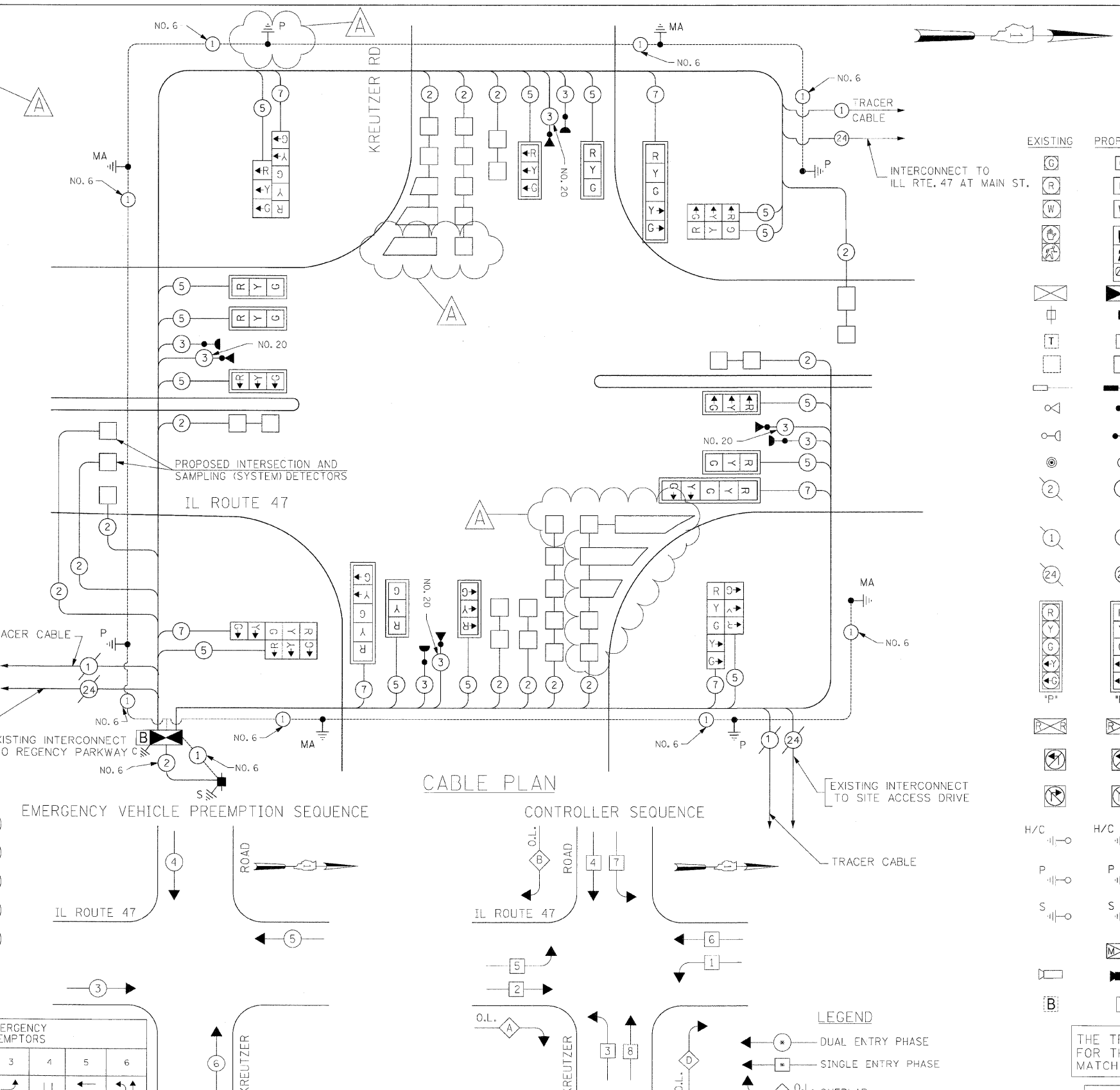


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	281
STA.	TO STA.			
	ILLINOIS		FED. AID PROJECT	

• (105X & 106) WRS-2

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
73	SQ FT	SIGN PANEL - TYPE 1
546	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
116	FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
44	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
75	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
325	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
482	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
6	EACH	HANDHOLE
4	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DOUBLE HANDHOLE
761	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCEIVER - FIBER OPTIC
1044	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
3549	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1163	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
3385	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
30	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 54 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 56 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 62 FT.
16	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
30	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
42	FOOT	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER
9	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
3	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
12	EACH	TRAFFIC SIGNAL BACKPLATE
13	EACH	INDUCTIVE LOOP DETECTOR
4	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
1	EACH	REMOVE TEMPORARY TRAFFIC SIGNAL INSTALLATION
1453	FOOT	PERFORMED DETECTOR LOOP
4	EACH	PAINT NEW TRAFFIC SIGNAL POST
1	EACH	PAINT NEW MAST ARM POLE, UNDER 40 FEET
3	EACH	PAINT NEW MAST ARM POLE, 40 FEET AND OVER
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
1	EACH	SERVICE INSTALLATION - POLE MOUNTED
1	EACH	UNINTERRUPTIBLE POWER SUPPLY
1017	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
1044	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
1	EACH	MODIFY TEMPORARY TRAFFIC SIGNAL INSTALLATION
• 100% COST TO VILLAGE OF HUNTLEY		



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
G	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSH-BUTTON DETECTOR
		2 DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM2F & SM2F
		SIGNAL FACE WITH BACKPLATE. *P* INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
		ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
H/C	H/C	GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER
P	P	GROUND ROD AT POST OR MAST ARM POLE
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		LOCAL AND MASTER CONTROLLER
		MICROWAVE VEHICLE SENSOR
B	B	UPS-BATTERY BACK-UP

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO LAMPS	INCAND.	LED	OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	135	17	0.50	170
(YELLOW)	20	135	25	0.25	125
(GREEN)	20	135	15	0.25	75
ARROW	12	135	12	0.10	14.4
PED. SIGNAL	90	90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN				0.05	
FLASHER				0.50	
TOTAL =					484.4

PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	←	↑

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A-POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C-CONTROLLER W/UPS	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
D-CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	4 (1.2)
E-M.ARM POLE		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
42" (1050mm)	25 (7.6)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

ENERGY COSTS TO: TOTAL = 484.4

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY CONTACT: KATIE OLIVA
PHONE: (847) 608-2338
COMPANY: COMMONWEALTH EDISON

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
8035 N. NORTHWEST HIGHWAY
SUITE 308
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

REVISIONS

NAME	DATE
ADDENDUM A	12/21/2009

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
ILLINOIS ROUTE 47 AT KREUTZER ROAD

SCALE: N.T.S.
DATE: APRIL 17, 2009

DRAWN BY: ME,MA,YB
DESIGNED BY: PKG/RRM
CHECKED BY: PKG/RRM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	*	McHENRY	502	282
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (105X & 106) WRS-2



CONSTRUCTION NOTES

NOTE 1: THE CONDUIT SHALL BE ATTACHED TO THE WOOD POLE TO A HEIGHT OF 10 FEET AND SHALL BE PAID FOR AS CONTRACT UNIT PRICE PER FOOT FOR "CONDUIT IN TRENCH" OR "CONDUIT PUSHED" OF THE SIZE SPECIFIED. ALL OTHER CONDUITS AND UNIT DUCTS COMING INTO THE HANDHOLES, AS SHOWN IN THE PROPOSED INTERSECTION PLANS, SHALL BE CONSTRUCTED WHEN THE HANDHOLES ARE CONSTRUCTED, THE CONDUITS AND UNIT DUCTS SHALL BE STUBBED AND CAPPED UNTIL NEEDED. THE HANDHOLES, CONDUITS, AND TRENCH AND BACKFILL ITEMS ARE INCLUDED FOR PAYMENT IN THE SCHEDULE OF QUANTITIES FOR MAIN STREET AT ILLINOIS ROUTE 47.

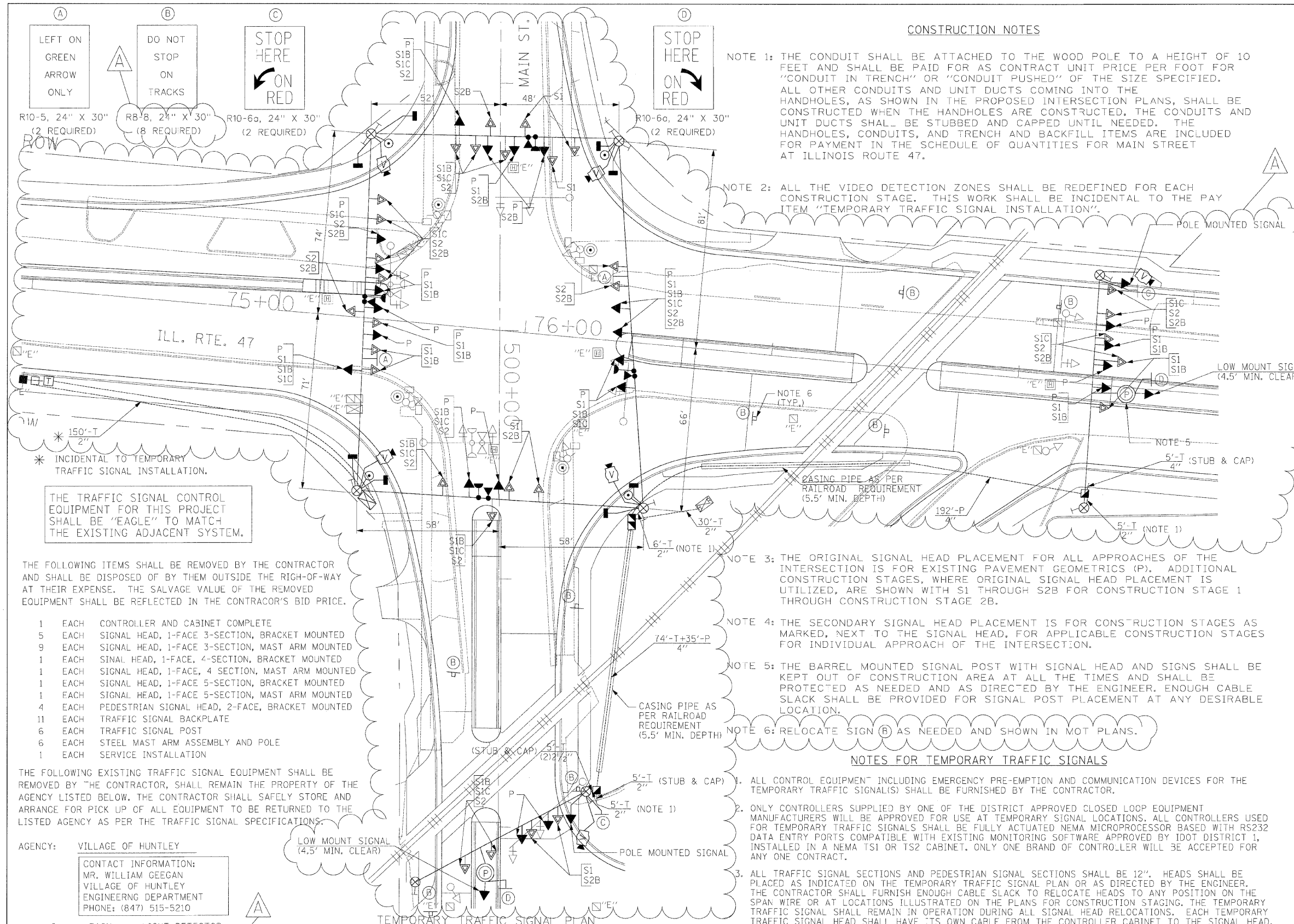
NOTE 2: ALL THE VIDEO DETECTION ZONES SHALL BE REDEFINED FOR EACH CONSTRUCTION STAGE. THIS WORK SHALL BE INCIDENTAL TO THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

TEMPORARY TRAFFIC SIGNAL LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- ↔ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ⊠ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- ⊞ TEMPORARY SERVICE INSTALLATION
- ⊞ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- ⊙ PEDESTRIAN PUSHBUTTON DETECTOR
- ⊙ EMERGENCY VEHICLE LIGHT DETECTOR
- ⊙ CONFIRMATION BEACON
- CT COMMON TRENCH
- UD UNIT DUCT
- G.S. CONDUIT IN GROIND
- ⊞ HANDHOLE
- ⊞ HEAVY DUTY HANDHOLE
- ⊞ VIDEO CAMERA ASSEMBLY
- ⊞ EXISTING RAILROAD CONTROL CABINET TO REMAIN
- ⊙ CONCRETE BARREL WITH SIGNAL POST
- ⊞ TELEPHONE SERVICE INSTALLATION

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- ⊞ EXISTING SIGNAL TO BE REMOVED
- ⊞ "E" EXISTING SERVICE INSTALLATION TO BE REMOVED
- ⊙ EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- ⊙ EXISTING MAST ARM POLE AND FOUNDATION TO BE REMOVED
- ⊞ "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- ⊞ "E" EXISTING HANDHOLE TO BE REMOVED
- ⊞ "E" EXISTING DOUBLE HANDHOLE TO BE REMOVED
- ⊞ PEDESTRIAN SIGNAL TO BE REMOVED
- ⊙ EXISTING PEDESTRIAN PUSH-BUTTON TO BE REMOVED
- ⊙ EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- ⊙ CONFIRMATION BEACON TO BE REMOVED
- ⊞ "E" EXISTING HEAVY DUTY HANDHOLE TO BE REMOVED
- ⊙ EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED



NOTE 3: THE ORIGINAL SIGNAL HEAD PLACEMENT FOR ALL APPROACHES OF THE INTERSECTION IS FOR EXISTING PAVEMENT GEOMETRICS (P). ADDITIONAL CONSTRUCTION STAGES, WHERE ORIGINAL SIGNAL HEAD PLACEMENT IS UTILIZED, ARE SHOWN WITH S1 THROUGH S2B FOR CONSTRUCTION STAGE 1 THROUGH CONSTRUCTION STAGE 2B.

NOTE 4: THE SECONDARY SIGNAL HEAD PLACEMENT IS FOR CONSTRUCTION STAGES AS MARKED, NEXT TO THE SIGNAL HEAD, FOR APPLICABLE CONSTRUCTION STAGES FOR INDIVIDUAL APPROACH OF THE INTERSECTION.

NOTE 5: THE BARREL MOUNTED SIGNAL POST WITH SIGNAL HEAD AND SIGNS SHALL BE KEPT OUT OF CONSTRUCTION AREA AT ALL THE TIMES AND SHALL BE PROTECTED AS NEEDED AND AS DIRECTED BY THE ENGINEER. ENOUGH CABLE SLACK SHALL BE PROVIDED FOR SIGNAL POST PLACEMENT AT ANY DESIRABLE LOCATION.

NOTE 6: RELOCATE SIGN (B) AS NEEDED AND SHOWN IN MOT PLANS.

NOTES FOR TEMPORARY TRAFFIC SIGNALS

- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
- THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

R10-5, 24" X 30" (2 REQUIRED)
 RB-8, 24" X 30" (B REQUIRED)
 R10-6a, 24" X 30" (2 REQUIRED)

LEFT ON GREEN ARROW ONLY
 DO NOT STOP ON TRACKS
 STOP HERE ON RED

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACTOR'S BID PRICE.

- 1 EACH CONTROLLER AND CABINET COMPLETE
- 5 EACH SIGNAL HEAD, 1-FACE 3-SECTION, BRACKET MOUNTED
- 9 EACH SIGNAL HEAD, 1-FACE 3-SECTION, MAST ARM MOUNTED
- 1 EACH SIGNAL HEAD, 1-FACE, 4-SECTION, BRACKET MOUNTED
- 1 EACH SIGNAL HEAD, 1-FACE, 4 SECTION, MAST ARM MOUNTED
- 1 EACH SIGNAL HEAD, 1-FACE 5-SECTION, BRACKET MOUNTED
- 1 EACH SIGNAL HEAD, 1-FACE 5-SECTION, MAST ARM MOUNTED
- 4 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED
- 11 EACH TRAFFIC SIGNAL BACKPLATE
- 6 EACH TRAFFIC SIGNAL POST
- 6 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 1 EACH SERVICE INSTALLATION

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: VILLAGE OF HUNTLEY

CONTACT INFORMATION:
 MR. WILLIAM GEEGAN
 VILLAGE OF HUNTLEY
 ENGINEERING DEPARTMENT
 PHONE: (847) 515-5210

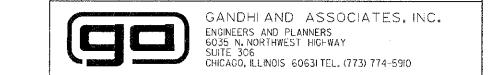
- 2 EACH LIGHT DETECTOR
- 1 EACH LIGHT DETECTOR AMPLIFIER

STAGES: PRE-STAGE, STAGE 1, STAGE 1B, STAGE 1C, STAGE 2, STAGE 2B, AND AFTER ALL THE PROPOSED ROADWAY GEOMETRICS ARE IN PLACE

RAILROAD NOTE:

WORK IN THE VICINITY OF HIGHWAY-RAIL GRADE CROSSINGS WHICH STATES "WHEN HIGHWAY-RAIL GRADE CROSSINGS EXIST EITHER WITHIN OR IN THE VICINITY OF A TTC ZONE, LANE RESTRICTIONS, FLAGGING, OR OTHER OPERATIONS SHALL NOT CREATE CONDITIONS WHERE VEHICLES CAN BE QUEUED ACROSS THE RAILROAD TRACKS. IF THE QUEUING OF VEHICLES ACROSS THE TRACKS CANNOT BE AVOIDED, A UNIFORMED LAW ENFORCEMENT OFFICER OR FLAGGER SHALL BE PROVIDED AT THE CROSSING TO PREVENT VEHICLES FROM STOPPING ON THE TRACKS, EVEN IF AUTOMATIC WARNING DEVICES ARE IN PLACE.

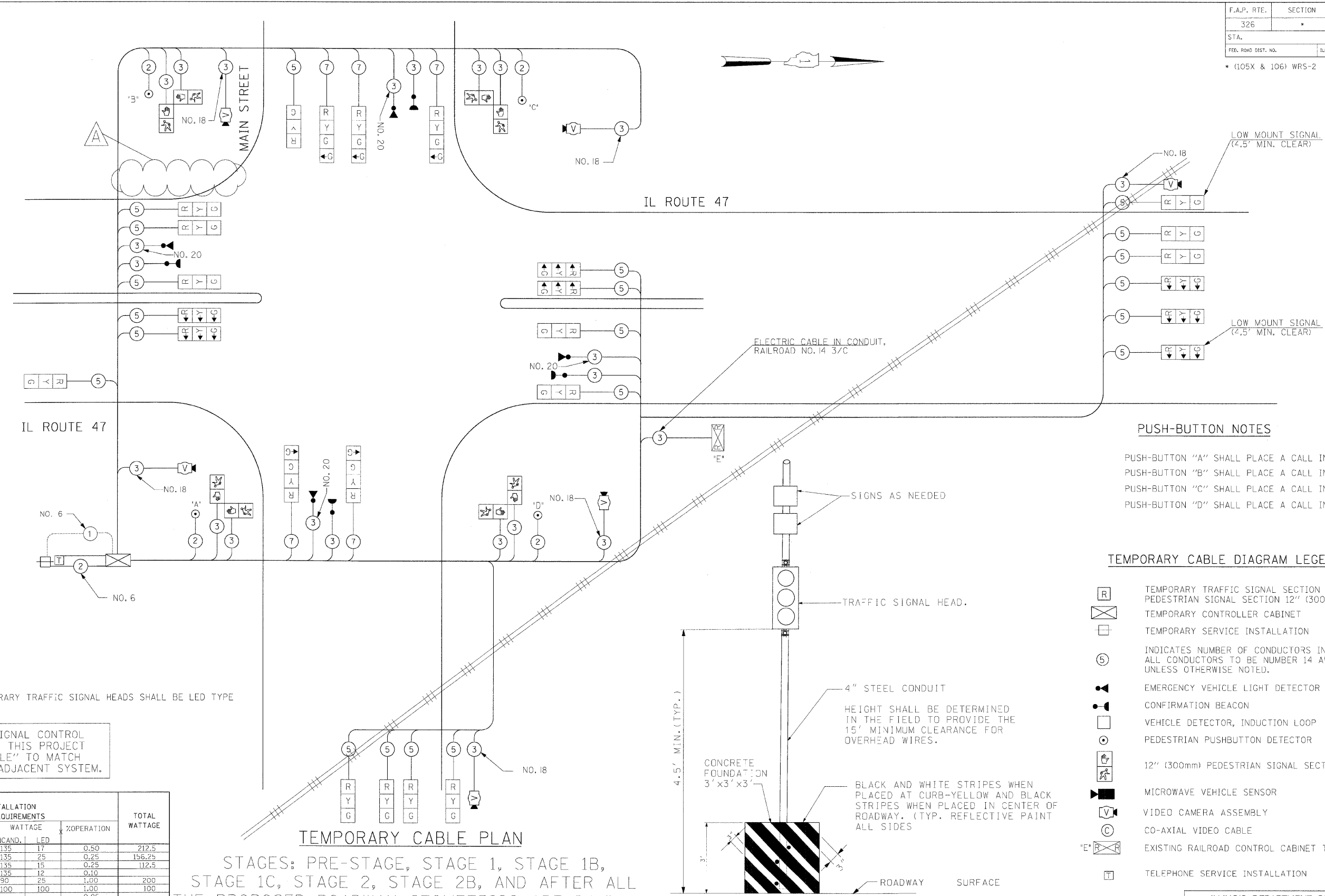
REVISIONS	
NAME	DATE
ADDENDUM A	12/21/2009



GANDHI AND ASSOCIATES, INC.
 ENGINEERS AND PLANNERS
 6035 N. NORTHWEST HIGHWAY
 SUITE 308
 CHICAGO, ILLINOIS 60631 TEL: (773) 774-5990

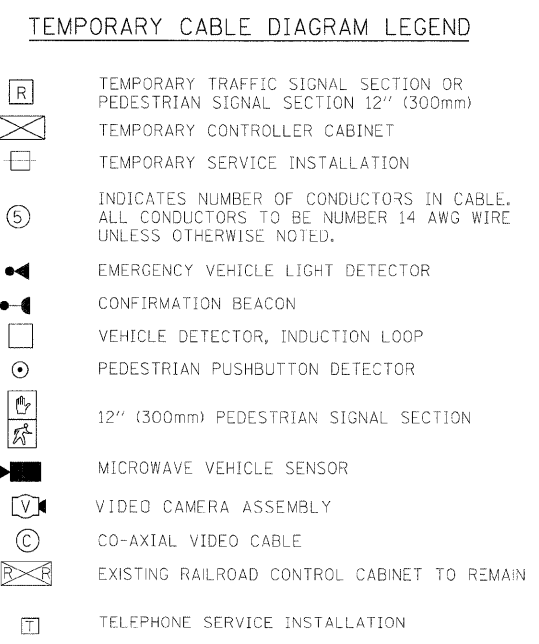
ILLINOIS DEPARTMENT OF TRANSPORTATION
 TEMPORARY TRAFFIC SIGNAL INSTALLATION
 AND REMOVAL PLAN ILLINOIS ROUTE 47 AT
 MAIN STREET PRE-STAGE, STAGE 1, STAGE
 1B, STAGE 1C, STAGE 2, STAGE 2B, AND
 AFTER ALL THE PROPOSED ROADWAY
 GEOMETRIC ARE IN PLACE.

SCALE: 1"=20'
 DATE: APRIL 17, 2009
 DRAWN BY: MAA
 DESIGNED BY: PKG/RRM
 CHECKED BY: PKG/RRM



PUSH-BUTTON NOTES

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 3.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 3 AND 6.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 4.

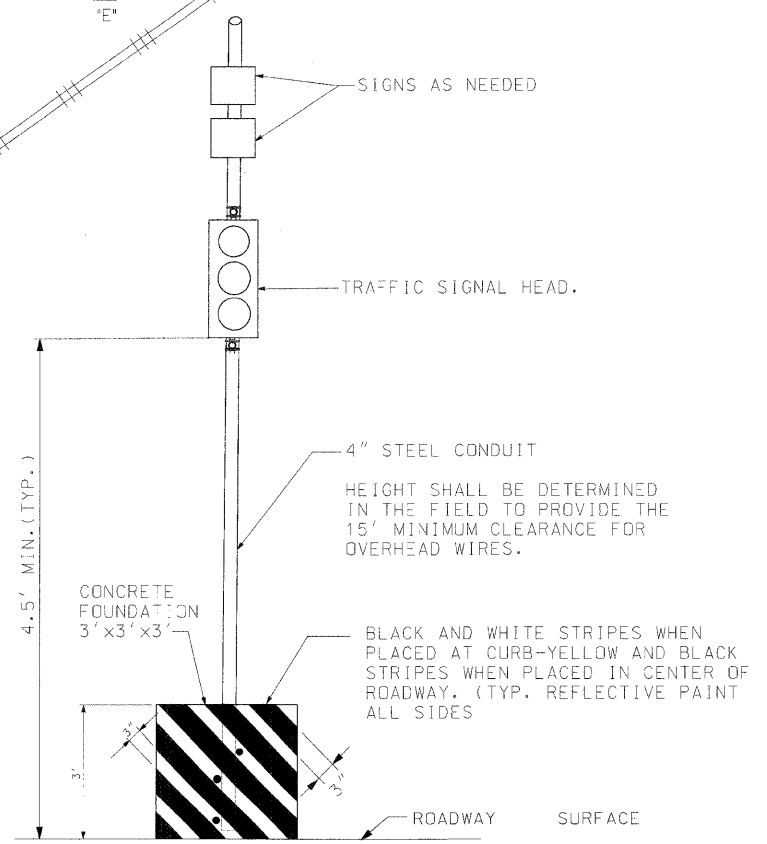


NOTE 1: ALL THE TEMPORARY TRAFFIC SIGNAL HEADS SHALL BE LED TYPE

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TEMPORARY CABLE PLAN

STAGES: PRE-STAGE, STAGE 1, STAGE 1B, STAGE 1C, STAGE 2, STAGE 2B, AND AFTER ALL THE PROPOSED ROADWAY GEOMETRICS ARE IN PLACE



TEMPORARY TRAFFIC SIGNAL
(WOOD POLE OPTIONAL FOR SIDE OR PARKWAY AREA).

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE	OPERATION		
		INCAND.	LED		
SIGNAL (RED)	25	135	17	0.50	212.5
(YELLOW)	25	135	25	0.25	156.25
(GREEN)	30	135	15	0.25	112.5
ARROW		135	12	0.10	
PED. SIGNAL	6	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN				0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	781.25

ILLINOIS DEPARTMENT OF TRANSPORTATION
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY CONTACT: KATIE OLIVA
 PHONE: (847) 608-2338
 COMPANY: COMMONWEALTH EDISON

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A-POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C-CONTROLLER W/UPS	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'
D-CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)	(6m±L-0.6m)±	
E-MAST POLE		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
42" (1050mm)	25 (7.6)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

GO GANDHI AND ASSOCIATES, INC.
 ENGINEERS AND PLANNERS
 6035 N. NORTHWEST HIGHWAY
 SUITE 306
 CHICAGO, ILLINOIS 60631 TEL. (773) 774-590

REVISIONS	
NAME	DATE
ADDENDUM A	12/21/2009

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TEMPORARY CABLE PLAN,
 ILLINOIS ROUTE 47 AT MAIN STREET
 PRE-STAGE, STAGE 1, STAGE 1B,
 STAGE 1C, STAGE 2, STAGE 2B, AND
 AFTER ALL THE PROPOSED ROADWAY
 GEOMETRICS ARE IN PLACE.

SCALE: N.T.S.
 DATE: APRIL 17, 2009

DRAWN BY: ME/MA,YB
 DESIGNED BY: PKG/RRM
 CHECKED BY: PKG

* (105X & 106) WRS-2

TEMPORARY SEQUENCE OF OPERATION

MOVEMENT																																											FLASH																							
PHASE	1 + 5										1 + 6				2+5				2+6								3		4																																					
INTERVAL	1	2A	2B	3A	3B	3C	3D	4A	4B	4C	4D	5	6	7A	7B	7C	7D	8	9	10A	10B	11	12	13A	13B	13C	13D	14A	14B	15A	15B	15C	15D	16	17	18A	18B	19	20	21A	21B	21C		21D																						
CHANGE TO		1+6		2+5				2+6				∅	∅	2+6				∅	∅	2+6						3, 4 1+5				1+6		2+5				∅	∅	4 1+5 1+6 2+5 2+6		∅	∅	1+5 1+6 2+5 2+6																								
ILLINOIS ROUTE 47 NEAR RIGHT AND FAR RIGHT SPAN WIRE SIGNALS	V/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G	G	Y	R	R	R	Y	R	G	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R																	
ILLINOIS ROUTE 47 TWO FAR LEFT SPAN WIRE SIGNALS WITH LEFT TURN ARROWS	V/B	←G	←Y	←R	←G	←G	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←G	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R																
ILLINOIS ROUTE 47, NORTH OF TRACK RIGHT LOW MOUNT AND TWO RIGHT SPAN WIRE SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	R	R	R	R	G	G	Y	R	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R											
ILLINOIS ROUTE 47, NORTH OF TRACK LOW MOUNT IN BARREL (ON LEFT) AND TWO LEFT SPAN WIRE SIGNALS WITH LEFT TURN ARROWS	S/B	←G	←G	←G	←Y	←R	←R	←R	←R	←Y	←R	←R	←R	←R	←R	←R	←R	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R														
ILLINOIS ROUTE 47, SOUTH OF TRACK NEAR RIGHT AND TWO FAR RIGHT SPAN WIRE SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	R	R	R	R	G	G	Y	R	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R								
ILLINOIS ROUTE 47, SOUTH OF TRACK TWO FAR LEFT SPAN WIRE SIGNALS WITH LEFT TURN ARROWS	S/B	←G	←G	←G	←G	←G	←Y	←R	←R	←R	←R	←Y	←R	←R	←R	←R	←R	←G	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R									
MAIN STREET NEAR SIDE SPAN WIRE SIGNAL	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R							
MAIN STREET FAR SPAN WIRE SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R								
MAIN STREET, EAST OF TRACK LOW MOUNT IN BARREL (ON LEFT), SPAN WIRE, AND RIGHT LOW MOUNT SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R							
MAIN STREET, WEST OF TRACK FAR SPAN WIRE SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R						
PEDESTRIAN SIGNAL CROSSING MAIN STREET ON EAST SIDE OF ILLINOIS ROUTE 47	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	P	**FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H							
PEDESTRIAN SIGNAL CROSSING MAIN STREET ON WEST SIDE OF ILLINOIS ROUTE 47	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	P	**FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
PEDESTRIAN SIGNAL CROSSING ILLINOIS ROUTE 47 ON NORTH SIDE OF MAIN STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H		
PEDESTRIAN SIGNAL CROSSING ILLINOIS ROUTE 47 ON SOUTH SIDE OF MAIN STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	

P = ILLUMINATED PERSON = WALK
 FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
 H = ILLUMINATED SOLID HAND = DON'T WALK
 PHASE 2 + 6 SHALL BE PLACED ON RECALL.

- * TO APPEAR ONLY UPON PUSHBUTTON ACTUATION.
- ** FLASHING " [] " IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

∅ THIS " [] " OR FLASHING " [] " INTERVAL MAY FINISH TIMING IN THE BI-DIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE " [] " OR FLASHING " [] " INTERVALS. " [] " AND FLASHING " [] " TIMINGS TO BE SET ONLY ON THE PHASES WHERE " [] " AND FLASHING " [] " ARE INDICATED IN THE SEQUENCE OF OPERATION.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

GANDHI AND ASSOCIATES, INC.
 ENGINEERS AND PLANNERS
 6035 N. NORTHWEST HIGHWAY
 SUITE 306
 CHICAGO, ILLINOIS 60631 TEL. (773) 774-5900

8/11/14
12/14/2009
6:50:37 PM

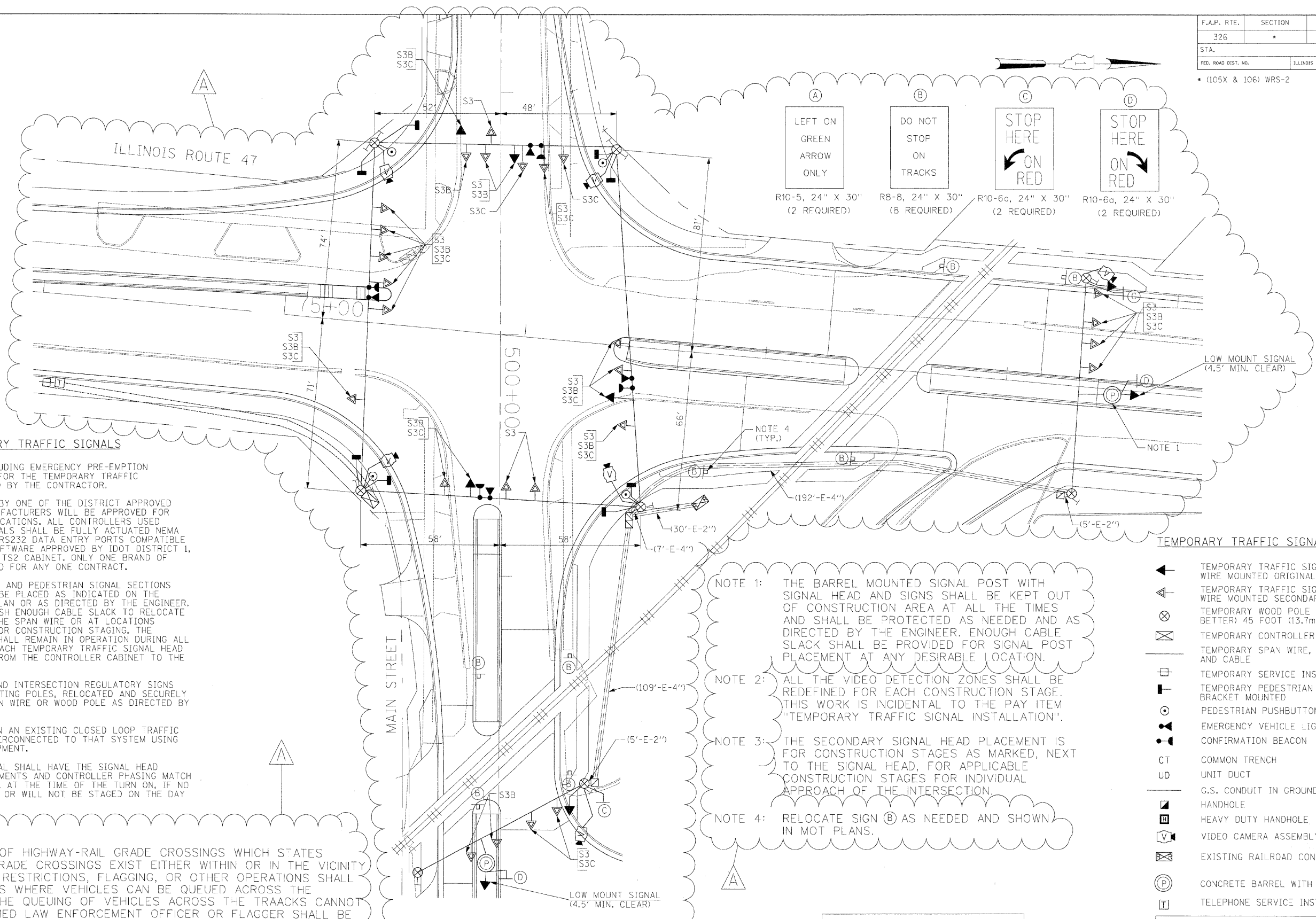
REVISIONS	
NAME	DATE
ADDENDUM A	12/21/2009

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TEMPORARY SEQUENCE OF OPERATION
 ILLINOIS ROUTE 47 AT MAIN STREET
 PRE-STAGE, STAGE 1, STAGE 1B, STAGE 1C, STAGE 2,
 STAGE 2B, STAGE 2C, AND AFTER ALL THE
 PROPOSED ROADWAY GEOMETRICS ARE BUILT AND
 OPEN TO TRAFFIC.
 (SHEET 1 OF 2)

SCALE: NONE
 DATE: APRIL 17, 2009
 DRAWN BY: MAA
 DESIGNED BY: PKG/RRM
 CHECKED BY: PKG/RRM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	286
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT:		

• (105X & 106) WRS-2



NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1. INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL. AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

RAILROAD NOTE:

WORK IN THE VICINITY OF HIGHWAY-RAIL GRADE CROSSINGS WHICH STATES "WHEN HIGHWAY-RAIL GRADE CROSSINGS EXIST EITHER WITHIN OR IN THE VICINITY OF A TTC ZONE, LANE RESTRICTIONS, FLAGGING, OR OTHER OPERATIONS SHALL NOT CREATE CONDITIONS WHERE VEHICLES CAN BE QUEUED ACROSS THE RAILROAD TRACKS. IF THE QUEUING OF VEHICLES ACROSS THE TRACKS CANNOT BE AVOIDED, A UNIFORMED LAW ENFORCEMENT OFFICER OR FLAGGER SHALL BE PROVIDED AT THE CROSSING TO PREVENT VEHICLES FROM STOPPING ON THE TRACKS, EVEN IF AUTOMATIC WARNING DEVICES ARE IN PLACE.

NOTE 1: THE BARREL MOUNTED SIGNAL POST WITH SIGNAL HEAD AND SIGNS SHALL BE KEPT OUT OF CONSTRUCTION AREA AT ALL THE TIMES AND SHALL BE PROTECTED AS NEEDED AND AS DIRECTED BY THE ENGINEER. ENOUGH CABLE SLACK SHALL BE PROVIDED FOR SIGNAL POST PLACEMENT AT ANY DESIRABLE LOCATION.

NOTE 2: ALL THE VIDEO DETECTION ZONES SHALL BE REDEFINED FOR EACH CONSTRUCTION STAGE. THIS WORK IS INCIDENTAL TO THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

NOTE 3: THE SECONDARY SIGNAL HEAD PLACEMENT IS FOR CONSTRUCTION STAGES AS MARKED, NEXT TO THE SIGNAL HEAD, FOR APPLICABLE CONSTRUCTION STAGES FOR INDIVIDUAL APPROACH OF THE INTERSECTION.

NOTE 4: RELOCATE SIGN (B) AS NEEDED AND SHOWN IN MOT PLANS.

TEMPORARY TRAFFIC SIGNAL LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- △ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ⊠ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- ⊣ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- ⊙ PEDESTRIAN PUSHBUTTON DETECTOR
- ⊡ EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- CT COMMON TRENCH
- UD UNIT DUCT
- G.S. CONDUIT IN GROUND
- ⊠ HANDHOLE
- ⊡ HEAVY DUTY HANDHOLE
- ⊣ VIDEO CAMERA ASSEMBLY
- ⊠ EXISTING RAILROAD CONTROLLER TO REMAIN
- ⊙ CONCRETE BARREL WITH SIGNAL POST
- ⊣ TELEPHONE SERVICE INSTALLATION

TEMPORARY TRAFFIC SIGNAL PLAN
STAGES: STAGE 3, STAGE 3B, AND STAGE 3C

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE
ADDENDUM A	12/21/2009

ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY TRAFFIC SIGNAL INSTALLATION
ILLINOIS ROUTE 47 AT MAIN STREET
STAGE 3, STAGE 3B, AND STAGE 3C.

SCALE: 1"=20'
DATE: APRIL 17, 2009
DRAWN BY: MAA
DESIGNED BY: PKG/RRM
CHECKED BY: PKG/RRM

GO GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5900

GO GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5900

• (105X & 106) WRS-2

TEMPORARY SEQUENCE OF OPERATION (LEAD-LAG)

MOVEMENT	2 + 5		2 + 6												1 + 6				3		4				FLA														
PHASE	2 + 5		2 + 6												1 + 6				3		4				FLA														
INTERVAL	1	2	3A	3B	4	5	6A	6B	6C	6D	7A	7B	8A	8B	8C	8D	9	10	11A	11B	11C	11D	12A	12B	12C	12D	13	14	15A	15B	16	17	18A	18B	18C	18D	H		
CHANGE TO	∅	∅	2+6		3, 4		1+6				2+5				2+6				3, 4				4 1+6 2+5 2+6		1+6 2+5 2+6														
ILLINOIS ROUTE 47 NEAR RIGHT AND TWO FAR RIGHT SPAN WIRE SIGNALS	N/B	G	G	G	G	G	Y	R	R	R	Y	R	G	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
ILLINOIS ROUTE 47 TWO FAR LEFT SPAN WIRE SIGNALS WITH LEFT TURN ARROWS	N/B	←G	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	
ILLINOIS ROUTE 47, NORTH OF TRACK RIGHT LOW MOUNT TWO RIGHT SPAN WIRE SIGNALS	S/B	R	R	R	R	G	G	Y	R	R	R	G	G	Y	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
ILLINOIS ROUTE 47, NORTH OF TRACK LOW MOUNT IN BARREL (ON LEFT) TWO LEFT SPAN WIRE SIGNALS WITH LEFT TURN ARROWS	S/B	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←G	←G	←Y	←R	←R	←R	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	
ILLINOIS ROUTE 47, SOUTH OF TRACK NEAR RIGHT AND TWO FAR RIGHT SPAN WIRE SIGNALS	S/B	R	R	R	R	G	G	G	G	Y	R	G	G	G	G	Y	R	G	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
ILLINOIS ROUTE 47, SOUTH OF TRACK TWO FAR LEFT SPAN WIRE SIGNALS WITH LEFT TURN ARROWS	S/B	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←G	←G	←G	←Y	←R	←R	←G	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	
MAIN STREET NEAR SIDE SPAN WIRE SIGNAL	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	
MAIN STREET FAR SPAN WIRE SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	
MAIN STREET, EAST OF TRACK LOW MOUNT IN BARREL (ON LEFT), SPAN WIRE, AND RIGHT LOW MOUNT SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
MAIN STREET, WEST OF TRACK FAR SPAN WIRE SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
PEDESTRIAN SIGNAL CROSSING MAIN STREET ON EAST SIDE OF ILLINOIS ROUTE 47		*P	**FH	H	H	*P	**FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	DARK	
PEDESTRIAN SIGNAL CROSSING MAIN STREET ON WEST SIDE OF ILLINOIS ROUTE 47		H	H	H	H	*P	**FH	H	H	H	H	H	H	H	H	H	*P	**FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	DARK	
PEDESTRIAN SIGNAL CROSSING ILLINOIS ROUTE 47 ON NORTH SIDE OF MAIN STREET		H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	DARK
PEDESTRIAN SIGNAL CROSSING ILLINOIS ROUTE 47 ON SOUTH SIDE OF MAIN STREET		H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	DARK

P = ILLUMINATED PERSON = WALK
 FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
 H = ILLUMINATED SOLID HAND = DON'T WALK

PHASE 2 + 6 SHALL BE PLACED ON RECALL.

- * TO APPEAR ONLY UPON PUSHBUTTON ACTUATION.
- ** FLASHING "ⓧ" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

∅ THIS "ⓧ" OR FLASHING "ⓧ" INTERVAL MAY FINISH TIMING IN THE BI-DIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "ⓧ" OR FLASHING "ⓧ" INTERVALS. "ⓧ" AND FLASHING "ⓧ" TIMINGS TO BE SET ONLY ON THE PHASES WHERE "ⓧ" AND FLASHING "ⓧ" ARE INDICATED IN THE SEQUENCE OF OPERATION.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TEMPORARY SEQUENCE OF OPERATION
 ILLINOIS ROUTE 47 AT MAIN STREET
 STAGE 3, STAGE 3B, AND STAGE 3C.
 (SHEET 1 OF 2)
 SCALE: NONE
 DATE: APRIL 17, 2009
 DRAWN BY: MAA
 DESIGNED BY: PKG/RRM
 CHECKED BY: PKG/RRM

REVISIONS	
NAME	DATE
ADDENDUM A	12/21/2009

ga GANDHI AND ASSOCIATES, INC.
 ENGINEERS AND PLANNERS
 6035 N. NORTHWEST HIGHWAY
 SUITE 306
 CHICAGO, ILLINOIS 60631 TEL: (773) 774-5910

• (105X & 106) WRS-2

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

	1																4																4																9																9																13																13																16																16																PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 5	PREEMPTOR NUMBER 6	
CHANGE FROM NORMAL SEQUENCE OF OPERATIONS INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	1AA	1BB	1CC	1DD	1EE	1FF	1GG	1HH	1JJ	2	3	4	5	CLEAR TO NORMAL SEQUENCE																																																																																																															
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBERS	2	1C	1D	3, 4, 5	1F	1G	1H	1J	2	1L	1M	4	1P	1Q	1R	1S	3, 5	1U	1V	1W	1X	2, 3, 5	4	1AA	1BB	2, 4, 5	3	1EE	1FF	1GG	1HH	2, 3, 4, 5																																																																																																																					
ILLINOIS ROUTE 47, NEAR RIGHT AND FAR RIGHT SPAN WIRE SIGNALS	N/B	G	G	Y	R	G	G	G	G	G	Y	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	R	R	R	◇																																																																																																									
ILLINOIS ROUTE 47, TWO FAR LEFT SPAN WIRE SIGNALS WITH LEFT TURN ARROWS	N/B	←G	←G	←Y	R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	◇																																																																																																									
ILLINOIS ROUTE 47, NORTH OF TRACK RIGHT LOW MOUNT AND TWO RIGHT SPAN WIRE SIGNALS	S/B	R	R	R	R	G	Y	R	R	R	G	G	G	G	Y	R	R	R	G	Y	R	R	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇																																																																																																								
ILLINOIS ROUTE 47, NORTH OF TRACK LOW MOUNT IN BARREL (ON LEFT) AND TWO LEFT SPAN WIRE SIGNALS WITH LEFT TURN ARROWS	S/B	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	◇																																																																																																									
ILLINOIS ROUTE 47, SOUTH OF TRACK NEAR RIGHT AND TWO FAR RIGHT SPAN WIRE SIGNALS	S/B	R	R	R	R	G	G	G	Y	R	G	G	G	G	Y	R	G	G	G	Y	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇																																																																																																								
ILLINOIS ROUTE 47, SOUTH OF TRACK TWO FAR LEFT SPAN WIRE SIGNALS WITH LEFT TURN ARROWS	S/B	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	◇																																																																																																									
MAIN STREET, NEAR SIDE RIGHT SPAN WIRE SIGNAL	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇																																																																																																								
MAIN STREET, EAST OF TRACK FAR SPAN WIRE SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇																																																																																																								
MAIN STREET, EAST OF TRACK LOW MOUNT IN BARREL (ON LEFT), SPAN WIRE, AND RIGHT LOW MOUNT SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇																																																																																																								
MAIN STREET, WEST OF TRACK FAR SPAN WIRE SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇																																																																																																								
PEDESTRIAN SIGNAL CROSSING MAIN STREET ON EAST SIDE OF ILLINOIS ROUTE 47	FH	FH	H	H	FH	H	H	H	H	FH	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇																																																																																																									
PEDESTRIAN SIGNAL CROSSING MAIN STREET ON WEST SIDE OF ILLINOIS ROUTE 47	H	H	H	H	FH	H	H	H	H	FH	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇																																																																																																									
PEDESTRIAN SIGNAL CROSSING ILLINOIS ROUTE 47 ON NORTH SIDE OF MAIN STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇																																																																																																									
PEDESTRIAN SIGNAL CROSSING ILLINOIS ROUTE 47 ON SOUTH SIDE OF MAIN STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇																																																																																																									

TEMPORARY RAILROAD PREEMPTION SEQUENCE OF OPERATION

	1																4																9																13																16																PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 5	PREEMPTOR NUMBER 6	PREEMPTOR NUMBER 2	
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	2	3	4	5	CLEAR TO NORMAL SEQUENCE																																																											
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE INTERVAL NUMBER	1B	2	1D	2	1F	2	1H	2	1K	1L	1M	2	1P	2	1R	2	1T	2	1V	1W	1X	2	3	4	5																																																													
ILLINOIS ROUTE 47, NEAR RIGHT AND FAR RIGHT SPAN WIRE SIGNALS	N/B	Y	R	Y	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	△																																									
ILLINOIS ROUTE 47, TWO FAR LEFT SPAN WIRE SIGNALS WITH LEFT TURN ARROWS	N/B	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	△																																											
ILLINOIS ROUTE 47, NORTH OF TRACK RIGHT LOW MOUNT AND TWO RIGHT SPAN WIRE SIGNALS	S/B	R	R	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	△																																										
ILLINOIS ROUTE 47, NORTH OF TRACK LOW MOUNT IN BARREL (ON LEFT) AND TWO LEFT SPAN WIRE SIGNALS WITH LEFT TURN ARROWS	S/B	←R	←R	←R	←R	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	△																																												
ILLINOIS ROUTE 47, SOUTH OF TRACK NEAR RIGHT AND TWO FAR RIGHT SPAN WIRE SIGNALS	S/B	R	R	G	G	G	G	R	R	R	R	R	R	R	R	R	R	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	△																																										
ILLINOIS ROUTE 47, SOUTH OF TRACK TWO FAR LEFT SPAN WIRE SIGNALS WITH LEFT TURN ARROWS	S/B	←R	←R	←R	←R	←G	←G	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←G	←G	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	△																																												
MAIN STREET, NEAR SIDE RIGHT SPAN WIRE SIGNAL	E/B	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	△																																										
MAIN STREET, EAST OF TRACK FAR SPAN WIRE SIGNALS	E/B	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	△																																											
MAIN STREET, EAST OF TRACK LOW MOUNT IN BARREL (ON LEFT), SPAN WIRE, AND RIGHT LOW MOUNT SIGNALS	W/B	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	△																																											
MAIN STREET, WEST OF TRACK FAR SPAN WIRE SIGNALS	W/B	R	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	△																																											
PEDESTRIAN SIGNAL CROSSING MAIN STREET ON EAST SIDE OF ILLINOIS ROUTE 47	FH	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	△																																											
PEDESTRIAN SIGNAL CROSSING MAIN STREET ON WEST SIDE OF ILLINOIS ROUTE 47	H	H	FH	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	△																																												
PEDESTRIAN SIGNAL CROSSING ILLINOIS ROUTE 47 ON NORTH SIDE OF MAIN STREET	H	H	H	H	H	H	H	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	△																																											
PEDESTRIAN SIGNAL CROSSING ILLINOIS ROUTE 47 ON SOUTH SIDE OF MAIN STREET	H	H	H	H	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	△																																											

- ◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2, 3, 4 OR 5 IS TERMINATED.
- △ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

GO GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6036 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL: (773) 774-5990

ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATIONS & TEMPORARY RAILROAD PREEMPTION SEQUENCE OF OPERATIONS
ILLINOIS ROUTE 47 AT MAIN STREET STAGE 3, STAGE 3B, AND STAGE 3C.
(SHEET 2 OF 2)

REVISIONS	
NAME	DATE
ADDENDUM A	12/21/2009

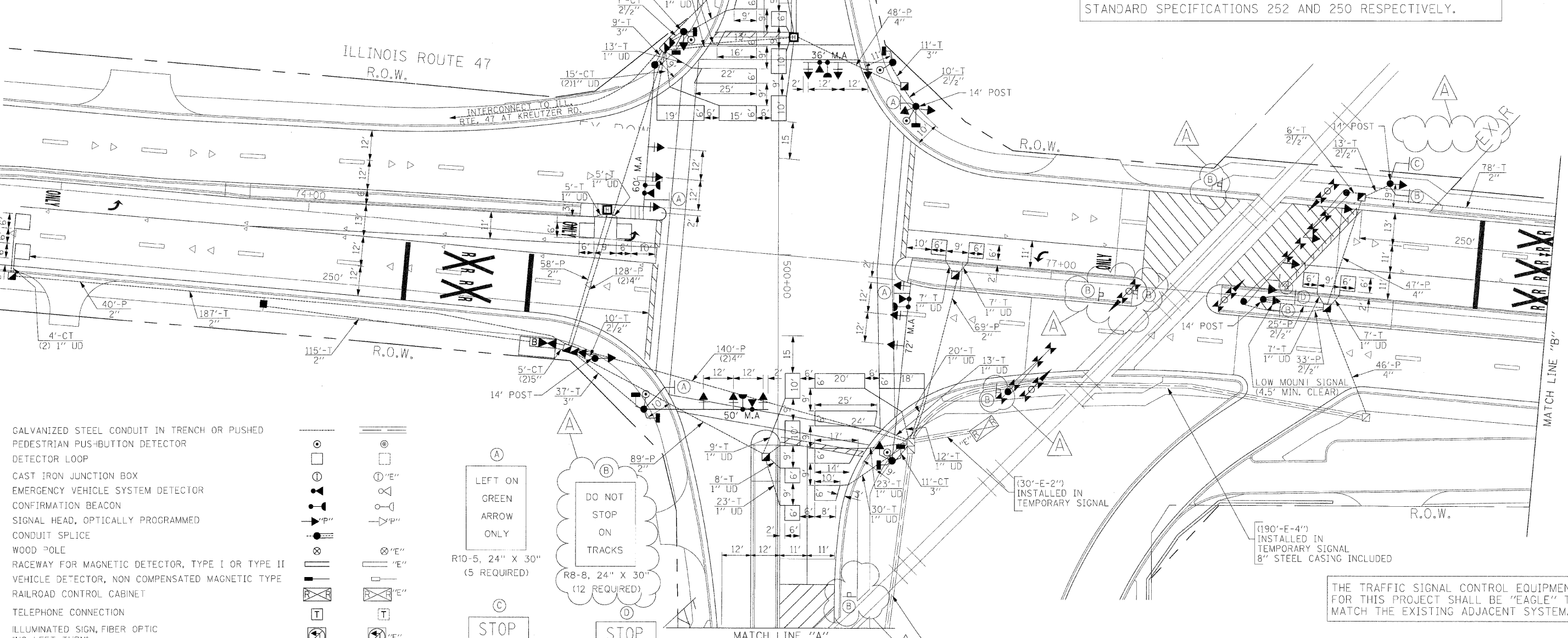
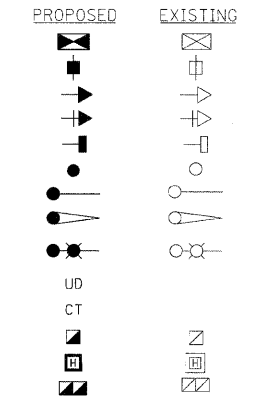
SCALE: NONE
DATE: APRIL 17, 2009
DRAWN BY: MAA
DESIGNED BY: PKG/RMM
CHECKED BY: PKG/HPS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	*	McHENRY	502	290
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

• (105X & 106) WRS-2

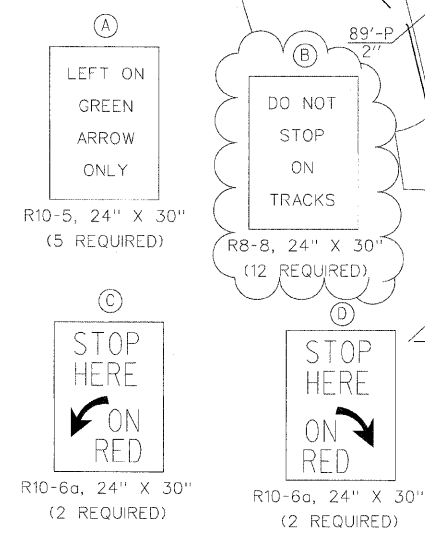
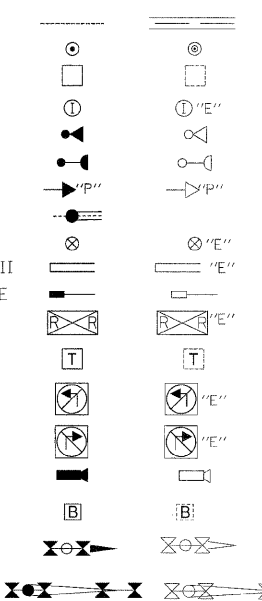
TRAFFIC SIGNAL LEGEND

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH, AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

- GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED
- PEDESTRIAN PUSH-BUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- SIGNAL HEAD, OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- TELEPHONE CONNECTION
- ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
- ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
- MICROWAVE VEHICLE SENSOR
- UPS-BATTERY BACK-UP
- CROSSING GATE
- RAILROAD CANTILEVER MAST ARM



ALL THE DETECTOR LOOPS ARE PREFORMED DETECTOR LOOPS.

(74'-E-4') INSTALLED IN TEMPORARY SIGNAL 8" STEEL CASING INCLUDED

(190'-E-4') INSTALLED IN TEMPORARY SIGNAL 8" STEEL CASING INCLUDED

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

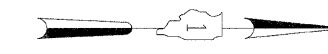
REVISIONS	
NAME	DATE
ADDENDUM A	12/21/2009

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL INSTALLATION
 ILLINOIS ROUTE 47
 AT MAIN STREET
 (SHEET 1 OF 2)

SCALE: 1"=20'
 DATE: APRIL 17, 2009
 DRAWN BY: MAA
 DESIGNED BY: PKG/RRM
 CHECKED BY: PKG/RRM

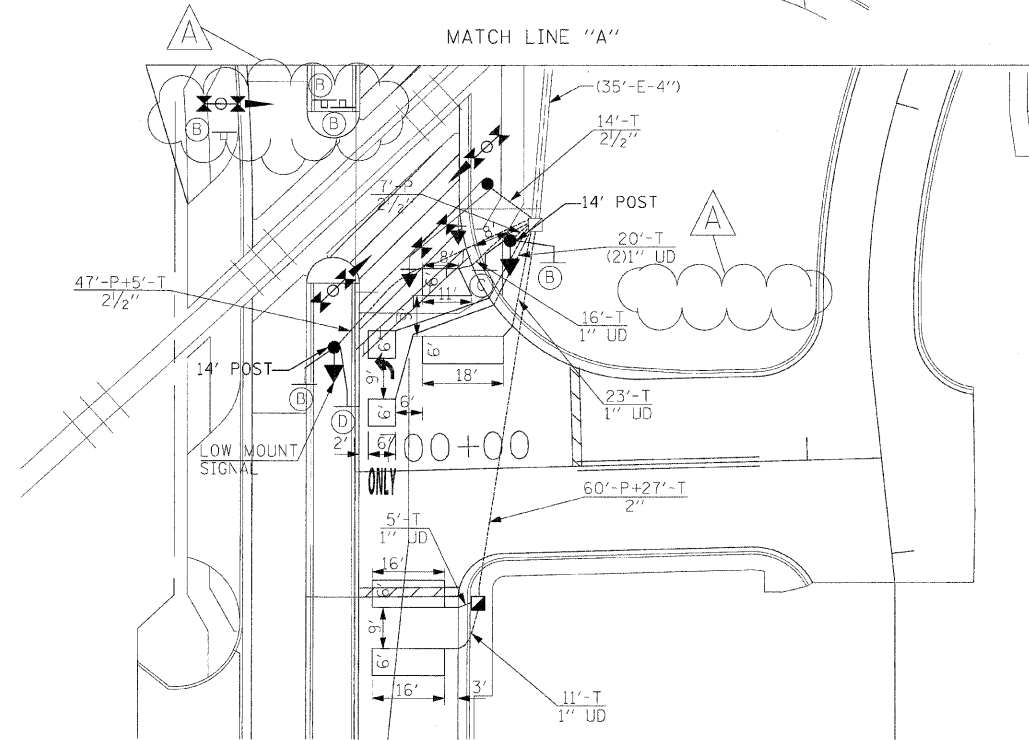
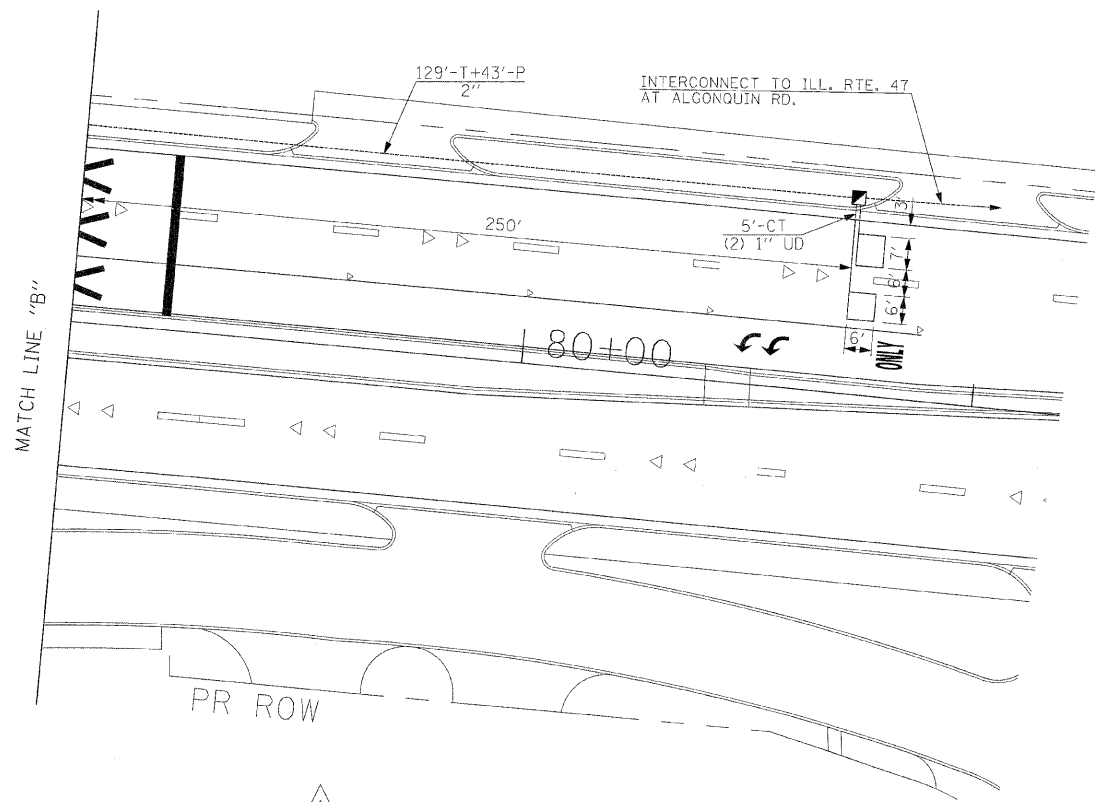
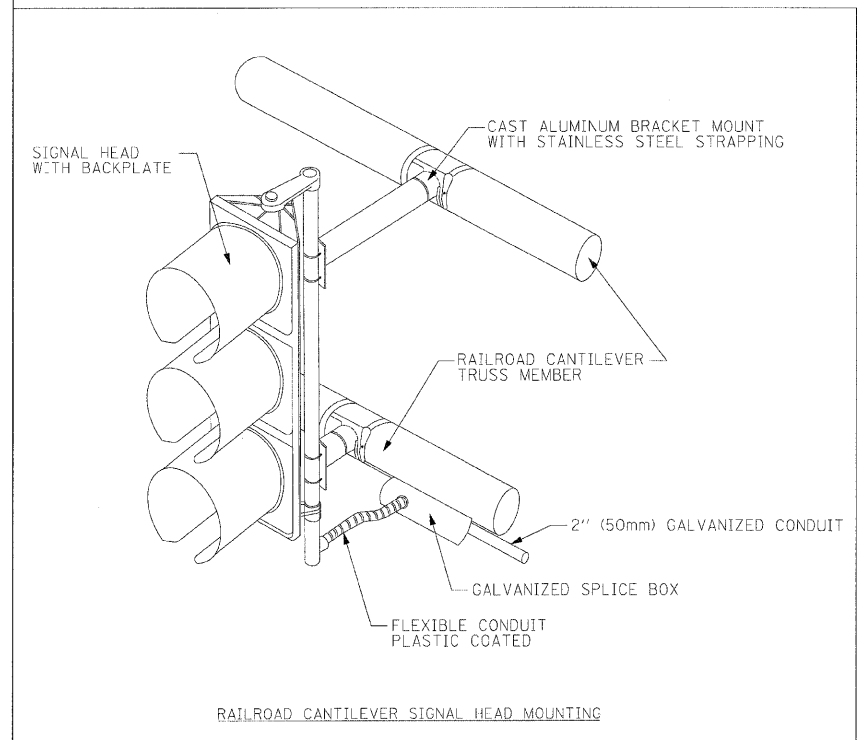
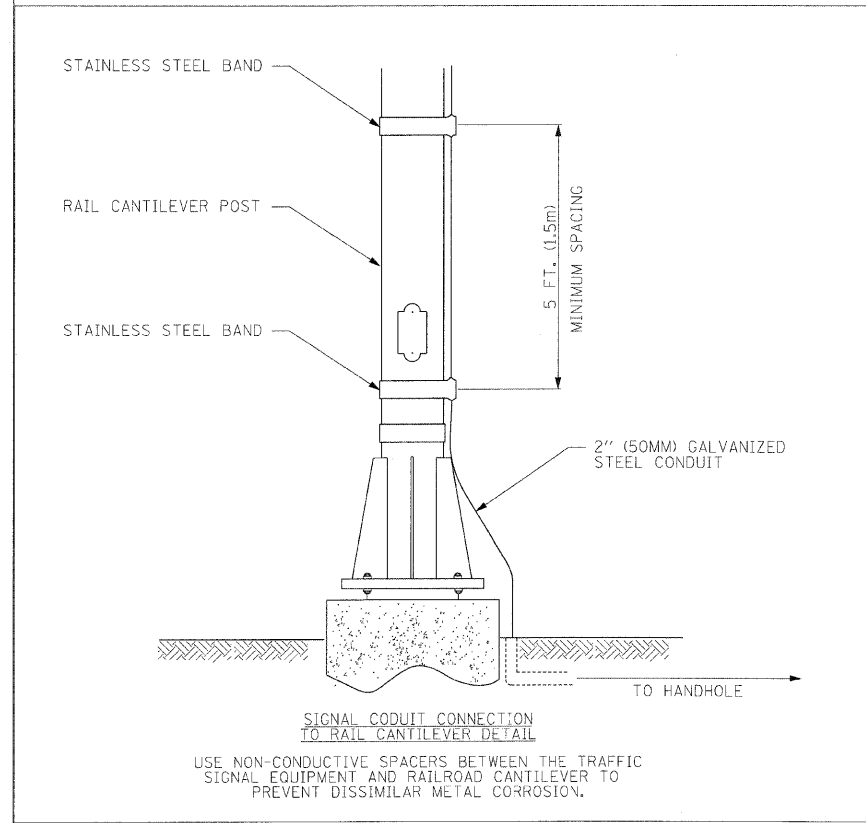
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	*	McHENRY	502	291
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT:		

• (105X & 106) WRS-2



TRAFFIC SIGNAL LEGEND

CONTROLLER		EXISTING	
SERVICE INSTALLATION			
SIGNAL HEAD			
SIGNAL HEAD WITH BACKPLATE			
SIGNAL HEAD, PEDESTRIAN			
SIGNAL POST			
MAST ARM ASSEMBLY AND POLE, STEEL			
MAST ARM ASSEMBLY AND POLE, ALUMINUM			
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINA:RE			
UNIT DUCT			
COMMON TRENCH			
HANDHOLE			
HEAVY DUTY HANDHOLE			
DOUBLE HANDHOLE			
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED			
PEDESTRIAN PUSHBUTTON DETECTOR			
DETECTOR LOOP			
CAST IRON JUNCTION BOX			
EMERGENCY VEHICLE SYSTEM DETECTOR			
CONFIRMATION BEACON			
SIGNAL HEAD, OPTICALLY PROGRAMMED			
CONDUIT SPLICE			
WOOD POLE			
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II			
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE			
RAILROAD CONTROL CABINET			
TELEPHONE CONNECTION			
ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"			
ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"			
MICROWAVE VEHICLE SENSOR			
UPS-BATTERY BACK-UP			
CROSSING GATE			
RAILROAD CANT.MAST ARM			



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE
ADDENDUM A	12/21/2009

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION
ILLINOIS ROUTE 47
AT MAIN STREET
(SHEET 2 OF 2)

SCALE: 1"=20'

DATE: APRIL 17, 2009

DRAWN BY: MAA
DESIGNED BY: PKG/RRM
CHECKED BY: PKG/RRM

ga GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5900

ga GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5900

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	*	McHENRY	502	293
STA.		TO STA.		
FED. ROAD DIST. NO.	RI INOTS	FFD. AID PRO.FCT.		

SCHEDULE OF QUANTITIES

* (105X & 106) WRS-2

QUANTITY	UNIT	ITEM
132	SQ FT	SIGN PANEL - TYPE 1
104	FOOT	METAL POST - TYPE A
637	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
65	FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
68	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
74	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
462	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
105	FOOT	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL
958	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
9	EACH	HANDHOLE
2	EACH	HEAVY-DUTY HANDHOLE
3	EACH	DOUBLE HANDHOLE
826	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCIVER - FIBER OPTIC
1036	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
2546	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
7474	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
873	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
3389	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
134	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
6	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 60 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 72 FT.
28	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
30	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
50	FOOT	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER
16	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
18	EACH	TRAFFIC SIGNAL BACKPLATE
12	EACH	INDUCTIVE LOOP DETECTOR
* 4	EACH	LIGHT DETECTOR
* 1	EACH	LIGHT DETECTOR AMPLIFIER
5	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
16	EACH	REMOVE EXISTING HANDHOLE
12	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1375	FOOT	PERFORMED DETECTOR LOOP
7	EACH	PAINT NEW TRAFFIC SIGNAL POST
1	EACH	PAINT NEW MAST ARM POLE, UNDER 40 FEET
3	EACH	PAINT NEW MAST ARM POLE, 40 FEET AND OVER
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
1	EACH	SERVICE INSTALLATION - POLE MOUNTED
1	EACH	UNINTERRUPTIBLE POWER SUPPLY
1511	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
* 993	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
210	FOOT	ELECTRIC CABLE IN CONDUIT, RAILROAD NO. 14 3/C
1	L SUM	RAILROAD PROTECTIVE LIABILITY
182	FOOT	STEEL CASINGS 8"

* 100% COST TO VILLAGE OF HUNTLEY

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE
ADDENDUM A	12/21/2009

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
ILLINOIS ROUTE 47
AT MAIN STREET

SCALE: 1"=20'

DATE: APRIL 17, 2009

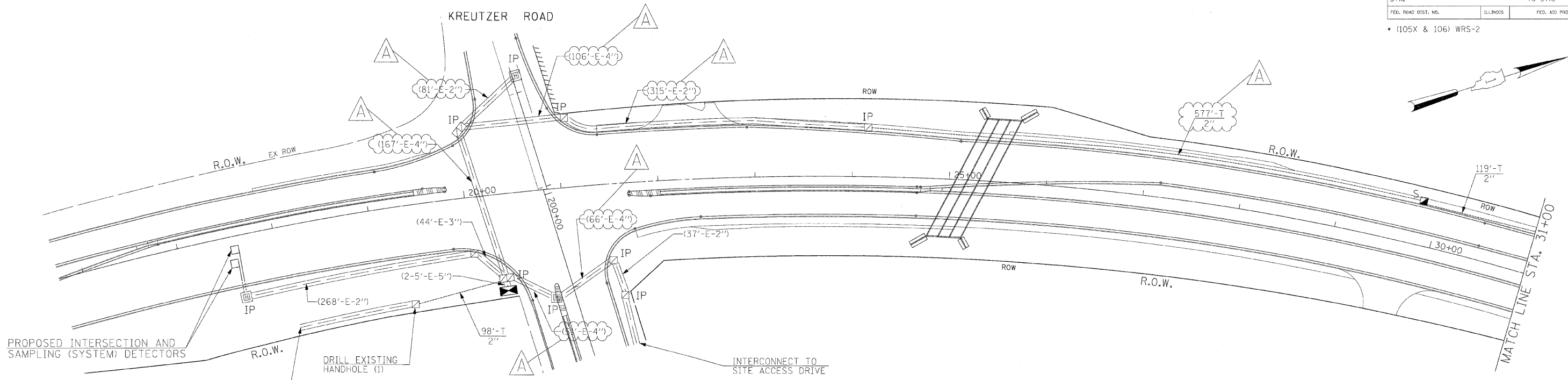
DRAWN BY: MAA
DESIGNED BY: PKG/RRM
CHECKED BY: PKG/RRM

ga GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 309
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

ga GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 309
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

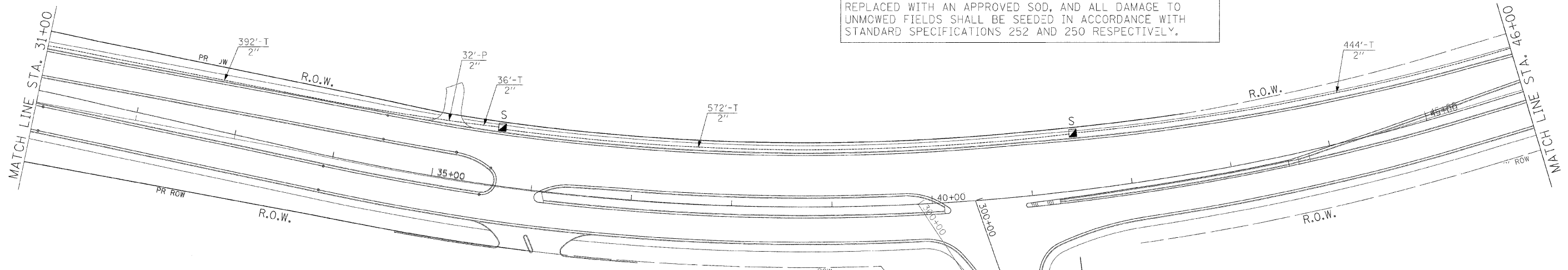
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
326	*	McHENRY	502	310
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT:		

* (105X & 106) WRS-2



THE PROPOSED HANDHOLES SHALL BE CONSTRUCTED OUTSIDE OF THE PROPOSED SIDEWALK AREA.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH, AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY DUTY HANDHOLE		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
TELEPHONE CONNECTION	T	T

GENERAL NOTE
 PRIOR TO TURNING PROPOSED TRAFFIC SIGNAL INSTALLATION ON, THE EXISTING INTERCONNECT AND TRACER CABLES GOING SOUTH AND EAST FROM THE TEMPORARY SIGNAL CONTROLLER AT ILL. RTE. 47 AND KREUTZER ROAD, SHALL BE DISCONNECTED AND CONNECTED INTO THE PROPOSED TRAFFIC SIGNAL CONTROLLER AT ILL. RTE. 47 AND KREUTZER ROAD. THE ACCESS CABLES PROVIDED FOR THIS PROPOSE, DURING INSTALLATION OF TEMPORARY TRAFFIC SIGNAL SHOULD ELIMINATE THE NECESSITY OF PROVIDING NEW CABLES. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT "REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT" AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THE SAME.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PROPOSED INTERCONNECT PLAN
 ILLINOIS ROUTE 47 FROM
 KREUTZER ROAD TO
 REED ROAD
 (SHEET 1 OF 4)

SCALE: 1"=50'
 DATE: APRIL 17, 2009

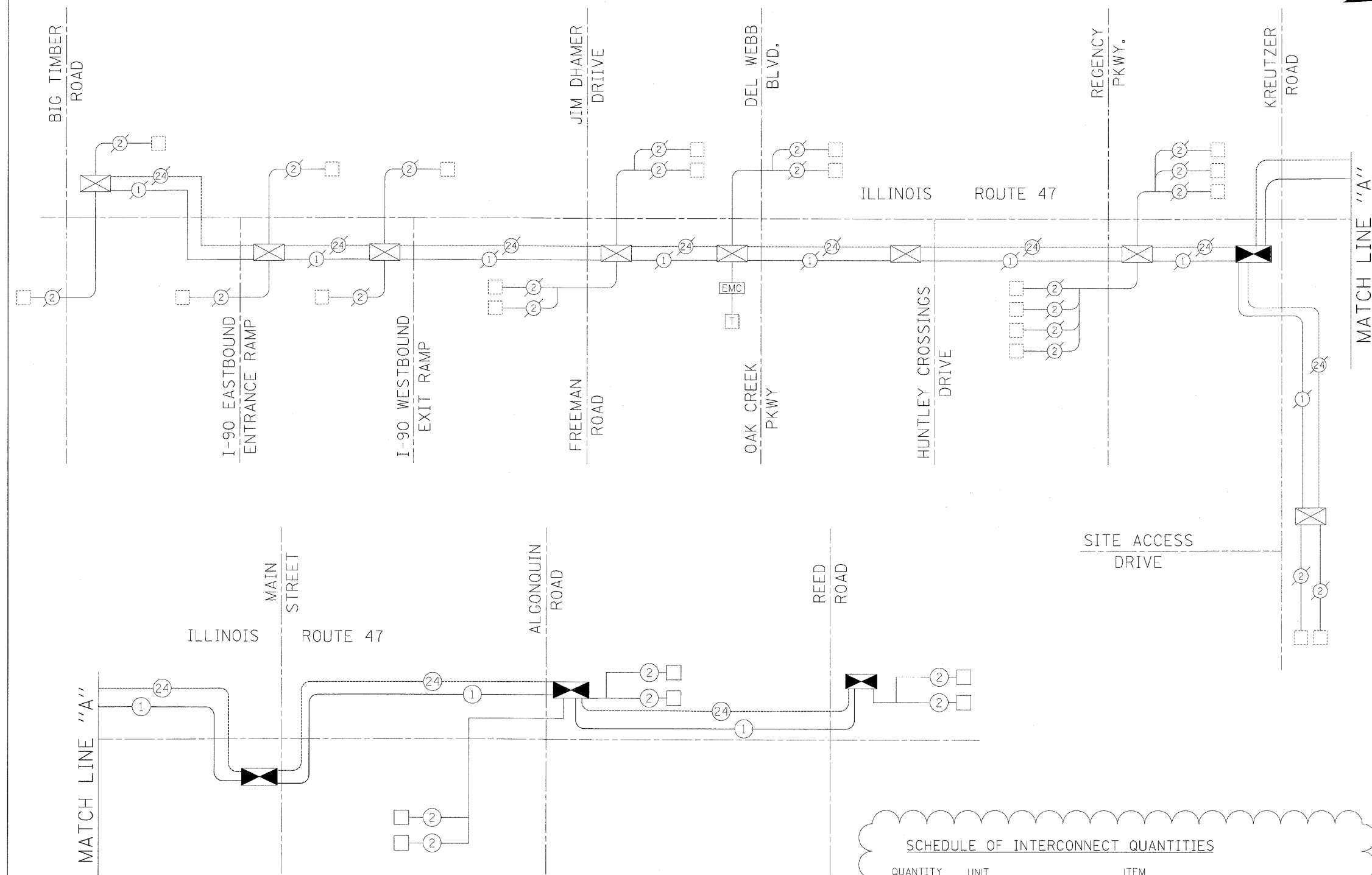
DRAWN BY: MAA
 DESIGNED BY: PKG/RRM
 CHECKED BY: PKG/RRM

REVISIONS	
NAME	DATE
ADDENDUM A	12/21/2009

ga GANDHI AND ASSOCIATES, INC.
 ENGINEERS AND PLANNERS
 6035 N. NORTHWEST HIGHWAY
 SUITE 306
 CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	*	McHENRY	502	314
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (105X & 106) WRS-2



INTERCONNECT SCHEMATIC LEGEND

- EXISTING INTERSECTION CONTROLLER
- PROPOSED INTERSECTION CONTROLLER
- EXISTING MASTER CONTROLLER
- PROPOSED MASTER CONTROLLER
- MASTER MASTER CONTROLLER
- EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- EXISTING INTERSECTION LOOP DETECTORS AND PROPOSED SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) DETECTORS
- PROPOSED SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS.
- EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS.
- EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS.
- PROPOSED SAMPLING (SYSTEM) PREFORMED DETECTORS.
- EXISTING FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F & SM12F
- PROPOSED FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F & SM12F
- EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F. FIBER OPTIC CABLE
- PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
- EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
- PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
- EXISTING LOOP DETECTOR CABLE - 2/C TWISTED, SHIELDED
- PROPOSED LOOP DETECTOR CABLE - 2/C TWISTED, SHIELDED
- EXISTING ELECTRIC CABLE 1/C (AS SPECIFIED)
- PROPOSED ELECTRIC CABLE, 1/C (AS SPECIFIED)
- EXISTING TELEPHONE CONNECTION
- PROPOSED TELEPHONE CONNECTION

SCHEDULE OF INTERCONNECT QUANTITIES

QUANTITY	UNIT	ITEM
8884	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
1113	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
15	EACH	HANDHOLE
8884	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	DRILL EXISTING HANDHOLE
12047	FOOT	ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1C
1	EACH	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL II
12125	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE
ADDENDUM A	12/21/2009

ILLINOIS DEPARTMENT OF TRANSPORTATION

**INTERCONNECT SCHEMATIC
ILLINOIS ROUTE 47
BIG TIMBER ROAD TO
REED ROAD**

SCALE: NONE

DATE: MAY 05, 2008

DRAWN BY: EB
DESIGNED BY: PKG/RRM
CHECKED BY: PKG/RRM

ga GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 308
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 326	*	McHENRY	502	330
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-	326	

SHEET NO. 1
13 SHEETS

Bench Mark: BM #8 - Southeast corner of IL Route 47 bridge. Elev 877.46

Existing Structure: S.N. 056-0026 originally built in 1931, widened and reconstructed in 1966. Superstructure is a single span cast-in-place concrete slab. Substructure elements are closed abutments on spread footings. Back to back abutment dimension is 28'-8³/₈", width out to out is 46'-6".

Structure to be removed and replaced using staged construction.

Precast alternate is not allowed.

No Salvage.

Contract No. 62882
★ (105X & 106)WRS-2

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specification for Highway Bridges

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)

SCOPE OF WORK

- Remove Existing Single Span Bridge.
- Construct New Reinforced Cast-in-Place Triple Cell Concrete Box Culvert

STATION 25+24.62
BUILT 200 BY
STATE OF ILLINOIS
F.A.P. RT. 326 SEC. (105X & 106)WRS-2
LOADING HS20
STRUCTURE NO. 056-0085

NAME PLATE
See Std. 515001

LEGEND

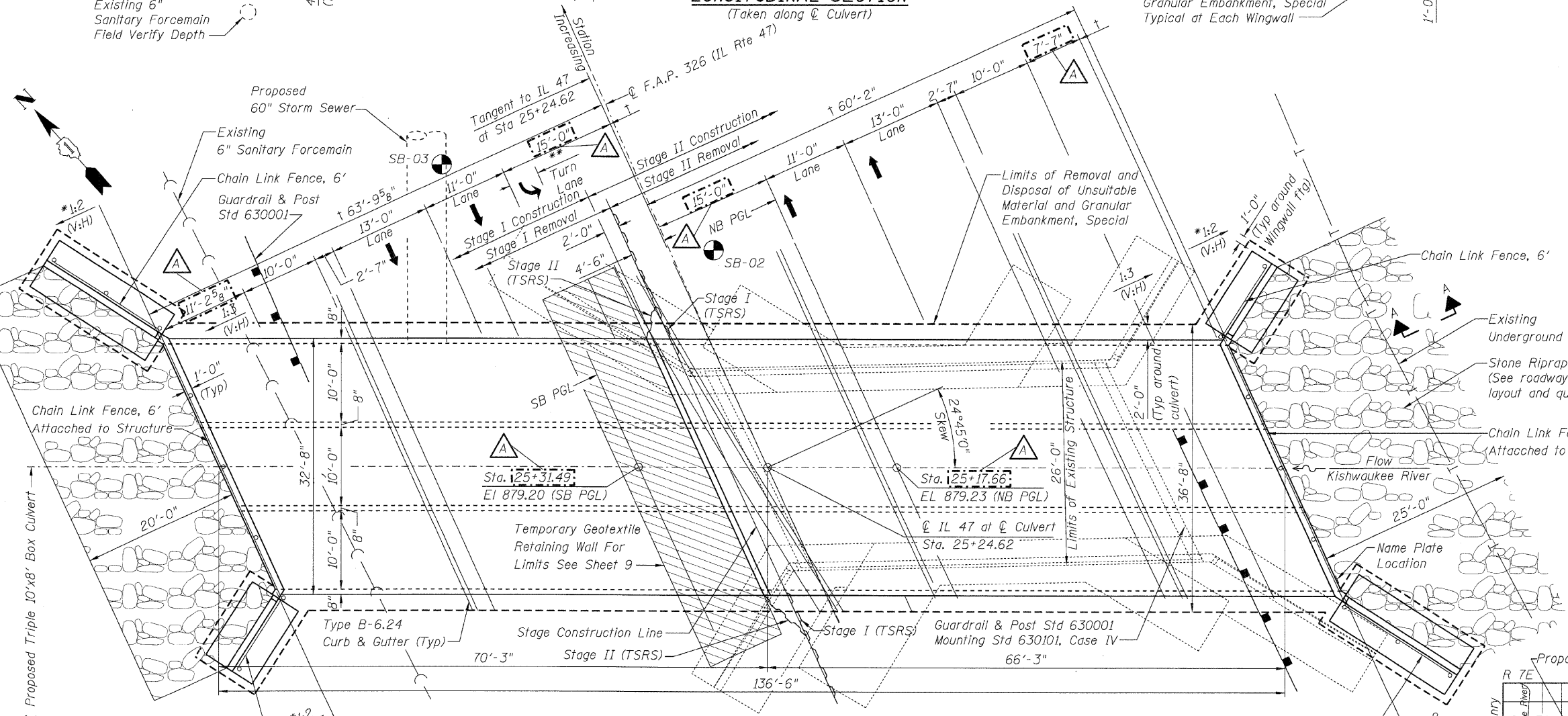
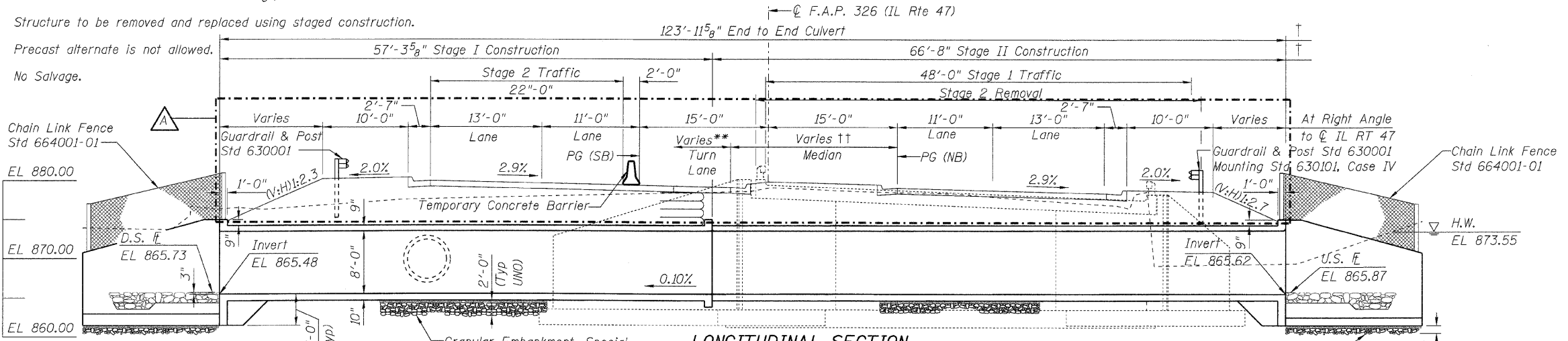
- Temporary Soil Retention System (TSRS)
- * Local cross slope around culvert ends
- ** Varies from 0'-0" at Sta 27+16.52 to 24'-0" at Sta 24+70.64
- *** At downstream End of Culvert
- † Dimensions taken from Tangent at Sta 25+24.62 and \oslash Culvert Intersection
- †† Varies from 30'-0" at Sta 27+16.52 to 6'-0" at Sta 24+70.64
- SB-01 Soil Boring Location



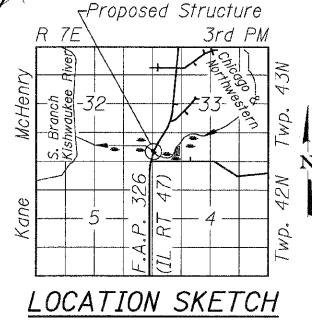
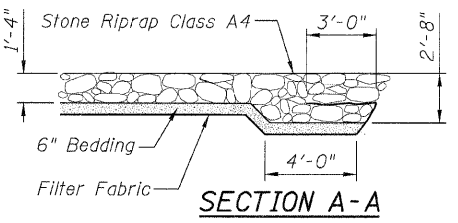
Expiration Date: 11-30-
Date:

Stanley Consultants INC.
6001 West Higgins Road, Suite 730, Chicago, Illinois 00081-2801
www.stanleyconsultants.com
Illinois Firm Registration No. 1184-001633

**GENERAL PLAN
IL ROUTE 47 OVER
S. BRANCH KISHWAUKEE RIVER
F.A.P. 326 - SECT. (105X & 106)WRS-2
McHENRY COUNTY
STATION 25+24.62
STRUCTURE NO. 056-0085**



DESIGNED -	NDR
CHECKED -	DSE
DRAWN -	RTT
CHECKED -	DSE
DATE -	Aug 5, 2009



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 326	★	McHENRY	502	331
FED. ROAD DIST. NO. 1	LLINES	FED. AID PROJECT-	326	

Contract No. 62882
★ (105X & 106)WRS-2

SHEET NO. 2
13 SHEETS

INDEX OF DRAWINGS

Sheet No.	Title
1	General Plan & Elevation
2	General Notes & Total Bill of Material
3	Removal
4	Culvert Details 1 of 5
5	Culvert Details 2 of 5
6	Culvert Details 3 of 5
7	Culvert Details 4 of 5
8	Culvert Details 5 of 5
9	Wingwall (T-Type Elevations and Section)
10	Temporary Geotextile Wall Construction Sequence
11	Bar Splicer Assembly Details
12	Soil Boring Logs
13	Soil Boring Logs

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
- Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

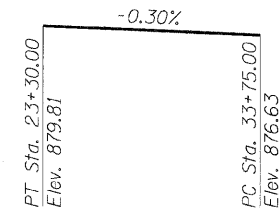
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Granular Embankment, Special	Cu Yd	389.3
Geotechnical Fabric for Ground Stabilization	Sq Yd	800.0
Removal of Existing Structures	Each	1.0
Removal and Disposal of Unsuitable Material for Structures	Cu Yd	651.0
Reinforcement Bars	Pound	97,450
Reinforcement Bars, Epoxy Coated	Pound	610
Bar Splicers	Each	148
Name Plates	Each	1
Concrete Box Culverts	Cu Yd	414.9
Geotextile Retaining Wall	Sq Ft	161.0
Temporary Soil Retention System	Sq Ft	706.0

△

HORIZONTAL CURVE DATA

(Curve 2)
P.I. Sta. 28+09.68
Δ = 15°29'27"
D = 2°16'24"
R = 2520.38'
L = 681.43'
T = 342.81'
E = 23.21'
P.C. Sta. 24+66.88
P.T. Sta. 31+48.31
S.E. = 0.029 ' / ' "



PROFILE GRADE
(IL Route 47)
⊕ Northbound and Southbound

WATERWAY INFORMATION

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		U.S. Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	H.W.E.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Drainage Area = 12.0 mi ² Exist. Low Grade Elev. 879.10 Prop. Low Grade Elev. 880.30 @ Sta. 25+25										
Design	50	839	210.0	229.9	873.55	873.55	0.07	0.00	873.62	873.12
Base	100	1043	227.3	253.4	874.26	874.26	0.11	0.00	874.37	873.89
Overtopping	--	--	--	--	--	--	--	--	--	--
Max. Calc.	500	1438	263.1	293.8	875.40	875.39	0.50	0.00	875.90	875.23
									Freeboard	5.5 7.2

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft)	Upstream	Downstream
	861.62	861.48

DESIGNED - NDR
CHECKED - DSE
DRAWN - RTT
CHECKED - DSE
DATE - Aug. 5, 2009

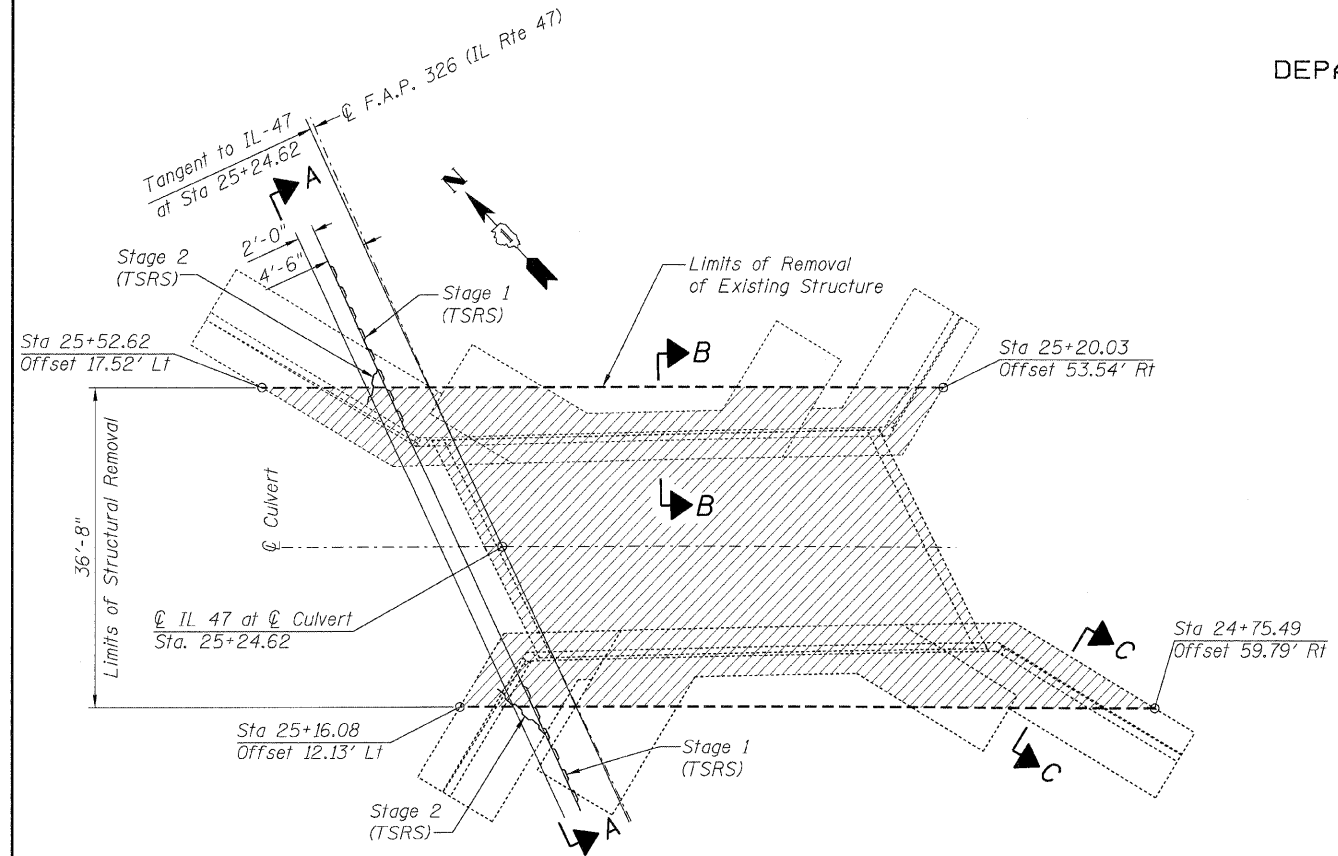
Stanley Consultants INC.
6001 West Higgins Road, Suite 730, Chicago, Illinois 06081-3801
www.stanleyconsultants.com
Illinois Firm Registration No. 1184-001633

GENERAL NOTES & TOTAL BILL OF MATERIAL
IL ROUTE 47 OVER
S. BRANCH KISHWAUKEE RIVER
F.A.P. 326 - SECT. (105X & 106)WRS-2
McHENRY COUNTY
STATION 25+24.62
STRUCTURE NO. 056-0085

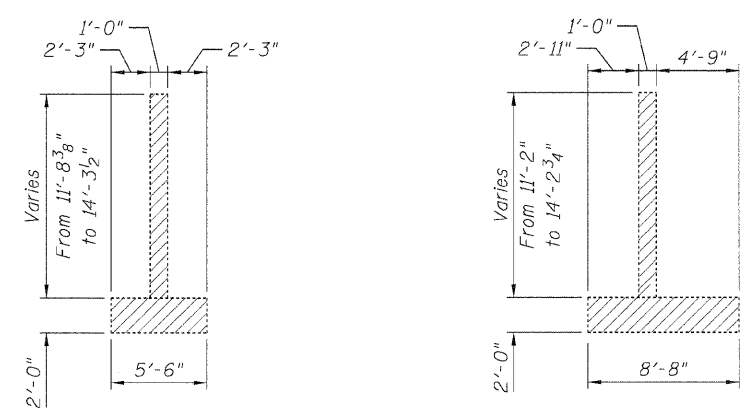
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 326	★	McHENRY	502	332
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-	326	

Contract No. 62882
★ (105X & 106)WRS-2

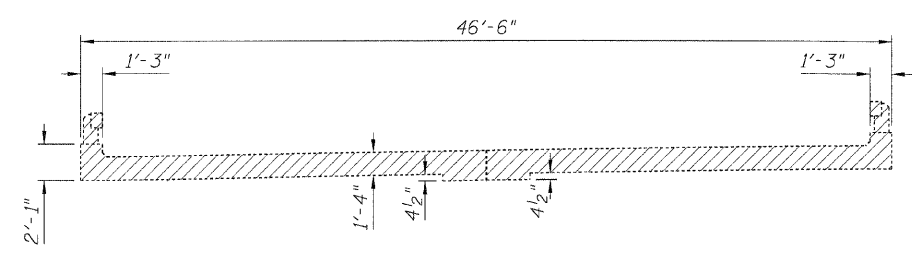


REMOVAL PLAN

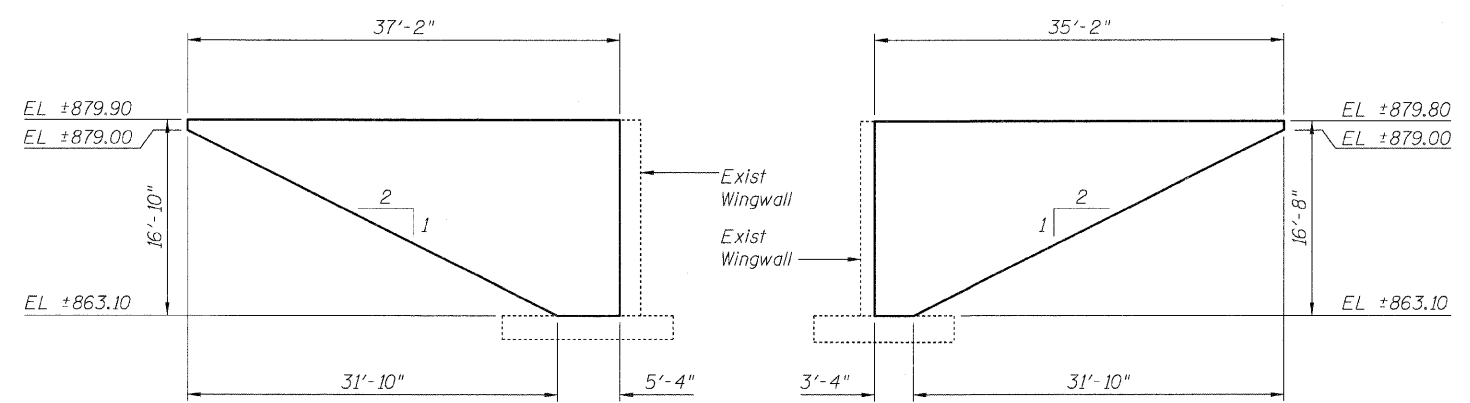


SECTION B-B

SECTION C-C



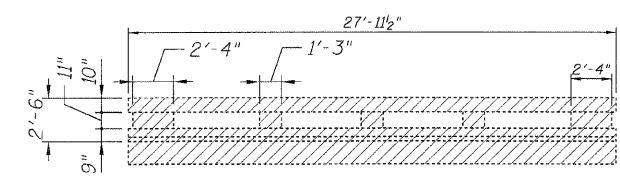
SLAB SECTION REMOVAL



(TSRS) AT NORTHWEST CORNER

(TSRS) AT SOUTHWEST CORNER

SECTION A-A



HANDRAIL REMOVAL

NOTES

- Remove all structure elements within Limits shown for existing removal.

LEGEND

- Indicates Material to be removed
- Temporary Soil Retention System (TSRS)

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleyconsultants.com
Illinois Firm Registration No.: 1184-001533

DESIGNED	- NDR
CHECKED	- DSE
DRAWN	- RTT
CHECKED	- DSE
DATE	- Aug. 5, 2009

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures	Each	1
Temporary Soil Retention System	Sq Ft	1,706

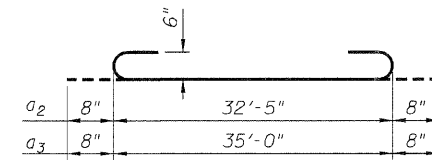
REMOVAL
IL ROUTE 47 OVER
S. BRANCH KISHWAUKEE RIVER
F.A.P. 326 - SECT. (105X & 106)WRS-2
McHENRY COUNTY
STATION 25+24.62
STRUCTURE NO. 056-0085

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

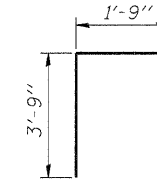
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 326	★	McHENRY	502	337
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-	326	

SHEET NO. 8
13 SHEETS

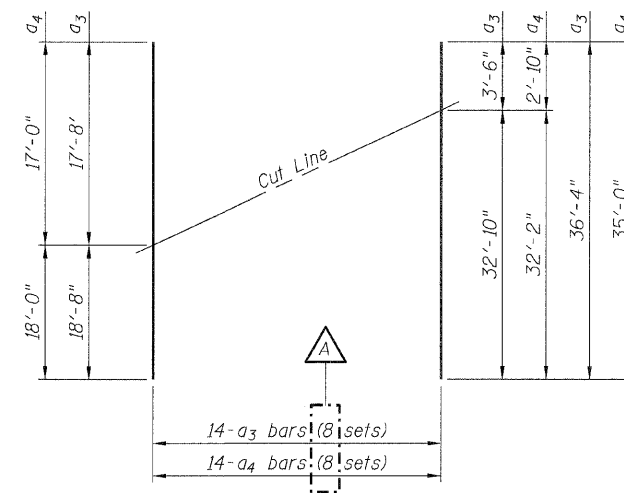
Contract No. 62882
★ (105X & 106)WRS-2



BARS a2 & a3



BAR d1



FIELD CUTTING DIAGRAM

Order bars full length, cut to fit as shown and place at one end of the dimension line shown on the plan. Use remainder of bars at opposite end of the dimension line.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	424	#7	32'-5"	—
a2	424	#6	33'-9"	U
a3	112	#6	36'-4"	U
a4	112	#7	35'-0"	—
d1	86	#4	5'-6"	L
h1	444	#5	22'-1"	—
h2	444	#5	25'-6"	—
h3	4	#6	35'-3"	—
h4	14	#6	35'-10"	—
h5	8	#4	6'-0"	—
h6	12	#6	35'-8"	—
v1	1092	#4	2'-8"	—
v2	1092	#4	8'-0"	—
v3	8	#4	8'-9"	—
v4	8	#4	5'-10"	—
Reinforcement Bars		Pound	95,560	
Bar Splicers		Each	148	
Concrete Box Culverts		Cu. Yd.	381.6	
Geotextile Retaining Wall		Sq. Ft.	161	

DESIGNED	- NDR
CHECKED	- DSE
DRAWN	- RTT
CHECKED	- DSE
DATE	- Aug. 5, 2009

Stanley Consultants INC.
6501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleyconsultants.com
Illinois Firm Registration No.: 1184-001638

CULVERT DETAILS
IL ROUTE 47 OVER
S. BRANCH KISHWAUKEE RIVER
F.A.P. 326 - SECT. (105X & 106)WRS-2
McHENRY COUNTY
STATION 25+24.62
STRUCTURE NO. 056-0085

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 326	★	McHENRY	502	340
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-	326	

SHEET NO. 11
13 SHEETS

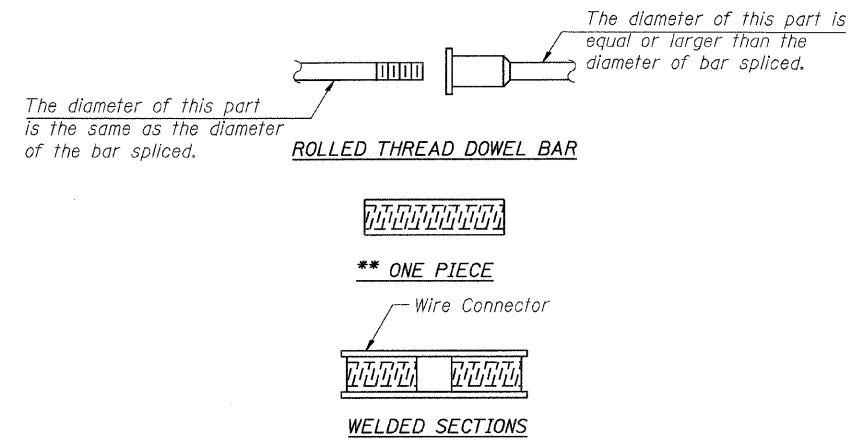
Contract No. 62882
★ (105X & 106)WRS-2

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

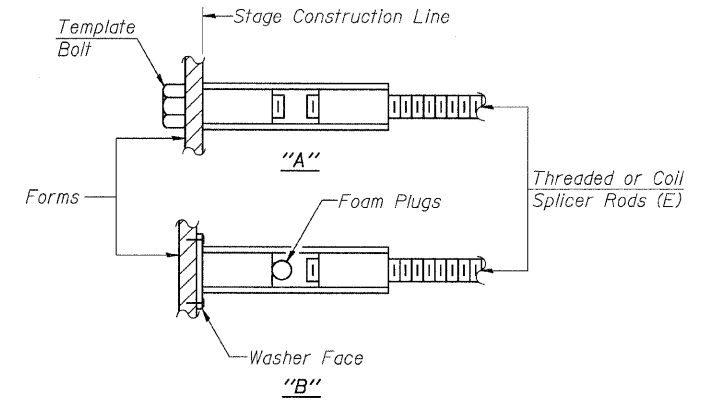
- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



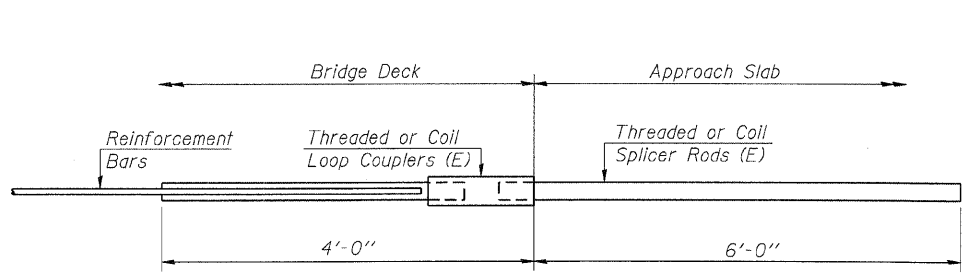
BAR SPLICER ASSEMBLY ALTERNATIVES

**Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.

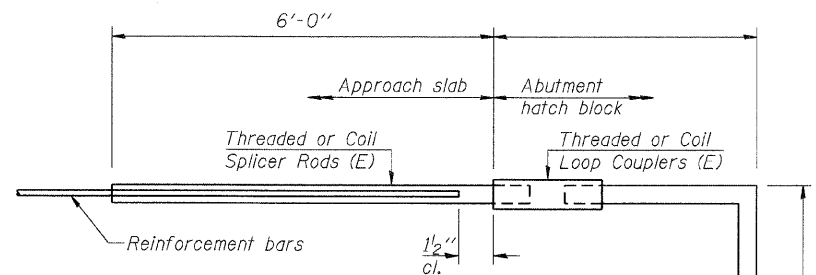


INSTALLATION AND SETTING METHODS

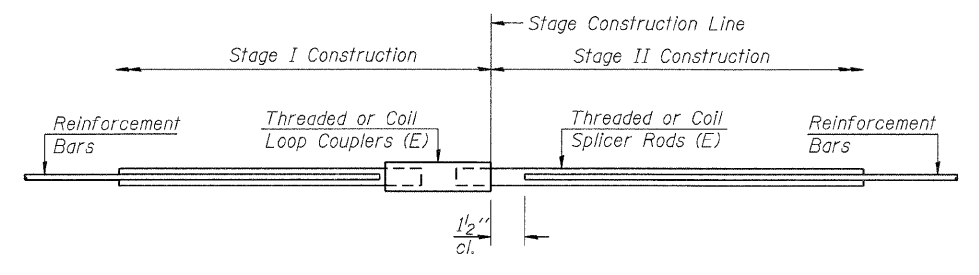
"A": Set bar splicer assembly by means of a template bolt.
"B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS



FOR STUB ABUTMENTS



STANDARD

Bar Size	No. Assemblies Required	Location
#5	148	Culvert Stage Construction Line

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	12.3 kips - tension
No. Required =	

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	12.3 kips - tension
No. Required =	

DESIGNED -	
CHECKED -	
DRAWN -	RTT
CHECKED -	DSE
DATE -	Aug. 5, 2009

Stanley Consultants INC.
6001 West Higgins Road, Suite 730, Chicago, Illinois 60681-2801
www.stanleyconsultants.com
Illinois Firm Registration No.: 1184-001533

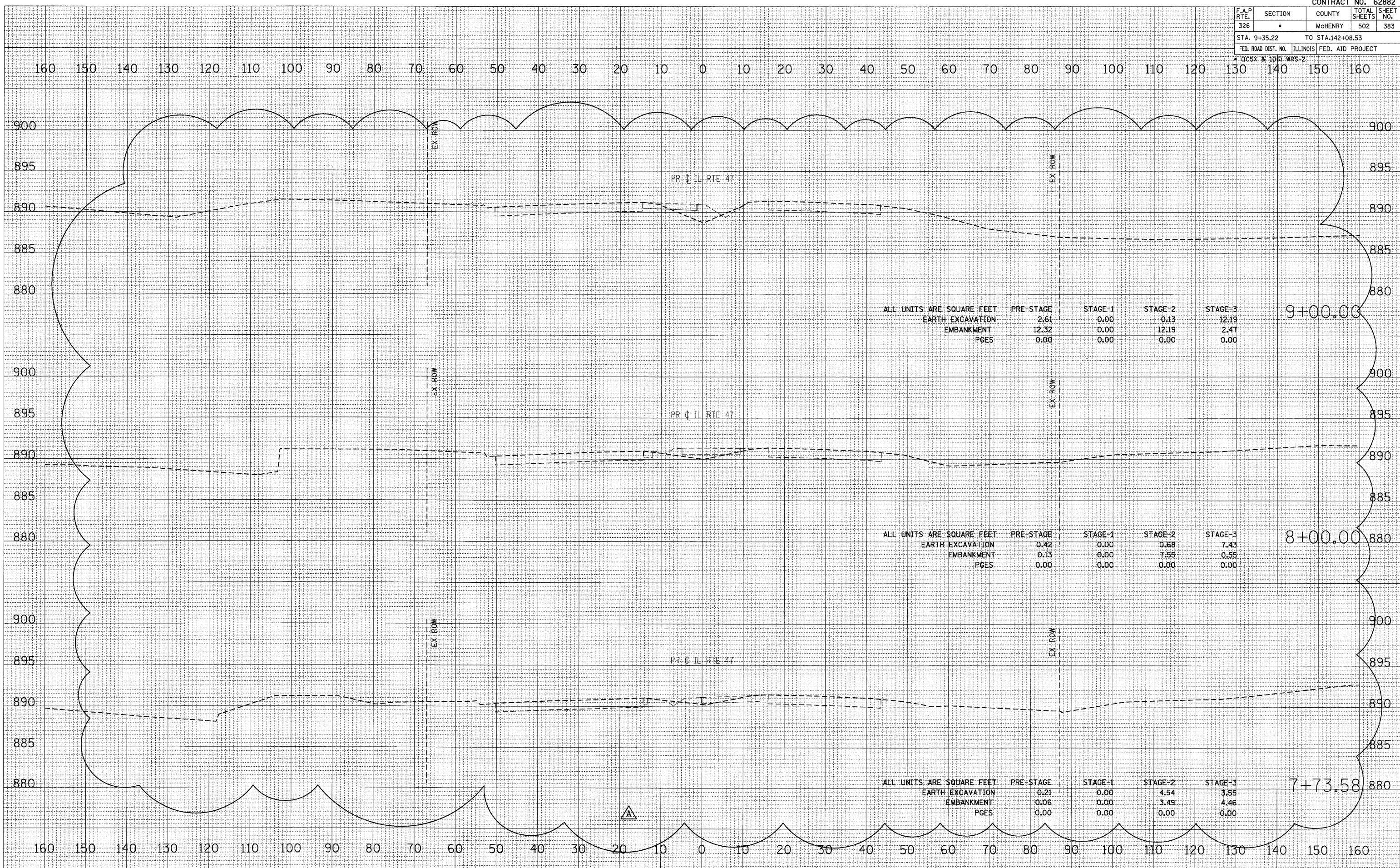
BAR SPLICER ASSEMBLY DETAILS
IL ROUTE 47 OVER
S. BRANCH KISHWAUKEE RIVER
F.A.P. 326 - SECT. (105X & 106)WRS-2
McHENRY COUNTY
STATION 25+24.62
STRUCTURE NO. 056-0085

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	383
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* (105X & 106) WRS-2				

DATE	BY
SURVEYED	PLOTTED
NOTE BOOK	AREAS CHECKED
NO.	

DATE	BY
ORIGINAL SURVEY	PLOTTED
NOTE BOOK	AREAS CHECKED
NO.	

PLOT DATE = 12/17/2009
 PLOT SCALE = 1" = 40'
 USER NAME = USER*

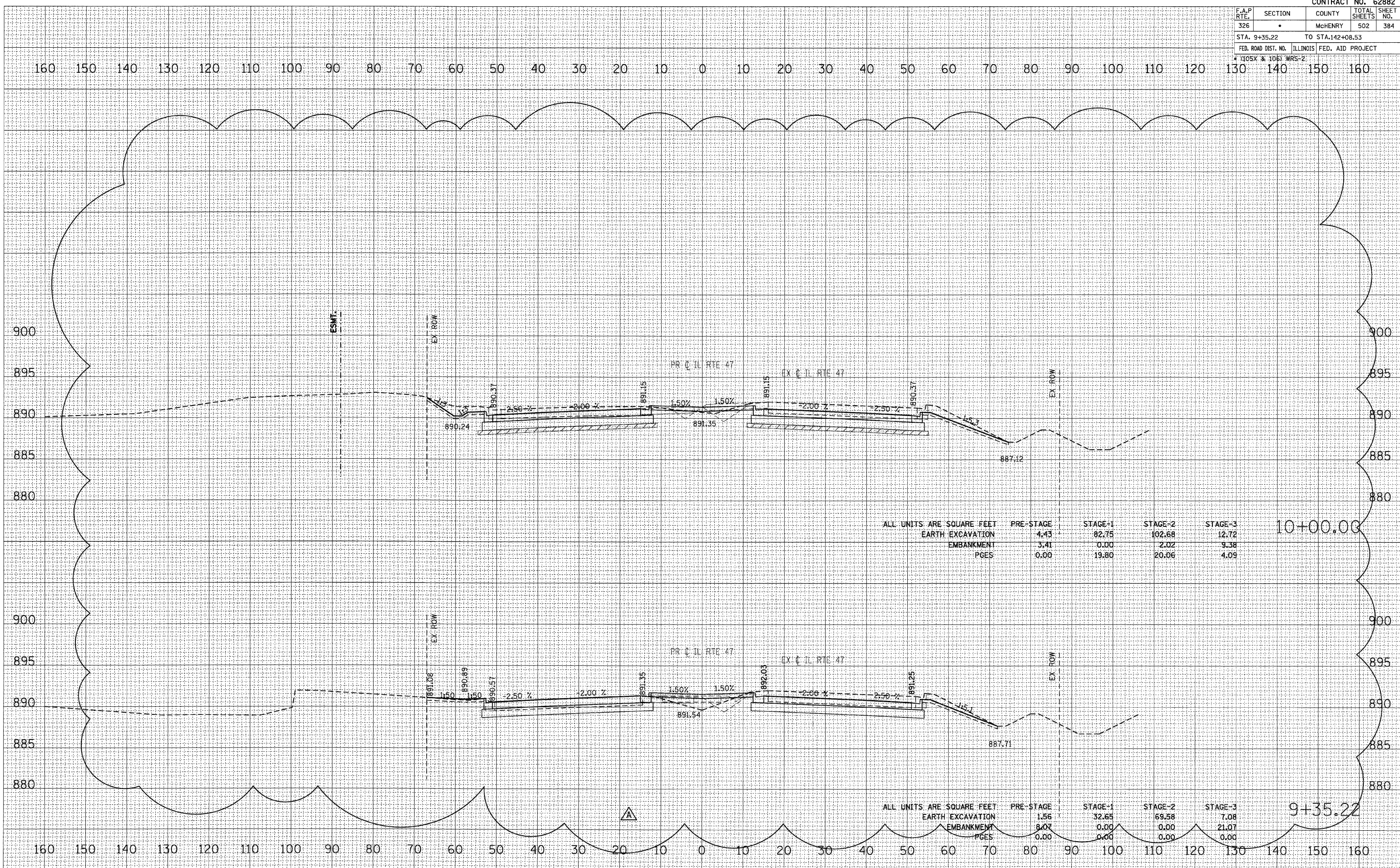


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	384
STA. 9+35.22		TO STA. 142+08.53		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* (105X & 106) WRS-2				

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK NO.	PLOTTED
	TEMPLATE
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK NO.	PLOTTED
	TEMPLATE
	AREAS CHECKED

PLOT DATE = 12/17/2009
 PLOT SCALE = 1"=40'
 USER NAME = BUSER*



ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	4.43	82.75	102.68	12.72
EMBANKMENT	3.41	0.00	2.02	9.38
PGES	0.00	19.80	20.06	4.09

ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	1.56	32.65	69.58	7.08
EMBANKMENT	8.07	0.00	0.00	21.07
PGES	0.00	0.00	0.00	0.00

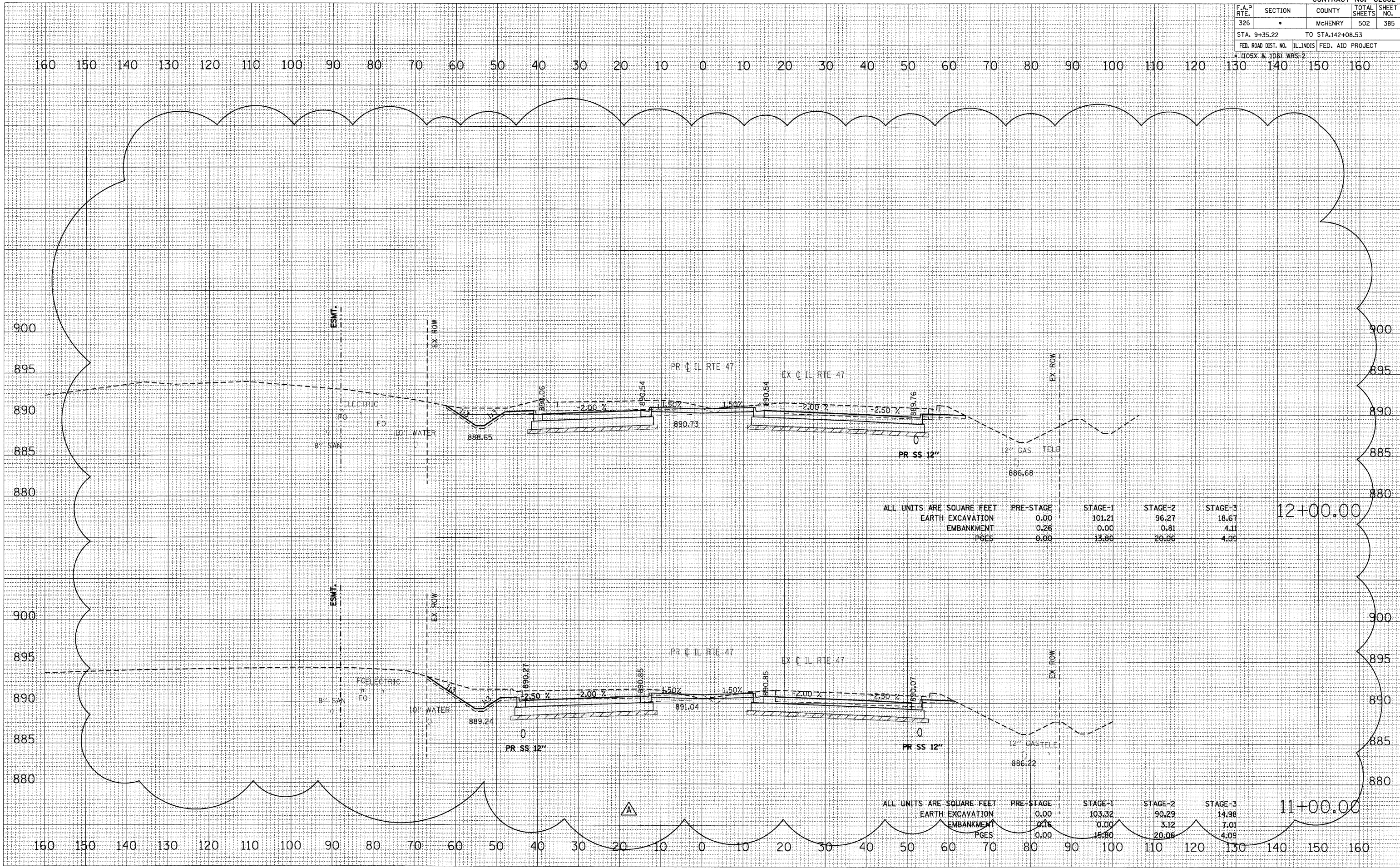
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	385
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

(105X & 106) WRS-2

FINAL SURVEY NO.	DATE
SURVEYED BY	
PLOTTED BY	
TEMPLATE NO.	
NOTE BOOK NO.	
AREAS CHECKED	

ORIGINAL SURVEY NO.	DATE
SURVEYED BY	
PLOTTED BY	
TEMPLATE NO.	
NOTE BOOK NO.	
AREAS CHECKED	

PLOT DATE = 12/17/2009
 PLOT SCALE = 1"=100'
 USER NAME = #USER#



ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	0.00	101.21	96.27	18.67
EMBANKMENT	0.26	0.00	0.81	4.11
PGES	0.00	13.80	20.06	4.09

ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	0.00	103.32	90.29	14.98
EMBANKMENT	0.16	0.00	3.12	7.01
PGES	0.00	15.80	20.06	4.09

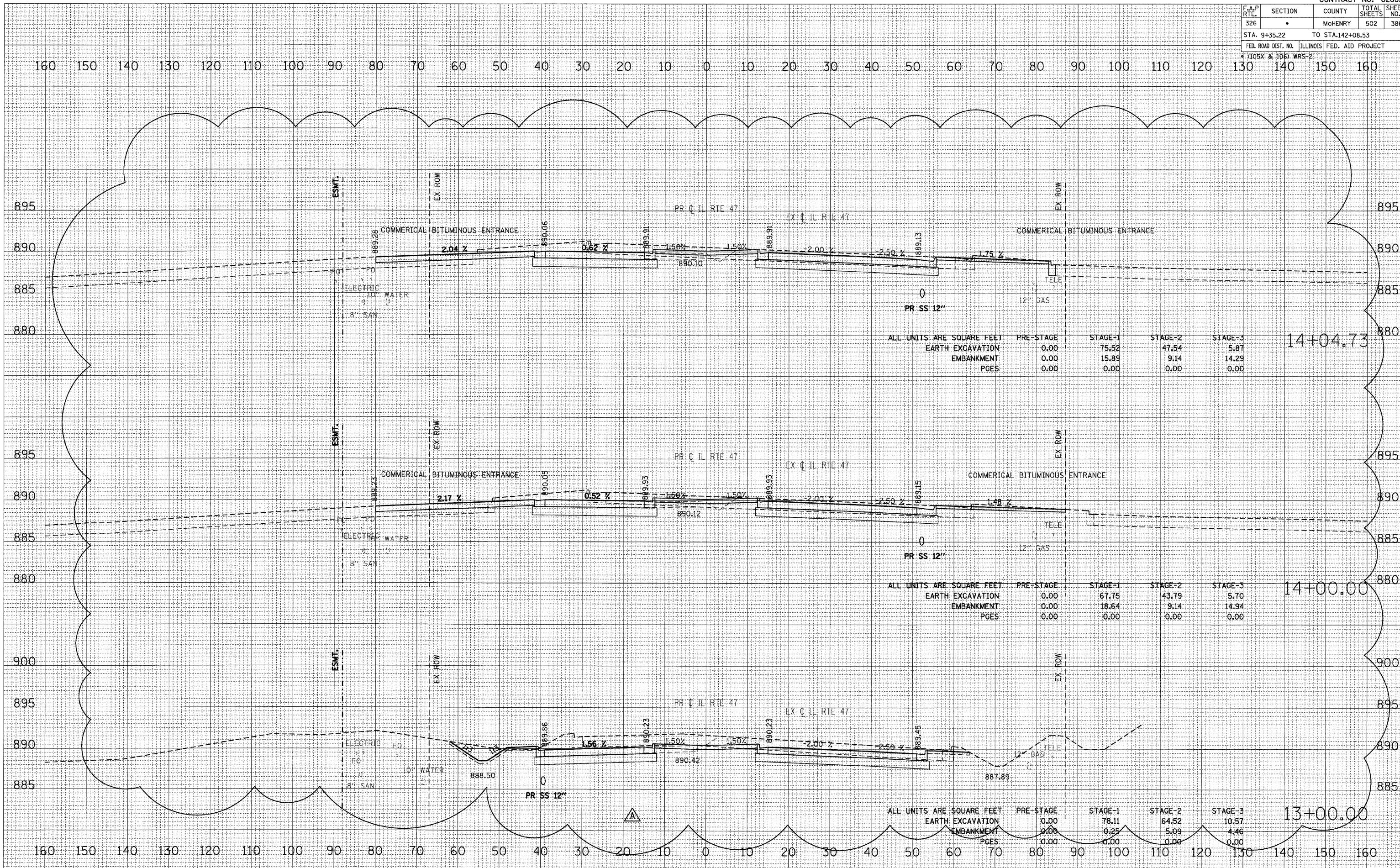
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	386
STA. 9+35.22		TO STA. 142+08.53		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

(105X & 106) WRS-2

DATE	BY

DATE	BY

PLOT DATE = 12/17/2009
 PLOT SCALE = 1"=40'
 USER NAME = USER8

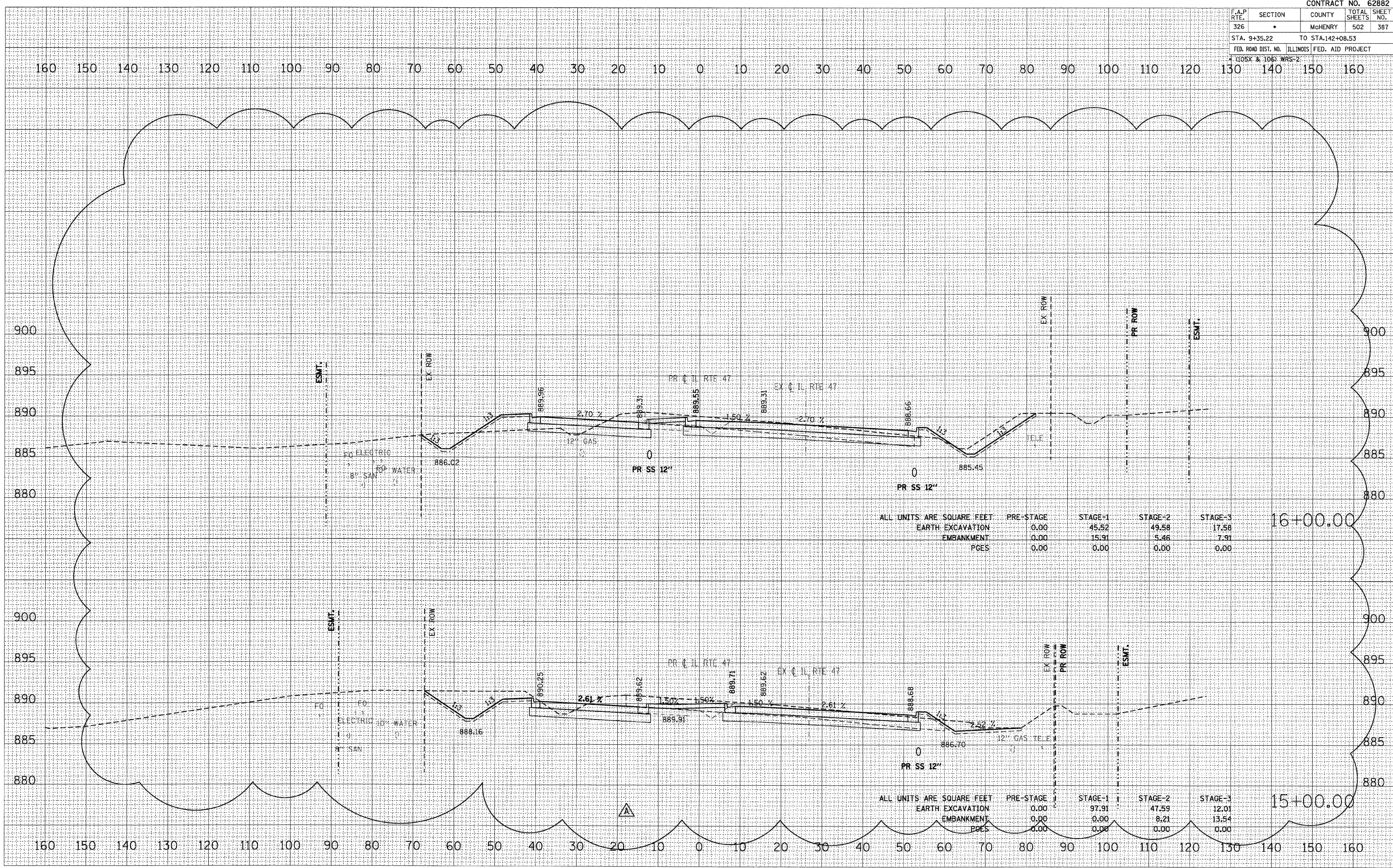


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	387
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
(105X & 106) WRS-2				

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		
	AREAS CHECKED		

PLOT DATE = 12/17/2009
 PLOT SCALE = 300/1000
 PLOT NAME = 15-17-ss.dgn
 USER NAME = NUSER

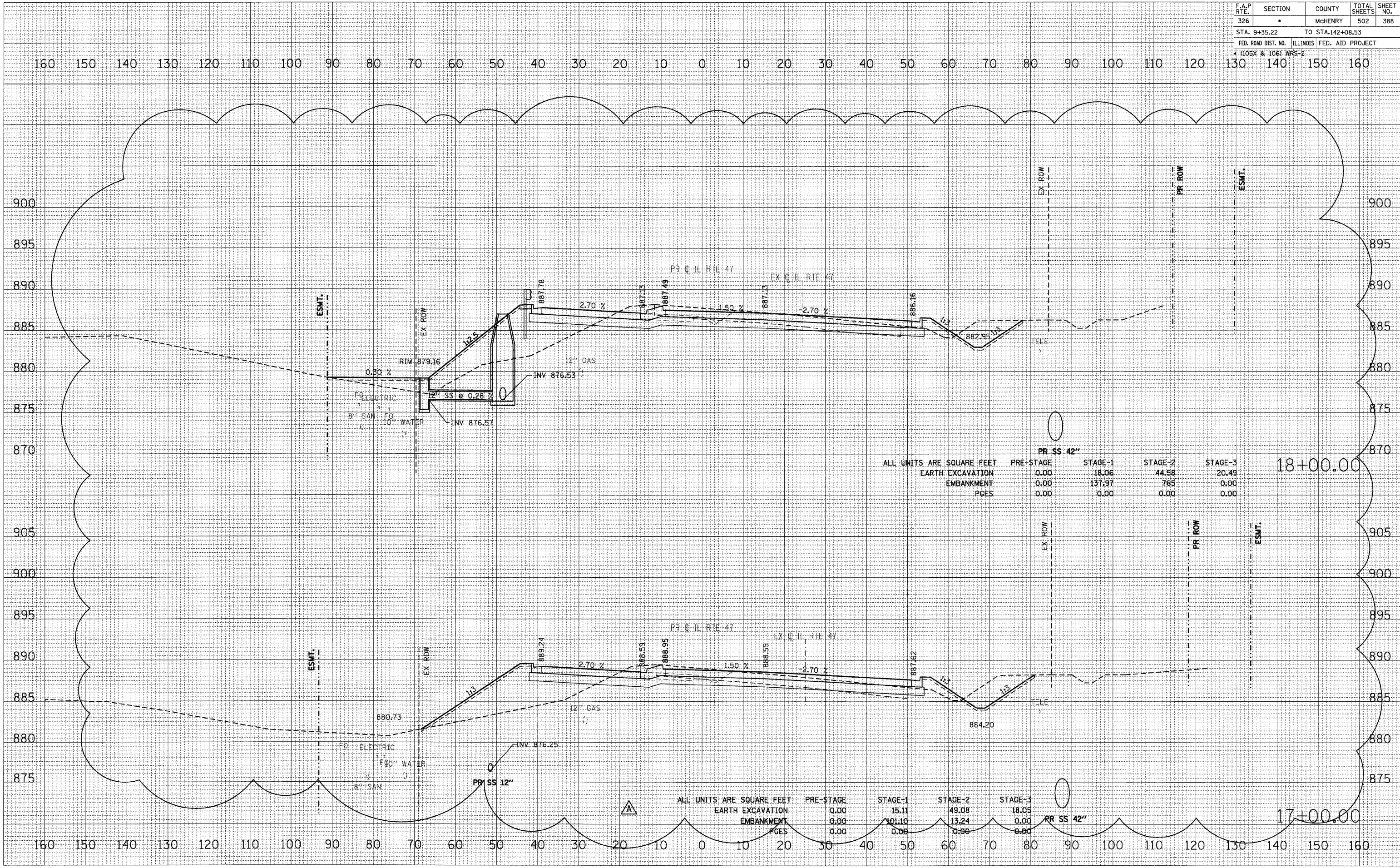


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	.	MCHENRY	502	388
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DATE	BY
DATE	BY
DATE	BY
DATE	BY

DATE	BY
DATE	BY
DATE	BY
DATE	BY

PLOT DATE = 12/17/2009
 PLOT SCALE = 1" = 10'
 USER NAME = #USER#



ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	0.00	18.06	44.58	20.49
EMBANKMENT	0.00	137.97	765	0.00
PGES	0.00	0.00	0.00	0.00

ALL UNITS ARE SQUARE FEET

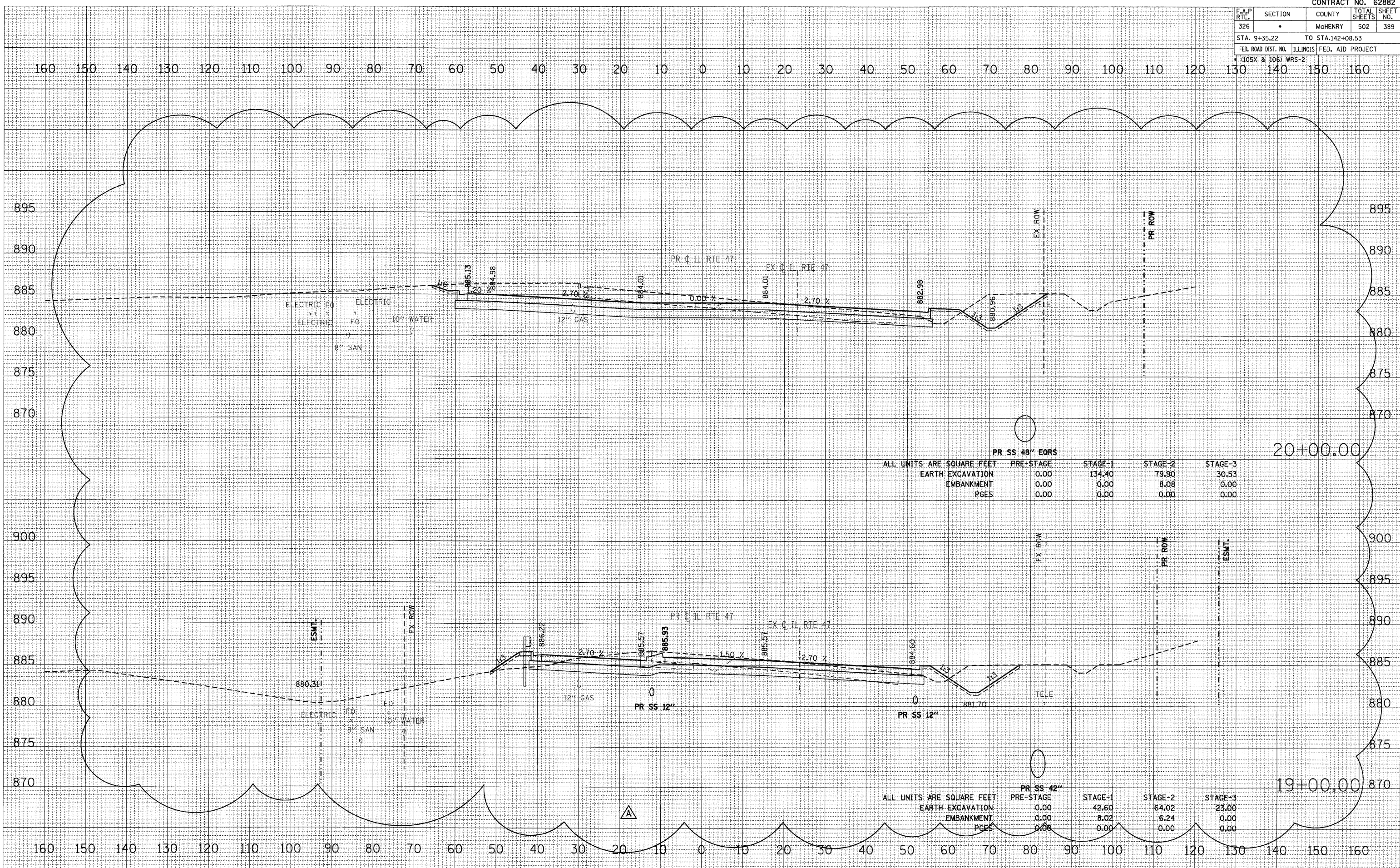
	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	0.00	15.11	49.08	18.05
EMBANKMENT	0.00	101.10	13.24	0.00
PGES	0.00	0.00	0.00	0.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	389
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
(105X & 106) WRS-2				

DATE	
BY	
NO.	
AREAS CHECKED	
NOTE BOOK	
TEMPLATE	
PLOTTED	
SURVEYED	
FINAL SURVEY	

DATE	
BY	
NO.	
AREAS CHECKED	
NOTE BOOK	
TEMPLATE	
PLOTTED	
SURVEYED	
ORIGINAL SURVEY	

PLOT DATE = 12/17/2009
 PLOT SCALE = 1/4" = 10'
 USER NAME = USER



PR SS 48" EQRS

ALL UNITS ARE SQUARE FEET	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	0.00	134.40	79.90	30.53
EMBANKMENT	0.00	0.00	8.08	0.00
PGES	0.00	0.00	0.00	0.00

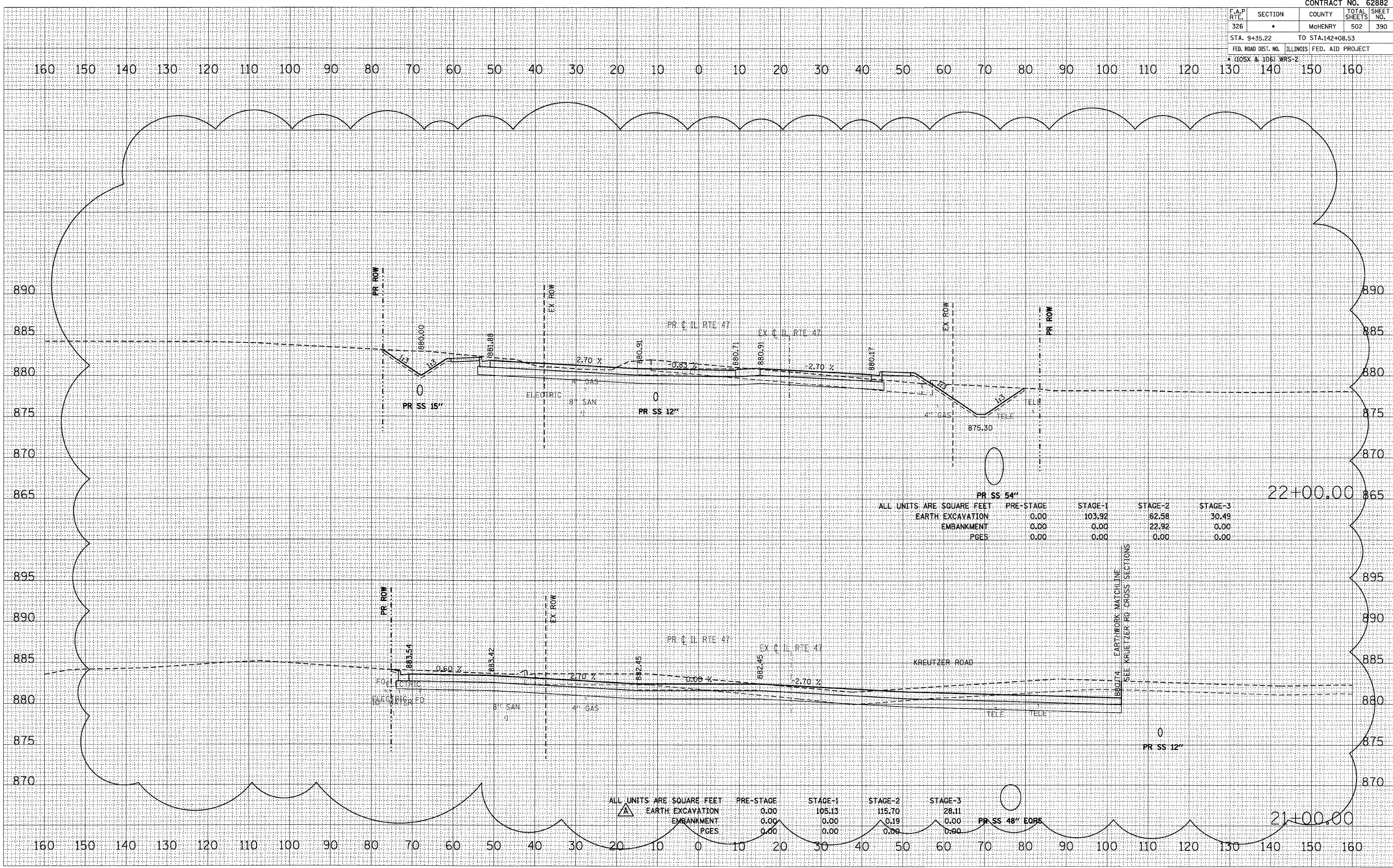
PR SS 42"

ALL UNITS ARE SQUARE FEET	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	0.00	42.60	64.02	23.00
EMBANKMENT	0.00	8.02	6.24	0.00
PGES	0.00	0.00	0.00	0.00

BY	DATE
FINISHED SURVEY	PLOTTED TEMPLATE
NO. BOOK	AREAS CHECKED

BY	DATE
ORIGINAL SURVEY	PLOTTED TEMPLATE
NO. BOOK	AREAS CHECKED

PLOT DATE = 12/17/2009
 PLOT SCALE = 1"=40'
 USER NAME = USER8

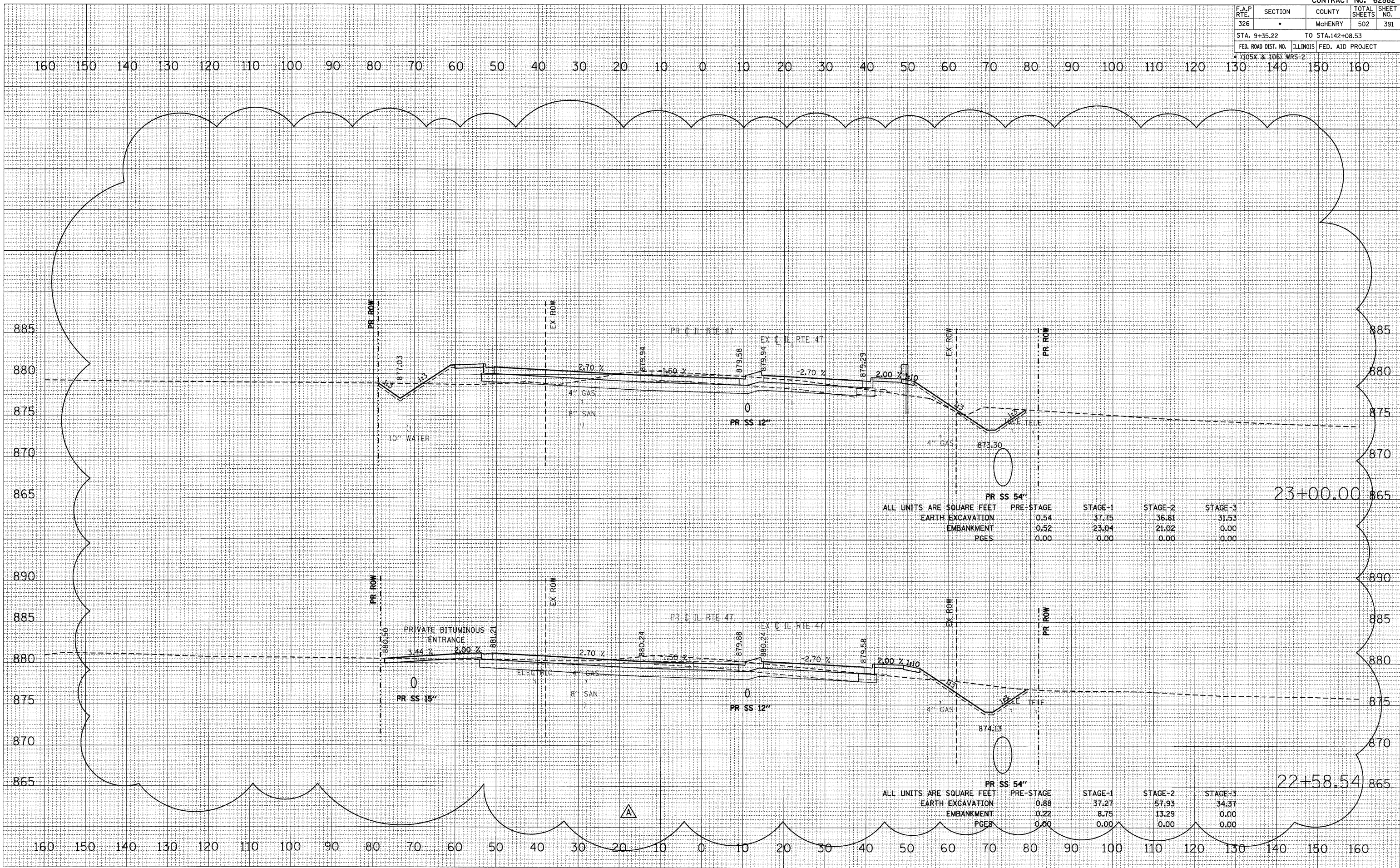


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	391
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
105X & 1061 WRS-2				

BY	DATE
NO.	

BY	DATE
NO.	

PLOT DATE = 12/17/2009
 PLOT SCALE = 1"=40'
 USER NAME = JUSERS



ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	0.54	37.75	36.81	31.53
EMBANKMENT	0.52	23.04	21.02	0.00
PGES	0.00	0.00	0.00	0.00

ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	0.88	37.27	57.93	34.37
EMBANKMENT	0.22	8.75	13.29	0.00
PGES	0.00	0.00	0.00	0.00

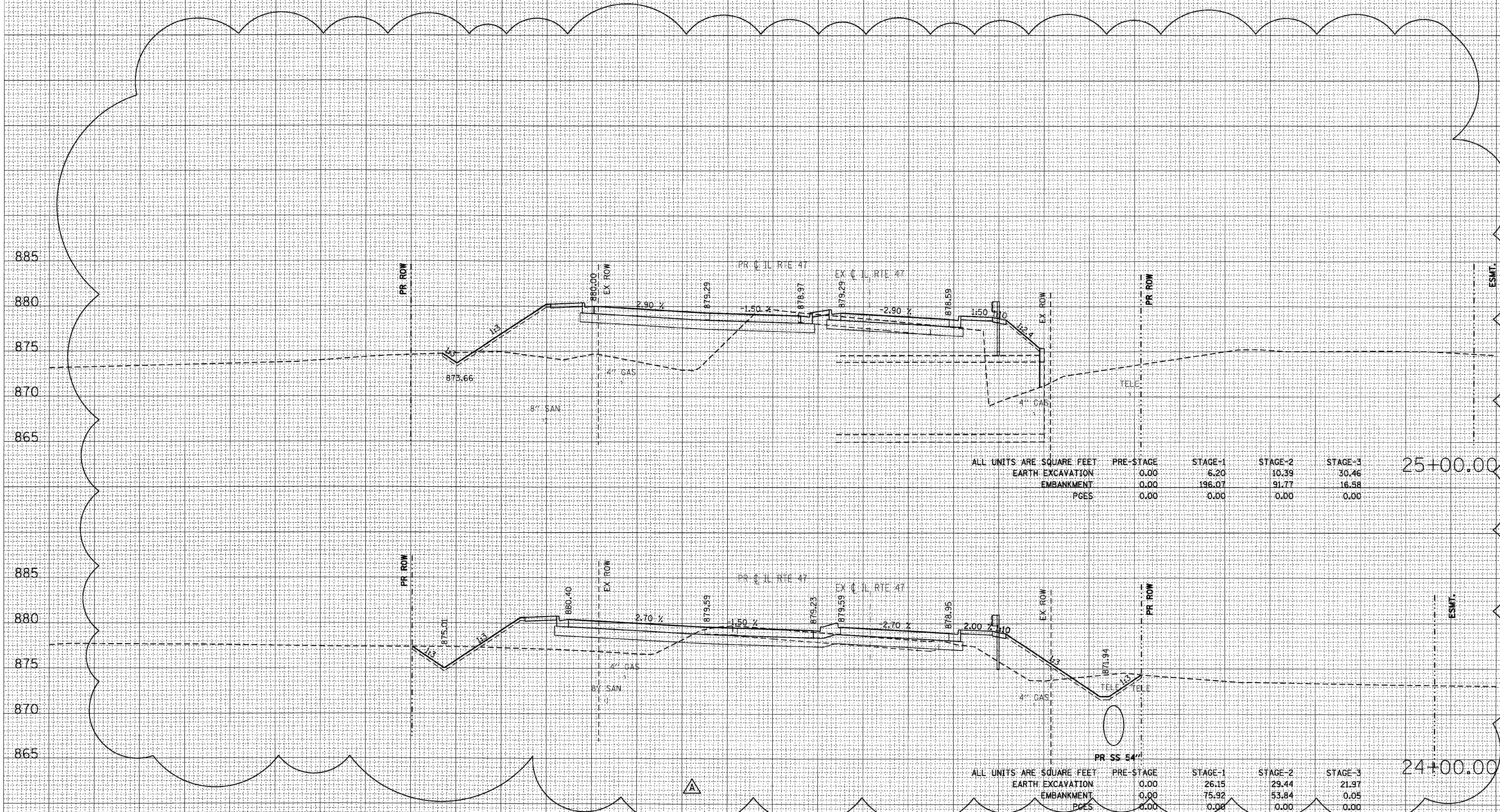
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		MCHENRY	502	392
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* (105X & 106) WRS-2				

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

BY	DATE

BY	DATE

PLOT DATE = 12/17/2009
 PLOT SCALE = 1"=40'
 USER NAME = #USER#



ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	0.00	6.20	10.39	30.46
EMBANKMENT	0.00	196.07	91.77	16.58
PGES	0.00	0.00	0.00	0.00

ALL UNITS ARE SQUARE FEET

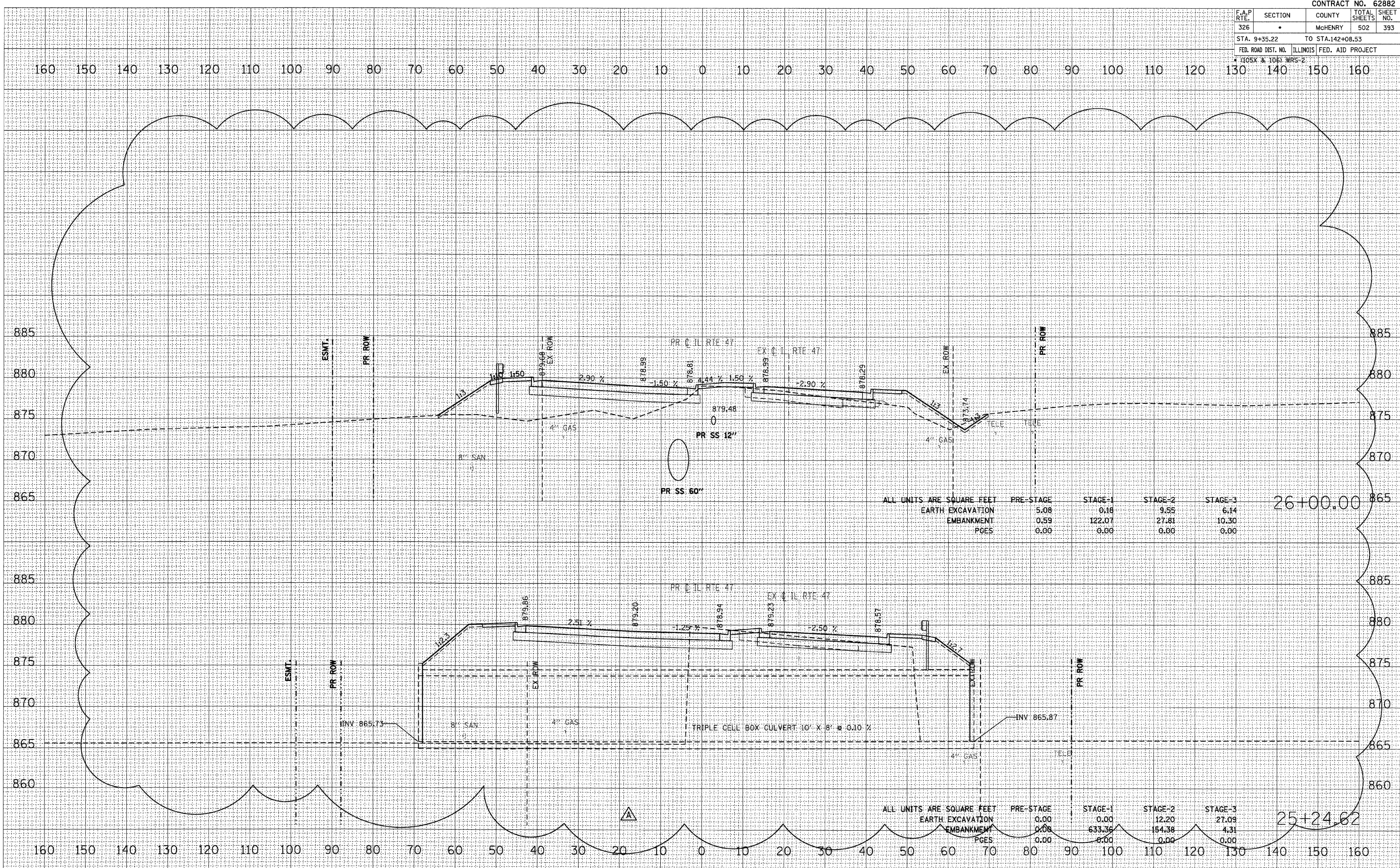
	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	0.00	26.15	29.44	21.97
EMBANKMENT	0.00	75.92	53.84	0.05
PGES	0.00	0.00	0.00	0.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	393
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
• (105X & 106) WRS-2				

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK NO.	PLOTTED
	TEMPLATE
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK NO.	PLOTTED
	TEMPLATE
	AREAS CHECKED

PLOT DATE = 12/17/2009
 PLOT SCALE = 1/8" = 10'
 USER NAME = MUSER



ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	5.08	0.18	9.55	6.14
EMBANKMENT	0.59	122.07	27.81	10.30
PGES	0.00	0.00	0.00	0.00

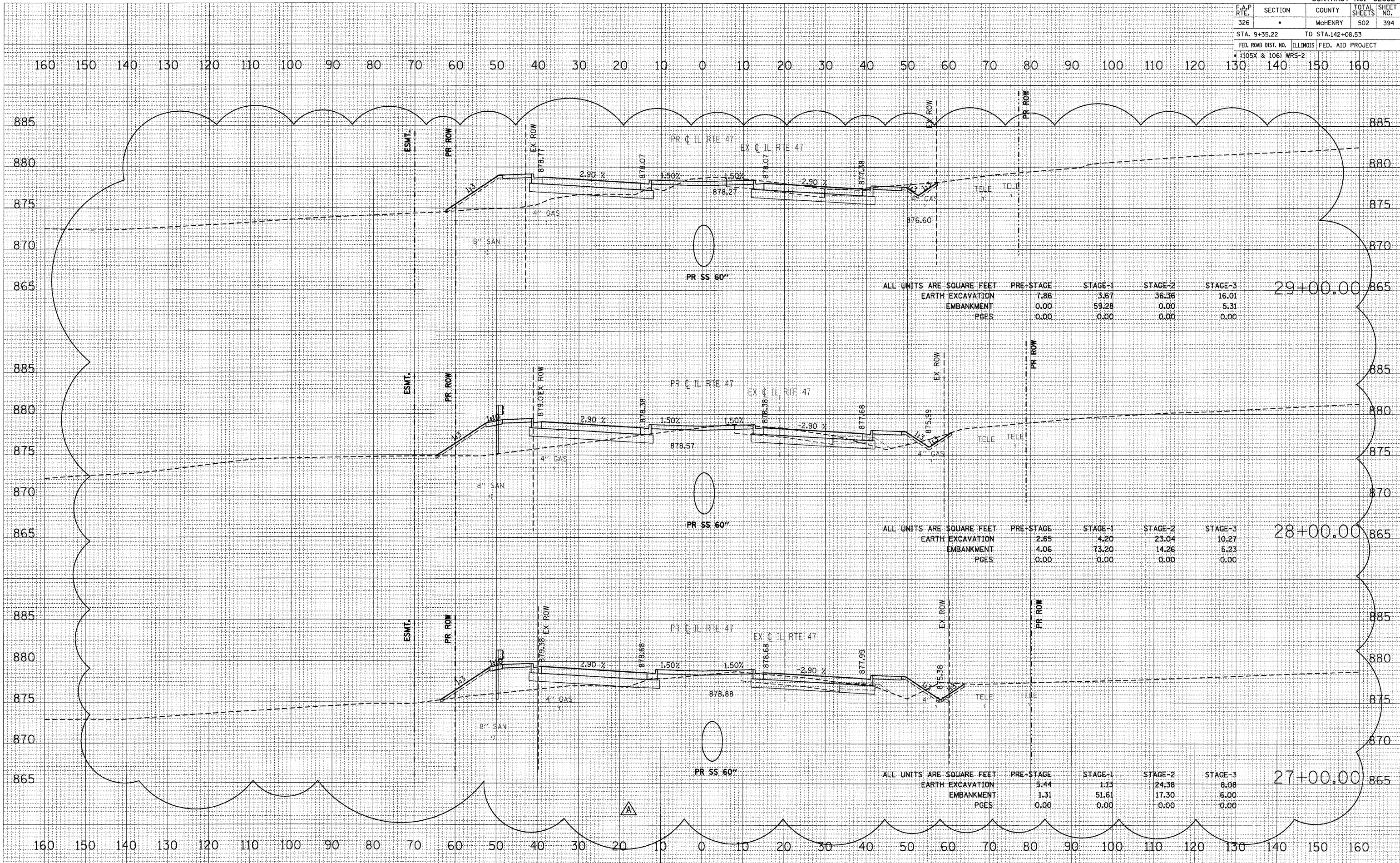
ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	0.00	0.00	12.20	27.09
EMBANKMENT	0.00	633.36	154.38	4.31
PGES	0.00	0.00	0.00	0.00

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____

ORIGINAL SURVEY PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____
 PLOT DATE = 12/17/2009
 PLOT SCALE = 1"=40'
 USER NAME = BUSBY

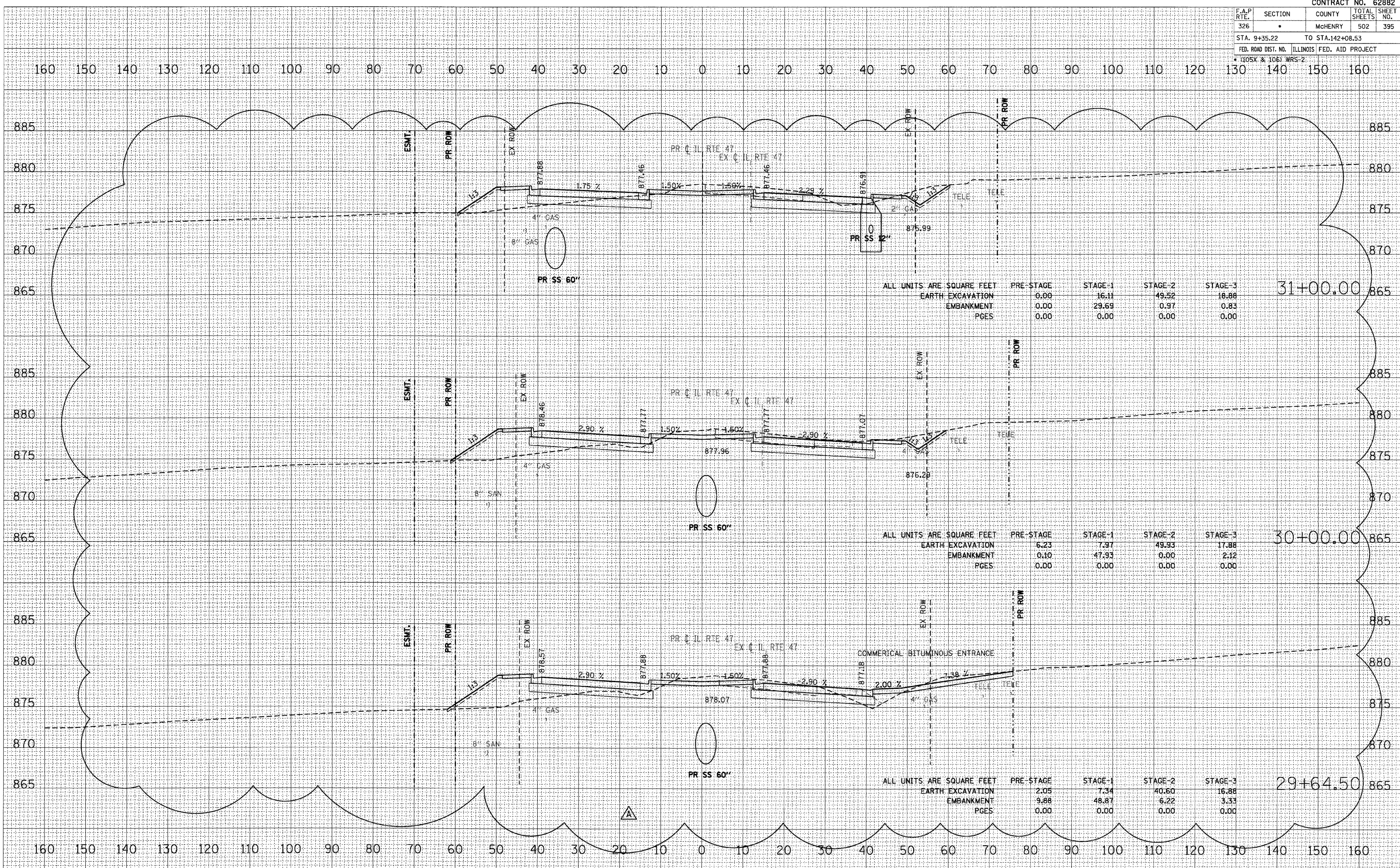


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		MCHENRY	502	395
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
• (105X & 106) WRS-2				

DATE	
BY	
NO.	
FINAL SURVEY	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	

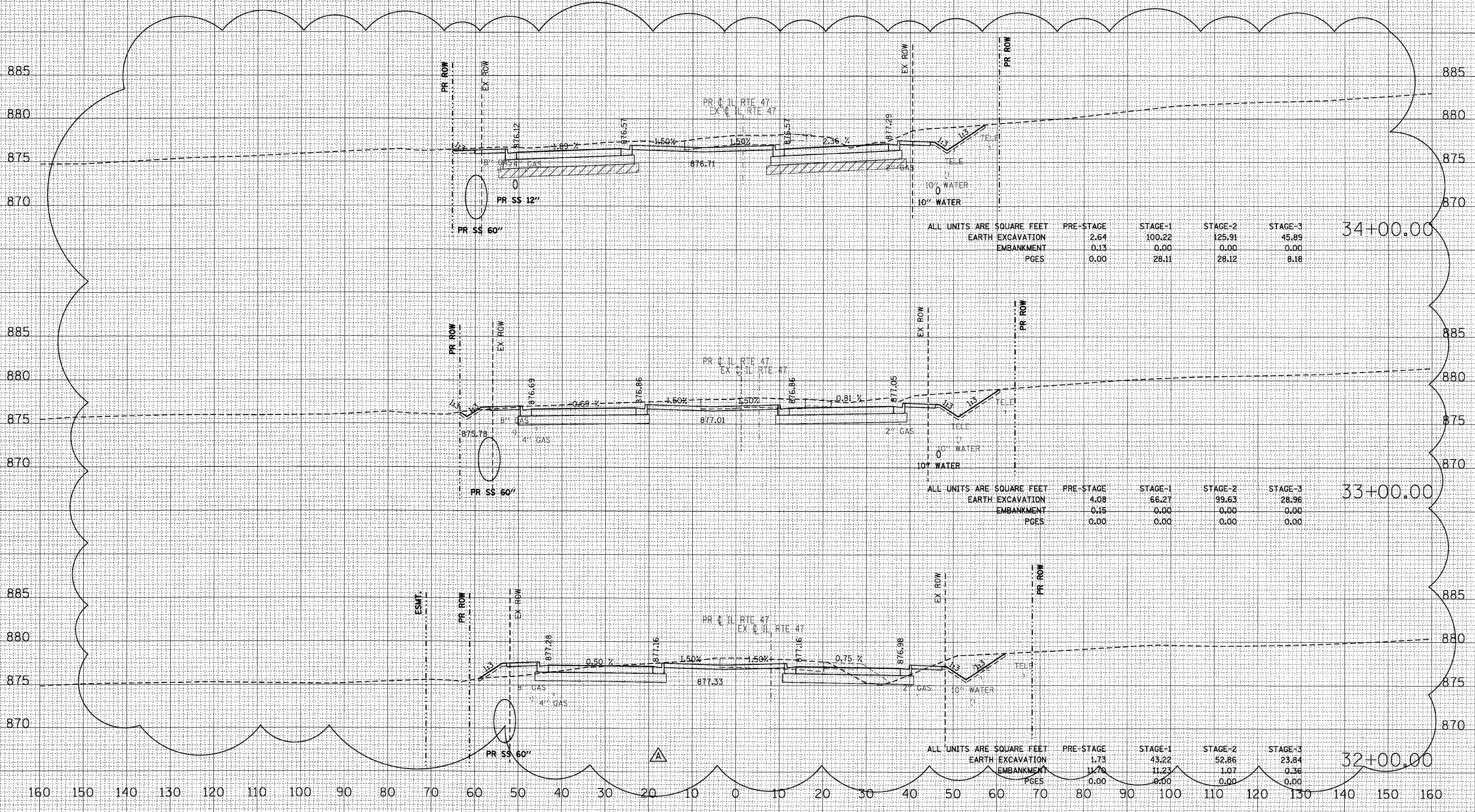
DATE	
BY	
NO.	
ORIGINAL SURVEY	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	

PLOT DATE = 12/17/2009
 PLOT SCALE = 1/4" = 10'
 USER NAME = AUSER*



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	396
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
• (105X & 106) WRS-2				

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160



ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	2.64	100.22	125.91	45.89
EMBANKMENT	0.13	0.00	0.00	0.00
PGES	0.00	28.11	28.12	8.18

34+00.00

ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	4.08	66.27	99.63	28.96
EMBANKMENT	0.15	0.00	0.00	0.00
PGES	0.00	0.00	0.00	0.00

33+00.00

ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3
EARTH EXCAVATION	1.73	43.22	52.86	23.84
EMBANKMENT	11.70	11.23	1.07	0.36
PGES	0.00	0.00	0.00	0.00

32+00.00

BY: _____ DATE: _____

FINAL SURVEY SURVEYED PLOTTED TEMPLATE NO. _____

NO. _____

BY: _____ DATE: _____

ORIGINAL SURVEY SURVEYED PLOTTED TEMPLATE NO. _____

NO. _____

BY: _____ DATE: _____

FINAL SURVEY SURVEYED PLOTTED TEMPLATE NO. _____

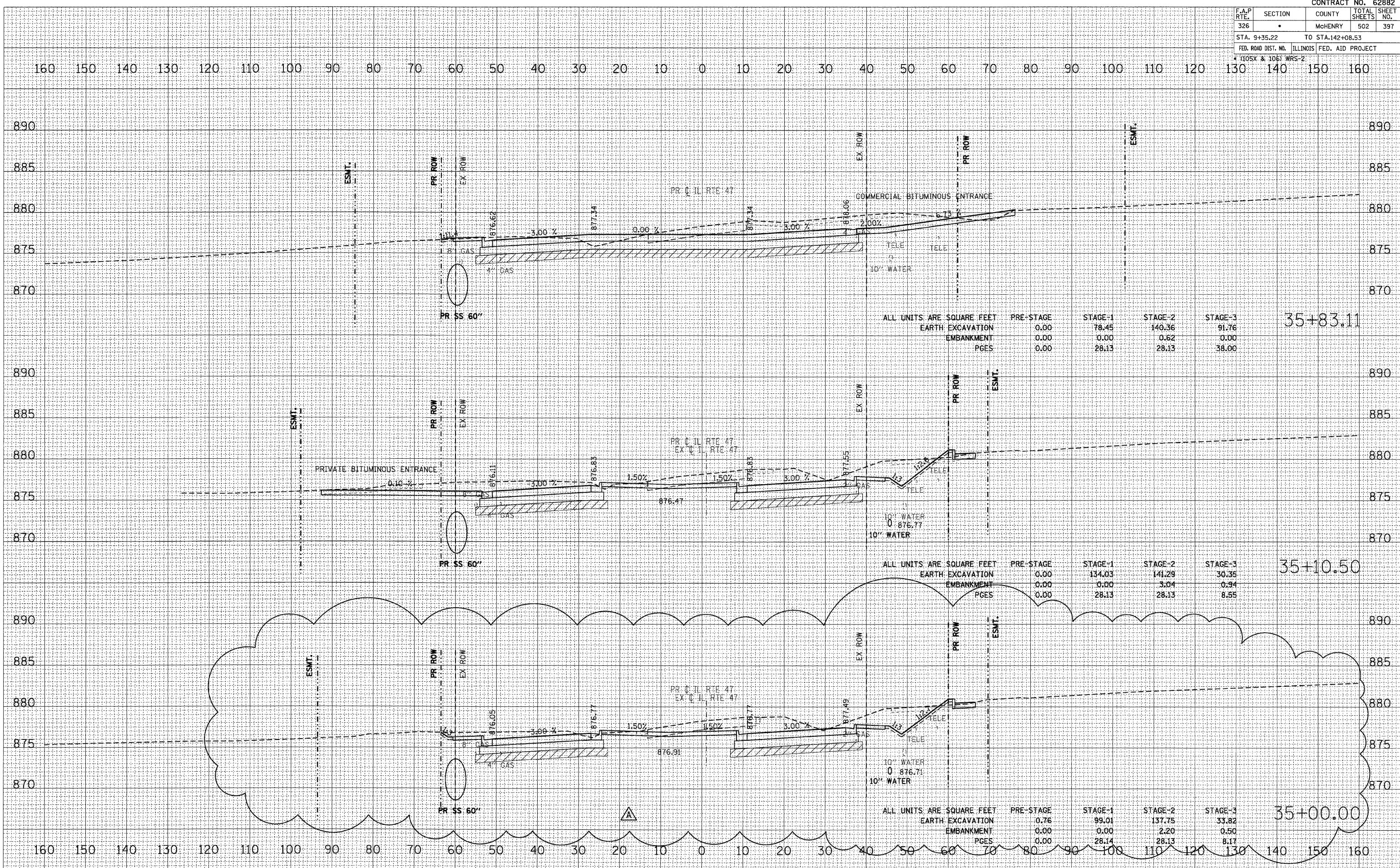
NO. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	397
STA. 9+35.22		TO STA. 142+08.53		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* (105X & 106) WRS-2				

DATE	
BY	
FINAL SURVEY	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

PLOT DATE = 12/17/2009
 PLOT SCALE = 1/8" = 10'
 USER NAME = MUSER*



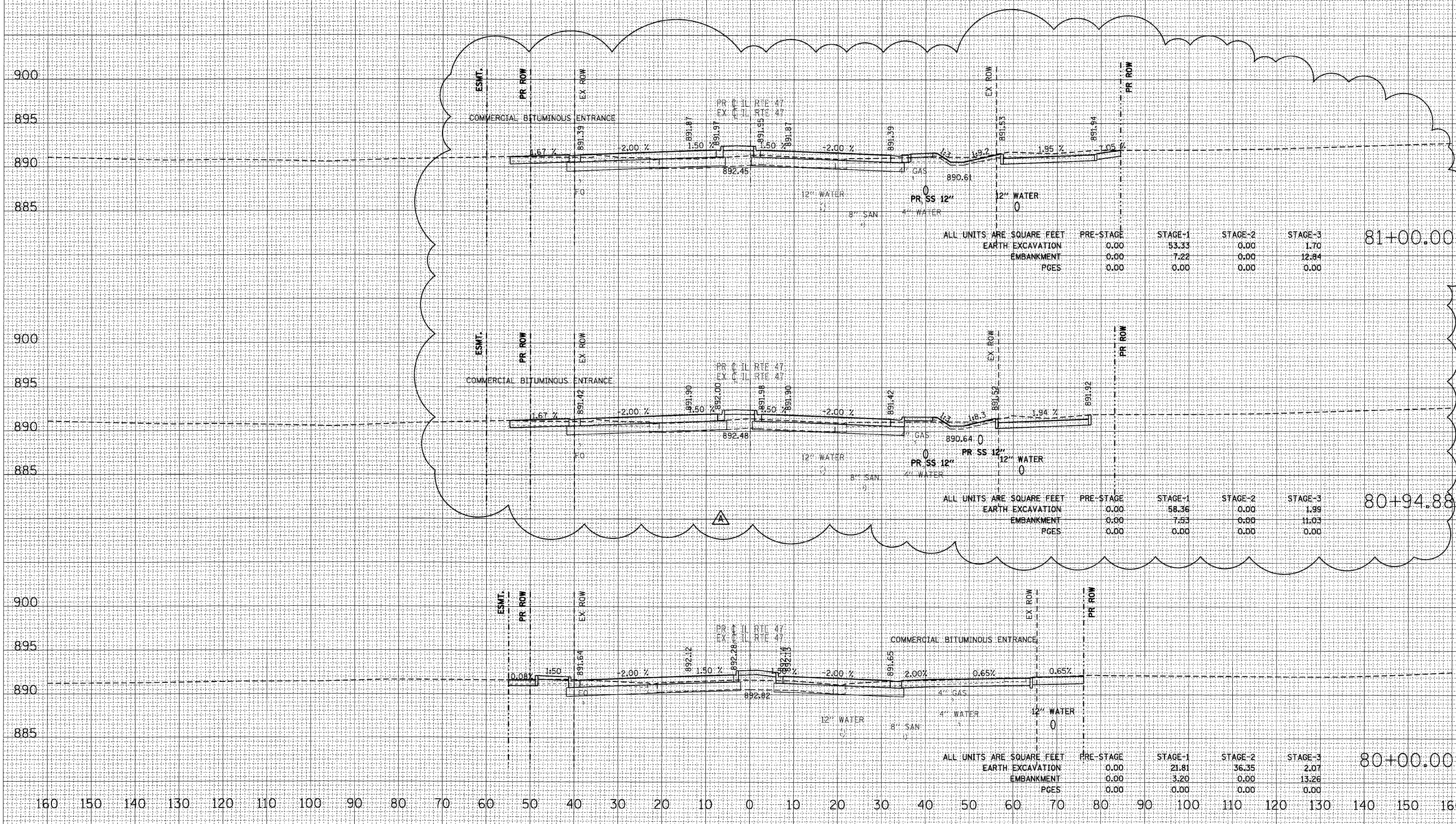
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	425
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT
* (105X & 106) WRS-2				

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

DATE	
BY	
NO.	
FINAL SURVEY	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	

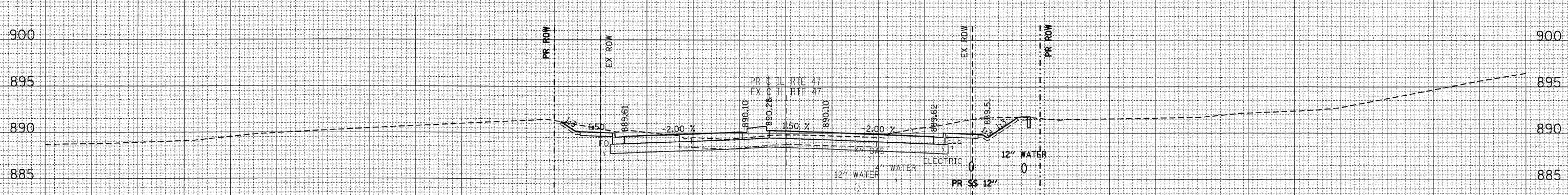
DATE	
BY	
NO.	
ORIGINAL SURVEY	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	

PLOT DATE = 12/17/2009
 PLOT SCALE = 1"=40'
 USER NAME = JUSER



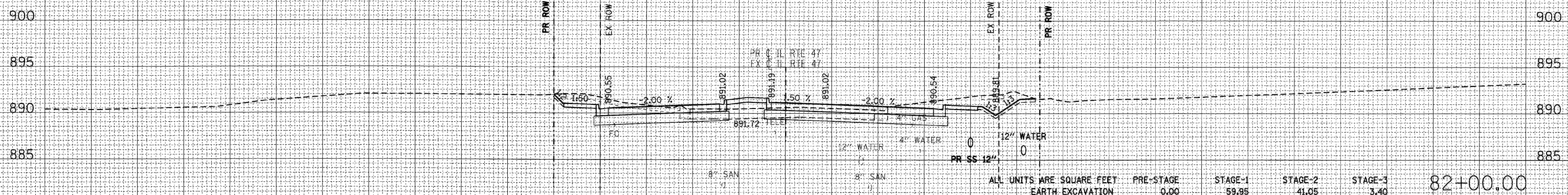
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	*	McHENRY	502	426
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* 105X & 106X WRS-2				

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160



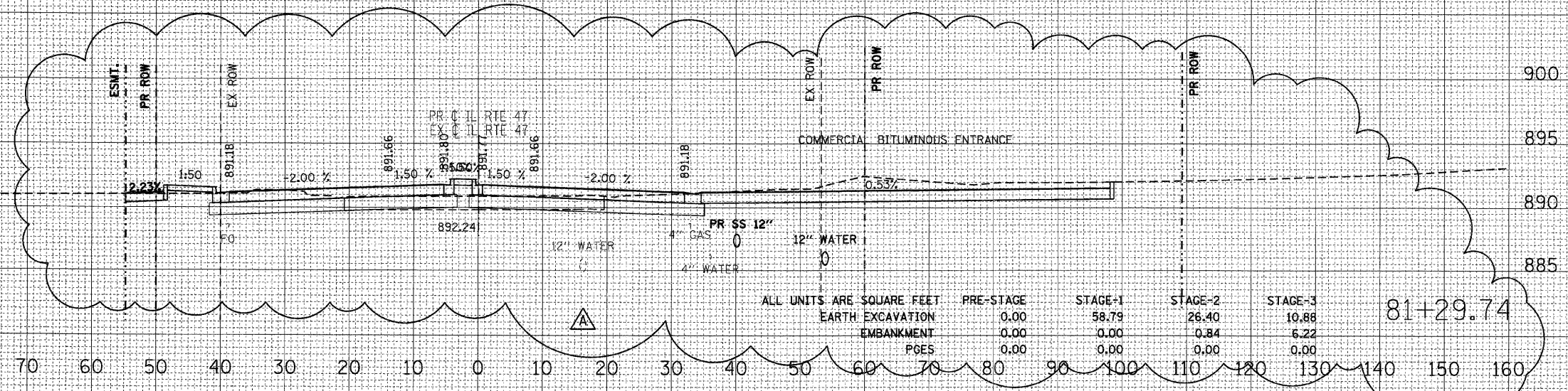
ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3	
EARTH EXCAVATION	0.00	64.04	42.86	4.62	83+00.00
EMBANKMENT	0.00	0.00	0.01	0.00	
PGES	0.00	0.00	0.00	0.00	



ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3	
EARTH EXCAVATION	0.00	59.95	41.05	3.40	82+00.00
EMBANKMENT	0.00	0.00	0.03	13.83	
PGES	0.00	0.00	0.00	0.00	



ALL UNITS ARE SQUARE FEET

	PRE-STAGE	STAGE-1	STAGE-2	STAGE-3	
EARTH EXCAVATION	0.00	58.79	26.40	10.88	81+29.74
EMBANKMENT	0.00	0.00	0.84	6.22	
PGES	0.00	0.00	0.00	0.00	

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

DATE
BY
REVISIONS
PLOTTED
TEMPLATE
AREAS CHECKED
FINAL SURVEY
NOTE BOOK NO.

DATE
BY
REVISIONS
PLOTTED
TEMPLATE
AREAS CHECKED
ORIGINAL SURVEY
NOTE BOOK NO.

PLOT DATE = 12/17/2009
FILE NAME = 383Addendum en14-47.dgn
PLOT SCALE = 1/8"
USER NAME = JUSBY

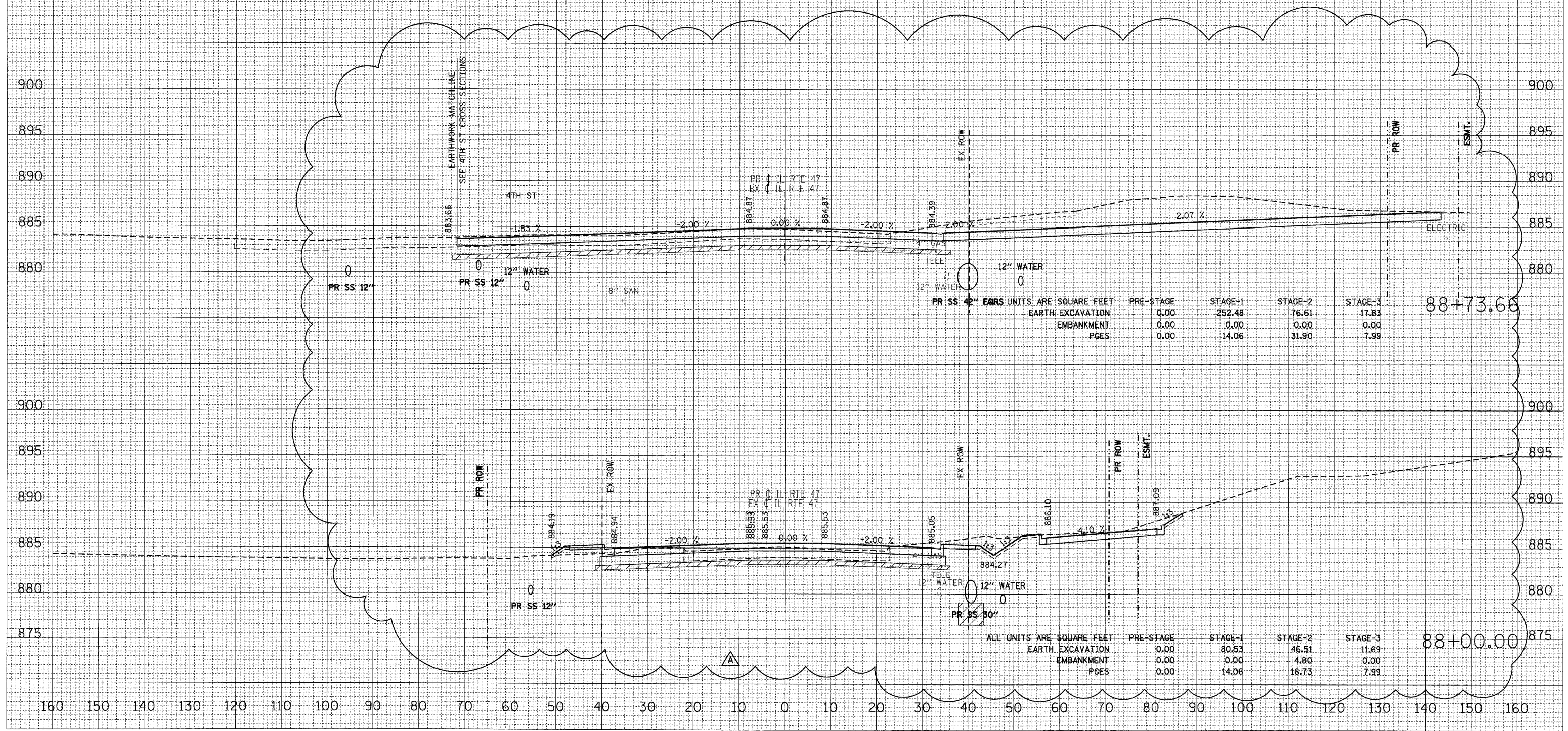
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	430
STA. 9+35.22		TO STA. 142+08.53		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		
(105X & 106) WRS-2				

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

DATE	BY
REVIEWED	DATE
PLOTTED	DATE
TEMPLATE	DATE
AREAS	DATE
CHECKED	DATE

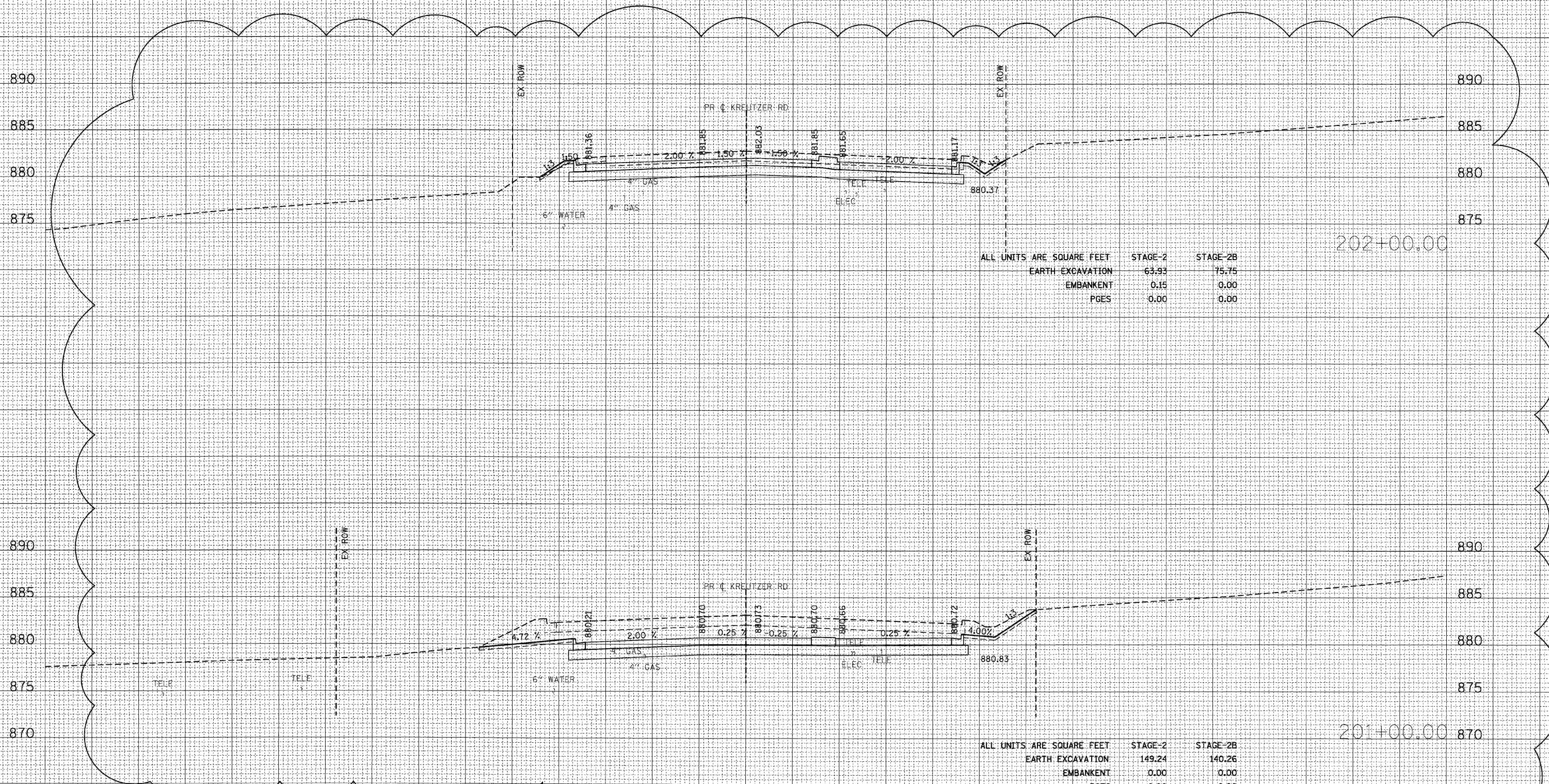
DATE	BY
REVIEWED	DATE
PLOTTED	DATE
TEMPLATE	DATE
AREAS	DATE
CHECKED	DATE

PLOT DATE = 12/17/2009
 FILE NAME = 3636addendum on i14_47_xadgn
 PLOT SCALE = 1:100
 USER NAME = #0508*



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	*	McHENRY	502	460
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* (105X & 106) WRS-2				

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



ALL UNITS ARE SQUARE FEET

	STAGE-2	STAGE-2B
EARTH EXCAVATION	63.93	75.75
EMBANKMENT	0.15	0.00
PGES	0.00	0.00

ALL UNITS ARE SQUARE FEET

	STAGE-2	STAGE-2B
EARTH EXCAVATION	149.24	140.26
EMBANKMENT	0.00	0.00
PGES	0.00	0.00

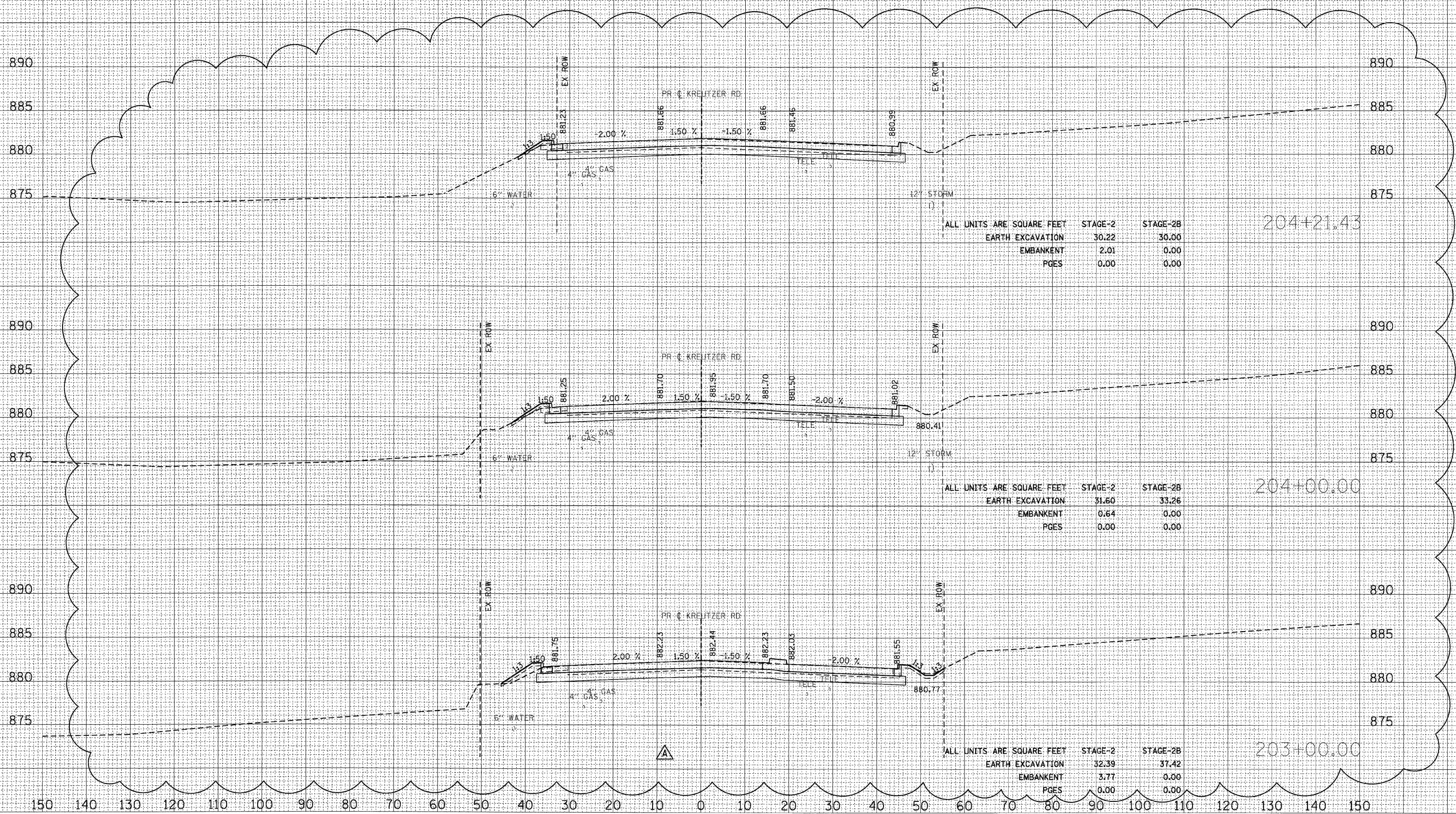
BY _____ DATE _____
 REVISIONS
 NO. _____
 SURVEY _____
 PLOTTED _____
 TEMPLATE _____
 AREAS CHECKED _____

BY _____ DATE _____
 ORIGINAL SURVEY _____
 PLOTTED _____
 TEMPLATE _____
 AREAS CHECKED _____

PLOT DATE = 12/17/2009
 FILE NAME = 460-461_Kreutzer_xa.dgn
 PLOT SCALE = 1:10
 USER NAME = #1968*

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	*	McHENRY	502	461
STA. 9+35.22		TO STA.142+08.53		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* (105X & 106) WRS-2				

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



FINAL SURVEY	DATE
BY	
DATE	
REVISIONS	
NO.	

ORIGINAL SURVEY	DATE
BY	
DATE	
REVISIONS	
NO.	

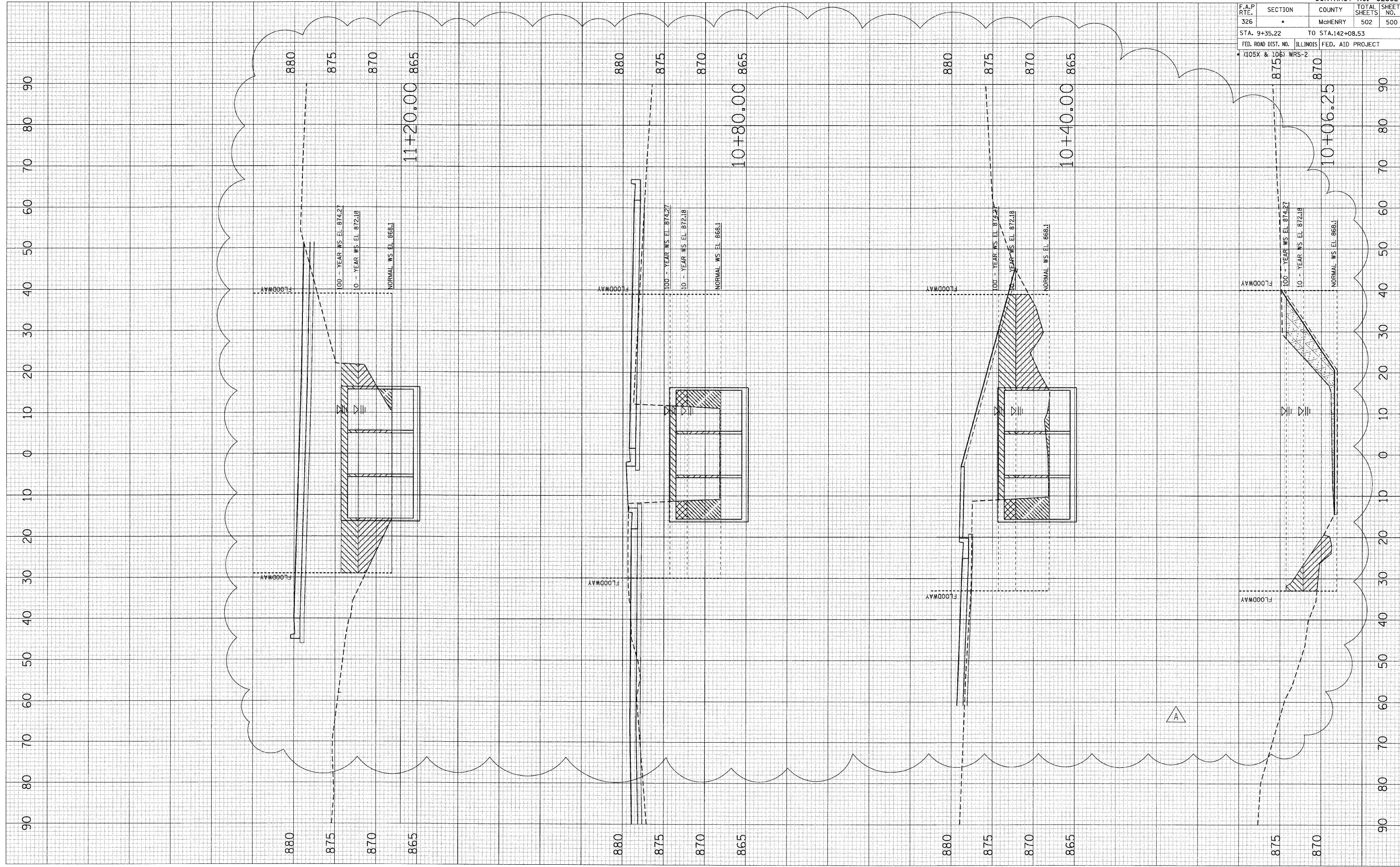
PLOT DATE = 12/17/2009
FILE NAME = 459-461-Kreutzer-ss.dgn
PLOT SCALE = 1:10
USER NAME = #JSG#

F.A.P. RTE. 326	SECTION •	COUNTY McHENRY	TOTAL SHEETS 502	SHEET NO. 500
STA. 9+35.22		TO STA. 142+08.53		
FED. ROAD DIST. NO. (105X & 106) WRS-2		ILLINOIS FED. AID PROJECT		

DATE	BY
FINISHED	PLANNED
NOTED	REVISIONS
NO.	AREAS CHECKED

DATE	BY
FINISHED	PLANNED
NOTED	REVISIONS
NO.	AREAS CHECKED

PLOT DATE = Monday, December 21, 2009
 FILE NAME = S:\11-CADD\11-shs\500-501-stream\11shs500.dwg
 PLOT SCALE = 1/8" = 1'-0"
 USER NAME = 3979

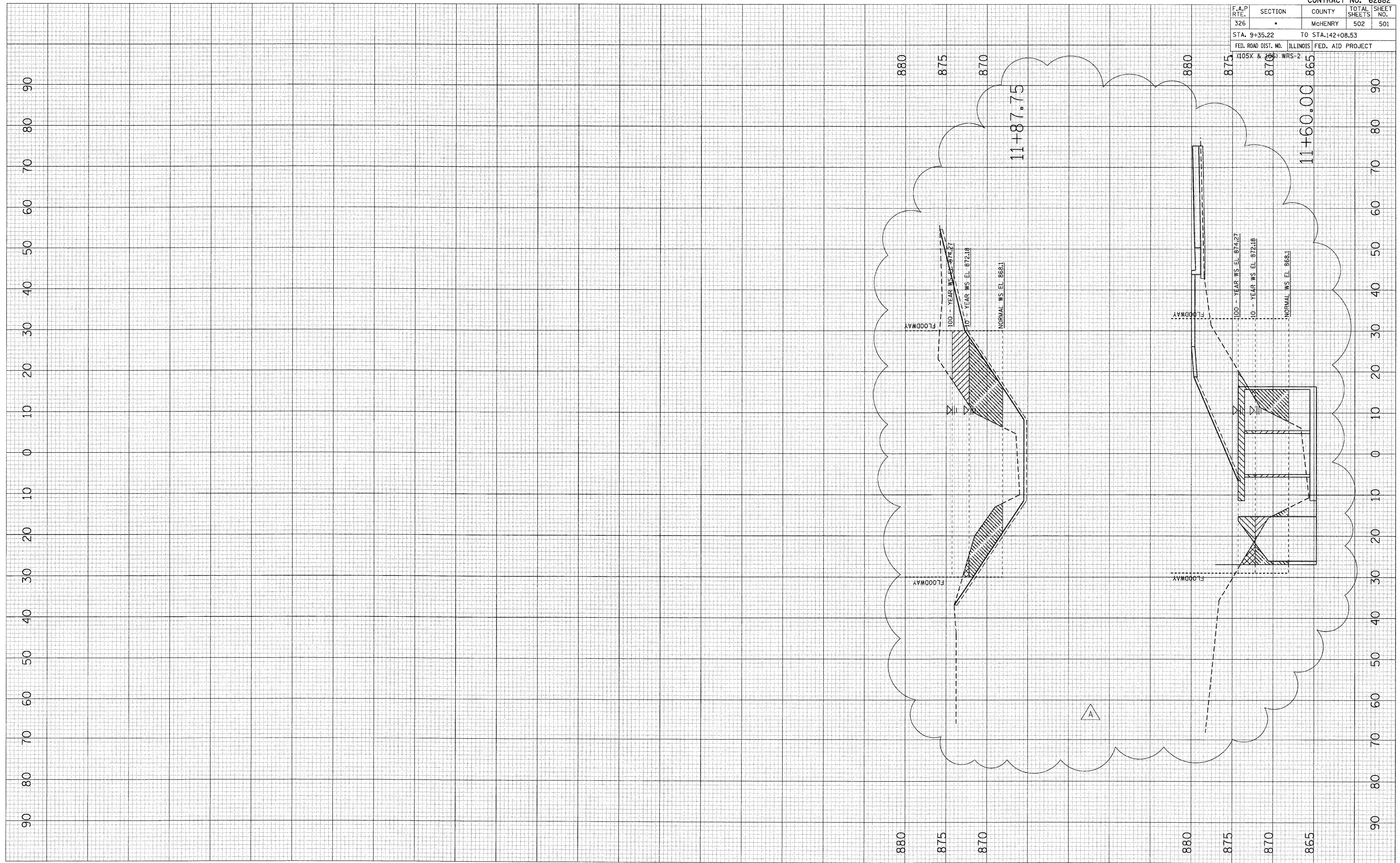


PLOT DATE = Monday, December 21, 2009
 FILE NAME = S:\11-CADD\01-st\500-501-stream
 SCALE = 1/8"=1'
 USER NAME = J3870

ORIGINAL SURVEY
 CHECKED
 PLOTTED
 TEMPLATE
 AREAS
 AREAS CHECKED

FINAL SURVEY
 CHECKED
 PLOTTED
 TEMPLATE
 AREAS
 AREAS CHECKED

BY
 DATE



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	.	McHENRY	502	501
STA. 9+35.22		TO STA. 142+08.53		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		

CONTRACT NO. 62882

CONTRACT NO. 62882			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
326	.	McHENRY	502
STA. 9+35.22		TO STA.142+08.53	
FED. ROAD DIST. NO. (ILLINOIS) FED. AID PROJECT			
(105X & 106) WRS-2			

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
326	.	McHENRY	502
STA. 9+35.22		TO STA.142+08.53	
FED. ROAD DIST. NO. (ILLINOIS) FED. AID PROJECT			
(105X & 106) WRS-2			

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
PRINTED BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		

PLOT DATE = Monday, December 21, 2009
 FILE NAME = S:\1-CADD\01-shs\500-501-stream\105x106.wrs-2
 USER NAME = 3858

