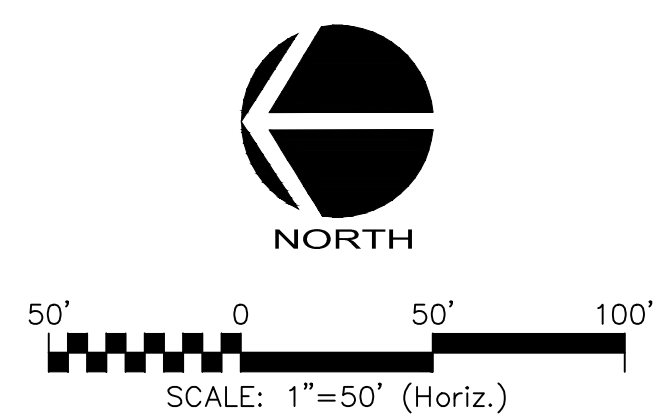


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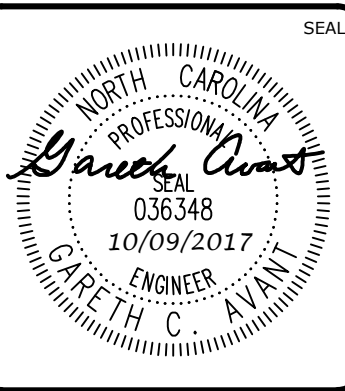
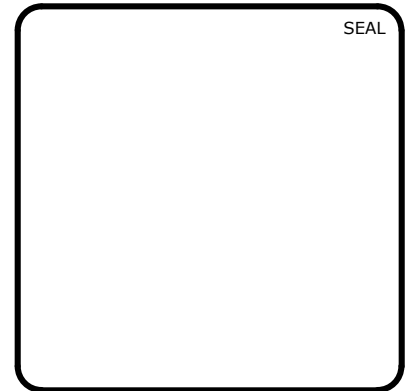
- TEMPORARY CONSTRUCTION ENTRANCE
- RIPRAP OUTLET PROTECTION
- ADDITIONAL DISTURBED AREA
- COMBINATION SILT/TREE PROTECTION FENCE
- TEMPORARY DIVERSION DITCH
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EX. LIMITS OF DISTURBANCE
- LIMITS OF DISTURBANCE
- SEDIMENT BASIN BAFFLE
- HARDWARE CLOTH & GRAVEL INLET PROT.
- ARC PIPE INLET PROTECTION
- CHECK DAM
- EROSION CONTROL MATTING



MATCHLINE - SEE SHEET C3.4



REV. NO.	DESCRIPTIONS	DATE
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0	SUBMITTAL TO AGENCIES	2017.07.26



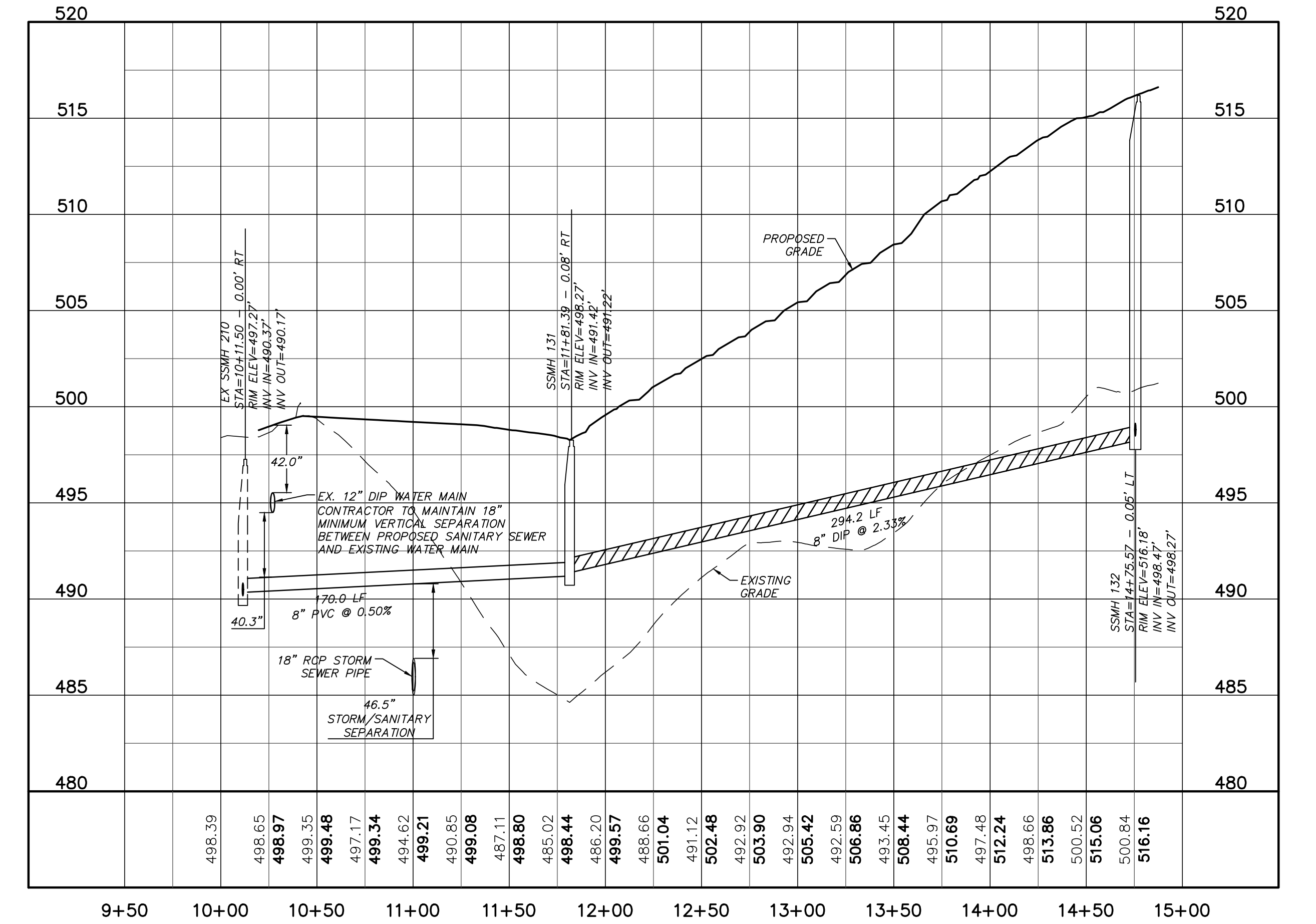
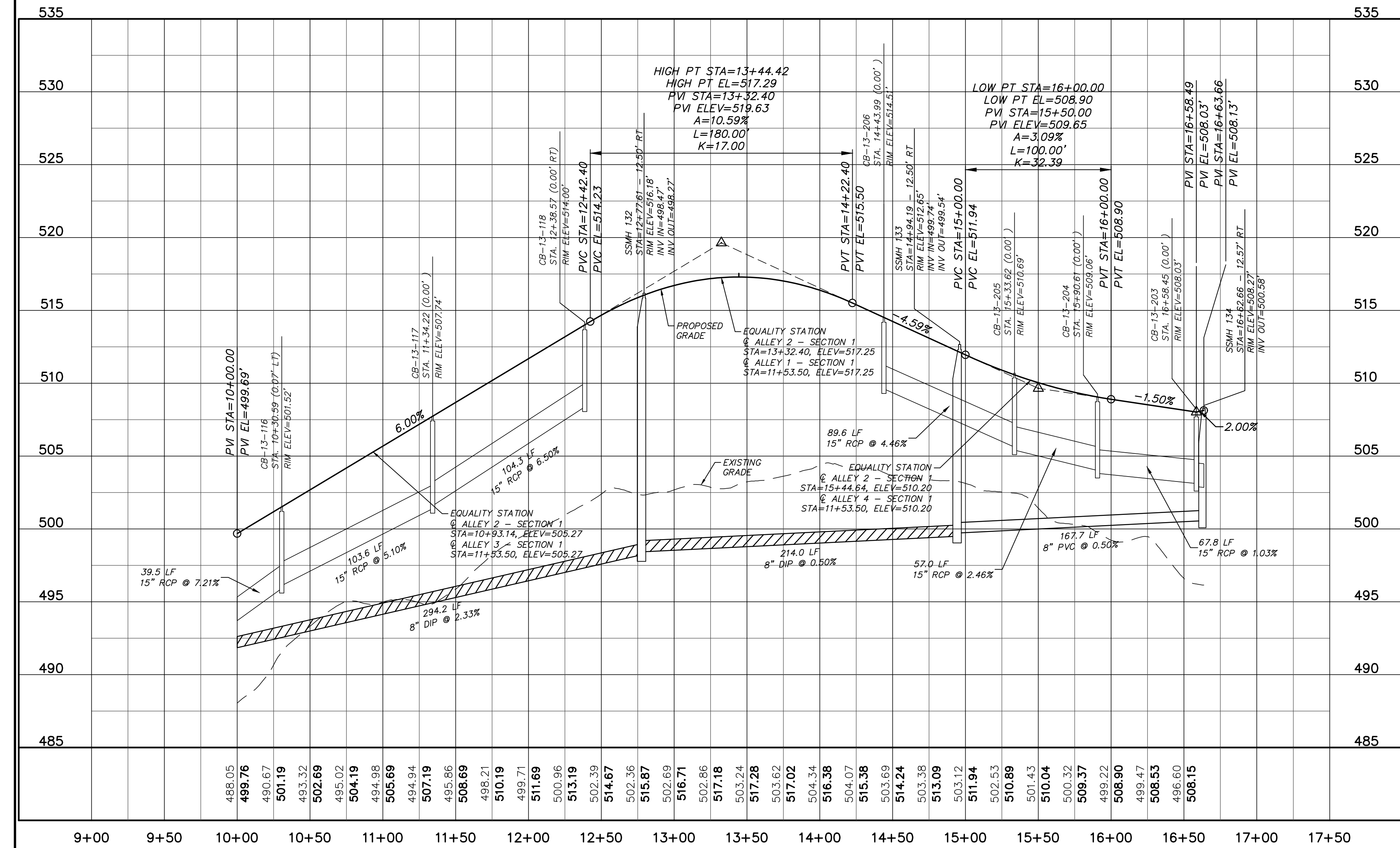
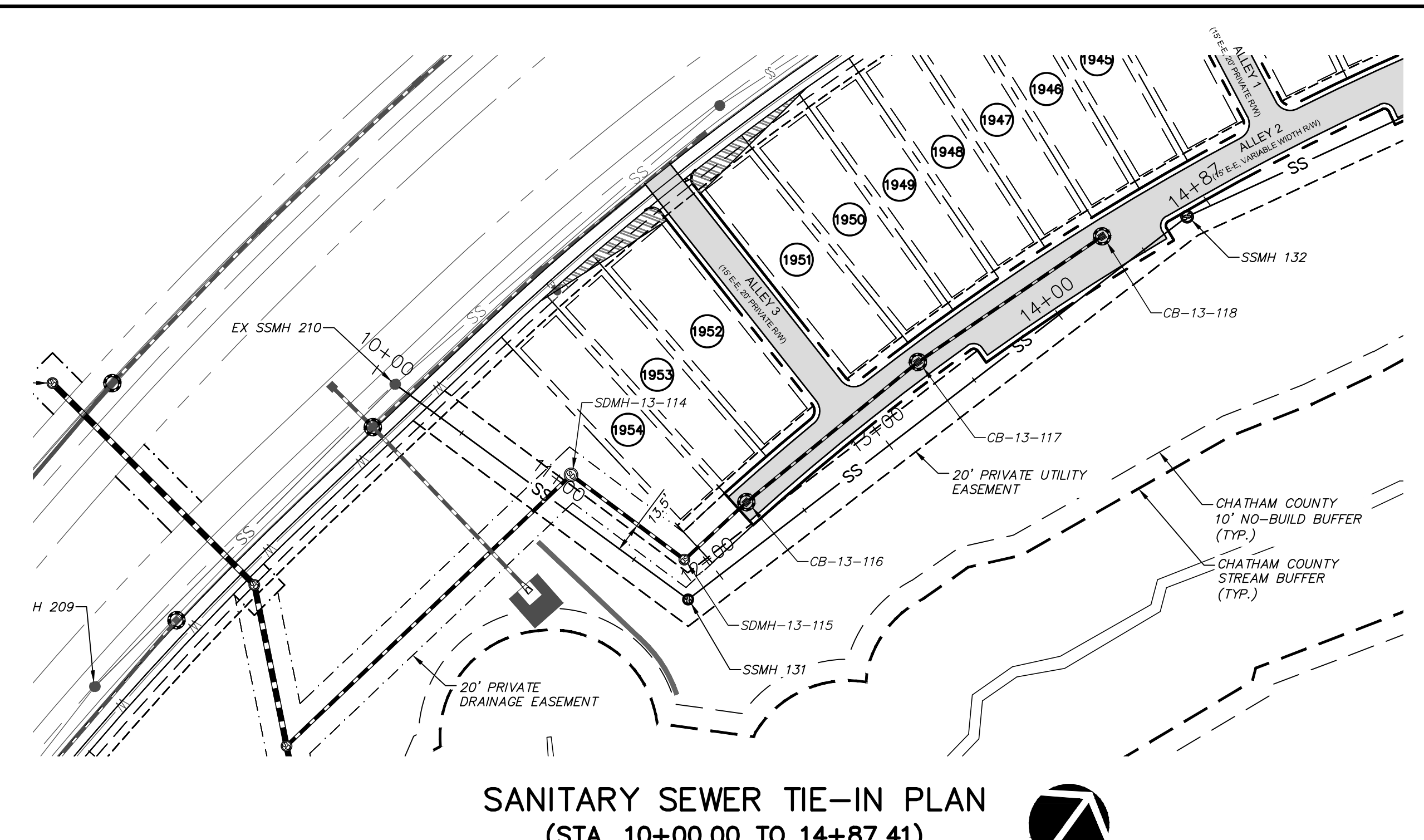
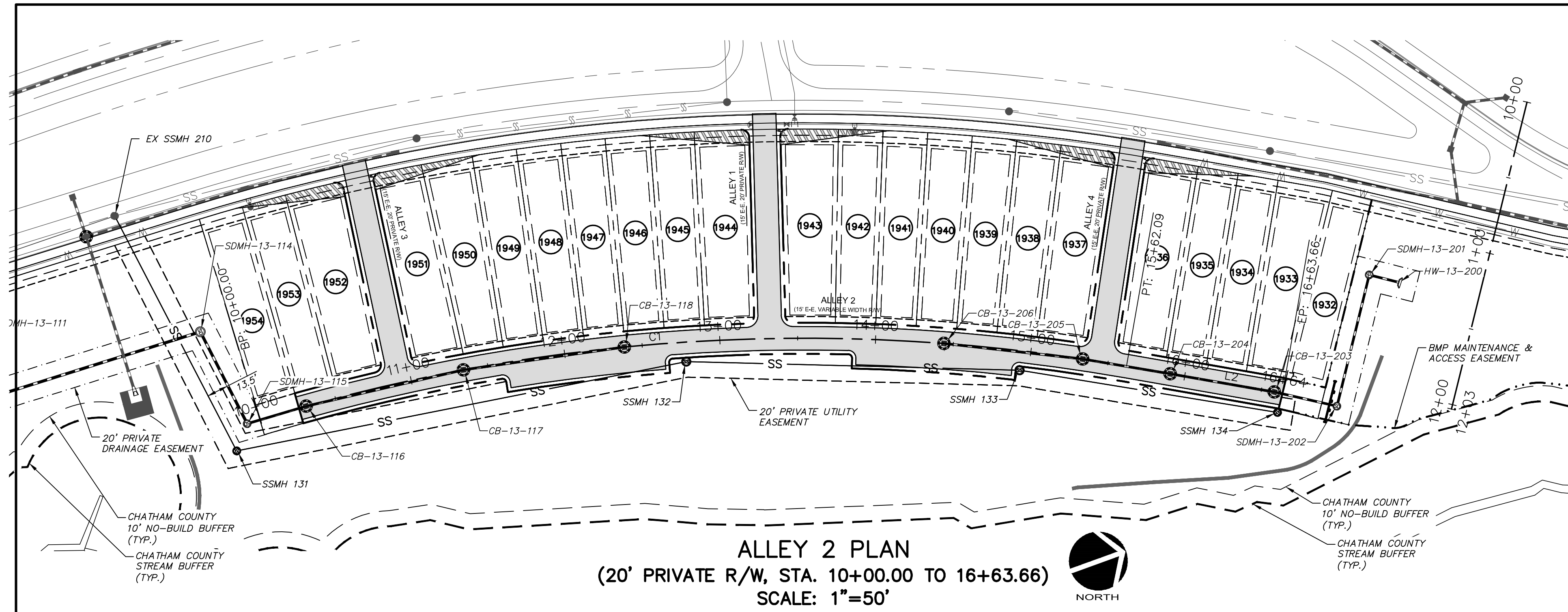
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DATE: JULY 26, 2017	SCALE: C3.4	MSC FILE NUMBER: C3.4
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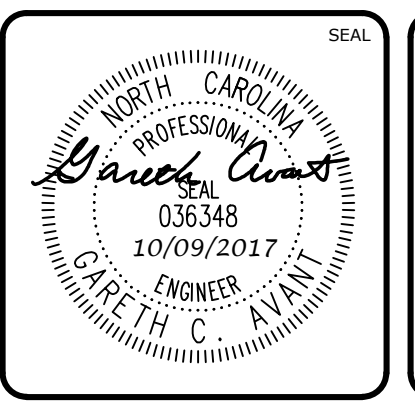
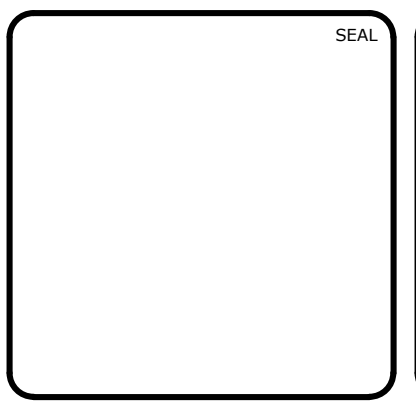


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0	SUBMITTAL TO AGENCIES	2017.07.26

ALLEY 2 PROFILE  
(STA. 10+00.00 TO 16+63.66)  
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

SANITARY SEWER TIE-IN PROFILE  
(STA. 10+00.00 TO 14+87.41)  
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV.	DESCRIPTION	DATE
3	REVISIONS PER COMMENTS RECEIVED FROM COUNTY EROSION CONTROL	2017.10.09
2	REVISIONS PER COMMENTS RECEIVED FROM NCDOT	2017.09.21
1	REVISIONS PER COMMENTS RECEIVED FROM COUNTY EROSION CONTROL	2017.09.13
0	SUBMITTAL TO AGENCIES	2017.07.26

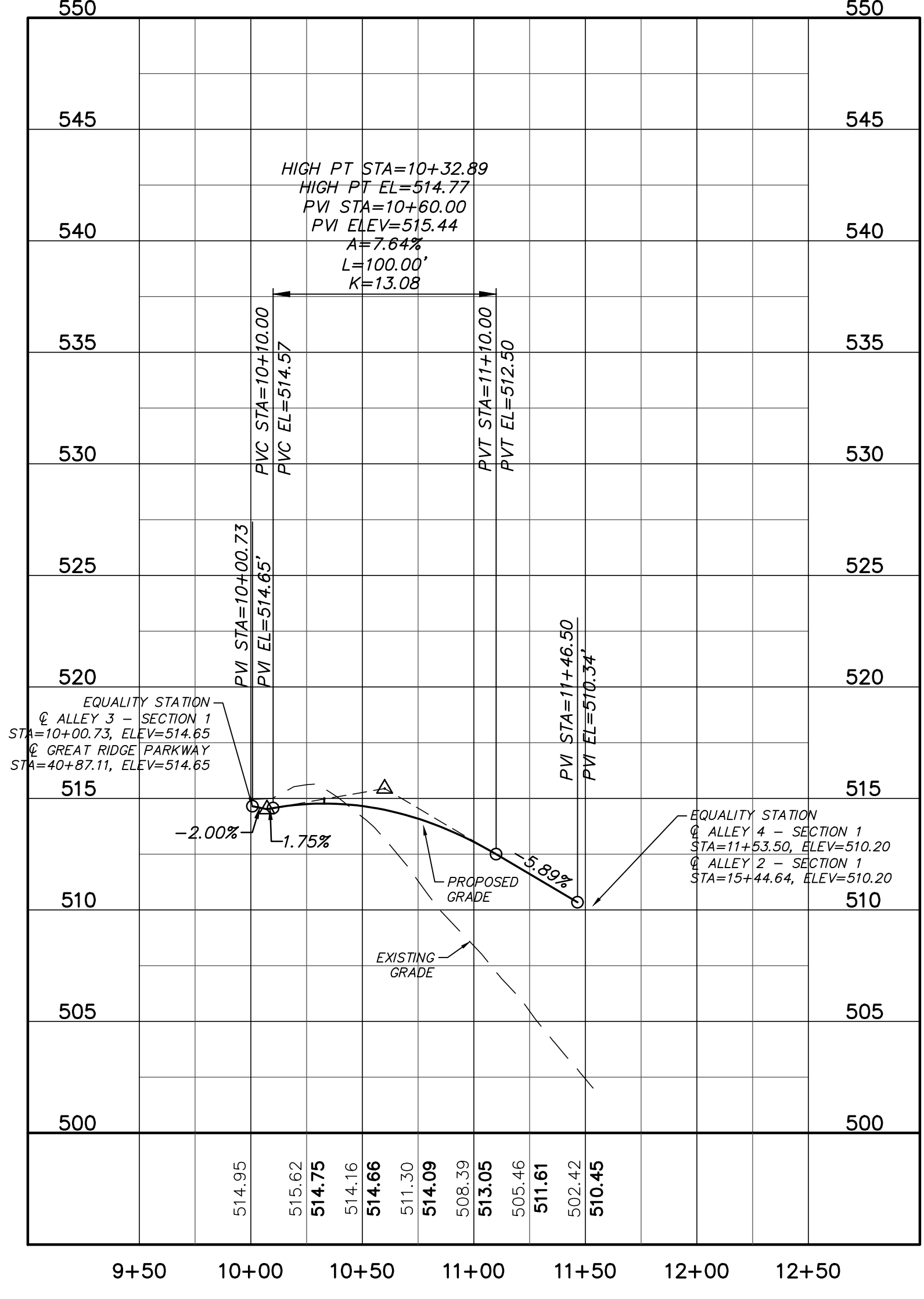
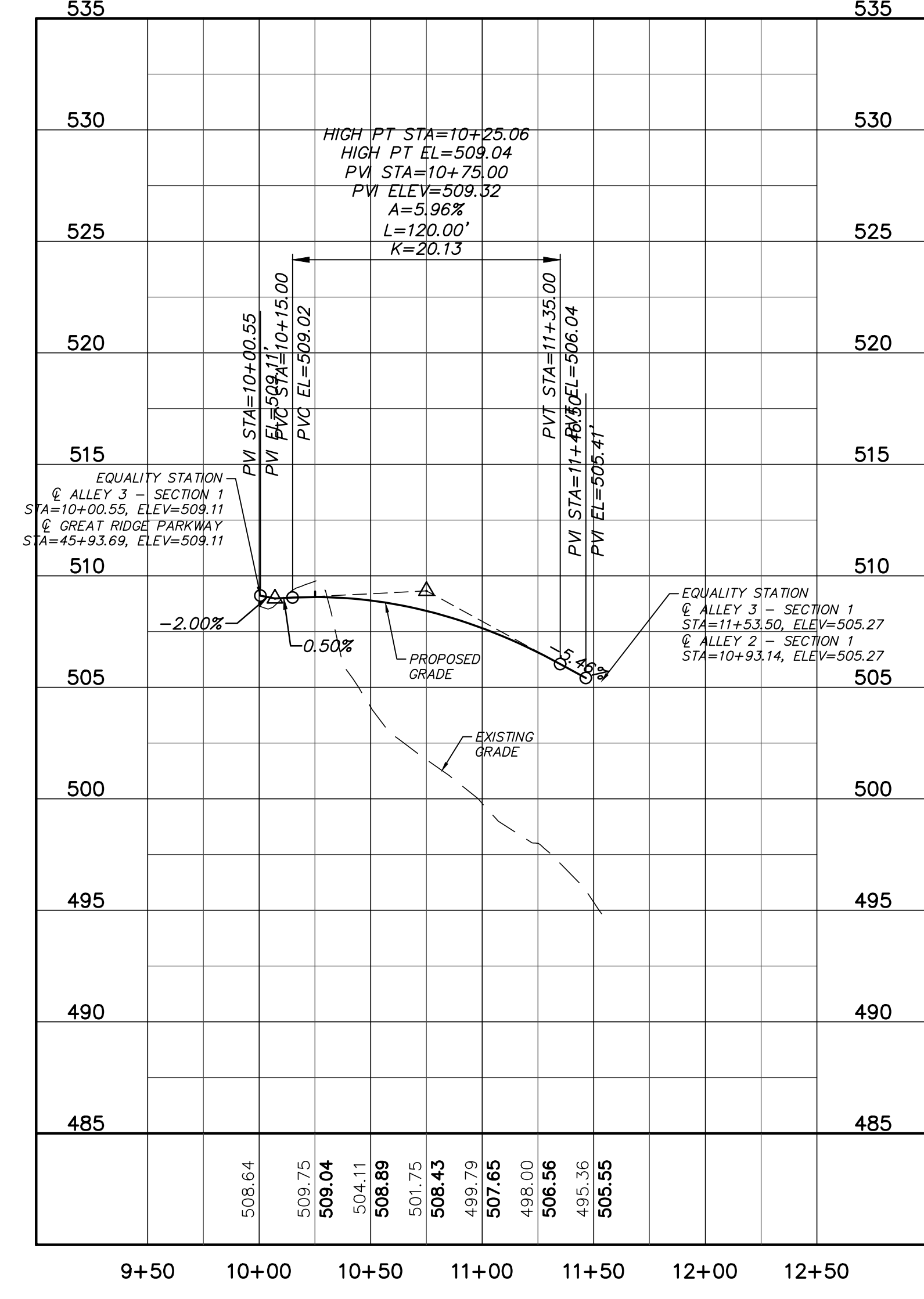
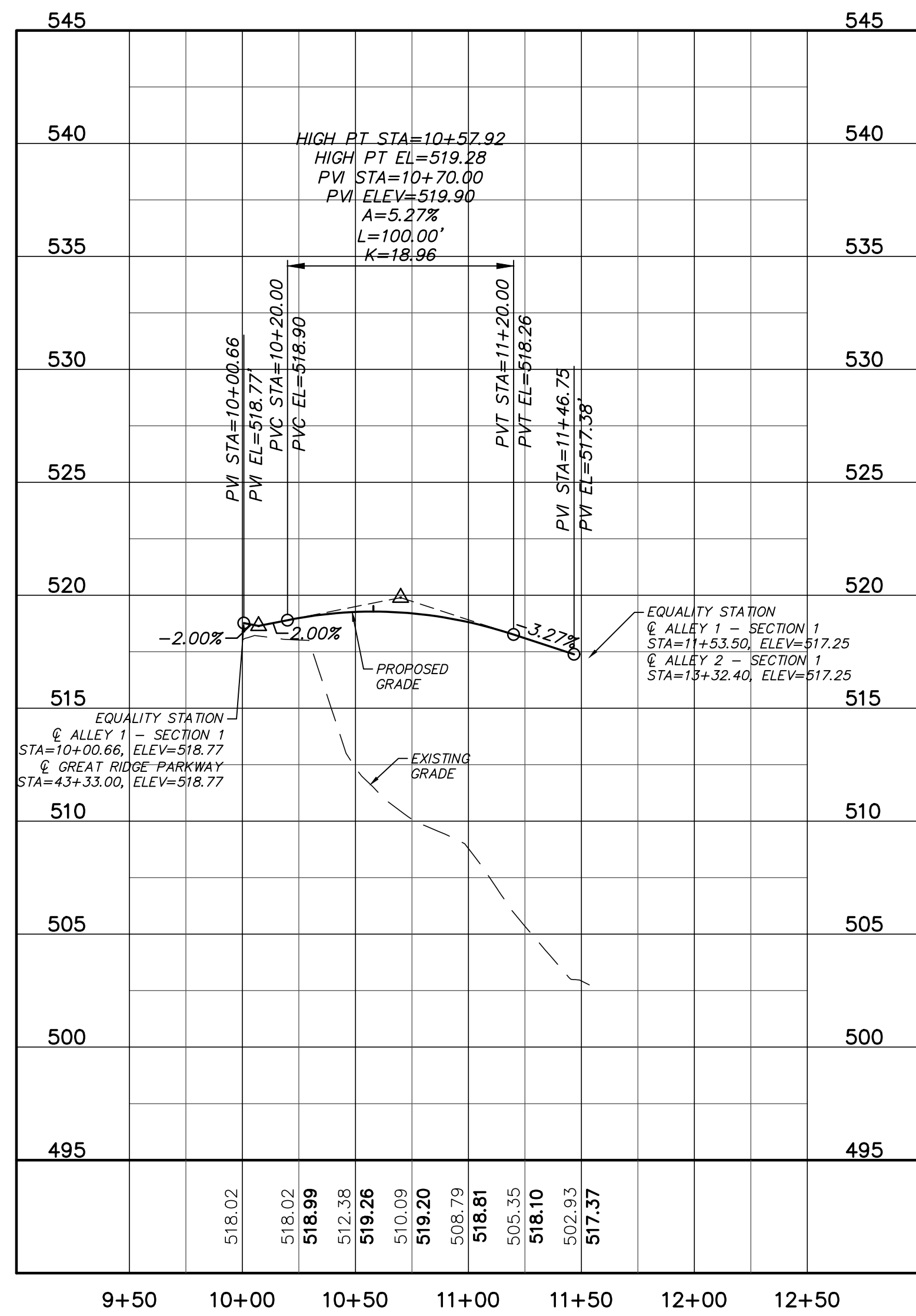
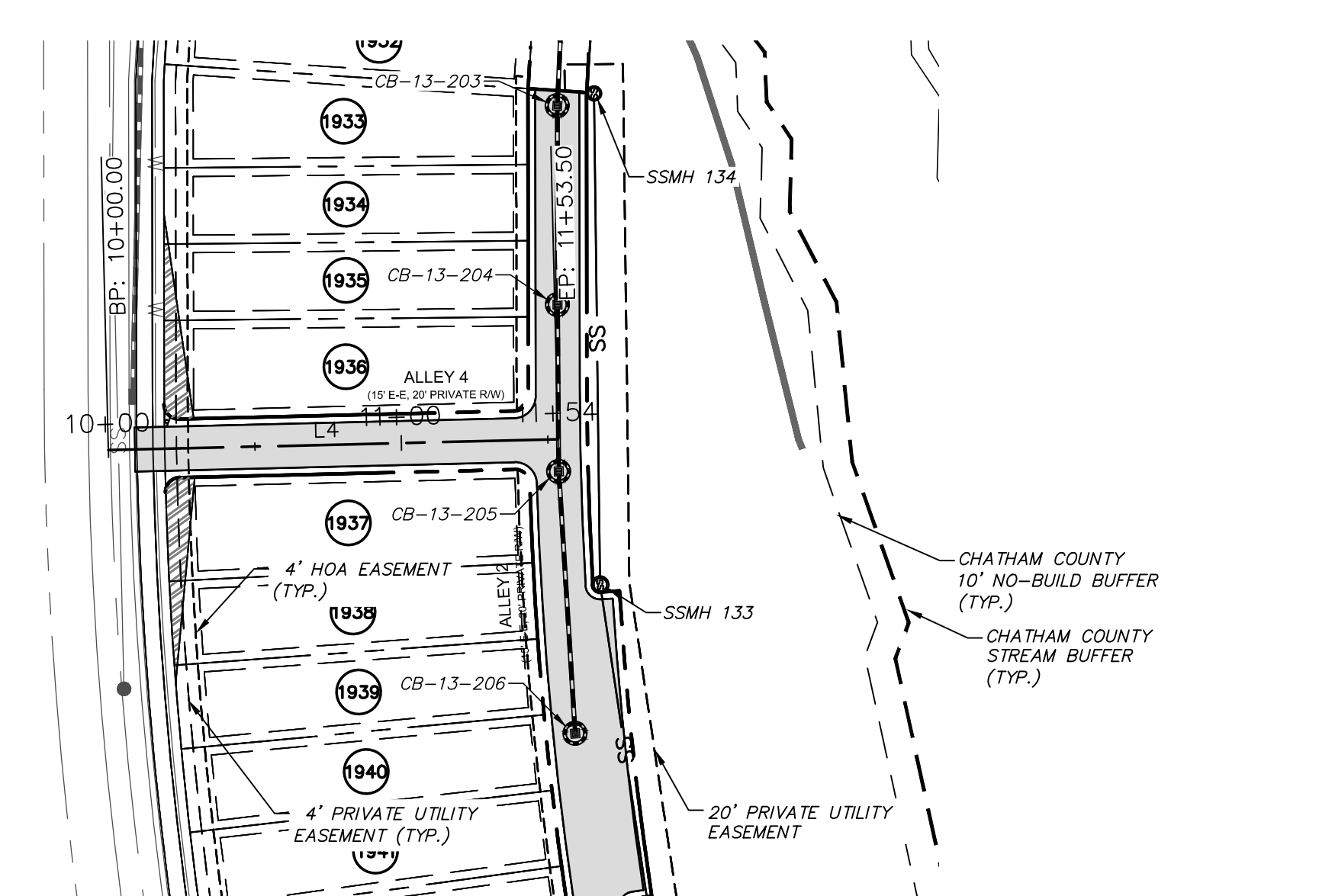
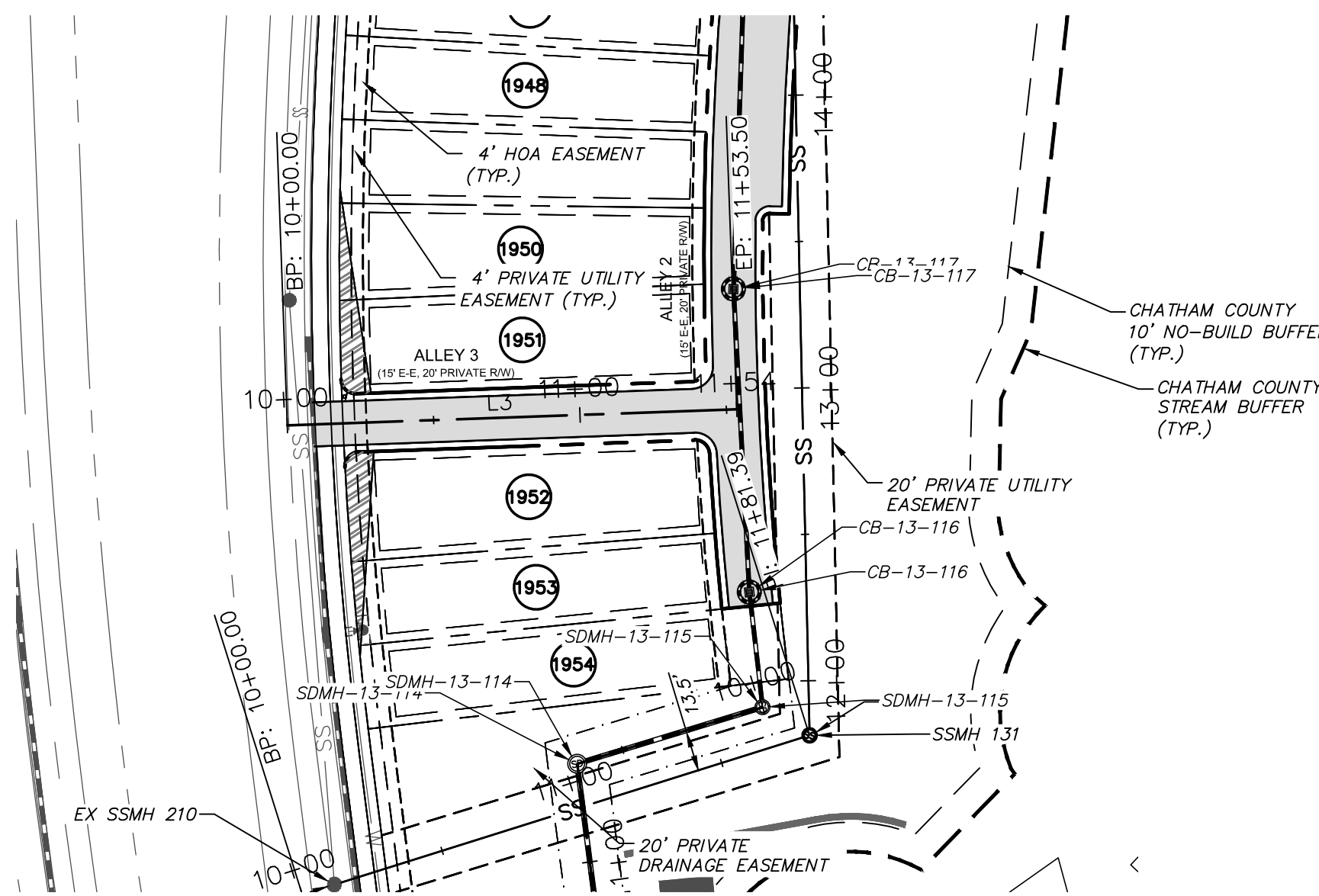
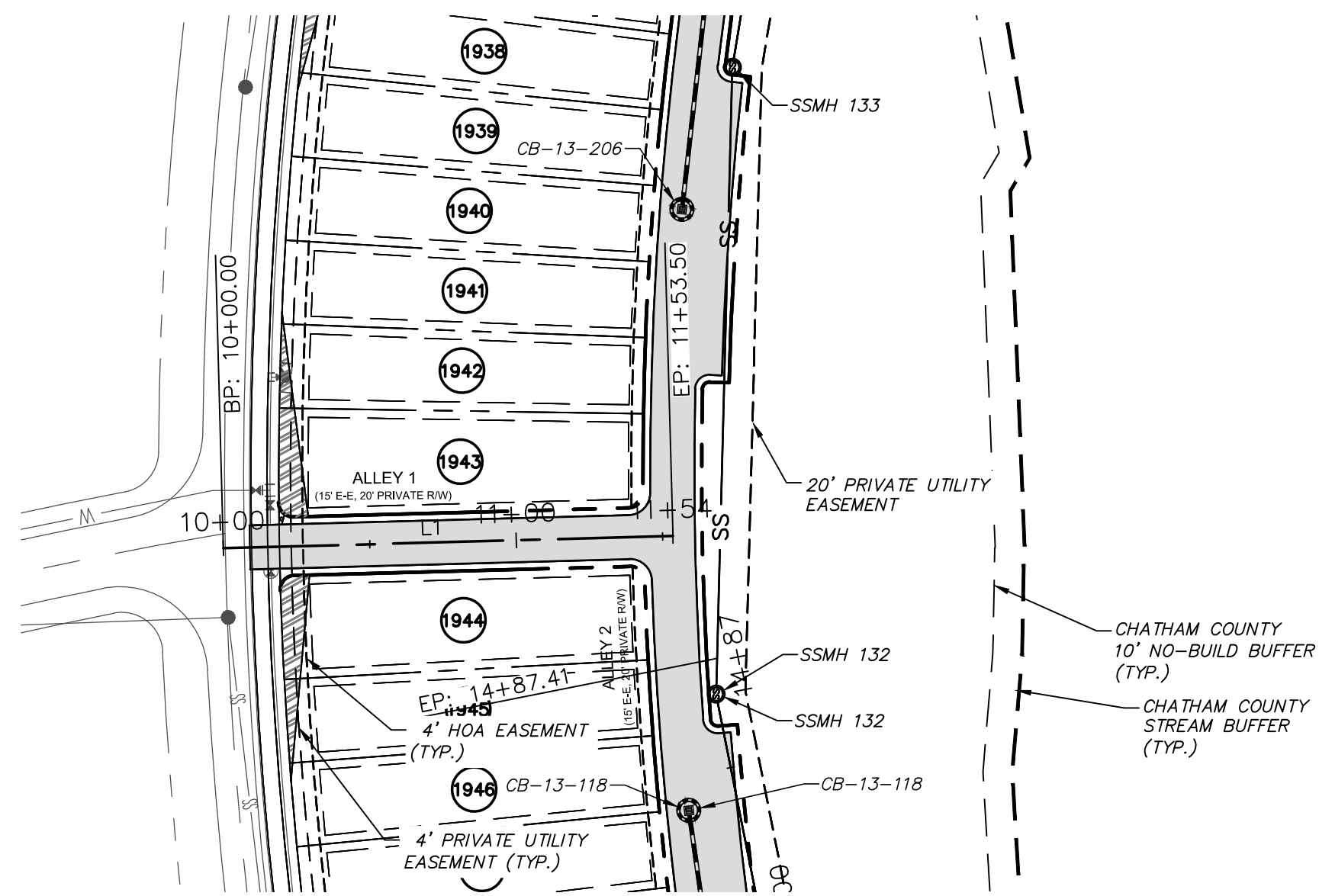


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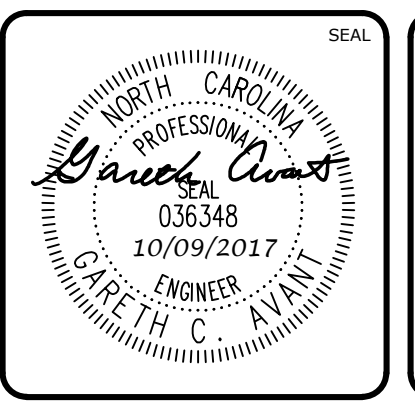
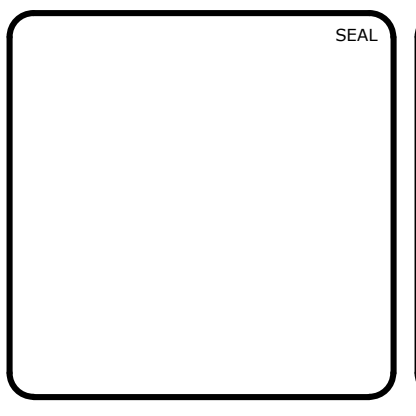
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PHASE 13 - SECTION 1 & 2  
CHATHAM COUNTY, NORTH CAROLINA  
PLAN & PROFILE  
ALLEY 2, STA. 10+00.00 TO STA. 16+63.66  
SANITARY SEWER TIE-IN, STA. 10+00.00 TO STA. 14+87.41

DATE: JULY 26, 2017	SCALE: HORIZONTAL: 1"=50'	MISC FILE NUMBER: C4.X
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DRAWN: BSS	STATUS: FOR REVIEW PURPOSES ONLY	REVISION: 3
DESIGNED: BSS		
CHECKED: GCA		
PROJ. MGR: CHS		



REV. NO.	DESCRIPTION	DATE
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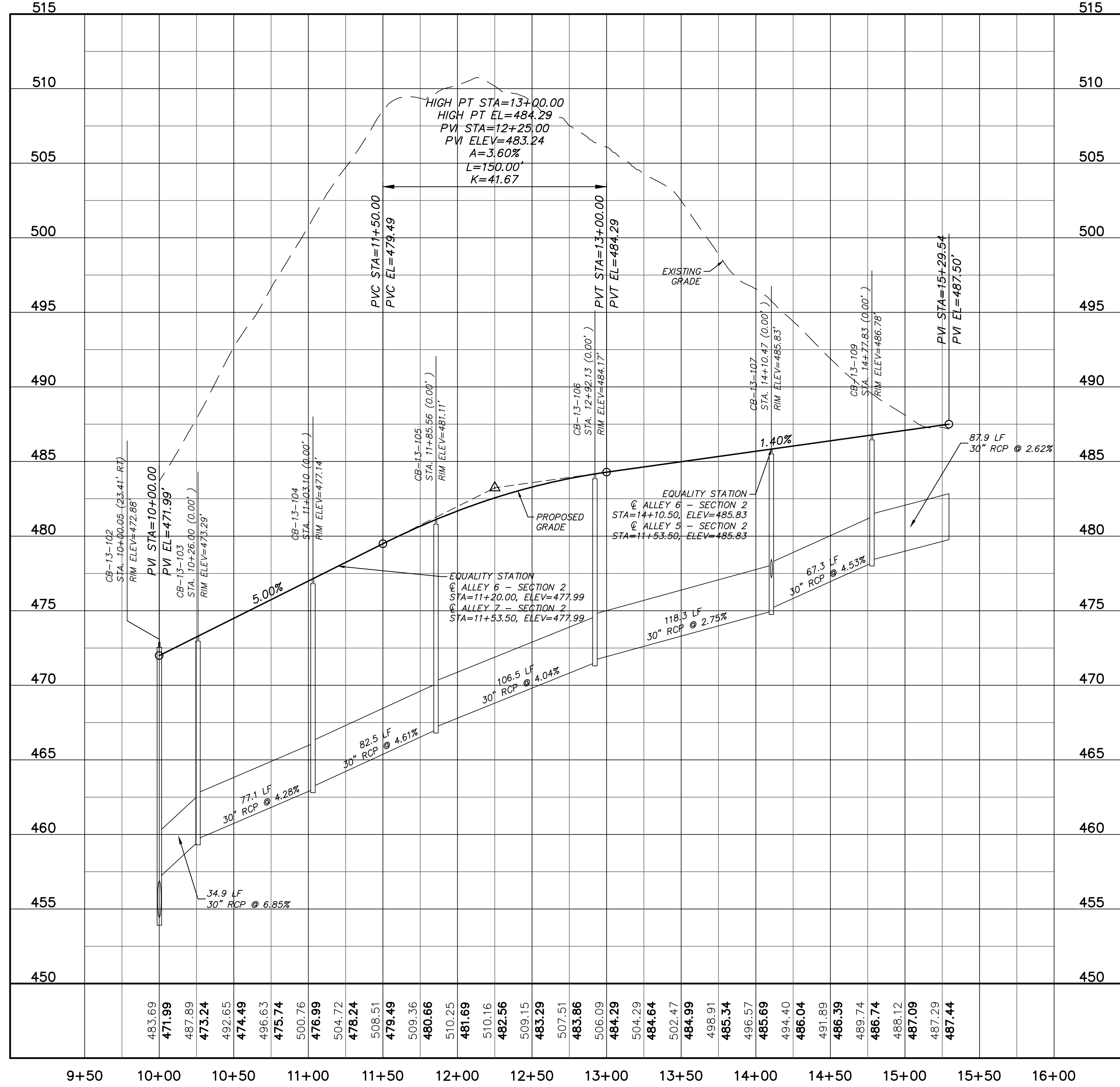
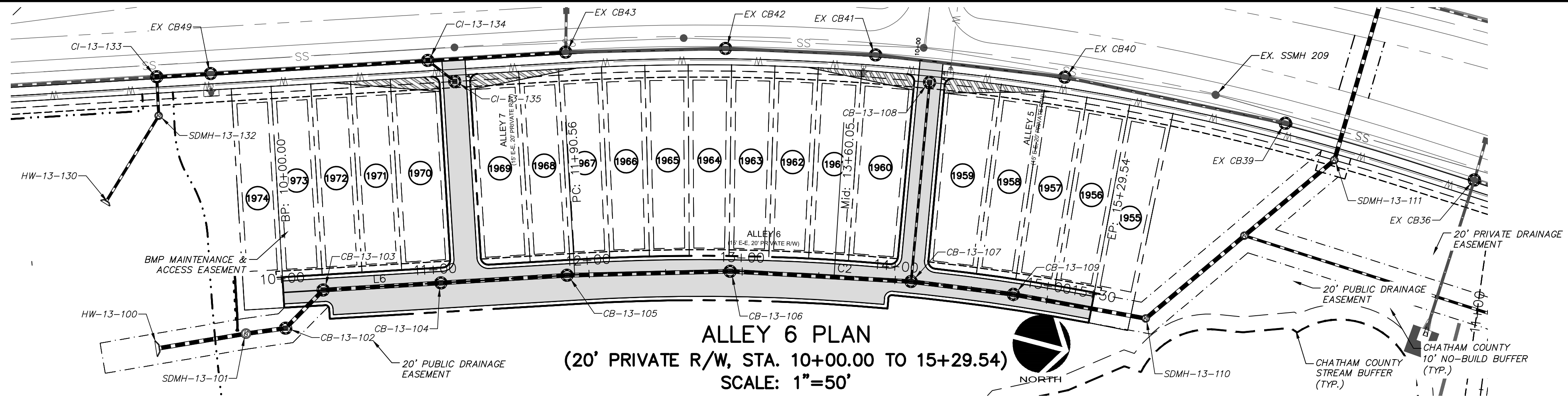
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 PLAN & PROFILE**  
 ALLEY 1: STA. 10+00.66 TO STA. 11+53.50  
 ALLEY 3: STA. 10+00.55 TO STA. 11+53.50  
 ALLEY 4: STA. 10+00.73 TO STA. 11+53.50

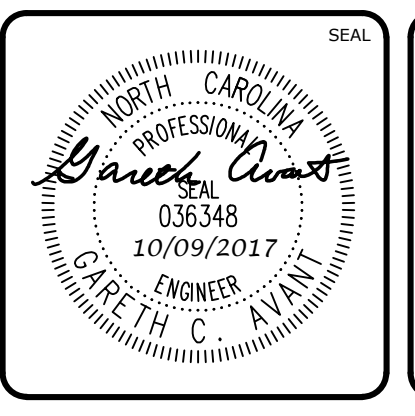
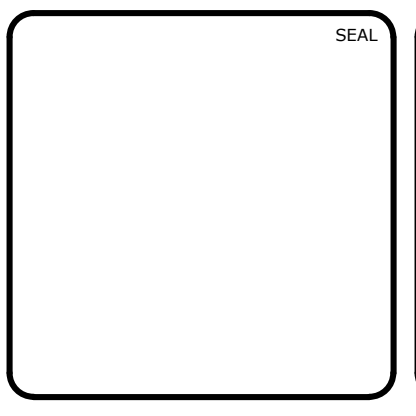
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DESIGNED:	BSS				
CHECKED:	GCA				
PROJ. MGR.:	CHS				
STATUS:	FOR REVIEW PURPOSES ONLY				
REVISION:	3				





ALLEY 6 PROFILE  
(STA. 10+00.00 TO 15+29.54)  
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV. NO.	DESCRIPTIONS	DATE
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0	SUBMITTAL TO AGENCIES	2017.07.26

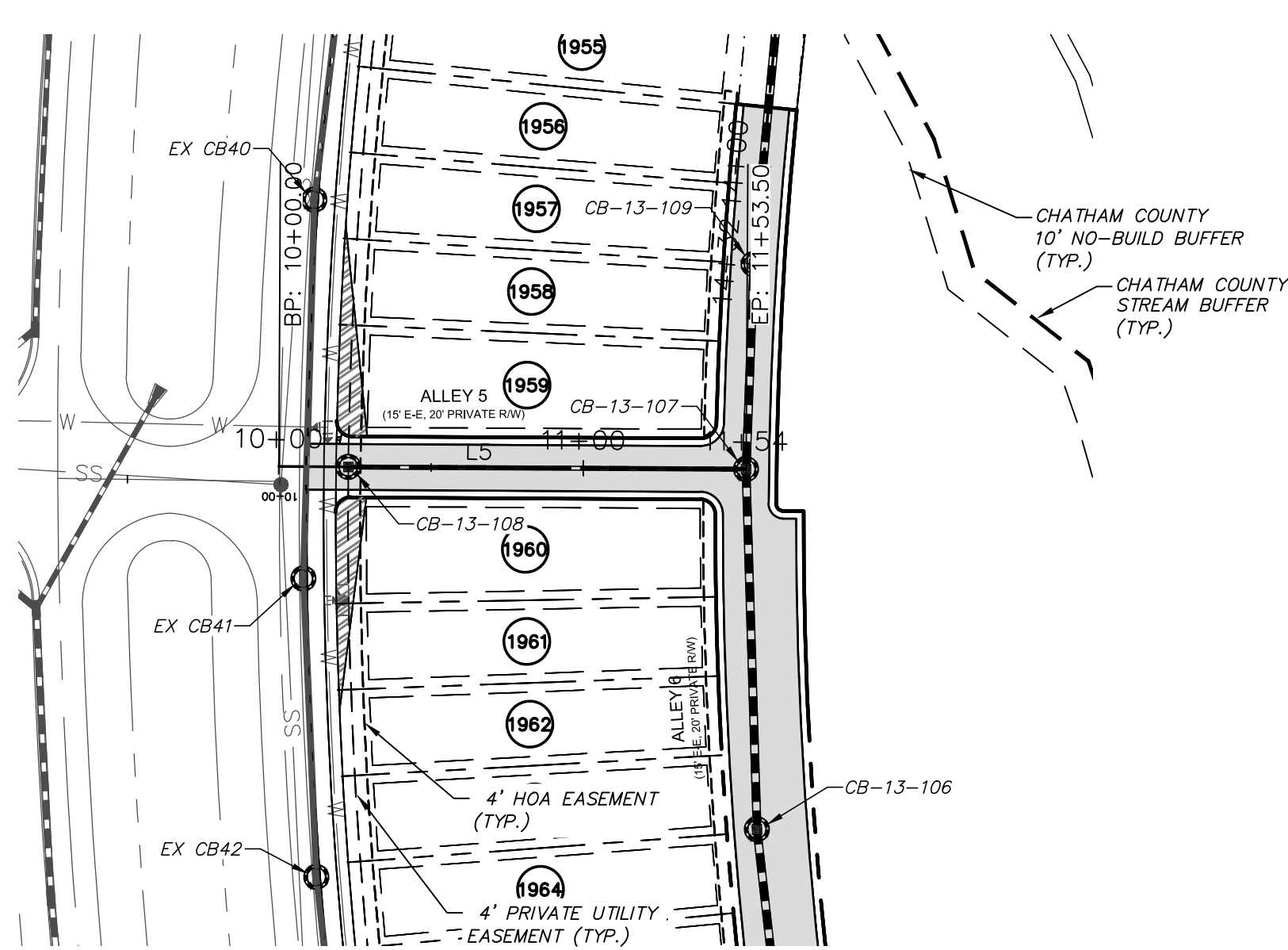


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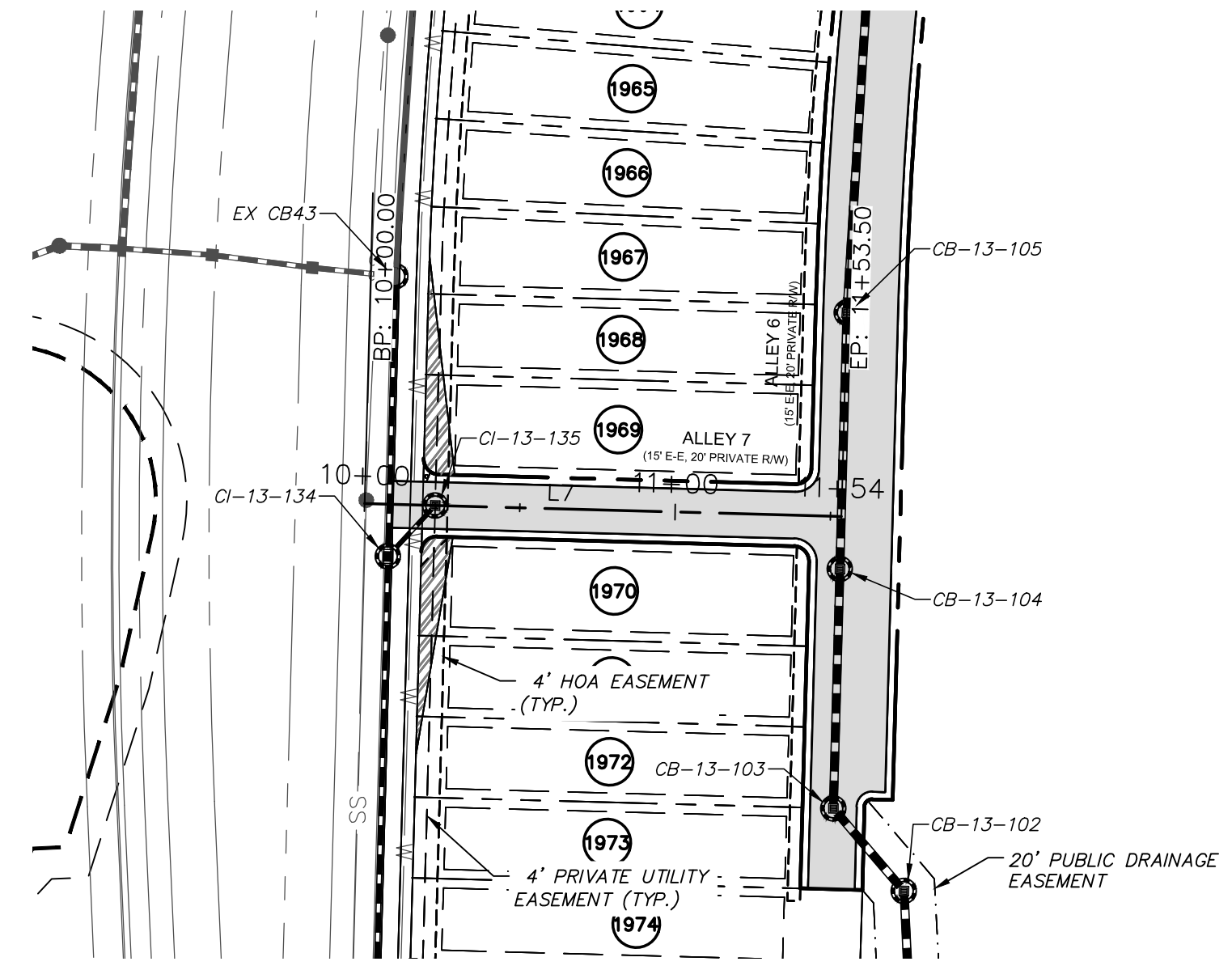
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PHASE 13 - SECTION 1 & 2  
CHATHAM COUNTY, NORTH CAROLINA  
PLAN & PROFILE  
ALLEY 6  
STA. 10+00.00 TO STA. 15+29.54

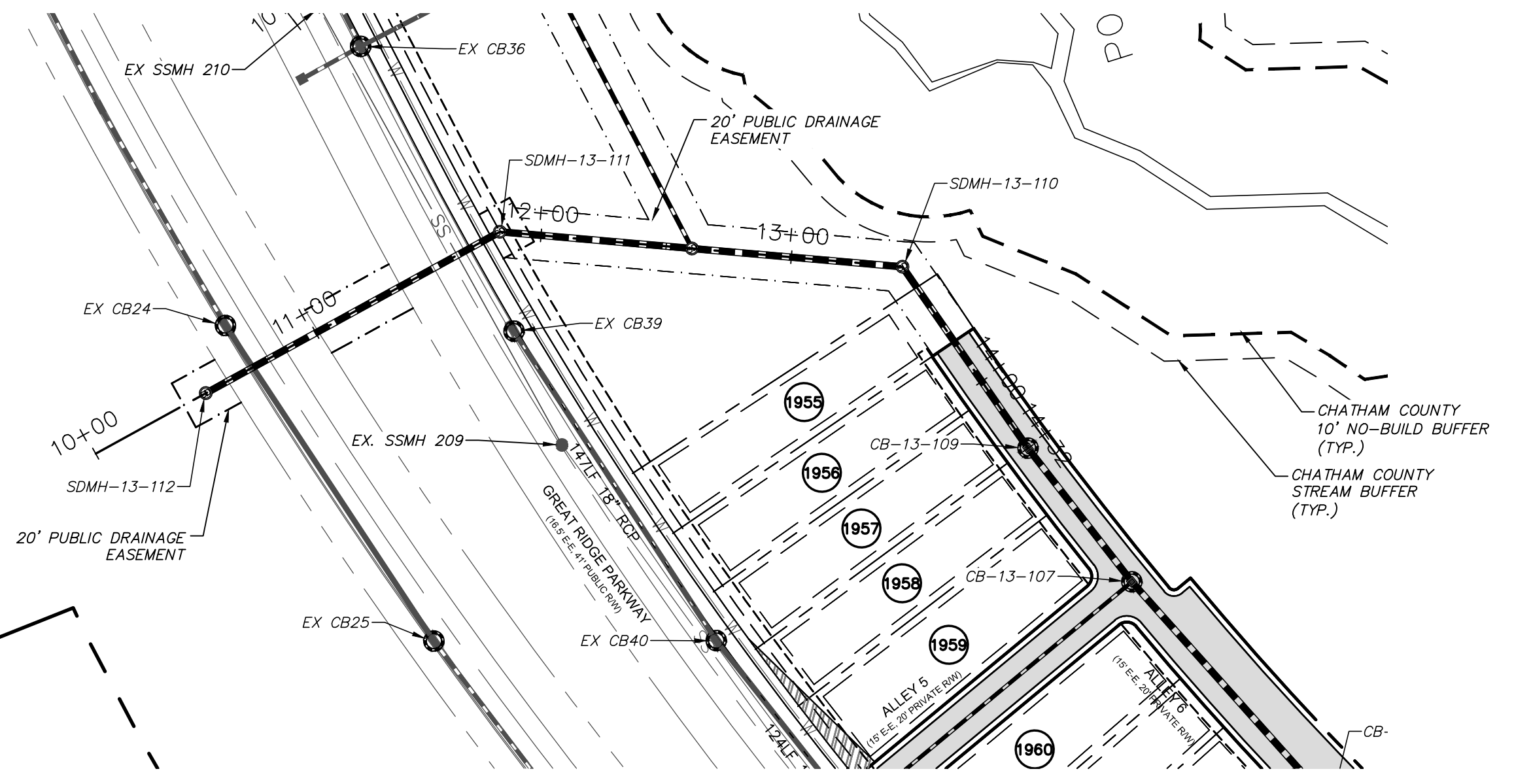
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M&C PROJ. # 02735-0198	HORIZONTAL: 1" = 50'	DRAWING NUMBER: C4.3
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CHECKED: GCA		
PROJ. MGR.: CHS		
STATUS: FOR REVIEW PURPOSES ONLY		REVISION: 3



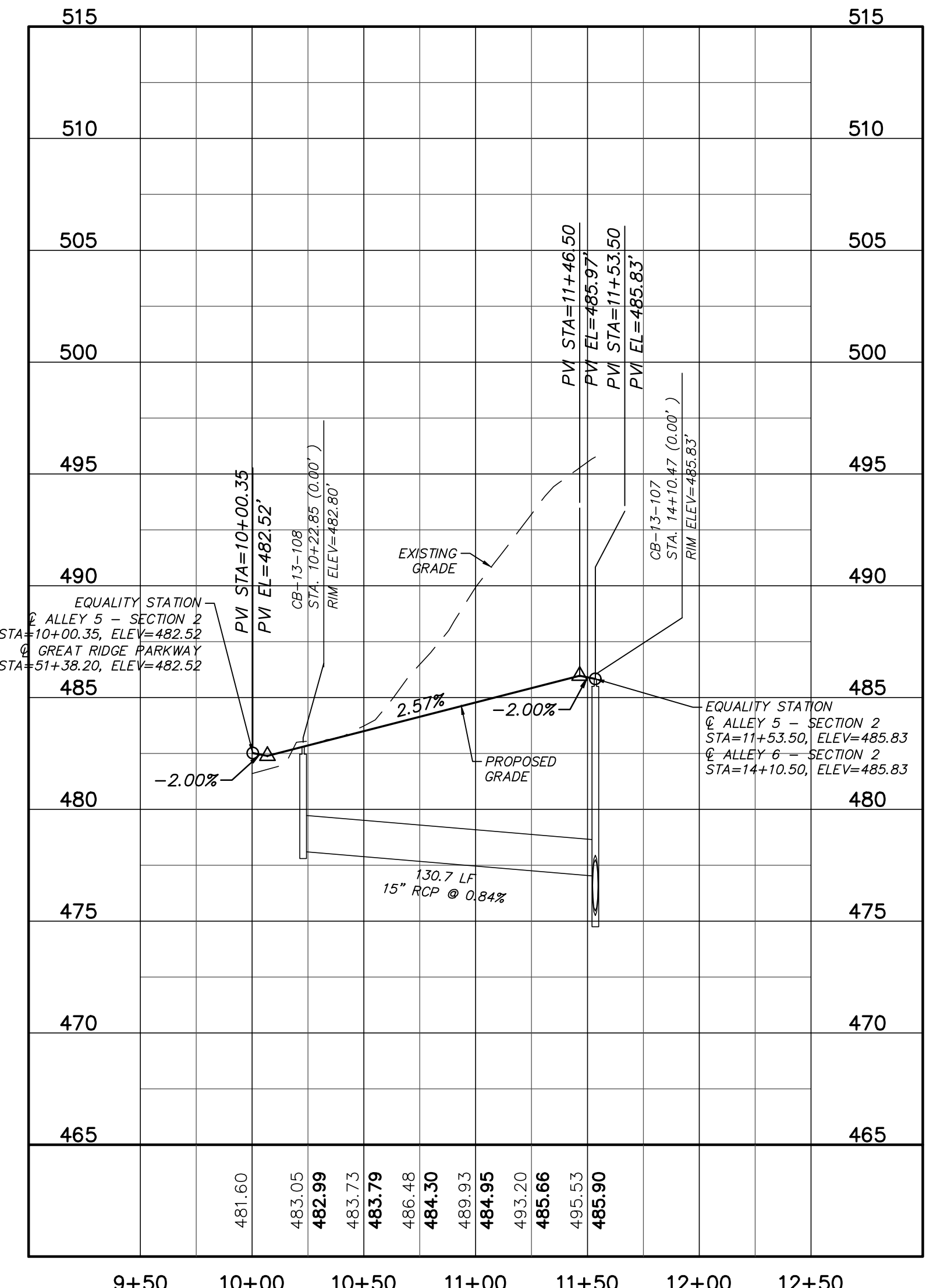
**ALLEY 5 PLAN**  
(20' PRIVATE R/W, STA. 10+00.35 TO 11+53.50)  
SCALE: 1"=50'



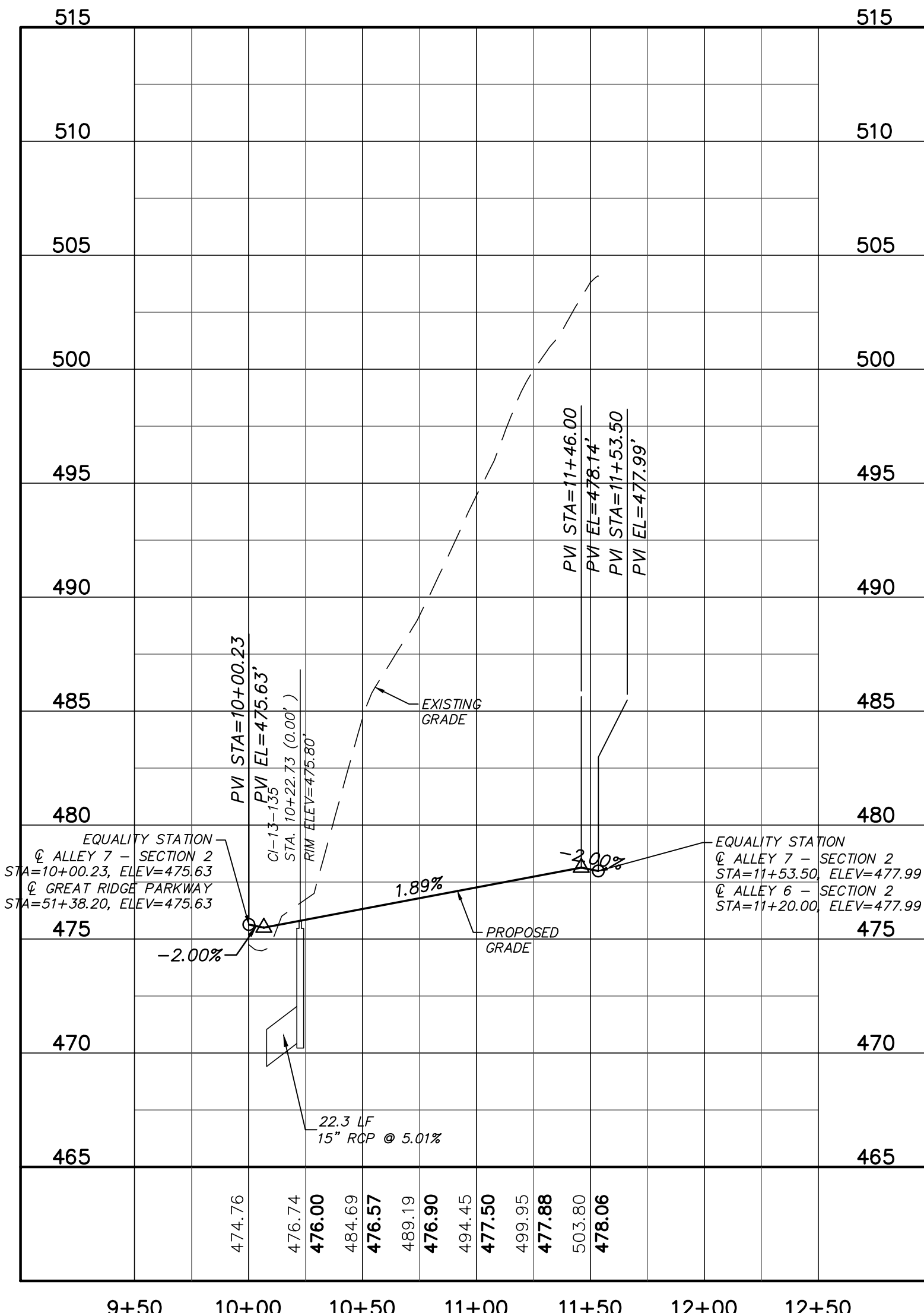
**ALLEY 7 PLAN**  
(20' PRIVATE R/W, STA. 10+00.23 TO 11+53.50)  
SCALE: 1"=50'



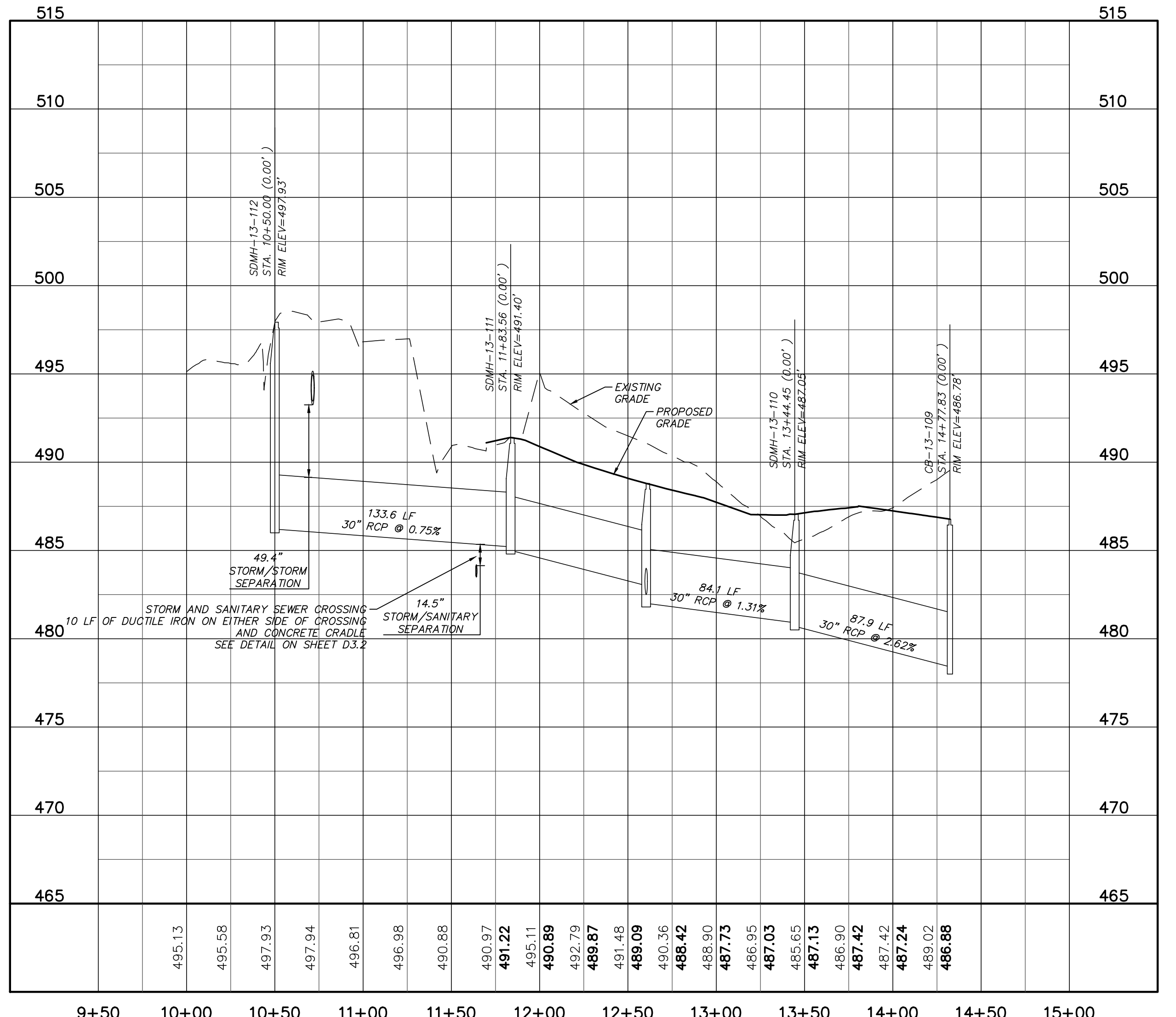
**STORM CROSSING FROM FUTURE PHASE 12 PLAN**  
(20' PRIVATE R/W, STA. 10+00.00 TO 14+32.33)  
SCALE: 1"=50'



**ALLEY 5 PROFILE**  
(STA. 10+00.00 TO 11+53.50)  
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

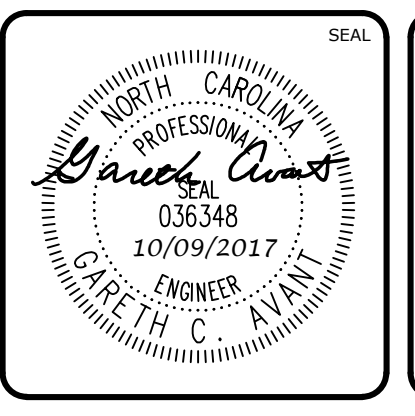
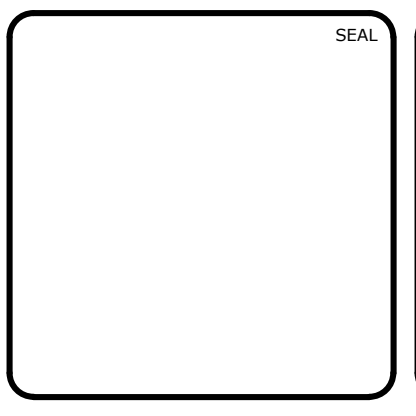


**ALLEY 7 PROFILE**  
(STA. 10+00.23 TO 11+53.50)  
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'



**STORM CROSSING FROM FUTURE PHASE 12 PROFILE**  
(STA. 10+00.00 TO 14+32.33)  
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

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0	SUBMITTAL TO AGENCIES	2017.07.26



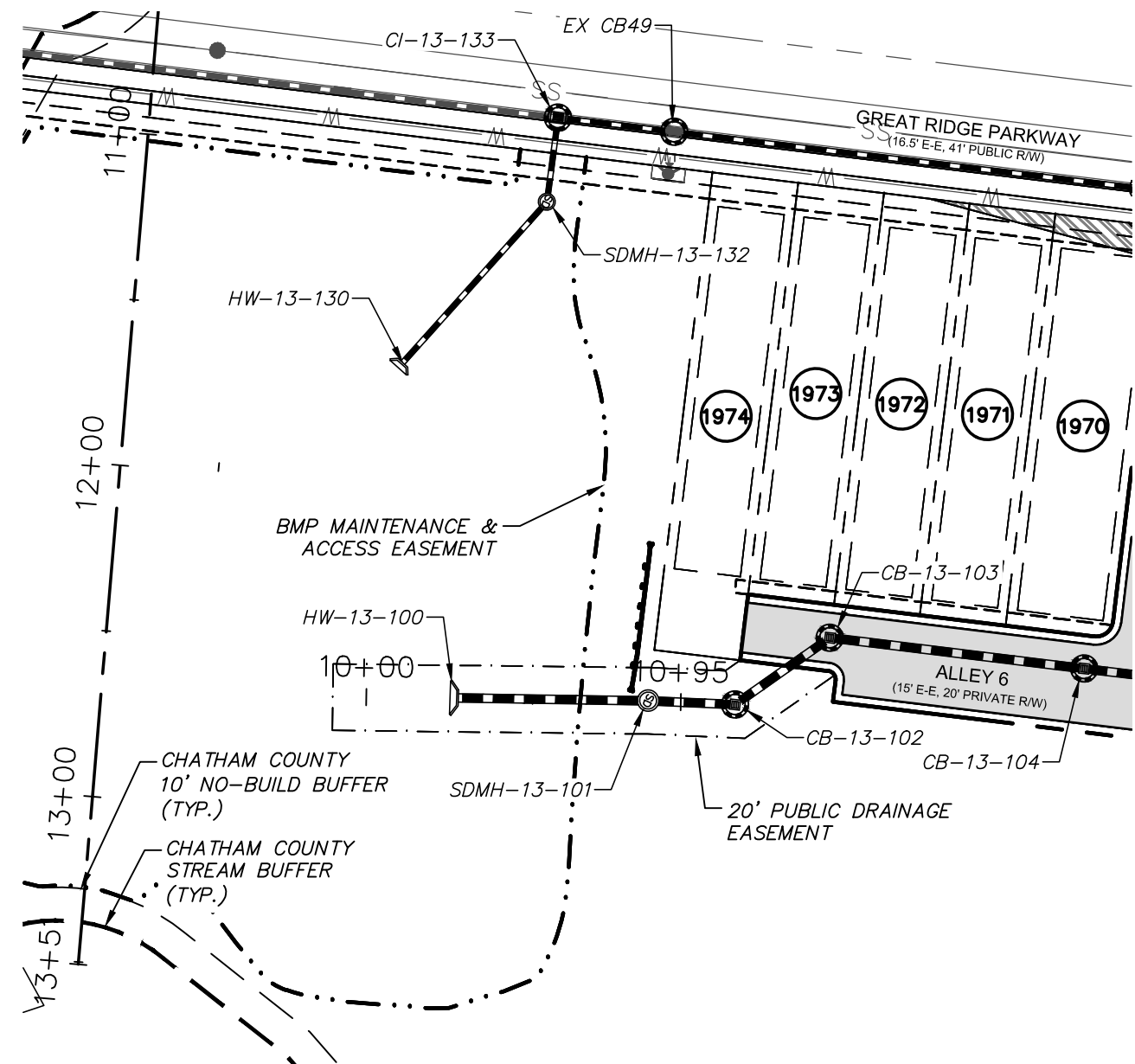
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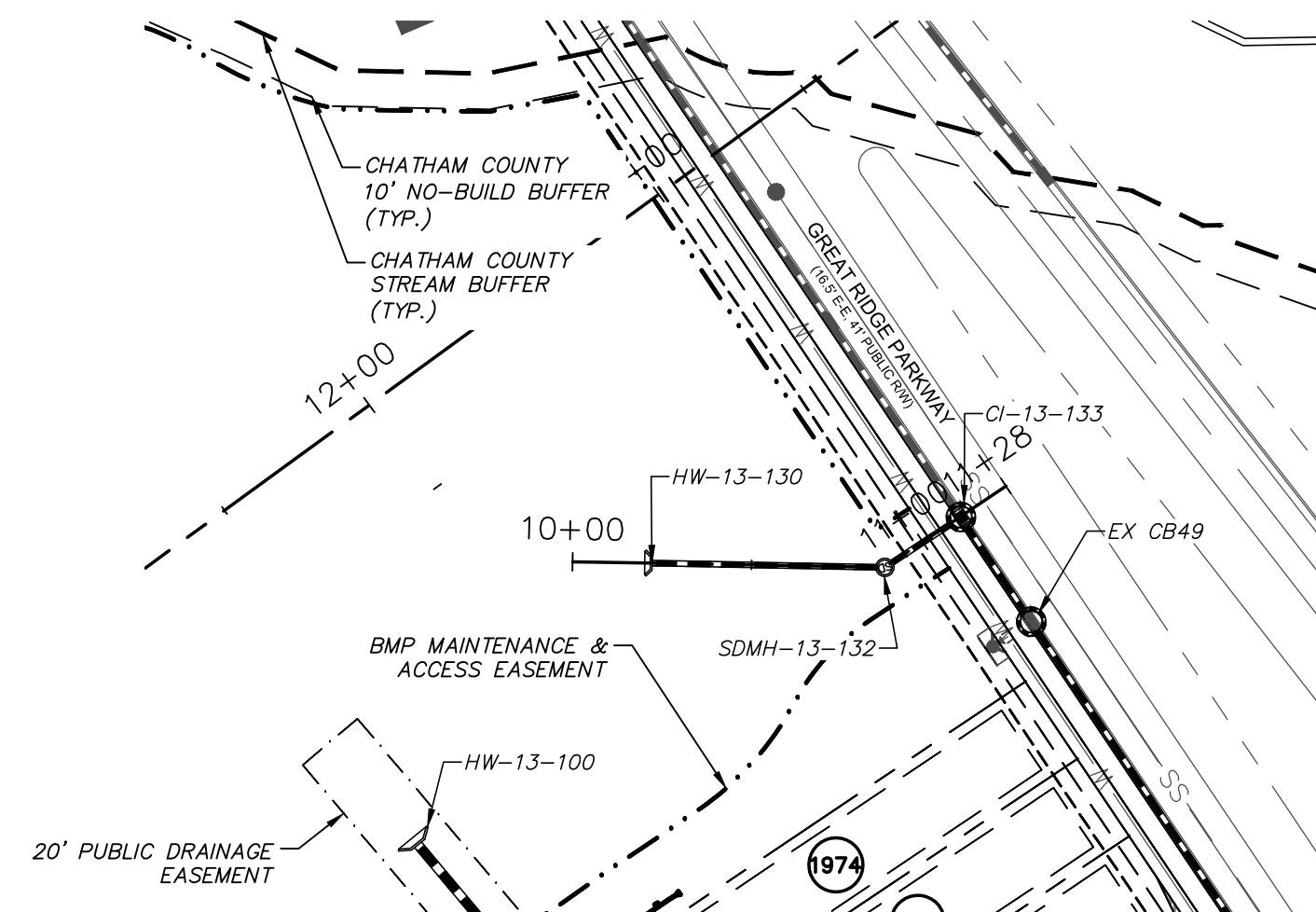
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**CHATHAM COUNTY, NORTH CAROLINA**  
PLAN & PROFILE  
ALLEY 5: STA. 10+00.00 TO STA. 11+53.50  
ALLEY 7: STA. 10+00.00 TO STA. 11+53.50  
STORM CROSSING: 10+00.00 TO STA. 14+32.33

DATE: JULY 26, 2017	SCALE: 1" = 50'	M&C FILE NUMBER: C4.X
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DESIGNED: BSS		
CHECKED: GCA		
PROJ. MGR.: CHS		
STATUS: FOR REVIEW PURPOSES ONLY		
REVISION: 3		

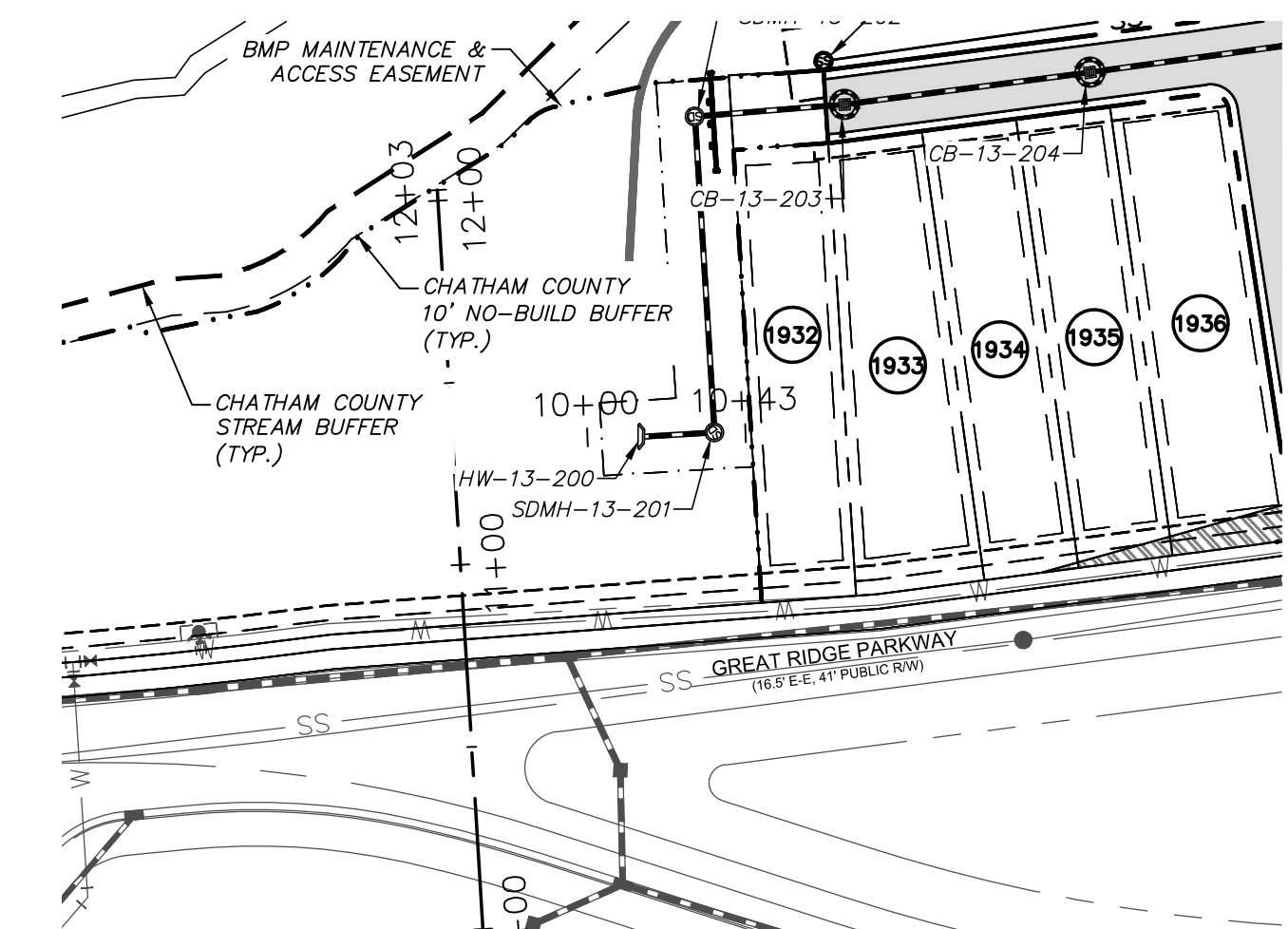




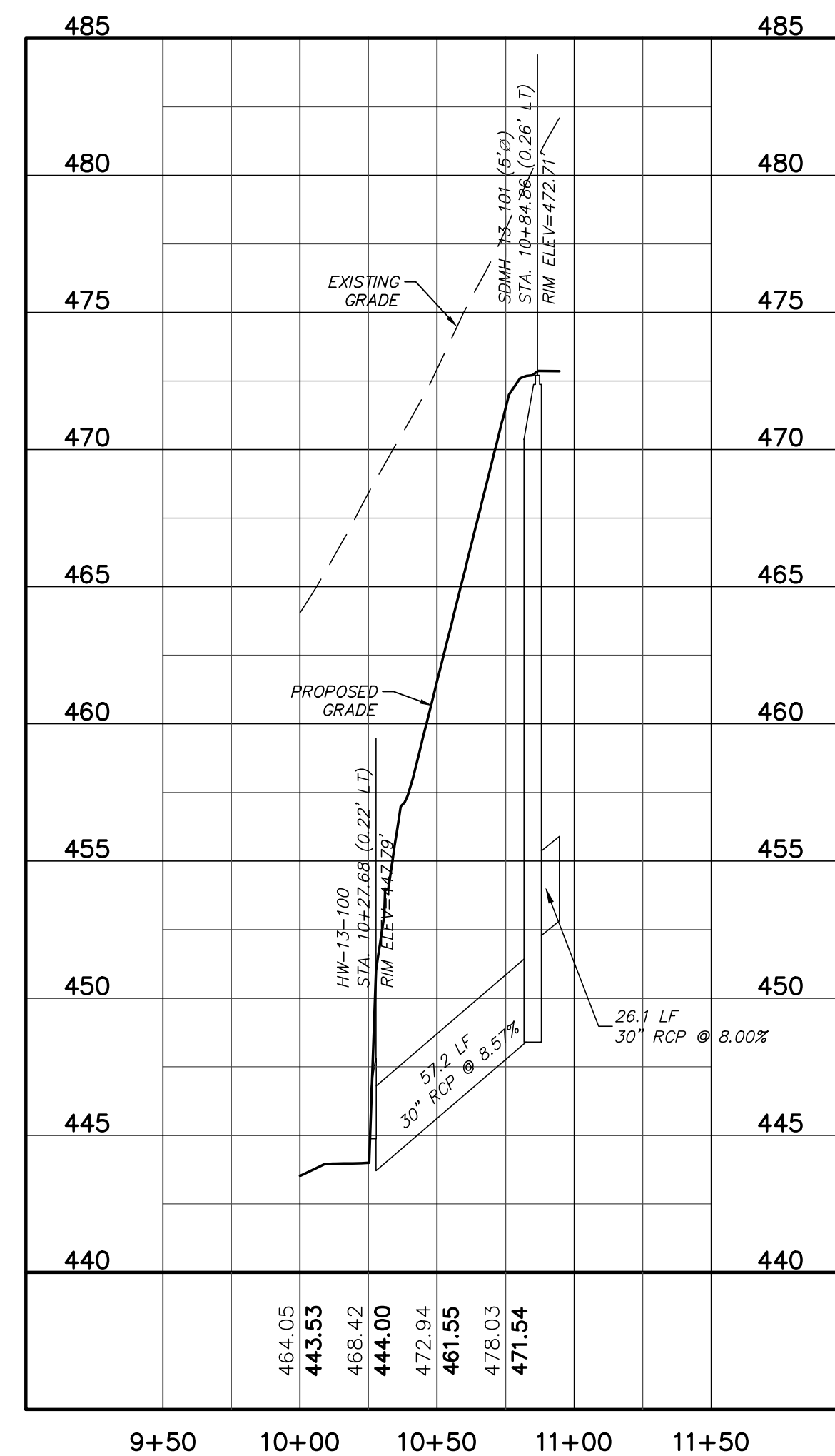
**BMP #33 EASTERN OUTFALL PLAN**  
(STA. 10+00.00 TO 10+94.64)  
SCALE: 1"=50'



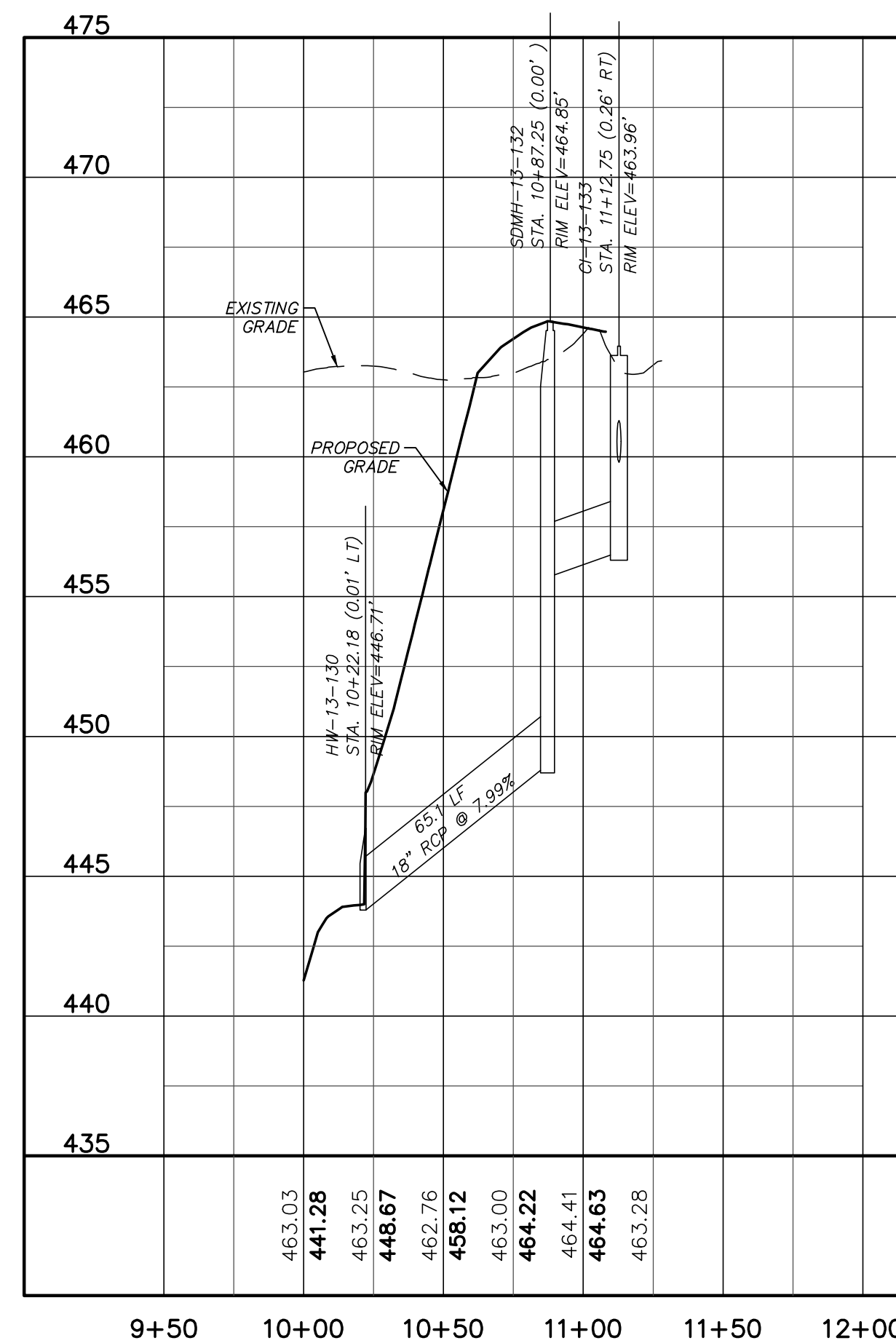
**BMP #33 WESTERN OUTFALL PLAN**  
(STA. 10+00.00 TO 10+72.25)  
SCALE: 1"=50'



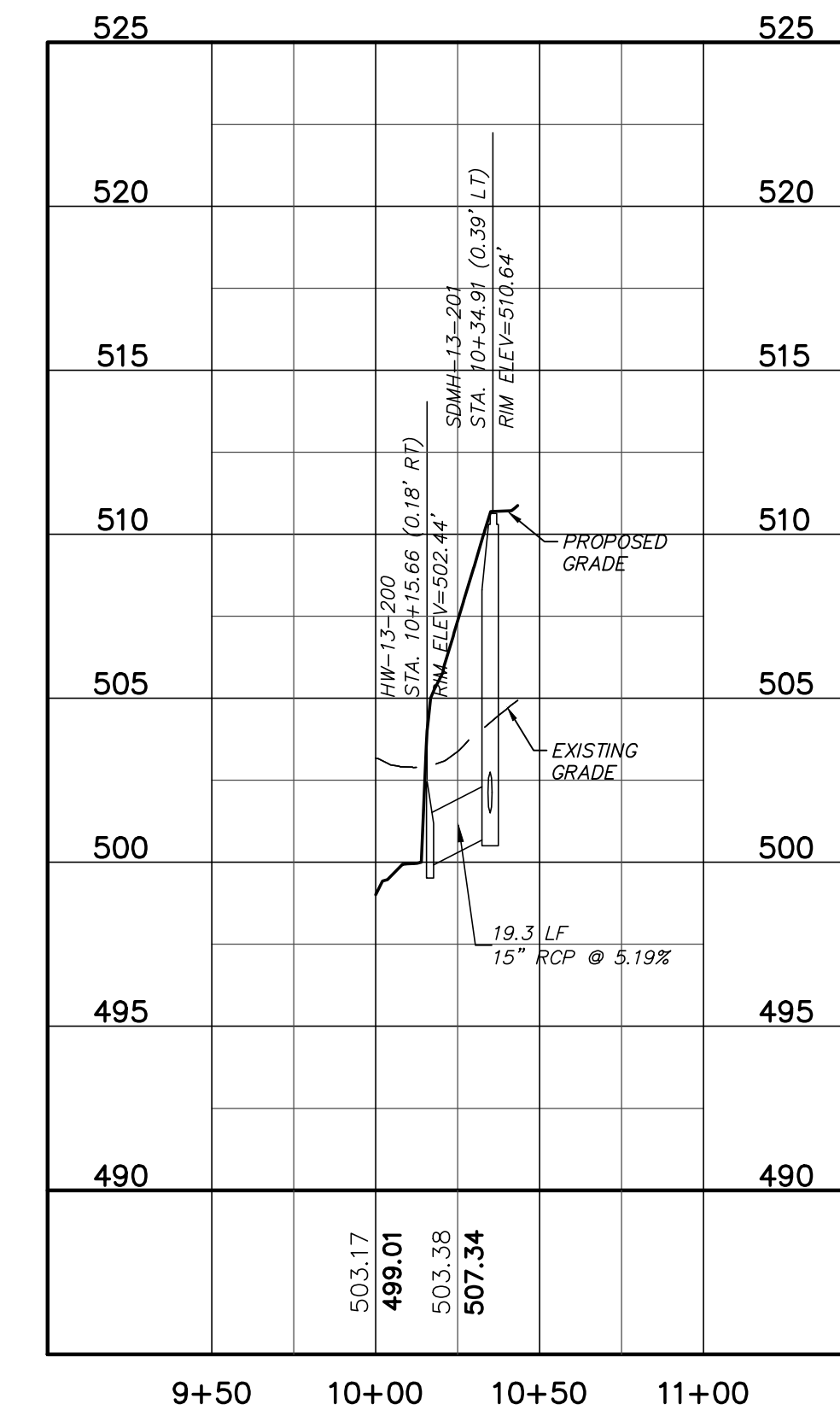
**BMP #34 OUTFALL PLAN**  
(STA. 10+00.00 TO 10+43.53)  
SCALE: 1"=50'



**BMP #33 EASTERN OUTFALL PROFILE**  
(STA. 10+00.00 TO 10+94.64)  
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

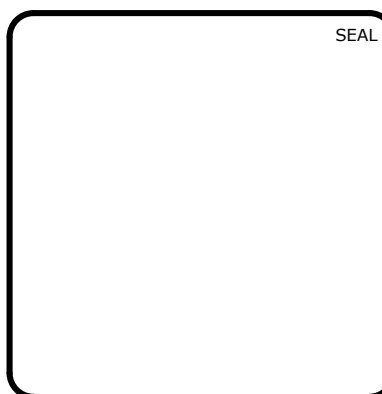


**BMP #33 WESTERN OUTFALL PROFILE**  
(STA. 10+00.00 TO 10+72.25)  
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'



**BMP #34 OUTFALL PROFILE**  
(STA. 10+00.00 TO 10+43.53)  
SCALE: (Horiz.) 1"=50'; (Vert.) 1"=5'

REV. NO.	DESCRIPTIONS	DATE
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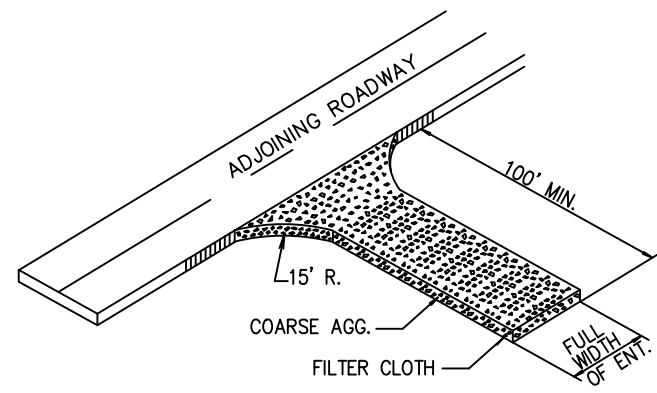
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PLAN & PROFILE  
BMP #33 EAST OUTFALL: STA. 10+00.00 TO STA. 10+94.64  
BMP #33 WEST OUTFALL: STA. 10+00.00 TO STA. 10+72.25  
BMP #34 OUTFALL: 10+00.00 TO STA. 10+43.53

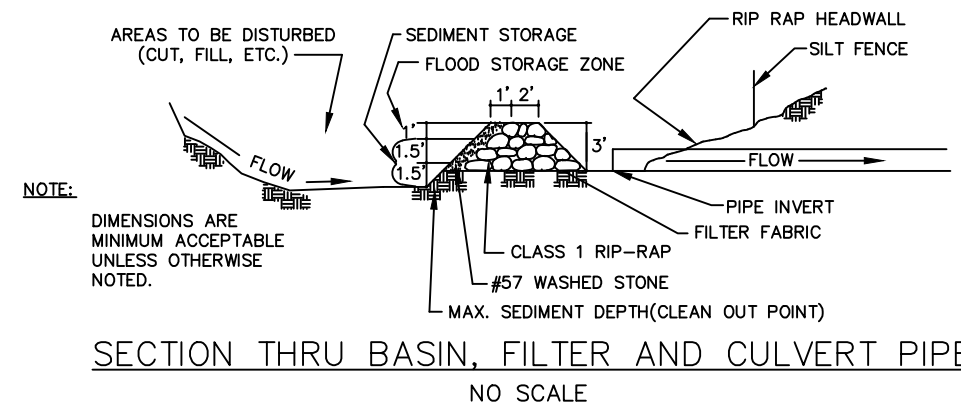
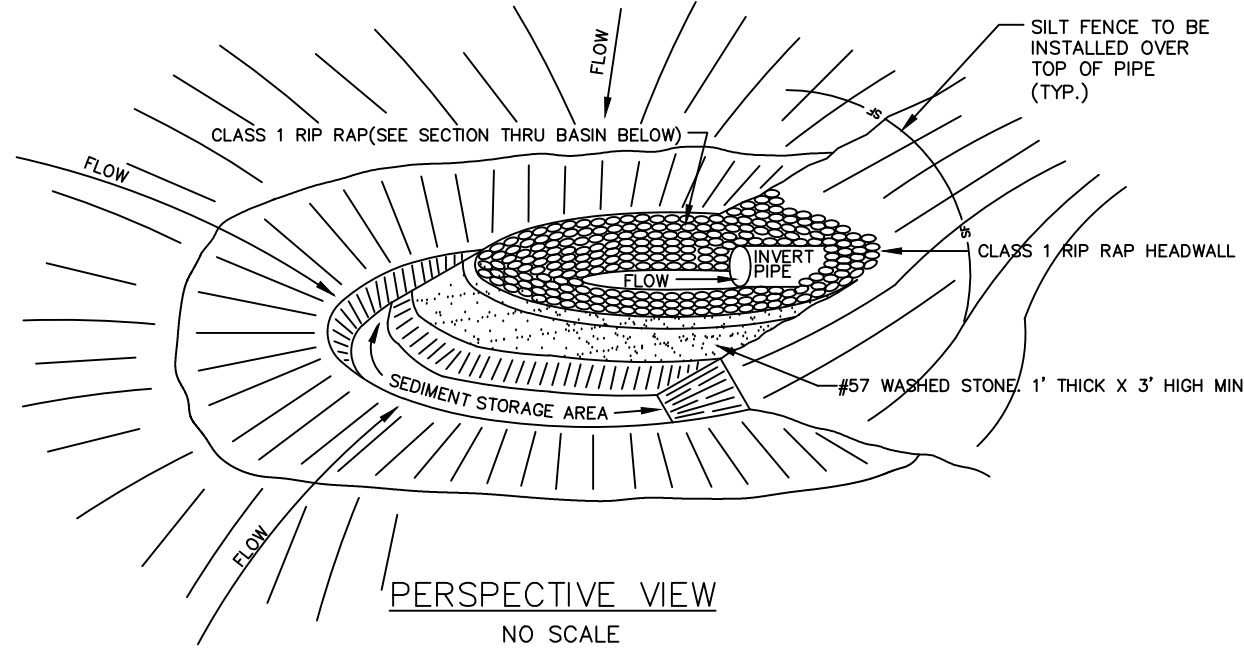
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PROJ. MGR.: CHS		
STATUS: FOR REVIEW PURPOSES ONLY		REVISION: 3



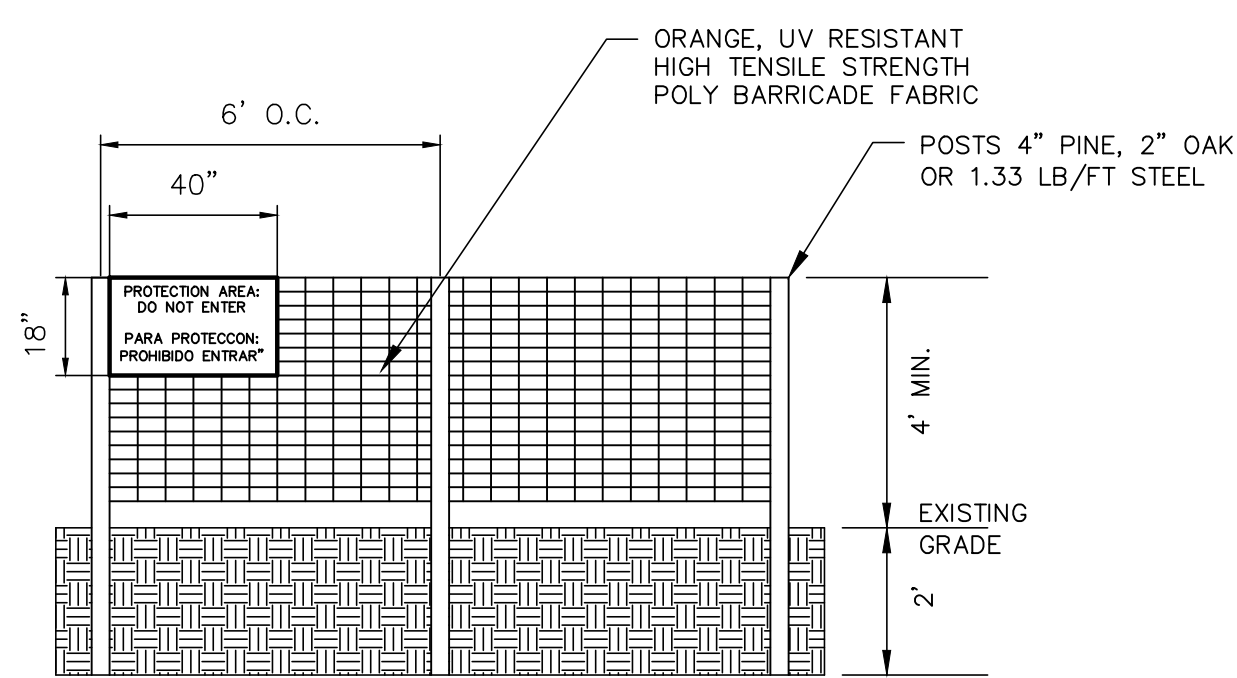


- COARSE AGGREGATE (2"-3" STONE) SHALL BE USED. PAD TO BE 100' X 25' X 6" MIN. PLACE A MINIMUM OF 3" OF STONE IN A CUT SECTION TO HELP SECURE FILTER CLOTH.
- TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS IS TO BE PROVIDED.
- ENTRANCES SHOULD BE LOCATED TO PROVIDE FOR MAXIMUM UTILITY BY ALL CONSTRUCTION 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 OUT 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

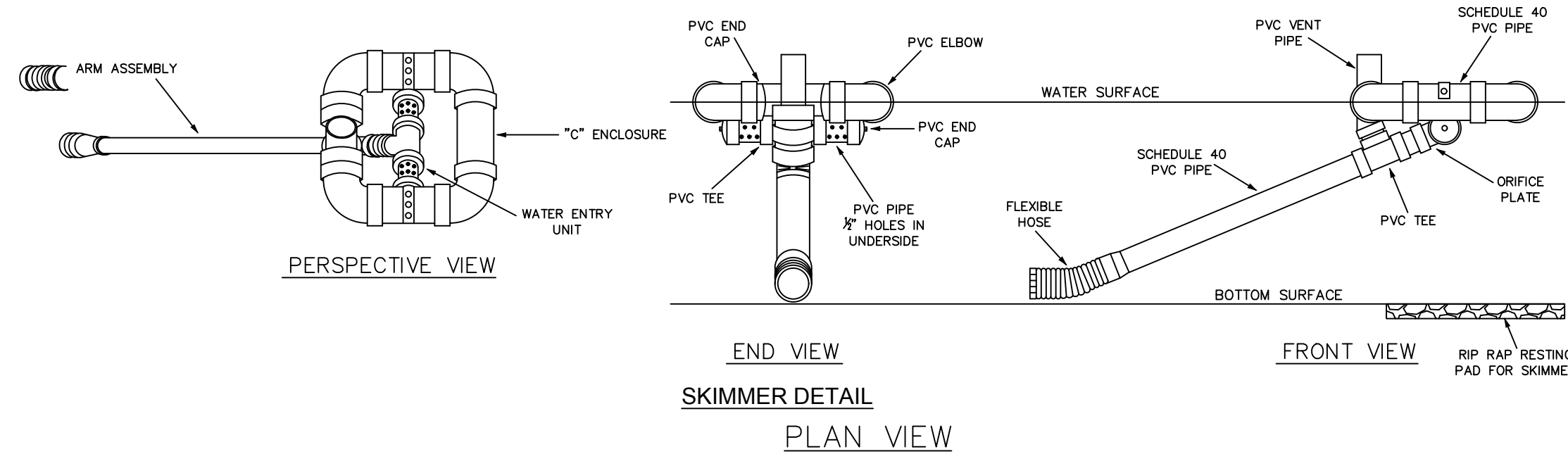


**ARC FILTER INLET PROTECTION**  
NTS



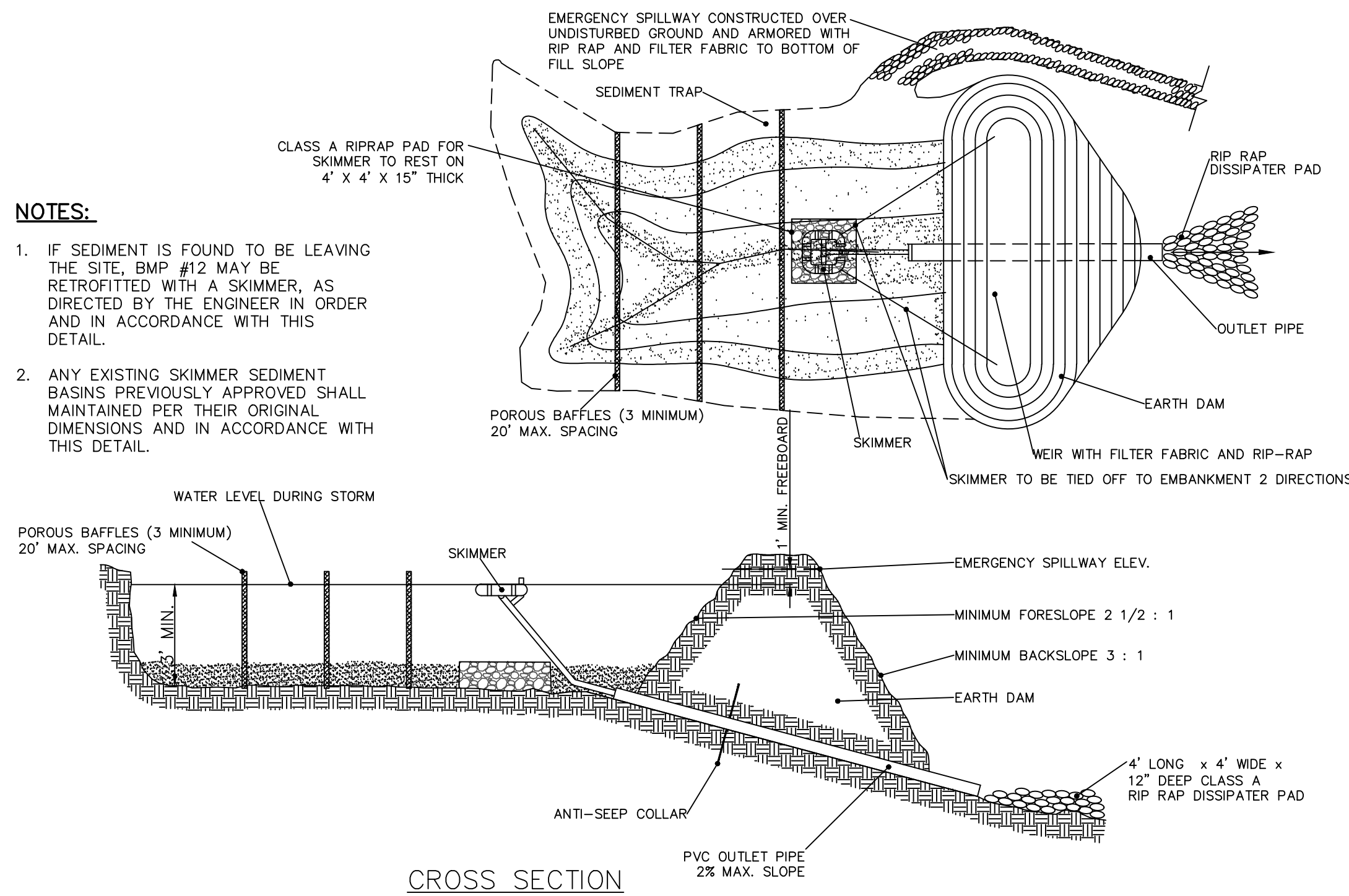
- WARNING SIGNS TO BE MADE OF DURABLE WATERPROOF PLASTIC.
- ALL LETTERS TO BE AT LEAST 3" HIGH, CLEARLY LEGIBLE AND SPACED APPROPRIATELY.
- SIGNS TO BE PLACED AT EACH END OF LINER PROTECTION AREA AND 200' ON CENTER (MAX.) THEREAFTER FOR PROTECTION AREA LESS THAN 200' IN PERIMETER. PROVIDE NO LESS THAN 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



**NOTES:**

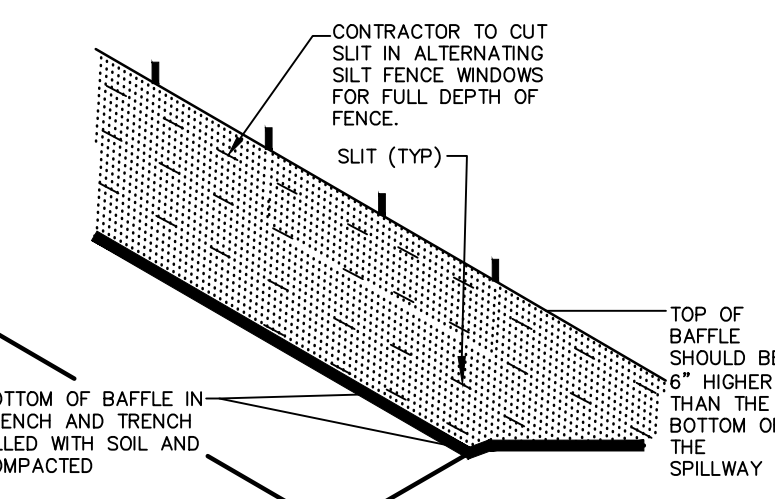
- IF SEDIMENT IS FOUND TO BE LEAVING THE SITE, BMP #12 MAY BE RETROFITTED WITH A SKIMMER, AS DIRECTED BY THE ENGINEER IN ORDER AND IN ACCORDANCE WITH THIS DETAIL.
- ANY EXISTING SKIMMER SEDIMENT BASINS PREVIOUSLY APPROVED SHALL MAINTAINED PER THEIR ORIGINAL DIMENSIONS AND IN ACCORDANCE WITH THIS DETAIL.



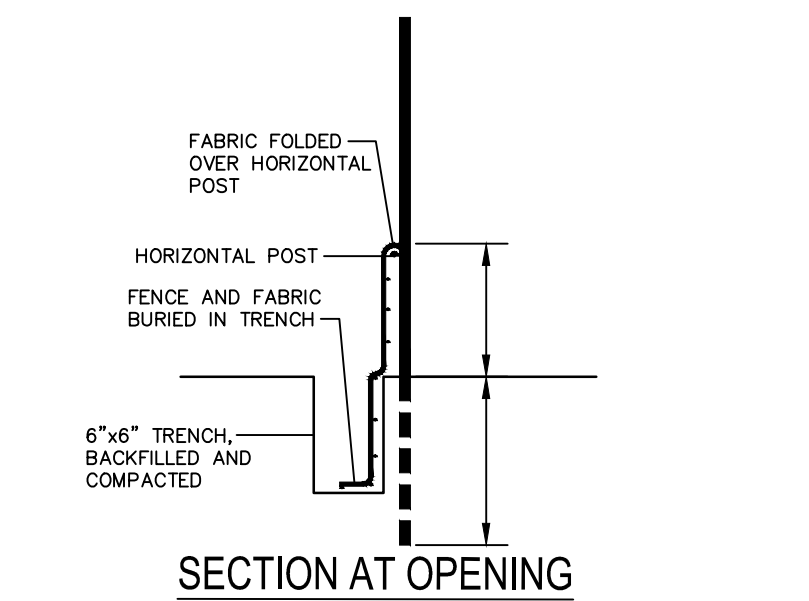
**TEMPORARY SKIMMER SEDIMENT BASIN**  
NTS

BASIN #	DISTURBED AREA (ac)	TOTAL DRAINAGE AREA (ac)	REQUIRED STORAGE	REQUIRED SURFACE AREA	MINIMUM DEPTH	BOTTOM ELEVATION	TOP WIDTH	TOP LENGTH	PROVIDED STORAGE	PROVIDED SURFACE AREA	STORAGE/SPILLWAY ELEVATION	SPILLWAY WIDTH	TOP OF DAM ELEVATION	SKIMMER SIZE	SKIMMER ORIFICE DIAMETER
STAGE 1															
1	4.51	4.51	16,240 CF	7,380 SF	3.0'	484.0'	184'	46'	17,544 CF	8,464 SF	487.0'	19.0'	489.0'	2.5"	2.4"
2/BMP #33	5.06	5.06	18,220 CF	8,280 SF	5.0'	439.0'	PER PLANNER PLAN	68,404 CF	20,953 SF	448.0'	22.0'	450.0'	5.0"	4.2"	
3	1.40	1.40	5,040 CF	2,290 SF	3.5'	483.5'	62'	24'	5,208 CF	2,775 SF	447.0'	6.0'	489.0'	2.0"	1.4"
STAGE 2															
BMP #34	1.44	1.44	5,180 CF	2,360 SF	3.0'	498.0'	PER PLANNER PLAN	9,956 CF	6,280 SF	501.0'	22.0'	503.0'	2.5"	1.8"	

**BAFFLE INSTALLATION - STEP 1**

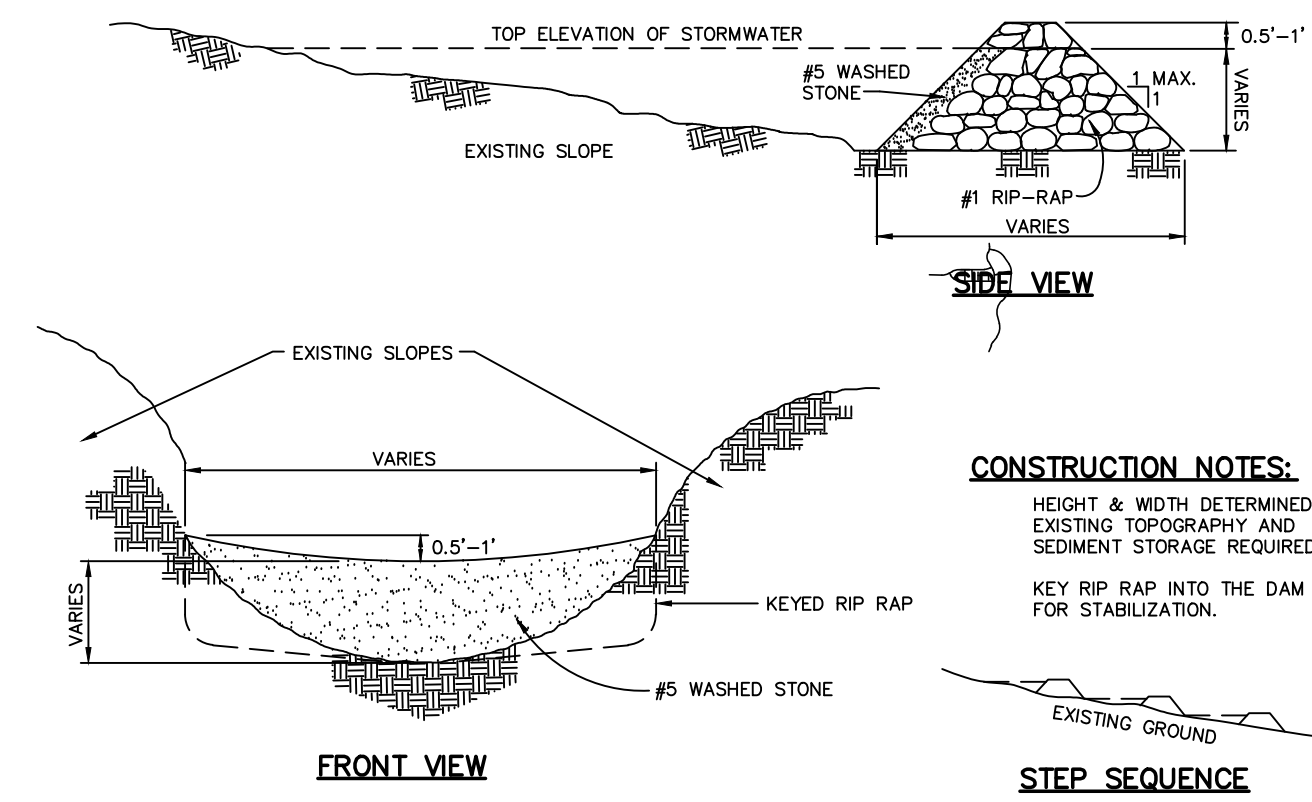


**BAFFLE INSTALLATION - STEP 2**



- SECTION AT OPENING**
- 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.

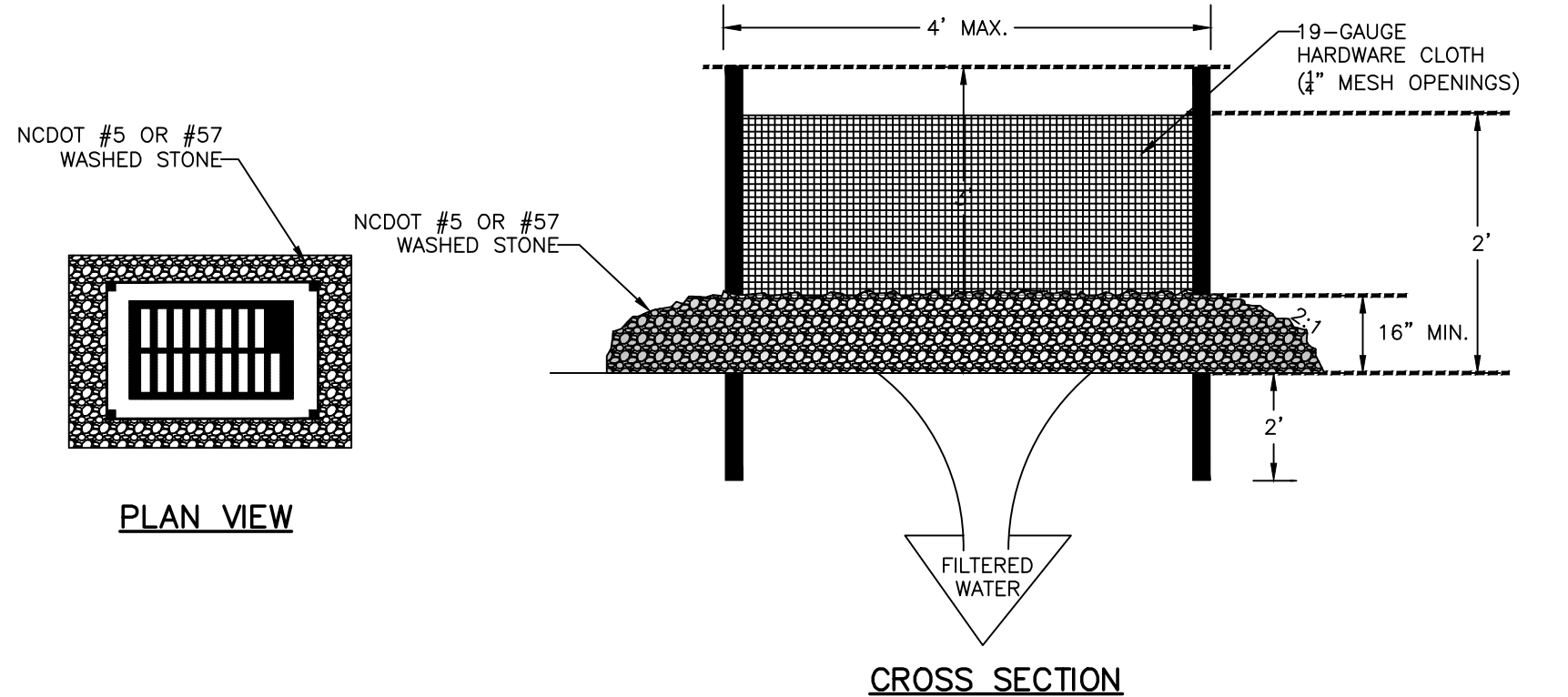
**BAFFLE INSTALLATION DETAIL**



**CHECK DAM**  
NTS

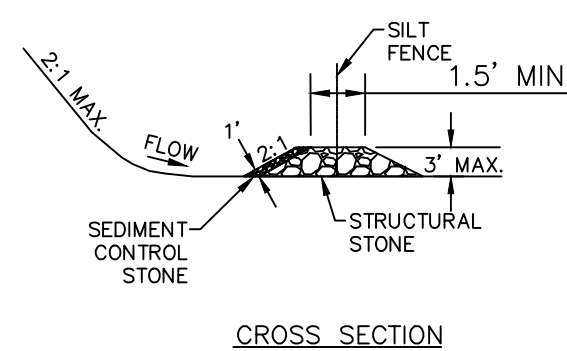
**NOTES:**

- 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 (AS 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.

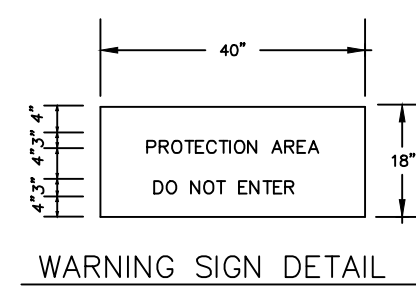
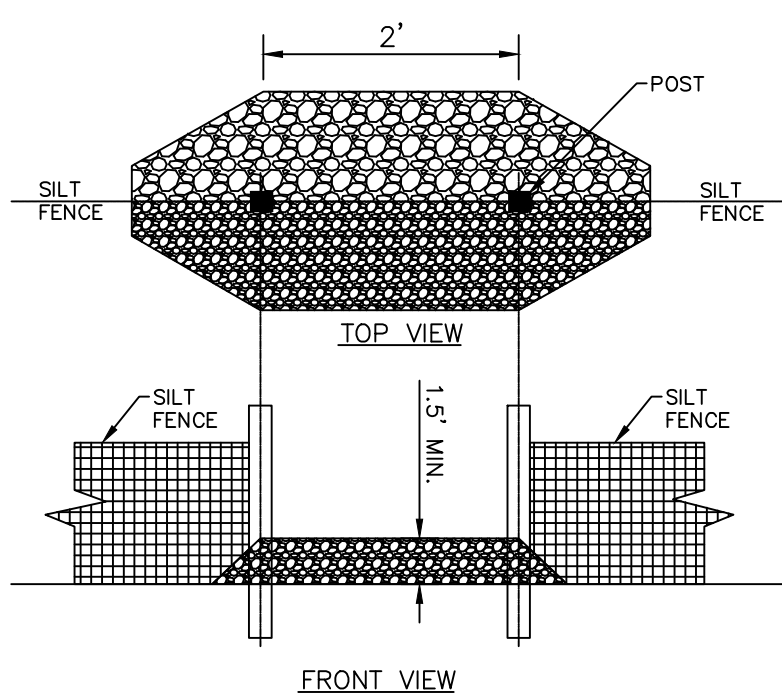


**HARDWARE CLOTH & GRAVEL INLET PROTECTION**  
NTS

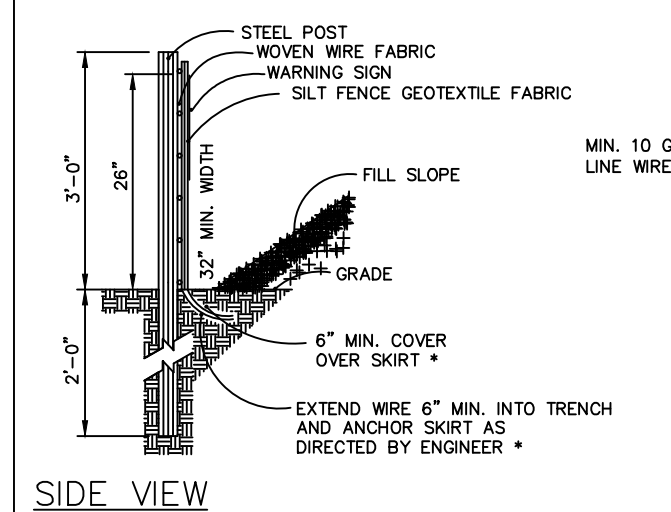
NOTE: STRUCTURAL STONE SHALL BE CLASS B STONE FOR EROSION CONTROL PURPOSES. SEDIMENT CONTROL STONE SHALL BE NO. 5 OF NO. 57 STONE.



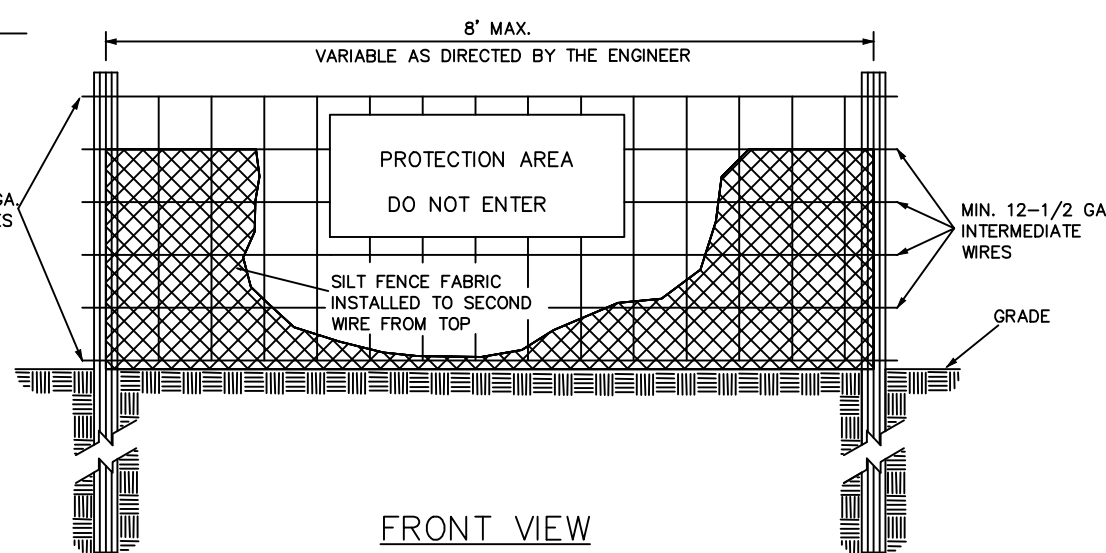
**SILT FENCE OUTLET**  
NTS



**WARNING SIGN DETAIL**



**SIDE VIEW**



**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
3	REVISIONS PER COMMENTS RECEIVED FROM COUNTY EROSION CONTROL	2017.10.06
2	REVISIONS PER COMMENTS RECEIVED FROM NCDOT	2017.09.21
1	REVISIONS PER COMMENTS RECEIVED FROM COUNTY EROSION CONTROL	2017.09.13
0	SUBMITTAL TO AGENCIES	2017.07.26

Professional Engineer Seal for Gary C. Aylant, State of North Carolina, License No. 036348, dated 10/09/2017.

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**BRIAR CHAPEL**  
**PHASE 13 - SECTION 1 & 2**  
**CHATHAM COUNTY, NORTH CAROLINA**  
**EROSION AND SEDIMENTATION**  
**CONTROL DETAILS**

DATE: JULY 26, 2017	SCALE: D1.1	MISC FILE NUMBER: D1.1
MCE PROJ. # 02735-0198	HORIZONTAL: N/A	DRAWING NUMBER: D1.1
DRAWN: BSS	VERTICAL: N/A	
DESIGNED: BSS		
CHECKED: GCA		
PROJ. MGR.: CHS		
STATUS: FOR REVIEW PURPOSES ONLY	REVISION: 3	