

Town of Beaufort, NC

701 Front St. - P.O. Box 390 - Beaufort, N.C. 28516 252-728-2141 - 252-728-3982 fax - www.beaufortnc.org

Town of Beaufort Planning Board Regular Meeting 6:00 PM Monday, August 15, 2022 - Train Depot, 614 Broad Street, Beaufort, NC 28516 Monthly Meeting

Call to Order

Roll Call

Agenda Approval

Minutes Approval

1. PB Draft Minutes 07.18.22

Public Comment

New Business

1. Preliminary Plat for Beau Coast Subdivision Phase IV

Commission / Board Comments

Staff Comments

Adjourn





Town of Beaufort, NC

701 Front St. - P.O. Box 390 - Beaufort, N.C. 28516 252-728-2141 - 252-728-3982 fax - www.beaufortnc.org

Town of Beaufort Planning Board Regular Meeting 6:00 PM Monday, July 18, 2022 - Train Depot, 614 Broad Street, Beaufort, NC 28516 Minutes

Call to Order

Chair Neve called the July 18, 2022 Planning Board meeting to order at 6:00 p.m.

Roll Call

Chair Neve asked Secretary Anderson to conduct a roll call.

In attendance: Chair Neve, Vice Chair Merrill, Member Meelheim, Member Willis

Secretary Anderson declared a quorum present.

Also present for the meeting were Kyle Garner, Town Attorney Arey Grady, and Laurel Anderson.

Agenda Approval

Chair Neve asked if there were any changes to the Agenda and hearing none, he asked for a motion.

Vice-Chair Merrill made the motion to approve the agenda as presented and Member Meelheim made the second. Chair Neve took a vote that was unanimous.

Voting yea: Chair Neve, Vice-Chair Merrill, Member Meelheim, Member Willis

Minutes Approval

1. PB Draft Minutes for 6.20.22

Chair Neve asked if there were any changes to the Minutes from the June 20, 2022 meeting and hearing none, he asked for a motion.

Vice-Chair Merrill made the motion to approve the minutes and Member Willis made the second. Chair Neve took a vote that was unanimous.

Voting yea: Chair Neve, Vice-Chair Merrill, Member Meelheim, Member Willis

DRAFT



Public Comment

Chair Neve opened public comments asked if anyone would like to speak.

There were no requests to speak.

Old Business

1. Case # 22-13 Preliminary/Final Plat – 1791 Live Oak

Chair Neve introduced Case #22-13 and Mr. Garner explained that the applicant had returned to provide a letter of agreement to provide vehicular cross access with the property next door, and regarding the Special Use Permit, the Board of Commissioners (BOC) had placed a condition for the property line agreement to be resolved before a site plan could be submitted to the Planning Board.

Josh Johnson of Stroud Engineering, representing the applicant, stated that the property line agreement would be in place before the final plat went before the Board of Commissioners.

Member Meelheim expressed concern that the access letter seemed very informal. Town Attorney Arey Grady agreed but stated that when the final plat went before the BOC all necessary documents would have been submitted. After further discussion Mr. Johnson stated that there was access through the ABC store parking lot and the Board had requested auxiliary access that is still being worked out. Vice-Chair Merrill stated that it had been felt that access through the ABC parking lot was not appropriate. The Board then discussed the order in which the issues needed to be resolved, including the property line agreement, driveway access, and subdividing the property. Mr. Grady explained that there were protections to ensure that everything would be resolved before the final plat was signed.

Member Willis made a motion to approve Case# 22-13 with the following conditions:

- 1. Provide a shared access agreement with Beaufort Spring Apartments.
- 2. Provide a boundary line agreement

Chair Neve made the second and took a vote that did not pass.

Voting yea: Chair Neve, Member Willis

Voting nay: Vice-Chair Merrill, Member Meelheim

Vice-Chair Merrill made the motion to table the application until the shared access agreement and boundary line agreements had been worked out, and Member Meelheim made the second. Chair Neve took a vote that was unanimous.

Voting yea: Chair Neve, Vice-Chair Merrill, Member Meelheim, Member Willis

Public Hearing

 Case #22-14: To recommend approval or denial to the Board of Commissioners for the rezoning of 312 Pollock Street from R-8 to TCA.

Chair Neve introduced the public hearing for Pollock Street rezoning and Mr. Garner explained that the applicant had originally proposed CS-MU (Cedar Street Multi-Use) zoning but after hearing concerns from the neighbors, had brought the application back as proposed TCA (Townhomes, Condominiums, and Apartments) zoning. Based on the acreage of .345 a total of 4 multi-family units would be allowed per the TCA density.

Doug Brady, 805 Front Steet, represented the applicant and explained that after hearing concerns about the application for CS-MU, he pulled his application and re-submitted the request as TCA. He felt that it would serve a need in the community for providing—more affordable housing than R-8 zoning.

3

DRAFT



Chair Neve opened the floor for public discussion.

Phyllis Parker, 305 Pollock Street, stated that one concern was parking and the neighborhood is residential; they want it to stay that way and do not want commercial buildings. She also asked about the height of the proposed townhomes.

Kathleen Meredith, 315 Pollock Street Unit 2, asked about her residence being in CS-MU zoning, and Chair Neve explained that the TCA zoning was more restrictive and only residential building would be allowed.

Mr. Brady answered Ms. Parker's concern regarding parking for townhome residents and explained that parking will be provided at the rear of the townhomes and off the street. He also explained that residential building height was not to exceed 35' regardless of zoning.

Richard LeSesne, 323 Sea Hawk Street, encouraged the Board to ensure that stormwater drainage, water, sewer, and electrical demand would be considered. He also asked that emergency personnel would be able to access the area.

Chair Neve closed the public discussion and opened Board discussion. Vice-Chair Merrill pointed out that for CS-MU zoning, 1.5 parking spaces were required per unit, and TCA required 2 spaces. Chair Neve looked up and verified the requirements. Vice-Chair Merrill addressed Mr. Lesesne's concern regarding stormwater, explaining that the Planning and Engineering departments fully review and approve proposed site plans.

Vice-Chair Merrill made a motion to approve the rezoning from R-8 to TCA and Member Willis made the second. Chair Neve took a vote that was unanimous.

Voting yea: Chair Neve, Vice-Chair Merrill, Member Meelheim, Member Willis

Mr. Garner reminded the audience that there would be another public hearing regarding the rezoning with the Board of Commissioners, and the public would have another opportunity to speak at that meeting. Chair Neve explained that the Planning Board had approved the recommendation to the BOC for their final vote.

2. Case # 22-17: To recommend approval or denial to the Board of Commissioners for the rezoning of 1809 Live Oak from PUD to TCA.

Chair Neve introduced Case# 22-17 and Mr. Garner gave a summary of the application request to rezone 1809 Live Oak from PUD to TCA. In July 2019 the Board of Commissioners approved a CAMA Map amendment to Mixed Use as well as a Rezoning to a PUD with Master Plan. That plan consisted of 54 total residential units with a proposed 12,000 square foot daycare center. A breakdown of the residential units were 17 Townhomes and 37 single-family residential lots. At 15.04 acres the total number of units could be up to 180 units based on the maximum density of 12 units per acre in the TCA Zone. A CAMA Map Amendment is not needed since the classification was changed to Mixed Use in 2019 which allows high density residential. He further stated that as part of the original purchase by the Town in 2009, the Town is responsible for providing water and sewer and road access to the property.

Chase Cullipher of The Cullipher Group spoke for the applicant Britt Development, and stated that the CAMA Land Use Plan has already approved high density, that TCA zoning is transitional zoning, and their proposed use would meet the ordinance. There would be cross connectivity with Food Lion considered, and the development would create a great opportunity for building workforce housing.

Chair Neve opened the floor for public discussion.

Dale Britt, Morehead City, Britt Development, explained that the development would consist of fee simple townhomes with a common area and stormwater pond, and the townhomes would provide more affordable housing than is otherwise currently available in Beaufort.

Richard LeSesne, 323 Sea Hawk Street, spoke in favor of the development and asked that emergency personnel be able to access the area easily.

DRAFT



Chair Neve closed public discussion and opened Board discussion. Vice-Chair Merrill asked about the connectivity with Food Lion and Member Meelheim expressed her excitement about the project and the opportunity for more affordable housing. There was discussion about a buffer between the new development and existing developments, and Mr. Garner stated that there is at least a 25-foot ditch between them. Vice-Chair Merrill and Chair Neve discussed open space and the need for a public park in that section of town.

Member Meelheim made a motion to approve the rezoning from PUC to TCA and Member Willis made the second. Chair Neve took a vote that was unanimous.

Voting yea: Chair Neve, Vice-Chair Merrill, Member Meelheim, Member Willis

Commission / Board Comments

Member Meelheim thanked the staff for the additional historical information provided to the Board to support the meeting's packet. Vice-Chair Merrill asked about paving Cedar Street and Mr. Garner said the Town is working with DOT who will be installing 13 stormwater features along the street, and the final paving should be completed by next summer. He also stated that the Town engineer, Greg Meshaw, had applied for a grant for pervious parking areas along Cedar St which will provide better permeability and cleaner water. Member Willis thanked the staff and Chair Neve pointed out that in the current LDO the Cedar Street Mixed Use zoning setbacks are confusing.

Staff Comments

Mr. Garner showed a map the Board had requested designating a buffer of 500 feet from the centerline of Live Oak Street for future mini-storage businesses.

Adjourn

Member Willis made the motion to adjourn and Member Meelheim made the second. Chair Neve took a vote that was unanimous.

Voting yea: Chair Neve, Vice-Chair Merrill, Member Meelheim, Member Willis

Chair Neve then declared the meeting adjourned.

Ryan Neve, Chair
Laurel Anderson, Board Secretary



Town of Beaufort, NC

701 Front St. - P.O. Box 390 - Beaufort, N.C. 28516 252-728-2141 - 252-728-3982 fax - www.beaufortnc.org

Town of Beaufort Planning Board Regular Meeting 6:00 PM Monday, August 15, 2022 – 614 Broad Street

AGENDA CATEGORY: New Business

SUBJECT: Preliminary Plat for Beau Coast Subdivision Phase IV

BRIEF SUMMARY:

The applicant wishes to Subdivide a 23.55 Acre Tract into 36 Lots (Single-Family). In addition to Planning Staff the Town Engineer and applicants Engineer will also be available to answer questions regarding the proposed infrastructure.

REQUESTED ACTION:

Recommendation to Board of Commissioners

EXPECTED LENGTH OF PRESENTATION:

10 Minutes

SUBMITTED BY:

Kyle Garner, AICP

Planning & Inspections Director

BUDGET AMENDMENT REQUIRED:

N/A

PLANNING BOARD STAFF REPORT

To: Beaufort Planning Board Members

From: Kyle Garner, AICP, Town Planner

Date: July 25, 2022

Project Beaufort Coast Phase 4 – Preliminary Plat

THE QUESTION: Subdivide a 23.55 Acre Tract into 36 Single-Family Lots

BACKGROUND:

Location: Off Avocet Drive
Owners: Blue Treasure, LLC

Requested Action: Subdivide a 23.55 acre tract into 36 lots

Existing Zoning PUD

Size: 23.55 Acres
Amount of Wetlands: 5.65 Acres
Amount of Open Space: 6.87 Acres
Existing Land Use: Undeveloped

Adjoining Land Use & North – By Turner Creek

Zoning: South – Beau Coast Phase 2-A, Zoned PUD

East – Beau Coast Phase 2-B, Zoned PUD

West – Town of Beaufort Public Utilities, Zoned R-20

SPECIAL INFORMATION: This preliminary plat runs concurrently with the Amendment to the

Master Plan dated February 14, 2020.

Public Utilities & Works:

Water: Town Water Sanitary Sewer: Town Sewer

OPTIONS:

- 1. Approve the request as presented.
- 2. Deny the request.
- 3. Table the request.

RECOMMENDATIONS:

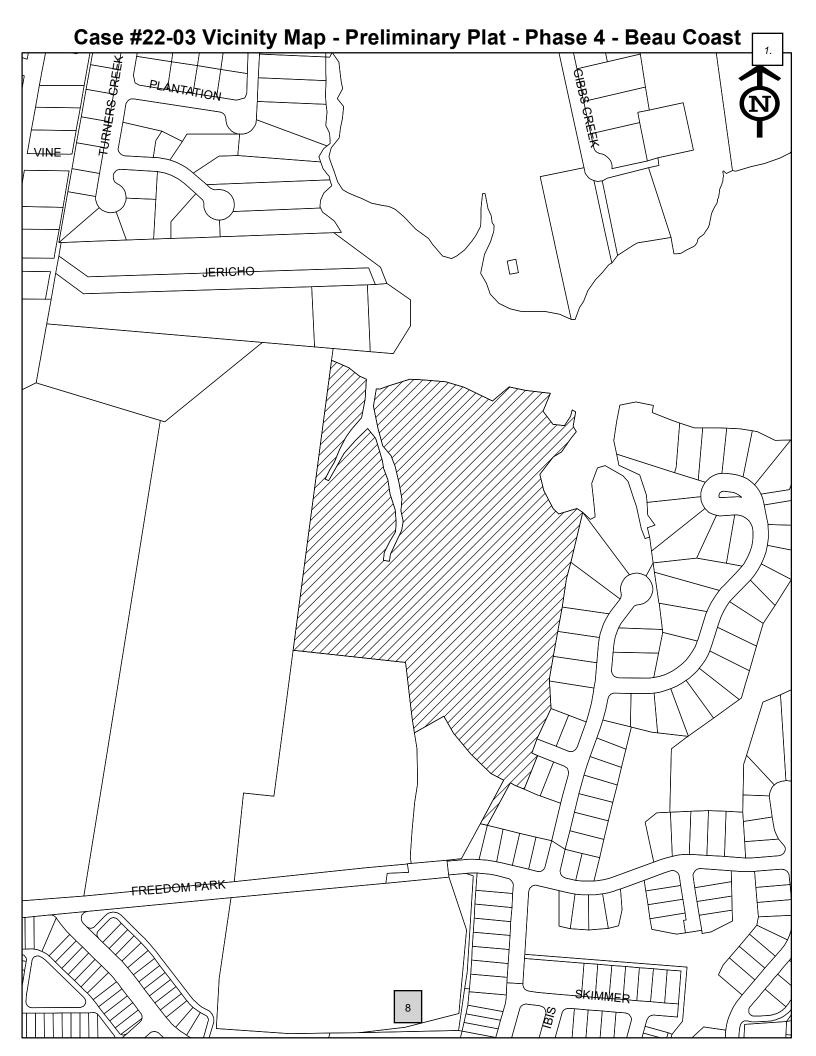
Staff recommends approval of the preliminary plans for Beau Coast Phase 4.

ATTACHMENTS:

Vicinity Map

Zoning Map

Construction Drawings

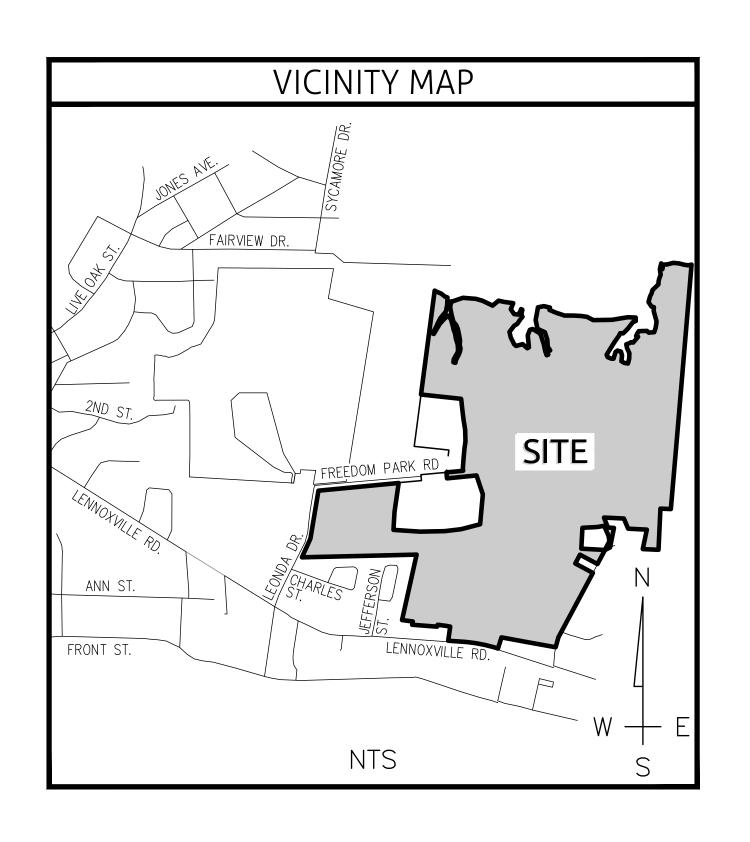


BEAU COAST

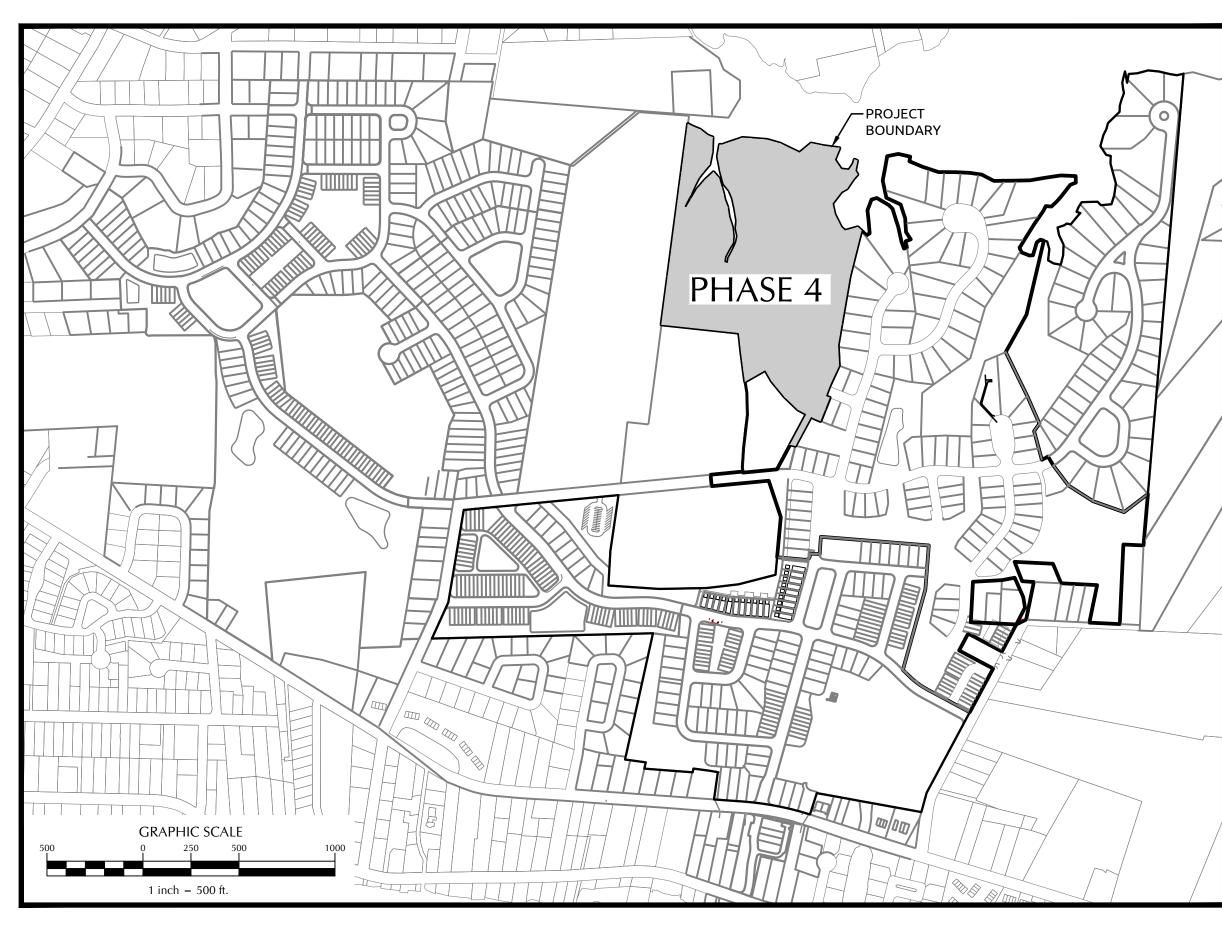
PHASE 4

BEAUFORT, NC

MAY 2022



	LEGE	END					
LINETYPE DESCRIPTION LINETYPE DESCRIPTION							
EXISTING WATERLINE	w	PROPOSED UNDERGROUND ELECTRIC	UE				
PROPOSED WATERLINE	———— w ————	EXISTING GASLINE	G				
EXISTING STORM DRAINAGE	-00000000000000000000000000000000000000	PROPOSED GASLINE	G				
PROPOSED STORM DRAINAGE		SILT FENCE	SF				
EXISTING SANITARY SEWER	ss	EXISTING FENCE					
PROPOSED SANITARY SEWER	ss	TREE PROTECTION	тР				
PROPOSED FORCE MAIN	FM	SWALE					
EXISTING FORCE MAIN	— — FM— — —	RIGHT-OF-WAY					
EXISTING ELECTRIC (OVERHEAD)	— — E — — —	WETLANDS					
PROPOSED ELECTRIC (OVERHEAD)	———— E ————	1' CONTOUR					
EXISTING UNDERGROUND ELECTRIC	— — UE— — —	5' CONTOUR	5				
EXISTING EASEMENT		PROPOSED EASEMENT					





PREPARED BY:



219 Station Road, Suite 101 | Wilmington, NC 28405 | t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

	Sheet List Table				
Sheet Number	Sheet Title				
C0.0	COVER				
C0.1	PROJECT NOTES				
C0.2	NCG01				
C1.0	EXISTING CONDITIONS				
C2.0	SITE PLAN				
C3.0	LOT FIT PLAN				
C4.0	ZONING PLAN				
C5.0	UTILITY PLAN				
C6.0	EROSION CONTROL PLAN				
C7.0	STORMWATER MANAGEMENT PLAN				
C8.0	BROWN PELICAN WAY PLAN AND PROFILES				
C8.1	RUDDY DUCK COURT PLAN AND PROFILE				
D1.0	WATER & SEWER DETAILS				
D2.0	WATER & SEWER & ROADWAY DETAILS				
D3.0	WATER DETAILS				
D4.0	ROADWAY & DRAINAGE DETAILS				
D5.0	EROSION CONTROL DETAILS				
D6.0	EROSION CONTROL& SWALE CALCULATIONS DETAILS				

DEVELOPER/OWNER

BLUE TREASURE, LLC

105 WESTON ESTATES WAY CARY, NORTH CAROLINA 27513 919-481-3000

ATTN: KARL BLACKLEY

- 2. ALL WORK IS TO BE IN ACCORDANCE WITH THE TOWN OF BEAUFORT, CARTERET COUNTY, AND THE STATE OF NORTH CAROLINA. 3. THE CONTRACTOR IS TO ESTABLISH AND CHECK ALL HORIZONTAL AND VERTICAL CONTROLS TO BE USED WITH THE PROJECT. IN ADDITION, THE CONTRACTOR IS TO COMPUTE THE LAYOUT OF THE ENTIRE SITE PLAN IN ADVANCE OF BEGINNING ANY WORK
- IMPROVEMENT STAKEOUT(S). 4. ANY TIME WORK IS PERFORMED OFF-SITE OR WITHIN AN EXISTING EASEMENT, THE CONTRACTOR IS TO NOTIFY THE HOLDER OF SAID EASEMENT AS TO THE NATURE OF PROPOSED WORK, AND TO FOLLOW ANY GUIDELINES OR STANDARDS WHICH ARE

ASSOCIATED WITH THE SUBJECT PLANS. CONTRACTOR SHALL EMPLOY A PROFESSIONAL SURVEYOR TO PERFORM SITE

- 5. THE CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION MEETING WITH DEMLR-WILMINGTON REGIONAL OFFICE AND NOTIFY
- THE ENGINEER AT LEAST 48 HOURS PRIOR TO THE MEETING.

GENERAL NOTES:

1. THE TOPOGRAPHIC SURVEY HAS BEEN PROVIDED WITHERSRAVENEL, INC.

ASSOCIATED WITH OR REFERENCED IN THE RECORDED EASEMENT.

- 2. WETLAND DELINEATION BY LAND MANAGEMENT GROUP, INC. ENVIRONMENTAL CONSULTANTS, PO BOX 2522, WILMINGTON, NC 28402, TEL. (910) 452-0001. WETLAND LOCATION BY WITHERS RAVENEL, INC. USING TRIMBLE PRO XR GPS RECEIVER CAPABLE OF SUB-METER ACCURACY.
- 3. FEMA FLOOD DESIGNATIONS ON THIS PROPERTY TAKEN FROM FIRM PANEL #3720731600J, 3720731500J, 3720730600J, AND 3720730500J, DATED JULY 16, 2003.
- 4. THERE ARE NO KNOWN U.S. LISTED DEPARTMENT OF INTERIOR'S NATIONAL REGISTER OF HISTORICAL PLACES, "HISTORICAL PROPERTY" PURSUANT TO G.S. CHAPTER 160A, ARTICLE 19, PART 3, OR A "HISTORIC DISTRICT" DESIGNATED BY A LOCAL ORDINANCE PURSUANT TO G.S. CHAPTER 160A-400.4 WITHIN THIS PROJECT.
- 5. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF ALL EXISTING UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF DITCHING OPERATIONS BY OBSERVATIONS, ELECTRONIC DEVICES, HAND DIGGING AND BY PERSONAL CONTACT WITH THE UTILITY COMPANIES. IN ORDER TO LOCATE EXISTING UTILITIES IN ADVANCE OF TRENCHING OPERATIONS SO AS TO ELIMINATE OR MINIMIZE DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RESULTING FROM ANY DAMAGE TO THE EXISTING UTILITY LINES INCLUDING LOSS OF UTILITY REVENUES. CONTRACTOR SHALL ARRANGE FOR TEMPORARY SUPPORT OF EXISTING UTILITIES, SUCH AS POLES, CONDUITS, FIBER OPTIC CABLES, TELEPHONE CABLES, WATER LINES, ETC.
- 6. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC.
- 7. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK, SUITABLE BARRIERS, FENCES, SIGNS OR OTHER ADEQUATE PROTECTION, INCLUDING FLAG MEN AND WATCHMEN AS NECESSARY TO INSURE THE SAFETY OF THE PUBLIC AS WELL AS THOSE ENGAGED IN THE CONSTRUCTION WORK. CONSTRUCTION SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE NCDOT.
- 8. ALL MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE OR BURNED IF PROPER PERMITS ARE RECEIVED.
- 9. ALL WORK BY THE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR AFTER THE OWNER ACCEPTS THE WORK.
- 10. CONTRACTOR SHALL CALL THE NORTH CAROLINA ONE-CALL CENTER AT 811 FOR ASSISTANCE IN LOCATING UTILITIES. THE CONTRACTOR SHALL CALL AT LEAST 72 HOURS PRIOR TO ANY DIGGING.
- 11. ALL PAVEMENT MARKINGS IN PUBLIC RIGHT-OF-WAYS AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET TOWN AND/OR NCDOT STANDARDS.
- 12. ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
- 13. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- 14. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
- 15. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WITH BE REPLACED.
- 16. THE HOMEOWNERS ASSOCIATION WILL MAINTAIN THE TREES AND GRASS IN THE RIGHT OF WAY.
- 17. DURING CONSTRUCTION, COPIES OF NPDES AND SIMILAR MAINTENANCE REPORTS ARE TO BE SUBMITTED TO THE TOWN ON AT LEAST A QUARTERLY BASIS. AFTER PROJECT COMPLETION, THE HOMEOWNERS ASSOCIATION WILL TAKE RESPONSIBILITY OF SUBMITTING SUCH MAINTENANCE REPORTS TO THE TOWN.

DEMOLITION NOTES:

- 1. CONTRACTOR TO COORDINATE WITH THE OWNER TO PROPERLY MAINTAIN OR RELOCATE EXISTING SERVICE CONNECTIONS WHEN
- 2. CONTRACTOR IS TO WALK THE SITE AND BECOME FAMILIAR WITH THE SCOPE OF DEMOLITION REQUIRED. ALL DEMOLITION WORK REQUIRED TO CONSTRUCT NEW SITE IMPROVEMENTS WILL BE PERFORMED BY THE CONTRACTOR AND WILL BE UNCLASSIFIED EXCAVATION.
- 3. DEMOLITION SHALL INCLUDE BUT IS NOT LIMITED TO THE EXCAVATION, HAULING AND OFFSITE DISPOSAL OF CONCRETE PADS, CONCRETE DITCHES, FOUNDATIONS, SLABS, STEPS, AND STRUCTURES; ABANDONED UTILITIES, BUILDINGS, PAVEMENTS AND ALL MATERIALS CLEARED AND STRIPPED TO THE EXTENT NECESSARY AS DIRECTED BY THE SOILS ENGINEER FOR THE INSTALLATION OF THE NEW IMPROVEMENTS AND WITHIN THE LIMITS OF CLEARING AND GRADING AND AS SHOWN ON THESE PLANS.
- 4. THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY, STRUCTURES AND UTILITIES ON THE PROPERTY NOT TO BE DEMOLISHED. DAMAGE TO PROPERTIES OF OTHERS DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO
- 5. ELECTRIC, TELEPHONE, SANITARY SEWER, WATER AND STORM SEWER UTILITIES THAT SERVICE OFF-SITE PROPERTIES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS BY THE CONTRACTOR.
- 6. EXISTING UTILITIES NOT INTENDED FOR DEMOLITION SHALL BE MAINTAINED, PROTECTED AND UNDISTURBED DURING DEMOLITION.
- 7. ALL EXISTING IMPROVEMENTS INDICATED OR REQUIRED TO BE DEMOLISHED SHALL INCLUDE REMOVAL FROM THE PROPERTY AND PROPER
- 8. CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING OVER HEAD AND UNDERGROUND UTILITIES INCLUDING CABLE, GAS, TELEPHONE AND ELECTRIC AND ANY OTHER UTILITIES THROUGH THE SITE WITH THE RESPECTIVE COMPANIES.
- 9. PROVIDE SMOOTH SAW CUT OF EXISTING PAVEMENTS, CURBS AND GUTTERS AND SIDEWALKS TO BE DEMOLISHED.
- 10. ALL DEMOLITION WORK SHALL BE DONE IN STRICT ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS OSHA
- 11. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATIONS OF THE MAINS BY DIGGING TEST PITS BY HAND.

STABILIZATION NOTES

- 1. SLOPES LEFT EXPOSED WILL, WITHIN 14 CALENDAR DAYS OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH GROUND COVER, DEVICES, OR STRUCTURES TO RESTRAIN EROSION.
- 2. ALL OTHER DISTURBED AREAS SHALL BE PLANTED OR OTHERWISE PROVIDED PERMANENT GROUND COVER WITHIN 14 WORKING DAYS FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT WHICHEVER PERIOD IS SHORTER.

EROSION AND SEDIMENT CONTROL NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND RESTORING TO PRE-CONSTRUCTION CONDITIONS ANY AREAS OUTSIDE THE PROJECT LIMITS THAT MAY INADVERTENTLY BE DAMAGED DUE TO THE FAILURE OF THE EROSION MEASURES
- 2. DURING GRADING AND AFTER GRADING HAS BEEN COMPLETED, CONTRACTOR SHALL CONTINUE TO MAINTAIN PERMANENT AND TEMPORARY EROSION CONTROL MEASURES UNTIL FINAL INSPECTION AND APPROVAL BY THE N.C.D.E.M.L.R.
- 3. WATER, FERTILIZE, MOW AND MAINTAIN SPRIGGED, SODDED AND PLANTED AREAS UNTIL FINAL APPROVAL BY N.C.D.E.M.L.R
- 4. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.

SEQUENCE OF CONSTRUCTION:

- 1. FLAG THE CLEARING LIMITS AND INSTALL ALL SILT AND TREE PROTECTION FENCE.
- 2. HOLD PRE-CONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION, NOTIFY DEMLR-WILMINGTON REGIONAL OFFICE AT (910) 796-7215 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION BEGINNING.
- INSTALL TEMPORARY CONSTRUCTION ENTRANCE AND SILT FENCE.
- 4. CLEAR AND REMOVE FROM SITE ALL TREES, ROOTS, ROOT MAT, ETC. FROM THE AREA WITHIN THE DESIGNATED CLEARING LIMITS.
- INSTALL TEMPORARY SKIMMER BASINS.
- 6. INSTALL DITCHES TO DIRECT RUNOFF TO THE SKIMMER BASINS.
- 7. ROUGH GRADE THE REMAINING AREA WITHIN THE DESIGNATED CLEARING LIMITS.
- 8. INSTALL STORM DRAINAGE, SANITARY SEWER AND WATER AS SHOWN ON THE PLANS. ALL TRENCHES SHALL BE BACKFILLED AND STABILIZED DAILY.
- DIRECT RUNOFF FROM ROADWAY INTO STORM DRAINAGE SYSTEM. REMOVE TEMPORARY DIVERSION DITCHES AS NEEDED FOR ROADWAY CONSTRUCTION. AFTER DITCH REMOVAL, CONTRACTOR SHALL VERIFY STORM WATER IS ROUTED THROUGH A BASIN OR SILT FENCE PRIOR TO LEAVING SITE.
- 10. COMPLETE FINE GRADING SITE.
- 11. MAINTAIN SEDIMENTATION AND EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- 12. REQUEST FINAL APPROVAL OF GROUND COVER BY THE EROSION CONTROL INSPECTOR.
- 13. ONCE SITE IS FULLY STABILIZED, REMOVE ALL REMAINING TEMPORARY MEASURES AND IMMEDIATELY REPAIR, DRESS-OUT, AND SEED & MULCH THESE AREAS.

MAINTENANCE PLAN

- ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF INCH RAINFALL. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
- ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
- SEDIMENT WILL BE REMOVED BEHIND THE SEDIMENT FENCE WHEN IT BECOMES 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. SILT FENCE STAKES WILL BE SPACED 6 FEET APART UNLESS A WIRE BACKING IS USED WITH 8 FOOT STAKE SPACING.
- SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE.
- INLET PROTECTION DEVICES SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT. DAMAGED SILT FENCE SHALL BE REPLACED AND GRAVEL SHALL BE CLEANED OR REPLACED WHEN INLET NO LONGER DRAINS PROPERLY.
- 6. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED PER THE GROUND STABILIZATION TABLE. ALL OTHER AREAS WILL BE STABILIZED WITHIN 14 WORKING DAYS.
- 7. SEDIMENT WILL BE REMOVED FROM AROUND TEMPORARY ROCK CHECK DAMS ONCE A WEEK AND AFTER EVERY RAIN EVENT.

PERMANENT SEEDING SCHEDULE - MIXTURE 5CP

Seeding Mixture **SPECIES CENTIPEDE GRASS**

RATE (LB/ACRE)

GROUND STABILIZATION

TIME FRAME

7 DAYS

7 DAYS

14 DAYS

14 DAYS

extensions of time may be approved by the permitting authority based on weather or other site-specific conditions that make compliance

DESCRIPTION

SWALES, DITCHES

AND SLOPES

HIGH QUALITY

WATER (HQW)

SLOPES STEEPER

SLOPES FLATTER

ALL OTHER AREAS

impracticable. (Section 11.B(2)(b))

WITH SLOPES FLATTER THAN 4:1

THAN 3:1

THAN 3:1

STABILIZATION STABILIZATION TIM

FRAME EXCEPTIONS

IF SLOPES ARE 10' OF

LESS IN LENGTH AND ARI

4 DAYS ARE ALLOWE

7 DAYS FOR SLOPES

GREATER THAN 50 FEET

LENGTH

(EXCEPT FOR PERIMETER

AND HQW ZONES)

NOT STEEPER THAN 2:

Seeding Dates

MARCH - JUNE

Soil Amendments

APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 300 LB/ACRE 10-10-10 FERTILIZER.

Mulch

DO NOT MULCH.

FERTILIZE VERY SPARINGLY - 20 LB/ACRE NITROGEN IN SPRING WITH NO PHOSPHORUS. CENTIPEDE GRASS CANNOT TOLERATE HIGH PH OR EXCESS FERTILIZER.

TEMPORARY SEEDING-LATE WINTER/EARLY SPRING

Seeding Mixture

WINTER AND EARLY SPRING

SPECIES	RATE (LB/ACRE)
Rye (GRAIN)	120
ANNUAL LESPEDEZA (KOBE IN PIEDMONT	50
AND COASTAL PLAIN, KOREAN IN MOUNTAINS)	
ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COV	FR IS NOT TO FXTEND

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

SUMMFR

	<u> </u>	
SPECIES GERMAN MILLET		RATE (LB/ACRE) 40
OLIMAN MILLET		40

COASTAL PLAIN - DEC.1-APR. 15 - LATE WINTER AND EARLY SPRING

RATE (LB/ACRE

APRIL 15 - AUG. 15 - SUMMER AUG. 15 - DEC. 30 - FALL Soil amendments

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.

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

Maintenance

RYE (GRAIN)

Seeding dates

REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND

IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

SITE NOTES

- 1. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO START OF CONSTRUCTION. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
- 2. THE GENERAL CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND R.O.W.'S PUBLIC OR PRIVATE, PRIOR TO WORKING IN THESE AREAS.
- 3. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
- 4. ACCESS TO UTILITIES, FIRE HYDRANTS, STREET LIGHTING, ETC., SHALL REMAIN UNDISTURBED, UNLESS COORDINATED WITH THE
- RESPECTIVE UTILITY.
- 5. DO NOT SCALE THIS DRAWING AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
- 6. THE GENERAL CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT AND AT LEAST ONCE A WEEK DURING CONSTRUCTION.
- 7. THE GENERAL CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
- 8. CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER AND TOWN OF BEAUFORT UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.
- 9. IF DEPARTURES FROM THE SPECIFICATIONS OR DRAWINGS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE GIVEN TO THE OWNER AND TOWN OF BEAUFORT FOR REVIEW, NO DEPARTURES FROM THE CONTRACT DOCUMENT SHALL BE MADE WITHOUT THE PERMISSION OF THE OWNER AND TOWN OF BEAUFORT.
- 10. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES. THE LOCATION OF ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON PLANS AND WHERE SHOWN ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL ON HIS INITIATIVE AND AT NO EXTRA COST HAVE LOCATED ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. NO CLAIMS FOR DAMAGES OR EXTRA COMPENSATION SHALL ACCRUE TO THE CONTRACTOR FROM THE PRESENCE OF SUCH PIPE OTHER OBSTRUCTIONS OR FROM DELAY DUE TO REMOVAL OR REARRANGEMENT OF THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND STRUCTURES. CONTACT NORTH CAROLINA ONE CALL" TOLL FREE 1-800-632-4949 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL NONSUBSCRIBING UTILITIES.

11. ALL PERMITS RELATIVE TO PROJECT MUST BE OBTAINED, PRIOR TO CONSTRUCTION

- 12. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PERMITS ISSUED AND APPLICABLE STATE, COUNTY, AND LOCAL CODES.
- 13. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC., THAT MAY BE REQUIRED.
- 14. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.

EXISTING UTILITY NOTES:

- 1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE ACTUAL LOCATION AND AVAILABILITY OF ALL EXISTING AND PROPOSED UTILITIES IN THE FIELD PRIOR TO GROUND BREAKING.
- 2. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.

UTILITY CONTACTS:

1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING. 1-800-632-4949.

NOTICE REQUIRED:

- 1. ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED BY CONTRACT PRIOR TO THE BEGINNING OF ANY CONSTRUCTION IN THE VICINITY OF SAID UTILITIES.
- 2. CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST THREE WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS PRIOR TO ANY EXCAVATION OR DEMOLITION.

CONTACT "CAROLINA ONE CALL" AT

1-800-632-4949 **EMERGENCY DIAL 911** POLICE - FIRE - RESCUE

UTILITY NOTES:

- 1. ALL UTILITY SERVICES, SUCH AS ELECTRIC POWER, CATV, GAS, AND TELEPHONE SHALL BE INSTALLED UNDERGROUND.
- 2. WATER AND SEWER SERVICES CAN NOT BE ACTIVATED ON NEW MAINS UNTIL THE ENGINEER'S CERTIFICATION AND AS-BUILTS ARE RECEIVED AND "FINAL APPROVAL" ISSUED BY THE PUBLIC WATER SUPPLY SECTION OF NCDEQ, AND "FINAL ENGINEERING CERTIFICATION" ISSUED BY DIVISION OF WATER QUALITY SECTION OF N.C.D.E.N.R.
- 3. IF CONTRACTOR DESIRES WATER FOR CONSTRUCTION, HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
- 4. WHEN PVC WATER MAINS AND SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED COPPER WIRE INSTALLED AND STRAPPED TO THE PIPES WITH DUCT TAPE. THE INSULATED WIRE IS TO BE STRIPPED TO BARE WIRE AND SECURED TO ALL VALVES AND FITTINGS. THIS WIRE IS TO BE ACCESSIBLE IN ALL VALVE AND METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OR EXISTING UTILITIES DURING CONSTRUCTION. DAMAGED ITEMS HALL BE REPAIRED TO AT LEAST THE QUALITY OR WORKMANSHIP FOUND IN THE ORIGINAL ITEM.
- 6. SOLID WASTE DISPOSAL TO BE SERVED BY TOWN, AND PROVIDED BY INDIVIDUAL WASTE BINS FOR EACH LOT.

FIRE & LIFE SAFETY NOTES:

- 1. LANDSCAPING CANNOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT (3') CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT AND FDC.
- HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
- NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDING(S).
- 4. CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- 5. TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.
- 6. ALL FIRE PROTECTION SHALL BE INSTALLED PRIOR TO VERTICAL CONSTRUCTION.

TRAFFIC NOTES:

- 1. ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
- 2. ANY BROKEN OR MISSING SIDEWALK PANELS AND/OR CURBING SHALL BE REPLACED.

GRADING & STORMWATER MANAGEMENT NOTES:

- 1. STORMWATER MANAGEMENT WILL MEET BOTH THE STATE OR NORTH CAROLINA AND TOWN OF BEAUFORT REQUIREMENTS.
- 2. NO EQUIPMENT IS ALLOWED ON THE SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED.
- 3. PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS.
- 4. UPON PROJECT COMPLETION AND AFTER WARRANTY PERIOD, THE HOMEOWNERS ASSOCIATION WILL MAINTAIN AND BE RESPONSIBLE FOR ALL STORMWATER BMP'S AND ALL PIPING LOCATED IN THE RIGHT OF WAY.

080976.80 06/23/2021

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE

WITH THE NCG01 CONSTRUCTION GENERAL PERMIT Implementing the details and specifications on this plan sheet will result in the construction 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.

SECTION E: GROUND STABILIZATION							
Required Ground Stabilization Timeframes							
Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations					
(a) Perimeter dikes, swales, ditches, ar perimeter slopes	nd 7	None					
(b) High Quality Water (HQW) Zones	7	None					
(c) Slopes steeper than 3:1	7	If slopes are 10 feet 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	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones					

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.

-10 days for Falls Lake Watershed unless

I there is zero slope

GROUND STABILIZATION SPECIFICATION

Temporary Stabilization	Permanent Stabilization
Temporary grass seed covered with straw or other mulches and tackifiers. Hydroseeding Rolled erosion control products with or without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting	Permanent grass seed covered with strator or other mulches and tackifiers Geotextile fabrics such as permanent so reinforcement matting Hydroseeding Shrubs or other permanent plantings covered with mulch Uniform and evenly distributed ground coufficient to restrain erosion Structural methods such as concrete, asphalt or retaining walls Rolled erosion control products with graseed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

NORTH CAROLINA

Environmental Quality

flatter than 4:1

- 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 PAMS/Flocculants and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite. . 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
- has been corrected. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.
- LITTER, 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 water 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. Anchor all lightweight items in waste containers during times of high winds. Empty waste containers as needed to prevent overflow. Clean up immediately if
- containers overflow.
- Dispose waste off-site at an approved disposal facility. 9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

- 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. Containment must be labeled, sized and placed appropriately for the needs of site.
- 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 on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high
- 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.

feet from the toe of stockpile.

- 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. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five
- 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 erosion on disturbed soils for temporary or permanent control needs.

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.

NOTES: 1. ACTUAL LOCATION DETERMINED STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY. RUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE. SECTION A-A NOTES: 1. ACTUAL LOCATION DETERMINED 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINE WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES

APACITY TO PROVIDE ADEQUATE
OLDING CAPACITY WITH A MINIMU

3.CONCRETE WASHOUT STRUCTUR NEEDS TO BE CLEARY MARKED W SIGNAGE NOTING DEVICE.

12 INCHES OF FREEBOARD.

Page:

ONSITE CONCRETE WASHOUT

STRUCTURE WITH LINER

OR STAPLES SECTION B-B ABOVE GRADE WASHOUT STRUCTURE

CONCRETE WASHOUTS

- 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 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 spills or 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.
- . 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
- 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.

SELF-INSPECTION, RECORDKEEPING AND REPORTING

They are less than 25 gallons but cannot be cleaned up within 24 hours,

Do not stockpile these materials onsite.

SECTION C: REPORTING

1. Occurrences that Must be Reported

They are 25 gallons or more,

Permittees shall report the following occurrences:

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

NCG-01 GROUND COVER & MATERIALS HANDLING

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.

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 inspections

were delayed shall be noted in the Inspection Record.

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 on holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (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.	Identification of the measures inspected Date and Time of the inspection Name of the person performing the inspection Indication of whether the measures were operating properly Description of maintenance needs for the measure Description, Evidence, and date of corrective actions taken
(3) Stormwater discharge outfalls(SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours.	 Identification of the discharge outfalls inspected Date and Time of the inspection Name of the person performing the inspection Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration Indication of visible sediment leaving the site Description, Evidence, and date 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 record of the following shall be made: 1) Actions taken to clean up or stabilize sediment that has left the site limits 2) Description, Evidence and date of corrective actions taken 3) 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 has visible increased turbidity from the construction activity, the a record of the following shall be made: 1) Description, Evidence and date of corrective actions taken 2)Records of 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 assurance that they will be provided as soon as possible.

SELF-INSPECTION, RECORDKEEPING AND REPORTING SECTION B: RECORDKEEPING 1. E&SC Plan Documentation

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 | (b) Oil spills if: all times during normal business hours.

Item to Document	Document 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 are modified after initial installation.	(((c (e
(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.	2. 1
(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.	o (a)
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.	se de str
(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 corrective action.	

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:

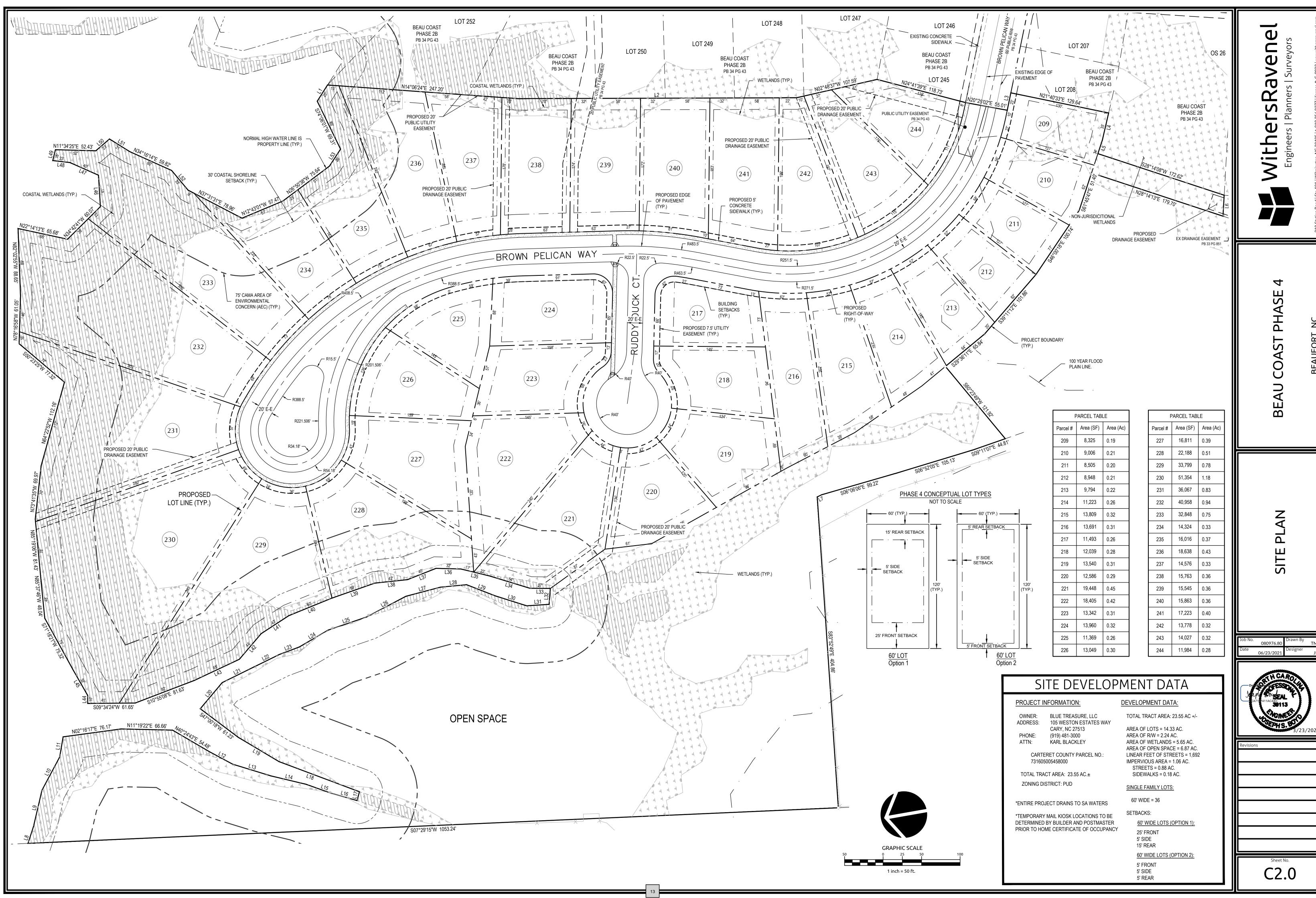
- (a) This General Permit as well as the Certificate of Coverage, after it is received.
- (b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes 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. . 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]

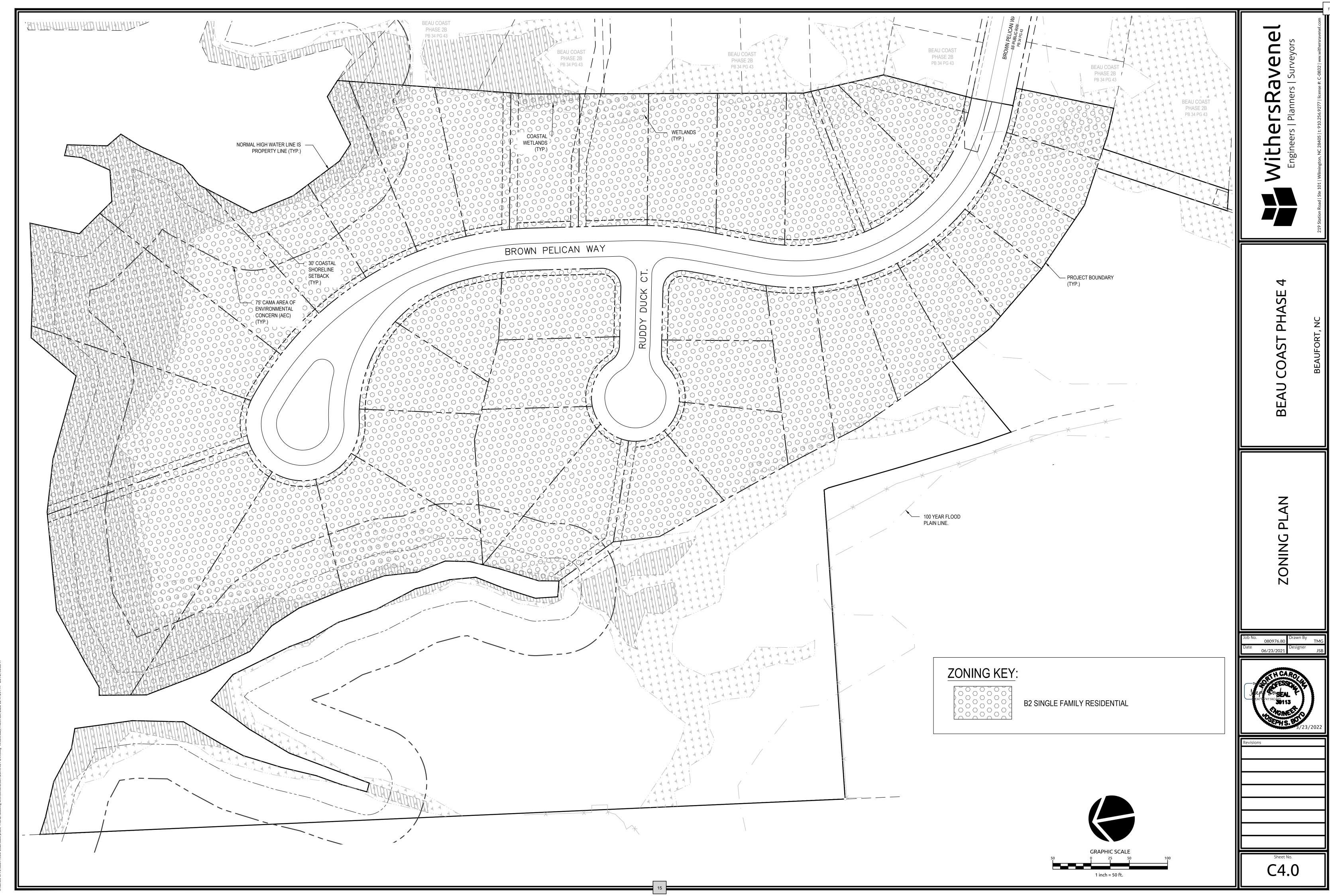
They cause sheen on surface waters (regardless of volume), or They are within 100 feet of surface waters (regardless of volume). (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (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 environment. Reporting Timeframes and Other Requirements 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) 858-0368. Reporting Timeframe (After Discovery) and Other Requirements Within 24 hours, an oral or electronic notification. sediment Within 7 Calendar Days, a report that contains a description of the deposition in a sediment and actions taken to address the cause of the deposition. stream or wetland Division staff may waive the requirement for a written report on a caseby-case basis. • If the stream is named on the NC 303(d) list as impaired for sedimentrelated caused, 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 Within 24 Hours, an oral or electronic notification. The notification shall release of include information about the date, time, nature, volume and location hazardous of the spill or release. substances per item 1(b)-(c) above (c) Anticipated A report at least ten days before the date of the bypass, if possible. bypasses [40 CFR The report shall include an evaluation of the anticipated quality and 122.41(m)(3)] effect of the bypass. (d) Unanticipated · Within 24 Hours, an oral or electronic notification bypasses [40 CFR • Within 7 calendar days, a report that includes an evaluation of the 122.41(m)(3)] quality and effect of the bypass. (e) Noncompliance · Within 24 Hours, an oral or electronic notification • Within 7 calendar days, a report that contains a description of the with the conditions of this permit that noncompliance, and its causes; the period of noncompliance, including may endanger exact dates and times, and if the noncompliance has not been health or the corrected, the anticipated time noncompliance is expected to continue; environment [40 and steps taken or planned to reduce, eliminate and prevent CFR 122.41(I)(7)] reoccurrence of the noncompliance. [40 CFR 122.41(I)(6).

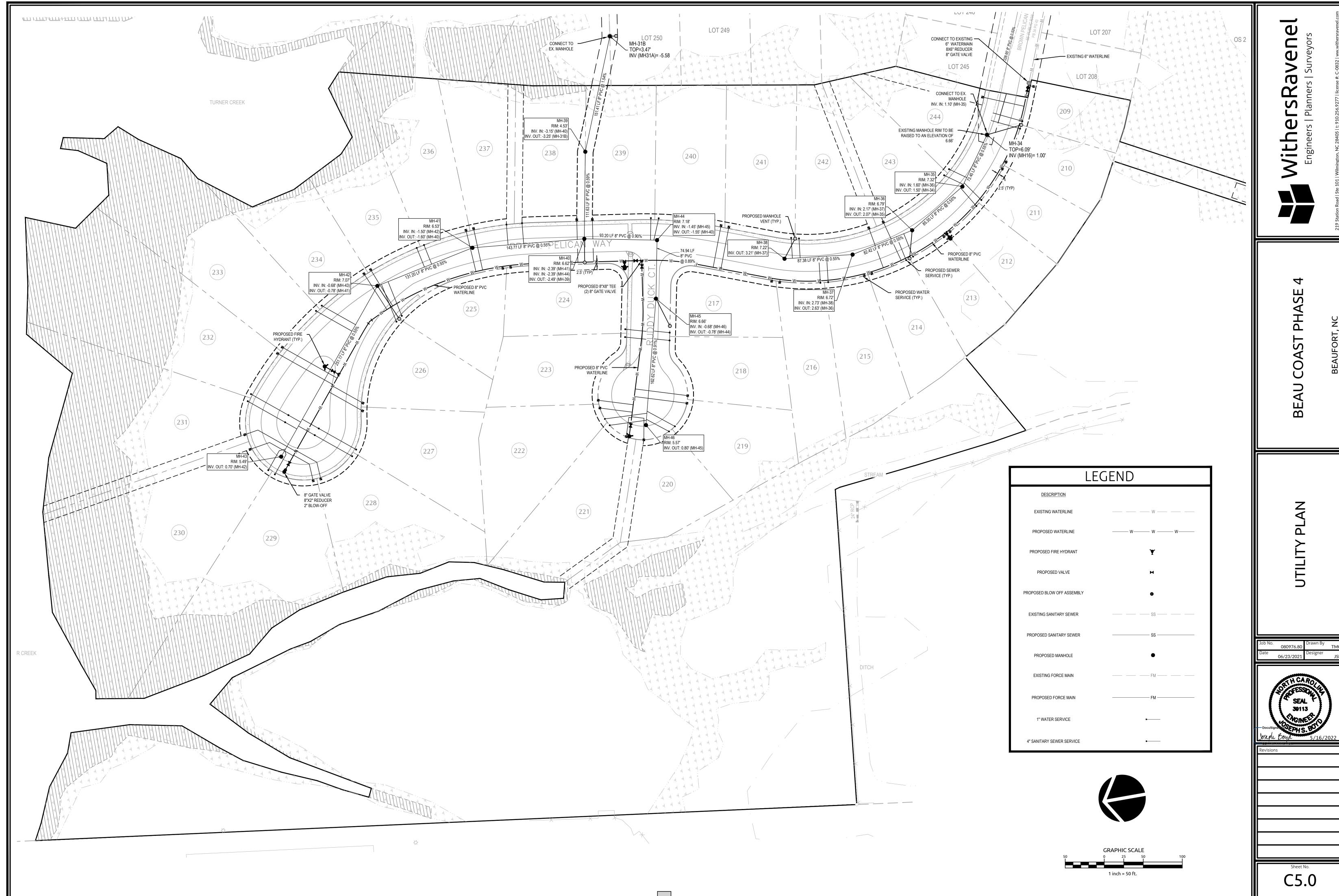
• Division staff may waive the requirement for a written report on a caseby-case basis.

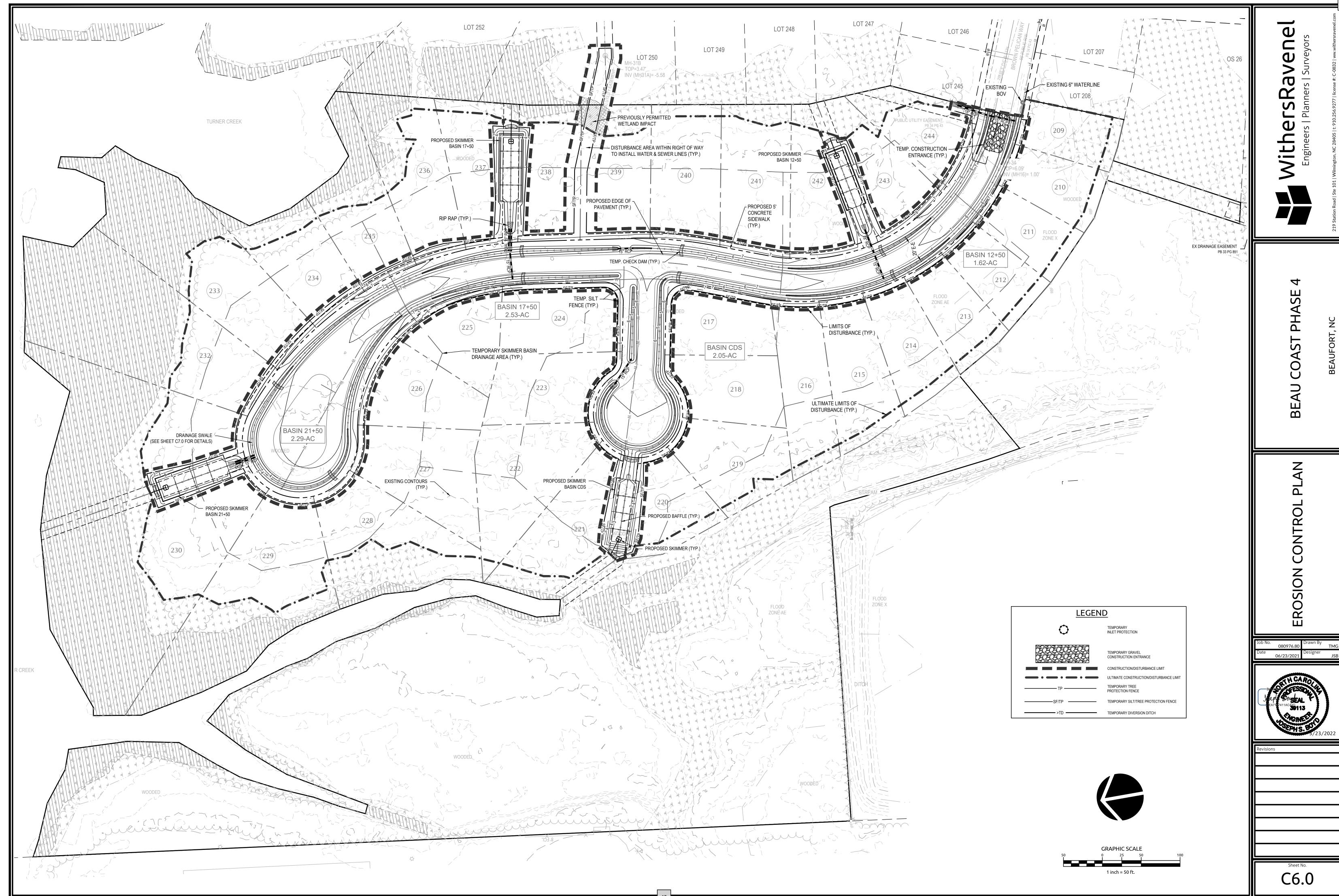
NORTH CAROLINA NCG-01 SELF INSPECTION Environmental Quality FECTIVE DATE:11/12/2020

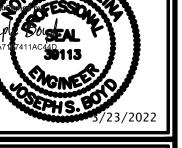


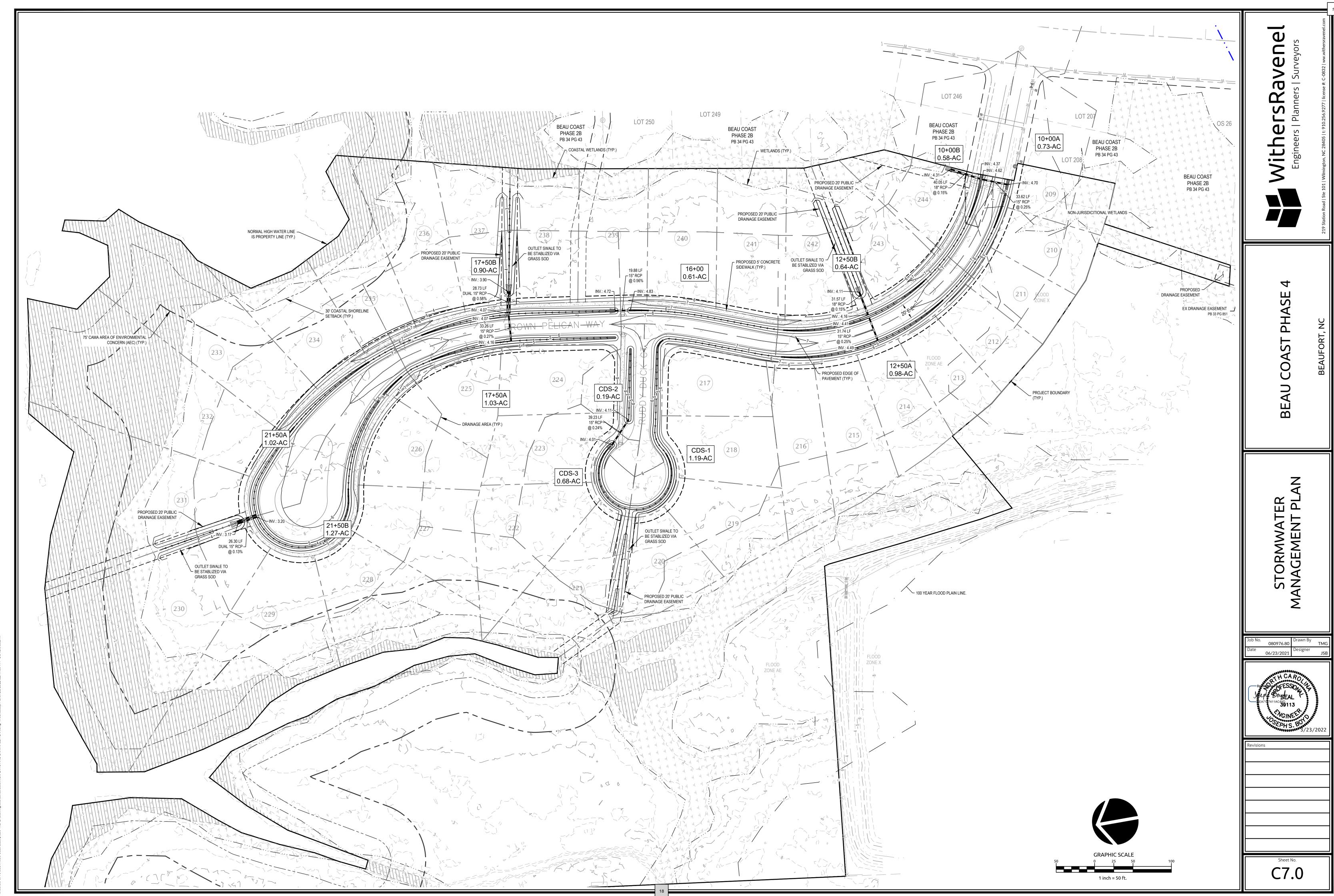




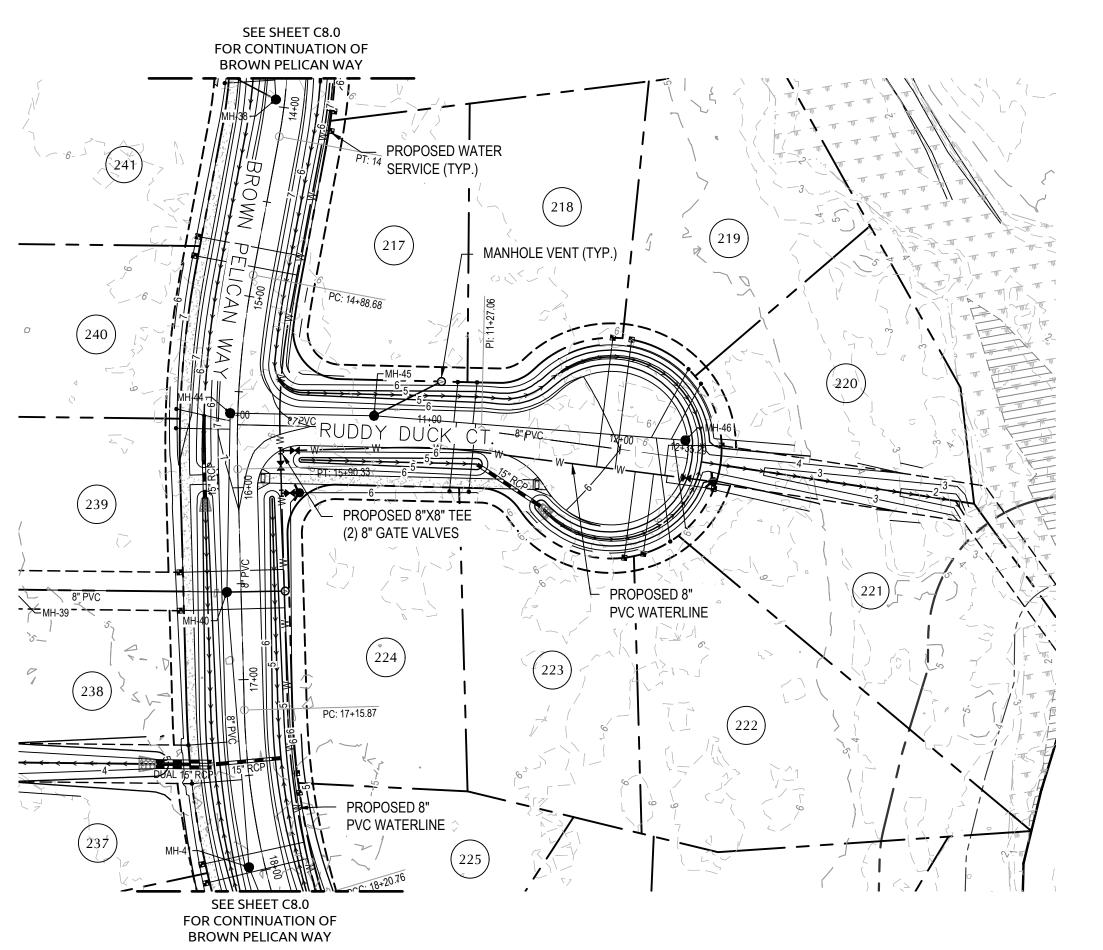






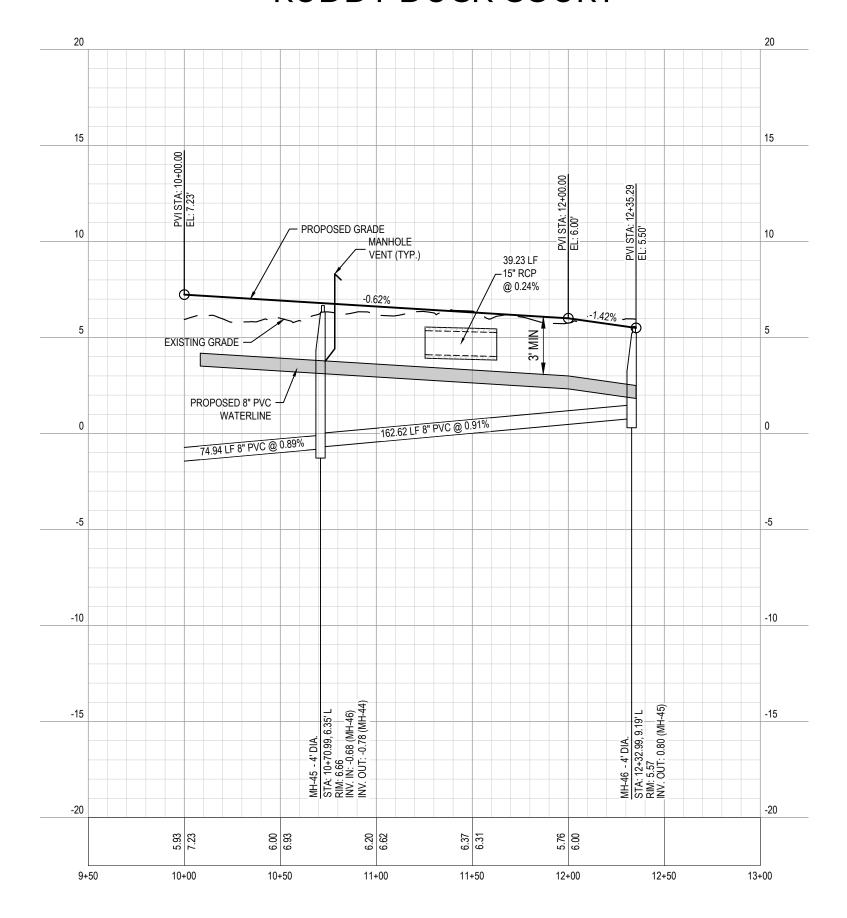


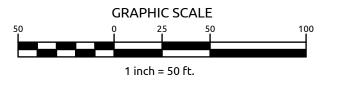






RUDDY DUCK COURT





Withers Ravenel Engineers | Planners | Surveyors

SE 4

DDY DUCK COURT PLAN

No. 080976.80 Drawn By
TNo.

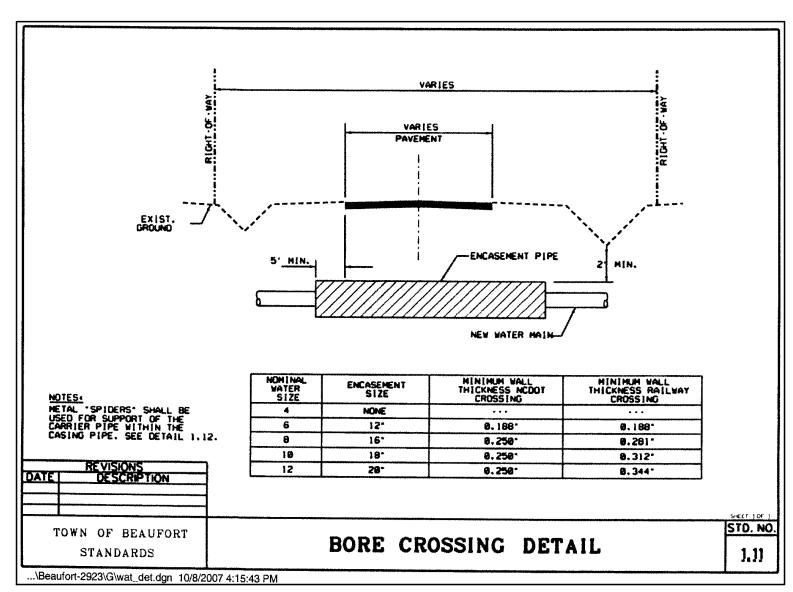
080976.80 Designer

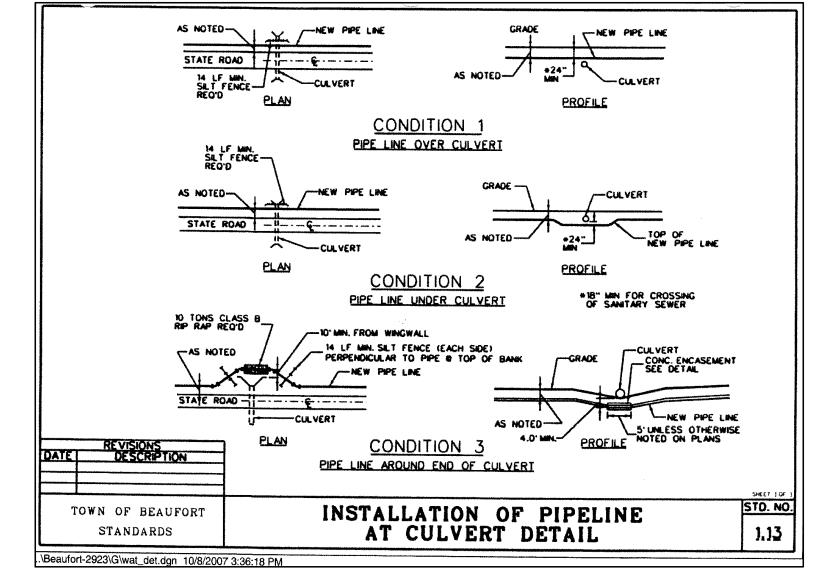
06/23/2021 Designer

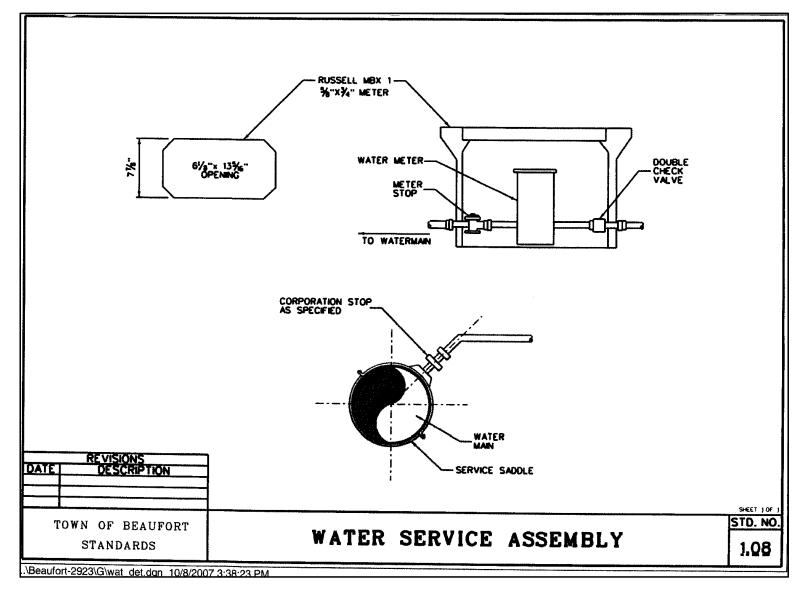


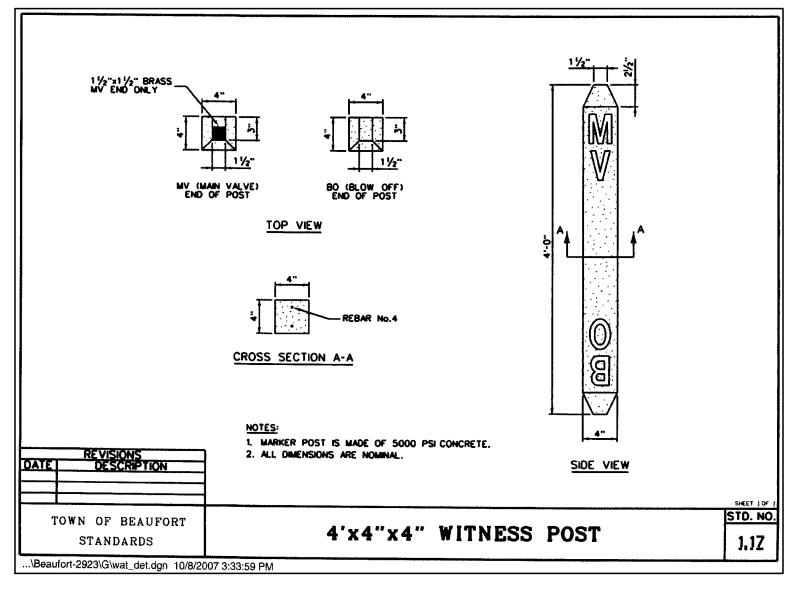
ocusignedin HS. 5

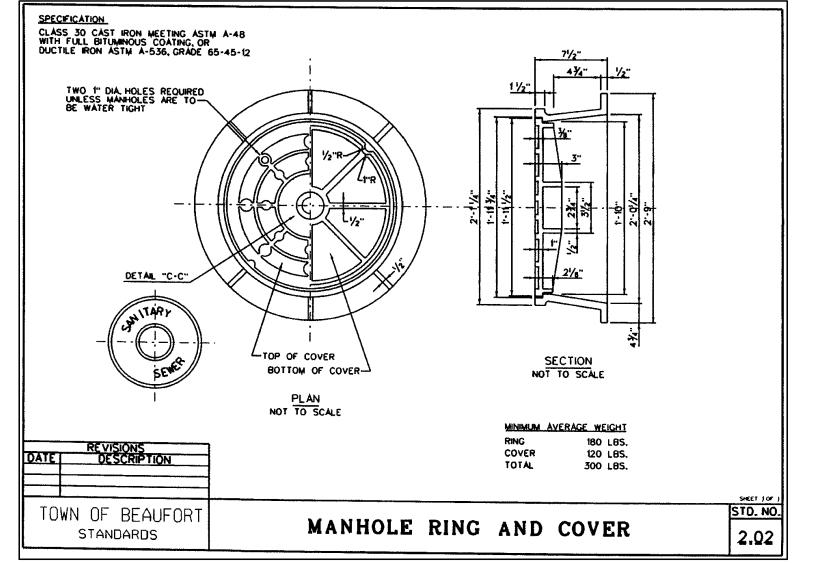
Sheet No.

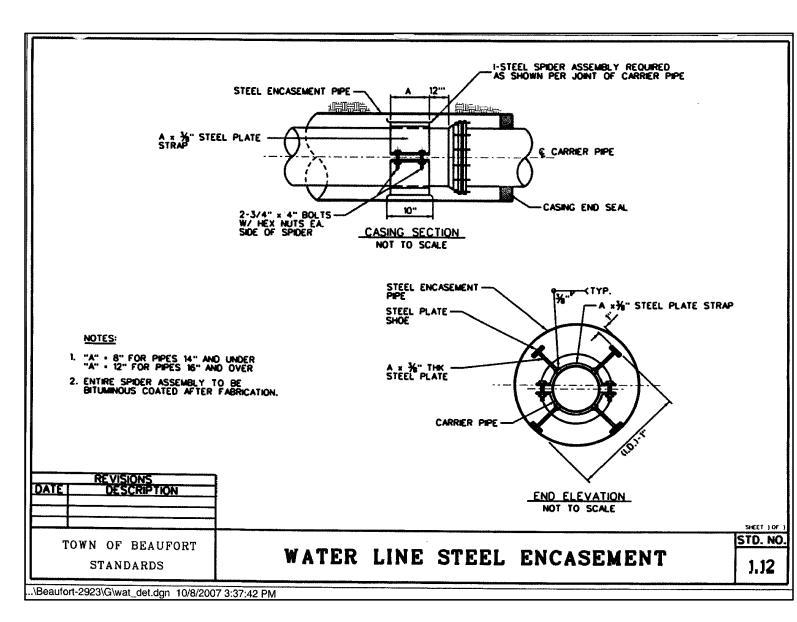


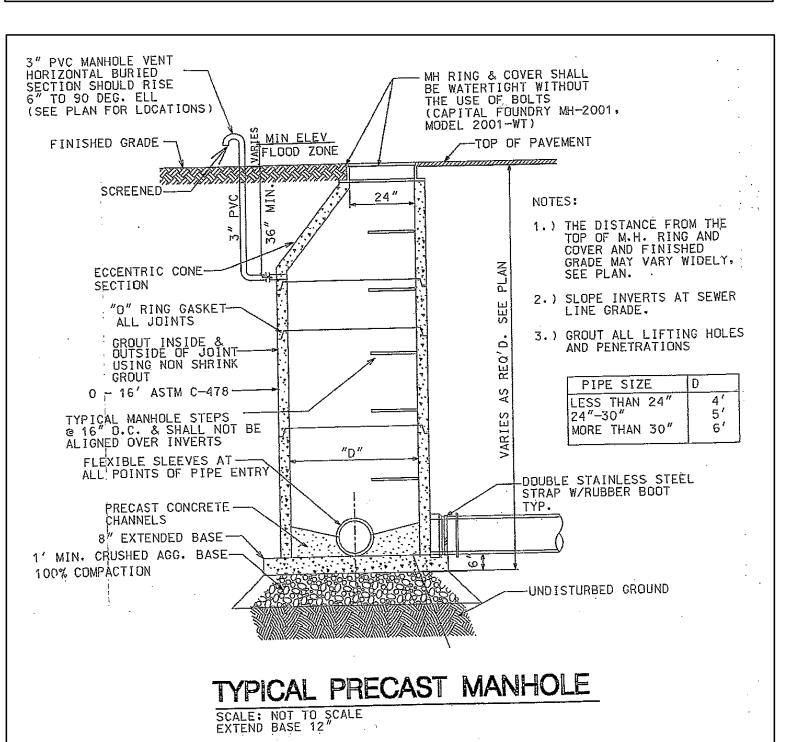


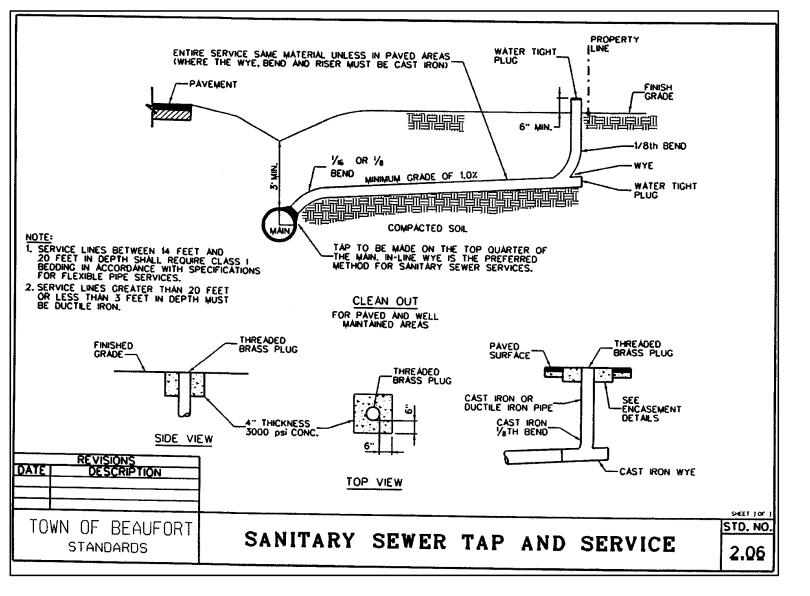












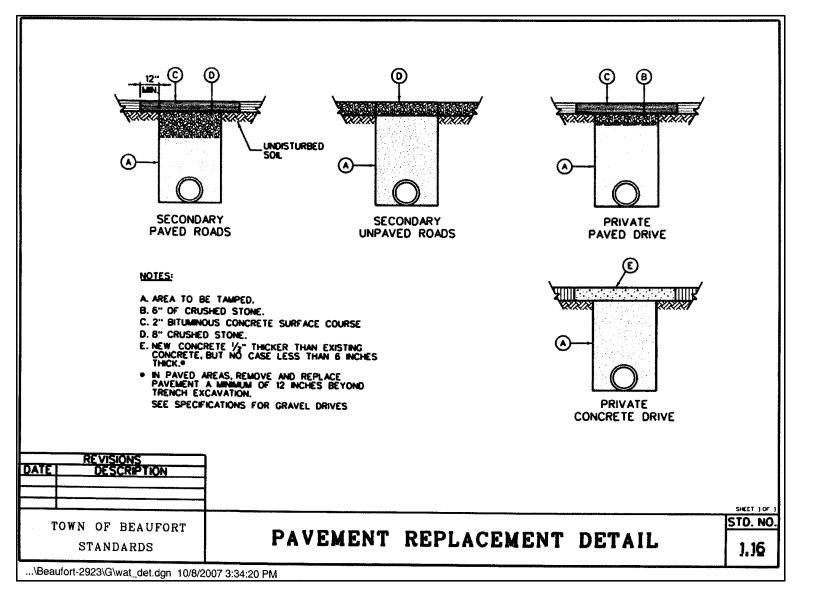
TYPICAL DETAILS NOTE:
THE TYPICAL DETAILS ON THIS SHEET WERE
DESIGNED AND PREPARED BY OTHERS.

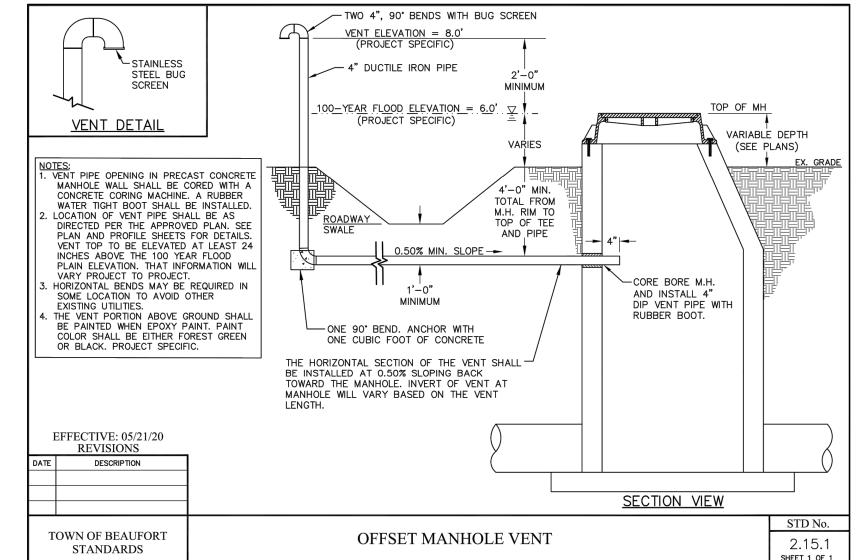
S

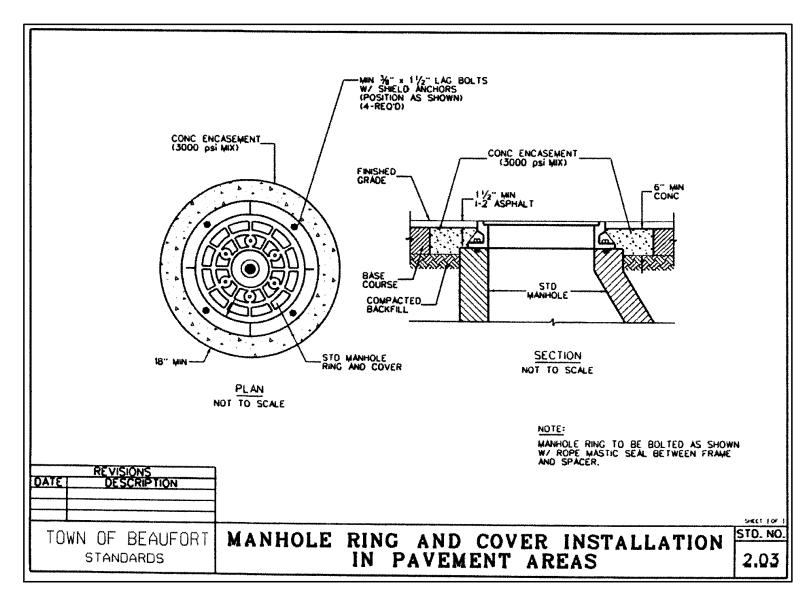
0

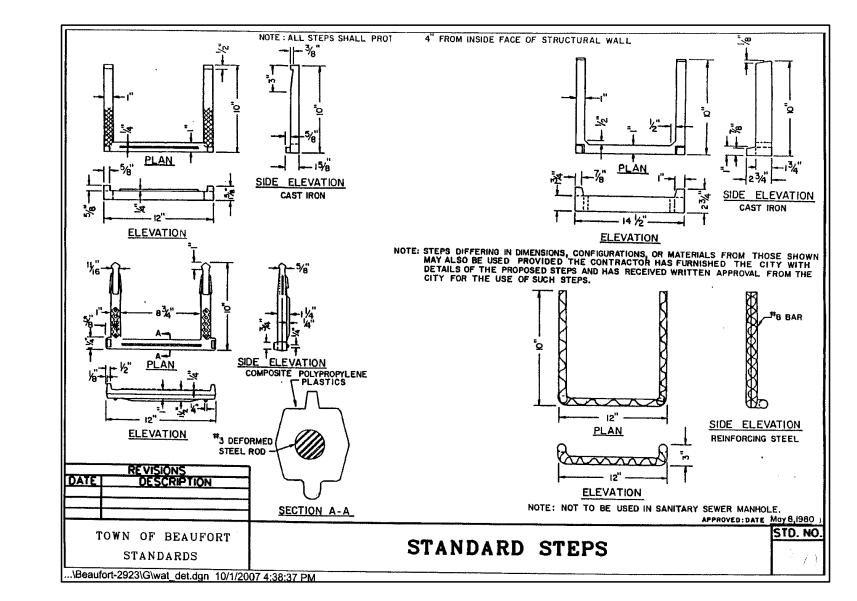
 $\mathbf{\Omega}$

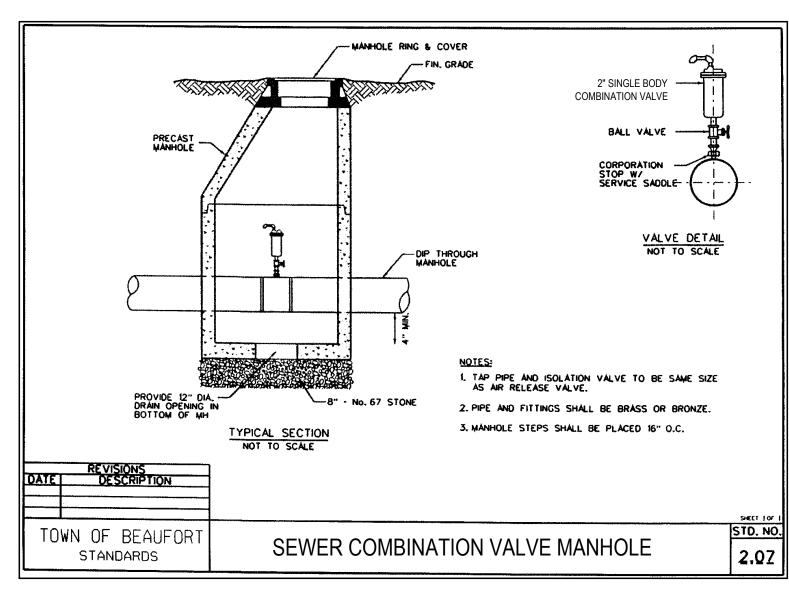
D1.0

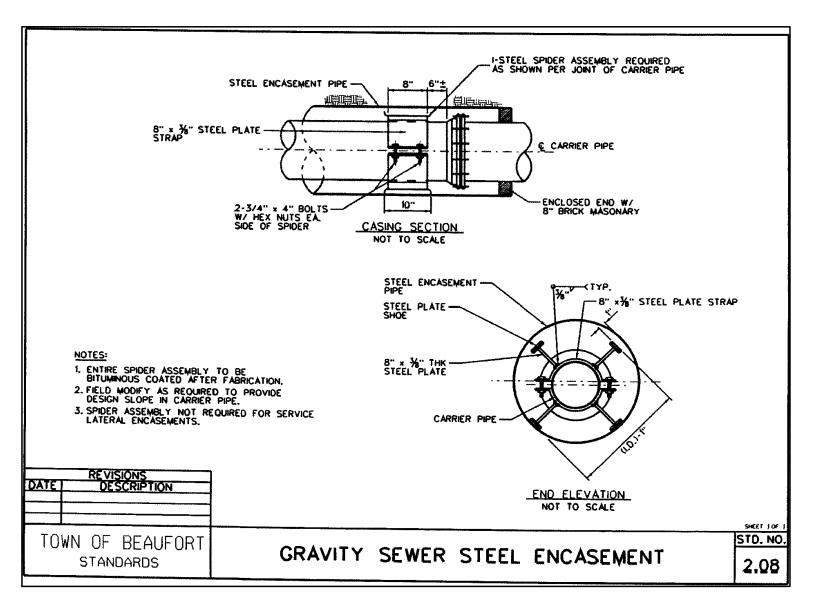


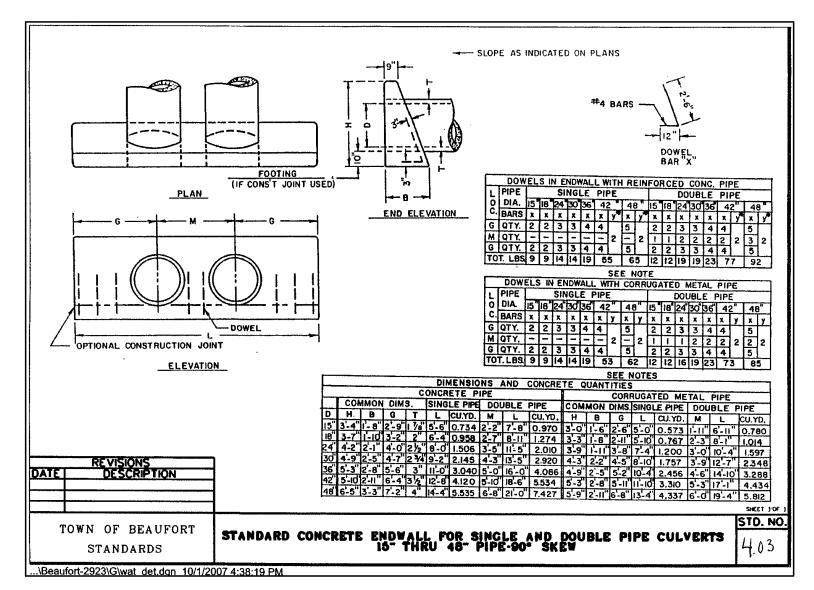












TYPICAL DETAILS NOTE: THE TYPICAL DETAILS ON THIS SHEET WERE DESIGNED AND PREPARED BY OTHERS.

L •

S

0

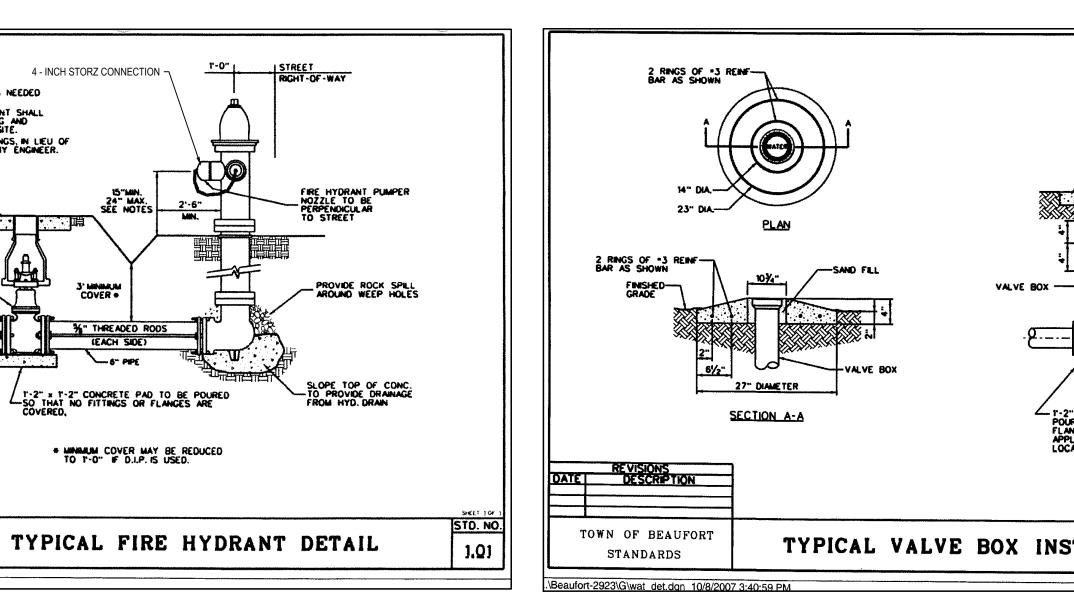
 $\mathbf{\Omega}$

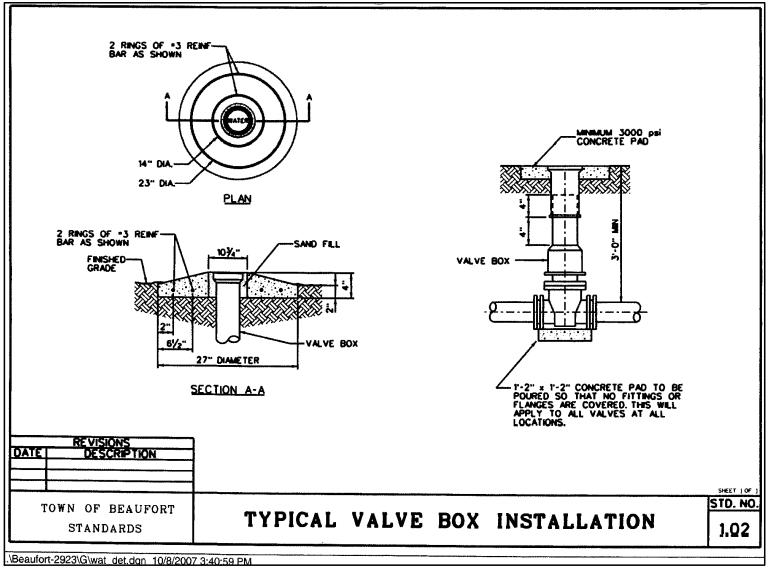
& SEWER & AY DETAILS WATER & ROADWAY

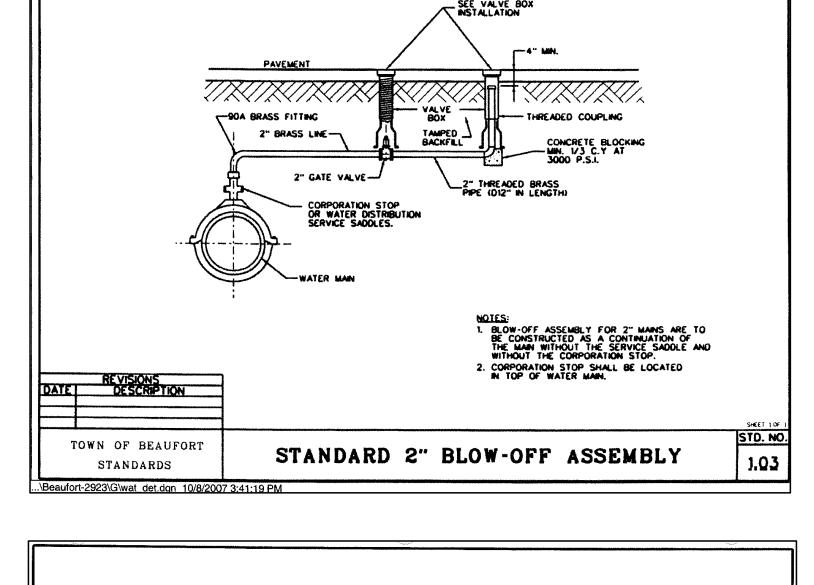
080976.80 06/23/2021

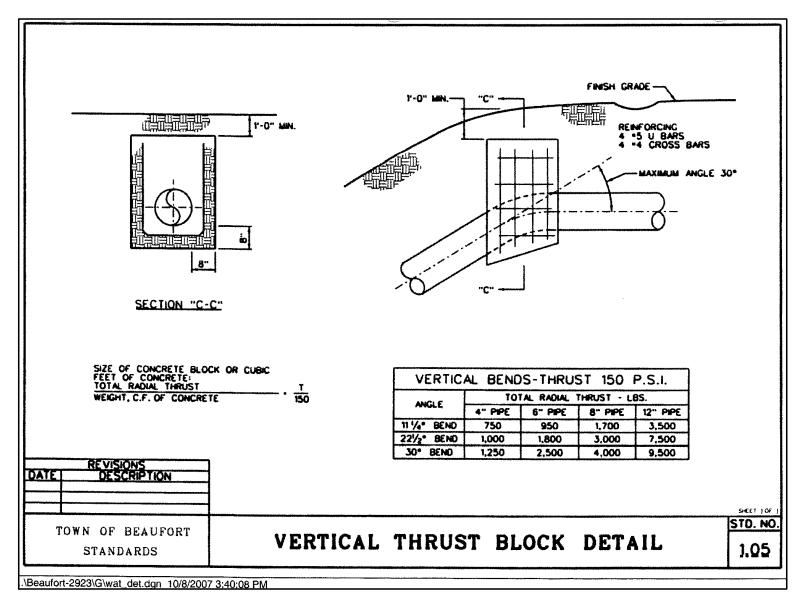
D2.0

D3.0

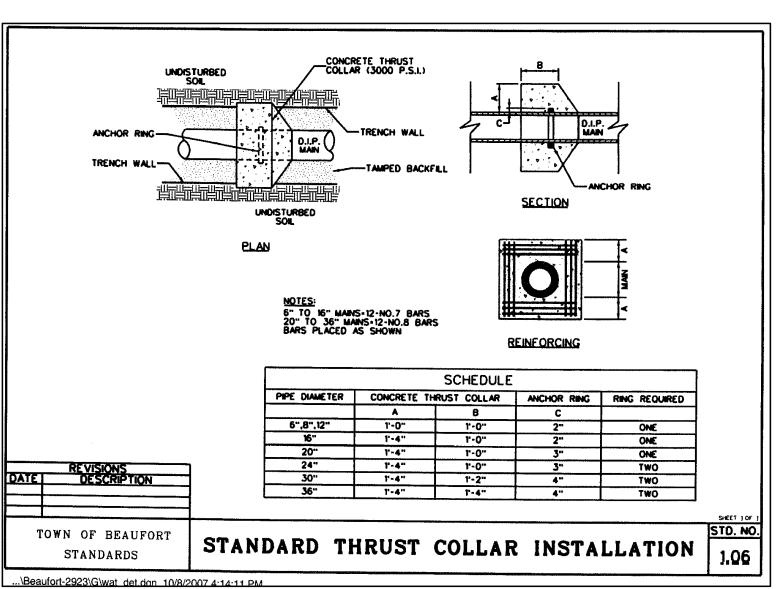


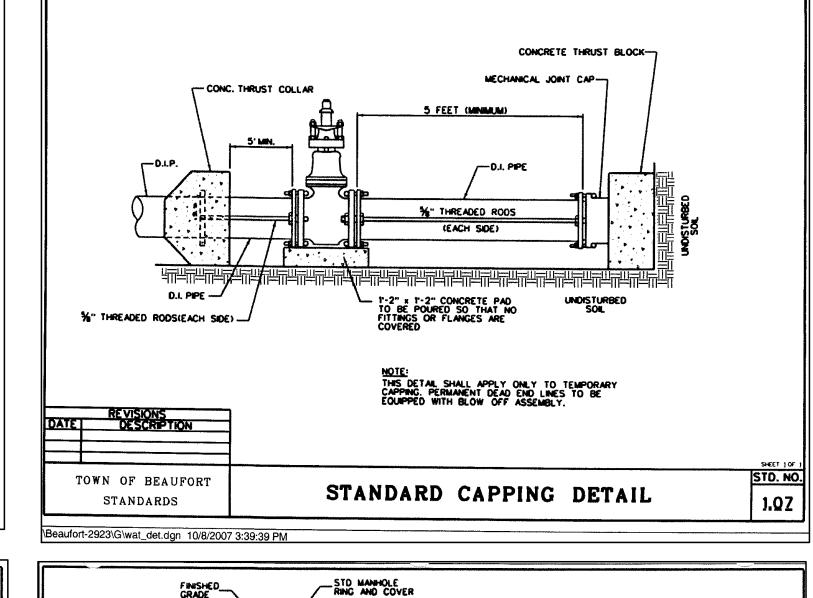






TOWN OF BEAUFORT





3. MANHOLE STEPS SHALL BE PLACED 16" OC WHEN DEPTH OF MANHOLE EXCEEDS 5 FEET.

4. CENTER MANHOLE OPENING, FOR MANHOLE DEPTHS LESS THAN 5 FEET.

COMBINATION AIR VALVE MANHOLE (FOR WATER MAINS)

ECCENTRIC CONE-SECTION

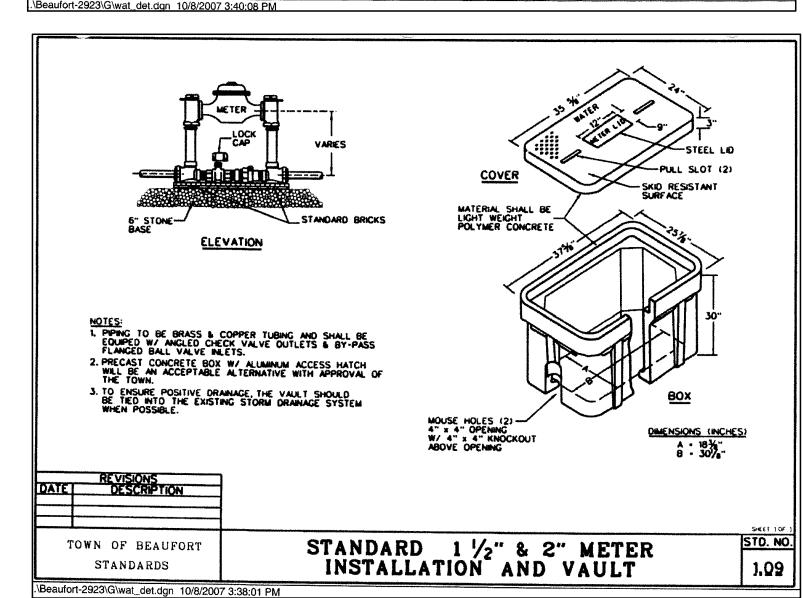
SEE PIPING DETAIL FOR PIPING IN THIS

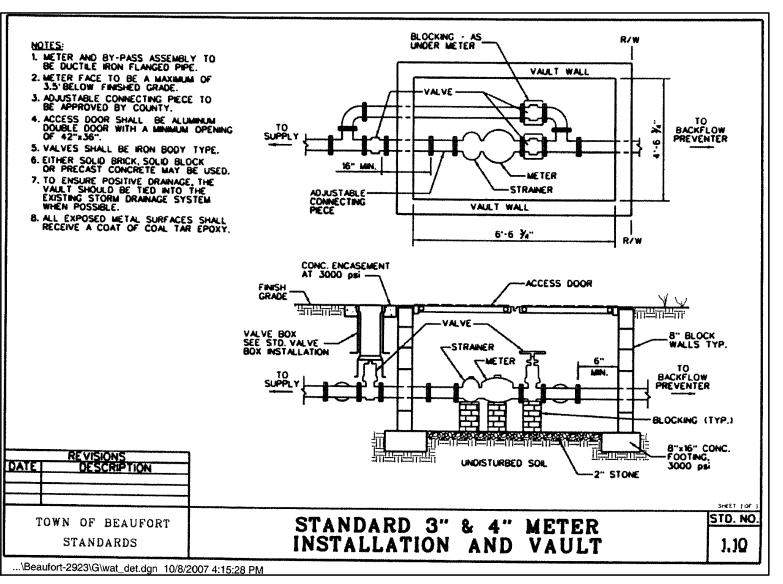
REVISIONS DESCRIPTION

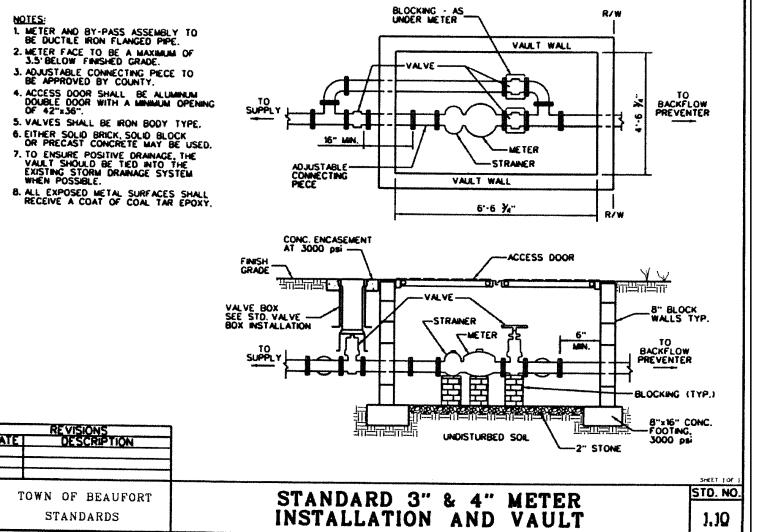
TOWN OF BEAUFORT

STANDARDS

\Beaufort-2923\G\wat_det.dgn 10/8/2007 3:37:19 PM





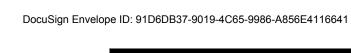


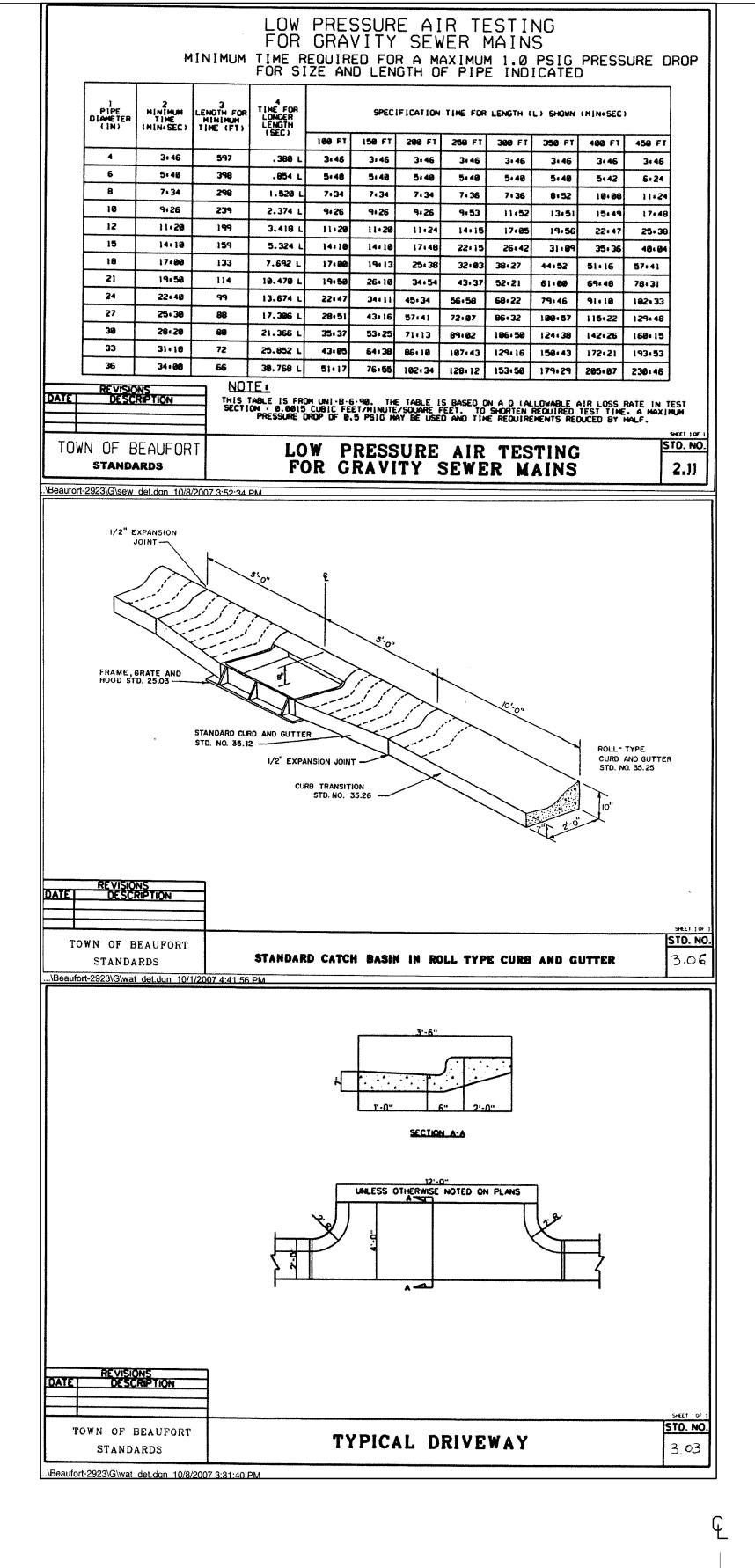
BRASS VALVE-

PIPE DETAIL

STD. NO.

1.15





TRAVĖL LANE

1/4"/FT

-- VEGETATIVE SWALE

TRAVEL LANE

1/4"/FT

 ackslash 8″ aggregate base course ackslash vegetative swale-

-3" S9.5A SURFACE COURSE

55' RIGHT OF WAY

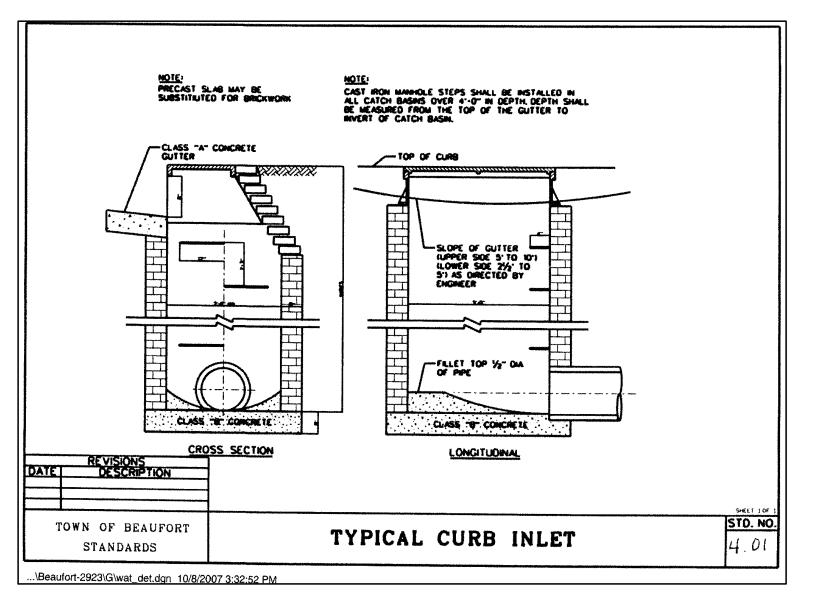
DRAINAGE SWALE

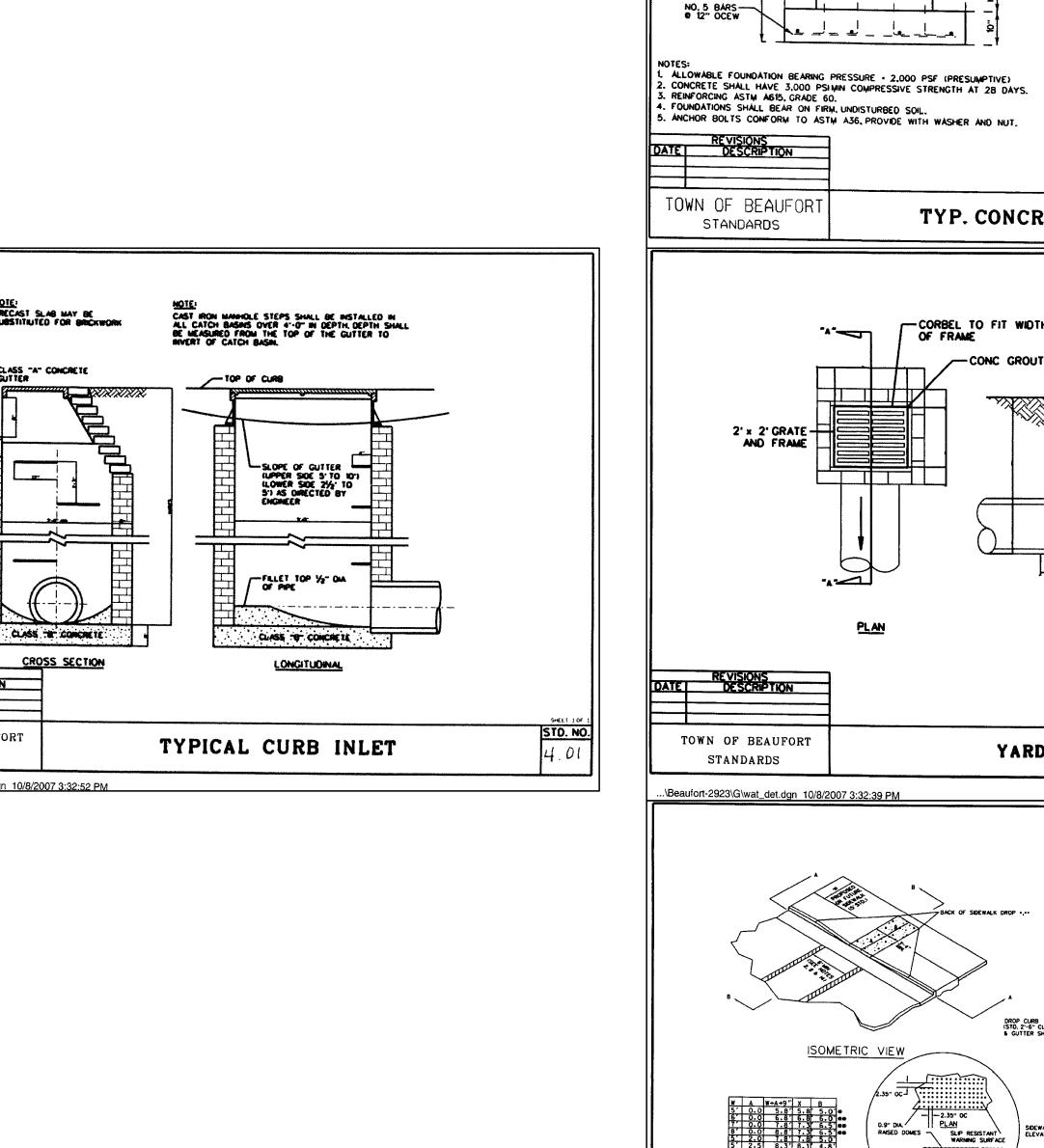
4" CONCRETE SIDEWALK-

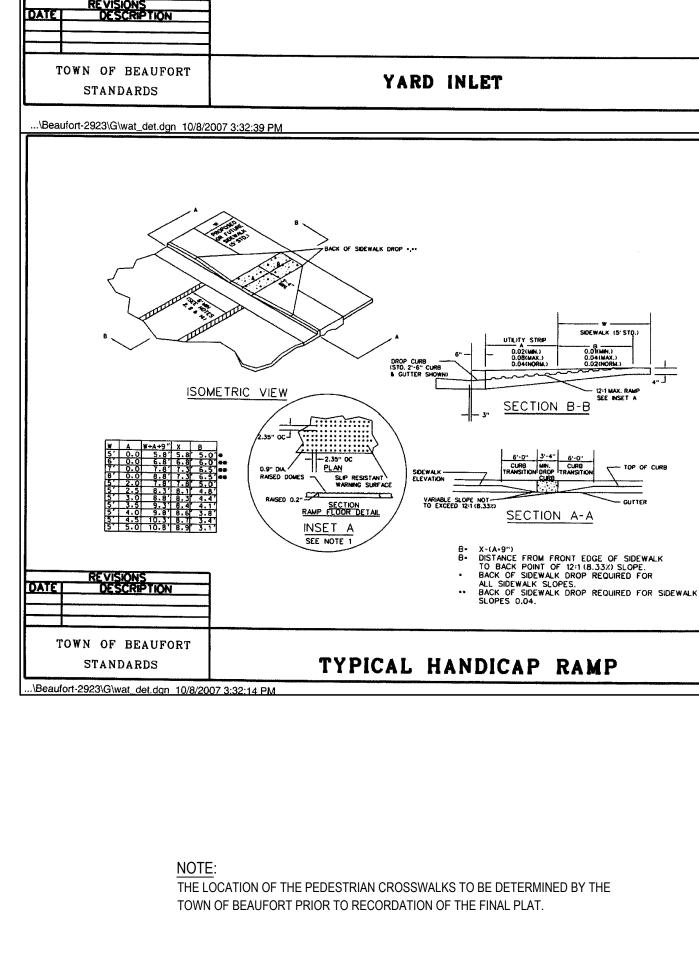
SIDEWALK

1/4"/FT

DRAINAGE SWALE







6" ITYP

- NO. 3 DIÁG TIES

TYP. CONCRETE PIER DETAIL

SECTION A-A

CORBEL TO FIT WIDTH

[A 1-3"

PROVIDE FRAME & GRATE DEWEY BROS. CH-BN-274

*4 BARS 12" O.C.

EACH WAY

2.16

1" HS GROUT, ---NON-WETALLIC & NON-STAINING

(7 O With

S

0

 $\mathbf{\Omega}$

080976.80 06/23/2021

1. EXCAVATE BELOW CHANNEL OUTLET AND WIDEN CHANNEL TO THE REQUIRED RIPRAP THICKNESS FOR EACH APRON. FOUNDATION TO BE CUT TO ZERO GRADE AND SMOOTHED.

2. PLACE FILTER CLOTH ON BOTTOM AND SIDES OF PREPARED FOUNDATION. ALL JOINTS TO OVERLAP A

MINIMUM OF 1.0'. 3. EXERCISE CARE IN RIPRAP PLACEMENT TO AVOID DAMAGE TO FILTER FABRIC.

4. PLACE RIPRAP ON ZERO GRADE - TOP OF RIPRAP TO BE LEVEL WITH EXISTING OUTLET - NO OVERFALL AT

5. RIPRAP TO BE HARD, ANGULAR, WELL GRADED CLASS B EROSION CONTROL STONE.

6. IMMEDIATELY AFTER CONSTRUCTION STABILIZED ALL DISTURBED AREAS WITH VEGETATION AS SHOWN IN VEGETATIVE PLAN.

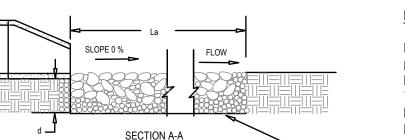
• —

S

UA

0

080976.80 06/23/2021



MAINTENANCE

INSPECT RIP RAP DISSIPATERS WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT TO SEE IF ANY EROSION AROUND OR BELOW THE RIP RAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

SEE SCHEDULE BELOW FOR DIMENSIONS

ISOMETRIC VIEW

PLAN

2. d = 1.5 times the maximum stone diameter but not less than 6"

3. A filter blanket (filter fabric) shall be

1. La is the length of the riprap apron.

TYPICAL CONC. FLARED END

W = APRON WIDTH 3 X PIPE Ø MIN

d = APRON DEPTH

installed between the riprap and soil foundation.

ENERGY DISSIPATER SCHEDULE

ENERGY DISSIPATOR NO.	PIPE DIAMETER (in)	APRON THICKNESS (in)	La (ft)	WIDTH (ft)	3do	RIPRAP SIZE
10+00	18	24	10	12	5	CLASS 1
12+50	18	24	10	12	5	CLASS 1
16+00	15	24	9	11	4	CLASS B
17+50	15	18	14	16	4	CLASS 1
21+50	15	24	13	15	4	CLASS 1
CDS	15	18	9	11	4	CLASS B

RIP RAP ENERGY DISSIPATER

N.T.S.

SEEDBED PREPARATION

─ #57 WASHED STONE

FILTER FABRIC TO BE

BURIED UNDER EXIST.

BY THE ENGINEER

GRADE OR AS REQUIRED

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.

2. RIP THE ENTIRE AREA TO 6 INCHES DEPTH.

3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.

4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL.

5. CONTINUE TILLAGE UNTIL A WELL PULVERIZED, FIRM REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.

6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.

7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.

8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RE-SEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, RE-ESTABLISH FOLLOWING ORIGINAL LIME FERTILIZER AND SEEDING RATES.

9. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS: OTHER SEEDING RATES COMBINATIONS ARE POSSIBLE.

* TEMPORARY-RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE

NTS --- 12" OF NCDOT #5 OR #57 WASHED STONE STONE SHOULD BE PLACED OVER THE CHANNEL BANKS TO KEEP WATER FROM CUTTING AROUND THE DAM.

12" OF NCDOT #5 OR #57 WASHED STONE FILTER CLOTH V 4' TD 6'

CROSS SECTION

SIGNIFICANT 1/2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. CLEAN OUT SEDIMENT, STRAW, LIMBS, OR OTHER DEBRIS THAT COULD CLOG THE

ANTICIPATE SUBMERGENCE AND DEPOSITION ABOVE THE CHECK DAM AND EROSION FROM HIGH FLOWS ROUND THE EDGES OF THE DAM. CORRECT ALL DAMAGE IMMEDIATELY. IF SIGNIFICANT EROSION OCCURS BETWEEN DAMS, ADDITIONAL MEASURES CAN BE TAKEN SUCH AS, INSTALLING A PROTECTIVE RIP RAP LINER IN THE

TEMPORARY CHECK DAM

L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

CHANNEL WHEN NEEDED.

NOTES:

2'-0"

MINIMUM

1. PROVIDE TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS.

2. LOCATE ENTRANCE TO PROVIDE MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES. 3. MUST BE MAINTAINED IN A CONDITION WHICH WILL

PREVENT TRACKING, OR DIRECT FLOW, OF MUD ONTO

STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY. 4. ANY MATERIAL WHICH MAKES IT ONTO THE ROAD MUST BE

CLEANED UP IMMEDIATELY. 5. APPLICABLE AT ALL POINTS OF INGRESS EGRESS UNTIL

AND TIMELY MAINTENANCE MUST BE PROVIDED.

6. WHEN TEMPORARY CONSTRUCTION ENTRANCES ARE LOCATED ON PAVED SURFACES, PLACE MINIMUM OF 2" OF SCREENINGS OR SAND TO HELP FACILITATE IN CLEAN-UP AND SITE RESTORATION.

SITE IS STABILIZED, FREQUENT CHECKS OF THE DEVICE

2"-3" SIZE WASHED STONE

MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING

THE C CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH

CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS

SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND

FILTER FABRIC -

PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.

6. MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.

5. ATTACH SIGNS SECURELY TO FENCE POST AND FABRIC.

MAINTENANCE:

TEMPORARY CONSTRUCTION ENTRANCE

CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED. WEATHERPROOF SIGN AS SHOWN ABOVE. SEE NOTES BELOW FOR CONSTRUCTION AND SPACING DATA. -Tree Protection Area - ORANGE, UV RESISTANT POST MAY BE EITHER HIGH-TENSILE STRENGTH 4"Ø PINE, 2"Ø POLY BARRICADE FABRIC Do Not Enter OR 1.33 lb./LF STEEL - 5'-0" O.C. MAX. — 1. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. Tree Protection Area Do Not Enter 2. LETTERS ARE TO BE 3" HIGH MIN., CLEARLY LEGIBLE AND SPACED AS DETAILED. 3. SIGNS ARE TO BE PLACED NO GREATER THAN 200' ON CENTER. 4. PLACE SIGN AT EACH END OF LINEAR TREE PROTECTION AREA AND ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER,

FILTER FABRIC & LINE WIRES MAINTENANCE:

10 GAGE

<u>MAINTENANCE</u>

LINE WIRES -

DAM SECTION

CLASS B STONE INSPECT FOR SIGNIFICANT EROSION AROUND THE EDGES & BETWEEN SILT FENCE & DRAIN. INSTALL PROTECTIVE RIP-RAP LINERS IN PORTIONS OF THE CHANNEL WHERE EROSION OCCURS. REMOVE SEDIMENT ACCUMULATED BEHIND THE DRAINS AS REQUIRED PREVENTING DAMAGE TO SILT FENCE & ADJACENT VEGETATION. ADD STONES TO DRAINS AS REQUIRED

MAINTAINING DESIGN HEIGHT & CROSS SECTION.

MAINTENANCE INSPECT INLETS AT LEAST WEEKLY AND AFTER

-STANDARD METAL POSTS 2'-0" IN GROUND EACH SIGNIFICANT (1/2 INCH OR GREATER RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE GALVANIZED HARDWARE WIRE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE EXTENDS TO TOP OF BOX CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED. -# 57 WASHED STONE PLACED TO A HEIGHT OF

-8'-0" O.C. MAX-

7 1/2" OZ.

FILTER FABRIC

12 GAGE

LINE WIRES-

NOTE 1

ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

SHOULD THE FABRIC OF THE SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.

REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE

5' MAX. CENTER

2', TYP.

REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE

1) STEEL POSTS TO BE BURIED A MINIMUM OF 2'-0"

2) INSTALL SILT FENCE WHERE SHOWN ON DRAWINGS AND MAINTAIN UNTIL COMPLETION OF GRADING

TAMP

BACKFILL-

SILT FENCE

1. POSTS TO BE BURIED A MINIMUM OF 2'-0".

CLASS B STONE

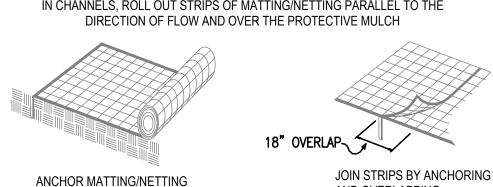
2. INSTALL SILT FENCE AS SHOWN DETAIL 4/W401.

CROSS SECTION

12"-18" MINIMUM ABOVE TOP OF BOX STANDARD CATCH BASIN/YARD INLET PROTECTION

2:1 SIDE 2:1 SIDE SLOPES (MAX. SLOPES (MAX.)

IN CHANNELS, ROLL OUT STRIPS OF MATTING/NETTING PARALLEL TO THE



IN A 12" TRENCH

JOIN STRIPS BY ANCHORING AND OVERLAPPING

TREE PROTECTION FENCE

MATTING/NETTING PLACEMENT

WITH THE GROUND SHALL BE REPAIRED AND STAPLED. IF EROSION OCCURS DUE TO POORLY CONTROLLED DRAINAGE, THE

MUST NOT OCCUR BENEATH THE RECP.

PROBLEM SHALL BE FIXED AND THE ERODED AREA PROTECTED. MONITOR AND REPAIR THE RECP AS NECESSARY UNTIL GROUND COVER HAS ESTABLISHED.

ROLLED EROSION CONTROL PRODUCT MAINTENANCE:

INSPECT ROLLED EROSION CONTROL PRODUCTS AT LEAST WEEKLY AND

GOOD CONTACT WITH THE GROUND MUST BE MAINTAINED, AND EROSION

ANY AREAS OF THE RECP THAT ARE DAMAGED OR NOT IN CLOSE CONTACT

AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT, REPAIR

IMMEDIATELY.

CLASS B RIPRAP

SPACE CHECK DAM IN A CHANNEL SO THAT THE CREST OF DOWNSTREAM DAM IS LEVEL WITH ELEVATION OF THE TOE OF UPSTREAM DAM **MAINTENANCE** INSPECT CHECK DAMS AND CHANNELS AT LEAST WEEKLY AND AFTER EACH

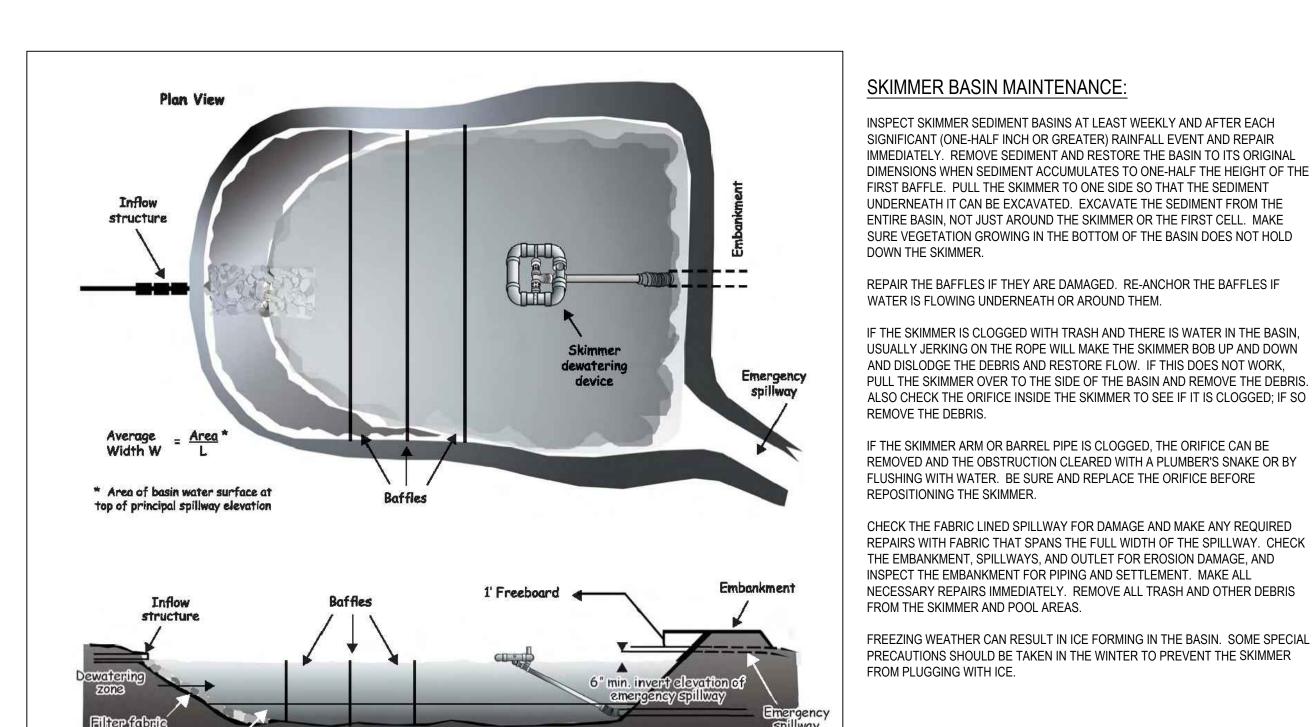
THAT PORTION OF THE CHANNEL.

REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION, ALLOW THE CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM, AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. ADD STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.

0

 $\mathbf{\omega}$

ER.



SKIMMER BASIN DETAIL

Cross-Section

View

TEMPORARY SKIMMER BASIN DIMENSION TABLE

N	IUMBER	LENGTH(FT)	WIDTH(FT)	DEPTH(FT
S	KIMMER BASIN 12+50	72	24	2.0
S	KIMMER BASIN 17+50	81	27	2.0
S	KIMMER BASIN 21+50	87	29	2.0
S	KIMMER BASIN CDS	81	27	2.0

NOTES:

POROUS BAFFLE

OUTLET-

storage zone

1. ALL SIDE SLOPES OF THE SKIMMER BASIN ARE TO BE AT 3:1 GRADE AND SHALL BE STABILIZED WITHIN 7 DAYS.

2. SEE EROSION CONTROL DETAILS FOR MORE INFORMATION.

MAINTENANCE

INSPECT BAFFLES AT LEAST WEEKLY AND AFTER EACH RAINFALL EVENT. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OF A BAFFLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.

REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FULL TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BAFFLES. TAKE CARE TO AVOID DAMAGING THE BAFFLES DURING CLEANOUT. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH.

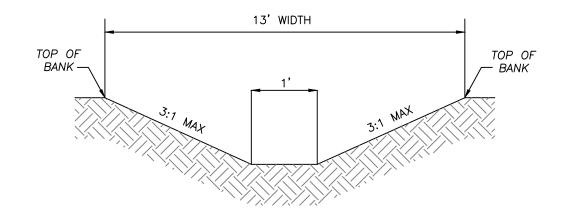
AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, REMOVE ALL BAFFLE MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE, AND STABILIZE IT.

CONSTRUCTION SPECIFICATION

- GRADE THE BASIN SO THAT THE BOTTOM IS LEVEL FRONT TO BACK AND SIDE TO SIDE. INSTALL POSTS OR SAW HORSES ACROSS THE WIDTH OF THE SEDIMENT TRAP.
- 3. STEEL POSTS SHOULD BE DRIVEN TO A DEPTH OF 24 INCHES, SPACED AT A MAXIMUM OF 4 FEET APART, AND INSTALLED UP THE SIDES OF THE BASIN AS WELL. THE TOP OF THE FABRIC SHOULD BE 6 INCHES HIGHER THAN THE INVERT OF THE SPILLWAY. TOPS OF BAFFLES SHOULD BE 2 INCHES LOWER THAN THE TOP OF THE BERM.
- 4. INSTALL AT LEAST THREE ROWS OF BAFFLES BETWEEN THE INLET AND OUTLET DISCHARGE
- 5. WHEN USING POSTS, ADD A SUPPORT WIRE OR ROPE ACROSS THE TOP OF THE MEASURE TO
- 6. WRAP POROUS MATERIAL, LIKE JUTE BACKED BY COIR MATERIAL, OVER A SAWHORSE OR THE TOP WIRE. HAMMER REBAR INTO THE SAWHORSE LEGS FOR ANCHORING. THE FABRIC SHOULD HAVE FIVE TO TEN PERCENT OPENINGS IN THE WEAVE. ATTACH FABRIC TO A ROPE AND A SUPPORT STRUCTURE WITH ZIP TIES, WIRE, OR STAPLES.
- 7. THE BOTTOM AND SIDES OF THE FABRIC SHOULD BE ANCHORED IN A TRENCH OR PINNED
- WITH 8 INCH EROSION CONTROL MATTING STAPLES.
- 8. DO NOT SPLICE THE FABRIC, BUT USE A CONTINUOUS PIECE ACROSS THE BASIN.

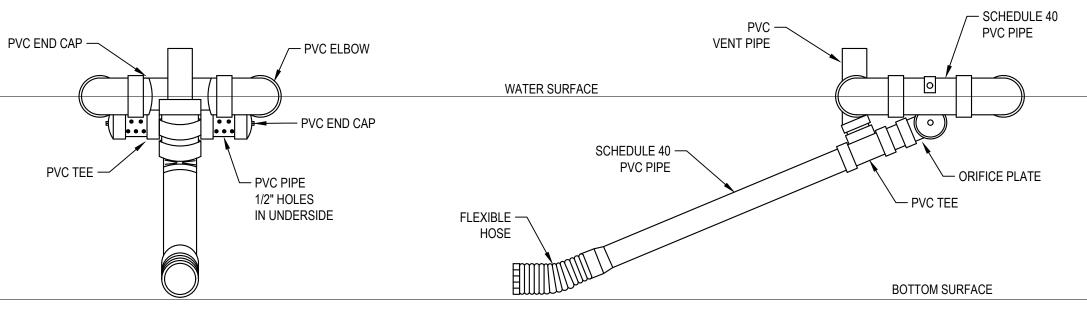
20' WIDTH TOP OF BANK —

20' TRAPEZOIDAL SWALE CROSS SECTION DETAIL

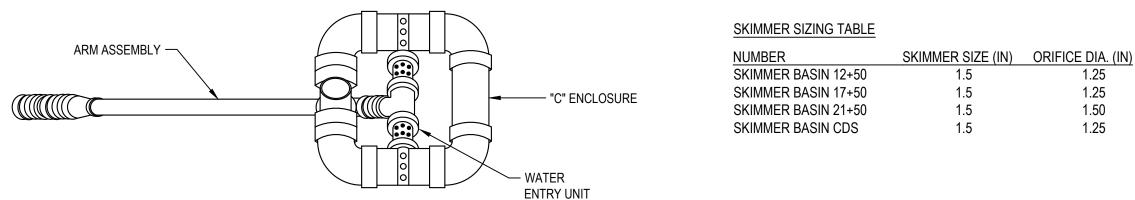


13' TRAPEZOIDAL SWALE CROSS SECTION DETAIL NOT TO SCALE

	SWALE CALCULATIONS								
SWALE NO.	DRAINAGE AREA (AC.)	STARTING ELEV.	ENDING ELEV.	LENGTH	AVERAGE SLOPE	CROSS SLOPE	SWALE TYPE	TEMPORARY LIINER	SWALE LINER
10+00A	0.73	5.18	4.70	120	0.40%	4:1	20' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
10+00B	0.58	5.18	4.70	105	0.46%	3:1	13' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
12+50A	0.98	5.18	4.49	151	0.46%	3:1	13' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
12+50B	0.64	5.18	4.49	132	0.52%	3:1	13' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
12+50 (Comb.)	1.62	4.26	4.01	126	0.20%	4:1	20' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
16+00	0.61	5.04	4.89	194	0.08%	3:1	13' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
17+50A	1.03	5.06	4.16	143	0.63%	3:1	13' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
17+50B	0.90	5.11	4.16	156	0.61%	3:1	13' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
17+50 (Comb.)	2.53	3.89	2.42	134	1.10%	4:1	20' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
21+50A	1.02	5.11	3.17	300	0.65%	3:1	13' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
21+50B	1.27	5.06	3.17	364	0.52%	3:1	13' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
21+50 (Comb.)	2.29	3.17	2.64	108	0.49%	4:1	20' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
CDS-1	1.19	5.04	3.45	412	0.39%	3:1	13' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
CDS-2	0.19	4.77	4.20	91	0.63%	3:1	13' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
CDS-3	0.68	4.01	3.45	109	0.51%	3:1	13' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS
CDS (Comb.)	2.05	3.45	1.69	142	1.24%	4:1	20' TRAPEZOIDAL	EXCELSIOR MATTING	GRASS



PROFILE PROFILE



SKIMMER DETAIL

POROUS BAFFLE INSTALLATION DETAIL NTS

PERSPECTIVE VIEW NTS