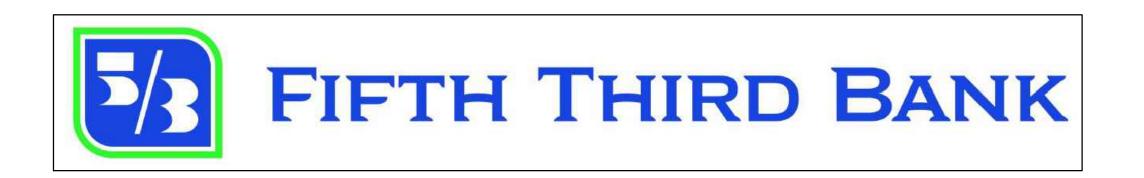
CONSTRUCTION PLANS FOR:

V1 - SDP-24-07



ROLESVILLE WALLBROOK

LOT 3 ROLESVILLE, NORTH CAROLINA 27587

PROJECT TEAM

PROPERTY OWNER/DEVELOPER:
WALLBROOK PLX LLC
801 EAST BOULEVARD
CHARLOTTE NC 28203
PH: (000) 000-0000
CONTACT:
EMAIL:

SURVEYORS:
GREENBERG FARROW
1230 PEACHTREE STREET NE
SUITE 2900
ATLANTA, GEORGIA 30309
PH: (770) 422-8181
CONTACT: RODNEY E. ABNEY JR.

CIVIL ENGINEER:
INFINITY ENGINEERING GROUP, LLC
1208 EAST KENNEDY BOULEVARD
SUITE 230
TAMPA, FLORIDA 33602
PH: (813) 434-4770
CONTACT: NISIT SAPPARKHAO

ARCHITECT:
BDG ARCHITECTS

550 SOUTH CALDWELL STREET SUITE 1800 CHARLOTTE, NORTH CAROLINA 28202 PH: (704) 981-8951 CONTACT: JONATHYN REED

PROJECT TEAM

ELECTRICAL
WAKE ELECTRIC MEMBERSHIP
COOPERATION (WEMC)
- JIM HAYES, 919-863-6466,
JIM.HAYES@WEMC.COM

GAS:
DOMINION ENERGY
- MATT KOEHL, 919-819-0485,
MATTHEWS.KOEHL@DOMINIONENERGY.COM
SOLID WASTE:

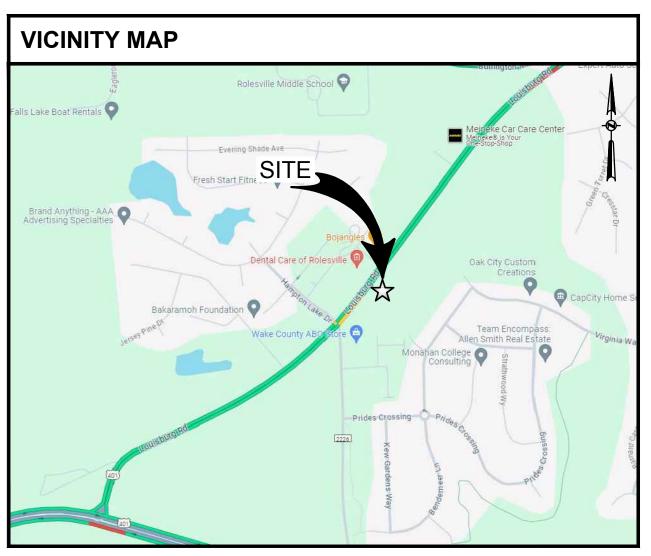
TELEPHONE/INTERNET
SPECTRUM / CHARTER

-TRISTAN DURLING, 919-604-4793,

TRISTAN.DURLING@CHARTER.COM

- TROY SMITH, 512-485-5080, TROY.SMITH@CHARTER.COM (RIGHT-OF-ENTRY PERSON)

SOLID WASTE:
GFL ENVIRONMENTAL INC. - WASTE
MANAGEMENT & ENVIRONMENTAL
SERVICES
- 919-662-7100





PARCEL ID: 1758454702 WAKE COUNTY, NORTH CAROLINA

1 - Several sheets listed are not included in plan. Please add them with the next submittal or remove from sheet list table if not included within the plan set.

(Landscape & Irrigation Sheets)

CIVIL SPECIFICATIONS **OVERALL SITE DEMOLITION PLAN** SITE PLAN **GRADING PLAN** STORM PIPING PLAN UTILITY PLAN C04.01 DETAILS C05.02 **DETAILS** NCDOT DETAILS C05.03 CITY OF RALEIGH UTILITY DETAILS CITY OF RALEIGH UTILITY DETAILS WAKE COUNTY SEEDING SPECIFICATIONS **SWPPP GENERAL REQUIREMENTS EROSION CONTROL PLAN PHASE I EROSION CONTROL PLAN PHASE II** EROSION AND SEDIMENTATION CONTROL DETAILS **EROSION AND SEDIMENTATION CONTROL DETAILS** IRRIGATION PLAN LANDSCAPE PLAN **IRRIGATION DETAILS** LANDSCAPE DETAILS IRRIGATION SPECIFICATIONS LANDSCAPE SPECIFICATIONS SITE ACCESS PLAN ELECTRICAL PHOTOMETRIC SITE PLAN

ALTA/NSPS LAND TITLE SURVEY

DRAWING INDEX

SHEET TITLE

COVER SHEET

SHEET NO.

SITE PERMITTING APPROVAL

Water and Sewer Permits (If applicable)

The City of Raileigh 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 Raileigh Public Utilities Department Permit # N/A

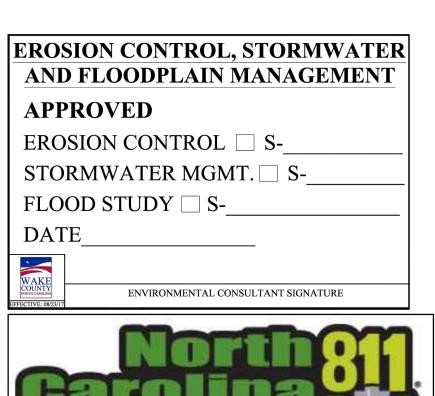
The City of Ralleigh consents to the connection and extension of the City's Public Water System as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. City of Raleigh Public Utilities Department Permit # _____N/A____

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval

Raleigh Water Review Officer





1208 East Kennedy Boulevard
Suite 230
Tampa, FL 33602
[p]: 813.434.4770
[f]: 813.445.4211
www.iegroup.net
NC FIRM Certificate No. P-1836

IEG JOB NO. 15-309.00

A stormwater package needs to be included in the next submittal for a full review.

C00.00

GENERAL NOTE

- 1. ALL CONSTRUCTION SHALL BE EXECUTED AS SHOWN ON THESE PLANS. ANY REVISIONS AND/OR DEVIATIONS MUST BE APPROVED BY THE ENGINEER OF RECORD AND MAY RESULT IN ADDITIONAL PERMITTING EFFORTS THROUGH THE RELATED PERMITTING AGENCY. THE CONTRACTOR SHALL ACKNOWLEDGE THAT REVISIONS AND/OR DEVIATIONS MAY RESULT IN ADDITIONAL PERMITTING REQUIREMENTS AND POSSIBLY AFFECT SCHEDULING OF WORK.
- UNLESS OTHERWISE NOTED ON PLANS, OR WITHIN THE PROJECT SPECIFICATIONS, ALL MATERIALS AND CONSTRUCTION ARE TO BE IN ACCORDANCE WITH DESIGN AND CONSTRUCTION STANDARDS OF THE PERMITTING AGENCY HAVING JURISDICTION; THE LOCALLY ADOPTED BUILDING CODE; AND ALL APPLICABLE LOCAL AND STATE CODES AND ORDINANCES.
- 3. PERMITS MAY BE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR IS TO ACKNOWLEDGE AND SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR WORK IN THE PUBLIC RIGHT-OF-WAY.
- 4. THIS PARCEL OF LAND MAY BE SUBJECT TO ANY AND ALL RECORDED (AND POSSIBLY UNRECORDED) EASEMENTS, RESTRICTIONS, AND COVENANTS.
- 5. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES FOR VERIFICATION OF UTILITIES WITHIN THE LIMITS OF CONSTRUCTION. CALL AREA ONE CALL SYSTEM 48 HOURS PRIOR TO ANY EXCAVATION.
- 6. THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IN A TIMELY MANNER.
- 7. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS AND BENCHMARKS FROM DISTURBANCE. SURVEY MONUMENTS DISTURBED BY CONSTRUCTION ARE TO BE REPLACED AND ADJUSTED VIA A LAND SURVEYOR REGISTERED IN THE STATE FOR WHICH THE PROJECT IS LOCATED.
- 8. THE CONTRACTOR SHALL COORDINATE WORK EFFORTS WITH THE OWNER TO MINIMIZE TRAFFIC INTERFERENCE AND OPERATIONS OF THE FACILITIES.
- 9. NO BLASTING OR BURNING IS ALLOWED ON THE PROJECT, UNLESS OTHERWISE DIRECTED OR NOTED BY THE ENGINEER.
- 10. IT IS NOT EXPECTED THAT HAZARDOUS MATERIALS WILL BE ENCOUNTERED. HOWEVER IF MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB; IMMEDIATELY NOTIFY ENGINEER AND OWNER. HAZARDOUS MATERIALS WILL BE REMOVED BY OWNER UNDER A SEPARATE CONTRACT.

REGULATORY STANDARDS AND REQUIREMENTS

- 1. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING
- 2. COMPLY WITH ANSI A10.6, "SAFETY REQUIREMENTS FOR CONSTRUCTION AND DEMOLITION.
- 3. COMPLY WITH NFPA 241, "SAFEGUARDING CONSTRUCTION, ALTERATION AND **DEMOLITION OPERATIONS."**

DEMOLITION AND CLEARING

- DEMOLITION AND CLEARING OPERATIONS SHALL CONFORM TO APPLICABLE REGULATIONS RELATING TO ENVIRONMENTAL REQUIREMENTS DISPOSAL OF DEBRIS, BURNING OF DEBRIS ON SITE, AND USE OF HERBICIDES.
- 2. DEMOLITION WASTE SHALL BE DISPOSED OF IN A LEGAL MANNER. REMOVED DEMOLITION WASTE MATERIALS FROM PROJECT SITE AND DISPOSE OF WASTE IN AN EPA-APPROVED LANDFILL ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. DO NOT BURY OR BURN DEMOLITION WASTE ON-SITE.
- HISTORIC ITEMS, RELICS, ANTIQUES, AND SIMILAR OBJECTS, INCLUDING, BUT NOT LIMITED TO CORNERSTONES AND THEIR CONTENTS, COMMEMORATIVE PLAQUES AND TABLETS, AND OTHER ITEMS OF INTEREST OF VALUE TO OWNER THAT MAY BE UNCOVERED DURING DEMOLITION REMAIN THE PROPERTY OF THE
- ARRANGE DEMOLITION SCHEDULE SO AS NOT TO INTERFERE WITH OWNER'S ON-SITE OPERATIONS OR OPERATIONS OF ADJACENT OCCUPIED BUILDINGS.
- 5. CONDUCT BUILDING DEMOLITION AND DEBRIS REMOVAL OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKWAYS, AND OTHER ADJACENT OCCUPIED AND USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, WALKWAYS, OR OTHER ADJACENT OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM OWNER AND AUTHORITIES HAVING JURISDICTION.
- 6. AUTHORITY FOR PERFORMING SITE CLEARING INDICATED ON PROPERTY ADJOINING OWNER'S PROPERTY MUST BE OBTAINED BY OWNER PRIOR TO COMMENCEMENT OF CLEARING. DO NOT PROCEED WITH WORK ON ADJOINING PROPERTY UNTIL DIRECTED BY ENGINEER.
- 7. PRIOR TO COMMENCEMENT OF DEMOLITION OPERATIONS:

SITE IMPROVEMENTS.

- a. VERIFY THAT HAZARDOUS MATERIALS, IF PRESENT, HAVE BEEN REMEDIATED. b. REVIEW PROJECT RECORD DRAWINGS OF EXISTING BUILDING AND EXISTING
- c. INVENTORY AND RECORD THE CONDITION OF ITEMS TO BE REMOVED AND SALVAGED. TAKE DIGITAL PHOTOGRAPHS OR VIDEO OF PROJECT SITE AND SURROUNDING PROPERTIES, INCLUDING EXISTING ITEMS TO REMAIN DURING CONSTRUCTION OPERATIONS, RECORD CONDITIONS THAT MIGHT BE
- MISCONSTRUED AS DAMAGE CAUSED BY SALVAGE OPERATIONS. d. CLEAN, PACK, IDENTIFY, AND TRANSPORT SALVAGED ITEMS TO STORAGE AREA DESIGNATED BY OWNER.
- e. REMOVE REFRIGERANT FROM THE MECHANICAL EQUIPMENT ACCORDING TO
- 40 CFR 82 AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION. f. COORDINATE ANY ADDITIONAL REQUIREMENTS FOR DEMOLISHING OR RELOCATING SITE MECHANICAL AND ELECTRICAL ITEMS WITH OWNER AND OTHER AUTHORITIES HAVING JURISDICTION.
- g. ASSURE THAT ANY REQUIRED INITIAL EROSION AND SEDIMENT CONTROL MEASURES ARE INSTALLED AND IN WORKING ORDER.
- h. LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP-OFF EXISTING UTILITIES SERVING BUILDINGS AND STRUCTURES TO BE DEMOLISHED. CUT AND REMOVE PIPE OR CONDUIT A MINIMUM OF 24 INCHES BELOW GRADE. CAP, VALVE, PLUG AND SEAL REMAINING PORTION OF PIPE OR CONDUIT. i. DO NOT START DEMOLITION WORK UNTIL UTILITY DISCONNECTION AND SEALING HAVE BEEN COMPLETED AND VERIFIED IN WRITING.

8. PRIOR TO COMMENCEMENT OF SITE CLEARING OPERATIONS, VERIFY THE FOLLOWING:

- a. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE AND IN WORKING ORDER.
- b. UTILITY LOCATOR SERVICE HAS DETERMINED AND FLAGGED THE LOCATION
- OF UNDERGROUND UTILITIES.
- c. EXISTING SITE IMPROVEMENTS AND UTILITIES TO REMAIN HAVE BEEN PROTECTED.
- d. BENCHMARKS AND SURVEY CONTROL POINTS HAVE BEEN PROTECTED FROM DISTURBANCE
- e. TREES AND VEGETATION TO REMAIN (OR TO BE RELOCATED) HAVE BEEN LOCATED AND CLEARLY FLAGGED IN ACCORDANCE WITH TREE PROTECTION AND TRIMMING REQUIREMENTS.
- 9. COORDINATE UTILITY DEMOLITION AND ABANDONMENT WITH UTILITY COMPANY OR AUTHORITY HAVING JURISDICTION.
- 10. IN THE EVENT BUILDINGS IMMEDIATELY ADJACENT TO THE DEMOLITION AREA WILL BE OCCUPIED, CONDUCT SITE DEMOLITION SO OPERATIONS OF OCCUPIED

- BUILDINGS WILL NOT BE DISRUPTED. MAINTAIN ACCESS TO AND FROM EXISTING WALKWAYS, EXITS, AND OTHER FACILITIES USED BY OCCUPANTS OF ADJACENT
- 11. PROTECT EXISTING FACILITIES AND ADJACENT WALKWAYS, LOADING DOCKS, BUILDING ENTRIES, AND OTHER BUILDING FACILITIES DURING DEMOLITION OPERATIONS. MAINTAIN EXITS FROM EXISTING BUILDINGS.
- 12. ERECT TEMPORARY PROTECTION, SUCH AS WALKS, FENCES, RAILINGS, CANOPIES, AND COVERED PASSAGEWAYS, AS NECESSARY, AND AS REQUIRED BY AUTHORITIES HAVING JURISDICTION. REMOVE TEMPORARY BARRIERS AND PROTECTIONS WHERE HAZARDS NO LONGER EXIST. WHERE OPEN EXCAVATIONS OR OTHER HAZARDOUS CONDITIONS REMAIN, LEAVE TEMPORARY BARRIERS AND PROTECTIONS IN PLACE.
- 13. PROTECT EXISTING UTILITIES FROM DAMAGE DURING DEMOLITION OPERATIONS. MAINTAIN OPERATION OF UTILITY SERVICES TO REMAIN. PROVIDE AT LEAST 72 HOURS' NOTICE TO OCCUPANTS OF AFFECTED BUILDINGS IF SHUTDOWN OF SERVICE IS REQUIRED.
- 14. IF REMOVAL, RELOCATION, OR ABANDONMENT OF UTILITY SERVICES WILL AFFECT ADJACENT OCCUPIED BUILDINGS, MAINTAIN CONTINUITY OF SERVICE TO ADJACENT BUILDINGS BY PROVIDING TEMPORARY UTILITIES THAT BYPASS BUILDINGS AND STRUCTURES TO BE DEMOLISHED. TEMPORARY BYPASS SERVICES SHALL BE PROVIDED IN ACCORDANCE WITH UTILITY COMPANY OR AUTHORITIES HAVING JURISDICTION.
- 15. TEMPORARY SHORING: PROVIDE AND MAINTAIN INTERIOR AND EXTERIOR SHORING, BRACING, OR STRUCTURAL SUPPORT TO PRESERVE STABILITY AND PREVENT UNEXPECTED MOVEMENT OR COLLAPSE OF EXISTING IMPROVEMENTS BEING DEMOLISHED. ALL SHORING OPERATIONS SHALL BE DESIGNED BY A LICENSED PROFESSIONAL AND INSTALLED PER OSHA REQUIREMENTS.
- 16. DEMOLITION OF STRUCTURAL FRAMING MEMBERS SHALL PROCEED SYSTEMATICALLY, FROM HIGHER TO LOWER LEVEL. COMPLETE BUILDING DEMOLITION OPERATIONS ABOVE EACH FLOOR OR TIER BEFORE DISTURBING SUPPORTING MEMBERS ON THE NEXT LOWER LEVEL. REMOVE DEBRIS FROM ELEVATED PORTIONS OF THE BUILDING BY CHUTE, HOIST, OR OTHER DEVICE THAT WILL CONVEY DEBRIS TO GRADE LEVEL IN A CONTROLLED DESCENT.
- CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS CAUSED BY BUILDING DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE BUILDING DEMOLITION OPERATIONS
- 18. CLEARING AND GRUBBING:
- a. REMOVE OBSTRUCTIONS, TREES, SHRUBS, GRASS, AND OTHER VEGETATION TO PERMIT INSTALLATION OF NEW CONSTRUCTION. DO NOT REMOVE TREES. SHRUBS, AND OTHER VEGETATION INDICATED TO REMAIN OR TO BE
- RELOCATED. b. CUT MINOR ROOTS AND BRANCHES OF TREES INDICATED TO REMAIN IN A CLEAN AND CAREFUL MANNER AND ONLY WHERE SUCH ROOTS AND BRANCHES OBSTRUCT INSTALLATION OF NEW CONSTRUCTION.
- c. CLEAR UNDERGROWTH AND DEADWOOD WITHOUT DISTURBING SUBSOIL. d. GRIND STUMPS AND REMOVE ROOTS, OBSTRUCTIONS, AND DEBRIS EXTENDING TO A DEPTH BELOW EXPOSED SUBGRADE AS FOLLOWS: • FOOTINGS, SLABS ON GRADE AND BOTTOM SLABS OF STRUCTURES: 36
- INCHES ROADS AND PAVEMENT AREAS: 18 INCHES.
- AREAS TO BE GRASSED OR LANDSCAPED: 8 INCHES. AREAS TO BE FILLED: 12 INCHES.
- e. USE ONLY HAND METHODS FOR GRUBBING WITHIN TREE PROTECTION ZONES.
- f. CHIP REMOVED TREE BRANCHES AND DISPOSE OF OFF-SITE. a. UNLESS FURTHER EXCAVATION OF EARTHWORK IS INDICATED. FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY SOIL MATERIAL. PLACE FILL MATERIAL IN HORIZONTAL LAYERS NOT EXCEEDING A LOOSE DEPTH OF 8 INCHES, AND COMPACT EACH LAYER
- a. REMOVE SOD AND GRASS BEFORE STRIPPING TOPSOIL b. STRIP TOPSOIL TO WHATEVER DEPTHS ARE ENCOUNTERED IN A MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER WASTE MATERIALS. REMOVE SUBSOIL AND NON-SOIL MATERIALS FROM TOPSOIL

TO A DENSITY EQUAL TO ADJACENT ORIGINAL GROUND.

- INCLUDING TRASH, DEBRIS, WEEDS, ROOTS, AND OTHER WASTE MATERIALS. c. STOCKPILE TOPSOIL MATERIALS AWAY FROM EDGE OF EXCAVATIONS WITHOUT INTERMIXING WITH SUBSOIL. GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST. LIMIT HEIGHT OF TOPSOIL STOCKPILES TO 72 INCHES. DO NOT STOCKPILE TOPSOIL WITHIN TREE PROTECTION ZONES. STOCKPILE SURPLUS TOPSOIL TO ALLOW FOR RESPREADING DEEPER TOPSOIL.
- 20. SITE IMPROVEMENTS:

PREVENT CORROSION

- a. REMOVE EXISTING ABOVE- AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION. REMOVE SLABS,
- PAVING, CURBS, GUTTERS, AND AGGREGATE BASE AS INDICATED. b. UNLESS EXISTING FULL-DEPTH JOINTS COINCIDE WITH LINE OF DEMOLITION, NEATLY SAW-CUT LENGTH OF EXISTING PAVEMENT TO REMAIN BEFORE REMOVING EXISTING PAVEMENT. SAWCUT ALL FACES VERTICALLY. c. PAINT CUT ENDS OF STEEL REINFORCEMENT IN CONCRETE TO REMAIN TO

- a. REMOVE SURPLUS SOIL MATERIAL, UNSUITABLE TOPSOIL, OBSTRUCTIONS,
- DEMOLISHED MATERIALS, AND WASTE MATERIALS, INCLUDING TRASH AND DEBRIS. AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY. b. REMOVE AND TRANSPORT DEBRIS AND RUBBISH IN A MANNER THAT WILL PREVENT SPILLAGE ON STREETS OR ADJACENT AREAS. CLEAN UP SPILLAGE FROM STREETS AND ADJACENT AREAS.
- c. COMPLY WITH FEDERAL, STATE AND LOCAL HAULING AND DISPOSAL
- REGULATIONS d. SEPARATE RECYCLABLE MATERIALS PRODUCED DURING SITE CLEARING FROM OTHER NON-RECYCLABLE STORE OR STOCKPILE WITHOUT INTERMIXING WITH OTHER MATERIALS AND TRANSPORT THEM TO RECYCLING FACILITIES.

TREE PROTECTION AND TRIMMING

- INSTALL TEMPORARY FENCING AROUND TREE PROTECTION ZONES TO PROTECT TREES AND VEGETATION DESIGNATED TO REMAIN FROM CONSTRUCTION DAMAGE. MAINTAIN TEMPORARY FENCING AROUND TREE PROTECTION ZONES. AND REMOVE WHEN CONSTRUCTION IS COMPLETE.
- 2. KEEP TREE PROTECTION ZONES FREE OF WEEDS AND TRASH.
- 3. DO NOT STORE CONSTRUCTION MATERIALS, DEBRIS, OR EXCAVATED MATERIAL INSIDE TREE PROTECTION ZONE; OR PERMIT VEHICLES OR FOOT TRAFFIC WITHIN TREE PROTECTION ZONE, OR ALLOW FIRES WITHIN TREE PROTECTION
- 4. PROTECT TREE ROOT SYSTEMS FROM THE FOLLOWING: a. DAMAGE CAUSED BY RUNOFF OR SPILLAGE OF NOXIOUS MATERIALS WHILE
- MIXING, PLACING, OR STORING CONSTRUCTION MATERIALS; b. DAMAGE CAUSED BY PONDING, ERODING, OR EXCESSIVE WETTING FROM DEWATERING OPERATIONS.
- UNLESS OTHERWISE INDICATED, DO NOT EXCAVATE WITHIN TREE PROTECTION ZONES. WHERE EXCAVATION FOR NEW CONSTRUCTION IS UNAVOIDABLE, HAND CLEAR AND EXCAVATE TO MINIMIZE DAMAGE TO ROOT SYSTEMS.
- 6. WHERE UTILITY TRENCHES ARE UNAVOIDABLE WITHIN TREE PROTECTION ZONES, TUNNEL UNDER OR AROUND ROOTS BY DRILLING, AUGER BORING, PIPE JACKING, OR DIGGING BY HAND. DO NOT CUT MAIN LATERAL ROOTS OR TAPROOTS.
- PROMPTLY REPAIR TREES DAMAGED BY CONSTRUCTION OPERATIONS WITHIN 24 HOURS. TREAT DAMAGED TRUNKS, LIMBS, AND ROOTS ACCORDING TO

- ARBORIST'S WRITTEN INSTRUCTIONS.
- TREE PRUNING: PRUNE TREES ACCORDING TO ANSI A300 (PART 1), 'TREE, SHRUB, AND OTHER WOODY PLANT MAINTENANCE - STANDARD PRACTICES

EROSION AND SEDIMENTATION

- PRIOR TO COMMENCEMENT OF ANY CLEARING AND EXCAVATION WITHIN A WORK AREA, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND IN WORKING ORDER.
- PERFORM WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE AND FIELD QUALITY CONTROL: FEDERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
- 3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION AND SEDIMENT CONTROL FEATURES TO PREVENT AND CONTROL SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION AREAS AND ENTERING EXISTING STORMWATER FACILITIES AND SURFACE WATERS. ADDITIONAL MEASURES BEYOND THOSE SHOWN WITHIN THESE PLANS MAY BE NECESSARY DURING CONSTRUCTION, INCLUDING TEMPORARY VEGETATIVE MEASURES AND INSTALLATION OF OTHER SILT TRAPPING MEASURES.
- THE CONTRACTOR IS REQUIRED TO ADJUST THE EROSION AND SEDIMENT CONTROLS AS NECESSARY AND AS SHOWN ON THE DRAWINGS: AND ADD ADDITIONAL CONTROL MEASURES AS REQUIRED TO INSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND SEDIMENT CONTROL REQUIREMENTS.
- ALL BEST MANAGEMENT EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY OPERATIONS: OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST EVERY OTHER WEEK AND FOLLOWING A STORM EVENT OF 0.5 INCHES OR
- ALL BEST MANAGEMENT CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT

- IN THE EVENT OF ANY UNFORESEEN CONDITIONS THAT ARE ENCOUNTERED AND NOT COVERED BY THESE NOTES DURING GRADING OPERATIONS, THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND RELATED OFF-SITE WORK SO AS TO ESTABLISH THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES SPECIFIED WITHIN THE PLANS.
- ADEQUATE SHORING IS TO BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION. ALL SHORING AND ASSOCIATED TEMPORARY STRUCTURES SHALL BE DESIGNED BY A LICENSED PROFESSIONAL AND INSTALLED PURSUANT TO OSHA REQUIREMENTS.

SOIL MATERIALS:

- 1. UNSATISFACTORY SOILS CONSIST OF SOIL CLASSIFICATION GROUPS ML, OL, CH, MH, OH, AND PT, OR A COMBINATION OF THESE GROUPS. UNSATISFACTORY SOILS ALSO INCLUDE SATISFACTORY SOILS NOT MAINTAINED WITHIN 3 PERCENT OF OPTIMUM MOISTURE CONTENT AT TIME OF COMPACTION.
- SATISFACTORY SOILS: ASTM D 2487 SOIL CLASSIFICATION GROUPS AS IDENTIFIED ON THE DRAWINGS, OR A COMBINATION OF THESE GROUPS; FREE OF ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION, DEBRIS WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER DELETERIOUS MATERIAL.

- PROOF-ROLL SUBGRADE BELOW THE BUILDING SLABS AND PAVEMENTS WITH HEAVY PNEUMATIC-TIRED EQUIPMENT TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. DO NOT PROOF-ROLL WET OR SATURATED SUBGRADES. a. COMPLETELY PROOF-ROLL SUBGRADE IN TWO DIRECTIONS, REPEATING PROOF ROLLING IN DIRECTION PERPENDICULAR TO FIRST DIRECTION. LIMIT VEHICLE SPEED TO 3 MPH,
 - b. PROOF-ROLL WITH A LOADED 10-WHEEL, TANDEM-AXLE DUMP TRUCK WEIGHING NOT LESS THAN 15 TONS.
 - c. EXCAVATE SOFT SPOTS, UNSATISFACTORY SOILS. AND AREAS OF EXCESSIVE PUMPING OR RUTTING, AS DETERMINED BY ENGINEER AND REPLACE WITH COMPACTED BACKFILL OR FILL AS DIRECTED.
- RECONSTRUCT SUBGRADES DAMAGED BY FREEZING TEMPERATURES, FROST. RAIN, ACCUMULATED WATER, OR CONSTRUCTION ACTIVITIES AS DIRECTED BY ENGINEER, WITHOUT ADDITIONAL COMPENSATION.

- THE CONTRACTOR SHALL PLACE AND COMPACT BACKFILL IN EXCAVATIONS PROMPTLY, BUT NOT BEFORE COMPLETING THE FOLLOWING: a. CONSTRUCTION BELOW FINISH GRADE INCLUDING, WHERE APPLICABLE, SUBDRAINAGE, DAMP PROOFING, WATERPROOFING, AND PERIMETER
- INSULATION. b. SURVEYING LOCATIONS OF UNDERGROUND UTILITIES FOR RECORD
- DRAWINGS c. TESTING AND INSPECTING UNDERGROUND UTILITIES.
- d. REMOVING CONCRETE FORMWORK
- e. REMOVING TRASH AND DEBRIS.
- f. REMOVING TEMPORARY SHORING AND BRACING, AND SHEETING. g. INSTALLING PERMANENT OR TEMPORARY HORIZONTAL BRACING ON HORIZONTALLY SUPPORTED WALLS.

COMPACTION OF SOIL BACKFILLS AND FILLS:

- CONTRACTOR SHALL PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8-INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4-INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
- 2. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE.
- COMPACT SOIL MATERIALS TO NOT LESS THAN THE PLAN SPECIFIED PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698 OR ASTM D 1557. (SEE CIVIL DETAILS FOR SUMMARY OF TRENCH BACKFILL AND BEDDING MATERIALS AND PLACEMENT SPECIFICATIONS).

- GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE. FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO DETAILED/INDICATED CROSS-SECTIONS. LINES, AND ELEVATIONS INDICATED IN PLANS. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND NEW GRADES. CUT OUT SOFT SPOTS, FILL LOW SPOTS, AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES.
- SITE GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES: a. LAWN OR UNPAVED AREAS: PLUS OR MINUS ONE (1) INCH.
- b. WALKS: PLUS OR MINUS ONE (1) INCH. c. PAVEMENTS: PLUS OR MINUS ONE-HALF (1/2) INCH. d. GRADING INSIDE BUILDING LINES: FINISH SUBGRADE TO A TOLERANCE OF

- ONE-HALF (1/2) INCH WHEN TESTED WITH A 10-FOOT STRAIGHTEDGE.
- SUBBASE AND BASE COURSES: a. PLACE SUBBASE AND BASE COURSE ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.
- b. PLACE SUBBASE AND BASE COURSE 6 INCHES OR LESS IN COMPACTED THICKNESS IN A SINGLE LAYER.
- c. PLACE SUBBASE AND BASE COURSE EXCEEDING 6 INCHES IN COMPACTED THICKNESS IN LAYERS OF EQUAL THICKNESS, WITH NO COMPACTED LAYER
- COMPACT SUBBASE AND BASE COURSE AT OPTIMUM MOISTURE CONTENT TO REQUIRED GRADES, LINES. CROSS SECTIONS. AND THICKNESS ACCORDING TO ASTM D 698 OR ASTM D 1557, AS INDICATED ON THE DRAWING DETAILS.

MORE THAN 6 INCHES THICK OR LESS THAN 3 INCHES.

- THE TESTING AGENCY WILL INSPECT AND TEST SUBGRADES AND EACH FILL OR BACKFILL LAYER. CONTRACTOR SHALL PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS.
- FOOTING SUBGRADE: AT FOOTING SUBGRADES, AT LEAST ONE TEST OF EACH SOIL STRATUM WILL BE PERFORMED TO VERIFY DESIGN BEARING CAPACITIES. SUBSEQUENT VERIFICATION AND APPROVAL OF OTHER FOOTING SUBGRADES MAY BE BASED ON A VISUAL COMPARISON OF SUBGRADE WITH TESTED SUBGRADE WHEN APPROVED BY ENGINEER.
- THE TESTING AGENCY WILL TEST COMPACTION OF SOILS IN PLACE ACCORDING TO ASTM D 1556, ASTM D 2167, ASTM D 2922, AND ASTM D 2937, AS APPLICABLE TESTS WILL BE PERFORMED AT THE FOLLOWING LOCATIONS AND FREQUENCIES: a. PAVED AND BUILDING SLAB AREAS: AT SUBGRADE AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST 1 TEST FOR EVERY 10,000 SQ. FT. OR LESS OF

PAVED AREA OR BUILDING SLAB, BUT IN NO CASE FEWER THAN 3 TESTS.

b. FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT

- LEAST 1 TEST FOR EACH 100 FEET OR LESS OF WALL LENGTH, BUT NO FEWER THAN 2 TESTS. c. TRENCH BACKFILL: AT EACH COMPACTED INITIAL AND FINAL BACKFILL LAYER, AT LEAST 1 TEST FOR EACH 150 FEET OR LESS OF TRENCH LENGTH, BUT NO
- IF THE TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED;
- RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED. ALL FIELD QUALITY CONTROL TESTS THAT FAIL TO MEET THE SPECIFIED

COMPACTION DENSITY SHALL BE REPORTED TO THE ENGINEER.

GENERAL UTILITY NOTES

FEWER THAN 2 TESTS.

- PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES FOR VERIFICATION OF UTILITIES WITHIN THE LIMITS OF CONSTRUCTION. CALL THE AREA ONE CALL SYSTEM 48 HOURS PRIOR TO ANY
- THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
- THE CONTRACTOR SHALL COORDINATE WORK EFFORTS WITH THE OWNER TO MINIMIZE TRAFFIC INTERFERENCE AND OPERATIONS OF THE FACILITIES.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEYING MONUMENTS AND BENCHMARKS FROM DISTURBANCE. SURVEY MONUMENTS DISTURBED BY CONSTRUCTION ARE TO BE REPLACED AND ADJUSTED VIA A LAND SURVEYOR REGISTERED IN THE STATE FOR WHICH THE PROJECT IS LOCATED.
- EXISTING UTILITIES SHOWN HEREIN ARE BASED ON AVAILABLE RECORDS AND FIELD INVESTIGATIONS. THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES PRIOR TO EXCAVATION WITHIN WORK AREAS. THE ENGINEER SHALL BE NOTIFIED UPON DISCOVERY OF ANY DISCREPANCIES THAT WILL AFFECT INSTALLATION OF WORK OR DISCOVERY OF JNCHARTED UTILITIES WHICH MAY REQUIRE RELOCATION. NOTIFICATION SHALL BE DONE IN A TIMELY MANNER.
- WHERE APPLICABLE, THE CONTRACTOR SHALL MAINTAIN ALL FENCING, SIGNS, DETOURS, FLAGMEN, SIGNALS, ETC., FOR ANY OPEN TRENCHES, HOLES OR PITS. ALL TRENCHES, HOLES OR PITS SHALL BE CLOSED OR PROTECTED BY BARRICADES AT THE END OF THE DAY.
- PERMITS MAY BE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE 5. CONTRACTOR IS TO ACKNOWLEDGE AND SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR WORK WITHIN PUBLIC RIGHT-OF-WAY.

8. THE CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS DURING

- CONSTRUCTION WHICH SHOW THE CONSTRUCTED CONDITIONS OF ALL WORK INSTALLED. SEE "AS-BUILT" REQUIREMENTS FOR ADDITIONAL INFORMATION. 9. ALL VALVE BOXES, METER BOXES, VAULTS, CLEANOUTS, HOLE COVERS, FIRE
- ALL UNDERGROUND UTILITIES MUST BE IN PLACE, TESTED AND INSPECTED AS

HYDRANTS AND OTHER APPURTENANCES THAT ARE TO REMAIN IN SERVICE

WITHIN THE PROJECT AREA SHALL BE ADJUSTED TO CONFORM TO FINISHED

REQUIRED PRIOR TO BASE AND SURFACE CONSTRUCTION. 11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES

TO DISCONNECT OR REMOVE THEIR FACILITIES PRIOR TO REMOVING OR

- DEMOLISHING ANY EXISTING STRUCTURES FROM THE SITE. ALL UTILITIES INCLUDING, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING SHOULD BE CONTACTED BY THE CONTRACTOR:
- GAS TELEPHONE
- CABLE
- POWER
- CITY/COUNTY WATER AND SEWER CITY/COUNTY/STATE TRAFFIC SIGNAL UTILITY (FIBER, HARDWIRE TRAFFIC SIGNAL INTERCONNECT)
- 13. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED THE ENGINEER ASSUMES NO RESPONSIBILITY FOR FROM THE BEST INFORMATION AVAILABLE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS ACCURACY. UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE OF THESE CAUTION WHEN CROSSING ANY UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES WHICH INTERFACE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANIES AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
- 14. COLOR CODE FOR MARKING UNDERGROUND UTILITY LINES

WHITE - PROPOSED EXCAVACTION. PINK - TEMPORARY SURVEY MARKINGS. RED - ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES. YELLOW - GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS. ORANGE - COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT. BLUE - POTABLE WATER. PURPLE - RECLAIMED WATER, IRRIGATION AND SLURRY LINES. GREEN - SEWERS AND DRAIN LINES.

WATER SYSTEM NOTES

SANITARY NOTE No. 1 BELOW.

- A VERTICAL CLEARANCE OF 18 INCHES SHALL BE MAINTAINED BETWEEN SANITARY SEWERS AND WATER MAINS. IF CLEARANCE CANNOT BE ACHIEVED BY ADJUSTING WATER MAINS THE SANITARY SEWER SHALL BE CONSTRUCTED PER
- A HORIZONTAL SEPARATION OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER MAINS AND SANITARY SEWER
- ALL WATER MAINS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.
- ALL WATER SYSTEM WORK SHALL CONFORM WITH LOCAL REGULATORY STANDARDS AND SPECIFICATIONS.
- CONFLICTS BETWEEN WATER AND STORM OR SANITARY SEWER TO BE RESOLVED BY ADJUSTING THE WATER LINES AS NECESSARY.
- ALL BURIED DUCTILE IRON PIPE SHALL BE CLASS 53 IN ACCORDANCE WITH ANSI A 21.50 (AWWA C150) AND ANSI A 21.51 (AWWA C151) AND PIPE SHALL RECEIVE EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANSI A 21.6, A 21.8 OR A 21.51 AND SHALL BE MORTAR LINED, STANDARD THICKNESS, AND BITUMINOUS SEALED IN ACCORDANCE WITH ANSI A (AWWA C 104-71).
- ALL BURIED FITTINGS LARGER THAN 2" SHALL BE DUCTILE IRON CLASS 53 IN ACCORDANCE WITH AWWA C-110 WITH A PRESSURE RATING OF 350 PSI. JOINTS SHALL BE MECHANICAL JOINTS IN ACCORDANCE WITH AWWA C-111. FITTINGS SHALL BE CEMENT MORTAR LINED AND COATED IN ACCORDANCE WITH AWWA
- CONTRACTOR TO INSTALL TEMPORARY BLOW-OFFS AT THE END OF WATER

SERVICE LATERALS TO ASSURE ADEQUATE FLUSHING AND DISINFECTION.

- THRUST BLOCKING AND/OR RESTRAINED JOINTS SHALL BE PROVIDED AT ALL FITTINGS AND HYDRANTS IN ACCORDANCE WITH AWWA STANDARDS.
- ALL PVC WATER MAINS 4" THROUGH 12" SHALL BE IN ACCORDANCE WITH AWWA C-900. PIPE SHALL BE CLASS 150 AND MEET THE REQUIREMENTS OF SDR 18 IN ACCORDANCE WITH ASTM D-2241, AND COLOR CODED BLUE.
- 11. ALL FITTINGS 3" AND SMALLER SHALL BE CLASS 160 PVC WITH SOLVENT WELDED SLEEVE TYPE JOINTS.

12. ALL WATER MAINS AND WATER SERVICES TO BE INSTALLED UNDER ROAD

- UNDERDRAIN SHALL MAINTAIN 18" SEPARATION. 13. MATERIALS AND CONSTRUCTION METHODS FOR WATER DISTRIBUTION SYSTEM SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY CODES, PLANS, AND SPECIFICATIONS FOR CONSTRUCTION, LATEST REVISION THEREOF AND SUPPLEMENTAL SPECIFICATIONS THERETO. APPROVAL AND CONSTRUCTION OF ALL POTABLE WATER SERVICE MAIN EXTENSIONS AND CONNECTIONS MUST BE COORDINATED THROUGH THE LOCAL REGULATORY AGENCY DEPARTMENT OF
- ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, HYDRANTS, CONNECTIONS, AND VALVES SHALL REMAIN UNCOVERED UNTIL PROPERLY PRESSURE TESTED AND ACCEPTED BY THE OWNER'S ENGINEER. PRESSURE TESTS TO BE IN ACCORDANCE WITH WATER DEPARTMENT AND AWWA SPECIFICATIONS. CONTRACTOR TO NOTIFY OWNER'S ENGINEER AND WATER DEPARTMENT INSPECTORS 48 HOURS IN ADVANCE OF PERFORMING TESTS.
- CONTRACTOR TO PERFORM CHLORINATION AND BACTERIOLOGICAL SAMPLING REQUIRED TO OBTAIN CLEARANCE OF DOMESTIC WATER SYSTEM THROUGH LOCAL REGULATORY AGENCIES. COPIES OF ALL BACTERIOLOGICAL TESTS TO BE SUBMITTED TO OWNER'S ENGINEER

SANITARY SEWER NOTES

PUBLIC UTILITIES.

- A HORIZONTAL SEPARATION OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER MAINS AND SANITARY SEWER.
- ALL SANITARY SEWER MAINS & SERVICE LATERALS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE, SDR 26 AND COLOR CODED GREEN.
- STANDARDS AND SPECIFICATIONS. PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING NEW WORK TO EXISTING LINES OR APPURTENANCES, THE CONTRACTOR SHALL VERIFY

LOCATION AND ELEVATION OF EXISTING CONNECTION POINT AND NOTIFY

ALL SANITARY SEWER WORK SHALL CONFORM WITH LOCAL REGULATORY

- OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES. PVC PIPE AND FITTINGS SHALL CONFORM WITH A.S.T.M. SPECIFICATIONS DESIGNATION D-3034-77C. MA SDR 26. INSTALLATION OF SDR PIPE SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF A.S.T.M. SPECIFICATION
- ALL PVC FORCE MAINS WITHIN PUBLIC R/W SHALL BE CLASS 200, SDR 18, WITH MECHANICAL JOINTS, AND HAVE A GREEN MAGNETIC TAPE A MINIMUM OF 3" WIDE, PLACED 24" BELOW THE PROPOSED GRADE. THE PRINT ON THE MAGNETIC
- TAPE SHOULD READ "FORCE MAIN".

ALL SANITARY SEWER GRAVITY MAINS OR SANITARY SEWER FORCE MAINS THAT

SANITARY SEWERS SHALL HAVE A MINIMUM COVER OF THREE (3) FEET AND SHALL

DESIGNATION D2321. ALL SANITARY SEWER PIPELINES SHALL BE SOLID GREEN IN

ALL SANITARY SEWER COVERS SHALL BE TRAFFIC RATED FOR H-20 LOADING.

REQUIRE D.I.P. ARE TO BE POLYLINED OR EPOXY LINED.

- BE INSTALLED ACCOMPANIED BY A METAL TAPE SIMILAR TO "TERRATAPE" COLORED GREEN AND LAID ONE FOOT ABOVE THE PIPE. ALL GRAVITY SEWER PIPING SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE
- OWNER'S ENGINEER. CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION. 11. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATION TEST ON ALL GRAVITY SEWERS IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER AND

SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. COORDINATION AND

12. ALL FORCE MAINS SHALL BE SUBJECT TO A HYDROSTATIC PRESSURE TEST IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL COORDINATION AND NOTIFICATION OF ALL PARTIES IS CONTRACTOR'S RESPONSIBILITY.

NOTIFICATION OF ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.

GEOTECHNICAL NOTE

CONTRACTOR TO REVIEW AND FOLLOW CONSTRUCTION TECHNIQUES OUTLINED IN THE SITE GEOTECHNICAL REPORT

STORM DRAINAGE

c. PIPE JOINTS SHALL BE WATER-TIGHT.

- UNLESS OTHERWISE SHOWN ON PLANS, ALL PVC PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING:
- a. PVC SEWER PIPE AND FITTINGS, NPS 15-INCH AND SMALLER ASTM D 3034, SDR 35, WITH BELL-AND-SPIOT ENDS FOR GASKETED JOINTS USING ASTM F
- 477, ELASTOMERIC SEALS. b. PVC SEWER PIPE AND FITTINGS, NPS 18-INCH AND LARGER: ASTM F 679, T-1 WALL THICKNESS, WITH BELL-AND-SPIGOT ENDS FOR GASKETED JOINTS USING ASTM F 477, ELASTOMERIC SEALS.
- 2. UNLESS OTHERWISE SHOWN ON THE PLANS, ALL REINFORCED CONCRETE PIPE (RCP) AND FITTINGS SHALL CONFORM TO THE FOLLOWING: a. ASTM C 76, WITH BELL-AND-SPIGOT OR GROOVE AND TONGUE ENDS AND
- GASKETED JOINTS WITH ASTM C 443 RUBBER GASKETS. b. RCP PIPE SHALL BE CLASS III, WALL B.
- c. WHEN LOCATED IN TRAFFIC AREAS WITH LESS THAN 2 FEET OF COVER, RCP PIPE SHALL BE CLASS IV. WALL B.
- d. WHEN LOCATED UNDER AIRCRAFT RAMPS OR RAILROAD OPERATIONS, RCP PIPE SHALL BE CLASS V, WALL B WITH O-RING JOINTS. e. PIPE CLASS SHALL BE CLEARLY "STAMPED" ON EACH SEGMENT OF RCP PIPE
- DELIVERED TO THE PROJECT. f. PIPE JOINTS SHALL BE WATER-TIGHT.
- CONTRACTOR SHALL HANDLE AND STORE PIPE, FITTINGS, GASKETS, AND RELATED APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
- 4. CONTRACTOR SHALL HANDLE MANHOLES. DROP INLETS, CURB INLETS, PIPE END COMPONENTS AND RELATED APPURTENANCES ACCORDING TO MANUFACTURER'S WRITTEN RIGGING INSTRUCTIONS.
- 5. PVC PLASTIC PIPE AND FITTINGS SHALL NOT BE STORED IN DIRECT SUNLIGHT. 6. ALL PIPE. FITTINGS, GASKETS, AND SEALS SHALL BE PROTECTED FROM DIRT
- ALL STORM SEWER LINES SHALL BE TELEVISED AND THE VIDEO REPORTS
- SUBMITTED TO THE ENGINEER FOR REVIEW a. VIDEO REPORTS ARE TO BE SUBMITTED ON CD-ROM OR DVD COMPACT DISKS.
- b. ALL LINES MUST BE FLUSHED AND CLEANED WITH POTABLE WATER PRIOR TO c. FOR SUBMERGED SYSTEMS, POND WATER LEVELS SHALL BE LOWERED (PUMPED DOWN) BELOW THE LOWEST PIPE ENTRANCE INVERT.

d. VIDEO REPORTS WILL BE USED TO VIEW THE CONDITION OF THE STORM

SEWER PIPE PRIOR TO ACCEPTANCE. WORKMANSHIP AND CLEANLINESS OF

- THE INSTALLATION WILL BE CHECKED. AS-BUILT SURVEY: THE CONTRACTOR SHALL VERIFY STORM SEWER IMPROVEMENTS ALIGNMENT BY PROVIDING AN "AS-BUILT" SURVEY OF CONSTRUCTED CONDITIONS FROM A LICENSED SURVEYOR REGISTERED IN THE STATE OF PROJECT LOCATION. THE "AS-BUILT" SURVEY SHALL INCLUDE VERTICAL AND HORIZONTAL INFORMATION PERTAINING TO THE INSTALLATION OF THE STORM SEWER SYSTEM PIPING AND STRUCTURES. DATUM ELEVATION AND BENCHMARK LOCATIONS SHALL BE INDICATED. INFORMATION TO BE
- INCLUDED IS AS FOLLOWS: a. PIPE TYPE, SIZE. AND INVERT ELEVATIONS. b. MANHOLE, DROP INLET, CURB INLET, YARD DRAIN, AND POND CONTROL STRUCTURE LOCATIONS WITH ELEVATIONS OF BOTTOM, RIM OR GRATE

c. POND CONTROL STRUCTURES: SHOW INFORMATION ON ALL FLOW CONTROL

APPURTENANCES AND OUTLET PIPING. **ASPHALT PAVING**

ELEVATION SHOWN.

DEVICES": LATEST EDITION.

- 1. THE CONTRACTOR IS TO PROVIDE BARRICADES, SIGNS, FLASHERS, AND FLAG PERSONNEL AS NECESSARY TO INSURE THE SAFETY OF WORKERS AND VISITORS. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION IS TO CONFORM TO THE "MANUAL OF UNIFORM TRAFFIC CONTROL
- 2. ALL ASPHALT PAVING MATERIALS, WORKMANSHIP, AND INSTALLATION REQUIREMENTS SHALL COMPLY WITH THE STANDARD SPECIFICATIONS OF THE STATE DEPARTMENT OF TRANSPORTATION (D.O.T.) FOR THE STATE IN WHICH THE WORK OCCURS WITH SOME EXCLUSIONS. THE DOT PAYMENT PROCEDURES
- a. COARSE AGGREGATE. FINE AGGREGATE AND MINERAL FILLERS: IN ACCORDANCE WITH D.O.T. MATERIAL STANDARDS AND ASSOCIATED CONSTRUCTION SPECIFICATIONS. b. ASPHALT BINDER, ASPHALT CEMENT, PRIME COAT, AND TACK COAT: IN

AND SAFETY REQUIREMENTS SHALL GENERALLY NOT APPLY.

ACCORDANCE WITH D.O.T. MATERIAL STANDARDS AND ASSOCIATED CONSTRUCTION SPECIFICATIONS. c. JOINT SEALANT: ASTM 0 6690 OR AASHTO M 324. TYPE II OR III, HOT APPLIED, SINGLE COMPONENT, POLYMER-MODIFIED BITUMINOUS SEALANT.

d. PAVEMENT-MARKING PAINT: IN ACCORDANCE WITH D.O.T. MATERIAL

- STANDARDS AND ASSOCIATED CONSTRUCTION SPECIFICATIONS. COLORS AS 3. DO NOT APPLY ASPHALT MATERIALS IF SUBGRADE IS FROZEN, WET, OR EXCESSIVELY DAMP; OR IF RAIN IS IMMINENT OR EXPECTED BEFORE TIME
- REQUIRED FOR ADEQUATE CURE. APPLY ONLY AT D.O.T. RECOMMENDED SURFACE TEMPERATURE.
- 4. INSTALLATION TOLERANCES: a. PAVEMENT THICKNESS: THE AVERAGE OF THE MEASURED THICKNESS OF THE PAVEMENT LAYERS SHALL MEET OR EXCEED THE REQUIRED THICKNESS FOR
- THOSE LAYERS, AND THE MINIMUM THICKNESS IN ANY ONE AREA SHALL NOT BE LESS THAN 0.25 INCHES BELOW THE REQUIRED THICKNESS. b. PAVEMENT SURFACE SMOOTHNESS: COMPACT EACH COURSE TO PRODUCE A SURFACE SMOOTHNESS WITHIN THE FOLLOWING TOLERANCES AS

DETERMINED BY USING A 10-FOOT STRAIGHTEDGE APPLIED TRANSVERSELY

RIGHT ANGLE TO CROWN. MAXIMUM ALLOWABLE VARIANCE FROM TEMPLATE

- OR LONGITUDINALLY TO PAVED AREAS: BASE COURSE: 1/4 -INCH SURFACE COURSE: 1/4 -INCH c. CROWNED SURFACES: TEST WITH CROWNED TEMPLATE CENTERED AND AT
- PAVEMENT MARKINGS SHALL BE MADE WITH NON-THERMOPLASTIC ACRYLIC MARKING PAINT MEETING THE DOT MATERIAL REQUIREMENTS. ALLOW PAVING TO AGE FOR 30 DAYS BEFORE STARTING PAVEMENT MARKING. PROCEED WITH PAVEMENT MARKING ONLY ON CLEAN, DRY SURFACES. SWEEP AND CLEAN SURFACE TO ELIMINATE LOOSE MATERIAL AND DUST. APPLY PAINT WITH MECHANICAL EQUIPMENT TO PRODUCE PAVEMENT MARKINGS, OF DIMENSIONS AND COLORS INDICATED, WITH UNIFORM, STRAIGHT EDGES. APPLY AT MANUFACTURER'S RECOMMENDED RATES TO PROVIDE A MINIMUM WET FILM

THICKNESS OF 15 MILS AND ONLY AT MANUFACTURER'S RECOMMENDED

AMBIENT AND SURFACE TEMPERATURES.

b. ALL SANITARY SEWER

c. ALL STORM SEWER

IS 1/4 -INCH.

AS-BUILT SURVEY UPON COMPLETION OF THE WORK, THE SITEWORK SUB-CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL LAND SURVEYOR TO PERFORM AN "AS-BUILT" SURVEY. THE "AS-BUILT" SURVEY SHALL INCLUDE LOCATION AND ELEVATION DATA FOR ALL CONSTRUCTED IMPROVEMENTS. SPECIFIC INFORMATION INCLUDED IN THE SURVEY SHALL BE AS FOLLOWS:

a. ALL PAVEMENT SURFACES INCLUDING CURBS, WALKS, RAMPS, PADS, ETC.

- d. ALL STORM DETENTION, RETENTION, AND WATER QUALITY POND GRADING e. EMBANKMENT AND LAWN AREA GRADING
- g. BUILDING CORNER LOCATIONS h. OUT BUILDINGS, IF APPLICABLE i. WATER, GAS, BURIED ELECTRIC AND BURIED TELECOM LINES
- j. LIGHT POLE LOCATIONS k. STRIPING AND PAVEMENT MARKINGS

f. BUILDING FINISH FLOOR ELEVATION

I. TREE LOCATIONS WITH SIZE AND SPECIES

550 S. Caldwell Street | P: 704.981.8951 Suite 1800 Lic. #: AA - 0003590 Charlotte, NC 28202 W: www.bdgllp.com



OK 27 IX A] LOT 3 ESVILI



S

INFINITY ENGINEERIN GROUP, PLLC 1208 East Kennedy Boulevard Suite 230 Tampa, FL 33602 [p]: 813.434.4770

www.iegroup.net NC Firm Certificate No. P-1836 IEG Job No. 15-309.00 SEAL

[f]: 813.445.4211



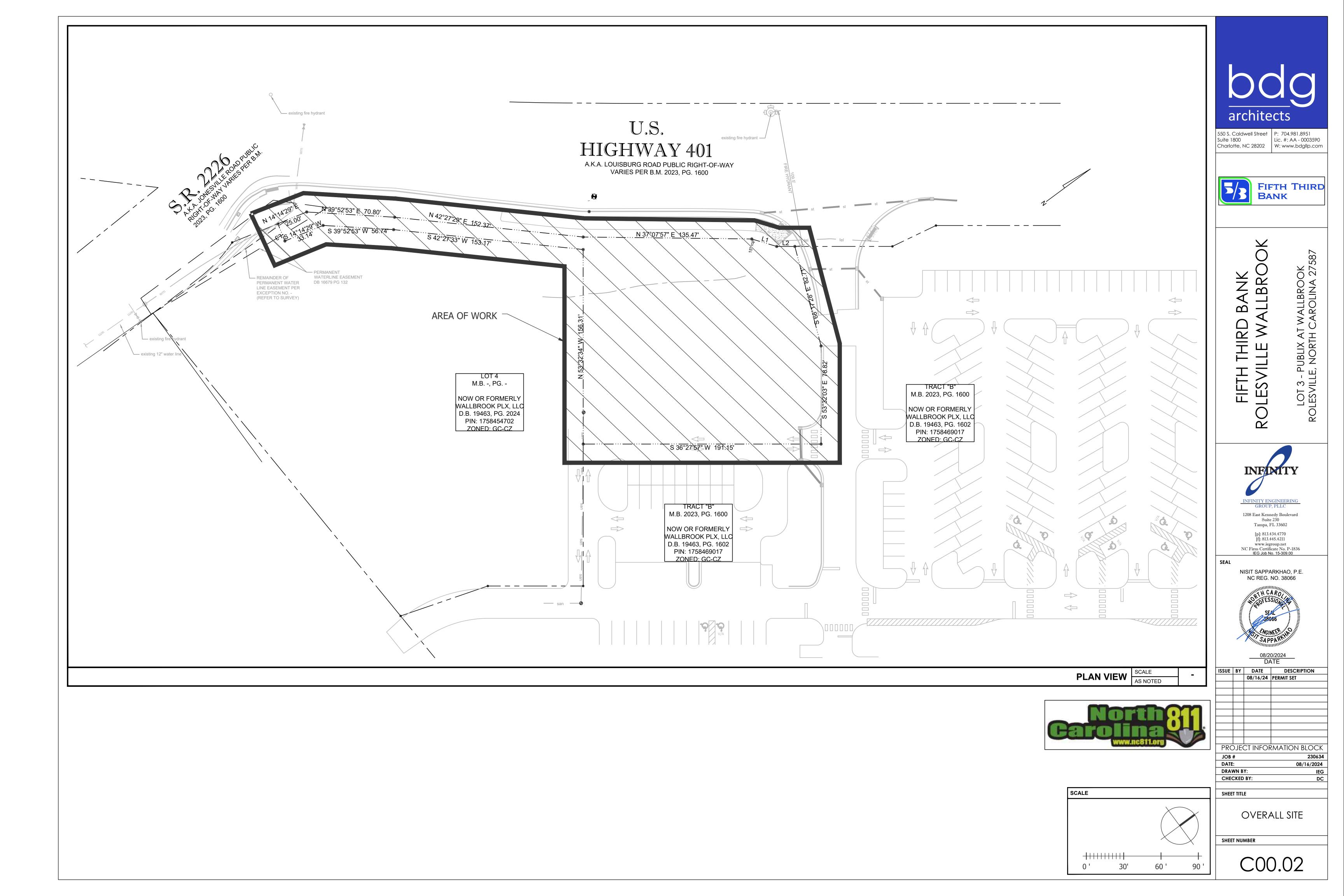
ISSUE BY DATE DESCRIPTION 08/16/24 | PERMIT SET

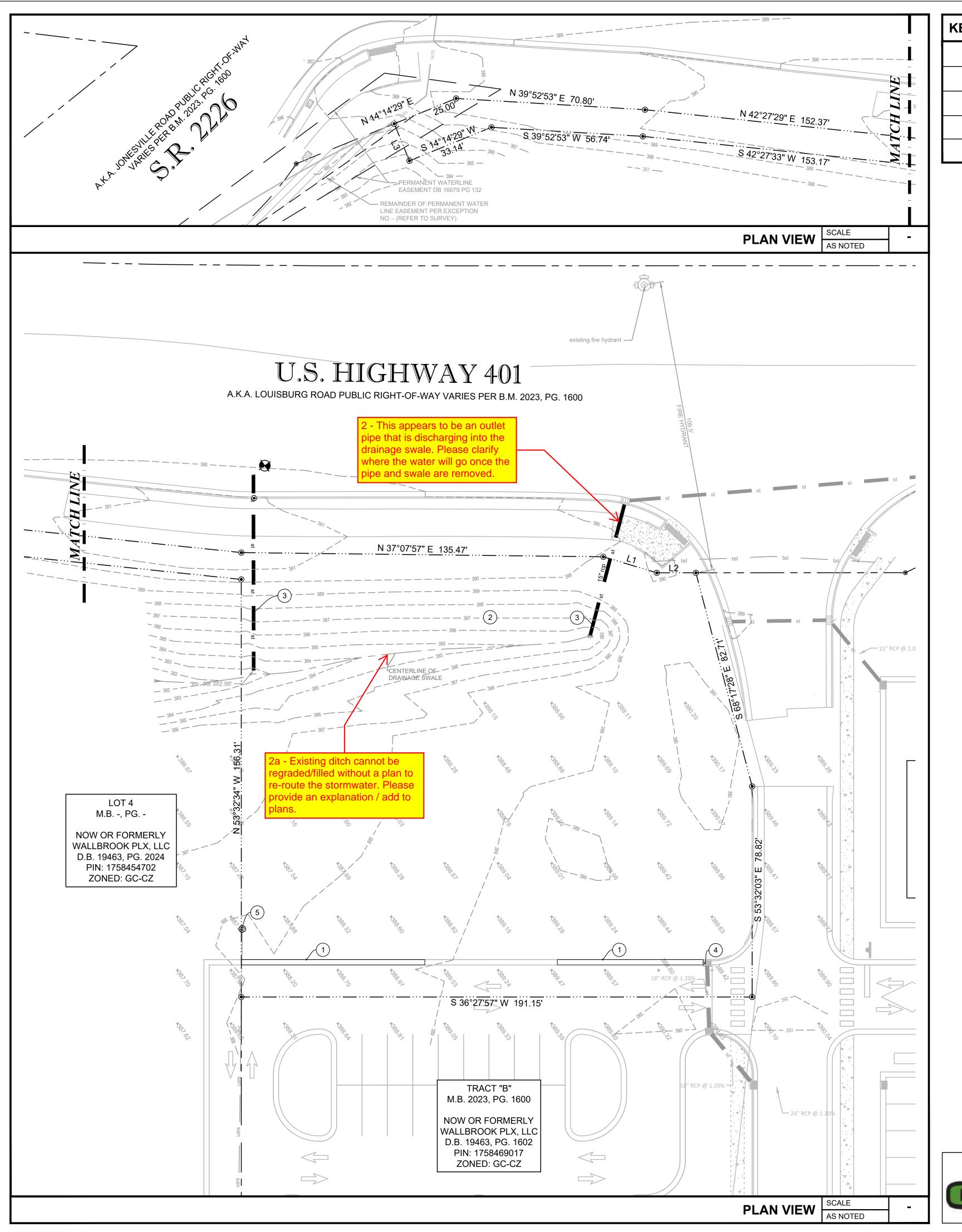
PROJECT INFORMATION BLOCK 230634 JOB# DATE: 08/16/2024 DRAWN BY: CHECKED BY:

CIVIL SPECIFICATIONS

SHEET TITLE

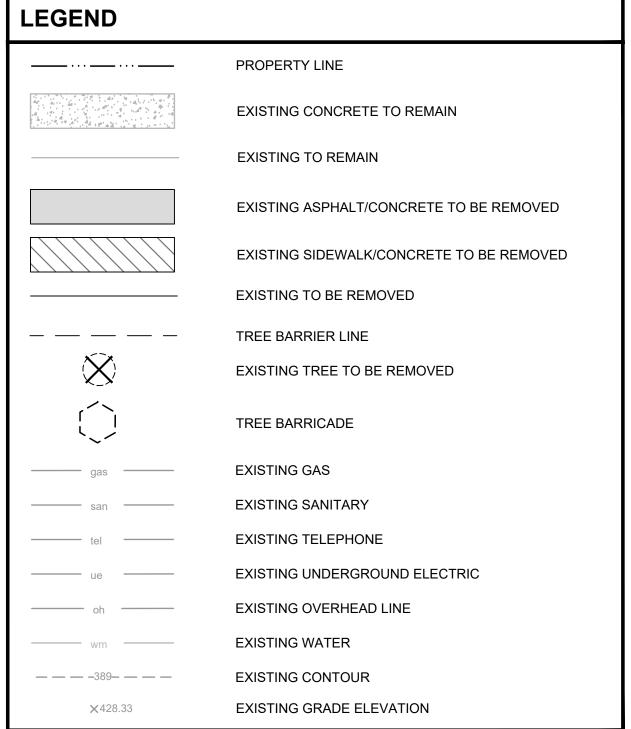
SHEET NUMBER





KEYED NOTES PORTION OF EXISTING CURB AND GUTTER TO BE SAWCUT / REMOVED. EXISTING STORM DITCH TO BE REGRADED / FILLED BY THE DEVELOPER. EXISTING STORM PIPE TO BE REMOVED BY THE DEVELOPER. EXISTING STORM STRUCTURE TO REMAIN.

EXISTING SEWER MANHOLE TO REMAIN.



DEMOLITION NOTES

- 1. CONTRACTOR TO ESTABLISH AND PROPERLY FLAG PROPERTY LINES PRIOR TO DEMOLITION.
- 2. ALL ABOVE AND BELOW GROUND HARDWARE, EQUIPMENT AND MATERIALS TO BE DISPOSED OF IN ACCORDANCE WITH LOCAL MUNICIPALITY REQUIREMENTS.
- NON SHRINK GROUT OR AS OTHERWISE APPROVED BY ENGINEER.
- TREES SHOWN TO REMAIN SHALL MAINTAIN PROTECTIVE BARRIERS DURING DEMOLITION. THESE BARRIERS SHALL BE IN ACCORDANCE WITH CURRENT LOCAL MUNICIPALITY STANDARDS.
- WITH THE OWNER OF SAID UTILITY. THIS SHALL INCLUDE BUT NOT BE LIMITED TO WATER, SEWER, GAS, CABLE TV, POWER AND TELEPHONE.
- 7. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO DEMOLITION AND WILL BE RESPONSIBLE FOR THE DAMAGE OF ANY ON-SITE OR OFF-SITE
- 8. ALL DISTURBED AREA WITH THE RIGHT OF WAY WILL BE RESTORED TO ORIGINAL OR BETTER CONDITION BY GRADING AND SODDING THE AREA DISTURBED.

TREE NOTE:

CONTRACTOR TO INSTALL TREE BARRICADES SURROUNDING ALL TREES TO REMAIN. IRRIGATE ALL LANDSCAPING AS NEEDED.

architects 550 S. Caldwell Street | P: 704.981.8951 Suite 1800 Charlotte, NC 28202 | W: www.bdgllp.com

Lic. #: AA - 0003590

FIFTH THIRD

UBLIX AT NORTH

LOT 3 - PL ROLESVILLE,

ROLES

INFINITY

INFINITY ENGINEERING GROUP, PLLC

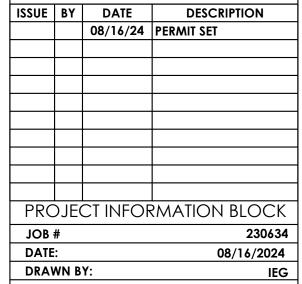
1208 East Kennedy Boulevard Suite 230 Tampa, FL 33602 [p]: 813.434.4770 [f]: 813.445.4211

www.iegroup.net NC Firm Certificate No. P-1836 IEG Job No. 15-309.00

BANK

- 3. UTILITIES TO BE PLUGGED SHALL BE FILLED WITH A MINIMUM 1.0 CUBIC FT. OF
- THE CONTRACTOR SHALL COORDINATE THE REMOVAL OF EXISTING UTILITIES
- 6. THE CONTRACTOR SHALL UTILIZE SUITABLE EROSION CONTROL DURING DEMOLITION, SEE "EROSION & SEDIMENT CONTROL DETAILS".
- UTILITIES THAT ARE NOT A PART OF THIS PROJECT OR ARE NOT IDENTIFIED TO BE REMOVED.





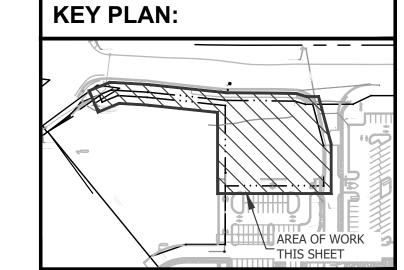
CHECKED BY: SHEET TITLE

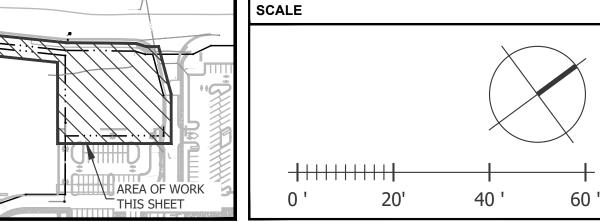
DEMOLITION PLAN

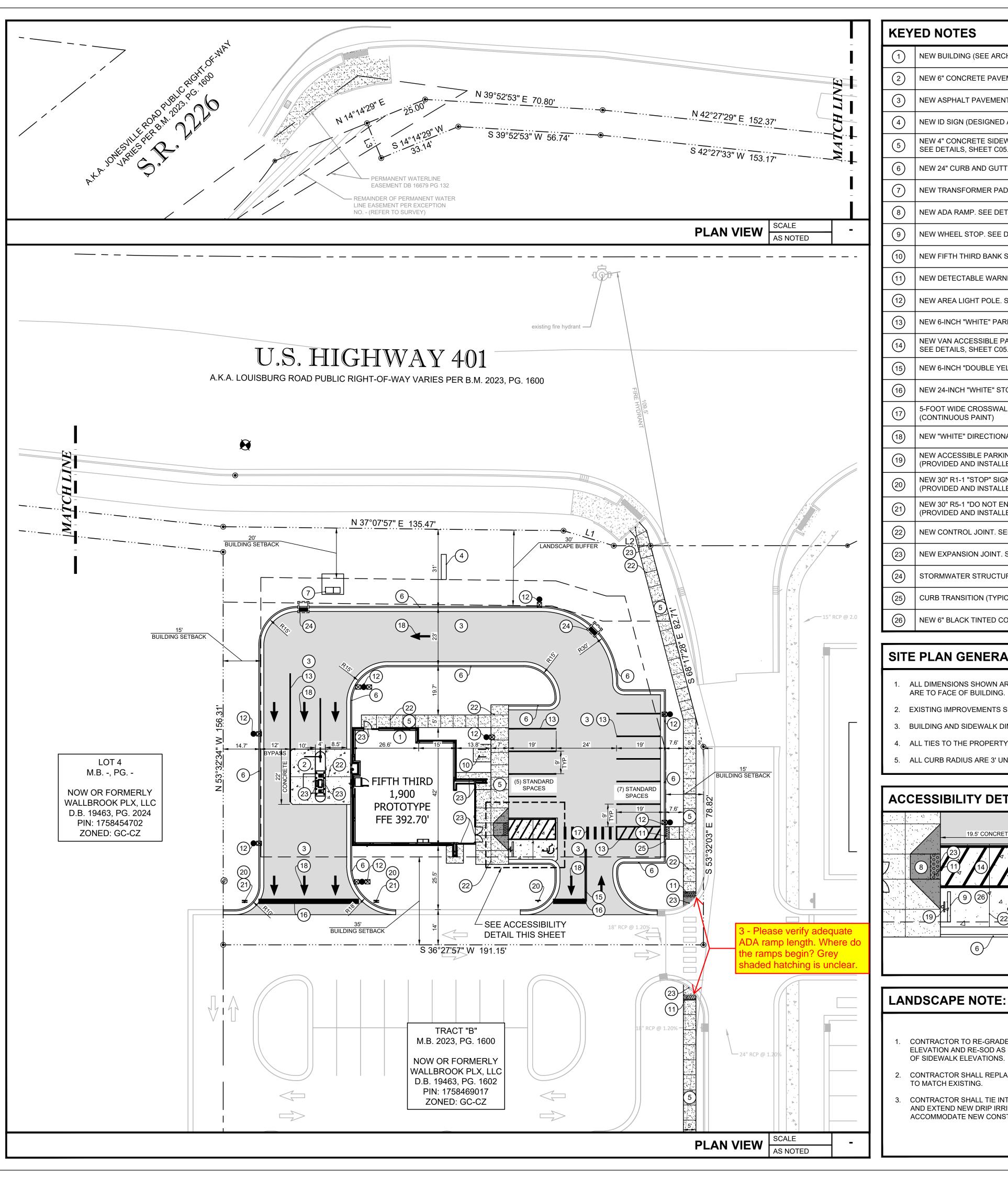
SHEET NUMBER

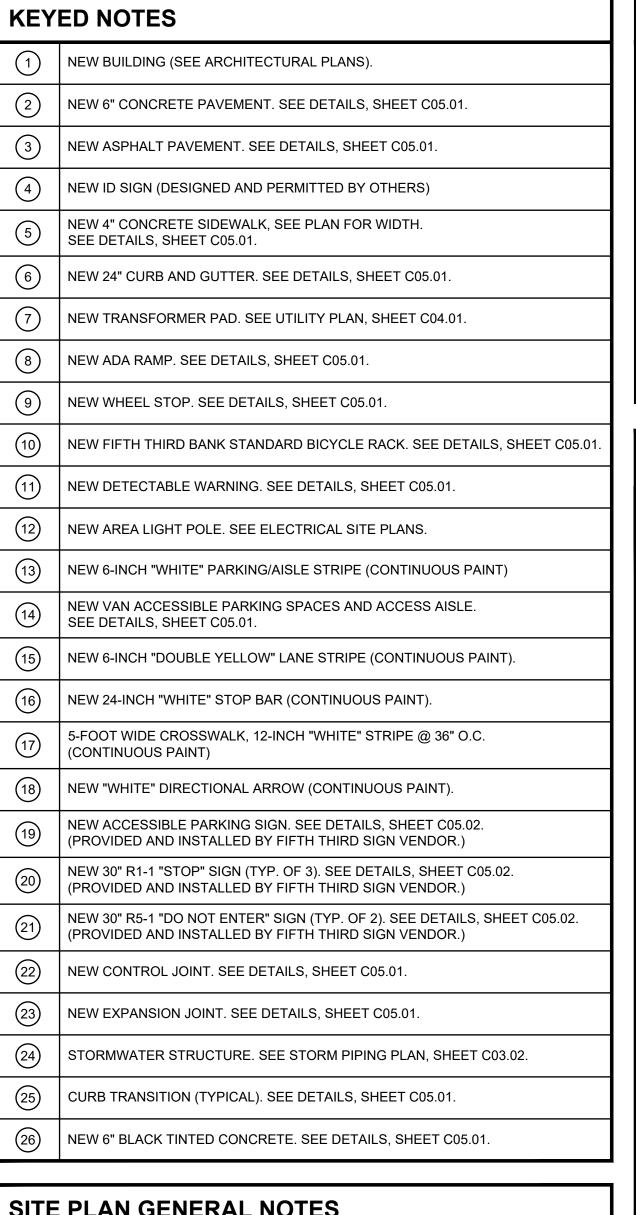
C01.01











SITE PLAN GENERAL NOTES

- 1. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB. BUILDING DIMENSIONS ARE TO FACE OF BUILDING.
- 2. EXISTING IMPROVEMENTS SHOWN ARE TAKEN FROM THE SURVEY.
- 3. BUILDING AND SIDEWALK DIMENSIONS ARE TO OUTSIDE EDGE OF WALL
- 4. ALL TIES TO THE PROPERTY LINE ARE BASED ON THE SURVEY.
- 5. ALL CURB RADIUS ARE 3' UNLESS OTHERWISE NOTED

SCALE: 1' = 10' **ACCESSIBILITY DETAIL** (6)/

LEGEND PROPERTY LINE _ _ _ . . . _ **EXISTING TO REMAIN** EXISTING CONCRETE TO REMAIN PROPOSED CONCRETE LESS THAN 6" 4 4 4 PROPOSED CONCRETE 6" OR GREATER NEW ASPHALT PAVEMENT SETBACK/BUFFER PROPOSED CURB PROPOSED CURB AND GUTTER

SITE DATA

SITE ADDRESS: LOT 3 - PUBLIX AT WALLBROOK ROLESVILLE, NC 27587

76667,76635

BUILDING AREA: 2,084 GSF BUILDING **EXISTING ZONING:** GC-CZ

33,092 SF / 0.76 AC SITE AREA: **EXISTING USE:** VACANT

FUTURE USE: BANK WITH DRIVE THRU

PARKING DATA

BANK PARKING REQUIRED: MAX. 6 SPACES PER 1000 SF OF G.F.A. 2,084 SF x (6 SPACES/1000 SF) = 13 SPACES

> MIN. 2.5 SPACES PER 1000 SF OF G.F.A. 2,084 SF x (2.5 SPACES/1000 SF) = 6 SPACES

TOTAL PARKING PROVIDED: STANDARD PARKING = 12 SPACES ADA PARKING = 1 SPACE

TOTAL PARKING PROVIDED = 13 SPACES

PARKING SPACE SIZE: 9'x 19' MINIMUM

*NOTE-FINANCIAL INSTITUTIONS DO NOT USE LOADING ZONE: LOADING ZONES FOR SECURITY PURPOSES

DELIVERY TRUCK WILL PARK DIRECTLY IN FRONT OF MAIN ENTRANCE.

<u>REQUIRED</u>

REQUIRED

_ANDSCAPE REQUIREMENTS:

LANDSCAPE BUFFER - FRONT (S. MAIN ST) = 30' LANDSCAPE BUFFER - SIDES = 0' LANDSCAPE BUFFER - REAR = 0'

BUILDING REQUIREMENTS:

BUILDING SETBACK - FRONT (S. MAIN ST) = 20' BUILDING SETBACK - SIDES = 15' **BUILDING SETBACK - REAR** = 35' MAXIMUM BUILDING HEIGHT = 35'

FLOOD ZONE:

THE SUBJECT PROPERTY IS LOCATED IN FLOOD ZONE X

**DUMPSTER ENCLOSURE:

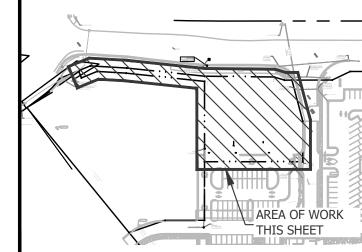
FIFTH THIRD BANK TO COORDINATE WITH THE DEVELOPER FOR A SHARED DUMPSTER AGREEMENT.

PRE VS POST SITE AREAS

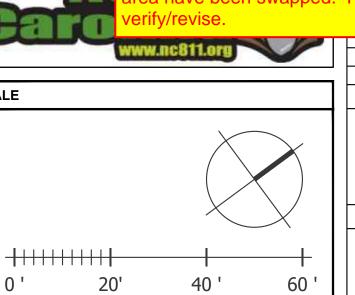
	ACRE	S.F.	PERCENT
SITE AREA	0.76	33,092	100.00%
PRE-DEVELOPMENT PERVIOUS AREA: IMPERVIOUS AREA:	0.06 0.69	2,725 30,368	8.00% 92.00%
POST-DEVELOPMENT PERVIOUS AREA: IMPERVIOUS AREA:	0.34 0.42	14,905 18,187	45.00% 55.00%

- CONTRACTOR TO RE-GRADE SURROUNDING GRADE ELEVATION AND RE-SOD AS NEED TO MEET PROPOSED TOP OF SIDEWALK ELEVATIONS.
- CONTRACTOR SHALL REPLACE ALL DISTURBED LANDSCAPING TO MATCH EXISTING.
- CONTRACTOR SHALL TIE INTO EXISTING IRRIGATION SYSTEM AND EXTEND NEW DRIP IRRIGATION AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION.

KEY PLAN:



SCALE





550 S. Caldwell Street | P: 704.981.8951 Lic. #: AA - 0003590 Charlotte, NC 28202 W: www.bdgllp.com



FIFTH THIRD BANK

UBLIX AT



1208 East Kennedy Boulevard Suite 230 Tampa, FL 33602 [p]: 813.434.4770

[f]: 813.445.4211 www.iegroup.net NC Firm Certificate No. P-1836 IEG Job No. 15-309.00

NISIT SAPPARKHAO, P.E. NC REG. NO. 38066



SUE	BY	DATE	DESCRIPTION
		08/16/24	PERMIT SET

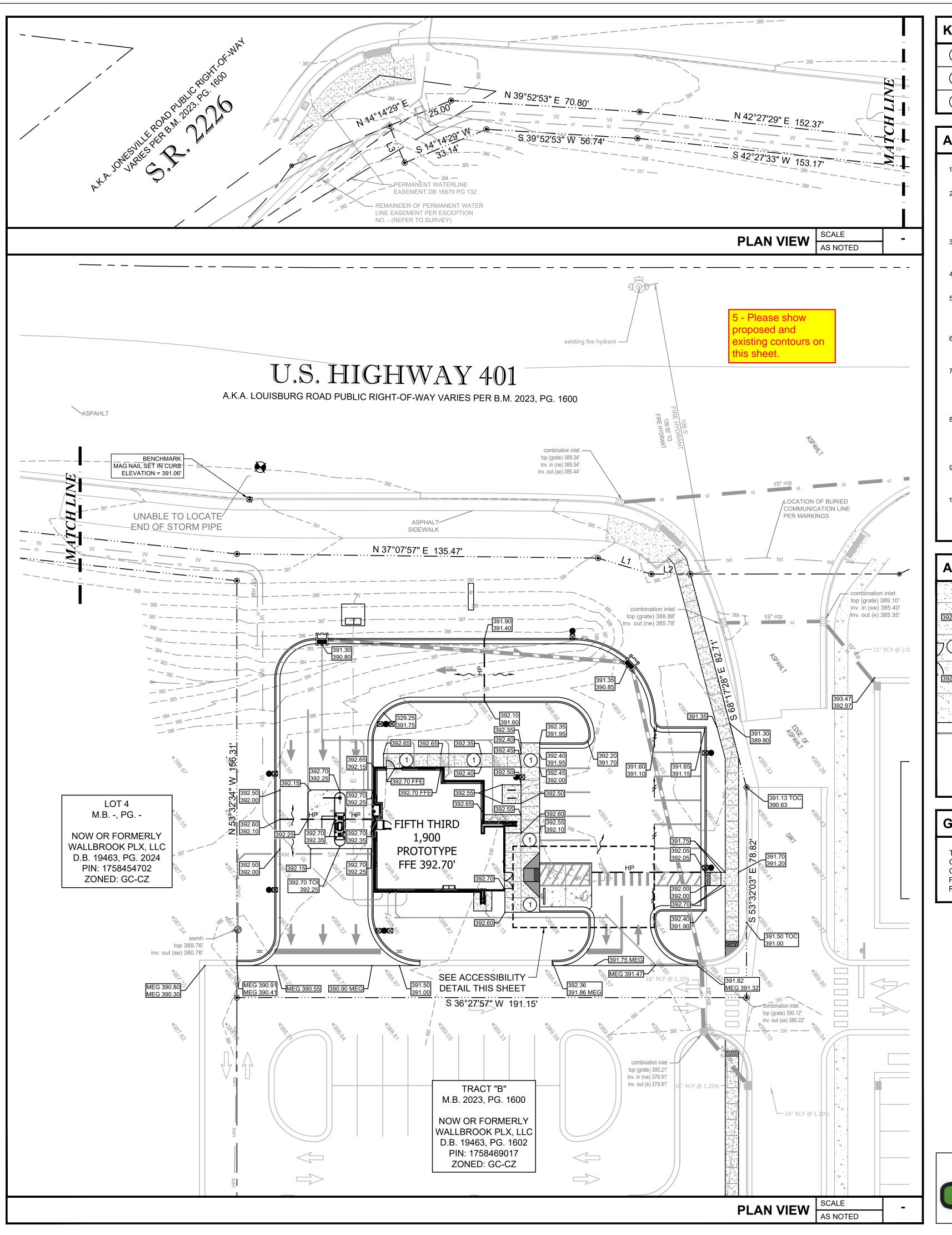
It appears the pre-development alues for pervious vs impervious I INFORMATION BLOCK rea have been swapped. Please 230634 08/16/2024

CHECKED BY:

SHEET TITLE SITE PLAN

SHEET NUMBER

C02.01



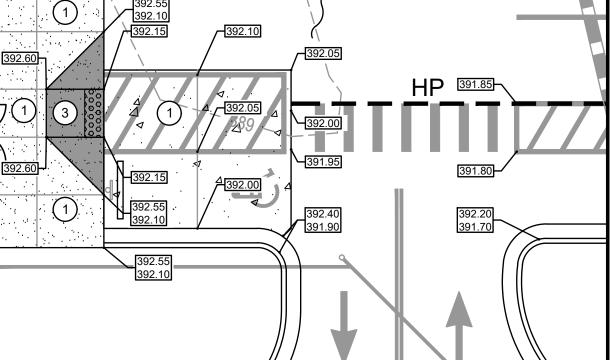
KEYED NOTES:

- SURFACE SLOPES NOT TO EXCEED 1:48 IN ALL DIRECTIONS.
- SURFACE SLOPES NOT TO EXCEED 1:48 CROSS SLOPES AND 1:20 RUNNING.
- SURFACE SLOPES NOT TO EXCEED 1:48 CROSS SLOPES AND 1:12 RUNNING.

ACCESSIBILITY NOTES

- THE DRAWINGS ARE DESIGNED TO MEET ACCESSIBILITY STANDARDS AT MINIMUM. LOCAL AND STATE REQUIREMENTS OR CODES MAY HAVE ADDITIONAL STANDARDS.
- ACCESSIBLE PARKING SPACES, SIGNAGE, LOGOS, WHEEL STOPS AND ACCESSIBLE AISLES TO MEET ALL OF THE 2010 ADA STANDARDS REQUIREMENTS - PROVIDE SPACES IN SIZE, QUANTITY AND LOCATIONS REQUIRED BY THE ADA STANDARDS AND APPLICABLE CODES AS DETERMINED BY LOCAL JURISDICTION. PROVIDE A MAXIMUM SLOPE IN EITHER DIRECTION OF 1:48 (1:64 RECOMMENDED).
- ACCESSIBLE PARKING SIGNAGE ON POST. BOTTOM OF SIGNAGE TO BE MINIMUM 60" ABOVE GRADE. VERIFY ALL REQUIREMENTS WITH ACCESSIBILITY REQUIREMENTS AND
- CONCRETE WHEEL STOP. ALL ACCESSIBLE SPACES- LOCATE FIXED WHEEL STOP SO AS NOT TO REDUCE THE WIDTH OF THE ADJOINING ACCESSIBLE ROUTE.
- ACCESSIBLE ROUTE TO PUBLIC RIGHT OF WAY (1 REQUIRED), MAXIMUM RUNNING SLOPE OF 1:20 AND MAXIMUM CROSS SLOPE OF 1:48 (1:64 RECOMMENDED). ALL PAVED SURFACES, CURB RAMPS AND TRANSITIONS ALONG PATH TO MEET ACCESSIBILITY REQUIREMENTS.
- ACCESSIBLE PATH/WALKWAY TO BE 5'-0" MINIMUM. RUNNING SLOPE 1:20 MAXIMUM. CROSS SLOPE 1:48 MAXIMUM, SLOPE AWAY FROM BUILDING - BROOM FINISH
- CURB RAMP TO MEET ALL ACCESSIBILITY REQUIREMENTS, MAXIMUM SLOPE OF RUN 1:12 (1:14 RECOMMENDED), MAXIMUM CRISS SLOPE 1:48 (1:64 RECOMMENDED). REFER TO SITE DETAILS SHEET FOR ADDITIONAL INFORMATION. PROVIDE 36" LONG MINIMUM LANDDING AT TOP AND 60: MINIMUM LANDING AT BOTTOM OF RAMP WITH MAXIMUM SLOPE IN EITHER DIRECTION OF LANDING TO BE 1:48 (1:64 RECOMMENDED)
- SURFACE CONDITIONS AT ACCESSIBLE WALKWAYS AND ACCESSIBLE AREAS (PAVERS SYSTEMS AND/OR CONCRETE SURFACES) SHALL NOT INCLUDE GAPS GREATER THAT 1/2" OR VERTICAL CHANGES AT JOINTS OR BETWEEN UNITS GREATER THAN 1/4" -UNLESS THE OVERALL LEVEL CHANGE DOES NOT EXCEED 1/2" AND THE LEVEL CHANGE
- IT WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE THAT THE HANDICAP PARKING SPACES, ACCESSIBLE ROUTES, AND SIDEWALK/CROSSWALKS ARE CONSTRUCTED TO MEET ADA REQUIREMENTS.
-). ANY REQUIREMENTS LISTED ABOVE THAT CAN NOT BE MET SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY. ANYTHING NOT BUILT TO THE ABOVE STANDARDS WILL REQUIRE REMOVAL AND REPLACEMENT OF THE NON COMPLIANT AREAS AT THE GENERAL CONTRACTORS COST.

ACCESSIBILITY DETAIL SCALE: 1' = 10



GEOTECHNICAL NOTE:

THE PLACEMENT OF ANY FILL MATERIAL MUST BE CONDUCTED UNDER THE OBSERVATION OF A QUALIFIED LICENSED GEOTECHNICAL ENGINEER AND UPON COMPLETION OF THE EARTHWORK ACTIVITIES THE TOWN MUST BE PROVIDED WITH A FINAL GRADING REPORT THAT INCLUDES THE CORRESPONDING COMPACTION TEST RESULTS AND CERTIFIES THE TYPE OF FILL MATERIAL AND ITS PROPER PLACEMENT.

LEGEND

- **ELEVATION**
- CLEANOUT
- INVERT ELEVATION SUMP ELEVATION
- EXISTING ELEVATION PROPOSED PAVEMENT ELEVATION
- TOP OF SIDEWALK/CURB EDGE OF PAVEMENT
- DITCH BOTTOM INLET **CURB INLET**
- FINISH FLOOR ELEVATION
- REINFORCED CONCRETE PIPE
- HIGH POINT MATCH EXISTING GRADE
- TOP OF ISLAND
- **BUILDING DOWN SPOUT** 12" OR GREATER STORMWATER PIPE
- LESS THAN 12" STORMWATER PIPE
- PROPOSED SURFACE STORMWATER FLOW
- PROPOSED SWALE STORMWATER FLOW
- **EXISTING CONTOUR** PROPOSED CONTOUR
- DIRECTION OF PIPE FLOW

CONTROL BENCHMARKS

THE BASIS OF BEARING USEDD FOR THIS SURVEY IS N.C STATE GRID (NAD 83). ELEVATIONS SHOWN ON THIS SURVEY ARE BASED ON NAVD 88.

CONTRACTOR TO ESTABLISH CONTROL BENCHMARKS BEYOND LIMITS OF DEMOLITION PRIOR TO CONSTRUCTION.

EROSION CONTROL MEASURE NOTE

REQUIRED EROSION CONTROL MEASURES SHALL BE INSTALLED AS NEEDED AND MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. FAILURE TO INSTALL OR PROPERLY MAINTAIN THESE BARRICADES WILL RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS, AND INITIATION OF CIVIL PENALTY PROCEDURES.

PAVING AND GRADING GENERAL NOTES

- SEE GENERAL NOTES SHEET FOR EROSION AND SILTATION CONTROL ALONG WITH GENERAL NOTES.
- 2. SEE SITE PLAN SHEET FOR SITE DATA.
- 3. SEE SURVEY FOR TEMPORARY BENCH MARK (TBM) LOCATIONS.
- THE CONTRACTOR SHALL MEET ALL REQUIREMENTS FOR LOCAL MUNICIPALITY AND THE DEPARTMENT OF TRANSPORTATION WITH REGARD TO IMPROVEMENTS WITHIN THEIR RESPECTIVE RIGHTS-OF-WAY.
- ALL DISTURBED AREAS WITHIN RIGHT-OF-WAY TO BE RETURNED TO MATCH EXISTING CONDITION.
- 6. ALL CLEANOUT TOP ELEVATION SHALL MATCH FINISH GRADE ELEVATIONS.
- CONTRACTOR SHALL INSTALL EROSION CONTROL SILT FENCE AROUND THE PERIMETER OF THE SITE AND MUST MAINTAIN THE SILT FENCE IN GOOD REPAIR UNTIL ALL CONSTRUCTION IS COMPLETE AND THE AREA IS STABILIZED.
- 8. THE CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO ANY CONSTRUCTION IF ANY PROBLEMS OR DISCREPANCIES EXIST.

architects

550 S. Caldwell Street | P: 704.981.8951 Suite 1800 Lic. #: AA - 0003590 Charlotte, NC 28202 | W: www.bdgllp.com



UBLIX AT LOT 3 -**OLES**



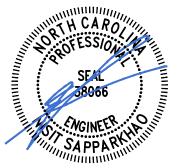
INFINITY ENGINEERING GROUP, PLLC

1208 East Kennedy Boulevard Suite 230 Tampa, FL 33602

[p]: 813.434.4770 [f]: 813.445.4211

www.iegroup.net NC Firm Certificate No. P-1836 IEG Job No. 15-309.00 SEAL

NISIT SAPPARKHAO, P.E. NC REG. NO. 38066



08/20/2024

00/20/2024						
	DATE					
ISSUE	BY	DATE	DESCRIPTION			
		08/16/24	PERMIT SET			
PRC)JE(CT INFOR	RMATION BLOCK			
JOB #	‡		230634			

DATE: 08/16/2024 DRAWN BY:

CHECKED BY:

SHEET TITLE

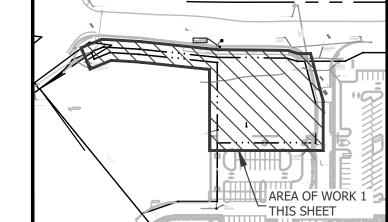
GRADING PLAN

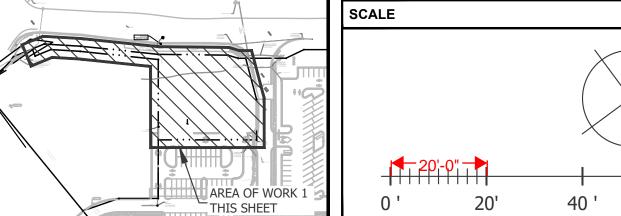
SHEET NUMBER

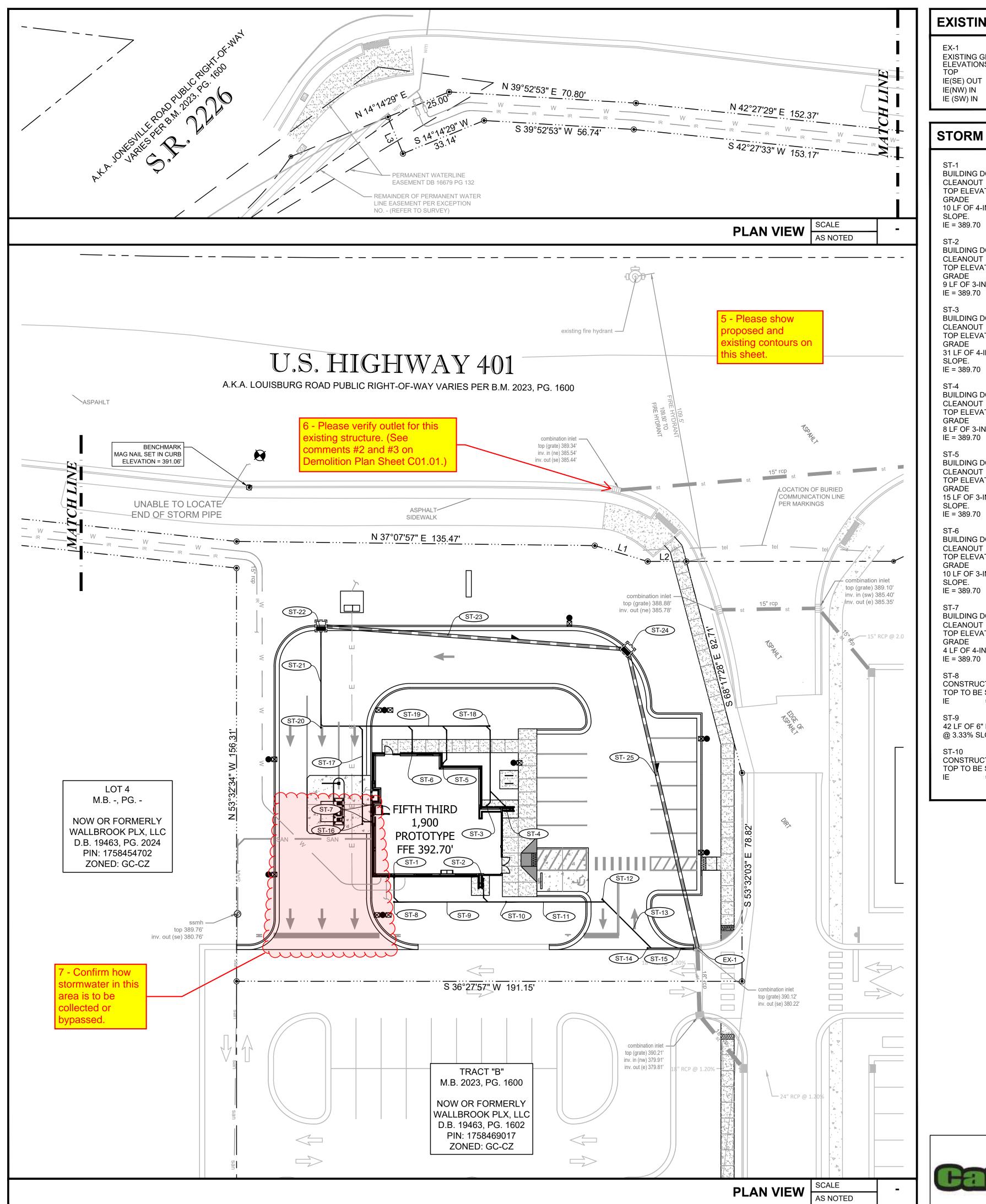
60

C03.01

KEY PLAN:







EXISTING STORM STRUCTURE/PIPING DATA

EXISTING GRATE TO MATCH EXISTING PROPOSED **ELEVATIONS**

IE(SE) OUT = 380.22' (EXISTING 18"RCP) IE(NW) IN = 383.70 (PROPOSED 15" HDPE) IE (SW) IN = 386.60 (PROPOSED 6" PVC)

STORM STRUCTURE/PIPING DATA

BUILDING DOWNSPOUT AND CLEANOUT TOP ELEVATION TO MATCH PROPOSED 10 LF OF 4-INCH PVC @ 1.00% MIN. SLOPE.

BUILDING DOWNSPOUT AND CLEANOUT TOP ELEVATION TO MATCH PROPOSED

9 LF OF 3-INCH PVC @ 1.00% MIN. SLOPE. IE = 389.70

BUILDING DOWNSPOUT AND CLEANOUT TOP ELEVATION TO MATCH PROPOSED 31 LF OF 4-INCH PVC @ 1.00% MIN. SLOPE.

BUILDING DOWNSPOUT AND CLEANOUT TOP ELEVATION TO MATCH PROPOSED 8 LF OF 3-INCH PVC @ 1.00% MIN. SLOPE. IE = 389.70

BUILDING DOWNSPOUT AND CLEANOUT TOP ELEVATION TO MATCH PROPOSED 15 LF OF 3-INCH PVC @ 1.00% MIN. IE = 389.70

BUILDING DOWNSPOUT AND CLEANOUT TOP ELEVATION TO MATCH PROPOSED 10 LF OF 3-INCH PVC @ 1.00% MIN. SLOPE. IE = 389.70

BUILDING DOWNSPOUT AND CLEANOUT TOP ELEVATION TO MATCH PROPOSED GRADE 4 LF OF 4-INCH PVC @ 1.00% MIN. SLOPE.

CONSTRUCT CLEANOUT TOP TO BE SET AT GRADE = 389.50

42 LF OF 6" PVC @ 3.33% SLOPE

CONSTRUCT CLEANOUT TOP TO BE SET AT GRADE = 388.10'

37 LF OF 6" PVC @ 2.70% SLOPE

CONSTRUCT CLEANOUT TOP TO BE SET AT GRADE = 387.10

> ST-13 26 LF OF 6" PVC @ 1.15% SLOPE

> > CONSTRUCT CLEANOUT TOP TO BE SET AT GRADE = 386.80

ST-15 18 LF OF 6" PVC @ 1.11% SLOPE CONNECT TO EX- @ 386.60

CONSTRUCT CLEANOUT TOP TO BE SET AT GRADE = 389.65'

ST-17 38 LF OF 6" PVC @1.00% MIN. SLOPE

CONSTRUCT CLEANOUT TOP TO BE SET AT GRADE = 389.30

64 LF OF 8" PVC @1.00% MIN. SLOPE

CONSTRUCT CLEANOUT TOP TO BE SET AT GRADE = 387.50'

38 LF OF 6" PVC @1.31% SLOPE

CONCRETE CATCH BASIN (DROP INLET) NCDOT INDEX 719-001 TOP = 390.80' IE (NE) OUT = 386.00 (15" HDPE) IE (SE) IN = 387.00 (8" PVC)

116 LF OF 15" HDPE @ 1.00% SLOPE

CONCRETE CATCH BASIN (DROP INLET) NCDOT INDEX 719-001 TOP = 390.85' IE (SW) IN = 384.85' IE (E) OUT = 384.85'

ST-25 116 LF OF 15" HDPE @ 1.00% SLOPE

LEGEND

ELEVATION TYPICAL CLEANOUT INVERT ELEVATION SUMP ELEVATION **EXISTING ELEVATION** DITCH BOTTOM INLET **CURB INLET** FINISH FLOOR ELEVATION REINFORCED CONCRETE PIPE STORM SEWER STRUCTURE NUMBER

BUILDING DOWN SPOUT

12" OR GREATER STORMWATER PIPE

LESS THAN 12" STORMWATER PIPE

DIRECTION OF PIPE FLOW — −29— EXISTING CONTOUR

CONTROL BENCHMARKS

THE BASIS OF BEARING USEDD FOR THIS SURVEY IS N.C STATE GRID (NAD 83). ELEVATIONS SHOWN ON THIS SURVEY ARE BASED ON NAVD 88.

CONTRACTOR TO ESTABLISH CONTROL BENCHMARKS BEYOND LIMITS OF DEMOLITION PRIOR TO CONSTRUCTION.

EROSION CONTROL MEASURE NOTE

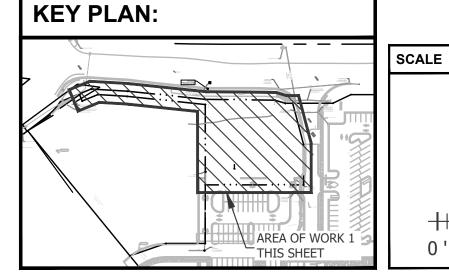
REQUIRED EROSION CONTROL MEASURES SHALL BE INSTALLED AS NEEDED AND MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. FAILURE TO INSTALL OR PROPERLY MAINTAIN THESE BARRICADES WILL RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS, AND INITIATION OF CIVIL PENALTY PROCEDURES.

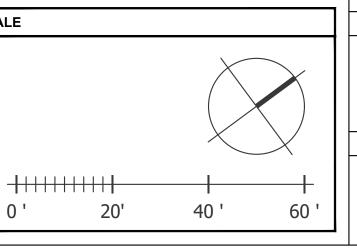
PAVING AND GRADING GENERAL NOTES

- SEE GENERAL NOTES SHEET FOR EROSION AND SILTATION CONTROL ALONG WITH GENERAL NOTES.
- 2. SEE SITE PLAN SHEET FOR SITE DATA.
- SEE SURVEY FOR TEMPORARY BENCH MARK (TBM) LOCATIONS.
- THE CONTRACTOR SHALL MEET ALL REQUIREMENTS FOR LOCAL MUNICIPALITY AND THE DEPARTMENT OF TRANSPORTATION WITH REGARD TO IMPROVEMENTS WITHIN THEIR RESPECTIVE RIGHTS-OF-WAY.
- 5. ALL DISTURBED AREAS WITHIN RIGHTS-OF-WAY TO BE RETURNED TO MATCH EXISTING CONDITION.
- 6. ALL CLEANOUT TOP ELEVATION SHALL MATCH FINISH GRADE ELEVATIONS.
- CONTRACTOR SHALL INSTALL EROSION CONTROL SILT FENCE AROUND THE PERIMETER OF THE SITE AND MUST MAINTAIN THE SILT FENCE IN GOOD REPAIR UNTIL ALL CONSTRUCTION IS COMPLETE AND THE AREA IS STABILIZED.
- THE CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO ANY CONSTRUCTION IF ANY PROBLEMS OR DISCREPANCIES EXIST.

PRE VS POST SITE AREAS

	ACRE	S.F.	PERCENT
SITE AREA	0.76	33,092	100.00%
PRE-DEVELOPMENT PERVIOUS AREA: IMPERVIOUS AREA:	0.06 0.69	2,725 30,368	8.00% 92.00%
POST-DEVELOPMENT PERVIOUS AREA: IMPERVIOUS AREA:	0.34 0.42	14,905 18,187	45.00% 55.00%







550 S. Caldwell Street P: 704.981.8951 Suite 1800 Lic. #: AA - 0003590 Charlotte, NC 28202 W: www.bdgllp.com



0K 27 UBLIX AT

LOT 3 -COLESVILLE

4



ROLES

INFINITY ENGINEERING GROUP, PLLC 1208 East Kennedy Boulevard

Suite 230 Tampa, FL 33602 [p]: 813.434.4770 [f]: 813.445.4211

www.iegroup.net NC Firm Certificate No. P-1836 IEG Job No. 15-309.00

NISIT SAPPARKHAO, P.E.



SUE	BY	DATE	DESCRIPTION
		08/16/24	PERMIT SET
PRC)JE(CT INFOR	MATION BLOC
100	,,		0007

230634 JOB# 08/16/2024 DATE:

CHECKED BY:

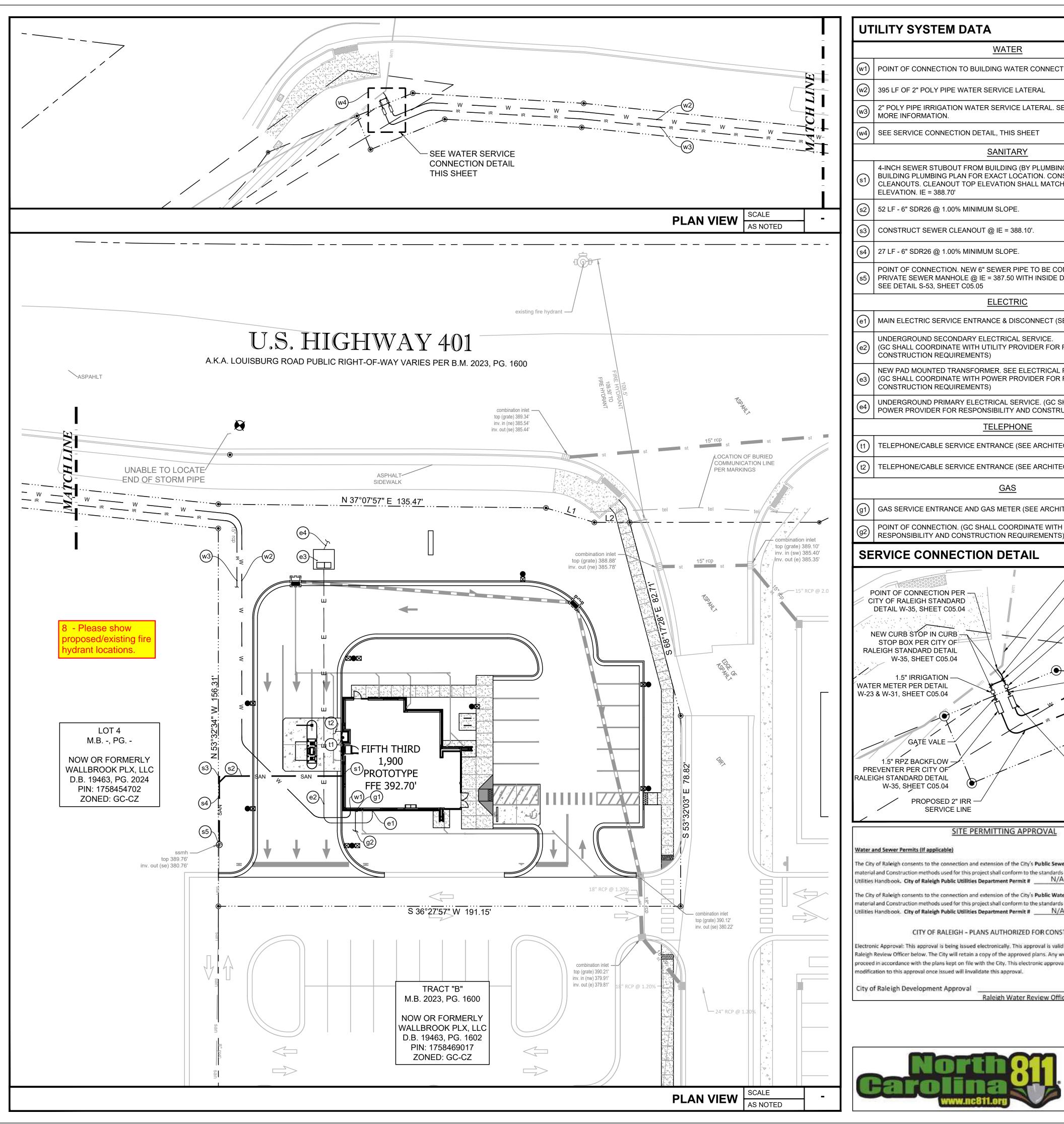
DRAWN BY:

SHEET TITLE

STORM PIPING PLAN

SHEET NUMBER

C03.02



UTILITY SYSTEM DATA WATER $|w1\rangle$ POINT OF CONNECTION TO BUILDING WATER CONNECTION. (w2) 395 LF OF 2" POLY PIPE WATER SERVICE LATERAL

2" POLY PIPE IRRIGATION WATER SERVICE LATERAL. SEE IRRIGATION PLAN FOR $\frac{(w3)}{}$ MORE INFORMATION.

(w4) SEE SERVICE CONNECTION DETAIL, THIS SHEET

SANITARY

- 4-INCH SEWER STUBOUT FROM BUILDING (BY PLUMBING CONTRACTOR). REFER T BUILDING PLUMBING PLAN FOR EXACT LOCATION. CONSTRUCT SEWER CLEANOUTS. CLEANOUT TOP ELEVATION SHALL MATCH PROPOSED GRADE ELEVATION. IE = 388.70'
- (s2) | 52 LF 6" SDR26 @ 1.00% MINIMUM SLOPE.
- (s3) CONSTRUCT SEWER CLEANOUT @ IE = 388.10'.
- (s4) | 27 LF 6" SDR26 @ 1.00% MINIMUM SLOPE.
- POINT OF CONNECTION. NEW 6" SEWER PIPE TO BE CONNECTED TO EXISTING PRIVATE SEWER MANHOLE @ IE = 387.50 WITH INSIDE DROP MANHOLE. SEE DETAIL S-53, SHEET C05.05

ELECTRIC

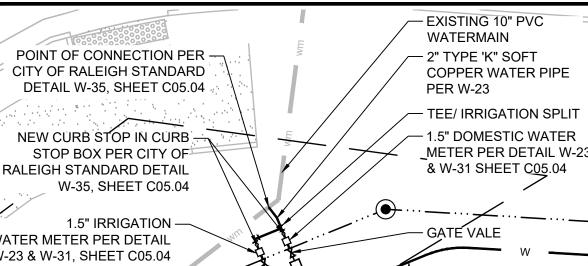
- (e1) | MAIN ELECTRIC SERVICE ENTRANCE & DISCONNECT (SEE ARCHITECTURAL PLANS
- UNDERGROUND SECONDARY ELECTRICAL SERVICE. 2) | (GC SHALL COORDINATE WITH UTILITY PROVIDER FOR RESPONSIBILITY AND CONSTRUCTION REQUIREMENTS)
- NEW PAD MOUNTED TRANSFORMER. SEE ELECTRICAL PLANS. (GC SHALL COORDINATE WITH POWER PROVIDER FOR RESPONSIBILITY AND CONSTRUCTION REQUIREMENTS)
- UNDERGROUND PRIMARY ELECTRICAL SERVICE. (GC SHALL COORDINATE WITH POWER PROVIDER FOR RESPONSIBILITY AND CONSTRUCTION REQUIREMENTS)

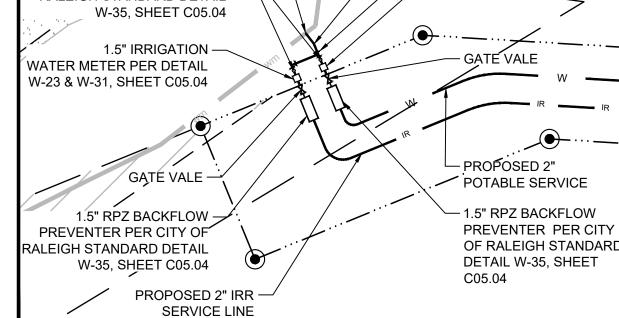
TELEPHONE

- t1) | TELEPHONE/CABLE SERVICE ENTRANCE (SEE ARCHITECTURAL PLANS).
- (t2) TELEPHONE/CABLE SERVICE ENTRANCE (SEE ARCHITECTURAL PLANS)

- $|g_1|$ GAS SERVICE ENTRANCE AND GAS METER (SEE ARCHITECTURAL PLANS)
- POINT OF CONNECTION. (GC SHALL COORDINATE WITH POWER PROVIDER FOR

SERVICE CONNECTION DETAIL





SITE PERMITTING APPROVAL

Water and Sewer Permits (If applicable)

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 Public Utilities Department Permit # N/A

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 # N/A

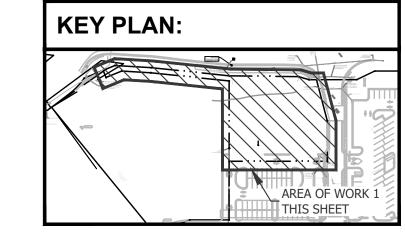
CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval

Raleigh Water Review Officer





LEGEND TYPICAL HANDICAP RADIUS RIGHT-OF-WAY PROPOSED CONCRETE 6" OR LESS PROPOSED CONCRETE GREATER THAN 6" PROPERTY LINE PROPOSED SANITARY SERVICE PROPOSED GREASE WASTE PROPOSED FORCE MAIN PROPOSED WATER MAIN PROPOSED FIRE MAIN PROPOSED ELECTRIC SERVICE PROPOSED GAS SERVICE PROPOSED TELEPHONE SERVICE EXISTING SANITARY PIPE **EXISTING WATER PIPE EXISTING RECLAIM WATER PIPE** EXISTING UNDERGROUND POWER EXISTING OVERHEAD WIRE **EXISTING GAS LINE** EXISTING TELEPHONE LINE

UTILITY NOTES

1" =10

- CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES WITHIN THE LIMITS OF CONSTRUCTION AND ADVISE THE ENGINEER OF RECORD OF ANY CONFLICTS IMMEDIATELY.
- CONTRACTOR SHALL NOTIFY AND COORDINATE WATER SERVICE WITH LOCAL MUNICIPALITIES UTILITIES DEPARTMENT.
- CONTRACTOR SHALL NOTIFY AND COORDINATE SEWER SERVICE WITH LOCAL MUNICIPALITIES UTILITIES DEPARTMENT.
- CONTRACTOR TO COORDINATE INSTALLATION OF ELECTRICAL POWER SERVICE WITH LOCAL ELECTRIC COMPANY.
- CONTRACTOR TO INSTALL PVC CONDUIT FOR TELEPHONE SERVICE (TO PROPERTY LINE) AND COORDINATE INSTALLATION OF SERVICE WITH TELEPHONE
- 6. SEE SURVEY FOR LOCATION OF OTHER EXISTING UTILITIES.
- SEE CIVIL SPECIFICATIONS AND REFERENCE DRAWING SHEETS FOR ADDITIONAL UTILITY NOTES.
- 8. ALL ON-SITE PVC WATER SERVICE AFTER METER SHALL BE SCHEDULE 80 OR
- 9. ALL CROSSINGS OF WATER AND SEWER LINES MUST MAINTAIN PROPER CLEARANCE (SEE CIVIL SPECIFICATIONS AND REFERENCE DRAWING SHEETS).
- 10. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE CITY/TOWNS STANDARD CONSTRUCTION AND UTILITY REQUIREMENTS.
- 11. TREES SHALL NOT BE PLANTED WITHIN 10 FEET FROM THE WATER MAIN.
- 12. ALL CLEANOUT TOP ELEVATION SHALL MATCH FINISH GRADE ELEVATIONS.

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 WORKS DEPARTMENT AT (919) 996-2409, AND 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.

STANDARD UTILITY NOTES

FOR STANDARD UTILITY NOTES REFERENCE DETAIL SHEET, C05.05.

SCALE

20'

40 '

60

architects

550 S. Caldwell Street | P: 704.981.8951 Suite 1800 Lic. #: AA - 0003590 Charlotte, NC 28202 W: www.bdgllp.com



INFINITY

INFINITY ENGINEERING GROUP, PLLC 1208 East Kennedy Boulevard Suite 230 Tampa, FL 33602

[p]: 813.434.4770 [f]: 813.445.4211 www.iegroup.net NC Firm Certificate No. P-1836 IEG Job No. 15-309.00

NISIT SAPPARKHAO, P.E.



ISSUE	BY	DATE	DESCRIPTION
		08/16/24	PERMIT SET
PRC)JE(CT INFOR	MATION BLOC

230634

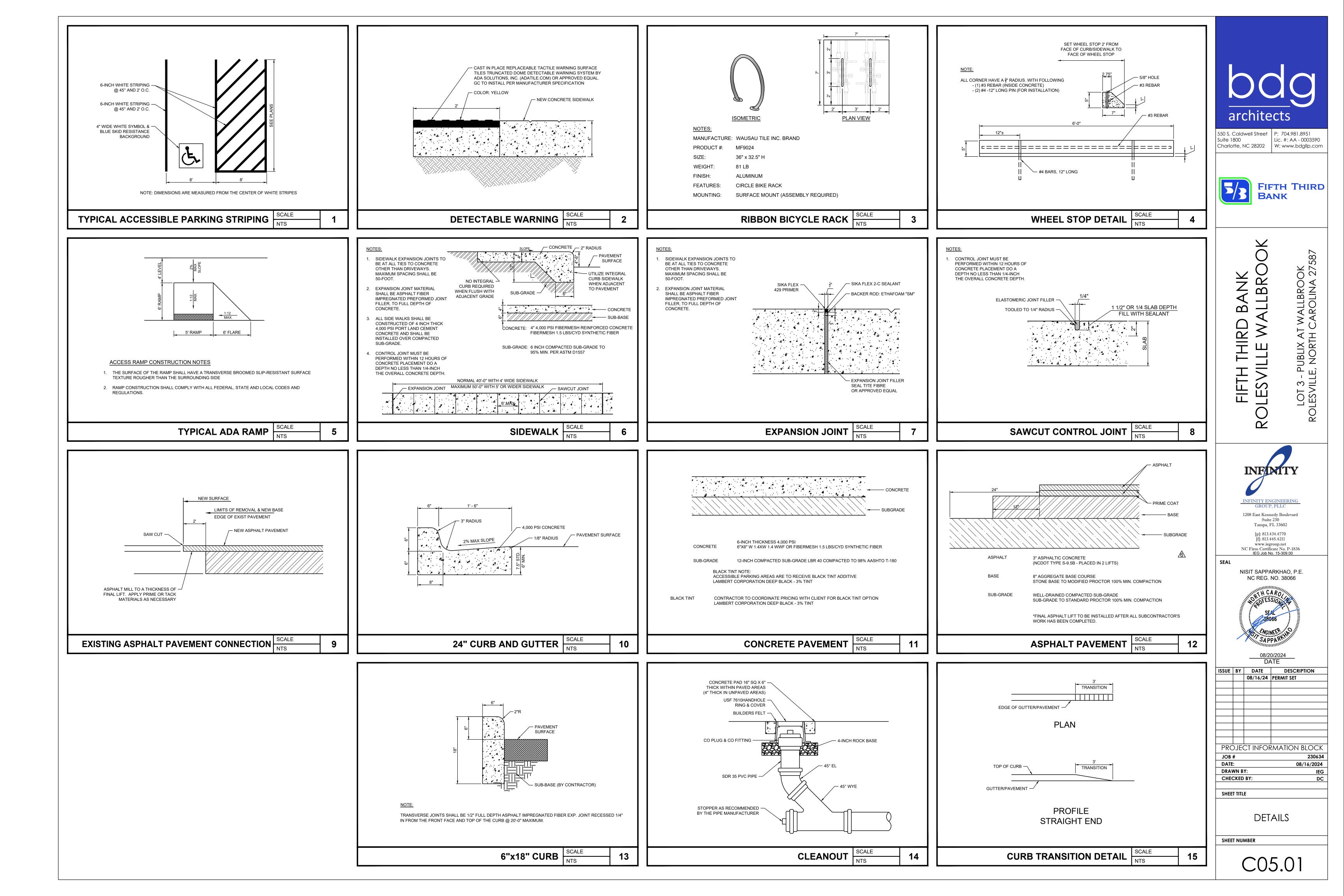
JOB# DATE: 08/16/2024 DRAWN BY: CHECKED BY:

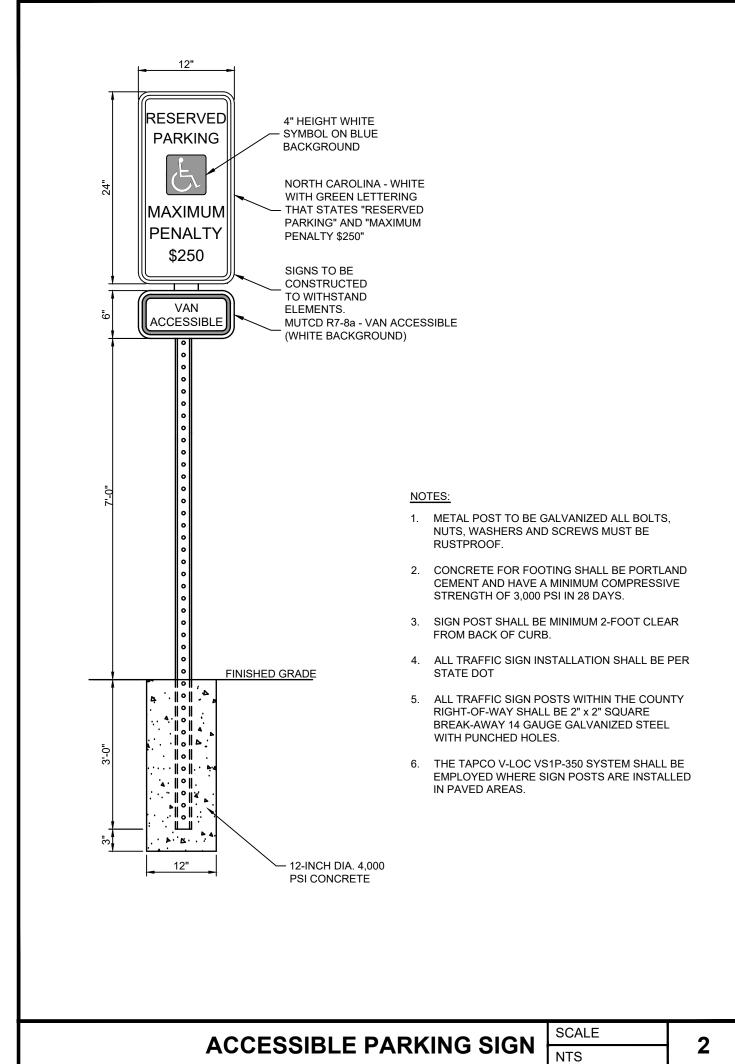
SHEET TITLE

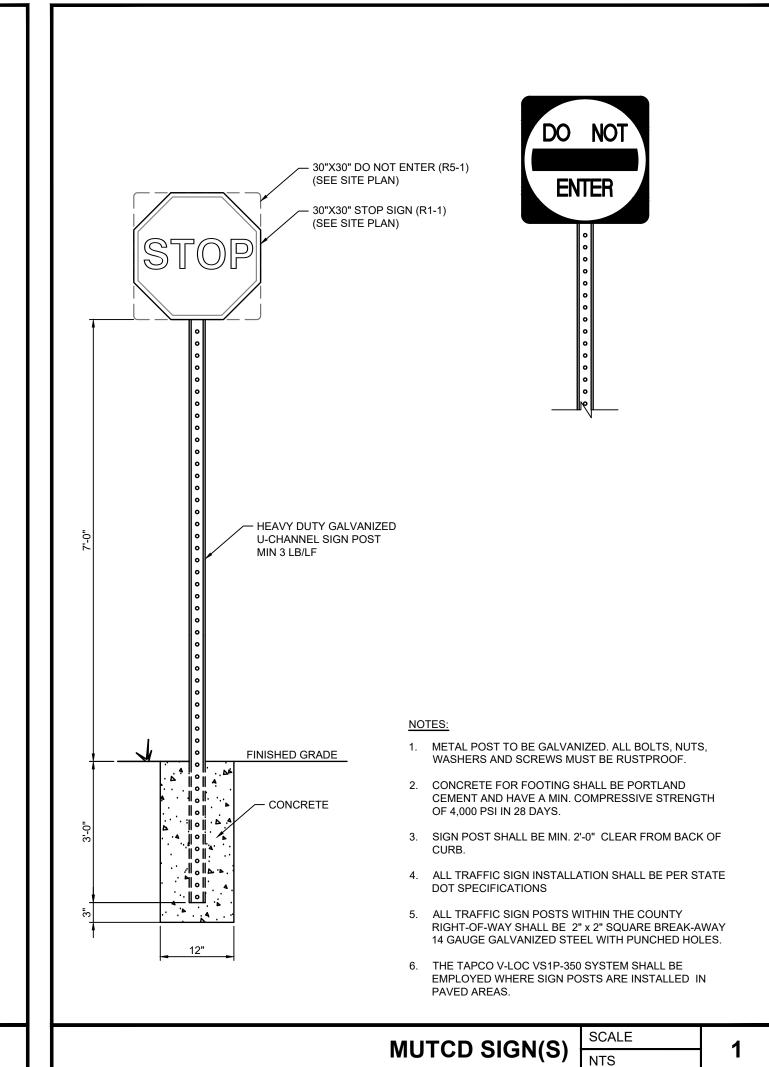
UTILITY PLAN

SHEET NUMBER

C04.01





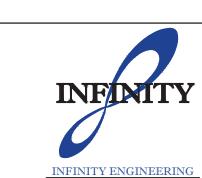




Suite 1800 F. 704.981.8931 Lic. #: AA - 0003590 Charlotte, NC 28202 W: www.bdgllp.com



FIFTH THIRD BANK
ROLESVILLE WALLBROOK
ROLESVILLE, NORTH CAROLINA 27587



INFINITY ENGINEERING
GROUP, PLLC

1208 East Kennedy Boulevard
Suite 230

Tampa, FL 33602

[p]: 813.434.4770

[f]: 813.445.4211

www.iegroup.net

NC Firm Certificate No. P-1836

IEG Job No. 15-309.00

IE

NISIT SAPPARKHAO, P.E. NC REG. NO. 38066



08/20/2024 DATE

ISSUE BY DATE DESCRIPTION

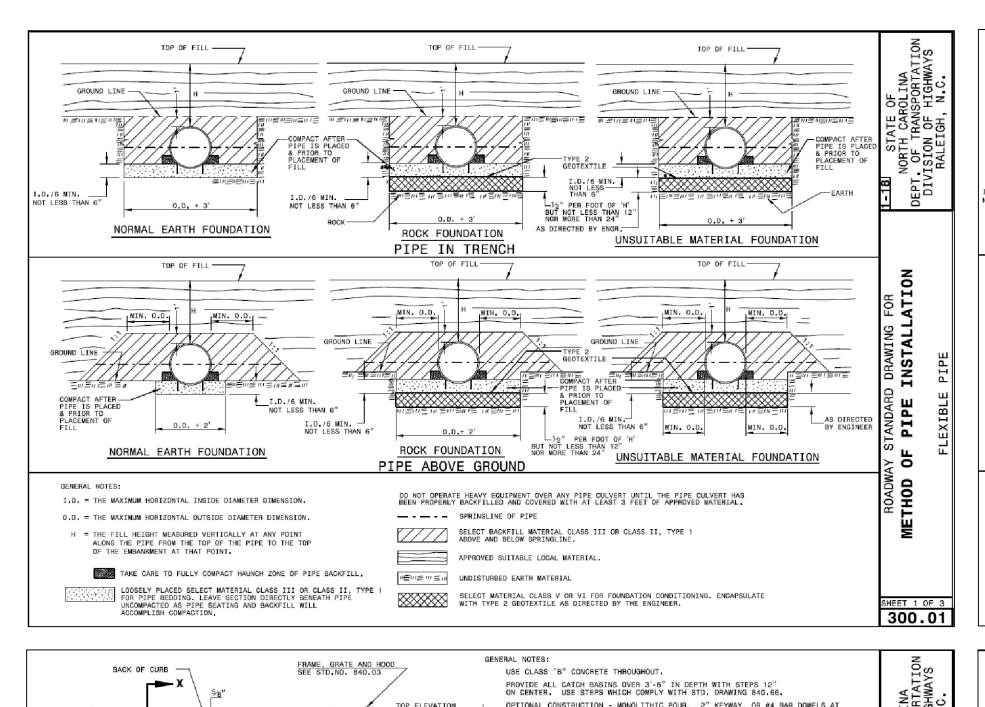
		08/16/24	PERMIT SET
PRC)JE(CT INFOR	RMATION BLOCK
JOB	#		230634
DATE	:		08/16/2024
DRA	WN B	Y:	IEG
CHE	CKED	BY:	DC

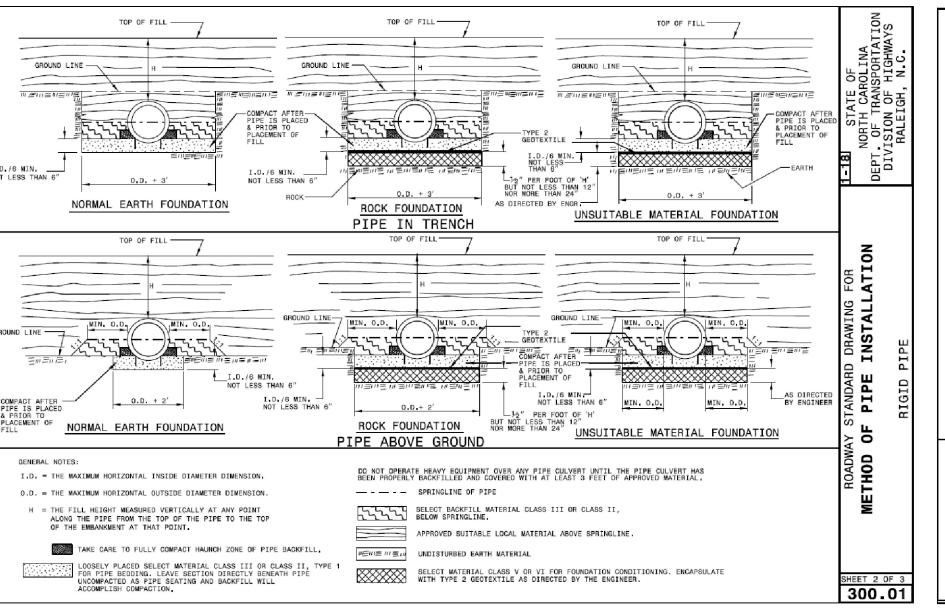
SHEET TITLE

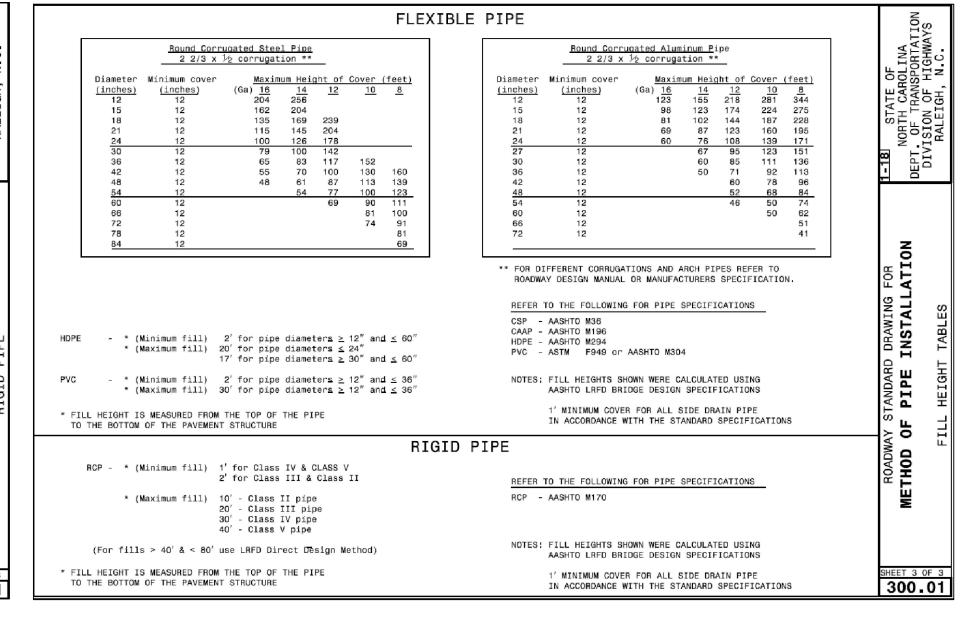
DETAILS

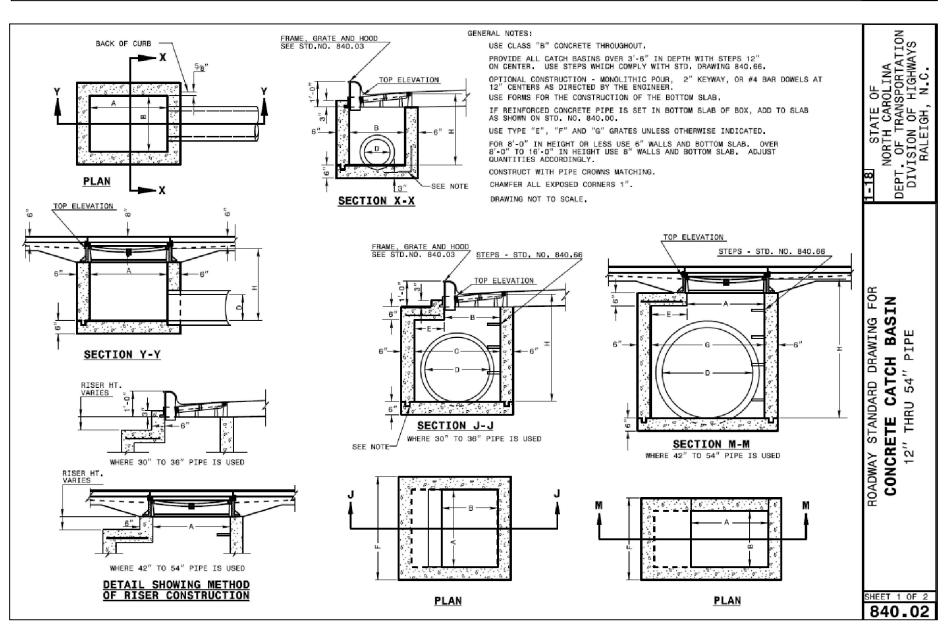
SHEET NUMBER

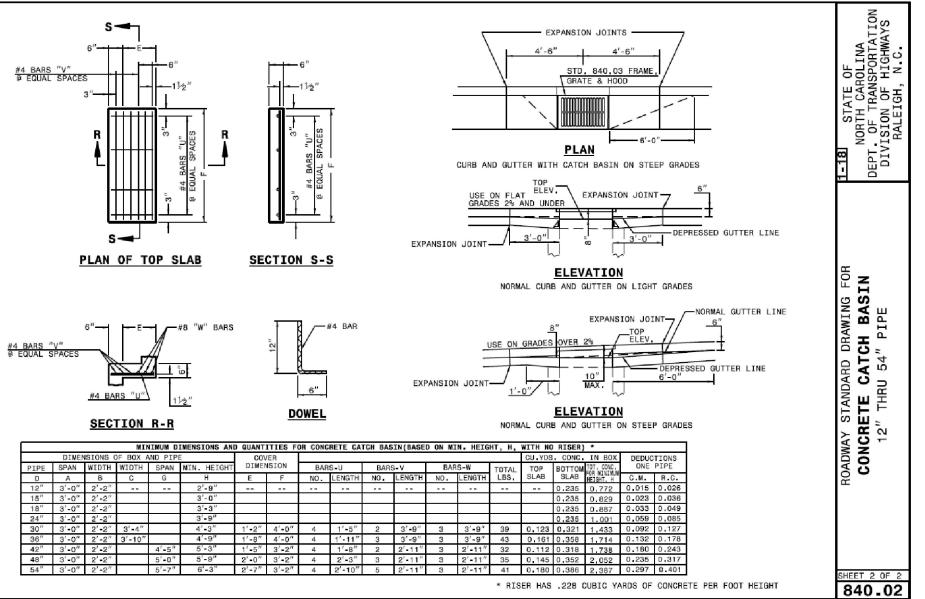
C05.02

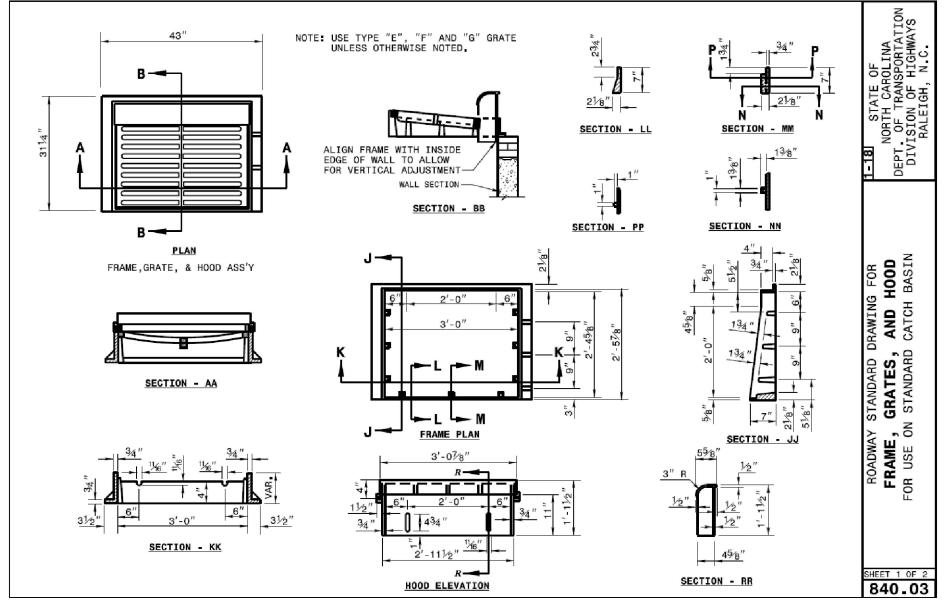














550 S. Caldwell Street | P: 704.981.8951 Suite 1800 Lic. #: AA - 0003590 Charlotte, NC 28202 W: www.bdgllp.com



0K 27

UBLIX AT

T WALLBROC CAROLINA LOT 3 -COLESVILLE



1208 East Kennedy Boulevard Suite 230 Tampa, FL 33602 [p]: 813.434.4770 [f]: 813.445.4211

www.iegroup.net NC Firm Certificate No. P-1836 IEG Job No. 15-309.00

NISIT SAPPARKHAO, P.E. NC REG. NO. 38066

ISSUE	BY	DATE	DESCRIPTION
		08/16/24	PERMIT SET
PRC)JE(CT INFOR	RMATION BLOCK
JOB	#		230634
DATE	:		08/16/2024
DRAV	WN B	Y:	IEG
CHE	CKED	BY:	DC
			_

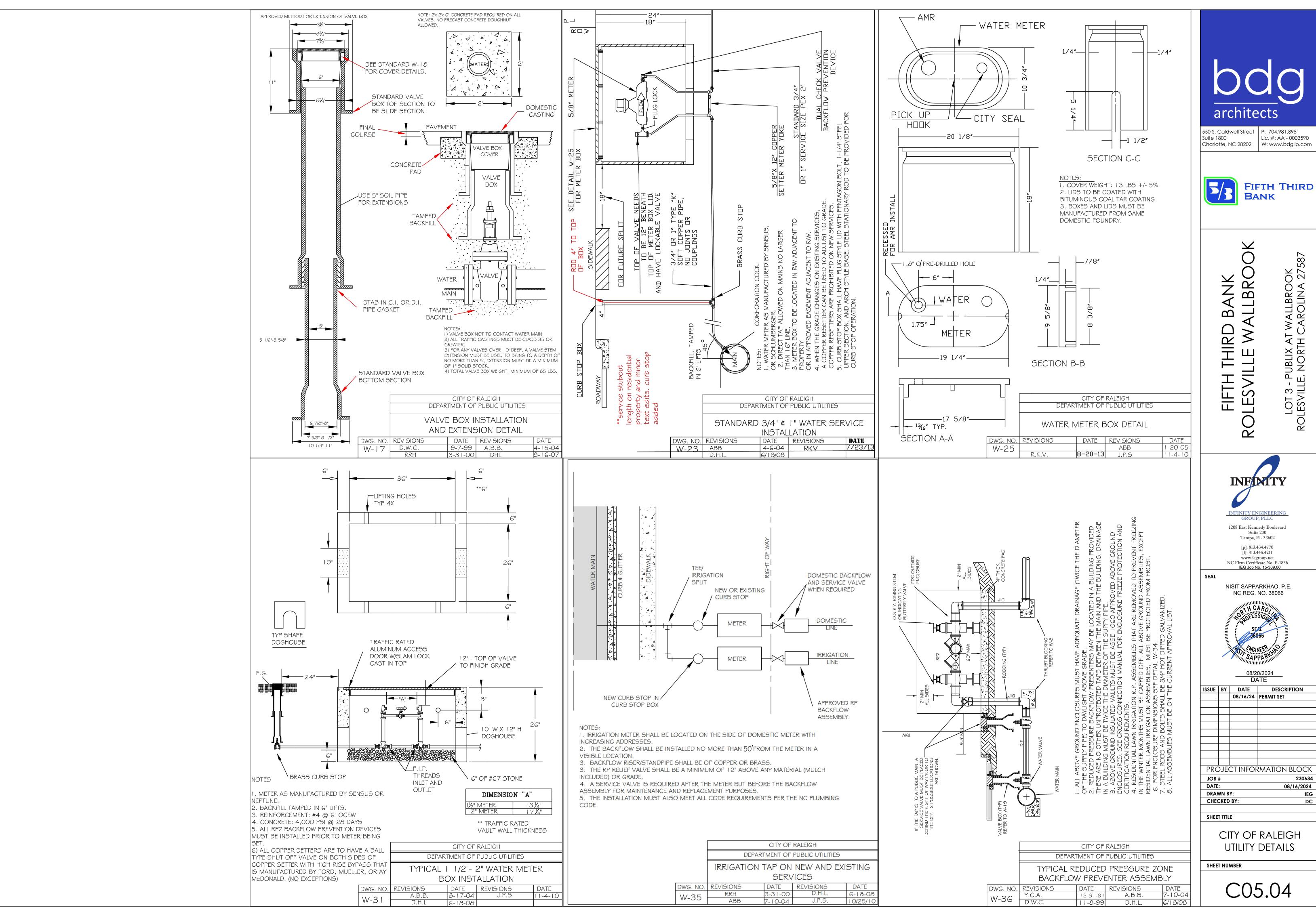
SHEET TITLE

NCDOT

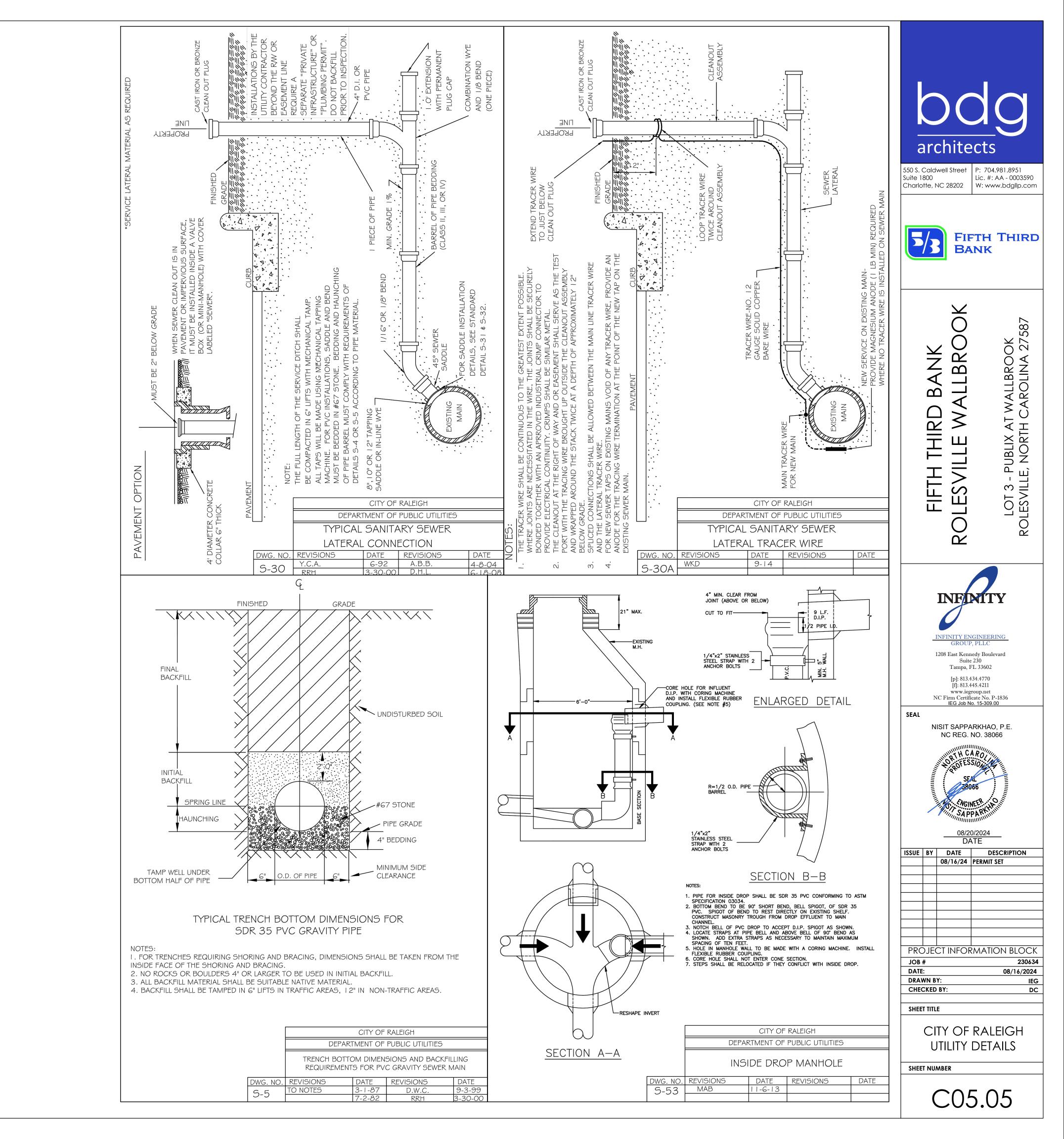
SHEET NUMBER

C05.03

DETAILS







Seeding Specifications

NPDES Stormwater Discharge Permit for Construction Activities (NCGO1 - 4/1/19) NCDEQ/Division of Energy, Mineral and Land Resources

Re	equired Ground Stabi	dization Timeframes
Site 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	7	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 30' 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		-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones
flatter than 4:1	14	-10 days for Falls Lake Watershed unless there is zero slope
flatter then 4:1 Note: After the permanent yound stabilization shall be recticable but in no case is activity. Temporary ground urface stable against accessional stable against accessional stabilization stabiliz	t cessation of constructe converted to permit the converted to permit the construction of the construction	The state of the s
flatter than 4:1 lote: After the permanent ground stabilization shall b tracticable but in no case is activity. Temporary ground urface stable against acces SROUND STABILIZATION S Stabilize the ground sufficient	t cessation of constructe converted to permit the converted to permit the converted to permit the converted that is a converted to the converted that is a converted to the conv	there is zero slope action activities, any areas with temporary vanent ground stabilization as soon as dar days after the last land disturbing we maintained in a manner to render the permanent ground stabilization is achieved

Seedbed Preparation:

- 1. Chisel compacted areas and spread topsoil three inches deep over adverse soil conditions, if available.
- 2. Rip the entire area to six inches deep.
- 3. Remove all loose rock, roots and other obstructions, leaving surface reasonably smooth and uniform.
- 4. Apply agricultural lime, fertilizer and superphosphate uniformly and mix with soil (see mixture below).
- 5. Continue tillage until a well-pulverized, firm, reasonably uniform seedbed is prepared four to six inches deep.
- 6. Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cultipack after seeding.
- 7. Mulch immediately after seeding and anchor mulch.

- 8. Inspect all seeded areas and make necessary repairs or reseedings within the planting season, if possible. If stand should be more than 60% damaged, reestablish following the original lime, fertilizer and seeding rates.
- 9. Consult Wake County Soil & Water or NC State Cooperative Extension on maintenance treatment and fertilization after permanent cover is established.

Mixture

2 tons/acre (3 tons/acre in clay soils) Agricultural Limestone

Fertilizer 1,000 lbs/acre - 10-10-10 Superphosphate 500 lbs/acre - 20% analysis 2 tons/acre – small grain straw Mulch Asphalt emulsion at 400 gals/acre Anchor

Seeding Schedule

For Shoulders, Side Ditches, Slopes (Max 3:1):

Date	Туре	Planting Rate
Aug 15– Nov 1	Tall Fescue	300 lbs/acre
Nov 1– Mar 1	Tall Fescue & Abruzzi Rye	300 lbs/acre
Mar 1– Apr 15	Tall Fescue	300 lbs/acre
	Hulled Common Bermudagrass	25 lbs/acre
Jul 1– Aug 15	Tall Fescue AND Browntop Millet or Sorghum-Sudan Hybrids***	125 lbs/acre (Tall Fescue); 35 lbs/acre (Browntop Millet); 30 lbs/acre (Sorghum-Sudan Hybrids)

For Shoulders, Side Ditches, Slopes (3:1 to 2:1):

Date	Туре	Planting Rate
Mar 1– Jun 1	Sericea Lespedeza (scarified) and use the following combinations:	50 lbs/acre (Sericea Lespedeza);
Mar 1– Apr 15	Add Tall Fescue	120 lbs/acre
Mar 1– Jun 30	Or add Weeping Love grass	10 lbs/acre
	Or add Hulled Common Bermudagrass	25 lbs/acre
Jun 1– Sept 1	Tall Fescue AND Browntop Mullet or Sorghum-Sudan Hybrids***	120 lbs/acre (Tall Fescue); 35 lbs/acre (Browntop Mullet); 30 lbs/acre (Sorghum-Sudan Hybrids)
Sept 1– Mar 1	Sericea Lespedeza (unhulled – unscarified) AND Tall Fescue	70 lbs/acre (Sericea Lespedeza); 120 lbs/acre (Tall Fescue)
Nov 1– Mar 1	AND Abruzzi Rye	25 lbs/acre

Consult Wake County Soil & Water Conservation District or NC State Cooperative Extension for additional information concerning other alternatives for vegetation of denuded areas. The above vegetation rates are those that do well under local conditions; other seeding rate combinations are possible.

*** TEMPORARY: Reseed according to optimum season for desired permanent vegetation. Do not allow temporary cover to grow more than 12" in height before mowing; otherwise, fescue may be shaded out.

STANDARD UTILITY NOTES (as applicable):

2. Utility separation requirements:

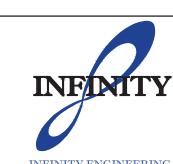
0 - Please move standard utili otes to the appropriate sheet. architects

550 S. Caldwell Street P: 704.981.8951 Suite 1800 Lic. #: AA - 0003590 Charlotte, NC 28202 W: www.bdgllp.com



LLBROOK OK 27 T WALLBROC CAROLINA UBLIX AT NORTH ROLESVILLE LOT 3 - PU ROLESVILLE, 1

THIRD



1208 East Kennedy Boulevard Tampa, FL 33602 [p]: 813.434.4770

[f]: 813.445.4211 www.iegroup.net NC Firm Certificate No. P-1836 IEG Job No. 15-309.00

SEAL NISIT SAPPARKHAO, P.E.

NC REG. NO. 38066 WINNERTH CAROLLIN

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 specifications

1. All materials & construction methods shall be in accordance with City of Raleigh design

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

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

standards, details & specifications (reference: CORPUD Handbook, current edition)

not be less than 25' from a private well or 50' from a public well

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

d) 5.0' minimum horizontal separation is required between all sanitary sewer & storm sewer

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. 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 Department

5. 3.0' minimum cover is required on all water mains & sewer forcemains. 4.0' minimum cover is required on all reuse mains 6. 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 7. Install 3/4" copper* water services with meters located at ROW or within a 2'x2' Waterline Easement immediately adjacent. <u>NOTE:</u> it is the applicant's responsibility to properly size the water service for each connection to provide adequate flow & pressure

8. Install 4" PVC* sewer services @ 1.0% minimum grade with cleanouts located at ROW or easement line & spaced every 75 linear feet maximum 9. 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

10. 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

11. NCDOT / Railroad Encroachment Agreements are required for any utility work (including main extensions & service taps) within state or railroad ROW prior to construction 12. 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 13. 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

iiiiiiii	FO FOLESSION	
THINITINI THE THE	SEAL 38966	
	SAPPARKATION SAPPARKATION	
	09/20/2024	

ISSUE	BY	DATE	DESCRIPTION
		08/16/24	PERMIT SET
PRC)JE(CT INFOR	RMATION BLOCK
JOB#			230634
DATE:			08/16/2024
DRAWN BY:			IEG
CHECKED BY:			DC

WAKE COUNTY SEEDING

SPECIFICATIONS **SHEET NUMBER**

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORMWATER RUN OFF. AN EROSION AND TURBIDITY PLAN HAS BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTORS RESPONSIBILITY TO INSTALL AND MAINTAIN THE CONTROLS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL, STATE AND LOCAL LAWS. REFEF TO "CONTRACTORS RESPONSIBILITY" FOR A VERBAL DESCRIPTION OF THE CONTROLS THAT MAY BE IMPLEMENTED.

STORMWATER MANAGEMENT

STORMWATER DRAINAGE WILL BE PROVIDED BY (DESCRIPTION:)

MODIFIED COLLECTION, CONVEYANCE, TREATMENT & ATTENUATION SYSTEM FOR THE PROJECT. AREAS WHICH ARE NOT TO BE CONSTRUCTED ON, BUT WILL BE REGRADED SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE. WHEN CONSTRUCTION IS COMPLETE. THE SITE DISCHARGES TO AN UNDERGROUND DETENTION SYSTEM. WHERE PRACTICAL, TEMPORARY SEDIMENT BASINS WILL BE USED TO INTERCEPT SEDIMENT BEFORE ENTERING THE PERMANENT DETENTION BASIN. THE DRY DETENTION SYSTEM IS DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR THIS TYPE OF DEVELOPMENT AT THE TIME IT WAS CONSTRUCTED.

TIMING OF CONTROLS/MEASURES

REFER TO "CONTRACTORS RESPONSIBILITY" FOR THE TIMING OF CONTROL/MEASURES.

CONTROLS

THE EROSION & TURBIDITY CONTROL PLAN.

STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED

FROM THE SEDIMENT TRAPS AND THE EARTH DIKE/SWALES WILL

BE REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH

IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED, MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED, TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR AS REQUIRED BY THE EROSION AND TURBIDITY CONTROL PLAN AND AS REQUIRED TO MEET THE EROSION AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES.

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORMWATER RUNOFF.

GOOD HOUSEKEEPING

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

* AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.

* ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT,

ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS

AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.

* PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS

THE ORIGINAL MANUFACTURER'S LABEL.

* SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.

* WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP

BEFORE DISPOSING OF THE CONTAINER. * MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND

* THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE

DISPOSAL WILL BE FOLLOWED.

MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

WASTE MATERIALS ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DEPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

INVENTORY FOR POLLUTION PREVENTION PLAN

SITE. THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO

Concrete	Fertilizers	Wood
Asphalt	Petroleum Based Products	Masonry Blocks
☐ Tar	Cleaning Solvents	Roofing Materia
Detergents	Paints	Metal Studs

STRUCTURAL PRACTICES

TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MA BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING

TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP SHALL BE INSTALLED IN AN DRAINAGEWAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA. THE FOLLOWING SEDIMENT TRAPS MAY BE CONSTRUCTED EITHER INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION

AREAS WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT

DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM

ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE

TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION

RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING

GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY

WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING.

THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN

MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF

HYDROMULCHED OR OTHER SUITABLE METHODS IF REQUIRED

GRASSING SHALL BE THE SAME MIX & AMOUNT REQUIRED FOR

TEMPORARY REGRASSING: IF, AFTER 14 DAYS FROM SEEDING,

PERMANENT GRASSING IN THE CONTRACT SPECIFICATIONS.

THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A

MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA

MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED

AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT

SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.

WILL BE REWORKED AND ADDITIONAL SEED APPLIED

SHALL BE MAINTAINED DURING THE LIFE OF THE

ORIGINALLY DESIGNED AND CONSTRUCTED.

OR SODDED.

CONSTRUCTION SO AS TO FUNCTION AS THEY WERE

PERMANENT EROSION CONTROL: THE EROSION CONTROL

FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO

MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.

PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN

DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE

SEEDED. THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM

VEGETATION AND RAPID GROWTH SEASONAL VEGETATION.

SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED

MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA

ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.

COVER DURING THE SEASON IN WHICH IT IS PLANTED AND

TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER

PARAGRAPH 8 ABOVE SHALL ADDITIONALLY RECEIVE

10. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND

MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR

TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE

ESTABLISHMENT OF A GOOD GRASS COVER. TEMPORARY

TREATMENT WITHIN 30 DAYS SHALL BE SEEDED WITH A QUICK

OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE

SEDIMENT-LADEN STORM RUNOFF UNTIL THE COMPLETION OF

INLET PROTECTION: INLETS AND CATCH BASINS WHICH

OF SEDIMENTS.

SEDIMENT TO THE INLET.

BLOCK & GRAVEL SEDIMENT FILTER - THIS PROTECTION IS APPLICABLE WHERE HEAVY FLOWS AND/OR WHERE AN OVERFLO CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

GRAVEL SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES & UNPROTECTED AREAS.

DROP INLET SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (S < 5%) AND WHERE SHEET OR OVERLAND FLOWS (Q < 0.5 CFS) ARE TYPICAL. THIS METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS SUCH AS IN STREET OR HIGHWAY MEDIANS.

OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND PAVED CHANNEL SECTIONS WHERE THE FLOW COULD CAUSE EROSION & SEDIMENT PROBLEM TO THE RECEIVING WATER BODY. SILT FENCES & HAY BALES ARE TO BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE DISCHARGING STRUCTURE AS SHOWN ON THE OUTLET PROTECTION DETAIL.

SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME, THE PROPOSED STORMWATER PONDS (OR TEMPORARY PONDS) WILL BE CONSTRUCTED FOR US AS SEDIMENT BASINS. THESE SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED UNTIL FINAL STABILIZATION OF THE SITE. THE 3,600 CUBIC FEET C STORAGE AREA PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFFSITE AREAS AND FLOWS FROM ONSITE AREAS THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN. ANY TEMPORARY SEDIMENT BASINS CONSTRUCTED MUST BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

HAZARDOUS PRODUCTS

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

ARE NOT RESEALABLE.

PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY

* ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.

* IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

PRODUCT SPECIFIC PRACTICES THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS

CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, LIQUID ABSORBENT (i.e. KITTY LITTER OR EQUAL), SAND, SAWDUST, PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED. THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.

MAINTENANCE/INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

* NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDED AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

* ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER.

* ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.

* BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

* SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.

* DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.

MAINTENANCE/INSPECTION PROCEDURES

THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB, WHICHEVER COMES FIRST.

TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

* A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTOR IS ATTACHED. THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND AND EROSION PLANS, OR STORMWATER MANAGEMENT PLANS. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.

* THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE. SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

NON-STORMWATER DISCHARGES

IT IS EXPECTED THAT THE FOLLOWING NON-STORMWATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

WATER FROM WATER LINE FLUSHING

*PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).

UNCONTAMINATED GROUNDWATER (FROM DEWATERING

ALL NON-STORMWATER DISCHARGE WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

CONTRACTOR'S CERTIFICATION

CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND THAT AUTHORIZES THE STORM CONDITIONS OF THE DEP GENERIC PERMIT WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

1	<u> </u>					
	RESPONSIBLE FOR/DUTIES	GENERAL CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR
	BUSINESS NAME AND ADDRESS OF CONTRACTOR & ALL SUBS					
	SIGNATURE					

550 S. Caldwell Street | P: 704.981.8951 Suite 1800 Lic. #: AA - 0003590 Charlotte, NC 28202 W: www.bdgllp.com



LBRO. 9K T WALLBROC CAROLINA UBLIX AT NORTH LOT 3 -S Щ

 Δ



1208 East Kennedy Boulevard Suite 230 Tampa, FL 33602

[p]: 813.434.4770 If1: 813,445,4211 www.iegroup.net NC Firm Certificate No. P-1836

IEG Job No. 15-309.00 NISIT SAPPARKHAO, P.E.

SEAL



DATE					
SUE	BY	DATE	DESCRIPTION		
		08/16/24	PERMIT SET		
PROJECT INFORMATION BLOC					

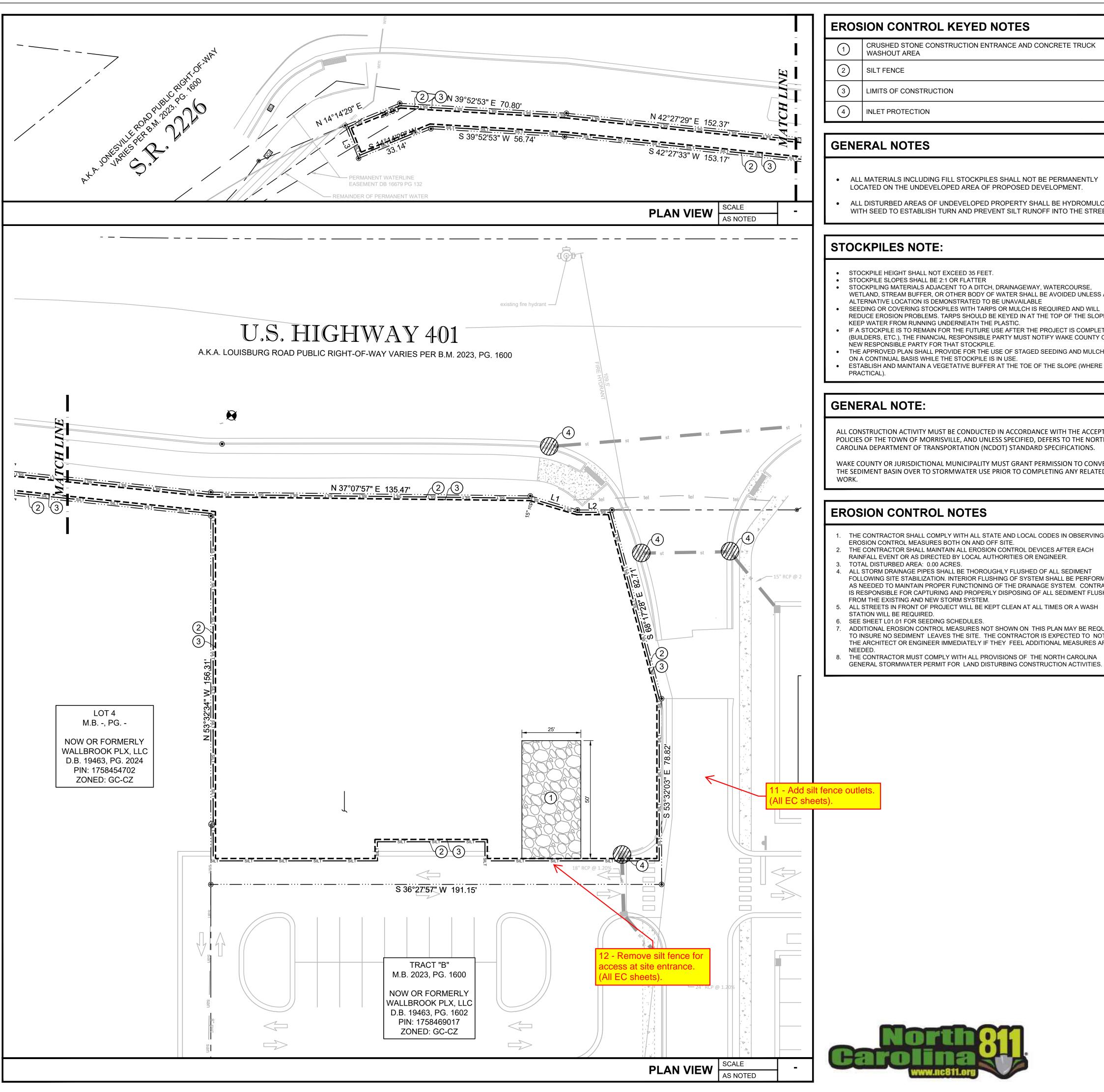
DATE: 08/16/2024 DRAWN BY: CHECKED BY: SHEET TITLE

230634

SWPPP REQUIREMENTS

SHEET NUMBER

JOB#



EROSION CONTROL KEYED NOTES

CRUSHED STONE CONSTRUCTION ENTRANCE AND CONCRETE TRUCK **WASHOUT AREA**

SILT FENCE

LIMITS OF CONSTRUCTION

INLET PROTECTION

GENERAL NOTES

- ALL MATERIALS INCLUDING FILL STOCKPILES SHALL NOT BE PERMANENTLY LOCATED ON THE UNDEVELOPED AREA OF PROPOSED DEVELOPMENT.
- ALL DISTURBED AREAS OF UNDEVELOPED PROPERTY SHALL BE HYDROMULCHED WITH SEED TO ESTABLISH TURN AND PREVENT SILT RUNOFF INTO THE STREETS.

STOCKPILES NOTE:

- STOCKPILE HEIGHT SHALL NOT EXCEED 35 FEET
- STOCKPILE SLOPES SHALL BE 2:1 OR FLATTER
- STOCKPILING MATERIALS ADJACENT TO A DITCH. DRAINAGEWAY, WATERCOURSE. WETLAND, STREAM BUFFER, OR OTHER BODY OF WATER SHALL BE AVOIDED UNLESS AN ALTERNATIVE LOCATION IS DEMONSTRATED TO BE UNAVAILABLE
- SEEDING OR COVERING STOCKPILES WITH TARPS OR MULCH IS REQUIRED AND WILL REDUCE EROSION PROBLEMS. TARPS SHOULD BE KEYED IN AT THE TOP OF THE SLOPE TO KEEP WATER FROM RUNNING UNDERNEATH THE PLASTIC.
- IF A STOCKPILE IS TO REMAIN FOR THE FUTURE USE AFTER THE PROJECT IS COMPLETE (BUILDERS, ETC.), THE FINANCIAL RESPONSIBLE PARTY MUST NOTIFY WAKE COUNTY OF NEW RESPONSIBLE PARTY FOR THAT STOCKPILE.
- THE APPROVED PLAN SHALL PROVIDE FOR THE USE OF STAGED SEEDING AND MULCHING ON A CONTINUAL BASIS WHILE THE STOCKPILE IS IN USE.
- ESTABLISH AND MAINTAIN A VEGETATIVE BUFFER AT THE TOE OF THE SLOPE (WHERE PRACTICAL).

GENERAL NOTE:

ALL CONSTRUCTION ACTIVITY MUST BE CONDUCTED IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF MORRISVILLE, AND UNLESS SPECIFIED, DEFERS TO THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) STANDARD SPECIFICATIONS.

WAKE COUNTY OR JURISDICTIONAL MUNICIPALITY MUST GRANT PERMISSION TO CONVERT THE SEDIMENT BASIN OVER TO STORMWATER USE PRIOR TO COMPLETING ANY RELATED

EROSION CONTROL NOTES

- THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE.
- THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR ENGINEER.
- TOTAL DISTURBED AREA: 0.00 ACRES. ALL STORM DRAINAGE PIPES SHALL BE THOROUGHLY FLUSHED OF ALL SEDIMENT
- FOLLOWING SITE STABILIZATION. INTERIOR FLUSHING OF SYSTEM SHALL BE PERFORMED AS NEEDED TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE SYSTEM. CONTRACTOR IS RESPONSIBLE FOR CAPTURING AND PROPERLY DISPOSING OF ALL SEDIMENT FLUSHED FROM THE EXISTING AND NEW STORM SYSTEM.
- ALL STREETS IN FRONT OF PROJECT WILL BE KEPT CLEAN AT ALL TIMES OR A WASH STATION WILL BE REQUIRED.
- SEE SHEET L01.01 FOR SEEDING SCHEDULES.
- ADDITIONAL EROSION CONTROL MEASURES NOT SHOWN ON THIS PLAN MAY BE REQUIRED TO INSURE NO SEDIMENT LEAVES THE SITE. THE CONTRACTOR IS EXPECTED TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY IF THEY FEEL ADDITIONAL MEASURES ARE
- THE CONTRACTOR MUST COMPLY WITH ALL PROVISIONS OF THE NORTH CAROLINA

LEGEND PROPERTY LINE ____... 4 4 4 4 4 EXISTING CONCRETE TO REMAIN **EXISTING TO REMAIN** SILT FENCE LIMITS OF CONSTRUCTION _____

INLET PROTECTION

EXISTING CONTOUR

EROSION CONTROL DETAILS

— — — –388— — — —

×428.33

LAND DISTURBED	0.00 ACRES
TOTAL SITE AREA	0.00 ACRES

EXISTING GRADE ELEVATION

SLOPE & SURFACE STABILIZATION

PURSUANT TO G.S. 113A-57(2), THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER EXPOSED WILL, WITHIN 21 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER. PROVISIONS FOR PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION MUST BE ACCOMPLISHED FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT. SLOPE EROSION CONTROL MATTING SHALL BE INSTALLED FOR TEMPORARY STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER) INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.

CONSTRUCTION SEQUENCE

COMPLETION.

- . SCHEDULE A PRECONSTRUCTION CONFERENCE WITH THE ENVIRONMENTAL ENGINEER, KARYN PAGEAU AT 919-796-8769. OBTAIN A LAND-DISTURBING PERMIT.
- INSTALL GRAVEL CONSTRUCTION PAD, TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSIONS, BERMS AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
- CALL KARYN PAGEAU AT 919-796-8769 FOR AN ONSITE INSPECTION BY THE ENVIRONMENTA ENGINEER TO OBTAIN A CERTIFICATE OF COMPLIANCE.
- BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED. ROUGH GRADE SITE. INSTALL STORM SEWER, IF SHOWN, AND PROTECT INLETS WITH BLOCK AND GRAVEL INLET CONTROLS, SEDIMENT TRAPS OR OTHER APPROVED MEASURES AS SHOWN ON THE PLAN.
- BEGIN CONSTRUCTION, BUILDING, ETC. 6. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC. SEED AND MULCH DENUDED AREAS WITHIN FIFTEEN (15) DAYS OF
- COMPLETION OF ANY PHASE OF CONSTRUCTION. WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL
- KARYN PAGEAU AT 919-796-8769 FOR AN INSPECTION BY THE ENVIRONMENTAL ENGINEER. IF SITE IS APPROVED, REMOVE TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS,
- ETC., AND SEED OUT OR STABILIZE ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATERS, SHOULD NOW BE INSTALLED. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE

SCALE

ENVIRONMENTAL ENGINEER, KARYN PAGEAU AT 919-796-8769 OBTAIN A CERTIFICATE OF



550 S. Caldwell Street P: 704.981.8951 Suite 1800 Lic. #: AA - 0003590 Charlotte, NC 28202 W: www.bdgllp.com



T WALLBROOK I CAROLINA 27587 UBLIX AT LOT 3 - PU ROLESVILLE, I OLESVII

INFINITY

INFINITY ENGINEERING GROUP, PLLC

1208 East Kennedy Boulevard Suite 230 Tampa, FL 33602 [p]: 813.434.4770

[f]: 813.445.4211 www.iegroup.net NC Firm Certificate No. P-1836 IEG Job No. 15-309.00

NISIT SAPPARKHAO, P.E.



DATE				
ISSUE	BY	DATE	DESCRIPTION	
		08/16/24	PERMIT SET	
PROJECT INFORMATION BLOCK				
JOB#			230634	
DATE:			08/16/2024	
DRAWN BY:			IEG	

SHEET TITLE

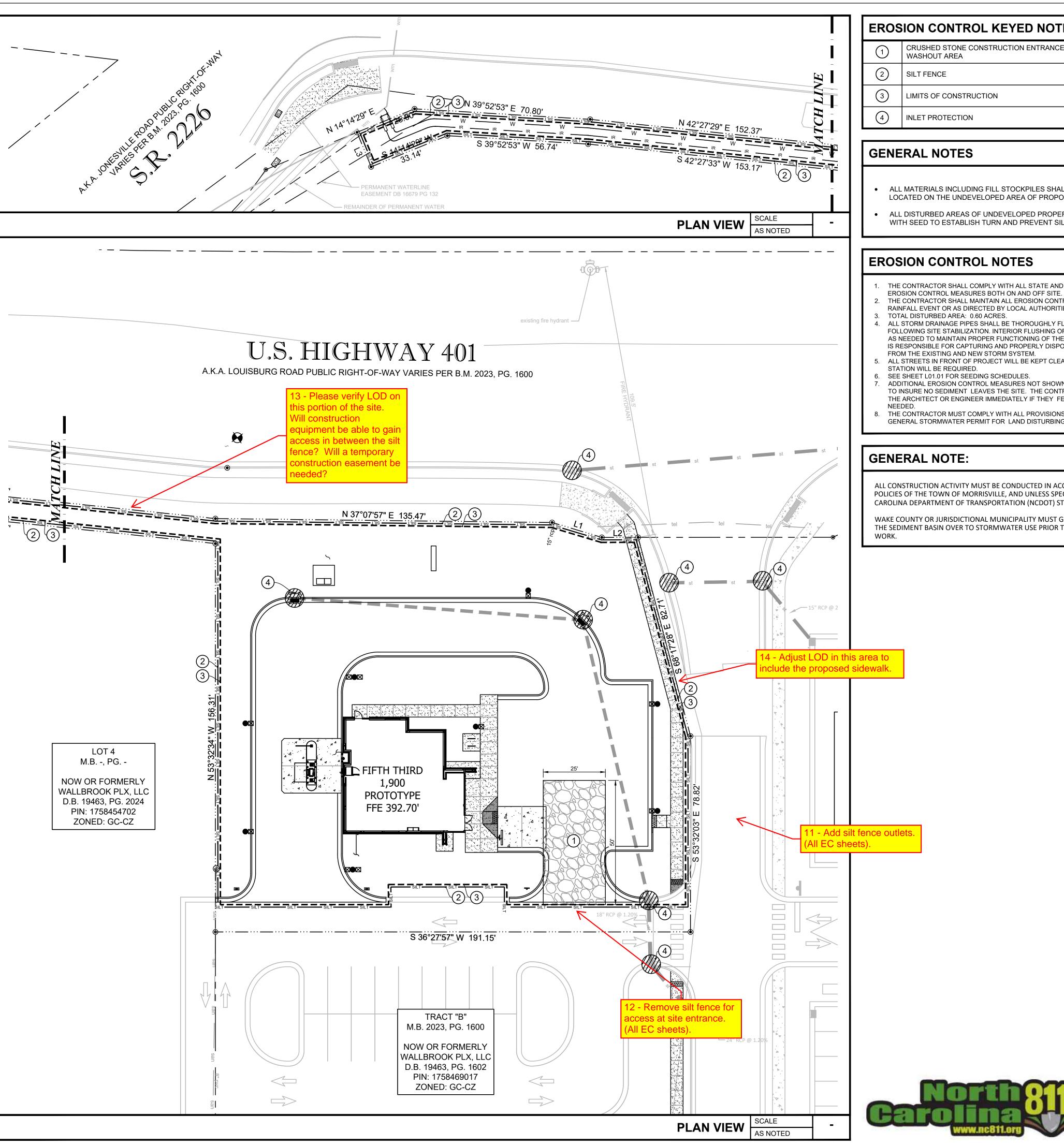
CHECKED BY:

60

EROSION CONTROL PLAN PHASE I SHEET NUMBER

C06.02

20' 40 '



EROSION CONTROL KEYED NOTES

CRUSHED STONE CONSTRUCTION ENTRANCE AND CONCRETE TRUCK

- ALL MATERIALS INCLUDING FILL STOCKPILES SHALL NOT BE PERMANENTLY LOCATED ON THE UNDEVELOPED AREA OF PROPOSED DEVELOPMENT.
- ALL DISTURBED AREAS OF UNDEVELOPED PROPERTY SHALL BE HYDROMULCHED WITH SEED TO ESTABLISH TURN AND PREVENT SILT RUNOFF INTO THE STREETS.

EROSION CONTROL NOTES

- THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING
- THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR ENGINEER.
- ALL STORM DRAINAGE PIPES SHALL BE THOROUGHLY FLUSHED OF ALL SEDIMENT FOLLOWING SITE STABILIZATION. INTERIOR FLUSHING OF SYSTEM SHALL BE PERFORMED AS NEEDED TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE SYSTEM. CONTRACTOR IS RESPONSIBLE FOR CAPTURING AND PROPERLY DISPOSING OF ALL SEDIMENT FLUSHED FROM THE EXISTING AND NEW STORM SYSTEM.
- ALL STREETS IN FRONT OF PROJECT WILL BE KEPT CLEAN AT ALL TIMES OR A WASH
- SEE SHEET L01.01 FOR SEEDING SCHEDULES.
- ADDITIONAL EROSION CONTROL MEASURES NOT SHOWN ON THIS PLAN MAY BE REQUIRED TO INSURE NO SEDIMENT LEAVES THE SITE. THE CONTRACTOR IS EXPECTED TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY IF THEY FEEL ADDITIONAL MEASURES ARE
 - THE CONTRACTOR MUST COMPLY WITH ALL PROVISIONS OF THE NORTH CAROLINA GENERAL STORMWATER PERMIT FOR LAND DISTURBING CONSTRUCTION ACTIVITIES.

ALL CONSTRUCTION ACTIVITY MUST BE CONDUCTED IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF MORRISVILLE, AND UNLESS SPECIFIED, DEFERS TO THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) STANDARD SPECIFICATIONS.

WAKE COUNTY OR JURISDICTIONAL MUNICIPALITY MUST GRANT PERMISSION TO CONVERT THE SEDIMENT BASIN OVER TO STORMWATER USE PRIOR TO COMPLETING ANY RELATED

LEGEND PROPERTY LINE ____..._ 4. 4. 4. 4. 4. EXISTING CONCRETE TO REMAIN **EXISTING TO REMAIN** SILT FENCE LIMITS OF CONSTRUCTION _____ **INLET PROTECTION**

EXISTING CONTOUR

EXISTING GRADE ELEVATION

EROSION CONTROL DETAILS

— — — –388— — — —

×428.33

LAND DISTURBED 0.7597 ACRES

TOTAL SITE AREA 0.7597 ACRES

SLOPE & SURFACE STABILIZATION

PURSUANT TO G.S. 113A-57(2), THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION- CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 21 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER. PROVISIONS FOR PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION MUST BE ACCOMPLISHED FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT. SLOPE EROSION CONTROL MATTING SHALL BE INSTALLED FOR TEMPORARY STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER). INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.

CONSTRUCTION SEQUENCE

COMPLETION.

- SCHEDULE A PRECONSTRUCTION CONFERENCE WITH THE ENVIRONMENTAL ENGINEER, KARYN PAGEAU AT 919-796-8769. OBTAIN A LAND-DISTURBING PERMIT. INSTALL GRAVEL CONSTRUCTION PAD, TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSIONS, BERMS AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
- CALL KARYN PAGEAU AT 919-796-8769 FOR AN ONSITE INSPECTION BY THE ENVIRONMENTAL ENGINEER TO OBTAIN A CERTIFICATE OF COMPLIANCE.
- BEGIN CLEARING AND GRUBBING, MAINTAIN DEVICES AS NEEDED, ROUGH GRADE SITE. INSTALL STORM SEWER, IF SHOWN, AND PROTECT INLETS WITH BLOCK AND GRAVEL INLET CONTROLS, SEDIMENT TRAPS OR OTHER APPROVED MEASURES AS SHOWN ON THE PLAN. BEGIN CONSTRUCTION, BUILDING, ETC.
- 6. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC. SEED AND MULCH DENUDED AREAS WITHIN FIFTEEN (15) DAYS OF COMPLETION OF ANY PHASE OF CONSTRUCTION.
- WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL
- KARYN PAGEAU AT 919-796-8769 FOR AN INSPECTION BY THE ENVIRONMENTAL ENGINEER. IF SITE IS APPROVED, REMOVE TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OUT OR STABILIZE ANY RESULTING BARE AREAS. ALL REMAINING
- PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATERS, SHOULD NOW BE INSTALLED. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE

ENVIRONMENTAL ENGINEER, KARYN PAGEAU AT 919-796-8769 OBTAIN A CERTIFICATE OF



550 S. Caldwell Street | P: 704.981.8951 Suite 1800 Lic. #: AA - 0003590 Charlotte, NC 28202 W: www.bdgllp.com



T WALLBROOK I CAROLINA 27587

UBLIX AT

LOT 3 - PU ROLESVILLE, I

OLESVI



INFINITY ENGINEERING GROUP, PLLC

1208 East Kennedy Boulevard Suite 230

Tampa, FL 33602

[p]: 813.434.4770 [f]: 813.445.4211

www.iegroup.net NC Firm Certificate No. P-1836 IEG Job No. 15-309.00

NISIT SAPPARKHAO, P.E. NC REG. NO. 38066



DATE				
ISSUE	BY	DATE	DESCRIPTION	
		08/16/24	PERMIT SET	
PROJECT INFORMATION BLOCK				
JOB#			230634	
DATE:			08/16/2024	

DRAWN BY: CHECKED BY: SHEET TITLE

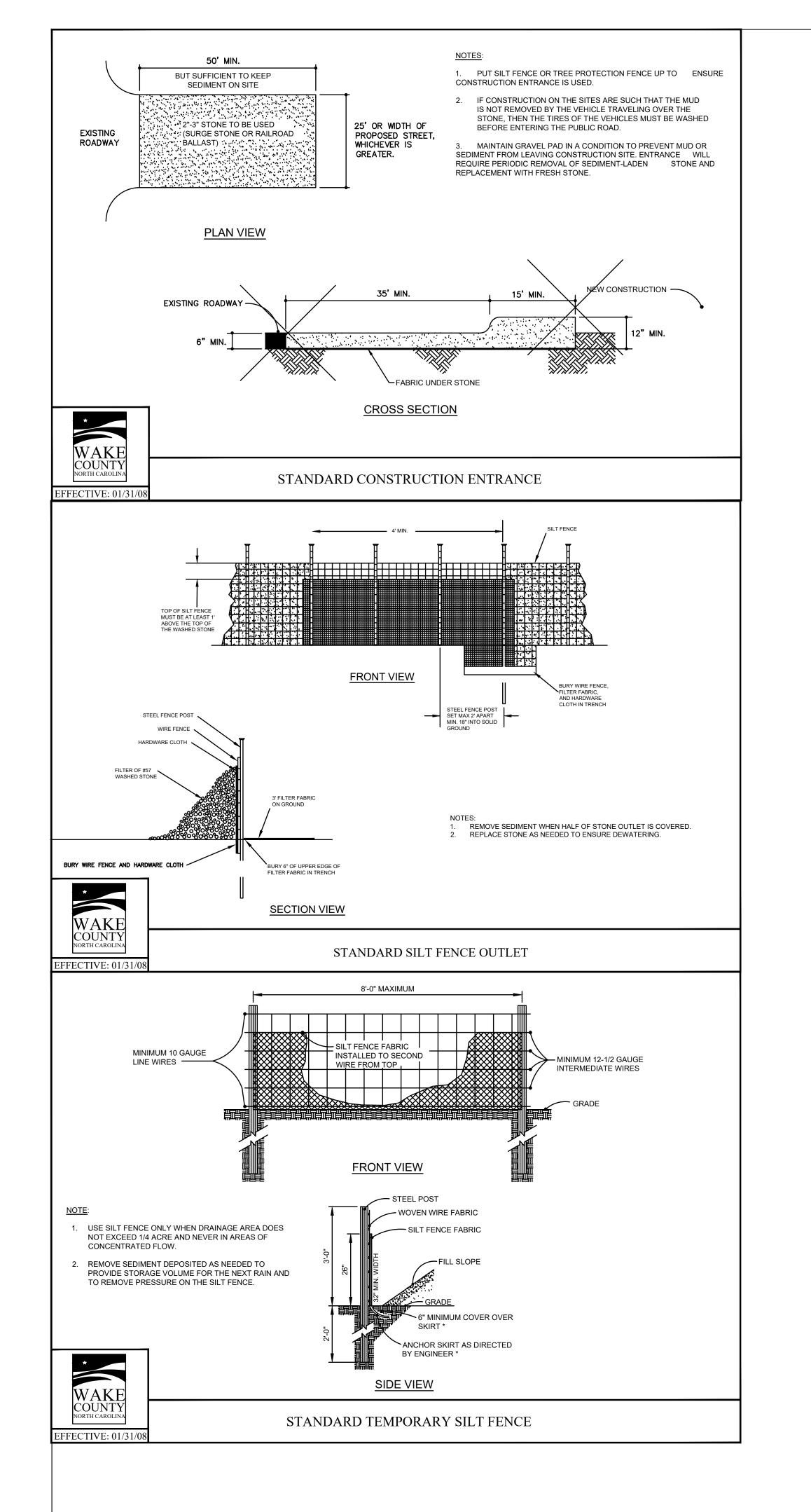
SHEET NUMBER

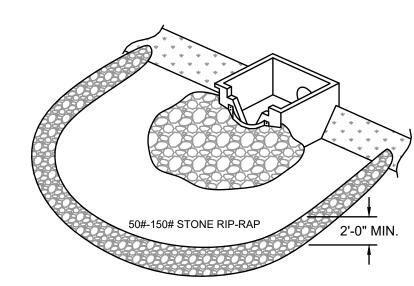
EROSION CONTROL PLAN PHASE II

C06.03

20' 40 ' 60

SCALE



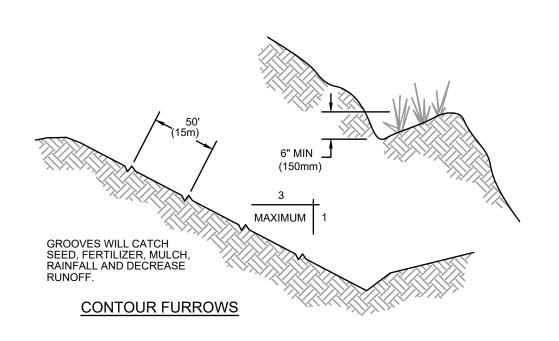


A TEMPORARY STONE BARRIER CONSTRUCTED AT STORM DRAIN INLETS AND POND OUTLETS TO REDUCE FLOW VELOCITIES, PREVENT FAILURE OF OTHER SEDIMENT CONTROL DEVICES AND TO PREVENT SEDIMENT FROM LEAVING THE SITE OR ENTERING DRAINAGE SYSTEMS.

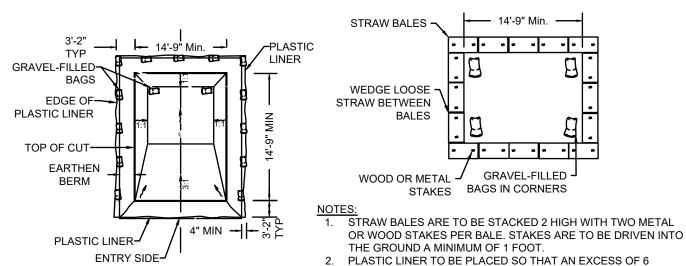
STONE FILTER RING



TRACKING







BELOW GRADE PLAN 3. A MINIMUM OF TWO 8"x2"x8" 16 GAUGE STEEL ANCHOR PINS

(OR LARGER) ARE TO BE USED PER BALE TO ANCHOR THE PLASTIC LINER IN PLACE. GRAVEL-FILLED BAG ON GRADE PLAN -EARTHEN BERM PLASTIC LINER PLACED UNDER BERM (ENTRY SIDE ONLY) ORIGINAL GROUND-SECTION A-A

EARTHEN BERM SECTION

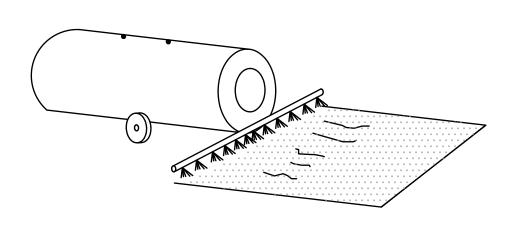
INCHES WILL BE OVER THE OUTSIDE EDGE OF THE BALES.

ORIGINAL GROUND

WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED A SUITABLE WASHOUT FACILITY MUST BE PROVIDED FOR THE CLEANING OF CHUTES, MIXERS, AND HOPPERS OF THE DELIVERY VEHICLES UNLESS SUCH A FACILITY WILL BE USED AT THE SOURCE OF THE CONCRETE.UNDER NO CIRCUMSTANCES MAY WASH WATER FROM THESE VEHICLES BE ALLOWED TO

- ENTER ANY SURFACE WATERS. 3. A 4'X2' WHITE SIGN WITH 6" BLACK LETTERS STATING "CONCRETE WASHOUT" IS TO BE PROVIDED SO DRIVERS ARE AWARE OF THE PRESENCE OF WASHOUT
- FACILITIES. 4. WASHOUT FACILITIES SHOULD NOT BE PLACED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES OR SURFACE WATERS. THEY SHOULD BE IN A CONVENIENT LOCATION FOR THE TRUCKS, PREFERABLY NEAR THE PLACE WHERE THE
- CONCRETE IS BEING POURED, BUT FAR ENOUGH FROM OTHER VEHICULAR TRAFFIC TO MINIMIZE THE POTENTIAL FOR ACCIDENTAL DAMAGE OR SPILLS. 5. THE CONTRACTOR SHALL INSPECT THE WASH DOWN AREA INTERMITTENTLY TO ENSURE PROPER CONTAINMENT IS ACCOMPLISHED.
- 6. IN THE EVENT OF A SPILL OR LEAK THE CONTRACTOR SHALL IMMEDIATELY REPORT & REMEDIATE SAME IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS.

TEMPORARY CONCRETE WASHOUT FACILITY



TEMPORARY METHODS
- MULCHES - TEMPORARY VEGETATIVE COVER - SPRAY ON ADHESIVES - TILLAGE - IRRIGATION

- BARRIERS

- CALCIUM CHLORIDE

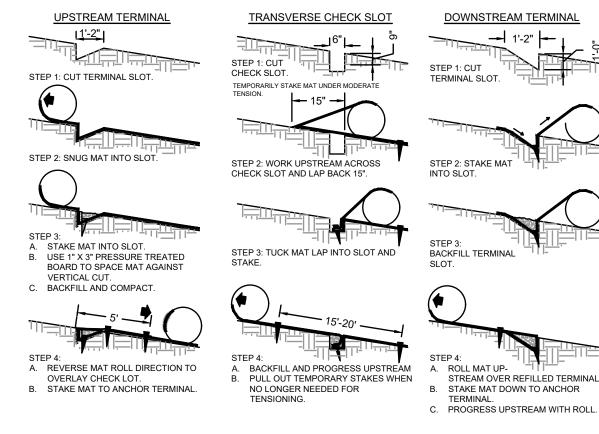
PERMANENT VEGETATION TOPSOILING STONE COVER

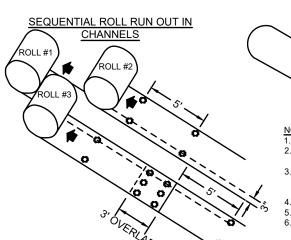
CHEMICAL CONTROL

CHEMICAL CONTROL					
ADHESIVE	WATER DILUTION	TYPE OF NOZZLE	APPLICATION RATE (GAL/AC)		
ANIOIC ASPHALT EMULSION	7.1*	SPRAY	1200		
LATEX EMULSION	12 1/2:1*	FINE SPRAY	235		
RESIN-IN- WATER EMULSION	4:1*	FINE SPRAY	300		

*USE MANUFACTURER'S RECOMMENDATIONS WHEN AVAILABLE

Du DUST CONTROL ON DISTURBED AREAS





NOTES:

1. START AT DOWNSTREAM TERMINAL AND PROGRESS UPSTREAM.

2. START AT DOWNSTREAM TERMINAL AND PROGRESS UPSTREAM. FIRST ROLL IS CENTERED LONGITUDINALLY IN MID-CHANNEL AND PINNED WITH TEMPORARY STAKES TO MAINTAIN ALIGNMENT. THE FIRST ROLL. USE THE CENTER ROLL FOR ALIGNMENT TO THE WORK OUTWARDS FROM THE CHANNEL CENTER TO THE EDGE. USE 3" OVERLAPS AND STAKE AT 5' INTERVALS ALONG THE SEAMS. USE 3' OVERLAPS AND SHINGLE DOWNSTREAM TO CONNECT THE

LINING AT THE ROLL ENDS.

PICTORIAL VIEW OF TRANSVERSE SLOT

RECP- ROLLED EROSION CONTROL PRODUCT EROSION BLANKETS & TURF REINFORCEMENT MATS

INSTALL NORTH AMERICAN GREEN SC-150 EROSION BLANKET OR EQUAL U.N.O. INSTALL PER MANUFACTURES SPECIFICATIONS

GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.

- 2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
- 3. ADDTIONAL PROTECTION ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
- 4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES. ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST MANAGEMENT PRACTICES (BMP) AND MOST CURRENT EROSION AND SEDIMENT CONTROL PRACTICES. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.

PRE-Construction SITE PROTECTION:

- 8. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAIL SHEET FOR TYPICAL CONSTRUCTION.
- 9. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
- 10. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- 11. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD (1/3) THE HEIGHT OF THE BARRIER OR INLET. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- 12. ALL DISTURBED AREAS ARE TO BE STABILIZED THROUGH COMPACTION. SILT SCREENS, SYNTHETIC BALES, AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOD.

SITE PROTECTION:

- 13. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED PROPERLY. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 6 INCHES. BARRIER IS STAKED, THE EXCAVATED SOIL OR GRAVEL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER. USING WIRE BACKING FOR SUPPORT IS DISCOURAGED DUE TO DISPOSAL PROBLEMS.
- 14. WATER OR SLURRY USED TO CONTROL DUST SHALL BE RETAINED ON THE SITE AND NOT ALLOWED TO RUN DIRECTLY INTO WATERCOURSE OR STORMWATER CONVEYANCE
- 15. SPECIAL AREAS SHALL BE DESIGNATED AS VEHICLE AND EQUIPMENT WASHING AREAS AND SUCH AREAS SHALL NOT ALLOW RUNOFF TO FLOW DIRECTLY INTO
- 16. SILT FENCE BARRIERS ARE NOT TO BE USED WHERE CONCENTRATED FLOWS OF WATER ARE ANTICIPATED SUCH AS DRAINAGE DITCHES. AROUND INLETS OR ABOVE/
- BELOW WHERE CULVERTS DISCHARGE. 17. SYNTHETIC BALES, SANDBAGS OR OTHER APPROVED DEVICE FACED WITH FILTER FABRIC SHALL BE USED IN HIGH VOLUME AREAS TO DECREASE THE RUNOFF
- VELOCITY AND SHALL BE SECURELY ANCHORED 18. ALL DEVICES INCLUDING SILT FENCE. FILTER BARRIERS. SYNTHETIC BALES AND/OR
- SANDBAGS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BARRIERS. END RUNS AND UNDERCUTTING BENEATH BARRIERS.
- 19. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

WATERCOURSE OR STORMWATER CONVEYANCE SYSTEMS.

20, SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.

STORM DRAIN INLET PROTECTION:

- 21. FILTER FABRIC SHALL BE LAID OVER INLETS SO THAT THE FABRIC EXTEND A MINIMUM OF 1 FOOT BEYOND EAST SIDE OF THE INLET STRUCTURE. IF MORE THAN ONE STRIP OF FABRIC IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
- 22. 2 INCH 3 INCH COARSE AGGREGATE SHALL BE PLACED OVER THE FILTER FABRIC. THE DEPTH OF STONE SHALL BE AT LEAST 6 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
- 23. IF STONE FILTERS BECOME CLOGGED WITH SEDIMENT SO THAT THEY NO LONGER ADEQUATELY PERFORM THEIR FUNCTION, THE STONES MUST BE PULLED AWAY FROM
- THE INLET, CLEANED AND REPLACED. POST-CONSTRUCTION SITE PROTECTION:
- 24. ALL DEWATERING, EROSION AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER
- 25. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER TEMPORARY BARRIERS ARE. NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA IN SUCH A MANNER THAT IT WILL NOT ERODE.
- 26. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.

COMPLETION OF CONSTRUCTION AND REMOVED ONLY WHEN AREAS HAVE STABILIZED

27. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.

550 S. Caldwell Street P: 704.981.8951 Suite 1800 Lic. #: AA - 0003590 Charlotte, NC 28202 | W: www.bdgllp.com



OK 27

IX A] LOT 3 LESVILI

INFINITY

S

INFINITY ENGINEERING GROUP, PLLC

1208 East Kennedy Boulevard Suite 230 Tampa, FL 33602

[p]: 813.434.4770 [f]: 813.445.4211 www.iegroup.net NC Firm Certificate No. P-1836

IEG Job No. 15-309.00

NISIT SAPPARKHAO, P.E. NC REG. NO. 38066



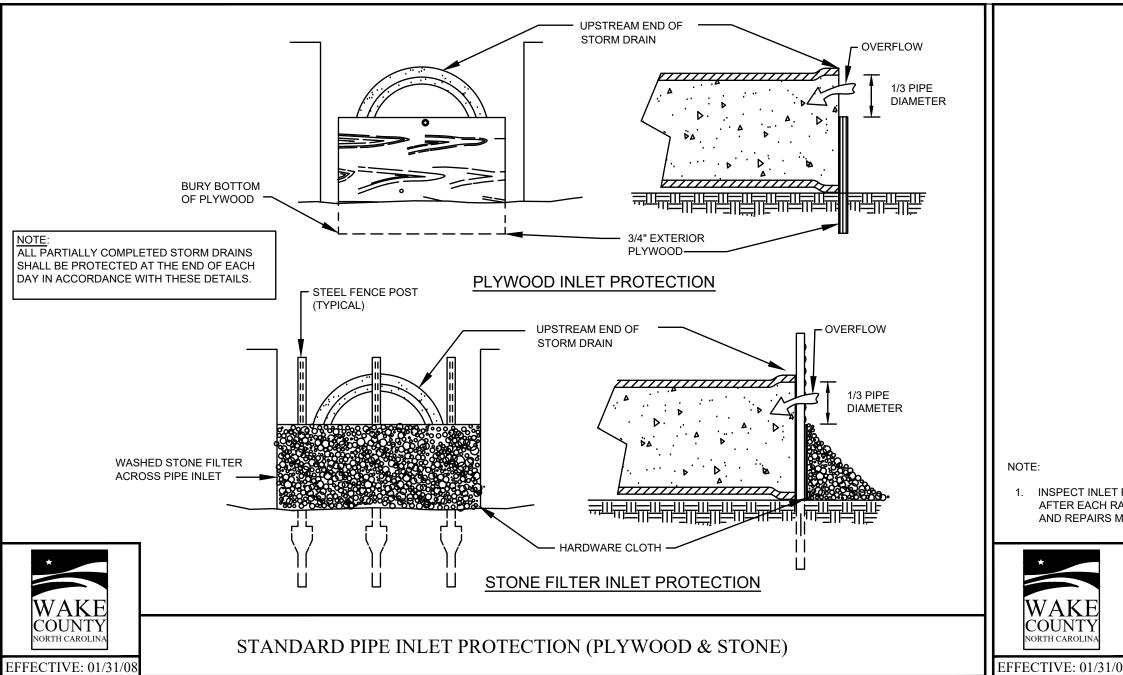
ISSUE BY DATE DESCRIPTION 08/16/24 | PERMIT SET

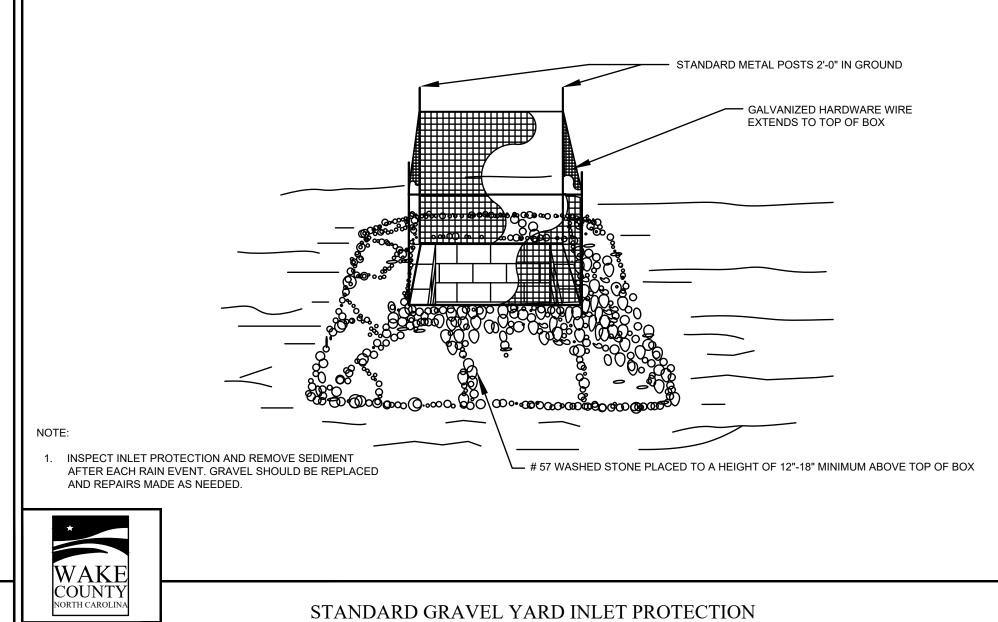
PROJECT INFORMATION BLOCK JOB# 230634 DATE: 08/16/2024 DRAWN BY:

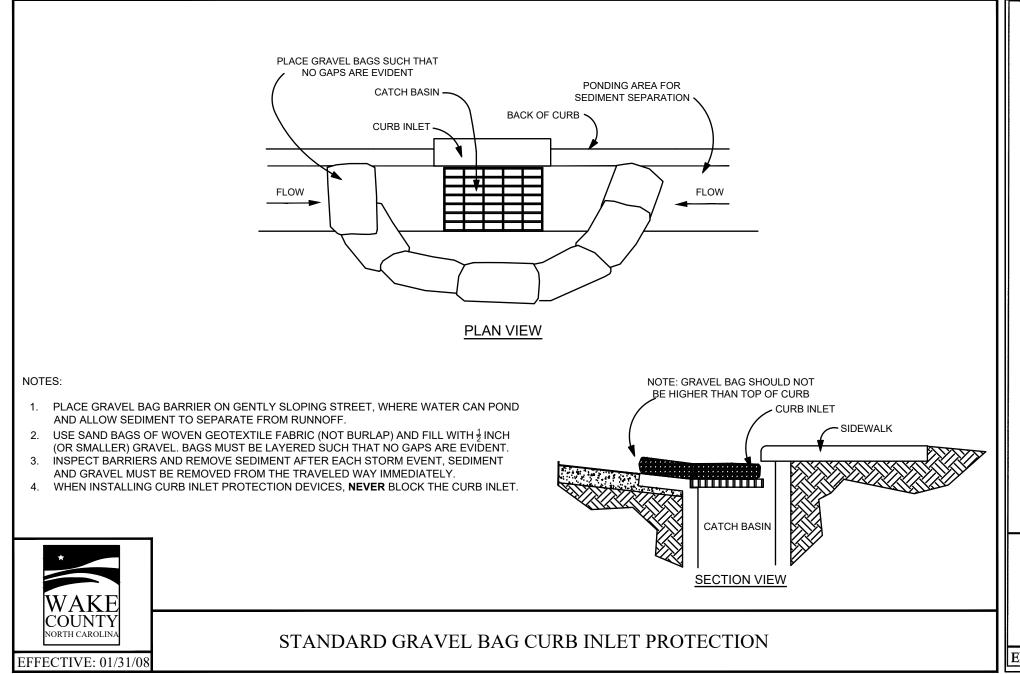
CHECKED BY:

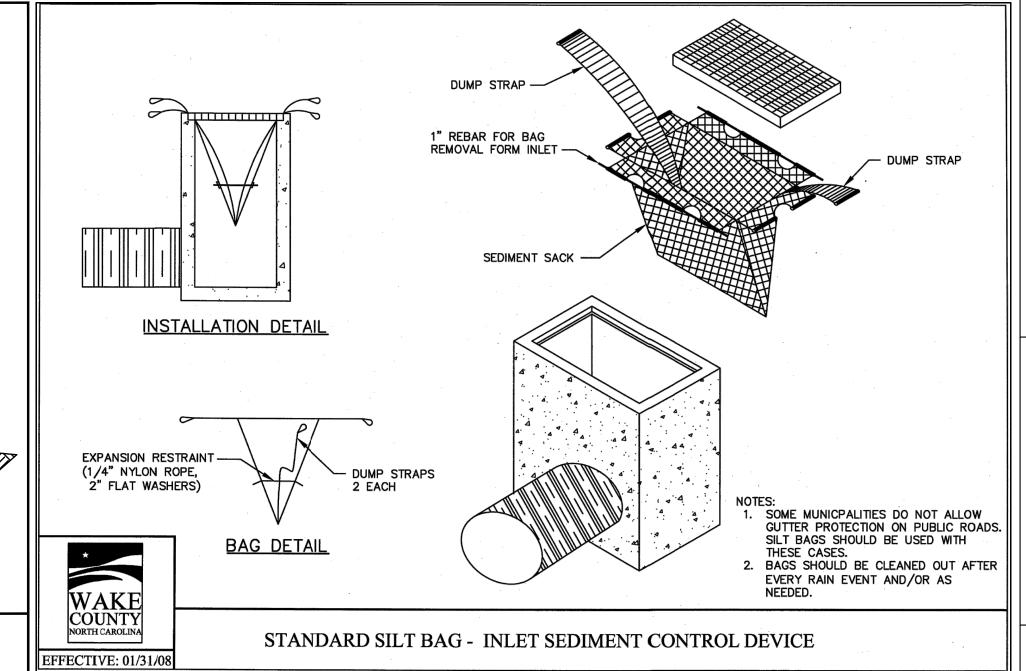
SHEET TITLE **EROSION AND** SEDIMENTATION CONTROL DETAILS

SHEET NUMBER











550 S. Caldwell Street
Suite 1800
Charlotte, NC 28202

P: 704.981.8951
Lic. #: AA - 0003590
W: www.bdgllp.com



ROLESVILLE WALLBROOK

T WALLBROOK CAROLINA 27587

UBLIX AT NORTH

LOT 3 - PU ROLESVILLE, I

INFINITY

INFINITY ENGINEERING
GROUP, PLLC

1208 East Kennedy Boulevard
Suite 230
Tampa, FL 33602

[p]: 813.434.4770
[f]: 813.445.4211

www.iegroup.net
NC Firm Certificate No. P-1836
IEG Job No. 15-309.00

SEAL

NISIT SAPPARKHAO, P.E.

NISIT SAPPARKHAO, P.E. NC REG. NO. 38066

NC REG. NO. 38066

SEAL

08/20/2024 DATE

ISSUE	BY	DATE	DESCRIPTION
		08/16/24	PERMIT SET
PROJECT INFO		CT INFOR	RMATION BLOCK
JOB	#		230634
DATE	:		08/16/2024
			·

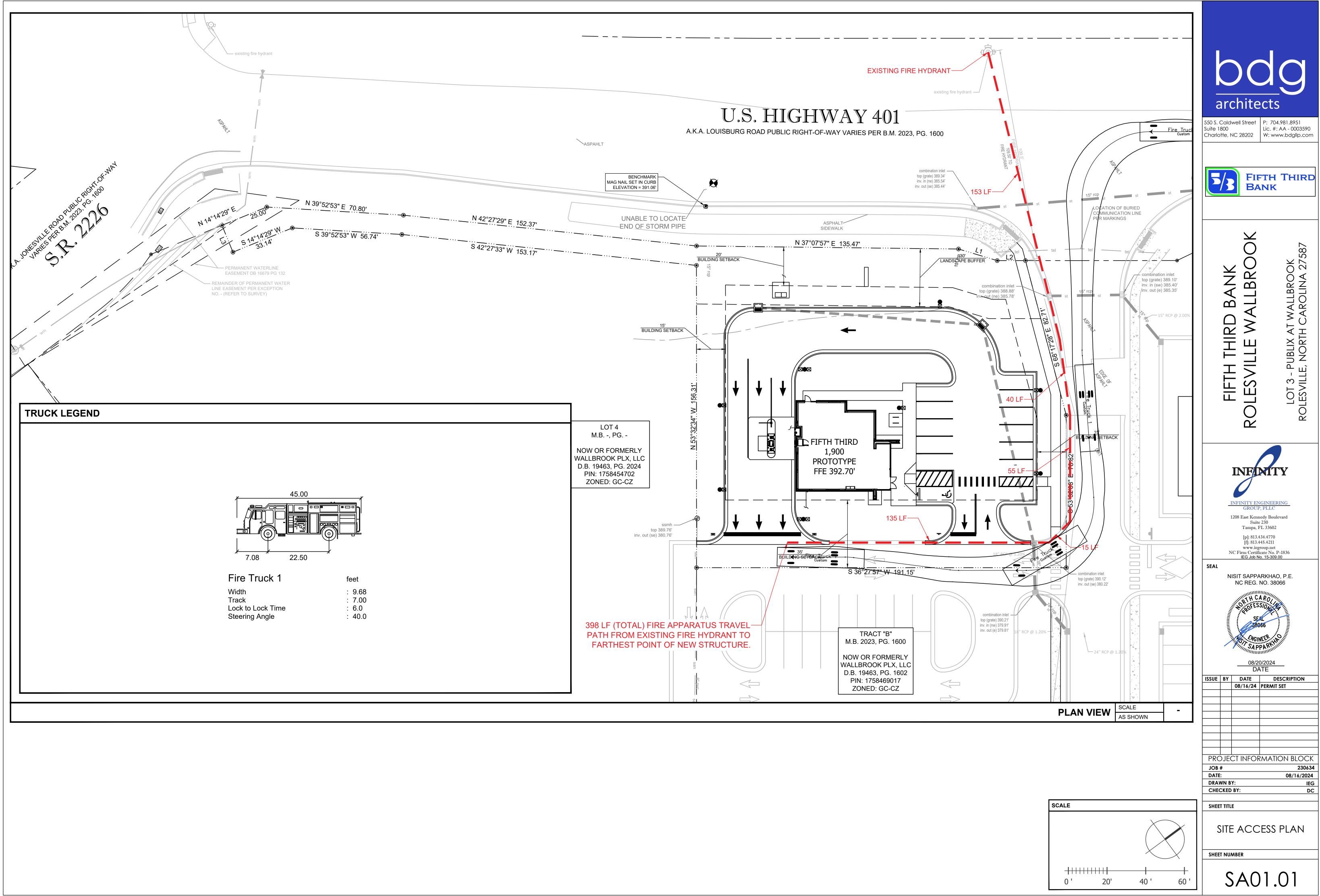
CHECKED BY:
SHEET TITLE

DRAWN BY:

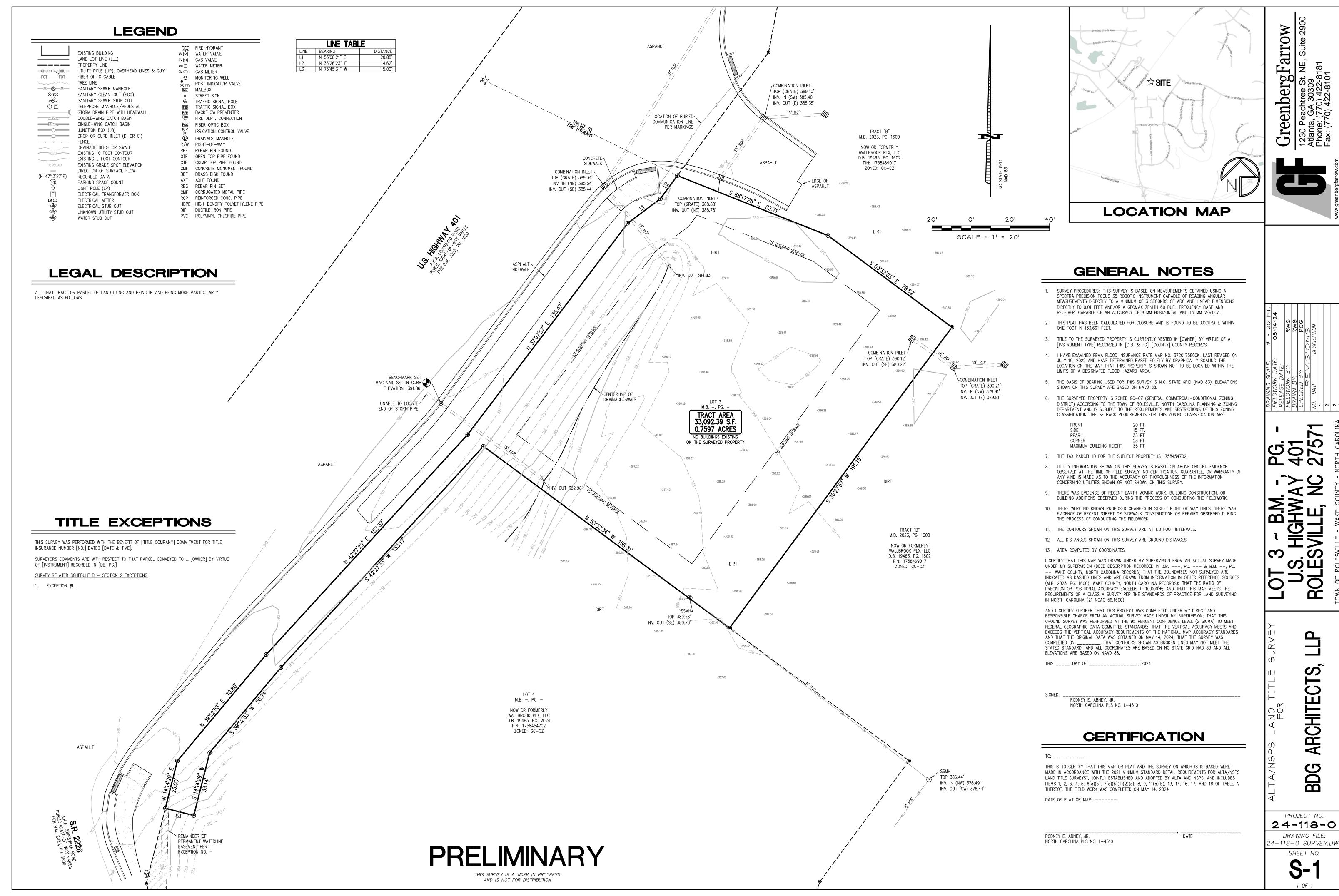
EROSION AND
SEDIMENTATION
CONTROL DETAILS

SHEET NUMBER

C06.05



230634 08/16/2024





24-118-0