

PRELIMINARY SITE PLAN

FOR

LIDL US OPERATIONS, LLC

PROPOSED GROCERY STORE

STORE #1181

Approved Construction Plan

| Name | Date |
|----------|------|
| Planning | |
| Traffic | |
| Fire | |

CITY OF WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____
Signed: _____

CONTACT INFORMATION

REFERENCES

SURVEY:
"ALTANRPS LAND TITLE SURVEY FOR LIDL US OPERATIONS, LLC"
PREPARED BY ALLIED ASSOCIATES, P.A.
JOB NO. PA160303
DATED: 3/18/16

GEOTECHNICAL INVESTIGATION REPORT:
"REPORT OF SUBSURFACE EXPLORATION - LIDL WILMINGTON, NC"
PREPARED BY ECS CAROLINAS, LLP
ECS PROJECT NO. 22-23971
DATED: 3/22/16

ENVIRONMENTAL SITE ASSESSMENT:
"PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT - LIDL WILMINGTON, NC"
PREPARED BY ECS CAROLINAS, LLP
ECS PROJECT NO. 49-1612
DATED: 3/25/16

GOVERNING AGENCIES

CITY OF WILMINGTON PLANNING, DEVELOPMENT & TRANSPORTATION
306 CHESTNUT STREET
WILMINGTON, NC 28402
CONTACT: JOHN FULLERTON
PHONE: (910) 341-3247
EMAIL: JOHN.FULLERTON@WILMINGTONNC.GOV

CITY OF WILMINGTON
STORMWATER SERVICES
PO BOX 1810
209 COLEMAN DRIVE
WILMINGTON, NC 28412

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT)
DISTRICT 3
300 DIVISION DRIVE
WILMINGTON, NC 28401
PHONE: (910) 251-2855

NORTH CAROLINA OF ENVIRONMENT AND NATURAL RESOURCES (NCDENR)
127 CARDINAL DRIVE EXTENSION
WILMINGTON, NC 28405
PHONE: (901) 796-7215

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. 30TH ST WILMINGTON, NC 28401 PHONE: (910) 796-7185 |
| ELECTRIC | DUKE ENERGY 8645 TRADE ST. NE LELAND, NC 28451 PHONE: (800) 452-2777 |

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



PREPARED BY
BOHLER
ENGINEERING NC, PLLC
NCBELS P-1132

4011 WESTCHASE BLVD., SUITE 290
RALEIGH, NC 27607
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com

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

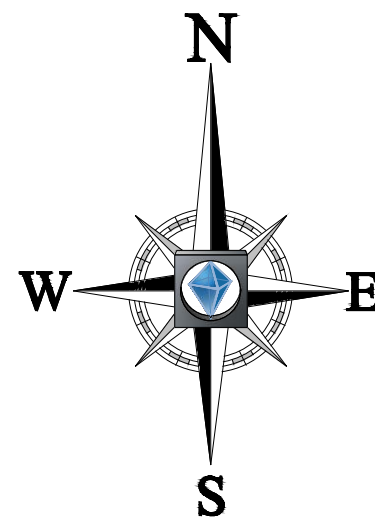
SURVEYOR

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:

- 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.

LOCATION OF SITE
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



SCALE: 1" = 2000'
SOURCE: GOOGLE MAPS

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ISSUED FOR CONSTRUCTION

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

BOHLER ENGINEERING NC, PLLC

STATE OF NORTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
NO. 14024

LAND SURVEYING • CIVIL ENGINEERING • TRANSPORTATION SERVICES
SUSTAINABLE DESIGN • PROGRAM MANAGEMENT • ARCHITECTURE

PHILADELPHIA, PA • NORTHERN VIRGINIA
BOSTON, MA • RALEIGH, NC
NEW YORK, NY • SOUTH EASTERN, PA
REHOBOTH BEACH, DE • CHARLOTTE, NC
NEW JERSEY • SOUTHERN MARYLAND • SOUTH FLORIDA

| 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 |

811

KNOW WHAT'S BELOW
ALWAYS CALL 811
BEFORE YOU DIG
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

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

PROPOSED GROCERY

FOR

LIDL US OPERATIONS, LLC

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

BOHLER ENGINEERING NC, PLLC
NCBELS P-1132

4011 WESTCHASE BLVD., SUITE 290
RALEIGH, NC 27607
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com

NORTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
NO. 14024
WYATT BONE
P.E.
3/30/17

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
C-1.0

SITE INVENTORY NOTES:

- THIS PROPERTY IS NOT IMPACTED BY ANY AEC.
- THERE ARE NO CONSERVATION OVERLAY BOUNDARIES AFFECTING THIS PROPERTY.
- THIS SITE IS NOT IMPACTED BY ANY RECOGNIZED HISTORIC OR ARCHEOLOGICAL SIGNIFICANCE.
- NO CEMETERIES WERE EVIDENT ON THE SITE. INTENT OF THESE PLANS OR SPECIFICATIONS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS.
- THERE IS NO EVIDENCE OF JURISDICTIONAL WETLANDS ON THE SITE.
- THERE IS NO EVIDENCE OF ENDANGERED SPECIES OR HABITAT ISSUES ON THE SITE.
- THE SITE DRAINAGE FLOWS INTO THE BARNARDS CREEK WATERSHED WITHIN THE CAPE FEAR RIVER BASIN, CLASS C:SW WATERS.

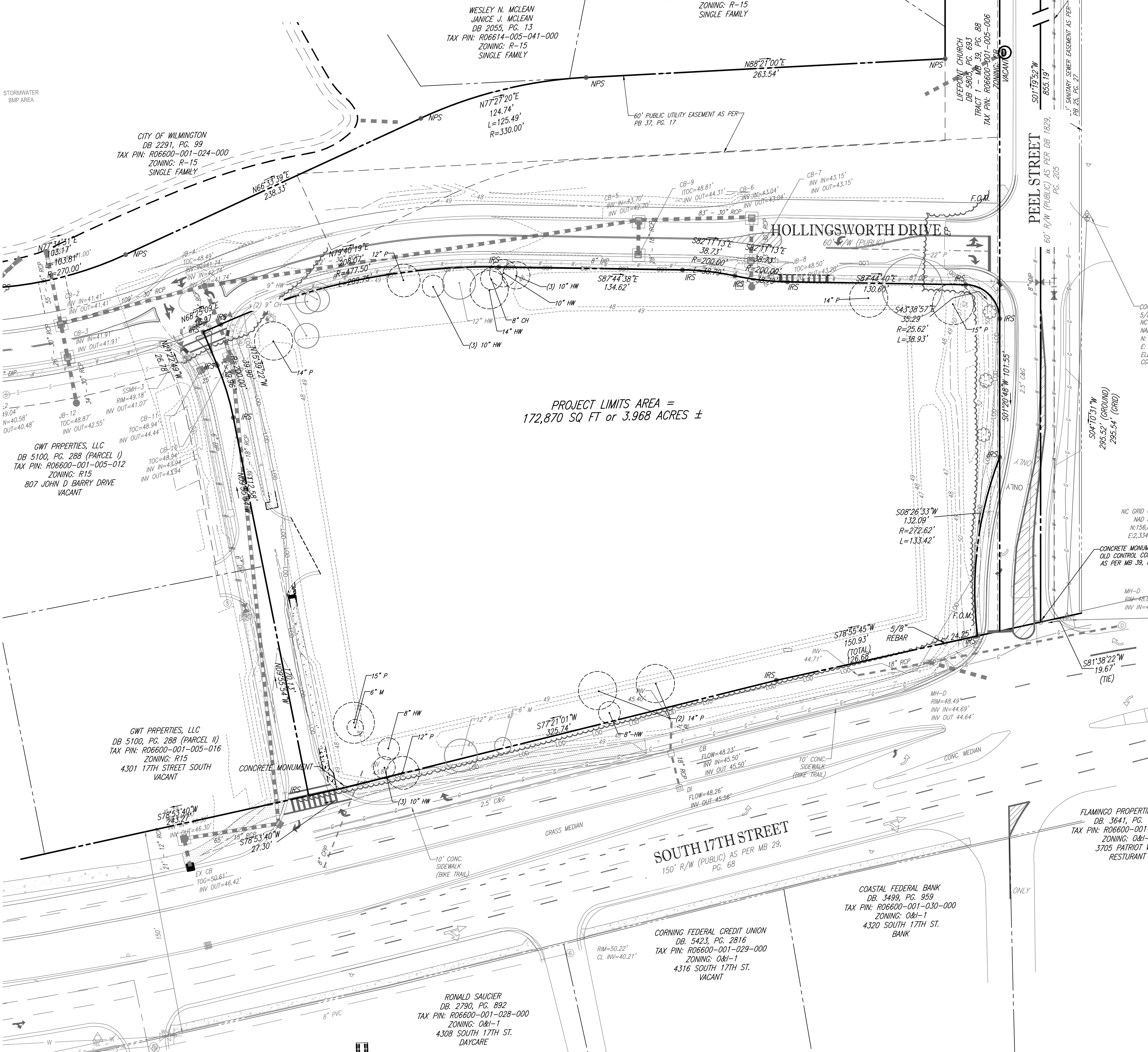
DEVELOPMENT DATA:

TOTAL TRACT AREA: 3.97 AC±
 EXISTING IMPERVIOUS AREA: 5,236 SF
 PROPOSED BUILDING AREA: 35,982 SF
 TOTAL PROPOSED IMPERVIOUS AREA: 123,805 (71.6%)

MAX BUILDING HEIGHT: 30.00'
 BUILDING ELEVATION ON S. 17TH STREET: 28.27'

ADA SPACES REQUIRED: 7
 ADA SPACES PROVIDED: 7 (2 VAN)
 PROPOSED BICYCLE PARKING: 10

TOTAL DISTURBED AREA:
 170,263 SF± (3.91 AC)
 LOT COVERAGE:
 EXISTING: 0%
 PROPOSED: 20.8% COVERED



PROJECT LIMITS AREA =
 172,870 SQ FT or 3.968 ACRES ±

DEMOLITION LEGEND

| EXISTING NOTE | TYPICAL NOTE TEXT | DEMOLITION NOTE |
|---------------|------------------------|-----------------|
| --- | PROPERTY LINE | --- |
| --- | ADJACENT LOT LINE | --- |
| --- | CONCRETE CURB & GUTTER | --- |
| --- | SAWCUT LINE | --- |
| --- | SOILS BOUNDARY | --- |
| --- | LIMITS OF DISTURBANCE | --- |
| --- | CHANLINK FENCE | --- |
| --- | UNDERGROUND WATER LINE | --- |
| --- | UNDERGROUND GAS LINE | --- |
| --- | OVERHEAD WIRE | --- |
| --- | ELECTRIC LINE | --- |
| --- | UNDERGROUND TELEPHONE | --- |
| --- | STORM SEWER | --- |
| --- | SANITARY SEWER MAIN | --- |
| --- | HYDRANT | --- |
| --- | UTILITY POLE/LIGHT | --- |
| --- | SANITARY MANHOLE | --- |
| --- | STORM MANHOLE | --- |
| --- | STORM INLET | --- |
| --- | WATER VALVE | --- |
| --- | TREE | --- |
| --- | BOLLARD | --- |
| --- | SIGN | --- |

SOILS LEGEND

| SOILS BOUNDARY | SOILS BOUNDARY |
|----------------|------------------------------------|
| Le | LEON SAND, 0 TO 2% SLOPES |
| Mu | MURVILLE FINE SAND, 0 TO 2% SLOPES |
| Rm | RAMIN SAND, 1 TO 8% SLOPES |

REZONING CONDITIONS:

- THE USE AND DEVELOPMENT OF THE SUBJECT PROPERTY SHALL COMPLY WITH ALL REGULATIONS AND REQUIREMENTS OF THE LAND 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 FOR CONSTRUCTION.
- 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.
- ALL EXISTING PROTECTED TREES NOT IMPACTED BY ESSENTIAL SITE IMPROVEMENTS SHALL BE PRESERVED OR MITIGATED.
- EXTERIOR SITE LIGHTING SHALL BE INSTALLED SO AS NOT TO SHINE DIRECTLY ONTO ADJACENT PARCELS AND SHALL BE LIMITED TO FULL CUTOFF TYPE FIXTURES.
- 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 SIGNS SHALL BE PERMITTED.
- 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 PROTECTION FENCING.
- 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 OF BLANK WALLS.
- THE APPLICANT SHALL PROVIDE TRAFFIC CALMING AT THE PROPOSED "T" INTERSECTION OF THE THROUGH ACCESS DRIVEWAY WITH THE PROPOSED PUBLIC STREET.

EXISTING CONDITIONS NOTES:

- REFER TO GENERAL NOTES, SHEET C-1.1
- 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 83135J, MAP NUMBER 3720313500J DATED 4/03/06

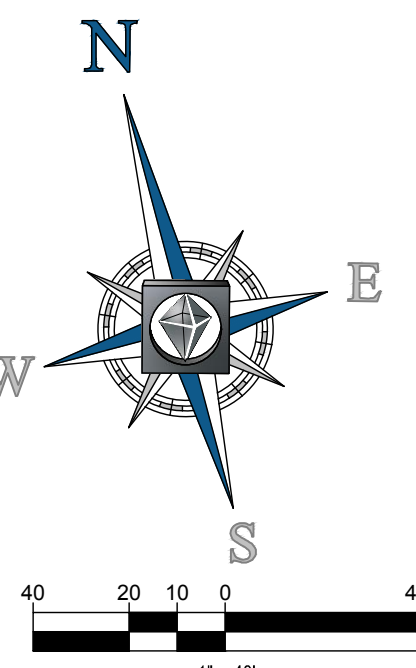
GENERAL DEMOLITION NOTES:

- THIS PLAN REFERENCES DOCUMENTS AND INFORMATION BY:
 "ALTA/ASCM LAND TITLE SURVEY FOR: LIDL US OPERATIONS, LLC"
 ALLIED ASSOCIATES, P.A.
 4700 KESTER MILL ROAD
 WINSTON-SALEM, NC 27103
 DATED: 03/16/16
- 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 REVISIONS 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.
- 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.
 B. 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.
- 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.

Approved Construction Plan

| Name | Date |
|----------|------|
| Planning | |
| Traffic | |
| Fire | |

CITY OF WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: _____ Permit # _____
 Signed: _____



BOHLER ENGINEERING NC, PLLC
 SITE AND ENVIRONMENTAL ENGINEERING, ARCHITECTURE, LAND SURVEYING, PROGRAM MANAGER, TRANSPORTATION SERVICES, SUSTAINABLE DESIGN, PERMITTING SERVICES
 OFFICES: PHILADELPHIA, PA; NORTHERN VIRGINIA; WASHINGTON, DC; CHARLOTTE, NC; RICHMOND, VA; SOUTH CAROLINA; SOUTH EASTERN, VA; SOUTH WESTERN, VA; NEW JERSEY; SOUTHERN MARYLAND; SOUTH FLORIDA

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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 KNOW WHAT'S BELOW
 ALWAYS CALL 811
 BEFORE YOU DIG
 It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

PROJECT No: NCR151031
 DRAWN BY: JDM
 CHECKED BY: WLB
 DATE: 3/30/17
 SCALE: 1" = 40'
 CAD I.D.: SSO

PROPOSED GROCERY
 FOR
LIDL US OPERATIONS, LLC
 LOCATION OF SITE
 4355 S 17TH STREET
 WILMINGTON, NC 28412

BOHLER ENGINEERING NC, PLLC
 NCBELS P-1122
 4011 WESTCHASE BLVD., SUITE 290
 RALEIGH, NC 27607
 Phone: (919) 578-9000
 Fax: (919) 703-2665
 NC@BohlerEng.com

Professional Engineer
 Matt L. Bony
 04024
 3/30/17

SHEET TITLE:
EXISTING CONDITIONS
 SHEET NUMBER:
C-2.0

APPROVED MITIGATION FOR LOT 1 (OVERALL DEVELOPER)

- LOT 1 & PROPOSED ROADWAY
- EX. REGULATED TREES TO BE REMOVED**
 HARDWOOD TREES > 8" DBH (37)
 ALL CONIFER TREES > 12" DBH (32)
 ALL DOGWOODS, MAGNOLIAS, OTHER ORNAMENTAL FLOWERING TREES & AMERICAN HOLLIES > 4" DBH (7)
 TOTAL TREES TO BE REMOVED: 69
- (43) x (75% OF TYPE OF TREE) / (3): 10
 (24) 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, POCDOSIN (PND) PINE, BLACK PINE & NON-PINE CONIFER TREES > 24" DBH (0)
 ALL OTHER PINES > 32" DBH (0)
 DOGWOODS, MAGNOLIAS, AMERICAN HOLLIES & OTHER ORNAMENTAL FLOWERING TREES > 8" DBH (12)
 TOTAL TREES REMOVED: 12
- (12) x (2 x 100% OF TYPE OF TREE) / (3): 8 SIGNIFICANT TREE REQUIRED
- SEE TREE PERMIT FOR OVERALL ARBOR COMMONS (TPP-17-127) FOR MORE INFORMATION

SITE INVENTORY NOTES:

- THIS PROPERTY IS NOT IMPACTED BY ANY AEC.
- THERE ARE NO CONSERVATION OVERLAY BOUNDARIES AFFECTING THIS PROPERTY.
- THIS SITE IS NOT IMPACTED BY ANY RECOGNIZED HISTORIC OR ARCHEOLOGICAL SIGNIFICANCE.
- NO CEMETERIES WERE EVIDENT ON THE SITE R INTENT OF THESE PLANS OR SPECIFICATIONS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS.
- THERE IS NO EVIDENCE OF JURISDICTIONAL WETLANDS ON THE SITE.
- THERE IS NO EVIDENCE OF ENDANGERED SPECIES OR HABITAT ISSUES ON THE SITE.
- THE SITE DRAINAGE FLOWS INTO THE BARNARDS CREEK WATERSHED WITHIN THE CAPE FEAR RIVER BASIN. CLASS C:SW WATERS.

DEVELOPMENT DATA:

TOTAL TRACT AREA: 3.97 ACs
 EXISTING IMPERVIOUS AREA: 5,236 SF
 PROPOSED BUILDING AREA: 35,962 SF
 TOTAL PROPOSED IMPERVIOUS AREA: 123,805 (71.6%)

MAX BUILDING HEIGHT: 30.00'
 BUILDING ELEVATION ON S. 17TH STREET: 28.27'

ADA SPACES REQUIRED: 7
 ADA SPACES PROVIDED: 7 (2 VAN)
 PROPOSED BICYCLE PARKING: 10

TOTAL DISTURBED AREA: 170,253 SF (131 AC)
 LOT COVERAGE: EXISTING: 0%
 PROPOSED: 20.8% COVERED

PAVEMENT LEGEND

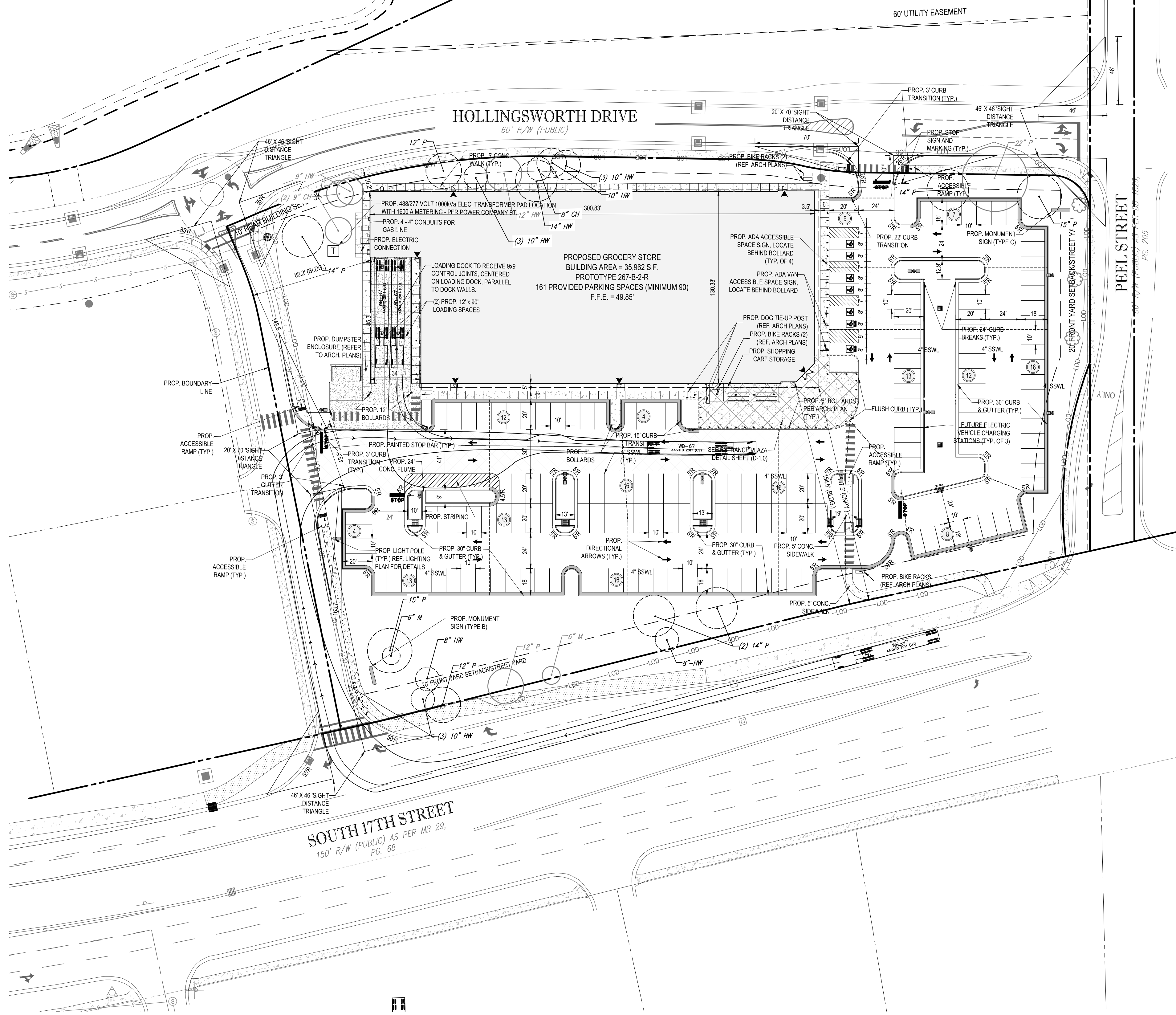
| | |
|--|---|
| | DELINEATES PROPOSED HEAVY DUTY ASPHALT PAVEMENT |
| | DELINEATES PROPOSED CONCRETE SIDEWALK |
| | DELINEATES PROPOSED STANDARD DUTY CONCRETE (SEE DETAIL SHEET D-1.0) |
| | DELINEATES PROPOSED HEAVY DUTY CONCRETE PAVEMENT |
| | DELINEATES PROPOSED STANDARD DUTY ASPHALT PAVEMENT |

(*) CONCRETE JOINTING AND FILLERS TO BE COMPLETED PER DETAIL AND SPECIFICATIONS.

GRAPHIC LEGEND

| EXISTING NOTE | TYPICAL NOTE TEXT | PROPOSED NOTE |
|---------------|--------------------------------|---------------|
| | PROPERTY LINE | |
| | RIGHT OF WAY LINE | |
| | BUILDING OR PARKING SETBACK | |
| | LIMITS OF DISTURBANCE | |
| | SAWCUT LINE | |
| | CURB & GUTTER | |
| | FLUSH CURB | |
| | TRANSITION CURB | |
| | UTILITY POLE | |
| | LIGHT POLE | |
| | STORMWATER INLET | |
| | SANITARY MANHOLE | |
| | SANITARY CLEANOUT | |
| | STORM MANHOLE | |
| | ELEC. TRANSFORMER ON CONC. PAD | |
| | PAVEMENT STRIPING - 4" SSWL | |
| | STOP SIGN | |
| | ADA ACCESSIBLE PARKING SIGN | |
| | PAINTED STOP BAR | |
| | FENCE | |

STORMWATER BMP AREA



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 NOTED
- ALL CONSTRUCTION WITHIN THE NCDOT RIGHT-OF-WAY SHALL COMPLY WITH THE MOST CURRENT EDITION OF NCDOT CONSTRUCTION STANDARDS & SPECIFICATIONS
- ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30' TO 10'
- PRINTED TRAFFIC SIGNS REQUIRE A UV OVERLAY ON THE SIGN FILM BLANKS
- PROJECT ROADWAY, STREET, AND REGULATORY SIGN TO USE HP 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" SSSL - 4" WIDE SINGLE SOLID BLUE LINE

SITE PLAN & ZONING NOTES:

- 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 HILL ROAD
 - WINSTON-SALEM, NC 27103
 - DATED 03/16/2016
- EXISTING OWNER:
 - PARCEL #1
 - 1500 SUNDAY DRIVE, SUITE 101
 - RALEIGH, NC 27607
 - CONTACT: RYAN WEHLMANN
 - PHONE: (703) 345-4554
- APPLICANT:
 - LIDL US OPERATIONS, LLC
 - 1500 SUNDAY DRIVE, SUITE 101
 - RALEIGH, NC 27607
 - CONTACT: RYAN WEHLMANN
 - PHONE: (703) 345-4554
- PARCEL:
 - S. 17TH ST. AND PEEL ST.
 - WILMINGTON, NC 28412
 - GROSS AREA = 17.54 ACRES
- ZONE:
 - CS-COMMUNITY BUSINESS
 - USES:
 - GROCERY / FOOD SALES/RETAIL BUSINESS = PERMITTED
- CAMA LAND CLASSIFICATION: URBAN
- BULK REQUIREMENTS:

| BUSINESS DISTRICT | CODE REFERENCE | REQUIRED | PROPOSED |
|--------------------------|------------------------|---|----------------------|
| MIN. LOT RELEASE 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' |
| MIN. SIDE YARD SETBACK: | ARTICLE 5, SEC. 18-194 | 0 ft (20 ft when abutting Residential = 1' for every 1' over 20 ft of blg ht) | 79.5' |
| MIN. REAR YARD SETBACK: | ARTICLE 5, SEC. 18-194 | 10 ft (25 ft when abutting Residential = 1' for every 1' over 20ft of blg ht) | 13.2' |
| MAX BUILDING HEIGHT: | ARTICLE 5, SEC. 18-194 | 45' | 30.00' |

NA = NOT APPLICABLE, N/S = NOT SPECIFIED, (V) = VARIANCE, (W) = WAIVER, (E) = EXISTING NON-COMFORMANCE TBD - TO BE DETERMINED, (C) = COMPLIES

6. PARKING SUMMARY:

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

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

PROPOSED: TOTAL PROPOSED PARKING = 161 SPACES
 (4,481,000 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

PROPOSED: 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 (COMPLIES) |
| PARKING SPACE DIMENSION: | 8.5' x 18' | 10' x 20' (COMPLIES) (PERIMETER) |

LOADING REQUIREMENTS:

| | REQUIRED | PROPOSED |
|------------------------------|-----------|------------------------|
| NUMBER OF LOADING SPACES | 2 | 2 (COMPLIES) |
| SIZE OF LOADING SPACE (MIN.) | 12' x 56' | 13.5' x 96' (COMPLIES) |

BOHLER ENGINEERING NC, PLLC

REGISTERED PROFESSIONAL ENGINEER
 STATE OF NORTH CAROLINA
 LICENSE NO. 31024

PROJECT: 4011 WESTCHASE BLVD., SUITE 290
 RALEIGH, NC 27607
 DATE: 3/30/17
 SCALE: 1" = 40'
 CAD 1.D.: S80

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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NOT APPROVED FOR CONSTRUCTION

PROPOSED GROCERY

FOR

LIDL US OPERATIONS, LLC

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

BOHLER ENGINEERING NC, PLLC

4011 WESTCHASE BLVD., SUITE 290
 RALEIGH, NC 27607
 Phone: (919) 578-9000
 Fax: (919) 703-2665
 NC@BohlerEng.com

Professional Engineer
 Matt L. Boyer
 License No. 31024

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
C-3.0

Approved Construction Plan

Name: _____ Date: _____

Planning: _____

Traffic: _____

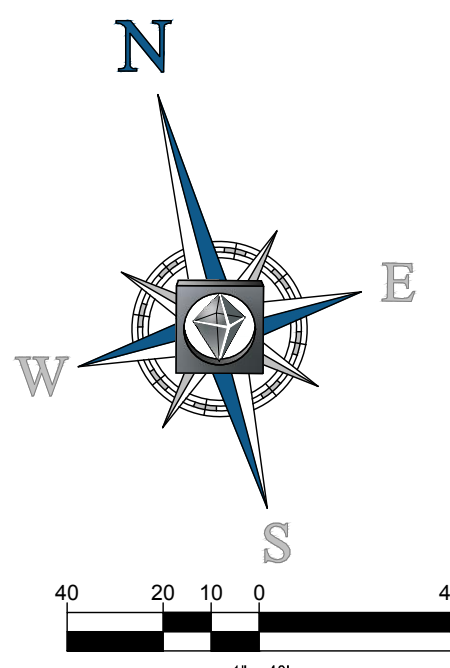
Fire: _____

CITY OF WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signed: _____



LIDL SITE MITIGATION CALCULATIONS


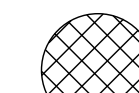

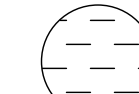
EX. REGULATED TREES TO BE REMOVED
 HARDWOOD TREES > 8" DBH (13)
 ALL CONIFER TREES > 12" DBH (8)
 ALL DOGWOODS, MAGNOLIAS, OTHER ORNAMENTAL FLOWERING TREES & AMERICAN HOLLIES > 4" DBH (2)
 TOTAL TREES TO BE REMOVED: 23

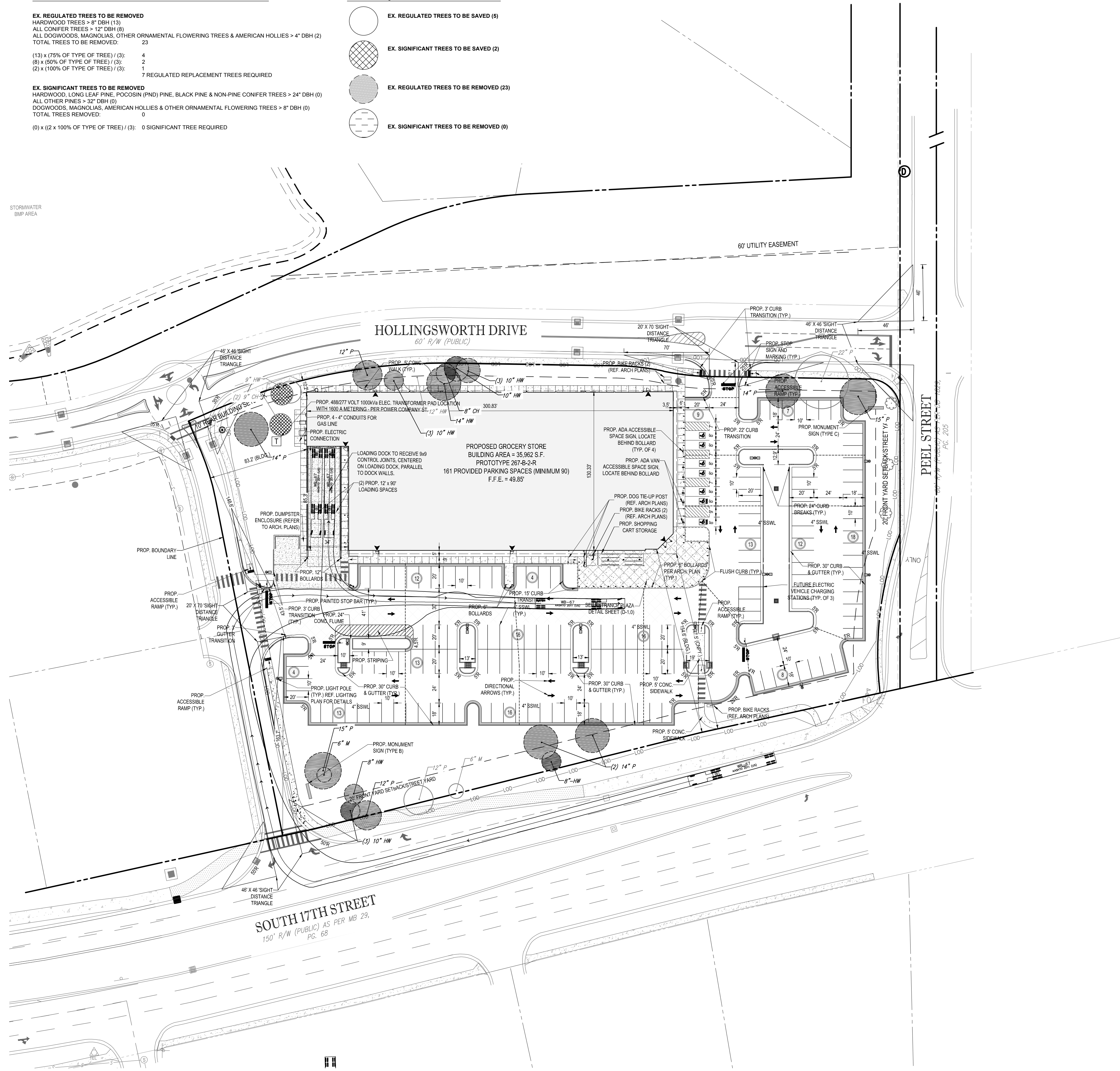
(13) x (75% OF TYPE OF TREE) / (3) = 4
 (8) x (50% OF TYPE OF TREE) / (3) = 2
 (2) x (100% OF TYPE OF TREE) / (3) = 1
 7 REGULATED REPLACEMENT TREES REQUIRED

EX. SIGNIFICANT TREES TO BE REMOVED
 HARDWOOD, LONG LEAF PINE, POCOSIN (PND) PINE, BLACK PINE & NON-PINE CONIFER TREES > 24" DBH (0)
 ALL OTHER PINES > 32" DBH (0)
 DOGWOODS, MAGNOLIAS, AMERICAN HOLLIES & OTHER ORNAMENTAL FLOWERING TREES > 8" DBH (0)
 TOTAL TREES REMOVED: 0

(0) x ((2 x 100% OF TYPE OF TREE) / (3)) = 0 SIGNIFICANT TREE REQUIRED

TREE QUANTITY LEGEND

-  EX. REGULATED TREES TO BE SAVED (5)
-  EX. SIGNIFICANT TREES TO BE SAVED (2)
-  EX. REGULATED TREES TO BE REMOVED (23)
-  EX. SIGNIFICANT TREES TO BE REMOVED (0)



BOHLER ENGINEERING NC, PLLC

STATE OF NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
 LICENSE NO. 10001

LAND SURVEYING • SITE PLANNING • ENGINEERING • TRANSPORTATION SERVICES
 SUSTAINABLE DESIGN • PROGRAM MANAGEMENT • INSURANCE ARCHITECTURE

PHILADELPHIA, PA • NORTHERN VIRGINIA
 WASHINGTON, DC • RALEIGH, NC
 SOUTH CAROLINA • CHARLOTTE, NC
 SOUTH EASTERN, VA • RICHMOND BEACH, DE
 NEW YORK, NY • NEW JERSEY
 SOUTHERN MARYLAND

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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NOT APPROVED FOR CONSTRUCTION

PROJECT No. NCR151031
 DRAWN BY: JDM
 CHECKED BY: WLB
 DATE: 3/30/17
 SCALE: 1" = 40'
 CAD I.D.: SSO

PROPOSED GROCERY

FOR
LIDL US OPERATIONS, LLC

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

BOHLER ENGINEERING NC, PLLC
 NCBELS P-1132

4011 WESTCHASE BLVD., SUITE 290
 RALEIGH, NC 27607
 Phone: (919) 578-9000
 Fax: (919) 703-2665
 NC@BohlerEng.com

NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
 License No. 10024
MATT L. BOYD
 ENGINEER
 3/30/17

SHEET TITLE:
TREE REPLACEMENT PLAN

SHEET NUMBER:
C-3.1

Approved Construction Plan

Name: _____ Date: _____

Planning _____

Traffic _____

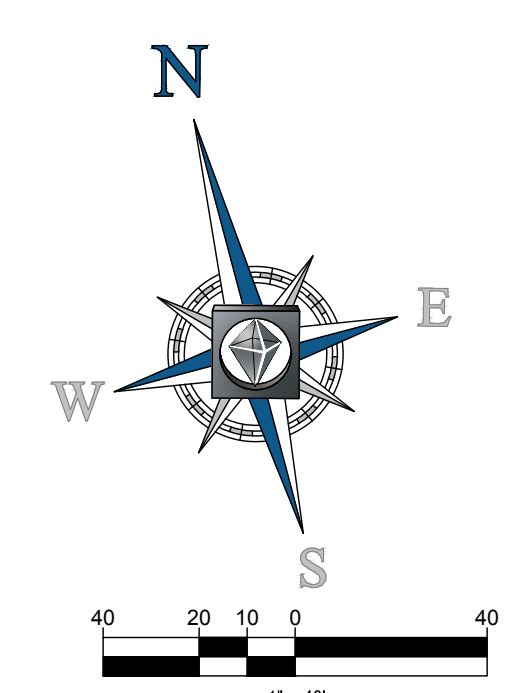
Fire _____

CITY OF WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signed: _____



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

WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
 Date: _____ Permit # _____
 Signed: _____

| SANITARY STRUCTURE SCHEDULE | | | |
|-----------------------------|-------------------------|-----------------|-------------------------------------|
| NAME | TYPE | RIM ELEV. (FT.) | INVERTS |
| A1 | EX. CLEANOUT | 48.75 | INV IN = 41.70' |
| A2 | PROP. SANITARY CLEANOUT | 48.80 | INV IN = 41.90' INV OUT = 41.90' |
| A3 | PROP. SANITARY CLEANOUT | 49.15 | INV IN = 43.11' INV OUT = 43.11' |
| A4 | PROP. SANITARY CLEANOUT | 49.36 | INV IN = 43.36' INV OUT = 43.36' |
| A5 | PROP. SANITARY CLEANOUT | 48.64 | INV IN = 45.22' INV OUT = 45.22' |
| A6 | PROP. SANITARY CLEANOUT | 48.88 | INV OUT = 45.40' |

| SANITARY PIPE SCHEDULE | | | | | |
|------------------------|----|----------|------|---------|------------|
| FROM | TO | 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 |

| PROPOSED WATER AND SEWER FLOW | |
|-------------------------------|------------|
| PROPOSED WATER | 10,500 GPD |
| PROPOSED SEWER | 1,750 GPD |

UTILITY NOTES:

- 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.
- WATER MAINS SHALL BE PLACED NO CLOSER THAN 5 FEET FROM THE FACE OF CURB TOWARD THE STREET.
- WATER MAINS SHALL BE LOCATED AT LEAST 10 FEET LATERALLY FROM EXISTING AND PROPOSED SANITARY SEWERS.
- WHERE IT IS NECESSARY FOR WATER MAINS TO CROSS OVER SEWER MAINS, VERTICAL 18" CLEARANCE IS REQUIRED.
- EXISTING WATER SERVICES THAT WILL NOT BE UTILIZED MUST BE CAPPED AT THE MAIN.
- VALVES SHALL BE INSTALLED ON ALL BRANCHES FROM FEEDER MAINS AND BETWEEN MAINS AND HYDRANTS AS FOLLOWS:
 - PRIVATE WATER SYSTEMS MUST HAVE SUFFICIENT VALVE PLACEMENT AND NUMBER SO THE PRIVATE SYSTEM CAN BE ISOLATED FROM A PUBLIC WATER SYSTEM.
 - 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.
 - SUBMIT AS-BUILT DRAWINGS OF THE WATER, SEWER AND STORM SEWER SYSTEMS TO THE ENGINEERING SERVICES DEPARTMENT UPON PROJECT COMPLETION. PLEASE INCLUDE WATER METER AND CLEANOUT LOCATIONS. STORM AND SANITARY SEWER PIPE LENGTHS INDICATED ARE NOMINAL AND MEASURED CENTER OF INLET AND/OR MANHOLES STRUCTURE TO CENTER OF STRUCTURE.
 - BUILDING TYPE IS I-B.
 - NEW HYDRANTS SHALL BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE JOB SITE.
 - ALL ISOLATION VALVES WITHIN THE "HOT BOX" SHALL BE ELECTRICALLY SUPERVISED.

| UTILITY LEGEND | | |
|----------------|-----------------------------|---------------|
| EXISTING NOTE | TYPICAL NOTE TEXT | PROPOSED NOTE |
| S | SANITARY SEWER LATERAL | S |
| UW | UNDERGROUND WATER LINE | UW |
| UF | UNDERGROUND FIRE WATER LINE | UF |
| E | UNDERGROUND ELECTRIC LINE | E |
| UG | UNDERGROUND GAS LINE | UG |
| SS | STORM SEWER | SS |
| SM | SANITARY SEWER MAIN | SM |
| H | HYDRANT | H |
| SMH | SANITARY MANHOLE | SMH |
| SC | SANITARY CLEANOUT | SC |
| SMH | STORM MANHOLE | SMH |
| WM | WATER METER | WM |
| WI | WATER VALVE | WI |
| YI | YARD INLET | YI |
| CI | CURB INLET | CI |
| CO | CLEAN OUT | CO |
| E | ELECTRIC TRANSFORMER | E |
| TP | TEST PIT | TP |
| LP | LIGHT POLE | LP |

| 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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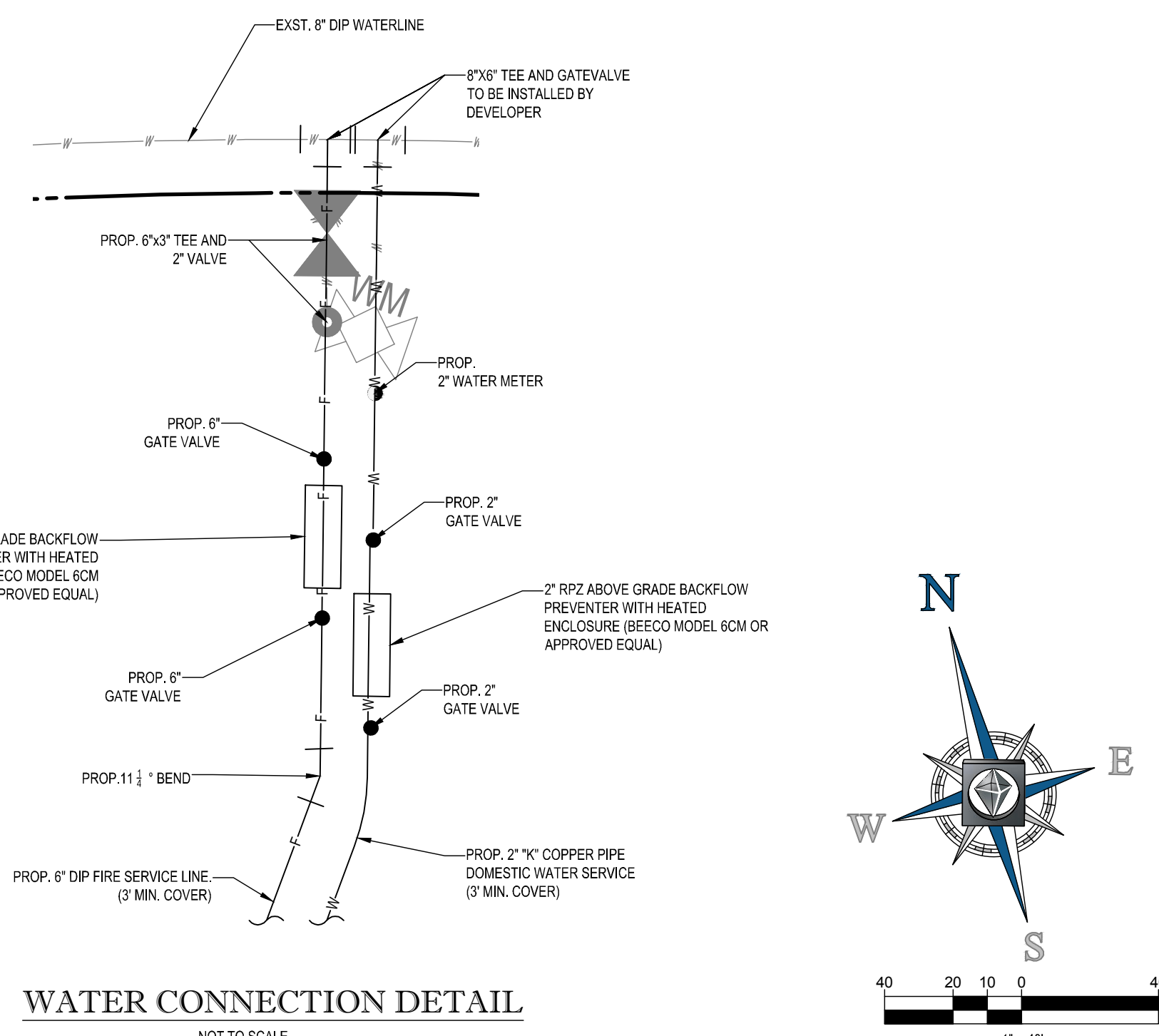
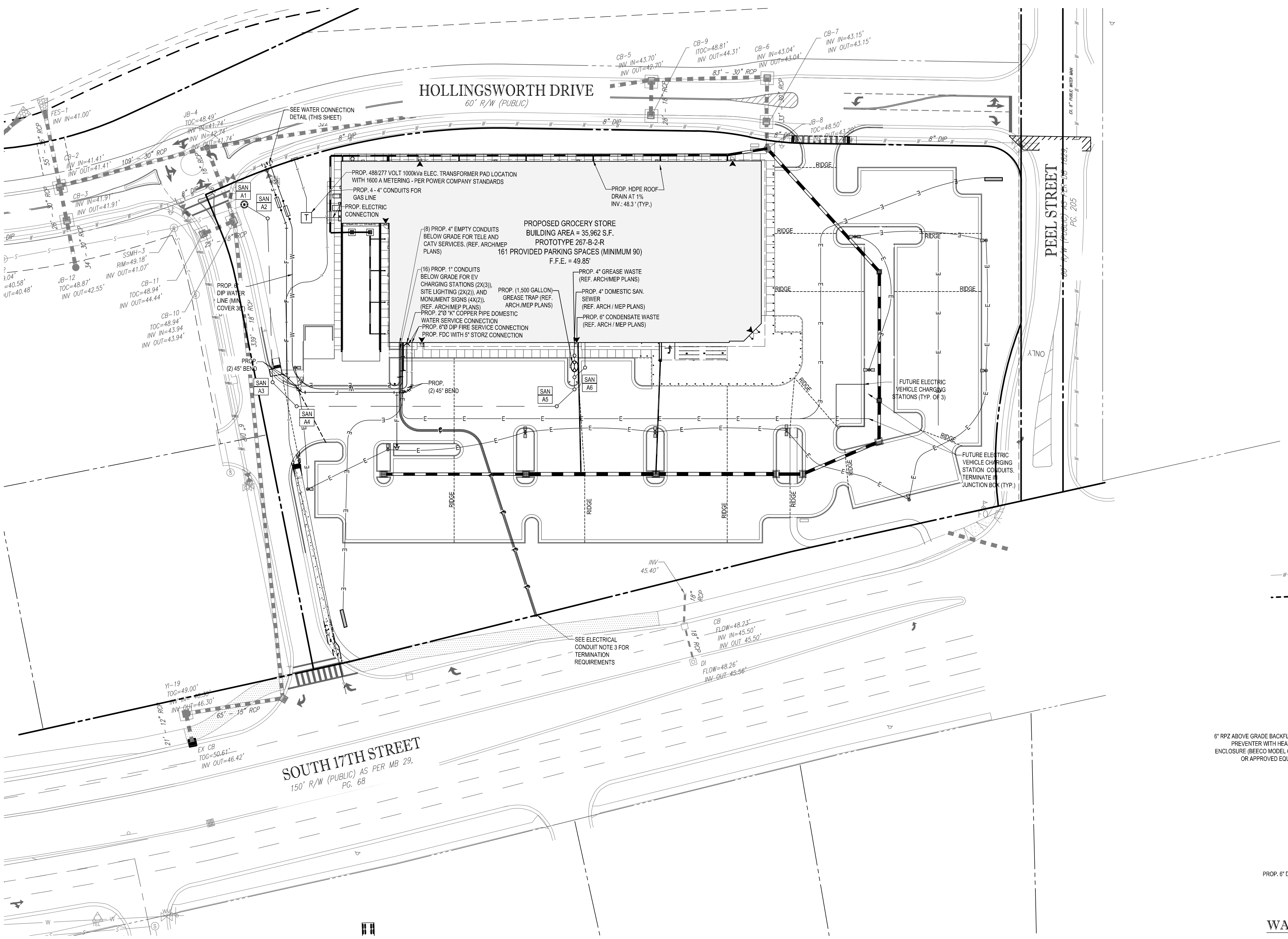
NOT APPROVED FOR CONSTRUCTION
 PROJECT No.: NCR151031
 DRAWN BY: JDM
 CHECKED BY: WLB
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 CAD I.D.: SS0

PROPOSED GROCERY
 FOR
LIDL US OPERATIONS, LLC
 LOCATION OF SITE
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 WILMINGTON, NC 28412

BOHLER ENGINEERING NC, PLLC
 NCELS P-1132
 4011 WESTCHASE BLVD., SUITE 290
 RALEIGH, NC 27607
 Phone: (919) 578-9000
 Fax: (919) 703-2665
 NC@BohlerEng.com

W. BOYD PATTON
 PROFESSIONAL ENGINEER
 040241
 3/30/17

SHEET TITLE:
UTILITY PLAN
 SHEET NUMBER:
C-5.0



PHILIPS Luminaire Schedule

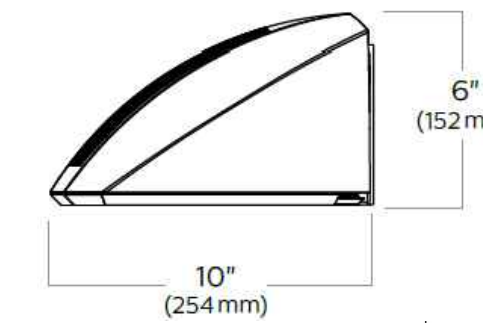
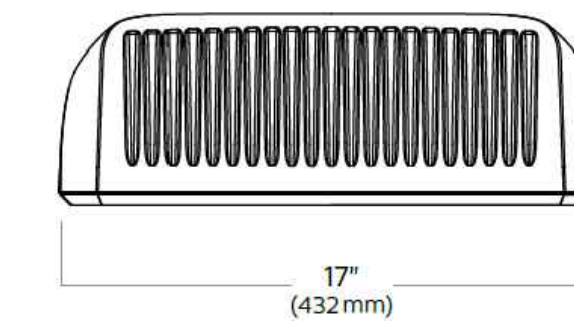
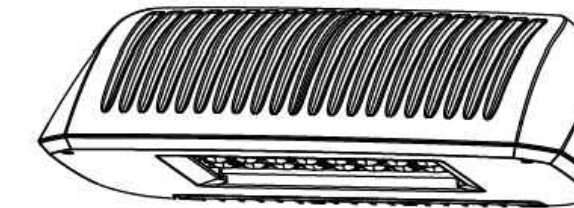
| Symbol | Qty | Label | Arrangement | Manufacturer | Description | Arr. Wattage | Lum. Watts | Lum. Lumens | LLF | BUG Rating |
|--------|-----|-------|-------------|--------------------|--|--------------|------------|-------------|-------|------------|
| | 5 | S1 | SINGLE | Gardco | ECF-S-64L-1A-NW-G2-4-HIS @ 28' | 211.6 | 211.6 | 17664 | 0.850 | B1-U1-G4 |
| | 5 | S2 | BACK-BACK | PHILIPS GARDCO | ECF-S-64L-1A-NW-G2-5W @ 28' | 424 | 212 | 23008 | 0.850 | B5-U0-G3 |
| | 1 | S3 | SINGLE | PHILIPS GARDCO | ECF-S-64L-1A-NW-G2-5W @ 28' | 212 | 212 | 23008 | 0.850 | B5-U0-G3 |
| | 5 | W1 | WALL MOUNT | PHILIPS GARDCO | 121-16L-1000-NW-G3-3 @ 10' & 13' | 54.5 | 54.5 | 4442 | 0.850 | B1-U0-G1 |
| | 5 | L-E3 | WALL MOUNT | PHILIPS GARDCO | 121-16L-530-NW-G3-3-EBPC @ 9' | 28.1 | 28.1 | 2607 | 0.850 | B1-U0-G1 |
| | 2 | L-24 | WALL MOUNT | PHILIPS GARDCO | 121-16L-530-NW-G3-4 @ 14' | 28 | 28 | 2614 | 0.850 | B1-U0-G1 |
| | 4 | L-25 | WALL MOUNT | PHILIPS GARDCO | 121-16L-530-NW-G3-4 @ 9' | 28 | 28 | 2614 | 0.850 | B1-U0-G1 |
| | 6 | D1 | SINGLE | PHILIPS LIGHTOLIER | C6L15NUVBZ10V-C6L1520DL35KWCLWVB @ 12' | 18.3 | 18.3 | 1729 | 0.850 | B2-U0-G0 |

Calculation Summary

| Label | CalcType | Avg | Max | Min | Avg/Min | Max/Min | Units |
|-------------|-------------|------|------|-----|---------|---------|-------|
| FULL SITE | Illuminance | 1.54 | 12.3 | 0.0 | N.A. | N.A. | Fc |
| PARKING LOT | Illuminance | 2.86 | 4.5 | 1.1 | 2.60 | 4.09 | Fc |

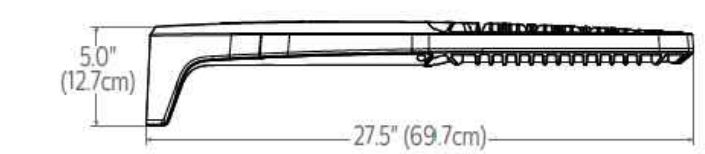
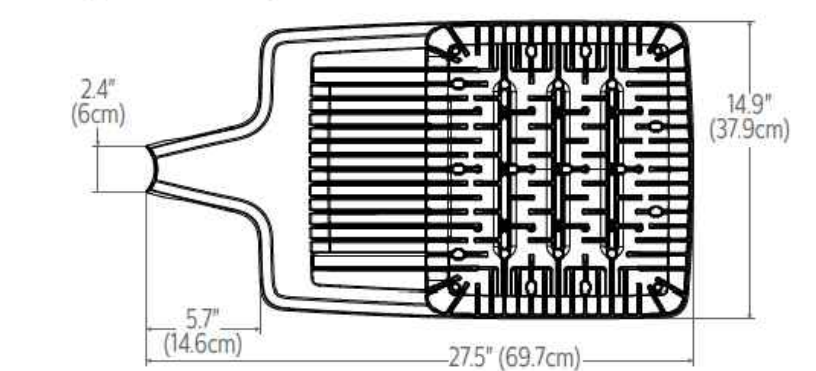
Dimensions

Standard Luminaire

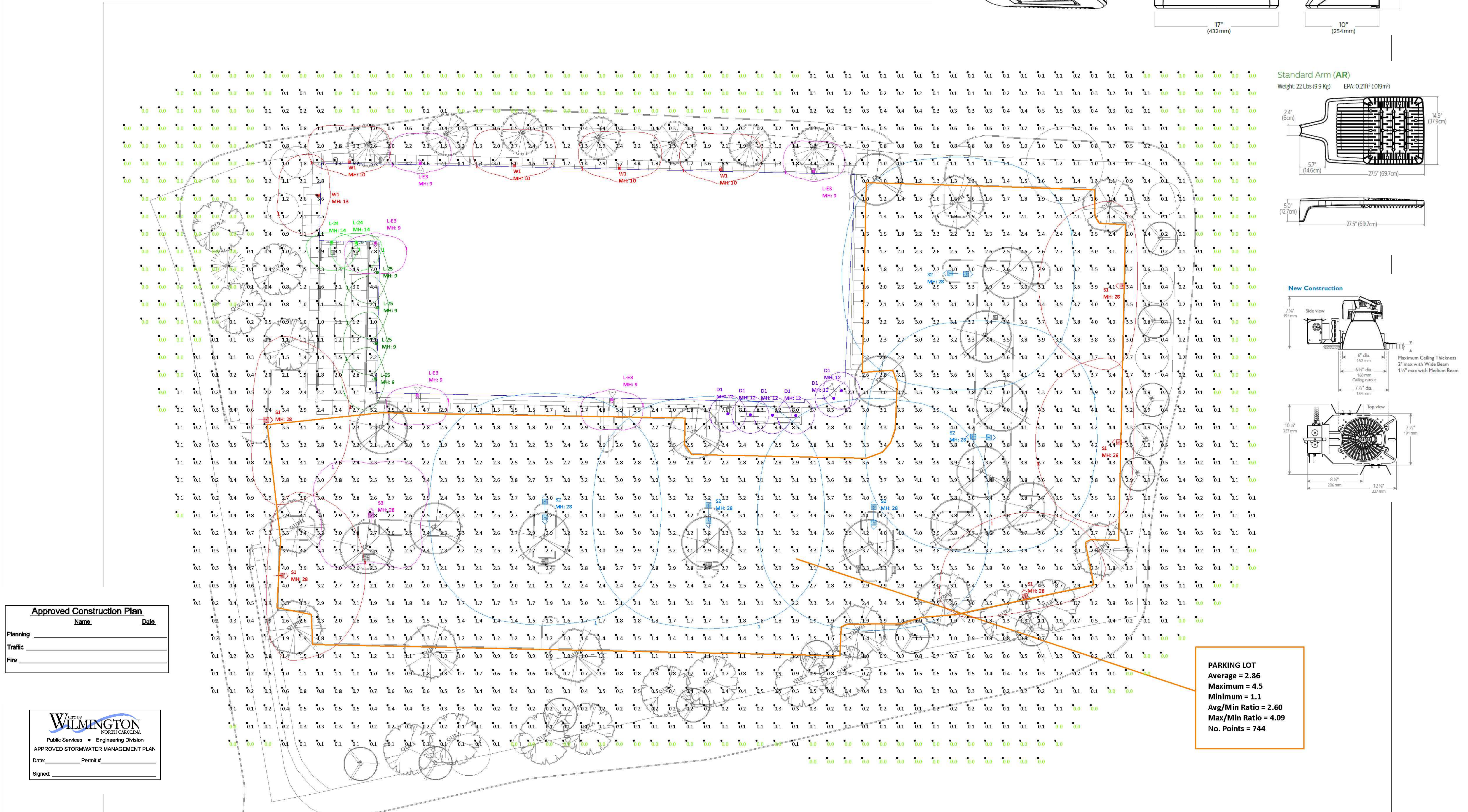
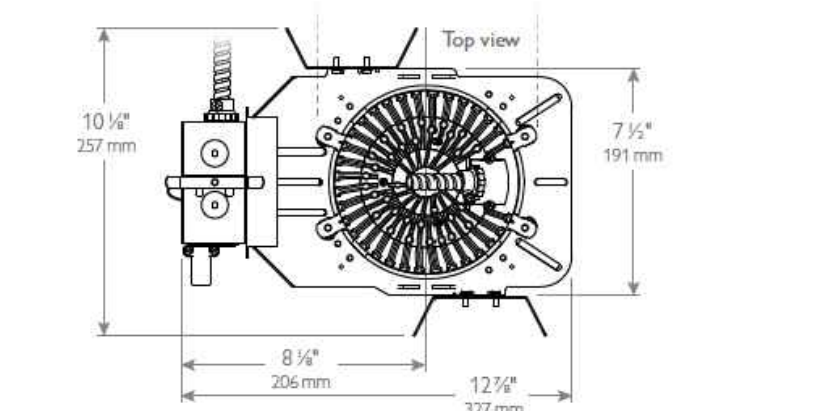
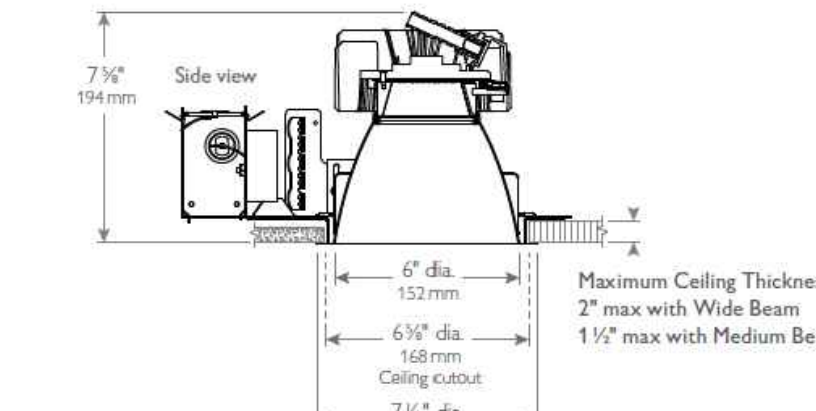


Standard Arm (AR)

Weight: 22 Lbs (9.9 Kg) EPA: 0.21ft² (0.09m²)



New Construction



PARKING LOT
 Average = 2.86
 Maximum = 4.5
 Minimum = 1.1
 Avg/Min Ratio = 2.60
 Max/Min Ratio = 4.09
 No. Points = 744

Approved Construction Plan

Name: _____ Date: _____

Planning _____

Traffic _____

Fire _____

WILMINGTON NORTH CAROLINA

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signed: _____

Scale: 1 inch= 25 Ft.

PHILIPS
 http://www.us.lighting.philips.com
 indoorlighting.applications@philips.com
 outdoorlighting.applications@philips.com

Project: Lid US #181 - Wilmington, NC
Specified By: View/Mike/Tim Ivenecy - Philips Lighting
Created By: R. Johnstone
Revision #: 55020-00688
Date: 3/22/17
Page #: Page 1 of 1
Size: ARCH D

Rev. # | **Description** | **Rev. Date**

| | | |
|----|--|--|
| R1 | | |
| R2 | | |
| R3 | | |
| R4 | | |
| R5 | | |

Disclaimer: Philips Lighting has based on project specifications provided by PHILIPS. Actual or measured values may differ from forecasted results due to tolerances in calculation methods, testing procedures, component performance, component performance, measurement techniques and varying conditions and improper or undocumented lamp burn-in procedures. Further, room dimensions, reflectances, furniture architectural elements within the space may significantly affect calculations. Philips Lighting is not responsible for the accuracy of the calculations. The responsibility of the architect, owner, or owners representative, as applicable. Please refer to Luminaire Schedule for light loss factor (LLF) details used in the calculations.

24"x 36"

APPROVED MITIGATION FOR LOT 1 (OVERALL DEVELOPER)

LOT 1 & PROPOSED ROADWAY
EX. REGULATED TREES TO BE REMOVED
 HARDWOOD TREES > 8" DBH (37)
 ALL CONIFER TREES > 12" DBH (32)
 ALL DOGWOODS, MAGNOLIAS, OTHER ORNAMENTAL FLOWERING TREES & AMERICAN HOLLIES > 4" DBH (7)
TOTAL TREES TO BE REMOVED: 69
 (43) x (75% OF TYPE OF TREE) / (3): 10
 (24) 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 (PND) PINE, BLACK PINE & NON-PINE CONIFER TREES > 24" DBH (0)
 ALL OTHER PINES > 32" DBH (0)
 DOGWOODS, MAGNOLIAS, AMERICAN HOLLIES & OTHER ORNAMENTAL FLOWERING TREES > 8" DBH (12)
TOTAL TREES REMOVED: 12
 (12) x (2 x 100% OF TYPE OF TREE) / (3): 8 SIGNIFICANT TREE REQUIRED

SEE TREE PERMIT FOR OVERALL ARBOR COMMONS (TPP-17-127) FOR MORE INFORMATION

LIDL SITE MITIGATION CALCULATIONS

EX. REGULATED TREES TO BE REMOVED
 HARDWOOD TREES > 8" DBH (13)
 ALL CONIFER TREES > 12" DBH (8)
 ALL DOGWOODS, MAGNOLIAS, OTHER ORNAMENTAL FLOWERING TREES & AMERICAN HOLLIES > 4" DBH (2)
TOTAL TREES TO BE REMOVED: 23
 (13) x (75% OF TYPE OF TREE) / (3): 4
 (8) x (50% OF TYPE OF TREE) / (3): 2
 (2) x (100% OF TYPE OF TREE) / (3): 1
 7 REGULATED REPLACEMENT TREES REQUIRED

EX. SIGNIFICANT TREES TO BE REMOVED
 HARDWOOD, LONG LEAF PINE, POCOSIN (PND) PINE, BLACK PINE & NON-PINE CONIFER TREES > 24" DBH (0)
 ALL OTHER PINES > 32" DBH (0)
 DOGWOODS, MAGNOLIAS, AMERICAN HOLLIES & OTHER ORNAMENTAL FLOWERING TREES > 8" DBH (0)
TOTAL TREES REMOVED: 0
 (0) x (2 x 100% OF TYPE OF TREE) / (3): 0 SIGNIFICANT TREE REQUIRED

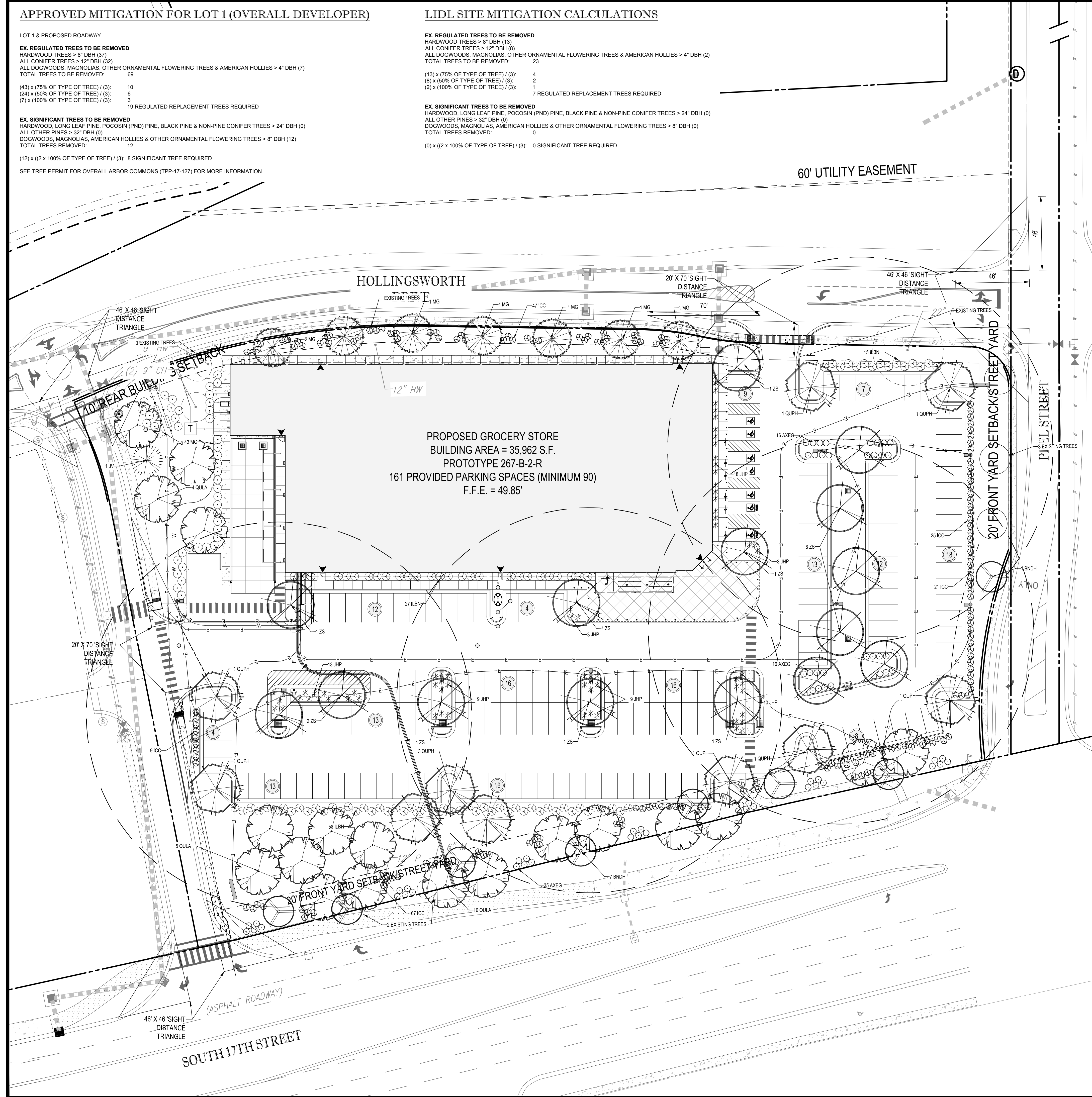
| LANDSCAPE SCHEDULE | | | | | | | |
|--------------------|------|-------------------------------|---------------------------|-----------|-----------|-----------|---------------------|
| KEY | QTY. | BOTANICAL NAME | COMMON NAME | CAL. | CONT. | SIZE | REMARKS |
| ZS | 15 | ZELKOVA SERATA | JAPANESE ZELKOVA | 2.5' CAL. | 888 | 12-14" HT | FULL |
| QUA | 14 | QUERCUS LAEPIFOIA | LARGEL OAK | 2.5' CAL. | 888 | 12-14" HT | FULL CENTRAL LEADER |
| QUH | 10 | QUERCUS PHellos HIGHTONER | HIGHTONER WILLOW OAK | 2.5' CAL. | 888 | 12-14" HT | FULL CENTRAL LEADER |
| BNDH | 8 | BETULA NIGRA CURAHEAT | CURAHEAT RIVER BIRCH | 2.5' CAL. | 888 | 8-10" HT | FULL 3/4 CANES |
| JV | 1 | JUNPERUS VIRGINIANA | EASTERN RED CEDAR | 2.5' CAL. | 888 | 8-10" HT | FULL |
| MG | 7 | MAGNOLIA GRANDIFLORA | SOUTHERN MAGNOLIA | 2.5' CAL. | 888 | 8-10" HT | FULL |
| AGEE | 87 | ARELIA EDWARD GOUCHER | EDWARD GOUCHER ABELIA | 5.0 GAL. | 24-30" HT | FULL | |
| ICC | 189 | ILEX VOMITORIA STONES CHERRY | STONES CHERRY / PINEHOLLY | 5.0 GAL. | 30" HT | FULL | |
| ILBN | 82 | ILEX CORNUTA CHERRY BURFORD | CHERRY BURFORD HOLLY | 5.0 GAL. | 30" HT | FULL | |
| JAP | 65 | JUNPERUS HORIZONTALIS PLUMOSA | SHORE JUMPER | 5.0 GAL. | 24-30" HT | FULL | |
| MC | 43 | MUNDA CERIFERA | WAX MYRTLE | 888 | 5-6" HT | FULL | |

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 | 585 LF OF PROPERTY LINE ALONG S 17TH ST. MINUS 31 LF OF DRIVEWAYS/SIDEWALK OPENING + 594 LF OF PRIMARY STREET YARD REQUIRED: 17 TREES + 102 SHRUBS PROVIDED: 17 TREES + 102 SHRUBS 235 LF OF PROPERTY LINE ALONG PEEB ST. REQUIRED: 4 TREES + 21 SHRUBS PROVIDED: 1 NEW TREE + 3 EXISTING TREES + 21 SHRUBS 586 LF OF PROPERTY LINE ALONG HOLLINGSWORTH DR MINUS 43 LF OF DRIVEWAY + 523.56 LF REQUIRED: 8 TREES + 47 SHRUBS PROVIDED: 7 NEW TREES + 1 EXISTING + 47 SHRUBS |
| 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 ISLAND • ALL ISLANDS SHALL HAVE ADDITIONAL GROUND COVER AND SHRUBBERY • PARKING SHALL BE SCREENED BY SHRUBS WITH A MIN 3' HT • 25% PARKING LOT SHADING REQUIRED 1 CANOPY TREE = 101 SF | 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: 2 PARKING LOT TREES = 16,261.23 SF |
| SEC. 18-490: FOUNDATION PLANTINGS • THE AREA OF THE BUILDING FACE ADJACENT TO THE PARKING AREA SHALL BE MULCHED BY A MINIMUM OF 12% • FACADE HEIGHT X WIDTH | SOUTH FACE: 29.5 X 183 = 5389.5 REQUIRED: 5389.5 X 12 = 646.74 SF PROVIDED: 599.63 SF EAST FACE: 29.5 X 110 = 3245 REQUIRED: 3245 X 12 = 389.4 SF PROVIDED: 404.85 SF |
| SEC. 18-494: MITIGATION • EX. REGULATED TREES TO BE REMOVED HARDWOOD TREES > 8" DBH (13) ALL CONIFER TREES > 12" DBH (8) ALL DOGWOODS, MAGNOLIAS, ORNAMENTAL HOLLIES > 4" DBH (2) TOTAL TREES TO BE REMOVED: 23 • 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 > 8" DBH (0) TOTAL TREES TO BE REMOVED: 0 | EX. REGULATED TREES TO BE MITIGATED (13) x (75% OF TYPE OF TREE) / (3) = 4 (8) x (50% OF TYPE OF TREE) / (3) = 2 (2) x (100% OF TYPE OF TREE) / (3) = 1 7 REGULATED REPLACEMENT TREES REQUIRED 7 PROVIDED EX. SIGNIFICANT TREES TO BE MITIGATED (0) x (2 x 100% OF TYPE OF TREE) / (3) = 0 0 SIGNIFICANT REPLACEMENT TREES REQUIRED |

PLANTING NOTES:

- ALL LANDSCAPED AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL.
- ALL MULCHED PLANTING BEDS ADJACENT TO BUILDING SHALL BE SEPARATED FROM FACE OF BUILDING WITH A 3" WIDE X 4" DEPTH PEA GRADE STRIP FOR FIRE SAFETY.
- 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 60/50 OR STRUCK AS SHOWN IN THE DETAILS.
- 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 TO VERIFY THE LOCATIONS OF UTILITY LINES AND ADJACENT TO THE WORK AREA TO PROTECT ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD. TO REPAIR ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION DURING DELIVERY AND PLANTING PER SPECIFICATIONS TO MAINTAIN HEALTHY PLANT CONDITIONS.
- 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.
- ANY PLANT MATERIAL WHICH IS DAMAGED, 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 MEETING ALL PLANT LIST SPECIFICATIONS.
- STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
- 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.
- BIODEGRADABLE WEED MATTING (ALL-PRO WEED MAT OR APPROVED EQUAL) SHALL BE REQUIRED IN SHRUB BEDS AT BUILDING FACADE.
- ALL PLANT MATERIAL QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN.
- THE CONTRACTOR IS ENCOURAGED TO COMPLETE TEMPORARY OR PERMANENT SEEDING IN STAGES FOR SOIL STABILIZATION AS AREAS ARE COMPLETED AFTER GRADING.
- THIS PLAN DOES NOT PRESENT ANY TEMPORARY STABILIZATION REQUIRED AS PART OF SWPPP PLAN.
- 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.



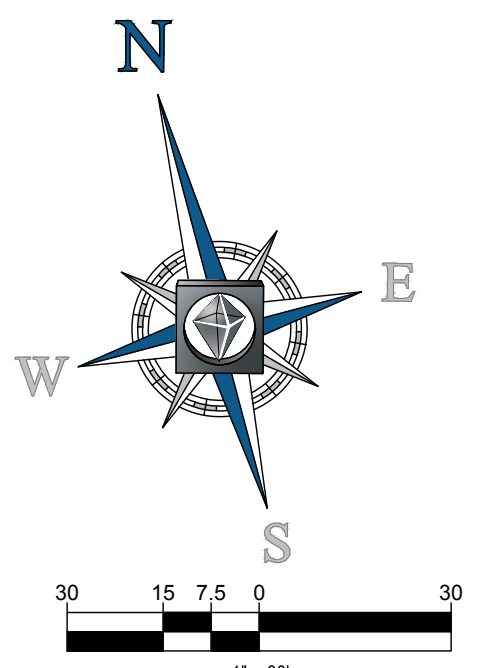
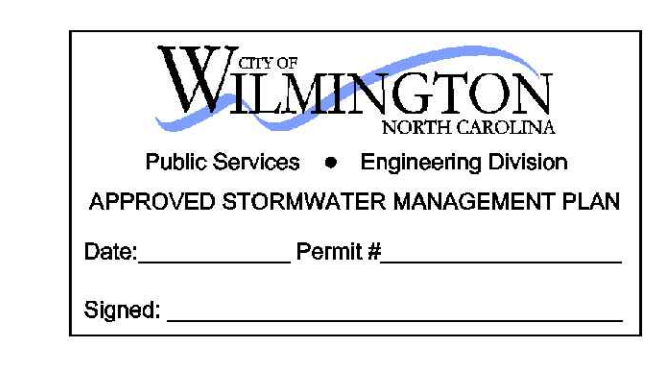
Approved Construction Plan

Name: _____ Date: _____

Planning _____

Traffic _____

Fire _____



BOHLER ENGINEERING NC, PLLC

STATE LICENSE NO. 040241

LAND SURVEYING • ENGINEERING • ARCHITECTURE
 SUSTAINABLE DESIGN • PROGRAM MANAGEMENT • TRANSPORTATION SERVICES

OFFICES:
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 • RICHMOND, VA
 • BALTIMORE, MD
 • SOUTHERN CALIFORNIA

REVISIONS

| REV | DATE | COMMENT | BY |
|-----|---------|------------------------------|-----|
| 1 | 2/3/17 | CITY COMMENTS | JDM |
| 2 | 3/15/17 | ADDITION 7 AND CITY COMMENTS | JDM |
| 3 | 3/30/17 | TRC RESUBMIT | JDM |

811

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NOT APPROVED FOR CONSTRUCTION

PROJECT No: NCR151031
 DRAWN BY: JDM
 DATE: 3/30/17
 SCALE: 1" = 30'
 CAD I.D.: LP1

PROPOSED GROCERY

FOR
LIDL US OPERATIONS, LLC

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

BOHLER ENGINEERING NC, PLLC
 NCBELLS P-1122

4011 WESTCHASE BLVD., SUITE 290
 RALEIGH, NC 27607
 Phone: (919) 578-9000
 Fax: (919) 703-2665
 NC@BohlerEng.com

STATE OF NORTH CAROLINA
 PROFESSIONAL ENGINEER
 MATT L. BOYT
 License No. 040241
 8/30/17

SHEET TITLE:
LANDSCAPE PLAN

SHEET NUMBER:
C-7.0

LANDSCAPE SPECIFICATIONS

- 1. SCOPE OF WORK
2. MATERIALS
A. GENERAL
B. TOPSOIL
C. LAWN
D. MULCH
E. FERTILIZER
F. PLANT MATERIAL

- 1.1. LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION
1.2. SPOOLS SHALL BE STRONGLY ROOTED, WEED AND DISEASE-FREE WITH A UNIFORM THICKNESS
1.3. SPOOL INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SPOOL IN PLACE
1.4. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE 'AMERICAN STANDARD FOR NURSERY STOCK' (ANSI Z60.1)

- 3. GENERAL WORK PROCEDURES
A. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION
B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE

- 4. SITE PREPARATIONS
A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT
B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES

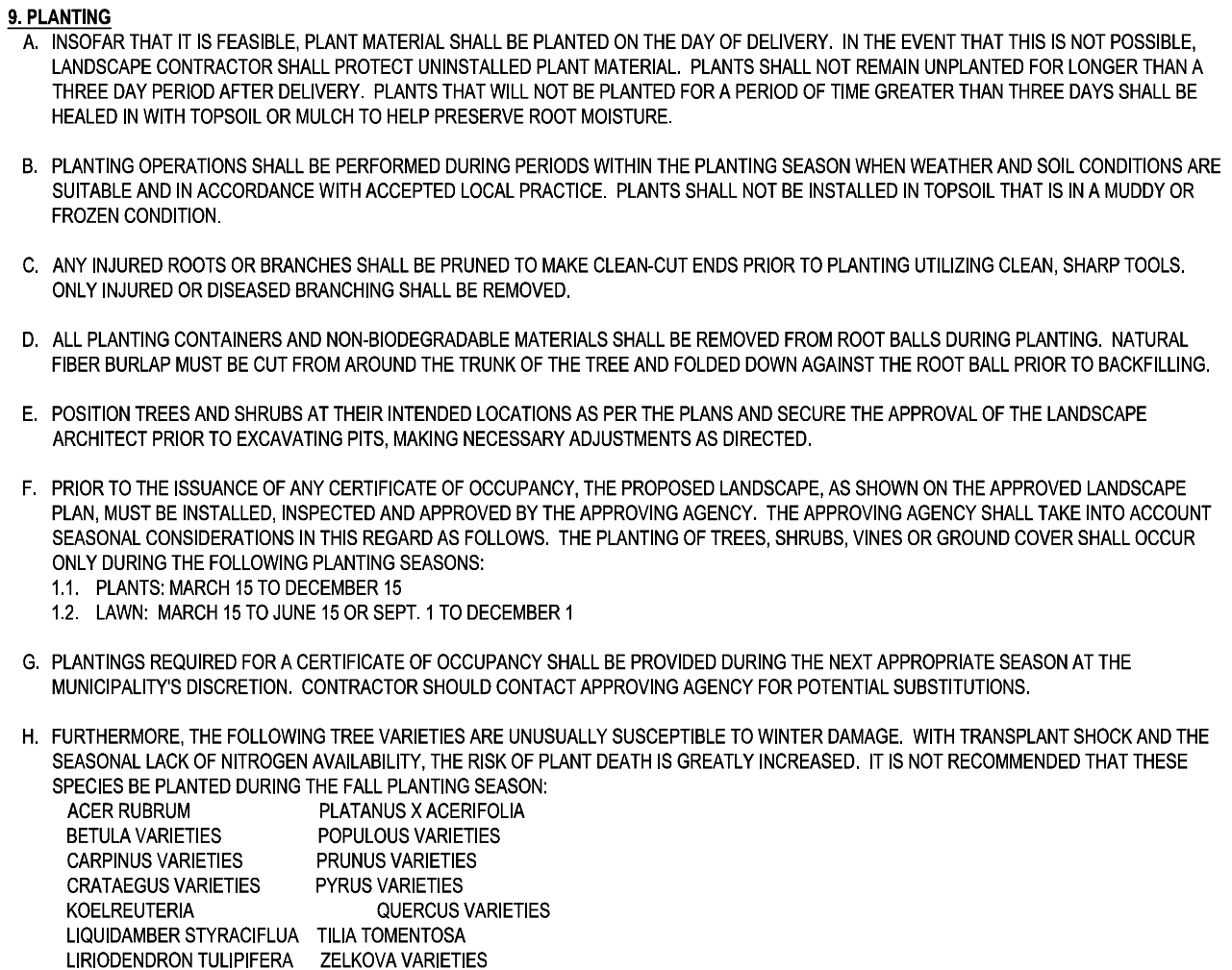
- 5. TREE PROTECTION
A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN

- 6. SOIL MODIFICATIONS
A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING

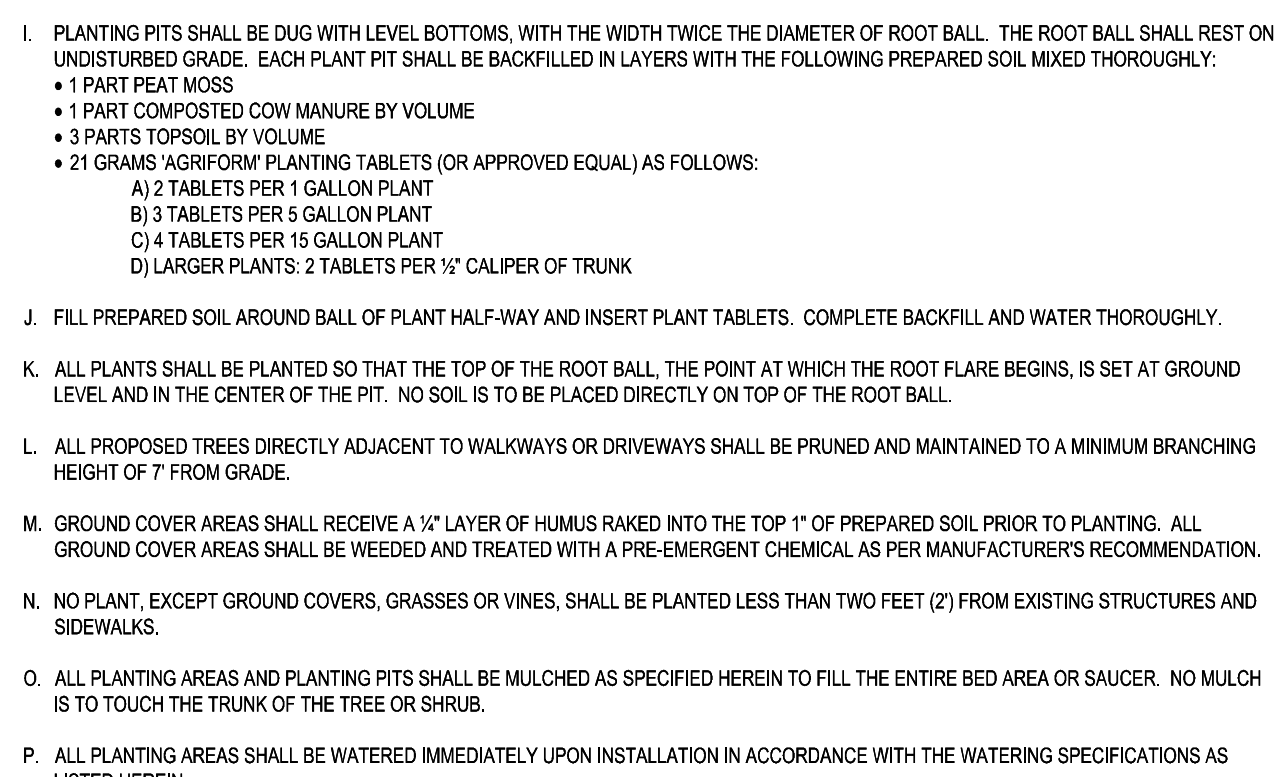
- 7. FINISHED GRADING
A. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL

- 8. TOPSOILING
A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL

- 9. PLANTING
A. INsofar THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY



EVERGREEN TREE PLANTING DETAIL



DECIDUOUS TREE PLANTING DETAIL

- 1. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL
2. PLANTS SHALL NOT BE DUG FOR TRANSPORTING BETWEEN APRIL 10 AND JUNE 30

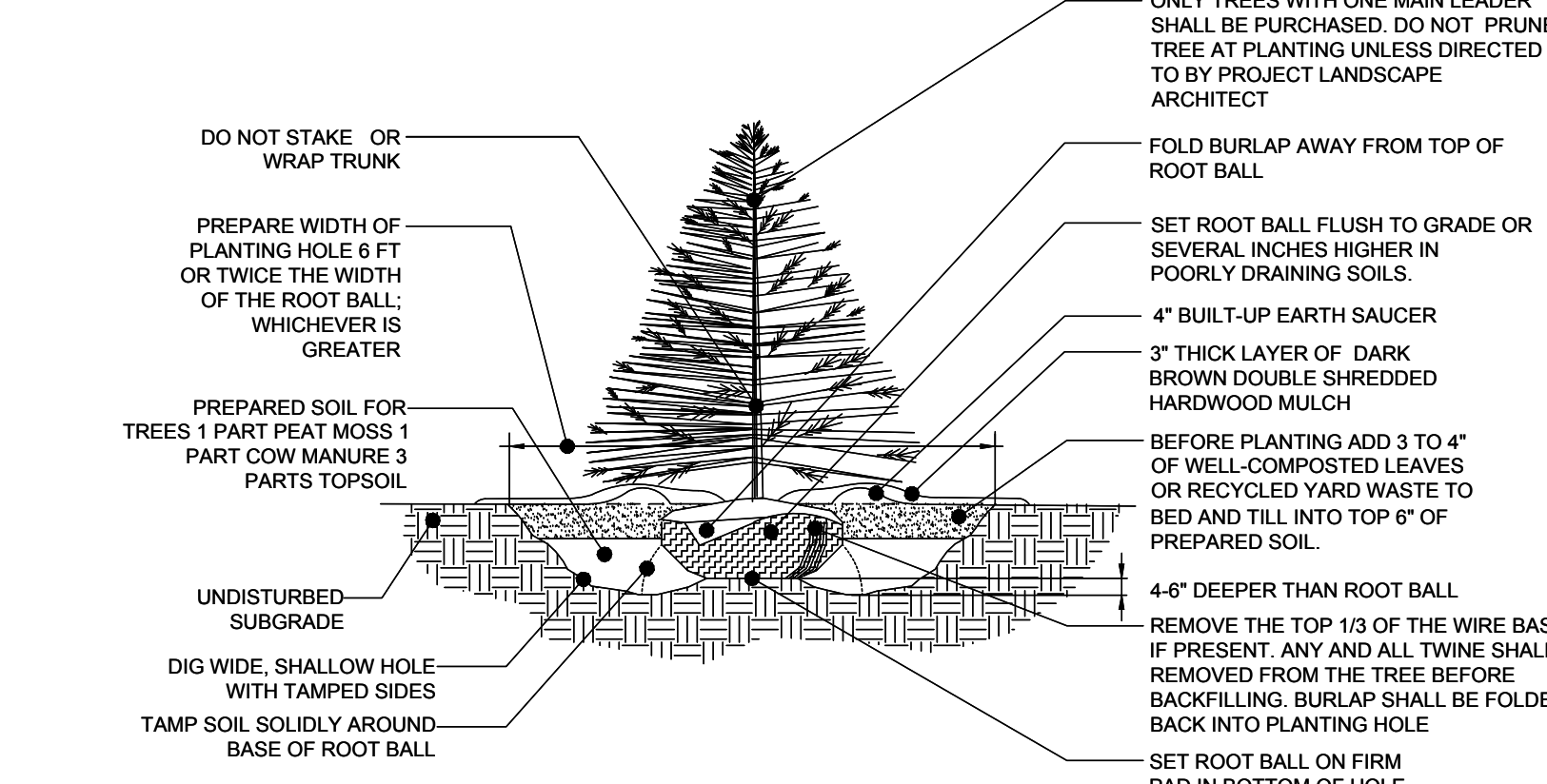
- 11. WATERING
A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING

- 12. GUARANTEE
A. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION

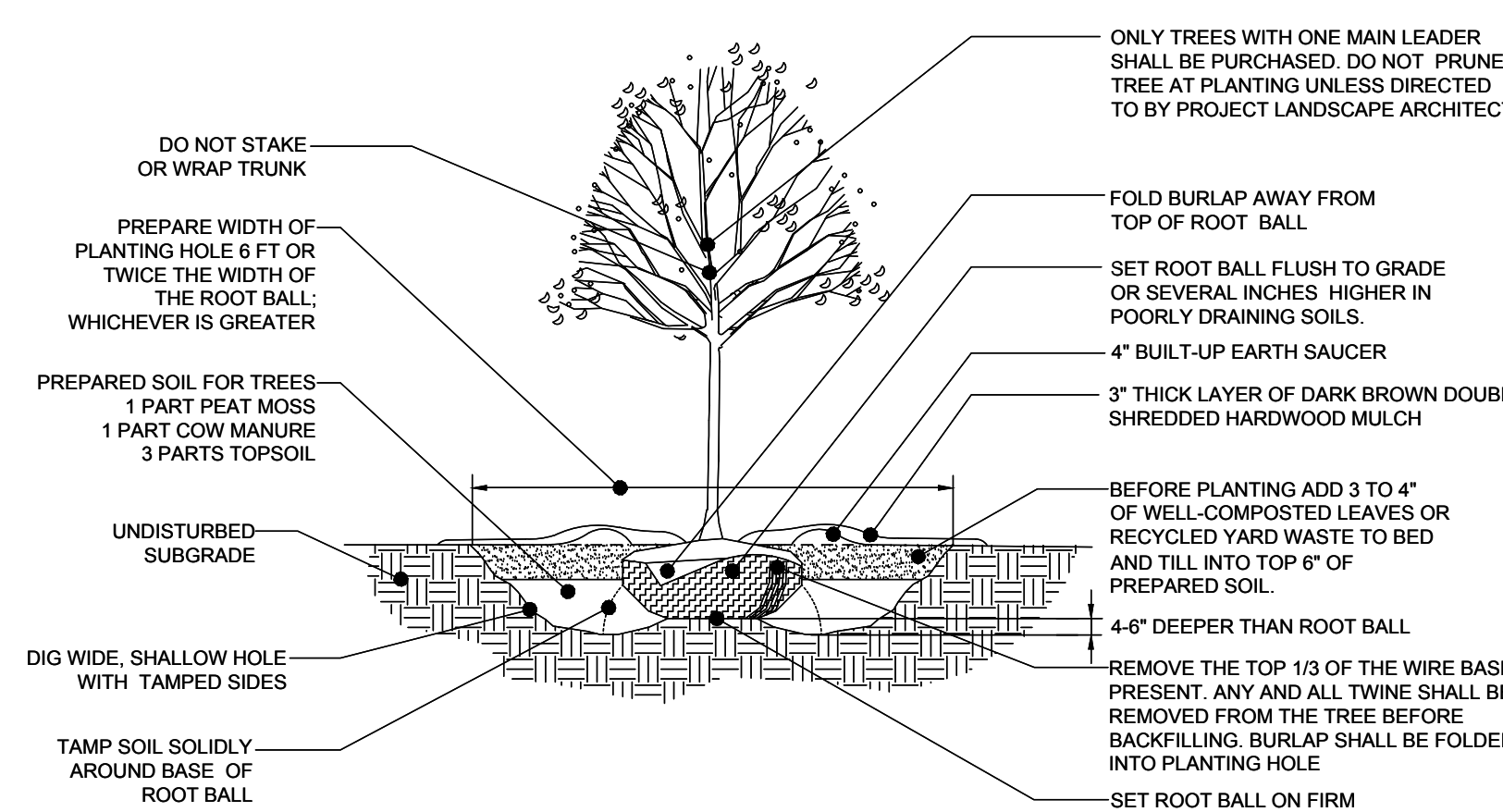
- 13. CLEANUP
A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE

- 14. MAINTENANCE
A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL

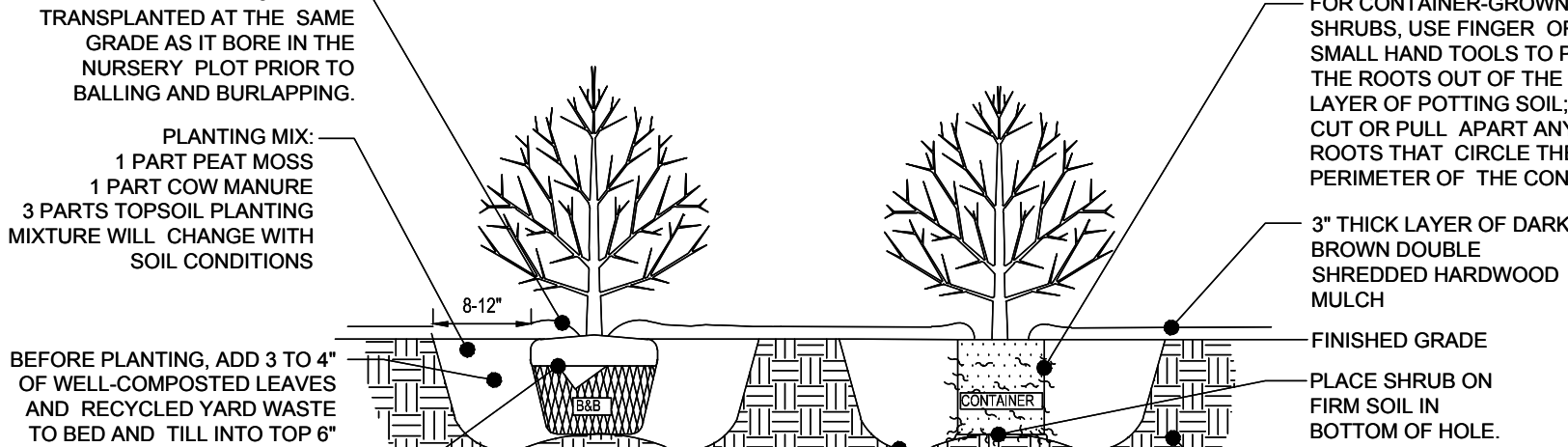
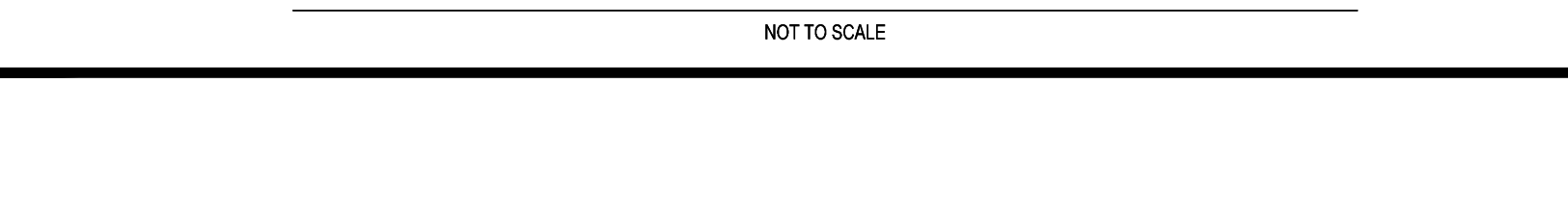
- 15. PERENNIAL AND GROUND COVER PLANTING
A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL



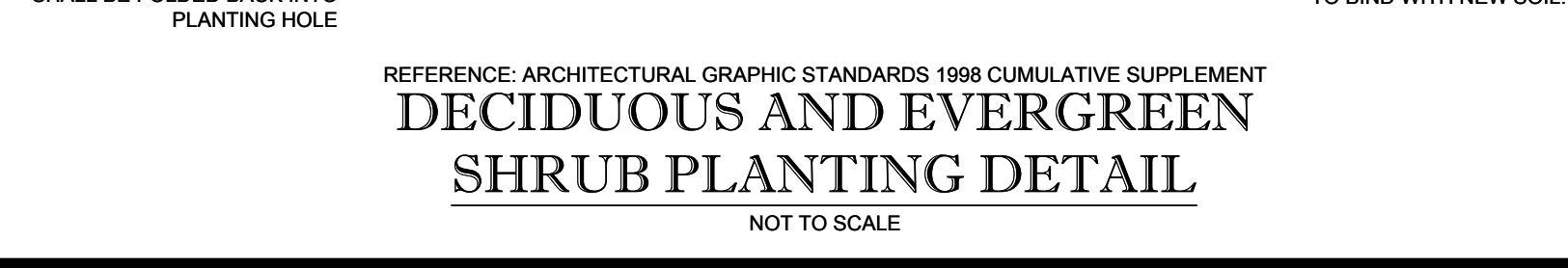
DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL



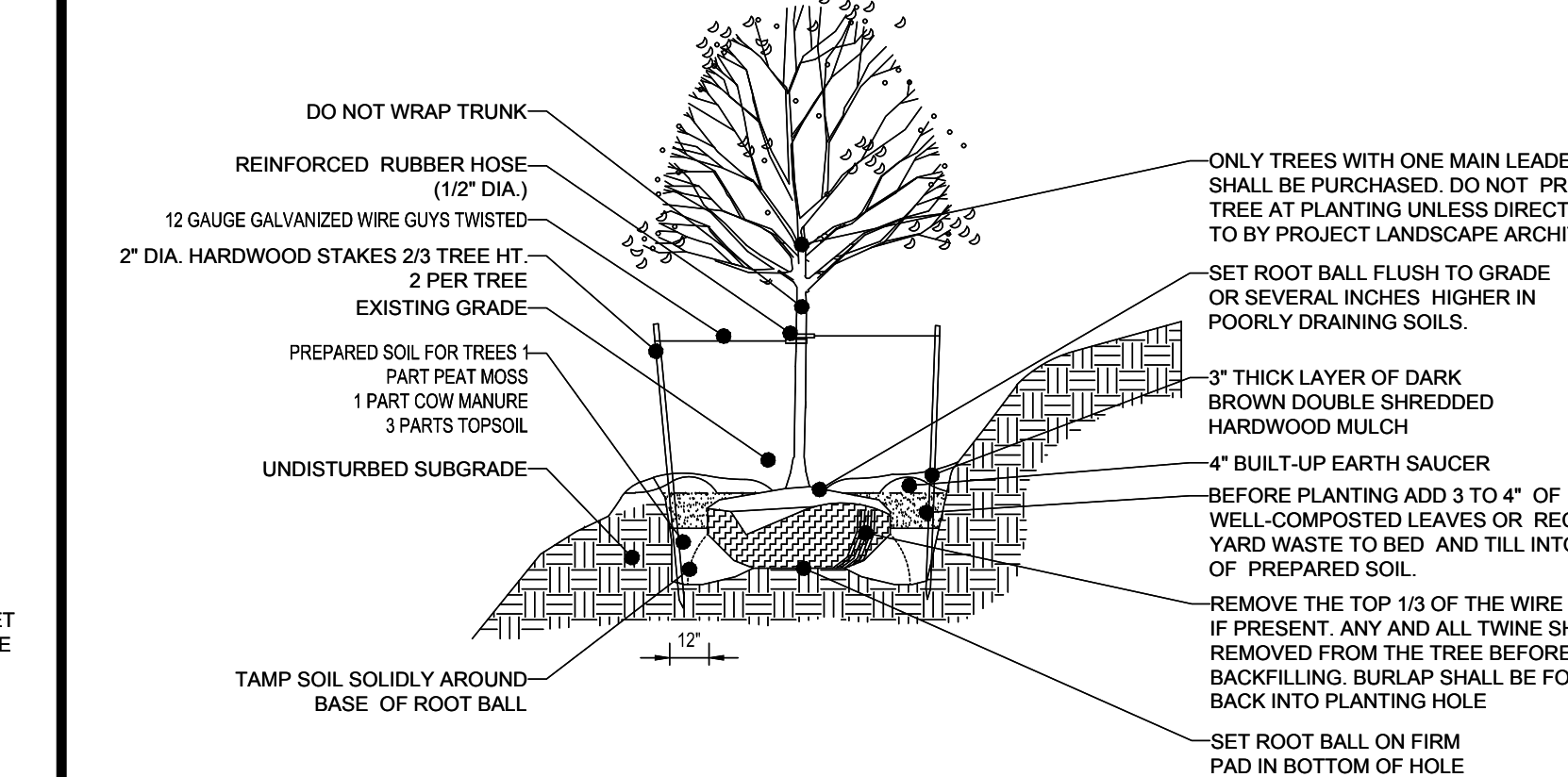
PERENNIAL/GROUND COVER PLANTING DETAIL



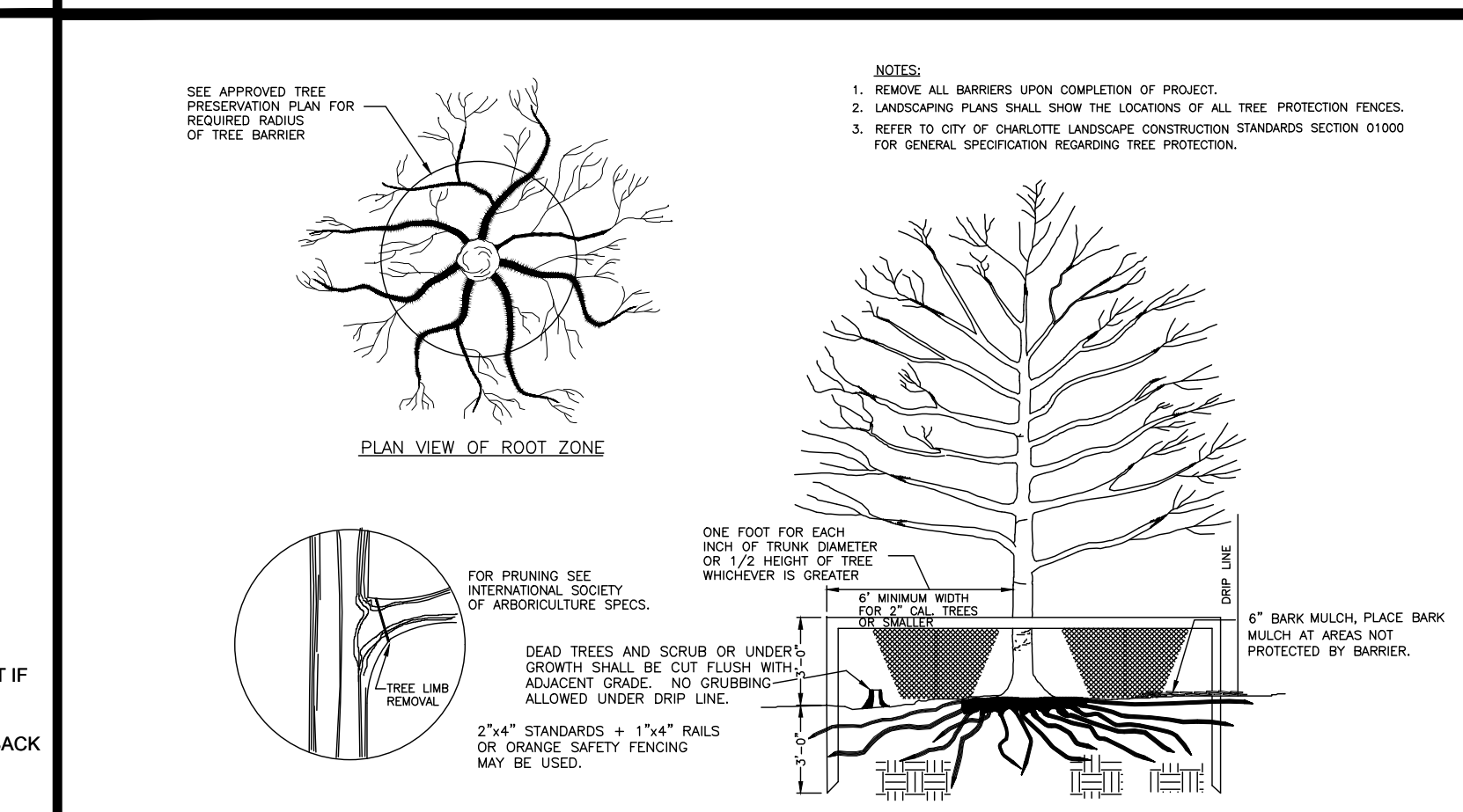
PERENNIAL/GROUND COVER SPACING & LAYOUT



PERENNIAL/GROUND COVER SPACING & LAYOUT



TREE PLANTING ON SLOPE DETAIL



TREE PROTECTION DETAIL

OWNER MAINTENANCE RESPONSIBILITIES

UPON OWNERS (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, ORNAMENTAL PLANTS AND FLOWERS, FLOWERS, GROUND COVER, AND LANDSCAPING, INCLUDING ALL LANDSCAPE ISLANDS AND AREAS ADJACENT OR PART OF THE LANDSCAPED AREAS.

Approved Construction Plan
Name:
Date:
Traffic:
Fire:

WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: Permit #
Signed:

BOHLER ENGINEERING NC, PLLC
SITE INVESTIGATION, FIELD SURVEYING, ENVIRONMENTAL ENGINEERING, LANDSCAPE ARCHITECTURE, PROGRAM MANAGEMENT, TRANSPORTATION SERVICES, SUSTAINABLE DESIGN, PERMITTING SERVICES

Table with columns: REV, DATE, COMMENT, BY. Revisions: 1 (2/3/17) CITY COMMENTS, 2 (3/15/17) ADDENDUM 7 AND CITY COMMENTS, 3 (3/30/17) TRC RESUBMIT.

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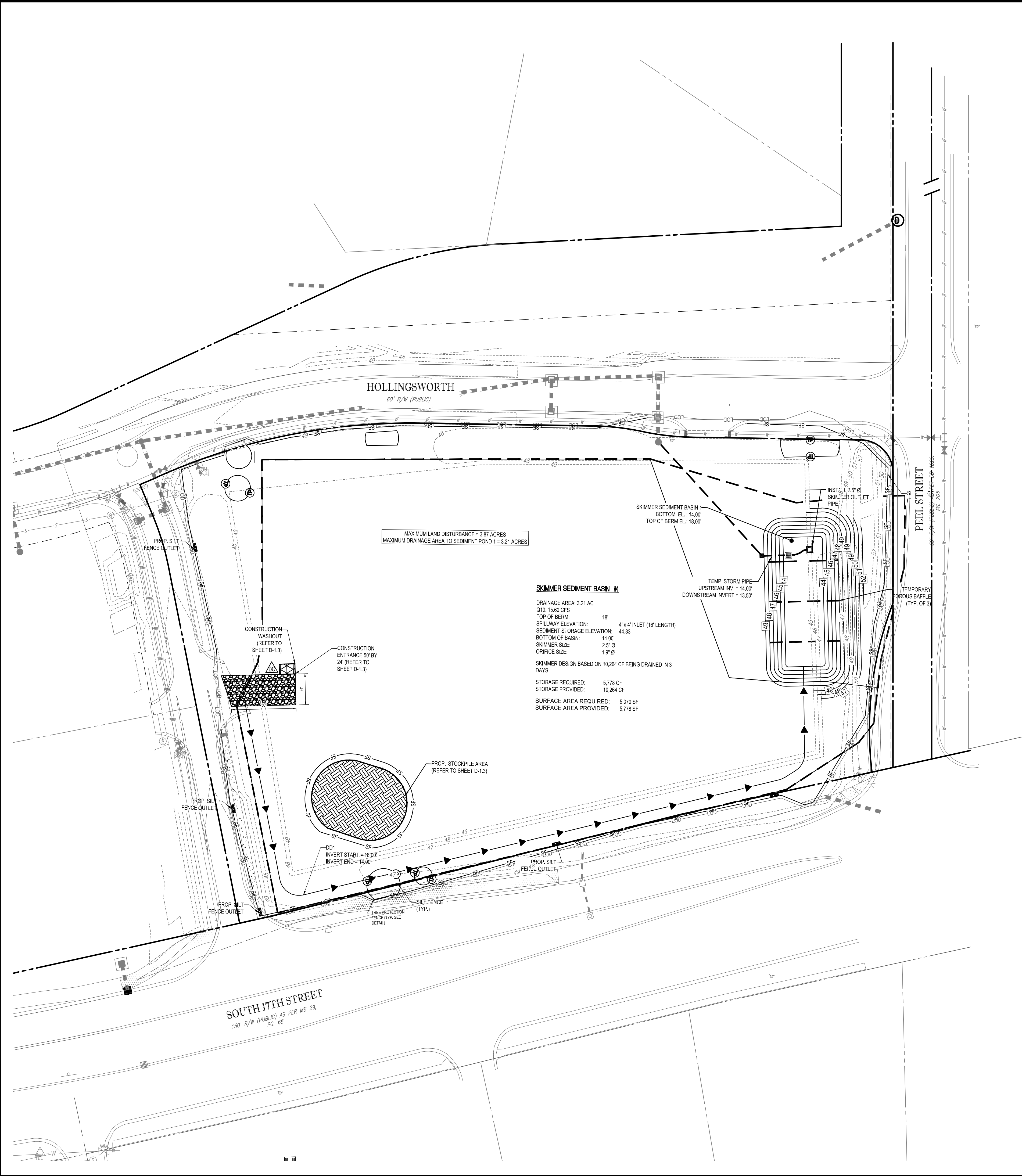
Table with project information: PROJECT No. NCR151031, DRAWN BY: JLM, CHECKED BY: WLB, DATE: 3/30/17, SCALE: AS NOTED, CAD I.D.: LP1

PROPOSED GROCERY FOR LIDL US OPERATIONS, LLC. LOCATION OF SITE: 4355 S 17TH STREET, WILMINGTON, NC 28412

BOHLER ENGINEERING NC, PLLC. 4011 WESTCHASE BLVD., SUITE 290, RALEIGH, NC 27607. Phone: (919) 578-9000, Fax: (919) 703-2665, NC@BohlerEng.com

Professional Engineer Seal: W. BOHLER, ENGINEER, P-1122, NORTH CAROLINA, LICENSED PROFESSIONAL ENGINEER, P-1122, DATE: 04/02/14, W. BOHLER, ENGINEER, P-1122, 3/30/17

SHEET TITLE: LANDSCAPE DETAILS. SHEET NUMBER: C-7.1



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 |
| | CONCRETE WASHOUT |
| | DUST CONTROL |
| | SILT FENCE OUTLET |
| | SLOPE DRAIN DIKE |
| | CHECK DAM |
| | TREE PROTECTION FENCE |
| | SOILS BOUNDARY |
| Lc | LEON SAND (0% - 2% SLOPES) |
| Mu | MURVILLE FINE SAND (0% - 2% SLOPES) |
| Rm | RIMINI SAND (1% - 6% SLOPES) |

STABILIZATION TIMEFRAMES

(Effective Aug. 3, 2011)

| 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. |

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 of temporary cover is not to extend beyond June.

Seeding dates
 Mountains—Above 2500 feet: Feb. 15 - May 15
 Below 2500 feet: Feb. 1 - May 1
 Piedmont—Jan. 1 - May 1
 Coastal Plain—Dec. 1 - Apr. 15

Soil amendments
 Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

Mulch
 Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

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

Seeding mixture

| Species | Rate (lb/acre) |
|---------------|----------------|
| German millet | 40 |

In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

Seeding dates
 Mountains—May 15 - Aug. 15
 Piedmont—May 1 - Aug. 15
 Coastal Plain—Apr. 15 - Aug. 15

Soil amendments
 Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

Mulch
 Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

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

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 2,000 lb/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.

Mulch
 Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
 Repair and refertilize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

NCDENR EROSION AND SEDIMENT CONTROL NOTES

- ON-SITE BURIAL PITS ARE NOT ALLOWED AT ANY LOCATION WITHIN THE CITY OF EDEN.
- 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.
- INSTALL STORM STRUCTURE AZ AND PIPE FROM AZ TO AT AS PER THE SHEET C-4.0. BASIN OUTLET STRUCTURES WITH DRAINAGE AREAS EQUAL OR GREATER THAN ONE ACRE MUST WITHDRAW WATER FROM THE SURFACE.
- 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.
- 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.
- PERMANENT CUT AND FILL SLOPES PLACED ON A SUITABLE FOUNDATION SHOULD BE CONSTRUCTED AT 2° (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 ON TO 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.
- LIMITS OF CLEARING SHOWN ARE BASED ON CUT AND FILL SLOPES OR OTHER GRADING REQUIREMENTS.
- CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES AS INDICATED PRIOR TO GRADING OPERATIONS. NO DEVICE MAY BE REMOVED WITHOUT APPROVAL OF EROSION CONTROL COORDINATOR.
- CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY WITH EXISTING CONTOURS.
- ALL DISTANCES ARE HORIZONTAL GROUND.
- ANCHOR SILT FENCE WITH COMPACTED BACKFILL ON TREE PROTECTION ZONES, DO NOT BURY.
- 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.
- ANY ASSOCIATED DEMOLITION PERMITS AND METHODS OF DEMOLITION ARE TO BE OBTAINED AND ARRANGED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- SEDIMENT TRAPS AND BASINS NEED TO BE INSTALLED IMMEDIATELY AFTER INSTALLATION.
- STONE OUTLETS SHOULD BE INSTALLED AT LOW POINTS OF THE SILT FENCING, BASED ON FIELD CONDITIONS.
- 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 SELF-INSPECTION PROGRAM, CAN BE FOUND ON THE LAND QUALITY WEBSITE (HTTP://PORTAL.NCDENR.ORG/WEB/EROSION). IF YOU HAVE QUESTIONS OF THE SELF-INSPECTION PROGRAM, PLEASE CONTACT (877) 623-6746.
- 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 PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 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 PERFORMED UNDER THE SUPERVISION OF THE OWNER'S GEOTECHNICAL ENGINEER.
- FOOTING EXCAVATIONS SHALL BE CONTINUOUSLY Dewatered DURING CONSTRUCTION TO PREVENT SETTLEMENT AND SEDIMENT DEPOSIT.
- ALL TEMPORARY DIVERSIONS MUST BE INSTALLED WITH POSITIVE DRAINAGE AND SHALL OVERTOP EXISTING GRADE WHEN NECESSARY TO PROVIDE A MINIMUM OF 0.3% LONGITUDINAL SLOPE.
- ALL ADJACENT ROADWAYS TO THE SITE ARE TO BE SWEEPED (NOT WASHED) AT THE END OF EACH WORK DAY TO REMOVE SEDIMENT FROM THE ROAD SURFACE.
- ALL EROSION CONTROL MEASURES MUST BE INSPECTED AND PROPERLY MAINTAINED AT THE END OF EACH WEEK AND AFTER EVERY RAINFALL EVENT.
- INSTALL ADDITIONAL EROSION CONTROL MEASURES AS REQUIRED TO PREVENT SEDIMENT FROM LEAVING THE SITE.
- CONTRACTOR SHALL PERFORM PRACTICES AND PROCEDURES WHICH MINIMIZE AND PREVENT 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 PERMITTED 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.
- 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.
- INSTALL SILT FENCE. CLEAR ONLY THE MINIMUM AREA ABSOLUTELY NECESSARY TO INSTALL THESE PERIMETER CONTROL BMS.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE AND SET THE PROJECT OFFICE TRAILER.
- CONSTRUCT SKIMMER SEDIMENT BASIN, STABILIZE SIDE SLOPES.
- CONSTRUCT AND STABILIZE DIVERSION DRAINING TO SKIMMER SEDIMENT BASIN.

Approved Construction Plan

| Name | Date |
|----------|------|
| Planning | |
| Traffic | |
| Fire | |

CITY OF WILMINGTON
NORTH CAROLINA

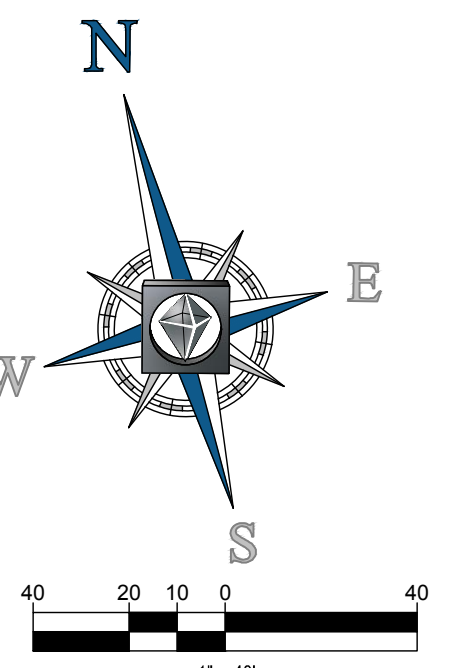
Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signed: _____

- 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 HOW.



BOHLER
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SITING • SURVEYING • ENGINEERING • INSURANCE ARCHITECTURE
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HOUSTON, TX • SOUTH WEST PUNJAB
NEW YORK, NY • SOUTHERN MARYLAND
NEW JERSEY • SOUTH FLORIDA

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 |

811

KNOW WHAT'S BELOW
ALWAYS CALL 811
BEFORE YOU DIG

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

NOT APPROVED FOR
CONSTRUCTION

PROJECT No: NCR151031
DRAWN BY: JDM
CHECKED BY: WLB
DATE: 3/30/17
SCALE: 1" = 40'
CAD I.D.: SSO

PROPOSED
GROCERY

FOR
**LIDL US
OPERATIONS,
LLC**

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

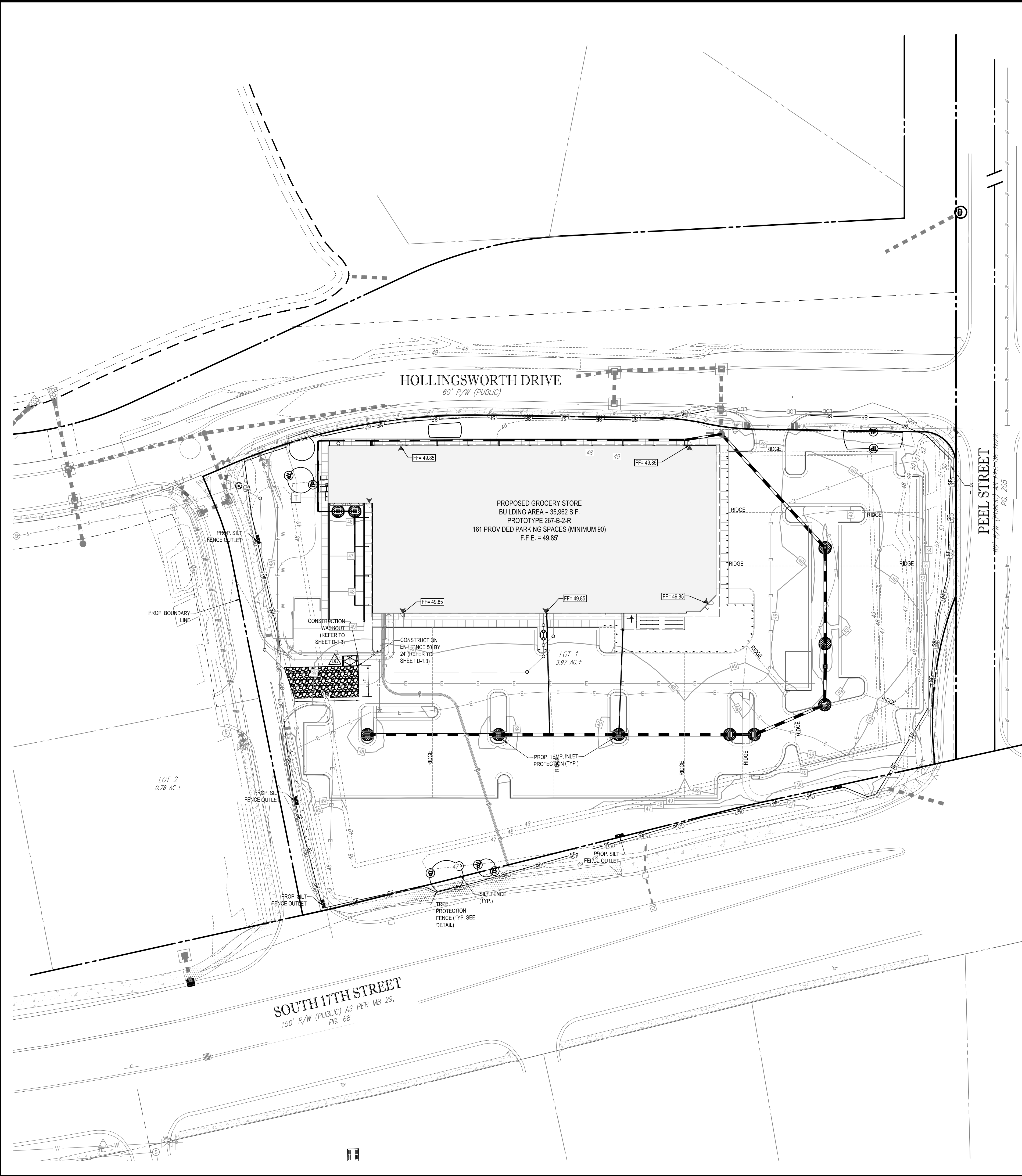
BOHLER
ENGINEERING NC, PLLC

4011 WESTCHASE BLVD., SUITE 290
RALEIGH, NC 27607
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com

NORTH CAROLINA PROFESSIONAL ENGINEER
MATT L. BOYD
04024
3/30/17

SHEET TITLE:
**EROSION AND
SEDIMENT
CONTROL
PHASE I**

SHEET NUMBER:
C-8.0



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 |
| | CONCRETE WASHOUT |
| | DUST CONTROL |
| | SILT FENCE OUTLET |
| | SLOPE DRAIN DIKE |
| | CHECK DAM |
| | EROSION CONTROL MATTING (SEE NOTES ON PLANS FOR MATTING TYPE) |
| | SOILS BOUNDARY |
| Le | LEON SAND (0% - 2% SLOPES) |
| Mu | MURVILLE FINE SAND (0% - 2% SLOPES) |
| Rm | RIMINI SAND (1% - 6% SLOPES) |

STABILIZATION TIMEFRAMES

(Reference: Aug. 3, 2011)

| SITE AREA DESCRIPTION | STABILIZATION | THRESHOLD EXCEPTIONS |
|--|---------------|--|
| Perimeter dikes, weirs, 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 deeper than 2', 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. |

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 of temporary cover is not to extend beyond June.

Seeding dates
Mountains—Above 2500 feet: Feb. 15 - May 15
Below 2500 feet: Feb. 1 - May 1
Piedmont—Jan. 1 - May 1
Coastal Plain—Dec. 1 - Apr. 15

Soil amendments
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Referitize if growth is not fully adequate. Reseed, referitize and mulch immediately following erosion or other damage.

Seeding mixture

| Species | Rate (lb/acre) |
|---------------|----------------|
| German millet | 40 |

In the Piedmont and Mountains, a small-stemmed Sudagrass may be substituted at a rate of 50 lb/acre.

Seeding dates
Mountains—May 15 - Aug. 15
Piedmont—May 1 - Aug. 15
Coastal Plain—Apr. 15 - Aug. 15

Soil amendments
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Referitize if growth is not fully adequate. Reseed, referitize and mulch immediately following erosion or other damage.

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 2,000 lb/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Repair and referitize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

NCDENR EROSION AND SEDIMENT CONTROL NOTES

- ON-SITE BURIAL PITS ARE NOT ALLOWED AT ANY LOCATION WITHIN THE CITY OF EDEN.
- 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.
- BASEIN OUTLET STRUCTURES WITH DRAINAGE AREAS EQUAL OR GREATER THAN ONE ACRE MUST WITHDRAW WATER FROM THE SURFACE.
- 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.
- 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.
- PERMANENT CUT AND FILL SLOPES PLACED ON A SUITABLE FOUNDATION SHOULD BE CONSTRUCTED AT 2° (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.
- LIMITS OF CLEARING SHOWN ARE BASED ON CUT AND FILL SLOPES OR OTHER GRADING REQUIREMENTS.
- CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES AS INDICATED PRIOR TO GRADING OPERATIONS. NO DEVICE MAY BE REMOVED WITHOUT APPROVAL OF EROSION CONTROL COORDINATOR.
- CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY WITH EXISTING CONTOURS.
- ALL DISTANCES ARE HORIZONTAL.
- ANCHOR SILT FENCE WITH COMPACTED BACKFILL ON TREE PROTECTION ZONES. DO NOT BURY.
- 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.
- ANY ASSOCIATED DEMOLITION PERMITS AND METHODS OF DEMOLITION ARE TO BE OBTAINED AND ARRANGED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- SEDIMENT TRAPS AND BASINS NEED TO BE STABILIZED IMMEDIATELY AFTER INSTALLATION.
- STONE OUTLETS SHOULD BE INSTALLED AT LOW POINTS OF THE SILT FENCING, BASED ON FIELD CONDITIONS.
- 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 SELF-INSPECTION PROGRAM, CAN BE FOUND ON THE LAND QUALITY WEBSITE (HTTP://PORTAL.NCDENR.ORG/WEB/EROSION/). IF YOU HAVE QUESTIONS OF THE SELF-INSPECTION PROGRAM, PLEASE CONTACT (877) 623-6748.
- 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 PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- FOOTING EXCAVATIONS SHALL BE CONTINUOUSLY DEWATERED DURING CONSTRUCTION TO PREVENT SETTLEMENT AND SEDIMENT DEPOSIT.
- 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.
- ALL ADJACENT ROADWAYS TO THE SITE ARE TO BE SWEEP (NOT WASHED) AT THE END OF EACH WORK DAY TO REMOVE SEDIMENT FROM THE ROAD SURFACE.
- ALL EROSION CONTROL MEASURES MUST BE INSPECTED AND PROPERLY MAINTAINED AT THE END OF EACH WEEK AND AFTER EVERY RAINFALL EVENT.
- INSTALL ADDITIONAL EROSION CONTROL MEASURES AS REQUIRED TO PREVENT SEDIMENT FROM LEAVING THE SITE.
- 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 II EROSION CONTROL CONSTRUCTION SEQUENCE:

- 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.
- INSTALL INLET PROTECTION ON PROPOSED INLETS UPON COMPLETION OF INSTALLATION.
- 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.
- PAVE SITE.
- UPON STABILIZING ENTIRE SITE REMOVE SILT FENCE.
- DEMOLIBRE FROM SITE - CONTRACTOR SHALL NOT DEMOLIBRE UNTIL ENTIRE SITE HAS BEEN FULLY STABILIZED.

Approved Construction Plan

| Name | Date |
|----------|------|
| Planning | |
| Traffic | |
| Fire | |

City of WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____

- ANY BORROW OR WASTE MUST UTILIZE A SITE WITH AN APPROVED EROSION CONTROL PERMIT.
- IF A SINGLE SOURCE BARRAW 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.

BOHLER ENGINEERING NC, PLLC
SITE AND ENVIRONMENTAL ENGINEERING • LANDSCAPE ARCHITECTURE
LAND SURVEYING • PROGRAM MANAGEMENT • TRANSPORTATION SERVICES
SUSTAINABLE DESIGN • PERMITTING SERVICES
NORTH CAROLINA: RALEIGH, CHARLOTTE, WILMINGTON
VIRGINIA: FARMINGTON, CHARLOTTE
SOUTH CAROLINA: COLUMBIA, CHARLOTTE
FLORIDA: MIAMI, MIAMI BEACH
NEW YORK: NEW YORK
NEW JERSEY: NEW JERSEY

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 |

811
KNOW WHAT'S BELOW
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It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION
PROJECT No: NCR151031
DRAWN BY: JDM
CHECKED BY: WLB
DATE: 3/30/17
SCALE: 1" = 40'
CAD I.D.: SSO

PROPOSED GROCERY
FOR
LIDL US OPERATIONS, LLC
LOCATION OF SITE
4355 S 17TH STREET
WILMINGTON, NC 28412

BOHLER ENGINEERING NC, PLLC
NCELS P-112
4011 WESTCHASE BLVD., SUITE 290
RALEIGH, NC 27607
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com

NORTH CAROLINA PROFESSIONAL ENGINEER
Matt L. Boyle
04024
ENGINEER
3/30/17

SHEET TITLE:
EROSION AND SEDIMENT CONTROL PHASE II
SHEET NUMBER:
C-9.0

Approved Construction Plan

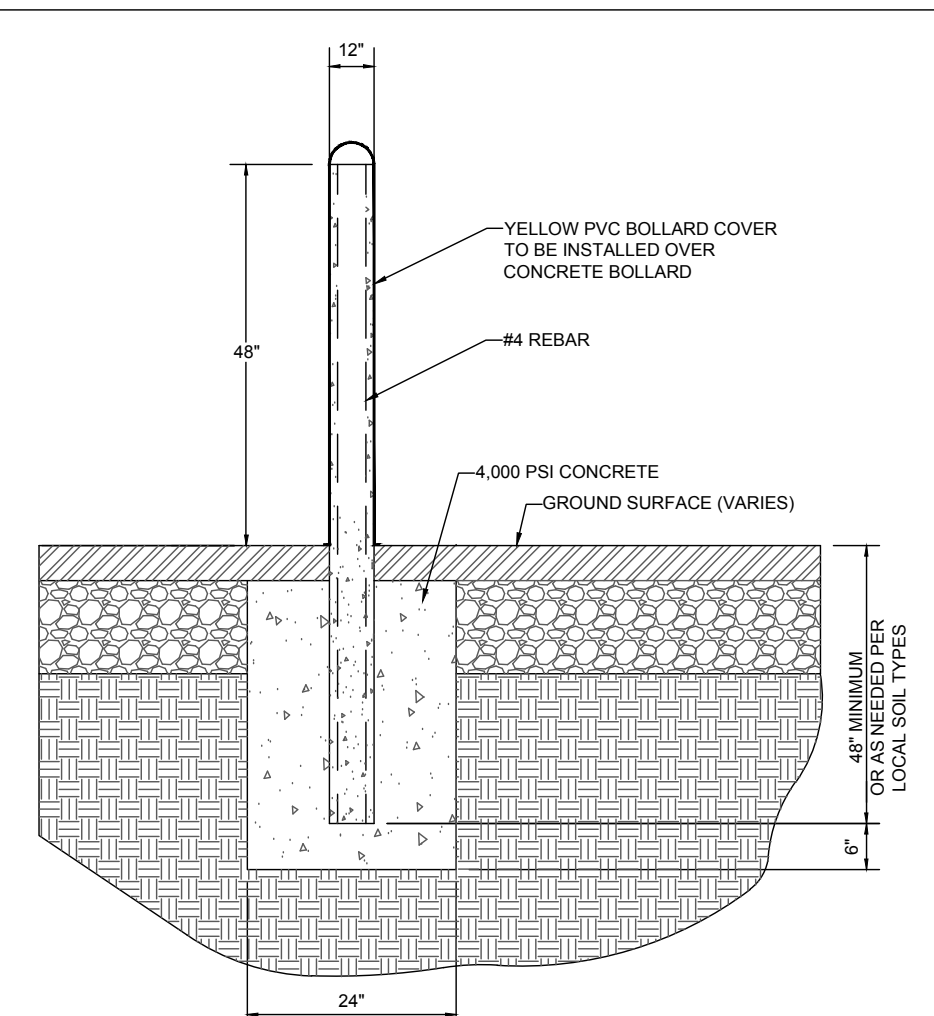
Name _____ Date _____

Planning _____

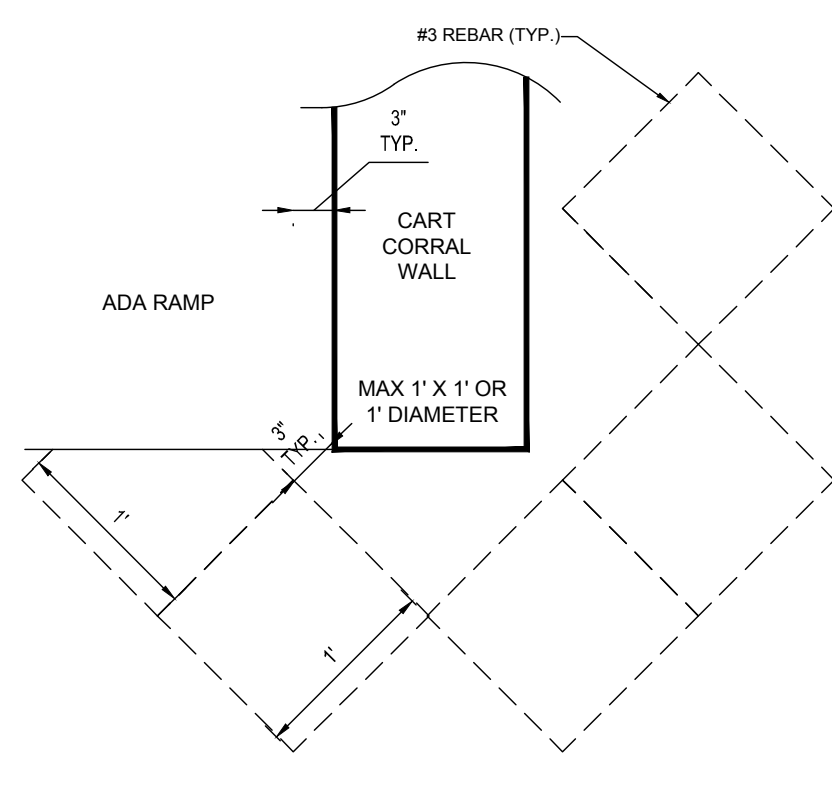
Traffic _____

File _____

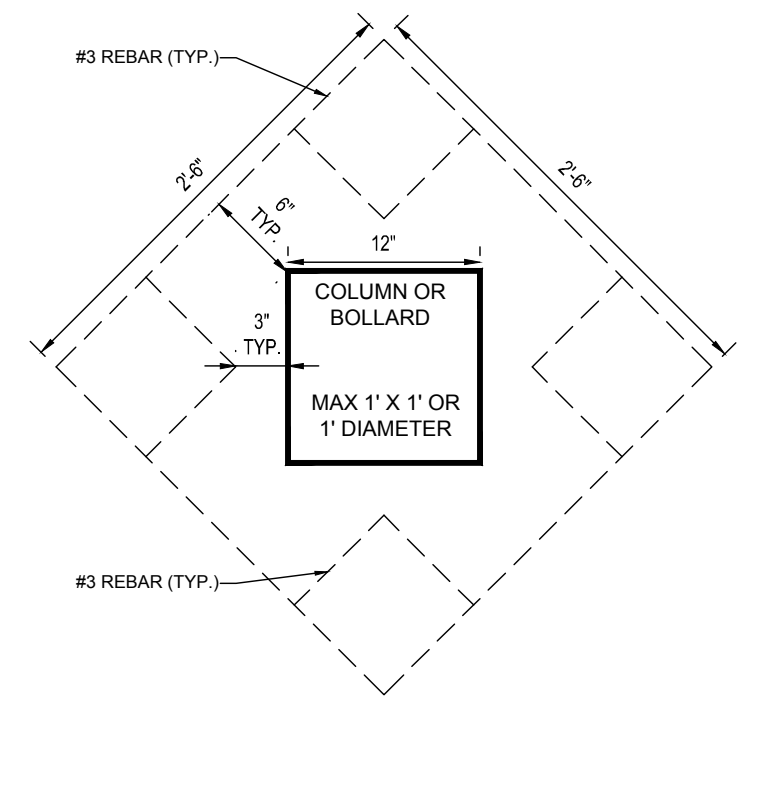
CITY OF WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____



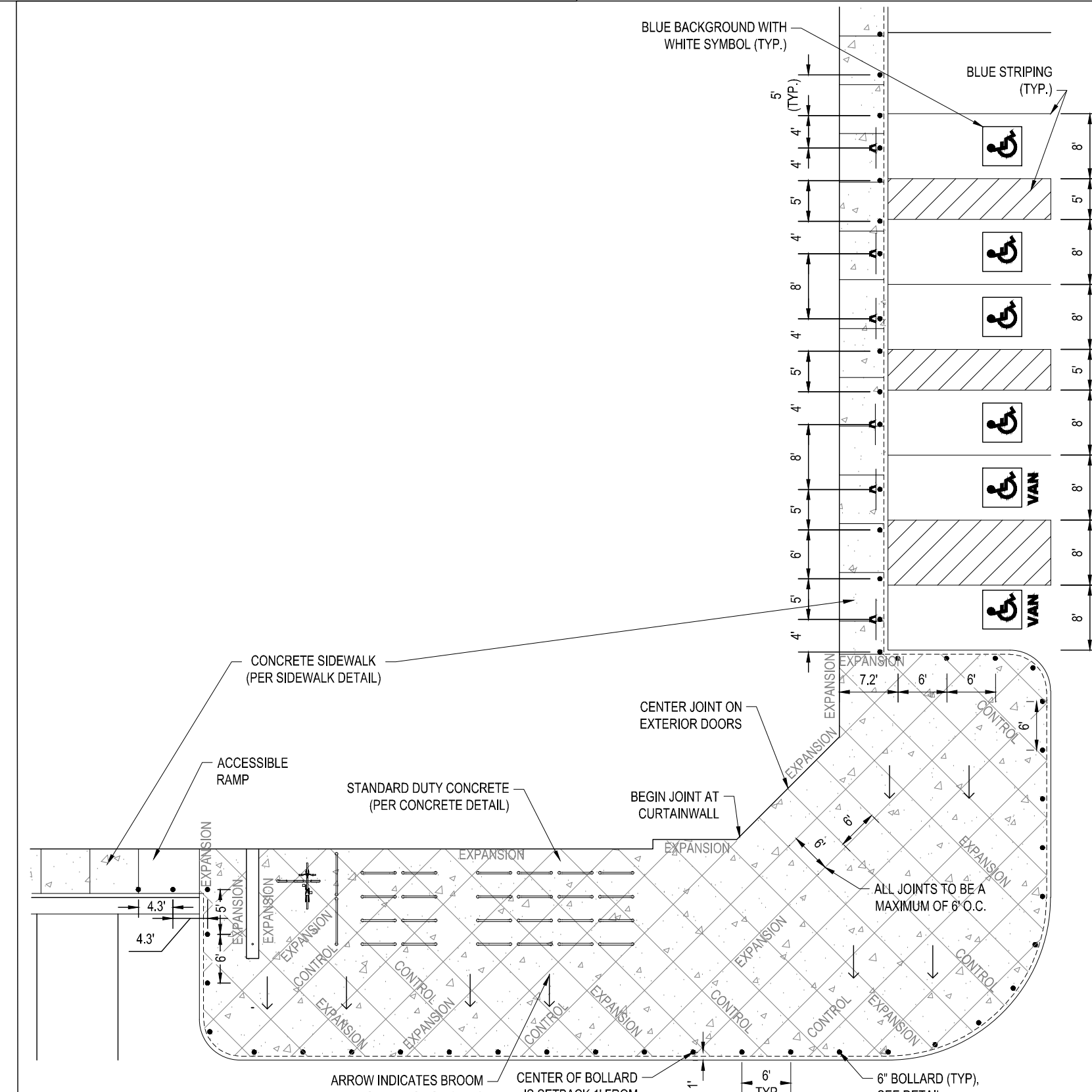
NOTE:
TO BE INSTALLED IN FRONT OF THE DUMPSTER ENCLOSURE & LOADING DOCK
12" CONCRETE BOLLARD WITH YELLOW PVC COVER
NOT TO SCALE



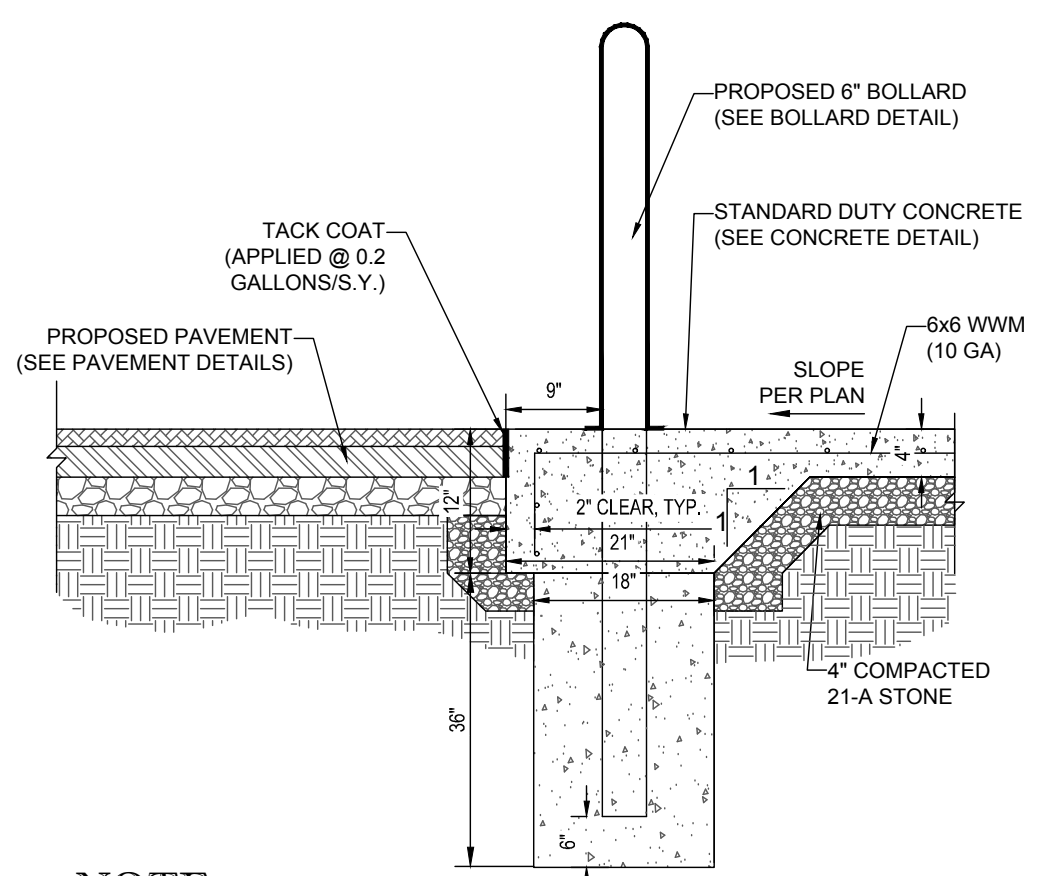
CART CORRAL WALL REBAR DETAIL
NOT TO SCALE



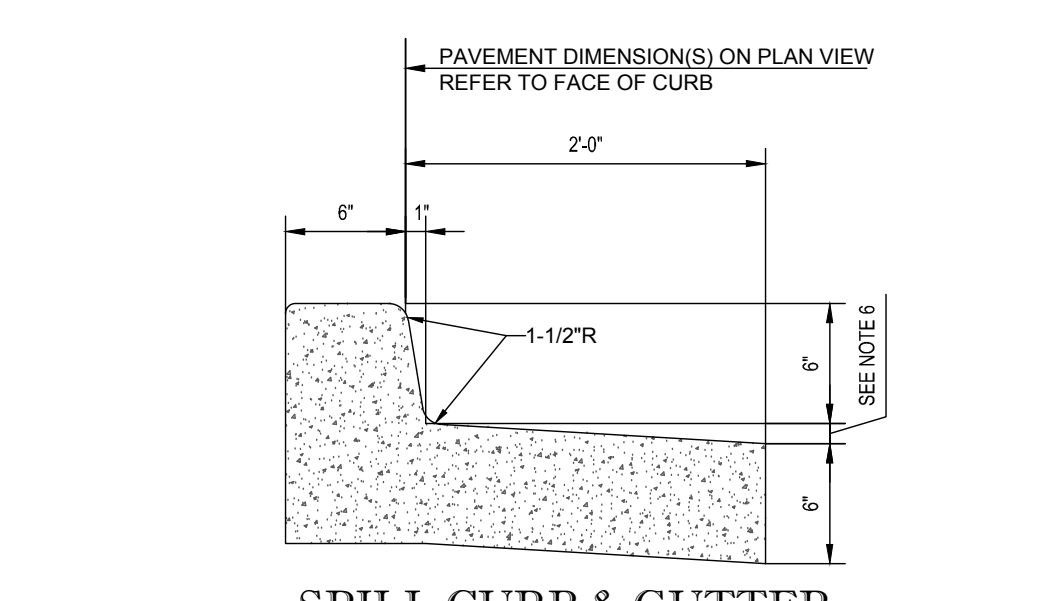
COLUMN OR BOLLARD REBAR DETAIL
NOT TO SCALE



ENTRANCE PLAZA DETAIL
NOT TO SCALE

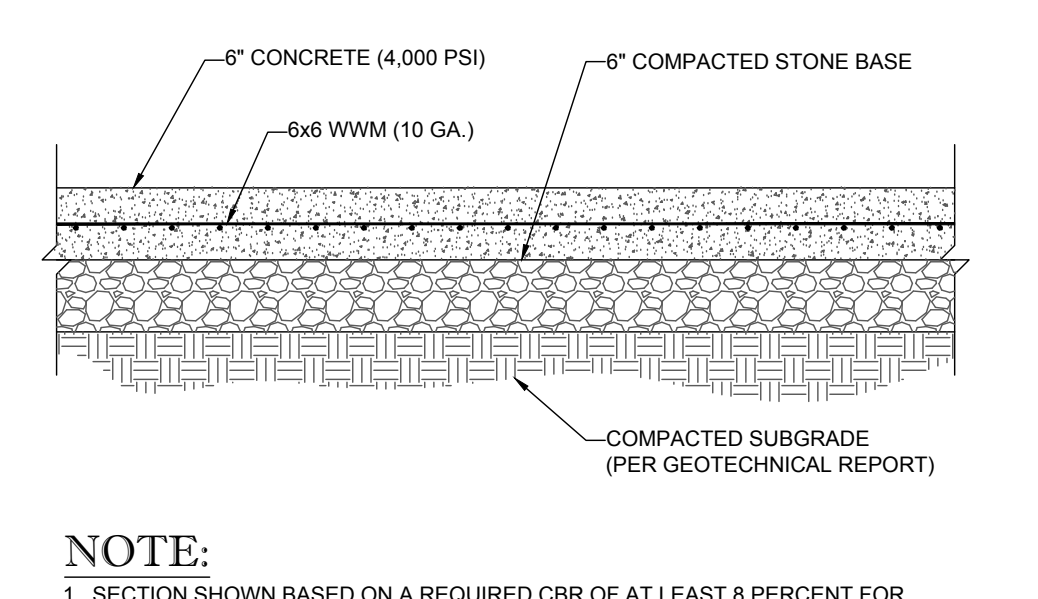


NOTE:
1. CONCRETE TO BE 4,000 P.S.I. @ 28 DAYS.
2. THICKENED EDGE TO BE WIDENED TO COVER BOLLARD FOUNDATION AS SHOWN
6" BOLLARD AT STANDARD DUTY CONCRETE WITH THICKENED EDGE DETAIL
NOT TO SCALE

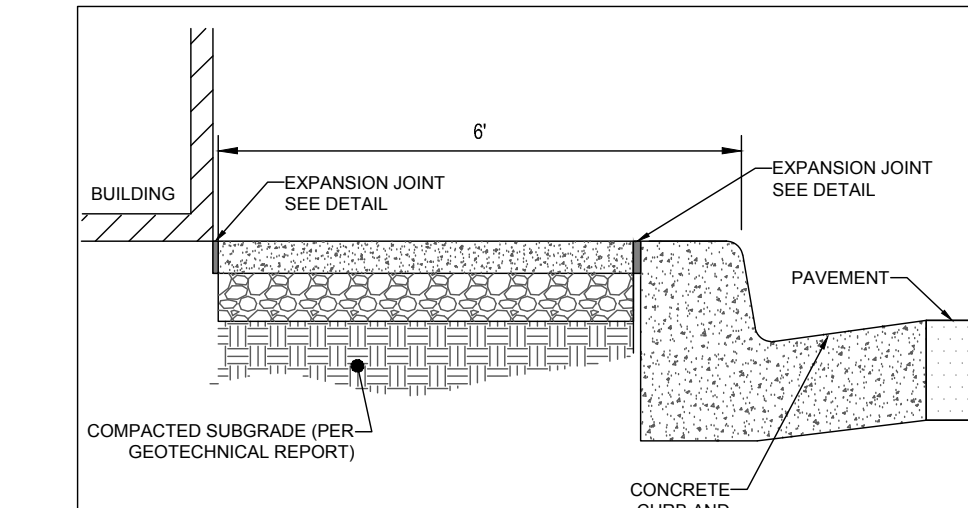


NOTES:
1. CONCRETE FOR CURBING SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 P.S.I. @ 28 DAYS.
2. CONSTRUCTION STAKING FOR CURB INSTALLATION SHALL BE REFERENCED (CUT OR FILL) TO THE TOP OF CURB.
3. AT CONTRACTOR'S OPTION, THE GUTTER THICKNESS MAY BE INCREASED AT THE EDGE OF PAVEMENT TO MAKE BOTTOM OF GUTTER CONTIGUOUS WITH BOTTOM OF ASPHALT PAVEMENT.
4. CONTRACTION JOINTS SHALL BE PLACED @ 10'-0" O.C. TOOLED 1/4" (±1/16") WIDE, 1" DEEP. EXPANSION JOINTS SHALL BE PLACED @ 40'-0" INTERVALS, MAXIMUM, AND ALL P.C.'S.
5. GUTTER PAN SLOPE TO BE ADJUSTED WITHIN ACCESSIBLE PARKING SPACES TO MATCH SLOPE BETWEEN SPOT ELEVATIONS.
6. GUTTER SLOPE TO MATCH ADJACENT PAVEMENT, TRAVERSE AND LONGITUDINAL.
7. THIS SECTION TYPICAL FOR ALL LOCATIONS IN PRIVATE PROPERTY. REFER TO JURISDICTIONAL DETAIL & SPECIFICATIONS FOR ALL LOCATION IN PUBLIC RIGHT OF WAY.

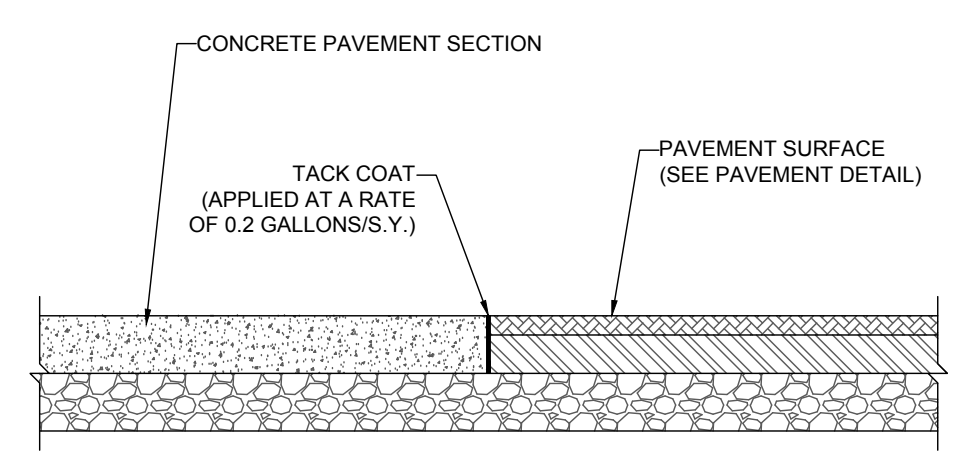
CONCRETE CURB & GUTTER DETAIL
NOT TO SCALE



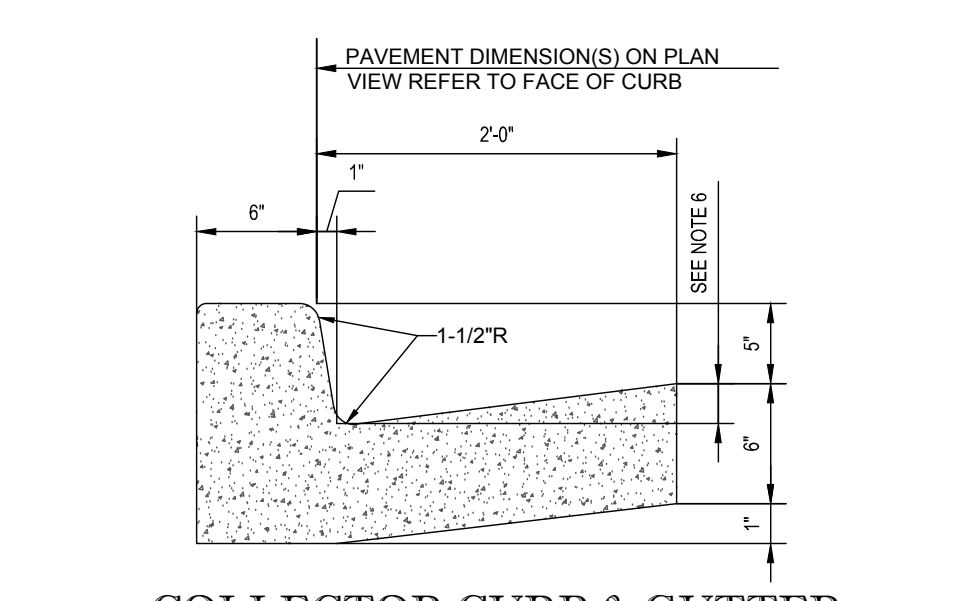
NOTE:
1. SECTION SHOWN BASED ON A REQUIRED CBR OF AT LEAST 8 PERCENT FOR OFF-SITE BORROW COMPACTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
2. MAXIMUM JOINT SPACING OF 12 FEET.
HEAVY DUTY CONCRETE SECTION
NOT TO SCALE



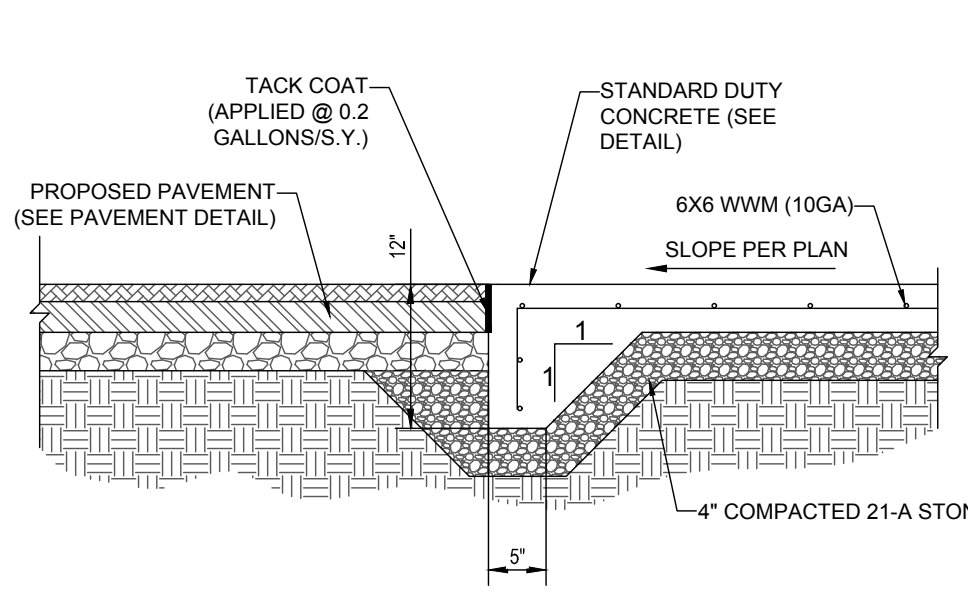
SIDEWALK WITH CURB & GUTTER SECTION
NOT TO SCALE



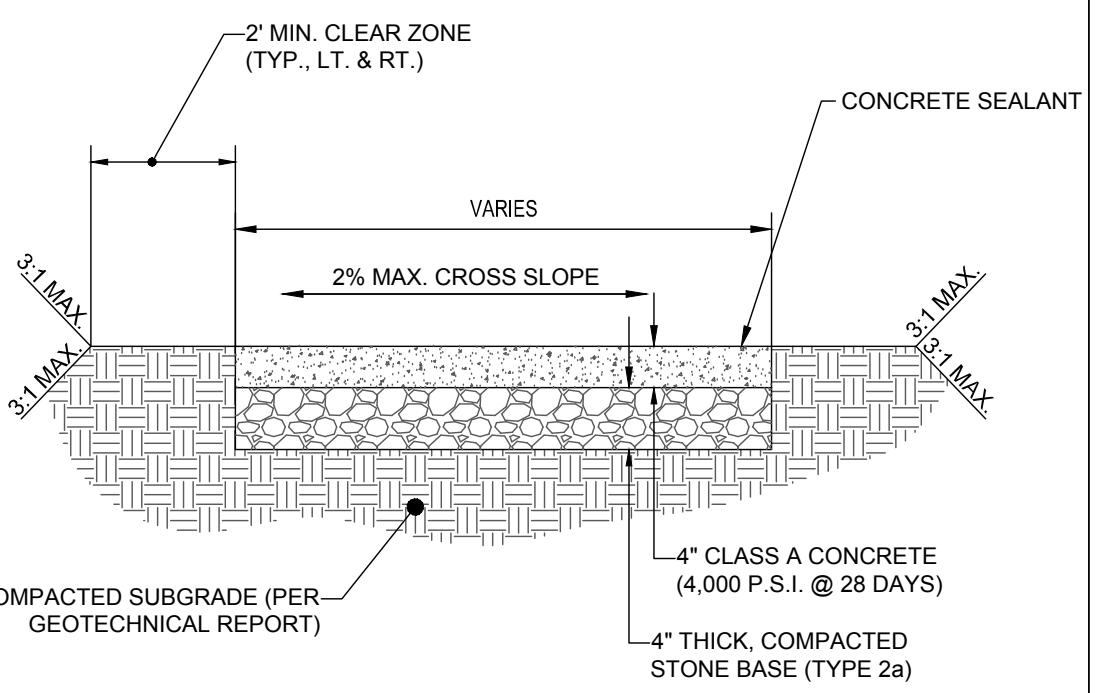
CONCRETE-TO-ASPHALT DETAIL
NOT TO SCALE



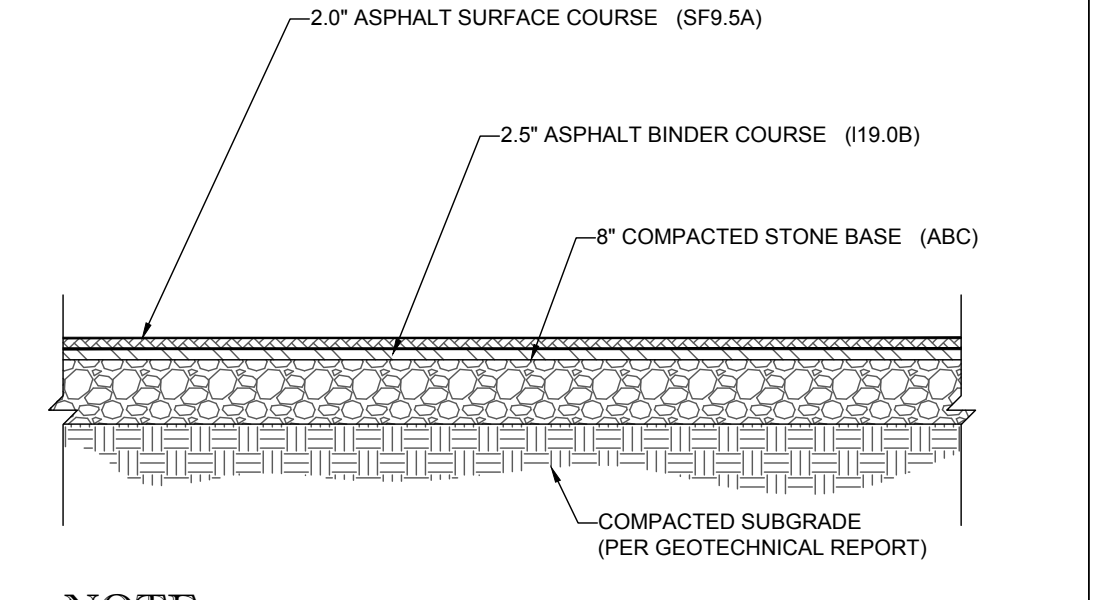
COLLECTOR CURB & GUTTER



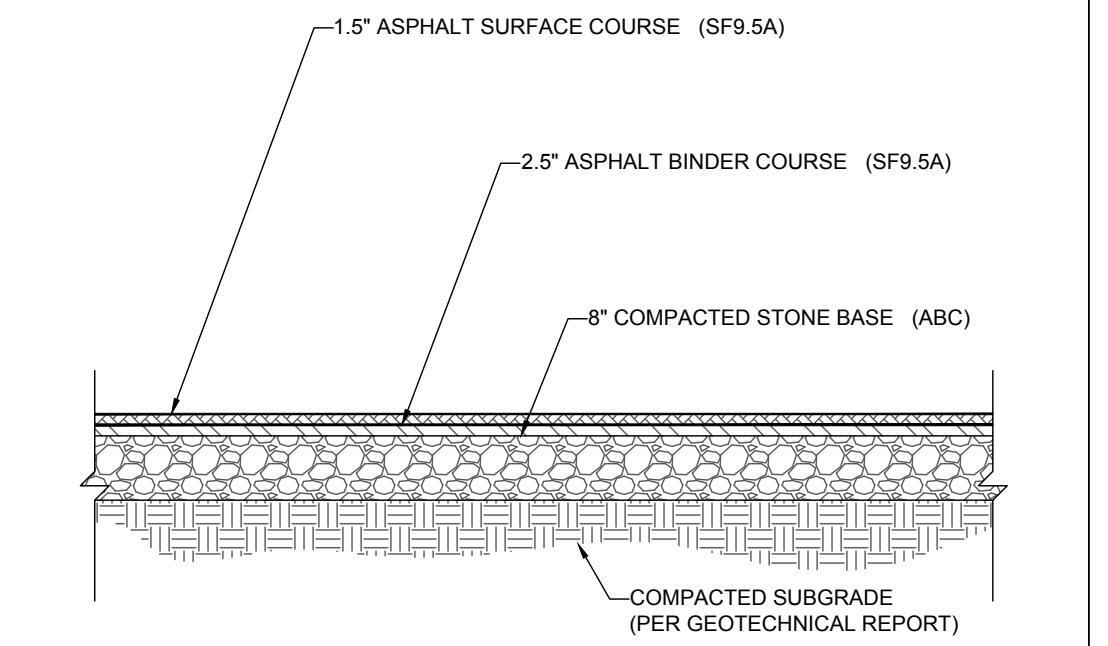
NOTE:
1. CONCRETE TO BE 4,000 P.S.I. @ 28 DAYS.
STANDARD DUTY CONCRETE WITH THICKENED EDGE DETAIL
NOT TO SCALE



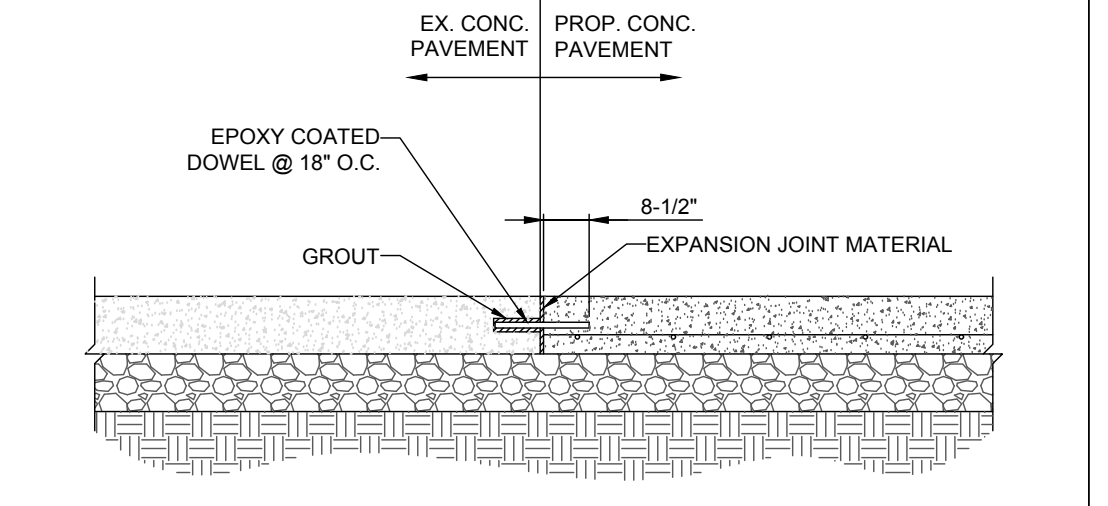
NOTE:
1. CONCRETE CONTROL JOINTS TO BE SPACED AT 6' INTERVALS (SEE CONTROL JOINT DETAIL).
2. EXPANSION JOINTS TO BE SPACED AT 30' INTERVALS.
3. LIGHT BROOM FINISH
4. THIS SECTION TYPICAL FOR ALL LOCATIONS IN PRIVATE PROPERTY. REFER TO JURISDICTIONAL DETAIL & SPECIFICATIONS FOR ALL LOCATION IN PUBLIC RIGHT OF WAY.
CONCRETE SIDEWALK DETAIL
NOT TO SCALE



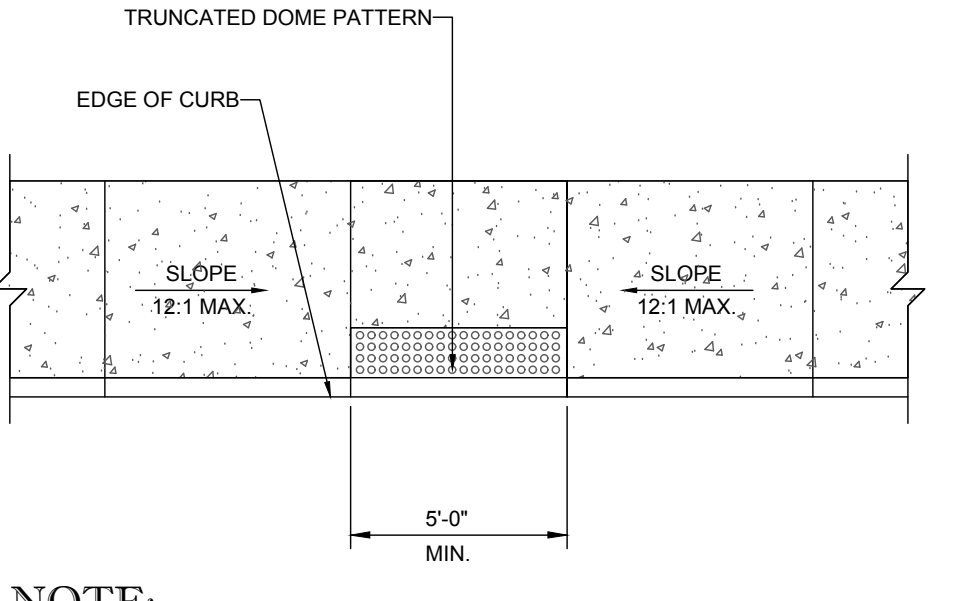
NOTE:
1. SECTION SHOWN IS BASED ON AN ANTICIPATED CBR OF 10.8 PER GEOTECHNICAL REPORT PREPARED BY ECS, ENTITLED REPORT OF SUBSURFACE EXPLORATION, DATED MARCH 22, 2016 (PROJECT #22-23971). FINAL DESIGN TO BE PROVIDED ONCE FINAL CBR'S ARE AVAILABLE ON COMPACTED SUB-BASE.
HEAVY DUTY ASPHALT PAVEMENT SECTION
NOT TO SCALE



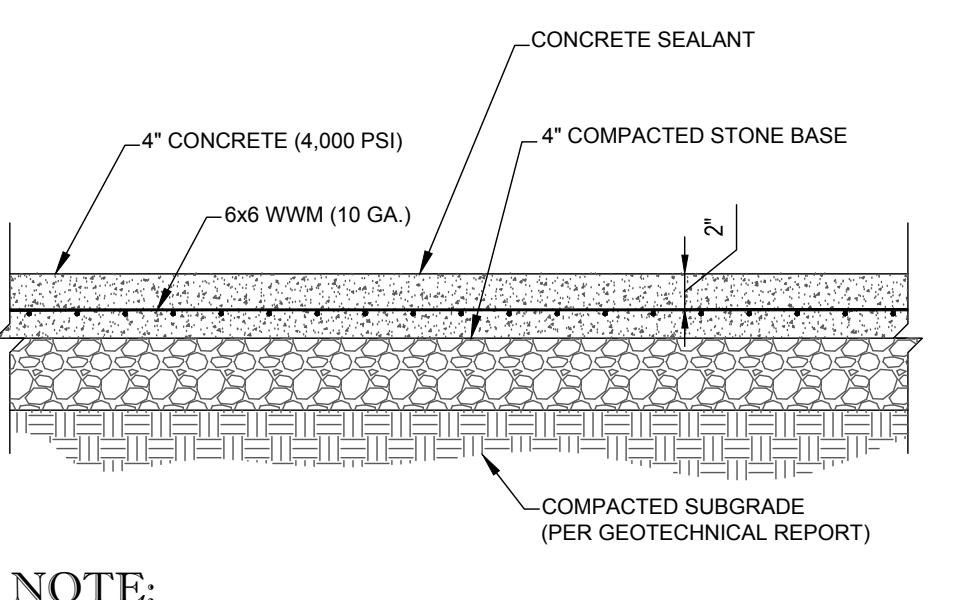
NOTE:
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STANDARD DUTY ASPHALT PAVEMENT SECTION
NOT TO SCALE



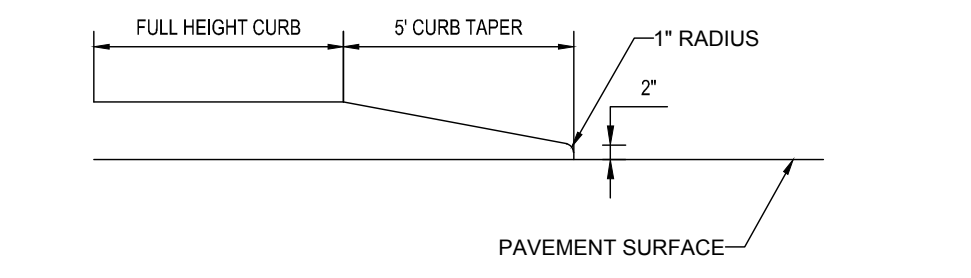
NOTE:
1. CONTRACTOR TO BLOW OUT DUST FROM DRILLED HOLES PRIOR TO APPLYING GROUT.
CONCRETE DOWELING DETAIL
NOT TO SCALE



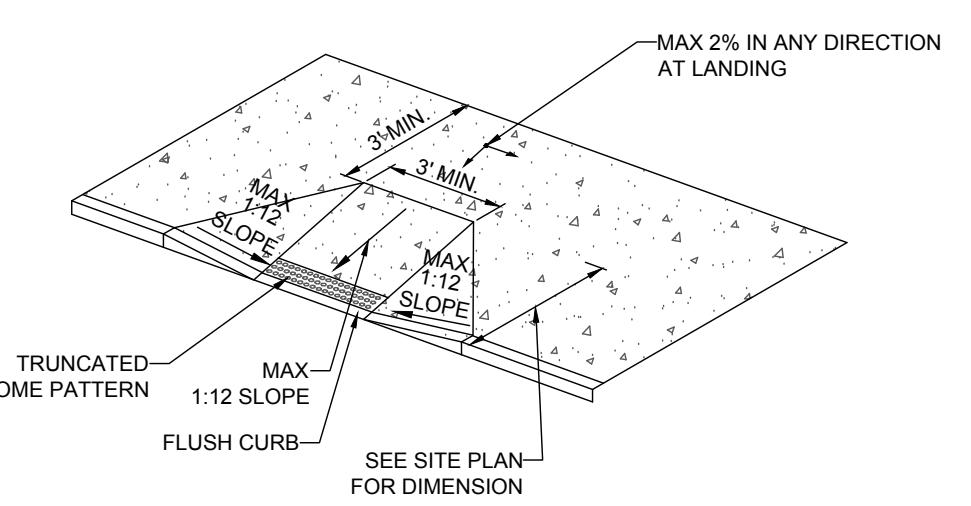
NOTE:
ADA ACCESSIBLE RAMP CONSTRUCTION SHALL CONFORM TO CURRENT ADA ACCESSIBLE GUIDELINES.
ADA ACCESSIBLE RAMP DETAIL
NOT TO SCALE



NOTE:
1. VALUES ABOVE ARE MINIMUMS ONLY. FINAL DESIGN TO BE PROVIDED ONCE FINAL CBR'S ARE AVAILABLE ON COMPACTED SUB-BASE.
2. CONTROL POINTS FOR PEDESTRIAN AREA TO BE FORMED IN A 6'X6' PATTERN AS SHOWN ON DETAIL. SEE CONTROL JOINT DETAIL.
3. LIGHT BROOM FINISH BROOM STROKES TO BE IN THE DIRECTION AS SHOWN ON DETAIL.
STANDARD DUTY CONCRETE SECTION
NOT TO SCALE



CURB TAPER DETAIL
NOT TO SCALE



NOTE:
1. ADA ACCESSIBLE RAMP CONSTRUCTION SHALL CONFORM TO CURRENT ADA ACCESSIBLE GUIDELINES.
ADA ACCESSIBLE RAMP DETAIL
NOT TO SCALE

BOHLER ENGINEERING NC, PLLC
REGISTERED PROFESSIONAL ENGINEER
LAND SURVEYING, CIVIL ENGINEERING, ARCHITECTURE, TRANSPORTATION SERVICES
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ROCKHILL, SC • FAYETTEVILLE, NC
SOUTH CAROLINA • SOUTH FLORIDA

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

PROPOSED GROCERY
FOR
LIDL US OPERATIONS, LLC
LOCATION OF SITE
4355 S 17TH STREET
WILMINGTON, NC 28412

BOHLER ENGINEERING NC, PLLC
NCELS P-1122
4011 WESTCHASE BLVD., SUITE 290
RALEIGH, NC 27607
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com

PAUL L. BOHLER
REGISTERED PROFESSIONAL ENGINEER
04024
03/30/17

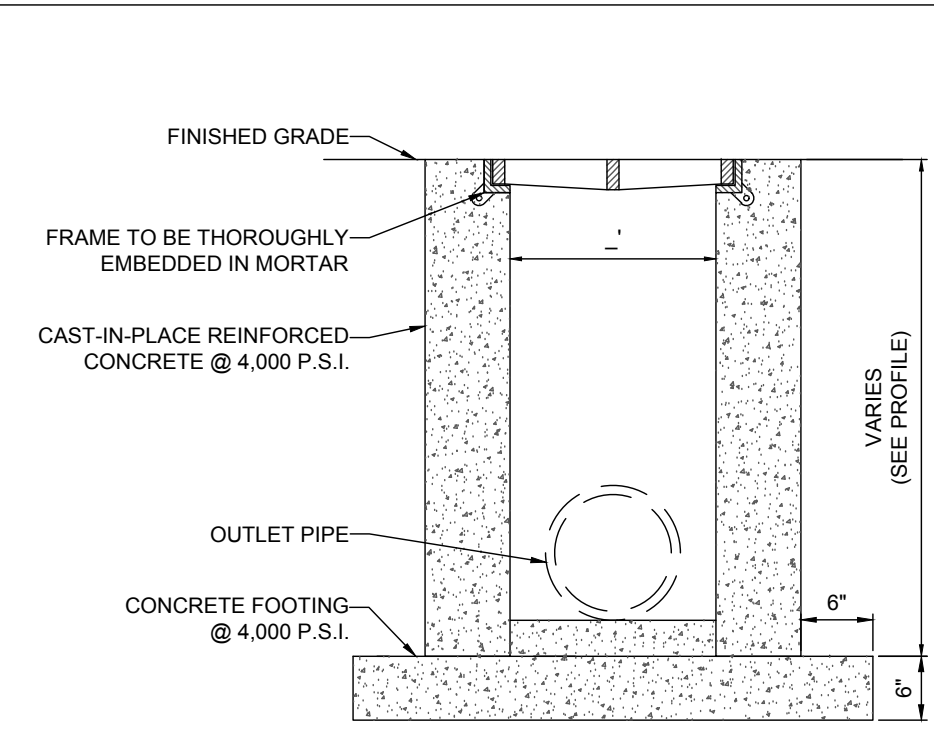
SHEET TITLE:
CONSTRUCTION DETAILS
SHEET NUMBER:
D-1.0

Approved Construction Plan
Name _____ Date _____

Planning _____
Traffic _____
Fire _____

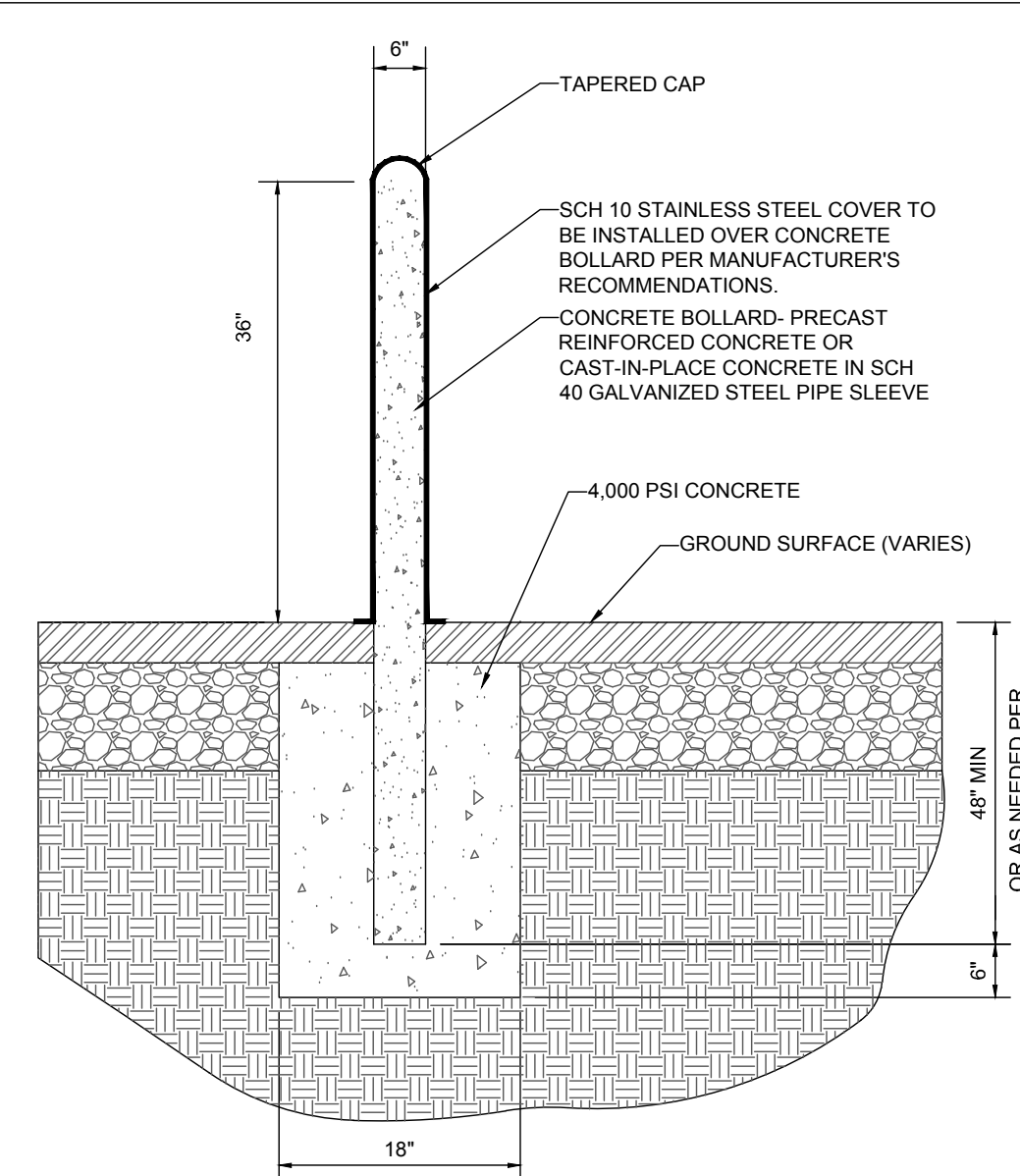
CITY OF WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____
Signed: _____



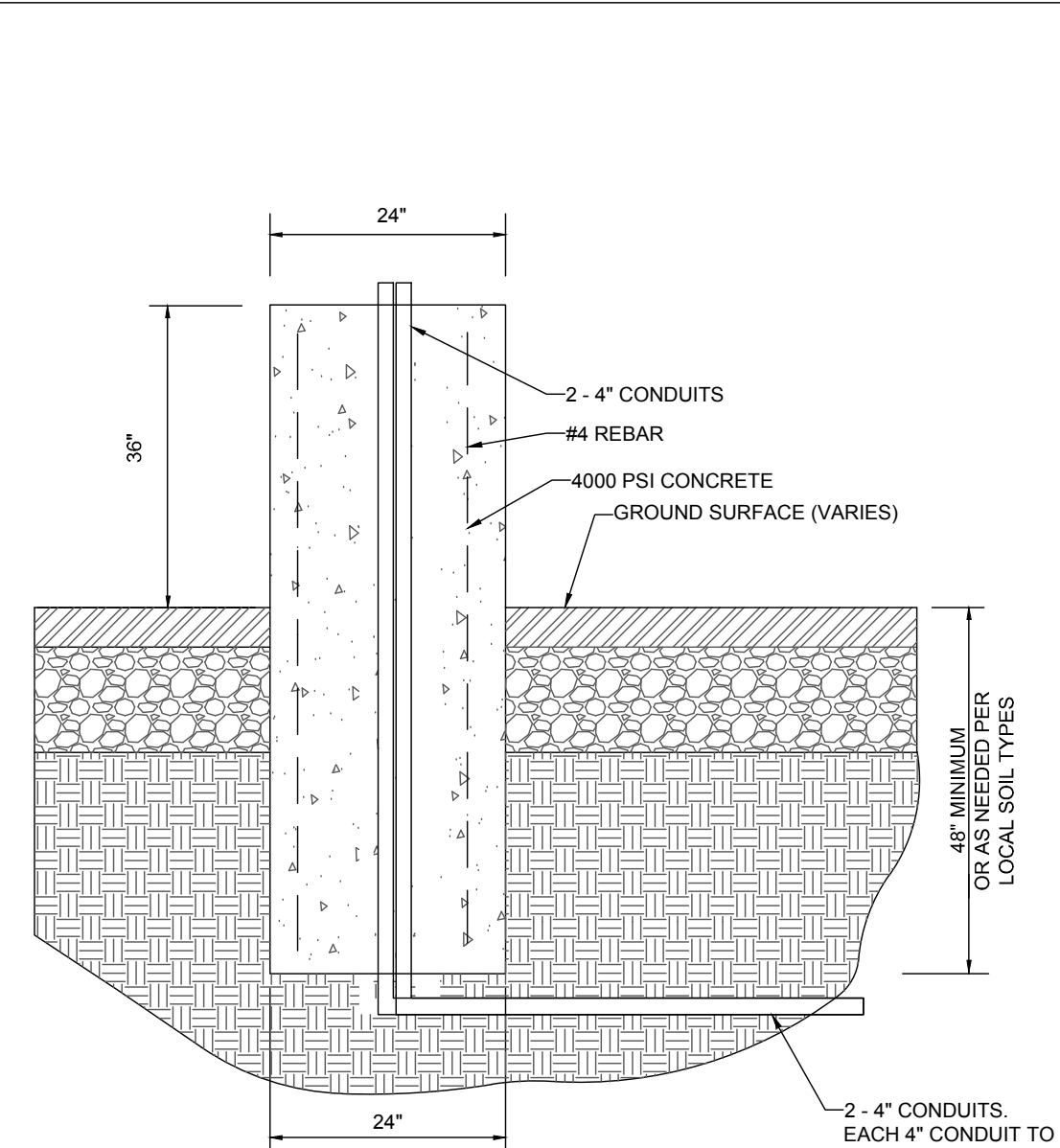
NOTES:
1. SCHEMATIC ONLY. FINAL DESIGN TO PROVIDE H-20 VEHICULAR LOADING.
2. SEE PLAN VIEW AND PROFILES FOR GRATE AND TRENCH INVERT ELEVATIONS.

TRENCH DRAIN DETAIL
NOT TO SCALE



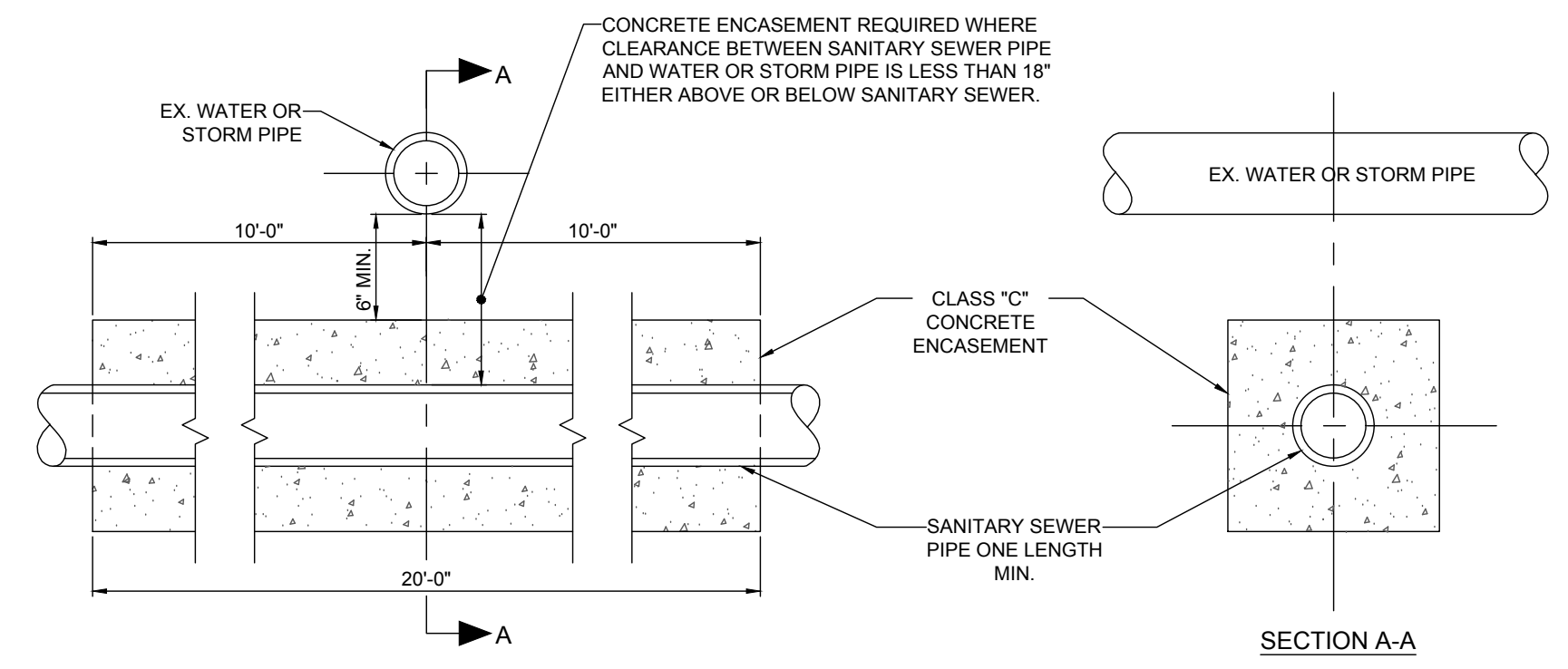
NOTE:
TO BE INSTALLED IN FRONT OF THE STORE WHERE SPECIFIED

6\"/>

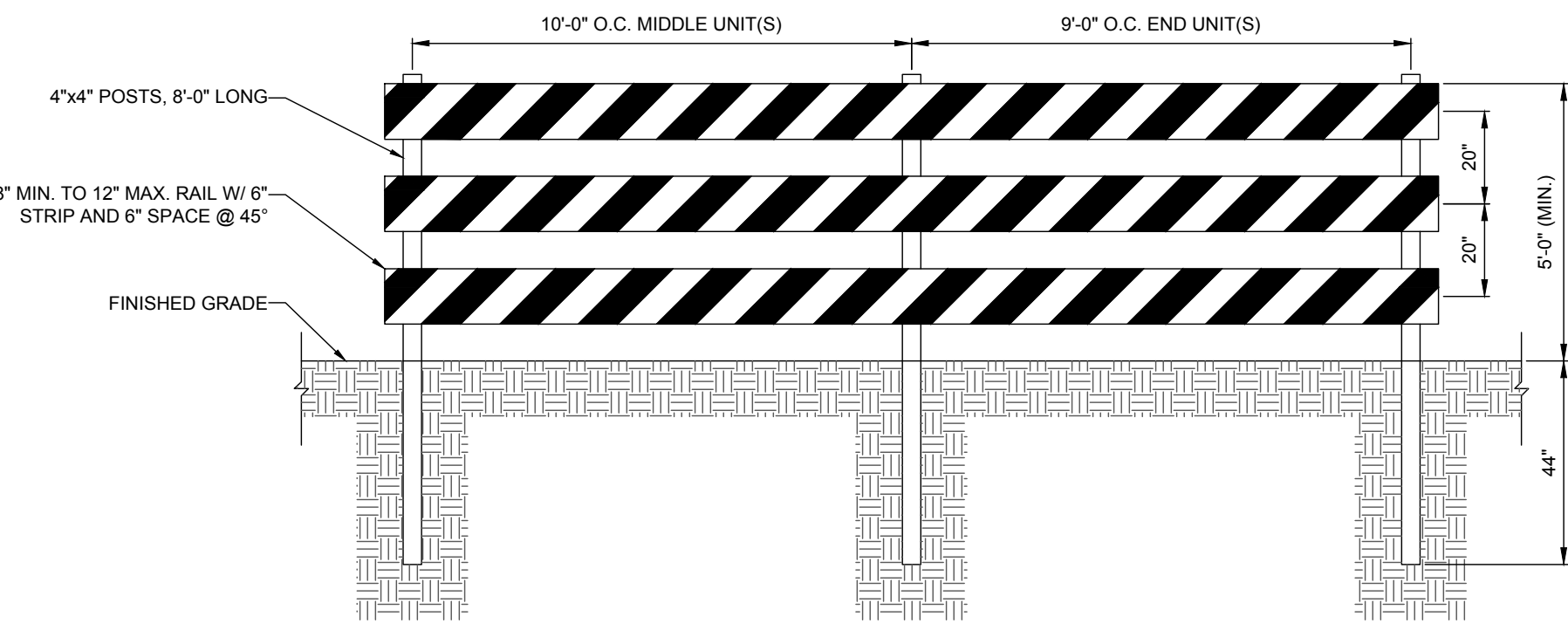


NOTE:
THIS DETAIL SERVES AS A GUIDELINE ONLY. STRUCTURAL ENGINEER TO DESIGN AND PROVIDE DOCUMENTATION FOR FINAL LIGHT POLE BASE DESIGN.

3\"/>



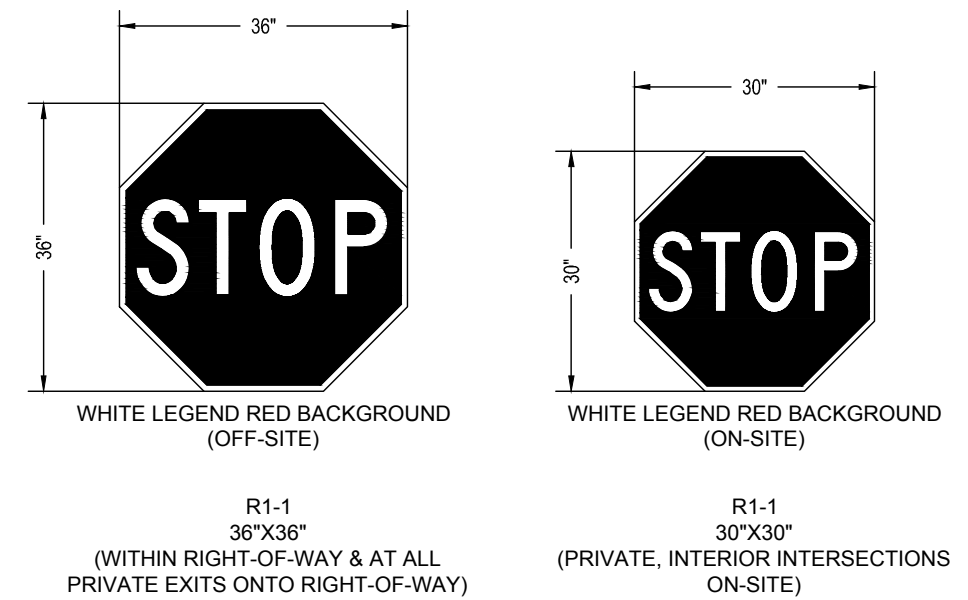
CONCRETE ENCASEMENT DETAIL
NOT TO SCALE



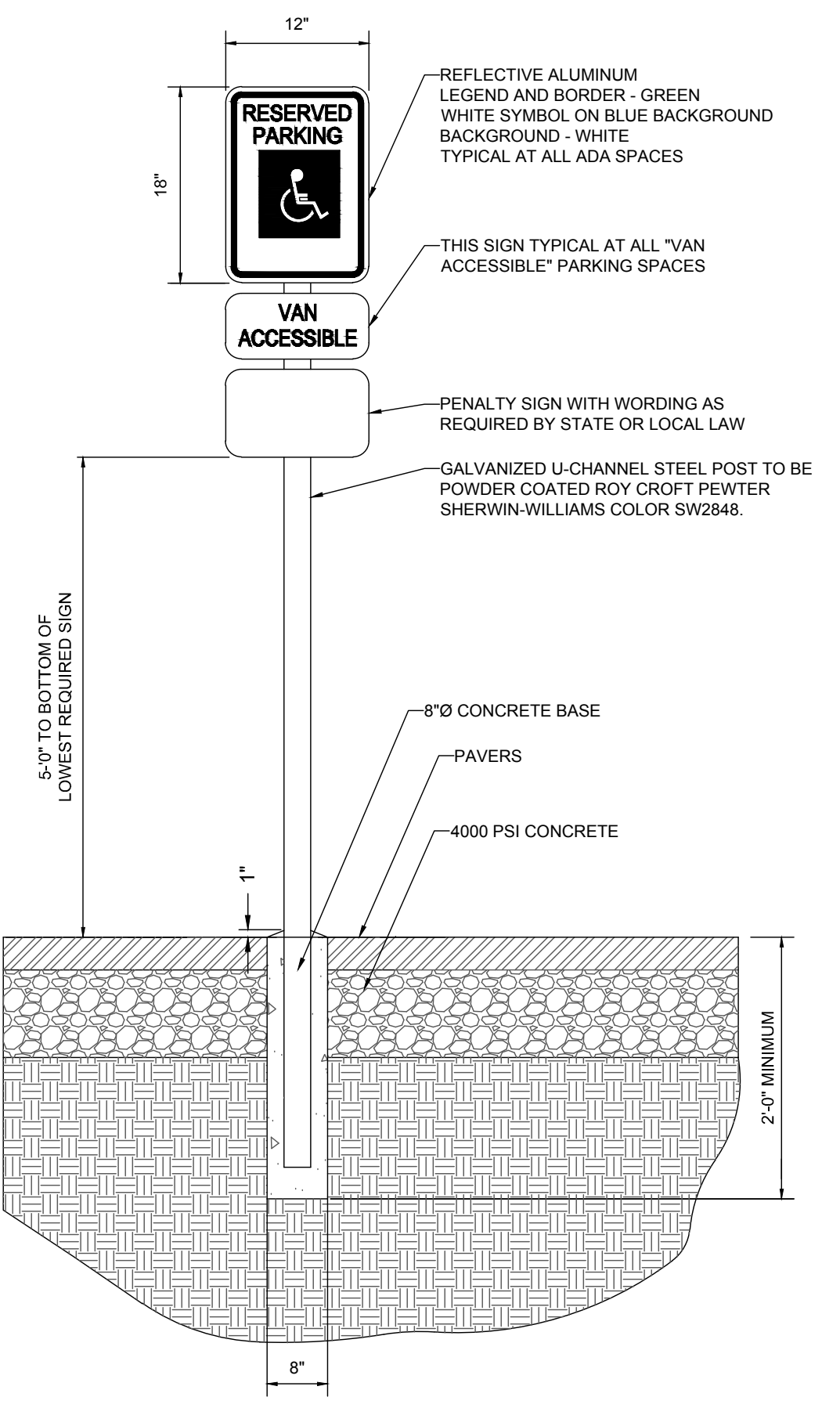
TRAFFIC BARRICADE DETAIL
NOT TO SCALE

NOTES:

- SEE PLAN VIEW FOR TRAFFIC BARRIER LOCATION(S).
- POSTS AND PLANKS SHALL BE PRESSURE TREATED LUMBER.
- PLANKS SHALL BE PAINTED COMPLETELY WHITE. POSTS SHALL BE PAINTED WHITE ON ALL SIDES TO WITHIN SIX INCHES (6 IN.) OF THE GROUND LEVEL.
- 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.
- EACH PLANK SHALL BE SECURED TO EACH POST WITH (2) 1/2 IN. X 6 1/2 IN. CARRIAGE BOLTS OR WITH (2) 1/2 IN. X 4 IN. LAG SCREWS WITH WASHERS. BOLTS OR SCREWS ARE TO BE PLACED TWO INCHES (2 IN.) FROM EDGE OF PLANKS.
- WHERE NECESSARY FOR SAFETY OF PEDESTRIAN TRAFFIC, A FULL EXTENSION OF THE BARRICADE MAY BE REQUIRED TO THE LIMITS OF THE RIGHT-OF-WAY.
- WHERE PROVISION MUST BE MADE FOR ACCESS OF EQUIPMENT AND AUTHORIZED VEHICLES, LOCKABLE GATES MAY BE PROVIDED IN ONE SECTION OF THE BARRICADE.

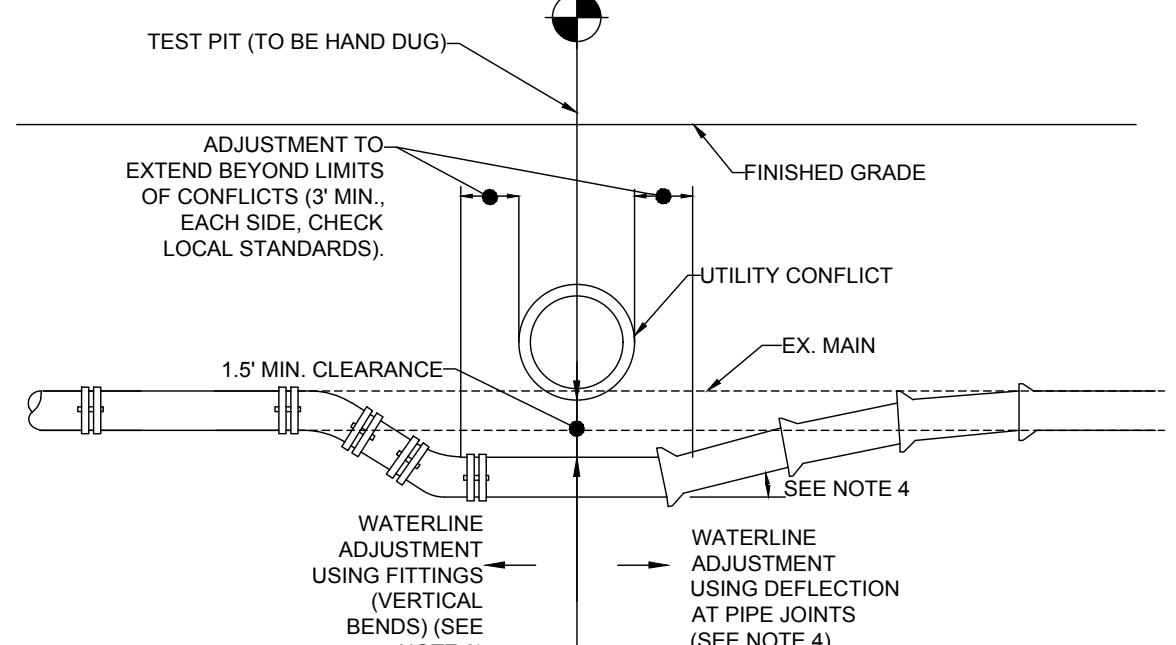


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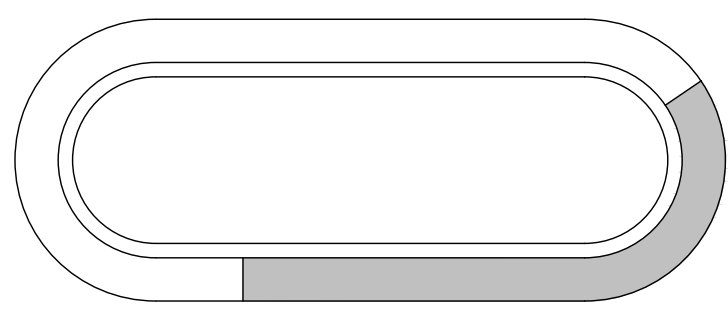
NOTE:
ONE AT EACH ADA SPACE BEHIND 6\"/>

ADA PARKING SIGN DETAIL
NOT TO SCALE

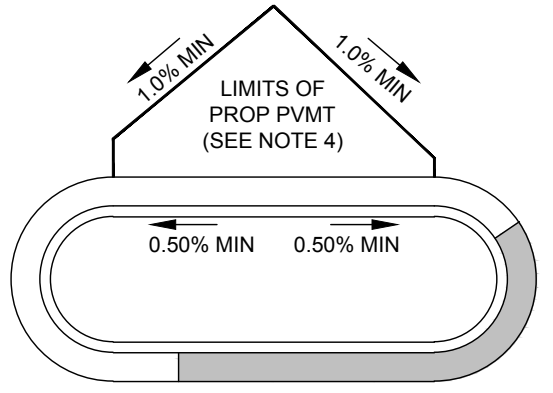


NOTES:
1. CONTRACTOR TO COORDINATE WATERLINE ADJUSTMENT WITH APPROPRIATE INSPECTOR, BASED UPON LOCAL JURISDICTIONAL REQUIREMENTS AND FIELD CONDITIONS.
2. CONTRACTOR TO HAND DIG TEST PIT AT ANTICIPATED CROSSING LOCATION TO DETERMINE EXISTING WATERLINE DEPTH, TOTAL WATERLINE DEFLECTION REQUIRED, AND BEST METHOD FOR WATERLINE ADJUSTMENT.
3. VERTICAL BENDS (INSTALLED PER LOCAL STANDARDS) AS REQUIRED.
4. PIPE DEFLECTION AT JOINTS (PER LOCAL STANDARDS).

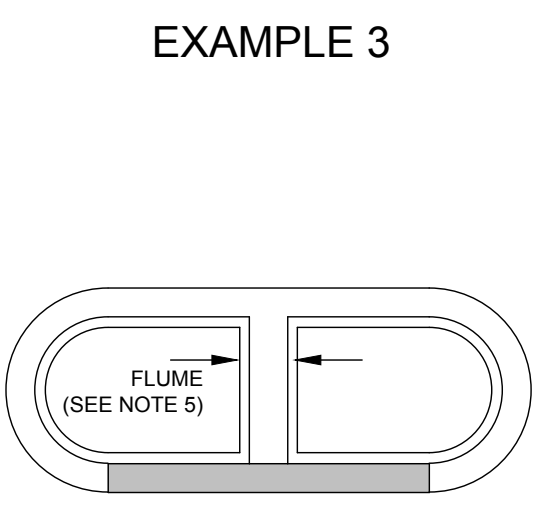
WATERLINE ADJUSTMENT DETAIL
NOT TO SCALE



EXAMPLE ONE
NOT TO SCALE



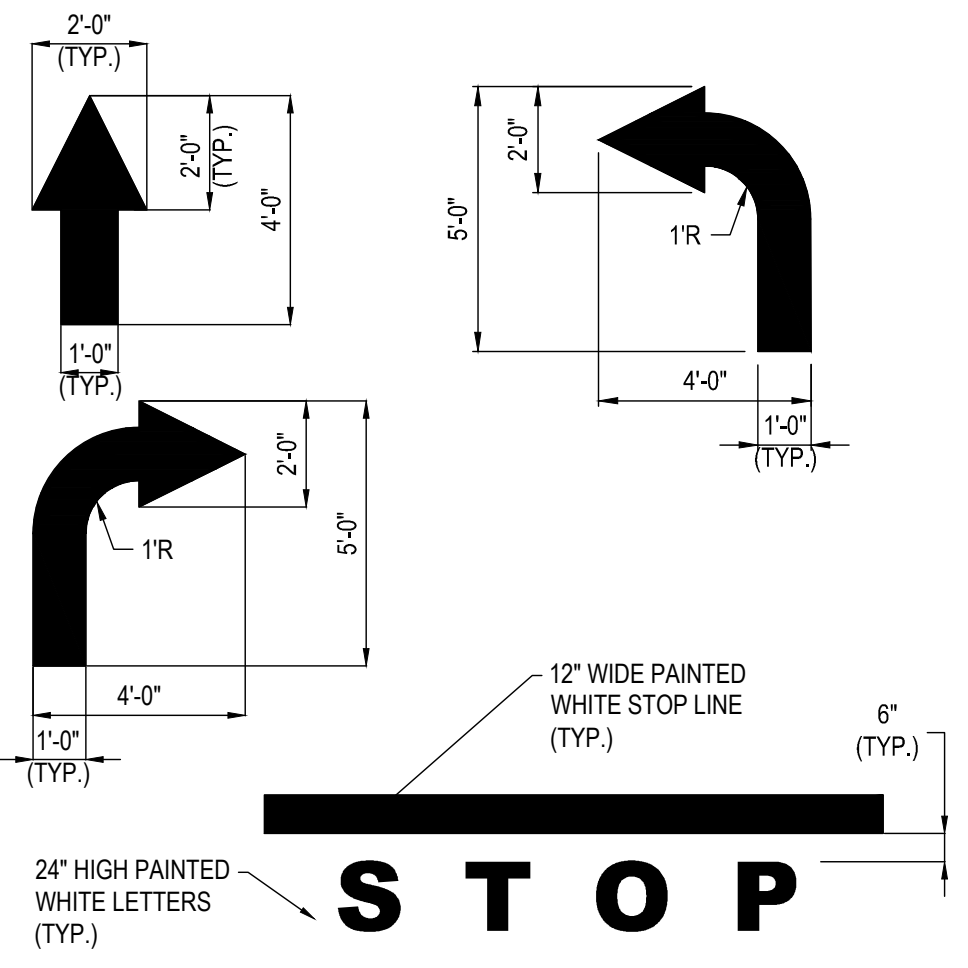
EXAMPLE TWO
NOT TO SCALE



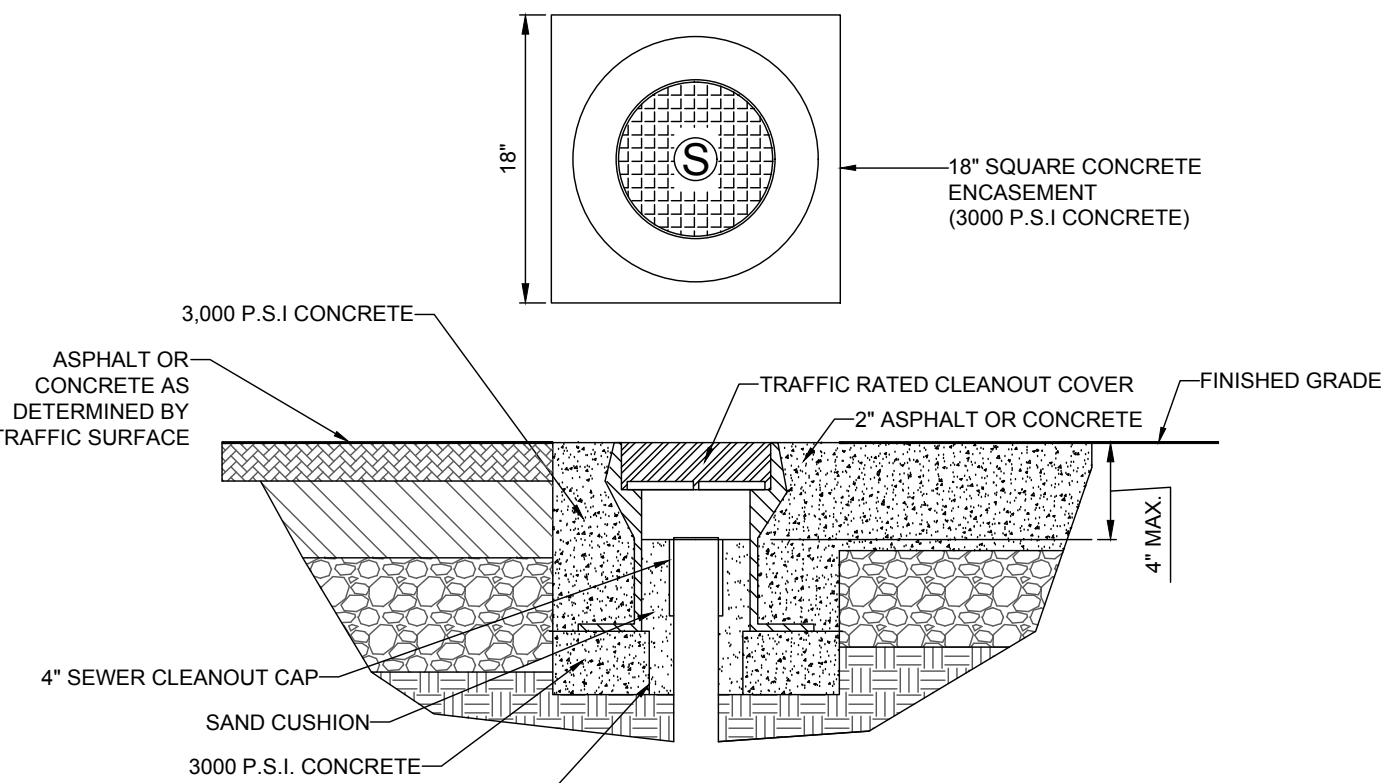
EXAMPLE THREE
NOT TO SCALE

NOTES:

- 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 DIFFERENTLY).
- 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.
- PLAN INTENT IS TO PROVIDE A MINIMUM SLOPE OF 0.50% ALONG COLLECTOR CURB. IF FIELD CONDITIONS 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.
- IN THOSE SITUATIONS WHERE RE-GRADING OF PARKING AND PAVEMENT REMOVAL IS NECESSARY (SEE 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.
- 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%.



STOP SIGNAGE AND MARKING
NOT TO SCALE



TRAFFIC RATED CLEANOUT DETAIL
NOT TO SCALE

BOHLER ENGINEERING NC, PLLC

STATE OF NORTH CAROLINA PROFESSIONAL ENGINEER REG. NO. 64324

LAND SURVEYING PROGRAM MANAGER TRANSPORTATION SERVICES
SUSTAINABLE DESIGN PERMITTING SERVICES

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SOUTHERN MARYLAND
CHARLOTTE NC
RALEIGH NC
FAYETTEVILLE NC
GREENSBORO NC
WILMINGTON NC

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

PROPOSED GROCERY

FOR
LIDL US OPERATIONS, LLC

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

BOHLER ENGINEERING NC, PLLC
NCEELS P-1132

4011 WESTCHASE BLVD., SUITE 290
RALEIGH, NC 27607
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com

NORTH CAROLINA PROFESSIONAL ENGINEER REG. NO. 64324

WATT BOND
ENGINEER
3/30/17

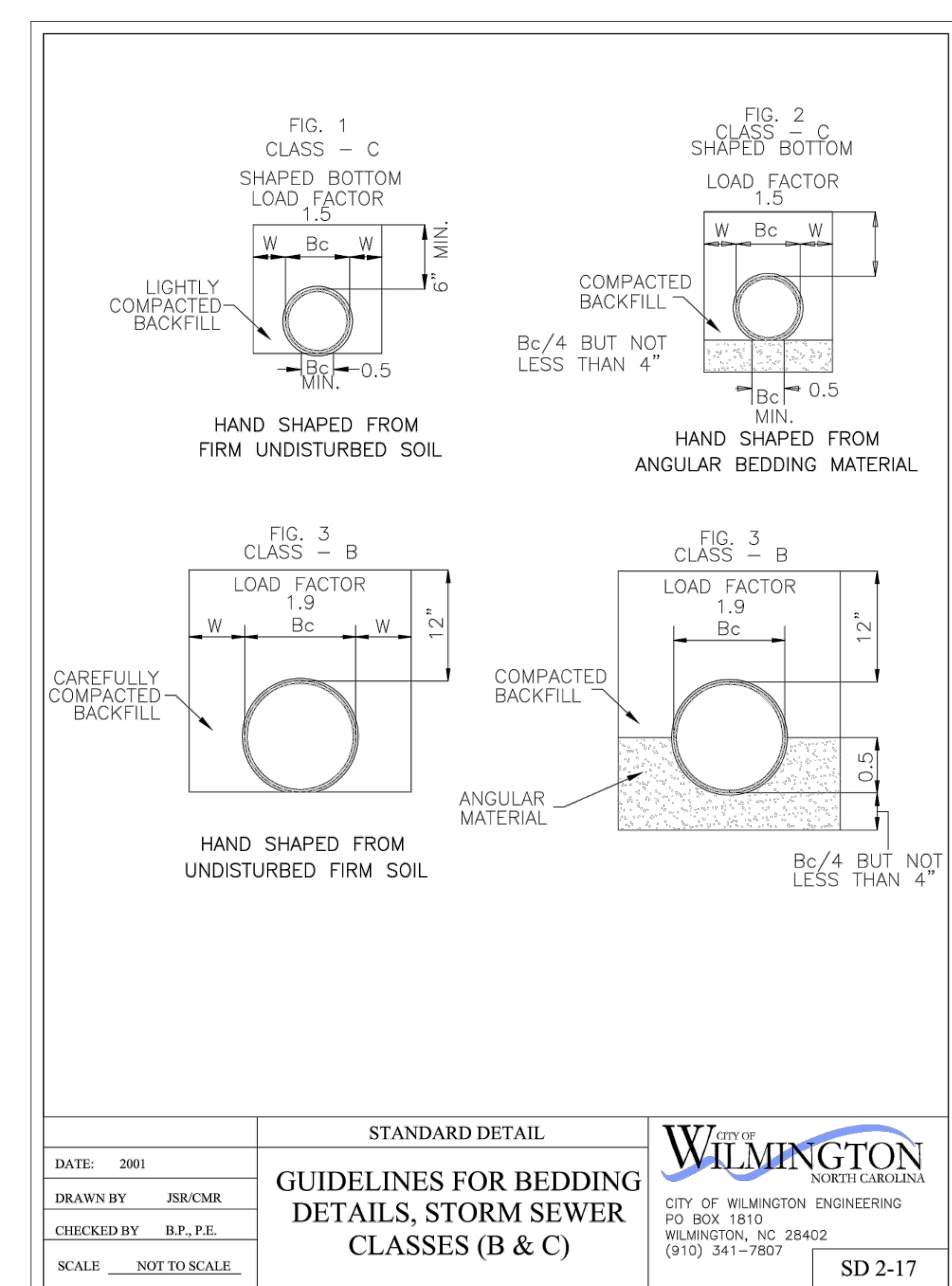
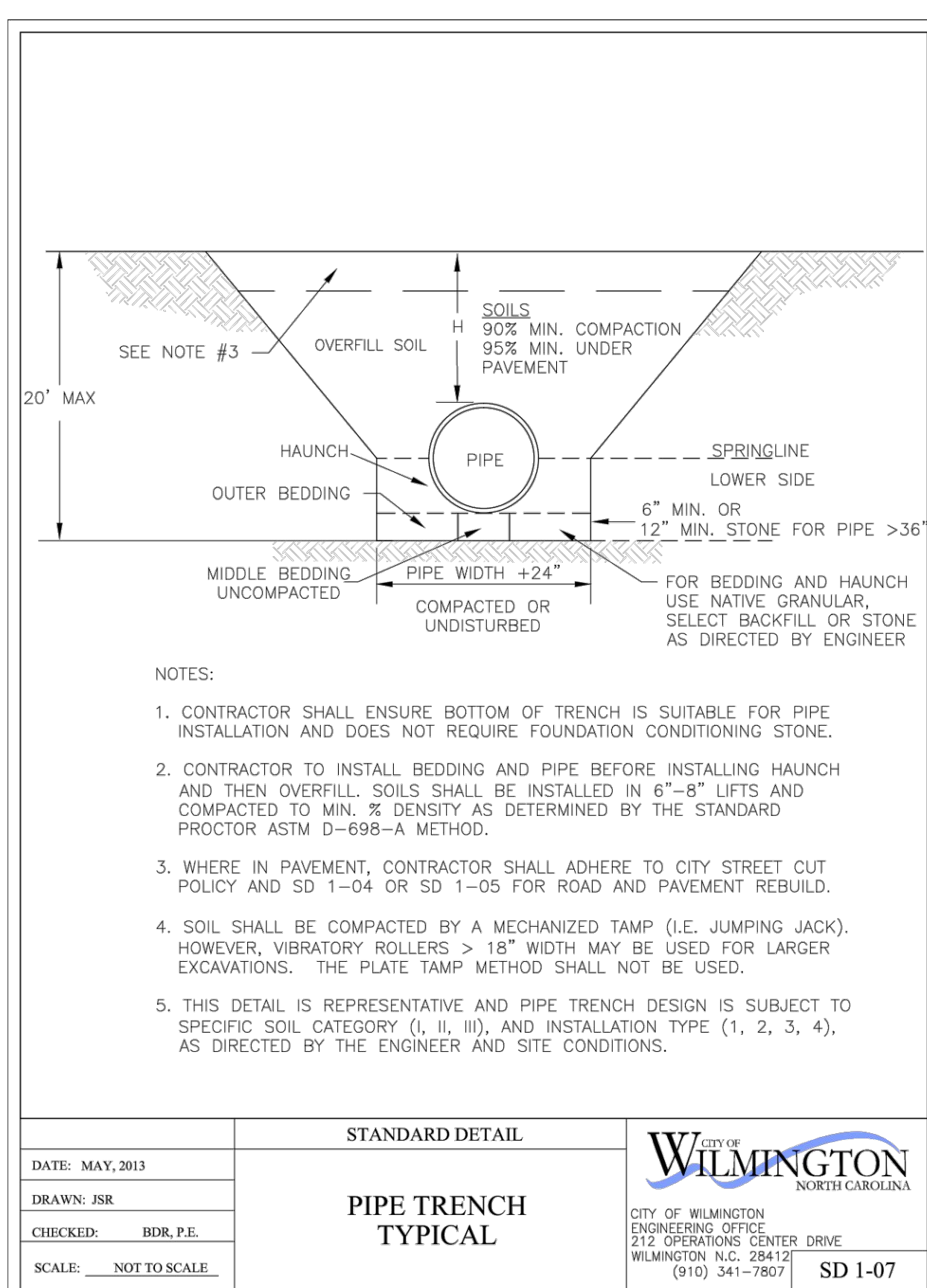
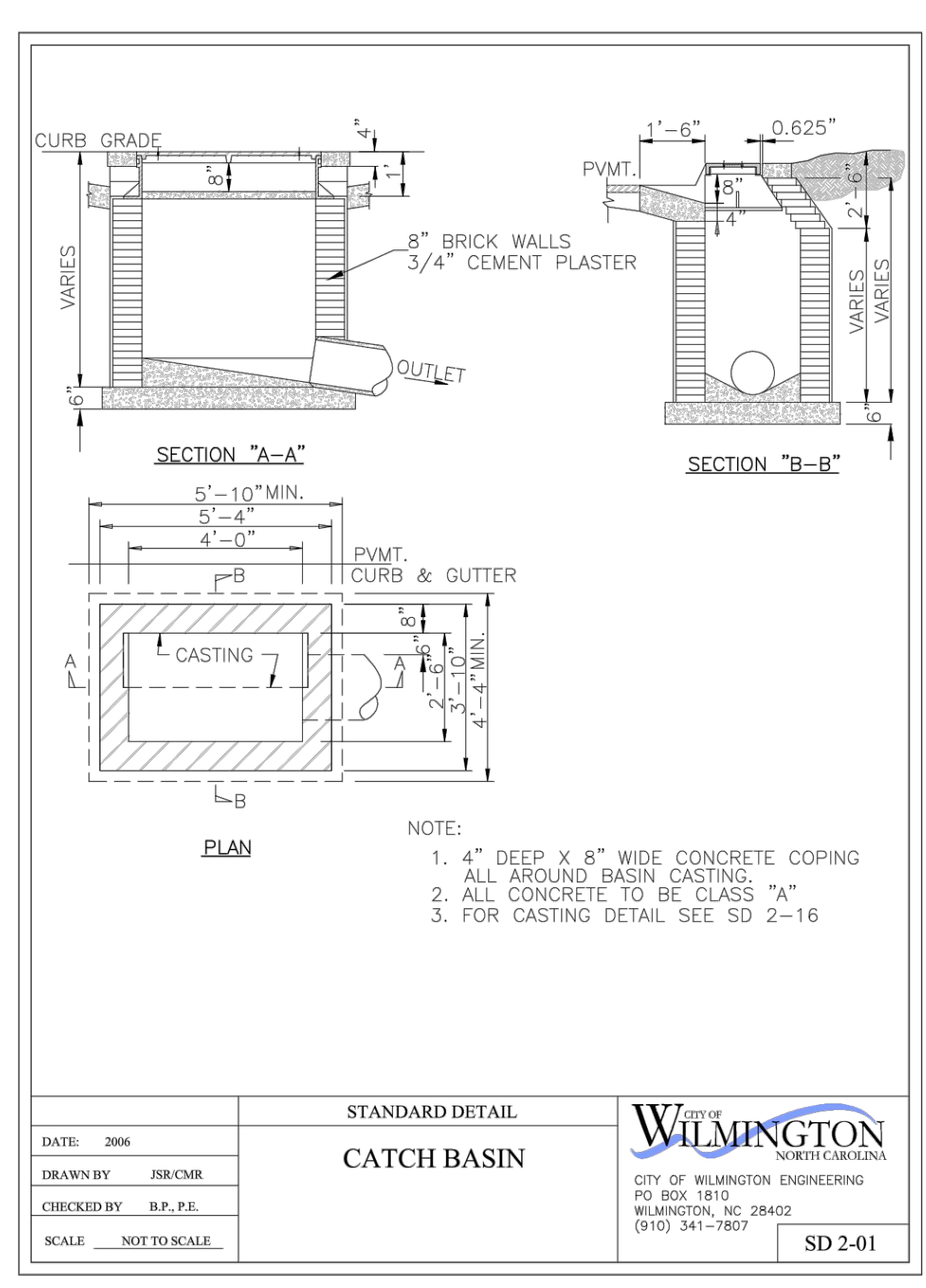
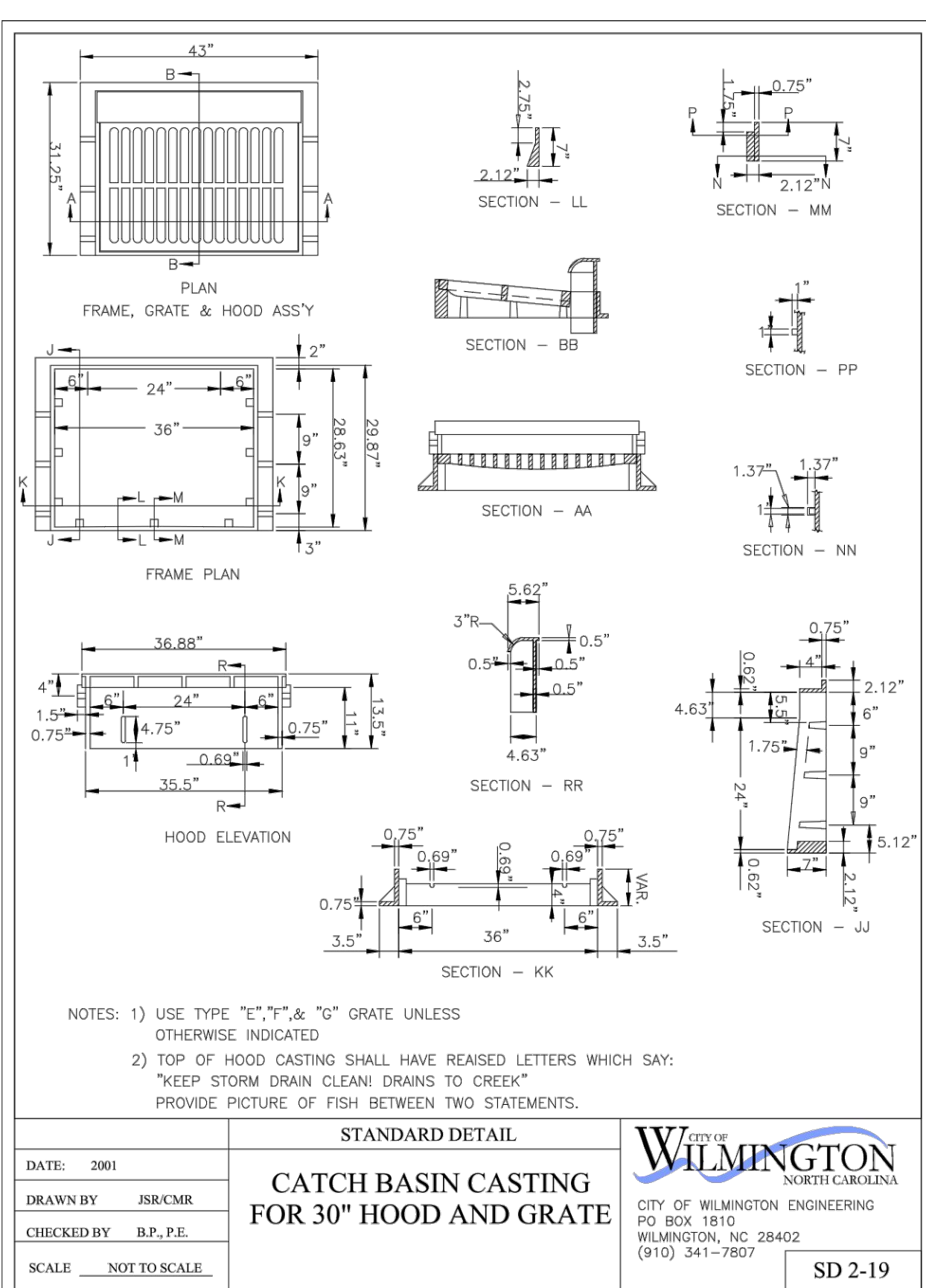
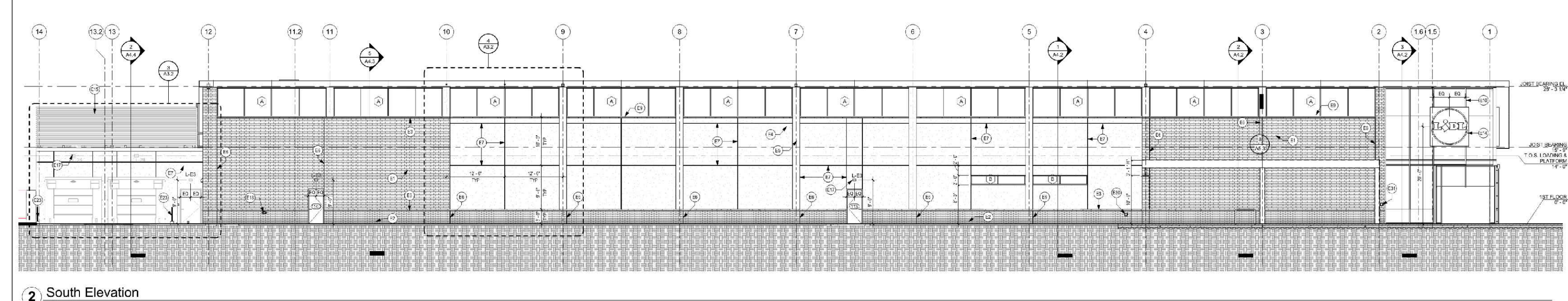
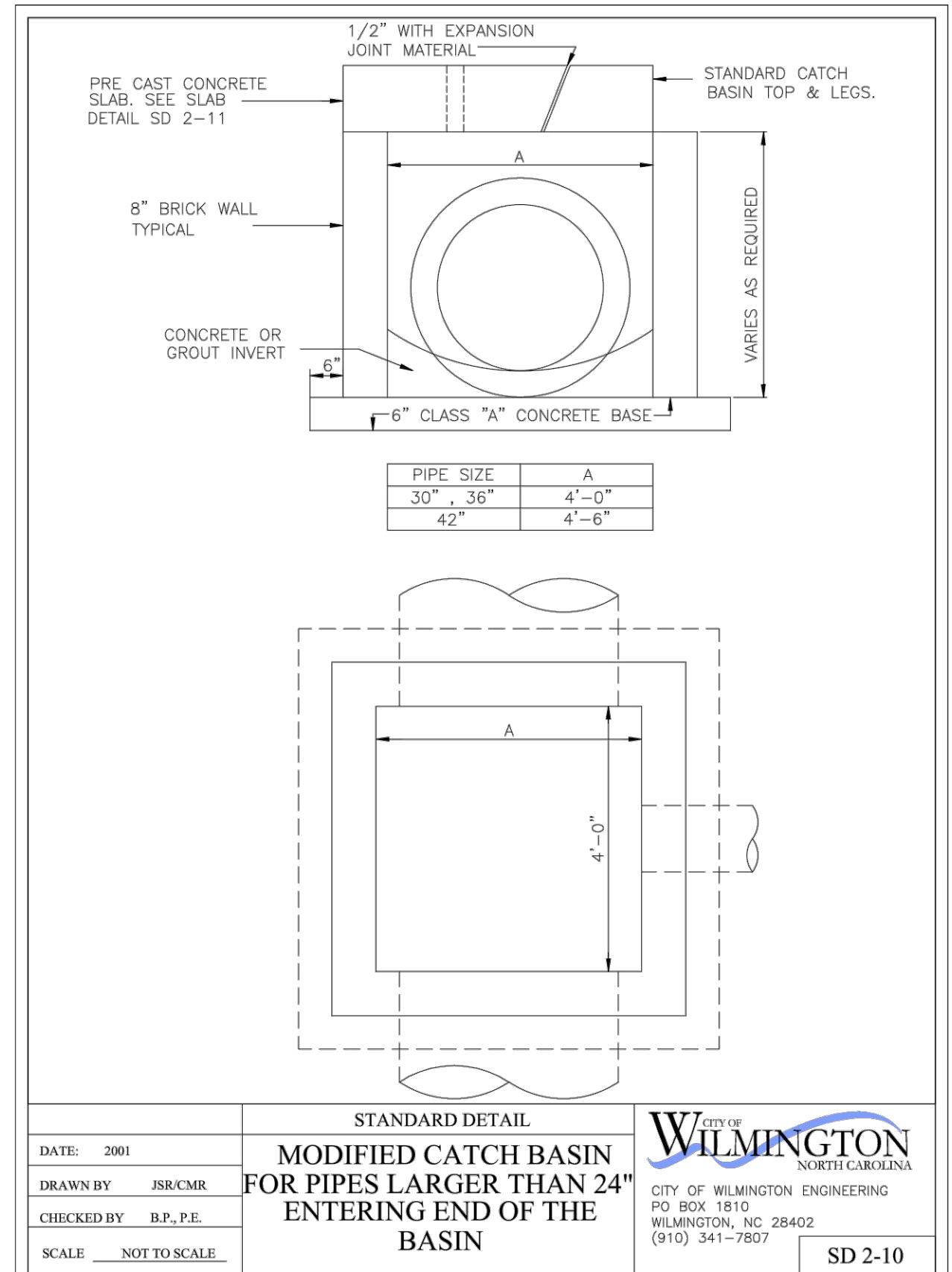
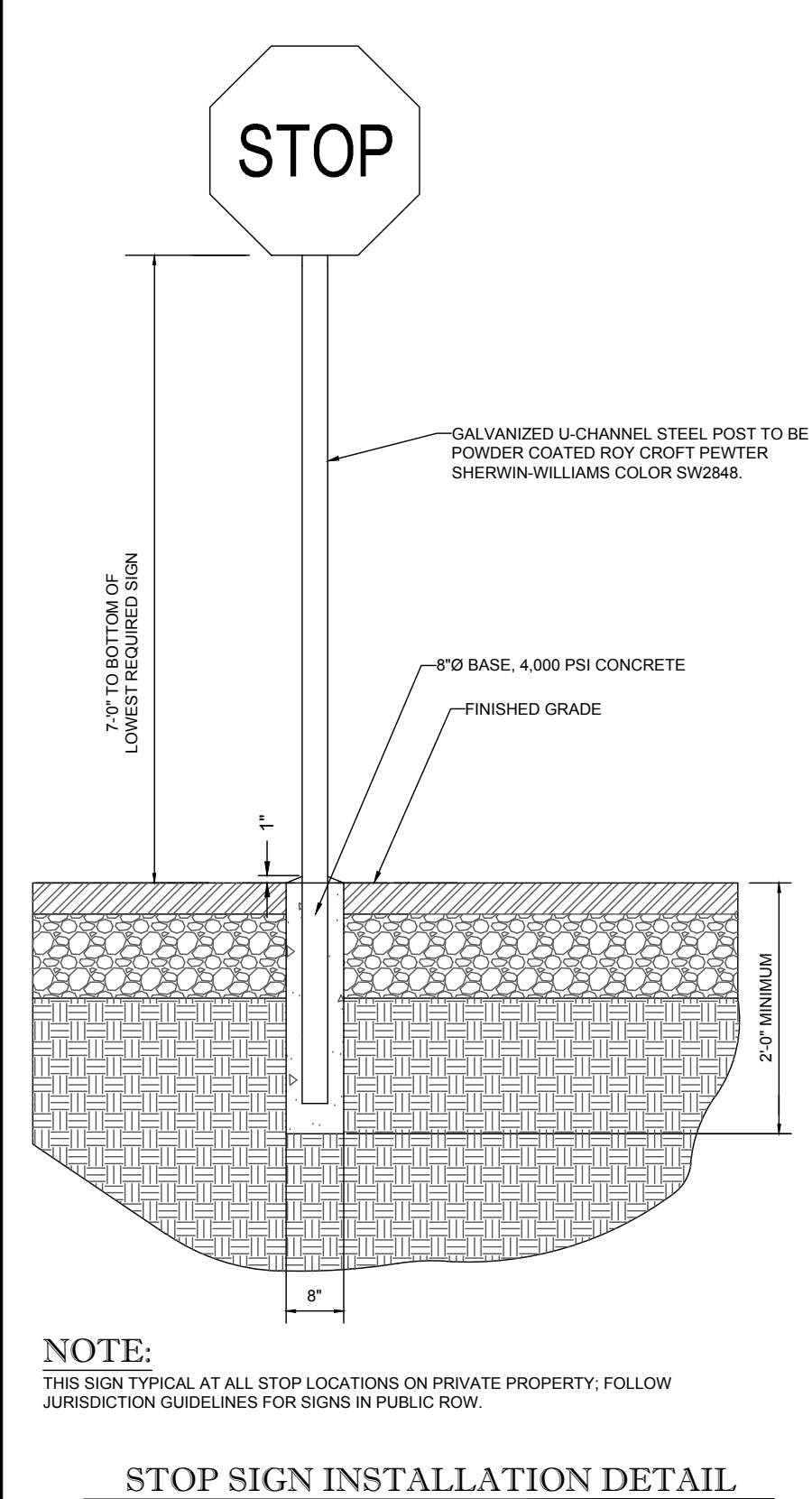
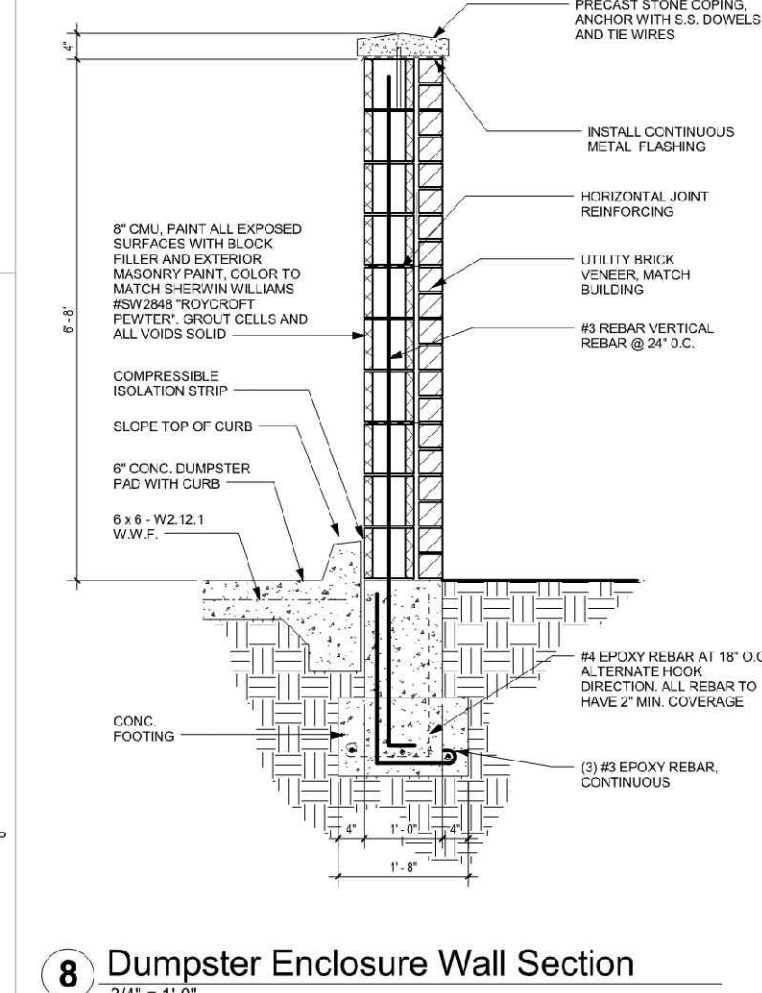
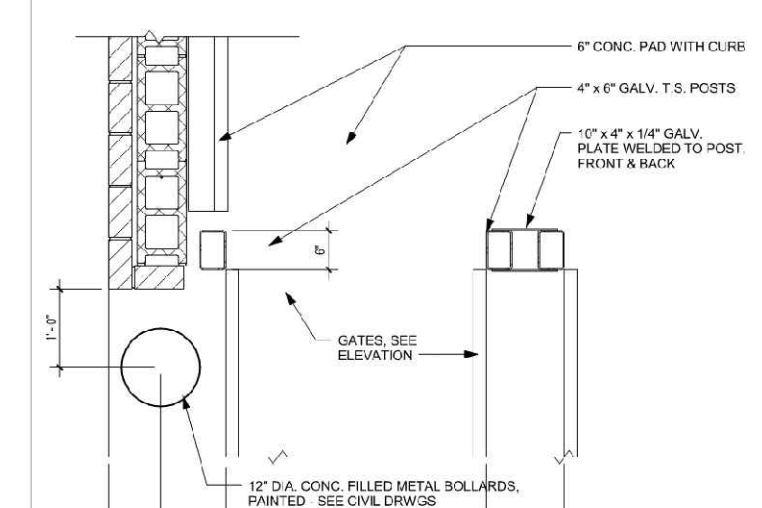
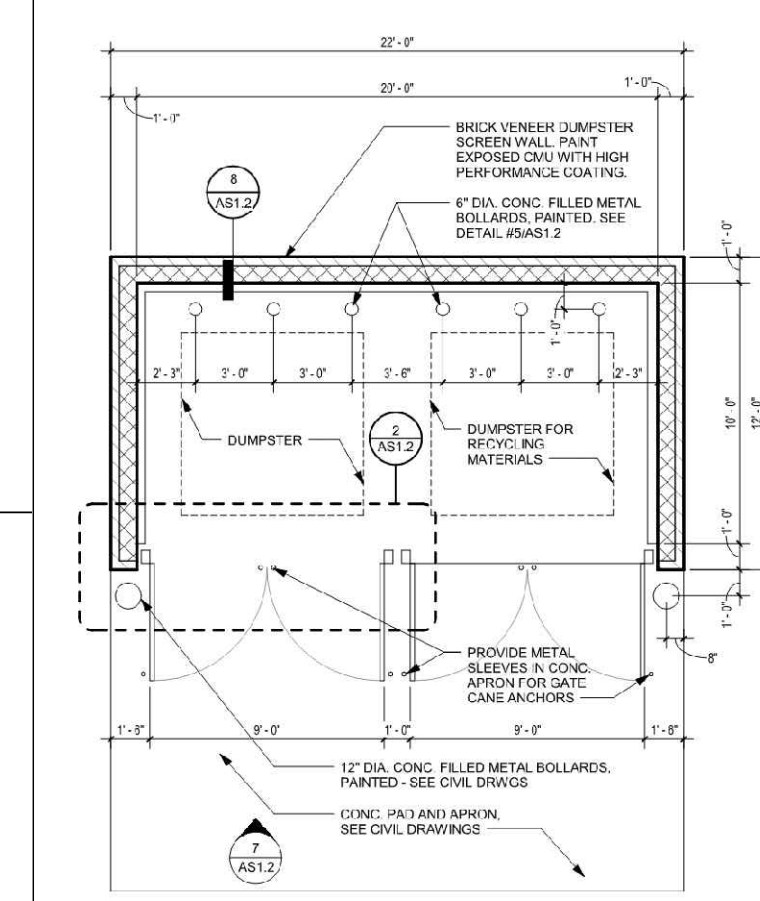
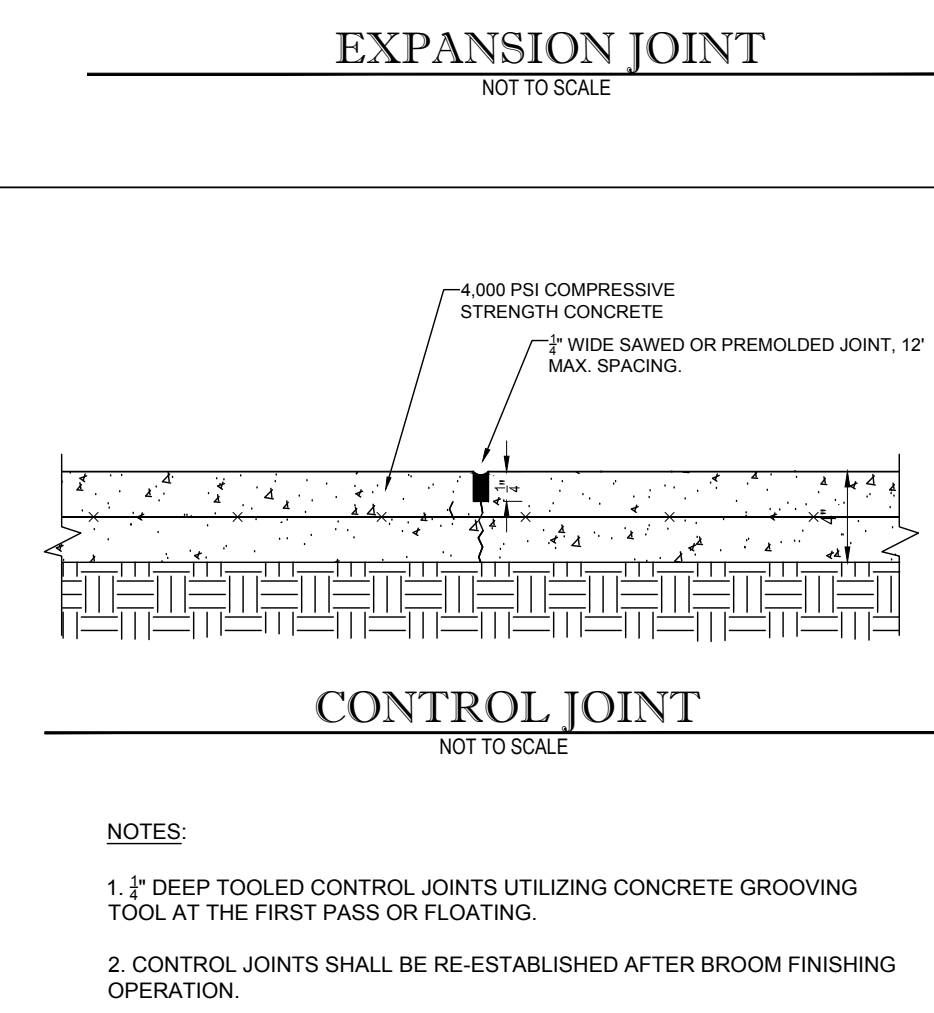
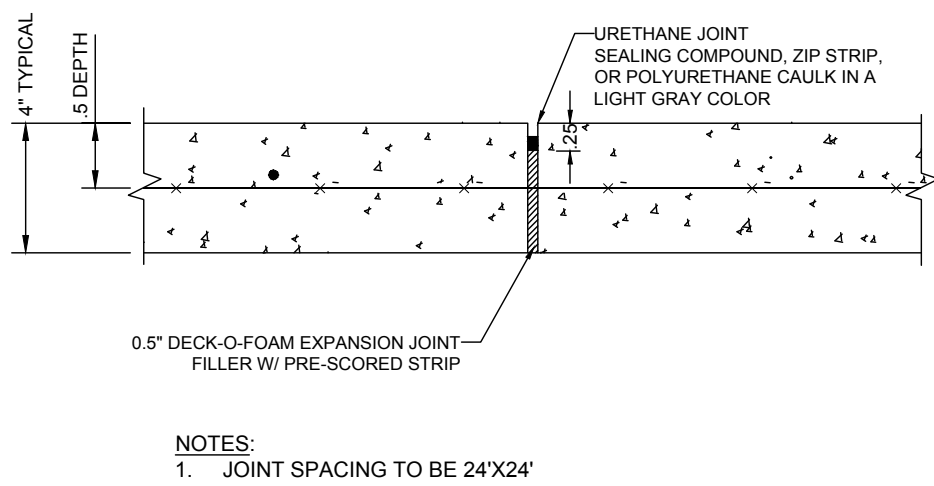
SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
D-1.1

| Approved Construction Plan | | |
|----------------------------|------|--|
| Name | Date | |
| Planning | | |
| Traffic | | |
| Fire | | |

City of WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____
Signed: _____



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| REVISIONS | | | |
|-----------|---------|------------------------------|-----|
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CHECKED BY: WLB
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SCALE: AS NOTED
CAD I.D.: S80

PROPOSED GROCERY

FOR
LIDL US OPERATIONS, LLC

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

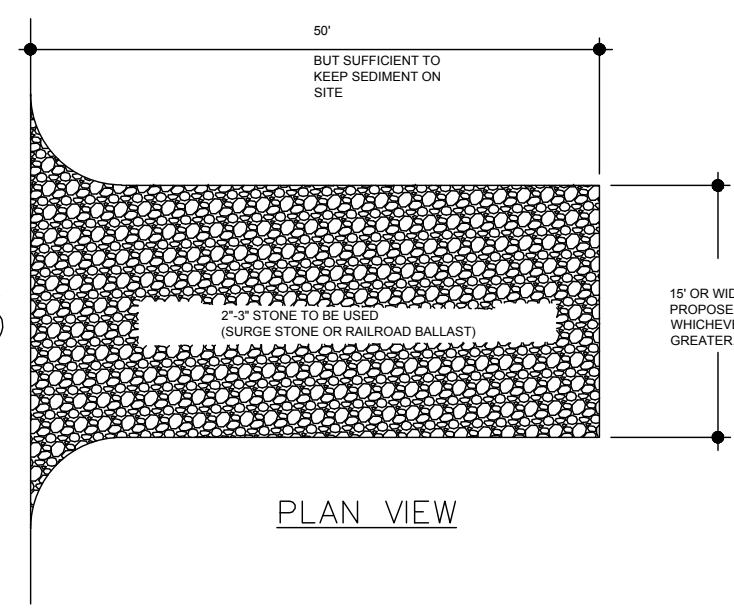
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NCELS P-1132

4011 WESTCHASE BLVD., SUITE 290
RALEIGH, NC 27607
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com

W. PATT L. BOYD
REGISTERED PROFESSIONAL ENGINEER
040241
8/30/17

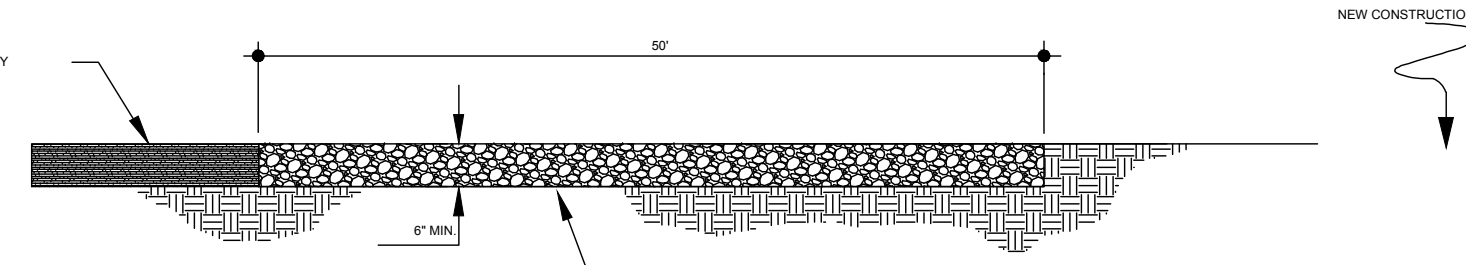
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CONSTRUCTION DETAILS

SHEET NUMBER:
D-1.2

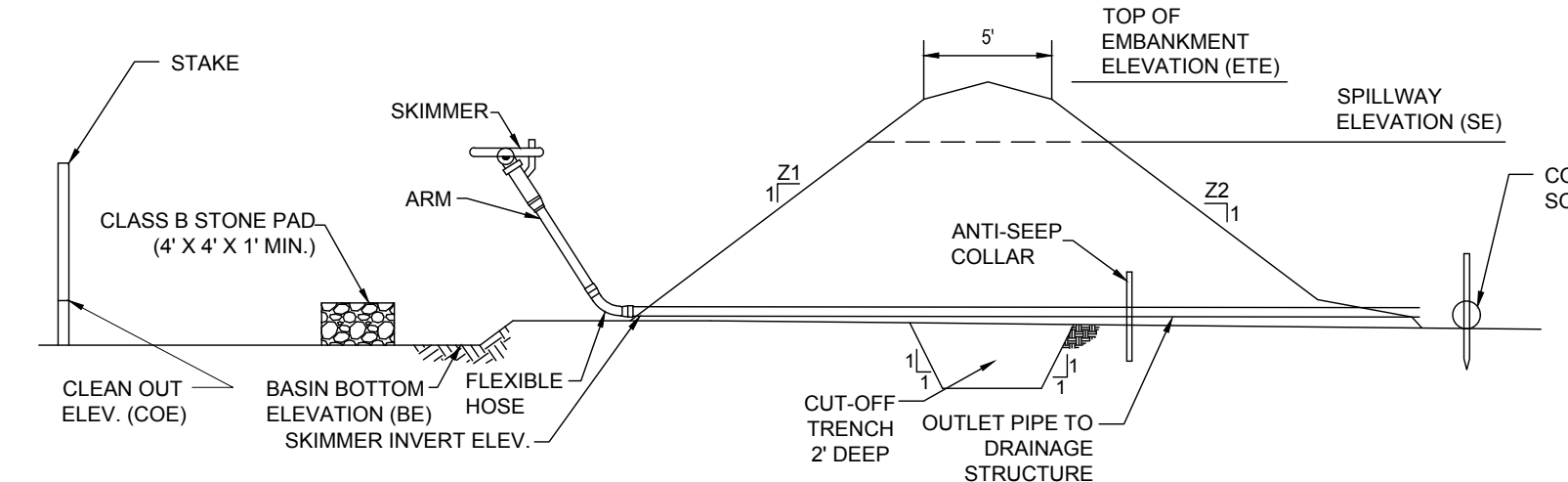


- NOTES:**
1. PUT SILT FENCE OR TREE PROTECTION FENCE UP TO ENSURE CONSTRUCTION ENTRANCE IS USED.
 2. IF CONSTRUCTION ON THE SITES ARE SUCH THAT THE MUD IS NOT REMOVED BY THE VEHICLE TRAVELING OVER THE STONE, THEN THE TIRES OF THE VEHICLES MUST BE WASHED BEFORE ENTERING THE PUBLIC ROAD.
 3. IF A PROJECT CONTINUES TO PULL MUD AND DEBRIS ON TO THE PUBLIC ROAD, THE TOWN WILL CLEAN THE AREA AND INVOICE THE FINANCIALLY RESPONSIBLE PERSON AS INDICATED ON THE FINANCIAL RESPONSIBILITY FORM. THE MINIMUM FEE THE TOWN OF CARY WILL CHARGE TO CLEAN THE STREETS WILL BE \$300 FOR THE FIRST HOUR AND \$200 FOR EACH HOUR THEREAFTER.

NCDENR MAINTENANCE NOTE:
 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE- MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE TOPDRESSING WITH 1/2 INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.



**CROSS SECTION
 STANDARD CONSTRUCTION ENTRANCE**
 NOT TO SCALE

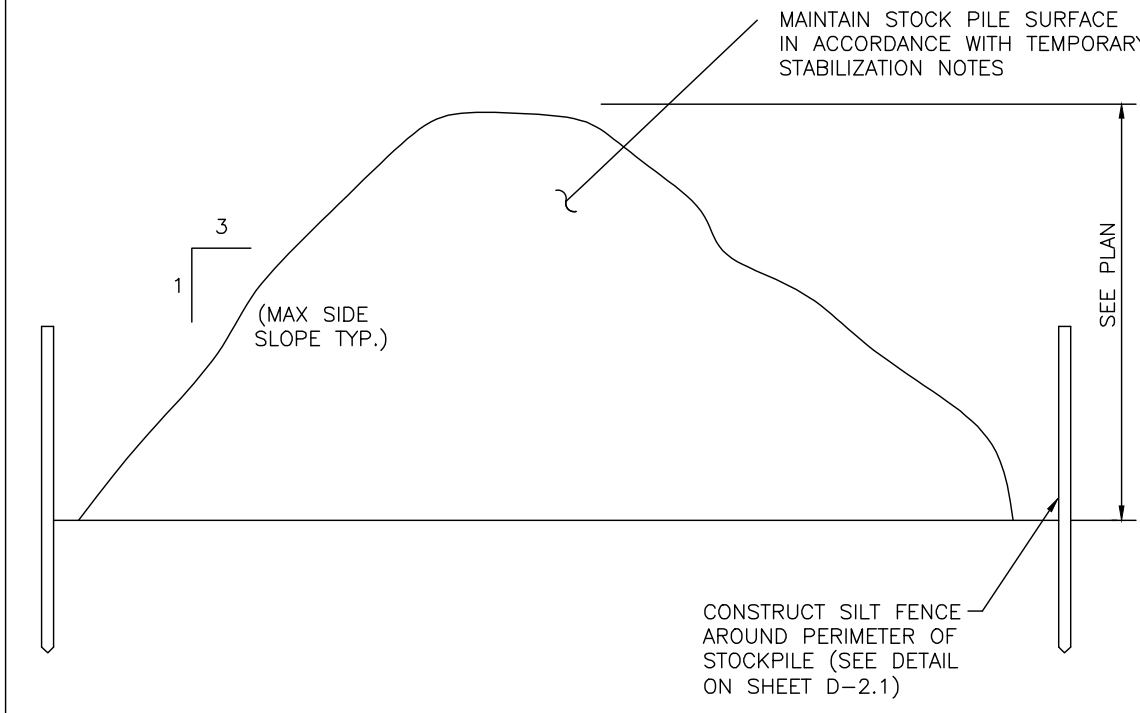


| BASIN NO. | EMBANKMENT | | CLEAN OUT ELEV. COE (FT) | BOTTOM ELEV. BE (FT) | SPILLWAY SE (FT) | SPILLWAY LENGTH (FT) | SKIMMER INVERT ELEV. (FT) |
|-----------|------------|---------|--------------------------|----------------------|------------------|----------------------|---------------------------|
| | Z1 (FT) | Z2 (FT) | | | | | |
| 1 | 3 | 3 | 48 | 44.83 | 44.00 | 16 | 44.00 |

- NCDENR MAINTENANCE NOTE:**
 SKIMMER SEDIMENT BASIN - INSPECT SKIMMER SEDIMENT 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 SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER (IF APPLICABLE) AND POOL AREA.
- NOTES:**
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.
 3. THE ARM PIPE SHALL HAVE A MINIMUM LENGTH OF 4 FT BETWEEN THE SKIMMER AND COUPLING.

SKIMMER SEDIMENT BASIN
 NOT TO SCALE

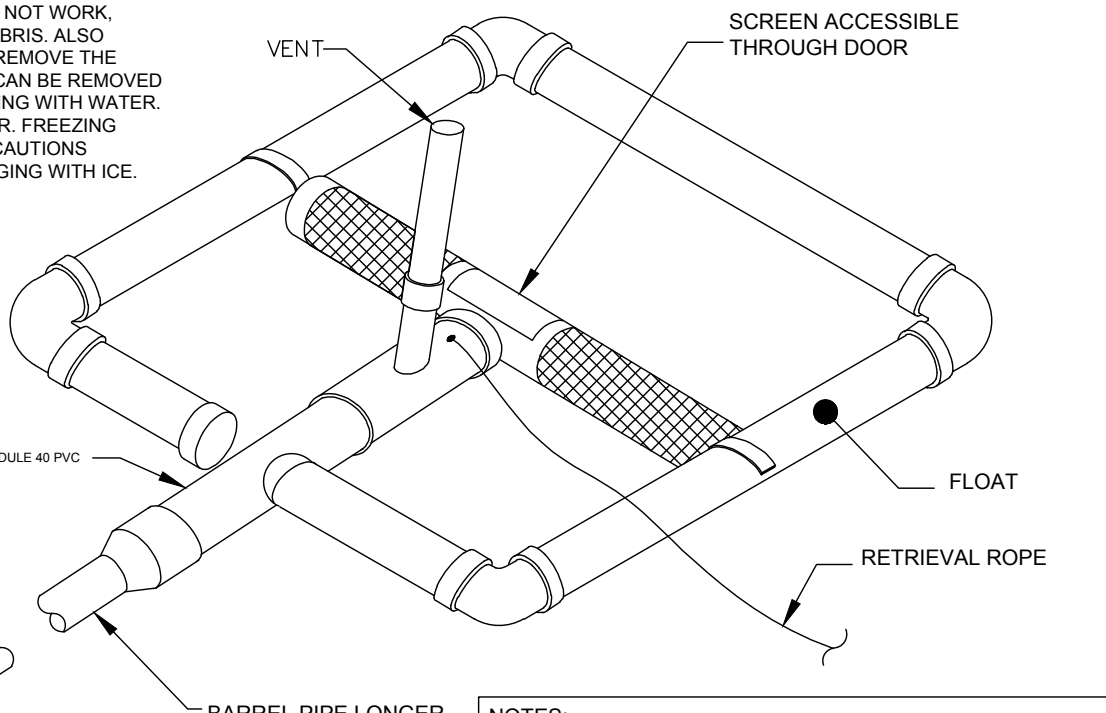
- NOTES:**
1. CONCRETE WASTE MANAGEMENT PERTAINS TO WASTE FROM CONCRETE READY-MIX TRUCKS, MASONRY OPERATIONS, AND SIMILAR WASTE.
 2. CONCRETE MATERIALS ON SITE, INCLUDING EXCESS CONCRETE, SHALL BE CONTROLLED AND MANAGED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS OR BUFFERS. NO CONCRETE OR CEMENT 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.
 3. DISCHARGE OF EXCESS OR WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS IS ALLOWED AT THE CONSTRUCTION SITE. ONLY COMMERCIALY 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 OVERFLOW IN A STORM EVENT.
 4. 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.



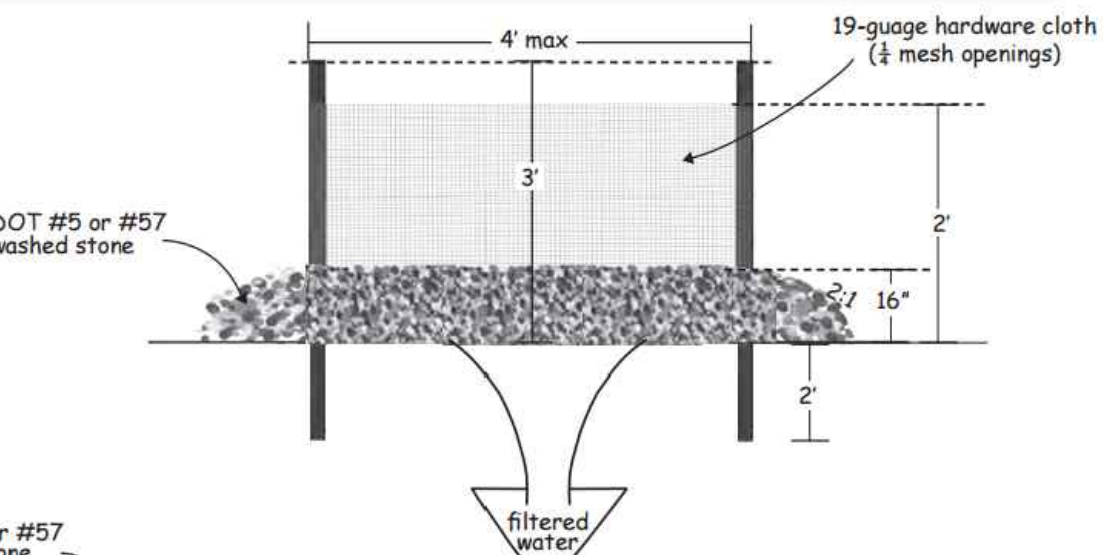
TEMPORARY STOCKPILE DETAIL
 NOT TO SCALE

- NOTES:**
1. 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.
 2. GC SHALL WAIT TO HAVE WRITTEN COPY OF ALL REQUIRED DEWATERING PERMITS AND AUTHORIZATIONS BEFORE PERFORMING DEWATERING ACTIVITIES.
 3. 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.
 4. 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.
 5. DO NOT DISCHARGE ON A SLOPE GREATER THAN THREE PERCENT NOR WITHIN 20 FEET OF A SURFACE WATER BODY.
 6. 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 RECEIVE WRITTEN APPROVAL.

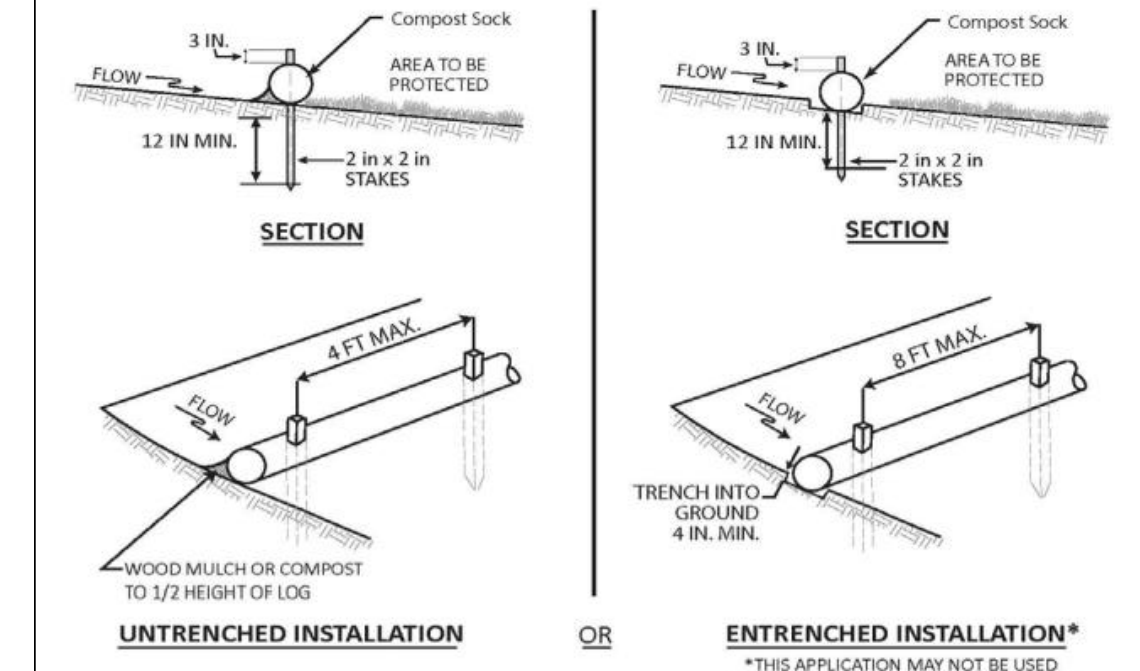
CEMENT AND CONCRETE WASHOUT



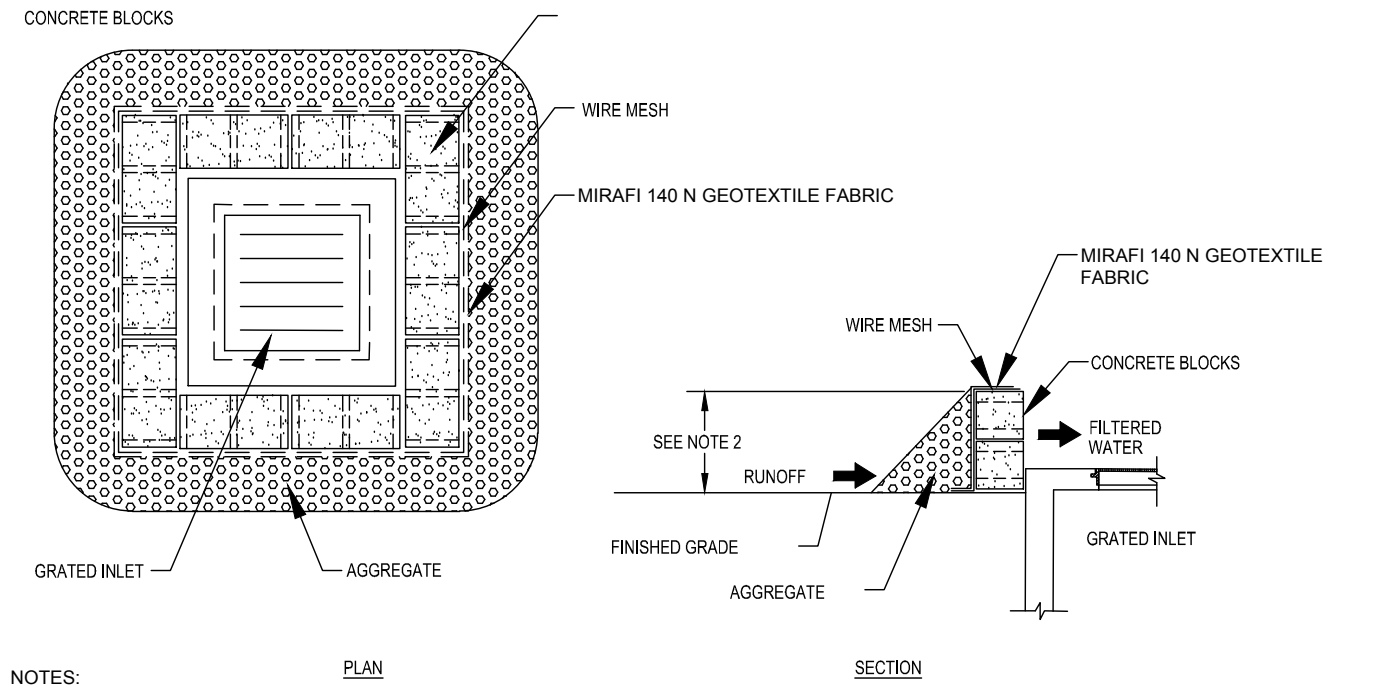
STANDARD SKIMMER DETAIL
 NOT TO SCALE



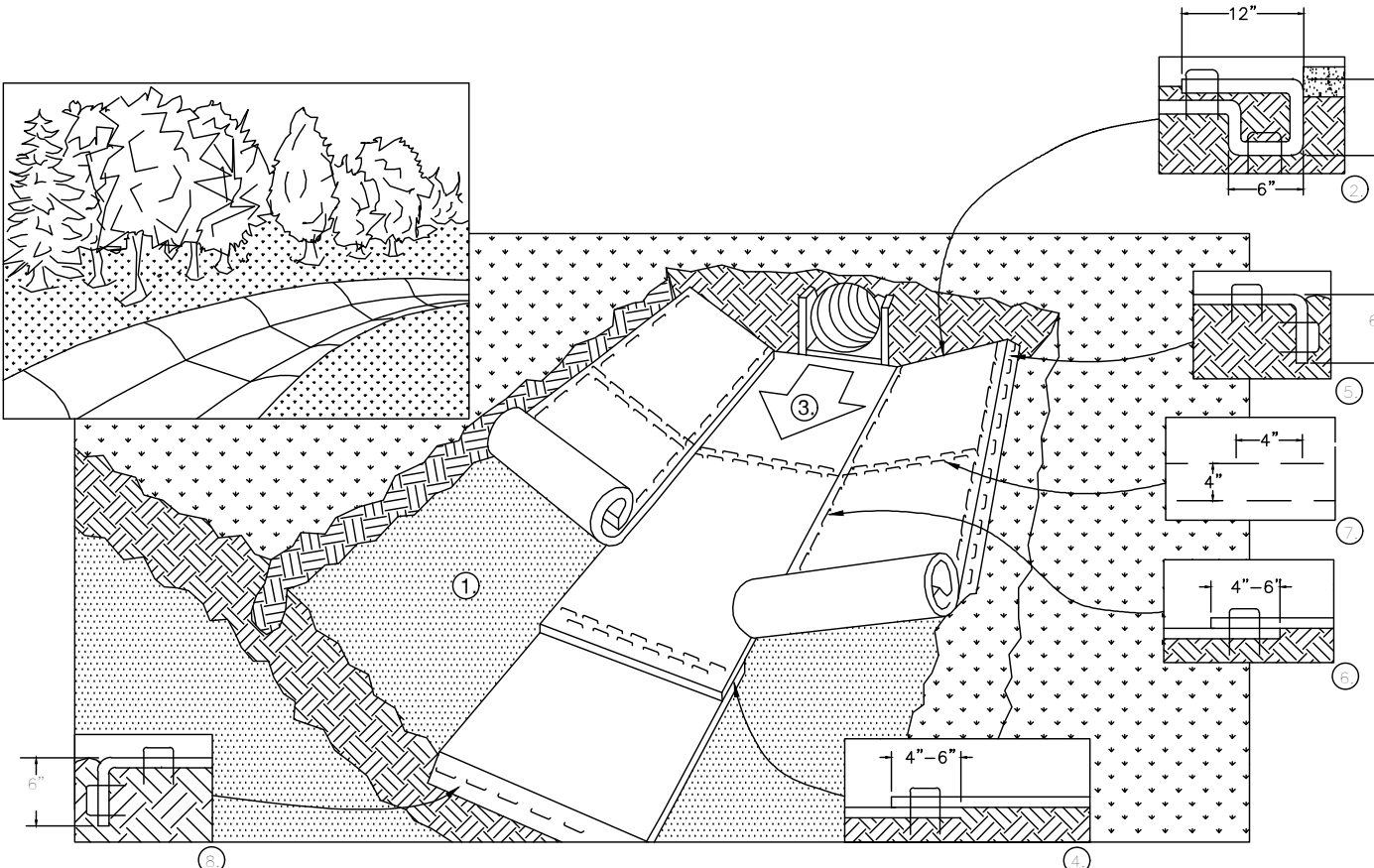
HARDWARE CLOTH AND GRAVEL INLET PROTECTION
 NOT TO SCALE



8" COMPOST SOCK DETAIL
 NOT TO SCALE



BLOCK AND GRAVEL INLET PROTECTION
 NOT TO SCALE



EROSION CONTROL LINING (CHANNEL INSTALLATION)
 N.T.S.

Approved Construction Plan

Name: _____ Date: _____

Traffic: _____

Fire: _____

WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signed: _____

BOHLER ENGINEERING NC, PLLC

1100 WILSON ROAD, SUITE 100
 WILMINGTON, NC 28405
 TEL: 704.779.1100
 FAX: 704.779.1101
 WWW.BOHLENERG.COM

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 NEW JERSEY
 SOUTH FLORIDA

REVISIONS

| REV | DATE | COMMENT | BY |
|-----|---------|-------------------------------|-----|
| 1 | 2/3/17 | CITY COMMENTS | JDM |
| 2 | 3/15/17 | ADDDENDUM 7 AND CITY COMMENTS | JDM |
| 3 | 3/30/17 | TRC RESUBMIT | JDM |

811

KNOW WHAT'S BELOW
 ALWAYS CALL 811
 BEFORE YOU DIG

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

NOT APPROVED FOR CONSTRUCTION

PROJECT No: NCR151031
 DRAWN BY: JDM
 CHECKED BY: WLB
 DATE: 3/30/17
 SCALE: AS NOTED
 CAD I.D.: S80

PROPOSED GROCERY

FOR
LIDL US OPERATIONS, LLC

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

BOHLER ENGINEERING NC, PLLC
 NCELS P-1122

4011 WESTCHASE BLVD., SUITE 290
 RALEIGH, NC 27607
 Phone: (919) 578-9000
 Fax: (919) 703-2665
 NC@BohlerEng.com

BOHLER ENGINEERING
 NORTH CAROLINA PROFESSIONAL ENGINEER
 PATT BONY
 04024

3/30/17

**SHEET TITLE:
 EROSION AND SEDIMENT CONTROL DETAILS**

SHEET NUMBER:
D-1.3

Approved Construction Plan

Name: _____ Date: _____

Planning: _____

Traffic: _____

Fire: _____


CITY OF WILMINGTON
NORTH CAROLINA

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit #: _____

Signed: _____



BOHLER ENGINEERING NC, PLLC

STATE OF NORTH CAROLINA LICENSE #00161870
PROFESSIONAL ENGINEER IN THE FIELD OF CIVIL ENGINEERING

LAND SURVEYING PROGRAM MANAGER TRANSPORTATION SERVICES
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PERMITTING SERVICES: STATE OF NORTH CAROLINA

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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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

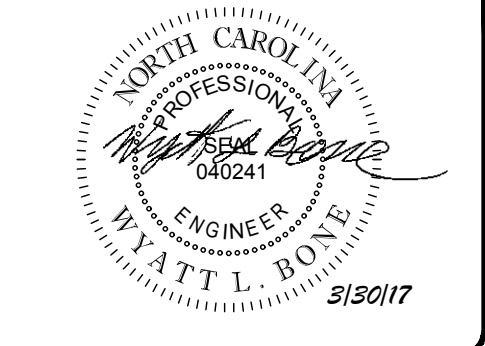
FOR
LIDL US OPERATIONS, LLC

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



BOHLER ENGINEERING NC, PLLC
NCEBELS P-1122

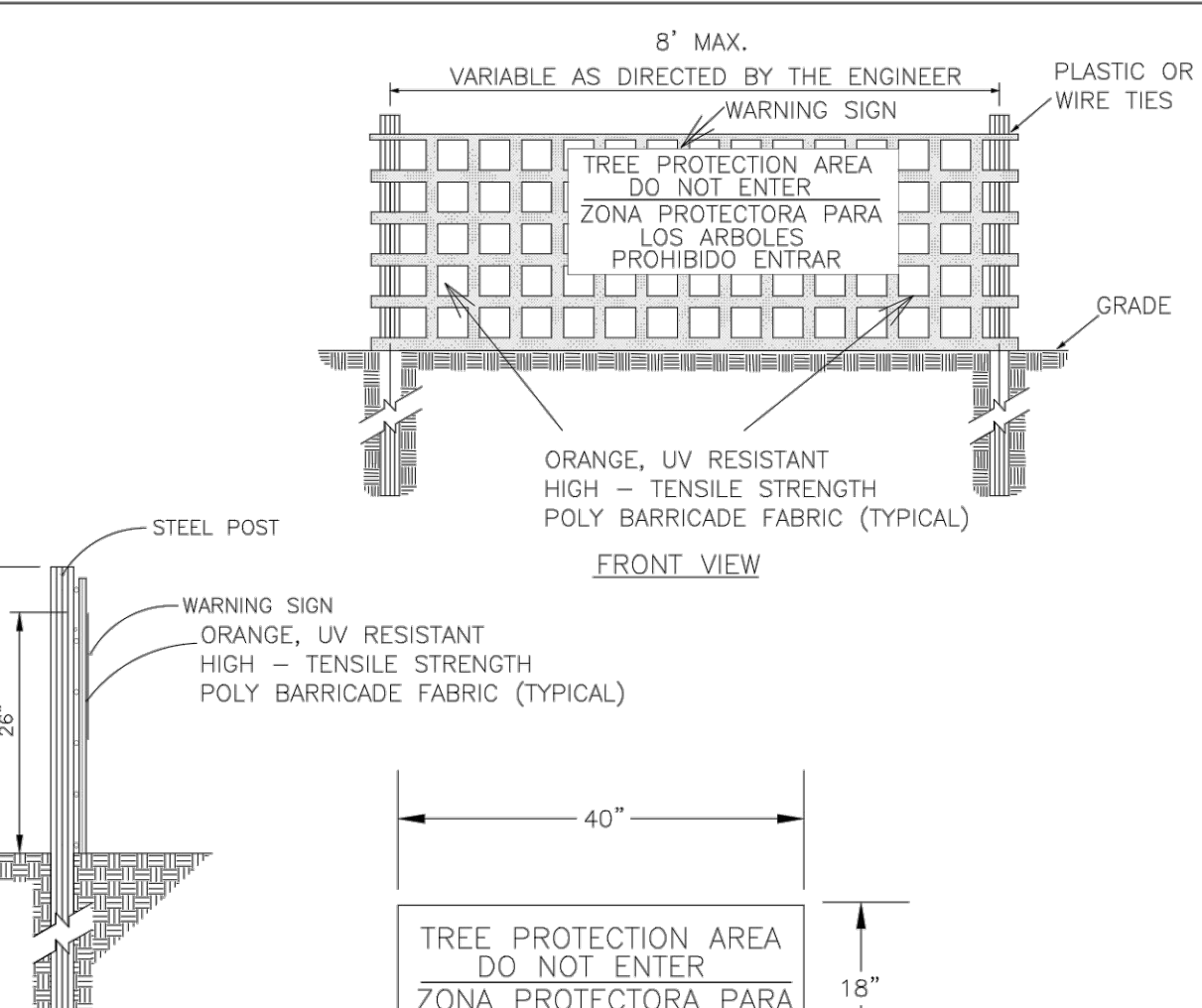
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NC@BohlerEng.com



MATT L. BOYD
ENGINEER
040241
2/3/2017

SHEET TITLE:
EROSION AND SEDIMENT CONTROL DETAILS

SHEET NUMBER:
D-14



**STANDARD DETAIL
TREE PROTECTION DURING CONSTRUCTION**

SHEET 2 of 2 SD 15-09

DATE: JAN, 2015

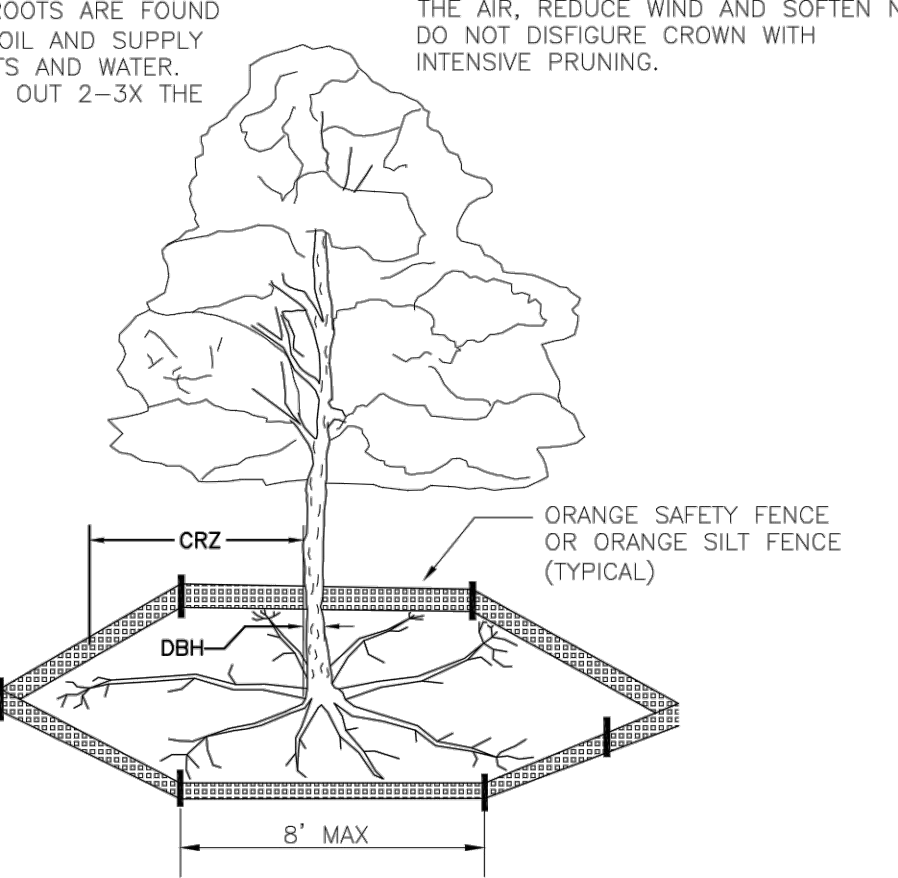
DRAWN BY: JSR

CHECKED BY: RDG, P.E.

SCALE: NOT TO SCALE

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

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



**STANDARD DETAIL
TREE PROTECTION DURING CONSTRUCTION**

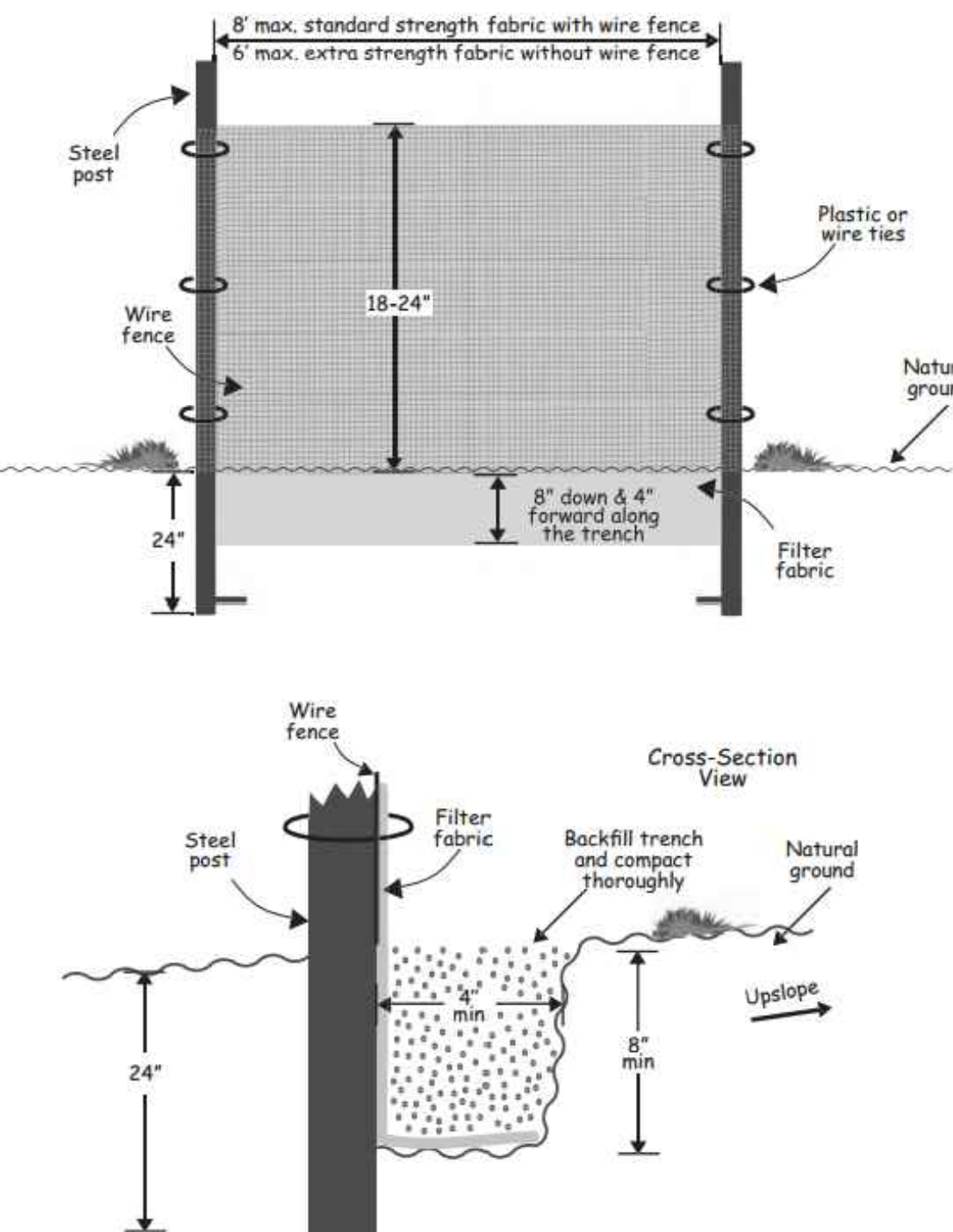
SHEET 1 of 2 SD 15-09

DATE: JAN, 2015

DRAWN BY: JSR

CHECKED BY: RDG, P.E.

SCALE: NOT TO SCALE



SILT FENCE DETAIL
NOT TO SCALE

CDENR MAINTENANCE NOTE:
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, REPAIR 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.

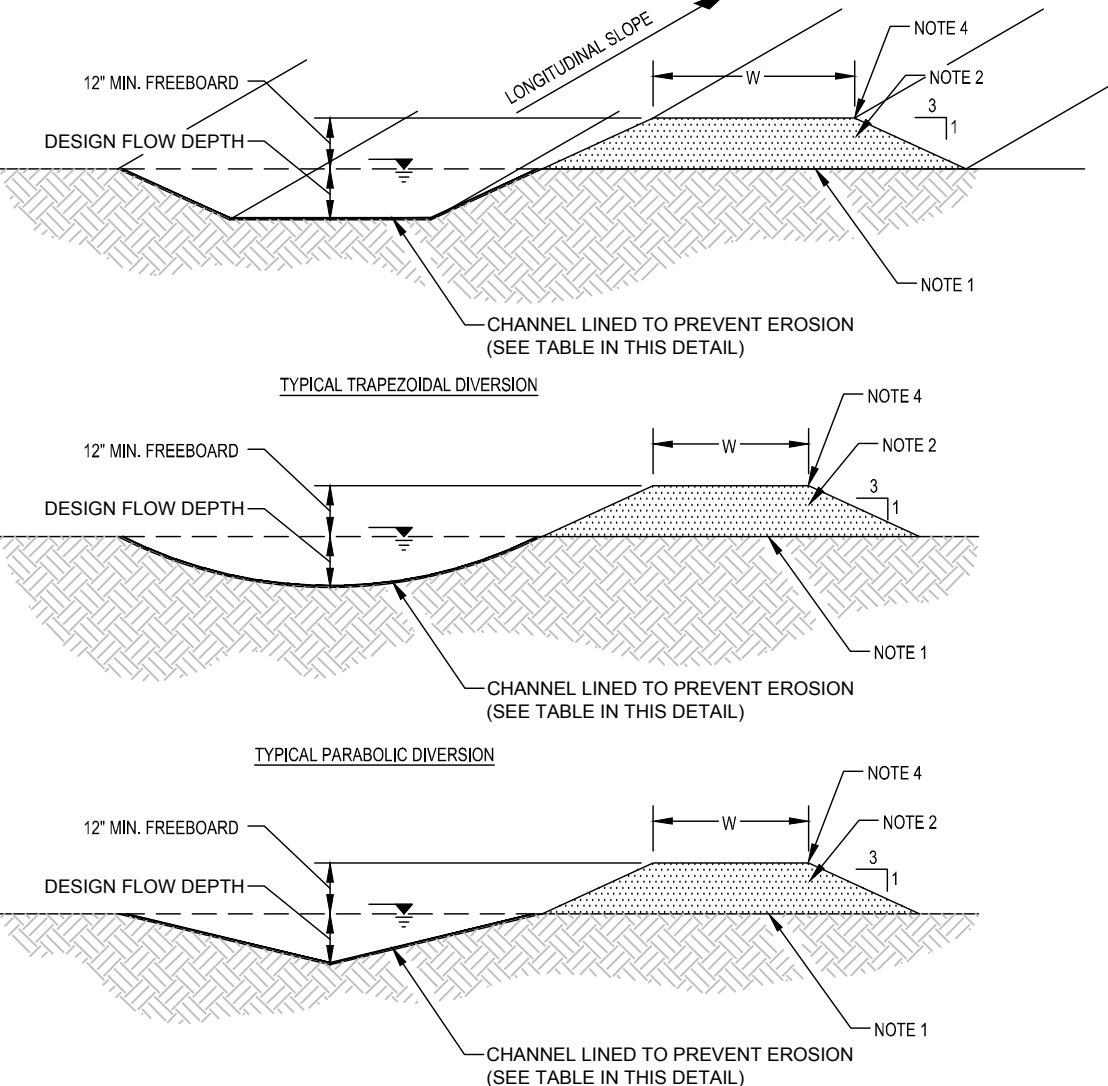
| Test Method | Units | Supported ^A | Unsupported ^A | Type of Value | |
|-------------------------|-------------|------------------------|-----------------------------|-----------------------------|------------|
| | | Silt Fence | Silt Fence | | |
| Grab Strength | ASTM D 4632 | N (lbs) | 400 (90) | 550 (90) | MAR/V |
| | | | Machine Direction | XMachine Direction | |
| Permeability B | ASTM D 4991 | sec-1 | 0.05 | 0.05 | MAR/V |
| | | | ASTM D 4751 | mm (US Sieve #) | |
| 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 | |

A 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 strength.

B 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 geotechnical tests in accordance with Test Method D 5141 should be performed by the agency to confirm suitability of these requirements.

C As measured in accordance with Test Method D 4632.

TABLE 1 TAKEN FROM ASTM D 6461-99 (2007)



DIVERSION CHANNEL
NOT TO SCALE

NOTES:
1. REMOVE ANY EXISTING VEGETATION AND SCARIFY OR BENCH ADJACENT SOILS PRIOR TO PLACING BERM.
2. BERM MATERIALS MUST BE ADEQUATELY COMPACTED AND IMMEDIATELY STABILIZED.
3. DIVERSION DITCHES/BERMS MUST BE IMMEDIATELY STABILIZED TO PREVENT EROSION AND TRANSPORT OF SEDIMENT.
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 FLOW AREA AND REPAIR THE DIKE.
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 NAME AND SEGMENT | LENGTH (FT.) | LONGITUDINAL SLOPE | DESIGN FLOW DEPTH (IN.) | EROSION PROTECTION TYPE (I.E., MATTING, BLANKET, ETC.) | CHANNEL BOTTOM WIDTH (IN.) |
|----------------------------|--------------|--------------------|-------------------------|--|----------------------------|
| D01 | 670 | 0.50% | 12 | JUTE NET | 24 |