STRUCTURAL SOIL MIX

THE STRUCTURAL SOIL MATERIAL MIX IS DESIGNED AS FOLLOWS:

THE THREE COMPONENTS OF THE STRUCTURAL SOIL ARE MIXED IN THE FOLLOWING PROPORTIONS BY WEIGHT:
- CRUSHED STONE: 100
- CLAY LOAM: 20
- HYDROGEL: 0.03

TOTAL MOISTURE AT MIXING SHOULD BE 10% (AASHTO T-99 OPTIMUM MOISTURE).

CRUSHED STONE (GRANITE OR LIMESTONE) SHOULD BE NARROWLY GRADED FROM 3/4 -1 1/2 INCH, HIGHLY ANGULAR WITH NO FINES.

THE CLAY LOAM SHOULD CONFORM TO THE USDA SOIL CLASSIFICATION SYSTEM (GRAVEL <5%, SAND 25-30%, SILT 20-40%, CLAY 25-40%). ORGANIC MATTER SHOULD RANGE BETWEEN 2% AND 5%.

THE HYDROGEL, A POTASSIUM PROPENOATE-PROPENAMIDE COPOLYMER IS ADDED IN A SMALL AMOUNT TO ACT AS A TACKIFIER, PREVENTING SEPARATION OF THE STONE AND SOIL DURING MIXING AND INSTALLATION.

MIXING CAN BE DONE ON A PAVED SURFACE USING FRONT END LOADERS. TYPICALLY THE STONE IS SPREAD IN A LAYER, THE DRY HYDROGEL IS SPREAD EVENLY ON TOP AND THE SCREENED MOIST LOAM IS THE TOP LAYER. THE ENTIRE PILE IS TURNED AND MIXED UNTIL A UNIFORM BLEND IS PRODUCED. THE STRUCTURAL SOIL IS THEN INSTALLED AND COMPACTED IN 6 INCH LIFTS TO A STANDARD PROCTOR DENSITY OF NOT LESS THAN 95%.

DRAINAGE PIPE DETAILS

THE UNDERDRAIN PIPE COLLECTION SYSTEM IS TO BE EQUIPPED WITH A 6-INCH PERFORATED PVC PIPE (PVC SCH 40) IN AN 12-INCH WIDE GRAVEL TRENCH, RUNNING THE LENGTH OF THE STRUCTURAL SOIL MIX. TRENCH DEPTH SHOULD BE THAT THERE IS AT LEAST 1' OF GRAVEL BENEATH THE PIPE. THE TRENCH DEPTH WILL VARY DUE TO PIPE SLOPE. THE PIPE SHOULD HAVE 3/8-INCH PERFORATIONS, SPACED AT 6-INCH CENTERS, WITH A MINIMUM OF 4 HOLES PER ROW. THE PIPE IS TO MAINTAIN A MINIMUM GRADE OF 0.5%. TIE IN LOCATION SHALL BE THE NEAREST YARD INLET WHICH TIES TO THE STORM SEWER SYSTEM. A PERMEABLE FILTER FABRIC IS PLACED BETWEEN THE GRAVEL LAYER AND THE COMPACTED SUBGRADE.

CLEANOUTS SHALL BE 6" ø (PVC SCH 40) AND SPACED EVERY 50' BEGINNING AT THE FURTHEST UPSTREAM REACH OF THE UNDERDRAIN SYSTEM.

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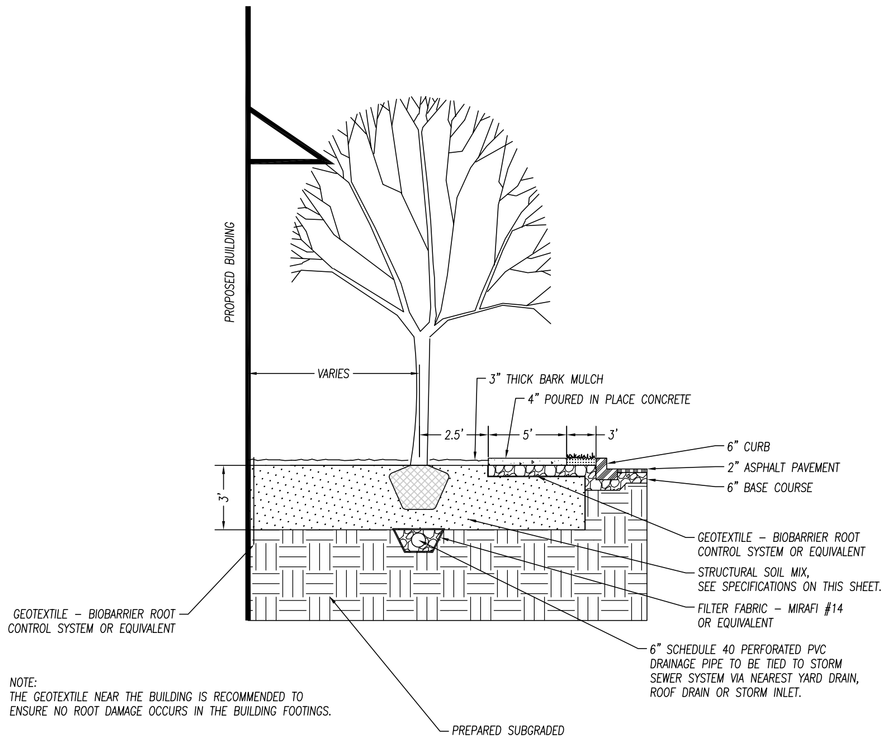
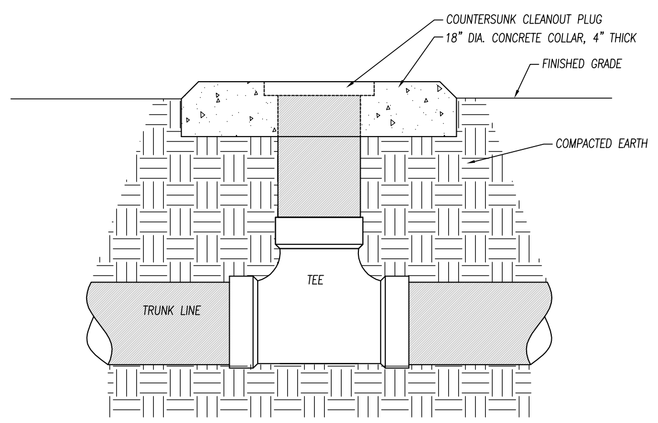
PERSONS USING THIS DRAWING SHALL MAKE THEIR OWN DETERMINATION OF THE LOCATION, DEPTH, AND DESCRIPTION OF UNDERGROUND AND OVERHEAD UTILITIES. THE UTILITY INFORMATION SHOWN HEREON IS BASED UPON RECORDS MADE AVAILABLE BY OTHERS. NO GUARANTEE IS MADE AS TO THE COMPLETE LOCATION OR ELECTRIC DETECTION METHODS WERE NOT USED TO VERIFY THE INFORMATION.

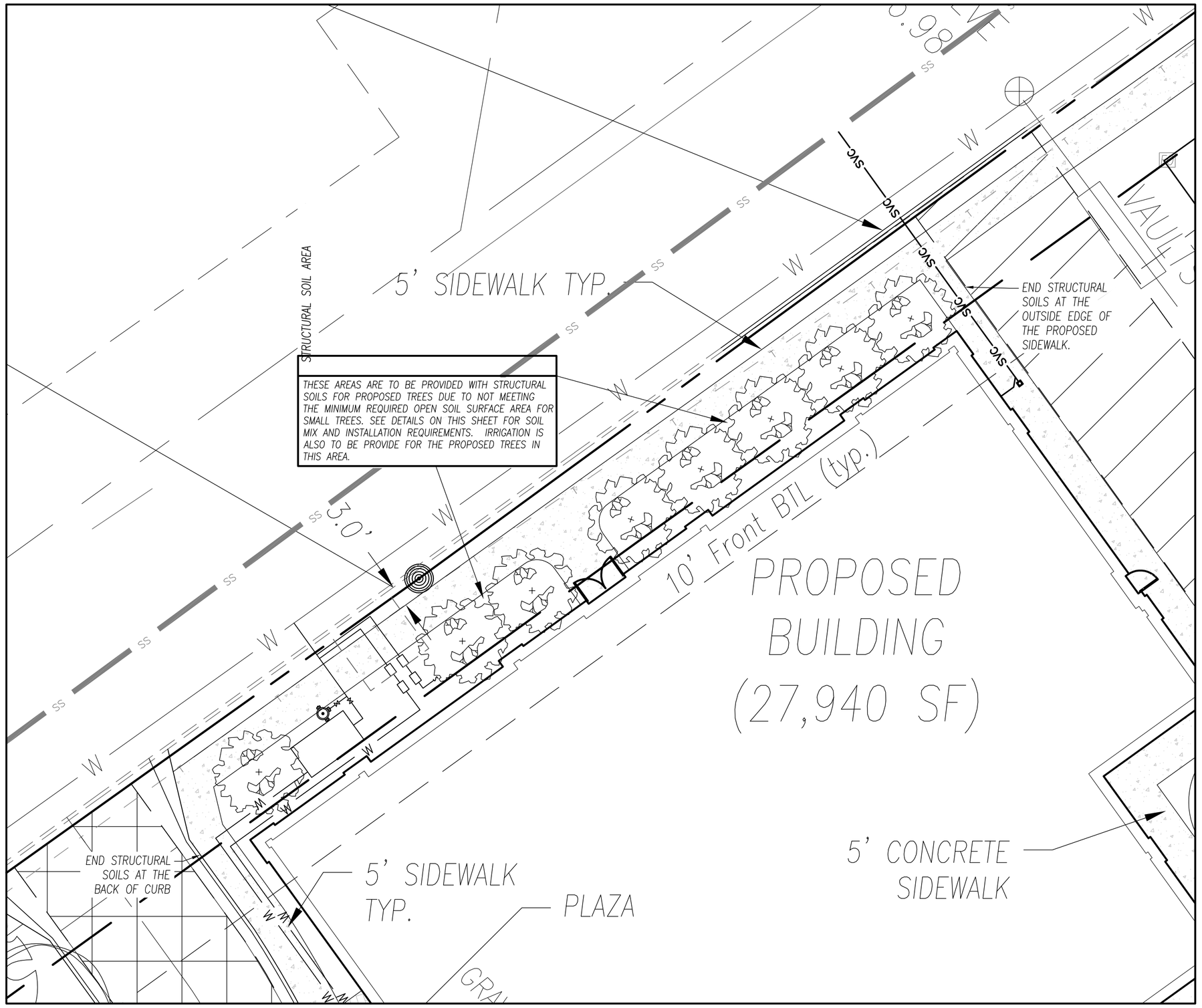


NOTE:
THE GEOTEXTILE NEAR THE BUILDING IS RECOMMENDED TO ENSURE NO ROOT DAMAGE OCCURS IN THE BUILDING FOOTINGS.

A / 14.4 STRUCTURAL SOIL AREA DETAIL
NTS



B / 14.4 UNDERDRAIN CLEANOUT
NTS



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GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

✓ REVIEW SET ☐ BID SET ☐ CONSTRUCTION SET

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DATE: 03/01/2011

REVISIONS

DATE	COMMENT
03/01/11	Per generator pad and enclosure addition and planning comments.
04/29/11	Per field change to bioretention pond.
05/12/11	Per ACCPW comments on field change to bioretention pond.
07/12/11	Per Building 200 footprint and grading modifications.
07/18/11	Per ACCPD TMP comments and ACCPU plans review comments.
07/21/11	Per ACCPD TMP comments.

GEORGIA REGISTERED No. 1306 PROFESSIONAL LANDSCAPE ARCHITECT JON M. WILLIAMS

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TMP - STRUCTURAL SOILS AREA/DETAILS

14.4

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