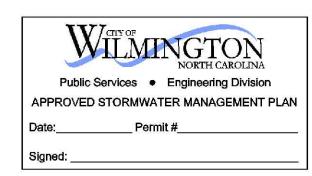
PRELIMINARY SITE PLAN

FOR

LIDL US OPERATIONS, LLC PROPOSED GROCERY STORE STORE #1181

****	roved Construction Plan				
	<u>Name</u>	<u>Date</u>			
Planning					
Traffic					
Fire					



CONTACT INFORMATION

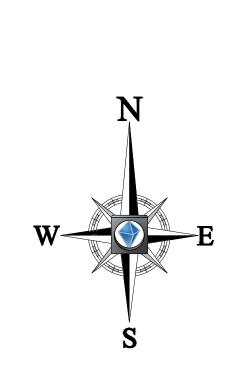
T	PEDENICE
KĽ	EFERENCES
PREPA JOB N	VEY: INSPS LAND TITLE SURVEY FOR LIDL US OPERATIONS, LLC" ARED BY ALLIED ASSOCIATES, P.A. O. PA160303 D: 3/16/16
"REPO PREPA ECS P	TECHNICAL INVESTIGATION REPORT: ORT OF SUBSURFACE EXPLORATION - LIDL WILMINGTON, NC" ARED BY ECS CAROLINAS, LLP ROJECT NO. 22-23971 D: 3/22/16
"PHAS PREPA ECS P	RONMENTAL SITE ASSESSMENT: SE I ENVIRONMENTAL SITE ASSESSMENT REPORT - LIDL WILMINGTON, NC" ARED BY ECS CAROLINAS, LLP ROJECT NO. 49-1612 D: 3/25/16
CC	OVERNING AGENCIES
1	
UU	VERTINO ROENCIED
CITY 305 CH WILMI CONTA	OF WILMINGTON PLANNING, DEVELOPMENT & TRANSPORTATION HESTNUT STREET NGTON, NC 28402 ACT: JOHN FULLERTON E: (910) 341-3247 : JOHN.FULLERTON@WILMINGTONNC.GOV
CITY 305 CH WILMI CONT. PHON EMAIL CITY STORI	OF WILMINGTON PLANNING, DEVELOPMENT & TRANSPORTATION HESTNUT STREET NGTON, NC 28402 ACT: JOHN FULLERTON E: (910) 341-3247
CITY 305 CH WILMI CONT. PHON EMAIL CITY STORI PO BC 209 CC	OF WILMINGTON PLANNING, DEVELOPMENT & TRANSPORTATION HESTNUT STREET NGTON, NC 28402 ACT: JOHN FULLERTON E: (910) 341-3247 : JOHN.FULLERTON@WILMINGTONNC.GOV OF WILMINGTON MWATER SERVICES
CITY 305 CH WILMI CONT. PHON EMAIL CITY STORI PO BC 209 CC WILMI NOR	COF WILMINGTON PLANNING, DEVELOPMENT & TRANSPORTATION HESTNUT STREET NGTON, NC 28402 ACT: JOHN FULLERTON E: (910) 341-3247 : JOHN.FULLERTON@WILMINGTONNC.GOV COF WILMINGTON MWATER SERVICES DX 1810 DLEMAN DRIVE NGTON, NC 28412 CTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT)
CITY 305 CH WILMI CONTA PHON EMAIL CITY STORI PO BC 209 CC WILMI NOR DISTR	COF WILMINGTON PLANNING, DEVELOPMENT & TRANSPORTATION HESTNUT STREET NGTON, NC 28402 ACT: JOHN FULLERTON E: (910) 341-3247 : JOHN.FULLERTON@WILMINGTONNC.GOV COF WILMINGTON MWATER SERVICES DX 1810 DLEMAN DRIVE NGTON, NC 28412 CTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT)
CITY 305 CH WILMI CONT. PHONI EMAIL CITY STORI PO BC 209 CC WILMI NOR DISTR 300 DI WILMI	COF WILMINGTON PLANNING, DEVELOPMENT & TRANSPORTATION HESTNUT STREET NGTON, NC 28402 ACT: JOHN FULLERTON E: (910) 341-3247 : JOHN.FULLERTON@WILMINGTONNC.GOV COF WILMINGTON MWATER SERVICES DX 1810 DLEMAN DRIVE NGTON, NC 28412 CTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) ICT 3

UTILITY SERVICE CONTACTS

SERVICE	UTILITY / GOVERNING AGENCY
WATER/SEWER	CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 PHONE: (910) 332-6550 CAREL VANDERMEYDEN - DIRECTOR OF ENGINEERING
NATURAL GAS	PIEDMONT NATURAL GAS 1321 S 10TH ST. WILMINGTON, NC 28401 PHONE: (910) 799-7185
ELECTRIC	DUKE ENERGY 8645 TRADE ST. NE LELAND, NC 28451 PHONE: (800) 452-2777

4355 S 17TH STREET
WILMINGTON, NC 28412
TAX PARCEL ID: 3135-37-9059.000 / 3135-56-8767.00 /
R06600-001-005-012
DB 5100 PG 288
NEW HANOVER COUNTY, NORTH CAROLINA

LOCATION OF SITE





SCALE: 1" = 2000' SOURCE: GOOGLE MAPS

TREE REPLACEMENT PLAN	C-3.1
GRADING PLAN	C-4.0
UTILITY PLAN	C-5.0
LIGHTING PLAN	-
LANDSCAPE PLAN	C-7.0
LANDSCAPE DETAILS	C-7.1
EROSION AND SEDIMENT CONTROL PHASE I	C-8.0
EROSION AND SEDIMENT CONTROL PHASE II	C-9.0
CONSTRUCTION DETAILS	D-1.0
CONSTRUCTION DETAILS	D-1.1
CONSTRUCTION DETAILS	D-1,2
EROSION AND SEDIMENT CONTROL DETAILS	D-1.3
EROSION AND SEDIMENT CONTROL DETAILS	D-1.4

DRAWING SHEET INDEX

ISSUED FOR CONSTRUCTION
SIGNATURE DATE SIGNATURE DATE
THIS DOCUMENT IS NOT ISSUED BY BOHLER ENGINEERING FOR CONSTRUCTION WITHOUT (3) SIGNATURES
PROJECT # REVISION DATE:

DEVELOPER

LIDL US OPERATIONS, LLC PROJECT #1181 1500 SUNDAY DRIVE, SUITE 101 RALEIGH, NC 27607 CONTACT: FORREST ETTER TELEPHONE: (919) 307-3826



4130 PARKLAKE AVE., SUITE 130 RALEIGH, NC 27612

Phone: (919) 578-9000 Fax: (919) 703-2665

NC@BohlerEng.com

CONTACT: WYATT BONE, P.E. - WBONE@BOHLERENG.COM

SURVEYOR

ALLIED ASSOCIATES, P.A. 4720 KESTER MILL ROAD WINSTON-SALEM, NC PHONE: (336) 765-2377 FAX: (760) 760-8886

EMAIL : DALLEY@ALLIED-ENGSURV.COM

ALERT TO CONTRACTOR:1. ALL NECESSARY INSPECTION

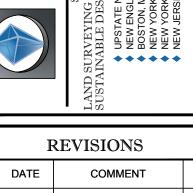
ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.

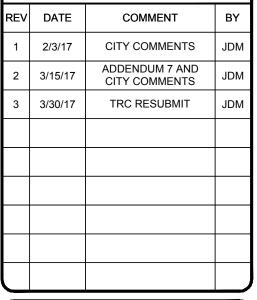
ENGINEERING NC, PLLC
SITE CIVIL AND CONSULTING ENGINEERING
VEYING
SITE CIVIL AND CONSULTING ENGINEERING
VEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTUT
SLE DESIGN PERMITTING SERVICES
TRANSPORTATION SERVICE
PHILADEL PHIA, PA

* NORTHERN VIRGINIA
PERMITTING SERVICES
PHILADEL PHIA, PA

* NORTHERN VIRGINIA
PHILADEL PHIA, PA

* NORTHERN PHIL







NOT APPROVED FOR CONSTRUCTION

PROJECT No.: NCR151031
DRAWN BY: JDM
CHECKED BY: WLB
DATE: 3/30/17
SCALE: AS NOTED
CAD I.D.: SS0

PROPOSED GROCERY

LIDL US
OPERATIONS,
LLC

LOCATION OF SITE 4355 S 17TH STREET WILMINGTON, NC 28412

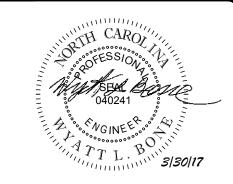


A130 PARKLAKE AVE., SUITE 130 RALEIGH, NC 27612

Phone: (919) 578-9000

Fax: (919) 703-2665

NC@BohlerEng.com



SHEET TITLE:

COVER SHEET

C-1.

THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJ

RK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE E SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD RITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUT

PHONE: (901) 796-7215

EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
	ONSITE PROPERTY LINE / R.O.W. LINE	
	NEIGHBORING PROPERTY LINE / INTERIOR PARCEL LINE	
	EASEMENT LINE	
	SETBACK LINE	
		CURB AND GUTTER
	CONCRETE CURB & GUTTER	SPILL CURB TRANSITION C
		DEPRESSED CURB AND GU
	UTILITY POLE WITH LIGHT	-
<u> </u>	POLE LIGHT	<u> </u>
o€	TRAFFIC LIGHT	□ ◀
0	UTILITY POLE	0
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	- CONTOUR	190
169		187
TC 516.4 OR 516.4	ELEVATIONS	TC 516.00 BC 515.55
SAN	CANITADV	SAN
	SANITARY LABEL	#
	STORM LABEL	X #
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OH	OVERHEAD WIRE	———ОН ———
	UNDERGROUND TELEPHONE LINE	т
	UNDERGROUND CABLE LINE	с
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	SANITARY SEWER MAIN	s
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(D)	STORM MANHOLE	
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OR	ENDWALL GRATE	OR
	INLET	
	CURB INLET	<u> </u>
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E	ELECTRIC MANHOLE	(E)
T	TELEPHONE MANHOLE	Ť
EB	ELECTRIC BOX	EB
EP	ELECTRIC PEDESTAL	EP
	MONITORING WELL	
	TEST PIT	P
	BENCHMARK	•

GENERAL NOTES:

CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE NOTES AND SPECIFICATIONS CONTAINED HEREIN. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS.

- 1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:
- SURVEY "ALTA/NSPS LAND TITLE SURVEY FOR LIDL US OPERATIONS, LLC", ALLIED ASSOCIATES, P.A. DATED 03/16/16.

 LOR NO. PA160303
- GEOTECHNICAL REPORT "REPORT OF SUBSURFACE EXPLORATION LIDL WILMINGTON, NC", ECS CAROLINAS, LLP. PROJECT NO.
- ENVIRONMENTAL SITE ASSESSMENT "PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT LIDL WILMINGTON, NC", ECS CAROLINAS, LLP. DATED 03/25/16. PROJECT NO. 49-1612
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST VERIFY THAT HE/SHE HAS THE LATEST EDITION OF THE DOCUMENTS REFERENCED ABOVE. THIS IS CONTRACTOR'S RESPONSIBILITY.
- 2. ALL ACCESSIBLE (A/K/A ADA) PARKING SPACES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 et seq. AND 42 U.S.C. § 4151 et seq.) OR THE REQUIREMENTS OF THE JURISDICTION WHERE THE PROJECT IS TO BE CONSTRUCTED, AND ANY AND ALL AMENDMENTS TO BOTH WHICH ARE IN EFFECT WHEN THESE PLANS ARE COMPLETED.
- 3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE COMMENTS TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND CONFIRMED THAT ALL NECESSARY OR REQUIRED PERMITS HAVE BEEN OBTAINED. CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
- 4. THE OWNER/CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- 5. ALL WORK MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS,. SPECIFICATIONS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT.
- 6. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE PLANS AND THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORTS AND PLANS AND SPECIFICATIONS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.
- 7. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO BOHLER ENGINEERING, NC, PLLC BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS AND NOTIFY BOHLER ENGINEERING, NC, PLLC, IN WRITING, IMMEDIATELY IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
- 8. ALL DIMENSIONS SHOWN ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE REDONE OR REPAIRED DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO CONTRACTOR GIVING ENGINEER WRITTEN NOTIFICATION OF SAME AND ENGINEER, THEREAFTER, PROVIDING CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
- CONTRACTOR MUST REFER TO THE ARCHITECTURAL/BUILDING PLANS "OF RECORD" FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
- 10. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE ENTIRE SITE PLAN AND THE LATEST ARCHITECTURAL PLANS (INCLUDING, BUT NOT LIMITED TO, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE). CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND SITE ENGINEER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST.
- 11. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL GOVERNMENTAL AUTHORITIES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER CONTRACTOR.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES.
- 13. THE CONTRACTOR IS TO EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.
- 14. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND TO NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
- 15. ALL CONCRETE MUST BE AIR ENTRAINED AND HAVE THE MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.
- 16. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEAN, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 17. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY. THE ENGINEER OF RECORD HAS NOT BEEN RETAINED TO PERFORM OR BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER'S SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD IS NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES, AT ANY TIME
- 18. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER ENGINEERING, NC, PLLC, AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES. SUBSIDIARIES. AND RELATED ENTITIES. AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL NAMED INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THIS HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH BOHLER ENGINEERING. NC. PLLC WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR ONE YEAR AFTER THE COMPLETION OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER ENGINEERING, NC, PLLC AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, NCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS, ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.
- 19. BOHLER ENGINEERING, NC, PLLC WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND/OR METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME HEREUNDER. BOHLER ENGINEERING, NC, PLLC'S SHOP DRAWING REVIEW WILL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM MUST NOT INDICATE THAT BOHLER ENGINEERING, NC, PLLC HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER ENGINEERING, NC, PLLC WILL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT PROMPTLY AND IMMEDIATELY BROUGHT TO ITS ATTENTION, IN WRITING, BY THE CONTRACTOR. BOHLER ENGINEERING, NC, PLLC WILL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
- 20. NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER ENGINEERING, NC, PLLC, NOR THE PRESENCE OF BOHLER ENGINEERING, NC, PLLC AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER ENGINEERING, NC, PLLC AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. BOHLER ENGINEERING, NC, PLLC SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND MUST BE NAMED AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE IN NOTE 19 FOR JOB SITE SAFETY.
- 21. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER FOR SUCH DEVIATIONS, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE ENGINEER, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, IN ACCORDANCE WITH PARAGRAPH 19 HEREIN, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, PENALTIES AND THE LIKE RELATED TO SAME.
- 22. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE.
- 23. ALL SIGNING AND PAVEMENT STRIPING MUST CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR LOCALLY APPROVED SUPPLEMENT.
- IN STRICT ACCORDANCE WITH APPROVED PLANS, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS.

 25. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND

24. ENGINEER IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS. IF CONTRACTOR AND/OR OWNER FAIL BUILD OR CONSTRUCT

- RELATED DOCUMENTS, IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN AND, FURTHER ENGINEER IS NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.
- 26. ALL DIMENSIONS MUST BE TO FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, UNLESS NOTED OTHERWISE.
- 27. ALL CONSTRUCTION AND MATERIALS MUST COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA REQUIREMENTS.
- 28. CONTRACTOR AND OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.
- 29. CONTRACTOR IS RESPONSIBLE TO MAINTAIN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH EPA REQUIREMENTS FOR SITES WHERE ONE (1) ACRE OR MORE (UNLESS THE LOCAL JURISDICTION REQUIRES FEWER) IS DISTURBED BY CONSTRUCTION ACTIVITIES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE.
- 30. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED APPLICATION DOCUMENTS PREPARED BY THE SIGNATORY PROFESSIONAL ENGINEER, THE USE OF THE WORDS CERTIFY OR CERTIFICATION CONSTITUTES AN EXPRESSION OF "PROFESSIONAL OPINION" REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE UNDERSIGNED PROFESSIONAL KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE. EITHER EXPRESSED OR IMPLIED.

GENERAL GRADING & UTILITY NOTES

- ALL WATER, SEWER, AND OTHER COVERED INFRASTRUCTURE IS TO BE CONSTRUCTED IN ACCORDANCE WITH CAPE FEAR PUBLIC UTILITY AUTHORITY COUNTY WATER UTILITY DIVISION SPECIFICATIONS.
- 2. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE INDEPENDENTLY CONFIRMED WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS MUST BE INDEPENDENTLY CONFIRMED BY THE CONTRACTOR IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES MUST IMMEDIATELY BE REPORTED, IN WRITING, TO THE ENGINEER. CONSTRUCTION MUST COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 3. CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE, WHICHEVER IS GREATER. THE CONTRACTOR MUST USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION, AT NO COST TO THE OWNER. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION.
- 4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT AND/OR DISCREPANCY BETWEEN THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE OR APPLICABLE CODES, REGULATIONS, LAWS, RULES, STATUTES AND/OR ORDINANCES, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD, IN WRITING, OF SAID CONFLICT AND/OR DISCREPANCY PRIOR TO THE STATT OF CONSTRUCTION. CONTRACTOR'S FAILURE TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE CONTRACTOR'S FULL AND COMPLETE ACCEPTANCE OF ALL RESPONSIBILITY TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, STATUTES, ORDINANCES AND CODES AND, FURTHER, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SAME.
- 5. THE CONTRACTOR MUST LOCATE AND CLEARLY AND UNAMBIGUOUSLY DEFINE VERTICALLY AND HORIZONTALLY ALL ACTIVE AND INACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE AND INACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
- 6. THE CONTRACTOR MUST FAMILIARIZE ITSELF WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
- 7. THE CONTRACTOR MUST INSTALL ALL STORM SEWER AND SANITARY SEWER COMPONENTS WHICH FUNCTION BY GRAVITY PRIOR TO THE INSTALLATION OF ALL OTHER UTILITIES.
- 8. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS WITH JURISDICTION AND/OR CONTROL OF THE SITE, AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE A CONFLICT(S) EXISTS BETWEEN THESE SITE PLANS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER IN WRITING, AND PRIOR TO CONSTRUCTION RESOLVES AND
- 9. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTOR'S PRICE FOR WATER SERVICE MUST INCLUDE ALL FEES, COSTS AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE FULL AND COMPLETE WORKING SERVICE. CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION.
- 10. ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
- 11. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS MUST BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.
- 12. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND MUST BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST, AT A MINIMUM, COMPLY WITH THE STATE DOT REQUIREMENTS AND SPECIFICATIONS AND CONSULTANT SHALL HAVE NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFILL. FURTHER, CONTRACTOR IS FULLY RESPONSIBLE FOR EARTHWORK BALANCE.
- 13. THE CONTRACTOR MUST COMPLY, TO THE FULLEST EXTENT, WITH THE LATEST OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES AND CONSULTANT SHALL HAVE NO RESPONSIBILITY FOR OR AS RELATED FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES.
- 14. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, MUST EXTEND TO THE FULL DEPTH OF
 THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF
 EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
 15. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS MUST BE ADJUSTED, AS NECESSARY, TO
- MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
- 16. DURING THE INSTALLATION OF SANITARY SEWER, STORM SEWER, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE FROM THE INFORMATION CONTAINED IN THE UTILITY PLAN. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE SITE PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER AT THE COMPLETION OF WORK.
- 17. WHEN THE SITE IMPROVEMENT PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR MUST EXTEND ALL LINES, INCLUDING BUT NOT LIMITED TO STORM SEWER, SANITARY SEWER, UTILITIES, AND IRRIGATION LINE, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. CONTRACTOR MUST CAP ENDS AS APPROPRIATE, MARK LOCATIONS WITH A 2X4, AND MUST NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF THE SITE PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER UPON COMPLETION OF THE WORK.
- 18. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. CONTRACTOR MUST CONFIRM AND ENSURE 0.75% MINIMUM SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT (EXCEPT WHERE ADA REQUIREMENTS LIMIT GRADES), TO PREVENT PONDING. CONTRACTOR MUST IMMEDIATELY IDENTIFY, IN WRITING TO THE ENGINEER, ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER NOTIFICATION, MUST BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS THE DESIGN ENGINEER FOR ANY DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM SAME.
- 19. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF .075% GUTTER GRADE ALONG CURB FACE. IT IS CONTRACTOR'S OBLIGATION TO ENSURE THAT DESIGN ENGINEER APPROVES FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION OF SAME.
- 20. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
- 21. IN THE EVENT OF DISCREPANCIES AND/OR CONFLICTS BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE AND CONTROL. CONTRACTOR MUST IMMEDIATELY NOTIFY THE DESIGN ENGINEER, IN WRITING, OF ANY DISCREPANCIES AND/OR CONFLICTS.
- 22. CONTRACTOR MUST REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING WORK ANY WORK.
- 23. WHERE RETAINING WALLS (WHETHER OR NOT THEY MEET THE JURISDICTIONAL DEFINITION) ARE IDENTIFIED ON PLANS, ELEVATIONS IDENTIFIED ARE FOR THE EXPOSED PORTION OF THE WALL. WALL FOOTINGS/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS.

- 23. WHERE RETAINING WALLS (WHETHER OR NOT THEY MEET THE JURISDICTIONAL DEFINITION) ARE IDENTIFIED ON PLANS, ELEVATIONS IDENTIFIED ARE FOR THE EXPOSED PORTION OF THE WALL. WALL FOOTINGS/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS.
- UNLESS INDICATED OTHERWISE, ALL STORM SEWER PIPE MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH WATER TIGHT JOINTS. WHEN HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT MUST CONFORM TO AASHTO M294 AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SILT TIGHT JOINT. PVC PIPE FOR ROOF DRAIN CONNECTION MUST BE SDR 26 OR SCHEDULE 40 UNLESS INDICATED OTHERWISE.
- SANITARY SEWER PIPE MUST BE POLYVINYL CHLORIDE (PVC) SDR 35 EXCEPT WHERE INDICATED OTHERWISE. SANITARY LATERAL MUST BE PVC SCHEDULE 40 OR PVC SDR 26 UNLESS INDICATED. IN WRITING, OTHERWISE.
- 25. STORM AND SANITARY SEWER PIPE LENGTHS INDICATED ARE NOMINAL AND MEASURED CENTER OF INLET AND/OR MANHOLES STRUCTURE TO CENTER OF STRUCTURE.

 26. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON PRELIMINARY ARCHITECTURAL PLANS. CONTRACTOR IS RESPONSIBLE TO AND FOR VERIFYING LOCATIONS OF
- SAME BASED ON FINAL ARCHITECTURAL PLANS.
- 27. SEWERS CROSSING STREAMS AND/OR LOCATION WITHIN 10 FEET OF THE STREAM EMBANKMENT, OR WHERE SITE CONDITIONS SO INDICATE, MUST BE CONSTRUCTED OF STEEL, REINFORCED CONCRETE, DUCTILE IRON OR OTHER SUITABLE MATERIAL.

 SEWERS CONVEYING SANITARY FLOW COMBINED SANITARY AND STORMWATER FLOW OR INDUSTRIAL FLOW MUST BE SEPARATED FROM WATER MAINS BY A DISTANCE OF

AT LEAST 10 FEET HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE. THE PIPES MUST BE IN SEPARATE TRENCHES WITH THE SEWER AT LEAST 18 INCHES

- BELOW THE BOTTOM OF THE WATER MAIN, OR SUCH OTHER SEPARATION AS APPROVED BY THE GOVERNMENT AGENCY WITH JURISDICTION OVER SAME.

 WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE, THE SEWER MUST BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE
- STRUCTURAL SUPPORT FOR THE SEWER MUST BE PROVIDED.

 28. WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER PURVEYOR. IN THE ABSENCE OF SUCH
- REQUIREMENTS, WATER MAIN PIPING MUST BE CEMENT-LINED DUCTILE IRON (DIP) MINIMUM CLASS 52 THICKNESS. ALL PIPE AND APPURTENANCES MUST COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION.
- 29. CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SEWER, WATER AND STORM SYSTEMS, MUST BE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND/OR NCDOT DETAILS AS APPLICABLE. CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.
- 30. LOCATION OF PROPOSED UTILITY POLE RELOCATION IS AT THE SOLE DISCRETION OF UTILITY COMPANY
- 31. CONSULTANT IS NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, SHALL HAVE NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY.
- 2. ALL PAVEMENT MARKINGS IN, OR LEADING TO, THE PUBLIC RIGHT-OF-WAY ARE TO BE THERMOPLASTIC WITH EMBEDDED GLASS BEADS.

ADA INSTRUCTIONS TO CONTRACTOR

24 STORM DRAINAGE PIPE.

CONTRACTORS MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ADA (HANDICAP) ACCESSIBLE COMPONENTS AND ACCESS ROUTES FOR THE SITE. THESE COMPONENTS, AS CONSTRUCTED, MUST COMPLY WITH THE CURRENT ADA STANDARDS AND REGULATIONS' BARRIER FREE ACCESS AND ANY MODIFICATIONS, REVISIONS OR UPDATES TO SAME. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACE, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, MUST COMPLY WITH THESE ADA CODE REQUIREMENTS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

- PARKING SPACES AND PARKING AISLES SLOPE SHALL NOT EXCEED 1:50 (2.0%) IN ANY DIRECTION.
- CURB RAMPS SLOPE MUST NOT EXCEED 1:12 (8.3%) FOR A MAXIMUM OF SIX (6) FEET.
- LANDINGS MUST BE PROVIDED AT EACH END OF RAMPS, MUST PROVIDE POSITIVE DRAINAGE, AND MUST NOT EXCEED 1:50 (2.0%) IN ANY DIRECTION.
- PATH OF TRAVEL ALONG ACCESSIBLE ROUTE MUST PROVIDE A 48-INCH OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS CANNOT REDUCE THIS MINIMUM WIDTH). THE SLOPE MUST BE NO GREATER THAN 1:20 (5.0%) IN THE DIRECTION OF TRAVEL, AND MUST NOT EXCEED 1:50 (2.0%) IN CROSS SLOPE. WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:30 (5.0%), ADA RAMP MUST BE ADHERED TO. A MAXIMUM SLOPE OF 1:12 (8.3%), FOR A MAXIMUM RISE OF 2.5 FEET, MUST BE PROVIDED. THE RAMP MUST HAVE ADA HAND RAILS AND "LEVEL" LANDINGS ON EACH END THAT ARE CROSS SLOPED NO MORE THAN 1:50 IN ANY DIRECTION (2.0%) FOR POSITIVE DRAINAGE.
- DOORWAYS MUST HAVE A "LEVEL" LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA MUST BE NO LESS THAN 60 INCHES (5 FEET) LONG, EXCEPT WHERE OTHERWISE PERMITTED BY ADA STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2003 AND OTHER REFERENCED INCORPORATED BY COD.)
- WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRUCTION, MODIFICATION, REVISION OR EXTENSION OF OR TO ADA COMPONENTS FROM EXISTING DOORWAYS OR SURFACES, CONTRACTOR MUST VERIFY EXISTING ELEVATIONS SHOWN ON THE PLAN. NOTE THAT TABLE 405.2 OF THE DEPARTMENT OF JUSTICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN ALLOWS FOR STEEPER RAMP SLOPES, IN RARE CIRCUMSTANCES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS, IN WRITING, BEFORE COMMENCEMENT OF WORK. CONSTRUCTED IMPROVEMENTS MUST FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FREE REGULATIONS AND THE ADA REQUIREMENTS.
- THE CONTRACTOR MUST VERIFY THE SLOPES OF CONTRACTOR'S FORMS PRIOR TO POURING CONCRETE. IF ANY NON-CONFORMANCE IS OBSERVED OR EXISTS, CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER PRIOR TO POURING CONCRETE. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND REPLACE NON-CONFORMING CONCRETE.
- IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION WITH THE LOCAL BUILDING CODE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

CITY OF WILMINGTON NOTES:

- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING SHALL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF 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.
 ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
- 4. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC 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 NAME SIGNS.
- 6. 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.
- 7. CONTACT TRAFFIC ENGINEERING AT 910-341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
 8. CALL TRAFFIC ENGINEERING AT 910-341-7888 FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
- CALL TRAFFIC ENGINEERING AT 910-341-7888 FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
 TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
- 10. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
 11. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS
- STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
 TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.

29. PARKING AND LANDSCAPING CANNOT BLOCK FIRE HYDRANTS OR FDC'S.

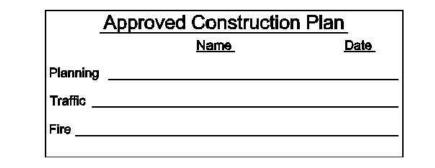
- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET.

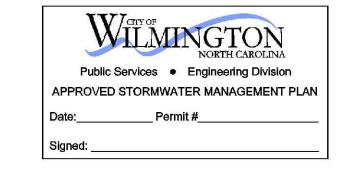
 ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACE.
- 5. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED. 6. CONTACT TRAFFIC ENGINEERING AT 910-341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
- WATER AND SEWER SERVICE SHALL MEET CAPE FEAR 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
 AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 910-343-3910 FOR INFORMATION.
- 19. IF THE CONTRACTOR DESIRES CFPUA WATER FOR CONSTRUCTION, HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.

 20. ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH THE CFPUA CROSS CONNECTION CONTROL REGULATIONS. CALL 919-343-3910 FOR I
- 20. ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH THE CFPUA CROSS CONNECTION CONTROL REGULATIONS. CALL 919-343-3910 FOR I INFORMATION.
 21. ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
- 23. CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.
 24. CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.

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

- 25. 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 910-341-0696.
- 26. NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE.
- 27. CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 PRIOR TO DOING ANY DIGGING, CLEARING, OR GRADING.
 28. FIRE HYDRANTS TO BE INSTALLED PER CITY OF WILMINGTON ORDINANCE AND CFPUA STANDARDS.





SITE CIVIL AND CONSULTING ENGINEERING
ING PROGRAM MANAGEMENT LANDSCAPE ARCHITECT
DESIGN PERMITTING SERVICES TRANSPORTATION SERVI
ATE NEW YORK + PHILADELPHIA, PA + CENTRAL VIRGINIA
SOUTHEASTERN, PA + CENTRAL VIRGINIA
ON, MA + SOUTHEASTERN, PA + CARLOTTE, NC
ORK METRO + REHIGH VALLEY, PA + CARLOTTE, NC
ORK METRO + REHOBOTH BEACH, DE + CARLOTTE, NC
ORK METRO + BALTIMORE, MD + TAMPA, FL
IERSEY + SOUTHERN MARYLAND + SOUTH FLORIDA

CORRESEY + SOUTHERN MARYLAND + SOUTH FLORIDA + SOU

REVISIONS

REV DATE COMMENT BY

1 2/3/17 CITY COMMENTS JDM

2 3/15/17 ADDENDUM 7 AND CITY COMMENTS JDM

3 3/30/17 TRC RESUBMIT JDM



NOT APPROVED FOR CONSTRUCTION

 DRAWN BY:
 JI

 CHECKED BY:
 W

 DATE:
 3/30/

 SCALE:
 N.*

 CAD I.D.:
 S

PROPOSED GROCERY

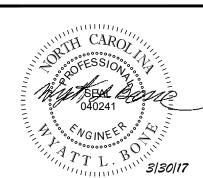
FOR LIDL US

OPERATIONS,
LLC
LOCATION OF SITE
4355 S 17TH STREET

WILMINGTON, NC 28412



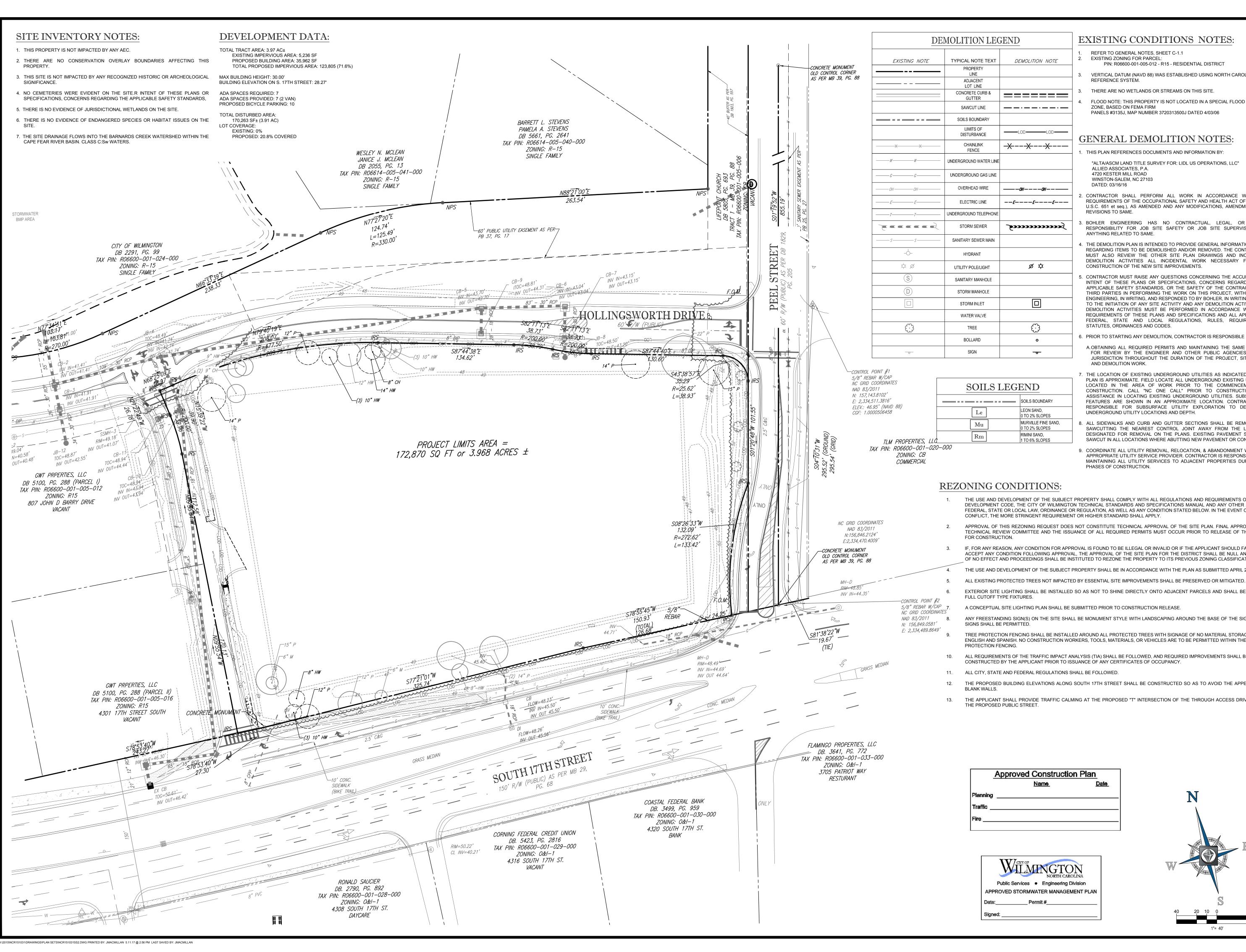
4130 PARKLAKE AVE., SUITE 130
RALEIGH, NC 27612
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com



SHEET TITLE:

GENERAI

NUMBER:



EXISTING CONDITIONS NOTES:

REFER TO GENERAL NOTES, SHEET C-1.1

DATED: 03/16/16

- EXISTING ZONING FOR PARCEL: PIN: R06600-001-005-012 - R15 - RESIDENTIAL DISTRICT
- VERTICAL DATUM (NAVD 88) WAS ESTABLISHED USING NORTH CAROLINA REFERENCE SYSTEM.
- THERE ARE NO WETLANDS OR STREAMS ON THIS SITE.
- FLOOD NOTE: THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD ZONE, BASED ON FEMA FIRM

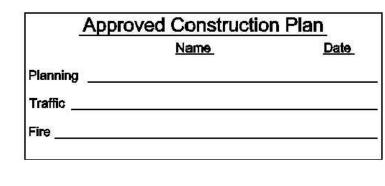
PANELS #3135J, MAP NUMBER 3720313500J DATED 4/03/06

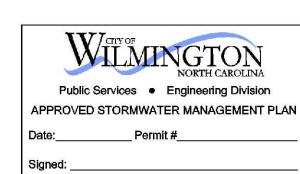
GENERAL DEMOLITION NOTES:

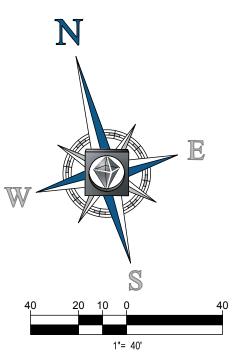
- THIS PLAN REFERENCES DOCUMENTS AND INFORMATION BY:
 - "ALTA/ASCM LAND TITLE SURVEY FOR: LIDL US OPERATIONS, LLC" ALLIED ASSOCIATES, P.A. 4720 KESTER MILL ROAD WINSTON-SALEM, NC 27103
- CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 et seq.), AS AMENDED AND ANY MODIFICATIONS. AMENDMENTS OR REVISIONS TO SAME.
- BOHLER ENGINEERING HAS NO CONTRACTUAL, LEGAL, OR OTHER RESPONSIBILITY FOR JOB SITE SAFETY OR JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME.
- THE DEMOLITION PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION ONLY, REGARDING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR MUST ALSO REVIEW THE OTHER SITE PLAN DRAWINGS AND INCLUDE IN DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
- CONTRACTOR MUST RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS OR SPECIFICATIONS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS, OR THE SAFETY OF THE CONTRACTOR OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT, WITH BOHLER ENGINEERING, IN WRITING, AND RESPONDED TO BY BOHLER, IN WRITING, PRIOR TO THE INITIATION OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY. ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES.
- 6. PRIOR TO STARTING ANY DEMOLITION, CONTRACTOR IS RESPONSIBLE FOR:
- A.OBTAINING ALL REQUIRED PERMITS AND MAINTAINING THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND OTHER PUBLIC AGENCIES HAVING JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK AND DEMOLITION WORK.
- 7. THE LOCATION OF EXISTING UNDERGROUND UTILITIES AS INDICATED ON THE PLAN IS APPROXIMATE. FIELD LOCATE ALL UNDERGROUND EXISTING UTILITIES LOCATED IN THE AREA OF WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CALL "NC ONE CALL" PRIOR TO CONSTRUCTION FOR ASSISTANCE IN LOCATING EXISTING UNDERGROUND UTILITIES. SUBSURFACE FEATURES ARE SHOWN IN AN APPROXIMATE LOCATION. CONTRACTOR IS RESPONSIBLE FOR SUBSURFACE UTILITY EXPLORATION TO DETERMINE UNDERGROUND UTILITY LOCATIONS AND DEPTH.
- ALL SIDEWALKS AND CURB AND GUTTER SECTIONS SHALL BE REMOVED BY SAWCUTTING THE NEAREST CONTROL JOINT AWAY FROM THE LOCATION DESIGNATED FOR REMOVAL ON THE PLANS. EXISTING PAVEMENT SHALL BE SAWCUT IN ALL LOCATIONS WHERE ABUTTING NEW PAVEMENT OR CONCRETE.
- 9. COORDINATE ALL UTILITY REMOVAL, RELOCATION, & ABANDONMENT WITH THE APPROPRIATE UTILITY SERVICE PROVIDER. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL UTILITY SERVICES TO ADJACENT PROPERTIES DURING ALL PHASES OF CONSTRUCTION.

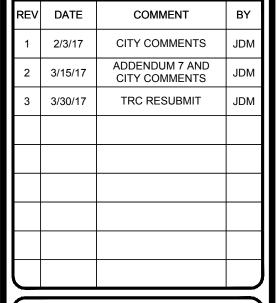
REZONING CONDITIONS:

- THE USE AND DEVELOPMENT OF THE SUBJECT PROPERTY SHALL COMPLY WITH ALL REGULATIONS AND REQUIREMENTS OF THE LAND DATE: DEVELOPMENT CODE, THE CITY OF WILMINGTON TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL AND ANY OTHER APPLICABLE FEDERAL, STATE OR LOCAL LAW, ORDINANCE OR REGULATION, AS WELL AS ANY CONDITION STATED BELOW. IN THE EVENT OF A CONFLICT, THE MORE STRINGENT REQUIREMENT OR HIGHER STANDARD SHALL APPLY.
- APPROVAL OF THIS REZONING REQUEST DOES NOT CONSTITUTE TECHNICAL APPROVAL OF THE SITE PLAN. FINAL APPROVAL BY THE TECHNICAL REVIEW COMMITTEE AND THE ISSUANCE OF ALL REQUIRED PERMITS MUST OCCUR PRIOR TO RELEASE OF THE PROJECT
 - IF, FOR ANY REASON, ANY CONDITION FOR APPROVAL IS FOUND TO BE ILLEGAL OR INVALID OR IF THE APPLICANT SHOULD FAIL TO ACCEPT ANY CONDITION FOLLOWING APPROVAL, THE APPROVAL OF THE SITE PLAN FOR THE DISTRICT SHALL BE NULL AND VOID AND OF NO EFFECT AND PROCEEDINGS SHALL BE INSTITUTED TO REZONE THE PROPERTY TO ITS PREVIOUS ZONING CLASSIFICATION.
 - THE USE AND DEVELOPMENT OF THE SUBJECT PROPERTY SHALL BE IN ACCORDANCE WITH THE PLAN AS SUBMITTED APRIL 25, 2016.
 - EXTERIOR SITE LIGHTING SHALL BE INSTALLED SO AS NOT TO SHINE DIRECTLY ONTO ADJACENT PARCELS AND SHALL BE LIMITED TO
 - A CONCEPTUAL SITE LIGHTING PLAN SHALL BE SUBMITTED PRIOR TO CONSTRUCTION RELEASE.
 - ANY FREESTANDING SIGN(S) ON THE SITE SHALL BE MONUMENT STYLE WITH LANDSCAPING AROUND THE BASE OF THE SIGN; NO POLE
 - TREE PROTECTION FENCING SHALL BE INSTALLED AROUND ALL PROTECTED TREES WITH SIGNAGE OF NO MATERIAL STORAGE IN ENGLISH AND SPANISH. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE TO BE PERMITTED WITHIN THE TREE
- ALL REQUIREMENTS OF THE TRAFFIC IMPACT ANALYSIS (TIA) SHALL BE FOLLOWED, AND REQUIRED IMPROVEMENTS SHALL BE CONSTRUCTED BY THE APPLICANT PRIOR TO ISSUANCE OF ANY CERTIFICATES OF OCCUPANCY.
- ALL CITY, STATE AND FEDERAL REGULATIONS SHALL BE FOLLOWED.
- THE PROPOSED BUILDING ELEVATIONS ALONG SOUTH 17TH STREET SHALL BE CONSTRUCTED SO AS TO AVOID THE APPEARANCE C
- THE APPLICANT SHALL PROVIDE TRAFFIC CALMING AT THE PROPOSED "T" INTERSECTION OF THE THROUGH ACCESS DRIVEWAY WITH









REVISIONS



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It's fast. It's free. It's the law

DRAWN BY:

PROPOSED GROCERY

LIDL US

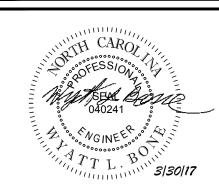
OPERATIONS, LOCATION OF SITE

4355 S 17TH STREET

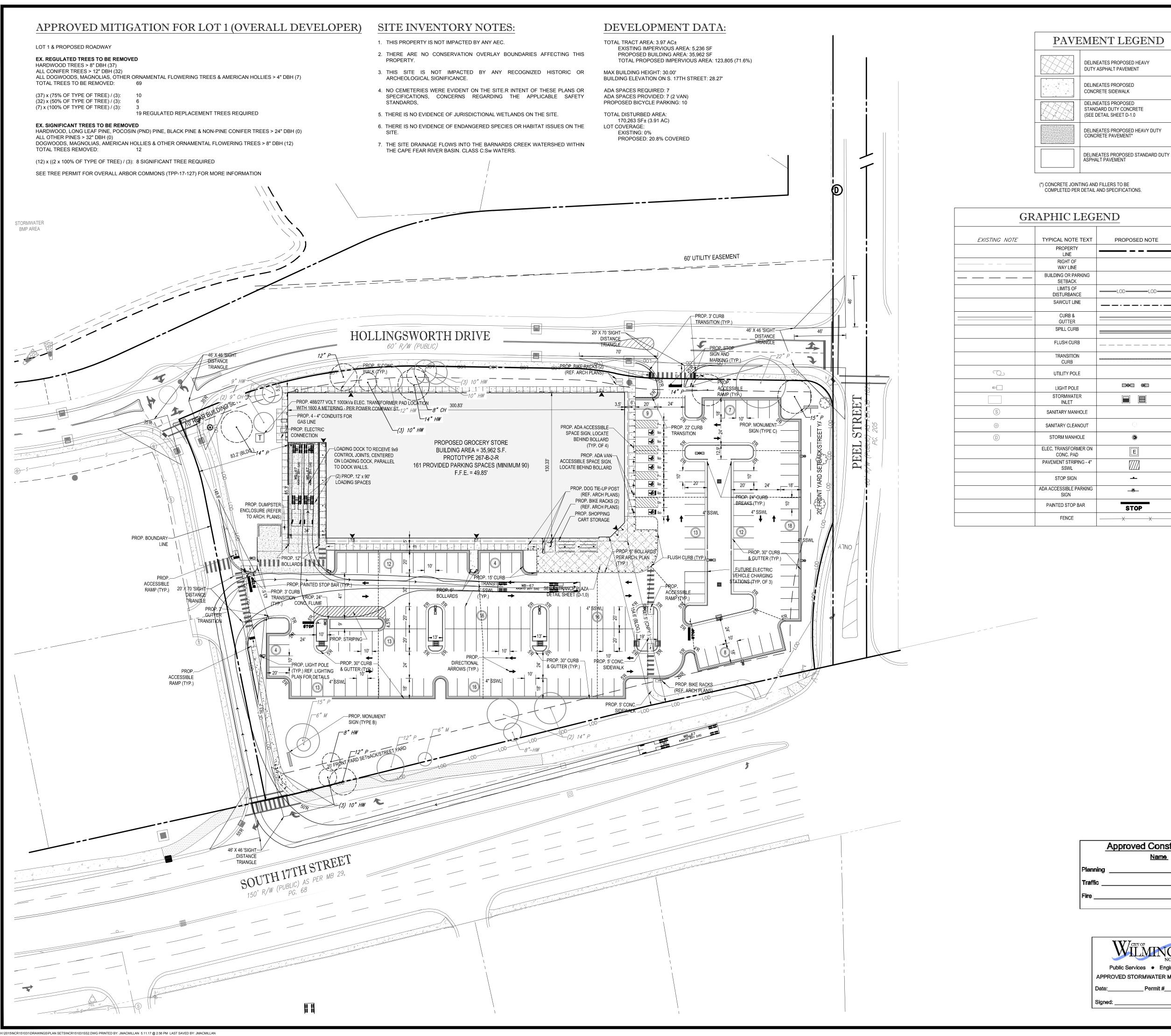
WILMINGTON, NC 28412



4130 PARKLAKE AVE., SUITE 130 RALEIGH, NC 27612 Phone: (919) 578-9000 Fax: (919) 703-2665 NC@BohlerEng.com



EXISTING **CONDITIONS**



NOTES

- SEE SHEET C-1.1 SHEET FOR ALL GENERAL NOTES ALL DIMENSIONS ARE SHOWN FROM FACE OF CURB TO FACE OF CURB UNLESS OTHERWISE
- 3. ALL CONSTRUCTION WITHIN THE NCDOT RIGHT-OF-WAY SHALL COMPLY WITH THE MOST
- CURRENT EDITION OF NCDOT CONSTRUCTION STANDARDS & SPECIFICATIONS 4. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR
- VISUAL SIGHT LINES FROM 30"-10" PRINTED TRAFFIC SIGNS REQUIRE A UV OVERLAY ON THE SIGN FILM BLANKS
- PROJECT ROADWAY, STREET, AND REGULATORY SIGN TO USE HIP TYPE IV OR HIGHER FILM STOP BARS AND PAVEMENT MARKINGS REQUIRE THERMOPLASTIC MATERIAL

PAINTING STRIPING LEGEND

4" SSWL - 4" WIDE SINGLE SOLID WHITE LINE 4" SSBL - 4" WIDE SINGLE SOLID BLUE LINE

SITE PLAN & ZONING NOTES:

1. THIS PLAN REFERENCES THE FOLLOWING DOCUMENTS & INFORMATION BY:

"ALTA/ASCM LAND TITLE SURVEY FOR: LIDL US OPERATIONS, LLC" PREPARED BY ALLIED ASSOCIATES, P.A. 4720 KESTER MILL ROAD WINSTON-SALEM, NC 27103

EXISTING OWNER: PARCEL #1 PIN # 3135-37-9059.000

GWT PROPERTIES LLC DB 5100 PG 288 GROSS AREA: ± 8.23 AC

DATED 03/16/2016

APPLICANT: LIDL US OPERATIONS, LLC 1500 SUNDAY DRIVE, SUITE 101 RALEIGH, NC 27607 CONTACT: RYAN WEHMANN PHONE: (703) 346-4654

S. 17TH ST. AND PEEL ST WILMINGTON, NC 28412 GROSS AREA: ± 17.54 ACRES

CB-COMMUNITY BUSINESS ZONE: GROCERY / FOOD SALES/RETAIL BUSINESS = PERMITTED

5. CAMA LAND CLASSIFICATION: URBAN

BULK REQUIREMENTS:

BUSINESS DISTRICT	CODE REFERENCE	REQUIRED	PROPOSED		
MIN. LOT /LEASE AREA:		N/S	172,870 SF (3.97 AC)		
MIN. LOT WIDTH		N/S	377.5'		
BUILDING SETBACKS					
MIN. FRONT YARD SETBACK	ARTICLE 5, SEC.18-194	20'	143.8'		
ARTICLE 5 SEC.18-194		0 ft (20 ft when abutting Residential + 1' for every 1' over 20 ft of bldg hght)	79.5'		
ARTICLE 5, SEC.18-194		10 ft (25 ft when abutting Residential + 1' for every 1' over 20ft of bldg hght)	13.2'		
MAX BUILDING HEIGHT	ARTICLE 5, SEC.18-194	45'	30.00'		

N/A = NOT APPLICABLE N/S = NOT SPECIFIED (V) = VARIANCE (W) = WAIVER

6. PARKING SUMMARY:

NUMBER OF PARKING SPACES REQUIRED (CITY OF WILMINGTON - ARTICLE 9 SEC.18.526-18.533):

GROCERY STORE (MIN): 1.0 SPACE / 400 SF GFA x 35,962 SF = 90 SPACES GROCERY STORE (MAX): 1.0 SPACE / 200 SF x35,962 SF =180 SPACES

TOTAL PROPOSED PARKING = 161 SPACES (4.48/1,000 SF OF GROSS FLOOR AREA) (COMPLIES)

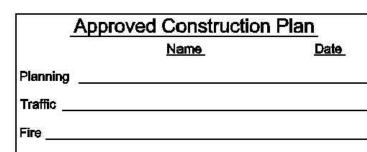
REQUIRED BICYCLE PARKING: 10 SPACES PROPOSED BICYCLE PARKING: 10 SPACES

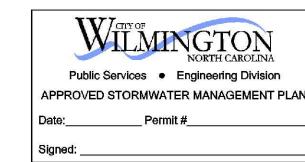
NUMBER OF ACCESSIBLE SPACES REQUIRED:

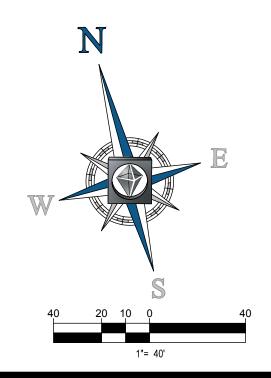
CODE REQUIREMENT SOUTH LOT (4 / 76-100 SPACES): CODE REQUIREMENT EAST LOT: (3 / 51-75 SPACES): TOTAL 7 SPACES

7 SPACES (2 VAN) (COMPLIES) FOR 90 DEGREE PARKING SPACES:

		REQUIRED	PROPOSED
	ONE-WAY TRAFFIC FLOW	20'	N/A
	TWO-WAY TRAFFIC FLOW	24'	24 FEET (COMP
	PARKING SPACE DIMENSION:	8.5' x 18'	10' x 20' (COMP 10' x 20' (PERIME
7.	LOADING REQUIREMENTS:	REQUIRED	PROPOSED
	NUMBER OF LOADING SPACES	2	2 (COMP
	SIZE OF LOADING SPACE (MIN.)	12' x 56'	13.5' x 96' (COMP







REVISIONS COMMENT DATE CITY COMMENTS 2/3/17 ADDENDUM 7 AND CITY COMMENTS 3/30/17 TRC RESUBMIT



NOT APPROVED FOR CONSTRUCTION

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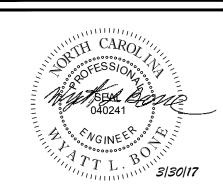
PROPOSED GROCERY

LIDL US OPERATIONS,

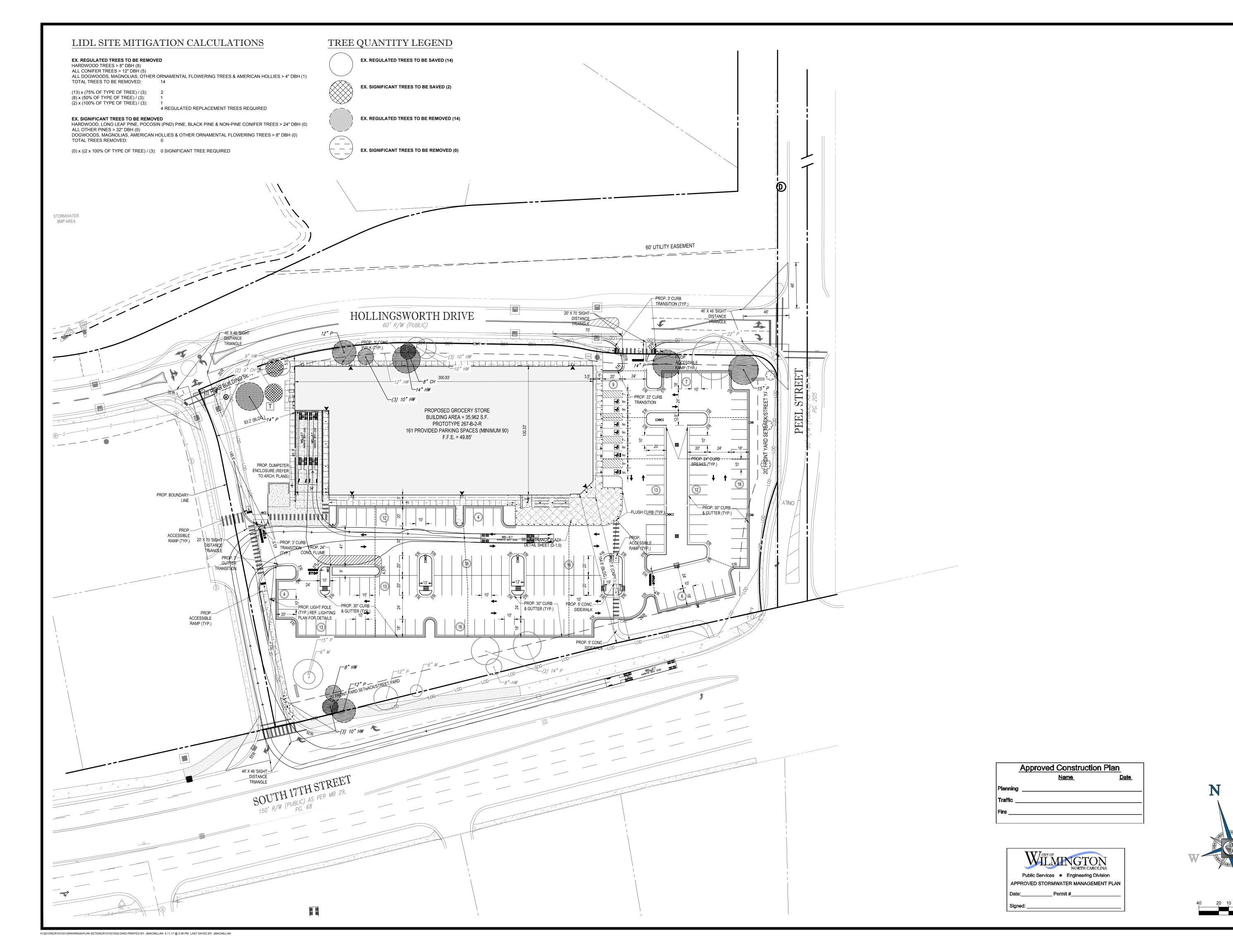
LOCATION OF SITE 4355 S 17TH STREET WILMINGTON, NC 28412



4130 PARKLAKE AVE., SUITE 130 RALEIGH, NC 27612 Phone: (919) 578-9000 Fax: (919) 703-2665 NC@BohlerEng.com



SITE PLAN



ENGINEERING

SITE CIVIL AND CONSULTING ENGINEERING

AND SURVEYING

PROGRAM MANAGEMENT

LANDSCAPE ARCHITECTURE

TRANSPORTATION SERVICES

* USTATI NEW YORK

* USTATE NEW YORK

* HILADELPHIA, PA

* NEW YORK METRO

* SOUTHERN YIRGINIA

* SOUTHERN WAS TELEGH, NO

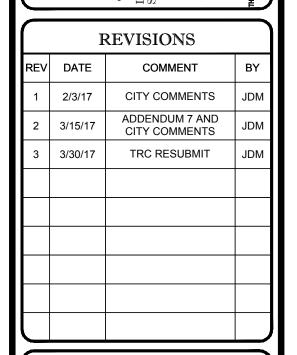
* NEW YORK, NY

* BALTIMORE, MD

* SOUTHERN MARYLAND

* TAMPA, FL

* TAMPA





NOT APPROVED FOR CONSTRUCTION

DRAWN BY:
CHECKED BY:
DATE: 3/3
SCALE: 1"
CAD I.D.:

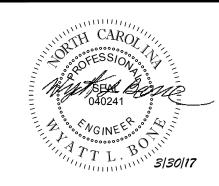
PROPOSED GROCERY

LIDL US OPERATIONS,

LLC
LOCATION OF SITE
4355 S 17TH STREET
WILMINGTON, NC 28412



4130 PARKLAKE AVE., SUITE 130
RALEIGH, NC 27612
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com



TREE

REPLACEMENT PLAN

C-3.1

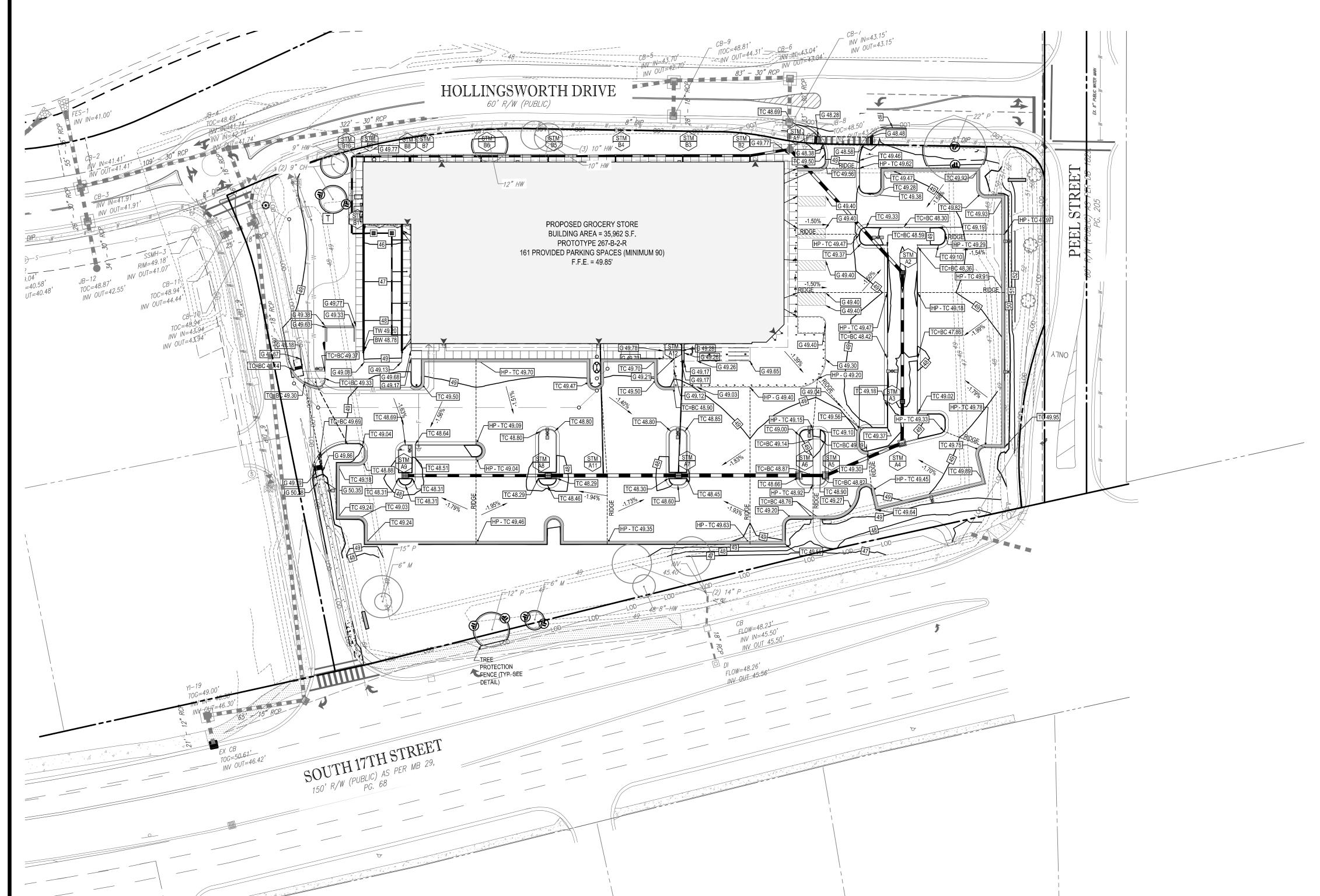
5	STORM STRUCTURE	SCHE	DULE
NAME	TYPE	RIM ELEV. (FT.)	INVERTS
A1	EXST. STORM MANHOLE	49.59'	INV IN = 43.20'
A2	DROP INLET WITH GRATE NCDOT 840.14 / 840.29	47.72'	INV IN = 43.56' INV OUT = 43.56'
A3	DROP INLET WITH GRATE NCDOT 840.14 / 840.29	47.11'	INV IN = 43.83' INV OUT = 43.83'
A4	PROP. CURB INLET NCDOT 840.14/840.02	48.30'	INV IN = 43.92' INV OUT = 43.92'
A5	PROP. CURB INLET NCDOT 840.14 / 840.02	48.28'	INV IN = 44.10' INV OUT = 44.10'
A6	PROP. CURB INLET NCDOT 840.14 / 840.02	48.16'	INV IN = 44.16' INV OUT = 44.16'
A7	DROP INLET WITH GRATE NCDOT 840.14 / 840.29	47.88'	INV IN = 44.42' INV IN = 44.42' INV OUT = 44.42'
A8	DROP INLET WITH GRATE NCDOT 840.14 / 840.29	47.79'	INV IN = 44.69' INV OUT = 44.69'
A9	DROP INLET WITH GRATE NCDOT 840.14 / 840.29	47.81'	INV OUT = 45.00'
A10	INSERT-A-TEE	49.79'	INV OUT = 46.35'
A11	CONDENSATE DRAIN	48.45'	INV IN = 44.57'
A12	CYLINDRICAL JUNCTION STRUCTURE NF	49.20'	INV OUT = 45.85'

12015\NCR151031\DRAWINGS\PLAN SETS\NCR151031SS2.DWG PRINTED BY: JMACMILLAN 5.11.17 @ 2:57 PM LAST SAVED BY: JMACMILLAN

STORM STRUCTURE SCHEDULE						
NAME	TYPE	RIM ELEV. (FT.)	INVERTS			
B2	CYLINDRICAL JUNCTION STRUCTURE NF	49.79'	INV IN = 43.29' INV OUT = 43.29			
В3	CYLINDRICAL JUNCTION STRUCTURE NF	49.79'	INV IN = 43.43' INV OUT = 43.43			
B4	CYLINDRICAL JUNCTION STRUCTURE NF	49.79'	INV IN = 43.57' INV OUT = 43.57			
B5	CYLINDRICAL JUNCTION STRUCTURE NF	49.79'	INV IN = 43.71' INV OUT = 43.71			
B6	CYLINDRICAL JUNCTION STRUCTURE NF	49.79'	INV IN = 43.85' INV OUT = 43.85			
B7	CYLINDRICAL JUNCTION STRUCTURE NF	49.79'	INV IN = 44.00' INV OUT = 43.99			
B8	CYLINDRICAL JUNCTION STRUCTURE NF	49.79'	INV IN = 44.00' INV OUT = 44.00			
В9	CYLINDRICAL JUNCTION STRUCTURE NF	49.79'	INV IN = 44.10' INV OUT = 44.10			
B10	NYLOPLAST STRUCTURE WITH SOLID COVER	49.51'	INV IN = 44.13' INV OUT = 44.13			
B11	NYLOPLAST STRUCTURE WITH SOLID COVER	49.72'	INV IN = 43.27' INV OUT = 44.27			
B12	RECTANGULAR STRUCTURE SLAB TOP RECTANGULAR FRAME	45.65'	INV IN = 43.31' INV OUT = 43.31			
B13	RECTANGULAR STRUCTURE SLAB TOP RECTANGULAR FRAME	45.65'	INV OUT = 43.35			

FROM	FROM INV	то	TO INV	DIAMETER (IN.)	SLOPE	PIPE LENGTH (FT.)	MATERIAL
A2	43.56	A1	43.20	24"	0.30%	119.22'	RCP
A3	43.83	A2	43.56	24"	0.30%	92.12'	RCP
A4	43.92	A3	43.83	24"	0.30%	29.55'	RCP
A5	44.10	A4	43.92	24"	0.30%	59.32'	RCP
A6	44.16	A5	44.10	24"	0.30%	19.00'	RCP
A7	44.42	A6	44.16	19" x 30"	0.30%	86.07'	ELLIPTICAL R
A8	44.69	A7	44.42	19" x 30"	0.30%	93.00'	ELLIPTICAL R
A9	45.00	A8	44.69	14" x 23"	0.30%	101.93'	ELLIPTICAL R
A10	46.35	A11	44.57	6"	2.01%	88.58'	PVC Pipe
A12	45.85	A7	44.42	6"	1.74%	82.48'	PVC Pipe
B2	43.29	A1	43.20	18"	0.31%	28.89'	RCP

FROM	FROM INV	ТО	TO INV	DIAMETER (IN.)	SLOPE	PIPE LENGTH (FT.)	MATERIA
В3	43.43	B2	43.29	18"	0.29%	48.00'	RCP
B4	43.57	В3	43.43	15"	0.29%	48.00'	RCP
B5	43.71	B4	43.57	15"	0.29%	48.04'	RCP
В6	43.85	B5	43.71	15"	0.29%	47.96'	RCP
В7	43.99	В6	43.85	15"	0.28%	50.36'	RCP
B8	44.00	В7	44.00	15"	0.11%	0.94'	RCP
В9	44.10	B8	44.00	12"	0.31%	32.18'	RCP
B10	44.13	В9	44.10	12"	0.34%	8.70'	RCP
B11	44.27	B10	44.13	12"	0.25%	55.15'	RCP
B12	43.31	B11	43.27	8"	0.26%	15.53'	HDPE
B13	43,35	B12	43,31	8"	0.31%	13,00'	HDPE

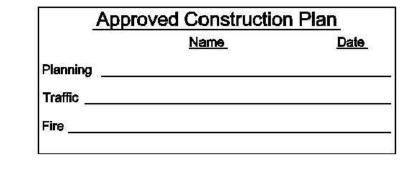


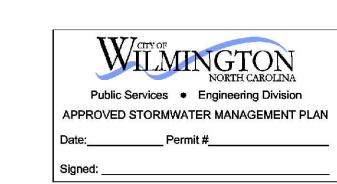
ADA INSTRUCTIONS TO CONTRACTOR

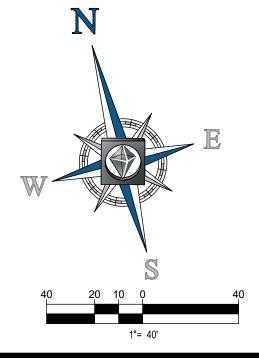
CONTRACTORS MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ADA (HANDICAP) ACCESSIBLE COMPONENTS AND ACCESS ROUTES FOR THE SITE. THESE COMPONENTS, AS CONSTRUCTED, MUST COMPLY WITH THE CURRENT ADA STANDARDS AND REGULATIONS' BARRIER FREE ACCESS AND ANY MODIFICATIONS, REVISIONS OR UPDATES TO SAME. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACE, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, MUST COMPLY WITH THESE ADA CODE REQUIREMENTS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

- PARKING SPACES AND PARKING AISLES SLOPE SHALL NOT EXCEED 1:50 (2.0%) IN ANY DIRECTION.
- CURB RAMPS SLOPE MUST NOT EXCEED 1:12 (8.3%) FOR A MAXIMUM OF SIX (6) FEET.
- LANDINGS MUST BE PROVIDED AT EACH END OF RAMPS, MUST PROVIDE POSITIVE DRAINAGE, AND MUST NOT EXCEED 1:50 (2.0%) IN ANY DIRECTION.
- PATH OF TRAVEL ALONG ACCESSIBLE ROUTE MUST PROVIDE A 48-INCH OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS CANNOT REDUCE THIS MINIMUM WIDTH). THE SLOPE MUST BE NO GREATER THAN 1:20 (5.0%) IN THE DIRECTION OF TRAVEL, AND MUST NOT EXCEED 1:50 (2.0%) IN CROSS SLOPE. WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:30 (5.0%), ADA RAMP MUST BE ADHERED TO. A MAXIMUM SLOPE OF 1:12 (8.3%), FOR A MAXIMUM RISE OF 2.5 FEET, MUST BE PROVIDED. THE RAMP MUST HAVE ADA HAND RAILS AND "LEVEL" LANDINGS ON EACH END THAT ARE CROSS SLOPED NO MORE THAN 1:50 IN ANY DIRECTION (2.0%) FOR POSITIVE DRAINAGE.
- DOORWAYS MUST HAVE A "LEVEL" LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA MUST BE NO LESS THAN 60 INCHES (5 FEET) LONG, EXCEPT WHERE OTHERWISE PERMITTED BY ADA STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2003 AND OTHER REFERENCED INCORPORATED BY COD.)
- WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRUCTION, MODIFICATION, REVISION OR EXTENSION OF OR TO ADA COMPONENTS FROM EXISTING DOORWAYS OR SURFACES, CONTRACTOR MUST VERIFY EXISTING ELEVATIONS SHOWN ON THE PLAN. NOTE THAT TABLE 405.2 OF THE DEPARTMENT OF JUSTICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN ALLOWS FOR STEEPER RAMP SLOPES, IN RARE CIRCUMSTANCES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS, IN WRITING, BEFORE COMMENCEMENT OF WORK. CONSTRUCTED IMPROVEMENTS MUST FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FREE REGULATIONS AND THE ADA REQUIREMENTS.
- THE CONTRACTOR MUST VERIFY THE SLOPES OF CONTRACTOR'S FORMS PRIOR TO POURING CONCRETE. IF ANY NON-CONFORMANCE IS OBSERVED OR EXISTS, CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER PRIOR TO POURING CONCRETE. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND REPLACE NON-CONFORMING CONCRETE.
- IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION WITH THE LOCAL BUILDING CODE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

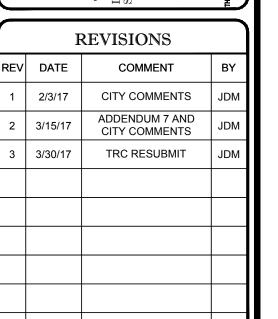
EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
	PROPERTY LINE	
600/	CONTOUR & ELEVATION —	601
	CONTOUR & ELEVATION (DONE BY OTHERS)	601]
VW	UNDERGROUND WATER LINE —	
	UNDERGROUND FIRE LINE	F—F
-G	UNDERGROUND GAS LINE	
-OHOH	OVERHEAD WIRE	
-EE-	UNDERGROUND ELECTRIC SERVICE	EE_
	UNDERGROUND TELEPHONE	тт_
	STORM SEWER	
	SANITARY SEWER MAIN	
	LIMITS OF DISTURBANCE -	LOD-LOD-
	DRAINAGE FLOW ARROW	-2.5%
	TOP & BOTTOM OF WALL ELEVATION	TW 617.56 BW 615.29
	TOP OF CURB ELEVATION	TC 613.97
	HIGH POINT & FINISHED GRADE ELEVATION	HP 614.34 G 614.64
	FLUSH GRADE ELEVATION	FG 614.45
HH	TRANSFORMER ON CONC. PAD	E
φ	UTILITY POLE/LIGHT	
©	SANITARY CLEAN OUT	0
S	SANITARY MANHOLE	
(D)	STORM MANHOLE	(®)
	STORM CURB INLET	
	STORM INLET	
\oplus	WATER VALVE	
W	WATER METER	
	STORM STRUCTURE LABEL	







ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
SIGN PERMITTING SERVICES TRANSPORTATION SIAND
SIGN PERMITTING SERVICES TRANSPORTATION SIAND
SIAND + PHILADELPHIA, PA + NORTHERN VIR
SIAND + EHIGH VALLEY, PA + CENTRAL VIRG
REMETRO + REHOBOTH BEACH, DE + CHARLOTTE, NO
RK, NY + BALTIMORE, MD + SOUTH FLORID
SIEY + SOUTHERN MARYLAND + SOUTH FLORID





NOT APPROVED FOR CONSTRUCTION

DRAWN BY: JDN
CHECKED BY: WL
DATE: 3/30/1
SCALE: 1" = 40
CAD I.D.: SS

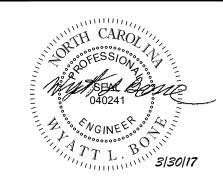
PROPOSED GROCERY

LIDL US OPERATIONS,

LOCATION OF SITE 4355 S 17TH STREET WILMINGTON, NC 28412



4130 PARKLAKE AVE., SUITE 130 RALEIGH, NC 27612 Phone: (919) 578-9000 Fax: (919) 703-2665 NC@BohlerEng.com



HEET TITLE:

GRADING PLAN

C=4.0

	NAME	TYPE	KI
Approved Construction Plan	A1	EX. CLEANOUT	
Name <u>Date</u> lanning	A2	PROP. SANITARY CLEANOUT	
raffic	A3	PROP. SANITARY CLEANOUT	
re	A4	PROP. SANITARY CLEANOUT	
	A5	PROP. SANITARY CLEANOUT	

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SANITARY STRUCTURE SCHEDULE

PROP. SANITARY CLEANOUT

48.75

48.80

49.15

49.36

48.88

INVERTS

INV IN = 41.70'

INV IN = 41.90'

INV OUT = 41.90'

INV OUT = 43.11'

INV IN = 43.36'

INV OUT = 43.36'

INV IN = 45.22'

INV OUT = 45.22'

INV OUT = 45.40'

SA	NIT	CARY	PIPE	SCHED	ULE
FROM	ТО	SIZE IN.	TYPE	SLOPE %	LENGTH FT.
A2	A1	6	PVC	1.03%	19.40
A3	A2	6	PVC	1.03%	117.39
A4	A3	6	PVC	1.03%	24.34
A5	A4	6	PVC	1.00%	186.18
A6	A5	6	PVC	1.02%	17.57

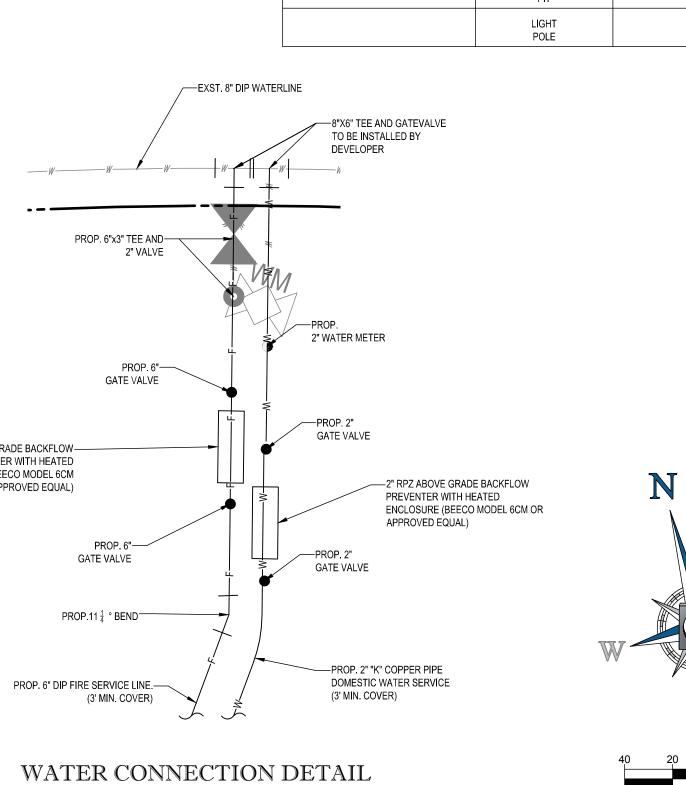
AND SEWER FLOW
10,500 GPD
1,750 GPD

UTILITY NOTES:

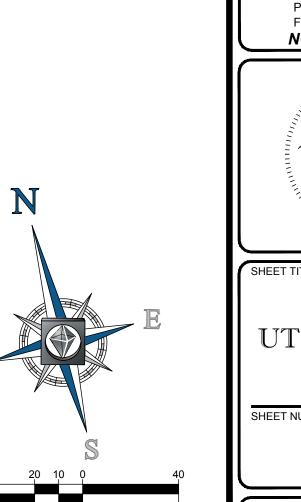
- 1. WATER LINES SHALL BE BURIED AS SPECIFIED BY CITY OF WILMINGTON DEPARTMENT OF PUBLIC WORKS (DPW). WATER MAINS SHALL NOT BE PLACED UNDER BUILDINGS OR STRUCTURES EXCEPT TO SUPPLY A SPRINKLER SYSTEM. THE MINIMUM COVER FOR WATER MAINS WITH IS 36". ALL WATER LINES TO BE DUCTILE IRON PIPE.
- 2. WATER MAINS SHALL BE PLACED NO CLOSER THAN 5 FEET FROM THE FACE OF
- CURB TOWARD THE STREET. 3. WATER MAINS SHALL BE LOCATED AT LEAST 10 FEET LATERALLY FROM
- EXISTING AND PROPOSED SANITARY SEWERS. 4. WHERE IT IS NECESSARY FOR WATER MAINS TO CROSS OVER SEWER MAINS, VERTICAL 18" CLEARANCE IS REQUIRED.
- 5. EXISTING WATER SERVICES THAT WILL NOT BE UTILIZED MUST BE CAPPED AT
- 6. VALVES SHALL BE INSTALLED ON ALL BRANCHES FROM FEEDER MAINS AND BETWEEN MAINS AND HYDRANTS AS FOLLOWS:
- 6.1. PRIVATE WATER SYSTEMS MUST HAVE SUFFICIENT VALVE PLACEMENT AND NUMBER SO THE PRIVATE SYSTEM CAN BE ISOLATED FROM A PUBLIC WATER SYSTEM.

7. THE CONTRACTOR SHALL CONTACT THE PUBLIC WORKS DEPARTMENT PRIOR

- TO THE START OF CONSTRUCTION ON ANY WATER, SEWER, STORMWATER IMPROVEMENTS. THE CONTRACTOR SHALL CONTACT THE PUBLIC WORKS DEPARTMENT TO INSPECT WATER AND SEWER SERVICE TAPS, DRIVEWAY AND SIDEWALK CONSTRUCTION, STORM DRAINAGE AND ROADWAY IMPROVEMENTS. 8. SUBMIT AS-BUILT DRAWINGS OF THE WATER, SEWER AND STORM SEWER
- SYSTEMS TO THE ENGINEERING SERVICES DEPARTMENT UPON PROJECT



NOT TO SCALE



Public Services • Engineering Division APPROVED STORMWATER MANAGEMENT PLAN Dete: Permit # Signed:	DEPARTMENT TO INSPECT WATER A SIDEWALK CONSTRUCTION, STORM 8. SUBMIT AS-BUILT DRAWINGS OF THI SYSTEMS TO THE ENGINEERING SEI COMPLETION. PLEASE INCLUDE WA' 9. STORM AND SANITARY SEWER PIPE MEASURED CENTER OF INLET AND/O STRUCTURE. 10. BUILDING TYPE IS II-B. 11. NEW HYDRANTS SHALL BE BROUGH MATERIALS BEING DELIVERED TO THE SUPERVISED. 13. HYDRANT MUST BE WITHIN 150' OF THE 14. THE FDC MUST BE WITHIN 40' OF FIRE 15. IN ADDITION TO THE STANDARD COM	RVICES DEPARTMENT UPON PROJECT ITER METER AND CLEANOUT LOCATIONS. LENGTHS INDICATED ARE NOMINAL AND OR MANHOLES STRUCTURE TO CENTER OF IT INTO SERVICE PRIOR TO COMBUSTIBLE HE JOB SITE. "HOT BOX" SHALL BE ELECTRICALLY THE FDC. HE APPARATUS PLACEMENT. MMENTS, ADDITIONAL FIRE PROTECTION AND OF BE REQUIRED DUE TO ANY SPECIAL
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	UTILITY LE	GEND
$\frac{\frac{CB-5}{ NV }\frac{43.70'}{ NV }\frac{10V }{ V }\frac{10V }$	EXISTING NOTE TYPICAL NOTE	TEXT PROPOSED NOTE
HOLLINGSWORTH DRIVE	SANITARY SEWI	ERS
SEE WATER CONNECTION DETAIL (THIS SHEET)	WUNDERGROUND W	ATER
FES-1 NV IN-41.00' JB-4 TOC=48.49' TOC=48.50' INV IN-42.174' SEE WATER CONNECTION DETAIL (THIS SHEET) JB-8 TOC=48.50' INV IN-42.174' B* DIP W N N N N N N N N N N N N	UNDERGROUND I WATER LINE	
	UNDERGROUND ELE	CCTRICE
PROP. 488/277 VOLT 1000kVa ELEC. TRANSFORMER PAD LOCATION WITH 1600 A METERING - PER POWER COMPANY STANDARDS PROP. 4-4" CONDUITS FOR GAS LINE PROP. ELECTRIC PROP. ELECTRIC PROP. 488/277 VOLT 1000kVa ELEC. TRANSFORMER PAD LOCATION WITH 1600 A METERING - PER POWER COMPANY STANDARDS PROP. HDPE ROOF DRAIN AT 1% INV: 48.3" (TYP.)	UNDERGROUND (LINE	GASG
GAS LINE GAS LINE PROP. 41-4' CONDUITS FOR GAS LINE PROP. 41-4' CONDUITS FOR INV. 0UT=41.91 PROP. 41-91 PROP. 41-4' CONDUITS FOR INV. 48.3' (TYP.)	STORM SEWER	
CONNECTION (8) PROP. 4" EMPTY CONDUITS BELOW GRADE FOR TELE AND PROPOSED GROCERY STORE BUILDING AREA = 35,962 S.F. PROPOSED GROCERY STORE BUILDING AREA = 35,962 S.F. PROPOSED GROCERY STORE BUILDING AREA = 35,962 S.F.	SANITARY SEWI	S
CATV SERVICES. (REF. ARCH/MEP PROTOTYPE 267-B-2-R PLANS) 161 PROVIDED PARKING SPACES (MINIMUM 90)	HYDRANT	
F.F.E. = 49.85' PROP. 4" GREASE WASTE (REF. ARCH/MEP PLANS)	S SANITARY MANHOLE	
=40.50 / TOC=48.87 / TOC=48.94 / TOC=48.94 / TOC=44.44 / MONUMENT SIGNS (4X(2)), AND MONUMENT SIGNS (4X(2)), MONUMENT SIGNS (4X(2)), MONUMENT SIGNS (4X(2)), SEWER	⊚ SANITARY CLEAP	IOUT
CB-10-7 \ PROP. 2"Ø "K" COPPER PIPE DOMESTIC \ PROP. 6" CONDENSATE WASTE	© STORM MANHOLE	(®)
PROP. FDC WITH 5" STORZ CONNECTION	WATER METER	
PROP. (2) 45° BEND	WATER VALVE	
SAN FUTURE ELECTRIC	YARD INLET	
(2) 45° BEND SAN A5 VEHICLE CHARGING STATIONS (TYP. OF 3)	CURB INLET	
	CLEAN OUT)
FUTURE ELECTRIC	ELECTRIC TRANSFORME	
VEHICLE CHARGING STATION COUDUITS.	TEST PIT	-
JUNCTION BOX (TYP.)	LIGHT POLE	
PROP (7G) TEE AND SEE ELECTRICAL CONDULT NOTE IF FOR TREANING PROP (7G) TEE AND ON (1.50) TO (1.50) TO	PROP. 2" WATER METER	
FROM FOR THE SERVICE LINE	PROP. 2" GATE VALVE 2" RPZ ABOVE GRADE BACKFLOW PREVENTER WITH HEATED ENCLOSURE (BEECO MODEL 6CM OR APPROVED EQUAL) PROP. 2" GATE VALVE PROP. 2" "K" COPPER PIPE DOMESTIC WATER SERVICE	N



	F	REVISIONS	
REV	DATE	COMMENT	BY
1	2/3/17	CITY COMMENTS	JDM
2	3/15/17	ADDENDUM 7 AND CITY COMMENTS	JDM
3	3/30/17	TRC RESUBMIT	JDM



NOT APPROVED FOR CONSTRUCTION

DRAWN BY:

PROPOSED GROCERY

LIDL US OPERATIONS,

LOCATION OF SITE 4355 S 17TH STREET WILMINGTON, NC 28412

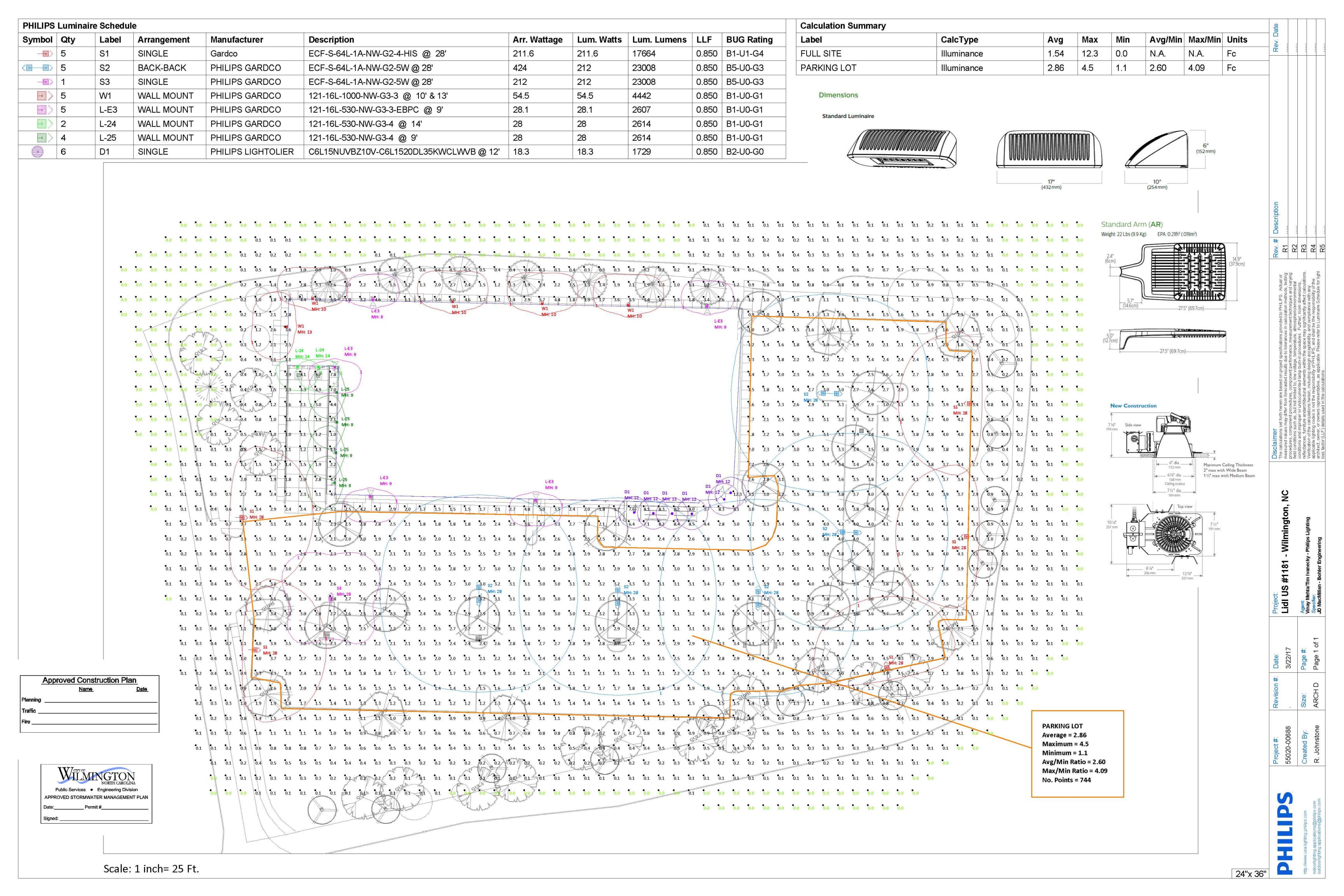


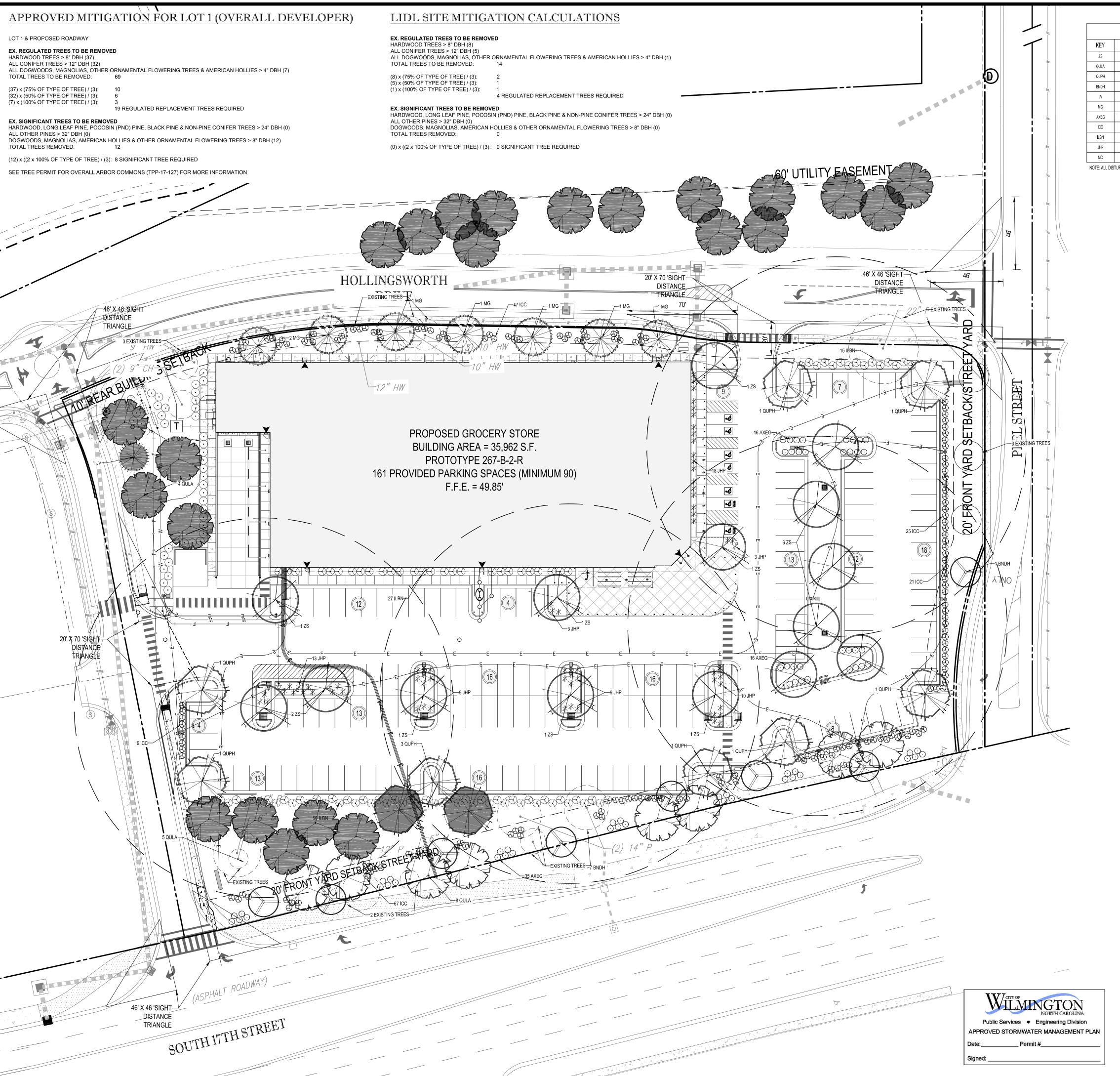
4130 PARKLAKE AVE., SUITE 130 RALEIGH, NC 27612
Phone: (919) 578-9000
Fax: (919) 703-2665 NC@BohlerEng.com



UTILITY PLAN

C = 5.0





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		LAN	NDSCAPE SCHED	ULE			
KEY	QTY.	BOTANICAL NAME	COMMON NAME	CAL.	CONT.	SIZE	REMARKS
ZS	15	ZELKOVA SERRATA	JAPANESE ZELKOVA	2.5" CAL	B&B	12-14' HT	FULL
QULA	12	QUERCUS LAURIFOLIA	LAUREL OAK	2.5" CAL	B&B	12-14' HT	FULL, CENTRAL LEADER
QUPH	10	QUERCUS PHELLOS 'HIGHTOWER'	HIGHTOWER' WILLOW OAK	2.5" CAL	B&B	12-14' HT	FULL, CENTRAL LEADER
BNDH	8	BETULA NIGRA 'DURA HEAT'	DURA HEAT RIVER BIRCH		B&B	8-10' HT	FULL, 3-5 CANES
JV	1	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR		B&B	8-10' HT	FULL
MG	7	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	2.5" CAL	B&B	8-10' HT	FULL
AXEG	67	ABELIA X. 'EDWARD GOUCHER'	EDWARD GOUCHER ABELIA		5 GAL.	24-30" HT	FULL
ICC	169	ILEX VOMITORIA 'STOKES DWARF'	STOKES DWARF YAUPON HOLLY		5 GAL.	36" HT	FULL
ILBN	92	ILEX CORNUTA 'DWARF BURFORD'	DWARF BURFORD HOLLY		5 GAL.	36" HT	FULL
JHP	65	JUNIPERUS HORIZONTALIS PLUMOSA	SHORE JUNIPER		5 GAL.	24-30" HT	FULL
MC	43	MYRICA CERIFERA	WAX MYRTLE		B&B	3-6' HT	FULL

NOTE: ALL DISTURBED AREAS TO RECEIVE FULL STAND OF TIFBLAIR CENTIPEDE GRASS SOD

LANDSCAPE COMPLIANCE CHART CITY OF WILMINGTON, NC

REQUIREMENTS	CALCULATIONS & NOTES
SEC. 18-455 LANDSCAPE DISTURBANCE A MINIMUM OF 15 TREES SHALL BE RETAINED OR PLANTED FOR EACH AREA DISTURBED BY DEVELOPMENT	TOTAL DISTURBED AREA: 3.97 AC REQUIRED: 3.97 X 15 = 60 TREES PROVIDED: 58 NEW TREES + 10 EXISTING TREES
SEC. 18-477 - STREET YARD LANDSCAPING PRIMARY STREET YARD • FOR EVERY 600 SF OF STREET YARD: 1 TREE + 6 SHRUBS • STREET YARD FACTOR = 18 SECONDARY STREET YARD • FOR EVERY 600 SF OF STREET YARD: 1 TREE + 6 SHRUBS • STREET YARD FACTOR = 9 SEC. 18-481 - PARKING LOT LANDSCAPING • ALL SINGLE PARKING ISLANDS SHALL HAVE AT LEAST 1 TREE • ALL DOUBLE PARKING ISLANDS SHALL HAVE 2 SMALL MATURING OR 1 CANOPY TREE • NO PARKING SPACE SHALL BE LOCATED MORE THAN 120' FROM PARKING	595 LF OF PROPERTY LINE ALONG S 17TH ST. MINUS 31 LF OF DRIVEWAY/SIDEWALK OPENING = 564 LF OF PRIMARY STREET YARD REQUIRED: 17 TREES + 102 SHRUBS PROVIDED: 15 TREES + 2 EXISTING TREES + 102 SHRUBS 235 LF OF PROPERTY LINE ALONG PEEL ST. REQUIRED: 4 TREES + 21 SHRUBS PROVIDED: 1 NEW TREES + 3 EXISTING TREES + 21 SHRUBS 566 LF OF PROPERTY LINE ALONG HOLLINGSWORTH DR MINUS -43 LF OR DRIVEWAY = 523.56 LF REQUIRED: 8 TREES + 47 SHRUBS PROVIDED: 7 NEW TREES + 1 EXISTING + 47 SHRUBS TREES AND SHRUBS DISPERSED THROUGHOUT EACH PARKING LOT ISLAND TOTAL PARKING LOT AREA: 69,356.19 SHADE REQUIREMENT: 69,356.19 X .2 = 13,871.24 SF SHADE PROVIDED: 23 PARKING LOT TREES = 16,261 SF = 41.3%
ISLAND ALL ISLANDS SHALL HAVE ADDITIONAL GROUNDCOVER AND SHRUBBERY PARKING SHALL BE SCREENED BY SHRUBS WITH A MIN 3' HT 20% PARKING LOT SHADING REQUIRED 1 CANOPY TREE = 707 SF	
SEC. 18.490 - FOUNDATION PLANTINGS THE AREA OF THE BUILDING FACE ADJACENT TO THE PARKING AREA SHALL BE MULTIPLIED BY A MINIMUM OF 12% FACADE HEIGHT X WIDTH	SOUTH FACE: 29.5 X 183 = 5398.5 REQUIRED: 5398.5 X .12 = 647.82 SF PROVIDED: 939.53 SF EAST FACE: 29.5 X 110 = 3245 REQUIRED: 3245 X .12 = 389.4 SF PROVIDED: 404.85 SF
SEC. 18.460 MITIGATION EX. REGULATED TREES TO BE REMOVED HARDWOOD TREES >8" DBH (8) ALL CONIFER TREES >12" DBH (5) ALL DOGWOODS, MAGNOLIAS, ORNAMENTALS, HOLLIES >4" DBH (1) TOTAL TREES TO BE REMOVED: 14	EX. REGULATED TREES TO BE MITIGATED (8) x (75% OF TYPE OF TREE) / (3) = 2 (5) x (50% OF TYPE OF TREE) / (3) = 1 (1) x (100% OF TYPE OF TREE) / (3) = 1 4 REGULATED REPLACEMENT TREES REQUIRED 4 PROVIDED ON SITE
EX. SIGNIFICANT TREES TO BE REMOVED HARDWOOD, LONG LEAF PINE, POCOSIN PINE, BLACK PINE, & NON-PINE CONIFER TREES >24" DBH (0) ALL OTHER PINES >32" DBH (0) ALL DOGWOODS, MAGNOLIAS, ORNAMENTAL, HOLLIES >9" DBH (2) TOTAL TREES TO BE REMOVED: 0	EX. SIGNIFICANT TREES TO BE MITIGATED (0) X (2 X 100% OF TYPE OF TREE)] / 3 = 0 0 SIGNIFICANT REPLACEMENT TREES REQUIRED
ARBOR COMMONS MITIGATION • EX, REGULATED TREES TO BE REMOVED HARDWOOD TREES >8" DBH (37) ALL CONIFER TREES >12" DBH (32) ALL DOGWOODS, MAGNOLIAS, ORNAMENTALS, HOLLIES >4" DBH (7) TOTAL TREES TO BE REMOVED: 69	EX. REGULATED TREES TO BE MITIGATED (37) x (75% OF TYPE OF TREE) / (3) = 10 (32) x (50% OF TYPE OF TREE) / (3) = 6 (7) x (100% OF TYPE OF TREE) / (3) = 3 19 REGULATED REPLACEMENT TREES REQUIRED
EX. SIGNIFICANT TREES TO BE REMOVED HARDWOOD, LONG LEAF PINE, POCOSIN PINE, BLACK PINE, & NON-PINE CONIFER TREES >24" DBH (0) ALL OTHER PINES >32" DBH (0) ALL DOGWOODS, MAGNOLIAS, ORNAMENTAL, HOLLIES >9" DBH (12) TOTAL TREES TO BE REMOVED: 0	EX. SIGNIFICANT TREES TO BE MITIGATED (12) X (2 X 100% OF TYPE OF TREE)] / 3 = 8 8 SIGNIFICANT REPLACEMENT TREES REQUIRED 27 TOTAL TREES REQUIRED 8 PROVIDED ON SITE 14 PROVIDED NORTH OF HOLLINGSWORTH DRIVE EXTENSION 5 TO BE PAID FOR IN LIEU

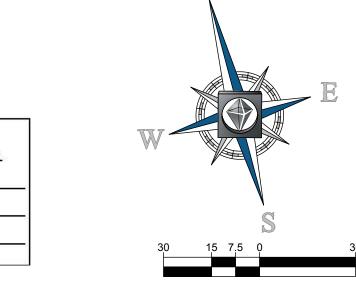
PLANTING NOTES:

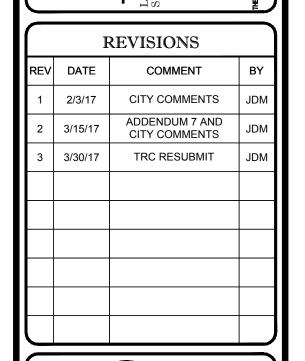
- 1. ALL LANDSCAPED AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL. 2. ALL MULCHED PLANTING BEDS ADJACENT TO BUILDING SHALL BE SEPARATED FROM FACE OF BUILDING WITH A 3' WIDE X 4" DEPTH PEA GRAVEL STRIP FOR
- 3. ALL PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE.
- ALL PLANT MATERIAL SHALL BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE PLANT LIST. ALL TREES SHALL HAVE A STRAIGHT TRUNK AND FULL HEAD AND MEET ALL REQUIREMENTS SPECIFIED.
- ALL MATERIALS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION. ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
- 8. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR 1) TO VERIFY THE LOCATIONS OF UTILITY LINES AND ADJACENT TO THE WORK AREA 2) TO PROTECT OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD 3) TO REPAIR ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE CONSTRUCTION. I. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK.
- 10. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING PER SPECIFICATIONS TO MAINTAIN HEALTHY PLANT CONDITIONS.
- 11. THE CONTRACTOR SHALL COMPLETELY GUARANTEE AND BE RESPONSIBLE FOR FULLY MAINTAINING (INCLUDING BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, FERTILIZING, ETC.) ALL OF THE PLANT MATERIALS AND LAWN FOR A ONE YEAR GROWING PERIOD.
- 12. ANY PLANT MATERIAL WHICH IS DISEASED, DISTRESSED, DEAD, OR REJECTED (PRIOR TO SUBSTANTIAL COMPLETION) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS. 13. STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM
- QUALITY REQUIREMENTS FOR PLANT MATERIAL.
- 14. WHERE SHOWN ON THE PLANS AND DETAILS, PLANTING BEDS ARE TO BE COMPLETELY COVERED WITH A MINIMUM 4" DEPTH OF TRIPLE SHRED HARDWOOD MULCH FROM A LOCAL MULCH SOURCE HARVESTED IN A SUSTAINABLE MANNER.
- 15. BIODEGRADABLE WEED MATTING (ALL-PRO WEED MAT OR APPROVED EQUAL) SHALL BE REQUIRED IN SHRUB BEDS AT BUILDING FACADE. 16. ALL PLANT MATERIAL QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS
- 17. THE CONTRACTOR IS ENCOURAGED TO COMPLETE TEMPORARY OR PERMANENT SEEDING IN STAGES FOR SOIL STABILIZATION AS AREAS ARE COMPLETED AFTER GRADING.
- 18. THIS PLAN DOES NOT PRESENT ANY TEMPORARY STABILIZATION REQUIRED AS PART OF SWPPP PLAN. 19. PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.



INDICATES TREE TO BE PLACED FOR MITIGATION PURPOSES

Approved Construction Plan







NOT APPROVED FOR CONSTRUCTION

DRAWN BY:

PROPOSED GROCERY

LIDL US OPERATIONS,

LOCATION OF SITE 4355 S 17TH STREET WILMINGTON, NC 28412



4130 PARKLAKE AVE., SUITE 130 RALEIGH, NC 27612 Phone: (919) 578-9000 Fax: (919) 703-2665 NC@BohlerEng.com



LANDSCAPE PLAN

LANDSCAPE SPECIFICATIONS

THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

- A. GENERAL ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF
- B. TOPSOIL NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
- C. LAWN ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM SIX INCH (6") THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES.
- 1.1. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED 1.2. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS. 1.3. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
- D. MULCH THE MULCH AROUND THE PERIMETER OF THE BUILDING SHALL BE A 3" LAYER OF DOUBLE SHREDDED BLACK CEDAR MULCH ONLY. ALL OTHER AREAS SHALL BE MULCHED WITH A 3" LAYER OF DOUBLE SHREDDED DARK BROWN HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN.

E. FERTILIZER

- 1.1. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY
- 1.2. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.

- 1.1. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1),
- LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION 1.2. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL 1.3. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH
- SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION. 1.4. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 11/4", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED.PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE
- 1.5. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED
- BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE. 1.6. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE
- NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.

1.8. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURE

- A. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY, ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR
- B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS. BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

- A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
- B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN. SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.
- C. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

- A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
- B. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE', OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.
- . WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.
- D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE

- A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
- B. LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON
- : THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY 1.1. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12".
- USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5. 12 TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO
- MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE. 1.3. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX

- A. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.
- B. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1"±).
- 2. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE
- D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN

- ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED
- B. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.
- ALL PLANTING AND LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA):
- 1.1. 20 POUNDS 'GROW POWER' OR APPROVED EQUAL 1.2. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP
- E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS

A. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE

- B. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR
- C. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS.
- . ALL PLANTING CONTAINERS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING
- E. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS. MAKING NECESSARY ADJUSTMENTS AS DIRECTED
- F. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUN SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS: 1.1. PLANTS: MARCH 15 TO DECEMBER 15
- 1.2. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1
- G. PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS
- H. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON
- ACER RUBRUM PLATANUS X ACERIFOLIA POPULOUS VARIETIES **BETULA VARIETIES** CARPINUS VARIETIES PRUNUS VARIETIES CRATAEGUS VARIETIES PYRUS VARIETIES

QUERCUS VARIETIES

- LIRIODENDRON TULIPIFERA ZELKOVA VARIETIES PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
- 1 PART COMPOSTED COW MANURE BY VOLUME • 3 PARTS TOPSOIL BY VOLUME

KOELREUTERIA

- 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
- A) 2 TABLETS PER 1 GALLON PLANT B) 3 TABLETS PER 5 GALLON PLANT

LIQUIDAMBER STYRACIFLUA TILIA TOMENTOSA

- C) 4 TABLETS PER 15 GALLON PLANT D) LARGER PLANTS: 2 TABLETS PER 1/2" CALIPER OF TRUNK
- J. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY. K. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.
- L. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.
- M. GROUND COVER AREAS SHALL RECEIVE A 1/2" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
- N. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND
- O. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
- P. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS

TRANSPLANTING (WHEN REQUIRED ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.

- B. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND
- PROTECTED FROM EXTREME HEAT, SUN AND WIND.
- C. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
- D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
- E. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
- F. IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES
- A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.
- B. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL

SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.

C. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS,

A. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10% OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED. REPRESENTATIVE

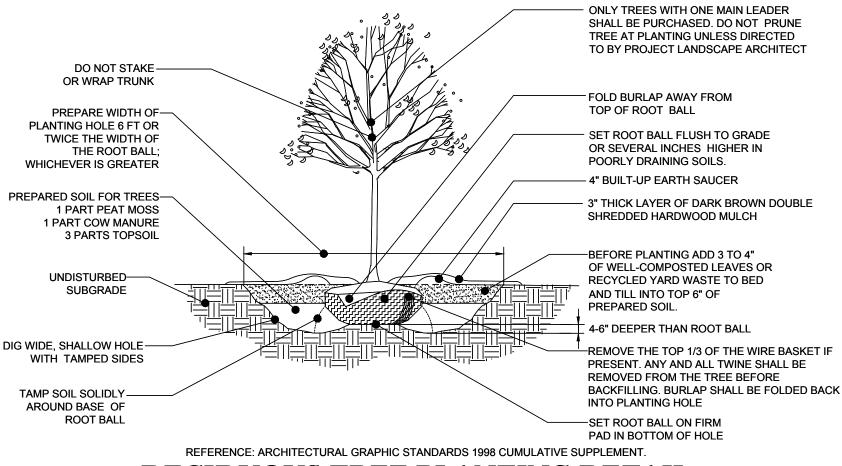
B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT

- MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT C. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE
- PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.
- D. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
- A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.

B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED

ONLY TREES WITH ONE MAIN LEADER SHALL BE PURCHASED, DO NOT PRUNE TREE AT PLANTING UNLESS DIRECTED TO BY PROJECT LANDSCAPE DO NOT STAKE OR -FOLD BURLAP AWAY FROM TOP OF WRAP TRUNK ROOT BALL PREPARE WIDTH OF -SET ROOT BALL FLUSH TO GRADE OR PLANTING HOLE 6 FT SEVERAL INCHES HIGHER IN POORLY DRAINING SOILS. OR TWICE THE WIDTH OF THE ROOT BALL 4" BUILT-UP FARTH SAUCER WHICHEVER IS GREATER 3" THICK LAYER OF DARK **BROWN DOUBLE SHREDDED** HARDWOOD MULCH PREPARED SOIL FOR TREES 1 PART PEAT MOSS 1 BEFORE PLANTING ADD 3 TO 4" PART COW MANURE 3 OF WELL-COMPOSTED LEAVES PARTS TOPSOIL OR RECYCLED YARD WASTE TO BED AND TILL INTO TOP 6" OF PREPARED SOIL. I-6" DEEPER THAN ROOT BALL UNDISTURBED-SUBGRADE REMOVE THE TOP 1/3 OF THE WIRE BASKET IF PRESENT. ANY AND ALL TWINE SHALL BE DIG WIDE, SHALLOW HOLE-REMOVED FROM THE TREE BEFORE WITH TAMPED SIDES BACKFILLING. BURLAP SHALL BE FOLDED TAMP SOIL SOLIDLY AROUND BACK INTO PLANTING HOLE BASE OF ROOT BALL SET ROOT BALL ON FIRM PAD IN BOTTOM OF HOLE REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

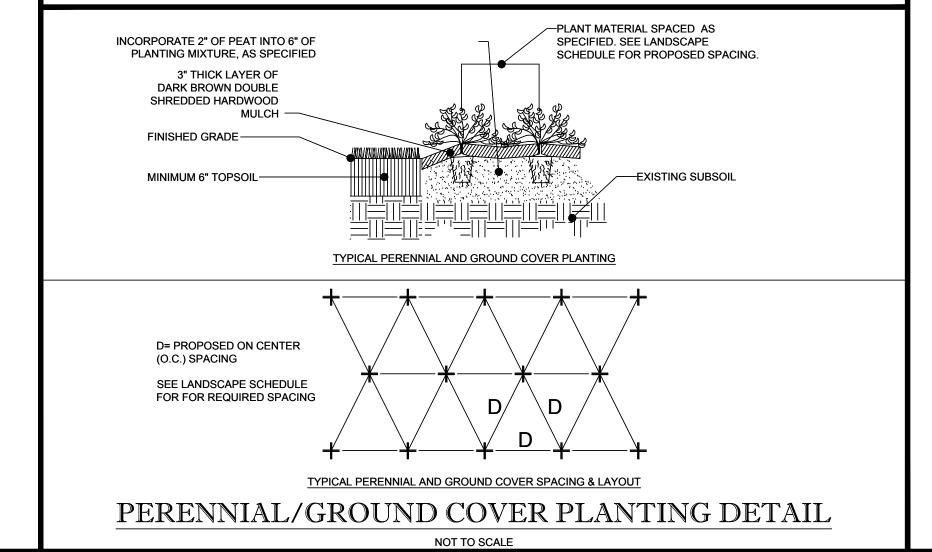
EVERGREEN TREE PLANTING DETAIL

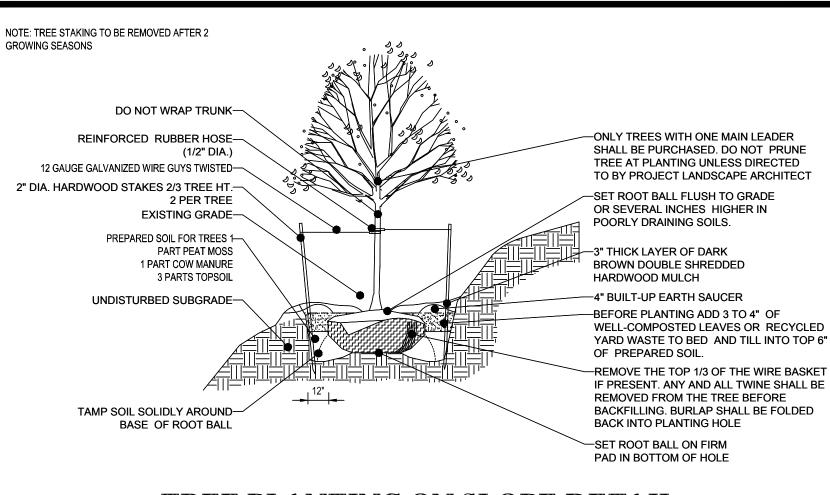


DECIDUOUS TREE PLANTING DETAIL

PLANT SHALL BE-FOR CONTAINER-GROWN TRANSPLANTED AT THE SAME SHRUBS, USE FINGER OR GRADE AS IT BORE IN THE SMALL HAND TOOLS TO PULL NURSERY PLOT PRIOR TO THE ROOTS OUT OF THE OUTE BALLING AND BURLAPPING. LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY PLANTING MIX: -ROOTS THAT CIRCLE THE 1 PART PEAT MOSS PERIMETER OF THE CONTAINE 1 PART COW MANURE PARTS TOPSOIL PLANTING 3" THICK LAYER OF DARK MIXTURE WILL CHANGE WITH BROWN DOUBLE SOIL CONDITIONS SHREDDED HARDWOOD MUI CH -FINISHED GRADE BEFORE PLANTING, ADD 3 TO 4" — PLACE SHRUB ON OF WELL-COMPOSTED LEAVES AND RECYCLED YARD WASTE FIRM SOIL IN BOTTOM OF HOLE. TO BED AND TILL INTO TOP 6" OF PREPARED SOIL REMOVE THE TOP 1/3 OF THE WIRE BASKET IF PRESENT. ANY UNDISTURBED 24" MINIMUM AND ALL TWINE SHALL BE SUBGRADE REMOVED FROM THE SHRUB BEFORE BACKFILLING, BURLAP -SOIL SURFACE ROUGHENED SHALL BE FOLDED BACK INTO TO BIND WITH NEW SOIL. PLANTING HOLE

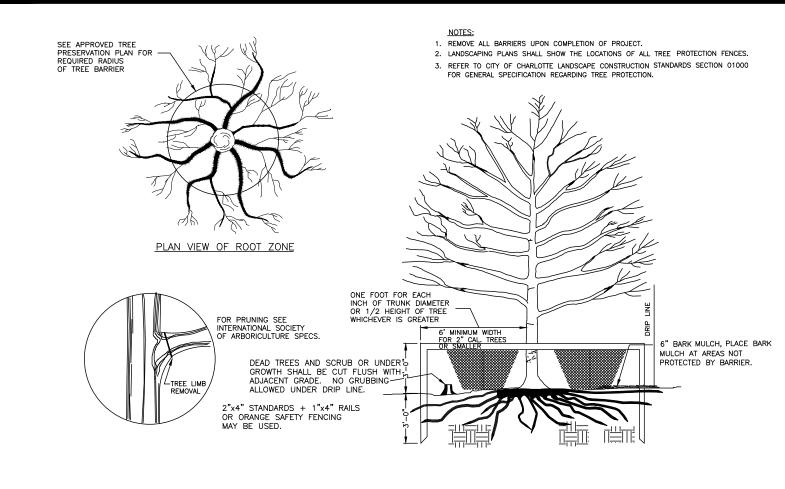
REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL NOT TO SCALE





TREE PLANTING ON SLOPE DETAIL

NOT TO SCALE



TREE PROTECTION DETAIL

OWNER MAINTENANCE RESPONSIBILITIES

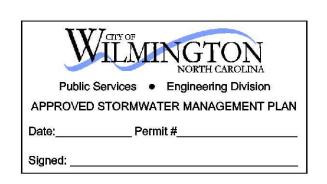
UPON OWNER'S (OR OWNER CONTRACTOR'S) COMPLETION OF LANDSCAPING WORK, THE OWNER IS FULLY RESPONSIBLE FOR ALL FUTURE MAINTENANCE, CARE, UPKEEP, WATERING, AND TRIMMING OF ALL INSTALLED VEGETATION, PLANTS, TREE, BUSHES, SHRUBS, GRASSES, GRASS, ORNAMENTAL PLANTS AND FLOWERS, FLOWERS, GROUND COVER, AND LANDSCAPING, INCLUDING ALL LANDSCAPE ISLANDS AND AREAS ADJACENT OR PART OF THE LANDSCAPED AREAS. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:

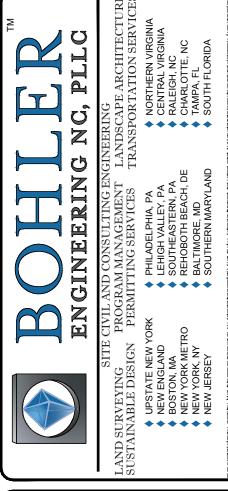
- TREES ADJACENT TO WALKWAYS AND AREAS OF PEDESTRIAN TRAFFIC MUST BE MAINTAINED TO ASSURE THAT ANY BRANCHES MUST BE LIMBED UP TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PEDESTRIAN SURFACES) OR PRUNED BACK TO AVOID ANY INTERFERENCE WITH THE TYPICAL PATH OF TRAVEL.
- THE PLANT EXCEEDS 30 INCHES ABOVE GRADE (OF ALL PAVED, TRAVEL SURFACES) ALONG AND WITHIN THE SIGHT LINES OF PARKING LOTS AND INGRESS-EGRESS WAYS.
- FALLEN PLANT FLOWERS, FRUIT, SEEDS AND DEBRIS DROPPINGS ARE TO BE REMOVED IMMEDIATELY FROM VEHICULAR AND PEDESTRIAN TRAFFIC AREAS TO PREVENT TRIPPING, SLIPPING OR ANY OTHER HAZARDS.

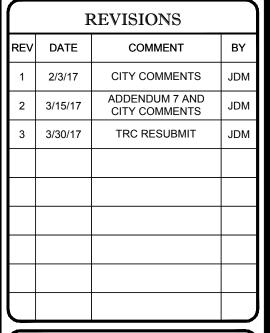
THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE.

- TREES WITHIN VEHICULAR SIGHT LINES, AS ILLUSTRATED ON THE LANDSCAPE PLAN, ARE TO BE TRIMMED TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PAVED, TRAVELED SURFACES), OR AS OTHERWISE INDICATED ON THE PLANS.
- VEGETATIVE GROUND COVER, SHRUBS AND ORNAMENTAL PLANTS AND GRASSES MUST BE TRIMMED SO THAT NO PORTION OF

Approved Construction Plan









NOT APPROVED FOR CONSTRUCTION

DRAWN BY AS NOTED SCALE:

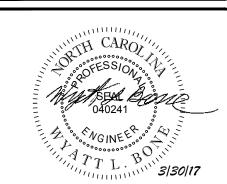
PROPOSED GROCERY

LIDL US OPERATIONS,

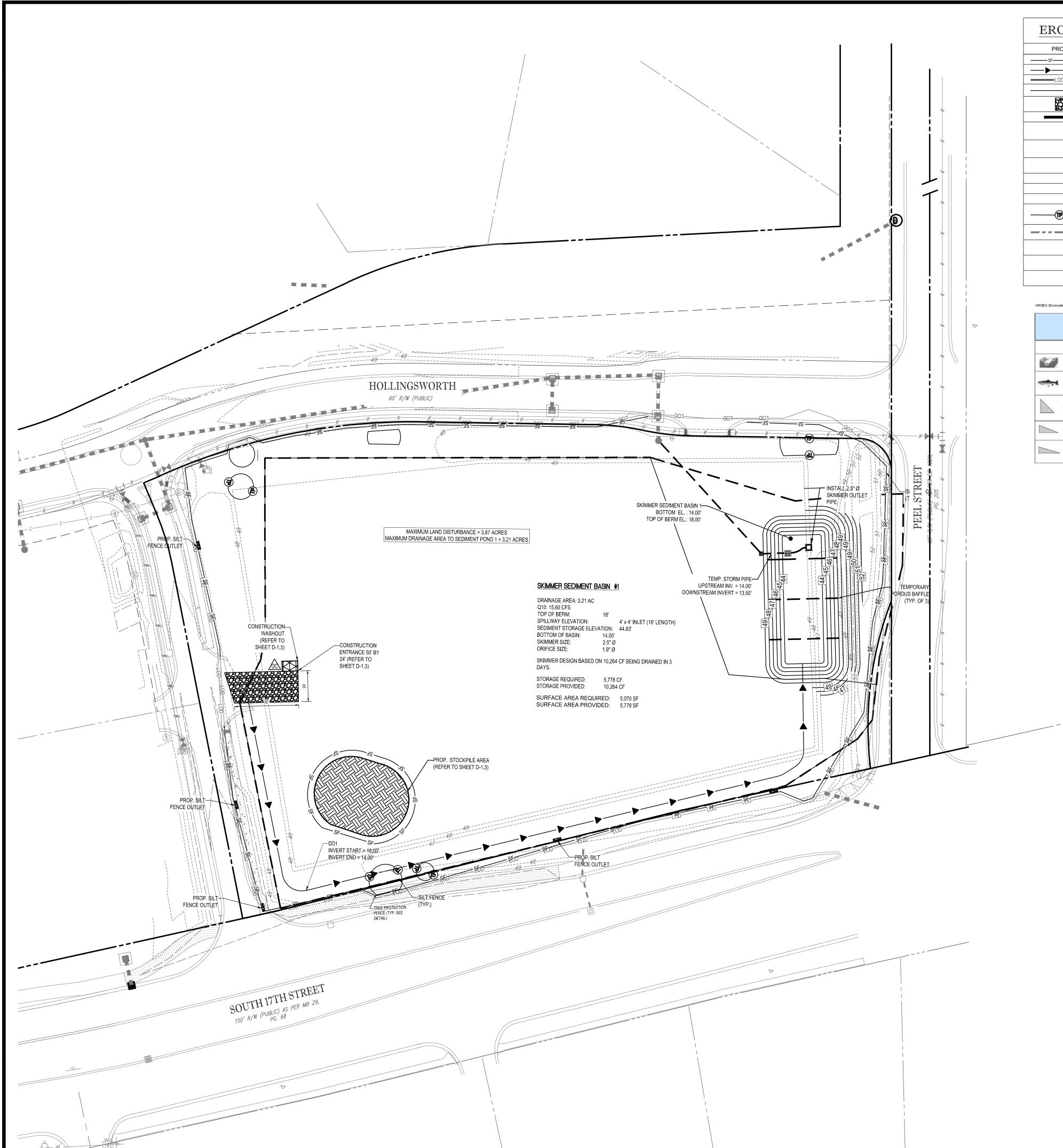
LOCATION OF SITE 4355 S 17TH STREET WILMINGTON, NC 28412



4130 PARKLAKE AVE., SUITE 130 RALEIGH, NC 27612 Phone: (919) 578-9000 Fax: (919) 703-2665 NC@BohlerEng.com



LANDSCAPE



t:2015NCR151031\DRAWINGS\PLAN SETS\NCR151031SS2.DWG PRINTED BY: JMACMILLAN 5.11.17 @ 2:59 PM LAST SAVED BY: JMACMILLAN

EROSION CONTROL LEGEND PROPOSED NOTE TYPICAL NOTE TEXT SILT FENCE TEMPORARY DIVERSION DIKE LIMITS OF DISTURBANCE TEMPORARY CONTOUR CONST. ENTRANCE TEMPORARY BAFFLE TEMPORARY SOIL STOCKPILE XXXCONCRETE WASHOUT DUST CONTROL SILT FENCE OUTLET SLOPE DRAIN DIKE CHECK DAM TREE PROTECTION FENCE SOILS BOUNDARY _---

NPDES Stormwater Discharge Permit for Construction Activities (NCGO1)

Mu

NCDENR/Division of Energy, Mineral and Land Resources

	ZATION TIMEFRAM ffective Aug. 3, 2011)	IES
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 are allowed.
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50' in length.
All other areas with slopes flatter than 4:1	14 days	None, except for perimeters and HQW Zones

LEON SAND

(0% - 2% SLOPES)

MURVILLE FINE SAND

(0% - 2% SLOPES)

RIMINI SAND

(1% - 6% SLOPES)

TEMPORARY SEEDING
TEMPORARY SEEDING SHALL BE USED TO SUPPLEMENT PERMANENT
SEEDING AND ENSURE VIGOROUS STAND OF GRASS AND SURFACE
STABILIZATION.

Seeding mixture	
Species	Rate (lb/acre)
Rye (grain)	120
Seeding dates	
Mountains-Aug. 15 - Dec. 15	
Coastal Plain and Piedmont—	Aug. 15 - Dec. 30
Soil amendments	
Follow soil tests or apply 2,00	00 lb/acre ground agricultural limestone
and 1,000 lb/acre 10-10-10 fer	
Mulch	
Apply 4,000 lb/acre straw, Appl	hor straw by tacking with asphalt, netting,

or a mulch anchoring tool. A disk with blades set nearly straight can be

Repair and refertilize damaged areas immediately. Topdress with 50

lb/acre of nitrogen in March. If it is necessary to extent temporary

cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or

PLANTING TIME: LATE WINTER EARLY SPRING

used as a mulch anchoring tool.

Maintenance

early March.

Seeding mixture	
Species	Rate (lb/acre)
Rye (grain)	120
Annual lespedeza (Kobe in	
Piedmont and Coastal Plain,	
Korean in Mountains)	50
Omit annual lespedeza when duration extend beyond June.	of temporary cover is not to
Seeding dates	
Mountains—Above 2500 feet: Feb. 15 - Below 2500 feet: Feb. 1- N	
Piedmont—Jan. 1 - May 1	
Coastal Plain-Dec. 1 - Apr. 15	
Soil amendments	
Follow recommendations of soil tests agricultural limestone and 750 lb/acre 1	
Mulch	
Apply 4,000 lb/acre straw. Anchor straw	by tacking with asphalt, netting
or a mulch anchoring tool. A disk with b	
[2] 영화 : [4] [4] [4] [4] [4] [4] [4] [4] [4] [4]	

used as a mulch anchoring tool.

Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

NCDENR EROSION AND SEDIMENT CONTROL NOTES

- 1. ON-SITE BURIAL PITS ARE NOT ALLOWED AT ANY LOCATION WITHIN THE CITY OF EDEN.
- 2. ANY GRADING BEYOND THE LIMITS OF CONSTRUCTION SHOWN ON THIS PLAN IS SUBJECT TO A FINE.
- GRADING 1 ACRE OR MORE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION AND SUBJECT TO A FINE.
 GROUND STABILIZATION MUST OCCUR WITHIN 7 DAYS ON PERIMETER AREAS AND SLOPES GREATER THAN 3:1, AND GROUND
- STABILIZATION MUST OCCUR WITHIN 14 DAYS ON OTHER AREAS.

 5. INSTALL STORM STRUCTURE A2 AND PIPE FROM A2 TO A1 AS PER THE SHEET C-4.0. BASIN OUTLET STRUCTURES WITH DRAINAGE AREAS EQUAL OR GREATER THAN ONE ACRES MUST WITHDRAW WATER FROM THE SURFACE.
 - 6. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY THE NCDENR EROSION CONTROL INSPECTOR.
- ALL ELEVATIONS ARE IN REFERENCE TO THE SURVEYORS BENCHMARK WHICH MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.
- 8. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N.C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U.S. DEPT. OF AGRICULTURE, AND ANY APPLICABLE LOCAL LAWS AND CODES.
- 9. PERMANENT CUT AND FILL SLOPES PLACED ON A SUITABLE FOUNDATION SHOULD BE CONSTRUCTED AT 2:1(HORIZONTAL TO VERTICAL) OR FLATTER. PERMANENT SLOPES OF 3:1 SHOULD BE CONSTRUCTED WHERE MOWING IS DESIRABLE AND AS INDICATED. IF FILL MATERIAL IS BROUGHT ONTO THE PROPERTY OR IF WASTE MATERIAL IS HAULED FROM THE PROPERTY THEN
- THE CONTRACTOR SHALL DISCLOSE THE LOCATION OF ANY ON-SITE AND/OR OFF-SITE BARROW LOCATION AND/OR WASTE BURIAL LOCATION TO THE EROSION CONTROL INSPECTOR.
- 10. LIMITS OF CLEARING SHOWN ARE BASED ON CUT AND FILL SLOPES OR OTHER GRADING REQUIREMENTS.

 11. CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES AS INDICATED PRIOR TO GRADING OPERATIONS. NO DEVICE
- 12. CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY WITH EXISTING CONTOURS.

MAY BE REMOVED WITHOUT APPROVAL OF EROSION CONTROL COORDINATOR.

- ALL DISTANCES ARE HORIZONTAL GROUND.
 ANCHOR SILT FENCE WITH COMPACTED BACKFILL ON TREE PROTECTION ZONES. <u>DO NOT BURY.</u>
 ALL EROSION CONTROL DEVICES SHOULD BE CHECKED PERIODICALLY AND AFTER EVERY MAJOR STORM EVENT. IF ANY
- FAILURES ARE FOUND, THEY SHOULD BE REPAIRED AS SOON AS POSSIBLE.

 16. ANY ASSOCIATED DEMOLITION PERMITS AND METHODS OF DEMOLITION ARE TO BE OBTAINED AND ARRANGED BY THE
- 16. ANY ASSOCIATED DEMOLITION PERMITS AND METHODS OF DEMOLITION ARE TO BE OBTAINED AND ARRANGED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
 17. SEDIMENT TRAPS AND BASINS NEED TO BE STABILIZED IMMEDIATELY AFTER INSTALLATION.
- 18. STONE OUTLETS SHOULD BE INSTALLED AT LOW POINTS OF THE SILT FENCING, BASED ON FIELD CONDITIONS.
 19. EFFECTIVE OCTOBER 1, 2010, PERSONS RESPONSIBLE FOR LAND DISTURBING ACTIVITIES MUST INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. SELF-INSPECTION REPORTS ARE REQUIRED. A SAMPLE SELF-INSPECTION REPORT, AS WELL AS DETAILS OF THE
- IF YOU HAVE QUESTIONS OF THE SELF-INSPECTION PROGRAM, PLEASE CONTACT (877) 623-6748.

 20. A LAND DISTURBANCE PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO ANY DISTURBANCE ON THE SITE.
- ALL CONSTRUCTION SHALL COMPLY WITH NCDENR STANDARDS AND SPECIFICATIONS.
 LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN FROM THE BEST AVAILABLE RECORDS AND FROM A SURVEY OF ABOVE GROUND FEATURES. ALL EXISTING UTILITY LOCATIONS MUST BE INDEPENDENTLY CONFIRMED BY THE CONTRACTOR

SELF-INSPECTION PROGRAM, CAN BE FOUND ON THE LAND QUALITY WEBSITE (HTTP://PORTAL.NCDENR.ORG/WEB/LR/EROSION).

- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

 23. SITE GRADING AND EXCAVATION MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS, AND RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET, EXCAVATION AND EARTH MOVING OPERATIONS MUST BE REPORTED UNDER THE SUBJECT OF THE OWNER'S CECATEGUARDAL ENGINEER.
- MOVING OPERATIONS MUST BE PERFORMED UNDER THE SUPERVISION OF THE OWNER'S GEOTECHNICAL ENGINEER.

 24. FOOTING EXCAVATIONS SHALL BE CONTINUOUSLY DEWATERED DURING CONSTRUCTION TO PREVENT SETTLEMENT AND SEDIMENT DEPOSIT.

 25. ALL TEMPORARY DIVERSIONS MUST BE INSTALLED WITH POSITIVE DRAINAGE AND SHALL OPPOSE EXISTING GRADE WHEN
- NECESSARY TO PROVIDE A MINIMUM OF 0.3% LONGITUDINAL SLOPE.

 26. ALL ADJACENT ROADWAYS TO THE SITE ARE TO BE SWEPT (NOT WASHED) AT THE END OF EACH WORK DAY TO REMOVE SEDIMENT EROAD SUPPLIES.
- SEDIMENT FROM THE ROAD SURFACE.

 27. ALL EROSION CONTROL MEASURES MUST BE INSPECTED AND PROPERLY MAINTAINED AT THE END OF EACH WEEK AND AFTER EVERY BANKALL EVERY.
- EVERY RAINFALL EVENT.

 28. INSTALL ADDITIONAL EROSION CONTROL MEASURES AS REQUIRED TO PREVENT SEDIMENT FROM LEAVING THE SITE.

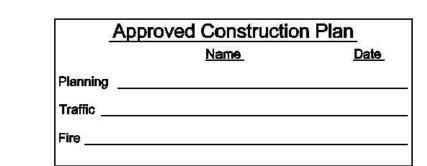
 29. CONTRACTOR SHALL PERFORM PRACTICES AND PROCEDURES WHICH MINIMIZE AND PREVENT AIRBORNE DUST OR OTHER
- PARTICLES FROM OCCURRING. PARTICLES WHICH CAN BE PICKED UP AND CARRIED BY WIND SHOULD BE PROTECTED WITH A TEMPORARY COVER OR KEPT UNDER CONTROL WITH WATER TO PREVENT PARTICLES FROM BECOMING AIRBORNE AND FROM EXISTING THE SITE PERIMETER. WATER TRUCKS OR OTHER DUST CONTROL AGENTS SHALL BE USED AS NEEDED DURING CONSTRUCTION TO MINIMIZE DUST GENERATE ON THE SITE. DUST CONTROL MUST BE PROVIDED BY THE CONTRACTOR TO A DEGREE THAT IS IN COMPLIANCE WITH FEDERAL, LOCAL, AND STATE DUST CONTROL REGULATIONS. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

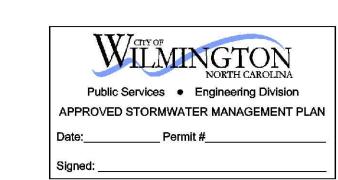
PHASE I EROSION CONTROL CONSTRUCTION SEQUENCE:

- POST REQUIRED DOCUMENTS NEAR THE PLANNED CONSTRUCTION ENTRANCE AND WITHIN EASY ACCESS TO THE GENERAL
- PUBLIC.

 2. STAKE/FLAG THE LOD (WHERE STAKING IS NOT POSSIBLE/PRACTICAL, THE LOD MUST BE CONSPICUOUSLY AND PROMINENTLY
- MARKED TO DENOTE THE BOUNDARY). LOD MUST REMAIN CONSPICUOUSLY MARKED THROUGHOUT THE ENTIRE CONSTRUCTION PROJECT.

 3. INSTALL SILT FENCE. CLEAR ONLY THE MINIMUM AREA ABSOLUTELY NECESSARY TO INSTALL THESE PERIMETER CONTROL BMPS.
- 4. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND SET THE PROJECT OFFICE TRAILER.
 5. CONSTRUCT SKIMMER SEDIMENT BASIN. STABILIZE SIDE SLOPES.
 6. CONSTRUCT AND STABILIZE DIVERSION DRAINING TO SKIMMER SEDIMENT BASIN.





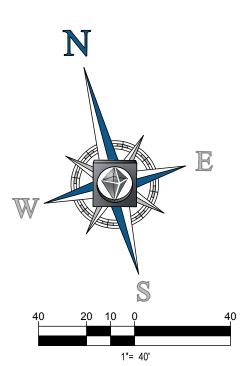
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IF A SINGLE SOURCE BARROW PIT IS UTILIZED IT SHALL ONLY SELL FILL TO THIS PROJECT.

SELL FILL TO THIS PROJECT.

THIS SITE IS WITHIN 575' OF SURFACE WATERS.

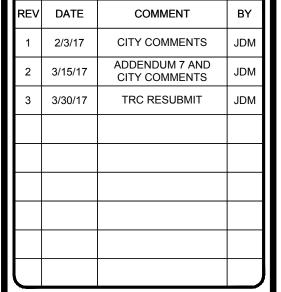
THIS SITE IS IN THE WHITE OAK RIVER BASIN.

THIS SITE DRAINS TO HQW.



ENGINEERING
STTE CIVIL AND CONSULTING ENGINEERING
STAINABLE DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES

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REVISIONS



NOT APPROVED FOR CONSTRUCTION

 PROJECT No.:
 NCR1510

 DRAWN BY:
 JI

 CHECKED BY:
 W

 DATE:
 3/30

 SCALE:
 1" =

 CAD I.D.:
 S

PROPOSED

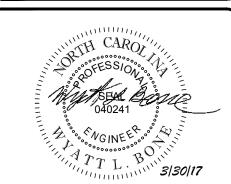
GROCERY

LIDL US
OPERATIONS

LOCATION OF SITE 4355 S 17TH STREET WILMINGTON, NC 28412

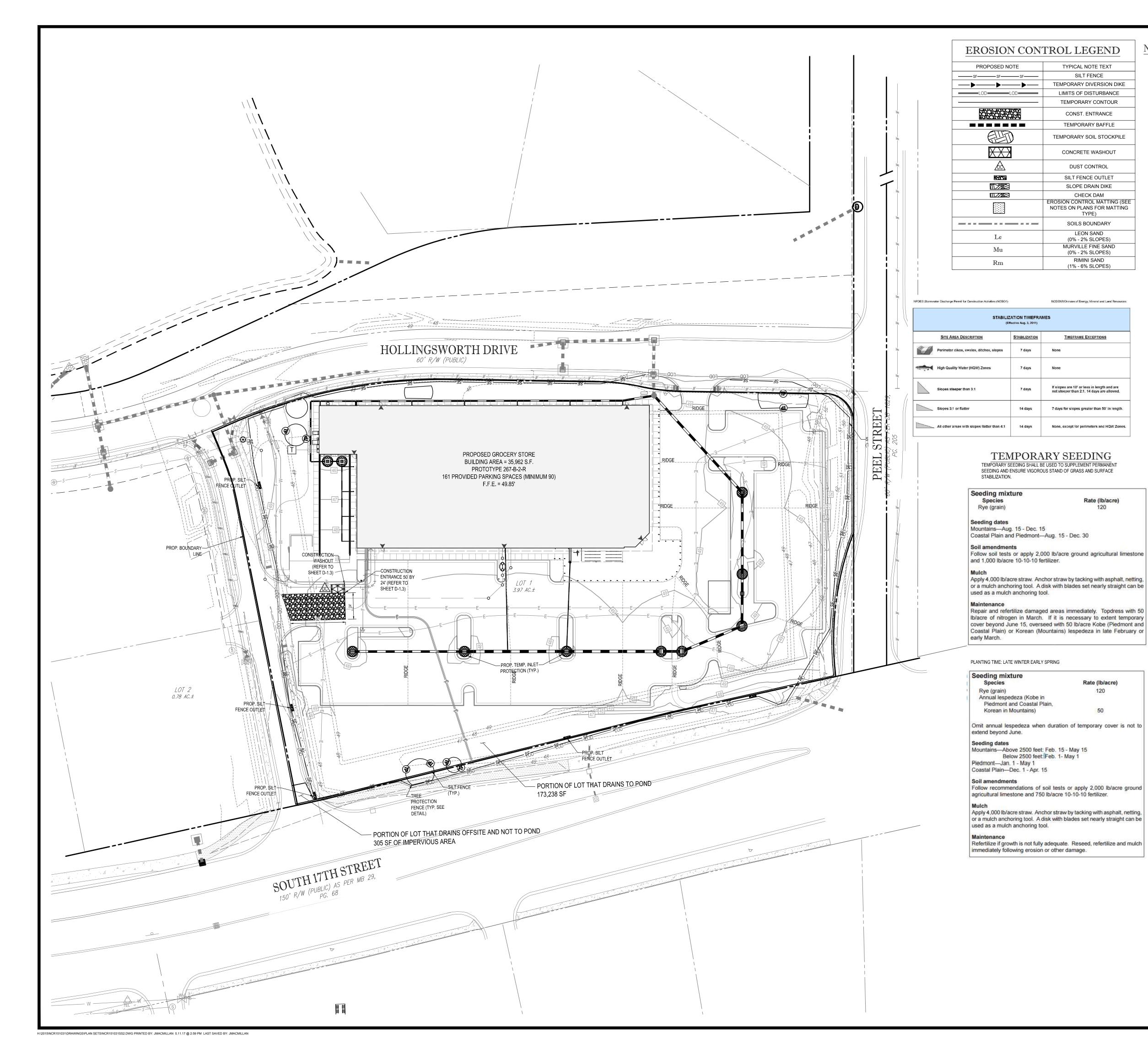


A130 PARKLAKE AVE., SUITE 130
RALEIGH, NC 27612
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com



SHEET TITLE:
EROSION AND
SEDIMENT
CONTROL
PHASE I

C=8.0



NCDENR EROSION AND SEDIMENT CONTROL NOTES

1. ON-SITE BURIAL PITS ARE NOT ALLOWED AT ANY LOCATION WITHIN THE CITY OF EDEN.

SILT FENCE

CONST. ENTRANCE

TEMPORARY BAFFLE

DUST CONTROL

SILT FENCE OUTLET

SLOPE DRAIN DIKE

CHECK DAM

TYPE)

SOILS BOUNDARY

LEON SAND

(0% - 2% SLOPES) MURVILLE FINE SAND

(0% - 2% SLOPES)

RIMINI SAND

(1% - 6% SLOPES)

Rate (lb/acre)

Rate (lb/acre)

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- 24. FOOTING EXCAVATIONS SHALL BE CONTINUOUSLY DEWATERED DURING CONSTRUCTION TO PREVENT SETTLEMENT AND 25. ALL TEMPORARY DIVERSIONS MUST BE INSTALLED WITH POSITIVE DRAINAGE AND SHALL OPPOSE EXISTING GRADE WHEN
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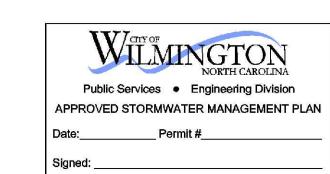
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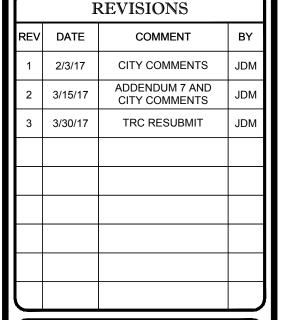
PHASE II EROSION CONTROL CONSTRUCTION

- 1. COMMENCE FILL OPERATIONS PLACE FILL SUCH THAT PERIMETER OF SITE DRAINS BACK TOWARDS INTERIOR OF SITE AND DIVERSIONS ADJUST LOCATION/ELEVATIONS OF DIVERSIONS AS NEEDED TO ENSURE ALL RUNOFF DURING FILL OPERATIONS IS DIRECTED TOWARDS RESPECTIVE SKIMMER SEDIMENT BASIN.
- INSTALL UTILITIES AND CONTINUE TO GRADE SITE. 3. INSTALL INLET PROTECTION ON PROPOSED INLETS UPON COMPLETION OF INSTALLATION.
- 4. STABILIZE AREAS BROUGHT TO FINISH GRADE WITH PERMANENT SEEDING PER THE LANDSCAPE PLAN OR ABC (PAVEMENT AREAS ONLY).
- REMOVE REMAINING DIVERSION DIKE/CHANNEL AND STABILIZE WITH PERMANENT
- SEEDING PER THE LANDSCAPE PLAN. REMOVE SKIMMER SEDIMENT BASIN AND STABILIZE AREA WITH
- PERMANENT SEEDING PER THE LANDSCAPE PLAN. REMOVE INLET PROTECTION FROM INLETS.
- REMOVE CONSTRUCTION ENTRANCE AND STABILIZE AREA.
- 10. UPON STABILIZING ENTIRE SITE REMOVE SILT FENCE
- 11. DEMOBILIZE FROM SITE CONTRACTOR SHALL NOT DEMOBILIZE UNTIL ENTIRE SITE HAS BEEN FULLY STABILIZED.

App	roved Construction	n Plan
W 64 354	<u>Name</u>	<u>Date</u>
Planning		
Traffic		
Fire		



- ANY BORROW OR WASTE MUST UTILIZE A SITE WITH AN APPROVED EROSION CONTROL PERMIT. IF A SINGLE SOURCE BARROW PIT IS UTILIZED IT SHALL ONLY
- SELL FILL TO THIS PROJECT. THIS SITE IS WITHIN 575' OF SURFACE WATERS. THIS SITE IS IN THE WHITE OAK RIVER BASIN. THIS SITE DRAINS TO HQW.





NOT APPROVED FOR CONSTRUCTION

It's fast. It's free. It's the law

DRAWN BY: SCALE:

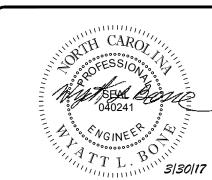
> PROPOSED GROCERY

LIDL US **OPERATIONS**

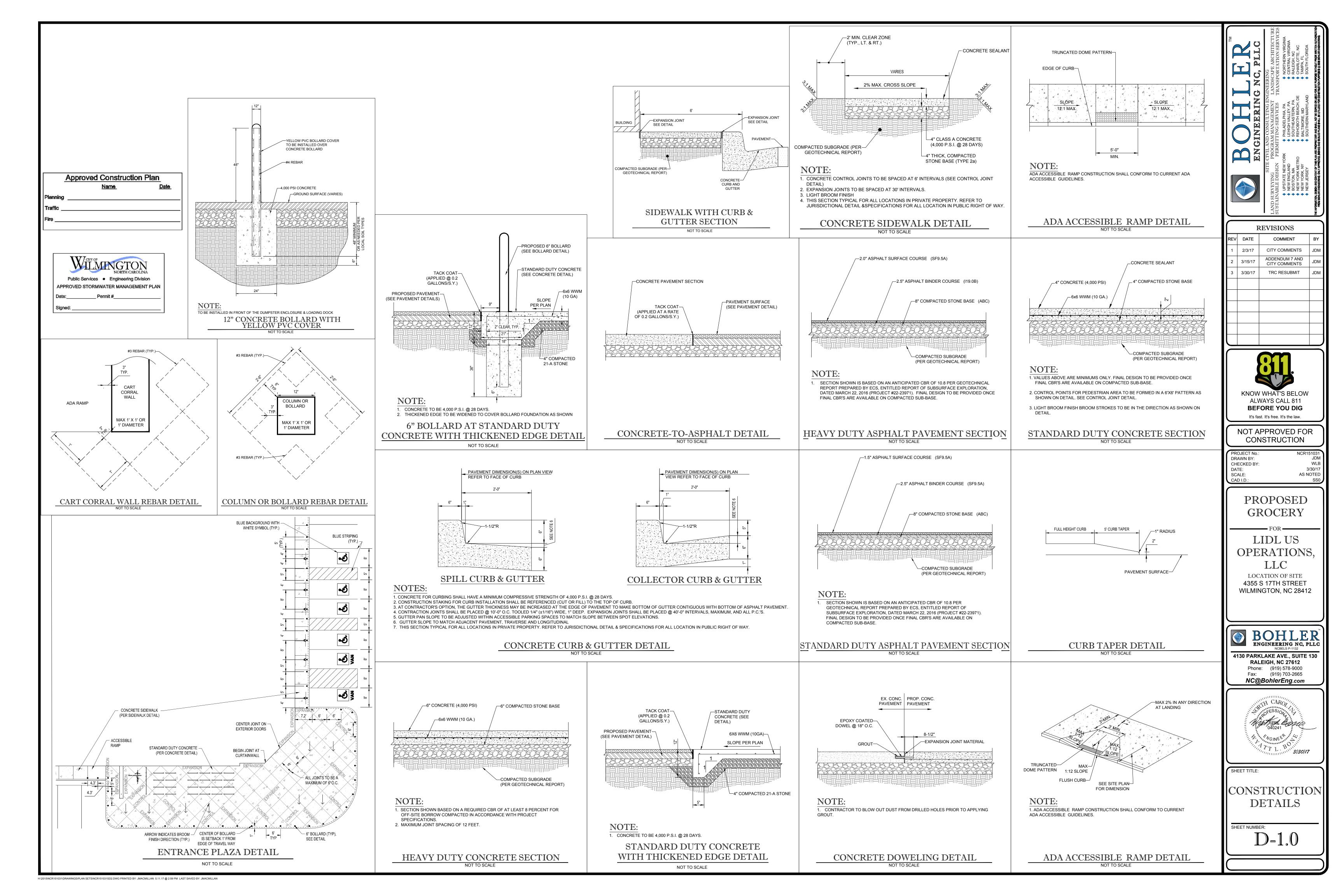
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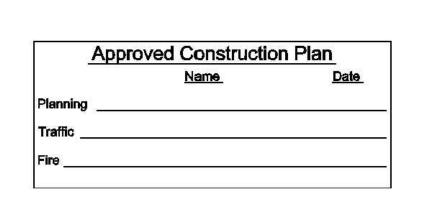


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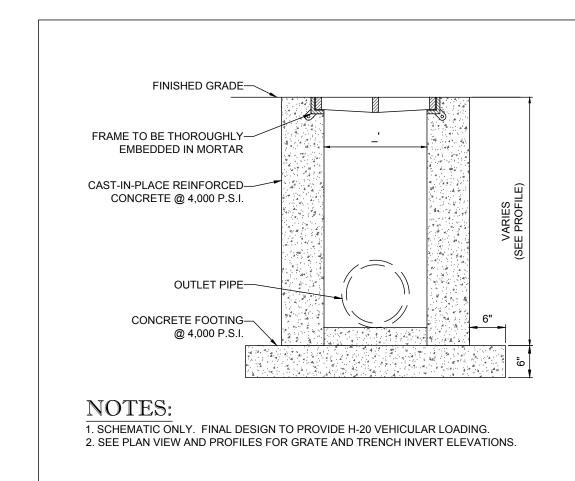


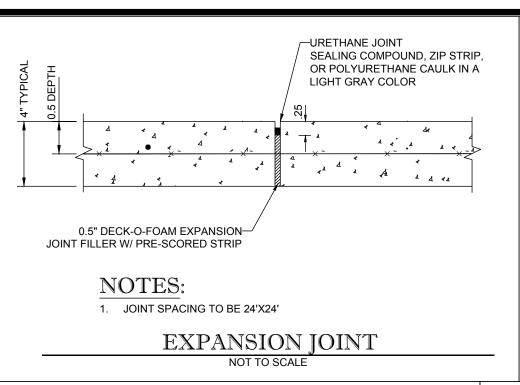
EROSION AND SEDIMENT CONTROL PHASE II

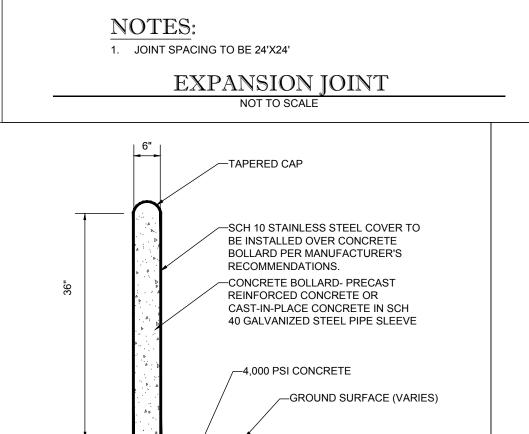


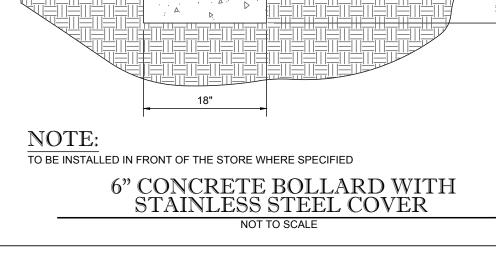


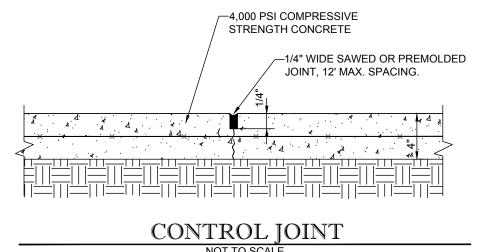
WILMINGTON Public Services • Engineering Division APPROVED STORMWATER MANAGEMENT PLAN











NOTES:

THIS DETAIL SERVES AS A GUIDELINE ONLY. STRUCTURAL ENGINEER TO DESIGN AND

3' TALL CONCRETE LIGHT POLE BASE

PROVIDE DOCUMENTATION FOR FINAL LIGHT POLE BASE DESIGN.

TEST PIT (TO BE HAND DUG)-

ADJUSTMENT TO-

EXTEND BEYOND LIMITS

OF CONFLICTS (3' MIN.,

EACH SIDE, CHECK

1.5' MIN. CLEARANCE-

LOCAL STANDARDS).

1. $\frac{1}{4}$ " DEEP TOOLED CONTROL JOINTS UTILIZING CONCRETE GROOVING

2 - 4" CONDUITS

—GROUND SURFACE (VARIES)

-2 - 4" CONDUITS.

CONDUITS.

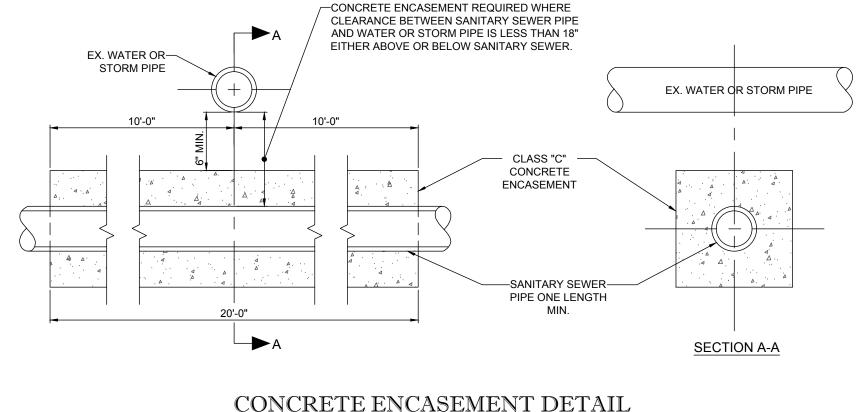
-FINISHED GRADE

UTILITY CONFLICT

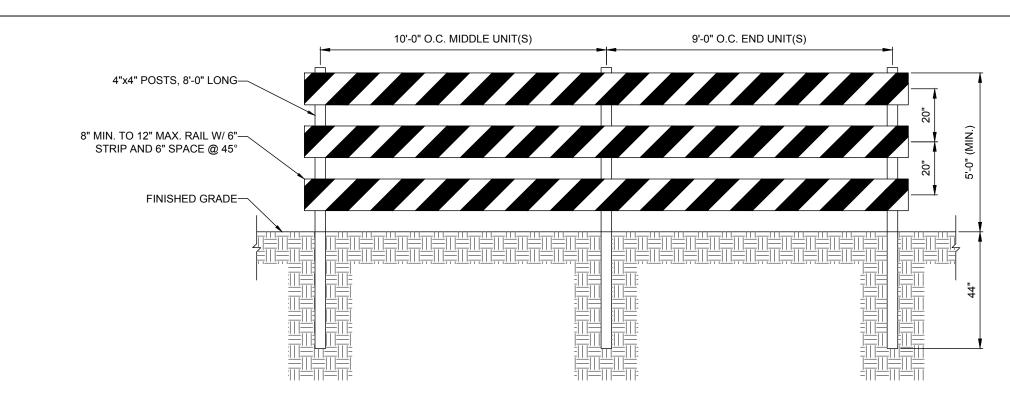
EACH 4" CONDUIT TO

CONNECT TO 4 - 1"

2. CONTROL JOINTS SHALL BE RE-ESTABLISHED AFTER BROOM FINISHING OPERATION.



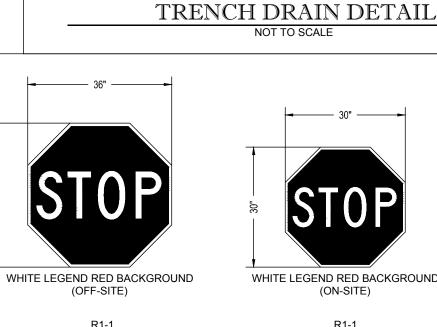
CONCRETE ENCASEMENT DETAIL



NOTES:

- 1) SEE PLAN VIEW FOR TRAFFIC BARRIER LOCATION(S). 2) POSTS AND PLANKS SHALL BE PRESSURE TREATED LUMBER.
- 3) PLANKS SHALL BE PAINTED COMPLETELY WHITE. POSTS SHALL BE PAINTED WHITE ON ALL SIDES TO WITHIN SIX INCHES (6 IN.) OF THE GROUND LEVEL. 4) GOOD QUALITY OIL BASE EXTERIOR GRADE PAINT MUST BE USED. SIX INCH (6 IN.) HIGH INTENSITY REFLECTIVE ORANGE AND WHITE STRIPE TAPE ON ONE SIDE FOR THE FULL LENGTH OF THE BARRICADE.
- 5) EACH PLANK SHALL BE SECURED TO EACH POST WITH (2)-\(\frac{3}{8}\) IN. X 6-\(\frac{1}{2}\) IN. CARRIAGE BOLTS OR WITH (2)- $\frac{7}{16}$ IN. x 4 IN. LAG SCREWS WITH WASHERS. BOLTS OR SCREWS ARE TO BE PLACED TWO INCHES (2 IN.) FROM EDGE OF PLANKS. 6) WHERE NECESSARY FOR SAFETY OF PEDESTRIAN TRAFFIC, A FULL EXTENSION OF THE BARRICADE MAY BE REQUIRED TO THE LIMITS OF THE RIGHT-OF-WAY.
- 7) WHERE PROVISION MUST BE MADE FOR ACCESS OF EQUIPMENT AND AUTHORIZED VEHICLES, LOCKABLE GATES MAY BE PROVIDED IN ONE SECTION OF

TRAFFIC BARRICADE DETAIL



36"X36"

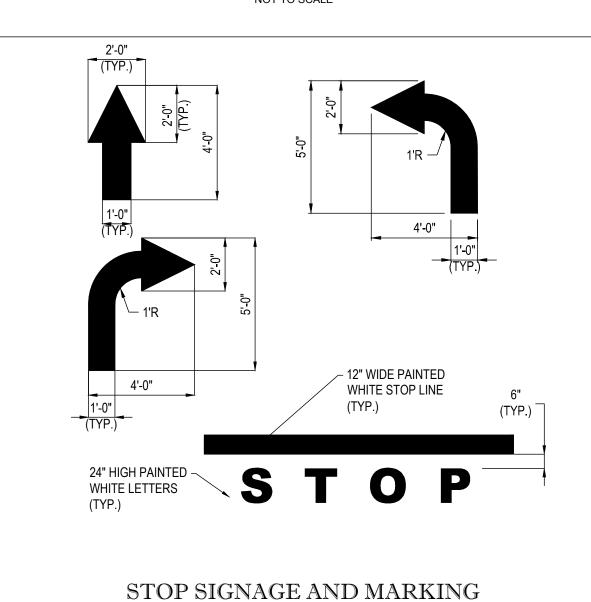
(WITHIN RIGHT-OF-WAY & AT ALL

PRIVATE EXITS ONTO RIGHT-OF-WAY)

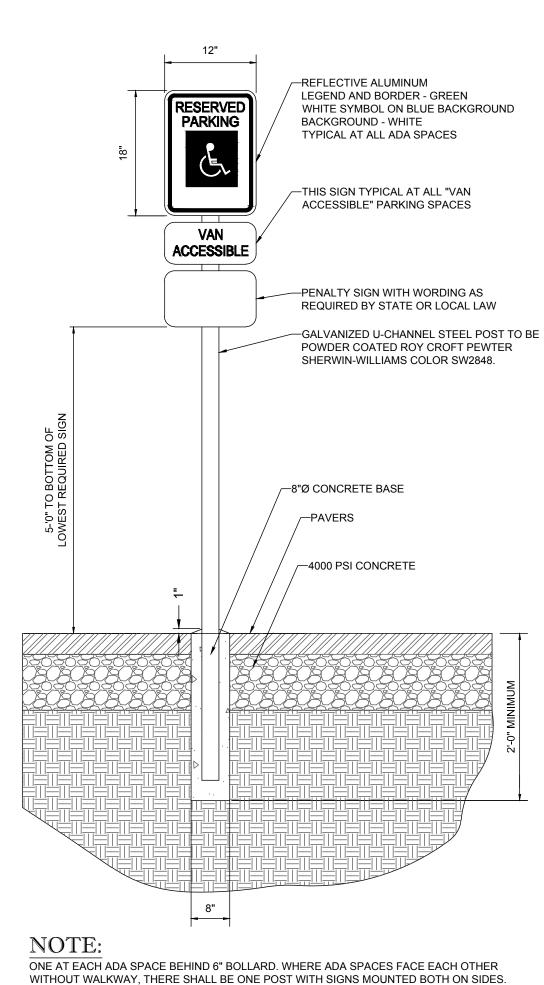
WHITE LEGEND RED BACKGROUND (ON-SITE)

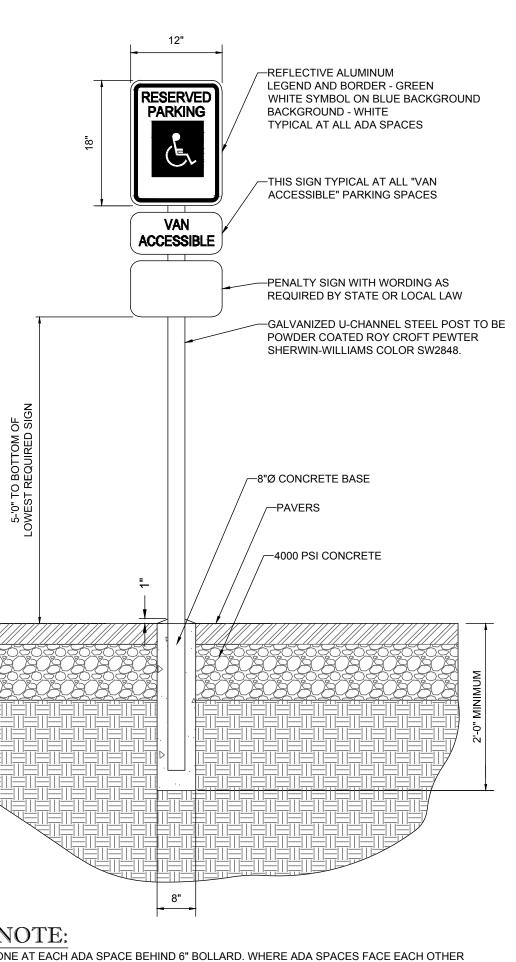
30"X30" (PRIVATE, INTERIOR INTERSECTIONS ON-SITE)

"STOP" SIGN

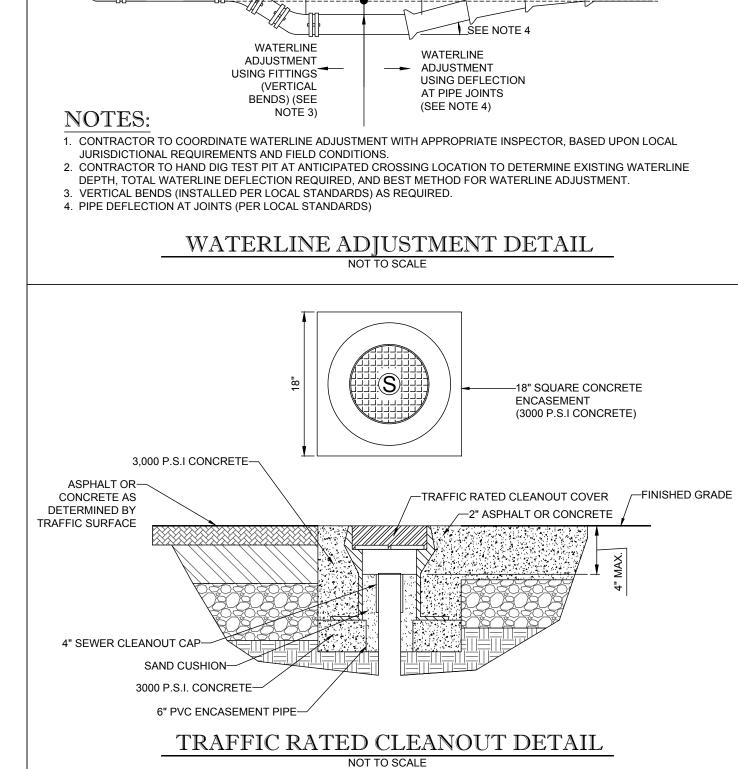


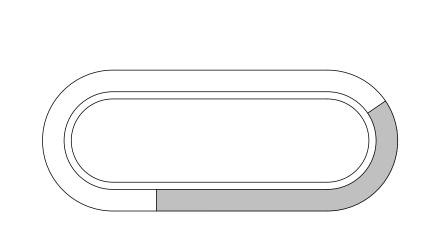
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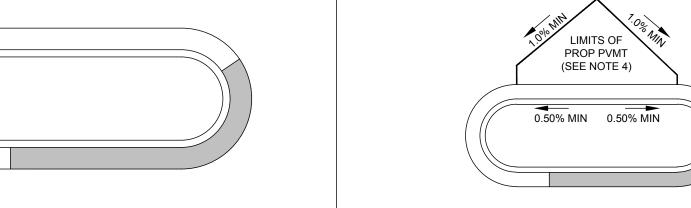




ADA PARKING SIGN DETAIL







EXAMPLE ONE

EXAMPLE 3

(SEE NOTE 5)

EXAMPLE THREE

1. CONTRACTOR TO INSTALL CURB AND GUTTER AT ELEVATION OF EXISTING PAVEMENT (ELEVATION AT EDGE OF GUTTER PAN MATCHES ELEVATION AT EXISTING PAVEMENT, UNLESS PLANS AND/OR SCHEMATICS INDICATE

2. CONTRACTOR TO PROVIDE GUTTER PANS (COLLECTOR/SPILL) PER GRADING PLAN. SHADED GUTTER PAN REPRESENTS FULL SPILL SECTION, NON-SHADED IS COLLECTOR. CONTRACTOR TO PROVIDE 3 FOOT TRANSITIONS BETWEEN SPILL AND COLLECTOR SECTIONS.

EXAMPLE TWO

AND/OR PLAN REPRESENTATION DOES NOT PROVIDE MINIMUM SLOPE REQUIREMENTS, CONTRACTOR IS TO CONTACT ENGINEER PRIOR TO POURING CURB AND GUTTER. BOHLER ENGINEERING SHALL BE HELD HARMLESS FOR ANY CURB AND GUTTER POURED THAT DOES NOT MEET MINIMUM REQUIREMENTS. 4. IN THOSE SITUATIONS WHERE RE-GRADING OF PARKING AND PAVEMENT REMOVAL IS NECESSARY (SEE

3. PLAN INTENT IS TO PROVIDE A MINIMUM SLOPE OF 0.50% ALONG COLLECTOR CURB. IF FIELD CONDITIONS

EXAMPLE 2), THE CONTRACTOR IS TO VERIFY THAT THE RESULTANT GRADIENT AT THE HIGH SIDE OF THE ISLAND PROVIDES 1% PAVEMENT SLOPE, PER PLAN INTENT.

5. IN ISLANDS WHERE FLUMES ARE INDICATED, THE CONTRACTOR SHALL PROVIDE A FLAT BOTTOMED FLUME AT THE SPECIFIED WIDTH. MINIMUM FLUME SLOPE SHALL BE 0.50%.

REVISIONS						
REV	DATE	COMMENT	BY			
1	2/3/17	CITY COMMENTS	JDM			
2	3/15/17	ADDENDUM 7 AND CITY COMMENTS	JDM			
3	3/30/17	TRC RESUBMIT	JDM			



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PROPOSED

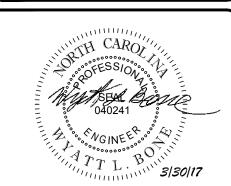
GROCERY

LIDL US OPERATIONS,

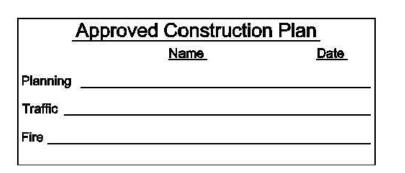
LOCATION OF SITE 4355 S 17TH STREET WILMINGTON, NC 28412

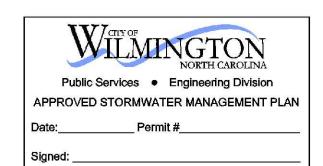


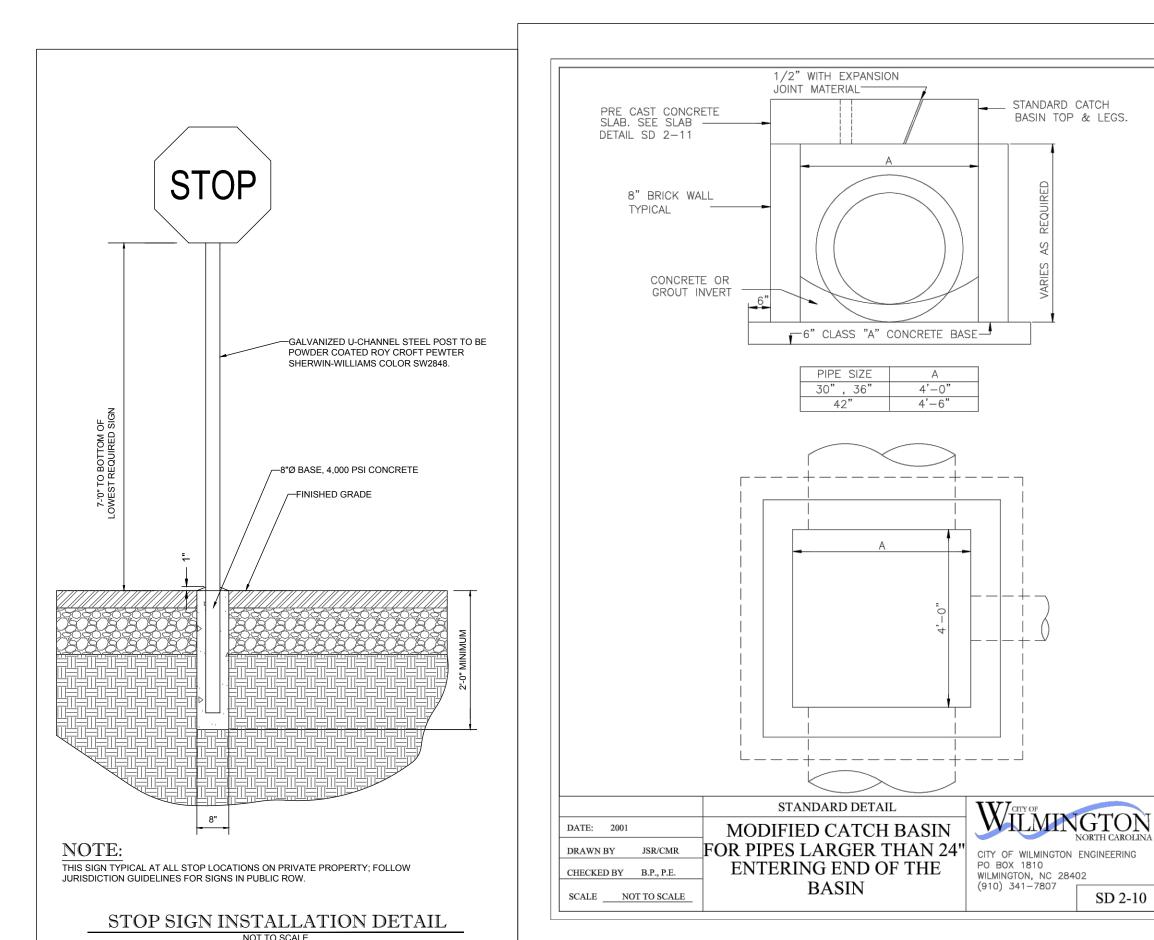
4130 PARKLAKE AVE., SUITE 130 RALEIGH, NC 27612 Phone: (919) 578-9000 Fax: (919) 703-2665 NC@BohlerEng.com



CONSTRUCTION DETAILS

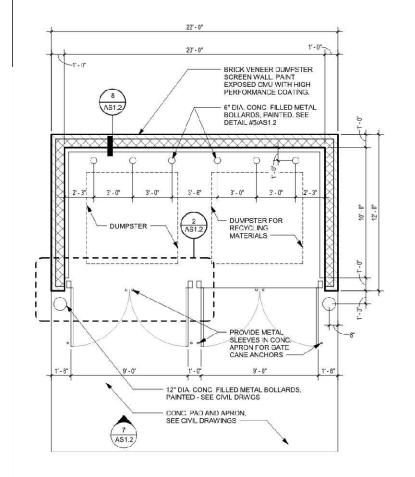


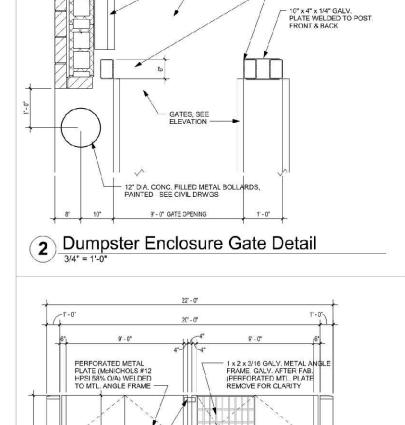




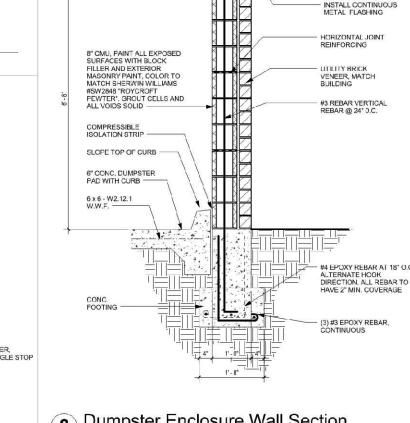


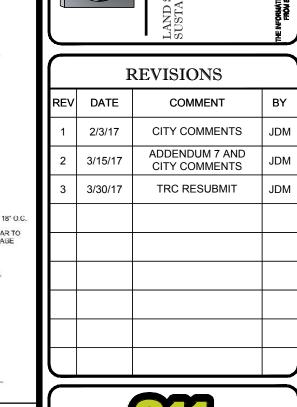
- BRICK TYPE "A" (RED), UTILITY, RUNNING BOND BRICK TYPE "B" (GRAY), NORMAN, RUNNING BOND
- PRE-CAST SILL
- STUCCO FINISH "A", FIELD COLOR TO MATCH SHERWIN WILLIAMS SW7004 "SNOWBOUND"
- STUCCO FINISH "B", ACCENT COLOR TO MATCH SHERWIN WILLIAMS SW2848 "ROYCROFT PEWTER"
- MASONRY CONTROL JOINT STUCCO FINISH REVEAL / CONTROL JOINT
- METAL COMPOSITE WALL PANEL FASCIA. 12' MAX LENGTHS. ALIGN JOINTS AT GRID LINES AND MID POINT BETWEEN GRID LINES
- ALUM, STOREFRONT WINDOW SYSTEM ALUM. CURTAINWALL SYSTEM
- ADHERED ROOF TOP WALKING PADS WITH NON-SLIP SURFACE ADHERED ROOF TOP SNOW GUARDS AT 24" O.C. STAGGERED. PROVIDE MIN
- CART CORRAL ROOF DRAIN WITH DRAINAGE CRICKETS AND DOWNSPOUT. TIE INTO BELOW GRADE STORM DRAIN SEE CIVIL
- LOGO SIGNAGE. G.C. SHALL COORDINATE SIGNAGE SUPPORT AND MOUNTING WITH ALUM. CURTAINWALL SYSTEM MANUFACTURER
- METAL LOUVER ROOF EQUIPMENT SCREEN
- CARD READER AND DOOR BELL, SEE HARDWARE SCHEDULE EXTERIOR WALL MOUNTED LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS
- FIRE DEPARTMENT CONNECTION WALL MOUNTED METAL GUTTER, 6" X 7", KYNAR FINISH, SLOPE 1/8" / L.F. MIN, HIGH POINT TO OWNSPOUT, PROVIDE LEAF / DEBRIS GUARD
- METAL DOWNSPOUT, 6" DIA., KYNAR FINISH. PROVIDE CAST IRON "BOOT" TIED INTO BELOW GRADE STORM DRAIN - SEE CIVIL (TYP. OF 7)
- ROOF ACCESS LADDER AND CAGE WITH LOCKING HATCH.
- HIGH ROOF ACCESS LADDER, PROVIDE ANCHOR SYSTEM PER MANUFACTURER'S DETAILS. METAL PIPE GUARDRAIL 42" HEIGHT A.F.F. - PAINTED
- LIGHT GRAY TPO, FULLY ADHERED ROOFING MEMBRANE TRENCH DRAIN TIED INTO BELOW GRADE STORM DRAIN - SEE CIVIL DOCK LEVELER, SURFACE MOUNTED
- LOADING DOCK SHELTER WITH WEATHER SEALS.





6" CONC. PAD WITH CURE





PRECAST STONE COPII
 ANCHOR WITH S.S. DOVAND TIE WIRES



NOT APPROVED FOR CONSTRUCTION

DRAWN BY: CHECKED BY: SCALE: AS NOTED

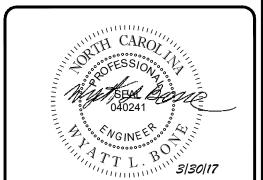
> PROPOSED GROCERY

LIDL US OPERATIONS,

LLC LOCATION OF SITE **4355 S 17TH STREET** WILMINGTON, NC 28412

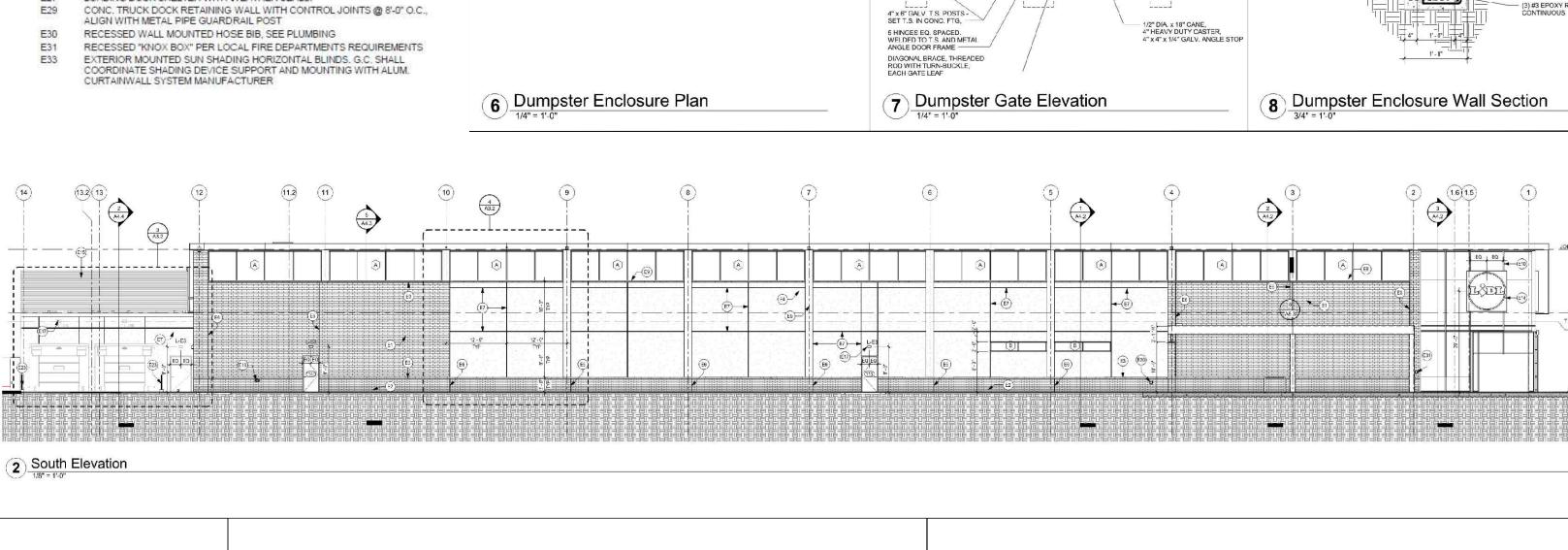


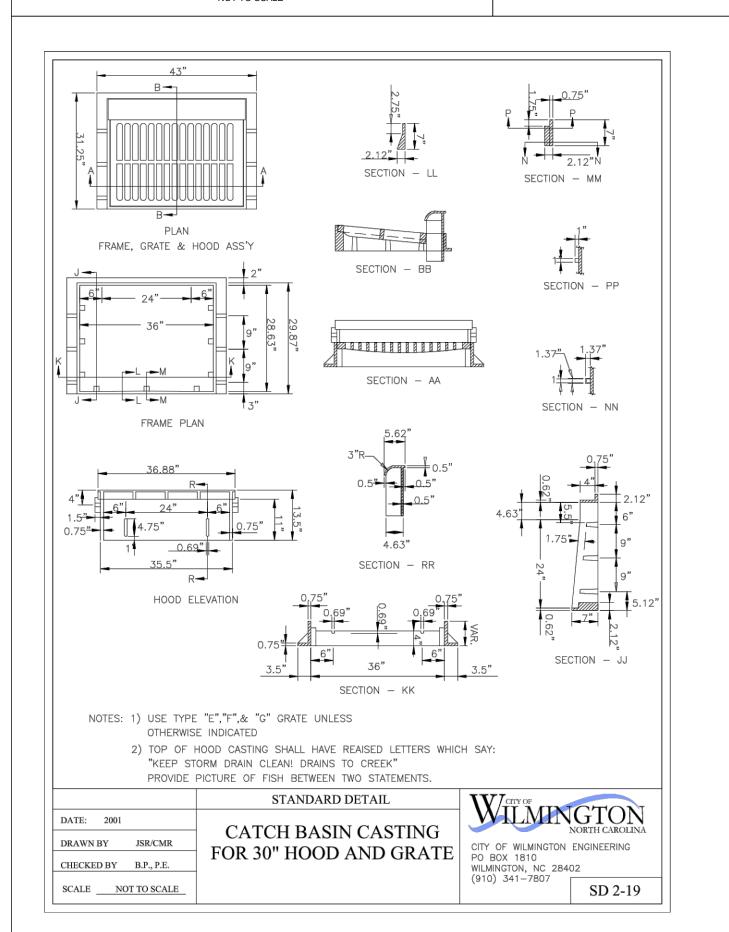
RALEIGH, NC 27612 Phone: (919) 578-9000 Fax: (919) 703-2665 NC@BohlerEng.com

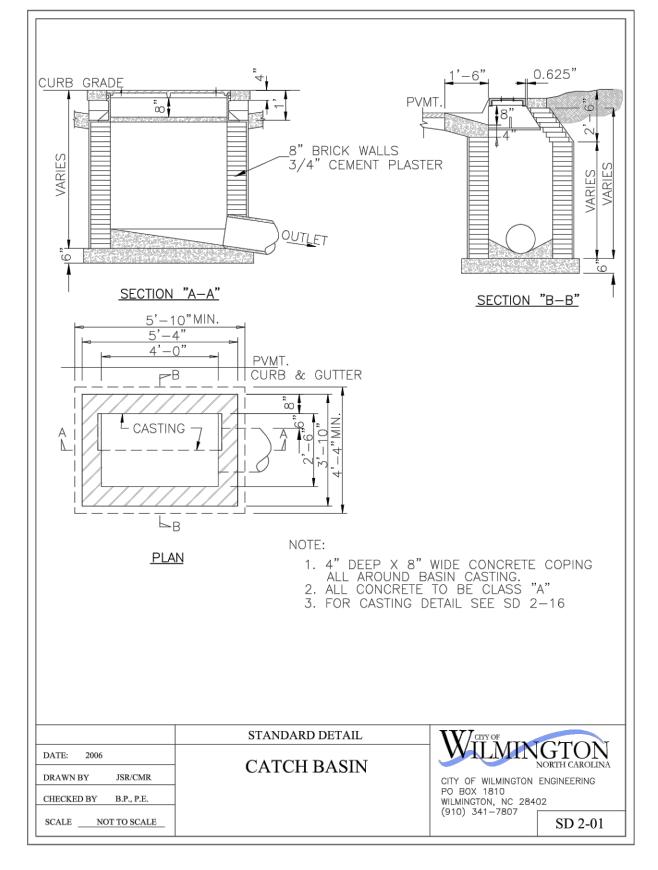


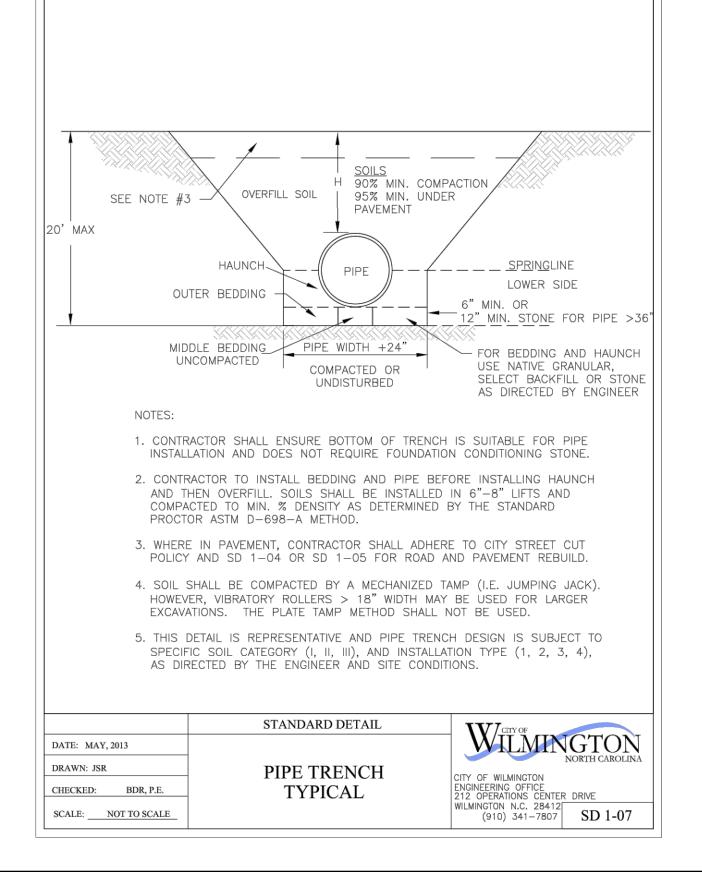
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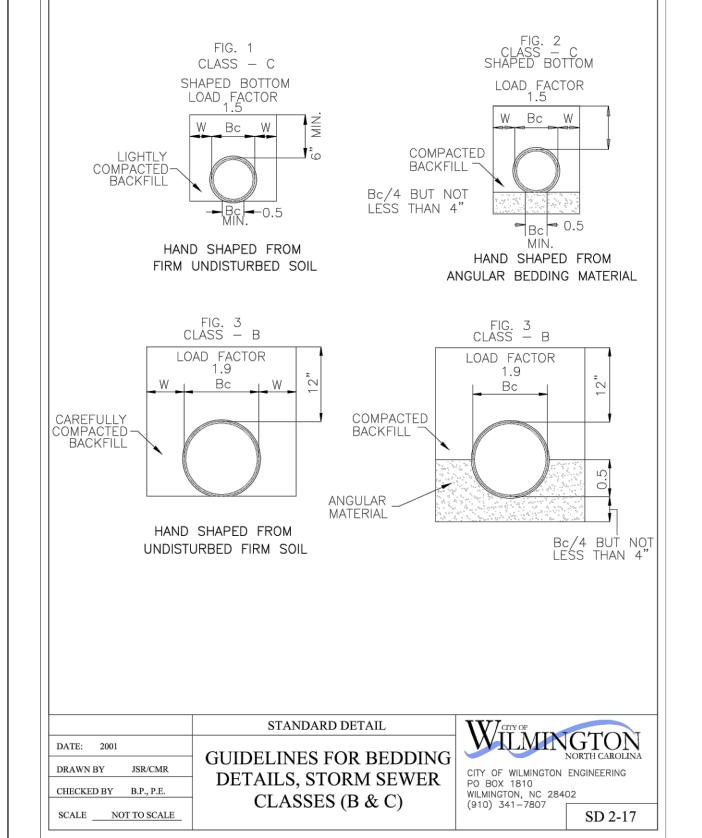
CONSTRUCTION DETAILS

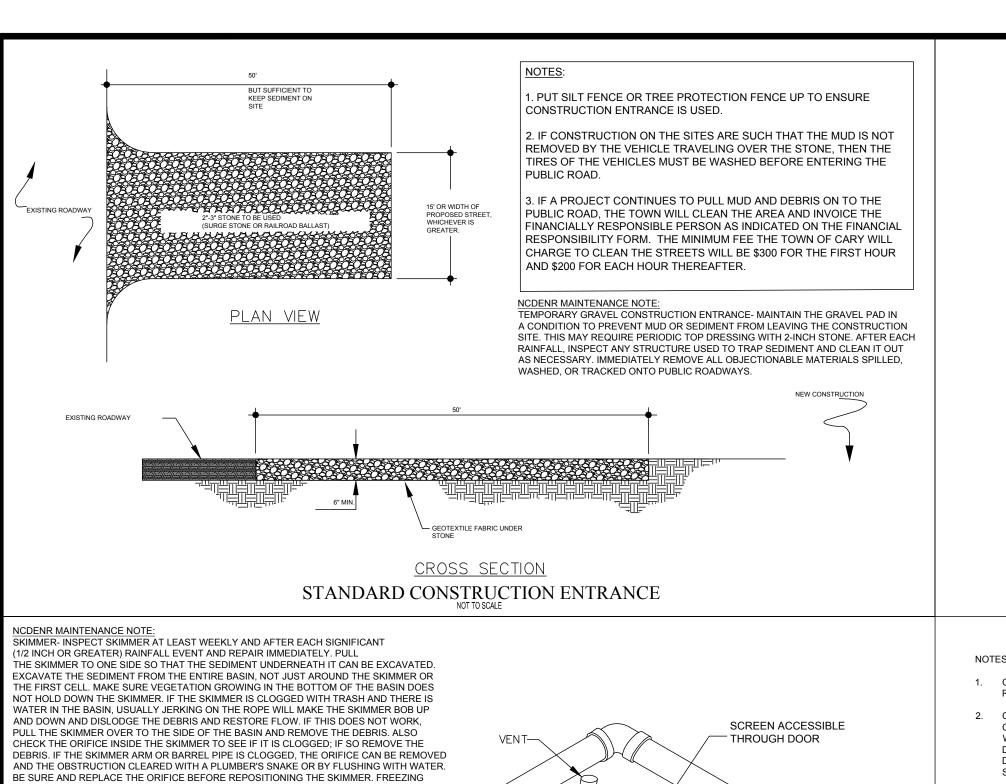


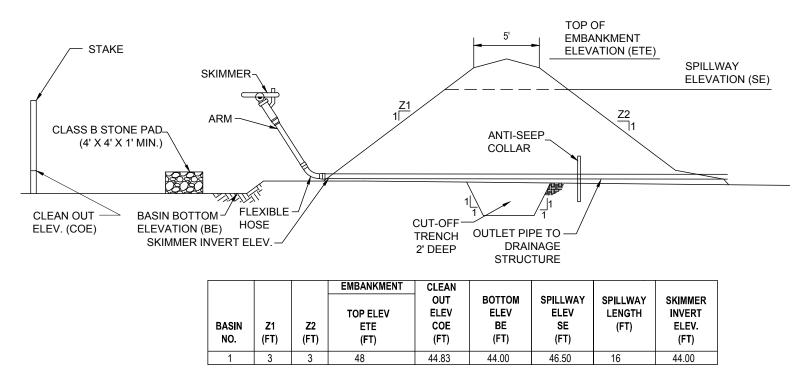












BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY REMOVE SEDIMENT, AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH. PLACE THE SEDIMENT THAT IS REMOVED IN THE DESIGNATED DISPOSAL AREA. CHECK THE EMBANKMENT, SPILLWAY, OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTI EMENT MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVAL ALL TRASH AND OTHER DEBRIS FROM THE RISER (IF APPLICABLE) AND POOL AREA.

NCDENR MAINTENANCE NOTE SKIMMER SEDIMENT BASIN INSPECT SKIMMER SEDIMENT

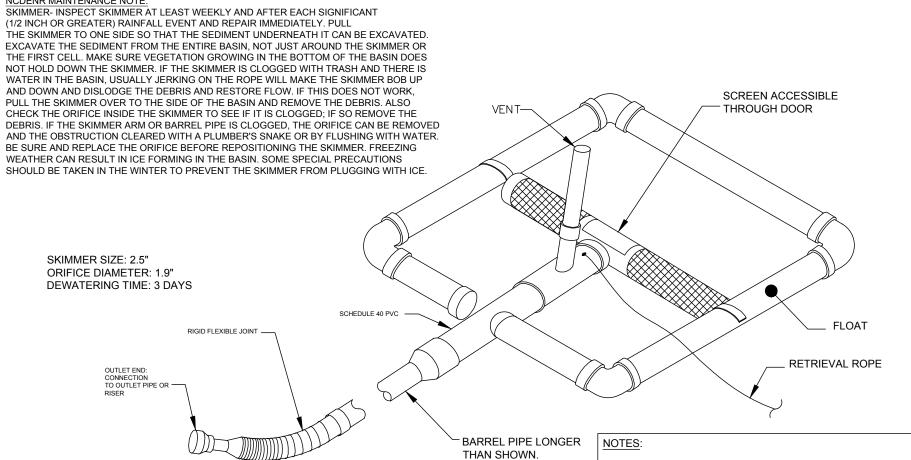
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDE SLOPES.

2. INSTALL A MINIMUM OF 3 COIR FIBER BAFFLES IN ACCORDANCE WITH PRACTICE STANDARD 6.65. THE ARM PIPE SHALL HAVE A MINIMUM LENGTH OF 6 FT.

COUPLING.

BETWEEN THE SKIMMER AND

SKIMMER SEDIMENT BASIN



NOT INCLUDED WITH

SKIMMER SUPPLIED

NOT TO SCALE

BY USER.

FAIRCLOTH SKIMMER DETAIL

. SKIMMER IS TO BE A SURFACE DEWATERING DEVICE

SKIMMER SHOULD RISE TO LEVEL OF WEIR HEIGHT IN

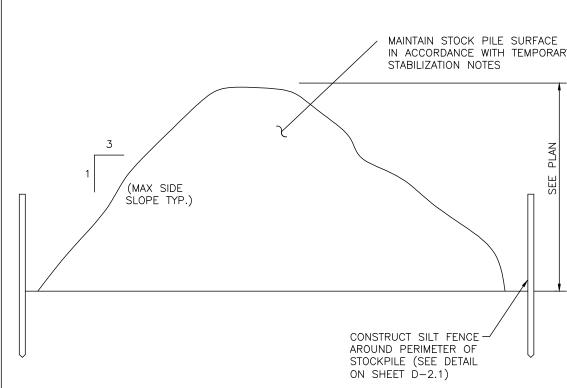
SUCH AS BMP SKIMMER OR APPROVED DEVICE.

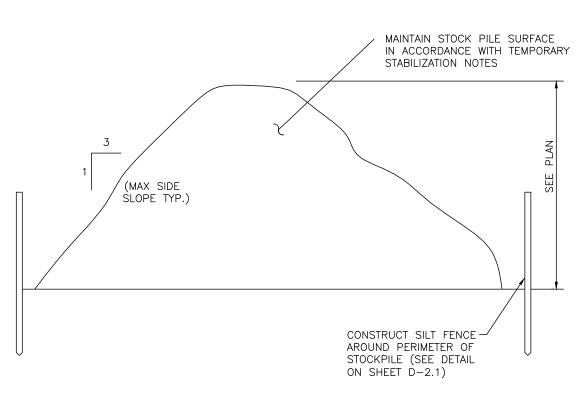
TEMPORARY BASIN OR TO RISER INLET.

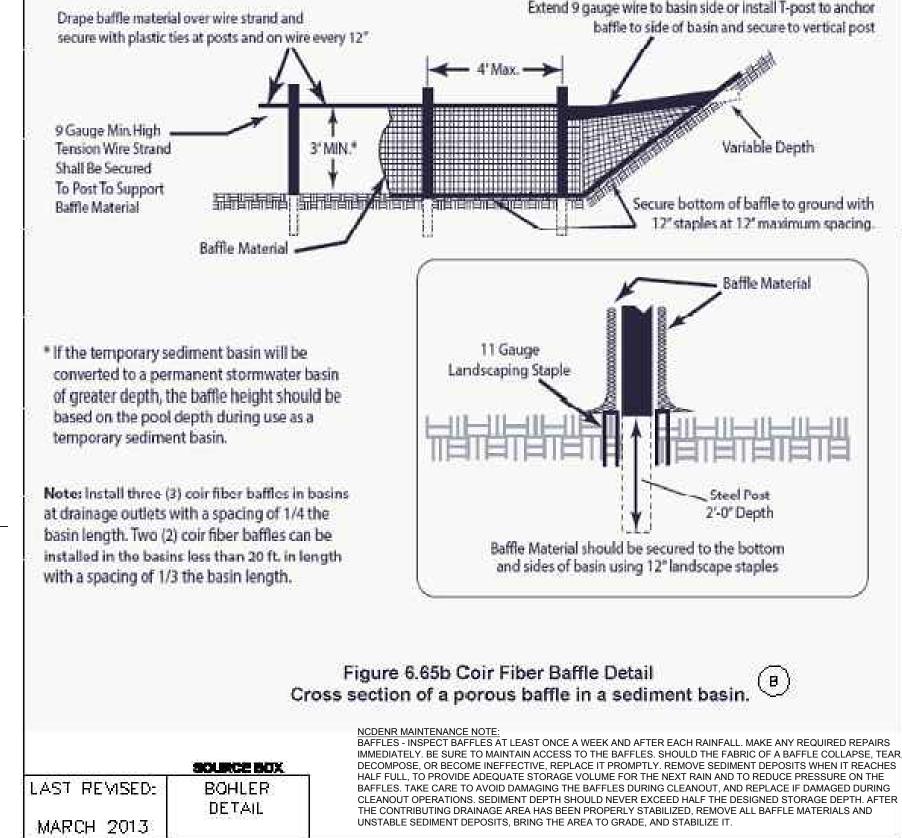
NOTES:

- CONCRETE WASTE MANAGEMENT PERTAINS TO WASTE FROM CONCRETE READY-MIX TRUCKS, MASONRY OPERATIONS, AND SIMILAR WASTE.
- CONCRETE MATERIALS ONSITE, INCLUDING EXCESS CONCRETE, SHALL 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 HARDENED CONCRETE RESIDUE WILL BE DISPOSED OF, OR RECYCLED ON SITE, IN ACCORDANCE WITH LOCAL AND STATE SOLID WASTE REGULATIONS.
- DISCHARGE OF EXCESS OR WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS IS ALLOWED AT THE CONSTRUCTION SITE. ONLY COMMERCIALLY AVAILABLE ABOVE GROUND PORTABLE CONCRETE WASHOUT CONTAINERS ARE ALLOWED AND SHALL BE PROTECTED FROM VEHICLE TRAFFIC AND CLEARLY IDENTIFIED BY LEGIBLE SIGNAGE. AND SHALL BE LOCATED OUTSIDE OF VEGETATED BUFFERS AND AS FAR AS PRACTICABLE FROM STORMWATER CONVEYANCES AND IMPOUNDMENTS AND WATER BODIES PORTABLE CONCRETE WASHOUT CONTAINERS SHALL CONTAIN AND/OR ACTIVELY MANAGE BOTH, SOLID AND FLUID, COMPONENTS OF THE MIX. CONCRETE WASHOUT CONTAINERS SHALL BE CLEANED OR EXCHANGED WHEN THE REMAINING VOLUME IS REDUCED BY 85% TO PREVENT ANY POTENTIAL
- ALTERNATIVELY, WASTE CONCRETE CAN BE PLACED INTO FORMS TO MAKE RIP RAP AND/OR OTHER USEFUL CONCRETE PRODUCTS. PORTABLE CONCRETE WASHOUT CONTAINERS SHALL BE DISPOSED IN ACCORDANCE WITH APPLICABLE LOCAL. STATE AND FEDERAL REGULATIONS. THE GC IS RESPONSIBLE FOR ASSURING THAT THESE PROCEDURES, APPLICABLE LAWS, AND ENVIRONMENTAL REGULATIONS ARE FOLLOWED. THE LOCATION OF CONCRETE WASHOUT CONTAINERS SHALL BE SHOWN ON THE SITE MAPS.

CEMENT AND CONCRETE WASHOUT







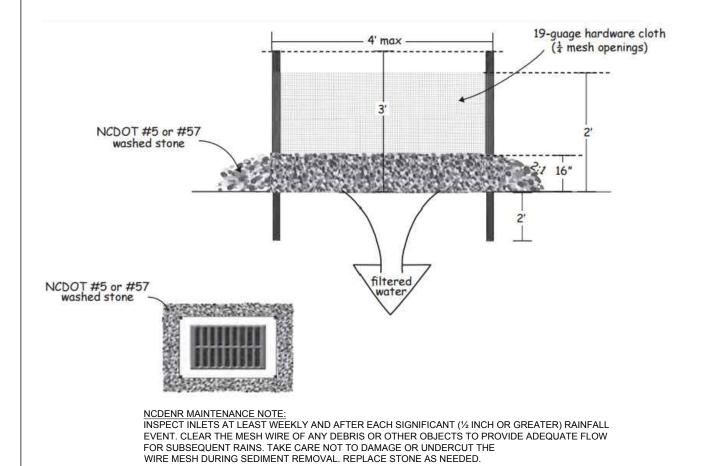
VERIFY WITH ENGINEER OF RECORD WHICH DISCHARGES FROM DEWATERING ACTIVITIES ARE ALLOWED OR ARE NOT ALLOWED NON-STORMWATER DISCHARGES UNDER THE GENERAL PERMIT AND OTHER REGULATIONS. CONTRACTOR SHALL OBTAIN ALL DEWATERING PERMITS AND AUTHORIZATIONS REQUIRED BY STATE AND LOCAL REGULATIONS. SEE THE REQUIRED DEWATERING PERMITS AND AUTHORIZATIONS TABLE BELOW. GC SHALL COMPLETE COLUMNS 3 AND 4.

GC SHALL WAIT TO HAVE WRITTEN COPY OF ALL REQUIRED DEWATERING PERMITS AND AUTHORIZATIONS BEFORE PERFORMING DEWATERING ACTIVITIES

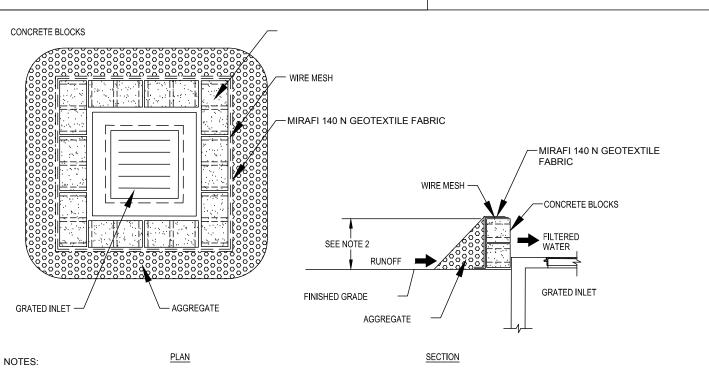
DISCHARGES FROM DEWATERING OPERATIONS SHALL BE DIRECTED THROUGH AN APPROPRIATE POLLUTION PREVENTION/TREATMENT SYSTEM OF CONTROL MEASURES, SUCH AS A SEDIMENT/FILTER BAG SEDIMENT TRAP OR SEDIMENT BASIN, AND OTHERS, AS NEEDED, PRIOR TO BEING DISCHARGED FROM THE SITE OR INTO A WATER BODY OF THE STATE. UNDER NO CIRCUMSTANCES ARE DISCHARGES FROM DEWATERING OPERATIONS TO BE DISCHARGED DIRECTLY INTO SANITARY SEWER SYSTEMS, STREAMS, RIVERS, LAKES OR OTHER AREAS BEYOND THE PERMITTED PROJECT AREA. LIKEWISE, DISCHARGES INTO STORM SEWER SYSTEMS THAT DO NOT DRAIN TO A SUITABLE ON-SITE TREATMENT FACILITY, SUCH AS A BASIN, ARE ALSO PROHIBITED. DISCHARGES FROM DEWATERING OPERATIONS MUST ALSO BE CONDUCTED IN A MANNER SUFFICIENT TO PREVENT EROSION FROM THE DISCHARGE RUNOFF

- IN SEDIMENT TRAP OR BASIN OR POND DEWATERING OPERATIONS, WATER SHALL ONLY BE REMOVED FROM THE SURFACE OF THE CONTAINED WATER. A SKIMMER OR SIMILAR FLOATING DEVICE MUST BE USED, TO ONLY REMOVE THE WATER AT THE SURFACE.
- DO NOT DISCHARGE ON A SLOPE GREATER THAN THREE PERCENT NOR WITHIN 20 FEET OF A SURFACE WATER BODY

. DEWATERING SHALL NOT OCCUR DURING OR IMMEDIATELY AFTER PRECIPITATION EVENTS, BUT EXCEPTIONS SHALL BE EVALUATED ON CASE BY CASE BASIS. CONTACT THE ENGINEER OF RECORD AND



HARDWARE CLOTH AND GRAVEL INLET PROTECTION



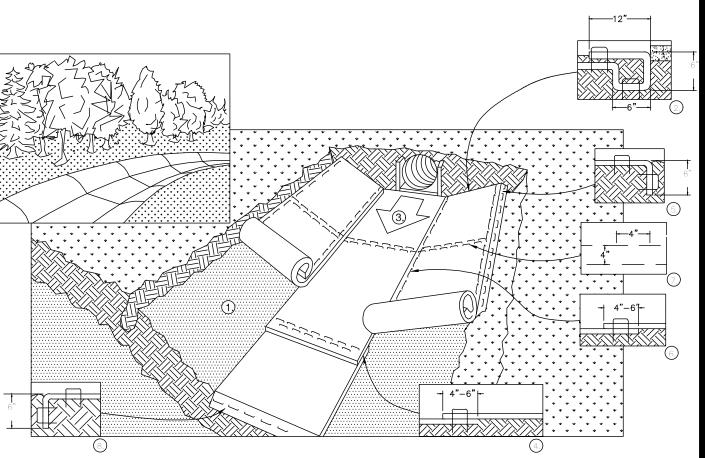
PLACE CONCRETE BLOCKS IN A SINGLE ROW AROUND PERIMETER OF INLET ON THEIR SIDES, WITH ENDS OF ADJACENT BLOCKS ABUTTING. HEIGHT OF BARRIER VARIES. USE STACKS OF 4", 8", OR 12" BLOCKS. MIN. HEIGHT OF BARRIER SHALL BE 12" AND MAX. HEIGHT SHALL BE 24". PLACE HARDWARE CLOTH/WIRE MESH W/ MAX. 1/2" OPENINGS OVER VERTICAL FACE OF CONCRETE BLOCKS. THE AGGREGATE SHALL BE 3/4"-2" ANGULAR CLEAN STONE, WHICH WILL SLOW THE FLOW OF THE WATER AND ALLOW IT TO FILTER THROUGH AND OVER THE MATERIAL BEFORE ENTERING THE INLET.

MAINTENANCE NOTES:

INLET PROTECTION DEVICES MUST BE INSPECTED FOR SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN (IF USING INSERT-TYPE DEVICE) OR UPGRADIENT OF THE INLET REMOVAL OF SEDIMENT ACCUMULATED IN OR ADJACENT TO A STORM DRAIN INLET MUST BEGIN IMMEDIATELY UPON DISCOVERY, WITH COMPLETION OF THE ACTIVITY OCCURRING NO LATER THAN THE END OF THE FOLLOWING BUSINESS DAY INLET PROTECTION DEVICES SHALL BE INSPECTED FOR UNINTENDED BYPASS OR IMPROPER FLOW-RATES THAT MAY CAUSE DOWNSTREAM CONTACT THE CEC FOR ALTERNATE INLET PROTECTION IF THE DESIGNED PROTECTION MAY IMPACT DOWNSTREAM BMPS, ADJACENT SLOPES, ETC., DUE TO PONDING ISSUES. ENSURE THAT NO UNDERMINING OF INLET PROTECTION DEVICES HAS OCCURRED. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.

NCDENR MAINTENANCE NOTE:
TEMPORARY BLOCK AND GRAVEL DROP INLET PROTECTION - INSPECT THE BARRIER AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL AND MAKE REPAIRS AS NEEDED. REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL, AND EITHER SALVAGE OR DISPOSE OF IT PROPERLY. BRING THE DISTURBED AREA TO PROPER GRADE, THEN SMOOTH AND COMPACT IT. APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET.

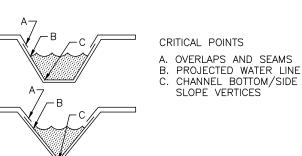
BLOCK AND GRAVEL INLET PROTECTION



. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. . BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12"APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12"PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES

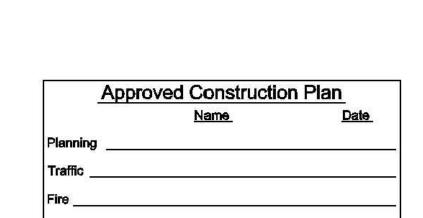
- 4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE BLANKETS.
- 5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- 6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 4"-6" (DEPENDING ON BLANKET TYPE) AND STAPLED. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE BLANKET BEING OVERLAPPED.

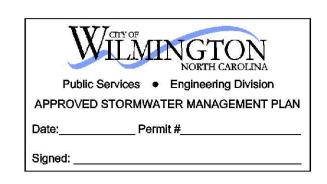
9. PLACE STAPLE/STAKES PER MANUFACTURER'S RECOMMENDATION FOR THE APPROPRIATE CHANNEL FLOW OR SHORELINE



1. HORIZONTAL STAPLE SPACING SHOULD BE ALTERED

EROSION CONTROL LINING (CHANNEL INSTALLATION)



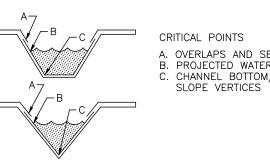


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SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET. 3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURER'S RECOMMENDATIONS.

7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9m-12m) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.

8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.



IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE. 2. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS. 3. FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION.

REVISIONS DATE COMMENT 2/3/17 CITY COMMENTS ADDENDUM 7 AND 3/15/17 CITY COMMENTS TRC RESUBMIT 3/30/17



NOT APPROVED FOR CONSTRUCTION

DRAWN BY: SCALE: AS NOTED

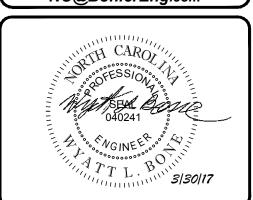
> PROPOSED **GROCERY**

LIDL US OPERATIONS,

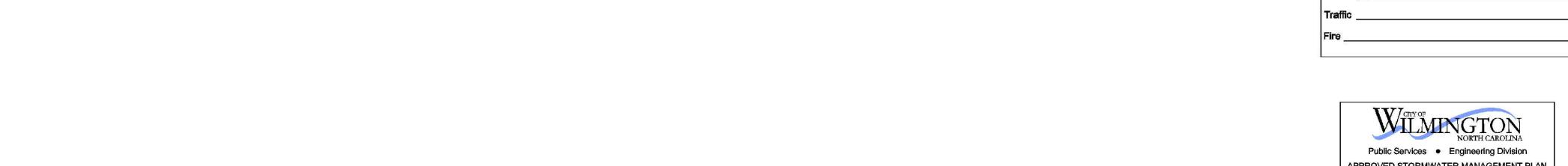
LOCATION OF SITE 4355 S 17TH STREET WILMINGTON, NC 28412

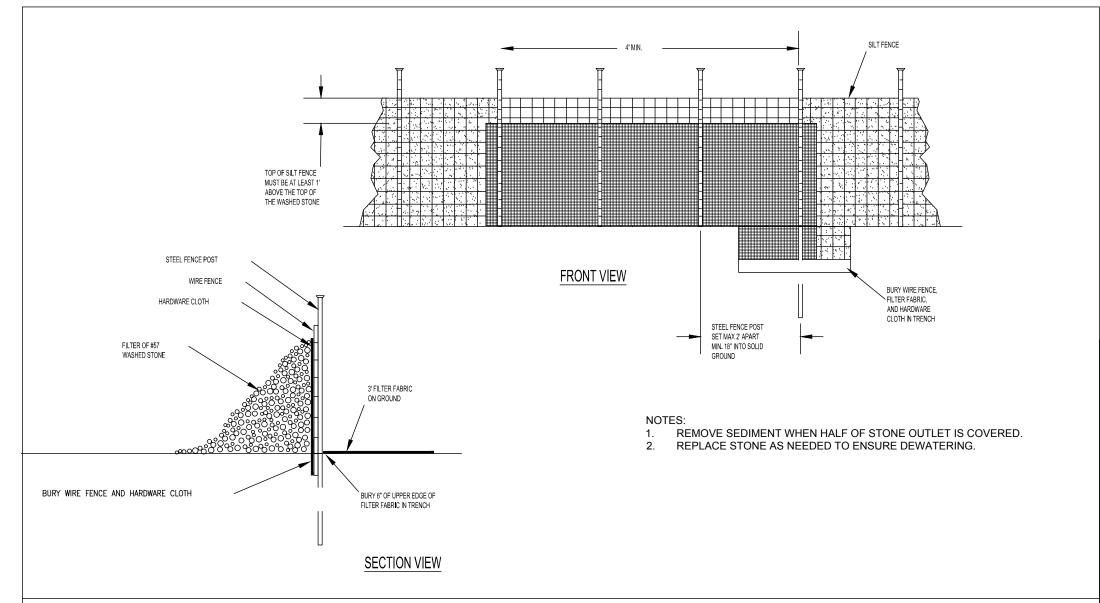


ENGINEERING NC, PLLC 4130 PARKLAKE AVE., SUITE 130 RALEIGH, NC 27612 Phone: (919) 578-9000 Fax: (919) 703-2665 NC@BohlerEng.com

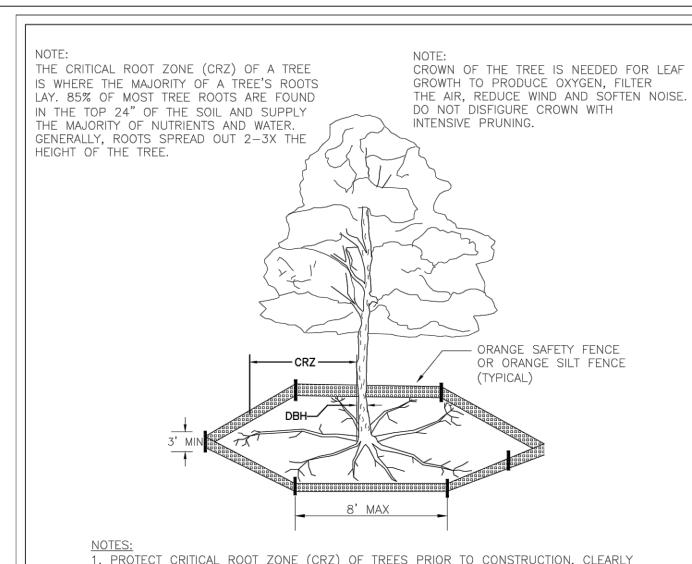


EROSION AND SEDIMENT CONTROL **DETAILS**









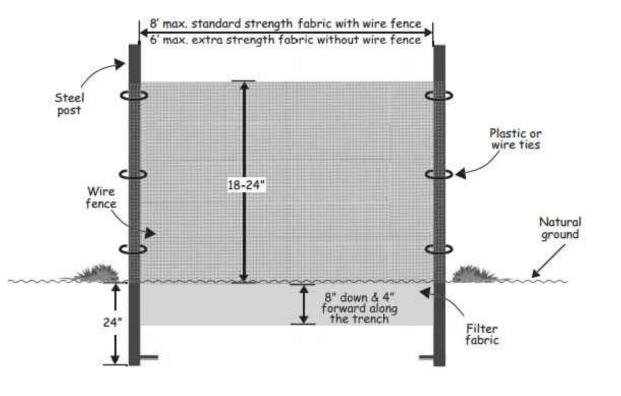
1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.

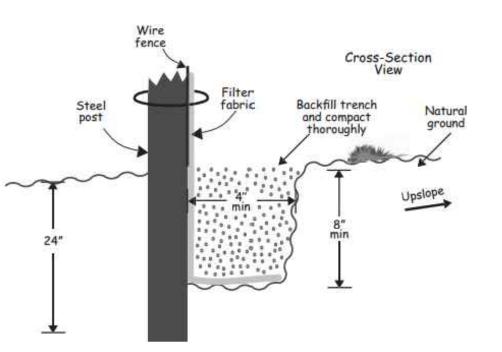
- 2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH). 3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATTS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
- 4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE 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.

DATE: JAN, 2015	
DRAWN BY JSR	
CHECKED BY RDG, P.E.	
SCALE NOT TO SCALI	E

STANDARD DETAIL TREE PROTECTION DURING CONSTRUCTION SHEET 1 of 2

CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807 SD 15-09



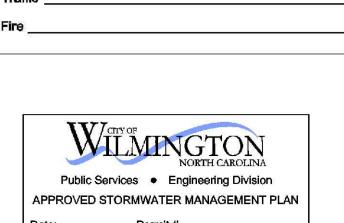


SEDIMENT FENCE- INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF THE SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

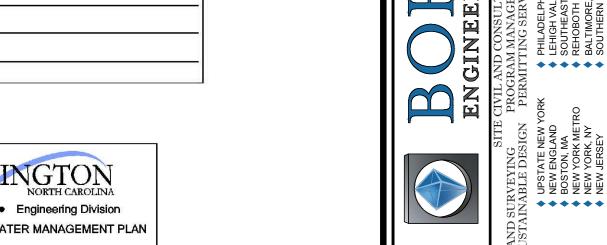
	TAE	BLE 1 Temporary Silt Fence I	Material Property Require	ments		
		Test Method	Units	Supported ^A Silt Fence	Unsupported A Silt Fence	Type of Value
Grab Strength		ASTM D 4632	N (lbs)			
	Machine Direction			400 (90)	550 (90)	MARV
	X-Machine Direction			400 (90)	450 (90)	MARV
Permittivity B		ASTM D 4491	sec-1	0.05	0.05	MARV
Apparent Opening Size B		ASTM D 4751	mm (US Sieve #)	0.60 (30)	0.60 (30)	Max. ARV C
Ultraviolet Stability		ASTM D 4355	% Retained Strength	70% after 500 h of exposure	70% after 500 h of exposure	Typical

- Silt fence support shall consist of 14 gage steel wire with a mesh spacing of 150 mm (6 in.) or prefabricated polymer mesh of equivalent These default values are based on empirical evidence with a variety of sediments. For environmentally sensitive areas, a review of previous
- experience and/or site or regionally specific geotextile tests in accordance with Test Method D 5141 should be performed by the agency to confirm suitability of these requirements.
 As measured in accordance with Test Method D 4632. TABLE 1 TAKEN FROM ASTM D 6461-99 (2007)

SILT FENCE DETAIL



Approved Construction Plan



REVISIONS						
REV	DATE	COMMENT	BY			
1	2/3/17	CITY COMMENTS	JDM			
2	3/15/17	ADDENDUM 7 AND CITY COMMENTS	JDM			
3	3/30/17	TRC RESUBMIT	JDM			



NOT APPROVED FOR CONSTRUCTION

DRAWN BY: SCALE: AS NOTED

> PROPOSED GROCERY

LIDL US OPERATIONS,

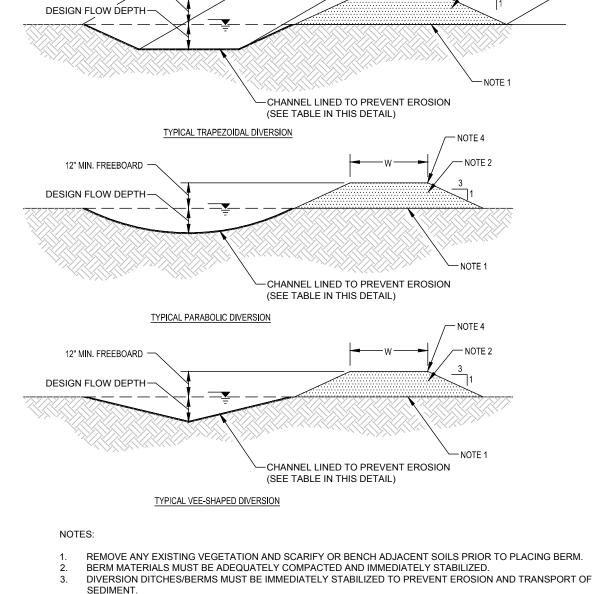
> LOCATION OF SITE 4355 S 17TH STREET WILMINGTON, NC 28412



Phone: (919) 578-9000 Fax: (919) 703-2665 NC@BohlerEng.com



EROSION AND SEDIMENT CONTROL DETAILS



12" MIN. FREEBOARD

AND SEGMENT

4. TOP SHALL BE NO LESS THAN 6" HIGHER THAN RECEIVING BASIN EMERGENCY SPILLWAY ELEVATION MAINTENANCE NOTES: 1. INSPECT DIVERSION CHANNELS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE

2. CHECK OUTLETS, AND MAKE TIMELY REPAIRS AS NEEDED TO AVOID GULLY FORMATION. WHEN THE AREA ABOVE THE TEMPORARY DIVERSION DIKE IS PERMANENTLY STABILIZED, REMOVE THE DIKE, AND FILL AND STABILIZE THE CHANNEL TO BLEND WITH THE NATURAL SURFACE. DIVERSION DITCHES AND BERMS DIVERSION NAME EROSION PROTECTION TYPE (I.E., LENGTH (FT.) DESIGN FLOW LONGITUDINAL CHANNEL

SLOPE

0.50%

670

MATTING, BLANKET, ETC.)

JUTE NET

BOTTOM WIDTH

(IN.)

24

DIVERSION CHANNEL NOT TO SCALE

H:\2015\NCR151031\DRAWINGS\PLAN SETS\NCR151031SD2.DWG PRINTED BY: JMACMILLAN 5.11.17 @ 3:00 PM LAST SAVED BY: JMACMILLAN

DATE: JAN, 2015

DRAWN BY JSR

CHECKED BY RDG, P.E.

SCALE NOT TO SCALE

CITY OF WILMINGTON ENGINEERING

SD 15-09

PO BOX 1810

(910) 341-7807

WILMINGTON, NC 28402

VARIABLE AS DIRECTED BY THE ENGINEER PLASTIC OR

∠WARNING SIGN

ORANGE, UV RESISTANT HIGH - TENSILE STRENGTH POLY BARRICADE FABRIC (TYPICAL)

FRONT VIEW

TREE PROTECTION AREA

ZONA PROTECTORA PARA

LOS ARBOLES

PROHIBIDO ENTRAR

WARNING SIGN DETAIL

-WARNING SIGN

THAN TWO SIGNS PER PROTECTION AREA.

SIDE VIEW

FIELD CONDITIONS.

NOTES:

ORANGE, UV RESISTANT

HIGH - TENSILE STRENGTH

POLY BARRICADE FABRIC (TYPICAL)

THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.

3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH

PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS

BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.

4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE

PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.

2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO

END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE

5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL

STANDARD DETAIL

TREE PROTECTION

DURING

CONSTRUCTION

SHEET 2 of 2