TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-65-2(97)	2B

ESTIMATED SIGNAL QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(1)	713-15.40	SIGN INSTALLATION (STREET NAME SIGNS)	LS	1
(2)	730-01.02	REMOVAL OF SIGNAL EQUIPMENT	EACH	1
	730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH	10
	730-02.17	SIGNAL HEAD ASSEMBLY (150 A2H WITH BACKPLATE)	EACH	2
	730-02.30	SIGNAL HEAD ASSEMBLY (130 A3 WITH BACKPLATE)	EACH	4
	730-02.31	SIGNAL HEAD ASSEMBLY (140 A1 WITH BACKPLATE)	EACH	4
	730-03.21	INSTALL PULL BOX (TYPE B)	EACH	15
	730-03.23	INSTALL PULL BOX (FIBER OPTIC-TYPE A)	EACH	8
(3)	730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	2
	730-08.01	SIGNAL CABLE - 3 CONDUCTOR	L.F.	437
	730-08.02	SIGNAL CABLE - 5 CONDUCTOR	L.F.	1473
	730-08.03	SIGNAL CABLE - 7 CONDUCTOR	L.F.	1760
	730-08.40	INTERCONNECT CABLE - FIBER OPTIC (12 FIBER SINGLE MODE)	L.F.	204
	730-08.41	INTERCONNECT CABLE - FIBER OPTIC (6 FIBER SINGLE MODE)	L.F.	438
	730-11.10	RISER ASSEMBLY (2" RGS)	EACH	1
(4)	730-12.02	CONDUIT 2" DIAMETER (PVC)	L.F.	1176
(4)	730-12.03	CONDUIT 3" DIAMETER (PVC)	L.F.	680
(4)	730-12.13	CONDUIT 2" DIAMETER (JACK AND BORE)	L.F.	231
(4)	730-12.14	CONDUIT 3" DIAMETER (JACK AND BORE)	L.F.	112
(5)	730-13.02	VEHICLE DETECTOR (VIDEO)	EACH	8
(6)	730-13.07	VEHICLE DETECTOR (SIREN ACTIVATED PRIORITY CONTROL)	EACH	8
	730-14.01	SHIELDED DETECTOR CABLE	L.F.	2028
(7)	730-15.32	CABINET (EIGHT PHASE BASE MOUNTED)	EACH	2
(8),(9)	730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH	2
	730-23.30	PEDESTAL POLE (PEDESTRIAN SIGNAL SUPPORT)	EACH	2
(10)	730-23.36	CANTILEVER SIGNAL SUPPORT (1 ARM @ 46')	EACH	1
(10)	730-23.37	CANTILEVER SIGNAL SUPPORT (1 ARM @ 52')	EACH	1
(10)	730-23.38	CANTILEVER SIGNAL SUPPORT (1 ARM @ 66')	EACH	1
(10)	730-23.39	CANTILEVER SIGNAL SUPPORT (1 ARM @ 68')	EACH	1
(10)	730-23.96	CANTILEVER SIGNAL SUPPORT (2 @ 60' & 66')	EACH	1
(10)	730-23.97	CANTILEVER SIGNAL SUPPORT (2 @ 70' & 40')	EACH	1
(11)	730-26.05	COUNTDOWN PEDESTRIAN SIGNAL	EACH	2
(12)	730-26.09	PEDESTRIAN PUSHBUTTON WITH 15IN SIGN	EACH	2
(13)	730-35.06	BATTERY BACK-UP AND POWER CONDITIONER	EACH	2

FOOTNOTES

(1) TO INCLUDE 12 STREET NAME SIGNS AND ALL NECESSARY HARDWARE. SEE SPECIAL SIGNALIZATION NOTES 25 & 26 ON SHEET 2J FOR DETAILS. SEE SIGNAL LAYOUTS ON SHEETS 11 & 11A FOR PLACEMENT.

(2) TO INCLUDE THE REMOVAL OF ALL SPAN WIRES, CONTROLLER CABINETS, SIGNAL HEADS, SIGNAL POLES AND ANY OTHER SIGNAL RELATED EQUIPMENT AT LOCATIONS 1 & 2.

(3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE LOCAL UTILITY TO OBTAIN THE ESTIMATE FOR ANY CHARGES BY THE UTILITY FOR PROVIDING ELECTRICAL SERVICE TO THE SIGNAL CONTROLLER. THESE CHARGES SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM FOR PAYMENT BY THE CONTRACTOR.

(4) ALL CONDUITS SHALL BE SCHEDULE 80 PVC UNLESS OTHERWISE NOTED. A PULL STRING IS TO BE PROVIDED IN EACH CONDUIT FROM JUNCTION TO JUNCTION.

(5) VIDEO DETECTION SHALL BE ECONOLITE AUTOSCOPE ENCORE. SEE ALSO SPECIAL PROVISION 730V AND SPECIAL SIGNALIZATION NOTES ON SHEET 2J FOR MORE DETAILS.

(6) EMERGENCY PREEMPTION SHALL BE WAPITI RIGHT O' WAY MODEL, OR EQUIVALENT AND SHALL INCLUDE ALL ASSOCIATED HARDWARE AS REQUIRED BY THE MANUFACTURER. ALSO INCLUDES 796 FT. DETECTOR CABLE FOR LOCATION 1 AND 1018 FT. DETECTOR CABLE FOR LOCATION 2.

FOOTNOTES CONT'D

(7) CONTRACTOR SHALL PROVIDE AND INSTALL A METER SERVICE PEDESTAL, MILBANK CP3B11110A22SL1, OR EQUIVALENT. SEE SPECIAL SIGNALIZATION NOTES ON SHEET 2J FOR MORE DETAILS.

(8) THE CONTROLLER SHALL BE AN ECONOLITE COBALT ATC CONTROLLER, TS2 TYPE 2. SEE SPECIAL SIGNALIZATION NOTES ON SHEET 2J FOR MORE DETAILS.

(9) THE MANAGEMENT MALFUNCTION UNIT (MMU) SHALL BE A 16 CHANNEL RENO MODEL MMU-1600GE WITH ETHERNET PORT AND SDLC COMMUNICATONS PORT.

(10) FOR ALL POLES, USE A DRILLED SHAFT FOUNDATION 3'-0" IN DIAMETER WITH A 15'-0" DEEP SOIL SOCKET. IF SOUND BEDROCK IS ENCOUNTERED PRIOR TO ATTAINING THE REQUIRED 15'-0" DEPTH, SOCKET INTO THE ROCK TO A DEPTH OF 6'-0".

(11) PEDESTRIAN SIGNAL HEADS SHALL BE DIALIGHT #430-6479-001X, OR EQUIVALENT.

(12) SIGNS TO BE R10-3E.

(13) SEE SPECIAL SIGNALIZATION NOTE 30 ON SHEET 2J FOR MORE DETAILS. REFER TO DETAIL ON SHEET 11 FOR FOUNDATION DIMENSIONS.

SPECIAL NOTES REGARDING SIGNAL HEADS

(1) ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSIST OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE UNLESS OTHERWISE NOTED IN THE PLANS.

(2) ALL PEDESTRIAN TRAFFIC CONTROL INDICATIONS, WHERE CALLED FOR, SHALL CONSIST OF LED MODULES DISPLAYING “WALKING PERSON” AND “HAND” SYMBOLS, ALONG WITH A PEDESTRIAN INTERVAL COUNTDOWN DISPLAY, WITHIN THE SAME FACE UNLESS OTHERWISE NOTED IN THE PLANS.

(3) CIRCULAR INDICATIONS SHALL MEET “ITE VTCSH-LED CIRCULAR SIGNAL SUPPLEMENT” FOR EXPANDED/EXTENDED VIEW.
ARROW INDICATIONS SHALL MEET “ITE VTCSH-3 LED ARROW SPECIFICATON” FOR EXPANDED/EXTENDED VIEW.
PEDESTRIAN INDICATIONS SHALL MEET “ITE PTCSI PART 2”.

(4) INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE.

(5) COMPATABILITY WITH CONFLICT MONITORS AND LOAD SWITCHES SHALL BE TESTED AND CONFIRMED.

(6) MANUFACTURER SHALL PROVIDE A MINIMUM FIVE-YEAR WARRANTY FOR OPERATION OF THE UNIT.

(7) ALL SIGNAL HEADS WITH LED LENSES SHALL INCLUDE SWIVEL BALANCE ADJUSTERS TO MAINTAIN THE PROPER VISIBILITY. COSTS OF ADJUSTERS TO BE INCLUDED IN COSTS OF SIGNAL HEADS.

(8) SIGNAL HEADS SHALL INCLUDE LOUVERED BACKPLATES WITH A 1” MINIMUM YELLOW RETRO REFLECTIVE BORDER AROUND THE PERIMETER OF THE FACE OF THE BACKPLATE. THE RETRO REFLECTIVE BORDER IS TO BE MADE OF A TYPE III PRISMATIC OR BETTER MATERIAL.

SEALED BY

01/22/2014

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED SIGNAL QUANTITIES AND SPECIAL NOTES

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