

Addendum No. 1

DATE: 10/15/2016

TO: All Interested Parties

FROM: Rick Walker, P.E.

RE: City of Warsaw, Missouri
Road Improvement Plans for Truman Dam Access Road & Commercial Street and
Harbor Access Road, Benton County, MO
Federal Project #FLAP 035

Bid Date: October 24, 2016

The following Addendum is to notify the Potential Bidders of Change to the Plans and Specifications for the above referenced project.

1. **JSP Section E, UTILITIES;** Add the following:

<u>Utility Name</u>	<u>Known Required Adjustment</u>
City of Warsaw	Sta. 51+04.5, Commercial Street,
Water and Wastewater	Adjust Manhole to Grade
People Service Inc.	Sta. 51+71.6 Commercial Street,
Warsaw, MO 65355	Adjust Water Valve to Grade
Contact: Mark Breshears	Sta. 51+23.3 Commercial Street,
Telephone: 660-723-3115	Adjust Water Valve to Grade

2. **JSP Section G, LIQUIDATED DAMAGES SPECIFIED,** Paragraph 10, line 3, replace \$500.00 with **\$950.00.**
3. **Bid Form** - Replace the Bid Form with revised version included in this addendum.
4. **Plan Sheet 2** - Quantity table revised to reflect deletion of luminaire and addition of bid item to adjust manhole to grade.
5. **Plan Sheet 12** - Added note to adjust manhole to grade. Manhole will raise approximately 1.0'.
6. **Plan Sheet 25-30** - Deleted luminaire on signal pole 4, wire size for lighting circuit.
7. **Plan Sheet 31** - Changed references to pipe type to "Group B Pipe".

Note: Bidders must acknowledge receipt of this Addendum by listing the number and date in the space provided on the Bid Form.

Questions regarding this project may be directed to :

CFS Engineers

Charles LePage, PE or

clepage@cfse.com

(417)-544-4507

Rick Walker, PE

rwalker@cfse.com

(816)-333-4477

BID FORM

TRUMAN DAM ACCESS ROAD & COMMERCIAL STREET AND HARBOR ACCESS ROAD,
BENTON COUNTY, MO, FEDERAL PROJECT #FLAP 035

TO CITY OF WARSAW
WARSAW, MISSOURI

The undersigned bidder hereby proposes to furnish all material, supplies, transportation, tools, and equipment, perform all necessary labor and construct, install and complete all work stipulated in, required by, and in conformity with the proposed Contract Documents (including all documents referred to therein) and any and all written addenda thereto, for and in consideration of the lump sum price as follows:

PART 1 - TRUMAN DAM ACCESS ROAD & COMMERCIAL STREET

Item	Qty	Unit	Unit Cost	Total Cost
1. Mobilization	1	L.S.	\$ _____	\$ _____
2. Removal of Improvements	1	L.S.	\$ _____	\$ _____
3. Clearing & Grubbing	0.1	ACRE	\$ _____	\$ _____
4. Unclassified Excavation	1267	C.Y.	\$ _____	\$ _____
5. Compacting Embankment	577	C.Y.	\$ _____	\$ _____
6. 2" Asphaltic Concrete Pavement BP-1	611	TON	\$ _____	\$ _____
7. 6" Asphaltic Concrete Pavement PG64-22 (BASE)	506	TON	\$ _____	\$ _____
8. Coldmilling Bituminous Pavement for Removal of Surfacing (3" thick or less)	4088	S.Y.	\$ _____	\$ _____
9. Type 1 Aggregate For Base (6" Thick)	3152	S.Y.	\$ _____	\$ _____
10. 4" Concrete Median Strip	37	S.Y.	\$ _____	\$ _____
11. Tack Coat	555	GAL.	\$ _____	\$ _____
12. Prime – Liquid Asphalt RC 70	317	GAL.	\$ _____	\$ _____
13. Type CG-1 Curb & Gutter	407	L.F.	\$ _____	\$ _____
14. Type C-1 Straight Curb	88	L.F.	\$ _____	\$ _____
15. Type A2 Shoulder	1549	S.Y.	\$ _____	\$ _____
16. 5'x4' Storm Junction Box	1	EA.	\$ _____	\$ _____
17. 4'x4' Storm Junction Box	1	EA.	\$ _____	\$ _____
18. 15" Group B Pipe	52	L.F.	\$ _____	\$ _____
19. 18" Group B Pipe	77	L.F.	\$ _____	\$ _____
20. 21" Group B Pipe	19	L.F.	\$ _____	\$ _____
21. 36" Group B Pipe	12	L.F.	\$ _____	\$ _____
22. 15" Flared End Section	1	EA.	\$ _____	\$ _____

23. 18" Flared End Section	1	EA.	\$ _____	\$ _____
24. 21" Flared End Section	1	EA.	\$ _____	\$ _____
25. 36" Flared End Section	2	EA.	\$ _____	\$ _____
26. Pipe Collar	3	EA.	\$ _____	\$ _____
27. Class 3 Excavation	58.5	C.Y.	\$ _____	\$ _____
28. Relocate Existing Street Light Pole	1	EA.	\$ _____	\$ _____
29. 4" White High Build Acrylic Waterborne Pavement Marking Paint	284	L.F.	\$ _____	\$ _____
30. 4" Yellow High Build Acrylic Waterborne Pavement Marking Paint	3690	L.F.	\$ _____	\$ _____
31. 6" White High Build Acrylic Waterborne Pavement Marking Paint	2445	L.F.	\$ _____	\$ _____
32. 24" Yellow High Build Acrylic Waterborne Pavement Marking Paint	295	L.F.	\$ _____	\$ _____
33. 24" White High Build Acrylic Waterborne Pavement Marking Paint	211	L.F.	\$ _____	\$ _____
34. Acrylic Waterborne Pavement Marking Paint Left Turn Arrow Symbol	10	EA.	\$ _____	\$ _____
35. Acrylic Waterborne Pavement Marking Paint Bike Lane Symbol With Arrow	12	EA.	\$ _____	\$ _____
36. TYPE SHR2L-1 SIGN	71.0	S.F.	\$ _____	\$ _____
37. Wood Post, 4" x 4"	71	L.F.	\$ _____	\$ _____
38. Wood Posts 4: x 6"	70	L.F.	\$ _____	\$ _____
39. PSST, 2.0 In., 12 Ga.	113	L.F.	\$ _____	\$ _____
40. Relocated Signs	78.44	S.F.	\$ _____	\$ _____
41. Concrete Footings, Embedded	4.60	C.Y.	\$ _____	\$ _____
42. PSST Anchor, 12 Ga.	20.0	L.F.	\$ _____	\$ _____
43. Post, Type CL, 35 Ft. Arm	1	EA.	\$ _____	\$ _____
44. Post, Type CL, 45 Ft. Arm	1	EA.	\$ _____	\$ _____
45. Post, Type BL, 45 Ft & 40 Ft Arms	1	EA.	\$ _____	\$ _____
46. Base, Concrete	13.1	C.Y.	\$ _____	\$ _____
47. Preformed Pull Box, Class 1	2	EA.	\$ _____	\$ _____
48. Preformed Pull Box, Class 2	3	EA.	\$ _____	\$ _____
49. Preformed Pull Box, Class 3	1	EA.	\$ _____	\$ _____
50. Signal Head, Type 3S	3	EA.	\$ _____	\$ _____
51. Signal Head Type 3B	8	EA.	\$ _____	\$ _____
52. Luminaire, 250 Watt HPS	2	EA.	\$ _____	\$ _____
53. Signal Sign, Type SHR2L-1	56.5	S.F.	\$ _____	\$ _____
54. Conduit, 1 In., Loop Detector	236	L.F.	\$ _____	\$ _____

55. Conduit, 3 In Rigid., Trenched	373	L.F.	\$ _____	\$ _____
56. Conduit, 3 In. Rigid, Pushed	136	L.F.	\$ _____	\$ _____
57. Cable #8 AWG Copper ,1 Conductor	522	L.F.	\$ _____	\$ _____
58. Cable #16 AWG Copper, 7 Conductor	1890	L.F.	\$ _____	\$ _____
59. Cable #8 AWG Copper, 2 Conductor	545	L.F.	\$ _____	\$ _____
60. Cable #10 AWG Copper, 1 Conductor				
Pole and Bracket	270	L.F.	\$ _____	\$ _____
61. Cable, Loop Detector, In Duct	2320	L.F.	\$ _____	\$ _____
62. Cable, Loop Detector Lead-In	1041	L.F.	\$ _____	\$ _____
63. Power Supply Assembly Type 1				
240/120 Volt Service, Lighting and Signal	1	EA.	\$ _____	\$ _____
64. Controller Assembly Housing, Keyboard Entry,				
8 Phase NEMA Controller	1	EA.	\$ _____	\$ _____
65. Silt Fence	415	L.F.	\$ _____	\$ _____
66. Rock Ditch Check	3	EA.	\$ _____	\$ _____
67. Inlet Protection	2	EA.	\$ _____	\$ _____
68. Rock Lining (Outlet Protection)	23	S.Y.	\$ _____	\$ _____
69. Type 2 Erosion Control Blanket	2191	S.Y.	\$ _____	\$ _____
70. Sediment Removal	17	C.Y.	\$ _____	\$ _____
71. Temporary Seeding and Mulching	0.45	ACRE	\$ _____	\$ _____
72. Permanent Seeding	0.45	ACRE	\$ _____	\$ _____
73. Type III Movable Barricade (9')	4	EA.	\$ _____	\$ _____
74. Type C Warning Lights	4	EA.	\$ _____	\$ _____
75. Channelizer (Trim-Line)	141	EA.	\$ _____	\$ _____
76. Construction Signs	174	S.F.	\$ _____	\$ _____
77. Contractor Furnished Survey & Staking	1	L.S.	\$ _____	\$ _____
78. Adjust Manhole to Grade	1	EA.	\$ _____	\$ _____

Sub-Total Part 1 \$ _____

PART 2 - DRAKE HARBOR ACCESS ROAD

Item	Qty	Unit	Unit Cost	Total Cost
1. Mobilization	1	L.S.	\$ _____	\$ _____
2. Removal of Improvements	1	L.S.	\$ _____	\$ _____
3. Unclassified Excavation	167	C.Y.	\$ _____	\$ _____
4. Compacting Embankment	109	C.Y.	\$ _____	\$ _____
5. 2" Asphaltic Concrete Pavement BP-1	1170	TON	\$ _____	\$ _____
6. 4" Asphaltic Concrete Pavement PG64-22 (BASE)	158	TON	\$ _____	\$ _____

7. 7" PCCP Crosswalk Paving	26.7	S.Y.	\$ _____	\$ _____
8. Coldmilling Bituminous Pavement (Variable Depth)	1200	S.Y.	\$ _____	\$ _____
9. Type 1 Aggregate For Base (4" Thick)	1061	S.Y.	\$ _____	\$ _____
10. Tack Coat	1039	GAL.	\$ _____	\$ _____
11. Prime – Liquid Asphalt RC 70	56	GAL.	\$ _____	\$ _____
12. Type CG-1 Curb & Gutter	451	L.F.	\$ _____	\$ _____
13. Type C-1 Straight Curb	144	L.F.	\$ _____	\$ _____
14. Integral Curb, Sidewalk, Bike Lane	92	S.Y.	\$ _____	\$ _____
15. Concrete Sidewalk, 4 In.	92.0	S.Y.	\$ _____	\$ _____
16. Concrete Curb Ramp	59.0	S.Y.	\$ _____	\$ _____
17. Truncated Domes	58.0	S.F.	\$ _____	\$ _____
18. Adjust Manhole To Grade	1	EA.	\$ _____	\$ _____
19. 6" White High Build Acrylic Waterborne Pavement Marking Paint	265	L.F.	\$ _____	\$ _____
20. 24" White High Build Acrylic Waterborne Pavement Marking Paint	25	L.F.	\$ _____	\$ _____
21. Acrylic Waterborne Pavement Marking Paint Bike Lane Symbol With Arrow	2	EA.	\$ _____	\$ _____
22. Type SHR2L-1 Sign	3.0	S.F.	\$ _____	\$ _____
23. Wood Post, 4"x4"	14	L.F.	\$ _____	\$ _____
24. PSST, 2.0 In, 12 Ga.	42	L.F.	\$ _____	\$ _____
25. Relocated Signs	8.18	S.F.	\$ _____	\$ _____
26. Concrete Footings, Embedded	0.8	C.Y.	\$ _____	\$ _____
27. PSST Anchor, 12 Ga.	7.5	L.F.	\$ _____	\$ _____
28. Silt Fence	199	L.F.	\$ _____	\$ _____
29. Channelizer (Trim-Line)	91	EA.	\$ _____	\$ _____
30. Construction Signs	100	S.F.	\$ _____	\$ _____
31. Contractor Furnished Survey & Staking	1	L.S.	\$ _____	\$ _____

Sub-Total Part 2 \$ _____

Sub-Total Part 1 + Sub-Total Part 2 = Total Base Bid \$ _____

ADD ALTERNATE NO. A, DRAKE HARBOR LIGHTING

<u>Item</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
1. Pedestrian Lights	3	EA.	\$ _____	\$ _____
2. Concrete Light Pole Foundations	3	EA.	\$ _____	\$ _____
3. Conduit, 2 In. Rigid, In Trench	350	L.F.	\$ _____	\$ _____

4. Conduit, 2 In. Rigid, Pushed	30	L.F.	\$ _____	\$ _____
5. Cable, 8 AWG, 1 Conductor	1620	L.F.	\$ _____	\$ _____
6. Cable, 6 AWG, Bare Neutral	410	L.F.	\$ _____	\$ _____
7. Cable, 10 AWG, 1 Conductor, Pole & Bracket	100	L.F.	\$ _____	\$ _____

Total Add Alternate A \$ _____

Project Total Base Bid plus Add Alternate A Bid \$ _____

ADD ALTERNATE NO. B, DRAKE HARBOR PARKING LOT STRIPING

<u>Item</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
1. 4" White High Build Acrylic Waterborne Pavement Marking Paint	2294	L.F.	\$ _____	\$ _____
2. Acrylic Waterborne Pavement Marking Paint Blue Handicap Symbol	2	EA.	\$ _____	\$ _____

Total Add Alternate B \$ _____

Project Total Base Bid plus Add Alt. A Bid plus Add Alt. B Bid \$ _____

The Contract will be awarded to the lowest responsive bidder based on the following parameter:

If lowest Base Bid is with Warsaw's project budget, but Base Bid plus Add Alternate 1 exceeds the City's budget, the lowest responsive BASE BID will be awarded the Contract.

If one or more bidder's Base Bid plus Add Alternate A is within the City's budget, the lowest Combined Base Bid plus Add Alternate A Bid will be awarded the Contract.

If one or more bidders Base Bid plus Add Alternate A plus Add Alternate B is within the City's budget, the lowest Combined Base Bid plus Add Alternate A Bid plus Add Alternate B Bid will be awarded the Contract.

1. The undersigned further agrees to begin work, if the successful lowest responsive bidder, upon the date stated in the Notice to Proceed.
2. In submitting this bid, the undersigned declares that it is of lawful age and executed the

accompanying bid on behalf of the bidder therein named, and that it has lawful authority so to do. The undersigned further declares that it has not directly or indirectly entered into any agreement, expressed or implied, with any bidder or bidders, having for its object the controlling of the price or amount of such bid or any bids, the limiting of the bid or bidders, the parceling or farming out to any bidder or bidders, or other persons, of any part of the Contract or any part of the subject matter of the bid or bids or of the profits thereof, and that it has not and will not divulge the sealed bid to any person whomsoever, except those having a partnership or other financial interest with bidder in said bid or bids, until after sealed bid or bids are opened.

3. The undersigned further declares that it has carefully examined the Notice to Bidders, Instructions to Bidders and other Contract Documents, and that it has inspected the actual location of the work, together with the local sources of supply, and has satisfied itself as to all conditions and quantities, and understands that in signing this Bid Form it waives all right to plead any misunderstanding regarding the same.
4. The undersigned hereby agrees to furnish the required bonds and insurance certificates and execute an Agreement within ten (10) calendar days from and after notice of the award of the Contract to said bidder, and failure of the bidder to do so shall constitute a default, and the City may thereafter take such steps to protect its legal rights as it deems in its best interest, including, but not limited to, enforcement of its rights as to bid security.
5. It is understood that the City will pay monthly pay estimates submitted in accordance with the City of Warsaw's claims policy and approved by the City Engineer, all as provided in the Contract Documents.
6. Undersigned acknowledge receipt of the Plans and Specifications for the project including the following written addenda (insert "none" if none were received).

Enclosed is a certified check, cashier's check or bid bond in the amount of _____
DOLLARS (\$_____) which sum is five percent (5%) of the total bid. The
undersigned agrees this security is subject to being forfeited to the City as liquidated damages and not as
a penalty, together with other legal remedies the City may choose to invoke, all as set forth in the
Instructions to Bidders, should this Bid be accepted and the Contract be awarded to this bidder and it
should fail to enter into an Agreement in the form prescribed and to furnish the required insurance,
bonds and other required documents within ten (10) calendar days as above stipulated, otherwise the bid
security shall be returned to the undersigned upon signing of the Agreement and delivery of the
approved bonds and other required documents to said City of Warsaw, Missouri.

DATED this _____ day of _____, 20__.

Contractor

By: _____

Title

Address

Telephone Number

Facsimile Number

TRUMAN DAM ACCESS ROAD & COMMERCIAL STREET QUANTITIES

MOBILIZATION		
MOBILIZATION	1	LUMP SUM

REMOVAL OF IMPROVEMENTS							
LOCATION	STA.	STA.	SIDE	DESCRIPTION	UNITS	TOTAL	REMARKS
Truman Dam Access Rd.	95+21.46	97+03.72	RT	DRIVEWAY PORTION	S.Y.	58	
Truman Dam Access Rd.	96+80.71	97+02.24	LT	DRIVEWAY PORTION	S.Y.	15	
Commercial St.	50+18.14	52+31.28	RT	CURB	L.F.	254	
Commercial St.	50+40.95		RT	LIGHT POLE	EA	1	RELOCATE
Commercial St.	50+71.62		RT	WATER VALVE	EA	1	* RELOCATE
Commercial St.	51+23.34		RT	FIRE HYDRANT	EA	1	DND RELOCATE
Commercial St.	51+23.61		RT	WATER VALVE	EA	1	* RELOCATE
Commercial St.	50+20.59	52+49.74	LT	CURB	L.F.	302	
Commercial St.	52+31.21	52+31.28	LT	BRICK LANDSCAPING	L.F.	28	

CLEARING & GRUBBING				
LOCATION	STATION	STATION	QUANTITY	REMARKS
Truman Dam Access Rd.	94+50.20	96+18.35	0.06 AC	NW QUADRANT
Truman Dam Access Rd.	99+22.15	99+88.89	0.03 AC	NW QUADRANT
		TOTAL	0.09 AC	

EARTHWORK					
LOCATION	STATION	STATION	UNCLASSIFIED EXCAVATION	EMBANKMENT	REMARKS
Truman Dam Access Rd.	93+84.00	104+38.33	915 C.Y.	412 C.Y.	
Commercial St.	48+82.95	52+56.76	352 C.Y.	165 C.Y.	
		TOTAL	1267 C.Y.	577 C.Y.	

CURB & GUTTER							
LOCATION	STATION	OFFSET	STATION	OFFSET	2' APWA TYPE CG-1	8" APWA TYPE C-1	REMARKS
Commercial St.	50+23.40	69.75' RT	50+45.97	31.75' RT	50.11 L.F.		
Commercial St.	50+45.97	31.75' RT	51+04.19	22.00' RT	66.52 L.F.		
Commercial St.	51+04.19	22.00' RT	52+31.25	18.07' RT	127.14 L.F.		
Commercial St.	50+89.88	41.74' LT	51+52.39	22.00' LT	63.96 L.F.		
Commercial St.	51+52.39	22.00' LT	52+35.98	22.00' LT	83.59 L.F.		
Commercial St.	52+35.98	22.00' LT	52+49.16	29.83' LT	16.09 L.F.		
Commercial St.	50+31.70	24.06' LT	50+69.15	23.75' LT		88.47 L.F.	ISLAND
				TOTAL	407 L.F.	88 L.F.	

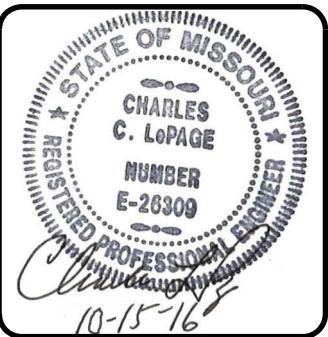
COLDMILLING BIT. PVMNT. FOR REMOVAL OF SURFACING					
LOCATION	OFFSET	STATION	STATION	COLDMILL	REMARKS
Truman Dam Access Rd.	LT. & RT.	93+84.00	104+83.33	2756 S.Y.	
Commercial St.	LT. & RT.	48+85.76	49+88.26	376 S.Y.	
Commercial St.	LT. & RT.	50+12.16	52+31.28	956 S.Y.	
			TOTAL	4088 S.Y.	

SHOULDER							
LOCATION	STATION	OFFSET	STATION	OFFSET	WIDTH	TYPE A2 SHOULDER	REMARKS
Truman Dam Access Rd.	93+84.00	12.38' RT	95+36.28	15.50' RT	6.28 to 8 FT	121 S.Y.	
Truman Dam Access Rd.	93+84.00	12.28' LT	95+90.25	16.50' LT	6.10 to 8 FT	164 S.Y.	
Truman Dam Access Rd.	95+90.25	16.50' LT	99+38.64	16.50' LT	8 FT	313 S.Y.	
Truman Dam Access Rd.	95+36.28	15.50' RT	96+82.53	16.50' RT	5 FT	82 S.Y.	
Truman Dam Access Rd.	96+82.53	16.50' RT	99+30.10	16.50' RT	8 FT	218 S.Y.	
Truman Dam Access Rd.	100+65.31	16.50' LT	104+38.45	13.99' LT	8 FT	332 S.Y.	
Truman Dam Access Rd.	100+95.83	16.50' RT	101+26.97	16.50' RT	5 FT	18 S.Y.	
Truman Dam Access Rd.	101+26.97	16.50' RT	102+68.62	15.60' RT	8 FT	126 S.Y.	
Truman Dam Access Rd.	102+68.62	15.60' RT	104+32.75	13.44' RT	5 FT	92 S.Y.	
Commercial St.	49+26.23	18.00' RT	49+38.34	18.00' RT	3 FT	4 S.Y.	
Commercial St.	49+26.38	18.01' LT	49+30.24	18.27' LT	3 FT	1 S.Y.	
Commercial St.	49+30.24	18.27' LT	49+78.09	65.18' LT	3 FT	23 S.Y.	
Commercial St.	49+38.34	18.00' RT	49+78.89	61.49' RT	3 FT	22 S.Y.	
Commercial St.	50+20.70	127.11' LT	50+88.50	40.06' LT	3 FT	33 S.Y.	
					TOTAL	1549 S.Y.	

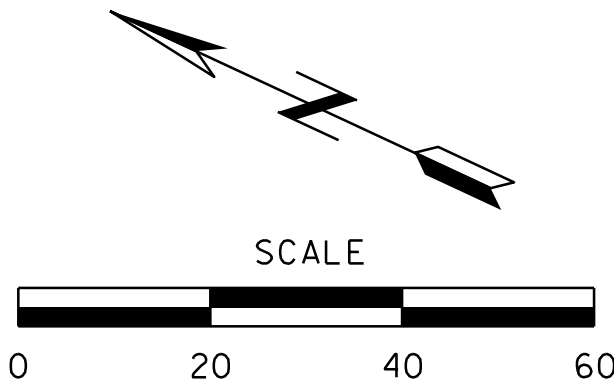
ASPHALT										
LOCATION	STATION	OFFSET	STATION	OFFSET	6" BB W/ PG64-22	2" BP-1 W/ PG64-22	4" PCCP	PRIME COAT	TACK COAT	REMARKS
Truman Dam Access Rd.	93+84.00	0.00' RT	104+38.33	0.00' RT		283 TONS			276 GAL	
Truman Dam Access Rd.	93+84.00	11.90' RT	95+36.18	11.88' RT	19 TONS	6 TONS		13 GAL	6 GAL	
Truman Dam Access Rd.	93+84.00	12.38' RT	95+36.28	15.51' RT	2 TONS					
Truman Dam Access Rd.	93+84.00	11.76' LT	95+90.25	11.60' LT	12 TONS	4 TONS		22 GAL	4 GAL	
Truman Dam Access Rd.	93+84.00	12.28' LT	95+90.25	16.50' LT	1 TONS					
Truman Dam Access Rd.	95+36.18	11.88' RT	96+82.53	11.93' RT	13 TONS	8 TONS		8 GAL	7 GAL	
Truman Dam Access Rd.	95+36.28	15.51' RT	96+82.53	16.45' RT	1 TONS					
Truman Dam Access Rd.	95+90.25	11.60' LT	99+38.64	11.71' LT	66 TONS	20 TONS		51 GAL	20 GAL	
Truman Dam Access Rd.	95+90.25	16.50' LT	99+38.64	16.50' LT	3 TONS					
Truman Dam Access Rd.	96+82.53	11.93' RT	99+30.10	12.58' RT	38 TONS	12 TONS		33 GAL	12 GAL	
Truman Dam Access Rd.	96+82.53	16.50' RT	99+30.10	16.50' RT	2 TONS					
Truman Dam Access Rd.	100+65.31	11.74' LT	104+38.33	11.33' LT	61 TONS	19 TONS		52 GAL	19 GAL	
Truman Dam Access Rd.	100+65.31	16.50' LT	104+38.33	13.99' LT	3 TONS					
Truman Dam Access Rd.	101+26.97	11.46' RT	102+68.62	11.65' RT	24 TONS	8 TONS		20 GAL	7 GAL	
Truman Dam Access Rd.	101+26.97	16.50' RT	102+68.62	15.60' RT	3 TONS					
Truman Dam Access Rd.	102+68.62	11.65' RT	104+38.33	11.41' RT	18 TONS	6 TONS		15 GAL	5 GAL	
Truman Dam Access Rd.	102+68.62	15.60' RT	104+38.33	13.37' RT	2 TONS					
Commercial St.	48+85.62	0.00' RT	49+88.27	0.00' RT		39 TONS			38 GAL	
Commercial St.	48+85.62	10.58' RT	49+26.23	12.68' RT	4 TONS	2 TONS		1 GAL	1 GAL	
Commercial St.	48+85.59	11.58' RT	49+26.23	18.00' RT	1 TONS					
Commercial St.	48+85.98	12.73' LT	49+26.64	12.72' LT	5 TONS	2 TONS		2 GAL	1 GAL	
Commercial St.	48+85.98	13.22' LT	49+26.44	18.02' LT	1 TONS					
Commercial St.	49+26.23	12.68' RT	49+83.41	61.45' RT	31 TONS	10 TONS		12 GAL	9 GAL	
Commercial St.	49+26.23	18.00' RT	49+83.41	61.49' RT	1 TONS					
Commercial St.	49+26.64	12.72' LT	49+87.85	65.01' LT	28 TONS	10 TONS		9 GAL	9 GAL	
Commercial St.	49+26.44	18.02' LT	49+87.85	65.09' LT	1 TONS					
Commercial St.	50+10.64	127.04' LT	50+99.15	15.14' LT	71 TONS	22 TONS		46 GAL	21 GAL	
Commercial St.	50+12.18	0.00' LT	52+31.28	0.00' LT		98 TONS			96 GAL	
Commercial St.	50+15.70	127.07' LT	50+99.15	20.00' LT	1 TONS					
Commercial St.	50+18.14	69.78' RT	52+31.28	15.08' RT	42 TONS	13 TONS		18 GAL	13 GAL	
Commercial St.	50+21.92	69.76' RT	52+31.27	16.07' RT	9 TONS					
Commercial St.	50+31.70	24.06' LT	50+69.15	23.75' LT			37 S.Y.			ISLAND
Commercial St.	50+99.15	15.28' LT	51+71.74	14.98' LT	27 TONS	7 TONS		10 GAL	6 GAL	
Commercial St.	51+06.10	31.70' LT	51+71.74	20.00' LT	1 TONS					
Commercial St.	51+71.74	15.14' LT	52+31.25	14.98' LT	11 TONS	4 TONS		5 GAL	3 GAL	
Commercial St.	51+71.74	20.00' LT	52+31.25	20.00' LT	2 TONS					
				TOTAL	506 TONS	573 TONS	37 S.Y.	317 GAL	555 GAL	

AGGREGATE BASE						
LOCATION	STATION	OFFSET	STATION	OFFSET	6" TYPE 1 AGG BASE	REMARKS
Truman Dam Access Rd.	93+84.00	11.90' RT	95+36.18	11.88' RT	158 S.Y.	
Truman Dam Access Rd.	93+84.00	11.76' LT	95+90.25	11.60' LT	221 S.Y.	
Truman Dam Access Rd.	95+36.18	11.88' RT	96+82.53	11.93' RT	71 S.Y.	
Truman Dam Access Rd.	95+90.25	11.60' LT	99+38.64	11.71' LT	512 S.Y.	
Truman Dam Access Rd.	96+82.53	11.93' RT	99+30.10	12.58' RT	334 S.Y.	
Truman Dam Access Rd.	100+65.31	11.74' LT	104+38.33	11.33' LT	518 S.Y.	
Truman Dam Access Rd.	101+26.97	11.46' RT	102+68.62	11.65' RT	200 S.Y.	
Truman Dam Access Rd.	102+68.62	11.65' RT	104+38.33	11.41' RT	146 S.Y.	
Commercial St.	48+85.62	10.58' RT	49+26.23	12.68' RT	14 S.Y.	
Commercial St.	48+85.98	12.73' LT	49+26.64	12.72' LT	17 S.Y.	
Commercial St.	49+26.23	12.68' RT	49+83.41	61.45' RT	119 S.Y.	
Commercial St.	49+26.64	12.72' LT	49+87.85	65.24' LT	85 S.Y.	
Commercial St.	50+10.64	127.04' LT	51+71.74	15.14' LT	437 S.Y.	
Commercial St.	50+18.14	69.78' RT	52+31.28	15.08' RT	224 S.Y.	
Commercial St.	50+30.95	24.09' LT	50+69.89	23.61' LT	17 S.Y.	ISLAND
Commercial St.	51+71.74	15.14' LT	52+31.25	37.00' LT	56 S.Y.	
				TOTAL	3152 S.Y.	

4 IN. CONCRETE MEDIAN STRIP					
LOCATION	STATION	STATION	WIDTH	4" MEDIAN STRIP	REMARKS
Commercial St.	50+31.70	50+69.15	VARIES	37 S.Y.	ISLAND
			TOTAL	37 S.Y.	

[illegible]

CITY OF WARSAW 181W HARRISON WARSAW, MO. 65355	Designed by:	---	Dates:	00-00-00
	Drawn by:	---	Reviewed by:	---
TRUMAN DAM ACCESS ROAD & COMMERCIAL STREET & HARBOR ACCESS ROAD	Submitted by:	---	Plot scales:	1/2"
	File name: 950845-SH-QUNTYTY-04.dgn Plot date: 06/17/2016 1:27:56 PM			



TRUMAN DAM ACCESS ROAD A.A.D.T. - 2016 = 5,670
TRUMAN DAM ACCESS ROAD A.A.D.T. - 2036 = 6,918
PEAK HOUR = 10%
V = 25 M.P.H.

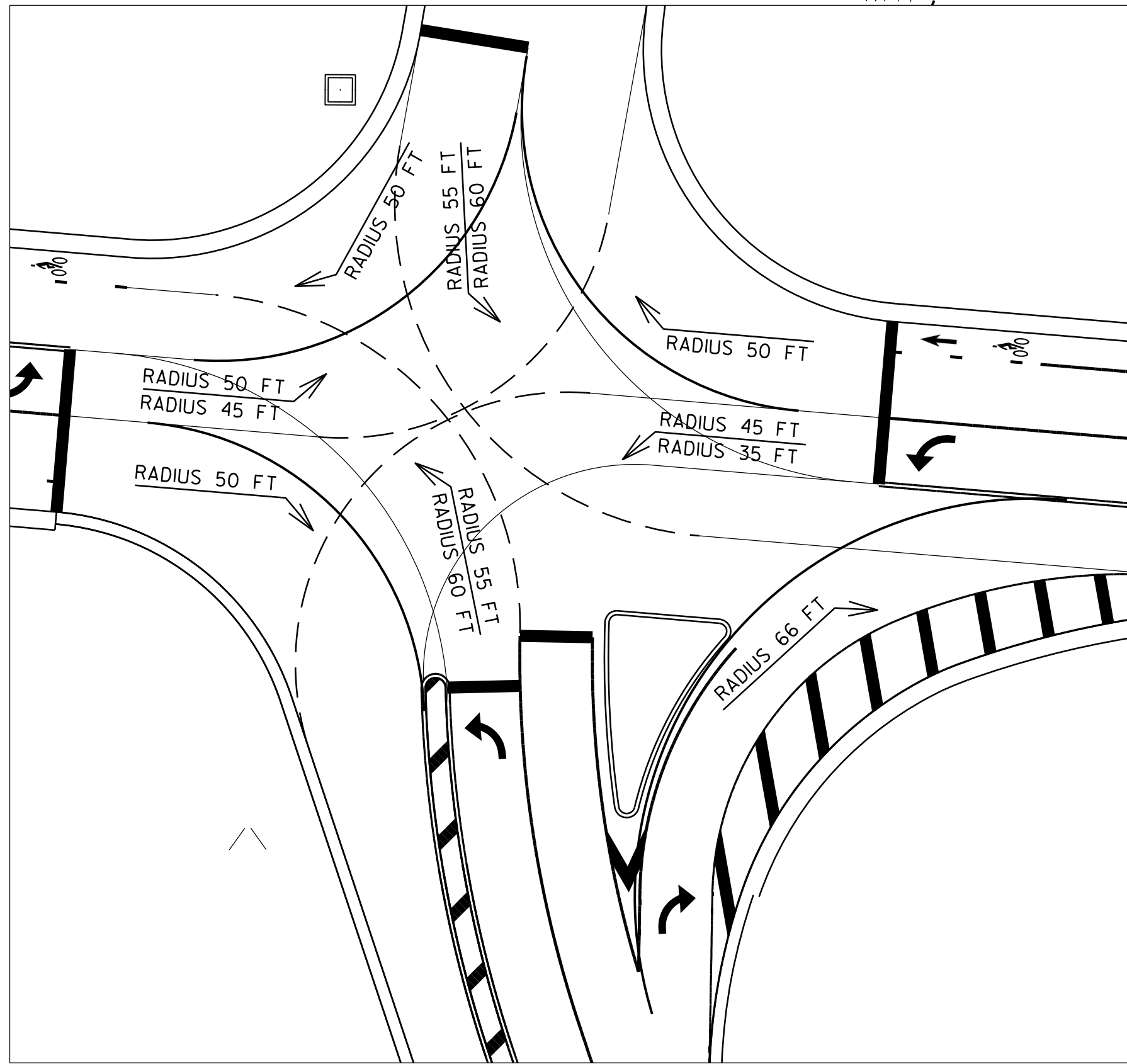
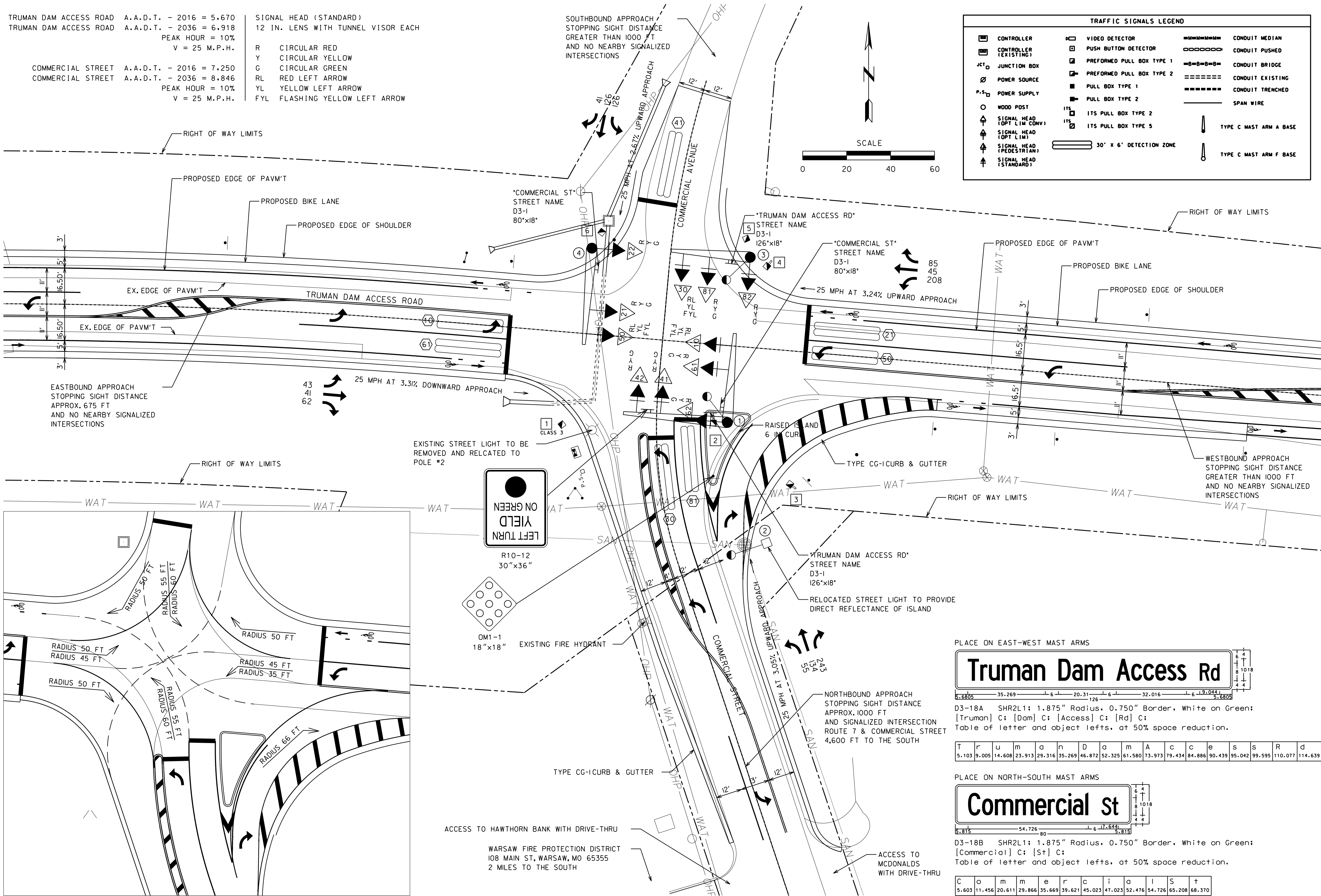
COMMERCIAL STREET A.A.D.T. - 2016 = 7,250
COMMERCIAL STREET A.A.D.T. - 2036 = 8,846
PEAK HOUR = 10%
V = 25 M.P.H.

SIGNAL HEAD (STANDARD)
12 IN. LENS WITH TUNNEL VISOR EACH

R CIRCULAR RED
Y CIRCULAR YELLOW
G CIRCULAR GREEN
RL RED LEFT ARROW
YL YELLOW LEFT ARROW
FYL FLASHING YELLOW LEFT ARROW

SOUTHBOUND APPROACH
STOPPING SIGHT DISTANCE
GREATER THAN 1000 FT
AND NO NEARBY SIGNALIZED
INTERSECTIONS

TRAFFIC SIGNALS LEGEND			
	CONTROLLER		VIDEO DETECTOR
	CONTROLLER (EXISTING)		PUSH BUTTON DETECTOR
	JUNCTION BOX		PREFORMED PULL BOX TYPE 1
	POWER SOURCE		PREFORMED PULL BOX TYPE 2
	POWER SUPPLY		PULL BOX TYPE 1
	WOOD POST		PULL BOX TYPE 2
	SIGNAL HEAD (OPT L IM CONV)		ITS PULL BOX TYPE 2
	SIGNAL HEAD (OPT L IM)		ITS PULL BOX TYPE 5
	SIGNAL HEAD (PEDESTRIAN)		30' x 6' DETECTION ZONE
	SIGNAL HEAD (STANDARD)		
	CONDUIT MEDIAN		CONDUIT PUSHED
	CONDUIT BRIDGE		CONDUIT EXISTING
	CONDUIT TRENCHED		SPAN WIRE
	TYPE C MAST ARM A BASE		TYPE C MAST ARM F BASE



PLACE ON EAST-WEST MAST ARMS

Truman Dam Access Rd

D3-18A SHR2L1: 1.875" Radius, 0.750" Border, White on Green;
[Truman] C: [Dam] C: [Access] C: [Rd] C:
Table of letter and object lefts, at 50% space reduction.

T	r	u	m	a	n	D	a	m	A	c	c	e	s	s	R	d
5.103	9.005	14.608	23.913	29.316	35.269	46.872	52.325	61.580	73.973	84.434	84.886	90.439	95.042	99.595	110.077	114.639

PLACE ON NORTH-SOUTH MAST ARMS

Commercial St

D3-18B SHR2L1: 1.875" Radius, 0.750" Border, White on Green;
[Commercial] C: [St] C:
Table of letter and object lefts, at 50% space reduction.

C	o	m	m	e	r	c	i	a	i	S	t
5.603	11.456	20.611	29.866	35.669	39.621	45.023	47.023	52.476	54.726	65.208	68.370

CFS ENGINEERS
cfs.com

STATE OF MISSOURI
CHARLES C. LORANGE
NUMBER E-28308
10-15-16

Date:	00-00-00	Reviewed by:		Designed by:	
Drawn by:		Check by:		Submitted by:	
CITY OF WARSAW 181 W. HARRISON WARSAW, MO. 65355				TRUMAN DAM ACCESS ROAD & COMMERCIAL STREET & HARBOR ACCESS ROAD	

TRUMAN DAM ACCESS ROAD
AND COMMERCIAL STREET
PRELIMINARY SIGNAL LAYOUT PLAN

Sheet
reference
number:

25
Sheet25 69

EFFECTIVE: 09/08/2009

* USE BRACKET ARM ATTACHED
TO EXISTING POLE TO BE
RELOCATED

* EXISTING LIGHT
POLE TO BE
RELOCATED

SUBTOTAL
TOTAL

SUBTOTAL
TOTAL

REMARKS

ALL LENGTHS AND SPACINGS ARE IN FEET UNLESS OTHERWISE INDICATED.

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

SEE STANDARD PLANS 902.10 AND 902.30 FOR CONCRETE REQUIREMENTS ON BASES.

*** USE D3-16 FOR ONE LINE. USE D3-18 FOR TWO LINE.

SIGNAL STRUCTURES WHICH WILL EXCEED THE DIMENSION LIMITS SHOWN ON STANDARD PLAN SHEETS IN SECTION 902 AND ANY OTHER INSTALLATION WHERE THE DETAILS OF CONSTRUCTION ARE NOT FURNISHED IN THE CONTRACT PLANS, SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE 2001 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION, AND LATEST INTERIMS. THE STRUCTURE SHALL BE DESIGNED AS IMPORTANCE CATEGORY I FOR FATIGUE WITH A 50-YEAR DESIGN LIFE. THE CONTRACTOR SHALL SUBMIT A SET OF SHOP DETAIL DRAWINGS INCLUDING WELD PROCEDURE SPECIFICATIONS AND DESIGN COMPUTATIONS FOR MODOT RECORDS AND REFERENCE. THE SUBMITTED DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED IN ACCORDANCE WITH THE LAWS RELATING TO ARCHITECTS AND PROFESSIONAL ENGINEERS (CHAPTER 327, RSMO.), AND SHALL INCLUDE A TITLE BLOCK OR SUMMARY SHEET WHICH LISTS AND CERTIFIES THAT THE PRODUCT MEETS ALL OF THE SPECIFIED DESIGN CRITERIA.

LEFT TURN YIELD ON GREEN

Truman Dam Access Rd
Commercial St

TRUMAN DAM ACCESS ROAD AND COMMERCIAL STREET

INTERSECTION

LEGEND

T - TOP MOUNT
S - SIDE MOUNT
C - SPANWIRE MOUNT
B - MAST ARM MOUNT

[illegible]

CITY OF WARSAW 181W. HARRISON WARSAW, MO. 65355	Designed by:	---	Dates:	00-00-00
	Drawn by:	---	Reviewed by:	---
TRUMAN DAM ACCESS ROAD & COMMERCIAL STREET & HARBOR ACCESS ROAD	Submitted by:	---	Plot scales:	1/2"=2468'
	File name:	008440-3H1	DAR-037	Adm
	Plot date:	07/17/2016		12:59:27 PM

TRUMAN DAM ACCESS ROAD
AND COMMERCIAL STREET
D-37A

Sheet
reference
number:

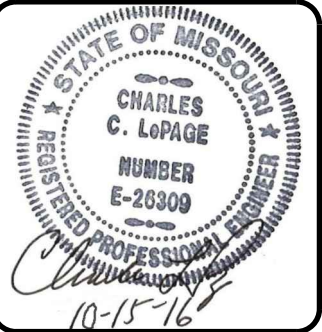
26

EFFECTIVE: 04/01/2008

CFS ENGINEERS

119 W. Pacific Street
Blairton, MO 65616
o. 417-544-4507 f. 417-544-0141

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[illegible]

Designed by: ---	Date: 00-00-00
Own by: ---	Reviewed by: ---
Submitted by: ---	Plot scale: 1:732,468
File name: 51084-RD-SH-TDAP-D37B.dgn	
Plot date: 07/17/2016 4:29:28 PM	

CITY OF WARSAW
181 W. HARRISON
WARSAW, MO. 65355

TRUMAN DAM ACCESS ROAD &
COMMERCIAL STREET &
HARBOR ACCESS ROAD

TRUMAN DAM ACCESS ROAD
AND COMMERCIAL STREET
D-37B

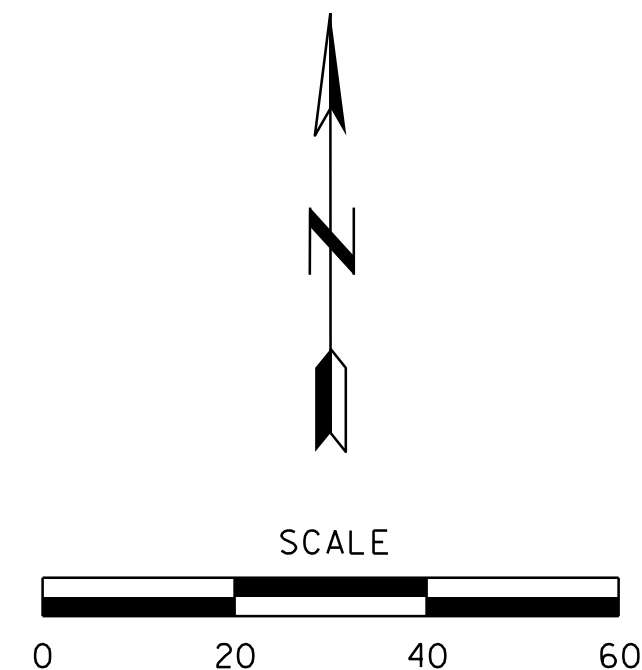
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reference
number:

27

Sheet+27 69

INTERSECTION TRUMAN DAM ACCESS ROAD AND COMMERCIAL STREET

D-37B



FOR DETECTORS, USE 1c #14 IN DUCT AND 2c #14
LEAD-IN CABLE (2C TWISTED SHIELDED). A MINIMUM
10 MEGOHM RESISTANCE TO GROUND READING AT THE
CONTROLLER CABINET IS REQUIRED. THE LOOP WIRE
BETWEEN THE LOOP AND THE NEAREST PULL BOX SHALL
BE TWISTED 3 TURNS PER FOOT.

