

April 14, 2017

SUBJECT: PARK ROADS (Beall Woods State Park) Section PARK ROADS 2017-2 Wabash County Contract No. 46418 Item No. 55, April 28, 2017 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. Replaced the Schedule of Prices
- 2. Revised pages 12-14 and 21-22 of the Special Provisions
- 3. Revised sheets 2, 4, 58, 59 and 61-68 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,

Maureen M. Addis, P.E. Engineer of Design and Environment

Jette abechly P.E.

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

cc: Jeff South, Region 4, District 7; Tim Kell; Estimates

CWR/ck

C-30-020-16 State Job # -

Project Number *REVISED: APRIL 13, 2017 Route

S

PARK ROAD

Code -185 - -

District -7 - -

County Name -

Section Number - PARK ROADS 2017-02

WABASH--

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0300019	REM REIN PARKING BLKS	EACH	70.000				
X0301339	REM EX PARKING BLOCKS	EACH	24.000				
X0301797	GATE REMOVAL	EACH	4.000				
X0320055	WTR TWR (FREEZEPROOF)	EACH	1.000				
X0321309	CONCRETE PAD	SQ YD	8.000				
X0322939	RELOC EX FLAR END SEC	EACH	1.000				
X0323013	TUBULAR STEEL GATE	EACH	2.000				
X0324062	ENTRANCE SIGN	L SUM	1.000				
X0325777	BFLOW PREVENT/ENCLOSE	EACH	1.000				
X0325790	WATER HYDRANT	EACH	2.000				
X0326498	GFCI20A DX RECEPTACLE	EACH	4.000				
X0327680	TRENCH DRAIN	FOOT	44.000				
X0696100	PARKING BLOCKS	EACH	36.000				
X1400094	LUM LED HM LOW WATT	EACH	7.000				
X1400224	LIGHT POLE SPC 30'	EACH	7.000				

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PARK ROAD

Code -185 - -

District -7 - -

County Name -

Section Number - PARK ROADS 2017-02

WABASH--

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X1400225	SLR LED LGHT UNIT CMP	EACH	1.000				
X2010400	STUMP REMOVAL ONLY	UNIT	27.000				
X2200003	FENCE (SPECIAL)	FOOT	32.000				
X2600016	MINOR SIGN COMPLETE	EACH	16.000				
X4020900	AGG SURF CSE B SPL	SQ YD	2,175.000				
X6061055	CONCRETE ISLAND SPL	SQ FT	370.000				
X6340205	GUARD POSTS REMOV	EACH	58.000				
X7010216	TRAF CONT & PROT SPL	L SUM	1.000				
X7240300	SIGN REMOVAL	EACH	18.000				
X7330064	SIGN SUPPORT SPL	EACH	16.000				
X8570100	DISCONNECT SWITCH	EACH	3.000				
X8780105	CONC FDN SPL	EACH	4.000				
Z0004002	BOLLARDS	EACH	3.000				
Z0013300	CONC REM SPEC	SQ YD	6.000				
Z0056700	SAN SEW 4	FOOT	40.000				

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PARK ROAD

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District -7 - -

County Name -

PARK ROADS 2017-02 Section Number -

WABASH--

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
20200100	EARTH EXCAVATION	CU YD	811.000				
20800150	TRENCH BACKFILL	CU YD	63.000				
21101600	TOPSOIL F & P VAR DP	SQ YD	14,329.000				
21400100	GRADING & SHAP DITCH	FOOT	120.000				
28000305	TEMP DITCH CHECKS	FOOT	113.000				
28000500	INLET & PIPE PROTECT	EACH	2.000				
35101600	AGG BASE CSE B 4	SQ YD	1,183.000				
35101800	AGG BASE CSE B 6	SQ YD	1,526.000				
40200100	AGG SURF CSE A	TON	7.000				
40600275	BIT MATLS PR CT	POUND	4,850.000				
40600290	BIT MATLS TACK CT	POUND	10,697.000				
40600400	MIX CR JTS FLANGEWYS	TON	1.600				
40600982	HMA SURF REM BUTT JT	SQ YD	245.000				
40600990	TEMPORARY RAMP	SQ YD	36.000				
40602978	HMA BC IL-9.5 N50	TON	611.000				

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District -7 - -

County Name -

PARK ROADS 2017-02 Section Number -

WABASH--

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
40603310		TON	2,691.000				
42000060	WELDED WIRE REINF	SQ YD	160.000				
42000100	PCC PVT 6	SQ YD	128.000				
42000300	PCC PVT 8	SQ YD	32.000				
42400200	PC CONC SIDEWALK 5	SQ FT	1,183.000				
42400800	DETECTABLE WARNINGS	SQ FT	38.000				
44000100	PAVEMENT REM	SQ YD	262.000				
44000600	SIDEWALK REM	SQ FT	1,206.000				
44201761	CL D PATCH T1 10	SQ YD	65.000				
44201765	CL D PATCH T2 10	SQ YD	97.000				
48101500	AGGREGATE SHLDS B 6	SQ YD	263.000				
50105220	PIPE CULVERT REMOV	FOOT	803.000				
542C0213	P CUL CL C 1 8	FOOT	34.000				
542C0217	P CUL CL C 1 12	FOOT	451.000				
542C0220	P CUL CL C 1 15	FOOT	86.000				

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PARK ROAD

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District -7 - -

County Name -

PARK ROADS 2017-02 Section Number -

WABASH--

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
542C0223	P CUL CL C 1 18	FOOT	303.000				
54213447	END SECTIONS 12	EACH	24.000				
54213450	END SECTIONS 15	EACH	6.000				
54213453	END SECTIONS 18	EACH	10.000				
54215543	MET END SEC 8	EACH	1.000				
56200300	WATER SERV LINE 1	FOOT	9.000				
56200500	WATER SERV LINE 1 1/2	FOOT	67.000				
60605900	COMB CC&G TB9.12	FOOT	76.000				
63400105	GUARD POSTS	EACH	45.000				
67000500	ENGR FIELD OFFICE B	CAL MO	4.000				
67100100	MOBILIZATION	L SUM	1.000				
72000100	SIGN PANEL T1	SQ FT	82.000				
73000100	WOOD SIN SUPPORT	FOOT	331.000				
78001100	PT PVT MK LTRS & SYMB	SQ FT	102.800				
78001110	PAINT PVT MK LINE 4	FOOT	2,696.000				

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PARK ROAD

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District -7 - -

County Name -

Section Number -PARK ROADS 2017-02

WABASH--

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
78001130	PAINT PVT MK LINE 6	FOOT	2,665.000				
80400100	ELECT SERV INSTALL	EACH	1.000				
81028720	UNDRGRD C CNC 1	FOOT	110.000				
81028750	UNDRGRD C CNC 2	FOOT	102.000				
81603010	UD 2#10#10GXLPUSE 3/4	FOOT	642.000				
81603063	UD 4#10 #10GXLP 1P	FOOT	292.000				
81702110	EC C XLP USE 1C 10	FOOT	895.000				
*REV 83600200	LIGHT POLE FDN 24D	FOOT	42.000				
84200600	REM LT U NO SALV	EACH	4.000				
84500120	REMOV ELECT SERV INST	EACH	1.000				
89502300	REM ELCBL FR CON	FOOT	2,685.000				

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THIS IS THE TOTAL BID \$

46418

NOTES:

- 1. Each PAY ITEM should have a UNIT PRICE and a TOTAL PRICE.
- 2. The UNIT PRICE shall govern if no TOTAL PRICE is shown or if there is a discrepancy between the product of the UNIT PRICE multiplied by the QUANTITY.
- 3. If a UNIT PRICE is omitted, the TOTAL PRICE will be divided by the QUANTITY in order to establish a UNIT PRICE.
- 4. A bid may be declared UNACCEPTABLE if neither a unit price nor a total price is shown.

GUARD POSTS

This item shall consist of furnishing and installing guard posts at the locations noted in the plans in accordance with the details in the plans, this special provision, and Section 634 of the Standard Specifications with the exception of the hemispherical shape of the top. The top of the guard posts shall not be rounded, but shall be sloped at 45 degrees to the horizontal. The cross section of the guard posts shall be nominal 6 inches by 6 inches. The posts shall be 6 feet in length. They shall be placed so that the tip of the bollard is 24 inches above the ground.

This work will be paid for at the contract unit price per Each for GUARD POSTS and no further compensation will be allowed.

GUARD POSTS REMOVAL

This item shall consist of the removal and disposal of existing guard posts at the locations noted in the plans in accordance with applicable portions of Section 632 of the Standard Specifications and this special provision. The existing guard posts shall not be salvaged or used for any of the proposed guard posts.

This work will be paid for at the contract unit price per Each for GUARD POSTS REMOVAL and no further compensation will be allowed.

LIGHT POLE, SPECIAL, 30'

<u>Description.</u> This work consists of furnishing and installing an aluminum light pole complete with an arm of the size specified in the plans, in accordance with the applicable requirements of Section 830 of the Standard Specifications for Road and Bridge Construction, and as specified herein.

Holes for conductor and mounting hardware shall be factory drilled at the height specified in the plans for a GFCI box, when required, and for a pole mounted disconnect switch, when required.

<u>Finish.</u> Poles, arms, and attachments shall be dark bronze anodized aluminum alloy according to ASTM B211, 6061-T6.

Basis of Payment. This work will be paid for at the contract unit price per each for LIGHT POLE, SPECIAL, 30'.

LUMINAIRE, LED, HORIZONTAL MOUNT

Description: This work consists of furnishing all materials, equipment, and labor necessary to install Light-Emitting Diode (LED) luminaires as shown on the plans, in accordance with the applicable requirements of Section 821 of the Standard Specifications for Road and Bridge Construction, and as specified herein.

General: The luminaire shall be assembled in the continental U.S.A. and shall be assembled by and manufactured by the same Manufacturer. Quick connect/disconnect plugs shall be supplied between the discrete electrical components within the luminaire such as the driver, surge protection device, and optical assembly for easy removal. The quick connect/disconnect plugs shall be operable without the use of tools and while wearing insulated gloves. The luminaire shall be in compliance with ANSI C136.37. LED light source(s) and driver(s) shall comply with the material requirements of the Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU.

Manufacturer Experience. The luminaire shall be designed to be incorporated into a lighting system with an expected 30-year lifetime. The luminaire's Manufacturer shall have a minimum of 30 years of experience manufacturing High Intensity Discharge (HID) roadway luminaires and shall have a minimum of 5 years of experience manufacturing LED roadway luminaires. The luminaire's Manufacturer shall have a minimum of 5,000 total LED roadway luminaires installed on a minimum of 30 separate installations, all within the continental U.S.A.

Housing: The housing shall be designed to ensure maximum heat dissipation and to prevent the accumulation of water, ice, dirt and debris. A passive cooling method with no moving or rotating parts shall be employed for heat management. The effective projected area of the luminaire shall not exceed 1.4 sq. ft. The total weight of the luminaire(s) and accessories shall not exceed 75 pounds. Wiring within the electrical enclosure shall be rated at 600 V, 221 °F (105 °C) or higher.

Finish. Painted or finished luminaire surfaces exposed to the environment, shall exceed a rating of six according to ASTM D1654 after 1000 hours of ASTM B117 testing. The coating shall exhibit no greater than 30 % reduction of gloss according to ASTM D523, after 500 hours of ASTM G154 Cycle 6 QUV® accelerated weathering testing.

Attachment. The luminaire shall slip-fit on a mounting arm with a 2 in (5 cm) diameter tenon (2.375 in (6 cm) outer diameter), and shall have a barrier to limit the amount of insertion. The luminaire shall be provided with a leveling surface and shall be capable of being tilted ± 5 degrees from the axis of attachment in not more than 2.5 degree increments and rotated to any degree with respect to the supporting arm.

Receptacle. The luminaire shall include a fully prewired, 7-pin twist lock ANSI C136.41 compliant receptacle. Unused pins shall be connected as directed by the Manufacturer and as approved by the Engineer. A shorting cap shall be provided with the luminaire. A photocell shall be installed on top of luminaire. The furnishing and installation of photocell shall be included in this pay item.

Vibration Characteristics. All luminaires shall pass ANSI C136.31 requirements. Roadway luminaires mounted on a bridge and high mast luminaires shall be rated for "3G" peak acceleration. Vibration testing shall be run using the same luminaire in all three axes.

Labels and Decals. All luminaires shall have external labels in compliance with the latest version of ANSI C136.15 and internal labels in compliance with the latest version of ANSI C136.22.

The luminaire shall be listed for wet locations by a Nationally Recognized Testing Laboratory (NRTL) as defined by OSHA and shall be in compliance with UL 8750 and UL 1598. It shall be identified as such by the holographic UL tag/sticker on the inside of the luminaire.

Hardware. All external fasteners shall be stainless steel. All hardware shall have corrosion resistance.

<u>Optical Assembly:</u> The LED optical assembly, consisting of LED packages, shall have a minimum Ingress Protection rating of IP66 according to ANSI C136.25-2013. Circuiting shall be designed to minimize the impact of individual LED failures on the operation of the other LEDs.

The optical assembly shall utilize high brightness, long life, minimum 70 color rendering index (CRI), 3,000 K color temperature (+/-300 K) LEDs binned according to ANSI C78.377. Lenses shall be UV-stabilized acrylic or glass. Provisions for house-side shielding shall be provided when specified.

Lumen depreciation at 50,000 hours of operation shall not exceed 15% of initial lumen output at the specified LED drive current and an ambient temperature of 77 °F (25 °C).

The assembly shall have individual serial numbers or other means for Manufacturer tracking.

Photometric Performance: The classification of LED luminaires shall be as follows:

The LED luminaire shall have a wattage \leq 110, and initial lumens within the range of 10,000 to 11,000. Luminaires with lumens below the stated minimums will not be accepted.

Testing. Luminaires shall be tested according to IES LM-79. The laboratory performing this test shall hold accreditation from the National Voluntary Laboratory Accreditation Program (NVLAP) under NIST. Submitted reports shall have a backlight, uplight, and glare (BUG) rating according to IESNA TM-15 including a luminaire classification system graph with both the recorded lumen value and percent lumens by zone.

Lumen maintenance shall be measured for the LEDs according to LM-80, or when available for the luminaires according to LM-84. The LM-80 report shall be based on a minimum of 6,000 hours, yet 10,000 hour reports shall be provided for luminaires where those tests have been completed.

Thermal testing shall be provided according to UL 1598. The luminaire shall start and operate in the ambient temperature range specified. The maximum rated case temperature of the driver, LEDs, and other internal components shall not be exceeded when the luminaire is operated in the ambient temperature range specified.

STATE OF ILLINOIS ILLINOIS DEPARTMENT OF TRANSPORTATION LUMINAIRE PERFORMANCE TABLE FOR LUMINAIRE 1

GIVEN CONDITIONS		
Roadway Data	Pavement Width (in one direction only) Pavement Width (in opposite direction) Number of Lanes (in one direction only) Number of Lanes (in opposite direction) Median width I.E.S. Surface Classification Q-Zero Value	65 ft. N/A N/A N/A N/A R4 .07
LIGHT POLE DATA	Mounting Height Mast Arm Length Pole Set-Back From Edge of Pavement	30 ft. 1 ft. 5 ft.
LUMINAIRE DATA	Luminaire Type Luminaire Lumens I.E.S. Vertical Distribution I.E.S. Control Of Distribution I.E.S. Lateral Distribution Lamp Lumen Depreciation Factor	LED 10,000 – 11,000 Type III 0.90 min
	Dirt Depreciation Factor Equipment Factor Total Light Loss Factor	0.80 0.95 0.684 min
LAYOUT DATA	Spacing Configuration Luminaire Overhang over edge of pavement	140 ft. Opposite -4 ft.

NOTE: Variations from the above specified I.E.S. distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above. TM-21 and LM-80 reports must be attached and must support the Lamp Lumen Depreciation Factor given above.

ILLUMINATION	Minimum Horizontal Illumination, E _{MIN}	5 Lux / 0.50 fc
	Uniformity Ratio, E _{AVE} /E _{MIN}	4.0:1
LUMINANCE	Average Luminance, L _{AVE}	N/A
	Uniformity Ratio, L _{AVE} /L _{MIN}	N/A
	Uniformity Ratio, L _{MAX} /L _{MIN}	N/A
	Max. Veiling Luminance Ratio, L _V /L _{AVE}	N/A
	Color Temperature	3,000 CCT

Revised 4-4-17