PROPOSED AGENDA

Thursday, July 29, 2021 5:30 p.m.

Meeting of the Design Review Board

- I. Chairman Johnson will call the meeting to order.
- II. Design Review Board Presentations
 - 1. 23 Eastwood Road Driveway Realignment Request
 - 2. 1095 Hendersonville Road Interior Driveway Connection Request between Properties Abutting Hendersonville Road
 - 3. 31 Stuyvesant Road Renovations to Fitness Facility, Tennis Courts, and Swimming Pool at Biltmore Forest Country Club

All projects received necessary approvals from Board of Adjustment at their regular meeting on July 26, 2021.

- III. Next Meeting Thursday, September 2, 2021
- IV. Adjourn

MINUTES OF THE TOWN OF BILTMORE FOREST DESIGN REVIEW BOARD MEETING OF JUNE 24, 2021

Mr. Jonathan Kanipe, Town Manager

Those in attendance:

Mr. Bruce Johnson, Chairman
Mr. Art Garst
Mr. Tony Saponaro
Ms. Trudy Cappiello
Ms. Gay Coleman
Ms. Andrea Eglinton
The minutes from May 20, 2021 were approved. The projects at 14 Cedarcliff Road, 4
Hilltop Road, 32 Buena Vista Road, 314 Vanderbilt Road, and 3 Deerfield Road were all approved
electronically.
The next meeting is scheduled for Thursday, July 29th, 2021 at 5:30 p.m.
Bruce Johnson, Chairman Jonathan Kanipe, Town Manager

DESIGN REVIEW BOARD STAFF MEMORANDUM

July 29, 2021



Agenda Item 1 - 23 Eastwood Road Amendment to Previously Approved Driveway Entrance Plan

Application Information

The applicant received a special use permit from the Board of Adjustment Monday, July 26, 2021 for an amendment to a previously approved driveway entrance plan. The original application, approved by the Board of Adjustment in December 2019, included a concrete drive into the property that included a large circular drive and stone patio with water feature.

The applicant's request modifies the previously approved plan by replacing the driveway with a two-track exposed aggregate concrete driveway with grass strip. This amended plan also eliminates the circular drive and results in an overall reduction of impervious surface area by 2,783 square feet. The existing driveway entrance remains in the same location with no further encroachment into the side yard setback.



DESIGN REVIEW BOARD STAFF MEMORANDUM

July 29, 2021



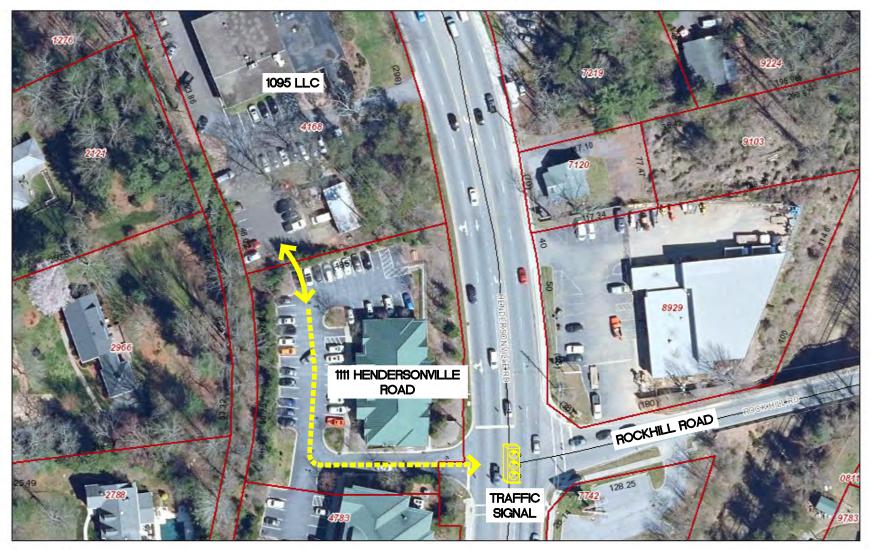
Agenda Item 2 – Request for Driveway Access Improvements (Existing Planned Unit Development)

Application Information

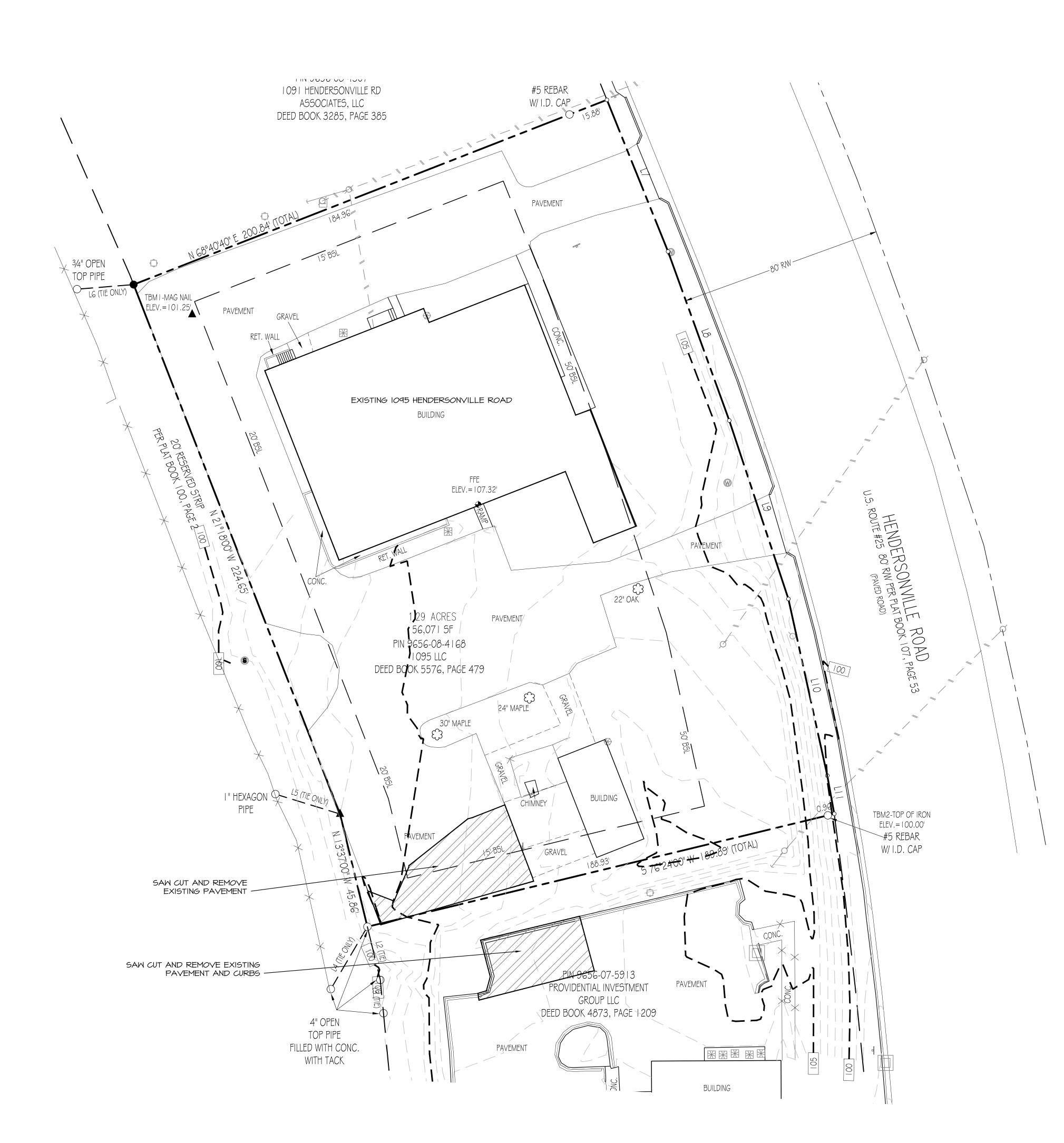
The applicant received a special use permit from the Board of Adjustment Monday, July 26, 2021 for improved driveway access improvements between properties at 1095 Hendersonville Road and 1111 Hendersonville Road. The owners of both 1095 Hendersonville Road and 1111 Hendersonville Road agreed to this application.

The approval allows the installation of a driveway access road between the two properties. This internal access provides safe ingress and egress to the property at 1095 Hendersonville Road by providing vehicles the opportunity to enter/exit at the existing traffic light on Hendersonville Road. This request has support from the Town's Police Department as means of improving traffic safety at the existing intersections between on Hendersonville Road.

1095 LLC LOCATION CONTEXT MAP



July 2, 2021 1:1,128 0 0.0075 0.015 0.03 mi



NOT FOR CONSTRUCT

1095 LEC 1095 Hendersonville Road Biltmore Forest, NC

Existing

Conditions

and

Demolition

Plan

DEMOLITION LEGEND:

Pavement to be removed

Feature to be removed



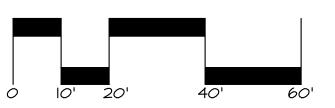
Building/Structure to be removed

DEMOLITION NOTES:

- I. Contractor shall remove all items and site improvements encountered which conflict with new construction.
- 2. Coordinate with appropriate utility provider prior to interruption or removal of any utility service line or connection.
- 3. Comply with all local and state regulations regarding the disposal of demolition debris.
 Contractor to obtain necessary permits for demolition and disposal of debris.

 4. Protect existing concrete R/W monuments.
 Should construction work necessitate disturbance
 - Protect existing concrete R/W monuments. Should construction work necessitate disturbance of a R/W monument, coordinate it's removal, storage and reinstallation in strict accordance with NCDOT regulations and guidelines. Contact the NCDOT district engineer prior to R/W monument disturbance.



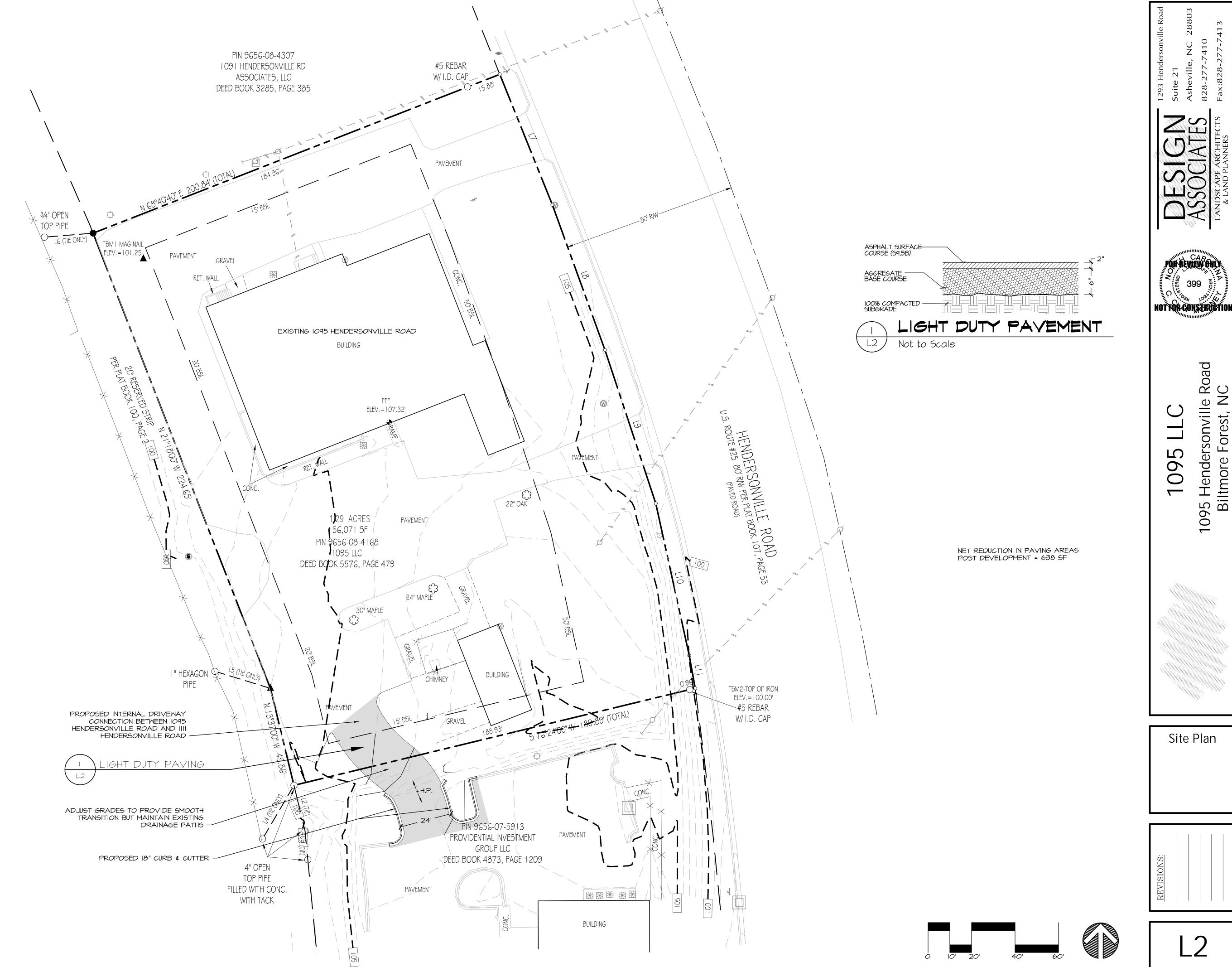




L1
1/18/21

SCALE: |" = 20'

NORTH



NOT FOR CONSTRUCTION

11/18/20

NORTH

SCALE: |" = 20'

DESIGN REVIEW BOARD STAFF MEMORANDUM

July 29, 2021



Agenda Item 3 – 31 Stuyvesant Road Renovations to Fitness Center, Tennis Courts, and Swimming Pool at Biltmore Forest Country Club

Background

The Biltmore Forest Country Club received a variance and special use approval in July 2019 to replacing the existing tennis courts, swimming pool, and fitness building. BFCC was not ready at that time to present final design elements or additional plans, but is now ready to move forward with the construction phase of this project. The Board of Adjustment approved the preliminary landscape plan, grading, tree removal/replacement plan, and site plans at their meeting Monday, July 26, 2021.

Application Information

The applicant has provided elevations and a rendering for the Design Review Board's consideration. In addition, the landscaping plan, grading plan, tree removal/replacement plan, and site plans are provided for the Board's review. These plans include the demolition schedule and replacement schedule for the existing structures.

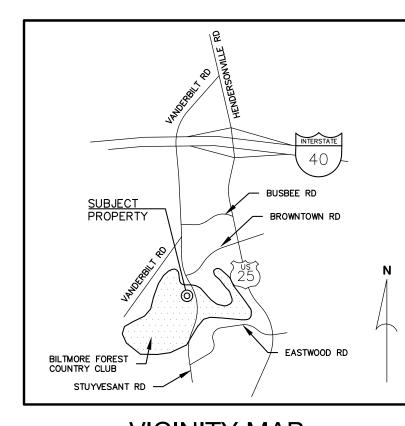
BILTMORE FOREST COUNTRY CLUB

TOWN OF BILTMORE FOREST, NORTH CAROLINA

PREPARED FOR:

BILTMORE FOREST COUNTRY CLUB INC 31 STUYVESANT RD ASHEVILLE, NC, 28803 BOB NOCK (828) 274-1261

INDEX OF SHEETS				
Sheet No.	Title			
C000	COVER			
	SURVEY			
C101	EXISTING CONDITIONS & DEMOLITION PLAN			
C102	CONSTRUCTION STAGING PLAN			
C201	SITE PLAN			
C301	EROSION CONTROL PLAN			
C302	INLET PROTECTION PLAN			
C501	STORM DRAINAGE & GRADING PLAN			
C601	UTILITY PLAN			
C921	SITE DETAILS			
C931	EROSION CONTROL DETAILS			
C951	STORM DRAINAGE DETAILS			
C952	STORM DRAINAGE DETAILS			
C961	WATER DETAILS			
C971	SEWER DETAILS			
C998	NCG01			

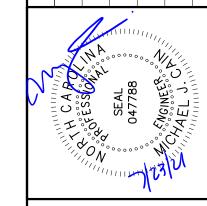


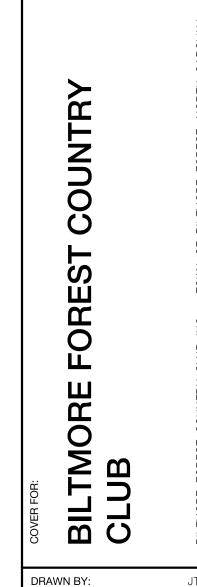
VICINITY MAP



168 ASF PHO PHO PHO PHO PHO PHO PHO NCBELS LICENSE #: C-2184 NCBELS LICENSE #: C-2184 NCBELS LICENSE #: F-2184 NCBELS LICENSE #: F-2184

ВУ	DESCRIPTION	DATE	NO.
JΤJ	ADDENDUM 03	07/23/21	5
υΤυ	ADDENDUM 02	07/21/21	4
υΤυ	CD SET	06/30/21	3
υΤυ	REVISED DD PRICING SET	02/18/21	2
υΤJ	CONCEPTUAL DESIGN	01/28/21	_





CDC PROJECT NO.:

SHEET

C000

DEVELOPMENT DATA

OWNER/DEVELOPER:

BILTMORE FOREST COUNTRY CLUB INC 31 STUYVESANT RD ASHEVILLE, NC, 28803

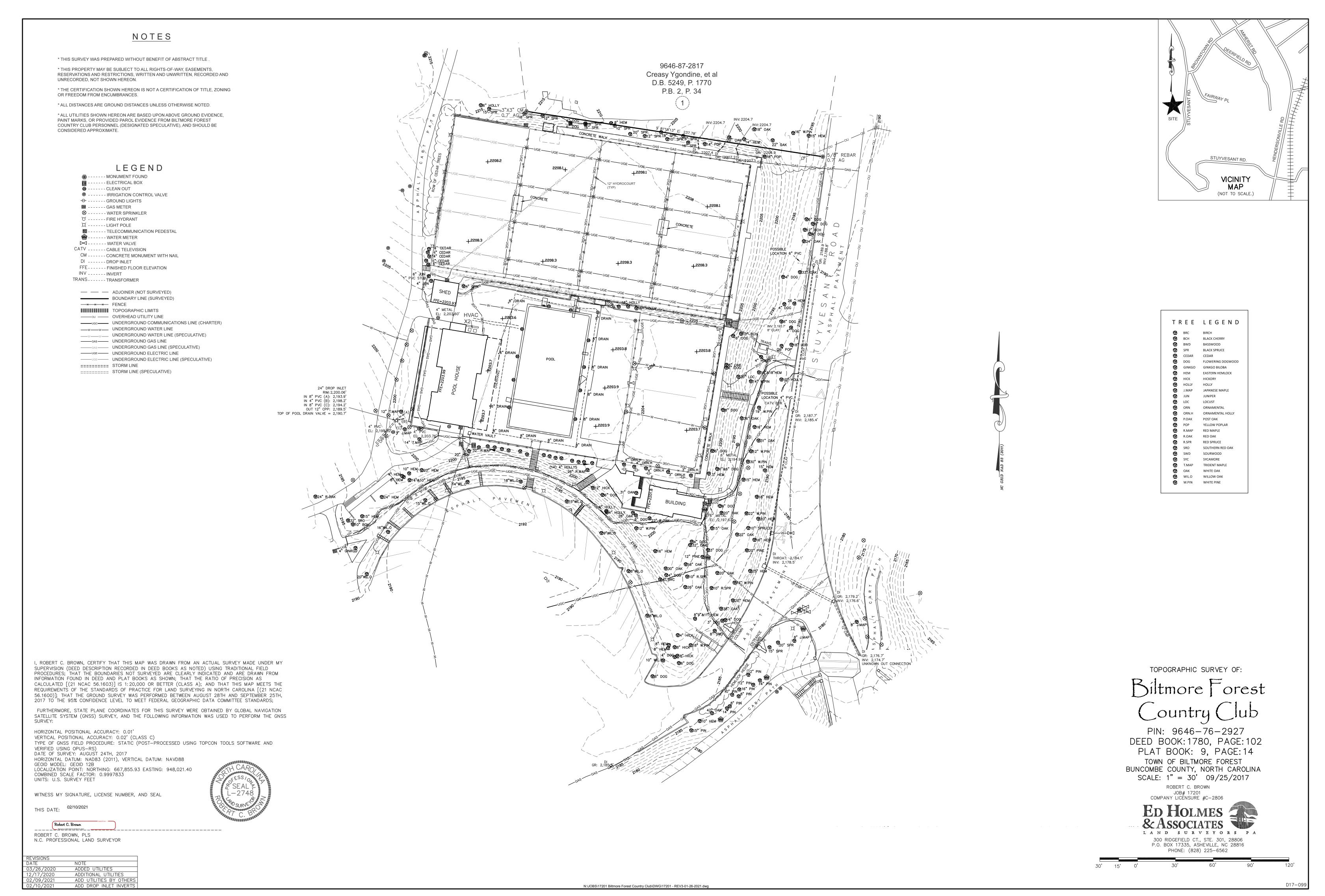
31 STUYVESANT RD
ASHEVILLE, NC, 288
BOB NOCK
(828) 274–1261

CIVIL ENGINEER:

CIVIL DESIGN CONCEPTS, P.A.
168 PATTON AVENUE
ASHEVILLE, NC 28801
MICHAEL CAIN, P.E.
(828) 252-5388

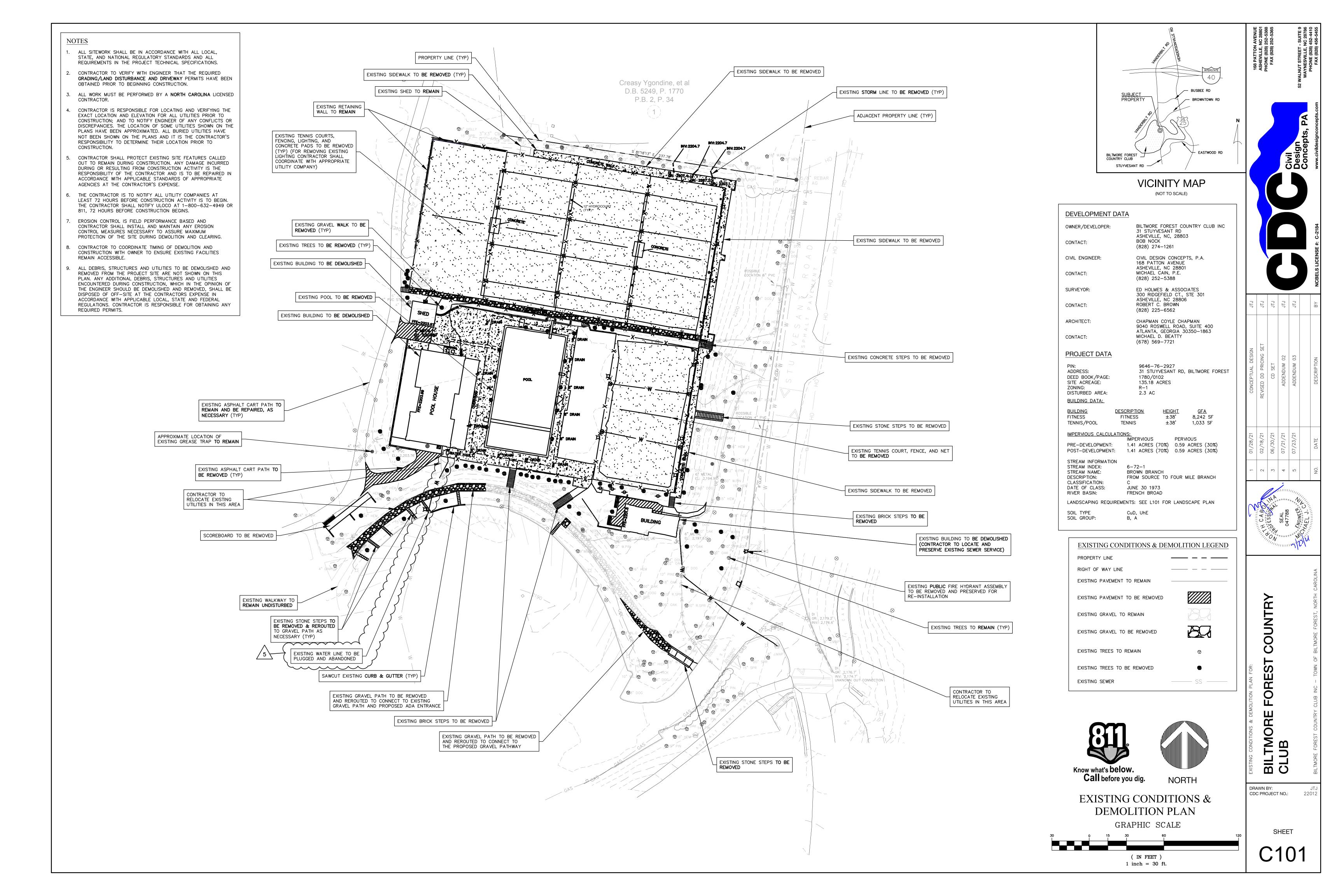
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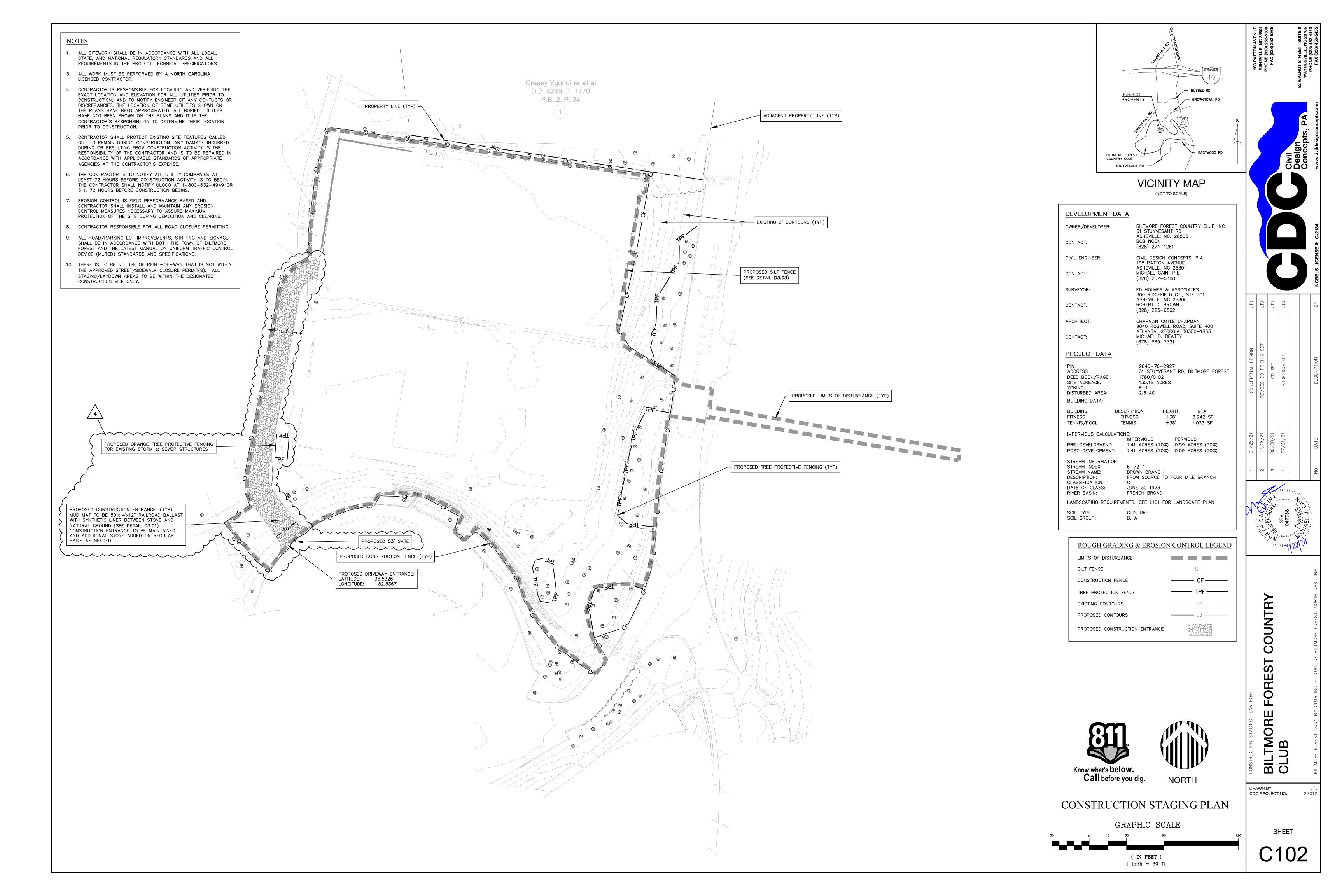
CHAPMAN COYLE CHAPMAN
9040 ROSWELL ROAD, SUITE 400
ATLANTA, GEORGIA 30350-1863
MICHAEL D. BEATTY
(678) 569-7721

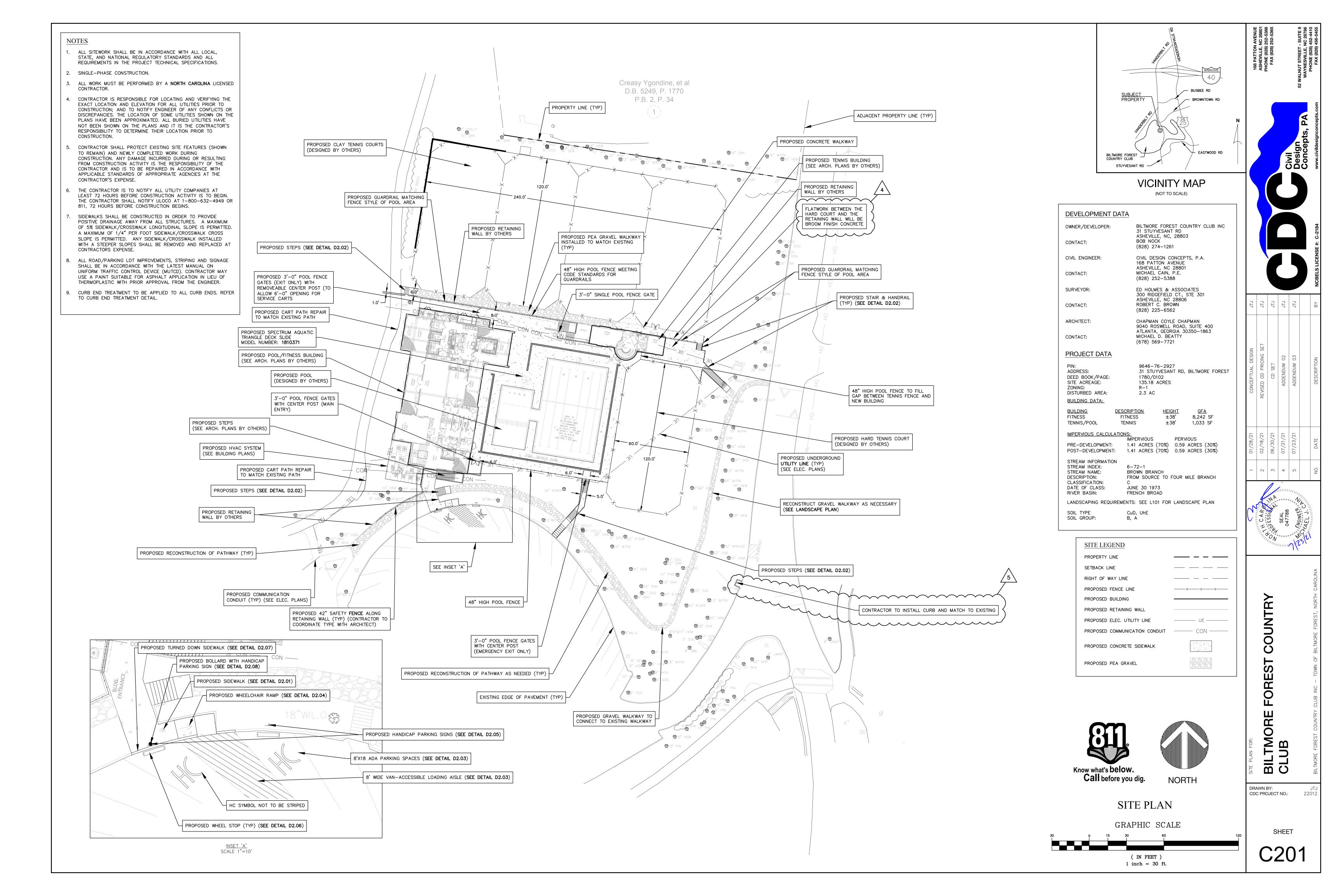


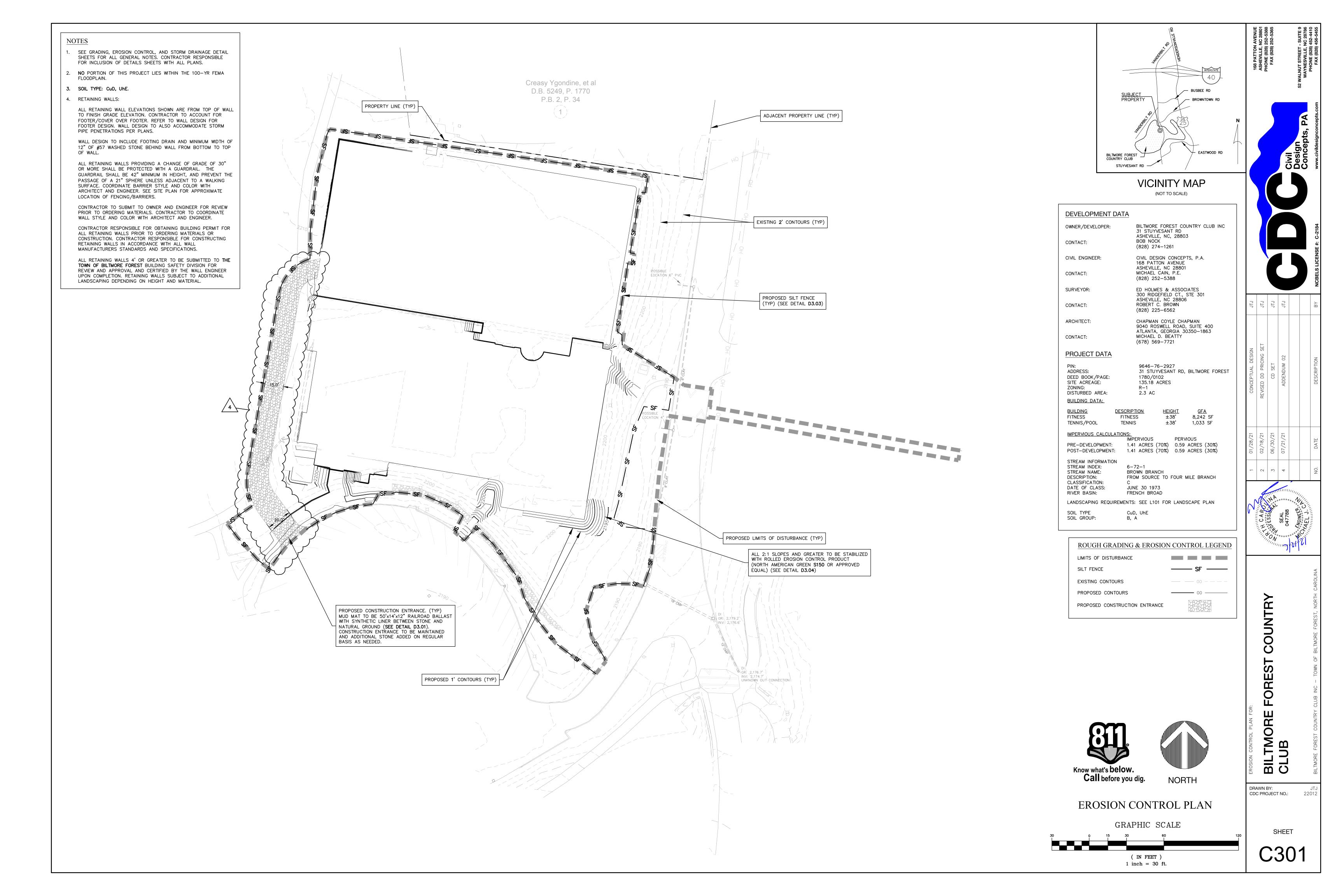
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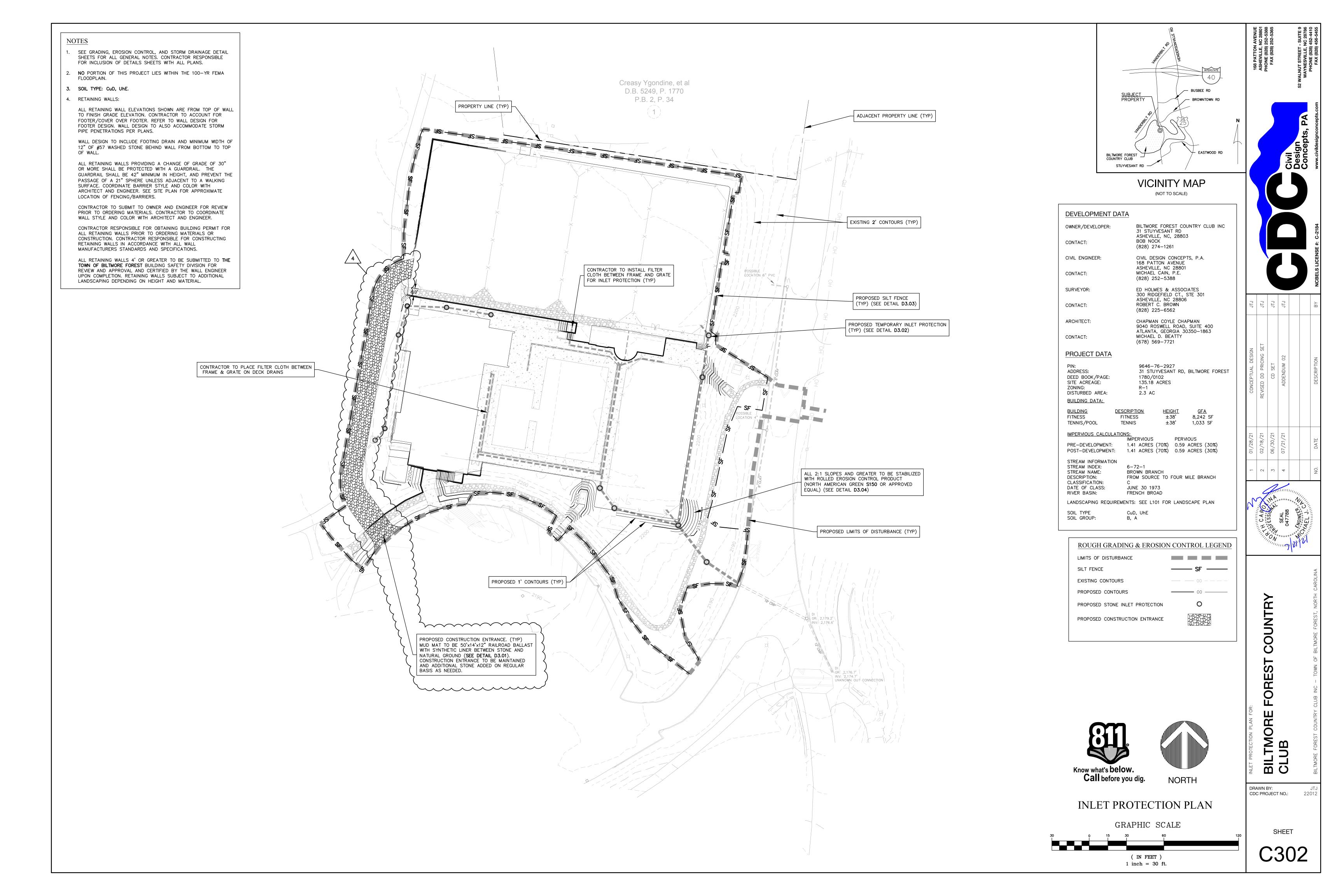
Page 1 of 1 18DD4EA81A23A

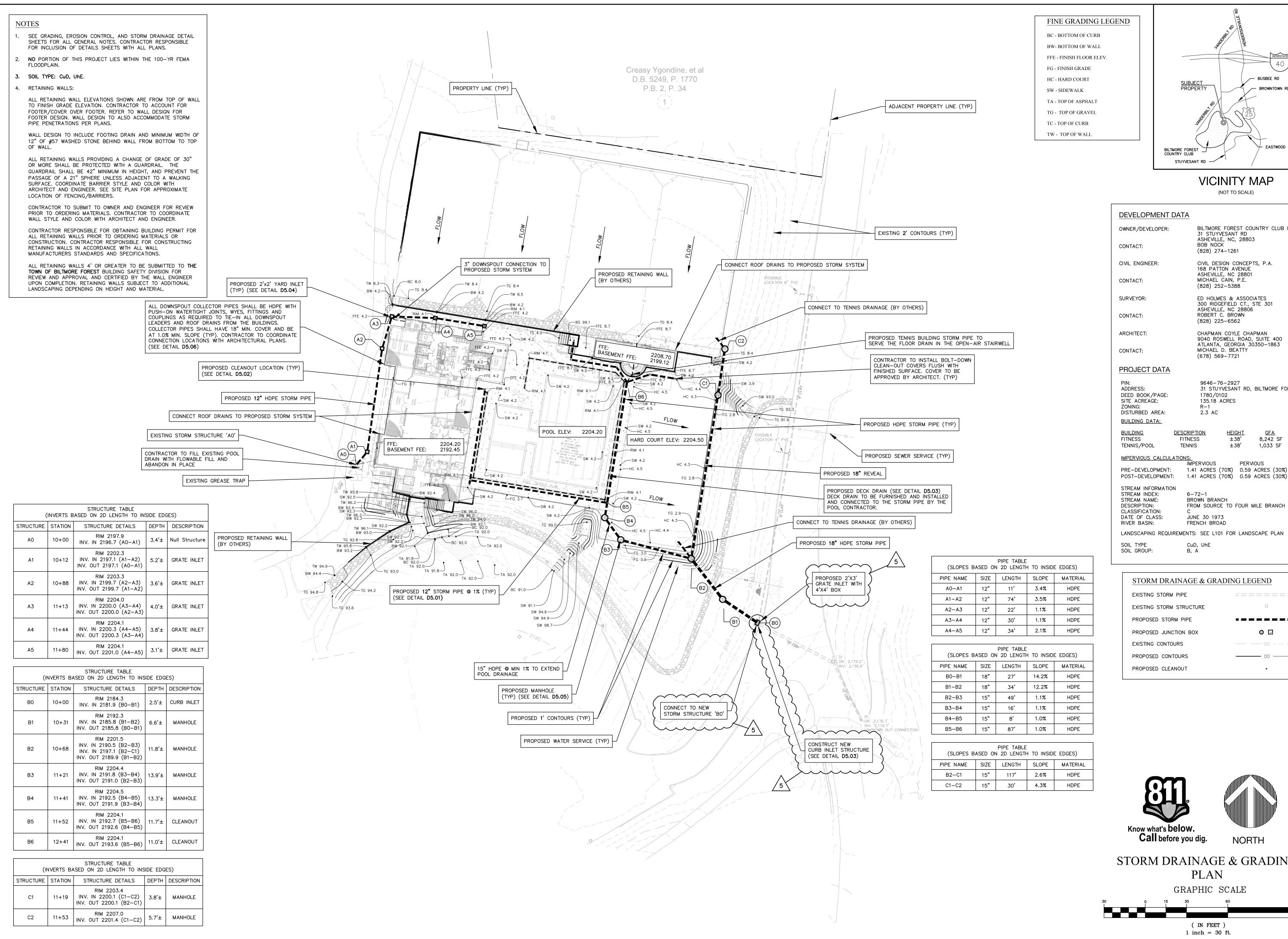


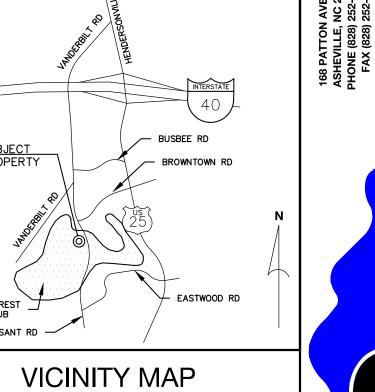












BILTMORE FOREST COUNTRY CLUB INC CIVIL DESIGN CONCEPTS, P.A. 300 RIDGEFIELD CT., STE 301 CHAPMAN COYLE CHAPMAN 9040 ROSWELL ROAD, SUITE 400 ATLANTA, GEORGIA 30350-1863 31 STUYVESANT RD, BILTMORE FOREST

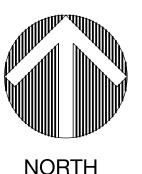
<u>GFA</u> 8,242 SF 1,033 SF

1.41 ACRES (70%) 0.59 ACRES (30%) POST-DEVELOPMENT: 1.41 ACRES (70%) 0.59 ACRES (30%)

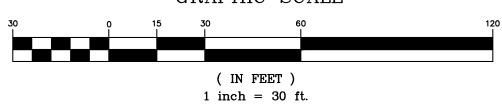
LANDSCAPING REQUIREMENTS: SEE L101 FOR LANDSCAPE PLAN

STORM DRAINAGE & GRADING LEGEND

EXISTING STORM PIPE	=======
EXISTING STORM STRUCTURE	
PROPOSED STORM PIPE	
PROPOSED JUNCTION BOX	© •
EXISTING CONTOURS	00
PROPOSED CONTOURS	00
PROPOSED CLEANOUT	•

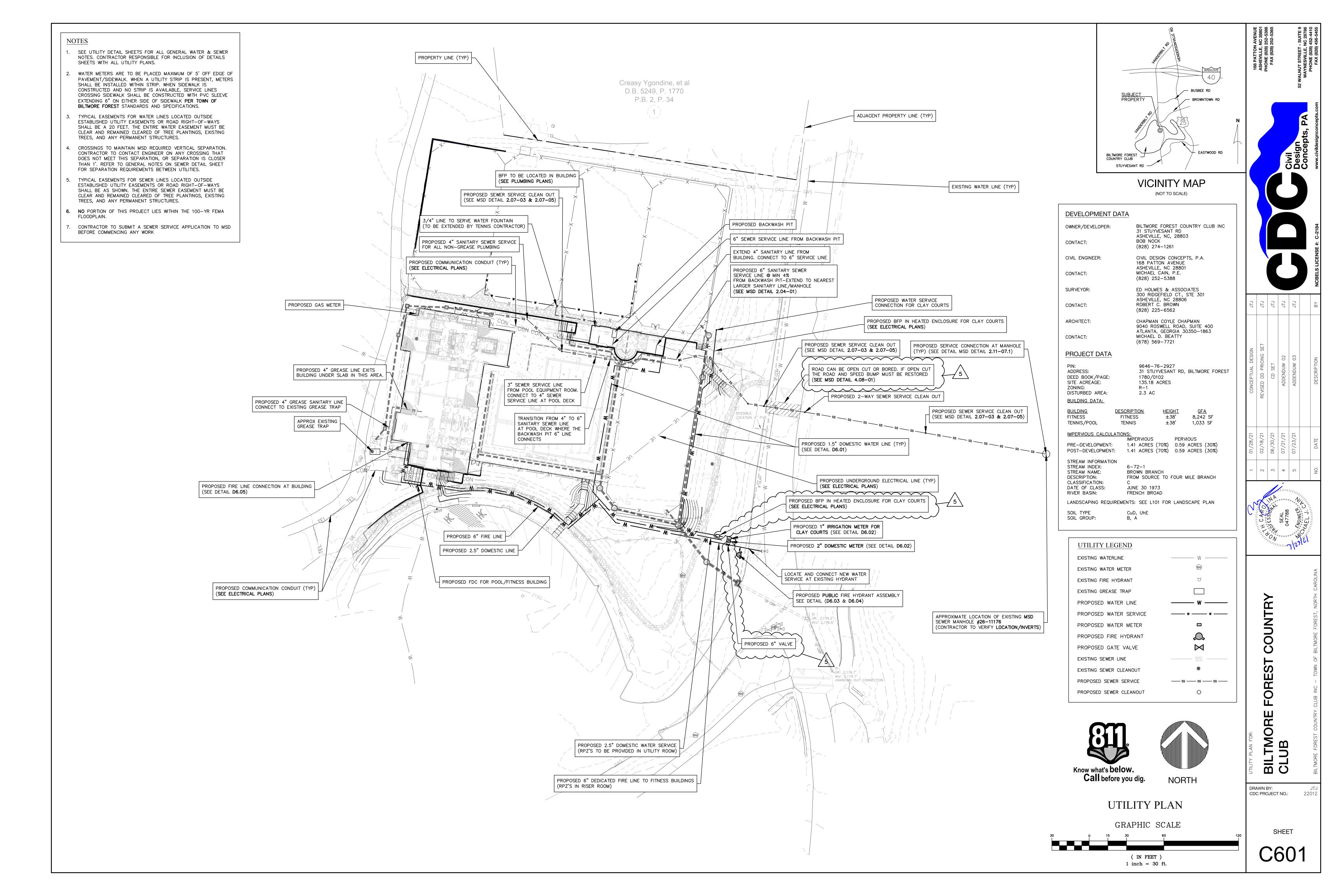


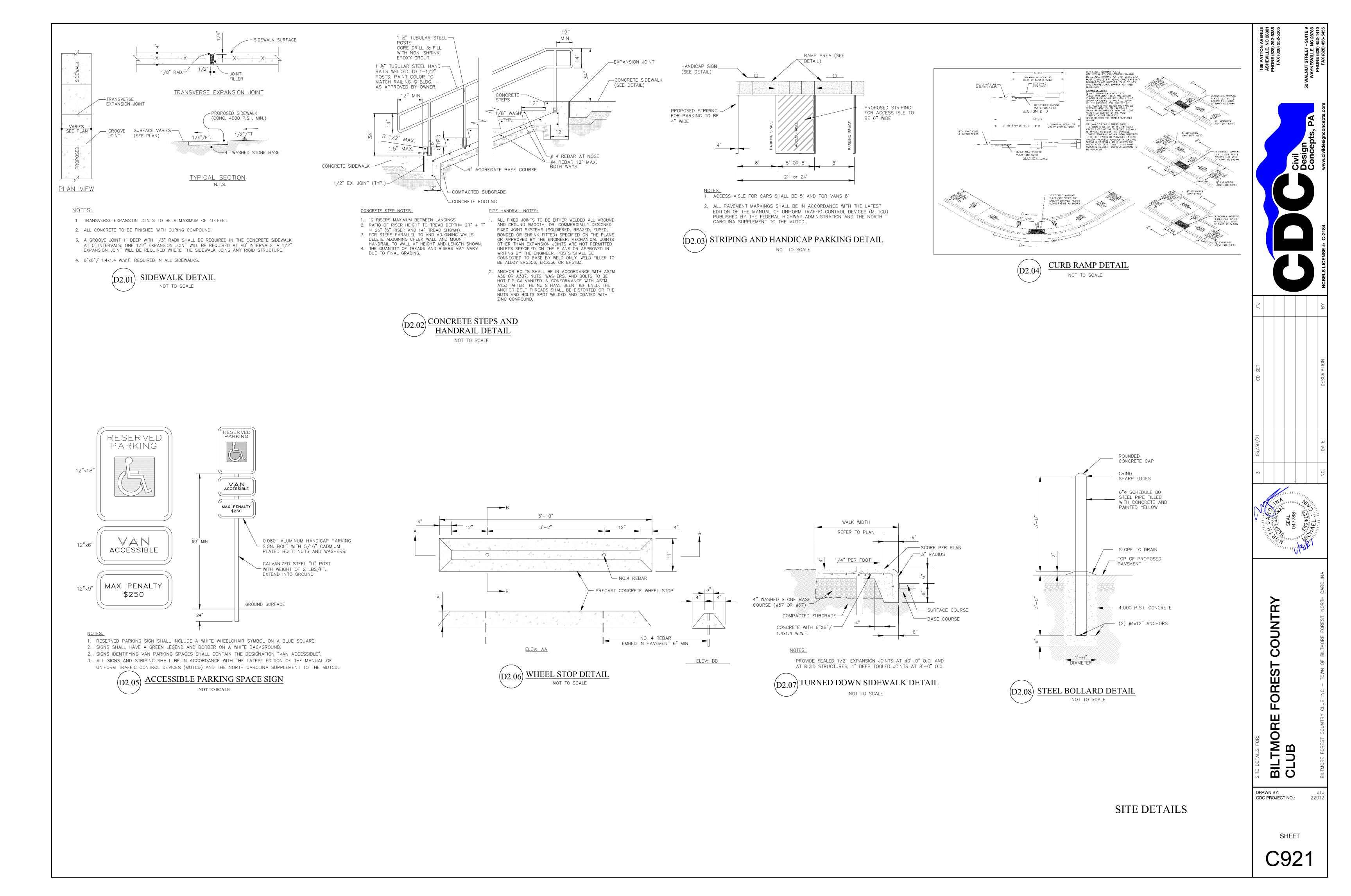
STORM DRAINAGE & GRADING

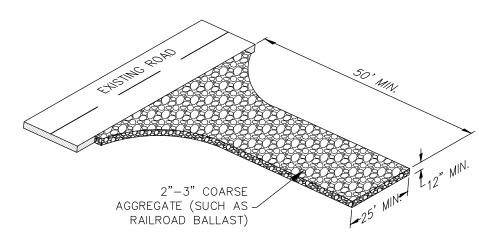




Ö







- 1. A STABILIZED PAD OF CRUSHED STONE SHALL BE LOCATED WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM AN EXISTING ROAD.
- 2. FILTER FABRIC SHALL BE PLACED UNDER. THE ENTRANCE/EXIT AND SHALL BE MIRAFI 500 OR EQUAL.
- 3. STONE TO BE 2 3 INCH WASHED STONE.
- 4. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- 5. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY.
- WHEN NECESSARY WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET, WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN



STABILIZED CONSTRUCTION ENTRANCE NOT TO SCALE

VARIABLE AS DIRECTED BY ENGINEER PLASTIC OR MIN. 10 GA. LINE WIRES (TYP) MIN. 12-1/2 GA. - INTERMEDIATE WIRES (TYP) - EX. GRADE WOVEN WIRE FABRIC — SILT FENCE FILTER FABRIC

FRONT VIEW

CONSTRUCTION NOTES:

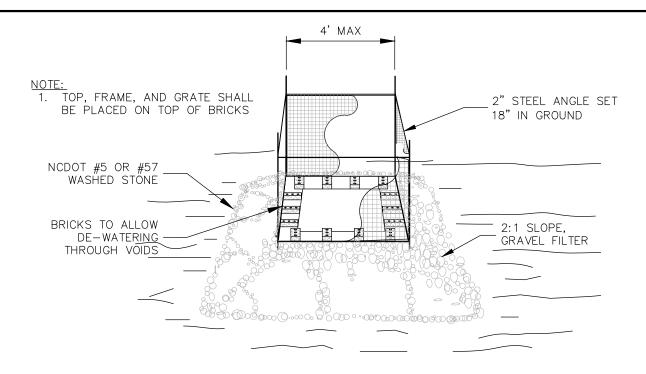
- 1. CONSTRUCT THE SEDIMENT BARRIER OF STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER
- 2. ENSURE THAT THE HEIGHT OF THE SEDIMENT FENCE DOES NOT EXCEED 24" ABOVE THE GROUND SURFACE. (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.)
- 3. CONSTRUCT THE FILTER FABRIC FROM A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FILTER CLOTH ONLY AT A SUPPORT POST WITH 4' MIN. OVERLAP TO THE NEXT POST.
- 4. SUPPORT STANDARD STRENGTH FILTER FABRIC BY WIRE MESH FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS. EXTEND THE WIRE MESH SUPPORT TO THE BOTTOM OF THE TRENCH. FASTEN THE WIRE RENFORCEMENT, THEN THE FABRIC ON THE UPSLOPE SIDE OF THE FENCE POST. WIRE OR PLASTIC TIES SHOULD HAVE A MIN. 50 Ib TENSILE STRENGTH.
- 5. EXCAVATE A TRENCH APPROXIMATELY 4" WIDE AND 8" DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
- 6. PLACE 12" OF THE FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
- 7. BACKFILL THE TRENCH WITH SOIL PLACED OVER THE FILTER FABRIC AND COMPACT. THOROUGH COMPACTION OF THE BACKFILL IS CRITICAL TO SILT FENCE PERFORMANCE.
- 8. DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.

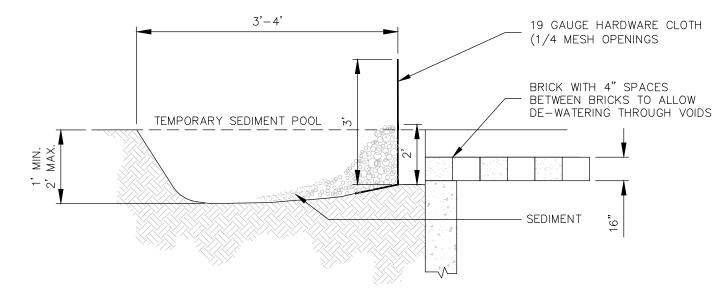
MATERIALS NOTES:

- 1. USE A SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFINS OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461, WHICH IS SHOWN IN PART IN TABLE 6.62b OF THE NCDENR EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
- SYNTHETIC FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USUABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 TO 120°F.
- 3. ENSURE THAT POSTS FOR SEDIMENT FENCES ARE 1.33 LB/LINEAR FT STEEL WITH A MINIMUM LENGTH OF 5 FEET. MAKE SURE THAT STEEL POSTS HAVE PROJECTIONS TO FACILITATE FASTENING THE FABRIC.
- 4. FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC, USE WIRE FENCE WITH A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.

- USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW
- * FOR REPAIR OF SILT FENCE FAILURES, USE No. 57 WASHED STONE. AS AN ANCHOR WHEN SILT FENCE IS PROTECTING CATCH BASIN.



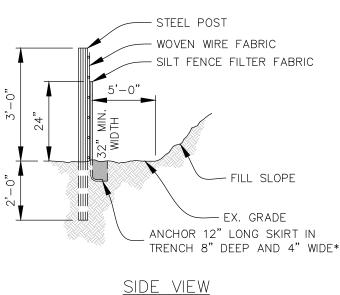


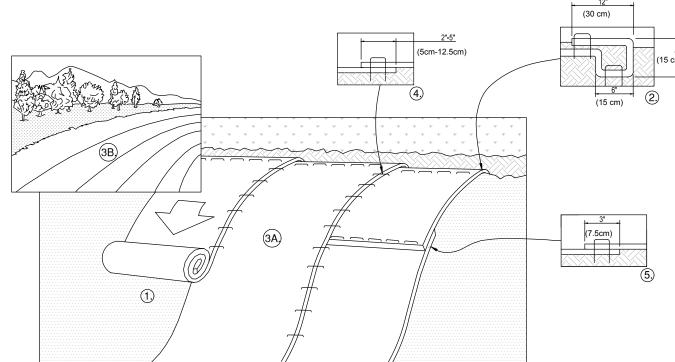


CONSTRUCTION NOTES:

- 1. LAY BRICK ALONG TOP OF CATCH BASIN WITH 4" SPACES BETWEEN BRICKS. SET FRAME AND GRATE ON BRICKS.
- 2. CAREFULLY FIT HARDWARE WIRE OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS AROUND CATCH BASIN TO HOLD GRAVEL IN PLACE.
- 3. USE CLEAN GRAVEL, 3/4- TO 1/2-INCH IN DIAMETER, PLACED 2 INCHES BELOW THE TOP OF THE GRATE ON A 2:1 SLOPE OR FLATTER AND SMOOTH IT TO AN EVEN GRADE. DOT #57 WASHED STONE IS RECOMMENDED.
- 4. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP.
- 5. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- 6. THE STRUCTURE SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT AFTER EACH STORM EVENT AND REPAIRS MADE AS NECESSARY
- 7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE
- 8. THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE BASIN HAS BEEN PROPERLY
- 9. ON LARGER DRAINAGE AREAS RIP RAP MAY BE REQUIRED UNDER THE WASHED STONE







SLOPE INSTALLATION

STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.

- 1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN. 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP—SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH.

 BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF
- 3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH™ON THE PREVIOUSLY INSTALLED BLANKET.
- 5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE ' (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE

*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL SLOPE MATTING INSTALLATION

GENERAL EROSION CONTROL NOTES

- 1. ALL GRADING AND SOIL EROSION CONTROL MEASURES ON THIS SITE MUST BE AUTHORIZED BY PERMITS ISSUED BY THE TOWN OF BILTMORE FOREST. ALL SITEWORK SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL REGULATORY STANDARDS AND ALL REQUIREMENTS IN THE PROJECT TECHNICAL SPECIFICATIONS.
- CONTRACTOR TO VERIFY WITH ENGINEER THAT THE REQUIRED GRADING, EROSION CONTROL LAND DISTURBANCE, AND ASSOCIATED NON-GRADING PERMITS HAVE BEEN OBTAINED PRIOR TO BEGINNING CONSTRUCTION
- ALL CONSTRUCTION SHALL BE UNDER THE INSPECTION OF THE ENGINEER, THE OWNER, AND THE TOWN OF BILTMORE FOREST. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 72 HOURS PRIOR TO BEGINNING WORK. ANY WORK COVERED PRIOR TO ENGINEER'S INSPECTION IS SUBJECT TO UNCOVERING AND BACKFILLING AT THE CONTRACTOR'S EXPENSE.
- 4. ALL WORK MUST BE PERFORMED BY A NORTH CAROLINA LICENSED CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING THE EXACT LOCATION AND ELEVATION FOR ALL UTILITIES PRIOR TO CONSTRUCTION; AND TO NOTIFY ENGINEER OF ANY CONFLICTS OR DISCREPANCIES. THE LOCATION OF SOME UTILITIES SHOWN ON THE PLANS HAVE BEEN APPROXIMATED. ALL BURIED UTILITIES HAVE NOT BEEN SHOWN ON THE PLANS AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR LOCATION PRIOR TO CONSTRUCTION.
- PROTECT EXISTING SITE FEATURES (SHOWN TO REMAIN) AND NEWLY COMPLETED WORK DURING CONSTRUCTION. ANY DAMAGE INCURRED DURING OR RESULTING FROM CONSTRUCTION ACTIVITY IS THE RESPONSIBILITY OF THE CONTRACTOR AND IS TO BE REPAIRED IN ACCORDANCE WITH APPLICABLE STANDARDS OF APPROPRIATE AGENCIES, AS WELL AS THE PROJECT PLANS AND SPECIFICATIONS, AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR IS TO NOTIFY ALL UTILITY COMPANIES AT LEAST 72 HOURS BEFORE CONSTRUCTION ACTIVITY IS TO BEGIN. THE CONTRACTOR SHALL NOTIFY NC ONE CALL AT 811, 48 HOURS BEFORE CONSTRUCTION BEGINS. NOTIFY THE ENGINEER AT LEAST 72 HOURS BEFORE STARTING CONSTRUCTION ACTIVITIES.
- EROSION CONTROL IS A FIELD PERFORMANCE BASED ACTIVITY; AND ADDITIONAL SILT FENCES. TEMPORARY SEDIMENT BASINS. AND ALL OTHER MEASURES MAY NEED TO BE ADDED IN ADDITION TO THE APPROVED PLAN AS NECESSARY. MEASURES SHOWN CAN AND SHOULD BE ADJUSTED TO ASSURE MAXIMUM PROTECTION ON SITE. CONTRACTOR SHALL ADD ADDITIONAL MEASURES AS NEEDED IN ENVIRONMENTALLY SENSITIVE AREAS.
- 9. CONTRACTOR IS RESPONSIBLE FOR INSTALLING, MAINTAINING, AND REMOVING ALL NECESSARY EROSION AND SEDIMENTATION CONTROL MEASURES.
- 10. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ADJUSTMENT OF ALL UTILITY SURFACE ACCESSES WHETHER THE CONTRACTOR PERFORMS THE WORK OR A UTILITY COMPANY PERFORMS THE WORK.
- 11. ALL AREAS WHERE THERE IS EXPOSED DIRT SHALL BE SEEDED, FERTILIZED AND MULCHED ACCORDING TO THE SPECIFICATIONS NOTES IN THE PLANS. SITE STABILIZATION IS A PERFORMANCE BASED REQUIREMENT, AND THE SITE WILL NOT BE ACCEPTED UNTIL PERMANENT VEGETATION IS ESTABLISHED TO THE SATISFACTION OF THE ENGINEER.
- 12. CONTRACTOR RESPONSIBLE FOR KEEPING ACCURATE LOG OF SITE CONDITIONS IN ACCORDANCE WITH NPDES PERMIT. MAINTENANCE INSPECTIONS SHALL BE PERFORMED WEEKLY AND AFTER EACH RAINFALL. ALL REPAIRS NECESSARY SHOULD BE MADE IMMEDIATELY AND IN STRICT ACCORDANCE WITH THE TOWN OF BILTMORE FOREST STANDARDS AND NPDES PERMIT. CONTRACTOR SHALL SUPPLY THE ENGINEER WITH RECORD OF DEVIATIONS FROM PLANS FOR PREPARATION OF FINAL RECORD DRAWINGS.
- 13. ALL SLOPES GREATER THAN 2:1 SLOPE AND OVER 5' IN HEIGHT SHALL BE CERTIFIED BY A LICENSED PROFESSIONAL AS REQUIRED BY THE TOWN OF BILTMORE FOREST
- 14. CONTRACTOR IS REQUIRED TO OBTAIN AND PROVIDE A COPY OF THE EROSION CONTROL PERMIT FOR ANY OFFSITE BORROW/ SPOIL AREA. CONTRACTOR MUST PROVIDE COPY OF PERMIT TO THE TOWN OF BILTMORE FOREST INSPECTOR PRIOR TO CONSTRUCTION.
- 15. IF BORROWED OR WASTE FILL MATERIAL IS GENERATED, AN APPROVED GRADING PERMIT MUST BE SECURED FOR THE BORROW OR WASTE MATERIAL SITE PRIOR TO INITIATION OF ANY LAND DISTURBING ACTIVITY
- 16. ALL FILL SLOPES SHALL BE COMPACTED FULL DEPTH TO NOT LESS THAN 95% MAXIMUM DENSITY (STANDARD PROCTOR), SHALL BE PLACED ON A SURFACE CLEARED OF GROWTH AND DEBRIS, AND BE PROPERLY BENCHED AND DRAINED.
- 17. ALL FILL MATERIAL, UNLESS A PERMIT FROM NCDEQ DIVISION OF WASTE MANAGEMENT TO OPERATE A LANDFILL IS ON FILE FOR THE OFFICAL SITE, SHALL BE FREE OF ORGANIC OR OTHER DEGRADABLE MATERIALS, MASONRY, CONCRETE AND BRICK SIZES EXCEEDING 12 INCHES, AND ANY MATERIALS WHICH COULD CAUSE THE SITE TO BE REGULATED AS A LANDFILL BY THE STATE OF NORTH CAROLINA.

EROSION CONTROL MAINTENANCE NOTES

- INSPECT EROSION CONTROL MEASURES ONCE A WEEK AND AFTER EVERY SIGNIFICANT RAINFALL. CONTRACTOR TO INSPECT MEASURES FOR COMPLIANCE WITH PLANS AND DETAILS; INCLUDING SEDIMENT ACCUMULATION BEYOND DETAIL ALLOWANCE, AND ALSO DAMAGE OR FAILURE OF
- 2. WHEN SEDIMENT ACCUMULATION EXCEEDS DETAIL ALLOWANCE, CONTRACTOR TO REMOVE SEDIMENT AND/OR DEBRIS, AND RELOCATE TO ANOTHER AREA WITH SEDIMENT CONTROLS.
- 3. WHEN MEASURES ARE FOUND TO BE DAMAGED, CONTRACTOR TO REPAIR IMMEDIATELY TO BRING MEASURE BACK INTO COMPLIANCE WITH PLANS AND DETAILS.
- 4. IF MEASURES ARE FOUND TO BE INSUFFICIENT, CONTRACTOR TO INSTALL ADDITIONAL MEASURES AS NEEDED TO ENSURE SEDIMENT REMAINS CONTROLLED ONSITE AS REQUIRED.
- 5. CONTRACTOR TO REMOVE MEASURES AND BRING AREA TO GRADE ONCE CONFORMATION OF SITE STABILIZATION HAS BEEN REQUESTED AND RECEIVED FROM PROJECT ENGINEER.

CONSTRUCTION SEQUENCE

GENERAL: ALL EROSION CONTROL MEASURES ARE TO BE PERFORMED IN STRICT ACCORDANCE WITH REQUIREMENTS OF THE TOWN OF BILTMORE FOREST. THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE WITH FOR ALL WORK.

SUBMIT PLANS FOR REVIEW;

- 2. OBTAIN GRADING PERMIT (MAY INCLUDE PRECONSTRUCTION CONFERENCE);
- 3. SUBMIT FOUR (4) COPIES OF STORMWATER COMPONENT SHOP DRAWINGS AT OR PRIOR TO THE PRECONSTRUCTION MEETING AND RECEIVE APPROVAL BY THE TOWN OF BILTMORE FOREST PRIOR TO ORDERING MATERIALS.
- 4. INSTALL ALL EROSION CONTROL MEASURES AS SHOWN;
- 5. ON-SITE INSPECTION BY INSPECTOR TO APPROVE PERIMETER EROSION CONTROL DEVICES;
- 6. PROCEED WITH GRADING;
- 7. CLEAN SEDIMENT BASINS WHEN ONE-HALF FULL;
- REPAIR OR REPLACE ALL EROSION CONTROL MEASURES AS NEEDED;
- 9. SEED AND MULCH DENUDED AREA, AS REQUIRED, AFTER FINISHED GRADES ARE ESTABLISHED;
- 10. MAINTAIN SOIL EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER ESTABLISHED;
- 11. REQUEST FINAL APPROVAL BY CONSTRUCTION INSPECTOR; AND,
- 12. REMOVE ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND STABILIZE THESE AREAS.

MAINTENANCE INSPECTIONS SHALL BE PERFORMED WEEKLY AND AFTER EACH RAINFALL. ALL REPAIRS NECESSARY SHOULD BE MADE IMMEDIATELY AND IN STRICT ACCORDANCE WITH TOWN OF BILTMORE FOREST STANDARDS AND

TEMPORARY AND PERMANENT SEEDING MEASURES

SEEDING AND MULCHING SHALL BE APPLIED IMMEDIATELY FOLLOWING THE COMPLETION OF ANY PHASE OF GRADING. ALL DISTURBED AREAS SHALL BE DRESSED TO A DEPTH OF FIVE (5) INCHES. THE TOP TWO (2) INCHES SHALL BE PULVERIZED TO PROVIDE A UNIFORM SEEDBED.

AGRICULTURAL LIME SHALL BE APPLIED AT THE RATE OF 95 LBS./1000 SQ. FT. IMMEDIATELY BEFORE SEED BED PREPARATION. GRASS SEED SHALL BE APPLIED AT THE RATES OUTLINED IN "TABLE 7-1: SEEDING AND MULCHING". 5-10-10 FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS AT A RATE OF 21 IBS/1000 SQ. FT. MULCHING SHALL CONSIST OF SMALL GRAIN STRAW APPLIED AT A RATE OF 70 IBS/1000 SQ. FT. MULCHED AREAS SHALL BE TACKED AN APPROVED METHOD SUFFICIENT TO HOLD THE STRAW IN PLACE, REFER TO CHAPTER 3 OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES (NCDENR) EROSION AND SEDIMENTATION CONTROL PLANNING AND DESIGN MANUAL FOR MORE DETAILS CONCERNING SEEDING AND MULCHING PROCEDURES. IF ACTIVE CONSTRUCTION CEASES IN ANY AREA FOR MORE THAN 14 DAYS, GROUND COVER IS REQUIRED TO ALL DISTURBED AREAS AS DESCRUBED IN "APPENDIX C: GROUND COVER".

AFTER CONSTRUCTION IS COMPLETE. ALL DISTURBED AREAS SHALL RECEIVE A PERMANENT GROUND COVER IN ACCORDANCE WITH THE SEEDING AND MULCHING SCHEDULE IN TABLE 7-1: SEEDING AND MULCHING, PERMANENT SEEDING AND TEMPORARY SEEDING DIFFER ONLY IN THE TYPE OF SEED TO BE USED — ANNUAL VERSUS PERENNIAL.

PERMANENT GROUND COVER IS THE ESTABLISHMENT OF PERENNIAL VEGETATION COVER FOR PERIODS LONGER THAN TWELVE (12) MONTHS. SEED BED PREPARATIONS AND SOIL AMENDMENTS SHALL BE IN ACCORDANCE WITH "TABLE 7-1: SEEDING AND MULCHING". AS A PART OF PERMANENT SEEDING, MAINTENANCE MAY BE REQUIRED TO MAINTAIN VEGETATIVE GROWTH FOR TWELVE (12) MONTHS. THIS MAINTENANCE SHALL BE CONSIDERED A PART OF ESTABLISHING PERMANENT GROUND COVER.

TABLE 7-1: SEEDING AREA, DATES & TYPES					
AREA TYPE	AUGU	IST 1ST TO JUNE 1ST	MAY 1	ST TO SEPTEMBER 1ST	
ANLA III L	LBS/ACRE	SEED TYPE AND FERTILIZER			
	20	KENTUCKY BLUEGRASS	20	KENTUCKY BLUEGRASS	
	75	HARD FESCUE	75	HARD FESCUE	
SHOULDER AND MEDIAN	25	RYE GRAIN	10	GERMAN OR BLOWTOP MILLET	
	500	FERTILIZER	500	FERTILIZER	
	4000	LIMESTONE	4000	LIMESTONE	
	100	TALL FESCUE	100	TALL FESCUE	
AREAS BEYOND THE	15	KENTUCKY BLUEGRASS	15	KENTUCKY BLUEGRASS	
MOWING PATTERN, WASTE AND BORROW AREAS	30	HARD FESCUE	30	HARD FESCUE	
	25	RYE GRAIN	10	GERMAN OR BLOWTOP MILLET	
	500	FERTILIZER	500	FERTILIZER	
	4000	LIMESTONE	4000	LIMESTONE	

CONSULT SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL

TEMPORARY SEEDING:
FERTILIZER SHALL BE THE SAME ANALYSIS AS SPECIFIED FOR SEEDING AND MULCHING AND APPLIED AT THE RATE
TO DOUBLE OF BROWN TOP MILLET. OF 400 POUNDS AND SEEDED AT THE RATE OF 50 POUNDS PER ACRES. GERMAN MILLET OR BROWN TOP MILLET SHALL BE USED IN THE SUMMER MONTHS AND RYE GRAIN DURING THE REMAINDER OF THE YEAR.

FERTILIZER USE FOR TOP DRESSING SHALL BE 16-8-8 GRADE AND SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DIFFERENT ANALYSIS OF FERTILIZER MAY BE USED PROVIDED THE 2-1-1 RATIO IS MAINTAINED AND THE RATE OF APPLICATION ADJUSTED TO PROVIDE THE SAME AMOUNT IF PLANT FOOD AS 16-8-8 ANALYSIS

THE KINDS OF SEED AND PROPORTIONS SHALL BE THE SAME AS SPECIFIED FOR SEEDING AND MULCHING, AND THE RATE OF APPLICATION MAY VARY FROM 25 TO 75 POUNDS PER ACRE, THE ACTUAL RATE PER ACRE WILL BE DETERMINED PRIOR TO THE TIME OF TOP DRRESSING AND THE CONTRACTOR WILL BE NOTIFIED IN WRITIGN OF THE RATE PER ACRE, TOTAL QUANTITY NEEDED, AND AREAS ON WHICH TOT APPLY THE SUPPLEMENTAL SEED. MINIMUM TILLAGE EQUIPMENT, CONSISTING OF A SOD SEEDER SHALL BE USED FOR INCORPORATION SEED INTO THE SOIL AS

TO PREVENT DISTRRUVANCE OF EXISTING VEGETATION. A CLOD BUSTED (BALL AND CHAIN) MAY BE USED WHERE

THE MINIMUM MOWING HEIGHT IS 6"

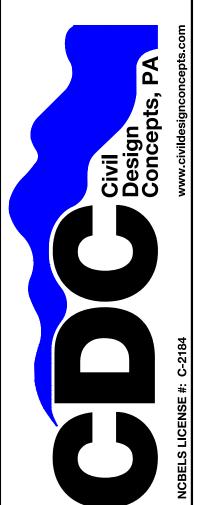
DEGREE OF SLOPE PREVENTS THE USE OF A SOD SEEDER.

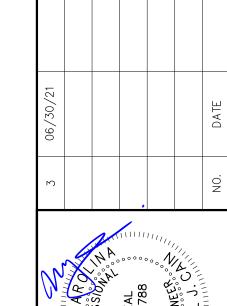
GROUND STABILIZATION

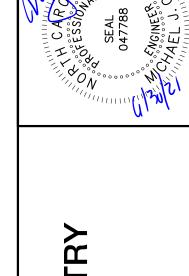
SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES, AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES GREATER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7-DAYS FOR SLOPES GREATER THAT 50' IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HQW ZONES)

*EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE. (SECTION II.B(2)(B))

EROSION CONTROL DETAILS



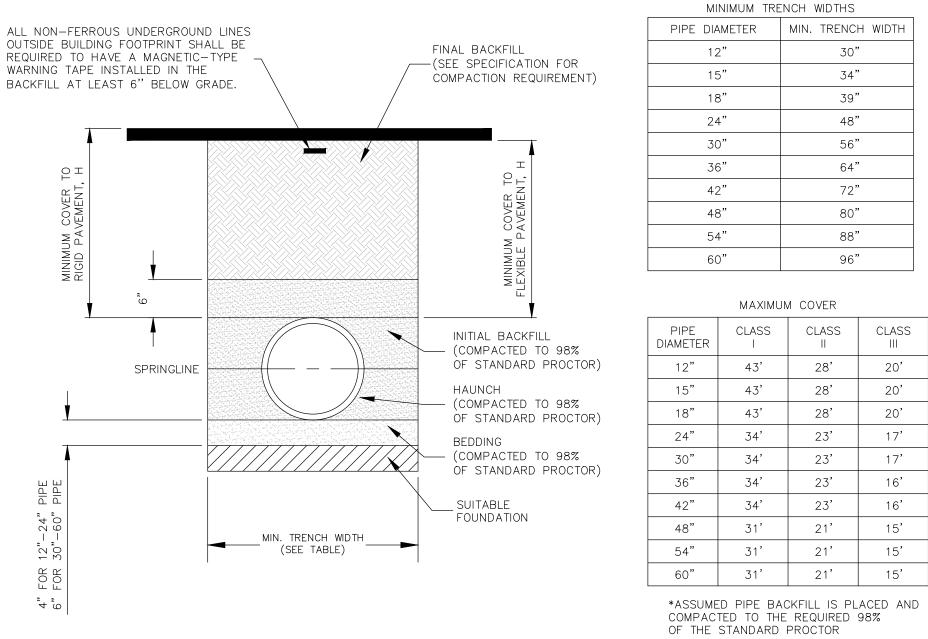




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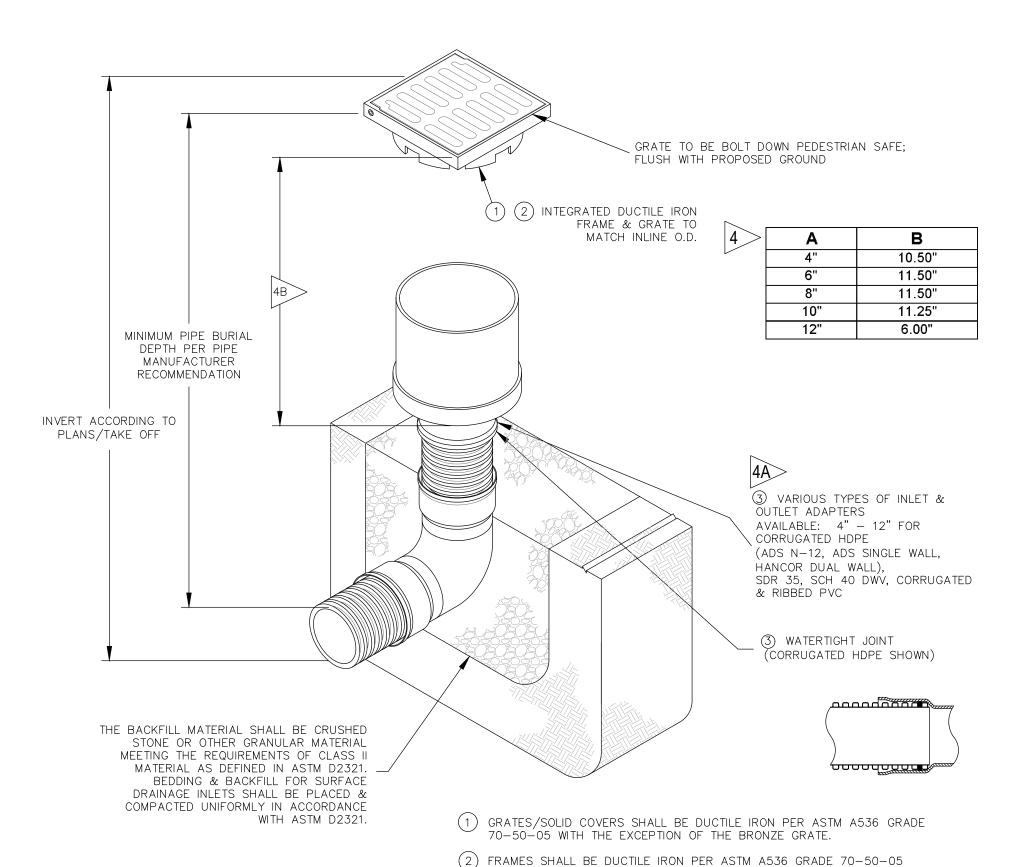
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CDC PROJECT NO.:



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- 3. FOUNDATION: WHERE THE TRENCH IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH UITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
- 4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II, OR, III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4"(100 mm) FOR 12"-24" (100 mm - 600 mm); 6"(150 mm) FOR 30"-60" (750 mm - 900 mm).
- 5. HAUNCHING/INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II, OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
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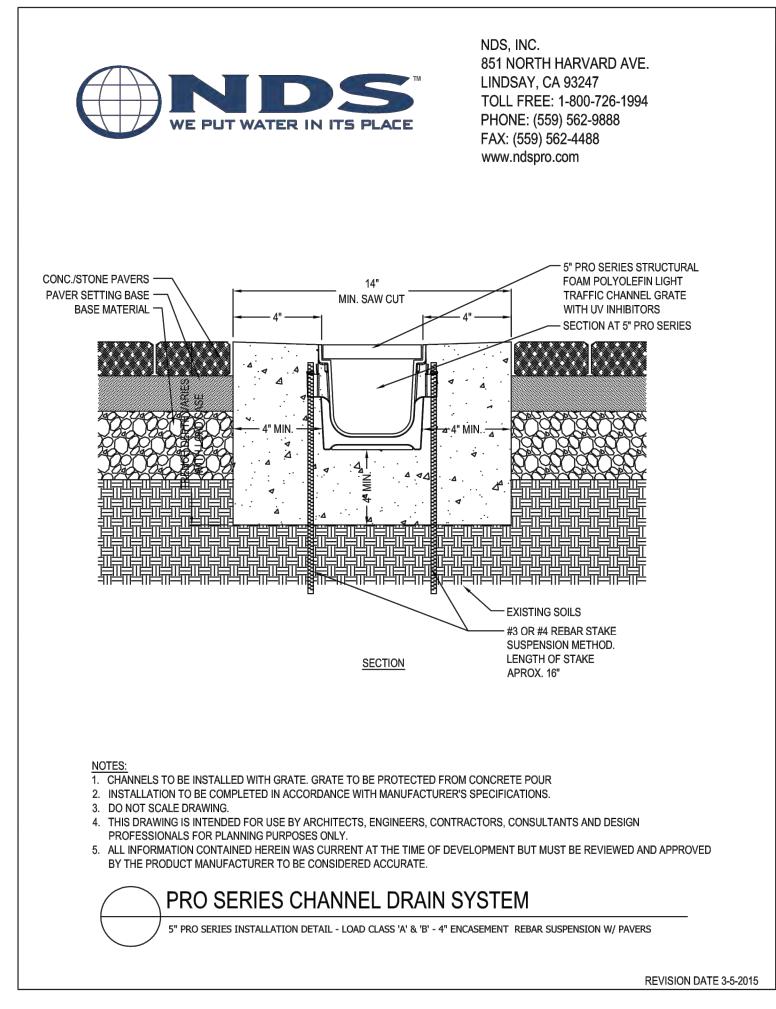






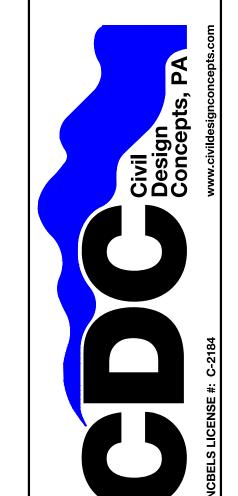
(3) DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM

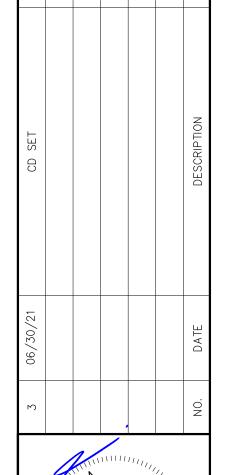
INSTALLATION DETAIL NOT TO SCALE



GENERAL STORM NOTES

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- 12. CURB INLET FRAME, GRATE AND HOOD SHALL CONFORM TO NCDOT 840.03E. DROP INLET FRAME AND GRATE SHALL CONFORM TO NCDOT 840.16. FIELD INLET COVER SHALL CONFORM TO NCDOT STANDARD DETAIL 840.03, OPENING FACING UPSTREAM. MANHOLE RING AND LID TO CONFORM TO NCDOT 840.54. OPEN THROAT INLETS TO CONFORM TO NCDOT 840.04 WITH A MANHOLE RING AND LID INSTALLED IN THE TOP FOR ACCESS TO THE STRUCTURE. SET ACCESS POINT ADJACENT TO A STRUCTURE WALL AS TO ALLOW ACCESS TO STEPS.
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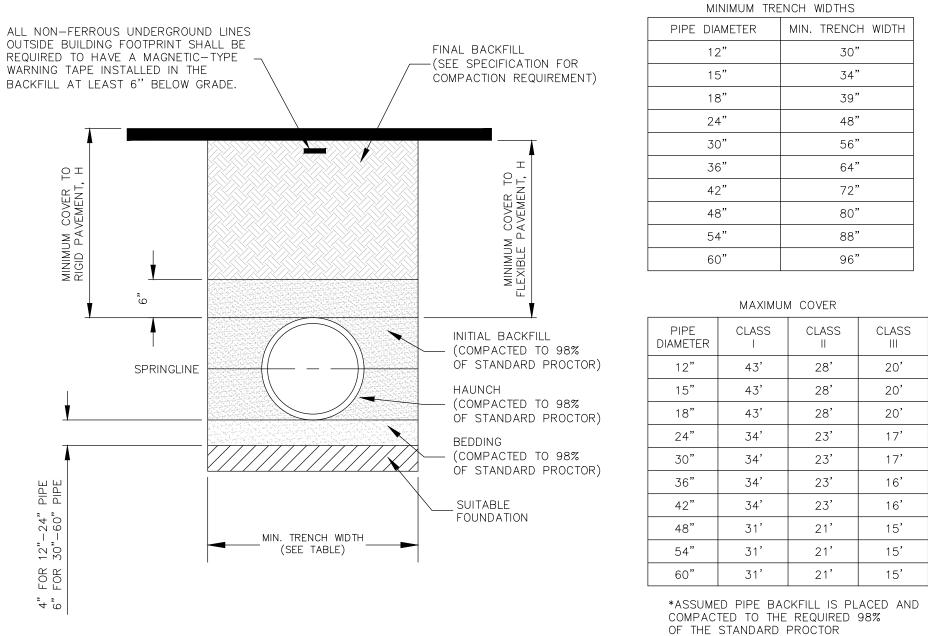
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STORM DRAINAGE DETAILS

SHEET

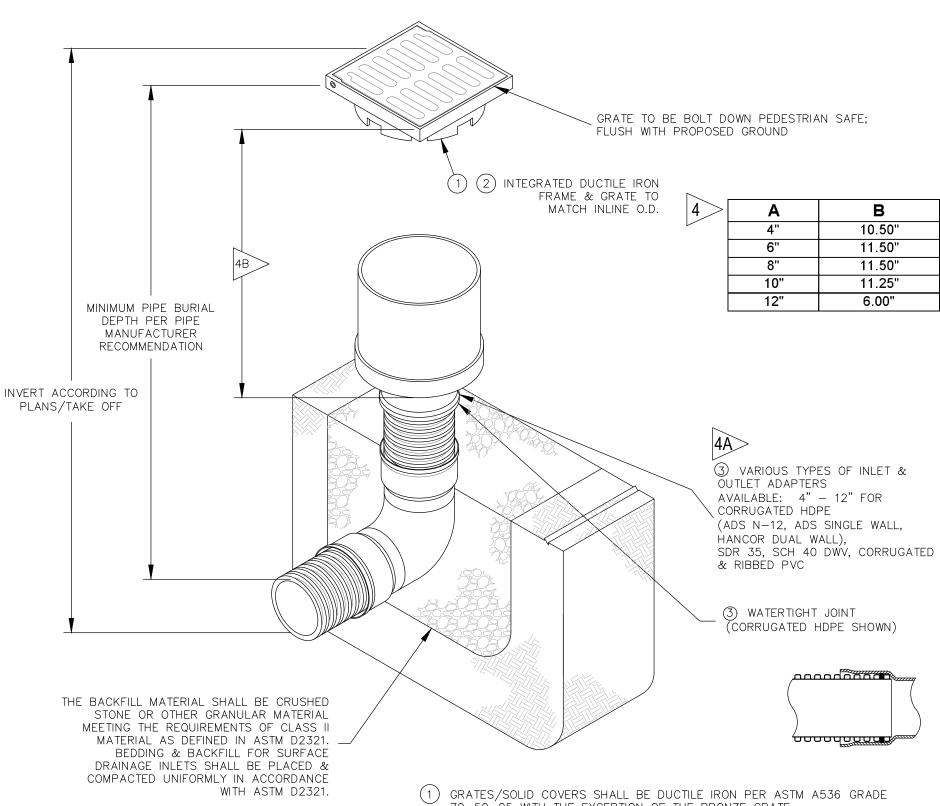
DRAWN BY:

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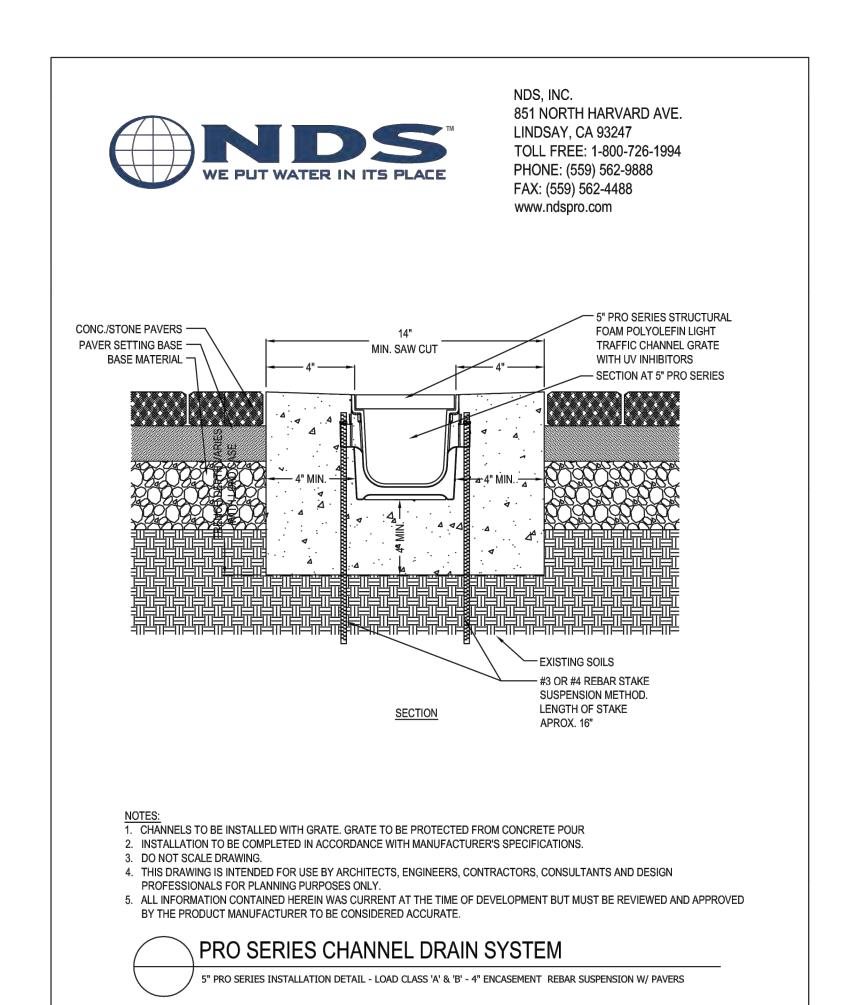


70-50-05 WITH THE EXCEPTION OF THE BRONZE GRATE. (2) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05

(3) DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM

D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC

" INLINE DRAIN YARD INLET INSTALLATION DETAIL NOT TO SCALE



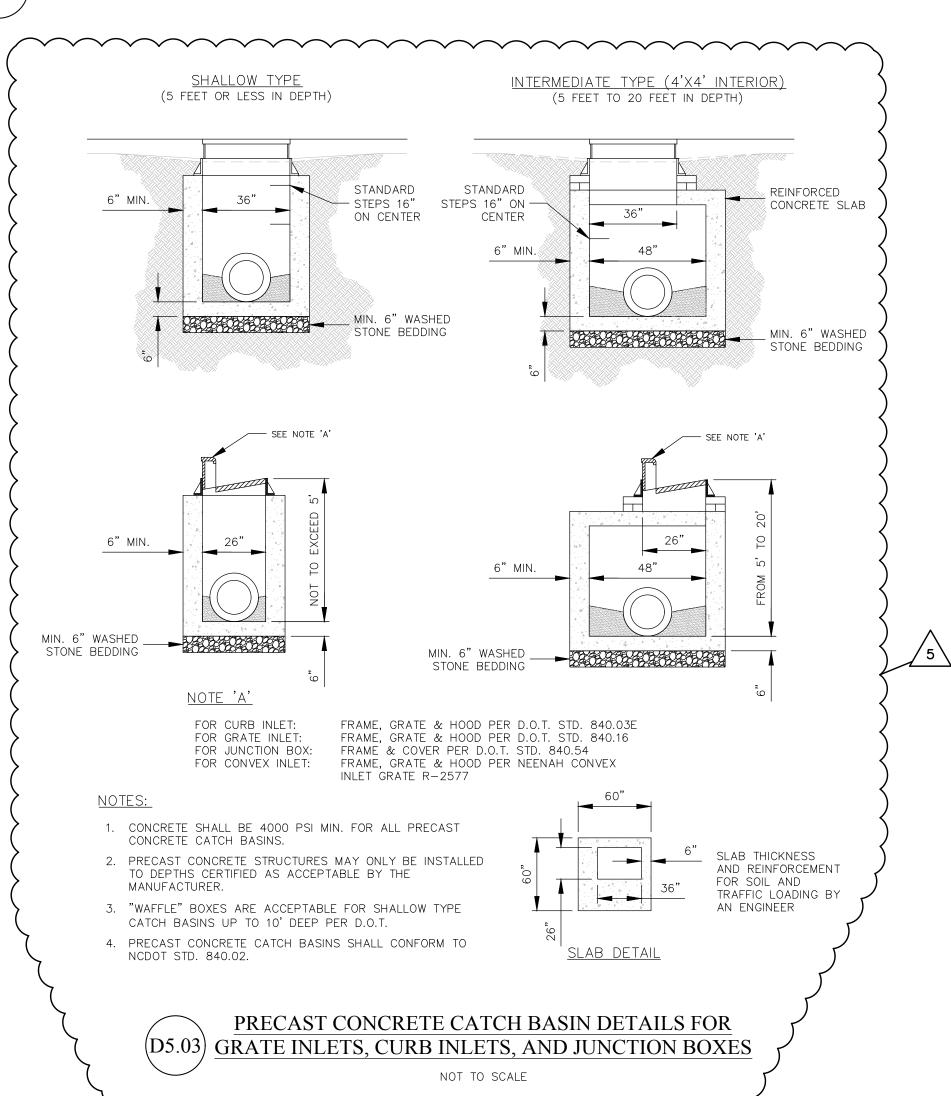
20'

17'

16'

16'

15'



REVISION DATE 3-5-2015

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3	06/30/21	CD SET	JTJ
4	07/21/21	ADDENDUM 02	UTU
5	07/23/21	ADDENDUM 03	JTJ
NO.	DATE	DESCRIPTION	ВҮ

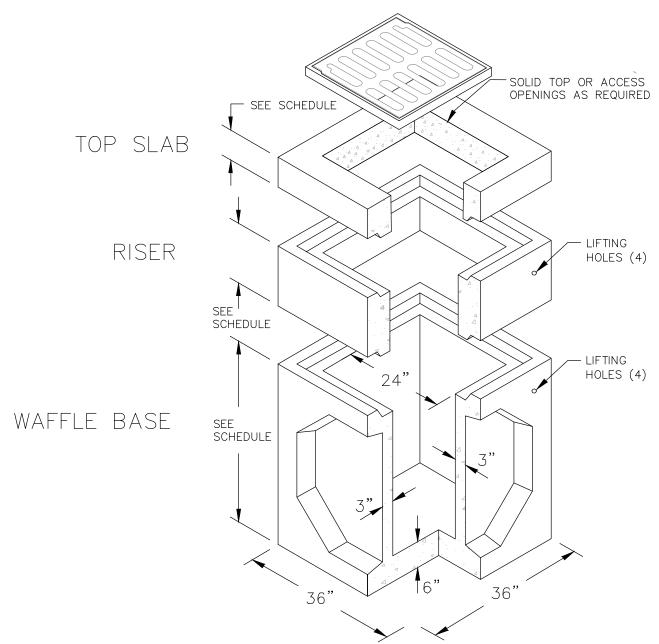


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STORM DRAINAGE DETAILS

DRAWN BY: CDC PROJECT NO.:

	S	TANDARD S	CHEDULE	
TOP SLAB	O.D. HEIGHT WT./LBS	6" 702	8" 940	
RISER	O.D. HEIGHT	0.67'	1.33'	2.67
MISEN	WT./LBS	503	998	2,003
	O.D. HEIGHT	3.0'	3.5'	
	WT./LBS	1,934	2,161	

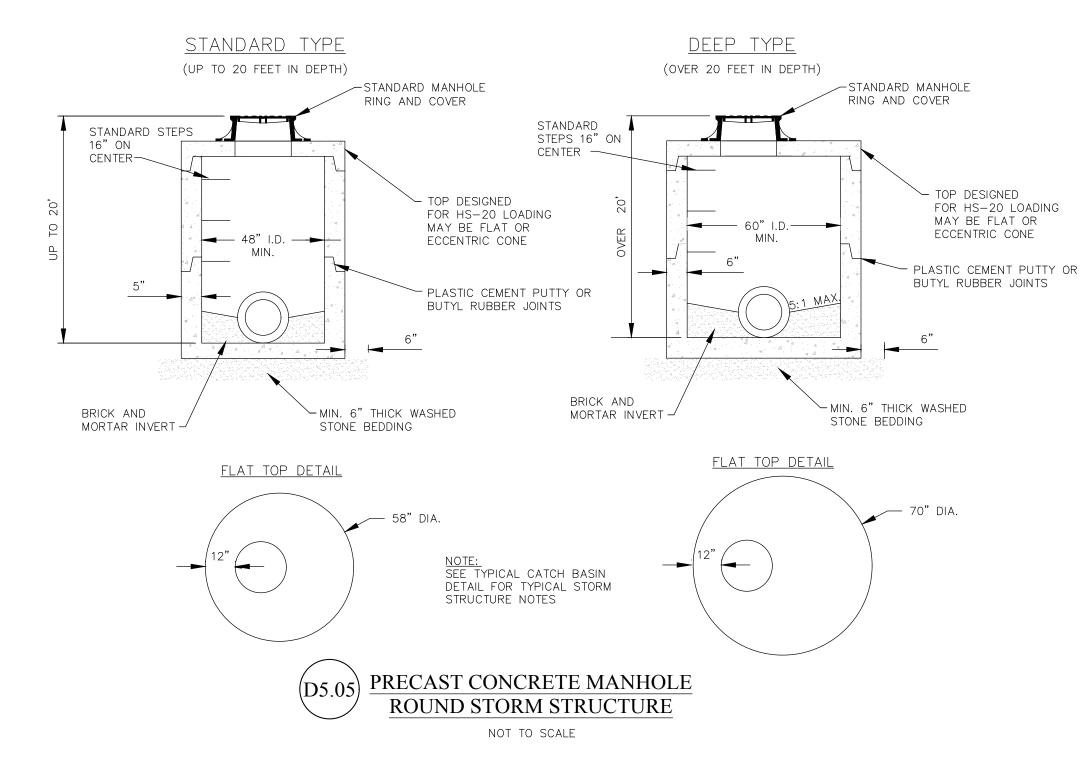


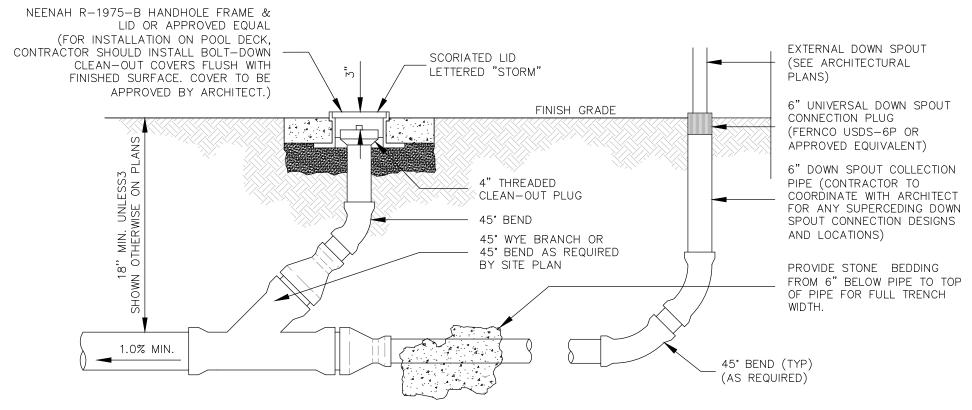
NOTES:

- 1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH f'e= 4,000 psi 2. STEEL REINFORCEMENT: ASTM A-615, GRADE 60
- WAFFLE BOXES MEET N.C.D.O.T. APPROVAL TO 10' DEPTH
 SOLID BOXES MEET H-20 LOADING TO 15' DEPTH
 SOLID BOXES APPROVED FOR N.C.D.O.T STANDARDS: 840.01, 840.02, 840.04, 840.05, 840.11, 840.12, 840.14, 840.15, 840.17, 840.18, 840.19, 840.26, 840.27, 840.28, 840.31, 840.32, 840.41, 840.45

D5.04 2' X 2' YARD INLET

NOT TO SCALE





NOTES:

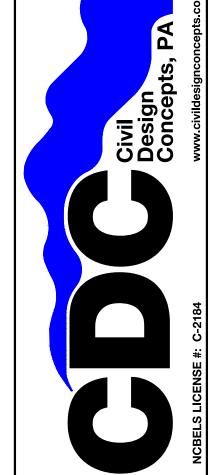
- 1. CLEAN—OUT PIPE AND FITTINGS SHALL BE SAME MATERIAL AS THE DOWNSPOUT COLLECTION PIPE. SEE PLAN FOR PIPE SIZES. CLEAN—OUT WYE TO BE SAME DIAMETER AS LATERAL. RISER, PIPE AND
- THREADED PLUG TO BE 4". 2. WHERE CLEAN—OUTS ARE LOCATED IN SIDEWALKS OR PAVEMENT, CAST HANDHOLE LID IN PLACE AND
- FLUSH WITH FINISH GRADE.

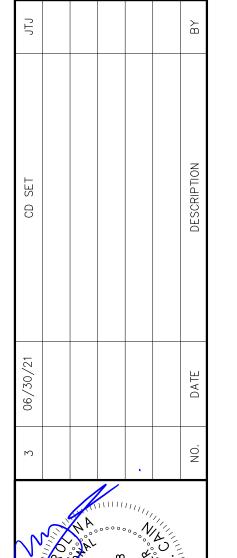
 3. CONTRACTOR TO COORDINATE WITH ARCHITECT FOR ANY SUPERCEDING EXTERNAL DOWN SPOUT COLLECTION SYSTEM CONNECTION DESIGNS AND LOCATIONS

D5.06 DOWN SPOUT COLLECTION PIPE AND CLEANOUT

NOT TO SCALE

STORM DRAINAGE DETAILS



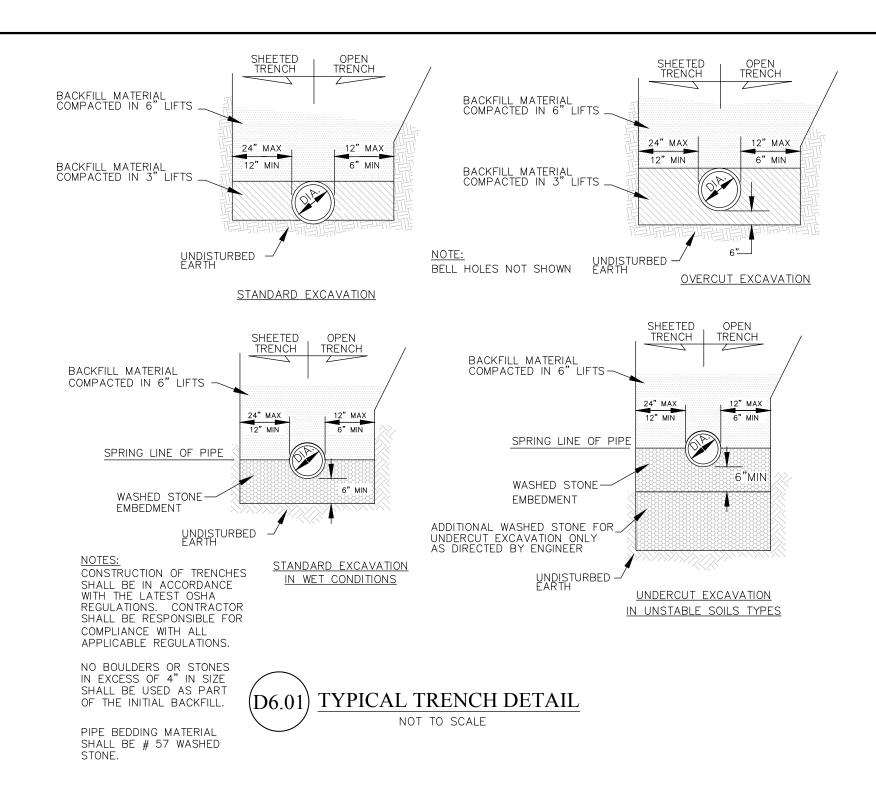


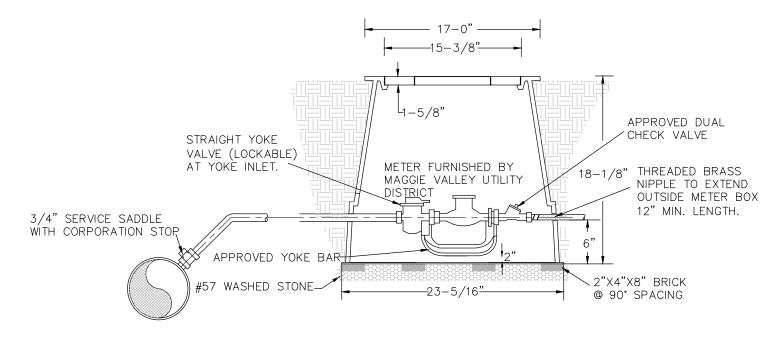


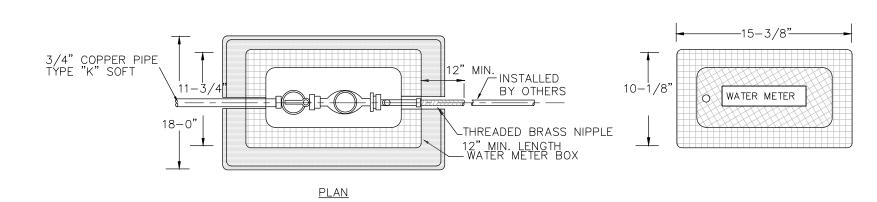
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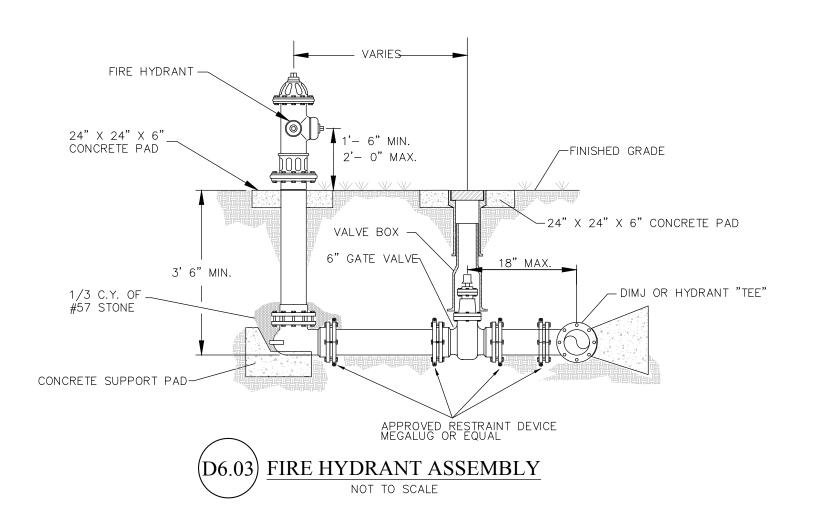


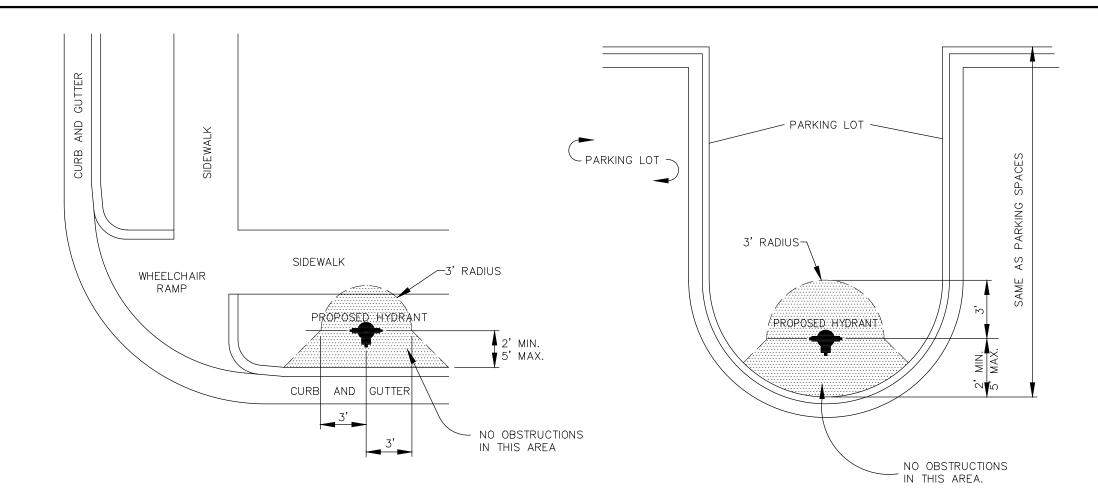


METER BOX TO BE AN 18" CARSON INDUSTRIES MODEL 1015-15 UTILITY BOX WITH A MODEL 1015-3 FLUSH COVER OR APPROVED EQUAL. REFER TO MANUFACTURER FOR SPECIFICATIONS
 THIS DETAIL WILL APPLY TO ALL DOMESTIC WATER SERVICE TRANSFERS AS DESCRIBED IN THE TECHNICAL SPECIFICATIONS AND SHOWN ON THE ENGINEERING DRAWINGS.
 ALL METER BOXES TO BE PROPERLY TAGGED PER MAGGIE VALLEY UTILITY DISTRICT STANDARDS

D6.02 WATER METER BOX INSTALLATION NOT TO SCALE

NOTE:

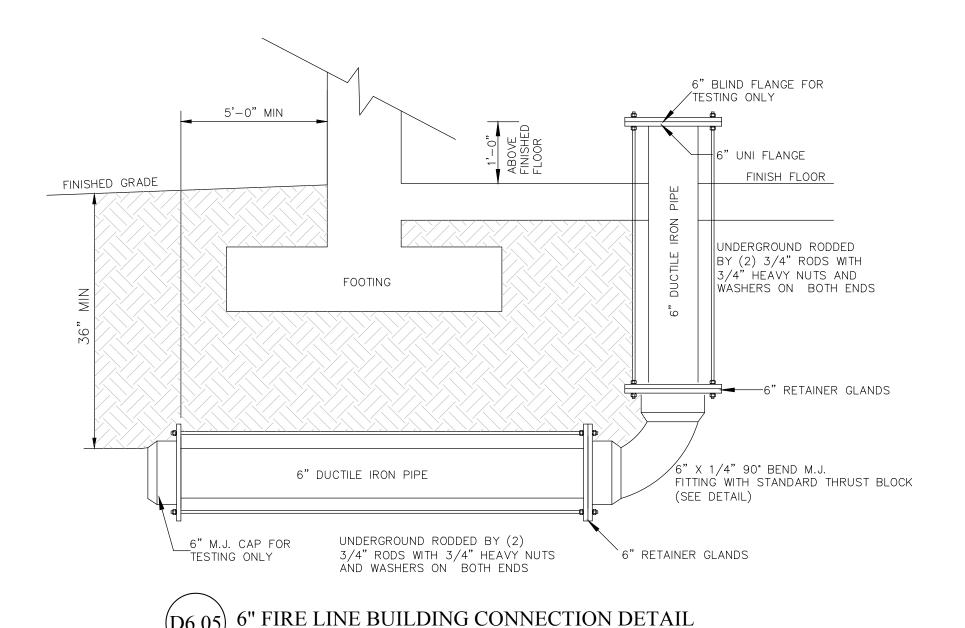




GENERAL NOTES:

- 1. SEE STANDARD THRUST BLOCK DIMENSIONS.
- 2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL FITTINGS.
- 3. VALVE BOX WILL NOT CONTACT WATER MAIN OR VALVE
- 4. VALVE PAD REQUIREMENTS SHALL NOT BE APPLICABLE FOR IMPROVED PAVED SURFACES.
- 5. LOCATION SHOULD BE COORDINATED WITH NCDOT ALONG STATE MAINTAINED ROADWAYS.
- 6. OBSTRUCTION FREE AREA SHALL APPLY TO ALL LOCATIONS FOR FIRE HYDRANT INSTALLATION.7. HYDRANT LOCATION SHALL NOT INTERFERE WITH THE REQUIREMENTS OF THE NORTH CAROLINA BUILDING CODE.





NOT TO SCALE

GENERAL NOTES FOR WATER

- 1. WATER CONSTRUCTION ON THIS SITE MUST BE AUTHORIZED BY PERMITS ISSUED BY THE TOWN OF BILTMORE FOREST WATER DEPARTMENT. ALL SITEWORK SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL REGULATORY STANDARDS; AND ALL REQUIREMENTS IN THE PROJECT TECHNICAL SPECIFICATIONS.
- 2. CONTRACTOR TO VERIFY WITH ENGINEER THAT THE REQUIRED WATER PERMITS AND ASSOCIATED NON-WATER PERMITS HAVE BEEN OBTAINED PRIOR TO BEGINNING CONSTRUCTION
- 3. ALL CONSTRUCTION SHALL BE UNDER THE OBSERVATION OF THE ENGINEER, THE OWNER, AND THE TOWN OF BILTMORE FOREST. THE ENGINEER SHALL PERIODICALLY OBSERVE THE PROGRESS OF INSTALLATION AND SHALL COMPLETE A FINAL WATER AND SEWER INSPECTION. THE CONTRACTOR SHALL FURNISH, SECURE, AND PROVIDE ALL NECESSARY TESTING MATERIALS, EQUIPMENT, PROCEDURES, AND CERTIFIED LABORATORY TEST RESULTS FOR USE WITH ENGINEERS FINAL CERTIFICATION OF COMPLETION. ANY WORK COVERED PRIOR TO ENGINEER'S INSPECTION IS SUBJECT TO UNCOVERING AND BACKFILLING AT THE CONTRACTOR'S EXPENSE.
- 4. ALL WORK MUST BE PERFORMED BY A NORTH CAROLINA LICENSED UTILITY CONTRACTOR.
- 5. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING THE EXACT LOCATION AND ELEVATION FOR ALL UTILITIES PRIOR TO CONSTRUCTION; AND TO NOTIFY ENGINEER OF ANY CONFLICTS OR DISCREPANCIES. THE LOCATION OF SOME UTILITIES SHOWN ON THE PLANS HAVE BEEN APPROXIMATED. ALL BURIED UTILITIES HAVE NOT BEEN SHOWN ON THE PLANS AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR LOCATION PRIOR TO CONSTRUCTION.
- 6. CONTRACTOR SHALL PROTECT EXISTING AND NEWLY BUILT UTILITIES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES INCURRED DURING OR RESULTING FROM CONSTRUCTION ACTIVITY IS THE RESPONSIBILITY OF THE CONTRACTOR AND IS TO BE REPAIRED IN ACCORDANCE WITH APPLICABLE STANDARDS OF APPROPRIATE AGENCIES AT THE CONTRACTOR'S EXPENSE.
- 7. THE CONTRACTOR IS TO NOTIFY ALL UTILITY COMPANIES AT LEAST 72 HOURS BEFORE CONSTRUCTION ACTIVITY IS TO BEGIN. THE CONTRACTOR SHALL NOTIFY ULOCO AT 1-800-632-4949 OR 811, 72 HOURS BEFORE CONSTRUCTION BEGINS. NOTIFY THE ENGINEER AT LEAST 72 HOURS BEFORE STARTING CONSTRUCTION ACTIVITIES.
- 8. EROSION CONTROL IS FIELD PERFORMANCE BASED AND CONTRACTOR SHALL INSTALL AND MAINTAIN ANY EROSION CONTROL MEASURES NECESSARY TO ASSURE MAXIMUM PROTECTION OF THE SITE. CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL MEASURES REQUIRED TO CONTROL SEDIMENT DURING INSTALLATION ALL WATER PIPES AND APPURTENANCES.
- 9. ALL WATER LINES AND SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH NC PLUMBING CODES AND THE TOWN OF BILTMORE FOREST WATER RESOURCES DEPARTMENT DESIGN & CONSTRUCTION MANUAL. COORDINATE EXACT LOCATIONS OF SERVICE LINES AND APPURTENANCES WITH THE ARCHITECTURAL, PLUMBING, AND LANDSCAPING PLANS.
- 10. CONTRACTOR TO PROVIDE 5' MIN. LATERAL SEPARATION BETWEEN WATER LINE AND OTHER UNDERGROUND UTILITIES. SEE DETAILS FOR GENERAL NOTES CONCERNING WATER MAIN INSTALLATION REQUIREMENTS.
- 11. A 3' COVER DEPTH SHALL BE MAINTAINED FOR ALL PROPOSED WATER LINES, ANY NECESSARY FIELD ADJUSTMENTS MUST BE APPROVED BY THE ENGINEER AND THE CITY INSPECTOR.
- 12. INSTALL FERROUS PIPING FOR BOTH WATER AND SEWER WITHIN 10' OF A CROSSING IF:

 A. SEWER LINE CROSSES OVER WATER, OR

 B. VERTICAL CLEARANCE BETWEEN WATER AND SEWER IS LESS THAN 18".

 MAINTAIN 10' HORIZONTAL SEPARATION BETWEEN SEWER AND WATER MAINS UNLESS LAID IN SEPARATE TRENCHES WITH THE BOTTOM OF THE WATER LINE AT LEAST 18" ABOVE THE TOP OF SEWER OR USE FERROUS MATERIAL FOR BOTH WATER AND SANITARY SEWER.
- 13. MAINTAIN 18" VERTICAL SEPARATION BETWEEN STORM DRAIN AND WATER OR THE WATER MAIN MUST BE CONSTRUCTED OF FERROUS MATERIALS FOR A DISTANCE OF AT LEAST 10—FEET TO EITHER SIDE OF THE CROSSING.
- 14. MAINTAIN 5' HORIZONTAL DISTANCE BETWEEN WATER LINES AND THE DRIP LINE, AT MATURITY, OF TREES AND OTHER SHRUBS.
- 15. TOWN OF BILTMORE FOREST OWNERSHIP AND MAINTENANCE ENDS AT WATER METER AND/OR THE FIRE LINE ISOLATION VALVE. WATER SYSTEM BEYOND IS TO BE PRIVATELY OWNED AND MAINTAINED.
- 16. METERS, VAULTS, AND FIRE HYDRANTS ARE TO BE PLACED IN RELATIVELY FLAT AREAS.
- 17. BRASS FITTINGS MUST BE LEAD FREE PER TOWN OF BILTMORE FOREST REQUIREMENTS.
- 18. CONTRACTOR RESPONSIBLE FOR ADJUSTING EXISTING WATER APPURTENANCES AS NECESSARY DUE TO ANY SITE CONSTRUCTION OR INSTALLATION.
- 19. TRENCH BACKFILL AND COMPACTION TESTING SHALL BE PERFORMED BY A CERTIFIED
- SOILS LABORATORY UNDER ALL PAVED AREAS.

 20. CONTRACTOR SHALL SUPPLY THE ENGINEER WITH RECORD OF DEVIATIONS FROM PLANS

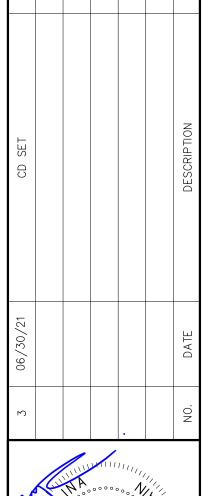
FOR PREPARATION OF FINAL RECORD DRAWINGS.

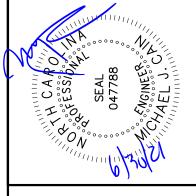
ENGINEERS CERTIFICATION OF COMPLETION.

- 21. PRESSURE TEST WATER MAINS TO 200 PSI MIN. AND 250 PSI MAX. AS PER **TOWN OF BILTMORE FOREST** REQUIREMENTS. DISINFECT WATER LINES AND PROVIDE ACCEPTABLE BACTERIOLOGICAL TEST FROM A CERTIFIED TESTING LABORATORY FOR USE WITH THE
- 22. THE PERMITS REQUIRE CERTIFICATION OF COMPLETION BY THE ENGINEER OF THE WATER SYSTEM PRIOR TO ISSUANCE OF FINAL OPERATION APPROVAL BY **THE TOWN OF BILTMORE FOREST**. SERVICE WILL BE PROVIDED ONCE FINAL CLOSEOUT SUBMITTALS HAVE BEEN APPROVED BY **THE TOWN OF BILTMORE FOREST**'S ENGINEERING DEPARTMENT.
- 23. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL BE LISTED ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVED ASSEMBLIES. THEY SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT.
- 24. RESTRAINED JOINTS BY AN APPROVED PIPE MANUFACTURER ARE TO BE USED FOR ALL PUBLIC LINES WHERE THRUST RESTRAINING IS REQUIRED; HOWEVER, THRUST BLOCKS ARE PERMITTED WHERE CONNECTIONS ARE MADE TO EXISTING WATER LINES OR WHERE THE USE OF MECHANICAL RESTRAINT IS NOT FEASIBLE.

WATER DETAILS

Civil Design Concepts, PA Concepts.cc





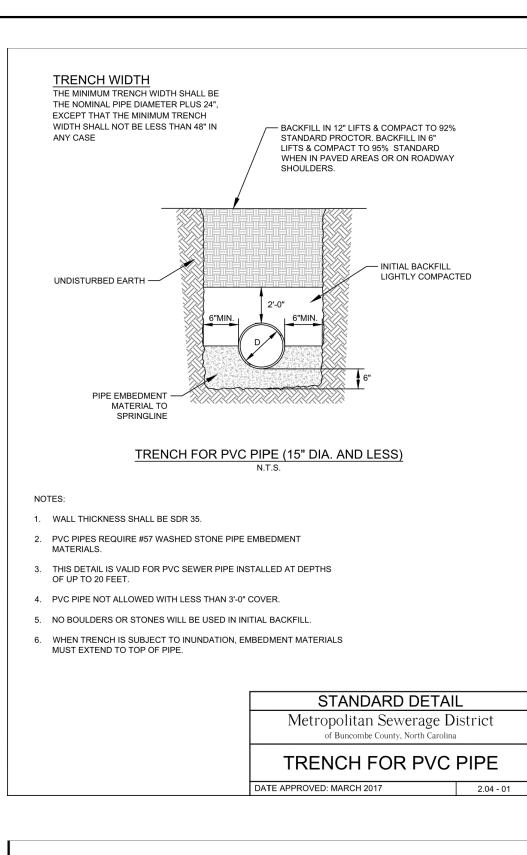
TMORE FOREST COUNTRY

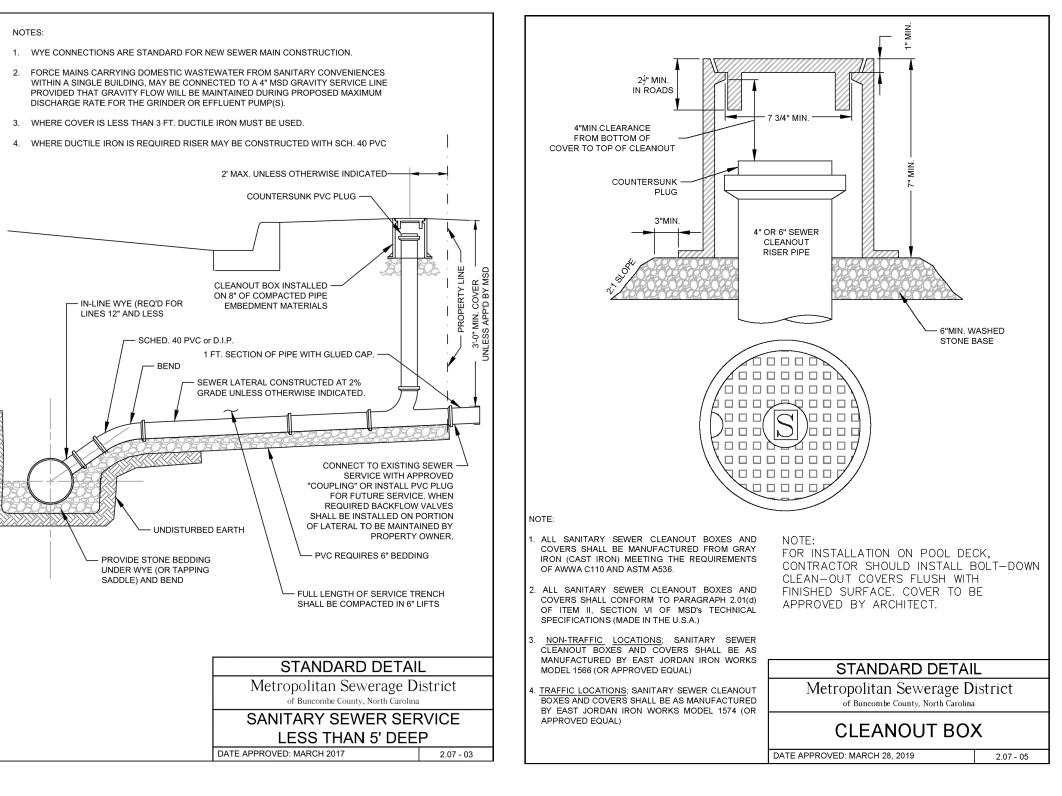
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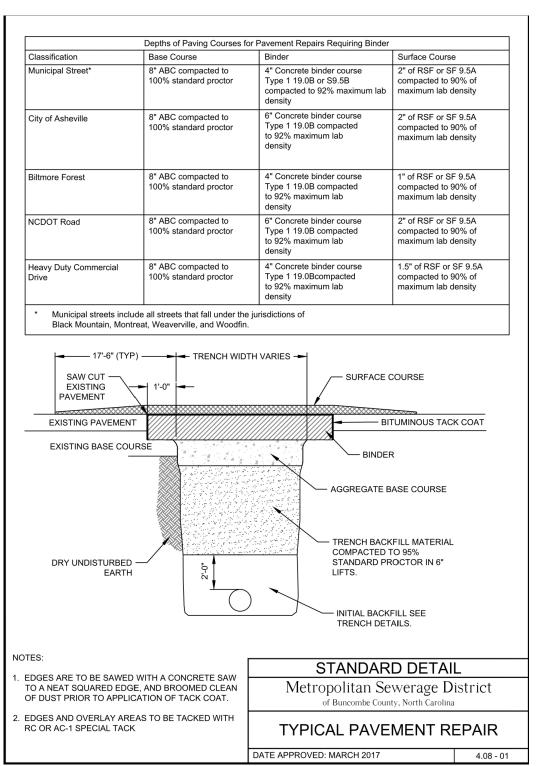
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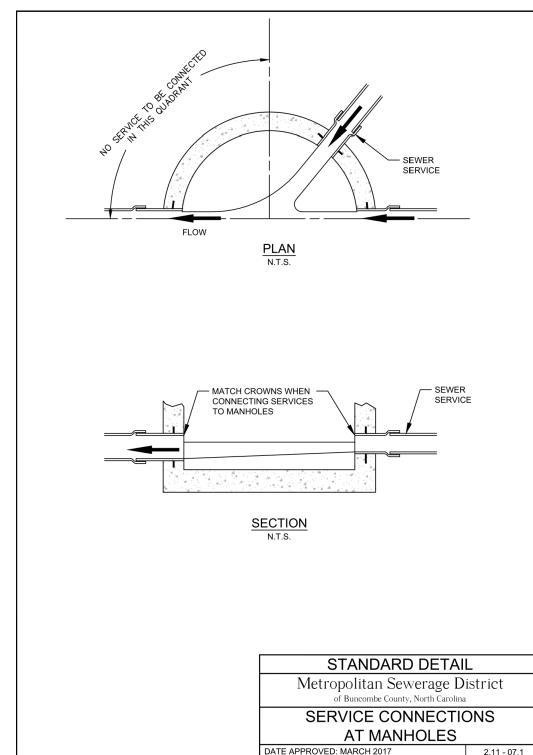
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GENERAL NOTES FOR SEWER

- 1. SEWER CONSTRUCTION ON THIS SITE MUST BE AUTHORIZED BY PERMITS ISSUED BY THE METROPOLITAN SEWERAGE DISTRICT OF BUNCOMBE COUNTY (MSD). ALL SITEWORK SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL REGULATORY STANDARDS; AND ALL REQUIREMENTS IN THE PROJECT TECHNICAL SPECIFICATIONS. REQUIREMENTS AND SPECIFICATIONS OF MSD STANDARDS SUPERSEDE ALL OTHERS IN THE INSTALLATION OF THE PROPOSED SEWER EXTENSION.
- CONTRACTOR TO VERIFY WITH ENGINEER THAT THE REQUIRED SEWER PERMITS AND ASSOCIATED NON-SEWER PERMITS HAVE BEEN OBTAINED PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR TO PROVIDE COPY OF STREET CUT PERMIT TO MSD PRIOR TO CONSTRUCTION.
- 3. ALL CONSTRUCTION SHALL BE UNDER THE OBSERVATION OF THE ENGINEER, THE OWNER, THE METROPOLITAN SEWERAGE DISTRICT. THE ENGINEER SHALL PERIODICALLY OBSERVE THE PROGRESS OF INSTALLATION AND SHALL COMPLETE A FINAL WATER AND SEWER INSPECTION. THE CONTRACTOR SHALL FURNISH, SECURE, AND PROVIDE ALL NECESSARY TESTING MATERIALS, EQUIPMENT, PROCEDURES, AND CERTIFIED LABORATORY TEST RESULTS FOR USE WITH ENGINEERS FINAL CERTIFICATION OF COMPLETION. ANY WORK COVERED PRIOR TO ENGINEER'S INSPECTION IS SUBJECT TO UNCOVERING AND BACKFILLING AT THE CONTRACTOR'S EXPENSE.
- 4. ALL WORK MUST BE PERFORMED BY A NORTH CAROLINA LICENSED UTILITY CONTRACTOR.
- 5. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING THE EXACT LOCATION AND ELEVATION FOR ALL UTILITIES PRIOR TO CONSTRUCTION; AND TO NOTIFY ENGINEER OF ANY CONFLICTS OR DISCREPANCIES. THE LOCATION OF SOME UTILITIES SHOWN ON THE PLANS HAVE BEEN APPROXIMATED. ALL BURIED UTILITIES HAVE NOT BEEN SHOWN ON THE PLANS AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR LOCATION PRIOR TO CONSTRUCTION.
- 6. CONTRACTOR SHALL PROTECT EXISTING AND NEWLY BUILT UTILITIES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES INCURRED DURING OR RESULTING FROM CONSTRUCTION ACTIVITY IS THE RESPONSIBILITY OF THE CONTRACTOR AND IS TO BE REPAIRED IN ACCORDANCE WITH APPLICABLE STANDARDS OF APPROPRIATE AGENCIES AT THE CONTRACTOR'S EXPENSE.
- 7. THE CONTRACTOR IS TO NOTIFY ALL UTILITY COMPANIES AT LEAST 72 HOURS BEFORE CONSTRUCTION ACTIVITY IS TO BEGIN. THE CONTRACTOR SHALL NOTIFY ULOCO AT 1-800-632-4949 OR 811, 72 HOURS BEFORE CONSTRUCTION BEGINS. NOTIFY THE ENGINEER AT LEAST 72 HOURS BEFORE STARTING CONSTRUCTION ACTIVITIES.
- 8. CONTRACTOR SHALL PROVIDE **MSD** FIELD DENSITY REPORTS VERIFYING SEWER BUILT IN FILL AREAS ARE COMPACTED TO 95% STANDARD PROCTOR.
- 9. EROSION CONTROL IS FIELD PERFORMANCE BASED AND CONTRACTOR SHALL INSTALL AND MAINTAIN ANY EROSION CONTROL MEASURES NECESSARY TO ASSURE MAXIMUM PROTECTION OF THE SITE. CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL MEASURES REQUIRED TO CONTROL SEDIMENT DURING INSTALLATION ALL SEWER PIPES AND APPURTENANCES.
- 10. SAFETY AND TRAFFIC ROUTING TO BE COORDINATED WITH XXX AND IN STRICT ACCORDANCE WITH NCDOT GUIDELINES FOR CONSTRUCTION, MAINTENANCE, AND UTILITY OPERATIONS.
- 11. ALL SEWER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH NC PLUMBING CODES AND ANY REQUIREMENTS PER LOCAL AUTHORITIES. COORDINATE EXACT LOCATIONS OF SERVICE LINES WITH THE ARCHITECTURAL, PLUMBING, AND LANDSCAPING PLANS. SEWER CLEANOUT ASSEMBLY LOCATIONS SHOWN ARE APPROXIMATE AND ARE SUBJECT TO FINAL VERIFICATION.
- 12. ALL NON-FERROUS UNDERGROUND SERVICE LINES OUTSIDE BUILDING FOOTPRINT SHALL BE REQUIRED TO HAVE A MAGNETIC- TYPE WARNING TAPE INSTALLED IN THE BACKFILL AT LEAST 6" BELOW GRADE.
- 13. CONTRACTOR TO INSTALL D.I.P. WHERE THE MINIMUM OF 3' COVER OR AT UTILITY CROSSINGS WHERE MINIMUM VERTICAL SEPARATION REQUIREMENTS CANNOT BE MET. PIPE MATERIAL MUST TRANSITION TO D.I.P. 10' PRIOR TO CROSSING VIA A SOLID SLEEVE COUPLING AND EXTEND TO THE NEXT MANHOLE.
- 14. INSTALL FERROUS PIPING FOR BOTH WATER AND SEWER WITHIN 10' OF A CROSSING IF: A. SEWER LINE CROSSES OVER WATER, OR B. VERTICAL CLEARANCE BETWEEN WATER AND SEWER IS LESS THAN 18". MAINTAIN 10' HORIZONTAL SEPARATION BETWEEN SEWER AND WATER MAINS UNLESS LAID IN SEPARATE TRENCHES WITH THE BOTTOM OF THE WATER LINE AT LEAST 18" ABOVE THE TOP OF SEWER OR USE FERROUS MATERIAL FOR BOTH WATER AND SANITARY SEWER.
- 14. MAINTAIN 18" VERTICAL SEPARATION BETWEEN STORM DRAIN AND SANITARY SEWER, OR INSTALL FERROUS MATERIAL ON THE SANITARY SEWER WITHIN 10' EACH SIDE OF THE CROSSING.
- 15. CONTRACTOR RESPONSIBLE FOR ADJUSTING EXISTING WATER APPURTENANCES AS NECESSARY DUE TO ANY SITE CONSTRUCTION OR INSTALLATION.
- 16. TRENCH BACKFILL AND COMPACTION TESTING SHALL BE PERFORMED BY A CERTIFIED SOILS LABORATORY UNDER ALL PAVED AREAS.
- 17. THE ENTIRE SEWER EASEMENT MUST BE CLEAR AND REMAINED CLEARED OF TREE PLANTINGS, EXISTING TREES, AND ANY PERMANENT STRUCTURES.
- 18. CONTRACTOR SHALL SUPPLY THE ENGINEER WITH RECORD OF DEVIATIONS FROM PLANS

ACTIVATION OF THE SYSTEM.

- FOR PREPARATION OF FINAL RECORD DRAWINGS.

 19. THE PERMITS REQUIRE CERTIFICATION OF COMPLETION BY THE ENGINEER OF THE SEWER SYSTEMS PRIOR TO ISSUANCE OF FINAL OPERATION APPROVAL BY THE METROPOLITAN SEWERAGE DISTRICT. SECURE FINAL OPERATIONAL APPROVAL FROM MSD PRIOR TO
- 3 06/30/21 CD SET JTJ

SEWER DETAILS



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GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

mplementing the details and specifications on this plan sheet will result in the constructio activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

	Re	quired Ground Stabil	ization Timeframes
Si	te Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a)	Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b)	High Quality Water (HQW) Zones	7	None
(c)	Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d)	Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e)	Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the

Temporary Stabilization	Permanent Stabilization
 Temporary grass seed covered with straw or other mulches and tackifiers 	Permanent grass seed covered with straw or other mulches and tackifiers
Hydroseeding Pallada and a salada a	Geotextile fabrics such as permanent soll
 Rolled erosion control products with or without temporary grass seed 	reinforcement matting • Hydroseeding
Appropriately applied straw or other mulch Plastic sheeting	Shrubs or other permanent plantings covere with mulch

Rolled erosion control products with grass seed

- POLYACRYLAMIDES (PAMS) AND FLOCCULANTS Select flocculants that are appropriate for the soils being exposed during
- construction, selecting from the NC DWR List of Approved PAMS/Flocculants. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures. Apply flocculants at the concentrations specified in the NC DWR List of Approved

Uniform and evenly distributed ground cover

Structural methods such as concrete, asphalt or

sufficient to restrain erosion

retaining walls

- PAMS/Flocculants and in accordance with the manufacturer's instructions. Provide ponding area for containment of treated Stormwater before discharging
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment. Identify leaks and repair as soon as feasible, or remove leaking equipment from the
- Collect all spent fluids, store in separate containers and properly dispose as
- hazardous waste (recycle when possible). Remove leaking vehicles and construction equipment from service until the problem
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

ITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers. 5. Anchor all lightweight items in waste containers during times of high winds.
- 7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

- 1. Do not dump paint and other liquid waste into storm drains, streams or wetlands. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.

on a gravel pad and surround with sand bags.

Containment must be labeled, sized and placed appropriately for the needs of site. 5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from

construction sites.

- PORTABLE TOILETS Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

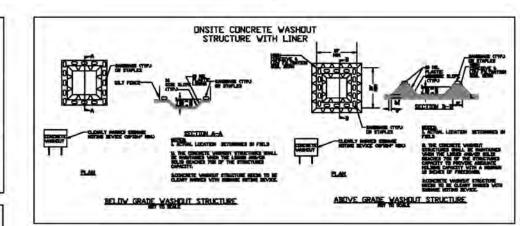
EARTHEN STOCKPILE MANAGEMENT

Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.

erosion on disturbed soils for temporary or permanent control needs.

- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated





- Do not discharge concrete or cement slurry from the site, Dispose of, or recycle settled, hardened concrete residue in accordance with local
- and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project
- limits. Post signage on the washout itself to identify this location. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural
- components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions. 10. At the completion of the concrete work, remove remaining leavings and dispose of
- in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

- Store and apply herbicides, pesticides and rodenticides in accordance with label
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- . Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.

3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspection

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend of holiday periods, and no individual day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDCs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: Actions taken to clean up or stabilize the sediment that has left the site limits, Description, evidence, and date of corrective actions taken, and An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1,0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

SELF-INSPECTION, RECORDKEEPING AND REPORTING

1. E&SC Plan Documentation

Item to Document

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Documentation Requirements

(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the

2. Additional Documentation to be Kept on Site In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

corrective action.

- (a) This General Permit as well as the Certificate of Coverage, after it is received.
- (b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART II, SECTION G, ITEM (4) DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- (a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
- (b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit, (c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include
- properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems, (d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
- (e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and (f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.
 - NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

SELF-INSPECTION, RECORDKEEPING AND REPORTING

1. Occurrences that Must be Reported Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:

deposition in a

health or the

environment[40]

CFR 122.41(I)(7)]

stream or wetland

- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or They are within 100 feet of surface waters (regardless of volume).
- (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (d) Anticipated bypasses and unanticipated bypasses.
- (e) Noncompliance with the conditions of this permit that may endanger health or the

2. Reporting Timeframes and Other Requirements

(a) Visible sediment • Within 24 hours, an oral or electronic notification.

case-by-case basis

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800)

Reporting Timeframes (After Discovery) and Other Requirements

Within 7 calendar days, a report that contains a description of the

sediment and actions taken to address the cause of the deposition.

been corrected, the anticipated time noncompliance is expected to

prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6).

Division staff may waive the requirement for a written report on a

continue; and steps taken or planned to reduce, eliminate, and

	Division staff may waive the requirement for a written report on a case-by-case basis. If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	 A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	 Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger	 Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not

NORTH CAROLINA Environmental Quality

EFFECTIVE: 04/01/19

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