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June 1, 2007

STATE PROJECT NOS. 216-03-0032, 424-02-0081, 828-12-0017 and 828-39-0022
FEDERAL AID PROJECT NO. 2803(509)
AMBASSADOR CAFFERY PARKWAY (VEROT SCHOOL RD. – US 90)
ROUTES LA 89, US 90, LA 339 and LA 3037
LAFAYETTE PARISH

SUBJECT: ADDENDUM NO. 1 (CONSTRUCTION PROPOSAL REVISION)

Gentlemen:

Attached is the construction proposal revision dated 06/01/07 on the captioned project for which bids will be received on Wednesday, June 27, 2007.

The following change has been made:

1. Added the special provision entitled **IRI SURFACE TOLERANCE REQUIREMENTS FOR PORTLAND CEMENT CONCRETE PAVEMENT (06/07).** (4 pages)

Please note this revision in the proposal previously furnished you and bid accordingly.

Very truly yours,

Randal D. Sanders

RANDAL D. SANDERS, P. E.
CONTRACTS & SPECIFICATIONS ENGINEER

Attachments
pc: Mr. Brian Buckel
Mr. Bill Fontenot, Jr.
Mr. Jeff Faust
Mr. Chad Winchester
Ms. Margaret Thompson
Mr. John Oglesby
Mr. Masood Rasoulian

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IRI SURFACE TOLERANCE REQUIREMENTS FOR PORTLAND CEMENT CONCRETE PAVEMENT (06/07): Section 601 of the 2006 Standard Specifications and the Supplemental Specifications thereto is amended as follows.

Subsection 601.11, Surface Tolerance Requirements is deleted and the following substituted.

601.11 SURFACE TOLERANCE REQUIRMENTS.

(a) General: This subsection outlines the method of measuring surface tolerance and the acceptance limits for quality control and assurance, including corrective actions and/or payment adjustments for portland cement concrete surface tolerance. Longitudinal surface profile is measured in inches per mile (mm per km) and reported as the International Roughness Index (IRI). The measurements are obtained using an inertial profiler. Control of transverse, cross slope and grade shall be measured in inches (millimeters) using a 10-foot (3.0 m) metal static straightedge.

The contractor shall furnish an inertial profiler to measure both wheel paths with laser or infrared height sensing equipment. The contractor shall also furnish an approved 10-foot (3.0 m) metal static straightedge for both quality control and acceptance surface tolerance testing of shoulders, and turnouts, parking areas, and crossovers.

Surface tolerance testing will be required for each wheel path in each travel lane except that the outside wheel path will not be tested on projects which are classified in Table 1 as Category III projects, and which have catch basins and curb along the outside edge of the pavement. The International Roughness Index of the pavement shall be defined as the arithmetic average of the wheel paths for each test section, or lot of the travel lane including acceleration lanes, deceleration lanes, continuous turn lanes, and ramps. Shoulders, turnouts, parking areas, and crossovers shall be tested with an approved 10-foot (3.0 m) metal static straightedge.

(b) Requirements: Sections for surface finish testing are defined as each travel lane with a length of one mile or the length of the project; whichever is shorter and shall meet the requirements of Table I. Continuous paving operations is defined as any length of paving that is a minimum of 528 feet (0.10 mile) that can be paved without exceptions.

Surface finish testing will be conducted for each lane in the longitudinal direction using the inertial type profiler for the first three categories described below.

Paving Categories or Types:

(1) Interstate and New Construction: The contractor shall furnish paving equipment and employ methods that produce a riding surface having an average IRI of not greater than 75 inches per mile (1195 mm/km).

(2) Continuous Paving Operations: For continuous paving operations, the contractor shall furnish paving equipment and employ methods that produce a riding surface having an average IRI of not more than 90 inches per mile (1430 mm/km).

(3) Noncontinuous Paving Operation: For areas where continuous operations are not possible, including acceleration and deceleration lanes, the contractor shall furnish paving equipment and employ methods that produce a riding surface having an average IRI of not more than 115 inches per mile (1825 mm/km).

(4) Turnouts, Parking Areas, Crossovers, Shoulders, etc.: For turnouts, parking areas, and crossovers, the contractor shall furnish equipment and employ methods that produce an acceptable riding surface. An approved 10-foot (3.0 m) metal static straightedge will be used to measure the surface of these areas. Corrective action has to be taken if surface deviations are

in excess of 1/2-inch in 10 feet (15 mm in 3.0 m).

Areas of Exceptions:

These areas are exempt from the overall IRI calculations; bridges, approach slabs, crossovers, pavement omissions for driveways, split slab construction areas and the first and last 100 feet of pavement at project tie-ins to existing pavements.

(c) Equipment: Inertial profilers shall be capable of testing the finished surface in the longitudinal direction for conformance to the surface tolerance requirements listed in this subsection. The inertial profiler shall measure both wheel paths simultaneously and shall comply with ASTM E950, Class I or II. All inertial profilers must be approved by the Materials Engineer Administrator. The profiler shall be capable of generating both electronic and paper copies of results. It shall be capable of providing measurements of surface profile using both the Profile Index (PI) and International Roughness Index (IRI), based on a quarter car model. The unit shall be equipped with proper sight alignment equipment to enable straight and continuous measurement.

(d) Quality Control Surface Testing: The contractor shall perform daily the preoperational check on the profiling equipment in accordance with the manufacturers and DOTD's recommendations every day before taking profile measurements to ensure his paving and finishing operations are producing pavements meeting the requirements for applicable pavement categories listed under the heading (see DOTD TR 644). A copy of the manufacture's recommendations and operating procedures shall be available at all times during measurement.

The contractor shall report an average IRI number in inches per mile (mm per km) and shall measure and report the average IRI value for each wheel path for each lane on every day's production.

(1) Pavement Travel Lanes and Shoulders: During the start up of initial paving operations or after a shut down period, initial surface testing shall be performed by the contractor with an inertial type profiler as **soon** as the concrete has cured sufficiently ($\geq$ 3000 psi) to allow testing without interruption of joint sawing. The purpose of this initial testing is to aid the contractor and the Department in evaluating the paving operations and equipment. The results from this testing shall be furnished to the engineer within 72 hours. If this initial testing and evaluation indicates that the paving operations do not meet the minimum requirements of Table I, the paving operations shall be suspended until the contractor makes alterations to the paving and finishing operations in order to produce pavements within the specified limits. The contractor shall continue initial surface testing and make changes to his paving operations until he has demonstrated that he can pave within surface tolerance limits. After initial surface testing has demonstrated that paving operations and pavement smoothness are acceptable, the contractor shall proceed with regular paving operations with the contractor providing the Department with daily IRI numbers for both wheel paths in a timely fashion. Furthermore, if the contractor fails to meet the minimum requirements given in Table I during regular paving operations, work again shall be stopped and alterations to the paving and finishing operation shall be made by the contractor before paving operations can continue; corrective actions must be taken. The contractor shall also perform surface testing at the time interval specified for initial surface testing until the engineer is satisfied that the pavement is meeting minimum surface tolerance requirements. No individual segment measurement shall be greater than the minimum surface tolerance requirement listed in Table 1. Areas in excess of these requirements shall be corrected by the contractor. If necessary, additional corrective action shall be made by the contractor to

reduce the average IRI to the minimum requirements given in Table I. Corrections shall be made with approval of Engineer.

(2) Turnouts, Parking Areas, and Crossovers: During the start up of initial paving operations or after a shut down period, initial surface testing shall be performed by the contractor with an approved 10-foot (3.0 m) metal static straight edge as soon as the concrete has cured sufficiently to allow testing. The purpose of this initial testing is to aid the contractor and the Department in evaluating the paving operation and equipment. The results from this testing shall be furnished to the engineer prior to proceeding with paving operations. If initial testing and evaluation indicates surface deviations in excess of 1/2-inch in 10 feet (15 mm in 3.0 m), the contractor shall stop and alter paving operations to produce pavement with surface deviations of 1/2-inch or less in 10 feet (15 mm or less in 3.0 m). After initial surface testing has demonstrated that paving operations and pavement smoothness are acceptable, the contractor shall proceed with regular paving operations.

(3) Corrections: Corrections shall be made using an approved profile grinding device or by removing and replacing the pavement as directed. The use of bush hammers or other impact devices will not be permitted. In cases where corrections are made using an approved profiling device the contractor shall reestablish transverse tines by an approved method to provide a uniform texture conforming to Subsection 601.08(h). Corrective work will be at no direct pay and shall be completed prior to determination of pavement or shoulder thickness.

On those areas where corrective action is taken, the pavement shall be profiled again, as many times as necessary by the contractor, to verify that corrections have produced an Average IRI index in compliance of the Table I requirements.

(4) Reporting: The average mile or project length IRI values shall conform to the requirements listed in Table I. The contractor shall provide the engineer a copy of the IRI report. The contractor shall test the pavement within 7 calendar days following placement for the mile or project length segment. Isolated rough areas, exceeding the remove and replace IRI, will not be allowed. A DOTD inspector will be present for the final test run and will immediately receive a copy of the results.

(e) Acceptance Surface Testing:

(1) Travel Lanes and Shoulders: After corrective work and verification for each lane mile or project length segment has been completed by the contractor in conformance with these specifications, it will be tested for surface tolerance acceptance but not before the daily preoperational check is performed and observed by the Engineer's representative (see DOTD TR 644). The Department will review each segment report provided by the contractor. This transfer of data will be presented by means of a USB flash drive. Acceptance of each segment will be in accordance with Table I based on the IRI profile report provided by the contractor. The Department may elect to perform random verification and utilize independent ride quality test results for acceptance at any time.

(2) Turnouts, Parking Lots, and Crossovers: After corrective work has been completed, the surface of shoulders, turnouts and crossovers will be tested longitudinally by the engineer at one randomly selected location in each 300 linear feet (90 linear m) using the straightedge. Areas with surface deviations of 1/2-inch in 10 feet (15 mm in 3.0 m) will be isolated by the engineer and shall be corrected by the contractor at no direct pay to within 1/2 inch (15 mm) deviation in accordance with Heading (d)(3).

(3) Corrections: If the Department determines the IRI for pavement travel lanes does not conform to the specification requirements for 100 percent payment given in Table I, the

contractor will be allowed to make corrections in accordance with Heading (d)(3) and the Department will measure the profile to establish corrected surface IRI for acceptance, one additional time.

Those areas out of specification which have been, in the opinion of the engineer, created by conditions beyond the control of the contractor may be isolated and excluded from the calculations of the IRI. These exceptions may involve manholes, catch basins, approach slabs, bridges, grade changes at intersections, other structures located in the roadway, and other specific conditions as deemed by the project engineer which cause abrupt deviations in the pavement profile.

Table I
Payment Adjustment Schedules for Longitudinal
Surface Tolerance, Maximum International Roughness Index,
inches per mile (mm per km)

Percent of Contract Unit Price	102%*	100%	98%	Correct or Remove and Replace	Minimum IRI for Continuation of Next Day Paving
Category I Interstate and New Pavements	≤65 (≤1025)	≤75 (≤1195)	76-84 (1196-1335)	>85 (>1336)	≤95 (≤1500)
Category II Continuous Paving	≤80 (≤1265)	≤90 (≤1430)	91-99 (1431-1570)	>100 (>1571)	≤110 (≤1735)
Category III Noncontinuous Paving	N/A	≤115 (≤1825)	116-129 (1826-2045)	>130 (>2046)	≤140 (≤2210)

* Incentive Pay: If the average IRI in each travel lane based on the one mile or project length is equal to or less than indicated, a 2% bonus pay (contract price of paving concrete) shall be applied, assuming all individual segment readings are in the 100% pay range. Grinding will only be allowed to achieve 98% or 100% pay. Any grinding will cause the roadway to be ineligible for surface tolerance pay.

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