

EXHIBIT 4c

PAVEMENT DESIGN CRITERIA

1. GENERAL

Exhibit 4c contains requirements for:

- Hot Mix Asphalt (HMA) pavement and base for the existing US 278 Cross Island Parkway
- Hot Mix Asphalt (HMA) pavement and base for ramps

2. CRITERIA

2.1 General Notes

Milled-in rumble strips shall be used on all shoulders, both inside and outside, in accordance with Engineering Directive 53, SCDOT Standard Drawings and specifications for the entire project.

It is the Contractor's responsibility to confirm suitability of soils for placing pavement layers directly on subgrade. Contractor to modify or remove and replace in situ soils as necessary. Contractor to include appropriate notes and details on the roadway typical section sheets for subgrade stabilization technique(s) which will be used on the project as necessary.

All Cement Modified Reclaimed Base (CMRB) shall be cured using an asphalt curing coat in conformance with Section 307.4.11 of the standard specification and immediately overlaid with a surface or intermediate layer prior to allowing traffic. Perform CMRB using a minimum of 2 passes with the reclaimer. This can include a pulverization and a mixing pass or two passes with cement. Additional passes may be needed to meet the requirements of the specification. SCDOT may utilize coring at its discretion for dispute resolution of final acceptance for CMRB material. If testing during production fails or the quality of material is uncertain to the SCDOT, acceptance may be based upon extraction of an intact core. The thickness of the intact core shall equal or exceed the design thickness of the CMRB.

Eradication of temporary markings shall not be allowed on the final pavement surface. Prior to placing the final permanent pavement markings, all asphalt areas requiring revised pavement markings shall be milled and/or resurfaced with the required mixture type for interstate pavements or non-interstate pavements. Existing pavement markings on bridge decks shall be removed and replaced to match new lane configurations.

Table 1 in SC-M-403 will apply to the final riding surface on US 278 Mainline Pavement.

Do not place traffic on existing shoulder without performing reconstruction or rehab. All temporary pavement designs including shoulders must be approved prior to use. All temporary pavement is the responsibility of the Contractor.

The Contractor shall construct a pavement section as identified in sections below.

2.2 Mainline Cross Island Parkway (Base Scope)

- Perform full depth reclamation and overlay under allowable lane closures across the mainline. (Travel lanes, full width inside shoulder, and 2 foot into outside shoulder)
 - Pre-mill 5 inches.
 - Perform 12 inches of CMRB.
 - Overlay with 220 psy Intermediate Type B Special.
 - Maintain maximum drop off allowance.
 - (2 inches on paved surface)
 - (1 inch on milled surface)
 - Variable mill outside shoulder at the end of work shift to match grade of outside lane.
- Overlay entire mainline (include the full width inside and outside shoulders).
 - 200 psy Surface Type B.
- Removal of concrete section under toll plaza.
 - Replace with blend of borrow and add rock using a minimum of 40% add rock. Add rock is defined as graded aggregate base (GAB), reclaimed asphalt pavement (RAP), or 57 stone.
 - Perform 12 inches of CMRB and overlay with 220 psy Intermediate Type B Special.
- Approach Slab Areas
 - Perform 10 inch full depth patching leading up to the approach slab for a minimum of 10 feet.
 - Mill 2 inches
 - Overlay with 200 psy Surface Type B

2.3 Ramps (Base Scope)

- Perform 8 inch full depth patching.
- Mill and fill operation
 - Mill 2 inches.
 - Overlay with 200 psy Surface Type B.

2.4 Pavement Safety and Patching (Base Scope)

If potholes appear in the pavement the Contractor shall take action to temporarily fill all potholes for safety. Once a pothole is identified by SCDOT as a safety hazard and notification is made to the Contractor, the potholes(s) must be temporarily filled within 24 hours. Liquidated damages of \$420 will be assessed for every hour that a pothole is not temporarily filled after the initial 24-hour period. Temporarily filling of potholes shall be considered incidental and is not subject to additional payment.

Full depth patching shall be conducted prior to variable build up or overlay and in accordance with the Special Provision as outlined in Exhibit 5.

2.5 Ramps (Variable Scope)

- Perform full depth reclamation and overlay under allowable lane closures across the ramps. (Travel lanes, full width inside shoulder, and full width outside shoulder)
 - Pre-mill 2 inches.
 - Perform 12 inches of CMRB.
 - Mill 2 inches.
 - Maintain maximum drop off requirement. (2 inches)
 - Overlay with 150 psy Surface Type B.
 - Place additional 150 psy Surface Type B.

2.6 Mainline Cross Island Parkway (Variable Scope)

- Perform full depth reclamation and overlay under allowable lane closures across the mainline. (Travel lanes, full width inside shoulder, and full width outside shoulder)
 - Pre-mill 5 inches.
 - Perform 12 inches of CMRB.
 - Overlay with 220 psy Intermediate Type B Special.
 - Maintain maximum drop off requirement.
 - (2 inches on paved surface)
 - (1 inch on milled surface)
- Overlay entire mainline (include the full width inside and outside shoulders).
 - 200 psy Surface Type B.
- Removal of concrete section under toll plaza.
 - Replace with blend of borrow and add rock using a minimum of 40% add rock. Add rock is defined as graded aggregate base (GAB), reclaimed asphalt pavement (RAP), or 57 stone.

EXHIBIT 4c – PAVEMENT DESIGN CRITERIA

- Perform 12 inches of CMRB and overlay with 220 psy Intermediate Type B Special.
- Approach Slab Areas
 - Perform 10 inch full depth patching leading up to the approach slab for a minimum of 10 feet.
 - Mill 2 inches
 - Overlay with 200 psy Surface Type B

2.7 Sol Blatt Jr. Parkway (Variable Scope)

- Perform 8 inch full depth patching.
- Mill and fill operation
 - Mill 2 inches.
 - Overlay with 200 psy Surface Type B.

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