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, March 16, 2026 - Train Depot, 614 Broad Street, Beaufort, NC 28516
Monthly Meeting

Call to Order

Roll Call

Agenda Approval

Minutes Approval

1. PB Draft Minutes 021626

Election of Officers

Public Comment

New Business

1. Case 26-06 Special Use Permit – Minuteman Gas Station 110 Towns Drive

Commission / Board Comments

Staff Comments

Adjourn

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Town of Beaufort Planning Board Regular Meeting
6:00 PM Monday, February 16th, 2026 - Train Depot, 614 Broad Street, Beaufort, NC 28516
Minutes

Call to Order

Chair Neve called the February 16th, 2026 Planning Board meeting to order at 6:00 p.m.

Roll Call

The Secretary conducted the roll call for the meeting.

Members Present: Ryan Neve, Chair; George Stanziale, Vice-Chair; Tammy Hunsucker, Vic Fasolino, Jeff Vreugdenhil, Cameron White

Members Absent: Clark Patton

A quorum was declared with six members present.

Town Staff Present: Kyle Garner, Planning Director; Michelle Eitner, Town Planner, Brad Fockler, Code Enforcement Officer; Jill Quattlebaum, Town Attorney; Laurel Anderson, Board Secretary

Agenda Approval

Vice-Chair Stanziale made the motion to approve the agenda and Member Fasolino made the second. Chair Neve took a vote that was unanimously approved.

Voting yea: Chair Neve, Vice-Chair Stanziale, Tammy Hunsucker, Vic Fasolino, Jeff Vreugdenhil, Cameron White

Minutes Approval

1. PB Draft Minutes 012026

Vice-Chair Stanziale made the motion to approve the minutes as presented and Member Fasolino made the second. Chair Neve took a vote that was unanimously approved.

Voting yea: Chair Neve, Vice-Chair Stanziale, Tammy Hunsucker, Vic Fasolino, Jeff Vreugdenhil, Cameron White

Public Comment

Chair Neve then asked if anyone would like to speak. There were no public comments.

New Business

1. Case #26-03 Special Use Permit – 201 Ann St Accessory Dwelling Unit

Mrs. Eitner presented an application for a Special Use Permit at 201 Ann Street to establish an Accessory Dwelling Unit (ADU) in the historic district. This site is within the Transitional (TR) zoning district which allows for ADUs as special uses. The abutting property, St Paul's Episcopal Church, is also TR but the properties across Ann and Moore streets are R-8 single-family zoning. (which also allows ADU SUPs)

The Technical Review Committee (TRC) received this item for review digitally and responded either requesting clarification/additional information or with no comments. Following consultation with the applicant, the one question is the design of the driveway to extend brick pavers into the right-of-way. The applicant agreed to, depending on the Historic Preservation Commission's determination, either switch it to a concrete apron or provide an agreement that the property owner would be responsible for replacement of the pavers if Public Works needs to access lines underneath them.

Board questions for Mrs. Eitner included accessory structure setbacks, encroachments, and off-street parking impacts.

Eric Lindstrom, applicant, then made his presentation and addressed neighbor relations noting that he had received letters of support from neighbors and he had kept them involved in the project. He stated that he would take responsibility for maintaining the brick driveway and noted that the town's emergency services approved the site plan as the structure is adjacent to Moore Street.

There was discussion regarding definitions of accessory structures and accessory dwelling units and the setbacks. Mr. Garner clarified that this particular property is an existing nonconforming lot of record at 52 feet and therefore has a built in schedule to have reduced setbacks for any structure, including accessory structures.

A further question was raised regarding future use of the structure and Mr. Garner clarified that the Board of Commissioners had, at times, put limitations on whether accessory structures could be used as Airbnb's.

Member Vreugdenhil moved to recommend approval based on the structure meeting the setbacks and the square footage of the lot according to the Land Development Ordinance.

Member Vreugdenhil made the motion to approve as presented and Vice-Chair Stanziale made the second. Chair Neve took a vote that was unanimously approved.

Voting yea: Chair Neve, Vice-Chair Stanziale, Tammy Hunsucker, Vic Fasolino, Jeff Vreugdenhil, Cameron White

2. Final Plat – Beaufort Coast Phase 4

Mr. Garner presented Case #26-04, the final plat for Beau Coat Phase 4 and stated the request is to subdivide a 23.09 acre tract into 36 single family lots. The existing zoning is planned unit development and the land use is currently undeveloped. It is located in the corporate limit, is served by town infrastructure and the bonding of the infrastructure is in the amount of $461,411.11. Mr. Garner noted that the final plat is identical to the preliminary plat submission.

In answer to board members' questions regarding sewer allotment, Mr. Garner explained that when Beau Coast and Beaufort East Village were originally developed, the developers paid extra money into a fund to help expand the existing sewer treatment plant, and in concert with that, the town gave them vouchers for certain numbers of water and sewer based the number of bedrooms and the volume of that water and sew These official water and sewer vouchers are submitted every

time a house is built, and are specifically for that infrastructure, and the allocation for this development has been deducted from the town's overall capacity.

Member Vreugdenhil asked the size of the water line and Joe Boyd of WithersRavenel stated that it is an 8-inch water line in this section and the gravity sewer is 8-inch. The lift station will flow back to the pump station in Phase 2A.

Member Vreugdenhil made the motion to approve as presented and Vice-Chair Stanziale made the second. Chair Neve took a vote that was unanimously approved.

Voting yea: Chair Neve, Vice-Chair Stanziale, Tammy Hunsucker, Vic Fasolino, Jeff Vreugdenhil, Cameron White

3. Final Plat – Beaufort Coast Phase 2 & 3

Mr. Garner presented Case #26-05, the final plat for Beau Coast Phase 2 and 3, and stated the request is to subdivide a 43.483 acre tract into 157 single family residential and 68 townhome lots for a total of 225 lots. The existing zoning is planned unit development and the land use is currently undeveloped. It is located in the corporate limits, is served by town infrastructure and the bonding of the infrastructure is in the amount of $3,804,380.56. Mr. Garner noted that the final plat is identical to the preliminary plat submission.

Mr. Garner noted that there are at least four points of ingress and egress to this section.

Mr. Boyd stated that the bond covered utilities including roads, water, sewer, and a pump station and he works closely with the town's engineer to establish the bond, and Mr. Garner explained the bond process.

Vice-Chair Stanziale made the motion to approve as presented and Member Fasolino made the second. Chair Neve took a vote that was unanimously approved.

Voting yea: Chair Neve, Vice-Chair Stanziale, Tammy Hunsucker, Vic Fasolino, Jeff Vreugdenhil, Cameron White

Commission/Board Comments

The two re-elected board members, Vic Fasolino and George Stanziale, commented that they were looking forward to serving for three more years.

Member Vreugdenhil asked about the clearing on the right-of-way east of the Hwy 101/70 bypass.

Chair Neve welcomed new member Cameron White to the board.

Staff Comments

Mr. Garner stated that they anticipated a meeting next month and thanked Mr. Fockler and Ms. Quattlebaum for their assistance during the meeting.

He also noted and expressed appreciation that Member Vreugdenhil had cleared subdivision roads and driveways during the recent winter storm.

Adjourn

Vice-Chair Stanziale made the motion to adjourn and Member Fasolino made the second. Chair Neve took a vote that was unanimously approved.

Voting yea: Chair Neve, Vice-Chair Stanziale, Tammy Hunsucker, Vic Fasolino, Jeff Vreugdenhil, Cameron White

Chair Neve then declared the meeting adjourned at 6:40 p.m.

DRAFT

Ryan Neve, Chair

Laurel Anderson, Board Secretary

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Town of Beaufort Planning Board Regular Meeting
6:00 PM Monday, March 16, 2026 – Train Depot

AGENDA CATEGORY: New Business

SUBJECT: Case 26-06 Special Use Permit – Minuteman Gas Station 110 Towns Drive

BRIEF SUMMARY:

To recommend to the Board of Commissioners approval or denial of the proposed Special Use Permit (SUP) for a gas station at 110 Towns Drive.

REQUESTED ACTION:

Presentation and discussion of special use permit request

Recommendation to Board of Commissioners to approve or deny the special use permit

EXPECTED LENGTH OF PRESENTATION:

30 Minutes

SUBMITTED BY:

Michelle Eitner

Town Planner

BUDGET AMENDMENT REQUIRED:

N/A

STAFF REPORT

To: Planning Board Members
From: Michelle Eitner, Town Planner
Date: March 16, 2026
Case No. 26-06 Special Use Permit – Minuteman Gas Station 110 Towns Drive

THE REQUEST: To recommend to the Board of Commissioners approval or denial of the proposed Special Use Permit (SUP) for a gas station at 110 Towns Drive.

INFORMATION:

Location:	110 Towns Drive (NW corner of Live Oak Street & Towns Drive)
Property Owner:	CGW Inc (4C Development LLC under contract)
Applicant:	Rhetson Companies Inc
Zoning District:	B-1 General Business District
Flood Zone:	X (in preliminary and effective FIRMs)
LUP Future Land Use:	Commercial Center (no Non-Intensification Zone overlay)
Size:	3.76 acres
Existing Land Use:	Undeveloped
Proposed Land Use:	Gas station (Minuteman convenience store with fuel sales and a quick service/drive-through restaurant, with automatic car wash)
Adjoining Uses/Zoning:	North & East: Food Lion Shopping Center and Realo Drug (B-1) West: Townhouse development "1809 Live Oak" (TCA) South (Across Towns Dr): Undeveloped (B-1) South & East (Across Live Oak St): Multiple B-1 lots - Undeveloped, "The Wash" automatic and self-service car wash, and Slicks Tinting & Auto Center
Utilities:	Water and wastewater provided by Town

OPTIONS:

1. Recommend approval of the special use permit as presented
2. Recommend approval of the special use permit with conditions to bring the proposal into compliance with the Required Findings
3. Recommend denial of the special use permit based on specific failures to meet requirements
4. Table the recommendation pending additional information necessary to make a decision

ATTACHMENTS:

- Attachment A – Staff Report
- Attachment B – Vicinity Map
- Attachment C – Zoning Map
- Attachment D – Application Package
- Attachment E – LDO Section 20 Special Use Permits (Especially Section 20.E.1 Required Findings)
- Attachment F – LDO Section 9.C. B-1 General Business District
- Attachment G – Comprehensive and CAMA Land Use Plan Future Land Use Map & Classification

STAFF COMMENTS:

Matt Williams with Rhetson Companies has applied for a Special Use Permit to establish a gas station at 110 Towns Drive. Rhetson is representing 4C Development, LLC, which is under contract to purchase the property from current property owner CGW, Inc.

STAFF COMMENTS CONTINUED:

The subject property is located between Live Oak Street, newly constructed Towns Drive, the new "1809 Live Oak" townhouse development, and the Food Lion shopping center/Realo Drugstore. This property was historically farmland through the 90s and has been forested (undeveloped) for the past twenty years or so (based on aerial imagery). The gas station development proposal includes a convenience store with indoor quick-service/drive-through restaurant, fuel pump canopy, and automatic tunnel car wash. "Minuteman" is the brand for the whole development, which will include a gas tenant and a fast-food tenant (neither of which are known at this time). While convenience stores, indoor restaurants, and car washes (accessory uses of this project) are permitted by-right in the B-1 zoning district, the principal use of the proposed development is gas station, which requires a special use permit in any zoning district in Beaufort.

There are 26 parking spaces shown on the plan, which exceeds the 17 spaces required for the project, as well as a dedicated truck loading/unloading space behind the building. The traffic circulation is sufficient to support large delivery vehicles, fuel trucks, and emergency vehicles. The dumpster enclosure at the back of the property meets requirements for refuse disposal. The required landscaping for the project includes Type A buffering along the western property line (between gas station and townhouses), VAA (parking lot) landscaping, and stormwater pond landscaping.

The project does not require a NCDOT driveway permit because it has only one point of ingress/egress off Towns Drive (not on Live Oak or through adjacent parking lots). The developers coordinated with NCDOT during site design and were required to propose plans to extend the newly created right-turn-lane along Live Oak Street. This will better accommodate stacking of vehicles turning onto Towns which would access the proposed gas station as well as the "1809 Live Oak" townhouse development currently under construction.

While the stormwater and sedimentation/erosion control plans are subject to NCDEQ review and permitting, it bears noting that this development is held to higher standards due to the proximity of the project within ½ mile to SA/HQW tidal salt waters (Gibbs Creek). Similarly permitted commercial projects include State Employees Credit Union, Taco Bell, and McDonalds.

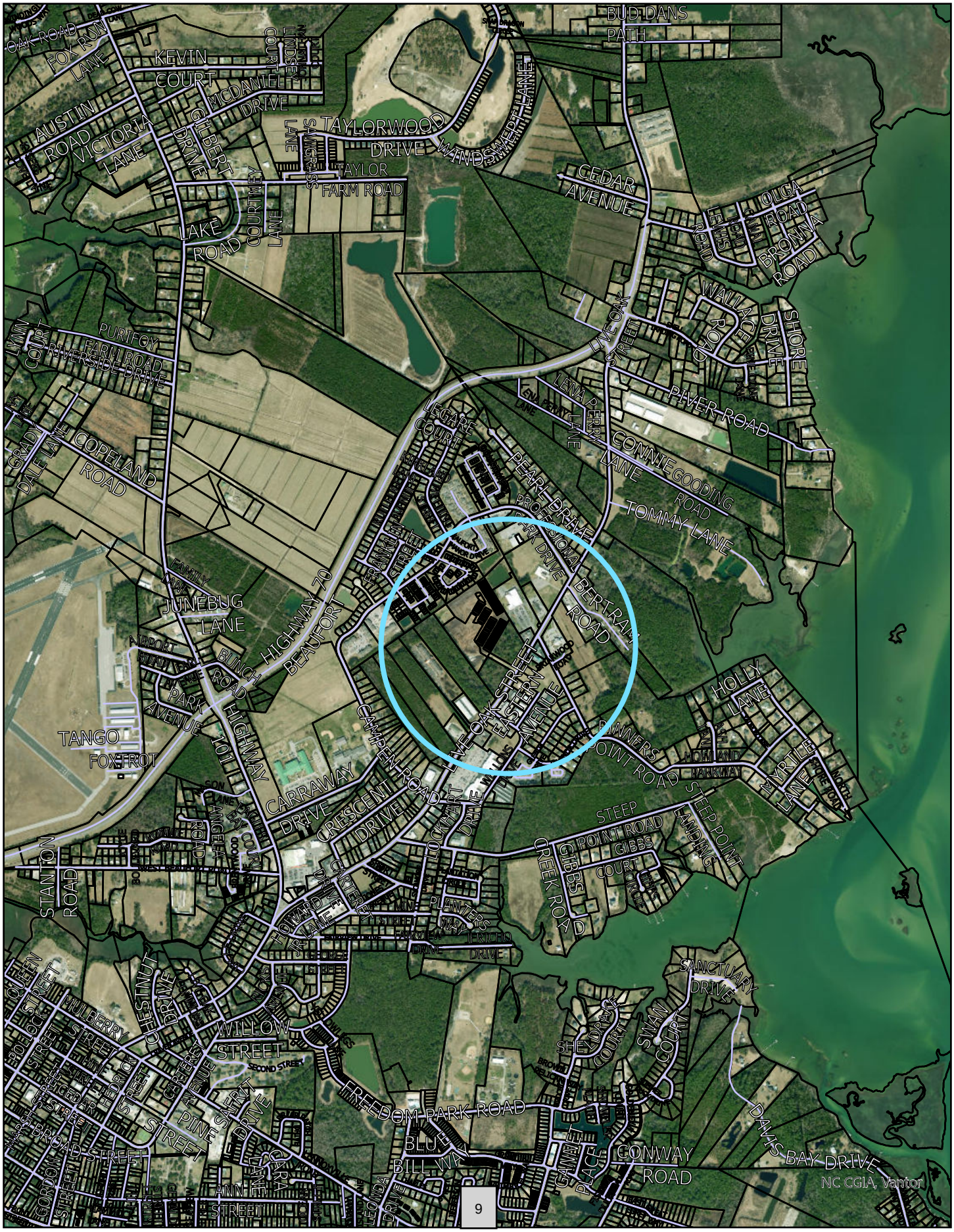
This project is located entirely in the X flood zone (current and future flood maps), so no additional site design or construction standards apply with regard to the Town's Flood Damage Prevention Ordinance (link here). The building is also proposed to be served by a backup generator. These resilience efforts (upland location and backup energy source) are consistent with guidance Beaufort's Comprehensive and CAMA Land Use Plan (esp. p196-199, link here) and Resilient Beaufort plan (esp. p17, link here).

The Future Land Use Map of the LUP identifies this location as Commercial Center, which is described as "These areas have large-scale non-residential uses that serve the entire community and larger region." A second gas station would serve the entire community and larger region, especially in emergency situations such as hurricanes when fuel is scarce.

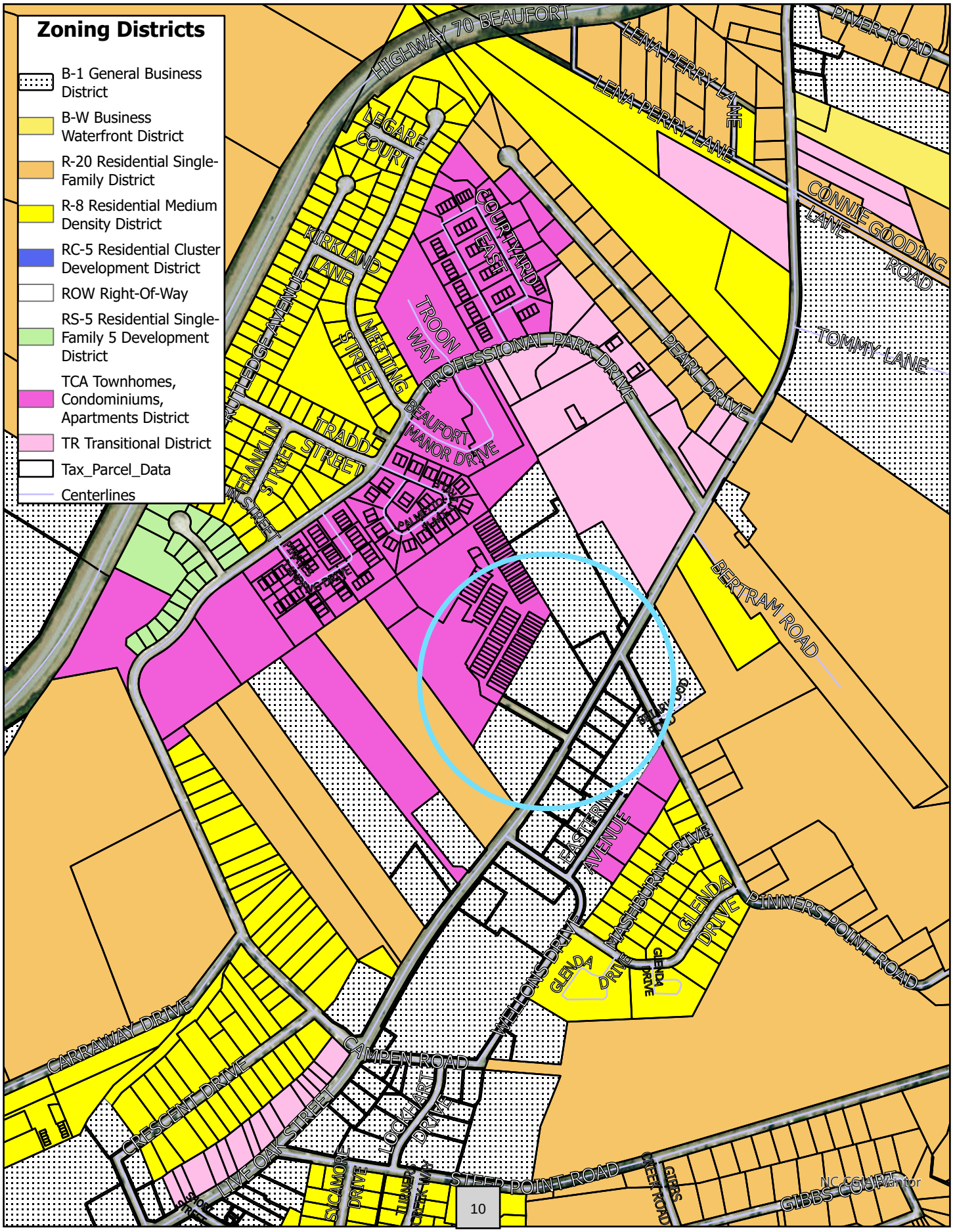
The Technical Review Committee met on February 27th to review the project. Comments and requests for clarifications or revisions were provided by Planning, Public Works, Utilities, and Engineering. These items were addressed in revised submissions received the following week and approved by those that had the comments/requests. The plan appears to be compliant with applicable regulations at this time.

LDO Section 20.C identifies, "The Planning Board will review and make recommendations regarding all applications for a special use permit." The Special Use Permit Required Findings section is included in the agenda packet for consideration. The applicants have provided responses to the required findings in their application submission.

Case 26-06 SUP Minuteman Gas Station 110 Towns Drive
Vicinity Map



Case 26-06 SUP Minuteman Gas Station 110 Towns Drive
Zoning Map



RHETSON COMPANIES, INC

Rhetson Companies, Inc

Town of Beaufort, NC

– Request for Special Use Permit –

Parcel ID Number: 730612967426000

110 Towns Drive, Beaufort, NC 28516

Requesting approval for a Special Use Permit to build a Minuteman convenience store with fuel sales, a quick service restaurant, and a tunnel carwash at the specified address. The 3.76-acre property is designated as B-1 zoning and is located within the Live Oak Street Corridor Overlay District. The proposed development's combined uses qualify it as a Special Use under the current zoning classification and overlay guidelines. Rhetson Companies, Inc, respectfully submits this application, along with all accompanying materials, and acknowledges the value of the expert testimony expected during the quasi-judicial meeting proceedings.

2075 Juniper Lake Road
West End, NC 27376
910-944-0881 | www.rhetson.com

RHETSON COMPANIES, INC

Comments in Support of Findings Required

Rhetson considered the findings below required per Section 20 of the Land Development Ordinance:

a) The proposed use is an allowable special use in the zoning district it is being located within;
110 Towns Drive is located in the B-1 District. A Convenience Store, Restaurant with Drive-Thru Service, and Car Wash are permitted uses, by-right. A Gas/Service Station are allowable with a Special Use Permit.

b) The application is complete;
The application has been reviewed with Town Staff and is believed to be complete.

c) The location and character of the use will be in conformity with the Town's Comprehensive and CAMA Land Use Plan and other comprehensive planning elements;
The proposed site design is consistent with the Comprehensive and CAMA Land Use Plans. Based upon the Town of Beaufort Comprehensive and CAMA Land Use Plan's Future Land Use Map, the subject property is designated for a future land use of "Commercial Center". The Commercial Center description details that these areas will have large-scale, non-residential uses that serve the entire community and larger region.

d) Streets, driveways, parking lots, traffic control, and any other traffic circulation features shall be designed and provided in accordance with current traffic engineering standards and Town regulations and found to be adequate for the proposed special use;
The proposed site design of the streets, driveways, parking lots, traffic control, and any other traffic circulation features have been designed in accordance with the Town of Beaufort regulations and codes, as well as to NCDOT standards. Access to the site will be made from Towns Drive, as the lower classification road than Live Oak Street (SR 1493 & US Highway 70). Towns Drive has been newly constructed with a right-turn lane off Live Oak Street. Summit Design and Engineering Services have had conversations with NCDOT on the proposed use, and based upon those discussions, NCDOT will be requiring the addition of 75' of storage and 50' of taper to the newly construction turn lane. This makes the turn lane a total of 225' with 150' of taper. The proposed turn lane and improvements are shown on the site plan.

e) The proposed special use will not substantially injure the value of adjoining or abutting properties;
The improvements of this parcel will not reduce the value of adjoining and/or abutting properties. Instead, Beaufort, NC appears to only have one (1) gas station(s) within town limits, which is insufficient to meet community needs, particular in times of inclement weather and/or crisis.

2075 Juniper Lake Road
West End, NC 27376
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f) The proposed special use will be compatible and in harmony with adjoining land uses and the development patterns of the immediate area; and,

The proposed Gas/Service station and Car Wash have been designed to be compatible with the adjoining land uses and development patterns of the immediate area in that the proposed site is of a similar commercial use to the neighboring parcels and parcels in the immediate area. These developments in the immediate area include a prescription drugstore/pharmacy, grocery store, nail salon, post office, bank/credit union, automotive service, car wash, gas station, retail store, and fast-food restaurant. Additionally, the proposed special use is compatible and is an allowable special use of the B-1 district which the parcel is zoned and is compatible with the future land use designation of "Commercial Center" in the Town of Beaufort Comprehensive and CAMA Land Use Plan.

g) The proposed use will not materially endanger the public health or safety of the community if located where proposed and developed according to the submitted and approved plan.

The proposed Gas/Service Station and Car Wash are readily accessible from Towns Drive, directly off Live Oak Street (SR 1493 & US Highway 70) for emergency and fire department access. The uses are allowed as by-right or Special Uses under the B-1 District per the Town of Beaufort, NC Land Development Ordinance, and are compatible with the Town of Beaufort Comprehensive and CAMA Land Use Plans. Additionally, the information regarding NCDOT correspondence on site plan design, further the mitigation of public health and safety and are referenced in subsection "d)."

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RHETSON COMPANIES, INC

ARCHITECTURAL ELEVATION EXAMPLES

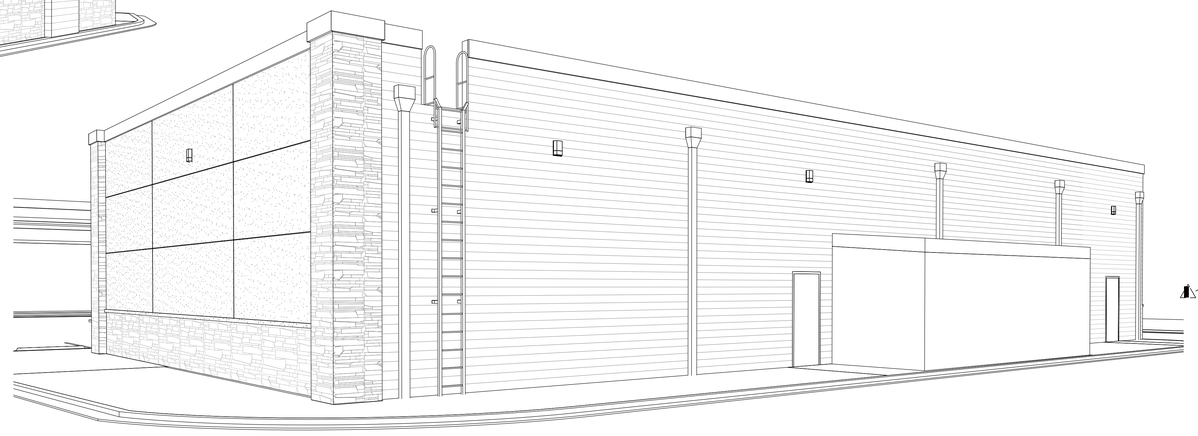
Renderings & Elevations of
all uses for this project to be submitted
when finalized

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West End, NC 27376
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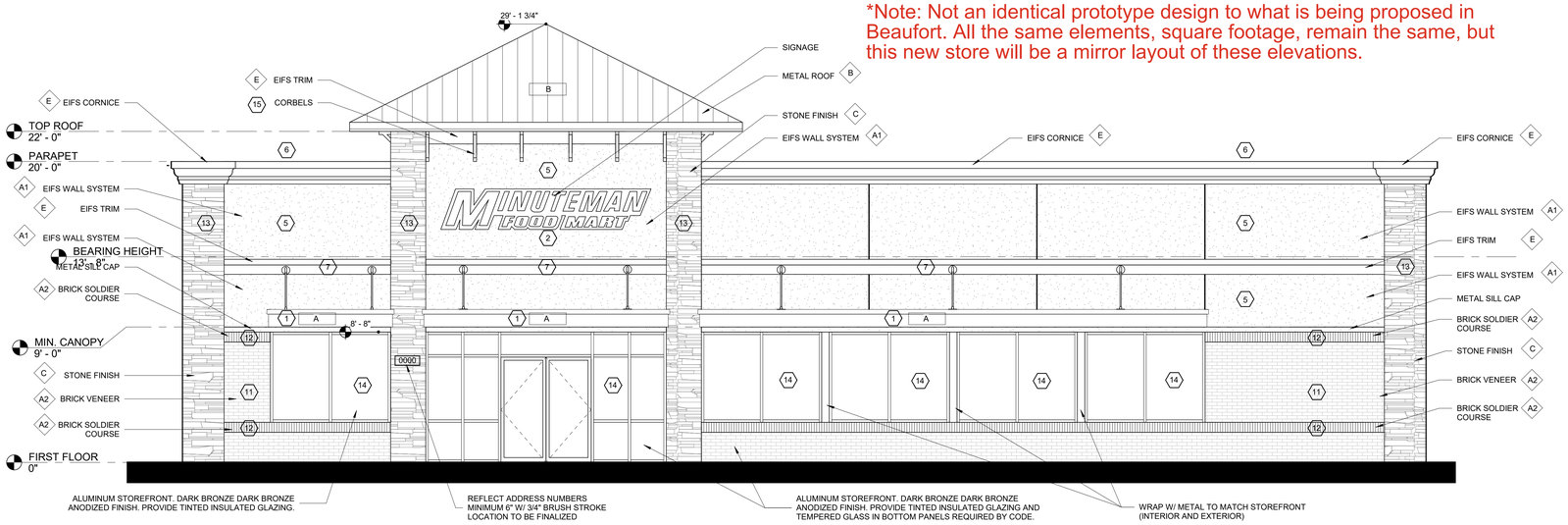




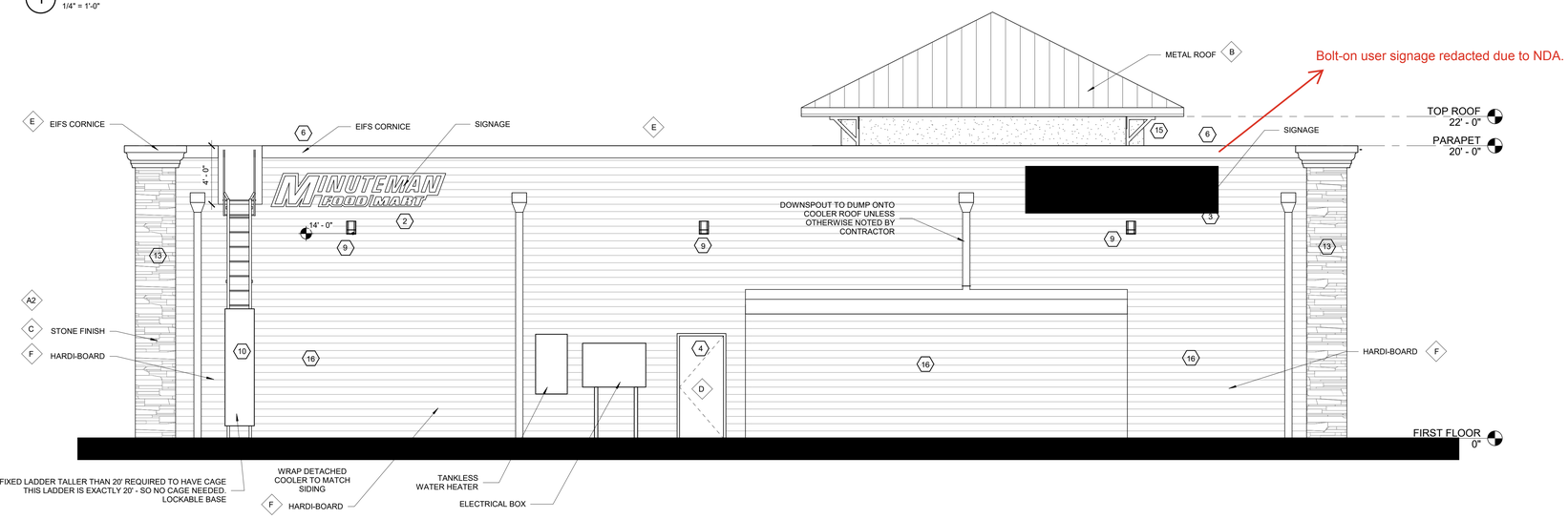
AYNOR, SOUTH CAROLINA

REVISIONS

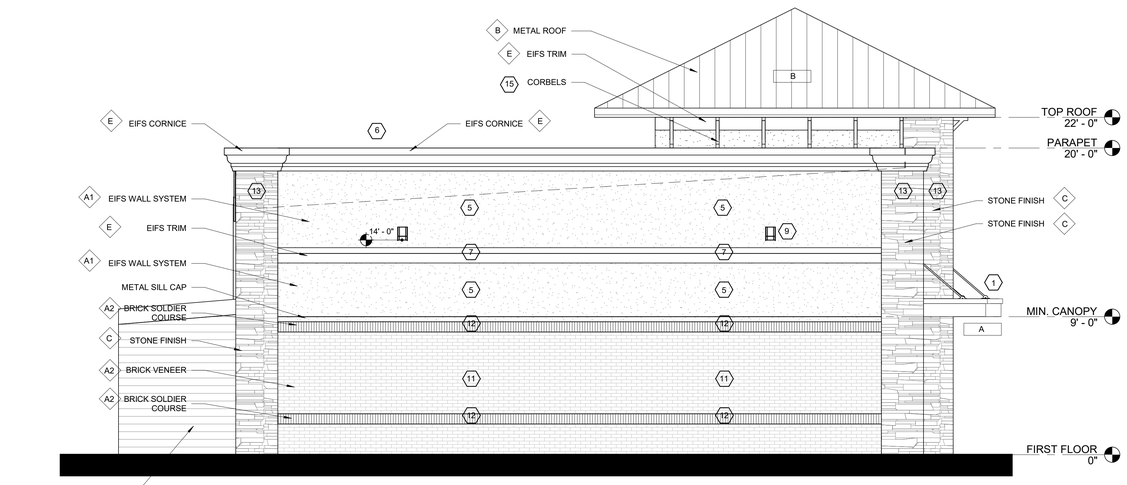
*Note: Not an identical prototype design to what is being proposed in Beaufort. All the same elements, square footage, remain the same, but this new store will be a mirror layout of these elements.



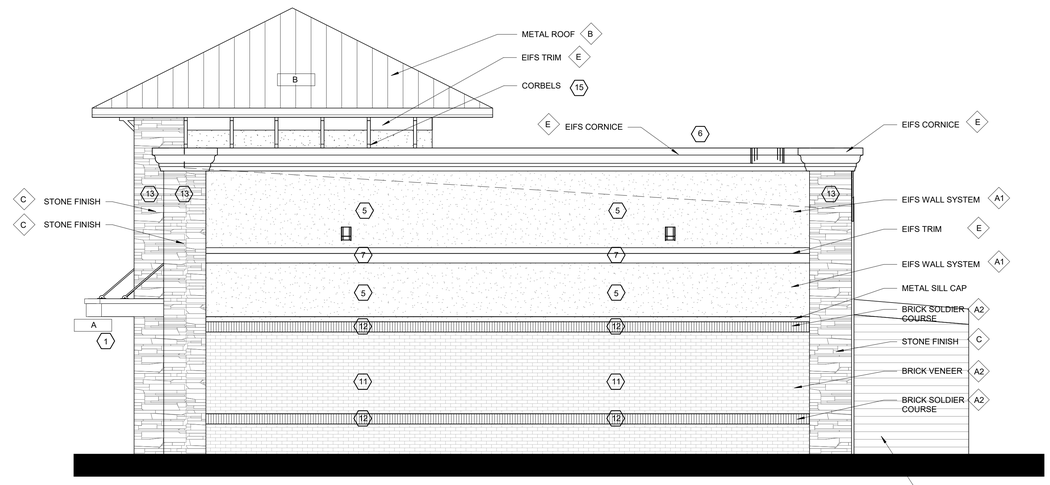
1 FRONT ELEVATION
1/4" = 1'-0"



2 BACK ELEVATION
1/4" = 1'-0"



3 LEFT SIDE ELEVATION
1/4" = 1'-0"



4 RIGHT SIDE ELEVATION
1/4" = 1'-0"

Finish examples. Subject to change due to product availability, LDO requirements, client desires. (Wanted to at least provide some examples of what has been used on projects past)

FINISH SCHEDULE

MARK	MANUFACTURER	DESCRIPTION	NOTES
FINISHES			
A1	DRYVIT	EIFS WALL SYSTEM	COLOR: S.W. 7036 ACCESSIBLE BEIGE TEXTURE: SANDPEBBLE
A2	PALMETTO BRICK	ONSLOW, OVERSIZED	TEXTURE: SMOOTH GROUT:
B	SHERWIN WILLIAM	RAL 3002 CARMINE RED	SATIN FINISH
C	CANYON STONE	TIMBER LEDGE - DEER VALLEY	-
D	SHERWIN WILLIAMS	SW #7024 FUNCTIONAL GRAY	SATIN FINISH
E	SHERWIN WILLIAMS	SW #7005 PURE WHITE	SATIN FINISH
F	HARDI-BOARD	HARDI-BOARD HORIZONTAL WALL SYSTEM	COLOR: S.W. 7036 ACCESSIBLE BEIGE TEXTURE:
METALS			
A	PREFABRICATED CANOPY/BAND	PRODUCT CODE: 9840-30200R PRODUCT NAME: FC SD RAL 3000 FLAME RED	
B	METAL ROOF	PRODUCT CODE: 9840-30200R PRODUCT NAME: FC SD RAL 3000 FLAME RED	

1. PAINT ALL EXPOSED METERS, SERVICE ENTRANCES, GAS PIPE, ROOF ACCESS LADDER, ETC. TO MATCH ADJACENT EXTERIOR WALL SURFACE.
2. PROVIDE TEMPORARY MASKING OF EXPOSED STAINLESS STEEL DURING ACID WASHING OF MASONRY.
3. PROVIDE SOLID MASONRY UNITS AT THE ENDS OF JAMBS , SILLS, ETC.
4. TO HELP PREVENT EFFLORESCENCE ALL MASONRY UNITS ARE TO BE MANUFACTURED WITH INTEGRAL WATER REPELLANT. WATER REPELLENT ADMIXTURE IS TO BE MIXED IN AND PRE-WASHED SAND IS TO BE USED IN ALL MORTAR MIXES.
5. MAKE SURE THAT WALL WEEPS AND FLASHING ARE INSTALLED CORRECTLY. DO NOT BLOCK WEEPS.
6. ALUMINUM STOREFRONT TO BE DARK BRONZE.
7. ALL GLAZING TO BE 1" INSULATED LOW-E GLAZING.
8. BASIS OF DESIGN FOR THE EIFS WALL SYSTEM IS DRYVIT OUTSULATION PLUS MD. EIFS WALL SYSTEM IS 2" THICK UNLESS NOTED OTHERWISE. INSTALL EIFS PRODUCT IN STRICT ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND DETAILS.
9. SIGNAGE IS SHOWN FOR REFERENCE ONLY. FINAL SIZE, LOCATION AND QUANTITY TO BE DETERMINED BY SIGNAGE VENDOR. SIGNAGE VENDER SHALL PERMIT ALL SIGNS UNDER SEPARATE COVER.
10. REFER TO ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING SPECIFICATIONS.
11. PAINT ALL EXPOSED BRICK LINTELS TO MATCH STOREFRONT.
12. ALL WALL MOUNTED LIGHT FIXTURES TO BE SET IN CONTINUOUS BEAD OF CAULK AND THEN SHALL BE SEALED TO WALL WITH SEPARATE BEAD OF CAULK. CAULK TO MATCH ADJACENT SURFACE.
13. ALL BRICK VENEER SHALL BE A RUNNING BOND, U.N.O. ALL BRICK SHALL BE INSTALLED FLUSH. U.N.O. (EXCEPTIONS INCLUDE: ROWLOCK SILL)

CODED NOTES (#) (NOT ALL CODED NOTES MAY BE USED)

1. PRE-FABRICATED METAL CANOPY
2. MINUTEMAN SIGNAGE. REFER TO SIGNAGE VENDOR DRAWINGS.
3. LITTLE CAESARS SIGNAGE. REFER TO SIGNAGE VENDOR DRAWINGS.
4. PAINT DOOR AND FRAME.
5. EIFS WALL SYSTEM.
6. EIFS CORNICE.
7. EIFS TRIM.
8. DRIVE THRU WINDOW. PROVIDE STAINLESS STEEL SILL.
9. WALL MOUNTED LIGHT FIXTURE.
10. PAINT ROOF LADDER.
11. BRICK VENEER. RUNNING BOND.
12. BRICK SOLIDER COURSE.
13. STONE FINISH.
14. ALUMINUM STOREFRONT.
15. WOOD CORBELS
16. HARDI-BOARD SIDING

**ALL STOREFRONT WINDOWS TO BE TINTED - COLOR TBD BY OWNER

**AS REQUIRED BY CODE - NECESSARY STOREFRONTS / DRIVE THRU WINDOWS TO BE HURRICANE RATED.
SEE CODE FOR EXACT SPECS

CONSTRUCTION DOCUMENTS

[redacted]

VASS, NORTH CAROLINA

[redacted]

REVISIONS

No.	Date	Description

[redacted]

FOR CONSTRUCTION

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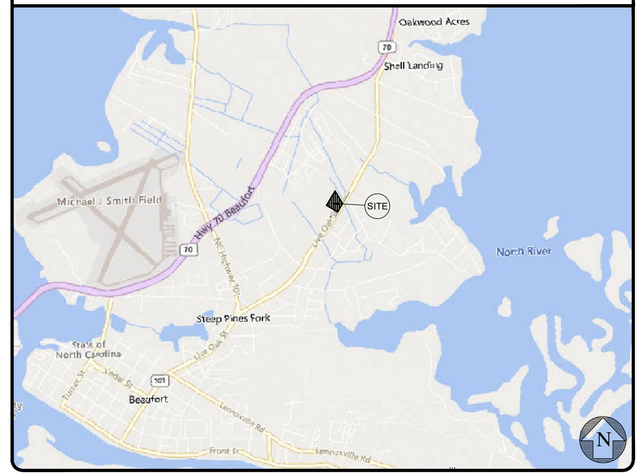
SITE DEVELOPMENT PLANS

FOR

BEAUFORT MINUTE-MAN

LIVE OAK STREET
BEAUFORT, NC

VICINITY MAP
NOT TO SCALE

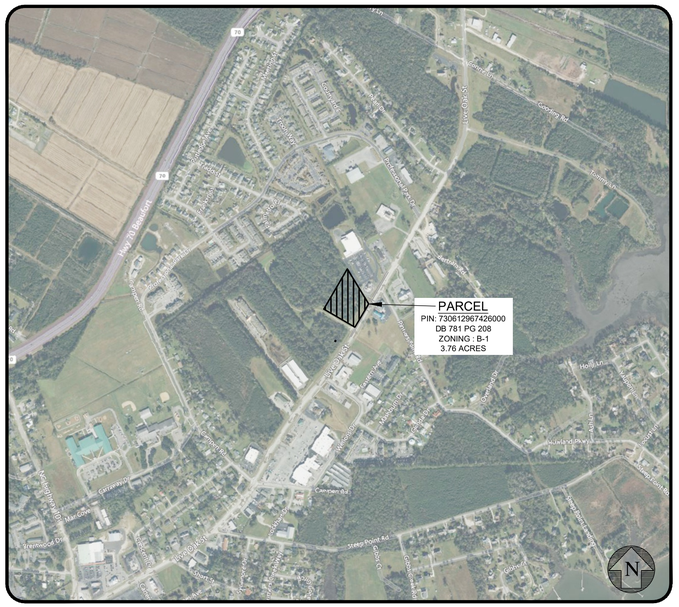


GENERAL NOTES:

1. CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH TOWN OF BEAUFORT, NCDEQ, AND NCDOT STANDARD SPECIFICATIONS.
2. THE GRADE LINES DENOTE THE FINISHED ELEVATIONS OF THE PROPOSED FINISHED PAVEMENT. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING, ENDING, AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO PROVIDE A PROPER TIE-IN.
3. UNDERGROUND UTILITIES MAY EXIST ON, ALONG OR WITHIN CONFLICT OF THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING NC 811 OR THE APPROPRIATE UTILITY COMPANIES 3 FULL BUSINESS DAYS PRIOR TO ANY EXCAVATION. **THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION**. IN CASE OF CONFLICT, NOTIFY ENGINEER AND DO NOT CONSTRUCT.
4. THE EARTHWORK ON THIS PLAN DOES NOT BALANCE; OFFSITE BORROW OR WASTE WILL BE REQUIRED.
5. THE CONTRACTOR SHALL PERFORM ALL CONSTRUCTION IN ACCORDANCE WITH LOCAL CITY, COUNTY AND STATE BUILDING CODES.
6. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE DEMOLITION OF ALL EXISTING ON SITE FACILITIES, ABOVE AND BELOW GROUND. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REMOVAL OF ALL WASTE RESULTING FROM DEMOLITION, AS WELL AS GRADING AND FILLING OF ALL DEPRESSIONS TO INSURE THAT THE SITE REMAINS AESTHETICALLY ACCEPTABLE. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL RULES & REGULATIONS.
7. THE CONTRACTOR SHALL OBSERVE ALL REQUIRED SAFETY PRECAUTIONS IN THE PERFORMANCE OF ALL WORK IN ACCORDANCE WITH OSHA.
8. THE CONTRACTOR SHALL GRADE, SEED AND SOD OR OTHERWISE PROVIDE TEMPORARY AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, ESPECIALLY SLOPES. SEE EROSION CONTROL INSTRUCTIONS, IF APPLICABLE.
9. WORK WITHIN PUBLIC RIGHT-OF-WAYS SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS, NOTIFICATIONS, STANDARDS AND POLICIES.
10. ANY SUBSTITUTIONS, CHANGES, OR MODIFICATIONS SHALL BE APPROVED BY THE PROJECT ENGINEER, PLANNING DEPARTMENT STAFF, AND DEVELOPER.
11. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS NECESSARY FOR CONSTRUCTION. THE CONTRACTOR SHALL READ ALL PERMITS AND ENSURE THAT CONSTRUCTION COMPLIES WITH THE PERMITS. REQUIRED PERMITS MAY INCLUDE, BUT ARE NOT LIMITED TO: CITY/COUNTY APPROVALS/PERMITS, VDOT PERMITS, DRIVEWAY PERMITS, EROSION CONTROL PERMITS, VDEQ PERMITS, ENVIRONMENTAL PERMITS, STREAM CROSSING PERMITS, USACE/DWQ PERMITS, AND STORMWATER PERMITS. IF THE CONTRACTOR HAS QUESTIONS ABOUT PERMIT LANGUAGE, OR THE NEED FOR A PERMIT, HE MUST CONTACT THE DEVELOPER AND THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
12. THE GRADING CONTRACTOR MUST MAINTAIN COPIES OF THE LAND DISTURBANCE PERMIT AND THE NPDES PERMIT ONSITE. HE MUST READ AND FOLLOW THE CONDITIONS OF THE PERMITS.
13. THE CONTRACTOR MUST VERIFY ALL FIELD ELEVATIONS PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY VARIATION OF FIELD ELEVATIONS.

CONSTRUCTION SEQUENCE:

1. OBTAIN APPROVED SET OF CONSTRUCTION DRAWINGS. A ZONING COMPLIANCE PERMIT FROM TOWN OF BEAUFORT AND A LAND DISTURBANCE PERMIT SHALL BE REQUIRED BEFORE THE ONSET OF ANY GRADING ACTIVITY. KEEP A COPY OF BOTH ITEMS ONSITE THROUGHOUT CONSTRUCTION. SEE PUBLIC SERVICE CONTACTS ON THIS SHEET. CONTACT TOWN OF BEAUFORT ENGINEERING & NCDEQ WILMINGTON REGIONAL OFFICE (SEE PUBLIC SERVICE CONTACTS ON THIS SHEET) ~48 HOURS PRIOR TO INITIATING LAND DISTURBANCE ACTIVITIES. EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE AND LAND DISTURBING ACTIVITIES OCCUR." THE COC CAN BE OBTAINED BY FILLING OUT THE ELECTRONIC NOTICE OF INTENT (E-NOI) FORM AT DEQ.NC.GOV/NCG01. PLEASE NOTE, THE E-NOI FORM MAY ONLY BE FILLED OUT ONCE THE PLANS HAVE BEEN APPROVED. A COPY OF THE E&SC PERMIT, THE COC, AND A HARD COPY OF THE PLAN MUST BE KEPT ON SITE, PREFERABLY IN A PERMITS BOX, AND ACCESSIBLE DURING INSPECTION.
2. PER NPDES REQUIREMENTS, A RAIN GAUGE, SELF-INSPECTION REPORTS, EROSION CONTROL PERMIT, COC, AND THE E&SC PLAN ARE REQUIRED TO BE MAINTAINED ON SITE AND ACCESSIBLE DURING INSPECTION. IT IS RECOMMENDED THAT THESE ITEMS BE PLACED IN A PERMIT BOX AT THE BEGINNING OR ENTRANCE OF THE PROJECT.
3. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCE, SILT FENCE, AND SILT FENCE OUTLETS PRIOR TO ANY LAND DISTURBING ACTIVITIES (INCLUDING ANY TREE CLEARING OR DEMOLITION). CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES AS SPECIFIED ON THE APPROVED PLAN SHEET. INSTALL ALL OTHER EROSION CONTROL MEASURES AS REQUIRED BY NCDENR INCLUDING SKIMMER BASINS, BARRIERS, AND DIVERSION DITCHES AS NEEDED. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. INSTALL TEMPORARY DIVERSIONS TO DIRECT FLOW TO SKIMMER BASIN.. SEED TEMPORARY DIVERSIONS, BERMS, AND BASINS IMMEDIATELY AFTER INSTALLATION. INSTALL COIR WATTLES OR CHECK DAMS IN TEMPORARY DIVERSIONS." (GS 113A-57(3), 15A NCAC 04B .0113)
4. INSTALL PHASE 1 SKIMMER BASIN AS SHOWN ON E&S SHEET C-4 AND CORRESPONDING DETAIL SHEETS.
5. TEMPORARILY SEED, MULCH, ANCHOR AND STABILIZE ALL EROSION CONTROL DEVICES IMMEDIATELY AFTER CONSTRUCTION.
6. BEGIN CLEARING AND GRUBBING VEGETATION AND DEMOLITION OF OTHER SITE ITEMS AS SHOWN ON THE E&S PLAN AS WELL AS THE EXISTING CONDITIONS PLAN. DISPOSE OF ALL WASTE MATERIALS IN ACCORDANCE WITH THE APPROVED SOLID WASTE MANAGEMENT PLAN AND ALL APPLICABLE GUIDELINES OF TOWN OF BEAUFORT.
7. BEGIN CUT/FILL ACTIVITIES TO OBTAIN FINISHED GRADES AS SHOWN ON THE PLANS.
8. AS FILL ACTIVITIES PROGRESS CONTRACTOR SHALL RAISE THE SKIMMER BASIN DAM SIMULTANEOUSLY UNTIL THE BASIN IS CONSTRUCTED IN ACCORDANCE WITH SHEET C-5. THE BASIN WILL REMAIN IN THIS STATE UNTIL PERMANENT SCM CONVERSION. PERMANENT BASIN RISER AND PIPE SHALL BE INSTALLED AT THIS TIME BUT TO REMAIN CAPPED.
9. PREPARE A SOIL STOCKPILE/SPOIL AREA AS SHOWN ON E&S PLANS. STOCKPILES, LAYDOWN OR WASTE AREAS, CONCRETE WASHOUTS, PORTABLE TOILETS, AND FUELS MUST BE LOCATED AT LEAST 50' AWAY FROM ANY OPEN WATER CONVEYANCES, SUCH AS BASINS, DITCHES, STORM DRAIN INLETS, ETC.
10. TEMPORARY SEED AS CONDITIONS WARRANT THE NEED IN AREAS WITH NO CURRENT WORK.
11. INSTALL UTILITIES AS CUT/FILL ACTIVITIES PROMOTE.
12. CONTINUE MAINTENANCE AND INSPECTION OF EROSION CONTROL DEVICES AFTER RUNOFF PRODUCING STORM EVENTS. **NO DISTURBED AREA IS TO BE LEFT WITHOUT PROTECTIVE COVER (MULCH OR STRAW / TACK) AFTER COMPLETION OF CONSTRUCTION OR DEVELOPMENT ACTIVITIES PER THE TIME FRAMES ESTABLISHED IN THE STABILIZATION CHART ON SHEET C-4. DURING CONSTRUCTION OR DEVELOPMENT ACTIVITIES, ANY DISTURBED AREAS SHALL BE PROTECTED AND STABILIZED ACCORDING TO THE STABILIZATION TIMEFRAME CHART. DISTURBED AREAS FOR ANY PORTION OF THE SITE SHALL BE STABILIZED WITHIN 7 DAYS UPON COMPLETION OF CONSTRUCTION OR DEVELOPMENT ACTIVITIES IN THAT AREA.**
13. INSTALL SUBGRADE STONE PER PLANS AND BEGIN CONSTRUCTION STAKING ACTIVITIES.
14. BEGIN BUILDING AND PARKING LOT CONSTRUCTION.
15. NO SEDIMENT CONTROL MEASURES ARE TO BE REMOVED WITHOUT APPROVAL OF NCDEQ AND TOWN OF BEAUFORT.
16. UPON ACHIEVING ROUGH GRADE OF FINISHED ELEVATIONS AND ALL NECESSARY GRADING ACTIVITIES, APPLY TOPSOIL A MINIMUM OF 4" THICK TO ALL AREAS REQUIRING PERMANENT VEGETATION.
17. APPLY FERTILIZER, LIME, PERMANENT SEEDING OR SOD TO ALL FINISHED AREAS PER THE DETAILS SHEET.
18. INSTALL BLANKET MATTING ON ALL SLOPES 3:1 OR GREATER. WHEN THE SITE IS STABILIZED. MAT SLOPES IN SUMMER AND WINTER. GRADED SLOPES AND FILLS SHALL BE PROTECTED WITH A ROLLED EROSION CONTROL PRODUCT IF COMPLETED OUTSIDE OPTIMUM GERMINATION SEASONS, WHEN UNFAVORABLE WEATHER CONDITION PREVENT ESTABLISHMENT OF VEGETATED GROUND COVER.
19. ONCE THE SITE IS STABILIZED, CONTACT NCDEQ & TOWN OF BEAUFORT FOR BASIN CONVERSION AUTHORIZATION. UPON NCDEQ & TOWN OF BEAUFORT AUTHORIZATION CONVERT TO THE PERMANENT STRUCTURE. DEWATERING SHALL OCCUR THROUGH A SILT SOCK, REMOVING & DISPOSING OF ACCUMULATED SEDIMENT, REMOVING THE SKIMMER, CONVERTING RISER STRUCTURE, SEEDING & CONSTRUCTING IN ACCORDANCE W/ PLAN SHEET D-7.
20. ONCE ALL CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND THE SITE HAS BEEN STABILIZED WITH PERMANENT VEGETATION CONTACT NCDEQ FOR AUTHORIZATION TO REMOVE REMAINING PERIMETER MEASURES AND STABILIZE ANY REMAINING BARE AREAS.
21. WHEN ALL WORK IS FINISHED. CONTACT NCDEQ TO SCHEDULE A CLOSE-OUT INSPECTION. AFTER NCDEQ INFORMS THE PERMITTEE OF THE PROJECT CLOSE OUT, VIA INSPECTION REPORT, THE PERMITTEE SHALL VISIT DEQ.NC.GOV/NCGO1 TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOT). A $100 ANNUAL GENERAL PERMIT FEE WILL BE CHARGED UNTIL THE E-NOT HAS BEEN FILLED OUT.



SITE LOCATION MAP
NOT TO SCALE

811 Know what's below. Call before you dig.

CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

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SUMMIT DESIGN & ENGINEERING SERVICES
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(434) 575-0617 (FAX)
MATT.HASTINGS@SUMMITDE.COM

SURVEY CONTACT
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CHRISTOPHER L. CARROLL, PLS
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WILMINGTON, NC 28405
(910) 769-0009 (PHONE)
CHRIS@INTRACOASTALLANDSURVEYING.COM

DEVELOPER/FUTURE OWNER
RHETSON CAPITAL, LLC
GREG STEWART
2075 JUNIPER LAKE RD
WEST END, NC 27376
(910) 944-0881 (PHONE)
PERMITS@RHETSON.COM

PUBLIC SERVICE CONTACTS :

WATER & SEWER:	TOWN OF BEAUFORT PUBLIC UTILITIES 301 FREEDOM PARK ROAD BEAUFORT, NC 28516 (910) 253-2600 CONTACT: SAMUEL BELL SS.BELL@BEAUFORTNC.ORG (252) 728-2141 EXT. 234
FIRE:	BEAUFORT FIRE DEPARTMENT STA. 54 506 LIVE OAK STREET BEAUFORT, NC 28516 (252) 728-4325
ELECTRIC:	DUKE ENERGY PROGRESS 103 EXECUTIVE PARKWAY NEW BERN, NC 28562 (800) 452-2777
STATE ROADWAYS:	NCDOT DIVISION 2, DISTRICT 1 ROBBIY L. TAYLOR 1701 W 5TH STREET WASHINGTON, NC 27889 (252) 623-5300 RLTAYLOR@NCDOT.GOV
STORMWATER (NCDEQ):	NCDEQ WILMINGTON REGIONAL OFFICE 127 CARDINAL DRIVE EXT. WILMINGTON, NC 28405 (910) 796-7215 CONTACT: CHRISTINE HALL CHRISTINE.HALL@DEQ.NC.GOV (910) 796-7339
E&S: (NCDEQ):	NCDEQ WILMINGTON REGIONAL OFFICE 127 CARDINAL DRIVE EXT. WILMINGTON, NC 28405 (910) 796-7215 CONTACT: CHRISTINE HALL CHRISTINE.HALL@DEQ.NC.GOV (910) 796-7339
BUILDING INSPECTIONS:	BEAUFORT PLANNING & INSPECTIONS 701 FRONT STREET BEAUFORT, NC 28516 (252) 728-2141
PLANNING:	BEAUFORT PLANNING & INSPECTIONS 701 FRONT STREET BEAUFORT, NC 28516 (252) 728-2141

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REVISIONS

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DRAWING ALTERATION

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PROJECT ENGINEER/ARCHITECT: MWH|MATT.HASTINGS@SUMMITDE.COM|
PROJECT MANAGER: MWH|MATT.HASTINGS@SUMMITDE.COM|

DRAWN BY: MTM|MITCHELL.MARTIN@SUMMITDE.COM|
FIRST ISSUE DATE: 10-29-2025

NORTH CAROLINA SEAL 36928 ENGINEER MATTHEW W. HASTINGS 12/3/25

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TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

COVER SHEET
-

PROJECT NO.
25-0099
DRAWING NAME:

SHEET NO.
C-1

EXISTING CONDTIONS/SURVEY NOTES:

1. TOPOGRAPHIC SURVEY, DATA AND LOCATIONS BY INTRACOASTAL LAND SURVEYING, PLLC (SEE COVER SHEET).
2. ALL MEASUREMENTS ARE HORIZONTAL GROUND DISTANCES AND AREAS HAVE BEEN CALCULATED BY COORDINATE METHOD.
3. THE LOCATION OF UNDERGROUND UTILITIES ARE SHOWN BASED ON VISIBLE EVIDENCE AND DRAWINGS PROVIDED TO THE SURVEYOR. EXACT LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES MAY VARY FROM THAT SHOWN AND ADDITIONAL BURIED UTILITIES MAY EXIST. CONTACT THE APPROPRIATE UTILITY COMPANIES FOR INFORMATION REGARDING BURIED UTILITIES. SPECIAL CARE SHALL BE EXERCISED DURING ANY SUBGRADE WORK OR DEMOLITION TO PREVENT UNINTENDED LOSS OF SERVICE TO SURROUNDING PROPERTIES.
4. THERE ARE NO SURFACE WATERS, PROTECTED VEGETATED SETBACKS, OR PROTECTED RIPARIAN BUFFERS ON THIS SITE.
5. THERE ARE NO EXISTING WETLANDS ON THIS SITE.
6. THIS PROPERTY IS WITHIN THE WHITE OAK RIVER BASIN.

DEMOLITION NOTES:

1. ALL DEMOLITION, TRANSPORT, AND DISPOSAL OF WASTE MATERIALS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE TOWN, COUNTY, STATE AND FEDERAL REGULATIONS.
2. REGULATED MATERIALS SUCH AS ASBESTOS, LEAD, ETC. MAY EXIST ON SITE AND SHALL BE IDENTIFIED AND A PLAN FOR DEMOLITION AND DISPOSAL PRESENTED TO AND APPROVED BY THE CITY/COUNTY AND OWNERS PRIOR TO COMMENCING DEMOLITION ON CORRESPONDING STRUCTURES.
3. THE LOCATIONS OF ALL EXISTING FEATURES SHOWN ON THIS SHEET WERE PROVIDED AS PART OF THE SURVEY REFERENCED ON THIS SHEET. OTHER UNIDENTIFIED UTILITIES OR SITE FEATURES MAY EXIST AND SPECIAL CARE SHALL BE EXERCISED DURING ANY SUBGRADE WORK OR DEMOLITION TO PREVENT UNINTENDED LOSS OF SERVICE TO SURROUNDING PROPERTIES.
4. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY PERMITS FOR WORK IN THE NCDOT RIGHTS OF WAY. ANY DAMAGED INFRASTRUCTURE IN THE RIGHTS-OF-WAY CAUSED BY CONSTRUCTION ACTIVITIES MUST BE REPAIRED TO NCDOT STANDARDS. THIS INCLUDES, BUT IS NOT LIMITED TO UTILITIES, CURB & GUTTER, PAVEMENT, SIGNS AND ROADSIDE SWALES.



GRAPHIC SCALE
25 0 0 25 50 100
(IN FEET)
1 inch = 50 ft.

UTILITIES LEGEND:

EXIST / PROPOSED

- WATER VALVE
- FIRE HYDRANT
- WATER METER
- FIRE DEPT. CONNECTION (FDC)
- REDUCER
- PLUG & BLOCK
- MECHANICAL JOINT / BEND
- POST INDICATOR VALVE (PIV)
- AIR RELEASE VALVE (ARV)
- SANITARY SEWER MANHOLE
- SEWER CLEAN OUT
- CURB INLET
- DROP INLET
- JUNCTION BOX
- FLARED END SECTION (FES)
- POWER POLE
- COMMUNICATION BOX
- EXISTING WATER MAIN
- PROPOSED WATER MAIN / SERVICE
- EXISTING GAS MAIN
- PROPOSED GAS MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED UNDERGROUND ELECTRIC
- EXISTING SEWER MAIN
- PROPOSED SEWER MAIN / SERVICE
- EXISTING STORM PIPE
- PROPOSED STORM PIPE
- TREE LINE
- TREE CLEARING LINE

Know what's below. Call before you dig.

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PHASE 1
ZONING: TCA
1809 LIVE OAK SUBDIVISION
MB 35 PG 78

LOT 135 LOT 134 LOT 133 LOT 132 LOT 131 LOT 130 LOT 129 LOT 128 LOT 127 LOT 126 LOT 125 LOT 124 LOT 123 LOT 122 LOT 121 LOT 120 LOT 119 LOT 118 LOT 117 LOT 116

55' INGRESS/EGRESS AND UTILITY EASEMENT (MB 35 PG 78)
25' 30'

25' UTILITY EASEMENT (MB 35 PG 78)

INGRESS/EGRESS AND UTILITY EASEMENT DIMENSION VARY (MB 35 PG 78)

20' MINIMUM WIDTH TYPE "A" BUFFER (MB 35 PG 78)

N 31°28'05" W 169.88' (TIE)

EIR

EIP

N 30°18'36" E
516.88' TOTAL

IPS

SANITARY SEWER MANHOLE
RIM: 11.98
CL INV: 4.27

EX. FIRE HYDRANT

EX. 8" WATELINE (APPROX.)

DA DELINEATION LINE

TREE CLEARING LIMITS

Tc

PROPERTY LINE

SETBACK

TRACT "A"
ZONING: B-1
DOWN EAST TRADING POST SUBDIVISION
MB 31 PG 260

NOW OR FORMERLY
ROSEMYR CORPORATION
DB 1652 PG 193

PRE DA 2
AREA - 0.3 AC
OVERLAND - 75' @ 0.2%
WOODS - 100%

36' CP&L EASEMENT (DB 784 PG 990)

ASPHALT CURB

ASPHALT PARKING LOT

LOT 1
ZONING: B-1
THE 4 SISTERS-00, LLC & CGW, INC. PROPERTIES SUBDIVISION
MB 32 PG 32

NOW OR FORMERLY
4 SISTERS-00 LLC
DB 898 PG 004

10' UTILITY EASEMENT (MB 31 PG 794)

CONCRETE CURB & GUTTER

TOWNS DRIVE (BEAUFORT DRIVE PER PLAT)
60' RIGHT OF WAY (MB 32 PG 32)

FLUME INV: 10.63

FLUME INV: 10.61

S 69°41'24" E
400.00'

PID: 730612967426000
LOT 2
DB 781 PG 208
3.76 ACRES±
VACANT

PRE DA 1
AREA - 3.92 AC
OVERLAND - 100' @ 0.4%
SHALLOW CONC - 329' @ 0.3%
CHANNEL - 125' @0.2%
WOODS - 3.45 AC (88%)
GRASS - 0.47 AC (12%)

EX. TREELINE

OUTPARCEL 1
ZONING: B-1
DOWN EAST TRADING POST SUBDIVISION
MB 31 PG 260

NOW OR FORMERLY
HICKS-TODD LLC
DB 1845 PG 206

SITE BENCHMARK
SET MAG NAIL - ELEV: 13.40

S 31°28'05" E
454.54' TOTAL

SANITARY SEWER MANHOLE
RIM: 11.72
CL INV: 2.69

INV: 7.91

INV: 7.77

8" PVC

10' TEMPORARY CONSTRUCTION EASEMENT (DB 1854 PG 134)

S 30°18'36" W
301.00'

POSSIBLE NCDOT TAKING IN THIS AREA

VARIABLE WIDTH DRAINAGE & UTILITY EASEMENT (MB 33 PG 970)

10' UTILITY & MAINTENANCE EASEMENT (DB 1314 PG 182)

20' PERMANENT UTILITY EASEMENT (DB 1854 PG 134)

30' UTILITY EASEMENT (DB 79 PG 31)

LIVE OAK STREET (SR 1493 & US HIGHWAY 70)
VARIABLE WIDTH PUBLIC RIGHT OF WAY (MB 32 PG 32)

SANITARY SEWER MANHOLE
RIM: 10.04
CL INV: 1.54

SEWER VALVE MANHOLE
RIM: 10.54

SANITARY SEWER MANHOLE
RIM: 11.32
CL INV: -0.29

N 37° 38'25" E 229.0'± (TIE TO INTERSECTION)

FIELD LOCATED CENTERLINE INTERSECTION

RIGHT OF WAY LINE PER MB 29 PG 422

PINNERS POINT ROAD (SR 1303)
60' RIGHT OF WAY (MB 28 PG 40)

30.0' 30.0'

R/W

MNS

7		
6		
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1	REVISIONS	DATE / BY

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FIRST ISSUE DATE
10-29-2025

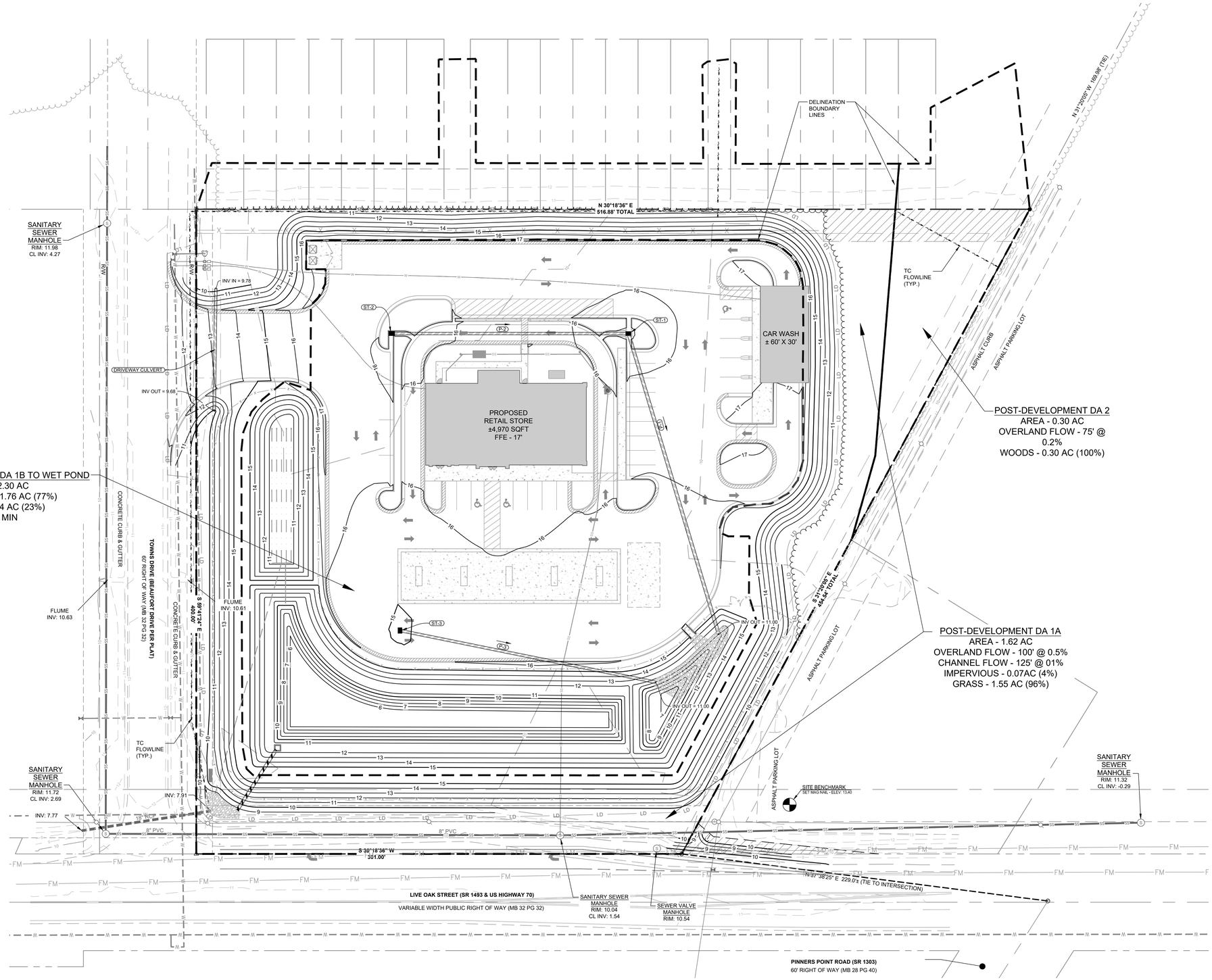
NORTH CAROLINA SEAL 39293 ENGINEER MATTHEW W. HASTINGS 11.3.26

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TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

EXISTING CONDITIONS & DEMOLITION PLAN

PROJECT NO.
25-0099
DRAWING NAME:
25-0099_XC
SHEET NO.
C-2



GRADING & STORM LEGEND:

- EXISTING WATER METER
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING BOLLARD
- EXISTING POST INDICATOR VALVE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING TELEPHONE PEDESTAL
- EXISTING ELECTRIC ACCESS
- EXISTING GAS METER
- EXISTING GAS REGULATOR
- EXISTING WATER VALVE

EXIST / PROPOSED

- CURB INLET
- DROP INLET
- JUNCTION BOX
- FLARED END SECTION (FES)
- EXISTING STORM PIPE
- PROPOSED STORM PIPE
- LIMITS OF DISTURBANCE
- LIMITS OF DISTURBANCE & TREE PROTECTION FENCE
- TREE PROTECTION FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- WOODS LINE

Know what's below. Call before you dig.

GRAPHIC SCALE
15 0 15 30 60
(IN FEET)
1 inch = 30 ft.

7			
6			
5			
4			
3			
2		...	...
1		...	...
	REVISIONS	DATE	BY

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FIRST ISSUE DATE
10-29-2025

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04.23.26

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www.summitde.com

TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

POST DEVELOPMENT DRAINAGE MAP
-

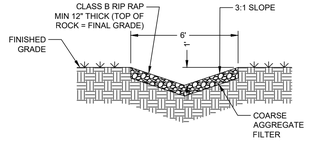
PROJECT NO.
25-0099
DRAWING NAME:
25-0099_S
SHEET NO.
C-3

EROSION CONTROL & MAINTENANCE PLAN NOTES:

1. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS, SPECIFICATIONS AND DETAILS OF THE NORTH CAROLINA EROSION & SEDIMENT CONTROL PLANNING & DESIGN MANUAL.
2. RETAIN FLOATABLE WIND BLOWN MATERIALS ON SITE BY STORING ALL TRASH AND BUILDING MATERIAL WASTE IN ENCLOSURES UNTIL DISPOSAL AT OFF-SITE FACILITIES. CHECK ADJACENT AREAS DAILY AND PICK UP CONSTRUCTION WASTE MATERIALS AND DEBRIS THAT HAVE BLOWN OR WASHED OFF SITE.
3. PERMANENTLY STABILIZE ALL SURFACE AREA WITHIN AND ADJACENT TO THIS SITE THAT IS DISTURBED BY VEHICLES, GRADING AND OTHER CONSTRUCTION FOR THE PROPOSED FACILITY. STABILIZATION IS OBTAINED WHEN THE DISTURBED SURFACE IS COVERED WITH STRUCTURES, PAVING AND OR PERENNIAL VEGETATION HAVING A UNIFORM COVERAGE DENSITY OF AT LEAST 70%. STABILIZATION OF ALL DISTURBED AREA IS REQUIRED BEFORE TERMINATION OF MAINTENANCE AND REMOVAL OF EROSION CONTROL MEASURES.
4. CONTRACTORS SHALL INSPECT POLLUTION CONTROL MEASURES AT LEAST ONCE EVERY 14 DAYS AND WITHIN 24 HOURS AFTER A STORM EVENT OF 1/2 INCH OR GREATER. DAMAGED MEASURES THAT PROVE TO BE INEFFECTIVE SHALL BE REPLACED WITH MORE EFFECTIVE MEASURES OR ADDITIONAL MEASURES WITHIN SEVEN DAYS. REPEATED FAILURE OF A CONTROL MEASURE REQUIRES INSTALLATION OF A MORE SUITABLE DEVICE TO PREVENT DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE.
5. INSTALLATION OF ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE CITY OR COUNTY. CONTRACTOR TO VERIFY REQUIREMENTS PRIOR TO BEGINNING ANY WORK ON PROJECT SITE.
6. CARE SHALL BE TAKEN TO MINIMIZE THE ENCROACHMENT OF SEDIMENT INTO ALL STORM DRAIN APPURTENANCES, PUBLIC STREETS, AND ONTO PRIVATE PROPERTY UNTIL IMPERVIOUS MATERIAL (ROAD/PARKING AREA SURFACE) IS APPLIED OR UNTIL PROPOSED LANDSCAPE HAS BEEN ESTABLISHED.
7. ALL AREAS NOT SHOWN AS PAVEMENT OR BUILDING UNDER FINAL CONSTRUCTION SHALL BE TEMPORARILY AND PERMANENTLY SEEDED AS REQUIRED.
8. ALL GRASS SLOPES WHICH EXCEED 3:1 (H:V) AND ALL SWALES SHALL UTILIZE NORTH AMERICAN GREEN (NAG) CONSTRUCTION PRODUCTS TURF REINFORCEMENT MATS SC150 OR APPROVED EQUAL UNLESS OTHERWISE SPECIFIED ON PLANS. MATS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND STANDARDS. CONTRACTOR SHALL COORDINATE INSTALLATION INSPECTION WITH MANUFACTURER.
9. THE CONTRACTOR SHALL PROVIDE COPIES OF VALID PERMITS FOR ANY OFFSIDE BORROW OR WASTE AREAS.
10. THE APPROVAL OF THIS PLAN BY NCDEQ DEMLR DOES NOT ABSOLVE THE OWNER/OPERATOR FROM OBTAINING PERMITS FROM OTHER AGENCIES (I.E. VANCE COUNTY, DWR, DWM, USACE, DAQ, ETC.).
11. NO TIMBERING OR DEMOLITION OF EXISTING STRUCTURES WILL BE ALLOWED UNTIL PLAN IS APPROVED.
12. PERIMETER MEASURES MUST BE LEFT IN PLACE UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED. AFTER SITE IS PERMANENTLY STABILIZED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND PROVIDE PERMANENT SEEDING WHERE TEMPORARY MEASURES HAVE BEEN REMOVED AND GROUND COVER IS NOT ADEQUATE. SEDIMENT BASINS MAY NOT BE REMOVED OR CONVERTED TO PERMANENT SCMS UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED." (GS 113A-57(3), 15A NCAC 04B .0113).
13. SELF-INSPECTION FORMS WERE UPDATED ON 07/01/2020. PLEASE ENSURE NEW VERSION OF FORMS IS USED." (GS 113A-54.1 (E), 15A NCAC 04B.0131, NCG01 PART III SECTIONS A AND B)
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15. PERFORMANCE OF SILT FENCE OUTLETS MAY BE IMPROVED WITH SMALL, EXCAVATED PITS IN FRONT OF DEVICE. (GS113A-57(3), 15A NCAC 04B .0105, 15A NCAC 04B .0106(5), GS113A-57(4), NCG01 PART II SECTION B (5))
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18. INSTALL SILT FENCING OVER AND AROUND TOP OF CULVERTS TO PREVENT EROSION AROUND PIPE. PROVIDE SILT FENCE ALONG STREAM BANK TO PREVENT SEDIMENT LOSS INTO THE STREAM. (GS 113A-57(3))

CONSTRUCTION ENTRANCE NOTES:

1. CONSTRUCTION ENTRANCE SHALL BE 12' MINIMUM WIDTH AND 70' MINIMUM LENGTH AND 6" MINIMUM THICKNESS OF STONE (1.5"-3.5") COARSE AGGREGATE WITH GEOTEXTILE UNDERLINER. SEE SHEET D-2
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1.5"-3.5" STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT OF ANY STRUCTURE USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OR SITE ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
3. WHEELS MUST BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN LOCATED PER THE CITY OR STATE REQUIREMENTS.



INLET/OUTLET PROTECTION RIP RAP CHANNEL

BASIN INLET PROTECTION MAINTENANCE:

1. RIPRAP SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM FOR DISPLACED STONES, SLUMPING, AND EROSION AT EDGES, ESPECIALLY DOWNSTREAM OR DOWNSLOPE. IF THE RIPRAP HAS BEEN DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY BEFORE FURTHER DAMAGE CAN TAKE PLACE.
2. WOODY VEGETATION SHOULD BE REMOVED FROM THE ROCK RIPRAP ANNUALLY BECAUSE TREE ROOTS WILL EVENTUALLY DISLODGE THE RIPRAP.
3. IF THE RIPRAP IS ON A CHANNEL BANK, THE STREAM SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT BARS THAT MAY CHANGE FLOW PATTERNS, WHICH COULD DAMAGE OR DISPLACE THE RIPRAP

STABILIZATION TIMEFRAMES

Site Area Description	Stabilization	Timeframe Exceptions
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper 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 than 50' in length
All other areas with slopes flatter than 4:1	14 days	None, except for perimeters and HQW Zones

NOTES:

1. ALL SLOPES 3:1 AND STEEPER, AND DITCHES SHALL BE STABILIZED WITHIN 7 DAYS AND BE LINED WITH BLANKET MATTING.
2. PERMANENT GROUNDCOVER WILL BE PROVIDED FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR NO MORE THAN 90 CALENDAR DAYS (WHICHEVER IS SHORTER).
3. ROADSIDE DITCHES MUST HAVE MATTING IMMEDIATELY UPON CONSTRUCTION OR BY END OF DAY IF CONSTRUCTION CANNOT BE COMPLETED IN ONE DAY.

THERE ARE NO STREAMS OR WETLANDS PRESENT ON THE PROJECT SITE.

DISTURBED AREA
3.29 ACRES

SKIMMER BASIN PHASE 1		
DRAINAGE AREA (acres):	2.3	
Q25: (CIA) 0.45*5.7 in/hr*2.3 acres		
Q25 (cfs):	5.90	
BASIN INFORMATION	REQUIRED	PROVIDED @ SPILLWAY'
SURFACE AREA (sf):	1918	5890
VOLUME (cf):	4140	9543
DEPTH (ft):	2	2
WEIR WIDTH (ft):		10
TOP BANK ELEV (ft):		10
BOTTOM TRAP ELEV (ft):		7
WEIR ELEV (ft):		9
DESIGN STORM ELEV (ft):		9.2
SKIMMER SIZE (in):	1.5	1.5
ORIFACE SIZE (diameter - in):	1.4	1.4
Baffle Spacing (Equidistant, ft):		Varies - Position Minimum of 2 Between Inflow and Skimmer
Basin Dewatering Time, days	3	3

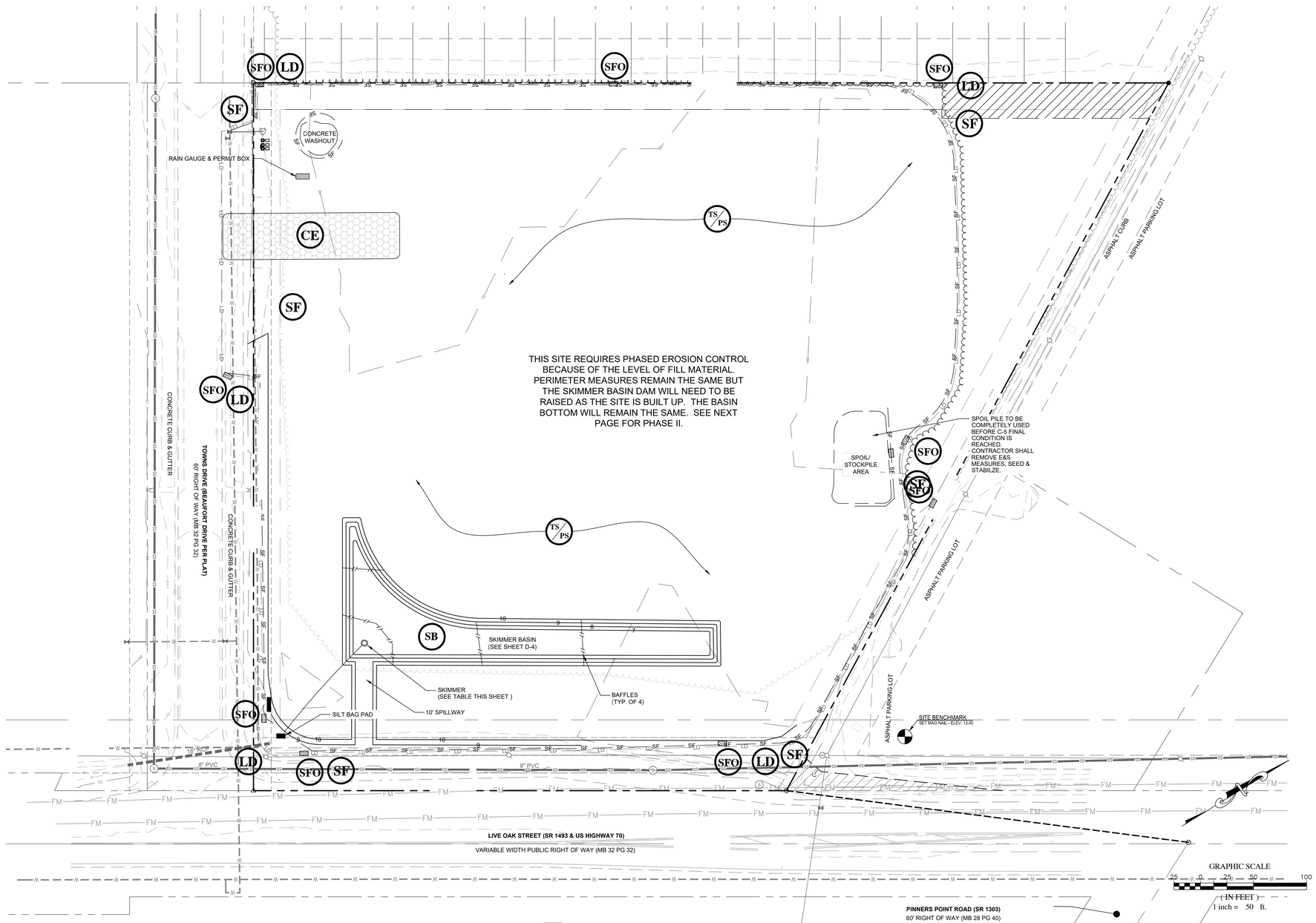
THE TABLE ABOVE IS WORST CASE SCENARIO INITIALLY THERE IS LESS THAN 2 ACRES DRAINAGE TO THIS BASIN BUT AS THE SITE IS RAISED IT WILL CAPTURE 2.3 ACRES AT FULL BUILDOUT

E&S LEGEND:

EXIST / PROPOSED

- CURB INLET
- DROP INLET
- JUNCTION BOX
- FLARED END SECTION (FES)
- EXISTING STORM PIPE
- PROPOSED STORM PIPE
- EXISTING MAJOR CONTOUR
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- IP — INLET PROTECTION
- CIP — CULVERT INLET PROTECTION
- BM — BLANKET MATTING
- SB — SKIMMER BASIN

811 Know what's below. Call before you dig.



	DATE	BY
7		
6		
5		
4		
3		
2	...	...
1	...	...

REVISIONS

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DRAWING ALTERATION
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, PROFESSIONAL ENGINEER, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER ANY ITEM ON THESE PLANS. IF YOU ARE A PERSON WHO ALTERS THIS DOCUMENT IS REQUIRED BY LAW TO AFFIX TO THE PLANS THE SEAL OF THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE SPECIFIC DATE AND DESCRIPTION OF THE ALTERATIONS.

PROJECT ENGINEER/ARCHITECT
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PROJECT MANAGER
MWHMATT.HASTINGS@SUMMITDE.COM
DRAWN BY
MTMMITCHELL.MARTIN@SUMMITDE.COM

FIRST ISSUE DATE
10-29-2025

NORTH CAROLINA SEAL 39093 ENGINEER MATTHEW W. HASTINGS 11.3.26

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www.summitde.com

TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

EROSION CONTROL PLAN
PHASE I

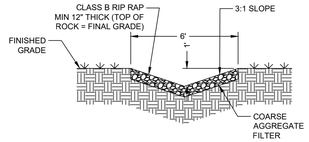
PROJECT NO.
25-0099
DRAWING NAME:
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SHEET NO.
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THERE ARE NO STREAMS OR WETLANDS PRESENT ON THE PROJECT SITE.

DISTURBED AREA
3.29 ACRES

SKIMMER BASIN PHASE 2		
DRAINAGE AREA (acres):	2.3	
Q25: (CIA) 0.7*9.96 in/hr*2.3 acres		
Q25 (cfs):	16.04	
BASIN INFORMATION	REQUIRED	PROVIDED @ SPILLWAY*
SURFACE AREA (sf):	5212	15715
VOLUME (cf):	4140	47680
DEPTH (ft):	2	6
WEIR WIDTH (ft):		10
TOP BANK ELEV (ft):		10
BOTTOM TRAP ELEV (ft):		7
WEIR ELEV (ft):		13
DESIGN STORM ELEV (ft):		13.3
SKIMMER SIZE (in):	1.5	1.5
ORIFACE SIZE (diameter - in):	1.4	1.4
Baffle Spacing (Equidistant, ft):		Varies - Position Minimum of 2 Between Inflow and Skimmer
Basin Dewatering Time, days	3	3

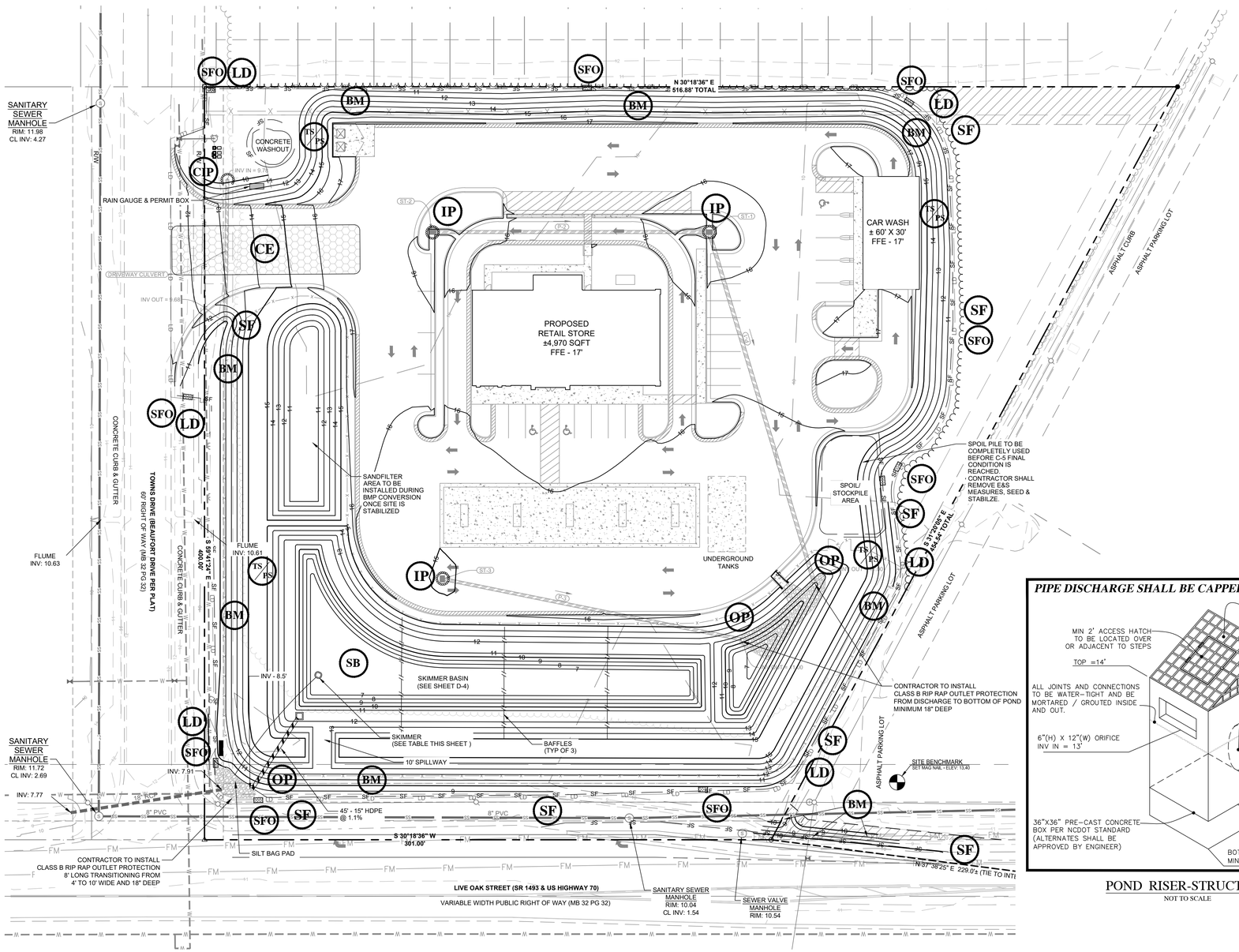
E&S LEGEND:

EXIST / PROPOSED

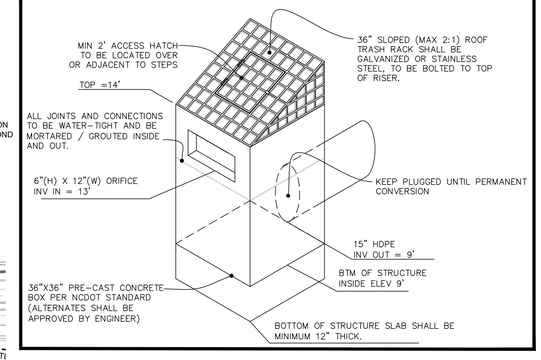
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- EXISTING STORM PIPE
- PROPOSED STORM PIPE
- EXISTING MAJOR CONTOUR
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- CIP — CULVERT INLET PROTECTION
- BM — BLANKET MATTING
- SB — SKIMMER BASIN

811 Know what's below. Call before you dig.

GRAPHIC SCALE
25 0 25 50 100
(IN FEET)
1 inch = 50 ft.



PIPE DISCHARGE SHALL BE CAPPED OFF UNTIL SCM CONVERSION



POND RISER-STRUCTURE
NOT TO SCALE

7							...	
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	REVISIONS						DATE	BY

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PROJECT ENGINEER/ARCHITECT
MW|MATT.HASTINGS@SUMMITDE.COM|
PROJECT MANAGER
MW|MATT.HASTINGS@SUMMITDE.COM|

DRAWN BY
MTM|MITCHELL.MARTIN@SUMMITDE.COM|

FIRST ISSUE DATE
10-29-2025

NORTH CAROLINA SEAL 38093 ENGINEER MATTHEW M. HASTINGS 11.3.26

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Hillsborough, NC 27278
Voice: (919) 732-3883 Fax: (919) 732-6676
www.summitde.com

TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

EROSION CONTROL PLAN
PHASE II

PROJECT NO.
25-0099
DRAWING NAME:
25-0099_S
SHEET NO.
C-5

SITE INFORMATION

OWNER	RHETSON CAPITAL, LLC
CONTACT:	GREG STEWART
MAILING ADDRESS:	2075 JUNIPER LAKE RD WEST END, NC 27376
TELEPHONE NUMBER:	(910) 944-0881
PARCEL #:	7306129674260000
PROPERTY ADDRESS:	LIVE OAK STREET
PLANNING JURISDICTION:	TOWN OF BEAUFORT
STATE:	NORTH CAROLINA
RECEIVING CHANNEL	OUTLET NORTH RIVER
RIVER:	NORTH RIVER
RIVER BASIN:	WHITE OAK
HUC:	030203010503
FEMA MAP NUMBER:	3720730600J (NOT IN FLOODPLAIN)

SOILS:	NAME:	DESCRIPTION:	SLOPES:
	Ap	(ARAPAHOE FINE SANDY LOAM)	
	Tm	(TOMOTLEY FINE SANDY LOAM)	

DEED:	BK 781; PG 208
TOTAL PARCEL AREA:	3.76 ACRES
PROP. IMPERVIOUS AREA:	1.83 ACRES (49%)
MAX. ALLOWABLE:	N/A
MIN. LOT SIZE:	5,000 SF
MIN. LOT WIDTH:	60'
MAX. HEIGHT:	40'
EXISTING ZONING:	B-1
CURRENT USE:	VACANT
PROPOSED USE:	COMMERICAL - GAS STATION
FRONT SETBACK:	30'
REAR SETBACK:	15'
SIDE SETBACKS:	15'
HOURS OF OPERATION:	SUNDAY-SATURDAY; 8AM-10PM
PARKING PROVIDED:	26 SPACES + 1 LOADING AREA

ENGINEER CONTACT

SUMMIT DESIGN & ENGINEERING SERVICES
MATT HASTINGS, P.E.
606 BROAD STREET, SUITE C
SOUTH BOSTON, VA 24592
(434) 579-4604 (PHONE)
(434) 575-0617 (FAX)
MATT.HASTINGS@SUMMITDE.COM

DEVELOPER/FUTURE OWNER

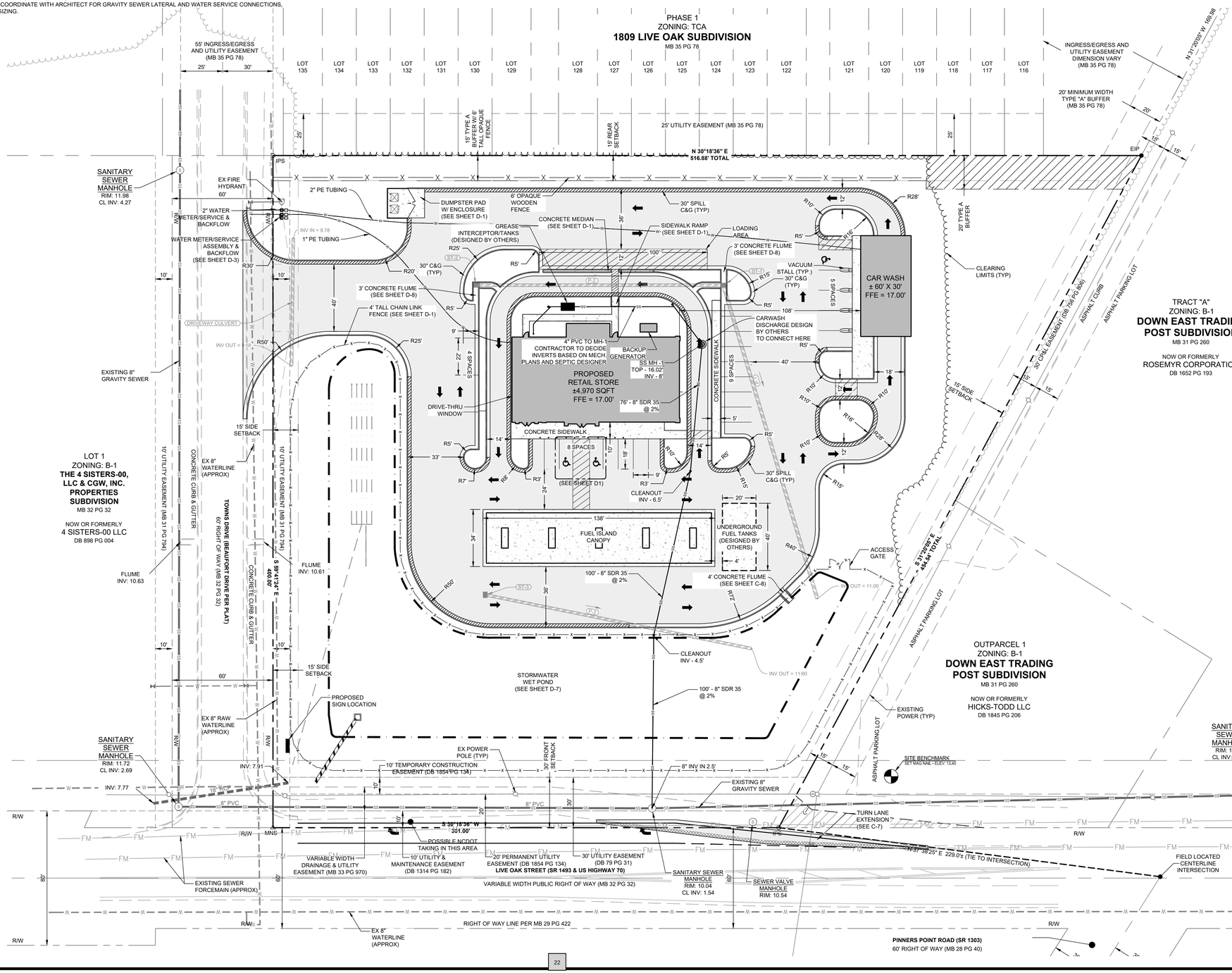
RHETSON CAPITAL, LLC
GREG STEWART
2075 JUNIPER LAKE RD
WEST END, NC 27376
(910) 944-0881 (PHONE)
PERMITS@RHETSON.COM

SITE NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF BEAUFORT, NCDOT, NCDEQ, AND NCDWR STANDARDS AND SPECIFICATIONS.
2. ALL PAVEMENT AND CONCRETE SECTIONS SHALL MEET OR EXCEED NCDOT AND THE TOWN OF BEAUFORT STANDARDS.
3. PARKING AREAS AND DRIVE ISLES SHALL BE CONSTRUCTED TO MEET TOWN OF BEAUFORT DEVELOPMENT STANDARDS.
4. CONTRACTOR SHALL MAINTAIN ANY EXISTING ACCESSES TO ADJACENT RESIDENCES, BUSINESSES AND PROPERTIES AT ALL TIMES.
5. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY PERMITS NECESSARY FOR CONSTRUCTION.
6. THIS SITE IS NOT LOCATED WITHIN THE FLOODPLAIN.

UTILITY NOTES:

1. THE CONTRACTOR SHALL FIELD VERIFY EXISTING UTILITY LOCATIONS BY "SPOT DIGGING" BEFORE EXCAVATION WORK.
2. ALL NEW UTILITIES SHALL BE LOCATED UNDERGROUND IF ALLOWED BY LOCAL CODES.
3. ALL PUBLIC UTILITIES AND CONNECTIONS TO PUBLIC UTILITIES SHALL CONFORM TO THE TOWN OF BEAUFORT STANDARDS AND SPECIFICATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY PERMITS NECESSARY FOR CONSTRUCTION.
5. PRIOR TO THE CONSTRUCTION OF ANY WATER OR SEWER MAIN EXTENSIONS, THE ENGINEER OF RECORD SHALL BE CONTACTED BY THE GENERAL CONTRACTOR TO DISCUSS CERTIFICATION REQUIREMENTS. FAILURE TO CONTACT THE ENGINEER OF RECORD OR PROVIDE ANY OF THE REQUESTED DOCUMENTATION DISCUSSED MAY RESULT IN THE INABILITY OF THE ENGINEER TO CERTIFY THE LINE OR ACCEPTANCE BY THE TOWN OF BEAUFORT.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF THE LOCATION AND/OR RELOCATION OF ALL EXISTING UTILITIES WITH THE APPROPRIATE UTILITY, AGENCY OR COMPANY.
7. THE CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS AND DISTURBANCES WITH EXISTING USERS AND THE TOWN OF BEAUFORT, SO THAT ANY SERVICE INTERRUPTIONS ARE MINIMAL.
8. ALL WATER MAIN FITTINGS, BENDS, TEES, ETC. SHALL BE RESTRAINED w/ MECHANICAL JOINT FITTINGS OR THRUST BLOCKS.
9. CONTRACTOR TO COORDINATE WITH ARCHITECT FOR GRAVITY SEWER LATERAL AND WATER SERVICE CONNECTIONS, MATERIALS, AND SIZING.



GRAPHIC SCALE
15 0 15 30 60
(IN FEET)
1 inch = 30 ft.

UTILITIES LEGEND:

EXIST / PROPOSED

- WATER VALVE
- FIRE HYDRANT
- WATER METER
- FIRE DEPT. CONNECTION (FDC)
- REDUCER
- PLUG & BLOCK
- MECHANICAL JOINT / BEND
- POST INDICATOR VALVE (PIV)
- AIR RELEASE VALVE (ARV)
- SANITARY SEWER MANHOLE
- SEWER CLEAN OUT
- CURB INLET
- DROP INLET
- JUNCTION BOX
- FLARED END SECTION (FES)
- EXISTING WATER MAIN
- PROPOSED WATER MAIN / SERVICE
- EXISTING GAS MAIN
- PROPOSED GAS MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED UNDERGROUND ELECTRIC
- EXISTING SEWER MAIN
- PROPOSED SEWER MAIN / SERVICE
- EXISTING STORM PIPE
- PROPOSED STORM PIPE
- PROPOSED FENCE

811 Know what's below. Call before you dig.

	DATE	BY
1	...	...
2	...	...
3		
4		
5		
6		
7		

REVISIONS

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PROJECT ENGINEER/ARCHITECT
MWH|MATT.HASTINGS@SUMMITDE.COM|
PROJECT MANAGER
MWH|MATT.HASTINGS@SUMMITDE.COM|

DRAWN BY
MTM|MITCHELL.MARTIN@SUMMITDE.COM|

FIRST ISSUE DATE
10-29-2025

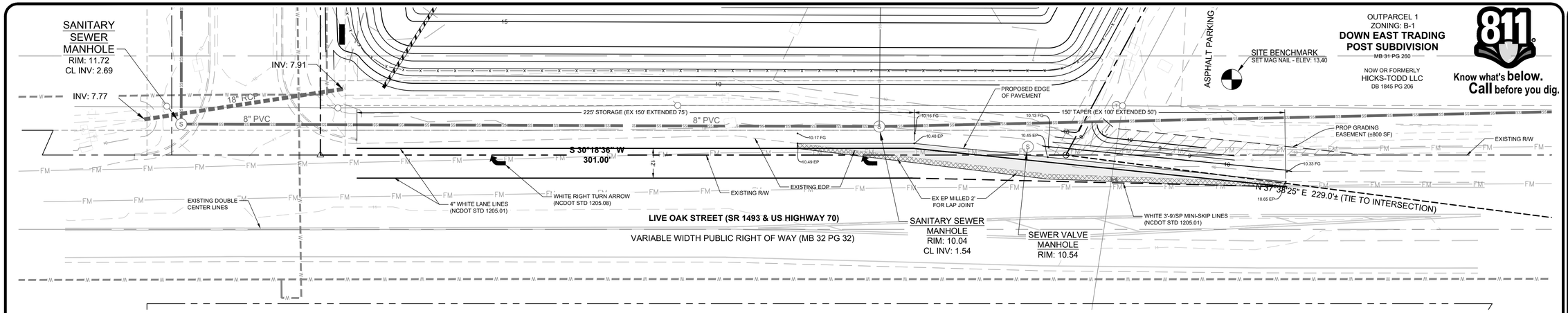
NORTH CAROLINA SEAL 39293 ENGINEER MATTHEW W. HASTINGS 04.03.26

SUMMIT
DESIGN AND ENGINEERING SERVICES
State License #: P-0339
320 Executive Court
Hillsborough, NC 27278
Voice: (919) 732-3883 Fax: (919) 732-6676
www.summitde.com

TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

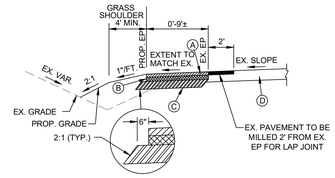
SITE & UTILITY PLAN
-

PROJECT NO.
25-0099
DRAWING NAME:
25-0099_S
SHEET NO.
C-6



NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE THERMO PLASTIC AND COMPLY w/ LATEST NCDOT STANDARD DRAWINGS.
2. ALL PUBLIC TRAFFIC IMPROVEMENTS, MARKINGS & SIGNAGE SHALL BE PROVIDED IN ACCORDANCE WITH 2024 NCDOT STANDARD DRAWINGS, AS WELL AS STANDARD SPECIFICATIONS FOR ROADWAYS & STUCTURES
3. ALL ROADSIDE SIGNS ADJACENT TO SECTIONS OF ROAD WIDENING SHALL BE RELOCATED PER NCDOT REQUIREMENTS.
4. CONTRACTOR SHALL ADHERE STRICTLY TO ALL PROVISIONS AND CONDITIONS OF THE DRIVEWAY PERMITS AND ENCROACHMENT AGREEMENTS



RIGHT TURN LANE - TYPICAL SECTION

NTS

PAVEMENT SCHEDULE	
A	3"-S9.5C WHICH INCLUDES TWO - 1.5" LIFTS
B	4" - I19.0C
C	5" - B25.0C
D	EX. PAVEMENT STRUCTURE

NOTES:

1. ALL EARTHWORK AND FILL FOR TRAFFIC IMPROVEMENTS SHALL BE CONDUCTED AND TESTED IN ACCORDANCE WITH NCDOT SPECIFICATIONS.
2. ALL GRASS SLOPES WHICH EXCEED 3:1 (H:V) SHALL UTILIZE NORTH AMERICAN GREEN (NAG) CONSTRUCTION PRODUCTS TURF REINFORCEMENT MATS SC150 OR APPROVED EQUAL UNLESS OTHERWISE SPECIFIED ON PLANS. MATS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND STANDARDS. CONTRACTOR SHALL COORDINATE INSTALLATION INSPECTION WITH MANUFACTURER.



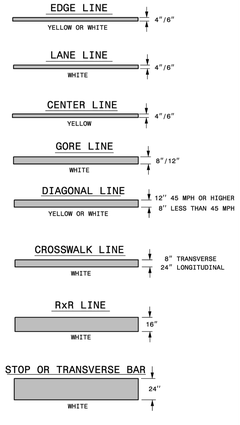
GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

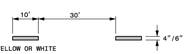
1 inch = 20 ft.

CONTINUOUS LINES



10'-30'/SP SKIP LINE

UNLESS OTHERWISED SHOWN, USE 10'-30'/SP SKIPS FOR SKIP LANE LINES AND SKIP CENTER LINES.



2'-6'/SP MINI-SKIP LINE

UNLESS OTHERWISED SHOWN, USE 2'-6'/SP MINI-SKIPS FOR LANE LINE EXTENSIONS THROUGH INTERSECTIONS, EDGE LINE EXTENSIONS THROUGH INTERSECTIONS AND BICYCLE LANE EXTENSIONS.



3'-3'/SP MINI-SKIP LINE

UNLESS OTHERWISED SHOWN, USE 3'-3'/SP MINI-SKIPS FOR THE WHITE EDGE LINE EXTENSIONS AT ROUNDABOUTS.

3'-9'/SP MINI-SKIP LINE

UNLESS OTHERWISED SHOWN, USE 3'-9'/SP MINI-SKIPS FOR MINI-SKIP LANE LINES, LINE EXTENSIONS THROUGH TAPERS, AND MINI-SKIPS USED FOR BICYCLE LANE LINES.

GENERAL NOTES:

1- USE 6" LANE, EDGE, AND CENTER LINES ON ALL FULL CONTROL OF ACCESS FACILITIES AND OTHER ROUTES AS DIRECTED BY THE ENGINEER.

2- LANE LINES INDICATED AS "WIDE" ON THE ROADWAY STANDARD DRAWINGS SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.

3- GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.

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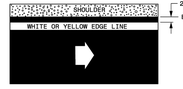
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ROADWAY STANDARD DRAWING FOR **PAVEMENT MARKINGS** LINE TYPES AND OFFSETS

SHEET 1 OF 2

1205.01

EDGE LINE OFFSET DETAIL



CENTER LINE OFFSET DETAIL

LANE LINE OFFSET DETAIL

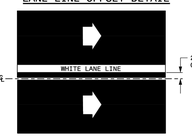


TABLE 1

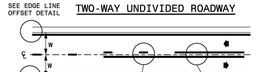
EDGE LINE OFFSETS FOR 2-LANE, 2-WAY ROADWAYS WITH UN-PAVED SHOULDERS

WIDTH (W) OF TRAVEL PAVEMENT	MAX. EDGE LINE OFFSET FROM E.O.T.	MINIMUM LANE WIDTH (W)
18' - 18'	2"	8' - 9'
19'	4"	9'
20'	6"	9.5'
21'	8"	10'
22'	10"	10'
23'	10"	10.5'
24'	1'	11'
26'	2'	11'
28'	2'	12'
30'	3'	12'
32'	4'	12'

LEGEND

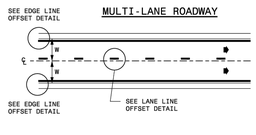
W = WIDTH OF TRAVEL LANE
E.O.T.= EDGE OF TRAVEL
DIRECTION OF TRAFFIC FLOW

TWO-WAY UNDIVIDED ROADWAY



TWO-WAY UNDIVIDED ROADWAY WITH TWO-WAY LEFT TURN LANE

MULTI-LANE ROADWAY



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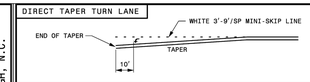
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ROADWAY STANDARD DRAWING FOR **PAVEMENT MARKINGS** LINE TYPES AND OFFSETS

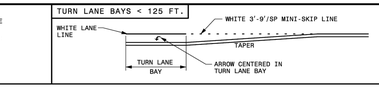
SHEET 2 OF 2

1205.01

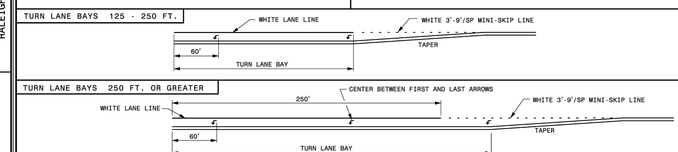
DIRECT TAPER TURN LANE



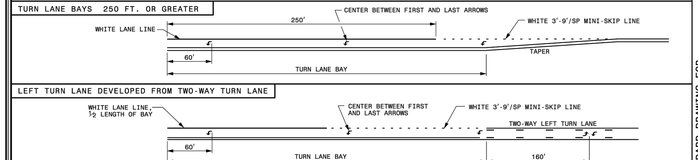
TURN LANE BAYS < 125 FT.



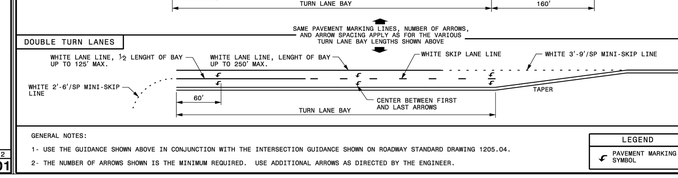
TURN LANE BAYS 125 - 250 FT.



TURN LANE BAYS 250 FT. OR GREATER



LEFT TURN LANE DEVELOPED FROM TWO-WAY TURN LANE



DOUBLE TURN LANES



GENERAL NOTES:

1- USE THE GUIDANCE SHOWN ABOVE IN CONJUNCTION WITH THE INTERSECTION GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.04.

2- THE NUMBER OF ARROWS SHOWN IS THE MINIMUM REQUIRED. USE ADDITIONAL ARROWS AS DIRECTED BY THE ENGINEER.

LEGEND

PAVEMENT MARKING SYMBOL

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

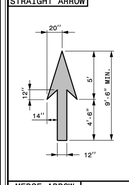
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ROADWAY STANDARD DRAWING FOR **PAVEMENT MARKINGS** TURN LANES

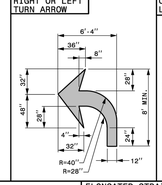
SHEET 1 OF 1

1205.05

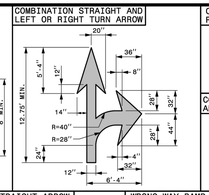
STRAIGHT ARROW



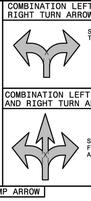
RIGHT OR LEFT TURN ARROW



COMBINATION STRAIGHT AND LEFT OR RIGHT TURN ARROW



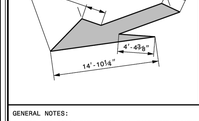
COMBINATION LEFT AND RIGHT TURN ARROW



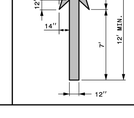
COMBINATION LEFT AND STRAIGHT AND RIGHT TURN ARROW



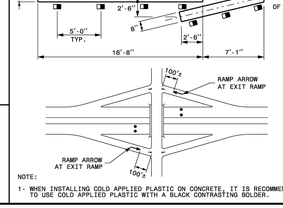
MERGE ARROW



ELONGATED STRAIGHT ARROW



WRONG-WAY RAMP ARROW



NOTE:

1- WHEN INSTALLING COLD APPLIED PLASTIC ON CONCRETE, IT IS RECOMMENDED TO USE COLD APPLIED PLASTIC WITH A BLACK CONTRASTING BOLDER.

GENERAL NOTES:

1- USE THE COLOR WHITE FOR ALL PAVEMENT MARKING SYMBOLS.

2- DO NOT LOCATE PAVEMENT MARKING SYMBOLS AS TO ENCROACH INTO INTERSECTION AREAS.

3- DO NOT PLACE SYMBOLS ACROSS TRANSVERSE EXPANSION JOINTS ON PORTLAND CEMENT CONCRETE PAVEMENTS, UNLESS APPROVED BY THE ENGINEER.

4- CONFORM ALL SYMBOLS TO THE FHWA "STANDARD HIGHWAY SIGNS" MANUAL WHICH INCLUDES PAVEMENT MARKINGS AND STANDARD ALPHABETS (REFER TO SHEETS 6 THRU 9). DIMENSIONS CAN VARY AMONG MANUFACTURERS, THEREFORE SLIGHT VARIANCES ARE ACCEPTABLE. HOWEVER, ALL SYMBOLS ARE REQUIRED TO BE APPROVED BY THE DEPARTMENT.

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

ROADWAY STANDARD DRAWING FOR **PAVEMENT MARKINGS** SYMBOLS AND WORD MESSAGES

SHEET 1 OF 9

1205.08

7								...	...
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	REVISIONS							DATE	BY

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DRAWING ALTERATION

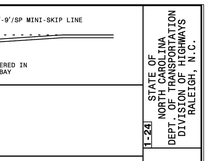
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PROJECT ENGINEER/ARCHITECT
MWHMATT.HASTINGS@SUMMITDE.COM)

PROJECT MANAGER
MWHMATT.HASTINGS@SUMMITDE.COM)

DRAWN BY
MTMMITCHELL.MARTIN@SUMMITDE.COM)

FIRST ISSUE DATE
10-29-2025



SUMMIT
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320 Executive Court
Hillsborough, NC 27278
Voice: (919) 732-3883 Fax: (919) 732-4676
www.summitde.com

TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

LIVE OAK ST TURN LANE EXTENSION
-

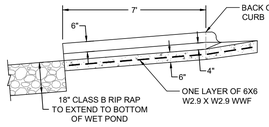
PROJECT NO.
25-0099

DRAWING NAME:
25-0099_S

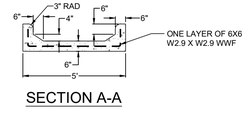
SHEET NO.
C-7

GRADING & STORM DRAINAGE NOTES:

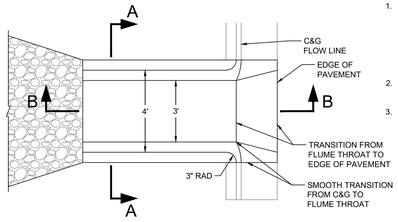
1. ALL PIPE TO BE INSTALLED ON-SITE AND IN THE RIGHTS OF WAY SHALL MEET OR EXCEED THE NCDOT ASTM AND AASHTO SPECIFICATION REQUIREMENTS FOR SUCH PIPE MATERIAL. CONTRACTOR SHALL VERIFY APPROVAL WITH NCDOT FOR ALL PIPE MATERIALS TO BE USED IN THE RIGHT OF WAY.
2. ALL WORK WITHIN NCDOT ROW SHALL COMPLY w/ 2024 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, NCDOT STANDARD DRAWINGS, AND THE MUTCD STANDARDS.
3. ALL ON-SITE PIPE SHALL BE INSTALLED MEETING COVER, BACKFILL AND BEDDING REQUIREMENTS PER THE MANUFACTURER'S RECOMMENDATIONS.
4. NCDOT PRE-CAST DRAINAGE STRUCTURES CAN BE USED IN LIEU OF NCDOT STANDARD BRICK OR CONCRETE CATCH BASINS. ANY DEVIATION FROM THE SPECIFIED STRUCTURES SHALL BE APPROVED BY ENGINEER PRIOR TO INSTALLATION AND SHALL MAINTAIN COMPLIANCE WITH ALL CORRESPONDING NCDOT MATERIAL, DRAWING & DETAILED SPECIFICATIONS.
5. CONTRACTOR SHALL FIELD VERIFY THAT PROPOSED GRADES MATCH EXISTING PAVEMENT AT ALL CONNECTION/TIE POINTS PRIOR TO FINAL LIFT OF ASPHALT. CONTRACTOR SHALL NOTIFY ENGINEER IF DISCREPANCY OCCURS.
6. PROPOSED CONTOUR LINES REPRESENT FINISHED GRADE ELEVATIONS. CONTOUR LINES MAY BE ADJUSTED AT THEIR BEGINNING, ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO PROVIDE A PROPER TIE-IN.
7. CONTRACTOR SHALL FIELD VERIFY TIE OUT POINTS, PROPOSED INVERTS, FFE'S & FINISHED SURFACES PRIOR TO CONSTRUCTION TO AVOID CONFLICTS. CONTACT ENGINEER IF DISCREPANCIES ARE FOUND.
8. MONITOR, MAINTAIN, MOVE AND/OR ADD SILT FENCE, AND SILT FENCE OUTLETS AS NEEDED BASED ON FIELD AND RUNOFF CONDITIONS AND AS DIRECTED BY THE ENGINEER AND/OR COUNTY REPRESENTATIVE.
9. A SEDIMENTATION AND EROSION CONTROL PLAN MUST BE SUBMITTED TO NCDEQ AND APPROVED PRIOR TO MOVING FORWARD WITH CONSTRUCTION.
10. ALL REQUIRED STORM DRAINAGE AND BMP EASEMENTS TO BE PLATTED UPON FINAL CONSTRUCTION OF NEW CONVEYANCES.
11. ALL GRASS SLOPES WHICH EXCEED 3:1 (H:V) SHALL UTILIZE NORTH AMERICAN GREEN (NAG) CONSTRUCTION PRODUCTS TURF REINFORCEMENT MATS SC150 OR APPROVED EQUAL UNLESS OTHERWISE SPECIFIED ON PLANS. MATS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND STANDARDS. CONTRACTOR SHALL COORDINATE INSTALLATION INSPECTION WITH MANUFACTURER.
12. ALL UTILITY TRENCHING, BACKFILL, AND SUB-GRADE COMPACTION EFFORTS SHALL MEET/EXCEED NCDOT REQUIREMENTS AND SPECIFICATIONS.
13. THE EARTHWORK ON THIS PLAN DOES NOT NECESSARILY BALANCE; OFFSITE BORROW OR WASTE MAY BE REQUIRED.
14. ALL ENTRANCES SHALL BE IN ACCORDANCE WITH NCDOT STANDARDS.



SECTION B-B



SECTION A-A



FLUME CONSTRUCTION NOTES:

1. THE SUBGRADE SHALL BE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THE PLANS. REMOVE ALL UNSUITABLE MATERIAL AND REPLACE THEM IF NECESSARY WITH COMPACTED STABLE FILL MATERIALS. SHAPE SUBGRADE TO UNIFORM SURFACE. WHERE CONCRETE IS POURED DIRECTLY ON SUBSOIL, MAINTAIN IT IN A MOIST CONDITION.
2. ON FILL SLOPES, THE SOIL ADJACENT TO THE CHUTE, FOR A MINIMUM OF 5 FEET, MUST BE WELL COMPACTED.
3. PLACE CONCRETE FOR THE FLUME TO THE THICKNESS SHOWN ON THE PLANS AND FINISH ACCORDING TO DETAILS. PROTECT FRESHLY POURED CONCRETE FROM EXTREME TEMPERATURES (HOT OR COLD) AND ENSURE PROPER CURING.

STRUCTURE DATA
ST-1 RIM = 15.44 INV IN = 12.30 (P-2 15" Reinforced Concrete Pipe) INV OUT = 12.20 (P-1 18" Reinforced Concrete Pipe)
ST-2 RIM = 15.50 INV OUT = 13.20 (P-2 15" Reinforced Concrete Pipe)
ST-3 RIM = 14.86 INV OUT = 12.61 (P-3 15" Reinforced Concrete Pipe)

PIPE SCHEDULE

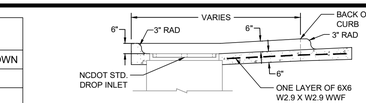
NAME	MATERIAL	LENGTH	SIZE	SLOPE	START	INVERT UP	END	INVERT DOWN
DRIVEWAY CULVERT	Reinforced Concrete Pipe	75.98'	15"	0.13%		9.68		9.68
P-1	Reinforced Concrete Pipe	194.69'	18"	0.62%	ST-1	12.20		11.00
P-2	Reinforced Concrete Pipe	146.77'	15"	0.61%	ST-2	13.20	ST-1	12.30
P-3	Reinforced Concrete Pipe	161.68'	15"	1.00%	ST-3	12.61		11.00

Beaufort Minuteman Inlet Summary - 10 YEAR (5 MIN. TC)

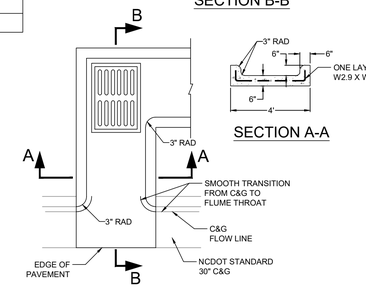
Designed January 2026

Storm Network Inlets

Inlet #	Street Slope,%	Spread, ft	Q Total, cfs	Bypass, cfs	Q Bypass Previous, cfs	Q Runoff	A, AC	A,SF	C	I, in/hr
ST-1	SAG	NA	2.88	0.00	0.00	2.88	0.389	16934.00	0.84	8.82
ST-2	SAG	NA	2.50	0.00	0.00	2.50	0.337	14698.00	0.84	8.82
ST-3	SAG	NA	2.37	0.00	0.00	2.37	0.301	13127.00	0.89	8.82
Flume	SAG	NA	3.70	0.00	0.00	3.70	0.482	21007.00	0.87	8.82



SECTION B-B



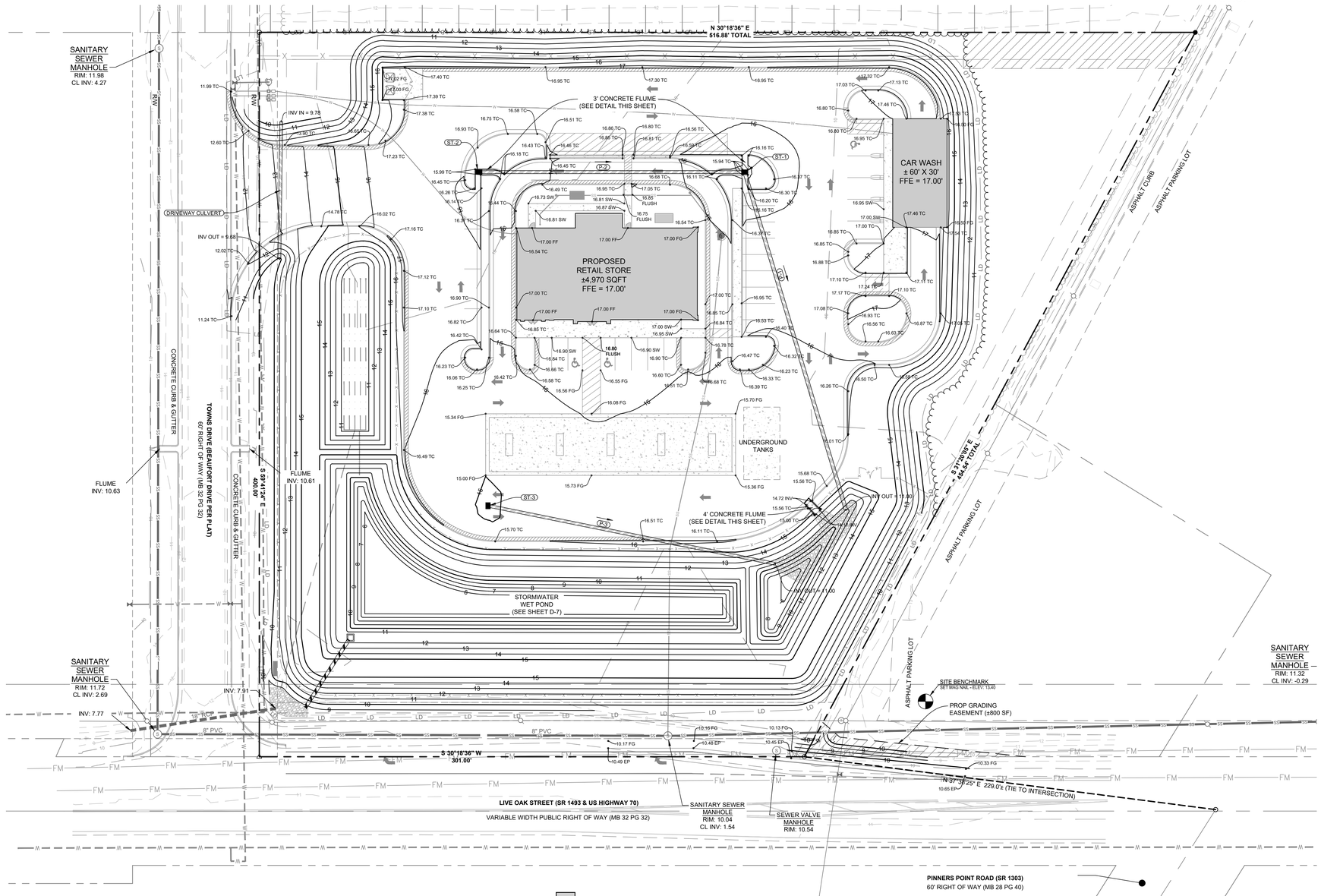
SECTION A-A

4' CONCRETE FLUME PLAN

N.T.S.

3' CONCRETE FLUME PLAN

N.T.S.



STABILIZATION TIMEFRAMES

Site Area Description	Stabilization	Timeframe Exceptions
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	None
Slopes 3:1 or flatter	7 days	None
All other areas with slopes flatter than 4:1	7 days	None

*ALL SLOPES STEEPER THAN 3:1, AND DITCHES, SHALL BE STABILIZED WITHIN 7 DAYS

DISTURBED AREA
3.29 ACRES

GRADING & STORM LEGEND:

- EXISTING WATER METER
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING BOLLARD
- EXISTING POST INDICATOR VALVE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING TELEPHONE PEDESTAL
- EXISTING ELECTRIC ACCESS
- EXISTING GAS METER
- EXISTING GAS REGULATOR
- EXISTING WATER VALVE

EXIST / PROPOSED

- CURB INLET
- DROP INLET
- JUNCTION BOX
- FLARED END SECTION (FES)
- EXISTING STORM PIPE
- PROPOSED STORM PIPE
- LIMITS OF DISTURBANCE
- LIMITS OF DISTURBANCE & TREE PROTECTION FENCE
- TREE PROTECTION FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- WOODS LINE

Know what's below. Call before you dig.

GRAPHIC SCALE
15 0 15 30 60
(IN FEET)
1 inch = 30 ft.

NO.	DATE	BY
1	...	...
2	...	...
3	...	...
4	...	...
5	...	...
6	...	...
7		

REVISIONS

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FIRST ISSUE DATE
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www.summitde.com

TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

GRADING PLAN

PROJECT NO.
25-0099
DRAWING NAME:
25-0099_S
SHEET NO.
C-8

GENERAL LANDSCAPING NOTES:

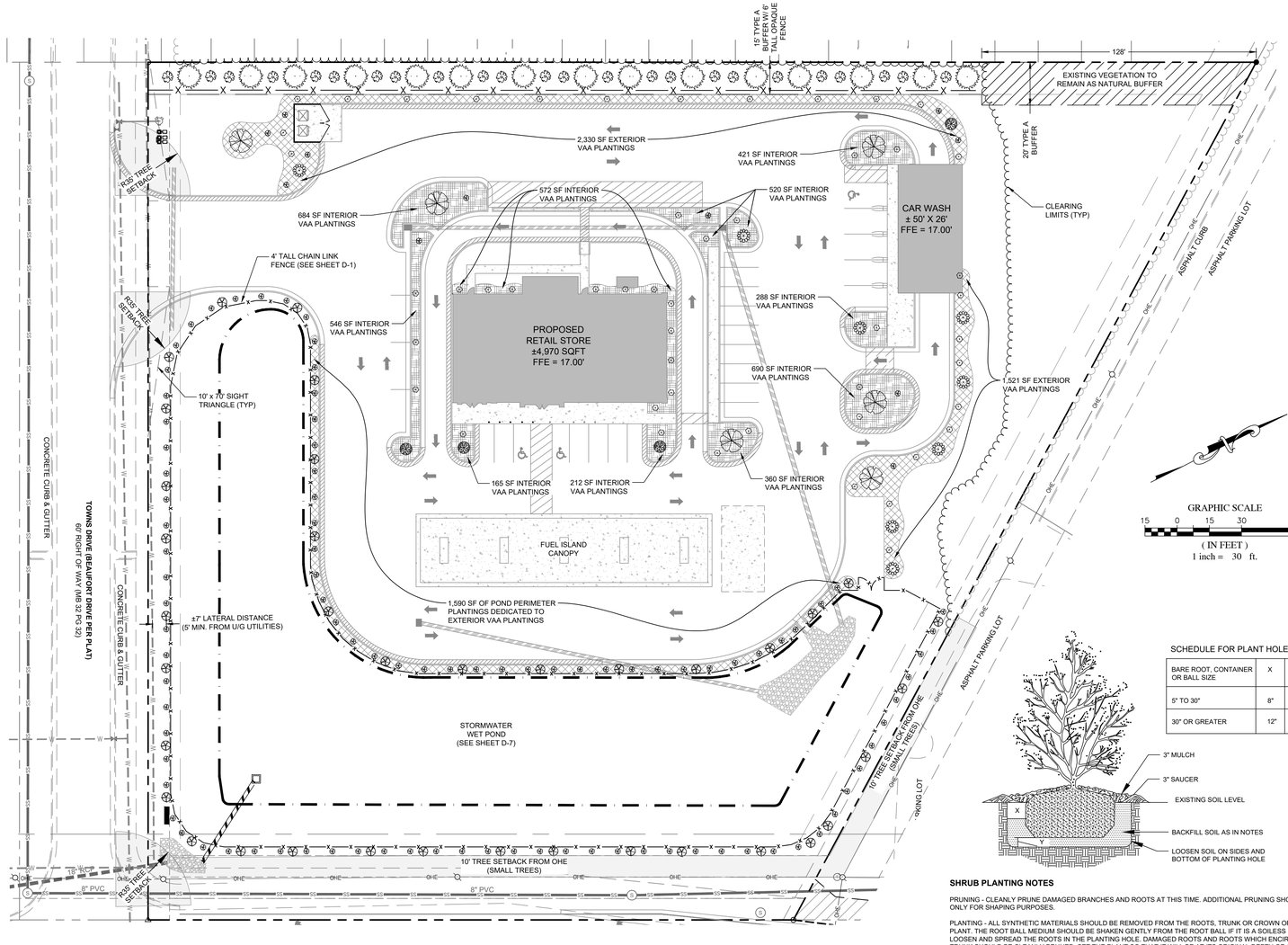
1. LANDSCAPE CONTRACTOR SHALL HAVE ALL UNDERGROUND UTILITIES AND PROPOSED SITE LIGHTING POLE LOCATIONS LOCATED PRIOR TO INSTALLING PLANT MATERIAL.
2. ALL LANDSCAPING SHALL COMPLY WITH SECTIONS 14, 15, AND 19 OF THE LAND DEVELOPMENT ORDINANCE FOR THE TOWN OF BEAUFORT.
3. CONTRACTOR SHALL NOT PLANT NEW PLANT MATERIAL IN CRITICAL ROOT ZONES OF EXISTING TREES TO BE SAVED AND PROTECTED ON SITE.
4. ANY DISTURBED AREAS NOT SCHEDULED FOR HARDSCAPE, PLANTING, SOD OR MULCH SHALL BE SEEDED LAWN.
5. CONTRACTOR SHALL AMEND ALL PROPOSED PLANT BEDS WITH ORGANIC SOIL AMENDMENT (COMPOST). ROTOTILL BEDS TO A DEPTH OF 8", ADD 2" OF COMPOST AND ROTOTILL AGAIN. REMOVE ALL EXIST. WEEDS, GRASS AND ROOTS.
6. CONTRACTOR SHALL RAKE SMOOTH AND APPLY 1" TO 2" TOPSOIL TO ALL LAWN AREAS RECEIVING SEED. REMOVE ALL EXIST. WEEDS, GRASS AND ROOTS.
7. ALL PLANT AND BED LINE LOCATIONS SHALL BE STAKED IN THE FIELD AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
8. ALL PLANTINGS SHALL BE INSTALLED WITH THE SPECIFIED LAYER OF MULCH. REFERENCE DETAILS FOR DEPTH AND TYPE OF MULCH. ALL TREES AND SHRUBS SHALL BE PLANTED IN MULCH BEDS.
9. FINISHED GRADE IN LANDSCAPE ISLANDS THAT ARE TO RECEIVE MULCH SHALL BE SET SO THAT IT IS ONE INCH LOWER THAN THE TOP OF SURROUNDING CURBS. MULCH WITH 3" OF TRIPLE SHREDDED HARDWOOD MULCH FROM A REPUTABLE LOCAL SOURCE.
10. CONTRACTOR SHALL PROVIDE WATER PERMEABLE WEED MAT FOR ALL PLANTING BEDS.
11. ALL TREES SHALL BE PLANTED IN A MULCH BED 4'-6 WIDE MINIMUM DEPENDING ON TREE SIZE AT MATURITY.
12. CONTRACTOR MAY SUBSTITUTE SHRUBS AND TREES FROM THE LAND DEVELOPMENT ORDINANCE'S "NATIVE SHRUBS AND TREES OF CARTERET COUNTY" TABLES WITH THE TOWN'S APPROVAL.

PLANTING SCHEDULE

SYM./KEY	QTY	BOTANICAL NAME	COMMON NAME	SPECIFICATION					
				CALIPER	INITIAL HEIGHT	MATURE HGT	ROOT	SPACING
LARGE TREES								
	6	NYSSA SYLVATICA	BLACK GUM	2" MIN.	8' MIN.	30'-50'	B&B	AS SHOWN
	15	ILEX OPACA	AMERICAN HOLLY	2" MIN.	8' MIN.	15'-30'	B&B	AS SHOWN
MEDIUM TREES								
	4	OXYDENDRUM ARBOREUM	SOURWOOD	1.5" MIN.	6' MIN.	20'-30'	B&B	AS SHOWN
	8	PERSEA BORBONIA	RED BAY	1.5" MIN.	6' MIN.	30'-50'	B&B	AS SHOWN
SMALL TREES								
	37	MRYICA CERIFERA	WAX MYRTLE	1" MIN.	4.5' MIN.	20'-25'	B&B	AS SHOWN
	23	OSMOANTHUS AMERICANUS	TEA OLIVE	1" MIN.	4.5' MIN.	15'-25'	B&B	AS SHOWN
SHRUBS								
	105	PHDODDENDRON NUDIFLORUM	WILD AZALEA		18"-24"	4'-10'		AS SHOWN
	50	LEUCOTHOE AXILLARIS	FETTERBUSH		18"	3'-4'		AS SHOWN



NATURAL BUFFER EXHIBIT
NTS



GRAPHIC SCALE
15 0 15 30 60
(IN FEET)
1 inch = 30 ft.

Table 14-2 Minimum Installed Tree Dimensions

Tree Size Category (all trees at maturity size)	*Minimum DBH*	*Minimum Height (at planting)*
Small Trees, 10'-20' Tall (see Appendix A)	1"	4'
Medium Trees, 20'-50' Tall (see Appendix A)	1.5"	6'
Large Trees, 50' or Taller (see Appendix A)	2"	8'

Table 14-3 Tree Planting Distance from Curb, Curb Line, or Sidewalk

Size	*Distance from Curb, Curb Line, or Sidewalk*
Small Trees, 10'-20' Tall (see Appendix A)	Two feet (2')
Medium Trees, 20'-50' Tall (see Appendix A)	Three feet (3')
Large Trees, 50' or Taller (see Appendix A)	Four feet (4')

Table 14-4 Shrub Size at Time of Planting

Size of Shrub in Height or Spread at the Time of Planting	*Requirement Fulfilled*
18"	The parking lot interior
24"	The parking lot street frontage
* 18"	The foundation
**36"	The loading dock screening

Table 14-5 Minimum Planter Width

Tree Size at Maturity	*Minimum Planter Width*
Small Trees, 10'-20' Tall (see Appendix A, Table A-3)	Four feet (4')
Medium Trees, 20'-50' Tall (see Appendix A, Table A-4)	Four feet (4')
Large Trees, 50' or Taller (see Appendix A, Table A-5)	Six feet (6')

Table 14-6 Required Tree Variety

Number of Required Trees	*Varieties*
More than 10 trees required	Two or more types
20-40 trees required	No more than 50% of one type
40+ trees required	No more than 25% of one type

Table 19-1 "Typ" A" Screen/Buffer Yard

MINIMUM PLANTS PER 100 LINEAR FEET		
SCREENING/BUFFERING MATERIAL	*BUFFER YARD WIDTH OPTIONS*	
	10-19 ft.	20 ft. or more
Large trees (evergreen)	4	4
Small trees (evergreen)	6	6
Large Shrubs (evergreen only)	0	25
Built opaque fence or wall'(6' height minimum) covering entire length of buffer yard	Required	Optional
MINIMUM AMOUNT OF REQUIRED SCREENING/BUFFERING MATERIAL PER 100 LINEAR FEET TOTAL	10 trees plus fence or wall	10 trees plus 25 large shrubs

TYPE "A" BUFFER W/ FENCE PLANT CALCULATIONS

PLANTS	RATE	CALCULATION	QTY	PROVIDED
	BUFFER LENGTH		386'	
LARGE TREES REQUIRED	4 / 100'	(386'/100')x4 = 23.2	15	15
SMALL TREES REQUIRED	6 / 100'	(386'/100')x6 = 15.4	23	24
LARGE SHRUBS REQUIRED			0	0

* 386' OF REAR BUFFER YARD MEETS THE TYPE "A" BUFFER W/ FENCE REQUIREMENTS. THE REMAINING 128' OF REAR BUFFER YARD WILL A NATURAL BUFFER THROUGH PRESERVATION OF EXISTING VEGETATION.

VAA LANDSCAPING LEGEND

	INTERIOR PROVIDED	(4,458 SF)
	REQUIRED	(4,242 SF)
	EXTERIOR PROVIDED	(5,441 SF)
	REQUIRED	(4,242 SF)
TOTAL PROVIDED VAA AREA		9,899 SF
TOTAL REQUIRED VAA AREA		8,484 SF

UTILITIES LEGEND:

EXIST / PROPOSED

- WATER VALVE
- FIRE HYDRANT
- WATER METER
- FIRE DEPT. CONNECTION (FDC)
- REDUCER
- PLUG & BLOCK
- MECHANICAL JOINT / BEND
- POST INDICATOR VALVE (PIV)
- AIR RELEASE VALVE (ARV)
- SANITARY SEWER MANHOLE
- SEWER CLEAN OUT
- CURB INLET
- DROP INLET
- JUNCTION BOX
- FLARED END SECTION (FES)
- EXISTING WATER MAIN
- PROPOSED WATER MAIN / SERVICE
- EXISTING GAS MAIN
- PROPOSED GAS MAIN
- EXISTING OVERHEAD ELECTRIC
- PROPOSED UNDERGROUND ELECTRIC
- EXISTING SEWER MAIN
- PROPOSED SEWER MAIN / SERVICE
- EXISTING STORM PIPE
- PROPOSED STORM PIPE
- PROPOSED FENCE

Vehicle Accommodation Area (VAA) Calculations

Required Landscaping Area of VAAs			
Table B-1 VAA Landscaping Calculations			Unit
1	Including parking spaces, driveways, loading areas, parking isles, and other circulation areas and not including building area or any area which will remain completely undeveloped, calculate square footage of the VAA.	70,703	SF
2	Required landscaping percentage.	12	%
3	For required landscaping area, multiply line 1 by line 2.	8,484	SF
4	Interior landscaping percentage.	50	%
5	For the required landscaping in the interior of the VAA, multiply line 3 and line 4.	4,242	SF
6	Existing landscaping area, if any, to be retained in and around the VAA.	0	SF
7	Subtract line 3 from line 6. This is the landscape area required.	8,484	SF
Impervious Surface Ratio (ISR)			
Table B-2 ISR Calculations			Unit
8	Total amount of impervious surface area on the lot including building area, parking spaces, driveways, loading areas, parking aisles, and other circulation areas and not including any area which will remain completely undeveloped.	71,568	SF
9	Total development impact area (do not include areas in wetlands or flood plains)	163,578	SF
10	For Impervious Surface Ratio (ISR), divide line 1 by line 2:	44	%
11	Including parking spaces, driveways, loading areas, parking aisles, and other circulation areas and not including building area or any area which will remain completely undeveloped, calculate the square footage of the VAA.	70,703	SF
Impervious Surface Intensity (ISI)			
Table B-3 ISI Categories			
Impervious Surface Ratio (ISR)	Impervious Surface Intensity (ISI)		
0.96 - 1.0%	High		
0.70 - 0.85%	Moderately High		
0.41 - 0.69%	Moderate		
0.40% and below	Low		
Required VAA Landscaping Calculations			
Table B-4 Required VAA Landscaping Calculations			Unit
12	Deciduous trees needed (use ISR from line 11 above to determine ISI ratio): For **High ISR**, enter 0.0003: For **Moderately High ISR**, enter 0.00025: For **Moderate ISR**, enter 0.00020: For **Low ISR**, enter 0.00016:	14	Trees
13	Shrubs needed (use ISR from line 11 above to determine ISI ratio): For **High ISR**, enter 0.0030: For **Moderately High ISR**, enter 0.0020: For **Moderate ISR**, enter 0.0010: For **Low ISR**, enter 0.0003:	71	Shrubs
14	Is the amount of parking more than what is prescribed in Section 13. **If "YES", go to line 15. If "NO", stop here.**	YES	
15	For extra trees required, multiply line 12 by 0.05:	1	Trees
16	For extra shrubs required, multiply line 13 by 0.05:	4	Shrubs
17	Subtotal (deciduous trees) add line 12 & line 15:	15	Trees
18	Subtotal (shrubs) add line 13 & line 16:	74	Shrubs
Exceptions to Landscaping. Check all boxes which apply in lines 19-22			
19	A minimum of 30% of the parking is provided in the side or rear of the building.	YES	
20	VAAs are distinctly divided into smaller units. (each less than 25,000 ft.2)	YES	
21	Storm water detention pond is incorporated with the landscaping	YES	
22	A minimum of 20% of the total VAAs are paved using paving grids.	NO	
23	Total number of boxes checked in lines 19 through 22:	3	
24	Reduction multiplier: Multiply line 23 by 0.05 (5% reduction in required landscaping)	15	%
Additional Exemptions. Check all boxes which apply in lines 25-27			
25	Street trees planted at rate of 1 per 30' of street	NO	
26	Evergreen shrubs screen VAAs from adjacent lots and street	YES	
27	Adequate provisions have been made for pedestrian and bike traffic by installing walkways, bikeways, bicycle parking, and other similar facilities within the VAAs.	NO	
28	Total number of boxes checked in lines 25 27:	1	
29	Reduction in landscaping: Multiply line 28 by 0.1 (10% reduction in required landscaping)	10	%
30	Total Exemptions add line 24 & line 29:	25	%
Reduction in Landscaping			
31	For the reduction in the number of deciduous trees required, multiply line 17 and line 30:	4	Trees
32	For the reduction in the number of shrubs required, multiply line 18 and line 30:	19	Shrubs
TOTAL LANDSCAPING REQUIRED			
33	For the reduction in the number of deciduous trees required,	11	Trees
34	For the reduction in the number of shrubs required, multiply line	56	Shrubs

POND PERIMETER PLANT CALCULATIONS

PLANTS	RATE	CALCULATION	QTY	PROVIDED
	FENCE LENGTH		1,116'	
LARGE OR MEDIUM TREES	1 / 50'	1,116'/50' = 23.3	23	*37
SHRUBS (6' MATURE WIDTH)	50% SCREENING OF FENCE	(1,116'/6')*50% = 93	93	94

* SMALL TREES WERE SUBSTITUTED FOR MEDIUM OR LARGE TREES DUE TO OVERHEAD ELECTRICAL DISTRUBUTION LINE SPACING (MIN. 10' FOR SMALL TREES). SMALL TREES WERE PLANTED AT A RATE OF 1 / 30' OF POND FENCE.

SCHEDULE FOR PLANT HOLE SIZE

BARE ROOT, CONTAINER OR BALL SIZE	X	Y
5" TO 30"	8"	4"
30" OR GREATER	12"	6"

SHRUB PLANTING NOTES

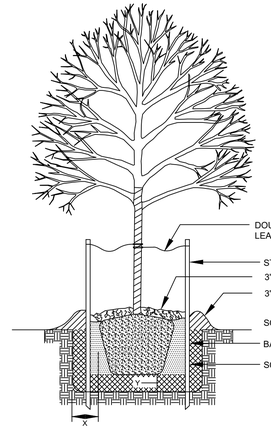
PRUNING - CLEANLY PRUNE DAMAGED BRANCHES AND ROOTS AT THIS TIME. ADDITIONAL PRUNING SHOULD BE ONLY FOR SHAPING PURPOSES.

PLANTING - ALL SYNTHETIC MATERIALS SHOULD BE REMOVED FROM THE ROOTS, TRUNK OR CROWN OF THE PLANT. THE ROOT BALL MEDIUM SHOULD BE SHAKEN GENTLY FROM THE ROOT BALL IF IT IS A SOILESS MIXTURE. LOOSEN AND SPREAD THE ROOTS IN THE PLANTING HOLE. DAMAGED ROOTS AND ROOTS WHICH ENCIRCLE THE TRUNK SHOULD BE CLEANLY PRUNED. SET THE PLANT SO THAT IT WILL BE AT ITS ORIGINAL DEPTH OR SLIGHTLY ABOVE THE EXISTING GRADE. BACKFILL WITH SOIL FROM THE HOLE. TAMP AND WATER THE SOIL TO PREVENT AIR POCKETS. DO NOT AMEND THE SOIL AT THIS TIME EXCEPT TO ADJUST THE PH.

STAKING - STAKE ONLY LARGER PLANTS THAT WILL CATCH THE WIND. EVERGREENS MAY NEED ATTENTION WHERE DECIDUOUS PLANTS DO NOT.

WATERING - THE BACKFILL AND ROOTS OF ALL NEWLY SET PLANT MATERIAL SHOULD BE WATERED AS BACKFILLING IS DONE SO THAT THE SOIL AND ROOTS ARE THOROUGHLY SOAKED.

SHRUB PLANTING DETAIL
NTS



NOTES

REMOVE BURLAP FROM TOP OF ROOT BALL BEFORE BACKFILLING AROUND BALL IS COMPLETED

ALL TREES WHICH ARE SMOOTH BARKED AT THE TIME OF PLANTING AND HAVE MORE THAN 2' OF CLEAR TRUNK SHALL BE WRAPPED

ALL TREE WRAPPING SHALL EXTEND FROM THE TOP OF THE BACKFILL TO THE LOWERMOST TREE BRANCHES

TREE PLANTING AND STAKING

STAKING - TREES WILL BECOME STRONGER FASTER WHEN THE TOP 2/3 OF THE TREE IS FREE TO SWAY. TIE THE TRUNK LOOSELY WITH WIDE STRIPS OF RUBBER OR CLOTH ABOUT 1/3 UP THE TRUNK AND TIE TO THREE STAKES POSITIONED EVENLY AROUND THE TRUNK. STAKES SHOULD BE DRIVEN DEEPLY INTO THE GROUND TO PREVENT DISLODGING. CHECK AT LEAST EVERY THREE MONTHS FOR BINDING OR OTHER PROBLEMS. STAKES AND TIES SHOULD BE REMOVED SIX MONTHS TO ONE YEAR AFTER PLANTING.

WRAPPING - WRAP ONLY THIN BARKED TREES IF THEY HAVE BEEN REMOVED FROM SHADE TO WHERE THE TRUNK IS EXPOSED TO DIRECT SUNLIGHT DURING THE DAY. WRAPPING SHOULD BEGIN AT THE BOTTOM AND WORK UP. WRAPPING MATERIAL SHOULD NOT TRAP OR HOLD WATER.

PRUNING - CLEANLY PRUNE DAMAGED BRANCHES AND ROOTS AT THIS TIME. ADDITIONAL PRUNING SHOULD BE ONLY FOR SHAPING PURPOSES.

PLANTING - ALL SYNTHETIC MATERIALS SHALL BE CLEARED FROM THE ROOTS, TRUNK AND CROWN OF THE PLANT. THE ROOT BALL MEDIUM SHOULD BE SHAKEN GENTLY FROM THE ROOT BALL IF IT IS A SOILESS MIXTURE. LOOSEN AND SPREAD THE ROOTS IN THE PLANTING HOLE. DAMAGED ROOTS AND ROOTS WHICH ENCIRCLE THE TRUNK SHOULD BE CLEANLY PRUNED. SET THE PLANT SO THAT IT WILL BE AT ITS ORIGINAL DEPTH OR SLIGHTLY ABOVE EXISTING GRADE. BACKFILL WITH SOIL FROM THE HOLE. TAMP AND WATER THE SOIL TO PREVENT AIR POCKETS. DO NOT AMEND THE SOIL AT THIS POINT EXCEPT TO AMEND THE PH.

WATERING - THE BACKFILL AND ROOTS OF ALL NEWLY SET PLANTS SHOULD BE WATERED AS BACKFILLING IS BEING DONE SO THAT THE SOIL AND ROOTS ARE THOROUGHLY SOAKED.

TREE PLANTING AND STAKING DETAIL
NTS

811 Know what's below. Call before you dig.

7	6	5	4	3	2	1	...	REVISIONS	DATE	BY

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FIRST ISSUE DATE
10-29-2025

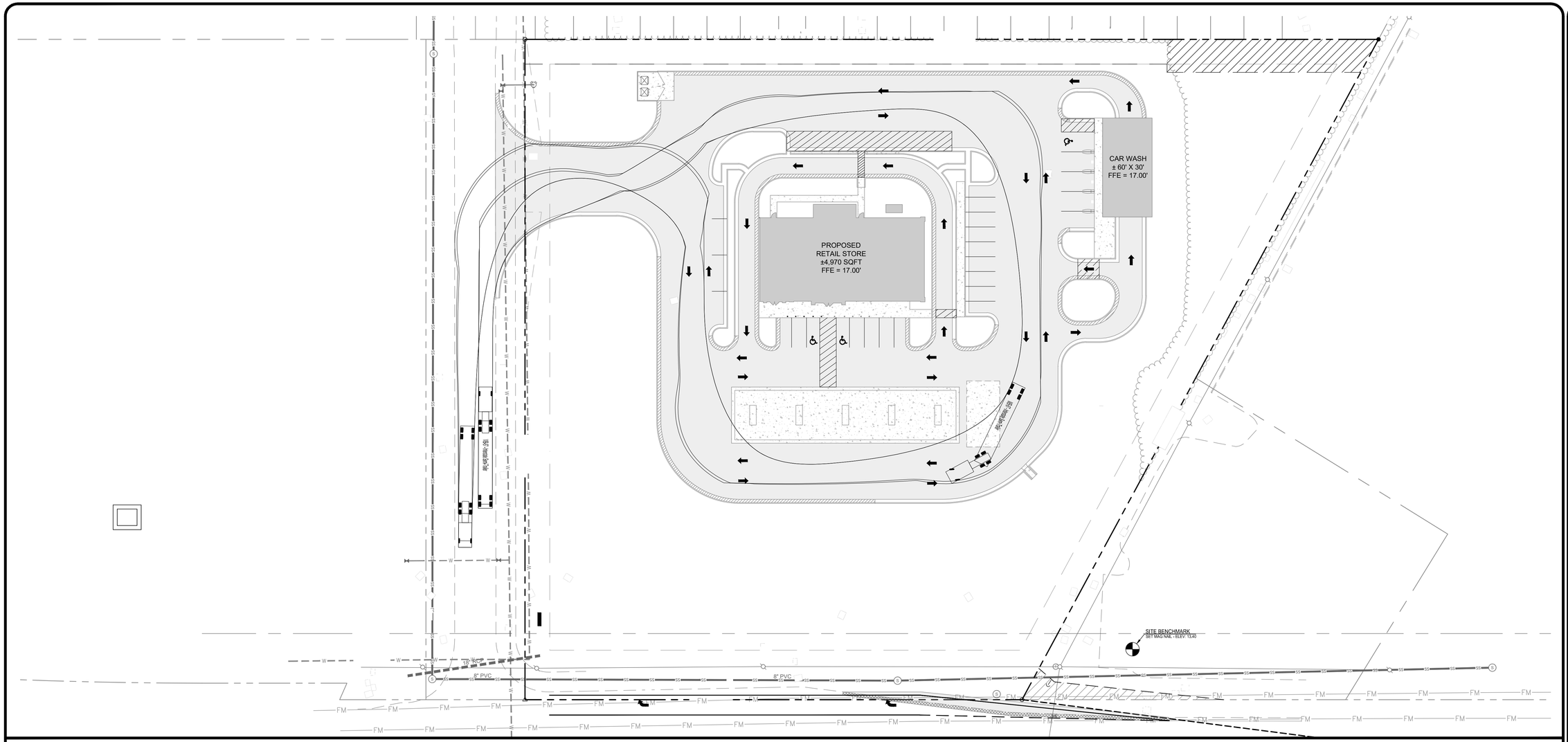
NORTH CAROLINA PROFESSIONAL SEAL 36008 ENGINEER MATTHEW W. HASTINGS
Date: 10/31/25

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Hillsborough, NC 27278
Voice: (919) 732-3883 Fax: (919) 732-4676
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TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

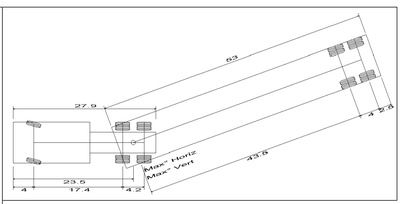
LANDSCAPING PLAN
-

PROJECT NO.
25-0099
DRAWING NAME:
25-0099_S
SHEET NO.
C-9



Vehicle Tracking Vehicle Details **Ref: 100033**

Unit Name:	**WB-67 - Interstate Semi-Trailer Tractor**
Type:	Tractor (with driver controlled steering)
Body style:	Articulated Vehicle Tractor (Large Sleeper Cab)
Classification	Autodesk
Source:	AASHTO handbook 2011
Description:	Design vehicle
Notes:	
Datum:	Front Primary Axle
Front Axle(s):	1 Ackerman (axles fixed, wheels turn)
Primary Front Axle Offset:	0.000ft
Effective Front Axle Offset:	0.000ft (Auto Calculated)
Maximum Wheel Angle:	28.400deg (Any Front Wheel)
Status:	Active Non Self-Steered
Track Width:	8.000ft
Total Wheels:	2 (positioned at the ends of the axle)
Tire Width:	0.800ft (Auto Calculated - proportion of Track Width)
Tire Diameter:	2.800ft (Auto Calculated - proportion of Track Width)
Rear Axle(s):	2 Fixed (All axles identical)
Primary Rear Axle Offset:	17.400ft (Innermost Axle behind Front Primary Axle)
Effective Rear Axle Offset:	19.500ft (Auto Calculated)
Maximum Wheel Angle:	Unlimited
Rear Axle Spacing:	4.200ft
Status:	Active Non Self-Steered
Track Width:	8.000ft
Total Wheels:	4 (positioned at the ends of the axle)
Tire Width:	0.800ft (Auto Calculated - proportion of Track Width)
Tire Diameter:	2.800ft (Auto Calculated - proportion of Track Width)
Steering:	Front Axle(s):
Maximum Virtual Steering Angle:	28deg
Lock-to-Lock Time (Fwd/Rev):	6.0sec / 6.0sec
Driver / Pilot	
Driver Offset Longitudinally:	-0.921ft (in front of Front Primary Axle)
Driver / Pilot Offset Laterally:	-1.969ft (Right of Centerline)
Driver Height:	7.382ft (Above ground level)
Front Coupling:	None
Rear Coupling:	Generic
Coupling Offset:	19.500ft (behind Front Primary Axle)
Coupling Height:	2.800ft (Auto Calculated - proportion of Tire Diameter)
Capability:	Can Tow or be Towed
Max. Horizontal Articulation Angle:	68.500deg
Max. Vertical Articulation Angle:	10.000deg
Body outline (plan):	
Outline Type:	Tractor Body



GRAPHIC SCALE
15 0 15 30 60
(IN FEET)
1 inch = 30 ft.

7			
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2		...	...
1	...	REVISIONS	DATE BY

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FIRST ISSUE DATE
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ENGINEER
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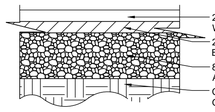
TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

TRUCK TRACKING PLAN
-

PROJECT NO.
25-0099
DRAWING NAME:
25-0099_S
SHEET NO.
C-10

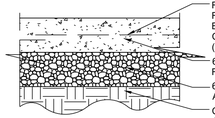
PAVEMENT DETAILS

1. DETAILS ARE UNIVERSAL AND MAY CHANGE WITH VARIOUS SOIL CONDITIONS OR STATE/LOCAL REQUIREMENTS. A GEOTECHNICAL INVESTIGATION WITH PAVEMENT DESIGN RECOMMENDATIONS SHALL BE COMPLETED FOR EACH DEVELOPMENT. THE FOLLOWING DETAILS ARE UNIVERSAL AND ANY RECOMMENDED DESIGN CHANGES ARE TO BE USED.
2. THE SUBGRADE MATERIALS SHALL BE PROOF ROLLED AND/OR SCARIFIED AND COMPACTED PRIOR TO PLACEMENT OF BASE MATERIAL. WHERE EXISTING SUBGRADE MATERIALS ARE UNSUITABLE, THEY SHALL BE REMOVED AND REPLACED WITH COMPACTED SELECT MATERIAL IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS.
3. HEAVY DUTY CONCRETE PAVEMENT AND STANDARD DUTY CONCRETE PAVEMENT (AS RECOMMENDED BY THE GEOTECHNICAL REPORT OR STATE/LOCAL STANDARDS) SHALL BE STEEL REINFORCED. REINFORCEMENT TYPE SHALL MEET ACI/ASTM REQUIREMENTS.
4. ALL JOINTS MUST BE SEALED WITH AN APPROVED SEALANT. STEEL REINFORCING SHALL BE USED AT JOINTS. REFER TO ACI 330R (GUIDE FOR DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS) FOR JOINT DESIGN AND LAYOUT.



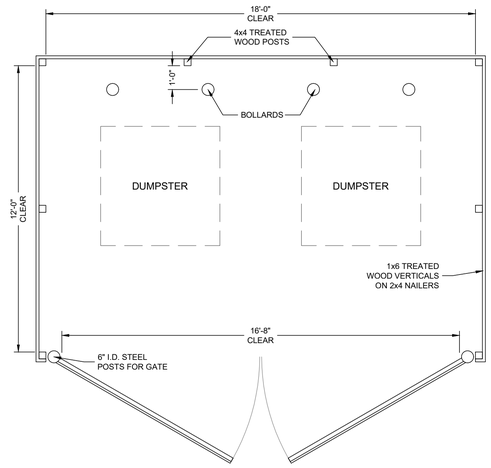
ASPHALT DETAIL

SCALE: NOT TO SCALE



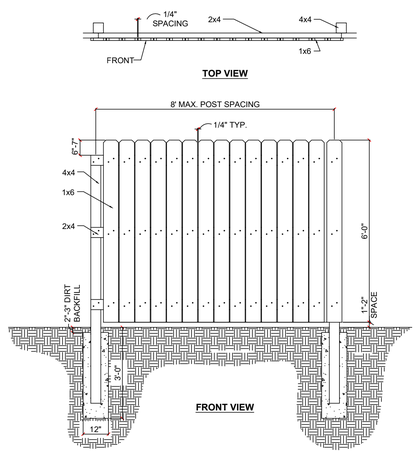
CONCRETE DETAIL

SCALE: NOT TO SCALE



DUMPSTER ENCLOSURE PLAN

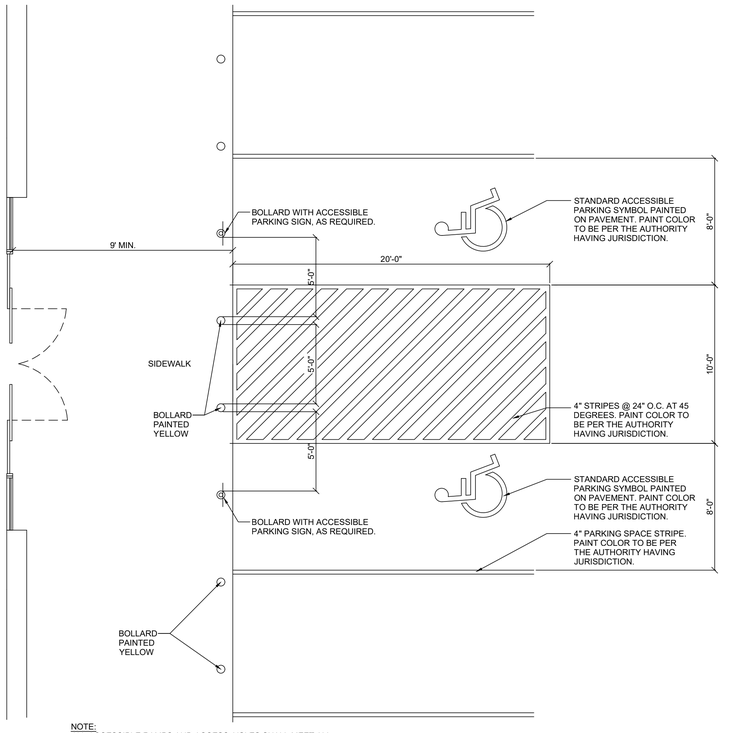
SCALE: NTS



NOTE:
1. WOOD TO BE TREATED PINE. USE GALVANIZED NAILS FOR FASTENING.
2. NUMBER OF BOARDS WILL VARY DEPENDING ON SPACE BETWEEN BOARDS AND ACTUAL WIDTH OF BOARDS.

PRIVACY FENCE/DUMPSTER SCREEN DETAIL

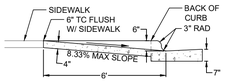
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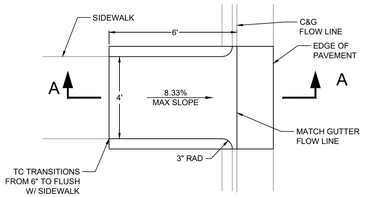
NOTE:
ALL ACCESSIBLE RAMPS AND ACCESS AISLES SHALL MEET ALL CODES AND ADAAG REGULATIONS.

ACCESSIBLE PARKING DETAIL

SCALE: NTS

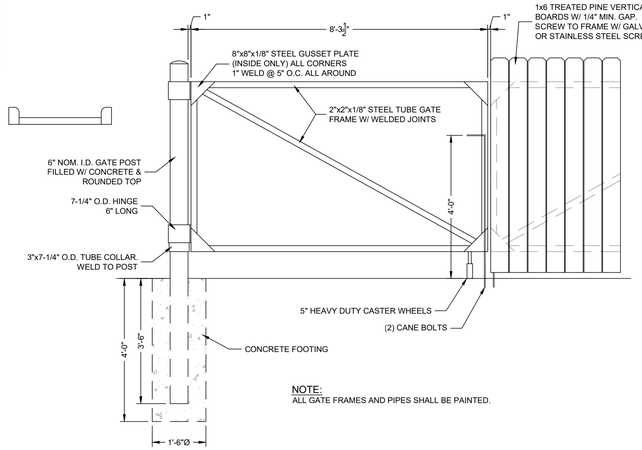


SECTION A-A



SIDEWALK RAMP DETAIL

N.T.S.



NOTE:
ALL GATE FRAMES AND PIPES SHALL BE PAINTED.

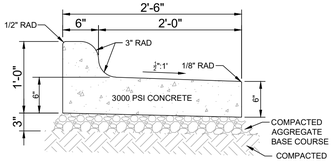
DUMPSTER ENCLOSURE GATE

SCALE: NTS

- CONTROL JOINTS SHALL BE PLACED AT 10'
- INTERVALS EXPANSION JOINTS SHALL BE PLACED AT 30' INTERVALS

30" CURB AND GUTTER

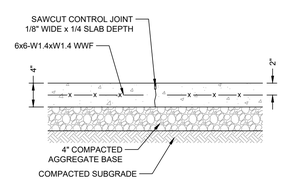
NTS



- CONTROL JOINTS SHALL BE PLACED AT 10'
- INTERVALS EXPANSION JOINTS SHALL BE PLACED AT 30' INTERVALS

30" SPILLCURB AND GUTTER

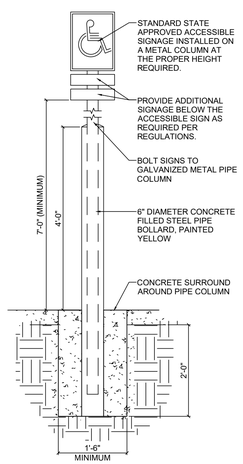
NTS



NOTES:
1. PROVIDE CONTROL JOINTS AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK.
2. EXPANSION JOINTS TO BE INSTALLED AT INTERVALS NOT EXCEEDING 50'

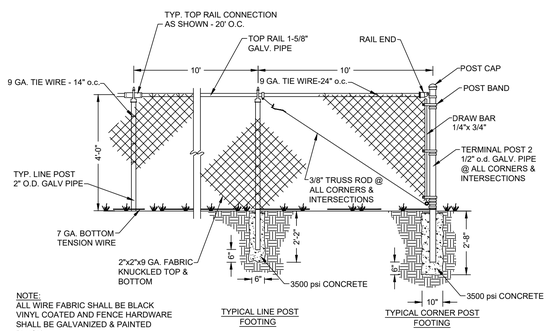
SIDEWALK DETAIL

N.T.S.



ACCESSIBLE PARKING DETAIL

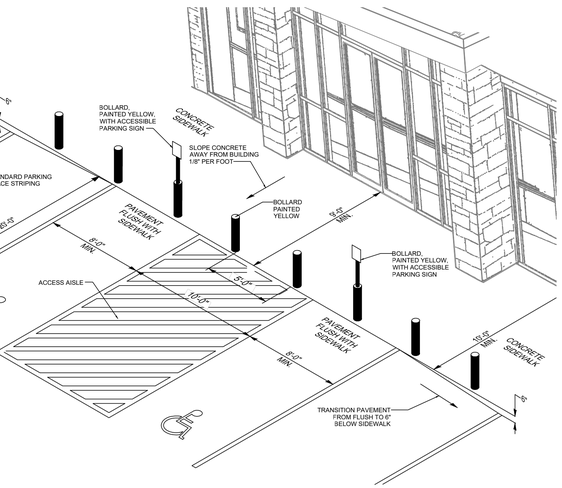
SCALE: NTS



NOTE:
ALL WIRE FABRIC SHALL BE BLACK VINYL COATED AND FENCE HARDWARE SHALL BE GALVANIZED & PAINTED BLACK.

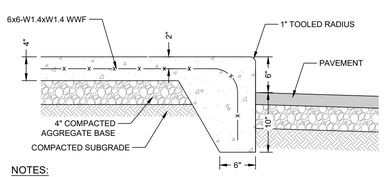
4' CHAIN LINK FENCE DETAIL

NTS



ACCESSIBLE PARKING, ACCESSIBLE RAMP AND ACCESS AISLE DETAILS

SCALE: NTS



NOTES:
1. PROVIDE CONTROL JOINTS AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK.
2. EXPANSION JOINTS TO BE INSTALLED AT INTERVALS NOT EXCEEDING 50'

TURN DOWN SIDEWALK DETAIL

N.T.S.

7			
6			
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1	-	-	REVISIONS
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DRAWN BY
MTM(MITCHELL.MARTIN@SUMMITDE.COM)

FIRST ISSUE DATE
10-29-2025

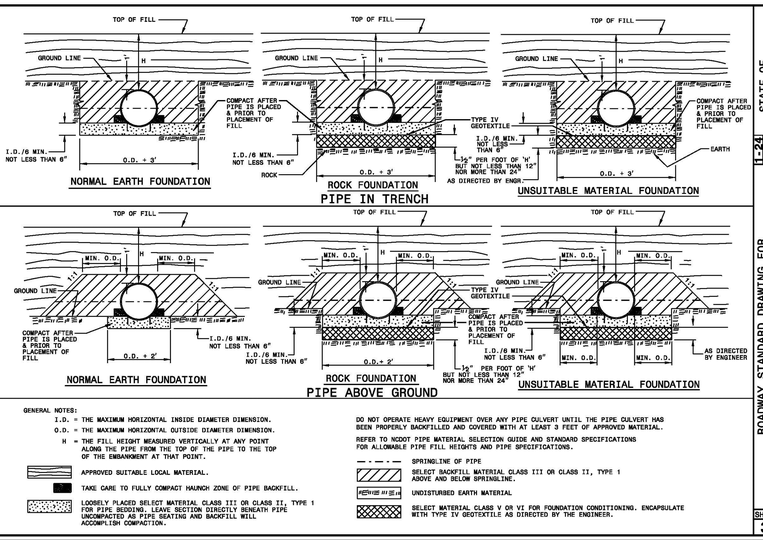
NORTH CAROLINA PROFESSIONAL SEAL 36003 ENGINEER MATTHEW W. HASTINGS
Matthew W. Hastings
10/29/25

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TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

SITE DETAILS

PROJECT NO.
25-0099
DRAWING NAME:
25-0099_D
SHEET NO.
D-1



GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.
O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.
H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

APPROVED SUITABLE LOCAL MATERIAL.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE.

UNDISTURBED EARTH MATERIAL

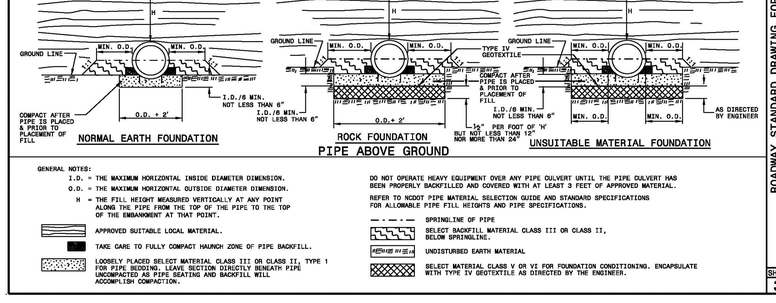
SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

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

1-24

ROADWAY STANDARD DRAWING FOR
METHOD OF PIPE INSTALLATION
FLEXIBLE PIPE

SHEET 1 OF 2
300.01



GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.
O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.
H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

APPROVED SUITABLE LOCAL MATERIAL.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.

UNDISTURBED EARTH MATERIAL

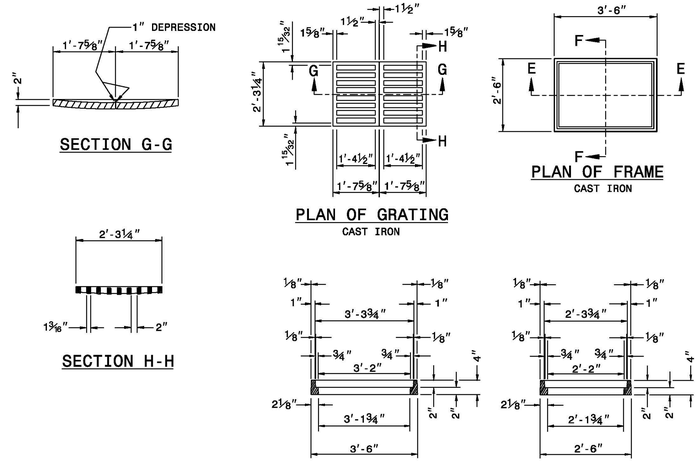
SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

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

1-24

ROADWAY STANDARD DRAWING FOR
METHOD OF PIPE INSTALLATION
RIGID PIPE

SHEET 2 OF 2
300.01

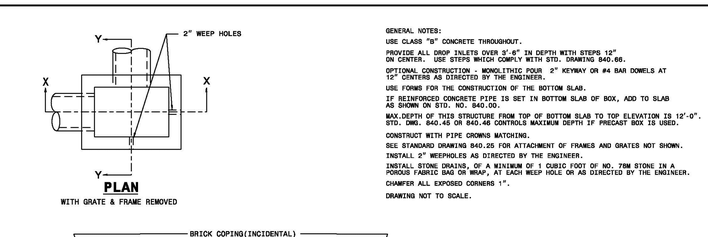


STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1-24

ROADWAY STANDARD DRAWING FOR
DROP INLET FRAME AND GRATES
FOR USE WITH STD. DWG.S 840.14 AND 840.15

SHEET 1 OF 1
840.16



GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE ALL DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR 2" KEYWAY OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

MAX. DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 12'-0". STD. DWG. 840.45 OR 840.46 CONTROLS MAXIMUM DEPTH IF PRECAST BOX IS USED.

CONSTRUCT WITH PIPE CROWNS MATCHING.

SEE STANDARD DRAWING 840.25 FOR ATTACHMENT OF FRAMES AND GRATES NOT SHOWN.

INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER.

INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO. 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER.

CHAMFER ALL EXPOSED CORNERS 1".

DRAWING NOT TO SCALE.

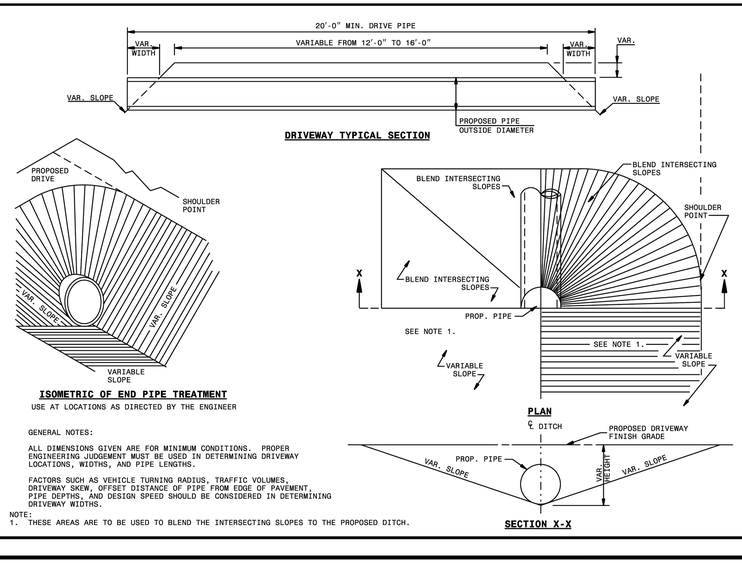
DIMENSIONS AND QUANTITIES FOR DROP INLET(BASED ON WIN. HEIGHT, H)									
DIMENSIONS OF BOX & PIPE				CUBIC YARDS CONC. IN BOX			DEDUCTIONS FOR ONE PIPE		
PIPE D	SPAN A	WIDTH B	WIN. HEIGHT H	BOTTOM SLAB	WALL PER FT. HT.	TOTAL CONCRETE FOR MINIMUM HEIGHT - H	C.M.	R.C.
12"	3'-0"	2'-0"	2'-0"	0.222	0.222	0.592	0.015	0.026
15"	/	/	2'-3"	/	/	0.648	0.023	0.036
18"	/	/	2'-6"	/	/	0.703	0.033	0.049
24"	/	/	3'-0"	/	/	0.814	0.059	0.085
30"	3'-0"	2'-0"	3'-6"	0.222	0.222	0.925	0.092	0.127

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

1-24

ROADWAY STANDARD DRAWING FOR
CONCRETE DROP INLET
12" THRU 30" PIPE

SHEET 1 OF 1
840.14



GENERAL NOTES:

ALL DIMENSIONS GIVEN ARE FOR MINIMUM CONDITIONS. PROPER ENGINEERING JUDGEMENT MUST BE USED IN DETERMINING DRIVEWAY LOCATIONS, WIDTHS, AND PIPE LENGTHS.

FACTORS SUCH AS VEHICLE TURNING RADIUS, TRAFFIC VOLUMES, DRIVEWAY SKEW, OFFSET DISTANCE OF PIPE FROM EDGE OF PAVEMENT, PIPE DEPTHS, AND DESIGN SPEED SHOULD BE CONSIDERED IN DETERMINING DRIVEWAY WIDTHS.

NOTE:
1. THESE AREAS ARE TO BE USED TO BLEND THE INTERSECTING SLOPES TO THE PROPOSED DITCH.

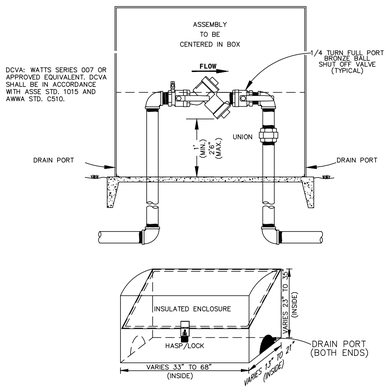
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1-24

ROADWAY STANDARD DRAWING FOR
DRIVEWAY PIPE CONSTRUCTION
USING NO SPECIAL END SECTIONS

SHEET 1 OF 1
310.10

| | | | | | | | | |

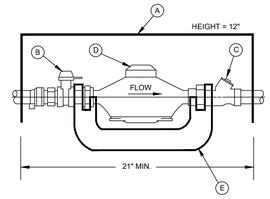


OUTDOOR FREEZE PROTECTION INSTALLATION

ENCLOSURE: HOTBOX, HB.75 – HB3E OR APPROVED EQUIVALENT.
ENCLOSURE SHALL MEET ASSE STD. 1060.

INSULATED HOTBOX ENCLOSURE

NOT TO SCALE



A = METER BOX, STANDARD FLARED-BOTTOM PLASTIC (18"D)
W/CAST IRON LID, DFW D1200 OR APPROVED
EQUAL, CAST IRON BOX AND LID FOR TRAFFIC
AREASLID TO BE PRE-DRILLED (2" DIA) FOR
PRO-READ INSTALLATION

B = FORD METER STOPS or APPROVED EQUAL

METER	METER STOP
3/4" X 5/8"	No. B94-323WG
1"	No. B94-344WG

C = DUAL CHECK VALVE
FORD HHS91-323 (3/4"), HHS91-334 (1"), OR APPROVED EQUAL

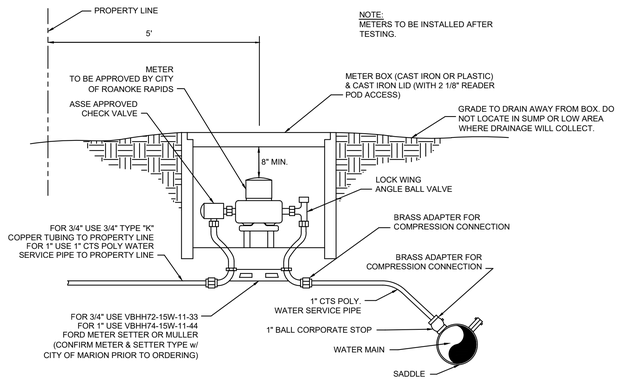
D = NEPTUNE T10 DISC WATER METER WITH E-CODER)R-900I PIT SET
REGISTER IN GALLONS

E = METER YOKE, FORD Y502 (5/8" X 3/4"), Y504 (1")

NOTE: 1 1/2" & 2" METER INSTALLATIONS SHALL USE A FORD 70
SERIES COPPERSETTER WITH BALL VALVE INLET & OUTLET
(OR EQUAL)

WATER METER INSTALLATION

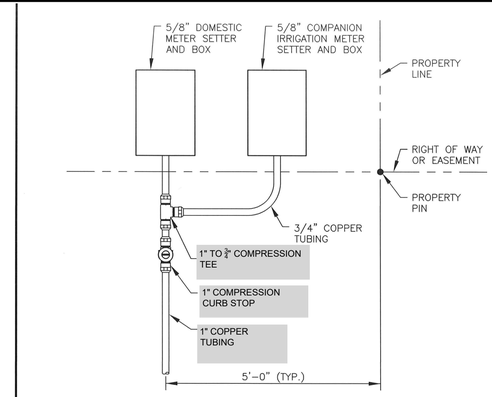
NTS



NOTE:
METERS TO BE INSTALLED AFTER
TESTING.

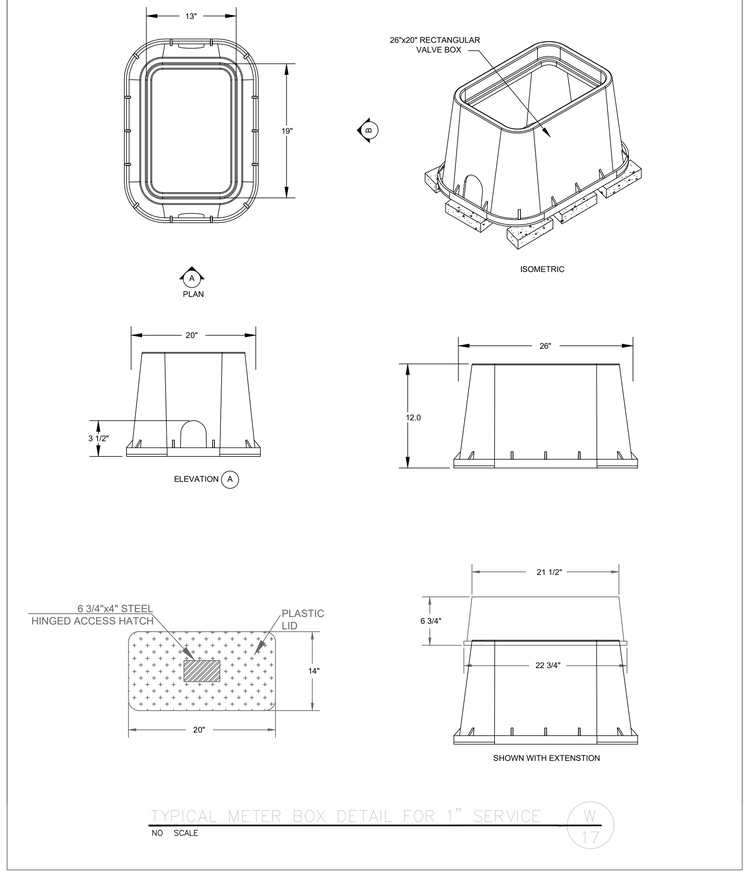
3/4" & 1" WATER SERVICE DETAIL

NOT TO SCALE



NOTE:
UNLESS OTHERWISE APPROVED, COMPANION METER SHALL BE INSTALLED CLOSER TO PROPERTY LINE AND DOMESTIC METER INSTALLED CLOSEST TO BUILDING.

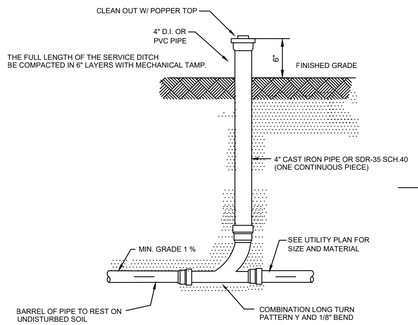
DATE:	DOMESTIC AND IRRIGATION METER SETS	DWG. NO.
FEB. 2020		MET-12
REVISION: MAY 2020		



TYPICAL METER BOX DETAIL FOR 1" SERVICE

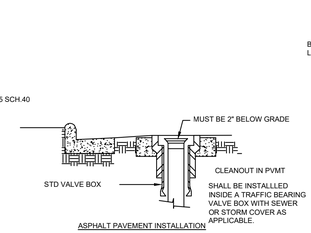
NO SCALE

W-17

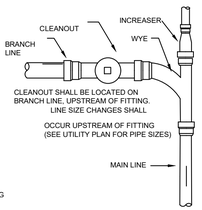


CLEANOUT DETAIL

NOT TO SCALE



ASPHALT PAVEMENT INSTALLATION



PLAN VIEW AT FITTINGS

SUMMIT
DESIGN AND ENGINEERING SERVICES
State License #: P-0339
330 Executive Place
Hillsborough, NC 27278
Voice: (919) 732-3883 Fax: (919) 732-6676
www.summitde.com

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DRAWING & DESIGN
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BY	DATE	REVISIONS
7	6	5	4	3	2	1	

PROJECT ENGINEER/ARCHITECT
MWH(MATT-HASTINGS@SUMMITDE.COM)

PROJECT MANAGER
MWH(MATT-HASTINGS@SUMMITDE.COM)

DRAWN BY
MTM(MITCHELL.MARTIN@SUMMITDE.COM)

FIRST ISSUE DATE
10-29-2025

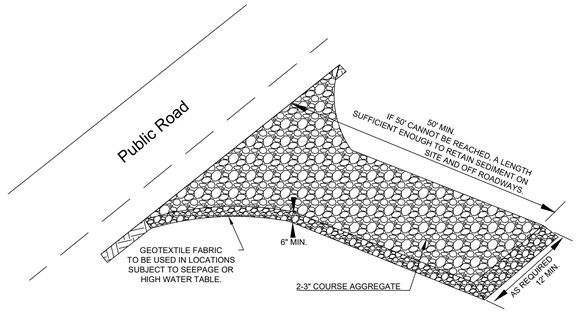
NORTH CAROLINA
PROFESSIONAL
SEAL
36008
ENGINEER
MATTHEW W. HASTINGS

TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

WATER & SEWER DETAILS

PROJECT NO.
25-0099
DRAWING NAME:
25-0099_D
SHEET NO.
D-3

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT

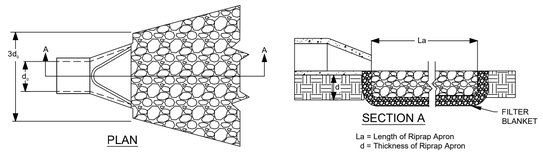


Construction:
1. Clear the entrance and exit area of all vegetation, roots, and other objectionable material and properly grade it.
2. Place the gravel to the specific grade and dimensions shown on the plans, and smooth it.
3. Provide drainage to carry water to a sediment trap or other suitable outlet.
4. Use geotextile fabrics in order to improve stability of the foundation in locations subject to seepage or high water table.

Maintenance:
1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater. Make any required repairs immediately.
2. Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic topdressing with 2-inch stone.
3. Sediment on roadways is to be removed immediately by broom and shovel, either by manual or mechanical means, and not to be washed off where it has the potential to enter a stream, drainage way or storm drain system.

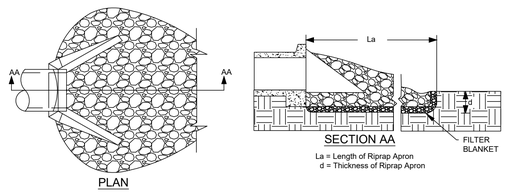
OUTLET STABILIZATION STRUCTURE

PIPE OUTLET TO FLAT AREA NO WELL-DEFINED CHANNEL



La = Length of Riprap Apron
d = Thickness of Riprap Apron

PIPE OUTLET TO WELL-DEFINED CHANNEL



La = Length of Riprap Apron
d = Thickness of Riprap Apron

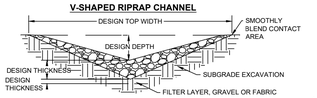
NOTES:
1. Compact any fill required in the subgrade to the density of the surrounding undisturbed material. Low areas in the subgrade on undisturbed soil may also be filled by increasing the riprap thickness.
2. The riprap and gravel filter must conform to the specified grading limits shown on the plans.
3. Filter cloth, when used, must meet design requirements, and be properly protected from punching or tearing during installation. Repair any damage by removing the riprap and placing another piece over the damaged area. If the damage is extensive, replace the entire filter cloth.
4. All connecting joints should overlap so the top layer is above the downstream layer a minimum of 1 foot.
5. The minimum thickness of the riprap should be 1.5 times the maximum stone diameter but not less than 6".
6. Riprap may be field stone or rough quarry stone. It should be hard, angular highly weather-resistant and well graded.
7. Construct the apron on zero grade with no overfill at the end. Make the top of the riprap at the downstream end level with the receiving area or slightly below it.
8. Ensure that the apron is properly aligned with the receiving stream and preferably straight throughout its length. If a curve is needed, place in the upper section of the apron.

MAINTENANCE:
1. Inspect outlet structures at least weekly and after each rainfall of 1.0 inch or greater.
2. Check outlets for erosion around or below riprap and for if stones have been dislodged. Make repairs immediately to prevent further damage.

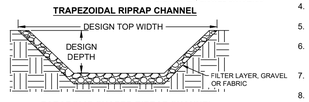


Channel Lining Thickness	
Material	**Minimum Thickness**
Concrete	4 inches
Rock Riprap	1.5 times maximum stone diameter
Flagstone	4 inches including mortar

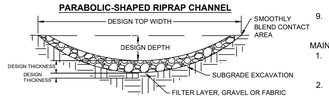
V-SHAPED RIPRAP CHANNEL



TRAPEZOIDAL RIPRAP CHANNEL



PARABOLIC-SHAPED RIPRAP CHANNEL

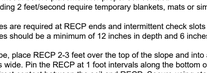


NOTES:
1. Clear the foundation area of trees, stumps, roots, loose rock, and other objectionable material.
2. Excavate the cross section to the lines and grades of the foundation of the liner as shown on the plans. Bring over-excavated areas to grade by increasing the thickness of the liner or by backfilling with moist soil compacted to the density of the surrounding material.
3. Concrete linings:
   - Place concrete linings to the thickness shown on the plans and finish them in a workmanlike manner.
   - Take adequate precautions to protect freshly placed concrete from extreme temperatures to ensure proper curing.
   - Ensure that subgrade is moist when concrete is poured.
   - Install foundation drains or weep holes where needed to protect against uplift and piping.
   - Provide transverse(contraction) joints to control cracking at approximately 20-feet intervals.
   - Install expansion joints at intervals not to exceed 100 feet.
4. Rock riprap linings should be installed per the standards and specifications outlined on following sheets.
5. Place filters, bedding's, and foundation drains to line and grade in the manner specified. Place filter and bedding materials immediately after slope preparation.
6. For synthetic filter fabrics, overlap the downstream edge by at least 12 inches with the upstream edge which is buried a minimum 12 inches in a trench. Space anchor pins every 3 feet along the overlap.
7. Spread granular materials in a uniform layer. When more than one gradation is required, spread the layers so there is minimal mixing.
8. Filter material should consist of a least 3 inches of material on all sides of the drain pipe. The drain pipe conduit should be a minimum of 4 inches in diameter.
9. Perform all channel construction to keep erosion and water pollution to a minimum. Immediately vegetate all disturbed areas or otherwise protect them against soil erosion.

MAINTENANCE:
1. Inspect channels at least weekly and after each rainfall of 1.0 inch or greater and make repairs promptly. Give special attention to the outlet and inlet sections and other points where concentrated flow enters.
2. Carefully check stability at road crossings, looking for indication of piping, scour holes, or bank failures. Make any repairs immediately.
3. Maintain all vegetation adjacent to the channel in a healthy, vigorous condition.

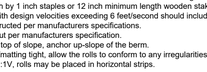
RIPRAP AND PAVED CHANNELS

TRIANGULAR "V" CHANNEL CROSS SECTION



X-Section Area (A) = Zd^2
Top Width (T) = 2dz
$Z = \frac{S}{S}$

PARABOLIC CHANNEL CROSS SECTION



X-Section Area (A) = $\frac{2}{3}$ Td
Top Width (T) = $\frac{1.5A}{d}$

TRAPEZOIDAL CHANNEL CROSS SECTION

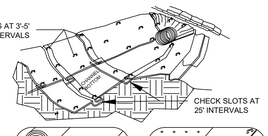


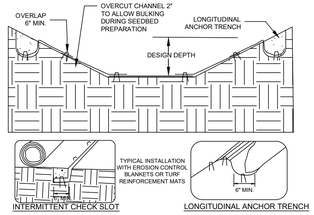
X-Section Area (A) = bd + Zd^2
Top Width (T) = b + 2dz
$Z = \frac{S}{S}$

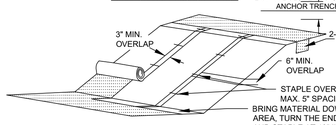
NOTES:
1. At a minimum, grass-lined channels should carry peak runoff from the 10-year storm without eroding. Increase the capacity according to the potential damage if flood hazard exists.
2. If design velocity of the channel to be vegetated by seeding exceeds 2 feet per second, a temporary channel liner is required.
3. Channel side slopes should be 3:1 or flatter to aid in the establishment of vegetation and for maintenance. V-shaped channels along roadways should have side slopes of 6:1 or flatter for safety.
4. Remove all trees, brush, stumps, and other objectionable material from the foundation area, and dispose of properly.
5. Excavate the channel, and shape it to neat lines and dimensions shown on the plans plus a 0.2 foot overcut around the channel perimeter to allow for bulking during seedbed preparations and sod buildup.
6. Remove and properly dispose of all excess soil so that the surface water may enter the channel freely.
7. The procedure used to establish grass in the channel will depend upon the severity of the conditions and selection of species. Protect the channel with mulch or a temporary liner sufficient to withstand anticipated velocities during the establishment period.

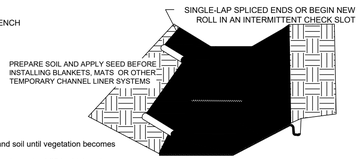
Maintenance:
1. During the establishment period, check grass-lined channels after every rainfall.
2. After grass is established, periodically check the channel, check after heavy rainfall events and immediately make any necessary repairs.
3. Check the channel outlet and all road crossings for bank stability and evidence of piping or scour holes.
4. Remove all significant sediment accumulations to maintain the designed carrying capacity.
5. Keep grass in a healthy, vigorous condition at all times.

GRASS-LINED CHANNELS





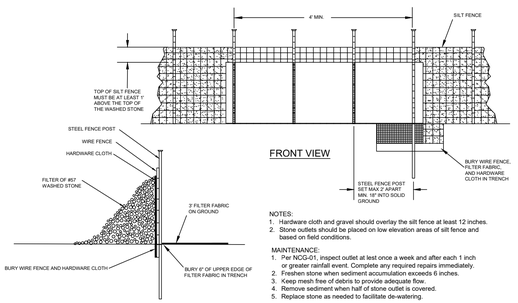




NOTES:
1. Lime, fertilize and seed before installation. Planting of shrubs, trees, etc. should occur after installation.
2. Slope surface shall be smooth before placement for proper soil contact.
3. Design velocities exceeding 2 feet/second require temporary blankets, mats or similar liners to protect seed and soil until vegetation becomes established.
4. Terminal anchor trenches are required at RECP ends and intermittent check slots must be constructed across channels at 25 foot intervals.
5. Terminal anchor trenches should be a minimum of 12 inches in depth and 6 inches in width. Intermittent check slots should be 6 inches deep and 6 inches wide.
6. For installation on a slope, place RECP 2-3 feet over the top of the slope and into an excavated end trench measuring approximately 12 inches deep by 6 inches wide. Pin the RECP at 1 foot intervals along the bottom of the trench, backfill and compact. Unroll the RECP down the slope maintaining direct contact between the soil and RECP. Secure using staples or pins in a 3 foot center-to-center pattern.
7. 11 gauge, at least 6 inch by 1 inch staples or 12 inch minimum length wooden stakes are recommended for anchoring.
8. Grass-lined channels with design velocities exceeding 6 feet/second should include turf reinforcement mats
9. Check slots to be constructed per manufacturers specifications.
10. Staking or stapling layout per manufacturers specification.
11. If there is a berm at the top of slope, anchor up-slope of the berm.
12. Do not stretch blankets/matting tight, allow the rolls to conform to any irregularities.
13. For slopes less than 3H:1V, rolls may be placed in horizontal strips.

MAINTENANCE:
1. Inspect Rolled Erosion Control Products at least weekly and after each rainfall of 1.0 inch or greater; repair immediately.
2. Good contact with the ground must be maintained, and erosion must not occur beneath the RECP.
3. Any areas of the RECP that are damaged or not in close contact with the ground shall be repaired and stapled.
4. If erosion occurs due to poorly controlled drainage, the problem shall be fixed and the eroded area protected.
5. Monitor and repair the RECP as necessary until ground cover is established.

ROLLED EROSION CONTROL PRODUCTS



NOTES:
1. Hardware cloth and gravel should overlay the silt fence at least 12 inches.
2. Stone outlets should be placed on low elevation areas of silt fence and based on field conditions.

MAINTENANCE:
1. Per NCG-01, inspect outlet at lest once a week and after each 1 inch or greater rainfall event. Complete any required repairs immediately.
2. Freshen stone when sediment accumulation exceeds 6 inches.
3. Keep mesh free of debris to provide adequate flow.
4. Remove sediment when half of stone outlet is covered.
5. Replace stone as needed to facilitate de-watering.

SILT FENCE OUTLET

TEMPORARY SEEDING RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING

Seeding Mixture

Species	Rate (lb/acre)
Rye (grain)	120
Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)	50

Omit annual lespedeza when duration of temporary cover is not to extend beyond June.

Seeding Dates
Mountains—Above 2500 feet: Feb. 15 - May 15
Below 2500 feet: Feb. 1- May 1
Piedmont—Jan. 1 - May 1
Coastal Plain—Dec. 1 - Apr. 15

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

TEMPORARY SEEDING RECOMMENDATIONS FOR SUMMER

Seeding Mixture

Species	Rate (lb/acre)
German millet	40

In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

Seeding Dates
Mountains — May 15 - Aug. 15
Piedmont — May. 1 - Aug. 15
Coastal Plain — Apr. 15 - Aug. 15

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

TEMPORARY SEEDING RECOMMENDATIONS FOR FALL

Seeding Mixture

Species	Rate (lb/acre)
Rye (grain)	120

Seeding Dates
Mountains — Aug. 15 - Dec. 15
Coastal Plain and Piedmont — Aug. 15 - Dec. 31

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Repair and refertilize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

SEED BED PREPARATION:
LIMING- Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1-1½ tons/acre on coarse-textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.
FERTILIZER- Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700 - 1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.
SURFACE ROUGHENING- If recent tillage operations have resulted in a loose surface additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by raking, harrowing, or other suitable methods for fine grading. The finished grade shall be a smooth even soil surface with a loosen uniformly fine texture. All ridges and depressions shall be removed and filled to provide the approved surface drainage. Planting is to be done immediately after finished grades are obtained and seedbed preparation is completed.

TEMPORARY SEEDING

NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING

SEEDING MIXTURE

Species	Rate
Centipede	5 lbs/acre
Indian Woodoats	1.5-2.5 lbs/acre*
Virginia Wild Rye	4-6 lbs/acre

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates
Coastal or Eastern Piedmont for Centipede- Sept. 1 - May 1
Coastal and Piedmont for Indian Woodoats and Virginia Wild Rye- Feb 15 - April 1
Mountains for Indian Woodoats and Virginia Wild Rye- March 1 - May 15

Maintenance:
Significant maintenance may be required to obtain desired cover.

NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR SUMMER

SEEDING MIXTURE

Species	Rate
Indian Woodoats	1.5-2.5 lbs/acre*
Virginia Wild Rye	4-6 lbs/acre*

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates
Mountains - July 15- Aug 15
Piedmont - Aug 15 - Oct 15

Maintenance:
Indian Woodoats and Virginia Wild Rye are both sun and shade tolerant.

NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR FALL

SEEDING MIXTURE

Species	Rate
Hard Fescue	15 lbs/acre
Switchgrass	2.5-3.5 lbs/acre*
Indian Grass	5-7 lbs/acre*
Big Bluestem	5-7 lbs/acre*
Indian Woodoats	1.5-2.5 lbs/acre*
Virginia Wild Rye	4-6 lbs/acre*

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

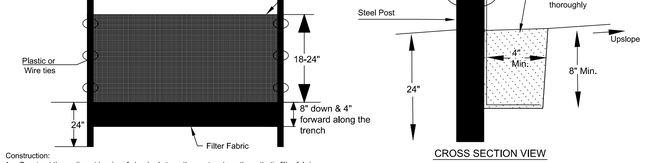
Seeding Dates
Mountains - Hard Fescue- Aug 1 - June 1
Mountains- Switchgrass, Indian Grass, Big Bluestem- Dec 1 - April 15
Piedmont and Coastal- Switchgrass, Indian Grass, Big Bluestem- Dec 1 - April 1
Coastal- Indian Woodoats and Virginia Wild Rye- Sept 1 - Nov 1

Maintenance:
Hard Fescue is not recommended for slopes > 5%. Prefers shade.

SEED BED PREPARATION:
LIMING- Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1 to 1 ½ tons/acre on coarse0textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.
FERTILIZER- Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700-1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.
SURFACE ROUGHENING- If recent tillage operations may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by raking, harrowing, or other suitable methods for fine grading. the finished grade shall be a smooth even soil surface with a loosen uniformly fine texture. all ridges and depressions shall be removed and filled to provide the approved surface drainage . Planting is to be done immediately after finished grades are obtained and seedbed preparation is completed.

NOTES:
1. Permanent seeding, sodding or other means of stabilization are required when all construction work is completed according to the NPDES timeframes table.
2. A North Carolina Department of Agriculture soils test (or equal) is highly recommended to be obtained for all areas to be seeded, sprigged, sodded or planted.
3. Use a seeding mix that will produce fast0growing nurse crops and includes non-invasive species that will eventually provide a permanent groundcover. Soil blankets may be used in lieu of nurse crops. Mat, tack or crimp mulch, as needed to stabilize seeded areas until root establishment. Mulch must cover at leaser 80% of the soil surface.
4. Ground cover shall be maintained until permanent vegetation is established and stable against accelerated erosion.

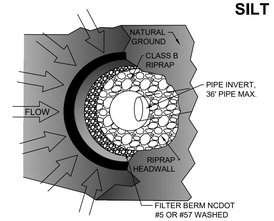
PERMANENT SEEDING

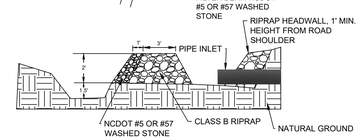


Construction:
1. Construct the sediment barrier of standard strength or extra strength synthetic filter fabrics.
2. Ensure that the height of the sediment fence does not exceed 24 inches above the ground. (Higher fences may impound volumes of water sufficient to cause failure of the structure)
3. Construct 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 feet minimum 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 reinforcement, then fabric on the upslope side of the fence post. Wire or plastic zip ties should have a minimum 50 pound tensile strength.
5. When a wire mesh support fence is used, space posts a maximum of 8 feet apart. Supports should be driven securely into the ground a minimum of 24 inches.
6. Extra strength filter fabric with 6 foot post spacing does not require a wire mesh support fence, Securely fasten the filter fabric directly to posts. Wire or plastic zip ties should have a minimum of 50 pound tensile strength.
7. Excavate the trench approximately 4 inches wide and 8 inches deep along the proposed line of the posts and upslope from the barrier.
8. Place 12 inches of fabric along the bottom and side of the trench.
9. Backfill the trench with soil placed over the filter fabric and compact. Thorough compaction of the backfill is critical to silt fence performance.
10. Do not attach filter fabric to existing trees.

Maintenance:
1. Inspect sediment fences at least once a week and after each 1 inch or greater rainfall, Make any required repairs immediately,
2. Should the fabric of a sediment fence collapse, tear, decompose, or become ineffective, replace it promptly,
3. Remove sediment deposits as necessary to provide adequate storage volume for the next rain and reduce pressure on the fence. Take care to avoid undermining the fence during cleanouts.
4. Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been properly stabilized.

SILT FENCE





NOTES:
1. Clear the area of all debris that might hinder excavation and disposal of spoil.
2. Install the Class B or Class 1 riprap in a semi-circle around the pipe inlet. The stone should be built up higher on each end where it ties into the embankment. The minimum crest width of the riprap should be 3 feet, with a minimum bottom width of 11 feet. The minimum height should be 2 feet, but also 1 foot lower than the embankment of diversions.
3. A 1 foot thick layer of NC DOT #5 or #57 stone should be placed on the outside slope of the riprap.
4. The sediment storage area should be excavated around the outside of the stone horseshoe 18 inches below natural grade.
5. When contributing drainage area has been stabilized, remove the pipe and rock, fill depression, establish final grading elevations, compact the area properly, and stabilize with ground cover.

MAINTENANCE:
1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater and repair immediately.
2. Remove sediment and restore the sediment storage area to its original dimensions when the sediment has accumulated to one-half the design depth of the trap.
3. Place the sediment that is removed in the designated disposal area and replace the contaminated part of the gravel facing.
4. Check the structure for damage. Any riprap displaced from the stone horseshoe must be replaced immediately.
5. After all the sediment-producing areas have been permanently stabilized, remove the structure and all the unstable sediment. Smooth the area to blend with the adjoining areas and provide permanent ground cover.

ROCK PIPE INLET PROTECTION

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						DATE	BY

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FIRST ISSUE DATE
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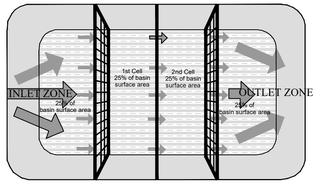
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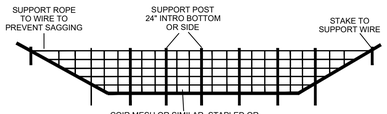
TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

EROSION CONTROL DETAILS

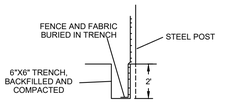
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25-0099
DRAWING NAME:
25-0099_D
SHEET NO.
D-4



PLAN VIEW

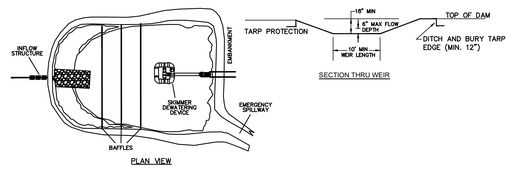


CROSS SECTION



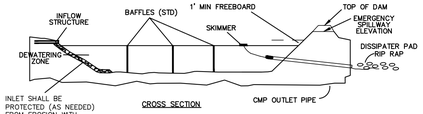
SECTION VIEW AT OPENING

NOTES:
1. BAFFLE MATERIAL SHOULD BE SECURED AT THE BOTTOM AND SIDES USING STAPLES OR BY TRENCHING AS FOR SILT FENCE.
2. MOST OF THE SEDIMENT WILL ACCUMULATE IN THE 1ST BAY, WHICH SHOULD BE READILY ACCESSIBLE FOR MAINTENANCE.
3. PROVIDE 3 BAFFLES (USE TWO IF LESS THAN 20 FEET IN LENGTH). PROVIDE 5 BAFFLES FOR DRAINAGE AREAS GREATER THAN 10 ACRES.
4. BAFFLE SHALL BE 700 G/M2 COIR EROSION BLANKET.
5. TOPS OF BAFFLES SHOULD BE 2 INCHES LOWER THAN THE TOP OF THE BERMS
6. INSPECT BAFFLES FOR REPAIR ONCE A WEEK AND AFTER EACH RAINFALL



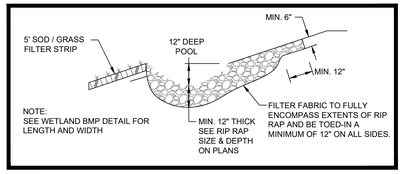
PLAN VIEW

SECTION THRU WEIR



CROSS SECTION

NOTES:
1. BASIN SHOULD BE CLEANED OUT WHEN CAPACITY REACHES AN ELEVATION REPRESENTING THAT THE BASIN IS HALF–FULL.
2. THE TARP USED TO PROTECT THE WEIR SHALL BE THE WIDTH SPECIFIED. THE LENGTH OF THE TARP SHALL BE ACCORDING TO AVAILABLE SUPPLY. IF MULTIPLE TARPS ARE TO BE USED, THEN TARPS SHALL BE OVERLAPPED AT LEAST 12". THE UPSTREAM 12" TARP SHALL OVERLAP THE DOWNSTREAM TARP. THE TARP SHALL BE 50 MIL. HEAVY DUTY SILVER TARPAULINS OR EQUIVALENT FOR U.V. RESISTANCE.
3. PROVIDE A MINIMUM OF THREE POROUS BAFFLES TO EVENLY DISTRIBUTE FLOW ACROSS THE BASIN, REDUCING TURBULENCE.
4. BAFFLE MATERIAL MUST BE SECURED AT THE BOTTOM AND SIDES USING STAPLES OR BY TRENCHING AS FOR A SILT FENCE.
5. MOST OF THE SEDIMENT WILL ACCUMULATE IN THE FIRST BAY, SO THIS SHOULD BE READILY AVAILABLE FOR MAINTENANCE.
6. DURING THE CONSTRUCTION PHASE OF THE PROJECT, PERMANENT STORMWATER RISER SHALL ONLY DEWATER FROM THE TOP OF PIPE.
7. POND SHALL NOT BE CONVERTED FOR STORMWATER USE UNTIL APPROVED BY ENVIRONMENTAL ENGINEER.

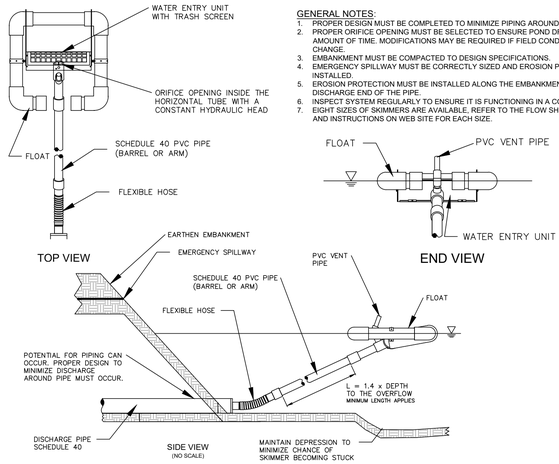


RIP RAP PLUNGE POOL MAINTENANCE

1. INSPECT RIP RAP PLUNGE POOL WEEKLY AND AFTER SIGNIFICANT (1/2" OR GREATER) RAINFALL EVENTS 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.

RIP RAP PLUNGE POOL

NOT TO SCALE



GENERAL NOTES:
1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
4. EMERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED.
5. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
6. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
7. EIGHT SIZES OF SKIMMERS ARE AVAILABLE, REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.

SKIMMER

NOT TO SCALE

SKIMMER & SKIMMER BASIN MAINTENANCE

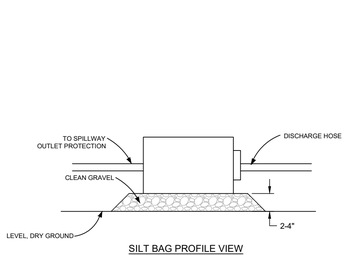
1. INSPECT SKIMMER SEDIMENT BASIN AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER.
2. REPAIR THE BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM.
3. IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED. IF SO REMOVE THE DEBRIS.

SKIMMER & SKIMMER BASIN MAINTENANCE CONT'D

4. IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.
5. CHECK THE FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY REQUIRED REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT, SPILLWAYS AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE SKIMMER AND POOR AREAS.
6. FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.

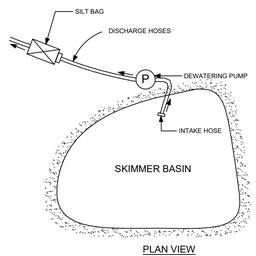
SKIMMER BASIN

NOT TO SCALE



SILT BAG PROFILE VIEW

NOTE: REMOVE GRAVEL AND SEED WHEN PUMP AROUND OPERATION IS COMPLETED.



PLAN VIEW

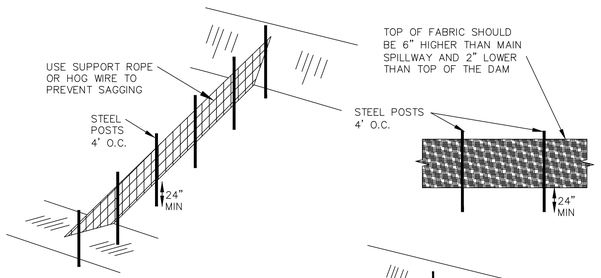
NOTE: ESTIMATED MINIMUM PUMP SIZE NEEDED FOR BASE FLOW IS 2" PUMP. CONTRACTOR IS RESPONSIBLE FOR SIZING PUMP AND MAINTAINING WORK "IN THE DRY".

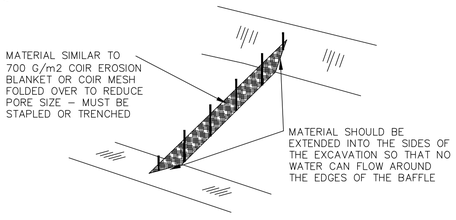
SILT BAG MAINTENANCE

1. INSPECT INLET PIPE AND BAG FOR DAMAGE AND BLOCKAGE.
2. REPLACE BAG WHEN 3/4 FULL OF SEDIMENT.

SKIMMER BASIN DEWATERING

NOT TO SCALE





POROUS BAFFLE MAINTENANCE

1. INSPECT BAFFLES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OF A BAFFLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. 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, AND REPLACE IF DAMAGED DURING CLEANOUT OPERATIONS. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH.
4. AFTER CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, REMOVE ALL BAFFLE MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE, AND STABILIZE IT.

POROUS BAFFLES AND INSTALLATION

NOT TO SCALE

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TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

EROSION CONTROL DETAILS

PROJECT NO.
25-0099
DRAWING NAME:
25-0099_D
SHEET NO.
D-5

DATE:

PAGE:

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, and perimeter slopes	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 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 techniques in the table below:

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 straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants.*
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. 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

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. 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.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. 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.
8. 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

1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. 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

1. 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.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. 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.

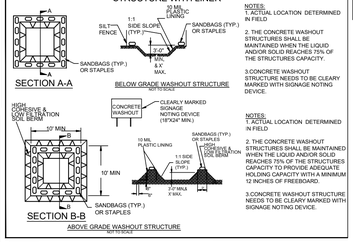
EARTHEN STOCKPILE MANAGEMENT

1. 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.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. 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

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY.
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. 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.
4. 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.
5. 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.
6. 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 overflow
7. 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.
8. 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.
9. 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

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. 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.
3. 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.
4. Do not stockpile these materials onsite.

NORTH CAROLINA *Environmental Quality*

EFFECTIVE DATE: 11/12/2020

NCG-01 GROUND COVER & MATERIALS HANDLING

DATE:

PAGE:

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.

PART III
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 or 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.	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(SDOs)	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 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, then 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.	1. 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). 2. 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.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
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 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.
(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 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

3. Documentation to be Retained for Three Years

the hard-copy records.

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 III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: 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:
- 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 environment.

2. 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.

Occurrence	Reporting Timeframe (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• Within 24 hours, an oral or electronic notification. • Within 7 Calendar Days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. 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 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 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 health or the environment [40 CFR 122.41(l)(7)]	• 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 been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

NORTH CAROLINA *Environmental Quality*

EFFECTIVE DATE: 11/12/2020

NCG01- SELF INSPECTION

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							DATE
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REVISIONS

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FIRST ISSUE DATE
10-29-2025

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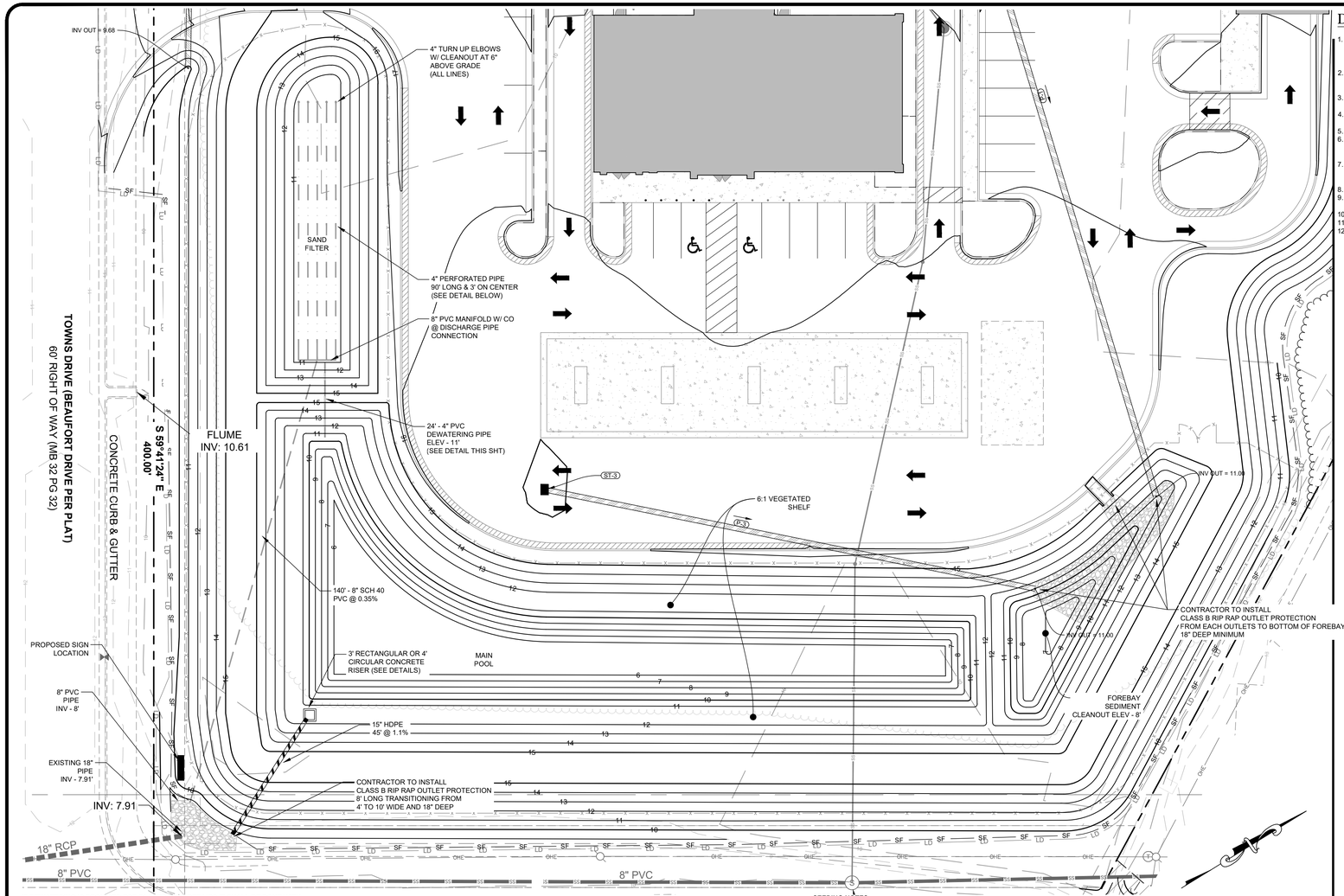
TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

EPA STORMWATER REQUIREMENTS

PROJECT NO.
25-0099

DRAWING NAME:
25-0105_D

SHEET NO.
D-6



IF DEWATERING IS REQUIRED FOR PLANTING OR REPAIRS IT SHALL BE DONE WITH TEMPORARY PUMPS AND THE DISCHARGE SHALL BE INTO THE RIP RAP SPILLWAY APRON OR RIP RAP OUTLET PROTECTION THROUGH A SEDIMENT BAG.

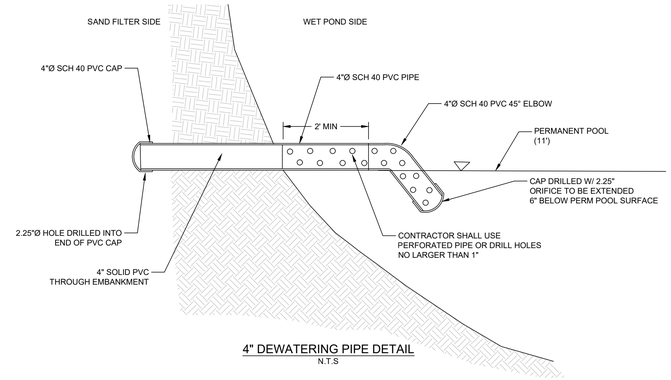
WET POND (CONVERTED SKIMMER BASIN)

SCALE: 1"=20'

SEEDING NOTES:
POND SLOPES AND DAM SHALL BE SEEDED OR SODDED WITH SAHARA BERMUDAGRASS OR SIMILAR TO MEET NCDEQ WET POND REQUIREMENTS. ALTERNATIVES SHOULD BE APPROVED BY ENGINEER.

DAM EMBANKMENT CONSTRUCTION STANDARDS:

1. CONTROLLED FILL, AS SPECIFIED BY THE GEOTECHNICAL ENGINEER, IN THE DAM EMBANKMENT SHALL BE PLACED IN 6-INCH LOOSE LAYERS (3-INCH LOOSE LAYERS WITHIN 3-FEET OF EITHER SIDE OF THE PRINCIPAL SPILLWAY PIPE TO A DEPTH OF 2-FEET OVER THE PIPE) AND SHALL BE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY AT A MOISTURE CONTENT OF + OR - TWO PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698.
2. ALL VISIBLE ORGANIC DEBRIS SUCH AS ROOTS AND LIMBS SHALL BE REMOVED FROM THE FILL MATERIAL PRIOR TO COMPACTION TO THE REQUIRED DENSITY. SOILS WITH ORGANIC MATTER CONTENT EXCEEDING 5% BY WEIGHT SHALL NOT BE USED. STONES GREATER THAN 3-INCH (IN ANY DIRECTION) SHALL BE REMOVED FROM THE FILL PRIOR TO COMPACTION.
3. FILL MATERIAL PLACED AT DENSITIES LOWER THAN SPECIFIED MINIMUM DENSITIES OR AT MOISTURE CONTENTS OUTSIDE THE SPECIFIED RANGES OR OTHERWISE NOT CONFORMING TO SPECIFIED REQUIREMENTS SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIALS.
4. ANY FILL LAYER THAT IS SMOOTH DRUM ROLLED TO REDUCE MOISTURE PENETRATION DURING A STORM EVENT SHALL BE PROPERLY SCARIFIED PRIOR TO THE PLACEMENT OF THE NEXT SOIL LIFT.
5. SURFACE WATER AND STREAM FLOW SHALL BE CONTINUOUSLY CONTROLLED THROUGHOUT CONSTRUCTION AND THE PLACEMENT OF CONTROLLED FILL.
6. FOUNDATION AREAS MAY REQUIRE UNDERCUTTING OF COMPRESSIBLE AND/OR UNSUITABLE SOILS IN ADDITION TO THAT INDICATED ON THE PLANS. ALL SUCH UNDERCUTTING SHALL BE PERFORMED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND SHALL BE MONITORED AND DOCUMENTED. IN NO CASE SHALL THERE BE AN ATTEMPT TO STABILIZE ANY PORTIONS OF THE FOUNDATION SOILS WITH CRUSHED STONE.
7. TREATMENT OF SEEPAGE AREAS, SUBGRADE PREPARATION, FOUNDATION DEWATERING AND ROCK FOUNDATION PREPARATION (I.E., TREATMENT WITH SLUSH GROUTING, DENTAL CONCRETE, ETC.) MAY BE REQUIRED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER. ALL SUCH ACTIVITIES SHALL BE CLOSELY MONITORED AND DOCUMENTED BY THE GEOTECHNICAL ENGINEER.
8. FILL ADJACENT TO THE RISER AND PRINCIPAL SPILLWAY PIPE SHALL BE PLACED SO THAT LIFTS ARE AT THE SAME LEVEL ON BOTH SIDES OF THE STRUCTURES.
9. EARTHWORK COMPACTION WITHIN 3-FEET OF ANY STRUCTURES SHALL BE ACCOMPLISHED BY MEANS OF HAND TAMPERS, MANUALLY DIRECTED POWER TAMPERS OR PLATE COMPACTORS OR MINIATURE SELF-PROPELLED ROLLERS.
10. COMPACTION BY MEANS OF DROP WEIGHTS FROM A CRANE OR HOIST SHALL NOT BE PERMITTED.
11. HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO PASS OVER CAST-IN-PLACE STRUCTURES (INCLUDING THE CRADLE) UNTIL ADEQUATE CURING TIME HAS ELAPSED.
12. TO RE-ESTABLISH VEGETATION AFTER CONSTRUCTION, A 2- TO 3- INCH LAYER OF TOPSOIL SHALL BE PLACED ON THE DISTURBED EMBANKMENT SURFACE AND THE AREA SEEDED AND SODDED OR HYDROSEEDED.



4" DEWATERING PIPE DETAIL

N.T.S

SKIMMER BASIN TO WET POND CONSTRUCTION SEQUENCE:

AT THE COMPLETION OF CONSTRUCTION THE SKIMMER BASIN SHALL BE CONVERTED INTO A STORMWATER WET POND. THE FOLLOWING STEPS SHALL BE FOLLOWED:

1. DEWATER THE BASIN VIA PUMP THROUGH SEDIMENT BAG
2. BAG SHALL DISCHARGE INTO A STABLE AGGREGATE DISSIPATOR PAD OR A DENSELY VEGETATED AREA.
3. REMOVE AND PROPERLY DISPOSE OF BAFFLES.
4. REMOVE DEPOSITED SEDIMENT IN POND AND STRUCTURE. PROPERLY DISPOSE OF OFF-SITE.
5. ADJUST GRADES AS NECESSARY TO MATCH PLANS INCLUDING EXCAVATION OF PERMANENT POOL.
6. AS-BUILT CONDITIONS SHOULD BE VERIFIED PRIOR TO PLANTING TO ENSURE SIZE, SLOPES, ETC. ARE ADEQUATE.
7. INSTALL 3-4" OF TOPSOIL TO INTERIOR SLOPES, FERTLIZE, LIME, AND EITHER SOD OR SEED AND MAT. INSTALL WETLAND PLANTINGS PER DETAILS ON THIS SHEET WITHIN VEGETATED SHELF.
8. REMOVE SKIMMER FLEXIBLE TUBING
9. BREAK OR CUT PERMANANT ORIFICES AS SHOWN ON THIS SHEET.
10. WATER GRASS AS NECESSARY TO HELP ESTABLISHMENT. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING HEALTHY STAND OF GRASS

MAINTENANCE:
DURING AND AFTER CONSTRUCTION THE STORMWATER WET POND MUST BE PERIODICALLY CHECKED FOR PROPER FUNCTION. THE BASIN SHALL ALSO BE INSPECTED AFTER RAIN EVENTS. PROPER FUNCTION WILL BE EVIDENT BY A WET POND CONDITION. PERIODS OF EXTENDED PONDING ABOVE THE WQ ORIFICE (42.5') INDICATE A BLOCKED DISCHARGE ORIFICE. ROUTINE INSPECTION TO BE DONE BY WALKING DOWN AND VISUALLY INSPECTING. IF ORIFICE FOUND TO BE CLOGGED BY TRASH OR SEDIMENT IT SHALL BE REMOVED AND PROPERLY DISPOSED OF.

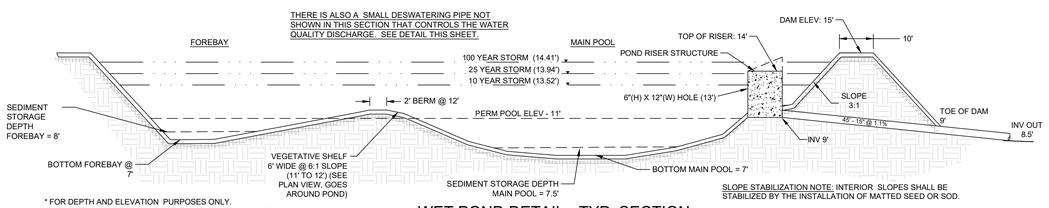
IN THE EVENT THERE ARE SLOPE FAILURES OR LARGE MAINTENANCE ISSUES A TRACKED EXCAVATOR SHALL BE USED TO ACCESS THE POND. IN THE EVENT OF LARGE MAINTENANCE ISSUES REQUIRING DEWATERING THE WET POND SHOULD BE DEWATERED VIA PUMP TO A STABLE OUTLET.

WET POND SHELF PLANTING CHART

Total Planting Area = 3,488 SF

SHALLOW LAND PLANTS (upper 6" of shelf)			
Shallow Land Planting Area, SF		*3488*	
Total Plants Required		*872*	
SCIENTIFIC NAME	**COMMON NAME**	**QTY.**	**PCT. OF QTY.**
ASCLEPIAS INCARNATA	SWAMP MILK WEED	174.4	20%
LOBELIA CARDINALIS	CARDINAL FLOWER	174.4	20%
EUPATORIADELPHUS FISTULOSUS	JOE PYE WEED	174.4	20%
HIBISCUS COCCINEUS	SCARLET ROSE MALLOW	174.4	20%
KOSTELETZKYA VIRGINICA	SEASHORE MALLOW	174.4	20%
	SUB TOTAL:	**872**	**100%**

Contractor Shall Select at minimum 3 species. Total quantity of plants will remain the same

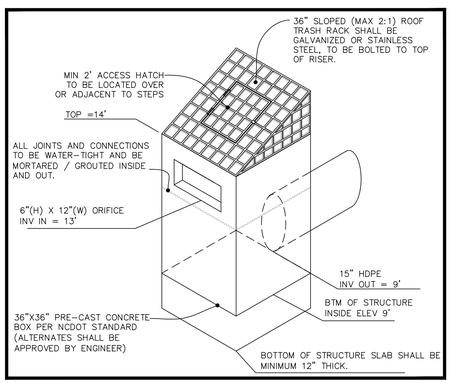


* FOR DEPTH AND ELEVATION PURPOSES ONLY.
THIS IS NOT AN ACCURATE DEPICTION OF THE POND CROSS-SECTION

WET POND DETAIL - TYP. SECTION

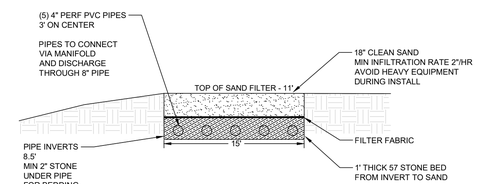
NTS

SLOPE STABILIZATION NOTE: INTERIOR SLOPES SHALL BE STABILIZED BY THE INSTALLATION OF MATTED SEED OR SOD.



POND RISER-STRUCTURE

NOT TO SCALE



SAND FILTER DISCHARGE AREA DETAIL - TYP. SECTION

NTS

7									
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NO.								REVISIONS	DATE

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PROJECT MANAGER
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FIRST ISSUE DATE
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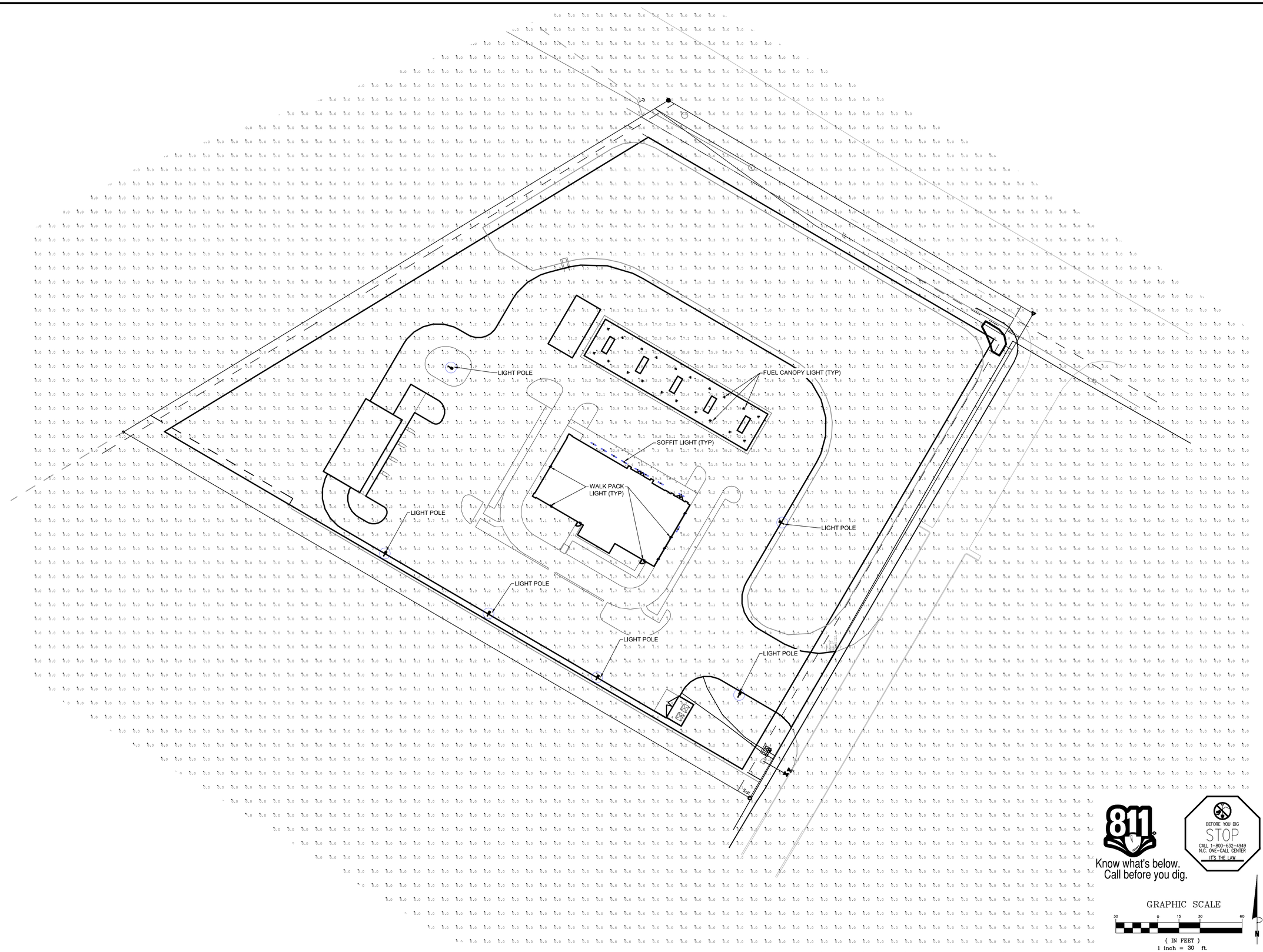
NORTH CAROLINA PROFESSIONAL SEAL 36008 ENGINEER MATTHEW W. HASTINGS

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TYPE OF DRAWINGS
BEAUFORT - MINUTE MAN
LIVE OAK STREET
BEAUFORT, NC

STORMWATER DETAILS

PROJECT NO.
25-0099
DRAWING NAME:
23-0196_D
SHEET NO.
D-7



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GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30 ft.

N

Bowman

Bowman North Carolina, Ltd.
4005 Barrett Dr
Suite 104
Raleigh, NC 27609
Phone: (919) 553-6570
FIRM# F-1445

bowman.com

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LIGHTING PLAN

BEAUFORT - MINUTEMAN

LIVE OAK STREET - BEAUFORT, NC

NORTH CAROLINA PROFESSIONAL SEAL 24434 ENGINEER MATTHEW E LOWDER

PLAN STATUS	
DATE	DESCRIPTION

MEL		
DESIGN	DRAWN	CHKD

SCALE H: 1" = 30'
V: N/A

JOB No. 220206-01-029

DATE MARCH 6, 2026

SHEET L1.0

Cad file name: V:\220206 - Rhetson Companies Rip Tide\220206-01-029 (ENG) - Campbell Oil - Beaufort, NC\Engineering\Engineering Plans\220206-01-029-LIGHT.dwg 3/6/2026

Scottsdale® Legacy (CRUS)

LED Canopy Luminaire



OVERVIEW	
Lumen Package (lm)	5,000 - 22,000
Wattage Range (W)	38 - 152
Efficacy Range (LPW)	114 -156
Weight lbs (kg)	23 (10.4)

QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction

- Features a ultra-slim 11/16" profile die-cast housing, with flat clear or diffused tempered glass lens. Unit is water-resistant, sealed and IP66 rated. Integral designed heat sink does not trap dirt and grime, ensuring cool running performance over the life of the fixture.
- Standard color is white and is finished with LSI's DuraGrip® polyester powder coat process. DuraGrip withstands extreme weather changes without cracking or peeling.
- Luminaire assembly incorporates a pressure stabilizing vent breather to prevent seal fatigue and failure.

Optical System

- Features an array of select, mid-power, high brightness, high efficiency LED; 3000K, 4000K, 5000K color temperature, 80 CRI (nominal).
- Choice of Symmetric or Asymmetric distribution. Asymmetric provides a wider distribution pattern. Optional symmetric with diffused lens also available.
- Forward Throw distribution provides an industry leading unique distribution pattern that illuminates the area under the gas canopy and beyond. The forward through optic directs the light to the forecourt from the gas canopy eliminating the need for supplemental floodlights and extensive perimeter lighting.
- Diffuse lens available as an option to soften brightness of the luminaire.
- Six Lumen Packages: 5,000, 9,000, 10,000, 13,000, 18,000 and 22,000 Lumens.

Electrical

- High performance factory programmable driver features over-voltage, under voltage, short-circuit and over temperature protection with integral 6kV surge protection that meets IEEE C62.41.2 and ANSI C82.77-5 Location Category C Low standards. Additional field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/ IEEE C62.41.2). Custom lumen and wattage packages available.
- Driver components are fully encased in potting for moisture resistance. Complies with IEC and FCC standards. 0-10 V dimming supplied standard with all drive currents.
- Die-cast aluminum, wet location rated driver/electrical enclosure is elevated above canopy deck to prevent water entry, provide easy "knock-out" connection of primary wiring and acts as the primary heatsink ensuring cool operation of internal components for longer life. Seals to optical housing via one-piece molded silicone gasket.
- Universal voltage power supply, 120-277 VAC, 50/60 HZ and 347-480 VAC, 50/60 HZ input.
- -40°C to 55°C (-40°F to 131°F) ambient operating temperature. (Varies based on lumen package and mounting style see performance data for specifics.)
- Minimum 60,000 to 100,000 hours depending upon the ambient temperature of the installation location (see performance data for specifics.)

Hazardous Location

- Designed for lighter than air fuel applications. Product is suitable for Class 1 Divisions 2 only when properly installed per LSI installation instructions. See lsicorp.com for specific guidance. Not available on SLW.

Installation

- One-person installation.
- Installs in a 12" or 16" deck pan. Deck penetration consists of a 4" hole, simplifying installation and water sealing. Unit is designed to quickly retrofit into existing Scottsdale (4") hole as well as openings for Encore and Encore Top Access and to reconnect wiring for the SC/ECTA without having to relocate the conduit.
- Retro panels are available for existing Encores as well as kits for recessed and 2x2 installations (see separate spec sheets). Support brackets are provided standard, to prevent sagging of deck.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsicorp.com/resources/terms-conditions-warranty/ for more information.

Listings

- UL and ETL listed to UL 1598, UL 8750 and other U.S. and International safety standards. Suitable for wet locations.
- DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- Meets Buy American Act requirements.
- IDA compliant with 3000K or lower color temperature.

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Scottsdale® Legacy (CRUS) LED Canopy Luminaire

Have questions? Call us at (800) 436-7800

Type : 1.

ORDERING GUIDE

Back to Quick Links

TYPICAL ORDER EXAMPLE: CRUS SCFT LED VHO 50 UE WHT DFL

Prefix	Distribution	Light Source	Driver	Color Temperature	Input Voltage	Finish	Options[4]
CRUS - LED Canopy Luminaire	**SC** - Symmetric **AC**[1] - Asymmetric **SCFT**[2] - Combination Standard Symmetric and Forward Throw	**LED**	**SLW** - 5,000 Lumens **VLW** - 9,000 Lumens **LW** - 11,000 Lumens **SS** - 13,000 Lumens **HO** - 19,000 Lumens **VHO** - 22,000 Lumens[2] **Custom Lumen Packages**[3] **VHO** - 22,000 Lumens	**30** - 3000K **40** - 4000K **50** - 5000K	**UE** - Universal Voltage (120 - 277V) **HV** - High Voltage (347 - 480V)	**WHT** - White **BRZ** - Bronze **BLK** - Black	**HL**[5] - Hazardous Location **DFL** - Diffuse Lens

Need more information?
Click here for our glossary

Have additional questions?
Call us at (800) 436-7800

ACCESSORY ORDERING INFORMATION (Accessories are field installed)

Order Number	Description
525946	Retrofit Panels - EC / ECTA / SCF to CRUS, for 16" Deck Panel
530281	Retrofit Panels - ECTA / SCF to CRUS, for 12" Deck Panel
357282	Retrofit 2x2 Cover Panel Blank (no holes)

Order Number	Description
354702	Retrofit RIC Cover Panel Blank (no holes)
1320540	Kit - Hole Plugs and Silicone (enough for 25 retrofits)*

*Consists of (25) 7/8" hole plugs, (100) 5/16" hole plugs and (1) tube of RTV

1 AC distribution utilizes a reflector which alters the look from a standard SC distribution.
2 FT distribution option only available with VHO 22,000 lumen package.
3 Custom lumen and wattage packages available consult factory Values are within industry standard tolerances but not DLC listed.
4 Not available with SCFT.
5 Not available on SLW.

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PERFORMANCE

Delivered Lumens											
Lumen Package	Distribution	3000K CCT			4000K CCT			5000K CCT			Wattage
		Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
VHO	SC	21,301	140	B4-U0-G2	21,835	144	B4-U0-G2	22,697	150	B4-U0-G2	152
	AC	17,355	114	B3-U0-G3	17,799	117	B3-U0-G3	18,502	122	B3-U0-G3	
	SCFT	22,192	146	B3-U0-G3	22,598	149	B3-U0-G3	23,269	153	B3-U0-G3	
HO	SC	17,889	143	B3-U0-G1	18,346	146	B3-U0-G2	19,071	152	B4-U0-G2	125
	AC	14,582	116	B3-U0-G2	14,955	119	B3-U0-G2	15,546	124	B3-U0-G2	
SS	SC	13,113	141	B3-U0-G1	13,449	144	B3-U0-G1	13,980	150	B3-U0-G1	93
	AC	11,468	123	B3-U0-G2	11,761	126	B3-U0-G2	12,226	131	B3-U0-G2	
LW	SC	10,457	144	B3-U0-G1	10,724	148	B3-U0-G1	11,148	154	B3-U0-G1	73
	AC	9,145	126	B2-U0-G2	9,379	129	B2-U0-G2	9,749	134	B2-U0-G2	
VLW	SC	8,783	146	B3-U0-G1	9,008	149	B3-U0-G1	9,364	155	B3-U0-G1	60
	AC	7,681	127	B2-U0-G1	7,878	131	B2-U0-G1	8,189	136	B2-U0-G1	
SLW	SC	5,585	146	B2-U0-G1	5,728	150	B2-U0-G1	5,954	156	B2-U0-G1	38
	AC	4,884	128	B1-U0-G1	5,009	131	B1-U0-G1	5,207	136	B1-U0-G1	

*LEDs are frequently updated therefore values are nominal.

Electrical Data (AMPS)							
Lumen Package	Wattage	120V	208V	240V	277V	347V	480V
VHO	152	1.27	0.73	0.64	0.55	0.44	0.32
HO	124	1.03	0.6	0.52	0.45	0.36	0.26
SS	92	0.77	0.44	0.38	0.33	0.27	0.19
LW	72	0.6	0.35	0.3	0.26	0.21	0.15
VLW	60	0.5	0.29	0.25	0.22	0.17	0.13
SLW	38	0.32	0.18	0.16	0.14	0.11	0.08

*Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

OPERATING TEMPERATURE		
Lumen Package	Mounting	Max
VHO	Metal/Wood Canopy	45 C
HO	Metal/Wood Canopy	45 C
SS	Metal/Wood Canopy	55 C

Recommended Lumen Maintenance[1] CRUS VHO					
Ambient Temperature °C	Initial[2]	25k hr[2]	50k hr[2]	75k hr[3]	100k hr[3]
0 C	102%	97%	92%	88%	84%
10 C	102%	97%	92%	88%	84%
20 C	102%	97%	92%	88%	84%
25 C	102%	97%	92%	88%	84%
30 C	102%	97%	92%	88%	84%
40 C	101%	95%	90%	85%	80%
50 C	101%	94%	89%	83%	78%

Recommended Lumen Maintenance[1] CRUS SS					
Ambient Temperature °C	Initial[2]	25k hr[2]	50k hr[2]	75k hr[3]	100k hr[3]
0	102%	97%	92%	88%	84%
10	102%	97%	92%	88%	84%
20	102%	97%	92%	88%	84%
25	102%	97%	92%	88%	84%
30	102%	97%	92%	88%	84%
40	102%	97%	92%	88%	84%
50	101%	95%	91%	86%	82%

1 Lumen maintenance values at 25 ° C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.
2 In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED).
3 In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times NA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED).

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PHOTOMETRICS

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

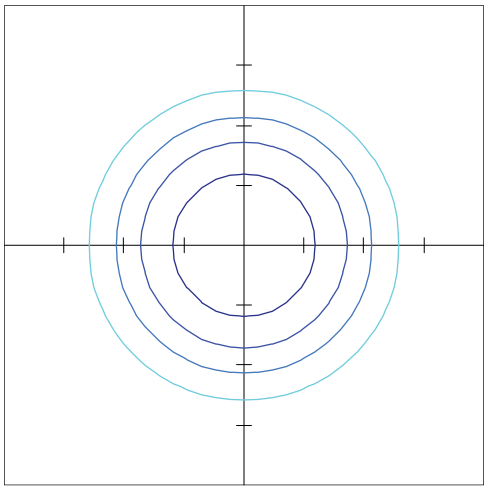
See the individual product page on https://www.lsicorp.com/ for detailed photometric data.

CRUS-SC-SS-50

Luminaire Data	
Type 5 Distribution	
Description	5000 Kelvin, 80 CRI
Delivered Lumens	13,980
Watts	93
Efficacy	150
IES Type	Type VS - Very Short
BUG Rating	B3-U0-G1

Zonal Lumen Summary		
Zone	**Lumens**	**% Luminaire**
Low (0-30°)	3,479.6	26.7%
Medium (30-60°)	7,109.8	54.5%
High (60-80°)	2,334.8	17.9%
Very High (80-90°)	114.4	0.9%
Uplight (90-180°)	0.0	0.0%
Total Flux	13,038.6	100%

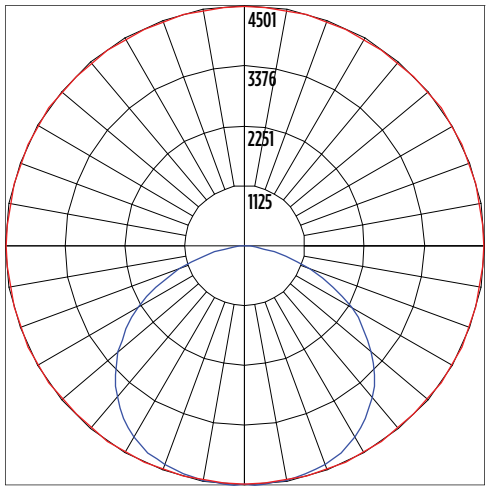
ISO Footcandle



10' Mounting Height / 10' Grid Spacing

5 FC 2 FC 1 FC 0.5 FC

Polar Curve



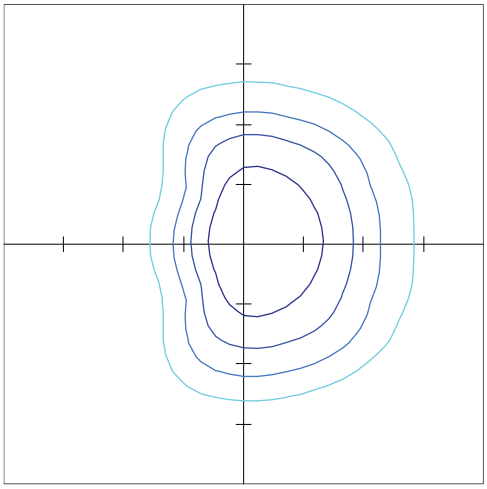
Vertical Plane Horizontal Cone

CRUS-AC-SS-50

Luminaire Data	
Type 3 Distribution	
Description	5000 Kelvin, 80 CRI
Delivered Lumens	12,226
Watts	93
Efficacy	131
IES Type	Type III, Very Short
BUG Rating	B3-U0-G2

Zonal Lumen Summary		
Zone	**Lumens**	**% Luminaire**
Low (0-30°)	3,240.3	27%
Medium (30-60°)	6,245.5	51%
High (60-80°)	2,594.6	21%
Very High (80-90°)	146.1	1%
Uplight (90-180°)	0	0%
Total Flux	12,227	100%

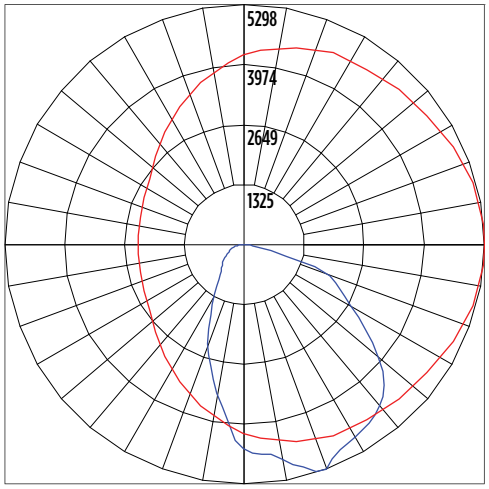
ISO Footcandle



15' Mounting Height / 15' Grid Spacing

5 FC 2 FC 1 FC 0.5 FC

Polar Curve



Vertical Plane Horizontal Cone

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Scottsdale® Legacy (CRUS) LED Canopy Luminaire

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Type : 1.

PHOTOMETRICS

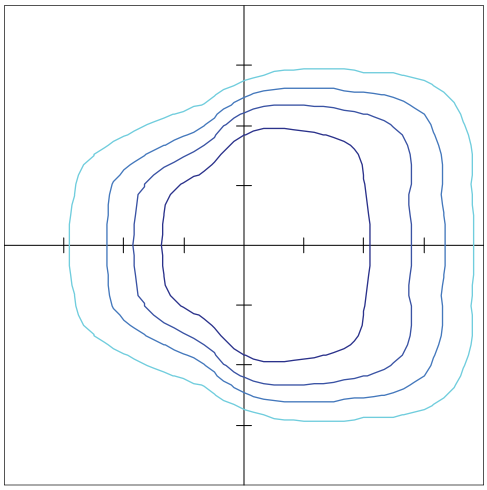
Back to Quick Links

CRUS-SCFT-SS-50

Luminaire Data	
Type 5 Distribution	
Description	5000 Kelvin, 80 CRI
Delivered Lumens	13,980
Watts	93
Efficacy	150
IES Type	Type VS - Very Short
BUG Rating	B3-U0-G3

Zonal Lumen Summary		
Zone	**Lumens**	**% Luminaire**
Low (0-30°)	2,397.7	10.30%
Medium (30-60°)	8,658.8	37.20%
High (60-80°)	4,914.2	21.10%
Very High (80-90°)	225.7	1.00%
Uplight (90-180°)	0	0%
Total Flux	23,269.3	100%

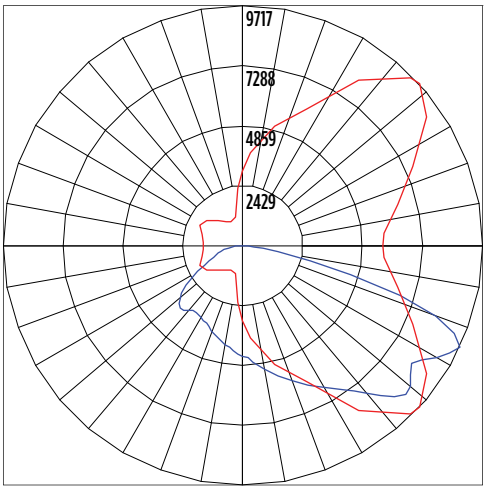
ISO Footcandle



10' Mounting Height / 10' Grid Spacing

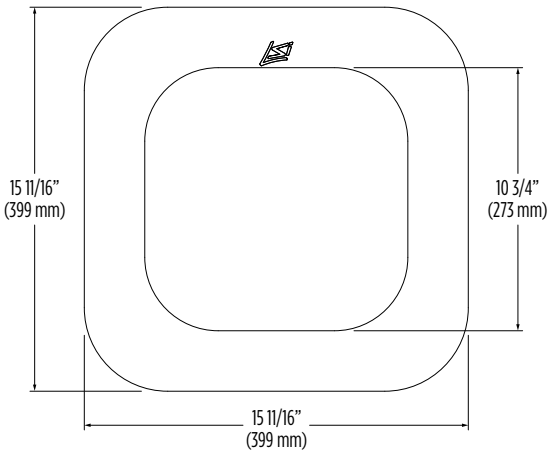
5 FC 2 FC 1 FC 0.5 FC

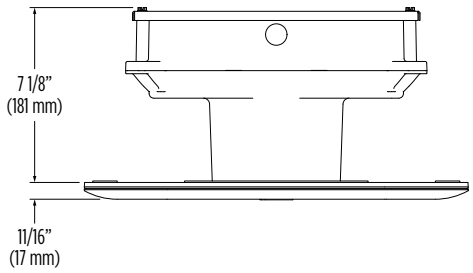
Polar Curve

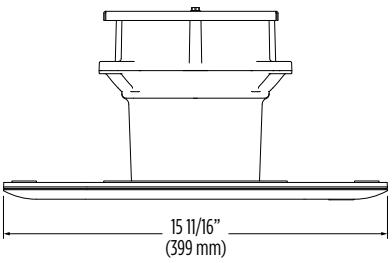


Vertical Plane Horizontal Cone

PRODUCT DIMENSIONS







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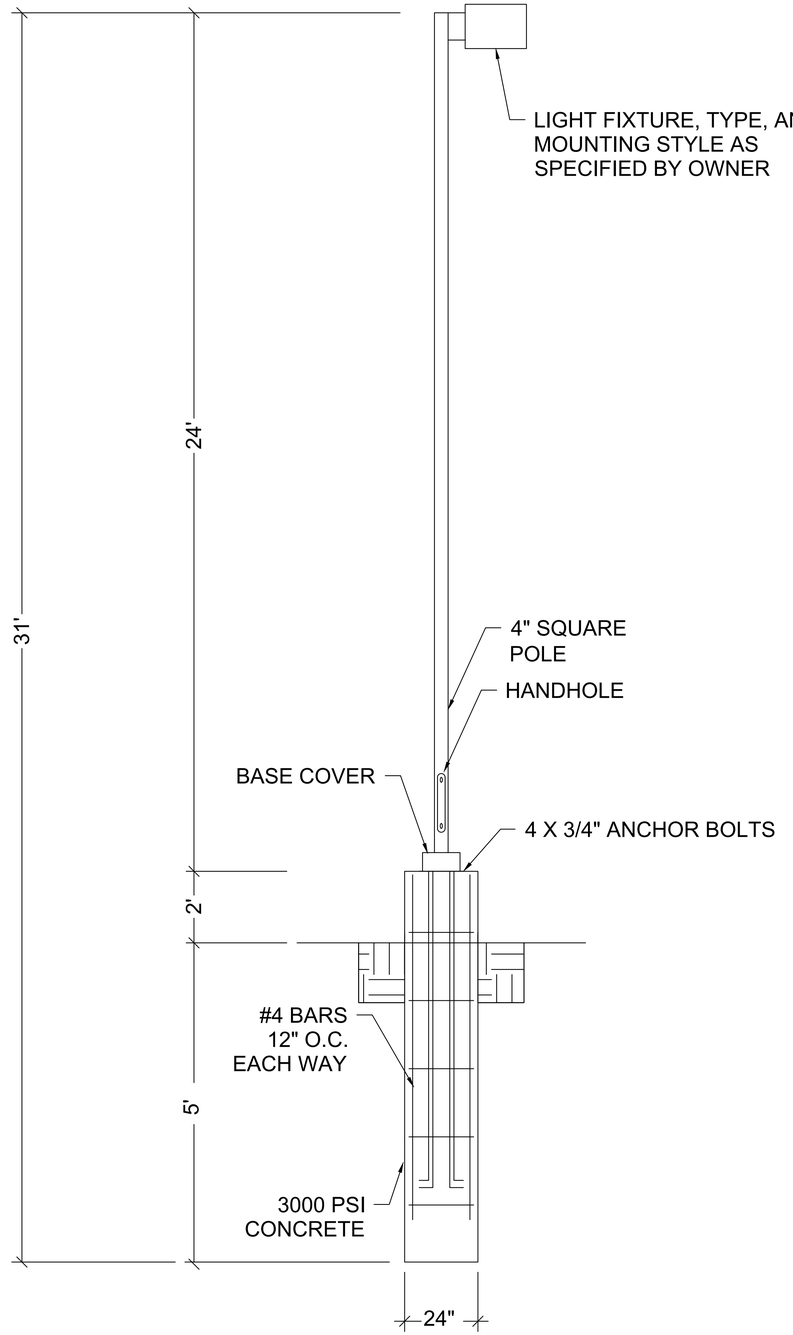
LED Wall Pack - 7,700 Lumens

1.



More Images

MODEL NO.	DIMENSIONS W x H	WATTS	LUMENS
H-9996	14 x 7 1/2 x 9 1/2"	76	7,700



1 POLE LIGHT DETAIL
Scale: None

KILIAN
A Stratus Team Company
115 Young St, Suite C, Henderson, NC 27536
www.kilianengineering.com | (P) 252.436.8778
CORPORATE LICENSE 7403

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 27511
MICHAEL W KILIAN
11/13/2025

SOUTH CAROLINA
KILIAN ENGINEERING, INC
No. 7403
CERTIFICATE OF AUTHORIZATION

MINUTEMAN #63
CONWAY, SC

REVISION
7 6 5 4 3 2 1 DESCRIPTION DATE

ISSUED: 11/10/2025
ISSUED FOR PERMITTING
DESCRIPTION

DRAWN BY: BSL
CHECKED BY: MWK

SHEET:
POLE LIGHT DETAIL

SHEET NO.
E-001

PROJECT NO: 2025-1099

SECTION 20 Special Use Permits

A) ***General.***
Special uses are practices which are not permitted by right in any zoning district in the Town but may only be granted after due consideration by the BOC. The consideration of a special use application is a quasi-judicial function to be conducted in accordance with the procedure set forth in Section 32, Quasi-Judicial Procedure. Special use permits may only be granted by the BOC following a recommendation by the Planning Board and the completion of the quasi-judicial review process by the BOC as outlined in Section 32.

A Special Use Permit is a permit issued to authorize development or land uses in a particular zoning district upon presentation of competent, material, and substantial evidence establishing compliance with one or more general standards requiring that judgment and discretion be exercised as well as compliance with specific standards.

B) ***Special Use Permit Application Procedures.***

1) A written application for a special use permit in all zones shall be submitted to the Town's Planning and Inspections Department in accordance with the requirements of Section 1 and Section 31 of this Ordinance and all applicable administrative regulations. The application shall include:
   a) A proposed use site plan which contains information documented in Section 18(C) of this Ordinance and the specific information below:
      i) A vicinity map and survey of the parcel which shall include the zoning and use of all adjacent properties;
      ii) A legend identifying all symbols on the map;
      iii) A North arrow and a scale;
      iv) A preliminary design of the proposed use which shows all existing and proposed structures, parking layouts, driveways, buffering, landscaping, points of ingress and egress, easements, minimum building lines, and street rights-of-way;
      v) A site data block of features which includes the proposed use(s), square footage of the proposed and existing structure(s), site zoning, total acreage, number of lots, minimum lot size, and average lot size;
      vi) The map book, page number, and deed book information;
      vii) A note stating whether any portion of the property is included in any adopted Town plan; and,
      viii) Any other related information requested by Town staff, the Planning Board, or the BOC.
      ix) All required environmental permit improvements needed for the property.
   b) The special use permit sought; and,
   c) Information supporting the existence of the required findings, and providing such plans or other relevant data as may be required by the Town.

2) Whenever an application is submitted for a special use permit in a residential zone, the applicant shall also include:
   a) A narrative which illustrates the appropriateness of the proposed use in a residential zone. This narrative shall also describe all the architectural design features which make the proposed use and associated building compatible with the urban character of the residential neighborhood;
   b) The submitted site plan shall also include all street front architectural elevation drawings to ensure the compatibility of the building(s) with the surrounding residential structures; and,
   c) Additionally, the BOC and Town staff may require a professional rendering or any other graphic illustration of the proposed structure.
3) The application shall be reviewed by Town staff and submitted with comments and recommendation to the Planning Board for review. The Planning Board shall review the application for a special use permit and make a recommendation as to whether is should be approved or denied. After the Planning Board makes its recommendation, the application shall be forwarded to the BOC for consideration.

C) ***Quasi-Judicial Proceeding Notification Requirements.***
The Planning Board will review and make recommendations regarding all applications for a special use permit. The BOC shall schedule a quasi-judicial proceeding for the application and BOC consideration after reasonable opportunity for staff and Planning Board review. In considering the application, the BOC shall follow the procedures set forth in Section 32, Quasi-Judicial Procedure.

D) ***Procedures on Special Use Applications.***
In considering whether to approve an application for a special use permit, the BOC shall proceed as follows:

1) The BOC shall conduct an evidentiary hearing in accordance with the provisions of Section 32, Quasi-Judicial Procedure, herein. And consider relevant information regarding whether the required findings under Section 20(E) exist and whether the special use is appropriate in the proposed location.
2) The BOC shall consider whether the application complies with each individual required finding specified in Section 20(E). The BOC need not make the required findings at the time of the hearing and may vote to table the matter and request information if needed. If the special use permit application is approved, the BOC motion shall contain language showing all the required findings under Section 20(E) have been met, and in the absence of specific findings, it shall be conclusively presumed the application complies with all the findings in Section 20(E).
3) The BOC shall render a decision within a reasonable period of time not to exceed ninety days after holding the evidentiary hearing for the proposed special use application. The BOC need not issue a decision at the time of the hearing if additional information is needed and may table the matter until a later date.
4) If the application is found not to be in compliance with one or more of the required findings of Section 20(E) or any other applicable section of this Ordinance, the application shall be denied. Such motion shall specify the particular findings the application fails to meet.

5) Notwithstanding the specific requirements of this Ordinance, the BOC may impose additional conditions and reasonable requirements upon the requested special use permit in order to ensure the use is consistent with the required findings as specified under Section 20(E).
6) The BOC shall render its decision on the special use permit application, in writing, in accordance with the provisions of Section 32 herein.

E) ***Required Findings.***

1) In addition to any other findings or requirements as specified by any other section of this Ordinance, before any application for a special use may be granted or denied, the BOC shall make each of the following findings:
   a) The proposed use is an allowable special use in the zoning district it is being located within;
   b) The application is complete;
   c) The location and character of the use will be in conformity with the Town's Comprehensive and CAMA Land Use Plan and other comprehensive planning elements;
   d) Streets, driveways, parking lots, traffic control, and any other traffic circulation features shall be designed and provided in accordance with current traffic engineering standards and Town regulations and found to be adequate for the proposed special use;
   e) The proposed special use will not substantially injure the value of adjoining or abutting properties;
   f) The proposed special use will be compatible and in harmony with adjoining land uses and the development patterns of the immediate area; and,
   g) The proposed use will not materially endanger the public health or safety of the community if located where proposed and developed according to the submitted and approved plan.
2) The BOC shall make its findings based on "competent, material and substantial evidence" as described in N.C. Gen. Stat. §160D-406 in accordance with the procedures set forth in Section 32 herein.
3) Compatibility Standards for Special Uses in Residential Zones:
   In deciding whether the architectural elements of the proposed special use in a residential zone will be compatible with the adjoining buildings, the BOC shall review said proposal in reference to the following architectural elements:
   a) Size (footprint);
   b) Height;
   c) Proportion and scale;
   d) Roof shape(s);
   e) Setbacks;
   f) Location, size, and number of openings (doors and windows);
   g) Materials;
   h) Color; and,
   i) Texture.

B) ***Transitional District (TR).***

The intent of this zoning district is to serve as a transition between residential and more intensive districts. This includes residential and commercial uses with a low noise and traffic impact which would generally be considered compatible with a residential area which may or may not have buffering requirements as documented in Section 19 of this Ordinance. Uses in this district which require potable water or sanitary sewer must be connected to both municipal water and municipal sewer.

1) Minimum Lot Size.
All lots in the TR district shall be a minimum of eight thousand square feet (8,000 ft^2).

2) Minimum Lot Width.
All lots in the TR district shall have a minimum lot width of sixty feet (60') at the minimum building line.

3) Building Setback and Building Height Requirements and Limitations.
Subject to the exceptions allowed in this Ordinance, each structure on a lot in this zoning district shall be set back from the boundary lines of the lot at least the distances provided in the tables set forth in this section. The building height limitation in this district is provided in the tables set forth in this section.

Table 8-4 Lot Requirements

District	*Front Setback (Right-of-Way)*	*Rear Setback*	*Side Setbacks*	*Building Height Limitation*
TR	25 feet	25 feet	15 feet	35 feet

Table 8-5 Other Lot Requirements

District	*Front Setback (Right-of-Way)*	*Rear Setback*	*Side Setbacks*	*Building Height Limitation*
TR	25 feet	25 feet	8 feet	35 feet

4) Accessory Building Setback Requirements.
All accessory buildings shall comply with all setback provisions of this Ordinance, including but not limited to Section 2(F), Section 6 and Section 15 of this Ordinance.

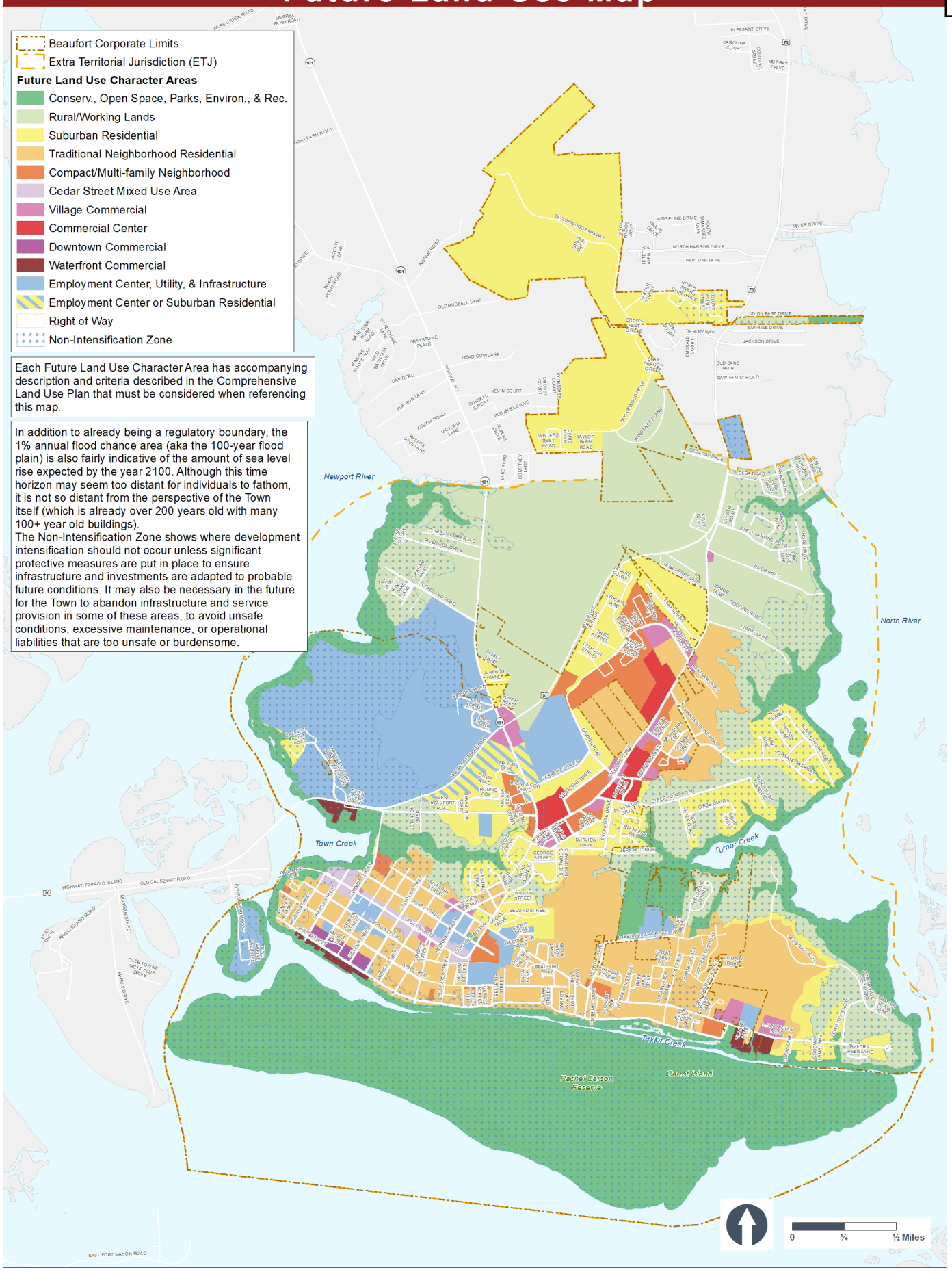
5) Permitted Uses.

Antenna Co-Location on Existing Tower
Assisted Living
Athletic Field, Public
Bed & Breakfast
Carport
Club, Lodge, or Hall
Commercial Indoor Recreational Facility
Community Garden
Dock
Dormitory
Dwelling, Duplex
Dwelling, Single-Family
Family Care Homes
Garage, Private Detached
Government/Non-Profit Owned/ Operated Facilities & Services
Group Home
Home Occupation
Library
Mixed Use
Mortuary/Funeral Home/ Crematorium
Neighborhood Recreation Center Indoor/Outdoor, Private
Neighborhood Recreation Center, Public
Nursing Home
Office: Business, Professional, or Medical
Park, Public
Personal Service Establishment
Public Safety Station
Public Utility Facility
Religious Institution
Resource Conservation Area
Restaurant with Indoor Operation
Shed
Signs, Commercial Free-Standing
Swimming Pool (Personal Use)
Temporary Construction Trailer
Utility Minor
Vehicle Charging Station

6) Special Uses. (*Special Uses* requirements may be found in Section 20 of this Ordinance).

Accessory Dwelling Unit
Aquaculture
Financial Institution
Cemetery/Graveyard
Concealed (Stealth) Antennae & Towers
Day Care Center
Day Care/Child Care Home
Golf Course, Privately Owned
Golf Driving Range
Hotel or Motel
Kennel, Indoor/Outdoor Operation
Marina
Museum
Other Freestanding Towers
Outdoor Amphitheater, Public
Parking Lot
Preschool
Produce Stand/Farmers' Market
Retail Store
Satellite Dish Antenna
School, K-12
School, Post-Secondary
Tavern/Bar/ Pub with Indoor Operation
Utility Facility

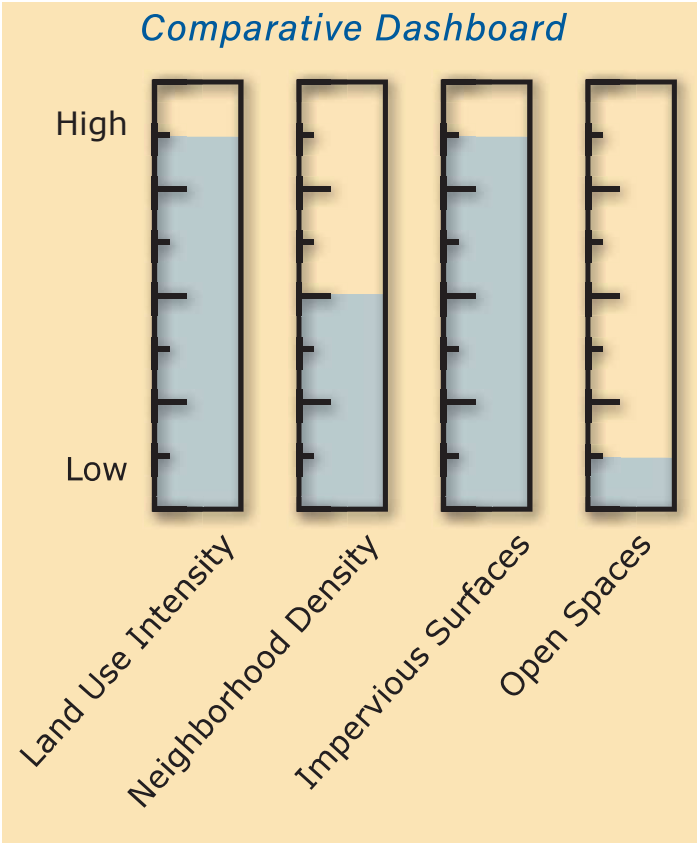
Future Land Use Map



Commercial Center

General Description:

These areas have large-scale non-residential uses that serve the entire community and larger region. These sites are often occupied or anchored by a large tenant ("big box") and the development may span the entire block. Often it is a multi-tenant development with outparcels and large swaths of shared parking, but it can have other, more pedestrian-friendly configurations, as well. Buildings are generally set back from the public street and often front on individual or shared parking lots. Some developments may have buildings pulled up to the street, with parking in the rear, especially at busy intersections or in particularly active nodes that are accessible by nearby residents via walking. However, these places are typically automobile-oriented, generate large volumes of traffic, and are not particularly walkable.



EXAMPLE USES:

Typical Uses:

Large footprint, higher intensity, regional commercial, retail, services, or offices, including less pedestrian friendly uses such as vehicle and machinery repair, sales, and rental, lumber yards, commercial nurseries, fast food restaurants, etc. Hotels are also appropriate. Automobile-dependent businesses predominate.

If Context Appropriate:

- Institutional uses (churches, primary or secondary schools, hospital, government buildings, etc.), provided they do not detract from the overall commercial nature of an area.
- On parcels directly adjacent to this character area, multi-family residential is often appropriate, particularly if it is walkable to nearby businesses. Higher density residential development, whether as detached or attached residential, is usually appropriate within a ¼ mile network walking distance of these areas.
- Upper story dwellings (aka "live/work") may be appropriate in extremely limited instances.

Commercial Center

Streets and Circulation:

Streets should be (or have easy access to) higher volume streets or highways. Business frontages should have pedestrian connections to each other and to the surrounding sidewalk network, even if walking is not as convenient because of the longer distances. Automobiles are usually prioritized, but pedestrians should not be forgotten. If developments use extensive private drives or have adjacent parking areas, cross-access (automobile and pedestrian) should be required to adjacent non-residential or multi-family residential uses, in order to reduce traffic congestion on the main roads. Due to the high attraction of these centers, there might even be a transit stop nearby one day. Blocks should not exceed 700' feet on a side. If they do, the site may need to be redesigned to accommodate the public street network. Landscaping and proper stormwater management are key to ensuring attractive parking areas that do not contribute to excessive runoff.

Other Concerns:

Maintaining connectivity through these developments and to surrounding and adjacent neighborhoods and parcels is important. Allowing these developments to connect only to the main thoroughfare will contribute to additional traffic congestion as neighboring developments will have to travel the major thoroughfare to enter through the front, instead of having access from the sides and/or rear of the parcel. The connectivity, longevity, and public utility of the public street network must be a top consideration during the development process. Commercial areas are developed and redeveloped, but the right-of-way network established at the subdivision or site plan stage of development defines the built environment into the forseeable future and beyond.





Examples of Commercial Centers