

October 25, 2010

SUBJECT: FAP Route 693 (IL 9) Project ACF-ARRA-0693 (065) Section (119 BR-2) BR Tazewell County Contract No. 68660 Item No. 87, November 5, 2010 Letting Addendum A

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

- 1. Revised the Table of Contents to the Special Provisions.
- 2. Revised pages 7 10, 23 31, and 38 of the Special Provisions.
- 3. Added pages 125 129 & 21A to the Special Provisions.
- 4. Revised sheets 32 and 33 of the Plans.

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal.

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

Scott E. Stitt, P.E. Acting Engineer of Design and Environment

Setter abechlyon A.E.

By: Ted B. Walschleger, P. E. Engineer of Project Management

cc: Joseph E. Crowe, Region 3, District 4; Mike Renner; R. E. Anderson; Estimates

TBW:DB:jc

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Revise Article 253.15 to read:

Final inspection of all trees will be made at the final inspection of the contract. Plants that do not meet the requirements for acceptance will be replaced at that time.

Revise Article 253.17 to read:

This work will be paid for at the contract unit price each per tree for TREE WHIP MIXTURE.

SUBGRADE TREATMENT

Effective July 1, 1990

Revised April 25, 2008

Revise first sentence of first paragraph of Article 301.04 as follows:

"When compacted, the subgrade shall have a minimum dry density of 95 percent of the standard laboratory dry density and a minimum immediate bearing value (IBV) of 3.0."

Delete the second paragraph (including subparagraphs a, b, and c) of Article 301.04 of the Standard Specifications and replace it with the following:

"In cut sections the contractor responsible for the rough grading shall obtain not less than 95% of the standard laboratory density and not more than 110% of the optimum moisture for the top 1' (300mm) of the subgrade.

The Contractor may, at his/her option, add a drying agent to lower the moisture content as specified. The drying agent must be approved by the Engineer prior to use. Additional compensation will not be allowed for the use of a drying agent, but will be considered as included in the cost of the various earthwork items."

In the first sentence of the third paragraph delete "above steps have" and replace with "work has."

SUBBASE GRANULAR MATERIAL

Effective: November 5, 2004

This work shall be in accordance with Section 311 of the Standard Specifications and as specified herein.

All Subbase Granular Material shall have a minimum IBR of 40.

TEMPORARY PAVEMENT

Effective October 1, 1995

Revised April 23, 2010

This item shall include all materials, labor and equipment necessary to construct temporary pavement in accordance with applicable sections of the Standard Specifications except as herein specified.

The Contractor shall have the option of constructing temporary pavement made of 9" hot-mix asphalt base course or 8" PCC base course.

Hot-Mix Asphalt base course shall be placed in accordance with applicable portions of Section 355. Material for Hot-Mix Asphalt base course shall be Hot-Mix Asphalt Binder Course IL-19.0 in accordance with Sections 406 and 407. PCC base course shall be in accordance with Section 353.

This work will be paid for at the contract unit price per square yard (square meter) for TEMPORARY PAVEMENT which price shall be payment in full for all materials, labor and equipment including bituminous and aggregate prime coat necessary to perform the work as herein specified.

Removal of Temporary Pavement will be paid for separately in accordance with Section 440 of the Standard Specifications.

PAVEMENT REMOVAL

This work shall consist of removal of the temporary pavement at the locations shown in the plans.

The temporary pavement shall be disposed of in accordance with Article 202.03 of the Standard Specifications and as directed by the Engineer.

<u>Method of Measurement:</u> Temporary pavement removal shall be measured for payment in units of square yards of pavement removed.

<u>Basis of Payment:</u> This work shall be paid for at the contract unit price per square yard for PAVEMENT REMOVAL, which shall include payment for all labor and equipment needed to remove and dispose of the temporary pavement.

CHANGEABLE MESSAGE SIGN

This work shall consist of providing all equipment and labor for furnishing, placing and maintaining portable message signs.

This work shall be performed in accordance with the applicable Articles of Section 701 of the Standard Specifications except as modified herein.

A total of two (2) changeable message signs shall be supplied by the Contractor. The placement of each sign will begin no later than 7 calendar days in advance of the upcoming closure at locations as specified by the District Traffic Control Technician and Engineer. Exact Location and wording for the changeable message sing will be discussed at the preconstruction meeting.

<u>Method of Measurement:</u> Changeable Message Signs shall be measured for payment for each calendar day of use for each sign.

Basis of Payment: This work shall be paid for at the contract unit price per calendar day for CHANGEABLE MESSAGE SIGN.

TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNALS

Effective: August 1, 2003

<u>Description</u>. At the Contractor's option, temporary portable bridge traffic signals may be used in place of temporary bridge traffic signals. Work shall be according to Article 701.18(b) of the Standard Specifications except as follows:

Materials. Materials shall meet the following Articles of Section 1000 – Materials:

Item	Article/Section
(a) Traffic Signal Head	
(b) Electric Cable	
(c) Controller	
(d) Controller Cabinet	
(e) Detector Loop	

CONSTRUCTION REQUIREMENTS

The temporary traffic signals shall consist of a two phase operation with both approaches of the major roadway being signalized. Each approach shall have a minimum of two traffic signal heads and the installation shall conform to all applicable MUTCD requirements.

The installation shall conform to the requirements shown on the plan sheet for the temporary bridge traffic signals.

<u>General</u>. The temporary portable bridge traffic signals shall be trailer-mounted units. The trailer-mounted units shall be set up securely and level. Each unit shall be self-contained and consist of two signal heads. The left signal head shall be mounted on a mast arm capable of extending over the travel lane. Each unit shall contain a solar cell system to facilitate battery charging. There shall be a minimum of 12 days backup reserve battery supply and the units shall be capable of operating with a 120 V power supply from a generator or electrical service.

All signal heads located over the travel lane shall be mounted at a minimum height of 5 m (17 ft) from the bottom of the signal back plate to the top of the road surface. All far right signal heads located outside the travel lane shall be mounted at a minimum height of 2.5 m (8 ft) from the bottom of the signal back plate to the top of the adjacent travel lane surface.

The long all red intervals for the traffic signal controller shall be adjustable up to 250 seconds in one-second increments.

All timing parameters shall be approved by the IDOT Engineer of Traffic prior to signal turn on.

As an alternative to detector loops, temporary portable bridge traffic signals may be equipped with microwave sensors or other approved methods of vehicle detection and traffic actuation. All portable traffic signal units shall be interconnected using hardwire communication cable or radio communication equipment.

If radio communication is used, a site analysis shall be completed to ensure that there is no interference present that would affect the traffic signal operation. The radio equipment shall meet all applicable FCC requirements.

The temporary portable bridge traffic signal system shall meet the physical display and operational requirements of conventional traffic signals as specified in Part IV of the Manual on Uniform Traffic Control Devices (MUTCD). The signal system shall be designed to continuously operate over an ambient temperature range between -34 °C (-30 °F) and 48 °C (120 °F).

When not being utilized to inform and direct traffic, portable signals shall be treated as nonoperating equipment according to Article 701.08.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price each for TEMPORARY BRIDGE TRAFFIC SIGNALS and shall be payment in full for all labor, materials, and equipment required to furnish and install the complete temporary traffic signal installation as described above and as shown on the plan detail sheet. No additional compensation will be paid.

ANTI-STRIP ADDITIVE FOR HOT-MIX ASPHALT

Effective July 30, 2010

If an anti-stripping additive is required for any hot-mix asphalt in accordance with Article 1030.04(c), the cost of the additive will not be paid for separately, but shall be considered as included in the contract unit price bid for the hot-mix asphalt item(s) involved.

PLACEMENT OF HOT-MIX ASPHALT SURFACE COURSES

Effective: March 22, 2001

Revised: January 1, 2007

Placement of hot-mix asphalt surface courses shall not be allowed after October 15th of any calendar year. The contractor is responsible for scheduling construction activities to complete placement of surface courses prior to October 15th. If surface courses are not in place by October 15th, the contractor is responsible for implementing any measures needed to make the roadway suitable for winter traffic and snow plowing activities. Any additional costs associated with this provision shall be considered included in the cost of the unit prices bid for hot-mix asphalt surface course items.

HOT-MIX ASPHALT – PRIME COAT (BMPR)

Effective: April 23, 2010

Remove the first sentence of the second paragraph of Article 406.02 of the Standard Specifications: "When emulsified asphalts are used, they shall be diluted with an equal volume of potable water."

Revise the first paragraph of Article 406.05(b) of the Standard Specifications to read:

"Prime Coat. The base, or base and gutter shall be clean and dry. The bituminous priming material shall be prepared according to Article 403.05 and applied according to Article 403.10."

An obstruction shall be defined as any object (such as but not limited to, boulders, logs, old foundations etc.) where its presence was not obvious or specifically noted on the plans prior to bidding, that cannot be driven or installed through or around, with normal driving or installation procedures, but requires additional excavation or other procedures to remove or miss the obstruction.

<u>Method of Measurement</u>. The temporary soil retention system furnished and installed according to the Contractor's approved design or as directed by the Engineer will be measured for payment in place, in square feet (square meters). The area measured shall be the vertical exposed surface area envelope of the excavation supported by temporary soil retention system. Portions of the temporary soil retention system left in place for reuse in later stages of construction shall only be measured for payment once.

Any temporary soil retention system installed beyond those dimensions shown on the contract plans or the approved contractor's design without the written permission of the Engineer, shall not be measured for payment but shall be done at the contractor's own expense.

Basis of Payment. This work will be paid for at the contract unit price per square foot (square meter) for TEMPORARY SOIL RETENTION SYSTEM.

Payment for any excavation, related solely to the installation and removal of the temporary soil retention system and/or its components, shall not be paid for separately but shall be included in the unit bid price for TEMPORARY SOIL RETENTION SYSTEM. Other excavation, performed in conjunction with this work, will not be included in this item but shall be paid for as specified elsewhere in this contract.

Obstruction mitigation shall be paid for according to Article 109.04 of the Standard Specifications.

POROUS GRANULAR EMBANKMENT, SPECIAL

Effective: September 28, 2005

Revised: November 14, 2008

<u>Description</u>. This work shall consist of furnishing and placing porous granular embankment special material as detailed on the plans, according to Section 207 except as modified herein.

<u>Materials.</u> The gradation of the porous granular material may be any of the following CA 8 thru CA 18, FA 1 thru FA 4, FA 7 thru FA 9, and FA 20 according to Articles 1003 and 1004.

<u>Construction</u>. The porous granular embankment special shall be installed according to Section 207, except that it shall be uncompacted.

Basis of Payment. This work will be paid for at the contract unit price per Cubic Yard (Cubic Meter) for POROUS GRANULAR EMBANKMENT, SPECIAL.

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FREEZE-THAW AGGREGATES FOR CONCRETE SUPERSTRUCTURES POURE

Effective: April 30, 2010

Revise the first sentence of Article 1004.029(f) to read as follows.

"When coarse aggregate is used to produce portland cement concrete for base course, base course widening, pavement, driveway pavement, sidewalk, shoulders, curb, gutter, combination curb and gutter, median, paved ditch, concrete superstructures on grade such as bridge approach slabs, or their repair using concrete, the gradation permitted will be determined from the results of the Department's Freeze-Thaw Test (Illinois Modified AASHTO T161)."

AMERICAN RECOVERY AND REINVESTMENT ACT PROVISIONS (BDE) Effective: April 1, 2009

Required Contract Provision to Implement ARRA Section 902:

Section 902 of the American Recovery and Reinvestment Act (ARRA) of 2009 requires that each contract awarded using ARRA funds allow the U.S. Comptroller General and his representatives with the authority to:

- "(1) to examine any records of the Contractor or any of its subcontractors, or any State or local agency administering such contract, that directly pertain to, and involve transactions relating to, the contract or subcontract; and
- (2) to interview any officer or employee of the Contractor or any of its subcontractors, or of any State or local government agency administering the contract, regarding such transactions."

Accordingly, the Comptroller General and his representatives shall have the authority and rights as provided under Section 902 of the ARRA with respect to this contract, which is funded with funds made available under the ARRA.

PAVEMENT MARKING REMOVAL/WORK ZONE PAVEMENT MARKING REMOVAL

Effective: April 29, 2005

Description: This work shall consist of removing all permanent or work zone pavement marking, painted pavement markings, epoxy paint pavement markings, thermoplastic pavement marking, or pavement marking tape type III by hydro-blasting in accordance with the applicable portions of Section 783 and 703 of the Standard Specifications and described herein. Pavement marking tape type III may be peeled or burned off. However, all remnants or burn marks shall be hydro-blasted.

Equipment Requirements: All equipment shall be of sufficient capacity to efficiently and economically clean the roadway surface to the specified cleanliness. Equipment shall be power driven and in good operating condition. Equipment shall utilize moisture and oil traps, in working order, of sufficient capacity to remove contaminants from the water and prevent deposition of oil and other contaminants on the roadway surface.

Removal Requirements: Removal requirements shall be as follows:

- a) The existing paint pavement markings or epoxy paint pavement markings shall be removed without pavement surface damage to the satisfaction of the Engineer.
- b) A high pressure water spray or "hydro-blast" shall be used during the removal, the pressure at the nozzle shall be approximately 172,000 kPa (25,000 psi) with maximum flow rate of 56 L/min (15 gal/min). The nozzle shall be in close proximity to the pavement surface.
- c) Over cleaning to the extent of possible damage to the roadway surface shall be held to a minimum. Very small particles of tightly adhering existing markings may remain in place, if in the opinion of the Engineer, complete removal of the small particles will result in pavement surface damage.

Method of Measurement: The removal of permanent or work zone pavement marking, painted pavement markings, epoxy paint pavement markings, thermoplastic pavement marking, or pavement marking tape type III will be measured in square feet (square meter).

Basis of Payment: This work will be paid for at the contract unit price per square foot (square meter) for PAVEMENT MARKING REMOVAL or WORK ZONE PAVEMENT MARKING REMOVAL.

PIPE UNDERDRAINS FOR STRUCTURES

Effective: May 17, 2000

Revised: January 22, 2010

<u>Description</u>. This work shall consist of furnishing and installing a pipe underdrain system as shown on the plans, as specified herein, and as directed by the Engineer.

<u>Materials.</u> Materials shall meet the requirements as set forth below:

The perforated pipe underdrain shall be according to Article 601.02 of the Standard Specifications. Outlet pipes or pipes connecting to a separate storm sewer system shall not be perforated.

The drainage aggregate shall be a combination of one or more of the following gradations, FA1, FA2, CA5, CA7, CA8, CA11, or CA13 thru 16, according to Sections 1003 and 1004 of the Standard Specifications.

The fabric surrounding the drainage aggregate shall be Geotechnical Fabric for French Drains according to Article 1080.05 of the Standard Specifications.

<u>Construction Requirements.</u> All work shall be according to the applicable requirements of Section 601 of the Standard Specifications except as modified below.

The pipe underdrains shall consist of a perforated pipe drain situated at the bottom of an area of drainage aggregate wrapped completely in geotechnical fabric and shall be installed to the lines and gradients as shown on the plans.

<u>Method of Measurement.</u> Pipe Underdrains for Structures shall be measured for payment in feet (meters), in place. Measurement shall be along the centerline of the pipe underdrains. All connectors, outlet pipes, elbows, and all other miscellaneous items shall be included in the measurement. Concrete headwalls shall be included in the cost of Pipe Underdrains for Structures, but shall not be included in the measurement for payment.

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for PIPE UNDERDRAINS FOR STRUCTURES of the diameter specified. Furnishing and installation of the drainage aggregate, geotechnical fabric, forming holes in structural elements and any excavation required, will not be paid for separately, but shall be included in the cost of the pipe underdrains for structures.

DYNAMIC PILE MONITORING

Effective: February 5, 2009

Revised: January 15, 2010

General. This work consists of accommodating the dynamic monitoring of a pile at the substructure(s) indicated on the plans, both during their initial driving process and the re-strike procedure conducted after the minimum waiting period specified herein has elapsed. All pile driving operations shall follow Section 512 of the standard specifications unless otherwise indicated in this special provision.

Dynamic monitoring will be accomplished by attaching sensors near the top of the pile which transmit data by cable or wireless connection to a Pile Driving Analyzer (PDA) unit at the site. The sensors, their attachment to the pile, the connection to PDA, and the operation of the PDA will be provided by Dr Jim Long or another PDA operator from the University of Illinois Urbana Champaign (UIUC).

Unless otherwise approved by the Engineer and agreed to by Dr. Long, the pile to be monitored at the specified substructure(s) shall be the test pile. When no test pile is provided at the specified substructure, the first production pile driven at the substructure shall be the dynamically monitored pile.

Submittals. The Contractor shall submit a completed "Pile Driving Equipment Data" Form (<u>http://www.dot.il.gov/Forms/BBS%20136.docx</u>) included below to the Engineer for transmittal by email to Dr. Long at (<u>jhlong@uiuc.edu</u>) to prepare the PDA.

The Contractor shall also notify the Engineer in writing of the anticipated driving and re-strike date(s) of the pile(s) to be dynamically monitored to allow the Engineer to inform Dr. Long at (217-333-2543) of the schedule. Both the completed form and written driving and re-strike dates shall be provided to the Engineer and sent to Dr. Long a minimum of two weeks prior to driving the first dynamically monitored pile. Any changes to the proposed driving equipment or dates shall be submitted to the Engineer to determine if they can be accommodated by Dr. Long or another PDA operator.

Construction.

Dynamic monitoring will be performed during the final 20 to 50 ft (6 to 15 m) of initial driving. Depending on the location of any contractor planned pile splices and the total estimated pile length, the PDA operator will determine if all pile segments or only selected pile segments will require monitoring. After lifting the section(s) of the pile to be monitored into the leads, the Contractor shall provide labor to access to either side of the H-pile web or the Metal Shell within the top 8 ft (2.4 m) while in the leads to attach the sensors which should take less than 10 minutes.

When the level of the sensors is within 1 ft (300 mm) of any obstruction endangering the survival of sensors and/or cables, driving shall be halted and the contractor shall remove the sensors and reattach them after passing the obstruction. When sensors are within 1 ft (300 mm) of the ground surface, driving shall be halted and the contractor shall remove the sensors and reattach them near the top of the next pile segment after lifting into place and splicing.

The driving will be terminated when the Nominal Driven Bearing exceeds the Nominal Required Bearing shown on the plans by no more than 20 percent as directed by the Engineer per PDA operator's analysis. Upon completion of initial driving process of each dynamically monitored pile, the Contractor shall provide the PDA operator access to remove the sensors. Other piles in the substructure and elsewhere on the project may be driven during the waiting period but the dynamically monitored piles shall not be cut off and remain accessible for the re-strike procedure.

If the sensors are located 10 ft (3 m) or more above the ground at the end of initial driving, the Contractor shall provided equipment and labor to remove the sensors as well as reattach them after the waiting period, just prior to the re-strike procedure.

Unless otherwise specified on the plans, the Contractor shall wait a minimum of 15 days prior to re-striking piles.

After the minimum waiting period has elapsed, the Contractor shall warm up the hammer by driving another pile a minimum of an additional 20 blows and reposition the driving equipment on the re-strike pile. Once the PDA operator has reattached the sensors and connections, the contractor shall apply at least 20 blows or drive the pile an additional 3 in (75 mm), whichever occurs first to allow the PDA to obtain the final pile setup data.

The contractor shall remove and provide the sensors to the PDA operator after which the contactor may proceed with cutting the pile to length and normal construction.

Method of Measurement and Basis of Payment. This work will not be measured for payment but shall be included in the appropriate pay item(s) for Test Piles and Driving piles.



Pile Driving Equipment Data

Structure Number:	-		
Pile Driving Contracto	or:		
Abutment /Pier Numb	per(s):	Route:	
Pile Type & Size(s):		Section:	
Nominal Required:		County:	
Production Pile Lengt	h(s): Closest Boring(s): Contract:	
Hammer Manufacture	er:	Model No:	
Type (diesel, air/stean	n hydraulic, etc.): Ram S	troke Type (fixed of Variable):	
Maximum Operating	Energy: Minimum Ope	rating Energy:	
	Maximum Recommended Stroke:		
	Minimum Measurable Stroke:		
	Ram Weight:		
	<u> </u>		
Ram	Anvil Weight		
	Modifications to Hammer (<i>if any</i>):		
	Striker Plate		
	Diameter:		
	Thickness:		
Striker Plate	Weight:		
Hammer			
	Hammer Cushion Material 1	Hammer Cushion Material 2 (if composite)	
	Material Type:	Material Type:	
Helmet	Diameter:	Diameter:	
	Thickness per Plate:	Thickness per Plate:	
Pile Cushion	No. of Plates:	No. of Plates:	
	Total Hammer Cushion Thickness:		
Pile	Helmet (Drive Head, Pile Cap) Weight (inclu	ding bonnet insert if any):	
The	The most (Differ The add, The Cap) is eight (men		
l N l	Pile Cushion (precast concrete piles only)		
	Material:		
V	Thickness Per Sheet:		
	Area:		
	No. of Sheets:		
	Thickness Total:		
Double Acting/Differ	ential Acting Air or Steam		
Hammers Net Weight	·		
Cylinder Net Weight			
Piston Area			
Attach Bounce Chaml	ber Pressure vs. Equivalent Energy Graphs (Clo	osed-End Diesel Hammers Only).	
Hammer Data Comple	eted by:	Contact Phone Number:	
Date Completed:			

TEMPORARY SUPPORT SYSTEM

<u>Description</u>. This work shall consist all design and furnishing of material, equipment and labor for structurally bracing the bridge abutments during stage construction.

<u>General</u>. Required area to be braced shall be according to the plans. Installation of devices shall be according to the shop drawings. The Contractor shall be responsible for restoring to their original condition, all items disturbed by the bracing system.

Where the temporary support system is required, the Contractor shall provide details and computations, prepared and sealed by an Illinois Licensed Structural Engineer, to the District for review and approval. Whenever possible, the support system shall be installed prior to starting the associated removal. The temporary support system shall be designed to resist all forces that are applied to the abutments. The support system shall account for the new behavior of the abutment due to stage removal. Original structure drawings shall be provided upon written request from the contractor.

<u>Bracing Methods.</u> All temporary support systems shall be inspected and approved by the Engineer prior to placement. The Engineer may require modification of operations to ensure satisfactory results are obtained.

Inspection of Completed Work. The Contractor shall provide ladders or other appropriate equipment for the Engineer to inspect the supported areas. Inspection to be visual or other methods determined by the Engineer.

<u>Method of Measurement.</u> All work required for the support system will not be measured separately, but will be included in Temporary Support System. Each temporary support system per abutment will be considered separately.

Basis of Payment. This work will be paid for at the contract unit price per EACH for TEMPORARY SUPPORT SYSTEM. Payment for any excavation performed in conjunction with this work will be included in this item.

WIDTH RESTRICTION (PAGE 21A)

