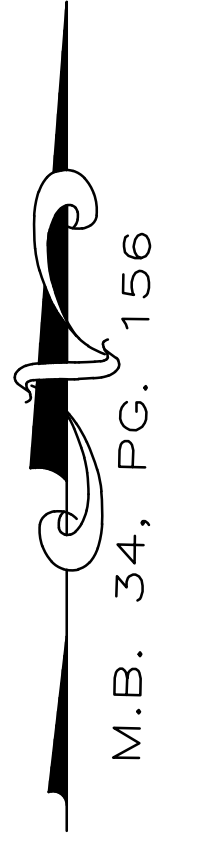
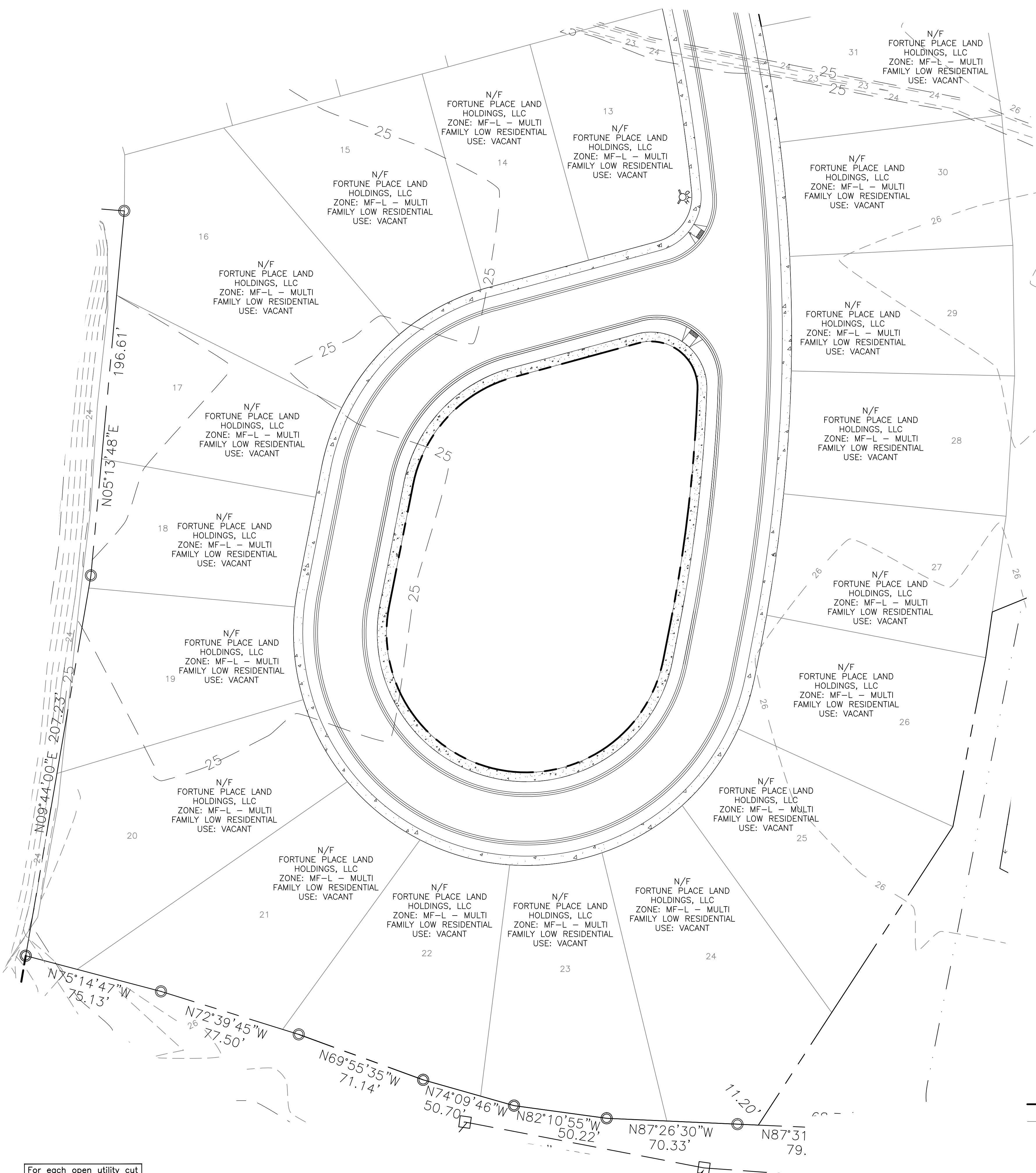


LOCATION MAP  
NOT TO SCALE

REVISIONS		
No./Date	Description	By



- SITE INVENTORY NOTES:**
- PREPARER OF THE PLAN: TRIPP ENGINEERING, P.C.
  - APPLICANT NAME: FORTUNE PLACE HOLDINGS, LLC
  - SITE ADDRESS OF THE DEVELOPMENT: 4900 GATE POST LANE
  - PROPERTY OWNER: FORTUNE PLACE HOLDINGS, LLC
  - DEVELOPER: FORTUNE PLACE HOLDINGS, LLC
  - PROPERTY BOUNDARY: SEE PLAN  
TAX PARCEL INFORMATION: R07100-003-017-000
  - PROPERTY ZONING: MF-L - MULTI FAMILY LOW RESIDENTIAL
  - ADJACENT PROPERTY OWNER INFORMATION: SEE PLAN
  - VICINITY MAP: SEE PLAN
  - TOPOGRAPHY: SEE PLAN
  - 100-YEAR FLOOD BOUNDARY: N/A
  - EXISTING DITCHES, CREEKS AND STREAMS: SEE PLAN
  - SOIL: LY; LYNN HAVEN
  - CAMA AEC: N/A
  - CAMA LAND CLASSIFICATION: URBAN
  - CONSERVATION RESOURCES: NONE  
ASSOCIATED SETBACKS: N/A
  - HISTORIC OR ARCHAEOLOGICAL SITE: N/A
  - CEMETERIES, BURIAL SITES/GROUNDS: N/A
  - FORESTED AREAS, HABITAT AND DOMINANT SPECIES: N/A
  - WETLANDS: NONE
  - PROTECTED SPECIES OR HABITAT: N/A
  - EXISTING OR PROPOSED THOROUGHFARES, BIKE ROUTES, PEDESTRIAN SIDEWALKS OR TRAILS AND TRANSIT FACILITIES: SEE SITE PLAN.
  - NO TREES EXIST ON SITE.



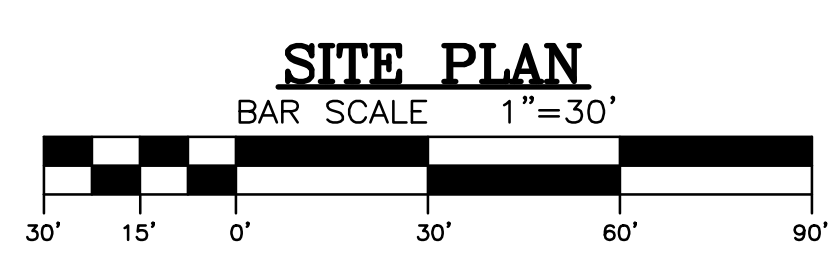
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	PROPERTY BOUNDARY
	EXISTING CONTOUR

Approved Construction Plan	
Name	Date
Planning _____	_____
Traffic _____	_____
Fire _____	_____

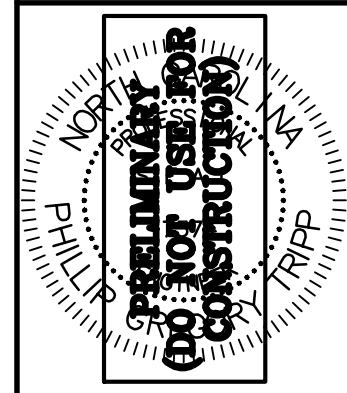
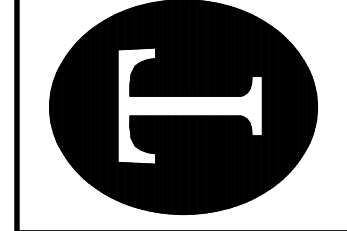
STORMWATER MANAGEMENT PLAN  
APPROVED  
CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

For each open utility cut of  
City streets, a \$325  
permit  
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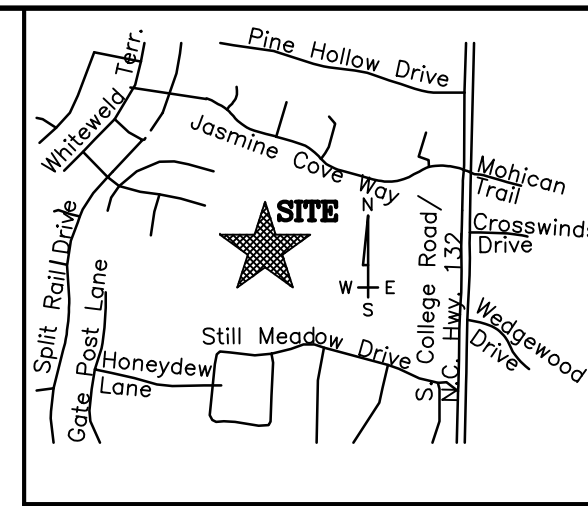
EXISTING CONDITIONS AND SITE INVENTORY PLAN  
**FORTUNE PLACE AMENITIES**  
NEW HANOVER COUNTY, NORTH CAROLINA

**TRIPP ENGINEERING, P.C.**  
419 Chestnut Street  
Wilmington, North Carolina 28401  
Phone 910-763-5100  
Fax 910-763-5631  
© 2011 TRIPP ENGINEERING, P.C.



DATE 06-29-16  
DESIGN PGT  
DRAWN EJW

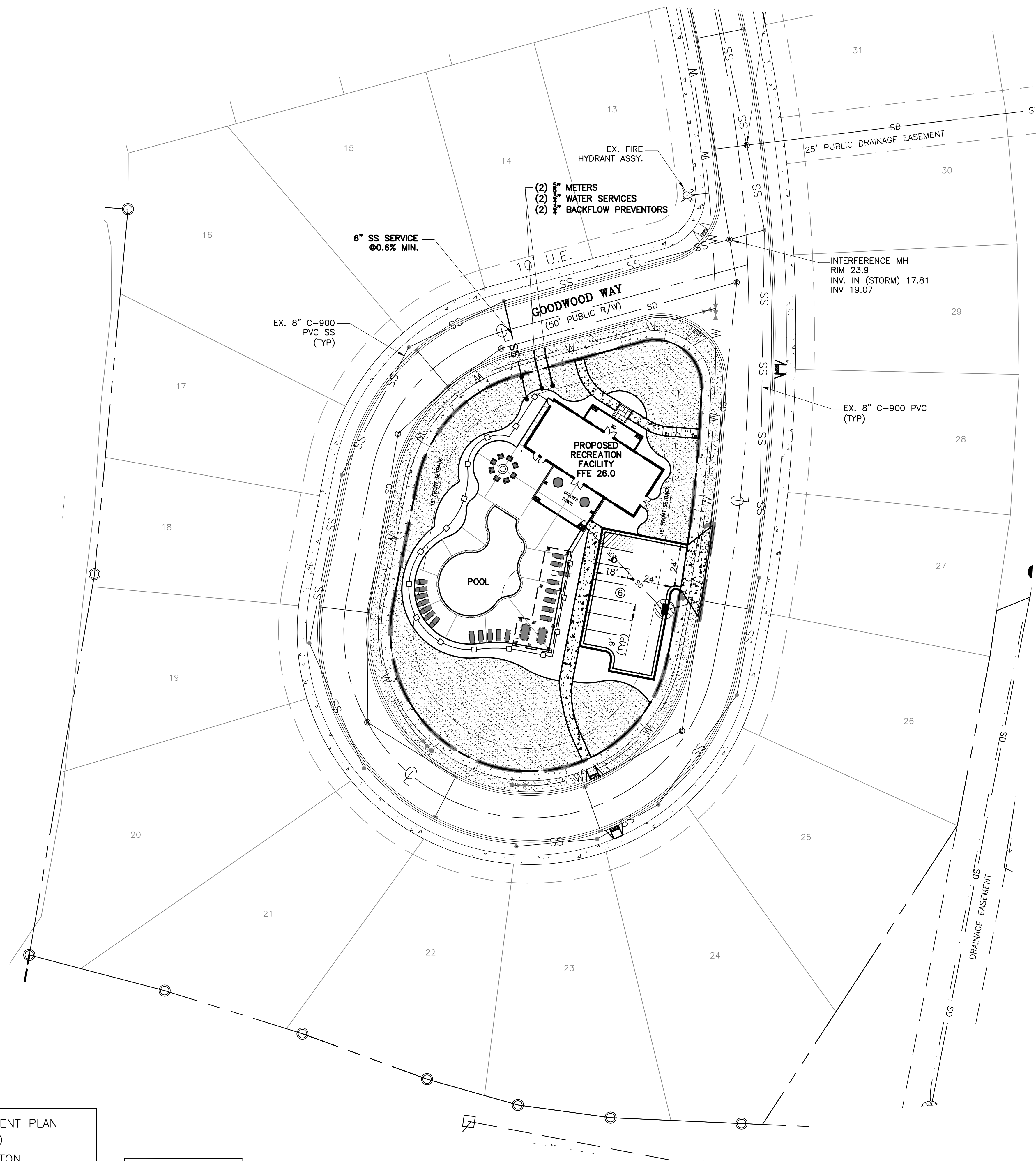
**C1**  
SHEET 1 OF 4  
16007



REVISIONS		
No./Date	Description	By

LOCATION MAP  
NOT TO SCALE

- NOTES:**
- ZONING**
- 1) TOPOGRAPHY AND TREE SURVEY COMPLETED BY DANFORD AND ASSOCIATES LAND SURVEYING, P.C.
  - 2) PERMITTING OF BUSINESS IDENTIFICATION SIGNAGE IS A SEPARATE PROCESS. CITY OF WILMINGTON WILL NOT ALLOW OBSTRUCTIONS WITHIN THE RIGHT-OF-WAY.
  - 3) CONTRACTOR SHALL FIELD VERIFY SIZE, MATERIAL, INVERTS AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PROPOSED CONNECTIONS.
  - 4) EXISTING EASEMENTS AS SHOWN.
  - 5) CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
  - 6) UNDERGROUND FIRE LINE(S) MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-341-0896.
- SOLID WASTE**
- 1) SITE TO USE ROLL-OUT TYPE CARTS.
- TRAFFIC**
- 1) ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
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  - 3) TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
  - 4) CONTACT TRAFFIC ENGINEERING AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNALS FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN. 5) CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
  - 6) ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
  - 7) CONTACT KAREN DIXON AT 741-7888 TO DISCUSS STREET LIGHTING OPTIONS.
  - 8) ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
  - 9) NO ROWS TO BE CLOSED.
  - 10) PUBLIC STREETS AS PER PREVIOUS FORTUNE PLACE PLAN APPROVAL.
  - 11) OFF SITE PARKING PROPOSED.
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  - 18) A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT. (SD 15-14 COTW TECH STD)
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  - 2) NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SITE DISTANCE.
  - 3) PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
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  - 5) NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING IS INSTALLED AND APPROVED. PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTIONS ON TREE PROTECTION METHODS.
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  - 3) IF THE CONTRACTOR DESIRES CFPUA WATER FOR CONSTRUCTION, HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPERS SIDE OF THE WATER METER BOX.
  - 4) ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH THE CFPUA'S CONNECTION CONTROL REGULATION. CALL 332-4419 FOR INFORMATION.
  - 5) ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES FOR USCOCORR OR ASSE.
  - 6) PUBLIC WATER AND SEWER TO BE INSTALLED IN GOODWOOD WAY. NO RECORDS OF INDIVIDUAL EASEMENTS EXIST.
  - 7) CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 PRIOR TO DOING ANY DIGGING, CLEARING OR GRADING.
  - 8) ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
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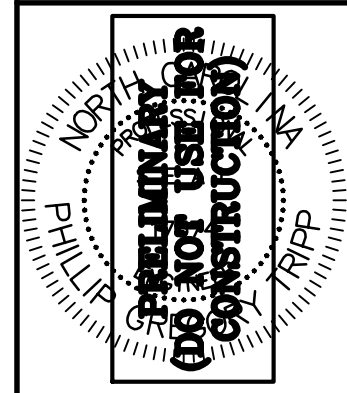
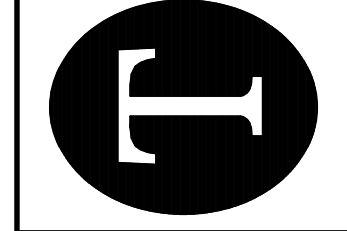


**SITE DATA:**

PROPERTY OWNER	FORTUNE PLACE HOLDINGS, LLC
PROJECT ADDRESS	4900 GATE POST LANE
PIN NUMBER	R07100-003-017-000
AREA NOT IN A FEMA 100-YEAR FLOOD ZONE.	
ZONING DISTRICT	MF-L - MULTI FAMILY LOW RESIDENTIAL
DISTURBED AREA	0.70 Ac.
SETBACKS REQUIRED	FRONT: 15' REAR: 15' SIDE: 15'
PROPOSED BUILDING SETBACKS	FRONT: 17' REAR: 131' SIDE: 17'
TRACT AREA	29,786 SF (0.68 AC)
BUILDING USE	RECREATION FACILITY
PROPOSED BUILDING AREA (GROSS)	2,100 SF
BUILDING LOT COVERAGE (2,380/29,785)	7%
NUMBER OF UNITS	1
NUMBER OF BUILDINGS	1
BUILDING HEIGHT	25'
NUMBER OF STORIES	1
SF PER FLOOR (GROSS)	2,100 SF
EXISTING IMPERVIOUS AREAS:	0 SF
PROPOSED IMPERVIOUS AREAS:	
PROPOSED BUILDING FOOTPRINT	2,100 SF
PROPOSED ASPHALT	3,160 SF
PROPOSED CONCRETE	1,490 SF
PROPOSED POOL DECK AREA	5,600 SF
EXISTING IMPERVIOUS (TO REMAIN)	0 SF
TOTAL IMPERVIOUS AREA	12,350 SF (41%)
PARKING REQUIRED: (RECREATION FAC.)	2,100 SF
MAXIMUM: 1/200 SF (2,100/200)	11
MINIMUM: 1/400 SF (2,100/400)	6
TOTAL PARKING PROVIDED:	6
CAMA LAND USE:	URBAN
EXISTING WATER:	0 GPD
PROPOSED WATER:	750 GPD
EXISTING SEWER:	0 GPD
PROPOSED SEWER:	700 GPD

**SITE AND UTILITY PLAN**  
**FORTUNE PLACE AMENITIES**  
 NEW HANOVER COUNTY, NORTH CAROLINA

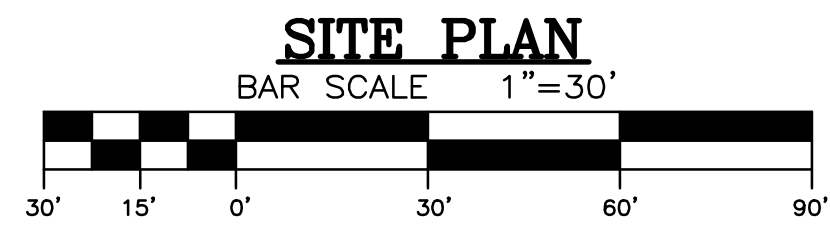
**TRIPP ENGINEERING, P.C.**  
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© 2016 TRIPP ENGINEERING, P.C.



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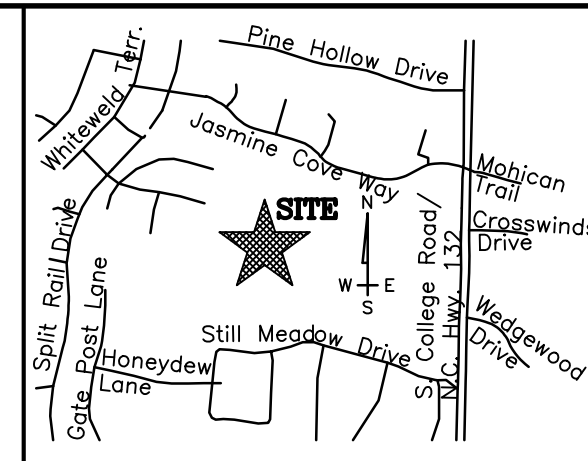
STORMWATER MANAGEMENT PLAN  
 APPROVED  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

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 of  
 City streets, a \$325  
 permit  
 shall be required from the  
 City prior to occupancy  
 and/or project  
 acceptance.



Approved Construction Plan

Name	Date
Planning _____	_____
Traffic _____	_____
Fire _____	_____



REVISIONS		
No./Date	Description	By

**NOTES:**

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**SOLID WASTE**

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**TRAFFIC**

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**LANDSCAPING**

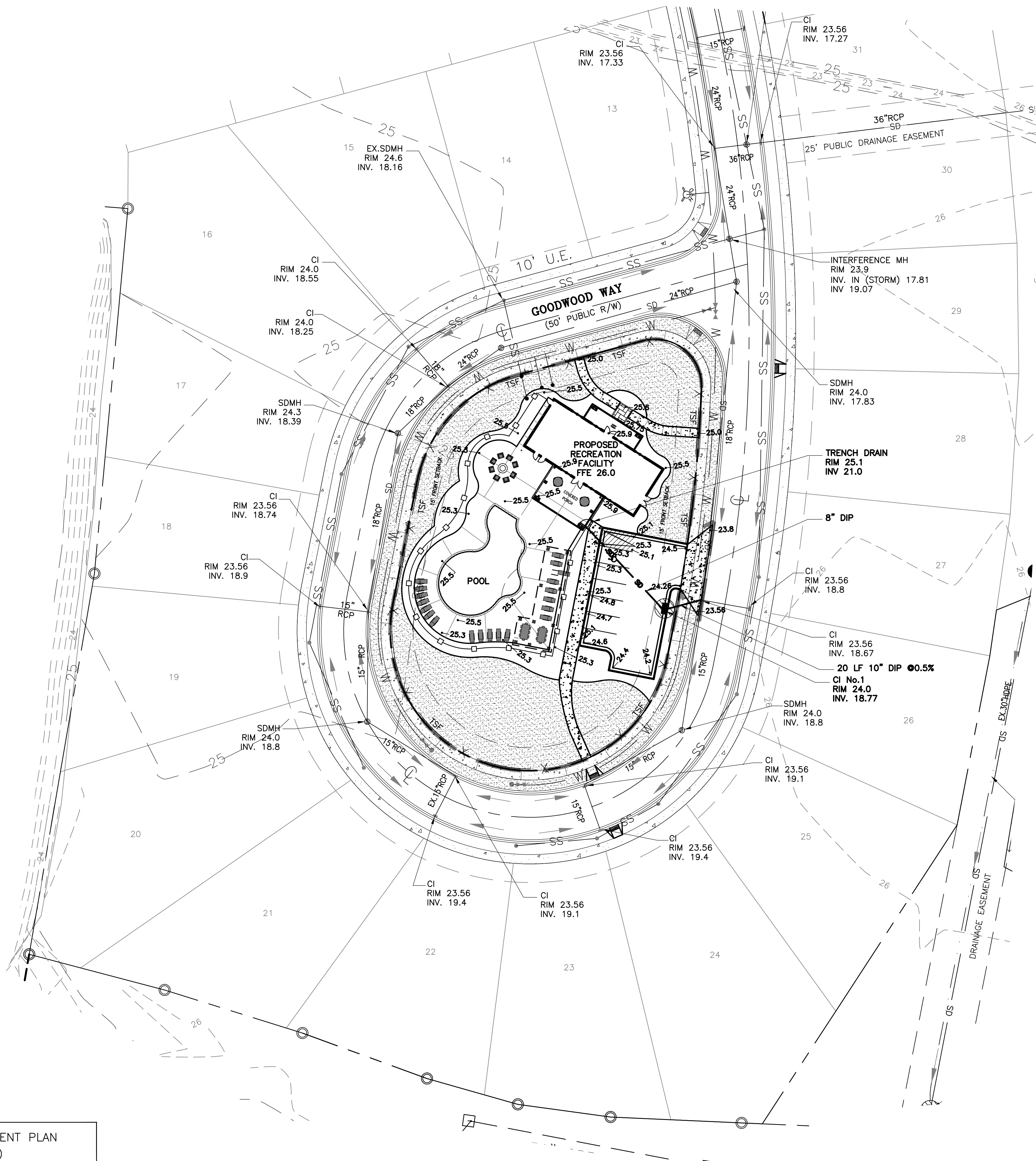
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**DRAINAGE**

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**SITE DATA:**

PROPERTY OWNER	FORTUNE PLACE HOLDINGS, LLC
PROJECT ADDRESS	4900 GATE POST LANE
PIN NUMBER	RO7100-003-017-000
AREA NOT IN A FEMA 100-YEAR FLOOD ZONE.	
ZONING DISTRICT	MF-L - MULTI FAMILY LOW RESIDENTIAL
DISTURBED AREA	0.70 AC.

SETBACKS REQUIRED	FRONT: 15'
	REAR: 151'
	SIDE: 15'

PROPOSED BUILDING SETBACKS	FRONT: 17'
	REAR: 131'
	SIDE: 17'

TRACT AREA	29,786 SF (0.68 AC)
BUILDING USE	RECREATION FACILITY

PROPOSED BUILDING AREA (GROSS)	2,100 SF
BUILDING LOT COVERAGE (2,380/29,785)	7%
NUMBER OF UNITS	1
NUMBER OF BUILDINGS	1
BUILDING HEIGHT	25'
NUMBER OF STORIES	1
SF PER FLOOR (GROSS)	2,100 SF

EXISTING IMPERVIOUS AREAS:	0 SF
PROPOSED IMPERVIOUS AREAS:	2,100 SF
PROPOSED BUILDING FOOTPRINT	3,180 SF
PROPOSED ASPHALT	1,490 SF
PROPOSED CONCRETE	5,600 SF
PROPOSED POOL DECK AREA	0 SF
EXISTING IMPERVIOUS (TO REMAIN)	0 SF
TOTAL IMPERVIOUS AREA	12,350 SF (41%)

PARKING REQUIRED: (RECREATION FAC.)	2,100 SF	11
MAXIMUM: 1/200 SF (2,100/200)		6
MINIMUM: 1/400 SF (2,100/400)		
TOTAL PARKING PROVIDED:	6	

CAMA LAND USE:	URBAN
EXISTING WATER:	0 GPD
PROPOSED WATER:	750 GPD
EXISTING SEWER:	0 GPD
PROPOSED SEWER:	700 GPD

**LEGEND**

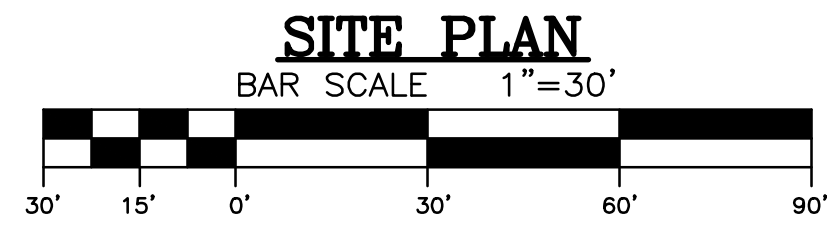
---	PROPERTY BOUNDARY
- - - -	EXISTING CONTOUR
SS	PROPOSED SEWER
w	PROPOSED WATER
SD	PROPOSED STORM WATER
24.8	PROPOSED SPOT ELEVATION
x	TEMPORARY SILT FENCE
■	LIMITS OF DISTURBANCE

STORMWATER MANAGEMENT PLAN  
 APPROVED  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT

DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_

SIGNED \_\_\_\_\_

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



Approved Construction Plan

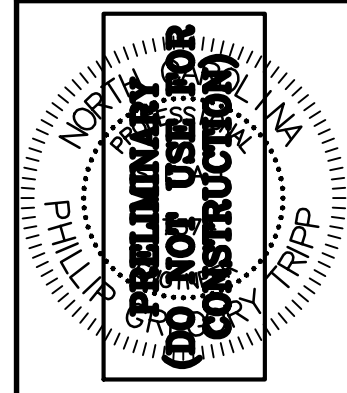
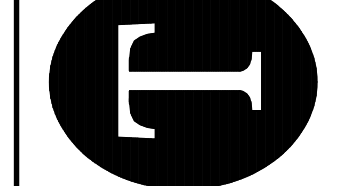
Name	Date
Planning _____	_____
Traffic _____	_____
Fire _____	_____

**GRADING, DRAINAGE, EROSION CONTROL AND STORMWATER MANAGEMENT PLAN**

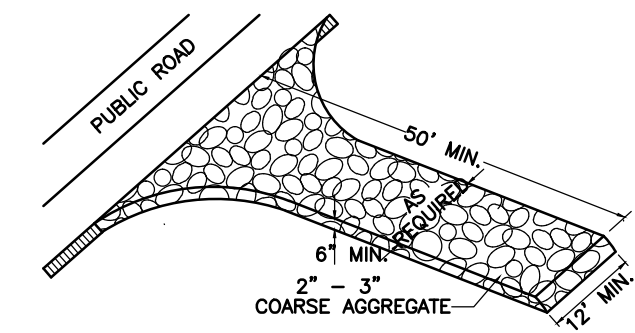
**FORTUNE PLACE AMENITIES**

NEW HANOVER COUNTY, NORTH CAROLINA

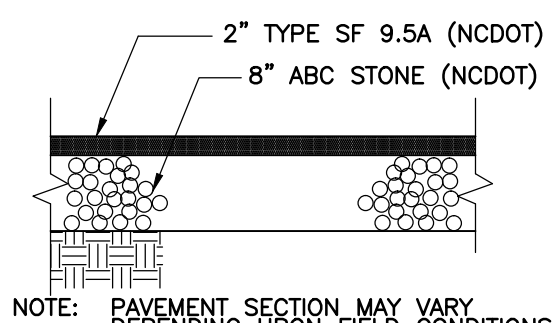
**TRIPP ENGINEERING, P.C.**  
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DATE 06-29-16  
 DESIGN PGT  
 DRAWN EJW

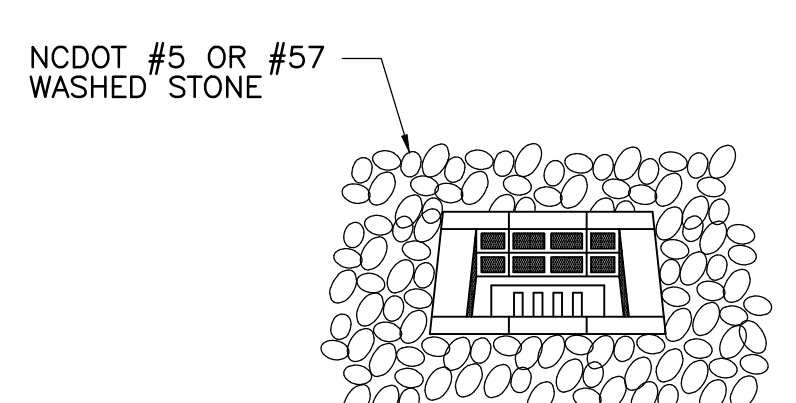
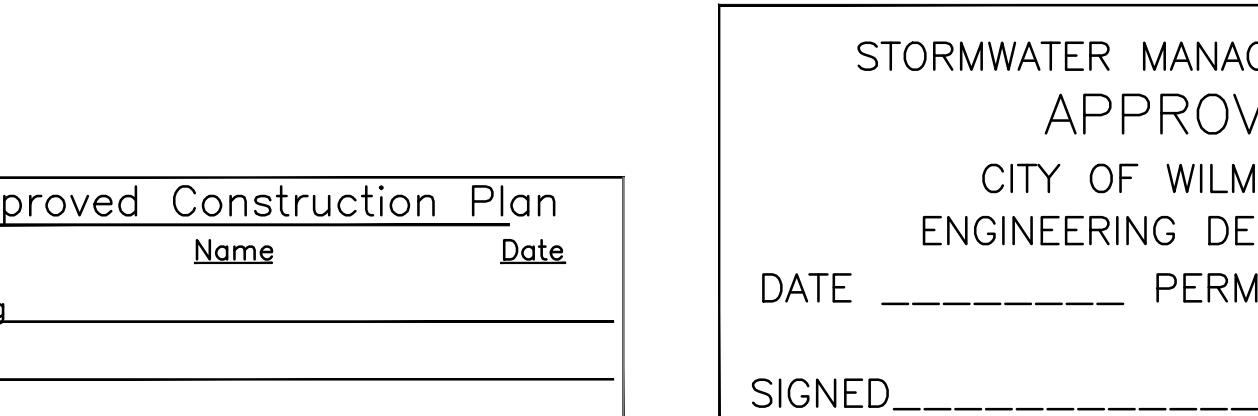
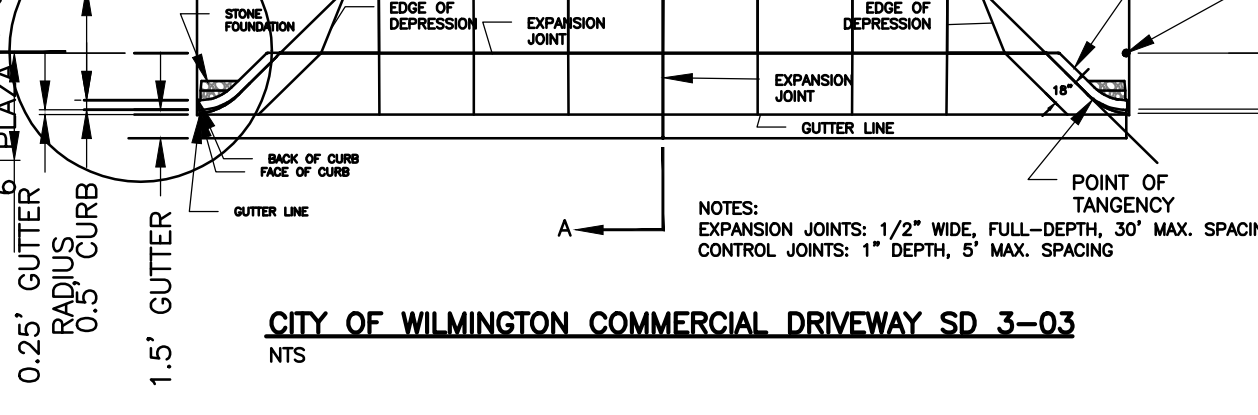
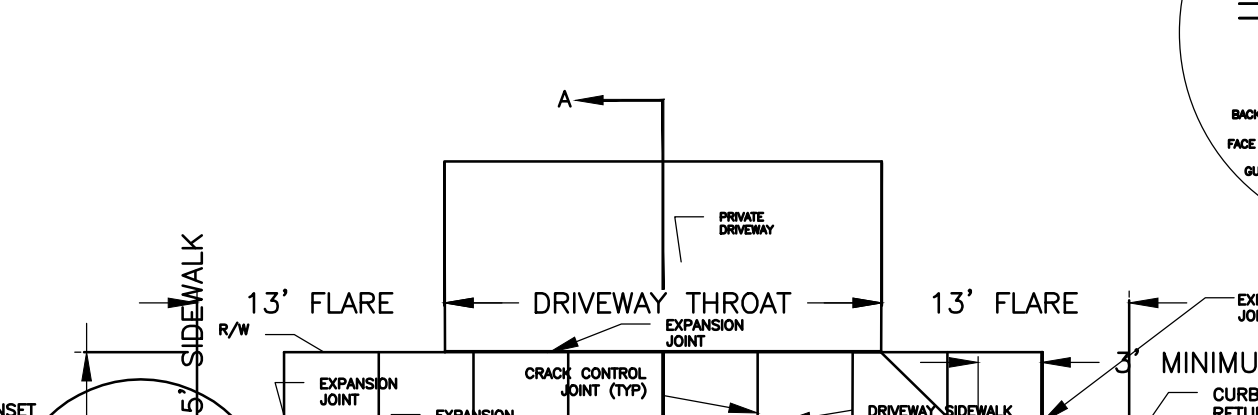
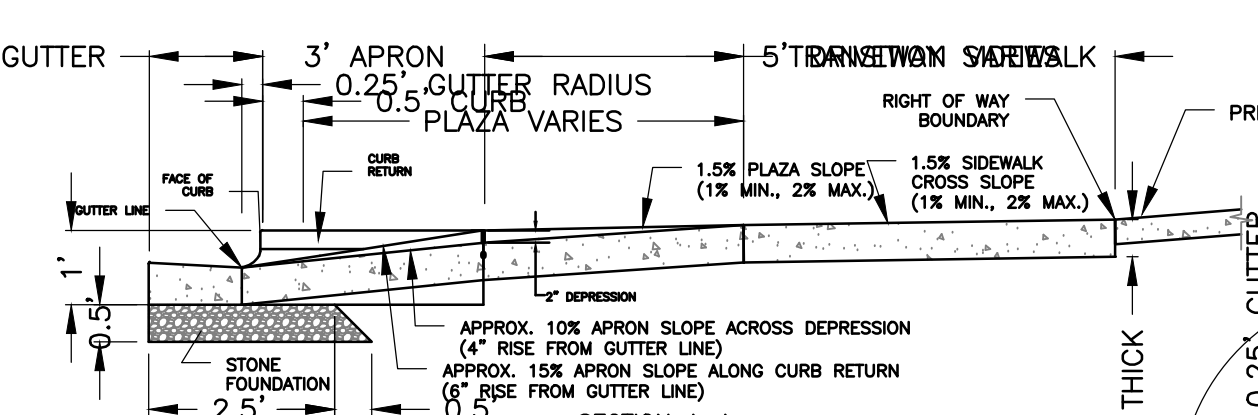
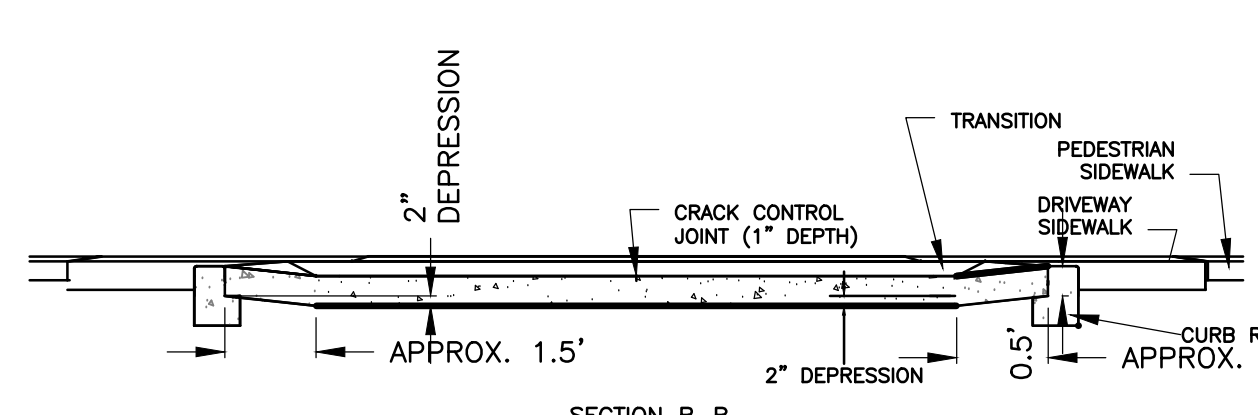


**TEMPORARY GRAVELED CONSTRUCTION ENTRANCE**  
NTS



NOTE: PAVEMENT SECTION MAY VARY DEPENDING UPON FIELD CONDITIONS. CONTRACTOR SHALL COORDINATE WITH OWNER & GEOTECHNICAL ENGINEER TO DETERMINE ACTUAL PAVEMENT SECTION.

**CITY OF WILMINGTON PAVEMENT SECTION**  
NTS

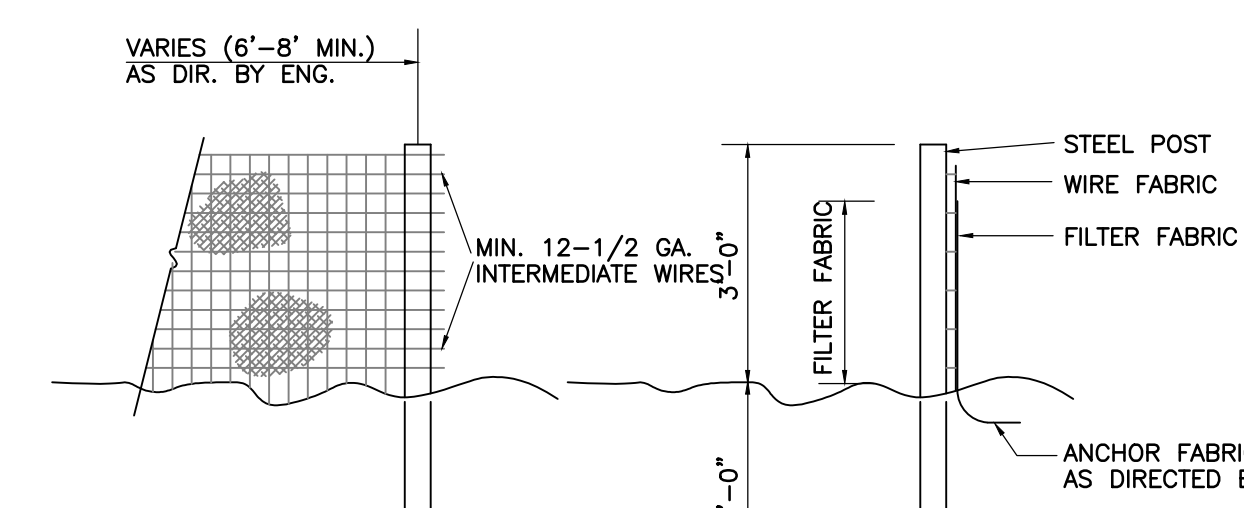


**TEMPORARY GRAVELED CONSTRUCTION ENTRANCE**  
NTS

- CONSTRUCTION SPECIFICATIONS:**
- UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
  - DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
  - SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE AND BOTTOM. PLAIN 2-FOOT FLAP OF WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
  - PLACE CLEAN GRAVEL (NCDOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN FLOOR FOR SUBSEQUENT RAINS.
  - ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
  - COMPACT THE AREA PROPERLY AND STABILIZE IT WITH GROUND COVER.

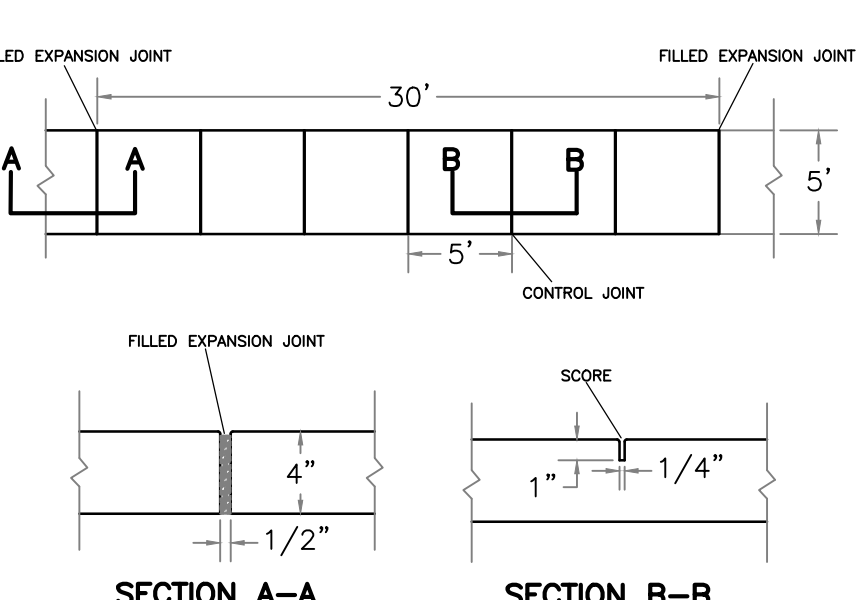
**MAINTENANCE:**  
INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIMENTATION OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

**HARDWARE CLOTH AND GRAVEL INLET PROTECTION**  
NTS



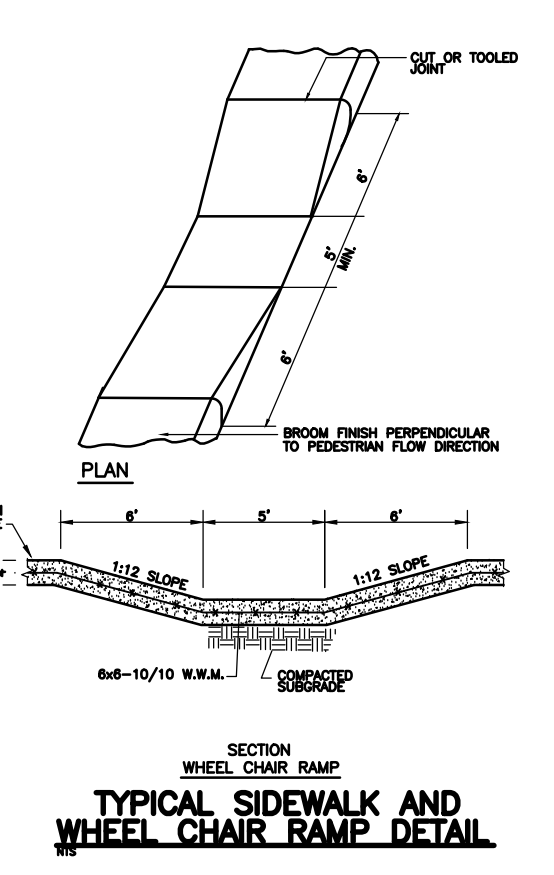
- NOTES:**
- FENCE FABRIC SHALL BE A MIN. OF 32" IN WIDTH AND SHALL HAVE A MIN. OF SIX LINE WIRES WITH 12" STAY SPACING.
  - FABRIC SHALL BE FOR EROSION CONTROL AND MIN. OF 36" IN WIDTH. FABRIC SHALL BE FASTENED ADEQUATELY TO THE WIRE FABRIC AS DIRECTED BY THE ENGINEER.
  - STEEL POST SHALL BE 5"-0" IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE TYPE.

**TEMPORARY SILT FENCE**  
NTS

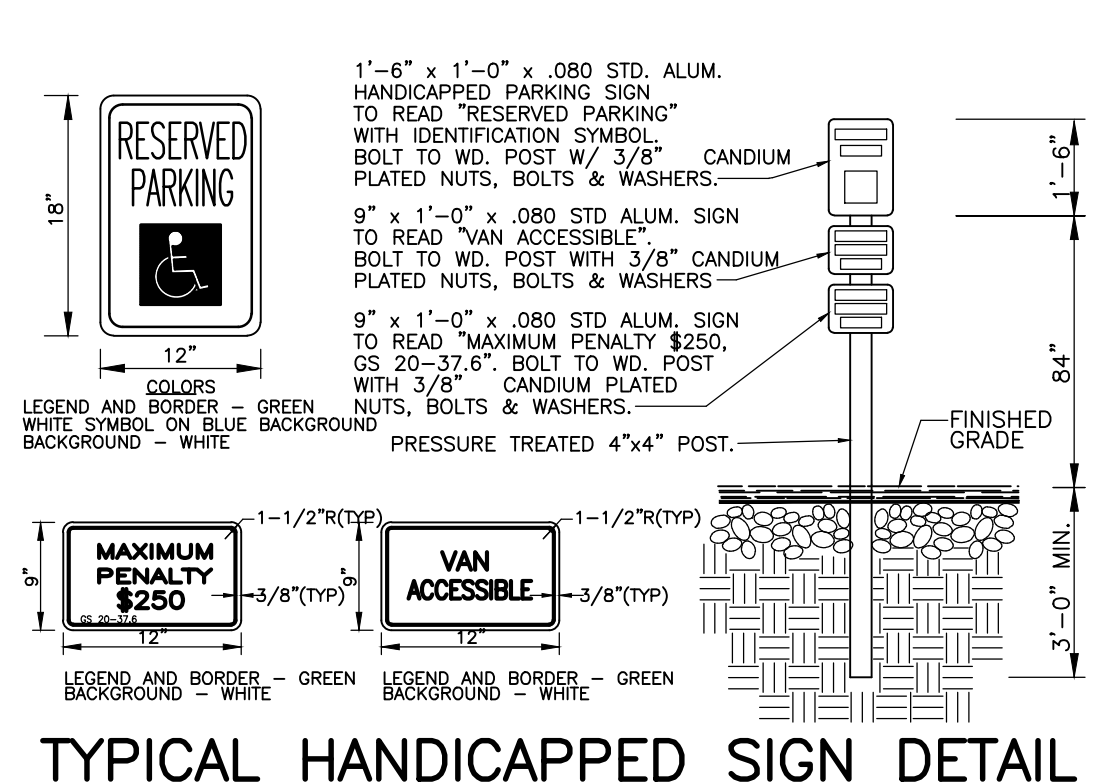


- NOTES:**
- JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS.
  - SANITARY SEWER CLEAN-OUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
  - MINIMUM SIDEWALK WIDTH TO BE 6' MINIMUM IF PLACED AT BACK OF CURB.
  - CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION CONTAIN WITHIN A DRIVEWAY APRON) SHALL BE CLASS "A" - 3000 PSI.
  - MINIMUM REPLACEMENT FOR REPAIRS IS A 5' x 5' PANEL.
  - 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS.
  - MINIMUM DEPTH FOR TUNNELING BELOW SIDEWALK IS 12"
  - MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1
  - MIN GRADE FOR PROPER DRAINAGE IS 1/8" IN AT LEAST 1' DIRECTION. MAX CROSS SLOPE IS 2%. MAX LONGITUDINAL SLOPE IS 8.3% (OR IF LIMITED BY EXISTING CONDITIONS, OR NO GREATER THAN THE SLOPE OF THE EXISTING ADJACENT ROAD.
  - BOLT TO WD. POST WITH 3/8" BOLT TO WD. POST WITH 3/8" CANDIUM PLATED NUTS, BOLTS & WASHERS.

**CITY OF WILMINGTON SIDEWALK SD 3-10**  
NTS



**TYPICAL SIDEWALK AND WHEEL CHAIR RAMP DETAIL**  
NTS



**TYPICAL HANDICAPPED SIGN DETAIL**  
NTS

SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME EXCEPTIONS
PERMETER DITCHES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW ZONES)	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
ALL OTHER AREAS WITH FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERMETERS AND HOW ZONES)

**NPDES GROUND STABILIZATION CRITERIA**  
NTS

**SPRING-SUMMER PERMANENT GRASSING DETAIL**

SPECIES	RATE (lb/acre)
PERENNIAL BHRASSIA	30
PERENNIAL BHRASSIA	30
COMMON BHRASSIA	10
PERENNIAL BHRASSIA	30
TALL FESCUE	50

**SEEDING NOTES:**  
1. WHERE A NEAT APPEARANCE IS DESIRED, OUTSPREAD WITH 5/8" OR GREATER SPACING.  
2. USE COMMON BHRASSIA GRASS ONLY ON SLOPED SITES WHERE IT CANNOT BECOME A PEST. BHRASSIA GRASS MAY BE REPLACED WITH 5/8" OR GREATER SPACING.

**SEEDING DATES:**  
APRIL 1 - JULY 15

**SOIL AMENDMENTS:**  
APPLY 4000 LB/ACRE STRAW ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DSK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MULCH:**  
APPLY 4000 LB/ACRE STRAW ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DSK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MAINTENANCE:**  
REFERTILIZE THE FOLLOWING APRIL WITH 50 LB/ACRE NITROGEN. REPEAT AS GROWTH REQUIRES. MAY BE NEEDED ONLY ONCE A YEAR. WHERE A NEAT APPEARANCE IS DESIRED, OUTSPREAD WITH 5/8" OR GREATER SPACING.

**FALL-WINTER PERMANENT GRASSING DETAIL**

SPECIES	RATE (lb/acre)
TALL FESCUE (BLEND OF TWO OR THREE VARIETIES)	200
RYE (GRASS)	25

**SEEDING DATES:**  
JANUARY - APRIL  
AUGUST - DECEMBER

**SOIL AMENDMENTS:**  
APPLY 4000 LB/ACRE STRAW ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DSK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MULCH:**  
APPLY 4000 LB/ACRE STRAW ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DSK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MAINTENANCE:**  
REFERTILIZE ACCORDING TO SOIL TESTS OR APPLY 40 LB/ACRE NITROGEN IN JANUARY OR FEBRUARY. 40 LB IN SEPTEMBER AND 40 LB IN NOVEMBER. FROM 15-4-4-16-16-16 OR SIMILAR TYPE FERTILIZER. MORE FERTILIZER APPLICATIONS DURING WARM WEATHER, AS THE INCREASED STRESS LOSSES TO DISEASE, REDUCED FERTILIZER EFFICIENCY, AND INCREASED NITROGEN LOSS TO A DEGREE OF 25-30% INCREASE AS NEEDED.

**LATE WINTER & EARLY SPRING TEMPORARY GRASSING DETAIL**

SPECIES	RATE (lb/acre)
RYE (grain)	120
Annual lespedeza (Kobe in Piedmont)	50
Annual lespedeza (Kobe in Piedmont)	50

**SEEDING DATES:**  
Mountaintop - Above 2500 ft. Feb. 15-May 15  
Mountaintop - Jan. 1-May 1  
Coastal Plain - Oct. 1-Apr. 15

**SOIL AMENDMENTS:**  
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 700 lb/acre 10-10-10 fertilizer.

**MULCH:**  
APPLY 4000 LB/ACRE STRAW ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DSK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MAINTENANCE:**  
Refer to site for not fully adequate. Re-seed, refer to site and mulch immediately following erosion or other damage.

**TEMPORARY SUMMER GRASSING DETAIL**

SPECIES	RATE (lb/acre)
GERMAN MILLET	40

**SEEDING NOTES:**  
IN THE PIEDMONT AND MOUNTAINS, A SMALL-STEMMED SUNGRASS MAY BE SUBSTITUTED AT A RATE OF 50 LB/ACRE.

**SOIL AMENDMENTS:**  
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 700 LB/ACRE 10-10-10 FERTILIZER.

**MULCH:**  
APPLY 4000 LB/ACRE STRAW ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DSK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MAINTENANCE:**  
Refer to site for not fully adequate. Re-seed, refer to site and mulch immediately following erosion or other damage.

**TEMPORARY FALL GRASSING DETAIL**

SPECIES	RATE (lb/acre)
RYE (grain)	120

**SEEDING NOTES:**  
MOUNTAINS - MAY 15-APR. 15  
PIEDMONT - MAY 1-APR. 15  
COASTAL PLAIN - APR. 15-APR. 15

**SOIL AMENDMENTS:**  
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 700 LB/ACRE 10-10-10 FERTILIZER.

**MULCH:**  
APPLY 4000 LB/ACRE STRAW ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DSK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MAINTENANCE:**  
Repair and refer to site for not fully adequate. Topdress with 50 lb/acre 10-10-10 or similar type fertilizer. MORE FERTILIZER APPLICATIONS DURING WARM WEATHER, AS THE INCREASED STRESS LOSSES TO DISEASE, REDUCED FERTILIZER EFFICIENCY, AND INCREASED NITROGEN LOSS TO A DEGREE OF 25-30% INCREASE AS NEEDED.

- SITE WORK NOTES**
- THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS BOTH ON AND IMMEDIATELY ADJACENT TO THE SITE.
  - CLEARING: CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION WITHIN LIMITS OF CONSTRUCTION UNLESS OTHERWISE DESIGNATED TO REMAIN.
  - GRUBBING AND STRIPPING: CONTRACTOR SHALL TAKE AND REMOVE ROOTS, STUMPS, VEGETATION, DEBRIS, EXISTING STRUCTURES ABOVE AND BELOW GRADE, ORGANIC MATERIAL OR ANY OTHER UNSUITABLE MATERIAL WITHIN LIMITS OF CONSTRUCTION.
  - MUCKING: CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL REPRESENTATIVE TO COORDINATE REMOVAL OF ANY SOFT AREAS.
  - DISPOSAL: CLEARED, GRUBBED, STRIPPED OR OTHER WASTE MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A PROPERLY PERMITTED FACILITY.
  - FILL AND COMPACT: CONTRACTOR SHALL COMPLY WITH GEOTECHNICAL REPORT.
  - THE CONTRACTOR SHALL NOTE THAT THE GRADING PLAN MAY NOT REPRESENT A BALANCED EARTHWORK CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUT AND FILL QUANTITIES AND COMPLETE INSTALLATION TO SPECIFIED GRADES.
  - THE CONTRACTOR SHALL FURNISH SUITABLE BORROW MATERIAL FROM AN OFF-SITE PROPERLY PERMITTED FACILITY AS REQUIRED.
  - THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. BEFORE COMMENCING ANY EXCAVATIONS IN OR ALONG ROADWAYS OR RIGHT-OF-WAYS, PUBLIC AREAS OR IN PRIVATE EASEMENTS, THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE PERSONNEL OF THEIR INTENT TO EXCAVATE, IN WRITING, NOT LESS THAN 10 DAYS PRIOR TO EXCAVATING.
  - THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE DISCONNECTION/RECONNECTION AND/OR THE RELOCATION OF ALL EXISTING UTILITIES WITH APPROPRIATE PERSONNEL.
  - EXISTING SURVEYING PERFORMED BY DEREK DANFORD AND SUPPLIED BY THE OWNER.
  - THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE. FURTHERMORE THE CONTRACTOR SHALL REPORT ALL DISCREPANCIES OR QUESTIONS TO THE ENGINEER PRIOR TO INSTALLATION.
  - THE CONTRACTOR SHALL PROVIDE ANY AND ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK UNLESS OTHERWISE DIRECTED BY OWNER.
  - ALL PVC UTILITY MAINS SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER AT FINAL GRADE.
  - ALL SERVICE CONNECTIONS SHALL BE INSTALLED TO MEET ALL LOCAL AND STATE CODES. METERS, TAPS, MATERIALS, WORKMANSHIP AND ALL FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL COMPLY WITH ALL REQUIREMENTS.
  - ALL PAVEMENT, BASE AND SUBGRADE SHALL CONFORM TO NCDOT STANDARDS INCLUDING WORKMANSHIP, MATERIALS AND EQUIPMENT. APPROPRIATE BARRICADES, SIGNS, LIGHTS OR OTHER TRAFFIC CONTROL MEASURES SHALL BE PROVIDED IN ACCORDANCE WITH NCDOT TO MAINTAIN SAFETY AND TWO WAY TRAFFIC.
  - ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO INSTALLATION. ALL AREAS SHALL BE SLOPED TO DRAIN AWAY FROM BUILDINGS AND OTHER STRUCTURES.
  - CONCRETE STORM DRAINAGE PIPE SHALL BE CLASS III WITH RUBBER GASKET JOINTS AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
  - USE WHITE LAKE MASONRY PAINT FOR ALL PAVEMENT MARKINGS. PAINT SHALL BE A CHLORINATED RUBBER ALKYL, FS IT-P-115, TYPE III, FACTORY MIXED, QUICK DRYING, NON BLEEDING. REFLECTIVE MATERIAL MAY BE ADDED AT OWNER'S OPTION FOR NIGHT REFLECTING.
  - DUCTILE IRON SHALL BE CLASS 50.
  - CONCRETE FOR WALKS, CURBS AND DRIVES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS - AIR ENTRAINED.
  - FIELD TESTING SHALL BE DONE BY AN INDEPENDENT TESTING LABORATORY PAID FOR BY THE OWNER. FURTHER TESTING REQUIRED DUE TO A FAILED TEST WILL BE PAID FOR BY THE CONTRACTOR.
  - SEE GEOTECHNICAL REPORT NO. \_\_\_\_\_ DATED \_\_\_\_\_ BY \_\_\_\_\_ FOR ADDITIONAL REQUIREMENTS.

**CONSTRUCTION SEQUENCE**

- NO CUT SLOPE OR FILL SLOPE SHALL EXCEED A RISE OR FALL OF ONE FOOT FOR EVERY RUN OF 3 FEET (1 VERTICAL TO 3 HORIZONTAL).
- NO SEDIMENT TO BE ALLOWED TO EXIT THE SITE. ALL EROSION SHALL BE CONTROLLED INCLUDING SIDE SLOPES DURING AND AFTER CONSTRUCTION.
- INSTALL PRIMARY EROSION CONTROL MEASURES BEFORE BEGINNING CONSTRUCTION INCLUDING BUT NOT LIMITED TO GRAVELED CONSTRUCTION ENTRANCE, SILT FENCE, CHECK DAMS, ETC. INSTALL ALL SECONDARY EROSION CONTROL MEASURES AS SOON AS POSSIBLE AFTER BEGINNING CONSTRUCTION.
- ALL EROSION CONTROL MEASURES TO BE INSPECTED AFTER EACH RAIN.
- SILT FENCE AND INLET PROTECTION ARE TO BE CLEANED WHEN 0.5 FEET OF SEDIMENT HAVE ACCUMULATED IN FRONT OF THE DEVICE OR WHEN THEY LEAK OR FAIL. SEDIMENT TRAPS ARE CLEANED OUT AS STATED OR WHEN HALF FULL.
- IF APPLICABLE, CONSTRUCT PROPOSED RETENTION POND TO ACT AS A SEDIMENT BASIN DURING CONSTRUCTION. REMOVE ACCUMULATION OF SILT AS REQUIRED TO ALLOW PROPER FUNCTIONING. INSTALL DROPPERS TO RESTORE LEVELS AT THE CONSTRUCTION.
- IF APPLICABLE, INSTALL DROP INLETS WITH INLET PROTECTION TO ACT AS SILT TRAPS DURING CONSTRUCTION. REMOVE ACCUMULATED SILT AS NEEDED TO PREVENT SILT FROM ENTERING STORM DRAIN PIPES.
- A 4" LAYER OF TOPSOIL SHALL BE APPLIED TO ALL NEW AREAS TO BE GRASSSED.
- MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PROJECT IS COMPLETE.
- MORE STRINGENT MEASURES MAY BE REQUIRED TO HALT EROSION IF THOSE ON THIS PLAN PROVE TO BE LESS EFFECTIVE.
- REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF CONSTRUCTION. ALL PERMANENT MEASURES SHALL BE WELL ESTABLISHED PRIOR TO PROJECT COMPLETION.

**MAINTENANCE PLAN**

- ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND AFTER EACH HALF INCH RAINFALL.
- ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REPAIR MATERIAL SPILLED, WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
- SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLOCK AND GRAVEL INLET PROTECTION AND ROCK PIPE INLET PROTECTION. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT TRAPS WILL BE EMPTIED ONCE A WEEK AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AFTER RAIN EVENT.
- DIVERSION DITCHES WILL BE CLEANED IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
- SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC. WITHOUT WIRE BACKING, STAKE SPACING WILL BE 8 FEET MAX. WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE INLET SEDIMENT FENCE THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.
- SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLOADED. BATTERIES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
- SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR IF THE ROCK IS DISLOADED. BATTERIES WILL BE REPAIRED OR REPLACED IF THEY TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
- ALL SEEDED AREAS WILL BE FERTILIZED, RESEED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS.
- FLOCCULATES WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECTION SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.

**SITE POLLUTANTS NOTES**

- LOCATE AREAS DEDICATED FOR MANAGEMENT OF LAND CLEARING AND DEMOLITION DEBRIS, CONSTRUCTION AND DOMESTIC WASTE, AND HAZARDOUS OR TOXIC WASTE. THIS LOCATION SHALL BE AT LEAST 50' AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
- DUMPING OF PAINT OR OTHER LIQUID BUILDING MATERIALS IN STORM DRAINS IS PROHIBITED.
- LITTER AND SANITARY WASTE-THE PERMITTEE SHALL CONTROL THE MANAGEMENT AND DISPOSAL OF LITTER AND SANITARY WASTE FROM THE SITE.
- LOCATE EARTHEN-MATERIAL STOCK PILE AREAS AT LEAST 50' AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
- CONCRETE MATERIALS ON-SITE, INCLUDING EXCESS CONCRETE, MUST BE CONTROLLED AND MANAGED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS OR BUFFERS. NO CONCRETE OR CEMENT SLURRY SHALL BE DISCHARGED FROM THE SITE.
- ANY HANDLED CONCRETE RESIDUE WILL BE DISPOSED OF, OR RECYCLED ON SITE, IN ACCORDANCE WITH LOCAL AND STATE SOLID WASTE REGULATIONS.
- SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:  
1. ALL PERMETER DITCHES, SWALES, DITCHES, PERMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1 SHALL BE PROTECTED TO 1 VERTICAL TO 3 HORIZONTAL WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.  
2. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.  
3. CONDITIONS IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, THE FOLLOWING CONDITIONS OR EXCEPTIONS SHALL APPLY:  
1. EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE.  
2. ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY TO GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY GROUND COVER WITHIN 14 DAYS EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1. THE 7-DAY REQUIREMENT APPLIES.  
3. ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT.  
4. SLOPES 10' OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT EXCEPT WHEN SLOPES ARE STEEPER THAN 2:1.  
4. ALTHOUGH STABILIZATION IS USUALLY SPECIFIED AS GROUND COVER, OTHER METHODS, SUCH AS CHEMICAL STABILIZATION, MAY BE ALLOWED ON A CASE-BY-CASE BASIS.  
5. FLOCCULATES OR PRODUCTS WITHIN THE SEDIMENT CONTROL COMMISSION-DEFINED "HIGH QUALITY WATER ZONE" (ISA NCAC 04A .0105), STABILIZATION WITH GROUND COVER SHALL BE ACHIEVED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS OF THE SITE WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACT.

REVISIONS		
No./Date	Description	By

**TRIPP ENGINEERING, P.C.**  
419 Chestnut Street  
Wilmington, North Carolina 28401  
Phone 910-763-6100  
Fax 910-763-6631

**DATE** 06-29-16  
**DESIGN** PGT  
**DRAWN** EJW

**C4**  
SHEET 4 OF 4  
16007