SITE CONSTRUCTION PLANS
SQUARE ONE
QUEEN STREET BETWEEN 15TH ST. AND 16TH ST.
INFILL PROJECT

NOTES

1. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING (IF REQUIRED) WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION.

2. 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 OCCUR IN THOSE AREAS.

3. 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.

4. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS OF WAY AND FOR DRIVEWAY ARE TO BE THERMO PLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.

5. ONCE STREETS ARE OPEN TO TRAFFIC, CONTACT TRAFFIC ENGINEERING REGARDING THE INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET SIGN NAMES.

6. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS AND BE MAINTAINED BY THE OWNER.

7. CONTACT TRAFFIC ENGINEERING AT 910-341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.

8. TRAFFIC ENGINEERING TO BE NOTIFIED AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.

9. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.

10. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN PARKING AREAS SHALL BE WHITE. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS OF WAY FOR DRIVEWAY ARE TO BE THERMO PLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.

11. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER.

12. STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.

13. TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEEL CHAIR RAMPS.

14. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET.

15. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.

16. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.

17. WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY DETAILS AND SPECIFICATIONS.

18. PROJECT SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL.

19. IF THE CONTRACTOR DESIRES CFPUA WATER FOR CONSTRUCTION HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST SUPPLY A RPZ BACKFLOW PREVENTION DEVICE ON THE DEVELOPERS SIDE OF THE WATER METER BOX.

20. ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA SHALL COMPLY WITH THE CFPUA CROSS CONNECTION REGULATIONS.

21. ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZE SENSOR.

22. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCCCHR.

23. CONTRACTOR TO FILED VERIFY EXISTING WATER AND SEWER LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF CONFLICTS.

24. AN ALL WEATHER DRIVING SURFACE FOR EMERGENCY VEHICLES MUST BE MAINTAINED DURING CONSTRUCTION.

25. UNDERGROUND FIRE LINE(S) MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC ROW TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENTDIVISON OF FIRE AND LIFE SAFETY AT 910-341-0696.

26. NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (TEN) FEET ABOVE THE GROUND WITHIN THE TRIANGLE SIGHT DISTANCE.

27. CONTRACTOR IS TO NOTIFY (AT A MINIMUM) THE FOLLOWING COMPANIES FOR LOCATION SERVICES:
- ULOCO .....1-800-632-4949, 48 HOURS IN ADVANCE
- BELL SOUTH.....1-800-392-8712 (STEVE DAYVAULT)
- CAROLINA ONE CALL CENTER 1-800-632-4949

28. THERE SHALL BE NO ENCUMBRANCES WITHIN THE NCDOT RIGHT OF WAY.

29. 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 CofW TECH STDS)

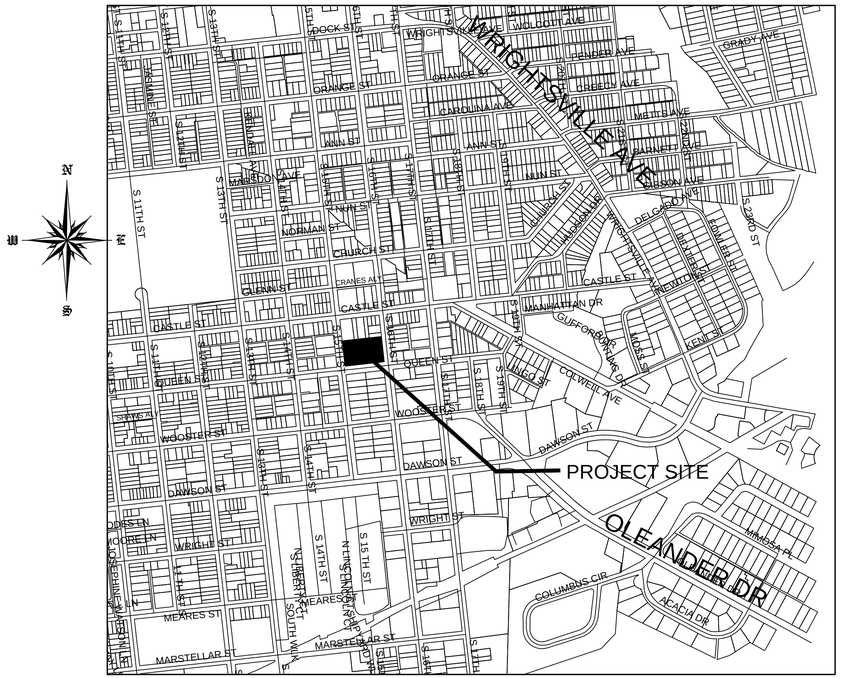
30. FIRE HYDRANTS CANNOT BE FURTHER THAN 8' FROM THE CURB.

31. PARKING AND LANDSCAPING CANNOT BLOCK FIRE HYDRANTS OF FDC'S

32. FDC'S CAN BE NO FURTHER THAN 40' FROM FIRE DEPARTMENT VEHICLE PLACEMENT

33. FDC'S CAN BE NO FURTHER THAN 150' FROM A FIRE HYDRANT

34. BICYCLE PARKING IS PROVIDED ON THE SOUTHWEST CORNER OF PROPOSED BUILDING



SCALE 1" = 600'

VICINITY MAP
FEBRUARY, 2016

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.

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

LIST OF DRAWINGS

XX	COVER SHEET
CE	EXISING SITE
C1	SITE PLAN
C2	GRADING, DRAINAGE & EROSION CONTROL
C3	UTILITIES
C4	LANDSCAPE PLAN
C5	DETAILS
A1	BUILDING ELEVATION
WSD-1	CFPUA WATER - STANDARD DETAILS
SSD-2	CFPUA SEWER - STANDARD DETAILS

OWNER/DEVELOPER
L.S. SMITH, INC.
MR. LESLIE SMITH
1607 QUEEN STREET
WILMINGTON, NC 28401
1-336-404-0009

CIVIL ENGINEER
JBS CONSULTING, PA
BRAD SEDGWICK, PE
7332 COTESWORTH DRIVE
WILMINGTON, NC 28405
1-910-619-9990

SURVEYOR
ROBERT SESSOMS & ASSOCIATES, PLLC
MR. ROBERT SESSOMS, PLS
4033 CHANDLER DRIVE
WILMINGTON, NC 28405
1-910-352-8846

BEFORE YOU DIG
STOP
CALL 1 800 632-4949
N.C. ONE-CALL CENTER
IT'S THE LAW

NORTH CAROLINA
SEAL
L-4396
ENGINEER
BRADFORD SEDGWICK

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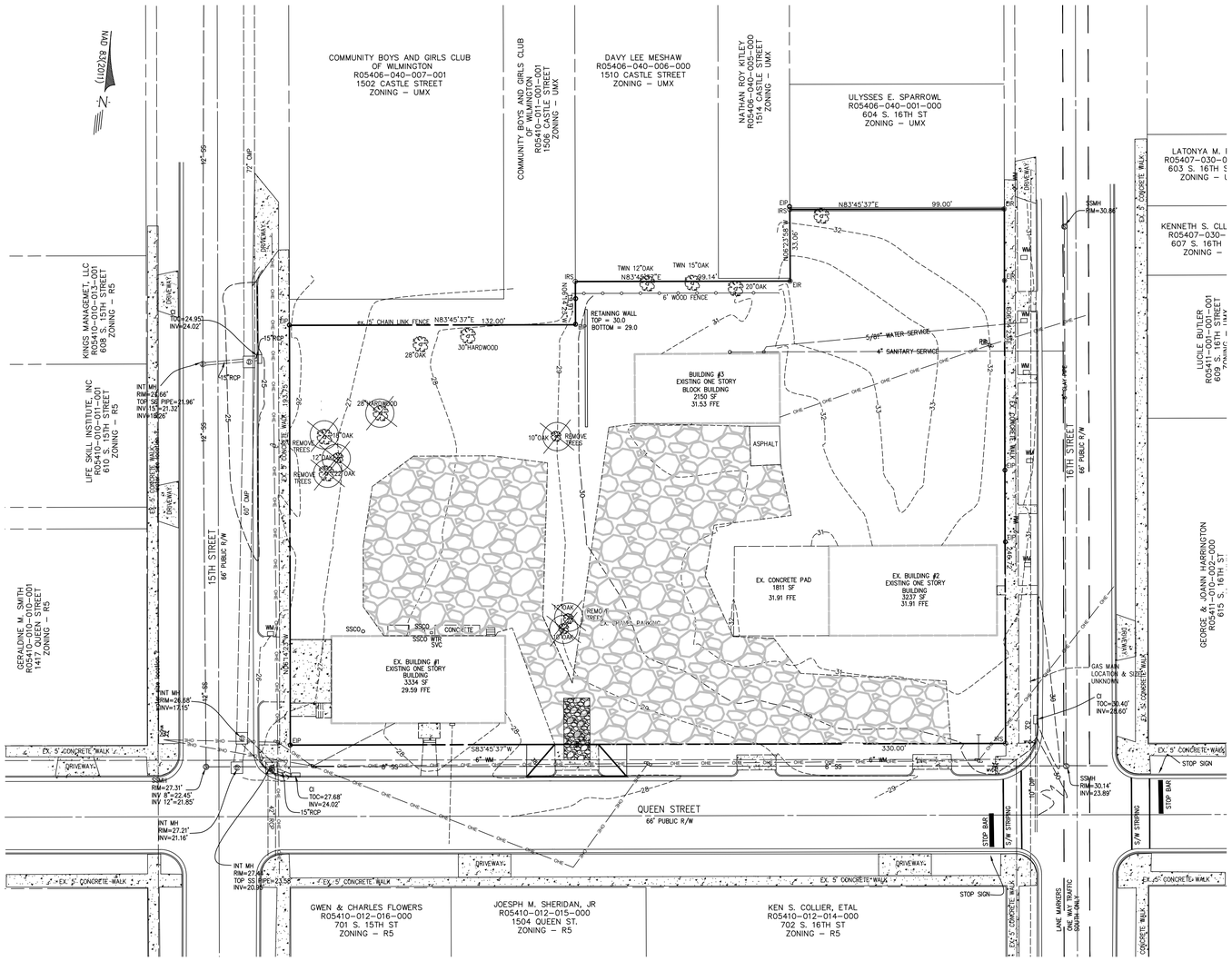
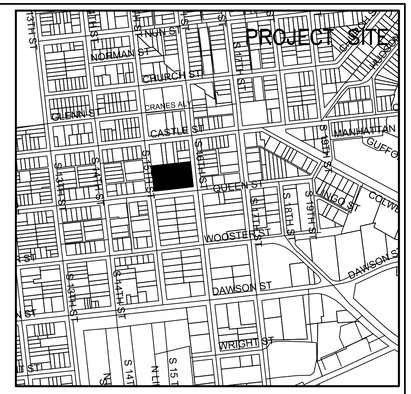


EXISTING SITE
SCALE 1" = 30'

SITE DATA

TOTAL PROJECT AREA	71,170 SF
EXISTING BUA	
BUILDING #1	3,334 SF
CON. PAD @ #1	764 SF
BUILDING #2	3,237 SF
CON. PAD @ 2	1,811 SF
BUILDING #3	2,150 SF
EXISTING GRAVEL DRIVE/PARKING	21,400 SF
TOTAL EXISTING BUA	32,696 SF



VICINITY MAP
NTS

LEGEND

- EX. GRAVEL
- ASPAHLT PAVEMENT
- CONC. PAVEMENT
- PROPOSED SPOT ELEVATION — 41.5'
- WAVE STYLE BIKE RACK 8 BIKE SPOTS EACH
- TREE PROTECTION FENCING SEE DETAIL
- TREE FOR REMOVAL — 28" HARDWOOD

BEFORE YOU DIG STOP CALL 1 800 632-4949 N.C. ONE-CALL CENTER IT'S THE LAW

NUMBER	DATE	REVISION

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.

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____ PERMIT # _____
SIGNED_____

30' 0 30' 60'
SCALE: 1"=30' (Horiz.)

DESIGN BY: BDS
DRAWN BY: BDS
CHECKED BY: BDS
DATE FEBRAURY, 2016

EXISTING SITE

SQUARE ONE
WILMINGTON, NC

L S SMITH, INC.
1607 Queen Street
Wilmington, NC 28401-5526
910-409-8782

JBS CONSULTING, PA
7332 Cotesworth Drive
Wilmington, NC 28405
(910) 619-9990
License Number C-2525
PLANNING - ENGINEERING - PROJECT MANAGEMENT

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of 5

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SITE PLAN
SCALE 1" = 30'

SITE INFORMATION

FIVE PARCELS

ADDRESSES/PARCL ID NUMBERS/DB REFERANCE

1) 615 S. 15TH STREET (R05410-011-001-000) (DB 5864 PG 1547)
2) 614 S. 16TH STREET (R05410-011-002-000) (DB 5864 PG 1525)
3) 612 S. 16TH STREET (R05410-011-003-000) (DB 5864 PG 1543)
4) 614 S. 16TH STREET (R05410-011-004-000) (DB 5864 PG 1543)
5) 614 S. 16TH STREET (R05410-011-005-000) (DB 5864 PG 1543)

ZONING

UMX – URBAN MIXED USE

LOT AREAS

1) 0.61 ACRES
2) 0.66 ACRES
3) 0.07 ACRES
4) 0.18 ACRES
5) 0.19 ACRES

TOTAL = 1.71 ACRES

CAMA LAND USE CLASSIFICATION – URBAN

PROPOSED USE – MIXED USE, RESIDENTIAL AND COMMERCIAL

NUMBER OF BUILDINGS – 3-EXISTING, 15-PROPOSED

EXISTING
BUILDING #1 3,334 SF
BUILDING #2 3,237 SF
BUILDING #3 2,150 SF
SUBTOTAL 8,721 SF

PROPOSED
BUILDING A 1080 SF
BUILDING B 1080 SF
BUILDING C 1080 SF
BUILDING D 1080 SF
BUILDING E 720 SF
BUILDING F 720 SF
BUILDING G 1080 SF
BUILDING H 1080 SF
BUILDING I 1080 SF
BUILDING J 1080 SF
BUILDING K 720 SF
BUILDING L 720 SF
BUILDING M 1080 SF
BUILDING N 1080 SF
BUILDING O 1080 SF
SUBTOTAL 14,760 SF

TOTAL BLDG SF = 23,481 SF

UMX – REQUIREMENTS

	REQUIRED	PROPOSED
MIN. LOT AREA	N/A	1.71 ACRES
MIN. LOT WIDTH	N/A	330 FT
MAX. LOT COVERAGE	N/A	23,481 / 74,488 = 31.5%
FRONT BUILDING SETBACK	0'	0'
SIDE BUILDING SETBACK	0'	5'
MAX. BLDG HEIGHT	40'	27'

PARKING REQUIREMENTS

NO MINIMUM PARKING REQUIREMENTS PER UMX

PARKING PROVIDED 25 REGULAR + 2 H/C = 27 TOTAL

PROPOSED BUA

SEE CHART AT BOTTOM OF PAGE

% IMPERVIOUS

EXISTING 32,696 / 74,488 = 43.8%
PROPOSED 29,704 / 74,488 = 39.9%

OVERLAY DISTRICTS

THE SITE IS NOT IN A KNOWN OVERLAY DISTRICT

FLOOD INFORMATION

PER FLOOD MAP 3720312700J DATED 4/3/2006 THIS AREA IS CLASSIFIED AS ZONE X – MINIMAL FLOOD RISK

WATER/SEWER INFORMATION

WATER USE – CURRENT 480 GPD
WATER USE – PROPOSED 10,560 GPD
SEWER USE – CURRENT 480 GPD
SEWER USE – PROPOSED 10,560 GPD

SEE CALCULATIONS ON SHEET C3

BIKE PARKING

PER UMX 1 BIKE SPACE PER DWELLING UNIT

12-ONE BDRM + 33 TWO BDRM = 45 SPACES REQUIRED

SPACES PROVIDED = 54 SPACES

TRASH SERVICE

TRASH SERVICES WILL BE PROVIDED VIA ROLLER CARTS. THE ROLLER CARTS WILL BE INSTALLED UNDER THE STAIRWAY LANDING. THE AREA WILL BE ENCLOSED WITH A 6' SOLID WOOD FENCE LOCATED AT EACH STAIRWELL.

VICINITY MAP
NTS

LEGEND

ASPAHLT PAVEMENT	
CONC. PAVEMENT	
PROPOSED SPOT ELEVATION	× 41.5'
WAVE STYLE BIKE RACK 8 BIKE SPOTS EACH	
TREE PROTECTION FENCING SEE DETAIL	
FLUSH WITH PAVEMENT CONCRETE CURB	FC
4" CONCRETE CURB	RC

Trip Generation Summary - Alternative 1
Average Weekday Driveway Volumes

Project: Square One — Open Date: 6/21/2016
Alternative: Alternative 1 — Analysis 6/21/2016

ITE	Land Use	Average Daily Trips Enter	Exit	Total	AM Peak Hour Adjacent Street Traffic Enter	Exit	Total	PM Peak Hour Adjacent Street Traffic Enter	Exit	Total
220	APT 1	214	213	427	6	22	28	29	16	45
	50 Dwelling Units									
	Unadjusted Driveway Volume	214	213	427	6	22	28	29	16	45
	Unadjusted Pass-By Trips	0	0	0	0	0	0	0	0	0
	Internal Capture Trips	0	0	0	0	0	0	0	0	0
	Adjusted Driveway Volume	214	213	427	6	22	28	29	16	45
	Adjusted Pass-By Trips	0	0	0	0	0	0	0	0	0
	Adjusted Volume Added to Adjacent Streets	214	213	427	6	22	28	29	16	45

Total AM Peak Hour Internal Capture = 0 Percent

Total PM Peak Hour Internal Capture = 0 Percent

Source: Institute of Transportation Engineers, Trip Generation Manual 9th Edition, 2012
TRIP GENERATION 2013, TRAFFICWARE, LLC 1

SQUARE ONE INFILL
QUEEN STREET
WILMINTON, NC
TOTAL PROJECT SITE 74488 SF

DESCRIPTION	EXISTING BUA ON SITE	BUA TO REMAIN	NEW BUA	Pervious Pavement assume 75% Credit
EX. BUILDING #1	3334	3334		
concrete pads at bldg 1	764	764		
EX. BUILDING #2	3237	3237		
concrete pad at bldg 2	1811			**453**
EX. BUILDING #3	2150	2150		
EXISTING GRAVEL DRIVE	21400			0
PRO BUILDING A			1080	1080
PRO BUILDING B			1080	1080
PRO BUILDING C			1080	1080
PRO BUILDING D			1080	1080
PRO BUILDING E			720	720
PRO BUILDING F			720	720
PRO BUILDING G			1080	1080
PRO BUILDING H			1080	1080
PRO BUILDING I			1080	1080
PRO BUILDING J			1080	1080
PRO BUILDING K			1080	1080
PRO BUILDING L			1080	1080
PRO BUILDING M			720	720
PRO BUILDING N			720	720
PRO BUILDING O			1080	1080
PROPOSED DRIVE/ISLES			13766	**3442**
PRO S/W #1			3102	**776**
PRO S/W #2			3252	**789**
PRO S/W - OFFSITE			1650	
TOTAL EXISTING	32696			
Subtotal		9485	34880	20219
TOTAL PROPOSED				**29704**
	EXISTING BUA	EXISTING BUA TO REMAIN	NEW SURFACE W/O BUA CREIDT	NET BUA WITH BUA CREDIT

Approved Construction Plan

Name Date

Planning__________

Traffic__________

Fire__________

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _______ PERMIT # _______
SIGNED__________

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30' 0 30' 60'
SCALE: 1"=30' (Horiz.)

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N.C. ONE-CALL CENTER
IT'S THE LAW

NUMBER	DATE	REVISION

DESIGN BY: BDS
DRAWN BY: BDS
CHECKED BY: BDS
DATE FEBRAURY, 2016

SITE PLAN
SQUARE ONE
WILMINGTON, NC

L S SMITH, INC.
1607 Queen Street
Wilmington, NC 28401-5526
910-409-8782

JBS CONSULTING, PA
7332 Cotesworth Drive
Wilmington, NC 28405
(910) 619-9990
License Number C-2525
PLANNING – ENGINEERING – PROJECT MANAGEMENT

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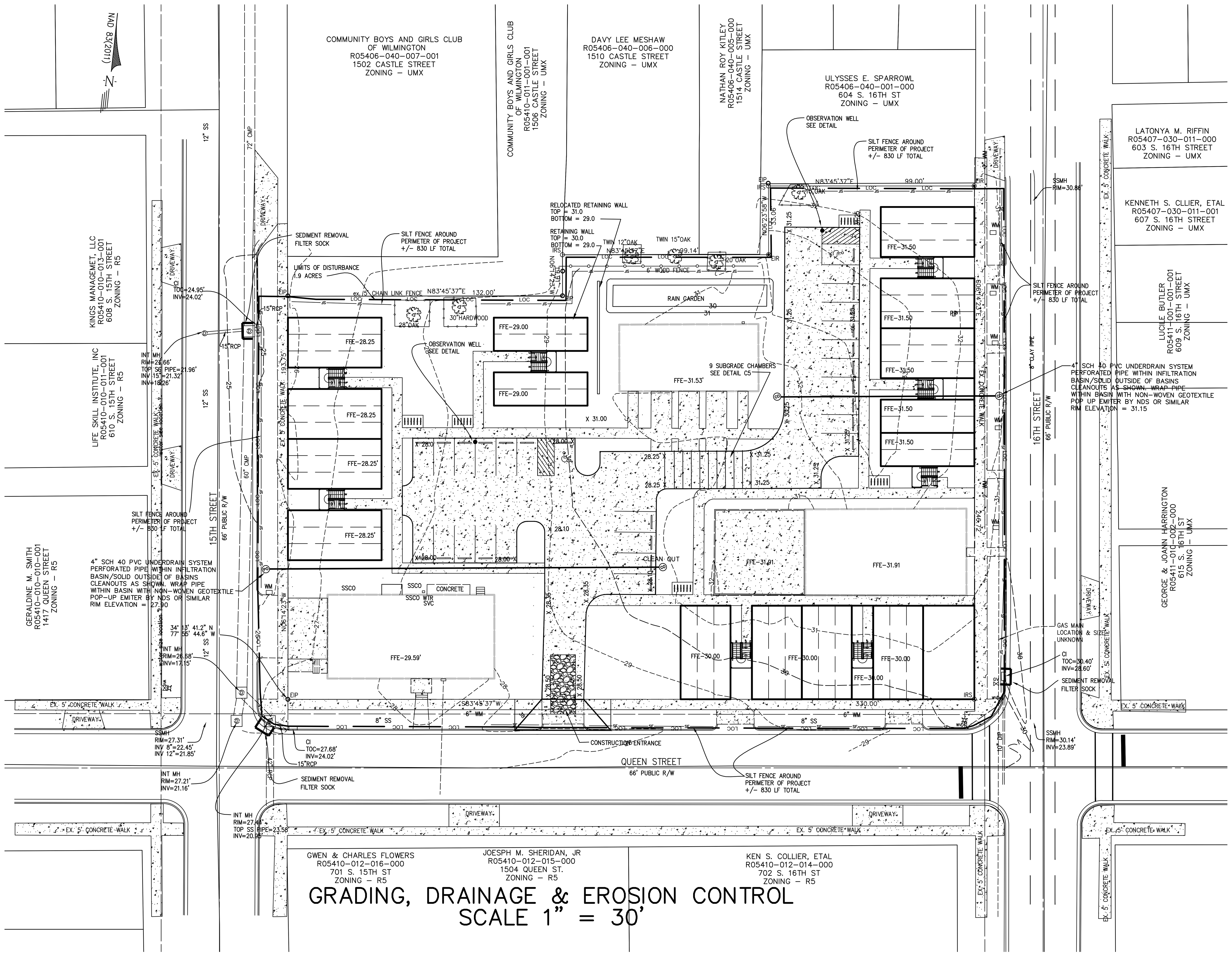
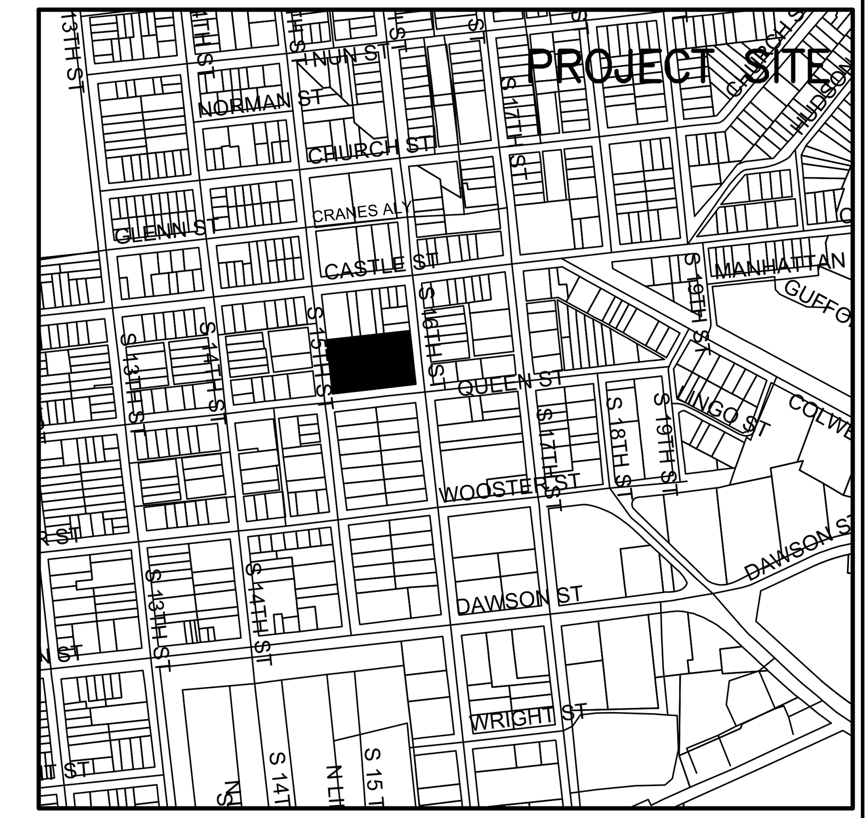


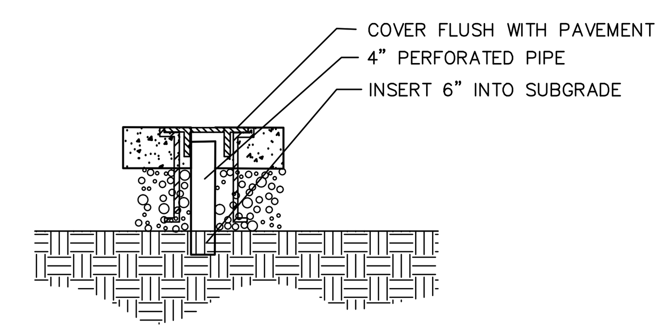
GRADING, DRAINAGE & EROSION CONTROL
SCALE 1" = 30'

NOTE: EXAMPLE OF SIGN TO BE PLACE WHERE SHOWN ON THE PLANS. SIGN 18" X 24" ON STANDARD METAL BACKING AND MOUNTED WITH STANDARD STREET SIGN MATERIALS AND METHODS.

EXAMPLE PERMEABLE PAVEMENT SIGN
NOT TO SCALE



VICINITY MAP
NTS



OBSERVATION WELL
NOT TO SCALE

GRADING NOTES

1. INITIATE EROSION CONTROL SEQUENCE BEFORE BEGINNING CLEARING, GRUBBING AND GRADING OPERATIONS.
2. CLEAR AREAS TO BE GRADED OF ALL VEGETATION. PROTECT VEGETATION BEYOND GRADING LIMITS.
3. STRIP TOPSOIL TO FULL DEPTH IN AREAS TO BE GRADED AND STOCKPILE.
4. COMPACT ALL FILL AREAS TO 95% OF MAXIMUM DENSITY.
5. ALL BANKS AND SWALE SIDE SLOPES SHALL BE GRADED WITH NO GREATER THAN 3:1 SLOPES.
6. ALL AREAS ARE TO BE GRADED SO THAT NO AREAS OF STANDING WATER OCCUR.
7. PROPOSED SPOT ELEVATIONS ARE SHOWN AT FINISHED GRADE.
8. OPERATOR SHALL FIELD VERIFY EXISTING TOPOGRAPHY IN RELATION TO THE PROPOSED GRADES TO ENSURE DRAINAGE IN THE DIRECTIONS INDICATED ON THE PLAN.

CONSTRUCTION SEQUENCE

1. OBTAIN ALL NECESSARY PERMIT APPROVALS PRIOR TO ANY LAND DISTURBING ACTIVITY.
2. HOLD A PRE-CONSTRUCTION MEETING WITH THE EROSION CONTROL INSPECTOR.
3. INSTALL GRAVEL CONSTRUCTION ENTRANCE AND SILT FENCE, COMMENCE CLEARING AND ROUGH GRADING OPERATIONS TO ESTABLISH DIVERSION SWALES AND SEDIMENT TRAPS AND BASIN.
4. ROUGH GRADE SITE AND INSTALL UNDERGROUND UTILITIES.
5. PROVIDE TEMPORARY PROTECTION MEASURES AND DEVICES AS REQUIRED UNTIL UNDERGROUND UTILITIES AND PAVEMENT SECTION IS COMPLETE AND FINAL GRADES ARE STABILIZED WITH TEMPORARY VEGETATIVE COVER.
6. STABILIZE (FERTILIZE, SEED, AND MULCH) ALL DISTURBED AREAS AS SOON AS FINAL GRADES ARE ESTABLISHED.
7. ONCE CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS ARE STABILIZED, REMOVE TEMPORARY EROSION CONTROL MEASURES,

EROSION CONTROL 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. INSPECT SEDIMENT TRAPS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT AND REPAIR IMMEDIATLY. REMOVE SEDIMENT, AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN DESIGNATED DISPOSAL AREA, AND REPLACE THE PART OF THE GRAVEL FACING THAT IS IMPAIRED BY SEDIMENT
3. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
4. ALL AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
5. GRAVEL CONSTRICTION ENTRANCE TO BE CLEANED WHEN SEDIMENT ACCUMULATIONS ARE VISIBLE OR SEDIMENT IS DEPOSITED ON THE ASPHALT AND STONE WILL BE PERIODICALLY TOP DRESSED WITH 2 INCHES OF #4 STONE TO MAINTAIN 6 INCH DEPTH.
6. INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (½" OR GREATER) RAINFALL EVENT. CLEAR THE 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.

EROSION CONTROL NOTES

1. ANY CONSTRUCTION ACTIVITY BEYOND THE 1.9 ACRE LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO FINES.
2. CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION WITHIN ROAD RIGHT OF WAYS UNLESS OTHERWISE DESIGNATED TO REMAIN.
3. CONTRACTOR SHALL RAKE AND REMOVE ROOTS, STUMPS, VEGETATION, DEBRIS, EXISTING STRUCTURES ABOVE AND BELOW GRADE, ORGANIC MATERIAL OR ANY OTHER UNSUITABLE MATERIAL WITH IN THE LIMITS OF CONSTRUCTION.
4. CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL REPRESENTATIVE TO COORDINATE REMOVAL OF ANY UNSUITABLE SOILS.
5. CLEARED, GRUBBED, STRIPPED OR OTHER WASTE MATERIALS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A PROPERLY PERMITTED FACILITY.
6. THE CONTRACTOR SHALL FURNISH ANY REQUIRED BORROW MATERIALS FROM A PROPERLY PERMITTED OFF-SITE FACILITY.
7. ALL GRADED SLOPES MUST BE SEEDED AND MULCHED WITHIN 21 CALENDAR DAYS OF COMPLETION OF GRADING. STABILIZE AREAS OTHER THAN SLOPES WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICHEVER IS SHORTER.
8. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE COUNTY ENGINEERING DEPARTMENT.
9. SLOPES SHALL BE GRADED NO STEEPER THAN 3:1.
10. ADDITIONAL DEVICES MAY BE REQUIRED AS AGREED UPON BY THE FIELD INSPECTOR, ENGINEER, AND OWNER.
11. IF ACTIVE CONSTRUCTION CEASES IN ANY AREA FOR MORE THAN 15 CALENDAR DAYS, ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, AND TACKED.

LABEL	1) GROUND STABILIZATION		
	SITE AREA DESCRIPTION	STABLIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
(cross-hatch)	-PERIMETER DIKES, DITCHES AND 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 SEEPER THAN 2:1 14 DAYS ARE ALLOWED
(single hatch)	SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
	-ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMTERS AND HQW ZONES)

2) BUILDING WASTES HANDLING

-NO PAINT OR LIQUID WASTES IN STREAM OF STORM DRAINS

-DEDICATED AREAS FOR DEMOLITION, CONSTRUCTION AND OTHER WASTES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE

-EARTHEN-MATERIALS STOCKPILES MUST BE LOCATED 50 FROM STORM DRAIANS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE

-CONCRETE MATERIALS MUST BE CONTROLLED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS, OR BUFFERS.

3) INSPECTIONS

-SAME WEEKLY INSPECTION REQUIREMENTS

-SAME RAIN GAUGE & INSPECTIONS AFTER 0.5" RAIN EVENT

-INSPECTIONS ARE ONLY REQUIRED DURING "NORMAL BUSINESS HOURS"

-INSPECTION REPORTS MUST BE AVAIABLE ON-SITE DURING BUSINESS HOURS UNLESS A SITE-SPECIFIC EXEMPTION IS APPROVED

-RECORDS MUST BE KEPT FOR 3 YEARS AND AVAIABLE UPON REQUEST

-ELECTRONICALLY-AVAIABLE RECORDS MAY BE SUBSTITUTES UNDER CERTAIN CONDITIONS

4) SEDIMENT BASINS

-OUTLET STRUCTURES MUST WITHDRAW FROM BASIN SURFACES UNLESS DRAINAGE AREA IS LESS THAN 1 ACRE

-USE ONLY DWQ-APPROVED FLOCCULANTS

NPDES – SPECIFIC PLAN SHEET NOTES

1. THIS PAGE IS SUBMITTED TO COMPLY WITH NPDES GENERAL STORMWATER PERMIT NCG010000:
2. THIS PAGE CAN BE APPROVED BY THE COUNTY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000 ONLY.
3. THIS PAGE OF THE APPROVED PLANS IS ENFORCEABLE EXCLUSIVELY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000.
4. THE COUNTY IS NOT AUTHORIZED TO ENFORCE THIS PAGE OF THE PLANS AND IT IS NOT PART OF THE APPROVED PLANS FOR THE PURPOSES OF ENFORCEMENT ACTION UNDER THE CITY CODE.

30' 0 30' 60'
SCALE: 1"=30' (Horiz.)

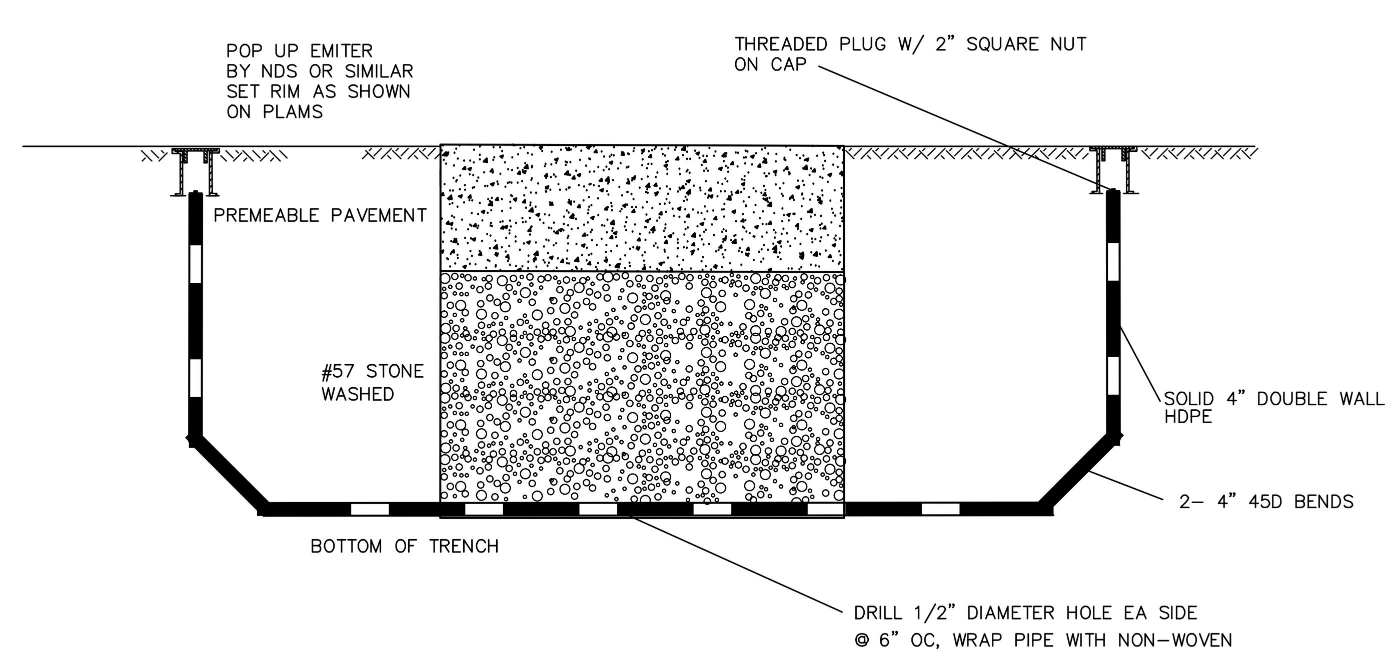
Infiltration System:

1. The facility shall be routinely checked for and cleared of all accumulation of debris and the detention facility outlet structure cleared of any blockage.

2. Storm drainage pipes and structures shall be periodically inspected for debris and sediment build-up. They shall be cleaned as necessary to provide for the conveyance of storm water as designed.

3. The pipes and stone installed to provide infiltration shall be kept free of sediment buildup. The infiltration facility shall be maintained in accordance with the Stormwater Management Plan approved by the City and on file in the office of the City Engineer. The pipe shall be inspected on a regular basis but not less than every six months. Debris and sedimentation shall be removed if
(a) The infiltration capacity is impaired and/or,
(b) The sediment and/or debris restricts the free flow of storm water into the infiltration system and surrounding soils.

4. The infiltration system shall be removed and replaced with new material when the system no longer permits the storm water to freely infiltrate into the surrounding soils.



INFILTRATION BED UNDERDRAIN DETAIL
NOT TO SCALE

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
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.

NUMBER	DATE	REVISION

DESIGN BY: BDS
DRAWN BY: BDS
CHECKED BY: BDS
DATE FEBRUARY, 2016

GRADING, DRAINAGE & EROSION CONTROL
SQUARE ONE
WILMINGTON, NC

L S SMITH, INC.
1607 Queen Street
Wilmington, NC 28401-5526
910-409-8782

BRADFORD SEDGWICK PROFESSIONAL ENGINEER SEAL 026274 NORTH CAROLINA 7/19/16

JBS CONSULTING, PA
7332 Cotesworth Drive
Wilmington, NC 28405
(910) 619-9990
License Number C-2525
PLANNING – ENGINEERING – PROJECT MANAGEMENT

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of X
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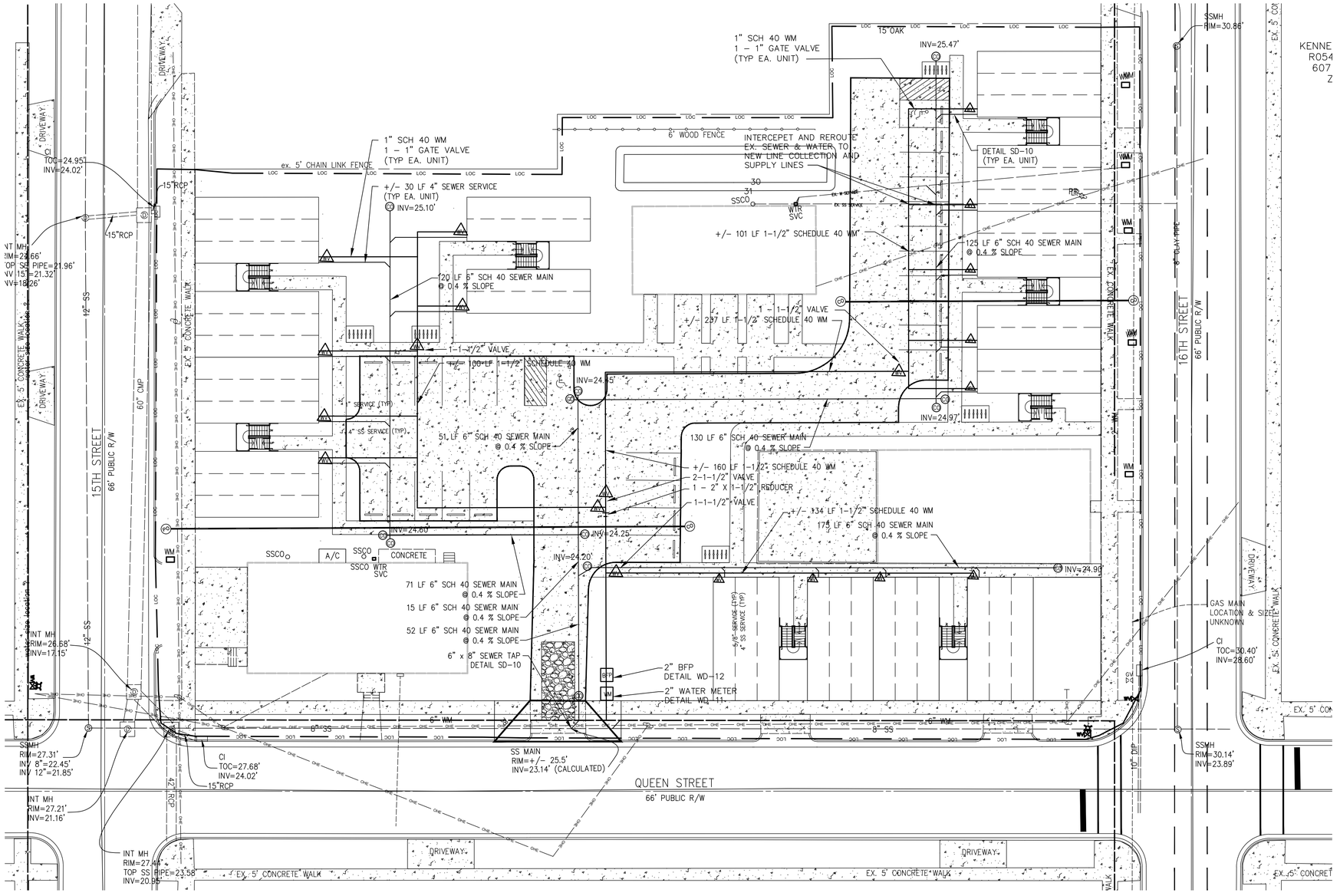
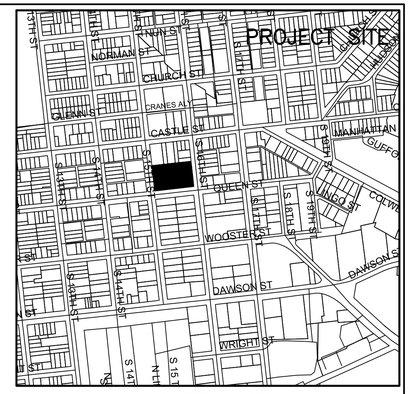


UTILITY PLAN
SCALE 1" = 20'

30' 0 30' 60'
SCALE: 1"=30' (Horiz.)



VICINITY MAP
NTS

UTILITY INFORMATION

SEWAGE USE

12 – 1 BEDROOM UNITS
33 – 2 BEDROOM UNITS

78 – BEDROOM X 120 GPD/BDRM = 9,360 GPD – PROPOSED

TWO BUILDINGS ON SITE X 2 BEDROOMS PER = 480 GPD – EXISTING

TOTAL SEWER LOAD = 11,040 GPD

WATER USE

EXISTING 480 GPD

PROPOSED 10,560 GPD

NUMBER	DATE	REVISION

DESIGN BY: BDS
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CHECKED BY: BDS
DATE: FEBRUARY, 2016

UTILITES

SQUARE ONE
WILMINGTON, NC

L S SMITH, INC.
1607 Queen Street
Wilmington, NC 28401-5526
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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 29316 BRADFORD SEDGWICK

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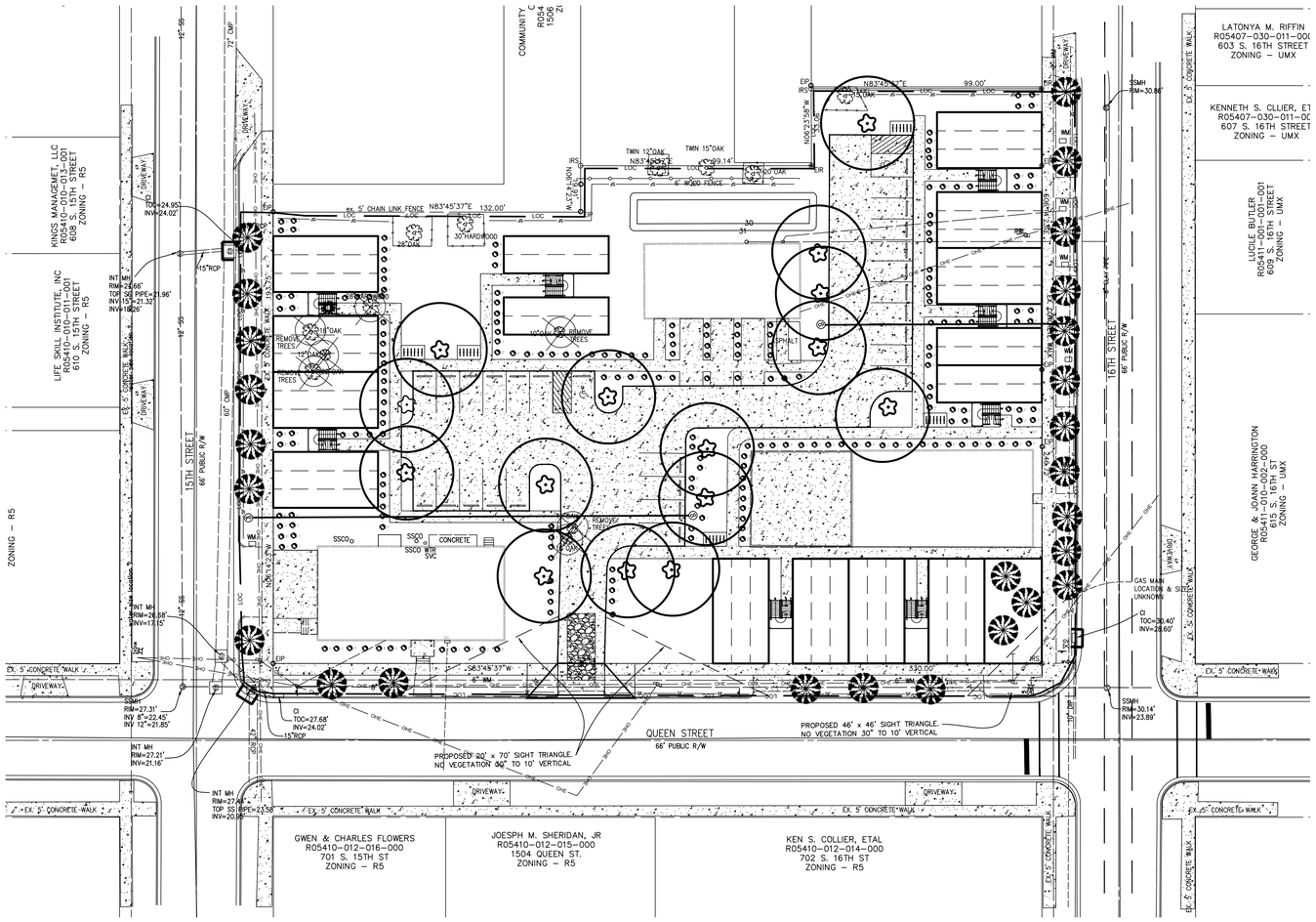


LANDSCAPE DATA

LANDSCAPE PLAN
SCALE 1" = 30'

30' 0 30' 60'
SCALE: 1"=30' (Horiz.)

LANDSCAPE DATA

STREET YARD BUFFER
1 TREE PER 30' FRONTAGE 770' FRONTAGE

770 LF FRONTAGE = 26 TREES REQUIRED – 26 PROVIDED

PARKING LOT LANDSCAPING

PARKING LOT SHADING WILL BE ACCOMPLISHED WITH PROPOSED TREES SHOWN ON PLAN, PER COW CRITERIA THE PARKING LOT SHALL HAVE A 20% SHADING COVERAGE.

PARKING ISLES & SIDE WALKS ON SITE EQUAL 20,130 SF X 20% = 4026 SF

SHADING FROM PROPOSED TREES (AREA IN CIRCLES OVER PAVING) = 9163 SF (CRITERIA MET)

PERIMETER LANDSCAPING – NOT APPLICABLE FOR THIS PROJECT

FOUNDATION PLANTINGS

HEIGHT X WIDTH X 12%

2 BDRM UNITS = 24 X 27 X 12% = 78 SF
1 BDRM UNITS = 16 X 27 X 12% = 52 SF

EACH UNIT MEETS OR EXCEEDS THIS REQUIREMENT. SEE PLAN

PLAN SHOWS PROPOSED PLANTINGS. SHRUBS OTHER THAN SHOWN MAY BE SUBSTITUTED WITH SELECTIONS FROM THE APPROVED PLANTING LIST AS SHOWN IN THE MOST CURRENT COW TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL

BUFFER YARDS

NOT APPLICABLE FOR THIS PROJECT

GROUND COVER

ALL ISLAND SHALL BE PLANTED WITH GROUND COVER PLANTING SHOWN IN THE APPROVED PLANT LIST MENTIONED ABOVE OR PINE STRAW/MULCH

LANDSCAPE NOTES

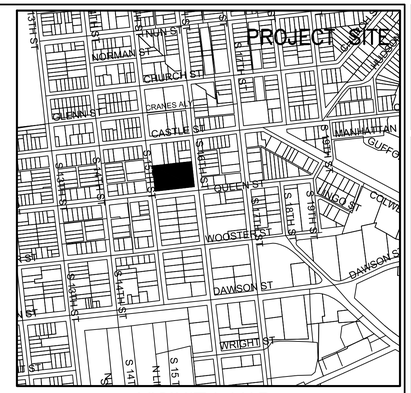
1. ALL PLANTED AND RETAINED LIVING MATERIAL, REQUIRED TO MEET THE PROVISIONS OF THE CITY OF WILMINGTON, LAND DEVELOPMENT CODE, SHALL BE PERPETUALLY PROTECTED AND MAINTAINED, TO PROFFESSIONALY ACCEPTED STANDARDS BY JOINT AND SEVERAL RESPONSIBILITY OF THE OWNER, OCCUPANTS, TENANT AND RESPECTIVE LIVE AGENTS OF THE PROPERTY ON WHICH THE MATERIAL IS LOCATED.

2. LANDSCAPING SHOWN IS MINIMIMAL AMOUNT OF LANDSCAPING PER THE UMX ZONING. OWNER WILL PLANT MORE MATERIAL IN LANDSCAPE BEDS AS SHOWN.

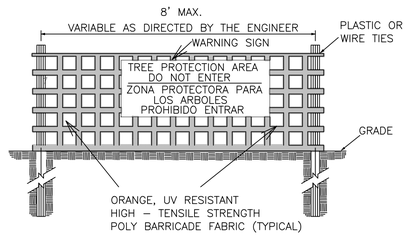
3. INSTALL TREE PROTECTION AT A RATE OF 1" OF FENCING PER 1" DIA AT DBH.

STREET TREES

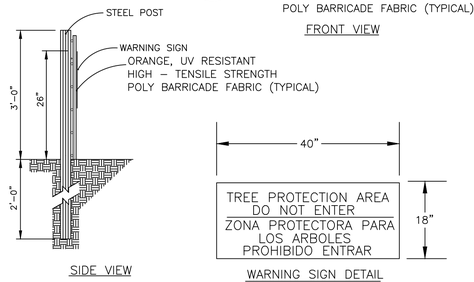
Scientific Name	Common Name	Size	Symbol	Quantity
CORNUS FLORIDA	Dogwood	6' Height		26
QUERCUS PHELLOS	WILLOW OAK	Min. 2" Caliper		15
ILEX VOMITORIA	DWARF YAUPON HOLLY	5 gallon/ shrub	Y	100
PITTOSPORUM TOBIRA	DWARF PITTOSPORUM	5 gallon/ shrub	P	100



VICINITY MAP
NTS



FRONT VIEW



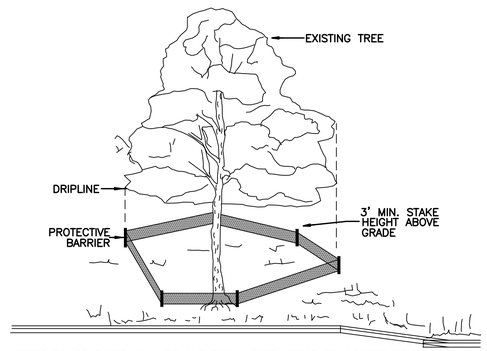
SIDE VIEW

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.

TREE PROTECTION DURING CONSTRUCTION
SD 15–09
NOT TO SCALE



TREES TO BE SAVED WILL BE CLEARLY MARKED PRIOR TO CONSTRUCTION AND A PROTECTIVE BARRIER IS TO BE INSTALLED AT THE DRIPLINE.
DRIP LINE – THE AREA OF SOIL DIRECTLY BENEATH THE TREE EXTENDING OUT TO THE TIPS OF THE OUTERMOST BRANCHES.
CONTRACTOR TO COMPLIE WITH COW SIGN ORDINACE FOR MARKING FENCING

METHOD OF TREE PROTECTION DURING CONSTRUCTION
SD 15–08
NOT TO SCALE

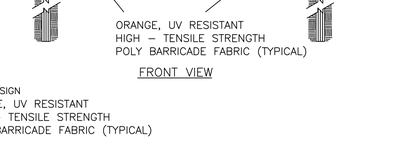
NUMBER	DATE	REVISION

DESIGN BY: BDS
DRAWN BY: BDS
CHECKED BY: BDS
DATE

UTILITES

SQUARE ONE
WILMINGTON, NC

L S SMITH, INC.
1607 Queen Street
Wilmington, NC 28401–5526
910–409–8782



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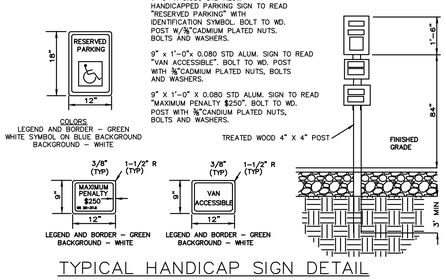
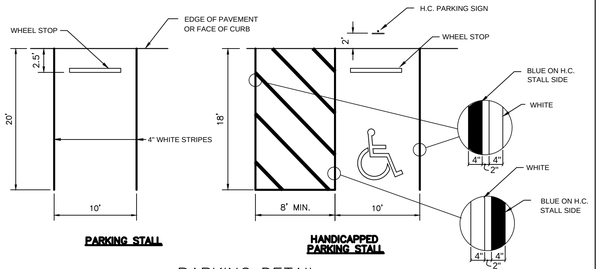
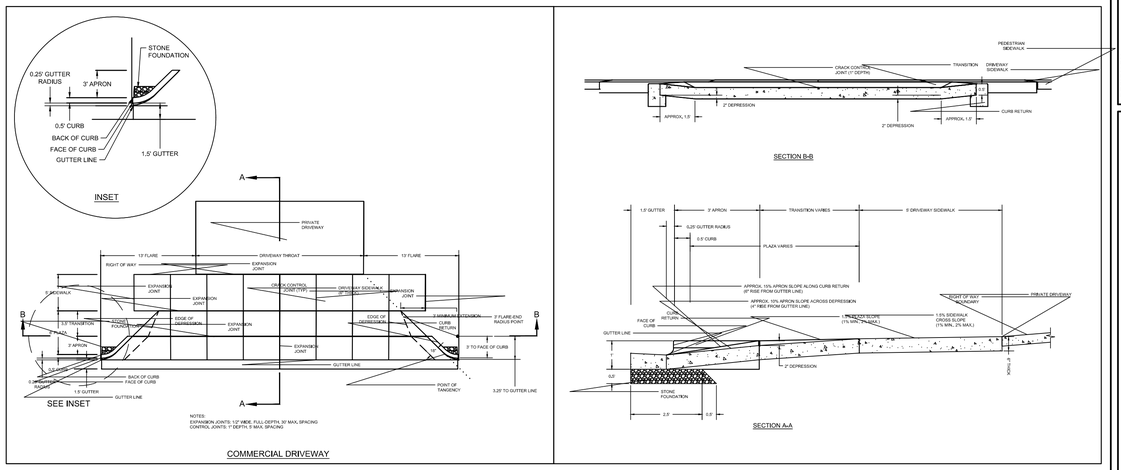


TYPICAL HANDICAP SIGN DETAIL

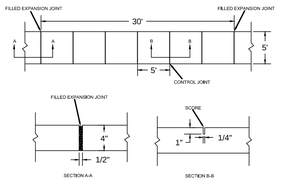


PARKING DETAIL

NOT TO SCALE



COMMERCIAL DRIVEWAY



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.

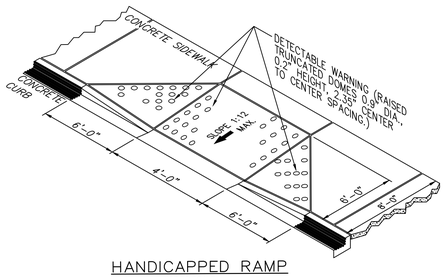
6. 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS

7. MINIMUM DEPTH FOR TUNNELING BELOW SIDEWALK IS 12".

8. MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1

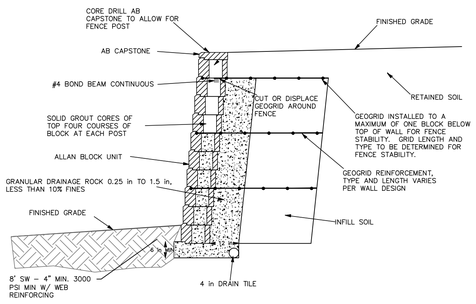
9. MIN GRADE FOR PROPER DRAINAGE IS 1% IN AT LEAST 1 DIRECTION. MAX CROSS SLOPE IS 2%. MAX LONGITUDINAL SLOPE IS 8.3%. 10% IF LIMITED BY EXISTING CONDITIONS, OR NO GREATER THAN THE SLOPE OF THE EXISTING ADJACENT ROAD.

SIDEWALK
SD 5-10



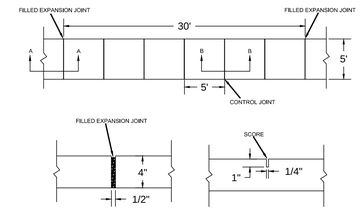
HANDICAPPED RAMP

NOT TO SCALE



RETAINING WALL SECTION

NOT TO SCALE



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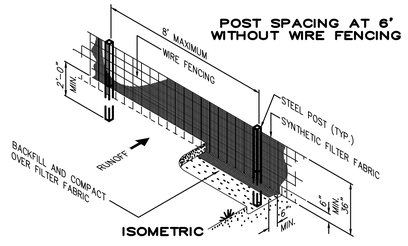
8. MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1

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.

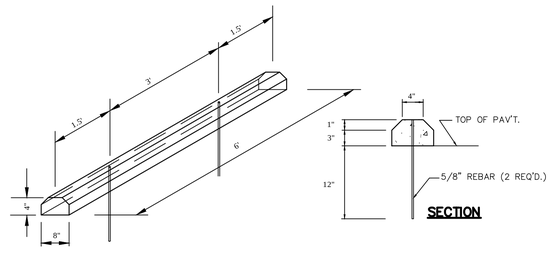
CONCRETE WALK SECTION

SIDEWALK
SD 5-10



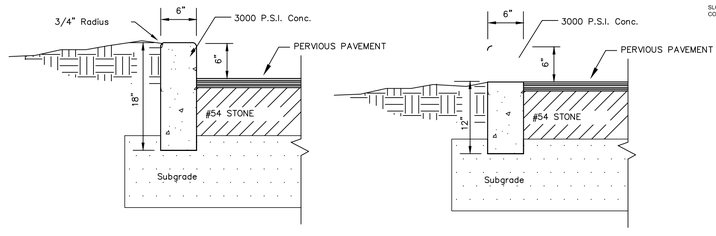
SILT FENCE DETAIL

NOT TO SCALE



WHEEL STOP DETAIL

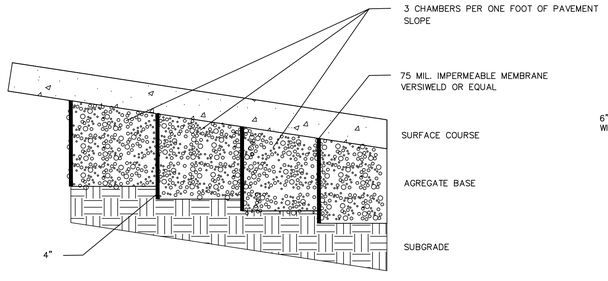
NOT TO SCALE



TRANSITION BETWEEN SECTIONS WITH 45% SLOPE

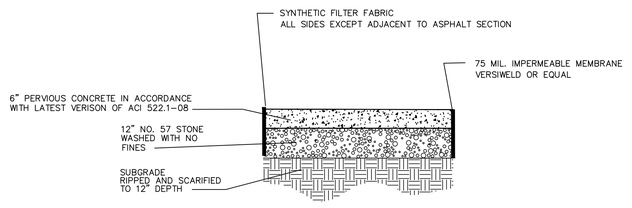
HEADER CURB DETAIL

NOT TO SCALE



PERVIOUS CONCRETE SUBGRADE SLOPE

NOT TO SCALE



PERVIOUS CONCRETE PAVEMENT SECTION

NOT TO SCALE

NOTE TO CONTRACTOR

DURING CONSTRUCTION, PRIOR TO INSTALLATION OF THE SUB-GRADE, INFILTRATION/HYDRAULIC CONDUCTIVITY TESTING MUST BE PREFORMED IN THE SURFACE OF THE UNDERLYING SOIIL. TWO TEST SPOTS, RANDOM SHALL BE PREFORMED. RESULTS OF TESTING TO BE REVIEWED BY CIVIL ENGINEER PRIOR TO THE INSTALLATION OF THE SUB-GRADE STONE.

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 shall be required from the City prior to occupancy and/or project acceptance.

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