

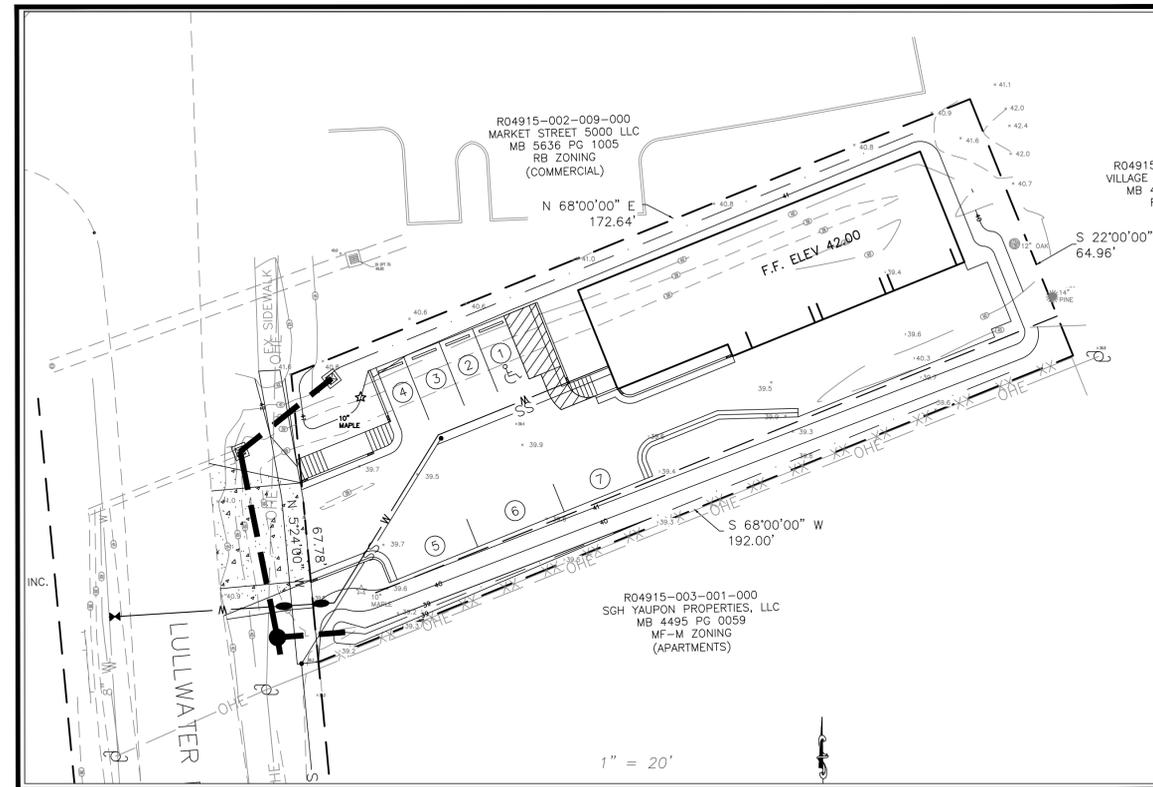
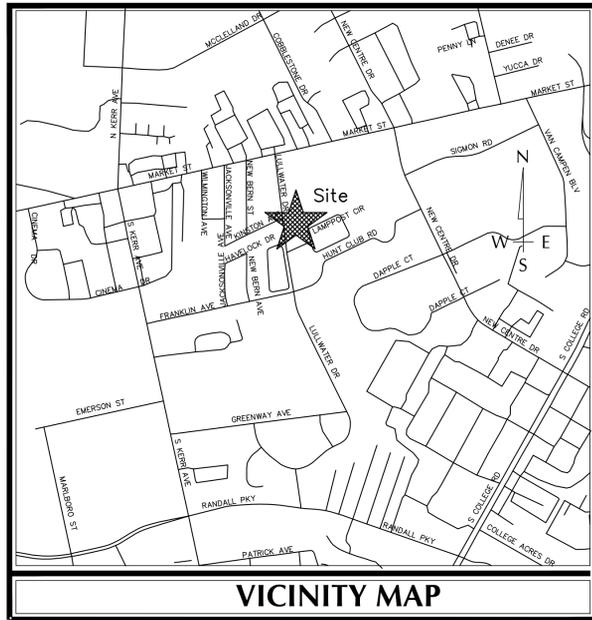
# Site Development For

# LULLWATER COMMERCIAL

## 99 LULLWATER DRIVE

## APRIL, 2016

## WILMINGTON, NORTH CAROLINA



### SITE DATA TABLE

**GENERAL NOTES:**

1. NEW HANOVER COUNTY PARCEL NOS.: PID 04915-003-088-000
2. TOTAL AREA: 0.27 AC.±
- EXISTING ZONING: CS
4. THIS PROPERTY IS NOT A SPECIAL FLOOD HAZARD ZONE PER FEMA FLOOD INSURANCE RATE MAP #3720313800J, EFFECTIVE DATE APRIL 3, 2006.
5. CAMA LAND CLASSIFICATION: URBAN

**DEVELOPMENT DATA:**

TOTAL TRACT AREA = 0.27 ac - 11,844 SF  
 TOTAL DEVELOPMENT AREA = 0.27 ac  
 BUILDING COVERAGE - 2,352 SF (19.9%)  
 1-STORY @ (25' X 28' & 59' X 28')  
 BUILDING HEIGHT: 14 FT

FRONT SETBACK:	REQ'D	PROV'D
REAR SETBACK:	35 FT	72.2 FT
INTERIOR SIDE SETBACK:	15 FT	15 FT
MAX HEIGHT:	7 FT	7 FT
	35 FT	16 FT

**IMPERVIOUS SURFACES - PROPOSED BUA**

BLDG -	2,352 S.F.
PAVEMENT	4,600 S.F.
SIDEWALK -	165 S.F.
<b>TOTAL -</b>	<b>7,117 S.F. (60.1%)</b>

**PARKING: BUSINESS SERVICE OR REPAIR SHOP**

- 1 SP/250 SF - MAX
- 1 SP/400 SF - MIN.
- MAX ALLOWED: 9
- MINIMUM ALLOWED: 6

**PROVIDED: 6 SPACES WITH 1 HC FOR TOTAL OF 7 SPACES**

- 1 HC - REQ'D
- 1 HC - PROV'D

**UTILITY CAPACITY REQUESTS:**

- PROPOSED SEWER CAPACITY:  
4 EMPLOYEES @ 25 GPD = 100 GPD
- PROPOSED WATER CAPACITY:  
4 EMPLOYEES @ 25 GPD = 100 GPD

**BUILDING MATERIALS:**

- METAL PANELS ON FRONT, BACK, LEFT AND RIGHT SITE
- BUILDING CONSTRUCTION: TYPE II-B

**TRASH: ROLL OUT CARTS**

**NOTE:**  
ALL DESIGN AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH CITY OF WILMINGTON & THE STATE OF NORTH CAROLINA

LEGEND		
DESCRIPTION	EXISTING	PROPOSED
PROPERTY BOUNDARY	_____	_____
EASEMENT	_____	_____
STREAM	_____	_____
STRUCTURE	_____	_____
MINOR CONTOURS	-----8-----	-----8-----
MAJOR CONTOURS	-----10-----	-----10-----
GAS LINE	---G---G---	---G---G---
OVERHEAD POWER	---OHP---OHP---	---OHP---OHP---
WATER LINE	---W---W---	---W---W---
FIRE LINE	---FP---FP---	---FP---FP---
SANITARY SEWER LINE	---SS---SS---	---SS---SS---
SANITARY SEWER MANHOLE	⊙	⊙
STORM DRAINAGE PIPE	—	—
STORM DRAINAGE STRUCTURE	⊠	⊠
TREE	○ 1" OAK ●	⊕ ⊗ ⊙
CONCRETE	▨	▨
SILT FENCE	— SF — SF —	— SF — SF —
TREE PROTECTION FENCE	— TP — TP —	— TP — TP —
FIRE HYDRANT ASSEMBLY	⊕	⊕

**OWNER**

**GREGORY CONSTRUCTION**  
 702 WINDEMERE ROAD  
 WILMINGTON, NC 28405  
 TEL: 910-443-3166

**PORT CITY CONSULTING ENGINEERS, PLLC**  
 6216 STONEBRIDGE ROAD  
 WILMINGTON, NC 28409  
 910-599-1744 LICENSE No. P-1032

INDEX OF SHEETS	
SHT C-0	COVER SHEET
SHT C-1	GENERAL NOTES
SHT C-2	EXISTING CONDITIONS
SHT C-2.1	TREE REMOVAL PLAN
SHT C-3	SITE PLAN
SHT C-4	GRADING & DRAINAGE PLAN
SHT C-5	UTILITY PLAN
SHT C-6.0-6.1	MISCELLANEOUS DETAILS
SHT C-8-12	CFPUA STANDARD DETAILS
SHT L-1	LANDSCAPE PLAN



**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services Engineering Division  
 APPROVED DRAINAGE PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_

**PRELIMINARY - DO NOT USE FOR CONSTRUCTION**

**COORDINATION NOTES**

1. THE CONTRACTOR IS REQUIRED TO OBTAIN ANY/ALL PERMITS REQUIRED FOR CONSTRUCTION OF THESE PLANS.
2. ALL WORK IS TO BE IN ACCORDANCE WITH THE CITY OF WILMINGTON AND THE CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA).
3. THE CONTRACTOR IS TO ESTABLISH AND CHECK ALL HORIZONTAL AND VERTICAL CONTROLS TO BE USED WITH THE PROJECT. IN ADDITION, THE CONTRACTOR IS TO COMPUTE THE LAYOUT OF THE ENTIRE SITE PLAN IN ADVANCE OF BEGINNING ANY WORK ASSOCIATED WITH THE SUBJECT PLANS. CONTRACTOR SHALL EMPLOY A PROFESSIONAL SURVEYOR TO PERFORM SITE IMPROVEMENT STAKEOUT(S).
4. ANYTIME WORK IS PERFORMED OFF-SITE OR WITHIN AN EXISTING EASEMENT, THE CONTRACTOR IS TO NOTIFY THE HOLDER OF SAID EASEMENT AS TO THE NATURE OF PROPOSED WORK, AND TO FOLLOW ANY GUIDELINES OR STANDARDS WHICH ARE ASSOCIATED WITH OR REFERENCED IN THE RECORDED EASEMENT.

**GENERAL NOTES:**

1. EXISTING TOPOGRAPHY HAVE BEEN PREPARED BY FIELD SURVEY BY BASE LINE SURVEY, PLLC.
2. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF ALL EXISTING UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF DITCHING OPERATIONS BY OBSERVATIONS, ELECTRONIC DEVICES, HAND DIGGING AND BY PERSONAL CONTACT WITH THE UTILITY COMPANIES. IN ORDER TO LOCATE EXISTING UTILITIES IN ADVANCE OF TRENCHING OPERATIONS SO AS TO ELIMINATE OR MINIMIZE DAMAGE TO EXISTING UTILITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RESULTING FROM ANY DAMAGE TO THE EXISTING UTILITY LINES INCLUDING LOSS OF UTILITY REVENUES. CONTRACTOR SHALL ARRANGE FOR TEMPORARY SUPPORT OF EXISTING UTILITIES, SUCH AS POLES, CONDUITS, FIBER OPTIC CABLES, TELEPHONE CABLES, WATER LINES, ETC...
3. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT.
4. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK, SUITABLE BARRIERS, FENCES, SIGNS OR OTHER ADEQUATE PROTECTION, INCLUDING FLAGMEN AND WATCHMEN AS NECESSARY TO INSURE THE SAFETY OF THE PUBLIC AS WELL AS THOSE ENGAGED IN THE CONSTRUCTION WORK. CONSTRUCTION SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE DOT.
5. ALL MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE.
6. ALL WORK BY THE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR AFTER THE OWNER ACCEPTS THE WORK.
7. CONTRACTOR SHALL CALL THE NORTH CAROLINA ONE-CALL CENTER AT 1 (800) 632-4949 AND ALLOW THE CENTER TO LOCATE EXISTING UTILITIES BEFORE DIGGING.
8. CONTRACTOR SHALL REMOVE ASPHALT, AGGREGATE BASE COURSE, AND CONCRETE CURB & GUTTER WITHIN LIMITS OF DEMOLITION AS SHOWN ON PLAN.

**DEMOLITION NOTES**

1. CONTRACTOR TO COORDINATE WITH THE OWNER TO PROPERLY MAINTAIN OR RELOCATE EXISTING SERVICE CONNECTIONS WHEN NECESSARY.
2. CONTRACTOR IS TO WALK THE SITE AND BECOME FAMILIAR WITH THE SCOPE OF DEMOLITION REQUIRED. ALL DEMOLITION WORK REQUIRED TO CONSTRUCT NEW SITE IMPROVEMENTS WILL BE PERFORMED BY THE CONTRACTOR AND WILL BE UNCLASSIFIED EXCAVATION.
3. DEMOLITION SHALL INCLUDE BUT IS NOT LIMITED TO THE EXCAVATION, HAULING AND OFFSITE DISPOSAL OF CONCRETE PADS, CONCRETE DITCHES, FOUNDATIONS, SLABS, STEPS, AND STRUCTURES; ABANDONED UTILITIES, BUILDINGS, PAVEMENTS AND ALL MATERIALS CLEARED AND STRIPPED TO THE EXTENT NECESSARY AS DIRECTED BY THE SOILS ENGINEER FOR THE INSTALLATION OF THE NEW IMPROVEMENTS AND WITHIN THE LIMITS OF CLEARING AND GRADING AND AS SHOWN ON THESE PLANS.
4. THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY, STRUCTURES AND UTILITIES ON THE PROPERTY NOT TO BE DEMOLISHED. DAMAGE TO PROPERTIES OF OTHERS DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO COST TO OWNER.
5. ELECTRIC, TELEPHONE, SANITARY SEWER, WATER AND STORM SEWER UTILITIES THAT SERVICE OFF-SITE PROPERTIES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS BY THE CONTRACTOR.
6. EXISTING UTILITIES NOT INTENDED FOR DEMOLITION SHALL BE MAINTAINED, PROTECTED AND UNDISTURBED DURING DEMOLITION
7. ALL EXISTING IMPROVEMENTS INDICATED OR REQUIRED TO BE DEMOLISHED SHALL INCLUDE REMOVAL FROM THE PROPERTY AND PROPER DISPOSAL.
8. CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING OVER HEAD AND UNDERGROUND UTILITIES INCLUDING CABLE, GAS, TELEPHONE AND ELECTRIC AND ANY OTHER UTILITIES THROUGH THE SITE WITH THE RESPECTIVE COMPANIES.
9. PROVIDE SMOOTH SAW CUT OF EXISTING PAVEMENTS, CURBS AND GUTTERS AND SIDEWALKS TO BE DEMOLISHED.
10. ALL DEMOLITION WORK SHALL BE DONE IN STRICT ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS OSHA REGULATIONS.
11. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATIONS OF THE MAINS BY DIGGING TEST PITS BY HAND.

**EROSION AND SEDIMENT CONTROL NOTES**

**GENERAL NOTES:**

1. CLEAR AND REMOVE FROM SITE ALL TREES, ROOTS, ROOT MAT, ETC. FROM THE AREA WITHIN DESIGNATED CLEARING LIMITS.
2. PLANT GRASS OVER ALL GRADED AREAS AS SHOWN IN THE TABLE ON THIS SHEET OF CEASE OF ANY GRADING ACTIVITY.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND RESTORING TO PRE-CONSTRUCTION CONDITIONS ANY AREAS OUTSIDE THE PROJECT LIMITS THAT MAY INADVERTENTLY BE DAMAGED DUE TO THE FAILURE OF THE EROSION MEASURES.
4. DURING GRADING AND AFTER GRADING HAS BEEN COMPLETED, CONTRACTOR SHALL CONTINUE TO MAINTAIN PERMANENT AND TEMPORARY EROSION CONTROL MEASURES UNTIL FINAL INSPECTION AND APPROVAL BY NEW HANOVER COUNTY.
5. WATER, FERTILIZE, MOW AND MAINTAIN SPRIGGED, SODDED AND PLANTED AREAS UNTIL FINAL APPROVAL BY NEW HANOVER COUNTY.
6. ANY BORROW MATERIAL BROUGHT ONTO SITE MUST BE FROM A LEGALLY OPERATED MINE OR OTHER APPROVED SOURCE.
7. ANY EXCESS MATERIAL REMOVED FROM SITE MUST BE HAULED TO A LEGALLY OPERATED MINE OR OTHER APPROVED SOURCE.

**MAINTENANCE PLAN**

1. 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. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. ALL CONSTRUCTION ENTRANCES WILL BE PERIODICALLY TOP DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. ANY SEDIMENT THAT IS TRACKED INTO THE STREET WILL BE IMMEDIATELY REMOVED.
3. SEDIMENT WILL BE REMOVED BEHIND THE SEDIMENT FENCE WHEN IT BECOMES 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. SILT FENCE STAKES WILL BE SPACED 6 FEET APART UNLESS A WIRE BACKING IS USED WITH 8 FOOT STAKE SPACING.
4. INSPECT INLET PROTECTION AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS 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.  
  
INSPECT SILT SACKS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE SILT SACK OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE THE SILT SACK DURING SEDIMENT REMOVAL. REPLACE AS NEEDED.
5. 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.

**PERMANENT SEEDING SCHEDULE**

Seeding Mixture		
SPECIES		RATE (LB/ACRE)
CAROLINA COASTAL SEED MIX (BLEND)		200

Seeding Dates  
MARCH - JUNE

Soil Amendments  
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 300 LB/ACRE 10-10-10 FERTILIZER.  
CHECK WITH OWNER PRIOR TO APPLYING. ALL CHEMICALS MUST BE PREAPPROVED BY GE.

Mulch  
DO NOT MULCH.

Maintenance By Owner  
FERTILIZE VERY SPARINGLY LB/ACRE NITROGEN IN SPRING WITH NO PHOSPHORUS. CENTIPEDE GRASS CANNOT TOLERATE HIGH PH OR EXCESS FERTILIZER.

**TEMPORARY SEEDING--LATE WINTER/EARLY SPRING**

Seeding Mixture		
		WINTER AND EARLY SPRING
SPECIES		RATE (LB/ACRE)
Rye (GRAIN)		120
ANNUAL LESPEDEZA (KOBÉ IN PIEDMONT AND COASTAL PLAIN, KOREAN IN MOUNTAINS)		50

OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE.

		SUMMER
SPECIES		RATE (LB/ACRE)
GERMAN MILLET		40

		FALL
SPECIES		RATE (LB/ACRE)
RYE (GRAIN)		120

**Seeding dates**

COASTAL PLAIN - DEC.1-APR. 15 - LATE WINTER AND EARLY SPRING  
APRIL 15 - AUG. 15 - SUMMER  
AUG. 15 - DEC. 30 - FALL

**Soil amendments**

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.

Mulch  
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT. NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

Maintenance  
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

**NPDES WATER QUALITY STABILIZATION TIMEFRAMES**

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES & SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) 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
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50'
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETER AND HQW ZONES

**GENERAL GRADING NOTES**

1. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF SUCH UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF THE DITCHING OPERATION BY OBSERVATIONS, ELECTRONIC DEVICES, HAND DIGGING AND BY PERSONAL CONTACT WITH THE UTILITY COMPANIES IN ORDER TO LOCATE EXISTING UTILITIES IN ADVANCE OF THE TRENCHING OPERATIONS SO AS TO AVOID AND PREVENT DAMAGE TO THE EXISTING UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST RESULTING FROM ANY DAMAGE TO THE EXISTING UTILITY LINES INCLUDING BUT NOT LIMITED TO REPAIRS AND LOSS SERVICE REVENUE. CONTRACTOR SHALL ARRANGE FOR TEMPORARY SUPPORT OF EXISTING UTILITIES, SUCH AS POLES, CONDUITS, FIBER OPTIC CABLES, TELEPHONE CABLES, WATER LINES, ETC...
2. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT.
3. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK, SUITABLE BARRIERS, FENCES, SIGNS OR OTHER ADEQUATE PROTECTION, INCLUDING FLAG MEN AND WATCHMEN AS NECESSARY TO INSURE THE SAFETY OF THE PUBLIC AS WELL AS THOSE ENGAGED IN THE CONSTRUCTION WORK. CONSTRUCTION SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE NCDOT.
4. ALL MATERIAL CLEARED AND GRUBBED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK, SUCH AS TREES, VEGETATION, FENCING, ETC... SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE OR BURNED IF PROPER PERMITS ARE RECEIVED.

**SITE NOTES**

1. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO START OF CONSTRUCTION. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
2. THE GENERAL CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND R.O.W.'S PUBLIC OR PRIVATE, PRIOR TO WORKING IN THESE AREAS.
3. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
4. ACCESS TO UTILITIES, FIRE HYDRANTS, STREET LIGHTING, ETC., SHALL REMAIN UNDISTURBED, UNLESS COORDINATED WITH THE RESPECTIVE UTILITY.
5. DO NOT SCALE THIS DRAWING AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
6. THE GENERAL CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT AND AT LEAST ONCE A WEEK DURING CONSTRUCTION.
7. THE GENERAL CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
8. CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.
9. IF DEPARTURES FROM THE SPECIFICATIONS OR DRAWINGS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE GIVEN TO THE OWNER FOR REVIEW, NO DEPARTURES FROM THE CONTRACT DOCUMENT SHALL BE MADE WITHOUT THE PERMISSION OF THE OWNER.
10. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES. THE LOCATION OF ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON PLANS AND WHERE SHOWN ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL ON HIS INITIATIVE AND AT NO EXTRA COST HAVE LOCATED ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. NO CLAIMS FOR DAMAGES OR EXTRA COMPENSATION SHALL ACCRUE TO THE CONTRACTOR FROM THE PRESENCE OF SUCH PIPE OTHER OBSTRUCTIONS OR FROM DELAY DUE TO REMOVAL OR REARRANGEMENT OF THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND STRUCTURES. CONTACT NORTH CAROLINA ONE CALL TOLL FREE 1-800-632-4949 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL NONSUBSCRIBING UTILITIES.
11. ALL PERMITS RELATIVE TO PROJECT MUST BE OBTAINED, PRIOR TO CONSTRUCTION
12. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PERMITS ISSUED AND APPLICABLE STATE, COUNTY, AND LOCAL CODES.
13. FOR BUILDING DIMENSIONS, SEE ARCHITECTURAL DRAWINGS.
14. ALL DIMENSIONS AND RADI ARE TO OUTSIDE FACE OF BUILDING OR TO FACE OF CURB UNLESS OTHERWISE NOTED.
15. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC., THAT MAY BE REQUIRED.
16. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.

**EXISTING UTILITY NOTES**

1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE ACTUAL LOCATION AND AVAILABILITY OF ALL EXISTING AND PROPOSED UTILITIES IN THE FIELD PRIOR TO GROUND BREAKING.
2. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.

**UTILITY CONTACTS:**

1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING AND DIGGING. 1-800-632-4949

**NOTICE REQUIRED**

ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED BY CONTRACTOR PRIOR TO THE BEGINNING OF ANY CONSTRUCTION IN THE VICINITY OF SAID UTILITIES.

CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS PRIOR TO ANY EXCAVATION OR DEMOLITION.

CONTACT "CAROLINA ONE CALL" AT  
1-800-632-4949

EMERGENCY DIAL 911 POLICE - FIRE - RESCUE



**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

PRELIMINARY - DO NOT USE FOR CONSTRUCTION

No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	APRIL, 2016
Checked By	MNH	Job No.	

**LULLWATER WAREHOUSE**

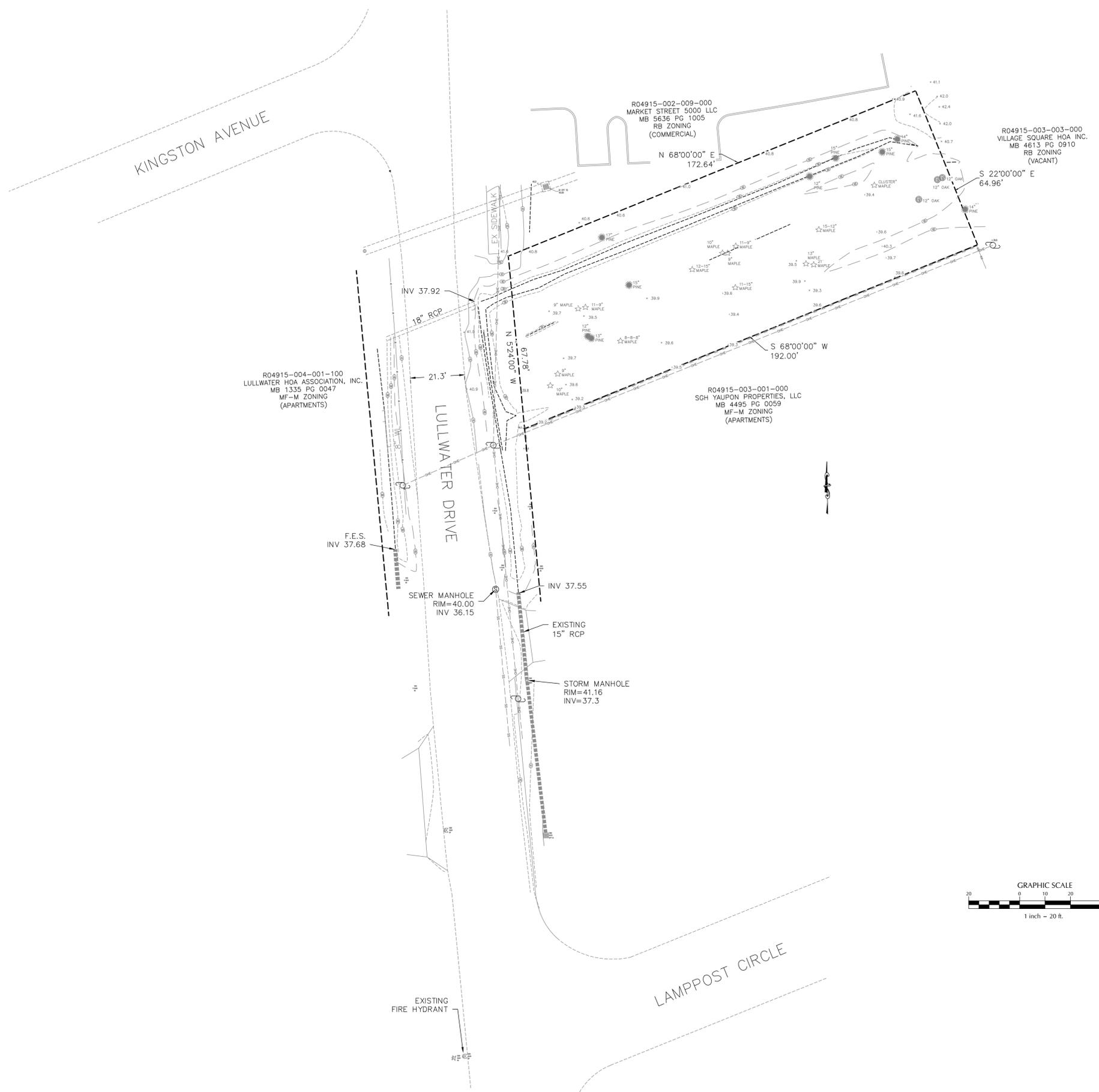
WILMINGTON NORTH CAROLINA

**GREGORY CONSTRUCTION**  
702 WINDEMERE ROAD  
WILMINGTON, NC 28405

PORT CITY CONSULTING  
ENGINEERS, PLLC  
6216 STONEBRIDGE ROAD  
WILMINGTON, NC 28409  
910-599-1744 LICENSE No. P-1032

**GENERAL NOTES**

Sheet No.  
**C-1**



  
 CITY OF WILMINGTON  
 NORTH CAROLINA  
 Public Services Engineering Division  
 APPROVED DRAINAGE PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

Approved Construction Plan  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_



PRELIMINARY - DO NOT USE FOR CONSTRUCTION

No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	APRIL, 2016
Checked By	MNH	Job No.	

**LULLWATER COMMERCIAL**  
 WILMINGTON NORTH CAROLINA

**GREGORY CONSTRUCTION**  
 702 WINDEMERE ROAD  
 WILMINGTON, NC 28405

PORT CITY CONSULTING  
 ENGINEERS, PLLC  
 6216 STONEBRIDGE ROAD  
 WILMINGTON, NC 28409  
 910-599-1744 LICENSE No. P-1032

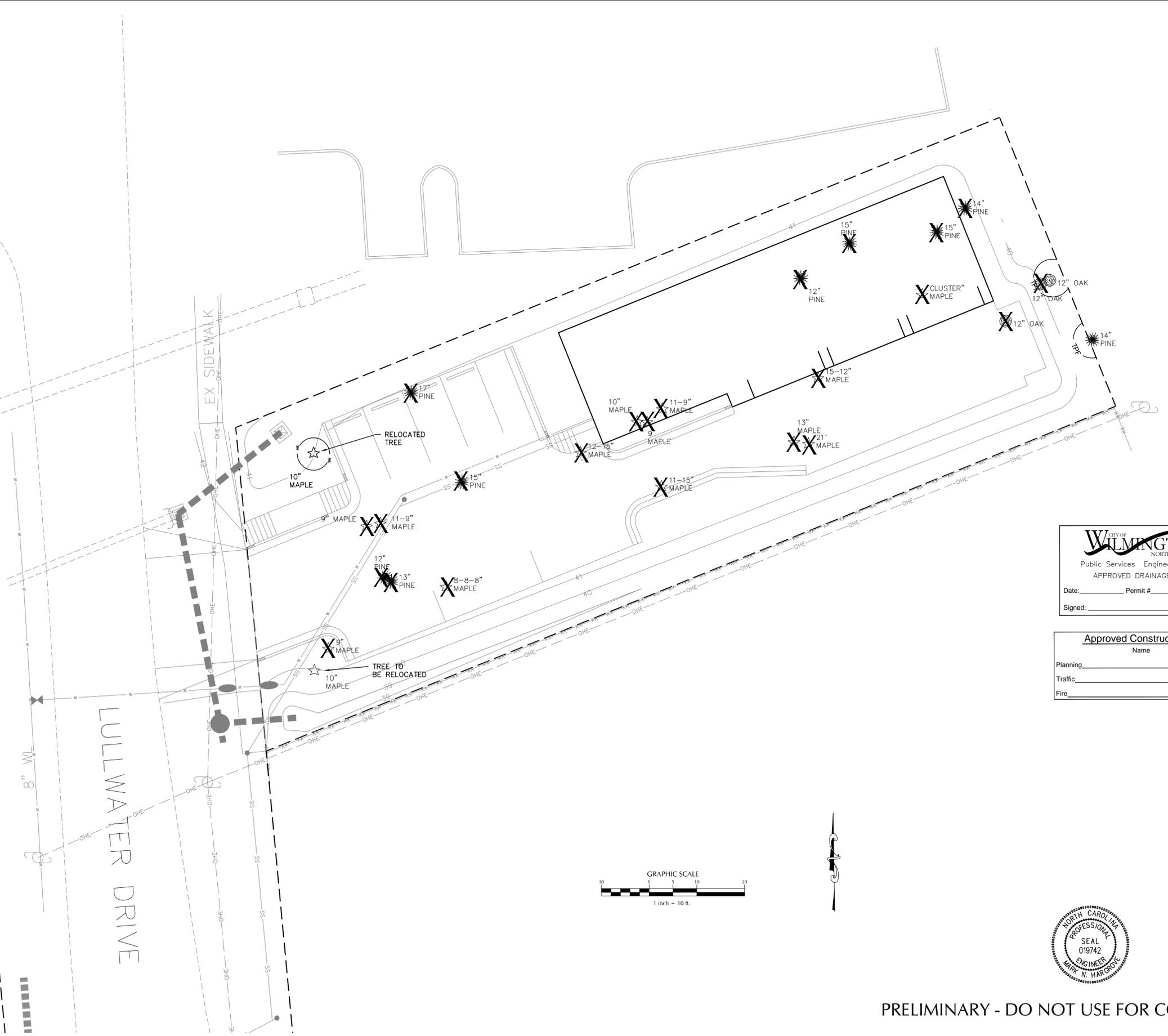
EXISTING CONDITIONS

Sheet No.  
**C-2**

VENUE

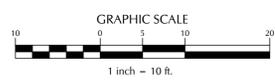
LULLWATER DRIVE

EX SIDEWALK



  
 CITY OF WILMINGTON  
 NORTH CAROLINA  
 Public Services Engineering Division  
 APPROVED DRAINAGE PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

**Approved Construction Plan**  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_



PRELIMINARY - DO NOT USE FOR CONSTRUCTION

No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	APRIL, 2016
Checked By	MNH	Job No.	

**LULLWATER COMMERCIAL**  
 WILMINGTON NORTH CAROLINA

**GREGORY CONSTRUCTION**  
 702 WINDEMERE ROAD  
 WILMINGTON, NC 28405

PORT CITY CONSULTING  
 ENGINEERS, PLLC  
 6216 STONEBRIDGE ROAD  
 WILMINGTON, NC 28409  
 910-599-1744 LICENSE No. P-1032

**TREE REMOVAL PLAN**

Sheet No.  
**C-2.1**

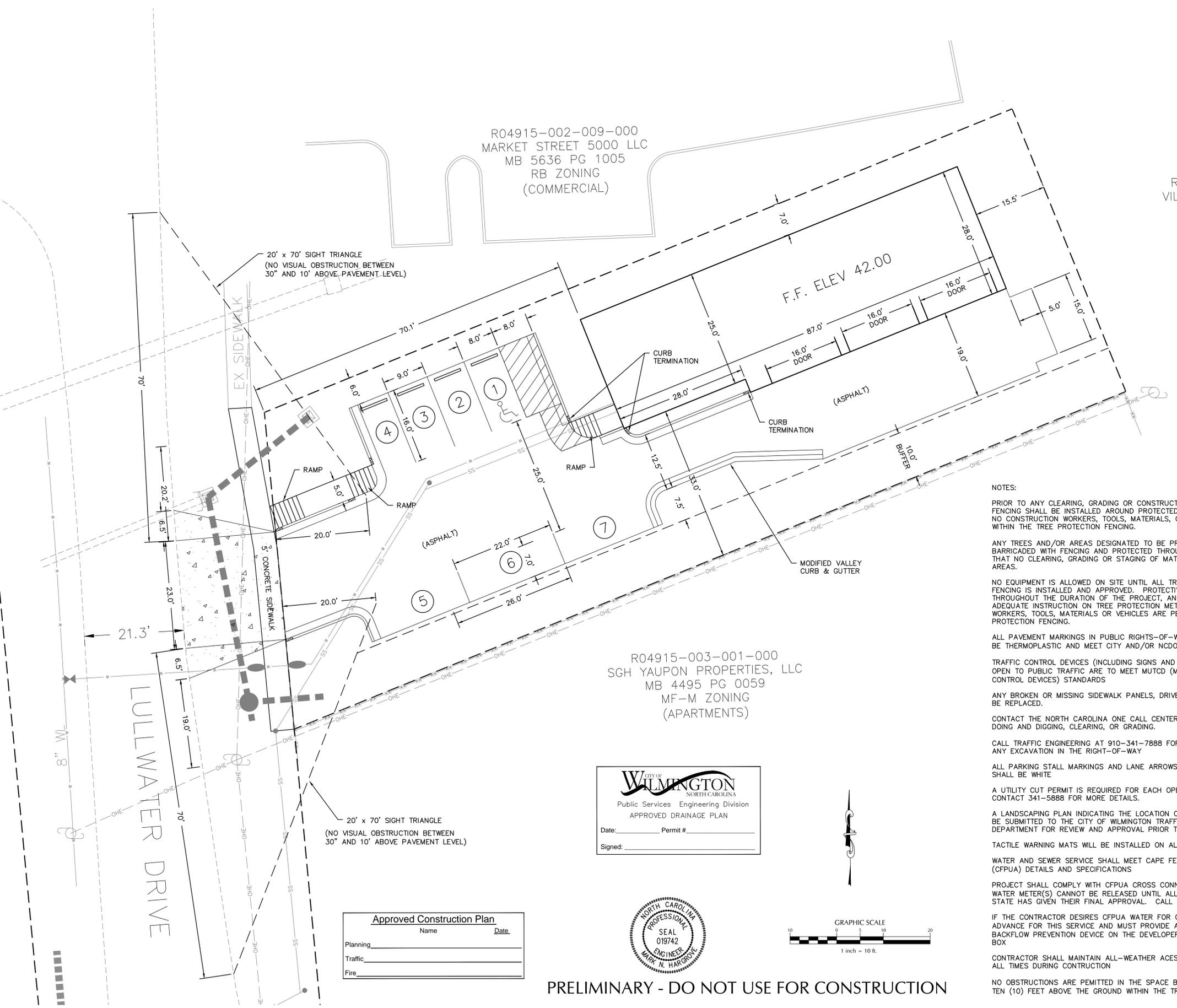
VENUE

R04915-002-009-000  
 MARKET STREET 5000 LLC  
 MB 5636 PG 1005  
 RB ZONING  
 (COMMERCIAL)

R04915-003-003-000  
 VILLAGE SQUARE HOA IN  
 MB 4613 PG 0910  
 RB ZONING  
 (VACANT)

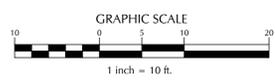
R04915-004-001-100  
 LULLWATER HOA ASSOCIATION, INC.  
 MB 1335 PG 0047  
 MF-M ZONING  
 (APARTMENTS)

R04915-003-001-000  
 SCH YAUPON PROPERTIES, LLC  
 MB 4495 PG 0059  
 MF-M ZONING  
 (APARTMENTS)



- NOTES:
- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING SHALL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
  - ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS.
  - 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 INSTRUCTION ON TREE PROTECTION METHODS. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
  - ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
  - 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
  - ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
  - CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 PRIOR TO DOING AND DIGGING, CLEARING, OR GRADING.
  - CALL TRAFFIC ENGINEERING AT 910-341-7888 FORTY EIGHT (48) HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY
  - ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE
  - A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-5888 FOR MORE DETAILS.
  - A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC DIVISION AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO RECORDING THE FINAL PLAT.
  - TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS
  - WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) DETAILS AND SPECIFICATIONS
  - PROJECT SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 910-343-3910 FOR INFORMATION
  - 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 DEVELOPER'S SIDE OF THE WATER METER BOX
  - CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION
  - NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE

**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services Engineering Division  
 APPROVED DRAINAGE PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_



Approved Construction Plan	
Name	Date
Planning _____	
Traffic _____	
Fire _____	

PRELIMINARY - DO NOT USE FOR CONSTRUCTION

No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	APRIL, 2016
Checked By	MNH	Job No.	

**LULLWATER COMMERCIAL**  
 WILMINGTON NORTH CAROLINA

**GREGORY CONSTRUCTION**  
 702 WINDEMERE ROAD  
 WILMINGTON, NC 28405

**PORT CITY CONSULTING ENGINEERS, PLLC**  
 6216 STONEBRIDGE ROAD  
 WILMINGTON, NC 28409  
 910-599-1744 LICENSE No. P-1032

**SITE LAYOUT PLAN**

Sheet No.  
**C-3**

NUE

R04915-002-009-000  
MARKET STREET 5000 LLC  
MB 5636 PG 1005  
RB ZONING  
(COMMERCIAL)

R04915-003-003-000  
VILLAGE SQUARE HOA INC.  
MB 4613 PG 0910  
RB ZONING  
(VACANT)

R04915-004-001-100  
LULLWATER HOA ASSOCIATION, INC.  
MB 1335 PG 0047  
MF-M ZONING  
(APARTMENTS)

R04915-003-001-000  
SGH YAUPON PROPERTIES, LLC  
MB 4495 PG 0059  
MF-M ZONING  
(APARTMENTS)

F.E.S.  
INV 37.68

SEWER MANHOLE  
RIM=40.00  
INV 36.15

INV 37.55

EXISTING

LULLWATER DRIVE

EX SIDEWALK

F.F. ELEV 42.00

PROPOSED SWALE

PROPOSED SWALE

**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services Engineering Division  
APPROVED DRAINAGE PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_



PRELIMINARY - DO NOT USE FOR CONSTRUCTION

No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	APRIL, 2016
Checked By	MNH	Job No.	

**LULLWATER COMMERCIAL**  
WILMINGTON NORTH CAROLINA

**GREGORY CONSTRUCTION**  
702 WINDEMERE ROAD  
WILMINGTON, NC 28405

PORT CITY CONSULTING  
ENGINEERS, PLLC  
6216 STONEBRIDGE ROAD  
WILMINGTON, NC 28409  
910-599-1744 LICENSE No. P-1032

**GRADING & DRAINAGE PLAN**

Sheet No.  
**C-4**

NUE

R04915-002-009-000  
MARKET STREET 5000 LLC  
MB 5636 PG 1005  
RB ZONING  
(COMMERCIAL)

R04915-003-003-000  
VILLAGE SQUARE HOA INC.  
MB 4613 PG 0910  
RB ZONING  
(VACANT)

F.F. ELEV 42.00

INV 37.92

18" RCP

1" WATER SERVICE  
PE TUBING, SDR 9

4" SEWER SERVICE  
SCH 40 PVC

RPZ, WILKINS 975XL  
BACKFLOW PREVENTOR

5/8" WATER METER

R04915-004-001-100  
LULLWATER HOA ASSOCIATION, INC.  
MB 1335 PG 0047  
MF-M ZONING  
(APARTMENTS)

R04915-003-001-000  
SGH YAUPON PROPERTIES, LLC  
MB 4495 PG 0059  
MF-M ZONING  
(APARTMENTS)

EXISTING 8" WL

1" WATER SERVICE  
(PER CFPWA  
STANDARDS)

LULLWATER DRIVE

SANITARY SEWER  
CLEAN OUT  
INV=36.58

6" SEWER SERVICE DIP  
@ 0.6% SLOPE

F.E.S.  
INV 37.68

SANITARY SEWER  
CLEAN OUT  
INV=36.24

INV 37.55

SEWER MANHOLE  
RIM=40.00  
INV 36.15

EXISTING

**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services Engineering Division  
APPROVED DRAINAGE PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

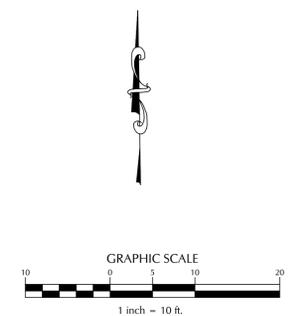
**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_



PRELIMINARY - DO NOT USE FOR CONSTRUCTION

No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	APRIL, 2016
Checked By	MNH	Job No.	

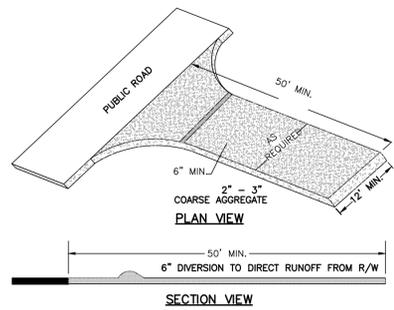
**LULLWATER COMMERCIAL**  
WILMINGTON NORTH CAROLINA

**GREGORY CONSTRUCTION**  
702 WINDEMERE ROAD  
WILMINGTON, NC 28405

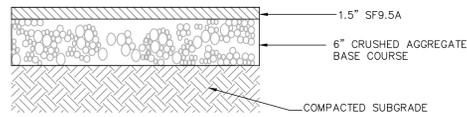
PORT CITY CONSULTING  
ENGINEERS, PLLC  
6216 STONEBRIDGE ROAD  
WILMINGTON, NC 28409  
910-599-1744 LICENSE No. P-1032

**UTILITY PLAN**

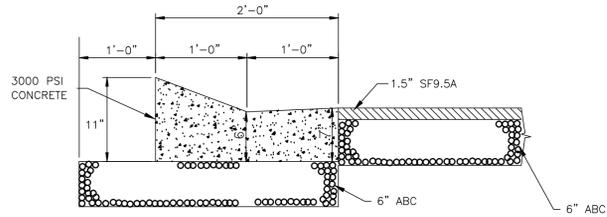
Sheet No.  
**C-5**



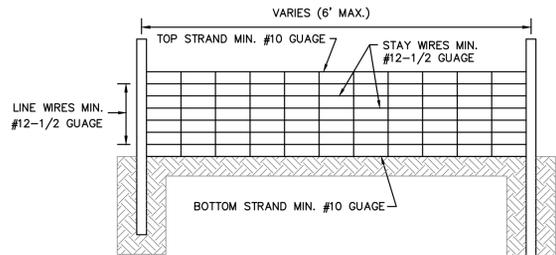
TEMPORARY CONSTRUCTION ENTRANCE  
N.T.S.



PAVEMENT DETAIL  
N.T.S.



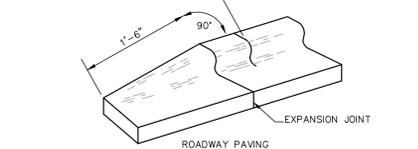
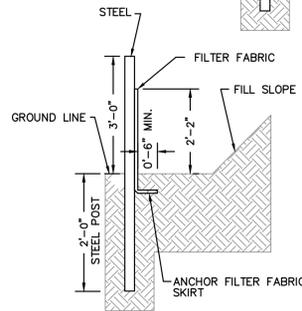
MODIFIED VALLEY GUTTER  
N.T.S.



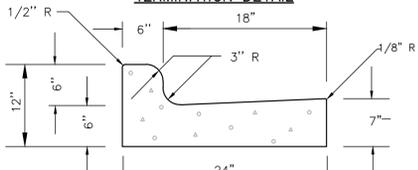
NOTES:

1. WIRE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES W/12" STAY SPACING
2. FILTER FABRIC SHALL BE A MINIMUM OF 36" IN WIDTH AND SHALL BE FASTENED ADEQUATELY TO THE WIRE
3. STEEL POST SHALL BE 5' 0" IN HEIGHT AND BE OF SELF FASTENER ANGLE STEEL TYPE

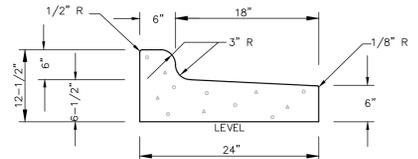
SILT FENCE  
N.T.S.



24" CURB & GUTTER  
TERMINATION DETAIL



24" CURB AND GUTTER



24" CURB AND GUTTER  
(REVERSE SLOPE)

CONSTRUCTION JOINTS SHALL BE SPACED AT MAX. 10' INTERVALS, EXCEPT THAT A 15 FOOT SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10 FOOT INTERVALS. JOINT SPACING MAY BE ALTERED BY THE ENGINEER TO PREVENT UNCONTROLLED CRACKING. CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1-1/2" SHALL BE OBTAINED. ALL CONTRACTION JOINTS EXCEPT IN 8" X 6" MEDIAN CURB SHALL BE FILLED WITH JOINT SEALER. EXPANSION JOINTS SHALL BE SPACED AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.

CURB AND GUTTER  
NOT TO SCALE

- NOTES:
1. JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS.
  2. SANITARY SEWER CLEAN-OUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
  3. MINIMUM SIDEWALK WIDTH TO BE 6' MINIMUM IF PLACED AT BACK OF CURB.
  4. CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION CONTAIN WITHIN A DRIVEWAY APRON) SHALL BE CLASS "A" - 3,000 PSI.
  5. MINIMUM REPLACEMENT FOR REPAIRS IS A 5' X 5' PANEL
  6. 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS
  7. MINIMUM DEPTH FOR TUNNELING BELOW SIDEWALK IS 12"
  8. MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1
  9. MIN GRADE FOR PROPER DRAINAGE IS 1% IN AT LEAST 1 DIRECTION. MAX CROSS SLOPE IS 2%. MAX LONGITUDINAL SLOPE IS 8.3%, 10% IF LIMITED BY EXISTING CONDITIONS, OR NO GREATER THAN THE SLOPE OF THE EXISTING ADJACENT ROAD.

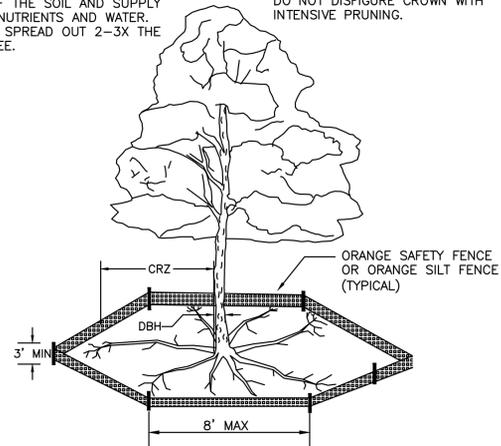
SIDEWALK DETAIL  
N.T.S.

NOTE:

THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.

NOTE:

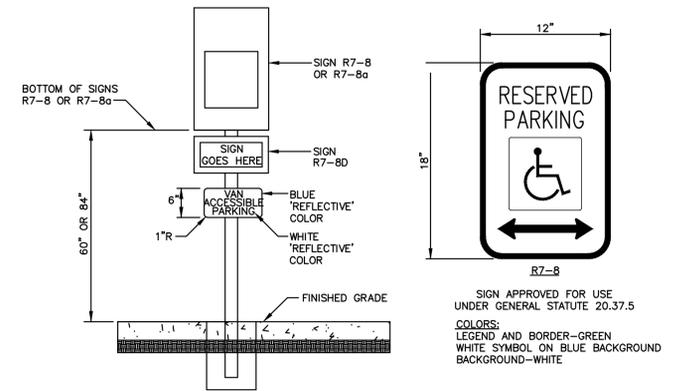
CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISFIGURE CROWN WITH INTENSIVE PRUNING.



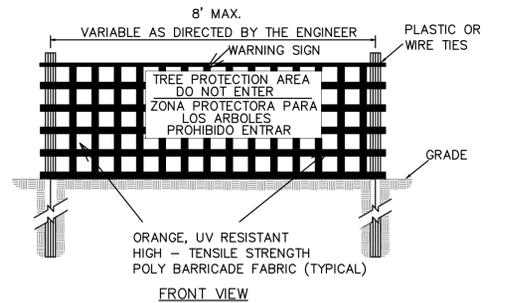
NOTES:

1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATTS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR EQUIPMENT SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
6. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF \$500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.

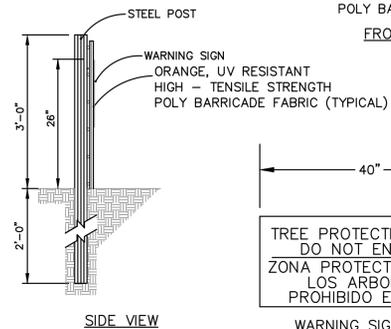
TREE PROTECTION DURING CONSTRUCTION  
N.T.S.



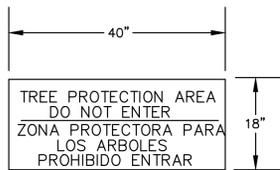
HANDICAP PARKING SIGNAGE  
N.T.S.



FRONT VIEW



SIDE VIEW



WARNING SIGN DETAIL

NOTES:

1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS THAN TWO SIGNS PER PROTECTION AREA.
4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.
5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL FIELD CONDITIONS.

PRELIMINARY - DO NOT USE FOR CONSTRUCTION

No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	APRIL, 2016
Checked By	MNH	Job No.	

WILMINGTON NORTH CAROLINA

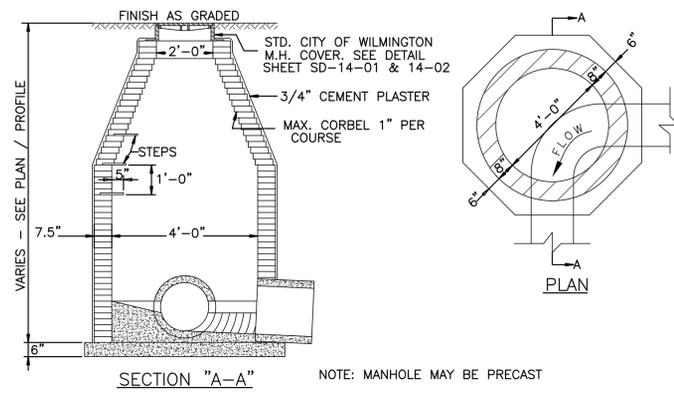
**LULLWATER COMMERCIAL**

**GREGORY CONSTRUCTION**  
702 WINDEMERE ROAD  
WILMINGTON, NC 28405

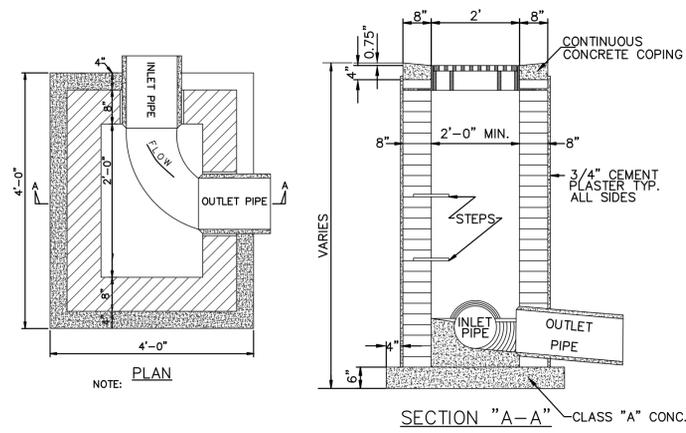
PORT CITY CONSULTING  
ENGINEERS, PLLC  
6216 STONEBRIDGE ROAD  
WILMINGTON, NC 28409  
910-599-1744 LICENSE No. P-1032

MISCELLANEOUS DETAILS

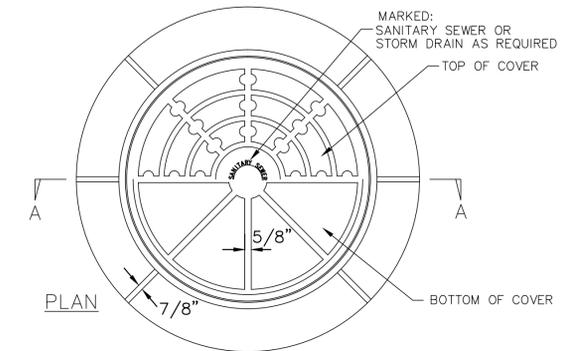
Sheet No.  
**C-6.0**



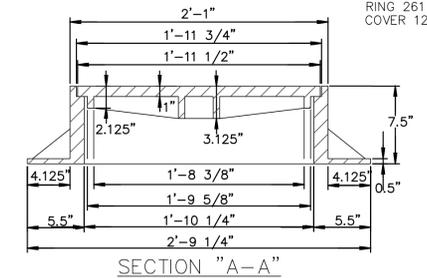
SECTION "A-A" NOTE: MANHOLE MAY BE PRECAST  
 GUIDELINES FOR STORM DRAIN MANHOLE  
 SD 2-03  
 NOT TO SCALE



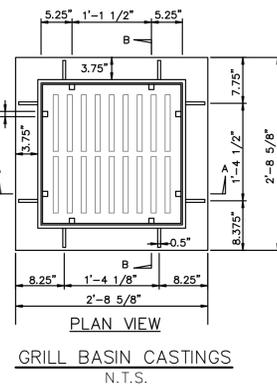
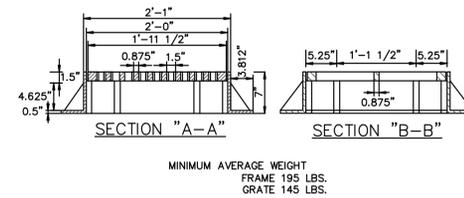
DROP INLET  
 N.T.S.



NOTE: RING & COVER CONTACT SURFACES SHALL BE MACHINED TO INSURE EVEN BEARING OF COVER AND RING.  
 MINIMUM WEIGHTS: RING 261 LBS., COVER 120 LBS.



STANDARD MANHOLE RING & COVER  
 SD 14-02  
 NOT TO SCALE



GRILL BASIN CASTINGS  
 N.T.S.

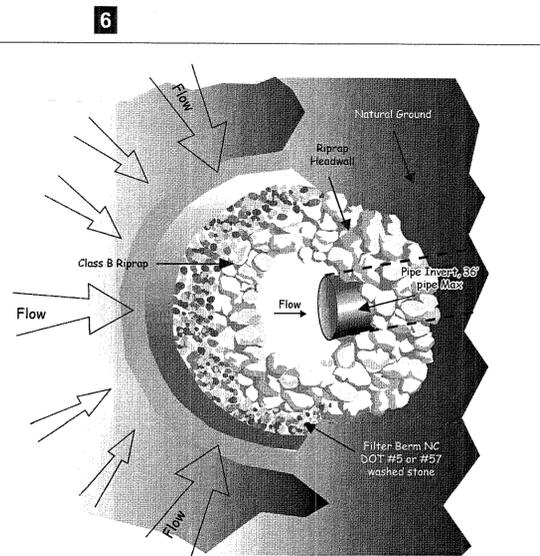


Figure 6.55a Rock pipe inlet protection plan view and cross-section view

6.55.2

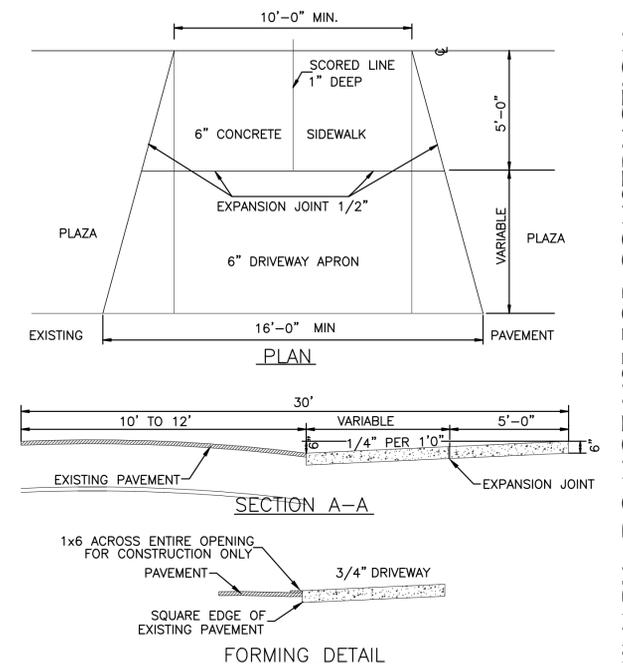
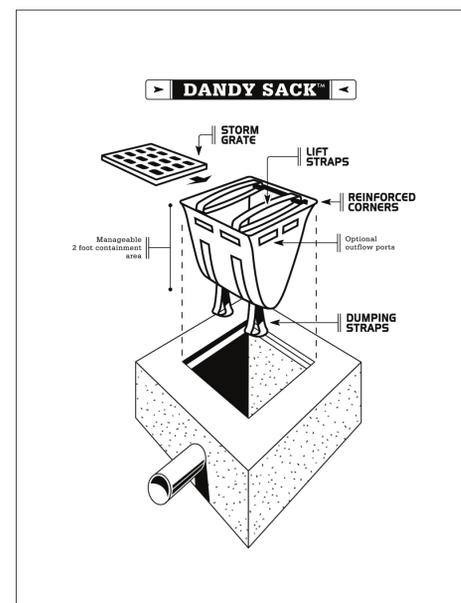
ROCK PIPE INLET PROTECTION  
 N.T.S.

**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services Engineering Division  
 APPROVED DRAINAGE PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

**Approved Construction Plan**  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_



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



RESIDENTIAL DRIVEWAY STREETS WITH NO CURB  
 SD 8-05  
 NOT TO SCALE

PRELIMINARY - DO NOT USE FOR CONSTRUCTION

No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	APRIL, 2016
Checked By	MNH	Job No.	

WILMINGTON

LULLWATER COMMERCIAL

NORTH CAROLINA

GREGORY CONSTRUCTION  
 702 WINDEMERE ROAD  
 WILMINGTON, NC 28405

PORT CITY CONSULTING  
 ENGINEERS, PLLC  
 6216 STONEBRIDGE ROAD  
 WILMINGTON, NC 28409  
 910-599-1744 LICENSE No. P-1032

MISCELLANEOUS DETAILS

Sheet No.  
 C-6.1

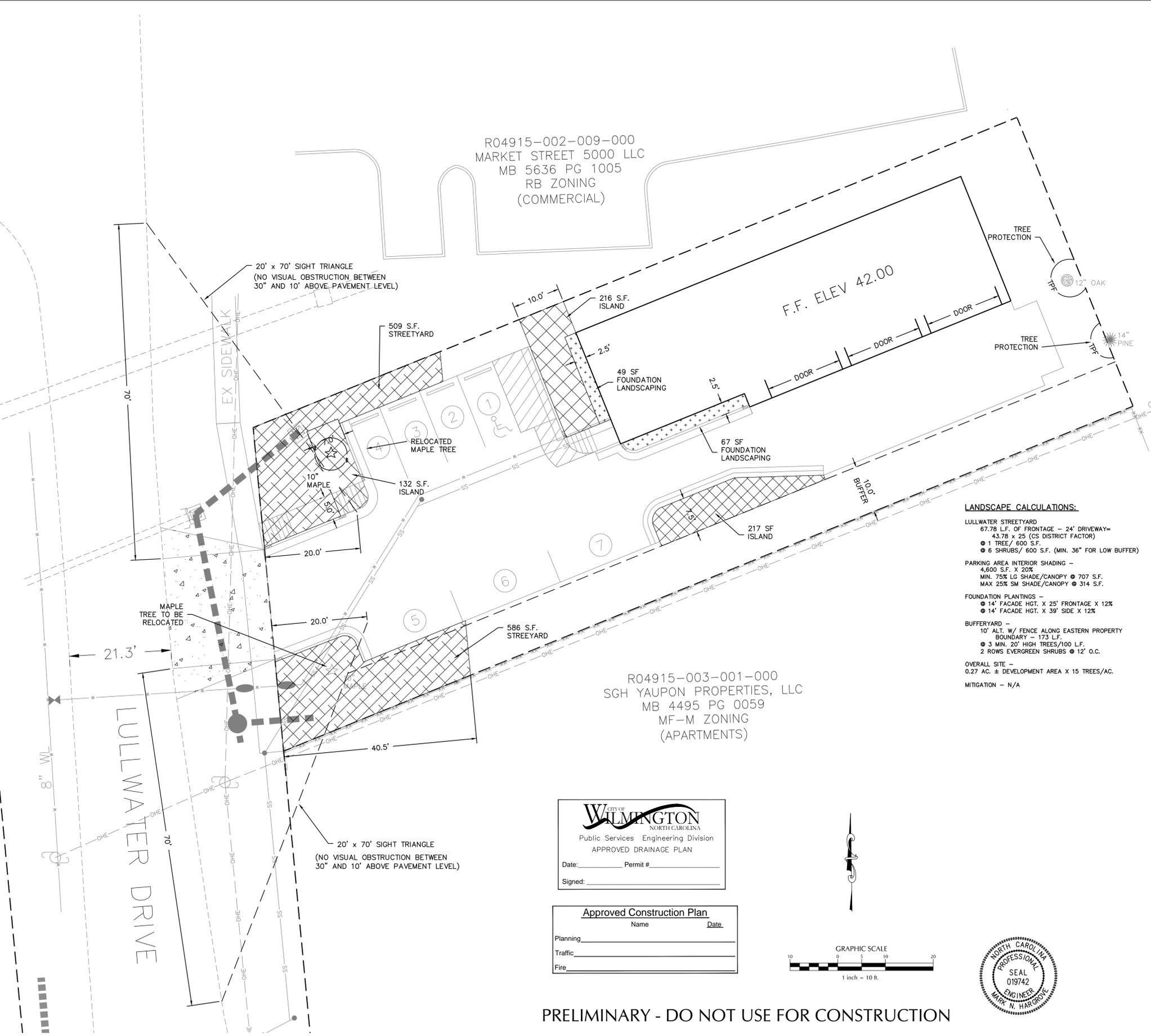
VENUE

R04915-002-009-000  
 MARKET STREET 5000 LLC  
 MB 5636 PG 1005  
 RB ZONING  
 (COMMERCIAL)

R04915-003-003-000  
 VILLAGE SQUARE HOA IN  
 MB 4613 PG 0910  
 RB ZONING  
 (VACANT)

R04915-004-001-100  
 LULLWATER HOA ASSOCIATION, INC.  
 MB 1335 PG 0047  
 MF-M ZONING  
 (APARTMENTS)

R04915-003-001-000  
 SCH YAUPON PROPERTIES, LLC  
 MB 4495 PG 0059  
 MF-M ZONING  
 (APARTMENTS)

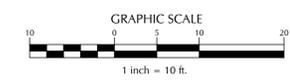


**LANDSCAPE CALCULATIONS:**

	REQ'D.	PROVD.
LULLWATER STREETYARD 67.78 L.F. OF FRONTAGE - 24' DRIVEWAY= 43.78 x 25 (CS DISTRICT FACTOR)	1095 S.F.	1095 S.F.
● 1 TREE/ 600 S.F.	2	2
● 6 SHRUBS/ 600 S.F. (MIN. 36" FOR LOW BUFFER)	11	11
PARKING AREA INTERIOR SHADING - 4,600 S.F. X 20% MIN. 75% LG SHADE/CANOPY ● 707 S.F. MAX 25% SM SHADE/CANOPY ● 314 S.F.	920 S.F.	920+ S.F.
	1	1 EX + 2
	1	**
FOUNDATION PLANTINGS - ● 14' FACADE HGT. X 25' FRONTAGE X 12% ● 14' FACADE HGT. X 39' SIDE X 12%	42 S.F.	49 S.F.
	66 S.F.	67 S.F.
BUFFERYARD - 10' ALT. W/ FENCE ALONG EASTERN PROPERTY BOUNDARY - 173 L.F. ● 3 MIN. 20' HIGH TREES/100 L.F. 2 ROWS EVERGREEN SHRUBS ● 12' O.C.	5	5
	28	28
OVERALL SITE - 0.27 AC. ± DEVELOPMENT AREA X 15 TREES/AC.	4	4+
MITIGATION - N/A		

**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services Engineering Division  
 APPROVED DRAINAGE PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

**Approved Construction Plan**  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_



PRELIMINARY - DO NOT USE FOR CONSTRUCTION