

Steven V. Stenger
County Executive



Daniel W. Dreisewerd, P.E., PTOE
Acting Director

Stephanie Leon Streeter, P.E.
Deputy Director

January 22, 2018

ADDENDUM NO. 1

Notice to All Persons and Firms Proposing
to Submit a Bid or Furnish Materials for
Hanley Road (B) Resurfacing
St. Louis County Project No. AR-1484
EWGCG T.I.P. No. 6346-16
Federal Project No. STP-5613(604)

The construction contract for this project has been revised as follows:

No. 1

Delete Plan Sheet 2 of 28 and replace with Plan Sheet 2A of 28.

No. 2

Replace Plan Sheet 21 of 28 and 23 of 28 with the attached revised sheets.

No. 3

Replace the Itemized Bid Sheets, 10 pages total, with the attached sheets. The following items have been modified/added:

The following bid items have been added:

- 904-43.48 Controller, Fully Actuated, (8 Phase Timer, in Aluminum Cabinet Approx. 58"H x 30"W x 17"D, Wired for 4 Phase Operation) w/Internal Fiber Optic Modem and Termination Housing TS2, Type 2
- 904-49.22 Detector, Pedestrian Push Button, APS, Freezeproof
- 904-97.33 Removal of Existing Controller Cabinet
- 904-97.43 Removal of Power Supply Assembly
- 904-98.81 Relocation of Existing Interconnect Cable
- 904-99.09 Fiber-Optic Termination
- 904-99.10 Fiber-Optic Fusion Splice

The following bid items have been modified:

- 904-49.22 Detector, Pedestrian Push Button, APS, Freezeproof
- 904-49.35 Detector, Vehicle Induction Loop, Card Rack Mtg., 2 Channel, w/Delay and Extension Timing and Relay Outputs
- 904-51.00 Conduit, 1"
- 904-52.00 Conduit, 2"
- 904-74.99 Conduit Repair (Locate broken conduit, excavate, remove existing cable, repair/replace conduit, reinstall cable, backfill and restore) (Does not include sidewalk or pavement removal and replacement.)
- 904-85.05 Cable, Detector Loop, #14 Gauge, 1 Conductor, w/Tube Jacket (In Conduit and Pull Boxes)
- 904-85.06 Cable, Detector Loop, #14 Gauge, 1 Conductor, w/Tube Jacket (In Sawed Slot)
- 904-85.18 Cable, Push Button and/or Detector Loop Lead-In, #18 Gauge, 2 Conductor (Shielded)
- 904-85.34 Cable, Communication, #18 Gauge, 4 Conductor (APS)
- 904-86.01 Power Supply Assembly, on Wood Utility Pole, 120/240 Volt
- 904-90.17 Preformed Pull Box, (17"W x 30"L x 26" Min. H) Reinforced Polymer Concrete w/1' Concrete Apron

REVISED ITEMIZED BID SHEET NOS. 1-10 ARE ATTACHED AND REFLECT THE CHANGES NOTED ABOVE. FAILURE TO SUBSTITUTE THE ITEMIZED BID SHEETS MAY RESULT IN REJECTION OF THE BID.

ATTENTION BIDDERS: THE ADDENDUM ACKNOWLEDGEMENT IN THE BID DOCUMENTS MUST BE COMPLETED AND SUBMITTED WITH ALL BID PROPOSALS.



Joseph Kulessa, P.E.
Division Manager, Design

JK/DAH/DAH

Attachments: Itemized Bid Sheets, Revised Plan Sheets 2, 21, and 23.

ITEMIZED BID BID OPTION 1 OF 1

PAGE 1 OF 10

FEDERAL PROJECT NO. STP-5613(604)

COUNTY PROJECT NO. AR-1484

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
ROADWAY ITEMS					
201-20.10	Clearing and Grubbing	L.S.	1		
202-20.10	Removal of Improvements	L.S.	1		
203-10.00	Class "A" Excavation	C.Y.	17		
203-10.30	Land Disturbance Permits	L.S.	1		
304-05.04	Type 5 Aggregate Base (4" Thick)	S.Y.	1832.3		
404-09.04	Superpave Asphaltic Concrete Mixture SP95 (PG70-22)D	TON	1515.2		
404-12.72	Superpave Asphaltic Concrete Mixture SP125 (PG 70-22)DLP	TON	2272.8		
405-30.10	Type "C" Bituminous Concrete (Pavement)	TON	181.4		
405-30.20	Type "D" Bituminous Concrete (Pavement)	TON	100		

ITEMIZED BID BID OPTION 1 OF 1

PAGE 2 OF 10

FEDERAL PROJECT NO. STP-5613(604)

COUNTY PROJECT NO. AR-1484

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
ROADWAY ITEMS					
405-30.30	Type "X" Bituminous Concrete (Base)	TON	957.6		
407-10.27	Tack-Emulsified Asphalt (SS-1H)	GAL.	5600		
412-10.02	Pavement Surfacing and Texturing (0" to 2"), Concrete or Asphalt	S.Y.	26642		
603-10.30	Adjust Water Service Valve and Box to Grade	EACH	7		
604-20.26	Adjust Grate Inlet to Grade	EACH	2		
604-20.30	Adjusting Manhole to Grade	EACH	16		
604-90.40	Adjust Inlet Stone to Grade	EACH	17		
604-90.50	Replace Precast Inlet Stone and Adjust to Grade	EACH	2		
604-90.54	Clean Storm Sewer Drainage Structures	EACH	20		

ITEMIZED BID BID OPTION 1 OF 1

PAGE 3 OF 10

FEDERAL PROJECT NO. STP-5613(604)

COUNTY PROJECT NO. AR-1484

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
ROADWAY ITEMS					
604-90.55	Replace Inlet Lid	EACH	10		
606-10.10	Guardrail, Type "A"	L.F.	100		
606-30.96	Crashworthy Guardrail Terminal, Modified (37.5' Length)	EACH	1		
608-10.90	Remove and Replace Concrete Median/Island	S.Y.	181		
609-10.93	Remove and Replace Curb and Gutter (Various Widths), Vertical/Mountable	L.F.	150		
609-20.90	Remove and Replace Integral Curb (6" Height and Under)	L.F.	510		
609-30.10	Asphalt Curb	L.F.	5147		
609-70.10	Rock Lining	C.Y.	6		
612-30.10	Standard Traffic Control Devices	L.S.	1		

ITEMIZED BID BID OPTION 1 OF 1

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FEDERAL PROJECT NO. STP-5613(604)

COUNTY PROJECT NO. AR-1484

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
ROADWAY ITEMS					
612-60.92	Arrow Panel, Type "B" (Noiseless), Rental	EACH	2		
619-00.00	Mobilization	L.S.	1		
803-20.00	Strip Sodding	S.Y.	2301		
806-45.00	Inlet Protection	L.S.	1		
SUBTOTAL - ROADWAY ITEMS					

COUNTY TRAFFIC SIGNAL ITEMS					
904-02.13	Signal Head, Type 3S	EACH	2		
904-02.33	Signal Head, Type 33S	EACH	2		
904-05.43	Signal Head, Type 3B, Terminal Compartment, and Astro Bracket Mounting	EACH	6		

ITEMIZED BID BID OPTION 1 OF 1

PAGE 5 OF 10

FEDERAL PROJECT NO. STP-5613(604)

COUNTY PROJECT NO. AR-1484

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
COUNTY TRAFFIC SIGNAL ITEMS					
904-24.01	Signal Head, Type 1S, Pedestrian	EACH	8		
904-28.07	Post, Signal, w/Sq. Pedestal Base and Post Cap, 7' Maximum Total Height, Aluminum	EACH	4		
904-32.12	19' Pole, w/12' Mast Arm, Steel	EACH	1		
904-32.18	19' Pole, w/18' Mast Arm, Steel	EACH	1		
904-32.22	19' Pole, w/22' Mast Arm, Steel	EACH	1		
904-32.26	19' Pole, w/26' Mast Arm, Steel	EACH	1		
904-43.48	Controller, Fully Actuated, (8 Phase Timer, in Aluminum Cabinet Approx. 58"H x 30"W x 17"D, Wired for 4 Phase Operation) w/Internal Fiber Optic Modem and Termination Housing, TS2, Type 2	EACH	1		
904-43.88	Controller, Fully Actuated, (8 Phase Timer, in Aluminum Cabinet Approx. 55"H x 44"W x 26"D, Wired for 8 Phase Operation) w/Internal Fiber Optic Modem and Termination Housing, TS2, Type 2, w/Battery Backup	EACH	1		
904-49.22	Detector, Pedestrian Push Button, APS, Freezeproof	EACH	10		

ITEMIZED BID BID OPTION 1 OF 1

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FEDERAL PROJECT NO. STP-5613(604)

COUNTY PROJECT NO. AR-1484

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
COUNTY TRAFFIC SIGNAL ITEMS					
904-49.35	Detector, Vehicle Induction Loop, Card Rack Mtg., 2 Channel, w/Delay and Extension Timing and Relay Outputs	EACH	6		
904-51.00	Conduit, 1"	L.F.	83		
904-51.50	Conduit, 1-1/2"	L.F.	20		
904-52.00	Conduit, 2"	L.F.	152		
904-54.00	Conduit, 4"	L.F.	298		
904-74.99	Conduit Repair (locate broken conduit, excavate, remove existing cable, repair/replace conduit, reinstall cable, backfill and restore) (Does not include sidewalk or pavement removal and replacement)	EACH	2		
904-82.06	Cable, Power, #6 Gauge, 1 Conductor	L.F.	80		
904-83.05	Cable, Signal, #14 Gauge, 5 Conductor	L.F.	550		
904-83.07	Cable, Signal, #14 Gauge, 7 Conductor	L.F.	1850		

ITEMIZED BID BID OPTION 1 OF 1

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FEDERAL PROJECT NO. STP-5613(604)

COUNTY PROJECT NO. AR-1484

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
COUNTY TRAFFIC SIGNAL ITEMS					
904-84.00	Wire, Stranded Ground, #6 Gauge	L.F.	160		
904-85.05	Cable, Detector Loop, #14 Gauge, 1 Conductor, w/Tube Jacket (In Conduit and Pull Boxes)	L.F.	300		
904-85.06	Cable, Detector Loop, #14 Gauge, 1 Conductor, w/Tube Jacket (In Sawed Slot)	L.F.	3400		
904-85.18	Cable, Push Button and/or Detector Loop Lead-In, #18 Gauge, 2 Conductor (Shielded)	L.F.	5230		
904-85.34	Cable, Communication, #18 Gauge, 4 Conductor (APS)	L.F.	240		
904-85.36	Cable, Communication, Fiber Optic, 36 Fibers (30 Single-Mode and 6 Multi-Mode)	L.F.	1540		
904-86.01	Power Supply Assembly, on Wood Utility Pole, 120/240 Volt	EACH	2		
904-88.01	Pull Box, Single, Concrete	EACH	4		
904-88.02	Pull Box, Double, Concrete	EACH	1		

ITEMIZED BID BID OPTION 1 OF 1

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FEDERAL PROJECT NO. STP-5613(604)

COUNTY PROJECT NO. AR-1484

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
COUNTY TRAFFIC SIGNAL ITEMS					
904-90.17	Preformed Pull Box (17"W x 30"L x 26"min.H), Reinforced Polymer Concrete w/1' Concrete Apron	EACH	5		
904-91.43	Base, Type P-3, Concrete	EACH	4		
904-91.56	Base, Type B-6, Concrete	EACH	4		
904-91.88	Base, Type D-8PH, Concrete	EACH	1		
904-93.10	Temporary Signal Installation	EACH	1		
904-93.20	Temporary Traffic Detection System	EACH	1		
904-95.20	Removal of Concrete Single Pull Box	EACH	4		
904-95.30	Removal of Preformed Pull Box	EACH	1		
904-96.20	Removal of Concrete Base	EACH	5		

1

ITEMIZED BID BID OPTION 1 OF 1

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FEDERAL PROJECT NO. STP-5613(604)

COUNTY PROJECT NO. AR-1484

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
COUNTY TRAFFIC SIGNAL ITEMS					
904-96.22	Removal of Preformed Controller Base	EACH	1		
904-97.20	Removal of Signal Equipment (Intersection)	EACH	1		
904-97.33	Removal of Existing Controller Cabinet	EACH	1		
904-97.43	Removal of Power Supply Assembly	EACH	1		
904-98.81	Relocation of Existing Interconnect Cable	L.F.	2040		
904-99.09	Fiber-Optic Termination	EACH	12		
904-99.10	Fiber-Optic Fusion Splice	EACH	18		
SUBTOTAL - COUNTY TRAFFIC SIGNAL ITEMS					

1

ITEMIZED BID BID OPTION 1 OF 1

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FEDERAL PROJECT NO. STP-5613(604)

COUNTY PROJECT NO. AR-1484

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
PEDESTRIAN AND BICYCLE ITEMS					
201-20.11	Clearing Vegetation from the Pedestrian Access Route	L.S.	1		
412-20.00	Sidewalk Grinding	EACH	10		
608-60.08	Concrete Sidewalk, Curb Ramp	EACH	36		
608-60.94	Remove and Replace Concrete Sidewalk (4" Thick)	S.Y.	396.4		
SUBTOTAL - PEDESTRIAN AND BICYCLE ITEMS					
PROJECT TOTAL - BID OPTION 1 OF 1					

SUB-TOTALS	TOTAL	UNIT	ITEM NO.	DESCRIPTION	REMARKS	SUB-TOTALS	TOTAL	UNIT	ITEM NO.	DESCRIPTION	REMARKS	COUNTY PROJECT NO. AR-1484
				COUNTY TRAFFIC SIGNAL ITEMS						ROADWAY ITEMS		FEDERAL PROJECT NO. STP-5613(604)
1	1	EACH	904-93.10	TEMPORARY SIGNAL INSTALLATION								E-W GATEWAY TIP NO. 6346-16
1	1	EACH	904-93.20	TEMPORARY TRAFFIC DETECTION SYSTEM		1	1	L.S.	201-20.10	CLEARING AND GRUBBING	Not shown on B sheets.	MSD: N/A
4	4	EACH	904-95.20	REMOVAL OF CONCRETE SINGLE PULL BOX		1	1	L.S.	202-20.10	REMOVAL OF IMPROVEMENTS	Not shown on B sheets.	MSD BASE MAP: J15,J16
1	1	EACH	904-95.30	REMOVAL OF PREFORMED PULL BOX		17	17	C.Y.	203-10.00	CLASS "A" EXCAVATION		REV. DATE BY APP. 1/18/2018 JH
5	5	EACH	904-96.20	REMOVAL OF CONCRETE BASE		1	1	L.S.	203-10.30	LAND DISTURBANCE PERMITS		REVISIONS
1	1	EACH	904-96.22	REMOVAL OF PREFORMED CONTROLLER BASE		1745	1832.3	S.Y.	304-05.04	TYPE 5 AGGREGATE BASE (4" Thick)	Includes 5% extra for contingency.	DESCRIPTION
1	1	EACH	904-97.20	REMOVAL OF SIGNAL EQUIPMENT (INTERSECTION)		1443.0	1515.2	TON	404-09.04	SUPERPAVE ASPHALTIC CONCRETE MIXTURE SP 95 (PG 70-22)D	Includes 5% extra for contingency. Est. at 0.0574 Ton/SY/inch	ADDITIONAL NO. 1
1	1	EACH	904-97.33	REMOVAL OF EXISTING CONTROLLER CABINET		2164.5	2272.8	TON	404-12.72	SUPERPAVE ASPHALTIC CONCRETE MIXTURE SP125 (PG 70-22)DLP	Includes 5% extra for contingency. Est. at 0.0574 Ton/SY/inch	
1	1	EACH	904-97.43	REMOVAL OF POWER SUPPLY ASSEMBLY		172.7	181.4	TON	405-30.10	TYPE "C" BITUMINOUS CONCRETE (PAVEMENT)	Includes 5% extra for contingency	
2040	2040	L.F.	904-98.81	RELOCATION OF EXISTING INTERCONNECT CABLE		100	100	TON	405-30.20	TYPE "D" BITUMINOUS CONCRETE (PAVEMENT)	Exact locations and quantities to be determined by Engineer	
12	12	EACH	904-99.09	FIBER-OPTIC TERMINATION		912.0	957.6	TON	405-30.30	TYPE "X" BITUMINOUS CONCRETE (BASE)	Includes 5% extra for contingency	
18	18	EACH	904-99.10	FIBER-OPTIC FUSION SPLICE		5600	5600	GAL	407-10.27	TACK-EMULSIFIED ASPHALT (SS-1H)	Wedge 0.15 Gal/SY and Overlay 0.05 Gal/SY	
						26642	26642	S.Y.	412-10.02	PAVEMENT SURFACING AND TEXTURING (0" TO 2"), CONCRETE OR ASPHALT		
						7	7	EACH	603-10.30	ADJUST WATER SERVICE VALVE AND BOX TO GRADE		
						2	2	EACH	604-20.26	ADJUST GRATE INLET TO GRADE		
						16	16	EACH	604-20.30	ADJUST MANHOLE TO GRADE		
				PEDESTRIAN & BICYCLE ITEMS								
1	1	L.S.	201-20.11	CLEARING VEGETATION FROM THE PEDESTRIAN ACCESS ROUTE	Not shown on B sheets.	17	17	EACH	604-90.40	ADJUST INLET STONE TO GRADE		
10	10	EACH	412-20.00	SIDEWALK GRINDING	Not shown on B sheets.	2	2	EACH	604-90.50	REPLACE PRECAST INLET STONE AND ADJUST TO GRADE		
36	36	EACH	608-60.08	CONCRETE SIDEWALK, CURB RAMP		20	20	EACH	604-90.54	CLEAN STORM SEWER DRAINAGE STRUCTURES		
396.4	396.4	S.Y.	608-60.94	REMOVE AND REPLACE CONCRETE SIDEWALK (4" THICK)		10	10	EACH	604-90.55	REPLACE INLET LID		
						100	100	L.F.	606-10.10	GUARDRAIL, TYPE "A"		
						1	1	L.F.	606-30.96	CRASHWORTHY GUARDRAIL TERMINAL, MODIFIED (37.5' LENGTH)		
						181	181	S.Y.	608-10.90	REMOVE AND REPLACE CONCRETE MEDIAN/ISLAND		
						150	150	L.F.	609-10.93	REMOVE AND REPLACE CURB AND GUTTER(VAR. WIDTHS),VERT/MOUNT.	Exact locations and quantities to be determined by Engineer	
						510	510	L.F.	609-20.90	REMOVE AND REPLACE INTEGRAL CURB (6" HEIGHT AND UNDER)		
						5147	5147	L.F.	609-30.10	ASPHALT CURB		
						6.0	6.0	C.Y.	609-70.10	ROCK LINING		
						1	1	L.S.	612-30.10	STANDARD TRAFFIC CONTROL DEVICES		
						2	2	EACH	612-60.92	ARROW PANEL, TYPE "B" (NOISELESS), RENTAL	Not shown on B sheets.	
						1	1	L.S.	619-00.00	MOBILIZATION		
						2301	2301	S.Y.	803-20.00	STRIP SODDING		
						1	1	L.S.	806-45.00	INLET PROTECTION	Not shown on B sheets.	
										COUNTY TRAFFIC SIGNAL ITEMS		
						2	2	EACH	904-02.13	SIGNAL HEAD, TYPE 3S		
						2	2	EACH	904-02.33	SIGNAL HEAD, TYPE 33S		
						6	6	EACH	904-05.43	Signal Head, Type 3B, Terminal Compartment, and Astro Bracket Mounting		
						8	8	EACH	904-24.01	SIGNAL HEAD, TYPE 1S, PEDESTRIAN		
						4	4	EACH	904-28.07	Post, Signal, w/Sq. Pedestal Base and Post Cap, 7' Maximum Total Height, Aluminum		
						1	1	EACH	904-32.12	19' POLE, W/12' MAST ARM, STEEL		
						1	1	EACH	904-32.18	19' POLE, W/18' MAST ARM, STEEL		
						1	1	EACH	904-32.22	19' POLE, W/22' MAST ARM, STEEL		
						1	1	EACH	904-32.26	19' POLE, W/26' MAST ARM, STEEL		
						1	1	EACH	904-43.48	Controller, Fully Actuated, (8 Phase Timer, in Aluminum Cabinet Approx. 58"H x 30"W x 17"D,Wired for 4 Phase Operation) w/Internal Fiber Optic Modem and Termination Housing TS2, Type 2		
						1	1	EACH	904-43.68	Controller, Fully Actuated, (8 Phase Timer, in Aluminum Cabinet Approx. 58"H x 44"W x 26"D, Wired for 8 Phase Operation) w/Internal Fiber Optic Modem and Termination Housing, TS2, Type 2, w/Battery Backup		
						10	10	EACH	904-49.22	Detector, Pedestrian Push Button, APS, Freezeproof		
						6	6	EACH	904-49.35	Detector, Vehicle Induction Loop, Card Rack Mtg., 2 Channel, w/Delay and Extension Timing and Relay Outputs		
						83	83	L.F.	904-51.00	Conduit, 1"		
						20	20	L.F.	904-51.50	Conduit, 1-1/2"		
						152	152	L.F.	904-52.00	Conduit, 2"		
						298	298	L.F.	904-54.00	Conduit, 4"		
						2	2	EACH	904-74.99	Conduit Repair (locate broken conduit, excavate, remove existing cable repair/replace conduit, reinstall cable, backfill and restore) (Does not include sidewalk or pavement removal and replacement)		
						80	80	L.F.	904-82.06	CABLE, POWER, #6 GAUGE, 1 CONDUCTOR		
						550	550	L.F.	904-83.05	CABLE, SIGNAL, #14 GAUGE, 5 CONDUCTOR		
						1850	1850	L.F.	904-83.07	CABLE, SIGNAL, #14 GAUGE, 7 CONDUCTOR		
						160	160	L.F.	904-84.00	WIRE, STRANDED GROUND, #6 GAUGE		
						300	300	L.F.	904-85.05	CABLE, DETECTOR LOOP, #14 GAUGE, 1 CONDUCTOR, W/TUBE JACKET (IN CONDUIT AND PULL BOXES)		
						3400	3400	L.F.	904-85.06	CABLE, DETECTOR LOOP, #14 GAUGE, 1 CONDUCTOR, W/TUBE JACKET (IN SAWED SLOT)		
						5230	5230	L.F.	904-85.18	CABLE, PUSH BUTTON AND/OR DETECTOR LOOP LEAD-IN, #18 GAUGE, 2 CONDUCTOR (SHIELDED)		
						240	240	L.F.	904-85.34	CABLE, COMMUNICATION, #18 GAUGE, 4 CONDUCTOR (APS)		
						1540	1540	L.F.	904-85.36	CABLE, COMMUNICATION, FIBER OPTIC, 36 FIBERS (30 SINGLE-MODE AND 6 MULTI-MODE)		
						2	2	EACH	904-86.01	POWER SUPPLY ASSEMBLY, ON WOOD UTILITY POLE, 120/240 VOLT		
						4	4	EACH	904-88.01	PULL BOX, SINGLE, CONCRETE		
						1	1	EACH	904-88.02	PULL BOX, DOUBLE, CONCRETE		
						5	5	EACH	904-90.17	PREFORMED PULL BOX (17"W X 30"L X 26" MIN.H), REINFORCED POLYMER CONCRETE W/1" CONCRETE APRON		
						4	4	EACH	904-91.43	BASE, TYPE P-3, CONCRETE		
						4	4	EACH	904-91.56	BASE, TYPE B-6, CONCRETE		
						1	1	EACH	904-91.88	BASE, TYPE D-8PH, CONCRETE		

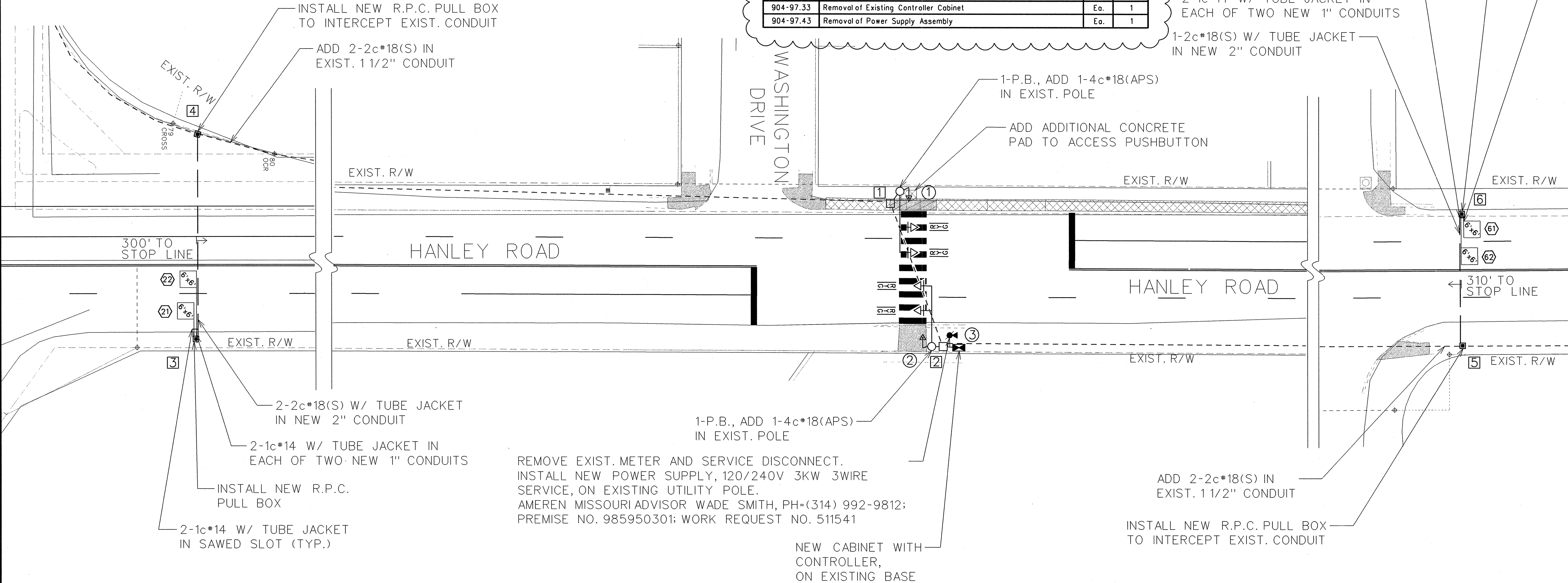
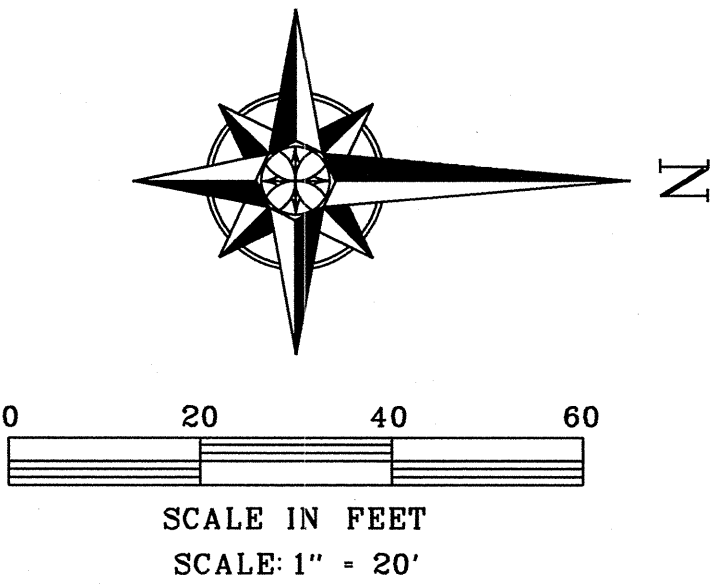
SIGNAL PHASING	
N.B. & S.B. - HANLEY ROAD	Ø1
E.B. & W.B. - PEDESTRIAN CROSSING	Ø2

1. The controller unit must be NEMA configuration.
2. The cabinet back panel must be completely wired with harnesses for 4-phase operation with two overlaps and two concurrent pedestrian phases.

INDUCTION LOOP DETECTOR SCHEDULE				
LOOP NO.	SIZE AND TYPE OF LOOP	QUADRUPOLE (2-4-2)	CARD POSITION IN RACK	CHANNEL USED
21	6'x6'		1	A
22	6'x6'		1	A
61	6'x6'		1	B
62	6'x6'		1	B
CARDS PROVIDED FOR FUTURE USE			—	
OPEN SLOTS IN CARD RACK			2,3,4	

Remove & replace concrete sidewalk as required.

TRAFFIC SIGNAL ITEMS			
ITEM NO.	DESCRIPTION	UNIT	QUANT.
904-43.48	Controller, Fully Actuated, (8 Phase Timer, in Aluminum Cabinet Approx. 58"H x 30"W x 17"D, Wired for 4 Phase Operation)	Ea.	1
	w/Internal Fiber Optic Modem and Termination Housing TS2, Type 2		
904-49.22	Detector, Pedestrian Push Button, APS, Freezeproof	Ea.	2
904-49.35	Detector, Vehicle Induction Loop, Card Rack Mtg., 2 Channel, w/Delay and Extension Timing and Relay Outputs	Ea.	2
904-51.00	Conduit, 1"	L.F.	10
904-52.00	Conduit, 2"	L.F.	123
904-74.99	Conduit Repair (Locate broken conduit, excavate, remove existing cable, repair/replace conduit, reinstall cable, backfill and restore) (Does not include sidewalk or pavement removal and replacement.)	Ea.	1
904-85.05	Cable, Detector Loop, *14 Gauge, 1 Conductor, w/Tube Jacket (In Conduit and Pull Boxes)	L.F.	50
904-85.06	Cable, Detector Loop, *14 Gauge, 1 Conductor, w/Tube Jacket (In Sawed Slot)	L.F.	360
904-85.18	Cable, Push Button and/or Detector Loop Lead-in, *18 Gauge, 2 Conductor (Shielded)	L.F.	1960
904-85.34	Cable, Communication, *18 Gauge, 4 Conductor (APS)	L.F.	20
904-86.01	Power Supply Assembly, on Wood Utility Pole, 120/240 Volt	Ea.	1
904-90.17	Preformed Pull Box, (17"W x 30"L x 26" Min. H) Reinforced Polymer Concrete w/1" Concrete Apron	Ea.	4
904-97.33	Removal of Existing Controller Cabinet	Ea.	1
904-97.43	Removal of Power Supply Assembly	Ea.	1



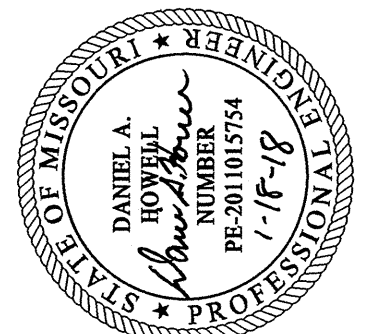
SIGNAL BASE AND EQUIPMENT SCHEDULE			
BASE NUMBER	BASE TYPE	MAST ARM OR POST TYPE	SIGNAL EQUIPMENT TYPE
1	—	—	1 - PUSH BUTTON
2	—	—	1 - PUSH BUTTON

PULL BOX SCHEDULE			
BOX NUMBER	BOX TYPE		
	CONCRETE	REINFORCED PLASTIC MORTAR	REINFORCED PLASTIC MORTAR W/CONC. APRON
1 2	SINGLE		
3 4 5 6			17"Wx30"Lx26"H

UTILITIES NOTE:
EXISTING UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES, IF SHOWN ON THESE PLANS, SHALL BE CONSIDERED APPROXIMATE ONLY. VERIFICATION OF THE LOCATIONS OF ALL EXISTING FACILITIES, STRUCTURES AND UTILITIES EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE VERIFIED PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS.

COUNTY PROJECT NO.	AR-1484
FEDERAL PROJECT NO.	STP-5613(604)
E-W GATEWAY TIP NO.	6346-16
MSD:	N/A
MSD BASE MAP:	J15, J16
REVISIONS	
REV. DATE	BY APP. D.H. J.M.
DESCRIPTION	ADDENDUM NO. 1

DISCLAIMER OF RESPONSIBILITY: I, the undersigned, hereby certify that the documents intended to be used for the project described herein are the work of my firm, and I am not responsible for any other documents or instruments relating to or intended to be used for any part of the engineering project or survey.



DATE: 1-18-18

PREPARED BY:
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1050 N. LINCOLN BLVD.
ST. LOUIS, MISSOURI 63132
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DANIEL HOWELL
PROFESSIONAL ENGINEER
LICENSE NO. 2011015754

Saint Louis
COUNTY
TRANSPORTATION
PUBLIC WORKS
Daniel W. Dreisewerd, P.E., PTOE
Acting Director

HANLEY ROAD (B)
RESURFACING
MID BLOCK SIGNAL
HANLEY ROAD JUST NORTH OF
WASHINGTON DRIVE

DESIGNED: J.L.M.
DRAWN: J.L.M.
CHECKED: E.W.
SHEET SEQUENCE:
21 OF 28

TRAFFIC SIGNAL ITEMS			
ITEM NO.	DESCRIPTION	UNIT	QUANT.
904-02.13	Signal Head, Type 3S	Each	2
904-02.33	Signal Head, Type 33S	Each	2
904-05.43	Signal Head, Type 3B, Terminal Compartment, and Astro Bracket Mounting	Each	6
904-24.01	Signal Head, Type 1S, Pedestrian	Each	8
904-28.07	Post, Signal, w/Sq. Pedestal Base and Post Cap, 7' Maximum Total Height, Aluminum	Each	4
904-32.12	19' Pole, w/12' Mast Arm, Steel	Each	1
904-32.18	19' Pole, w/18' Mast Arm, Steel	Each	1
904-32.22	19' Pole, w/22' Mast Arm, Steel	Each	1
904-32.26	19' Pole, w/26' Mast Arm, Steel	Each	1
904-43.88	Controller, Fully Actuated, (8 Phase Timer, in Aluminum Cabinet Approx. 55"H x 44"W x 26"D, Wired for 8 Phase Operation) w/Internal Fiber Optic Modern and Termination Housing IS2 Type 2 w/Battery Backup	Each	1
904-49.22	Detector, Pedestrian Push Button, APS, Freezeproof	Each	8
904-49.35	Detector, Vehicle Induction Loop, Card Rack Mtg., 2 Channel, w/Delay and Extension Timing and Relay Outputs	Each	4
904-51.00	Conduit, 1"	L.F.	73
904-51.50	Conduit, 1-1/2"	L.F.	20
904-52.00	Conduit, 2"	L.F.	29
904-54.00	Conduit, 4"	L.F.	298
904-74.99	Conduit Repair (Locate broken conduit, excavate, remove existing cable, repair/replace conduit, reinstall cable, backfill and restore) (Does not include sidewalk or pavement removal and replacement.)	Each	1
904-82.06	Cable, Power, #6 Gauge, 1 Conductor	L.F.	80
904-83.05	Cable, Signal, #14 Gauge, 5 Conductor	L.F.	550
904-83.07	Cable, Signal, #14 Gauge, 7 Conductor	L.F.	1,850
904-84.00	Wire, Stranded Ground, #6 Gauge	L.F.	160
904-85.05	Cable, Detector Loop, #14 Gauge, 1 Conductor, w/Tube Jacket (In Conduit and Pull Boxes)	L.F.	250
904-85.06	Cable, Detector Loop, #14 Gauge, 1 Conductor, w/Tube Jacket (In Sowed Slot)	L.F.	3,040
904-85.18	Cable, Push Button and/or Detector Loop Lead-In, #18 Gauge, 2 Conductor (Shielded)	L.F.	3,270
904-85.34	Cable, Communication, #18 Gauge, 4 Conductor (APS)	L.F.	220
904-85.36	Cable, Communication, Fiber Optic, 36 Fibers (30 Single-Mode and 6 Multi-Mode)	L.F.	1,540
904-86.01	Power Supply Assembly, on Wood Utility Pole, 120/240 Volt	Each	1
904-88.01	Pull Box, Single, Concrete	Each	4
904-88.02	Pull Box, Double, Concrete	Each	1
904-90.17	Preformed Pull Box, (17"W x 30"L x 26" Min. H) Reinforced Polymer Concrete w/1' Concrete Apron	Each	1
904-91.43	Base, Type P-3, Concrete	Each	4
904-91.56	Base, Type B-6, Concrete	Each	4
904-91.88	Base, Type D-8PH, Concrete	Each	1
904-93.10	Temporary Signal Installation	Each	1
904-93.20	Temporary Traffic Detection System	Each	1
904-95.20	Removal of Concrete Single Pull Box	Each	4
904-95.30	Removal of Preformed Pull Box	Each	1
904-96.20	Removal of Concrete Base	Each	5
904-96.22	Removal of Preformed Controller Base	Each	1
904-97.20	Removal of Signal Equipment (Intersection)	Each	1
904-98.81	Relocation of Existing Interconnect Cable	L.F.	2,040
904-99.09	Fiber-Optic Termination	Each	12
904-99.10	Fiber-Optic Fusion Splices	Each	18

PULL BOX SCHEDULE			
BOX NUMBER	BOX TYPE		
	CONCRETE	PREFORMED	PREFORMED W/CONC. APRON
1* 2* 3* 4	SINGLE		
5	DOUBLE		
6			17"Wx30"Lx26" Min. H
7			U.I.P.

* Requires full depth removal of exist. pull box

SIGNAL BASE AND EQUIPMENT SCHEDULE			
BASE NO.	CONCRETE BASE TYPE	MAST ARM OR POST TYPE	SIGNAL EQUIPMENT TYPE
1	B-6	STEEL TRAFFIC SIGNAL POLE w/12' ARM	1-3B 1-33S 2-1S PED. 1-PUSH BUTTON
1a*	P-3	ALUMINUM SIGNAL POST w/SQUARE PEDESTAL BASE AND POST CAP (MAXIMUM TOTAL HEIGHT 7')	1-PUSH BUTTON
2*	B-6	STEEL TRAFFIC SIGNAL POLE w/26' ARM	2-3B 1-3S 2-1S PED. 1-PUSH BUTTON
2a	P-3	ALUMINUM SIGNAL POST w/SQUARE PEDESTAL BASE AND POST CAP (MAXIMUM TOTAL HEIGHT 7')	1-PUSH BUTTON
3*	B-6	STEEL TRAFFIC SIGNAL POLE w/22' ARM	1-3B 1-33S 2-1S PED. 1-PUSH BUTTON
3a	P-3	ALUMINUM SIGNAL POST w/SQUARE PEDESTAL BASE AND POST CAP (MAXIMUM TOTAL HEIGHT 7')	1-PUSH BUTTON
4*	B-6	STEEL TRAFFIC SIGNAL POLE w/18' ARM	2-3B 1-3S 2-1S PED. 1-PUSH BUTTON
4a	P-3	ALUMINUM SIGNAL POST w/SQUARE PEDESTAL BASE AND POST CAP (MAXIMUM TOTAL HEIGHT 7')	1-PUSH BUTTON
5*	D-8PH	-----	CONTROLLER, GROUND MOUNT ALUMINUM CABINET (APPROX. 55"H x 44"W x 26"D) w/BATTERY BACKUP

* Requires full depth removal of exist. base

INDUCTION LOOP DETECTOR SCHEDULE				
LOOP NO.	SIZE AND TYPE OF LOOP		CARD POSITION IN RACK	CHANNEL USED
	STANDARD (3-TURNS)	QUADRUPOLE (2-4-2)		
21	6'x6'		2	A
22	6'x6'		2	A
23		(2) 6'x20'	2	B
24		(2) 6'x20'	2	B
41		(2) 6'x20'	4	A
61	6'x6'		6	A
62	6'x6'		6	A
63		(2) 6'x20'	6	B
64		(2) 6'x20'	6	B
81		(2) 6'x20'	8	A
CARDS PROVIDED FOR FUTURE USE			---	
OPEN SLOTS IN CARD RACK			1,3,5,7	

COUNTY PROJECT NO.
AR-1484

FEDERAL PROJECT NO.
STP-5613(604)

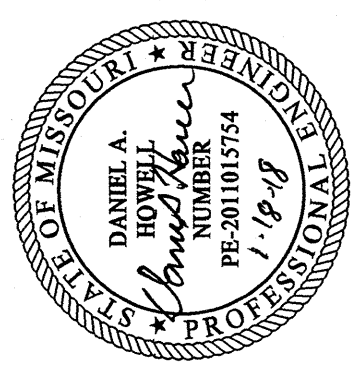
E-W GATEWAY TIP NO.
6346-16

MSD:
N/A

MSD BASE MAP:
J15,J16

REV	DATE	BY	APP	DESCRIPTION	ADDENDUM NO.1
1					

DISCLAIMER OF RESPONSIBILITY: I, the undersigned, hereby certify that the documents prepared by me or under my direct supervision and control are true and correct to the best of my knowledge and belief, and that I am a duly licensed Professional Engineer in the State of Missouri. I am not providing any warranty, express or implied, for the use of these documents for any purpose other than that for which they were prepared. I am not responsible for any errors or omissions in these documents, nor for any consequences arising from the use of these documents. This disclaimer applies to all documents prepared by me or under my direct supervision and control, whether or not they are signed by me or under my direct supervision and control. I am not responsible for any errors or omissions in these documents, nor for any consequences arising from the use of these documents. This disclaimer applies to all documents prepared by me or under my direct supervision and control, whether or not they are signed by me or under my direct supervision and control.



DATE: 1-19-18

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Acting Director

HANLEY ROAD (B)
RESURFACING

INTERSECTION SIGNAL
HANLEY ROAD AND
ALERT DRIVE

DESIGNED:
C.B.D.

DRAWN:
C.B.D.

CHECKED:
D.A.H.

SHEET SEQUENCE:
23 OF 28