



Quible & Associates, P.C.

ENGINEERING • ENVIRONMENTAL SCIENCES • PLANNING • SURVEYING
SINCE 1959

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Kitty Hawk, NC 27949
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May 22, 2024

Mr. Jason Litteral
Currituck County
Planning & Community Development
153 Courthouse Road, Suite 110
Currituck, North Carolina 27949

Re: Major Site Plan Application Resubmittal
RPP Holdings Group, LLC – 4510 Caratoke Hwy
Barco, Currituck County, North Carolina

Mr. Litteral,

Thank you for your comments on the above-referenced project. On behalf of RPP Holdings Group LLC, Quible & Associates, P.C. hereby submits for your review the following digital documents:

1. One (1) digital copy of the revised Plan Set;
2. One (1) digital copy of the revised Building Elevations;
3. One (1) digital copy of the SW-002 and SW-003 forms;
4. One (1) digital copy of the revised calculations;
5. One (1) CD containing digital copies of all the documents and plans.

A copy of the TRC review comments dated May 8, 2024, are enclosed for reference, and our responses listed below for ease of review:

Planning (Jason Litteral, Jovita Hood)

1. Provide a cross access easement for the property to the north and south and extend the parking lot/driveway improvements to the property to the south. *Acknowledged. Gravel drive has been extended to the property line.*
2. Please provide building elevation showing faux windows or Bermuda shutters on the short ends of the proposed 3-sided structure. *Please see revised elevations.*
3. Staff would like to have a discussion regarding the front façade of the proposed 3-sided structure. Items to be discussed include, but are not limited to, raising the faux windows, providing awnings or Bermuda shutters directly over the windows, options for material and color changes. *Please see revised elevations.*
4. Specify the perimeter opaque fence is 8 feet tall and show the required understory trees every 15 feet on center immediately adjacent to, and on the outside of, the fence. *Acknowledged. Additional call outs have been added and understory trees shown throughout.*
5. Why does is the southwest corner of the perimeter fence shown as chain link? The entire outdoor use area shall be screened with an opaque 8-foot fence. *All existing chainlink is now shown to be removed and 8' tall opaque fencing to be installed.*

6. Section 8.6.5 A and B may require full compliance with off-street parking, landscaping, buffers, screening and signage. Including streetscape landscaping. *It is our understanding that the plan as provided has brought the existing building to be renovated into compliance with off street parking, landscaping, screening, and signage.*
7. SW escrow fee \$5500 required with submittal. *Acknowledged. This has been provided.*
8. Heritage tree ordinance applies. *Acknowledged. Please note a call out is on Sheet 2 to indicate no heritage tree impacts.*
9. There appears to be proposed fill in the 10-foot setback in the SW corner that is not part of stormwater conveyance. *Please note a call out has been added to Sheet 3 to show fill is outside of this setback.*
10. An as built survey is required due to the proximity of the proposed building to the setback. *Acknowledged.*

Currituck County Building and Fire Inspections (Rick Godsey, 252-232-6020)

Approved, Knox Box will be required for emergency responder access behind gate. Watch high pile combustible storage height. *Acknowledged.*

Stormwater Review, (McAdams, county consultant)

1. The stormwater calculations included in this submittal must also be accompanied by a completed copy of the Major Stormwater Plan Form SW-002. Please provide a copy of this with your next submittal. *The SW-002 form was submitted with the initial submittal, a duplicate copy is included with this resubmittal for reference along with a completed SW-003 form.*
2. Please check all BUA tables and update them for consistency. *Acknowledged. The DRAFT State Stormwater permit package will be reviewed and updated prior to final submittal to the State.*
3. Please review and update the fields in the EZ Form to match the rest of the submittal documents. *Acknowledged. The DRAFT State Stormwater permit package will be reviewed and updated prior to final submittal to the State.*
4. Please reconcile the 2" orifice elevation in either the narrative or the detail for the outlet structure. *Acknowledged. The DRAFT State Stormwater permit package will be reviewed and updated prior to final submittal to the State.*
5. The elevation of the top of the forebay is listed at 6' in the volume calculations and in the plan view, and the grading within the SCM shows the top of berm at 6'. Equalization will occur between the forebay and the main pool through the riprap pad, bringing the volume in the forebay up to 5' instead of 6'. Additionally, the above permanent pool storage volume calculated for the wet detention basin begins at 5'. Is the volume from 5' to 6' excluding the forebay? Please provide a more accurate description of the berm height and rip rap heights to show the top of berm vs. the bottom and top of the rip rap pad, and reconcile the discrepancy/provide a detailed stage storage breakdown with the volume calculation sheet to reflect where the forebay volume is being included. *The calculations have been revised to reflect the forebay top of 5.0'; grading has been revised to show the ground elevation under the rip-rap vs. the top of rip-rap.*
6. Please clarify if the haunching is intended to be soil or stone. The current callouts list both.
 - a. Is this detail intended for pipes under dams? The use of stone instead of solid cradle may lead to routing from the SCM through the dam, which could weaken

its integrity. *The reference to No 57 stone has been removed. Soil should be used for backfill throughout.*

7. Please provide clarification about the grading shown in the snip below. Is the 8' contour closed around the SCM, or does the top of the SCM extend out to the incoming swale. *The 8' contour continues around the basin to make the top, but the site east of the basin is currently at 8'. This contour is tying back into the existing 8' contour.*
8. Please include a velocity dissipator in the forebay where the swale enters the SCM to avoid erosion. *Acknowledged and added, as requested.*
9. Please provide the inlet elevation for the flared end section draining to the SCM. *Acknowledged and added, as requested.*
10. Please provide clarification on the callout below. Is the 6:1 slope on both the main pool side and forebay side? If so, please update the slope and recalculate storage on the forebay. As mentioned in comment #5, the grading reflects the top of the berm to be 6', but the top of rip rap is called out to be 6'. *The note has been updated to reflect vegetated shelf is only on the main pond side and grading has been updated accordingly to reflect the top of the earth instead of the top of the rip rap.*

Please review the enclosed documents and our above responses at your earliest convenience. Please do not hesitate to contact me at (252) 491-8147 or csaunders@quible.com should you have any questions or require any additional information. We respectfully request that Staff approve the major site plan application package so that a building permit application may be submitted.

Sincerely,
Quible & Associates, P.C.



Cathleen M. Saunders, P.E.

Encl.: as stated
Cc: RPP Group Holdings, LLC

NOTES

- CURRENT OWNER: RPP HOLDINGS GROUP, LLC
917 BURNSIDE RD.
MANTO, NC 27644
- ENGINEER: QUILBE & ASSOCIATES, P.C.
P.O. DRAWER 870
KITTY HAWK, NC
TEL: (252) 491-8147
- FIN: 8996-40-4911
- PID: 0070000110000
- PROPERTY ADDRESS: 4510 CARATOKE HWY
- PROPERTY ZONED: ZONE: 3.28 ACRES GENERAL BUSINESS (GB) AND REMAINING AGRICULTURAL (AG)
- MAXIMUM BUILDING HEIGHT = 35 FT
- MAXIMUM ALLOWABLE LOT COVERAGE (WITHIN GB) = 65% MAX
- LOT AREA = 12.02 ACRES TOTAL (AREAS BY COORDINATE METHOD.)
- SUBJECT REFERENCES: DB 86, PG 57; PC E.
- ADDITIONAL REFERENCES: PC P, SL 98; PC L, SL 84; PC L, SL 198.
- FIELD SURVEY DATES: 06/16/23-06/30/23.
- HORIZONTAL DATUM IS NAD83(2011). VERTICAL DATUM IS NAVD 1988, DERIVED FROM NC65 BOUNDARY MON NC VA RESET.
- PROPERTY IS LOCATED IN NFP FLOOD ZONES AS SHOWN AND SUBJECT TO CHANGES BASED ON COMMUNITY CD NO. 370076; PANEL 8986; MAP NUMBER 372089800K; EFFECTIVE DATE: 12/1/2016.
- THIS PLAN SUBJECT TO ANY FACTS, INCLUDING BUILDING SETBACK RESTRICTIONS, EASEMENTS, COVENANTS, ETC., THAT MAY BE REVEALED BY A FULL AND ACCURATE TITLE SEARCH.
- PROJECT SCOPE: PERMITTING AND CONSTRUCTION OF A ±7,500 SQ.FT. STORAGE BIN.
- SETBACKS: REQUIRED: FRONT: 20' (MAJOR ARTERIAL FULL SERVICE = 30') SIDE: 15' REAR: 25' WETLAND/RIPARIAN BUFFER: 30' ACCESSORY USE/PARKING = 10' MINIMUM FILL SETBACK = 10' (COUNTY ENGINEER EXCEPTION REQUIRED)

LEGEND

- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE
- EXISTING GRAVEL
- PROPOSED DEMOLITION
- EX IRON ROD
- EX DRILL HOLE
- EX MAG NAIL
- EX UTILITY POLE
- EX FIRE HYDRANT
- EX WATER VALVE
- EX SEWER MANHOLE
- EX WATER METER
- EX ELECTRICAL CONNECTION
- EX EXTERIOR LIGHT
- EX LIGHT POLE
- EXISTING CONTOUR
- EXISTING SPOT GRADE



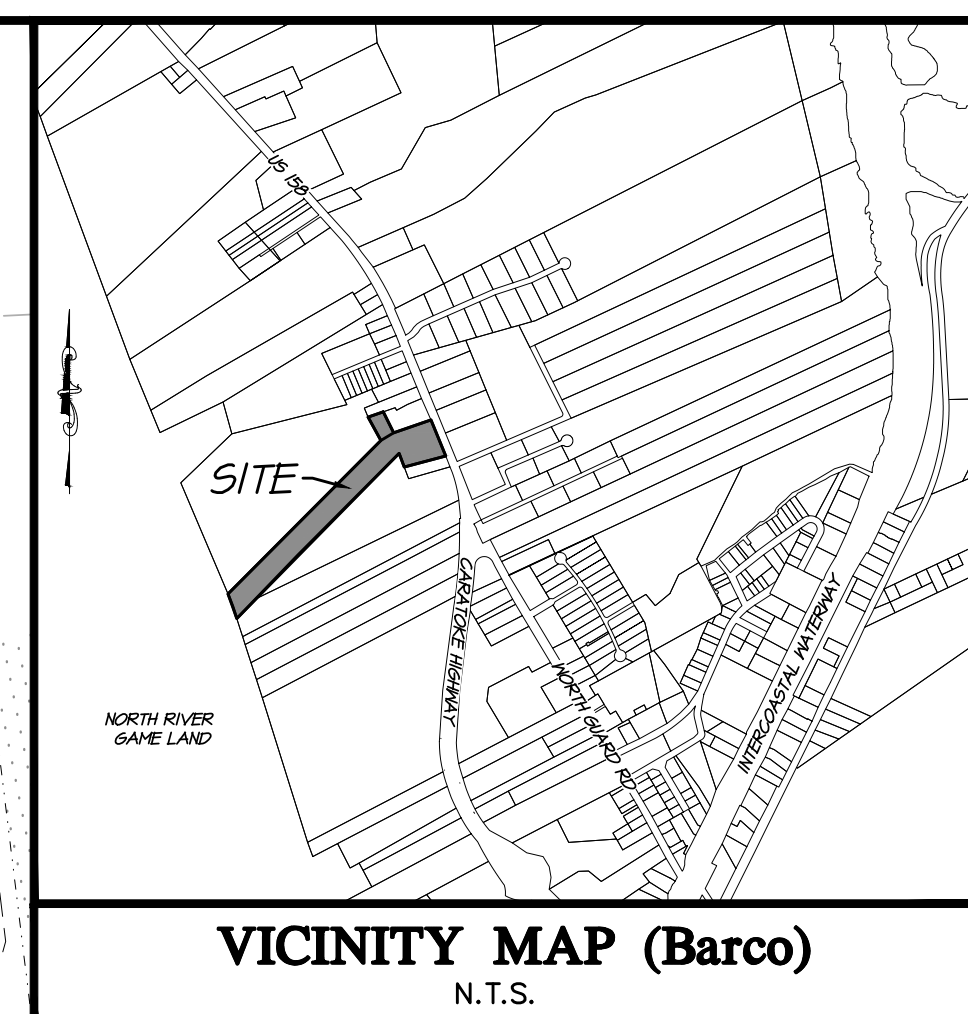
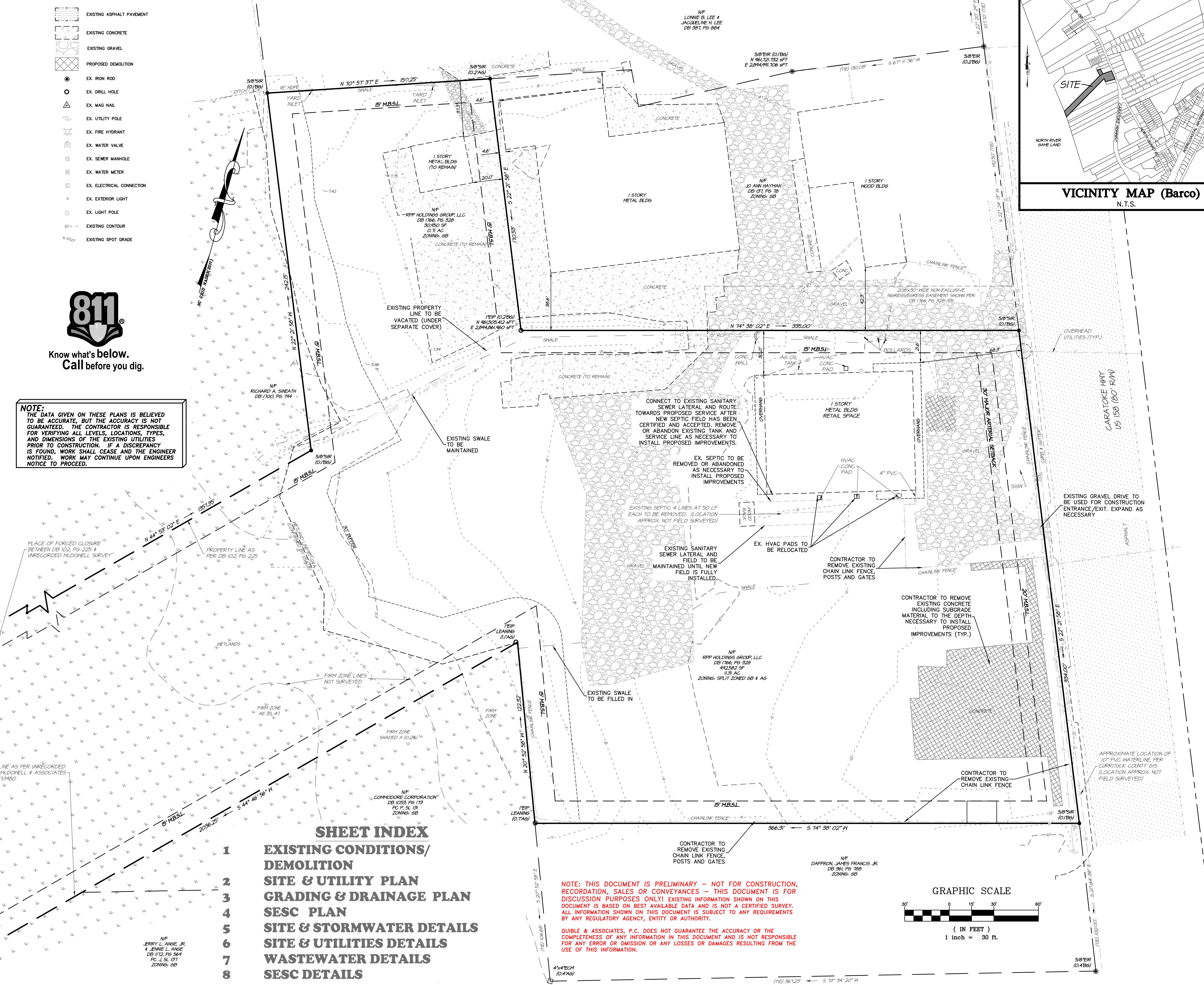
Know what's below.
Call before you dig.

NOTE:
THE DATA GIVEN ON THESE PLANS IS BELIEVED TO BE ACCURATE, BUT THE ACCURACY IS NOT GUARANTEED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL LEVELS, LOCATIONS, TYPES, AND DIMENSIONS OF THE EXISTING UTILITIES PRIOR TO CONSTRUCTION. IF A DISCREPANCY IS FOUND, WORK SHALL CEASE AND THE ENGINEER NOTIFIED. WORK MAY CONTINUE UPON ENGINEERS NOTICE TO PROCEED.

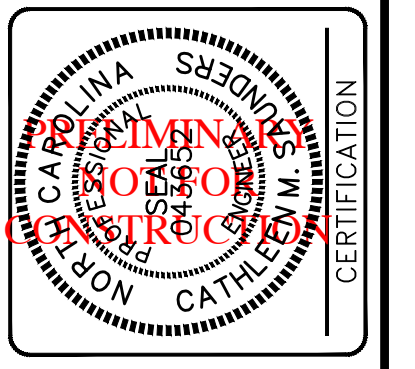
- ALL UTILITIES SERVING THIS SITE WILL BE PLACED UNDERGROUND.
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- BUILDING CONSTRUCTION SHALL COMPLY WITH ALL ASPECTS OF THE NORTH CAROLINA BUILDING AND FIRE CODE.
- EXISTING VEGETATION TO BE PRESERVED WHERE POSSIBLE.
- THE LOCATION, DIMENSIONS, AND ELEVATION OF EXISTING UTILITIES SHOWN ARE BASED ON THE BEST AVAILABLE DATA AND ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DATA IN THE FIELD PRIOR TO CONSTRUCTION TO HIS/HER OWN SATISFACTION. THE CONTRACTOR SHALL PERFORM ANY TEST PIT WORK OR PROVIDE LOCATION SERVICES AS REQUIRED TO AVOID CONFLICTS WITH EXISTING UTILITIES. CONTACT NORTH CAROLINA ONE-CALL AT TELEPHONE NO. 1-800-452-4246, 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION TO HAVE UTILITIES MARKED.
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- THE CONTRACTOR SHALL SEAL THE EDGE OF EXISTING ASPHALT PAVEMENT WITH TACK COAT IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS WHERE NEW PAVEMENT JOINS EXISTING PAVEMENT.
- ALL PAVEMENT JOINTS SHALL BE SAW-CUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
- PROOF ROLL ALL NEW PAVED AREAS. NOTIFY OWNER AND ENGINEER OF ANY UNACCEPTABLE AREAS.
- THIS PLAN SET TO BE UTILIZED FOR THE INSTALLATION OF SITE LAYOUT IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, GRADING & DRAINAGE, INSTALLATION OF SEDIMENT CONTROL MEASURES, WASTEWATER, AND WATER SYSTEM FOR BUILDING DESIGN AND ASSOCIATED PLUMBING, SEE APPROPRIATE SEPARATE PLANS.
- ALL EXTERIOR LIGHTING SHALL BE IN ACCORDANCE WITH CHAPTER 5.4 OF THE CURRITUCK COUNTY UNIFORM DEVELOPMENT ORDINANCE. LIGHTING PLAN TO BE PROVIDED UNDER SEPARATE COVER.
- REMOVE TREES, GRASSES, SHRUBS, AND OTHER VEGETATION IMPROVEMENTS OR OBSTRUCTIONS INTERFERING WITH INSTALLATION OF NEW CONSTRUCTION UNLESS OTHERWISE NOTED.
- STORMWATER MANAGEMENT: RUNOFF FROM ALL PROPOSED IMPROVEMENTS WILL BE COLLECTED AND CONVEYED INTO A STORMWATER CONTROL MEASURE LOCATED AT THE REAR OF THE PROPERTY. A STATE HIGH DENSITY STORMWATER PERMIT MUST BE OBTAINED.
- PRIOR TO LAND DISTURBANCE, A STATE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN IS REQUIRED.
- PRIOR TO ANY WORK WITHIN THE NCDOT RIGHT-OF-WAY, AN NCDOT ENCROACHMENT AGREEMENT AND DRIVEWAY ACCESS AGREEMENT SHALL BE OBTAINED.
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- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE DRAWINGS, APPLICABLE CURRITUCK COUNTY CODES AND ORDINANCES, AND NCDOT DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES REGULATIONS.
- WATER IS PROVIDED VIA CURRITUCK COUNTY WATER SYSTEM. ALL WATER IMPROVEMENTS SHALL BE IN ACCORDANCE WITH CURRITUCK COUNTY STANDARD WATER SPECIFICATIONS AND DETAILS.

STATE OF NORTH CAROLINA
DB 112, PG 444

JERRY L. ANGE, JR.
& JENNIE L. ANGE
DB 1172, PG 564
PC J, SL 157
ZONING: GB



NC License# C-028
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ENVIRONMENTAL SCIENCES SURVEYING**
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Fax: (828) 859-8148
www.quilbe.com



PROJECT NO. P23058
DESIGNED BY CMS
DRAWN BY BPJ/CMS
CHECKED BY MWS
ISSUE DATE 04/25/24

NO.	DATE	REVISIONS
1	05/21/2024	REVISED PER TRC COMMENTS

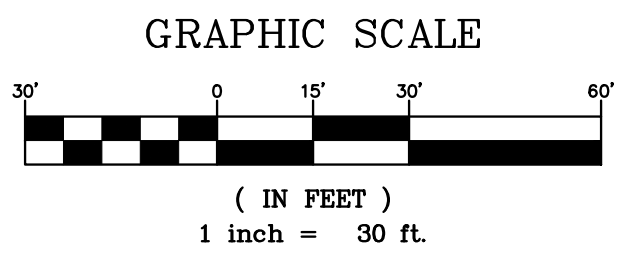
EXISTING CONDITIONS/DEMOLITION
RPP HOLDINGS GROUP, LLC
FORMERLY JJ HAYMAN AND SON
CRAWFORD TOWNSHIP CURRITUCK COUNTY NORTH CAROLINA

PROJECT NO. P23058
DESIGNED BY CMS
DRAWN BY BPJ/CMS
CHECKED BY MWS
ISSUE DATE 04/25/24
SHEET NO. **1**
OF 8 SHEETS

- SHEET INDEX**
- EXISTING CONDITIONS/DEMOLITION
 - SITE & UTILITY PLAN
 - GRADING & DRAINAGE PLAN
 - SESC PLAN
 - SITE & STORMWATER DETAILS
 - SITE & UTILITIES DETAILS
 - WASTEWATER DETAILS
 - SESC DETAILS

NOTE: THIS DOCUMENT IS PRELIMINARY - NOT FOR CONSTRUCTION, RECORDATION, SALES OR CONVEYANCES - THIS DOCUMENT IS FOR DISCUSSION PURPOSES ONLY! EXISTING INFORMATION SHOWN ON THIS DOCUMENT IS BASED ON BEST AVAILABLE DATA AND IS NOT A CERTIFIED SURVEY. ALL INFORMATION SHOWN ON THIS DOCUMENT IS SUBJECT TO ANY REQUIREMENTS BY ANY REGULATORY AGENCY, ENTITY OR AUTHORITY.

QUILBE & ASSOCIATES, P.C. DOES NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF ANY INFORMATION IN THIS DOCUMENT AND IS NOT RESPONSIBLE FOR ANY ERROR OR OMISSION OR ANY LOSSES OR DAMAGES RESULTING FROM THE USE OF THIS INFORMATION.



NOTES

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KITTY HAWK, NC
TEL: (252) 491-8147
- PIN: 8996-40-4911
- PID: 0070000110000
- PROPERTY ADDRESS: 4510 CARATOKE HWY
- PROPERTY ZONED: ZONE: 3.26 ACRES GENERAL BUSINESS (GB) AND REMAINING AGRICULTURAL (AG)
- MAXIMUM BUILDING HEIGHT = 35 FT
- MAXIMUM ALLOWABLE LOT COVERAGE (WITHIN GB) = 65% MAX
- LOT AREA = 12.02 ACES TOTAL (AREAS BY COORDINATE METHOD.)
- SUBJECT REFERENCES: DB 86, PG 57; PC E.
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- PROPERTY IS LOCATED IN NFP FLOOD ZONES AS SHOWN AND SUBJECT TO CHANGES BASED ON COMMUNITY CD NO. 370078; PANEL 8986; MAP NUMBER 32089860AK; EFFECTIVE DATE: 12/21/2018.
- THIS PLAN SUBJECT TO ANY FACTS, INCLUDING BUILDING SETBACK RESTRICTIONS, EASEMENTS, COVENANTS, ETC., THAT MAY BE REVEALED BY A FULL AND ACCURATE TITLE SEARCH.
- PROJECT SCOPE: PERMITTING AND CONSTRUCTION OF A ±7,500 SQ.FT. STORAGE BUILDING
- LOT COVERAGE:
PROPOSED:
ROADWAY/PARKING = 44,311.90 SQ.FT.
BUILDINGS W/ OVERHANG = 18,143.39 SQ.FT.
CONCRETE AREAS = 13,491.04 SQ.FT.
TOTAL PROPOSED = 23,566.1 SQ.FT.
TOTAL LOT COVERAGE (EXISTING TO REMAIN AND PROPOSED) = 75,946.3 SQ.FT.
PERCENT COVERAGE 53.4% OVER 3.27 ACRES OF GB ZONING
- MAXIMUM BUILDING HEIGHT = 35'
- SETBACKS:
FRONT: 20' (REQUIRED MAJOR ARTERIAL FULL SERVICE = 30')
SIDE: 15'
REAR: 25'
WETLAND/RIPARIAN BUFFER: 20'
ACCESSORY USE/PARKING = 10'
MINIMUM FILL SETBACK = 10' (COUNTY ENGINEER EXCEPTION REQUIRED)
- PARKING REQUIREMENTS:
RETAIL: 1 SPACE PER EVERY 300 SQ.FT.
7,133 SQ. FT. INTERIOR RETAIL FLOOR X 1 SPACE/300 SQ. FT. = 23.8 OR 23 SPACES REQUIRED.
STORAGE AREA: 1 SPACE PER EVERY 2,000 SQ. FT.
7,500 SQ. FT. ENCLOSED STORAGE X 1 SPACE/2,000 SQ. FT. = 3.8 SPACES OR 3 SPACES REQUIRED.
TOTAL SPACES REQUIRED: RETAIL + STORAGE = 26 SPACES
TOTAL SPACES PROVIDED: 29 SPACES
BIKE RACK REQUIRED: 1-BIKE RACK PROVIDED: 1
- ALL UTILITIES SERVING THIS SITE WILL BE PLACED UNDERGROUND.
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- STORMWATER MANAGEMENT:
RUNOFF FROM ALL PROPOSED IMPROVEMENTS WILL BE COLLECTED AND CONVEYED INTO A STORMWATER CONTROL MEASURE LOCATED AT THE REAR OF THE PROPERTY. A STATE HIGH DENSITY STORMWATER PERMIT MUST BE OBTAINED.
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LEGEND

- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING GRAVEL
- EX. TELEPHONE PEDESTAL
- EX. CABLE TV BOX
- EX. UTILITY POLE
- EX. DRAINAGE PIPE
- EX. UG GAS LINE
- EX. WATER LINE
- EX. SANITARY SEWER LINE
- FENCE AS NOTED
- PROPOSED HEAVY DUTY GRAVEL SECTION
- PROPOSED CONCRETE PAVEMENT
- PROPOSED DROP INLET
- PROPOSED STORM PIPE
- PROPOSED FIRE HYDRANT
- PROPOSED BENDS & TEES
- PROPOSED GATE VALVE
- PROPOSED WATERLINE
- PROPOSED SANITARY SEWER
- PROPOSED CLEAN OUT
- PROPOSED SEWER MANHOLE

TREE PLANTING SUMMARY

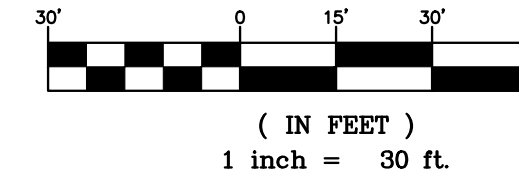
SYMBOL	QUANTITY	COMMON NAME	HEIGHT	SPREAD	MIN. SIZE @ PLANTING
14	14	BALD CYPRESS*	50' - 100'	20' - 30'	2" CAL. 8' HT.
14	14	RED MAPLE*	40' - 50'	25' - 45'	2" CAL. 8' HT.
35	35	AMERICAN HOLLY**	15' - 30'	10' - 20'	1.5" CAL. 6' HT.
35	35	ORAPE MYRTLE**	15' - 30'	6' - 15'	1.5" CAL. 6' HT.
23	23	GLOSSY ABELIA***	3' - 6'	3' - 6'	3 GALLON
23	23	DWARF YAUPON HOLLY***	3' - 6'	3' - 6'	3 GALLON
46	46	DWARF AZALEA***	3' - 6'	3' - 6'	3 GALLON

* CANOPY TREE SPECIES MAY BE SUBSTITUTED WITH THE SPECIES IDENTIFIED IN TABLE 3.4.6. OF THE CURRITUCK ADMINISTRATIVE MANUAL WITH COUNTY APPROVAL.

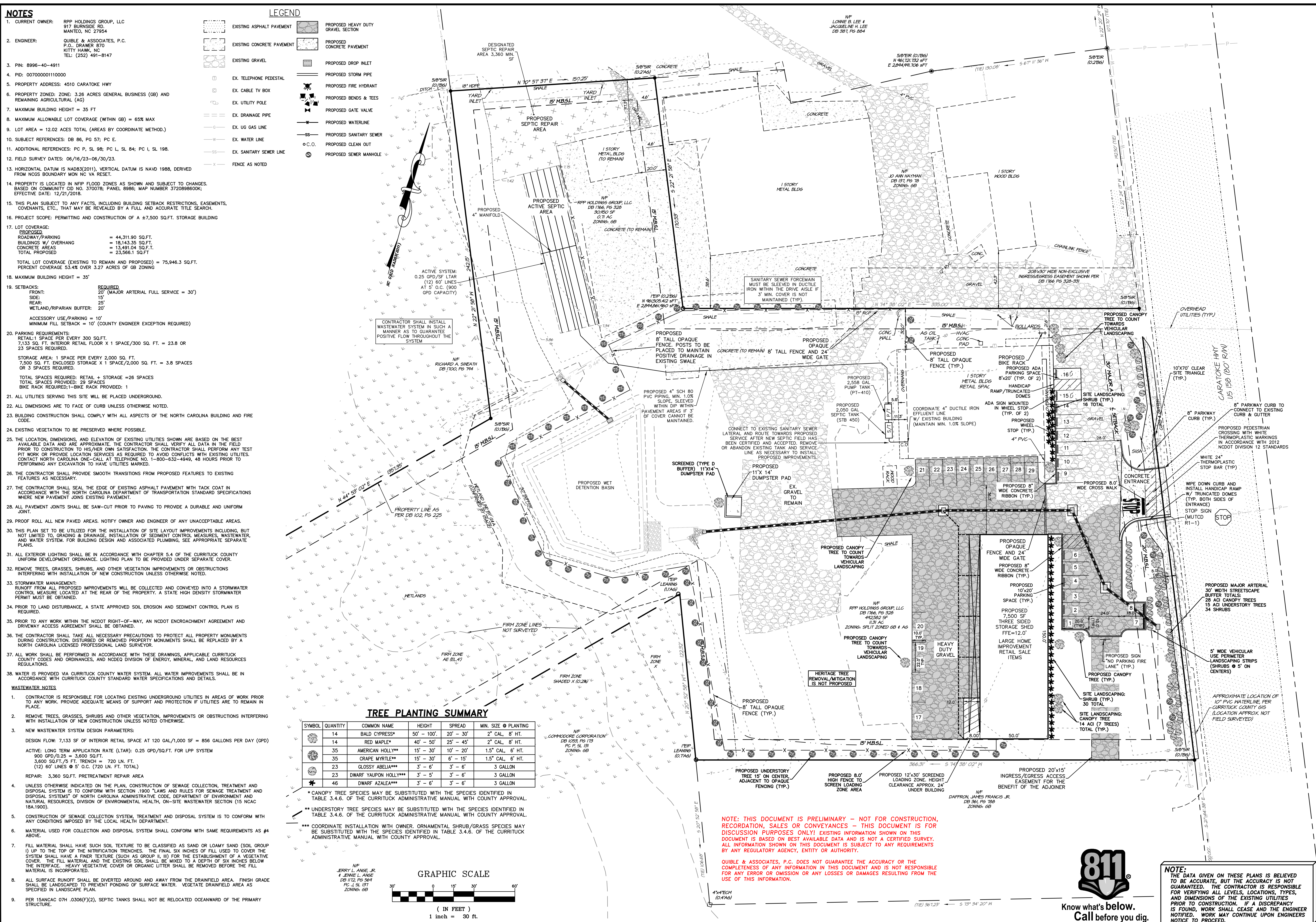
** UNDERSTORY TREE SPECIES MAY BE SUBSTITUTED WITH THE SPECIES IDENTIFIED IN TABLE 3.4.6. OF THE CURRITUCK ADMINISTRATIVE MANUAL WITH COUNTY APPROVAL.

*** COORDINATE INSTALLATION WITH OWNER. ORNAMENTAL SHRUB/GRASS SPECIES MAY BE SUBSTITUTED WITH THE SPECIES IDENTIFIED IN TABLE 3.4.6. OF THE CURRITUCK ADMINISTRATIVE MANUAL WITH COUNTY APPROVAL.

GRAPHIC SCALE



- WASTEWATER NOTES**
- CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UNDERGROUND UTILITIES IN AREAS OF WORK PRIOR TO ANY WORK. PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION IF UTILITIES ARE TO REMAIN IN PLACE.
 - REMOVE TREES, GRASSES, SHRUBS AND OTHER VEGETATION, IMPROVEMENTS OR OBSTRUCTIONS INTERFERING WITH INSTALLATION OF NEW CONSTRUCTION UNLESS OTHERWISE NOTED.
 - NEW WASTEWATER SYSTEM DESIGN PARAMETERS:
DESIGN FLOW: 7,133 SF OF INTERIOR RETAIL SPACE AT 120 GAL/1,000 SF = 856 GALLONS PER DAY (GPD)
ACTIVE LONG TERM APPLICATION RATE (LTAR): 0.25 GPD/SQ.FT. FOR LPP SYSTEM
900 GPD/0.25 = 3,600 SQ.FT.
3,600 SQ.FT./7.5 FT. TRENCH = 720 LN. FT.
(12) 60" LINES @ 5' O.C. (720 LN. FT. TOTAL)
REPAIR: 3,360 SQ.FT. PRE-TREATMENT REPAIR AREA
 - UNLESS OTHERWISE INDICATED ON THE PLAN, CONSTRUCTION OF SEWAGE COLLECTION, TREATMENT AND DISPOSAL SYSTEM IS TO CONFORM WITH SECTION 1900 "LAWS AND RULES FOR SEWAGE TREATMENT AND DISPOSAL SYSTEMS" OF NORTH CAROLINA ADMINISTRATIVE CODE, DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DIVISION OF ENVIRONMENTAL HEALTH, ON-SITE WASTEWATER SECTION (15 NCAC 18A.1900).
 - CONSTRUCTION OF SEWAGE COLLECTION SYSTEM, TREATMENT AND DISPOSAL SYSTEM IS TO CONFORM WITH ANY CONDITIONS IMPOSED BY THE LOCAL HEALTH DEPARTMENT.
 - MATERIAL USED FOR COLLECTION AND DISPOSAL SYSTEM SHALL CONFORM WITH SAME REQUIREMENTS AS #4 ABOVE.
 - FILL MATERIAL SHALL HAVE SUCH SOIL TEXTURE TO BE CLASSIFIED AS SAND OR LOAMY SAND (SOIL GROUP I) UP TO THE TOP OF THE NITRIFICATION TRENCHES. THE FINAL SIX INCHES OF FILL USED TO COVER THE SYSTEM SHALL HAVE A FINER TEXTURE (SUCH AS GROUP II, III) FOR THE ESTABLISHMENT OF A VEGETATIVE COVER. THE FILL MATERIAL AND THE EXISTING SOIL SHALL BE MIXED TO A DEPTH OF SIX INCHES BELOW THE INTERFACE. HEAVY VEGETATIVE COVER OR ORGANIC LITTER SHALL BE REMOVED BEFORE THE FILL MATERIAL IS INCORPORATED.
 - ALL SURFACE RUNOFF SHALL BE DIVERTED AROUND AND AWAY FROM THE DRAINFIELD AREA. FINISH GRADE SHALL BE LANDSCAPED TO PREVENT PONDING OF SURFACE WATER. VEGETATE DRAINFIELD AREA AS SPECIFIED IN LANDSCAPE PLAN.
 - PER 15ANCAC 07H .0306(F)(2), SEPTIC TANKS SHALL NOT BE RELOCATED OCEANWARD OF THE PRIMARY STRUCTURE.



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Quilbe & Associates, P.C.
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BLACK MOUNTAIN, NC 28711
Phone: (252) 891-8147
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NC License # C-028
SINCE 1959

REVISIONS

NO.	DATE	REVISIONS
1	05/21/2024	REVISED PER TRC COMMENTS

PROJECT NO. P23058

DESIGNED BY: **CMS**

DRAWN BY: **BPJ/CMS**

CHECKED BY: **MWS**

ISSUE DATE: **04/25/24**

SHEET NO. 2
OF 8 SHEETS

RPP HOLDINGS GROUP, LLC
FORMERLY JJ HAYMAN AND SON

CRAWFORD TOWNSHIP
CURRITUCK COUNTY
NORTH CAROLINA

NOTES

- CURRENT OWNER: RPP HOLDINGS GROUP, LLC
917 BURNSIDE RD.
MANTON, NC 27854
- ENGINEER: QUIBLE & ASSOCIATES, P.C.
P.O. DRAWER 870
KITTY HAWK, NC
TEL: (252) 491-8147
- FIN: 8996-40-4911
- PID: 00700000110000
- PROPERTY ADDRESS: 4510 CARATOKE HWY
- PROPERTY ZONING: (AG) 3.28 ACRES GENERAL BUSINESS (GB) AND REMAINING AGRICULTURAL, (A0)
- MAXIMUM BUILDING HEIGHT = 35 FT
- MAXIMUM ALLOWABLE LOT COVERAGE = 65% MAX
- LOT AREA = 12.02 ACRES TOTAL (AREAS BY COORDINATE METHOD)
- SUBJECT REFERENCES: DB 86, PG 57; PC E
- ADDITIONAL REFERENCES: PC P, SL 98; PC L, SL 84; PC I, SL 198
- FIELD SURVEY DATES: 06/16/23-06/30/23
- HORIZONTAL DATUM IS NAD83(2011), VERTICAL DATUM IS NAVD 1988, DERIVED FROM NCGS BOUNDARY MON NC VA RESET.
- PROPERTY IS LOCATED IN RFP FLOOD ZONES AS SHOWN AND SUBJECT TO CHANGES BASED ON COMMUNITY CD NO. 370078; PANEL 8986; MAP NUMBER 372089800K; EFFECTIVE DATE: 12/21/2016.
- THIS PLAN SUBJECT TO ANY FACTS, INCLUDING BUILDING SETBACK RESTRICTIONS, EASEMENTS, COVENANTS, ETC., THAT MAY BE REVEALED BY A FULL AND ACCURATE TITLE SEARCH.
- CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION BETWEEN SPOT ELEVATION GRADES AND MAINTAIN POSITIVE DRAINAGE.
- AREAS OF FILL SHALL BE EXCAVATED TO COMPACTED SUGARED AND BACKFILLED IN 6" LIFTS.
- ALL PIPES TO BE CLASS III REINFORCED CONCRETE, UNLESS OTHERWISE NOTED.
- ALL PAVEMENT JOINTS SHALL BE SAW-CUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
- PROOF ROLL ALL NEW PAVED AREAS. NOTIFY OWNER AND ENGINEER OF ANY UNACCEPTABLE AREAS.
- ALL PORTIONS OF ROOF DRAIN COLLECTION SYSTEM WITH LESS THAN 36" OF COVER IN TRAFFIC RATED CONDITIONS SHALL BE DUCTILE IRON PIPE.
- A STATE HIGH DENSITY STORMWATER PERMIT IS REQUIRED IN ADVANCE OF ANY ONSITE DISTURBANCE. SITE IS WITHIN THE PASQUOTANK RIVER BASIN RECEIVING STREAM INTRACASTAL WATERWAY (SC 30-2-5-1)
- ALL STORMWATER CONTROL MEASURES (SCM'S) ASSOCIATED WITH THE SITE MUST BE PERMITTED WITH THE STATE OF NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY'S (NCEQ) DIVISION OF ENERGY, MINERAL AND LAND RESOURCES. THE PERMITTED SCM FOOTPRINT PLUS AN ADDITIONAL TEN FEET SHALL BE ENCOMPASSED BY AN ACCESS AND MAINTENANCE EASEMENT FOR THE BENEFIT OF NCEQ AND MAINTENANCE PERSONNEL. THE ACCESS AND MAINTENANCE EASEMENT SHALL ALSO INCLUDE THE SIDE SLOPES, EMBANKMENT, AND EMERGENCY SPLAYWAY OF ALL THE SCM'S SHOWN ON THE PLAN.
- ALL REINFORCED CONCRETE PIPES (RCP) TO HAVE END TREATMENTS, EITHER FLARED END SECTIONS (FES) OR END WALLS. END WALLS TO BE CONSTRUCTED AS PER NCDOT STANDARD 838.01.

WET DETENTION BASIN

- MAINTENANCE:**
- IMMEDIATELY AFTER THE WET POND IS ESTABLISHED, THE PLANTS ON THE VEGETATED SHELF AND PERIMETER OF THE BASIN SHOULD BE WATERED TWICE WEEKLY IF NEEDED, UNTIL THE PLANTS BECOME ESTABLISHED (COMMONLY SIX WEEKS).
 - NO PORTION OF THE WET POND SHOULD BE FERTILIZED AFTER THE FIRST INITIAL FERTILIZATION THAT IS REQUIRED TO ESTABLISH THE PLANTS ON THE VEGETATED SHELF.
 - STABLE GROUND COVER SHOULD BE MAINTAINED IN THE DRAINAGE AREA TO REDUCE THE SEDIMENT LOAD TO THE WET POND.
 - IF THE POND MUST BE DRAINED FOR AN EMERGENCY OR TO PERFORM MAINTENANCE, THE FLUSHING OF SEDIMENT THROUGH THE EMERGENCY DRAIN SHOULD BE MINIMIZED AS MUCH AS POSSIBLE.
 - ONCE A YEAR, A DAM SAFETY EXPERT SHOULD INSPECT THE EMBANKMENT.

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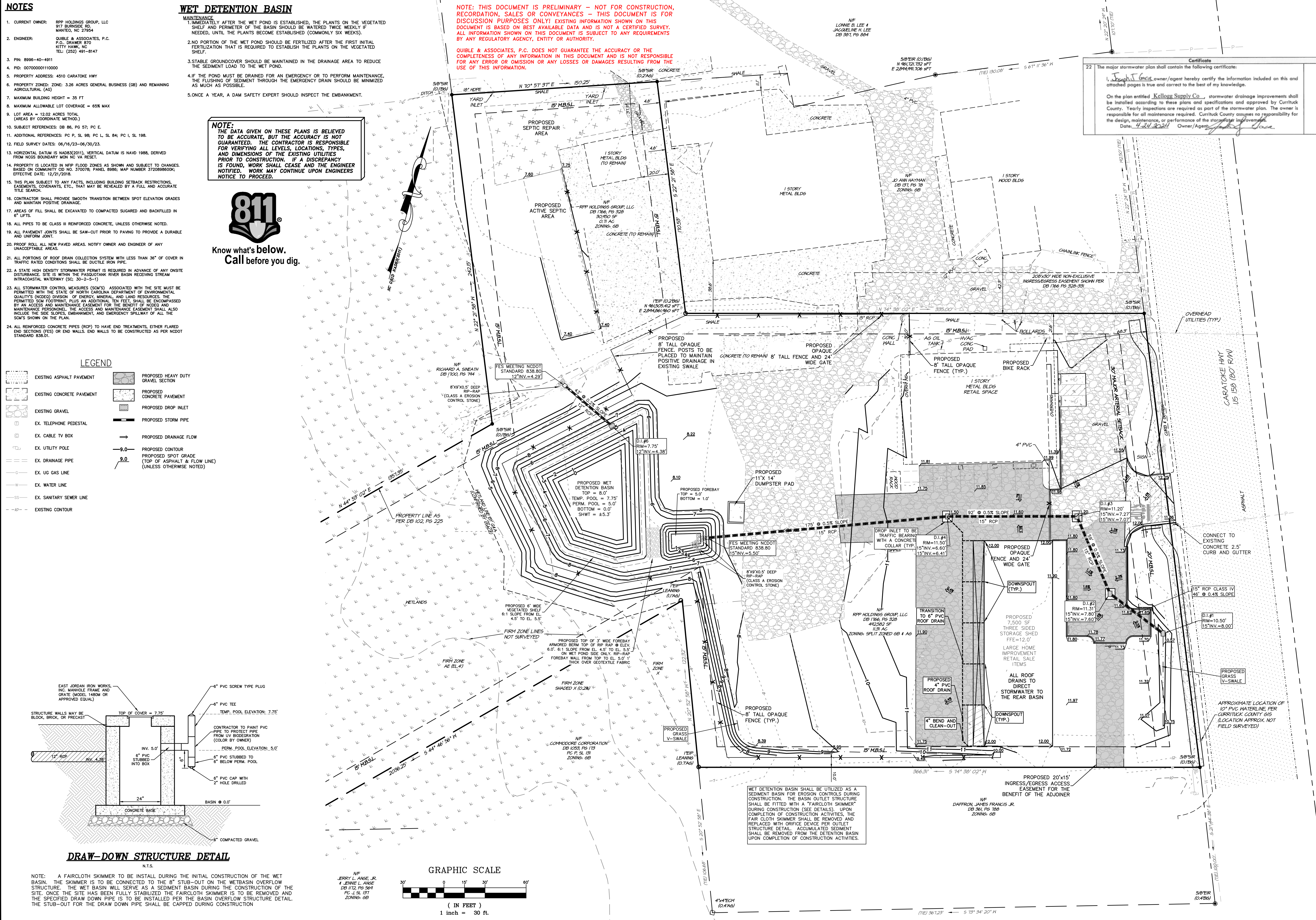
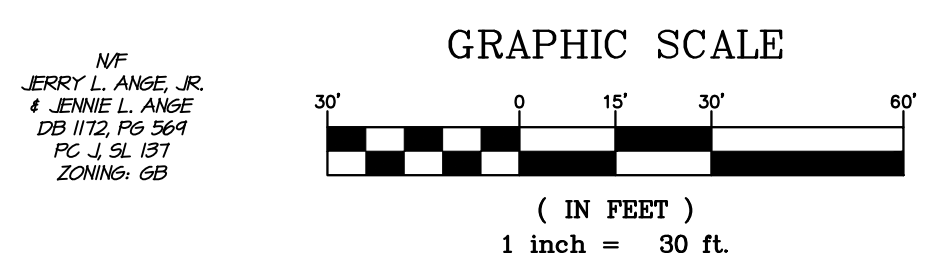
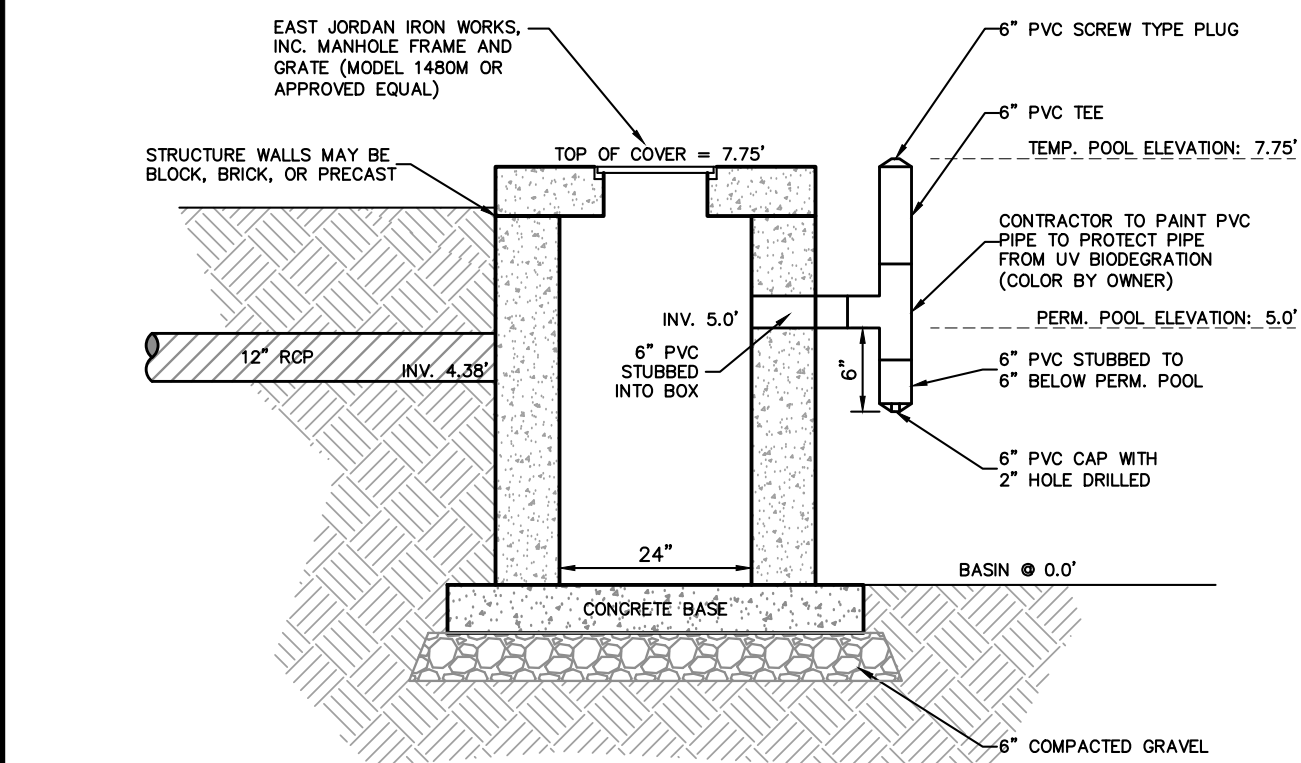
Know what's below.
Call before you dig.

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LEGEND

- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING GRAVEL
- EX. TELEPHONE PEDESTAL
- EX. CABLE TV BOX
- EX. UTILITY POLE
- EX. DRAINAGE PIPE
- EX. US GAS LINE
- EX. WATER LINE
- EX. SANITARY SEWER LINE
- EXISTING CONTOUR
- PROPOSED HEAVY DUTY GRAVEL SECTION
- PROPOSED CONCRETE PAVEMENT
- PROPOSED DROP INLET
- PROPOSED STORM PIPE
- PROPOSED DRAINAGE FLOW
- PROPOSED CONTOUR
- PROPOSED SPOT GRADE (TOP OF ASPHALT & FLOW LINE) (UNLESS OTHERWISE NOTED)



Certificate

The major stormwater plan shall contain the following certificate:

I, **John G. Jones**, owner/agent hereby certify the information included on this and attached pages is true and correct to the best of my knowledge.

On the plan entitled **Kellogg Supply Co.**, stormwater drainage improvements shall be installed according to these plans and specifications and approved by Currituck County. Yearly inspections are required as part of the stormwater plan. The owner is responsible for all maintenance required. Currituck County assumes no responsibility for the design, maintenance, or performance of the stormwater improvements.

Date: **4/24/2024** Owner/Agent: **John G. Jones**

Quible & Associates, P.C.
CURRITUCK COUNTY, NORTH CAROLINA
90 CHURCH STREET
BLACK MOUNTAIN, NC 28711
PHONE: (252) 491-8147
WWW.QUIBLEANDASSOCIATES.COM

GRADING & DRAINAGE PLAN
RPP HOLDINGS GROUP, LLC
FORMERLY JJ HAYMAN AND SON

PROJECT NO. **P23058**
DESIGNED BY **CMS**
DRAWN BY **BPJ**
CHECKED BY **MWS**
ISSUE DATE **04/25/24**

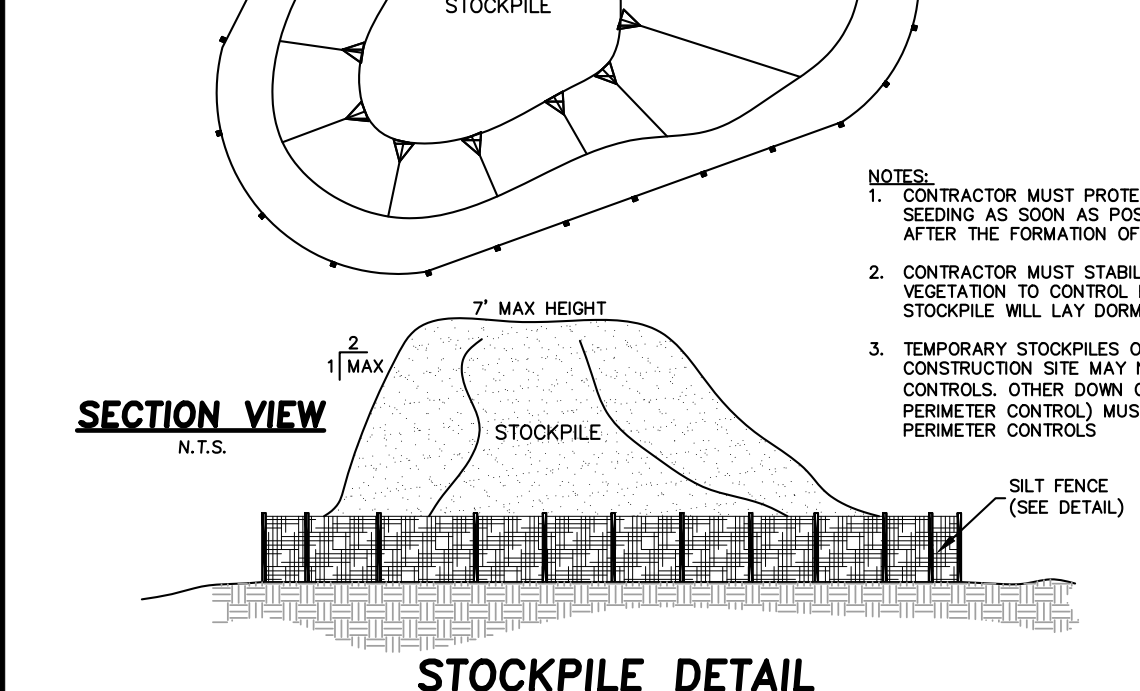
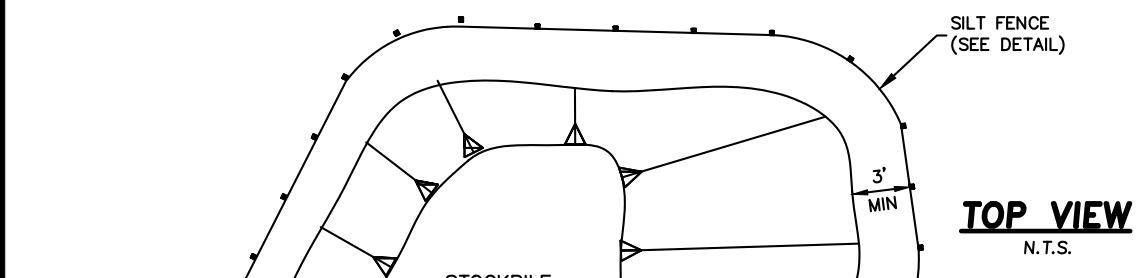
SHEET NO. **3**
OF 8 SHEETS

NOTES

- CURRENT OWNER: RPP HOLDINGS GROUP, LLC
917 BURNSIDE RD.
MAYFLO, NC 27554
- ENGINEER: QUIBLE & ASSOCIATES, P.C.
P.O. DRAWER 870
KITTY HAWK, NC
TEL: (252) 491-8147
- PIN: 8996-40-4911
- PID: 0070000110000
- PROPERTY ADDRESS: 4510 CARATOKE HWY
- PROPERTY ZONED: ZONE 3.26 ACRES GENERAL BUSINESS (GB) AND REMAINING AGRICULTURAL (AG)
- MAXIMUM BUILDING HEIGHT = 35 FT
- MAXIMUM ALLOWABLE LOT COVERAGE (WITHIN GB) = 65% MAX
- LOT AREA = 12.02 ACRES TOTAL (AREAS BY COORDINATE METHOD)
- SUBJECT REFERENCES: DB 86, PG 57; PC E
- ADDITIONAL REFERENCES: PC P, SL 98; PC L, SL 84; PC L, SL 198
- FIELD SURVEY DATES: 06/16/23-06/30/23
- HORIZONTAL DATUM IS NAD83(2011), VERTICAL DATUM IS NAVD 1988, DERIVED FROM NCGS BOUNDARY MON NC VA RESET
- PROPERTY IS LOCATED IN NFIP FLOOD ZONES AS SHOWN AND SUBJECT TO CHANGES BASED ON COMMUNITY C/D NO. 37007R; PANEL 8996; MAP NUMBER 3720989600R; EFFECTIVE DATE: 12/21/2016
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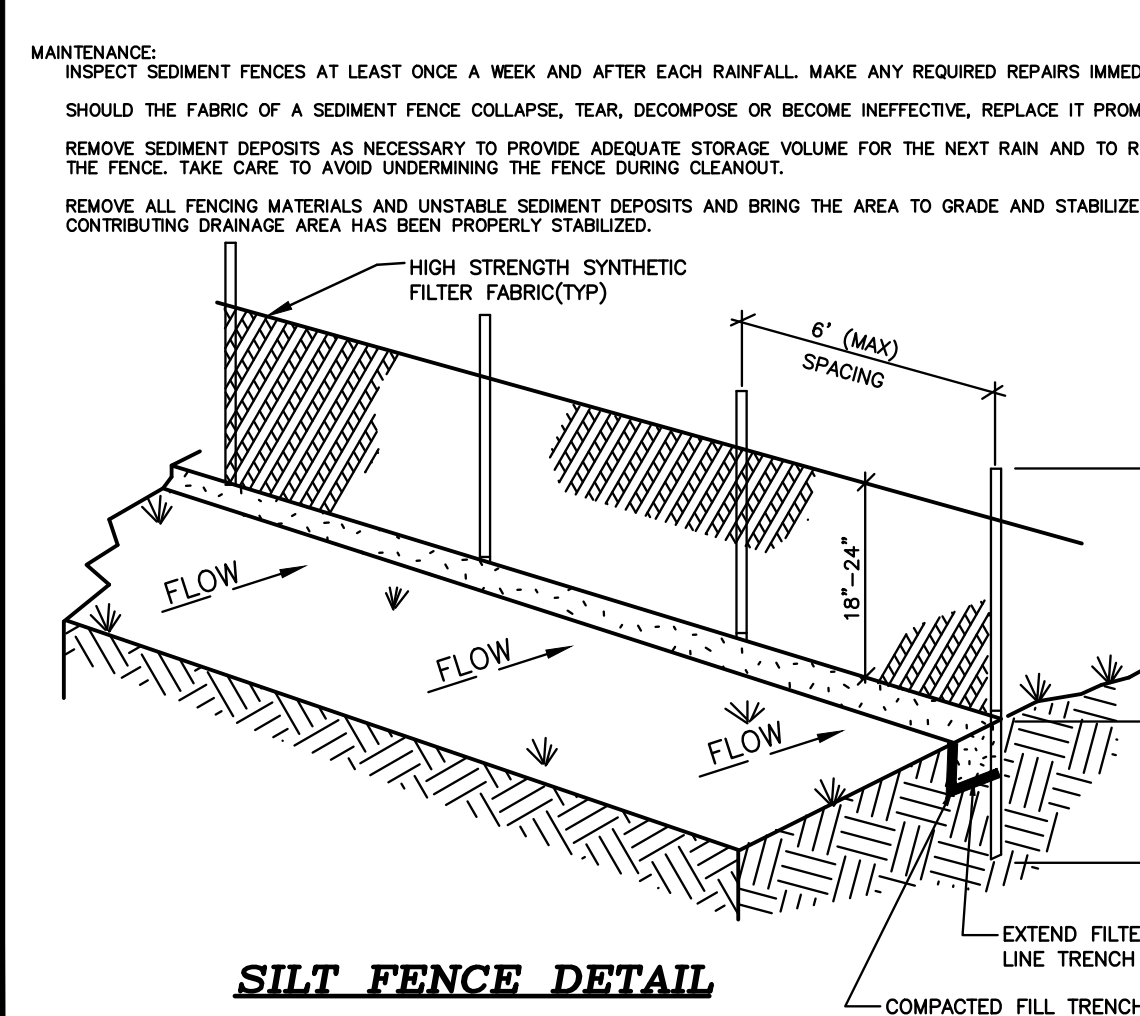
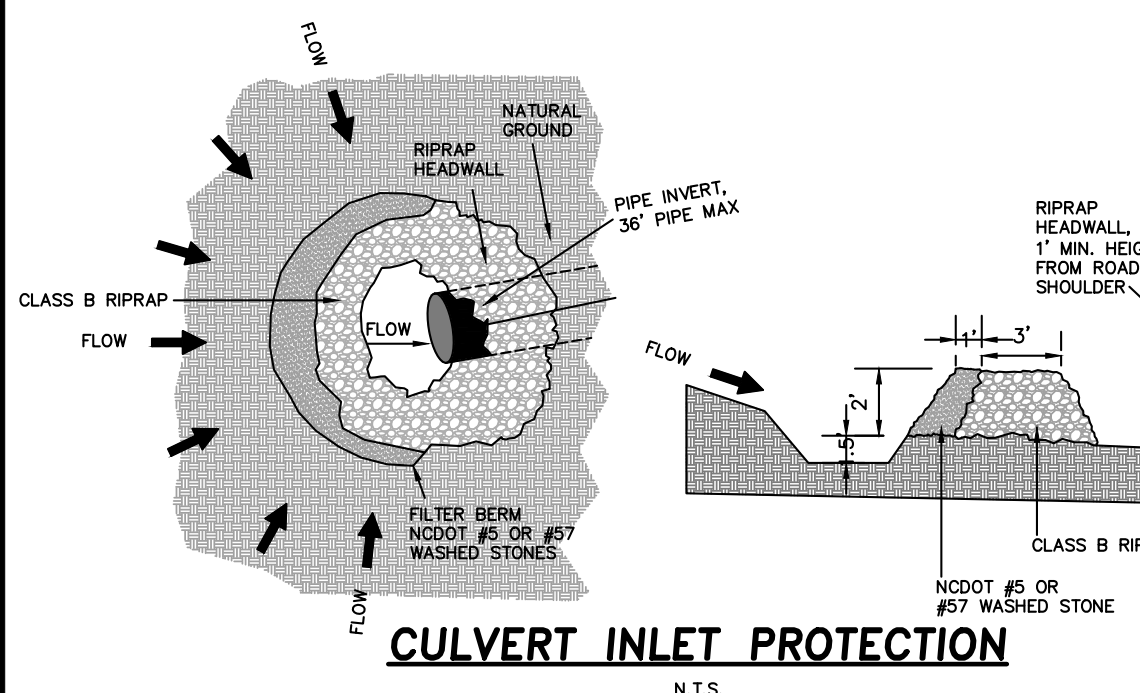
SOIL EROSION & SEDIMENTATION CONTROL NOTES:

- PRECONSTRUCTION:**
- OBTAIN PLAN APPROVAL AND OTHER APPLICABLE PERMITS.
 - FLAG AND/OR ROUGH STAKE WORK LIMITS.
 - HOLD PRECONSTRUCTION CONFERENCE (OWNER, CONTRACTOR, ENGINEER, AND APPROPRIATE GOVERNMENT OFFICIALS) AT LEAST ONE WEEK PRIOR TO START OF CONSTRUCTION ACTIVITIES.
- CONSTRUCTION:**
- INSTALL CONSTRUCTION ENTRANCE & SILT FENCING AT LOCATIONS SHOWN ON PLAN.
 - CONSTRUCT TEMPORARY SEDIMENT BASIN. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE PRIOR TO ANY DEMOLITION.
 - COMPLETE CLEARING AND GRUBBING PROCEDURES.
 - GRADE SITE ACCORDING TO PLAN AND BEGIN CONSTRUCTION OF PROPOSED IMPROVEMENTS.
 - INSTALL CONTRIBUTING STORM CONVEYANCES INCLUDING RIP-RAP APRONS, MATING AND ASSOCIATED EROSION CONTROLS.
 - COMPLETE FINAL GRADING OF THE GROUNDS, TOPSOIL, PERMANENTLY SEED, LANDSCAPE, AND MULCH.
 - ALL EROSION & SEDIMENTATION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER HEAVY RAINFALL EVENT. NEEDED REPAIRS AND MAINTENANCE WILL BE MADE IMMEDIATELY. FURTHERMORE, IF ANY WIND OR STORMWATER RUNOFF EROSION DEVELOPS DURING THE CONSTRUCTION OF THE PROJECT, ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO ADDRESS THE PROBLEM AREA.
 - ONCE THE SITE CONSTRUCTION IS COMPLETE AND DENUDED SURFACES ARE FULLY STABILIZED, ALL STORMWATER CONVEYANCES, STRUCTURES, PIPING AND BASINS SHALL BE CLEANED OF ALL SILT/DEBRIS WHICH MAY HAVE ACCUMULATED DURING CONSTRUCTION. CONTRACTOR SHALL VERIFY DESIGN GRADES OF ALL STORMWATER CONVEYANCES INCLUDING THE BASIN AND RESTORE TO DESIGN SPECIFICATIONS AS NECESSARY.
 - UPON THE REMOVAL OF ACCUMULATED SEDIMENTS AND SITE STABILIZATION, ALL REMAINING EROSION CONTROLS MUST BE REMOVED FROM THE DEVELOPMENT. ALL DOWNSTREAM EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL THE COMPLETION OF ALL OTHER DEVELOPMENT CONSTRUCTION ACTIVITIES.



CONSTRUCTION & MAINTENANCE NOTES:

- CLEAR THE AREA OF ALL DEBRIS THAT MIGHT HINDER EXCAVATION AND DISPOSAL OF SPOIL.
 - INSTALL THE CLASS B OR CLASS RR RIPRAP IN A SEMI-CIRCLE AROUND THE PIPE INLET. THE STONE SHOULD BE BUILT UP HIGHER ON EACH END WHERE IT TIES INTO THE EMBANKMENT. THE MINIMUM CREST WIDTH OF THE RIPRAP SHOULD BE 3 FEET, WITH A MINIMUM BOTTOM WIDTH OF 11 FEET. THE MINIMUM HEIGHT SHOULD BE 2 FEET, BUT ALSO 1 FOOT LOWER THAN THE SHOULDER OF THE EMBANKMENT OR DIVERSIONS.
 - A 1 FOOT THICK LAYER OF NO. 57 OR #2 STONE SHOULD BE PLACED ON THE OUTSIDE SLOPE OF THE RIPRAP.
 - THE SEDIMENT STORAGE AREA SHOULD BE EXCAVATED AROUND THE OUTSIDE OF THE STONE HORSESHOE 18 INCHES BELOW NATURAL GRADE.
 - WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, FILL DEPRESSION AND ESTABLISH FINAL GRADING ELEVATIONS, COMPACT AREA PROPERLY, AND STABILIZE WITH GROUND COVER.
- MAINTENANCE:**
- INSPECT ROCK PIPE INLET PROTECTION AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE SEDIMENT STORAGE AREA TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN THE DESIGNATED DISPOSAL AREA AND REPLACE THE CONTAMINATED PART OF THE GRAVEL FACING.
- CHECK THE STRUCTURE FOR DAMAGE. ANY RIPRAP DISPLACED FROM THE STONE HORSESHOE MUST BE REPLACED IMMEDIATELY.
- AFTER ALL THE SEDIMENT-PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE THE STRUCTURE AND ALL THE UNSTABLE SEDIMENT. SMOOTH THE AREA TO BLEND WITH THE ADJOINING AREAS AND PROVIDE PERMANENT GROUND COVER (SURFACE STABILIZATION).



SOIL EROSION & SEDIMENTATION CONTROL NOTES:

- AREA TO BE DISTURBED: ± 127,661 SF (± 3.0 AC.)
- PROVIDE A GROUND COVER STABILIZATION (TEMPORARY OR PERMANENT) ON ALL DENUDED DOWNSTREAM SURFACES FOLLOWING THE COMPLETION OF LAND DISTURBING ACTIVITIES PER THE CRITERIA LISTED BELOW.
 - PERIMETER DIKES, BERMS, SWALES, DITCHES AND SLOPES SHALL BE STABILIZED IN 7 DAYS.
 - HIGH QUALITY WATER (HOW) ZONES SHALL BE STABILIZED IN 7 DAYS.
 - DOWNSTREAM SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED IN 7 DAYS. IF SLOPES ARE 10' OR LESS AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
 - DOWNSTREAM SLOPES 3:1 OR FLATTER AND LESS THAN 50' IN LENGTH SHALL BE STABILIZED IN 14 DAYS. SLOPES 3:1 OR FLATTER EXCEEDING 50' IN LENGTH SHALL BE STABILIZED IN 7 DAYS.
 - ALL OTHER DOWNSTREAM AREAS WITH SLOPES 4:1 OR FLATTER SHALL BE STABILIZED WITHIN 14 DAYS.
- IF LAND DISTURBING ACTIVITIES OCCUR OUTSIDE THE PERMANENT VEGETATION SEEDING DATES (APR. 1 - SEP. 30) THEN TEMPORARY VEGETATION SEEDING SPECIFICATIONS SHALL BE FOLLOWED FOR PLANTING UNTIL THE NEXT APPROPRIATE PERMANENT SEEDING PERIOD, AT WHICH TIME THE PERMANENT VEGETATION SHALL BE ESTABLISHED ACCORDING TO PERMANENT VEGETATION SEEDING SPECIFICATIONS (SEE PERM. & TEMP. SEEDING SPECIFICATIONS).
- IF EXCESSIVE WIND EROSION OR STORMWATER RUNOFF EROSION DEVELOPS DURING TIME OF CONSTRUCTION ANY LOCATION ON THE PROJECT SITE, ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED IMMEDIATELY AS DIRECTED BY THE ENGINEER TO ADDRESS THE PROBLEM AREA AND PREVENT DAMAGE TO ADJACENT PROPERTIES.
- SOIL EROSION AND SEDIMENTATION CONTROLS TO BE INSPECTED, MAINTAINED AND REPAIRED AS NECESSARY UNTIL PERMANENT CONTROLS ARE ESTABLISHED.
 - A RAIN GAUGE MUST BE KEPT ON SITE.
 - DEDICATED DEMOLITION AND OTHER WASTE AREAS AND EARTHEN MATERIAL STOCKPILES MUST BE LOCATED AT LEAST 50 FEET FROM DRAINS OR STREAMS UNLESS NO ALTERNATIVE IS FEASIBLE.
 - ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSPECTED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN A HALF INCH (DURING A 24 HOUR PERIOD). IMMEDIATE CORRECTIVE ACTION MUST BE TAKEN FOR ANY DEVICE FAILURE.
 - INSPECT ALL OUTLETS WHERE RUNOFF LEAVES SITE AND EVALUATE EFFECT ON NEARBY STREAMS. TAKE CORRECTIVE ACTION IF NECESSARY.
 - MAINTAIN RECORDS OF INSPECTIONS AND CORRECTIVE ACTIONS.
 - EARTHWORK NOTE: OFFSITE BROWBAR MATERIAL SHALL COME FROM AN NCEQ LAND QUALITY SECTION APPROVED SITE. OFFSITE DISPOSAL OF EXCESS MATERIAL SHALL BE TO AN NCEQ LAND QUALITY SECTION APPROVED SITE.

WET BASIN SHALL BE UTILIZED AS A SEDIMENT BASIN FOR EROSION CONTROLS DURING CONSTRUCTION. INSTALL THE OVERFLOW LEVEL SPREADER PER GRADING AND DRAINAGE PLANS. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE DETENTION BASIN UPON COMPLETION OF CONSTRUCTION ACTIVITIES.

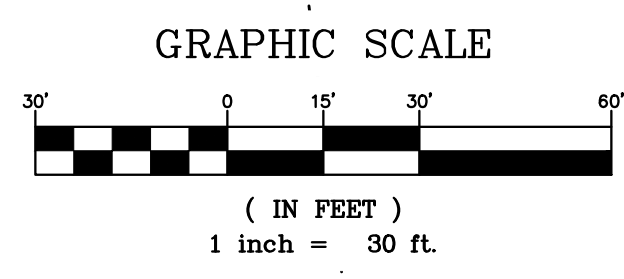
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LEGEND

- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY GRAVEL SECTION
- EXISTING CONTOUR
- EXISTING SPOT GRADE
- PROPOSED CONTOUR
- PROPOSED FLOW DIRECTION AND SLOPE
- PROPOSED SILT FENCE
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED POROUS BAFFLE WALL
- PROPOSED CULVERT PROTECTION
- PROPOSED INLET PROTECTION
- PROPOSED SKIMMER
- EX. IRON ROD
- EX. DRILL HOLE
- EX. MAC NAIL
- EX. UTILITY POLE
- EX. FIRE HYDRANT
- EX. WATER VALVE
- EX. SEWER MANHOLE
- EX. WATER METER
- EX. ELECTRICAL CONNECTION
- EX. EXTERIOR LIGHT
- EX. LIGHT POLE
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE

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SINCE 1959

Quible & Associates, P.C.
CONSTRUCTION SURVEYING & ENGINEERING
ENVIRONMENTAL SCIENCES SURVEYING**
SERVICES NOT OFFERED AT BLACK HILL OFFICE
8486 CARATOKE HWY
90 CHURCH STREET
BLACK MOUNTAIN, NC 27686
PHONE: (252) 891-8147
FAX: (252) 891-8148
WWW.QA-NC.COM

REVISIONS

NO.	DATE	REVISION
1	05/21/2024	REVISED PER TRC COMMENTS

PROJECT NO. P23058

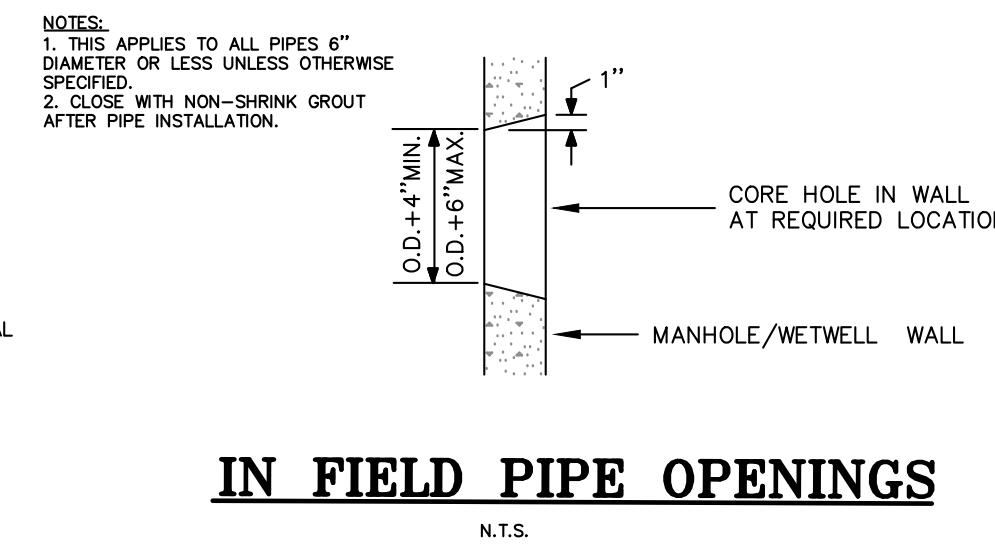
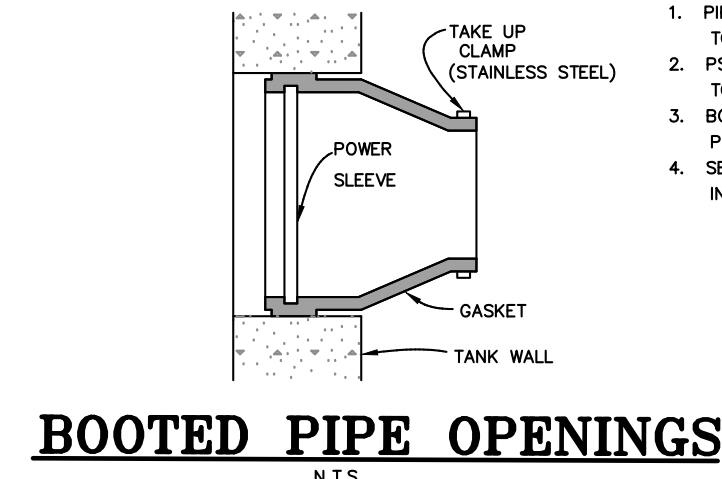
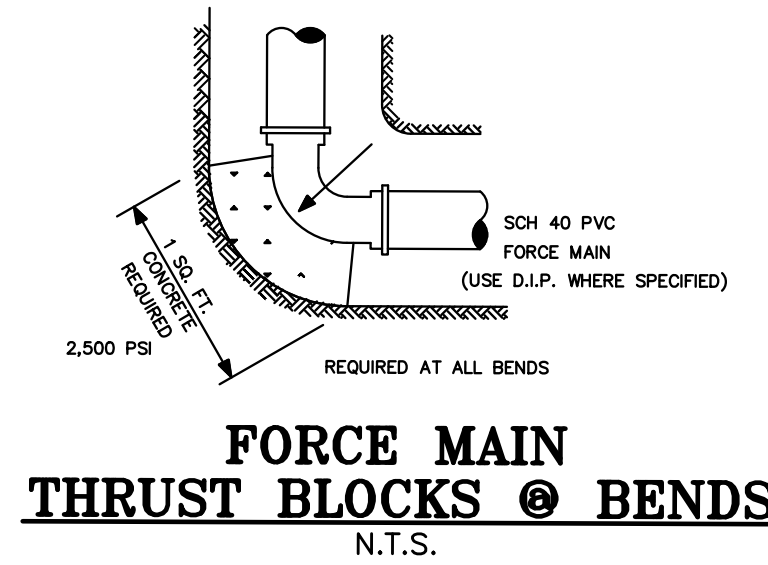
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DRAWN BY: BPJ/CMS
CHECKED BY: MWS
ISSUE DATE: 04/25/24

SHEET NO. 4
OF 8 SHEETS

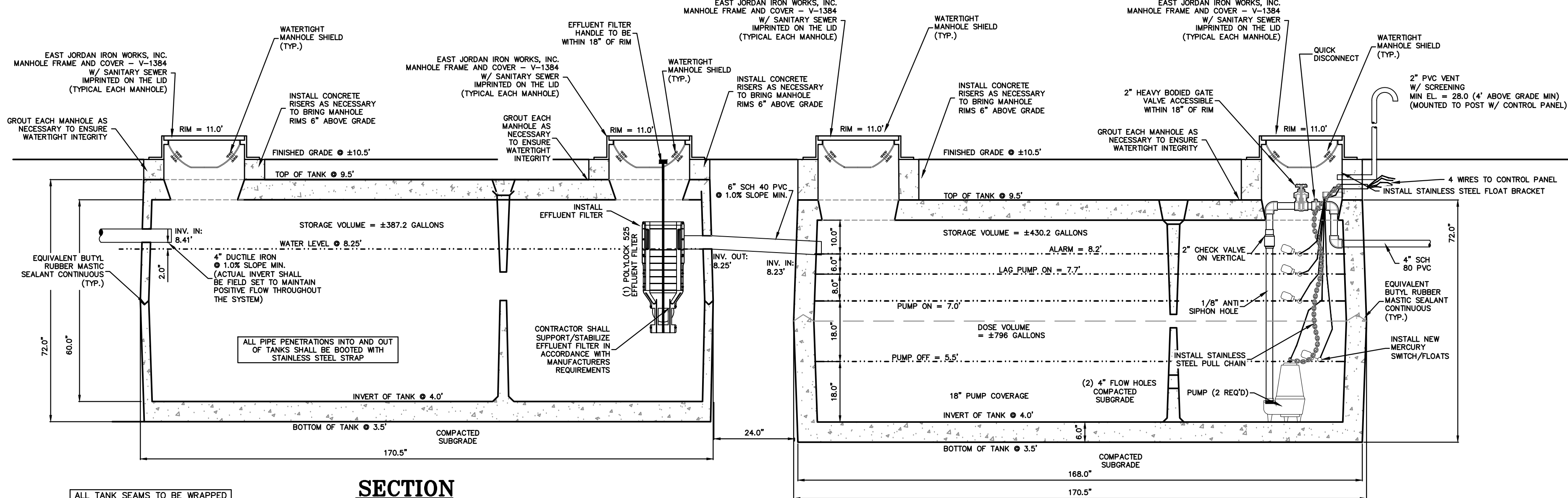
SESC PLAN

RPP HOLDINGS GROUP, LLC
FORMERLY JJ HAYMAN AND SON

CRAWFORD TOWNSHIP CURRITUCK COUNTY NORTH CAROLINA



IN FIELD PIPE OPENINGS



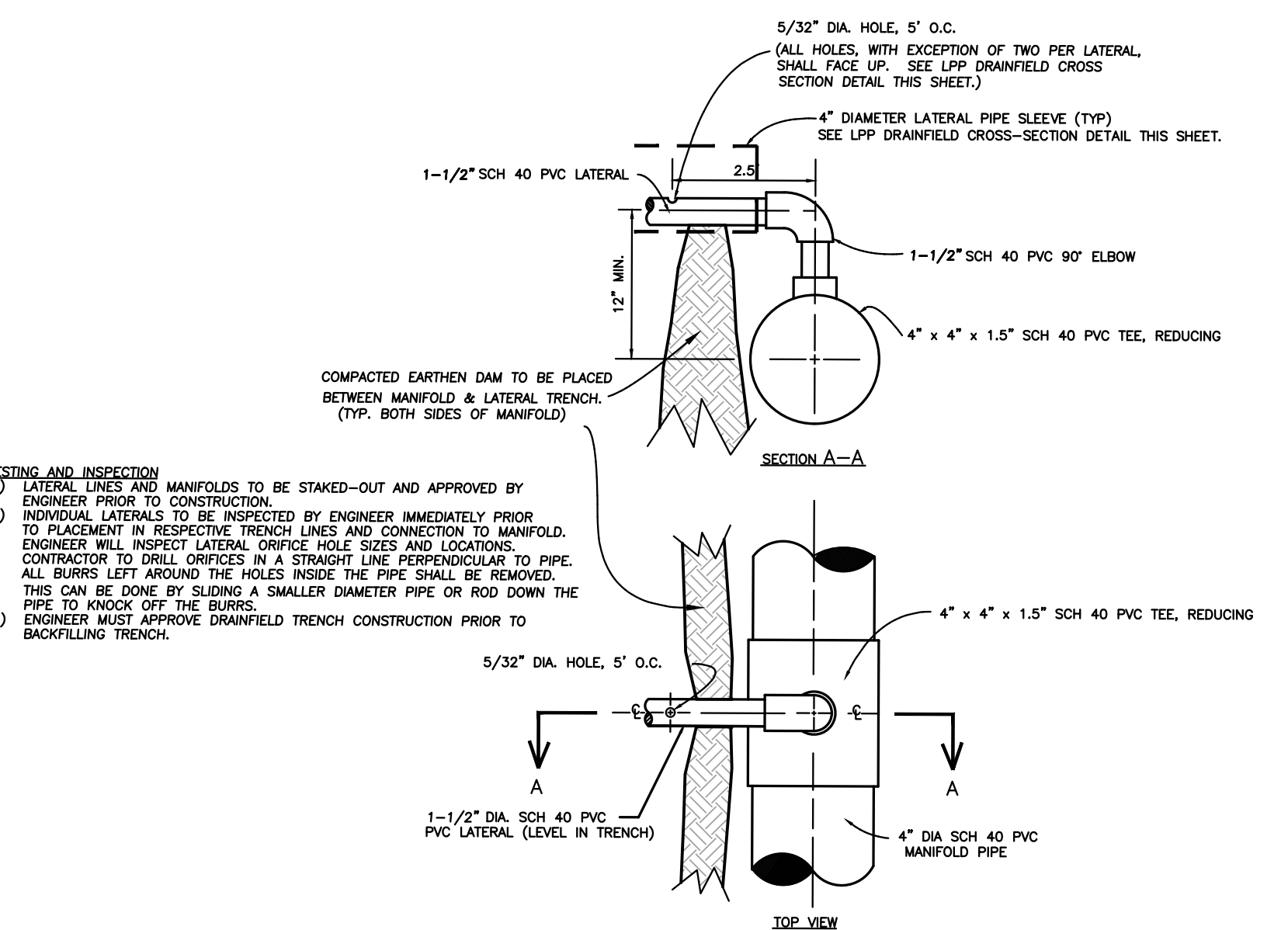
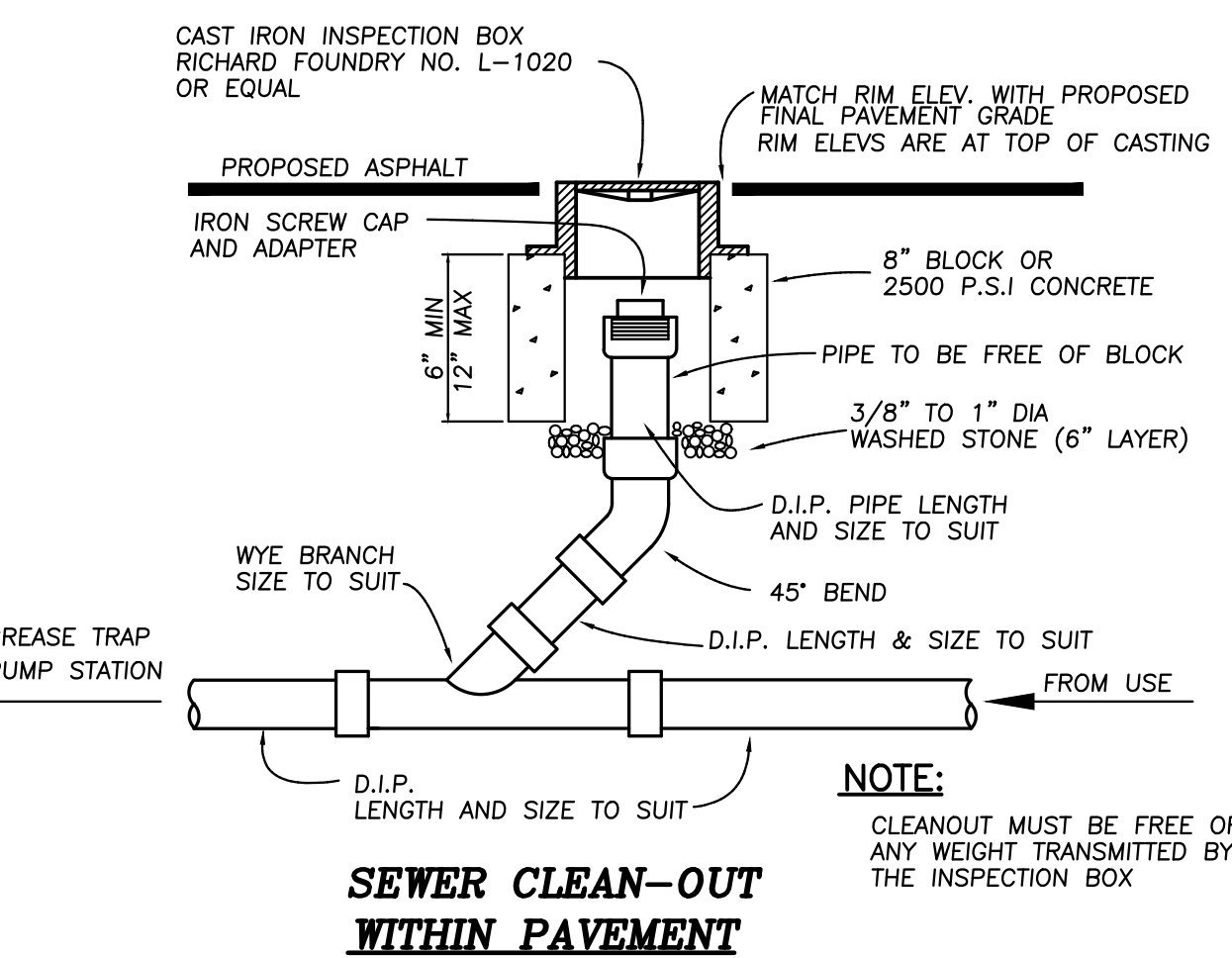
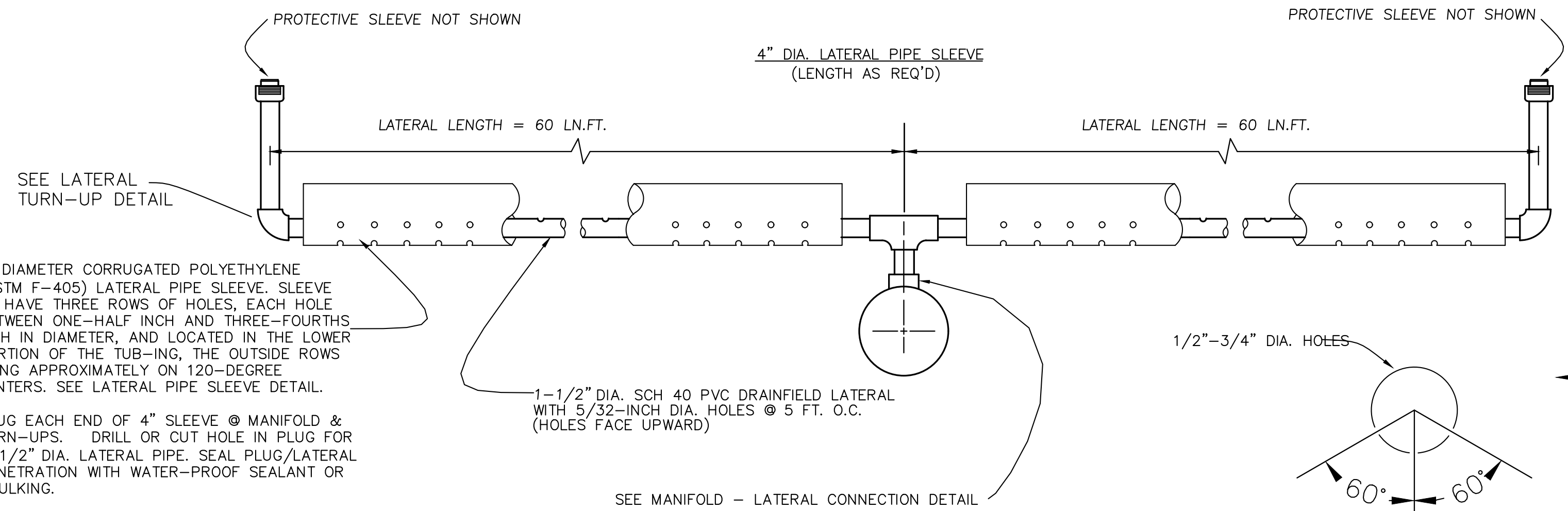
ALL TANK SEAMS TO BE WRAPPED WITH CONSAL, INC., CS-212 CONWAP EXTERNAL JOINT WRAP WITH 4 MIL POLYOLEFIN VAPOR BARRIER

UNDER NORMAL CONDITIONS WITH LIQUID LEVEL IN SEPTIC TANK AT OUTLET TEE ELEVATION, TANK SHOULD NOT FLOAT. SEPTIC SYSTEM MANAGING ENTITY AND SEPTAGE PUMP & HAULER SHALL TAKE PRECAUTIONS AGAINST SEPTIC TANK FLOATING WHEN BEING PUMPED OUT.

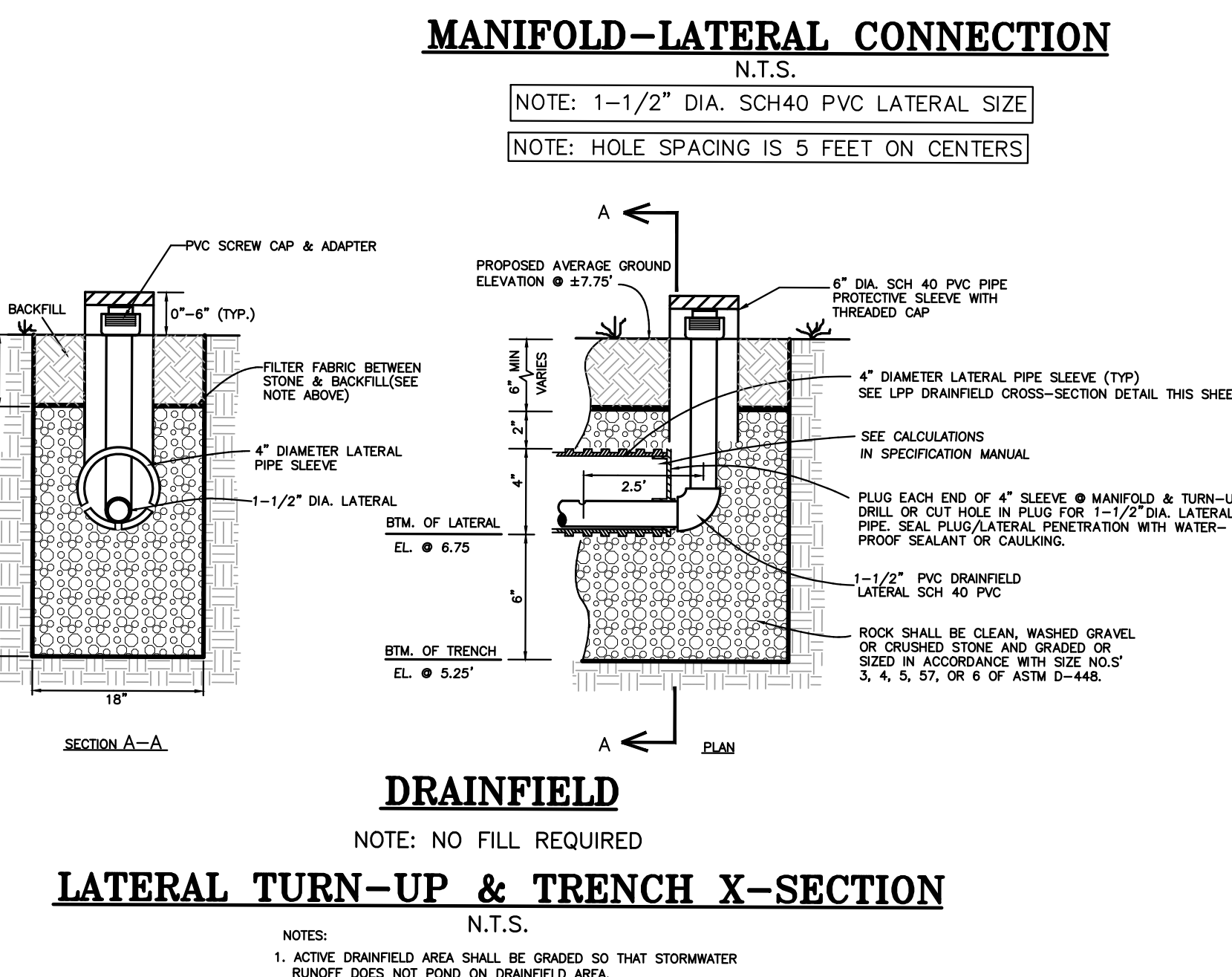
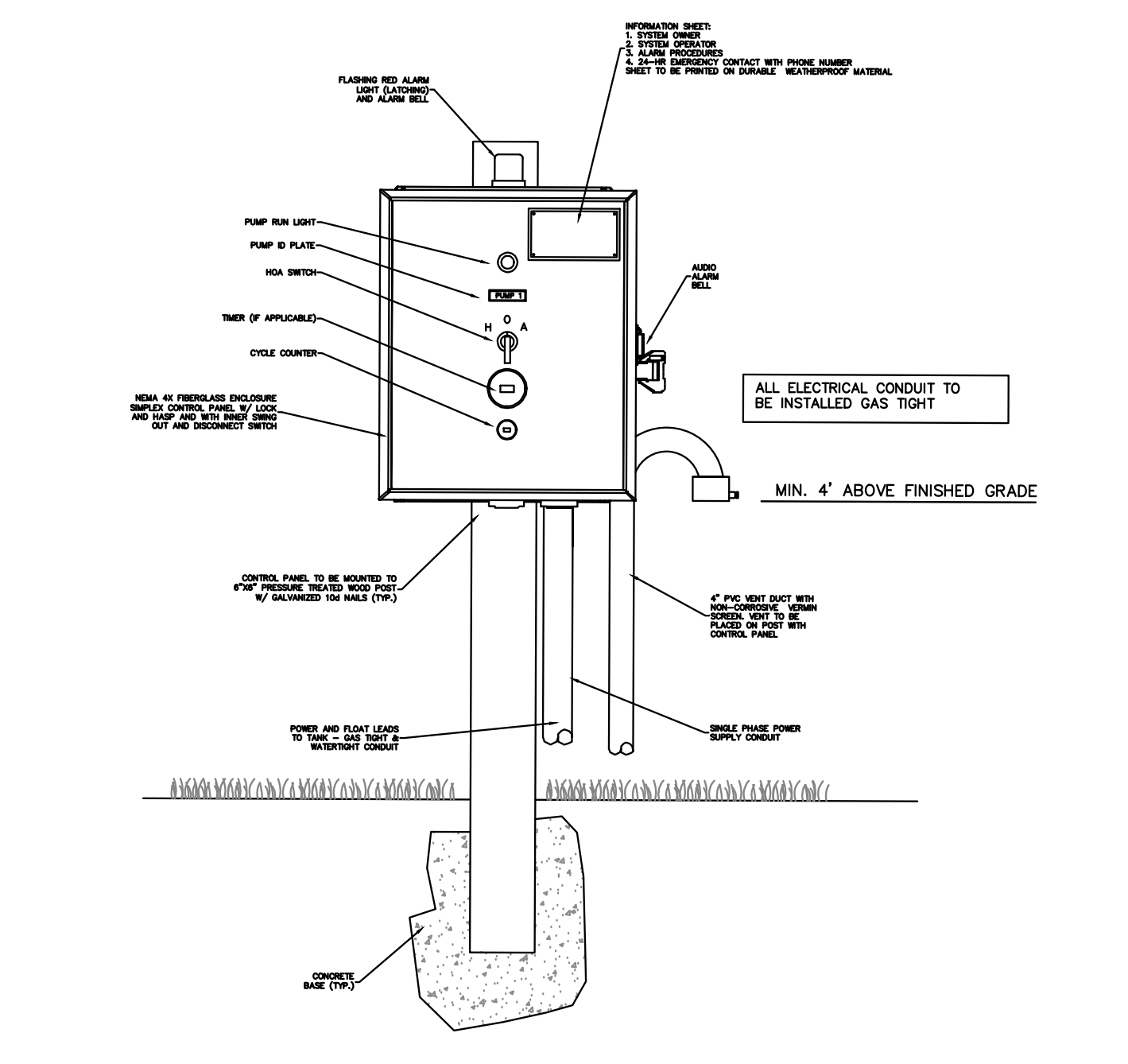
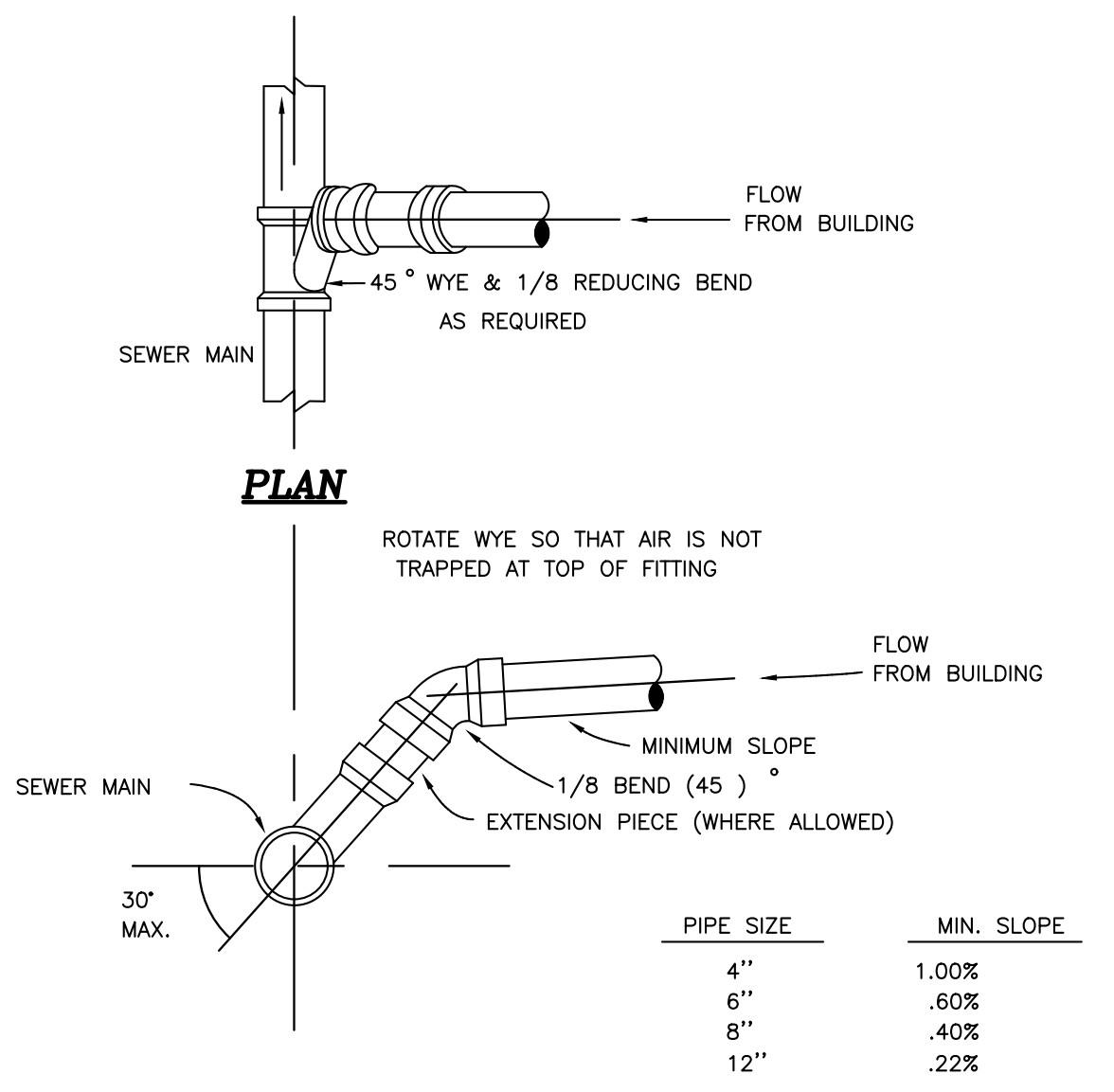
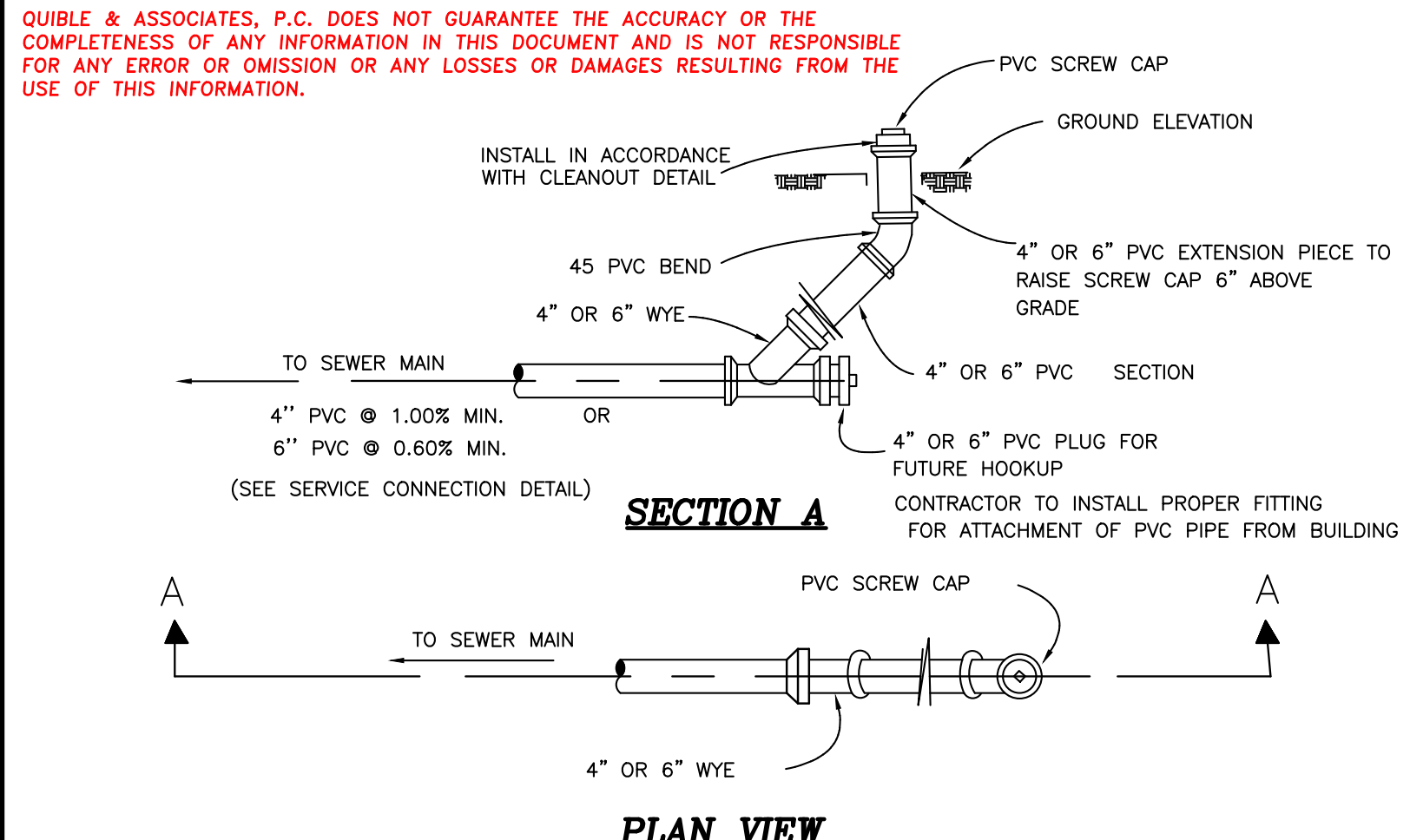
ELUM: (2 REQUIRED)
BARNES, (SERIES SE)
- SUBMERSIBLE EFFLUENT PUMP - MODEL SE107AL (6.0 IMPELLER)
- 1.0 HP, 115 V, SINGLE PHASE
- 2" NPT DISCHARGE OR EQUAL AS APPROVED BY ENGINEER
CAPACITY: 95 GPM @ 10.66 FT. TDH

- NOTES:**
- SEWER CONTRACTOR TO PLUMB DISCHARGE PIPING IN SUCH A MANNER THAT ALLOWS EASY ACCESS TO GATE VALVE FOR FLOW ADJUSTMENT AND TO UNION FOR PUMP REMOVAL.
 - CONTRACTOR TO STABILIZE PUMP DISCHARGE PIPING SO NO EXCESSIVE VIBRATION OCCURS DURING OPERATION.
 - CHAIN TO BE STAINLESS STEEL OR NYLON ROPE. PULL CHAIN TO BE ATTACHED TO HATCH COVER OR CONCRETE RISERS WITHIN EASY ACCESS OF TOP OF HATCH.
 - ALL PIPE OPENINGS SHALL BE GROUTED FOR WATER TIGHT SEALS.
 - ALL ELECTRICAL CONDUIT OPENINGS SHALL BE WATER TIGHT AND GASTIGHT.
 - ALL PIPE WITHIN TANK SHALL BE SCH 40 PVC (UNLESS OTHERWISE SPECIFIED). THIS SYSTEM LIES ADJACENT TO CLASS "SC" WATERS. 12 HOURS OF STORAGE PROVIDED.

EACH LATERAL IN DRAINFIELD SHALL HAVE (2) TWO OF THE 5/32" HOLES. APPROX. ONE THIRD OF THE DISTANCE FROM THE MANIFOLD AND APPROX. ONE THIRD OF THE DISTANCE FROM THE TURN-UP TO FACING DOWN TO INSURE DRAINAGE OF LATERALS AFTER PUMP SHUT-OFF.



NOTE: THIS DOCUMENT IS PRELIMINARY - NOT FOR CONSTRUCTION, RECORDATION, SALES OR CONVEYANCES - THIS DOCUMENT IS FOR DISCUSSION PURPOSES ONLY! EXISTING INFORMATION SHOWN ON THIS DOCUMENT IS BASED ON BEST AVAILABLE DATA AND IS NOT A CERTIFIED SURVEY. ALL INFORMATION SHOWN ON THIS DOCUMENT IS SUBJECT TO ANY REQUIREMENTS BY ANY REGULATORY AGENCY, ENTITY OR AUTHORITY.



- NOTES:**
- ACTIVE DRAINFIELD AREA SHALL BE GRADED SO THAT STORMWATER RUNOFF DOES NOT POOL ON DRAINFIELD AREA.
 - VEGETATE DRAINFIELD AND REPAIR AREAS AS PER SEEDING SPECIFICATION.
 - FILTER FABRIC SHALL BE TREVIRA SPUNBOND TYPE 1112 ENGINEERING FABRIC OR EQUAL AS APPROVED BY ENGINEER.
 - ALL TRENCHES, LATERALS, AND MANIFOLDS SHALL BE INSTALLED LEVEL.
- NOTE: HOLE SPACING IS 5 FEET ON CENTERS**

NC License # C-028
Quible & Associates, P.C.
 SINCE 1959
 ENVIRONMENTAL SCIENCES & SURVEYING
 8446 CAROLINE HWY. 90 CHURCH STREET
 POWELL POINT, NC 27968
 PHONE: (252) 891-8127 FAX: (252) 891-8128
 WWW: WWW.QUIBLEANDASSOCIATES.COM

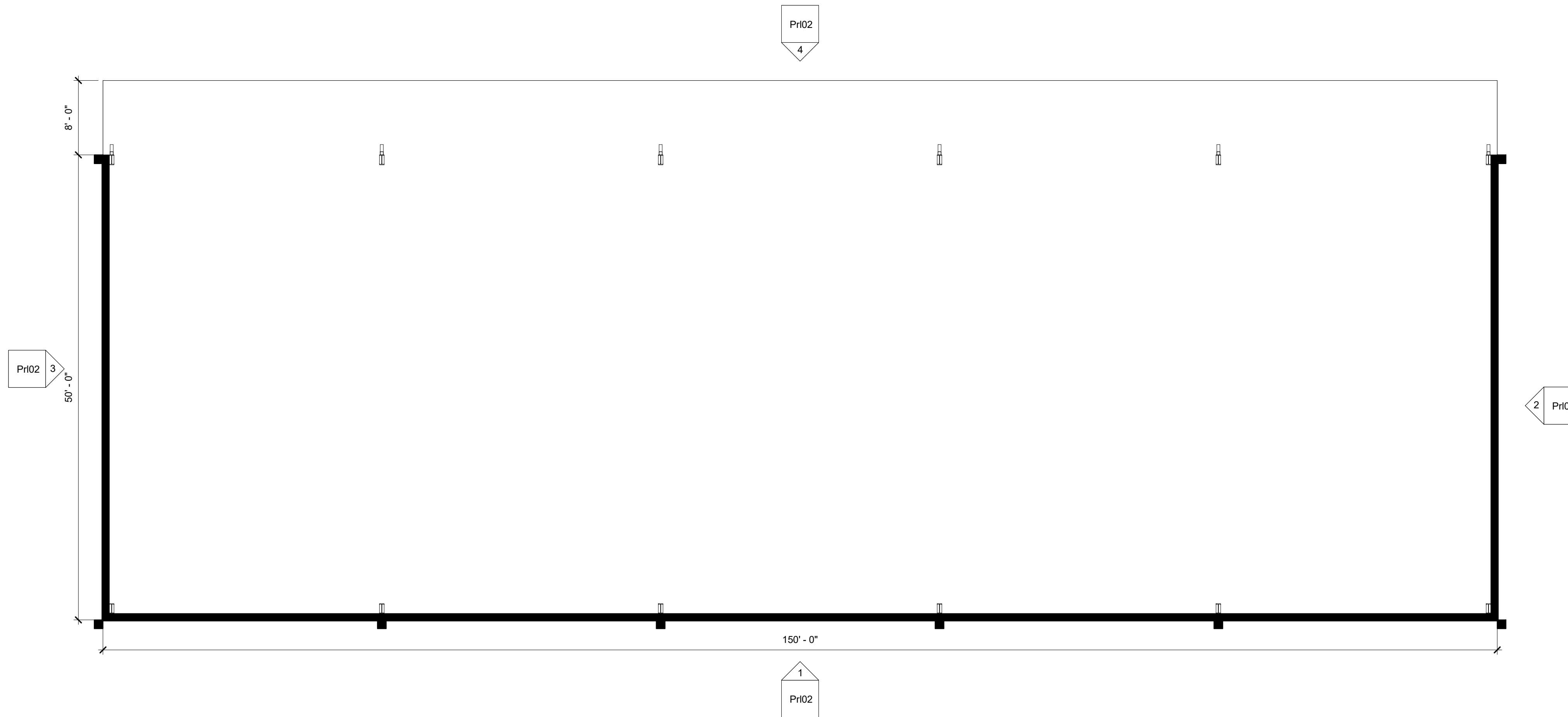
REVISIONS
 NO. DATE REVISIONS PER ITC COMMENTS
 1 05/21/2024

WASTEWATER DETAILS
 RPP HOLDINGS GROUP, LLC
 FORMERLY JJ HAYMAN AND SON
 CURRITUCK COUNTY NORTH CAROLINA
 CRAWFORD TOWNSHIP

PROJECT NO. P23058
 DESIGNED BY CMS
 DRAWN BY BPJ/CMS
 CHECKED BY MWS
 ISSUE DATE 04/25/24
 SHEET NO. 7 OF 8 SHEETS



② Rendering
12" = 1'-0"



① First Floor Plan
1/8" = 1'-0"

Project: **Kellogg Coinjock Storage Bldg #1**
 Project No: **24004**
 Location: **4510 Caratoke Hwy Coinjock, NC**
 Title: **Preliminary**
 Date: **May 21, 2024**
 Scale: **As indicated**

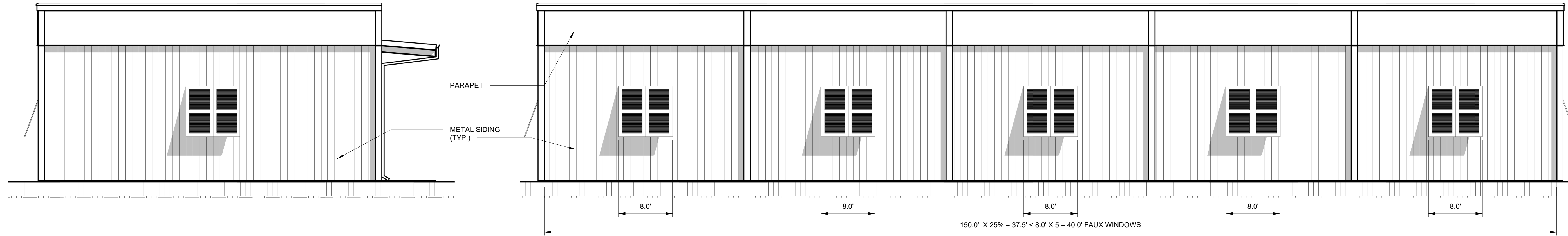
The designer shall not be responsible for any error, omission, defect or deficiency in the contract documents ("error") prepared by the designer or its consultants which in any way impacts the schedule of the project, results in a lack of coordination among the contract documents, delays the completion of the project or which in any other way causes any damage or loss to the owner, contractor, subcontractors, or other entity involved in the project, unless: (i) designer is promptly notified of such error, in any event within 14 days of the date such error was discovered or could reasonably have been discovered; and (ii) designer is given opportunity at the time of discovery to address such error, and, if appropriate, take such steps as are necessary to correct and resolve it. Failure to comply with the provisions of this paragraph shall constitute a waiver of any claim for damages, or a right to offset against designer by owner, contractor or others and shall in no event cause or allow a reduction in the fees otherwise due designer for services provided on the project.



Revisions:

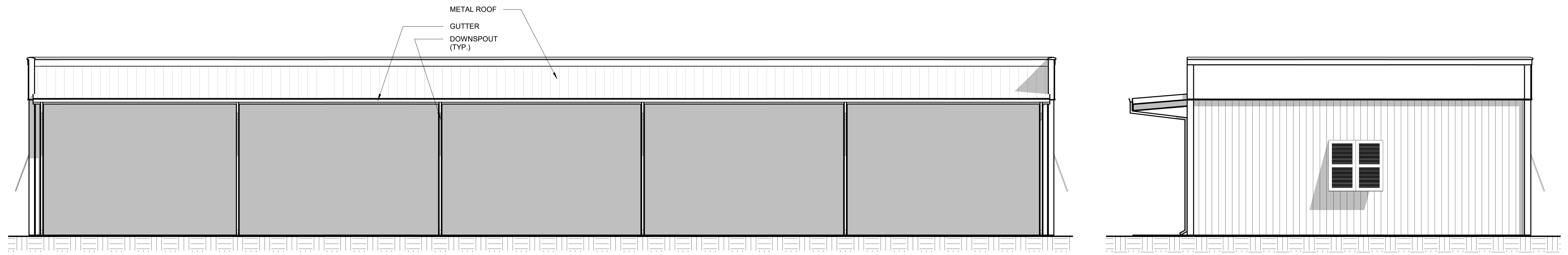
No.	Description	Date

Designed: Designer
 Drawn: Author
 Reviewed: Checker
 Cad File: **Pr101**



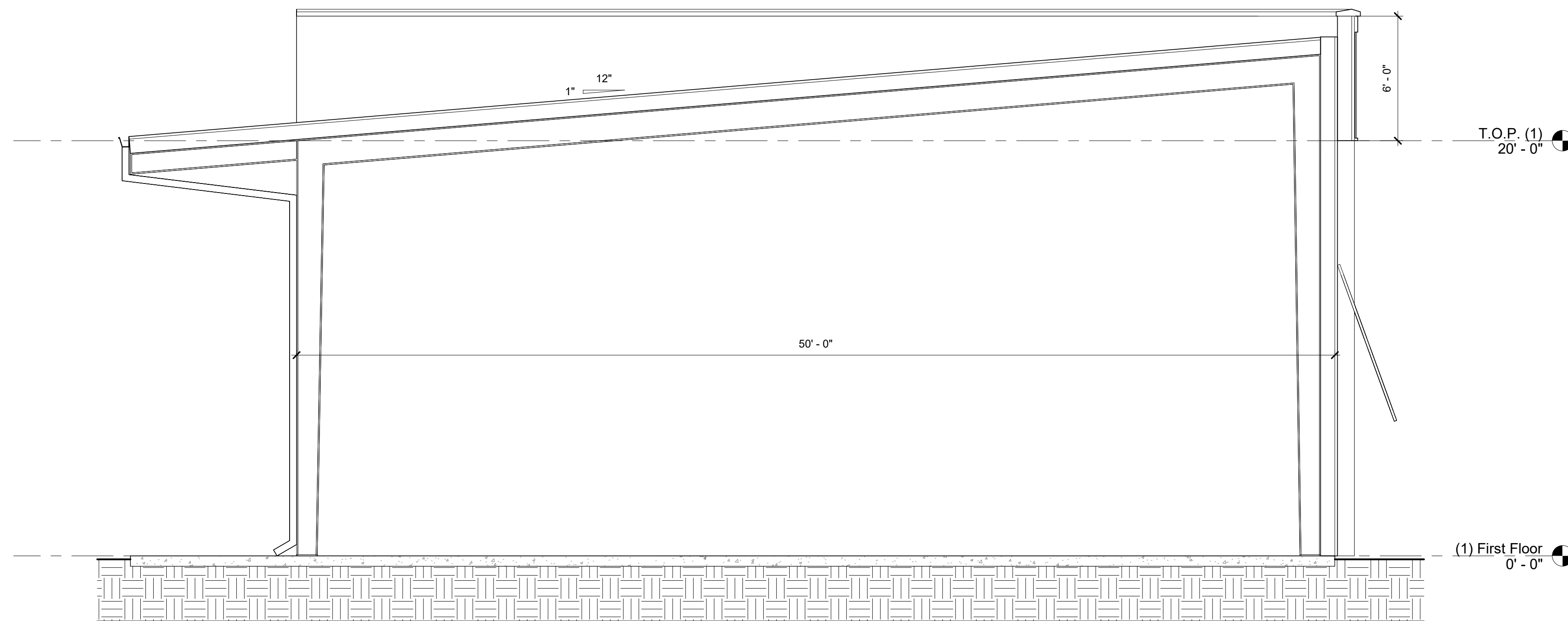
② East Elevation
1/8" = 1'-0"

① South Elevation
1/8" = 1'-0"



④ North Elevation
1/8" = 1'-0"

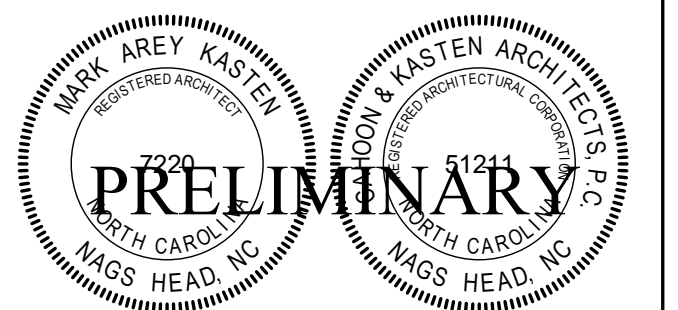
③ West Elevation
1/8" = 1'-0"



⑤ Section 1
1/4" = 1'-0"

Project: **Kellogg Coinjock Storage Bldg #1**
Project No: **24004**
Location: **4510 Caratoke Hwy Coinjock, NC**
Title: **Preliminary**
Date: **May 21, 2024**
Scale: **As indicated**

The designer shall not be responsible for any error, omission, defect or deficiency in the contract documents ("error") prepared by the designer or its consultants which in any way impacts the schedule of the project, results in a lack of coordination among the contract documents, delays the completion of the project or which in any other way causes any damage or loss to the owner, contractor, subcontractors, or other entity involved in the project, unless: (i) designer is promptly notified of such error, in any event within 14 days of the date such error was discovered or could reasonably have been discovered; and (ii) designer is given opportunity at the time of discovery to address such error, and, if appropriate, take such steps as are necessary to correct and resolve it. Failure to comply with the provisions of this paragraph shall constitute a waiver of any claim for damages, or a right to offset against designer by owner, contractor or others and shall in no event cause or allow a reduction in the fees otherwise due designer for services provided on the project.



Revisions:

No.	Description	Date

Designed: Designer
Drawn: Author
Reviewed: Checker
Cad File: **Pr102**



Major Stormwater Plan Form SW-002

OFFICIAL USE ONLY:

Permit Number: _____
Date Filed: _____
Date Approved: _____

Contact Information

APPLICANT:

Name: RPP Holdings Group, LLC.
Address: 917 Burnside Road
Manteo, NC 27954
Telephone: 252-473-2167
E-Mail Address: joeg@kelloggsupplyco.com

PROPERTY OWNER:

Name: same
Address: _____
Telephone: _____
E-Mail Address: _____

Property Information

Physical Street Address: 4510 Caratoke Hwy
Parcel Identification Number(s): 8996-40-4911
FEMA Flood Zone Designation: varies - see plan

Request

Project Description: Kellogg's Supply Co.
Total land disturbance activity: 126,324 sf Calculated volume of BMPs: 24,085 sf
Maximum lot coverage: 92,453 sf Proposed lot coverage: 75,946 sf

TYPE OF REQUEST

- Major subdivision (10-year, 24-hour rate)
- Major site plan (5-year, 24-hour rate)

METHOD USED TO CALCULATE PEAK DISCHARGE

- Rational Method
- NRCS Method (TR-55 and TR-20)
- Simple volume calculation for small sites (less than 10 acres)
- Alternative stormwater runoff storage analysis
- Downstream drainage capacity analysis

I hereby authorize county officials to enter my property for purposes of determining compliance. All information submitted and required as part of this process shall become public record.

Property Owner(s)/Applicant

4-22-2024
Date

Major Stormwater Plan Design Standards Checklist

The table below depicts the design standards of the major stormwater plan application. Please make sure to include all applicable listed items to ensure all appropriate standards are reviewed.

Major Stormwater Plan Design Standards Checklist

Date Received: _____

Project Name: RPP Holdings Group, LLC - 4510 Caratoke Hwy

Applicant/Property Owner: RPP Holdings Group, LLC

Minor Stormwater Plan Design Standards Checklist		
General		
1	Property owner name and address.	X
2	Site address and parcel identification number.	✓
3	North arrow and scale to be 1" = 100' or larger.	X
Site Features		
4	Scaled drawing showing existing and proposed site features: Property lines with dimensions, acreage, streets, easements, structures (dimensions and square footage), fences, bulkheads, septic area (active and repair), utilities, vehicular use areas, driveways, and sidewalks.	X
5	Approximate location of all designated Areas of Environmental Concern (AEC) or other such areas which are environmentally sensitive on the property, such as Maritime Forest, CAMA, 404, or 401 wetlands as defined by the appropriate agency.	X
6	Existing and proposed ground elevations shown in one foot intervals. All elevation changes within the past six months shall be shown on the plan.	X
8	Limits of all proposed fill, including the toe of fill slope and purpose of fill.	X
9	Square footage of all existing and proposed impervious areas (structures, sidewalks, walkways, vehicular use areas regardless of surface material), including a description of surface materials.	X
10	Existing and proposed drainage patterns, including direction of flow.	X
11	Location, capacity, design plans (detention, retention, infiltration), and design discharge of existing and proposed stormwater management features.	X
12	Elevation of the seasonal high water level as determined by a licensed soil scientist.	X
13	Plant selection.	X
Permits and Other Documentation		
14	NCDENR stormwater permit application (if 10,000sf or more of built upon area).	X
15	NCDENR erosion and sedimentation control permit application (if one acre or more of land disturbance).	X
16	NCDENR coastal area management act permit application, if applicable.	n/a
17	Stormwater management narrative with supporting calculations.	X
18	Rational Method Form SW-003 or NRCS Method Form SW-004	X
19	Alternative stormwater runoff storage analysis and/or downstream drainage capacity analysis, if applicable	n/a
20	Design spreadsheets for all BMPs (<i>Appendix F – Currituck County Stormwater Manual</i>). See narrative	X
21	Detailed maintenance plan for all proposed BMPs.	X

Certificate

22 The major stormwater plan shall contain the following certificate:

I, Joseph T Gaca owner/agent hereby certify the information included on this and attached pages is true and correct to the best of my knowledge.

On the plan entitled Kellogg Supply Co, stormwater drainage improvements shall be installed according to these plans and specifications and approved by Currituck County. Yearly inspections are required as part of the stormwater plan. The owner is responsible for all maintenance required. Currituck County assumes no responsibility for the design, maintenance, or performance of the stormwater improvements.

Date: 4-24-2024 Owner/Agent: Joseph T Gaca

Major Stormwater Plan Submittal Checklist

Staff will use the following checklist to determine the completeness of your application. Please make sure all of the listed items are included. Staff shall not process an application for further review until it is determined to be complete.

Major Stormwater Plan Form SW-002 Submittal Checklist

Date Received: _____

Project Name: RPP Holdings Group, LLC - 4510 Caratoke Hwy

Applicant/Property Owner: RPP Holdings Group, LLC

Major Stormwater Plan Form SW-002 Submittal Checklist

1	Completed Major Stormwater Plan Form SW-002	X
2	Completed Rational Method Form SW-003 or NRCS Method Form SW-004	X
3	Stormwater plan	X
4	NCDENR permit applications, if applicable DRAFT included	X
5	3 copies of plans	n/a
6	3 hard copies of ALL documents	n/a
7	1 PDF digital copy of all plans AND documents (ex. Compact Disk – e-mail not acceptable)	X

Comments



Rational Method Peak Flow Form SW-003

Project Information

Project Location: 4510 Caratoke Hwy
 Parcel Identification Number(s): 8996-40-4911
 Drainage area: (142,310.50sq) 3.27 ac
 Average Slope: 3.0 %
 Maximum Slope Length: 441 ft

Calculations

*The Rational Method may only be used where development will impact less than 10 acres

Time of Concentration (Tc) (Use additional sheets if necessary)			
	Pre-	Post-	
<u>Sheet Flow</u>			
Manning's roughness, n (Table 2-4)	0.1		
2-year, 24-hour Rainfall, P	4.0	6.0	in
Slope, S	0.03		ft/ft
Length of Sheet Flow, L (<=300 feet)	300		ft
Total Time for Sheet Flow	13		min
<u>Shallow Concentrated Flow</u>			
Surface Paved (P) or Unpaved (U)	U		
Length of flow, L	120		ft
Slope, S	0.03		ft/ft
Average Velocity, V (Table 2-3)	151.5		ft/min
Total Time for Shallow Concentrated Flow	0.8		min
<u>Channel Flow</u>			
Pipe (P) or Channel (C)	N/A		
If pipe: Diameter, D			in
If channel: Bottom Width, w			ft
If channel: side slope 1 (___:1)			
If channel: side slope 2 (___:1)			
Cross sectional flow area, A			sq ft
Wetted perimeter, Wp			ft
Hydraulic radius, R = A/Wp			ft

Time of Concentration (Tc) (Use additional sheets if necessary)			
	Pre-	Post-	
Channel slope, S	↓		ft/ft
Manning's roughness, n (Table 2-4)	↓		
Channel velocity	↓		ft/sec
Length of Flow, L	↓		ft/sec
Total Time for Channel Flow	↓		min
Total Time of Concentration, Tc	13.8		min

Pre-development Conditions			
Land Use Description	C	Area (acres)	C*A
Woods	0.2	3.27	0.654
Total			0.654

Intensity for 2-year, 24-hour storm (Table 2-5) 4.25 in/hr

Pre-development peak flow, Q = CiA 2.78 cfs

Post-development Conditions			
Land Use Description	C	Area (acres)	C*A
IMPERVIOUS	0.95	2.12	2.014
OPEN	0.25	1.14	0.285
Totals		3.27	2.299

Area-weighted C: 0.7

Intensity for ^{5-yr} 10-year, 24-hour storm (Table 2-5) 6.82 in/hr

Post-development peak flow, Q = CiA 15.71 cfs

Minimum Storage Volume Required – Refer to Section 2.4.4 for Volume Calculations

Storage Volume, V_s 21,254 ft³

KELLOGG'S
Applicant

4/24/24
Date

**Kellogg's Wet Detention Basin
NCDEQ Stormwater Calculations**

Drainage Area Calculations

	Combined Drainage Area	
	(sq.ft.)	(acre)
Drainage Area =	142,310.50	3.27
Open Space	49,858.01	1.14
Roadway/Parking =	44,311.90	1.02
Building=	18,143.35	0.42
Concrete/Display =	13,491.04	0.31
Future Removal =	31,050.00	0.71
Future Coverage =	47,556.20	1.09
Impervious =	92,452.49	2.12

Runoff generated by 1.5" Rainfall Event (NCDEQ Simplified Method)

la = Impervious Percentage = Impervious Area/Drainage Area
Rv= Runoff Coefficient, 0.05+0.9la
Rd= Rain fall depth (1.5 in.)
V= Runoff Volume, 3630*Rd*Rv*A

	Area 1
la =	65.0%
Rv=	0.64
Rd (in.)=	1.5
A (ac.) =	3.27
V (cf.)=	11296

Total Storage Required by NCDEQ = 11,300.00 cf
Total Storage Required by Currituck County = 21,300.00 cf

Permanent pool Storage Provided In Wet Detention Basin 1

Elev	Area (sf)	Avg area (sf)	Volume (cf)	Cum Vol. (cf)
0	2021.5			0
		3031	9093	
3	4040.5			9093
		4450.75	4451	
4	4861			13544
		5544	5544	
5	6227			19088

Total Storage (cf.) Provided in Basin 1: **19088**

Above Permanent Pool Storage Provided In Wet Detention Basin 1

Elev	Area (sf)	Avg area (sf)	Volume (cf)	Cum Vol. (cf)
5	6227			0
		6985	6985	
6	7743			6985
		8960.5	8961	
7	10178			15946
		10852.5	8139	
7.75	11527			24085

Total Storage (cf.) Provided in Basin 1: **24085**

3.18

Volume in Forebay for Basin 1

Elev	Area (sf)	Avg area (sf)	Volume (cf)	Cum Vol. (cf)
1	192.5			0
		346.4	693	
2	330.6			693
		514.4	1029	
3	500.3			1722
		599.25	599	
4	698.2			2321
		809.9	810	
5	921.6			3131

Total Storage (cf.) Provided in Basin 1: **3131**
16.4%

P23058
 RPP Holdings Group, LLC
 Kellogg's Supply Co. - Barco, NC
 5/21/2024

$A_{bot_shelf} = 5298$ sf
 $A_{perm_pool} = 6227$ sf
 $A_{bot_pond} = 2021.5$ sf
 $V_{perm_pool} = 19088$ cf
 $V_{shelf} = 222.75$ cf
 Depth = 5

Equation 2 $Dav = 3.1$ feet

Equation 3 $Dav = 3.6$ feet

SA/DA = 4.20
DA = 142,310.50
Req'd SA = 5,977.04

Wet Detention Basin Supplement Calculations

Orifice Draw Down Calculations Basin 1

$Q = CA(2gH)^{0.5}$
 $H = \text{Driving Head} = D/3 = 0.92$ ft.
 $C = \text{orific coefficient} = 0.6$
 Try orifice diameter = 2 in
 $A = \text{Area} = 3.14 \cdot (d^2)/4 = 0.022$ sf
 $Q = CA(2gH)^{0.5} = 0.101$ cfs

Required Storage Volume = 11300.0 cf
 Drawdown = Storage Volume / Q =

2.77 days