

Director of  
Planning and Inspections  
MEREDITH GUNS

Building Inspector  
MARTY SHAW  
CHARLES THUMAN

Code Enforcement Officer  
JORDAN BLYTHE



Assistant Director of  
Planning and Inspections  
CAMERON RAY

Senior Planner  
RYAN LANG

Zoning Administrator  
DONNA ELLIOTT

**THE TOWN OF KILL DEVIL HILLS**  
NORTH CAROLINA

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**PLANNING DEPARTMENT**

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July 18, 2023

Memorandum

To: Planning Board

From: Ryan Lang, Senior Planner 

Subject: **SITE PLAN REVIEW– 1906 S Croatan Highway in the Commercial Zone Proposed Boat Service Building Addition and Site Modifications**

Enclosed is a site plan submitted by Albemarle Engineering which calls for an addition of a 2,400 square foot service building, reconfiguration of existing parking lot with 23 parking spaces and installation of stormwater management measures. The existing retail building will remain on site. The proposed Boat Sales and Boat Repair are permitted uses in the Commercial Zone (N) *Retail Business (boat sales and rentals, boat repairs.)* Attached you will the commercial site plan application, proposed site plan, proposed building elevations with floor plan, health department approval and stormwater narrative.

All Staff's comments from Site Plan Technical Review have been addressed and Staff recommends that the Planning Board forward the plan to the Board of Commissioners with a favorable recommendation.



July 5<sup>th</sup>, 2023

Town of Kill Devil Hills Planning Department  
PO Box 1719  
Kill Devil Hills, NC, 27948

ATTN: Ryan Lang, Senior Planner

**RE: 1906 South Croatan Highway, OBX LandCo Holdings, LLC  
Site Plan Resubmittal - TRC Response**

Dear Mr Lang:

Please find the attached revised site plan drawings and requested additional information for the site expansion and modifications at 1906 South Croatan Highway. This is being provided in response to the TRC Comments provided on 7/28. Please review the summary of modifications and/or additional information as follows:

Planning

General

- 1) The Dare County Health Department permit and approved site plan is attached. ✓

Sheet C101

- (1) A note has been added to C101 to "maintain the sidewalk and curb and gutter in place until ready to replace with new sidewalk and curb and gutter. Replace as quickly as possible to minimize disruptions to pedestrians" ✓

Sheet C201

(1) Site Plan Notes

- (a) Note 3 has been revised to include the requested verbiage regarding the Regulatory Flood Protection Elevation ✓
- (b) Note 17 has been revised to note that the existing on-site septic system will be utilized. ✓

(2) Site Plan

- (a) A stop bar and stop sign have been added to each driveway exit shown on C201.
  - (b) Dimensions of the driveway width at the throat (30') were previously included on C201. We have added the offset from the edge of existing roadway as well. This depth of 15' coincides with the offset from the edge of pavement if the right-of-way was 50' wide as is typical in many town streets.
  - (c) The proposed structure has been labeled "proposed frame building (boat service)"
- (3) Building elevations have been moved to a sheet S1.1. This sheet includes glazing calculations, four building elevations, roof pitch, siding and a proposed floor plan.

*glazing %*

Sheet C202

(1) Landscape notes

- (a) A chart has been added on C202 directing minimum diameter and height for new trees and shrubs.
  - (b) The area of the canopy is excluded from the overall length of the adjacent boundaries for buffer calculations.
- (2) Call-outs have been added to the sheet C202 noting that "all ground cover in pervious areas shall be seeded and grassed unless noted otherwise"

(3) Lighting Plan:

- (a) Pole mounting of the specified fixture is not recommended at less than 30' heights. However, the fixture does have an available rear shield. A note has been added to install a rear shield to the northwest light.
- (b) Wall pack lighting has been added to the sides and rear of the new building. This has also been reflected in the lighting plan .

Building Inspections

- (1) Pursuant to our earlier correspondence, the handicap space is located at #14 due to existing elevations creating other accessibility issues with space #13.
- (2) Parking space # 15 has been pulled back to allow a 5' striped clear space at the east man door. A 4' x 4" pad has been added to the other man door, which has been moved to the south side of the building.

Town Engineer

- (1) A pedestrian safe grate has been added to the call out on the C301 for the drop inlet being replaced.

Public Services

Solid Waste

- (1) The town diagram was used for the layout of the dumpster area and the layout complies. The layout could be expanded if needed, although we believe this would be unlikely.
- (2) A garbage truck access diagram is being provided as an attachment to this response.

### Streets

- (2) The curb joining the valley gutter has been modified on the west and central portions to provide a 36" wide valley gutter / curb and gutter hybrid as we discussed.
  - (a) It does not appear as though the driveway to the west contains an invert. As we discussed, we have modified the valley gutter / curb and gutter interface to provide a wider flow line to improve drainage capacity along this right-of-way. This is included on sheet C301.
  - (b) Flumes have been modified as we discussed. This is included on sheet C301.
- (3) A note has been added to C101 to "maintain the sidewalk and curb and gutter in place until ready to replace with new sidewalk and curb and gutter. Replace as quickly as possible to minimize disruptions to pedestrians"

### Water System

- (1) As we discussed, there are no plans to increase the number of water fixtures in the building. Currently there are 2 restrooms, each with a toilet and sink. Per our discussion, the meter sizing form will not be required if there is not an increase in the number of water fixtures.
- (2) The existing water meter has been labeled on sheets C101 & C201.
- (3) The existing 16" waterline has been added to sheets C101.

### Wastewater

- (1) The location of the existing septic system has been shown on sheet C101. The Dare County Health Department does not have existing locations on file. However, based upon building & site investigations, the system appears to be on the north side of the building.

### Fire Marshal

- (1) If a pressure test is required it can be performed prior to issuing a building permit. However, the adjacent fire hydrants are located on a 16" water distribution line and are less than 2,000 feet from the water tower. With this in consideration, available water pressure here should be expected to be well above required fire flow.
- (2) "No Parking Fire Lane" pavement markings have been added to the site plan (Sheet C201).
- (3) Heavy duty pavement is being specified for the project.

In addition to this letter of response, this submittal includes the following items:

- Dare County Health Department permit and approved site plan (reduced size)
- Garbage Truck Access Diagram
- Plans (15 copies)
  - C101 – Demolition & E&SC Plan (7/3/2023)
  - C201 – Site Plan (with building elevations (7/3/2023)
  - C202 – Buffer and Lighting Plan (7/3/2023)
  - C203 – Site Details (7/3/2023)
  - C301 – Grading and Drainage Plan (7/3/2023)
  - S1.1 – Building Elevations and Floor Plan.

If you have any questions pertaining to this site, please do not hesitate to contact me at 252-441-2113.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael J. Morway', with a large, stylized flourish extending from the end of the signature.

Michael J. Morway, PE  
Engineer

cc: File 08709B  
OBX LandCo Holdings, LLC

County of Dare  
PO Box 669  
Manteo NC 27954



**S22-18994**

Phone: (252) 475-5080

**DARE COUNTY DEPARTMENT OF PUBLIC HEALTH**  
Authorization for Wastewater System Construction

Parcel: 004936000

PIN: 989313035787

Permit: S22-18994

Owner Name: OBX LANDCO HOLDINGS LLC

Permit Date: 06/21/2023

Owner Address: PO BOX 2298  
MANTEO, NC 27954  
Phone: 252-441-2113

252-441-2113

Location: 1906 S CROATAN HWY – KILL DEVIL HILLS

Subdivision: LAKE DRIVE DEVELOPMENT SEC 2

LOT: 98-101 BLK: SEC: 2

1. Issued by \_\_\_\_\_ RPP

2. Any alteration in soil conditions (including location of structures and appurtenances) or modification in use, design wastewater flow or wastewater characteristics as specified in the associated improvement permit and application, may subject this authorization and associated permit(s) to revocation.

3. Comments:

**Permit for a commercial change of use from hot tub sales to a boat sales store. Also for warehouse in the back. The warehouse can have no water connections to the septic system. Existing system is nonconforming and can only be permitted for retail sales. Any upgrade or change to business would require a new septic system.**

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This CA is valid as long as the IP remains valid (SL 2014-120).

Disclaimer: This permit does not relieve you of the responsibility to obtain any other necessary Federal, State or Local permit(s).

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Owner Certification

6/29/2023

Applicant or Owner Signature

Date

Applicant: ALBEMARLE & ASSOCIATES

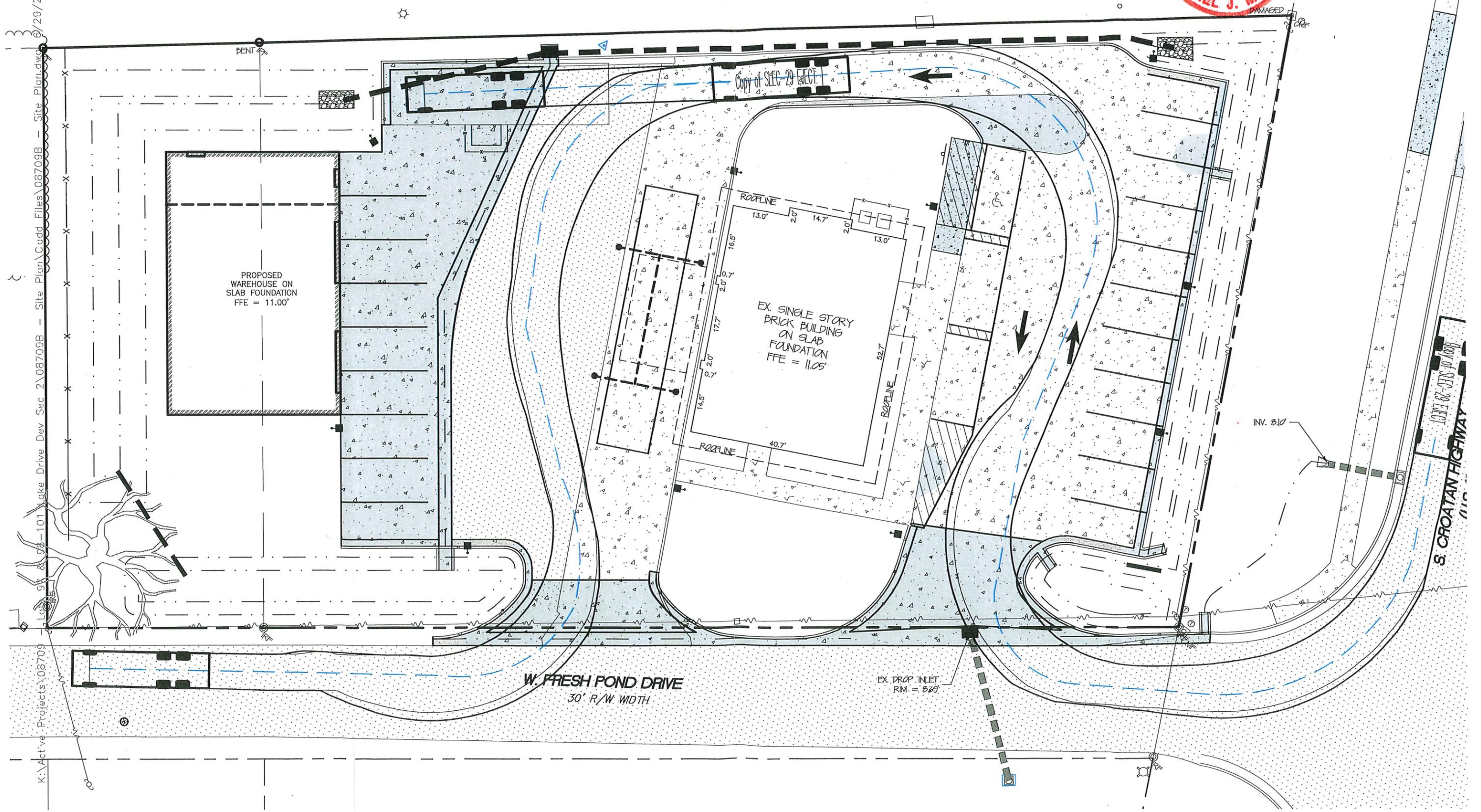


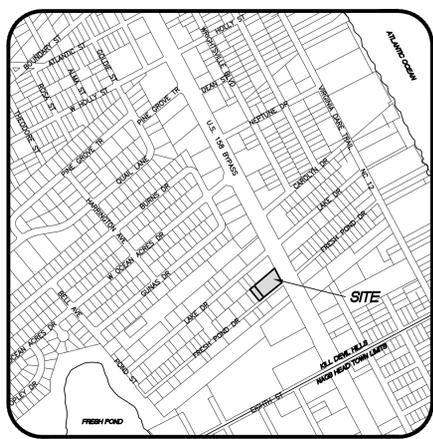
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# Commercial Refuse Truck Site Access Diagram





VICINITY MAP  
NTS

**I. NARRATIVE:**

OBX LANDCO HOLDINGS, LLC, INTENDS TO CONSTRUCT A 2,400 SF BOAT SERVICE BUILDING ON THE 0.265 ACRES AT THE NORTHWEST CORNER OF THE INTERSECTION OF US 158-CROATAN HIGHWAY AND WEST FRESH POND DRIVE. THE CONSTRUCTION WILL INCLUDE PARKING, LOADING AREA AND STORMWATER MANAGEMENT IMPROVEMENTS. APPROXIMATELY 0.53 ACRES OF THE SITE IS TO BE DISTURBED. CONSTRUCTION IS SCHEDULED TO BEGIN IN THE LATE SUMMER OF 2023.

THE SITE IS FAIRLY LEVEL, WITH SANDY SOILS, THE VACANT LOT IS HEAVILY VEGETATED, WHICH WILL BE CLEARED PRIOR TO CONSTRUCTION.

DISTURBED AREAS ARE TO BE STABILIZED WITH TEMPORARY/PERMANENT VEGETATION ACCORDING TO THE SEQUENCE OF CONSTRUCTION.

**II. SOILS DESCRIPTION:**

SOIL TYPES AS MAPPED IN THE SOIL SURVEY OF DARE COUNTY:

COROLLA FINE SAND (CoB)

**III. CONSTRUCTION SEQUENCE:**

- OBTAIN SITE PLAN APPROVAL
- OBTAIN ALL NECESSARY ENVIRONMENTAL PERMITS
- FLAG OR STAKE WORK LIMITS
- HOLD PRE-CONSTRUCTION MEETING

**PHASE ONE:**

- UTILIZE WEST DRIVEWAY FOR CONSTRUCTION ACCESS. SWEEP AS NEEDED TO PREVENT TRACKING OF SEDIMENT ONTO ADJACENT ROADWAYS.
- INSTALL SILT FENCE AND TREE PROTECTION
- CLEAR LOT OF EXISTING VEGETATION AS SHOWN

**PHASE TWO:**

- PLACE AND GRADE FILL MATERIALS
- ESTABLISH TEMPORARY VEGETATION ALONG ANY AREAS REQUIRED IN ACCORDANCE TO THE "SEDIMENTATION AND EROSION CONTROL NOTES"
- INSTALL INFILTRATION BASINS
- COMMENCE CONSTRUCTION OF NEW STRUCTURE
- CONSTRUCT NEW PARKING AND SIDEWALKS
- REMOVE SEDIMENTATION FROM WITHIN INFILTRATION AREA TO ESTABLISH INFILTRATIVE PROPERTIES
- ESTABLISH PERMANENT VEGETATION ON ALL DISTURBED AREAS (ON PROPERTY AND ADJACENT RIGHT-OF-WAY)
- FERTILIZE AND WATER DISTURBED AREAS UNTIL PERMANENT VEGETATION IS FIRMLY ESTABLISHED AND STABILIZATION IS ACHIEVED
- REMOVE SILT FENCE

**IV. SEDIMENTATION AND EROSION CONTROL NOTES:**

1. PRECONSTRUCTION CONFERENCE: PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL WALK THE SITE WITH THE OWNER'S REPRESENTATIVE AND A REPRESENTATIVE (IF REQUIRED) IN ORDER TO IDENTIFY AND MARK SPECIFIC ELEMENTS WHICH ARE TO BE PROTECTED. TREES SHALL BE PROTECTED IN ACCORDANCE WITH THE NORTH CAROLINA EROSION AND SEDIMENTATION CONTROL HANDBOOK.
2. INSTALLATION OF EROSION CONTROL MEASURES: PRIOR TO COMMENCEMENT OF ANY LAND DISTURBING ACTIVITIES, ALL EROSION AND SEDIMENTATION CONTROL MEASURES IDENTIFIED ON THIS PLAN SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS AND ALL PERMIT CONDITIONS.
3. UTILITIES: PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL HAVE THE APPROPRIATE UNDERGROUND UTILITIES LOCATED. CONTACT NC811 AT 811 OR 800-632-4949. UTILITIES SHOWN ARE TAKEN FROM EXISTING RECORDS, FIELD OBSERVATIONS AND/OR UTILITY LOCATING SERVICE AND ARE NOT GUARANTEED TO BE ACCURATE OR COMPLETE.
4. ACCESS TO SITE: ALL CONSTRUCTION TRAFFIC SHALL UTILIZE THE CONSTRUCTION ENTRANCE AS DESIGNATED ON THIS PLAN.
5. LIMITS OF DISTURBANCE: THE CONTRACTOR SHALL ENSURE THAT AREAS OUTSIDE OF THE LIMITS OF LAND DISTURBING AS WELL AS EXISTING IMPROVEMENTS SPECIFICALLY NOTED TO REMAIN ARE NOT ADVERSELY IMPACTED BY ANY CLEARING ACTIVITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND/OR REPLACEMENT OF ITEMS DAMAGED OUTSIDE THE LIMITS OF DISTURBANCE OR OTHERWISE NOTED TO REMAIN.
6. STABILIZATION: EXPOSED SWALES, DITCHES, DIKES OR OTHER SLOPES STEEPER THAN 3(H):1(V) SHALL BE STABILIZED WITH A TEMPORARY OR PERMANENT GROUND COVER WITHIN 7 CALENDAR DAYS. ALL OTHER EXPOSED EARTHEN AREAS SHALL BE STABILIZED WITH A TEMPORARY OR PERMANENT GROUND COVER WITHIN 14 CALENDAR DAYS OF THE COMPLETION OF ANY PHASE OF GRADING.
7. INSPECTIONS REQUIRED: SOIL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED, MAINTAINED AND REPAIRED AS NECESSARY BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN COMPLETED SELF-INSPECTION / MONITORING FORMS (COMPLETED WEEKLY WITH DAILY RAINFALL TOTALS) THROUGHOUT THE PROJECT. THE SITE SHALL ALSO BE INSPECTED AFTER ANY RAINFALL EVENT EQUAL OR GREATER THAN 0.5 INCHES OVER A 24 HOUR PERIOD.
8. CORRECTIVE MEASURES: ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION UNTIL WORK IS COMPLETE AND ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED. IF EXCESSIVE WIND EROSION OR STORM WATER RUNOFF DEVELOPS DURING TIME OF CONSTRUCTION IN ANY LOCATION ON THE PROJECT SITE, ADDITIONAL SAND OR SILT FENCE SHALL BE INSTALLED AS DIRECTED BY ENGINEER. SEE SAND OR SILT FENCE DETAIL.
9. DEBRIS REMOVAL: ALL CLEARING DEBRIS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF IN A LAWFUL MANNER. NO BURNING OF DEBRIS ON SITE IS PERMITTED. NO ON-SITE BURNING IS PERMITTED UNLESS OTHERWISE APPROVED BY THE LOCAL FIRE MARSHALL, MUNICIPAL AGENCY OF JURISDICTION AND THE OWNER.
10. EXCAVATION AND EMBANKMENT: ANY OFF-SITE MATERIAL BROUGHT ONTO THE SITE TO BE USED FOR GRADING FILL SHALL BE OBTAINED FROM A PERMITTED BORROW PIT. FILL SHALL CONFORM TO PROJECT SPECIFICATIONS AND GEOTECHNICAL REPORT. NO BORROW IS PERMITTED FROM THE SITE.
11. EXISTING INFORMATION: THE EXISTING SURVEY, BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IS BASED UPON SURVEY INFORMATION PROVIDED BY SEALEVEL AS SURVEYED ON FEBRUARY 28, 2023.

**V. DEMOLITION NOTES**

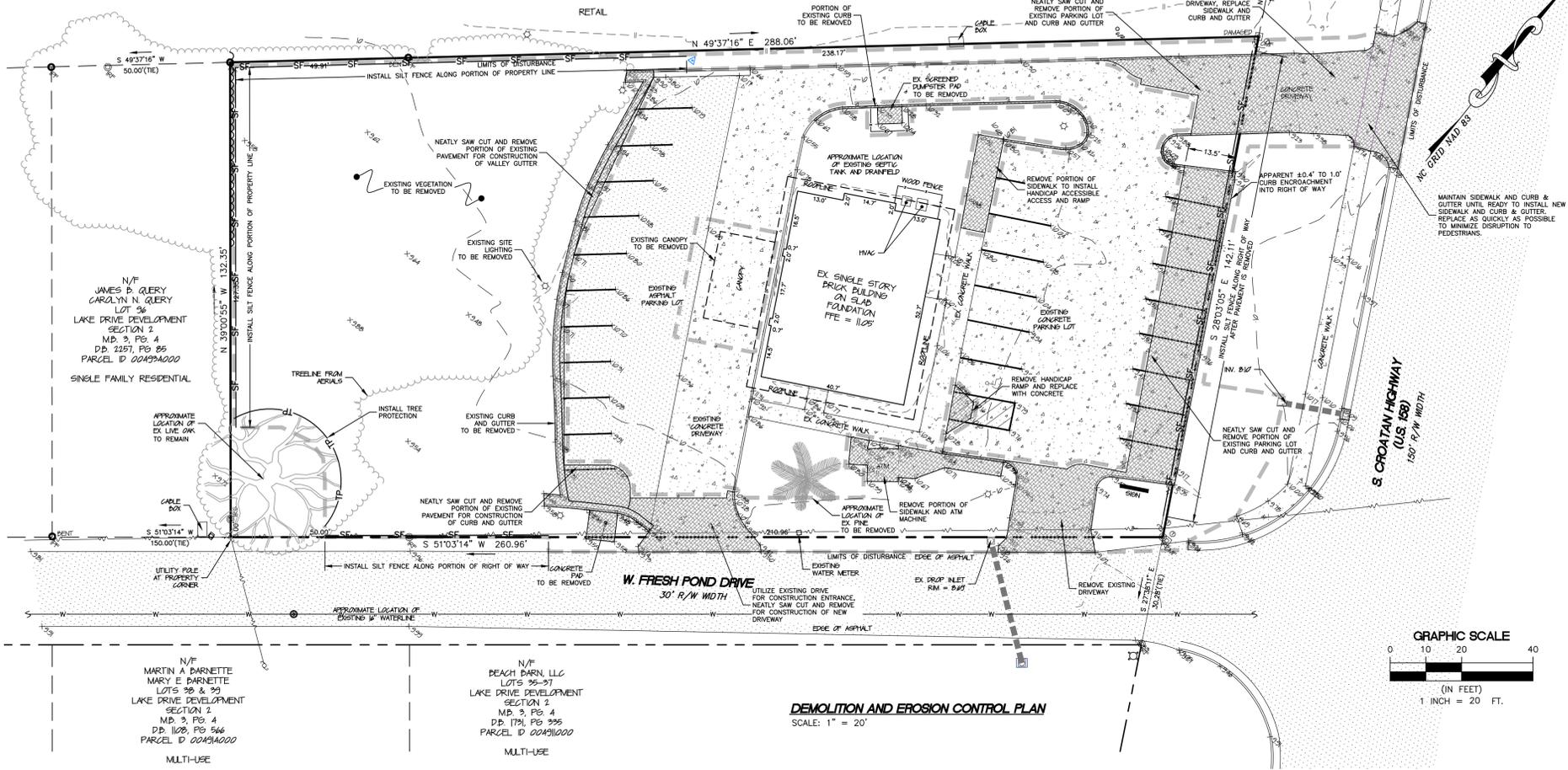
ALL EXISTING IMPROVEMENTS SHOWN WITHIN THE LIMITS OF DISTURBANCE SHALL BE REMOVED UNLESS SPECIFICALLY NOTED TO REMAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DISPOSAL TO AN OFFSITE LOCATION PROVIDED BY THE CONTRACTOR.

**WARNING:**

LOCATION OF EXISTING UNDERGROUND UTILITIES IS UNKNOWN AND HAS NOT BEEN SHOWN ON THESE DRAWINGS. UNDERGROUND UTILITIES ENCOUNTERED SHALL IMMEDIATELY BE REPORTED TO THE OWNER.

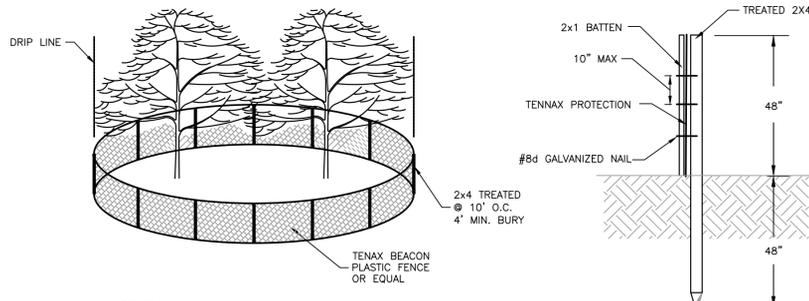
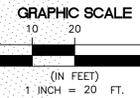
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NOT FOR  
CONSTRUCTION**

N/F  
EQUAGA HOLDINGS, LLC  
LOTS 44, 46, 48, 50, 52, 54  
& PT 42  
LAKE DRIVE DEVELOPMENT  
MD. 1, PG. 157  
D.D. 2326, PG. 654  
D.D. 2323, PG. 192  
D.D. 1295, PG. 238  
PARCEL ID 0028923042



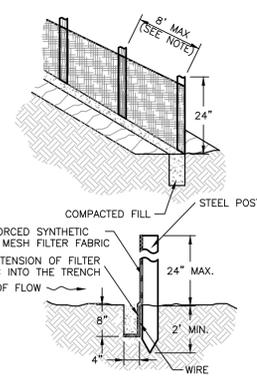
DEMOLITION AND EROSION CONTROL PLAN

SCALE: 1" = 20'



- NOTES:
1. IN SPITE OF PRECAUTIONS, SOME DAMAGE TO PROTECTED TREES MAY OCCUR. IN SUCH CASES, REPAIR ANY DAMAGE TO THE CROWN, TRUNK OR ROOT SYSTEM IMMEDIATELY.
  2. REPAIR ROOTS BY COVERING DAMAGED ROOTS WITH MOIST TOPSOIL OVER EXPOSED ROOTS.
  3. REPAIR DAMAGE TO BARK BY TRIMMING AROUND THE DAMAGED AREAS. TAPER THE CUT TO PROVIDE DRAINAGE, AND PAINT WITH TREE PAINT.
  4. CUT OFF ALL DAMAGED TREE LIMBS ABOVE THE TREE COLLAR AT THE TRUNK OR MAIN BRANCH. USE THREE SEPARATE CUTS TO AVOID PEELING BARK FROM HEALTHY AREAS OF THE TREE.
  5. BARRIER SHOULD BE INSTALLED OUTSIDE THE DRIP LINE OF TREE BRANCHES AS FAR AS PRACTICAL.

TREE PROTECTION DETAIL  
NTS



SILT FENCE DETAIL  
NTS

**SITE STABILIZATION REQUIREMENTS**

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) 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 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETER AND HOW ZONES)

**SEEDING SCHEDULE**

APRIL 1 - MAY 15 PERMANENT SEEDING		RATE
K-31 FESCUE	3 LB/1000 SF	
COMMON BERMUDAGRASS	1 LB/1000 SF	
WINTER RYE GRASS	3 LB/1000 SF	
NOTE: DELETE RYE GRASS IF OVERSEEDING ESTABLISHED RYE OR FESCUE. DELETE FESCUE IF OVERSEEDING ESTABLISHED FESCUE.		
MAY 15 - JULY 15 PERMANENT SEEDING		RATE
K-31 FESCUE	3 LB/1000 SF	
COMMON BERMUDAGRASS	1 LB/1000 SF	
GERMAN MILLET	3 LB/1000 SF	
NOTE: DELETE MILLET IF OVERSEEDING ESTABLISHED MILLET OR FESCUE. DELETE FESCUE IF OVERSEEDING ESTABLISHED FESCUE.		
AUGUST 15 - APRIL 1 TEMPORARY SEEDING		RATE
K-31 FESCUE	3 LB/1000 SF	
WINTER RYE GRASS	5 LB/1000 SF	
SOIL AMENDMENTS		
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 500 LB PER ACRE OF 10-10-10 FERTILIZER.		
MULCH		
USE JUTE, EXCELISOR MATTING OR OTHER EFFECTIVE CHANNEL LINING MATERIAL TO COVER BOTTOM AND SIDES OF SWALES. ANCHOR MATTING PER MANUFACTURERS RECOMMENDATIONS. HYDROSEEDING IS ALSO AN ACCEPTABLE METHOD OF TEMPORARY STABILIZATION.		
MAINTENANCE		
A MINIMUM OF 3 WEEKS IS REQUIRED TO FOR ESTABLISHMENT. INSPECT AND REPAIR MULCH FREQUENTLY. FERTILIZE THE FOLLOWING SPRING WITH 50 LB/ ACRE NITROGEN.		

**Albemarle & ASSOCIATES, LTD.**  
Engineering - Environmental - Land Planning

Albemarle & Associates, Ltd.  
1000 S. Salisbury Street  
Kill Devil Hills, NC 27848  
Phone: (252) 441-2113  
www.AlbemarleAssociates.com  
Cert. of Licensure No. C-1027  
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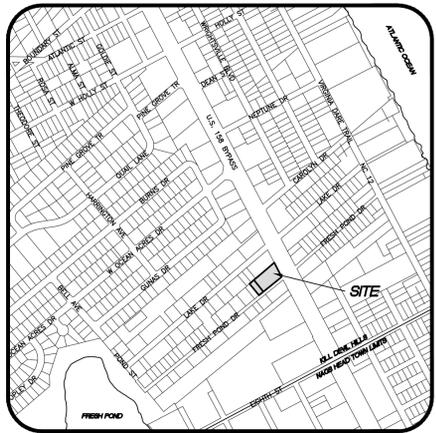
NO.	DATE	DESCRIPTION	BY

**DEMOLITION AND EROSION CONTROL PLAN**  
**OBX LANDCO HOLDINGS, LLC**  
**1906 S CROATAN HIGHWAY**  
NORTH CAROLINA  
DARE COUNTY  
ATLANTIC TOWNSHIP  
KILL DEVIL HILLS

DATE: 06-20-2023  
SURVEYED: SEE NOTES  
DESIGNED: MJM  
DRAWN: FCA  
CHECKED: MJM  
FILE: 08709B

SCALE:  
**1" = 20'**

**C101**  
PROJ. NO. 08709B

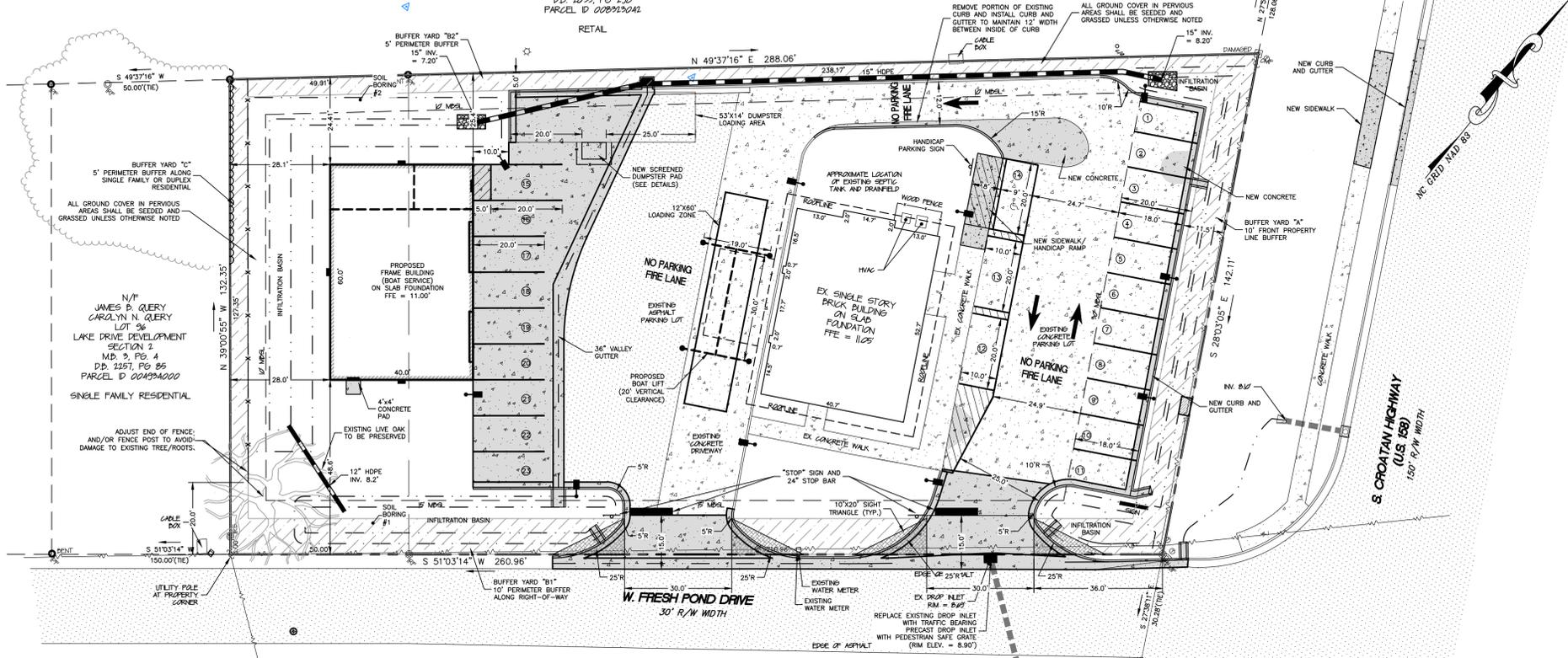


**VICINITY MAP**

**SITE PLAN NOTES:**

- OWNER/DEVELOPER: OBX LANDCO HOLDINGS, LLC  
PO BOX 2298  
MANTOE, NC 27954  
(919) 961-3345
- THE OWNER INTENDS TO CONSTRUCT A 2,400 SF SINGLE STORY BUILDING ON THE PROPERTY AT THE NORTHWEST CORNER OF US 158-CROATAN HIGHWAY AND WEST FRESH POND DRIVE, KILL DEVIL HILLS, NORTH CAROLINA. THE EXISTING STRUCTURE WILL SERVE AS THE BOAT SALES AND THE NEW STRUCTURE WILL SERVE AS THE BOAT SERVICE BUILDING.
- THE PROPERTY IS PARCEL 004936000 - LOTS 98-101, LAKE DRIVE DEVELOPMENT, SECTION TWO, M.B. 3, S.L. 4. RECORDED IN D.B. 1909, PG. 47. DARE COUNTY PIN NO. 9893 13 03 5787; PARCEL 004935000 - LOT 97, LAKE DRIVE DEVELOPMENT, SECTION TWO, M.B. 3, S.L. 4. RECORDED IN D.B. 1909, PG. 47. DARE COUNTY PIN NO. 9893 13 03 5732; AND PROPERTY ADDRESS: 1906 S. CROATAN HIGHWAY, KILL DEVIL HILLS
- THE SITE IS LOCATED IN FIRM ZONE "X" FIRM MAP NUMBER 3720989300K, EFFECTIVE DATE JUNE 19, 2020. SUBJECT TO CHANGE BY FEMA REGULATORY FLOOD PROTECTION ELEVATION (RFPE) IN SHADED X AND X ZONES WEST OF NC-12 IS 8' NAVD 1988 OR NATURAL GRADE ELEVATION IF NATURAL GRADE ELEVATION IS GREATER THAN 8' NAVD 1988.
- THE EXISTING SURVEY AND SITE TOPOGRAPHIC INFORMATION SHOWN IS BASED UPON SURVEY INFORMATION PROVIDED BY SEALEAVE AS SURVEYED ON FEBRUARY 28, 2023.
- ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE SPECIFIED. ELEVATIONS SHOWN ARE HEREON PER NAVD88.
- AREAS SHOWN ARE BY COORDINATE METHOD.
- THERE ARE NO DELINEATED WETLANDS ON THE PROJECT SITE.
- THE PROPERTY IS ZONED (C) COMMERCIAL AND RETAIL (BOAT SALES AND SERVICE) IS A PERMITTED USE.
- AREA TO BE DISTURBED 0.53 ACRES. ALL DISTURBED AREAS SHALL BE STABILIZED WITH A COASTAL VEGETATION MIX.
- PARKING REQUIREMENTS:  
RETAIL - BOAT SALES, RENTALS AND REPAIR  
1 SPACE PER 200 SF GROSS FLOOR AREA  
EXISTING BUILDING  
(1 SPACE/200 SF) 2177 SF = 10.9 SPACES  
PROPOSED BUILDING  
(1 SPACE/200 SF) 2400 SF = 12.0 SPACES  
PARKING SPACES REQUIRED = 22.9 SPACES REQUIRED  
PARKING SPACES PROVIDED = 23 SPACES PROVIDED (INCLUDES 1 HC SPACE)
- MINIMUM BUILDING SETBACKS:  
FRONT: 30'  
REAR: 10'  
SIDES: 10' (15' CORNER LOTS)
- LOT AREA - 37,265 SF (0.855 ACRES)
- COVERAGE IS AS FOLLOWS:  
COVERAGE ALLOWED - 65% (24,222.25 SF)  
EXISTING BUILDING 2,177.35 SF  
SIDEWALK/CONCRETE 1,322.16 SF  
DUMPSTER 31.39 SF  
PARKING 15,409.07 SF  
18,939.97 SF (50.8%)  
PAVEMENT/CONCRETE TO BE REMOVED (3,786.20 SF)  
PROPOSED BUILDING 2,400.00 SF  
NEW PAVEMENT/CONCRETE 5,720.90 SF  
TOTAL 23,274.67 SF (62.5%)
- ALL BUFFERING SHALL BE ERECTED, ALTERED AND MAINTAINED IN ACCORDANCE WITH THE PROVISIONS OF THE TOWN OF KILL DEVIL HILLS ZONING ORDINANCE. SEE SHEET C202 FOR LANDSCAPE BUFFER REQUIREMENTS.
- SITE LIGHTING SHALL CONSIST OF DOMINION POWER COBRA LED AREA LIGHTS (14,500 LUMENS/250 WATT EQUIVALENT) STOCK #42329814, WITH TYPE 3 DISTRIBUTION MOUNTED AT 30'. ALL LIGHTING TO BE INSTALLED PER PARAGRAPH 153.074 OF THE TOWN OF KILL DEVIL HILLS ZONING ORDINANCE. ALL LIGHT PRODUCED ON-SITE SHALL BE CONTAINED WITHIN THE PERIMETER OF THE SITE BY DESIGN, ORIENTATION OR SHIELDING OF THE LIGHT SOURCE.
- ALL NEW UTILITIES ARE TO BE PLACED UNDERGROUND.
- WASTEWATER FROM THIS FACILITY WILL BE TREATED AND DISPOSED OF WITH THE EXISTING ON-SITE SEPTIC SYSTEM UNDER PERMIT NO. S22-18944 ISSUED BY THE DARE COUNTY HEALTH DEPARTMENT.
- GARBAGE COLLECTION BY SIDE LOADING DUMPSTER.
- THE STORMWATER FROM THE PARKING AREAS WILL BE CONVEYED, VIA SHEET FLOW TO SHALLOW INFILTRATION BASINS LOCATED ALONG THE PERIMETER OF THE PROPERTY.
- THE BUILDING WILL COMPLY WITH THE NORTH CAROLINA STATE BUILDING CODE AND CURRENT NFPA REQUIREMENTS.
- SIGNS SHALL BE ERECTED, ALTERED AND MAINTAINED IN ACCORDANCE WITH THE PROVISIONS OF THE TOWN OF KILL DEVIL HILLS ZONING ORDINANCE. ANY PROPOSED SIGNS SHALL REQUIRE A PERMIT.

**PRELIMINARY ONLY  
NOT FOR  
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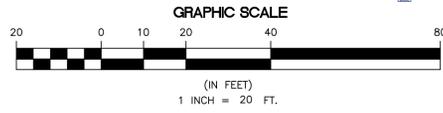


N/F  
BOGUSA HOLDINGS, LLC  
LOTS 44, 46, 48, 50, 52, 54  
& PT 42  
LAKE DRIVE DEVELOPMENT  
M.B. 1, PG. 87  
D.B. 2124, PG. 654  
D.B. 2123, PG. 192  
D.B. 1075, PG. 238  
PARCEL ID 008923042

N/F  
JAMES S. QUERY  
CAROLYN N. QUERY  
LOT 36  
LAKE DRIVE DEVELOPMENT  
SECTION 2  
M.B. 3, PG. 4  
D.B. 2121, PG. 654  
PARCEL ID 004934000

N/F  
MARTIN A. BARNETTE  
MARY E. BARNETTE  
LOTS 98 & 99  
LAKE DRIVE DEVELOPMENT  
SECTION 2  
M.B. 3, PG. 4  
D.B. 1128, PG. 566  
PARCEL ID 004934000

N/F  
BEACH BARN, LLC  
LOTS 95-97  
LAKE DRIVE DEVELOPMENT  
SECTION 2  
M.B. 3, PG. 4  
D.B. 1741, PG. 955  
PARCEL ID 004931000



**LEGEND**

	CONCRETE MONUMENT FOUND		EXISTING CURB INLET
	IRON PIPE FOUND		PROPOSED DROP INLET
	IRON ROD FOUND		FLARED END SECTION
	IRON ROD SET		RIP RAP
	RIGHT OF WAY		STORMWATER FLOW ARROW
	PROPERTY BOUNDARY		EXISTING DRAINAGE PIPE
	ADJACENT PROPERTY LINE		PROPOSED DRAINAGE PIPE
	EXISTING POWER POLE		EXISTING DITCH/SWALE
	EXISTING GUY WIRE		PROPOSED DITCH/SWALE
	OVERHEAD ELECTRIC		EXISTING FIRE HYDRANT
	EXISTING TELEPHONE PEDESTAL		EXISTING WATER METER
	EXISTING CABLE TV PEDESTAL		EXISTING WATER VALVE
	PROPOSED LIGHT POLES		EXISTING MANHOLE
	EXISTING CONTOURS		EXISTING WATERLINE
	PROPOSED CONTOURS		HANDICAP PARKING
	EXISTING SPOT ELEVATIONS		SIGNAGE
	PROPOSED SPOT ELEVATIONS		TRAFFIC FLOW ARROWS
	EXISTING TREELINE		SILT FENCE
	PROPOSED TREELINE		LIMITS OF DISTURBANCE
	EXISTING FENCE		
	PROPOSED FENCE		
	EXISTING CONCRETE		
	EXISTING ASPHALT PAVEMENT		
	PROPOSED CONCRETE PAVEMENT		



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**REVISIONS**

NO.	DATE	DESCRIPTION	BY
1	07/28/2023	PER TITLE COMMENTS	BYA

**SITE PLAN**  
**OBX LANDCO HOLDINGS, LLC**  
**1906 S CROATAN HIGHWAY**  
KILL DEVIL HILLS  
DARE COUNTY  
ATLANTIC TOWNSHIP  
NORTH CAROLINA

DATE:	06.20.2023
SURVEYED:	SEE NOTES
DESIGNED:	MJM
DRAWN:	RCA
CHECKED:	MJM
FILE:	08709B

SCALE:  
**1" = 20'**  
**C201**  
PROJ. NO. 08709B

**LANDSCAPE NOTES:**

**PREPARATION:**  
LAYOUT TREE AND SHRUB LOCATIONS AND AREAS AND SECURE LANDSCAPE DESIGNERS APPROVAL BEFORE START OF PLANTING WORK. MAKE MINOR ADJUSTMENTS AS MAY BE REQUESTED. FINE GRADE LAWN AREAS TO A SMOOTH, EVEN SURFACE WITH LOOSE, UNIFORMLY FINE TEXTURE. ROLL, RAKE AND DRAG LAWN AREAS. REMOVE RIDGES AND FILL DEPRESSIONS, AS REQUIRED TO MEET FINAL GRADE. LIMIT FINE GRADING TO AREAS THAT CAN BE PLANTED IMMEDIATELY AFTER GRADING.

**EXCAVATION FOR TREES AND SHRUBS:**  
EXCAVATE PITS, BEDS AND TRENCHES WITH VERTICAL SIDES AND WITH BOTTOM OF EXCAVATION SLIGHTLY RAISED AT CENTER TO PROVIDE PROPER DRAINAGE. LOOSEN HARD SUBSOIL IN BOTTOM OF EXCAVATION. FOR BALLED AND BURLAPPED, AND POTTED (B&P TREES AND SHRUBS), MAKE EXCAVATIONS AT LEAST HALF AGAIN AS WIDE AS THE ROOT BALL DIAMETER AND EQUAL TO THE ROOT BALL DEPTH, PLUS ALLOWING FOR SETTING OF ROOT BALL ON A LAYER OF COMPACTED BACKFILL.

**PLANTING TREES AND SHRUBS:**  
SET BALLED AND BURLAPPED AND POTTED STOCK ON LAYER OF COMPACTED PLANTING SOIL MIXTURE. PLUMB AND IN THE CENTER OF THE PIT OR TRENCH, WITH THE TOP OF THE ROOT BALL AT THE SAME ELEVATION AS ADJACENT FINISHED LANDSCAPE GRADES. WHEN SET, PLACE ADDITIONAL BACKFILL AROUND BASE AND SIDES OF ROOT BALL, AND WORK EACH LAYER TO ELIMINATE VOIDS AND AIR POCKETS. WHEN EXCAVATION IS APPROXIMATELY 2/3 FULL, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. WATER AGAIN AFTER PLACING FINAL LAYER OF BACKFILL. MULCH PITS, TRENCHES AND PLANTED AREAS. PROVIDE NOT LESS THAN 3" THICKNESS OF MULCH AND FINISH LEVEL WITH ADJACENT GRADE.

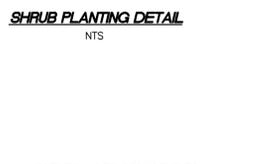
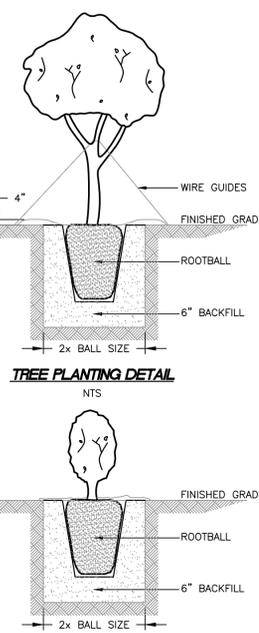
**SEEDING NEW LAWNS:**  
DO NOT USE WEED SEED OR SEED WHICH IS SLIGHTLY MOLDY OR OTHERWISE DAMAGED IN TRANSIT OR STORAGE. SOW SEED USING A DROP SPREADER OR SEEDING MACHINE. DO NOT SEED WHEN WIND VELOCITY EXCEEDS 5 MPH UNLESS USING A DROP SPREADER. DISTRIBUTE SEED EVENLY OVER ENTIRE AREA BY SOWING EQUAL QUANTITIES IN 2 DIRECTIONS AT RIGHT ANGLES TO EACH OTHER. SOW NOT LESS THAN THE QUANTITY OF SEED SPECIFIED OR SCHEDULED BY THE SEED MANUFACTURER OR SUPPLIER FOR THE TYPE OF SEED BEING SOWN. RAKE SEED LIGHTLY INTO TOP 1/8" OF SOIL. ROLL LIGHTLY AND WATER WITH A FINE SPRAY. LAY TURF STARTING IN THE CENTER AND WORKING TOWARDS THE SIDES. TURF SHALL BE LAID PARALLEL TO THE LONGEST EDGE OF FINISHED AREA AND SHALL BE LAID WITH STAGGERED SEAMS. EDGE TURF AFTER INSTALLATION IS COMPLETED. WATER THOROUGHLY.

**CLEAN-UP AND PROTECTION:**  
DURING LANDSCAPE WORK, KEEP PAVEMENTS CLEAN AND WORK AREA IN AN ORDERLY CONDITION. PROTECT LANDSCAPE WORK AND MATERIALS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR OR REPLACE DAMAGED LANDSCAPE WORK AS DIRECTED.

**LANDSCAPING REQUIREMENTS:**

- (A) FRONT PROPERTY LINE**  
1 TREE / 10 LF OF LANDSCAPE AREA (142 / 10) = 14 TREES (14 PROVIDED)  
1 SHRUB / 10 LF OF LANDSCAPE AREA (142 / 10) = 14 SHRUBS (14 PROVIDED)
- (B) ALONG PROPERTY LINES NOT ABUTTING SINGLE FAMILY OR DUPLEX DWELLINGS (STREET)**  
1 TREE / 30 LF OF LANDSCAPE AREA (215 / 30) = 7 TREES, (7 PROVIDED)  
1 SHRUB / 10 LF OF LANDSCAPE AREA (215 / 10) = 22 SHRUBS, (22 PROVIDED)  
NOTE: LINEAR FOOTAGE ACCOUNTS FOR PRESERVATION OF THE EXISTING LIVE OAK AT THE SOUTHWEST CORNER OF THE SITE, WHICH CONTAINS ±30' OF CANOPY ALONG THE RIGHT OF WAY AND ±20' OF CANOPY ALONG THE WEST PROPERTY LINE.
- (B2) ALONG PROPERTY LINES NOT ABUTTING SINGLE FAMILY OR DUPLEX DWELLINGS**  
1 TREE / 30 LF OF LANDSCAPE AREA (273 / 30) = 9 TREES, (9 PROVIDED)  
1 SHRUB / 10 LF OF LANDSCAPE AREA (273 / 10) = 27 SHRUBS, (27 PROVIDED)
- (C) ALONG PROPERTY LINES ABUTTING SINGLE FAMILY OR DUPLEX DWELLINGS**  
6" WOOD OR VINYL FENCE 5' OFF PROPERTY LINE AND ORNAMENTAL LANDSCAPING

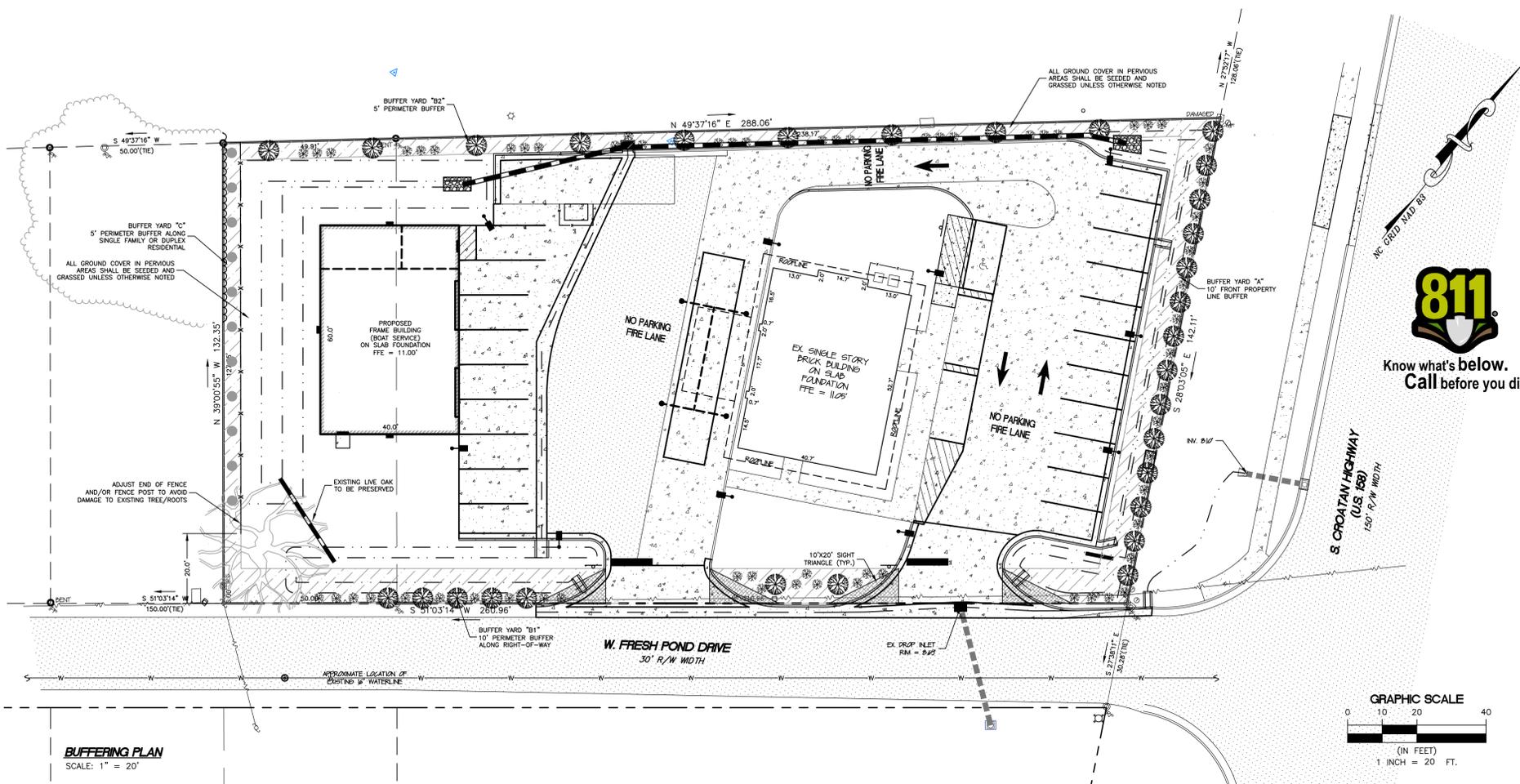
- TREES**  
(RECOMMENDED - JAPANESE BLACK PINE, RED BAY WILD OLIVE, CREPE MYRTLE)
- SHRUBS**  
(RECOMMENDED - JAPANESE PITTOSPORUM, NORTHERN BAYBERRY, YEDDO HAWTHORNE, OLEANDER, DWARF WITH ALDER)
- ORNAMENTAL GRASSES OR HERBACEOUS PLANTS (<30" TALL)**  
(RECOMMENDED - SEASIDE GOLDEN ROD, BLANKET FLOWER, CYPRESS LAVENDER COTTON, BUTTERFLY WEED, PURPLE CONEFLOWER)



**VEGETATION SIZE REQUIREMENTS**

	DIAMETER	HEIGHT
TREES		
DECIDUOUS	1.5"	5'
EVERGREEN	1.5"	3'
SHRUBS		
DECIDUOUS	N/A	15"
EVERGREEN	N/A	12"

(NOTE: SIZES ARE AT TIME OF PLANTING)



**Albemarle & Associates, LTD.**  
Engineering - Environmental - Land Planning

Professional Engineer Seal for Michael J. Womack, State of North Carolina, License No. 28672.

NO.	DATE	DESCRIPTION	BY
1	08/20/2023	PRELIM COMMENTS	BYA

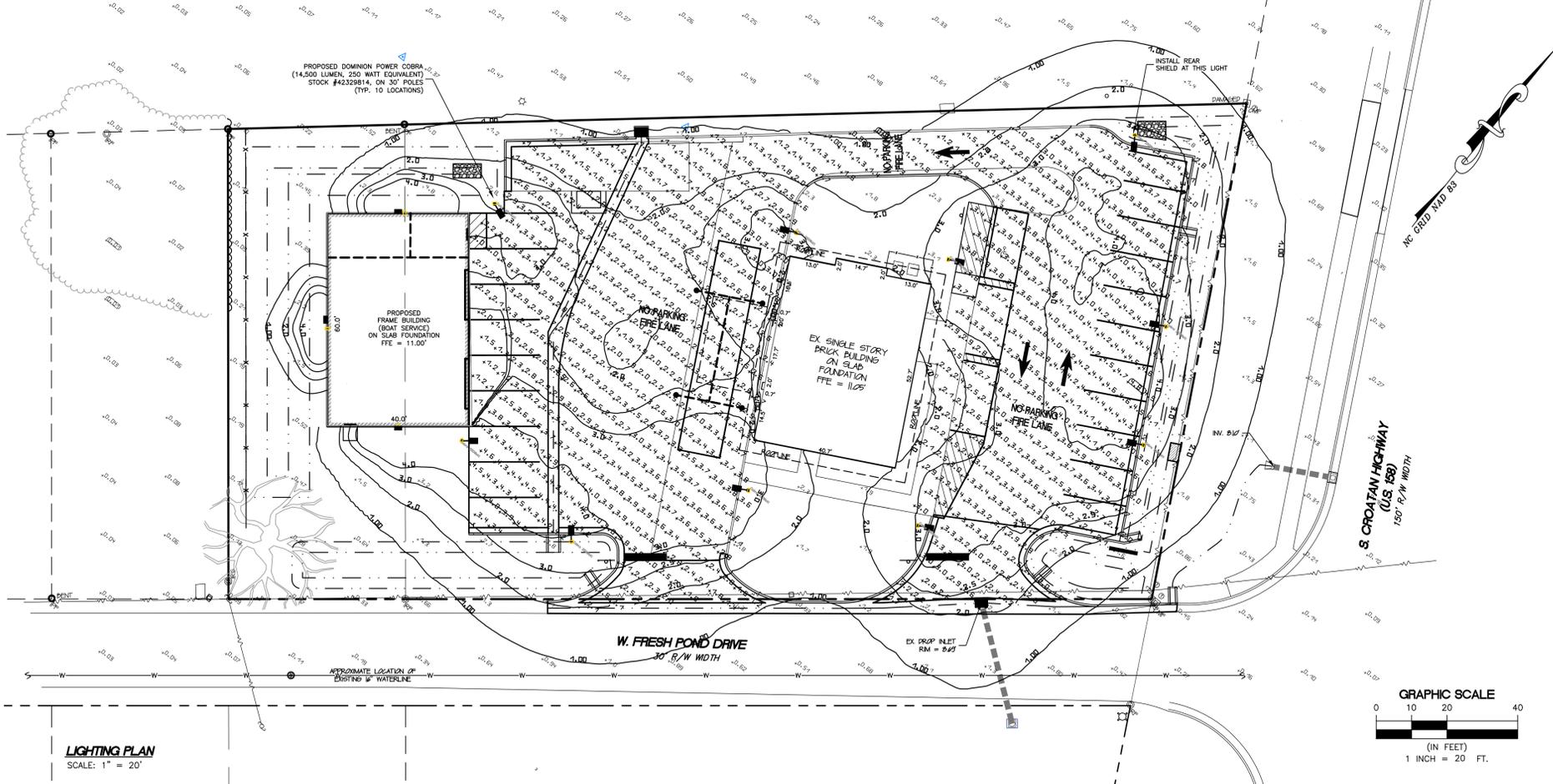
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**Cobra**  
The Cobra style fixture is an Enclosed Flat Lens luminaire that provides a full cut-off distribution for lighting residential roadways and smaller parking areas.

Comparable HID Wattage	Finish Color	Initial Lamp Lumens	Lighting Pattern	Correlated Color Temperature (CCT)	Input Wattage	Input Amps	Billing Tier	EPA	S-U-G Rating	Recommended Mounting Height (ft.)	Luminaire Stock #	WMIS CU Code
250	Gray	14500	Type III	3000K	108	1.05	4	1.00	1, 3-0-3	30-35	42328614	LED.C001315600K

- LIGHTING LEGEND**
- 14,500 LUMEN COBRA CUT-OFF MOUNTED ON 30' POLES
  - 3,137 LUMEN COOPER LIGHTING CUT-OFF WALL PACK MOUNTED AT 12' HEIGHT



Luminaire list (Site 1)							
Index	Article name	Item number	Fitting	Luminous flux	Light loss factor	Connected load	
	Cobra 250Watt	FORMED PLASTIC BMC HOUSING, CLEAR ACRYLIC LENS, WHITE TINT R REFLECTOR (R3WL-A-HT-3MC-1-4L-30K7-UL-GY-N)	R3WL3000SP8	1x 66 white LEDs	14127 lm	0.80	136 W
							10

Luminaire list (Building 1)						
Index	Article name	Item number	Fitting	Luminous flux	Light loss factor	Connected load
1	STREETWORKS WALPAK CUTOFF BLEED 4000K	WKP6BLEDEDFC-7040	1x Eaton LED 4000K	3137 lm	0.80	46.7 W
						3

#	Name	Parameter	Min	Max	Average	Mean/Min	Max/Min
1	Parking Lot	Perpendicular illuminance	0.91 fc	4.76 fc	2.96 fc	3.27	5.26

**BUFFERING AND LIGHTING PLAN**  
**OBX LANDCO HOLDINGS, LLC**  
**1906 S CROATAN HIGHWAY**  
KILL DEVIL HILLS, DARE COUNTY, NORTH CAROLINA

DATE: 06/20/2023  
SURVEYED: SEE NOTES  
DESIGNED: MJM  
DRAWN: FCA  
CHECKED: MJM  
FILE: 08/709B

SCALE: 1" = 20'

**C202**

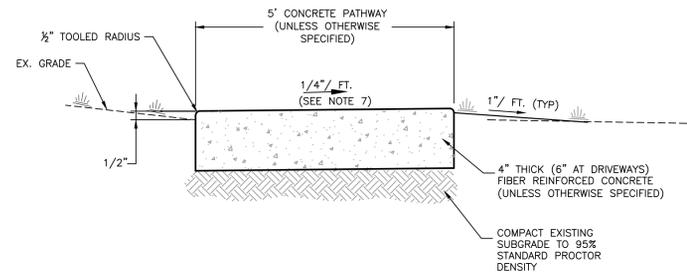
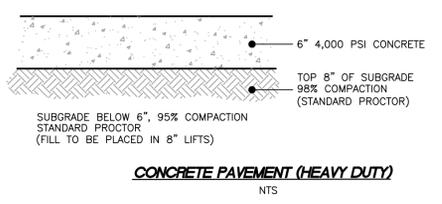
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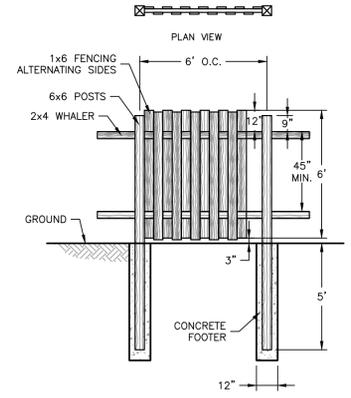
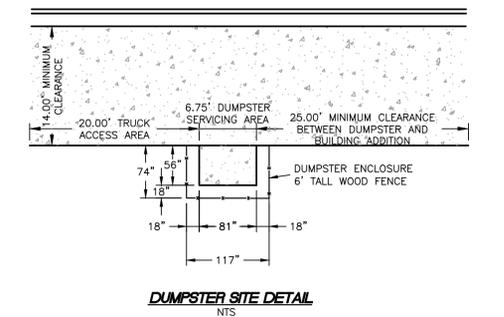
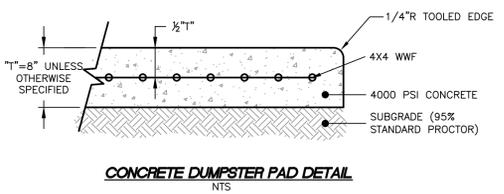
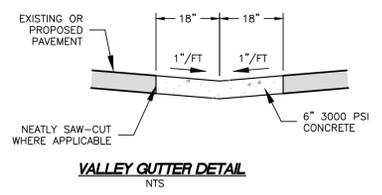
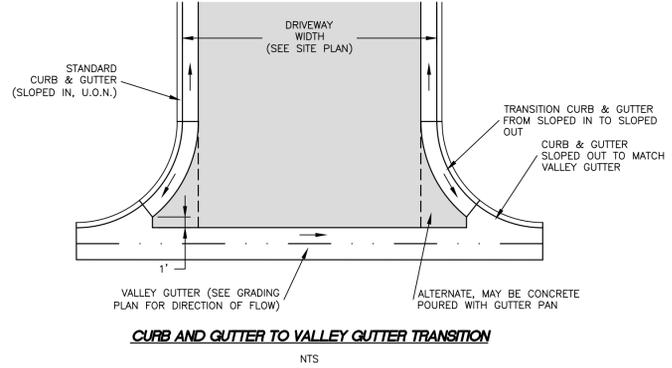
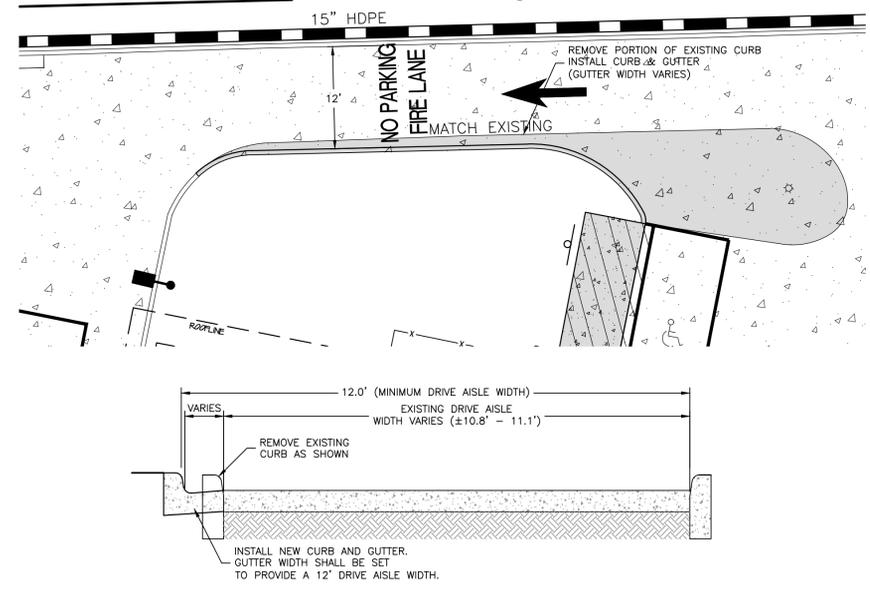
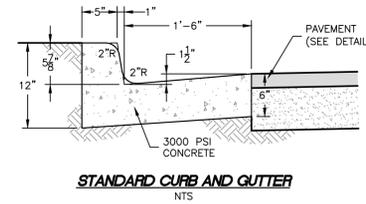


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Call before you dig.

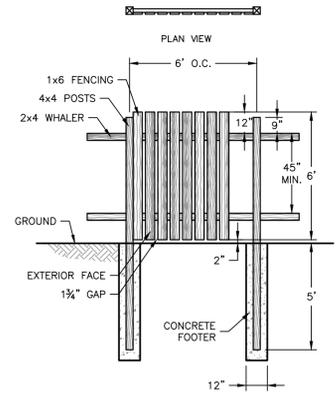
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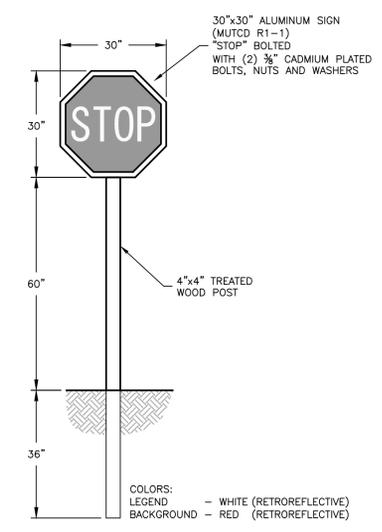
- NOTES:**
1. ALL CONCRETE SHALL BE 3,000 PSI, 4" THICK, UNLESS NOTED OTHERWISE. DRIVE APRONS AND DRIVEWAYS AT DRIVEWAYS SHALL BE 6" THICK CONCRETE SHALL BE PREPARED IN ACCORDANCE WITH ACI 211.1, ACI 301 AND ASTM C94.
  2. CONTROL JOINTS SHALL BE PLACED PERPENDICULAR TO THE EDGE OF PAVEMENT AT 5' SPACING. CONTROL JOINTS SHALL BE SAWED.
  3. EXPANSION JOINTS SHALL BE PLACED AT THE END OF EACH SECTION OF CONSTRUCTION INCLUDING THE LOCATIONS THAT PAVEMENT ABUTS EXISTING PAVEMENT AND AT 30' INTERVALS. EXPANSION JOINT MATERIAL SHALL BE 1/2" THICK AND CONFORM TO ASTM D 1751.
  4. LONGITUDINAL SLOPE SHALL NOT EXCEED 5%.
  5. A BROOMED SURFACE FINISH SHALL BE PROVIDED UNLESS OTHERWISE APPROVED BY THE OWNER.
  6. TESTING SHALL BE PROVIDED BY THE CONTRACTOR.
  7. REFER TO PLANS FOR SLOPE DIRECTION.



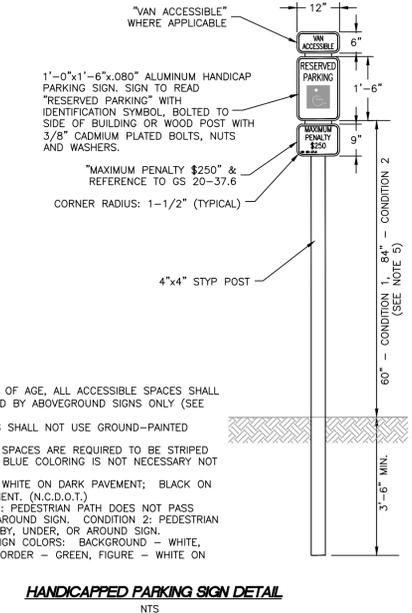
- NOTES:**
1. ALL FENCE LUMBER TO BE CCA TREATED (APPROVED FOR GROUND CONTACT)
  2. ALL FASTENERS, HINGES, LATCHES OR OTHER HARDWARE TO BE HOT DIPPED GALVANIZED.
  3. 2" x 4" DIAGONAL BRACING TO BE PROVIDED AT FENCE CORNERS.



- NOTES:**
1. ALL FENCE LUMBER TO BE CCA TREATED (APPROVED FOR GROUND CONTACT)
  2. ALL FASTENERS, HINGES, LATCHES OR OTHER HARDWARE TO BE HOT DIPPED GALVANIZED.
  3. 2" x 4" DIAGONAL BRACING TO BE PROVIDED AT FENCE CORNERS.



- NOTES:**
1. REGARDLESS OF AGE, ALL ACCESSIBLE SPACES SHALL BE IDENTIFIED BY ABOVEGROUND SIGNS ONLY (SEE N.C.G.S.)
  2. NEW SPACES SHALL NOT USE GROUND-PAINTED SYMBOLS.
  3. ACCESSIBLE SPACES ARE REQUIRED TO BE STRIPED OFF ONLY; BLUE COLORING IS NOT NECESSARY NOT REQUIRED.
  4. STRIPING IS WHITE ON DARK PAVEMENT; BLACK ON LIGHT PAVEMENT. (N.C.D.O.T.)
  5. CONDITION 1: PEDESTRIAN PATH DOES NOT PASS UNDER, OR AROUND SIGN. CONDITION 2: PEDESTRIAN PATH GOES BY, UNDER, OR AROUND SIGN.
  6. STANDARD SIGN COLORS: BACKGROUND - WHITE, LETTERING/BORDER - GREEN, FIGURE - WHITE ON BLUE FIELD.



REVISIONS	
NO.	DATE
1	07/26/2023

**SITE PLAN DETAILS**  
**OBX LANDCO HOLDINGS, LLC**  
**1906 S CROATAN HIGHWAY**  
KILL DEVIL HILLS    ATLANTIC TOWNSHIP    DARE COUNTY    NORTH CAROLINA

DATE:	06.20.2023
SURVEYED:	SEE NOTES
DESIGNED:	MJM
DRAWN:	RCA
CHECKED:	MJM
FILE:	08709B

SCALE:  
**AS SHOWN**

**C203**

PROJ. NO. 08709B

**GRADING NOTES:**

1. ALL CONSTRUCTION TRAFFIC SHALL UTILIZE THE CONSTRUCTION ENTRANCE AS DESIGNATED.
2. PRIOR TO COMMENCEMENT OF ANY LAND DISTURBING ACTIVITIES, ALL EROSION AND SEDIMENTATION CONTROL MEASURES IDENTIFIED ON THIS PLAN SHALL BE INSTALLED IN ACCORDANCE WITH THE EROSION CONTROL PLAN.
3. THE CONTRACTOR SHALL ENSURE THAT AREAS OUTSIDE OF THE LIMITS OF LAND DISTURBANCE AS WELL AS TREES SPECIFICALLY NOTED FOR PROTECTION ARE NOT ADVERSELY IMPACTED BY ANY CLEARING ACTIVITIES.
4. PRIOR TO FILLING THE SITE, THE CONTRACTOR SHALL STRIP AND STOCKPILE TOPSOIL IN ACCORDANCE WITH GEOTECHNICAL REPORTS AT THE LOCATION INDICATED. AREAS WHICH ARE TO BE FILLED SHALL BE RAISED IN COMPACTED SEQUENTIAL LIFTS NOT TO EXCEED 8 INCHES IN DEPTH. FILL MATERIAL SHALL BE CLEAN, WELL GRADED SAND. FILL LOCATED BENEATH PAVEMENT SHALL BE COMPACTED PER GEOTECHNICAL REPORT. TOPSOIL STOCKPILED CAN BE USED ON SITE FOR RESPREAD UPON COMPLETION OF FILL AND USED WITHIN STORMWATER TREATMENT AREA.
5. LIMITS OF SLOPES AND GRADING SHALL BE IN ACCORDANCE WITH THE LIMITS SHOWN HEREON.
6. EXISTING TOPOGRAPHY HAS BEEN PROVIDED BY SEALEVEL SURVEYING AND IS BASED UPON NAVD 1988.

**DRAINAGE NOTES:**

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT NC ONE CALL (811) TO LOCATE UNDERGROUND UTILITIES.
2. ALL STORM SEWERS SHALL BE PLACED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. STORM SEWERS SHALL BE SMOOTH INTERIOR, DOUBLE WALLED HDPE WITH GASKETED CONNECTIONS UNLESS OTHERWISE NOTED. RCP SHALL BE REINFORCED CONCRETE PIPE WITH GASKETS. CMP SHALL BE CORRUGATED ALUMINUM PIPE.
3. DROP INLETS AND DRAINAGE STRUCTURES SHALL BE CONSTRUCTED PER NCDOT 840.
4. ALL OPEN PIPE ENDS SHALL BE FITTED WITH A FLARED END SECTION OF THE SAME MATERIAL AND SIZE. END SECTIONS SHALL BE PROVIDED WITH TEN CUBIC FEET OF CLASS "B" RIP-RAP, PLACED TWELVE INCHES IN DEPTH. TOP OF RIP RAP SHALL MATCH THE F.E.S. INVERT.
5. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL SUPPLY A CERTIFIED AS-BUILT SURVEY. THE SURVEY SHALL INCLUDE ALL SITE IMPROVEMENTS AND STORMWATER MANAGEMENT FEATURES WITH ELEVATIONS.

**STORMWATER MANAGEMENT MAINTENANCE NOTES:**

1. UPON ACCEPTANCE BY THE OWNER, IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE NECESSARY MAINTENANCE SO THAT THE STORMWATER SYSTEM WILL FUNCTION AS INTENDED.
2. AFTER EVERY RUNOFF PRODUCING RAINFALL EVENT AND AT LEAST MONTHLY, INSPECT THE STORMWATER MANAGEMENT POND FOR EROSION, TRASH ACCUMULATION, VEGETATIVE COVER, AND GENERAL CONDITION. ALSO INSPECT THE INFLOW STRUCTURES, OUTLET STRUCTURE, RIP-RAP AND BASIN FOR OBSTRUCTION OR DETERIORATION. REMOVE ANY BLOCKAGE AND REPAIR THE STRUCTURE TO APPROVED DESIGN SPECIFICATIONS.
3. REPAIR ERODED AREAS IMMEDIATELY, RE-SEED AS NECESSARY TO MAINTAIN ADEQUATE VEGETATIVE COVER, REMOVE TRASH AS NEEDED.
4. CHECK FOR SEDIMENTATION WITHIN THE BASIN ANNUALLY. IF DEPOSITION OF MATERIAL IS OBSERVED WITHIN THE SYSTEM, REESTABLISH DESIGN GRADES AS INDICATED ON APPROVED SITE PLAN. INSPECT BASIN WALLS AND STRUCTURES TO ENSURE THAT THEY ARE MAINTAINED AT THEIR DESIGN ELEVATIONS. IF EROSION OCCURS, REESTABLISH DESIGN ELEVATIONS AS INDICATED ON APPROVED SITE PLAN.
5. REFER TO STORMWATER MANAGEMENT INFILTRATION BASIN OPERATION AND MAINTENANCE AGREEMENT FOR REQUIRED MAINTENANCE OF THE INFILTRATION BASIN.

**DRAINAGE STRUCTURE NOTES:**

**1. GENERAL**

- A. DRAINAGE STRUCTURES INVERTS SHALL BE CONSTRUCTED WITH INVERT AND RIM ELEVATIONS AS SHOWN ON PLANS. THE AREA SURROUNDING THE DRAINAGE STRUCTURE SHALL BE GRADED TO DIRECT RUNOFF INTO THE STRUCTURE UNLESS OTHERWISE NOTED (SUCH AS RETENTION OVERFLOW).
- B. REFER TO PLANS FOR PIPE ORIENTATION AND CONNECTING PIPE SIZES AND COORDINATE DRAINAGE STRUCTURE DIMENSIONS ACCORDINGLY.
- C. ALL DRAINAGE STRUCTURES OVER 3' - 6" IN DEPTH SHALL BE FURNISHED WITH POLYPROPYLENE ENCASED STEPS CONFORMING TO NCDOT STD. DWG. 840.66.
- D. ANTI-FLOATATION RINGS SHALL BE PROVIDED ON DRAINAGE STRUCTURES WHERE THE BOTTOM OF THE STRUCTURE IS INSTALLED BELOW THE GROUND WATER TABLE.
- E. WAFFLE BOXES SHALL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 10" IN DEPTH.
- F. DRAINAGE STRUCTURES OTHER THAN CLOSED TOP MANHOLES AND JUNCTION BOXES SHALL BE PROTECTED FROM SEDIMENTATION USING DROP INLET PROTECTION UNTIL THE CONTRIBUTING DRAINAGE AREA IS PERMANENTLY STABILIZED.

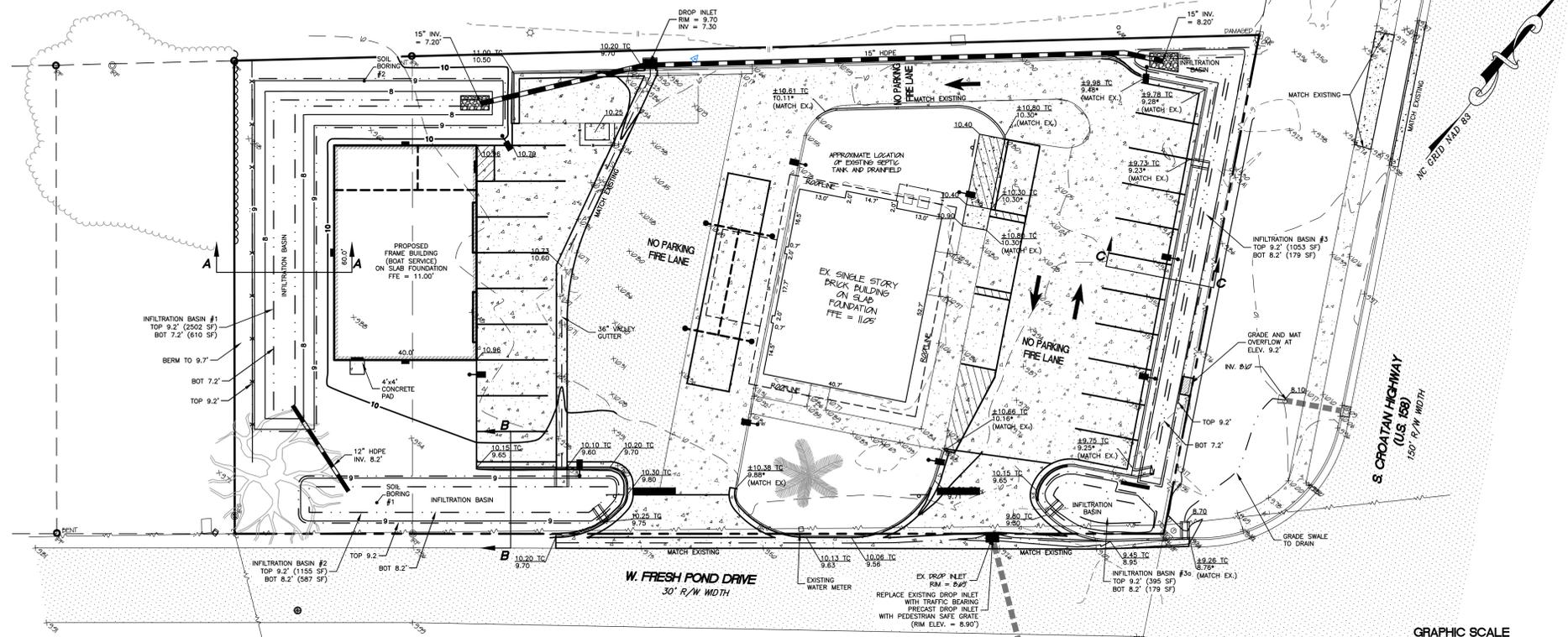
**2. CURB INLETS**

- A. CATCH BASINS SHALL CONFORM TO NCDOT STD. DWGS. AS FOLLOWS:  
 BRICK NCDOT 840.01.  
 CAST IN PLACE CONCRETE NCDOT 840.02.  
 PRECAST CONCRETE NCDOT 840.46

**3. DROP INLETS**

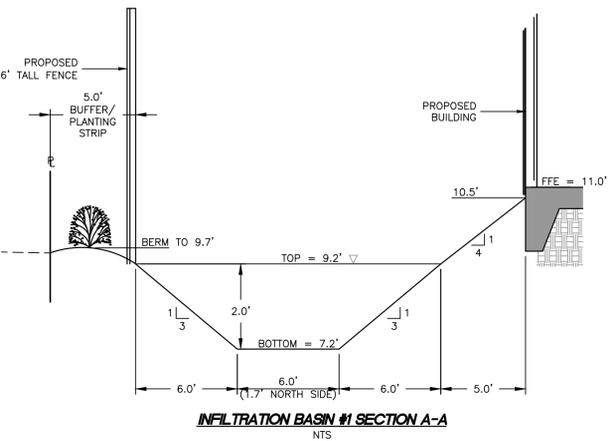
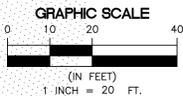
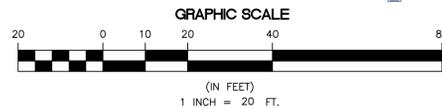
- A. CATCH BASINS SHALL CONFORM TO NCDOT STD. DWGS. AS FOLLOWS:  
 BRICK (NON-TRAFFIC BEARING) NCDOT 840.15  
 BRICK (TRAFFIC BEARING) NCDOT 840.35  
 CAST IN PLACE CONCRETE NCDOT 840.14  
 PRECAST CONCRETE (NON-TRAFFIC BEARING) NCDOT 840.45  
 PRECAST CONCRETE (TRAFFIC BEARING) NCDOT 840.46
- B. FRAME AND GRATE SHALL CONFORM TO NCDOT STD. DWG. 840.16

**PRELIMINARY ONLY  
NOT FOR  
CONSTRUCTION**

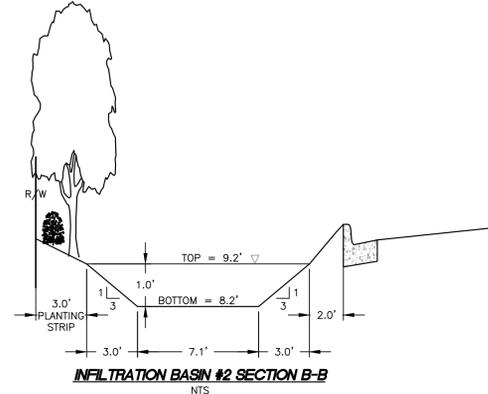


**GRADING AND DRAINAGE PLAN**

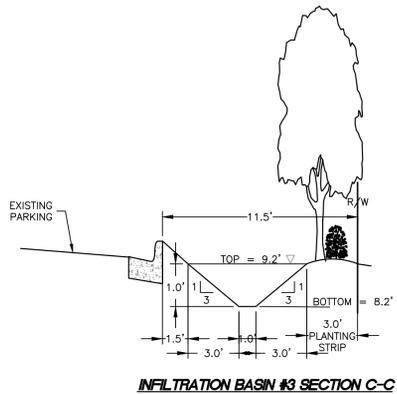
SCALE: 1" = 20'



**INFILTRATION BASIN #1 SECTION A-A**  
NTS

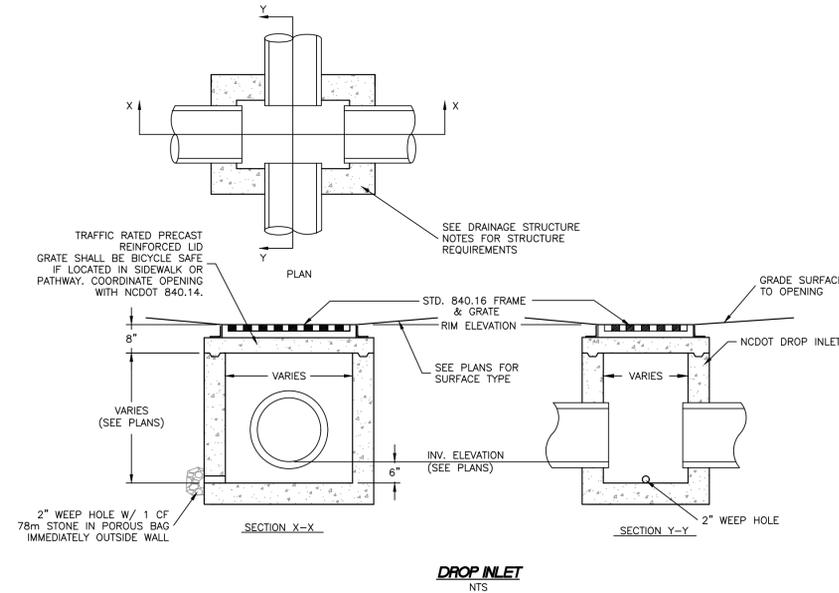


**INFILTRATION BASIN #2 SECTION B-B**  
NTS



**INFILTRATION BASIN #3 SECTION C-C**  
NTS

- NOTES:**
1. BASIN GRADING SHALL BE PERFORMED AND PROTECTED, LIMITING COMPACTION FROM CONSTRUCTION EQUIPMENT AND OTHER SOURCES AS MUCH AS POSSIBLE.
  2. UPON COMPLETION OF BASIN GRADING, THE LIMITS SHALL BE PROTECTED FROM RUNOFF OF SILT AND OTHER MATERIAL.
  3. IN THE EVENT RUNOFF TO BASIN IS NOT PREVENTED, THE ENTIRE BASIN SHALL BE TILLED TO RESTORE INFILTRATIVE CAPABILITIES.
  4. STABILIZATION OF BASIN SHALL BE PERFORMED AS SOON AS POSSIBLE. IF BASIN BECOMES FLOODED PRIOR TO ESTABLISHMENT OF GRASS, IT SHALL BE RE-SEEDING UNTIL GRASS IS ESTABLISHED.
  5. DO NOT PLACE SOD ALONG BOTTOM OF BASIN UNLESS APPROVED BY THE ENGINEER.



**DROP INLET**  
NTS



**Albemarle & Associates, Ltd.**  
Engineering - Environmental - Land Planning

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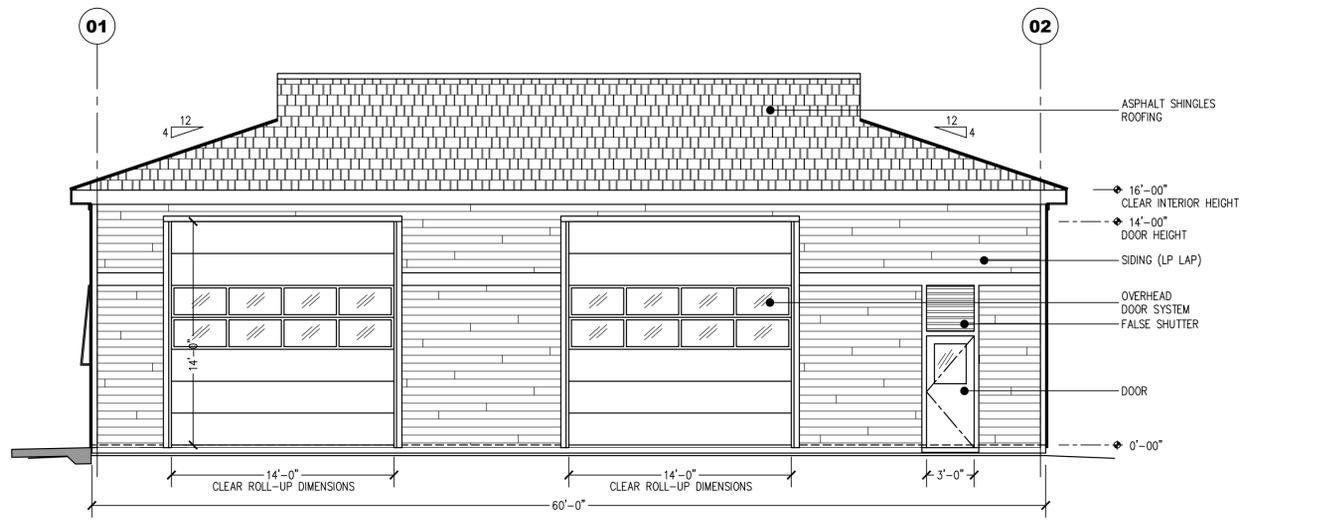


NO.	DATE	DESCRIPTION	BY	REA
1	07/28/2023	PER THE COMMENTS		

GRADING AND DRAINAGE PLAN  
OBX LANDCO HOLDINGS, LLC  
1906 S CROATAN HIGHWAY  
KILL DEVIL HILLS  
ATLANTIC TOWNSHIP  
DARE COUNTY  
NORTH CAROLINA

DATE: 06.20.2023  
SURVEYED: SEE NOTES  
DESIGNED: MJM  
DRAWN: JCA  
CHECKED: MJM  
FILE: 08709B

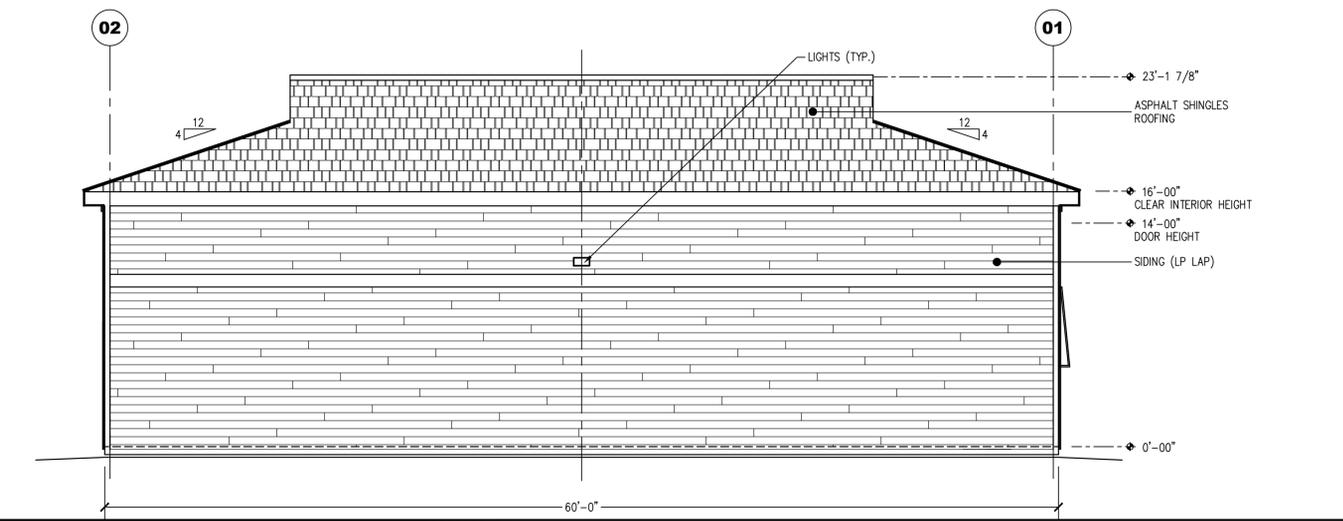
SCALE:  
1" = 20'  
**C301**  
PROJ. NO. 08709B



**FRONT ELEVATION**

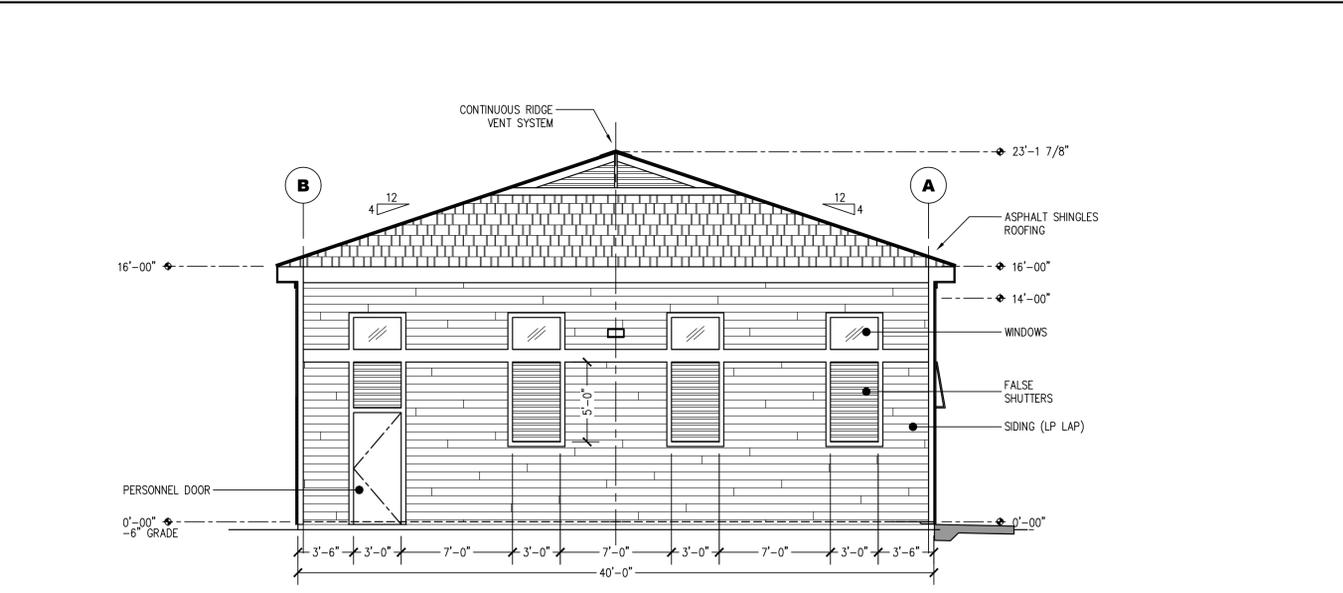
SCALE: 3/16" = 1'

FRONT FACADE AREA = 960 SF  
 GLAZING AND GLAZING FACADE REQUIRED = 96 SF  
 GLAZING AND GLAZING PROVIDED = 126 SF



**REAR ELEVATION**

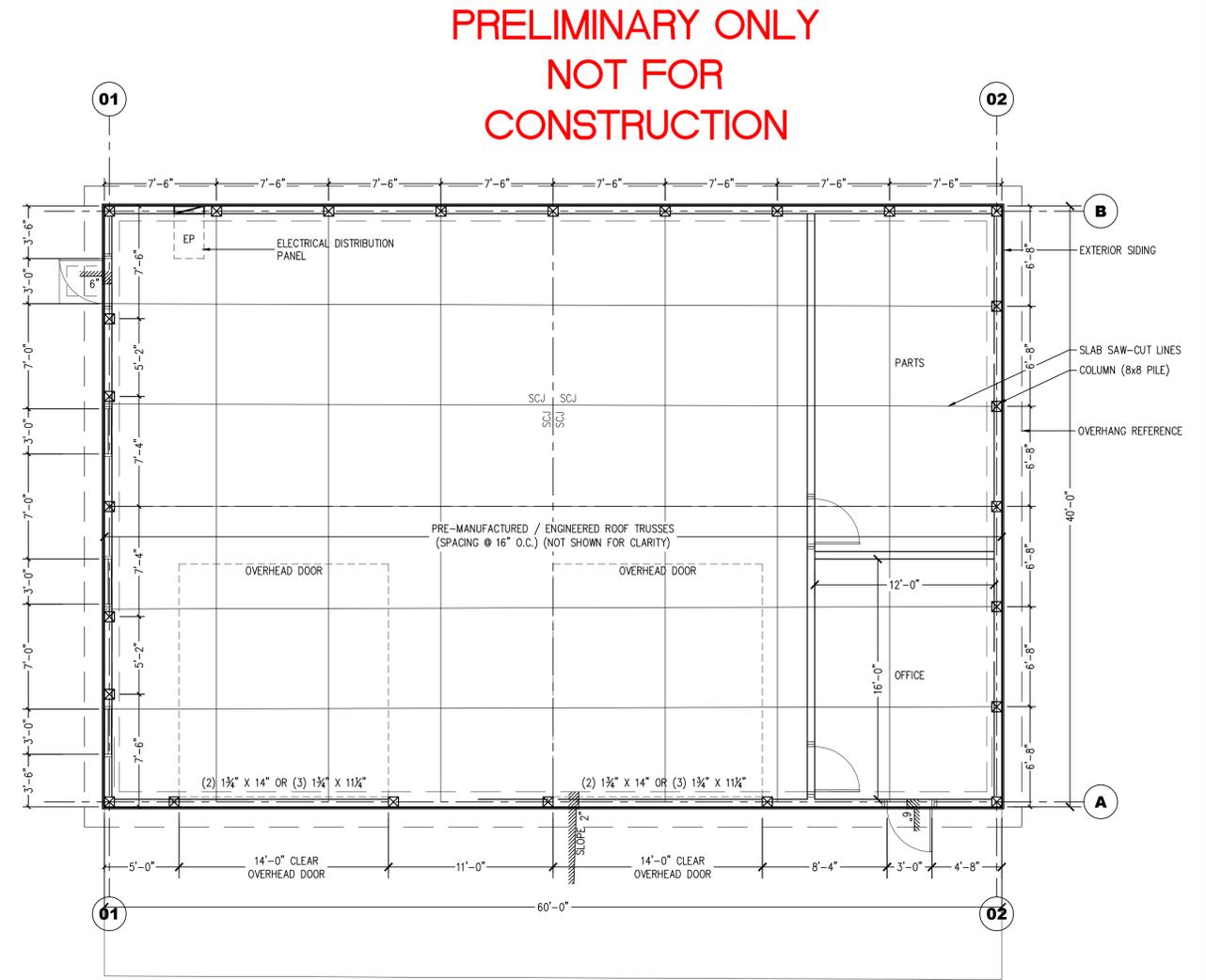
SCALE: 3/16" = 1'



**LEFT ELEVATION**

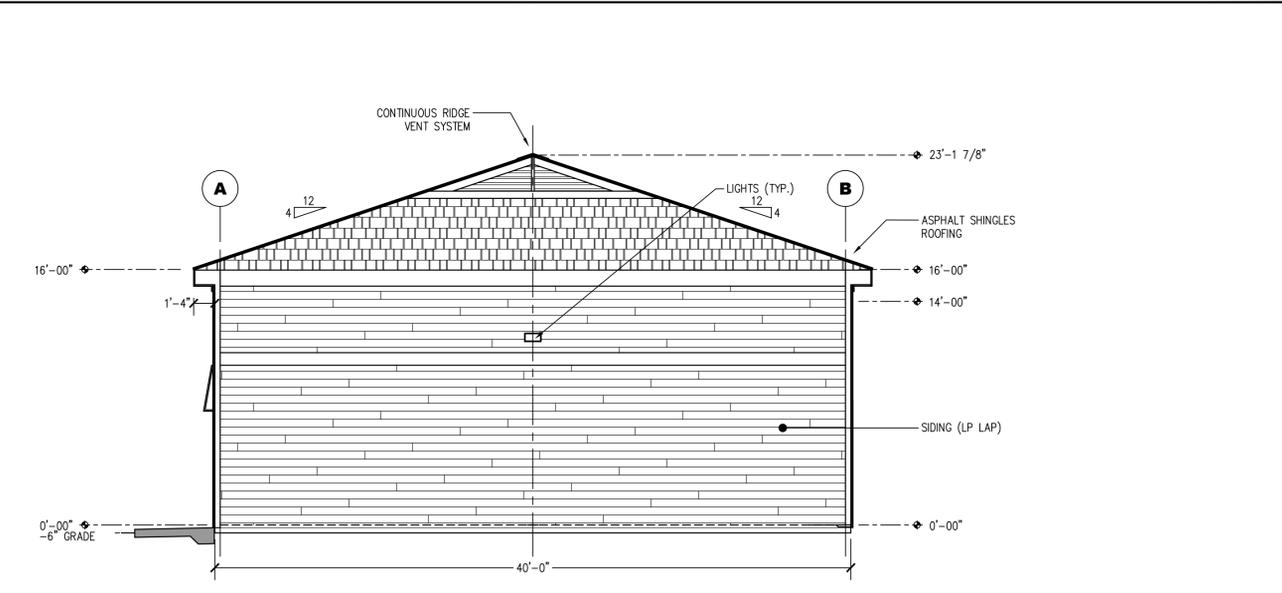
SCALE: 3/16" = 1'

SIDE FACADE AREA = 640 SF  
 GLAZING AND GLAZING FACADE REQUIRED = 64 SF  
 GLAZING AND GLAZING PROVIDED = 78 SF



**FLOOR PLAN**

SCALE: 3/16" = 1'



**RIGHT ELEVATION**

SCALE: 3/16" = 1'

**PRELIMINARY ONLY  
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Albemarle & Associates, Ltd.  
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REVISIONS	
NO.	DESCRIPTION

**BUILDING ELEVATIONS**  
**OBX LANDCO HOLDINGS, LLC**  
**1906 S CROATAN HIGHWAY**  
 KILL DEVIL HILLS    ATLANTIC TOWNSHIP    DARE COUNTY    NORTH CAROLINA

DATE:	07.05.2023
SURVEYED:	SEE NOTES
DESIGNED:	JLO
DRAWN:	KCA
CHECKED:	JLO
FILE:	08709B

SCALE:  
**AS SHOWN**

**S11**  
 PROJ. NO. 08709B

K:\Active Projects\08709 - Lots 37 & 38-101 Lake Drive Dev. Sec 2\08709C - Bldg Plans\Cadd Files\08709C - Building.dwg, 7/5/2023, 9:01:00 AM, 1:1, ALBEMARLE & ASSOCIATES, LTD., C-1027