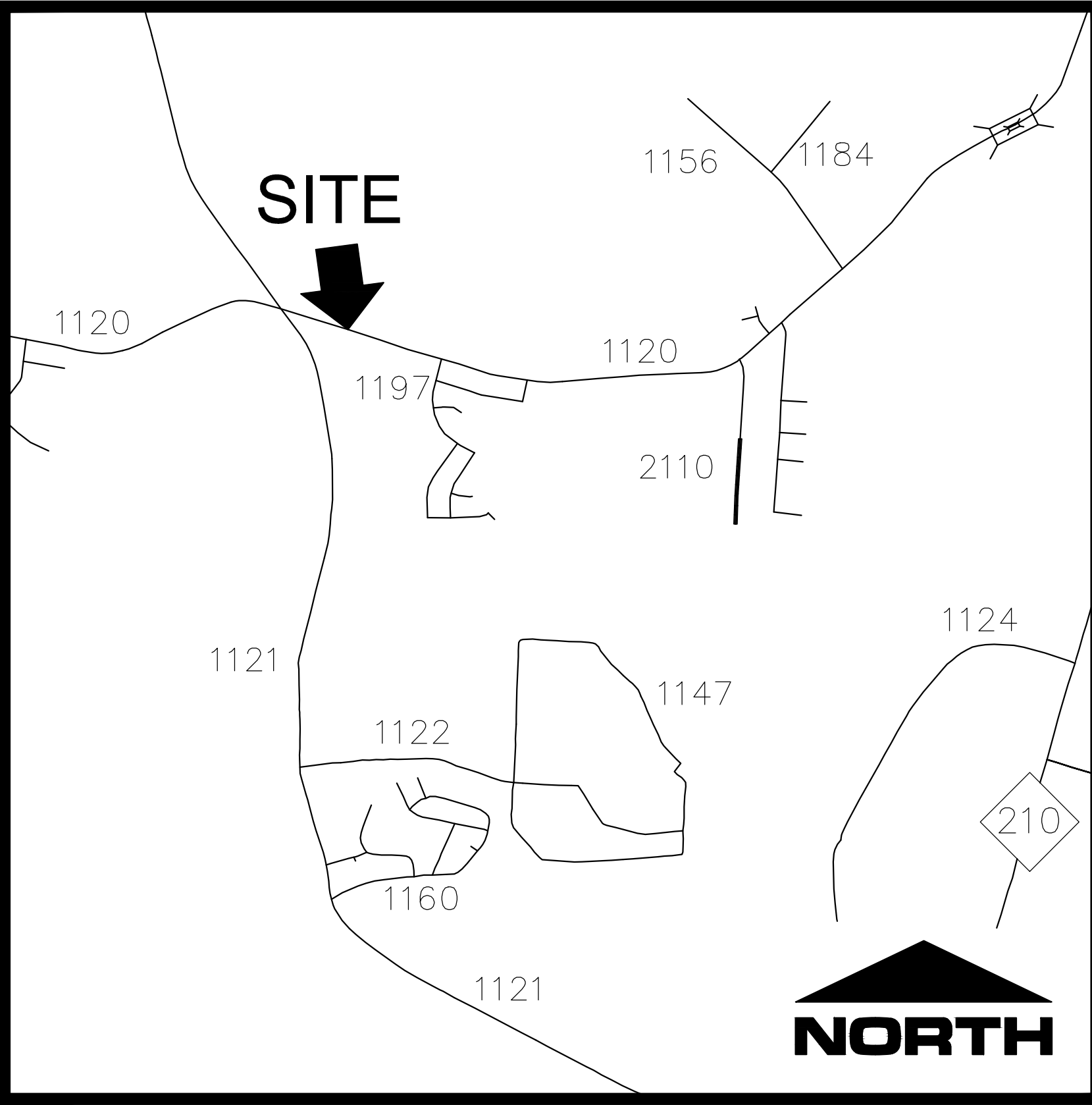


ANDERSON CREEK PLAZA SHOPPES

SITE DEVELOPMENT PLANS

ANDERSON CREEK TOWNSHIP
 NEAR SPRING LAKE, NORTH CAROLINA
 HARNETT COUNTY



VICINITY MAP
 NOT TO SCALE

EXISTING UTILITY OWNER

WATER AND SEWER

HARNETT COUNTY DEPARTMENT OF PUBLIC UTILITIES
 700 McKinney Parkway
 Lillington, North Carolina 27546
 910-893-7575
 Contact: Shane Cummings, PE



Know what's below.
 Call before you dig.

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 Fayetteville, North Carolina 28306
 910-426-6777
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REVISIONS

FINAL DRAWING FOR REVIEW PURPOSES ONLY

PROJECT NAME

ANDERSON CREEK PLAZA SHOPPES

TAX ID# 0514-07-4978.000
 OVERHILLS ROAD
 ANDERSON CREEK TOWNSHIP
 NEAR SPRING LAKE
 HARNETT COUNTY
 NORTH CAROLINA

CLIENT

WELLCO CONTRACTORS, INC

211 Highway 210 North
 Spring Lake, North Carolina 28390
 Phone: (910) 436-3131
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PROJECT INFORMATION

DESIGNED BY:	SCOTT
DRAWN BY:	SCOTT
CHECKED BY:	CHRIS
PROJECT NUMBER:	1353

DRAWING SCALE

SEE SHEETS

DATE RELEASED

MAY 8, 2018

THE CONTRACTOR MUST CONTACT NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 A MINIMUM OF 48 HOURS PRIOR TO DIGGING IN ORDER TO HAVE THE EXISTING UTILITIES LOCATED

HARNETT COUNTY UTILITY NOTES

WATER

A. THE FIRE MARSHAL'S OFFICE SHALL APPROVE ALL HYDRANT TYPES AND LOCATIONS IN NEW SUBDIVISIONS. HOWEVER, HARNETT COUNTY DEPARTMENT OF PUBLIC UTILITIES (HCDPU) PREFERS THE CONTRACTORS TO INSTALL ONE OF THE FOLLOWING FIRE HYDRANTS:

- 1. MUELLER – SUPER CENTURION 250 A 423 MODEL WITH A 5 1/4" MAIN VALVE OPENING THREE WAY (TWO HOSE NOZZLES AND ONE PUMPER NOZZLE);
- 2. AMERICAN DARLING – MARK B-84-B MODEL WITH A 5 1/4" MAIN VALVE OPENING THREE WAY (TWO HOSE NOZZLES AND ONE PUMPER NOZZLE);
- 3. WATEROUS – PACER B-67-250 MODEL WITH A 5 1/4" MAIN VALVE OPENING THREE WAY (TWO HOSE NOZZLES AND ONE PUMPER NOZZLE) OR APPROVED EQUAL FOR STANDARD OR NON.

B. FIRE HYDRANTS ARE INSTALLED AT CERTAIN ELEVATIONS, ANY GRADE CHANGE IN THE VICINITY OF ANY FIRE HYDRANT WHICH IMPEDES ITS OPERATION SHALL BECOME THE RESPONSIBILITY OF THE UTILITY CONTRACTOR FOR CORRECTION. CORRECTIONS WILL BE MONITORED BY THE HCDPU UTILITY CONSTRUCTION INSPECTOR AND THE HARNETT COUNTY FIRE MARSHAL.

C. THE PROFESSIONAL ENGINEER (PE) SHALL OBTAIN AND PROVIDE THE NCDENR "AUTHORIZATION TO CONSTRUCT" PERMIT TO THE UTILITY CONTRACTOR BEFORE THE CONSTRUCTION OF THE WATER LINE SHALL BEGIN. THE UTILITY CONTRACTOR MUST POST A COPY OF THE NCDENR "AUTHORIZATION TO CONSTRUCT" PERMIT ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES – DIVISION OF ENVIRONMENTAL HEALTH, PUBLIC WATER SUPPLY SECTION (NCDENR-DEH,PWSS) ON SITE PRIOR TO THE START OF CONSTRUCTION. THE PERMIT MUST BE MAINTAINED ON SITE THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS OF THE PROPOSED WATER LINES THAT WILL SERVE THIS PROJECT.

D. THE UTILITY CONTRACTOR SHALL NOTIFY HARNETT COUNTY DEPARTMENT OF PUBLIC UTILITIES (HCDPU) AND THE PROFESSIONAL ENGINEER (PE) AT LEAST TWO DAYS PRIOR TO CONSTRUCTION COMMENCING. THE UTILITY CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH MR. ALAN MOSS, HCDPU UTILITY CONSTRUCTION INSPECTOR AT LEAST TWO (2) DAYS BEFORE CONSTRUCTION WILL BEGIN AND THE UTILITY CONTRACTOR MUST COORDINATE WITH HCDPU FOR REGULAR INSPECTION VISITATIONS AND ACCEPTANCE OF THE WATER SYSTEM(S). CONSTRUCTION WORK SHALL BE PERFORMED ONLY DURING THE NORMAL WORKING HOURS OF HCDPU WHICH IS 8:00 AM - 5:00 PM MONDAY THROUGH FRIDAY. HOLIDAY AND WEEKEND WORK IS NOT PERMITTED BY HCDPU.

E. THE PROFESSIONAL ENGINEER (PE) SHALL PROVIDE HCDPU AND THE UTILITY CONTRACTOR WITH A SET OF NCDENR APPROVED PLANS MARKED "RELEASED FOR CONSTRUCTION" AT LEAST TWO DAYS PRIOR TO CONSTRUCTION COMMENCING. THE REGISTERED LAND SURVEYOR (RLS) SHOULD STAKE OUT ALL LOT CORNERS AND THE STANDARD GRADE STAKES FOR EACH STREET BEFORE THE UTILITY CONTRACTOR BEGINS CONSTRUCTION OF THE WATER LINE(S). THE GRADE STAKES SHOULD BE SET WITH A CONSISTENT OFFSET FROM THE STREET CENTERLINE SO AS NOT TO INTERFERE WITH THE STREET GRADING AND UTILITY CONSTRUCTION.

F. THE UTILITY CONTRACTOR SHALL PROVIDE THE HCDPU UTILITY CONSTRUCTION INSPECTOR WITH MATERIAL SUBMITTALS AND SHOP DRAWINGS FOR ALL PROJECT MATERIALS TO BE USED FOR FINISH GRADE, FOR EACH STREET BEFORE THE UTILITY CONTRACTOR BEGINS CONSTRUCTION OF THE WATER LINE(S). THE GRADE STAKES SHOULD BE SET WITH A CONSISTENT OFFSET FROM THE STREET CENTERLINE SO AS NOT TO INTERFERE WITH THE STREET GRADING AND UTILITY CONSTRUCTION.

G. THE UTILITY CONTRACTOR SHALL PROVIDE THE HCDPU UTILITY CONSTRUCTION INSPECTOR WITH MATERIAL SUBMITTALS AND SHOP DRAWINGS FOR ALL PROJECT MATERIALS TO BE USED FOR FINISH GRADE, FOR EACH STREET BEFORE THE UTILITY CONTRACTOR BEGINS CONSTRUCTION OF THE WATER LINE(S). THE GRADE STAKES SHOULD BE SET WITH A CONSISTENT OFFSET FROM THE STREET CENTERLINE SO AS NOT TO INTERFERE WITH THE STREET GRADING AND UTILITY CONSTRUCTION.

H. THE UTILITY CONTRACTOR SHALL PROVIDE THE HCDPU UTILITY CONSTRUCTION INSPECTOR WITH MATERIAL SUBMITTALS AND SHOP DRAWINGS FOR ALL PROJECT MATERIALS TO BE USED FOR FINISH GRADE, FOR EACH STREET BEFORE THE UTILITY CONTRACTOR BEGINS CONSTRUCTION OF THE WATER LINE(S). THE GRADE STAKES SHOULD BE SET WITH A CONSISTENT OFFSET FROM THE STREET CENTERLINE SO AS NOT TO INTERFERE WITH THE STREET GRADING AND UTILITY CONSTRUCTION.

I. THE UTILITY CONTRACTOR SHALL PROVIDE THE HCDPU UTILITY CONSTRUCTION INSPECTOR WITH MATERIAL SUBMITTALS AND SHOP DRAWINGS FOR ALL PROJECT MATERIALS TO BE USED FOR FINISH GRADE, FOR EACH STREET BEFORE THE UTILITY CONTRACTOR BEGINS CONSTRUCTION OF THE WATER LINE(S). THE GRADE STAKES SHOULD BE SET WITH A CONSISTENT OFFSET FROM THE STREET CENTERLINE SO AS NOT TO INTERFERE WITH THE STREET GRADING AND UTILITY CONSTRUCTION.

J. POTABLE WATER MAINS CROSSING OTHER UTILITIES AND NON-POTABLE WATER LINES (SANITARY SEWER, STORM SEWER, RCP, ETC.) SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF TEN (10) FEET BETWEEN THE POTABLE WATER MAIN AND ALL OTHER UTILITIES. NCDOT REQUIRES THE NEW WATER MAINS TO BE INSTALLED UNDER THE STORM WATER LINES. THE POTABLE WATER MAIN SHALL BE INSTALLED WITH TWENTY FOUR (24) INCHES OF VERTICAL SEPARATION AND WITH DUCTILE IRON PIPE WHEN DESIGNED TO BE PLACED UNDER A NON-POTABLE WATER MAIN OR SANITARY SEWER OR STORM SEWER LINES. IF THESE SEPARATIONS CANNOT BE MAINTAINED THEN THE WATER MAIN SHALL BE INSTALLED WITH DUCTILE IRON PIPE. BOTH THE POTABLE WATER MAIN AND THE NON-POTABLE WATER LINE MUST BE CAST IRON OR DUCTILE IRON PIPE (DIP) IF THE STATE MINIMUM SEPARATIONS CANNOT BE MAINTAINED. THE DUCTILE IRON PIPE MUST BE LAID SO THE MECHANICAL JOINTS ARE AT LEAST (10) FEET FROM THE POINT WHERE THE POTABLE WATER MAIN CROSSES THE NON-POTABLE WATER LINE.

K. POTABLE WATER MAINS INSTALLED PARALLEL TO NON-POTABLE WATER LINES (SANITARY SEWER, STORM SEWER, RCP, ETC.) SHALL BE LAID TO PROVIDE A MINIMUM HORIZONTAL DISTANCE OF TEN (10) FEET BETWEEN THE POTABLE WATER MAIN AND SANITARY SEWER MAINS, SEWER LATERALS AND SERVICES. THE HORIZONTAL SEPARATION BETWEEN THE POTABLE WATER MAIN AND ANY OTHER UTILITY OR STORM SEWER SHALL NOT BE LESS THAN FIVE (5) FEET. THE POTABLE WATER MAIN MUST BE DUCTILE IRON PIPE IF THIS HORIZONTAL SEPARATION OF TEN (10) FEET CANNOT BE MAINTAINED. THE DUCTILE IRON PIPE SHALL EXTEND AT LEAST TEN (10) FEET BEYOND THE POINT WHERE THE MINIMUM REQUIRED HORIZONTAL SEPARATION OF TEN (10) FEET CAN BE RE-ESTABLISHED.

L. METER SETTERS SHALL BE INSTALLED IN PAIRS ON EVERY OTHER LOT LINE WHERE POSSIBLE TO LEAVE ADEQUATE SPACE FOR OTHER UTILITIES TO BE INSTALLED AT A LATER TIME. THE METER SETTERS SHALL BE INSTALLED AT LEAST ONE (1) FOOT INSIDE THE RIGHT-OF-WAY AND AT LEAST THREE (3') TO FIVE (5') FEET FROM THE PROPERTY LINE BETWEEN THE LOTS.

M. HCDPU REQUIRES THAT METER BOXES FOR 3/4" SERVICES SHALL BE 12" WIDE X 17" LONG ABS PLASTIC BOXES AT LEAST 18" IN HEIGHT WITH CAST IRON LIDS/COVERS. METER BOXES FOR 1" SERVICES SHALL BE 17" WIDE X 21" LONG ABS PLASTIC BOXES AT LEAST 18" IN HEIGHT WITH PLASTIC LIDS AND CAST IRON FLIP COVERS IN THE CENTER OF THE LIDS. METER BOXES FOR 2" SERVICES SHALL BE 20" WIDE X 32" LONG ABS PLASTIC BOXES AT LEAST 20" IN HEIGHT WITH PLASTIC LIDS AND CAST IRON FLIP COVERS IN THE CENTER OF THE LIDS.

N. MASTER METERS MUST BE INSTALLED IN CONCRETE VAULTS SIZED FOR THE METER ASSEMBLY AND ASSOCIATED APPURTENANCES SO AS TO PROVIDE A LEAST SEVENTEEN (18) INCHES OF CLEARANCE BETWEEN THE BOTTOM OF THE CONCRETE VAULT AND THE BOTTOM OF THE METER SETTER. THE MASTER METER MUST BE PROVIDED TEST PORTS IF THE METER IS NOT EQUIPPED WITH TEST PORTS FROM THE MANUFACTURER IN ACCORDANCE WITH THE HCDPU ESTABLISHED STANDARD SPECIFICATIONS AND DETAILS. DUCTILE IRON PIPE MUST BE USED FOR THE MASTER METER VAULT PIPING AND VALVE VAULT PIPING. THE UTILITY CONTRACTOR MUST PROVIDE SHOP DRAWINGS FOR THE METER VAULTS TO HCDPU PRIOR TO ORDERING THE CONCRETE VAULTS.

O. THE UTILITY CONTRACTOR WILL INSTALL POLYETHYLENE SDR 9 WATER SERVICE LINES THAT CROSS UNDER THE PAVEMENT INSIDE A SCHEDULE 40 PVC CONDUIT TO ALLOW FOR REMOVAL AND REPLACEMENT IN THE FUTURE. TWO (2) INDEPENDENT 3/4" WATER SERVICE LINES MAY BE INSTALLED INSIDE ONE (1) TWO (2) INCH SCHEDULE 40 PVC CONDUIT OR TWO (2) INDEPENDENT 1" WATER SERVICE LINES MAY BE INSTALLED INSIDE ONE – THREE (3) INCH SCHEDULE 40 PVC CONDUIT, BUT EACH WATER SERVICE SHALL BE

TAPPED DIRECTLY TO THE WATER MAIN. SPLIT SERVICES ARE NOT ALLOWED BY HCDPU. THE WATER MAIN(S), FIRE HYDRANTS, GATE VALVES, SERVICE LINES, METER SETTERS AND ASSOCIATED APPURTENANCES MUST BE RATED FOR 200 PSI AND HYDROSTATICALLY PRESSURE TESTED TO 200 PSI. THE HYDROSTATIC PRESSURE TEST(S) MUST BE WITNESSED BY THE HCDPU UTILITY CONSTRUCTION INSPECTOR. THE UTILITY CONTRACTOR MUST NOTIFY HCDPU WHEN THEY ARE READY TO BEGIN FILLING IN LINES AND COORDINATE WITH HARNETT COUNTY TO WITNESS ALL PRESSURE TESTING.

Q. THE UTILITY CONTRACTOR SHALL CONDUCT A PNEUMATIC PRESSURE TEST USING COMPRESSED AIR OR OTHER INERT GAS ON THE STAINLESS STEEL TAPPING SLEEVE(S) PRIOR TO MAKING THE TAP ON THE EXISTING WATER MAIN. THIS PNEUMATIC PRESSURE TEST MUST BE WITNESSED BY THE HCDPU UTILITY CONSTRUCTION INSPECTOR. THE UTILITY CONTRACTOR SHALL USE ROMAC BRAND STAINLESS STEEL TAPPING SLEEVE(S) OR APPROVED EQUAL FOR ALL TAPS MADE IN HARNETT COUNTY. ALL NEW WATER LINE EXTENSIONS MUST BEGIN WITH A RESILIENT GELTYE GATE VALVE SIZED EQUAL TO THE DIAMETER OF THE NEW WATER LINE EXTENSION IN ORDER TO PROVIDE A MEANS OF ISOLATION BETWEEN HARNETT COUNTY'S EXISTING WATER MAINS AND THE NEW WATER LINE EXTENSIONS UNDER CONSTRUCTION.

R. ALL WATER MAINS WILL BE CONSTRUCTED WITH SDR 21 PVC PIPE OR CLASS 50 DUCTILE IRON PIPE RATED FOR AT LEAST 200 PSI OR GREATER. ALL PIPES MUST BE PROTECTED DURING LOADING, TRANSPORT, UNLOADING, STAGING, AND INSTALLATION. PVC PIPE MUST BE PROTECTED FROM EXTENDED EXPOSURE TO SUNLIGHT PRIOR TO INSTALLATION.

S. ALL WATER MAINS WILL BE FLUSHED AND DISINFECTED IN STRICT ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE HARNETT COUNTY DEPARTMENT OF PUBLIC UTILITIES. ALL WATER SAMPLES COLLECTED FOR BACTERIA TESTING WILL BE COLLECTED BY THE HCDPU UTILITY CONSTRUCTION INSPECTOR AND TESTED IN THE HCDPU LABORATORY.

T. ALL FITTINGS LARGER THAN TWO (2) INCHES DIAMETER SHALL BE DUCTILE IRON. HCDPU REQUIRES THAT MECHANICAL JOINTS BE ASSEMBLED WITH GRIP RINGS AS "MEGALUG" FITTINGS ARE NOT APPROVED BY HARNETT COUNTY FOR PIPE SIZES SMALLER THAN TWELVE INCHES (12") DIAMETER. PVC PIPE USED FOR WATER MAINS SHALL BE CONNECTED BY SLIP JOINT OR MECHANICAL JOINT WITH GRIP RINGS. GLUED JOINTS ARE NOT ALLOWED ON PVC PIPE USED FOR WATER MAINS IN HARNETT COUNTY.

U. HCDPU REQUIRES THAT THE UTILITY CONTRACTOR INSTALL TRACER WIRE IN THE TRENCH WITH ALL WATER LINES. THE TRACER WIRE SHALL BE 12 GA. INSULATED, SOLID COPPER CONDUCTOR AND IT SHALL BE TERMINATED AT THE TOP OF THE VALVE BOXES OR MANHOLES. NO ALUMINUM WIRE CONNECTIONS SHALL BE MADE UNDERGROUND ON TRACER WIRE INSTALLED IN HARNETT COUNTY. THE TRACER WIRE MAY BE SECURED WITH DUCT TAPE TO THE TOP OF THE PIPE BEFORE BACKFILLING.

V. THE UTILITY CONTRACTOR WILL PROVIDE PROFESSIONAL ENGINEER (PE) AND THE HCDPU UTILITY CONSTRUCTION INSPECTOR WITH A SET OF RED LINE FIELD DRAWINGS TO IDENTIFY THE INSTALLED LOCATION OF THE WATER LINE(S) AND ALL ASSOCIATED SERVICES. ALL DRAWING ORDERS MUST BE PRE-APPROVED BY HCDPU AND THE PROFESSIONAL ENGINEER (PE) IN WRITING AND PROPERLY DOCUMENTED IN THE RED LINE FIELD DRAWINGS.

W. THE UTILITY CONTRACTOR SHALL SPOT DIG TO EXPOSE EACH UTILITY PIPE OR LINE WHICH MAY CONFLICT WITH CONSTRUCTION OF PROPOSED WATER LINE EXTENSIONS UNDERGROUND. THE UTILITY CONTRACTOR SHALL PROVIDE BOTH HORIZONTAL AND VERTICAL CLEARANCES TO THE PROFESSIONAL ENGINEER (PE) TO ALLOW THE PE TO ADJUST THE WATER LINE DESIGN IN ORDER TO AVOID CONFLICTS WITH EXISTING UNDERGROUND UTILITIES. THE UTILITY CONTRACTOR SHALL COORDINATE WITH THE UTILITY OWNER AND BE RESPONSIBLE FOR TEMPORARY RELOCATION AND/OR SECURING EXISTING UTILITY POLES, PIPES, WIRES, CABLES, SIGNS AND/OR UTILITIES INCLUDING SERVICES IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS DURING WATER LINE INSTALLATION, GRADING AND STREET CONSTRUCTION.

X. PRIOR TO THE COMMENCEMENT OF ANY WORK WITHIN ESTABLISHED UTILITY EASEMENTS OR NCDOT RIGHT-OF-WAYS THE UTILITY CONTRACTOR IS REQUIRED TO HAVE A SIGNED NCDOT EASEMENT AGREEMENT POSTED ON SITE AND NOTIFY ALL CONCERNED INSPECTOR AND ENGINEER. THE UTILITY CONTRACTOR MUST CALL THE NC ONE CALL CENTER AT 811 OR 632-4949 TO VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION. EXISTING UTILITIES SHOWN IN THESE PLANS ARE TAKEN FROM MAPS FURNISHED BY VARIOUS UTILITY COMPANIES AND HAVE NOT BEEN PHYSICALLY LOCATED OR VERIFIED BY THE P.E. (I.E. TELEPHONE, CABLE, WATER, SEWER, ELECTRICAL POWER, FIBER OPTIC, NATURAL GAS, ETC.). THE UTILITY CONTRACTOR WILL BE RESPONSIBLE TO REPAIR ANY AND ALL DAMAGES TO THE SATISFACTION OF THE RELATED UTILITY COMPANY.

Y. THE UTILITY CONTRACTOR SHALL PROVIDE HCDPU WITH AT LEAST ONE (1) FIRE HYDRANT WRENCH AND ONE (1) BREAK-AWAY FLANGE KIT FOR EVERY SUBDIVISION WHICH HAS DEVELOPED IN HARNETT COUNTY. THESE ITEMS MUST BE PROVIDED TO HCDPU BEFORE THE FINAL INSPECTION WILL BE SCHEDULED BY THE HCDPU UTILITY CONSTRUCTION INSPECTOR. IN ADDITION, THE UTILITY CONTRACTOR SHALL INSTALL A 4" X 4" CONCRETE VALVE MARKER AT THE EDGE OF THE RIGHT-OF-WAY TO IDENTIFY THE LOCATION OF EACH GATE VALVE INSTALLED IN THE NEW WATER SYSTEM WITH CONSTRUCTION OF FIRE HYDRANT ISOLATION VALVES. THE CONTRACTOR SHALL MEASURE THE DISTANCE FROM THE CENTER OF THE CONCRETE MARKER TO THE CENTER OF THE VALVE BOX. THIS DISTANCE (IN LINEAR FEET) SHALL BE STAMPED ON THE BRASS PLATE LOCATED ON THE TOP OF THE CONCRETE VALVE MARKER. IN LIEU OF INSTALLING THE CONCRETE VALVE MARKERS, THE UTILITY CONTRACTOR MAY PROVIDE AT LEAST TWO MEASUREMENTS FROM TWO INDEPENDENT PERMANENT ABOVE GROUND STRUCTURES TO THE PROFESSIONAL ENGINEER (PE) IN THE RED LINE DRAWINGS TO IDENTIFY THE VALVE LOCATIONS. THE PROFESSIONAL ENGINEER (PE) MUST INCLUDE THESE MEASUREMENTS IN THE AS BUILT RECORD DRAWINGS SUBMITTED TO HCDPU.

Z. THE UTILITY CONTRACTOR WILL BE RESPONSIBLE FOR ANY AND ALL REPAIRS DUE TO LEAKAGE DAMAGE FROM POOR WORKMANSHIP DURING THE ONE YEAR WARRANTY PERIOD ON SANITARY SEWER LINES. IF THESE SEPARATIONS CANNOT BE MAINTAINED THEN THE WATER MAIN SHALL BE INSTALLED WITH DUCTILE IRON PIPE. BOTH THE POTABLE WATER MAIN AND THE NON-POTABLE WATER LINE MUST BE CAST IRON OR DUCTILE IRON PIPE (DIP) IF THE STATE MINIMUM SEPARATIONS CANNOT BE MAINTAINED. THE DUCTILE IRON PIPE MUST BE LAID SO THE MECHANICAL JOINTS ARE AT LEAST (10) FEET FROM THE POINT WHERE THE POTABLE WATER MAIN CROSSES THE NON-POTABLE WATER LINE.

AA. THE ENGINEER OF RECORD IS RESPONSIBLE TO INSURE THAT CONSTRUCTION IS, AT ALL TIMES, IN COMPLIANCE WITH ACCEPTED SANITARY ENGINEERING PRACTICES AND APPROVED PLANS AND SPECIFICATIONS. NO FIELD CHANGES TO THE APPROVED PLANS ARE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY HCDPU. A COPY OF EACH ENGINEER'S FIELD REPORT IS TO BE SUBMITTED TO HCDPU AS EACH SUCH INSPECTION IS MADE ON SYSTEM IMPROVEMENTS OR TESTING IS PERFORMED BY THE CONTRACTOR. WATER AND SEWER INFRASTRUCTURE MUST PASS ALL TESTS REQUIRED BY HCDPU SPECIFICATIONS AND THOSE OF ALL APPLICABLE REGULATORY AGENCIES. THESE TESTS INCLUDE, BUT ARE NOT LIMITED TO: AIR TEST, VACUUM TEST, MANDREL TEST, VISUAL TEST, PRESSURE TEST, BACTERIOLOGICAL TEST, ETC. A HCDPU INSPECTOR MUST BE PRESENT DURING TESTING AND ALL TEST RESULTS SHALL BE SUBMITTED TO HCDPU. ALL TESTS MUST BE SATISFIED BEFORE THE FINAL INSPECTION WILL BE SCHEDULED WITH THE HCDPU INSPECTOR. THE ENGINEER OF RECORD MUST REQUEST IN WRITING TO SCHEDULE THE FINAL INSPECTION ONCE ALL CONSTRUCTION IS COMPLETE. THE DEVELOPER'S ENGINEER OF RECORD AND THE HCDPU UTILITY CONSTRUCTION INSPECTOR SHALL PREPARE A WRITTEN PUNCH LIST OF ANY DEFECTS OR DEFICIENCIES NOTED DURING THE FINAL INSPECTION. SHOULD ANY EXIST, UPON COMPLETION OF THE PUNCH LIST, THE DEVELOPER'S ENGINEER OF RECORD WILL SCHEDULE ANOTHER INSPECTION. IN THE EVENT THE NUMBER OF INSPECTIONS PERFORMED BY THE HCDPU EXCEEDS TWO, ADDITIONAL FEES MAY BE ACCESSED TO THE DEVELOPER.

BB. THE UTILITY CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ANY AND ALL DAMAGES TO THE SATISFACTION OF THE RELATED UTILITY COMPANY.

CC. THE UTILITY CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ANY AND ALL DAMAGES TO THE SATISFACTION OF THE RELATED UTILITY COMPANY.

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REVISIONS

FINAL DRAWING
FOR REVIEW PURPOSES ONLY

PROJECT NAME

**ANDERSON
CREEK
PLAZA
SHOPPES**

**WATER & SEWER
NOTES**

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**WELCO
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PROJECT INFORMATION

DESIGNED BY:	SCOTT
DRAWN BY:	SCOTT
CHECKED BY:	CHRIS
PROJECT NUMBER:	1353

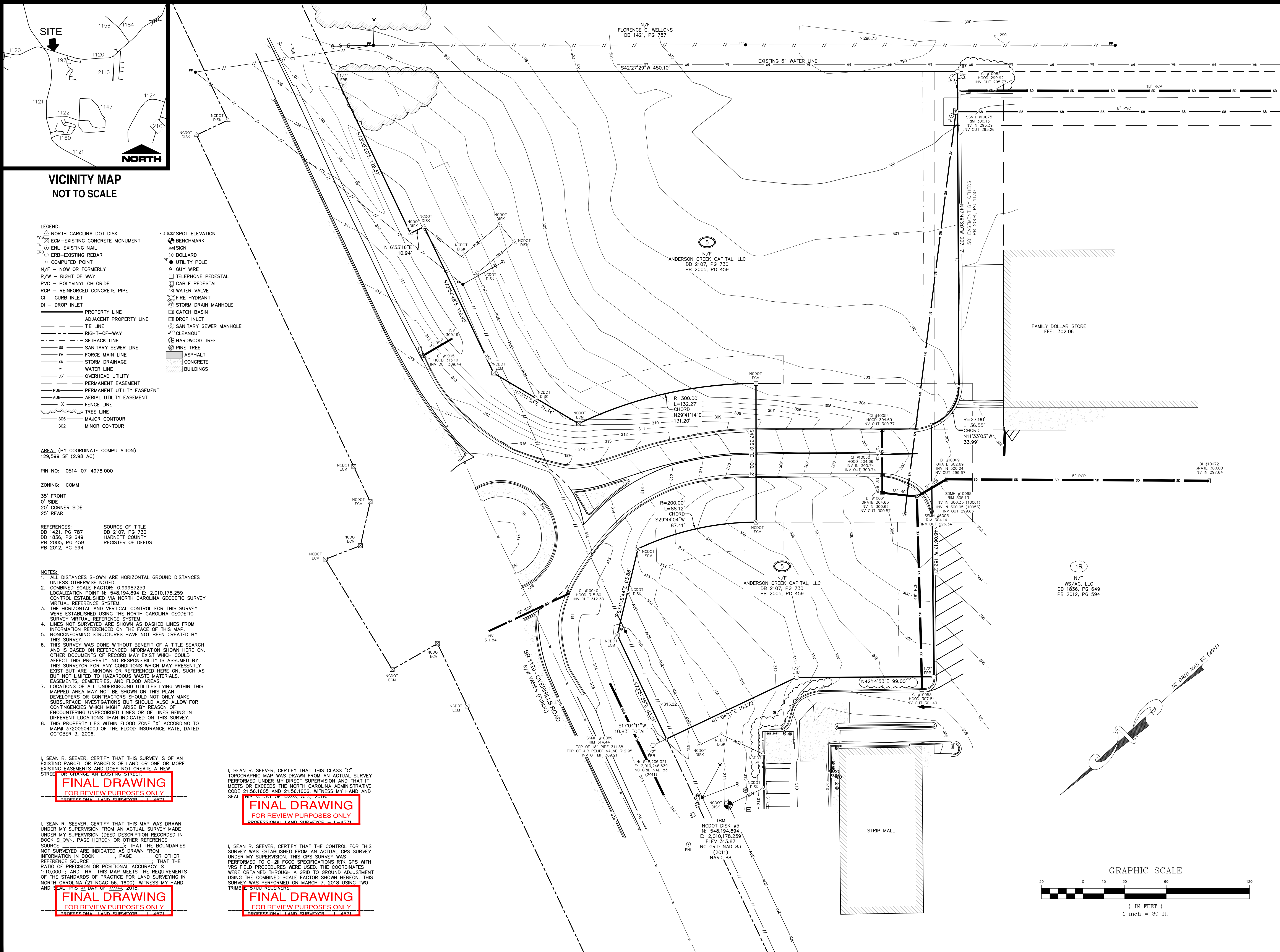
DRAWING SCALE

SEE SHEETS

DATE RELEASED

MAY 8, 2018

SHEET NUMBER



**VICINITY MAP
 NOT TO SCALE**

- LEGEND:**
- △ NORTH CAROLINA DOT DISK
 - ECM-EXISTING CONCRETE MONUMENT
 - ENL-EXISTING NAIL
 - ERB-EXISTING REBAR
 - COMPUTED POINT
 - N/F - NOW OR FORMERLY
 - R/W - RIGHT OF WAY
 - PVC - POLYVINYL CHLORIDE
 - RCP - REINFORCED CONCRETE PIPE
 - CI - CURB INLET
 - DI - DROP INLET
 - PROPERTY LINE
 - ADJACENT PROPERTY LINE
 - TIE LINE
 - RIGHT-OF-WAY
 - SETBACK LINE
 - SS - SANITARY SEWER LINE
 - FM - FORCE MAIN LINE
 - SD - STORM DRAINAGE
 - W - WATER LINE
 - OVERHEAD UTILITY
 - PERMANENT EASEMENT
 - PUE - PERMANENT UTILITY EASEMENT
 - AUE - AERIAL UTILITY EASEMENT
 - X - FENCE LINE
 - TREE LINE
 - 305 - MAJOR CONTOUR
 - 302 - MINOR CONTOUR
 - x 315.32' SPOT ELEVATION
 - ⊕ BENCHMARK
 - ⊕ SIGN
 - ⊕ BOLLARD
 - ⊕ UTILITY POLE
 - ⊕ GUY WIRE
 - ⊕ TELEPHONE PEDESTAL
 - ⊕ CABLE PEDESTAL
 - ⊕ WATER VALVE
 - ⊕ FIRE HYDRANT
 - ⊕ STORM DRAIN MANHOLE
 - ⊕ CATCH BASIN
 - ⊕ DROP INLET
 - ⊕ SANITARY SEWER MANHOLE
 - ⊕ CLEANOUT
 - ⊕ HARDWOOD TREE
 - ⊕ PINE TREE
 - ASPHALT
 - CONCRETE
 - BUILDINGS

AREA: (BY COORDINATE COMPUTATION)
 129,599 SF (2.98 AC)

PLN NO.: 0514-07-4978.000

ZONING: COMM

35' FRONT
0' SIDE
20' CORNER SIDE
25' REAR

REFERENCES:
 DB 1421, PG 787
 DB 1836, PG 649
 PB 2005, PG 459
 PB 2012, PG 594

SOURCE OF TITLE:
 DB 2107, PG 730
 HARNETT COUNTY
 REGISTER OF DEEDS

- NOTES:**
- ALL DISTANCES SHOWN ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.
 - COMBINED SCALE FACTOR: 0.99987259
 LOCALIZATION POINT N: 548,194.894 E: 2,010,178.259
 CONTROL ESTABLISHED VIA NORTH CAROLINA GEODETIC SURVEY VIRTUAL REFERENCE SYSTEM.
 - THE HORIZONTAL AND VERTICAL CONTROL FOR THIS SURVEY WERE ESTABLISHED USING THE NORTH CAROLINA GEODETIC SURVEY VIRTUAL REFERENCE SYSTEM.
 - LINE(S) NOT SURVEYED ARE SHOWN AS DASHED LINES FROM INFORMATION REFERENCED ON THE FACE OF THIS MAP.
 - NONCONFORMING STRUCTURES HAVE NOT BEEN CREATED BY THIS SURVEY.
 - THIS SURVEY WAS DONE WITHOUT BENEFIT OF A TITLE SEARCH AND IS BASED ON REFERENCED INFORMATION SHOWN HERE ON. OTHER DOCUMENTS OF RECORD MAY EXIST WHICH COULD AFFECT THIS PROPERTY. NO RESPONSIBILITY IS ASSUMED BY THIS SURVEYOR FOR ANY CONDITIONS WHICH MAY PRESENTLY EXIST BUT ARE UNKNOWN OR REFERENCED HERE ON, SUCH AS BUT NOT LIMITED TO HAZARDOUS WASTE MATERIALS, EASEMENTS, CEMETERIES, AND FLOOD AREAS.
 - LOCATIONS OF ALL UNDERGROUND UTILITIES LYING WITHIN THIS MAPPED AREA MAY NOT BE SHOWN ON THIS PLAN. DEVELOPERS OR CONTRACTORS SHOULD NOT ONLY MAKE SUBSURFACE INVESTIGATIONS BUT SHOULD ALSO ALLOW FOR CONTINGENCIES WHICH MIGHT ARISE BY REASON OF ENCOUNTERING UNRECORDED LINES OR OF LINES BEING IN DIFFERENT LOCATIONS THAN INDICATED ON THIS SURVEY.
 - THIS PROPERTY LIES WITHIN FLOOD ZONE "X" ACCORDING TO MAP# S720050400J OF THE FLOOD INSURANCE RATE, DATED OCTOBER 3, 2006.

I, SEAN R. SEEVER, CERTIFY THAT THIS SURVEY IS OF AN EXISTING PARCEL OR PARCELS OF LAND OR ONE OR MORE STRIPS OF LAND.

**FINAL DRAWING
 FOR REVIEW PURPOSES ONLY**
 PROFESSIONAL LAND SURVEYOR - 1-4571

I, SEAN R. SEEVER, CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN BOOK _____ PAGE _____ OR OTHER REFERENCE SOURCE _____) THAT THE BOUNDARIES NOT SURVEYED ARE INDICATED AS DRAWN FROM INFORMATION IN BOOK _____ PAGE _____ OR OTHER REFERENCE SOURCE _____ THAT THE RATIO OF PRECISION OR POSITIONAL ACCURACY IS 1:10,000+; AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA (21 NCAAC 56.1600). WITNESS MY HAND AND SEAL THIS 22ND DAY OF _____, 2016.

**FINAL DRAWING
 FOR REVIEW PURPOSES ONLY**
 PROFESSIONAL LAND SURVEYOR - 1-4571

I, SEAN R. SEEVER, CERTIFY THAT THIS CLASS "C" TOPOGRAPHIC MAP WAS DRAWN FROM AN ACTUAL SURVEY PERFORMED UNDER MY DIRECT SUPERVISION AND THAT IT MEETS OR EXCEEDS THE NORTH CAROLINA ADMINISTRATIVE CODE 21.56.1605 AND 21.56.1606. WITNESS MY HAND AND SEAL.

**FINAL DRAWING
 FOR REVIEW PURPOSES ONLY**
 PROFESSIONAL LAND SURVEYOR - 1-4571

I, SEAN R. SEEVER, CERTIFY THAT THE CONTROL FOR THIS SURVEY WAS ESTABLISHED FROM AN ACTUAL GPS SURVEY UNDER MY SUPERVISION. THIS GPS SURVEY WAS PERFORMED TO C-21 FGCC SPECIFICATIONS RTK GPS WITH VRS FIELD PROCEDURES WERE USED. THE COORDINATES WERE OBTAINED THROUGH A GRID TO GROUND ADJUSTMENT USING THE COMBINED SCALE FACTOR SHOWN HEREON. THIS SURVEY WAS PERFORMED ON MARCH 7, 2016 USING TWO TRIMBLE 5700 RECEIVERS.

**FINAL DRAWING
 FOR REVIEW PURPOSES ONLY**
 PROFESSIONAL LAND SURVEYOR - 1-4571

REVISIONS

**FINAL DRAWING
 FOR REVIEW PURPOSES ONLY**

PROJECT NAME

**ANDERSON
 CREEK
 PLAZA
 SHOPPES**

**EXISTING
 CONDITIONS**

CLIENT

**WELCO
 CONTRACTORS,
 INC**

211 Highway 210 North
 Spring Lake, North Carolina 28390
 Phone: (910) 436-3131
 Fax: (910) 436-2242

PROJECT INFORMATION

SURVEYED BY:	MIKE
DRAWN BY:	JEAN
CHECKED BY:	JIMMY
PROJECT NUMBER:	1353

DRAWING SCALE

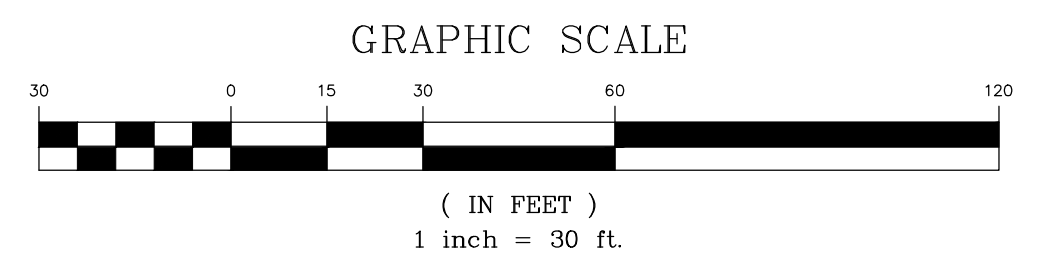
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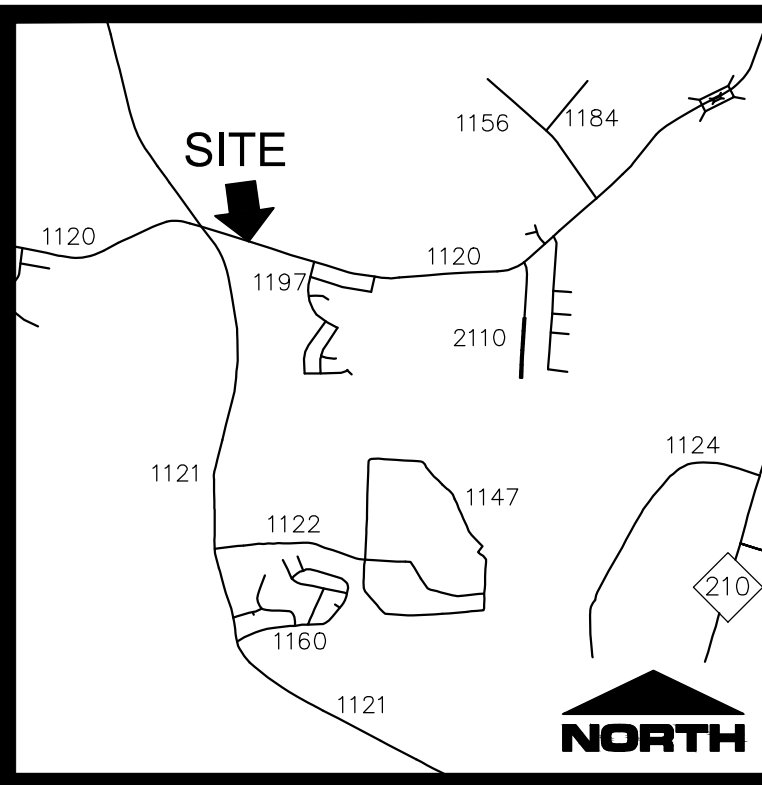
DATE SURVEYED

MARCH 7, 2018

SHEET NUMBER

C-1.0

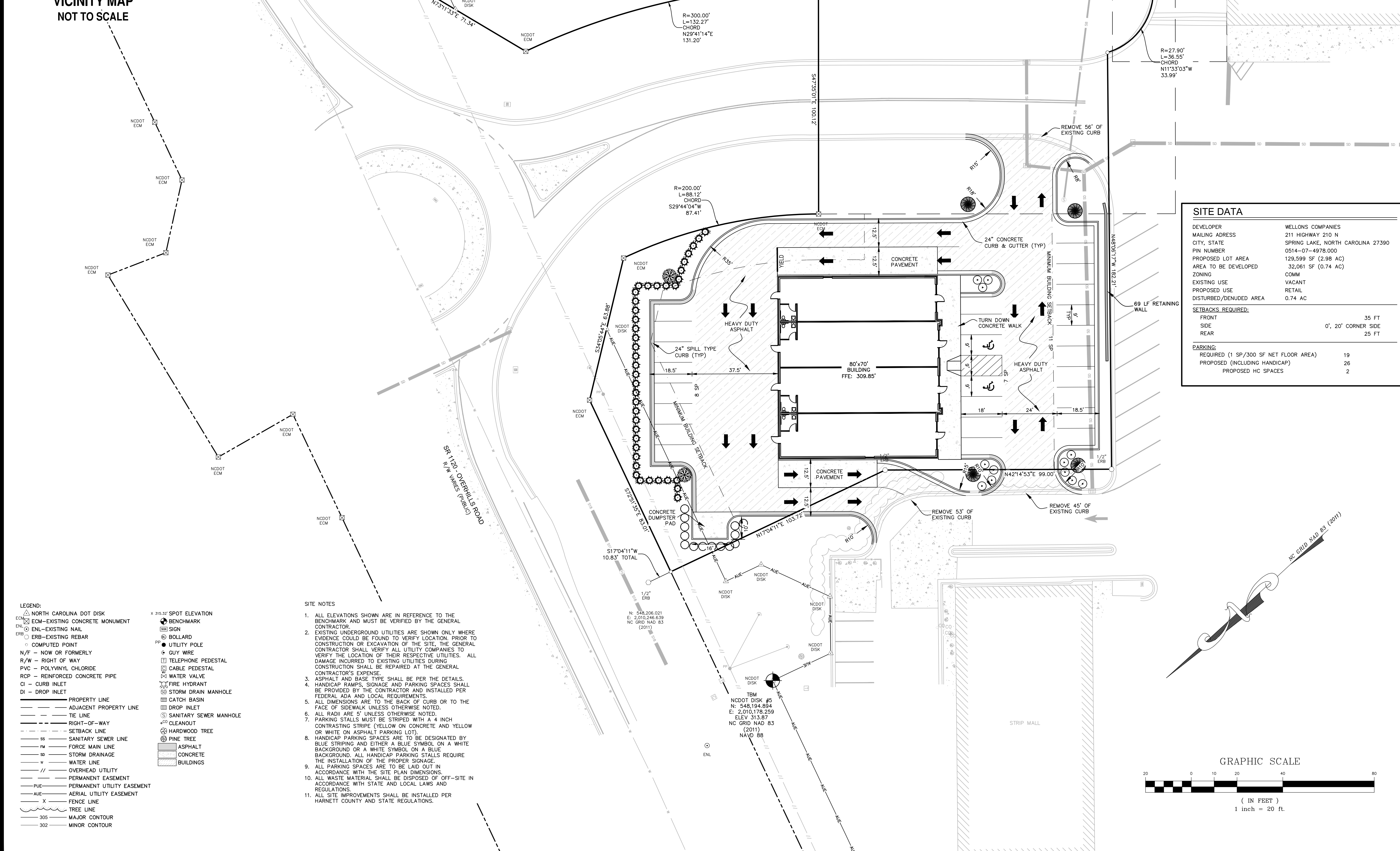




VICINITY MAP
NOT TO SCALE

LANDSCAPING NOTES:
 1. HEIGHT AND SPREAD OF TREE SPECIMEN SHALL MEET REQUIREMENTS OF THE AMERICAN ASSOCIATION OF NURSERYMEN, AMERICAN STANDARD FOR NURSERY STOCK.
 2. EACH TREE SHALL BE PLANTED SUCH THAT THE ROOT FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. TREES WHERE THE ROOT FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE ROOT FLARE WITH MULCH.
 3. DO NOT PLACE MULCH IN CONTACT WITH THE TREE TRUNK. KEEP MULCH A MINIMUM OF 4 INCHES AWAY FROM THE TRUNK BASE.
 *THIS LANDSCAPING PLAN IS THE MINIMUM REQUIRED TO MEET WITH THE HARNETT COUNTY UDO. THE OWNER OR DEVELOPER IS ENCOURAGED TO CONSULT WITH A LANDSCAPE ARCHITECT IN ORDER TO DEVELOP A PLAN THAT IS MORE IN DEPTH THAN THE MINIMUM REQUIREMENTS. THIS PLAN IS FOR PERMITTING PURPOSES ONLY.

QTY.	TYPE	PLANTING SIZE	MIN. HEIGHT	SCIENTIFIC NAME
CANOPY TREES				
2	RED OAK	2" CALIPER	8'	QUERCUS RUBRA
4	AMERICAN HOLLY	2" CALIPER	6'	ILEX OPACA
SHRUBS				
40	EVERGREEN EUONYMUS	3 GAL.	24"	EUONYMUS JAPONICUS
12	PFITZER JUNIPER	3 GAL.	24"	JUNIPERUS CHINENSIS
14	BURFORD HOLLY	3 GAL.	24"	ILEX CORNUTA 'BURFORDII'



SITE DATA	
DEVELOPER	WELLONS COMPANIES
MAILING ADDRESS	211 HIGHWAY 210 N
CITY, STATE	SPRING LAKE, NORTH CAROLINA 27390
PIN NUMBER	0514-07-4978.000
PROPOSED LOT AREA	129,599 SF (2.98 AC)
AREA TO BE DEVELOPED	32,061 SF (0.74 AC)
ZONING	COMM
EXISTING USE	VACANT
PROPOSED USE	RETAIL
DISTURBED/DENUDED AREA	0.74 AC
SETBACKS REQUIRED:	
FRONT	35 FT
SIDE	0', 20' CORNER SIDE
REAR	25 FT
PARKING:	
REQUIRED (1 SP/300 SF NET FLOOR AREA)	19
PROPOSED (INCLUDING HANDICAP)	26
PROPOSED HC SPACES	2

<p>LEGEND:</p> <p>△ NORTH CAROLINA DOT DISK</p> <p>◻ ECM-EXISTING CONCRETE MONUMENT</p> <p>ENL-EXISTING NAIL</p> <p>ERB-EXISTING REBAR</p> <p>○ COMPUTED POINT</p> <p>N/F - NOW OR FORMERLY</p> <p>R/W - RIGHT OF WAY</p> <p>PVC - POLYVINYL CHLORIDE</p> <p>RCP - REINFORCED CONCRETE PIPE</p> <p>CI - CURB INLET</p> <p>DI - DROP INLET</p> <p>— PROPERTY LINE</p> <p>— ADJACENT PROPERTY LINE</p> <p>— TIE LINE</p> <p>— RIGHT-OF-WAY</p> <p>— SETBACK LINE</p> <p>SS - SANITARY SEWER LINE</p> <p>FM - FORCE MAIN LINE</p> <p>SD - STORM DRAINAGE</p> <p>W - WATER LINE</p> <p>// - OVERHEAD UTILITY</p> <p>— PERMANENT EASEMENT</p> <p>— PERMANENT UTILITY EASEMENT</p> <p>— AERIAL UTILITY EASEMENT</p> <p>X - FENCE LINE</p> <p>— TREE LINE</p> <p>305 - MAJOR CONTOUR</p> <p>302 - MINOR CONTOUR</p>	<p>× 316.22' SPOT ELEVATION</p> <p>⊕ BENCHMARK</p> <p>⊙ SIGN</p> <p>⊙ BOLLARD</p> <p>⊙ UTILITY POLE</p> <p>⊙ GUY WIRE</p> <p>⊙ TELEPHONE PEDESTAL</p> <p>⊙ CABLE PEDESTAL</p> <p>⊙ WATER VALVE</p> <p>⊙ FIRE HYDRANT</p> <p>⊙ STORM DRAIN MANHOLE</p> <p>⊙ CATCH BASIN</p> <p>⊙ DROP INLET</p> <p>⊙ SANITARY SEWER MANHOLE</p> <p>⊙ CLEANOUT</p> <p>⊙ HARDWOOD TREE</p> <p>⊙ PINE TREE</p> <p>— ASPHALT</p> <p>— CONCRETE</p> <p>— BUILDINGS</p>
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- SITE NOTES
- ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR.
 - EXISTING UNDERGROUND UTILITIES ARE SHOWN ONLY WHERE EVIDENCE COULD BE FOUND TO VERIFY LOCATION. PRIOR TO CONSTRUCTION OR EXCAVATION OF THE SITE, THE GENERAL CONTRACTOR SHALL VERIFY ALL UTILITY COMPANIES TO VERIFY THE LOCATION OF THEIR RESPECTIVE UTILITIES. ALL DAMAGE INCURRED TO EXISTING UTILITIES DURING CONSTRUCTION SHALL BE REPAIRED AT THE GENERAL CONTRACTOR'S EXPENSE.
 - ASPHALT AND BASE TYPE SHALL BE PER THE DETAILS. HANDICAP RAMPS, SIGNAGE AND PARKING SPACES SHALL BE PROVIDED BY THE CONTRACTOR AND INSTALLED PER FEDERAL ADA AND LOCAL REQUIREMENTS.
 - ALL DIMENSIONS ARE TO THE BACK OF CURB OR TO THE FACE OF SIDEWALK UNLESS OTHERWISE NOTED.
 - ALL RADII ARE 5' UNLESS OTHERWISE NOTED.
 - PARKING STALLS MUST BE STRIPED WITH A 4 INCH CONTRASTING STRIPE (YELLOW ON CONCRETE AND YELLOW OR WHITE ON ASPHALT PARKING LOT).
 - HANDICAP PARKING SPACES ARE TO BE DESIGNATED BY BLUE STRIPING AND EITHER A BLUE SYMBOL ON A WHITE BACKGROUND OR A WHITE SYMBOL ON A BLUE BACKGROUND. ALL HANDICAP PARKING STALLS REQUIRE THE INSTALLATION OF THE PROPER SIGNAGE.
 - ALL PARKING SPACES ARE TO BE LAID OUT IN ACCORDANCE WITH THE SITE PLAN DIMENSIONS.
 - ALL WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH STATE AND LOCAL LAWS AND REGULATIONS.
 - ALL SITE IMPROVEMENTS SHALL BE INSTALLED PER HARNETT COUNTY AND STATE REGULATIONS.



REVISIONS

FINAL DRAWING
FOR REVIEW PURPOSES ONLY

PROJECT NAME

**ANDERSON
CREEK
PLAZA
SHOPPES**

SITE PLAN

CLIENT

**WELLCO
CONTRACTORS,
INC**

211 Highway 210 North
Spring Lake, North Carolina 28390
Phone: (910) 436-3131
Fax: (910) 436-2242

PROJECT INFORMATION

DESIGNED BY:	SCOTT
DRAWN BY:	SCOTT
CHECKED BY:	CHRIS
PROJECT NUMBER:	1353

DRAWING SCALE

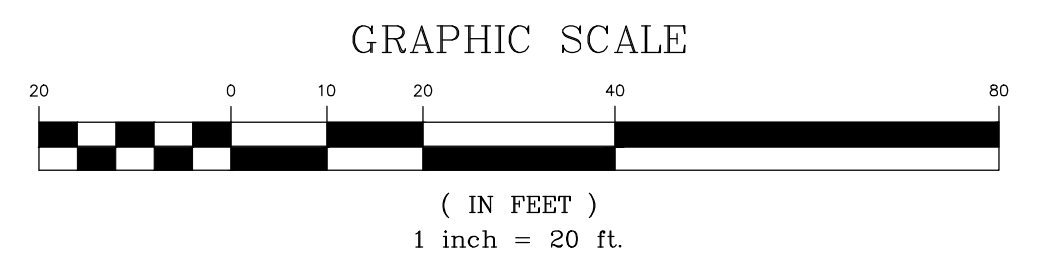
HORIZONTAL: 1"=20'

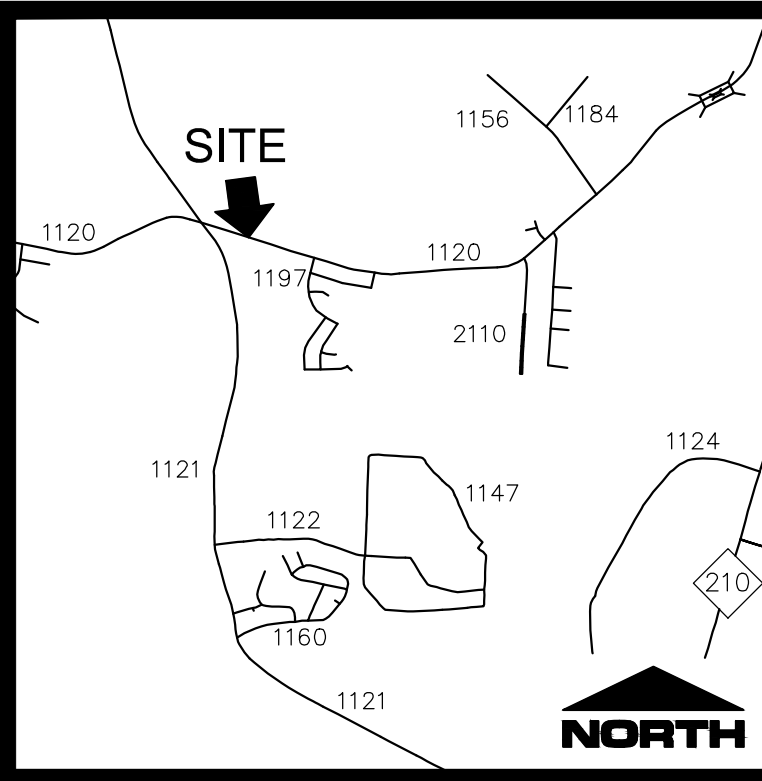
DATE RELEASED

MAY 8, 2018

SHEET NUMBER

C-2.0





**VICINITY MAP
 NOT TO SCALE**

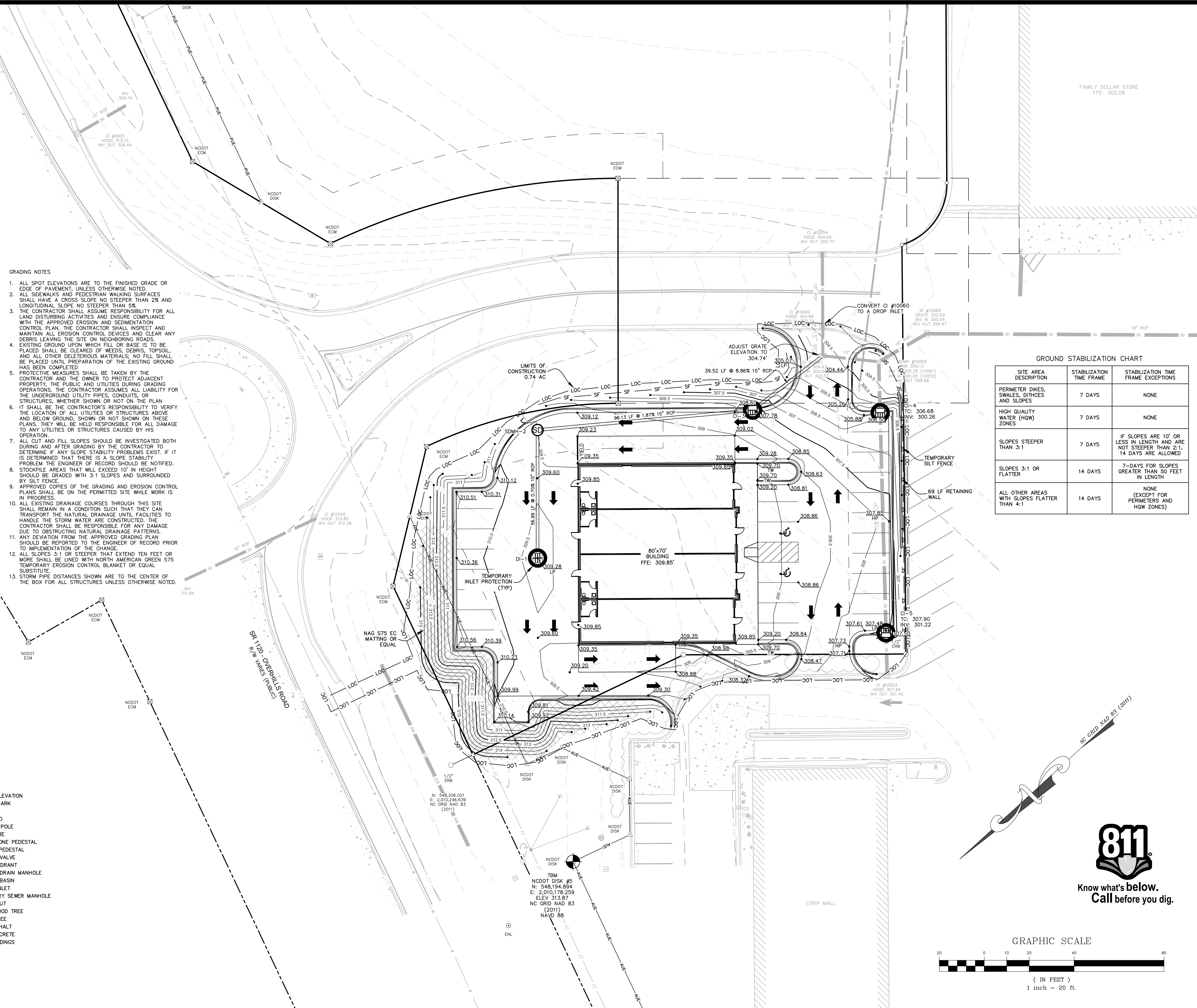
EROSION CONTROL NOTES

1. ALL INLET/OUTLET PROTECTION WILL BE CHECKED FOR MAINTENANCE AND FAILURE EACH ACTIVE DAY ON SITE. GRAVEL WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS PROPERLY. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5' DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NEEDED TO MAINTAIN A PROPER BARRIER.
2. TEMPORARY EROSION CONTROL FACILITIES AND/OR PERMANENT FACILITIES INTENDED TO CONTROL EROSION OF AND EARTH DISTURBANCE OPERATION SHALL BE INSTALLED BEFORE ANY EARTH DISTURBANCE OPERATIONS TAKE PLACE OR AT THE EARLIEST POSSIBLE POINT DURING CONSTRUCTION.
3. TEMPORARY & PERMANENT EROSION CONTROL MEASURES SHALL BE CONSTRUCTED PER THE DETAILS HEREIN, OR SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
4. REMOVE ALL SOILS AND SEDIMENTS TRACKED OR OTHERWISE DEPOSITED ONTO PUBLIC AND PRIVATE PAVEMENT AREAS. REMOVAL SHALL BE ON A DAILY BASIS WHEN TRACKING OCCURS.
5. LOCATE SOIL STOCKPILES NO LESS THAN TWENTY-FIVE (25) FEET FROM ANY PUBLIC OR PRIVATE ROADWAY OR DRAINAGE CHANNEL. IF REMAINING FOR MORE THAN SEVEN DAYS, STABILIZE THE STOCKPILES BY VEGETATIVE COVER, TARPS, OR OTHER MEANS. CONTROL EROSION FROM ALL STOCKPILES BY PLACING SILT BARRIERS AROUND THE PILES. TEMPORARY STOCKPILES LOCATED ON PAVED SURFACES MUST BE NO LESS THAN FIVE FEET FROM THE DRAINAGE/OUTLET LINE AND SHALL BE COVERED IF LEFT MORE THAN 24 HOURS.
6. MAINTAIN ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IN PLACE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. INSPECT TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ON A DAILY BASIS AND REPLACE DETRIORATED, DAMAGED, OR ROTTEN EROSION CONTROL DEVICES IMMEDIATELY.
7. TEMPORARILY OR PERMANENTLY STABILIZE ALL DENUDEED AREAS WHICH HAVE BEEN FINISH GRADED, AND ALL DENUDEED AREAS IN WHICH GRADING OR SITE BUILDING CONSTRUCTION OPERATIONS ARE NOT ACTIVELY UNDERWAY AGAINST EROSION DUE TO RAIN, WIND AND RUNNING WATER WITHIN 14 DAYS. USE SEEDING AND MULCHING, EROSION CONTROL MATTING, AND/OR SODDING AND STAKING IN GREEN SPACE AREAS AND OTHERWISE APPROPRIATE MEASURES. USE EARLY APPLICATION OF GRAVEL BASE ON AREAS TO BE PAVED.
8. DO NOT REMOVE ANY EROSION AND SEDIMENT CONTROL DEVICES AFTER THE PROTECTED AREA HAS UNDERGONE FINAL STABILIZATION AND PERMANENT VEGETATION HAS BEEN ESTABLISHED. IT IS RECOMMENDED THAT NCDENR APPROVE THE ACTION PRIOR TO REMOVAL.
9. THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED CONCURRENTLY WITH THE INITIATION OF CONSTRUCTION ACTIVITY.
10. THE INSTALLATION OF EROSION CONTROL MEASURES SHALL TAKE PRECEDENCE OVER ALL OTHER CONSTRUCTION ACTIVITIES.
11. THE PERMITTEE SHALL BE HELD RESPONSIBLE FOR THE ACTIONS AND PERFORMANCE OF ANY OTHER PARTIES PERFORMING WORK ON THIS PROJECT.
12. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
13. PURSUANT TO G.S. 113A-57(2), THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 7 OR 14 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION. PURSUANT TO G.S. 113A-57(3), PROVISIONS FOR PERMANENT GROUND COVER SUFFICIENT TO RETAIN EROSION MUST BE ACCOMPLISHED FOR ALL DISTURBED AREAS WITHIN 14 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION DEVELOPMENT.
14. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL EROSION CONTROL MEASURES SHOWN AND ANY ADDITIONAL MEASURES REQUIRED TO CONTROL THE SEDIMENT DURING THE COURSE OF CONSTRUCTION.
15. ALL SEEDED AREAS WILL BE FERTILIZED, RESEED AS NECESSARY, AND MULCHED ACCORDING TO THE DETAILS HEREIN.
16. THE CONTACT PERSON FOR EROSION CONTROL ISSUES THAT ARISE ON SITE IS JASON WELLONS. CONTACT 910-263-0276.

GRADING NOTES

1. ALL SPOT ELEVATIONS ARE TO THE FINISHED GRADE OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
2. ALL SIDEWALKS AND PEDESTRIAN WALKING SURFACES SHALL HAVE A CROSS SLOPE NO STEEPER THAN 2% AND LONGITUDINAL SLOPE NO STEEPER THAN 5%.
3. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL LAND DISTURBING ACTIVITIES AND ENSURE COMPLIANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN. THE CONTRACTOR SHALL INSPECT AND MAINTAIN ALL EROSION CONTROL DEVICES AND CLEAR ANY DEBRIS LEAVING THE SITE ON NEIGHBORING ROADS.
4. EXISTING GROUND UPON WHICH FILL OR BASE IS TO BE PLACED SHALL BE CLEARED OF WEEDS, DEBRIS, TOPSOIL, AND ALL OTHER DELETERIOUS MATERIALS. NO FILL SHALL BE PLACED UNTIL PREPARATION OF THE EXISTING GROUND HAS BEEN COMPLETED.
5. PROTECTIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR AND THE OWNER TO PROTECT ADJACENT PROPERTY, THE PUBLIC AND UTILITIES DURING GRADING OPERATIONS. THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE UNDERGROUND UTILITY PIPES, CONDUITS, OR STRUCTURES, WHETHER SHOWN OR NOT ON THE PLAN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES OR STRUCTURES ABOVE AND BELOW GROUND, SHOWN OR NOT SHOWN ON THESE PLANS. THEY WILL BE HELD RESPONSIBLE FOR ALL DAMAGE TO ANY UTILITIES OR STRUCTURES CAUSED BY HIS OPERATION.
7. ALL CUT AND FILL SLOPES SHOULD BE INVESTIGATED BOTH DURING AND AFTER GRADING BY THE CONTRACTOR TO DETERMINE IF ANY SLOPE STABILITY PROBLEMS EXIST. IF IT IS DETERMINED THAT THERE IS A SLOPE STABILITY PROBLEM THE ENGINEER OF RECORD SHOULD BE NOTIFIED.
8. STOCKPILE AREAS THAT WILL EXCEED 10' IN HEIGHT SHOULD BE GRADED WITH 3:1 SLOPES AND SURROUNDED BY SILT FENCE.
9. APPROVED COPIES OF THE GRADING AND EROSION CONTROL PLANS SHALL BE ON THE PERMITTED SITE WHILE WORK IS IN PROGRESS.
10. ALL EXISTING DRAINAGE COURSES THROUGH THIS SITE SHALL REMAIN IN A CONDITION SUCH THAT THEY CAN TRANSPORT THE NATURAL DRAINAGE UNTIL FACILITIES TO HANDLE THE STORM WATER ARE CONSTRUCTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DUE TO OBSTRUCTING NATURAL DRAINAGE PATTERNS.
11. ANY DEVIATION FROM THE APPROVED GRADING PLAN SHOULD BE REPORTED TO THE ENGINEER OF RECORD PRIOR TO IMPLEMENTATION OF THE CHANGE.
12. ALL SLOPES 3:1 OR STEEPER THAT EXTEND TEN FEET OR MORE SHALL BE LINED WITH NORTH AMERICAN GREEN S75 TEMPORARY EROSION CONTROL BLANKET OR EQUAL SUBSTITUTE.
13. STORM PIPE DISTANCES SHOWN ARE TO THE CENTER OF THE BOX FOR ALL STRUCTURES UNLESS OTHERWISE NOTED.

- LEGEND:**
- ▲ NORTH CAROLINA DOT DISK
 - ◻ ECM-EXISTING CONCRETE MONUMENT
 - ENL-EXISTING NAIL
 - ERB-EXISTING REBAR
 - COMPUTED POINT
 - N/F - NOW OR FORMERLY
 - R/W - RIGHT OF WAY
 - PVC - POLYVINYL CHLORIDE
 - RCP - REINFORCED CONCRETE PIPE
 - CI - CURB INLET
 - DI - DROP INLET
 - PROPERTY LINE
 - ADJACENT PROPERTY LINE
 - TIE LINE
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 - SETBACK LINE
 - SS - SANITARY SEWER LINE
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 - W - WATER LINE
 - // - OVERHEAD UTILITY
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 - PERMANENT UTILITY EASEMENT
 - AERIAL UTILITY EASEMENT
 - X - FENCE LINE
 - TREE LINE
 - 305 - MAJOR CONTOUR
 - 302 - MINOR CONTOUR
 - 315.21' SPOT ELEVATION
 - BENCHMARK
 - ⊕ SIGN
 - ⊙ BOLLARD
 - PP - UTILITY POLE
 - GUY WIRE
 - TELEPHONE PEDESTAL
 - CABLE PEDESTAL
 - ⊕ WATER VALVE
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 - ⊕ SANITARY SEWER MANHOLE
 - ⊕ CLEANOUT
 - ⊕ HARDWOOD TREE
 - ⊕ PINE TREE
 - ASPHALT
 - CONCRETE
 - BUILDINGS



GROUND STABILIZATION CHART

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

REVISIONS

FINAL DRAWING FOR REVIEW PURPOSES ONLY

PROJECT NAME

ANDERSON CREEK PLAZA SHOPPES

GRADING AND EROSION CONTROL PLAN

CLIENT

WELCO CONTRACTORS, INC

211 Highway 210 North
 Spring Lake, North Carolina 28390
 Phone: (910) 436-3131
 Fax: (910) 436-2242

PROJECT INFORMATION

DESIGNED BY:	SCOTT
DRAWN BY:	SCOTT
CHECKED BY:	CHRIS
PROJECT NUMBER:	1353

DRAWING SCALE

HORIZONTAL: 1"=20'

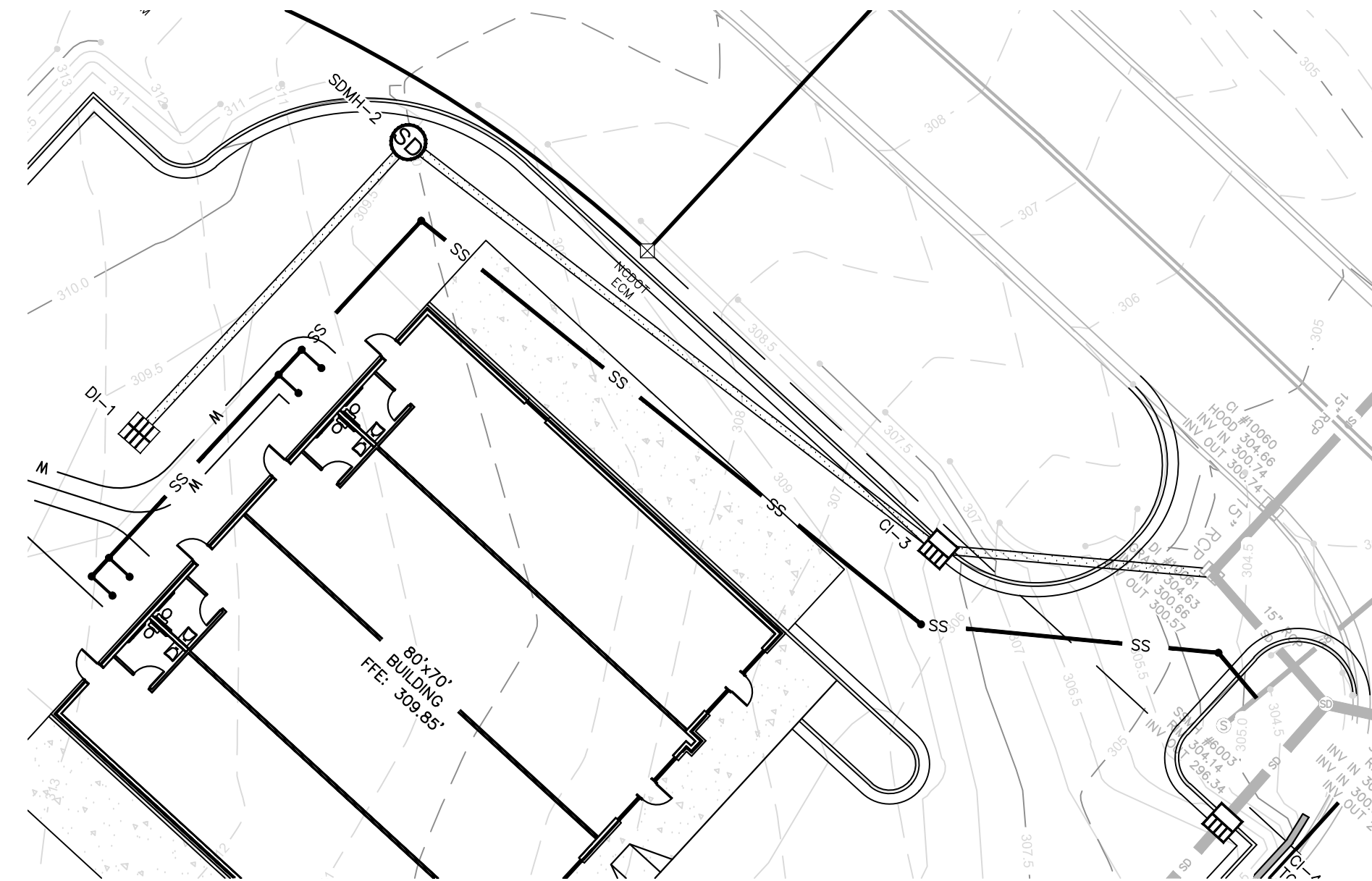
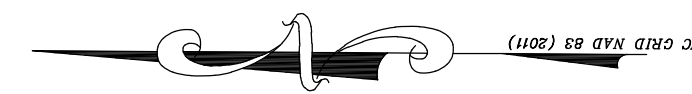
DATE RELEASED

MAY 8, 2018

SHEET NUMBER

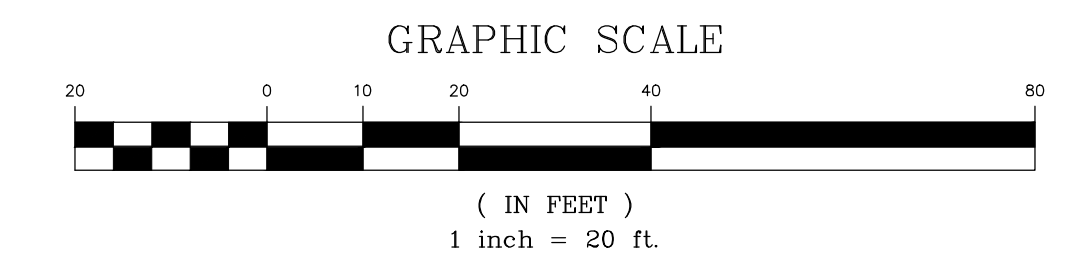
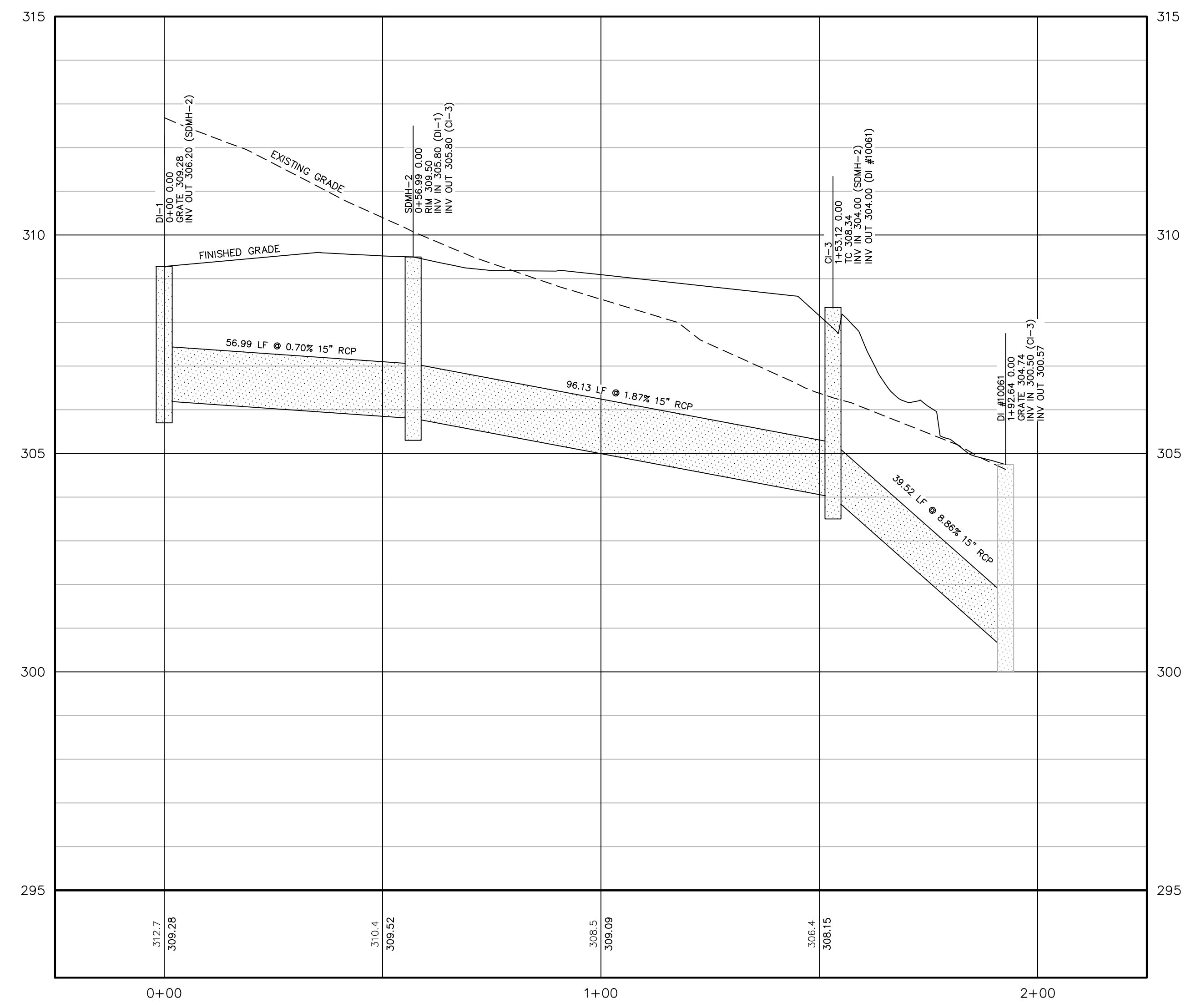
C-3.0

THE CONTRACTOR MUST CONTACT NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 A MINIMUM OF 48 HOURS PRIOR TO DIGGING IN ORDER TO HAVE THE EXISTING UTILITIES LOCATED



DI-1 TO DI-10061

STORM DRAIN -0+25 TO 2+25



REVISIONS

FINAL DRAWING
FOR REVIEW PURPOSES ONLY

PROJECT NAME

**ANDERSON
CREEK
PLAZA
SHOPPES**

STORM PROFILE

CLIENT

**WELLCO
CONTRACTORS,
INC**

211 Highway 210 North
Spring Lake, North Carolina 28390
Phone: (910) 436-3131
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PROJECT INFORMATION

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DRAWN BY:	SCOTT
CHECKED BY:	CHRIS
PROJECT NUMBER:	1353

DRAWING SCALE

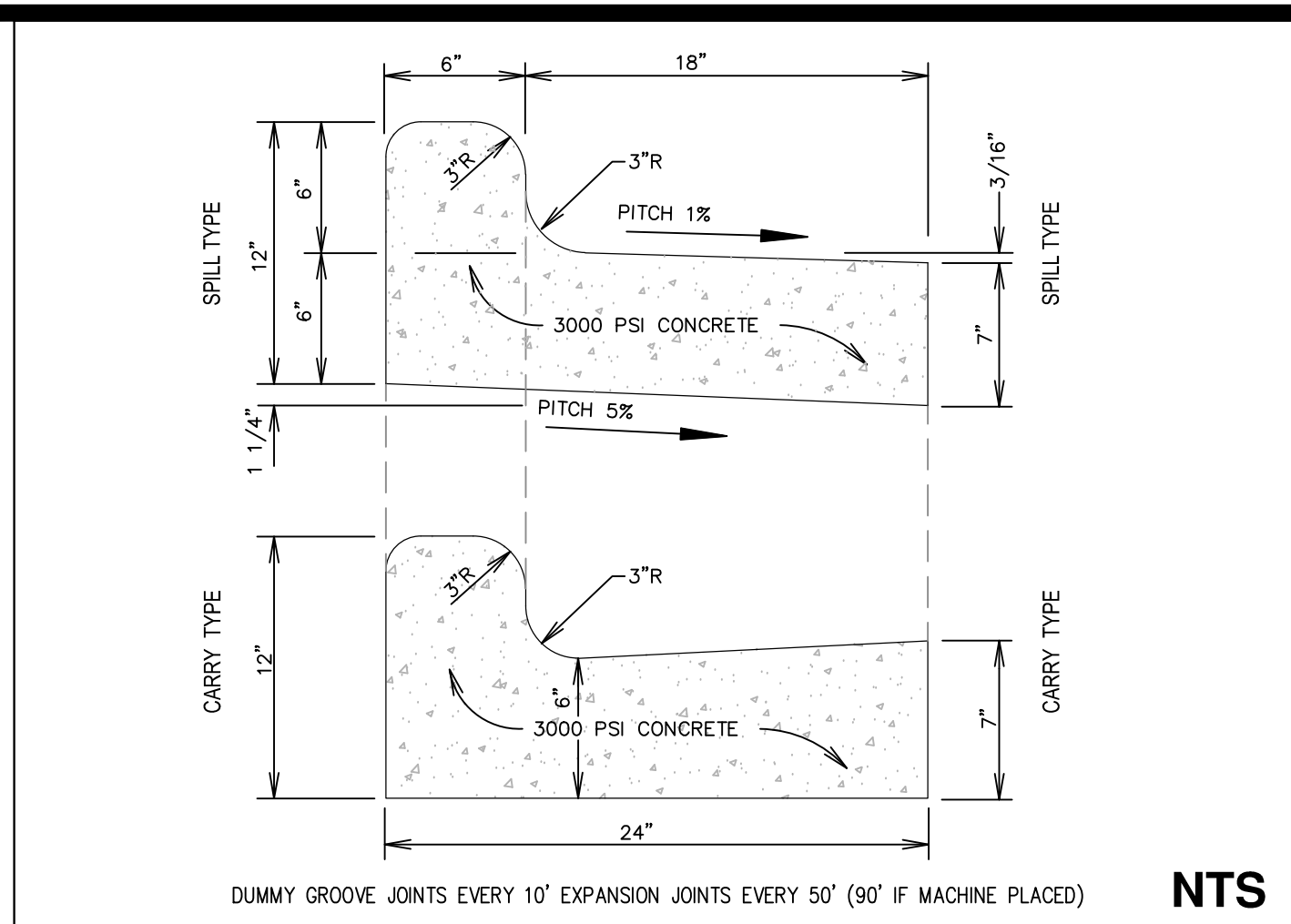
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VERTICAL: 1"=2'

DATE RELEASED

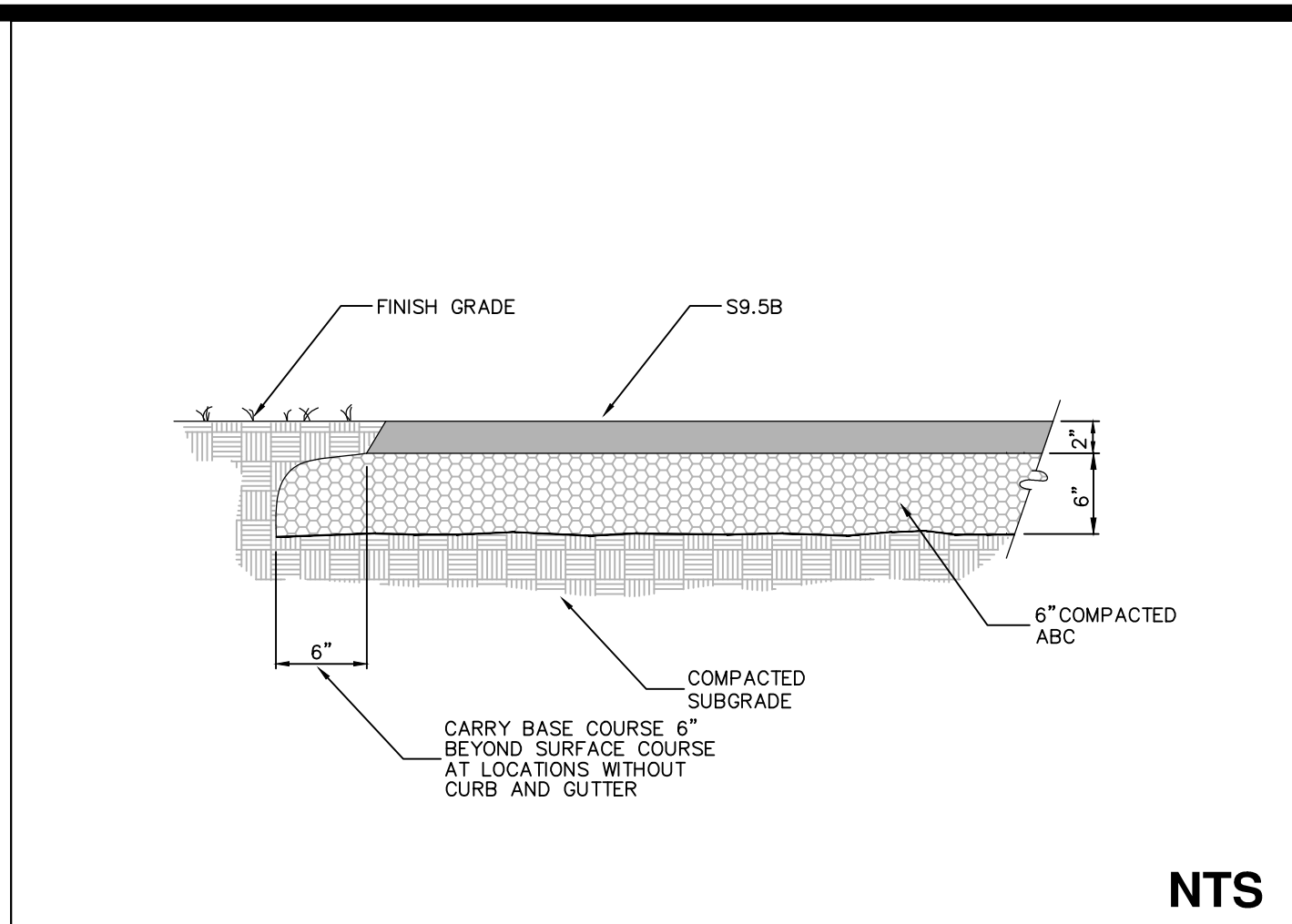
MAY 8, 2018

SHEET NUMBER

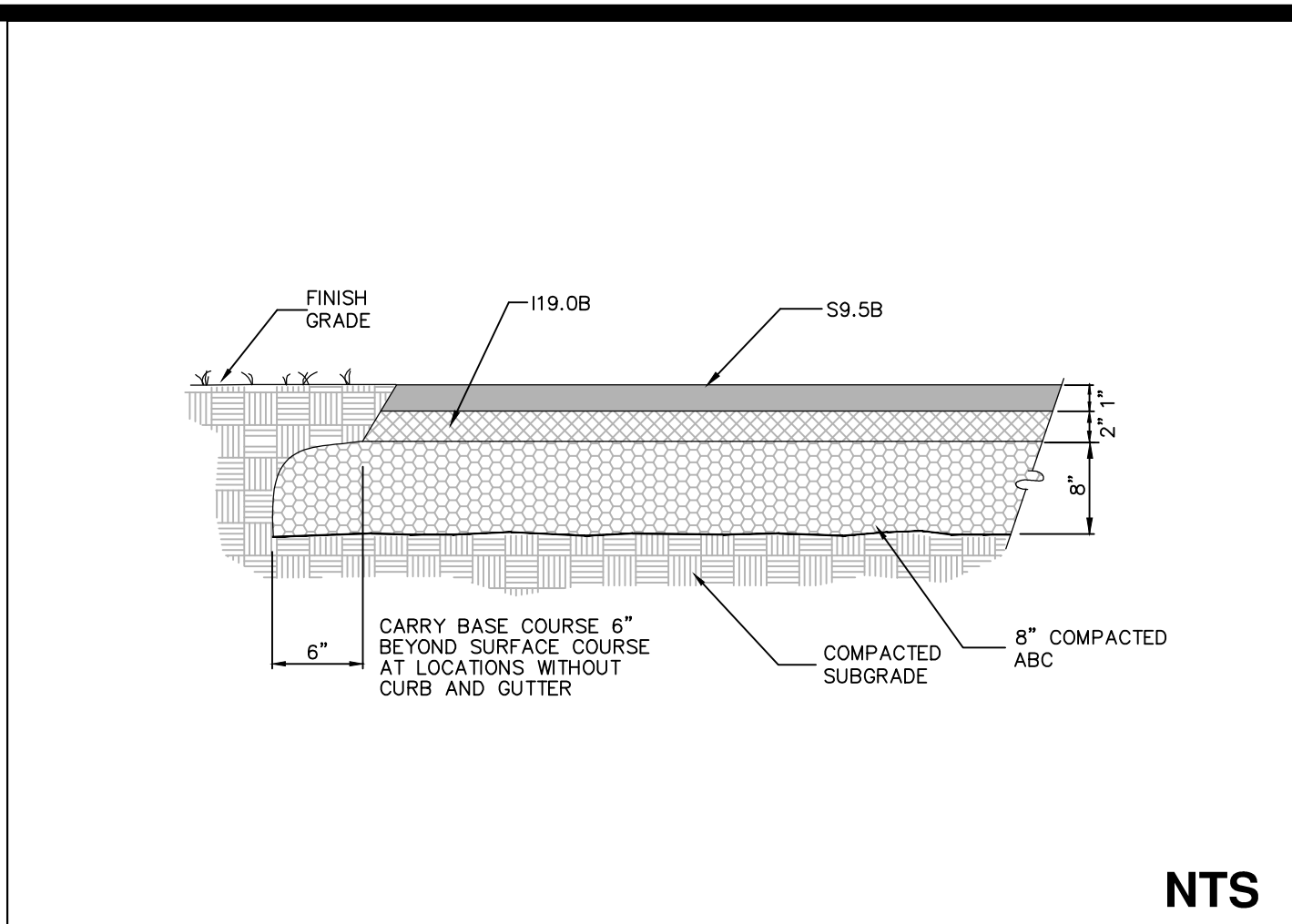
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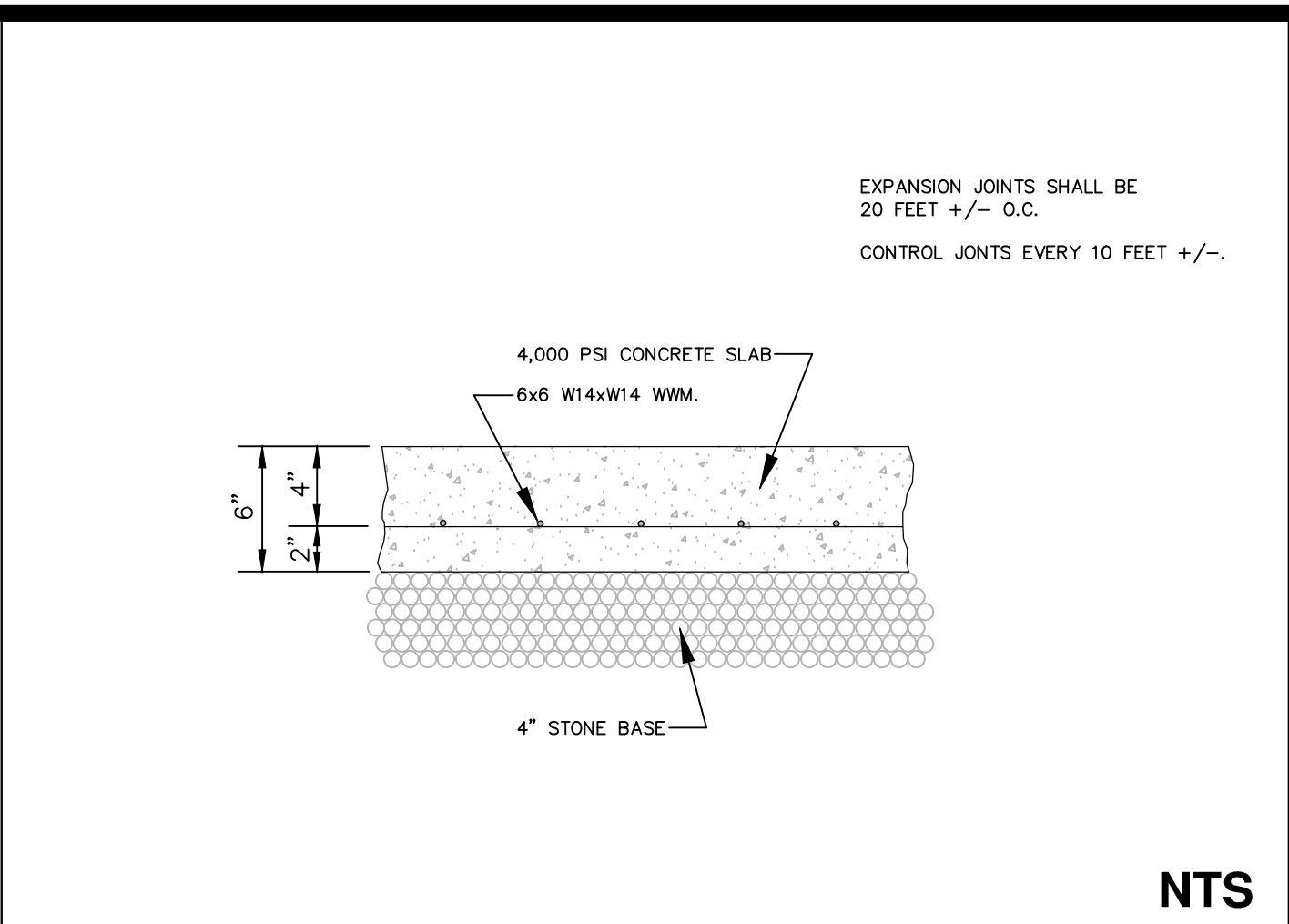
1 24" CURB & GUTTER



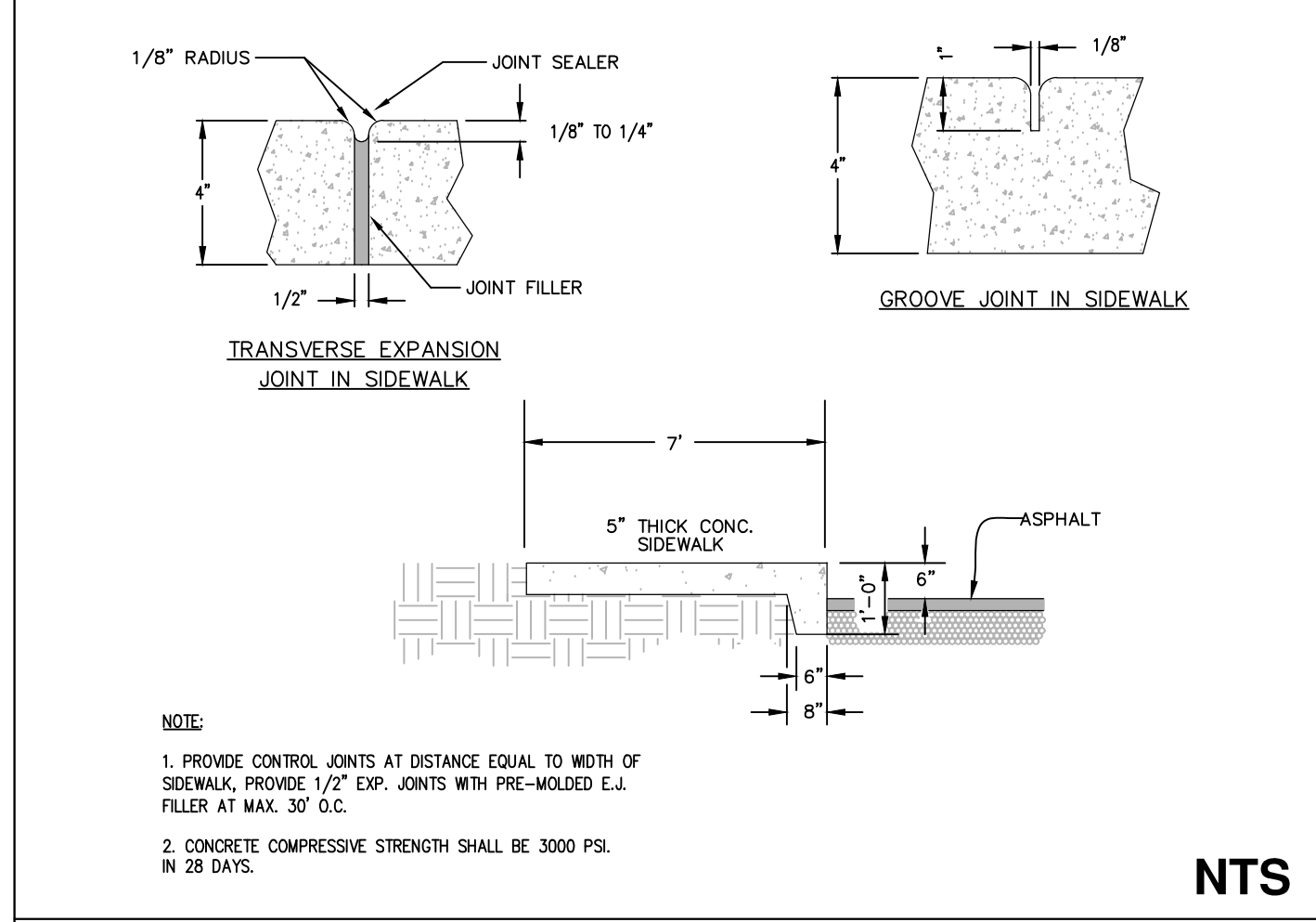
2 LIGHT DUTY PAVEMENT



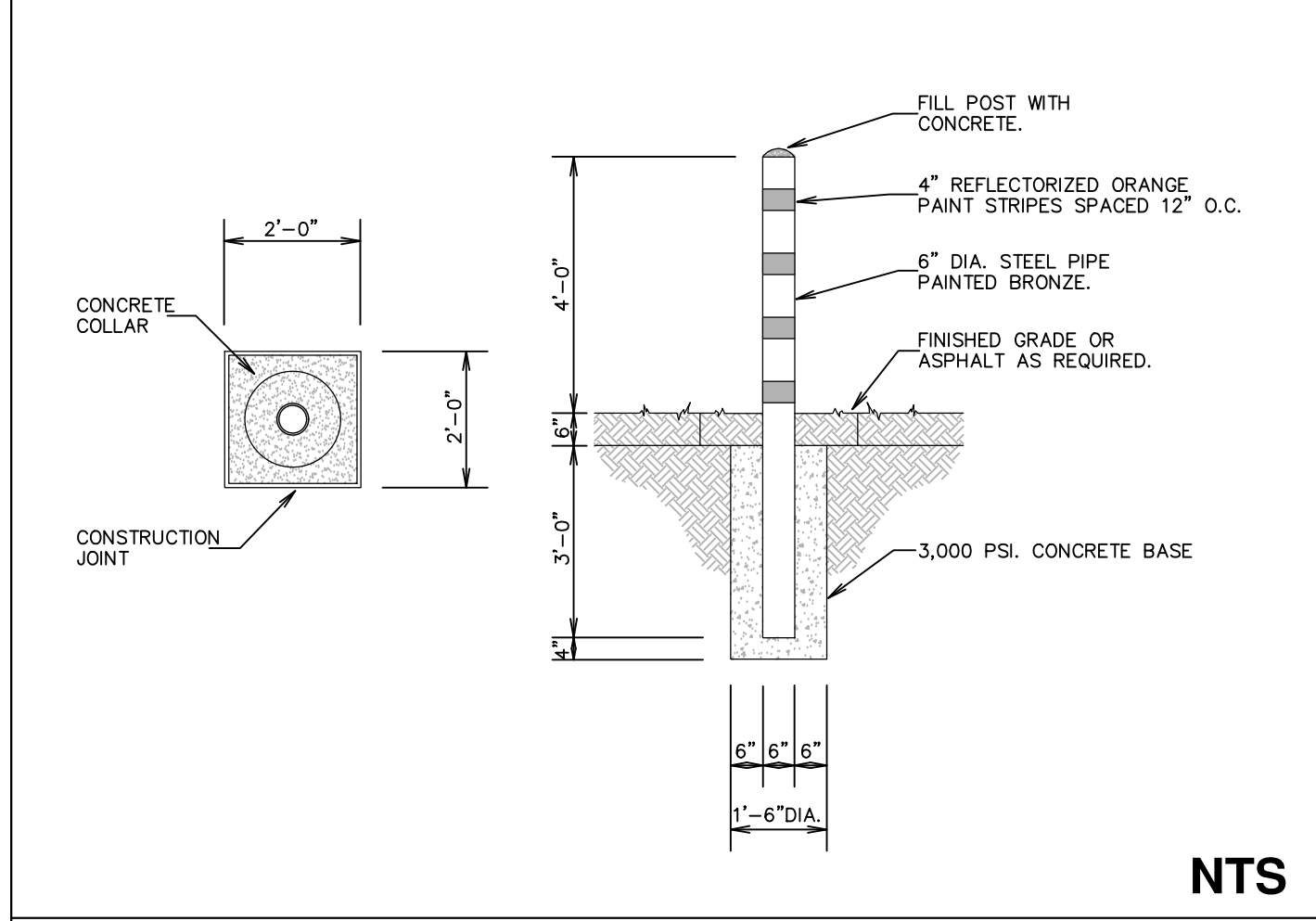
3 HEAVY DUTY PAVEMENT



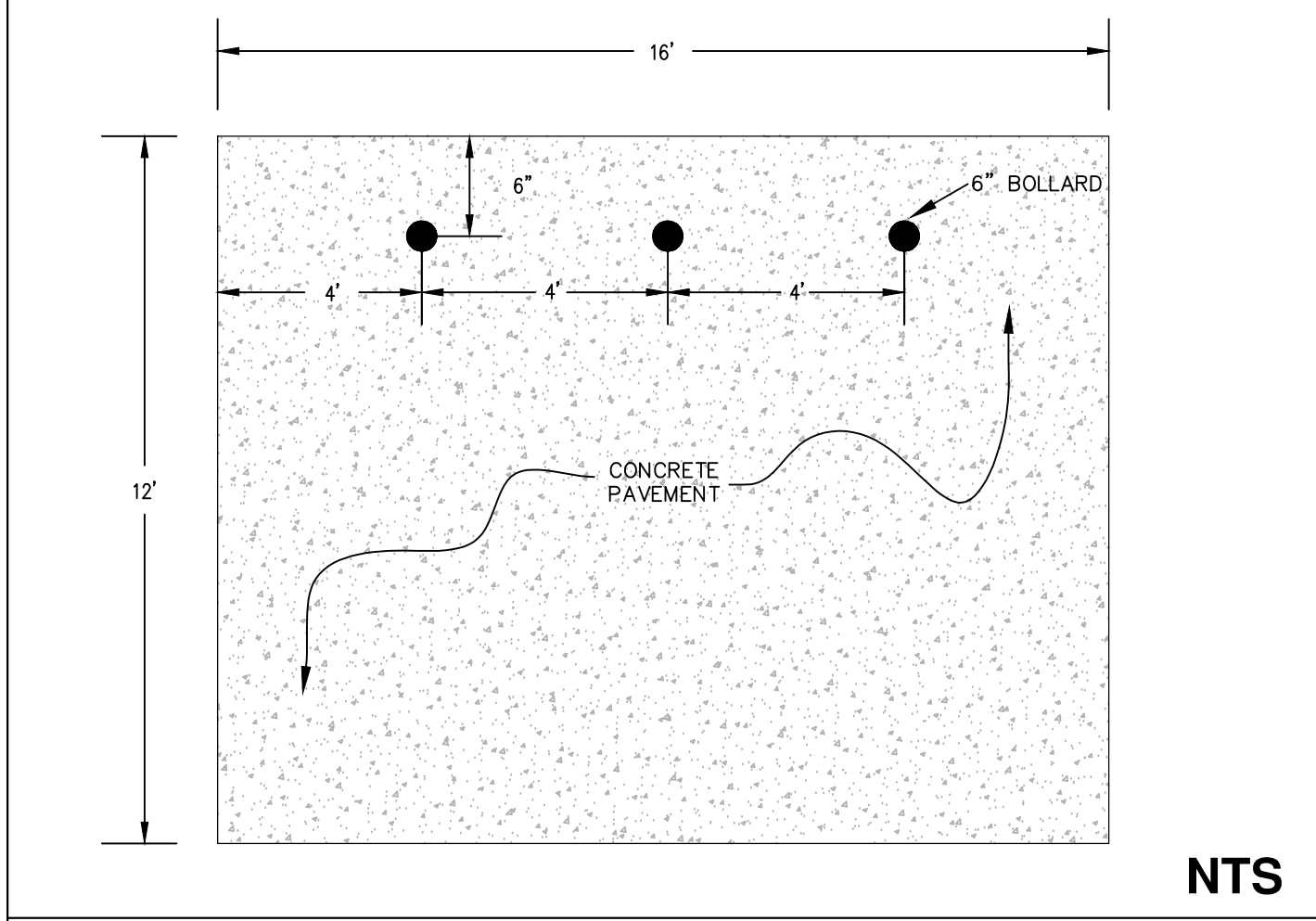
4 CONCRETE DRIVE PAVEMENT SECTION



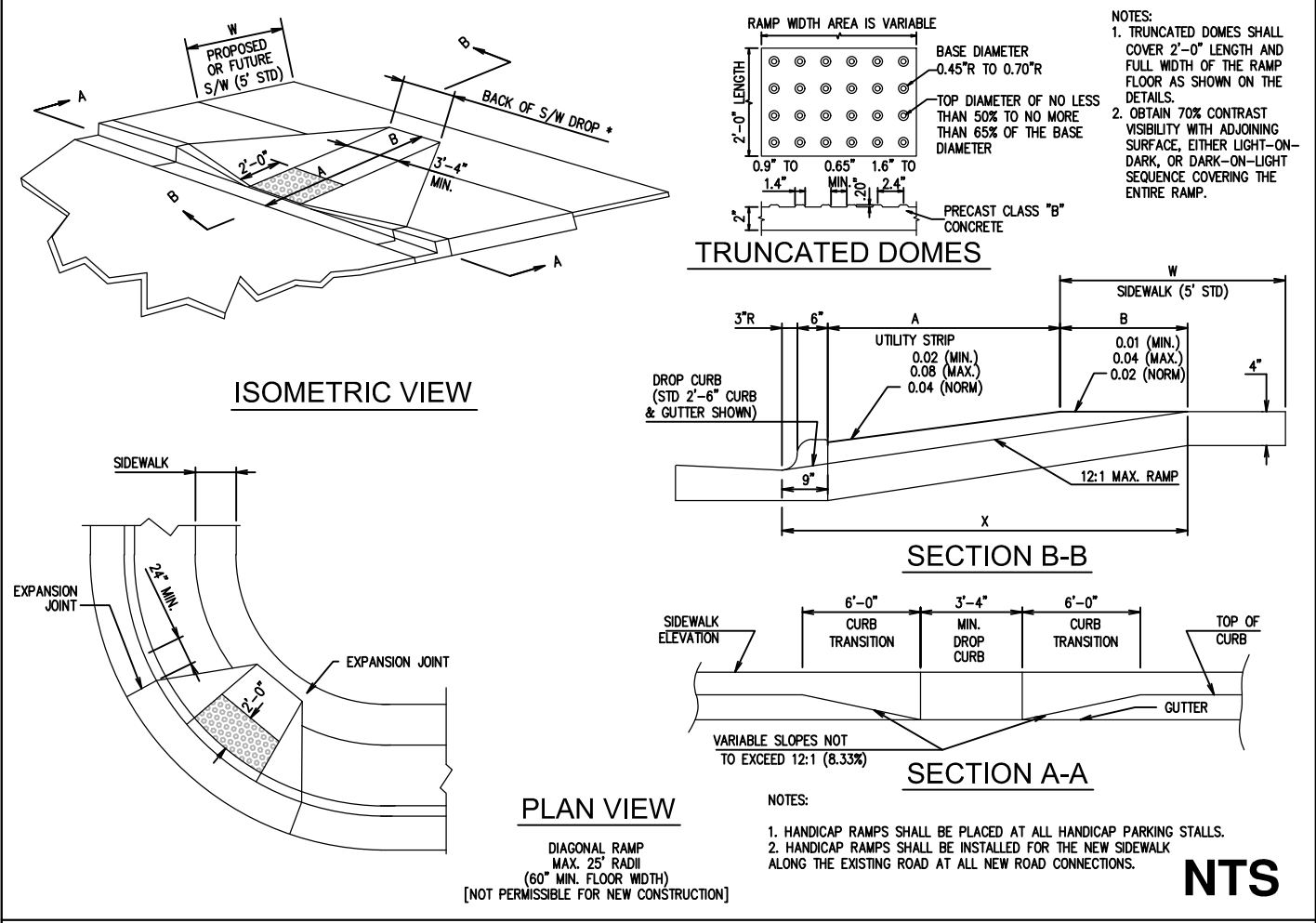
5 TURN DOWN SIDEWALK



6 6" BOLLARD



7 DUMPSTER PAD



8 HANDICAP RAMP WITH TRUNCATED DOMES

ACCESSIBLE PARKING REQUIREMENTS

TOTAL PARKING SPACES PROVIDED	MINIMUM NUMBER OF ACCESSIBLE SPACES REQUIRED	MINIMUM NUMBER OF ACCESSIBLE SPACES REQUIRED TO BE VAN ACCESSIBLE
1 TO 25	1	1
26 TO 50	2	1
51 TO 75	3	1
76 TO 100	4	1
101 TO 150	5	1
151 TO 200	6	1
201 TO 300	7	1
301 TO 400	8	1
401 TO 500	9	2
501 TO 1000	2% OF TOTAL	1 IN EVERY 8 ACCESSIBLE SPACES
1001 AND OVER	2% PLUS 1 FOR EACH 100 OVER 1000	1 IN EVERY 8 ACCESSIBLE SPACES

SECTION 4.1.2 (5) OF THE AMERICANS WITH DISABILITIES ACT (ADA), SEE 4.1.2.(6) FOR MEDICAL CARE FACILITIES

NOTES:

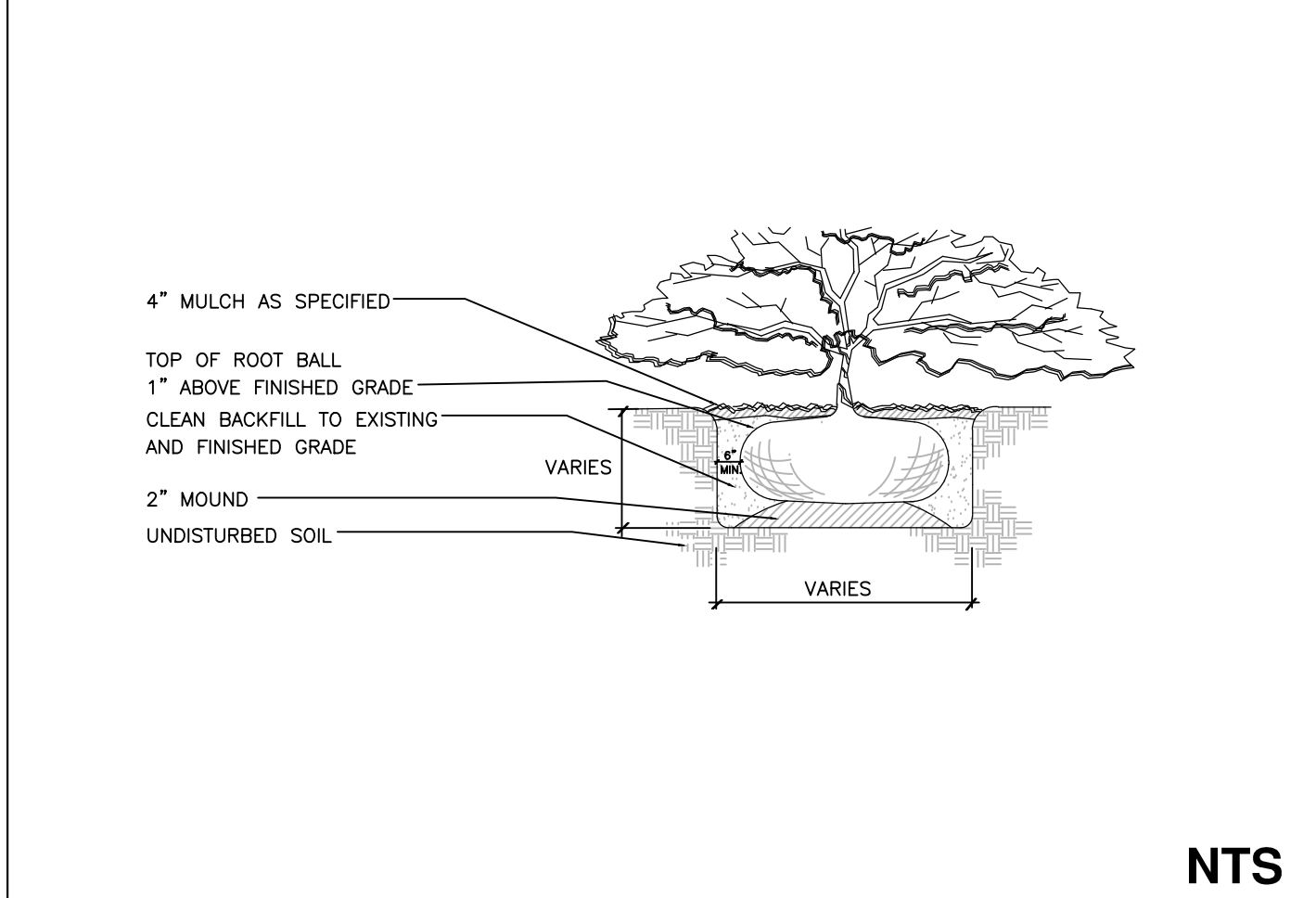
- ALL 12"x18" ACCESSIBLE SIGNS (R7-8 & R7-1) SHALL BE MOUNTED AT 7 FEET FROM GRADE TO BOTTOM EDGE OF SIGN FACE (MUTD). MOUNTING HEIGHT CAN BE REDUCED TO 5 FEET IF PLACED IN AN AREA BETWEEN SIDEWALK AND BUILDING FACE IN WHICH PEDESTRIANS ARE NOT EXPECTED TO USE.
- REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTD) U.S. DEPARTMENT OF TRANSPORTATION AND NORTH CAROLINA DEPARTMENT OF TRANSPORTATION SUPPLEMENT.
- IF ACCESSIBLE ROUTE IS A RAISED SIDEWALK AREA, THEN RAMPS ARE REQUIRED AT LOADING ZONE AREA.
- ALL DIMENSIONS, PAVEMENT MARKINGS AND SIGNAGE SHALL COMPLY WITH CURRENT ADA REQUIREMENTS.

ACCESSIBLE ROUTE (SEE NOTE 3)

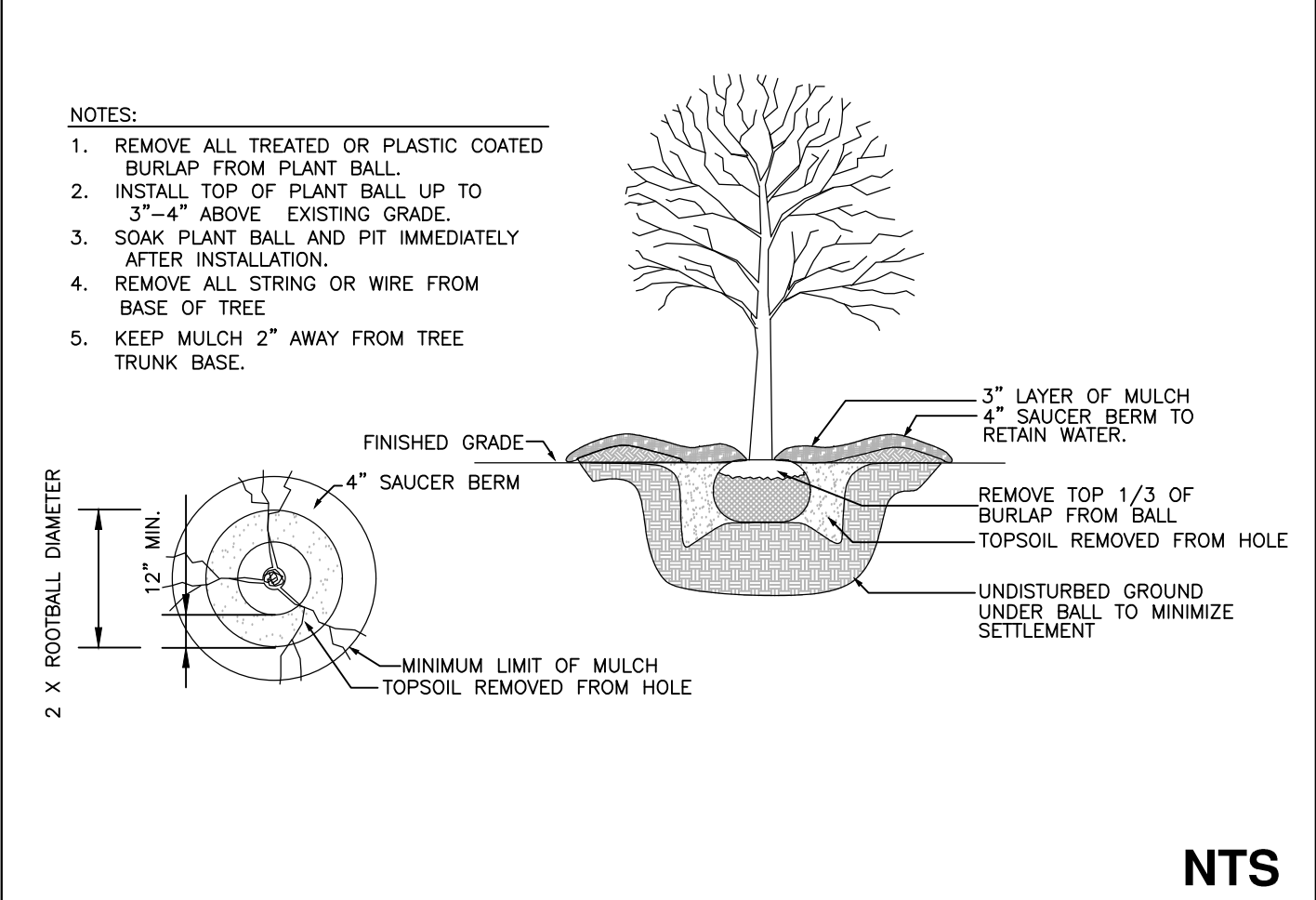
ONE OUT OF EVERY EIGHT (8) ACCESSIBLE SPACES, BUT NOT LESS THAN ONE, IS REQUIRED TO BE VAN ACCESSIBLE.

PARKING SPACE PAVEMENT MARKINGS

9 HANDICAP SIGNAGE AND PAVEMENT MARKINGS



10 SHRUB PLANTING



11 TREE PLANTING

REVISIONS

FINAL DRAWING FOR REVIEW PURPOSES ONLY

PROJECT NAME

ANDERSON CREEK PLAZA SHOPPES

SITE DETAILS

CLIENT

WELLCO CONTRACTORS, INC

211 Highway 210 North
 Spring Lake, North Carolina 28390
 Phone: (910) 436-3131
 Fax: (910) 436-2242

PROJECT INFORMATION

DESIGNED BY:	SCOTT
DRAWN BY:	SCOTT
CHECKED BY:	CHRIS
PROJECT NUMBER:	1353

DRAWING SCALE

NOT TO SCALE

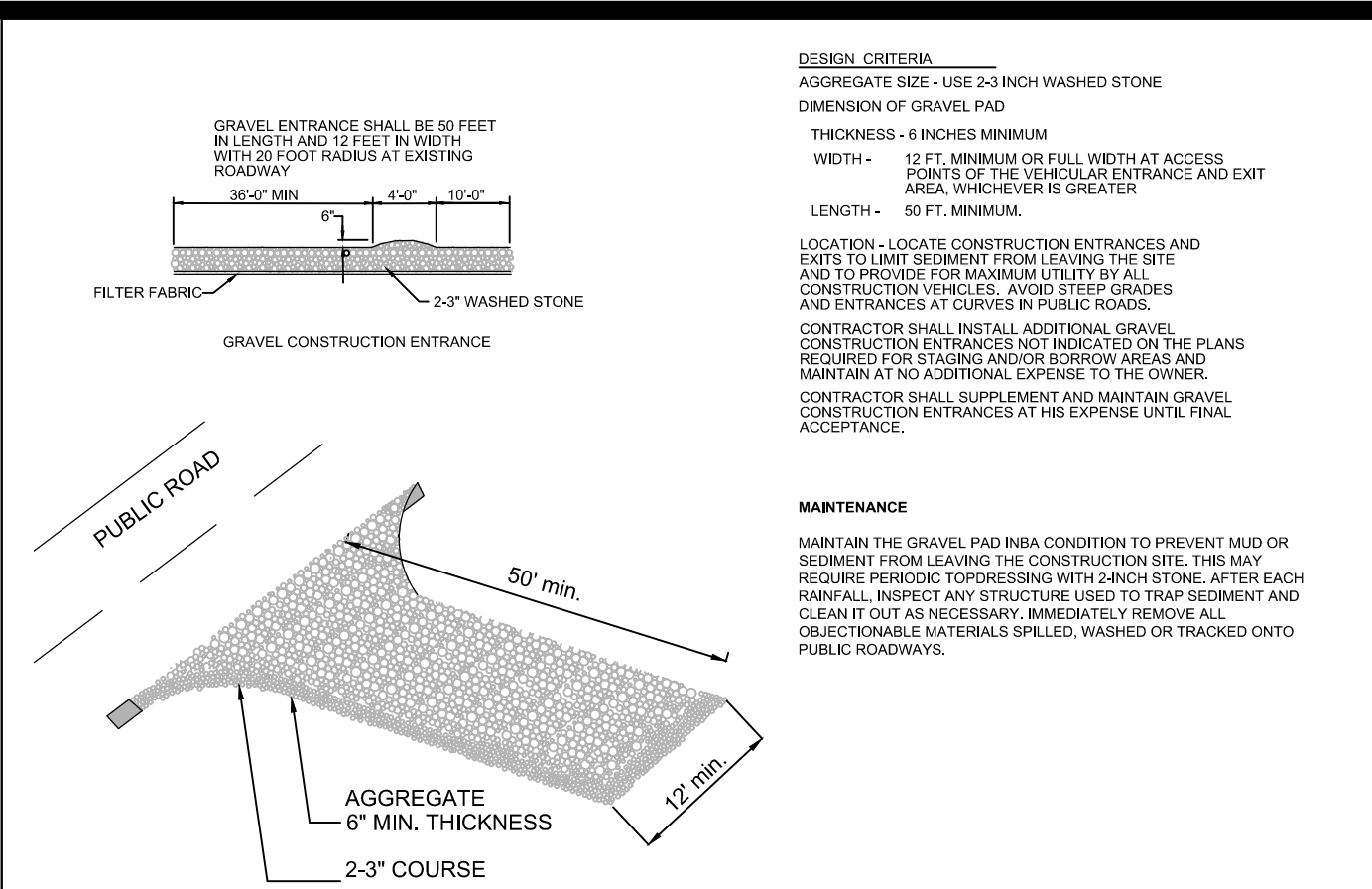
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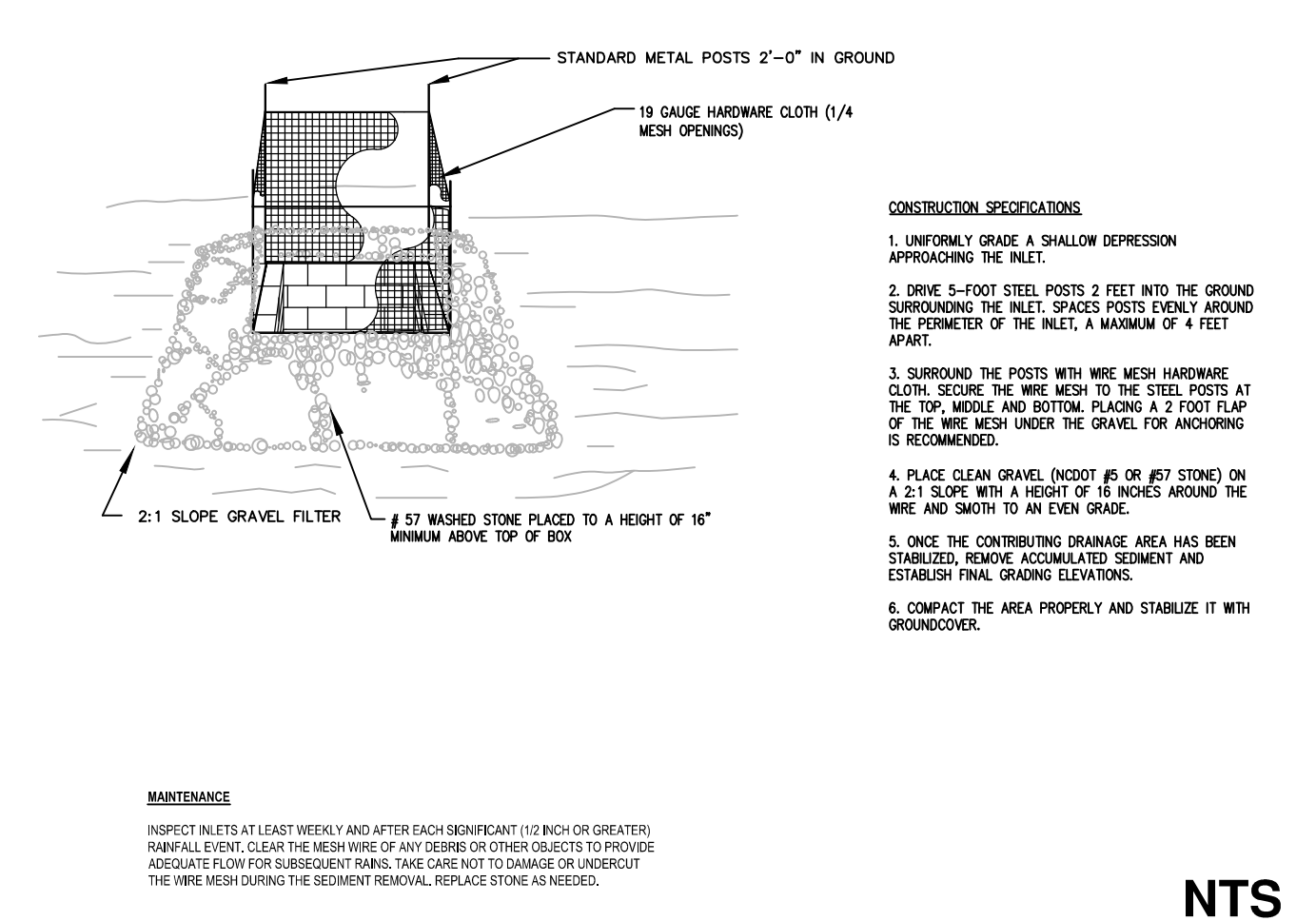
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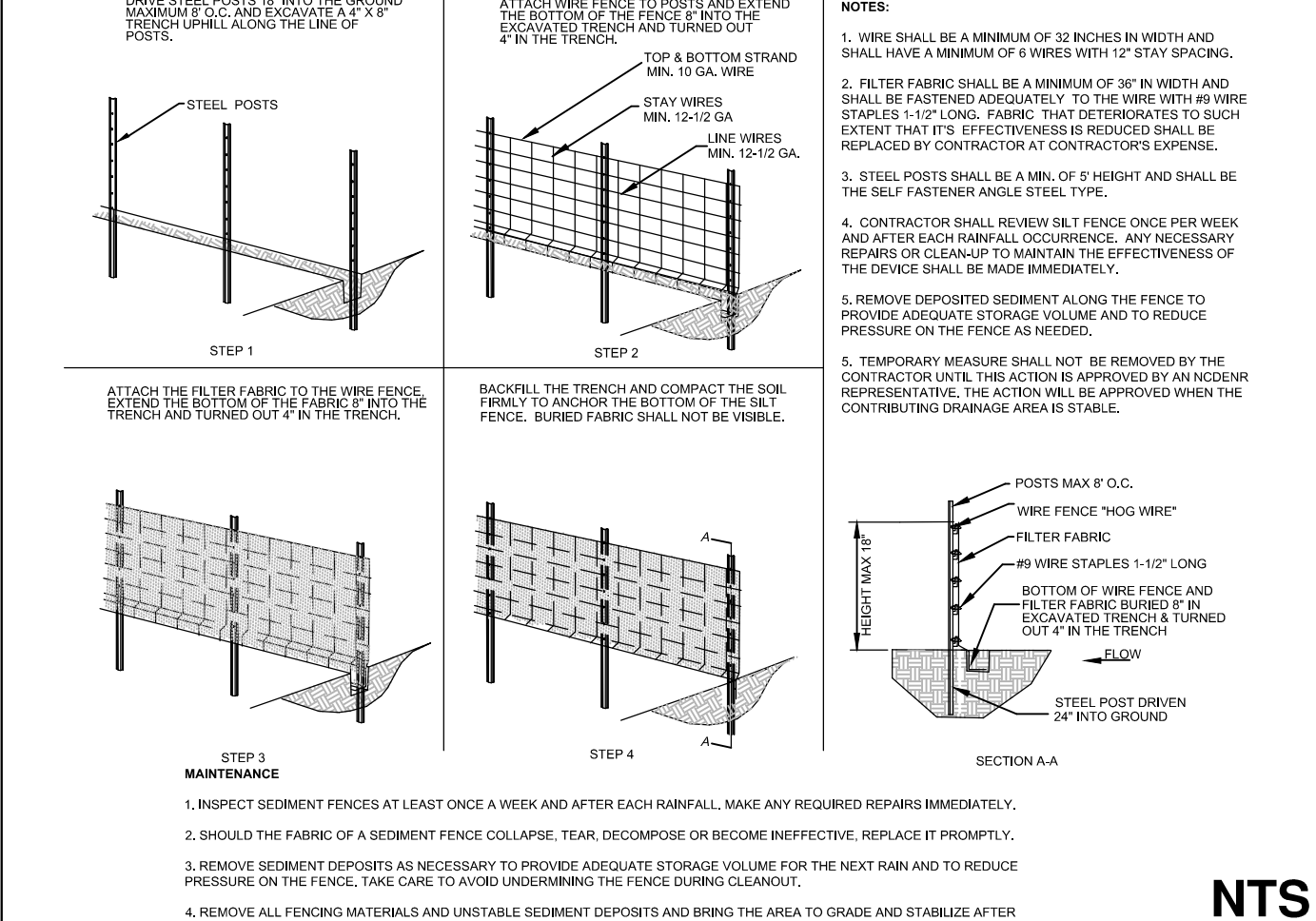
NTS

3 GENERAL EROSION AND SEDIMENT CONTROL NOTES



NTS

4 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



NTS

TEMPORARY SEEDING/MULCHING SPECIFICATIONS (FOR LATE WINTER AND EARLY SPRING)

SEEDING MIXTURE:
SPECIES RATE (LB./ACRE)
RYE (GRAIN) 120
ANNUAL KOBE LESPEDEZA 50
OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT EXTEND BEYOND JUNE.

SEEDING DATES:
JANUARY 1 - MAY 1

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.

TEMPORARY SEEDING/MULCHING SPECIFICATIONS (FOR SUMMER)

SEEDING MIXTURE:
SPECIES RATE (LB./ACRE)
GERMAN MILLET 40
A SMALL-STEMMED SUDAGRASS MAY BE SUBSTITUTED AT A RATE OF 50 LB./ACRE.

SEEDING DATES:
MAY 1 - AUGUST 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.

TEMPORARY SEEDING/MULCHING SPECIFICATIONS (FOR FALL)

SEEDING MIXTURE:
SPECIES RATE (LB./ACRE)
RYE (GRAIN) 120

SEEDING DATES:
AUGUST 15 - DECEMBER 30

SOIL AMENDMENTS:
FOLLOW RECOMMENDATIONS OF 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.

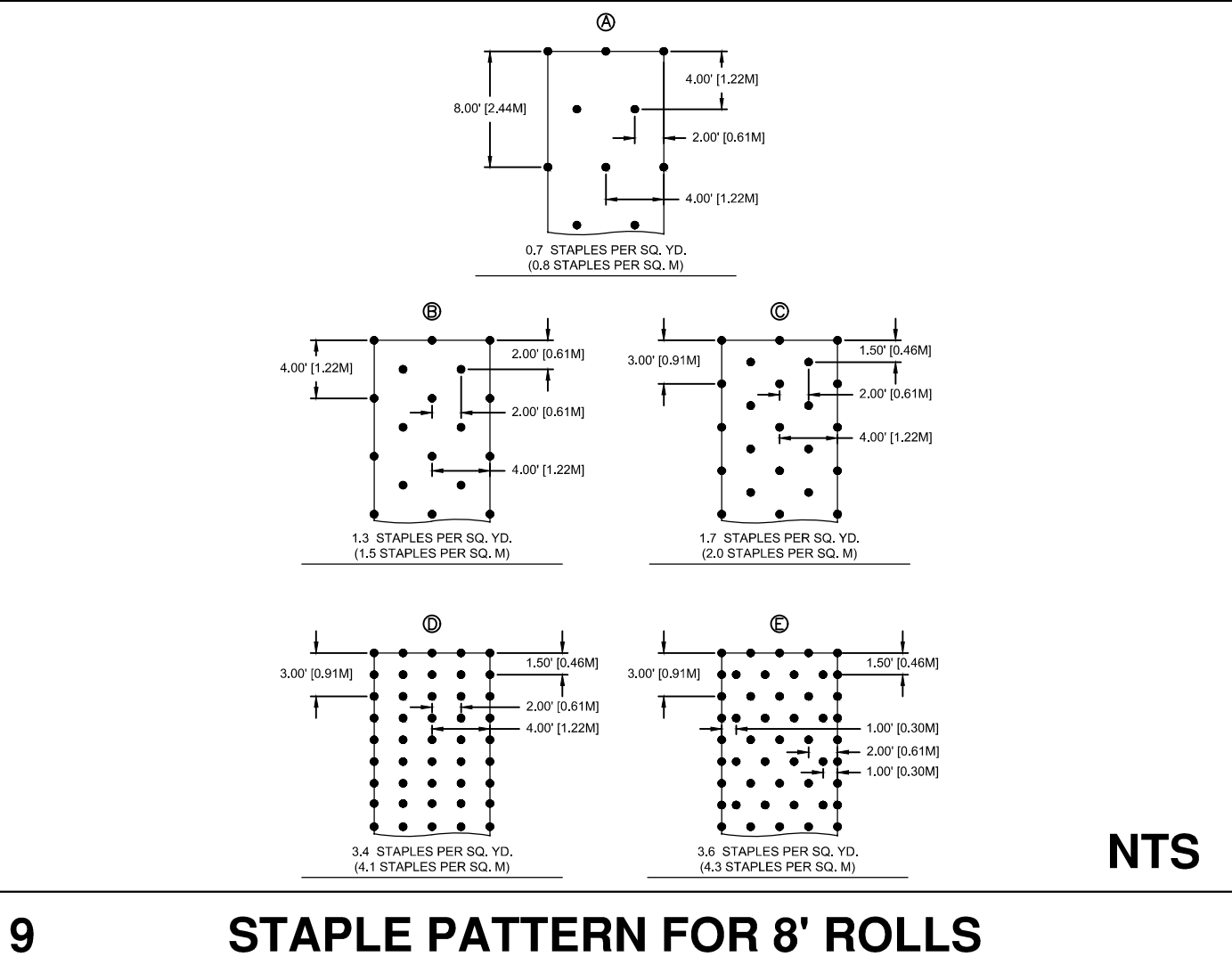
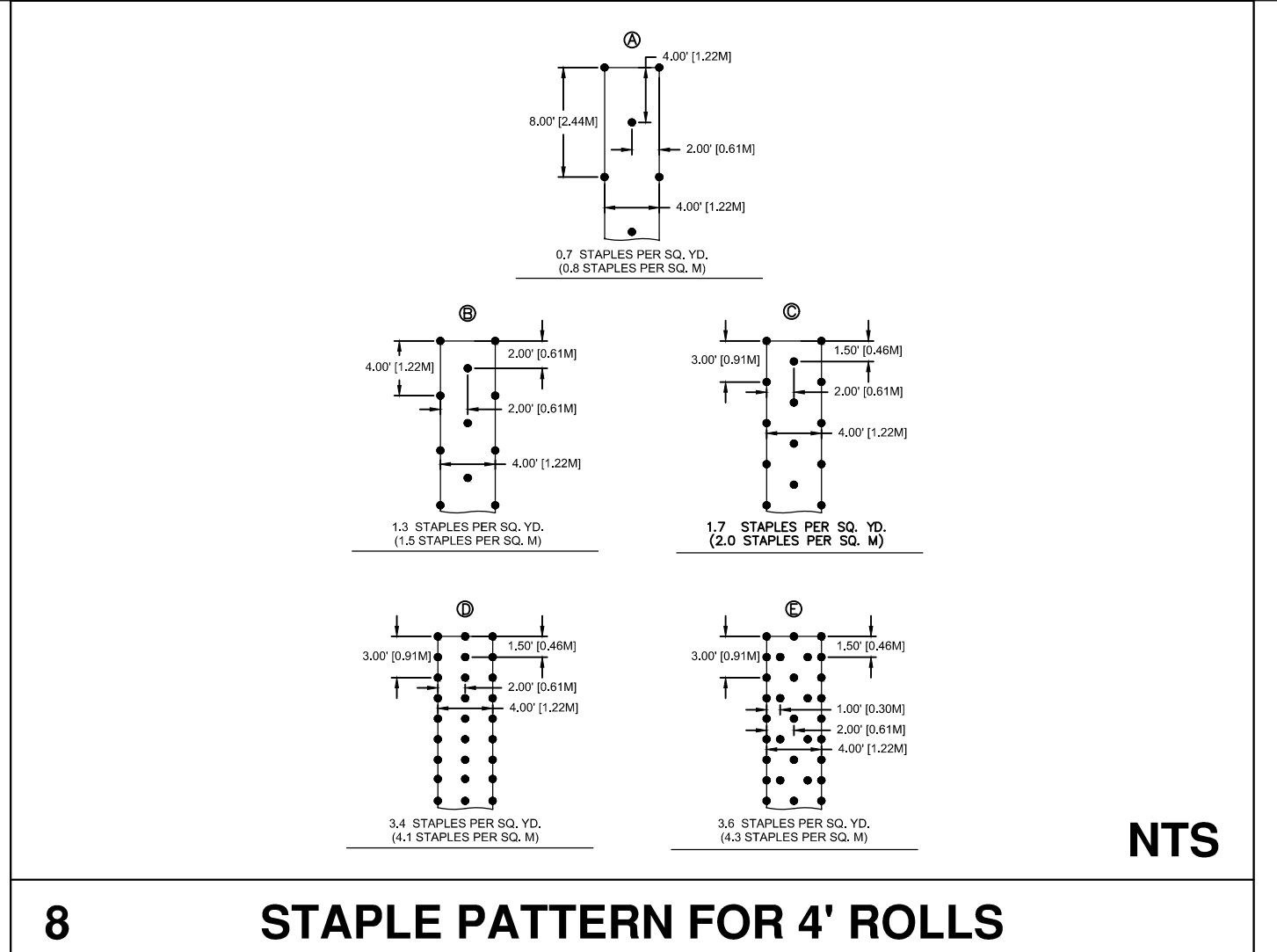
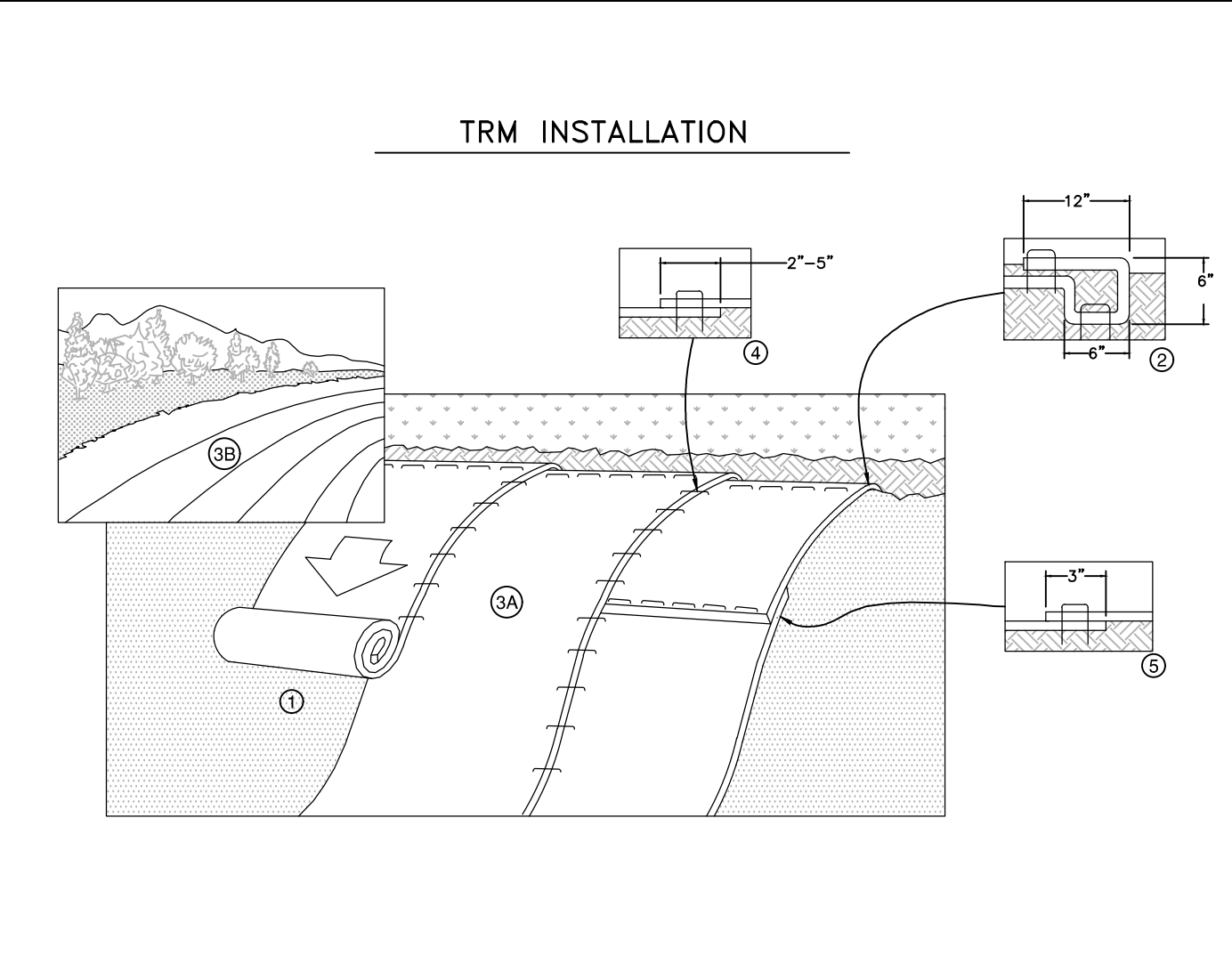
MAINTENANCE:
REPAIR AND REFERTILIZE DAMAGED AREAS IMMEDIATELY. TOP DRESS WITH 50 LB./ACRE OF NITROGEN IN MARCH. IF IT IS NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 LB./ACRE KOBE LESPEDEZA IN LATE OR EARLY MARCH.

1 TEMPORARY SEEDING SPECIFICATIONS

2 PERMANENT SEEDING SPECIFICATIONS

5 HARDWARE CLOTH & GRAVEL INLET PROTECTION

6 SILT FENCE



GROUND STABILIZATION CHART

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

NTS

7 EROSION CONTROL BLANKET INSTALLATION

NTS

8 STAPLE PATTERN FOR 4' ROLLS

NTS

9 STAPLE PATTERN FOR 8' ROLLS

NTS

10 GROUND STABILIZATION CHART

NTS

REVISIONS

FINAL DRAWING FOR REVIEW PURPOSES ONLY

PROJECT NAME

ANDERSON CREEK PLAZA SHOPPES

EROSION CONTROL DETAILS

CLIENT

WELCO CONTRACTORS, INC

211 Highway 210 North
Spring Lake, North Carolina 28390
Phone: (910) 436-3131
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PROJECT INFORMATION

DESIGNED BY:	SCOTT
DRAWN BY:	CHRIS
CHECKED BY:	CHRIS
PROJECT NUMBER:	1353

DRAWING SCALE

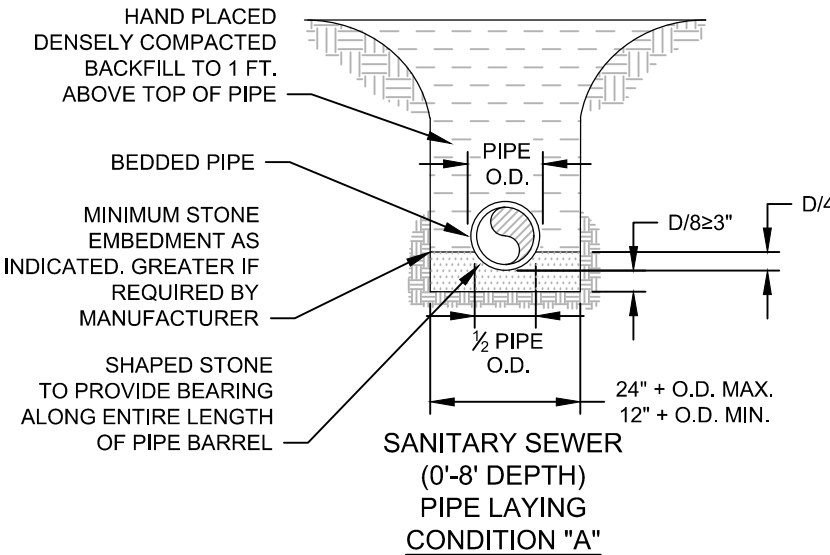
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DATE RELEASED

MAY 8, 2018

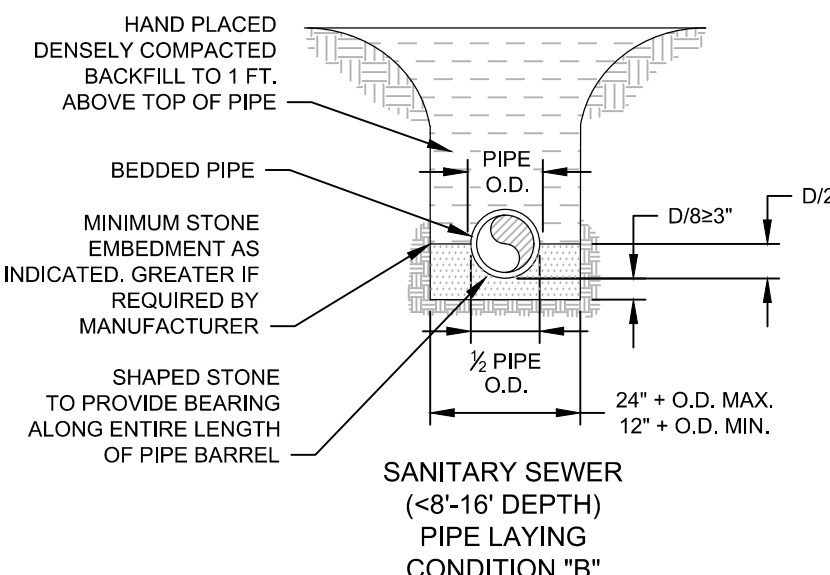
SHEET NUMBER

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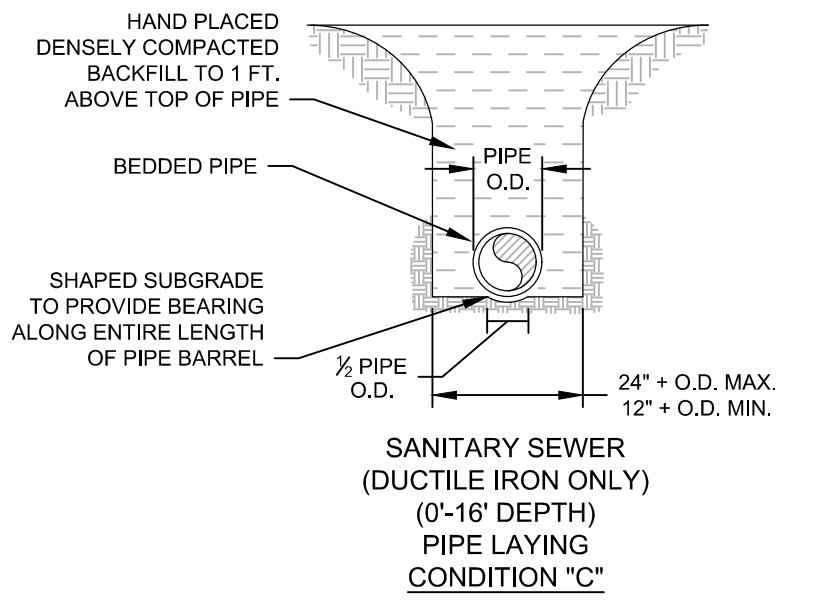
NTS

1 PIPE LAYING CONDITION



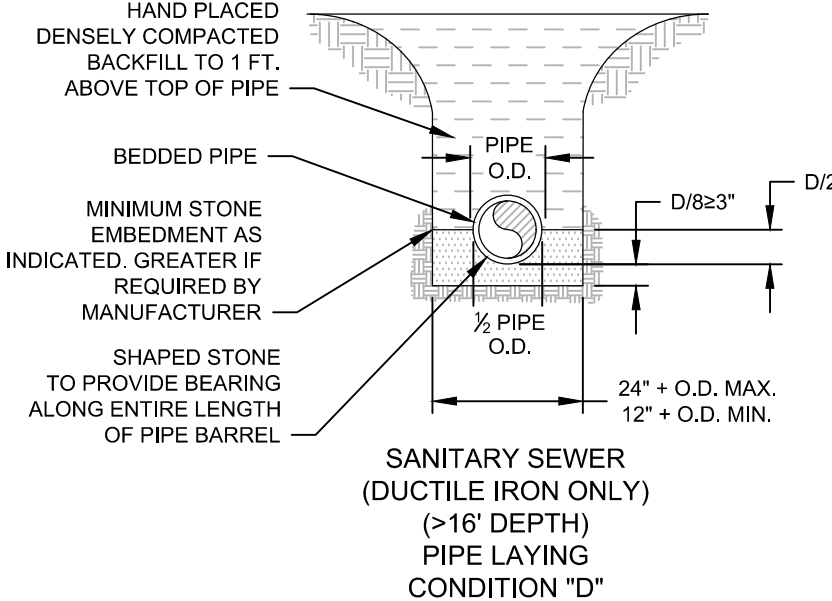
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2 PIPE LAYING CONDITION



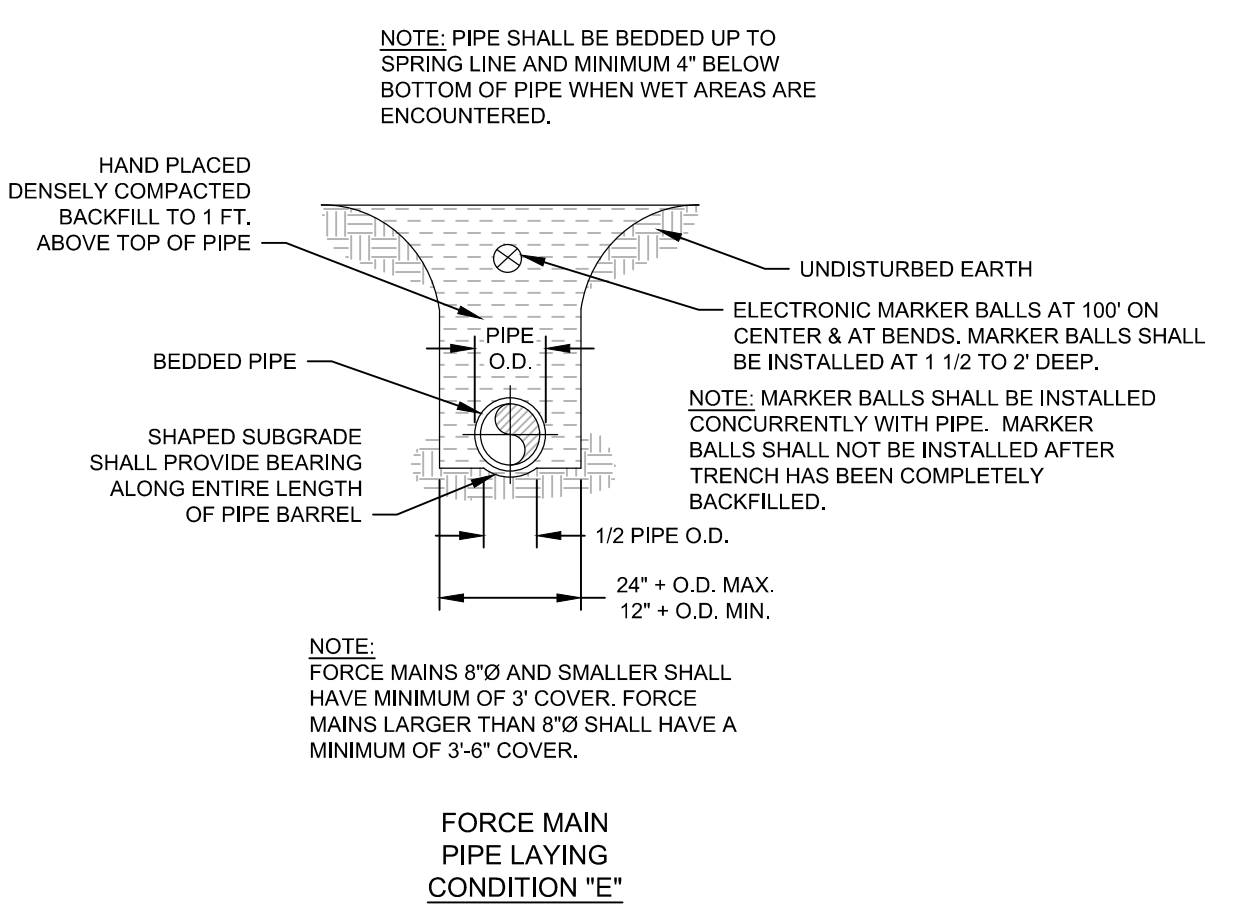
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3 PIPE LAYING CONDITION



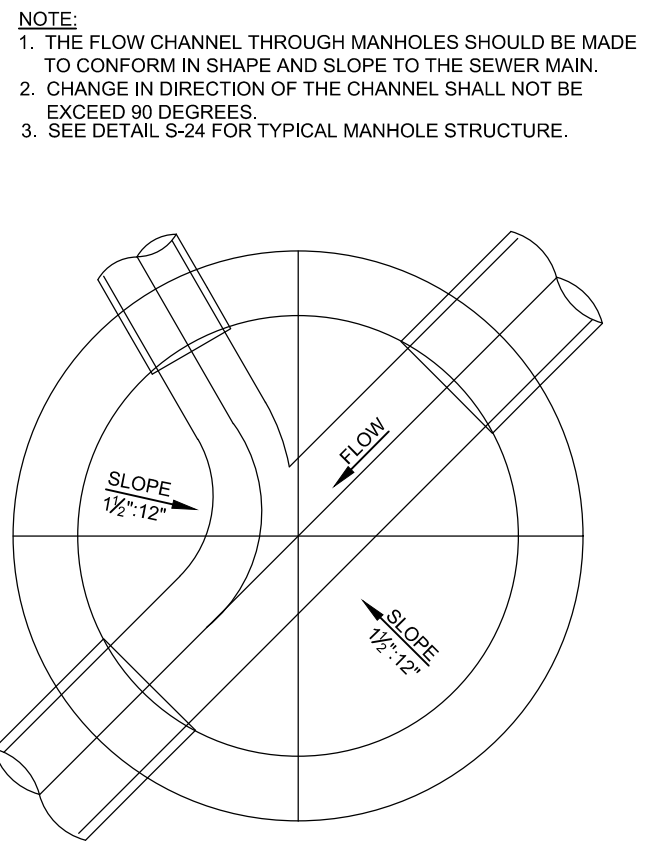
NTS

4 PIPE LAYING CONDITION



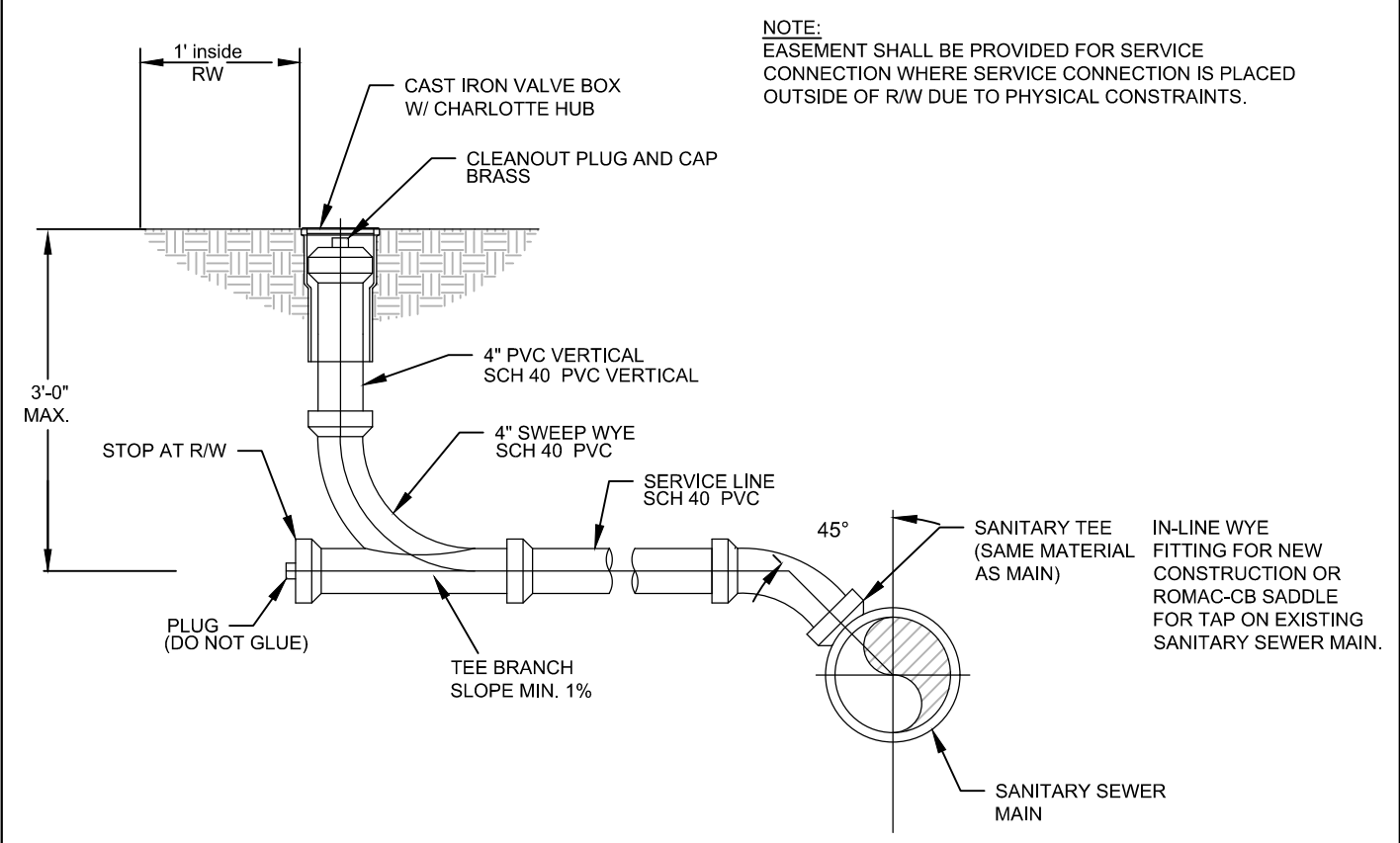
NTS

5 FORCE MAIN PIPE LAYING CONDITION



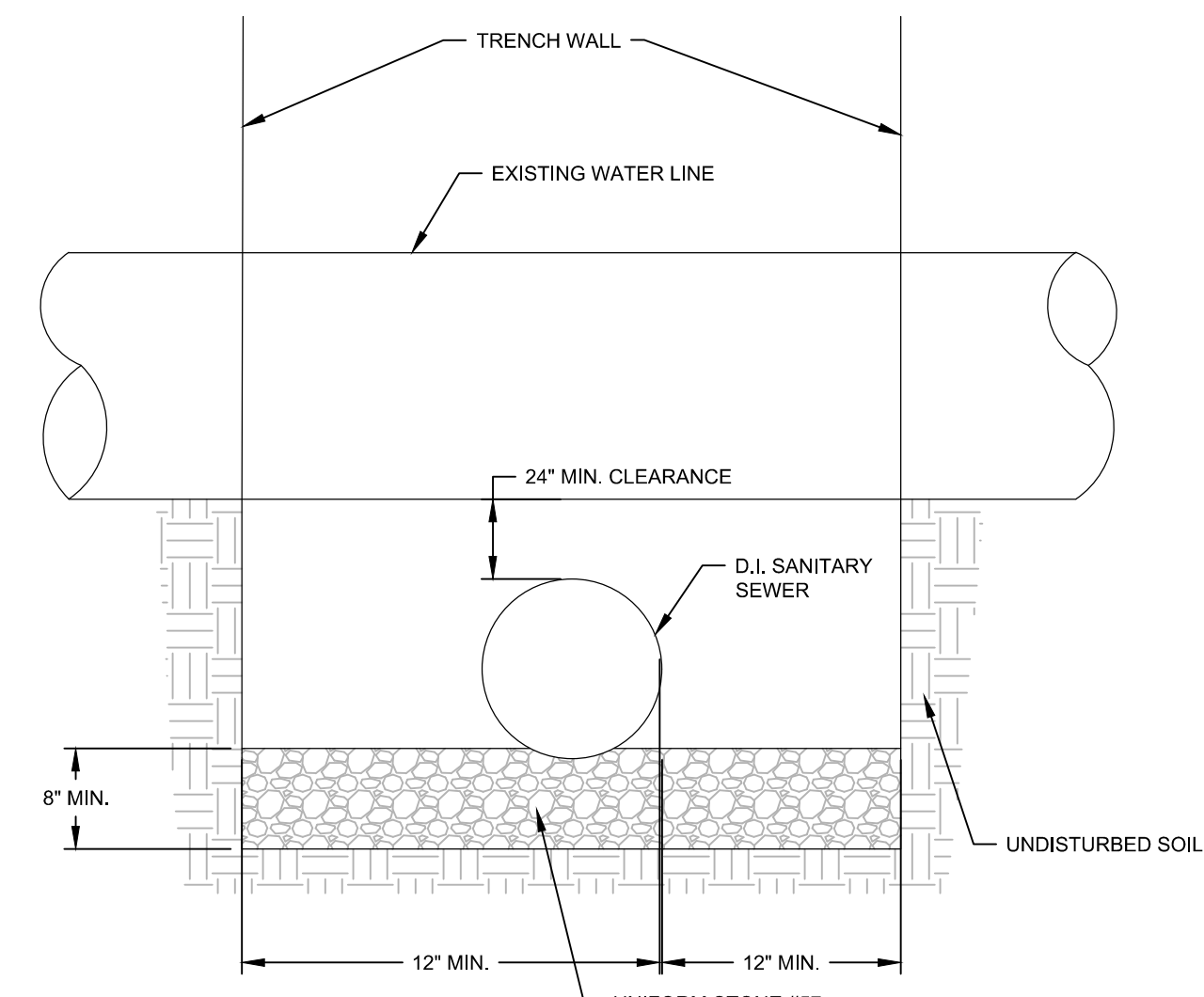
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6 MANHOLE INVERT



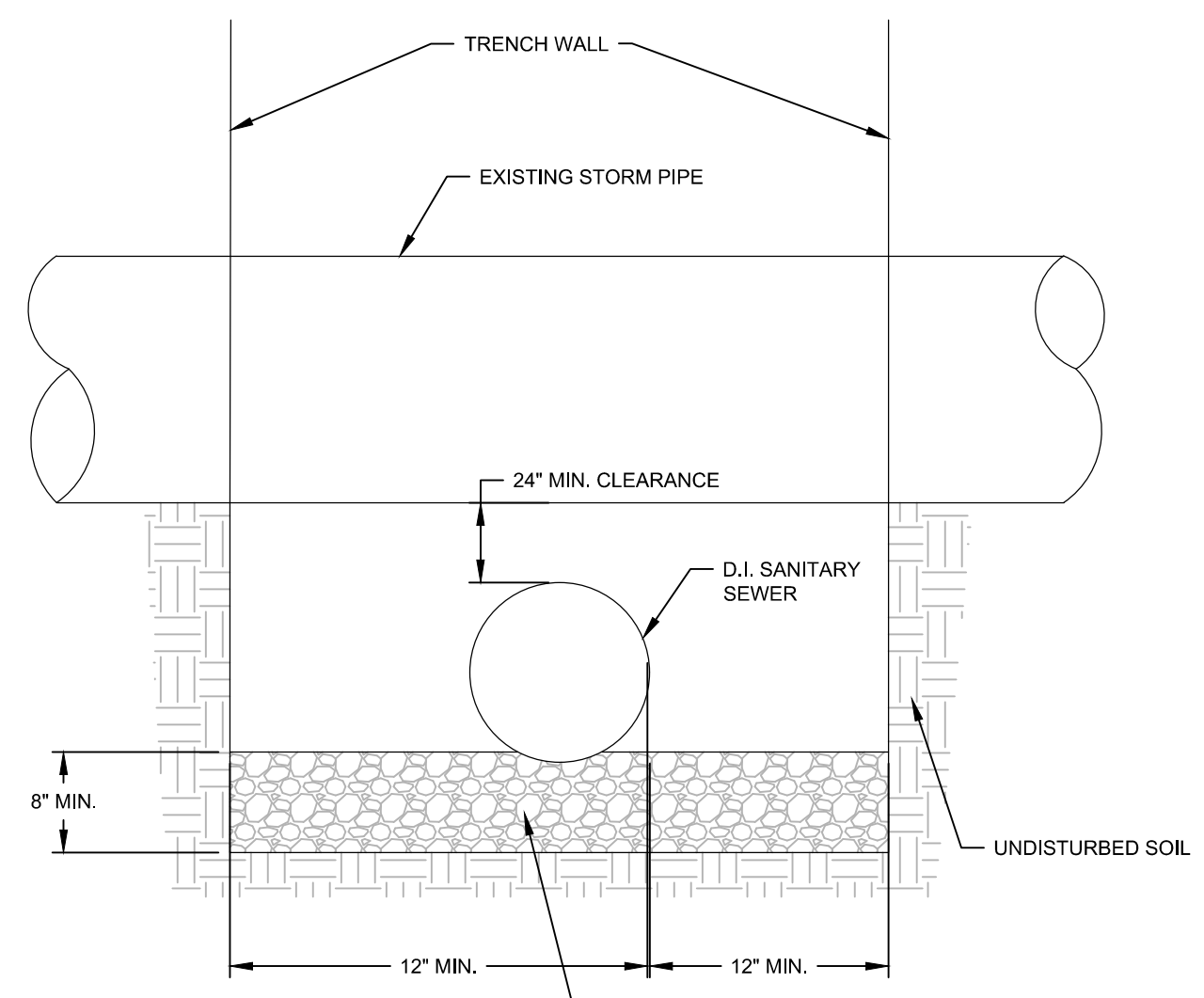
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7 SEWER SERVICE CONNECTION



NTS

8 WATER LINE CROSSING FOR SANITARY SEWER



NTS

9 STORM CROSSING FOR SANITARY SEWER

REVISIONS

FINAL DRAWING FOR REVIEW PURPOSES ONLY

PROJECT NAME

ANDERSON CREEK PLAZA SHOPPES

SANITARY SEWER DETAILS

CLIENT

WELLCO CONTRACTORS, INC

211 Highway 210 North
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PROJECT INFORMATION

DESIGNED BY:	SCOTT
DRAWN BY:	SCOTT
CHECKED BY:	CHRIS
PROJECT NUMBER:	1353

DRAWING SCALE

NOT TO SCALE

DATE RELEASED

MAY 8, 2018

SHEET NUMBER

C-6.3

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STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

2" WEEP HOLES

PLAN
WITH GRATE & FRAME REMOVED

GENERAL NOTES:
USE CLASS "B" CONCRETE THROUGHOUT.
PROVIDE ALL DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.06.
OPTIONAL CONSTRUCTION - MONOLITHIC POUR, "Z" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
USE FORMS FOR TO CONSTRUCT OF THE BOTTOM SLAB.
IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.05.
CONSTRUCT WITH PIPE GROUNTS MATCHING.
SEE STANDARD DRAWING 840.25 FOR ATTACHMENT OF FRAMES AND GRATE NOT SHOWN.
INSTALL 2" WEEP HOLES AS DIRECTED BY THE ENGINEER.
INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO. 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER.
CHAMFER ALL EXPOSED CORNERS 1".
DRAWING NOT TO SCALE.

BRICK COPING (INCIDENTAL)
TOP ELEVATION
STD. 540.16 FRAME & GRATE

SECTION X-X
SECTION Y-Y

MAX PIPE THIS SIDE - 18"

#4 BAR
DOWEL

DIMENSIONS OF BOX & PIPE				CUBIC YARDS CONCRETE IN BOX		DEDUCTIONS FOR ONE PIPE	
PIPE	SPAN	WIDTH	MIN. HEIGHT	BOTTOM SLAB	WALL PER FT. HT.	C.M.	R.C.
12"	3'-0"	2'-0"	2'-0"	0.222	0.562	0.015	0.026
15"	/	/	2'-3"	/	0.648	0.023	0.036
18"	/	/	2'-6"	/	0.763	0.033	0.049
24"	/	/	3'-0"	/	0.814	0.059	0.085
30"	3'-0"	2'-0"	2'-6"	0.222	0.925	0.092	0.127

ENGLISH STANDARD DRAWING FOR CONCRETE DROP INLET 12" THRU 30" PIPE

SHEET 1 OF 1
840.14

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR CONCRETE DROP INLET 12" THRU 30" PIPE

SHEET 1 OF 1
840.14

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

1" DEPRESSION

SECTION G-G

PLAN OF GRATING
CAST IRON

SECTION E-E
SECTION F-F

ENGLISH STANDARD DRAWING FOR DROP INLET FRAME AND GRATES FOR USE WITH STD. DWG.S 840.14 AND 840.15

SHEET 1 OF 1
840.16

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR DROP INLET FRAME AND GRATES FOR USE WITH STD. DWG.S 840.14 AND 840.15

SHEET 1 OF 1
840.16

DROP INLET FRAME AND GRATE

NTS

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

PLAN
WITH COPING REMOVED

GENERAL NOTES:
MORTAR JOINTS 1/2" ± 1/8" THICK.
USE CLASS "B" CONCRETE THROUGHOUT.
USE FORMS FOR CONSTRUCTION OF THE BOTTOM SLAB.
USE #4 BAR DOWELS AT 12" CENTERS.
DUCT FOR PIPES FROM TOTAL CU. YDS. OF BRICK MASONRY.
PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.06.
USE BRICK OR CONCRETE BLOCK WHICH COMPLIES WITH THE REQUIREMENTS OF SECTION 840 OF THE STANDARD SPECIFICATIONS.
IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.05.
FOR 4" IN HEIGHT OR LESS, USE 8" WALL. OVER 8" IN HEIGHT, USE 12" WALL TO 6'-0" FROM TOP OF WALL AND 8" WALL FOR THE REMAINING 6'-0". QUANTITIES TO BE ADJUSTED ACCORDINGLY.
CONSTRUCT WITH PIPE GROUNTS MATCHING.
SEE STANDARD DRAWING 840.25 FOR ATTACHMENT OF FRAMES AND GRATES.
DO NOT USE BRICK MASONRY DROP INLET IN LOCATIONS SUBJECT TO TRAFFIC.
CHAMFER ALL EXPOSED CORNERS 1".
DRAWING NOT TO SCALE.

BRICK COPING (INCIDENTAL)
TOP ELEVATION
STD. 540.16 FRAME & GRATE

SECTION X-X
SECTION Y-Y

MAX PIPE THIS SIDE - 18"

#4 BAR
DOWEL

DIMENSIONS OF BOX & PIPE				CUBIC YARDS CONCRETE		CUBIC YARDS BRICK MASONRY		DEDUCTIONS FOR ONE PIPE	
PIPE	SPAN	WIDTH	MIN. HEIGHT	BOTTOM SLAB	WALL PER FOOT HT.	NET BRICK MASONRY FOR MIN. HEIGHT, H.	C.S.	R.C.	
12"	3'-0"	2'-0"	2'-0"	0.266	0.313	0.522	0.020	0.032	
15"	/	/	2'-3"	0.266	0.313	0.600	0.031	0.047	
18"	/	/	2'-6"	0.266	0.313	0.676	0.044	0.065	
24"	/	/	3'-0"	0.266	0.313	0.835	0.078	0.113	
30"	3'-0"	2'-0"	2'-6"	0.266	0.313	0.991	0.122	0.170	

ENGLISH STANDARD DRAWING FOR BRICK DROP INLET 12" THRU 30" PIPE

SHEET 1 OF 1
840.15

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR BRICK DROP INLET 12" THRU 30" PIPE

SHEET 1 OF 1
840.15

BRICK DROP INLET

NTS

REVISIONS

FINAL DRAWING
FOR REVIEW PURPOSES ONLY

PROJECT NAME

ANDERSON CREEK PLAZA SHOPPES

STORM DETAILS

CLIENT

WELLCO CONTRACTORS, INC

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CHECKED BY:	CHRIS
PROJECT NUMBER:	1353

DRAWING SCALE

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