

July 27, 2007

SUBJECT: FAP Route 334 Project ACHPP-HPP-F-BHF-0334 (016) Section 111 RS-5 & 116 B-1 McHenry County Contract No. 60A91 Item No. 103, August 3, 2007 Letting AddendumB

NOTICE TO PROSPECTIVE BIDDERS:

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

- 1. Revised pages 1, 2, 5, 6, 7 & 8 of the Schedule of Prices.
- 2. Revised pages i and ii of the Table of Contents to the Special Provisions.
- 3. Revised page 2 of the Special Provisions.
- 4. Added pages 152 158 to the Special Provisions.
- 5. Revised sheets 2, 3, 4, 6, 10, 16, 21, 30, 32, 34, 35, 37, 42 & 94 of the Plans.
- 6. Added sheet 49A to 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,

Eric E. Harm Interim Bureau Chief Bureau of Design and Environment

Jette alsehogen A.E.

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

cc: Diane O'Keefe, Region 1, District 1; Roger Driskell; Estimates

TBW:MS:jc

 State Job # C-91-123-06

 PPS NBR 1-75379-0400

 County Name MCHENRY- 

 Code 111 - 

 District 1 -

Section Number - 111RS-5 & 116B-I

## Project Number ACHPP-HPP-FBHF-03440160344/01

Route

FAP 334

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0300635	PLANTER	EACH	4.000				
X0321468	PLUG EX DK DRAINS	EACH	11.000				
X0322256	TEMP INFO SIGNING	SQ FT	645.000				
** X0322923	SEGMENT CONC BLK WALL	SQ FT	99.000				
X0322944	BR DK TH POLY OVL 3/8	SQ YD	359.000				
X0323973	SED CONT SILT FENCE	FOOT	3,655.000				
X0323974	SED CONT SILT FN MAIN	FOOT	3,655.000				
X0325303	STR REP CON DP OVER 5	SQ FT	160.000				
X0325305	STR REP CON DP = < 5	SQ FT	491.500				
X0325737	TEMP TR SIGNAL TIMING	EACH	1.000				
X4021000	TEMP ACCESS- PRIV ENT	EACH	3.000				
X4022000	TEMP ACCESS- COM ENT	EACH	27.000				
X4067107	POL LB MM IL4.75 N50	TON	2,181.000				
X7030104	WET TEM PM TAPE T3 4	FOOT	3,426.000				
X8050015	SERV INSTALL POLE MT	EACH	1.000				
X8620020	UNINTER POWER SUPPLY	EACH	1.000				
		** REVISED : JULY 27, 2007					

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FAP 334

ltem		Unit of					
Number	Pay Item Description	Measure	Quantity	X	Unit Price	=	Total Price
X8730027	ELCBL C GROUND 6 1C	FOOT	580.000				
Z0001055	AGG SUBGRADE 12 SPL	SQ YD	6,650.000				
Z0012100	CONC BR DECK SCAR 1/4	SQ YD	359.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
Z0016200	DECK SLAB REP (PART)	SQ YD	21.000				
Z0018500	DRAINAGE STR CLEANED	EACH	24.000				
Z0030240	IMP ATTN TEMP NRD TL2	EACH	2.000				
Z0048665	RR PROT LIABILITY INS	L SUM	1.000				
* Z0076600	TRAINEES	HOUR	2,000.000		0.800		1,600.000
20100110	TREE REMOV 6-15	UNIT	13.000				
20100210	TREE REMOV OVER 15	UNIT	47.000				
20200100	EARTH EXCAVATION	CU YD	3,817.000				
20201006	GRADING & SHAP SHLDS	UNIT	148.500				
20201200	REM & DISP UNS MATL	CU YD	1,444.000				
** 20800150	TRENCH BACKFILL	CU YD	238.600				
			* REVISED : JULY 24, 2007				
** REVISED : JULY 27, 2007					L		

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
44000200	DRIVE PAVEMENT REM	SQ YD	2,051.000				
44000300	CURB REM	FOOT	1,852.000				
44000500	COMB CURB GUTTER REM	FOOT	743.000				
44000915	HMA SURFACE RM (DECK)	SQ YD	359.000				
44001700	COMB C C&G REM & REPL	FOOT	610.000				
44002218	HMA RM OV PATCH 4 1/2	SQ YD	729.000				
44004250	PAVED SHLD REMOVAL	SQ YD	3,570.000				
44201345	CL C PATCH T3 9	SQ YD	19.000				
44201753	CL D PATCH T2 9	SQ YD	431.000				
44201757	CL D PATCH T3 9	SQ YD	230.000				
44201759	CL D PATCH T4 9	SQ YD	64.000				
** 44300200	STRIP REF CR CON TR	FOOT	1,350.000				
48101500	AGGREGATE SHLDS B 6	SQ YD	783.000				
48102100	AGG WEDGE SHLD TYPE B	TON	929.000				
48203029	HMA SHOULDERS 8	SQ YD	4,046.000				
50102400	CONC REM	CU YD	5.900				
		*	** REVISED : JULY 27, 2007				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
50105220	PIPE CULVERT REMOV	FOOT	369.000				
50300255	CONC SUP-STR	CU YD	28.800				
50800205	REINF BARS, EPOXY CTD	POUND	4,900.000				
542A0217	P CUL CL A 1 12	FOOT	90.000				
542A0220	P CUL CL A 1 15	FOOT	240.000				
54207159	P CUL 1 RC-E EQRS 24	FOOT	62.000				
54213657	PRC FLAR END SEC 12	EACH	4.000				
54213660	PRC FLAR END SEC 15	EACH	5.000				
54214719	PRCF END S EL EQRS 24	EACH	2.000				
54248130	GRT-C FL END S EQV 24	EACH	2.000				
** 550A0050	STORM SEW CL A 1 12	FOOT	162.000				
** 550A0310	STORM SEW CL A 2 6	FOOT	125.000				
550A0340	STORM SEW CL A 2 12	FOOT	410.000				
550A0360	STORM SEW CL A 2 15	FOOT	430.000				
60100060	CONC HDWL FOR P DRAIN	EACH	5.000				
60107600	PIPE UNDERDRAINS 4	FOOT	780.000				
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Section Number - 111RS-5 & 116B-I

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
** 60208240	CB TC T24F&G	EACH	11.000				
60218400	MAN TA 4 DIA T1F CL	EACH	5.000				
60255500	MAN ADJUST	EACH	1.000				
60260100	INLETS ADJUST	EACH	2.000				
60300305	FR & LIDS ADJUST	EACH	21.000				
60300310	FR & LIDS ADJUST SPL	EACH	2.000				
60404950	FR & GRATES T24	EACH	6.000				
60406000	FR & LIDS T1 OL	EACH	2.000				
60610400	COMB CC&G TM6.24	FOOT	3,889.000				
67000400	ENGR FIELD OFFICE A	CAL MO	10.000				
67100100	MOBILIZATION	L SUM	1.000				
70101800	TRAF CONT & PROT SPL	L SUM	1.000				
70103815	TR CONT SURVEILLANCE	CAL DA	25.000				
70300100	SHORT-TERM PAVT MKING	FOOT	14,980.000				
70300210	TEMP PVT MK LTR & SYM	SQ FT	963.600				
	** REVISED : JULY 27, 200					 	

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# Project Number ACHPP-HPP-FBHF-03440160344/01

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
70300220		FOOT	54,554.000				
70300240	TEMP PVT MK LINE 6	FOOT	2,583.000				
70300260	TEMP PVT MK LINE 12	FOOT	1,482.000				
70300280	TEMP PVT MK LINE 24	FOOT	246.000				
70400100	TEMP CONC BARRIER	FOOT	225.000				
** 72000100	SIGN PANEL T1	SQ FT	380.000				
72000200	SIGN PANEL T2	SQ FT	15.000				
78000100	THPL PVT MK LTR & SYM	SQ FT	963.600				
78000200	THPL PVT MK LINE 4	FOOT	53,812.000				
78000400	THPL PVT MK LINE 6	FOOT	2,583.000				
78000600	THPL PVT MK LINE 12	FOOT	1,482.000				
** 78000650	THPL PVT MK LINE 24	FOOT	276.000				
78008210	POLYUREA PM T1 LN 4	FOOT	248.000				
78008250	POLYUREA PM T1 LN 12	FOOT	30.000				
78100100	RAISED REFL PAVT MKR	EACH	403.000				
	** REVISED : JULY 27, 2007						

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FAP Route 334 (US12) Project ACHP-HPP-F-BHF-0334 (016) Section 111 RS-5 & 116 B-I McHenry County Contract No. 60A91

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FAP Route 334 (US12)
Project ACHP-HPP-F-BHF-0334 (016)
Section 111 RS-5 & 116 B-I McHenry County
Contract No. 60A91
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Revised 07/27/2007

## MAINTENANCE OF ROADWAYS

Effective: September 30, 1985

Revised: November 1, 1996

Beginning on the date that work begins on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

If items of work have not been provided in the contract, or otherwise specified for payment, such items, including the accompanying traffic control and protection required by the Engineer, will be paid for in accordance with Article 109.04 of the Standard Specifications.

# **RESTRICTIVE START DATES**

The Contractor will not be allowed to proceed with the resurfacing work (Loc. 2) on US 12 from Sta. 29+64 to Sta. 125+00 prior to September 24, 2007.

The Contractor will not be allowed to proceed with work at the (Loc. 1) US 12 and IL 31 / Tryon Grove Road intersection prior to April 1, 2008.

The Contractor will not be allowed to proceed with work at the (Loc. 3) bridge carrying US 12 over the North Branch Nippersink Creek prior to April 1, 2008.

Revised 07/27/2007

FAP Route 334 (US 12) Project ACHP-HPP-F-BHF-0334(016) Section: 111 RS-5 & 116 B-I McHenry County Contract No. 60A91

# STATUS OF UTILITIES TO BE ADJUSTED

Effective: January 30, 1987

Revised: July 1, 1994

Utility companies involved in this project have provided the following estimated dates:

Name of Utility	Type	Location	Estimated Dates for
			Start and Completion
			of Relocation or Adjustments

Charter Communications	CATV Underground & Aerial	US 12 / IL 31 (N Leg) Sta. 20+62 (LT) to 23+76 (LT)	Approximately 15 construction days
Com Ed	7 Power Poles Aerial	US 12 / IL 31 (W& NW quadrant) Tryon Grove Rd (N & S Sides) IL 31 (SW Quadrant) US 12 (NE Quadrant)	Approximately 15 construction days
Nicor Gas	4" Gas Main (1,800 feet)	US 12 / IL 31 Sta. 20+25 to 20+70 (RT) US 12 (East Leg) Sta. 10+50 to 15+17 (LT) IL 31 Sta. 15+91 to 19+53 (RT) Tryon Grove Rd Sta. 6+29 to 9+60 (RT)	Approximately 20 construction days

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Verizon North Inc.	Communication Telephone Cable Underground	US 12 / IL 31 Sta. 21+75 (RT) - pole US 12 (East Leg) Sta. 16+05 – underground fiber optic Sta. 16+11 – Underground copper cable	Approximately construction days	15
		IL 31 Sta. 14+25 (RT) to 16+57 (RT) - buried Sta. 19+28 (LT) to 19+68 LT) – buried Tyron Grove Road Sta. 4+92 (RT) to 9+52 (RT) - aerial		
Village of Richmond	Watermain Hydrants Manhole Structures	US 12 (East Leg) Sta. 10+86 (RT) Tyron Grove Road Sta.6+29 to 9+60 (RT) Sta. 7+94 (RT)	Approximately construction days	10

The above represents the best information available to the Department and is included for the convenience of the bidder. The applicable portions of Articles 105.07 and 107.31 of the Standard Specifications shall apply.

# **CERTIFICATE OF INSURANCE – ADDITIONAL INSURED**

The McHenry County Divisions of Transportation requires the additional following:

Certificate of Insurance with Proof of Workers Compensation. The Certificate must include the following language per the State's Attorney's Office.

FAP Route 334 (US 12) Project ACHP-HPP-F-BHF-0334(016) Section: 111 RS-5 & 116 B-I McHenry County Contract No. 60A91

"The contractor shall also name McHenry County, the McHenry County Division of Transportation, its employees and agents as an additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27, "Insurance", in the Standard Specifications for Road and Bridge Construction, conferring upon the County the same protection and rights as those provided the Illinois Department of Transportation by virtue of the above mentioned specifications. Further, McHenry County, the McHenry County Division of Transportation, its employees and agents will be indemnified and held harmless in accordance with Article 107.26, "Indemnification", in the Standard Specifications for Road and Bridge Construction, conferring upon the County the same protection and rights as those provided the Illinois Department of Transportations for Road and Bridge Construction, conferring upon the County the same protection and rights as those provided the Illinois Department of Transportations."

# SEGMENTAL CONCRETE BLOCK WALL

Effective: January 7, 1999

Revised: January 1, 2007

**Description.** This work shall consist of furnishing the design computations, shop plans, materials, equipment and labor to construct a Segmental Concrete Block Retaining Wall to the limits shown on the plans.

<u>General.</u> The wall shall consist of a leveling pad, pre-cast concrete blocks, select granular backfill and, if required by the design, soil reinforcement. The wall shall be designed and constructed according to the lines, grades, and dimensions shown on the contract plans and approved shop plans.

<u>Submittals</u>. The wall supplier shall submit design computations and shop plans to the Engineer. The shop plans shall be sealed by an Illinois Licensed Professional Engineer and shall include all details, dimensions, quantities, and cross sections necessary to construct the wall and shall include, but not be limited to, the following items:

- (a) Plan, elevation, and cross section sheet(s) for each wall showing the following:
  - (1) A plan view of the wall indicating the offsets from the construction centerline to the first course of blocks at all changes in horizontal alignment. These shall be calculated using the offsets to the front face of the block shown on the contract plans and the suppliers proposed wall batter. The plan view shall indicate bottom (and top course of block when battered), the excavation and select granular backfill limits as well as any soil reinforcing required by the design. The centerline of any drainage structure or pipe behind or passing through/under the wall shall also be shown.
  - (2) An elevation view of the wall, indicating the elevation and all steps in the top course of blocks along the length of the wall. The top of these blocks shall be at or above the theoretical top of block line shown on the contract plans. This view shall also show the steps and proposed top of leveling pad elevations as well as the finished grade line at the wall face specified on the contract plans. These leveling pad elevations shall be located at or below the theoretical top of leveling line shown on the contract plans. The location, size, and length of any soil reinforcing connected to the blocks shall be indicated.

- (3) Typical cross section(s) showing the limits of the select granular backfill, soil reinforcement if used in the design. The right-of-way limits shall be indicated as well as the proposed excavation, cut slopes, and the elevation relationship between existing ground conditions and proposed grades.
- (4) All general notes required for constructing the wall.

(b) All details for the leveling pads, including the steps, shall be shown. The theoretical top of the leveling pad shall either be below the anticipated frost depth or 1.5 ft. (450 mm) below the finished grade line at the wall face, whichever is greater; unless otherwise shown on the plans. The minimum leveling pad thickness shall be 6 in. (152 mm)

- (c) Cap blocks shall be used to cover the top of the standard block units. The top course of blocks and cap blocks shall be stepped to satisfy the top of block line shown on the contract plans.
- (d) All details of the block and/or soil reinforcement placement around all appurtenances located behind, on top of, or passing through the wall shall be clearly indicated. Any modifications to the design of these appurtenances to accommodate a particular design arrangement shall also be submitted.

(e) All details of the blocks, including color and texture shall be shown. The exterior face shall preferably be straight, textured with a "split rock face" pattern, and dark gray in color unless otherwise stated on the plans.

- (f) All block types (standard, cap, corner, and radius turning blocks) shall be detailed showing all dimensions.
- (g) All blocks shall have alignment/connection devices such as shear keys, leading/trailing lips, or pins. The details for the connection devices between adjacent blocks and the block to soil reinforcement shall be shown. The block set back or face batter shall be limited to 20 degrees from vertical, unless otherwise shown by the plans.

**Submittals.** Submittals shall be according to Article 1042.03 of the Standard Specifications. No work or ordering of materials for the structure shall be done by the Contractor until the submittal has been approved in writing by the Engineer.

Materials. The materials shall meet the following requirements:

(a) Pre-cast Concrete Block: The block proposed for use shall be produced according Sections 504, 1020, and 1042:

Conform to the requirements of ASTM C1372 except as follows:

1. Fly ash shall be according to Articles 1010.01 and 1010.02(b).

- 2. Ground granulated blast-furnace slag shall be according to Articles 1010.01 and 1010.05.
- 3. Aggregate shall be according to Articles 1003.02 and 1004.02, with the exception of gradation. Chert gravel may be used based on past in-service satisfactory performance, in the environment in which the product was used.
- 4. Water shall be according to Section 1002.
- 5. Testing for freeze-thaw durability will not be required. However, unsatisfactory field performance as determined by the Department will be cause to prohibit the use of the block on Department projects.
- (b) Select Granular Backfill: The material behind the blocks and above a 1:1 slope extending upward from either the back of the bottom block or soil reinforcement (whichever is greater) shall consist of either a coarse aggregate according to Article 1004.05(a), or a fine aggregate according to the first sentence of Article 1003.04(a). The aggregate used shall also meet the following:

Coarse Aggregate Gradation	CA 6 thru CA 16 (Article 1004.01(c))
Fine Aggregate Gradation	FA 1, FA 2, or FA 20 (Article 1003.01(c))
Coarse Aggregate Quality	Minimum Class C (Article
1004.01(b))	
Fine Aggregate Quality	Minimum Class C
(Article 1003.01(b))	
Internal Friction Angle	34° minimum (AASHTO T 236)
pH (if reinforcement is used)	4.5 to 9 (AASHTO T 289)

When a fine aggregate is selected, the rear of all block joints shall be covered by a non-woven needle punch geotextile filter material according to Article 1080.05 of the Standard Specifications and shall have a minimum permeability according to ASTM D4491 of 0.008 cm/sec. All fabric overlaps shall be 6 in. (150 mm) and non-sewn. As an alternative to the geotextile, a coarse aggregate shall be placed against the back face of the blocks to create a minimum 12 in. (300 mm) wide continuous gradation filter to prevent the select fill material from passing through the block joints.

- (c) Leveling pad: The material shall be either Class SI concrete according to Article 1020.04 or compacted coarse aggregate according to Articles 1004.04, (a) and (b). The compacted coarse aggregate gradation shall be CA 6 or CA 10.
- (d) Soil Reinforcement: If soil reinforcement is required by the approved design, the Contractor shall submit a manufacturer's certification for the soil reinforcement properties which equals or exceeds those required in the design computations. The soil reinforcement shall be manufactured from high density polyethylene (HDPE) uniaxial or polypropylene biaxial resins or high tenacity polyester fibers with a PVC coating, stored between -20 and 140° F (-29 and 60° C). The following standards shall be used in determining and demonstrating the soil reinforcement capacities:

ASTM D638 Test Method for Tensile Properties of Plastic
 ASTM D1248 Specification for Polyethylene Plastics Molding and Extrusion Materials
 ASTM D4218 Test Method for Carbon Black Content in Polyethylene Compounds
 ASTM D5262 Test Method for Evaluating the Unconfined Tension Creep Behavior of Geosynthetics
 GG1-Standard Test Method for Geogrid Rib Tensile Strength
 GG2-Standard Test Method for Geogrid Junction Strength
 GG4-Standard Practice for Determination of the Long Term Design Strength of Geogrid
 GG5-Standard Practice for Evaluating Geogrid Pullout Behavior

**Design Criteria.** The design shall be according to AASHTO Specifications and commentaries for Earth Retaining Walls or FHWA Publication No. HI-95-038, SA-96-071 and SA-96-072. The wall supplier shall be responsible for all internal stability aspects of the wall design.

Internal stability design shall insure that adequate factors of safety against overturning and sliding are present at each level of block. If required by design, soil reinforcement shall be utilized and the loading at the block/soil reinforcement connection as well as the failure surface must be indicated. The calculations to determine the allowable load of the soil reinforcement and the factor of safety against pullout shall also be included. The analysis of settlement, bearing capacity, and overall slope stability are the responsibility of the Department.

External loads such as those applied through structure foundations, from traffic or railroads, slope surcharge etc., shall be accounted for in the internal stability design. The presence of all appurtenances behind, in front of, mounted upon, or passing through the wall volume such as drainage structures, utilities, structure foundation elements, or other items shall be accounted for in the internal stability design of the wall.

<u>Construction Requirements</u>. The Contractor shall obtain technical assistance from the supplier during wall erection to demonstrate proper construction procedures and shall include all costs related to this technical assistance in the unit price bid for this item.

The foundation material for the leveling pad and select granular backfill volume shall be graded to the design elevation and compacted according to Article 205.05, except the minimum required compaction shall be 95 percent of the standard laboratory density. Any foundation soils found to be unsuitable shall be removed and replaced as directed by the Engineer and shall be paid for according to Article 109.04.

The select granular backfill lift placement shall closely follow the erection of each course of blocks. All aggregate shall be swept from the top of the block prior to placing the next block lift. If soil reinforcement is used, the select granular backfill material shall be leveled and compacted before placing and attaching the soil reinforcement to the blocks. The soil reinforcement shall be pulled taut, staked in place, and select fill placed from the rear face of the blocks outward. The lift thickness shall be the lesser of 10 in. (255 mm) loose measurement or the proposed block height.

The select granular backfill shall be compacted according to Article 205.05, except the minimum required compaction shall be 95 percent of the standard laboratory density. Compaction shall be achieved using a minimum of 3 passes of a lightweight mechanical tamper, roller, or vibratory system. The top 12 in. (300 mm) of backfill shall be a cohesive, impervious material capable of supporting vegetation, unless other details are specified on the plans.

The blocks shall be maintained in position as successive lifts are compacted along the rear face of the block. Vertical, horizontal, and rotational alignment tolerances shall not exceed 0.5 in. (12 mm) when measured along a 10 ft. (3 m) straight edge.

<u>Method of Measurement</u>. Segmental Concrete Block Wall will be measured by the square foot (square meter) of wall face from the top of block line to the theoretical top of the leveling pad for the length of the wall in a vertical plane, as shown on the contract plans.

**Basis of Payment**. This work will be paid for at the contract unit price per square foot (square meter) for SEGMENTAL CONCRETE BLOCK WALL.