

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				80/20 (FEB/STATE) PIPE CULVERT 0004 RURAL
* 28000500	INLET AND PIPE PROTECTION	EACH	6	6
28100107	STONE RIPRAP, CLASS A4	SO YD	9	9
28200200	FILTER FABRIC	SO YD	9	9
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SO YD	489	489
35501313	HOT-MIX ASPHALT BASE COURSE, 7 1/4"	SO YD	200	200
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	510	510
⚠ 40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	26	26
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	90	90
44000100	PAVEMENT REMOVAL	SO YD	200	200
44000160	HOT-MIX ASPHALT SURFACE REMOVAL, 2 3/4"	SO YD	600	600
48101202	AGGREGATE SHOULDERS, TYPE B	CU YD	22	22
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SO YD	267	267
50105220	PIPE CULVERT REMOVAL	FOOT	66.5	66.5
50200100	STRUCTURE EXCAVATION	CU YD	35	35

\* SPECIALTY ITEMS

P:\606160095-09-P16177-004\_M099-US Rt 14 Culvert-62893-01C4D-00Sheet-4-62893-INT-5002.dgn

**AES** AES Services, Inc.  
111 S. Wacker Drive, Suite 3910  
Chicago, IL 60606  
Ph: 312-235-6783

USER NAME = tnohanned	DESIGNED - TOM	REVISED -
PLOT SCALE = 2.0000' / in.	DRAWN - AWM	REVISED -
PLOT DATE = 5/15/2017	CHECKED - JA	REVISED -
	DATE - 5/15/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE	SHEET	OF	SHEETS

F.A.P. RTE. 66	SECTION 2015-0888	COUNTY MCHENRY	TOTAL SHEETS 24	SHEET NO. 04
CONTRACT NO. 62893				

ILLINOIS FED. AID PROJECT

⚠ REV 7-25-17

**BENCH MARK #514:**  
 Elevation NGVD 88 = 957.83  
 Type of Marker: RR Spike in  
 power pole with transformer.  
 Northing: 2104199.80,  
 Easting: 910314.22  
 Location: STA. 21+54.69,  
 ±290' S. of Crowley Rd.

**CONTROL POINT CP#1:**  
 Cut cross on top of 3' x 5'  
 Conc. elliptical culvert,  
 STA. 19+72.48, EL 955.89  
 Northing: 2104005.93,  
 Easting: 910292.84

**CONTROL POINT CP#2:**  
 Cut cross on curb,  
 STA. 23+27.67, EL 957.08  
 Northing: 2104324.56  
 Easting: 910449.81

**EXISTING STRUCTURE:**  
 The existing structure SN 056-0264  
 is a 66-foot, 72" corrugated metal  
 pipe culvert carrying US Route 14  
 over a drainage ditch in the City of  
 Harvard, McHenry County. The existing  
 structure will be removed and replaced  
 with a 72" reinforced concrete pipe  
 with a concrete end section at the  
 east ditch and an L-type retaining wall  
 at the west ditch.

**STAGING:**  
 No staging required.  
 Traffic shall be detoured.

**SALVAGE:**  
 No Salvage

**HIGHWAY CLASSIFICATION**  
 F.A.P. 66  
 Functional Class: Class II Truck Route  
 ADT: 10,200 (2015)  
 Design Speed: 45 MPH  
 Posted Speed: 45 MPH

**LOADING HL-93**  
 Allow 50 #/sq. ft. for  
 future wearing surface.

**DESIGN SPECIFICATIONS**  
 2012 AASHTO Standard Specifications  
 for Highway Bridges, 6th edition with  
 2013 Interims ASTM C 1577

**DESIGN STRESSES**

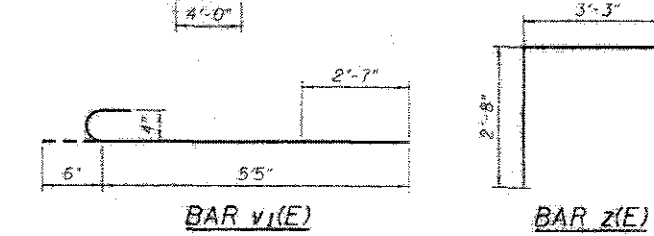
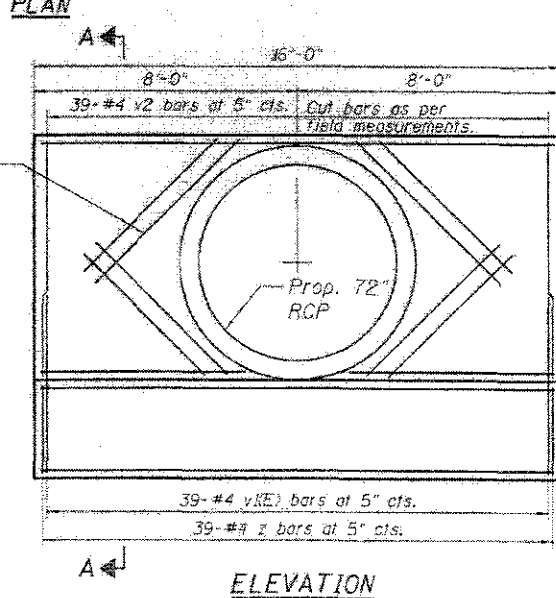
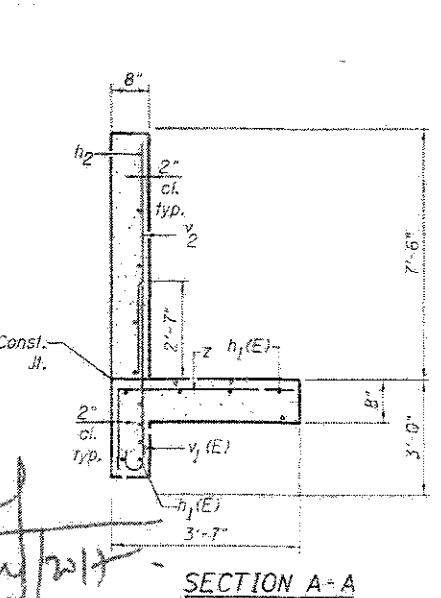
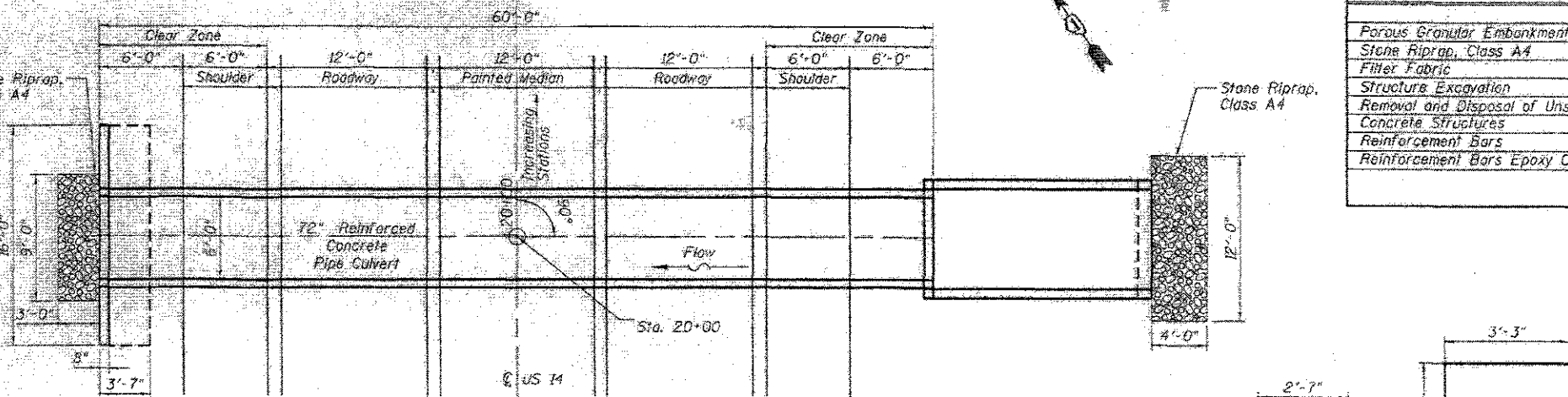
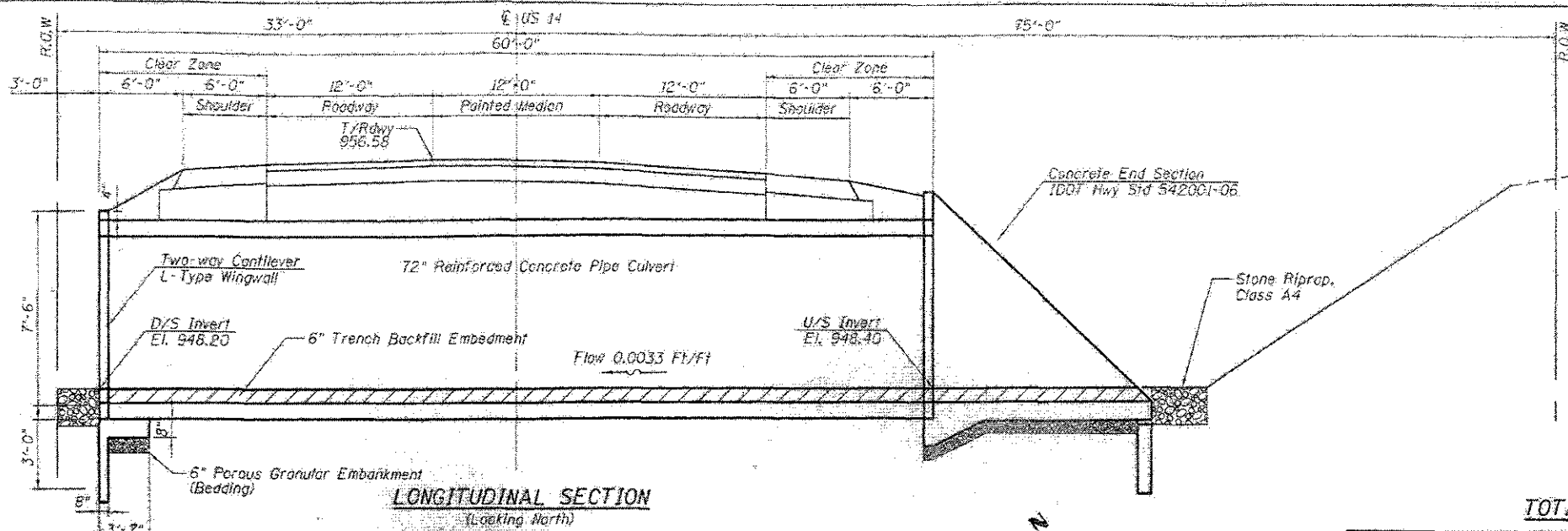
Cast-in-place units  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

**DESIGN FILL HEIGHT**

Fill Height: Varies from 1'-2" to 1'-8"



*Mohammed Saleem*  
 DATE LICENSE EXPIRES ON 11/30/2018



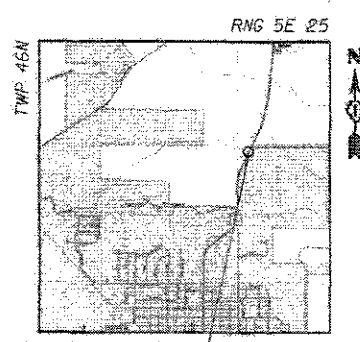
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
*h1 (E)	18	#4	15'-8"	—
h2	19	#4	15'-8"	—
1	8	#5	5'-9"	—
v1 (E)	39	#4	5'-11"	—
*v2	39	#4	7'-4"	—
2	39	#4	5'-11"	—

NOTE: \* Cut bars around pipe per field measurements.

**TOTAL BILL OF MATERIAL**

Item	Unit	Total
Porous Granular Embankment	Cu. Yd.	1
Stone Riprap, Class A4	Sq. Yd.	9
Filter Fabric	Sq. Yd.	9
Structure Excavation	Cu. Yd.	35
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	8
Concrete Structures	Cu. Yd.	5
Reinforcement Bars	Pound	592
Reinforcement Bars Epoxy Coated	Pound	343

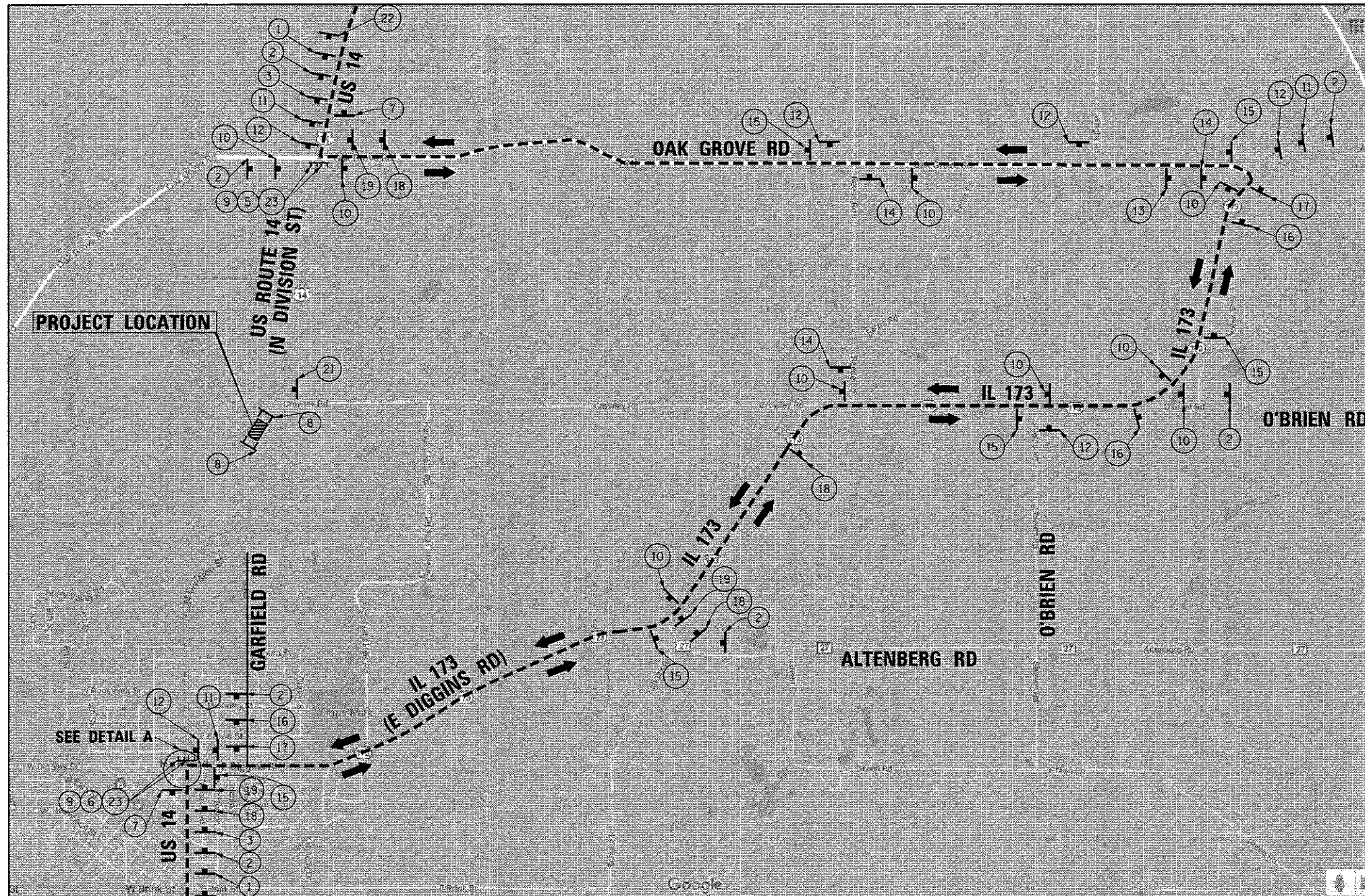


LOCATION SKETCH

**GENERAL PLAN AND ELEVATION**  
 US ROUTE 14  
 OVER DRAINAGE DITCH  
 F.A.P. ROUTE 66  
 SECTION 2015-088B  
 HARVARD, MCHENRY COUNTY  
 STATION 20+00  
 SN 056-0340

<b>AES</b> Services Inc. 111 S. Wacker Drive, 9th Fl. Chicago, IL 60606 Tel: 312-235-8793	USER NAME: RWB/MS DESIGNED: ARV DRAWN: ARV CHECKED: MS DATE: 05/15/2017	REVISED: — REVISED: — REVISED: — REVISED: —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REINFORCED CONCRETE END SECTION FOR PIPE CULVERT 72"	SECTION: 2015-088B COUNTY: MCHENRY TOTAL SHEETS: 24 SHEET NO.: 15 CONTRACT NO. 62893
	DATE: 8/31/2017	SCALE: SHEET OF SHEETS: STA. TO STA.	ILLINOIS FED. AID PROJECT	SCALE SHEET OF SHEETS STA. TO STA.	

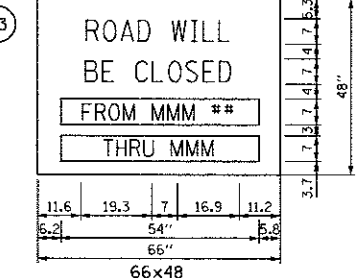
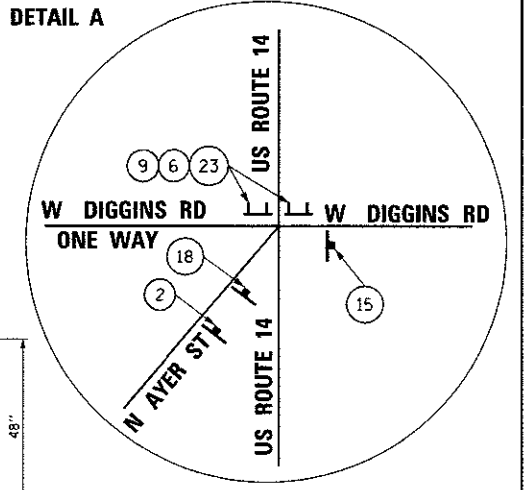
REVISD SHEET 7-25-17



**NOTES:**

1. DETOUR SIGNAGE SHALL NOT BE INSTALLED ON ANY McHENRY COUNTY DIVISION OF TRANSPORTATION (MCDOT) STREET LIGHT POLES OR SIGNAL POLES. IF THEY ARE FOUND TO BE INSTALLED ON MCDOT POLES, THEY WILL BE IMMEDIATELY REMOVED.
2. DETOUR SIGNAGE SHALL NOT BLOCK ANY MCDOT SIGNS AND CANNOT USE THE MCDOT SIGN POSTS.
3. SIGN POSTS SHALL BE INSTALLED AT LEAST TWELVE (12) FEET FROM THE EDGE OF THE MAINLINE ROADWAY (WHITE PAINTED EDGELINE).
4. CONTACT AND NOTIFY THE McHENRY COUNTY DIVISION OF TRANSPORTATION (MCDOT) AT (815) 334-4960 AT LEAST 48 HOURS IN ADVANCE OF PLACING SIGNAGE ALONG THE COUNTY HIGHWAY(S).
5. DETOUR SIGN INSTALLATION CONTRACTOR SHALL CALL JULIE FOR UTILITY LOCATES. MCDOT MAY HAVE STORM DRAIN, SIGNAL AND LIGHTING FACILITIES IN THESE AREAS THAT WILL REQUIRE LOCATES. CONTACT JULIE AT (800) 892-0123.
6. REFER TO IDOT DISTRICT 1 DETAIL TC 21 FOR TYPICAL SIGN LAYOUT
7. THE DURATION OF DETOUR SHALL NOT EXCEED MORE THAN TWO WEEKS.

**DETAIL A**



**LEGEND:**

- TYPE III BARRICADES CONFORMING TO STD. 701901 WITH 2 FLASHING LIGHTS PER BARRICADE
- CONSTRUCTION ZONE
- DETOUR ROUTE
- TRAFFIC FLOW
- TYPE A FLASHING LIGHT

1  W20-3-4848	2  W20-2-4848	3  W20-3-4848	4  M4-8-2412	5  M4-10L-4818	6  M4-10R-4818	7  M4-8A-2418	8  R11-2-4830	9  R11-4-6030	10  M4-8-2412 M3-2-2412 M1-4-2424 M6-3-2115	11  M4-8-2412 M3-2-2412 M1-4-2424 M5-1L-2115
12  M4-8-2412 M3-2-2412 M1-4-2424 M6-1-2115	13  M4-8-2412 M3-3-2412 M1-4-2424 M5-1R-2115	14  M4-8-2412 M3-2-2412 M1-4-2424 M6-1-2115	15  M4-8-2412 M3-1-2412 M1-4-2424 M6-3-2115	16  M4-8-2412 M3-1-2412 M1-4-2424 M5-1L-2115	17  M4-8-2412 M3-1-2412 M1-4-2424 M6-1-2115	18  M4-8-2412 M3-1-2412 M1-4-2424 M5-1R-2115	19  M4-8-2412 M3-1-2412 M1-4-2424 M6-1-2115	20  R3-1 30"x30"	21  R3-2 30"x30"	22  60x30

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USER NAME # *USER#	DESIGNED - TOM	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - ANM	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETOUR PLAN

SCALE	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
66	2015-088B	McHENRY	24	14
CONTRACT NO. 62B93			ILLINOIS FED. AID PROJECT	

REVISOR SHEET 7-25-17