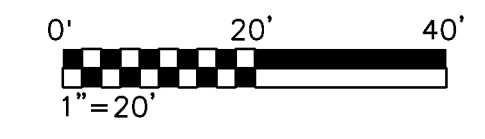
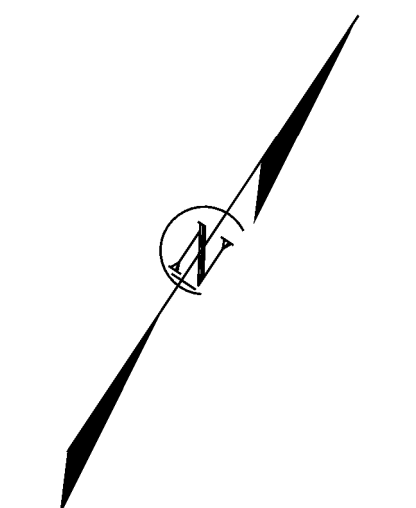
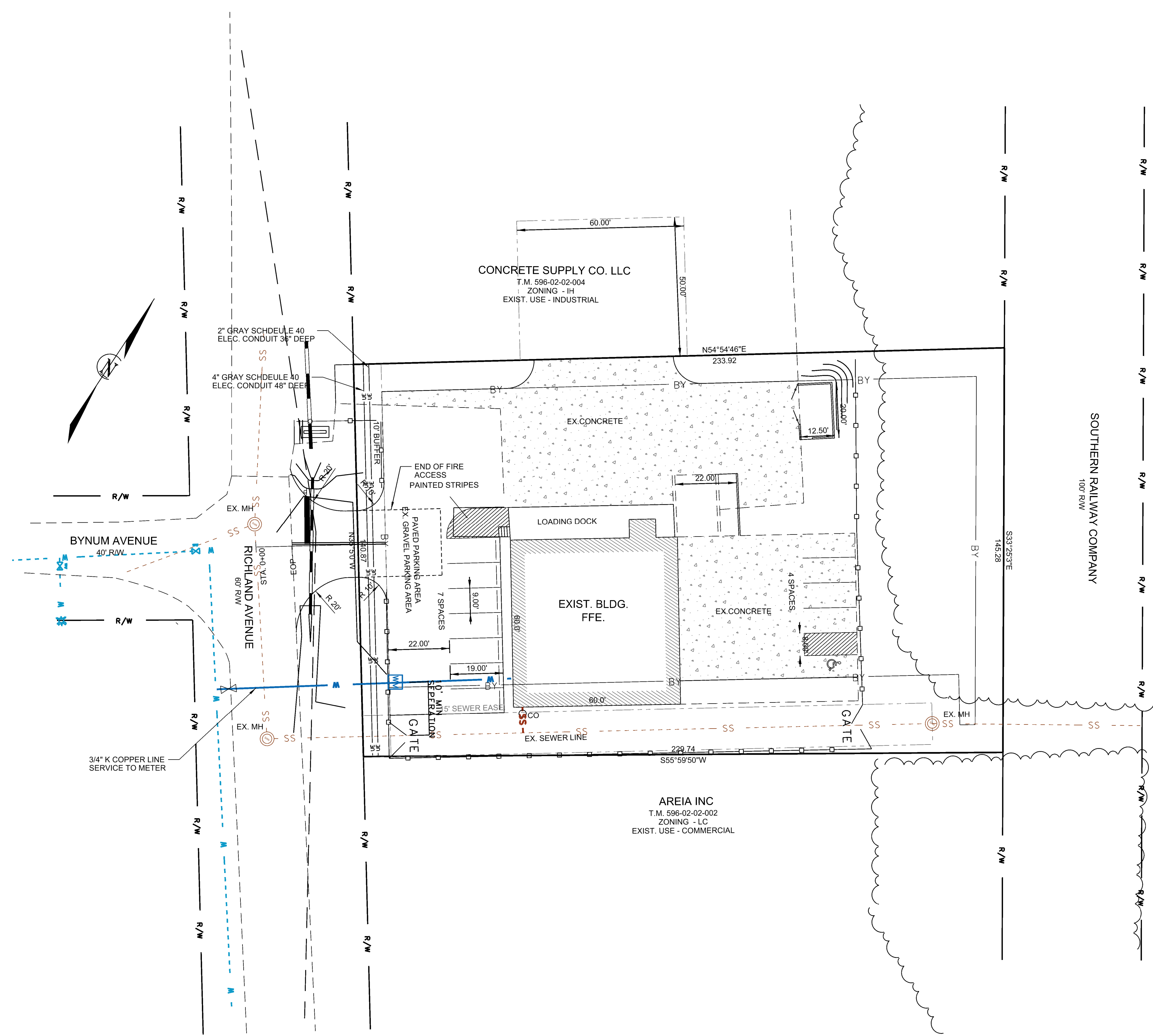



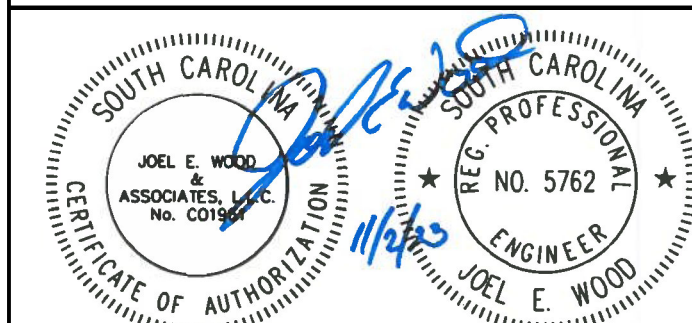
NOTES

1. All water meter boxes shall be tagged with permanent identifying tags, to correspond with address served.
2. THE CONTRACTOR, PRIOR TO POURING THE BUILDING SLAB AND FOUNDATION, SHALL VERIFY THE ACCESSIBILITY OF THE SANITARY SEWER SERVICE AND OBTAIN CONFIRMATION FROM THE DESIGN ENGINEER REGARDING SANITARY SEWER SERVICE FUNCTIONALITY.
3. Dumpster screening to match building facade. Structure is existing.
4. ALL STORMDRAIN LINES ARE SUBJECT TO "O" RING GASKETS.
5. 270 SQ.FT. PEDESTRIAN ZONE PROVIDED WITH BENCHES.
6. The developer/contractor is responsible for flow testing private fire hydrants. Flow test results for private and public hydrants must be shown on the "As-Built" plans.
7. All materials, construction, and plans are to comply with current City of Rock Hill Standard Specifications and Details.
8. Contact Palmetto Utility Protection Service (PUPS) @ 811 or 888-721-7877, a minimum of 72 hours before digging.
9. Fire hydrants shall be equipped with a 5-inch Storz Connector, located on the steamer port of each hydrant.
10. Before Fire Riser is to be installed, Contractor shall contact City Inspector Randy Millen (803-448-9747), to coordinate necessary inspection of installation."
11. All water meter boxes must be tagged with permanent identifying tags, to correspond with address served.
12. All public and private fire hydrants must be specified on the plans. Note public hydrants to be painted "silver" and private hydrants as "red".



APPROVALS	PREPARED BY	SEALS	PROJECT	SHEET TITLE	NO.	DATE	REVISIONS	BY	
Project Engr: _____ Drawn By: _____ Checked By: _____	 JOEL E. WOOD & ASSOCIATES PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390		1005 RICHLAND ST PARKING AND DRIVE UPGRADE	FIRE TRUCK TURNING PATH					
Review: _____ Bid: _____ Construction: _____			ROCK HILL, SOUTH CAROLINA PREPARED FOR SKYRISE INVESTMENT INC						
			SCALE: 1" = 20'						
								DATE: 4/15/2023	
								JOB NO.: 221209	
								SHEET C303	



APPROVALS	PREPARED BY	SEALS	PROJECT	SHEET TITLE	REVISIONS				SCALE:
					NO.	DATE	BY		
Project Engr: _____ Drawn By: _____ Checked By: _____ Review: _____ Bid: _____ Construction: _____	 JOEL E. WOOD & ASSOCIATES PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390		1005 RICHLAND ST PARKING AND DRIVE UPGRADE ROCK HILL, SOUTH CAROLINA PREPARED FOR SKYRISE INVESTMENT INC	UTILITY PLAN					DATE: 4/15/2023 JOB NO.: 221209 SHEET C400

- a- If necessary, slopes which exceed eight (8) feet should be stabilized with synthetic or vegetative mats, in addition to hydroseeding. It may be necessary to install temporary slope drains during construction. Temporary berms may be needed daily until the slope is brought to grade.
- b- Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than fourteen (14) days after work has ceased, except as stated below:
Where stabilization by the 14th day is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practicable.
Where construction activity on a portion of the site is temporarily ceased, and earth-disturbing activities will be resumed within 14 days, temporary stabilization measures do not have to be initiated on that portion of the site.
- c- All sediment and erosion control devices shall be inspected every seven (7) days and within 24 hours after each rainfall occurrence that exceeds one-half (0.5) inch. If site inspections or other information identify BMPs that are damaged, inappropriately or incorrectly installed, or not operating effectively, then maintenance must be performed as soon as practicable, or as reasonably possible and no less than 48 hours from the time of identification (preferably before the next storm event).
- d- 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 with grassing immediately after the utility installation. Fill cover and temporary seeding at the end of each day are recommended. If water is encountered while trenching, the water should be filtered to remove any sediments before being pumped back into any stormwater systems, water courses and waters of the state (WoS) or waters of the United States (Wou.S.).
- e- All erosion control devices shall be properly maintained during all phases of construction until the completion of all construction activities and all disturbed areas have been stabilized. Additional control devices may be required during construction in order to control erosion and/or offsite sedimentation. All temporary control devices shall be removed once construction is complete and the site is stabilized.
- f- The contractor must take necessary action to minimize the tracking of mud onto paved roadway from construction areas and the generation of dust. The contractor shall daily remove mud/soil from pavement, as may be required.
- g- Residential subdivisions require erosion control features for infrastructure as well as for individual lot construction. Individual property owners shall follow these plans during construction or obtain approval of an individual plan in accordance with SC Reg. 72-300 Seq. and SCRI00000.
- h- Temporary diversion berms and/or ditches will be provided as needed during construction to protect work areas from upslope runoff and/or divert sediment laden water to appropriate traps or stable outlets.
- i- All WoS or Wou.S., including wetlands, are to be flagged or otherwise clearly marked in the field. A double row of silt fence is to be installed in all areas where a 50-foot buffer cannot be maintained between the disturbed area and all WoS and a 130-foot minimum buffer for Wou.S. A 25-foot no disturbance zone shall be maintained between the last row of silt fence and all WoS and a minimum 50-foot no disturbance zone for Wou.S. Buffers and no disturbance zones shall be measured from top of creek bank.
- j- Litter, construction debris, oils, fuels and building products with significant potential for impact (such as stockpiles of freshly treated lumber) and construction chemicals that could be exposed to storm water must be prevented from becoming a pollutant source in storm water discharges.
- k- A copy of the SWPPP (including civil construction plans and supporting documents), inspections records, and rainfall data must be retained at the construction site or a nearby location easily accessible during normal business hours, from the date of commencement of construction activities to the date that final stabilization is reached.
- l- Initiate stabilization measures on any exposed steep slope (3H:1V or greater) where la d-disturbing activities have permanently or temporarily ceased, and will not resume for a period of seven (7) calendar days.
- m- Minimize soil compaction and, unless infeasible, preserve and stockpile topsoil for reuse.
- n- After construction activities begin, inspections must be conducted at a minimum of at least once every calendar week and must be conducted until final stabilization is reached on all areas of the construction site.
- o- If existing BMPs need to be modified or if additional BMPs are necessary to comply with the requirements of this permit and/or SC's Water Quality Standards, implementation must be completed before the next storm event whenever practicable. If implementation before the next storm event is impracticable, the situation must be documented in the SWPPP and alternative BMPs must be implemented as soon as reasonably possible.
- p- A Pre-Construction Conference must be held for each construction site with an approved On-Site SWPPP prior to the implementation of construction activities. For non-linear projects that disturb 10 acres or more this conference must be held on-site unless the Department has approved otherwise.
- q- Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.
- r- Minimize the discharge of pollutants from dewatering of trenches and excavated areas. These discharges are to be routed through appropriate BMPs (sediment basin, filter bag, etc.).
- s- Show BMP measures for concrete truck washout area, or add the following notes:
Concrete trucks shall not typically be washed out on site. If concrete truck washout is permitted on site, coordinate location and EMP's with site inspector.
Do not dispose of concrete truck washout waste by dumping into a sanitary sewer, storm drain or onto soil or pavement that carries storm water runoff.
Concrete truck washout shall be disposed of in accordance with the following:
- designated area that will later be backfilled (slurry pit)
- designated area where concrete wash can harden and be disposed of as solid waste.
- location that is not subject to water runoff, and more than 50 feet away from a storm drain, open ditch, or receiving water way.
- pump excess concrete in concrete pump bin back into concrete mixer truck.
- concrete washout from concrete pumper bins can be washed into concrete pumper trucks and discharged into designated washout area or properly disposed of offsite.
- t- The following discharges from sites are prohibited:
- Wastewater from washout of concrete, unless managed by an appropriate control;
- Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
- Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and - Soaps or solvents used in vehicle and equipment washing.
- u- All chemical spills, oil spills, or fish kills must be reported to SCDHEC Land & Waste Management Emergency Response call the 24-hour emergency response line at 1-888-481-0125.
- v- Temporary toilet facilities shall be provided for all construction workers and site visitors in accordance with 2006 International Plumbing Code General Regulations, Section 311. Portable facilities shall be placed on level ground and away from storm drainage systems (ditches, catch basins, etc.). Disposal and handling of sanitary waste must comply with SCDHEC requirements.
- w- Final grades for grassed and landscaped areas shall require a minimum 4" of clean top soil, free of debris and contaminants, and preferably of native origin.

NOTES :

NARRATIVE:

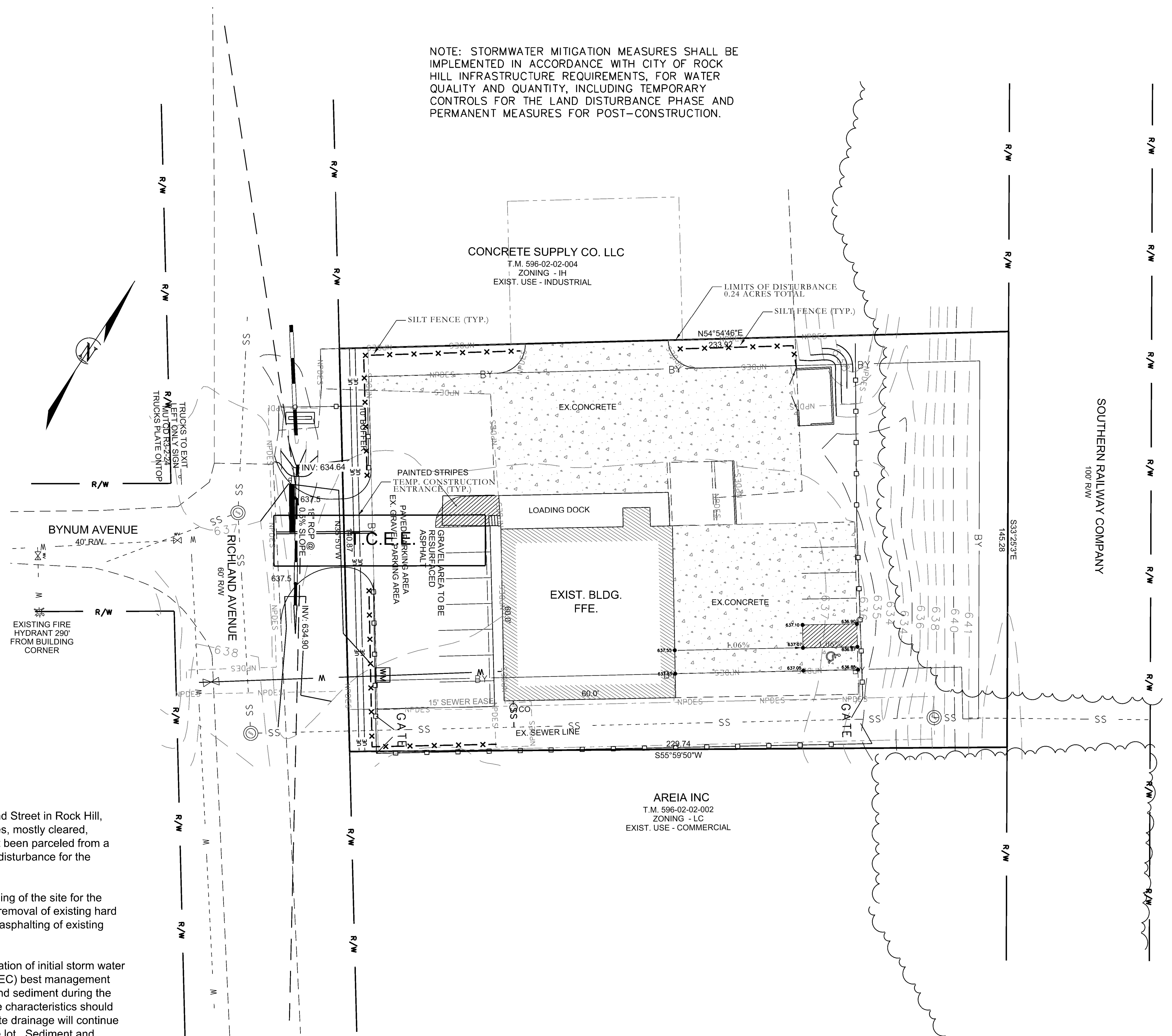
The project is located at 1005 Richland Street in Rock Hill, South Carolina. The site is a 0.76 acres, mostly cleared, partially developed tract which has not been parceled from a larger tract of land . The total limits of disturbance for the project is 0.27(0.3) acres.

The project includes clearing and grading of the site for the construction of new driveway and the removal of existing hard surface to create new bufferyard, and asphaltting of existing gravel drive.


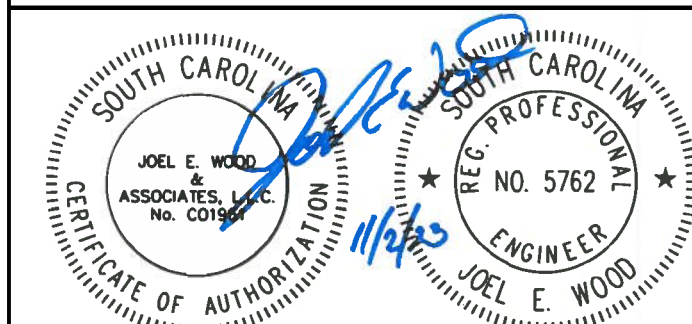
The contract will provide for the installation of initial storm water and sediment and erosion control (S&E) best management practices (BMP'S) to manage runoff and sediment during the construction contract. Offsite drainage characteristics should not change after site development. Site drainage will continue to flow off-site to the front & rear of the lot. Sediment and erosion control measures include perimeter silt fence, a stone construction entrance to minimize tracking of mud onto existing public roads, and temporary and permanent seeding. Other standard BMP measures will be implemented to control sediment and soil erosion as needed during construction. All temporary S&E measures will be removed once construction is complete and the sites are stabilized.

TYPE OF IMPERVIOUS AREA	NEW (SF)	EXISTING (SF)
ROOF	4,300	4,300
ASPHALT	6,244	0
CONCRETE	8,118	10,680
OTHER HARD SURFACE (GRAVEL, ETC)	0	7,243
WATER SURFACE (WET POND)	0	0

NOTE: STORMWATER MITIGATION MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH CITY OF ROCK HILL INFRASTRUCTURE REQUIREMENTS, FOR WATER QUALITY AND QUANTITY, INCLUDING TEMPORARY CONTROLS FOR THE LAND DISTURBANCE PHASE AND PERMANENT MEASURES FOR POST-CONSTRUCTION.

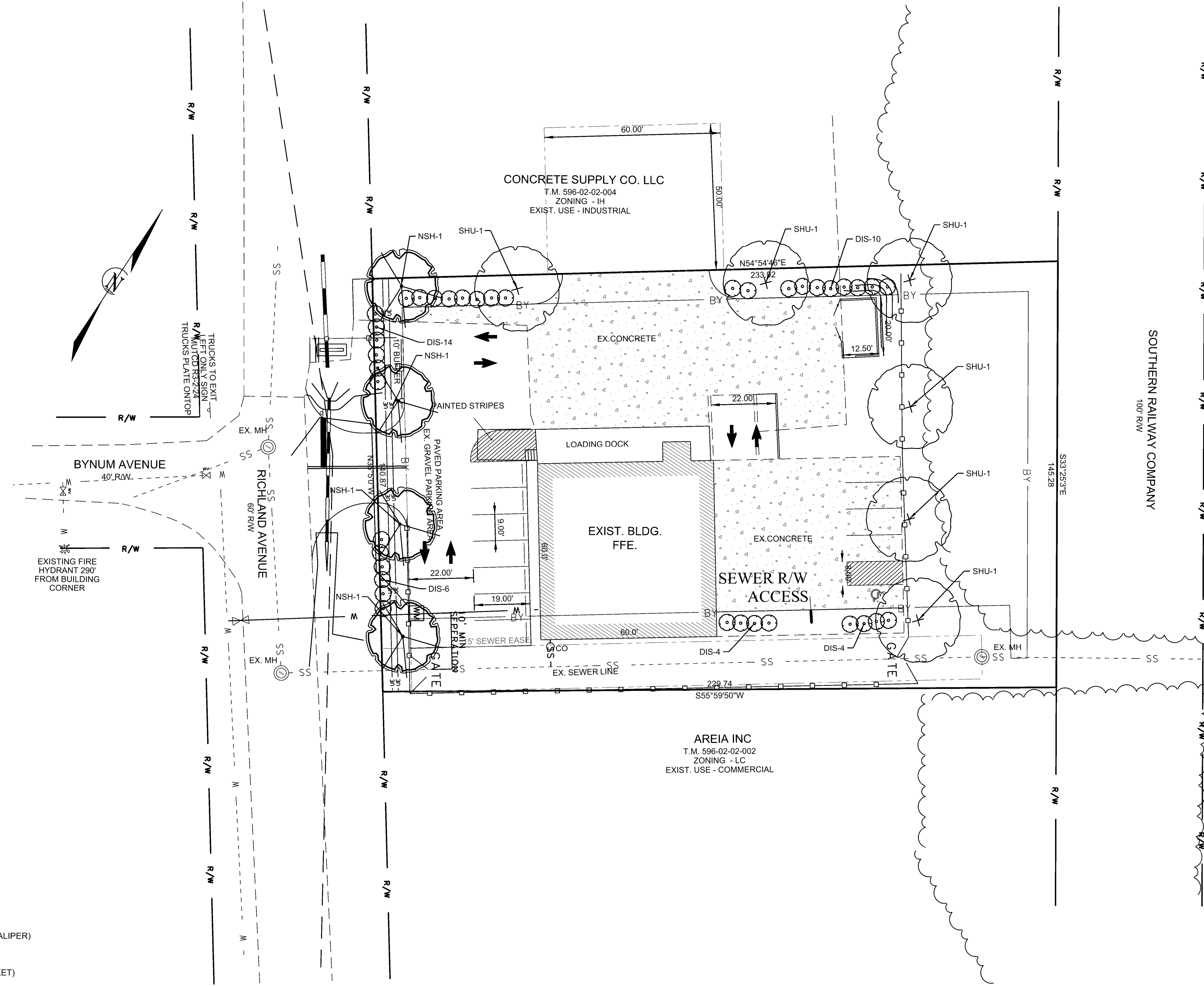


NOTE: CONSTRUCTION CANNOT BEGIN UNTIL ALL APPLICABLE FEES ARE PAID & EXTENSION AGREEMENTS EXECUTED. CITY OF ROCK HILL ISSUES AN APPROVAL LETTER, SCDHEC GRANTS AN NPDES PERMIT & A PRE CONSTRUCTION MEETING IS HELD WITH THE INFRASTRUCTURE DIVISION (CALL 803-329-5515 TO SCHEDULE).

APPROVALS	PREPARED BY	SEALS	PROJECT	SHEET TITLE	NO.	DATE	REVISIONS	BY	SCALE: 1" = 20'
Project Engr: _____ Drawn By: _____ Checked By: _____	 JOEL E. WOOD & ASSOCIATES PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390		1005 RICHLAND ST PARKING AND DRIVE UPGRADE ROCK HILL, SOUTH CAROLINA PREPARED FOR SKYRISE INVESTMENT INC	GRADING AND EROSION CONTROL PLAN					DATE: 4/15/2023 JOB NO.: 221209 SHEET C500

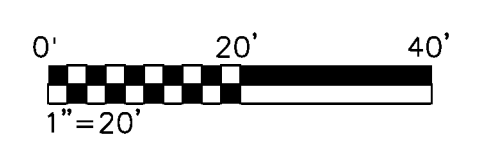
GENERAL PLANTING NOTES

1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF QUANTITIES IN THE PLANT LIST. ANY DISCREPANCIES BETWEEN QUANTITIES ON PLAN AND PLANT LIST SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OR LANDSCAPE ARCHITECT. ANY FIELD ADJUSTMENTS OR QUANTITY ADJUSTMENTS MUST BE AUTHORIZED PRIOR TO PLANTING.
2. ALL TREES, SHRUBS AND PLANTS SHALL CONFORM TO ACCEPTED STANDARDS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
3. ALL PLANT MATERIAL SHALL BE SOAKED WITH WATER AND MULCHED IMMEDIATELY FOLLOWING PLANTING.
4. THE TOP OF THE ROOT BALLS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS BORN TO PREVIOUS GROWING CONDITIONS.
5. ALL ROOT BALLS REMOVED FROM CANS SHALL BE SCARIFIED PRIOR TO BACKFILLING.
6. ALL PLANTS SHALL BE GUARANTEED TO BE IN HEALTHY CONDITION FOR ONE (1) YEAR AFTER ACCEPTANCE BY OWNER OF ALL PLANT MATERIAL.
7. MULCH A MIN. FOUR (4) FOOT AREA AROUND EACH TREE. MULCH A CONTINUOUS AREA AROUND ALL SHRUB BEDS, AS INDICATED ON THE PLAN, WITHIN 2 DAYS AFTER PLANTS ARE INSTALLED. MULCH SHALL BE 3-4 IN. OF PINE NEEDLE MULCH OR DOUBLE HAMMERED SHREDDED MULCH.
8. LANDSCAPE CONTRACTOR SHALL REMOVE TOP 1/3 OF ALL WIRE BASKETS, TOP 1/3 OF BURLAP AND ASSOCIATED TWINE AND STRAPPING FROM TREE ROOT BALLS PRIOR TO FINAL ACCEPTANCE OF PLANTS.
9. TOPSOIL SHALL BE PROVIDED BY LANDSCAPE CONTRACTOR AND USED FOR BACKFILLING ALL PITS FOR PLANTS. PROVIDE TOPSOIL WHICH IS FERTILE, FRIABLE, NATURAL LOAM, SURFACE SOIL, REASONABLY FREE OF SUB-SOIL, CLAY LUMPS, BRUSH, WEEDS AND OTHER LITTER AND FREE OF ROOTS, STUMPS, STONES LARGER THAN 1" IN ANY DIMENSION, AND OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH. TOPSOIL SHALL HAVE 2-5% MIN. ORGANIC MATTER, A 60% MAX. CLAY CONTENT, AND pH VALUE OF 6-6.5%.
10. ALL BEDS SHOULD BE TILLED PRIOR TO ADDING PLANTING MIX. PLANTING MIX SHALL CONSIST OF 4" TOPSOIL, AS PER NOTE 9, 4" OF GROUND PINE BARK SOIL CONDITIONER AND 2" MUSHROOM COMPOST. AFTER PLACEMENT OF PLANTING MIX, ALL BEDS SHALL BE DEEP TILLED TO 12" DEPTH.
11. CONTRACTOR IS RESPONSIBLE FOR HAVING ALL UNDERGROUND UTILITIES LOCATED AND CLEARLY PAINTED WITHIN 10 DAYS OF ANY GROUND DISTURBING ACTIVITY. OWNER WILL NOT PAY FOR UTILITY REPAIRS DUE TO FAILURE TO MARK AND OBSERVE UTILITY LOCATIONS.



SYMBOL LEGEND

- QUERCUS SHUMARDII (SHURMAND OAK)(MIN 2.5" CALIPER)
- DISTYLIUM MYRICOIDES (BLUE ISU)(3 GALLON BUCKET)
- ILEX NELLIIE R. STEVENS (NELLIE STEVENS HOLLY) (5 GALLON)



APPROVALS Project Engr: _____ Drawn By: _____ Checked By: _____ Review: _____ Bid: _____ Construction: _____	PREPARED BY JOEL E. WOOD & ASSOCIATES PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390	SEALS 	PROJECT 1005 RICHLAND ST PARKING AND DRIVE UPGRADE	SHEET TITLE LANDSCAPE PLAN	NO. DATE REVISIONS BY
			ROCK HILL, SOUTH CAROLINA PREPARED FOR SKYRISE INVESTMENT INC	SCALE: 1" = 20' DATE: 4/15/2023 JOB NO.: 221209 SHEET C600	

GENERAL WATER/SEWER NOTES

1. WATER AND SEWER SYSTEMS ARE TO BE CONSTRUCTED IN GENERAL ACCORDANCE WITH ALL CITY OF ROCK HILL AND SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (SCDEC) REGULATIONS, REFERENCED WATER AND SEWER STANDARDS AND SPECIFICATIONS.
2. WATER AND SEWER CONSTRUCTION ON THIS SITE IS AUTHORIZED BY PERMITS ISSUED BY SCDEC. THE WORK IS SUBJECT TO INSPECTION AT ALL TIMES BY REPRESENTATIVES OF SCDEC, CITY OF ROCK HILL, AND THE ENGINEER OF RECORD. THE PERMITS REQUIRE CERTIFICATION OF COMPLETION BY THE ENGINEER OF THE WATER AND SEWER SYSTEMS PRIOR TO CITY ACCEPTANCE AND ISSUANCE OF FINAL OPERATIONAL APPROVAL BY SCDEC.
3. CONTRACTOR SHALL VERIFY THE ACTUAL LOCATION AND ELEVATION FOR ALL UTILITIES, DRAINAGE, AND OTHER UNDERGROUND FACILITIES, AND SHALL NOTIFY THE ENGINEER OF RECORD OF ANY DISCREPANCY OR CONFLICTS PRIOR TO CONSTRUCTION.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF LOCATING AND MARKING ALL EXISTING UNDERGROUND UTILITIES, CONTACT SC81 AT 811 (INSIDE SC) OR 888-721-7877 (OUTSIDE SC), A MINIMUM OF 72 HOURS BEFORE DIGGING.
5. CONNECTION TO ANY EXISTING LINES SHALL BE BY THE CONTRACTOR IN THE PRESENCE OF CITY OF ROCK HILL INSPECTION PERSONNEL. PLUS NEW CONNECTION UNTIL CONSTRUCTION AND TESTING HAS BEEN COMPLETED, INSPECTED BY THE ENGINEER OF RECORD AND CITY OF ROCK HILL, AND FINAL CONNECTION IS AUTHORIZED.
6. UTILITY SERVICE PIPING SHALL BE ROUTED THROUGH SOFT AREAS AND NOT BE LOCATED UNDER PAVED DRIVEWAYS AND SIDEWALKS.
7. CITY OF ROCK HILL SHALL OWN AND MAINTAIN THE PROPOSED WATER AND SANITARY SEWER LINES UPON COMPLETION, INSPECTION, APPROVAL, AND ACCEPTANCE OF THE WORK.
8. TEMPORARY EROSION CONTROL MEASURES (I.E. SILT FENCE, INLET PROTECTION, CHECK DAMS, ETC.) SHALL BE REMOVED AT THE END OF THE PROJECT.

CITY OF ROCK HILL
UTILITIES DEPARTMENT
757 S. ANDERSON ROAD
ROCK HILL, SC 29730



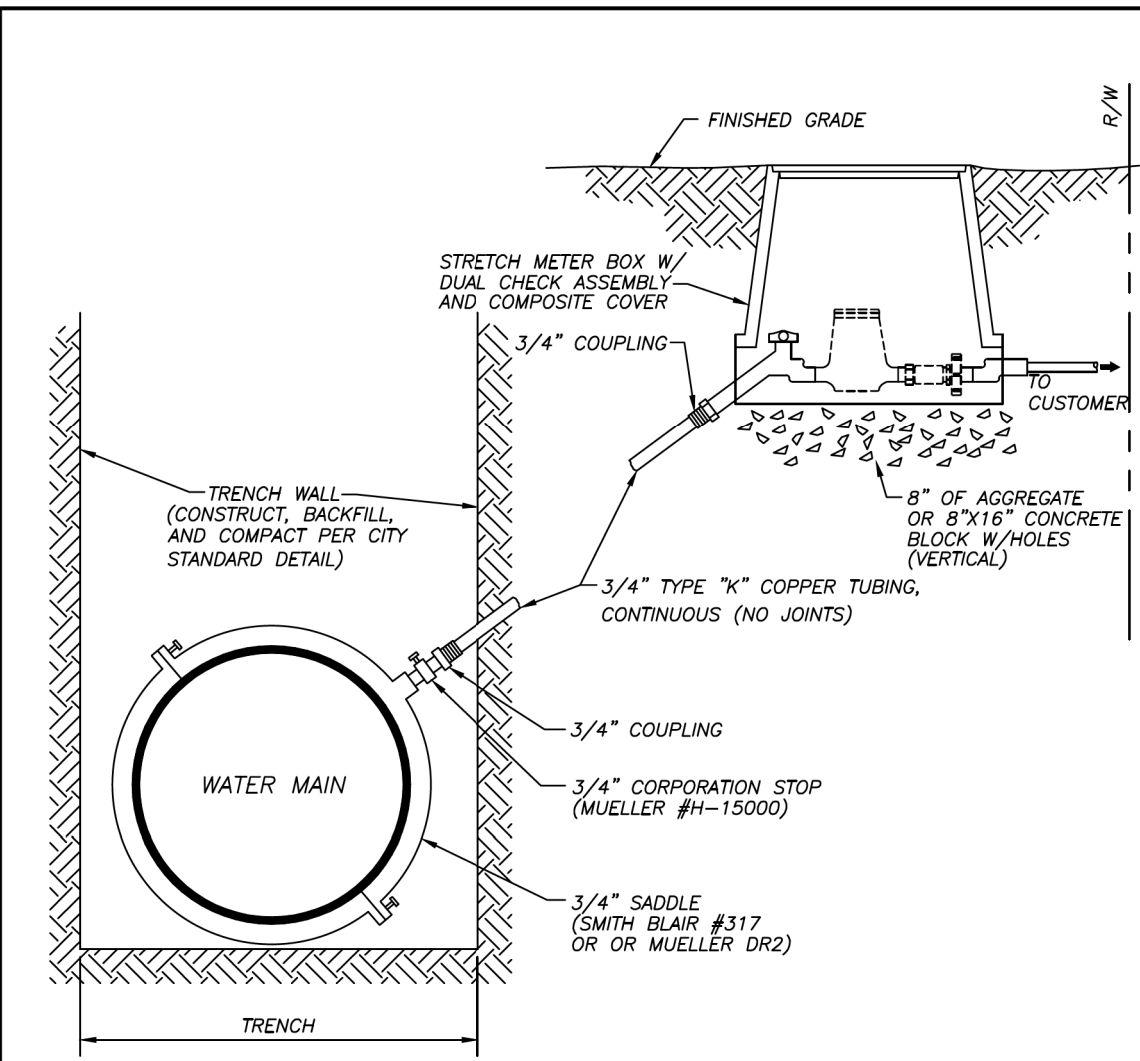
STANDARD DETAIL		
NOTES-GENERAL WATER/SEWER		
REVISIONS:	DATE:	FILE NAME:
	FEB. 2018	10.01
	N.T.S.	

- LAWN AREA SURFACE RESTORATION NOTES**
THE FOLLOWING SEED BED AND SURFACE RESTORATION SPECIFICATIONS ARE REQUIRED FOR ALL DEVELOPED PROPERTIES, LAWN AREAS, AND ALONG EASEMENTS PARALLELING PUBLIC AND PRIVATE ROADWAYS:
1. CONTRACTOR TO REMOVE AND STOCKPILE TOPSOIL SEPARATE FROM THE EXCAVATION TRENCH MATERIALS USED FOR FINAL DRESSING AND/OR RESTORATION OF LAWN AREAS DISTURBED BY CONSTRUCTION FOR THE INSTALLATION OF WATER AND/OR SEWER UTILITIES.
 2. ONCE TRENCH IS BACKFILLED AND PROPERLY CONSOLIDATED, EVENLY DISTRIBUTE STOCKPILED TOPSOIL OVER AREAS DISTURBED BY THE CONSTRUCTION.
 3. PREPARE SOIL FOR PLANTING BY LOOSENING COMPACTED SOIL TO A MINIMUM DEPTH OF THREE TO FOUR INCHES (3" - 4") WITH THE USE OF A HARLEY RAKE OR OTHER SUITABLE POWER RAKE; REMOVE ROCKS/STONES, ROOTS, TRASH, CLAY LUMPS, AND OTHER DEBRIS FROM THE SEEDBED AREA; AND FIND GRADE. THE DISTURBED AREA TO PROHIBIT PONDING OF STORMWATER RUNOFF AND TO ACHIEVE A SMOOTH, HOMOGENEOUS, WELL-DROMED SEEDBED.
 4. FERTILIZE PREPARED SEEDBED AREA WITH A 20-0-5 BLEND OF SLOW RELEASE FERTILIZER WITH AN APPLICATION RATE OF 3 POUNDS PER 1000 SQUARE FEET. THE FERTILIZER MAY BE APPLIED PRIOR TO POWER RAKE SEEDBED PREPARATION, IF DESIRED.
 5. APPLY SEED TO THE DISTURBED AREAS AND MULCH IN ACCORDANCE WITH THE SPECIFICATIONS. THE SEED THAT IS TO BE APPLIED IS TO MATCH THE TYPE OF GRASS IN THE LAWN AREA.

CITY OF ROCK HILL
UTILITIES DEPARTMENT
757 S. ANDERSON ROAD
ROCK HILL, SC 29730



STANDARD DETAIL		
NOTES-LAWN RESTORATION		
REVISIONS:	DATE:	FILE NAME:
	MAR. 2020	10.04
	N.T.S.	

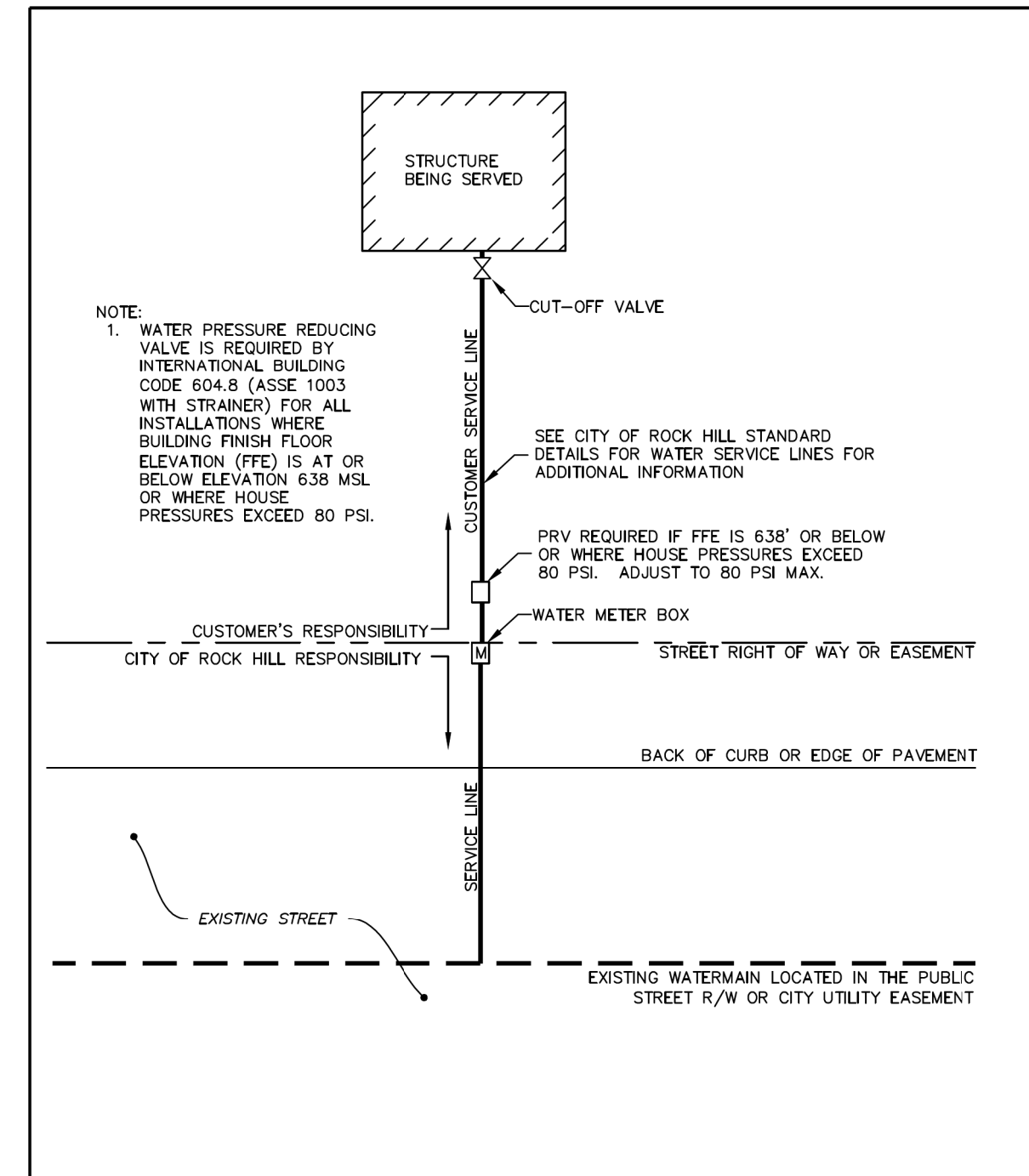


- NOTES**
1. CONTRACTOR TO INSTALL MUELLER 110 (CTS) 1/2" INLET - 7" HEIGHT H-1462-3N STRETCH METER BOX OR APPROVED EQUAL.
 2. METER AND DUAL CHECK ASSEMBLY TO BE INSTALLED BY CITY.
 3. CONTRACTOR SHALL INSTALL A MINIMUM OF 18" OF PIPING FROM ANY HARD SURFACE (I.E. CURB, SIDEWALK, ETC.) TO BOX INLET.
 4. SEPARATE BACKFLOW PREVENTION DEVICE MAY BE REQUIRED BY BUILDING CODE.
 5. FOR SERVICE PIPING CROSSING UNDER ROADWAY PAVEMENT (I.E. LONG SIDE SERVICE), PIPING IS TO BE PLACED WITH A MINIMUM OF 24" COVER FROM LIP OF GUTTER TO LIP OF GUTTER.
 6. SEE CITY OF ROCK HILL STANDARD DETAIL 11.11-WATER SERVICE CONNECTION LOCATION FOR LOCATION OF PRESSURE REDUCING VALVE, WHEN REQUIRED.

CITY OF ROCK HILL
UTILITIES DEPARTMENT
757 S. ANDERSON ROAD
ROCK HILL, SC 29730



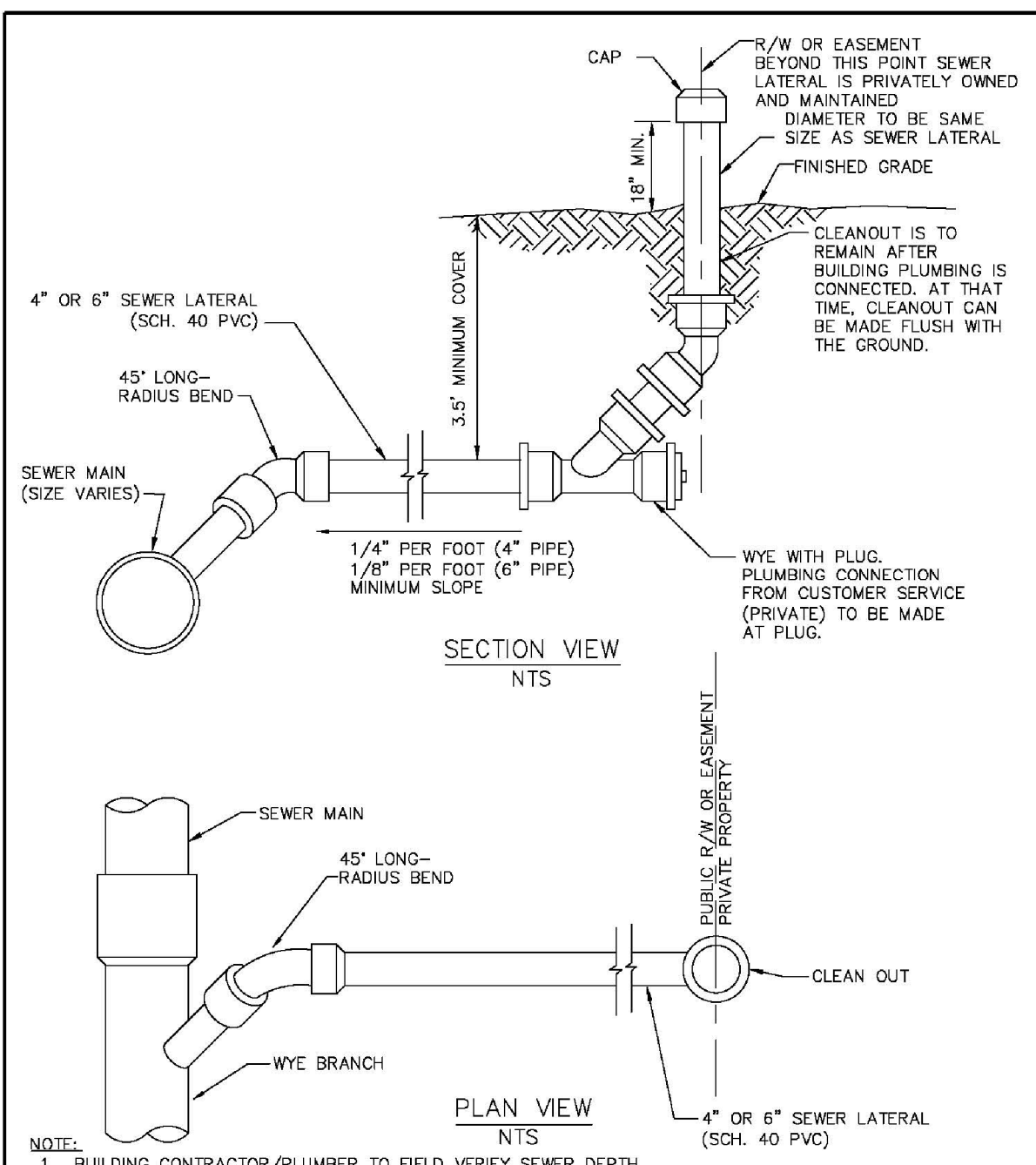
STANDARD DETAIL		
SERVICE CONNECTION 3/4"		
REVISIONS:	DATE:	FILE NAME:
	MAR. 2020	11.01
	N.T.S.	



CITY OF ROCK HILL
UTILITIES DEPARTMENT
757 S. ANDERSON ROAD
ROCK HILL, SC 29730



STANDARD DETAIL		
WATER SERVICE CONNECTION LOCATION		
REVISIONS:	DATE:	FILE NAME:
	MAR. 2020	11.11
	N.T.S.	



CITY OF ROCK HILL
UTILITIES DEPARTMENT
757 S. ANDERSON ROAD
ROCK HILL, SC 29730



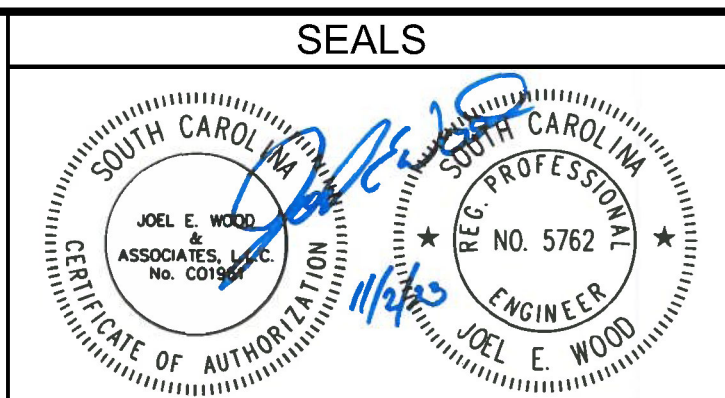
STANDARD DETAIL		
SEWER LATERAL		
REVISIONS:	DATE:	FILE NAME:
	MAR. 2020	15.01
	N.T.S.	

APPROVALS	
Project Engr:	_____
Drawn By:	_____
Checked By:	_____
Review:	_____
Bid:	_____
Construction:	_____

PREPARED BY

JOEL E. WOOD & ASSOCIATES
PLANNING • ENGINEERING • MANAGEMENT

P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390



PROJECT

1005 RICHLAND ST PARKING AND DRIVE UPGRADE

ROCK HILL, SOUTH CAROLINA
PREPARED FOR
SKYRISE INVESTMENT INC

SHEET TITLE

STORM DRAIN DETAILS

NO.	DATE	REVISIONS	BY

SCALE:	N.T.S.
DATE:	4/15/2023
JOB NO.:	221209
SHEET	C702

GRASSING

PART 1 - GENERAL

RELATED DOCUMENTS
Drawings and general provisions of the contract, including General Conditions, Supplementary Conditions, and Technical Specifications apply to work of this section.

DESCRIPTION OF WORK
This specification pertains to planting, fertilizing, and cultivating grass on all fill slopes, cut slopes, and graded areas disturbed by installation of the utilities. Established lawns and landscaped areas damaged by construction are to be restored to their former condition by seeding or sodding.

SUBMITTALS
Submit seed vendor's certified statement for each grass seed mixture required, stating botanical and common name, percentage by weight, and percentages of purity, germination, and weed free for each grass seed species.

DELIVERY, STORAGE, AND HANDLING
Deliver packaged materials in containers showing weight, analysis, and name of manufacturer. Protect materials from deterioration during delivery, and while stored at the site.

JOB CONDITIONS
This specification is intended to provide a complete grassing procedure which is to be carefully followed. Some procedures may be adjusted, upon consultation with the Engineer, so as to meet unforeseen weather and soil conditions.
Proceed with and complete grassing work as rapidly as portions of the project site become available.

SPECIAL PRODUCT WARRANTY
Warranty grassing throughout the specified maintenance period, and until final acceptance.

PART 2 - PRODUCTS

SOIL AMENDMENTS
Lime: Natural siliceous limestone containing not less than 85% total carbonates with a minimum of 50% magnesium carbonates, ground so that not less than 50% passes a 10-mesh sieve and not less than 50% passes a 100-mesh sieve.
Superphosphate: Soluble mixture of treated minerals; 20% available phosphoric acid.
Commercial Fertilizer: Complete fertilizer of neutral character, with some elements derived from organic sources and containing the following percentages of available plant nutrients:
For grassing adjoining lawns, provide fertilizer with not less than 18% total nitrogen, 2 1/2% available phosphoric acid, and 1 3/4% soluble potash. Nitrogen is to be a form that is available to plants at the initial growth period. At least 50% nitrogen is to be organic form. 50% slow release.
For grassing in unimproved areas, provide fertilizer with not less than 5% total nitrogen, 10% available phosphoric acid, and 10% soluble potash.

GRASS MATERIALS
Sod: Plugged fresh, clean, Fescue sod complying with tolerance for purity and germination established by Official Seed Analysis of North America.

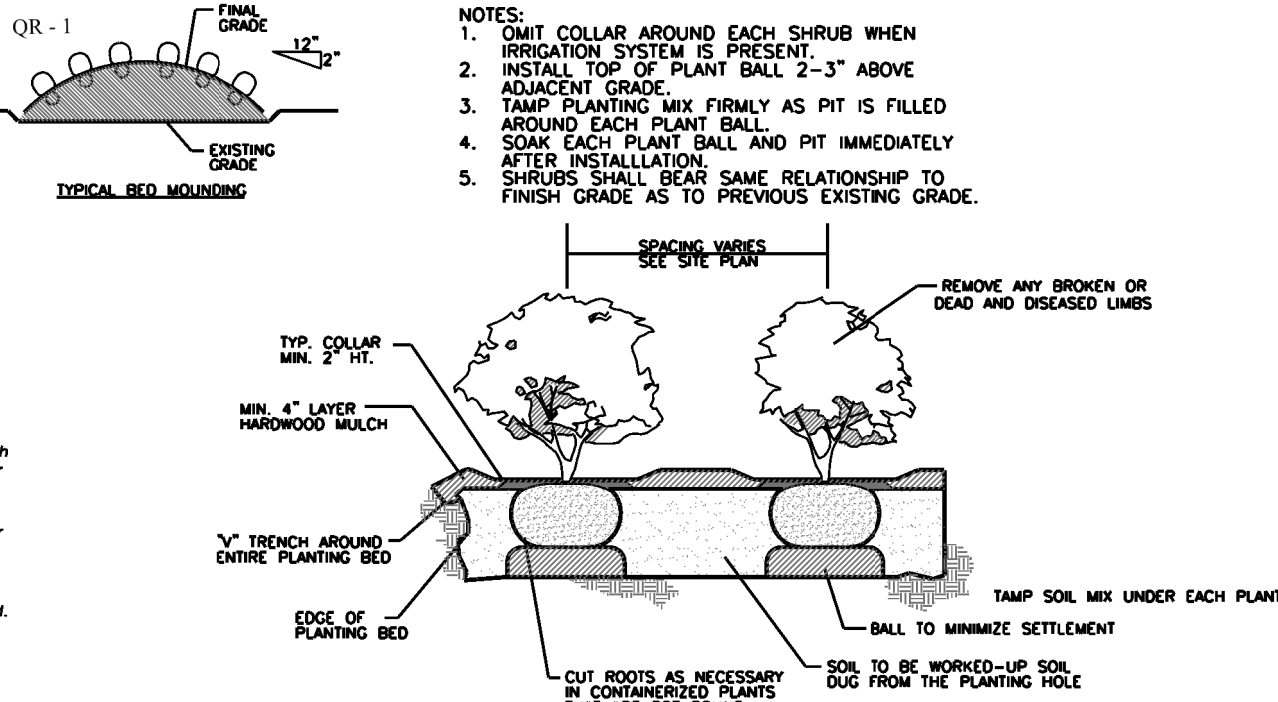
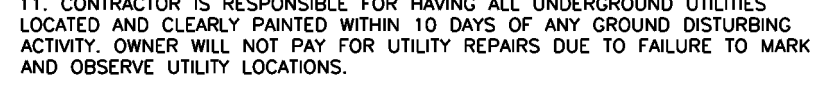
ANTI-EROSION MATERIALS
Mulch: Provide clean, seed-free hay or threshed straw of wheat, rye, oats, or barley.
Liquid Asphalt: Provide liquid asphalt or emulsified asphalt type film-forming agent, designed to permit transpiration but retard excessive loss of moisture. Deliver in manufacturer's fully identified containers and mix in accordance with manufacturer's instructions.
Liquid asphalt (kerosene thinned) is to be used during freezing weather. Liquid asphalt is to be either road or medium curing.
Emulsified asphalt (water thinned) is to be used when temperatures are above freezing.

GENERAL PLANTING NOTES

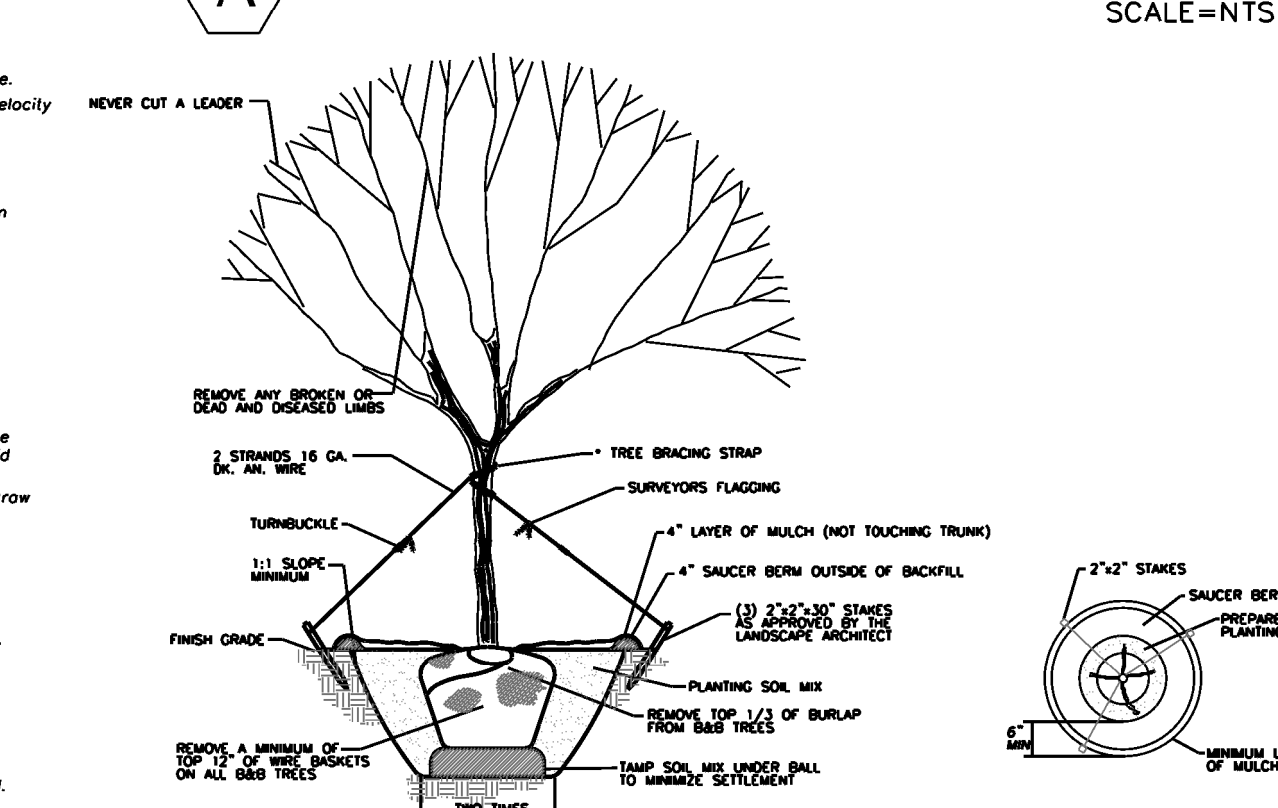
- 1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF QUANTITIES IN THE PLANT LIST. ANY DISCREPANCIES BETWEEN QUANTITIES ON PLAN AND PLANT LIST SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OR LANDSCAPE ARCHITECT. ANY FIELD ADJUSTMENTS OR QUANTITY ADJUSTMENTS MUST BE AUTHORIZED PRIOR TO PLANTING.
- 2. ALL TREES, SHRUBS AND PLANTS SHALL CONFORM TO ACCEPTED STANDARDS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSERMEN.
- 3. ALL PLANT MATERIAL SHALL BE SOAKED WITH WATER AND MULCHED IMMEDIATELY FOLLOWING PLANTING.
- 4. THE TOP OF THE ROOT BALLS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS BORN TO PREVIOUS GROWING CONDITIONS.
- 5. ALL ROOT BALLS REMOVED FROM CANS SHALL BE SCARIFIED PRIOR TO BACKFILLING.
- 6. ALL PLANTS SHALL BE GUARANTEED TO BE IN HEALTHY CONDITION FOR ONE (1) YEAR AFTER ACCEPTANCE BY OWNER OF ALL PLANT MATERIAL.
- 7. MULCH A MIN. FOUR (4) FOOT AREA AROUND EACH TREE, MULCH A CONTINUOUS AREA AROUND ALL SHRUB BEDS, AS INDICATED ON THE PLAN, WITHIN 2 DAYS AFTER PLANTS ARE INSTALLED. MULCH SHALL BE 3-4 IN. OF PINE NEEDLE MULCH OR DOUBLE HAMMERED SHREDDED MULCH.
- 8. LANDSCAPE CONTRACTOR SHALL REMOVE TOP 1/3 OF ALL WIRE BASKETS, TOP 1/3 OF BURLAP AND ASSOCIATED TWINE AND STRAPPING FROM TREE ROOT BALLS PRIOR TO FINAL ACCEPTANCE OF PLANTS.
- 9. TOPSOIL SHALL BE PROVIDED BY LANDSCAPE CONTRACTOR AND USED FOR BACKFILLING ALL PITS FOR PLANTS. PROVIDE TOPSOIL WHICH IS FERTILE, FRABLE, NATURAL, LOAM, SURFACE SOIL, REASONABLY FREE OF SUB-SOIL, CLAY LUMPS, BRUSH, WEEDS AND OTHER LITTER AND FREE OF ROOTS, STUMPS, STONES, LARGER THAN 1" IN ANY DIMENSION, AND OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH. TOPSOIL SHALL HAVE 2-3% MIN. ORGANIC MATTER, A 60% MAX. CLAY CONTENT, AND pH VALUE OF 6-6.5.
- 10. ALL BEDS SHOULD BE TILLED PRIOR TO ADDING PLANTING MIX. PLANTING MIX SHALL CONSIST OF 4" TOPSOIL, AS PER NOTE 9, 4" OF GROUND PINE BARK SOIL CONDITIONER AND 2" MUSHROOM COMPOST. AFTER PLACEMENT OF PLANTING MIX, ALL BEDS SHALL BE DEEP TILLED TO 12" DEPTH.
- 11. CONTRACTOR IS RESPONSIBLE FOR HAVING ALL UNDERGROUND UTILITIES LOCATED AND CLEARLY PAINTED WITHIN 10 DAYS OF ANY GROUND DISTURBING ACTIVITY. OWNER WILL NOT PAY FOR UTILITY REPAIRS DUE TO FAILURE TO MARK AND OBSERVE UTILITY LOCATIONS.

NOTES

- 1. LIMIT COLLAR AROUND EACH SHRUB WHEN IRRIGATION SYSTEM IS PRESENT.
- 2. INSTALL TOP OF PLANT BALL 2-3" ABOVE EXISTING GROUND.
- 3. TAMP PLANTING MIX FIRMLY AS PIT IS FILLED.
- 4. SOAK EACH PLANT BALL AND PIT IMMEDIATELY AFTER INSTALLATION.
- 5. SHRUBS SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS TO PREVIOUS EXISTING GRADE.



A SHRUB PLANTING DETAIL SCALE=NTS



B TREE PLANTING DETAIL SCALE=NTS

TOPSOIL PLANTING MIX - MINIMUM REQUIREMENTS:

- 1. WHERE PAVEMENT CUTOUTS ON RENOVATED SITES ARE REQUIRED AND/OR WHERE NEW PLANTING STRIPS OR ISLANDS ARE REQUIRED, ALL PAVEMENT, CONSTRUCTION DEBRIS AND GRAVEL SUB-BASE MUST BE REMOVED BEFORE PREPARING SOIL AND PLANTING TREES. EXISTING COMPACTED SOIL MUST BE REMOVED AND REPLACED WITH 24" OF TOPSOIL/PLANTING MIX -OR- EXISTING SOIL MAY BE UNCOMPACTED TO A DEPTH OF 24" AND AMENDED TO MEET TOPSOIL STANDARDS.
- 2. SOIL IN ALL PLANTING STRIPS OR ISLANDS, WHETHER EXISTING OR NEW (ON NEW OR RENOVATED SITES), MUST MEET THE MINIMUM TOPSOIL/PLANTING MIX SPECIFICATIONS. SOIL AMENDMENTS OR FRESH TOPSOIL/PLANTING MIX ARE OFFER NEEDED FOR PLANTING AREAS AT SITES WHERE ORIGINAL TOPSOIL IS OF POOR QUALITY, HEAVILY COMPACTED OR WHERE TOPSOIL HAS BEEN COMPLETELY REMOVED DURING GRADING.
- 3. TOPSOIL/PLANTING MIX SHOULD BE NATURAL, FERTILE, AGRICULTURAL SOIL CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHOULD BE UNIFORM COMPOSITION THROUGHOUT, WITH A MIXTURE OF SUBSOIL. IT SHOULD BE FREE OF STONES, LUMPS, LIVE PLANTS AND THEIR ROOTS, STICKS AND OTHER EXTRANEOUS MATTER. TOPSOIL SHOULD NOT BE USED WHILE IN A FROZEN OR MUDDY CONDITION.
- 4. TOPSOIL/PLANTING MIX SHALL HAVE AN ACIDITY RANGE OF pH 5.5-7.0 AND THE FOLLOWING COMPOSITION:
 - CLAY (RED CLAY, PULVERIZED) MINIMUM 10
 - COMPOST MINIMUM 5
 - COARSE SAND (FREE OF ROCKS) MINIMUM 30 MINIMUM 30
- 5. ALL PLANTING AREAS SHOULD BE TESTED FOR PROPER DRAINAGE. DRAINAGE SHOULD BE CORRECTED AS NECESSARY TO INSURE PROPER TREE GROWTH AND SURVIVAL. THE FOLLOWING LEVEL OF NUTRIENT ELEMENTS IS RECOMMENDED FOR PROPER GROWTH:
 - NITROGEN 55 % - 80%
 - PHOSPHOROUS 10%-30%
 - POTASSIUM 5%-8%
- 6. ALL PLANTING AREAS SHOULD BE TESTED FOR PROPER DRAINAGE. DRAINAGE SHOULD BE CORRECTED AS NECESSARY TO INSURE PROPER TREE GROWTH AND SURVIVAL.

NOTE: ALL REMAINING DISTURBED AREAS TO BE SEEDED.

SOIL PREPARATION REQUIREMENTS:

Planting Notes:

All tree pits, shrub and prepared planting beds are to be completely excavated in accordance with the planting details. Parking lot islands, including end caps, the foundation planter strip and perimeter landscape areas shall be prepared according to the planting notes and the detail sheet. Areas of natural, uncontaminated soil may be amended only without full excavation but are subject to soil test report or inspection prior to landscape installation.
Soil Notes:
Specify full excavation, length, width and depth, the removal of stones, fill dirt, pavement, subgrade material and all construction debris from islands, proposed areas of new plant installation and the foundation planter strip. Excavate to native material and backfill with viable topsoil and planting mix to a depth of not less than 24 inches. Depth of 30" may be required in some instances where site conditions warrant greater soil volume and amendments. Soil in planting areas may be crowned.
Soil required for planting mixes shall be provided by the contractor who shall load, haul, mix and distribute all topsoil and amendments such as organics, humus, composted material or native material as required. It shall be free of any other extraneous matter other than friable soil.
Planting mix shall be natural, fertile agricultural topsoil, including amendments, and capable of sustaining vigorous plant growth.
All topsoil and planting mix is subject to inspection prior to and during the planting period. The CRH may reject all material, including soil backfill, that does not meet the specifications.

A sample of the proposed planting mix shall be made available for City of Rock Hill Landscape Architect 15 working days prior to installation and approval on installations. A soil test may be required previous to approval. A landscape inspection will not pass without an acceptable planting medium, as well as, inspection of parking lot islands and foundation planting areas that are to be approved by the City's Landscape Architect.

- 1. ALL TREES TO BE GROWN IN A RECOGNIZED NURSERY IN ACCORDANCE WITH RECOMMENDATION AND REQUIREMENTS OF ANSI Z66.1 STANDARD FOR NURSERY STOCK.
- 2. REMOVE ALL TREATED OR PLASTIC-COATED BURLAP STRAPPING WIRE OR NYLON TWINE FROM ROOT BALL. AFTER SETTING IN HOLE, CUT AWAY TOP 12" OF WIRE BASKET, IF ANY.
- 3. INSTALL TOP OF PLANT BALL EVEN WITH OR 1" ABOVE EXISTING GRADE.
- 4. SOAK PLANT BALL AND PIT IMMEDIATELY AFTER INSTALLATION. PLACE 4-8" OF SEAMED MULCH OR PINE NEEDLES AROUND BASE OF TREE, 3" DIAMETER MINIMUM.
- 5. TREE BRACING STRAPS ARE OPTIONAL. USE POLYPROPYLENE WEBBING ONLY. NO WIRE OR ROPE TO BE IN DIRECT CONTACT WITH TRUNK. REMOVE ALL TREE STRAPS AND TRUNK WRAP AFTER ONE GROWING SEASON.
- 6. ANY TREE PROPOSED FOR PLANTING ON THE STREET RIGHT-OF-WAY MUST BE APPROVED IN ADVANCE BY THE CITY ARBORIST AS TO SPECIES, SIZE AND LOCATION(CITY ONLY).
- 7. CUT WIRES ARE NOT PERMITTED IN STREET RIGHT-OF-WAY.
- 8. NO BACKFILL ALLOWED ON TOP OF ROOT BALL.
- 9. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING BURIED UTILITIES PRIOR TO INSTALLATION.
- * - OPTIONAL TREE STAKING/BRACING MUST BE REMOVED AFTER 1 GROWING BY LANDSCAPE CONTRACTOR

APPROVALS

Project Engr:
Drawn By:
Checked By:
Review:
Bid:
Construction:

PREPARED BY

JOEL E. WOOD & ASSOCIATES
PLANNING • ENGINEERING • MANAGEMENT

SEALS

JOEL E. WOOD
ASSOCIATES, LLC
NO. 5762
ENGINEER

PROJECT

1005 RICHLAND ST PARKING AND DRIVE UPGRADE
ROCK HILL, SOUTH CAROLINA
PREPARED FOR
SKYRISE INVESTMENT INC

SHEET TITLE

LANDSCAPING DETAILS

NO.	DATE	REVISIONS	BY

SCALE: N.T.S.
DATE: 4/15/2023
JOB NO: 221209
SHEET C703