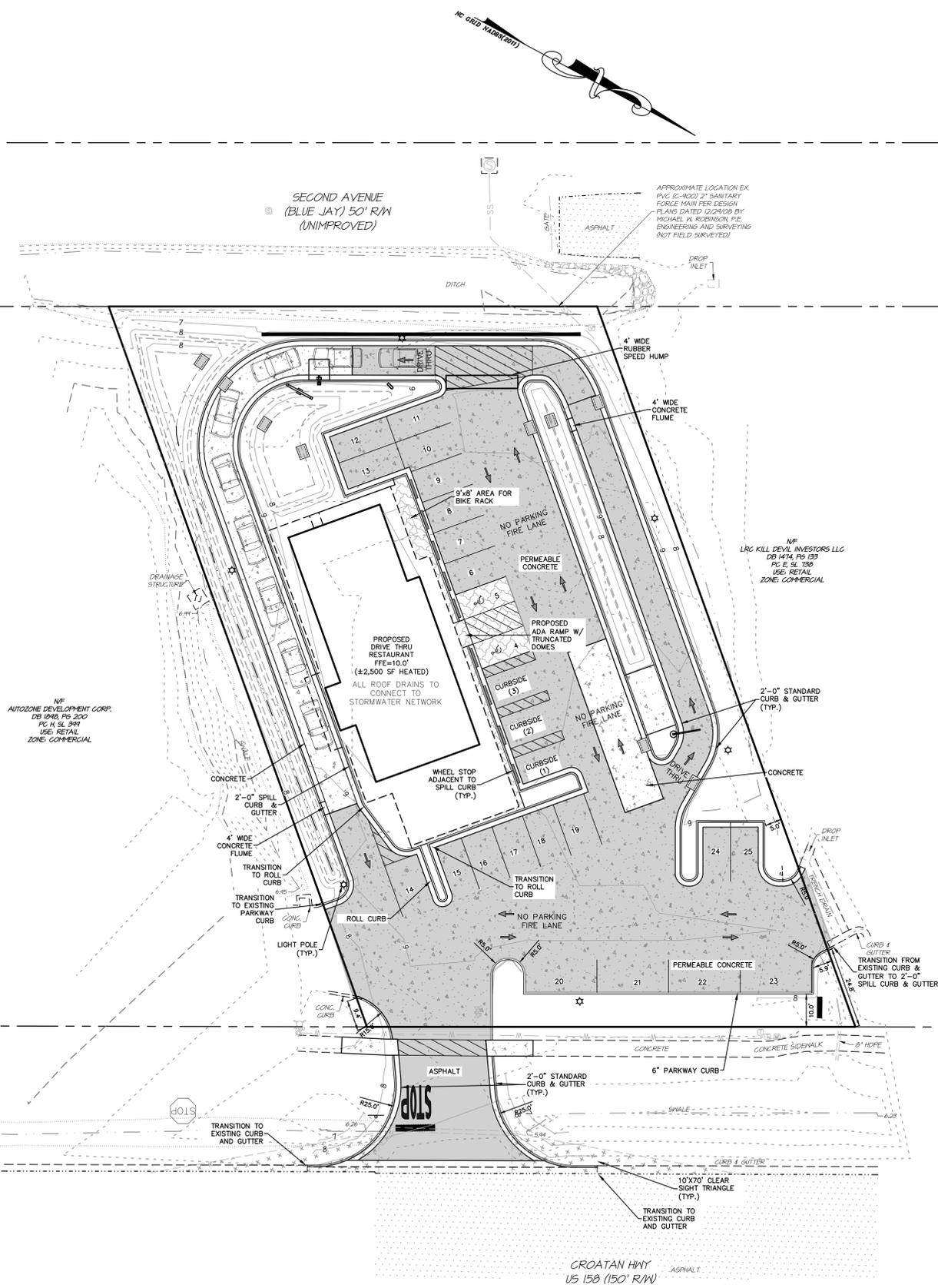


**NOTES**

- CURRENT OWNER: ROY E. PARKER & LEVEN D. PARKER  
PO BOX 49  
HILL DEVIL HILLS 27948
- APPLICANT: WPF INVESTMENT COMPANY  
102 W. AIRSTRIP RD.  
KITTY HAWK, NC 27948
- ENGINEER: QUBIE & ASSOCIATES, P.C.  
P.O. DRAWER 870  
KITTY HAWK, NC 27949  
CONTACT: CATHERINE M. SAUNDERS, PE  
PHONE: (252) 491-8147  
EMAIL: CSAUNDERS@qubie.com
- PH: 98831261635 / PID: 004331000
- PROPERTY ADDRESS: 1208 S. CROATAN HWY
- PROPERTY ZONED: COMMERCIAL
- PROPOSED COVERAGE:  
ASPHALT/CONCRETE PARKING AREA = 5,316 S.F.  
PERMEABLE CONCRETE PARKING AREA (80% REDUCTION) = 13,176-13,176\*(0.60) = 7,906 S.F.  
BUILDING/OUTDOOR PATIO = 4,382 S.F.  
TOTAL = 17,603 S.F. (53.3%)  
MAXIMUM ALLOWABLE LOT COVERAGE = 21,432 S.F. (65%)
- LOT AREA = 33,021 SF / 0.76 ACRES (AREAS BY COORDINATE METHOD)
- SUBJECT REFERENCES: DB 401, PG 133.
- ADDITIONAL REFERENCES: PC 2, SL 18.
- HORIZONTAL DATUM IS NAD83(2011), VERTICAL DATUM IS NAVD 1988.
- PROPERTY IS LOCATED IN NFIP FLOOD ZONE "X" AND SUBJECT TO CHANGES, BASED ON COMMUNITY CID NO. 357348; PANEL 9883; SUFFIX K. (MAP NUMBER 3720988300K) EFFECTIVE DATE: 06/19/2020.
- 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 22,500 SQ.FT. DRIVE-THRU RESTAURANT WITH ASSOCIATED OUTDOOR SEATING (WITHOUT SERVICE), PARKING AND UTILITIES.  
PARKING REQUIRED: (1 SPACE/100 SF) AT 2,500 SF = 25 PARKING SPACES REQUIRED PROVIDED: 25 SPACES (2 ADA SPACES PROVIDED)  
STACKING LANE REQUIRED: 5 SPACES PER WINDOW PROVIDED: 9 SPACES PER WINDOW
- 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 FIT WORK OR PROVIDE LOCATION SERVICES AS REQUIRED TO AVOID CONFLICTS WITH EXISTING UTILITIES. CONTACT NORTH CAROLINA ONE-CALL AT TELEPHONE NO. 1-800-632-4949, 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION TO HAVE UTILITIES MARKED.
- ALL LIGHTING SHALL BE CONTAINED ON SITE PER TOWN CODE 153.074 (E)(3).

**LEGEND**

- EXISTING ASPHALT PAVEMENT
- EX. TELEPHONE PEDESTAL
- EX. CABLE TV BOX
- EX. UTILITY POLE
- EX. DRAINAGE PIPE
- EX. UG GAS LINE
- EX. WATER LINE
- EX. SANITARY SEWER LINE
- PROPOSED ASPHALT PAVEMENT
- PROPOSED PERMEABLE CONCRETE
- PROPOSED CONCRETE PAVEMENT
- PROPOSED PERMEABLE PAVERS
- 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



**SHEET INDEX**

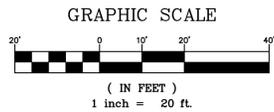
1	SITE PLAN
2	EXISTING CONDITIONS & DEMOLITION PLAN
3	UTILITY PLAN
4	GRADING PLAN
5	SESC PLAN
6	SITE & LANDSCAPING PLAN
7	SITE & UTILITY DETAILS
8	WASTEWATER DETAILS
9	SESC DETAILS

FINAL DRAWINGS FOR PERMITTING ONLY



Know what's below. Call before you dig.

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 8446 CAROLINE HWY.  
 90 CHURCH STREET, SUITE B  
 PHOENIX, AZ 85018  
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 www.quible.com

CERTIFICATION

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 SHALL BE CONSIDERED PRELIMINARY.  
 NO SHALL NOT BE USED FOR ANY  
 OTHER PROJECTS WITHOUT THE  
 OWNER'S CONSENT, UNLESS  
 OTHERWISE NOTED.

REVISIONS  

NO.	DATE	PER. TOWN COMMENTS
1	07/06/2021	

PROJECT NO. P07116  
 DESIGNED BY CMS  
 DRAWN BY CMS  
 CHECKED BY MWS  
 ISSUE DATE 06/28/21

PROJECT NO. P07116  
 DESIGNED BY CMS  
 DRAWN BY CMS  
 CHECKED BY MWS  
 ISSUE DATE 06/28/21

SITE PLAN  
 DRIVE-THRU RESTAURANT  
 1208 S. CROATAN HWY  
 KILL DEVIL HILLS NORTH CAROLINA  
 DARE COUNTY

SHEET NO.  
1  
 OF 9 SHEETS

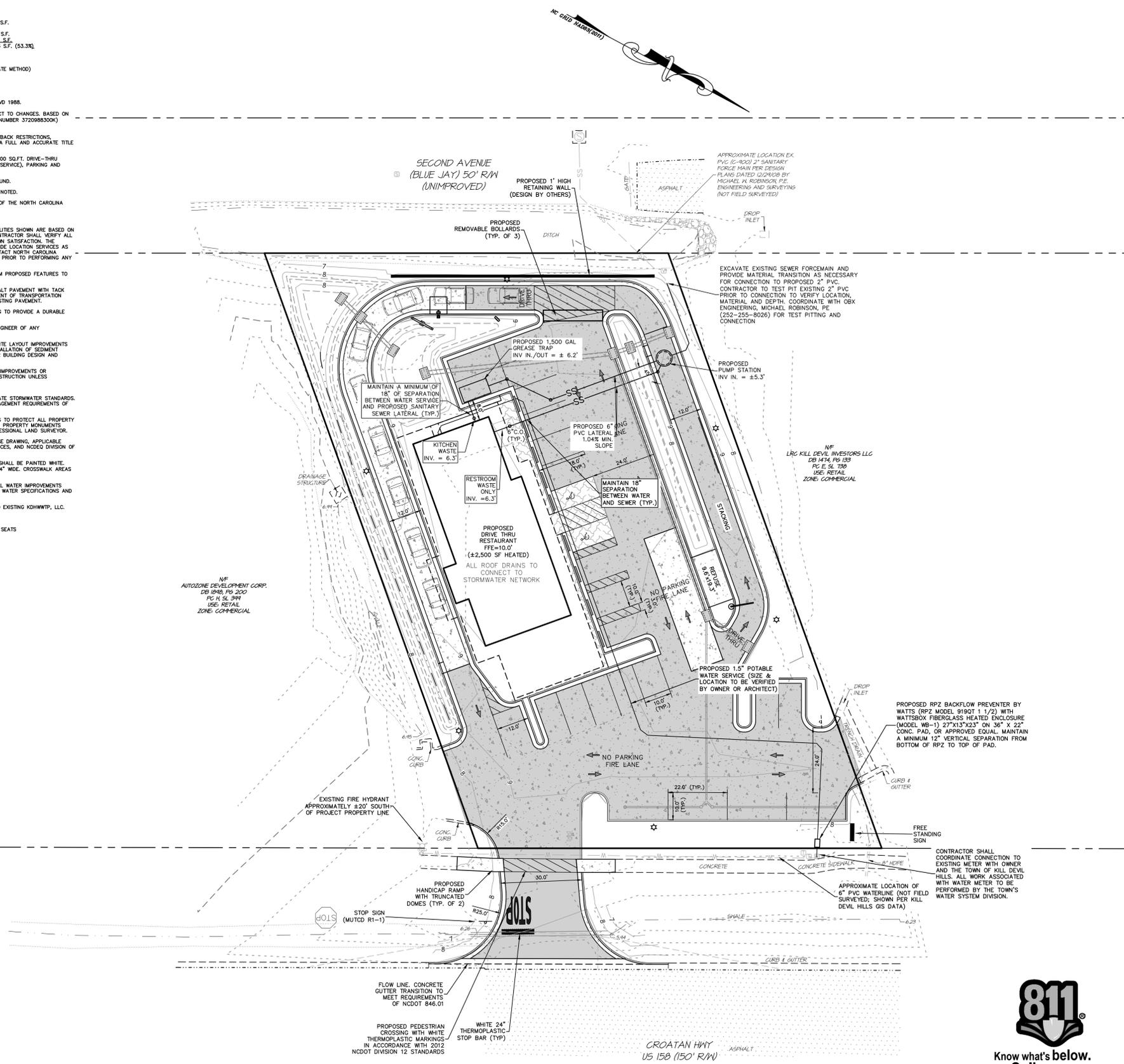


**NOTES**

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PO BOX 49  
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- APPLICANT: WPF INVESTMENT COMPANY  
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CONTACT: CATHERINE M. SAUNDERS, PE  
PHONE: (252) 491-8147  
EMAIL: CSAUNDERS@cuble.com
- PH: 98831261635 / PID: 004331000
- PROPERTY ADDRESS: 1208 S. CROATAN HWY
- PROPERTY ZONED: COMMERCIAL
- PROPOSED COVERAGE:  
ASPHALT/CONCRETE PARKING AREA = 5,316 S.F.  
PERMEABLE CONCRETE PARKING AREA (60% REDUCTION) = 13,176-13,176\*(0.60) = 7,906 S.F.  
BUILDING/OUTDOOR PATIO = 4,382 S.F.  
TOTAL = 17,603 S.F. (53.3%)
- MAXIMUM ALLOWABLE LOT COVERAGE = 21,463 S.F. (65%)
- LOT AREA = 33,021 SF / 0.76 ACRES (AREAS BY COORDINATE METHOD)
- SUBJECT REFERENCES: DB 401, PG 133;
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- PROPERTY IS LOCATED IN NFIP FLOOD ZONE "X" AND SUBJECT TO CHANGES, BASED ON COMMUNITY CID NO. 357348; PANEL 9883; SUFFIX K. (MAP NUMBER 3720988300K) EFFECTIVE DATE: 06/19/2020.
- 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 ±2,500 SQ.FT. DRIVE-THRU RESTAURANT WITH ASSOCIATED OUTDOOR SEATING (WITHOUT SERVICES), PARKING AND UTILITIES.
- 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. 1-800-432-4949, 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION TO HAVE UTILITIES MARKED.
- THE CONTRACTOR SHALL PROVIDE SMOOTH TRANSITIONS FROM PROPOSED FEATURES TO EXISTING FEATURES AS NECESSARY.
- 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.
- REMOVE TREES, GRASSES, SHRUBS, AND OTHER VEGETATION IMPROVEMENTS OR RESTRICTIONS INTERFERING WITH INSTALLATION OF NEW CONSTRUCTION UNLESS OTHERWISE NOTED.
- STORMWATER MANAGEMENT:  
SITE IS CONSIDERED A REDEVELOPMENT EXCLUSION PER STATE STORMWATER STANDARDS. HOWEVER, THE SITE IS SUBJECT TO THE STORMWATER MANAGEMENT REQUIREMENTS OF THE TOWN OF KILL DEVIL HILLS.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL PROPERTY MONUMENTS DURING CONSTRUCTION, DISTURBED OR REMOVED PROPERTY MONUMENTS SHALL BE REPLACED BY A NORTH CAROLINA LICENSED PROFESSIONAL LAND SURVEYOR.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE DRAWINGS, APPLICABLE DARE COUNTY CODES, KILL DEVIL HILLS CODES AND ORDINANCES, AND NCDDOT DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES REGULATIONS.
- ALL PAVEMENT MARKINGS, TEXT, AND DIRECTIONAL ARROWS SHALL BE PAINTED WHITE. ALL LETTERING SHALL BE 2 FT. IN HEIGHT. LINES SHALL BE 4" WIDE. CROSSWALK AREAS SHALL MEET NCDDOT DIVISION 12 STANDARDS.
- WATER IS PROVIDED VIA KILL DEVIL HILLS WATER SYSTEM. ALL WATER IMPROVEMENTS SHALL BE IN ACCORDANCE WITH KILL DEVIL HILLS STANDARD WATER SPECIFICATIONS AND DETAILS.
- SEWAGE TO BE COLLECTED VIA GRAVITY AND CONVEYED INTO EXISTING KDHWWTP, LLC. CENTRAL SEWAGE INFRASTRUCTURE.
- PROPOSED WASTEWATER FLOW:  
23 GRV/EMPLOYEE @ 8 EMPLOYEES & 20 GRV/SEAT @ 60 SEATS  
TOTAL = 1,400 GALLONS PER DAY

**LEGEND**

- EXISTING ASPHALT PAVEMENT
- EX. TELEPHONE PEDESTAL
- EX. CABLE TV BOX
- EX. UTILITY POLE
- EX. DRAINAGE PIPE
- EX. UG GAS LINE
- EX. WATER LINE
- EX. SANITARY SEWER LINE
- PROPOSED ASPHALT PAVEMENT
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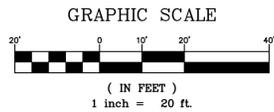


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NC License# C-028  
SMCE 1959

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ENGINEERING, SURVEYING & ENVIRONMENTAL SCIENCES  
8446 CAROLINE HWY.  
SUITE B  
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www.quible.com

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IF THIS DOCUMENT IS NOT SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, IT SHALL BE CONSIDERED PRELIMINARY AND SHALL NOT BE USED FOR CONSTRUCTION OR ANY OTHER PURPOSES UNLESS OTHERWISE NOTED.

REVISIONS

NO.	DATE	FEEL TOWN COMMENTS
1	07/06/2021	

PROJECT NO. P07116

DESIGNED BY CMS

DRAWN BY CMS

CHECKED BY MWS

ISSUE DATE 06/28/21

SHEET NO. 3 OF 9 SHEETS

UTILITY PLAN

**DRIVE-THRU RESTAURANT**

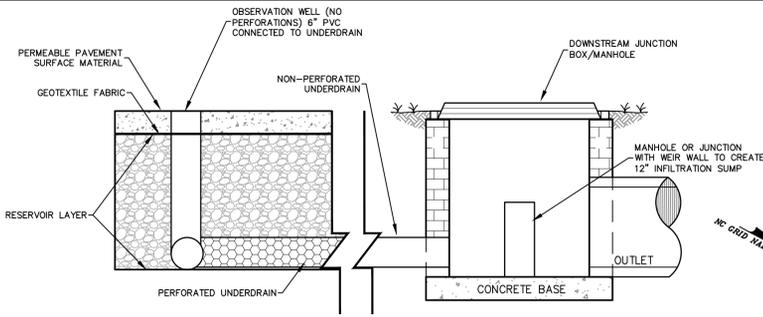
1208 S. CROATAN HWY

KILL DEVIL HILLS NORTH CAROLINA

DARE COUNTY

**NOTES**

- CURRENT OWNER: ROY E. PARKER & LEVER D. PARKER, PO BOX 49, KILL DEVIL HILLS 27948
- APPLICANT: MPF INVESTMENT COMPANY, 102 W. AIRSTRIP RD., KITTY HAWK, NC 27948
- ENGINEER: QUILBE & ASSOCIATES, P.C., P.O. DRAWER 870, KITTY HAWK, NC 27949. CONTACT: CATHEEN M. SAUNDERS, PE. PHONE: (252) 491-8147. EMAIL: CSAUNDERS@quible.com
- PIN: 988312961335 / PID: 004331000
- PROPERTY ADDRESS: 1208 S. CROATAN HWY
- PROPERTY ZONED: COMMERCIAL
- MAXIMUM ALLOWABLE LOT COVERAGE = 65%
- LOT AREA = 33,021 SF / 0.76 ACRES (AREAS BY COORDINATE METHOD)
- SUBJECT REFERENCES: DB 401, PG 133;
- ADDITIONAL REFERENCES: PC 2, SL 18.
- HORIZONTAL DATUM IS NAD83(2011), VERTICAL DATUM IS NAVD 1988.
- PROPERTY IS LOCATED IN NFP FLOOD ZONE "X" AND SUBJECT TO CHANGES BASED ON COMMUNITY CD NO. 357348; PANEL 9883; SUFFIX K. (MAP NUMBER 3720988300K) EFFECTIVE DATE: 09/19/2020.
- THIS PLAN SUBJECT TO ANY FACTS, INCLUDING BUILDING SETBACK RESTRICTIONS, EASEMENTS, COVENANTS, ETC., THAT MAY BE REVEALED BY A FULL AND ACCURATE TITLE SEARCH.
- PROPOSED COVERAGE: ASPHALT/CONCRETE PARKING AREA = 5,316 S.F.; PERMEABLE CONCRETE PARKING AREA (60% REDUCTION) = 7,906 S.F.; BUILDING/OUTDOOR PATIO TOTAL = 4,382 S.F.; MAXIMUM ALLOWABLE LOT COVERAGE = 21,463 S.F. (65%)
- CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION BETWEEN SPOT ELEVATION GRADES AND MAINTAIN POSITIVE DRAINAGE.
- AREAS OF FILL SHALL BE EXCAVATED TO COMPACTED SUBGRADE AND BACKFILLED IN 6" LIFTS.
- ALL PIPES TO BE CLASS IV REINFORCED CONCRETE, UNLESS OTHERWISE NOTED.
- 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 638.01.

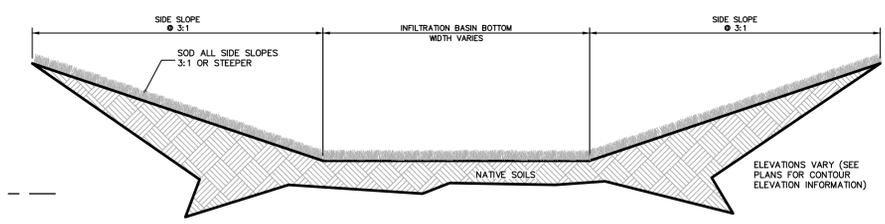


**PERMEABLE PAVEMENT OVERFLOW DETAIL**

N.T.S.

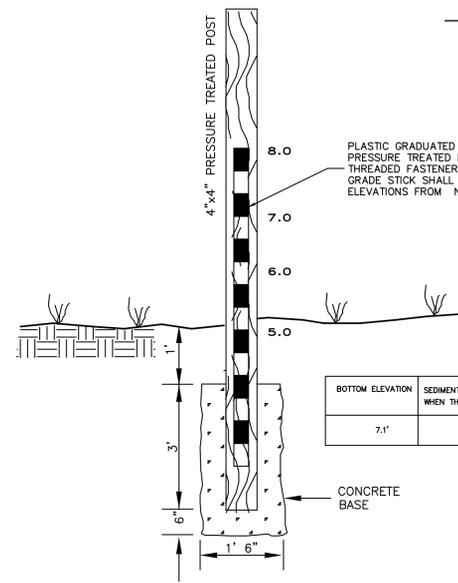
**LEGEND**

- EXISTING ASPHALT PAVEMENT
- EX. TELEPHONE PEDESTAL
- EX. CABLE TV BOX
- EX. UTILITY POLE
- EX. DRAINAGE PIPE
- EX. UG GAS LINE
- EX. WATER LINE
- EX. SANITARY SEWER LINE
- EXISTING CONTOUR
- PROPOSED ASPHALT PAVEMENT
- PROPOSED PERMEABLE CONCRETE
- PROPOSED CONCRETE PAVEMENT
- PROPOSED PERMEABLE PAVERS
- PROPOSED DROP INLET
- PROPOSED STORM PIPE
- PROPOSED DRAINAGE FLOW
- PROPOSED CONTOUR
- PROPOSED SPOT GRADE (TOP OF ASPHALT/EOP) (UNLESS OTHERWISE NOTED)



**TYPICAL INFILTRATION BASIN CROSS-SECTION DETAIL**

N.T.S.



**DEPTH BENCHMARK**

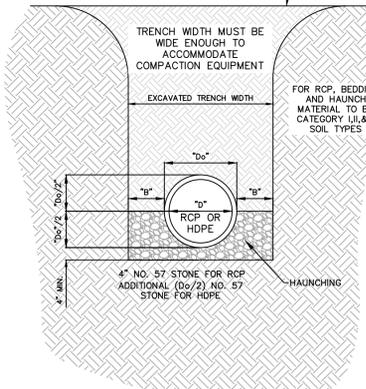
N.T.S.

**NOTES:**

- ALL PIPE JOINTS SHALL BE WRAPPED WITH NCDOT TYPE III GEOTEXTILE OR APPROVED EQUIVALENT.

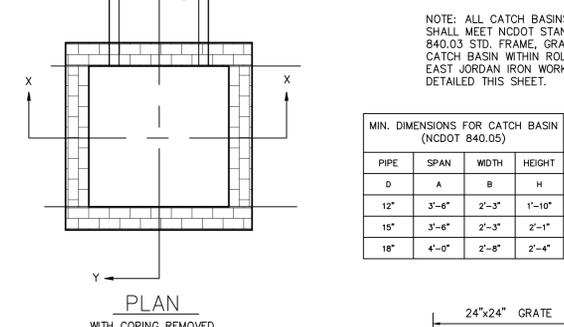
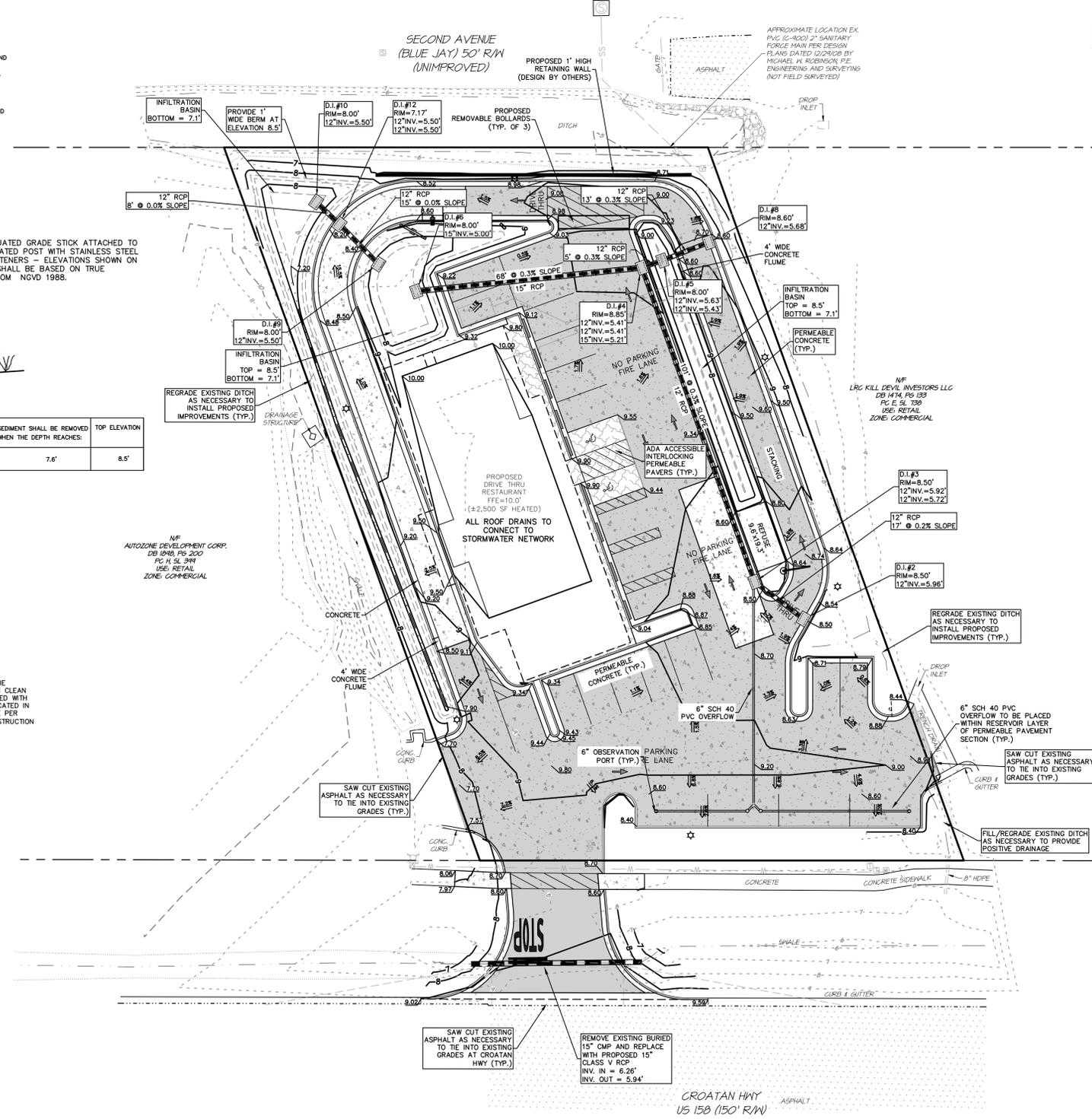
RCP PIPE DIA. "D"	"B"
2"-15"	8"
18"-24"	10"
30"-48"	18"

TRENCH SHALL BE BACKFILLED WITH CLEAN SAND AND TOPPED WITH TOP SOIL. IF LOCATED IN PAVEMENT, PAVE PER "SAW CUT" CONSTRUCTION PATCH DETAIL.



**STORM PIPE TRENCH SECTION**

N.T.S.

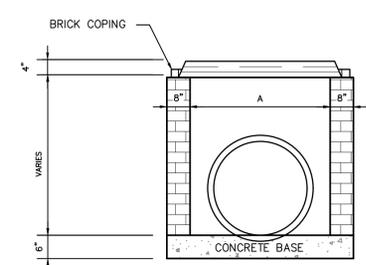


**PLAN**

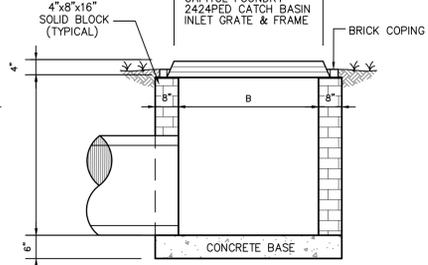
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MIN. DIMENSIONS FOR CATCH BASIN (NCDOT 840.05)

PIPE	SPAN	WIDTH	HEIGHT
D <td>A</td> <td>B</td> <td>H</td>	A	B	H
12"	3'-6"	2'-3"	1'-10"
15"	3'-6"	2'-3"	2'-1"
18"	4'-0"	2'-6"	2'-4"



**SECTION X-X**



**SECTION Y-Y**

**STORM INLET DETAIL**

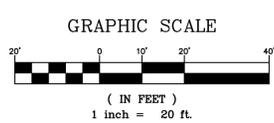
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Phone: (252) 491-8147  
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www.quible.com

REVISIONS

NO.	DATE	PER TOWN COMMENTS
1	07/08/2021	

**GRADING PLAN**  
**DRIVE-THRU RESTAURANT**  
**1208 S. CROATAN HWY**  
KILL DEVIL HILLS NORTH CAROLINA  
DARE COUNTY

PROJECT NO. P07116  
DESIGNED BY CMS  
DRAWN BY CMS  
CHECKED BY MWS  
ISSUE DATE 06/28/21

SHEET NO. **4**  
OF 9 SHEETS

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**LEGEND**

- 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
- ▨ PROPOSED ASPHALT PAVEMENT
- ▨ PROPOSED PERMEABLE CONCRETE
- ▨ PROPOSED CONCRETE PAVEMENT
- ▨ PROPOSED PERMEABLE PAVERS
- 9.0— PROPOSED CONTOUR
- PROPOSED FLOW DIRECTION AND SLOPE
- PROPOSED SILT FENCE
- LD — PROPOSED LIMITS OF DISTURBANCE
- ▨ PROPOSED CULVERT PROTECTION
- ▨ PROPOSED INLET PROTECTION
- ▨ EXISTING ASPHALT PAVEMENT
- ▨ EXISTING CONCRETE
- 10.0— EXISTING CONTOUR
- EXISTING SPOT GRADE

**NOTES**

1. CURRENT OWNER: ROY E. PARKER & LEVERN D. PARKER PO BOX 49 KILL DEVIL HILLS 27948
2. APPLICANT: MPF INVESTMENT COMPANY 102 W. ARISTIDE RD KITTY HAWK, NC 27948
3. ENGINEER: QUIBLE & ASSOCIATES, P.C. P.O. DRAWER 870 KITTY HAWK, NC 27948 CONTACT: CATHEEN M. SAUNDERS, PE PHONE: (252) 491-8147 EMAIL: CSAUNDERS@quible.com
4. PIN: 98832961635; PID: 00433000
5. PROPERTY ADDRESS: 1208 S. CROATAN HWY
6. PROPERTY ZONED: COMMERCIAL
7. MAXIMUM ALLOWABLE LOT COVERAGE = 65%
8. LOT AREA = 33,021 SF / 0.76 ACRES (AREAS BY COORDINATE METHOD)
9. SUBJECT REFERENCES: DB 401, PG 133;
10. ADDITIONAL REFERENCES: PC 2, SL 18.
11. HORIZONTAL DATUM IS NAD83(2011), VERTICAL DATUM IS NAVD 1988.
12. PROPERTY IS LOCATED IN NFIP FLOOD ZONE "X" AND SUBJECT TO CHANGES BASED ON COMMUNITY ID NO. 357348, PANEL 9883, SUFFIX K. (MAP NUMBER 37209883006) EFFECTIVE DATE: 06/19/2020.
13. THIS PLAN SUBJECT TO ANY FACTS, INCLUDING BUILDING SETBACK RESTRICTIONS, EASEMENTS, COVENANTS, ETC., THAT MAY BE REVEALED BY A FULL AND ACCURATE TITLE SEARCH.
14. PROJECT STORMWATER RUNOFF ULTIMATELY DRAINS TO THE ROANOKE SOUND (S&H)W
15. A LAND DISTURBANCE PERMIT MUST BE OBTAINED FROM THE TOWN OF KILL DEVIL HILLS IN ADVANCE OF ANY DISTURBANCE ONSITE.

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SW/C 1959

**Quible & Associates, P.C.**  
ENGINEERING, ARCHITECTURE, SURVEYING, ENVIRONMENTAL SCIENCES, INC.

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REGISTERED PROFESSIONAL ENGINEER  
REGISTERED PROFESSIONAL ARCHITECT  
REGISTERED PROFESSIONAL SURVEYOR  
REGISTERED PROFESSIONAL ENVIRONMENTAL SCIENTIST

NO.	DATE	REVISIONS	PER TOWN COMMENTS
1	07/06/2021		

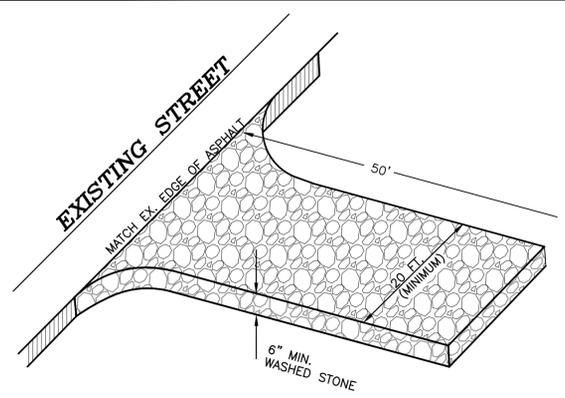
**SESC PLAN**

**DRIVE-THRU RESTAURANT**

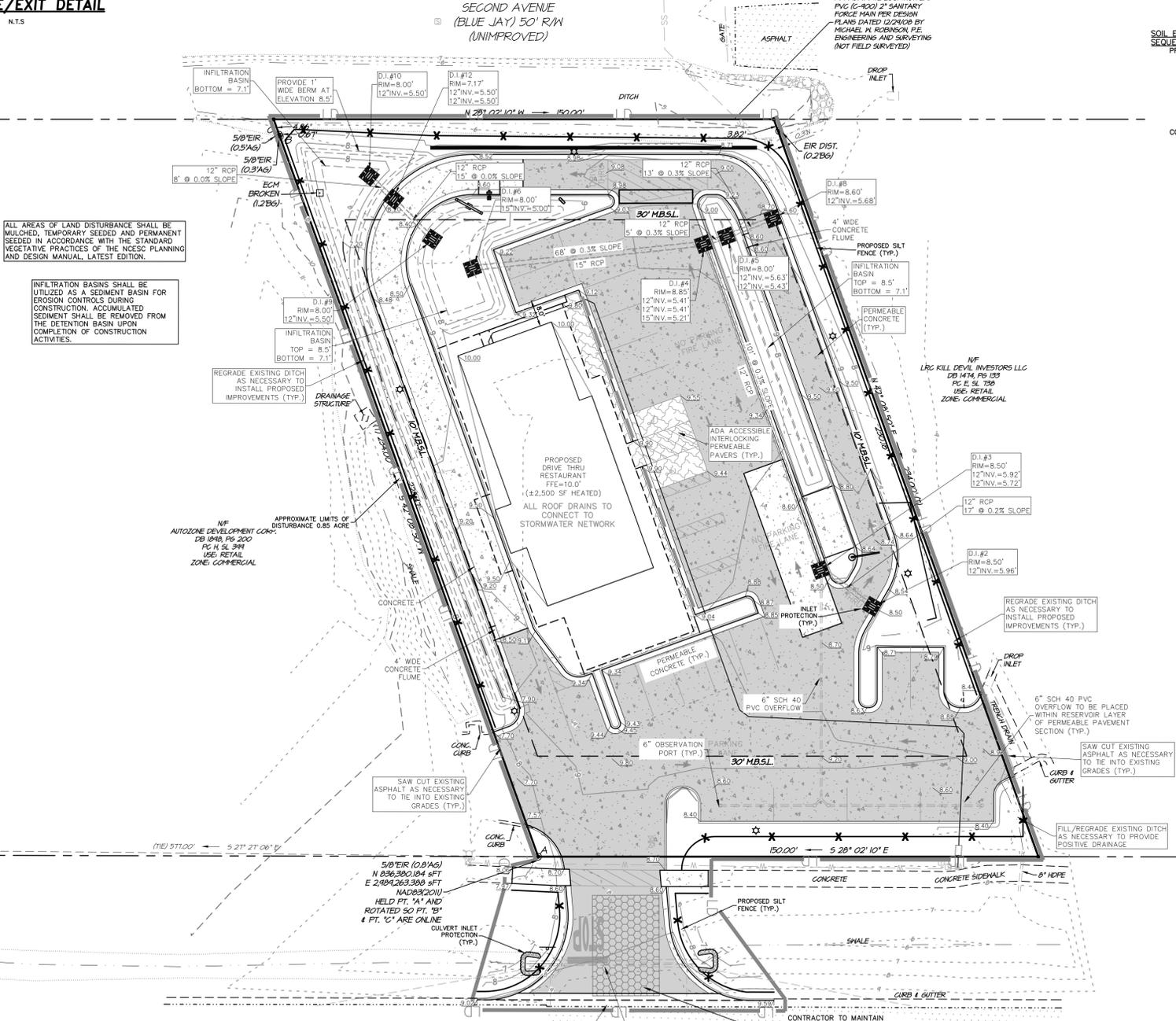
**1208 S. CROATAN HWY**

NORTH CAROLINA  
DARE COUNTY  
KILL DEVIL HILLS

PROJECT NO.	P07116
DESIGNED BY	CMS
DRAWN BY	CMS
CHECKED BY	MWS
ISSUE DATE	06/28/21
SHEET NO.	5
OF 9 SHEETS	



**GRAVEL CONSTRUCTION ENTRANCE/EXIT DETAIL**  
N.T.S.



ALL AREAS OF LAND DISTURBANCE SHALL BE MULCHED, TEMPORARY SEED AND PERMANENT SEEDING IN ACCORDANCE WITH THE STANDARD VEGETATIVE PRACTICES OF THE NCCS PLANNING AND DESIGN MANUAL, LATEST EDITION.

INFILTRATION BASINS SHALL BE UTILIZED AS A SEDIMENT BASIN FOR EROSION CONTROLS DURING CONSTRUCTION. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE DETENTION BASIN UPON COMPLETION OF CONSTRUCTION ACTIVITIES.

INFILTRATION BASINS SHALL BE UTILIZED AS A SEDIMENT BASIN FOR EROSION CONTROLS DURING CONSTRUCTION. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE DETENTION BASIN UPON COMPLETION OF CONSTRUCTION ACTIVITIES.

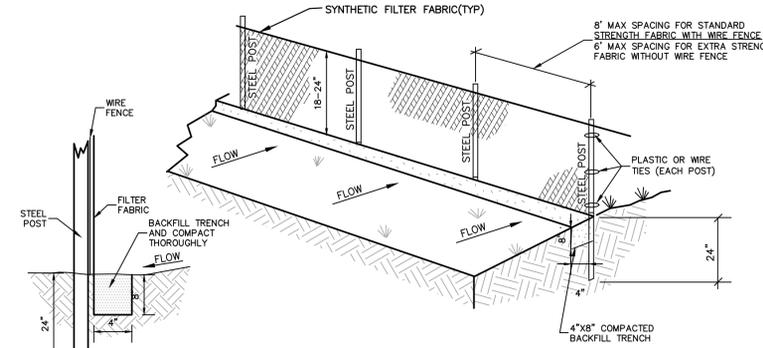
**NOTE:**  
THE DATA GIVEN ON THESE PLANS IS BELIEVED TO BE ACCURATE, BUT THE ACCURACY IS NOT GUARANTEED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL LEVELS, LOCATIONS, TYPES, AND DIMENSIONS OF THE EXISTING UTILITIES PRIOR TO CONSTRUCTION. IF A DISCREPANCY IS FOUND, WORK SHALL CEASE AND THE ENGINEER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

**SOIL EROSION & SEDIMENTATION CONTROL SEQUENCE OF CONSTRUCTION:**

- PRECONSTRUCTION:**
- 1) OBTAIN PLAN APPROVAL AND OTHER APPLICABLE PERMITS.
  - 2) FLAG AND/OR ROUGH STAKE WORK LIMITS.
  - 3) HOLD PRECONSTRUCTION CONFERENCE (OWNER, CONTRACTOR, ENGINEER, AND APPROPRIATE GOVERNMENT OFFICIALS) AT LEAST ONE WEEK PRIOR TO START OF CONSTRUCTION ACTIVITIES.
- CONSTRUCTION:**
- 4) INSTALL CONSTRUCTION ENTRANCE & SILT FENCING AT LOCATIONS SHOWN ON PLAN.
  - 5) ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE PRIOR TO ANY DEMOLITION.
  - 6) COMPLETE CLEARING AND GRUBBING PROCEDURES.
  - 7) GRADE SITE ACCORDING TO PLAN AND BEGIN CONSTRUCTION OF PROPOSED IMPROVEMENTS.
  - 8) INSTALL CONTRIBUTING STORM CONVEYANCES INCLUDING RIP-RAP APRONS, MATING AND ASSOCIATED EROSION CONTROLS.
  - 9) COMPLETE FINAL GRADING OF THE GROUNDS, TOPSOIL, PERMANENTLY SEED, LANDSCAPE, AND MULCH.
  - 10) 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.
  - 11) 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.
  - 12) UPON THE REMOVAL OF ACCUMULATED SEDIMENTS AND SITE STABILIZATION, ALL REMAINING EROSION CONTROLS MAY BE REMOVED FROM THE DEVELOPMENT. ALL DOWNSTREAM EROSION CONTROLS SHALL REMAIN IN PLACE UNTIL THE COMPLETION OF ALL OTHER DEVELOPMENT CONSTRUCTION ACTIVITIES.

**SOIL EROSION & SEDIMENTATION CONTROL NOTES:**

1. AREA TO BE DISTURBED: ± 37,156.6 SF (± 0.85 AC.)
2. 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:
  - a. PERIMETER DIKES, BERMS, SWALES, DITCHES AND SLOPES SHALL BE STABILIZED IN 7 DAYS.
  - b. HIGH QUALITY WATER (HOW) ZONES SHALL BE STABILIZED IN 7 DAYS.
  - c. DOWNSTREAM SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED IN 7 DAYS. IF SLOPES ARE 1:1 OR LESS AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
  - d. 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.
  - e. ALL OTHER DOWNSTREAM AREAS WITH SLOPES 4:1 OR FLATTER SHALL BE STABILIZED WITHIN 14 DAYS.
3. 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 PERMANENT VEGETATION SHALL BE ESTABLISHED ACCORDING TO PERMANENT VEGETATION SEEDING SPECIFICATIONS (SEE PERM. & TEMP. SEEDING SPECIFICATIONS).
4. 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.
5. SOIL EROSION AND SEDIMENTATION CONTROLS TO BE INSPECTED, MAINTAINED AND REPAIRED AS NECESSARY UNTIL PERMANENT CONTROLS ARE ESTABLISHED.
  - a. A RAIN GAUGE MUST BE KEPT ON SITE.
  - b. 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.
  - c. 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.
  - d. INSPECT ALL OUTLETS WHERE RUNOFF LEAVES SITE AND EVALUATE EFFECT ON NEARBY STREAMS. TAKE CORRECTIVE ACTION IF NECESSARY.
  - e. MAINTAIN RECORDS OF INSPECTIONS AND CORRECTIVE ACTIONS.
  - f. EARTHWORK NOTE: OFFSITE BORROW MATERIAL SHALL COME FROM AN NCEOD LAND QUALITY SECTION APPROVED SITE. OFFSITE DISPOSAL OF EXCESS MATERIAL SHALL BE TO AN NCEOD LAND QUALITY SECTION APPROVED SITE.



**SILT FENCE DETAIL**  
N.T.S.

**PERMANENT VEGETATION**

SEED MIXTURE	APPLICATION RATES/ACRE
REBEL II FESCUE	130 LBS.
COMMON BERMLUDA 'SAHARA' (HULLED)	215 LBS.

**TEMPORARY VEGETATION**

SEED MIXTURE	APPLICATION RATES/ACRE
REBEL II FESCUE	120 LBS.
RYE GRASS	

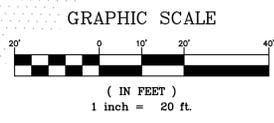
SEED MIXTURE	APPLICATION RATES/ACRE
GERMAN MILLET	40 LBS.

**SEEDBED PREPARATION:**  
LOOSEN SOILS TO A DEPTH OF 6-8 INCHES USING A RIPPER, HARROW, OR CHISEL PLOW. BREAK UP CLODS, REMOVE UNACCEPTABLE GROWTH (STICKS, ROOTS), STONES (>3"), AND OTHER MATERIALS, AND WORK THE TOP 3-4 INCHES OF THE SOIL INTO A SEEDBED. THE AREA TO BE SEEDBED SHALL BE RE-COMPACTED UTILIZING A CULTPACKER ROLLER AND A SMOOTH EVEN SOIL SURFACE WITH A LOOSE, UNIFORM FINE TEXTURE SHALL BE THE FINISHED GRADE.

**SOIL AMENDMENTS:**  
OBTAIN A SOIL TEST TO DETERMINE APPLICATION RATES AND FOLLOW RECOMMENDATIONS OF SOIL TESTS. WHEN A SOIL TEST IS NOT POSSIBLE, APPLY 3,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-10-10 STARTER FERTILIZER.

**MULCHING:**  
APPLY 4,000 LB/ACRE GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCH. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, ROVING OR BY CRIMPING WITH A MULCH ANCHORING TOOL.

**MAINTENANCE:**  
SATISFACTORY STABILIZATION AND EROSION CONTROL REQUIRES A COMPLETE VEGETATIVE COVER. EVEN SMALL BREACHES IN VEGETATIVE COVER CAN EXPAND RAPIDLY AND, IF LEFT UNATTENDED, CAN ALLOW SERIOUS SOIL LOSS FROM AN OTHERWISE STABLE SURFACE. A SINGLE HEAVY RAIN IS OFTEN SUFFICIENT TO GREATLY ENLARGE BARE SPOTS, AND THE LONGER REPAIRS ARE DELAYED, THE MORE COSTLY THEY BECOME. PROMPT ACTION WILL KEEP SEDIMENT LOSS AND REPAIR COST DOWN. NEW SEEDINGS SHOULD BE INSPECTED FREQUENTLY AND MAINTENANCE PERFORMED AS NEEDED. IF RILLS AND GULLIES DEVELOP, THEY MUST BE FILLED IN, RE-SEED, AND MAINTENANCE REQUIREMENTS EXTEND BEYOND THE SEEDING PHASE. (COMPLETE VEGETATIVE COVER IS REQUIRED REGARDLESS OF COUNTY ISSUANCE OF A CERTIFICATE OF OCCUPANCY AND FINAL PAYMENT WILL NOT BE AWARDED UNTIL COMPLETE ESTABLISHMENT OF VEGETATIVE COVER.) WEAK OR DAMAGED SPOTS MUST BE RELIQUED, FERTILIZED, MULCHED, AND RESEED AS PROMPTLY AS POSSIBLE. REFERUTILIZATION MAY BE NEEDED TO MAINTAIN PRODUCTIVE STANDS.



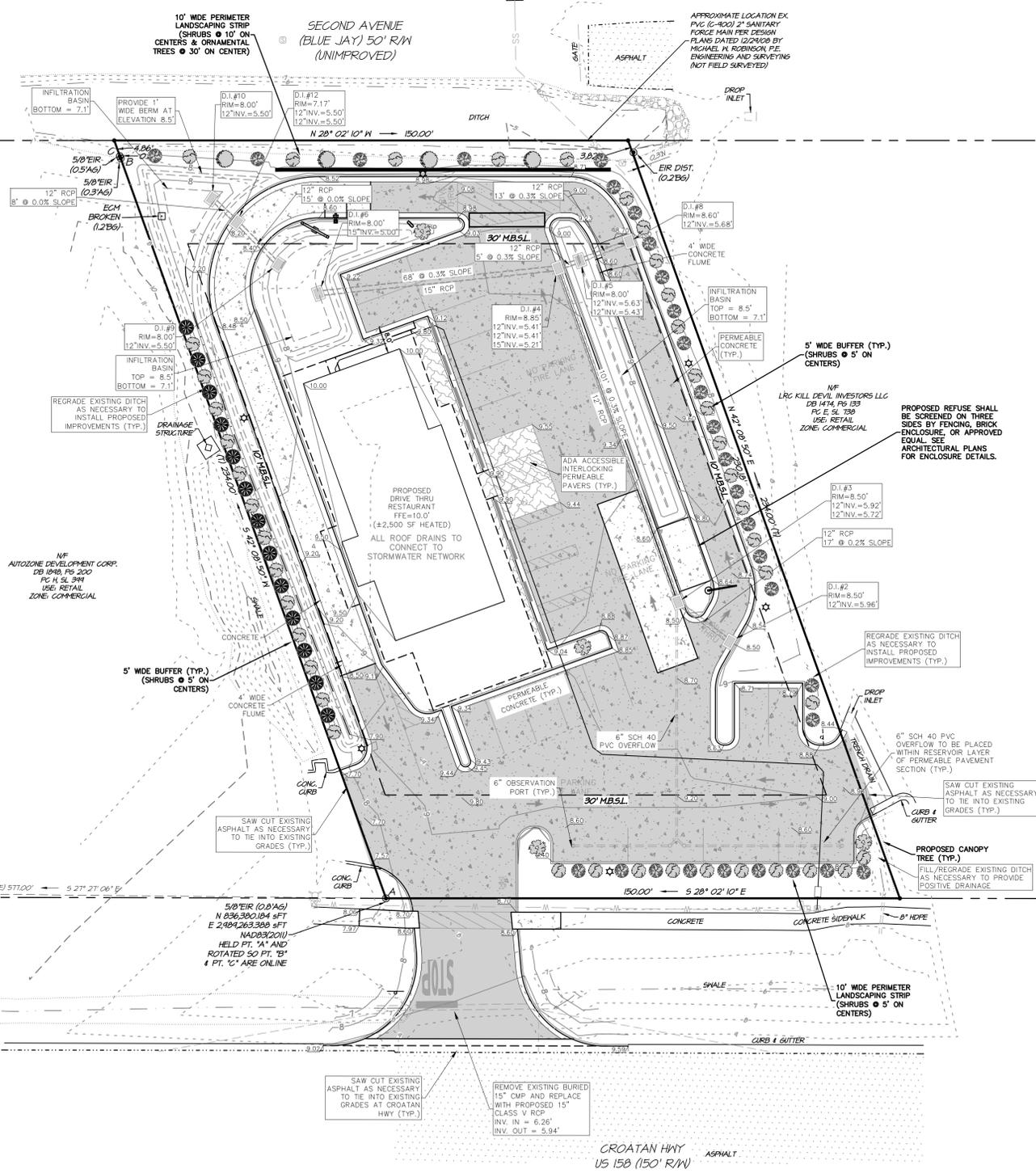
**SEEDING SPECIFICATIONS**



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**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.**

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- ### NOTES
- CURRENT OWNER: ROY E. PARKER & LORVEN D. PARKER, PO BOX 49, KILL DEVIL HILLS 27948
  - APPLICANT: MIF INVESTMENT COMPANY, 102 W. AIRSTRIP RD., KITTY HAWK, NC 27948
  - ENGINEER: QUIBLE & ASSOCIATES, P.C., P.O. DRAWER 870, KITTY HAWK, NC 27949. CONTACT: CHARLEEN M. SAUNDERS, PE. PHONE: (252) 491-8147. EMAIL: CS@QUIBLEPC.COM
  - PIN: 988312061635 / P.D.: 00431000
  - PROPERTY ADDRESS: 1208 S. CROATAN HWY
  - PROPERTY ZONED: COMMERCIAL
  - MAXIMUM ALLOWABLE LOT COVERAGE = 65%
  - LOT AREA = 33,021 SF / 0.76 ACRES (AREAS BY COORDINATE METHOD)
  - SUBJECT REFERENCES: DB 401, PG 133;
  - ADDITIONAL REFERENCES: PC 2, SL 18.
  - HORIZONTAL DATUM IS NAD83(2011), VERTICAL DATUM IS NAVD 1988.
  - PROPERTY IS LOCATED IN NFIP FLOOD ZONE "X" AND SUBJECT TO CHANGES, BASED ON COMMUNITY ID NO. 357348, PANEL 9883, SUFFIX K. (MAP NUMBER 372988300K) EFFECTIVE DATE: 06/19/2020.
  - 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 2,250 SQ.FT. DRIVE-THRU RESTAURANT WITH ASSOCIATED UTILITIES, PARKING, AND APPURTENANCES.
  - SETBACKS: FRONT: 30', SIDE: 10', REAR: 30'
  - 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. 1-800-632-4949, 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION TO HAVE UTILITIES MARKED.
  - THE CONTRACTOR SHALL PROVIDE SMOOTH TRANSITIONS FROM PROPOSED FEATURES TO EXISTING FEATURES AS NECESSARY.
  - 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.
  - REMOVE TREES, GRASSES, SHRUBS, AND OTHER VEGETATION IMPROVEMENTS OR OBSTRUCTIONS INTERFERING WITH INSTALLATION OF NEW CONSTRUCTION UNLESS OTHERWISE NOTED.
  - THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL PROPERTY MONUMENTS DURING CONSTRUCTION. DISTURBED OR REMOVED PROPERTY MONUMENTS SHALL BE REPLACED BY A NORTH CAROLINA LICENSED PROFESSIONAL LAND SURVEYOR.
  - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE DRAWINGS, TOWN OF KILL DEVIL HILLS CODES AND ORDINANCES, AND NCDOT DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES REGULATIONS.
  - ALL PAVEMENT MARKINGS, TEXT, AND DIRECTIONAL ARROWS SHALL BE PAINTED WHITE. ALL LETTERING SHALL BE 2 FT. IN HEIGHT. LINES SHALL BE 4" WIDE. CROSSWALK AREAS SHALL MEET NCDOT DIVISION 12 STANDARDS.

- ### LEGEND
- EXISTING ASPHALT PAVEMENT
  - EX. TELEPHONE PEDESTAL
  - EX. CABLE TV BOX
  - EX. UTILITY POLE
  - EX. DRAINAGE PIPE
  - EX. US GAS LINE
  - EX. WATER LINE
  - EX. SANITARY SEWER LINE
  - PROPOSED LANDSCAPING
  - PROPOSED ASPHALT PAVEMENT
  - PROPOSED PERMEABLE CONCRETE
  - PROPOSED CONCRETE PAVEMENT
  - PROPOSED PERMEABLE PAVERS

### TREE PLANTING SUMMARY

NCDOT BUFFER (10' WIDE PARKING BUFFER):

- 0 BALD CYPRESS
- 0 CRAPE MYRTLE
- 10 GLOSSY ABELIA
- 0 DWARF YAUPON HOLLY
- 0 WAX MYRTLE

NORTHERN BUFFER (5' WIDE BUFFER W/ SHRUBS 5' O.C.):

- 0 BALD CYPRESS
- 0 CRAPE MYRTLE
- 13 GLOSSY ABELIA
- 15 DWARF YAUPON HOLLY
- 0 WAX MYRTLE

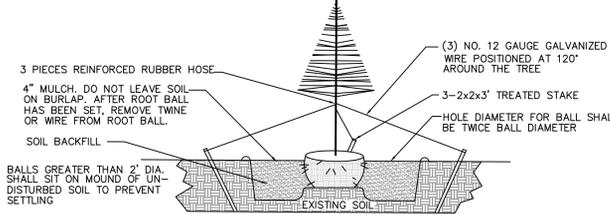
SOUTHERN BUFFER (5' WIDE BUFFER W/ SHRUBS 5' O.C.):

- 0 BALD CYPRESS
- 0 CRAPE MYRTLE
- 13 GLOSSY ABELIA
- 0 DWARF YAUPON HOLLY
- 13 WAX MYRTLE

WESTERN BUFFER (10' WIDE BUFFER W/ SHRUBS 10' O.C. & ORNAMENTAL TREES 30' O.C.):

- 0 BALD CYPRESS
- 0 CRAPE MYRTLE
- 5 GLOSSY ABELIA
- 5 DWARF YAUPON HOLLY
- 0 WAX MYRTLE

SYMBOL	QUANTITY	COMMON NAME	HEIGHT	SPREAD	MIN. SIZE @ PLANTING
	4	BALD CYPRESS	50' - 100'	20' - 30'	2" CAL, 8' HT.
	4	CRAPE MYRTLE	15' - 30'	6' - 15'	1.5" CAL, 6' HT.
	41	GLOSSY ABELIA	3' - 6'	3' - 6'	3 GALLON
	29	DWARF YAUPON HOLLY	3' - 5'	3' - 6'	3 GALLON
	13	WAX MYRTLE	3' - 5'	3' - 6'	3 GALLON



**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.

GRAPHIC SCALE  
1 inch = 20 ft.



NC License # C-028  
SINCE 1959

## Quible & Associates, P.C.

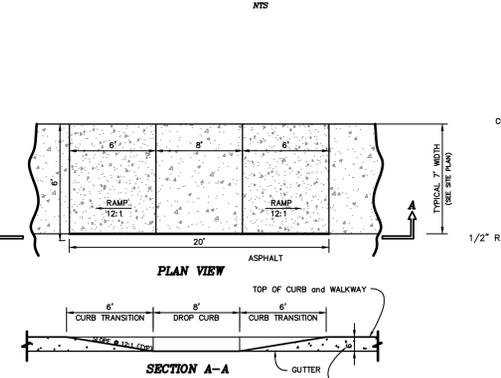
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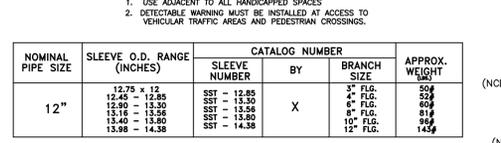
PROJECT NO. P07116  
DESIGNED BY CMS  
DRAWN BY CMS  
CHECKED BY MWS  
ISSUE DATE 06/28/21  
SHEET NO. 6 OF 9 SHEETS

SITE & LANDSCAPING PLAN  
DRIVE-THRU RESTAURANT  
1208 S. CROATAN HWY  
DARE COUNTY NORTH CAROLINA  
KILL DEVIL HILLS

**2'-0" SPILL CURB & GUTTER CROSS SECTION**  
N.T.S.



**WHEELCHAIR RAMP**  
N.T.S.

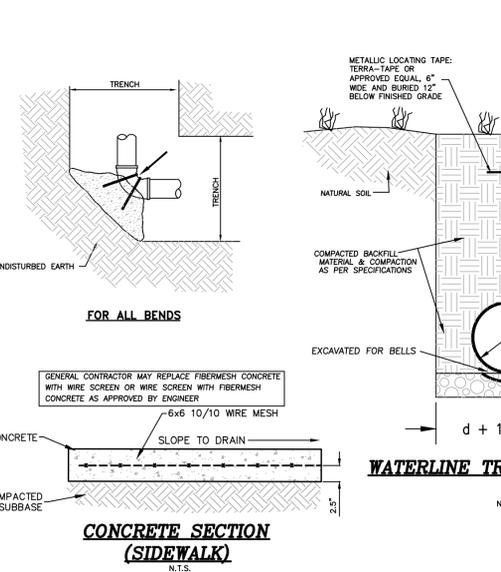


**TYPICAL TAPPING SLEEVE DETAIL**  
ROMAC INDUSTRIES, INC. "SST" STAINLESS STEEL TAPPING SLEEVE

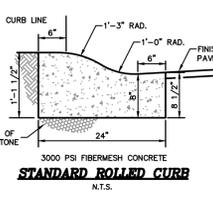
DIMENSION	VALVE SIZE				
	4"	6"	8"	10"	12"
A	13-3/8	16-3/4	20-3/16	24-1/8	27-1/2
B +.000/-031	4.984	6.984	8.984	10.984	12.984
C ±.016	.188	.250	.250	.250	.250
D (FLANGED END)	4-1/2	5-1/4	5-3/4	6-1/2	7
E (MJ END)	5-5/8	6	6-7/8	7-3/8	8-5/16
F	2-1/2	2-1/2	2-1/2	2-1/2	2-1/2
NO. OF TURNS TO OPEN	15	19	22	32	38
MAX. CUTTER DIAMETER	3-3/4	5-3/4	7-3/4	9-3/4	11-3/4

- NOTES:  
 1. DO NOT EXCEED THE RECOMMENDED TAPPING MACHINE CUTTER DIAMETER LISTED IN THE TABLE. FAILURE TO DO SO MAY RESULT IN DAMAGE TO THE SEALING SURFACES OF THE VALVE.  
 2. VALVE MEETS OR EXCEEDS APPLICABLE REQUIREMENTS OF ANSI/AWWA C509 WITH WALL THICKNESS WHICH EXCEED THE MINIMUM REQUIREMENTS OF ANSI/AWWA C153/A21.53.  
 3. US LISTED FM APPROVED. VALVE MUST BE ORDERED IN CONFIGURATIONS WHICH ARE US LISTED AND FM APPROVED AND HAVE PERMANENT UL/FM MARKINGS.  
 4. 250 PSI RATED WORKING PRESSURE.  
 5. FUSION BONDED EPOXY COATING MEETS OR EXCEEDS REQUIREMENTS OF AWWA C550.  
 6. MECHANICAL JOINT ENDS ARE IN ACCORDANCE WITH ANSI/AWWA C111/A21.11.  
 7. BOLT PATTERNS OF FLANGED ENDS ARE IN ACCORDANCE WITH ANSI/AWWA C110/A21.10 (ANSI B16.1, CLASS 125).  
 8. RAISED PLOT DIMENSIONS OF FLANGED ENDS ON TAPPING VALVES ARE IN ACCORDANCE WITH MSS SP-60.

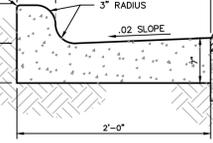
**TYPICAL TAPPING VALVE DETAIL**  
AMERICAN FLOW CONTROL SERIES 2500 RESILIENT WEDGE VALVE



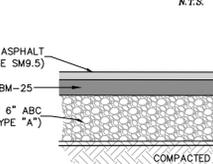
**PARKWAY CURB**  
N.T.S.



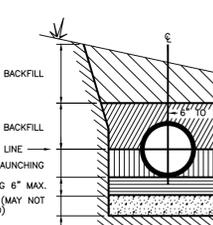
**STANDARD ROLLED CURB**  
N.T.S.



**2'-0" CURB and GUTTER**  
REF. NCDOT STD. 846.01  
N.T.S.



**ASPHALT SECTION**  
N.T.S.

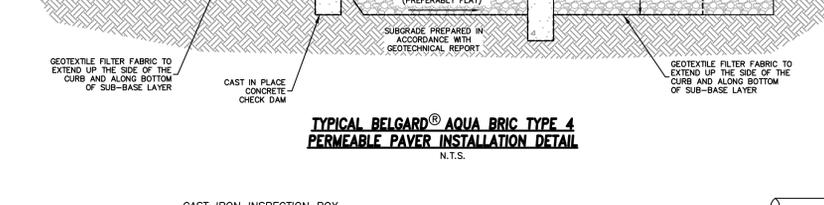


**GRAVITY SEWER EMBEDMENT CONDITIONS FOR FLEXIBLE AND SEMI-RIGID SEWER PIPE**  
N.T.S.

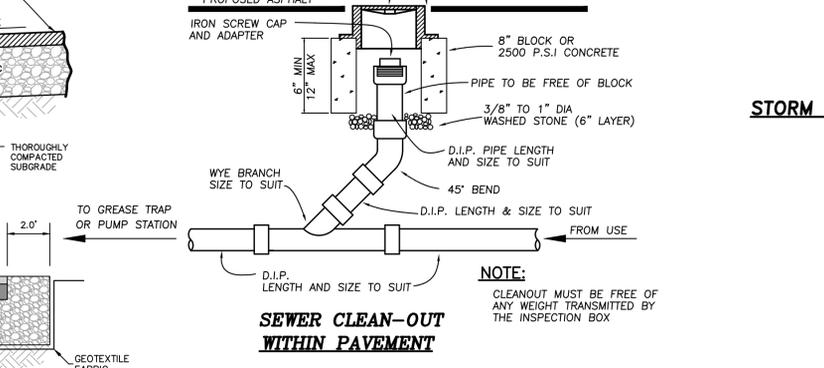


PIPE INSTALLATION TO CONFORM TO ASTM D 2321

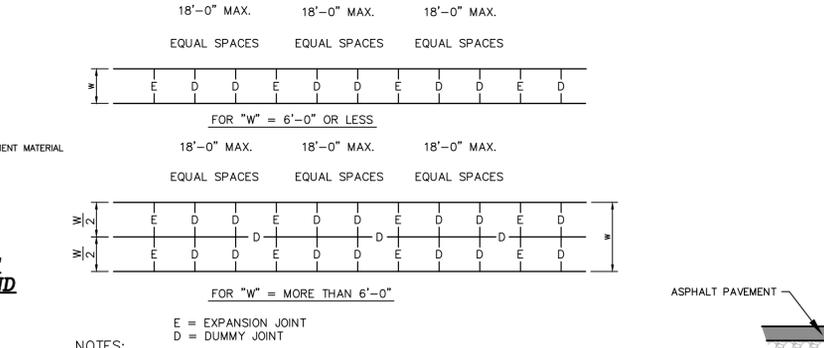
**TYPICAL BELGARD® AQUA BRIC TYPE 4 PERMEABLE PAVEMENT INSTALLATION DETAIL**  
N.T.S.



**SEWER CLEAN-OUT WITHIN PAVEMENT**  
N.T.S.



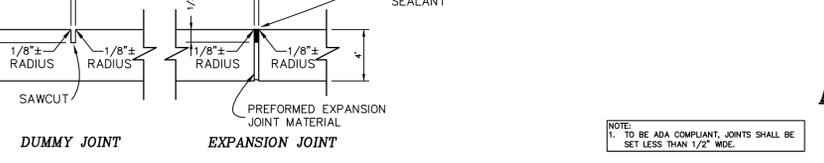
**SEWER CLEAN-OUT WITHIN PAVEMENT**  
N.T.S.



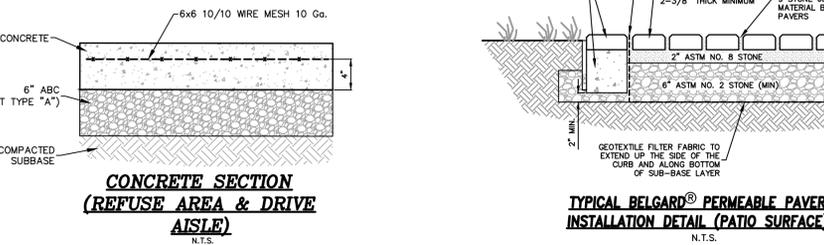
E = EXPANSION JOINT  
D = DUMMY JOINT

NOTES:  
 -EXCEPT WHERE SHOWN IN THE PLAN, ALL NEW CONC. WALKS SHALL HAVE JOINTS SPACED AS SHOWN IN THESE DETAILS.  
 -AN EXPANSION JOINT SHALL BE USED TO SEPARATE THE NEW CONC. WALK FROM OTHER NEW OR EXISTING CONCRETE CONSTRUCTION.  
 -SEE ALSO ARCHITECTURAL PLANS

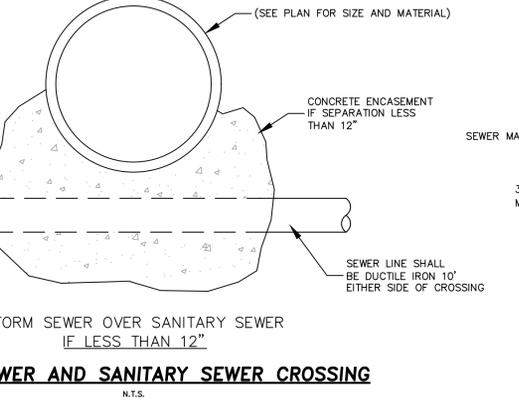
**JOINT PATTERN**  
N.T.S.



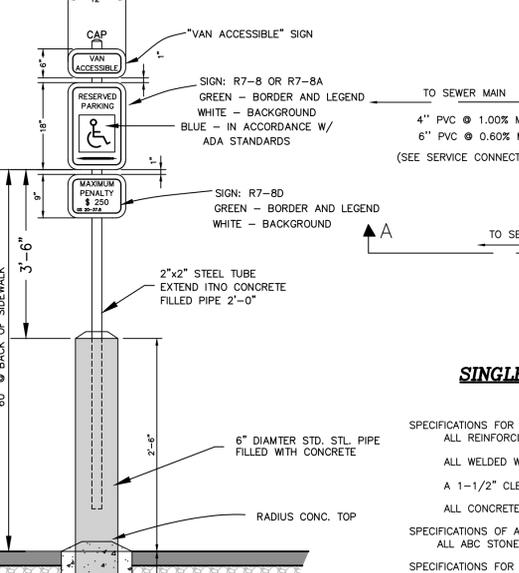
**JOINT DETAIL SIDEWALK JOINTS**  
N.T.S.



**STORM SEWER AND SANITARY SEWER CROSSING**  
N.T.S.



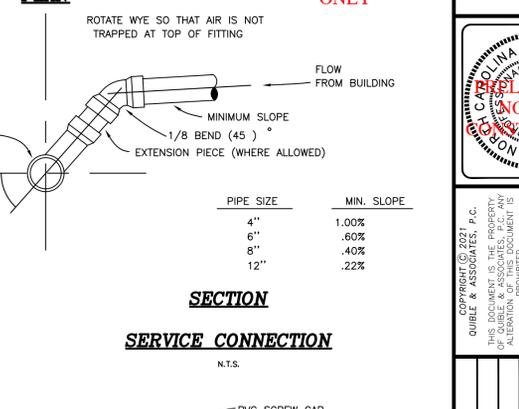
**ADA RESERVED PARKING SIGN DETAIL**  
N.T.S.



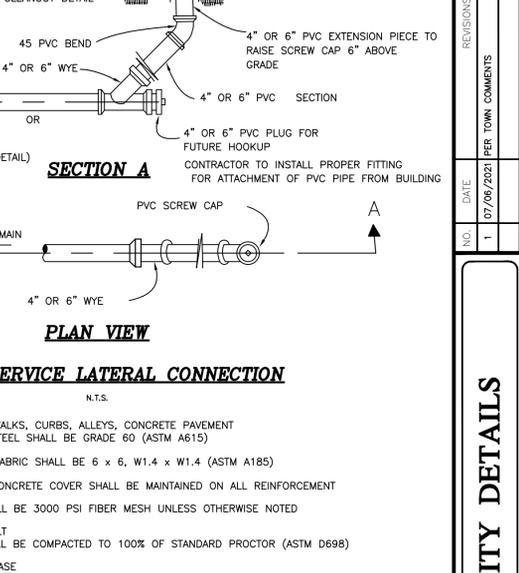
**TYPICAL SPECIFICATIONS**  
N.T.S.

- SPECIFICATIONS FOR SIDEWALKS, CURBS, ALLEYS, CONCRETE PAVEMENT  
 ALL REINFORCING STEEL SHALL BE GRADE 60 (ASTM A615)  
 ALL WELDED WIRE FABRIC SHALL BE 6 x 6, W1.4 x W1.4 (ASTM A185)  
 A 1-1/2" CLEAR CONCRETE COVER SHALL BE MAINTAINED ON ALL REINFORCEMENT  
 ALL CONCRETE SHALL BE 3000 PSI FIBER MESH UNLESS OTHERWISE NOTED  
 SPECIFICATIONS OF ASPHALT  
 ALL ABC STONE SHALL BE COMPACTED TO 100% OF STANDARD PROCTOR (ASTM D698)  
 SPECIFICATIONS FOR SUBBASE  
 ALL SUBBASE SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR (ASTM D698)

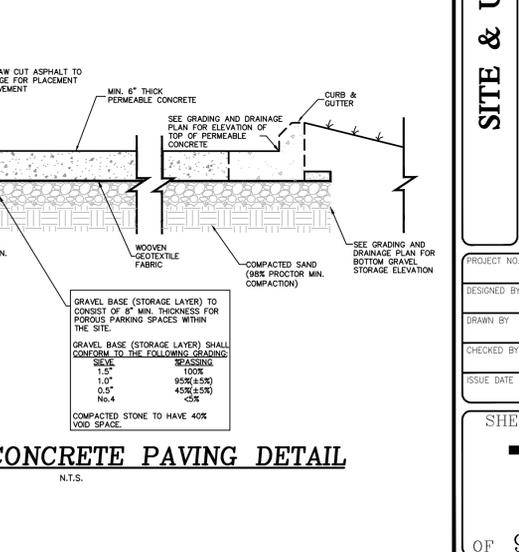
**FINAL DRAWINGS FOR PERMITTING ONLY**



**SINGLE SERVICE LATERAL CONNECTION**  
N.T.S.



**PERMEABLE CONCRETE PAVING DETAIL**  
N.T.S.

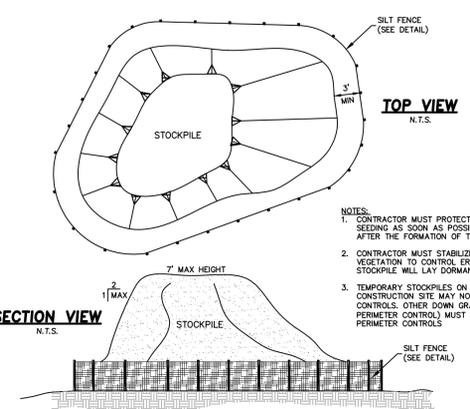
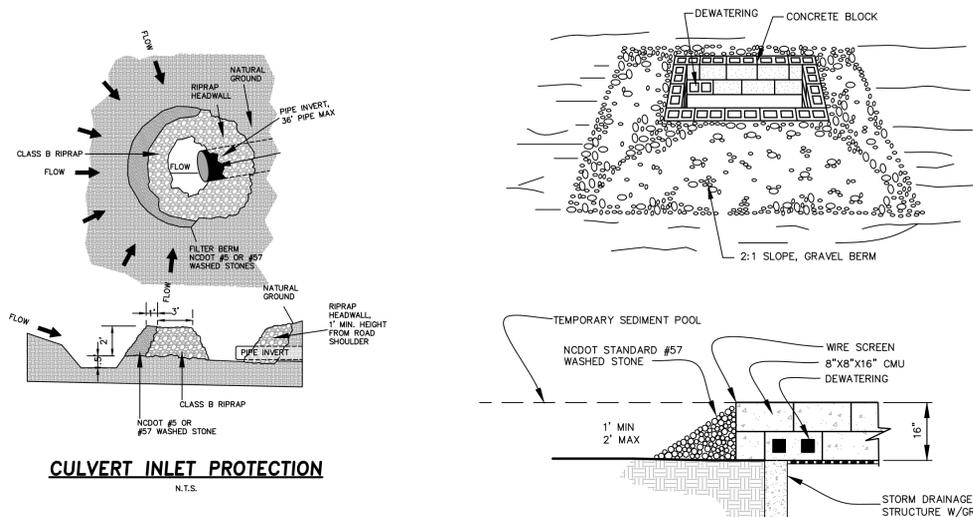


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 Phone: (919) 871-1427  
 Fax: (919) 871-1428  
 www.quilbe.com

DESIGNED BY: CMS  
 DRAWN BY: CMS  
 CHECKED BY: MWS  
 ISSUE DATE: 06/28/21

PROJECT NO.: P07116  
 SHEET NO.: 7 OF 9 SHEETS

SITE & UTILITY DETAILS  
 DRIVE-THRU RESTAURANT  
 1208 S. CROATAN HWY  
 KILL DEVIL HILLS, NORTH CAROLINA  
 DARE COUNTY



**INLET PROTECTION**  
N.T.S.

INLET PROTECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NC EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, (LATEST EDITION) SECTION 6.52.

INLET PROTECTION SHALL BE PROVIDED AT ALL DROP INLETS, CURB INLETS, YARD INLETS AND ANY OTHER STORMWATER COLLECTION INLET.

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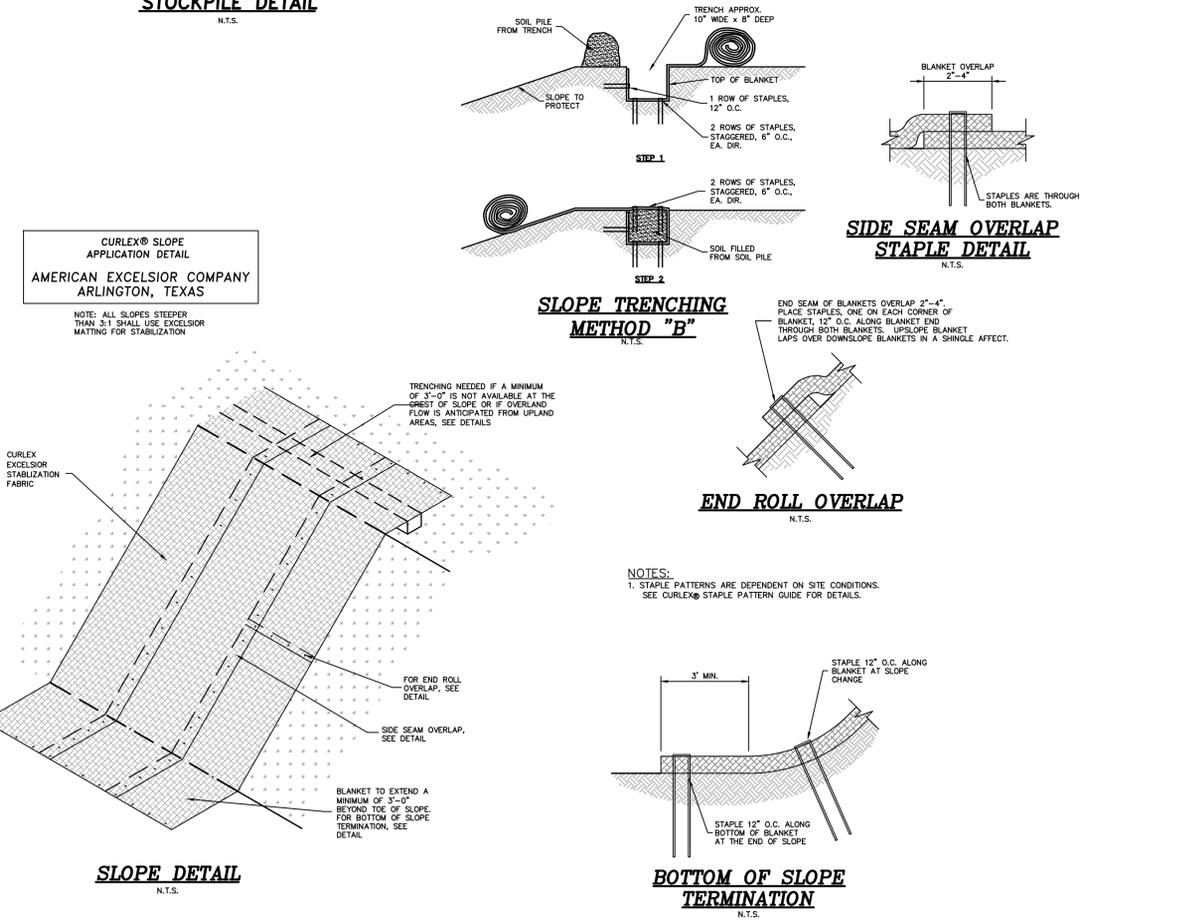
INLET PROTECTION SHALL BE PROVIDED AT ALL DROP INLETS, CURB INLETS, YARD INLETS AND ANY OTHER STORMWATER COLLECTION INLET.

**NOTES:**

- CONTRACTOR MUST PROTECT TOPSOIL STOCKPILES BY TEMPORARILY SEEDING AS SOON AS POSSIBLE, NO MORE THAN 21 CALENDAR DAYS AFTER THE FORMATION OF THE STOCKPILE.
- CONTRACTOR MUST STABILIZE STOCKPILES WITH PERMANENT VEGETATION TO CONTROL EROSION AND WEED GROWTH IF THE STOCKPILE WILL LAY DORMANT FOR MORE THAN 90 DAYS.
- TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF THE CONSTRUCTION SITE MAY NOT REQUIRE STOCKPILE PERIMETER CONTROLS. OTHER DOWN GRADIENT CONTROLS (INCLUDING SITE PERIMETER CONTROL) MUST BE IN PLACE TO REMOVE STOCKPILE PERIMETER CONTROLS.

**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.**

**QUIBLE & 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.**



**GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT**

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

**SECTION E: GROUND STABILIZATION**

Site Area Description	Required Ground Stabilization Timeframes	
	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed -7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(d) Slopes 3:1 to 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

**Note:** After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

**GROUND STABILIZATION SPECIFICATION**

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> <li>Temporary grass seed covered with straw or other mulches and tackifiers</li> <li>Hydroseeding</li> <li>Roller erosion control products with or without temporary grass seed</li> <li>Appropriately applied straw or other mulch</li> <li>Plastic sheeting</li> </ul>	<ul style="list-style-type: none"> <li>Permanent grass seed covered with straw or other mulches and tackifiers</li> <li>Geotextile fabrics such as permanent soil reinforcement matting</li> <li>Hydroseeding</li> <li>Shrubs or other permanent plantings covered with mulch</li> <li>Uniform and evenly distributed ground cover sufficient to restrain erosion</li> <li>Structural methods such as concrete, asphalt or retaining walls</li> <li>Roller erosion control products with grass seed</li> </ul>

**POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**

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

**EQUIPMENT AND VEHICLE MAINTENANCE**

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

**LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

**PAINT AND OTHER LIQUID WASTE**

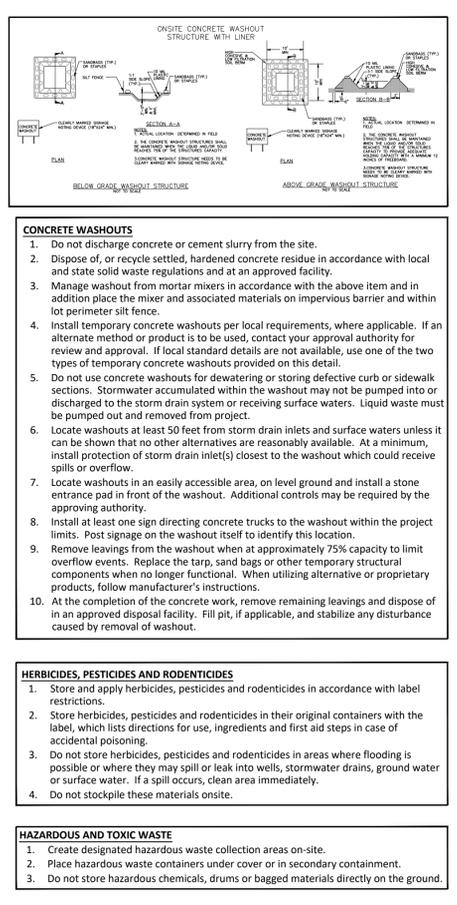
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sized and placed appropriately for the needs of site.
- Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

**PORTABLE TOILETS**

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly equipped unit.

**EARTHEN STOCKPILE MANAGEMENT**

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



**NCG01 GROUND STABILIZATION AND MATERIALS HANDLING EFFECTIVE: 04/01/19**

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION A: SELF-INSPECTION**

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero". The permittee may use another rain-measuring device approved by the Division.
(2) E&S Measures	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the measures inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Indication of whether the measures were operating properly. 5. Description of maintenance needs for the measure. 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration. 5. Indication of visible sediment leaving the site. 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits. 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or off-site (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part II, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&S measures, installation and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

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

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION B: RECORDKEEPING**

**1. E&S Plan Documentation**

The approved E&S plan as well as any approved deviation shall be kept on the site. The approved E&S plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&S plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&S Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&S Plan.	Initial and date each E&S Measure on a copy of the approved E&S Plan or complete, date and sign an inspection report that lists each E&S Measure shown on the approved E&S Plan. This documentation is required upon the initial installation of the E&S Measures or if the E&S Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&S Plan.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&S Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&S Measures.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

**2. Additional Documentation**

In addition to the E&S Plan documents above, the following items shall be kept on the site and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- This general permit as well as the certificate of coverage, after it is received.
- Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
- All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION C: REPORTING**

**1. Occurrences that must be reported**

Permittees shall report the following occurrences:

- Visible sediment deposition in a stream or wetland.
- Oil spills if:
  - They are 25 gallons or more,
  - They are less than 25 gallons but cannot be cleaned up within 24 hours,
  - They cause sheen on surface waters (regardless of volume), or
  - They are within 100 feet of surface waters (regardless of volume).
- Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- Anticipated bypasses and unanticipated bypasses.
- Noncompliance with the conditions of this permit that may endanger health or the environment.

**2. Reporting Timeframes and Other Requirements**

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification</li> <li><b>Within 7 calendar days</b>, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.</li> <li>If the stream is named on the NC 303(a) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.</li> </ul>
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.</li> <li><b>A report at least ten days before the date of the bypass, if possible</b></li> <li>The report shall include an evaluation of the anticipated quality and effect of the bypass.</li> </ul>
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification.</li> <li><b>Within 7 calendar days</b>, a report that includes an evaluation of the quality and effect of the bypass.</li> </ul>
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification.</li> <li><b>Within 7 calendar days</b>, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41(j)(6)].</li> <li>Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(j)(7)]	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification.</li> <li><b>Within 7 calendar days</b>, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41(j)(6)].</li> <li>Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>

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SMVC #59

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REVISIONS

NO.	DATE	REV. TOWN COMMENTS
1	07/06/2021	

**SESC DETAILS**

**DRIVE-THRU RESTAURANT**  
1208 S. CROATAN HWY  
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DARE COUNTY  
NORTH CAROLINA

PROJECT NO. P07116  
DESIGNED BY CMS  
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SHEET NO. 9 OF 9 SHEETS