**SECTION 320000 EXT. IMPROVMENTS** 

February 2016

## **General Information**

## Site Paving

Site paving shall be provided to facilitate pedestrian and vehicular access along with emergency and service vehicle access to the site and facility being designed.

Materials, parameters and methods shall be in basic conformance with the TxDOT "Standard Specifications for Construction of Highways, Streets and Bridges," latest edition and applicable ASTM standards.

### SAM HOUSTON STATE UNIVERSITY DIVISION 32 EXTERIOR IMPROVEMENTS

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Bicycle Racks

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beginning of project to SHSU Grounds. Planting Mixture- Premixed blend of 50% topsoil, 50% organic matter, and sand in a ratio suited for the area and plant material specified.

Raised Planters- 12" Minimum of planting mix placed in planter. Crown surface for drainage.

Turf Areas & Ground Beds - 3" of topsoil placed, tilled 6" depth, and fine graded before placement of turf & ornamentals

Weed fabric/ cloth/ barrier shall not be accepted.

Concrete Mow Strip- Planter areas that are adjacent to turf areas shall have a 12" wide x 4" thick, reinforced concrete mow strip. Reinforcing shall be No. 3 rebar. Medium broom finish. Concrete shall be 5 sack mix, 3000 PSI at 28 days, minimum. Adjacent to building the mow strip shall be minimum 24" wide with an expansion joint and not doweled to the building foundation.

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### Tree Care Plan

See Appendix - SHSU Tree Care Plan

## Irrigation

Design and installation must meet TCEQ (Texas Commission on Environmental Quality) irrigation laws and requirements. Irrigation systems shall be installed under the supervision of a Licensed Irrigator.

The irrigation system shall be positively separated from the domestic water system by a double check or reduced pressure type backflow preventer meeting the requirements of AWWA C506 and city of Huntsville. Type chosen shall be suitable to the installation location and conditions. Backflow preventers may be placed in the mechanical space of the building when appropriate. All Backflow preventers shall be placed above ground, should be located to minimize visibility, and or concealed with plants or landscaping features to maintain aesthetics. Covers shall be provided.

Enclose pipe and wiring beneath roadways, walks, curbs, etc., in sleeves. Extend sleeve ends 24" beyond the edge of paved surface. Mark sleeve location with 3/8" X 3" brass or stainless steel stove bolt embedded in the concrete at each end. Sleeving pipe beneath pedestrian pavements shall be PVC Class 200 with solvent welded joints. Sleeving pipe beneath drives and streets shall be Schedule 40 with solvent welded joints. Sleeves installed under pavement for future irrigation installation shall be loose capped on each end and marked with stove bolts as above. Size and depth of sleeve should be coordinated with the landscape architect, with a minimum size being 4".

Mainline and lateral pipe shall be PVC Class 200 and have bell ends. Mainline and lateral fittings shall be PVC Schedule 40. All PVC pipe and slip fittings shall be joined with primer and solvent cement. Cure time for cement should be in accordance with manufacturer's instructions. For threaded PVC connections, use only Teflon-type tape. When connection is PVC to metal, the PVC component shall have male threads and the metal component shall have female threads.

The satellite irrigation controllers should be located outside the building or as directed by the Facilities Department. Controller units shall be compatible with the existing campus controller system. For controller, provide quick disconnect from power source next to controller.

Electric wire from the satellite controller to each remote control valve and the common wire shall be AWG No. 14 solid copper, type UF cable, UL approved for direct

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Remote control valves and irrigation heads should be compatible with existing campus irrigation system. Head to head spacing is required. Spacing must not exceed manufacturer's recommended spacing. All heads shall be adjusted to factory specifications.

Excavated material is generally satisfactory for backfill. Backfill shall be free from rubbish, vegetation, frozen materials, and stones larger than 2 inches in dimension. Backfill placed next to pipe shall be free of sharp objects which may damage the pipe. Contractor shall be responsible for adding soil to trenches after settling has occurred. Upon completion of work, remove from the site all tools, excess materials, and rubbish. Contractor shall provide a demonstration and walk through of entire irrigation system with Owner and Owner's Representative.

Contractor shall supply record drawings ("as builts") of all irrigation as installed in

ground to Owner or Owner's representative. Zones, back flow preventer, and controllers as well as the zone flow measurement for each zone shall be included and shown on the drawings. Drawings shall be at a scale no smaller than one inch equals thirty feet. Drawings shall be sealed, dated and signed by licensed irrigator in the State of Texas.

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