

Layout Tab Name: C001 GENERAL NOTES, Images: Xrefs: 075356-TBLK.dwg  
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G:\DE\Clients\WaterWalk\075356 Morrisville, NC\4.0 Disciplines\Civil\Cadd\Cd\075356-001-NITS.dwg Plotted By: lodzinski, Jake Plotted: January 17, 2018, 2:48:05 PM

### TRAFFIC CONTROL NOTES

CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES, AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION.

TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR AND MAINTAINED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, AND/OR THE APPLICABLE STATE AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY STANDARD CONSTRUCTION WARNING SIGNS, BARRICADES, DRUMS, OR OTHER TRAFFIC HANDLING DEVICES AS REQUIRED BY MUTCD.

### DEMOLITION NOTES

EXISTING PAVEMENTS THAT ARE TO BE REMOVED FROM THE SITE AS NOTED SHALL BE DISPOSED OF IN A LEGAL MANNER UNLESS OTHERWISE NOTED.

CONTRACTOR SHALL REMOVE FROM THE SITE AND DISPOSE OF LEGALLY, ANY AND ALL MATERIALS AND DEBRIS WHICH RESULT FROM CONSTRUCTION OPERATIONS, AT NO ADDITIONAL EXPENSE TO THE OWNER.

### LAYOUT NOTES

ALL DIMENSIONS, STATIONING, COORDINATES, ELEVATIONS, ETC. SHOWN ON THESE PLANS ARE IN FEET UNLESS OTHERWISE NOTED.

ALL DIMENSIONS AND COORDINATES IN AREAS WITH CURB SHALL BE FROM BACK OF CURB TO BACK OF CURB OR SIDEWALK. ALL DIMENSIONS FROM BUILDING SHALL BE FROM FACE OF BUILDING.

ALL RADII IN PAVED AREAS & ON CURBS SHALL BE AS NOTED.

PROVIDE SMOOTH TRANSITION FROM NEW AREAS TO EXISTING FEATURES AS NECESSARY.

ACCESSIBLE RAMPS AND SIGNAGE SHALL BE IN ACCORDANCE WITH FEDERAL, STATE, COUNTY, CITY, AND LOCAL CODES, WHICHEVER HAS JURISDICTION. SEE SITE PLAN FOR LOCATION AND SITE DETAILS FOR SPECIFICATIONS, IF APPLICABLE.

### GRADING NOTES

PRIOR TO ANY GRADING, THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION MEETING WITH THE DESIGNATED REPRESENTATIVES FROM THE APPROVAL AGENCY, IF REQUIRED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT. ALL EARTHWORK AND GRADING OPERATIONS SHALL COMPLY WITH ALL RECOMMENDATIONS INCLUDED IN THE REPORT.

CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL EXISTING CATCH BASINS, MANHOLES, AND OTHER STRUCTURES TO GRADE, AS REQUIRED.

ELEVATIONS SHOWN REFER TO FINISHED GRADE, UNLESS NOTED OTHERWISE.

CLEARING AND GRUBBING LIMITS SHALL BE LIMITED TO AREAS DISTURBED BY GRADING OPERATIONS.

ALL EXISTING VEGETATION AND TOPSOIL SHALL BE REMOVED FROM WITHIN THE LIMITS OF CONSTRUCTION PRIOR TO PLACING FILL.

GRADING SHALL BE WITHIN 0.1 FEET OF PLAN SUBGRADE IN ALL PAVED AREAS. GRADING SHALL BE WITHIN 0.25 FEET OF PLAN GRADE IN ALL OTHER AREAS. POSITIVE DRAINAGE SHALL BE MAINTAINED IN ALL AREAS.

FILL AREAS SHALL BE PROOF ROLLED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF ANY FILL MATERIALS. AREAS NOT PASSING A PROOF-ROLL OR THAT ARE OTHERWISE UNACCEPTABLE TO THE GEOTECHNICAL ENGINEER SHALL BE REMOVED OR STABILIZED IN ANOTHER APPROVED MANNER PRIOR TO THE PLACEMENT OF FILL MATERIALS. ALL SUBGRADES MUST BE PROOF-ROLLED PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR PAVEMENT.

THE CONTRACTOR SHALL SCHEDULE AND COORDINATE WITH THE GEOTECHNICAL ENGINEER TO PERFORM COMPACTION TESTS. COMPACTION TESTS SHALL BE PERFORMED AND DOCUMENTED FOR EACH FILL LIFT. LIFTS IN FILL AREAS SHALL NOT EXCEED 8" IN LOOSE DEPTH, AND SHALL BE REDUCED IN DEPTH IF NECESSARY TO MEET THE COMPACTION REQUIREMENTS.

COMPACTION OF SUBGRADE SURFACES SHALL BE AS FOLLOWS: WALKWAYS, PAVEMENTS BELOW 30 INCHES OF SUBGRADE, OUTPARCELS, AND TRENCHES: 95% STANDARD PROCTOR DENSITY (ASTM D698); LAWN OR UNIMPROVED AREAS: 93%; BUILDING AND PAVEMENT SUBGRADES (TOP 30 INCHES) AND RETAINING WALLS: 98%.

ON-SITE STRUCTURAL FILL MATERIALS SHALL CLASSIFY AS GM, GC, SW, SP, SM, SC, CL, AND/OR ML IN ACCORDANCE WITH ASTM D2487. IMPORTED STRUCTURAL FILL MATERIALS SHALL CLASSIFY AS GM, GC, SW, SP, SM, AND/OR SC. MAXIMUM PARTICLE SIZE SHALL BE 3 INCHES FOR ALL FILL MATERIALS.

FILL MATERIALS CLASSIFYING AS OL, CH, MH, OH, OR PT ARE CONSIDERED UNSUITABLE FILL MATERIALS AND SHALL NOT BE USED AS STRUCTURAL FILL, PARTICULARLY WITHIN THE STRUCTURAL LIMITS OF ANY BUILDINGS OR PAVEMENT SECTIONS. WHERE UNSUITABLE FILL MATERIAL IS ENCOUNTERED IN AREAS TO RECEIVE STRUCTURAL FILL, THE CONTRACTOR SHALL REMOVE ALL UNSUITABLE MATERIALS AND BACKFILL WITH STRUCTURAL FILL.

DEWATERING AND DRYING OF AREAS TO BE EXCAVATED OR FILLED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS.

IN ORDER TO ENSURE PROPER DRAINAGE, KEEP A MINIMUM OF 0.5% SLOPE ON THE CURB.

### EROSION CONTROL NOTES

THE EROSION CONTROL PLAN SHALL BE IMPLEMENTED ON ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE. ALL MEASURES INVOLVING EROSION CONTROL PRACTICES SHALL BE INSTALLED UNDER THE GUIDANCE OF QUALIFIED PERSONNEL EXPERIENCED IN EROSION CONTROL, AND FOLLOWING THE PLANS AND SPECIFICATIONS INCLUDED HEREIN.

ALL EROSION CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE CITY OF CARY, WAKE COUNTY, AND THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES.

ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL ALL LAND DISTURBING AND CONSTRUCTION ACTIVITIES HAVE CEASED. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

THE CONTRACTOR SHALL CONTROL WASTES, GARBAGE, DEBRIS, WASTEWATER, AND OTHER SUBSTANCES ON THE SITE IN SUCH A WAY THAT THEY SHALL NOT BE TRANSPORTED FROM THE SITE BY THE ACTION OF WINDS, STORM WATER RUNOFF, OR OTHER FORCES. PROPER DISPOSAL AND MANAGEMENT OF ALL WASTES AND UNUSED BUILDING MATERIAL, APPROPRIATE TO THE NATURE OF THE WASTES AND MATERIALS IS REQUIRED. COMPLIANCE IS REQUIRED WITH ALL APPLICABLE REGULATIONS REGARDING WASTE DISPOSAL.

THE CONTRACTOR SHALL STOCKPILE TOPSOIL FOR USE IN FINAL LANDSCAPING. THE LOCATION OF THE STOCKPILE AREA SHALL BE DETERMINED BY THE CONTRACTOR, UNLESS OTHERWISE INDICATED ON THE DRAWINGS, AND ALL NECESSARY EROSION AND SEDIMENTATION PREVENTION MEASURES SHALL BE IMPLEMENTED.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ALL MUD, DIRT, GRAVEL, AND ANY OTHER MATERIALS TRACKED ONTO ANY PUBLIC OR PRIVATE STREETS, SIDEWALKS, OR RIGHTS-OF-WAY. THE CONTRACTOR MUST USE WATER OR OTHER METHODS TO KEEP AIRBORNE DUST TO A REQUIRED MINIMUM.

INLET PROTECTION SHALL BE INSTALLED AROUND ALL STORM DRAINAGE INLETS.

CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT FROM ALL UTILITY STRUCTURES PRIOR TO FINAL SITE STABILIZATION. AT COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE TRANSFER OF MAINTENANCE RESPONSIBILITIES OF ANY PERMANENT SEDIMENT CONTROL STRUCTURES WITH THE OWNER. MAINTENANCE OF ALL STRUCTURES SHALL BE IN ACCORDANCE WITH NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

EXISTING VEGETATION SHALL BE PROTECTED AS MUCH AS PRACTICAL.

ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF WITHIN THIRTY DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED, OR AFTER THE TEMPORARY PRACTICES ARE NO LONGER NEEDED. ACCUMULATED SEDIMENT SHALL BE PERMANENTLY STABILIZED OR PROPERLY DISPOSED OF.

PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED IMMEDIATELY AFTER THE UTILITY INSTALLATION.

THIS EROSION CONTROL PLAN MUST BE RETAINED ON-SITE AT ALL TIMES DURING THE PERIOD OF CONSTRUCTION.

### LANDSCAPE NOTES

MULCH ALL AREA UNDER AND AROUND ALL PLANTS AND ALL OTHER AREAS INDICATED ON THE PLAN WITH A 4" LAYER OF MULCH AS APPROVED BY THE OWNER.

CONTRACTOR IS RESPONSIBLE FOR WATERING AND MAINTAINING ALL LANDSCAPING UNTIL PROJECT IS COMPLETED.

ALL PLANTS SHALL BE GUARANTEED TO BE IN HEALTHY CONDITION (1) YEAR AFTER ACCEPTANCE.

SEE SHEET C500 FOR PLANT SCHEDULE AND PLANTING DETAILS.

THE CONTRACTOR IS RESPONSIBLE FOR PERMANENT SEEDING ALL DISTURBED AREAS, INCLUDING THE ANY STOCKPILE LOCATIONS.

MULCH SHALL BE FRESH CLEAN AND A MINIMUM OF 4" THICK AT TIME OF JOB ACCEPTANCE.

WATERING OF ALL PLANT MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AT NO ADDED EXPENSE TO THE OWNER, UNTIL THE JOB IS COMPLETELY TURNED OVER TO THE OWNER.

FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL SUB-BASE AND CONSTRUCTION DEBRIS; SOIL WITHIN ALL PLANTING ISLANDS SHALL BE MODIFIED TO MEET THE TOPSOIL/PLANTING MIX STANDARDS IDENTIFIED IN THE PROJECT MANUAL AND MUST MEET THE STANDARDS SET FORTH BY CMLDS FOR APPROVAL. THIS REQUIRES 18" OF MODIFIED OR NEW TOPSOIL IN SHRUB PLANTING BEDS AND 24" OF MODIFIED SOIL MIX OR NEW TOP SOIL WITHIN TREE PLANTING AREAS (MIN. 274-SF FOR EA. LARGE MATURING TREE AND 200-SF FOR EA. SMALL MATURING TREE).

LARGE MATURING TREES MAY NOT BE PLANTED WHERE THERE ARE OVERHEAD ELECTRICAL DISTRIBUTION OR TRANSMISSION LINES. IF TREES CONFLICT WITH POWER LINES OR SIGNS, CALL THE URBAN FORESTER TO RESOLVE BEFORE PLANTING.

ADJUST TREE PLANTING LOCATIONS TO AVOID UNDERGROUND UTILITIES. PLANT 15' FROM ALL UNDERGROUND UTILITIES WHERE POSSIBLE AND HAVE ANY CONFLICTS REVIEWED BY THE URBAN FORESTER PRIOR TO INSTALLATION.

TOPSOIL SHALL BE ADDED TO ALL PROPOSED TURF AREAS. IF NONE IS AVAILABLE TO THE CONTRACTOR ON SITE THEN TOPSOIL WILL BE BROUGHT IN FROM OFF-SITE AND SHALL ADHERE TO SPECIFICATIONS.

SOIL FOR PLANTING BEDS SHALL BE WEED FREE AND CONFORM TO THE OWNERS SPECIFICATIONS.

### UTILITY NOTES

ALL SEWER AND WATER CONSTRUCTION SHALL BE IN ACCORDANCE TO THE STANDARDS AND SPECIFICATIONS OF THE TOWN OF MORRISVILLE AND WAKE COUNTY. THE DETAILS CONTAINED IN THESE DRAWINGS WILL NOT SUPERSEDE THE CITY STANDARDS.

CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL UNDERGROUND UTILITIES WITH HIS WORK.

ANY UTILITY SERVICE LINES CROSSING UNDER A PAVED SURFACE SHALL BE INSTALLED PRIOR TO INSTALLATION OF PAVEMENT TO PREVENT FUTURE PAVEMENT CUTS.

ALL CONDUITS AND PIPES CONSTRUCTED UNDER EXISTING OR PROPOSED PAVED SURFACES SHALL BE BACKFILLED WITH GRANULAR BACKFILL AND COMPACTED TO SITE SPECIFICATIONS.

ALL CONSTRUCTION SHALL BE INSPECTED BY THE OWNER'S REPRESENTATIVE AND/OR UTILITY OWNER, AS REQUIRED. ALL TRENCHES, PIPING, AND TAPS SHALL BE LEFT EXPOSED AND PROTECTED UNTIL INSPECTED AND APPROVED.

ALL COSTS INCURRED IN COORDINATION OF ALL NEW UTILITY SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL PAY ALL FEES REQUIRED FOR APPLICATIONS TO INSTALL UTILITIES AND FOR AGENCY INSPECTIONS.

CONTRACTOR SHALL CLEAN ALL CONDUITS AND PIPES THAT COLLECT DEBRIS, MUD, CONCRETE, TRASH, ETC. PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

CONTRACTOR SHALL INSTALL ALL UTILITY LINES AND APPURTENANCES AS SHOWN ON THE DRAWINGS TO WITHIN 5 FEET OF BUILDING LIMITS, UNLESS OTHERWISE NOTED. EXACT LOCATION OF ALL UTILITY CONNECTIONS AT THE BUILDING SHALL BE COORDINATED WITH THE BUILDING PLANS AND CONSTRUCTION MANAGER OR ENGINEER PRIOR TO CONSTRUCTION OF UTILITY SERVICES TO THE BUILDING.

THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

CONTACT THE UTILITY COMPANY TO RELOCATE ANY EXISTING UTILITY POLES. ALL EXISTING FACILITIES WHICH CONFLICT WITH THE IMPROVEMENTS UNDER THE SCOPE OF THIS PROJECT MUST BE RELOCATED AT THE EXPENSE OF THE APPLICANT.

THE UNDERGROUND UTILITIES SHOWN HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND VERIFIED WHERE POSSIBLE WITH PREVIOUS SURVEYS AND AVAILABLE PUBLIC RECORDS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND LINES. PUBLIC RECORDS HAVE BEEN RESEARCHED AND THE EXTENT OF THE INFORMATION CONTAINED THEREIN HAS BEEN SHOWN ON THIS SURVEY.

CONTRACTOR SHALL COORDINATE PROPOSED IMPROVEMENTS WITH DEMOLITION PLAN.

### WATER NOTES

ALL PRIVATE WATER MAIN CONSTRUCTION SHALL BE PER TITLE 15A SUBCHAPTER, 18C OF THE NORTH CAROLINA ADMINISTRATIVE CODE, "RULES GOVERNING PUBLIC WATER SYSTEMS" AND THE PROJECT SPECIFICATIONS.

AS INDICATED, ALL WATERLINES SHALL BE DUCTILE IRON PIPE MEETING THE REQUIREMENTS OF ANSI-AWWA C151 PRESSURE CLASS 350 OR SOFT COPPER TYPE K PIPE PER ASTM B88. IF PVC WATERLINE IS INDICATED ON THE PLANS, (12" AND SMALLER) SHALL MEET THE REQUIREMENTS OF AWWA C-900; CLASS 200.

ALL WATERLINES SHALL HAVE A MINIMUM OF 4 FEET OF COVER.

PROVIDE THRUST BLOCKING AT ALL BENDS, TEES, AND FIRE HYDRANTS.

REFER TO PLUMBING, ARCHITECTURAL PLANS, AND FIRE SPRINKLER PLANS FOR EXACT ENTRY POINTS AND CONTINUATION OF UTILITIES. COORDINATE LOCATIONS W/BLDG AND STAIR FOOTINGS.

THERE SHALL BE NO TAPS, PIPIN BRANCHES, UNAPPROVED BYPASS PIPING, HYDRANTS, FIRE DEPARTMENT CONNECTIONS POINTS OR OTHER WATER USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND CARY UTILITY DEPARTMENT REQUIRED BACKFLOW PREVENTOR.

EACH CARY UTILITY DEPARTMENT-REQUIRED BPA IS REQUIRED TO BE TESTED BY A CARY UTILITY DEPARTMENT-APPROVED CERTIFIED TESTER PRIOR TO PLACING WATER SYSTEM IN SERVICE.

NEW WATER MAINS SHALL BE TESTED FOR LEAKAGE AND ANY NECESSARY REPAIRS AND RETESTING SHALL BE ACCOMPLISHED AS SPECIFIED IN AWWA STANDARDS.

TESTING NOTES:

PRESSURE: LEAKAGE SHALL NOT EXCEED THE MAXIMUM ALLOWABLE LEAKAGE SPECIFIED IN AWWA C 600. MINIMUM TEST PRESSURE SHALL BE 150 PSI FOR DOMESTIC AND 200 PSI FOR FIRE PROTECTION

BACTERIOLOGICAL: TWO SAMPLES FOR BACTERIOLOGICAL SAMPLING SHALL BE COLLECTED AT LEAST 24 HOURS APART. IF CONTAMINATION IS INDICATED, THEN THE DISINFECTION PROCEDURE AND TESTING SHALL BE REPEATED UNTIL SATISFACTORY RESULTS ARE OBTAINED.

THE CHLORINE IN HEAVILY CHLORINATED WATER FLUSHED FROM MAINS NEEDS TO BE NEUTRALIZED BEFORE DISCHARGED. CONTRACTORS SHALL NEUTRALIZE HEAVILY CHLORINATED WATER FLUSHED FROM MAINS PRIOR TO DISCHARGE OR TRANSPORT ALL HEAVILY CHLORINATED WATER OFFSITE FOR PROPER DISPOSAL.

PAINT VALVE COVERS, FIRE HYDRANTS AND OTHER WATER APPARATUS TO MEET THE LOCAL JURISDICTIONAL REQUIREMENTS.

WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM EXISTING OR PROPOSED SEWERS, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10-FOOT HORIZONTAL SEPARATION IN WHICH CASE;

1. THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER; OR
2. THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE OF A BENCH OF UNDISTURBED EARTH, AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP TO THE SEWER.

CROSSING A WATER MAIN OVER A SEWER WHICHEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION, IN WHICH CASE BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.

CROSSING A WATER MAIN UNDER A SEWER WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.

EXISTING SANITARY SEWER MAINS AND/OR LATERALS SHALL BE INSPECTED WHERE PROHIBITED WATER MAINS ARE TO CROSS OVER OR UNDER THE EXISTING SANITARY SEWER PIPE. EXISTING NON-FERROUS SANITARY SEWER LINES SHALL BE REPLACED AS REQUIRED, IN ACCORDANCE WITH SECTION 2510, SUBSECTION 3.3-F OF THE PROJECT SPECIFICATIONS.

ALL WATER MAINS WITHIN A DEDICATED EASEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 06000 "WATER DISTRIBUTION SYSTEMS", 2017 STANDARD SPECIFICATIONS OF THE TOWN OF CARY.

### SANITARY NOTES

A 24" VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN STORM SEWER AND SANITARY SEWER LINES OR BOTH THE SANITARY AND THE STORM LINES SHALL BE CONSTRUCTED OF FERROUS MATERIALS.

UNLESS OTHERWISE NOTED, ALL SANITARY SEWER MANHOLES ARE 4' DIA

MINIMUM REQUIRED SLOPES FOR SEWER SERVICES:

1. 4" SEWER SERVICES-1/4"/FT MINIMUM SLOPE
2. 6" SEWER SERVICES-1/8"/FT MINIMUM SLOPE
3. 8" SEWER SERVICES-1/16"/FT MINIMUM SLOPE

SEWER LINE LESS THAN 3 FEET OF COVER SHALL BE CLASS 50 DUCTILE IRON PIPE. SEWER LINES WITH GREATER THAN 3 FEET OF COVER MAY BE AS NOTED BELOW:

1. 4" SEWER SERVICES-SCH 80
2. 6" SEWER SERVICES-SCH 80
3. 8" SEWER SERVICES-SDR 35

ALL MANHOLES COVERS SHALL BE PAINTED TO LOCAL JURISDICTIONAL REQUIREMENTS.

### STORM DRAINAGE NOTES

ALL STORM DRAINAGE PIPE SHALL BE AS INDICATED ON THE DRAWINGS.

ALL DRAINAGE STRUCTURES SHALL BE REINFORCED, PRECAST 3,600 PSI CONCRETE, UNLESS OTHERWISE NOTED.

ALL STORM SEWER SHALL BE CLASS III REINFORCED CONCRETE PIPE (RCP) CONFORMING TO ASTM C-76, TABLE III. HIGH DENSITY POLYETHYLENE (HDPE) CONFORMING WITH ASTM F667 MAY BE USED IN LIEU OF RCP IF APPROVED BY THE TOWN OF MORRISVILLE PRIOR.

TOP OF GRATE AND RIM ELEVATIONS INDICATED FOR DROP INLETS AND MANHOLES ARE AT THE CENTER OF THE GRATE OR COVER. TOP OF GRATE ELEVATIONS INDICATED FOR CURB INLETS ARE AT THE EDGE OF PAVEMENT.

ALL PIPES ENTERING STORM STRUCTURES SHALL BE GROUTED TO ASSURE THE CONNECTION IS WATERTIGHT.

ALL DRAINAGE STRUCTURES SHALL MEET THE SPECIFICATIONS OF THE NCDOT 2012 EDITION OF THE ROADWAY STANDARD DRAWINGS, SECTION 838 AND 840.

ALL FIELD TILE ENCOUNTERED SHALL BE REPLACED AND/OR CONNECTED TO THE STORM SEWER SYSTEM, LOCATED, AND IDENTIFIED ON "AS-BUILT" PLANS BY THE CONTRACTOR.

2" WEEP HOLES & STONE DRAINS SHALL BE INSTALLED AT ALL DROP INLETS AND CURB INLETS.

STORM MANHOLES SHALL BE SET SUCH THAT THE MANHOLE TOP IS FLUSH WITH ADJACENT GRADES.

CONTRACTOR SHALL BE REQUIRED TO CLEAN PROPOSED AND EXISTING DRAINAGE SYSTEMS PRIOR TO ACCEPTANCE BY OWNER.

### CONTACTS

CITY ENGINEER (919)-463-6193 RICH CAPPOLA, P.E. CITY ENGINEER 260 TOWN HALL DRIVE, SUITE B, MORRISVILLE, NC 27560

POWER 1-(800)-653-5307 DUKE POWER CO. 500 SOUTH CHURCH ST. CHARLOTTE, NC 28202


TELEPHONE (704)-378-6300 SOUTHERN BELL TEL. CO. P.O. BOX 30199 CHARLOTTE, NC 28202

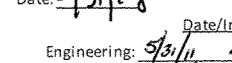
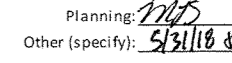
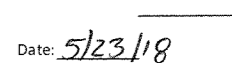
WATER&SEWER (919)-469-4090 SCOTT HECHT PUBLIC WORKS DEPARTMENT 400 JAMES JACKSON AVENUE, CARY, NC 27513


GAS (919)-367-2732 PNSC ENERGY 2020 ENERGY DRIVE APEX, NC 27502

MORRISVILLE PROJECT #: 17-1100001 FILE #: 17-0001-S/C

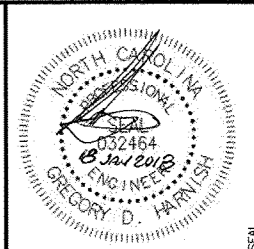
Town of Morrisville  
APPROVED FOR CONSTRUCTION

Signature:  Date: 5/31/18  
Town of Morrisville, Town Engineer

Engineering:  Date/Initials: 5/31/18  
Planning:  Date/Initials: 5/31/18  
Other (specify):  Date/Initials: 5/31/18

Signature:  Date: 5/23/18  
Town of Cary Utilities, Water and Sewer

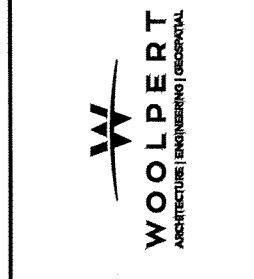
Engineering Inspection Services must be contacted (919) 463-6907 at a minimum 24 hours prior to the commencement of any construction activities.



REVISION	DATE	No.

PROJECT No.: 075356	DATE: 01/24/17
DES. JG	DR. DH
CHKD. TR	

11301 Carmel Commons Blvd.  
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Charlotte, NC 28226  
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FAX: 704.525.8529



## SITE IMPROVEMENT PLANS WATERWALK MORRISVILLE

1012 & 1016 LOWER SHILOH WAY  
MORRISVILLE, NORTH CAROLINA

## GENERAL NOTES

SHEET NO. C001