PARKVIEW TOWNES

0 EAST BARBEE STREET ZEBULON, NORTH CAROLINA

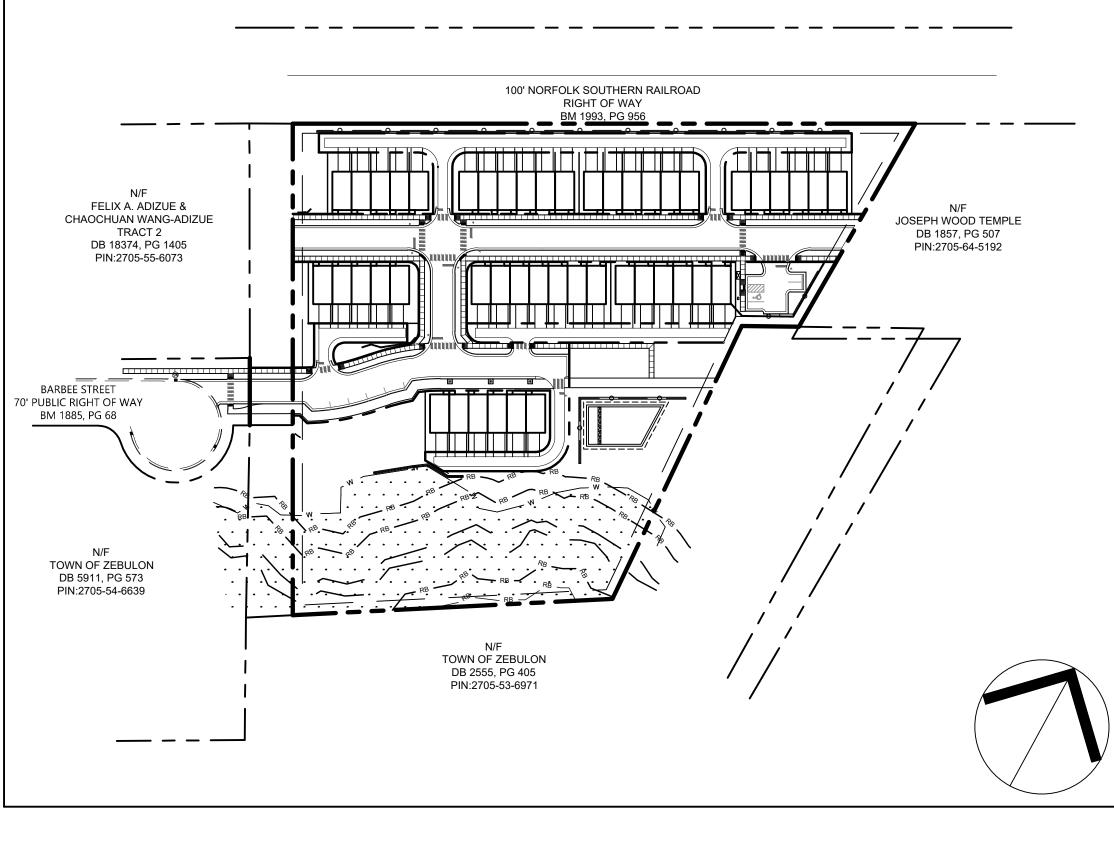
CONSTRUCTION DRAWINGS

TOWN OF ZEBULON PROJECT # 895911

GENERAL NOTES

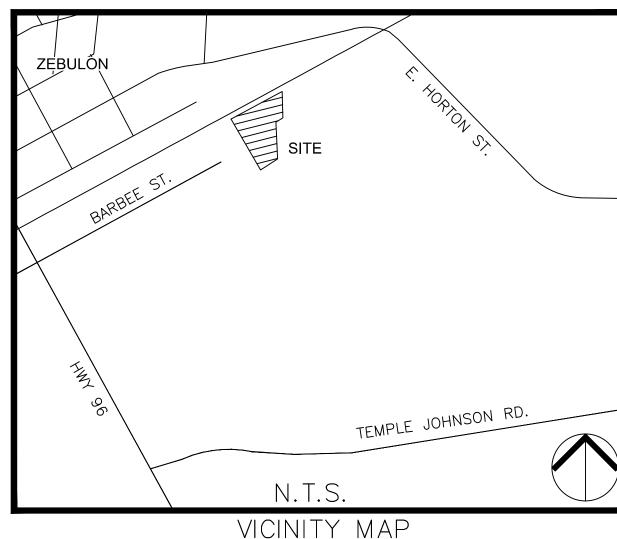
- 1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST TOWN OF ZEBULON, WAKE COUNTY AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
- 2. CONTRACTOR SHALL HAVE NORTH CAROLINA ONE CALL (811) LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.
- 4. BOUNDARY AND SURVEY INFORMATION IS TAKEN FROM A SURVEY BY ANGLE RIGHT LAND SURVEYING, PLLC DATED JUNE 1, 2022.
- 5. ALL CONSTRUCTION SHALL CONFORM TO A.D.A. STANDARDS.
- 6. NO PORTION OF THE PROPERTY IS LOCATED WITHIN A FEMA AE FLOOD ZONE BASED ON THE MAP #3720270500K MAP REVISED JULY 19, 2022.
- 7. THE ROAD CLASSIFICATIONS FOR THIS PROJECT CONSIST OF LOCAL AND ALLEY.
- 8. CONSTRUCTION WILL FOLLOW ALL USE SPECIFIC GUIDELINES LAID OUT IN CHAPTER 4 OF TOWN OF ZEBULON UNIFIED DEVELOPMENT ORDINANCE THAT PERTAIN TO THIS PROJECT.

FELIX A. ADIZUE & CHAOCHUAN WANG-ADIZUE DB 18374, PG 1405 PIN:2705-55-6073 0' PUBLIC RIGHT OF WAY BM 1885, PG 68 TOWN OF ZEBULON DB 5911, PG 573 PIN:2705-54-6639 TOWN OF ZEBULON PIN:2705-53-6971



DRAWINGS INDEX: COVER SHEET PROJECT NOTES BOUNDARY SURVEY EXISTING CONDITIONS PLAN SITE LAYOUT PLAN SITE 300 GRADING & DRAINAGE PLAN WET DETENTION POND PLAN INITIAL EROSION CONTROL PLAN PHASE 1 INITIAL EROSION CONTROL PLAN PHASE 2 SITE 303 FINAL EROSION CONTROL PLAN SITE 304 NPDES PLAN SITE 400 UTILITY PLAN 23-0401 DUKE ENERGY LIGHTING PLAN LANDSCAPE PLAN BARBEE ST. AND ROAD "A" PLAN AND PROFILE PUBLIC ROAD "B" PLAN AND PROFILE SANITARY SEWER PLAN AND PROFILE SITE 700 SITE DETAILS SITE 701 SITE DETAILS SITE DETAILS SITE 703 SITE DETAILS SITE DETAILS SITE 705 SITE DETAILS SITE 706 SITE DETAILS SITE DETAILS SITE 707 SITE 708 SITE DETAILS

THIS PROJECT MUST FOLLOW ALL USE SPECIFIC GUIDELINES LAID OUT IN CHAPTER 4 OF THE TOWNS UDO WHICH PERTAIN TO THIS PROJECT. Call before you dig. Dial 811 or visit www.nc811.org for more details.



SITE DATA SUMMARY

OPEN SPACE PROVIDED:

NORTH

COVER

ACTIVE:

CONTACT/CIVIL ENGINEER:

THE SITE GROUP, PLLC

1111 OBERLIN ROAD

RALEIGH, NC 27605

ATTN: SHERRY CASE

RALEIGH, NC 27609

PHONE: 919-621-4648

FAX: (919) 839-2255

ATTN: SAMUEL R. NYE, P.E.

PHONE: (919) 835-4787

EMAIL: srn@thesitegroup.net

MERIDIAN PROPERTIES GROUP, LLC

4030 WAKE FOREST RD. STE 100

EMAIL: sherry@societyrealtygroup.com

PROJECT NAME:	BARBEE ST. SUBDIVISION
PIN(S):	2705-65-0231 2705-55-7077 PORTION OF 2705-55-6073
SITE ADDRESS:	0 E. BARBEE STREET 413 E. BARBEE STREET
JURISDICTION:	TOWN OF ZEBULON
ZONING:	DTP [6 PTS ZEBULON UTILITY ALLOCATION POLICY]
RIVER BASIN:	NEUSE
TOTAL EXISTING ACREAGE:	240,598 SF / 5.52 ACRES
CURRENT USE:	VACANT
PROPOSED USE:	SINGLE-FAMILY ATTACHED DWELLING
BUILDING SETBACKS:	
STREET:	NONE
SIDE:	5 FT
REAR:	15 FT
TOTAL NUMBER OF UNITS:	47 UNITS [6 PTS ZEBULON UTILITY ALLOCATION POLICY]
MINIMUM LOT AREA:	3,000 SF
AVERAGE LOT AREA:	
PROVIDED PARKING:	104 RESIDENT
DISTURBED AREA:	202,373 SF. / 4.65 AC.
IMPERVIOUS AREA:	
DWELLINGS:	50,008 SF
ROADWAY/PARKING:	46,765 SF
SIDEWALKS:	13,647 SF
TOTAL:	116,490 SF
IMPERVIOUS LIMIT/LOT:	1,064 SF
PUBLIC IMPROVEMENT QUANTITIES	:
WATER PIPE:	1,155 FT.
WATER STUB:	2
SANITARY SEWER PIPE:	812 FT.
SANITARY SEWER STUB:	2
STORMWATER:	1,648 FT.
OPEN SPACE REQUIREMENT:	
URBAN:	12,030 SF / 10,827 SF W/ 10% ADMIN. ADJST.
ACTIVE:	12,030 SF / 10,827 SF W/ 10% ADMIN. ADJST.

*NOTE: PER SECTION 5.8.3. OF THE TOWN OF ZEBULON UDO. THIS DEVELOPMENT WITHIN

THE DTP IS EXEMPT FROM MINIMUM OFF STREET PARKING REQUIREMENTS

Checked

12,268 SF (5.1%)

12,072 SF (5.0%)

37,225 SF (15.1%)

REVISED: <u>∕1</u>\03 FEB 2023 <u>/2</u>\09 MAY 2023 <u>/3</u>\24 AUG 2023 4\21 NOV 2023 √5\12 DEC 2023

CONSTRUCTION

COVER SHEET

Dwg No.

(DRAWING SCALED FOR 24x36 INCH PLOTS)

07 NOV 2022

<u>6</u>08 JAN 2024

DRAWINGS

ATTENTION CONTRACTORS

The Construction Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Public Utilities Department at (919) 996-4540 at least twenty four hours prior to beginning any of their construction.

Failure to notify both City Departments in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for Inspection, Install a Downstream Plug, have Permitted Plans on the Jobsite, or any other Violation of City of Raleigh Standards will result in a Fine and Possible Exclusion from future work in the City of Raleigh.

EROSION CONTROL, STORMWATER AND FLOODPLAIN MANAGEMENT

APPROVED

DATE

EROSION CONTROL ☐ S-

FLOOD STUDY

S-

STORMWATER MGMT.

S-

Sewer Collection / Extension System The City of Raleigh consents to the connection and extension of the

ENVIRONMENTAL CONSULTANT SIGNATURE

Public

Water Distribution / Extension System

City's public water system as shown on this plan. The material and

standards and specifications of the City's Public Utilities Handbook.

Construction methods used for this project shall conform to the

Public Utilities Department Permit # W-4078

Authorization to Construct

City's public sewer system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

Public Utilities Department Permit # S-5390 Authorization to Construct

Sewer Collection / Extension System

The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and constructions methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

Public Utilities Department Permit# S-5391(P)

Authorization to Construct

FLOODPLAIN NOTE:

THIS SITE IS NOT IN ANY SPECIAL FLOOD HAZARD AREAS OR FUTURE CONDITIONS FLOOD HAZARD AREAS, AS SHOWN ON FIRM PANEL 3720270500K DATED JULY 19, 2022.



GENERAL NOTES

- 1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST TOWN OF ZEBULON, WAKE COUNTY AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
- 2. CONTRACTOR SHALL HAVE NORTH CAROLINA ONE CALL (811) LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- 3. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.
- 4. BOUNDARY AND SURVEY INFORMATION IS TAKEN FROM A SURVEY BY ANGLE RIGHT LAND SURVEYING, PLLC DATED JUNE 1, 2022.
- 5. ALL CONSTRUCTION SHALL CONFORM TO A.D.A. STANDARDS.
- 6. NO PORTION OF THE PROPERTY IS LOCATED WITHIN A FEMA AE FLOOD ZONE BASED ON THE MAP #3720270500K MAP REVISED JULY 19, 2022.
- 7. THE ROAD CLASSIFICATIONS FOR THIS PROJECT CONSIST OF LOCAL AND ALLEY.

GRADING NOTES:

- 1. ALL CONSTRUCTION SHALL COMPLY WITH TOWN OF ZEBULON AND WAKE COUNTY STANDARDS AND SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, COORDINATING, AND PAYMENT FOR ALL NECESSARY LOCATING SERVICES INCLUDING INDEPENDENT LOCATING SERVICES. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES LOCATED AT LEAST 48 HOURS PRIOR TO BEGINNING DEMOLITION, EXCAVATION, OR ANY OTHER FORM OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS.
- 3. EXISTING IMPROVEMENTS DAMAGED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED OR REPLACED TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL PERMITS, INSPECTIONS, CERTIFICATIONS, AND OTHER REQUIREMENTS WHICH MUST BE MET UNDER THIS CONTRACT ARE OBTAINED.
- 5. IF DEPARTURES FROM THE PROJECT DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREFORE SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO CONSTRUCTION. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE OWNER'S REPRESENTATIVE.
- 6. THE ENGINEER DISCLAIMS ANY ROLE IN THE CONSTRUCTION MEANS AND/OR METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
- 7. TO MINIMIZE DAMAGE TO EXISTING TREES NEAR THE INTERIOR EDGE OF BUFFERS AND STREETSCAPES, THE CONTRACTOR SHALL CUT MIN. 2' TRENCHES ALONG THE LIMITS OF DISTURBANCE, SO AS TO CUT, RATHER THAN TEAR, THE TREE ROOTS. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL THE SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION PRIOR TO CERTIFICATE OF OCCUPANCY(CO) IS SCHEDULED. THE FENCING SHALL BE REMOVED PRIOR TO FINAL SITE INSPECTION FOR THE CO.
- 8. ALL STORM DRAIN FRAMES GRATES & HOODS SHALL BE STAMPED WITH "DRAINS TO RIVER" IN ACCORDANCE WITH TOWN OF ZEBULON STANDARDS.
- 9. ALL RISER STRUCTURES AND BARRELS MUST BE ON SITE BEFORE THE GRADING PERMIT IS ISSUED.
- 10. THIS PROJECT WILL REQUIRE A PRE-CONSTRUCTION CONFERENCE BEFORE THE GRADING PERMIT IS ISSUED.
- 11. ALL CUT AND FILL SLOPE THAT IS (2:1) OR GREATER SHALL BE STABILIZED WITH PERMANENT SLOPE RETENTION DEVICES OR A SUITABLE COMBINATION OF PLANTINGS AND RETENTION DEVICES. SLOPES GREATER THAN THREE TO ONE (3:1) SHALL NOT BE STABILIZED WITH TURF GRASS BUT MUST BE STABILIZED WITH VEGETATION THAT REQUIRES MINIMAL MAINTENANCE. WEEPING LOVE GRASS, RED FESCUE OR OTHER APPROVED VARIETY. (CHAPTER 7, PART 2, SECTION 4, (G) LDO).
- 12. THE ESTABLISHMENT OF PERMANENT GROUND COVER WILL BE ESTABLISHED IN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICH EVER IS SHORTER. THE SITE SHALL BE STABILIZED AND SEEDED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO).
- 13. THE TREE PROTECTION FENCING ON THIS PROJECT WILL BE INSTALLED AND INSPECTED BEFORE THE GRADING PERMIT IS ISSUED. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO). THE FENCING SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FINAL SITE INSPECTION FOR THE SITE.
- 14. THE PROJECT WILL MEET ALL OF THE REQUIREMENTS RELATIVE TO BEST MANAGEMENT PRACTICES AND ENGINEERED STORMWATER CONTROL STRUCTURES AS OUTLINED IN THE TOWN OF ZEBULON UNIFIED DEVELOPMENT ORDINANCE. (CHAPTER 4, PART 4.6, LDO).
- 15. ALL LEVEL SPREADERS ON THE PROJECT MUST BE LOCATED ON COMMON OPEN SPACE, HAVE AN ACCESS AND MAINTENANCE EASEMENTS LOCATED AROUND THEM AND INCLUDE AN OPERATIONS AND MAINTENANCE MANUAL AND A MAINTENANCE AGREEMENT.
- 16. NO TIEBACKS FOR RETAINING WALLS WILL BE ALLOWED TO ENCROACH INTO THE CITY OF RALEIGH PUBLIC UTILITY EASEMENT.
- 17. RETAINING WALLS WILL REQUIRE A SEPARATE PERMIT FROM THE TOWN OF ZEBULON INSPECTIONS AND PERMITS DEPARTMENT.
- 18. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. THE FENCING SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FINAL SITE INSPECTION FOR THE SITE.
- 19. THE SITE SHALL BE STABILIZED AND SEEDED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. (CO)

20. CURB INLET RIM ELEVATIONS REFER TO FLOW LINE. ADD 6" FOR TOP OF CURB ELEVATION.

21. ALL STORM DRAIN FRAMES, GRATES AND HOODS SHALL BE STAMPED WITH "DRAINS TO RIVER" IN ACCORDANCE WITH TOWN OF ZEBULON STANDARDS.

22. RISER STRUCTURES AND BARRELS MUST BE ON SITE BEFORE THE GRADING PERMIT IS ISSUED.

SCM CONSTRUCTION NOTES:

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF ZEBULON AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
- THE PROJECT WILL MEET ALL REQUIREMENTS RELATIVE TO BEST MANAGEMENT PRACTICES AND ENGINEERED STORMWATER CONTROL STRUCTURES AS OUTLINED IN THE NCDEQ STORMWATER DESIGN MANUAL.
- 3. THE CONTRACTOR SHALL WARRANTY ALL PLANTED MATERIALS FOR A PERIOD OF 2 YEARS FROM DATE OF INSTALLATION. AT THE END OF THE FIRST YEAR AND AT THE END OF THE SECOND YEAR, THE CONTRACTOR SHALL REPLACE ALL PLANTS WHICH DO NOT SURVIVE. ANY HEALTHY PLANTS DAMAGED DURING PLANT REPLACEMENT SHALL ALSO BE REPLACED.
- 4. LANDSCAPING PLANTINGS SHOWN HEREON SHALL BE INSTALLED DURING FALL SEASON OR EARLY WINTER IF POSSIBLE FOR MAXIMUM PLANT SURVIVABILITY.
- 5. THE CONTRACTOR OR OWNER SHALL EMPLOY A GEOTECHNICAL ENGINEER TO TEST ALL EMBANKMENTS AND FILL PLACEMENT FOR PROPER COMPACTION. PROPER COMPACTION SHALL BE PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS OR THESE PLANS, WHICHEVER IS MORE STRINGENT. EMBANKMENTS FOR BASINS SHALL BE PLACED IN 6 INCH LOOSE LAYERS AND SHALL BE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY AT A MOISTURE CONTENT OF + OR TWO PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698. THE CONTRACTOR SHALL TAKE PHOTOGRAPHS OF THE OUTLET STRUCTURE AT ALL PHASES OF INSTALLATION AND SHALL RETAIN WITH GEOTECHNICAL TESTING DATA. THE CONTRACTOR SHALL ALSO RETAIN ALL SHIPPING RECORDS AND SPECIFICATIONS FOR THE OUTLET STRUCTURE MATERIALS AND STRUCTURES. ALL OF THE ABOVE DATA MAY BE REQUIRED AS PART OF THE MUNICIPALITY AS-BUILT PROCESS AND SHALL DE MADE AVAILABLE TO THE ENGINEER UPON REQUEST. THE CONTRACTOR AND OWNER SHALL HAVE DOCUMENTATION OF THESE TESTS AVAILABLE UPON REQUEST.

EROSION CONTROL NOTES

PLLC DATED JUNE 1, 2022.

- 1. ALL CONSTRUCTION SHALL COMPLY WITH TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS.
- ALL CONSTRUCTION SHALL COMPLY WITH TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS.
 EXISTING CONDITION INFORMATION SHOWN IS TAKEN FROM A SURVEY BY ANGLE RIGHT LAND SURVEYING,
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, COORDINATING, AND PAYMENT FOR ALL NECESSARY LOCATING SERVICES INCLUDING INDEPENDENT LOCATING SERVICES. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES LOCATED AT LEAST 48 HOURS PRIOR TO BEGINNING DEMOLITION, EXCAVATION, OR ANY OTHER FORM OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OR ANY DISCREPANCIES OR CONFLICTS.
- 4. EXISTING IMPROVEMENTS DAMAGED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED OR REPLACED TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL PERMITS, INSPECTIONS, CERTIFICATIONS, AND OTHER REQUIREMENTS WHICH MUST BE MET UNDER THIS CONTRACT ARE OBTAINED.
- 6. IF DEPARTURES FROM THE PROJECT DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREFORE SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO CONSTRUCTION. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE OWNER'S REPRESENTATIVE.
- 7. THE ENGINEER DISCLAIMS ANY ROLE IN THE CONSTRUCTION MEANS AND/OR METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
- 8. THE STREETS IN FRONT OF THE PROJECT WILL BE KEPT CLEAN AT ALL TIMES OR A WASH STATION WILL BE REQUIRED.
- 9. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO). THE FENCING SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FINAL SITE
- 10. TREE PROTECTION FENCING SHALL NOT BE MOVED AND THERE SHALL BE NO ENCROACHMENT INTO SUCH PROTECTED AREA(S) WITHOUT WRITTEN AUTHORIZATION OF THE TOWN'S ZONING COMPLIANCE STAFF. ANY ACTIVITY (LANDSCAPING, FENCING, OR UTILITY INSTALLATION) SHOWN ON THE APPROVED PLANS IN A TREE PROTECTION AREA, SHALL ALSO NOT OCCUR WITHOUT WRITTEN AUTHORIZATION FROM THE TOWN'S ZONING COMPLIANCE STAFF. ANY UNAUTHORIZED ENCROACHMENT OR DISTURBANCE WITHIN THE BOUNDARIES OF A TREE PROTECTION AREA SHALL AUTOMATICALLY RESULT IN FINES AND THE REPLACEMENT OF ANY DAMAGED VEGETATION IN ACCORDANCE WITH THE LAND DEVELOPMENT ORDINANCE.

NPDES PLAN NOTES

- THIS PAGE IS SUBMITTED TO COMPLY WITH NPDES GENERAL STORMWATER PERMIT NCG010000.
 THIS PAGE CAN BE APPROVED BY THE CITY PURSUANT TO NPDES GENERAL STORMWATER PERMIT
- NCG010000 ONLY.
- 3. THIS PAGE OF THE APPROVED PLANS IS ENFORCEABLE EXCLUSIVELY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000.

STANDARD UTILITY NOTES

- ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)
- 2. UTILITY SEPARATION REQUIREMENTS:
 - A) A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL B) WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS. THE
 - VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER
 - C) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE
 - D) 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER

 E) MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS: MAINTAIN 24" MIN. VERTICAL SEPARATION AT
 - ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49)
- F) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED
 3. ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION
- 4. DEVELOPER SHALL PROVIDE 30 DAYS ADVANCE WRITTEN NOTICE TO OWNER FOR ANY WORK REQUIRED WITHIN AN EXISTING CITY OF RALEIGH UTILITY EASEMENT TRAVERSING PRIVATE PROPERTY
- 5. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES
- 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES
 DEPARTMENT

 6. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCE
- MAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS

 7. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE
- 8. INSTALL ¾" COPPER* WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE
- INSTALL 4" PVC* SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM
- 10. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE
 11. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED
- FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.

 12. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION

FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR

- 13. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BEASLEY AT (919) 996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION
- 14. CROSS—CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX—B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS—CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996—5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION

PLANTING NOTES:

LOCATE PLANTS AND PLANTING BEDS BY USING SCALED DIMENSIONS FROM STREET, PROPERTY LINES, BACK OF CURB, BUILDINGS, WALLS, ETC. ALL PLANTS
SHALL MEET OR EXCEED THE MINIMUM STANDARDS SET BY THE U.S.D.A. FOR NURSERY STOCK SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN,

SHALL MEET OR EXCEED THE MINIMUM STANDARDS SET BY THE U.S.D.A. FOR NURSERY STOCK SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., WASHINGTON, D.C. NO SUBSTITUTIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL FROM THE OWNER AND/OR THE LANDSCAPE ARCHITECT.

SYMBOLS: B&B = BALLED & BURLAPPED; B.R. = BARE ROOT; CONT. = CONTAINER, O.C. = ON-CENTER, (R) = TO REMAIN

MULCH: MULCH ALL BED AREAS WITH HARDWOOD MULCH TO A DEPTH OF 3".

1. ANY TREES IN SIGHT TRIANGLES WILL BE LIMBED UP TO A HEIGHT OF 8'. ALL SHRUBS LOCATED IN SIGHT TRIANGLES WILL BE MAINTAINED BELOW 2'.

2. ALL SHRUB SPECIES SHALL REACH A MINIMUM OF 36" WITHIN THREE YEARS OF INSTALLATION.

LANDSCAPE REQUIREMENTS:

- 1. THE SITE SHALL BE STABILIZED AND SEEDED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY
- 2. ALL MECHANICAL EQUIPMENT, WASTE DISPOSAL FACILITIES, AND VEHICULAR USE AREAS (DRIVES AND PARKING) SHALL BE SCREENED FROM PUBLIC VIEW.
- 3. ALL ABOVE GROUND UTILITY EQUIPMENT AND FACILITIES ASSOCIATED WITH ON-SITE ELECTRIC, CABLE, TELEPHONE, GAS OR OTHER SIMILAR UTILITY SHALL BE LOCATED IN THE SIDE OF REAR YARD AREA OF THE SITE AND SCREENED, TO THE EXTENT POSSIBLE, WITH EVERGREEN PLANTINGS. PLANTINGS SHALL ALLOW FOR A MINIMUM OF 5' CLEARANCE AROUND THE STRUCTURE TO ALLOW FOR ACCESS. ADDITIONALLY, ANY SIDE OF THE STRUCTURE HAVING A DOOR OR LOCK, THE PLANTINGS SHALL ALLOW FOR A 10' CLEARANCE. THE AMOUNT OF CLEARANCE SHALL ACCOUNT FOR THE SIZE OF THE PLANT MATERIAL AT MATURITY.
- 4. THE SIZE OF THE PLANTING AREA AND SIZE OF PLANT MATERIAL AT MATURITY SHALL ALLOW FOR A 2.5' BUMPER OVERHANG FROM THE BACK OF CURB.
- 5. NO TREE SHALL BE LOCATED WITHIN A ROADWAY RIGHT OF WAY OR WITHIN 5' OF A SIDEWALK AND WITHIN 20' OF A LIGHTING LOCATION.
- 6. ALL SHRUBS INSTALLED AS VEHICULAR USE SCREENING WILL BE MAINTAINED AS A CONTINUOUS HEDGE AT A MINIMUM HEIGHT OF 36 INCHES.
- 7. WHERE EXISTING OR PROPOSED VEGETATION FAILS TO FUNCTION ADEQUATELY AS REQUIRED, THE TOWN OF ZEBULON SITE INSPECTOR RESERVES THE RIGHT TO REQUIRE SUPPLEMENTAL PLANTINGS IN ADDITION TO THOSE SHOWN ON THE LANDSCAPE PLAN BASED ON ACTUAL FIELD CONDITIONS.
- 8. UPON ESTABLISHMENT OF FINISHED GRADES AND PRIOR TO BEGINNING INSTALLATION OF ANY TREES, A SOIL AMENDMENT SCHEDULE FOR ALL TREE PLANTINGS SHALL BE PREPARED BY A CERTIFIED LANDSCAPE ARCHITECT AND BE PROVIDED TO THE TOWN OF ZEBULON PLANNING DEPARTMENT.9. PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, A CERTIFIED STATEMENT SHALL BE PROVIDED TO CITY STAFF SITE INSPECTOR ATTESTING TO THE FACT THAT THE SOIL AMENDMENT SCHEDULE WAS FOLLOWED AS
- SPECIFIED IN THE APPROVED SITE AND/OR SUBDIVISION PLAN. THIS STATEMENT SHALL BE CERTIFIED BY A REGISTERED LANDSCAPE ARCHITECT, CERTIFIED ARBORIST, OR OTHER SPECIALIST AS DETERMINED ACCEPTABLE BY THE PLANNING DIRECTOR.

 10. THE PROPERTY OWNER OR DEVELOPER SHALL PROVIDE FOR CONTINUOUS MAINTENANCE OF THE LANDSCAPE AREAS AFTER OCCUPANCY OF THE BUILDING. THE PROPERTY OWNER SHALL ENSURE THAT PERFORMANCE CRITERIA WITHIN THIS ORDINANCE AND/OR INCLUDED ON THE APPROVED SITE AND/OR SUBDIVISION PLAN ARE MET. FAILURE TO CORRECT DEFICIENCIES IN A TIMELY MANOR SHALL RESULT IN A CITATION FOR VIOLATION OF THIS
- 11. ALL FOUNDATION PLANTINGS SHALL BE DESIGNED TO TOWN OF ZEBULON UDO SECTION REQUIREMENTS.
 THE TOWN OF ZEBULON SITE INSPECTOR RESERVES THE RIGHT TO REQUIRE ADDITIONAL PLANTINGS BASED ON ACTUAL FIELD CONDITIONS.
- 12. ALL PLANTINGS WITHIN THE SIGHT DISTANCE TRIANGLES MUST BE 30 INCHES OR LESS IN HEIGHT OR MUST BE LIMBED UP TO PROVIDE 8'FROM THE LOWEST LIMBS TO THE CURB LINE ELEVATION OR THE NEAREST TRAVEL WAY IF NO CURBING FXISTS.

LANDSCAPE MAINTENANCE PLAN:

ORDINANCE IN ACCORDANCE WITH CHAPTER 11.

THE OWNERS OF THE PROPERTY AND THEIR AGENTS, HEIRS OR ASSIGNS SHALL BE RESPONSIBLE FOR THE INSTALLATION, PRESERVATION AND MAINTENANCE OF ALL PLANTINGS AND PHYSICAL FEATURES SHOWN ON THIS PLAN. THE OWNERS SHALL BE RESPONSIBLE FOR ANNUAL MAINTENANCE OF THE VEGETATION TO INCLUDE BUT NOT LIMITED TO:

- A. FERTILIZATION: FERTILIZE LAWNS TWICE PER YEAR (FEBRUARY 15-MARCH 15 AND AGAIN SEPTEMBER 1-OCTOBER 31) ACCORDING TO SOIL TEST. FERTILIZE WARM SEASON GRASSES ONCE DURING THE GROWING SEASON PER
- B. PRUNING: PRUNING SHALL BE LIMITED TO REMOVAL OF DEAD WOOD OR BRANCHES FOR TREES OR FOR SIGHT DISTANCES/SAFETY REASONS. THE ANSI A300 STANDARDS SHOULD BE ADHERED TO. THE PRUNING OF SHRUBS SHALL BE LIMITED TO THE PRUNING NECESSARY TO MAINTAIN THE NATURAL SHAPE OF THE PLANT EXCEPT FOR SHEARED HEDGES.
- C. PEST CONTROL: PRE-EMERGENT WEED CONTROL FOR SHRUB BEDS MAY BE APPLIED IN FEBRUARY. CHEMICAL TREATMENT FOR INSECT INFESTATION AND DISEASE MAY BE APPLIED AND SHALL BE SPECIFIC TO THE
- D. MULCHING: MULCHING SHALL BE MAINTAINED AT A DEPTH OF 2-3" IN SHRUB BEDS. MULCH SHALL BE REAPPLIED EVERY TWO YEARS. AS NECESSARY TO MAINTAIN THE AVERAGE DEPTH OF THE PLANT BED.
- E. MOWING: PRIMARY FESCUE LAWNS SHALL BE MAINTAINED AT A HEIGHT OF 3" AND SHALL BE MOWED APPROXIMATELY 30 TIMES PER YEAR. SECONDARY TURF AREAS MAY BE MAINTAINED HIGHER AND LESS FREQUENTLY.
- WARM SEASON GRASSES SHALL BE MOWED AS NEEDED DURING THE GROWING SEASON TO MAINTAIN THE RECOMMENDED HEIGHT OF THE SPECIES OF TURF GRASS.

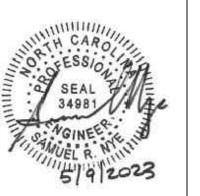
 F. PLANT PROTECTION: AVOID EXCESS INTRUSION INTO THE ROOT ZONE AREA OF ESTABLISHED PLANTINGS.
- G. WATERING: IF ANY IRRIGATION SYSTEM IS UTILIZED, THE SYSTEM SHALL BE REGULATED TO PROVIDE APPROXIMATELY 1" OF RAINFALL PER WEEK DURING THE GROWING SEASON. (PENDING TOWN OF ZEBULON
- H. PLANT REPLACEMENT: ANY REQUIRED PLANTING, WHICH IS REMOVED OR DIES AFTER DATE OF PLANTING SHALL BE REPLACE DURING THE NEXT PLANTING SEASON. ALSO, ANY TREE IN A TREE PRESERVATION AREA WHICH IS REMOVED OR DIES SHALL BE REPLACED DURING THE NEXT PLANTING SEASON.

REMOVAL OF DISEASE INFESTED MATERIAL SHALL BE ALLOWED SO LONG AS REQUIRED SHRUBS ARE REPLACED AT THE REQUIRED RATES AND SIZES.

FAILURE TO MAINTAIN REQUIRED LANDSCAPE AREAS SHALL CONSTITUTE A VIOLATION OF THIS UDO ENFORCEABLE UNDER THE PROVISIONS OF SECTION 10-ENFORCEMENT.



NC ENGINEERING LICENSE NO. P-0803



THE CTS

NDSCAPE ARCHIT

//L ENGINEERS • LANDS E SITE GROUP, PLLC. 11 Oberlin Road leigh, NC 27605-1136 fice: 919.835.4787 x: 919.839.2255

AWINGS FOR:
W TOWNES

PARKV 0 E. BARBEE ZEBULON, NO

Drawn

Checked

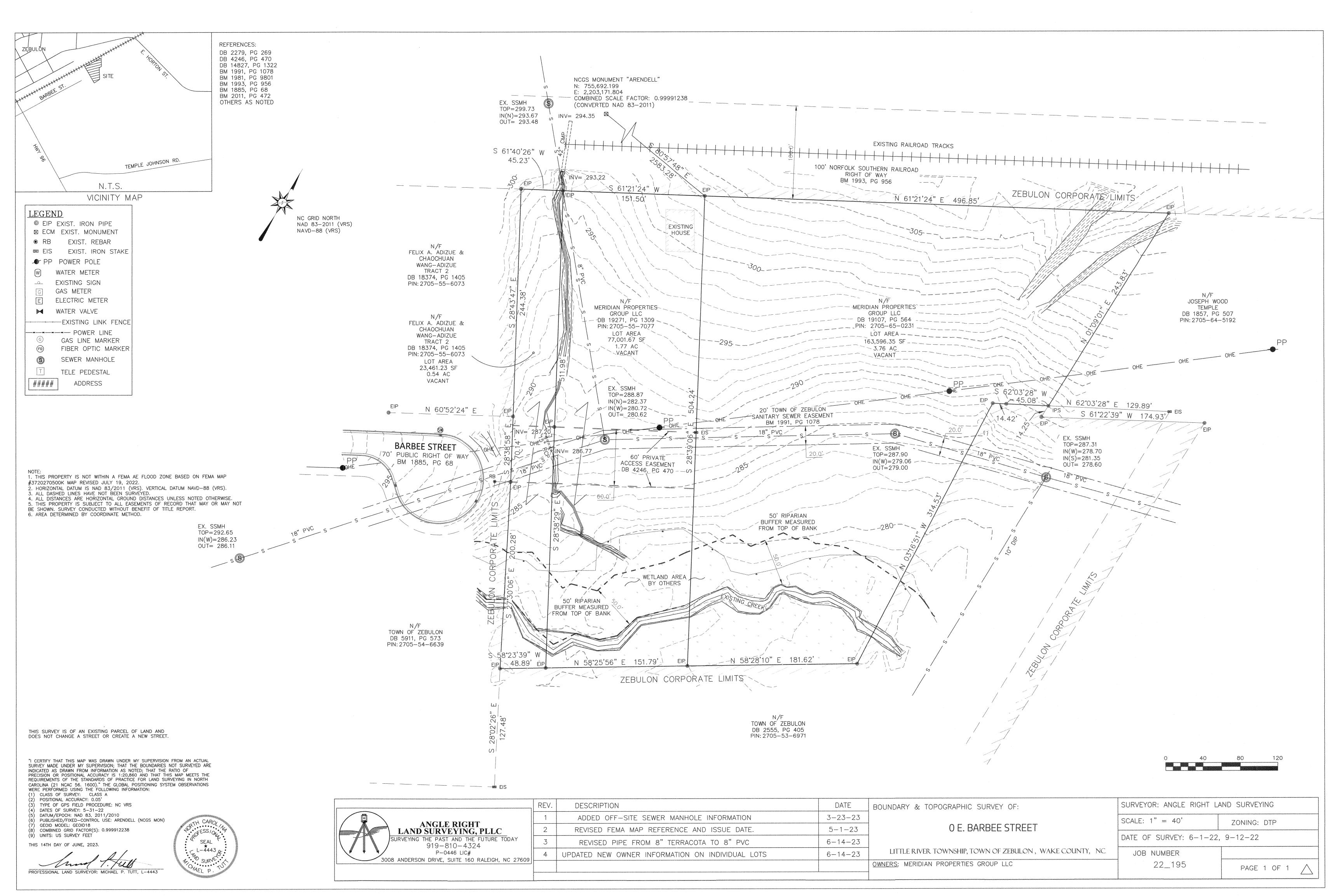
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03 FEB 2023
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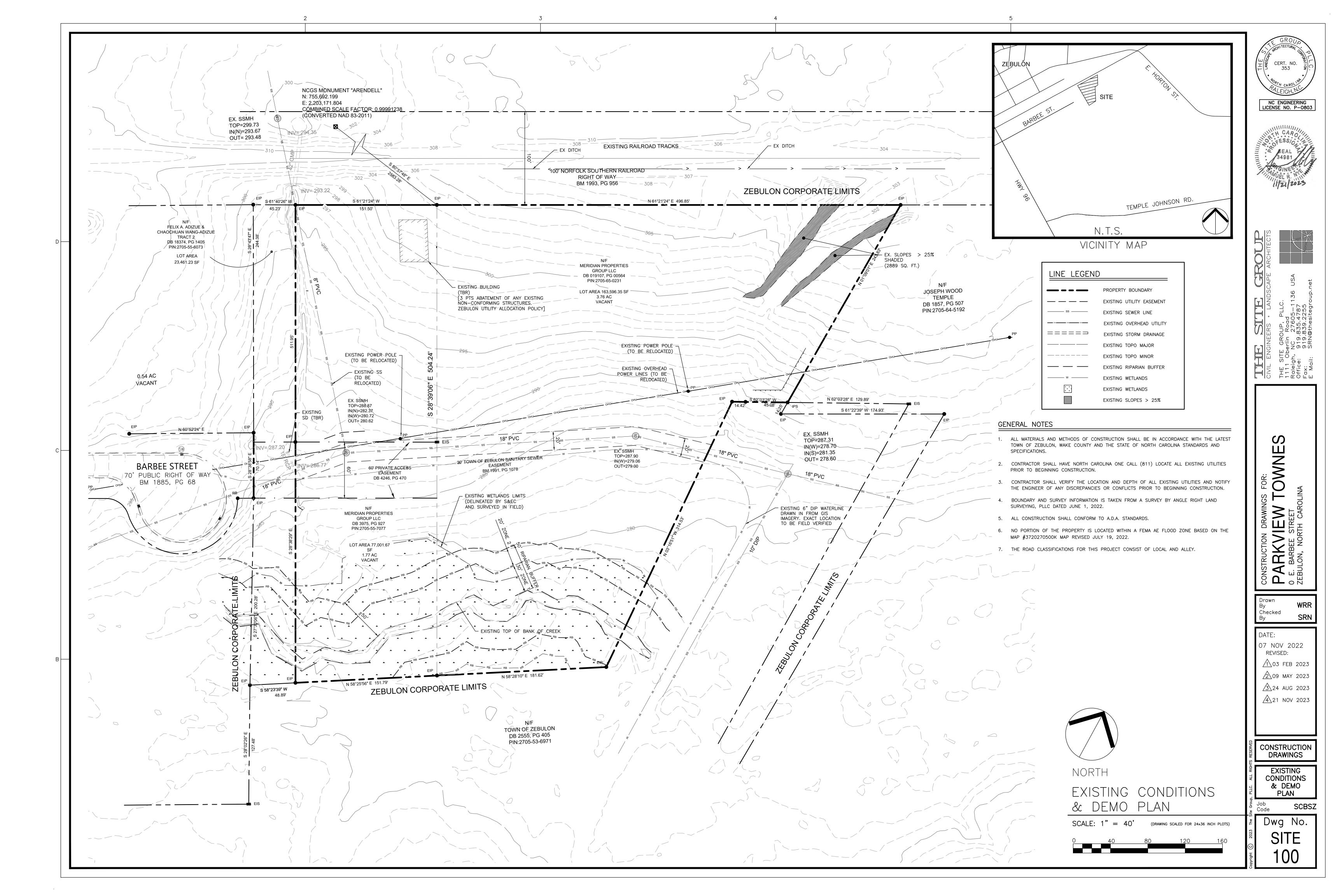
/1\09 MAY 2023

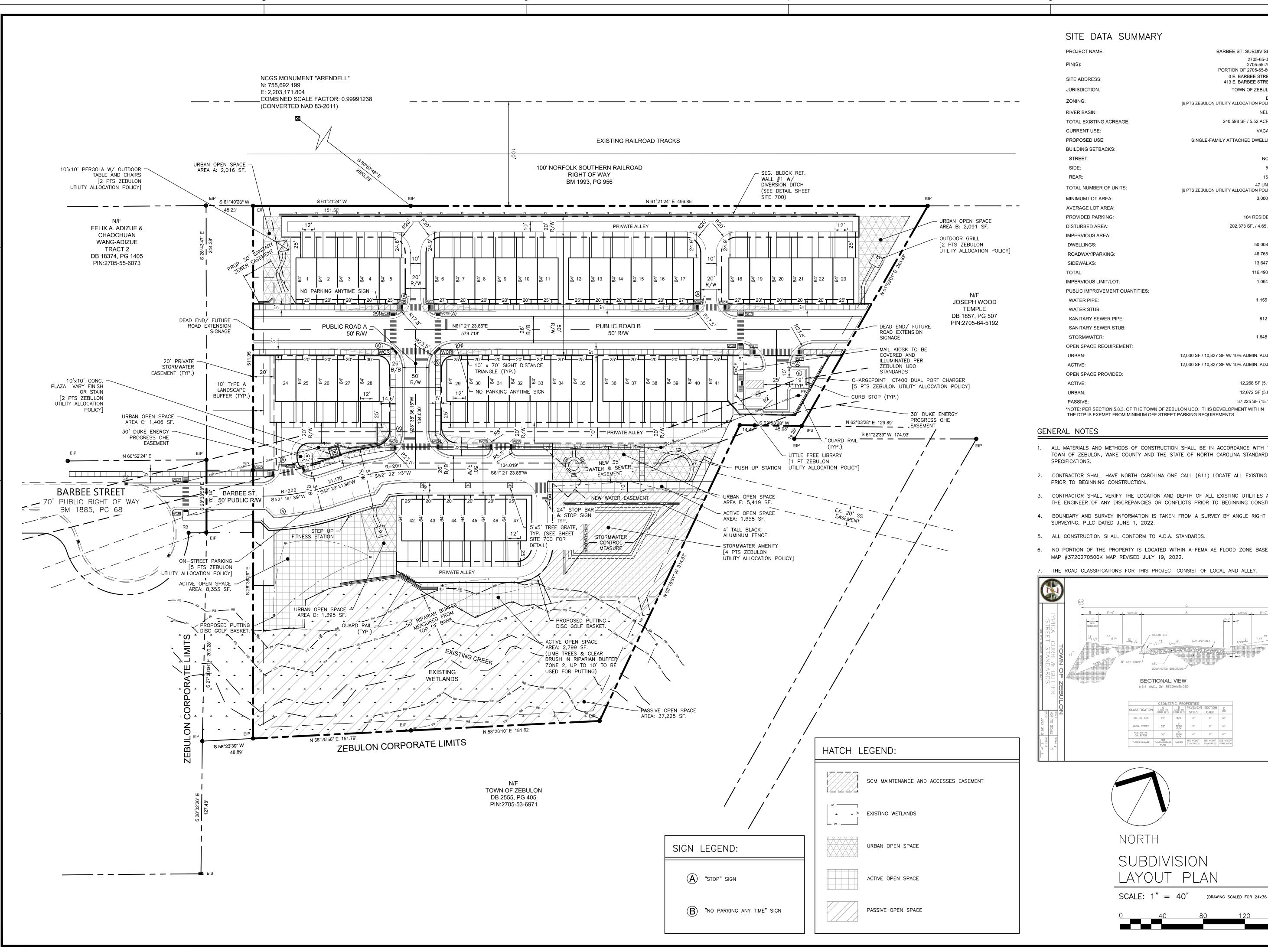
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CONSTRUCTION DRAWINGS

PROJECT NOTES





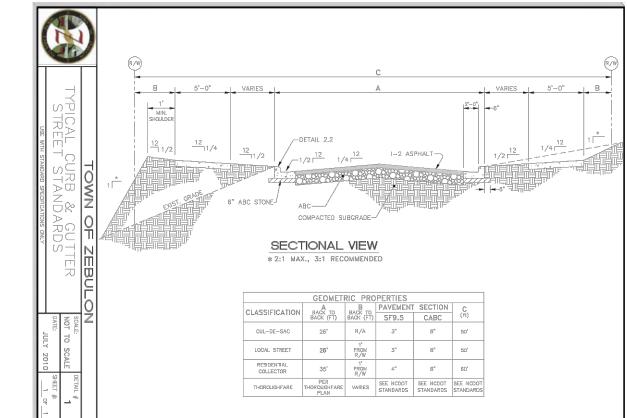


SITE DATA SUMMARY

PROJECT NAME: BARBEE ST. SUBDIVISION 2705-65-023 2705-55-7077 PORTION OF 2705-55-6073 0 E. BARBEE STREET SITE ADDRESS: 413 E. BARBEE STREET JURISDICTION: TOWN OF ZEBULON ZONING: [6 PTS ZEBULON UTILITY ALLOCATION POLICY] RIVER BASIN: TOTAL EXISTING ACREAGE 240,598 SF / 5.52 ACRES CURRENT USE: PROPOSED USE: SINGLE-FAMILY ATTACHED DWELLING BUILDING SETBACKS STREET: SIDE: REAR: TOTAL NUMBER OF UNITS: [6 PTS ZEBULON UTILITY ALLOCATION POLICY] MINIMUM LOT AREA: AVERAGE LOT AREA PROVIDED PARKING: 104 RESIDENT DISTURBED AREA: 202,373 SF. / 4.65 AC. IMPERVIOUS AREA: DWELLINGS: 50,008 SF ROADWAY/PARKING 46,765 SF SIDEWALKS: 116,490 SF TOTAL: IMPERVIOUS LIMIT/LOT: 1,064 SF PUBLIC IMPROVEMENT QUANTITIES: 1,155 FT. WATER PIPE: WATER STUB: SANITARY SEWER PIPE: 812 FT. SANITARY SEWER STUB 1,648 FT. STORMWATER: OPEN SPACE REQUIREMENT: URBAN: 12,030 SF / 10,827 SF W/ 10% ADMIN. ADJST. ACTIVE: 12,030 SF / 10,827 SF W/ 10% ADMIN. ADJST. OPEN SPACE PROVIDED: ACTIVE: 12,268 SF (5.1%) 12,072 SF (5.0%)

GENERAL NOTES

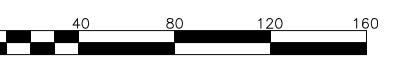
- 1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST TOWN OF ZEBULON, WAKE COUNTY AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
- 2. CONTRACTOR SHALL HAVE NORTH CAROLINA ONE CALL (811) LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- 3. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.
- 4. BOUNDARY AND SURVEY INFORMATION IS TAKEN FROM A SURVEY BY ANGLE RIGHT LAND SURVEYING, PLLC DATED JUNE 1, 2022.
- 5. ALL CONSTRUCTION SHALL CONFORM TO A.D.A. STANDARDS.
- 6. NO PORTION OF THE PROPERTY IS LOCATED WITHIN A FEMA AE FLOOD ZONE BASED ON THE MAP #3720270500K MAP REVISED JULY 19, 2022.
- 7. THE ROAD CLASSIFICATIONS FOR THIS PROJECT CONSIST OF LOCAL AND ALLEY.

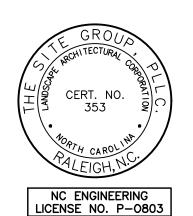




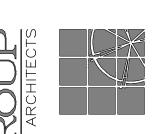
SUBDIVISION LAYOUT PLAN

SCALE: 1" = 40' (drawing scaled for 24x36 inch plots)









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BARBE LON, N E.E.

Drawn **WRR** Checked

DATE: 07 NOV 2022 REVISED: 1\03 FEB 2023 2\09 MAY 2023 3\24 AUG 2023 4\21 NOV 2023

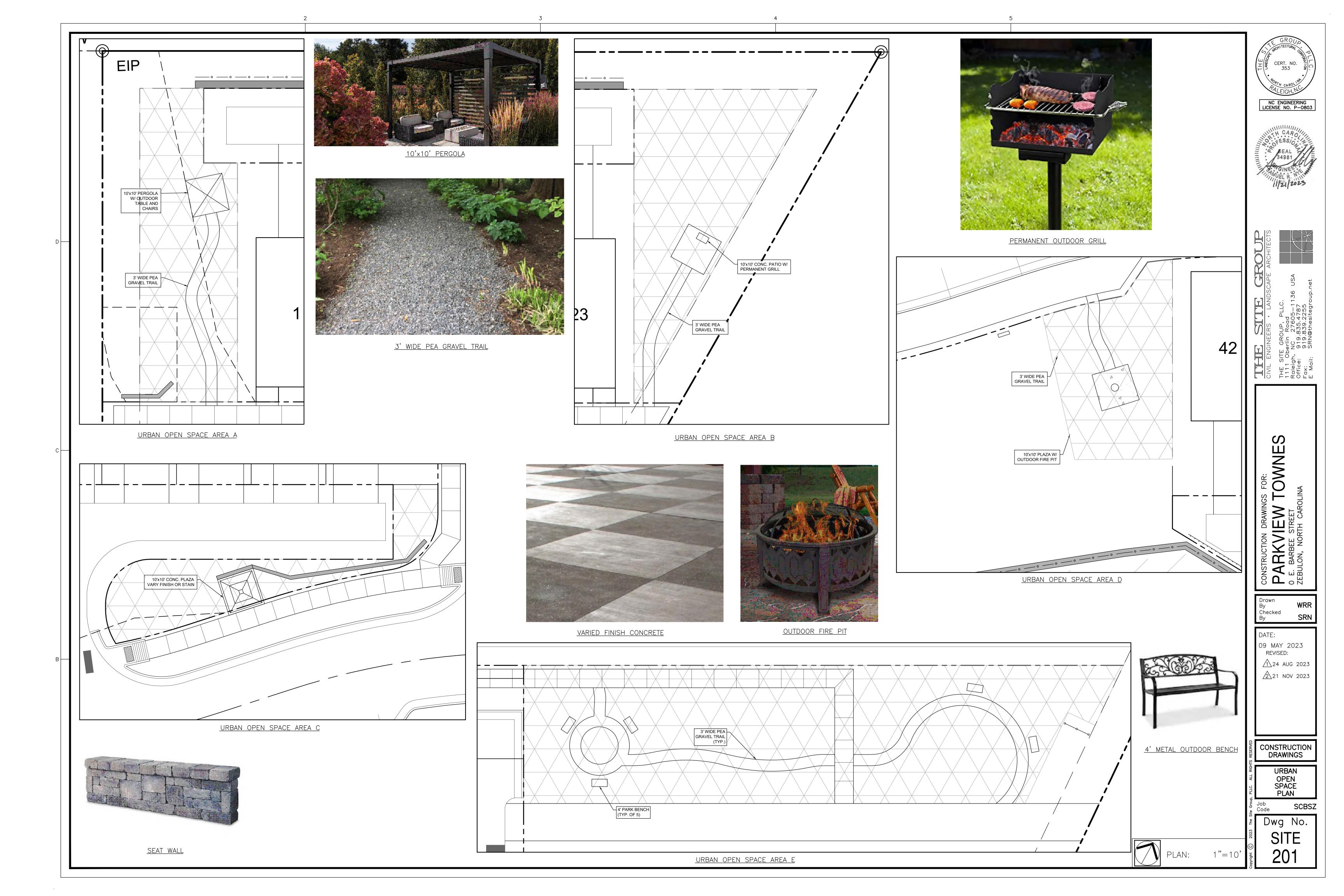
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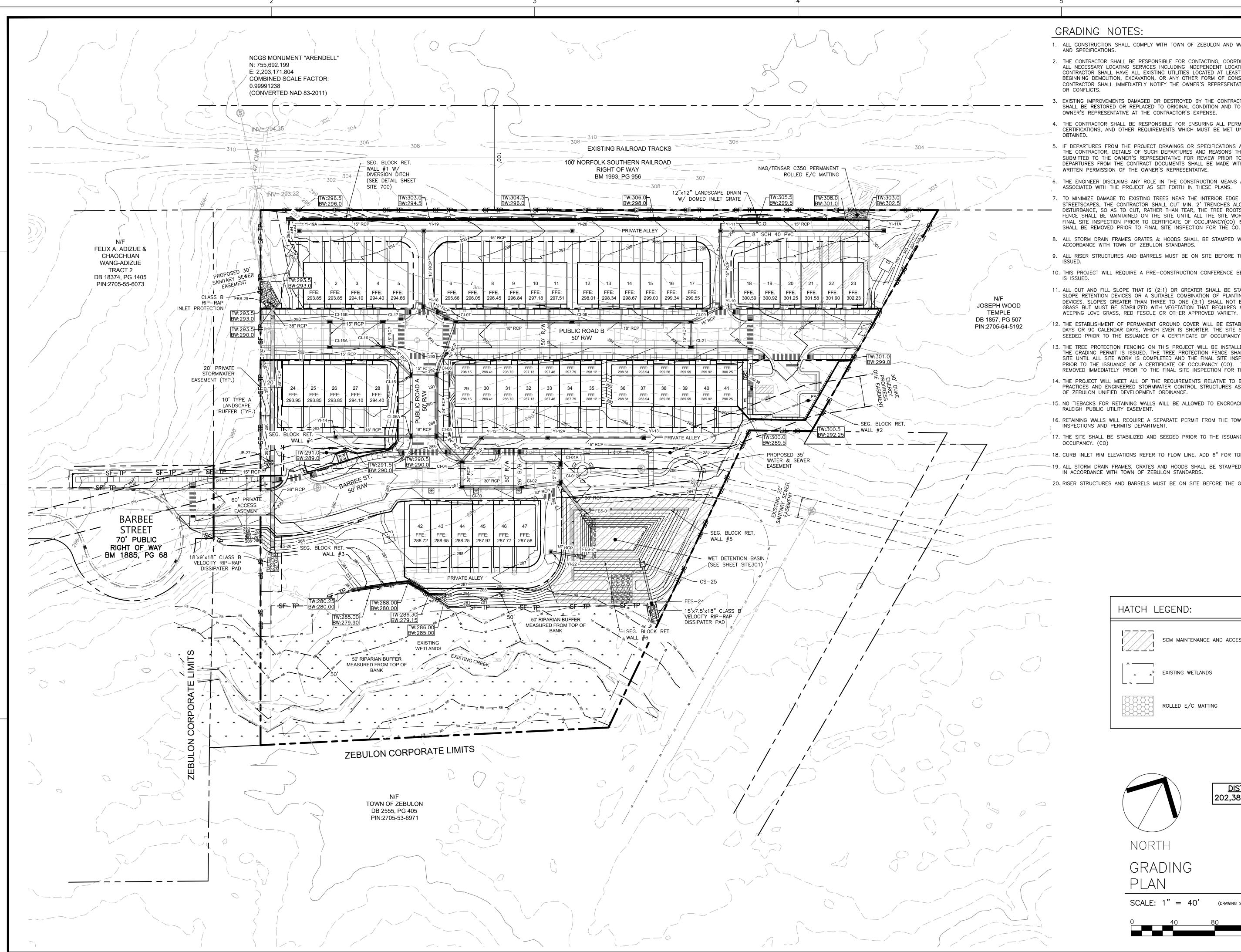
CONSTRUCTION DRAWINGS

SUBDIVISION LAYOUT PLAN

SCBSZ Dwg No.

SITE 200





- 1. ALL CONSTRUCTION SHALL COMPLY WITH TOWN OF ZEBULON AND WAKE COUNTY STANDARDS
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, COORDINATING, AND PAYMENT FOR ALL NECESSARY LOCATING SERVICES INCLUDING INDEPENDENT LOCATING SERVICES. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES LOCATED AT LEAST 48 HOURS PRIOR TO BEGINNING DEMOLITION, EXCAVATION, OR ANY OTHER FORM OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES
- 3. EXISTING IMPROVEMENTS DAMAGED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED OR REPLACED TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL PERMITS, INSPECTIONS, CERTIFICATIONS, AND OTHER REQUIREMENTS WHICH MUST BE MET UNDER THIS CONTRACT ARE
- 5. IF DEPARTURES FROM THE PROJECT DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREFORE SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO CONSTRUCTION. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE EXPRESS
- 6. THE ENGINEER DISCLAIMS ANY ROLE IN THE CONSTRUCTION MEANS AND/OR METHODS
- 7. TO MINIMIZE DAMAGE TO EXISTING TREES NEAR THE INTERIOR EDGE OF BUFFERS AND STREETSCAPES, THE CONTRACTOR SHALL CUT MIN. 2' TRENCHES ALONG THE LIMITS OF DISTURBANCE, SO AS TO CUT, RATHER THAN TEAR, THE TREE ROOTS. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL THE SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION PRIOR TO CERTIFICATE OF OCCUPANCY(CO) IS SCHEDULED. THE FENCING
- 8. ALL STORM DRAIN FRAMES GRATES & HOODS SHALL BE STAMPED WITH "DRAINS TO RIVER" IN
- 9. ALL RISER STRUCTURES AND BARRELS MUST BE ON SITE BEFORE THE GRADING PERMIT IS
- 10. THIS PROJECT WILL REQUIRE A PRE-CONSTRUCTION CONFERENCE BEFORE THE GRADING PERMIT
- 11. ALL CUT AND FILL SLOPE THAT IS (2:1) OR GREATER SHALL BE STABILIZED WITH PERMANENT SLOPE RETENTION DEVICES OR A SÙITABLE COMBINATION OF PLANTINGS AND RETENTION DEVICES. SLOPES GREATER THAN THREE TO ONE (3:1) SHALL NOT BE STABILIZED WITH TURF GRASS BUT MUST BE STABILIZED WITH VEGETATION THAT REQUIRES MINIMAL MAINTENANCE.
- /12. THE ESTABLISHMENT OF PERMANENT GROUND COVER WILL BE ESTABLISHED IN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICH EVER IS SHORTER. THE SITE SHALL BE STABILIZED AND SEEDED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO).
- 13. THE TREE PROTECTION FENCING ON THIS PROJECT WILL BE INSTALLED AND INSPECTED BEFORE THE GRADING PERMIT IS ISSUED. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO). THE FENCING SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FINAL SITE INSPECTION FOR THE SITE.
- 14. THE PROJECT WILL MEET ALL OF THE REQUIREMENTS RELATIVE TO BEST MANAGEMENT PRACTICES AND ENGINEERED STORMWATER CONTROL STRUCTURES AS OUTLINED IN THE TOWN
- -15. NO TIEBACKS FOR RETAINING WALLS WILL BE ALLOWED TO ENCROACH INTO THE CITY OF
- 16. RETAINING WALLS WILL REQUIRE A SEPARATE PERMIT FROM THE TOWN OF ZEBULON
- 17. THE SITE SHALL BE STABILIZED AND SEEDED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF
- 18. CURB INLET RIM ELEVATIONS REFER TO FLOW LINE. ADD 6" FOR TOP OF CURB ELEVATION.
- -19. ALL STORM DRAIN FRAMES, GRATES AND HOODS SHALL BE STAMPED WITH "DRAINS TO RIVER"

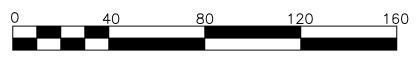
20. RISER STRUCTURES AND BARRELS MUST BE ON SITE BEFORE THE GRADING PERMIT IS ISSUED.

SCM MAINTENANCE AND ACCESS EASEMENT

ROLLED E/C MATTING

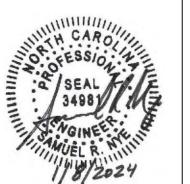
DISTURBED AREA 202,385 SF / 4.65 AC

(DRAWING SCALED FOR 24x36 INCH PLOTS)





NC ENGINEERING LICENSE NO. P-0803



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07 NOV 2022 REVISED:

1\03 FEB 2023 <u>/2</u>\09 MAY 2023 /3\24 AUG 2023 4\21 NOV 2023

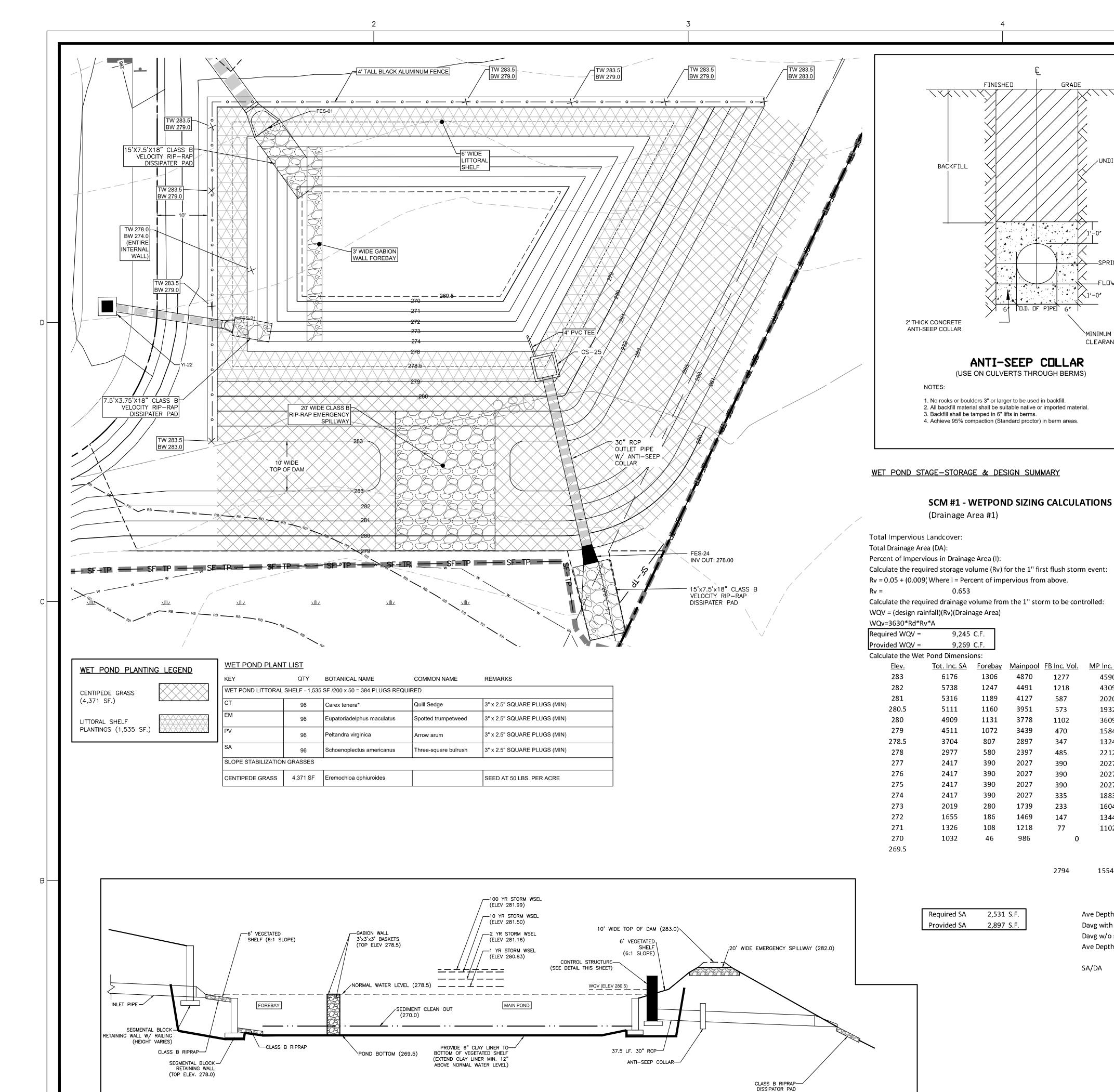
<u>√5</u>\12 DEC 2023 <u>∕6</u>\08 JAN 2024

CONSTRUCTION DRAWINGS

GRADING

Dwg No. SITE

300



WET DETENTION BASIN DETAIL

SCM CONSTRUCTION NOTES:

Area (Ac.)

<u>Total Vol.</u>

38942

33076

27549

24942

22437

17727

15673

14003

11306

8889

6472

4055

1837

(use greater)

6 (rounded down

to nearest 0.5')

<u>Inc. Vol.</u>

5866

5527

2607

2505

4710

2054

2697

2417

2417

2417

2218

1837

18% Forebay to Main Pool Volume

11,306 V-perm pool

5.37 d-ave

6.40 d-ave

6.40

1.49

9,269 V-water quality pool

2.630 3.900

67%

See A1 + A3 from

Pre-post calcs

WQv

A-top shelf

A-perm pool

A-bot shelf

0 Sed Cleanout

A-bot pond

∕UNDISTURBED S□IL

-SPRING LINE

MINIMUM SIDE

CLEARANCE

ANTI-SEEP COLLAR

4870

3778

3439

2897

2397

2027

2027

2027

2027

1739

1218

1072

807

580

390

390

390

390

108

46

2,531 S.F.

2,897 S.F.

573

1102

470

347

485

390

390

390

335

77

2794

1932

3609

1584

1324

2212

2027

2027

2027

1604

1344

1102

Ave Depth Calcs

Davg with shelf

Davg w/o shelf

Ave Depth

SA/DA

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF ZEBULON AND THE STATE OF NORTH CAROLINA

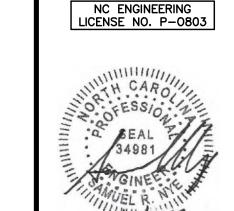
STANDARDS AND SPECIFICATIONS. 2. THE PROJECT WILL MEET ALL REQUIREMENTS RELATIVE TO BEST MANAGEMENT PRACTICES AND ENGINEERED STORMWATER CONTROL STRUCTURES AS OUTLINED IN THE NCDEQ STORMWATER DESIGN MANUAL.

3. THE CONTRACTOR SHALL WARRANTY ALL PLANTED MATERIALS FOR A PERIOD OF 2 YEARS FROM DATE OF INSTALLATION. AT THE END OF THE FIRST YEAR AND AT THE END OF THE SECOND YEAR, THE CONTRACTOR SHALL REPLACE ALL PLANTS WHICH DO NOT SURVIVE. ANY HEALTHY PLANTS DAMAGED DURING PLANT REPLACEMENT SHALL ALSO BE REPLACED.

4. SOIL BELOW ELEVATION 345.00 SHALL BE TESTED BY THE USDA AGRICULTURAL EXTENSION OFFICE FOR ph, WHICH MUST FALL BETWEEN 5.5 AND 7.0. TESTS SHALL ALSO BE PERFORMED FOR NUTRIENTS SUCH AS NITROGEN, PHOSPHORUS, AND POTASSIUM, AND FOR MINERALS SUCH AS CHELATED IRON AND LIME. AMENDMENTS TO SOIL RECOMMENDED BY USDA SHALL BE INCORPORATED INTO SOIL TO PROMOTE VIGOROUS VEGETATION AND PLANT GROWTH. RECORDS OF TESTS AND AMENDMENTS PROVIDED BY CONTRACTOR SHALL BE PROVIDED TO THE

5. LANDSCAPING PLANTINGS SHOWN HEREON SHALL BE INSTALLED DURING FALL SEASON OR EARLY WINTER IF

POSSIBLE FOR MAXIMUM PLANT SURVIVABILITY. 6. THE CONTRACTOR OR OWNER SHALL EMPLOY A GEOTECHNICAL ENGINEER TO TEST ALL EMBANKMENTS AND FILL PLACEMENT FOR PROPER COMPACTION. PROPER COMPACTION SHALL BE PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS OR THESE PLANS, WHICHEVER IS MORE STRINGENT. EMBANKMENTS FOR BASINS SHALL BE PLACED IN 6 INCH LOOSE LAYERS AND SHALL BE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY AT A MOISTURE CONTENT OF + OR - TWO PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698. THE CONTRACTOR SHALL TAKE PHOTOGRAPHS OF THE OUTLET STRUCTURE AT ALL PHASES OF INSTALLATION AND SHALL RETAIN WITH GEOTECHNICAL TESTING DATA. THE CONTRACTOR SHALL ALSO RETAIN ALL SHIPPING RECORDS AND SPECIFICATIONS FOR THE OUTLET STRUCTURE MATERIALS AND STRUCTURES. ALL OF THE ABOVE DATA MAY BE REQUIRED AS PART OF THE MUNICIPALITY AS-BUILT PROCESS AND SHALL DE MADE AVAILABLE TO THE ENGINEER UPON REQUEST. THE CONTRACTOR AND OWNER SHALL HAVE DOCUMENTATION OF THESE TESTS AVAILABLE UPON REQUEST.

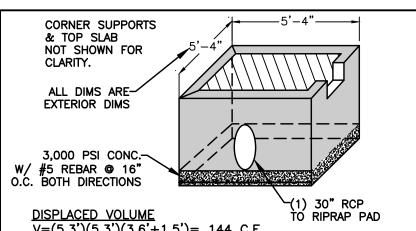


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CERT. NO.



DISPLACED VOLUME V=(5.3')(5.3')(3.6'+1.5')= 144 C.F. DISPLACE WATER=(144 CF)(62.4 PCF)=8,986 LBS ADD 15% FACTOR OF SAFETY=10,334 LBS

WEIGHT OF STRUCTURE WALLS=(2)(5.3'+4')(3.6')(8")(150 PCF)=6,696 LBS BASE=(5.3')(5.3')(1.5')(150 PCF)=6,320 LBS30" RCP=(3.14)(1.25²)(8")(150 PCF)=-491 LBS WEIR NOTCH=(1.83')(1.25')(8")(150 PCF)=-276 LBSSTRUCTURE WEIGHT=12,249 LBS > 10,334 LBS

WT. OF TOP SLAB=(5.3')(5.3')(8")(150 PCF)=2,809 LBS

CONCRETE ANTI-BOUYANCY FOOTING

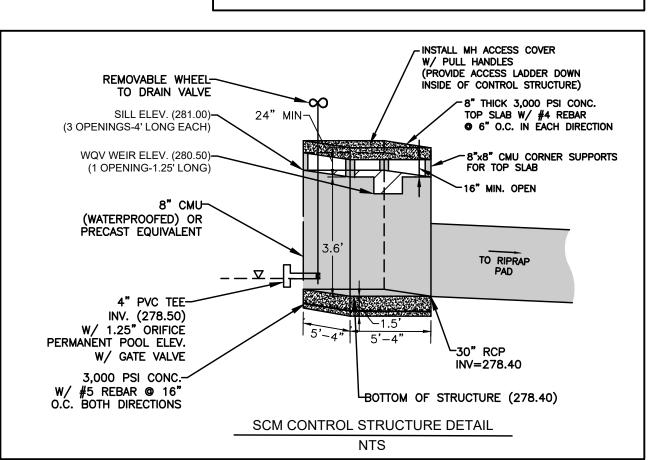
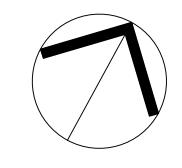


Table 1: Clay Liner Specifications (Source: VADCR, 1999). Test Method Unit Specification Property Permeability ASTM D-2434 Cm/sec 1 x 10°6 ASTM D-423/424 Plasticity Index of Clay Not less than 15 % Liquid Limit of Clay ASTM D-2216 % Not less than 30 Clay Particles Passing ASTM D-422 Not less than 30 % Clay Compaction ASTM D-2216 95% of standard proctor density

GRADING CONTRACTOR MUST DOCUMENT CLAY LINER AND VERIFY MATERIAL WITH GEOTECHNCIAL ENGINEER DURING CONSTRUCTION TO ENSURE POND HOLDS WATER. STRUCTURAL ENGINEER FOR RETAINING WALLS AND GEOTECHNICAL ENGINEER TO DESIGN CLAY LINER LOCATION SUCH THAT SEGMENTAL WALL BACKFILL DOES NOT DRAIN POND.



NORTH

SCM PLAN

SCALE: 1" = 10'(DRAWING SCALED FOR 24x36 INCH PLOTS)

CONSTRUCTION DRAWINGS

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Checked

07 NOV 2022

<u>∕1</u>\03 FEB 2023

2023 MAY 2023

<u>/3\</u>24 AUG 2023

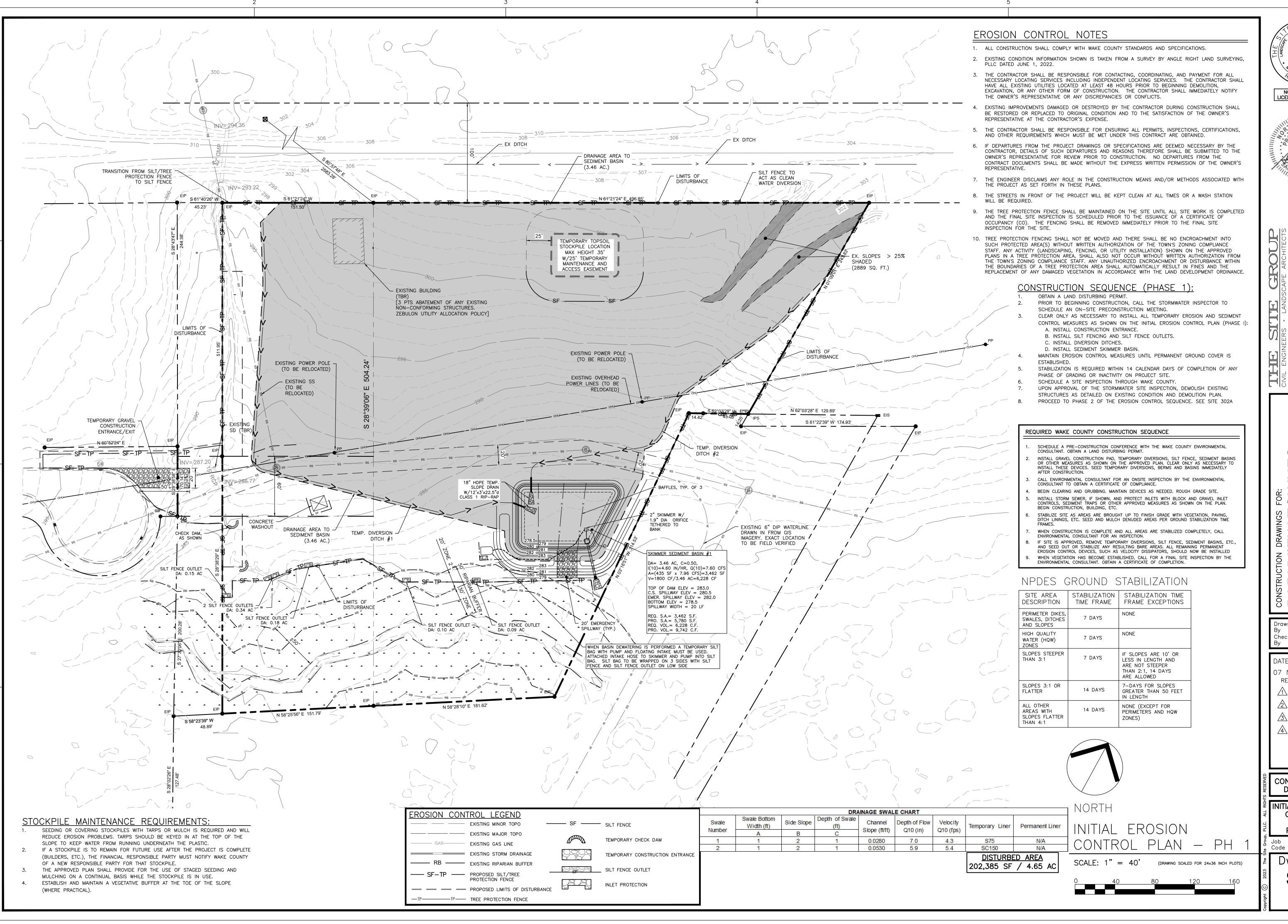
4\21 NOV 2023

REVISED:

PLAN

Dwg No.

SCBSZ





NC ENGINEERING LICENSE NO. P-0803



CAPE ARCHITECTS
USA

OUP, PLLC.
Road
27605-1136 USA
.835.4787

CIVIL ENGINEERS • 1

THE SITE GROUP, PLI
1111 Oberlin Road
Raleigh, NC 27605Office: 919.835.478
Fax: 919.839.225
F Mail: SRN@thesite.

JWNES

ONSTRUCTION DRAWINGS FOR:

ARKVIEW TOV

E. BARBEE STREET

SEBULON, NORTH CAROLINA

Drawn
By
Checked
By
SRN

07 NOV 2022 REVISED: 103 FEB 2023

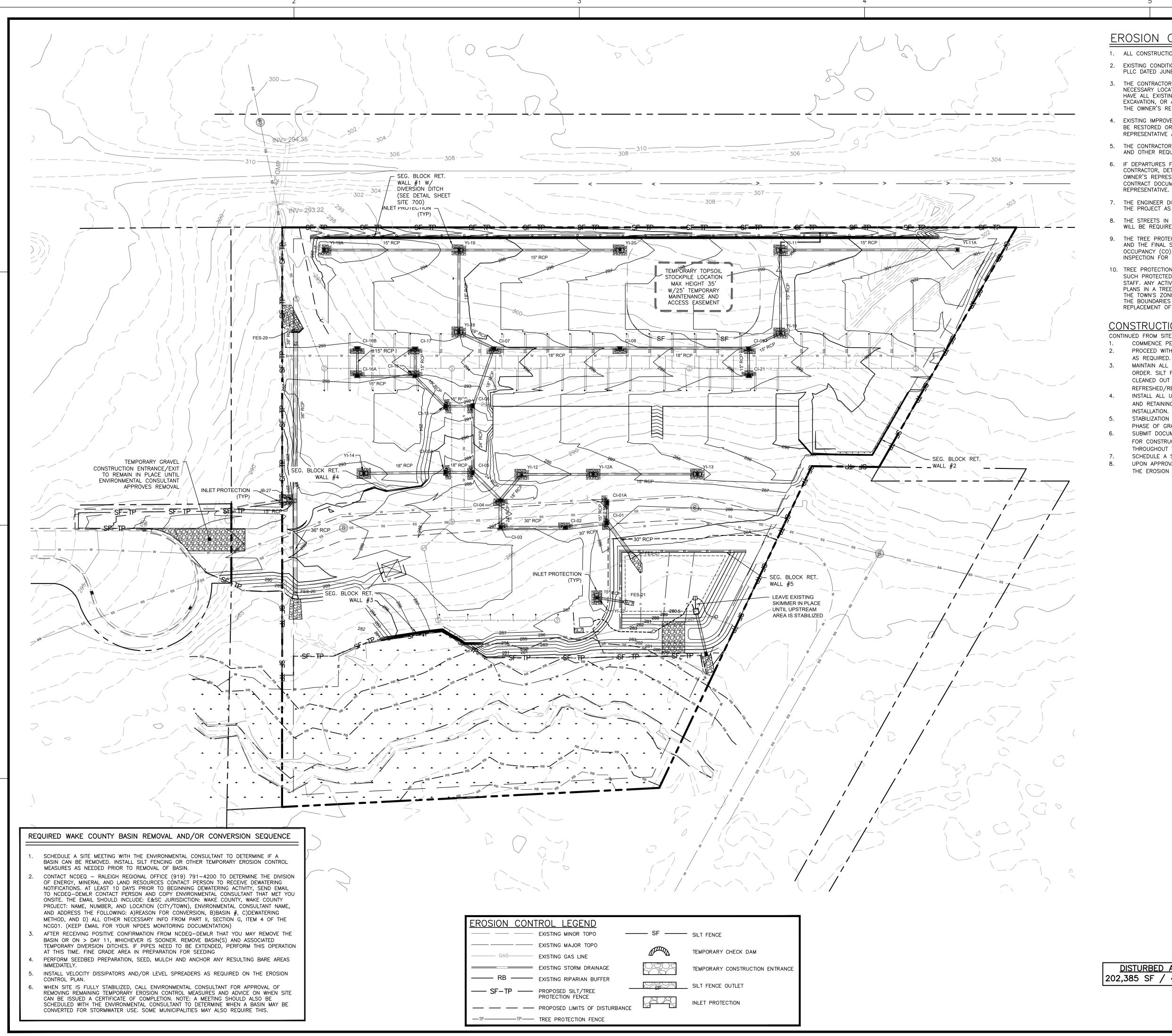
103 FEB 2023 209 MAY 2023 324 AUG 2023

23\24 AUG 2023 4\21 NOV 2023

CONSTRUCTION DRAWINGS

INITIAL EROSION CONTROL PLAN PHASE 1

SCBSZ



EROSION CONTROL NOTES

- 1. ALL CONSTRUCTION SHALL COMPLY WITH TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS.
- 2. EXISTING CONDITION INFORMATION SHOWN IS TAKEN FROM A SURVEY BY ANGLE RIGHT LAND SURVEYING, PLLC DATED JUNE 1, 2022.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, COORDINATING, AND PAYMENT FOR ALL NECESSARY LOCATING SERVICES INCLUDING INDEPENDENT LOCATING SERVICES. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES LOCATED AT LEAST 48 HOURS PRIOR TO BEGINNING DEMOLITION, EXCAVATION, OR ANY OTHER FORM OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OR ANY DISCREPANCIES OR CONFLICTS.
- 4. EXISTING IMPROVEMENTS DAMAGED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED OR REPLACED TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL PERMITS, INSPECTIONS, CERTIFICATIONS, AND OTHER REQUIREMENTS WHICH MUST BE MET UNDER THIS CONTRACT ARE OBTAINED.
- 6. IF DEPARTURES FROM THE PROJECT DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREFORE SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO CONSTRUCTION. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE OWNER'S
- 7. THE ENGINEER DISCLAIMS ANY ROLE IN THE CONSTRUCTION MEANS AND/OR METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
- 8. THE STREETS IN FRONT OF THE PROJECT WILL BE KEPT CLEAN AT ALL TIMES OR A WASH STATION WILL BE REQUIRED.
- 9. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO). THE FENCING SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FINAL SITE INSPECTION FOR THE SITE.
- 10. TREE PROTECTION FENCING SHALL NOT BE MOVED AND THERE SHALL BE NO ENCROACHMENT INTO SUCH PROTECTED AREA(S) WITHOUT WRITTEN AUTHORIZATION OF THE TOWN'S ZONING COMPLIANCE STAFF. ANY ACTIVITY (LANDSCAPING, FENCING, OR UTILITY INSTALLATION) SHOWN ON THE APPROVED PLANS IN A TREE PROTECTION AREA. SHALL ALSO NOT OCCUR WITHOUT WRITTEN AUTHORIZATION FROM THE TOWN'S ZONING COMPLIANCE STAFF. ANY UNAUTHORIZED ENCROACHMENT OR DISTURBANCE WITHIN THE BOUNDARIES OF A TREE PROTECTION AREA SHALL AUTOMATICALLY RESULT IN FINES AND THE REPLACEMENT OF ANY DAMAGED VEGETATION IN ACCORDANCE WITH THE LAND DEVELOPMENT ORDINANCE.

CONSTRUCTION SEQUENCE (PHASE 2)

CONTINUED FROM SITE 302

- COMMENCE PERMITTED LAND DISTURBING ACTIVITY.
- PROCEED WITH CLEARING, GRUBBING AND GRADING. ADJUST TEMPORARY DIVERSIONS
- MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN GOOD WORKING ORDER. SILT FENCE, INLET PROTECTION AND OTHER SIMILAR MEASURES MUST BE CLEANED OUT BEFORE THEY ARE HALF FULL. CLOGGED STONE FILTERS MUST BE
- REFRESHED/REPLACED. SILT FENCE CAN NOT HAVE HOLES OR TEARS. INSTALL ALL UTILITIES, STORMWATER PIPES, INLETS, ROAD BEDS, CURB AND GUTTER AND RETAINING WALLS #1-#5. SEE PHASE 3 FOR RETAINING WALL #6
- STABILIZATION IS REQUIRED WITHIN 14 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING OR INACTIVITY ON PROJECT SITE.
- SUBMIT DOCUMENTATION REQUIRED UNDER THE SITE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY (NCGO10000) TO STORMWATER INSPECTIONS THROUGHOUT THE PROJECT.
- SCHEDULE A SITE INSPECTION THROUGH WAKE COUNTY.
- UPON APPROVAL OF THE STORMWATER SITE INSPECTION, PROCEED TO PHASE 3 OF THE EROSION CONTROL SEQUENCE. SEE SITE 303.

NPDFS GROUND STABILIZATION

	SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
	PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES NONE			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 HQW ZONES)



DISTURBED AREA 202,385 SF / 4.65 AC

CONTROL PLAN - PH 2



(DRAWING SCALED FOR 24x36 INCH PLOTS)



NC ENGINEERING LICENSE NO. P-0803



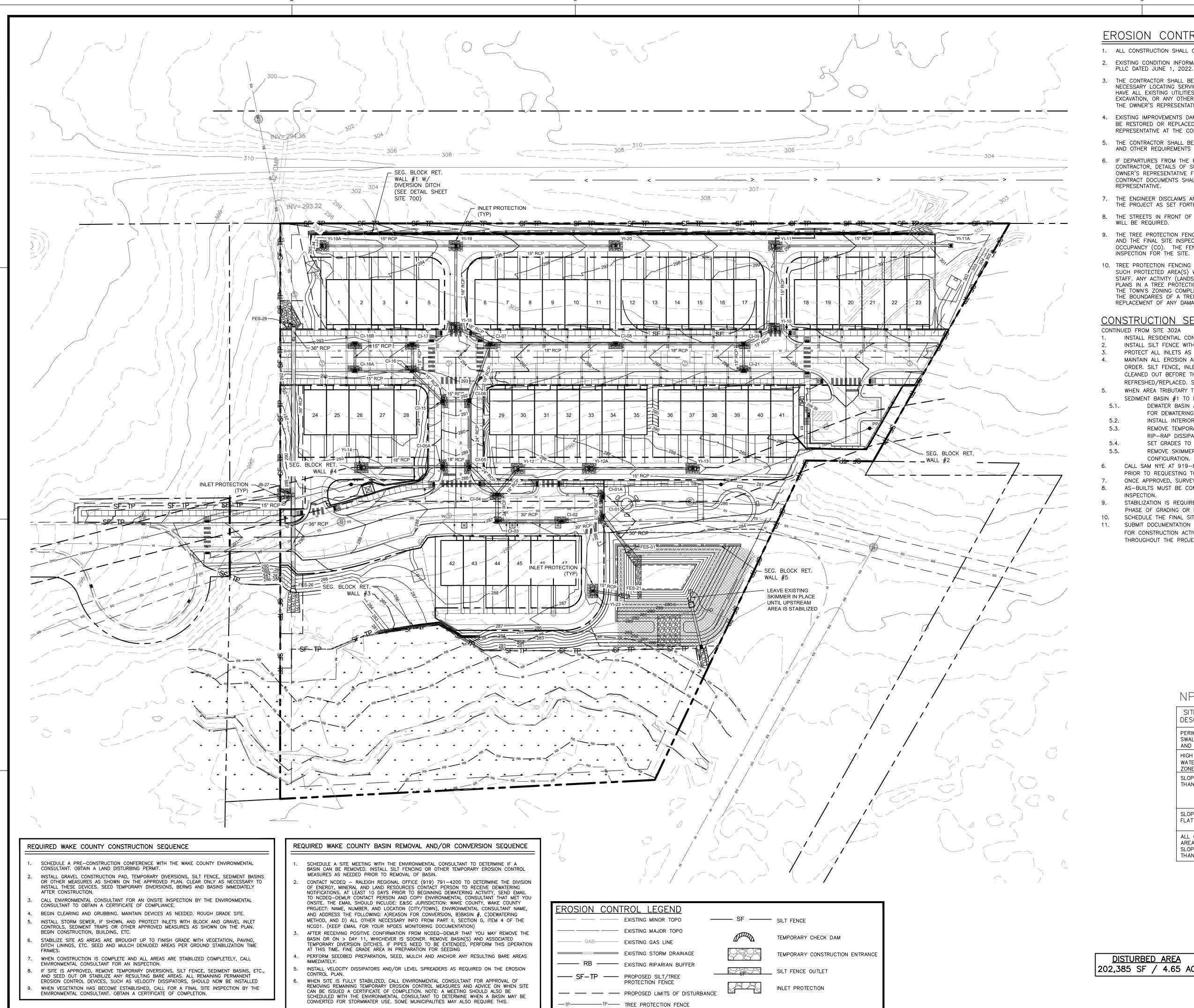
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Checked

21 NOV 2023

CONSTRUCTION DRAWINGS

NITIAL EROSION CONTROL PHASE 2



EROSION CONTROL NOTES

- 1. ALL CONSTRUCTION SHALL COMPLY WITH TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS.
- 2. EXISTING CONDITION INFORMATION SHOWN IS TAKEN FROM A SURVEY BY ANGLE RIGHT LAND SURVEYING, PLLC DATED JUNE 1, 2022.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, COORDINATING, AND PAYMENT FOR ALL NECESSARY LOCATING SERVICES INCLUDING INDEPENDENT LOCATING SERVICES. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES LOCATED AT LEAST 48 HOURS PRIOR TO BEGINNING DEMOLITION, EXCAVATION, OR ANY OTHER FORM OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OR ANY DISCREPANCIES OR CONFLICTS.
- 4. EXISTING IMPROVEMENTS DAMAGED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED OR REPLACED TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL PERMITS, INSPECTIONS, CERTIFICATIONS, AND OTHER REQUIREMENTS WHICH MUST BE MET UNDER THIS CONTRACT ARE OBTAINED.
- IF DEPARTURES FROM THE PROJECT DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREFORE SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO CONSTRUCTION. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE OWNER'S
- 7. THE ENGINEER DISCLAIMS ANY ROLE IN THE CONSTRUCTION MEANS AND/OR METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
- 8. THE STREETS IN FRONT OF THE PROJECT WILL BE KEPT CLEAN AT ALL TIMES OR A WASH STATION WILL BE REQUIRED.
- 9. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO). THE FENCING SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FINAL SITE INSPECTION FOR THE SITE.
- 10. TREE PROTECTION FENCING SHALL NOT BE MOVED AND THERE SHALL BE NO ENCROACHMENT INTO SUCH PROTECTED AREA(S) WITHOUT WRITTEN AUTHORIZATION OF THE TOWN'S ZONING COMPLIANCE STAFF. ANY ACTIVITY (LANDSCAPING, FENCING, OR UTILITY INSTALLATION) SHOWN ON THE APPROVED PLANS IN A TREE PROTECTION AREA. SHALL ALSO NOT OCCUR WITHOUT WRITTEN AUTHORIZATION FROM THE TOWN'S ZONING COMPLIANCE STAFF. ANY UNAUTHORIZED ENCROACHMENT OR DISTURBANCE WITHIN THE BOUNDARIES OF A TREE PROTECTION AREA SHALL AUTOMATICALLY RESULT IN FINES AND THE REPLACEMENT OF ANY DAMAGED VEGETATION IN ACCORDANCE WITH THE LAND DEVELOPMENT ORDINANCE.

CONSTRUCTION SEQUENCE (PHASE 3):

- CONTINUED FROM SITE 302A
- INSTALL RESIDENTIAL CONSTRUCTION ENTRANCES AT EACH BUILDING. INSTALL SILT FENCE WITH SILT FENCE OUTLETS AROUND EACH BUILDING.
- PROTECT ALL INLETS AS INSTALLED.
- MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN GOOD WORKING ORDER. SILT FENCE, INLET PROTECTION AND OTHER SIMILAR MEASURES MUST BE CLEANED OUT BEFORE THEY ARE HALF FULL. CLOGGED STONE FILTERS MUST BE REFRESHED/REPLACED. SILT FENCE CAN NOT HAVE HOLES OR TEARS. WHEN AREA TRIBUTARY TO SEDIMENT BASIN #1 HAS BEEN STABILIZED, CONVERT
- SEDIMENT BASIN #1 TO FINAL CONFIGURATION. DEWATER BASIN AND REMOVE ACCUMULATED SEDIMENT. UTILIZE SILT BAG
- FOR DEWATERING. INSTALL INTERIOR RETAINING WALL.
- REMOVE TEMPORARY SLOPE DRAIN AND INSTALL FES #1, FES#21 &
- RIP-RAP DISSIPATER PAD SET GRADES TO FINAL ELEVATIONS.
- REMOVE SKIMMER AND SET OUTLET STRUCTURE WEIRS/ORIFICES TO FINAL CONFIGURATION.
- CALL SAM NYE AT 919-835-4787 FOR SITE INSPECTION A MINIMUM TWO WEEKS PRIOR TO REQUESTING TOWN FINAL INSPECTION.
- ONCE APPROVED, SURVEY EXISTING SCM TOPO AND STRUCTURE ELEVATIONS.
- AS-BUILTS MUST BE COMPLETED AND SUBMITTED ONE WEEK PRIOR TO FINAL
- STABILIZATION IS REQUIRED WITHIN 14 CALENDAR DAYS OF COMPLETION OF ANY
- PHASE OF GRADING OR INACTIVITY ON PROJECT SITE. SCHEDULE THE FINAL SITE INSPECTION THROUGH WAKE COUNTY.
- SUBMIT DOCUMENTATION REQUIRED UNDER THE SITE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY (NCGO10000) TO STORMWATER INSPECTIONS

NPDES GROUND STABILIZATION

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS				
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE				
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE				
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT 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 HQW ZONES)				



(DRAWING SCALED FOR 24x36 INCH PLOTS)

CERT. NO. 353



NC ENGINEERING LICENSE NO. P-0803

Drawn Checked

07 NOV 2022 REVISED: <u>∕1</u>\03 FEB 2023 <u>/2</u>\09 MAY 2023 <u>/3</u>\24 AUG 2023 4\21 NOV 2023

<u>∕6</u>\08 JAN 2024

<u>/5</u>\12 DEC 2023

CONSTRUCTION DRAWINGS

> **EROSION** CONTROL

SCBSZ

lementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

ECTION E: GROUND STABILIZATION								
Required Ground Stabilization Timeframes								
Si	te Area Description	Stabilize within this many calendar days after ceasing land disturbance	s Timeframe variations					
(a) Perimeter dikes, swales, ditches, and perimeter slopes		7	None					
(b)	High Quality Water (HQW) Zones		None					
(c)	Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed					
(d)	Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed					
(e)	Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zone -10 days for Falls Lake Watershed unless there is zero slope					

ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Temporary Stabilization	Permanent Stabilization
Temporary grass seed covered with straw or other mulches and tackifiers Hydroseeding Rolled erosion control products with or without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting	Permanent grass seed covered with strother mulches and tackifiers Geotextile fabrics such as permanent streinforcement matting Hydroseeding Shrubs or other permanent plantings cwith mulch Uniform and evenly distributed ground sufficient to restrain erosion Structural methods such as concrete, a

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions. Provide ponding area for containment of treated Stormwater before discharging
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

Maintain vehicles and equipment to prevent discharge of fluids.

Provide drip pans under any stored equipment.

- Identify leaks and repair as soon as feasible, or remove leaking equipment from the Collect all spent fluids, store in separate containers and properly dispose as
- hazardous waste (recycle when possible). Remove leaking vehicles and construction equipment from service until the problem
- has been corrected. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

Never bury or burn waste. Place litter and debris in approved waste containers. Provide a sufficient number and size of waste containers (e.g dumpster, trash

to a recycling or disposal center that handles these materials.

- receptacle) on site to contain construction and domestic wastes. . Locate waste containers at least 50 feet away from storm drain inlets and surface
- waters unless no other alternatives are reasonably available. Locate waste containers on areas that do not receive substantial amounts of runoff
- from upland areas and does not drain directly to a storm drain, stream or wetland. . Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- 8. Dispose waste off-site at an approved disposal facility.

9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

- Do not dump paint and other liquid waste into storm drains, streams or wetlands. 2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 3. Contain liquid wastes in a controlled area.

4. Containment must be labeled, sized and placed appropriately for the needs of site. 5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from

construction sites.

- ORTABLE TOILETS Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place
- on a gravel pad and surround with sand bags. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible Stabilize stockpile within the timeframes provided on this sheet and in accordance
- with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

ABOVE GRADE WASHOUT STRUCTURE NOT TO SCALE BELOW GRADE WASHOUT STRUCTURE

CONCRETE WASHOUTS

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within
- lot perimeter silt fence. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two
- types of temporary concrete washouts provided on this detail. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must
- be pumped out and removed from project. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive
- spills or overflow. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- 10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

IERBICIDES, PESTICIDES AND RODENTICIDES

Do not stockpile these materials onsite.

Store and apply herbicides, pesticides and rodenticides in accordance with label

- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.

HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.

3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

SELF-INSPECTION. RECORDKEEPING AND REPORTING

Rolled erosion control products with grass seed

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend of holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	Identification of the discharge outfalls inspected, Date and time of the inspection, Name of the person performing the inspection, Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, Indication of visible sediment leaving the site, Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: Actions taken to clean up or stabilize the sediment that has left the site limits, Description, evidence, and date of corrective actions taken, and a. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible) (6) Ground stabilization measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours After each phase of grading	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit. 1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required
		timeframe or an assurance that they will be provided as soon as possible.

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

. E&SC Plan Documentatio The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon thinitial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- (a) This General Permit as well as the Certificate of Coverage, after it is received. (b) Records of inspections made during the previous twelve months. The permittee shall
- record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records. . Documentation to be Retained for Three Years
- All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART II, SECTION G, ITEM (4) DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- (a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
- (b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit, (c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
- (d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above, (e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and

Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING 1. Occurrences that Must be Reported Permittees shall report the following occurrences:

- (a) Visible sediment deposition in a stream or wetland.
- (b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).
- Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (d) Anticipated bypasses and unanticipated bypasses.
- (e) Noncompliance with the conditions of this permit that may endanger health or the

2. Reporting Timeframes and Other Requirements

Occurrence

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800)

Reporting Timeframes (After Discovery) and Other Requirements

Within 7 calendar days, a report that contains a description of the
• Within 7 calendar days, a report that contains a description of the
sediment and actions taken to address the cause of the deposition.
Division staff may waive the requirement for a written report on a
case-by-case basis.
• If the stream is named on the NC 303(d) list as impaired for sediment-
related causes, the permittee may be required to perform additional
monitoring, inspections or apply more stringent practices if staff
determine that additional requirements are needed to assure compliance
with the federal or state impaired-waters conditions.
Within 24 hours, an oral or electronic notification. The notification
shall include information about the date, time, nature, volume and
location of the spill or release.
 A report at least ten days before the date of the bypass, if possible.
The report shall include an evaluation of the anticipated quality and
effect of the bypass.
Within 24 hours, an oral or electronic notification.
Within 7 calendar days, a report that includes an evaluation of the
quality and effect of the bypass.
Within 24 hours, an oral or electronic notification.
Within 7 calendar days, a report that contains a description of the
noncompliance, and its causes; the period of noncompliance,
including exact dates and times, and if the noncompliance has not
been corrected, the anticipated time noncompliance is expected to
continue; and steps taken or planned to reduce, eliminate, and
prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6).
 Division staff may waive the requirement for a written report on a case-by-case basis.

EFFECTIVE: 04/01/19

NPDES GROUND STABILIZATION SCHEDULE

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS	AREAS ON THIS SITE
PERIMETER DIKES, SWALES, DITCHES AND	7 DAYS	NONE	TEMPORARY DIVERSION DITCHES
HOPFQUALITY WATER (HQW) ZONES	PESUALITY ER (HQW) 7 DAYS NON		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	NONE
SLOPES 3:1 OR FLATTER	14 DAYS	7-DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH	REMAINDER OF PROJECT AREA
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HQW ZONES)	INCLUDED W/ 3:1 OR FLATTER SLOPES

- THIS PAGE IS SUBMITTED TO COMPLY WITH NPDES GENERAL STORMWATER PERMIT NCG010000. THIS PAGE CAN BE APPROVED BY THE CITY PURSUANT TO NPDES GENERAL STORMWATER PERMIT
- NCG010000 ONLY. THIS PAGE OF THE APPROVED PLANS IS ENFORCEABLE EXCLUSIVELY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000.

NC ENGINEERING LICENSE NO. P-0803



Checked 07 NOV 2022 REVISED:

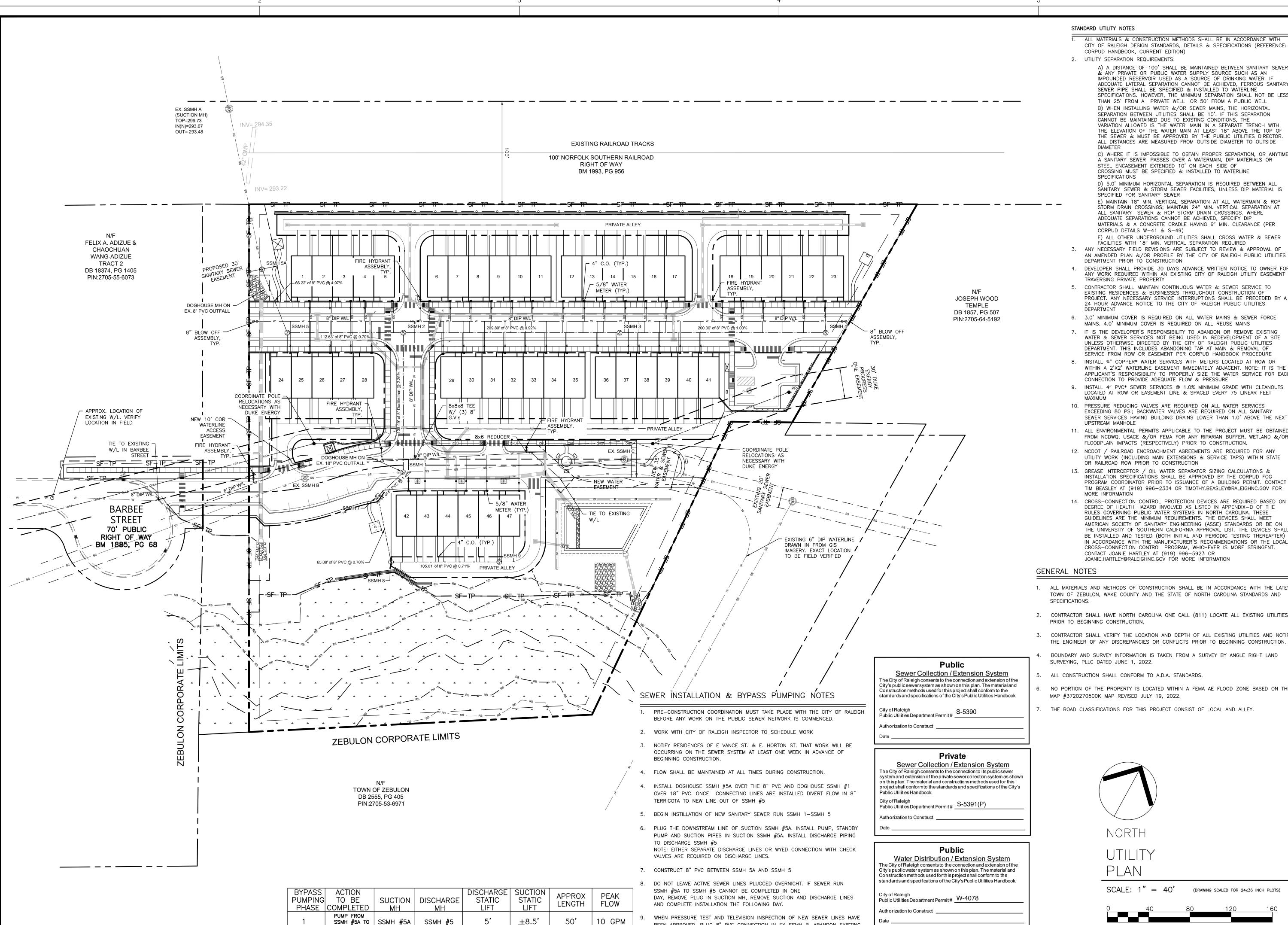
1\03 FEB 2023

2\09 MAY 2023

CONSTRUCTION

DRAWINGS

NPDES

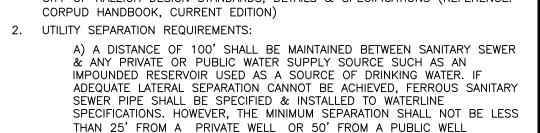


BEEN APPROVED, PLUG 8" PVC CONNECTION IN EX SSMH B, ABANDON EXISTING

LINES BY FILLING WITH GROUT.

STANDARD UTILITY NOTES

ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)



B) WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE

C) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE

D) 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER E) MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP

STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49)

F) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF

DEPARTMENT PRIOR TO CONSTRUCTION 4. DEVELOPER SHALL PROVIDE 30 DAYS ADVANCE WRITTEN NOTICE TO OWNER FOR ANY WORK REQUIRED WITHIN AN EXISTING CITY OF RALEIGH UTILITY EASEMENT

TRAVERSING PRIVATE PROPERTY 5. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES

6. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCE MAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS

7. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE

8. INSTALL 3/4" COPPER* WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE 9. INSTALL 4" PVC* SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS

LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET 10. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES

EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE 11. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED

FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.

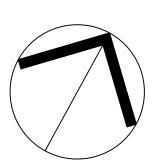
12. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION

13. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BEASLEY AT (919) 996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION

14. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FÓR MORE INFORMATION

GENERAL NOTES

- 1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST TOWN OF ZEBULON, WAKE COUNTY AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
- CONTRACTOR SHALL HAVE NORTH CAROLINA ONE CALL (811) LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.
- BOUNDARY AND SURVEY INFORMATION IS TAKEN FROM A SURVEY BY ANGLE RIGHT LAND SURVEYING, PLLC DATED JUNE 1, 2022.
- 5. ALL CONSTRUCTION SHALL CONFORM TO A.D.A. STANDARDS.
- NO PORTION OF THE PROPERTY IS LOCATED WITHIN A FEMA AE FLOOD ZONE BASED ON THE MAP #3720270500K MAP REVISED JULY 19, 2022.
- 7. THE ROAD CLASSIFICATIONS FOR THIS PROJECT CONSIST OF LOCAL AND ALLEY.



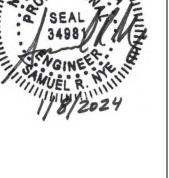
SCALE: 1" = 40'(DRAWING SCALED FOR 24x36 INCH PLOTS)





NC ENGINEERING LICENSE NO. P-0803





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REVISED: <u>∕1</u>\03 FEB 2023 209 MAY 2023

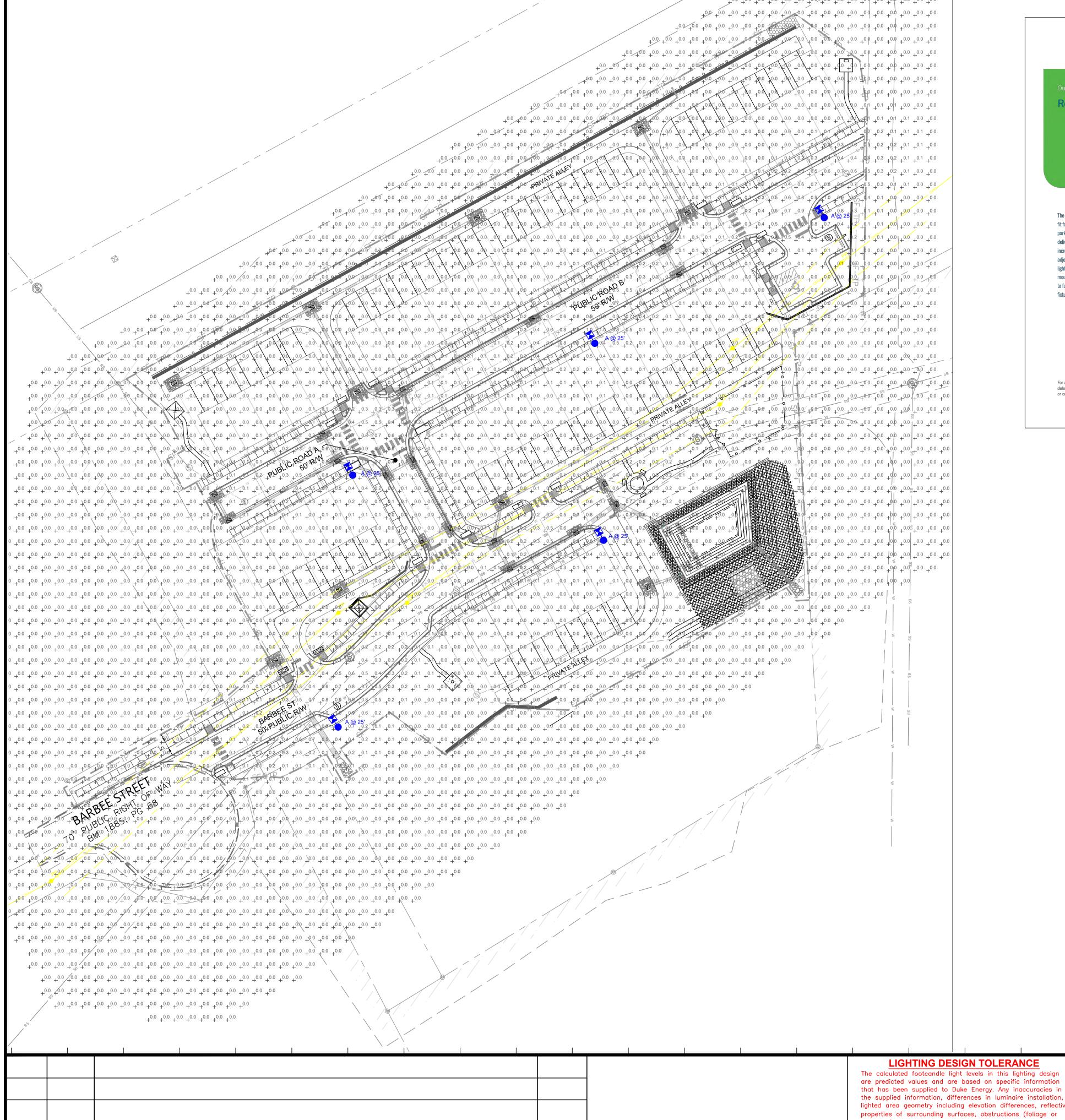
3\24 AUG 2023 4\21 NOV 2023

<u>/5</u>\12 DEC 2023 <u>∕6</u>\08 JAN 2024

CONSTRUCTION **DRAWINGS**

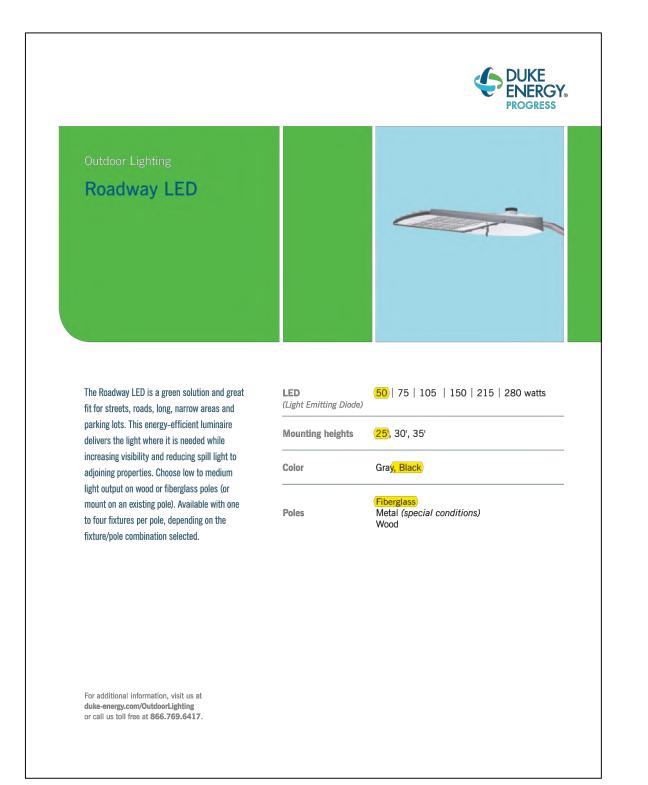
UTILITY PLAN

SCBSZ



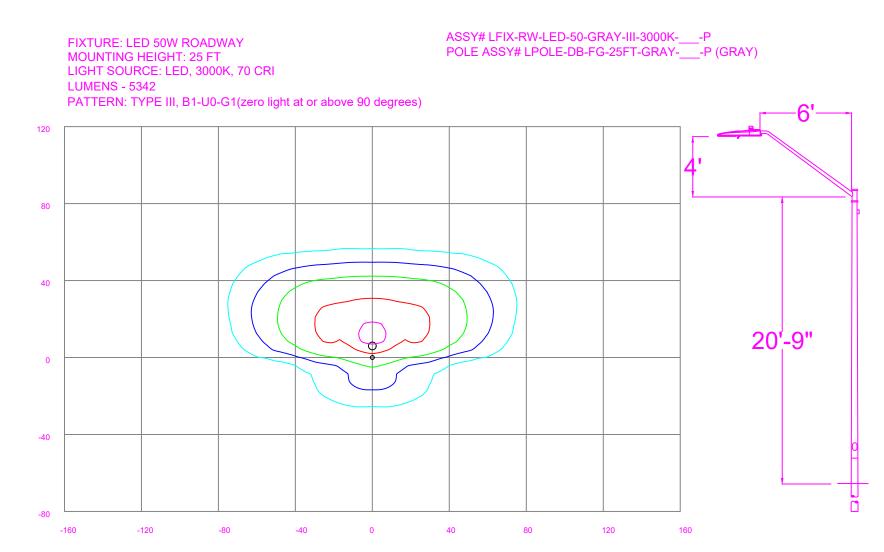
NO. DATE

REVISION





ISOFOOTCANDLE CURVES



LEGEND (OUTER to INNER): 0.10, 0.25, 0.50, 1.00, 1.25

Schedule							
Symbol Label Quantity Description		Description	Number Lamps	Lumens Per Lamp	Light Loss Factor		
	А	A LED 50W Roadway - Type III - 3000k		1	5312	0.85	

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Barbee Street	Ж	0.3 fc	0.9 fc	0.0 fc	N/A	N/A
Public Road A	\times	0.4 fc	0.9 fc	0.0 fc	N/A	N/A

LIGHTING DESIGN TOLERANCE

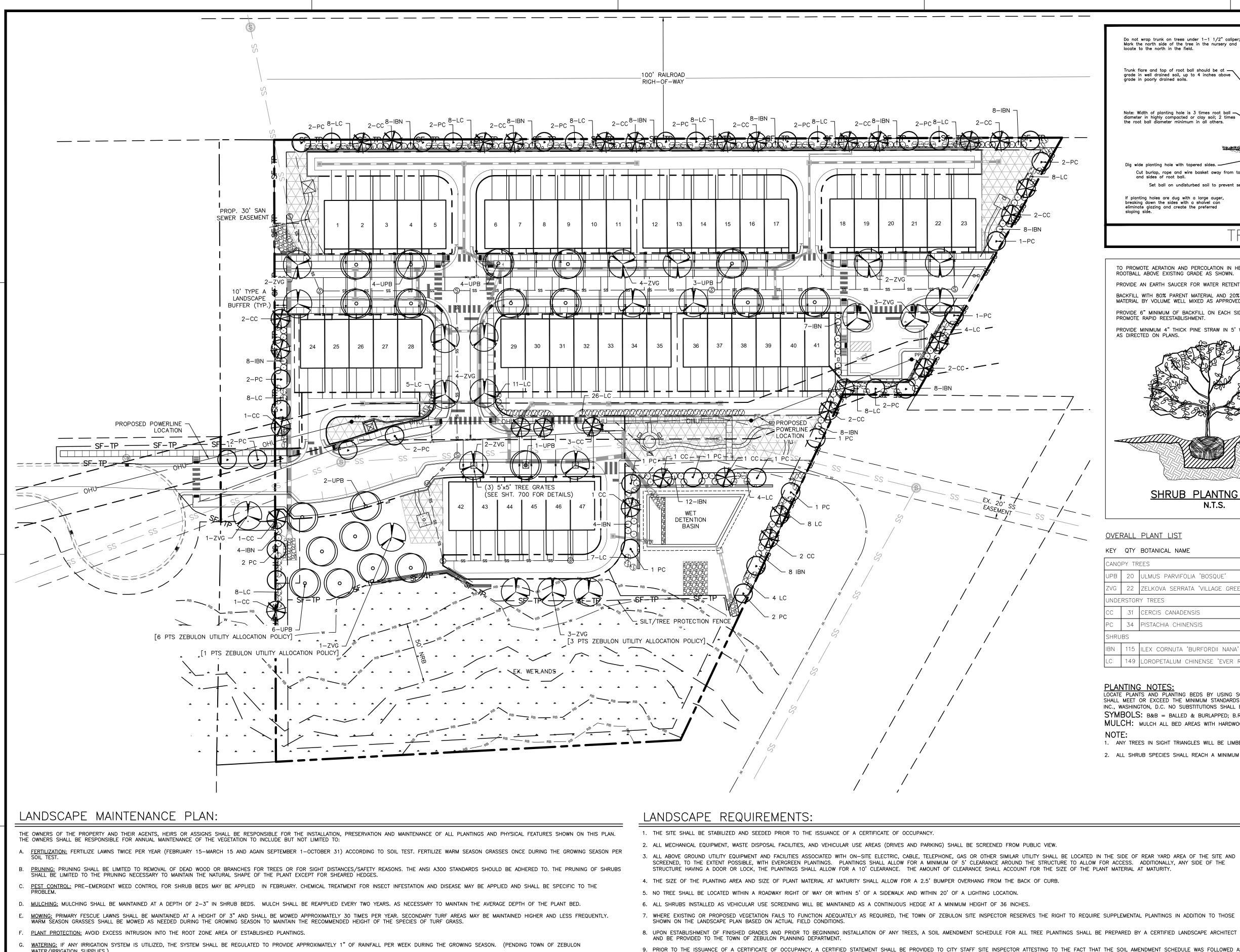
are predicted values and are based on specific information that has been supplied to Duke Energy. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (foliage or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect

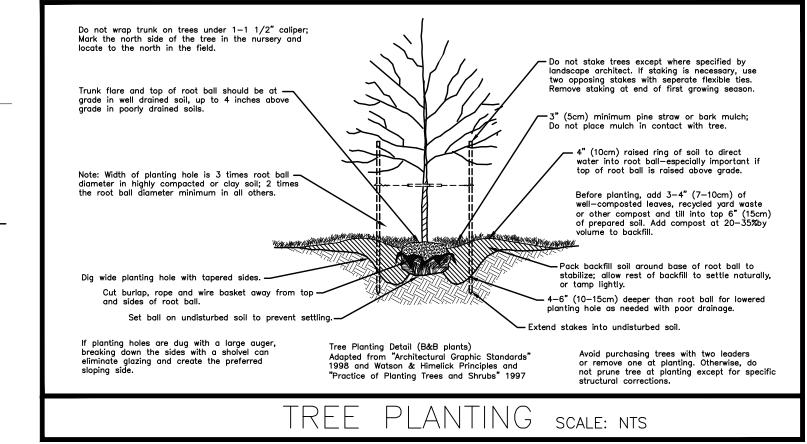


PROPRIETARY & CONFIDENTIAL

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1						
0 Barbee Street						
Z	ebulon, NC					
DUKE ENERG	GY PROGRESS	LIGHTING S	SOLUTIONS			
	Size	Drawing si	ze "D"			
Description LED Roadway						
	0401	Sht1	OF 1			
	STREET LIGHT DUKE ENERGE A. Herrera 23 ED Roadway	Zebulon, NC STREET LIGHTING ARRANG DUKE ENERGY PROGRESS A. Herrera Scale 23 Size	Zebulon, NC STREET LIGHTING ARRANGEMENT DUKE ENERGY PROGRESS LIGHTING S A. Herrera Scale 1" = 40' 23 Size Drawing si			





TO PROMOTE AERATION AND PERCOLATION IN HEAVY SOIL, PLANT ROOTBALL ABOVE EXISTING GRADE AS SHOWN. PROVIDE AN EARTH SAUCER FOR WATER RETENTION. BACKFILL WITH 80% PARENT MATERIAL AND 20% DECOMPOSED ORGANIC MATERIAL BY VOLUME WELL MIXED AS APPROVED BY THE ARCHITECT. PROVIDE 6" MINIMUM OF BACKFILL ON EACH SIDE OF ROOTBALL TO PROVIDE MINIMUM 4" THICK PINE STRAW IN 5' WIDE PLANTING BED OR AS DIRECTED ON PLANS. SHRUB PLANTNG DETAIL

_			
	SYMBOL	KEY	COMMON NAME
		ZVG	VILLAGE GREEN ZELKO
		UPB	BOSQUE CHINESE ELI
		CC	EASTERN REDBUD
	*	PC	CHINESE PISTACHE
	G	LC	EVER RED LOROPETALUM
	*	IBN	DWARF BURFORD HOLLY
-			

OVERALL PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SIZE	ROOT	REMARKS
CANO	PY TR	REES					
UPB	20	ULMUS PARVIFOLIA 'BOSQUE'	BOSQUE CHINESE ELM	10'	3" CAL.	B&B	MATCHING
ZVG	22	ZELKOVA SERRATA 'VILLAGE GREEN'	VILLAGE GREEN ZELKOVA	10'	3" CAL.	B&B	MATCHING
UNDE	RSTOF	RY TREES	•	•			•
СС	31	CERCIS CANADENSIS	EASTERN REDBUD	8' MIN.	2" CAL.	B&B	MATCHING
PC	34	PISTACHIA CHINENSIS	CHINESE PISTACHE	8' MIN.	2" CAL.	B&B	MATCHING
SHRU	BS		•				
IBN	115	ILEX CORNUTA 'BURFORDII NANA'	DWARF BURFORD HOLLY	24" HT. MIN.	5 GAL.	CONT.	MATCHING
LC	149	LOROPETALUM CHINENSE 'EVER RED'	EVER RED LOROPETALUM	24" HT. MIN.	5 GAL.	CONT.	MATCHING

LOCATE PLANTS AND PLANTING BEDS BY USING SCALED DIMENSIONS FROM STREET, PROPERTY LINES, BACK OF CURB, BUILDINGS, WALLS, ETC. ALL PLANTS SHALL MEET OR EXCEED THE MINIMUM STANDARDS SET BY THE U.S.D.A. FOR NURSERY STOCK SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., WASHINGTON, D.C. NO SUBSTITUTIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL FROM THE OWNER AND/OR THE LANDSCAPE ARCHITECT. SYMBOLS: B&B = BALLED & BURLAPPED; B.R. = BARE ROOT; CONT. = CONTAINER, O.C. = ON-CENTER, (R) = TO REMAIN MULCH: MULCH ALL BED AREAS WITH HARDWOOD MULCH TO A DEPTH OF 3".

1. ANY TREES IN SIGHT TRIANGLES WILL BE LIMBED UP TO A HEIGHT OF 8'. ALL SHRUBS LOCATED IN SIGHT TRIANGLES WILL BE MAINTAINED BELOW 2'.

2. ALL SHRUB SPECIES SHALL REACH A MINIMUM OF 36" WITHIN THREE YEARS OF INSTALLATION.

- WATER/IRRIGATION SUPPLIES.)
- PLANT REPLACEMENT: ANY REQUIRED PLANTING, WHICH IS REMOVED OR DIES AFTER DATE OF PLANTING SHALL BE REPLACE DURING THE NEXT PLANTING SEASON. ALSO, ANY TREE IN A TREE PRESERVATION AREA WHICH IS REMOVED OR DIES SHALL BE REPLACED DURING THE NEXT PLANTING SEASON.

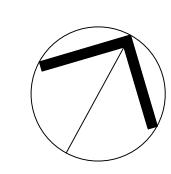
REMOVAL OF DISEASE INFESTED MATERIAL SHALL BE ALLOWED SO LONG AS REQUIRED SHRUBS ARE REPLACED AT THE REQUIRED RATES AND SIZES.

FAILURE TO MAINTAIN REQUIRED LANDSCAPE AREAS SHALL CONSTITUTE A VIOLATION OF THIS UDO ENFORCEABLE UNDER THE PROVISIONS OF SECTION 10-ENFORCEMENT.

- SCREENED, TO THE EXTENT POSSIBLE, WITH EVERGREEN PLANTINGS. PLANTINGS SHALL ALLOW FOR A MINIMUM OF 5' CLEARANCE AROUND THE STRUCTURE TO ALLOW FOR ACCESS. ADDITIONALLY, ANY SIDE OF THE STRUCTURE HAVING A DOOR OR LOCK, THE PLANTINGS SHALL ALLOW FOR A 10' CLEARANCE. THE AMOUNT OF CLEARANCE SHALL ACCOUNT FOR THE SIZE OF THE PLANT MATERIAL AT MATURITY.
- 7. WHERE EXISTING OR PROPOSED VEGETATION FAILS TO FUNCTION ADEQUATELY AS REQUIRED, THE TOWN OF ZEBULON SITE INSPECTOR RESERVES THE RIGHT TO REQUIRE SUPPLEMENTAL PLANTINGS IN ADDITION TO THOSE
- 9. PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, A CERTIFIED STATEMENT SHALL BE PROVIDED TO CITY STAFF SITE INSPECTOR ATTESTING TO THE FACT THAT THE SOIL AMENDMENT SCHEDULE WAS FOLLOWED AS SPECIFIED IN THE APPROVED SITE AND/OR SUBDIVISION PLAN. THIS STATEMENT SHALL BE CERTIFIED BY A REGISTERED LANDSCAPE ARCHITECT, CERTIFIED ARBORIST, OR OTHER SPECIALIST AS DETERMINED ACCEPTABLE BY
- 10. THE PROPERTY OWNER OR DEVELOPER SHALL PROVIDE FOR CONTINUOUS MAINTENANCE OF THE LANDSCAPE AREAS AFTER OCCUPANCY OF THE BUILDING. THE PROPERTY OWNER SHALL ENSURE THAT PERFORMANCE CRITERIA
- WITHIN THIS ORDINANCE AND/OR INCLUDED ON THE APPROVED SITE AND/OR SUBDIVISION PLAN ARE MET. FAILURE TO CORRECT DEFICIENCIES IN A TIMELY MANOR SHALL RESULT IN A CITATION FOR VIOLATION OF THIS
- 11. ALL FOUNDATION PLANTINGS SHALL BE DESIGNED TO TOWN OF ZEBULON UDO SECTION REQUIREMENTS. THE TOWN OF ZEBULON SITE INSPECTOR RESERVES THE RIGHT TO REQUIRE ADDITIONAL PLANTINGS BASED ON ACTUAL FIELD CONDITIONS.

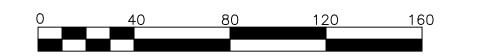
ORDINANCE IN ACCORDANCE WITH CHAPTER 11

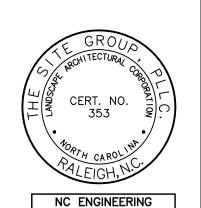
12. ALL PLANTINGS WITHIN THE SIGHT DISTANCE TRIANGLES MUST BE 30 INCHES OR LESS IN HEIGHT OR MUST BE LIMBED UP TO PROVIDE 8' FROM THE LOWEST LIMBS TO THE CURB LINE ELEVATION OR THE NEAREST TRAVEL WAY IF NO CURBING EXISTS.

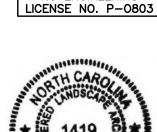


LANDSCAPE

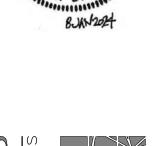
(DRAWING SCALED FOR 24x36 INCH PLOTS)











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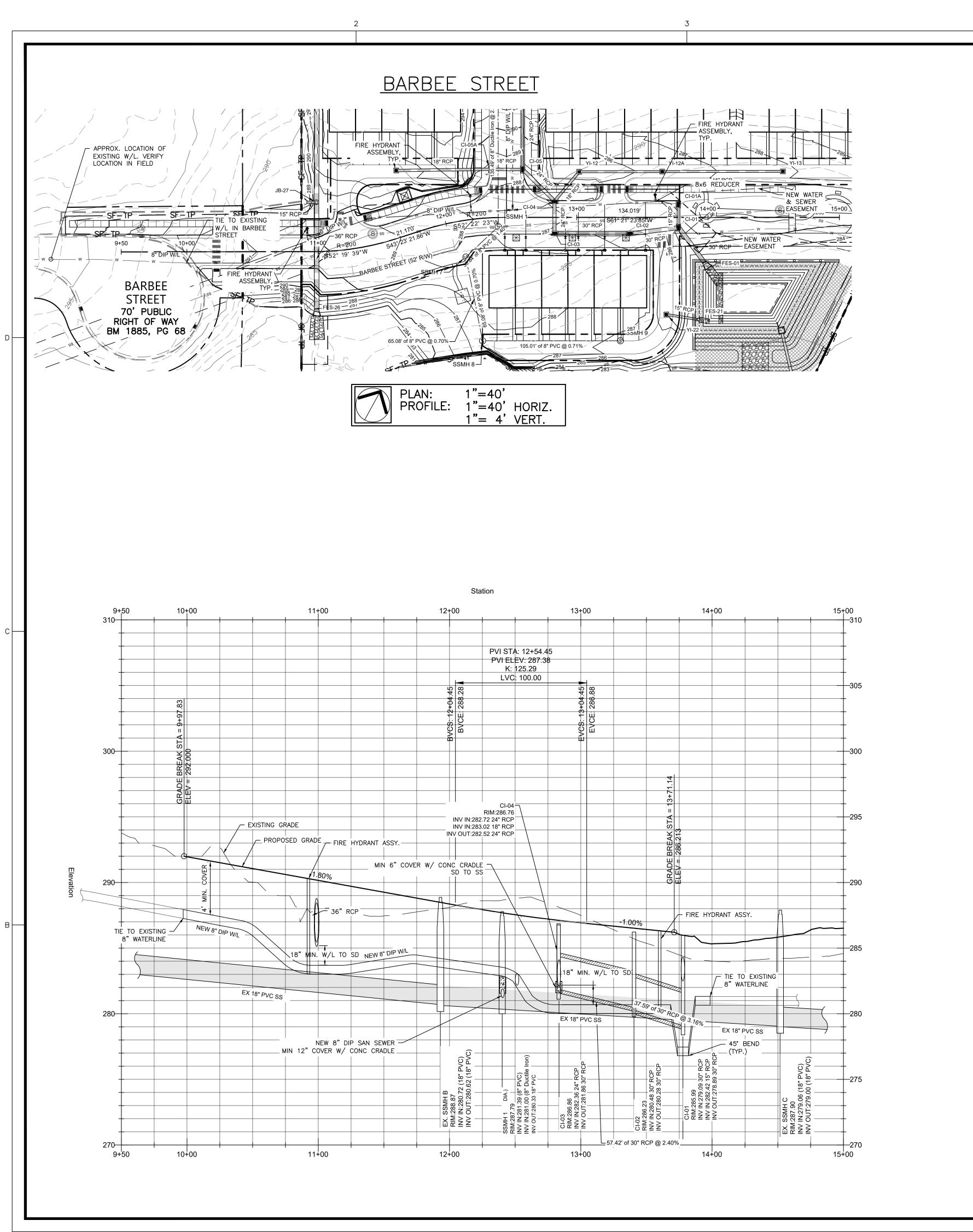
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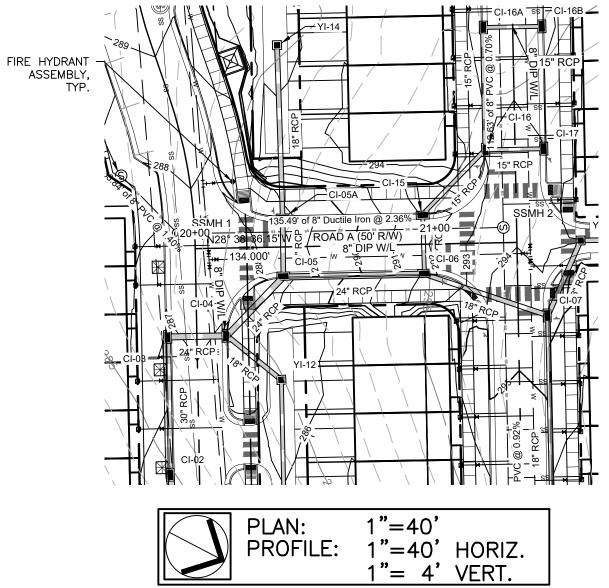
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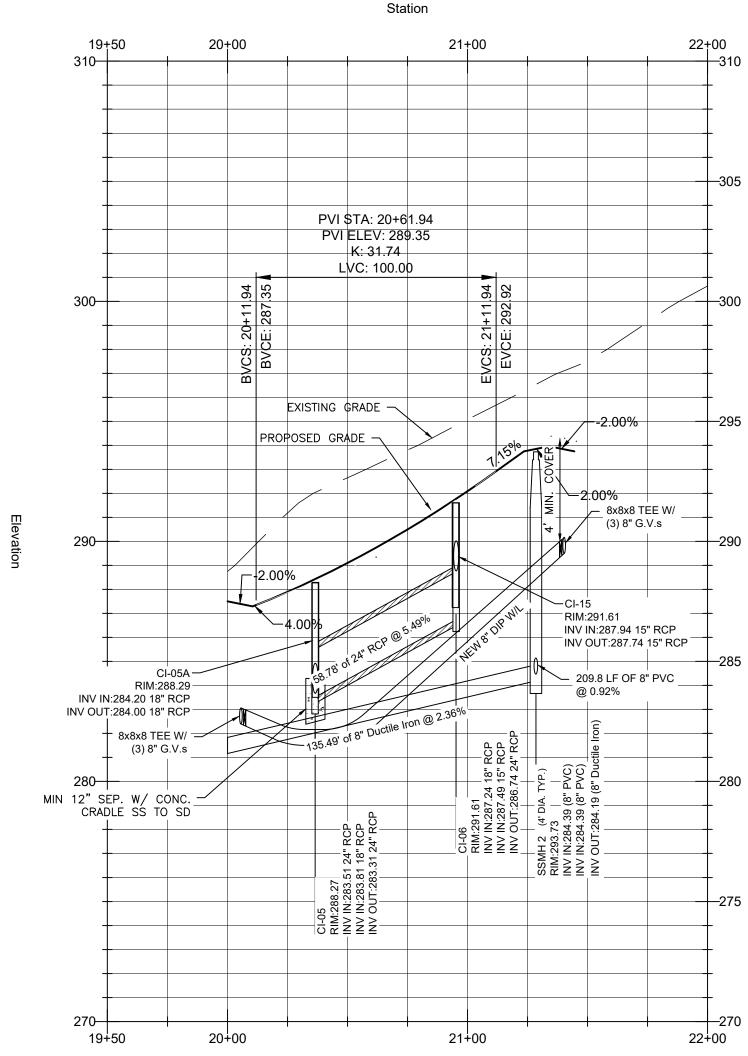
CONSTRUCTION DRAWING

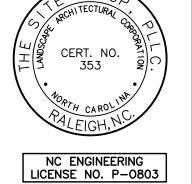
LANDSCAPE



PUBLIC ROAD A









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Checked

03 FEB 2023 REVISED:

109 MAY 2023 2\24 AUG 2023 3 21 NOV 2023

408 JAN 2024

CONSTRUCTION

City of Raleigh Public Utilities Department Permit # S-5391(P) Authorization to Construct

Public Utilities Department Permit # _____S-5390

Public

Public

Sewer Collection / Extension System

Private

Sewer Collection / Extension System

The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown

on this plan. The material and constructions methods used for this

project shall conform to the standards and specifications of the City's

The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh

Authorization to Construct

Public Utilities Handbook.

Water Distribution / Extension System The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

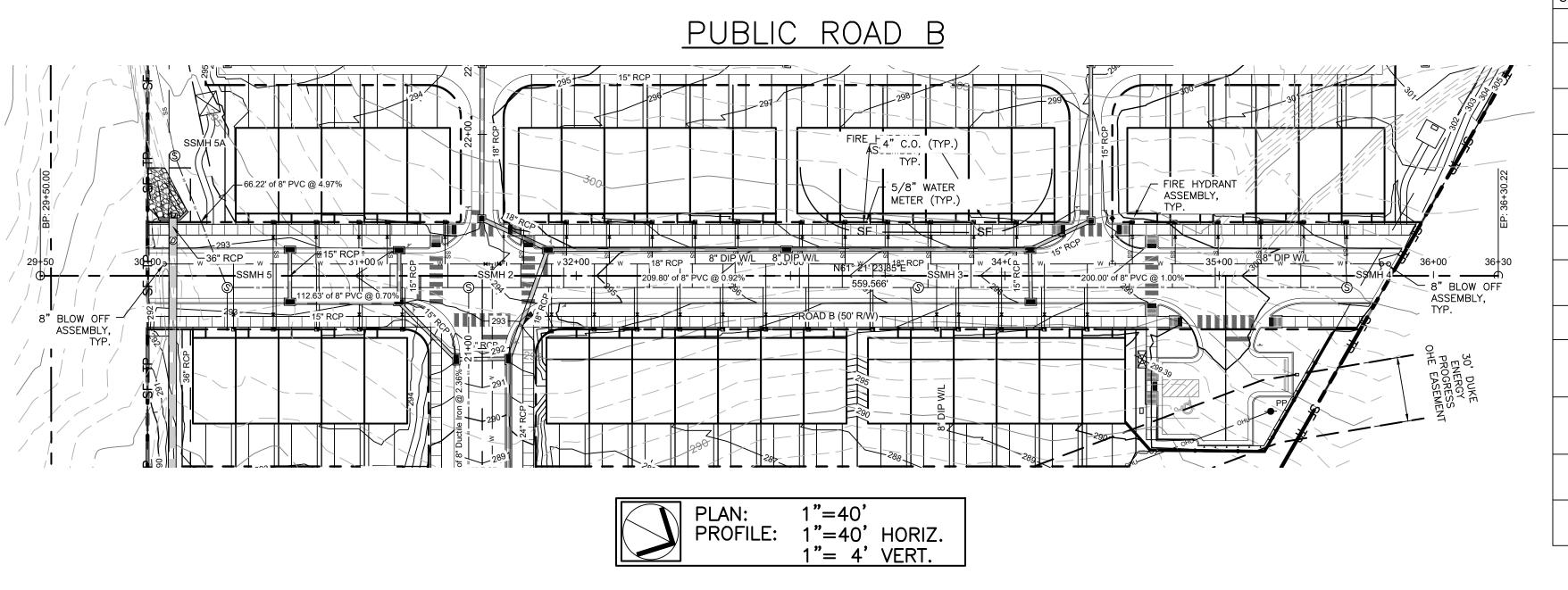
City of Raleigh Public Utilities Department Permit# W-4078 Authorization to Construct

DRAWINGS BARBEE ST & ROAD A

PLAN &

PROFILE

SCBSZ Dwg No.



STORM SEWER STRUCTURE TABLE		STORM SEWER STRUCTURE TABLE		STORM SEWER STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:	STRUCTURE NAME:	DETAILS:	STRUCTURE NAME:	DETAILS:
YI-11A	RIM = 300.44 INV OUT = 296.09 (156.0 LF 15" RCP @ 1.00%)	CI-16	RIM = 293.06 INV IN = 289.47 (24.8 LF 15" RCP @ 0.50%) INV IN = 288.33 (51.0 LF 15" RCP @ 0.50%)	YI-13	RIM = 287.82 INV OUT = 284.75 (92.0 LF 15" RCP @ 0.89%)
YI-11	RIM = 298.77 INV IN = 294.53 (156.0 LF 15" RCP @ 1.00%) INV OUT = 294.33 (73.3 LF 15" RCP @ 1.00%)	TYPE "G"	INV OUT = 288.13 (37.3 LF 15" RCP @ 0.50%) RIM = 293.00	CI-03 TYPE "F"	RIM = 286.86 INV IN = 282.36 (25.0 LF 24" RCP @ 0.64%) INV OUT = 281.86 (57.4 LF 30" RCP @ 2.40%
YI-10	RIM = 298.71 INV IN = 293.60 (73.3 LF 15" RCP @ 1.00%) INV OUT = 293.50 (31.4 LF 15" RCP @ 0.51%)	CI-17 TYPE "F" YI-14	INV OUT = 289.60 (24.8 LF 15" RCP @ 0.50%) RIM = 292.65 INV OUT = 286.00 (71.6 LF 18" RCP @ 2.51%)	CI-04 TYPE "G"	RIM = 286.76 INV IN = 282.72 (34.0 LF 24" RCP @ 1.75%) INV IN = 283.02 (29.2 LF 18" RCP @ 0.50%) INV OUT = 282.52 (25.0 LF 24" RCP @ 0.64%)
CI-21 TYPE "G"	RIM = 298.10 INV OUT = 293.67 (24.9 LF 15" RCP @ 0.99%)	CI-16A TYPE "E"	RIM = 292.55 INV IN = 288.78 (25.0 LF 15" RCP @ 0.50%) INV OUT = 288.58 (51.0 LF 15" RCP @ 0.50%)	YI-12A	RIM = 286.30 INV IN = 283.93 (92.0 LF 15" RCP @ 0.89%)
CI-09 TYPE "F"	RIM = 298.09 INV IN = 293.34 (31.4 LF 15" RCP @ 0.51%) INV IN = 293.42 (24.9 LF 15" RCP @ 0.99%) INV OUT = 293.09 (113.6 LF 18" RCP @ 1.16%)	YI-19A	RIM = 292.52 INV OUT = 289.28 (118.9 LF 15" RCP @ 0.50%)	CI-02	INV OUT = 283.73 (63.2 LF 15" RCP @ 0.50% RIM = 286.23 INV IN = 280.48 (57.4 LF 30" RCP @ 2.40%)
YI-20	RIM = 296.46	CI-16B TYPE "E"	RIM = 292.31 INV OUT = 288.91 (25.0 LF 15" RCP @ 0.50%)	TYPE "F"	INV OUT = 280.28 (37.6 LF 30" RCP @ 3.16%
CI-08 TYPE "F"	RIM = 296.23 INV IN = 291.77 (113.6 LF 18" RCP @ 1.16%) INV OUT = 291.67 (111.3 LF 18" RCP @ 1.62%)	CI-06 TYPE "G"	RIM = 291.61 INV IN = 287.24 (54.2 LF 18" RCP @ 0.50%) INV IN = 287.49 (24.9 LF 15" RCP @ 1.00%) INV OUT = 286.74 (58.9 LF 24" RCP @ 5.49%)	CI-01 TYPE "E"	RIM = 285.99 INV IN = 279.09 (37.6 LF 30" RCP @ 3.16%) INV IN = 282.42 (17.7 LF 15" RCP @ 1.00%) INV OUT = 278.89 (38.0 LF 30" RCP @ 1.04%
FES-29	RIM = 296.00 INV OUT = 290.00 (12.7 LF 36" RCP @ 7.89%)	CI-15	RIM = 291.61 INV IN = 287.94 (37.3 LF 15" RCP @ 0.50%)	CI-01A TYPE "E"	RIM = 285.89 INV OUT = 282.60 (17.7 LF 15" RCP @ 1.00%
	RIM = 294.64	TYPE "F"	INV OUT = 287.74 (24.9 LF 15" RCP @ 1.00%)	YI-22	RIM = 285.70 INV OUT = 281.39 (25.8 LF 15" RCP @ 11.28%
YI-19	INV IN = 289.08 (142.2 LF 15" RCP @ 2.08%) INV IN = 288.69 (118.9 LF 15" RCP @ 0.50%) INV OUT = 288.49 (72.4 LF 18" RCP @ 0.57%)	JB-27	RIM = 290.00 INV IN = 286.00 (139.0 LF 36" RCP @ 1.71%) INV IN = 287.80 (7.3 LF 15" RCP @ 1.36%) INV OUT = 285.80 (86.5 LF 36" RCP @ 0.92%)	YI-12	RIM = 285.58 INV IN = 283.42 (63.2 LF 15" RCP @ 0.50%) INV OUT = 283.17 (29.2 LF 18" RCP @ 0.50%)
CI-07 TYPE "F"	RIM = 294.27 INV IN = 289.87 (111.3 LF 18" RCP @ 1.62%) INV IN = 287.71 (34.0 LF 18" RCP @ 0.50%)	FES-26	RIM = 288.42 INV IN = 285.00 (86.5 LF 36" RCP @ 0.92%)	FES-21	RIM = 283.50 INV IN = 278.50 (25.8 LF 15" RCP @ 11.28%)
YI-18	INV OUT = 287.51 (54.2 LF 18" RCP @ 0.50%) RIM = 293.97 INV IN = 288.08 (72.4 LF 18" RCP @ 0.57%)	CI-05A TYPE "F"	RIM = 288.29 INV IN = 284.20 (71.6 LF 18" RCP @ 2.51%) INV OUT = 284.00 (24.9 LF 18" RCP @ 0.76%)	FES-01	RIM = 281.38 INV IN = 278.50 (38.0 LF 30" RCP @ 1.04%)
JB-28	INV OUT = 287.88 (34.0 LF 18" RCP @ 0.50%) RIM = 293.18 INV IN = 289.00 (12.7 LF 36" RCP @ 7.89%) INV OUT = 288.37 (139.0 LF 36" RCP @ 1.71%)	CI-05 TYPE "G"	RIM = 288.27 INV IN = 283.51 (58.9 LF 24" RCP @ 5.49%) INV IN = 283.81 (24.9 LF 18" RCP @ 0.76%) INV OUT = 283.31 (34.0 LF 24" RCP @ 1.75%)		



NC ENGINEERING LICENSE NO. P-0803





ABK E. BARBEI EBULON, N **D** 0 E ZEE

03 FEB 2023

Checked

Public Sewer Collection / Extension System

The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and Construction methods used for this project shall conform to the

standards and specifications of the City's Public Utilities Handbook.

Private

The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and constructions methods used for this project shall conform to the standards and specifications of the City's

Public

Water Distribution / Extension System

The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and

Construction methods used for this project shall conform to the

City of Raleigh Public Utilities Department Permit# W-4078

Authorization to Construct _____

standards and specifications of the City's Public Utilities Handbook.

Sewer Collection / Extension System

Public Utilities Department Permit # _____

Public Utilities Department Permit# S-5391(P)

City of Raleigh

Authorization to Construct

Public Utilities Handbook.

Authorization to Construct

REVISED: 109 MAY 2023 2224 AUG 2023

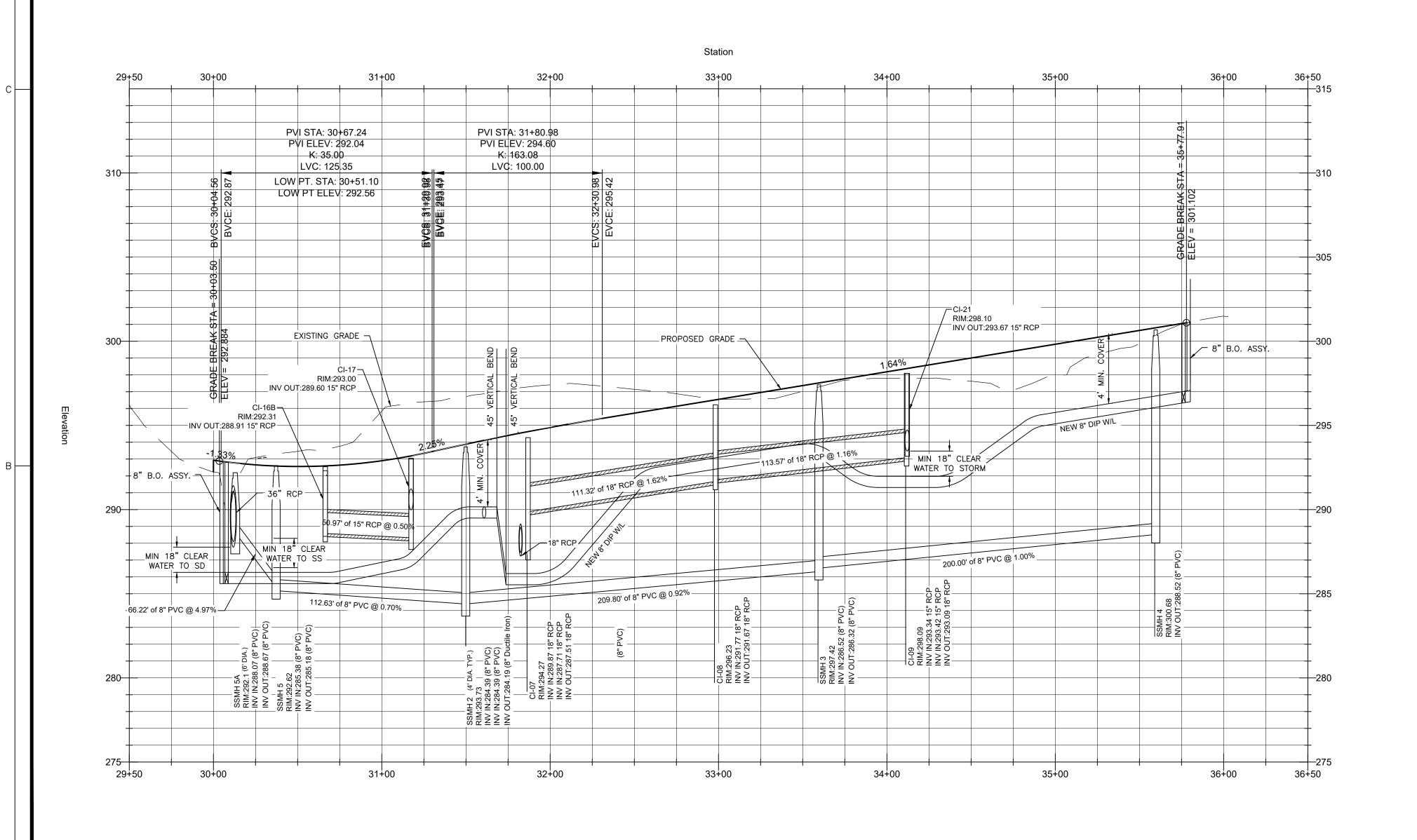
3 21 NOV 2023 408 JAN 2024

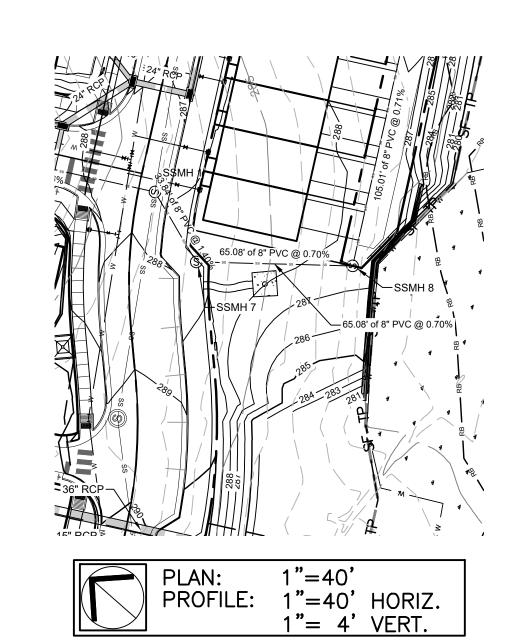
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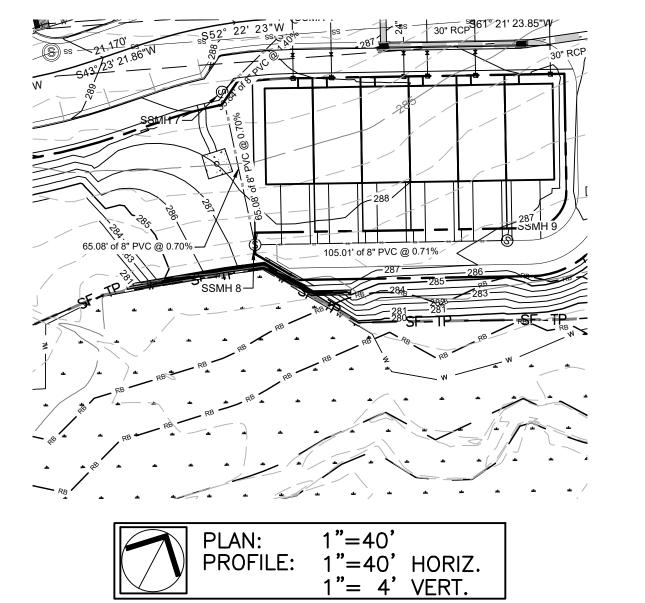
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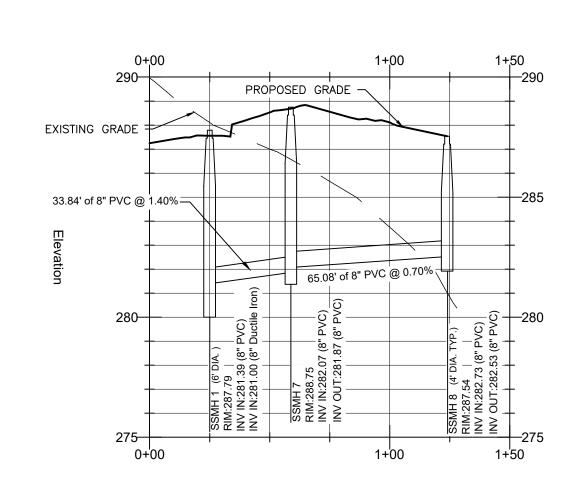
ROAD B PLAN & PROFILE

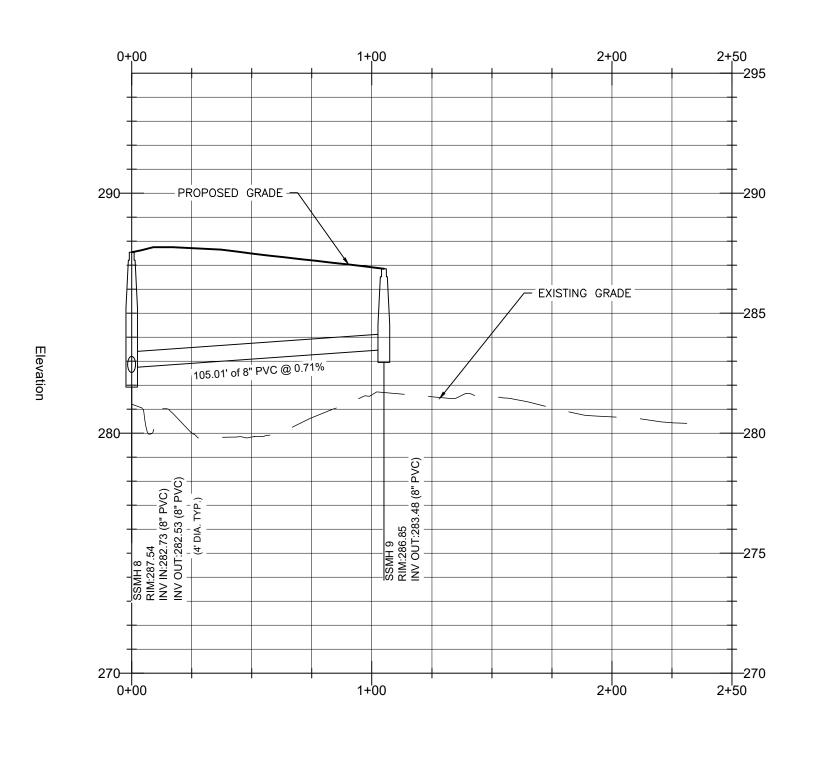
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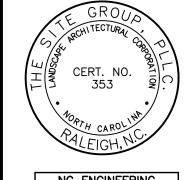












NC ENGINEERING LICENSE NO. P-0803



CONSTRUCTION DRAWING
PARKVIEW

O E. BARBEE STREET

ZEBULON, NORTH CARO

09 MAY 2023

Checked

Public

Sewer Collection / Extension System The City of Raleigh consents to the connection and extension of the

Private

Sewer Collection / Extension System

The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and constructions methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

Public

Water Distribution / Extension System
The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # S-5391(P)

City of Raleigh Public Utilities Department Permit # <u>W-4078</u>

City's public sewer system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit#

S-5390

Authorization to Construct

Authorization to Construct

Authorization to Construct

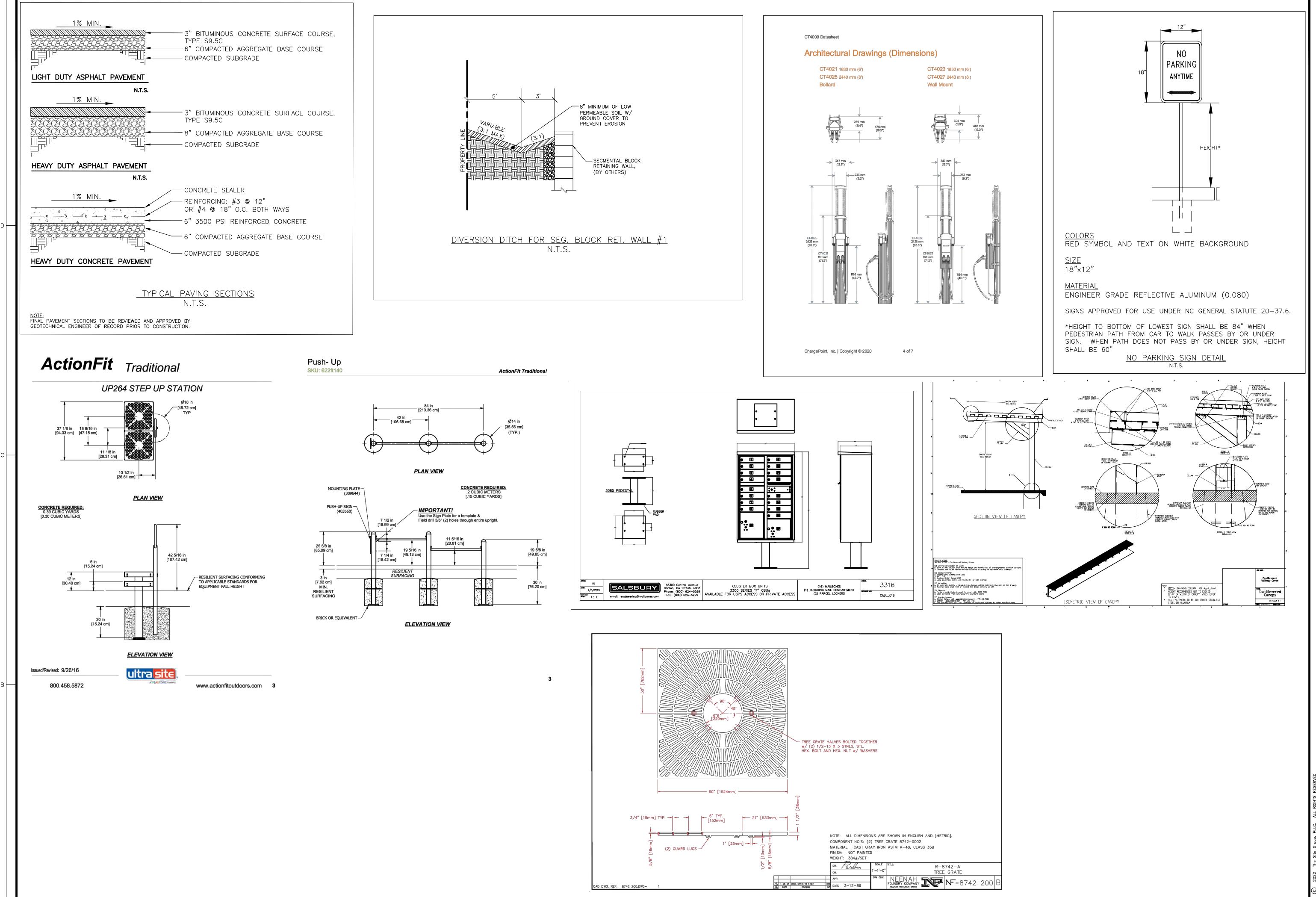
REVISED: 124 AUG 2023 2 21 NOV 2023

CONSTRUCTION

DRAWINGS SANITARY SEWER PLAN &

PROFILE

SCBSZ



CERT. NO.

NC ENGINEERING LICENSE NO. P-0803



E. E.

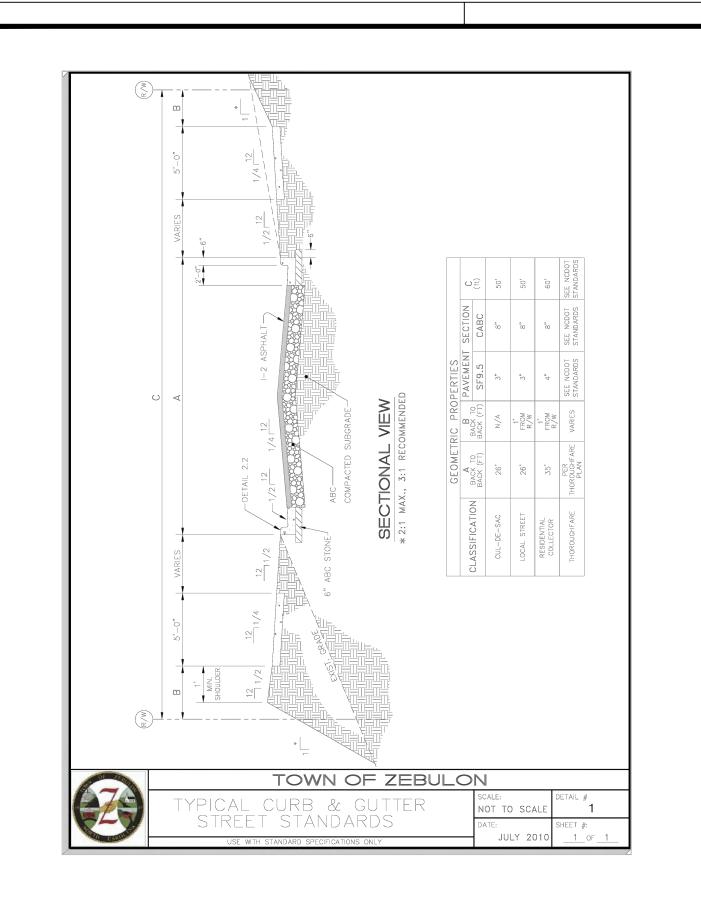
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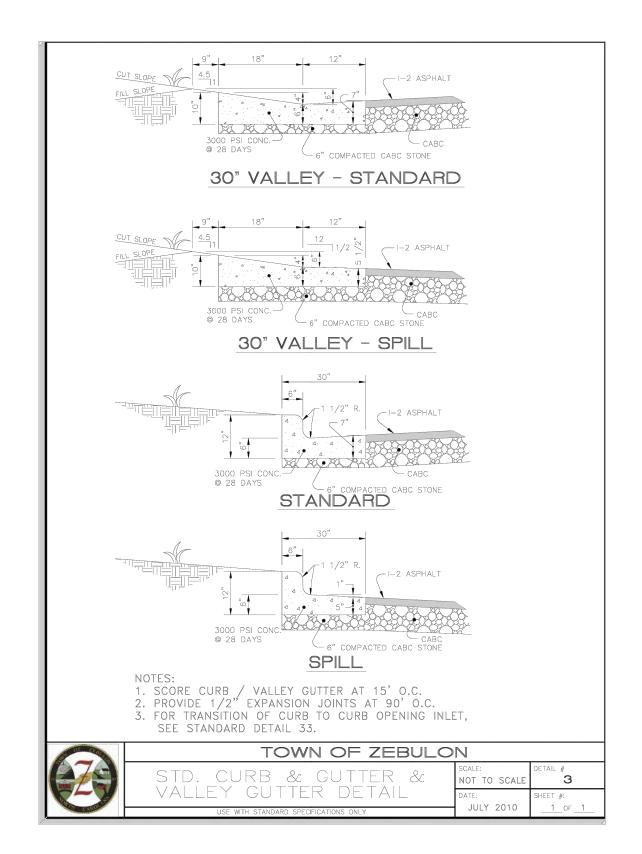
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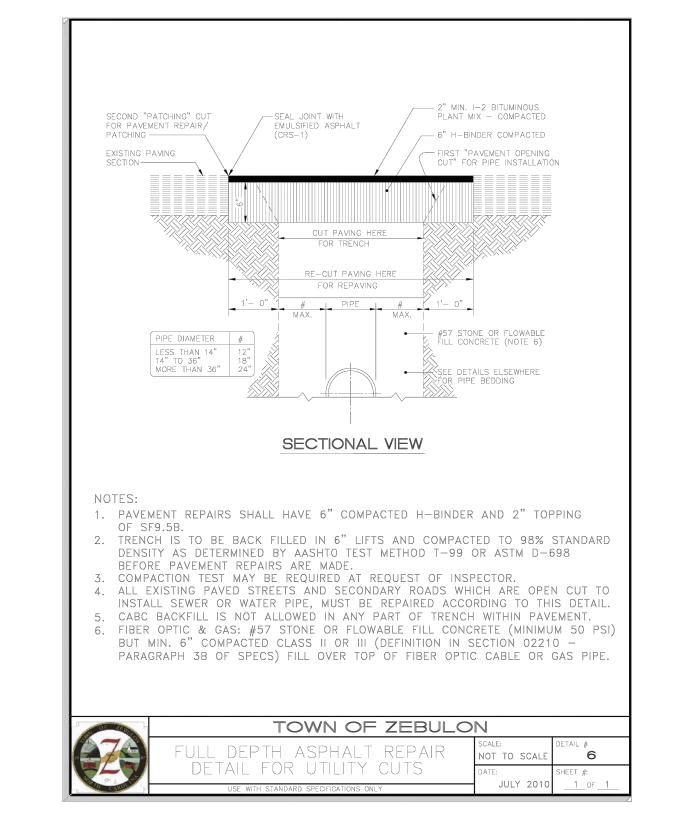
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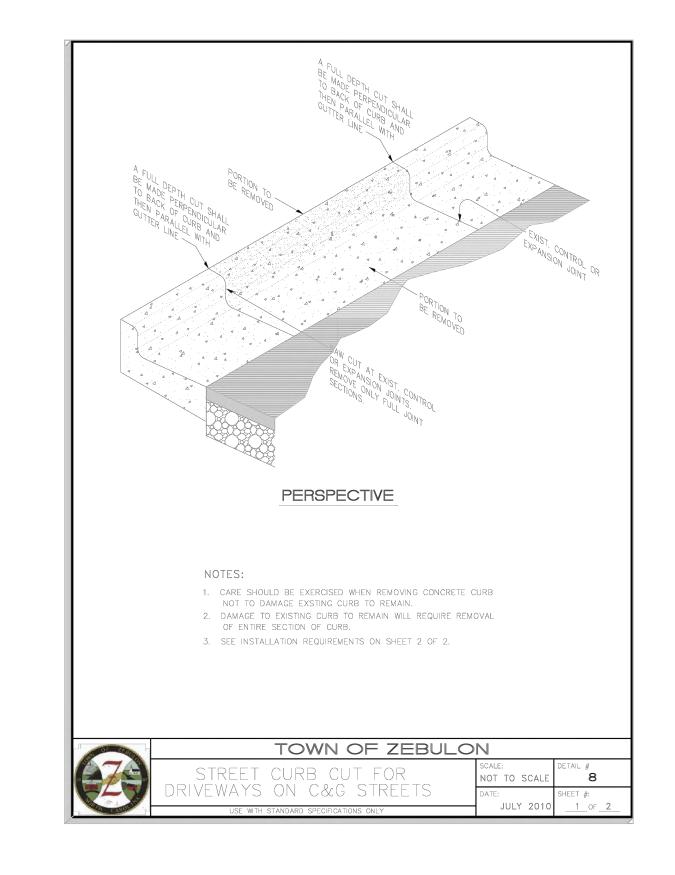
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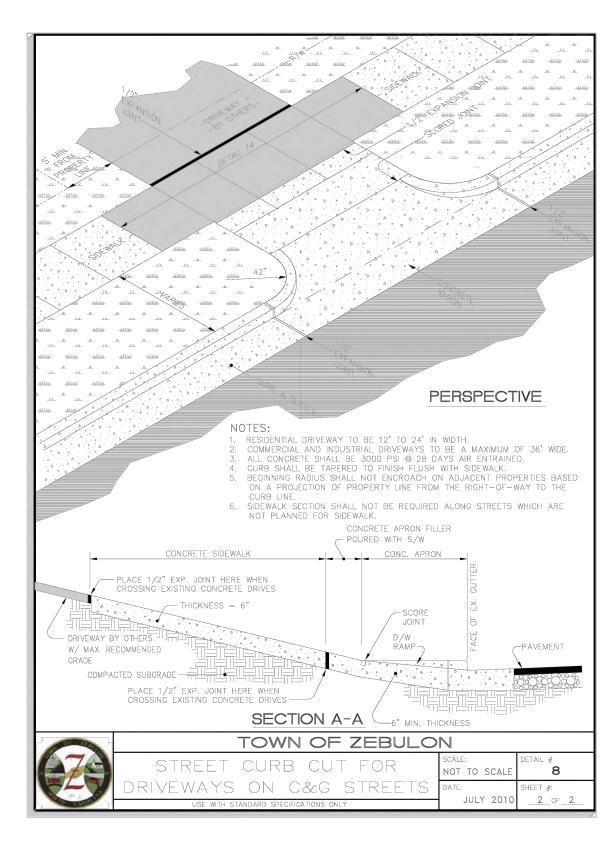
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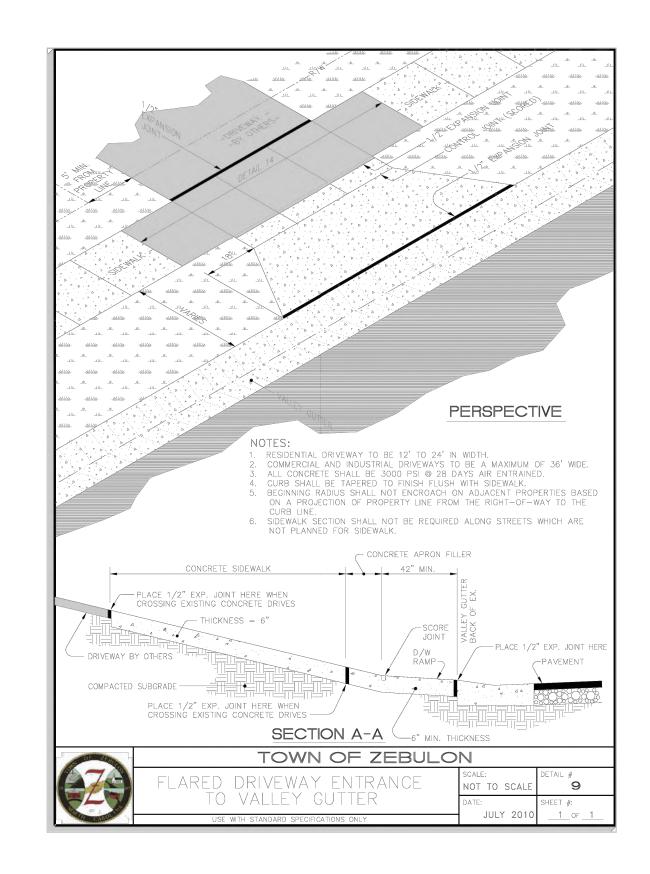


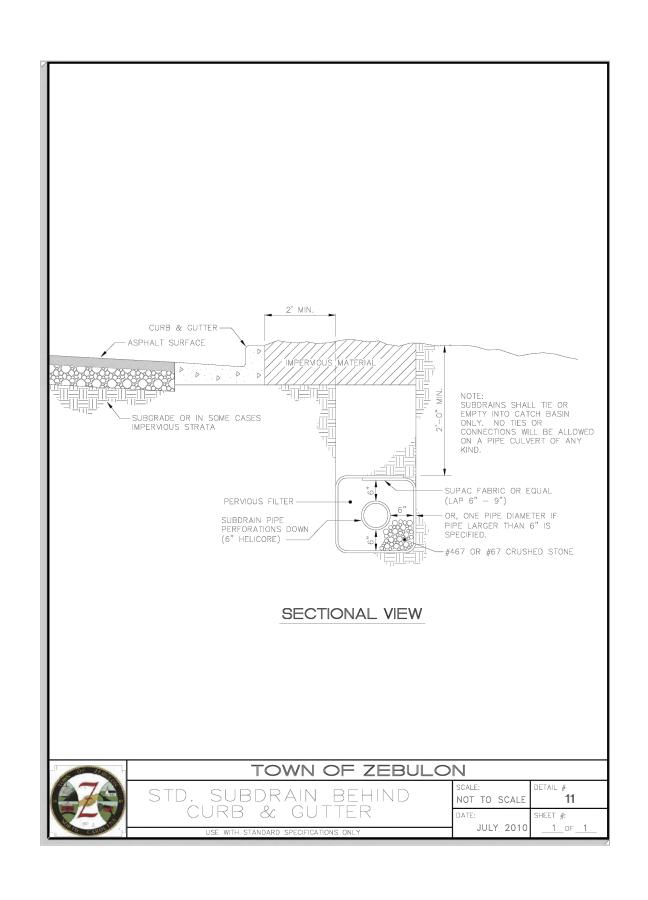


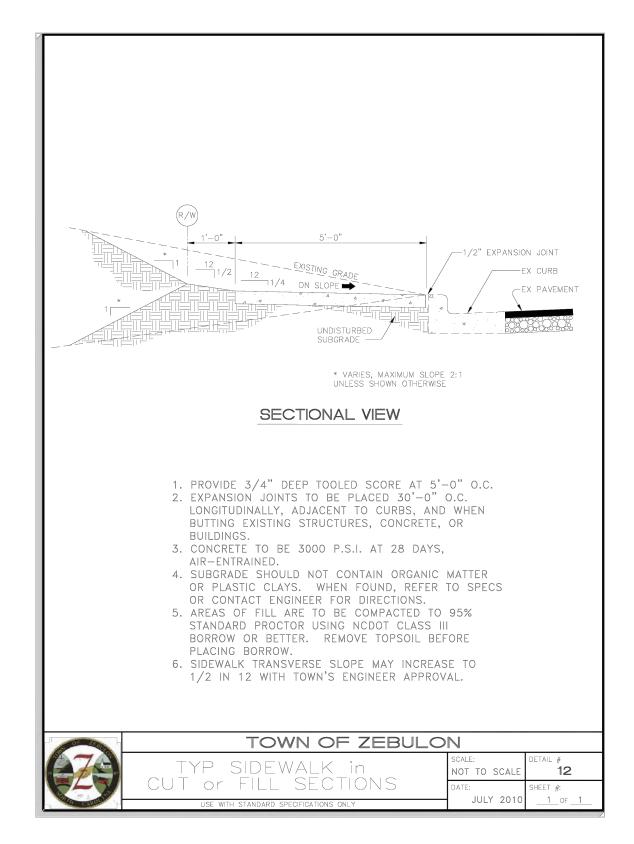


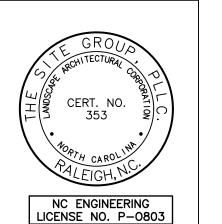














ONSTRUCTION DRAWING

PARKVIEW

E. BARBEE STREET

EBULON, NORTH CARO

Drawn WRR Checked SRN

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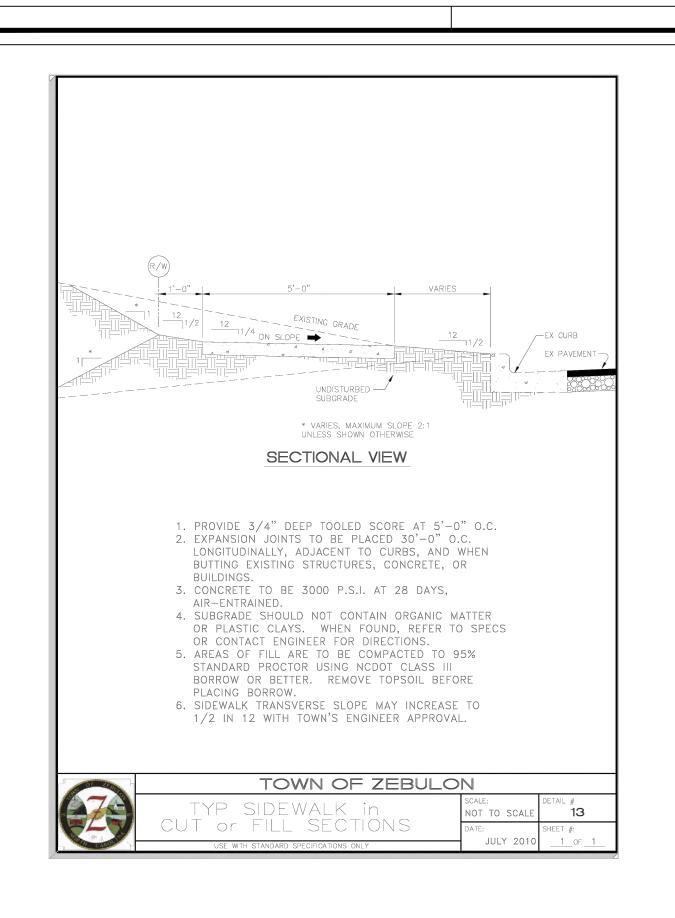
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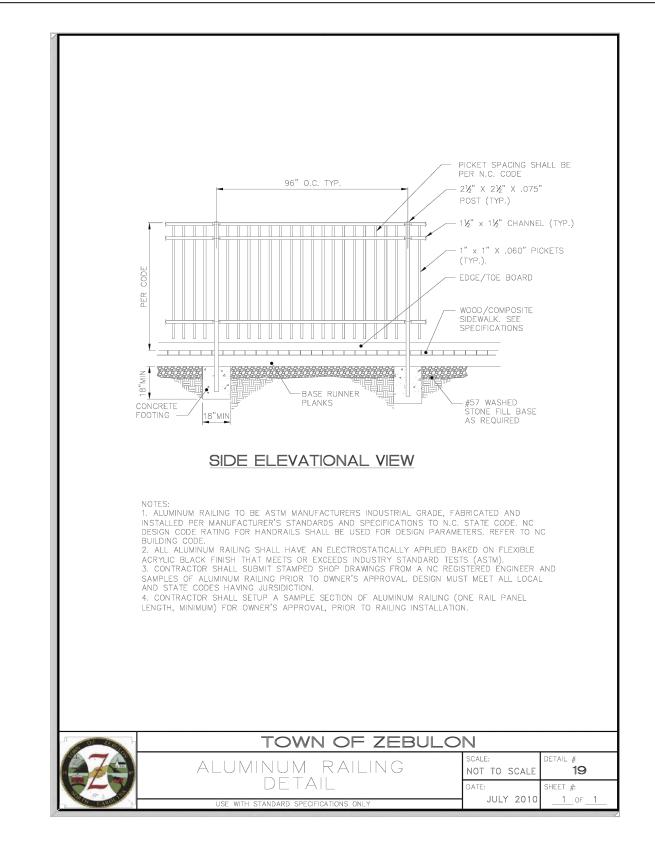
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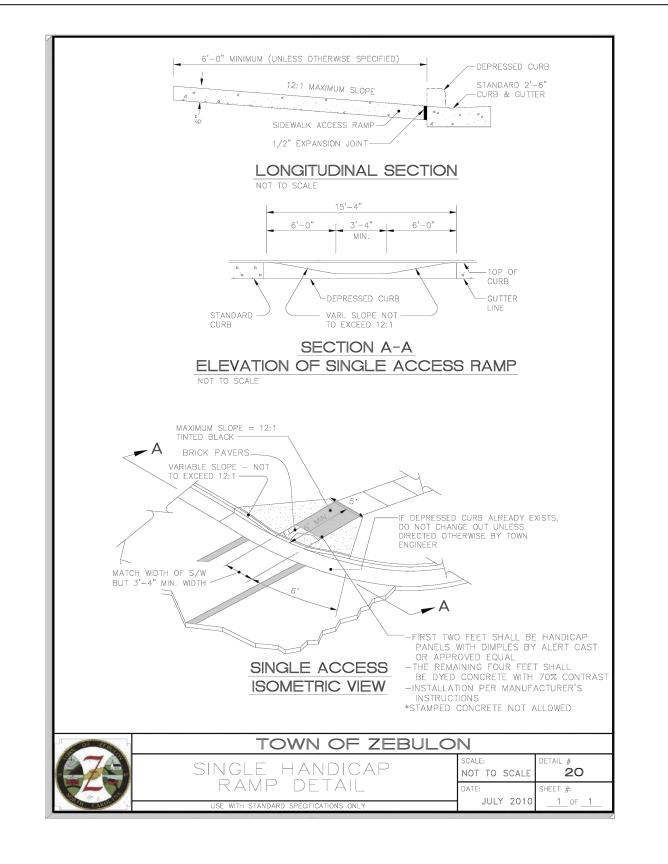
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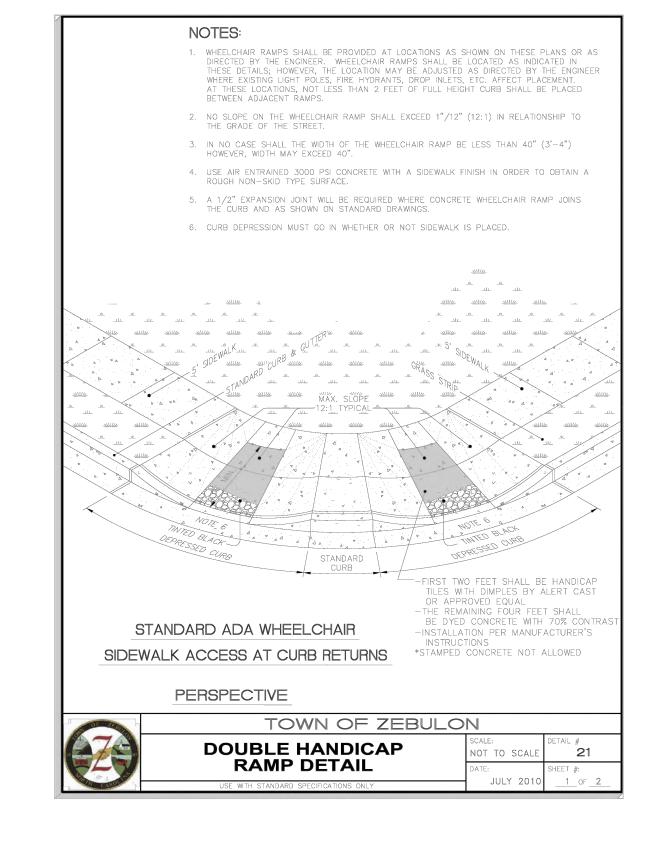
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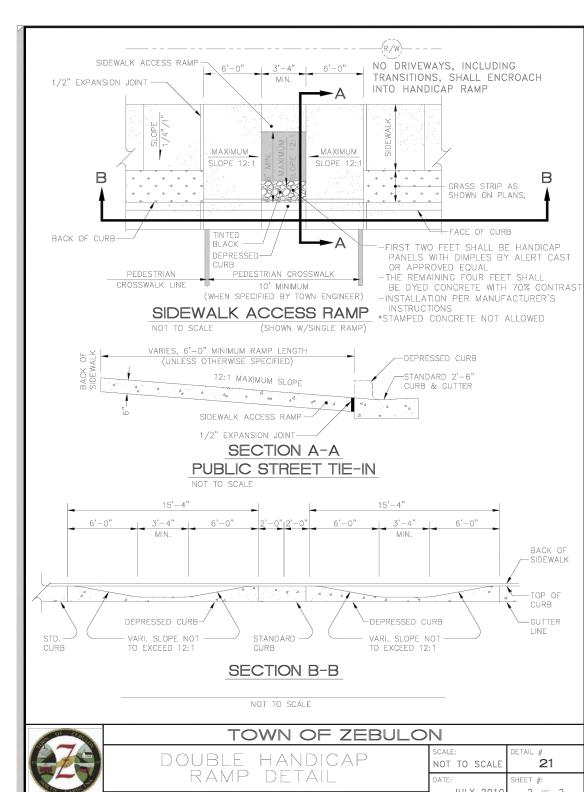
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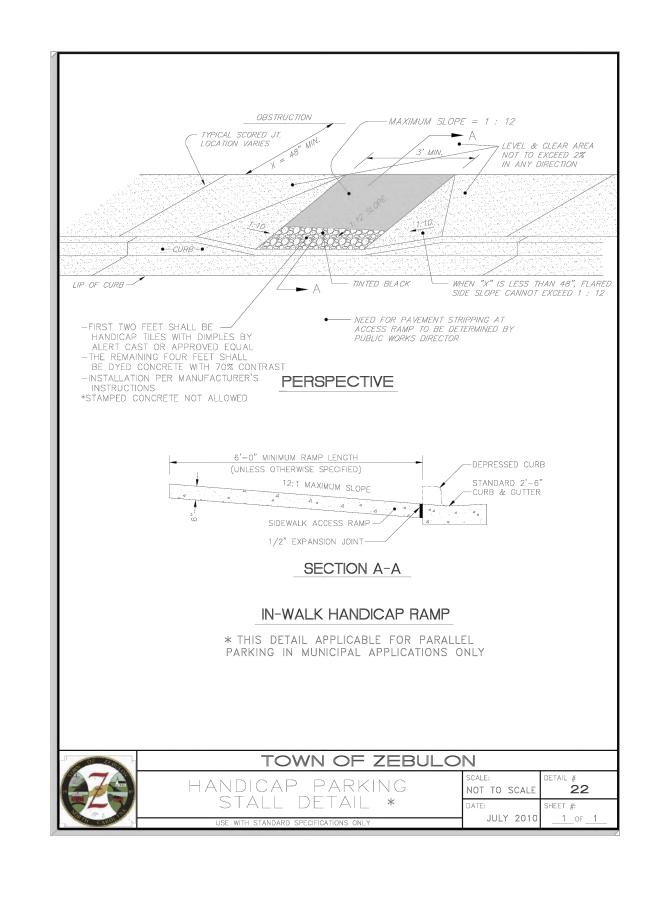


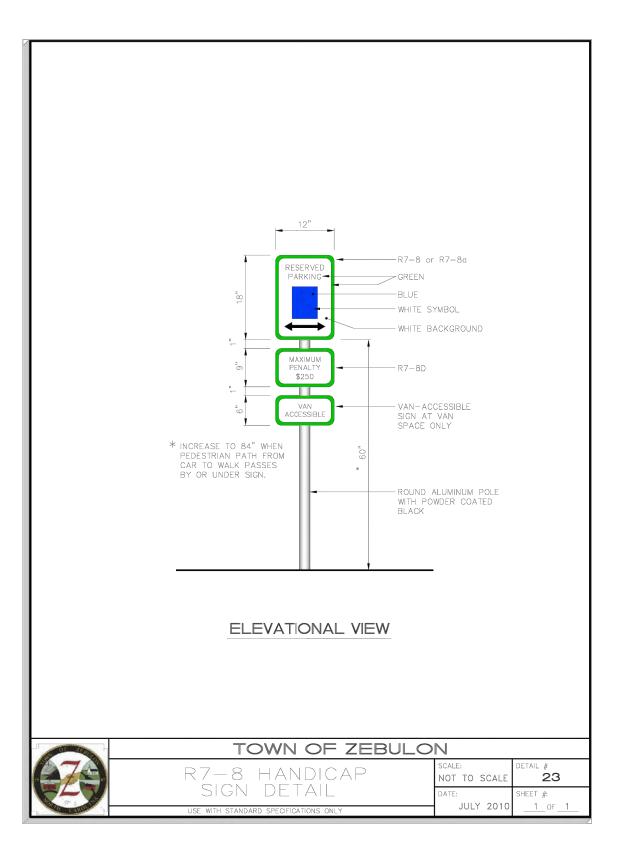


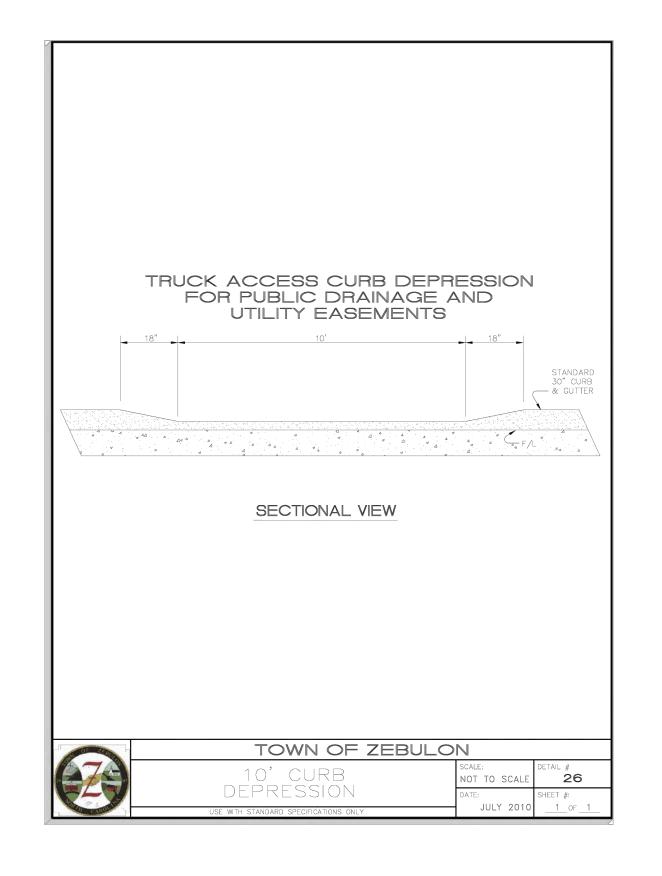


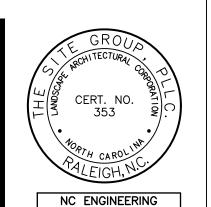


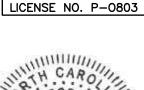
















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FOR: ONSTRUCTION DRAWING

PARKVIEW

E. BARBEE STREET

EBULON, NORTH CARO

Drawn WRR Checked

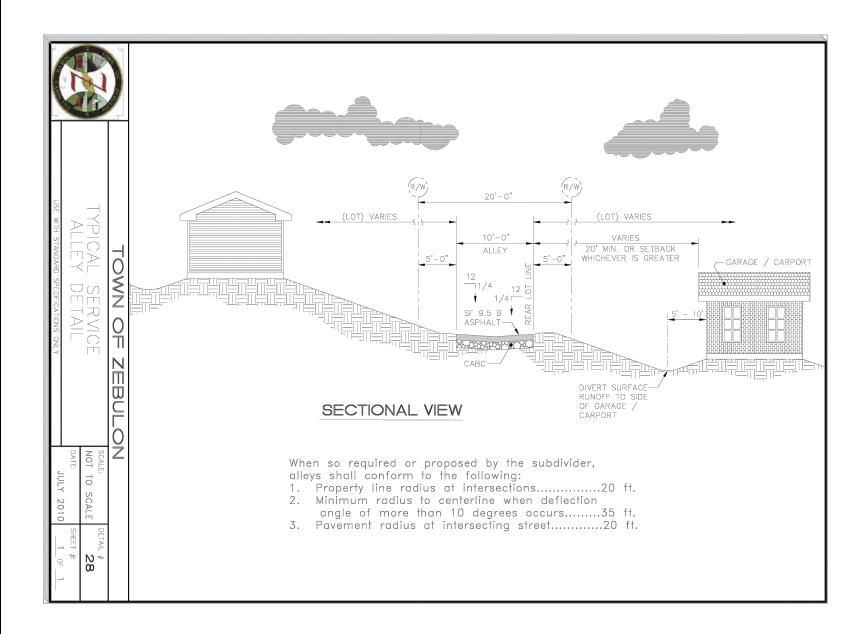
DATE: 07 NOV 2022 REVISED: <u>√1</u>03 FEB 2023

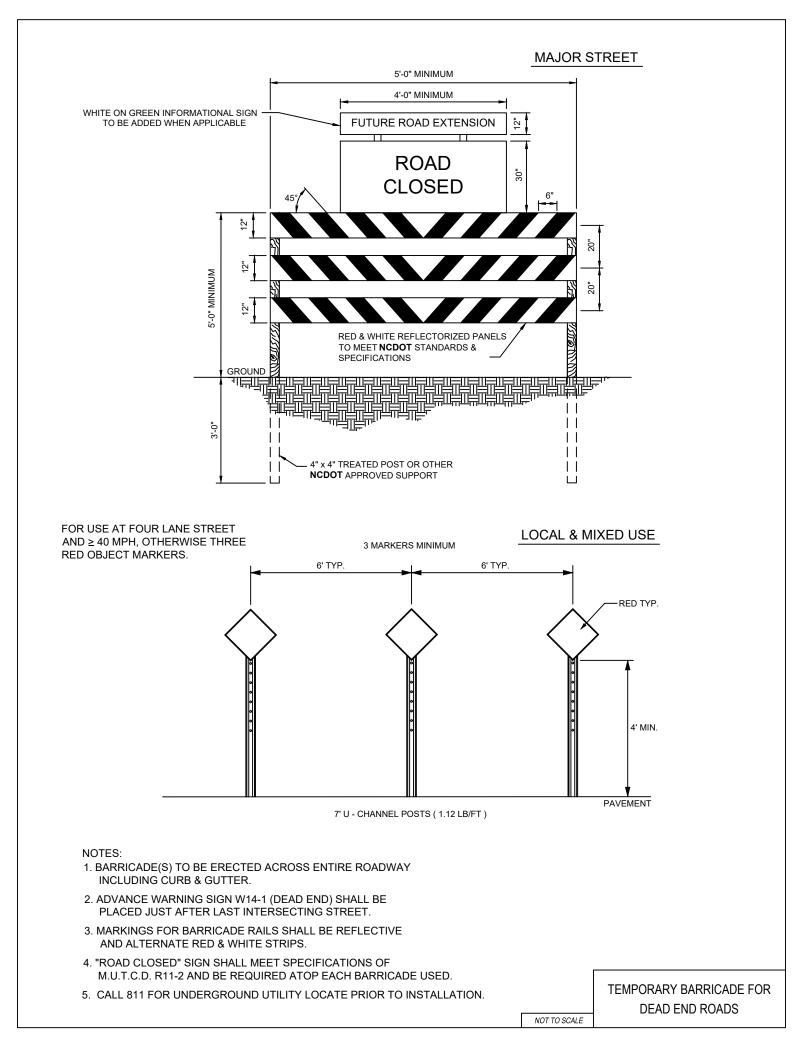
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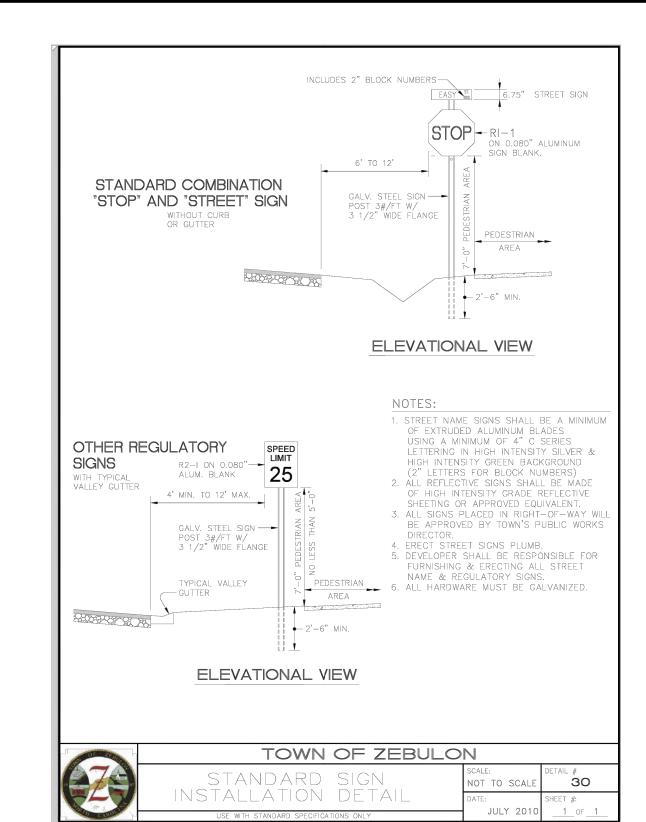
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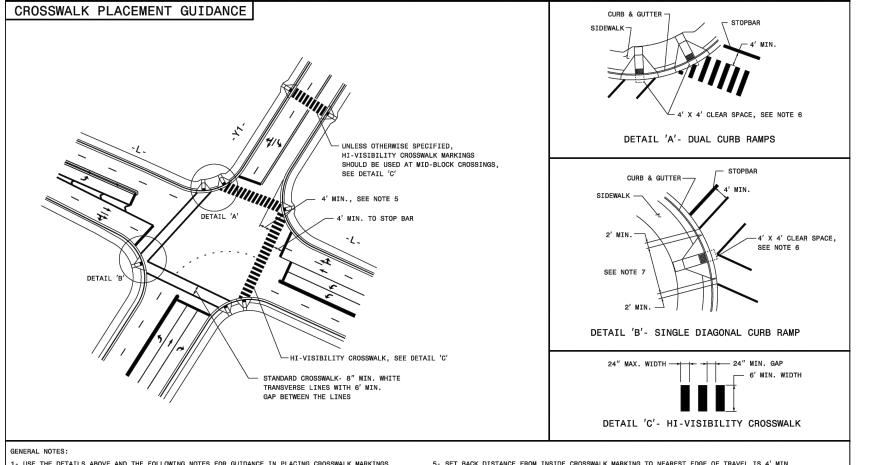
> SITE **DETAILS**

Code









1- USE THE DETAILS ABOVE AND THE FOLLOWING NOTES FOR GUIDANCE IN PLACING CROSSWALK MARKINGS. REFER TO NCDOT ROADWAY STANDARD DRAWINGS, MUTCD AND ADA STANDARDS FOR ADDITIONAL GUIDANCE. 2- THE LOCATION AND TYPE OF CROSSWALK MARKINGS SHOWN ON THE ABOVE DETAILS ARE FOR REFERENCE ONLY.

LOCATE CROSSWALK MARKINGS AS SHOWN ON THE PROJECT DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER.

THE CROSSWALK MARKING TYPE, STANDARD OR HI-VISIBILITY, SHALL BE INSTALLED AS SPECIFIED ON THE

7- SINGLE DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 2' MIN. LONG

4- STOP BARS SHOULD BE PLACED A 4' MIN. IN ADVANCE OF NEAREST CROSSWALK LINE.

- PROJECT DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER. 3- THE STANDARD CROSSWALK IS TWO WHITE 8" MIN. TRANSVERSE LINES WITH A 6' MIN. GAP BETWEEN THE LINES. THE HI-VISIBILITY CROSSWALK IS WHITE 24" MAX. WIDE LONGITUDINAL LINES WITH 24" MIN. GAPS BETWEEN LINES, SEE DETAIL 'C'. HI-VISIBILITY CROSSWALKS SHOULD BE A MINIMUM OF 6' WIDE. CURB RAMPS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARES.

 8- CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST NCDOT ROADWAY STANDARD DRAWINGS. CURB RAMPS THROUGH MEDIAN ISLANDS, SINGLE RAMPS AT DUAL CROSSWALKS OR LIMITED R/W SITUATIONS, WILL BE HANDLED BY SPECIAL DETAILS. CONTACT THE CONTRACT STANDARDS AND DEVELOPMENT UNIT FOR DETAILS OR A SPECIAL DESIGN.
- 5- SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL IS 4' MIN. 6- BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4' X 4' MIN. SHALL BE PROVIDED WITHIN
- LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING, SEE DETAIL 'B'.

CERT. NO. NC ENGINEERING

LICENSE NO. P-0803



Drawn Checked

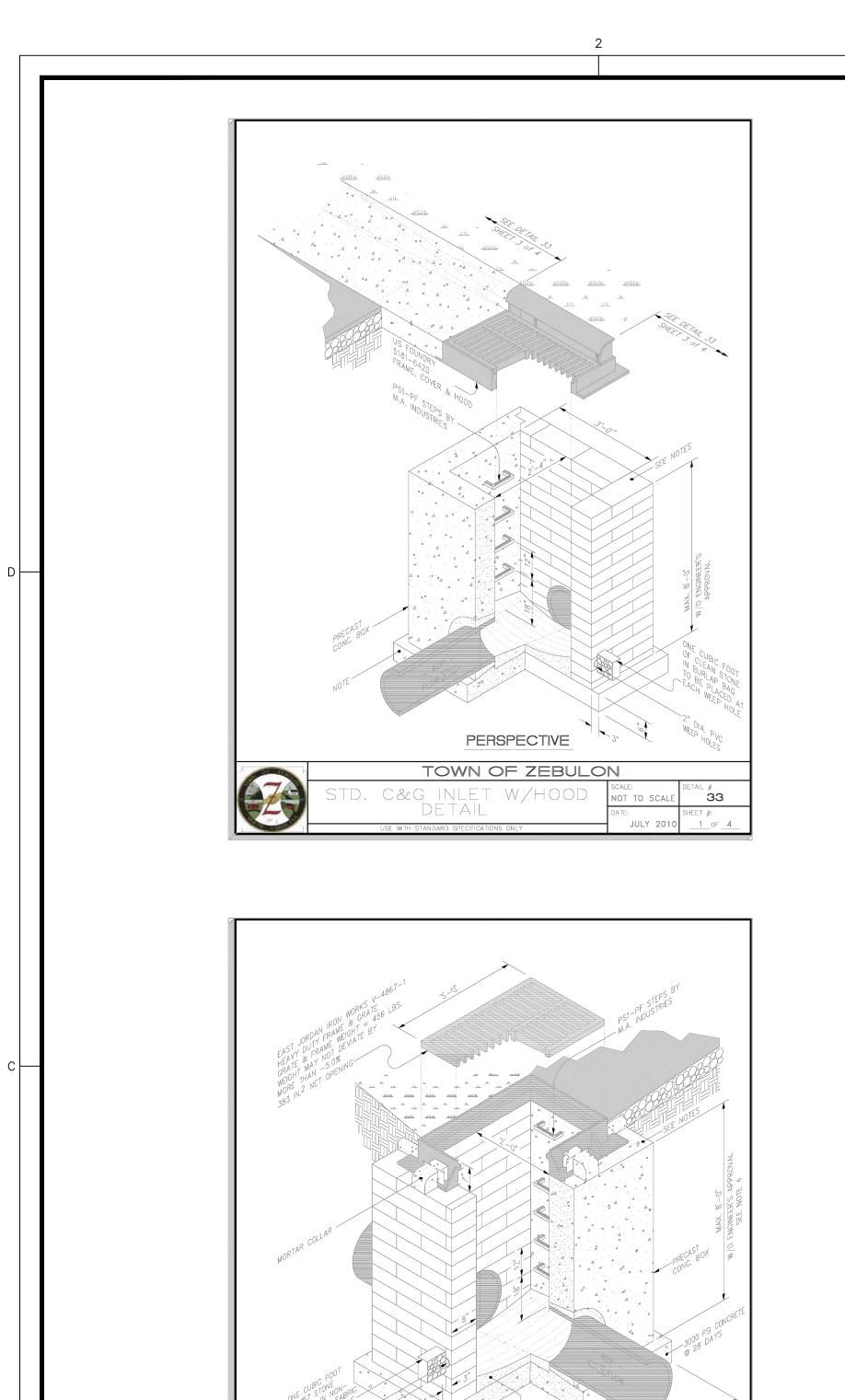
07 NOV 2022 REVISED: 103 FEB 2023

<u>/2</u>\09 MAY 2023

CONSTRUCTION

DRAWING

DETAILS

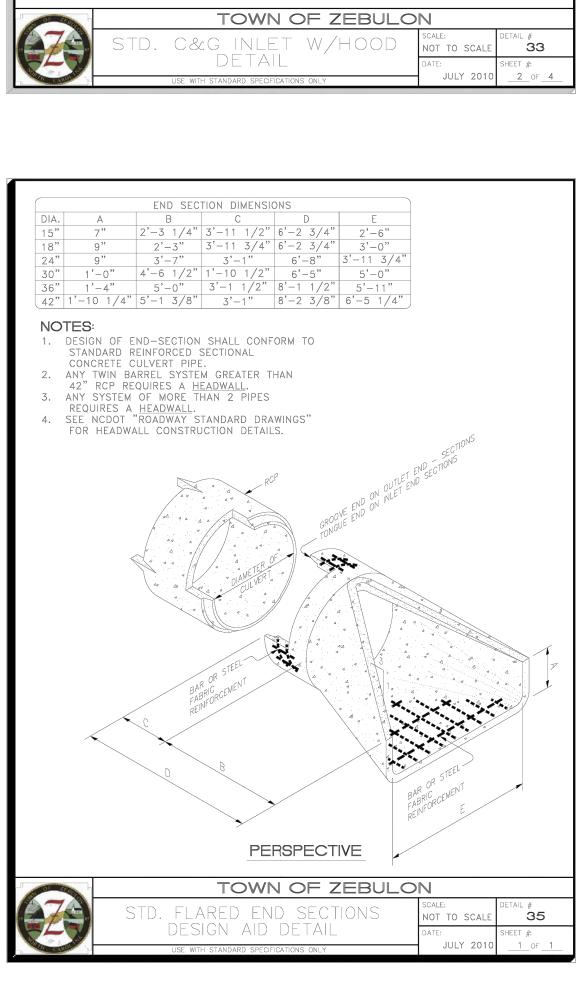


PERSPECTIVE

2×3 Drop inlet

TOWN OF ZEBULON

34

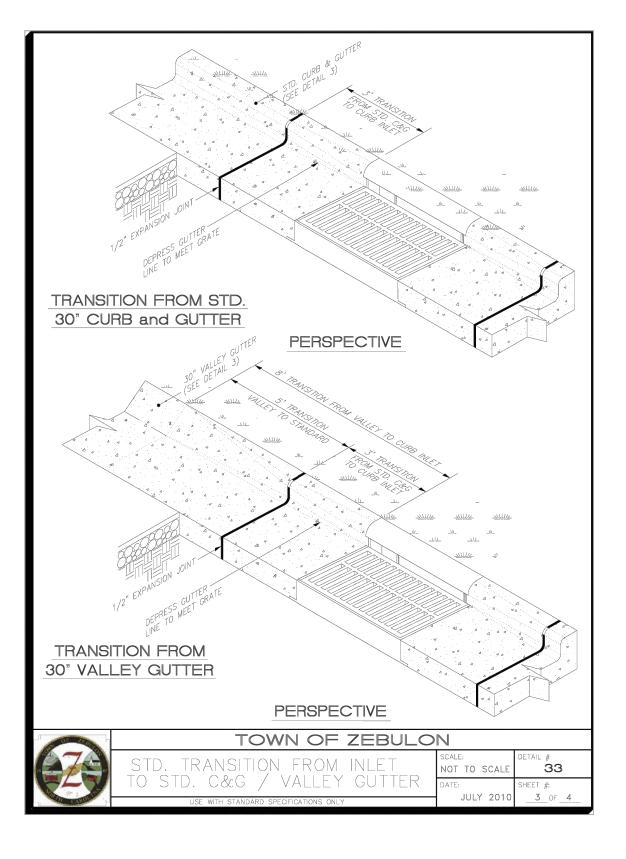


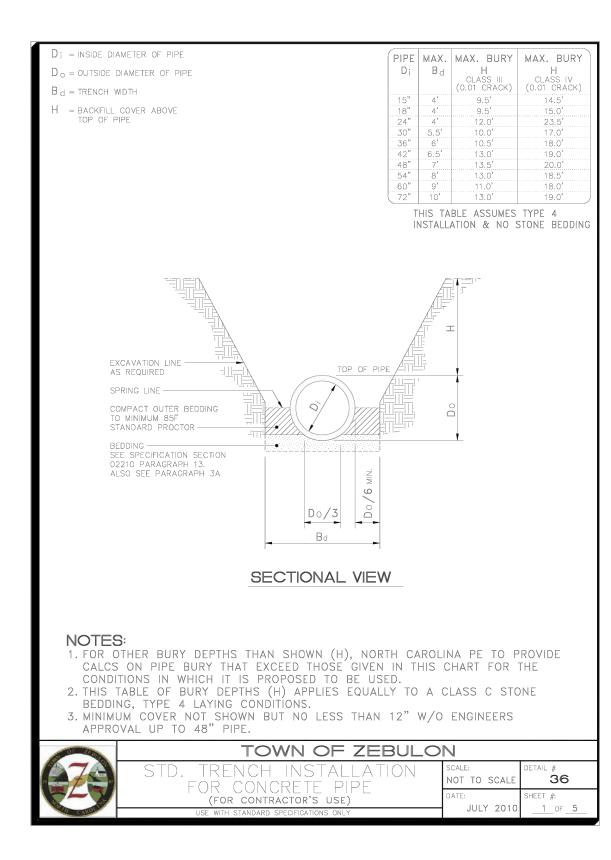
DETAIL SHOWING TYPES OF GRATES

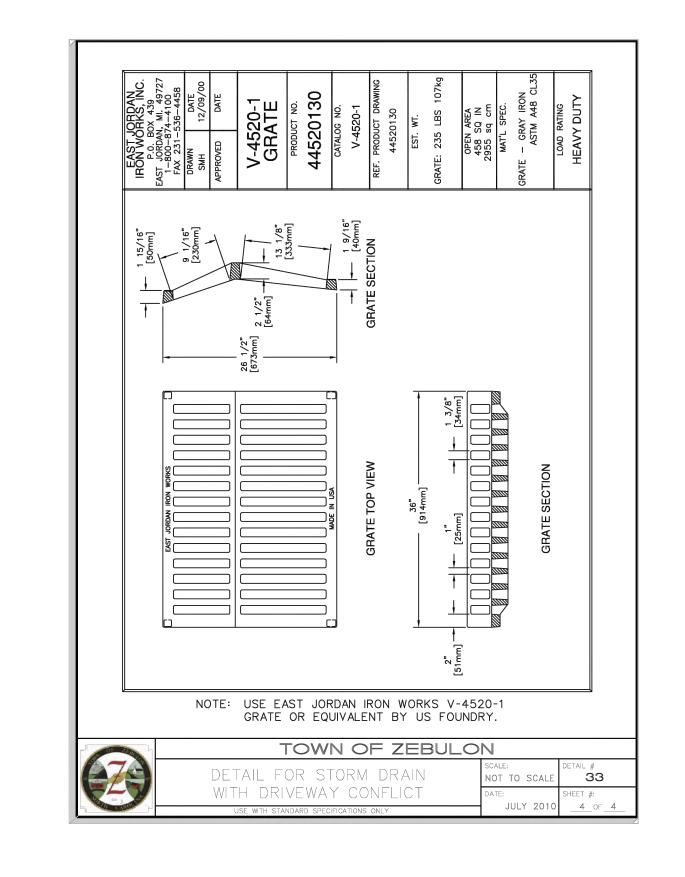
TO BE USED ACCORDING TO WATER FLOW

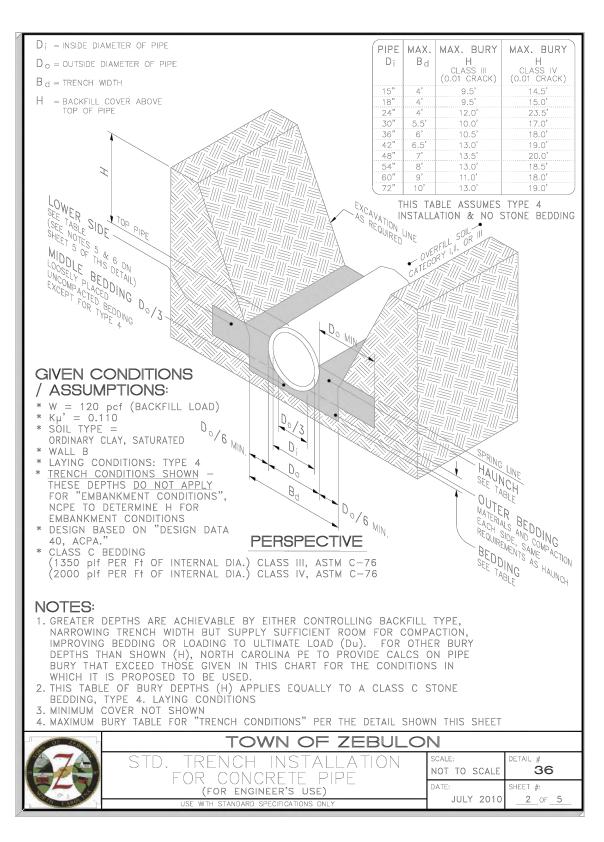
U.S. FOUNDRY 5181 CURB & GUTTER INLET FRAME (SHOWN WITH 6420 GRATE)
HEAVY DUTY FRAME, COVER & HOOD
FRAME, COVER & HOOD WEIGHT = 550 LBS.
WEIGHT MAY NOT DEVIATE BY
MORE THAN -5.0%

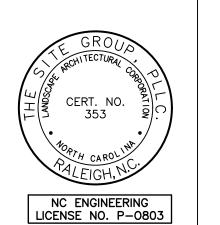
PERSPECTIVE













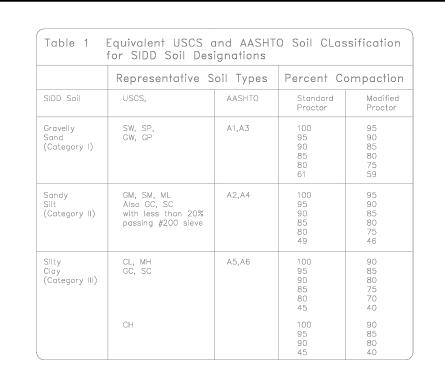


PARKVIEW
E. BARBEE STREET
EBULON, NORTH CARO Drawn

WRR Checked 07 NOV 2022 REVISED: 109 MAY 2023

CONSTRUCTION DRAWING

> SITE **DETAILS**



OF THE	TOWN OF ZEBULO	N	
673	STD. TRENCH INSTALLATION	SCALE: NOT TO SCALE	DETAIL #
	(TRENCH CONDITION SHOWN)	DATE:	SHEET #:
CAROTTE CAROTTE	USE WITH STANDARD SPECIFICATIONS ONLY	JULY 2010	3

Table 2	Standard EMBANKMEN Compaction Requirem		and Minimum
Installation Type ⁴	Bedding Thickness	Haunch and Outer Bedding	Lower Side
Type 1	D ₀ /24 minimum, not less than 75 mm (3"). If rock foundation,use D ₀ /12 minimum, not less than 150 mm (6").	98% Category	90% Category I, 95% Category II, or 100% Category III
Type 2	D _o /24 minimum, not les than 75 mm (3"). If rock foundation, use D _o /12 minimum,not less than 150 mm (6").	90% Category or 95% Categiry	85% Category I, 90% Category II, or 95% Category III
Type 3	D ₀ /24 minimum, not less than 75 mm (3"). If rock foundation, use D ₀ /12 minimum, not less than 150 mm (6").	85% Category I, 90% Category II, or 95% Category III	85% Category I, 90% Category II, or 95% Category III
Type 4	$D_0/24$ minimum, not less than 75 mm (3"). If rock foundation, use $D_0/12$ minimum, not less than 150 mm (6").	No compaction required, except if Category III, use 85% Category III	No compaction required, except in Category III, use 85% Category III

- 1. Compaction and soils symbols i.e. "98% Category I' refers to Category 1 soil material with a minimum standard Proctor compaction of 98%. See Table 1 for equivalent modified Proctor values.
- 2. Soil in the outer bedding, haunch, and lower side zones, except within DO/3 from the pipe springline, shall be compacted to at least the same compaction as the majority of the soil in the overfill zone. 3. Subtrenches
- 3.1 A subtrench is defined as a trench with its top below finished grade by more than 0.1 H or, for roadways, its top is at an elevation lower than 0.3 m (1')
- below the bottom of the pavement base material. 3.2 The minimum width of a subtrench shall be 1.33 ${\rm D}_{\odot}$ or wider if required for adequate space to attain the specified compaction in the haunch and bedding
- 3.3 For subtrenches with wall of natural soil, any portion of the lower side zone in the subtrench wall shall be at least as firm as an equivalent soil placed to the compaction requirements specified for the lower side zone and as firm as the majority of soil in the overfill zone, or shall be removed and replaced with soil
- compacted to the specified level. 4. Type 1 installation = relatively high quality material & high compaction effort. Type 4 installation = little or no control over material and compaction.

OF ALBERTA	TOWN OF ZEBULO	N	
(ZS)	STD. TRENCH INSTALLATION	SCALE: NOT TO SCALE	DETAIL #
	(IRENCH CONDITION SHOWN)	DATE: JULY 2010	SHEET #:
CARCO	USE WITH STANDARD SPECIFICATIONS ONLY	1 3021 2010	I — " —

Table 3		NCH Installation	
Installation ⁷ Type	Bedding Thickness	Haunch Outer Bedding	Lower Side
Type 1	${\rm D_{0}/24}$ minimum, not less than 75 mm (3"). If rock foundation, use ${\rm D_{0}/12}$ minimum, not less than 150 mm (6").	98% Category I	90% Category I, 95% Category II, or 100% Category III
Type 2	$D_{\rm o}/24$ minimum, not less than 75 mm (3"). If rock foundation, use $D_{\rm o}/12$ minimum, not less than 150 mm (6").	90% Category I or 95% Category II	85% Category I, 90% Category II, or 95% Category III
Type 3	$D_{\rm o}/24$ minimum, not less than 75 mm (3"). If rock foundation, use $D_{\rm o}/12$ minimum, not less than 150 mm (6").	85% Category I, 90% Category II, or 95% Category III	85% Category I, 90% Category II, or 95% Category III
Туре 4	$D_{\rm o}/24$ minimum, not less than 75 mm (3"). If rock foundation, use $D_{\rm o}/12$ minimum, not less than 150 mm (6").	No compaction required, except if Category III, use 85% Category III	No compaction required, except if Category III, use 85% Category III

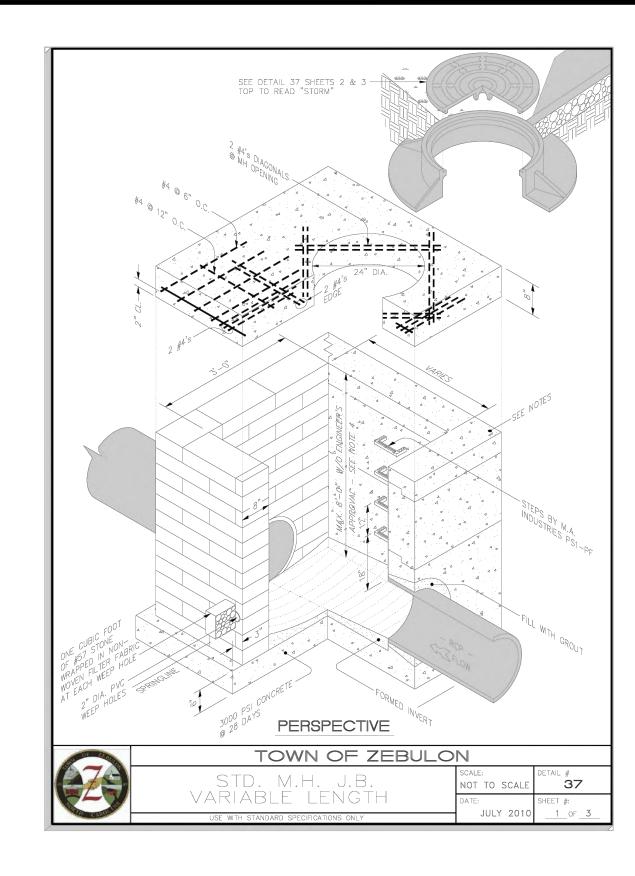
- 1. Compaction and soils symbols i.e. "98% Category I" refers to Category I soil materials with minimum standard Proctor compaction of 98%. See Table 1 for
- equivalent modified Proctor values. 2. The trench top elevation shall be no lower than 0.1 H below finished grade or, for roadways, its top shall be no lower than an elevation of 0.3 m (1') below
- the bottom of the pavement base material. 3. Soil in bedding and haunch zones shall be compacted to at least the same
- compaction as specified for the majority of soil in the backfill zone.
- 4. The trench width shall be wider than shown if required for adequate space to attain the specified compaction in the haunch and bedding zone.
- 5. For trench walls that are within 10 degrees of vertical, the compaction or firmness
- of the soil in the trench walls and lower side zone need not be considered. 6. For trench walls with greater than 10 degrees slopes that consist of embankment,
- the lower side shall be compacted to at least the same compaction as specified for the soil in the backfill zone.
- 7. Type 1 installation = relatively high quality material & high compaction effort. Type 4 installation = little or no control over material and compaction.

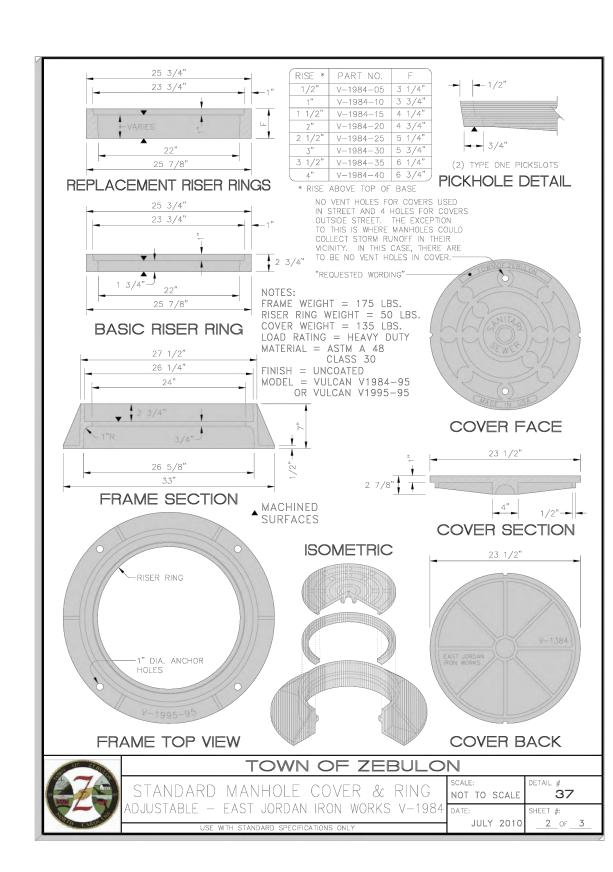
ZHADA	TOWN OF ZEBULON

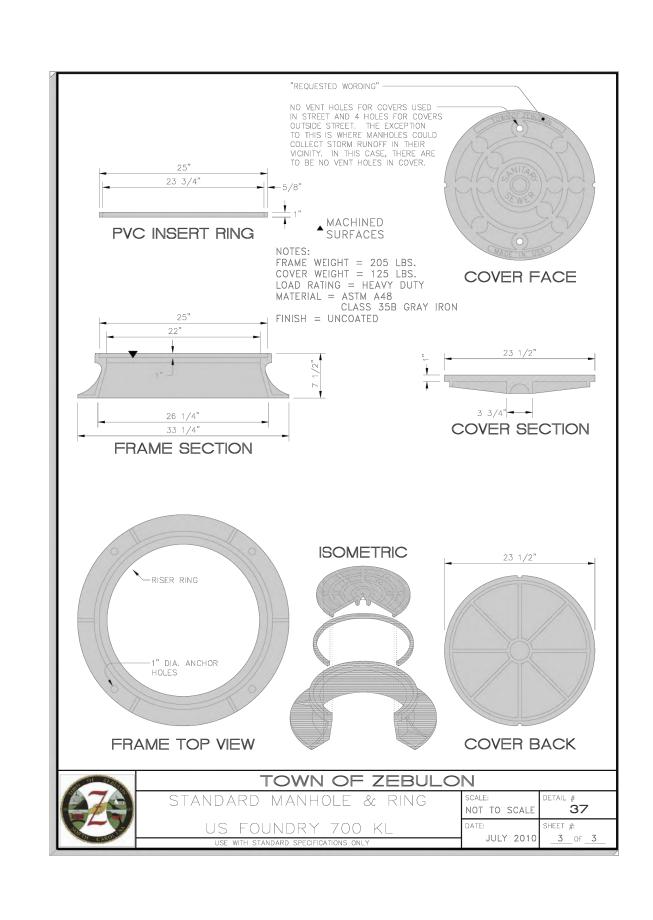
TRENCH INSTALLATION

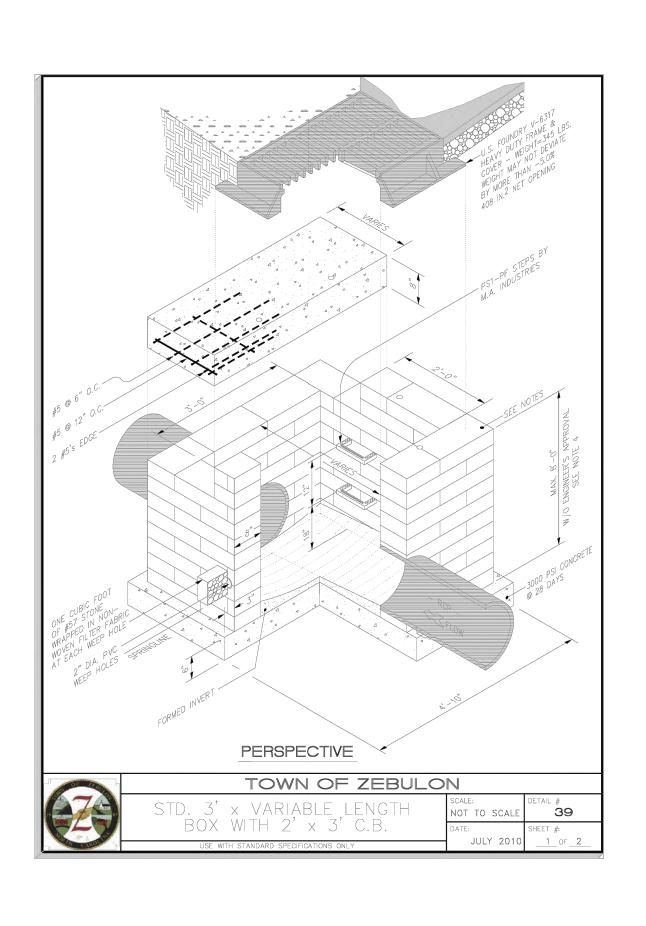
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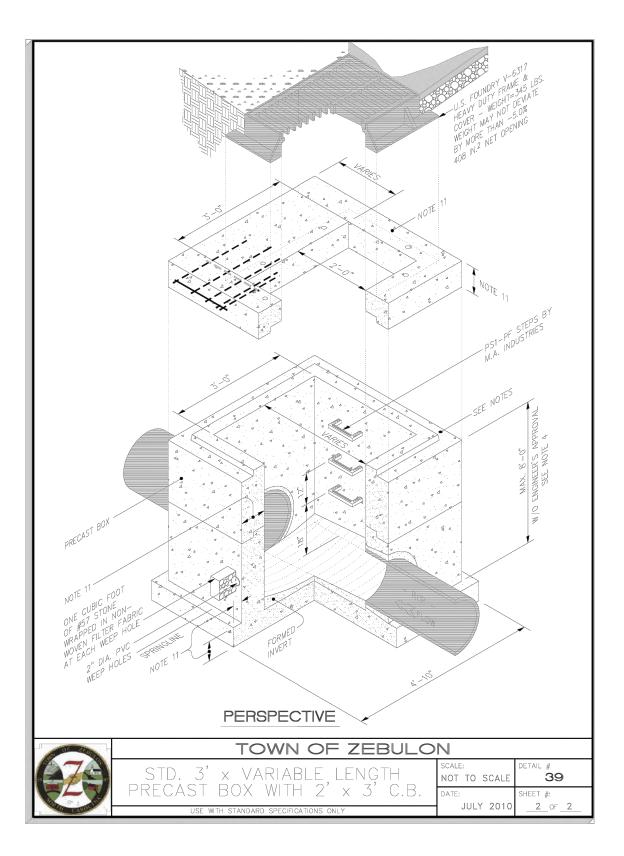
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NC ENGINEERING LICENSE NO. P-0803



Drawn Checked

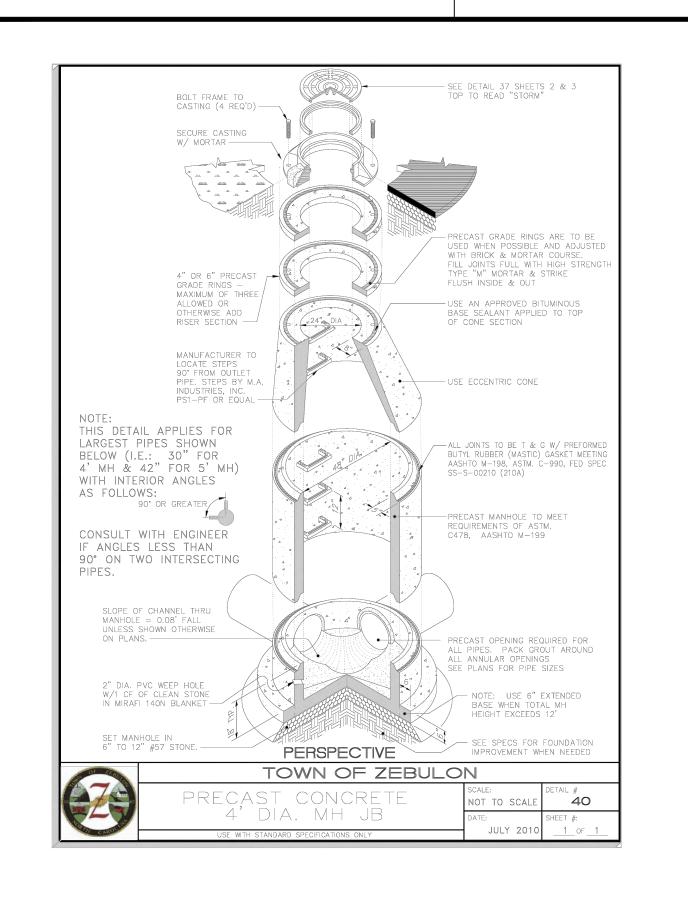
07 NOV 2022 REVISED: 109 MAY 2023

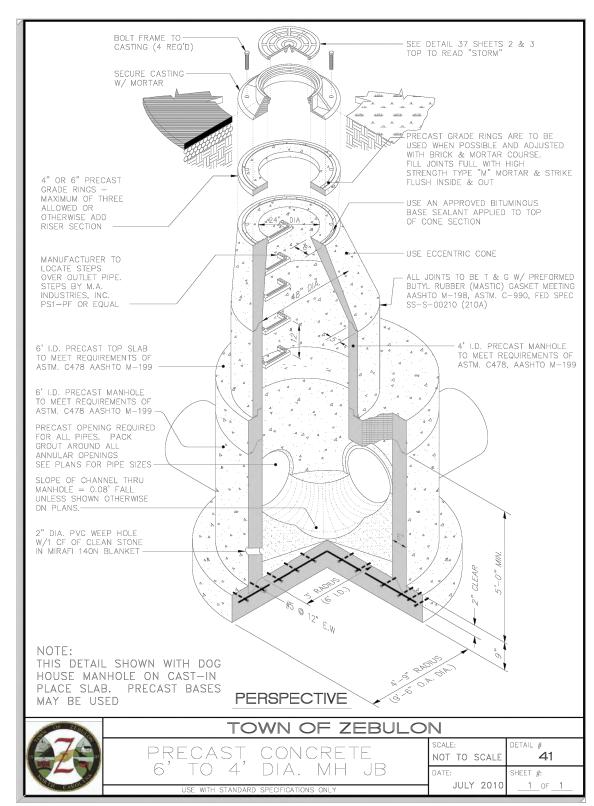
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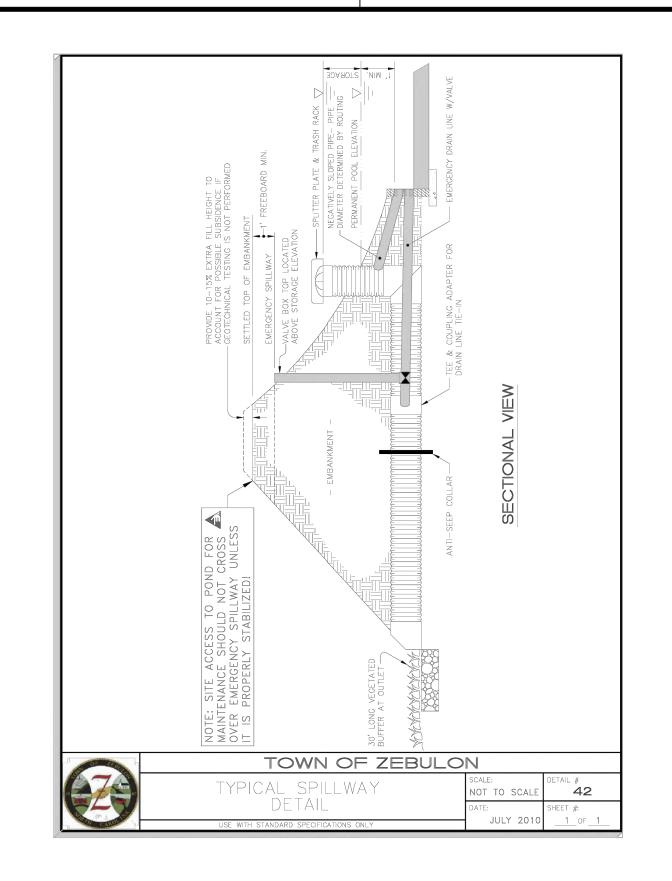
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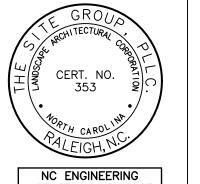
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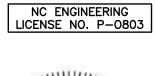
SITE

















THE SITE GROUP, PLLC.
1111 Oberlin Road
Raleigh, NC 27605-1136 U
Office: 919.835.4787
Fax: 919.839.2255
E Mail: SRN@thesitegroup.n.

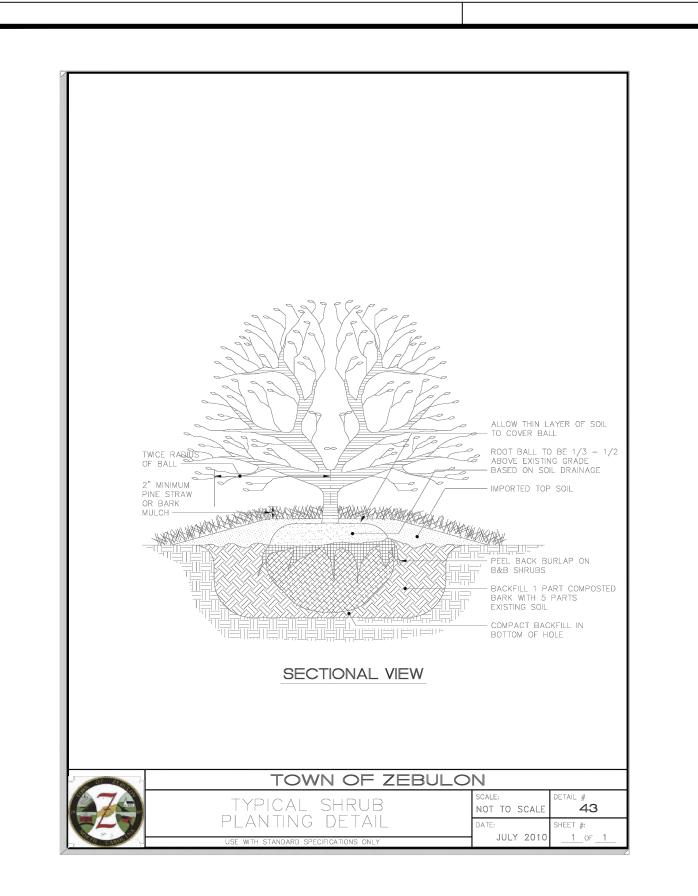
07 NOV 2022 109 MAY 2023

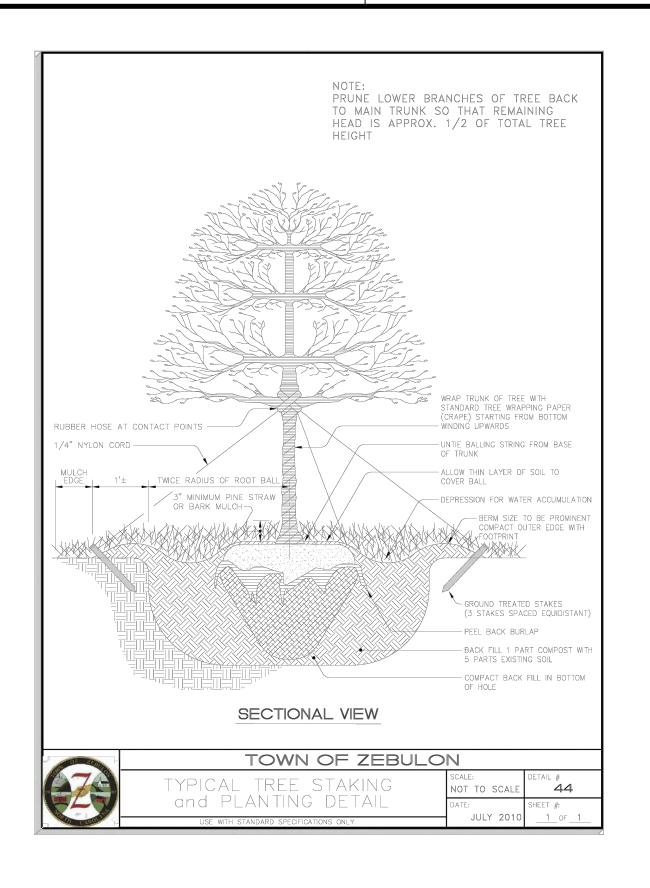
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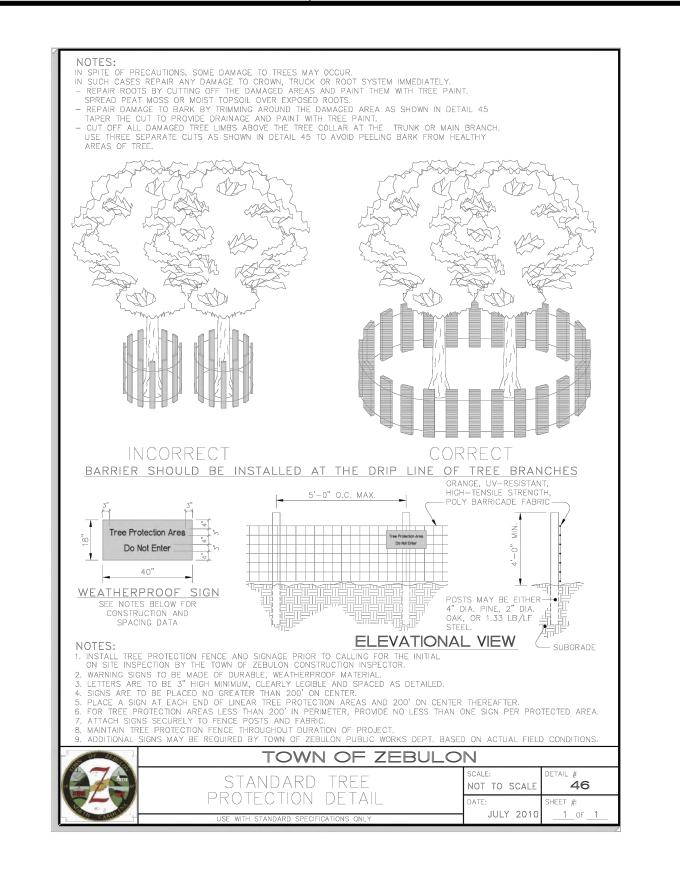
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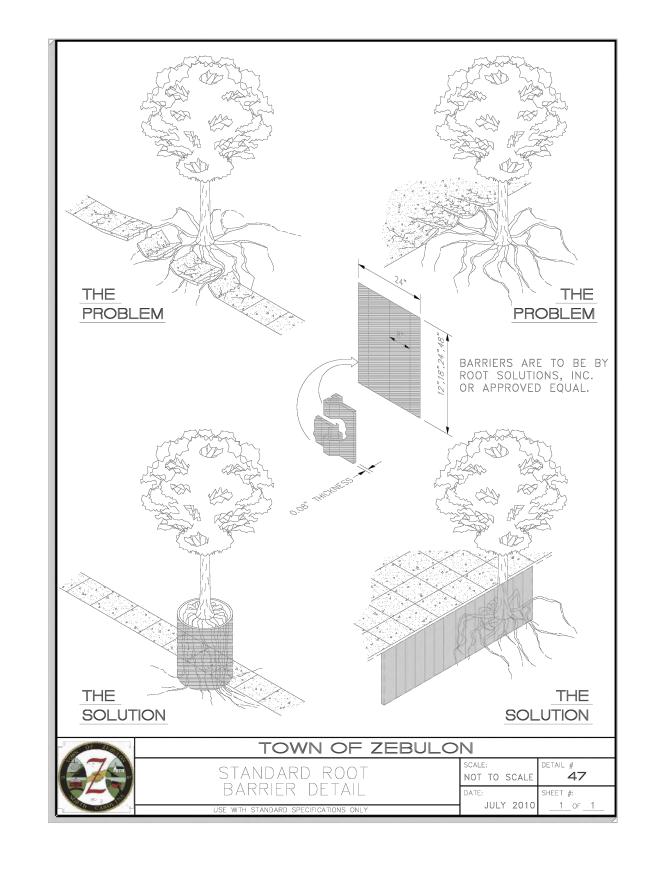
SCBSZ Dwg No.

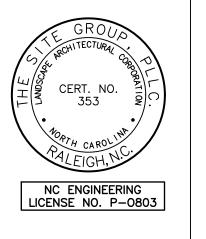
SITE 706

















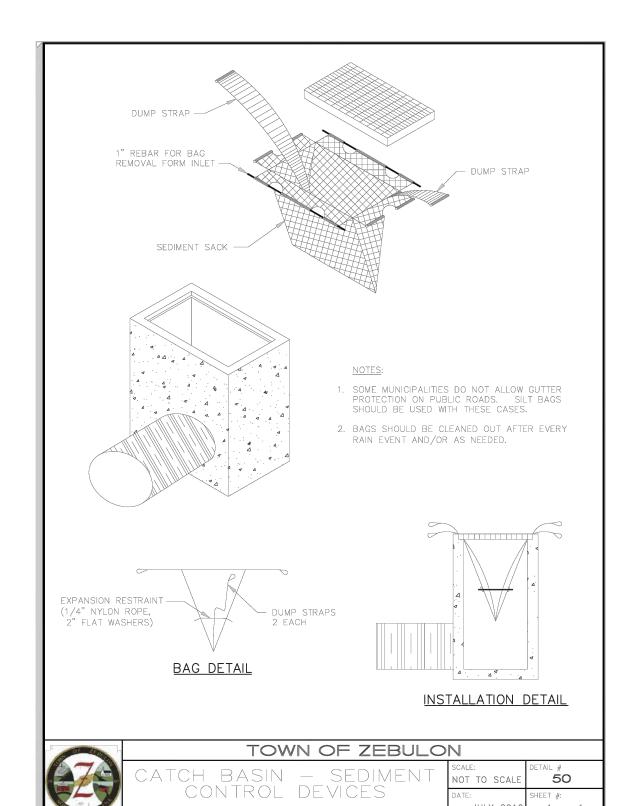
erlin NC 919. SRNS

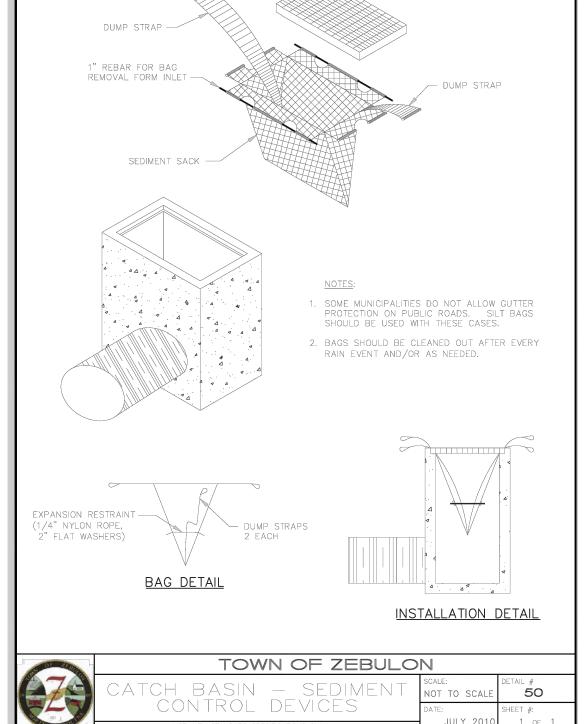
Drawn Checked

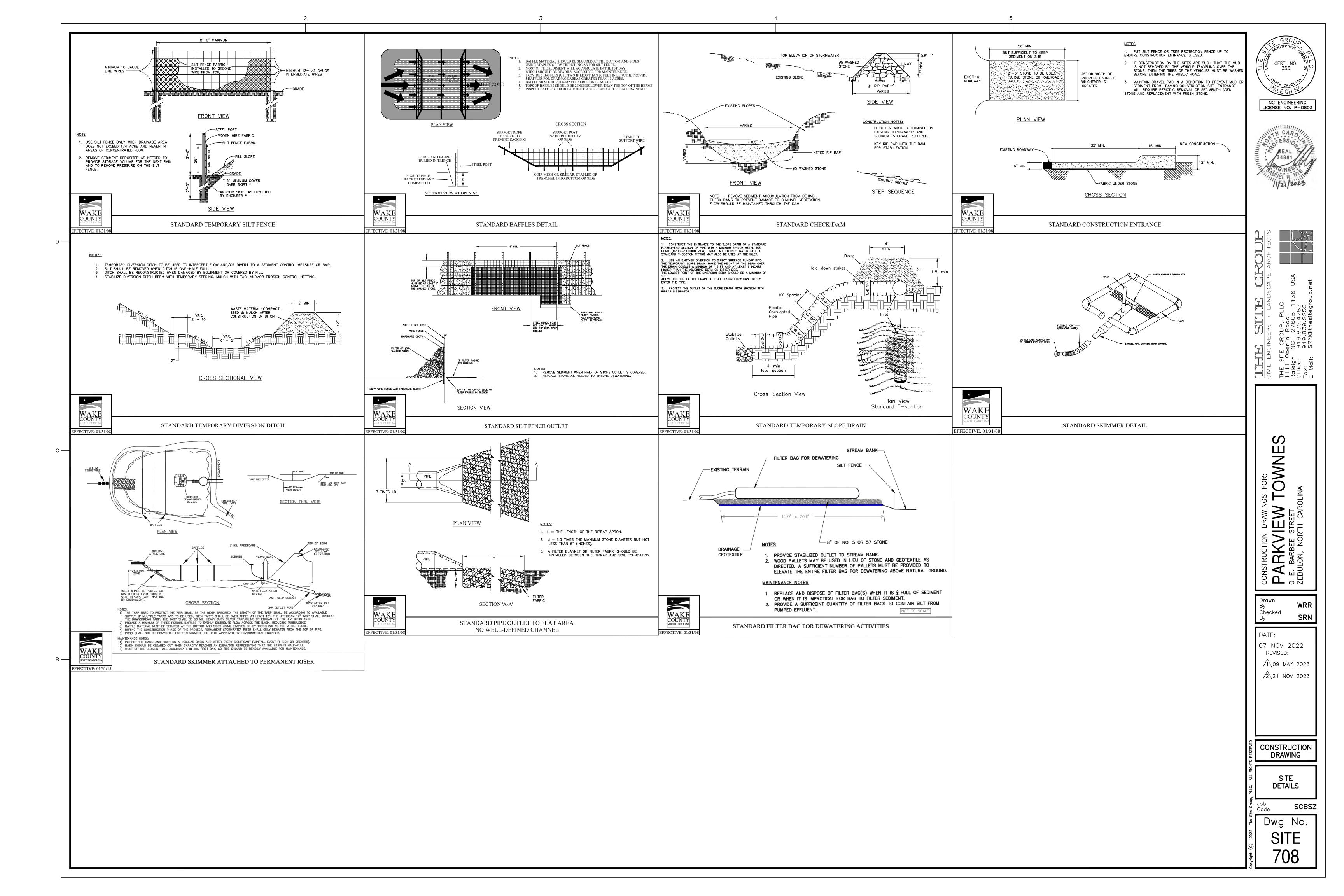
07 NOV 2022 REVISED: 109 MAY 2023

CONSTRUCTION DRAWING

> SITE DETAILS











5-Plex - Front Elevation







5-Plex - Rear Elevation







5-Plex - Sides Elevations







6-Plex - Front Elevation

20' 3-Story Rear Load Townhomes





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6-Plex - Rear Elevation

20' 3-Story Rear Load Townhomes





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6-Plex - Sides Elevations

