

I. NARRATIVE:

DUEY MARINA LLC, INTENDS TO FURTHER DEVELOP THE 2.21 AC. PARCEL AT 181 COINJOCK CANAL RD INTO A FISHING LODGE. THE PARCEL CURRENTLY HAS A 5-BEDROOM HISTORIC HOME, FORMER MARINE, A GARE BUILDING, A GARAGE AND SEVERAL OUTBUILDINGS. NEW DEVELOPMENT WILL INCLUDE THE REMOVAL OF 3 OUTBUILDINGS, WIDENING OF THE EXISTING DRIVEWAY, CONSTRUCTION OF AN ACCESS DRIVE, FOUR 1-BEDROOM CABINS WITH 2 SEPTIC SYSTEMS, PARKING AREAS (#57 STONE OVER GEOTEXTILE), CANAL IMPROVEMENTS INCLUDING BULKHEAD AND BOARDWALK REPLACEMENT, 8 BOAT SLIPS AND A BOAT RAMP, A STORMWATER MANAGEMENT RAINGARDEN, SITE LIGHTING AND LANDSCAPING. CONSTRUCTION OF THE BULKHEAD REPLACEMENT IS PENDING AND SITE WORK IS ANTICIPATED TO BEGIN IN THE FALL OF 2026. APPROXIMATELY 1.18 ACRES OF THE SITE IS TO BE DISTURBED.

THE SITE IS LEVEL AND GRASSED WITH SANDY LOAM SOILS. THERE IS A STAND OF EXISTING PINE TREES WITH UNDERSTORY VEGETATION ALONG SOUTH SIDE OF THE SITE. MUCH OF WHICH WILL BE CLEARED AND REPLACED WITH REQUIRED BUFFER PLANTINGS.

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 CURRITUCK COUNTY:

AUGUSTA FINE SANDY LOAM (AT)
NEWHAM FINE SAND (NEC)

III. CONSTRUCTION SEQUENCE:

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

CABIN CONSTRUCTION:

- UTILIZE EXISTING GRAVEL DRIVEWAY FOR ALL CONSTRUCTION TRAFFIC (MAINTAIN 6" DEPTH THROUGHOUT CONSTRUCTION).
- INSTALL WOOD POSTS TO DELINEATE EXISTING SEPTIC SYSTEM AND MAINTAIN THROUGHOUT CONSTRUCTION. NO CONSTRUCTION TRAFFIC OF MATERIALS ARE PERMITTED ON THE EXISTING SEPTIC SYSTEM.
- INSTALL SILT FENCE AND OUTLETS AS SHOWN ON THE PLAN.
- PLACE AND GRADE FILL MATERIALS FOR CABINS AND ROADWAY AND ROUGH GRADE RAINGARDEN.
- CONSTRUCT CABINS.
- PLACE AND GRADE FILL MATERIALS FOR CABIN SEPTIC SYSTEMS. SEE SEPTIC SYSTEM PLANS FOR REQUIREMENTS TO MIX EXISTING SUBGRADE WITH CLEAN SAND.
- CONSTRUCT NEW DRIVEWAYS AND PARKING.
- INSTALL DRAINAGE PIPING AND OUTLET STRUCTURE.
- INSTALL RAINGARDEN LANDSCAPING AND FINE GRADE RAINGARDEN.
- FERTILIZE AND WATER DISTURBED AREAS UNTIL PERMANENT VEGETATION IS FIRMLY ESTABLISHED AND STABILIZATION IS ACHIEVED.

WATERFRONT IMPROVEMENTS:

- REVIEW CMAA MAJOR PERMIT FOR INSTALLATION REQUIREMENTS.
- INSTALL ENVIRONMENTAL PROTECTION FEATURES (SUCH AS TURBIDITY CURTAINS) AS NOTED ON THE CMAA PERMIT.
- EXCAVATE AREA FOR BOAT SLIPS AND INSTALL BULKHEAD.
- INSTALL COFFERDAM, EXCAVATE AREA FOR BOAT RAMP AND INSTALL BULKHEAD.
- BACKFILL BULKHEADS AND ESTABLISH AND SEED OR HYDROSEED.
- CONSTRUCT BOAT RAMP AND ALLOW TO CURE.
- ONCE BOAT RAMP HAS PROPERLY CURED, REMOVE COFFERDAM.
- INSTALL NEW WOOD BOARDWALK AND BOAT SLIP OUTBOARD PILES.

IV. SEDIMENTATION AND EROSION CONTROL NOTES:

- PRECONSTRUCTION CONFERENCE:
PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL WALK THE SITE WITH THE OWNER'S REPRESENTATIVE AND A REPRESENTATIVE OF THE MUNICIPALITY (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.
- 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.
- UTILITIES:
PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL HAVE THE APPROPRIATE UNDERGROUND UTILITIES LOCATED. CONTACT 811 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.
- ACCESS TO SITE:
ALL CONSTRUCTION TRAFFIC SHALL UTILIZE THE CONSTRUCTION ENTRANCE AS DESIGNATED ON THIS PLAN.
- 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.
- 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.
- 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.
- 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.
- 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.
- EXCAVATION AND EMBANKMENT:
ANY OFF-SITE MATERIAL BROUGHT ONTO TO 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.
- EXISTING INFORMATION:
THE EXISTING SURVEY AND SITE TOPOGRAPHIC INFORMATION SHOWN IS BASED UPON SURVEY INFORMATION PROVIDED BY SEALEVEL AS SURVEYED ON SEPTEMBER 3 & 4, 2025.

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.

CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CAREFULLY REMOVE ALL ITEMS SHOWN TO BE RELOCATED. PRIOR TO REMOVAL, ANY CONDITIONS THAT PREVENT SUCH REMOVAL OR EXISTING DAMAGE TO THE ITEMS SHALL BE REPORTED TO THE OWNER IMMEDIATELY. CONTRACTOR WILL BE RESPONSIBLE FOR ITEMS DAMAGED DURING THE PROJECT.

WARNING:

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

SEE SHEET C202 FOR ADDITIONAL DETAILS

FINAL DRAWING
NOT FOR
CONSTRUCTION

SEEDING SCHEDULE

APRIL 1 - MAY 15 PERMANENT SEEDING

SPECIES	RATE
K-31 FESCUE	3 LB/1000 SF
COMMON BERMUDAGRASS	1 LB/1000 SF
WINTER RYE GRAIN	3 LB/1000 SF

NOTE: DELETE RYE GRAIN IF OVERSEEDING ESTABLISHED RYE OR FESCUE.
DELETE FESCUE IF OVERSEEDING ESTABLISHED FESCUE.

MAY 15 - JULY 15 PERMANENT SEEDING

SPECIES	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

SPECIES	RATE
K-31 FESCUE	3 LB/1000 SF
WINTER RYE GRAIN	5 LB/1000 SF

SOIL AMENDMENTS

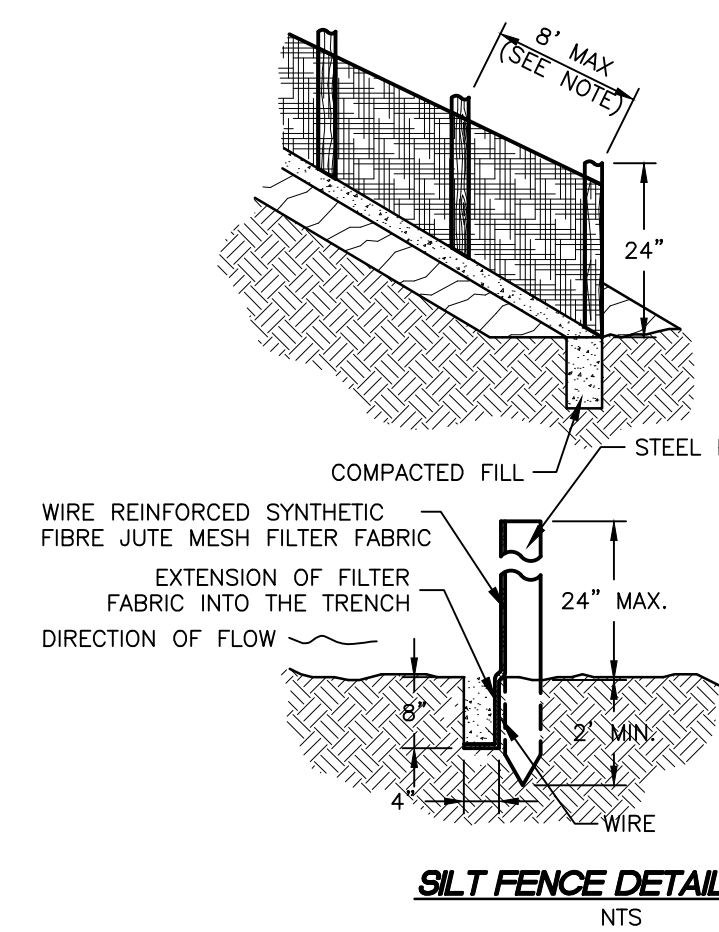
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 500 LB PER ACRE OF 10-10-10 FERTILIZER.

MULCH

USE JUTE, EXCELSIOR 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.

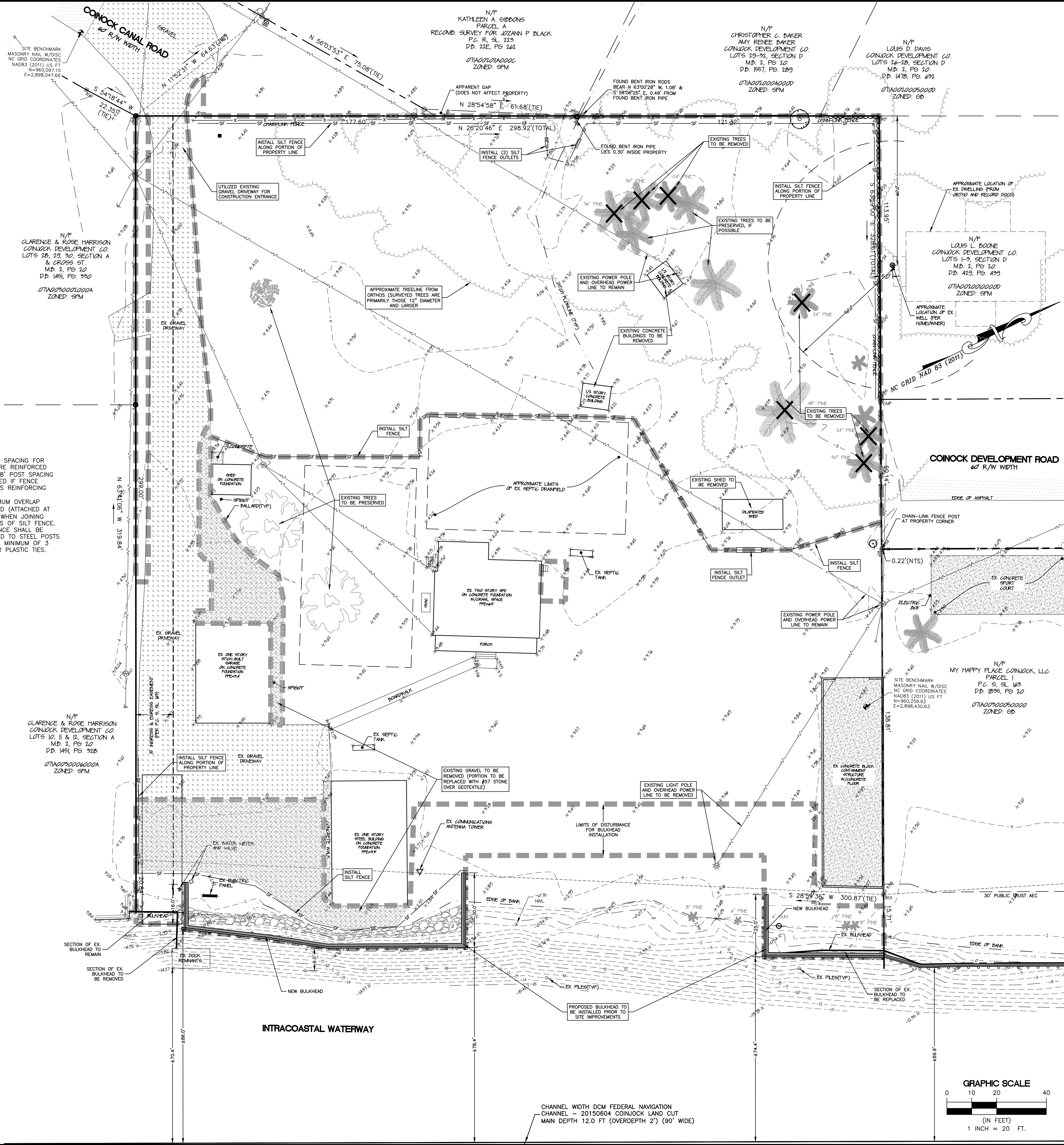


LEGEND

•	BENCHMARK
•	CALCULATED POINT
■	CONCRETE MONUMENT FOUND
○	IRON PIPE FOUND
○	IRON ROD FOUND
○	IRON ROD SET
■	R/W MONUMENT FOUND
---	PROPERTY BOUNDARY
---	RIGHT OF WAY
---	ADJACENT PROPERTY LINES
---	EASEMENT
---	EXISTING POWER POLE
---	EXISTING GUY WIRE
---	OVERHEAD ELECTRIC
○	EXISTING TELEPHONE PEDESTAL
○	EXISTING CABLE TV PEDESTAL
○	EXISTING LIGHT POLE
---	EXISTING FENCE
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	EXISTING SPOT ELEVATIONS
---	EXISTING CONTOURS
---	EXISTING DITCH/SWALE
---	EXISTING FIRE HYDRANT
---	EXISTING WATER METER
---	EXISTING WATER VALVE
○	EXISTING WELL
---	EXISTING WATERLINE
---	EXISTING CONCRETE
---	EXISTING GRAVEL
---	SILT FENCE
---	LIMITS OF CONSTRUCTION

- NOTES:
- 6" POST SPACING FOR NON-WIRE REINFORCED FENCE. 8" POST SPACING PERMITTED IF FENCE CONTAINS REINFORCING WIRE.
 - 4" MINIMUM OVERLAP REQUIRED (ATTACHED AT POSTS) WHEN JOINING SECTIONS OF SILT FENCE. SILT FENCE SHALL BE ATTACHED TO STEEL POSTS USING A MINIMUM OF 3 WIRE OR PLASTIC TIES.

N/F
CLARENCE & ROSE HARRISON
COINJOCK DEVELOPMENT CO.
LOTS 10, 11 & 12, SECTION A
M.D. 2, PG. 20
D.D. 1491, PG. 318
DTA0000000000
ZONED: SFM



Albemarle
& ASSOCIATES, LTD.

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NORTH CAROLINA
PROFESSIONAL
SEAL
105512
JAMES L. MOYER
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION	BY
1	06/26/2026	PRELIMINARY DESIGN REVIEW COMMENTS	ALB

DEMOLITION AND EROSION CONTROL PLAN
DUEY FISHING LODGE
181 COINJOCK CANAL ROAD
NORTH CAROLINA
CURRITUCK COUNTY
CRAWFORD TOWNSHIP
COINJOCK

DATE:	06/26/2026	SEE NOTES
SURVEYED:	MJM/ALO	
DESIGNED:	RCA	
DRAWN:	MJM/ALO	
CHECKED:		
FILE:	05316B-2	

SCALE:
1" = 20'

C101

PROJ. NO. 05316B-2



VICINITY MAP
SCALE: 1" = 1000'

SITE PLAN NOTES:

- CONTACT INFORMATION:**
OWNER/DEVELOPER:
DUEY MARINA, LLC
740 OAK STREET
TYRONE, PA 16686
- PARCEL DATA:**
THE PROPERTY IS PARCEL 2 - BOUNDARY SURVEY FOR DUEY MARINA, LLC., PLAT CABINET S, SLIDE 163. RECORDED IN DEED BOOK 1779, PAGE 80.
CURRITUCK COUNTY PARCEL ID 071A00300030000; PIN NO. 8996-80-3106
PROPERTY ADDRESS: 181 COINJOCK CANAL ROAD, COINJOCK
THE PROPERTY IS ZONED GB - GENERAL BUSINESS AND IS LOCATED IN A G-4 TRANSECT.
- PROJECT DESCRIPTION:**
DUEY MARINA, LLC INTENDS TO DEVELOP THIS PROPERTY AS A FISHING LODGE. THE PROPERTY CURRENTLY INCLUDES A 5 BEDROOM HOME, A GARAGE, FORMER MARINE SUPPLY BUILDING AND SEVERAL OUT-BUILDINGS. DEVELOPMENT OF THE FISHING LODGE WILL INCLUDE THE INSTALLATION OF 4 CABINS WITH 2 SEPTIC SYSTEMS, DRIVEWAY AND PARKING, 8 BOAT SLIPS, A BOAT RAMP, NEW BULKHEAD AND BOARDWALK.
- FLOODPLAIN INFORMATION:**
THE SITE IS LOCATED IN FIRM ZONES X, SHADED X AND AE(4) PER FIRM MAP NUMBER 3720898600K, EFFECTIVE DATE DECEMBER 21, 2018, (SUBJECT TO CHANGE BY FEMA).
EXISTING FEATURES, TOPOGRAPHIC, WETLAND AND BOUNDARY SURVEY INFORMATION HAS BEEN OBTAINED BY SEA LEVEL CONSULTING, INC. ON SEPTEMBER 3 & 4, 2025.
ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE SPECIFIED. ELEVATIONS SHOWN ARE HEREON PER NAVD88.
AREAS SHOWN ARE BY COORDINATE METHOD.
- PROPERTY AREA:**
PROPERTY AREA = 96,341 SF (2.21 ACRES) TO SHORELINE AS SURVEYED SEPTEMBER 2025.
PROPERTY AREA TO FACE OF PROPOSED BULKHEAD = 95,550 SF (2.19 ACRES)
- MINIMUM BUILDING SETBACKS:**
FRONT 20'
REAR 25'
SIDES 15'
ACCESSORY SIDE 10'
- LOT COVERAGE:**
THE ALLOWABLE COVERAGE IS 65%
(95,451 SF) X (0.65) = 62,043.26 SF ALLOWED

LOT COVERAGE NOTE: LOT COVERAGE INCLUDES IMPERVIOUS SURFACES. STORMWATER MANAGEMENT SHALL ACCOUNT FOR RUNOFF FROM ALL IMPERVIOUS SURFACES. PERVIOUS PAVEMENT, ELEVATED SLATTED WALKWAYS (WOODEN OR COMPOSITE) AND WETTED POOL SURFACES AREAS ARE NOT CONSIDERED IMPERVIOUS PER POLICY SET FORTH BY CURRITUCK COUNTY AND THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

LOT COVERAGE IS:	
EXISTING:	
MAIN BUILDING AND STEPS	1,757.44 SF
GARAGE	1,210.52 SF
STEEL BUILDING	1,522.56 SF
SHED	198.25 SF
CONCRETE	2,243.51 SF
GRAVEL DRIVE	11,681.86 SF
WOOD WALK	282.99 SF
HVAC	26.51 SF
DILAPIDATED BLDGS	514.53 SF
EXISTING COVERAGE	19,155.20 SF

TO BE REMOVED:	
DILAPIDATED BLDGS	- 514.53 SF
GRAVEL DRIVE	-4,183.13 SF

NEW COVERAGE:	
CABINS	2,001.60 SF
RAMP AND STEPS	400.00 SF
NEW PORCH ADDITION	160.00 SF
CONCRETE SIDEWALKS/PARKING	1,036.67 SF
GRAVEL - DRIVEWAY	2,995.78 SF
DUMPSTER PAD & APRON	201.86 SF
CONCRETE BOAT RAMP	800.00 SF
NEW COVERAGE:	7,595.92 SF
TOTAL COVERAGE:	22,053.45 SF (23.1%)

IN ADDITION, THE FOLLOWING SURFACES ARE NOT INCLUDED IN COVERAGE CALCULATIONS *

#57 STONE - PARKING AREAS	9,704.40 SF*
#57 STONE - WALKWAYS	535.36 SF*
BOARDWALK ON LAND	1,813.99 SF*

PARKING REQUIREMENTS:

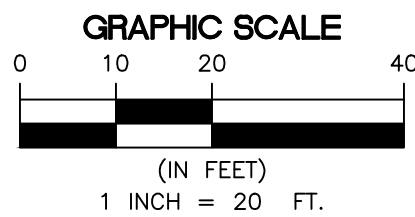
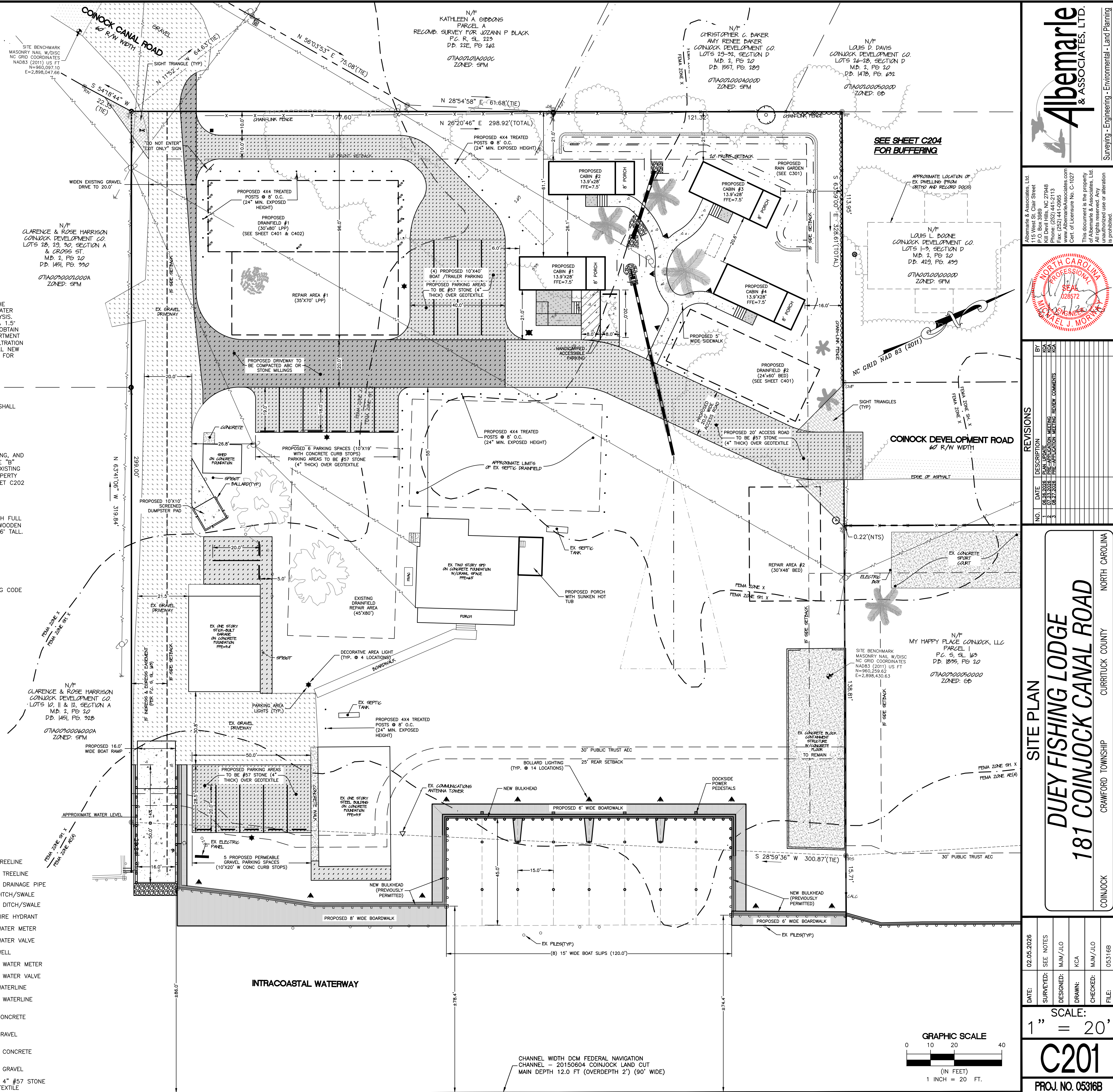
HUNTING/FISHING LODGE (1 SPACE PER BEDROOM + 2)

REQUIRED:
EXISTING LODGE: (5 BEDROOMS)(1 PER BEDROOM) = 5 SPACES
4 NEW 1 BEDROOM CABINS: (4 BEDROOMS)(1 PER BEDROOM) = 4 SPACES
FISHING LODGE: 2 ADDITIONAL SPACES = 2 SPACES
TOTAL SPACES REQUIRED: = 11 SPACES
TOTAL SPACES PROVIDED:
14 STANDARD SPACES AND 4 VEHICLE WITH TRAILER SPACES = 18 SPACES

FINAL DRAWING
NOT FOR
CONSTRUCTION

LEGEND

	BENCHMARK		EXISTING TREELINE
	CALCULATED POINT		PROPOSED TREELINE
	CONCRETE MONUMENT FOUND		PROPOSED DRAINAGE PIPE
	IRON PIPE FOUND		EXISTING DITCH/SWALE
	IRON ROD FOUND		PROPOSED DITCH/SWALE
	IRON ROD SET		EXISTING FIRE HYDRANT
	R/W MONUMENT FOUND		EXISTING WATER METER
	PROPERTY BOUNDARY		EXISTING WATER VALVE
	RIGHT OF WAY		EXISTING WELL
	ADJACENT PROPERTY LINES		PROPOSED WATER METER
	EASEMENT		PROPOSED WATER VALVE
	EXISTING POWER POLE		EXISTING WATERLINE
	EXISTING GUY WIRE		PROPOSED WATERLINE
	OVERHEAD ELECTRIC		EXISTING CONCRETE
	EXISTING TELEPHONE PEDESTAL		EXISTING GRAVEL
	EXISTING CABLE TV PEDESTAL		PROPOSED CONCRETE
	EXISTING LIGHT POLE		PROPOSED GRAVEL
	PROPOSED LIGHT POLES		PROPOSED 4" #57 STONE OVER GEOTEXTILE
	HANDICAP PARKING		
	WHEELSTOPS		
	EXISTING FENCE		



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

PROFESSIONAL SEAL
JAMES L. MOORE
02512

REVISIONS

NO.	DATE	DESCRIPTION
1	02.05.2026	FOR PERMIT
2	02.05.2026	FOR PERMIT
3	02.05.2026	FOR PERMIT

SITE PLAN

DUEY FISHING LODGE
181 COINJOCK CANAL ROAD

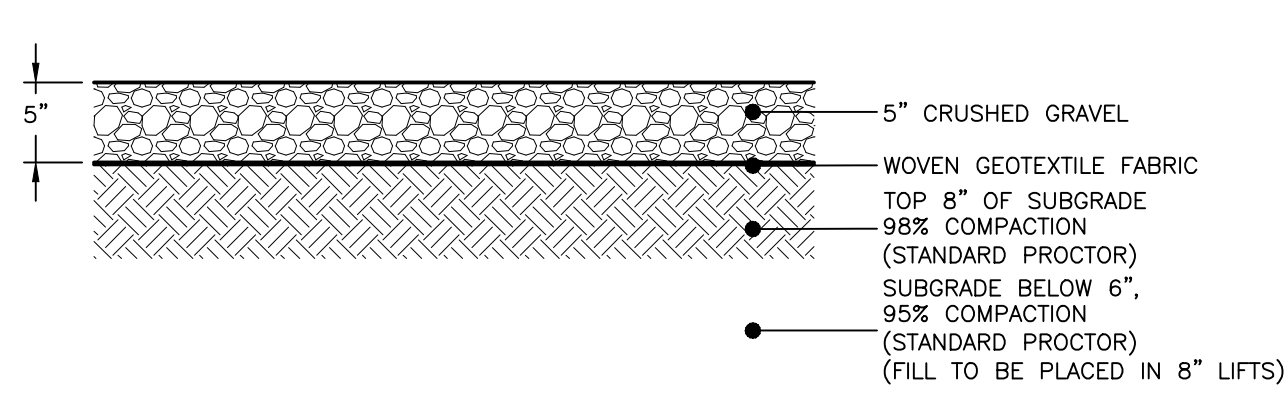
COINJOCK
CRAWFORD TOWNSHIP
CURRITUCK COUNTY
NORTH CAROLINA

DATE: 02.05.2026
SURVEYED: SEE NOTES
DESIGNED: MJM/ALO
DRAWN: RCA
CHECKED: MJM/ALO
FILE: 05316B

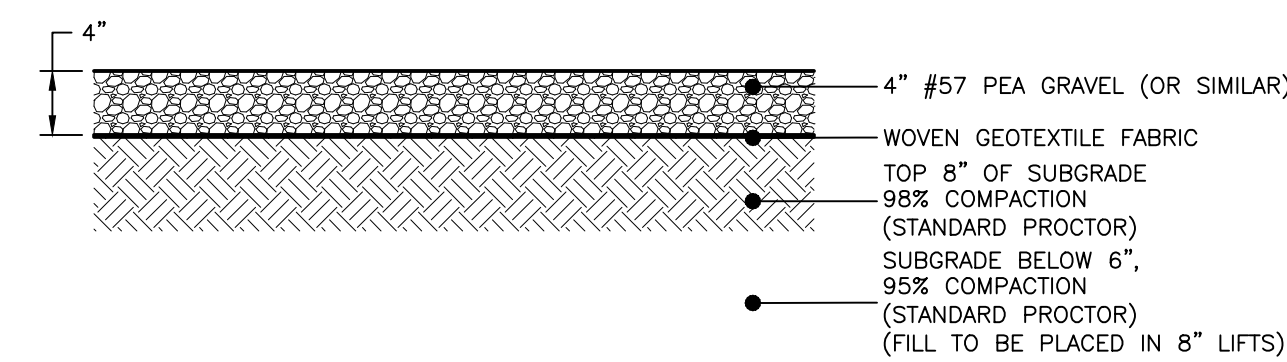
SCALE:
1" = 20'

C201

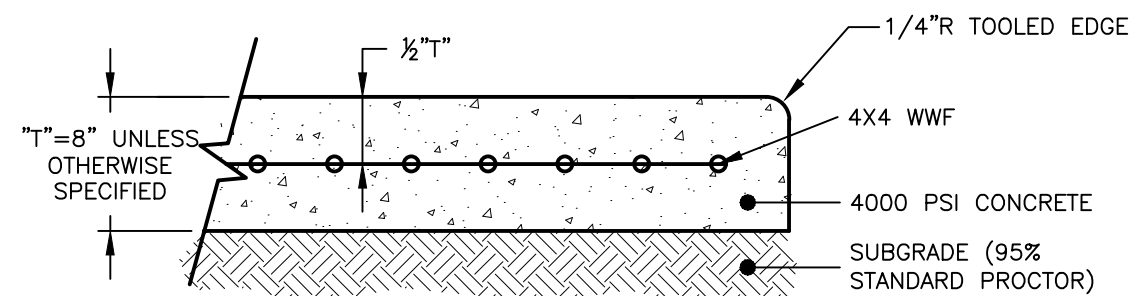
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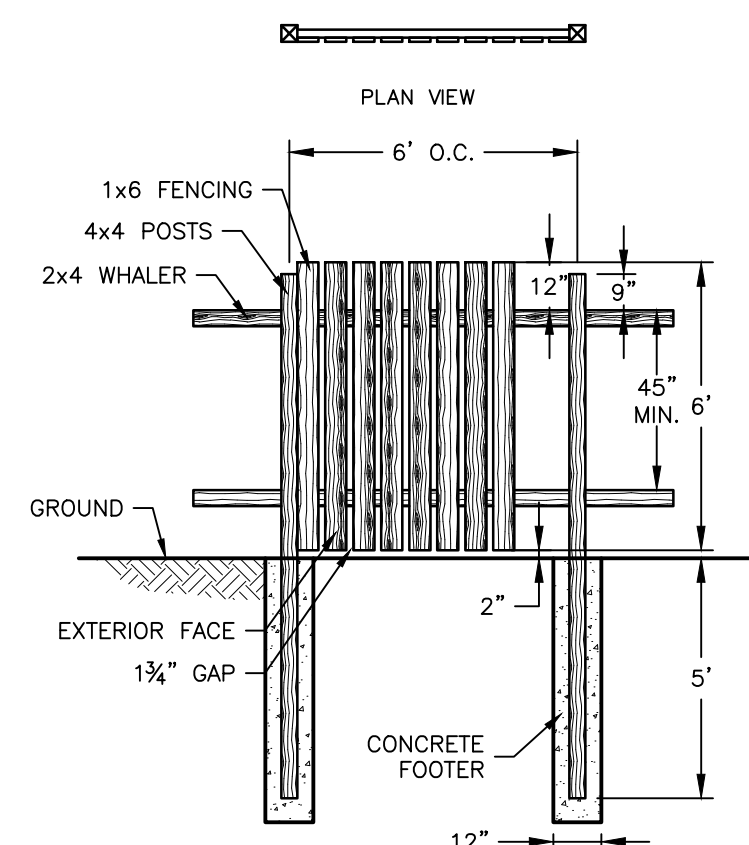
GRAVEL ACCESS / DRIVEWAY DETAIL
NTS



GRAVEL PARKING AREAS
NTS



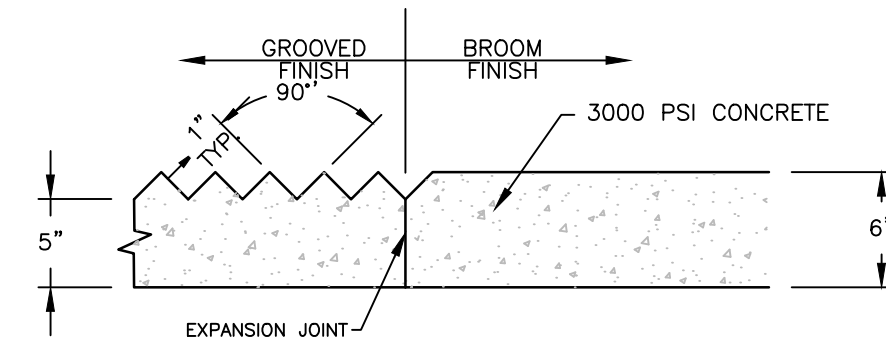
CONCRETE DUMPSTER PAD DETAIL
NTS



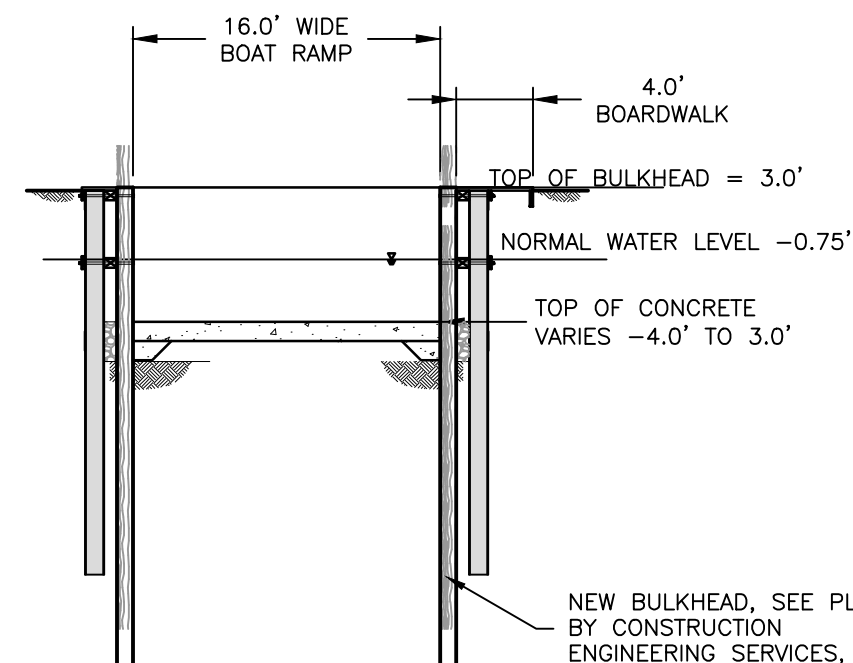
NOTES:

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.

DUMPSTER SCREENING FENCE DETAIL
NTS

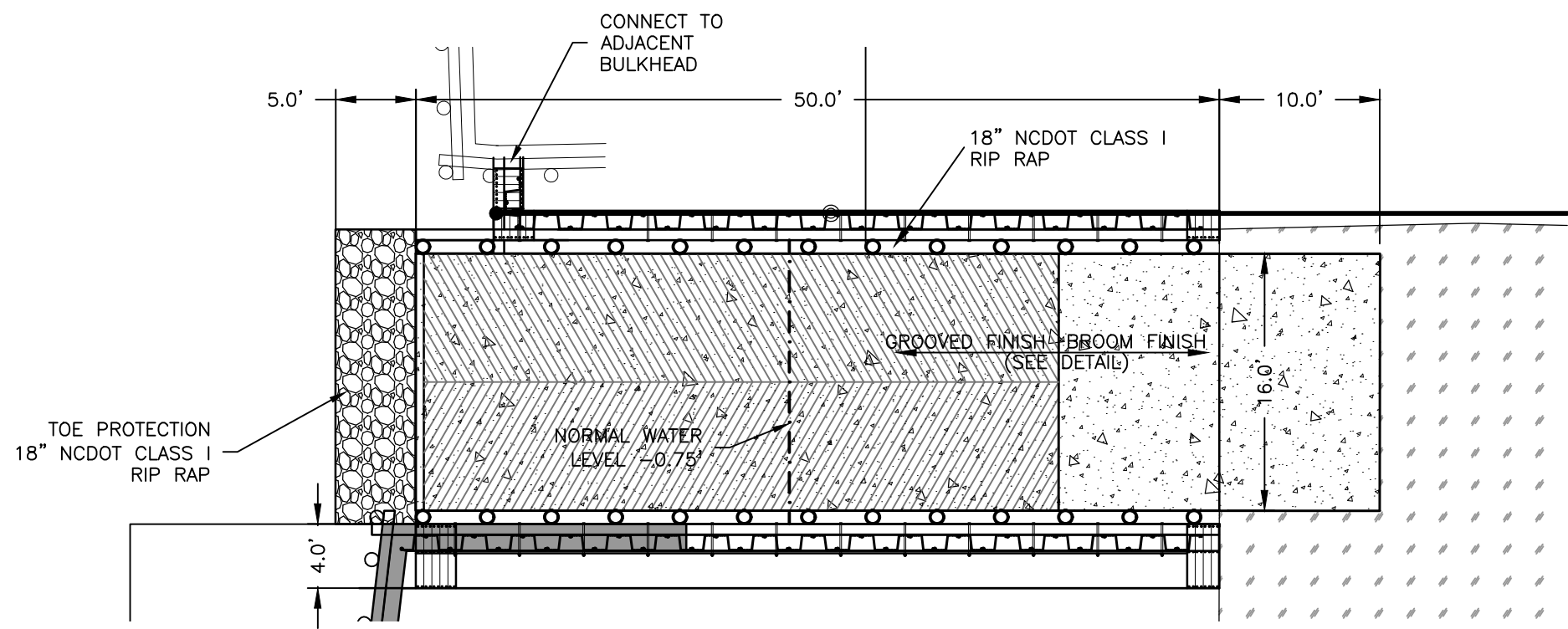


BOAT RAMP SURFACE DETAIL
NTS



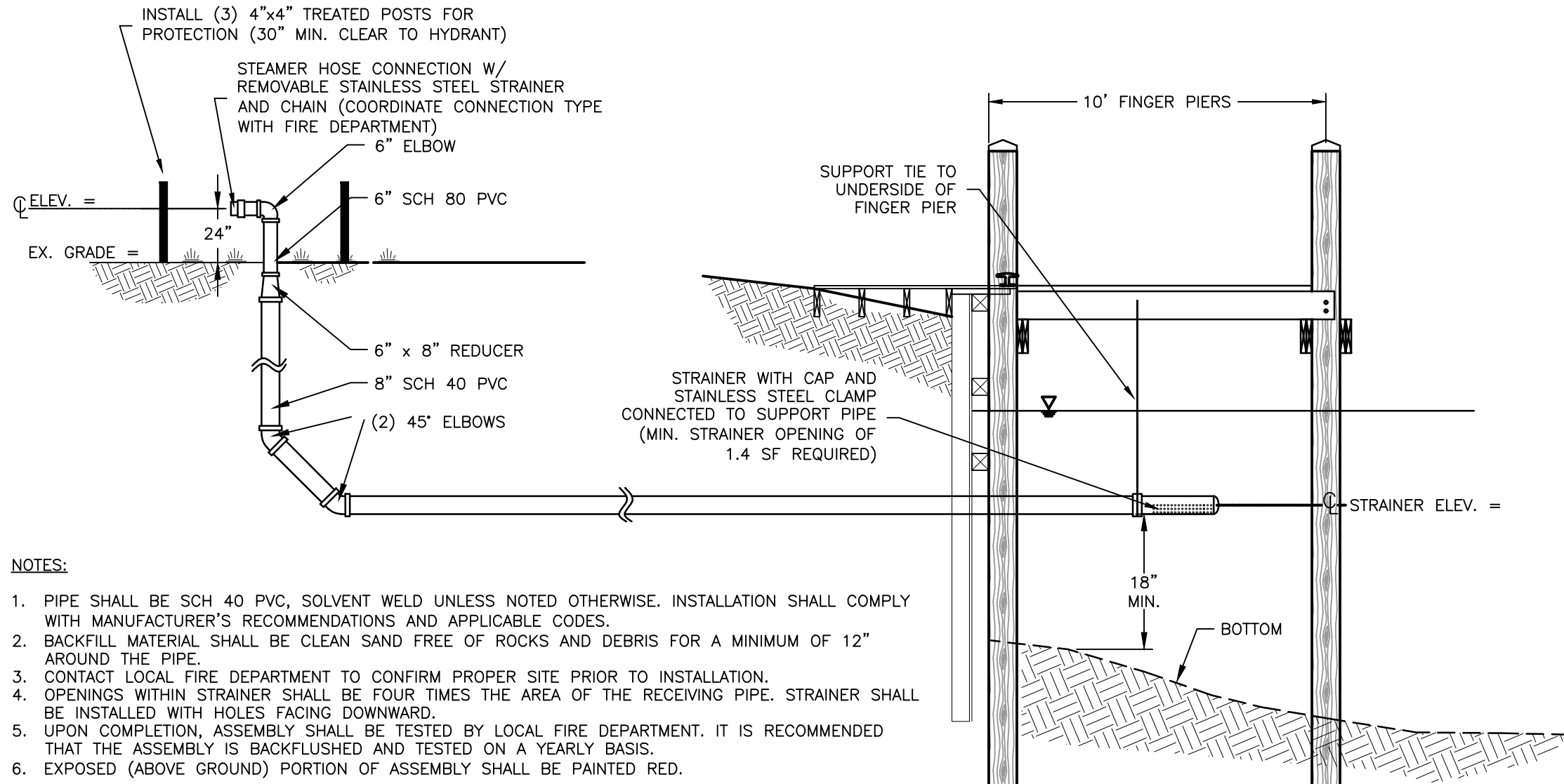
BOAT RAMP SECTION A-A
NTS

*ALL ELEVATIONS NOTED ARE NAVD88



BOAT RAMP SECTION B-B
NTS

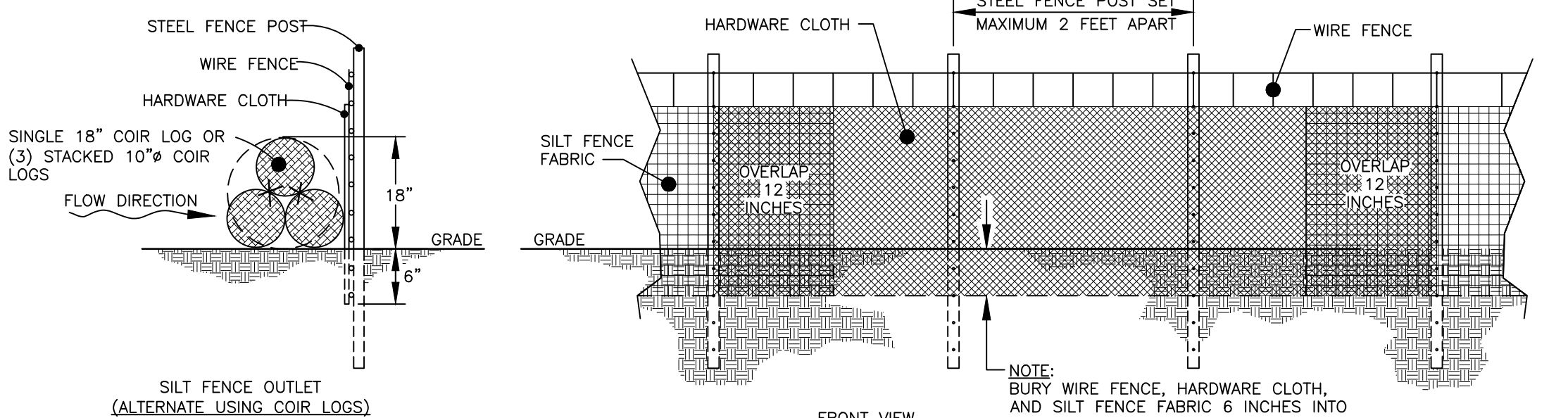
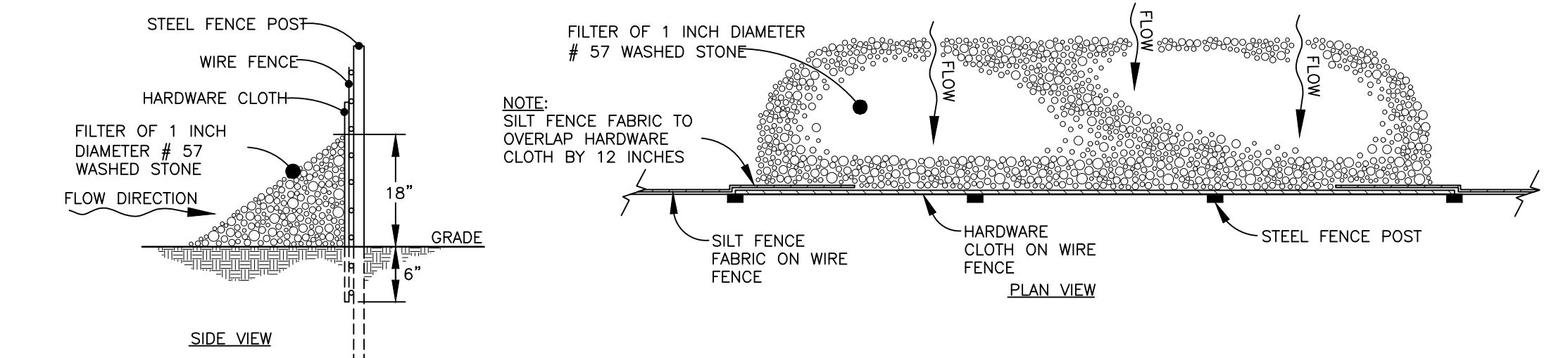
NOTE: SEE CAMA PERMIT CONDITIONS FOR CONCRETE BOAT RAMP CONSTRUCTION CONDITIONS.



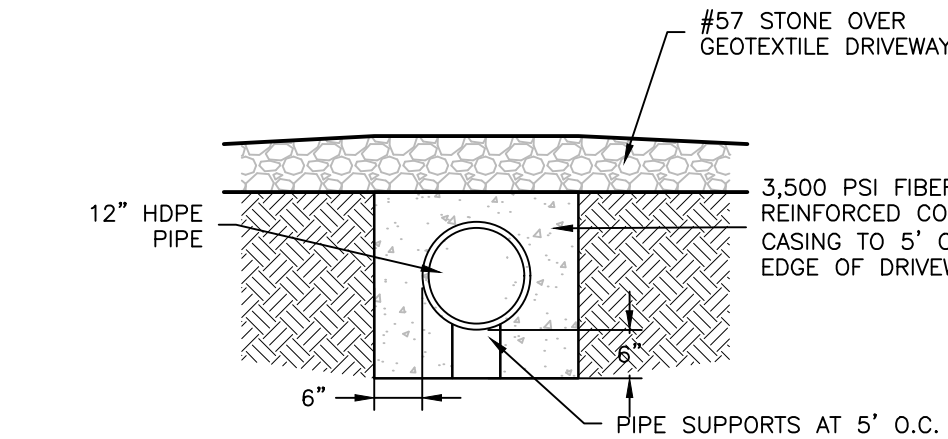
NOTES:

1. PIPE SHALL BE SCH 40 PVC, SOLVENT WELD UNLESS NOTED OTHERWISE. INSTALLATION SHALL COMPLY WITH MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE CODES.
2. BACKFILL MATERIAL SHALL BE CLEAN SAND FREE OF ROCKS AND DEBRIS FOR A MINIMUM OF 12" AROUND THE PIPE.
3. CONTACT LOCAL FIRE DEPARTMENT TO CONFIRM PROPER SITE PRIOR TO INSTALLATION.
4. OPENINGS WITHIN STRAINER SHALL BE FOUR TIMES THE AREA OF THE RECEIVING PIPE. STRAINER SHALL BE INSTALLED WITH HOLES FACING DOWNWARD.
5. UPON COMPLETION, ASSEMBLY SHALL BE TESTED BY LOCAL FIRE DEPARTMENT. IT IS RECOMMENDED THAT THE ASSEMBLY IS BACKFLUSHED AND TESTED ON A YEARLY BASIS.
6. EXPOSED (ABOVE GROUND) PORTION OF ASSEMBLY SHALL BE PAINTED RED.

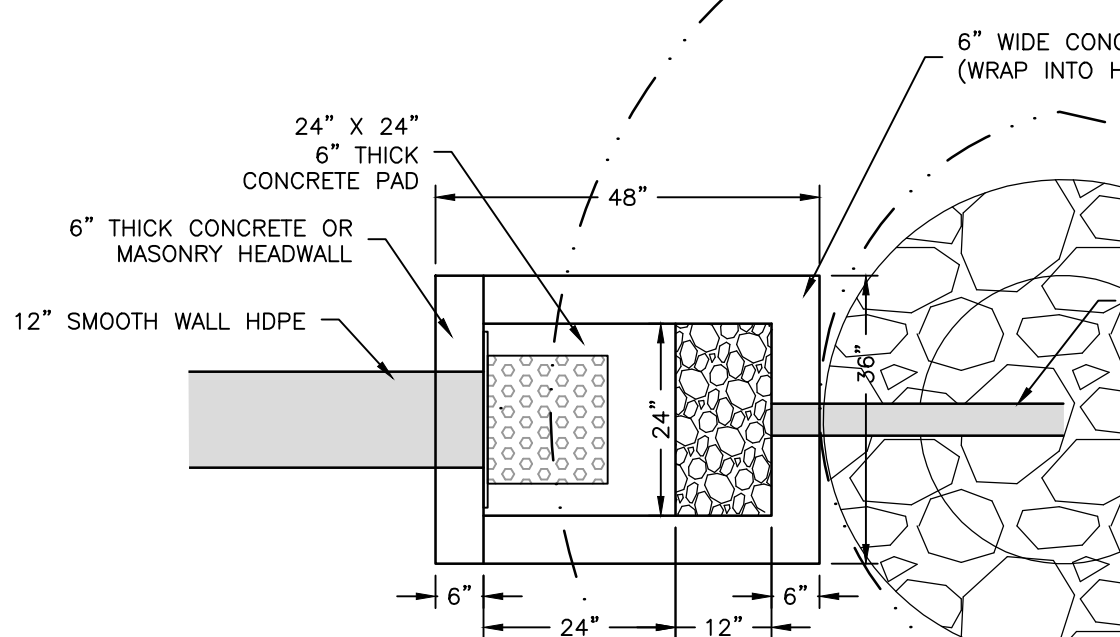
DRY HYDRANT DETAIL
NTS



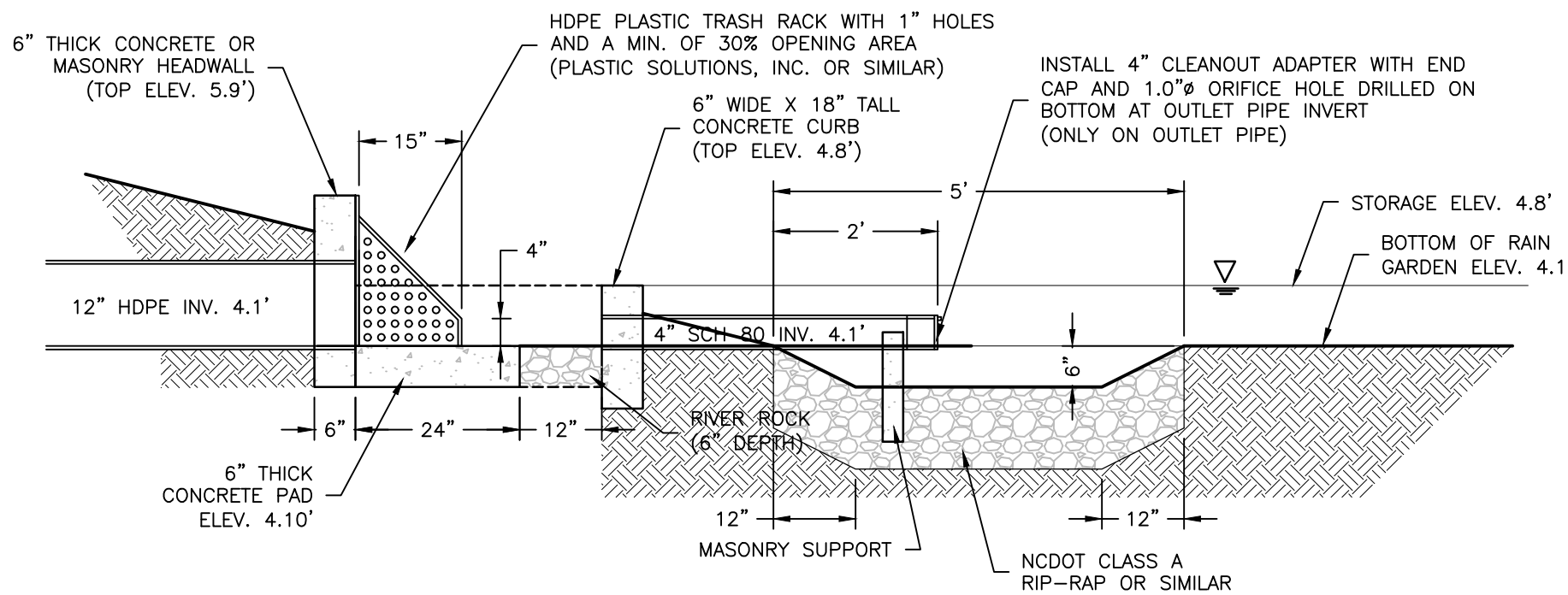
SILT FENCE OUTLET DETAIL
NTS



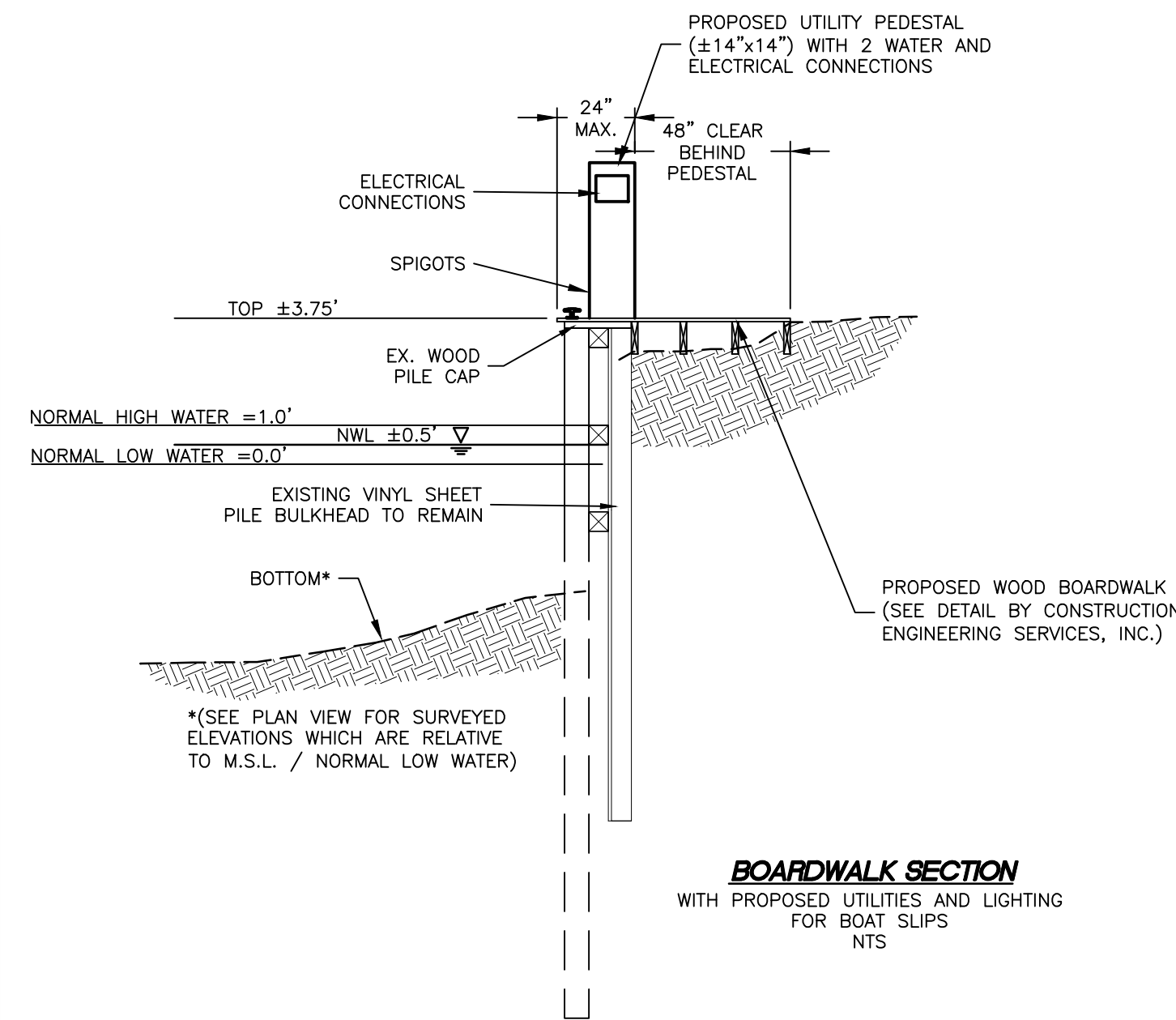
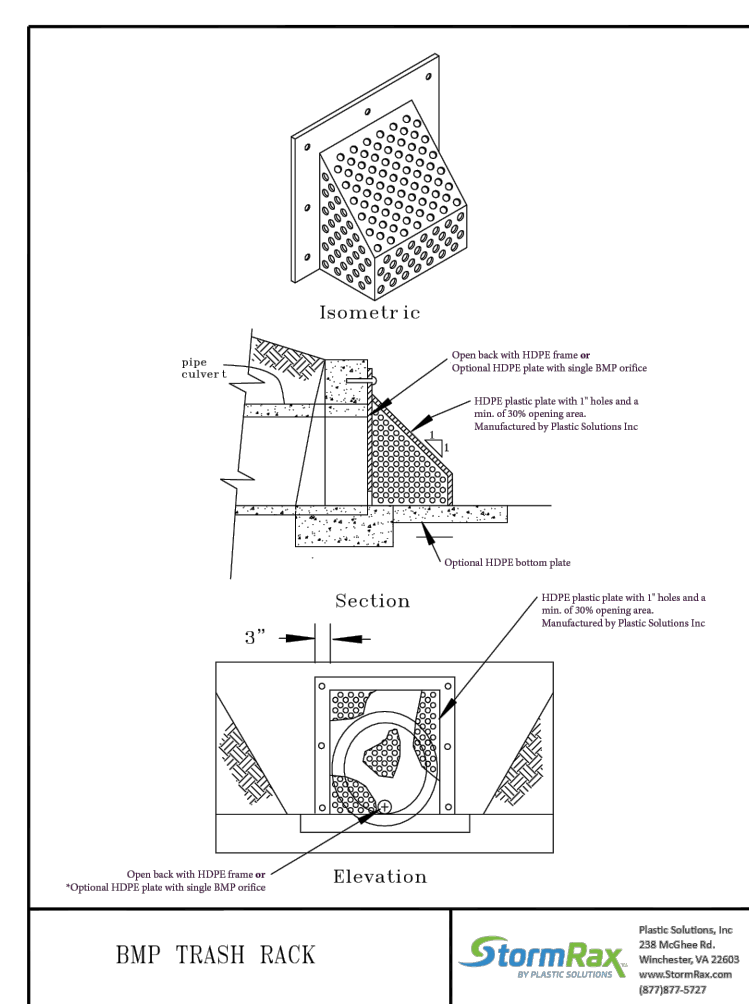
PIPE ENCASEMENT DETAIL
NTS



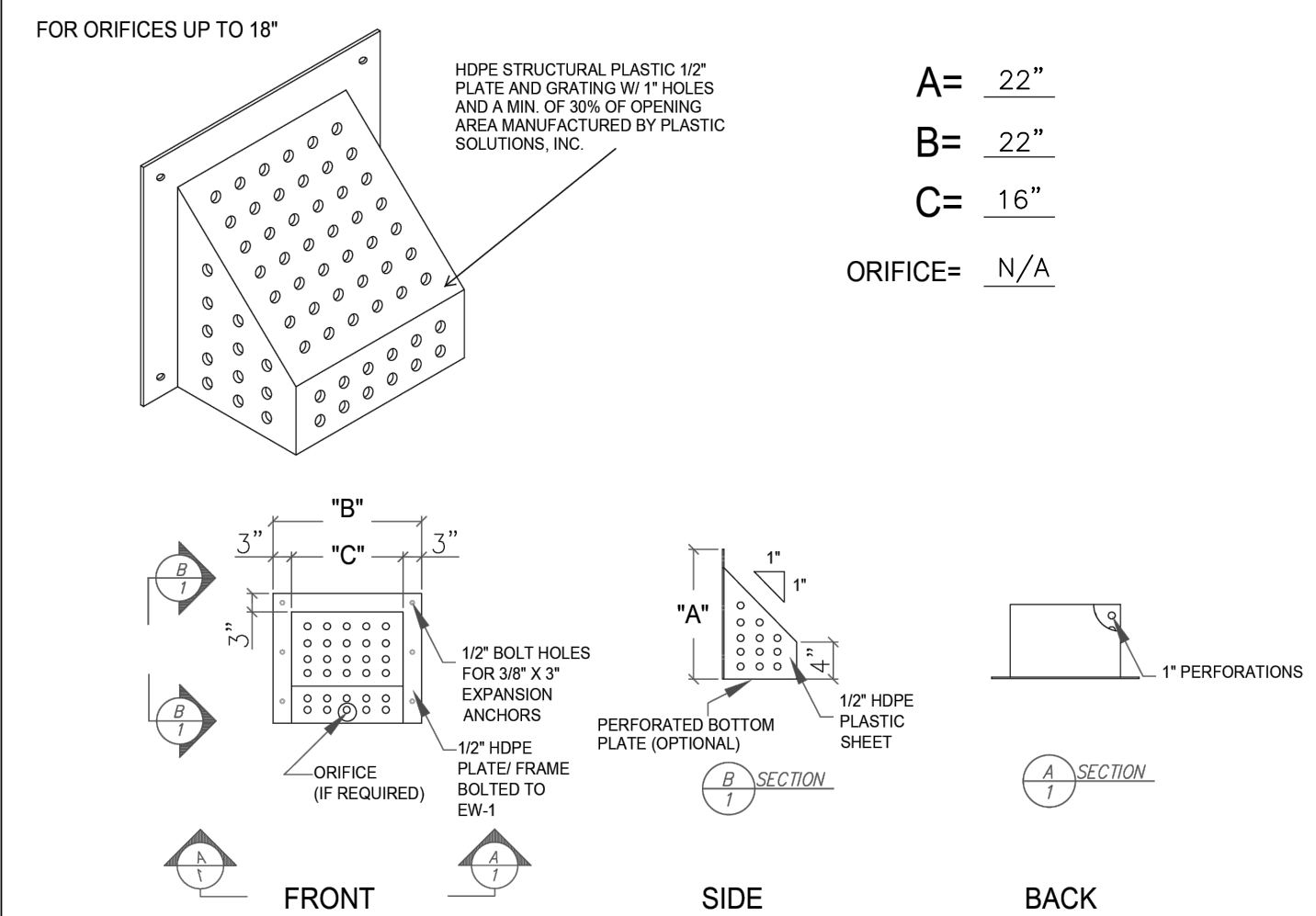
OVERFLOW INLET PLAN VIEW
NTS



OVERFLOW INLET DETAIL AND STONE SUMP DETAIL
NTS



BOARDWALK SECTION
WITH PROPOSED UTILITIES AND LIGHTING FOR BOAT SLIPS
NTS



NO.	DATE	DESCRIPTION	BY	CHKD.
1	06/26/2026	PRELIMINARY DESIGN	JM	
2	06/26/2026	FINAL DESIGN	JM	

REVISIONS	NO.	DATE	DESCRIPTION
	1	06/26/2026	PRELIMINARY DESIGN
	2	06/26/2026	FINAL DESIGN

THIS DRAWING REPRESENTS A COMPUTER GENERATED PHOTOMETRIC BASED UPON THE PROPOSED FIXTURE TYPES, MOUNTING HEIGHTS, LENSES AND ORIENTATION. ACTUAL LIGHT INTENSITIES WILL BE FIELD VERIFIED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE ORDINANCE.

QTY 4
★ AREA LIGHTS ARE LSI LIFESTYLE MEDIUM OUTDOOR DECORATIVE AREA LIGHTS (XDLM –FT–LED–V.W–WW) DARK SKY APPROVED WITH 5,000 LUMENS AND 3,000K COLOR TEMPERATURE WITH A CLASSIC HOOK MOUNT AT 12' HEIGHT

QTY 14
★ BOLLARD LIGHTS ARE LSI MIRANDA LOW LEVEL BOLLARD LIGHTS (MRB–LED–30L–ACR–S–30) DARK SKY APPROVED WITH 3,000 LUMENS AND 3,000K COLOR TEMPERATURE 44" HEIGHT

FINAL DRAWING
NOT FOR
CONSTRUCTION



Category: _____ Project: _____ Title: _____
Prepared By: _____ Date: _____

LifeStyle Medium (XDLM) Outdoor Decorative Area Light



OVERVIEW
Lumen Package (lm)
Wattage Range (W)
Efficiency Range (LPW)
Weight lbs (kg)

QUICK LINKS

Ordering Guide Performance Photometrics Dimensions

FEATURES & SPECIFICATIONS

- Construction**
 - Rugged die-cast aluminum crown.
 - Wiring emerges from crown through compression seal fitting to prevent water entry. One-piece silicone gasket seals crown to shade for water- and dust-tight construction.
 - Spun aluminum shade with two shade styles available: A - Angle and B - Bell.
 - Brackets are extruded and cast aluminum assemblies or fabrications. All decorative elements are die cast or extruded aluminum.
 - Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
 - Shipping weight in carton - 36 lbs (16.3 kg).
- Optical System**
 - State-of-the-Art one-piece silicone optic shield delivers industry leading optical control with an integrated gasket to provide IP65 rated seal.
 - Proprietary silicone reflector optics provide exceptional coverage and uniformity in distribution types 2, 3, 5W and FT.
 - Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 95%.
 - Zero uplight.
 - Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377.
- Minimum CRI of 70.**
- Integral lower (L) option available for improved backlight control with minimal sacrifice to street side performance.**
- Electrical**
 - High-performance driver features overvoltage, under-voltage, short-circuit and over temperature protection.
 - 0-10V dimming (00% - 100%) standard.
 - Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
 - L80 Calculated Life: >100K Hours.
 - Total harmonic distortion: <20%.
 - Operating temperature: -40°C to +40°C (-40°F to +104°F).
 - Power factor: >90.
 - Input power stays constant over life.
 - Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C82.42).
 - High-efficiency LEDs mounted to metal-core circuit board to maximize heat dissipation for moisture resistance and comply with FCC standards.
- Controls**
 - Optional integral passive infrared Bluetooth® motion and photo cell sensor. Circuits operate independently and can be programmed using iOS or Android configuration app.
- Installation**
 - Classic Hook (CH), Cantilever (SC), and Side Arm (SA) available. See Steel Round Pole and Aluminum Round Pole data sheets for pole selection information.
 - Classic hook and Cantilever mounts require a 4" O.D. pole or tenon.
 - Side Arm pole mount utilizes LSI's traditional B3 drill pattern.
- Warranty**
 - LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsi.com.com/resources/terms-conditions-warranty> for more information.
- Listings**
 - Listed to UL 1598 and UL 8750.
 - Meets Buy American Act requirements.
 - Title 24 Compliant; see local ordinance for qualification information.
 - Suitable for wet locations.
 - IP65 rated Luminaire per IEC 60598-1.
 - Patented Silicone Optics (US Patent No. 10,816,865 B2).
 - DarkSky approved with 5000K CCT or warmer color temperature selection.
 - DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/DLC to confirm which versions are qualified.

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SPEC.1171.04.025



Mirada Bollard (MRB) Low Level Lighting



OVERVIEW
Lumen Package (lm)
Wattage Range (W)
Efficiency Range (LPW)
Weight lbs (kg)

QUICK LINKS

Ordering Guide Performance Photometrics Dimensions

FEATURES & SPECIFICATIONS

- Construction**
 - Precision 2pc die-cast aluminum head maintains durability and consistency while providing vandal resistance, effective heat dissipation, and superior aesthetics.
 - 8-5/8" OD one-piece extruded aluminum heavy wall .322 inch thick stainless steel shaft. Various heights are available in 6" increments starting at a minimum of 26" (maximum height is 62").
 - Lower housing attaches to cast aluminum universal base plate with four stainless steel roll pins. Accommodates 4-3/4" or 6" bolt circles.
 - Optional roughneck zinc plated steel base plate (.025" thick) with welded U shaped reinforcement. 3/8" diameter 302 stainless steel roll pins with 10,000 lb. shear load.
 - IP66 rated Optical and Driver compartment protects integral components from harsh environments.
 - Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
 - Luminaire is proudly manufactured in the U.S. of U.S. and imported parts.
 - Shipping weight: 40 lbs in carton.
- Optical System**
 - Available in two optical distributions, symmetrical and asymmetrical.
 - High transmission clear flat acrylic lens seals the luminaire's optical chamber from IP66.
- Minimum CRI of 70.**
- Electrical**
 - High-performance programmable driver features overvoltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
 - 0-10V dimming (00% - 100%) standard.
 - Standard Universal Voltage (120-277 VAC) Input 50/60 Hz. Optional High Voltage 347-480 Vac input available.
 - L80 Calculated Life: >100K Hours calculated @ 25°C per IESNA TM-21-11.
 - Total harmonic distortion: <20%.
 - Operating temperature: -40°C to +50°C (-40°F to +122°F). Cold-weather emergency battery backup rated for +20°C minimum ambient.
 - Power factor: >90.
 - Input power stays constant over life.
 - High-efficiency LEDs with integrated circuit board mount to the housing to maximize heat dissipation and promote long life.
 - Driver components are fully enclosed in potting long material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be replaced.
 - Electrical components are mounted on a removable power tray.
- Installation**
 - Easy leveling even in uneven areas and full 360-degree rotation for precise alignment during installation.
 - Base plate installs with four heavy-duty 3/8" x 10" galvanized steel anchor bolts.
 - Base plate attaches to lower extruded housing via four stainless steel roll pins.
- Warranty**
 - LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsi.com.com/resources/terms-conditions-warranty> for more information.
- Listings**
 - Listed to UL 1598 and UL 8750.
 - RoHS Compliant.
 - Meets Buy American Act requirements.
 - Suitable for wet locations.
 - IP66 rated Driver compartment and IP66 rated optical chamber per IEC 60598-1.
 - DarkSky Approved with 3000K or warmer color temperature selection.

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SPEC.1171.04.025

LifeStyle Medium (XDLM) Outdoor Decorative Area Light

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

ORDERING GUIDE

Profile	Shade	Distribution	Light Source	Lumen Package	Color Temperature	Voltage	Finish
XDLM - Lifestyle Medium	A - Angle	2 - Type 2	LED	5000K	5,000K CCT	120-277V	Black
	B - Bell	3 - Type 3		4000K	4,000K CCT	347-480V	White
		4 - Type 4		3000K	3,000K CCT		White

Mounting Style(s)	Mounting Configuration(s)	Controls
SA - Side Arm Mount	SC - Straight Cantilever Mount	MSRCTL - Integral Bluetooth® Motion and Photo cell Sensor max 30' mounting height
SA - Side Arm Mount for 4" O.D. Round Pole	SC - Double @ 180°	MSRCTL - Integral Bluetooth® Motion and Photo cell Sensor max 30' mounting height
SA - Side Arm Mount for 5" O.D. Round Pole	SC - Double @ 90°	ALMCTRL - Activia Blue Long Range Wireless Multi-Range Sensor Controller (3-32 MHz)
SA - Side Arm Mount	SC - Triple @ 60°	ALMCTRL - Activia Blue Long Range Wireless Multi-Range Sensor Controller (3-32 MHz)
SA - Straight Cantilever Wall Mount	SC - Quad @ 120°	

Options
IL - Integral Lower Shield

Need more information?	Have additional questions?
Click here for our gallery.	Call us at (800) 436-7800

ACCESSORY ORDERING INFORMATION

Part Number	Description
PL12P	Single Fitting (120V)
PL27P	Single Fitting (277V)
PL48P	Double Fitting (480V)
PL54P	Double Fitting (54V)

Angle Shade	Bell Shade
Side Arm Mount	Straight Cantilever Mount

Classic Hook Mount
Classic Hook Mount

Figure Shown With Integral Lower	Figure Shown With Integral Sensor
MSRCTL	MSRCTL

1	2	3	4
Custom lumen and wattage packages available. Consult factory. Values are within industry standard tolerances but not field tested.	See table for details on mounting heights and pole sizes. See table for details on mounting heights and pole sizes.	See table for details on mounting heights and pole sizes. See table for details on mounting heights and pole sizes.	See table for details on mounting heights and pole sizes. See table for details on mounting heights and pole sizes.

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Mirada Bollard (MRB) Low Level Lighting

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

ORDERING GUIDE

Profile	Light Source	Lumen Package	Lens	Distribution	Voltage	Driver
MRB - Miranda Bollard	LED	250 - 2500	ACR - Asymmetric	S - Symmetric	120-277V	DRM - 0-10V Dimming (0-100%)
		3000 - 5000			347-480V	

Color Temperature	CRI	Controls	Battery Backup	Finish	Options
50 - 5000K	Black - 7000	Button Type Photo Cells	BB - Battery Backup	BLK - Black	XX - XX Specialty Height
40 - 4000K		PIR200 - 120V	CWB - Cold Weather Battery Backup	BRZ - Dark Bronze	GR - GR Duplex Receptacle
30 - 3000K		PIR200 - 277V		GRY - Gun Metal Gray	LM - Low Ambient Light
		PIR200 - 30V		GRY - Graphite	RM - Roughneck Heavy Duty Fly Plate
				MSR - Metallic Silver	
				PSP - Platinum Plus	
				SW - Satin Nickel	
				WHT - White	

DarkSky Approved (CTS)
2500 - 2700K
MRB - Phantom Connected Amber

Need more information?	Have additional questions?
Click here for our gallery.	Call us at (800) 436-7800

ACCESSORY ORDERING INFORMATION

Part Number	Description
MRB250BLK	House Side Shield (Black Paint Finish)
MRB250BRZ	House Side Shield (Dark Bronze Paint Finish)
MRB250WHT	House Side Shield (White Paint Finish)

PERFORMANCE

Delivered Lumens*								
Lumen	Distribution	CRI	AMB CCT	2700K	3000K	4000K	5000K	Wattage

250	270	300	400	500	600	700
250	270	300	400	500	600	700
250	270	300	400	500	600	700

250	270	300	400	500	600	700
250	270	300	400	500	600	700
250	270	300	400	500	600	700

250	270	300	400	500	600	700
250	270	300	400	500	600	700
250	270	300	400	500	600	700

250	270	300	400	500	600	700
250	270	300	400	500	600	700
250	270	300	400	500	600	700

250	270	300	400	500	600	700
250	270	300	400	500	600	700
250	270	300	400	500	600	700

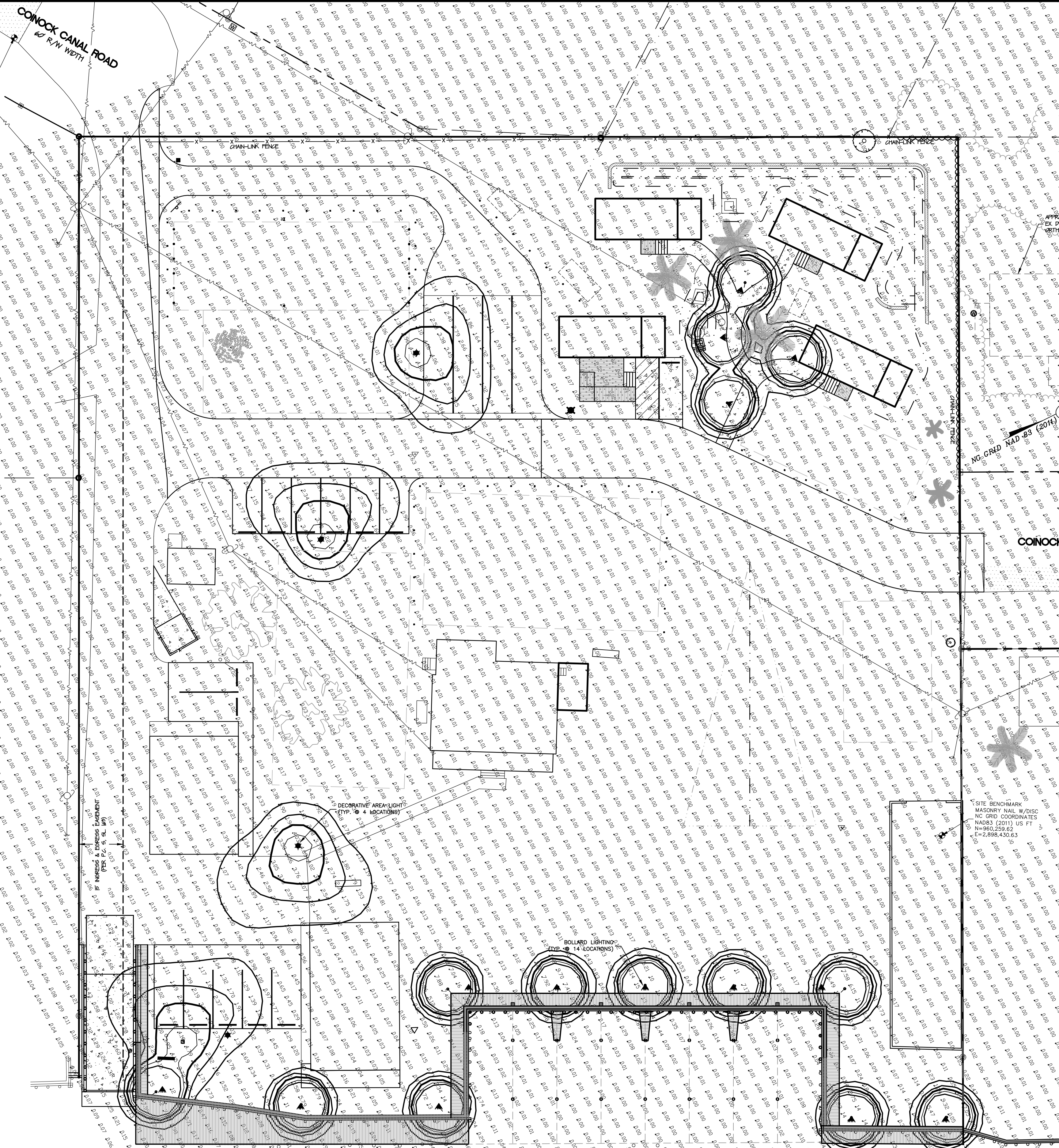
250	270	300	400	500	600	700
250	270	300	400	500	600	700
250	270	300	400	500	600	700

250	270	300	400	500	600	700
250	270	300	400	500	600	700
250	270	300	400	500	600	700

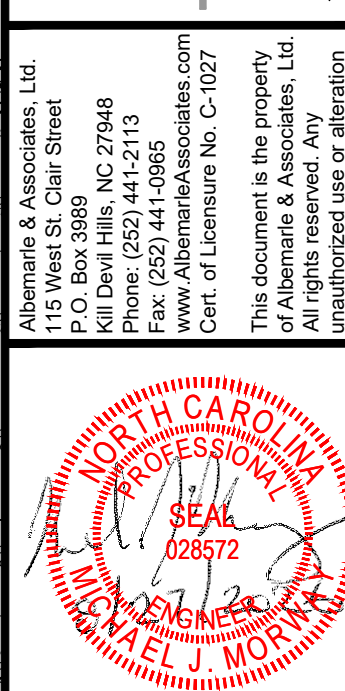
250	270	300	400	500	600	700
250	270	300	400	500	600	700
250	270	300	400	500	600	700

250	270	300	400	500	600	700
250	270	300	400	500	600	700
250	270	300	400	500	600	700

250	270	300	400	500	600	700
250	270	300	400	500	600	700
250	270	300	400	500	600	700



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REVISIONS			
NO.	DATE	DESCRIPTION	BY
1	07/23/2026	PRE-APPLICATION MEETING	KCA
2	08/27/2026	PRE-APPLICATION MEETING REVIEW COMMENTS	KCA

DATE	DESIGNED	DRAWN	CHECKED	FILED
06/26/26	MJM/AJO	KCA	MJM/AJO	05/16/26

LIGHTING PLAN
DUEY FISHING LODGE
181 COINJOCK CANAL ROAD
NORTH CAROLINA
CURRITUCK COUNTY
CRAWFORD TOWNSHIP
COINJOCK

DATE: 06/26/26
SURVEYED: SEE NOTES
DESIGNED: MJM/AJO
DRAWN: KCA
CHECKED: MJM/AJO
FILED: 05/16/26
SCALE: 1" = 20'
C203
PROJ. NO. 05316B

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, UNIFORM 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 GRADDED 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&B 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:
IN THE 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 WET 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 TOWARDS THE 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.

SITE LANDSCAPING COMPLIANCE NOTES:

1. SITE LANDSCAPING

BUILDING FACADE LANDSCAPING:

1 SHRUB PER EACH 5 FEET OF BUILDING FACADE FACING A STREET,
REQUIRED = (42 LF) x (1 SHRUB / 5 LF) = 9 SHRUBS
PROVIDED = 9 SHRUBS

CANOPY TREE LANDSCAPING:

2 CALIPER INCHES PER ACRE
REQUIRED = (2 CALIPER INCHES/ACRE) * 2.21 AC = 4.42 ACI
PROVIDED = 5 ACI CANOPY TREE

2. VEHICULAR USE AREA LANDSCAPING

SCREENING:

REQUIRED = 3' MINIMUM HEIGHT
PROVIDED = 4' SCREEN FENCE (PLUS UNDERSTORY TREES)

CANOPY TREES:

REQUIRED = SHALL BE PLANTED WITHIN 60' OF ALL PARKING SPACES,
PROVIDED = ALL PARKING SPACES ARE WITHIN 60' OF A CANOPY TREE

3. BUFFER YARD - TYPE "B" BUFFER - 10' WIDTH (GB/SFM ZONING)

154.3 LF + 113.9 SF = 268.2 LF
2 AGGREGATE CALIPER INCHES OF CANOPY TREES PER 100'
REQUIRED = (268.2 LF) x (2 ACI/100 LF) = 5.36 ACI
14 AGGREGATE CALIPER INCHES OF UNDERSTORY TREES PER 100'
REQUIRED = (268.2 LF) x (14 ACI/100 LF) / (1.5 IN/TREE) = 37.5 ACI (1.5" CALIPER)
20 SHRUBS / 100 LF
REQUIRED = (268.2 LF) x (20 SHRUBS/100 LF) = 53.6 SHRUBS

4. SHRUBS SHALL BE 3 GALLON CONTAINERS AND 36" IN HEIGHT WITHIN 3 YEARS OF PLANTING.

5. BUILDING FACADE SHRUBS SHALL BE PLANTED WITHIN 15' OF BUILDING FACADE. HALF OF BUILDING FACADE SHRUBS SHALL BE EVERGREEN.

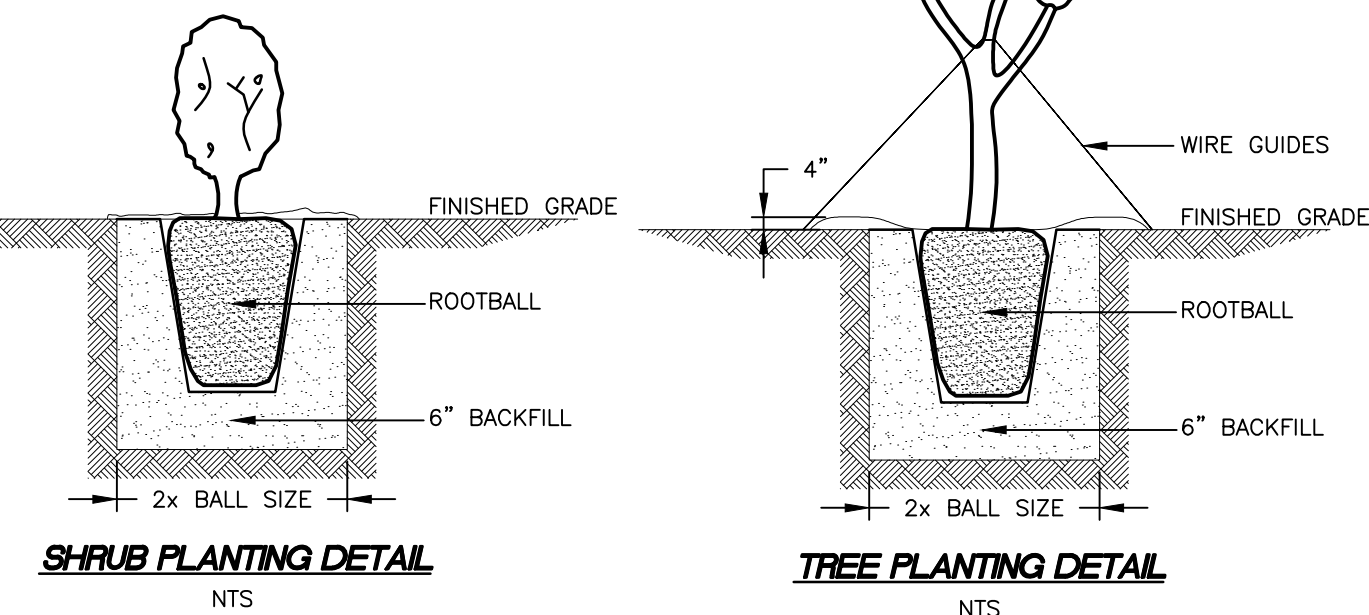
6. CANOPY TREES SHALL BE 1.5" CALIPER (MINIMUM) AT TIME OF PLANTING. UNDERSTORY TREES SHALL BE 1.5" CALIPER (MINIMUM) AT TIME OF PLANTING.

SHRUBS (BUILDING FACADE)
COASTAL AZALEA (Rhododendron Atlanticum)
INDIAN HAWTHORN ((Raphiolepis Indica)

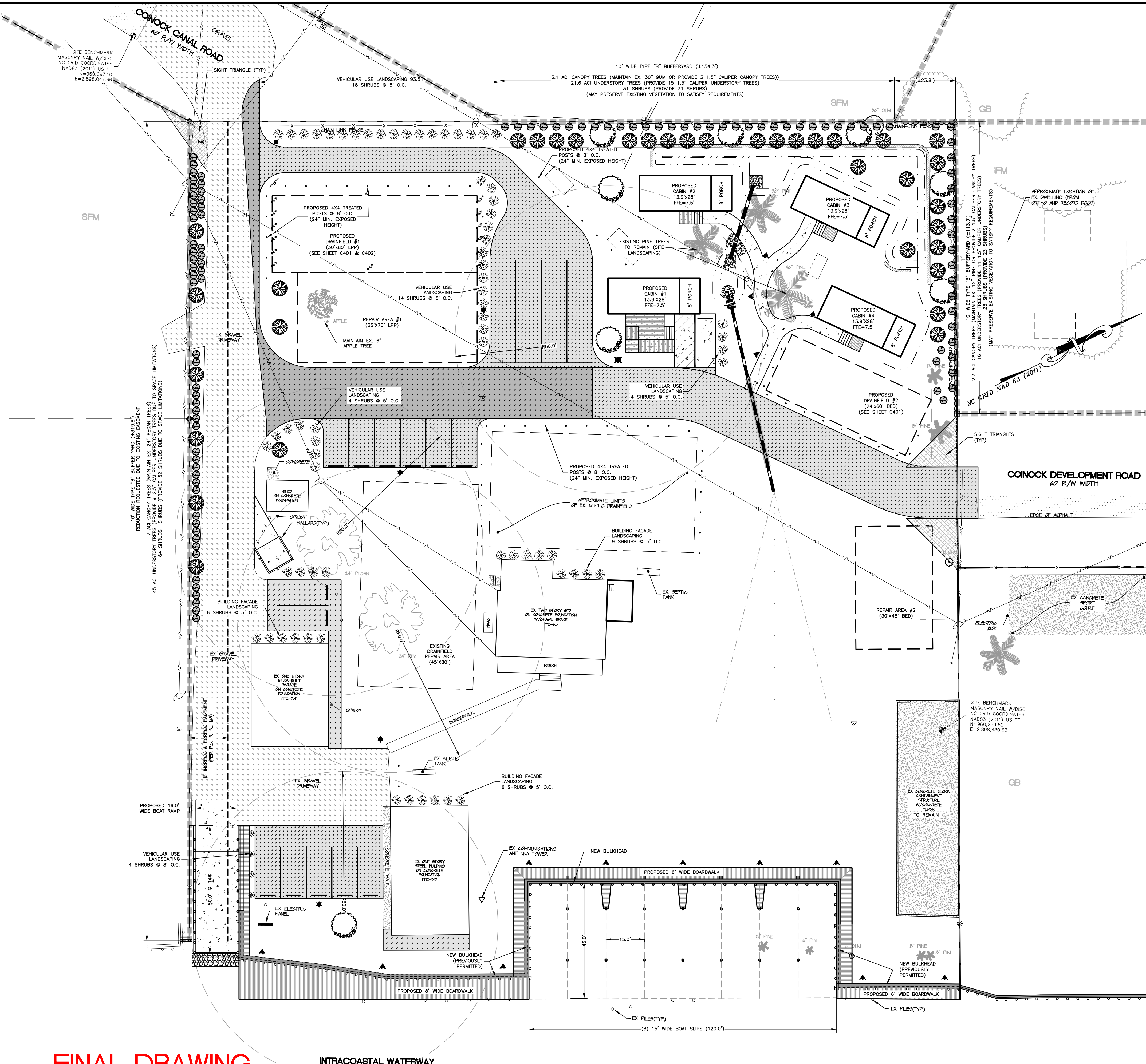
UNDERSTORY TREES
AMERICAN HOLLY (Ilex Opaca)
CREPE MYRTLE (Lagerstroemia Indica)
FLOWERING DOGWOOD (Cornus Florida)

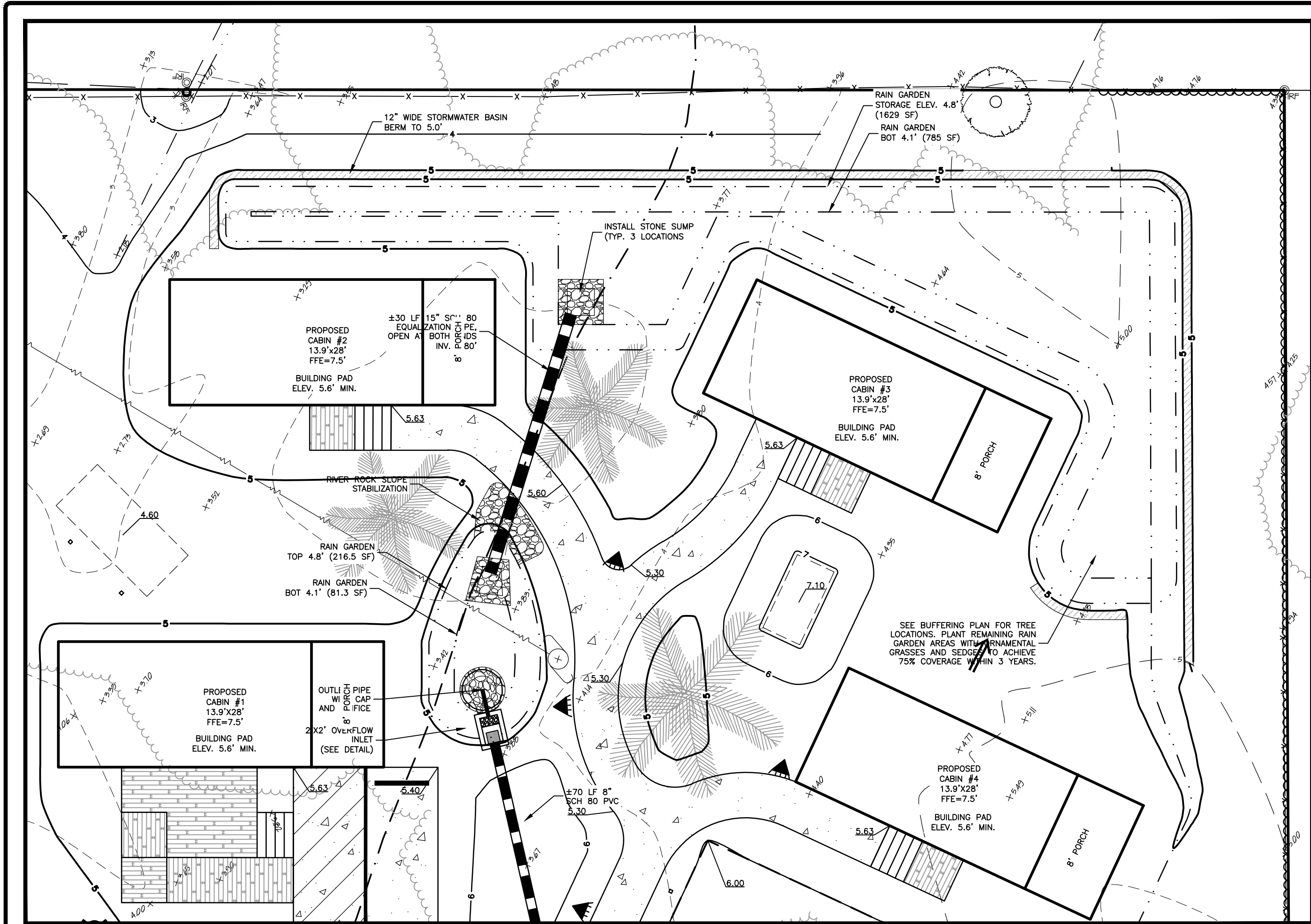
CANOPY TREES
RED MAPLE (Acer Rebrum)
RIVER BIRCH (Betula Nigra)

RECOMMENDED RAIN GARDEN PLANTINGS	
TREES	
SWEETBAY	MAGNOLIA VIRGINIANA
WASHINGTON HAWTHORN	CRATAEGUS PHAENOPYRUM
SHRUBS	
YALPON	ILEX VOMITORIA
FLORIDA ANISE	ILICUM FLORIDANUM
WAX MYRTLE	MYRICA CERIFERA
DWARF PALMETTO	SABAL MINOR
PERENNIALS	
COASTAL JOE PYE WEED	EUTROCHILUM DUBIUM
TICKSEED	COREOPSIS
BLUE FLAG IRIS	IRIS VIRGINICA
ORNAMENTAL GRASSES	
MUHL GRASS	MUHLENBERGIA CAPILLARIS
PANIC GRASS	PANICUM VIRGATUM
SEDGES	
SOUTHERN WAXY WEDGE	CAREX GLAUCESCENS
WHITE TOP SEDGE	RHYNCHOSPORA LATIFOLIA
WOOLGRASS	SCIRPUS CYPERINUS



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NOT FOR
CONSTRUCTION





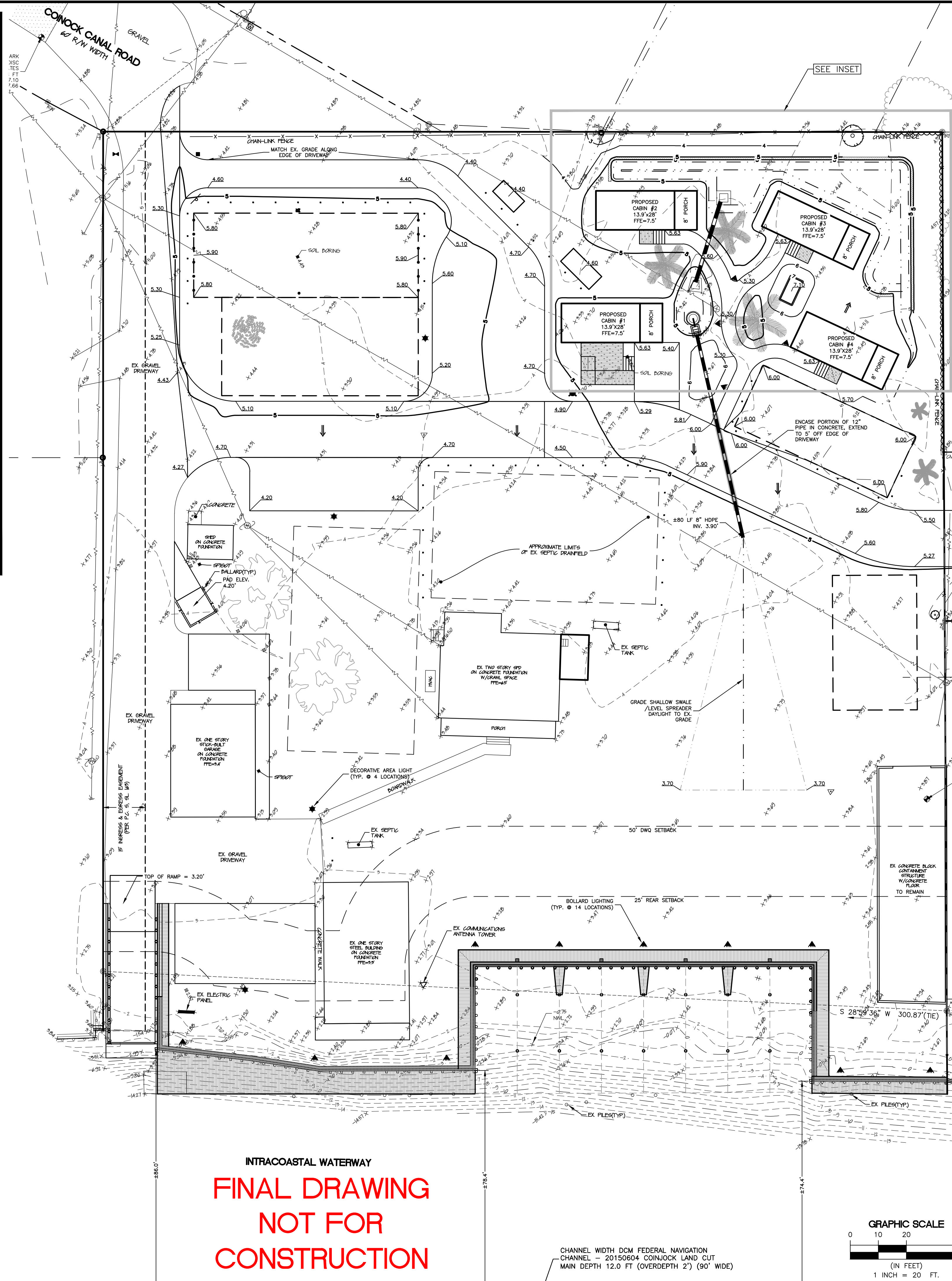
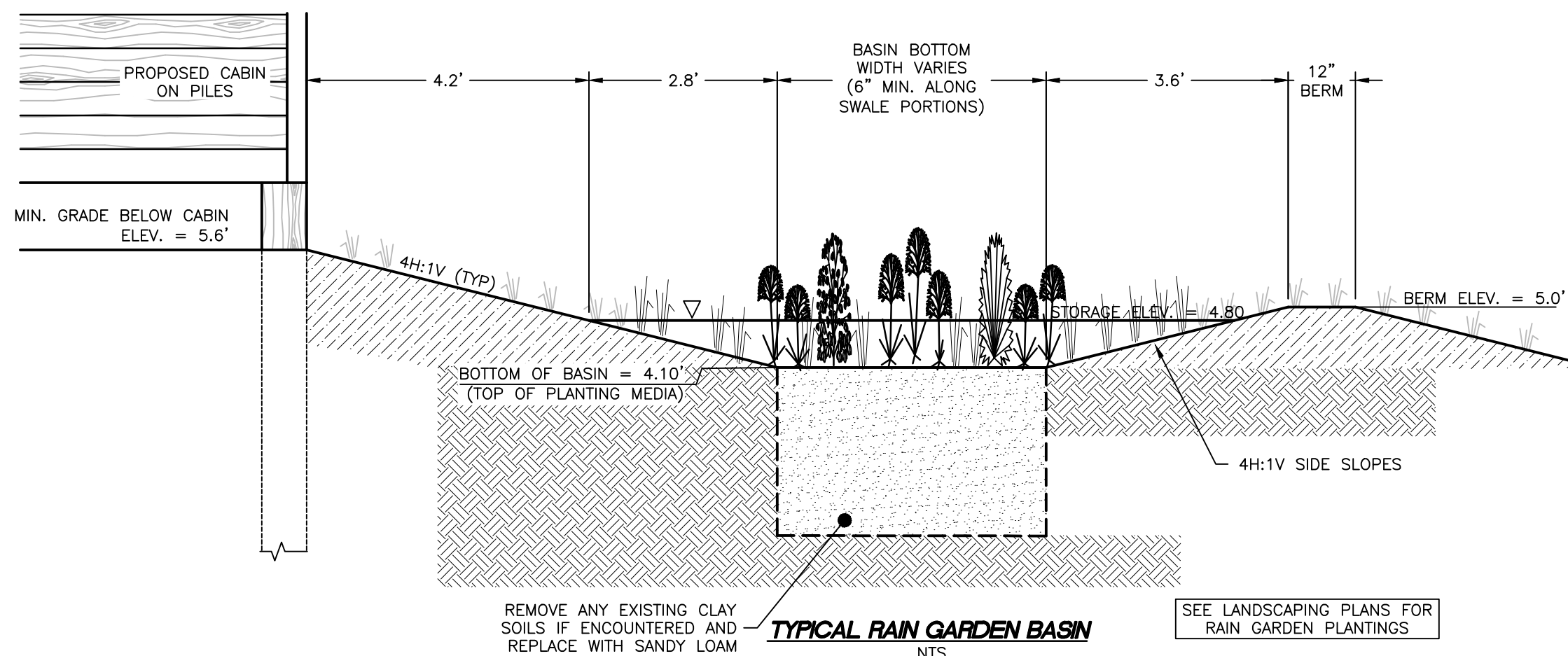
RAIN GARDEN / CABIN GRADING
SCALE: 1" = 10'

SEE SHEET C202 FOR DRAINAGE STRUCTURE DETAILS

RAIN GARDEN MAINTENANCE NOTES:

- KEEP RAINGARDEN WATERED AS NEEDED OF INITIAL ESTABLISHMENT OF VEGETATION (TYPICALLY ONE YEAR).
- PERIODICALLY INSPECT THE RAIN GARDEN, THIS SHOULD BE PERFORMED AT LEAST EVERY 3 MONTHS AND AFTER AND SIGNIFICANT RAINFALL OF AN INCH OR MORE. THE INSPECTION SHOULD INCLUDE THE FOLLOWING ITEMS:
 - INSPECT THE PERIMETER SIDE SLOPES FOR ANY EROSION. IF EROSION IS LOCATED, REGRADE THE PORTION OF THE BANK AS NEEDED TO REESTABLISH THE SLOPE, PLANT GROUND COVER, FERTILIZE AND WATER AS NEEDED TO RE-ESTABLISH VEGETATION. UTILIZE TEMPORARY MATING IF NEEDED TO REESTABLISH THE AREA.
 - INSPECT THE AREA OUTSIDE OF THE RAINGARDEN FOR POTENTIAL BLOCKAGE OR DIVERTING OF RUNOFF FROM THE CABINS AND SIDEWALKS FROM ENTERING THE RAIN GARDEN.
 - INSPECT THE PIPE INLETS AND OUTLETS. REMOVE ANY DEBRIS FROM THE ROCK SUMP OR IN THE PIPE ITSELF.
 - INSPECT THE OUTFALL STRUCTURE. VERIFY THE ORIFICE IS OPEN AND REMOVE ANY DEBRIS FROM THE ROCK SUMP. CHECK FOR AND REMOVE ANY DEBRIS FROM BETWEEN THE OVERFLOW SPILLWAY AND THE OUTLET TRASH RACK.
 - INSPECT THE RAIN GARDEN VEGETATION. REMOVE WEEDS AND OTHER INVASIVE PLANTS IF PRESENT. PRUNE VEGETATION AS NEEDED AND REMOVE AND/OR EXCESS VEGETATIONAL DEBRIS. IF PLANTS HAVE DEAD, REMOVE AND DETERMINE THE SOURCE OF THE PROBLEM. REPLACE THE PLANTS, POSSIBLY USING AN ALTERNATIVE PLANTING BASED ON OVERALL SUN EXPOSURE, SOIL, WETNESS OR SOILS PRESENT.
 - INSPECT THE OUTLET PIPE DISCHARGE AREA FOR EROSION AND VEGETATIONAL COVERAGE. REPAIR AND EROSION AND SEED OF SOD THE IMPACTED AREAS. UTILIZE TEMPORARY MATING IF NEEDED TO REESTABLISH THE AREA. RESEED OR SOD ANY OTHER BANK AREAS WITHIN THE DISCHARGE AREA.

RECOMMENDED RAIN GARDEN PLANTINGS	
TREES	
SWEETBAY	MAGNOLIA VIRGINIANA
WASHINGTON HAWTHORN	CRATAEGUS PHAENOPYRUM
SHRUBS	
YAUPON	ILEX VOMITORIA
FLORIDA ANISE	ILICUM FRORIDANUM
WAX MYRTLE	MYRICIA CERIFERA
DWARF PALMETTO	SABAL MINOR
PERENNIALS	
COASTAL JOE PYE WEED	EUTROCHUM DUBIUM
TICKSEED	COREOPSIS
BLUE FLAG IRIS	IRIS VIRGINICA
ORNAMENTAL GRASSES	
MUHL GRASS	MUHLBERGIA CAPILLARIS
PANIC GRASS	PANICUM VIRGATUM
SEDGES	
SOUTHERN WAXY WEDGE	CAREX GLAUCCENS
WHITE TOP SEDGE	RHYNCHOSPORA LATIFOLIA
WOOLGRASS	SCIRPUS CYPERINUS



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

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PROFESSIONAL SEAL
JAMES L. MOYER
00516B

NO.	DATE	DESCRIPTION
1	04/24/2026	FINAL DRAWING
2	04/24/2026	FOR APPROVAL
3	04/24/2026	FOR APPROVAL

BY: [Signature]
FOR: [Signature]

REVISIONS

NO.	DATE	DESCRIPTION
1	04/24/2026	FOR APPROVAL
2	04/24/2026	FOR APPROVAL
3	04/24/2026	FOR APPROVAL

GRADING AND DRAINAGE PLAN
DUEY FISHING LODGE
181 COINJOCK CANAL ROAD
NORTH CAROLINA
CURRITUCK COUNTY
CRAWFORD TOWNSHIP
COINJOCK

DATE: 04/24/2026
SURVEYED: SEE NOTES
DESIGNED: MJM
DRAWN: RCA
CHECKED: MJM
FILE: 05316B

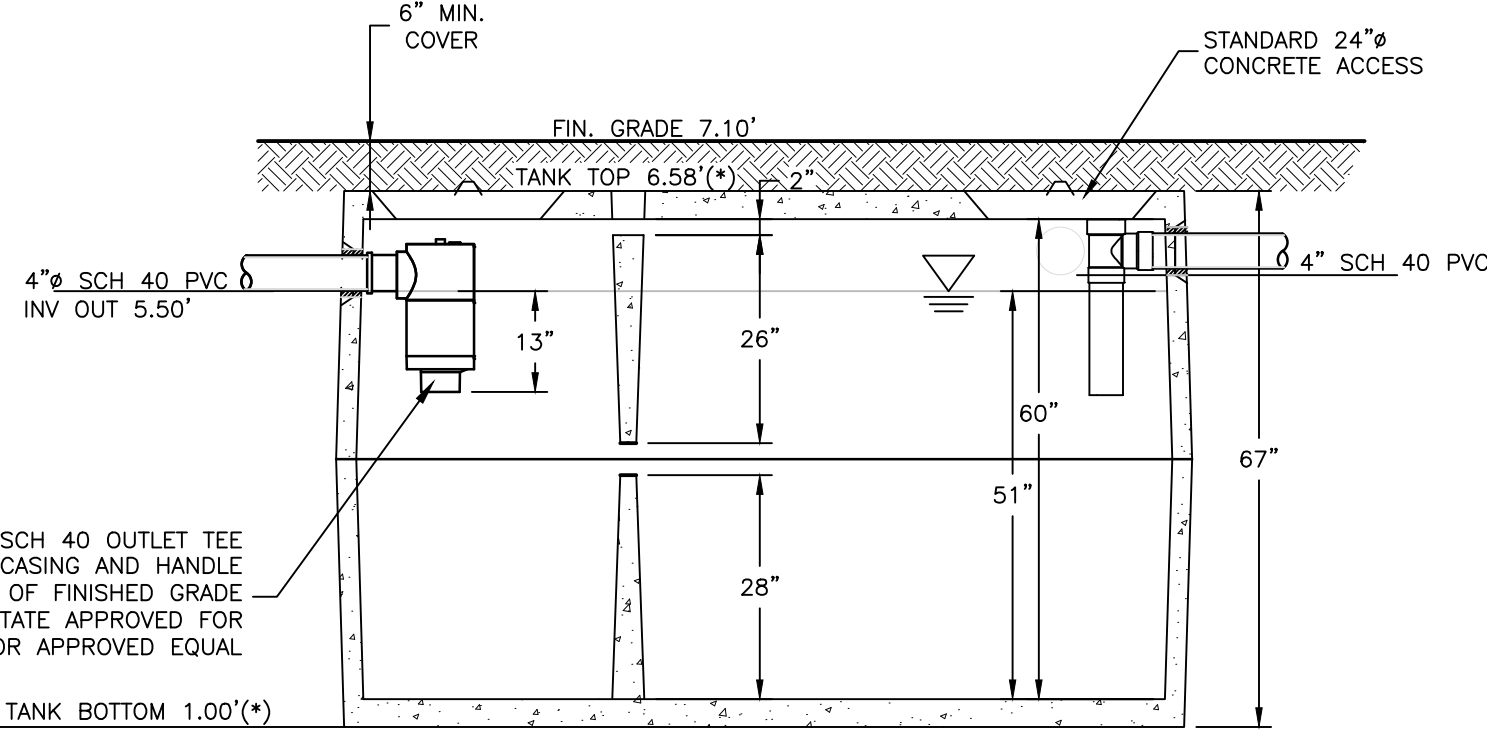
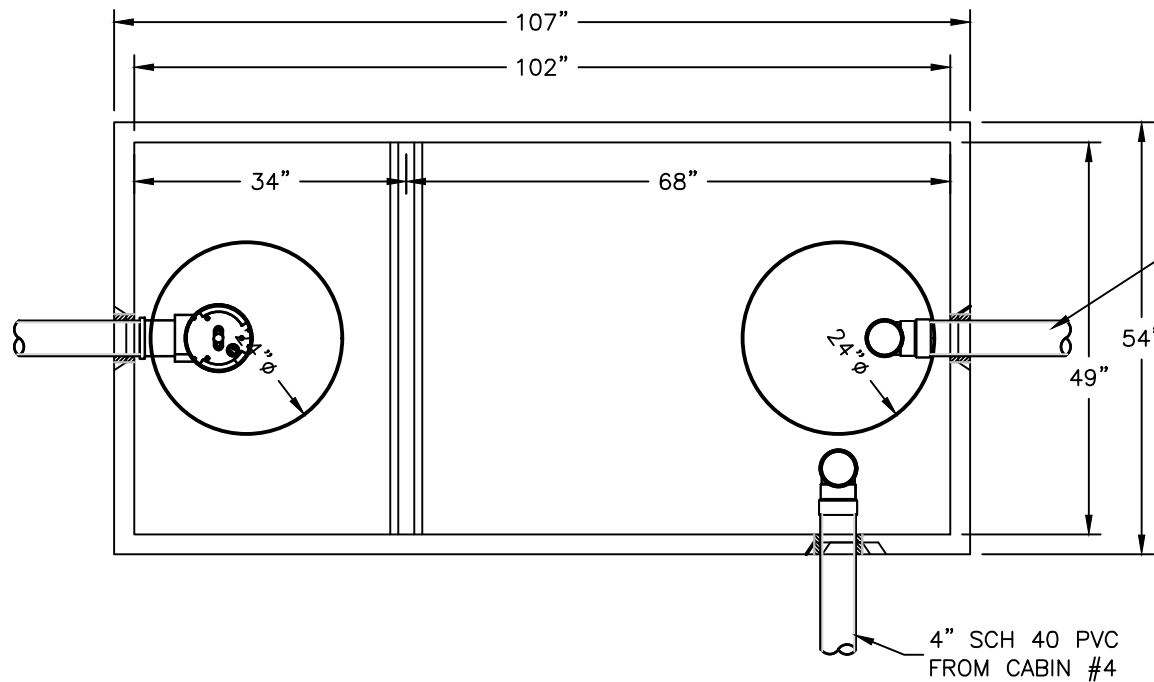
SCALE: 1" = 20'
C301
PROJ. NO. 05316B

SEPTIC SYSTEM NOTES:

- THIS PLAN IS PREPARED FOR DUEY MARINA, LLC. THE PROJECT INCLUDES THE CONSTRUCTION OF 4 CABINS (EACH 1 BEDROOM @ 495 SF).
- SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH REVISED SEWAGE RULES SECTION 15 NCAC 18E. (LATEST REVISION).
- SYSTEM INSTALLATION SHALL BE INSPECTED BY THE HEALTH DEPARTMENT AND ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH AND FACILITATING INSPECTIONS AS NEEDED FOR THE HEALTH DEPARTMENT AND ENGINEER.
- INSTALLATION OF THE SEPTIC SYSTEM ACCORDING TO THIS PLAN IS THE RESPONSIBILITY OF THE PERMIT HOLDER OR HIS ASSIGNS.
- NO MODIFICATIONS TO THIS PLAN SHALL BE MADE WITHOUT THE APPROVAL OF THE ENGINEER AND THE HEALTH DEPARTMENT.
- ALL TANKS SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH 15A NCAC 18E.0805. TANKS SHALL BE STATE APPROVED AND PROVIDED WITH APPROVAL STAMPS TO BE VERIFIED BY THE ENGINEER AND/OR LOCAL HEALTH DEPARTMENT. ALL TANK INLETS AND OUTLETS SHALL BE FITTED WITH PRECAST BOOTS. THE CONTRACTOR SHALL PRETEST TANKS TO VERIFY ACCEPTANCE PRIOR TO THE ENGINEER'S WITNESS. ANY ADDITIONAL COSTS ASSOCIATED WITH RETESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- MANHOLE RISERS SHALL BE TRAFFIC RATED AND BROUGHT TO FINISHED GRADE. MANHOLE COVERS SHALL BE FITTED WITH WATERTIGHT INSERTS IF LOCATED BELOW ESTABLISHED FLOOD ELEVATIONS OR OTHERWISE LOCATED IN A MANNER THAT MAY ACCUMULATE PONDING WATER. ALL ACCESS HATCHES SHALL BE LOCATED 6" ABOVE PROPOSED GRADE UNLESS OTHERWISE SPECIFIED AND DESIGNED TO RESIST WATER INTRUSION.
- EFFLUENT FILTERS SHALL BE STATE APPROVED AND MEET OR EXCEED THE SYSTEM DESIGN FLOW. FILTERS SHALL BE INSTALLED PER MANUFACTURER AND NCAC 18.E. REQUIREMENTS, INCLUDING ACCESSIBILITY.
- ALL DISTURBED SOIL SHALL BE STABILIZED AS SOON AS POSSIBLE BY GRADING AND SEEDING.

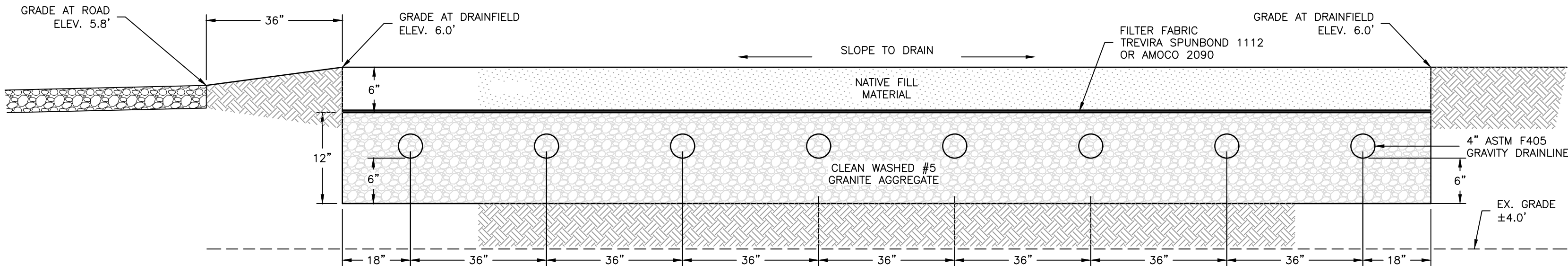
SYSTEM #2 (BED DRAINFIELD)

- DESIGN FLOW IS AS FOLLOWS:
2 CABINS (1 BEDROOM @ 495 SF) X 240 GPD/CABIN = 480 GPD
- MINIMUM TANK REQUIREMENTS:
MINIMUM SEPTIC TANK VOLUME = $20 = (2) * (480 \text{ GPD}) = 960 \text{ GAL}$
MINIMUM TANK SIZE OF 1,000 GAL IS REQUIRED FOR THIS SYSTEM
- GENERAL DRAINFIELD PARAMETERS:
AN ACCEPTANCE RATE OF 0.5 GPD/SF HAS BEEN USED
REQUIRED FIELD AREA = 1,440 SF (1,440 SF PROVIDED)
- BED DRAINFIELDS SHALL BE INSTALLED IN ACCORDANCE WITH NCAC 18.E.0903.



1,000 GALLON SEPTIC TANK

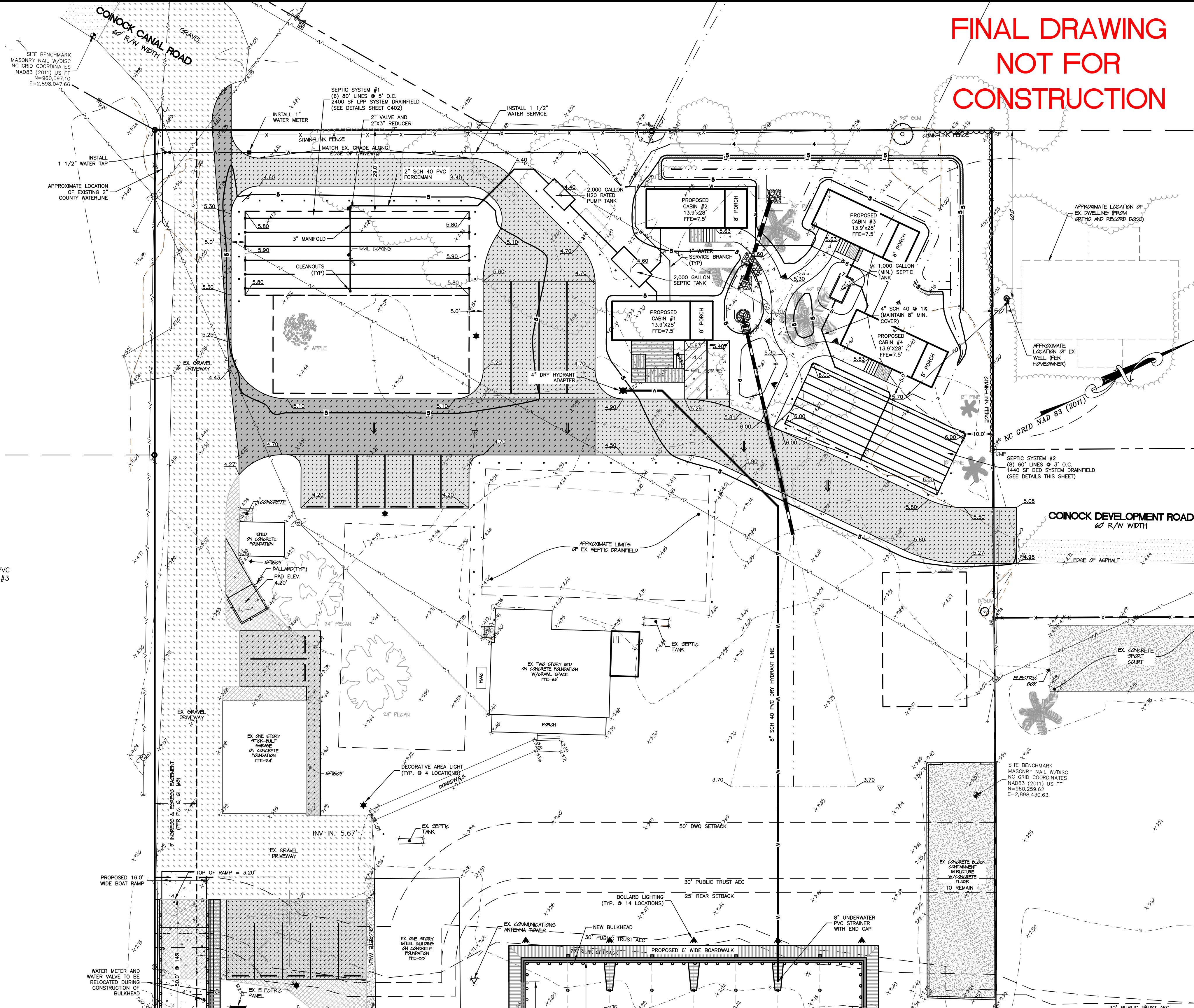
1,000 GALLON SEPTIC TANK
(CALD-STP-357-1000)
OR APPROVED EQUAL
NTS



BED SYSTEM DRAINFIELD SECTION

NTS

FINAL DRAWING
NOT FOR
CONSTRUCTION



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NORTH CAROLINA
PROFESSIONAL
SEAL
105512
MICHAEL J. WOLFE
REGISTERED PROFESSIONAL ENGINEER

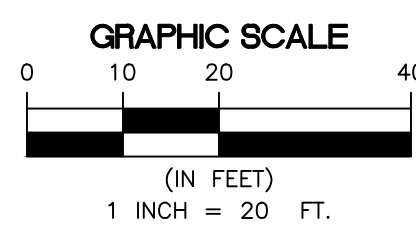
NO.	DATE	DESCRIPTION
1	04/24/2026	ADDED WATER SERVICE
2	04/24/2026	REVISED DRAINFIELD
3	04/24/2026	REVISED DRAINFIELD

WASTEWATER & UTILITY PLAN
DUEY FISHING LODGE
181 COINJOCK CANAL ROAD

NORTH CAROLINA
CURRITUCK COUNTY
CRAWFORD TOWNSHIP
COINJOCK

DATE	04/24/2026
SURVEYED:	SEE NOTES
DESIGNED:	MJM
DRAWN:	KCA
CHECKED:	MJM
FILE:	05316B

SCALE:
1" = 20'
C401
PROJ. NO. 05316B



1. (*) ALL DIMENSIONS, INVERTS, ELEVATIONS ARE BASED UPON TANK MODEL NOTED IN DETAILS. IF ANOTHER TANK IS USED, PROVIDE PLAN REVISIONS FOR ENGINEERS APPROVAL BEFORE ORDERING MATERIAL.
2. ALL TANKS SHALL HAVE RUBBER BOOTS WITH STAINLESS STEEL STRAPS (INSTALLED BY MANUFACTURER) AT ALL INLETS AND OUTLETS.
3. FIELD VERIFY PRIOR TO ORDERING RISERS.

**PUMP SHALL BE SINGLE PHASE WITH A 1/2 H.P. MOTOR. PUMPS SHALL BE CAPABLE OF DELIVERING 48 GPM AT APPROXIMATELY 20' TDH (MYERS ME45 EFFLUENT PUMP OR APPROVED EQUAL).

FLOATS MUST BE HUNG FROM A FIXED ANGLE OR ROD IN SUCH A FASHION THAT THE PUMPS AND PIPING DO NOT INTERFERE WITH THEIR OPERATION. FLOAT TREE MAY BE USED.



POLY-LOK PL-122. SCH 40 OUTLET TEE
AND FILTER WITH SUPPORT CASING AND
HANDLE TO EXTEND TO WITHIN 18" OF
FINISHED GRADE. FILTER SHALL BE NSF
STATE APPROVED FOR 1,800 GPD FLOW
(MIN.) OR APPROVED EQUAL



SYSTEM #1 (LPP DRAINFIELD)

-
- EX./PROP. GRAVEL DRIVE
- FIN. GRADE $\pm 5.8'$
- 5'
- 1 1/2" LATERAL CLEANOUT (TYP. AT EACH END - SEE DETAIL)
- PROVIDE CLEAN SAND, FILL TO ACHIEVE FINISHED GRADE (AVERAGE OF 8" ACROSS DRAINFIELD)
- 40'
- 4" ASTM F405 DRAINLINE
- 2.5' TO FIRST HOLE (TYP.)
- 1.5'
- 1.5'
- 2.5' TO FIRST HOLE (TYP.)
- 4" ASTM F405 DRAINLINE
- FILL TO ACHIEVE FINISHED GRADE (AVERAGE OF 8" ACROSS DRAINFIELD)
- 40'
- 1 1/2" LATERAL CLEANOUT (TYP. AT EACH END - SEE DETAIL)
- 5' MIN.
- PROPOSED PARKING (SEE SITE AND GRADING PLAN)
- 1 1/2" SCH 40 PVC LATERAL LINE
- 6" MIN. NATIVE FILL
- 12" CLEAN, WASHED #5 GRANITE AGGREGATE
- NATIVE SANDY SOIL
- LPP TRENCH (SEE DETAIL)
- NOTE: FIRST AND LAST HOLE IN EACH LATERAL TO FACE DOWNWARDS.
- NOTE: FIRST AND LAST HOLE IN EACH LATERAL TO FACE DOWNWARDS.
- 3" SCH 40 PVC MANIFOLD (SEE MANIFOLD CONNECTION DETAIL)
- TRENCH INV. 4.3'
- EX. GRADE VARIES $\pm 4.0'$ TO $4.3'$
- TRENCH INV. 4.3'

PRESSURE FED SAND LINED DRAINFIELD CROSS SECTION
NTS



NOTE: CLEAN-OUT INSTALLATION MUST BE PROVIDED AT THE END OF ALL LATERALS.

[illegible]

WASTEWATER DETAILS

DUEY FISHING LODGE
181 COINJOCK CANAL ROAD

CURRITUCK COUNTY

CRAWFORD TOWNSHIP

COINJOC

DATE:	04/24/2026
SURVEYED:	SEE NOTES
DESIGNED:	MJM
DRAWN:	KCA
CHECKED:	MJM
FILE:	05316B

SCALE:
1" = 30'

C402

PROJ. NO. 05316B