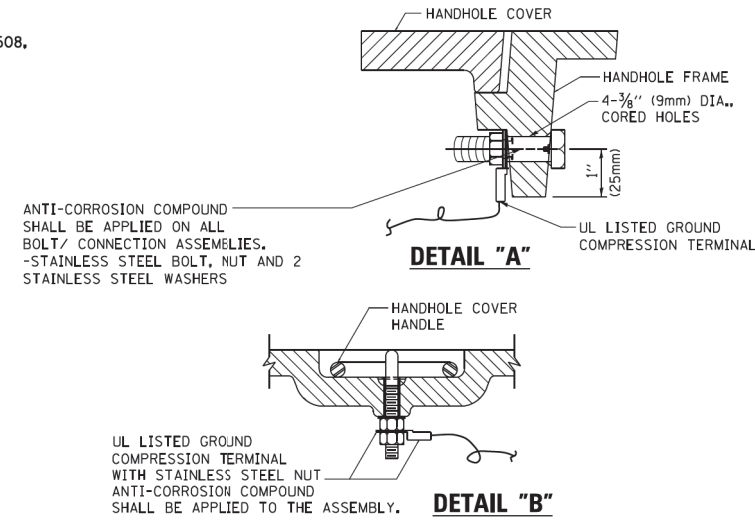


**NOTES:**

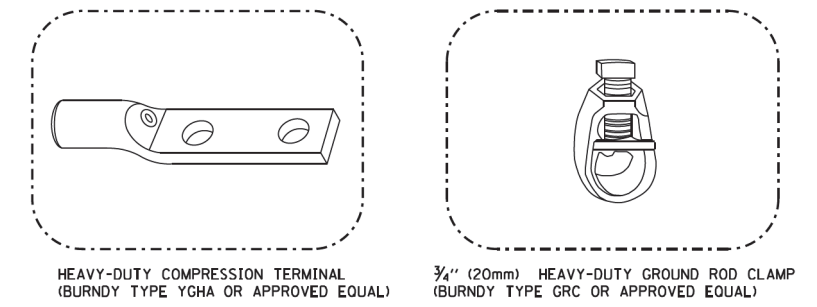
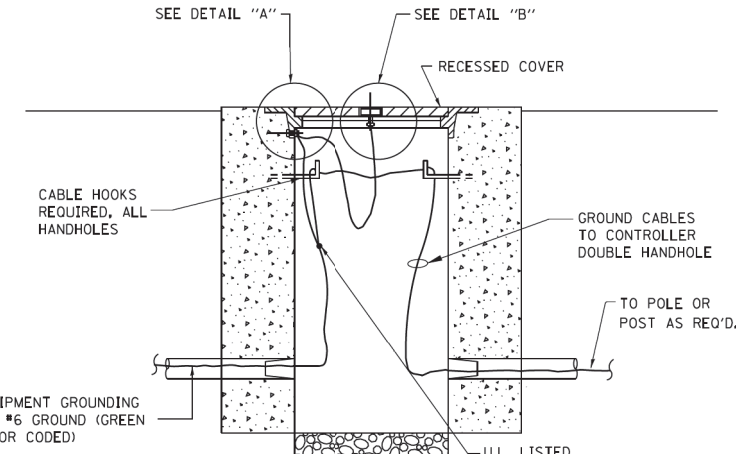
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



**NOTES:**  
**GROUNDING SYSTEM**

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION, AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

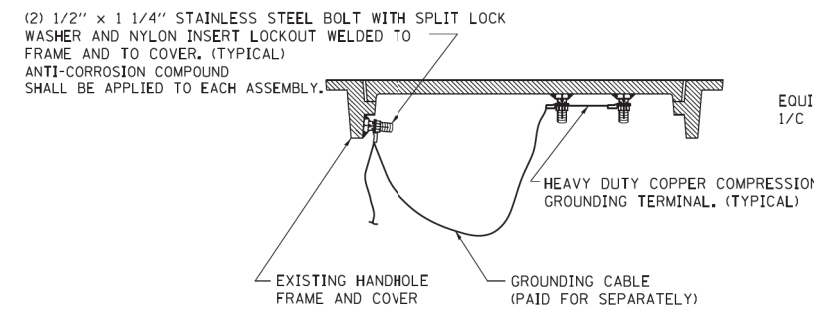
**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)**



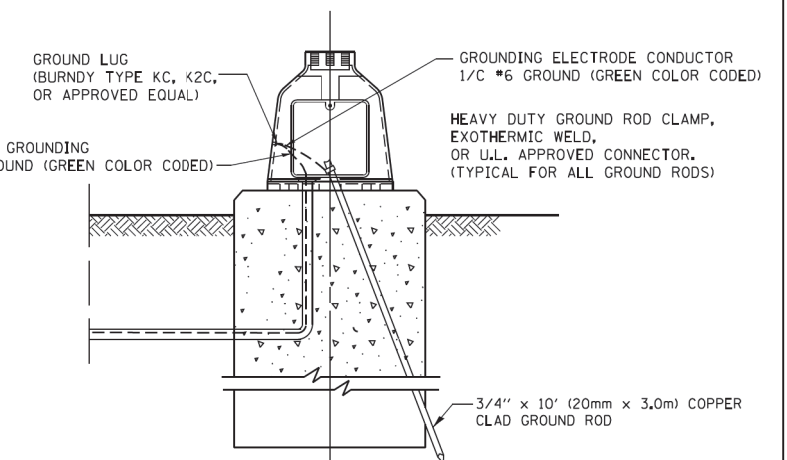
**NOTES:**

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

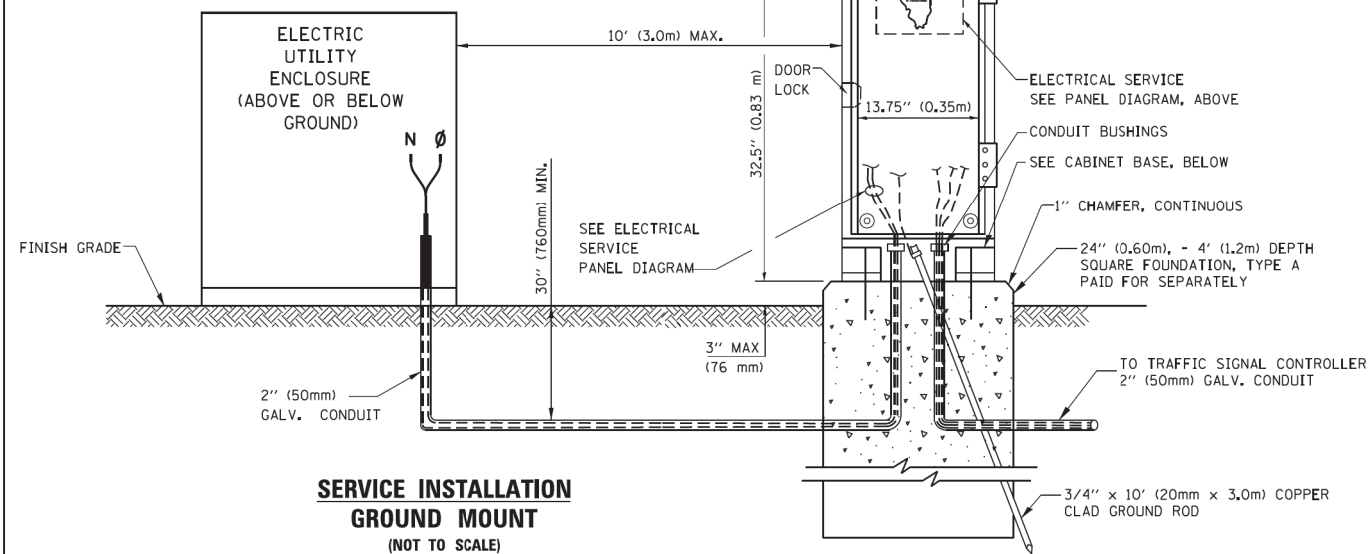
**HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)**



**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)**

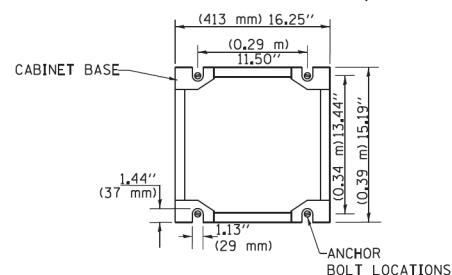


**MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)**



**SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)**

**CABINET - BASE BOLT PATTERN (NOT TO SCALE)**



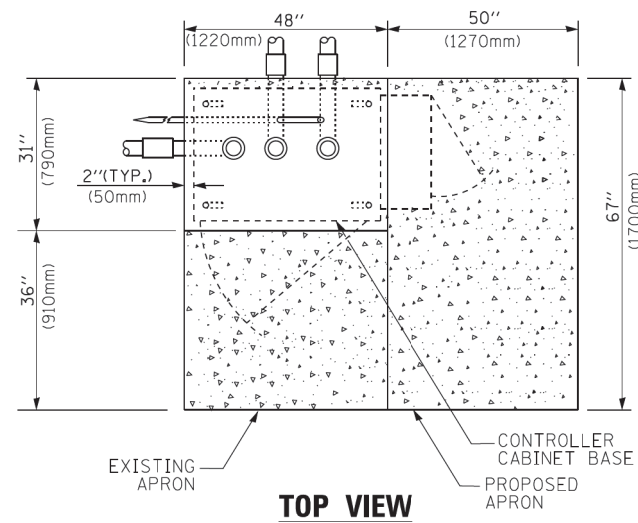
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		DATE - 10-28-09	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

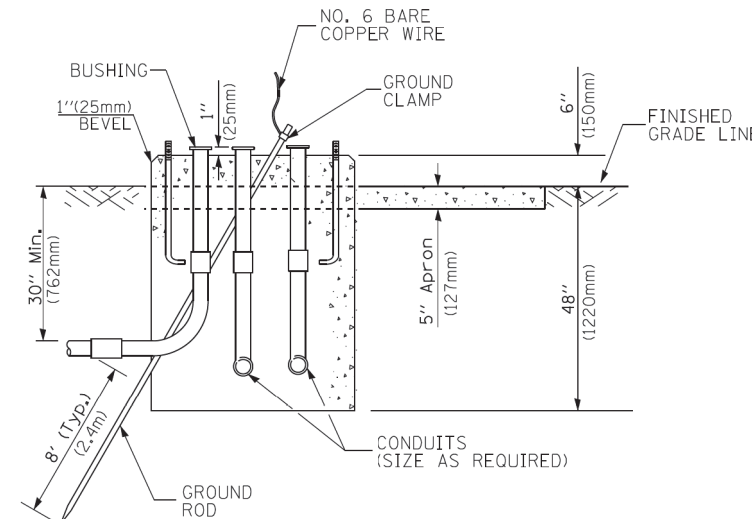
DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS  
SCALE: NONE SHEET NO. 4 OF 7 SHEETS STA. TO STA.

F.A. RTE. 525	SECTION 2016-092 B&R TS-05	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 201
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT GMW(759) CONTRACT NO. 62D36				

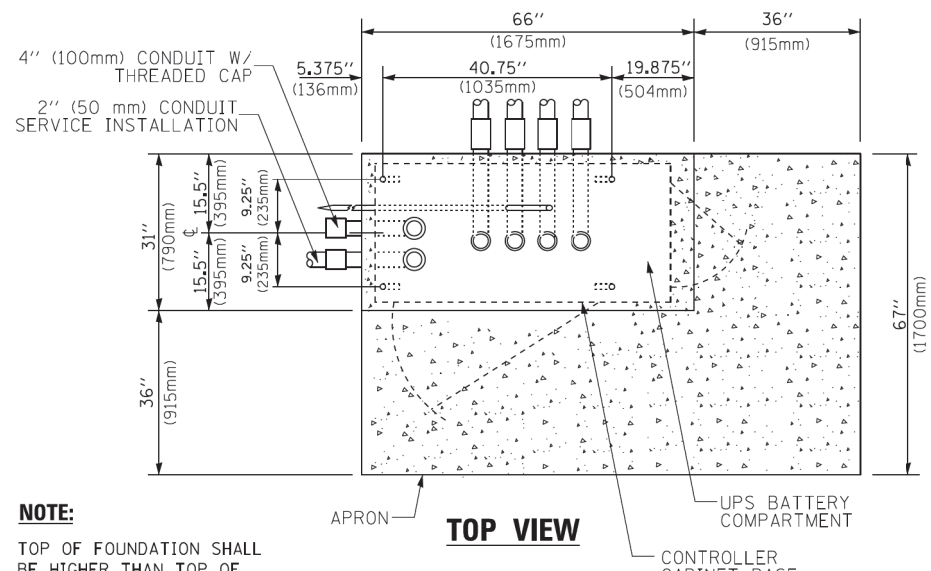
COPYRIGHT © 2017 BY BAXTER & WOODMAN, INC.  
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**TOP VIEW**

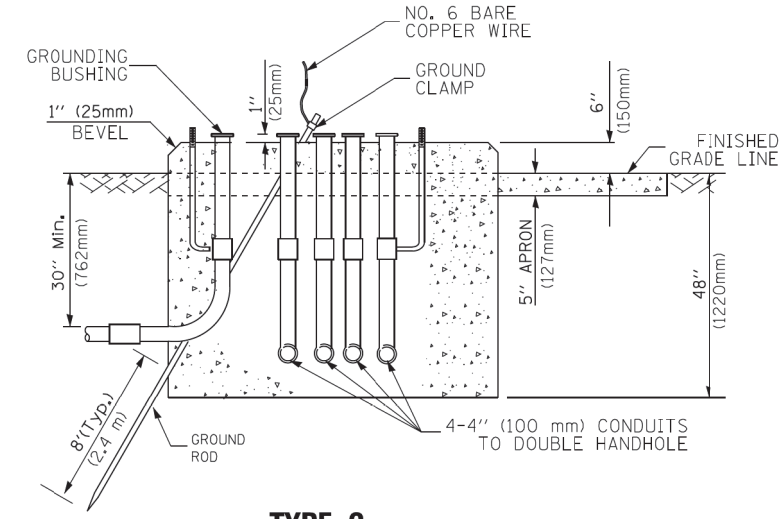


**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**

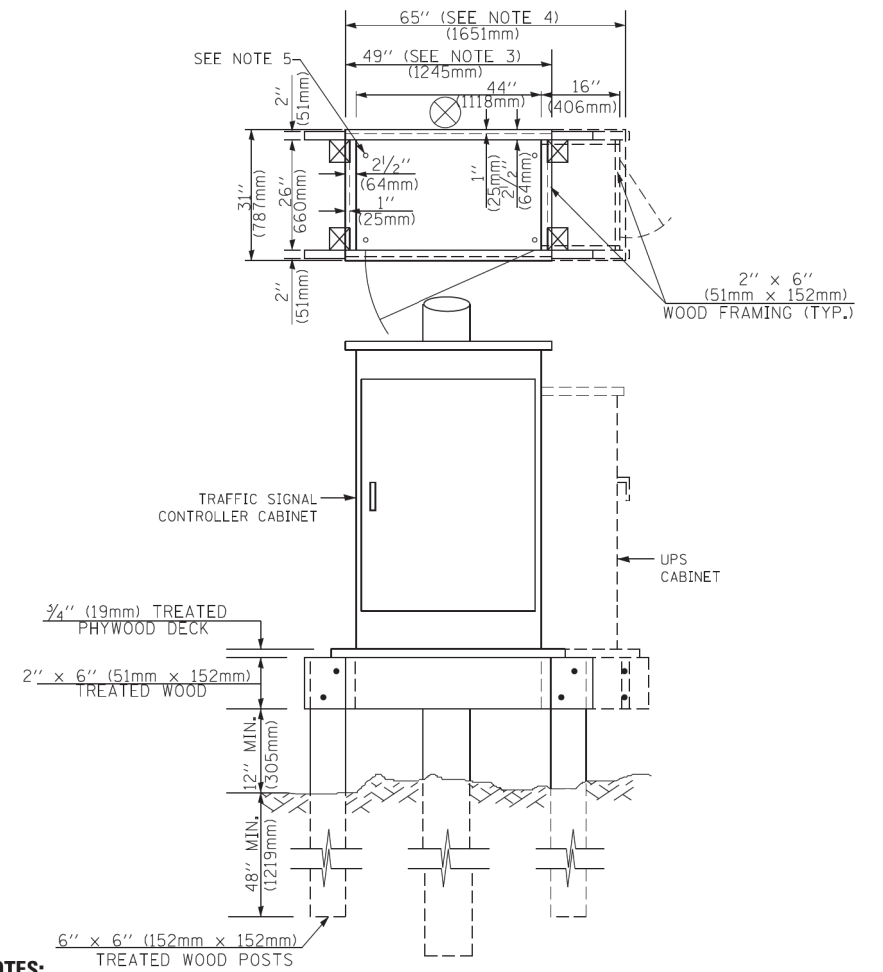


**TOP VIEW**

**NOTE:**  
TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



**TYPE C  
FOR GROUND MOUNTED  
SUPER P (TYPE IV) AND SUPER R (TYPE V)  
CONTROLLER CABINETS**



**NOTES:**

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

**CABLE SLACK**

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE ( MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

**VERTICAL CABLE LENGTH**

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

**DEPTH OF FOUNDATION**

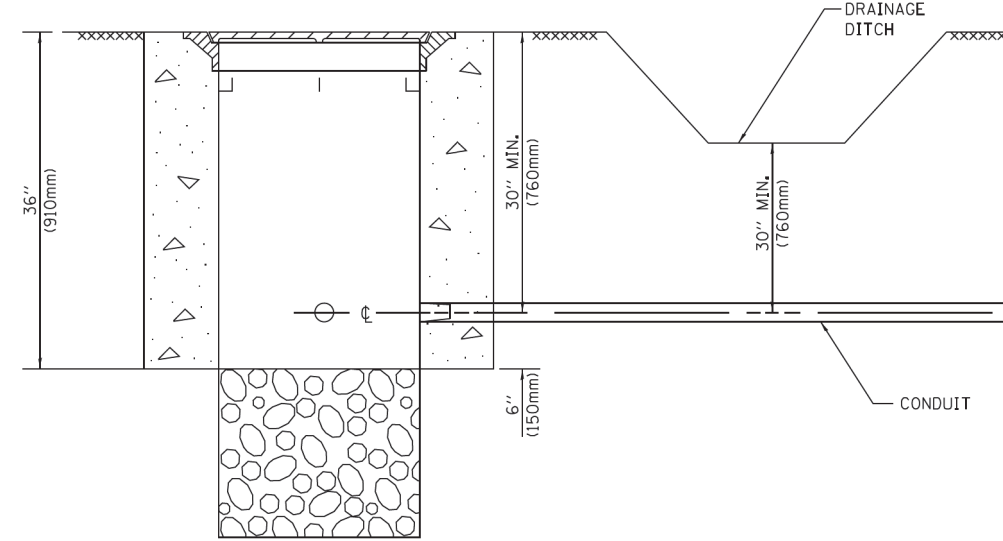
Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

**NOTES:**

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001..

**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**

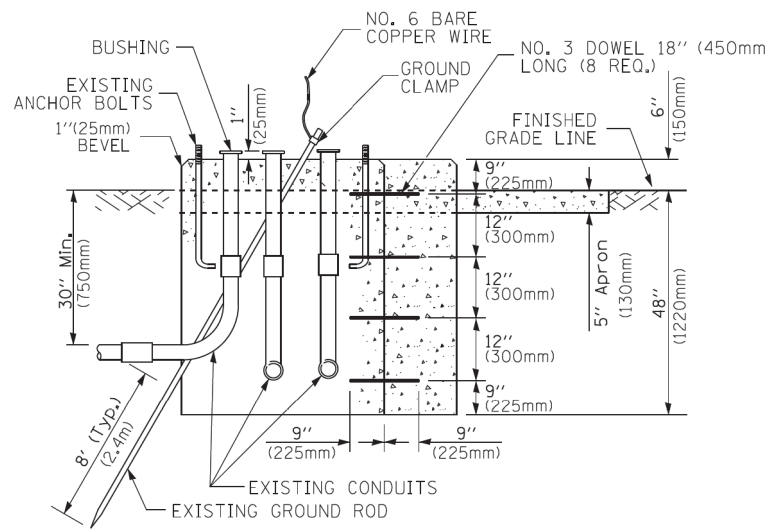
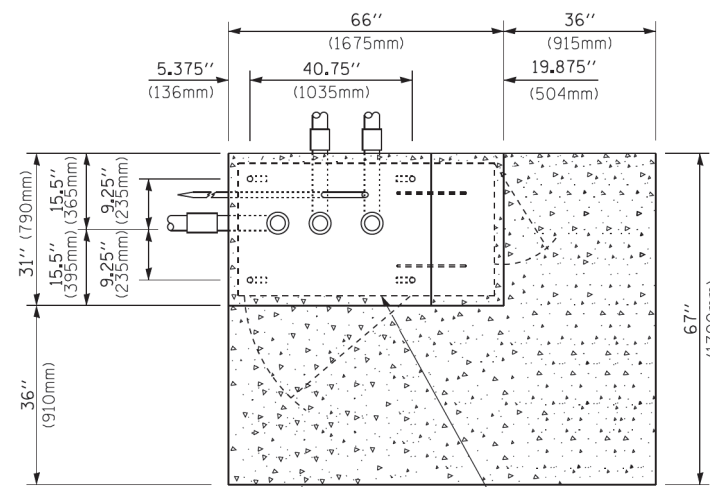
COPYRIGHT © 2017 BY BAXTER & WOODMAN, INC.  
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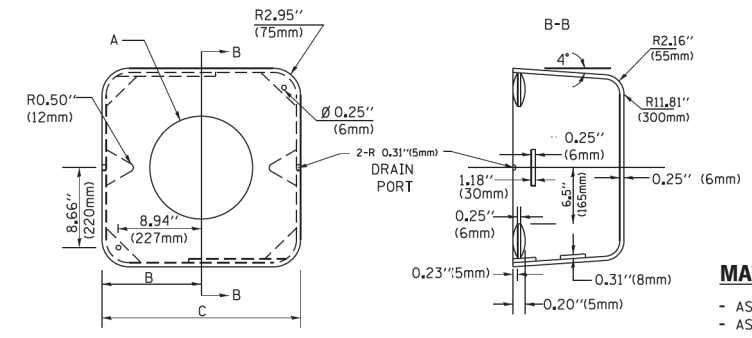
**NOTES:**

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)



**MATERIAL:**  
- ASTM A36 STEEL  
- ASTM A-123 HOT DIPPED GALVANIZED

	A	B	C	HEIGHT	WEIGHT
	VARIABLES	9.5" (241mm)	19" (483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
	VARIABLES	10.75" (273mm)	21.5" (546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
	VARIABLES	13.0" (330mm)	26" (660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
	VARIABLES	18.5" (470mm)	37" (940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

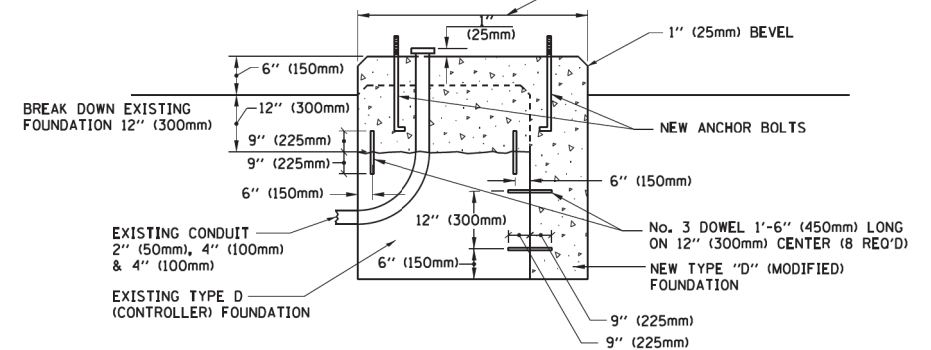
**SHROUD**

**NOTES:**

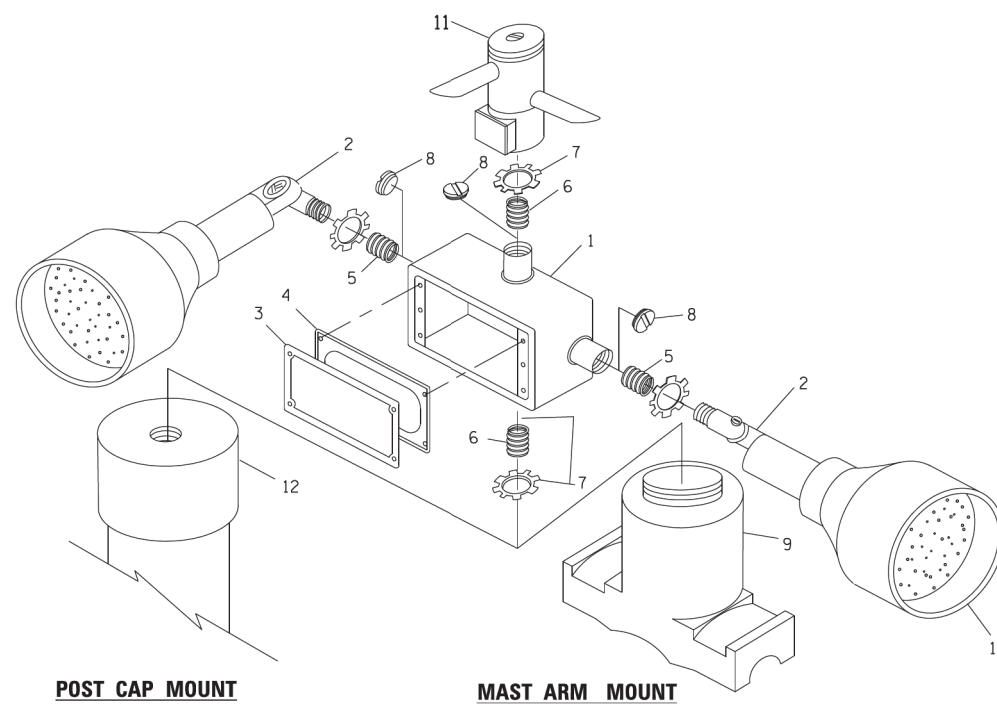
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**NOTE:**

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



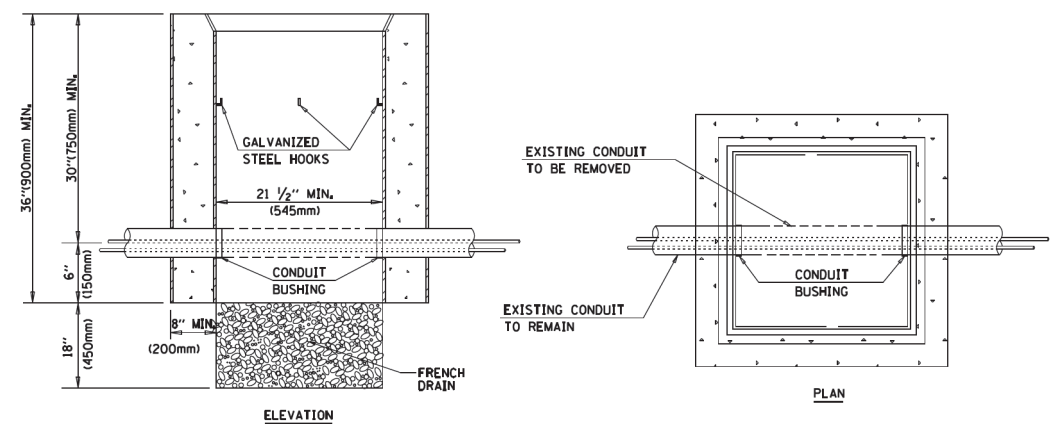
**MODIFY EXISTING TYPE "D" FOUNDATION**



ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

**NOTES:**

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.

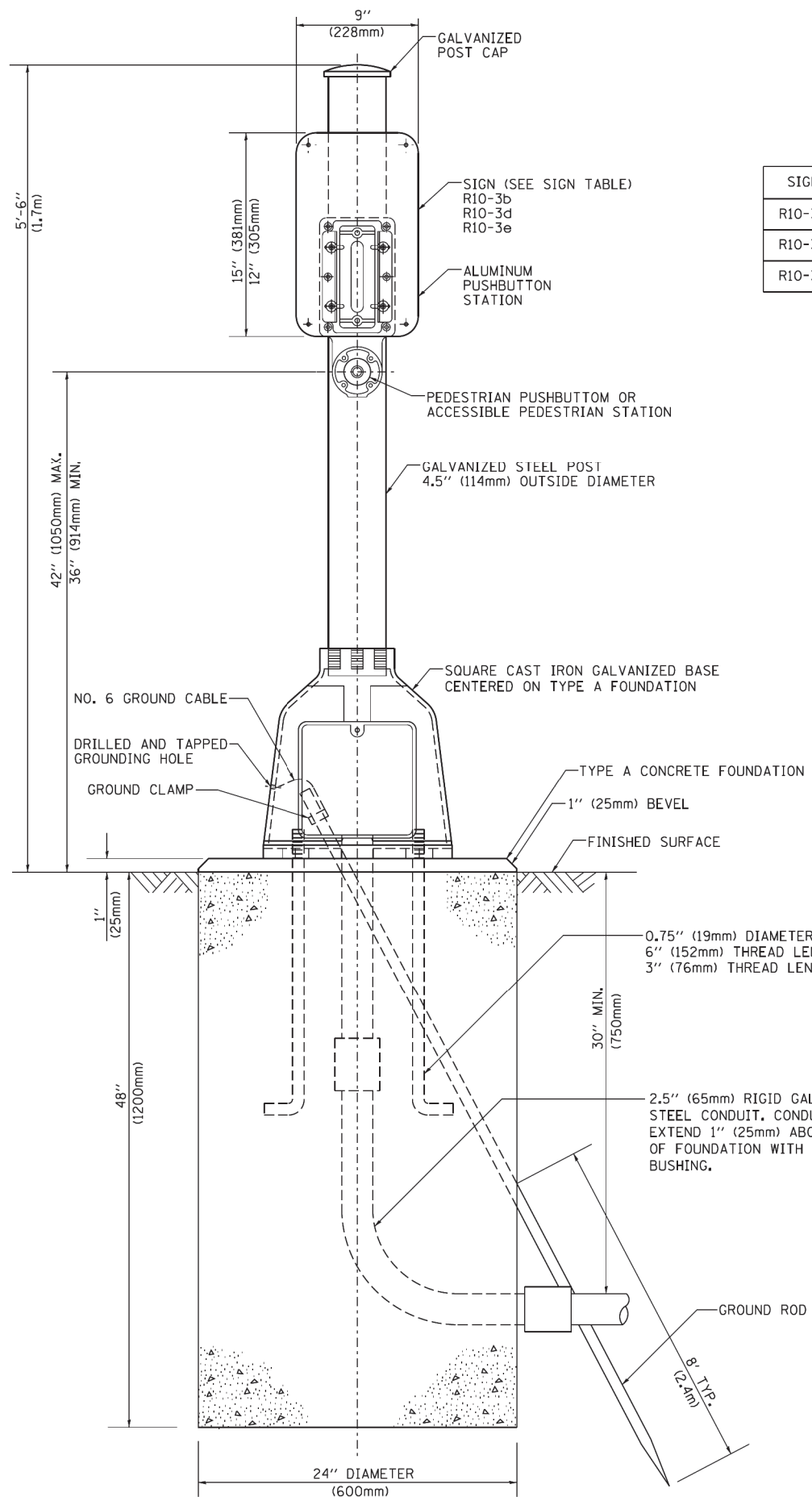


**NOTES:**

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

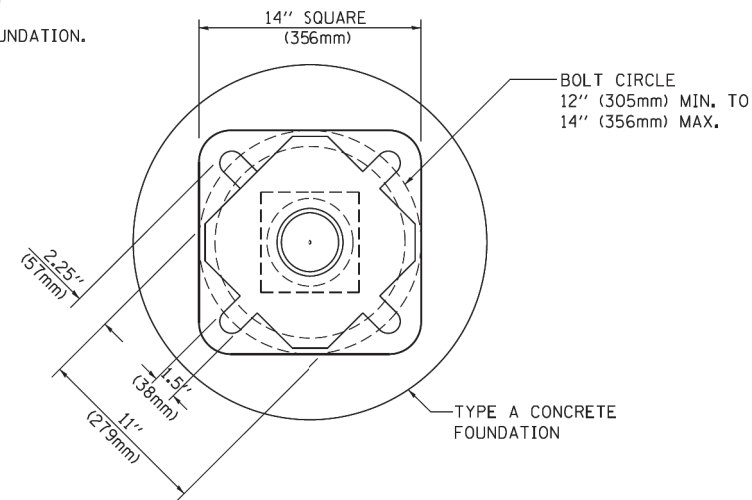
**HANDHOLE TO INTERCEPT EXISTING CONDUIT**

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS  
CONTRACT NO. 62D36  
SHEET NO. 6 OF 7 SHEETS  
DATE: 1/13/2014  
DESIGNED BY: DAD  
DRAWN BY: BCK  
CHECKED BY: DAD  
DATE: 10-28-09



**SIGN TABLE**

SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)



**BOLT PATTERN**

**PEDESTRIAN PUSH BUTTON POST, TYPE A**

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 STATE OF ILLINOIS  
 PROJECT NO. 2016-092 B&R  
 SHEET NO. 07  
 DATE: 1/13/2014  
 DRAWN BY: J. WOODMAN  
 CHECKED BY: D. DAD  
 DESIGNED BY: D. DAG

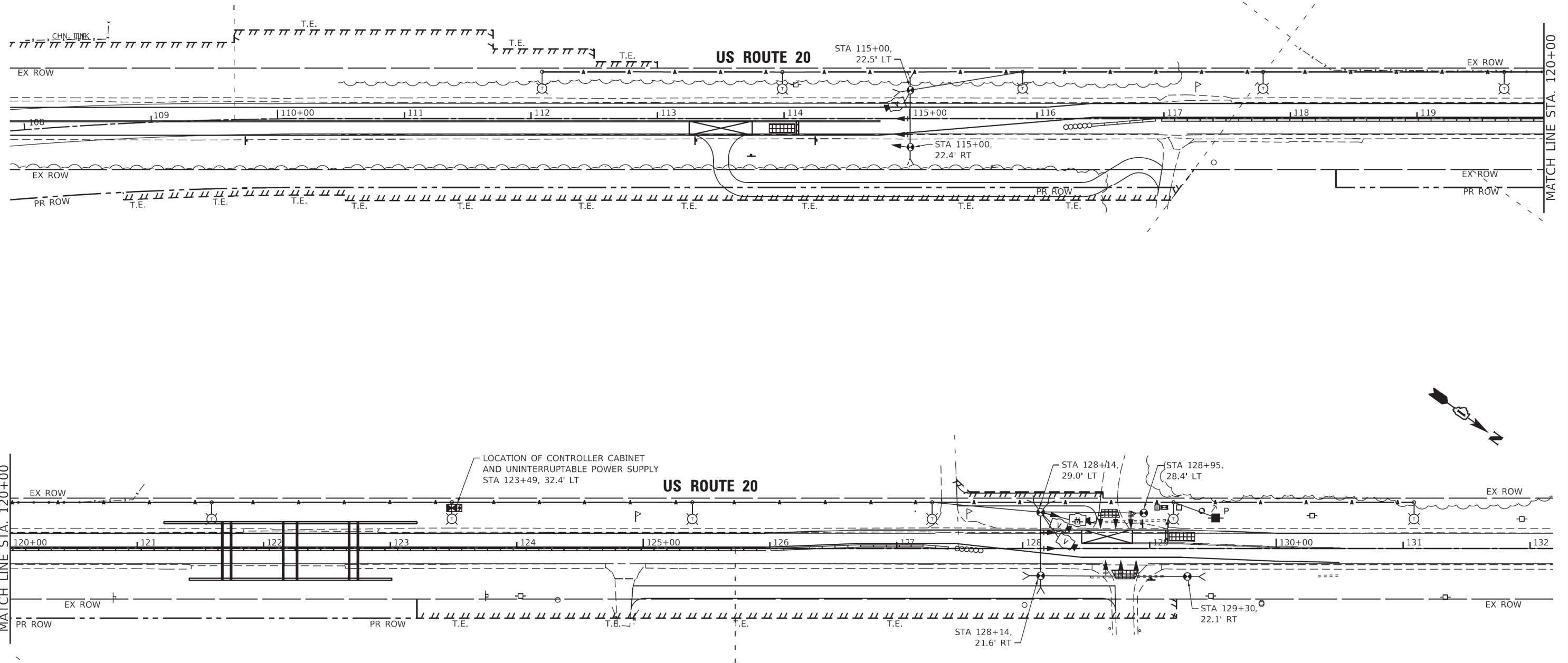
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET NO. 7 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092 B&R	MCHENRY	329	204
TS-05		CONTRACT NO. 62D36		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT GMW(759)				



**NOTES:**

1. REFER TO MAINTENANCE OF TRAFFIC SHEETS FOR STAGES OF CONSTRUCTION UTILIZING THE TEMPORARY TRAFFIC SIGNAL. THE TRAFFIC SIGNAL SHALL BE DE-ENERGIZED AND SIGNAL HEADS BAGGED FOR ANY STAGE OF CONSTRUCTION NOT UTILIZING THE TEMPORARY TRAFFIC SIGNAL INSTALLATION. ADJUSTMENTS TO THE TEMPORARY TRAFFIC SIGNAL SHALL BE MADE TO ACCOMMODATE THE STAGE OF CONSTRUCTION AS DIRECTED BY THE ENGINEER.
2. TREE REMOVAL AND VEGETATION CLEARING SHALL BE PERFORMED PRIOR TO INSTALLATION OF THE TEMPORARY TRAFFIC SIGNAL WOOD POLES, OR AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF THE TEMPORARY SERVICE LOCATION WITH THE UTILITY COMPANY, IN CONJUNCTION WITH THE TEMPORARY LIGHTING SERVICE, FOR THE POINT OF SERVICE AS SHOWN.
4. THE TEMPORARY TRAFFIC SIGNAL SHALL UTILIZE THE TEMPORARY LIGHTING POLES, EXCEPT AS SHOWN FOR ADDITIONAL TEMPORARY TRAFFIC SIGNAL WOOD POLES.

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 STATE OF ILLINOIS  
 PROJECT NO. 62D36  
 SHEET NO. 205  
 DATE: 01/29/2018



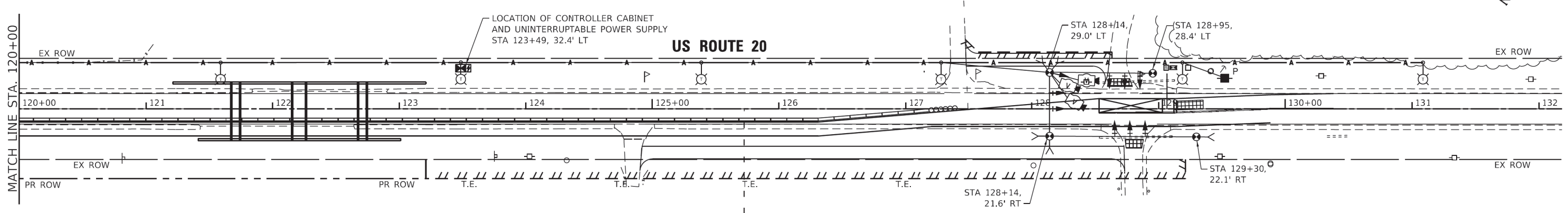
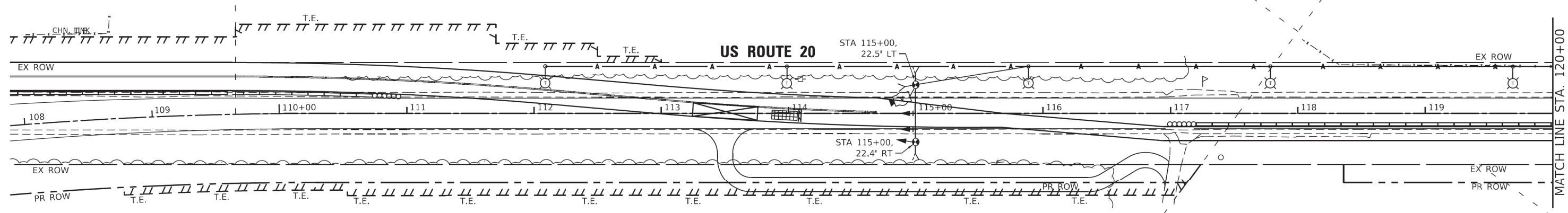
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	DATE - 01/29/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN - STAGE 1A  
US ROUTE 20 (CULVERT BETWEEN MARENGO RD AND CORAL RD)**

SCALE: 1"=40'    SHEET    OF    SHEETS    STA.    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092 B&R	MCHENRY	329	205
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62D36	
GMW(759)				



**NOTES:**

1. REFER TO MAINTENANCE OF TRAFFIC SHEETS FOR STAGES OF CONSTRUCTION UTILIZING THE TEMPORARY TRAFFIC SIGNAL. THE TRAFFIC SIGNAL SHALL BE DE-ENERGIZED AND SIGNAL HEADS BAGGED FOR ANY STAGE OF CONSTRUCTION NOT UTILIZING THE TEMPORARY TRAFFIC SIGNAL INSTALLATION. ADJUSTMENTS TO THE TEMPORARY TRAFFIC SIGNAL SHALL BE MADE TO ACCOMMODATE THE STAGE OF CONSTRUCTION AS DIRECTED BY THE ENGINEER.
2. TREE REMOVAL AND VEGETATION CLEARING SHALL BE PERFORMED PRIOR TO INSTALLATION OF THE TEMPORARY TRAFFIC SIGNAL WOOD POLES, OR AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF THE TEMPORARY SERVICE LOCATION WITH THE UTILITY COMPANY, IN CONJUNCTION WITH THE TEMPORARY LIGHTING SERVICE, FOR THE POINT OF SERVICE AS SHOWN.
4. THE TEMPORARY TRAFFIC SIGNAL SHALL UTILIZE THE TEMPORARY LIGHTING POLES, EXCEPT AS SHOWN FOR ADDITIONAL TEMPORARY TRAFFIC SIGNAL WOOD POLES.

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 STATE OF ILLINOIS  
 PROJECT NO. 62D36  
 SHEET NO. 09  
 DATE: 01/29/2018



USER NAME = SUSERS	DESIGNED - BAS	REVISED -
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	DATE - 01/29/2018	REVISED -

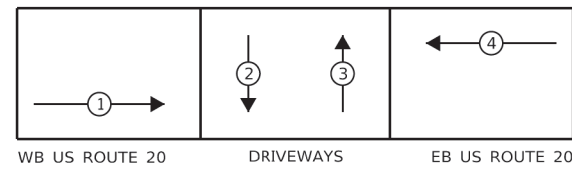
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN - STAGE 2A**  
**US ROUTE 20 (CULVERT BETWEEN MARENGO RD AND CORAL RD)**

SCALE: 1"=40'    SHEET    OF    SHEETS    STA.    TO    STA.

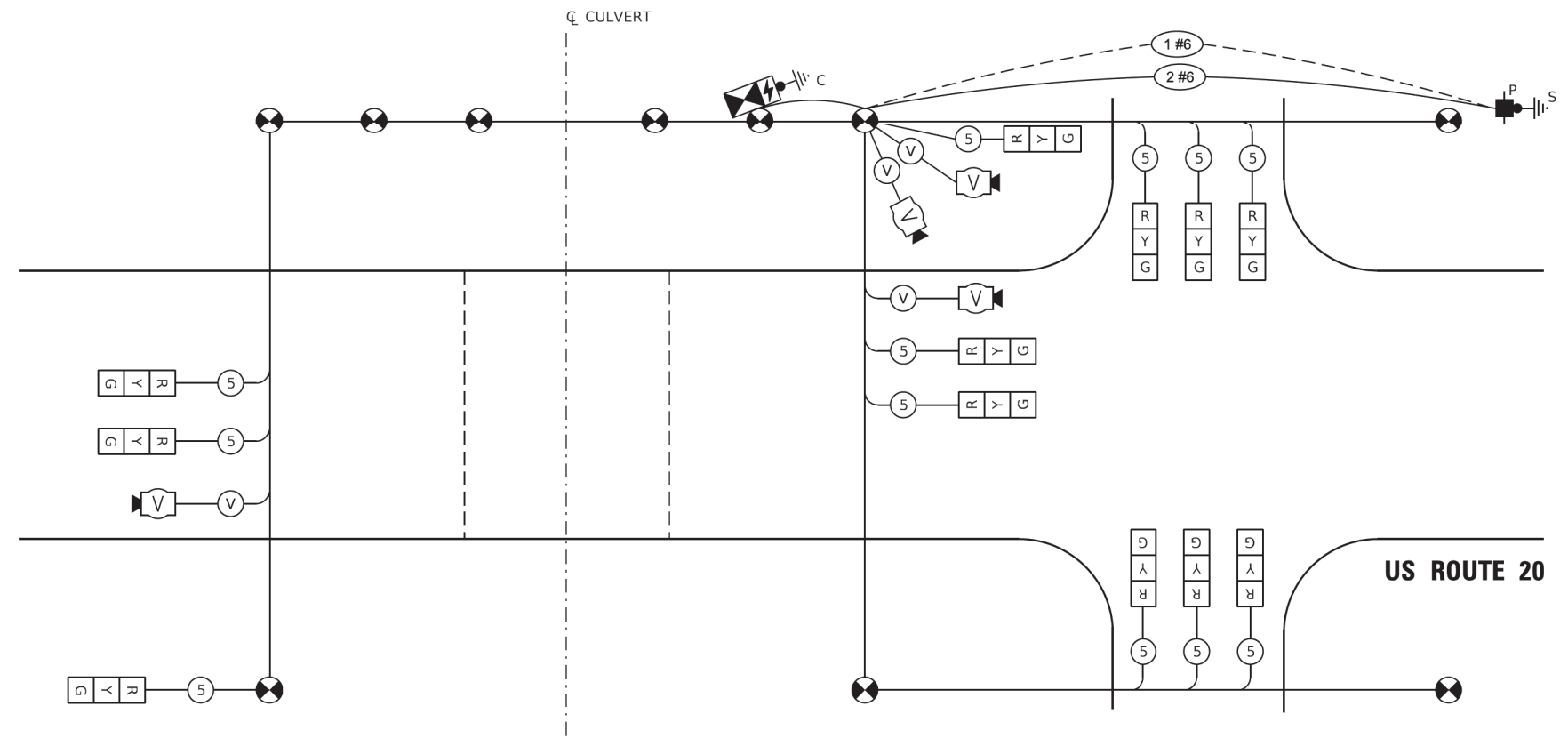
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092 B&R	MCHENRY	329	206
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62D36	
GMW(759)				

**PROPOSED CONTROLLER SEQUENCE**



**LEGEND**

- ← \* — PROTECTED PHASE
- ← \* - - - PROTECTED/PERMITTED PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE



**CABLE PLAN**  
(NOT TO SCALE)

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	-	10	10	-
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
<b>TOTAL =</b>				<b>417.8</b>

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN AND  
TEMPORARY PHASE DESIGNATION DIAGRAM  
US ROUTE 20 (CULVERT BETWEEN MARENGO RD AND CORAL RD)**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	207
				CONTRACT NO. 62D36
				ILLINOIS FED. AID PROJECT GMW(759)

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 STATE OF ILLINOIS  
**SS SHIT NO. 10**  
 3041 WOODCREEK DRIVE, SUITE 211 - DOWNERS GROVE, IL 60515  
 (630) 641-9900

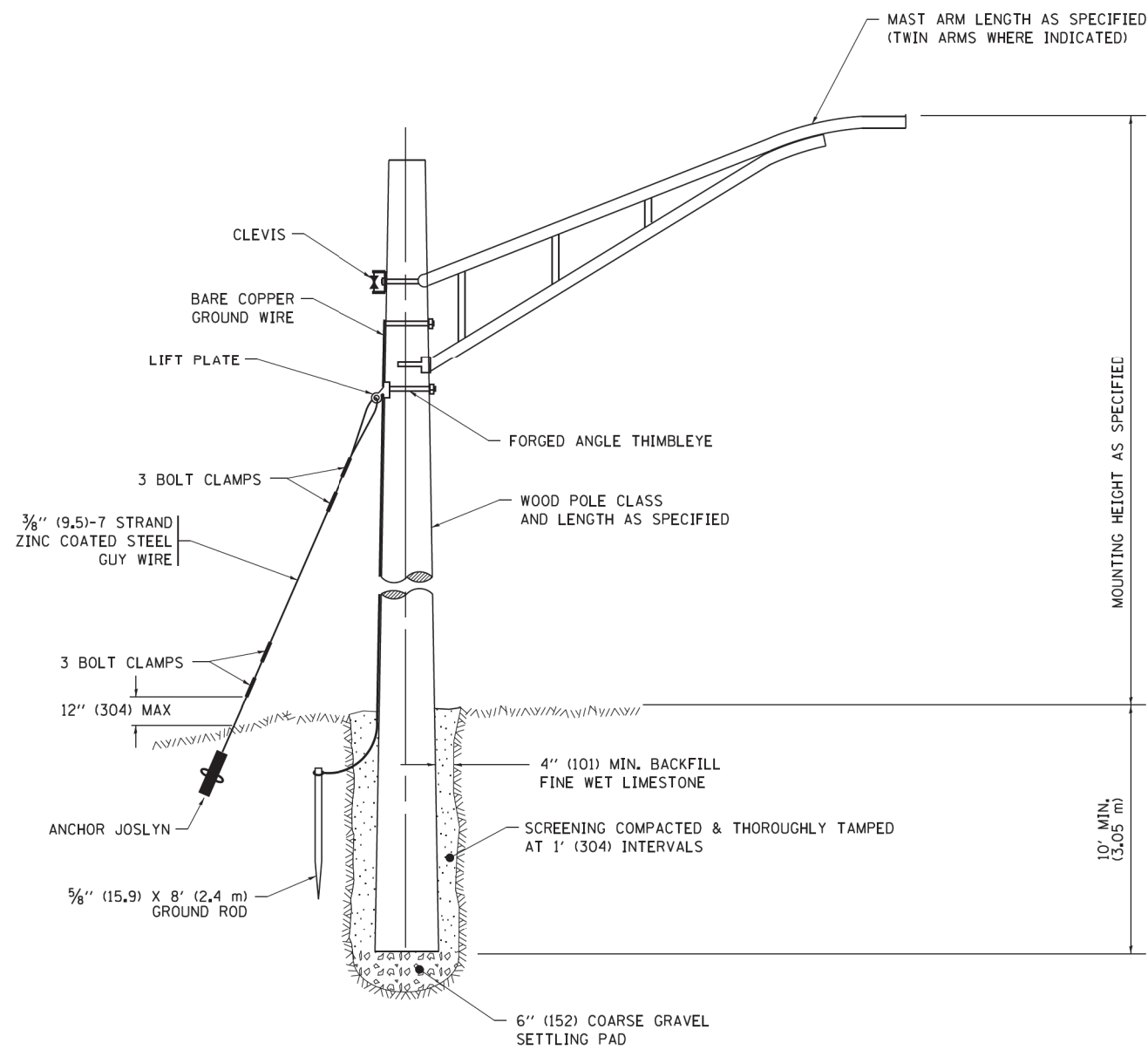


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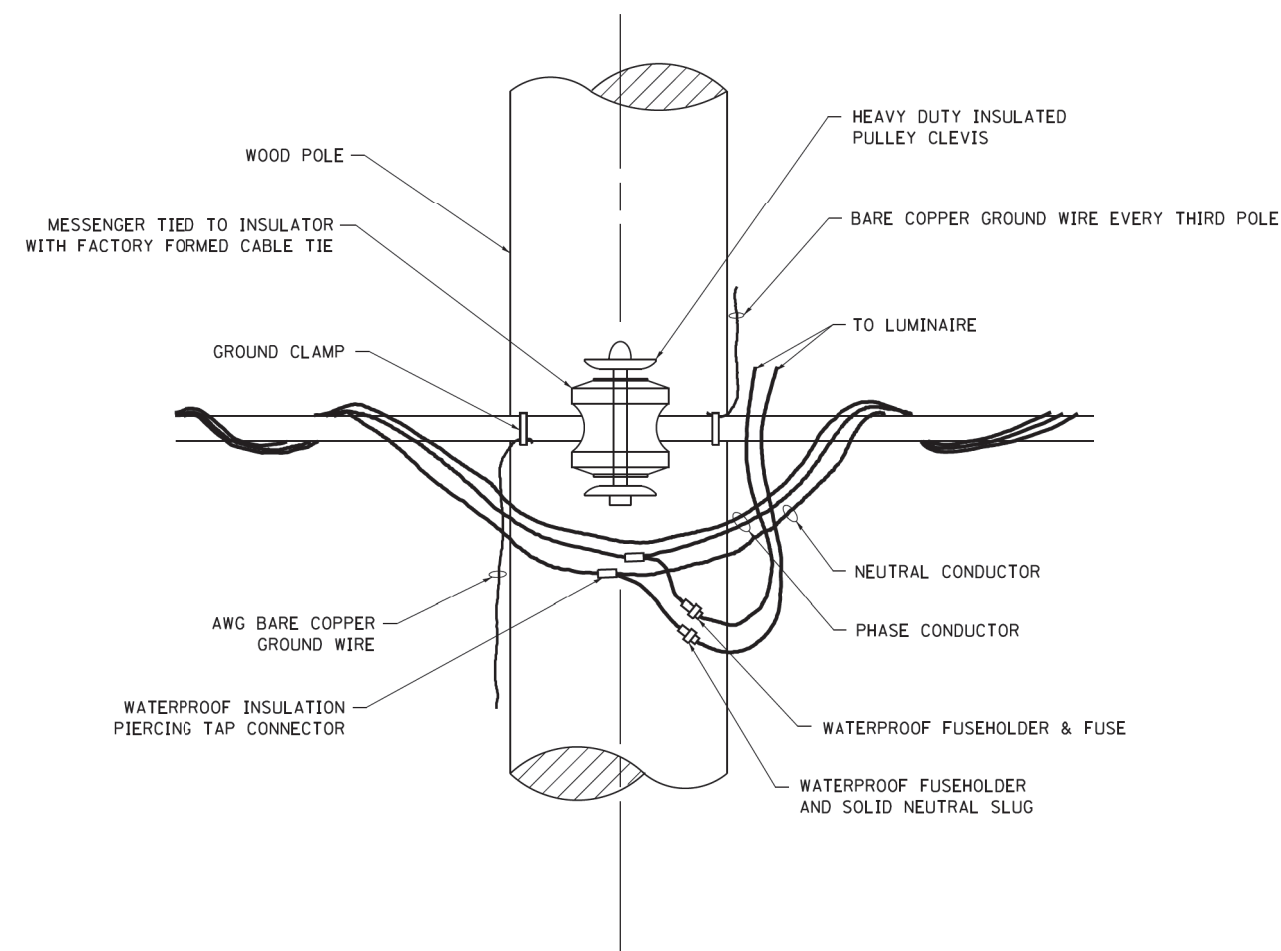




### TEMPORARY LIGHT POLE DETAIL

**NOTE:**

- 1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
- 2. MAST ARM SHALL BE RATED FOR THE SPECIFIED MOUNTING HEIGHT.



### TEMPORARY LIGHT POLE ATTACHMENT DETAIL

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 560 KAR  
 11/17/2020

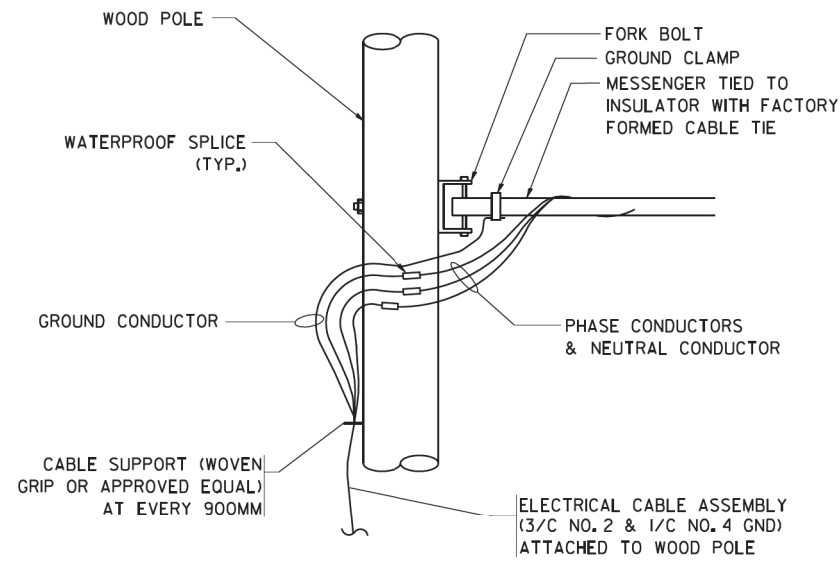
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

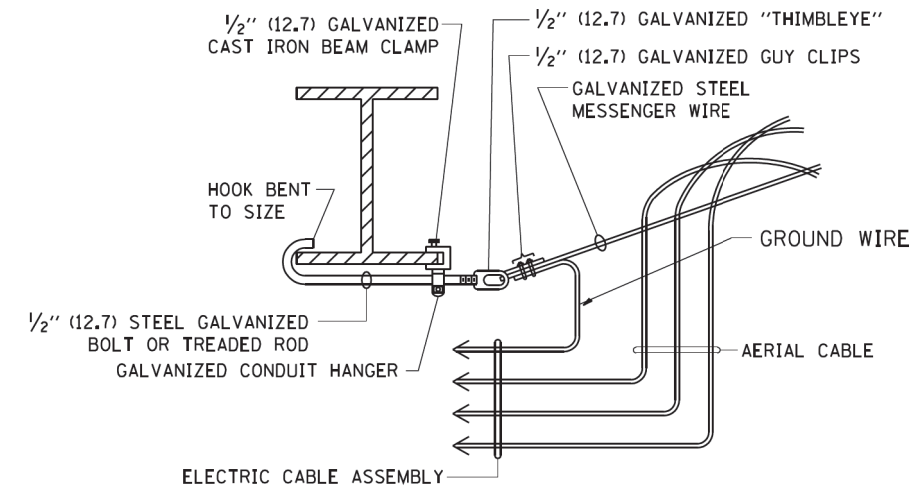
**TEMPORARY LIGHT POLE DETAILS**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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<b>BE-800</b>		CONTRACT NO. 62D36		
ILLINOIS FED. AID PROJECT GMW(759)				



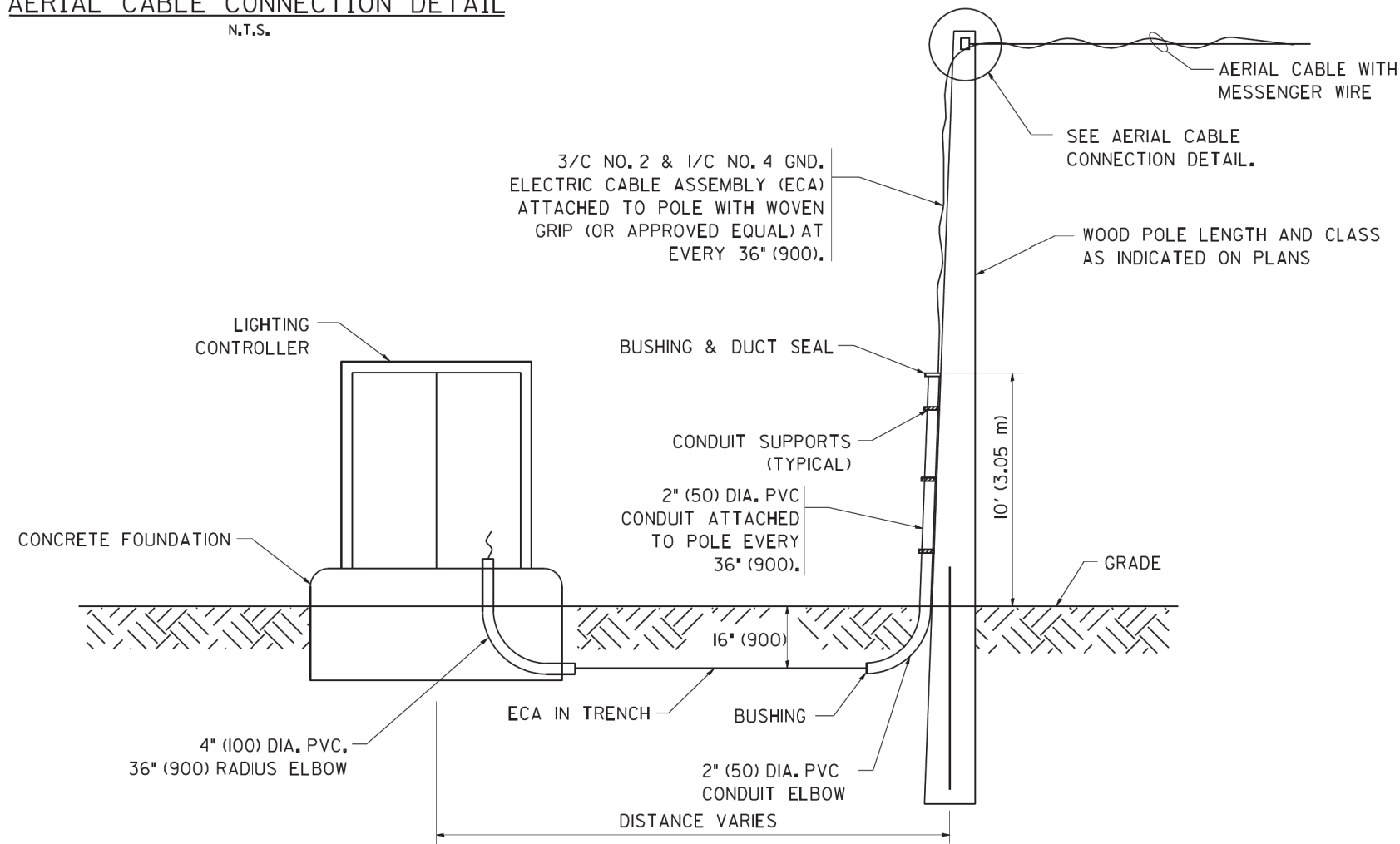
**AERIAL CABLE CONNECTION DETAIL**  
N.T.S.



**AERIAL CABLE ATTACHED TO STRUCTURE**  
NOT TO SCALE

**NOTES:**

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.



**WOOD POLE TO LIGHTING CONTROLLER WIRING CONNECTION DETAIL**  
N.T.S.

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 STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM  
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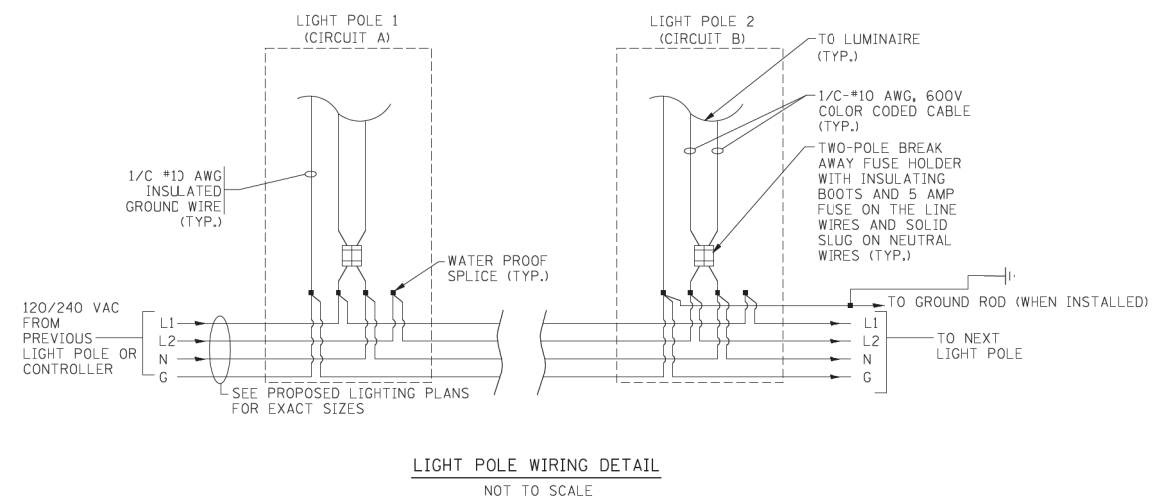
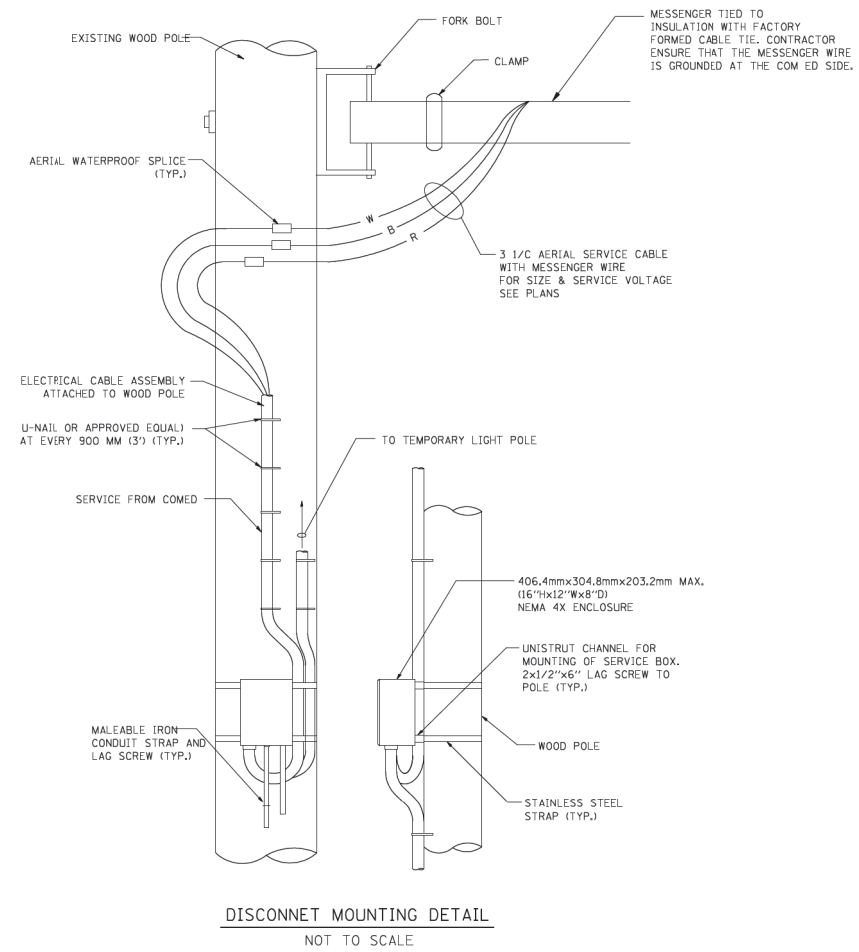
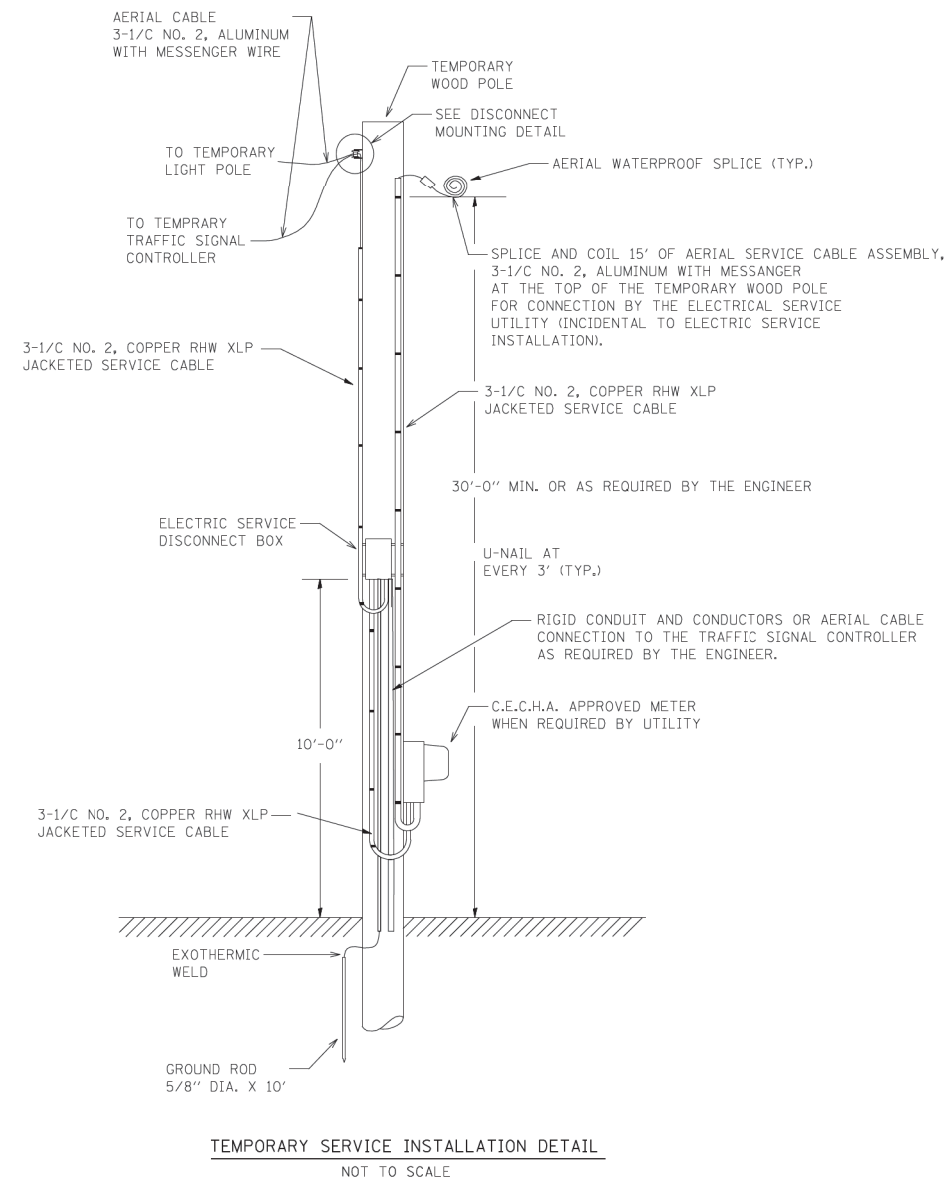
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY AERIAL CABLE INSTALLATION**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	210
<b>BE-801</b>		<b>CONTRACT NO. 62D36</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT GMW(759)				



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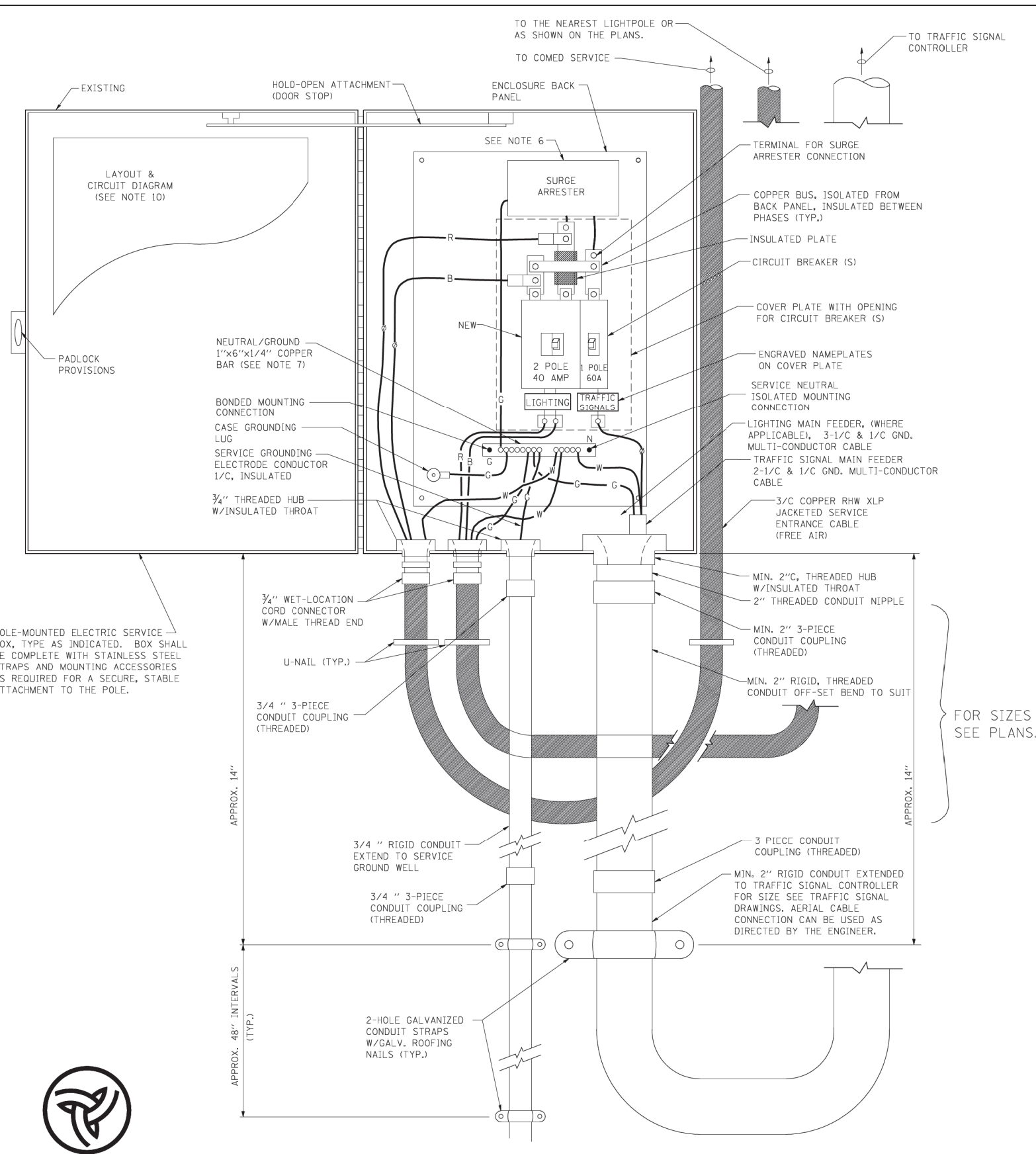
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING</b>			
SCALE: NONE	SHEET NO. 2 OF 3 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	211
BE-805		CONTRACT NO. 62D36		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT GMW(759)				

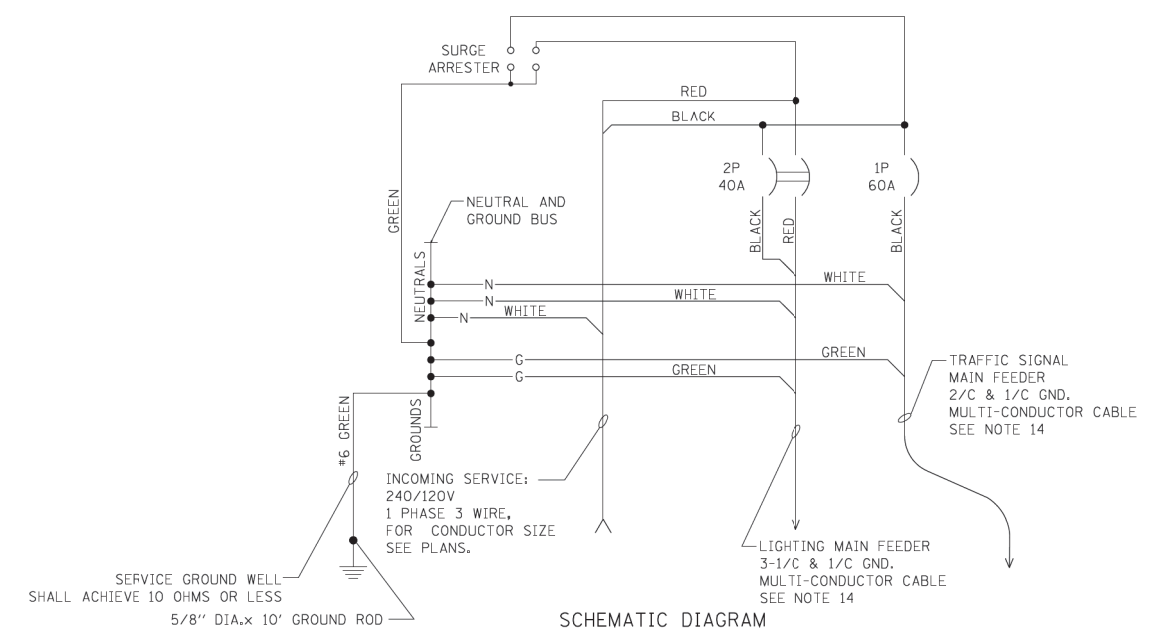
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 No. 181-0717200  
 550KAR  
 05/24/2010



POLE-MOUNTED ELECTRIC SERVICE ENTRANCE  
 GENERAL LAYOUT DIAGRAM  
 NOT TO SCALE

NOTES:

- ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED BY THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY. SOME INSTALLATIONS MAY CALL FOR SERVICE ENTRANCE EQUIPMENT SUITABLE FOR 3-WIRE SERVICE EVEN THOUGH INITIALLY WIRED FOR 2-WIRE SERVICE.
- THE POLE-MOUNTED ELECTRIC SERVICE BOX SHALL BE CONFIGURED AND FULLY EQUIPPED FOR 240/120V 3W SERVICE, COMPLETE WITH LIGHTING MAIN BREAKER AND TRAFFIC SIGNALS MAIN BREAKER AS REQUIRED.
- THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
- THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12"W X 16"H X 8"D, WITH A PIANO-HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS AND DOOR STOP, HOFFMAN CATALOG NO. A-16H1208SS6LP/A-16 P12/A-DSTOP/C-PMK12, OR APPROVED EQUAL.
- CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/TAG-OUT REQUIREMENTS. HANDLES SHALL BE TRIP FREE.
- THE SURGE PROTECTOR SHALL BE SUITABLE FOR THE SERVICE VOLTAGE SINGLE PHASE 60HZ AC, WITH A SURGE ENERGY CAPABILITY OF 2160 JOULES OR BETTER AT 8/20 MICRO-SECONDS, RATED -40 TO 60 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449, CUTLER-HAMMER CM0V230L065XT OR APPROVED EQUAL.
- BUS BARS, CONNECTORS, AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED, AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS, OR THE ASSEMBLY SHALL BE A MANUFACTURED SPECIALTY PANELBOARD, CUTLER-HAMMER PRL2A OR APPROVED EQUAL.
- THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN. THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE. THE SERVICE NEUTRAL AND SERVICE GROUNDING ELECTRODE CONDUCTOR SHALL BE TERMINATED ADJACENT TO EACH OTHER AT THE DIVIDE BETWEEN THE SECTIONS AND WIRING SHALL BE TERMINATED ONLY UPON THE APPROPRIATE SECTION.
- THE WIRING TERMINALS, INCLUDING THE GROUND/NEUTRAL BAR SHALL BE ARRANGED TO PROVIDE ADEQUATE ROOM FOR PERFORMING FIELD TERMINATIONS.
- A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE MECHANICALLY SECURED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
- A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
- LUGS AND CONNECTORS SHALL BE RATED FOR 75 C CONDUCTOR.
- THE EXACT MOUNTING HEIGHT OF THE BOX SHALL BE FIELD DETERMINED TO AVOID OBSTRUCTIONS AND PUBLIC ACCESS. TYPICAL HEIGHT SHALL BE APPROXIMATELY 10 FEET ABOVE GRADE.



SCHEMATIC DIAGRAM



6" DECAL ON FRONT COVER

FILE NAME =	USER NAME = bauerdl	DESIGNED - MP	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING</b>			F.A. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT DATE = 1/14/2010		DATE - 01/14/10	REVISED -		SCALE: NONE	SHEET NO. 3 OF 3 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS   FED. AID PROJECT   GMW(759)				








**GENERAL NOTES:**

1. THIS PROJECT INCLUDES THE INSTALLATION OF A NEW LIGHTING SYSTEM AT THE ROUNDABOUT INTERSECTION OF US ROUTE 20 AND MARENGO ROAD. THE PROPOSED LIGHTING SHALL BE OWNED AND MAINTAINED BY IDOT, STATE OF ILLINOIS
2. THE CONTRACTOR SHALL CONTACT THE ELECTRIC UTILITY COMPANY TO COORDINATE THE ELECTRIC SERVICE WORK. THE FIELD CONTACT PERSON IS PAMELA HUGHES OF COMED AT (815) 490-2867.
3. THE QUANTITIES OF RACEWAY WHEREVER INDICATED ON THESE PLANS ARE APPROXIMATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLETE COMPLIANCE WITH THE SPECIFIED REQUIREMENTS.
4. THE CONTRACTOR SHALL NOTIFY JULL.I.E. TO LOCATE AND MARK/STAKE ALL UNDERGROUND UTILITIES.
5. THE CONTRACTOR SHALL VERIFY LOCATIONS OF UNDERGROUND/OVERHEAD UTILITIES PRIOR TO INSTALLATION OF LIGHT POLES AND CONDUITS. IF THERE IS A CONFLICT WITH THE LIGHT POLES/CONDUITS AS SHOWN ON PLANS, THE CONTRACTOR SHALL SUGGEST ALTERNATIVE LOCATIONS AND COORDINATE WITH THE ENGINEER PRIOR TO PERFORMING DIGGING WORK. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION ACTIVITIES.
6. THE CONTRACTOR SHALL TAKE CARE WHEN INSTALLING UNIT DUCT TO AVOID CONFLICTS WITH EXISTING UNDERGROUND UTILITIES AND TREES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE AS DETERMINED BY THE ENGINEER.
7. TRENCHES FOR LIGHTING RACEWAYS SHALL HAVE A MINIMUM DEPTH OF 30".
8. LIGHTING SYSTEM INSTALLATION SHALL CONFORM TO THE LATEST IDOT STANDARDS, NEC AND LOCAL CODES.
9. ALL ELECTRICAL EQUIPMENT AND PRODUCTS SHALL BE U/L LISTED AND LABELED.

**BILL OF MATERIALS**

DESCRIPTION	UNIT	QUANTITY
ELECTRIC SERVICE INSTALLATION	EACH	1
ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	533
UNIT DUCT, 600V, 3-1C NO. 4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	3188
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 1/0	FOOT	258
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	23
LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 100AMP	EACH	1
LIGHT POLE, ALUMINUM, 40 FT. M.H., 6 FT. DAVIT ARM	EACH	23
LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	230
BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	23

**LEGEND**

-  PROPOSED LIGHTING UNIT, 40 FT. MH, 6 FT. DAVIT ARM, (240V-LINE TO NEUTRAL), LED LUMINAIRE WITH BREAKAWAY DEVICE
-  UNIT DUCT, 600V, 3-1C NO. 4, 1/C NO. 6 GROUND (XLP-TYPE USE) 1 1/4" DIA. POLYETHYLENE
-  COMED ELECTRIC SERVICE POLE 240/480V, 1 PHASE 3 WIRE
-  PROPOSED LIGHTING CONTROLLER "LC" 240/480V, 3 WIRE, 100 AMP, BASE MOUNTED
-  RIGID GALVANIZED STEEL CONDUIT, UNDERGROUND, WITH UNIT DUCT
-  ELECTRIC CABLE IN CONDUIT 4" DIA., 3-1/C NO. 1/0
-  GROUND ROD 5/8" DIA. X 10 FT.

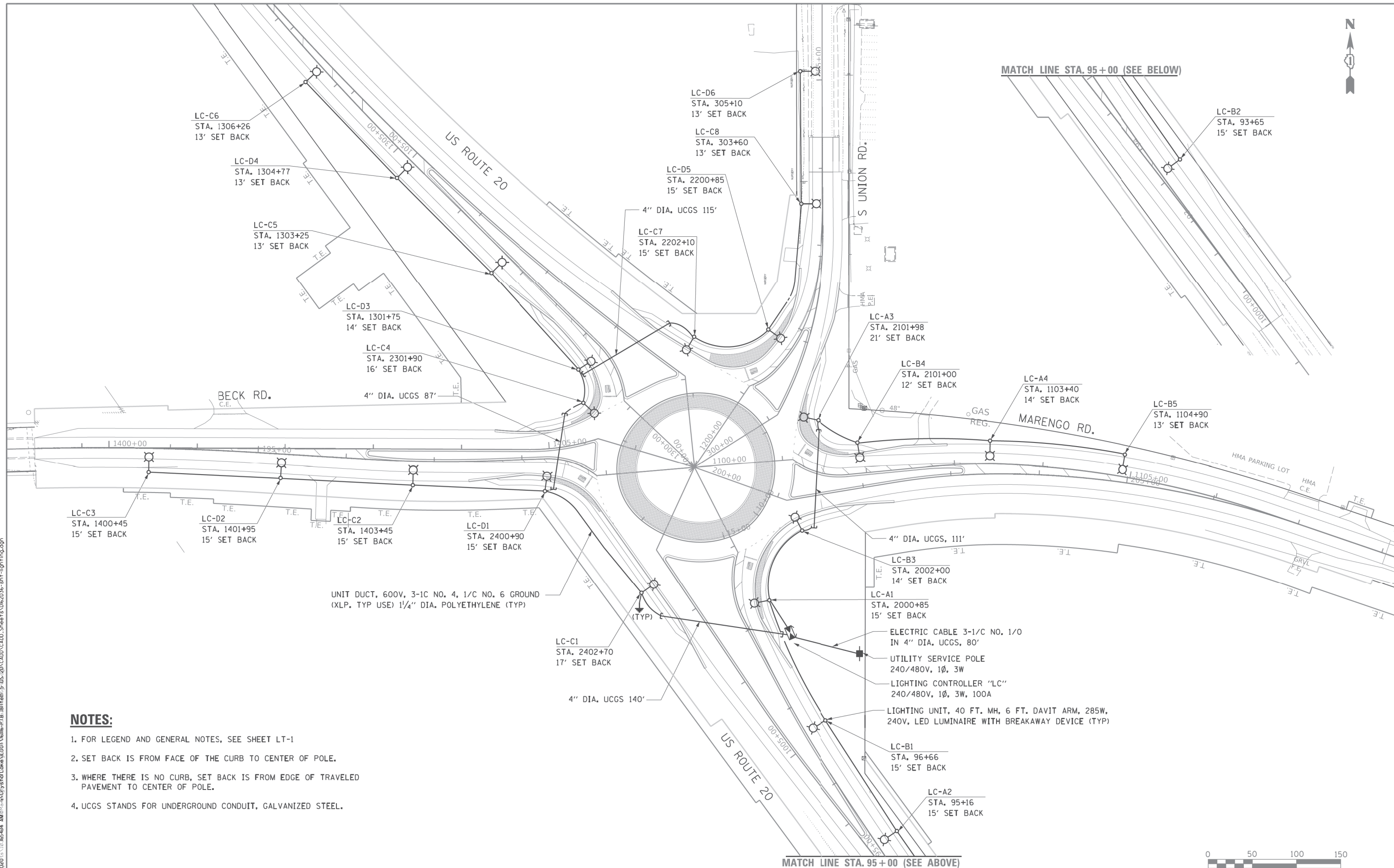
**AMES Engineering, Inc.**  
 CONSULTING ENGINEERS  
 6300 Belmont Road, Unit 4B  
 Downers Grove, IL 60516

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PLT DATE = \$DATES	CHECKED -	BL	REVISED -
	DATE -	05-22-19	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, BILL OF MATERIALS AND LEGEND  
 US ROUTE 20 AT MARENGO ROAD**

SCALE: N.T.S.	SHEET 1 OF 1	SHEETS STA./N/A	TO STA./N/A	F.A.P. RTE. 525	SECTION 2016-0928&R	COUNTY MCHENRY	TOTAL SHEETS 62036
				FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT LGM (759)	CONTRACT NO. 62036	



UNIT DUCT, 600V, 3-1C NO. 4, 1/C NO. 6 GROUND (XLP, TYP USE) 1/4" DIA. POLYETHYLENE (TYP)

**NOTES:**

1. FOR LEGEND AND GENERAL NOTES, SEE SHEET LT-1
2. SET BACK IS FROM FACE OF THE CURB TO CENTER OF POLE.
3. WHERE THERE IS NO CURB, SET BACK IS FROM EDGE OF TRAVELED PAVEMENT TO CENTER OF POLE.
4. UCGS STANDS FOR UNDERGROUND CONDUIT, GALVANIZED STEEL.



LT-2

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 6330 Belmont Road, Unit 4B  
 Downers Grove, IL 60516  
 PROJECT NO. 2016-092B&R  
 SHEET NO. 329 OF 214  
 DATE: 11/22/2019

**AMES Engineering, Inc.**  
 CONSULTING ENGINEERS  
 6330 Belmont Road, Unit 4B  
 Downers Grove, IL 60516

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

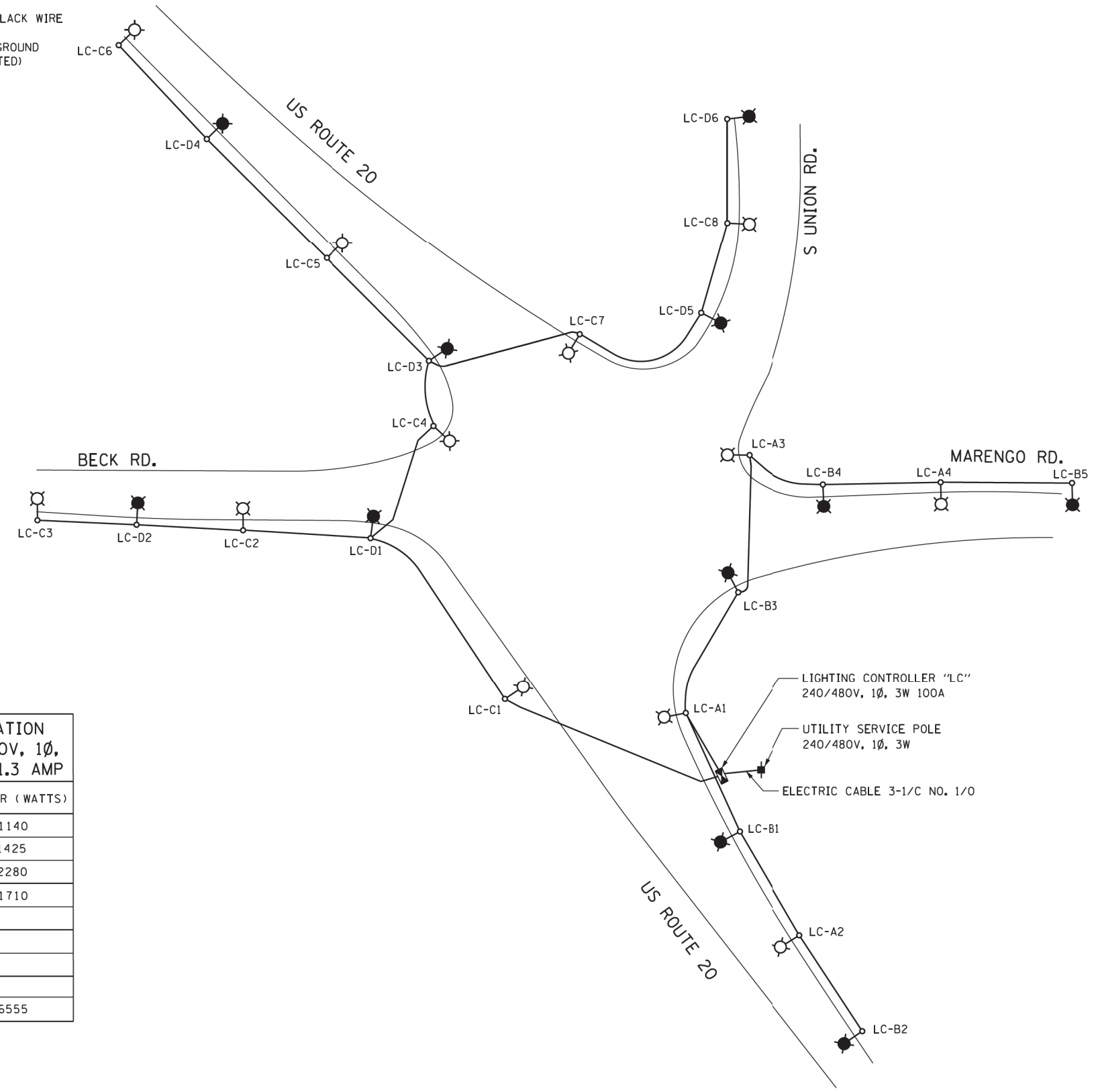
<b>PROPOSED LIGHTING PLAN</b>			
<b>US ROUTE 20 AT MARENGO ROAD</b>			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	McHENRY	329	214
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT LGMW (759)			CONTRACT NO. 62D36	



**LEGEND**

- PROPOSED 240V, 285W LED LUMINAIRE ON RED WIRE
- PROPOSED 240V, 285W LED LUMINAIRE ON BLACK WIRE
- UNIT DUCT, 600V 3-1/C NO. 4, 1/C NO. 6 GROUND (XLP-TYPE USE) (UNLESS OTHERWISE INDICATED)



**PANEL SCHEDULE AND LOAD TABULATION  
LIGHTING CONTROLLER "LC", 240/480V, 1Ø,  
3W, 100 AMP, 285W LED LUMINAIRE, 1.3 AMP**

CIRCUIT	ROADWAY LUMINAIRES	CURRENT ( AMP )	POWER ( WATTS )
A	4	5.2	1140
B	5	6.5	1425
C	8	10.4	2280
D	6	7.8	1710
E	SPARE		
F	SPARE		
G	SPARE		
H	SPARE		
<b>TOTAL</b>	<b>23</b>	<b>30</b>	<b>6555</b>

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 PROJECT NO. 2016-092B&R  
 SHEET NO. 215  
 DATE: 5/22/2019

**AMES Engineering, Inc.**  
 CONSULTING ENGINEERS  
 6330 Belmont Road, Unit 4B  
 Downers Grove, IL 60516

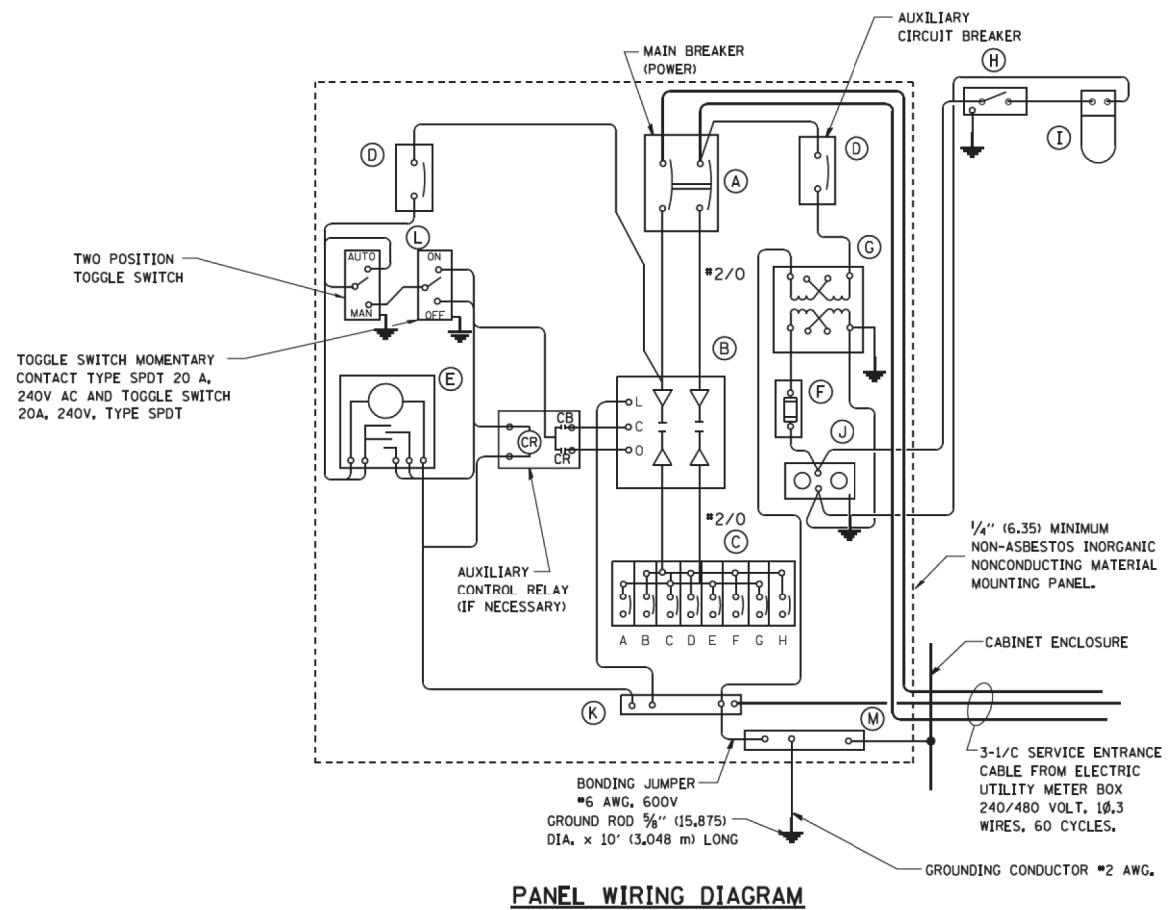
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SINGLE LINE WIRING DIAGRAM  
US ROUTE 20 AT MARENGO ROAD**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	McHENRY	329	215
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT LGMW (759)			CONTRACT NO. 62D36	

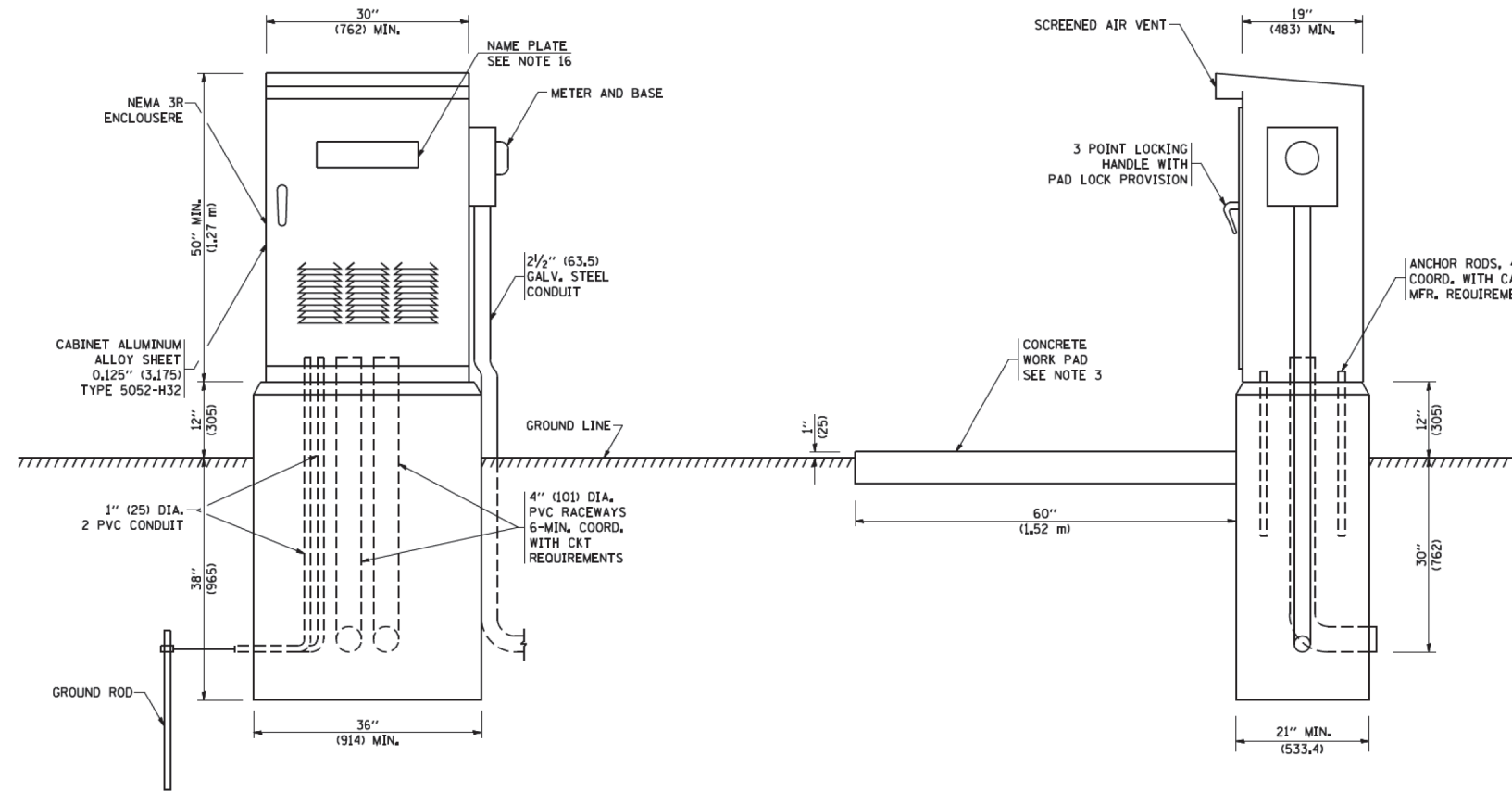


**PANEL EQUIPMENT**

BILL OF MATERIAL		
ITEM	QUANTITY	DESCRIPTION
A	1	MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT 100 AMP. FRAME, 100 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22000 AMP. AT 480 VOLT.
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 100 AMP., 600 VOLTS CONTROL CIRCUIT 240 VOLT.
C	8	CIRCUIT BREAKERS, 1 POLE, 100AMP. FRAME, 50 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-10,000 AMP. AT 240 V.
D	2	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 V., 100 AMP. FRAME, 15 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-5000 AMP. AT 240 V.
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER [TIME SWITCH].
F	1	20 A., 120 V. FUSE.
G	1	1.5 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240 X 480 / 120 X 240 VOLT, 60 Hz.
H	1	SPST 20A SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
I	1	INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60 WATT, 120 V. LAMP.
J	1	20 A., 120 V., DUPLEX RECEPTACLE, GFCI.
K	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
L	1	TOGGLE SWITCHES MOUNTED IN 4" (101.6) X 4" (101.6 mm) BOX.
M	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND SPARE LUGS

**NOTES**

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- FOUNDATION SIZE SHALL BE COORDINATED WITH CABINET SIZE AND MFR.
- IN FRONT OF CONTROL CABINET DOOR, REMOVE VEGETATION AND 2" (50.8 mm) TOP SOIL, LEVEL THE AREA AND ON TOP, PLACE LENGTH WISE PARALLEL TO CONTROL CABINET, A CONCRETE PAD 36" (914.4 mm) x 60" (18,288 mm) x 4" (101 mm) MIN. SIZE. THE COST OF LABOR AND MATERIALS ARE INCLUDED IN THE COST OF THE CONTROLLER.
- DOOR SHALL BE CONSTRUCTED FROM SAME TYPE OF MATERIAL AND THICKNESS AS CABINET.
- DOOR SHALL BE EQUIPPED WITH THREE POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP THE BOTTOM.
- DOOR HINGE SHALL BE A HEAVY GAUGE CONTINUOUS HINGE WITH A 1/4" (6.35 mm) DIA. STAINLESS STEEL HINGE PIN.
- ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
- CONTROL WIRING TO BE #12 AWG, 600V, TYPE "SIS" GRAY SWITCH BOARD WIRE, STRANDED COPPER.
- METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET, NEAR TO THE SERVICE POLE.
- CABINETS SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- THE HEADS OF CONNECTORS SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.  
R = RED      BL = BLUE      W = WHITE  
B = BLACK      Y = YELLOW      G = GREEN
- PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
- THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
- 12" (304.8) X 16" (406.4 mm) STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.



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 STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM, Notarized by: Defour, J.  
 FILE NAME = RWP\Projects\1036 US 20\Drawings\BM\Design\Sh\1036-Sht-Lg-04.dgn

**AMES Engineering, Inc.**  
 CONSULTING ENGINEERS  
 6330 Belmont Road, Unit 4B  
 Downers Grove, IL 60516

USER NAME = tmckey	DESIGNED - MB	REVISED -
PLOT SCALE = 100.00' / in.	DRAWN - SR	REVISED -
PLOT DATE = 5/22/2019	CHECKED - BL	REVISED -
	DATE - 05-22-19	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SCALE:		SHEET	OF	SHEETS	STA.	TO	STA.
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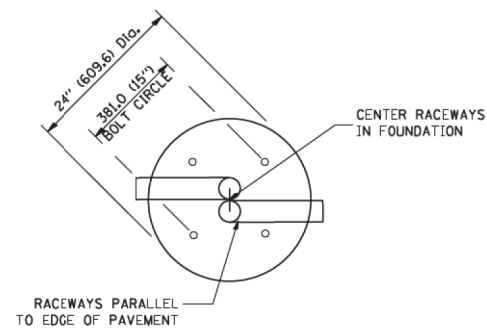
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FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT LGW (759)			CONTRACT NO. 62036	



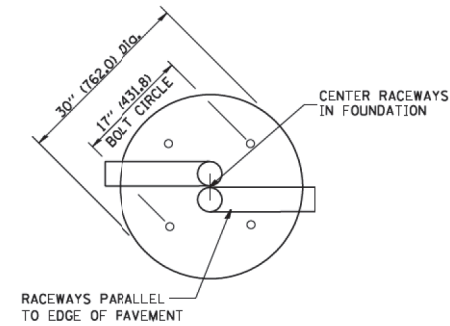


**LIGHT POLE FOUNDATION DEPTH TABLE**  
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SQ.FT	9'-6" (2.09 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



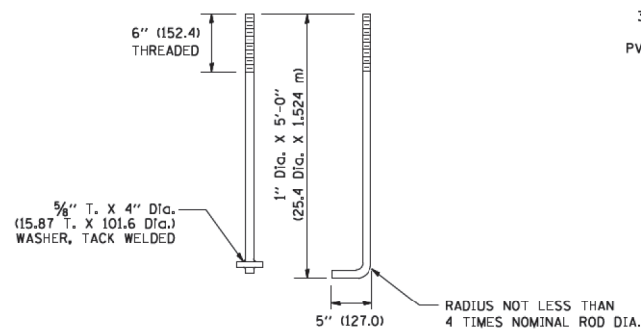
**TOP VIEW**



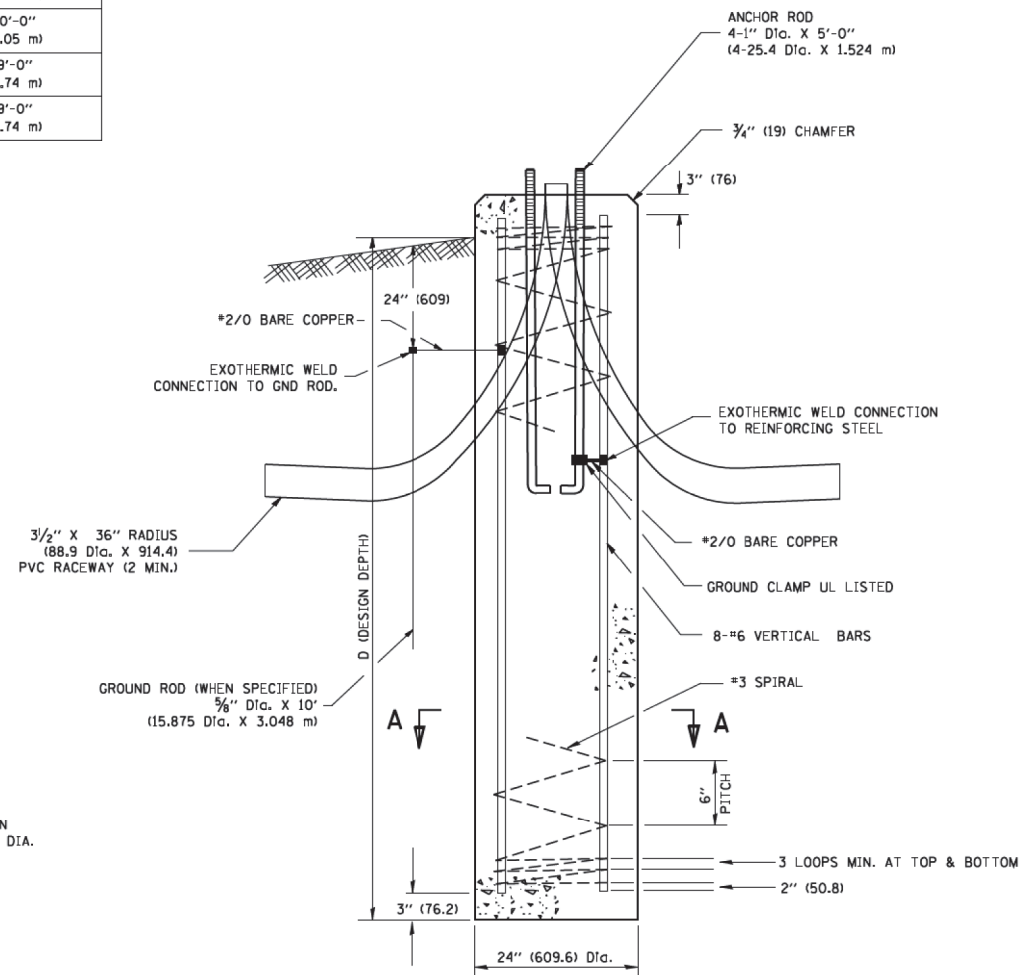
**TOP VIEW**

**NOTES**

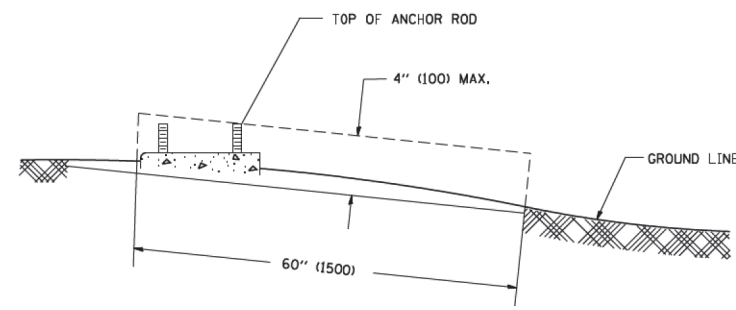
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



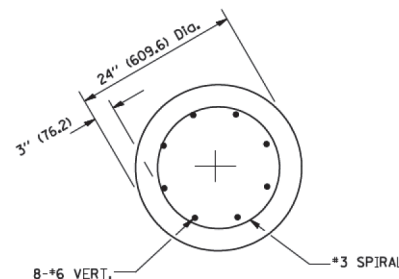
**ANCHOR ROD DETAIL**



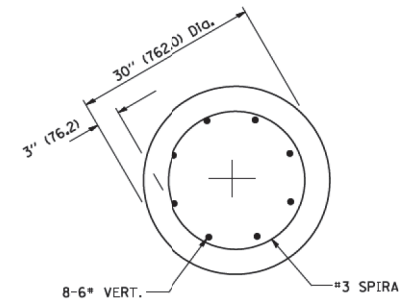
**FOUNDATION DETAIL**



**FOUNDATION EXTENSION DETAIL**



**SECTION A-A**



**SECTION A-A**

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 CONSULTING ENGINEERS  
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 Downers Grove, IL 60516

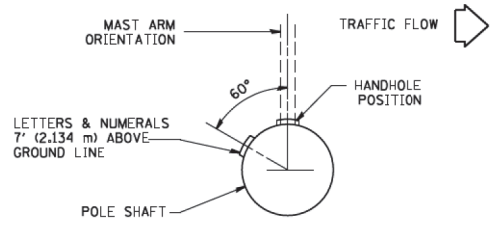
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	DATE - 05-22-19	REVISED -

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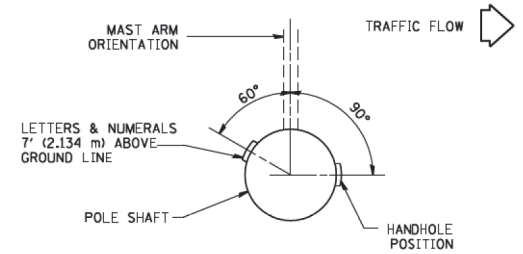
**LIGHT POLE FOUNDATION 40' (12.192 m) TO 47' 1/2' (14.478 m)**  
**M.H. 15" (381 mm) BOLT CIRCLE**  
**US ROUTE 20 AT MARENGO ROAD**

SCALE: SHEET OF SHEETS STA. TO STA.

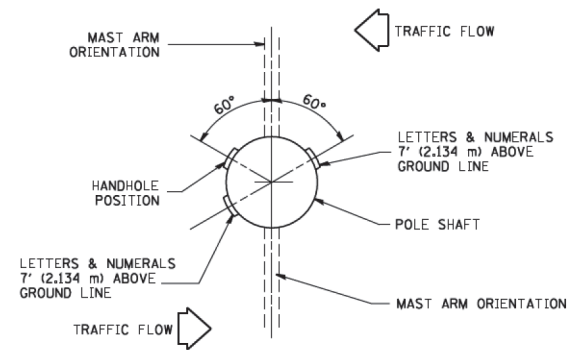
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT LGMW (759)		CONTRACT NO. 62D36



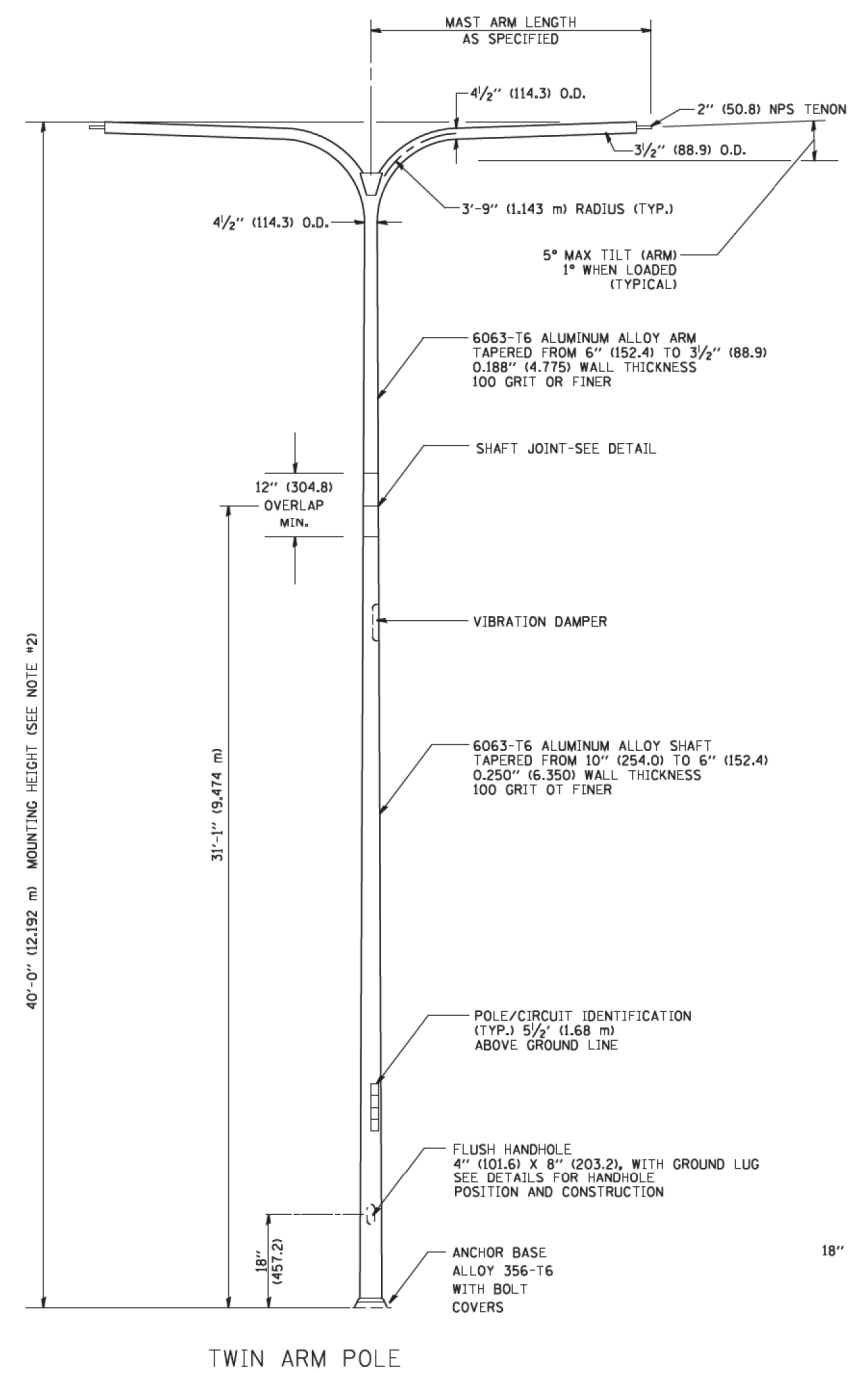
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



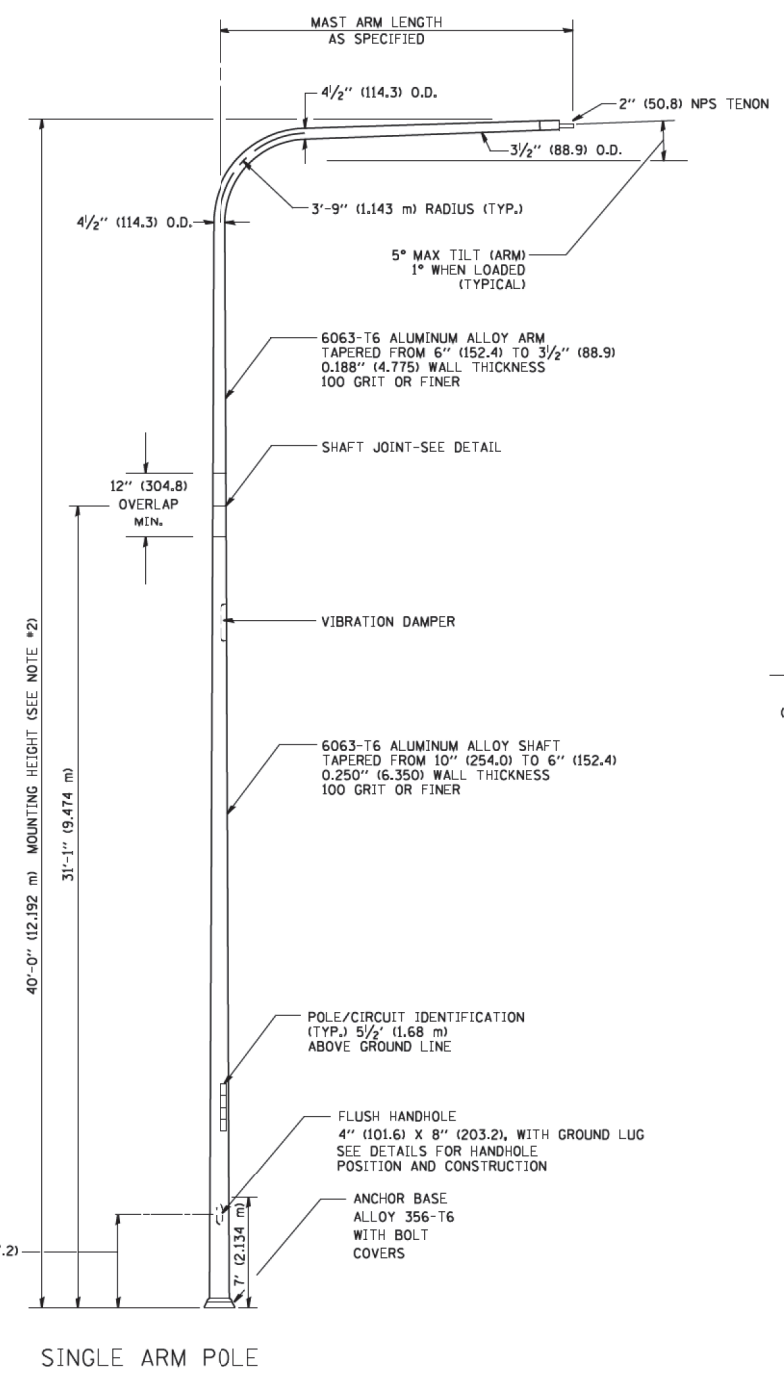
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



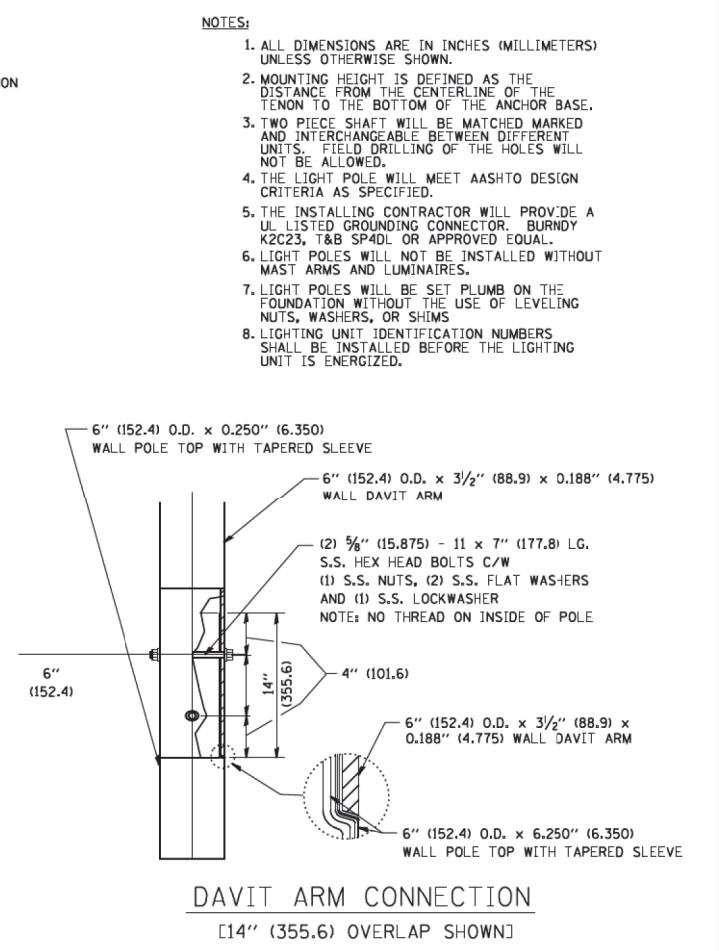
POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES



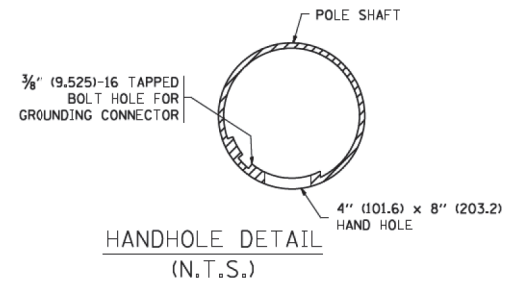
TWIN ARM POLE



SINGLE ARM POLE



- NOTES:
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
  2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
  3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
  4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
  5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR. BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
  6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
  7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS, OR SHIMS.
  8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



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 FILE NAME = RVP\Projects\10286\SUB 2016\0922\2016-0922\Lighting.dgn

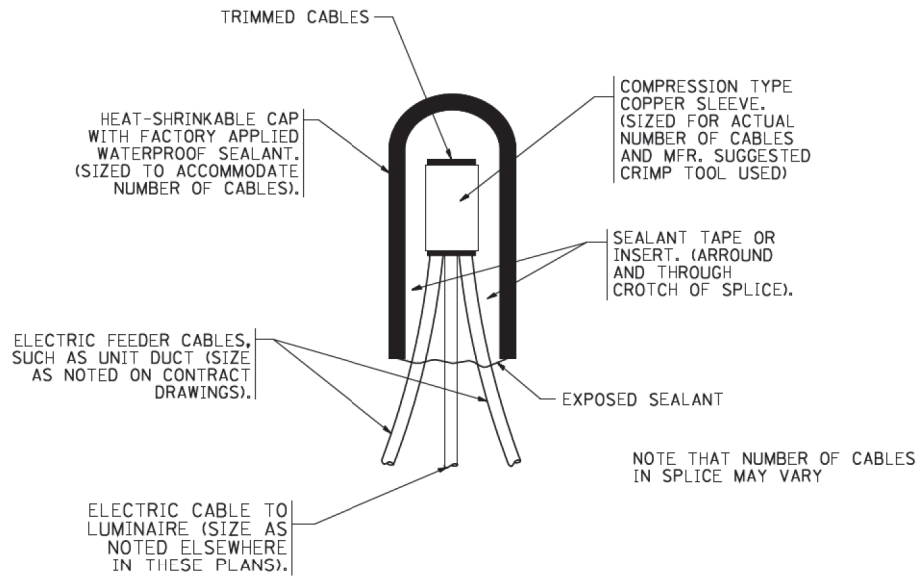
**AMES Engineering, Inc.**  
 CONSULTING ENGINEERS  
 6330 Belmont Road, Unit 4B  
 Downers Grove, IL 60516

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

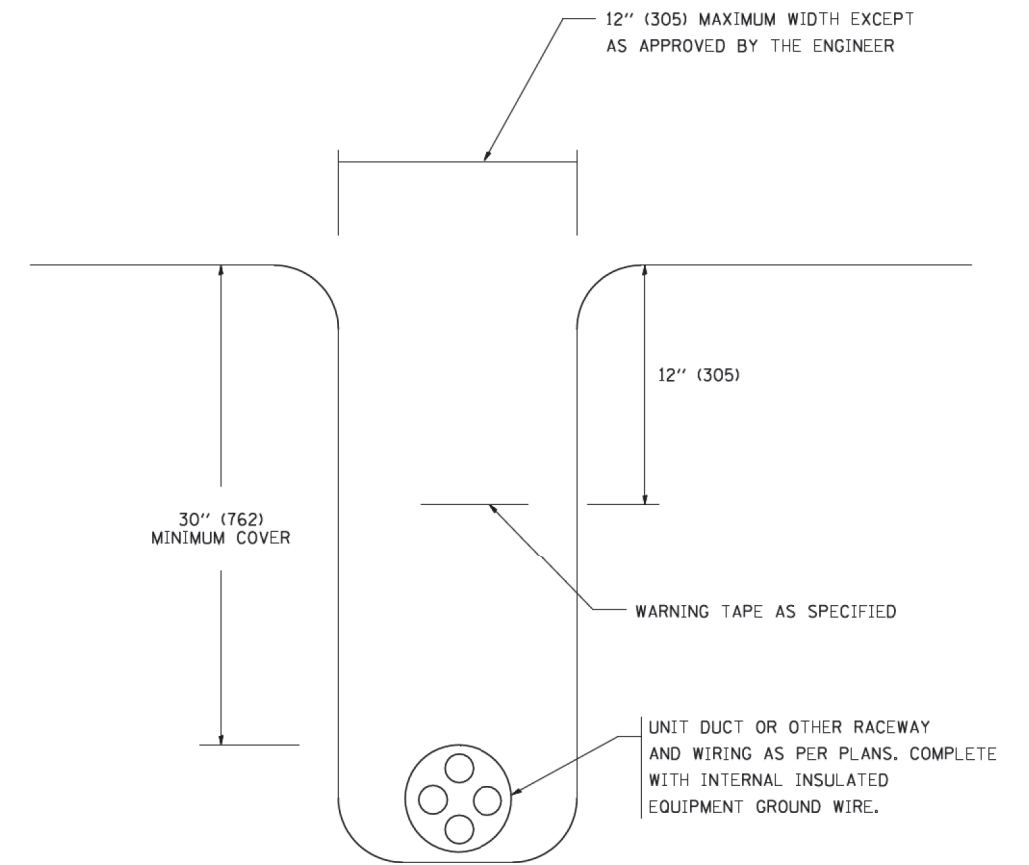
**DAVIT LIGHT POLE 40'-0" (12.192 m) MOUNTING HEIGHT  
 US ROUTE 20 AT MARENGO ROAD**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	McHENRY	329	219
CONTRACT NO. 62D36				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT LGMW (759)				



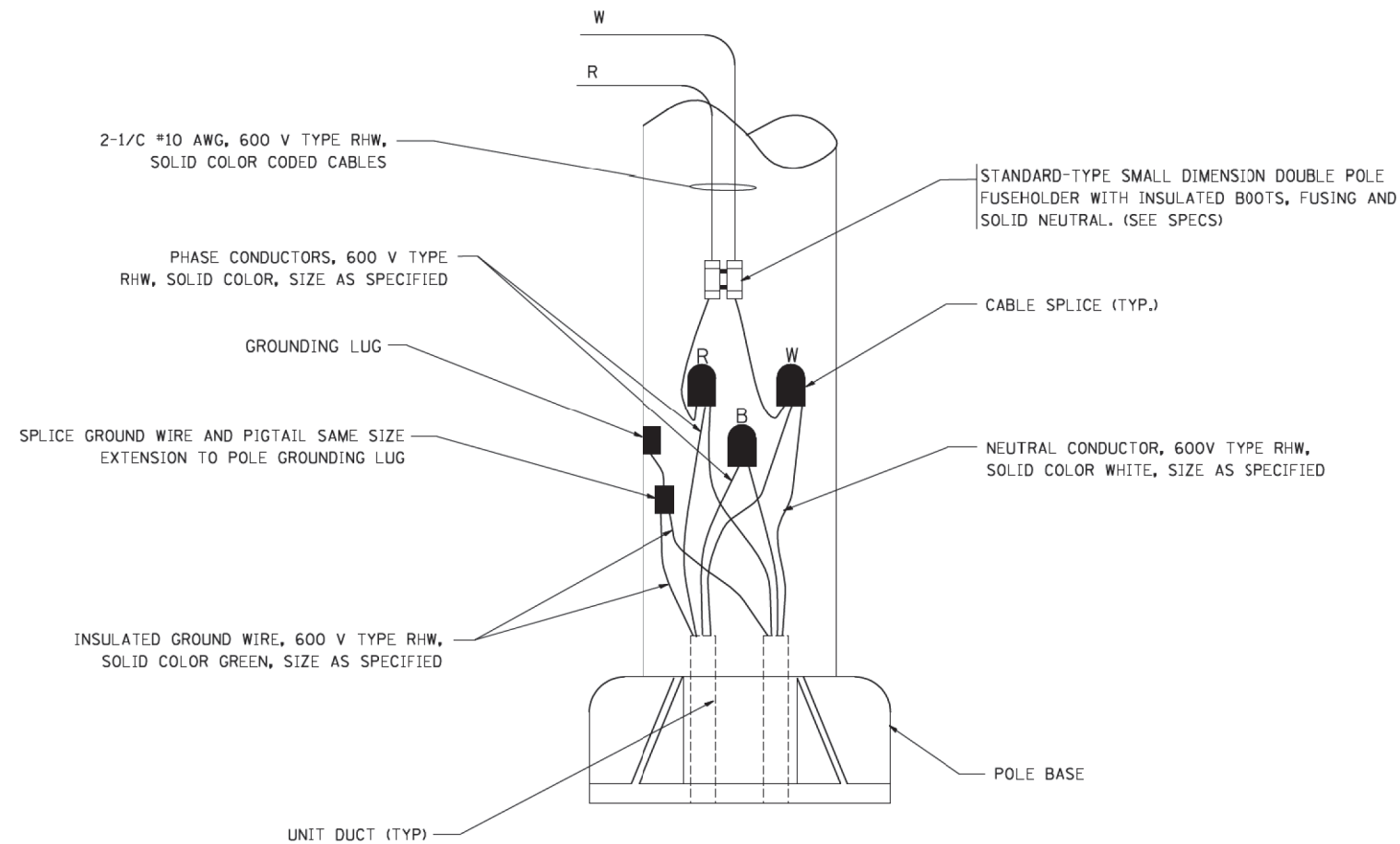
TYPICAL SPLICE DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

N.T.S.



POLE WIRING DETAIL

N.T.S.

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 FILE NAME = RWP\Projects\10286\SUB\_2016\misc\electrical\Lamp\Lighting.dgn

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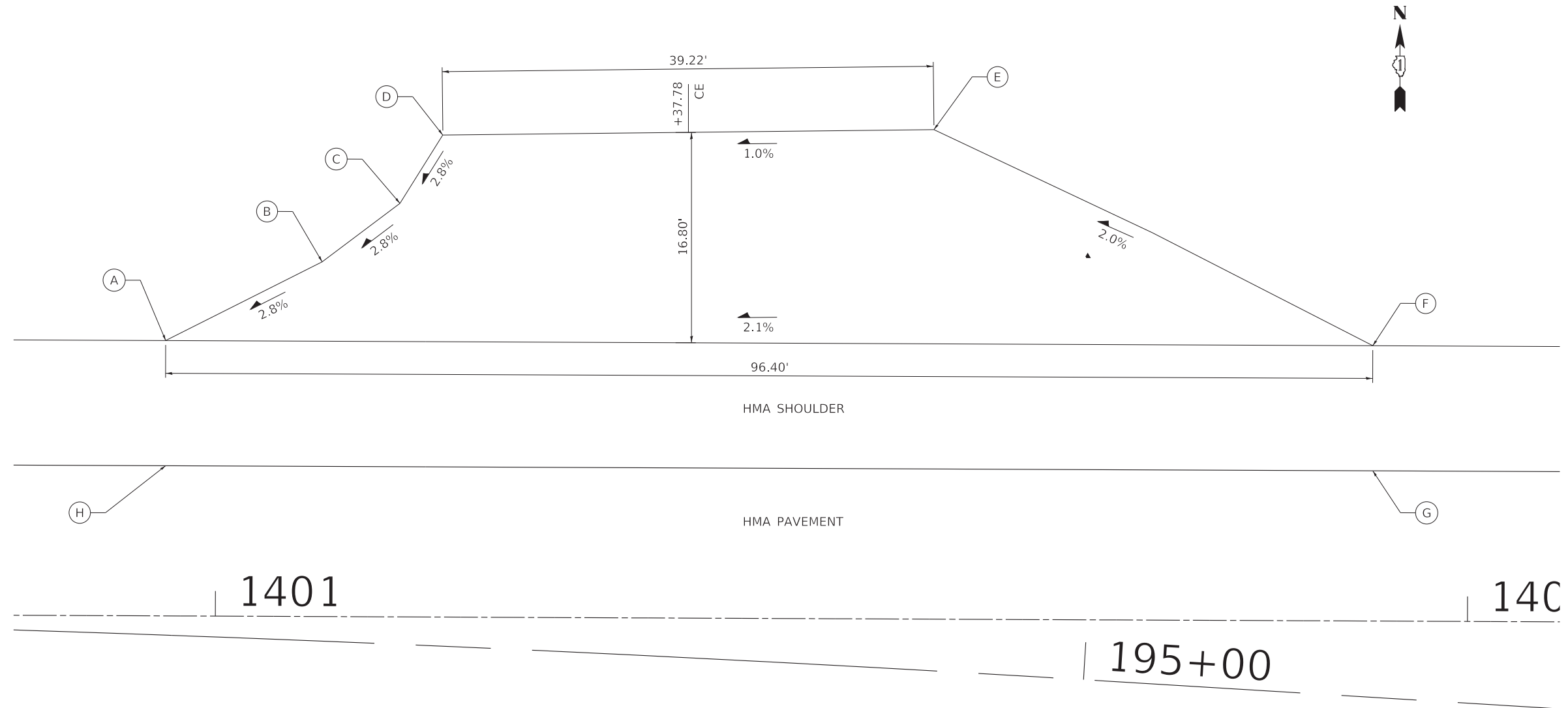
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PLOT DATE = 5/22/2019	CHECKED - BL	REVISED -
	DATE - 05-22-19	REVISED -

STATE OF ILLINOIS  
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MISC. ELECTRICAL DETAILS			
US ROUTE 20 AT MARENGO ROAD			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	McHENRY	329	220
CONTRACT NO. 62D36				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT LGMW (759)				

LT-8



BECK ROAD DRIVEWAY DETAIL 1			
POINT	STA	OFFSET	ELEVATION
A	1400+95.94	22.00 LT	891.85
B	1401+08.41	28.34 LT	892.24
C	1401+14.60	33.04 LT	892.46
D	1401+18.00	38.52 LT	892.64
E	1401+57.23	39.12 LT	893.03
F	1401+92.35	22.00 LT	893.83
G	1401+92.57	12.00 LT	894.23
H	1400+95.98	12.00 LT	892.25

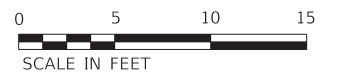
1401

14C

195+00

### BECK ROAD

STA 1401+37.7, LT



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 LICENSE NO. - J84-001121 - EXPIRES 4/30/2020  
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STATE OF ILLINOIS  
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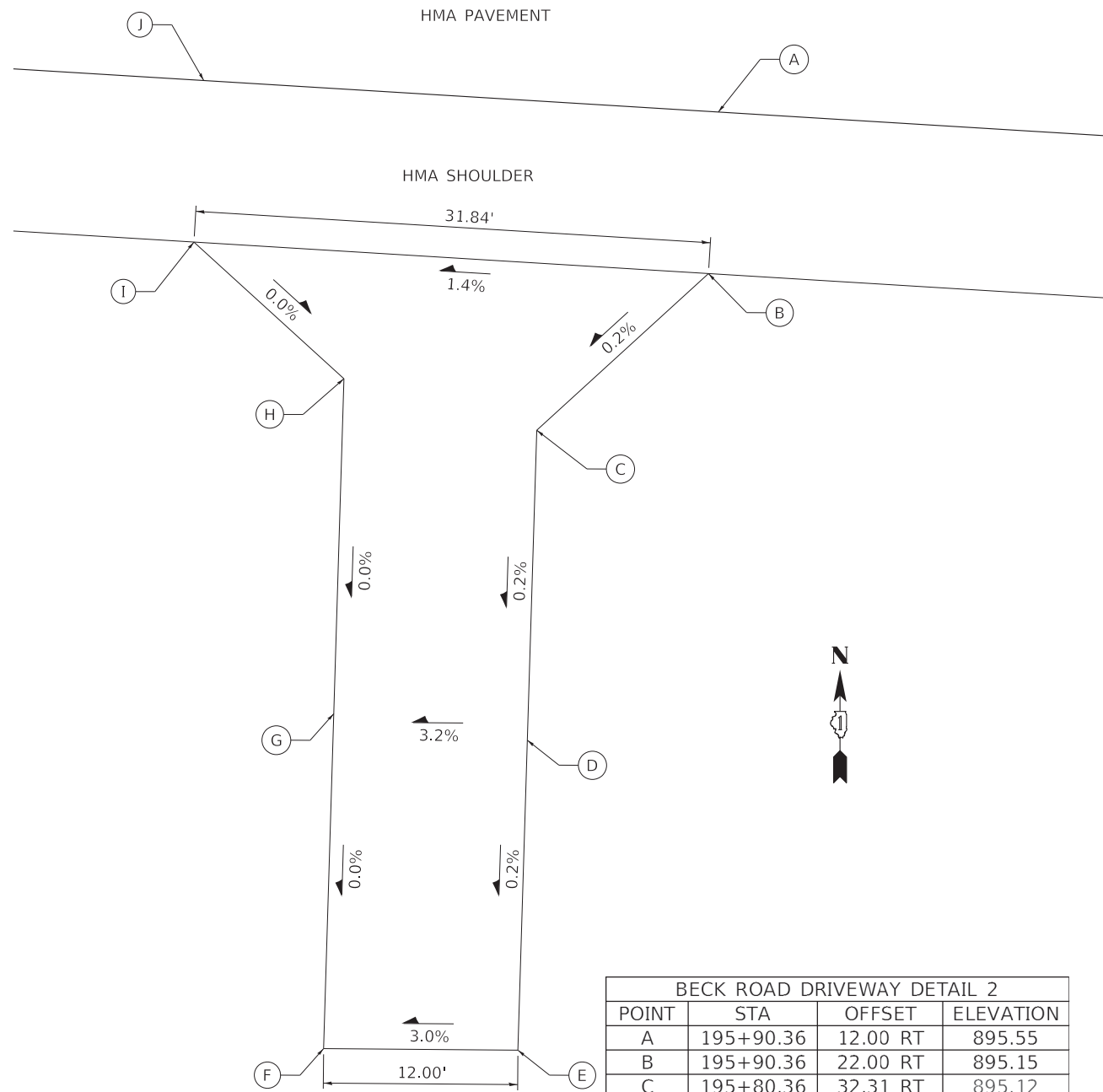
DRIVEWAY DETAILS

SCALE: 1" = 5'

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				

196

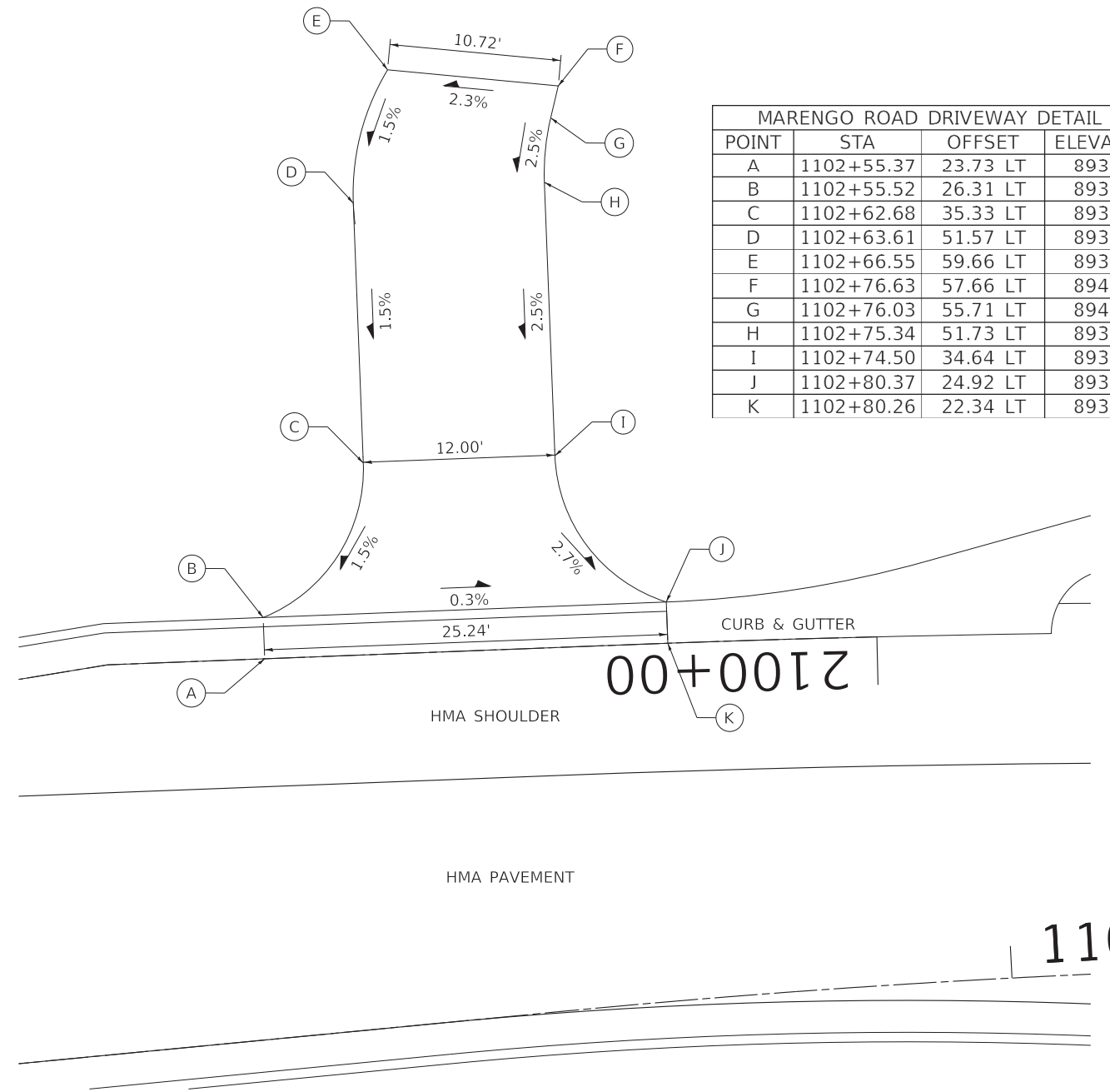


**BECK ROAD**

STA 195+73.4, RT

BECK ROAD DRIVEWAY DETAIL 2			
POINT	STA	OFFSET	ELEVATION
A	195+90.36	12.00 RT	895.55
B	195+90.36	22.00 RT	895.15
C	195+80.36	32.31 RT	895.12
D	195+80.95	51.46 RT	895.09
E	195+81.54	70.60 RT	895.06
F	195+69.56	71.24 RT	894.70
G	195+68.96	51.82 RT	894.70
H	195+68.28	29.86 RT	894.71
I	195+58.52	22.00 RT	894.71
J	195+58.52	12.00 RT	895.11

EX  
EX



**MARENGO ROAD**

STA 1102+66.7, LT

MARENGO ROAD DRIVEWAY DETAIL 1			
POINT	STA	OFFSET	ELEVATION
A	1102+55.37	23.73 LT	893.26
B	1102+55.52	26.31 LT	893.27
C	1102+62.68	35.33 LT	893.44
D	1102+63.61	51.57 LT	893.69
E	1102+66.55	59.66 LT	893.82
F	1102+76.63	57.66 LT	894.07
G	1102+76.03	55.71 LT	894.02
H	1102+75.34	51.73 LT	893.92
I	1102+74.50	34.64 LT	893.50
J	1102+80.37	24.92 LT	893.20
K	1102+80.26	22.34 LT	893.19

EX  
EX



1103

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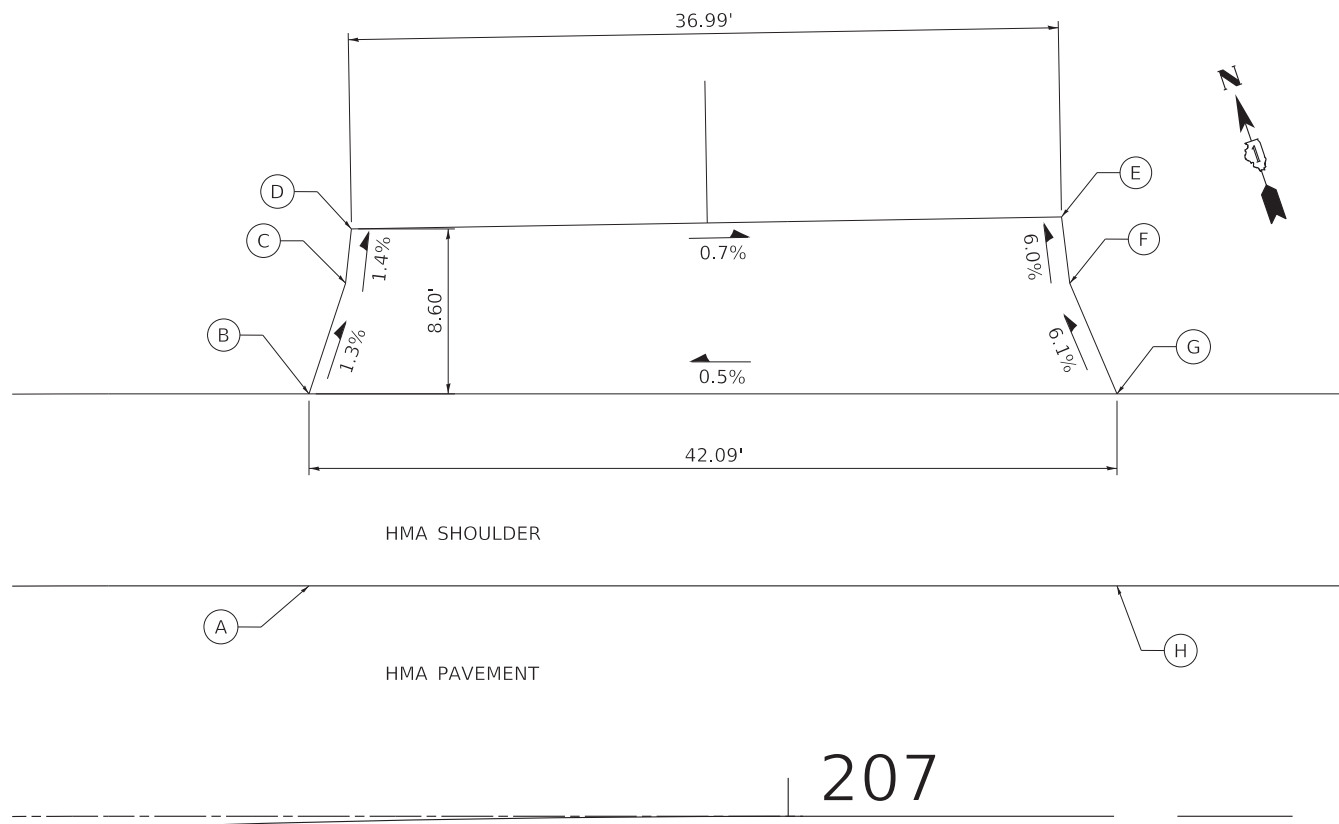
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DEPARTMENT OF TRANSPORTATION

**DRIVEWAY DETAILS**

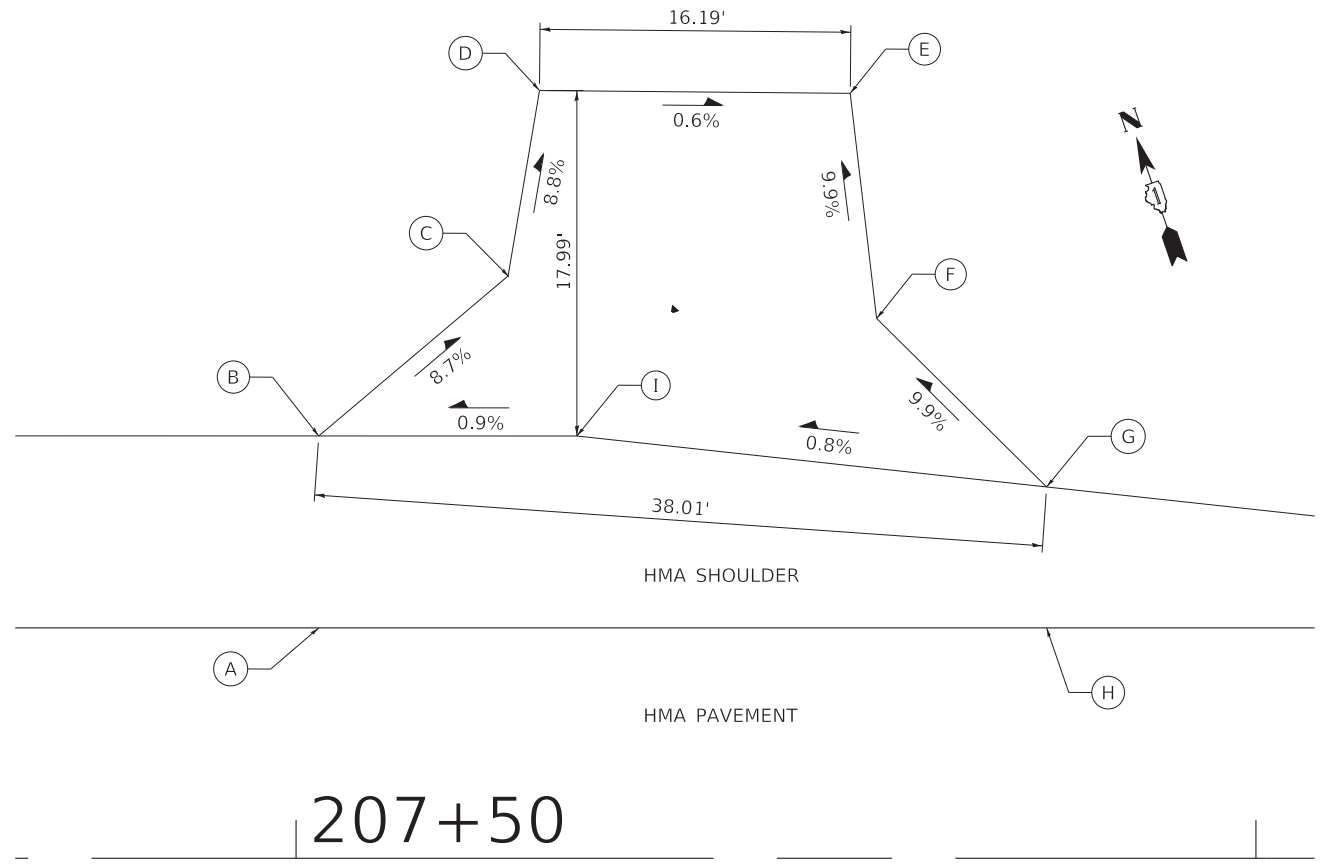
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525	2016-092B&R	MCHENRY	329	222
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GW/1759				



**MARENGO RD**

STA 206+96, LT



**MARENGO RD**

STA 207+60, LT

MARENGO ROAD DRIVEWAY DETAIL 2			
POINT	STA	OFFSET	ELEVATION
A	206+75.33	12.31 LT	894.55
B	206+75.57	22.31 LT	894.15
C	206+77.55	28.02 LT	894.07
D	206+77.91	30.85 LT	894.03
E	207+14.23	31.22 LT	893.77
F	207+14.67	27.76 LT	893.98
G	207+17.12	22.00 LT	894.36
H	207+17.25	12.00 LT	894.76

EX  
EX

MARENGO ROAD DRIVEWAY DETAIL 3			
POINT	STA	OFFSET	ELEVATION
A	207+41.41	12.00' LT	895.06
B	207+41.41	22.00' LT	894.66
C	207+51.15	30.23' LT	893.54
D	207+52.90	39.99' LT	892.68
E	207+69.09	39.85' LT	892.58
F	207+70.47	28.12' LT	893.75
G	207+79.32	19.34' LT	894.98
H	207+79.32	12.00' LT	895.28
I	207+54.85	22.00' LT	894.78

EX  
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<b>BAXTER &amp; WOODMAN</b> Consulting Engineers	USER NAME = 560KAR	DESIGNED -	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

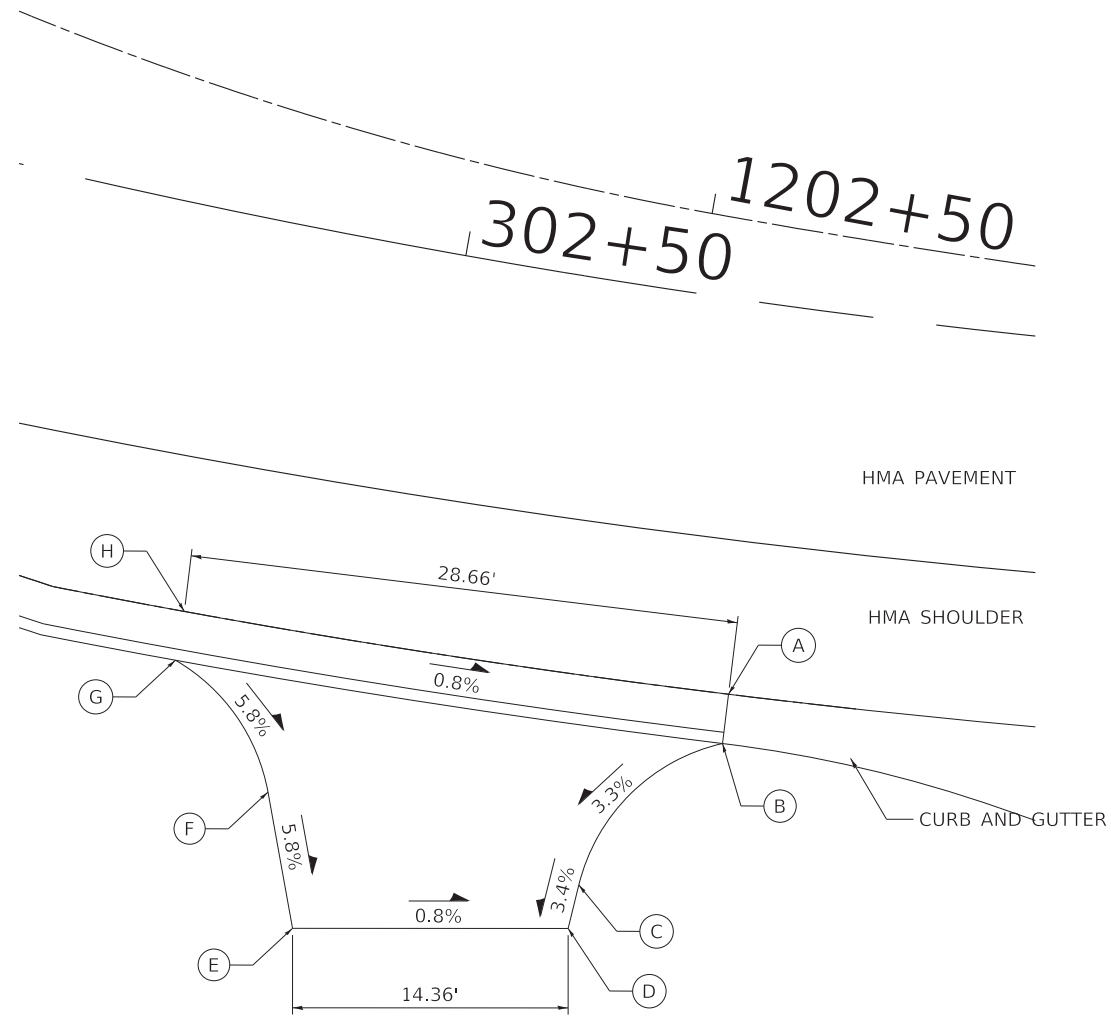
**DRIVEWAY DETAILS**

SCALE: 1" = 5' SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	223
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				

UNION ROAD DRIVEWAY DETAIL 1			
POINT	STA	OFFSET	ELEVATION
A	302+66.70	20.45 RT	890.91
B	302+66.73	23.03 RT	890.92
C	302+60.75	31.40 RT	890.57
D	302+60.56	33.72 RT	890.49
E	302+47.48	36.08 RT	890.60
F	302+45.10	29.34 RT	891.02
G	302+39.40	23.53 RT	891.52
H	302+39.35	20.95 RT	891.51

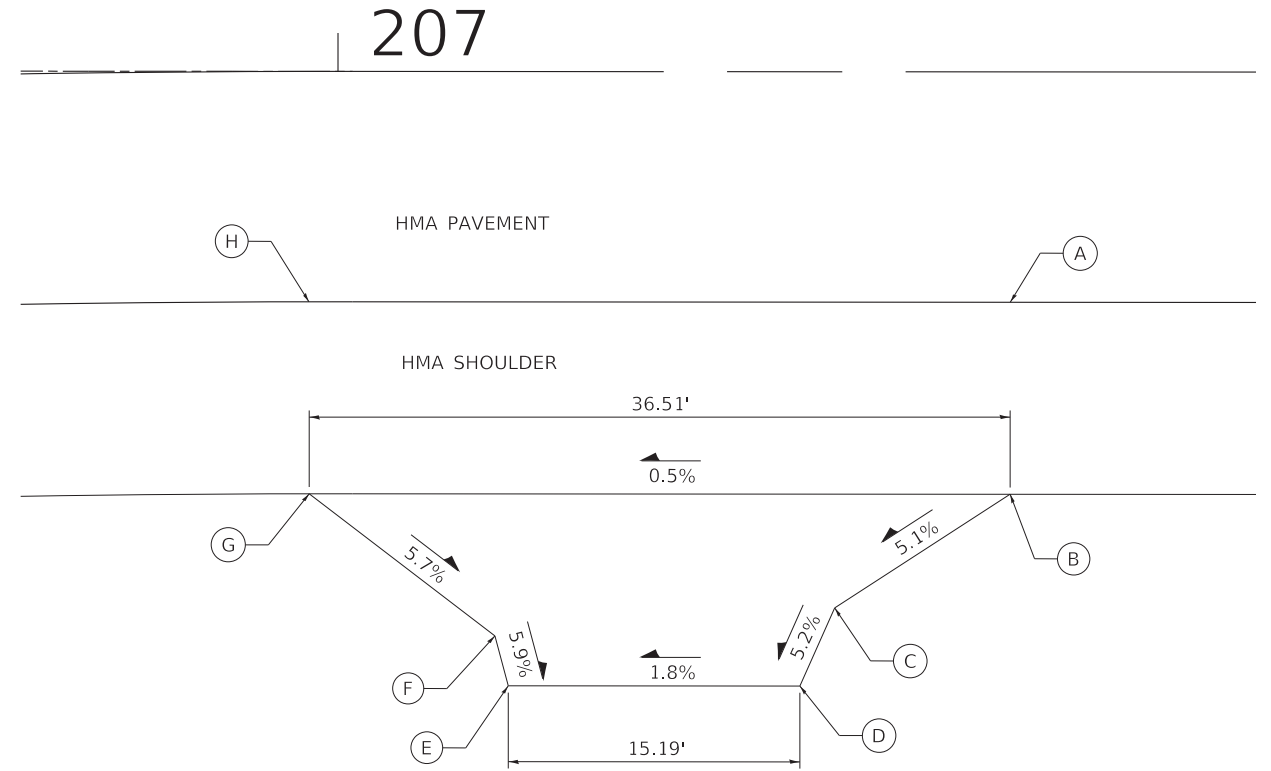
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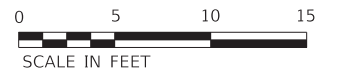
**UNION RD**  
STA 302+48.2, LT

MARENGO ROAD DRIVEWAY DETAIL 4			
POINT	STA	OFFSET	ELEVATION
A	207+35.03	12.00 RT	894.87
B	207+35.03	22.00 RT	894.47
C	207+25.90	27.93 RT	893.92
D	207+24.08	32.00 RT	893.69
E	207+08.90	32.00 RT	893.42
F	207+08.20	29.40 RT	893.58
G	206+98.47	22.00 RT	894.28
H	206+98.47	12.00 RT	894.68

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**MARENGO RD**  
STA 207+16, RT



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PLOT DATE = 1/17/2020	DATE - 01-24-20	FILE - D162D36-sht-ADA-details-04.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS

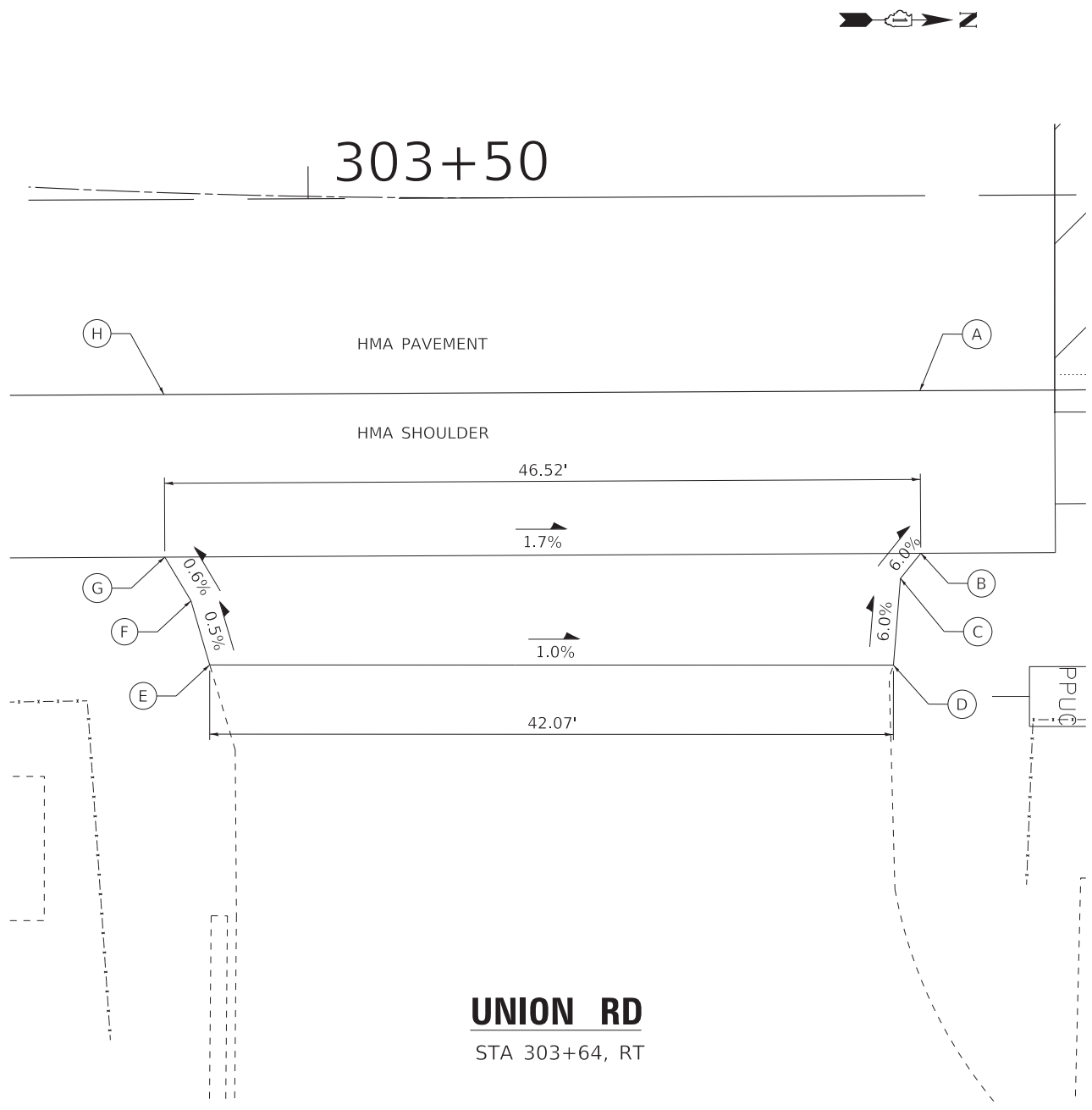
SCALE: 1" = 5' SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	224
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				



UNION ROAD DRIVEWAY DETAIL 2			
POINT	STA	OFFSET	ELEVATION
A	303+87.58	12.00 RT	888.77
B	303+87.58	22.00 RT	888.37
C	303+86.33	23.55 RT	888.49
D	303+85.87	28.88 RT	888.81
E	303+43.80	28.65 RT	889.21
F	303+42.66	24.70 RT	889.19
G	303+41.07	22.00 RT	889.17
H	303+41.07	12.00 RT	889.57

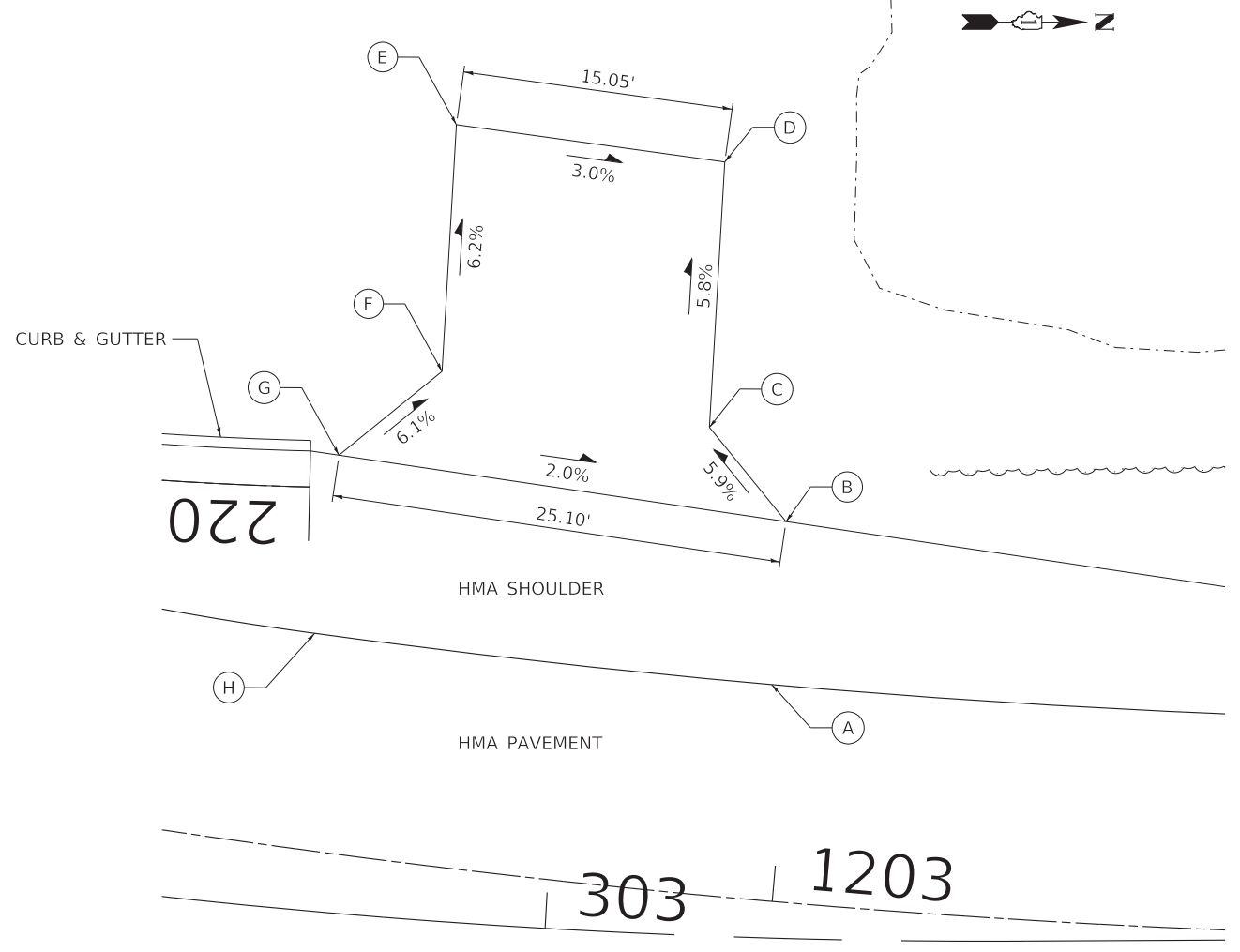
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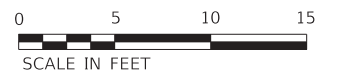
**UNION RD**  
STA 303+64, RT

UNION ROAD DRIVEWAY DETAIL 3			
POINT	STA	OFFSET	ELEVATION
A	1202+98.91	12.00 LT	889.76
B	1202+98.91	21.09 LT	889.40
C	1202+93.98	25.91 LT	889.00
D	1202+93.36	40.65 LT	888.14
E	1202+77.11	41.01 LT	888.59
F	1202+78.11	27.35 LT	889.44
G	1202+72.80	21.98 LT	889.89
H	1202+72.82	12.00 LT	890.28

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**UNION RD**  
STA 1202+86, LT



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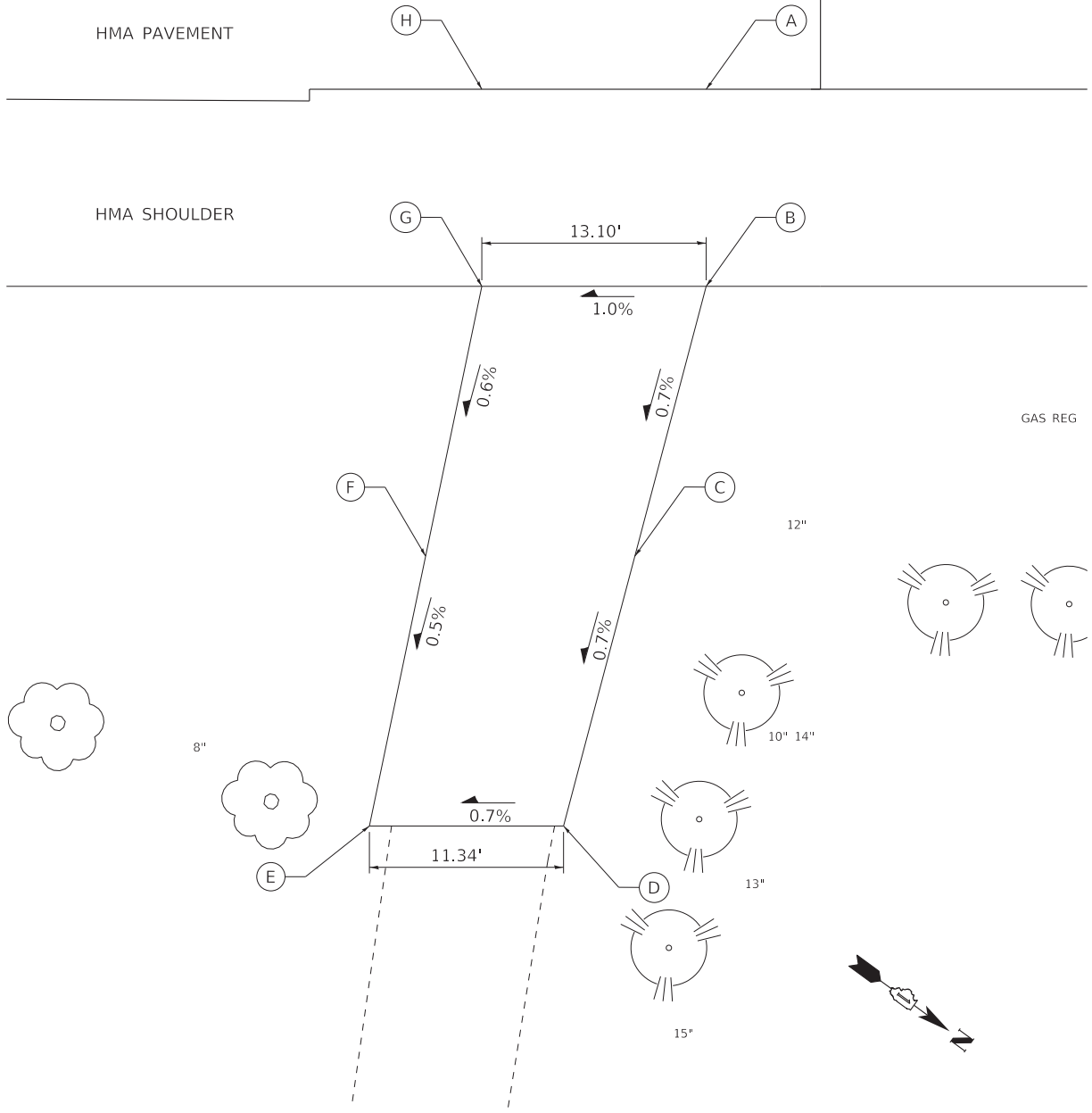
<b>BAXTER &amp; WOODMAN</b> Consulting Engineers	USER NAME = 560KAR	DESIGNED -	REVISED -
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	PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
		DATE - 01-24-20	FILE - D162D36-sht-ADA-details-05.dgn

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>DRIVEWAY DETAILS</b>	
SCALE: 1" = 5'	SHEET OF SHEETS STA. TO STA.

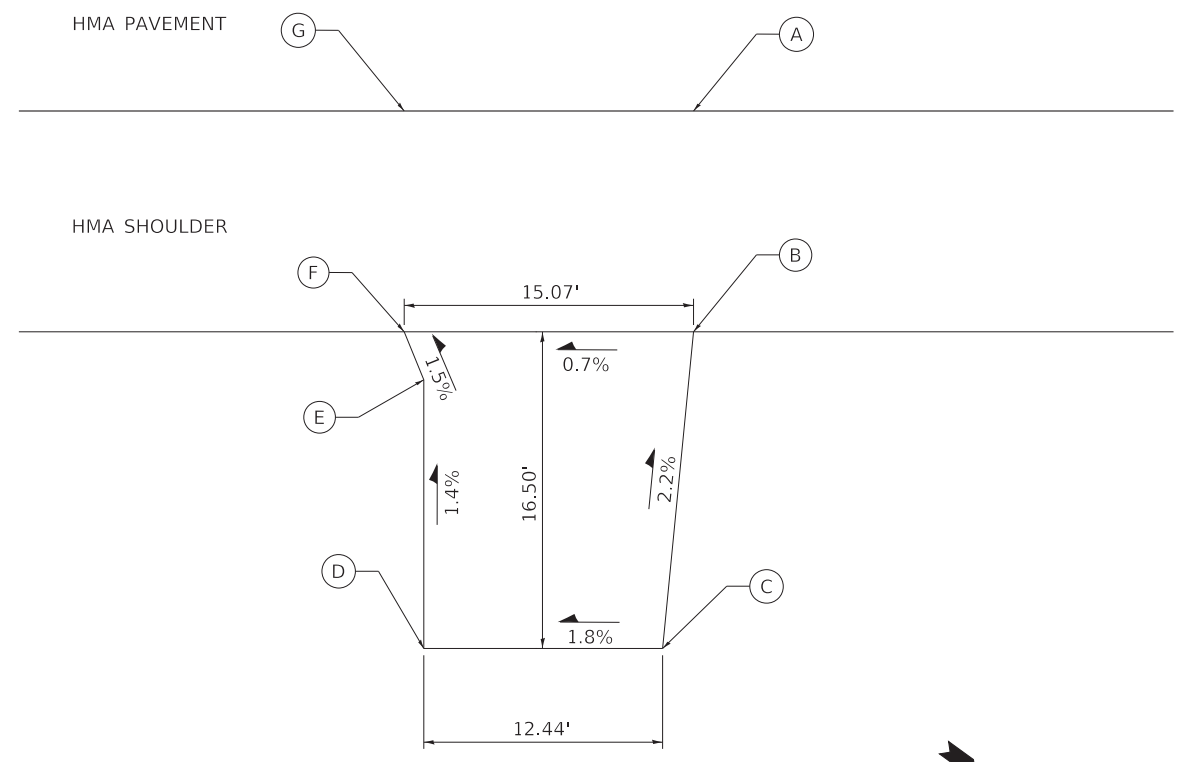
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	225
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				

117



**US ROUTE 20**  
STA 117+00, RT

US20 DRIVEWAY DETAIL 1			
POINT	STA	OFFSET	ELEVATION
A	117+14.37	12.00 RT	883.09
B	117+14.37	23.50 RT	883.02
C	117+10.21	39.25 RT	882.91
D	117+06.40	55.00 RT	882.80
E	116+94.70	55.00 RT	882.72
F	116+97.99	39.25 RT	882.80
G	117+01.27	23.50 RT	882.89
H	117+01.27	12.00 RT	883.25



**US ROUTE 20**  
STA 124+85, RT

US20 DRIVEWAY DETAIL 2			
POINT	STA	OFFSET	ELEVATION
A	124+92.51	12.00 RT	880.26
B	124+92.51	23.50 RT	879.80
C	124+90.91	40.00 RT	880.16
D	124+78.47	40.00 RT	879.94
E	124+78.47	26.00 RT	879.74
F	124+77.44	23.50 RT	879.70
G	124+77.44	12.00 RT	880.16



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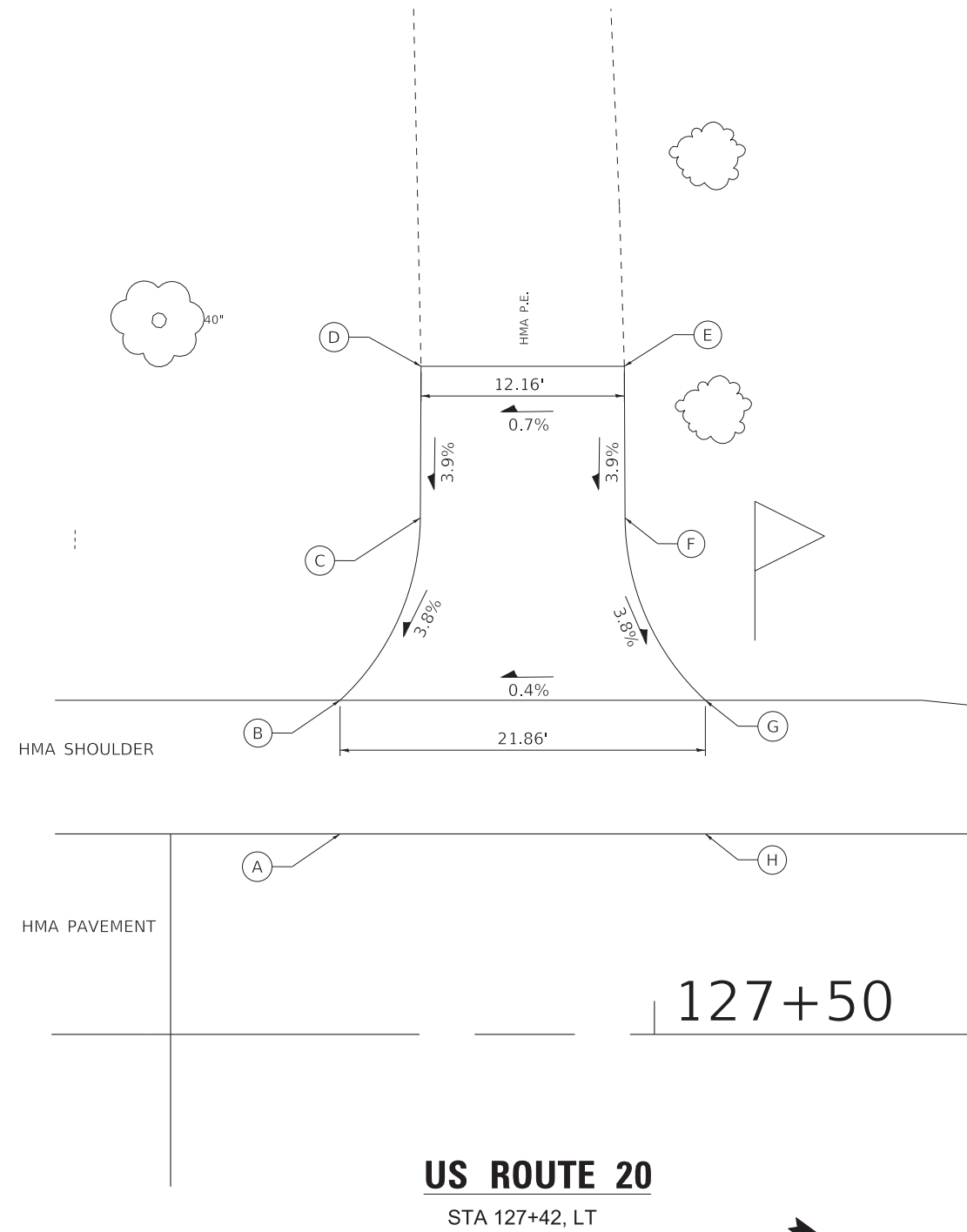
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		DATE - 01-24-20	FILE - D162D36-sht-ADA-details-06.dgn

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DRIVEWAY DETAILS**

SCALE: 1" = 5' SHEET OF SHEETS STA. TO STA.

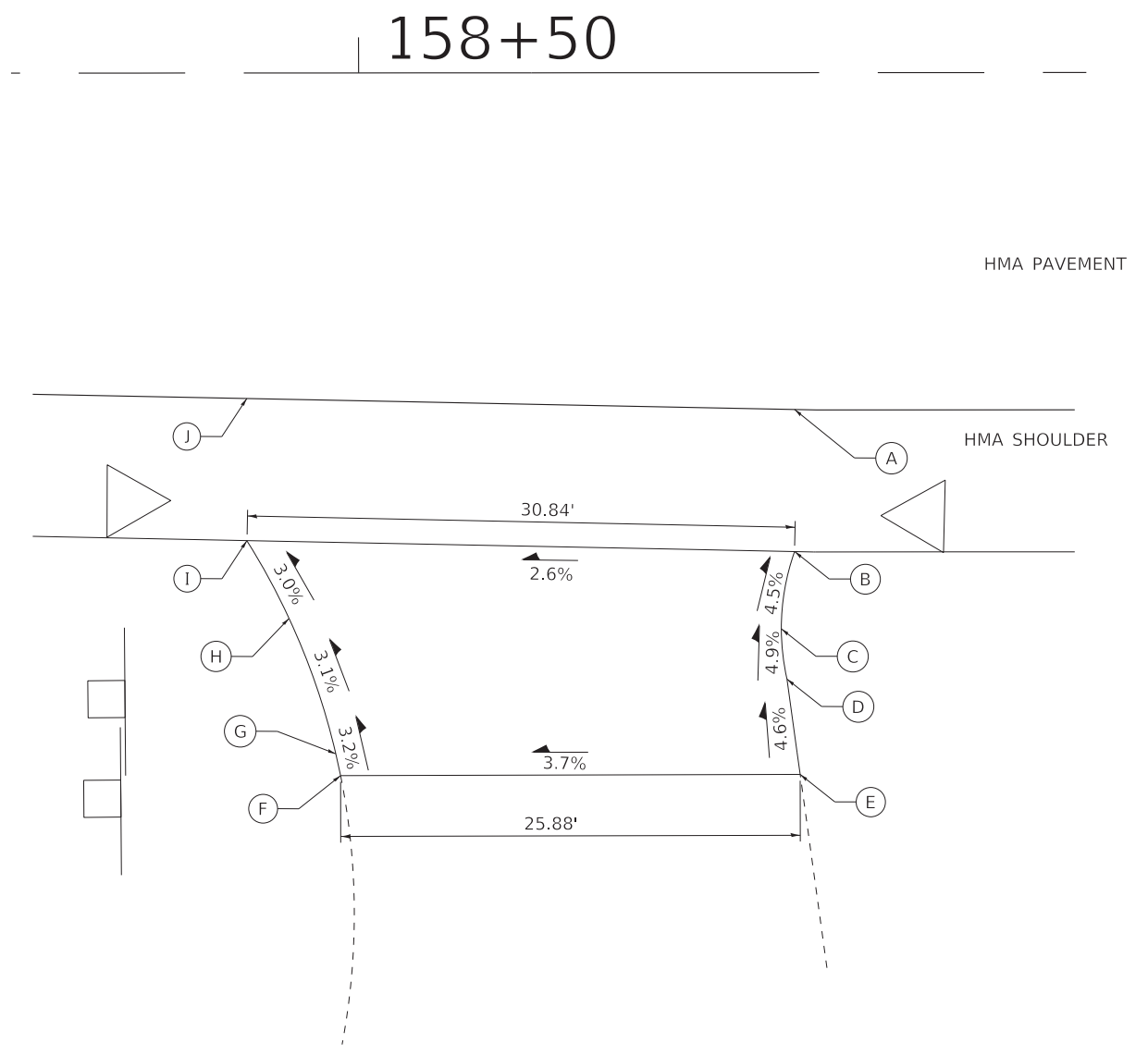
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525	2016-092B&R	MCHENRY	329	226
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				



**US ROUTE 20**  
STA 127+42, LT

US20 DRIVEWAY DETAIL 3			
POINT	STA	OFFSET	ELEVATION
A	127+31.19	12.00 LT	881.73
B	127+31.19	20.00 LT	881.74
C	127+35.99	30.92 LT	882.19
D	127+36.03	40.00 LT	882.54
E	127+48.20	40.00 LT	882.63
F	127+48.24	30.92 LT	882.28
G	127+53.05	20.00 LT	881.83
H	127+53.05	12.00 LT	881.94

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**US ROUTE 20**  
STA 158+62, RT

US20 DRIVEWAY DETAIL 4			
POINT	STA	OFFSET	ELEVATION
A	158+74.54	18.98 RT	906.30
B	158+74.54	26.98 RT	905.98
C	158+73.79	31.33 RT	906.18
D	158+74.10	34.16 RT	906.32
E	158+74.85	39.53 RT	906.57
F	158+48.90	39.58 RT	905.62
G	158+48.69	38.35 RT	905.58
H	158+46.07	30.72 RT	905.33
I	158+43.70	26.34 RT	905.18
J	158+43.70	18.34 RT	905.50

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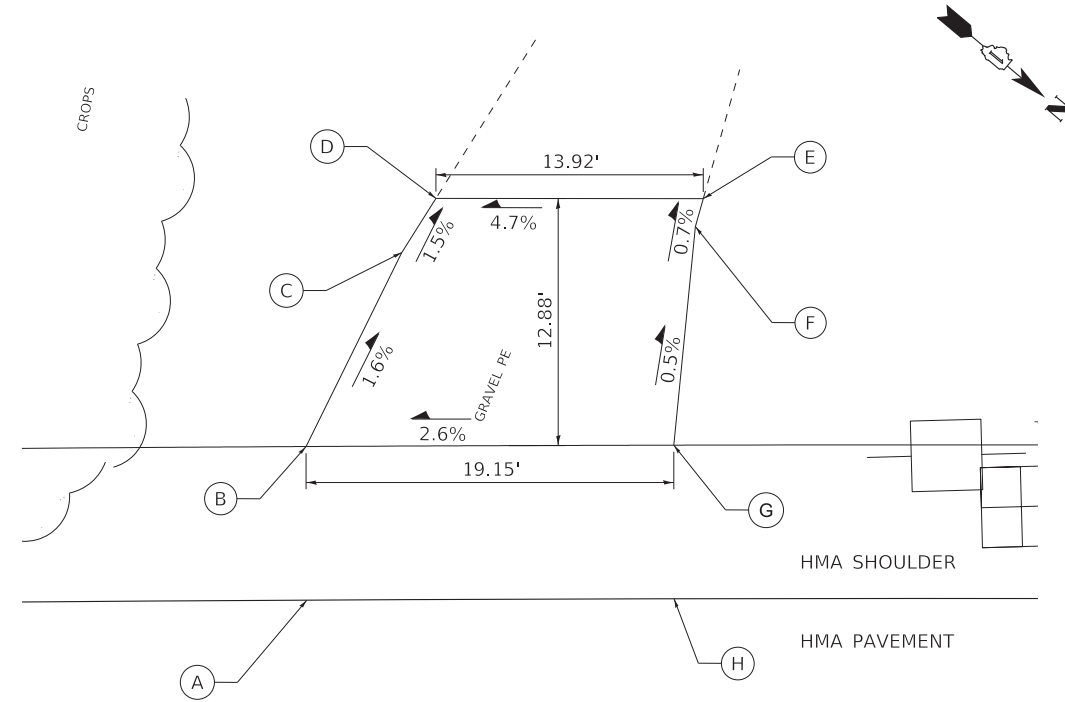
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS

SCALE: 1" = 5' SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				



160+00

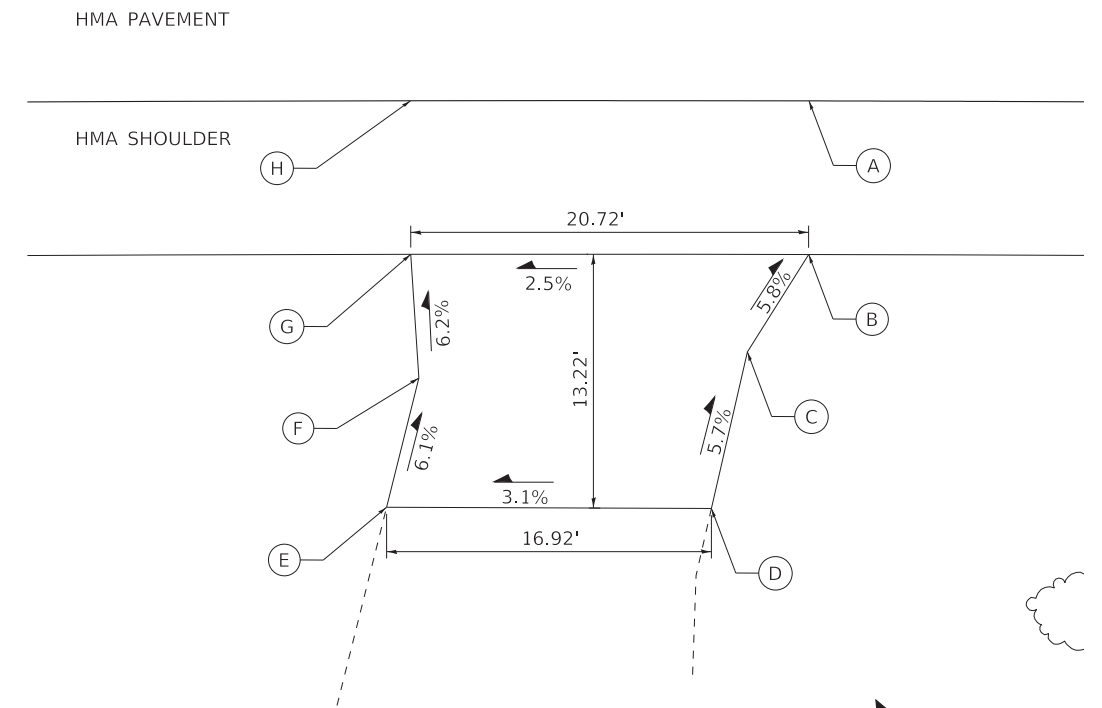
**US ROUTE 20**

STA 160+30, LT

US20 DRIVEWAY DETAIL 5			
POINT	STA	OFFSET	ELEVATION
A	160+17.79	19.00 LT	910.03
B	160+17.79	27.00 LT	909.71
C	160+22.80	37.08 LT	909.53
D	160+24.57	39.90 LT	909.48
E	160+38.41	39.84 LT	910.13
F	160+38.00	38.39 LT	910.14
G	160+36.85	27.00 LT	910.20
H	160+36.85	19.00 LT	910.52

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160+50

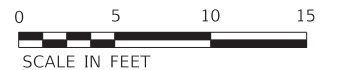


**US ROUTE 20**

STA 160+50, RT

US20 DRIVEWAY DETAIL 6			
POINT	STA	OFFSET	ELEVATION
A	160+62.67	19.00 RT	911.15
B	160+62.27	27.00 RT	910.83
C	160+59.47	32.08 RT	911.18
D	160+57.60	40.24 RT	911.66
E	160+40.56	40.56 RT	911.14
F	160+42.27	33.45 RT	910.72
G	160+41.85	27.00 RT	910.32
H	160+41.85	19.00 RT	910.64

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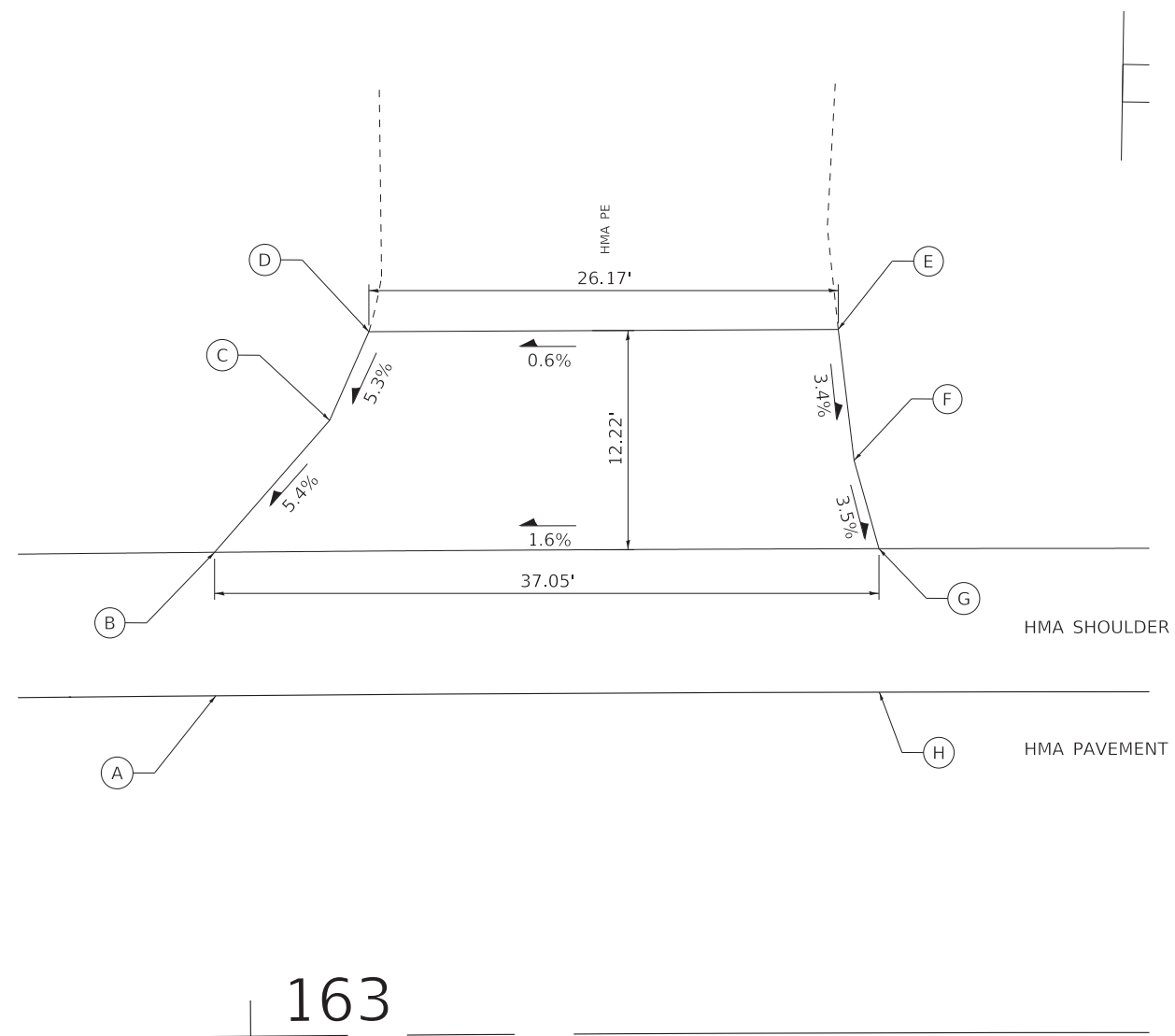
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STATE OF ILLINOIS  
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**DRIVEWAY DETAILS**

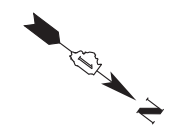
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	228
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				



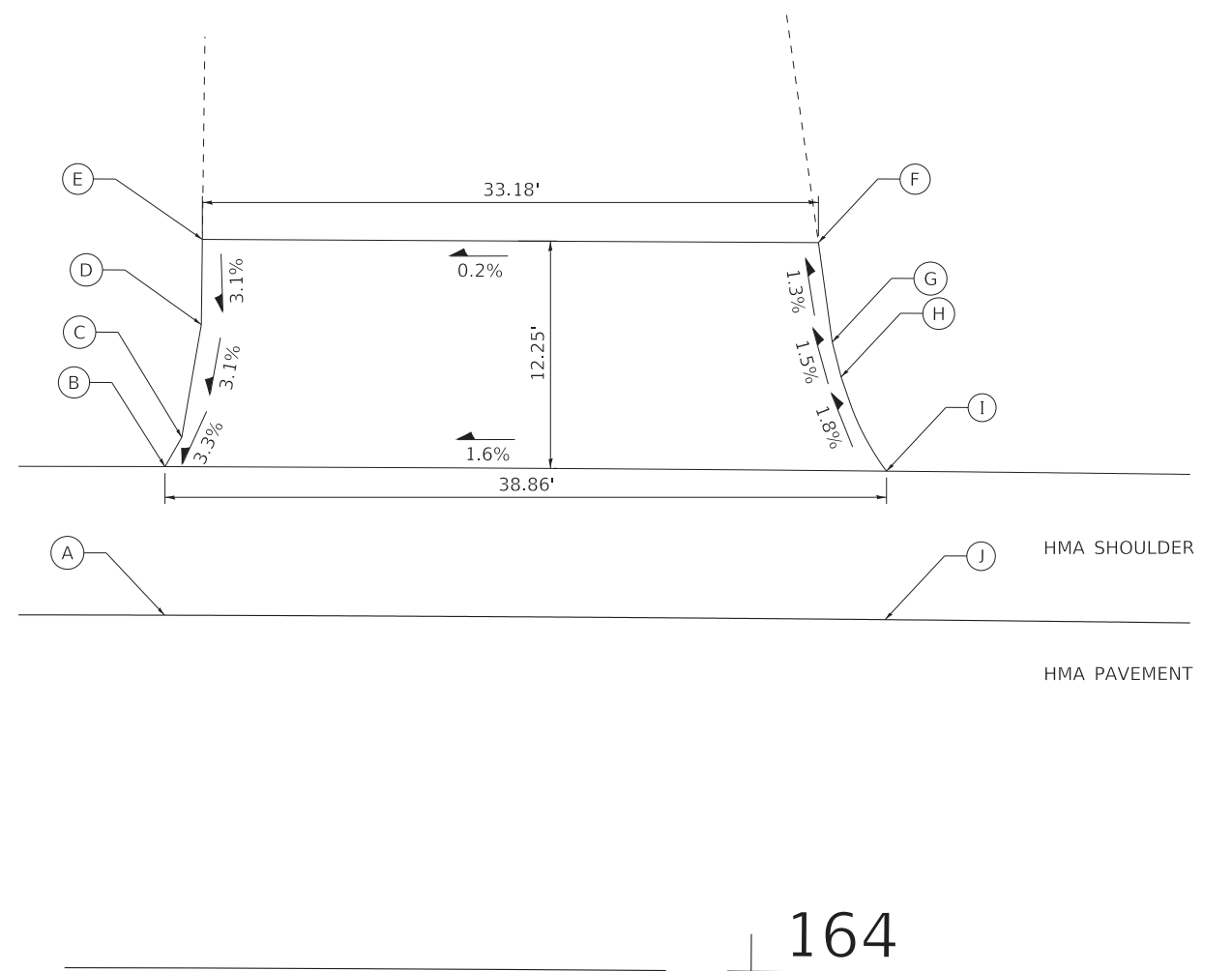
163

**US ROUTE 20**  
STA 163+18, LT



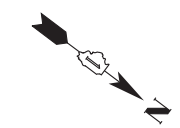
US20 DRIVEWAY DETAIL 7			
POINT	STA	OFFSET	ELEVATION
A	162+98.22	19.00 LT	915.72
B	162+98.22	27.00 LT	915.40
C	163+04.66	34.31 LT	915.93
D	163+06.87	39.24 LT	916.26
E	163+32.88	39.23 LT	916.42
F	163+33.74	33.74 LT	916.17
G	163+35.11	27.00 LT	915.99
H	163+35.11	19.00 LT	916.31

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164

**US ROUTE 20**  
STA 163+87, LT



US20 DRIVEWAY DETAIL 8			
POINT	STA	OFFSET	ELEVATION
A	163+68.35	19.00 LT	916.86
B	163+68.36	27.00 LT	916.54
C	163+69.24	28.58 LT	916.60
D	163+70.15	33.98 LT	916.79
E	163+70.31	39.25 LT	916.93
F	164+03.28	39.27 LT	916.98
G	164+04.07	33.92 LT	917.05
H	164+04.56	32.04 LT	917.08
I	164+07.04	27.00 LT	917.18
J	164+07.04	19.00 LT	917.50

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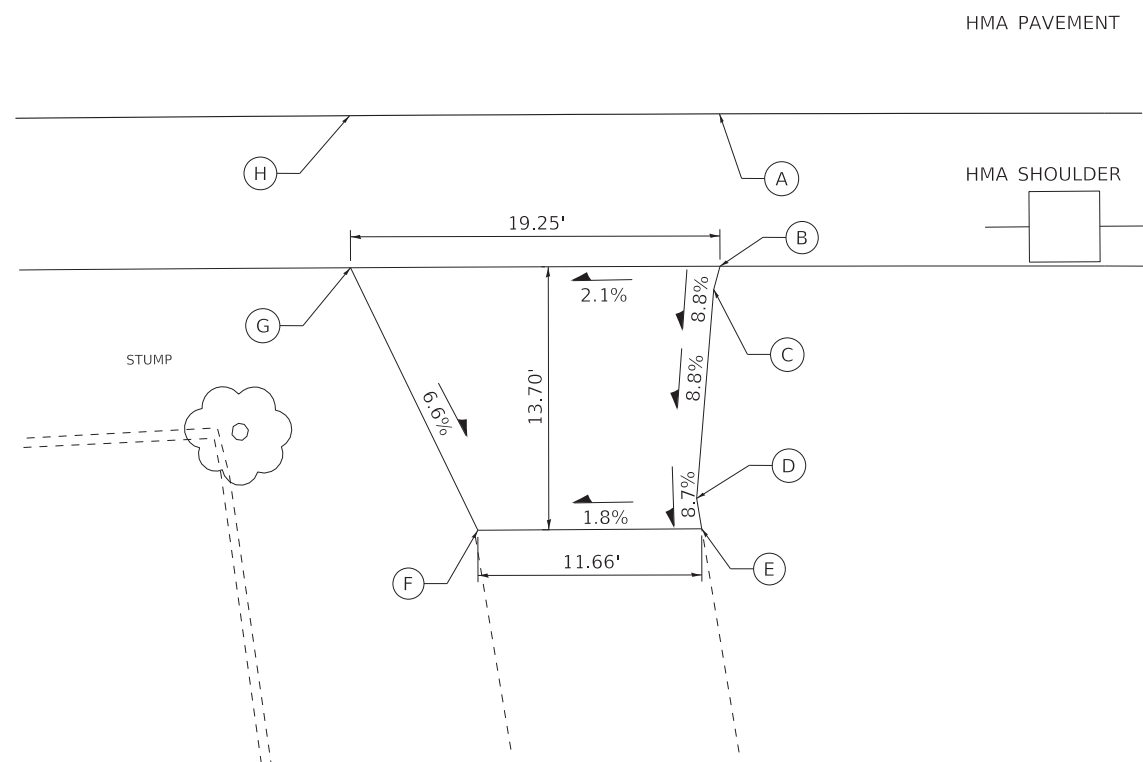
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS

SCALE: 1" = 5' SHEET OF SHEETS STA. TO STA.

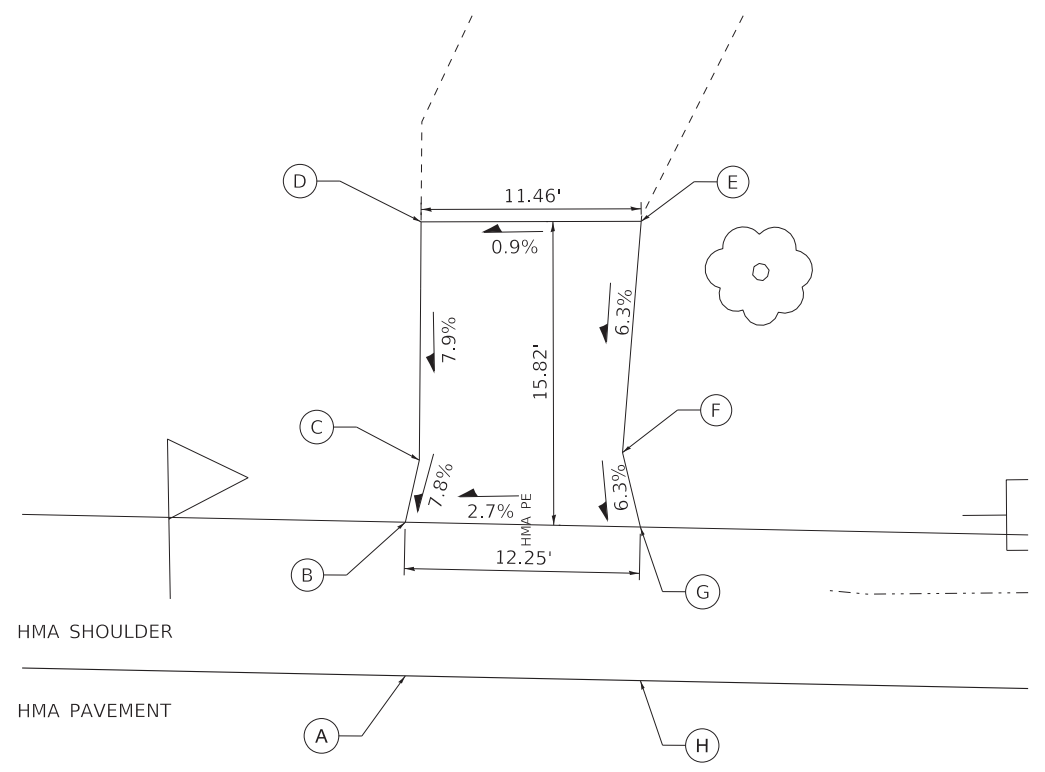
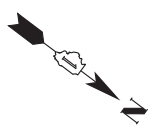
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525	2016-092B&R	MCHENRY	329	229
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				

164+50



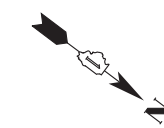
**US ROUTE 20**

STA 164+69, RT



**US ROUTE 20**

STA 166+80, LT



POINT	STA	OFFSET	ELEVATION
A	164+77.10	19.00 RT	918.84
B	164+77.10	27.00 RT	918.52
C	164+76.76	28.14 RT	918.41
D	164+75.83	39.03 RT	917.45
E	164+76.09	40.61 RT	917.31
F	164+64.36	40.63 RT	917.10
G	164+57.77	27.00 RT	918.11
H	164+57.77	19.00 RT	918.43

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US20 DRIVEWAY DETAIL 10			
POINT	STA	OFFSET	ELEVATION
A	166+74.12	16.18 LT	923.97
B	166+74.12	24.18 LT	923.65
C	166+74.85	27.42 LT	923.91
D	166+74.95	39.84 LT	924.89
E	166+86.41	39.86 LT	924.99
F	166+85.44	27.82 LT	924.23
G	166+86.37	23.93 LT	923.98
H	166+86.37	15.93 LT	924.30

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<b>BAXTER &amp; WOODMAN</b> Consulting Engineers	USER NAME = 560KAR	DESIGNED -	REVISED -
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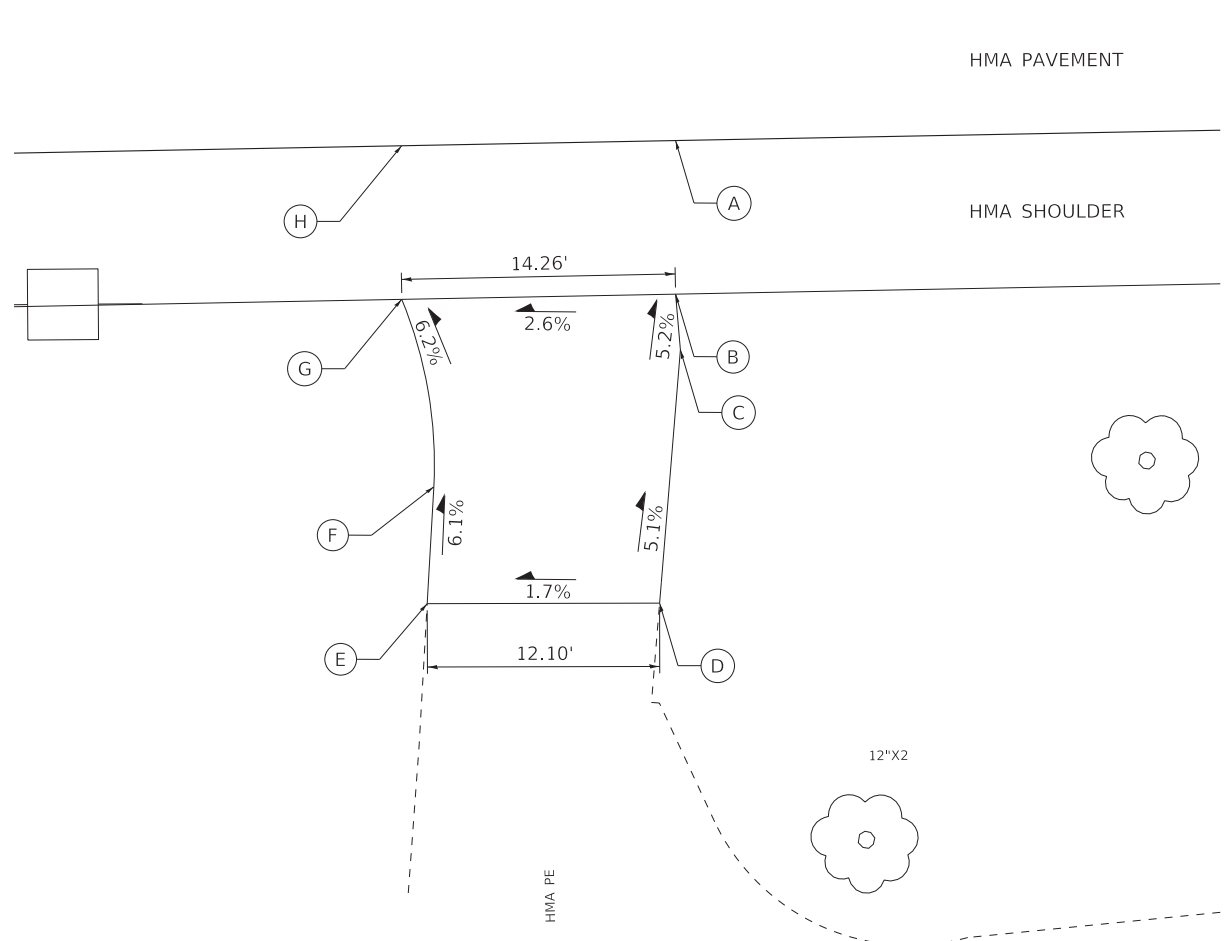
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**DRIVEWAY DETAILS**

SCALE: 1" = 5' SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	230
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				

167

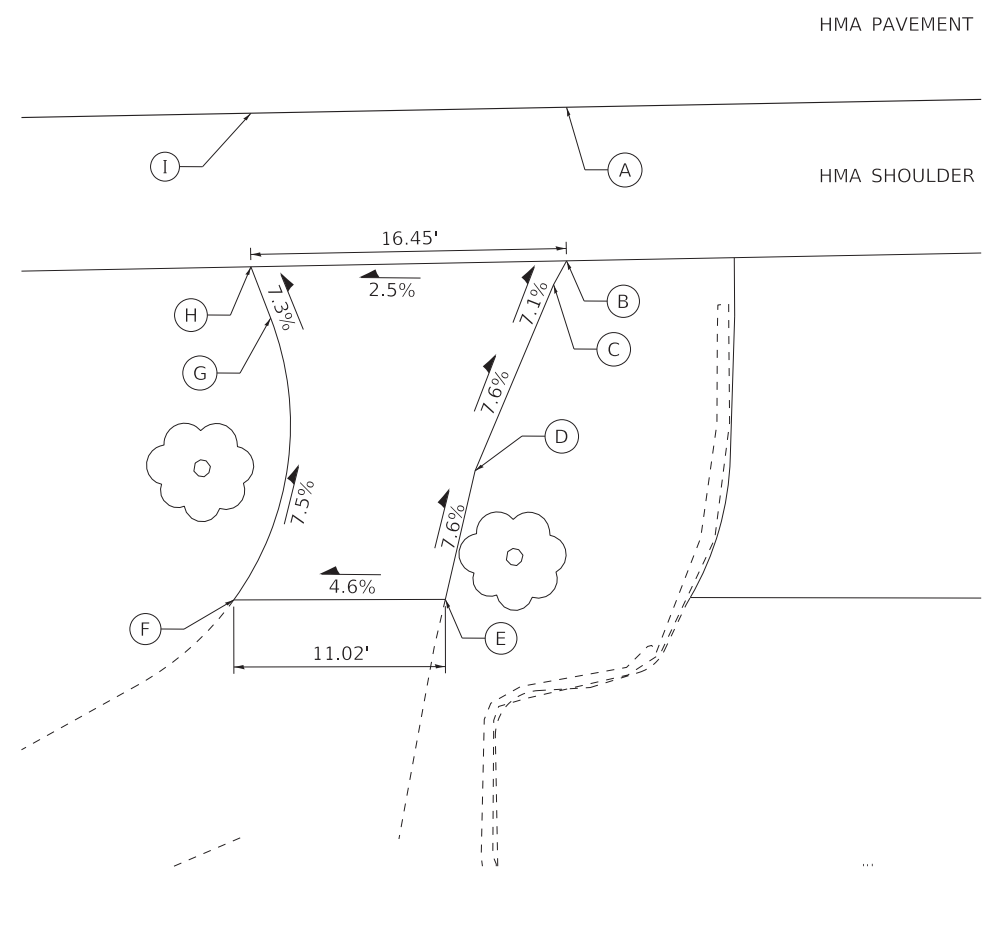


**US ROUTE 20**  
STA 166+86, RT

US20 DRIVEWAY DETAIL 11			
POINT	STA	OFFSET	ELEVATION
A	166+92.98	16.03 RT	924.46
B	166+92.98	24.03 RT	924.14
C	166+93.23	26.93 RT	924.29
D	166+92.15	40.13 RT	924.96
E	166+80.05	40.15 RT	924.75
F	166+80.39	34.07 RT	924.38
G	166+78.71	24.30 RT	923.77
H	166+78.71	16.30 RT	924.09

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EX

168



**US ROUTE 20**  
STA 167+72, RT

US20 DRIVEWAY DETAIL 12			
POINT	STA	OFFSET	ELEVATION
A	167+84.55	14.30 RT	926.77
B	167+84.55	22.30 RT	926.45
C	167+83.87	23.53 RT	926.55
D	167+79.78	33.24 RT	927.35
E	167+78.23	39.93 RT	927.87
F	167+67.21	39.96 RT	927.36
G	167+69.13	25.28 RT	926.25
H	167+68.10	22.61 RT	926.04
I	167+68.10	14.61 RT	926.36

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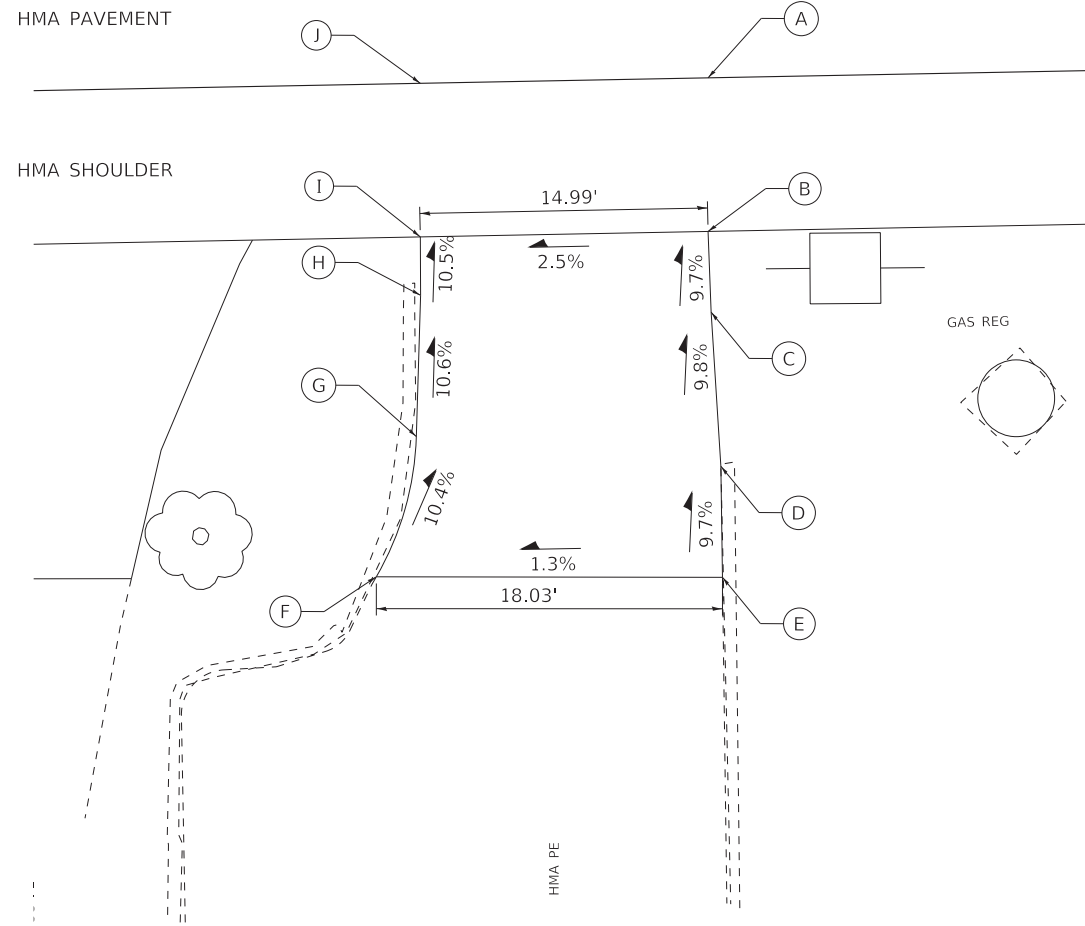
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS

SCALE: 1" = 5' SHEET OF SHEETS STA. TO STA.

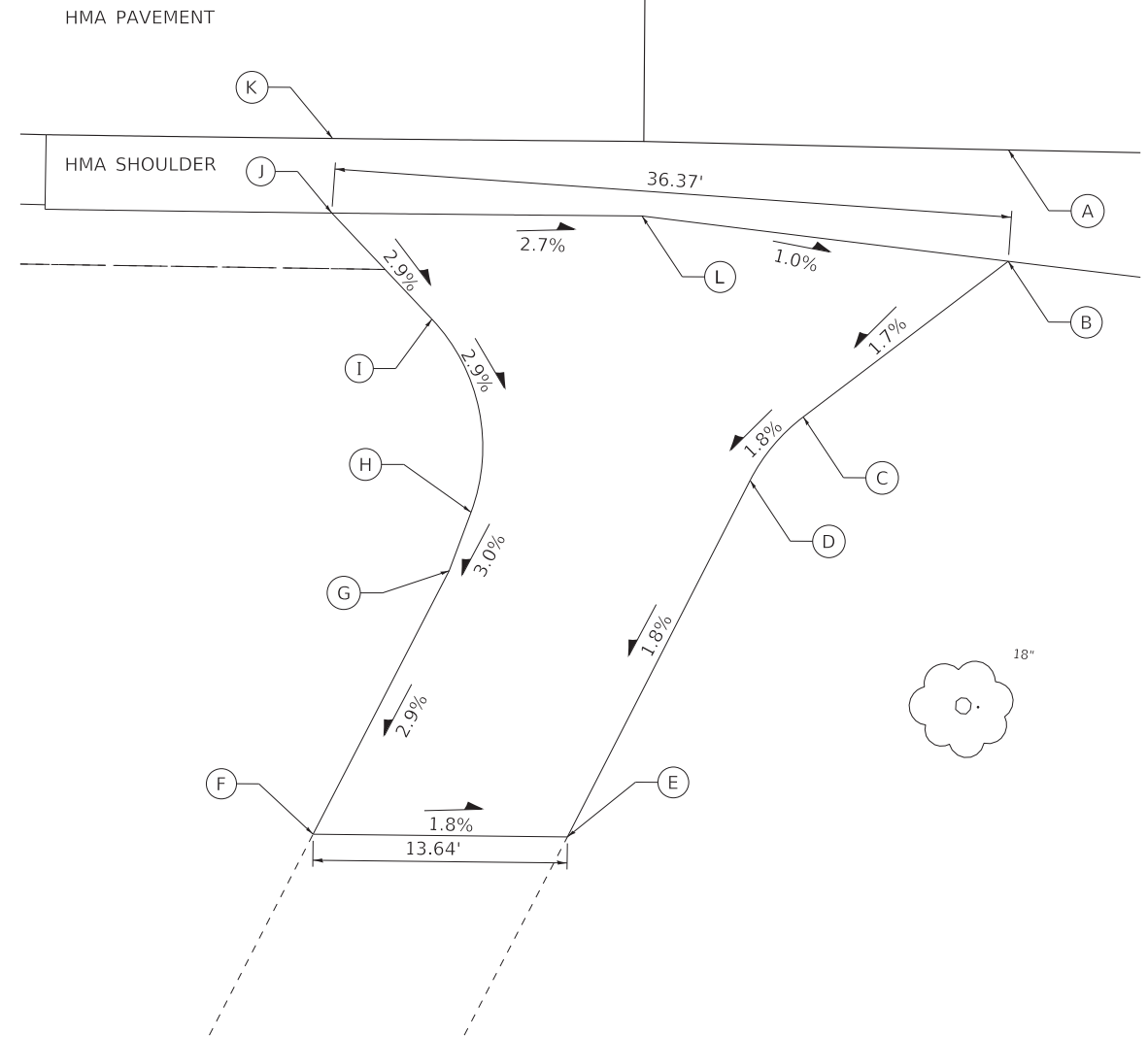
F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 231
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				

168



**US ROUTE 20**  
STA 168+00, RT

219+50



**US ROUTE 20**  
STA 219+66, RT

US20 DRIVEWAY DETAIL 13			
POINT	STA	OFFSET	ELEVATION
A	168+08.27	13.85 RT	927.34
B	168+08.27	21.85 RT	927.02
C	168+08.43	26.08 RT	927.43
D	168+08.94	34.08 RT	928.21
E	168+09.02	39.86 RT	928.78
F	167+90.99	39.84 RT	928.54
G	167+93.08	32.53 RT	927.75
H	167+93.30	25.17 RT	926.97
I	167+93.28	22.13 RT	926.65
J	167+93.28	14.13 RT	926.97

EX  
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US20 DRIVEWAY DETAIL 14			
POINT	STA	OFFSET	ELEVATION
A	219+95.36	12.86 RT	857.50
B	219+95.36	18.83 RT	857.70
C	219+84.46	27.22 RT	857.46
D	219+81.65	30.64 RT	857.38
E	219+72.08	49.84 RT	857.00
F	219+58.61	49.83 RT	857.25
G	219+65.68	35.63 RT	857.71
H	219+66.81	32.47 RT	857.81
I	219+64.63	22.14 RT	858.12
J	219+59.22	16.50 RT	858.35
K	219+59.22	12.50 RT	858.44
L	219+75.87	16.50 RT	857.90

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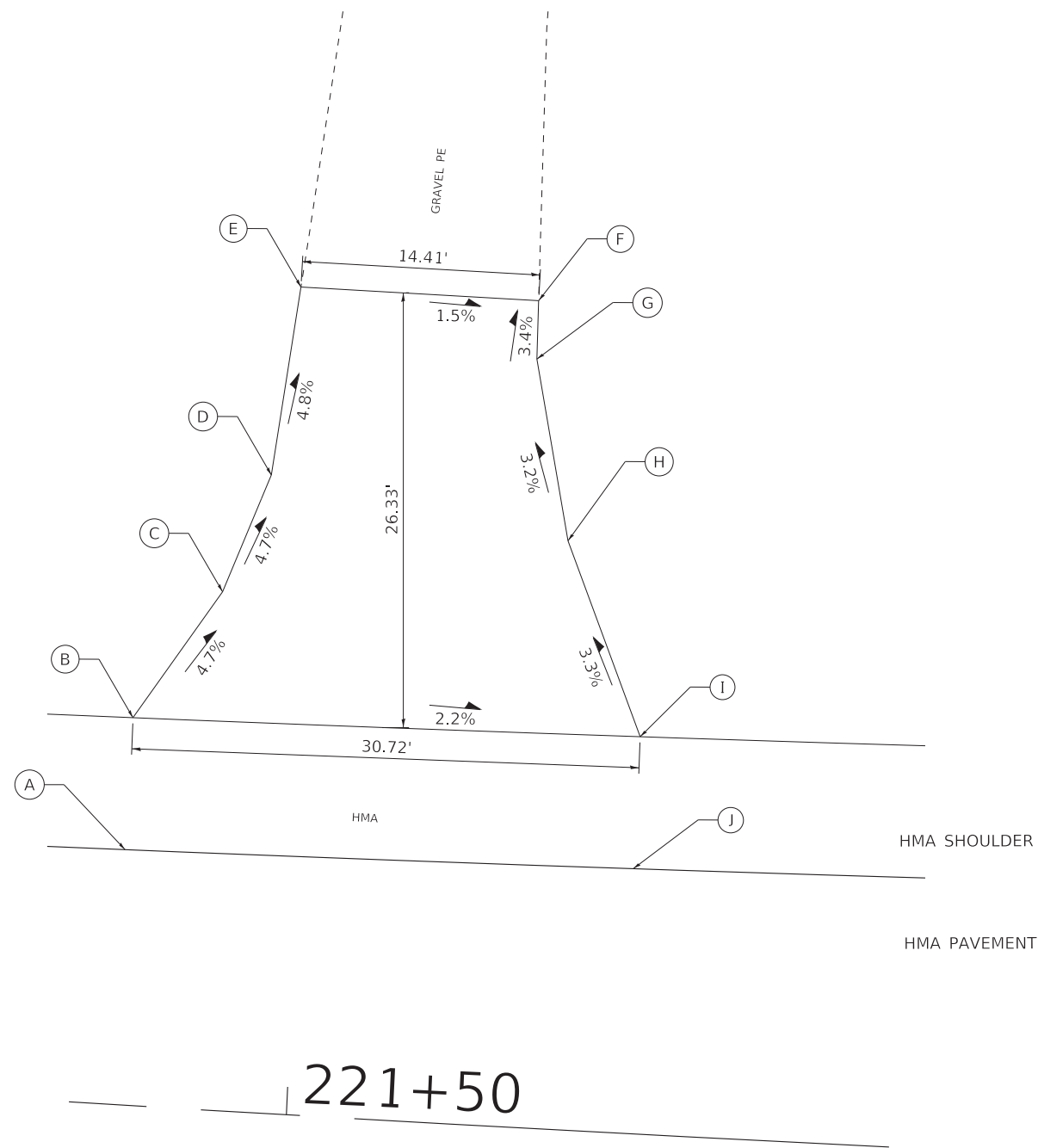
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS

SCALE: 1" = 5' SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	232
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				

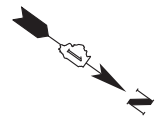




221+50

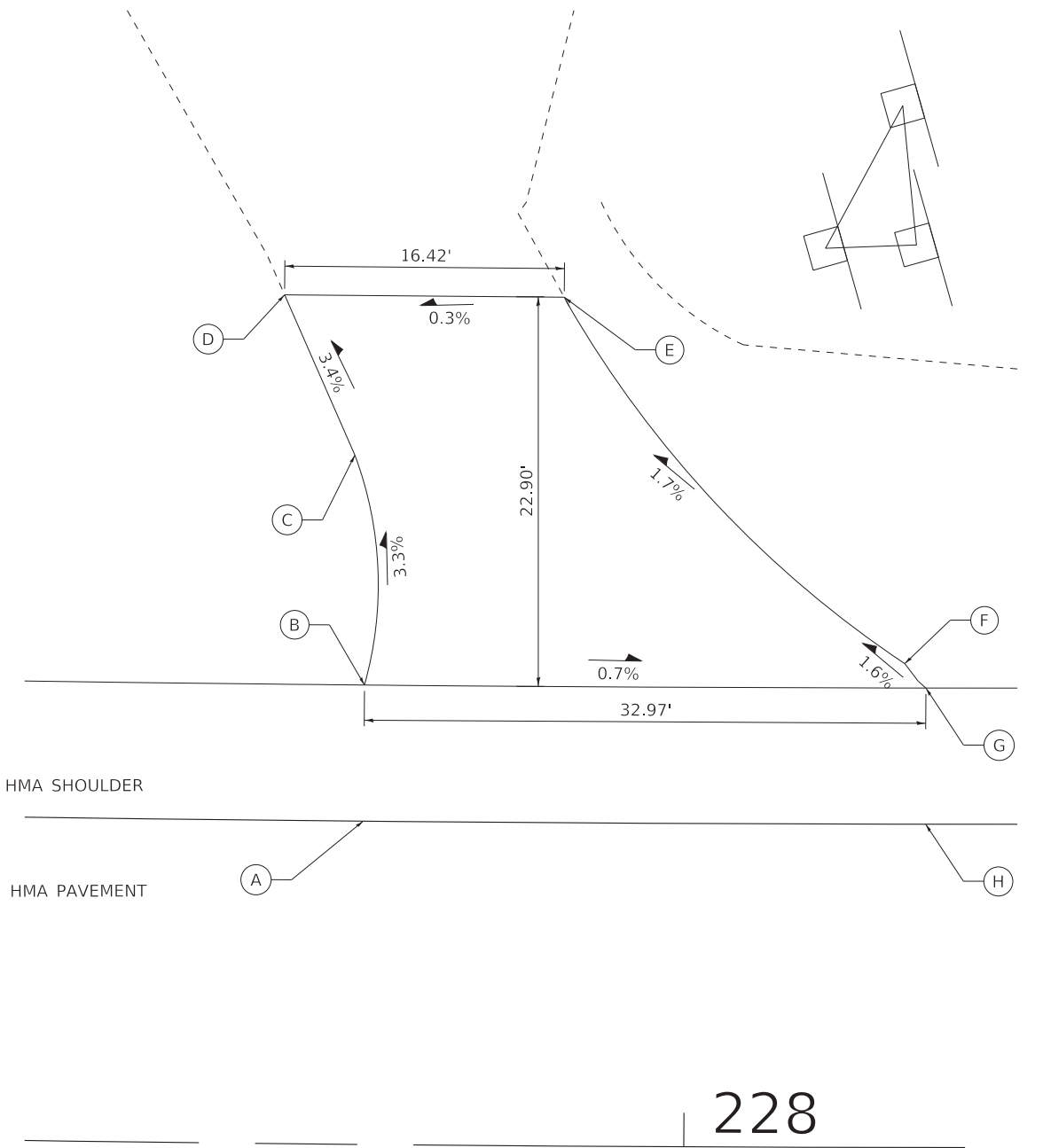
**US ROUTE 20**

STA 221+56, LT



US20 DRIVEWAY DETAIL 15			
POINT	STA	OFFSET	ELEVATION
A	221+39.28	15.45 LT	853.29
B	221+39.28	23.45L T	853.04
C	221+44.27	31.38 LT	852.60
D	221+46.82	38.61 LT	852.24
E	221+47.96	50.07 LT	851.69
F	221+62.55	50.07 LT	851.47
G	221+62.64	46.53 LT	851.59
H	221+65.14	35.65 LT	851.95
I	221+70.17	24.04 LT	852.37
J	221+70.17	16.04 LT	852.62

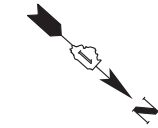
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228

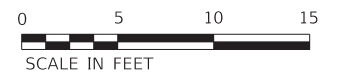
**US ROUTE 20**

STA 227+83, LT



US20 DRIVEWAY DETAIL 16			
POINT	STA	OFFSET	ELEVATION
A	227+80.99	19.00 LT	844.26
B	227+80.99	27.00 LT	844.01
C	227+80.29	40.50 LT	843.56
D	227+76.02	49.88 LT	843.21
E	227+92.65	49.88 LT	843.26
F	228+12.93	28.43 LT	843.76
G	228+14.18	27.00 LT	843.79
H	228+14.18	19.00 LT	844.04

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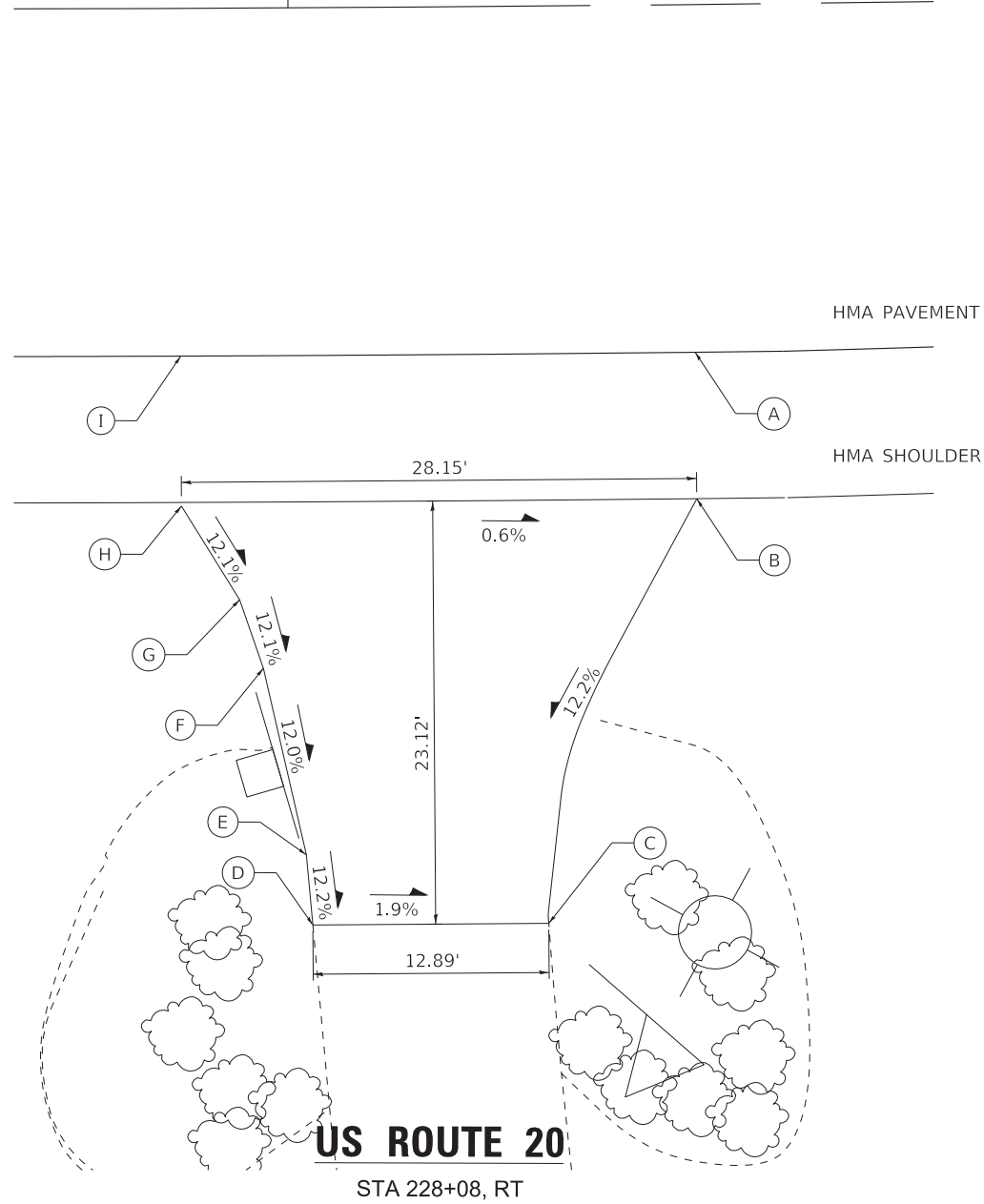
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**DRIVEWAY DETAILS**

SCALE: 1" = 5' SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	233
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				

228

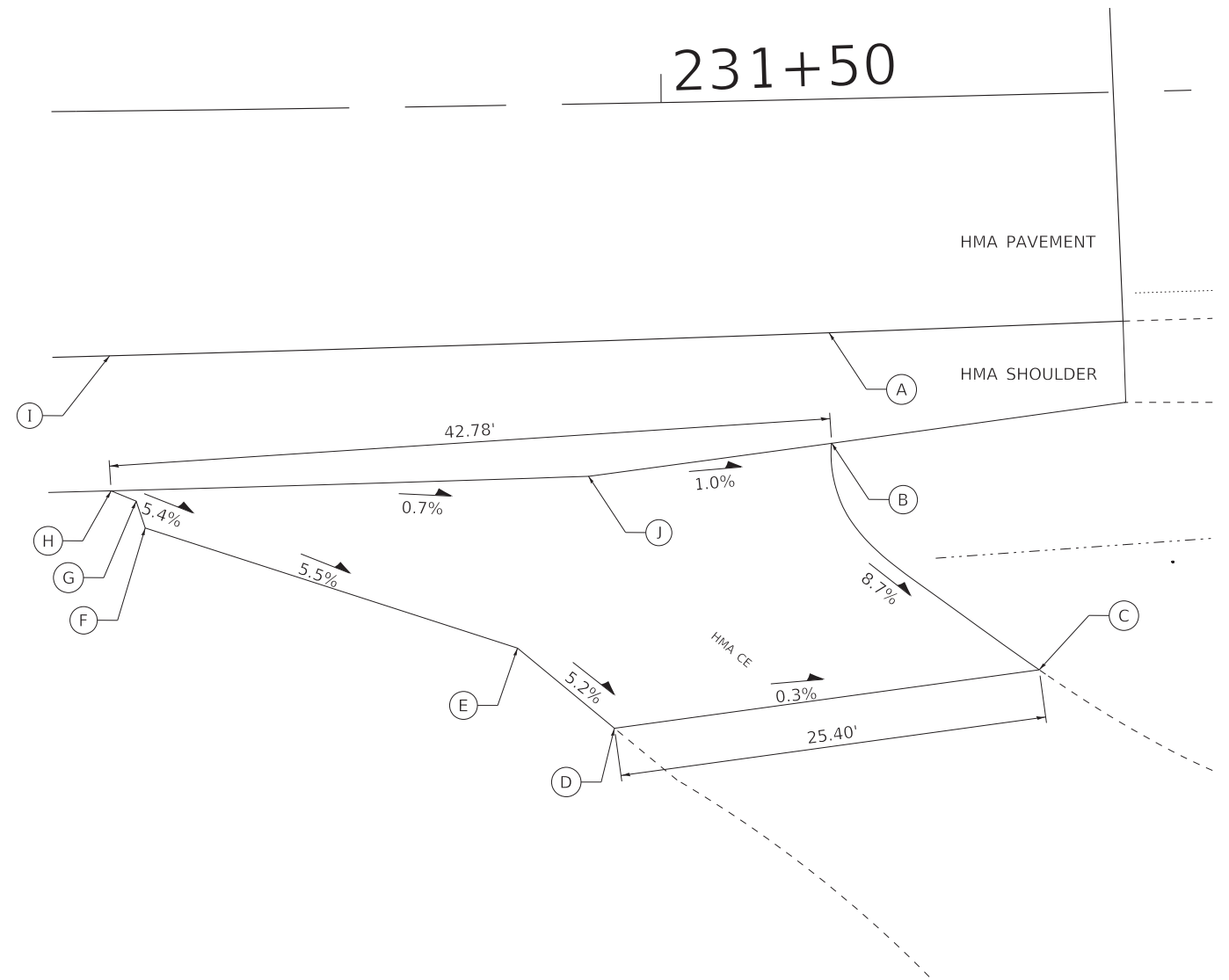


**US ROUTE 20**  
STA 228+08, RT

US20 DRIVEWAY DETAIL 17			
POINT	STA	OFFSET	ELEVATION
A	228+22.04	19.00 RT	845.20
B	228+22.04	27.00 RT	845.46
C	228+13.81	50.12 RT	842.47
D	228+01.07	50.12 RT	842.71
E	228+00.74	46.28 RT	843.18
F	227+98.47	36.09 RT	844.43
G	227+97.20	32.33 RT	844.91
H	227+94.07	27.00 RT	845.64
I	227+94.07	19.00 RT	845.38

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EX

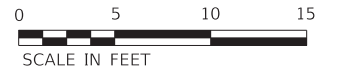
231+50



**US ROUTE 20**  
STA 231+59, RT

US20 DRIVEWAY DETAIL 18			
POINT	STA	OFFSET	ELEVATION
A	231+59.65	13.84 RT	842.77
B	231+59.65	20.39 RT	842.98
C	231+71.56	34.11 RT	841.39
D	231+46.55	37.02 RT	841.47
E	231+40.93	32.17 RT	841.86
F	231+19.13	24.73 RT	843.14
G	231+18.62	23.14 RT	843.23
H	231+17.15	22.50 RT	843.32
I	231+17.15	14.50 RT	843.06
J	231+45.29	22.07 RT	843.12

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**BAXTER & WOODMAN**  
Consulting Engineers

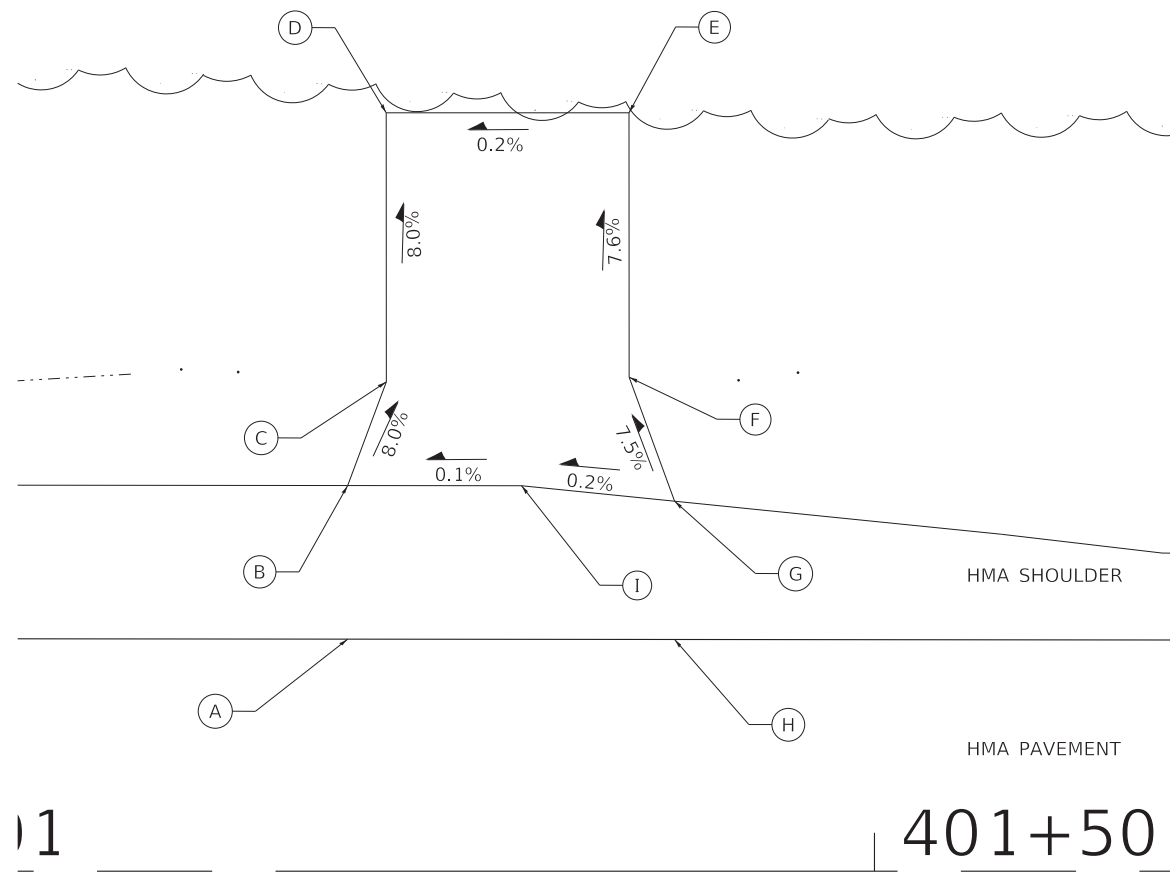
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS

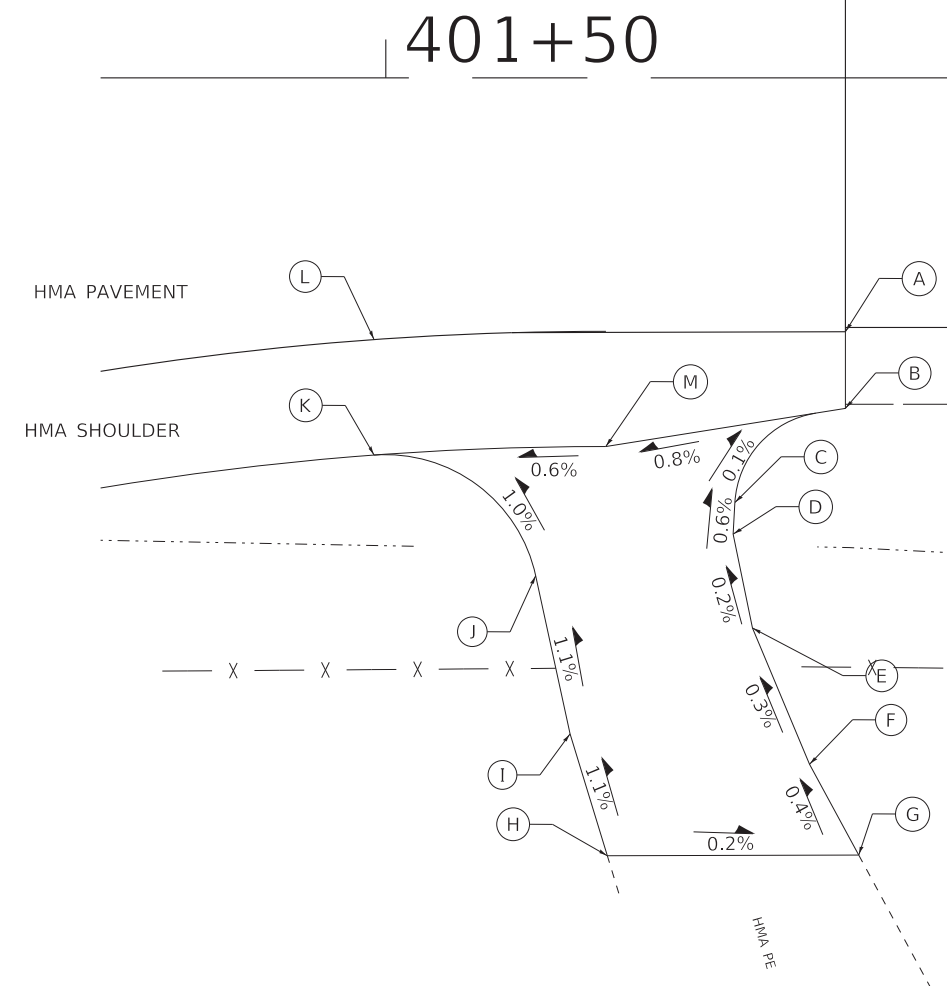
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	234
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				



**W UNION RD**  
STA 401+31, RT

W UNION DRIVEWAY DETAIL 1			
POINT	STA	OFFSET	ELEVATION
A	401+22.56	12.09 LT	847.26
B	401+22.56	20.09 LT	846.94
C	401+24.57	25.49 LT	846.48
D	401+24.57	39.50 LT	845.36
E	401+37.21	39.51 LT	845.39
F	401+37.22	25.73 LT	846.43
G	401+39.59	19.27 LT	846.95
H	401+39.59	12.07 LT	847.23
I	401+31.62	20.08 LT	846.93



**W UNION RD**  
STA 401+68, RT

W UNION DRIVEWAY DETAIL 2			
POINT	STA	OFFSET	ELEVATION
A	401+72.39	13.22 RT	847.19
B	401+72.39	17.47 RT	847.02
C	401+68.19	22.12 RT	847.03
D	401+68.09	23.76 RT	847.04
E	401+69.10	28.66 RT	847.05
F	401+72.07	35.76 RT	847.07
G	401+74.63	40.48 RT	847.09
H	401+61.54	40.52 RT	847.12
I	401+59.60	34.17 RT	847.05
J	401+57.81	25.93 RT	846.96
K	401+49.39	19.65 RT	846.85
L	401+49.39	13.63 RT	847.09
M	401+61.46	19.20 RT	846.92



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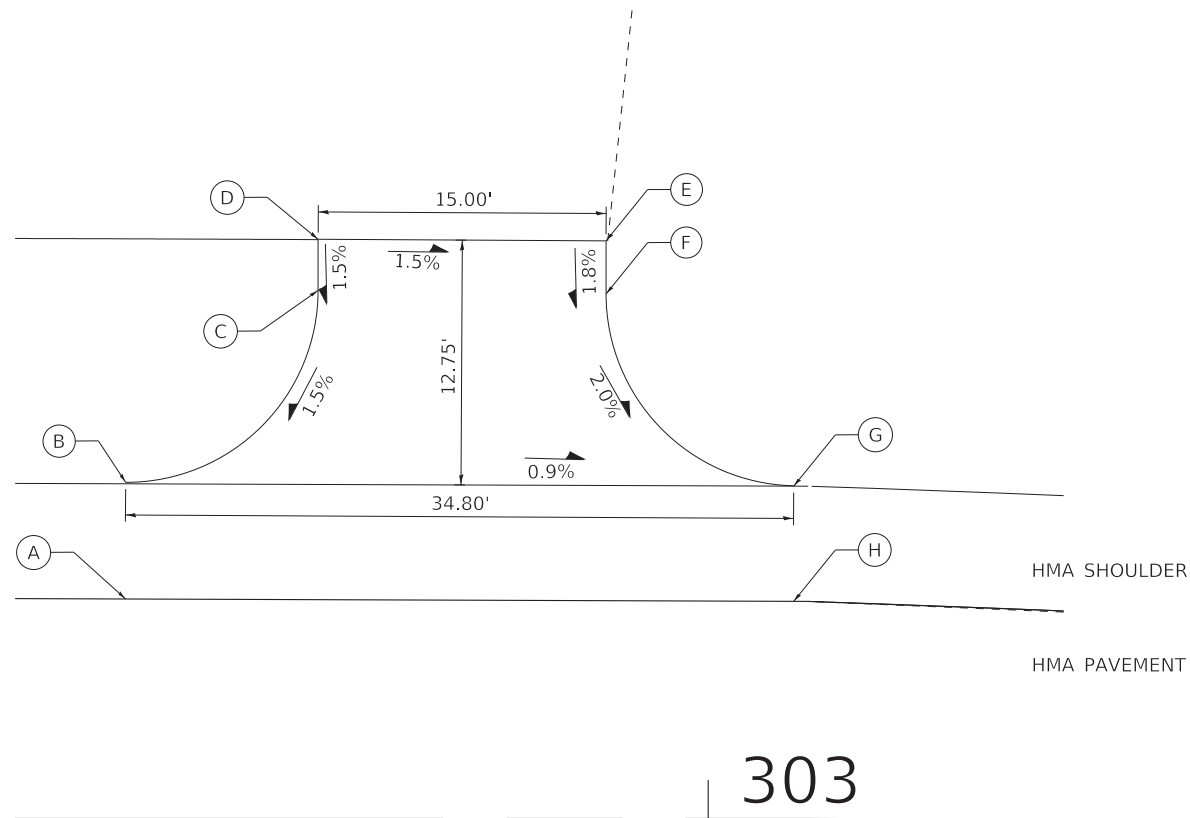
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

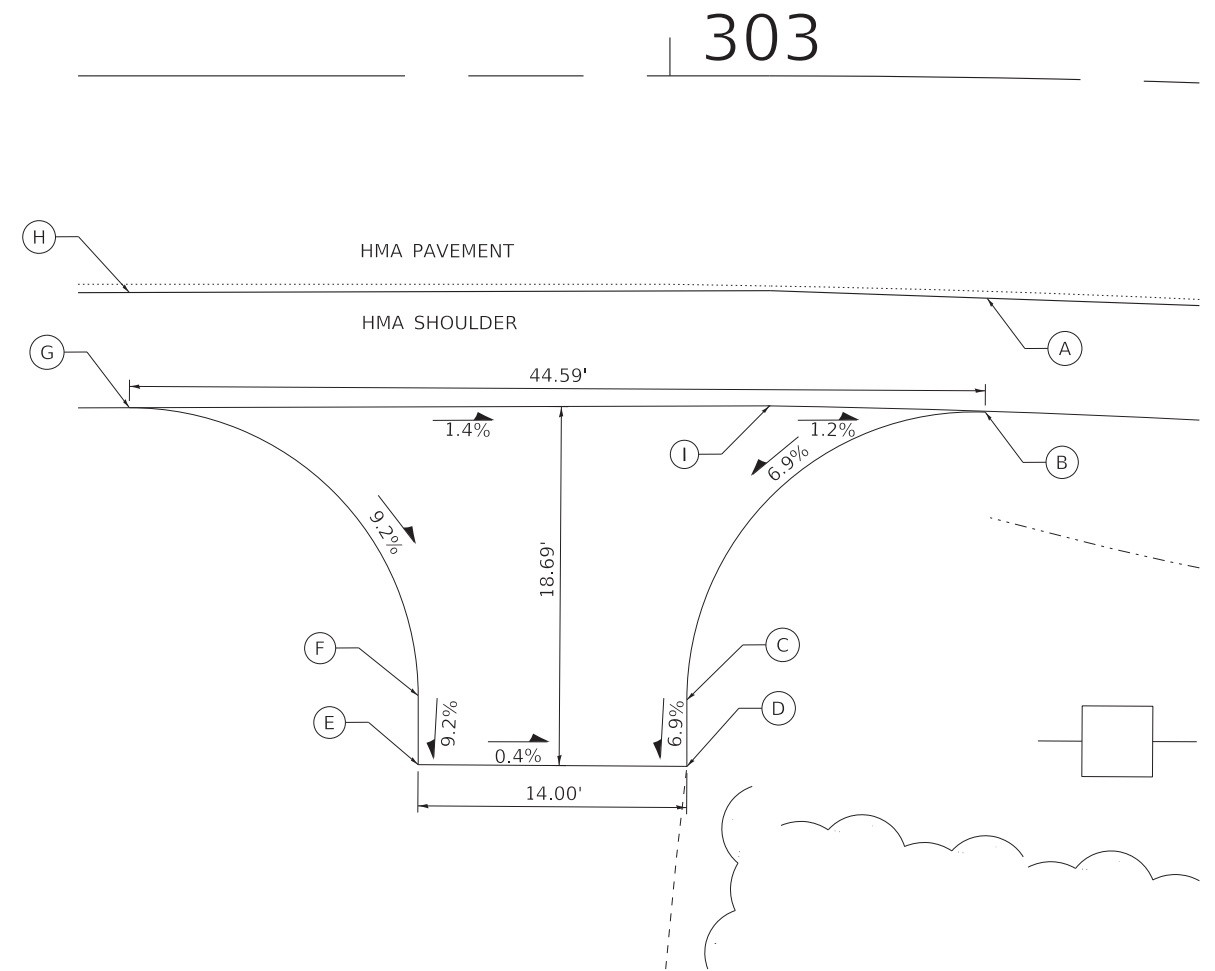
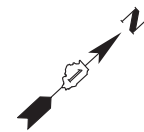
**DRIVEWAY DETAILS**

SCALE: 1" = 5'      SHEET      OF      SHEETS      STA.      TO      STA.

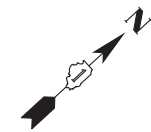
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525	2016-092B&R	MCHENRY	329	235
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				



**CORAL RD**  
STA 302+87, LT



**CORAL RD**  
STA 302+95, RT



CORAL ROAD DRIVEWAY DETAIL 1			
POINT	STA	OFFSET	ELEVATION
A	302+69.66	11.44 LT	912.03
B	302+69.66	17.51 LT	911.79
C	302+79.68	27.51 LT	912.00
D	302+79.68	30.17 LT	912.04
E	302+94.68	30.09 LT	911.81
F	302+94.68	27.32 LT	911.76
G	303+04.47	17.33 LT	911.48
H	303+04.47	11.31 LT	911.72

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CORAL ROAD DRIVEWAY DETAIL 2			
POINT	STA	OFFSET	ELEVATION
A	303+16.72	11.49 RT	910.43
B	303+17.62	17.42 RT	910.20
C	303+00.89	32.51 RT	908.71
D	303+00.89	35.99 RT	908.47
E	302+86.89	35.88 RT	908.52
F	302+86.80	32.28 RT	908.85
G	302+71.85	17.28 RT	910.81
H	302+71.85	11.28 RT	911.05
I	303+05.24	17.19 RT	910.34

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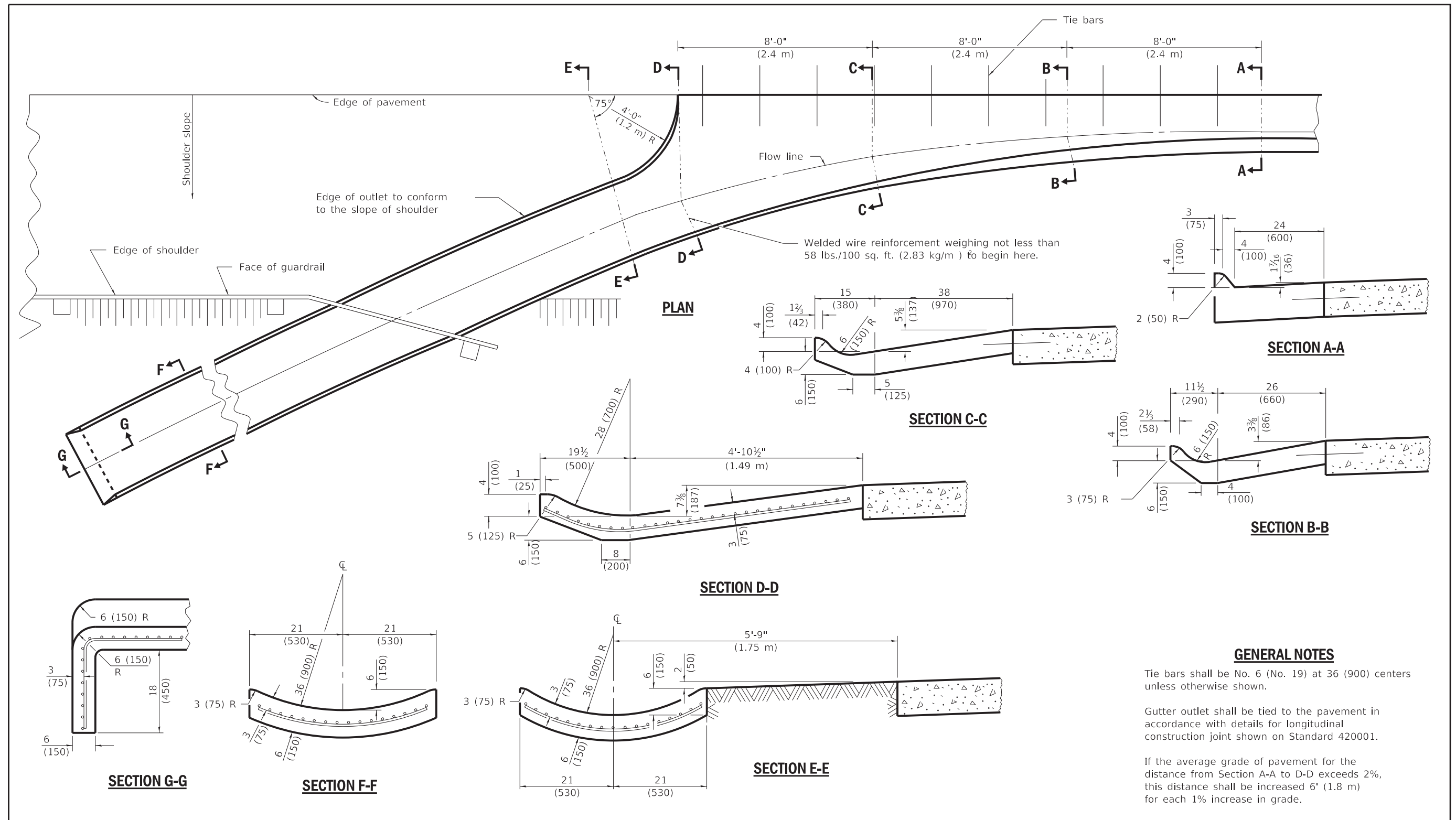
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS

SCALE: 1" = 5' SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	236
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWMI(759)				



**QUANTITIES**

For Section A-A to E-E and curtain wall =  
 2.38 cu. yds. (1.82 m<sup>3</sup>) concrete for 9 (225) pav't.  
 2.41 cu. yds. (1.84 m<sup>3</sup>) concrete for 10 (250) pav't.

For Section F-F =  
 0.069 cu. yds. (0.17 m<sup>3</sup>) concrete per ft. (m)

**STANDARD OUTLET**

**GENERAL NOTES**

Tie bars shall be No. 6 (No. 19) at 36 (900) centers unless otherwise shown.

Gutter outlet shall be tied to the pavement in accordance with details for longitudinal construction joint shown on Standard 420001.

If the average grade of pavement for the distance from Section A-A to D-D exceeds 2%, this distance shall be increased 6' (1.8 m) for each 1% increase in grade.

All dimensions are in inches (millimeters) unless otherwise shown.

**OUTLETS FOR CONCRETE CURB AND GUTTER TYPE M-4.24 (M-10.60)**  
 (Sheet 1 of 2)

**DETAIL**

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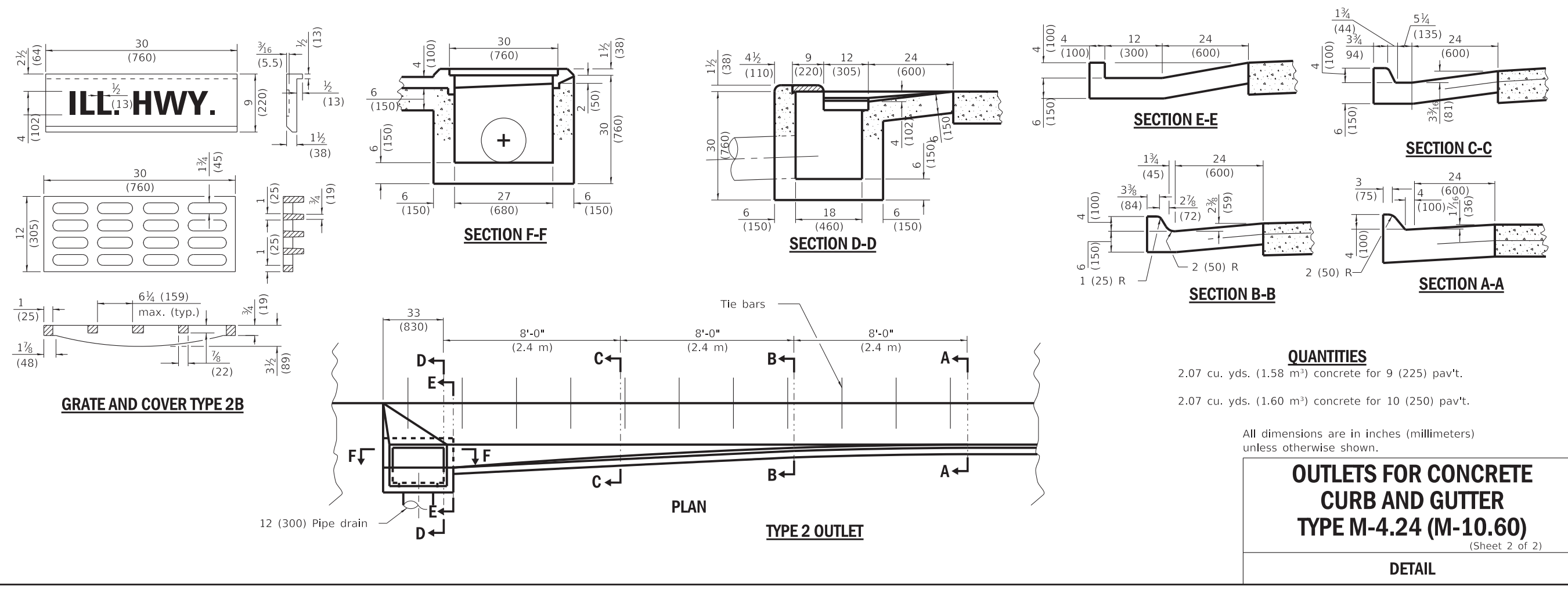
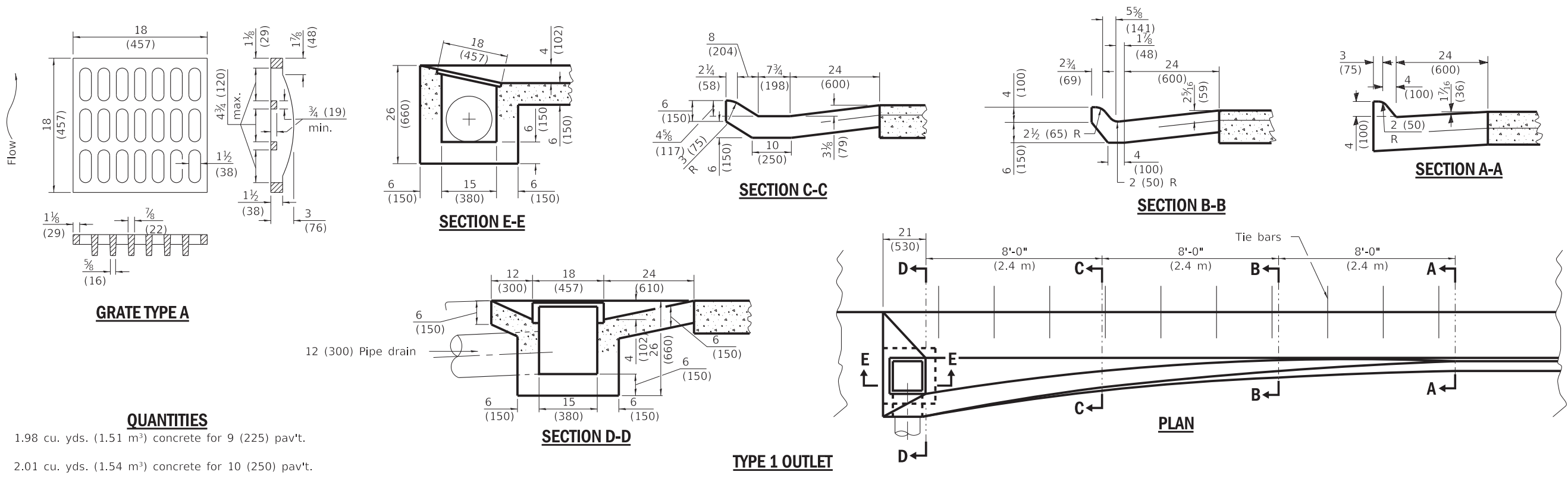


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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

OUTLETS FOR CONCRETE CURB AND GUTTER TYPE M-4.24 (M-10.60)			
SCALE: N.T.S.	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	237
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				



**OUTLETS FOR CONCRETE CURB AND GUTTER TYPE M-4.24 (M-10.60)**  
 (Sheet 2 of 2)

**DETAIL**

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>OUTLETS FOR CONCRETE CURB AND GUTTER TYPE M-4.24 (M-10.60)</b>			
SCALE: N.T.S.	SHEET	OF SHEETS	STA. TO STA.

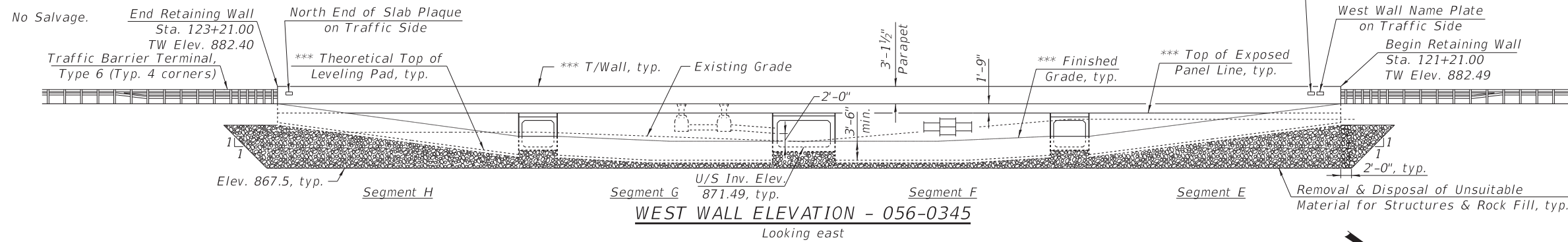
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525	2016-092B&R	MCHENRY	329	238
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWMI(759)				

Benchmark: Set iron rod with cap, 1' north of east guardrail end, 41' east of power pole. Elev. 876.894

Existing Structure: S.N. 056-0087, 8' x 4' cast in place concrete box culvert, approx. 32' in length with concrete headwalls and attached guardrail. Two 36" CMP culverts lie within the box culvert, approximate length of CMP 45' each.

One lane of traffic to be maintained using staged construction.

\*\*\* See Sheet 5 of 18 for retaining wall elevations

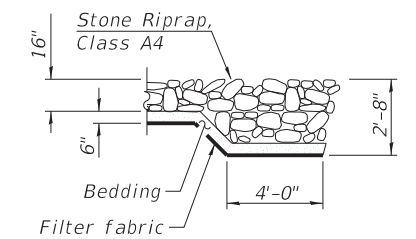


**DESIGN SPECIFICATIONS**  
2017 AASHTO LRFD Bridge Design  
Specifications Customary U.S. Units, 8th Edition

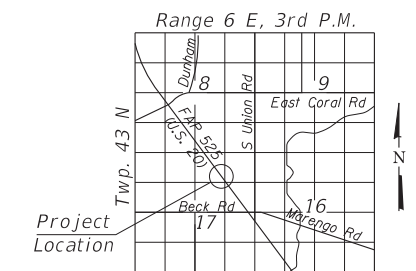
**LOADING HL-93**  
Allow 50#/sq. ft. for future wearing surface.

**DESIGN STRESSES**  
FIELD UNITS

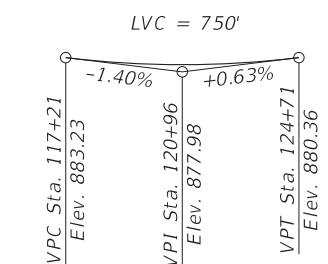
$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
PRECAST UNITS  
 $f'_c = 4,500$  psi (Precast Panels)  
 $f'_c = 5,000$  psi (Precast Box Culverts)  
 $f_y = 65,000$  psi (Welded Wire Reinforcement)



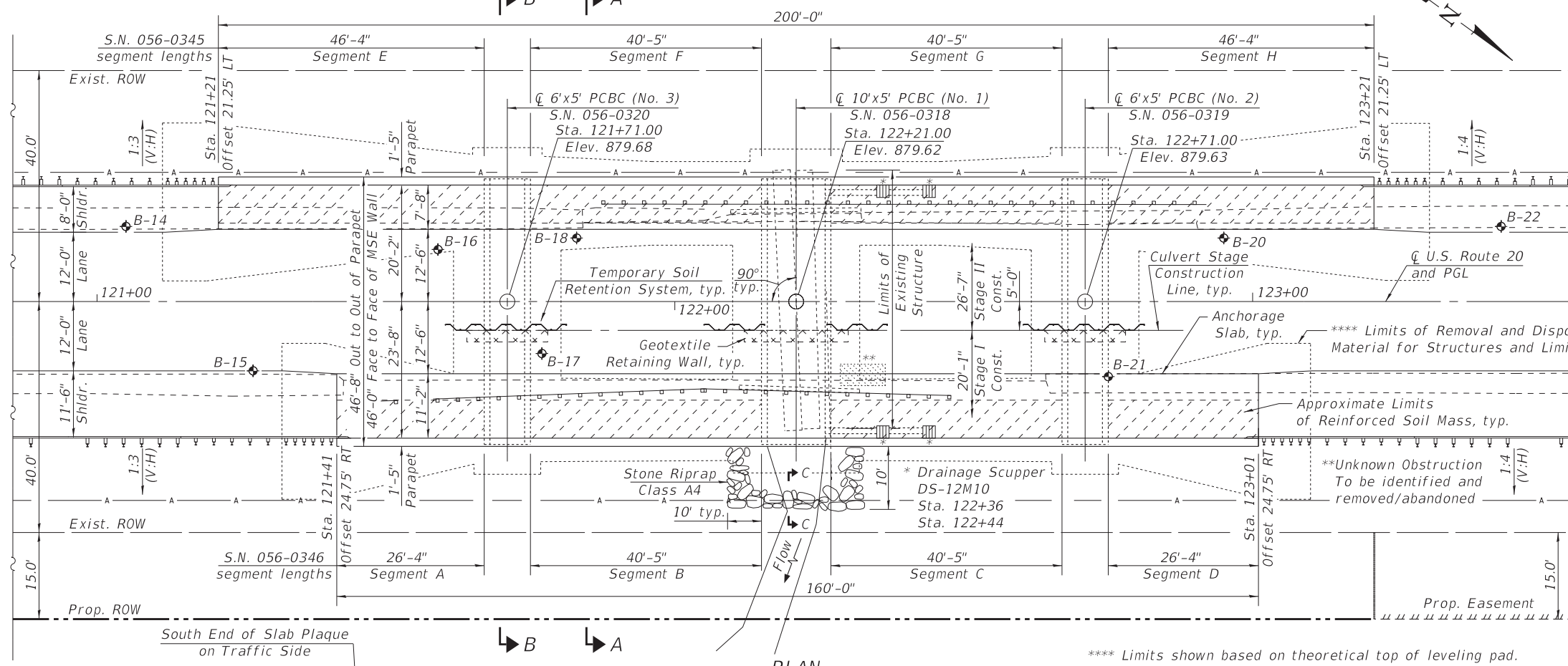
**SECTION C-C**



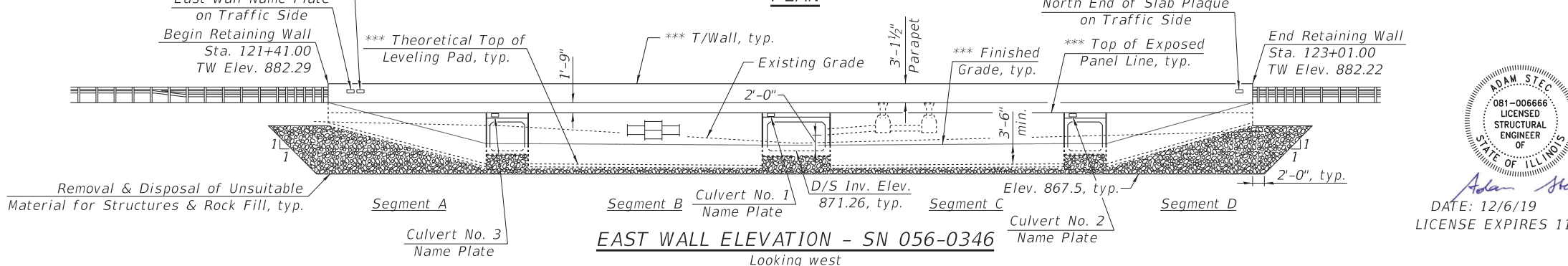
**LOCATION SKETCH**



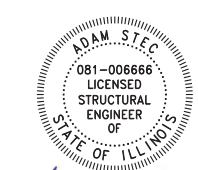
**PROFILE GRADE**  
Along  $\bar{C}$  U.S. Route 20



**PLAN**



**EAST WALL ELEVATION - SN 056-0346**  
Looking west



DATE: 12/6/19  
LICENSE EXPIRES 11/30/20

**GENERAL PLAN & ELEVATION**  
**U.S. ROUTE 20 RETAINING WALLS**  
**STRUCTURE NOS. 056-0345 & 056-0346**  
**F.A.P. RTE. 525 - SEC 2016-092B&R**  
**McHENRY COUNTY**  
**STATION 121+21 TO 123+21**

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<b>BAXTER &amp; WOODMAN</b> Consulting Engineers	USER NAME = 560KAR	DESIGNED - AS	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL PLAN AND ELEVATION</b> <b>STRUCTURE NOS. 056-0345 &amp; 056-0346</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 1/17/2020	DRAWN - AS	REVISED -			CONTRACT NO. 62D36				
	FILE 0560345&6-62D36-001-GPE.dgn	REVISED -	REVISED -			ILLINOIS FED. AID PROJECT GWMI759				

**GENERAL NOTES**

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.

**INDEX OF SHEETS**

1. General Plan and Elevation
2. General Data
- 3-4. Stage Construction Details
- 5-6. Retaining Wall Details
7. West Anchorage Slab Details
8. East Anchorage Slab Details
9. Concrete Parapet Slipforming Option
10. Drainage Scupper, DS-12M10
11. Culvert No. 1 General Plan and Elevation
12. Culvert No. 1 End Section Details
13. Culverts No. 2 & 3 General Plan and Elevation
14. Culverts No. 2 & 3 End Section Details
- 15-18. Boring Logs

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu Yd	86
Stone Riprap, Class A4	Sq Yd	36
Filter Fabric	Sq Yd	36
Removal of Existing Structures	Each	1
Structure Excavation	Cu Yd	871
* Removal and Disposal of Unsuitable Material for Structures	Cu Yd	970
Concrete Superstructure	Cu Yd	229.9
Protective Coat	Sq Yd	534
Reinforcement Bars, Epoxy Coated	Pound	34,800
Name Plates	Each	9
Temporary Soil Retention System	Sq Ft	717
Mechanically Stabilized Earth Retaining Walls	Sq Ft	2,051
Geotextile Retaining Walls	Sq Ft	56
Box Culvert End Sections, Culvert No. 1	Each	2
Box Culvert End Sections, Culvert No. 2	Each	2
Box Culvert End Sections, Culvert No. 3	Each	2
Precast Concrete Box Culverts 6'x5'	Foot	80
Precast Concrete Box Culverts 10'x5'	Foot	40
Geocomposite Wall Drain	Sq Yd	157
Membrane Waterproofing System for Buried Structures	Sq Yd	157
Drainage Scuppers, DS-12M10	Each	4
* Rock Fill	Cu Yd	970

\* Quantities for Removal and Disposal of Unsuitable Material for Structures and Rock Fill at MSE retaining walls are calculated based on theoretical top of leveling pad elevations. Actual quantities will be determined in the field based on top of leveling pad elevations in the approved shop drawings.

STATION 121+21  
 BUILT 201\_ BY  
 STATE OF ILLINOIS  
 F.A.P. RTE. 525  
 SEC. 2016-092B&R  
 LOADING HL-93  
 STRUCTURE NO. 056-0345

**WEST WALL NAME PLATE**  
 See Std. 515001

STATION 121+41  
 BUILT 201\_ BY  
 STATE OF ILLINOIS  
 F.A.P. RTE. 525  
 SEC. 2016-092B&R  
 LOADING HL-93  
 STRUCTURE NO. 056-0346

**EAST WALL NAME PLATE**  
 See Std. 515001

ANCHORAGE SLAB AREA  
 DO NOT OPEN CUT  
 SOUTH END OF SLAB

**SOUTH END OF SLAB PLAQUE**  
 See Std. 515001 (Paid for as Name Plate)  
 (Typ. for 2)

ANCHORAGE SLAB AREA  
 DO NOT OPEN CUT  
 NORTH END OF SLAB

**NORTH END OF SLAB PLAQUE**  
 See Std. 515001 (Paid for as Name Plate)  
 (Typ. for 2)

STATION 122+21  
 BUILT 201\_ BY  
 STATE OF ILLINOIS  
 F.A.P. RTE. 525  
 SEC. 2016-092B&R  
 LOADING HL-93  
 STRUCTURE NO. 056-0318

**CULVERT NO. 1 NAME PLATE**  
 See Std. 515001

STATION 122+71  
 BUILT 201\_ BY  
 STATE OF ILLINOIS  
 F.A.P. RTE. 525  
 SEC. 2016-092B&R  
 LOADING HL-93  
 STRUCTURE NO. 056-0319

**CULVERT NO. 2 NAME PLATE**  
 See Std. 515001

STATION 121+71  
 BUILT 201\_ BY  
 STATE OF ILLINOIS  
 F.A.P. RTE. 525  
 SEC. 2016-092B&R  
 LOADING HL-93  
 STRUCTURE NO. 056-0320

**CULVERT NO. 3 NAME PLATE**  
 See Std. 515001

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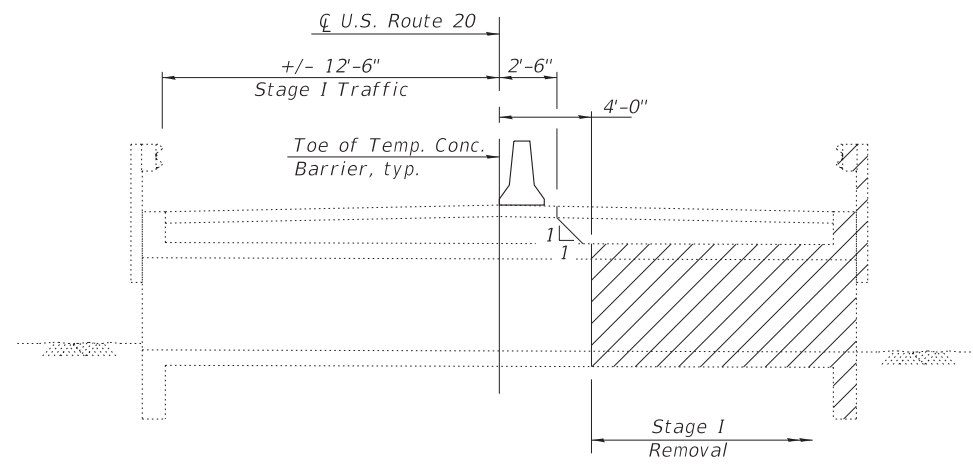
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA  
 STRUCTURE NOS. 056-0345 & 056-0346**

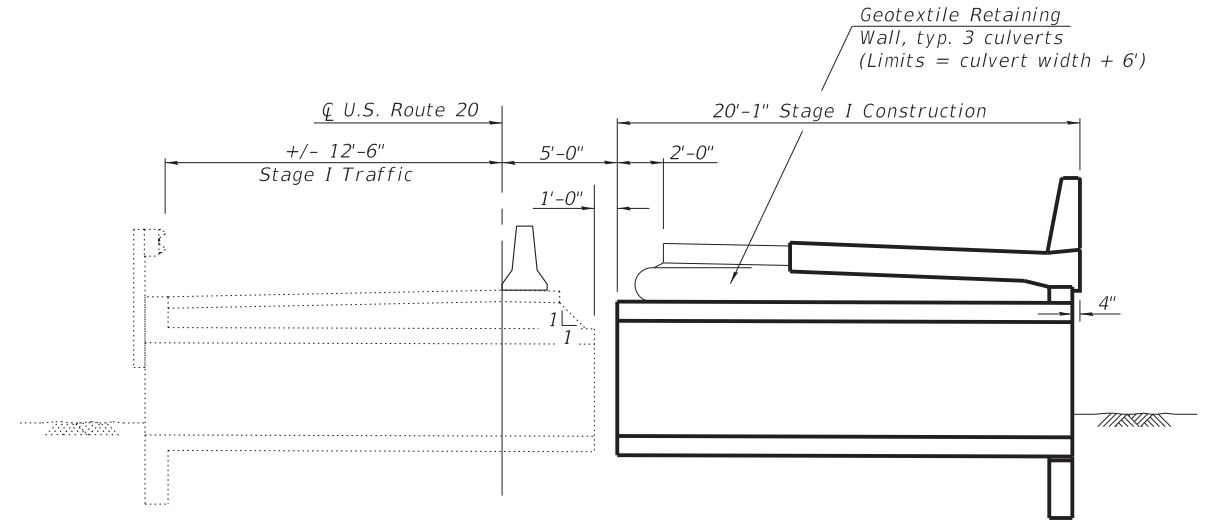
SHEET NO. 2 OF 18 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GMW1759J				



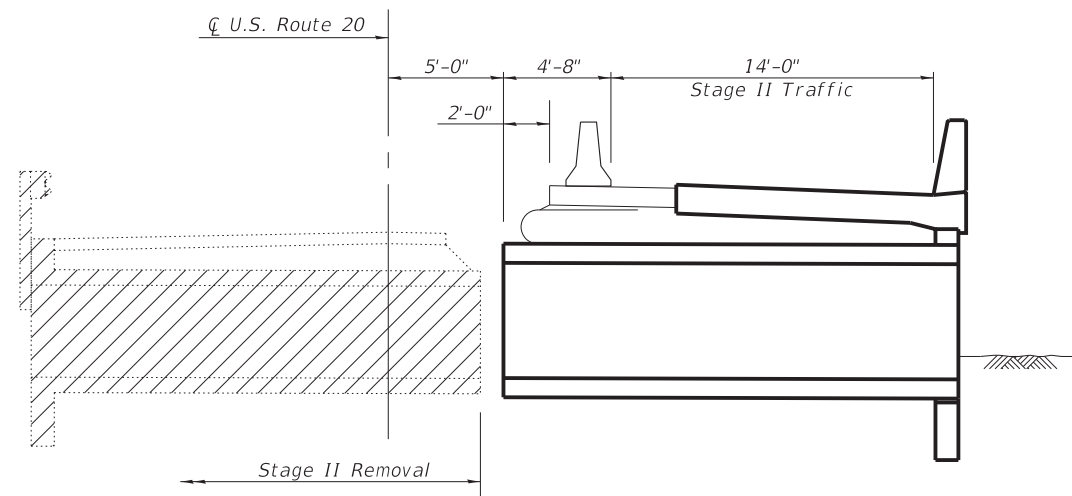


**STAGE I REMOVAL**

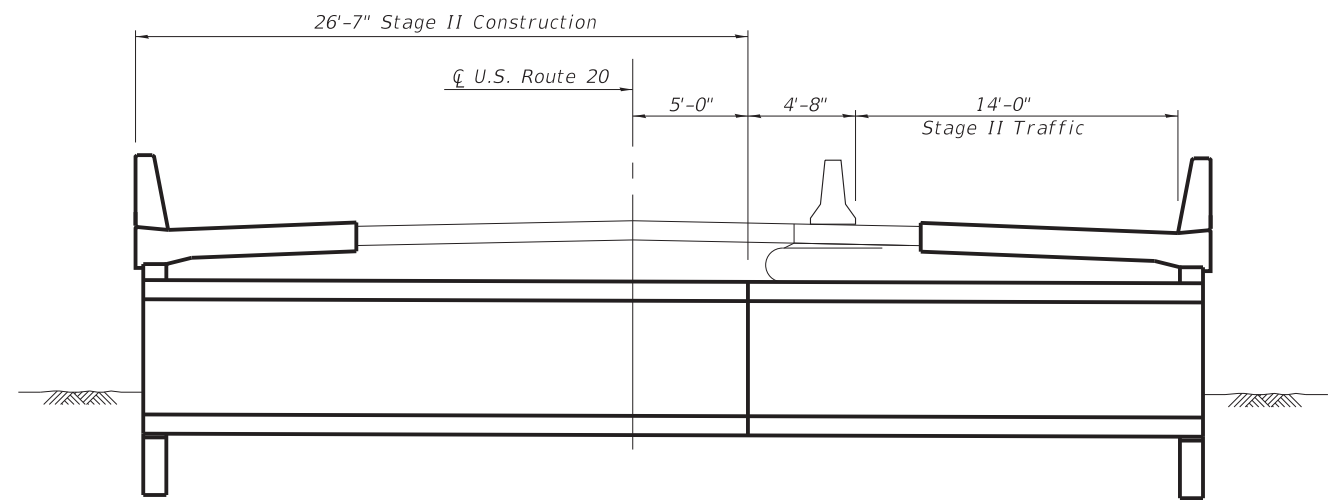


**STAGE I CONSTRUCTION**

Center culvert shown, outside culverts similar except no existing structure



**STAGE II REMOVAL**



**STAGE II CONSTRUCTION**

**STAGE CONSTRUCTION DETAILS**  
Looking north

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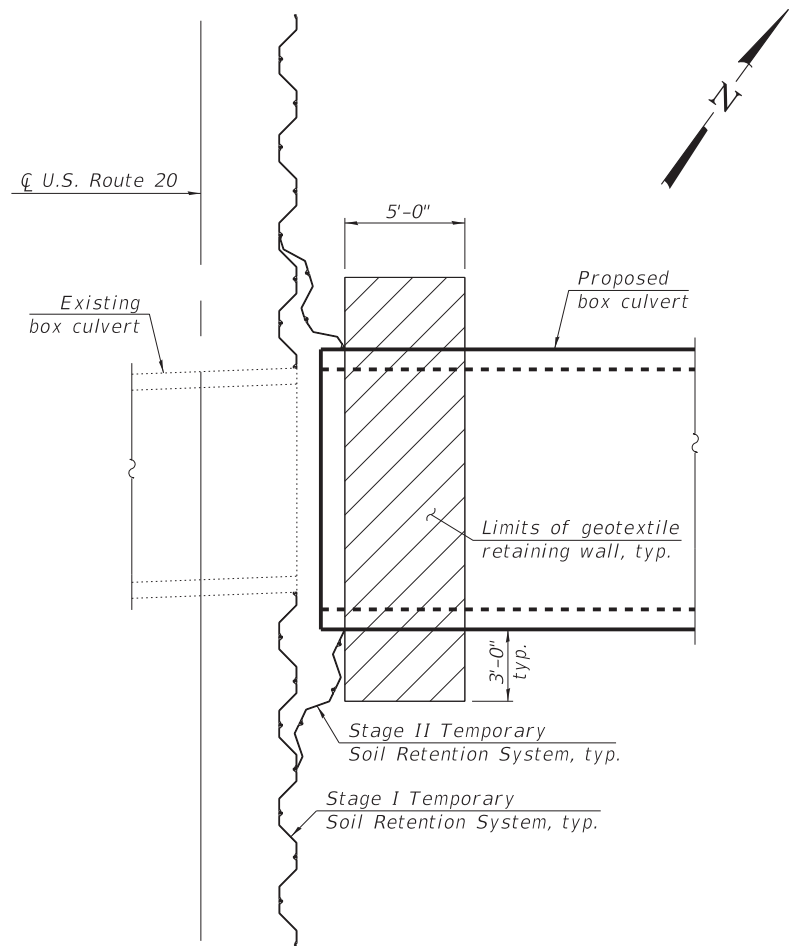
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

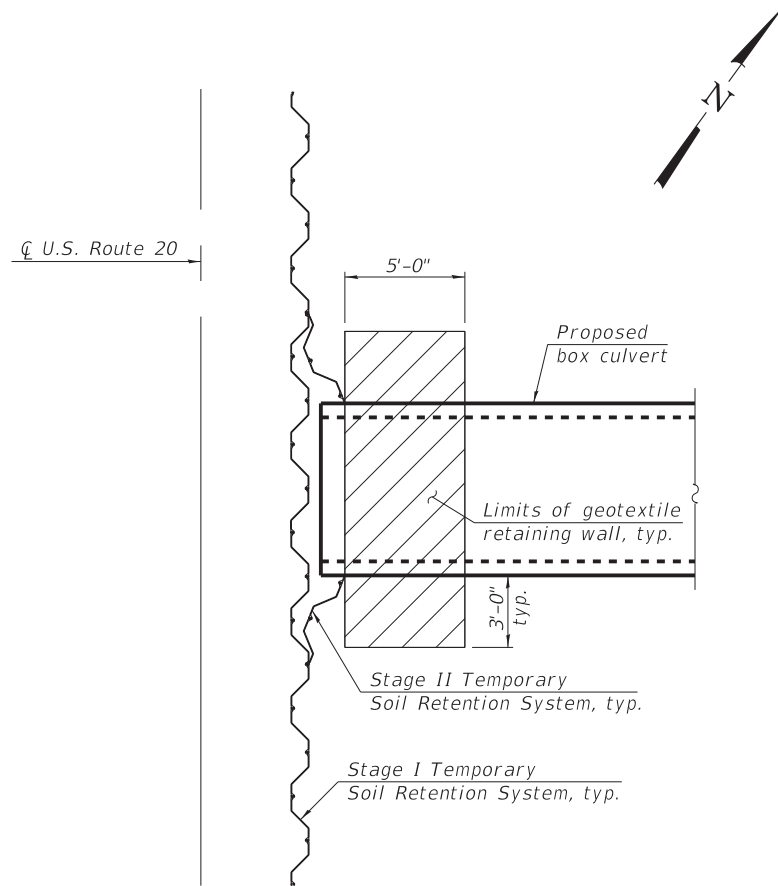
**STAGE CONSTRUCTION DETAILS  
STRUCTURE NOS. 056-0345 & 056-0346**

SHEET NO. 3 OF 18 SHEETS

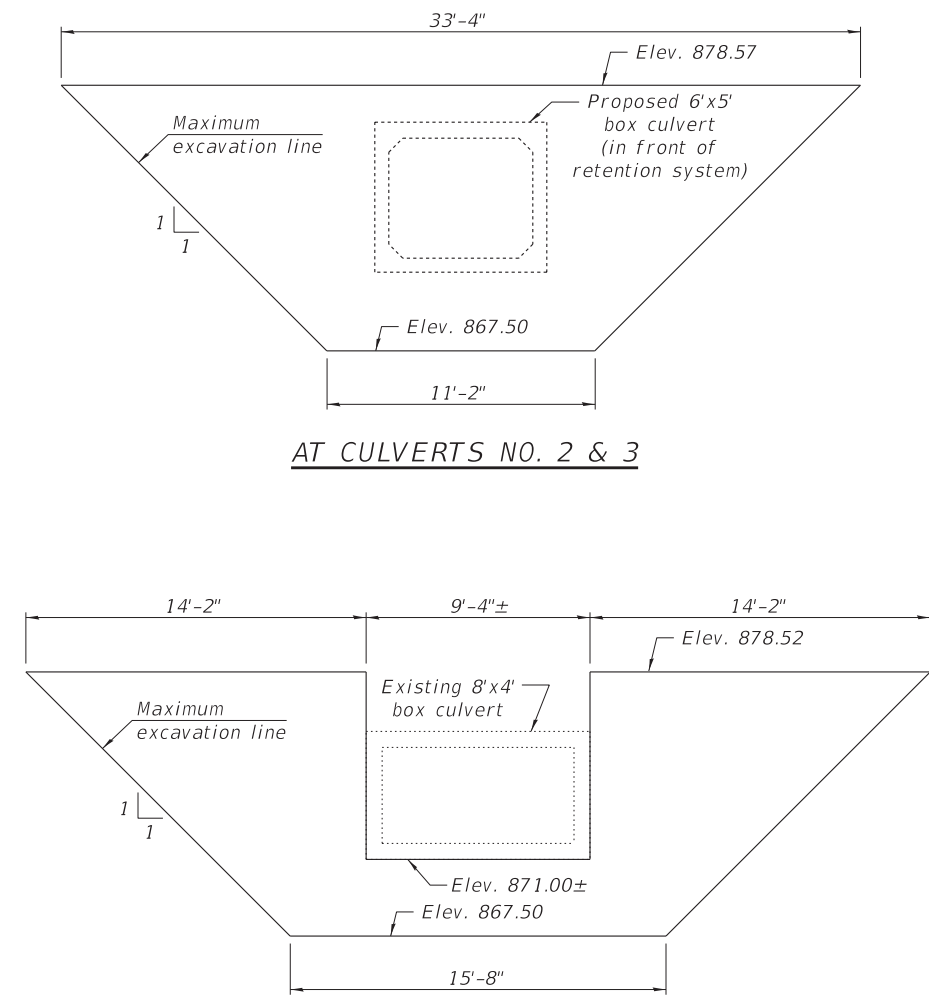
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	241
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				



**AT CULVERT NO. 1**



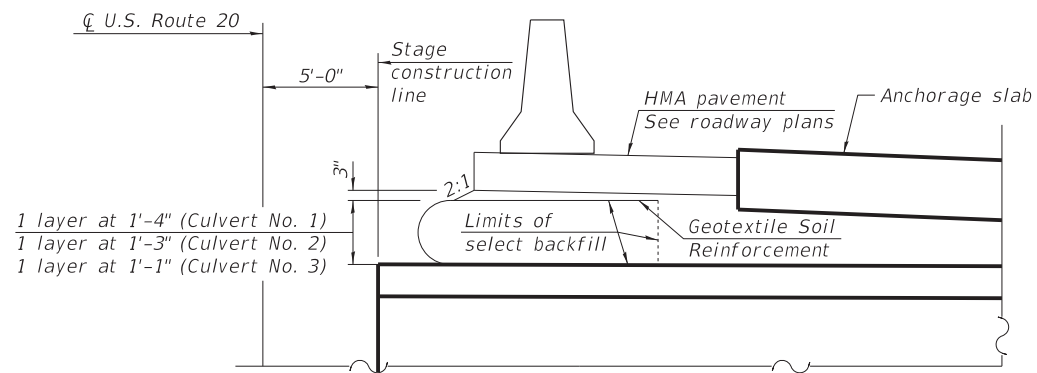
**AT CULVERTS NO. 2 & 3**



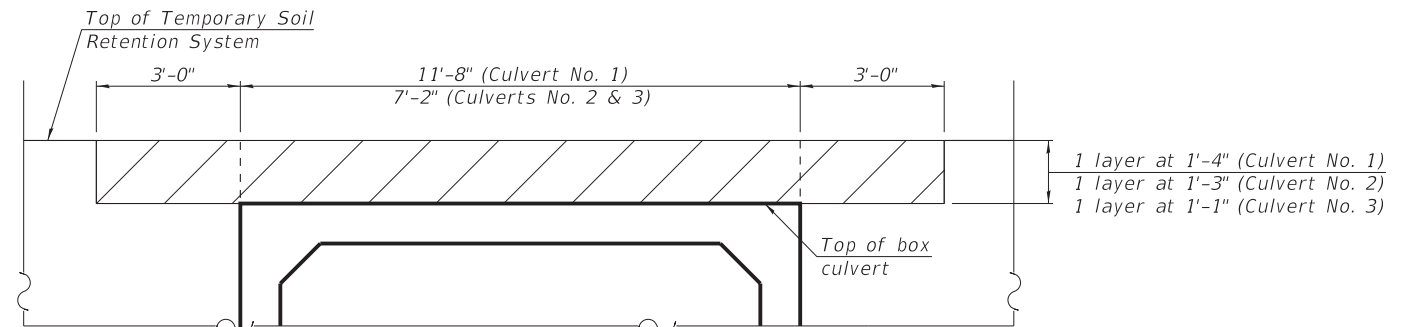
**TEMPORARY SOIL RETENTION SYSTEM ELEVATIONS**  
Showing Stage I retention

**Note:**  
The geotextile soil reinforcement shall have a minimum allowable tensile strength (T min.) of 17 lb./in. Manufacturer's certification with geotextile allowable strength shall be submitted to the engineer for approval.

**GEOTEXTILE RETAINING WALL PLANS**



**GEOTEXTILE RETAINING WALL TYPICAL SECTION**



**GEOTEXTILE RETAINING WALL TYPICAL ELEVATION**

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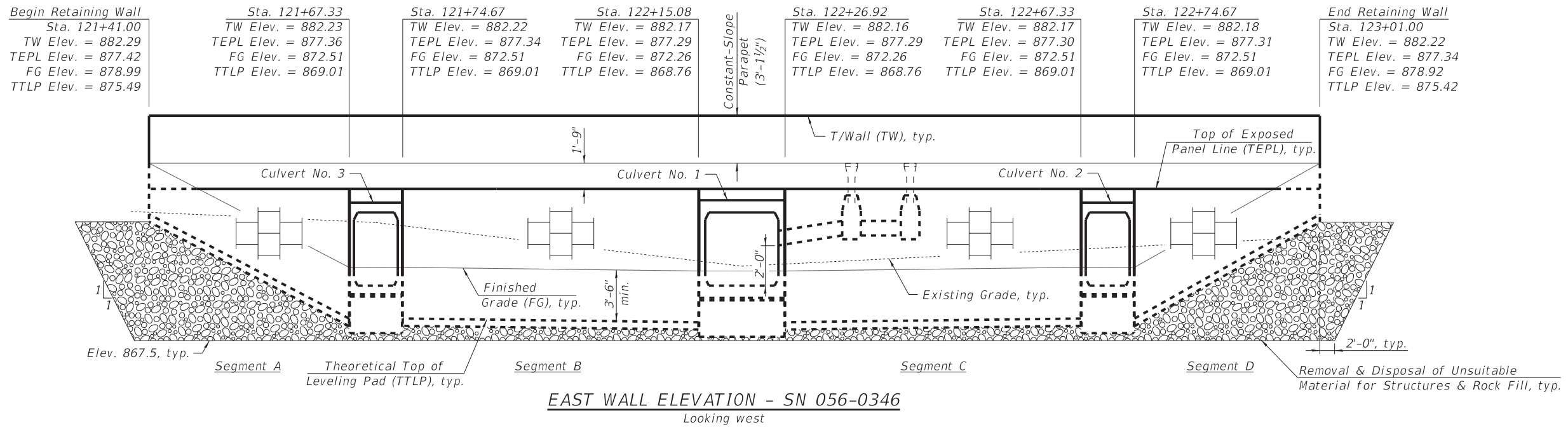
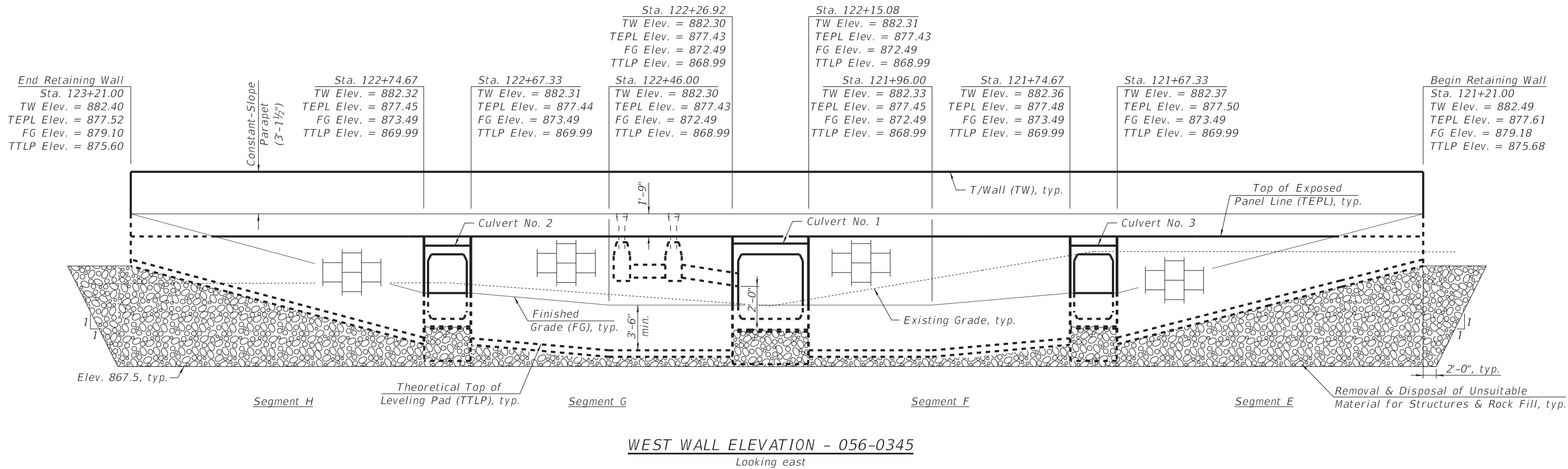
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS  
STRUCTURE NOS. 056-0345 & 056-0346**

SHEET NO. 4 OF 18 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62D36				

ILLINOIS FED. AID PROJECT GWI(759)



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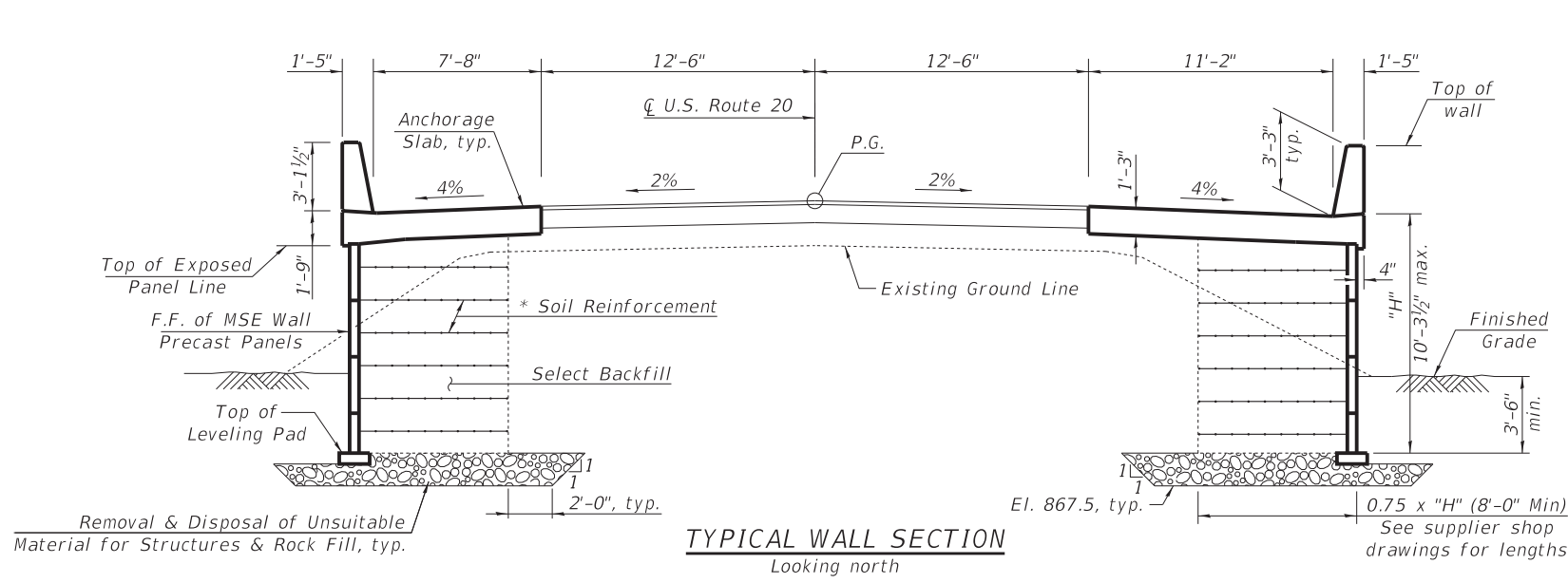
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

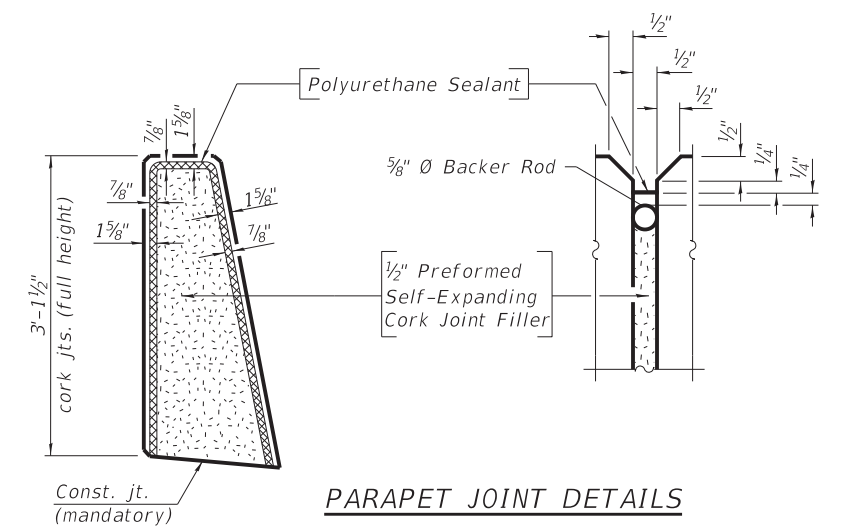
**RETAINING WALL DETAILS  
STRUCTURE NOS. 056-0345 & 056-0346**

SHEET NO. 5 OF 18 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				

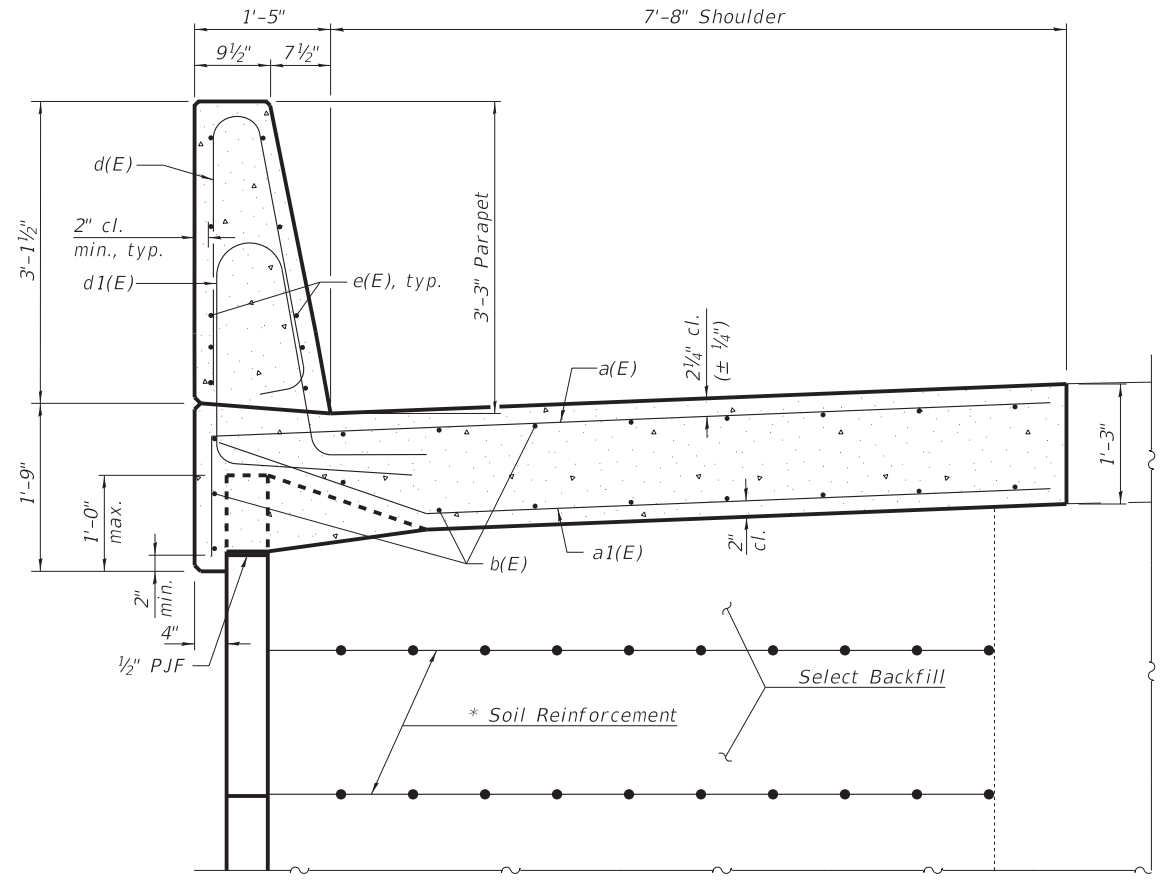


**TYPICAL WALL SECTION**  
Looking north

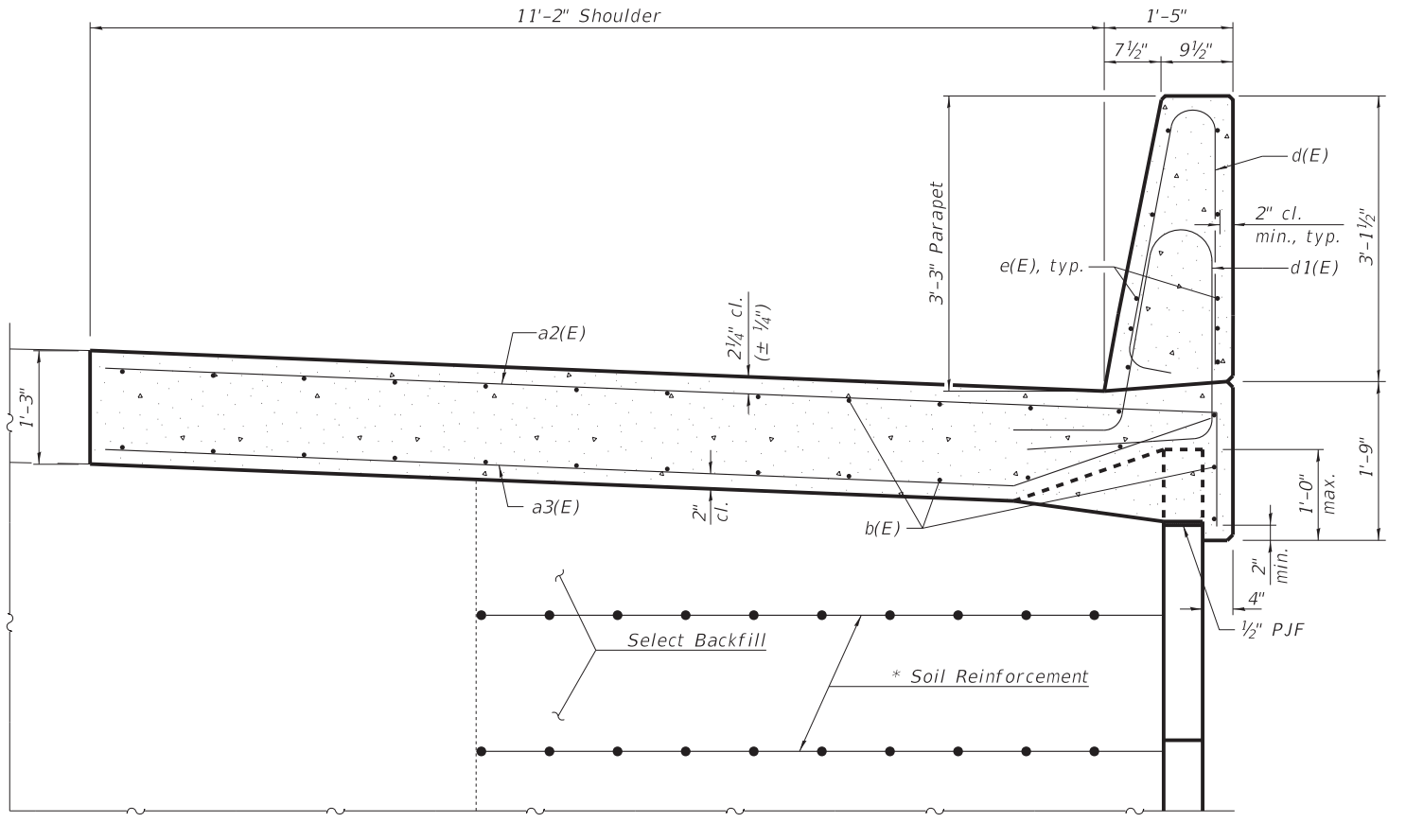


**PARAPET JOINT DETAILS**

Note: The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.



**SECTION THRU WEST PARAPET AND ANCHORAGE SLAB**  
Looking north



**SECTION THRU EAST PARAPET AND ANCHORAGE SLAB**  
Looking north

\* The M.S.E. wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft. of wall.

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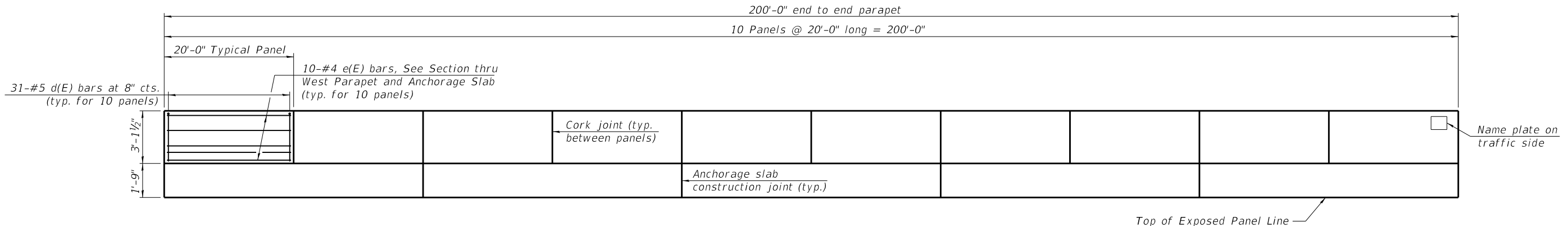


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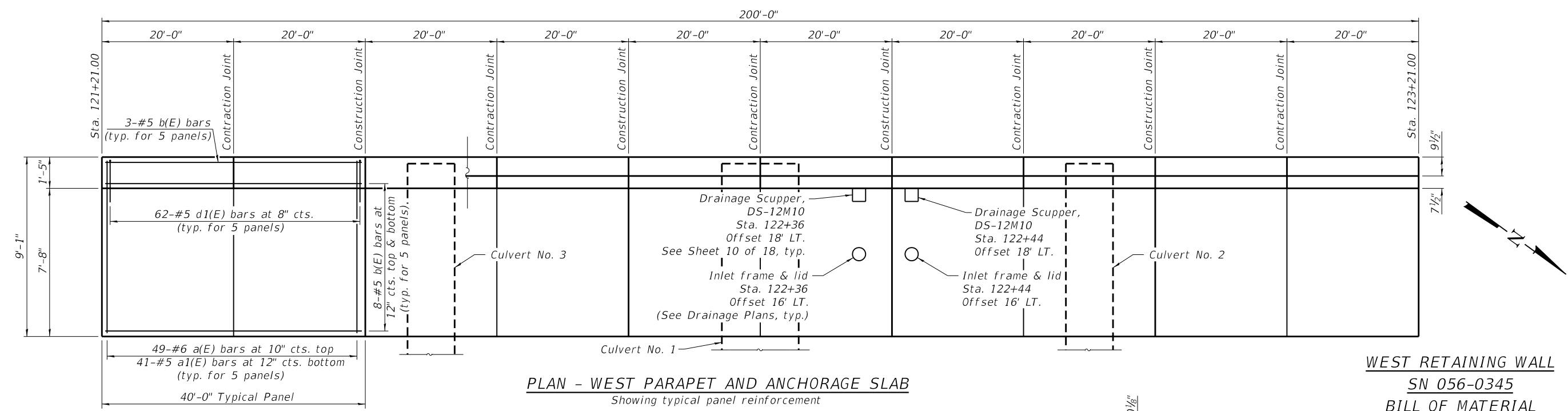
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>RETAINING WALL DETAILS</b>	
<b>STRUCTURE NOS. 056-0345 &amp; 056-0346</b>	
SHEET NO. 6 OF 18 SHEETS	

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				



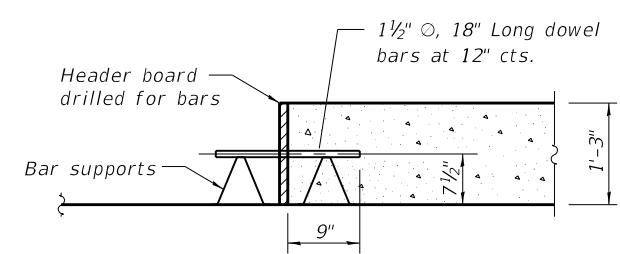
**OUTSIDE ELEVATION OF WEST PARAPET**  
Showing typical panel reinforcement



**PLAN - WEST PARAPET AND ANCHORAGE SLAB**  
Showing typical panel reinforcement

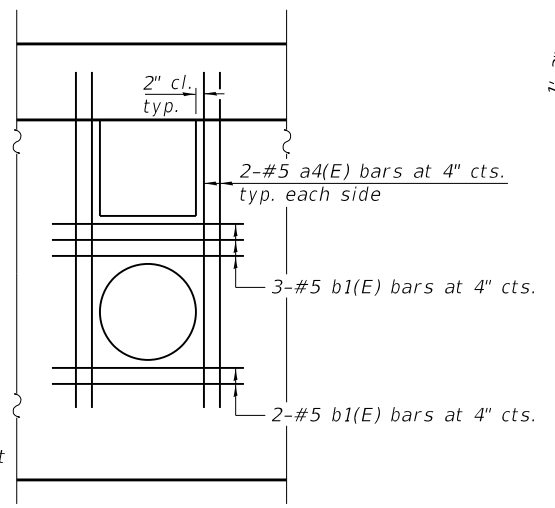
**WEST RETAINING WALL**  
**SN 056-0345**  
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	245	#6	10'-0"	
a1(E)	205	#5	8'-10"	
a4(E)	8	#5	7'-0"	
b(E)	95	#5	39'-8"	
b1(E)	10	#5	4'-0"	
d(E)	310	#5	6'-5"	
d1(E)	310	#5	8'-3"	
e(E)	100	#4	19'-8"	
Reinforced Bars, Epoxy Coated			Pound	15,660
Concrete Superstructure			Cu. Yd.	113.3
Mechanically Stabilized Earth Retaining Wall			Sq. Ft.	1,099
Removal and Disposal of Unsuitable Material for Structures			Cu. Yd.	452
Rock Fill			Cu. Yd.	452

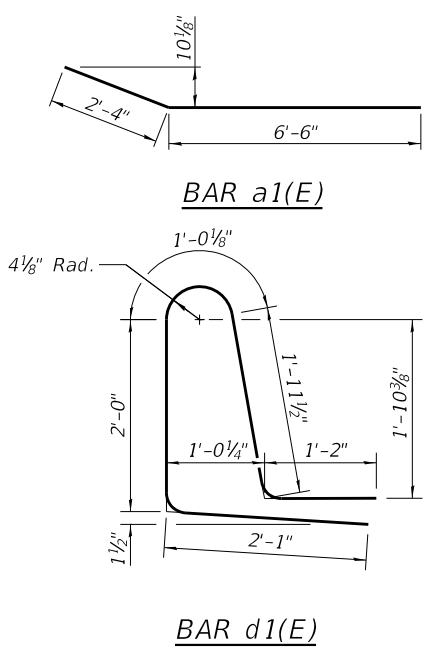
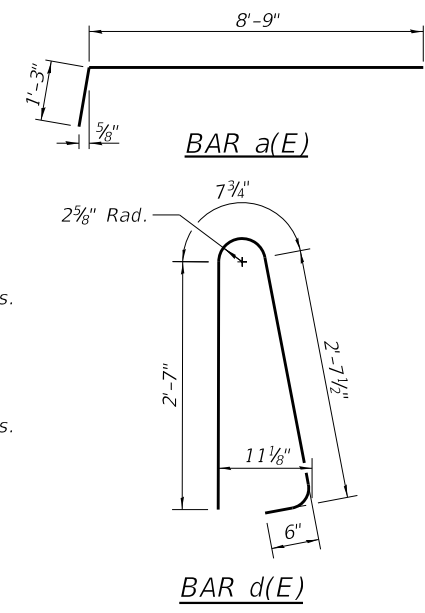


**SLAB CONSTRUCTION JOINT**  
Dowel bars included in the cost of Concrete Superstructure

Notes:  
Relocate reinforcement a maximum of 2 inches and cut remaining bars to clear drainage openings.  
Tie additional reinforcement to bottom of top reinforcement mat.



**DETAIL FOR ADDITIONAL REINFORCEMENT AT DRAINAGE OPENINGS**



See Sheet 8 of 18 for contraction joint detail.

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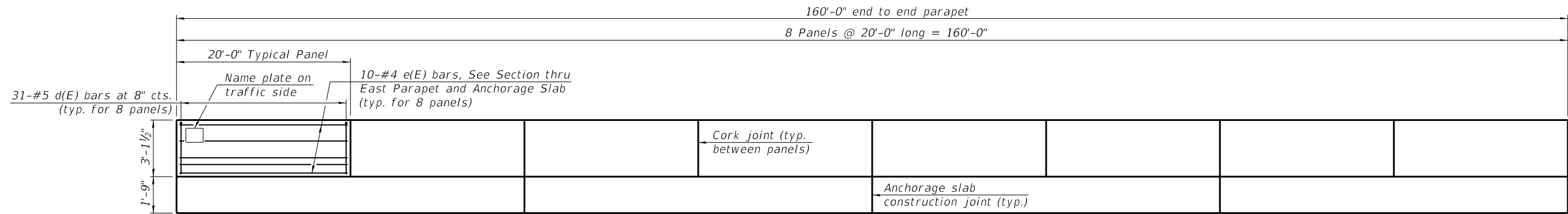
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**DEPARTMENT OF TRANSPORTATION**

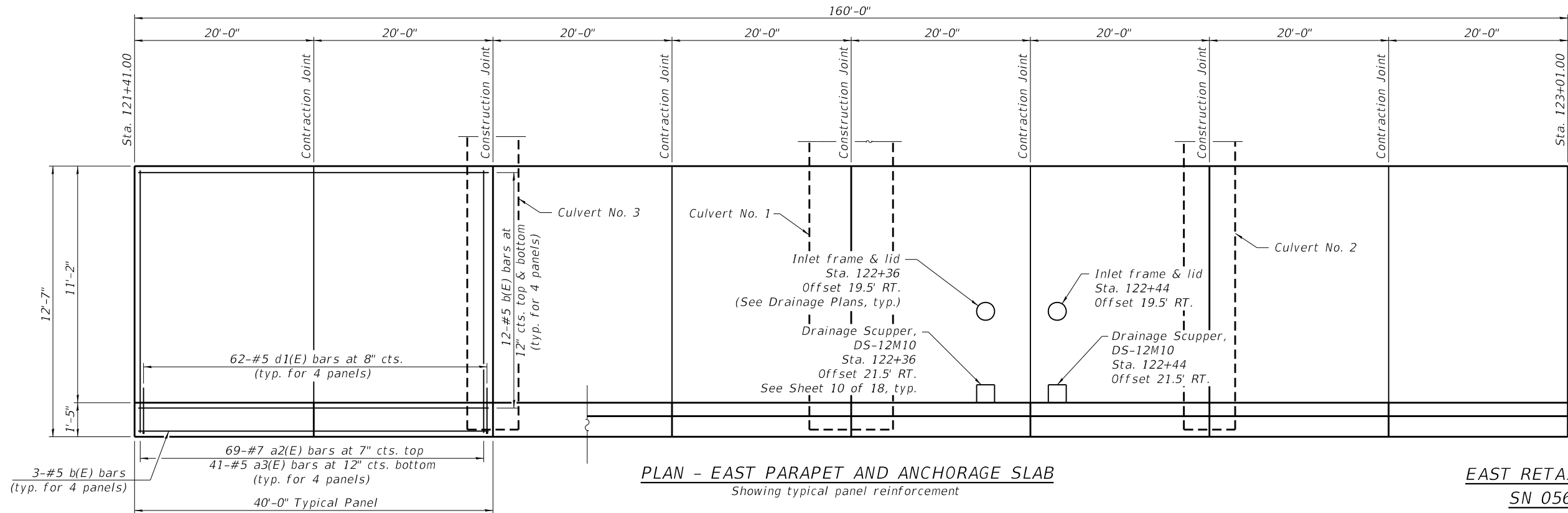
**WEST ANCHORAGE SLAB DETAILS**  
**STRUCTURE NOS. 056-0345 & 056-0346**

SHEET NO. 7 OF 18 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GW1(759)				



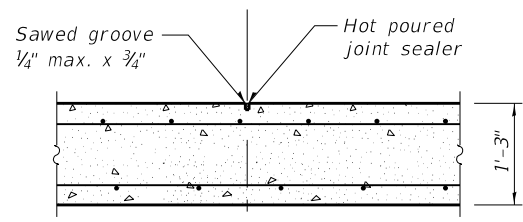
**OUTSIDE ELEVATION OF EAST PARAPET**  
Showing typical panel reinforcement



**PLAN - EAST PARAPET AND ANCHORAGE SLAB**  
Showing typical panel reinforcement

**EAST RETAINING WALL  
SN 056-0346  
BILL OF MATERIAL**

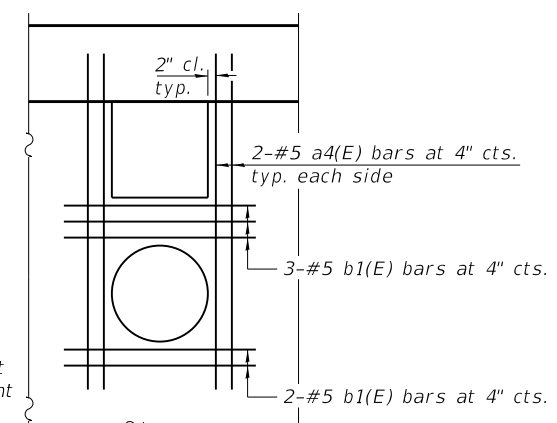
Bar	No.	Size	Length	Shape
a2(E)	276	#7	13'-6"	
a3(E)	164	#5	12'-4"	
a4(E)	8	#5	7'-0"	
b(E)	108	#5	39'-8"	
b1(E)	10	#5	4'-0"	
d(E)	248	#5	6'-5"	
d1(E)	248	#5	8'-3"	
e(E)	80	#4	19'-8"	
Reinforcement Bars, Epoxy Coated			Pound	19,140
Concrete Superstructure			Cu. Yd.	116.6
Mechanically Stabilized Earth Retaining Wall			Sq. Ft.	952
Removal and Disposal of Unsuitable Material for Structures			Cu. Yd.	269
Rock Fill			Cu. Yd.	269



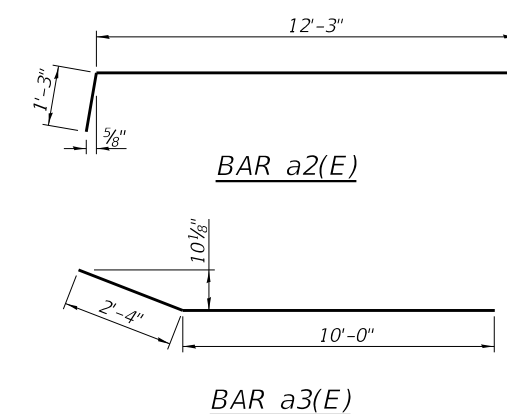
**SLAB CONTRACTION JOINT**  
Sawcut and sealer included in the cost of Concrete Superstructure

See Sheet 7 of 18 for construction joint detail.

**Notes:**  
Relocate reinforcement a maximum of 2 inches and cut remaining bars to clear drainage openings.  
Tie additional reinforcement to bottom of top reinforcement mat.



**DETAIL FOR ADDITIONAL REINFORCEMENT AT DRAINAGE OPENINGS**



See sheet 7 of 18 for d(E) and d1(E) bar details.

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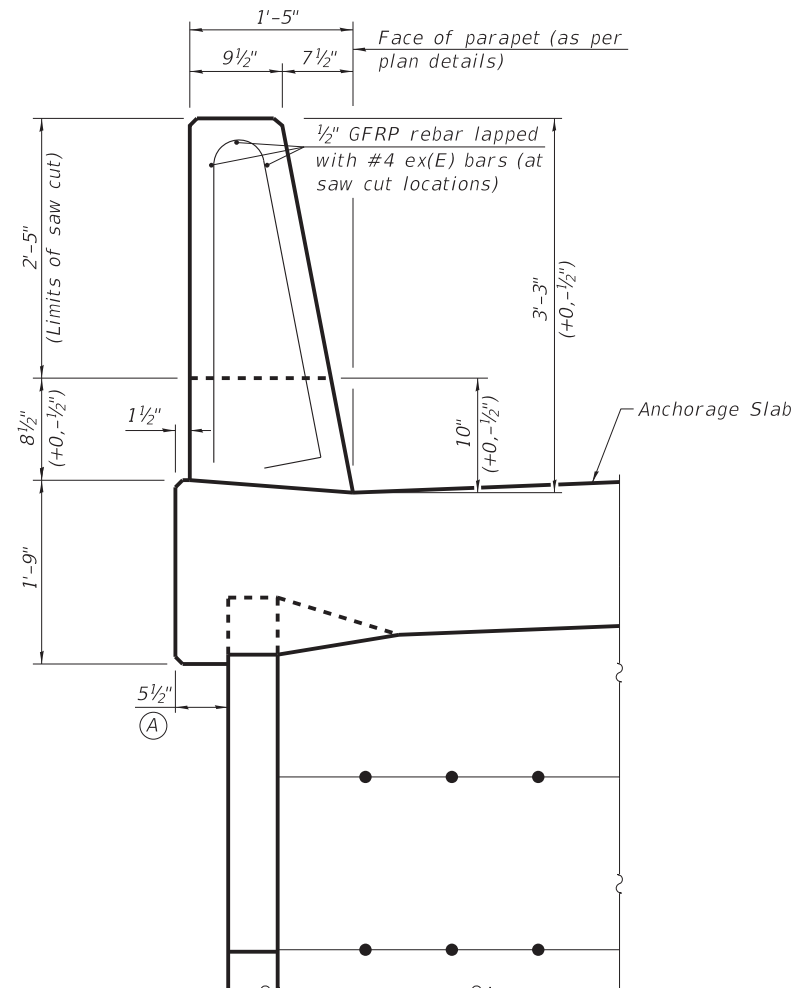
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**EAST ANCHORAGE SLAB DETAILS  
STRUCTURE NOS. 056-0345 & 056-0346**

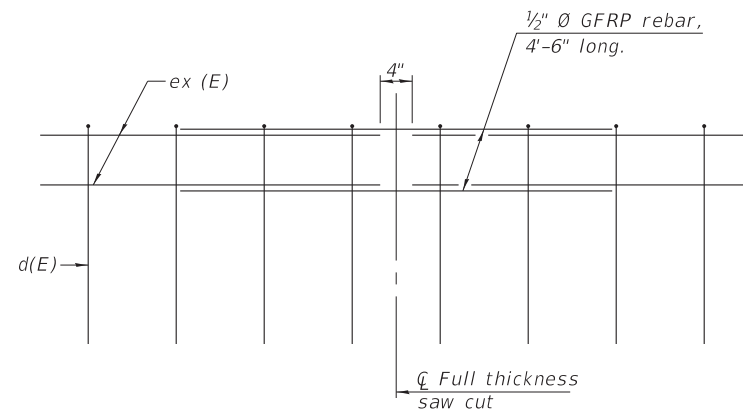
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	246
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GMW(759)				

**GENERAL NOTES**

All dimensions shall remain the same as shown on retaining wall and anchorage slab details, except dimension A which is to be revised as shown.  
 Additional concrete needed to revise dimension A = 0.0081 cu. yds./ft.  
 Replace all cork joint filler locations with a full thickness saw cut.



**SECTION THRU PARAPET AND ANCHORAGE SLAB**



**GFRP REBAR STIFFENING DETAIL**

(Place as shown in parapet section at each parapet joint location.)

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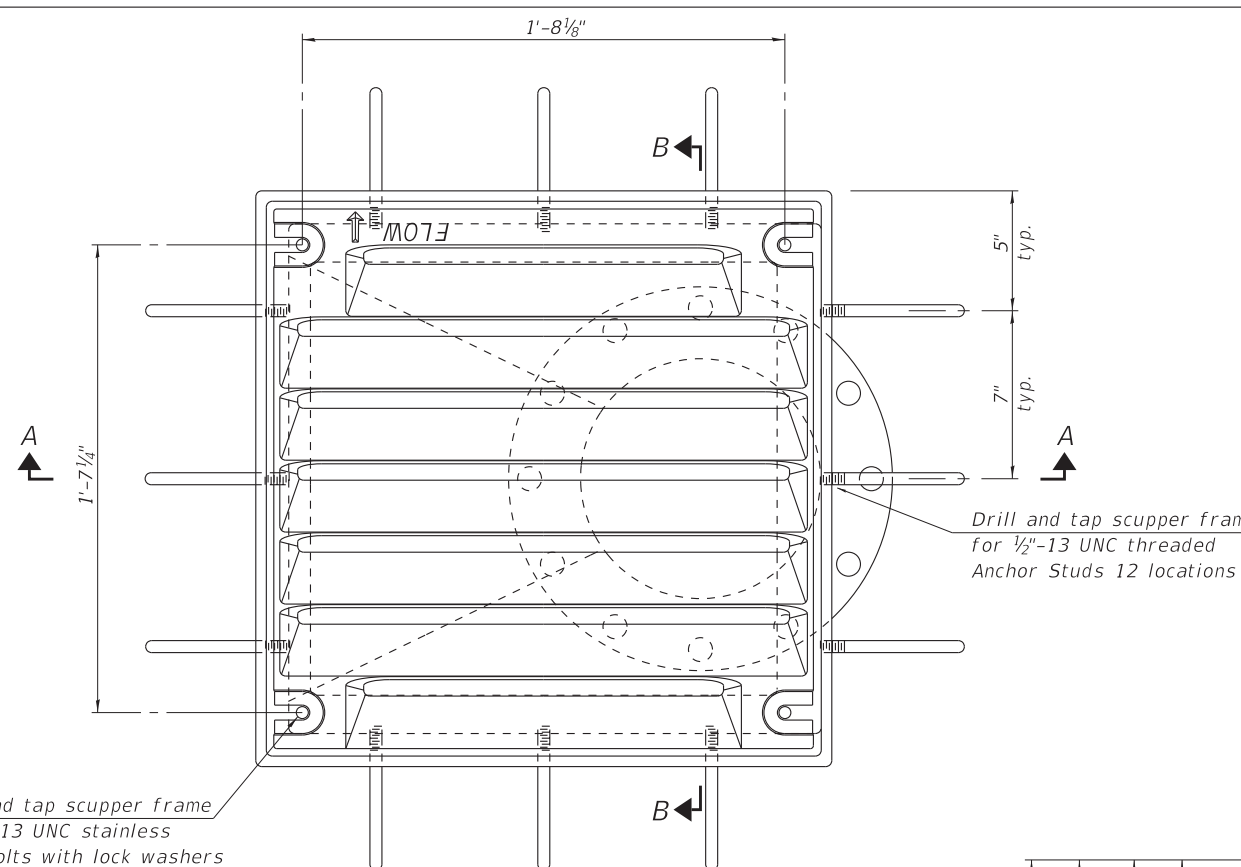
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**STATE OF ILLINOIS  
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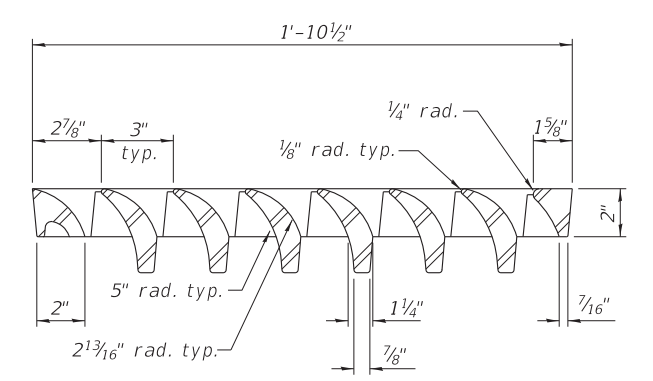
**CONCRETE PARAPET SLIPFORMING OPTION  
STRUCTURE NOS. 056-0345 & 056-0346**

SHEET NO. 9 OF 18 SHEETS

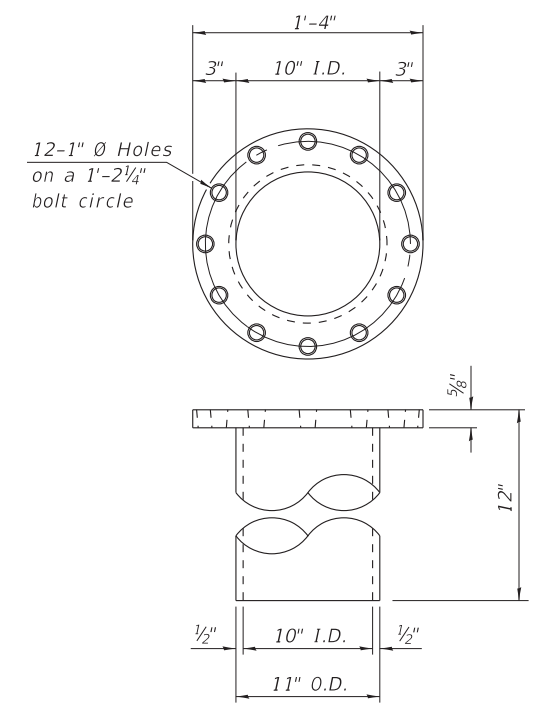
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				



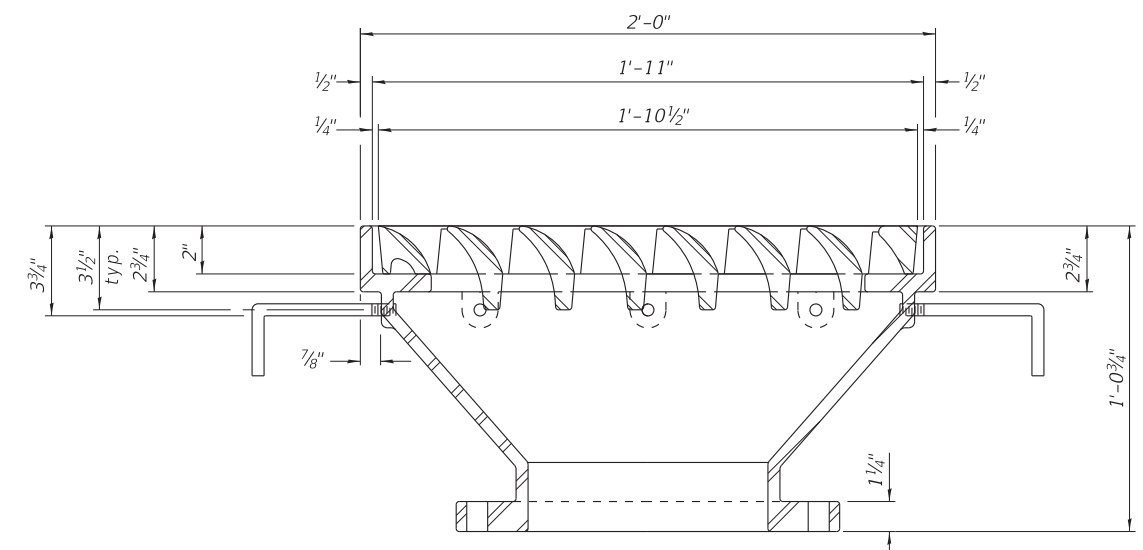
**PLAN**



**VANE GRATE DETAIL**



**DOWNSPOUT**

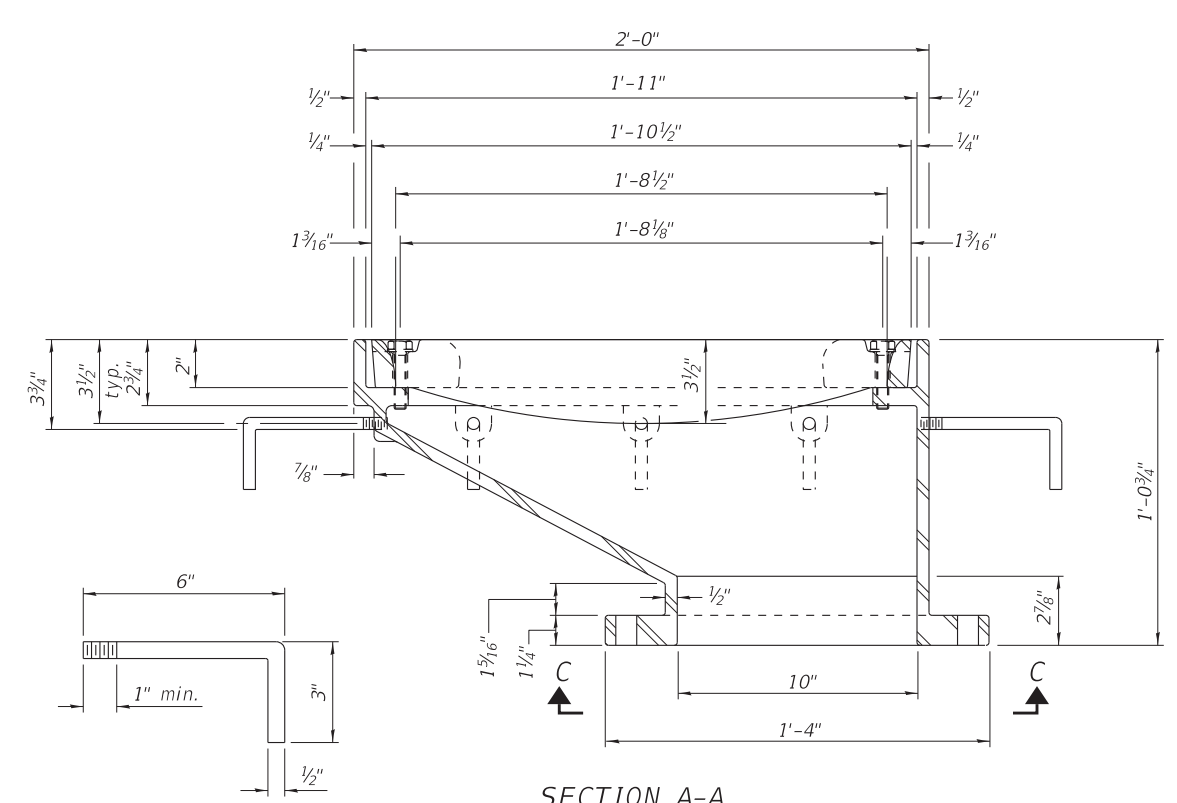


**SECTION B-B**

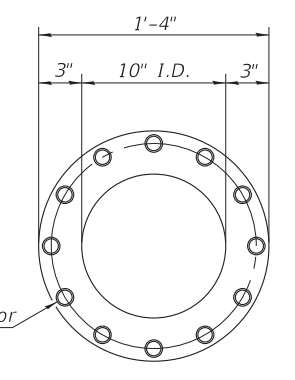
Drill and tap scupper frame for 1/2"-13 UNC stainless steel bolts with lock washers 4 locations

Drill and tap scupper frame for 1/2"-13 UNC threaded Anchor Studs 12 locations

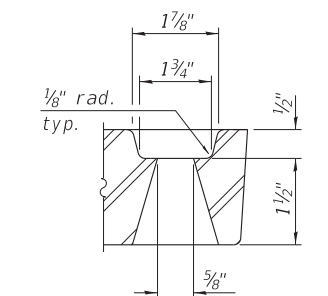
Drill and tap 12 holes for 7/8"-9 UNC bolts on 1'-2 1/4" bolt circle



**SECTION A-A**



**VIEW C-C**



**GRATE BOLT HOLE DETAIL**

**Notes:**  
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.  
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.  
 All castings shall conform to the requirements of AASHTO M 306.  
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.  
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.  
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.  
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.  
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12M10.  
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12M10	Each	4

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DS-12M10

2-17-2017



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PLOT SCALE = 0:1.0000 ' = 1"	CHECKED - BLB	REVISED -
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DRAINAGE SCUPPER, DS-12M10  
 STRUCTURE NOS. 056-0345 & 056-0346**

SHEET NO. 10 OF 18 SHEETS

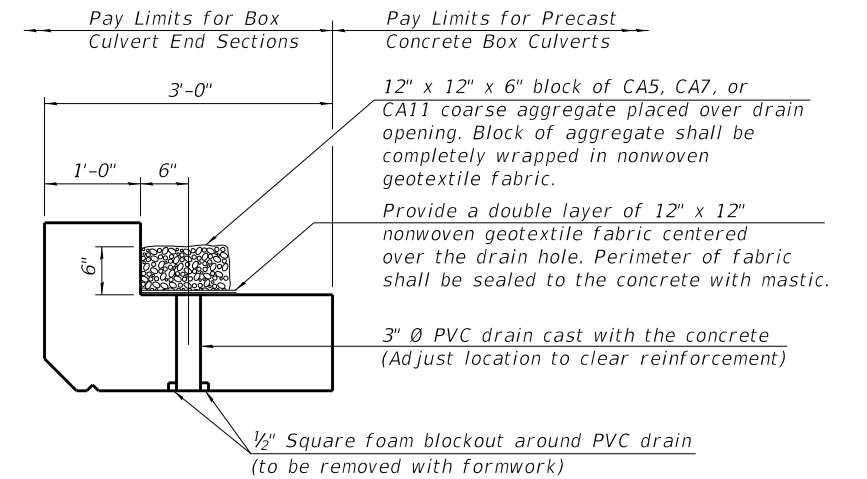
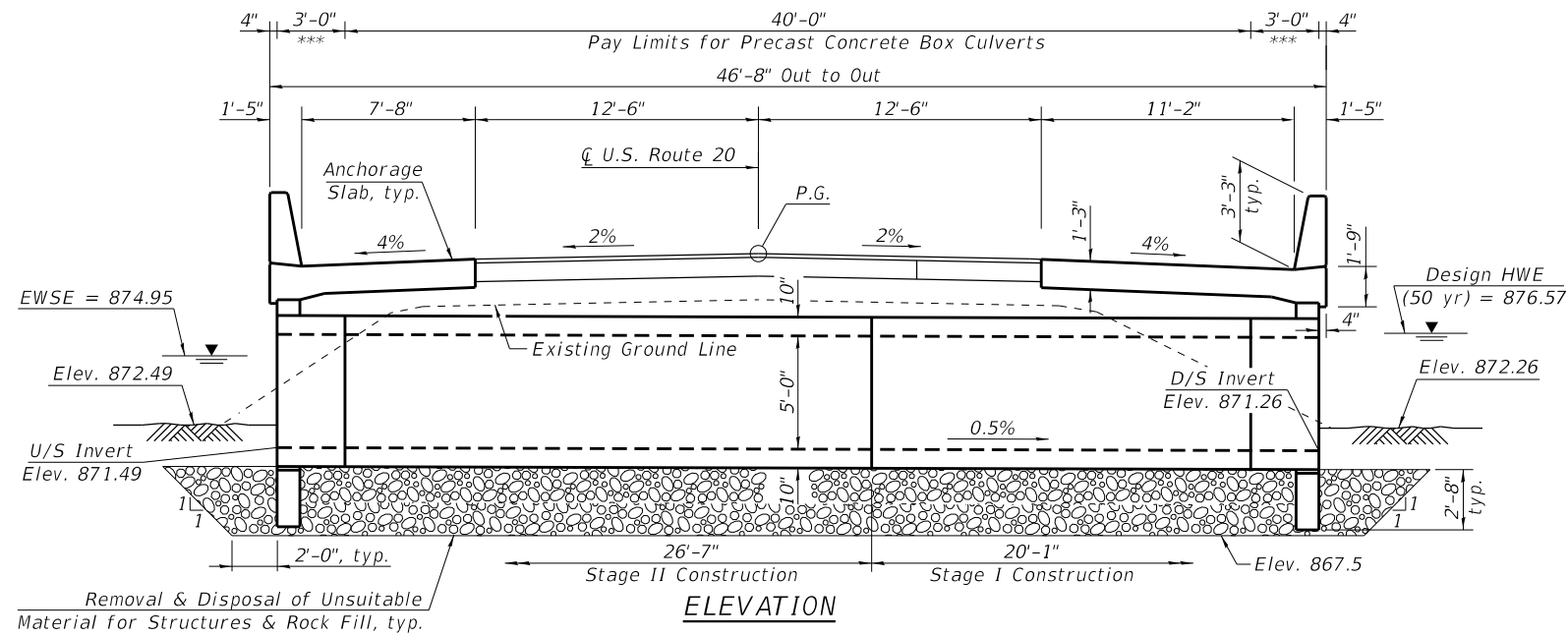
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	248
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWMI(759)				



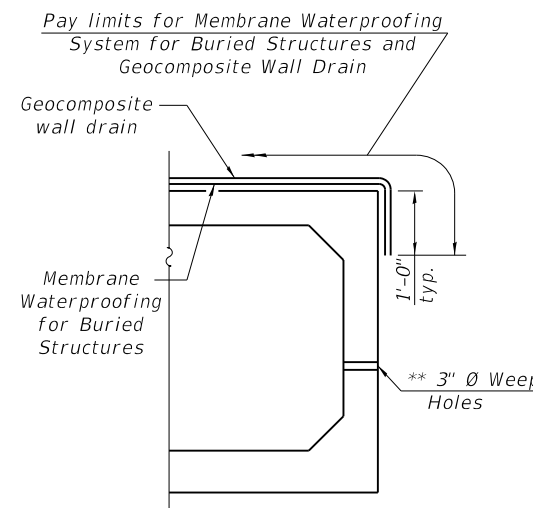
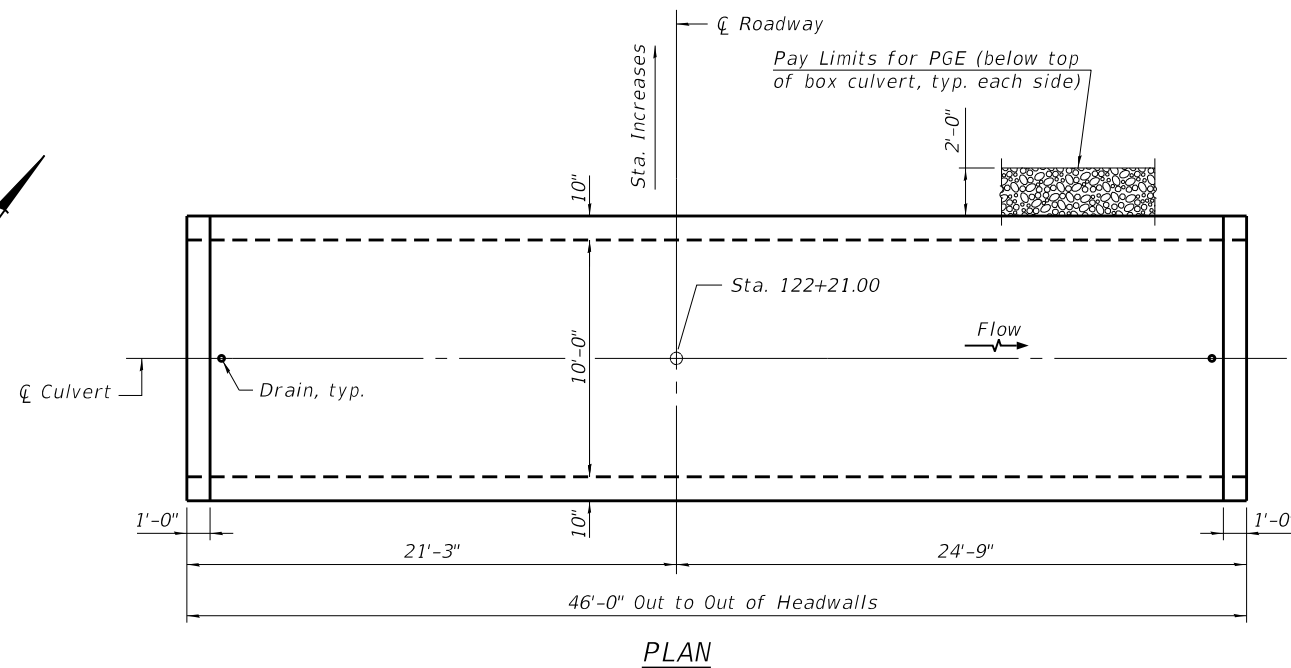
**GENERAL NOTES**

See Sheet 1 of 18 for Benchmark and Existing Structure information, Design Specifications and Stresses, Location Sketch, and Profile Grade.  
 See Sheet 2 of 18 for Total Bill of Material.  
 The design fill height for this box is 2 ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.  
 Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert and shall not intercept the haunch.  
 Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard. Precast concrete box culvert shall be backfilled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert.  
 Structure Excavation for construction of Culvert No. 1 will not be measured for payment separately, but shall be included in the cost of the other related work items.  
 Backfill over culvert supporting the anchorage slabs shall be the same material and construction method as the Select Backfill for either the MSE walls or geotextile walls. Backfill material over the culvert and not included in the geotextile walls will not be measured for payment, but shall be included in the cost of Mechanically Stabilized Earth Retaining Walls.

\*\*\* Pay Limits for Box Culvert End Sections



**DRAIN DETAIL**  
 (All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



\*\* Geocomposite Strip Drain required at each weep hole. Cost included with Precast Concrete Box Culverts. See Special Provisions.

**CULVERT NO. 1 BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Removal of Existing Structures	Each	1
Box Culvert End Sections, Culvert No. 1	Each	2
Precast Concrete Box Culverts, 10' x 5'	Foot	40
Porous Granular Embankment	Cu. Yd.	30
Geocomposite Wall Drain	Sq. Yd.	67
Membrane Waterproofing for Buried Structures	Sq. Yd.	67
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	95
Rock Fill	Cu. Yd.	95

**WATERWAY INFORMATION**

Drainage Area = 1.76 Sq. Mi. Low Grade Elev. 879.62 @ Sta. 122+37

Flood	Freq. Yr.	Q C.F.S.	Opening Ft <sup>2</sup>		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
10	162	29	45	875.09	0.01	0.01	875.10	875.10	
Design	50	396	32	76	876.57	0.94	0.27	877.51	876.84
Base	100	543	32	76	876.81	0.89	0.39	877.70	877.20
Overtopping	>10, <50							877.29	-
Max. Calc.	500	658	32	76	876.98	0.89	1.17	877.87	878.15

2-yr Q = 107 CFS      10-yr velocity = 6 ft/s (exist.) 5 ft/s (prop.)

**GENERAL PLAN AND ELEVATION**  
**US RTE. 20 OVER DITCH**  
**F.A.P. RTE. 525 - SEC. 2016-092B&R**  
**McHENRY COUNTY**  
**STATION 122+21**  
**S.N. 056-0318**

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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CULVERT NO. 1 GENERAL PLAN AND ELEVATION**  
**STRUCTURE NO. 056-0318**

SHEET NO. 11 OF 18 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	McHENRY	329	249
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GMW(759)				

**GENERAL NOTES**

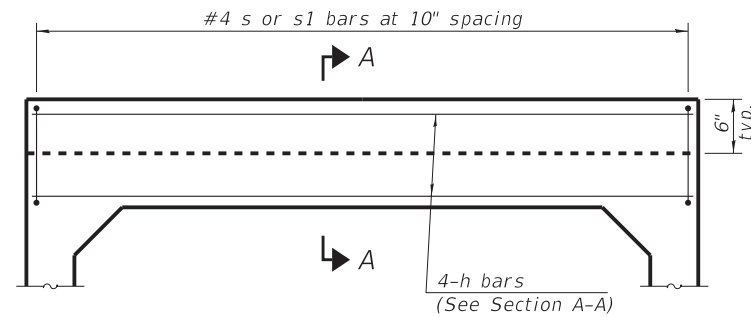
Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. End sections will be paid for at the contract unit price per each for Box Culvert End Sections.

The Contractor may furnish the end section as a single precast concrete piece or construct the end section in the field using cast-in-place (CIP) construction. For CIP construction, the bottom slab thickness shall be increased by 2" and the clear cover to the bottom mat of reinforcement shall be increased to 3".

Box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements for ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

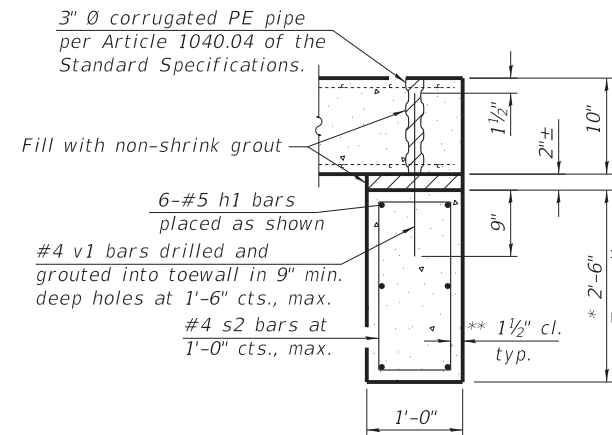
All costs associated with furnishing and installing or constructing the toewall will not be measured for payment but shall be included in the unit price for Box Culvert End Sections of the culvert number specified.

Shop drawings that detail reinforcement layout for the Box Culvert End Sections shall be provided to the Engineer for review and approval. Reinforcement bars not detailed herein shall be detailed with a clear distance at the end of the reinforcement not less than 1/2" nor more than 2". For the precast option, it shall be the Contractor's responsibility for determining a method of handling and a construction procedure shall be included on the shop drawings. The Contractor shall determine and detail in the shop drawings any necessary strengthening or stiffening provisions necessary to handle the precast segment. Any required modifications shall be at no extra charge.



**HEADWALL ELEVATION**

(Allow sidewall reinforcement to extend into end of headwall.)



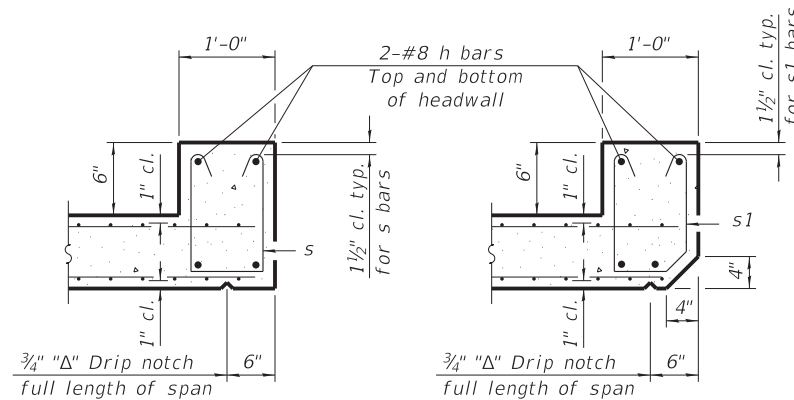
**SECTION THRU TOEWALL**

**TOEWALL CONSTRUCTION SEQUENCE**

1. Perform excavation and construct toewall.
2. Backfill according to the applicable paragraphs of Article 502.10 of the Standard Specifications and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

\* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling method.

\*\* If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

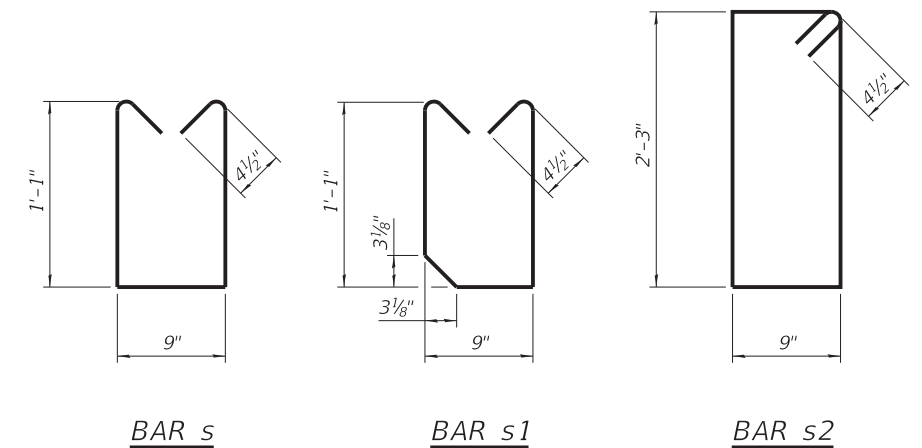


**SECTION A-A**

(Top slab at downstream end)

**SECTION A-A**

(Top slab at upstream end)



**BAR s**

**BAR s1**

**BAR s2**

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PLOT DATE = 1/17/2020	FILE -05603456-6-62D36-012-CULVERT.dgn	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

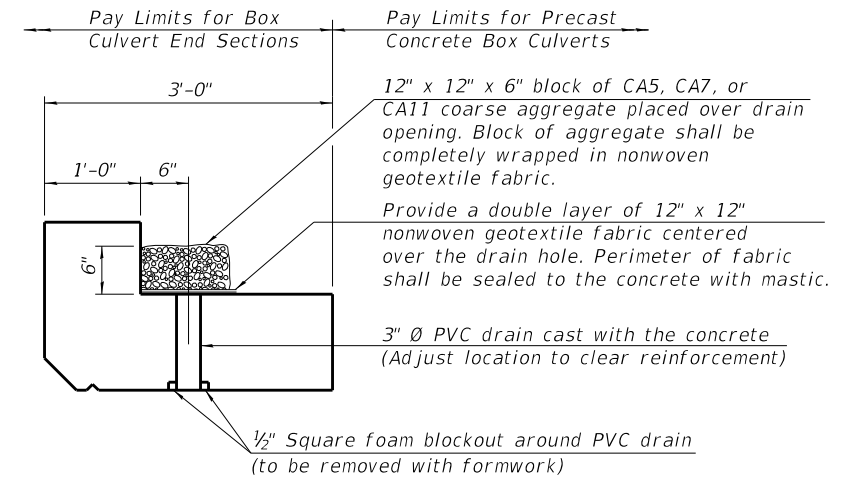
**CULVERT NO.1 END SECTION DETAILS  
STRUCTURE NO. 056-0318**

SHEET NO. 12 OF 18 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	250
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				

**GENERAL NOTES**

See Sheet 1 of 18 for Benchmark and Existing Structure information, Design Specifications and Stresses, Location Sketch, and Profile Grade.  
 See Sheet 2 of 18 for Total Bill of Material.  
 See Sheet 11 of 18 for Waterway Information Table.  
 The design fill height for these boxes is 2 ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.  
 Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert and shall not intercept the haunch.  
 Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard. Precast concrete box culvert shall be backfilled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert.  
 Backfill over culverts supporting the anchorage slabs shall be the same material and construction method as the Select Backfill for either the MSE walls or geotextile walls. Backfill material over the culverts and not included in the geotextile walls will not be measured for payment, but shall be included in the cost of Mechanically Stabilized Earth Retaining Walls.



**DRAIN DETAIL**

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)

**CULVERTS NO. 2 & 3 BILL OF MATERIAL**

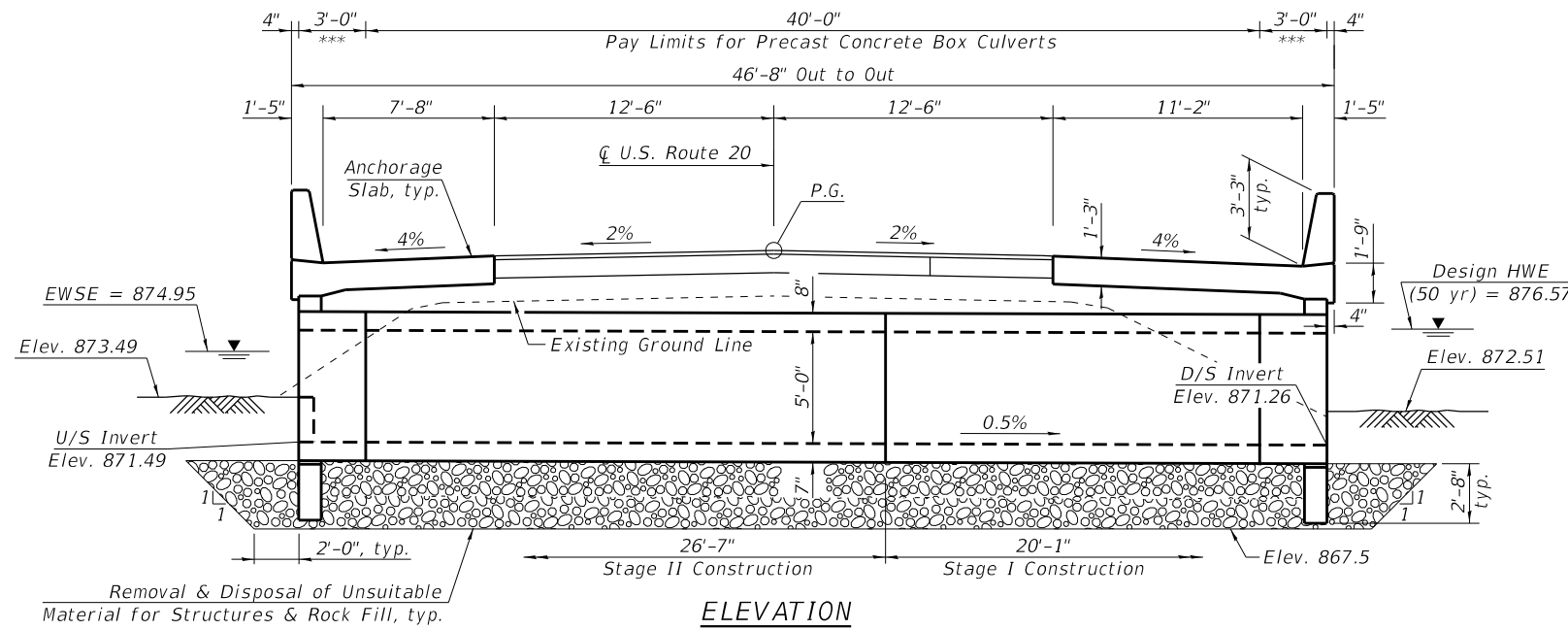
ITEM	UNIT	TOTAL
Box Culvert End Sections, Culvert No. 2	Each	2
Box Culvert End Sections, Culvert No. 3	Each	2
Precast Concrete Box Culverts, 6' x 5'	Foot	80
Porous Granular Embankment	Cu. Yd.	56
Structure Excavation	Cu. Yd.	214
Geocomposite Wall Drain	Sq. Yd.	90
Membrane Waterproofing for Buried Structures	Sq. Yd.	90
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	154
Rock Fill	Cu. Yd.	154

**GENERAL PLAN AND ELEVATION**

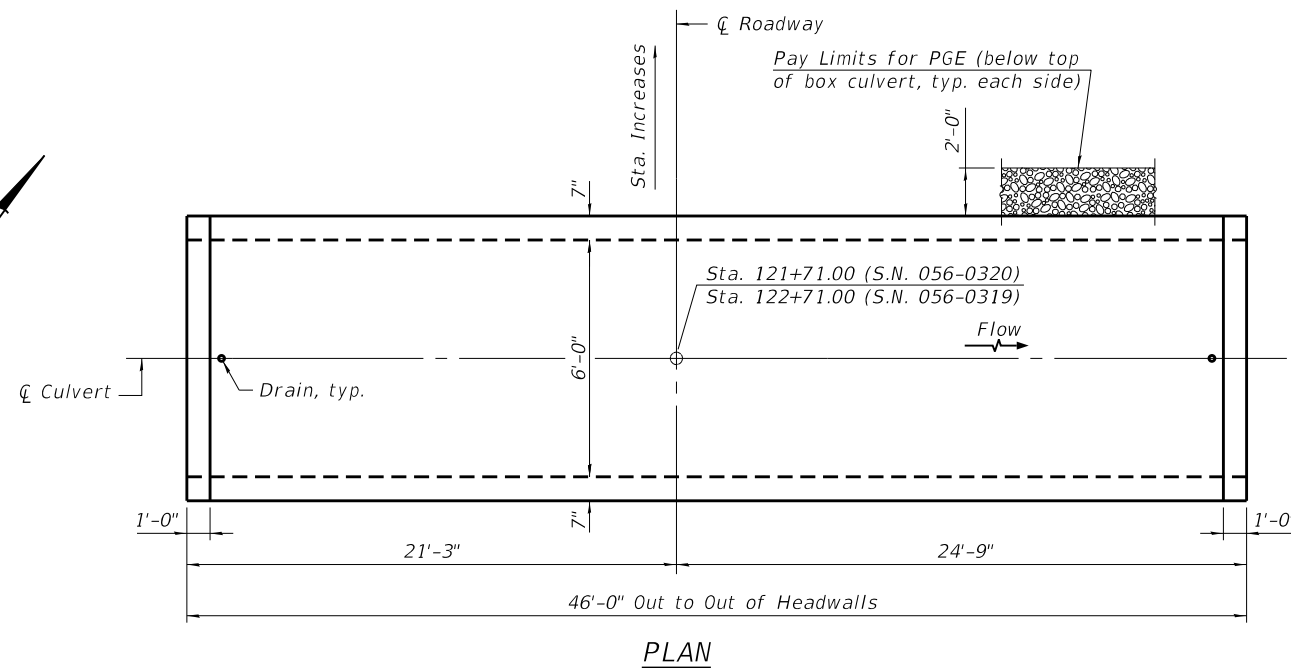
**US RTE. 20 OVER DITCH**  
**F.A.P. RTE. 525 - SEC. 2016-092B&R**

**McHENRY COUNTY**  
**STATION 121+71 & 122+71**  
**S.N. 056-0319 & 056-0320**

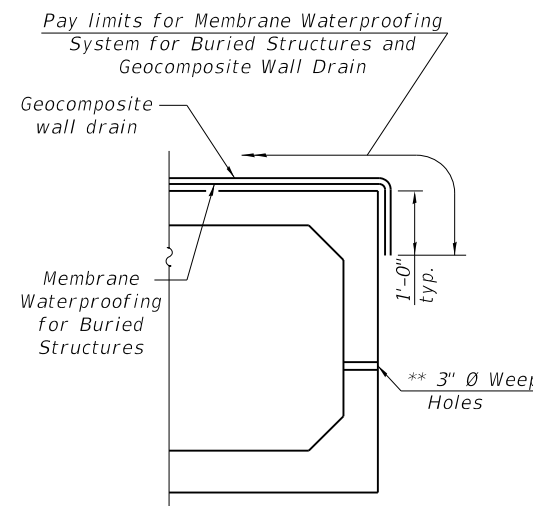
\*\*\* Pay Limits for Box Culvert End Sections



**ELEVATION**



**PLAN**



**WATERPROOFING**

\*\* Geocomposite Strip Drain required at each weep hole.  
 Cost included with Precast Concrete Box Culverts.  
 See Special Provisions.

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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CULVERTS NO. 2 & 3 GENERAL PLAN AND ELEVATION**  
**STRUCTURE NOS. 056-0319 & 056-0320**

SHEET NO. 13 OF 18 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	McHENRY	329	251
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GW1(759)				

**GENERAL NOTES**

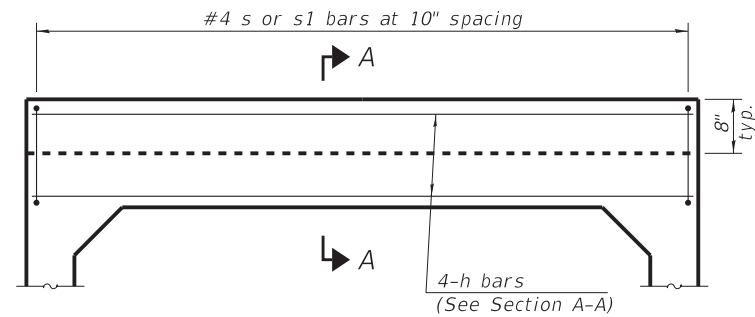
Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. End sections will be paid for at the contract unit price per each for Box Culvert End Sections.

The Contractor may furnish the end section as a single precast concrete piece or construct the end section in the field using cast-in-place (CIP) construction. For CIP construction, the bottom slab thickness shall be increased by 2" and the clear cover to the bottom mat of reinforcement shall be increased to 3".

Box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements for ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

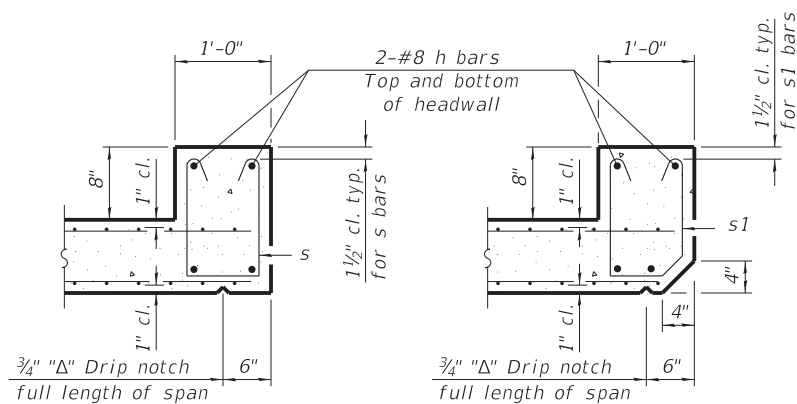
All costs associated with furnishing and installing or constructing the toewall and weir wall will not be measured for payment but shall be included in the unit price for Box Culvert End Sections of the culvert number specified.

Shop drawings that detail reinforcement layout for the Box Culvert End Sections shall be provided to the Engineer for review and approval. Reinforcement bars not detailed herein shall be detailed with a clear distance at the end of the reinforcement not less than 1/2" nor more than 2". For the precast option, it shall be the Contractor's responsibility for determining a method of handling and a construction procedure shall be included on the shop drawings. The Contractor shall determine and detail in the shop drawings any necessary strengthening or stiffening provisions necessary to handle the precast segment. Any required modifications shall be at no extra charge.



**HEADWALL ELEVATION**

(Allow sidewall reinforcement to extend into end of headwall.)



**SECTION A-A**

(Top slab at downstream end)

**SECTION A-A**

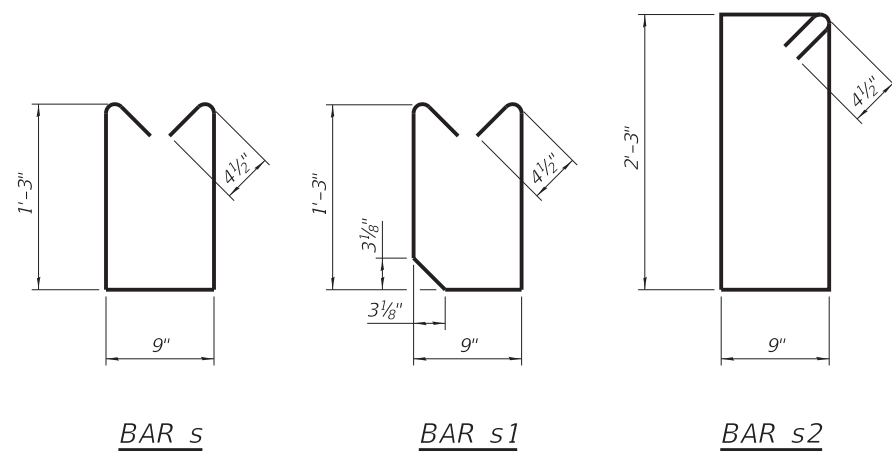
(Top slab at upstream end)

**TOEWALL CONSTRUCTION SEQUENCE**

1. Perform excavation and construct toewall.
2. Backfill according to the applicable paragraphs of Article 502.10 of the Standard Specifications and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.
6. Construct cast-in-place weir wall (upstream end only).

\* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling the method.

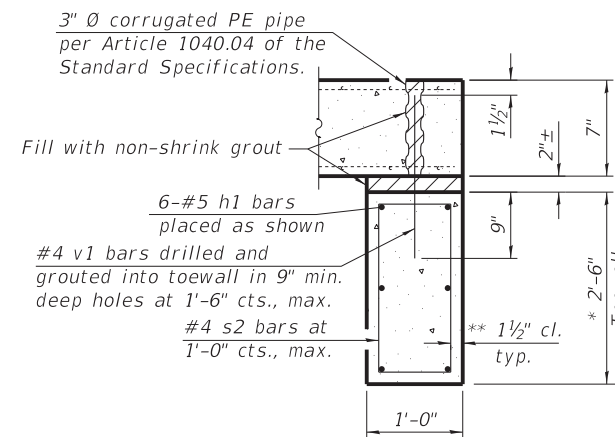
\*\* If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.



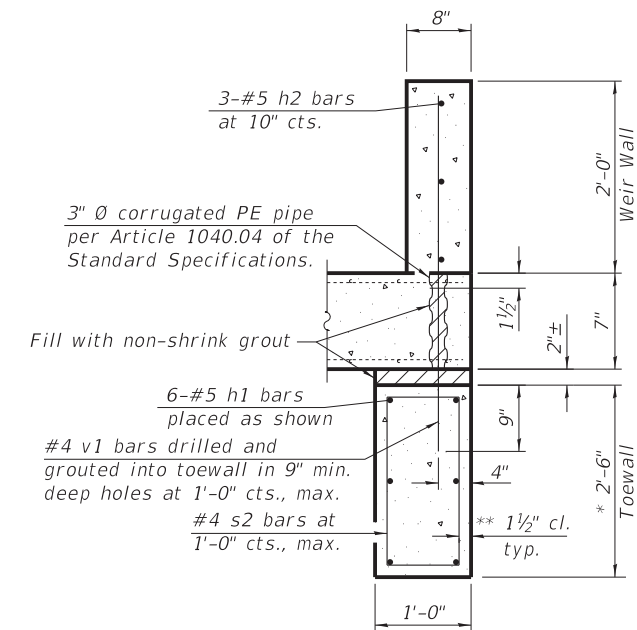
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**BAR s1**

**BAR s2**



**SECTION THRU DOWNSTREAM TOEWALL**



**SECTION THRU UPSTREAM TOEWALL**

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CULVERTS NO. 2 & 3 END SECTION DETAILS  
STRUCTURE NOS. 056-0319 & 056-0320**

SHEET NO. 14 OF 18 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	252
CONTRACT NO. 62D36				
		ILLINOIS	FED. AID PROJECT	GMW(759)

# SOIL BORING LOG

Date 5/8/17

ROUTE FAP 525 (US Route 20) DESCRIPTION US 20 Culvert/proposed Retaining Wall LOGGED BY Eric Slusser

SECTION D-91-476-16 LOCATION West side US 20

COUNTY MCHENRY DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 056-0318, 056-0319 & 056-0320		DEPTH H S	BLOW S Qu	UCS T	MOIST T	Surface Water Elev. _____ ft		DEPTH H S	BLOW S Qu	UCS T	MOIST T
BORING NO. B-14						Groundwater Elev.:					
Station 774 + 47		(ft)	(/6")	(tsf)	(% )	First Encounter _____ ft		(ft)	(/6")	(tsf)	(% )
Offset 13.00ft LT						Upon Completion _____ ft					
Ground Surface Elev. 877.53 ft		After _____ Hrs.									
ASPHALT	877.03										
CRUSHED AGGREGATE FILL (sub-base)	876.53	4						19			
Loose, dark gray (10YR 4/1) SAND FILL, medium to fine grained, moist		3		13.7				21		9.3	
		3						31			
	874.53						854.53				
Medium Stiff, black (10YR 2/1) CLAY LOAM (CL), trace organics, moist. Remnant topsoil or organic soil		2						9		8.5	
		1		34.6				14			
		-5	0.8					19	4.5		
	872.03							-25	P		
Stiff, dark gray (10YR 4/1) SANDY CLAY (SaC), trace fine gravel, trace sand, moist		2						9			
		4		31.9				14		9.7	
		10	1.5					21	4.5		
			P								
	869.53										
Medium Dense, pale brown (10YR 6/3) LOAM (L), little gravel, little sand, AASHTO Classification A-4(3), moist		3						8			
		3		11.4				13		9.4	
		-10						14	4.5		
			P								
	867.03						847.53	-30			
Medium Dense to Dense, gray (10YR 5/1) SAND WITH GRAVEL (S), gravel large to fine, sand medium to fine, saturated at 12.0'		3									
		4		12.7							
		6									
		9									
		22		8.6							
		-15						-35			
		21									
		17		9.4							
		21									
	859.53										
Very Dense, pale brown (10YR 6/3) SILTY LOAM (SiL), trace to little gravel, trace to little sand, moist		16									
		31		8.1							
		-20						-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)

BBS, from 137 (Rev. 8-99)

# SOIL BORING LOG

Date 5/10/17

ROUTE FAP 525 (US Route 20) DESCRIPTION US 20 Culvert/proposed Retaining Wall LOGGED BY Eric Slusser

SECTION D-91-476-16 LOCATION East side US 20

COUNTY MCHENRY DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 056-0318, 056-0319 & 056-0320		DEPTH H S	BLOW S Qu	UCS T	MOIST T	Surface Water Elev. _____ ft		DEPTH H S	BLOW S Qu	UCS T	MOIST T
BORING NO. B-15						Groundwater Elev.:					
Station 774 + 69		(ft)	(/6")	(tsf)	(% )	First Encounter _____ ft		(ft)	(/6")	(tsf)	(% )
Offset 12.00ft RT						Upon Completion _____ ft					
Ground Surface Elev. 877.26 ft		After _____ Hrs.									
ASPHALT	876.59										
Medium Dense, black (10YR 2/1) CRUSHED AGGREGATE FILL (sub-base), moist	875.93	9						19			
		5		5.7				31		8.2	
		5						49			
	874.26						854.26				
Medium Dense, brown (10YR 5/3) SAND FILL, medium to fine grained, pieces of concrete and rock, moist		3						13			
		2		25.3				18		9.1	
		-5	0.5					-25	31	4.5	
	871.76							851.76			
Very Sof, black (10YR 2/1) and greenish gray (GLE 6/1) CLAY (C), pieces of wood, moist to wet,		1						8			
		2		53.4				10		10.1	
		2	0.3					13			
			P								
	869.26										
Stiff to Medium Stiff, pale brown (10YR 6/3) SANDY CLAY (SaC), trace to little gravel, moist		3						5			
		3		12.0				10		10.1	
		-10	1.3					13			
			P								
	864.76										
brown (10YR 5/3) LOAM (L), trace fine gravel, some sand, moist AASHTC Classification A-4(1)		2									
		2		12.7							
		3	0.8								
			P								
	862.76										
Medium Dense, brown (10YR 5/3) SAND (S), medium to fine grained, saturated		6						-35			
		6		12.0							
		7									
	861.26										
Medium Dense to Very Dense, brown (10YR 5/3) to 21.0', yellowish red (5YR 4/6) SILTY LOAM (SiL), trace to little medium to fine gravel, trace fine sand, saturated		5									
		8		8.9							
		7									
		10									
		39		8.6							
		-20						-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)

BBS, from 137 (Rev. 8-99)

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BORING LOGS  
STRUCTURE NOS. 056-0345 & 056-0346

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	253
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				

SHEET NO. 15 OF 18 SHEETS

# SOIL BORING LOG

Date 5/8/17

ROUTE FAP 525 (US Route 20) DESCRIPTION US 20 Culvert/proposed Retaining Wall LOGGED BY Eric Slusser

SECTION D-91-476-16 LOCATION West side US 20

COUNTY MCHENRY DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	BORING NO.	DEPTH (ft)	DIAMETER (in)	UCS (tsf)	MOISTURE (%)	DESCRIPTION	DEPTH (ft)	DIAMETER (in)	UCS (tsf)	MOISTURE (%)	DESCRIPTION
056-0318, 056-0319 & 056-0320	B-16	775 + 01	9.00ft LT			Groundwater Elev.: First Encounter 868.3 ft Upon Completion 868.3 ft After Hrs. _____					Surface Water Elev. _____ ft Stream Bed Elev. _____ ft
		876.81				876.81					Medium Dense, pale brown (10YR 6/3) SILTY LOAM (SiL), trace to little fine gravel, saturated (continued)
		875.81	1			855.01			9		
		874.31	2	0.5 P					11	9.3	
			1						11		Hard, pale brown (10YR 6/3) CLAY LOAM (CL), trace to little fine gravel, trace to little fine sand, moist
			1						12		
			4		35.1				13	9.1	
			2	0.5 P					15	4.5 P	
					64.3				5		
		870.31							8	4.5 P	8.1
									8		light gray (10YR 7/1) SILTY LOAM (SiL), trace gravel, trace sand, little clay, AASHTO classification A-7-6(17), moist
					80.3						
		868.31	7						5		10.9
			13		12.0				6		
		866.81	21			847.31	-30		9	4.5 P	
			4								
			5		11.1						
			5								
		864.31									
			4								
			5		10.0						
			8				-35				
			5								
			5		10.3						
			6								
			5								
			7		9.9						
			8				-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)

BBS, from 137 (Rev. 8-99)

# SOIL BORING LOG

Date 5/10/17

ROUTE FAP 525 (US Route 20) DESCRIPTION US 20 Culvert/proposed Retaining Wall LOGGED BY Eric Slusser

SECTION D-91-476-16 LOCATION East side US 20

COUNTY MCHENRY DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	BORING NO.	DEPTH (ft)	DIAMETER (in)	UCS (tsf)	MOISTURE (%)	DESCRIPTION	DEPTH (ft)	DIAMETER (in)	UCS (tsf)	MOISTURE (%)	DESCRIPTION
056-0318, 056-0319 & 056-0320	B-17	775 + 19	9.00ft RT			Groundwater Elev.: First Encounter 866.2 ft Upon Completion 866.2 ft After Hrs. _____					Surface Water Elev. _____ ft Stream Bed Elev. _____ ft
		856.67				856.67					Medium Dense, black (10YR 2/1) CRUSHED AGGREGATE FILL (sub-base)
		876.34				875.67			8		Dense, pale brown (10YR 6/3) SILTY LOAM (SiL), trace medium to fine gravel, trace to little fine sand, moist
			8		7.3				8		
		874.67	4			854.17			4		Medium Dense, gray (10YR 5/1) SAND FILL, trace fine gravel, sand medium to fine, moist
			3						3		Hard, yellowish red (5YR 4/6) CLAY LOAM (CL), trace fine gravel, trace fine sand, moist
			2		35.9				2		
			1	1.3 P					1	4.0 P	
			1			851.67			1		Hard to Very Stiff, brown (10YR 5/3) CLAY (C), trace fine gravel, trace fine sand, moist
			2	0.3 P					2	0.3 P	
		869.17							1		11.3
			2						2		Medium Stiff, pale brown (10YR 6/3) SANDY CLAY (SaC), trace to little fine gravel, moist
			2						2		
			4		12.6				4		
			5	0.5 P		847.17	-30		5	2.8 P	10.6
		866.67									
			5								Medium Dense, pale brown (10YR 6/3) LOAM (L), trace fine gravel, some fine sand, little clay, AASHTC classification A-4(1), moist
			7		12.3				7		
			7								
		864.17									
			2								
			2		10.5				2		Hard, pale brown (10YR 6/3) CLAY LOAM (CL), trace to little fine gravel, trace to little sand, moist, Shelby tube 15-16' Qu=1.0 tsf
			6	4.5 P					6	4.5 P	
					9.9						
			18	1.0 B					18	1.0 B	
			31		8.7				31		
			41						41		
		859.17									
			15						15		Dense, pale brown (10YR 6/3) SILT (Si), moist to wet
			18		11.8				18		
			24				-40		24		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BORING LOGS  
STRUCTURE NOS. 056-0345 & 056-0346

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	254
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				



Interra, Inc.  
600 Territorial Drive, Suite G  
Bolingbrook, IL 60440  
www.interraservices.com

# SOIL BORING LOG

Date 5/9/17

ROUTE FAP 525 (US Route 20) DESCRIPTION US 20 Culvert/proposed Retaining Wall LOGGED BY Eric Slusser

SECTION D-91-476-16 LOCATION West side US 20

COUNTY MCHENRY DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 056-0318, 056-0319 & 056-0320	DEPT H	BLOW S	UCS Qu	MOIST (%)	Surface Water Elev. _____ ft	DEPT H	BLOW S	UCS Qu	MOIST (%)
BORING NO. B-18	Station 775 + 25	Offset 11.00ft RT	Ground Surface Elev. 877.14 ft	Groundwater Elev.: First Encounter 867.6 ft Upon Completion 867.6 ft After _____ Hrs.	ft	ft	(/6")	(tsf)	(%)

ASPHALT	876.47				856.64				
Loose, black (10YR 2/1) CRUSHED ROCK AGGREGATE FILL (sub-base)	875.81	9				8			
Stiff black (10YR 2/1) and brown (10YR 5/3) CLAY FILL, trace fine gravel, trace fine sand, moist	874.14	3	1.3	P		10	4.5	10.0	
Stiff to Very Soft black (10YR 2/1) to 6.0', pale brown (10YR 6/3) to 8.0' CLAY LOAM (CL), trace organics to 5.0', Shelby tube 5-7', moist		2				13			
		1				7			
		2	1.3	P		9	4.5	10.2	
		-5				13			
						6			
						9	4.5	10.5	
			0.4	B					
Medium Dense (light gray (10YR 7/1) SAND with GRAVEL (S), gravel large to fine, sand course to fine, saturated	869.14	5				5			
		8				7		9.9	
		-10			847.14	9	4.5		P
Loose, pale brown (10YR 6/3) LOAM (L), trace fine gravel, some sand, little clay, moist, AASHTO Classification A-4(1)	866.64	3							
		2							
		3							
Medium Dense to Loose, pale brown (10YR 6/3) SAND (S), some large to fine gravel from 15.5-15', sand medium to fine, saturated	864.14	3							
		4						11.1	
		6							
		-15							
		3							
		3						21.8	
		6							
Medium Dense, pale brown (10YR 6/3) SANDY LOAM (SaL), trace to little medium to fine gravel, sand medium to fine, saturated	859.14	5						8.6	
		10							
		-20							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)

BBS, from 137 (Rev. 8-99)



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# SOIL BORING LOG

Date 5/9/17

ROUTE FAP 525 (US Route 20) DESCRIPTION US 20 Culvert/proposed Retaining Wall LOGGED BY Eric Slusser

SECTION D-91-476-16 LOCATION West side US 20

COUNTY MCHENRY DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 056-0318, 056-0319 & 056-0320	DEPT H	BLOW S	UCS Qu	MOIST (%)	Surface Water Elev. _____ ft	DEPT H	BLOW S	UCS Qu	MOIST (%)
BORING NO. B-20	Station 776 + 37	Offset 11.00ft LT	Ground Surface Elev. 877.21 ft	Groundwater Elev.: First Encounter 870.2 ft Upon Completion 870.2 ft After _____ Hrs.	ft	ft	(/6")	(tsf)	(%)

ASPHALT	876.63								
Loose, black (10YR 2/1) CRUSHED AGGREGATE FILL (sub-base)	876.13	3				6			
Loose, black (10YR 2/1) and brown (10YR 5/3) SANDY LOAM FILL, little fine gravel, moist	874.21	4				8	4.5	11.3	
Medium Stiff to Very Soft black (10YR 2/1) CLAY (C), trace fine gravel, trace fine sand, wet at 7.0'		4				10			
		1				7			
		1				7		10.8	
		-5	0.8	P		-25	8	2.5	P
							5		
		0					6		11.2
		3					7	1.0	P
		6	0.3	P					
pale brown (10YR 6/3) LOAM (L), trace fine gravel, some fine sand, AASHTC classification A-4(3), moist	869.71					5			
						7		10.2	
		-10			847.71	7	1.0		P
					847.21	-30	6		
Medium Dense pale brown (10YR 6/3) SAND (S), medium to very fine, saturated, MC=20.1%	866.71								
Stiff to Hard, pale brown (10YR 6/3) CLAY LOAM (CL), trace to little fine gravel, trace to little fine sand, moist		3							
		3						12.5	
		6	1.8	P					
		4							
		5						9.7	
		7	4.5	P					
		-15							
		6							
		11						8.6	
		11	4.5	P					
		8							
		13						8.1	
		-20							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)

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BORING LOGS  
STRUCTURE NOS. 056-0345 & 056-0346  
SHEET NO. 17 OF 18 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	255
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				



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# SOIL BORING LOG

Date 5/9/17

ROUTE FAP 525 (US Route 20) DESCRIPTION US 20 Culvert/proposed Retaining Wall LOGGED BY Eric Slusser

SECTION D-91-476-16 LOCATION East side US 20

COUNTY MCHENRY DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 056-0318, 056-0319 & 056-0320	DEPT H	BLOWS	UCS Qu	MOIST (%)	Surface Water Elev. _____ ft	DEPT H	BLOWS	UCS Qu	MOIST (%)
BORING NO. B-21	Station 776 + 17	Offset 13.00ft RT	Ground Surface Elev. 877.07 ft		Stream Bed Elev. _____ ft				
					Groundwater Elev.:				
					First Encounter 871.1 ft				
					Upon Completion 871.1 ft				
					After _____ Hrs.				

ASPHALT	876.40				Hard brown (10YR 5/3) SANDY CLAY (SaC), trace fine gravel, moist (continued)				
Loose, black (10YR 2/1) CRUSHED ROCK AGGREGATE FILL (sub-base)	875.97	6		8.4		6			10.0
Loose, gray (10YR 5/1) SANDY LOAM FILL, trace large to fine gravel, sand medium to very fine, moist	874.07	5				9	4.5		P
Medium Stiff black (10YR 2/1) CLAY LOAM (CL), trace fine gravel, trace fine sand, moist		1		21.8	Medium Dense brown (10YR 5/3) SAND (S), medium to very fine, trace to little silt, saturated	853.57	6		
		1	0.5			8			14.5
		-5				14			
Very Soft black (10YR 2/1) and gray (10YR 5/1) CLAY (C), trace fine gravel, trace fine sand, wet, organic soil	871.57	1		34.2	Hard brown (10YR 5/3) SANDY CLAY (SaC), trace to little fine gravel, trace to little fine sand, moist	851.57	7		
		6	0.3			8			9.9
						11	4.5		P
Very Stiff to Hard brown (10YR 5/3) SANDY CLAY (SaC), trace medium to fine gravel, moist,	869.07	4		12.4	Medium Dense brown (10YR 5/3) SILTY LOAM (SiL), trace to little, medium to fine gravel, wet	849.07	6		
		4				11			8.3
		-10	3.0			1			
						5			
		3		11.1					
		5							
Pale Brown (10YR 6/3) SANDY LOAM (SaL), trace gravel, little silt, little clay, AASHTO Classification A-4(1), saturated	864.57	5	3.0						
				11.8					
Hard Pale Brown (10YR 6/3) SANDY CLAY (SaC), trace gravel, moist	862.57	6		14.4					
		7	4.5						
		7		9.7					
Medium Dense brown (10YR 5/3) SANDY LOAM (SaL), clay lense 16.1'-16.4', saturated	861.07	6							
		9							
		10							
Hard brown (10YR 5/3) SANDY CLAY (SaC), trace fine gravel, moist	859.07	5		10.3					
		8							
		11	4.5						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)

BBS, from 137 (Rev. 8-99)



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# SOIL BORING LOG

Date 5/9/17

ROUTE FAP 525 (US Route 20) DESCRIPTION US 20 Culvert/proposed Retaining Wall LOGGED BY Eric Slusser

SECTION D-91-476-16 LOCATION West side US 20

COUNTY MCHENRY DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 056-0318, 056-0319 & 056-0320	DEPT H	BLOWS	UCS Qu	MOIST (%)	Surface Water Elev. _____ ft	DEPT H	BLOWS	UCS Qu	MOIST (%)
BORING NO. B-22	Station 776 + 85	Offset 13.00ft LT	Ground Surface Elev. 877.31 ft		Stream Bed Elev. _____ ft				
					Groundwater Elev.:				
					First Encounter 868.3 ft				
					Upon Completion 868.3 ft				
					After _____ Hrs.				

ASPHALT	876.64				Dense pale brown (10 YR 6/3) SANDY LOAM (SaL), trace to little fine gravel, scattered silt lenses 0.01'-0.05', saturated	856.81			
Loose black (10YR 2/1) CRUSHED AGGREGATE FILL (sub-base)	876.23	3		12.9		7			8.6
Loose pale brown (10YR 6/3) SAND AND CLAY FILL, trace fine gravel, brick fragments, moist	874.31	5				14			
Medium Stiff black (10YR 2/1) CLAY LOAM (CL), trace to little gravel, moist remnant topsoil?		1		28.1		24			
		1		7.9		14			
		-5	0.8			18			
						21			
Very Soft black (10YR 2/1) and greenish gray (GREY 4/6) CLAY (C), trace fine gravel, little sand, moist	871.81	1		11.3		12			
		1				15			
		1	0.3			19			
brown (10YR 5/3) SILTY LOAM (SiL), trace gravel, some sand, little clay moist to wet	869.81	1		8.7	Dense pale brown (10YR 6/3) SILTY LOAM (SiL), trace fine gravel, trace to little fine sand, moist to wet	849.31			
						12			
						19			8.7
		-10				25			
Medium Dense pale brown (10YR 6/3) SAND (S), medium to very fine, saturated, scattered silt lenses (0.01') 11.0-12.5'	867.81	5		12.6					
		9							
		8		14.8					
		24							
		14							
		8							
Very Stiff pale brown (10YR 6/3) SILTY CLAY (SiC), trace fine gravel, trace fine sand, ST-08 15'-17', MC=9.6%, moist	864.31	5		11.7					
		4							
		-15	2.5						
				9.6					
			2.9						
Medium Dense pale brown (10YR 6/3) SILT (Si), trace to little fine gravel, trace fine sand, moist to wet	860.81	6		8.4					
		8							
		14							
Medium Dense pale brown (10YR 6/3) SAND (S), medium to very fine, saturated	858.81	9		22.5					
		10							
		12							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)

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BORING LOGS  
STRUCTURE NOS. 056-0345 & 056-0346  
SHEET NO. 18 OF 18 SHEETS

F.A.U. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 256
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWI(759)				

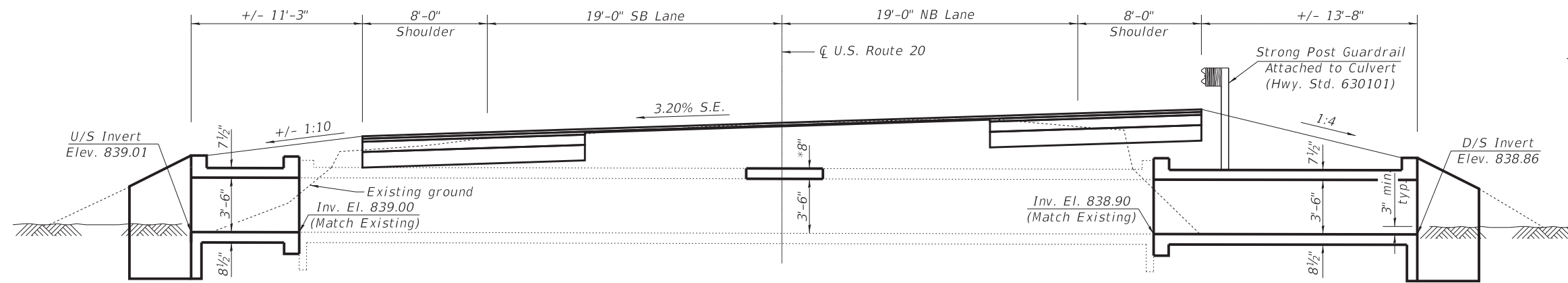


**DESIGN SPECIFICATIONS**  
 2014 AASHTO LRFD Bridge Design  
 Specifications, 7th Edition with 2015 & 2016 Interims

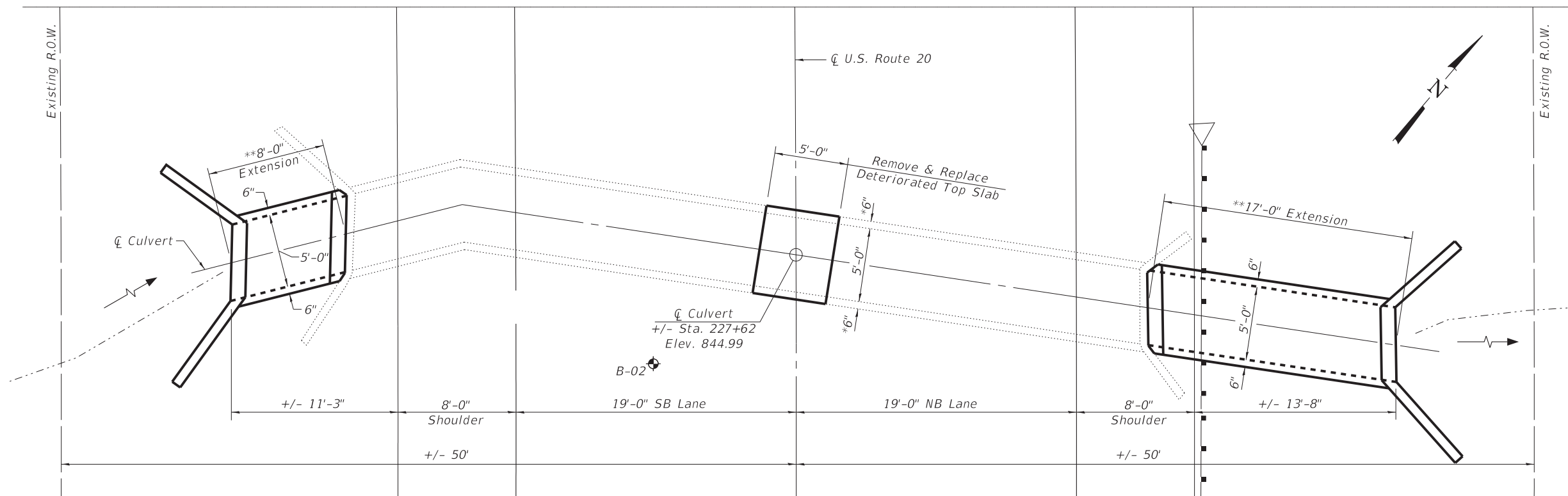
**LOADING HL-93**  
 Allow 50#/sq. ft. for future wearing surface.

**DESIGN STRESSES**  
 FIELD UNITS

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)



**LONGITUDINAL SECTION**  
 Horizontal dimensions  
 perpendicular to centerline



**PLAN**

\*Dimensions estimated, match existing

\*\*Match orientation of existing culvert and  
 construct headwall parallel to existing headwall

**Notes:**

See Typical Sections for roadway cross section.

Maintenance of Traffic details for top slab repair shown on sheet \_\_ of \_\_.

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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

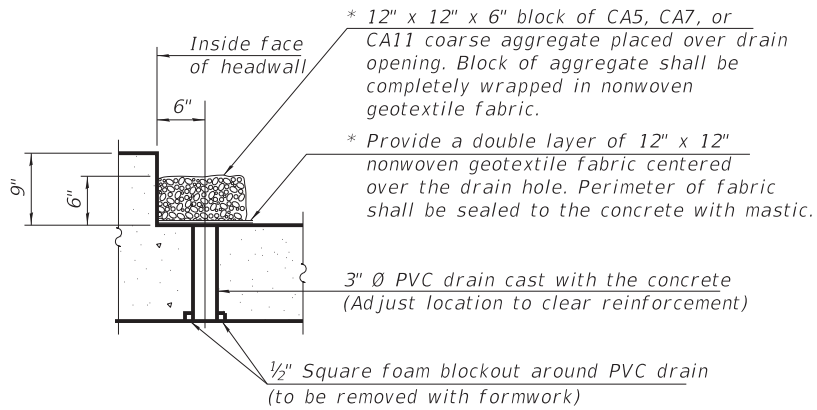
**GENERAL PLAN**  
**CULVERT EXTENSION STA. 227 + 62**

SHEET NO. 1 OF 3 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	257
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GWMI759				



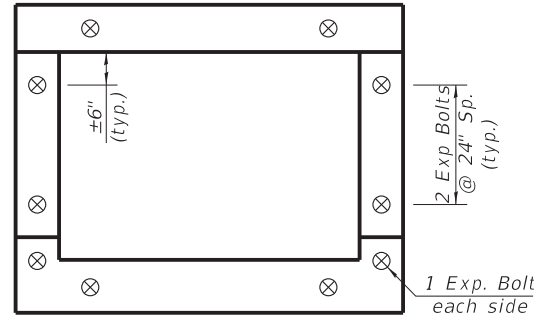
\* Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.



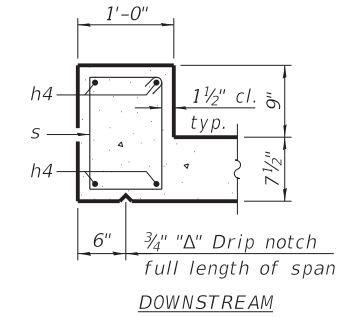
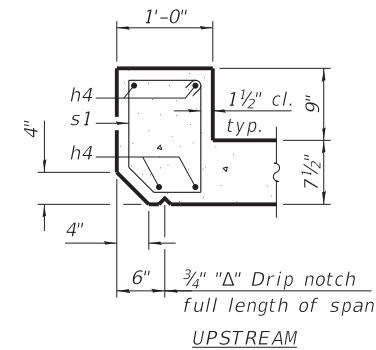
**DRAIN DETAIL**

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for Concrete Box Culverts.)

4 Exp. Bolts @ 16" Sp. (West Ext.)  
3 Exp. Bolts @ 24" Sp. (East Ext.)  
(Top & Bottom Slabs)



**EXPANSION BOLT LAYOUT**

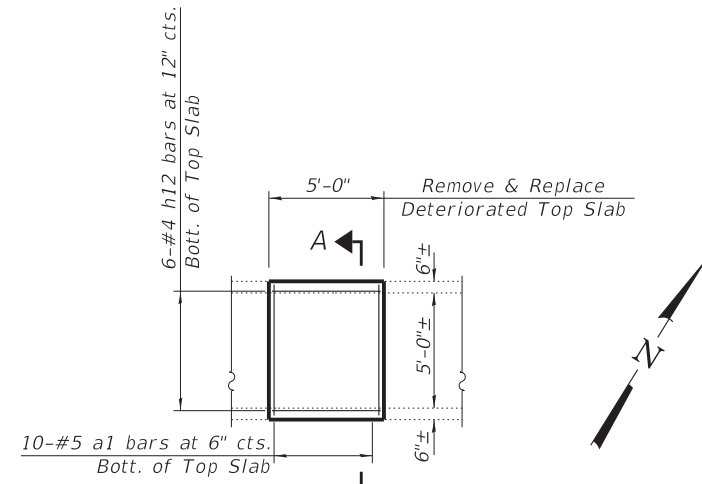


**SECTION THRU HEADWALL**

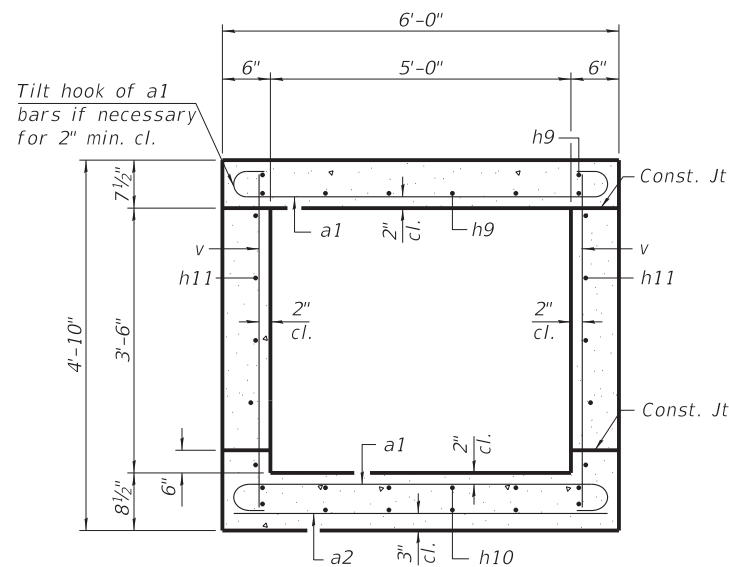
Edge beam similar

**BILL OF MATERIAL**

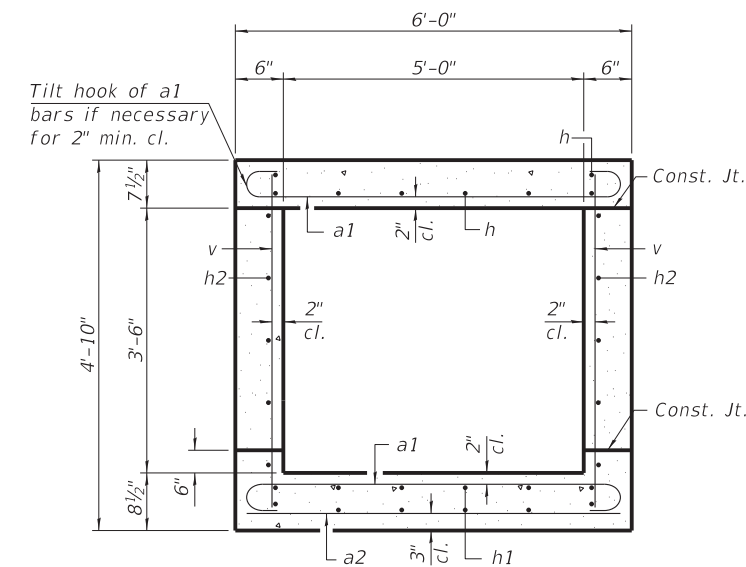
Bar	No.	Size	Length	Shape
a1	114	#5	6'-10"	
a2	28	#4	5'-8"	
d	12	#4	4'-5"	
h	8	#4	16'-8"	
h1	12	#4	16'-8"	
h2	10	#4	16'-8"	
h3	14	#4	8'-0"	
h4	28	#7	5'-0"	
h6	22	#4	9'-11"	
h7	20	#4	8'-0"	
h8	16	#4	9'-0"	
h9	8	#4	7'-8"	
h10	12	#4	7'-8"	
h11	10	#4	7'-8"	
h12	6	#4	4'-8"	
s	30	#4	4'-5"	
s1	6	#4	4'-3"	
v	112	#4	4'-4"	
v3	16	#4	7'-6"	
Concrete Box Culverts			Cu. Yd.	17.3
Reinforcement Bars			Pound	2,680
Expansion Bolts 3/4 Inch			Each	26



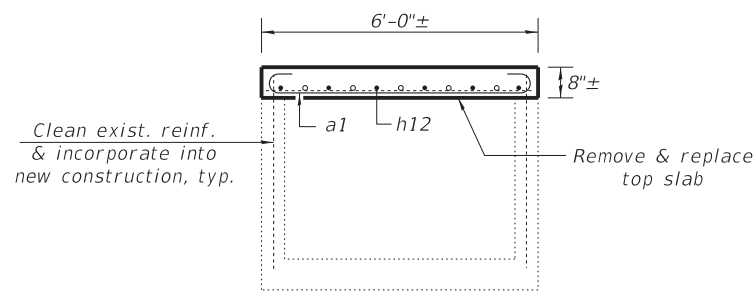
**TOP SLAB RECONSTRUCTION PLAN**



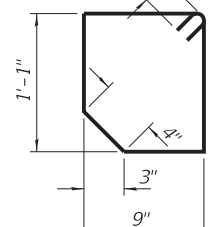
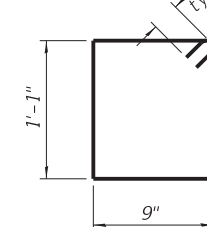
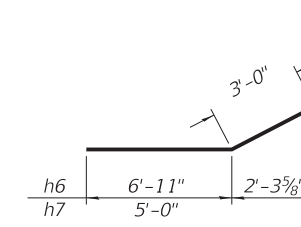
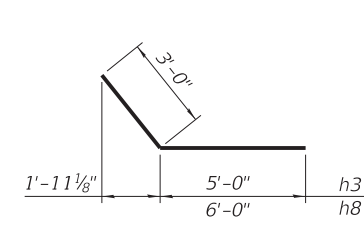
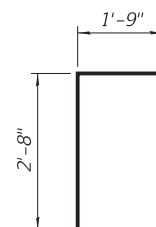
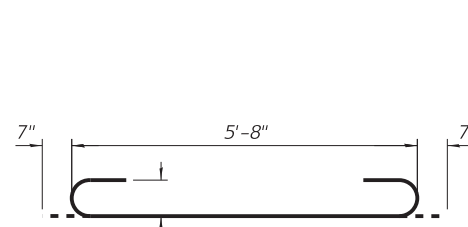
**SECTION THRU BARREL WEST EXTENSION**



**SECTION THRU BARREL EAST EXTENSION**



**SECTION A-A**



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STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM  
LICENSE NO. - 184-001121 - EXPIRES 4/30/2019  
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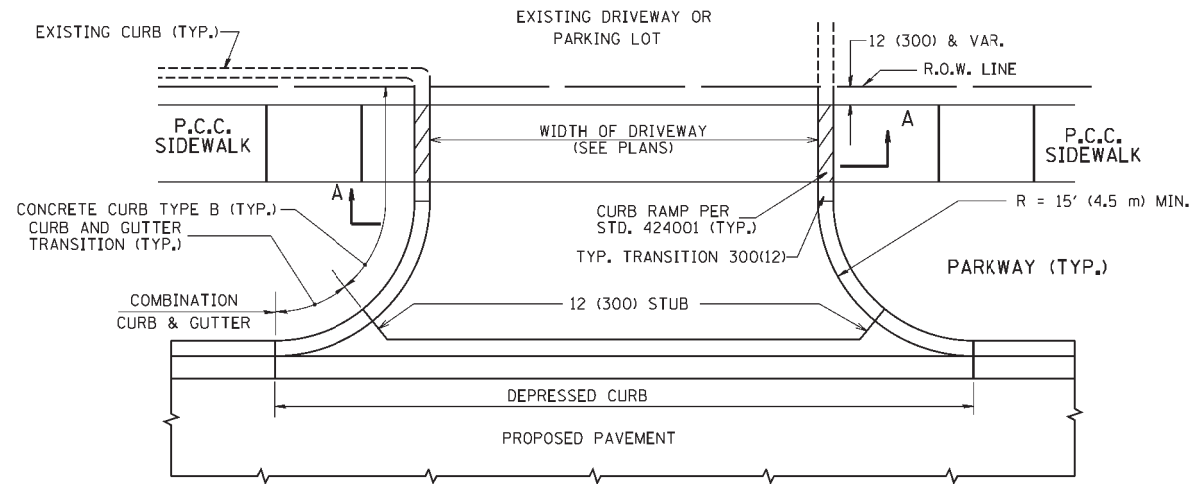


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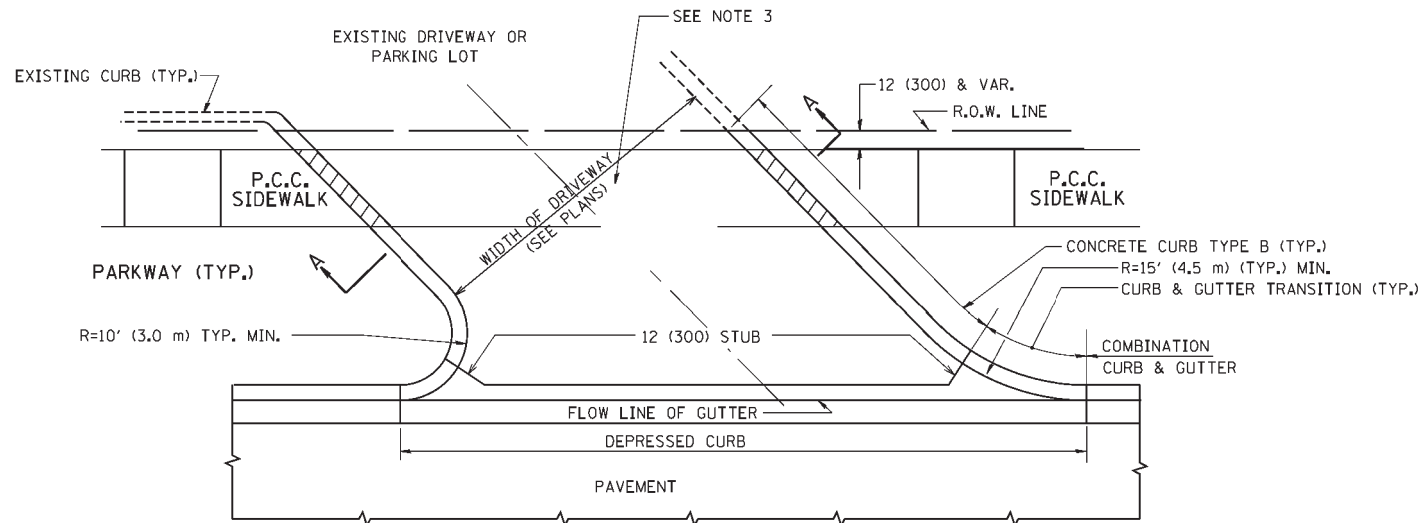
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS  
CULVERT EXTENSION STA. 227 + 62  
SHEET NO. 3 OF 3 SHEETS

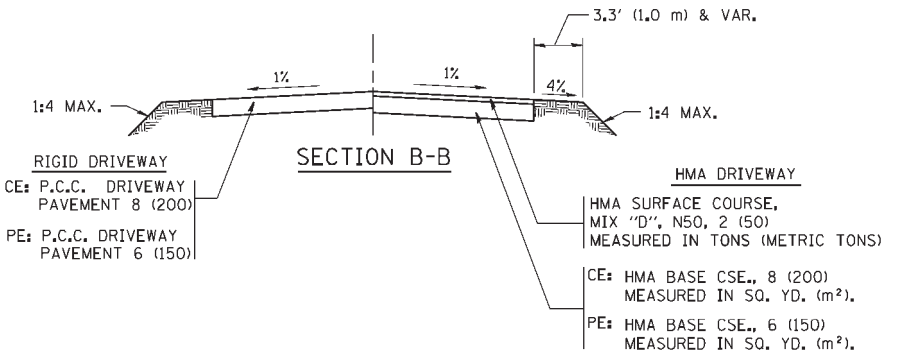
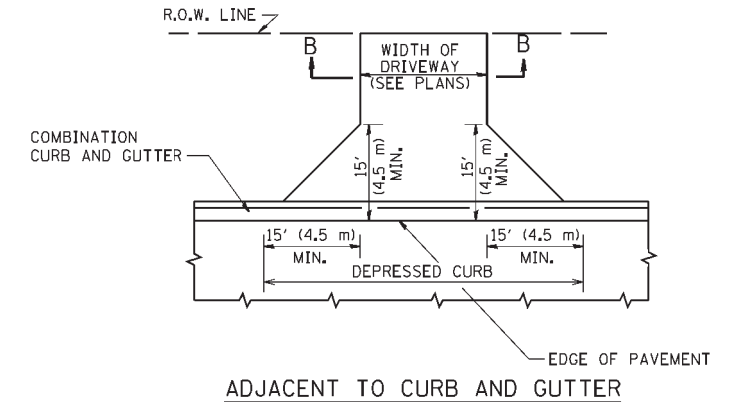
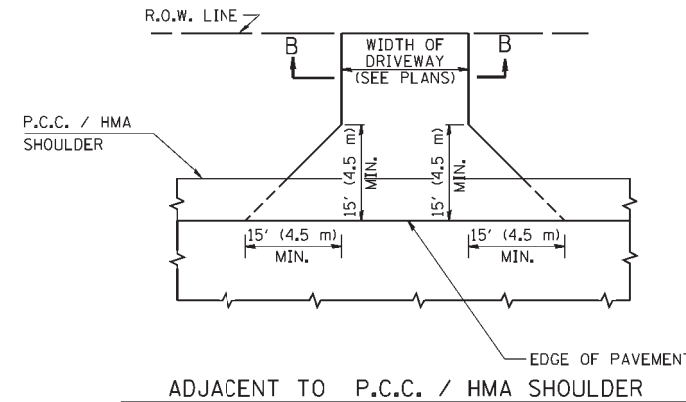
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	259
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GMW(759)				



WITH CONCRETE CURB, TYPE B



WITH CONCRETE CURB, TYPE B



RURAL FIELD ENTRANCE (FE)

HMA SURFACE COURSE, MIX "D", N50, 2 (50) MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SQ. YD. (m<sup>2</sup>).

GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

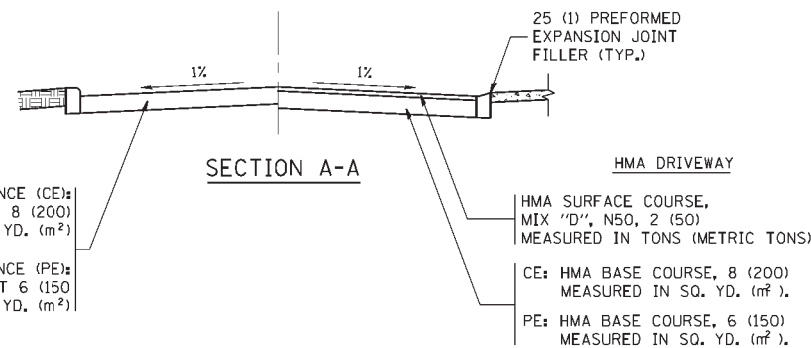
COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.



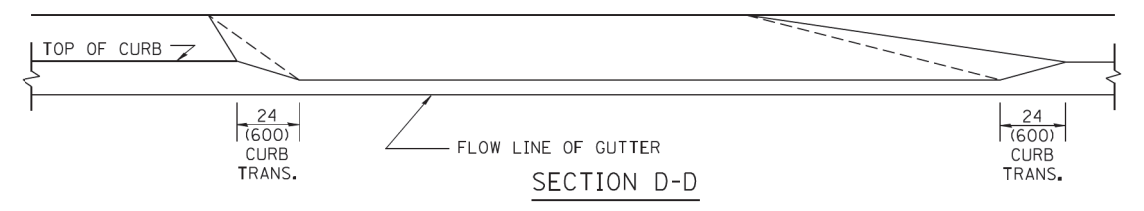
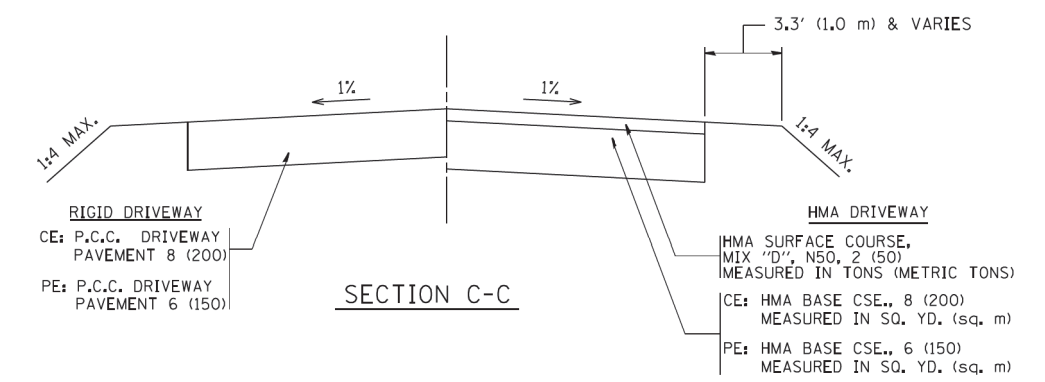
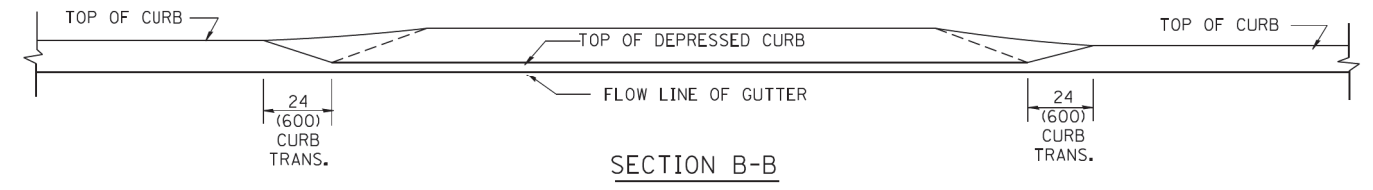
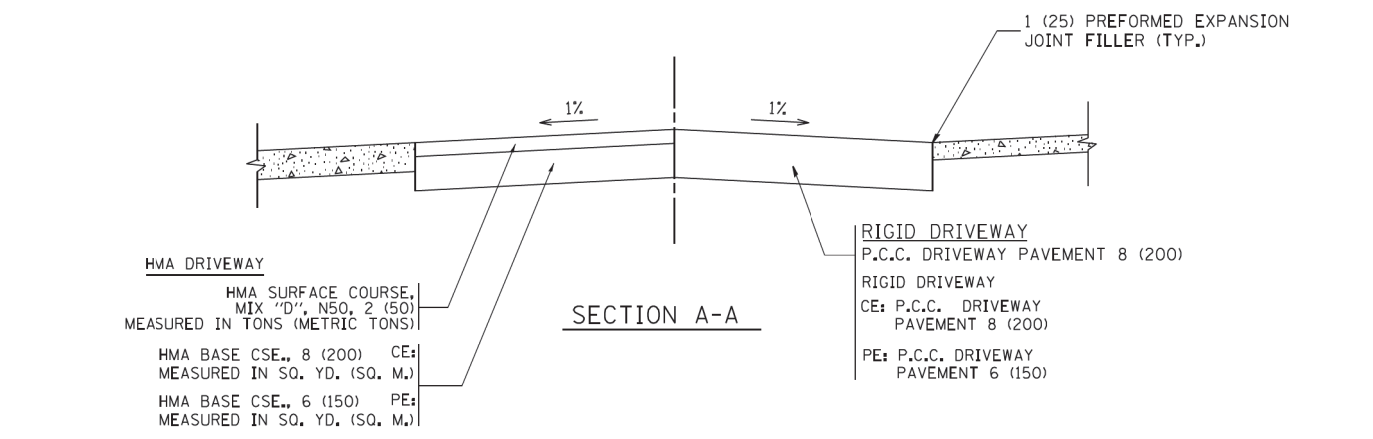
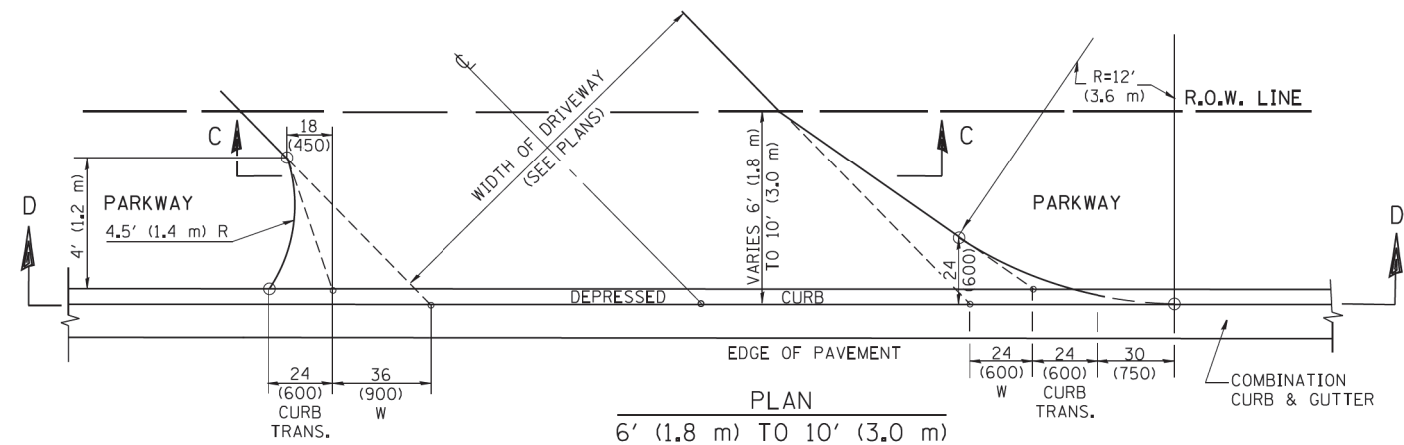
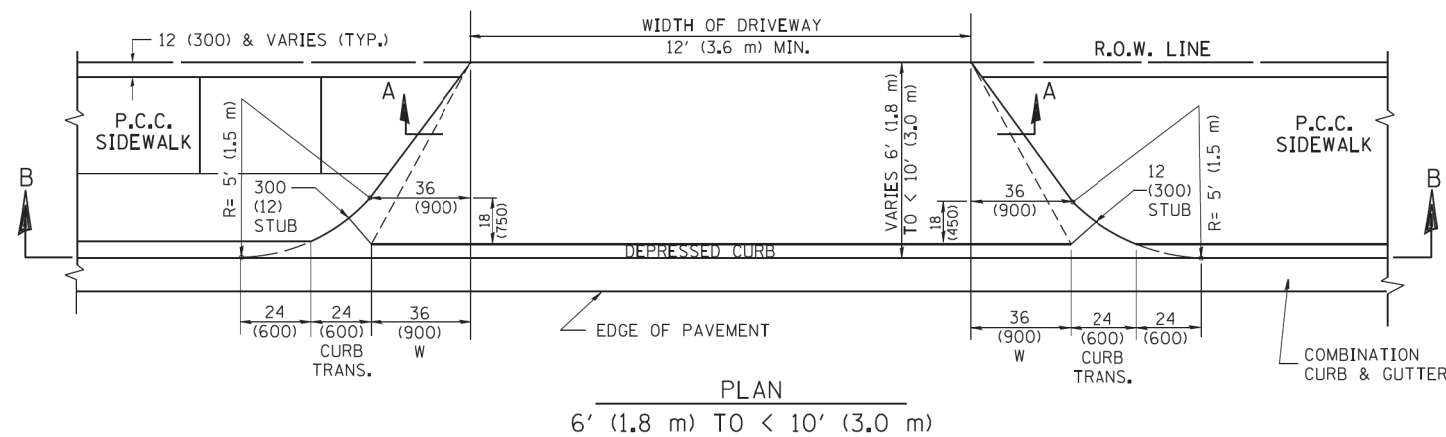
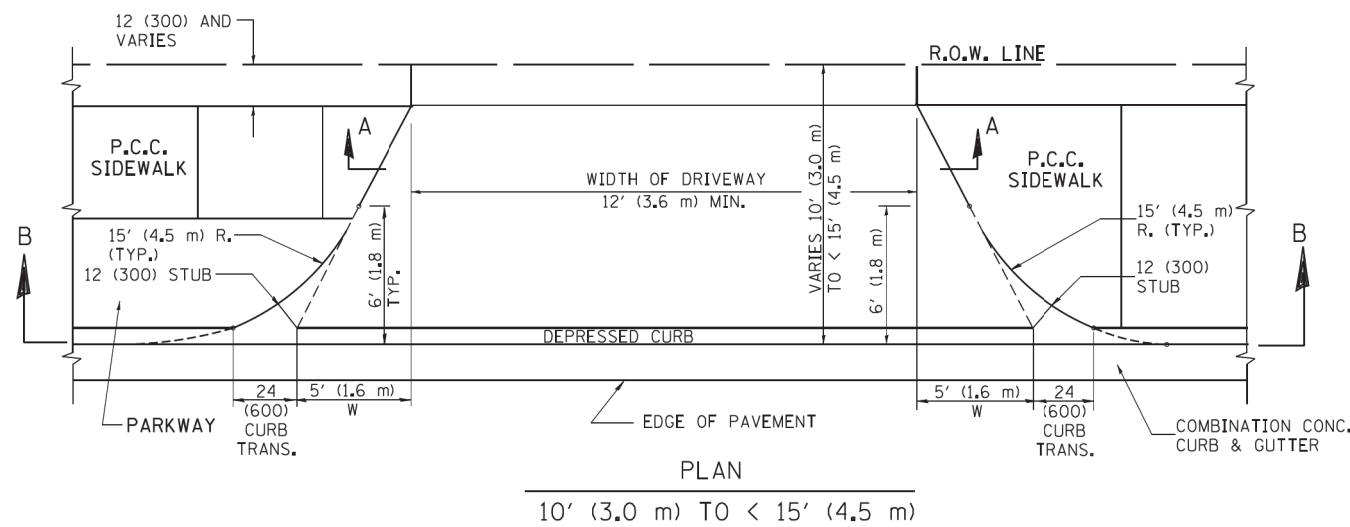
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		CHECKED - R. BORO 06-11-08	REVISED - R. BORO 09-06-11
		DATE - 11-04-95	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	260
BDD0156-07 (BD-01)		CONTRACT NO. 62D36		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT GMW(759)				



**GENERAL NOTES**

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED.

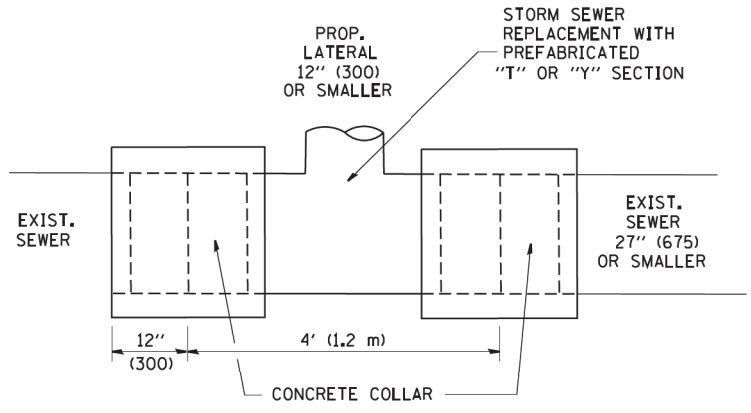
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CHECKED -	REVISED - R. BORO 01-01-07
DATE - 11-06-95	REVISED - R. BORO 09-06-11

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

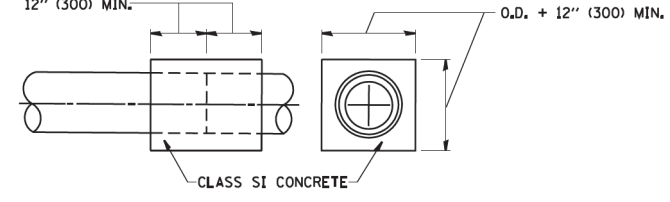
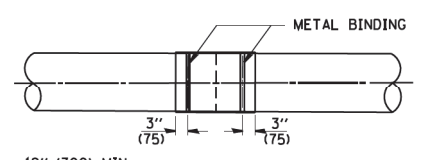
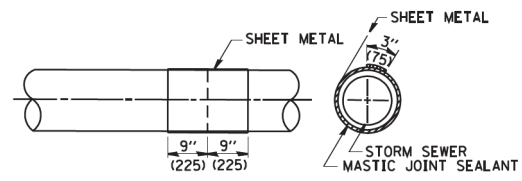
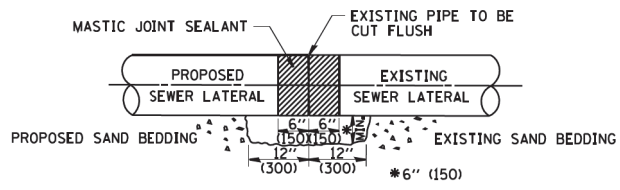
DRIVEWAY DETAILS	
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	261
BD400-02 (BD-02)			CONTRACT NO. 62D36	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT GMW(759)				



**DETAIL "A"**

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER

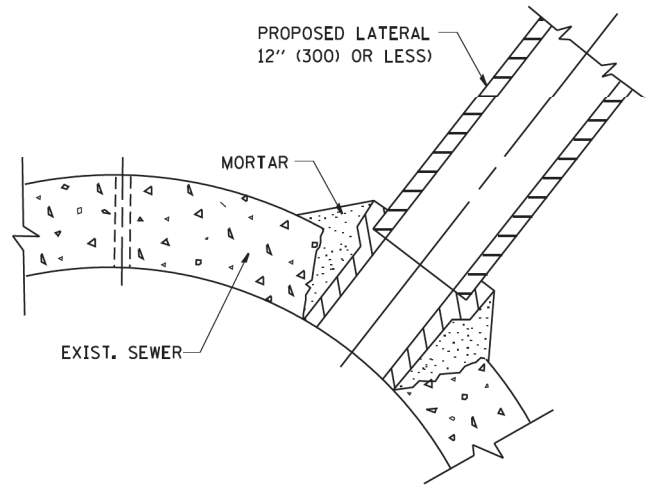


**DETAIL "B"**

CLASS SI CONCRETE COLLAR

**CONSTRUCTION SEQUENCE**

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12' x 6' (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



**DETAIL "C"**

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

**NOTES**

**MATERIAL**

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

**CONSTRUCTION METHODS**

- I. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
  - A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
  - B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

**GENERAL**

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

**BASIS OF PAYMENT**

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS. THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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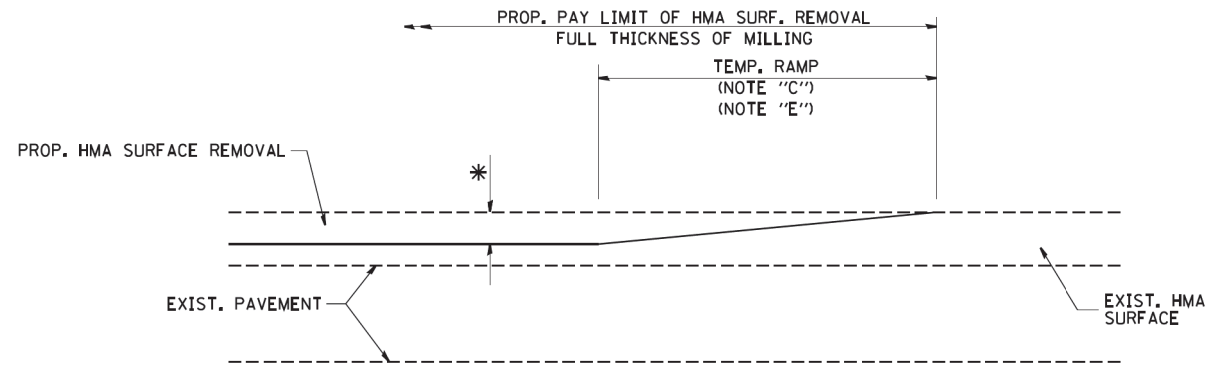
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	PLOT DATE = 1/4/2008	DATE - 07-25-90	REVISED - R. SHAH 06-12-96

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

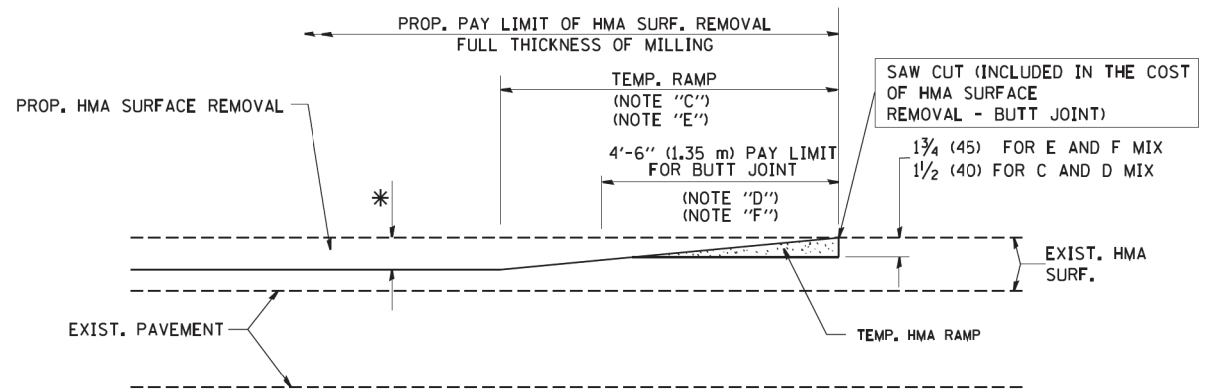
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	262
<b>BD500-01 (BD-7)</b>			<b>CONTRACT NO. 62036</b>	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT GMW(759)				





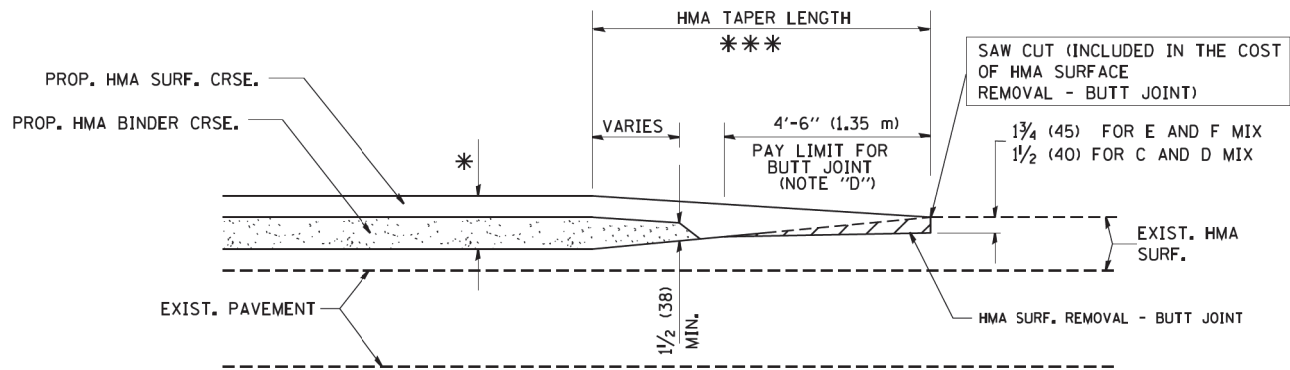
MILLED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

**OPTION 1**

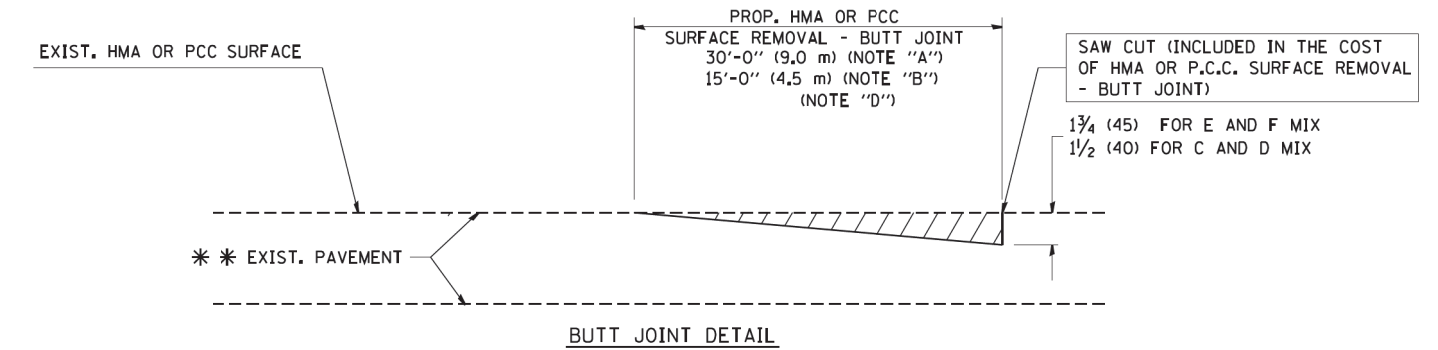


HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

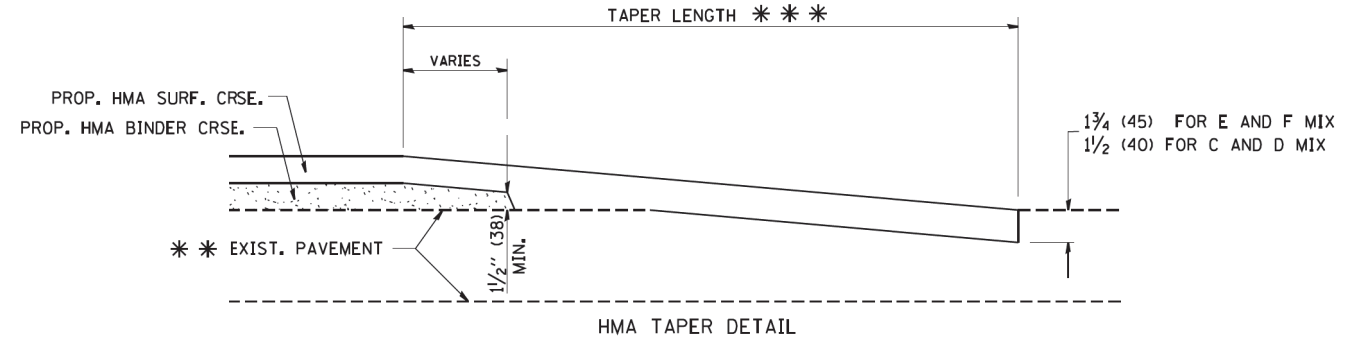
**OPTION 2**  
**TYPICAL TEMPORARY RAMP**



BUTT JOINT AND HMA TAPER  
**TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING**



BUTT JOINT DETAIL



HMA TAPER DETAIL

**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

**NOTES**

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
  - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

**BASIS OF PAYMENT:**

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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 No. 184-000000 - EXPIRES 12/31/2020  
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 USER: geglennob  
 DESIGNED - M. DE YONG  
 DRAWN -  
 PLOT SCALE = 50.0000' / IN.  
 PLOT DATE = 1/4/2008  
 DESIGNED - M. DE YONG  
 DRAWN -  
 PLOT SCALE = 50.0000' / IN.  
 PLOT DATE = 1/4/2008  
 REVISIONS:  
 R. SHAH 10-25-94  
 A. ABBAS 03-21-97  
 M. GOMEZ 04-06-01  
 R. BORO 01-01-07

FILE NAME =	USER NAME = geglennob	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
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		CHECKED -	REVISED - M. GOMEZ 04-06-01
		DATE - 06-13-90	REVISED - R. BORO 01-01-07

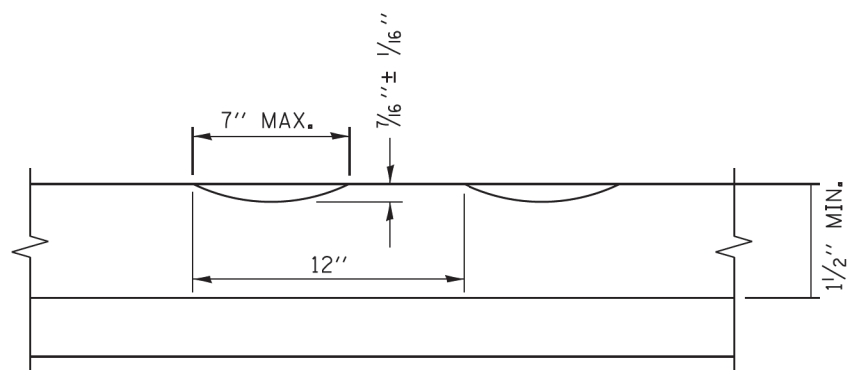
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND  
HMA TAPER DETAILS**

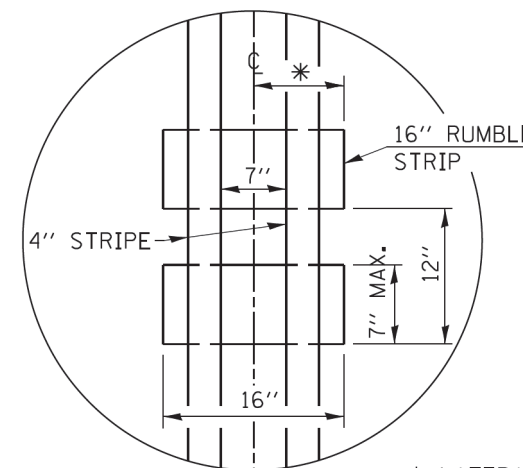
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	264
<b>BD400-05 BD32</b>		<b>CONTRACT NO. 62D36</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT GMW(759)				





**SECTION A-A**



\* LATERAL DEVIATION SHALL NOT EXCEED ONE INCH IN 100 FEET.

**DETAIL B**

GENERAL NOTES

CENTERLINE RUMBLE STRIPS SHALL BE CONSTRUCTED ACCORDING TO SECTION 642 ALONG THE CENTERLINE OF PAVEMENT.

SEE STANDARD 780001 FOR OTHER STRIPING LAYOUTS. RUMBLE STRIPS SHALL NOT BE PLACED ON BRIDGES. ALL RUMBLE STRIPS SHALL BE MILLED.

CENTERLINE RUMBLE STRIPS SHALL BE CONTINUOUS THROUGH CONNECTIONS OF SIDEROADS WITH NO LEFT TURN LANES.

DISCONTINUE CENTERLINE RUMBLE STRIPS THROUGH THE LIMITS OF ALL LEFT TURN LANES, INCLUDING ANY LANE TAPER SECTIONS.

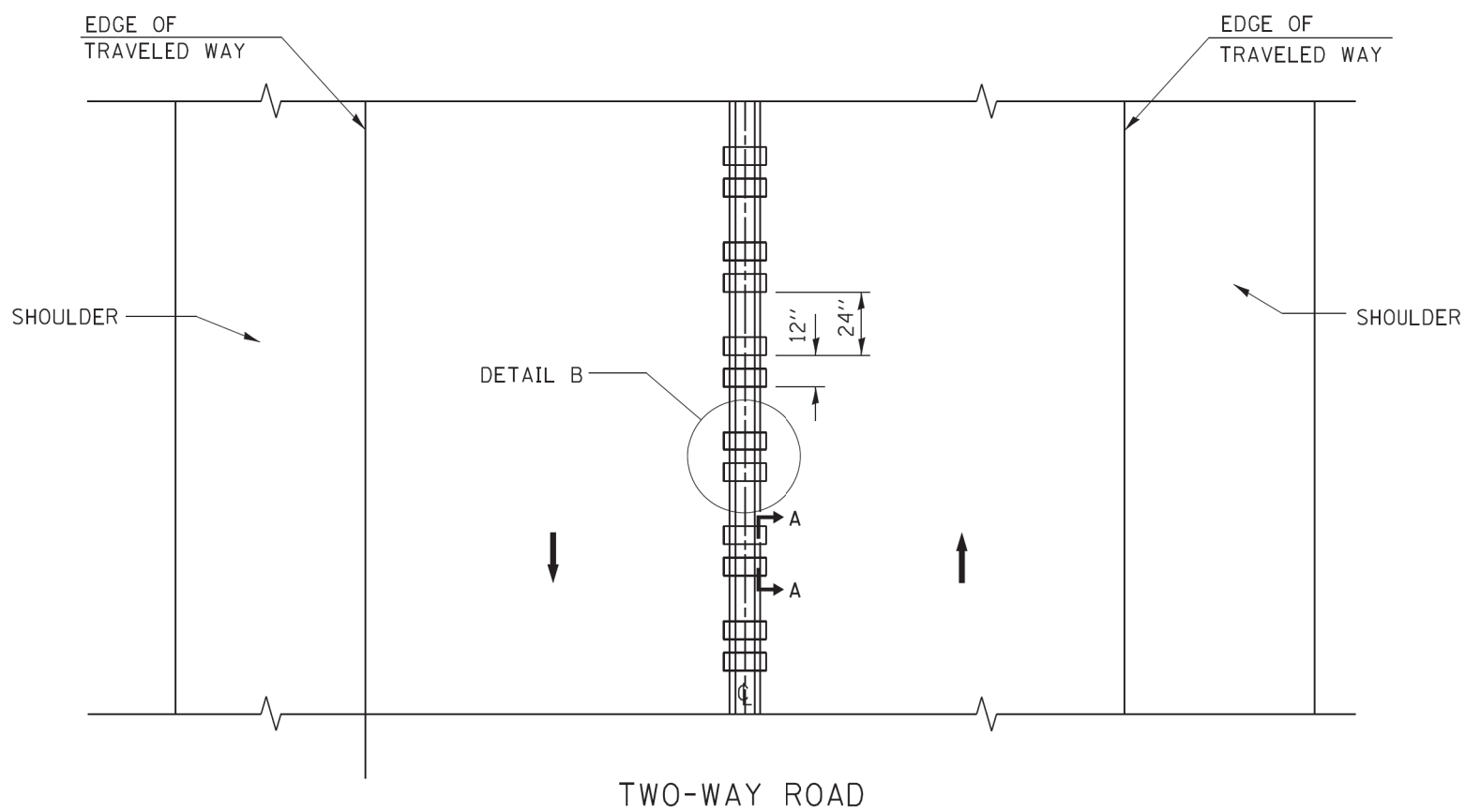
AFTER RUMBLE STRIPS ARE INSTALLED, THE PAVEMENT SURFACE SHALL BE SWEEPED CLEAN PRIOR TO THE PLACEMENT OF THE NEW PAVEMENT MARKINGS.

WHERE USED, ADJUST SPACING OF RAISED REFLECTIVE PAVEMENT MARKERS TO FALL IN WIDER GAP BETWEEN RUMBLE STRIPS.

BASIS OF PAYMENT

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR CENTERLINE-RUMBLE STRIP OF THE WIDTH SPECIFIED.

HOT-SPRAY THERMOPLASTIC PAVEMENT MARKING WILL BE USED OVER THE RUMBLE STRIPS, AND WILL BE PAID FOR SEPARATELY.



**TWO-WAY ROAD**

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 STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM  
 5500 AR  
 11/7/2020  
 c:\pwork\pwork\gaglienob\t\0108315\bd5.dgn  
 USER: gaglienob  
 PLOT SCALE = 50,0000 / 1 in.  
 PLOT DATE = 8/28/2014

FILE NAME =	USER NAME = gaglienob	DESIGNED - R. BORO	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE - 08-06-2012	REVISED -

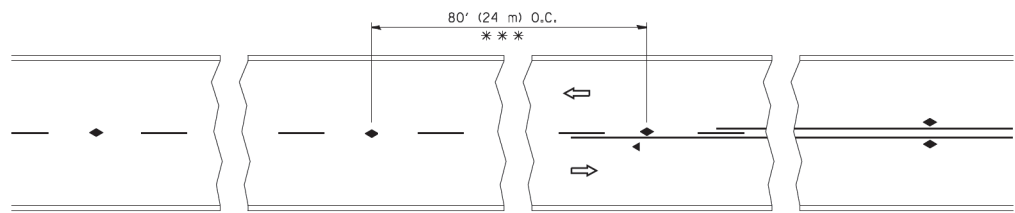
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**RUMBLE STRIPES FOR CENTERLINE, NON-FREEWAY**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

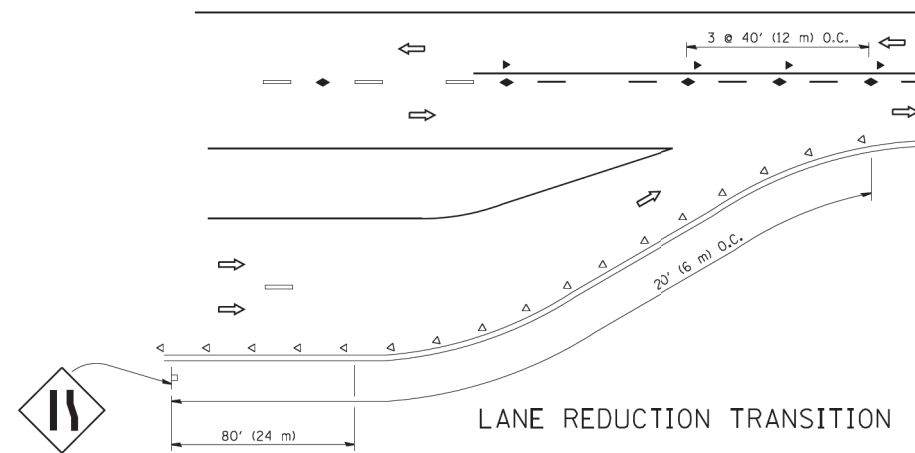
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	265
<b>BD 55</b>		<b>CONTRACT NO. 62036</b>		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT   CMW(759)				



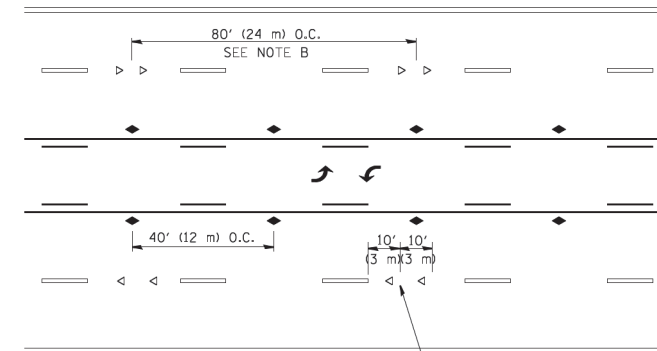


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

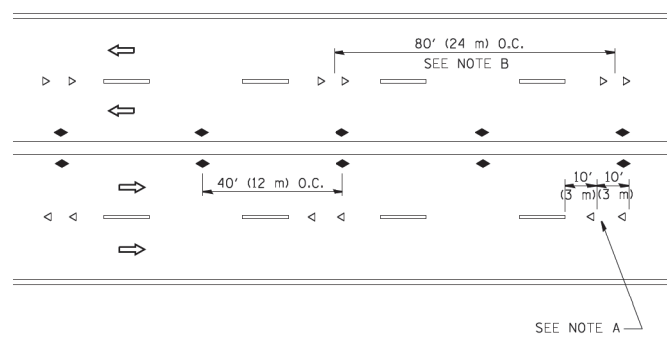
TWO-LANE/TWO-WAY



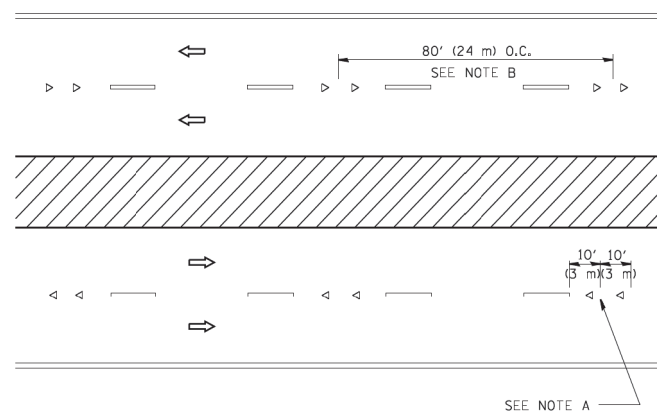
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

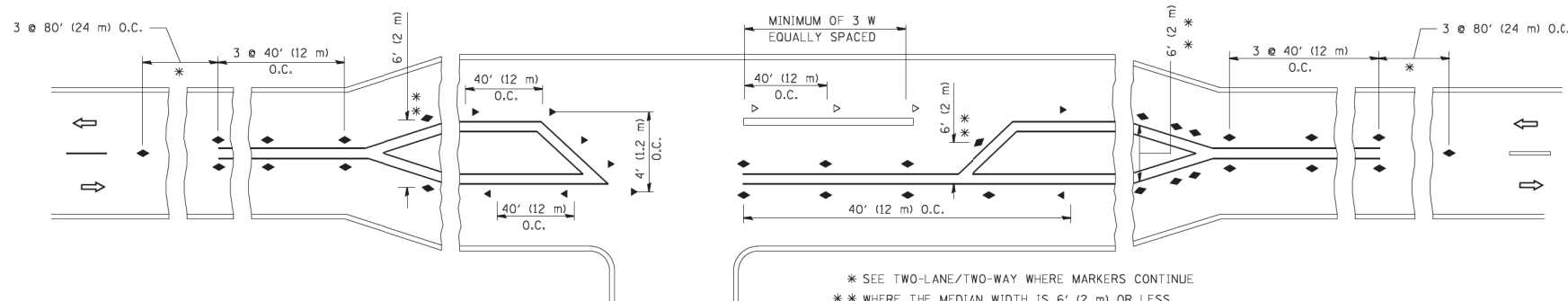
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = USER NAME = leysa  
DESIGNED - T. RAMMACHER 09-19-94  
DRAWN - T. RAMMACHER 03-12-99  
PLOT SCALE = 50.000' / IN.  
CHECKED - T. RAMMACHER 01-06-00  
PLOT DATE = 3/2/2011  
DATE - C. JUCIUS 09-09-09

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS  
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

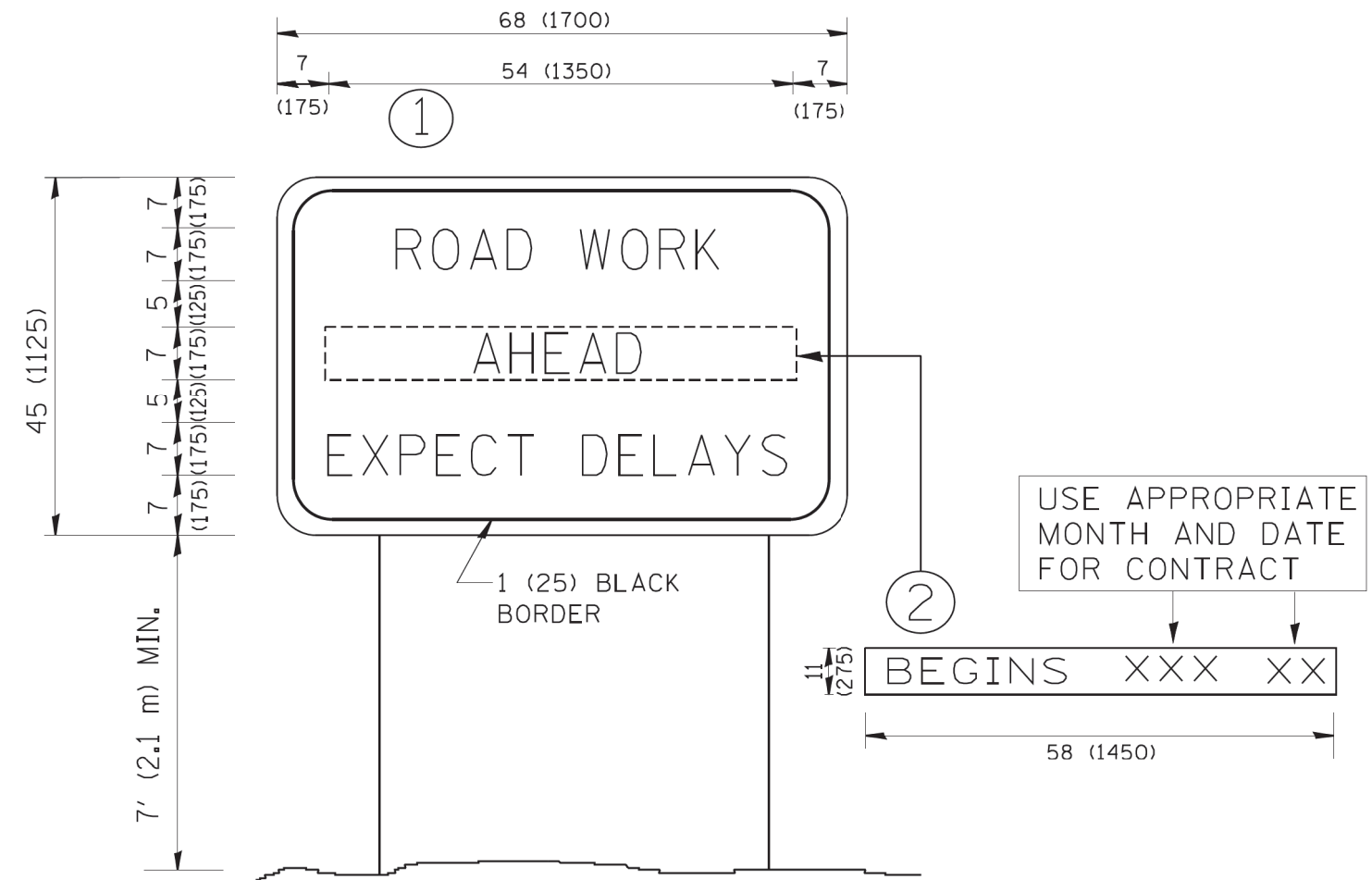
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	267
TC-11		CONTRACT NO. 62D36		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT GMW(759)				





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 No. 184-000000 - Expires 12/31/2017  
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 5/17/2008  
 W:\diststd\22x34\22.dgn  
 5/17/2008  
 W:\diststd\22x34\22.dgn  
 5/17/2008



**NOTES:**

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\22.dgn	USER NAME = gegl1enobt	DESIGNED - DRAWN -	REVISED - R. MIRS 09-15-97 REVISED - R. MIRS 12-11-97	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ARTERIAL ROAD INFORMATION SIGN</b>			F.A. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 270
PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	<b>TC-22</b>		CONTRACT NO. 62D36	
PLOT DATE = 1/4/2008	DATE -				FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT GMW(759)							



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED  
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

**NOTES:**

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE  
 PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN)  
 SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY  
 AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE  
 FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

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 STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM  
 No. - 184777-0000 - EXPIRES 12/31/2020  
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	PLOT SCALE = 50.000' / 1"	CHECKED -	REVISED -
	PLOT DATE = 12/13/2012	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DRIVEWAY ENTRANCE SIGNING**

SCALE: NONE    SHEET NO. 1 OF 1 SHEETS    STA.    TO STA.

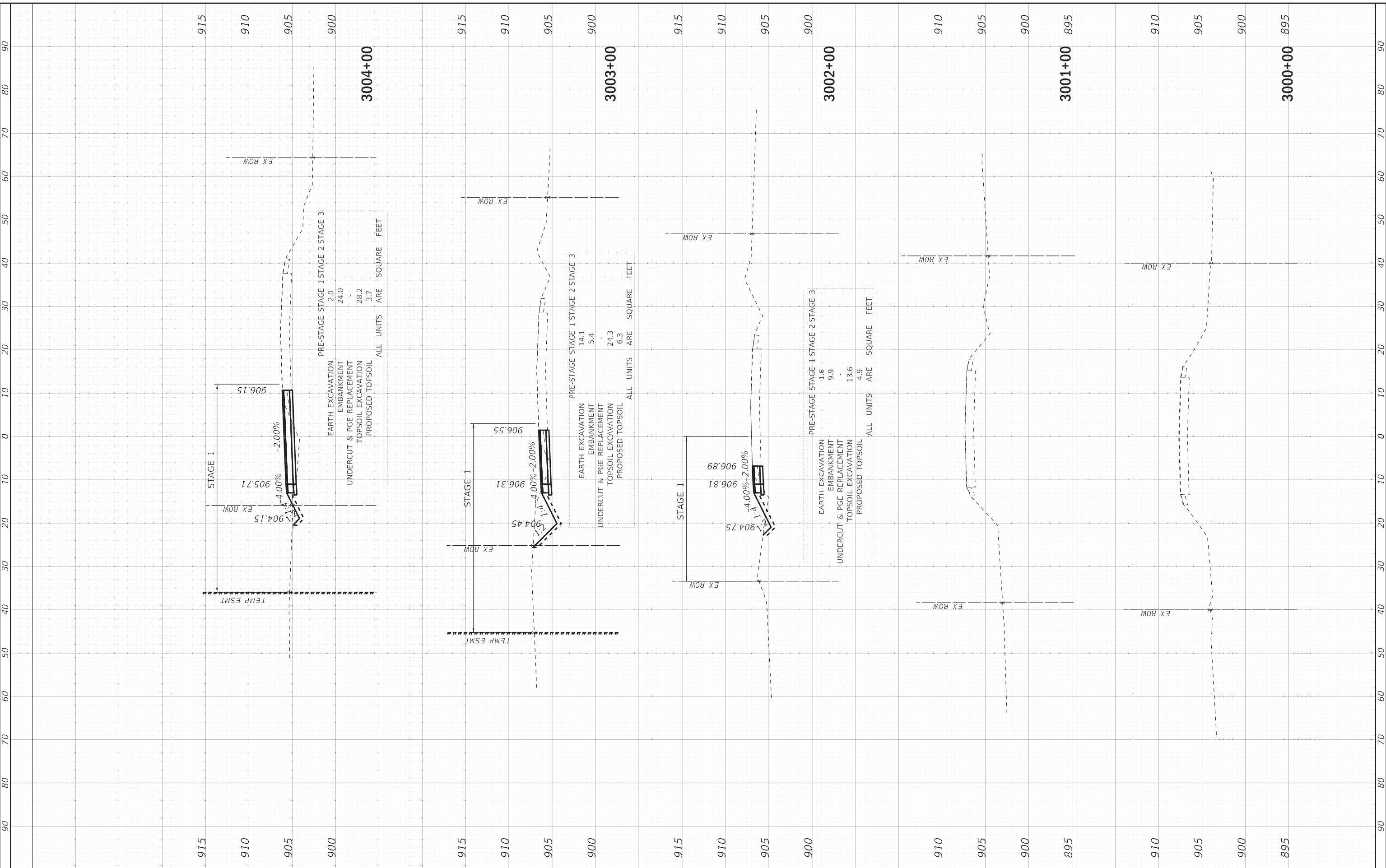
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525	2016-092B&R	MCHENRY	329	271
<b>TC-26</b>		<b>CONTRACT NO. 62D36</b>		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT GMW(759)				

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

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

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**BAXTER & WOODMAN**  
Consulting Engineers

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PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
	DATE - 01-24-20	FILE - D162D36-sht-xxsht_US20-Rnr.dgn

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**  
**RUNAROUND - US ROUTE 20**

SCALE: 1"=10':1"=5' SHEET 1 OF 6 SHEETS STA. 3000+00 TO STA. 3004+00

F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 272
ILLINOIS FED. AID PROJECT GW1(759)			CONTRACT NO. 62D36	



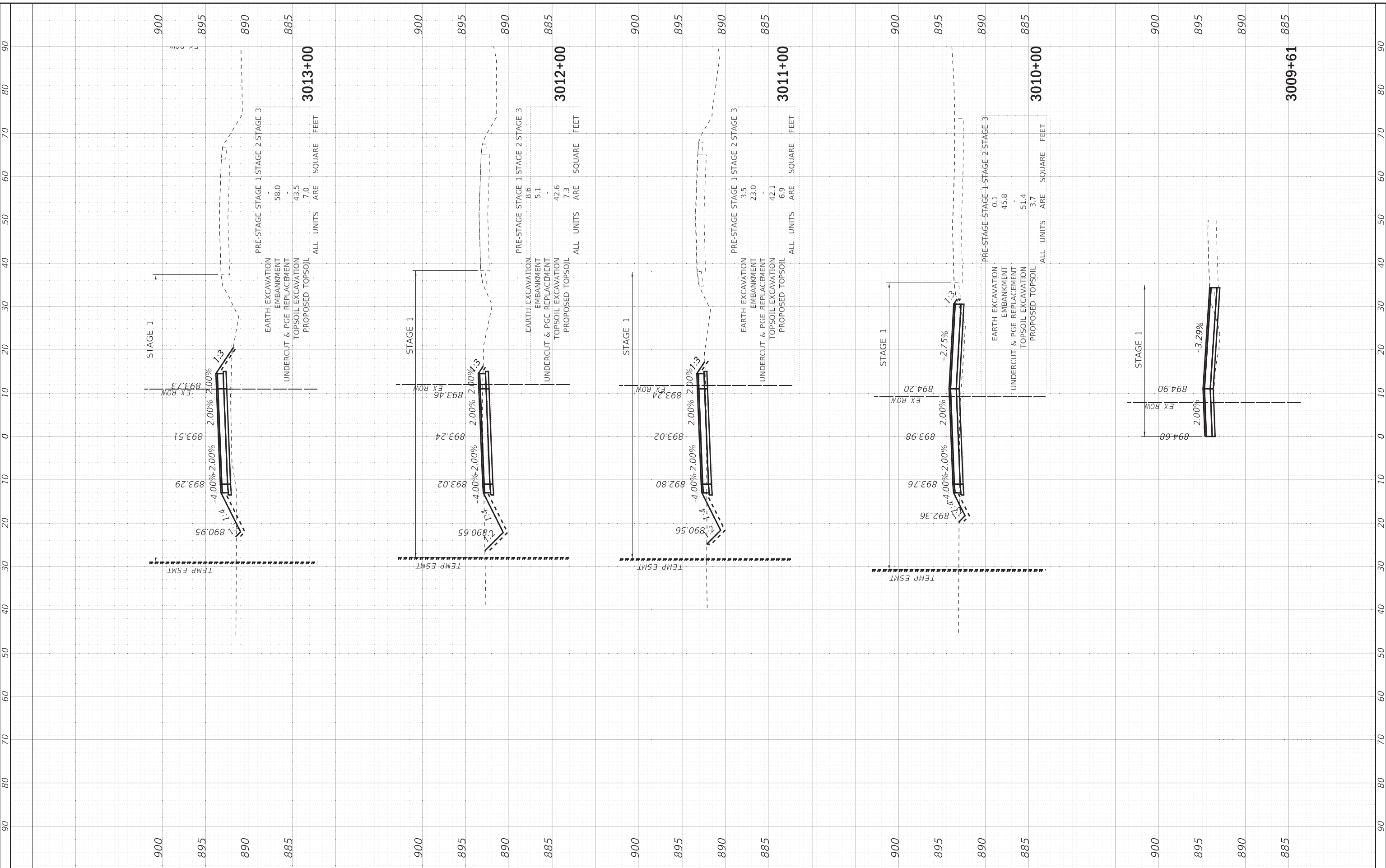


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NO.	AREAS CHECKED		

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

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**BAXTER & WOODMAN**  
Consulting Engineers

USER NAME = 560KAR	DESIGNED - AMW	REVISED -
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PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
	DATE - 01-24-20	FILE - D162D36-sht-xxsst_US20-Rnr.dwg

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

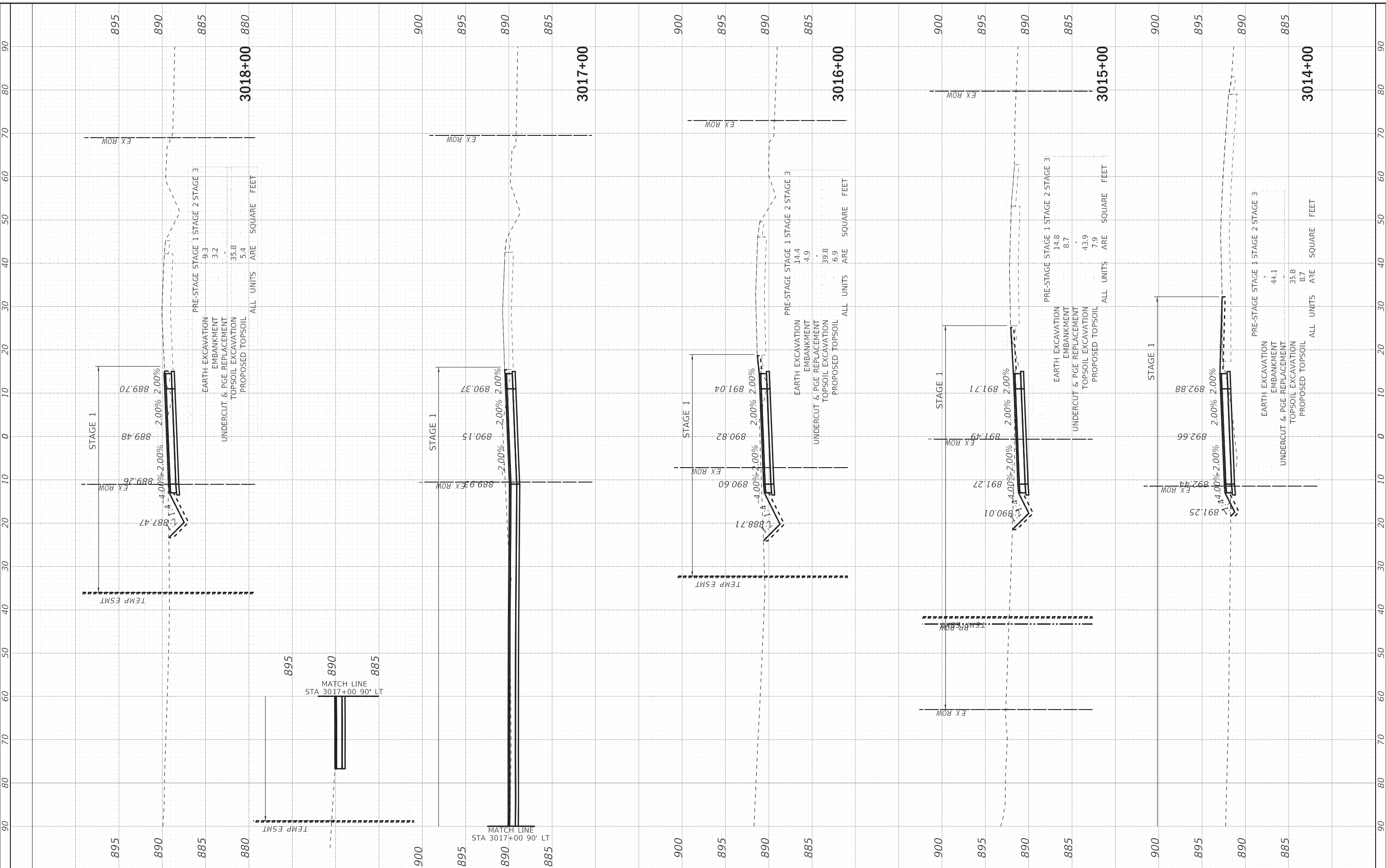
<b>CROSS SECTIONS RUNAROUND - US ROUTE 20</b>		
SCALE: 1"=10':1"=5'	SHEET 3	OF 6 SHEETS
STA. 3009+61	TO STA. 3013+00	

F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 274
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GMW(759)				

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

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

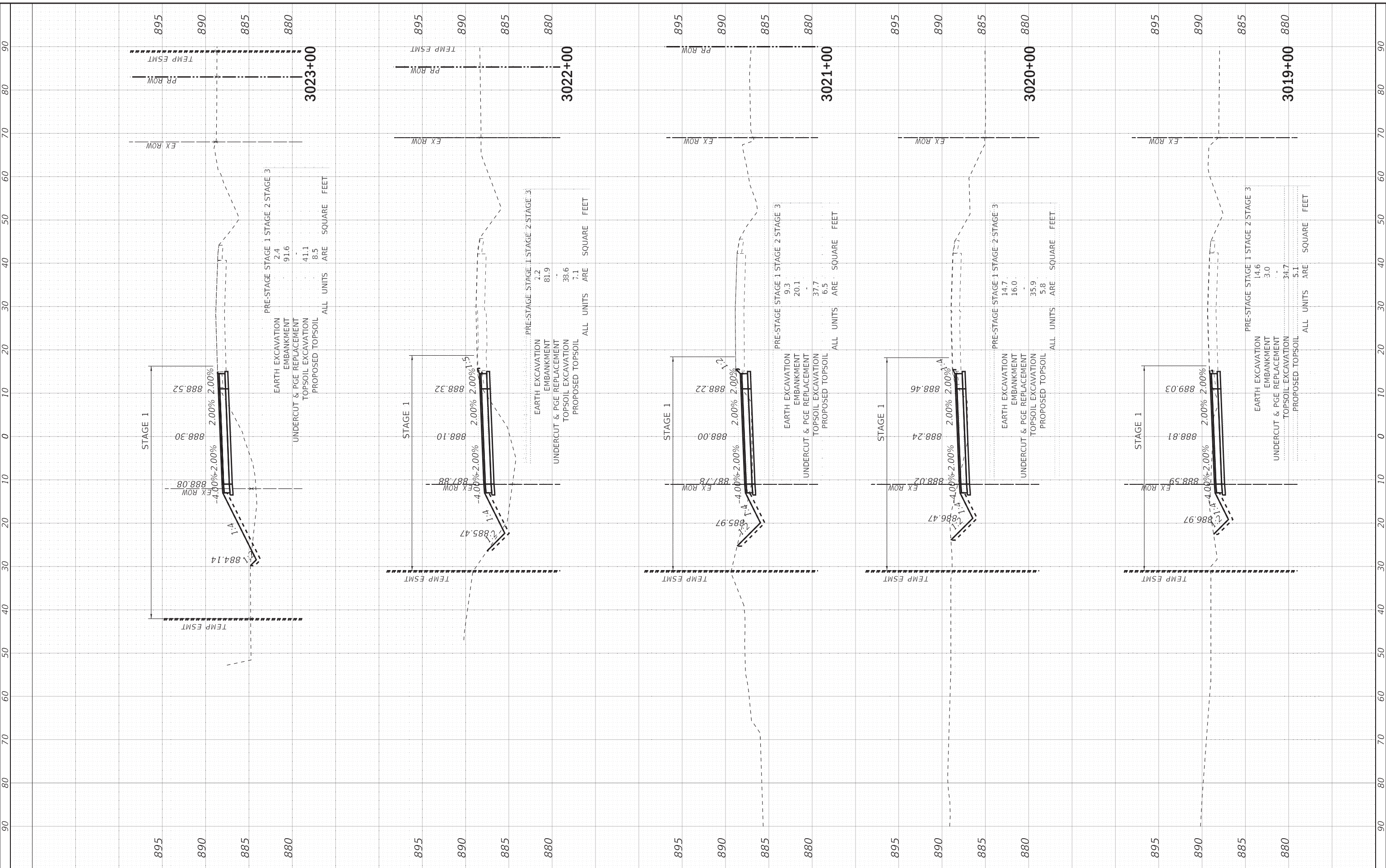
CROSS SECTIONS RUNAROUND - US ROUTE 20	
SCALE: 1"=10':1"=5'	SHEET 4 OF 6 SHEETS
STA. 3014+00	TO STA. 3018+00

F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 275
ILLINOIS FED. AID PROJECT GW1(759)			CONTRACT NO. 62D36	

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
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ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
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DATE - 01-24-20	FILE - D162D36-sht-xssht_US20-Rnr.dgn	

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
 RUNAROUND - US ROUTE 20  
 SCALE: 1"=10':1"=5' SHEET 5 OF 6 SHEETS STA. 3019+00 TO STA. 3023+00

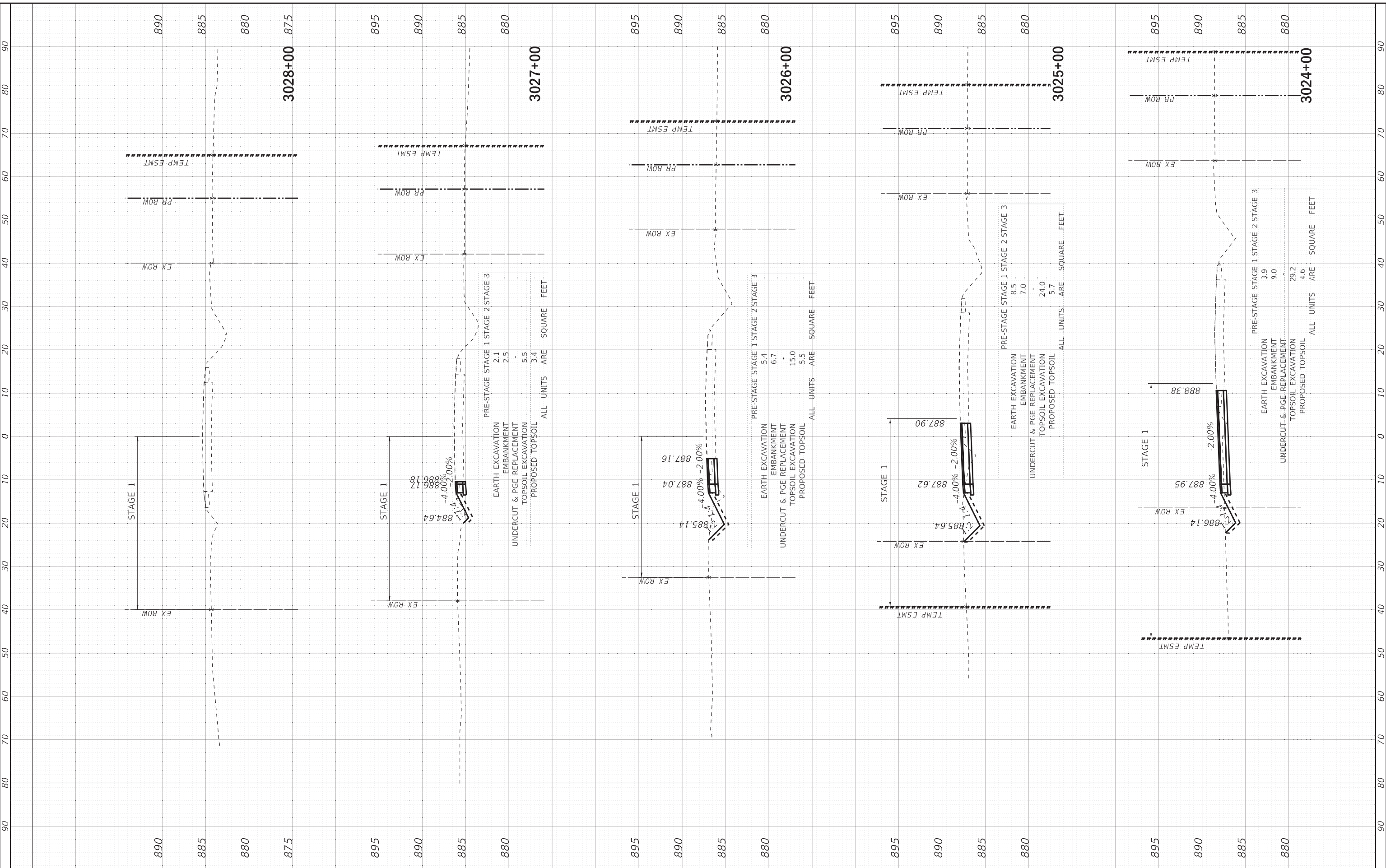
F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 276
ILLINOIS FED. AID PROJECT GMW(759)			CONTRACT NO. 62D36	

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

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

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**BAXTER & WOODMAN**  
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USER NAME = 560KAR	DESIGNED - AMW	REVISED -
PLOT SCALE = 10.0000' / in.	DRAWN - CJC	REVISED -
PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
DATE - 01-24-20	FILE - D162D36-sht-xxsht_US20-Rnr.dgn	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 RUNAROUND - US ROUTE 20**

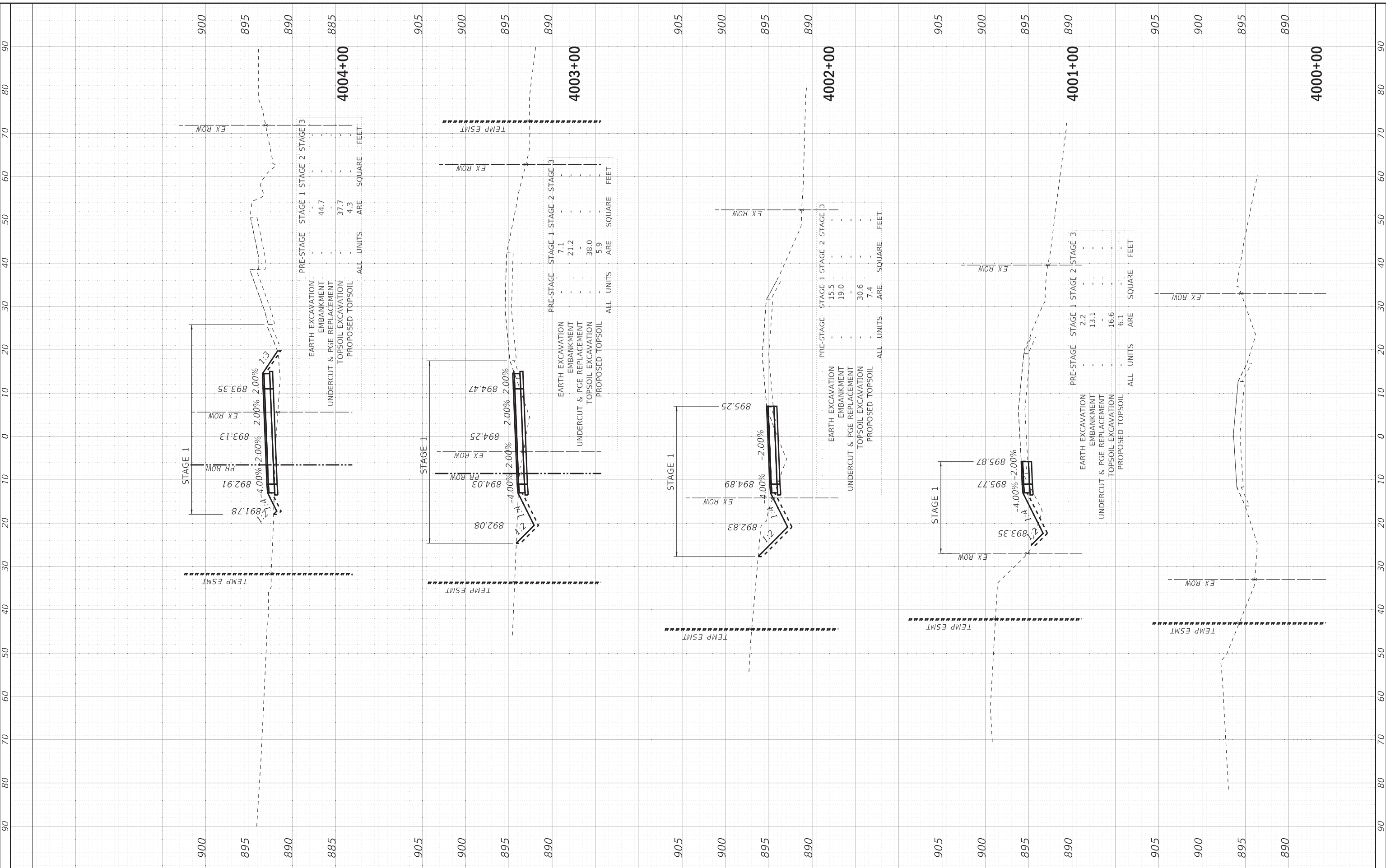
SCALE: 1"=10':1"=5' SHEET 6 OF 6 SHEETS STA. 3024+00 TO STA. 3028+00

F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 277
ILLINOIS FED. AID PROJECT GW1(759)			CONTRACT NO. 62D36	

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLE		
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ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
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 LICENSE NO. - 184-001121 - EXPIRES 4/30/2020  
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**BAXTER & WOODMAN**  
 Consulting Engineers

USER NAME = 560KAR	DESIGNED - AMW	REVISED -
PLOT SCALE = 10.0000' / in.	DRAWN - CJC	REVISED -
PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
	DATE - 01-24-20	FILE - D162D36-sht-xssht_Marengo_Rrnd.dgn

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 RUNAROUND - MARENGO RD**

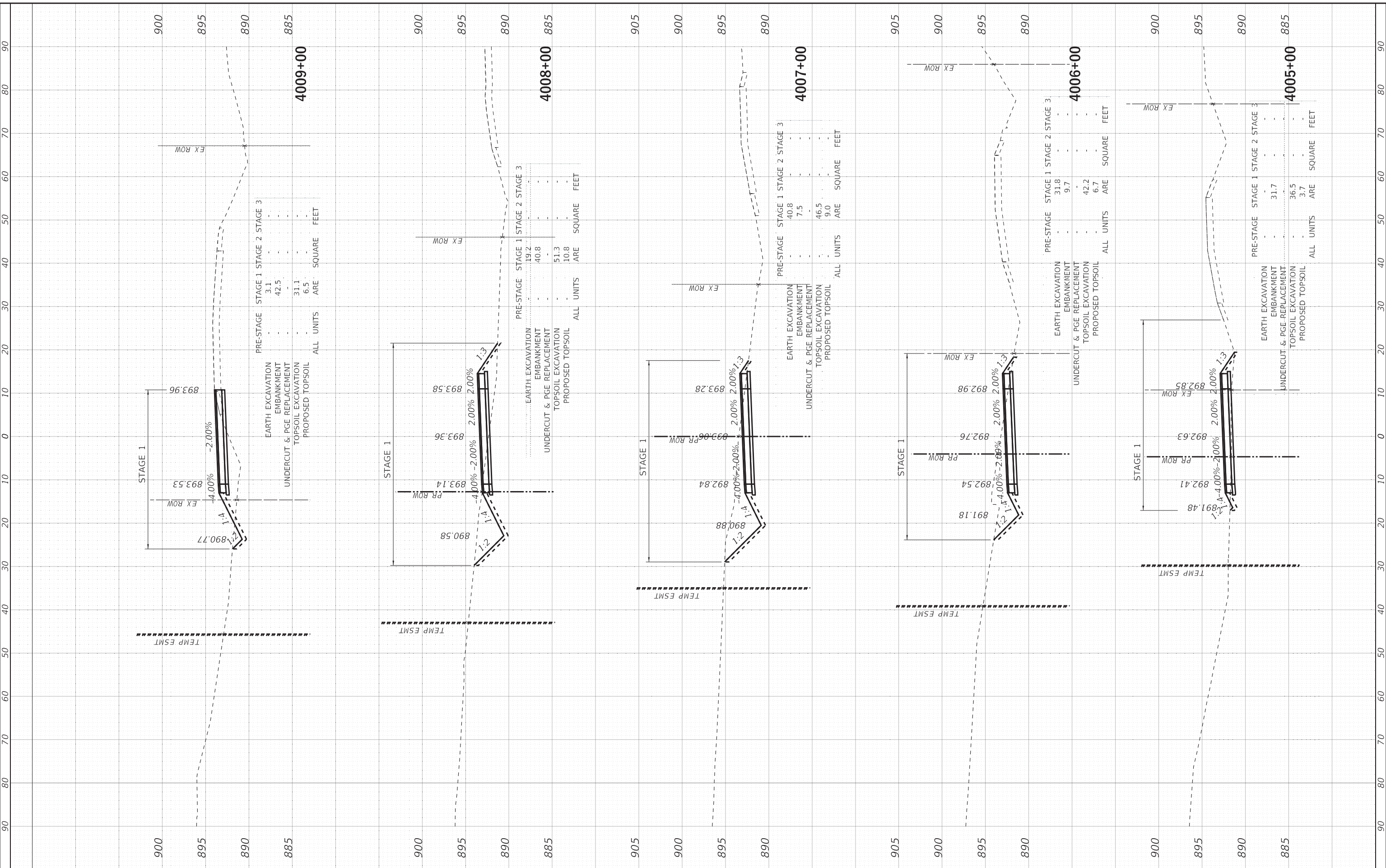
SCALE: 1"=10':1"=5' SHEET 1 OF 3 SHEETS STA. 4000+00 TO STA. 4004+00

F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 278
CONTRACT NO. 62D36			ILLINOIS FED. AID PROJECT GMW(759)	

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

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
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 LICENSE NO. - 184-001121 - EXPIRES 4/30/2020  
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USER NAME = 560KAR	DESIGNED - AMW	REVISED -
PLOT SCALE = 10.0000' / in.	DRAWN - CJC	REVISED -
PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
	DATE - 01-24-20	FILE - D162D36-sht-xssht_Marengo_Rnd.dgn

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
RUNAROUND - MARENGO RD**

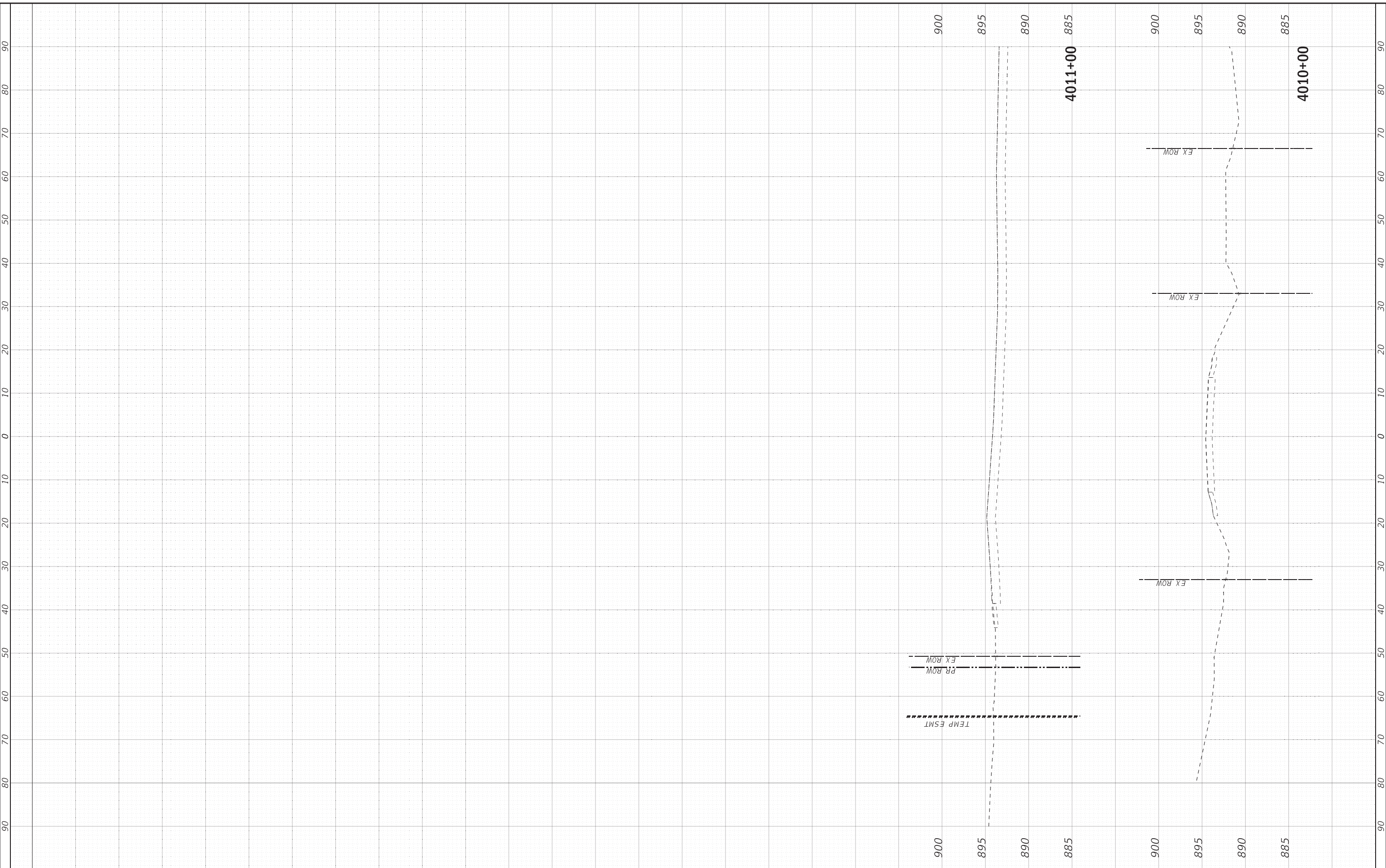
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F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 279
ILLINOIS FED. AID PROJECT GW1(759)				CONTRACT NO. 62D36

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

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

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**BAXTER & WOODMAN**  
Consulting Engineers

USER NAME = 5606AR	DESIGNED - AMW	REVISED -
PLOT SCALE = 10.0000' / in.	DRAWN - CJC	REVISED -
PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
	DATE - 01-24-20	FILE - D162D36-sht-xssht_Marengo_Rnd.dgn

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
RUNAROUND - MARENGO RD**

SCALE: 1"=10':1"=5' SHEET 3 OF 3 SHEETS STA. 4010+00 TO STA. 4011+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	280
			CONTRACT NO. 62D36	
			ILLINOIS FED. AID PROJECT GW17591	

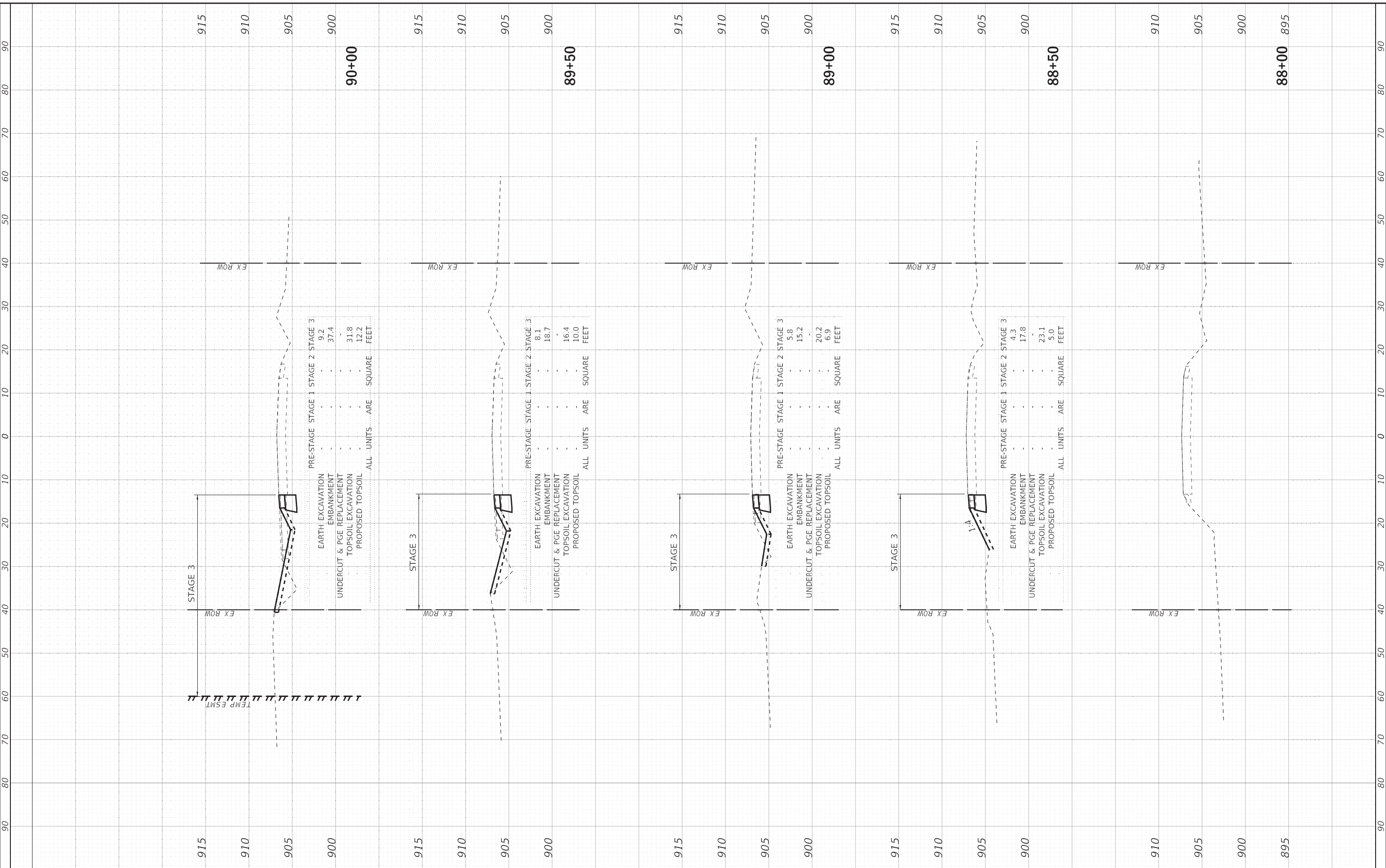


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NOTE BOOK	PLOTTED		
NO.	AREAS CHECKED		

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

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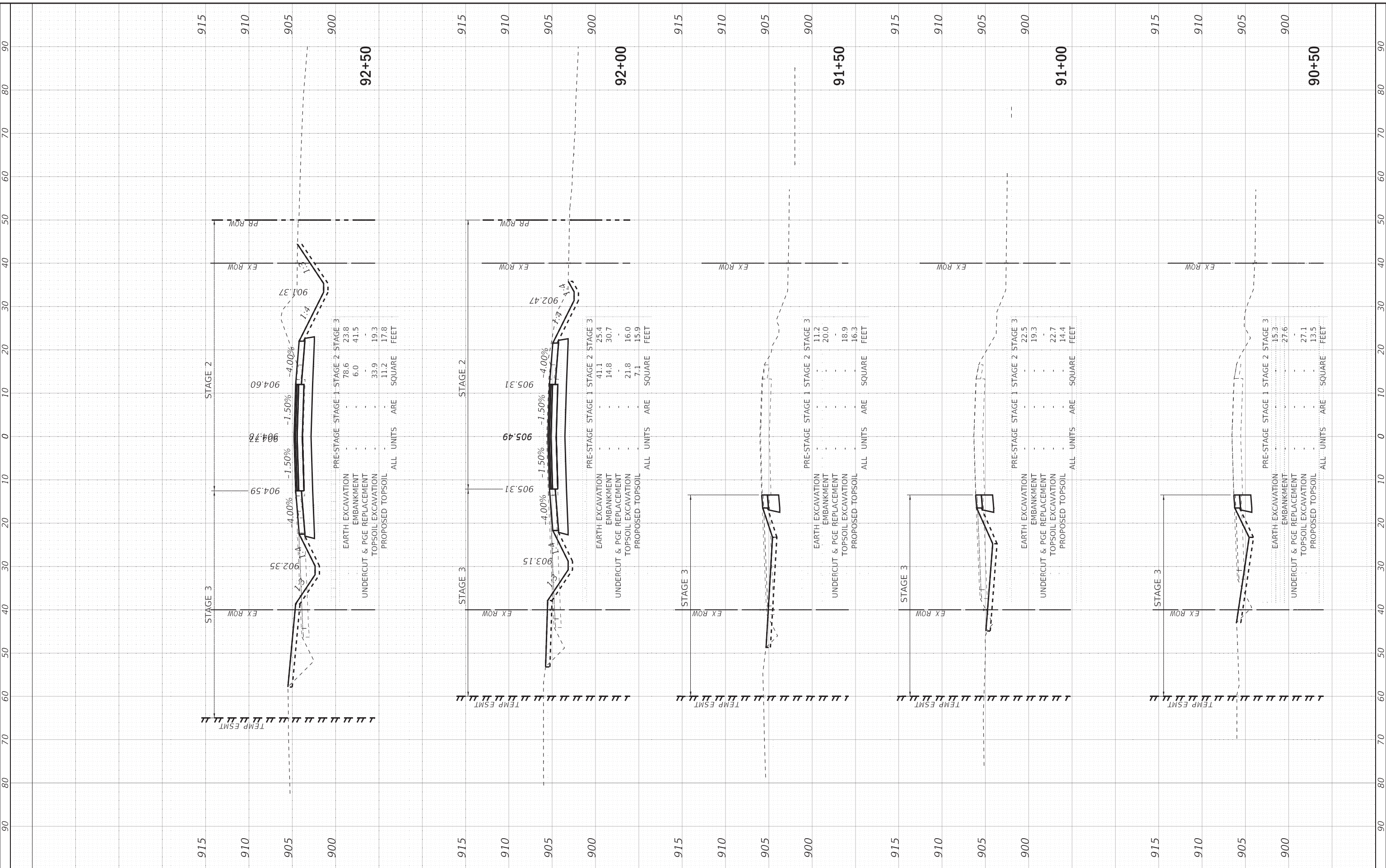


<b>BAXTER &amp; WOODMAN</b> Consulting Engineers	USER NAME = 560KAR	DESIGNED - AMW	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b> <b>US ROUTE 20 AT ROUNDABOUT - SOUTH LEG NB</b>			F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 281
	PLOT SCALE = 10.0000' / in.	CHECKED - JFM	REVISED -		SCALE: 1"=10';1"=5'	SHEET 1	OF 13 SHEETS	STA. 88+00	TO STA. 90+00	CONTRACT NO. 62D36		
	PLOT DATE = 1/17/2020	DATE - 01-24-20	FILE - D162D36-sht-xxsht_US20-SLNB.dgn						ILLINOIS FED. AID PROJECT GMW(759)			

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

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

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 Consulting Engineers

USER NAME = 560KAR	DESIGNED - AMW	REVISED -
PLOT SCALE = 10.0000' / in.	DRAWN - CJC	REVISED -
PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
	DATE - 01-24-20	FILE - D162D36-sht-usht_US20-SLNB.dgn

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>CROSS SECTIONS</b>	
<b>US ROUTE 20 AT ROUNDABOUT - SOUTH LEG NB</b>	
SCALE: 1"=10':1"=5'	SHEET 2 OF 13 SHEETS
STA. 90+50	TO STA. 92+50

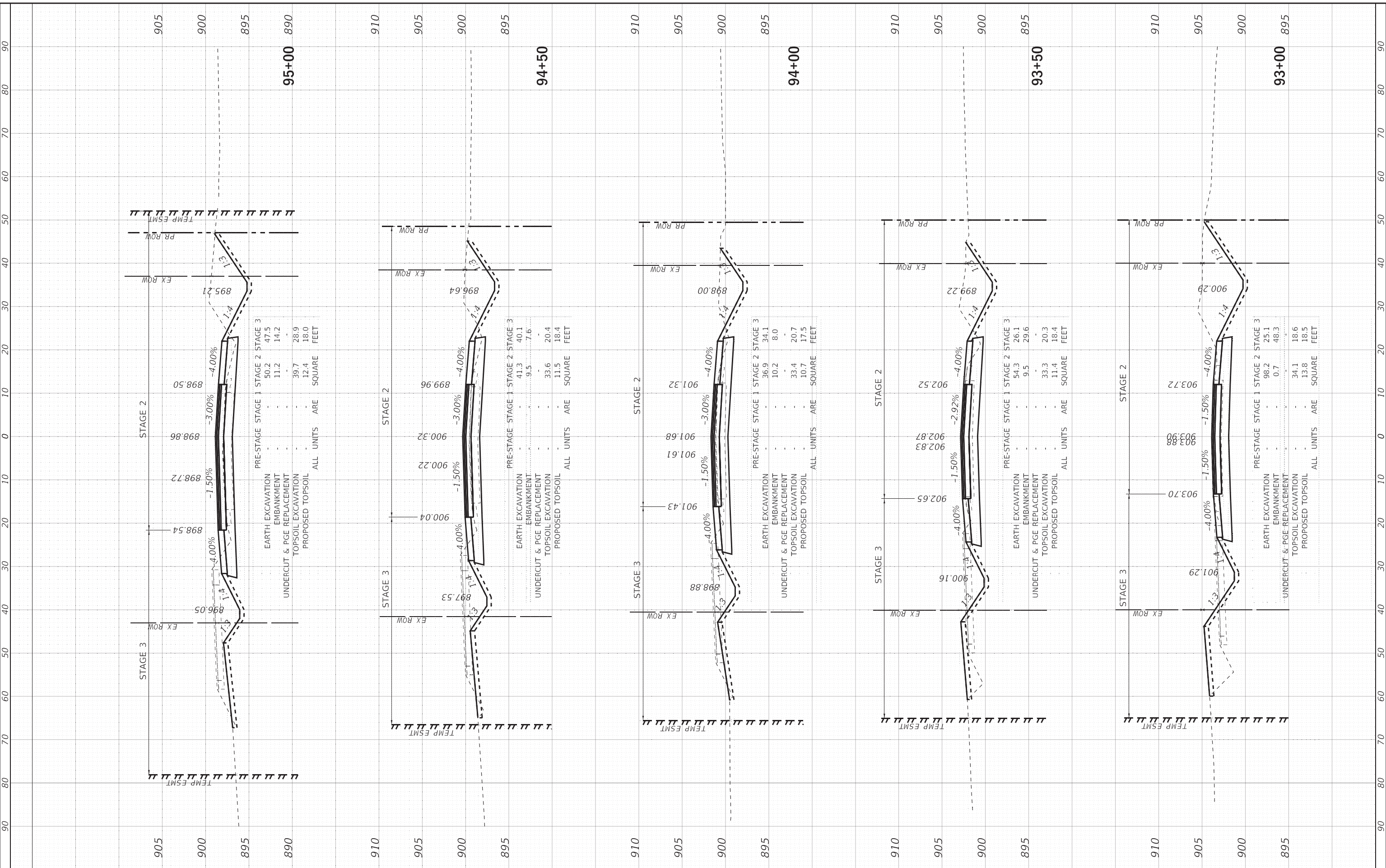
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CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GMW(759)				

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

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

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**BAXTER & WOODMAN**  
 Consulting Engineers

USER NAME = 560KAR	DESIGNED - AMW	REVISED -
PLOT SCALE = 10.0000' / in.	DRAWN - CJC	REVISED -
PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**  
**US ROUTE 20 AT ROUNDABOUT - SOUTH LEG NB**

SCALE: 1"=10'; 1"=5' SHEET 3 OF 13 SHEETS STA. 93+00 TO STA. 95+00

F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 283
ILLINOIS FED. AID PROJECT GMW(759)			CONTRACT NO. 62D36	

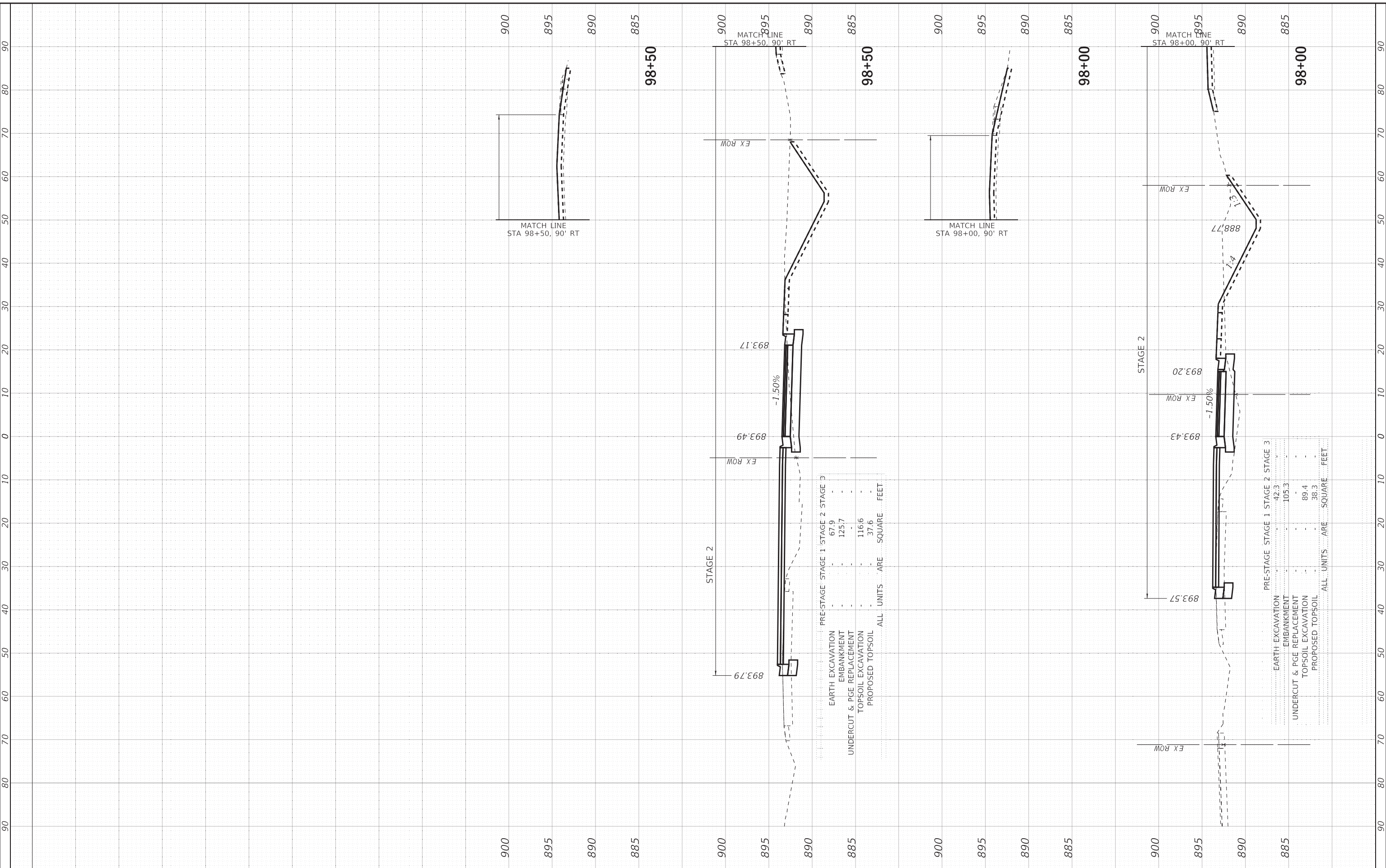


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NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
NO.	AREAS		

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

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STAGE 2

PRE-STAGE	STAGE 1	STAGE 2	STAGE 3
EARTH EXCAVATION	-	67.9	-
EMBANKMENT	-	125.7	-
UNDERCUT & PGE REPLACEMENT	-	-	-
TOPSOIL EXCAVATION	-	116.6	-
PROPOSED TOPSOIL	-	37.6	-
ALL UNITS	ARE	SQUARE	FEET

STAGE 2

PRE-STAGE	STAGE 1	STAGE 2	STAGE 3
EARTH EXCAVATION	-	42.3	-
EMBANKMENT	-	105.3	-
UNDERCUT & PGE REPLACEMENT	-	-	-
TOPSOIL EXCAVATION	-	89.4	-
PROPOSED TOPSOIL	-	38.3	-
ALL UNITS	ARE	SQUARE	FEET

**BAXTER & WOODMAN**  
Consulting Engineers

USER NAME = 560KAR	DESIGNED - AMW	REVISED -
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PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
DATE - 01-24-20	FILE - D162D36-sht-xxsht_US20-SLNB.dgn	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
US ROUTE 20 AT ROUNDABOUT - SOUTH LEG NB**

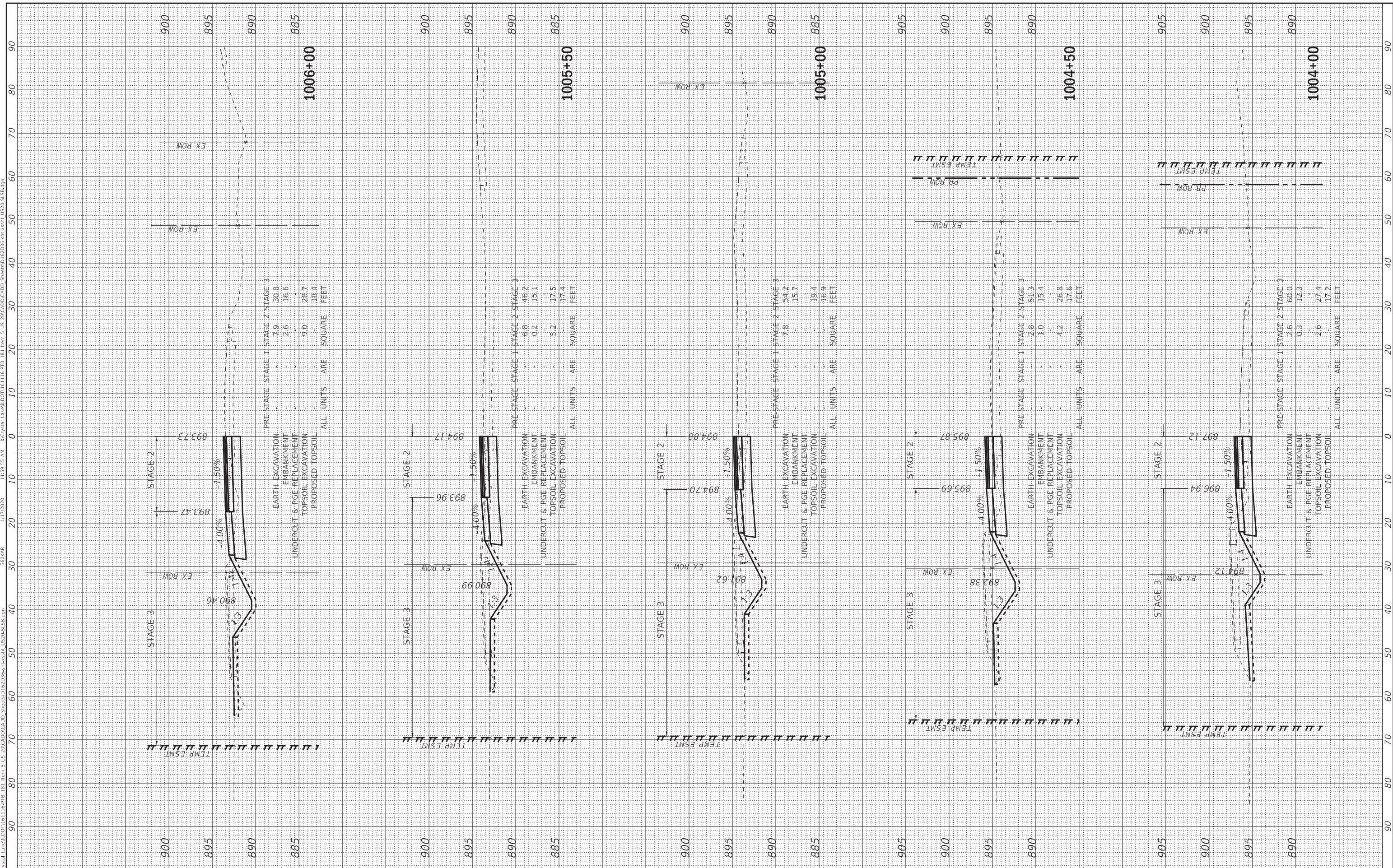
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F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 285
ILLINOIS FED. AID PROJECT GMW(759)			CONTRACT NO. 62D36	

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMP. ESMT		
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FINAL SURVEY	SURVEYED	BY	DATE
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USER NAME = 560KAR	DESIGNED - AMW	REVISED -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
US ROUTE 20 AT ROUNDABOUT - SOUTH LEG SB**

SCALE: 1"=10':1"=5' SHEET 6 OF 13 SHEETS STA. 1004+00 TO STA. 1006+00

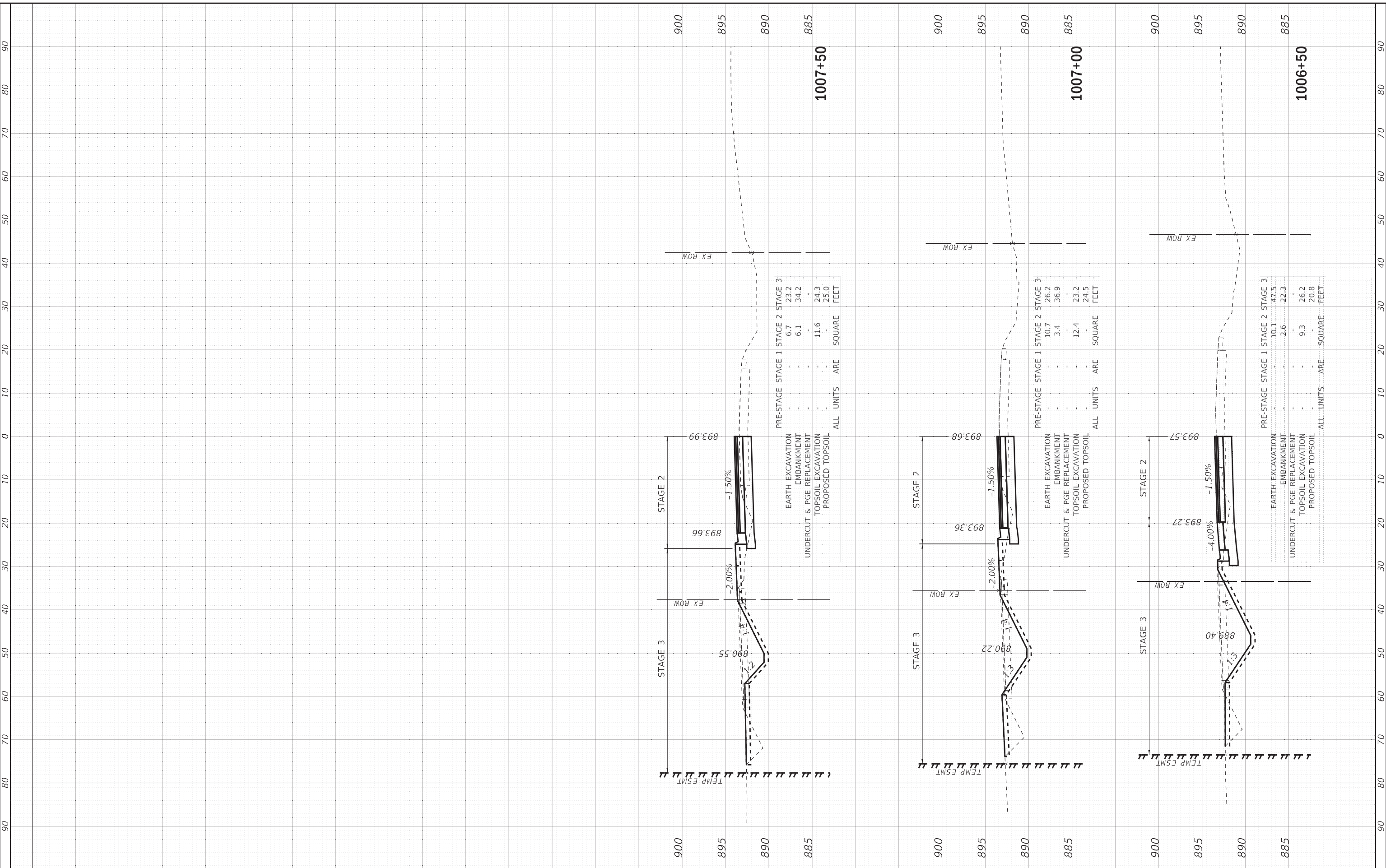
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			CONTRACT NO. 62D36	
ILLINOIS FED. AID PROJECT GWV(759)				

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	AREAS CHECKED		

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	AREAS CHECKED		

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**BAXTER & WOODMAN**  
 Consulting Engineers

USER NAME = 560KAR	DESIGNED - AMW	REVISED -
PLOT SCALE = 10.0000 ' / in.	DRAWN - CJC	REVISED -
PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

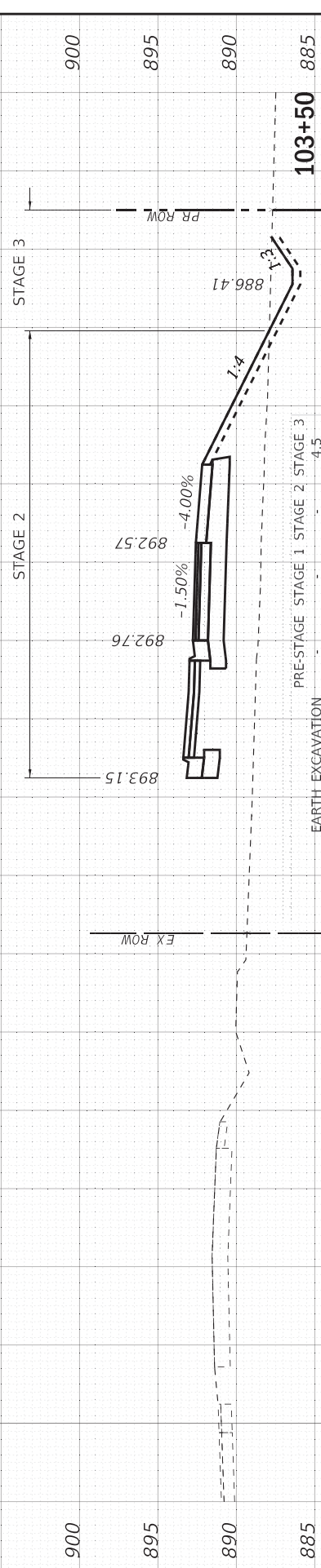
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 US ROUTE 20 AT ROUNDABOUT - SOUTH LEG SB  
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F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 287
ILLINOIS FED. AID PROJECT GW(1759)			CONTRACT NO. 62D36	

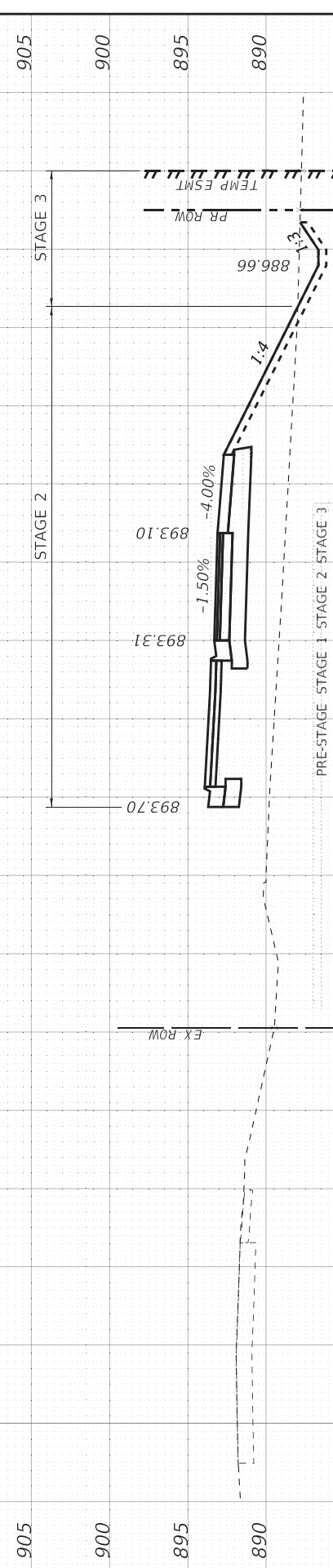
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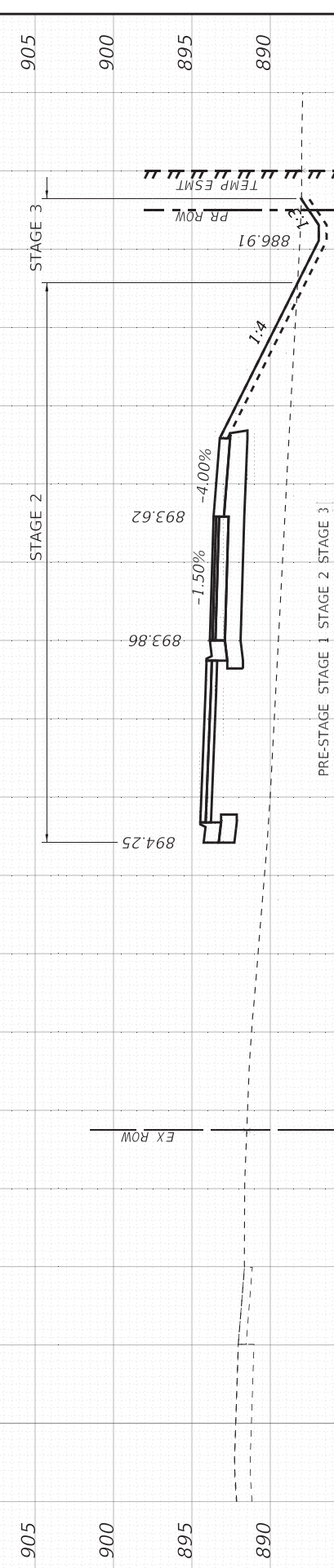
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NO.	NO.		



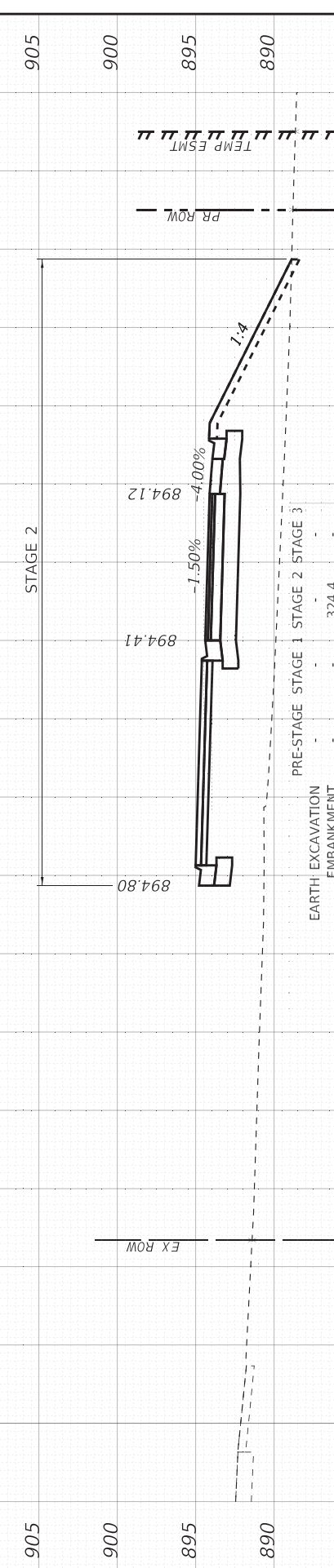
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	TOPSOIL EXCAVATION	-	57.2	11.8	-
	PROPOSED TOPSOIL	-	8.6	5.9	-
	ALL UNITS ARE SQUARE FEET				



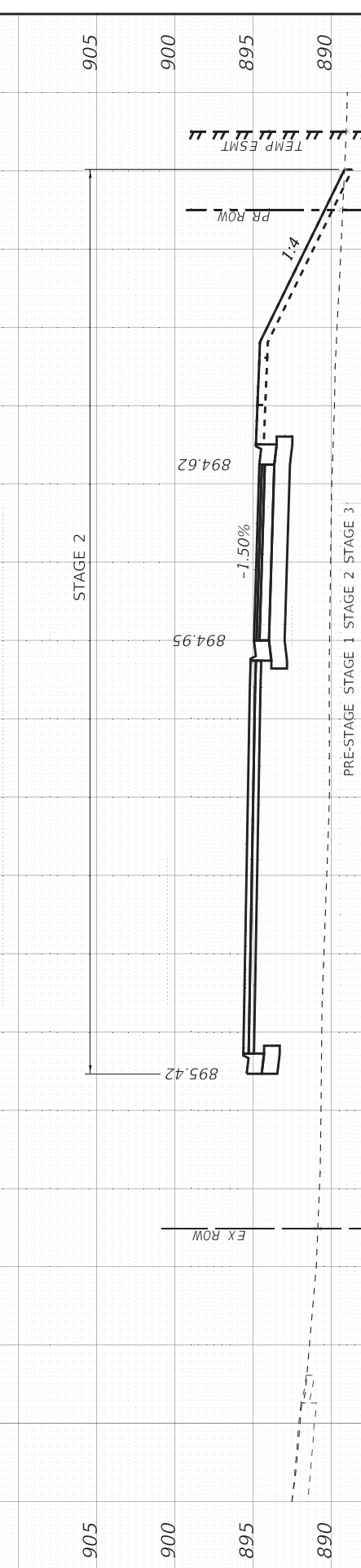
EARTH EXCAVATION	EM BANKMENT	-	213.9	0.9	3.4
	UNDERCUT & PGE REPLACEMENT	-	-	-	-
	TOPSOIL EXCAVATION	-	63.9	10.8	-
	PROPOSED TOPSOIL	-	9.5	5.4	-
	ALL UNITS ARE SQUARE FEET				



EARTH EXCAVATION	EM BANKMENT	-	257.0	0.9	3.1
	UNDERCUT & PGE REPLACEMENT	-	-	-	-
	TOPSOIL EXCAVATION	-	71.5	10.7	-
	PROPOSED TOPSOIL	-	9.9	5.4	-
	ALL UNITS ARE SQUARE FEET				



EARTH EXCAVATION	EM BANKMENT	-	324.4	-	-
	UNDERCUT & PGE REPLACEMENT	-	-	-	-
	TOPSOIL EXCAVATION	-	96.3	-	-
	PROPOSED TOPSOIL	-	11.5	-	-
	ALL UNITS ARE SQUARE FEET				



EARTH EXCAVATION	EM BANKMENT	-	525.7	-	-
	UNDERCUT & PGE REPLACEMENT	-	-	-	-
	TOPSOIL EXCAVATION	-	120.3	-	-
	PROPOSED TOPSOIL	-	17.6	-	-
	ALL UNITS ARE SQUARE FEET				

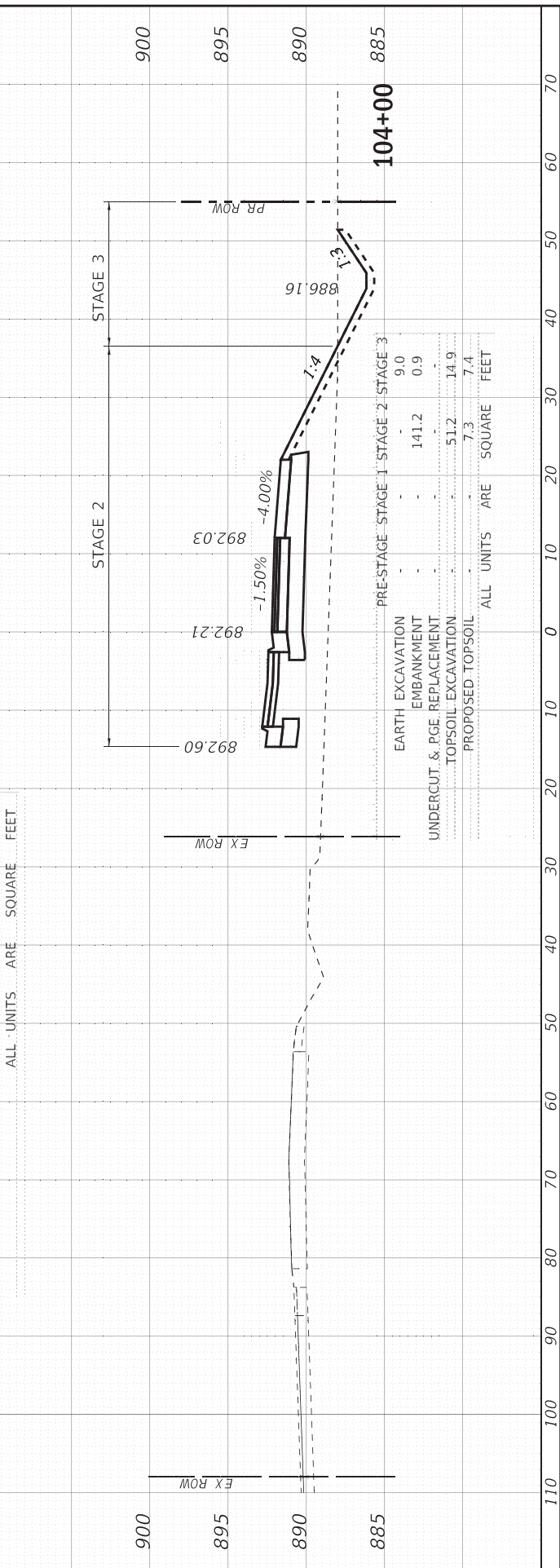
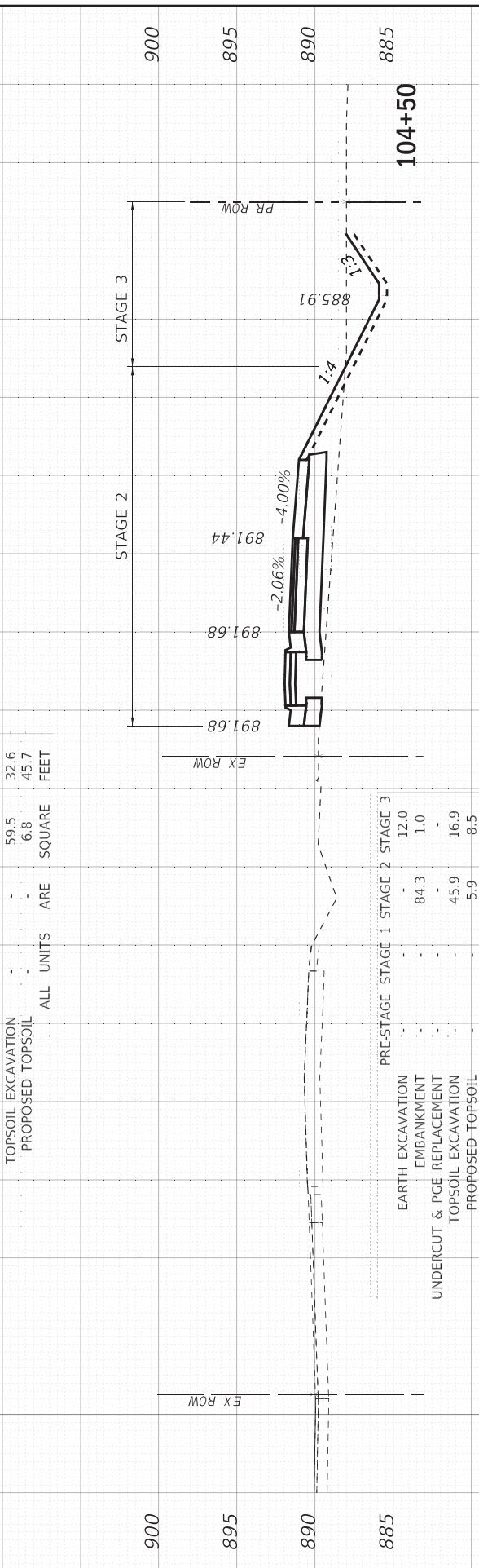
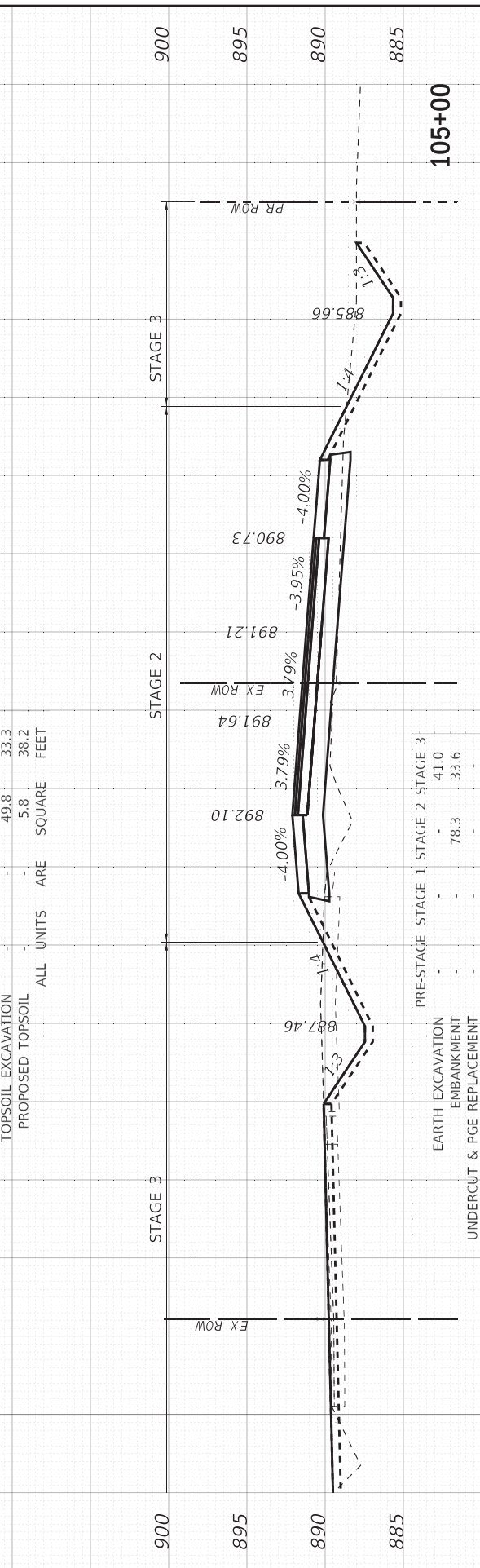
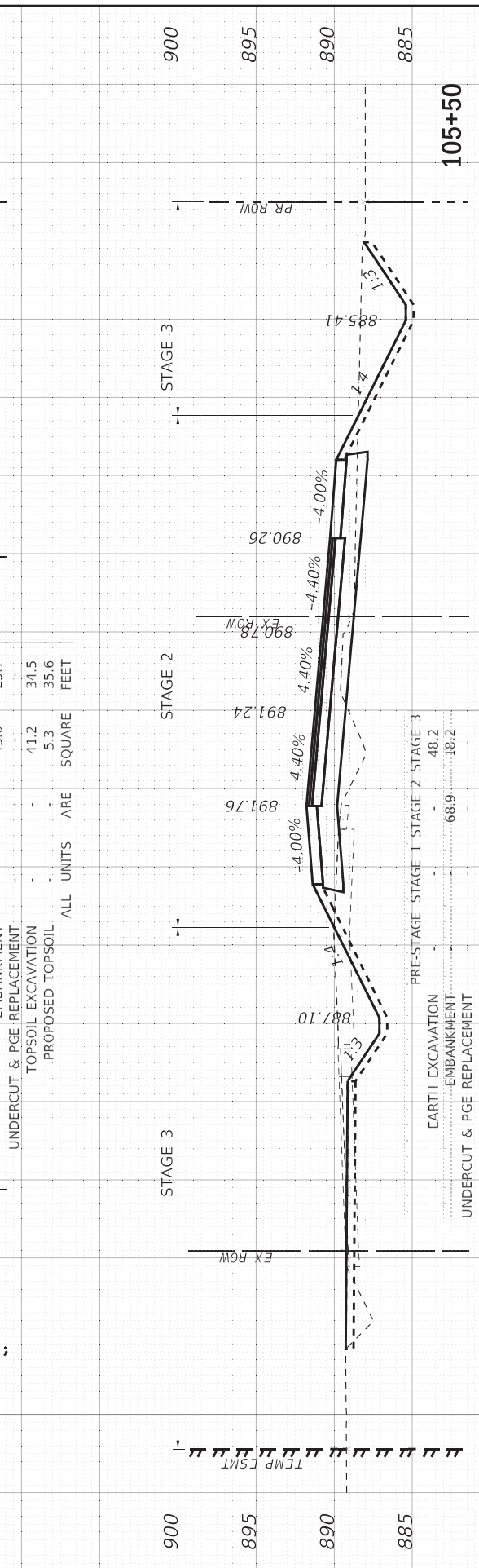
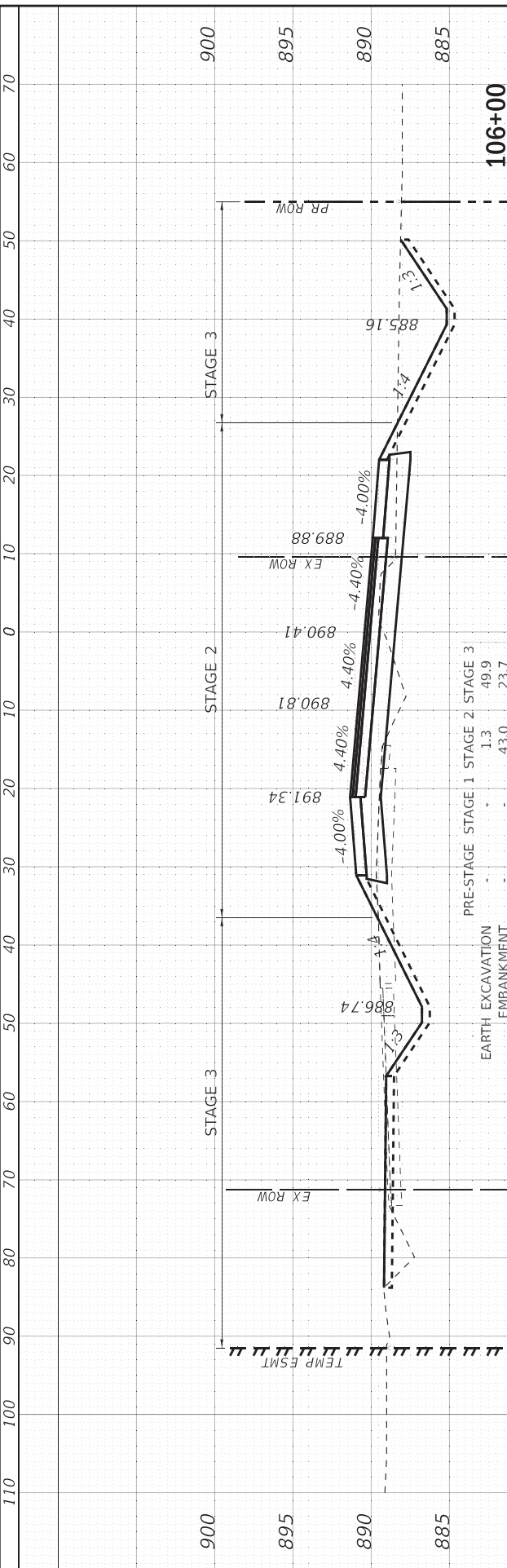


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NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMP ESMT		
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ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMP ESMT		
NO.			

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**BAXTER & WOODMAN**  
Consulting Engineers

USER NAME = 560KAR	DESIGNED - AMW	REVISIONS
DESIGNED - AMW	DRAWN - CJC	REVISIONS
DESIGNED - AMW	CHECKED - JFM	REVISIONS
DESIGNED - AMW	DATE - 01-24-20	FILE - D162D36-sht-xxsht_US20-NLNB.dgn

DESIGNED - AMW	REVISIONS
DRAWN - CJC	REVISIONS
CHECKED - JFM	REVISIONS
DATE - 01-24-20	FILE - D162D36-sht-xxsht_US20-NLNB.dgn

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
US ROUTE 20 AT ROUNDABOUT - NORTH LEG NB**

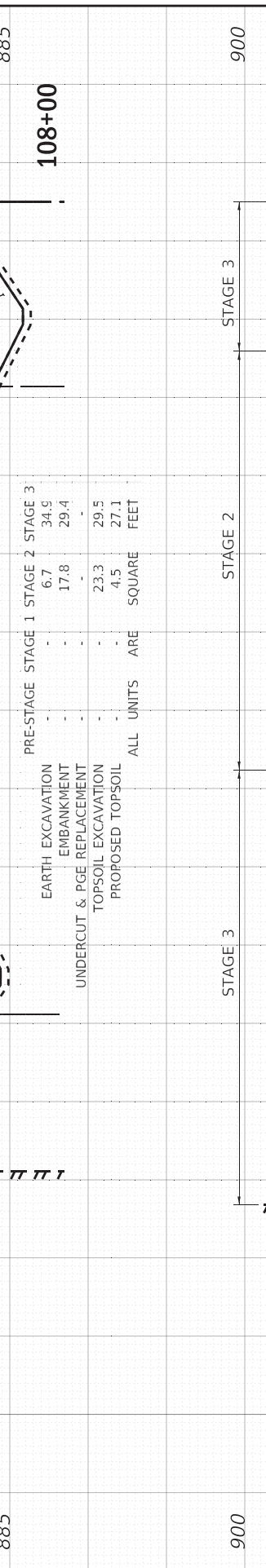
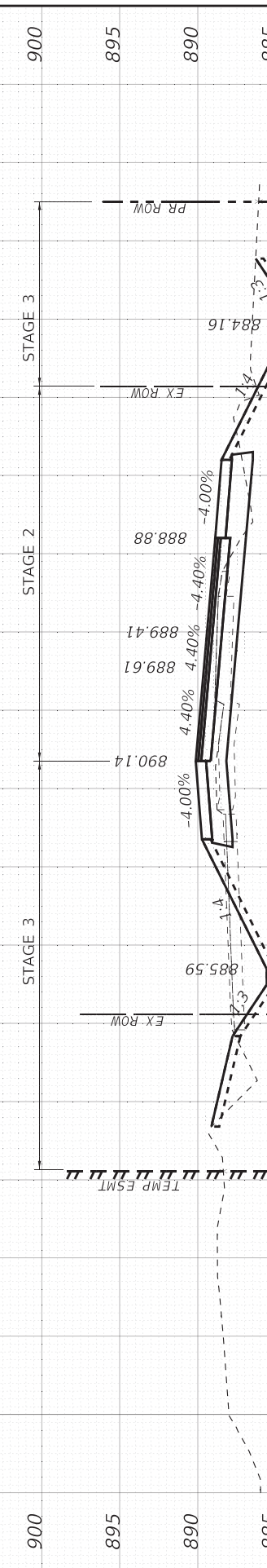
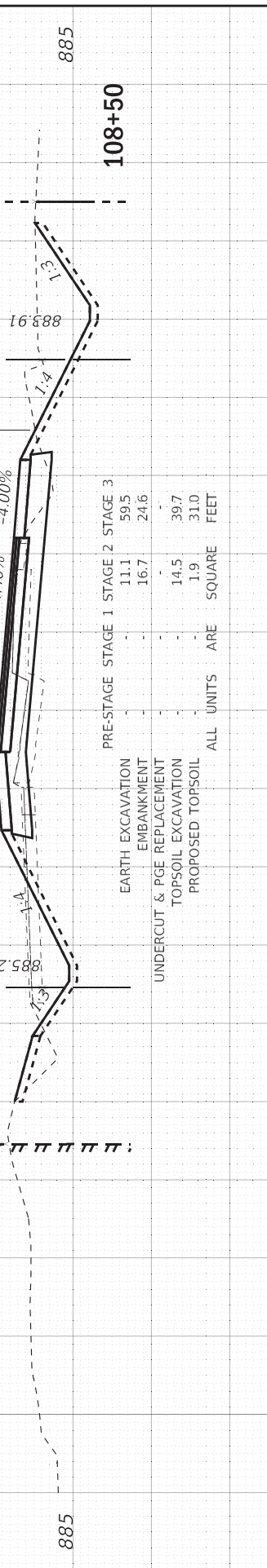
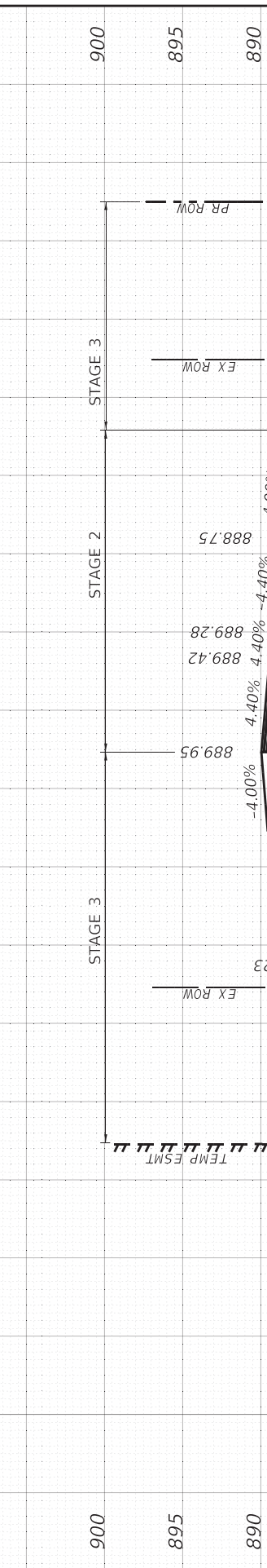
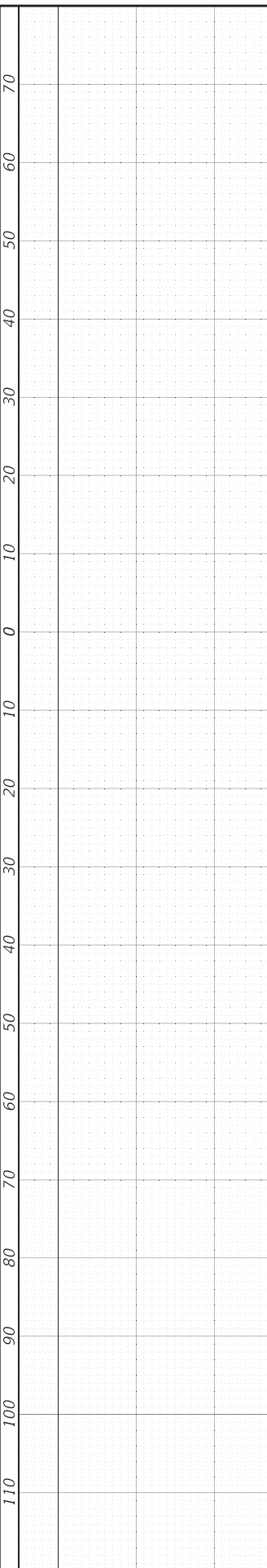
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F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 289
CONTRACT NO. 62D36			ILLINOIS FED. AID PROJECT GW1(759)	

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMP ESMT		
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**BAXTER & WOODMAN**  
 Consulting Engineers

USER NAME = 560KAR	DESIGNED - AMW	REVISED -
PLOT SCALE = 10.0000' / in.	DRAWN - CJC	REVISED -
PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
DATE = 01-24-20	FILE - D162D36-sht-xxsst_US20-NLNB.dgn	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**  
**US ROUTE 20 AT ROUNDABOUT - NORTH LEG NB**

F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 290
ILLINOIS				FED. AID PROJECT GMW(759)

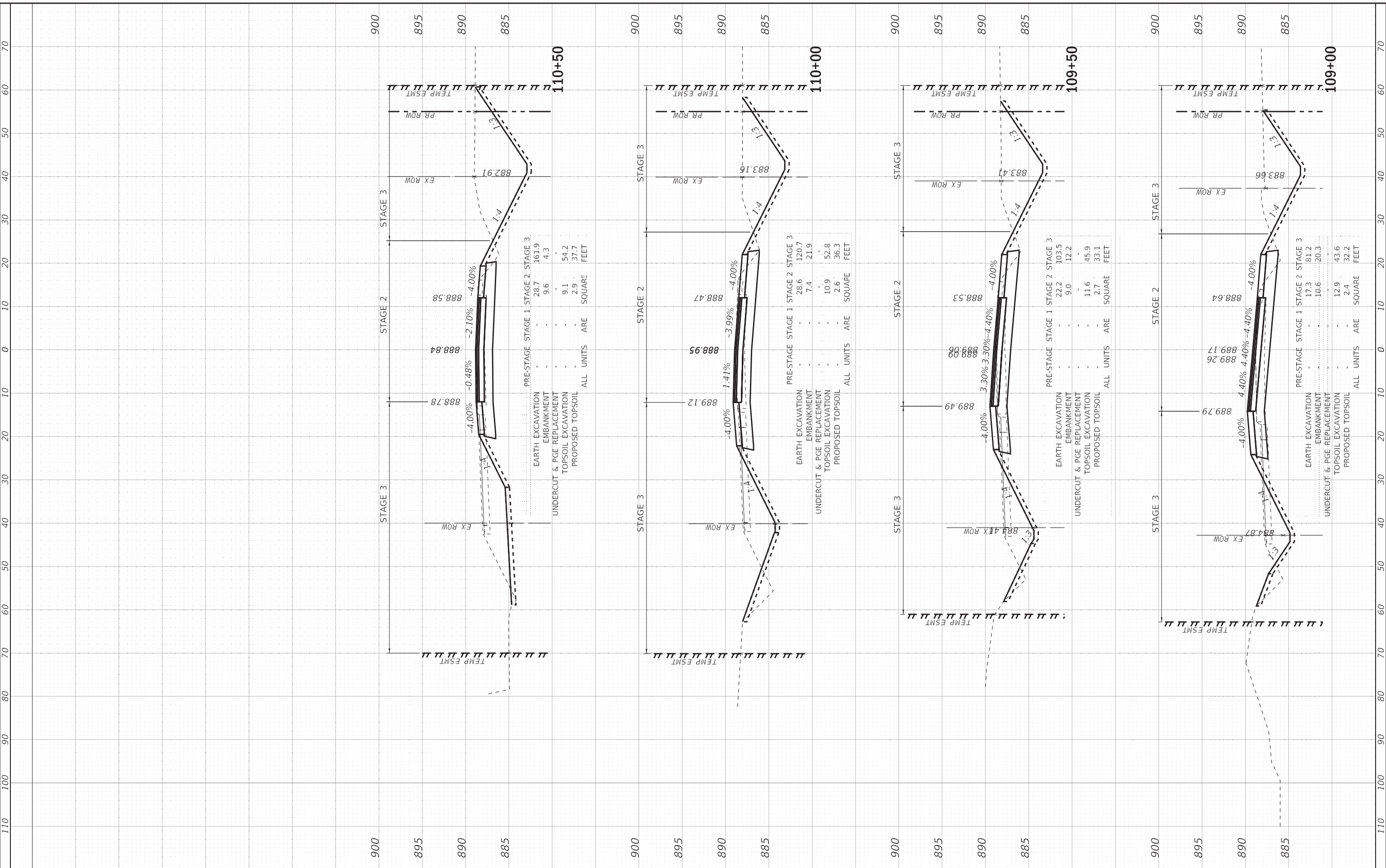
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FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
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PRE-STAGE STAGE 1 STAGE 2 STAGE 3

EARTH EXCAVATION	-	-	-	-
EMBANKMENT	28.7	161.9	9.6	4.3
UNDERCUT & PGE REPLACEMENT	-	-	-	-
TOPSOIL EXCAVATION	9.1	54.2	2.9	37.7
PROPOSED TOPSOIL	-	-	-	-
ALL UNITS ARE				
SQUARE FEET				

PRE-STAGE STAGE 1 STAGE 2 STAGE 3

EARTH EXCAVATION	-	-	-	-
EMBANKMENT	28.6	120.7	7.4	21.9
UNDERCUT & PGE REPLACEMENT	-	-	-	-
TOPSOIL EXCAVATION	10.9	52.8	2.6	36.3
PROPOSED TOPSOIL	-	-	-	-
ALL UNITS ARE				
SQUARE FEET				

PRE-STAGE STAGE 1 STAGE 2 STAGE 3

EARTH EXCAVATION	-	-	-	-
EMBANKMENT	22.2	103.5	9.0	12.2
UNDERCUT & PGE REPLACEMENT	-	-	-	-
TOPSOIL EXCAVATION	11.6	45.9	2.7	33.1
PROPOSED TOPSOIL	-	-	-	-
ALL UNITS ARE				
SQUARE FEET				

PRE-STAGE STAGE 1 STAGE 2 STAGE 3

EARTH EXCAVATION	-	-	-	-
EMBANKMENT	17.3	81.2	10.6	20.3
UNDERCUT & PGE REPLACEMENT	-	-	-	-
TOPSOIL EXCAVATION	12.9	43.6	2.4	32.2
PROPOSED TOPSOIL	-	-	-	-
ALL UNITS ARE				
SQUARE FEET				

**BAXTER & WOODMAN**  
Consulting Engineers

USER NAME = 560KAR	DESIGNED - AMW	REVISED -
PLOT SCALE = 10.0000' / in.	DRAWN - CJC	REVISED -
PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
DATE - 01-24-20	FILE - D162D36-sht-xxsht_US20-NLNB.dgn	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
US ROUTE 20 AT ROUNDABOUT - NORTH LEG NB**

SCALE: 1"=10';1"=5' SHEET 11 OF 13 SHEETS STA. 109+00 TO STA. 110+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	291
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GW1(759)				

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

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

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 LICENSE NO. - 184-001121 - EXPIRES 4/30/2020  
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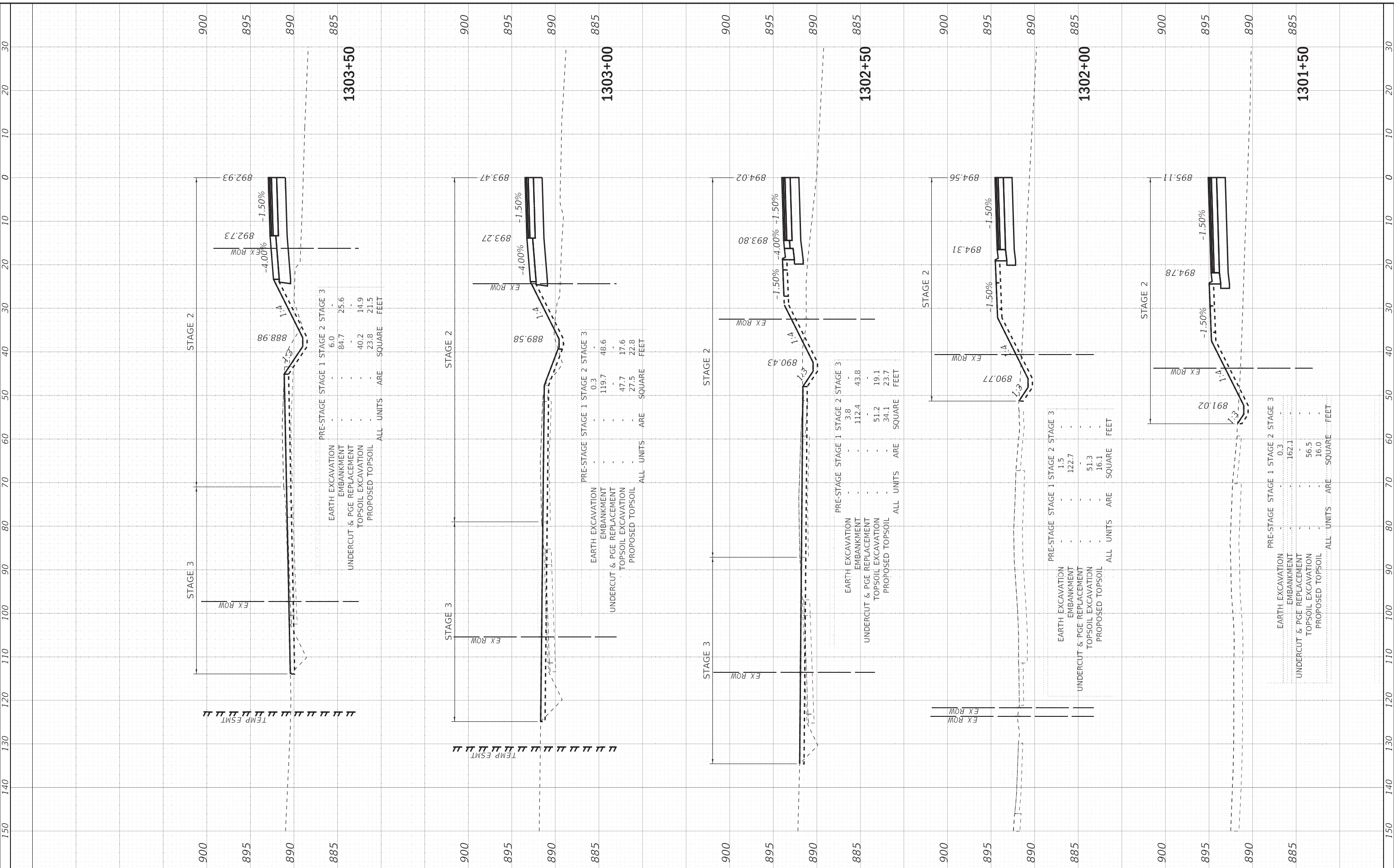


USER NAME = 560KAR	DESIGNED - AMW	REVISED -
PLOT SCALE = 10.0000' / in.	DRAWN - CJC	REVISED -
PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
	DATE - 01-24-20	FILE - D162D36-sht-xxsht_US20-NLSB.dgn

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
US ROUTE 20 AT ROUNDABOUT - NORTH LEG SB**

F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 292
ILLINOIS FED. AID PROJECT GMW(759)			CONTRACT NO. 62D36	



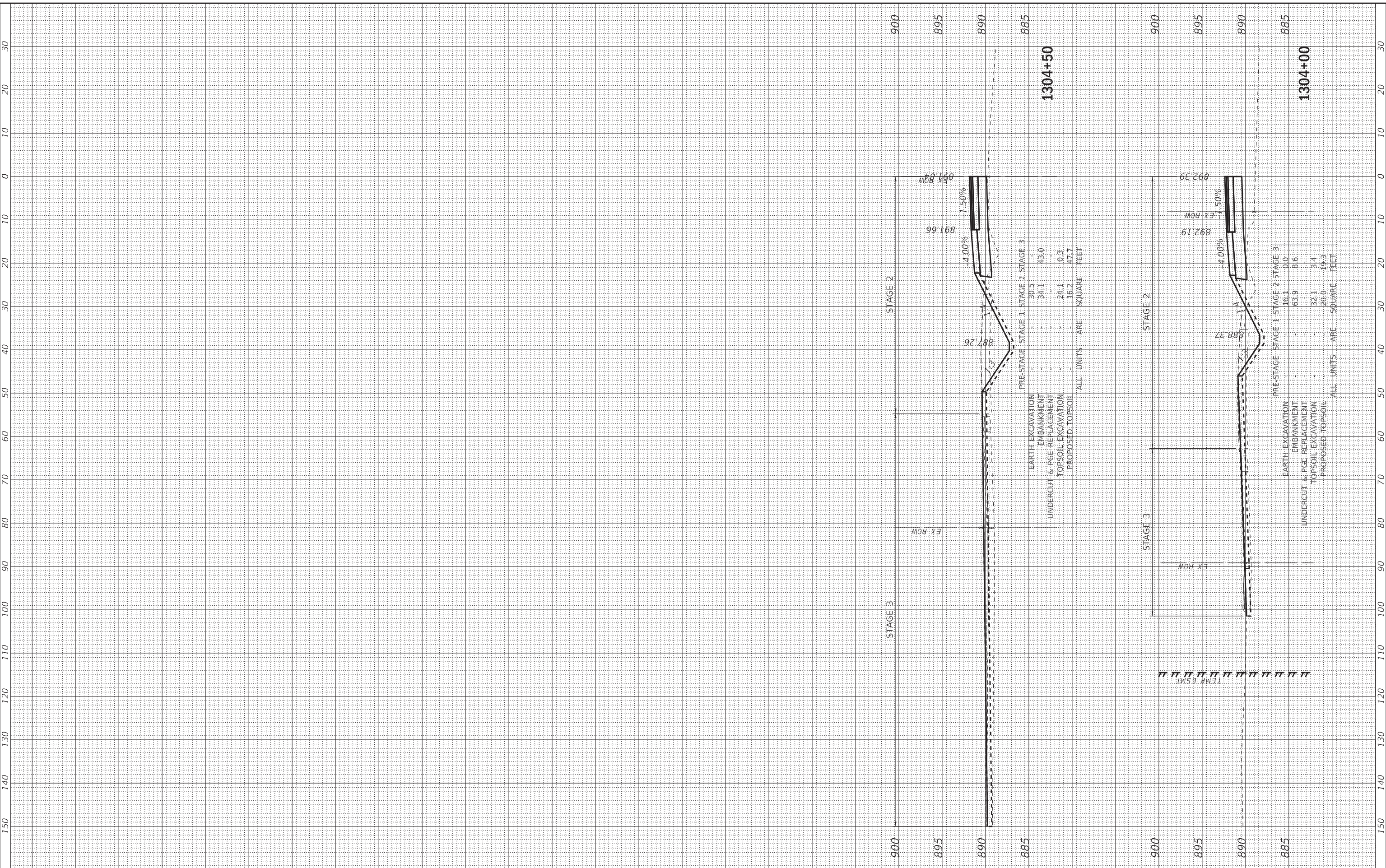
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FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS	TEMPLATE		
NO.	CHECKED		

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

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**BAXTER & WOODMAN**  
 Consulting Engineers

USER NAME = 560KAR	DESIGNED - AMW	REVISIONS -
	DRAWN - CJC	REVISIONS -
PLOT SCALE = 10.0000 ' / in.	CHECKED - JFM	REVISIONS -
PLOT DATE = 1/17/2020	DATE - 01-24-20	

FILE - D162D36-sht-xssht\_US20-NLSB.dgn

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

**CROSS SECTIONS**  
**US ROUTE 20 AT ROUNDABOUT - NORTH LEG SB**

SCALE: 1"=10':1"=5' SHEET 13 OF 13 SHEETS STA. 1304+00 TO STA. 1304+50

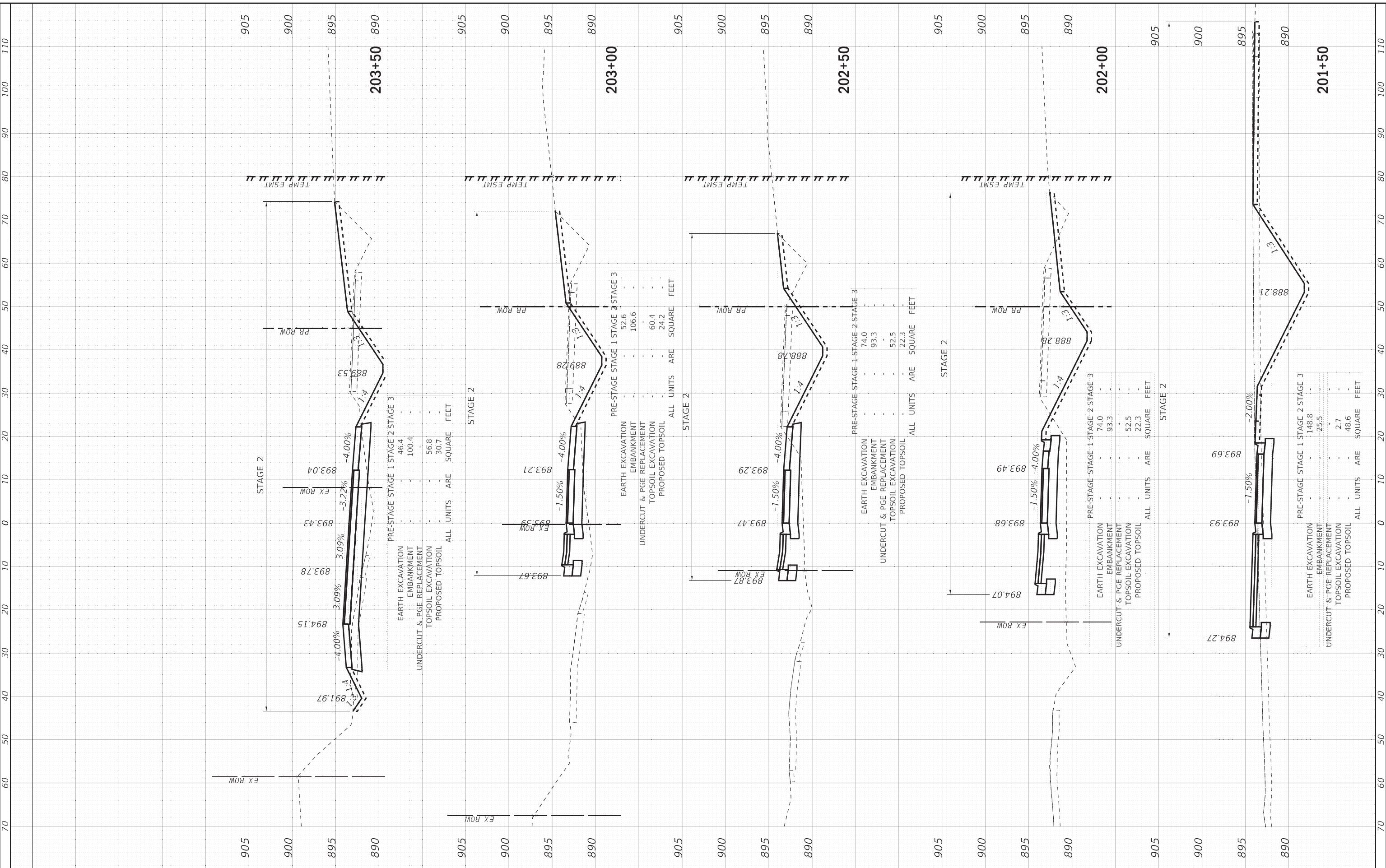
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	293
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GW(1759)				

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

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

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NO.	AREAS CHECKED		
	AREAS		

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

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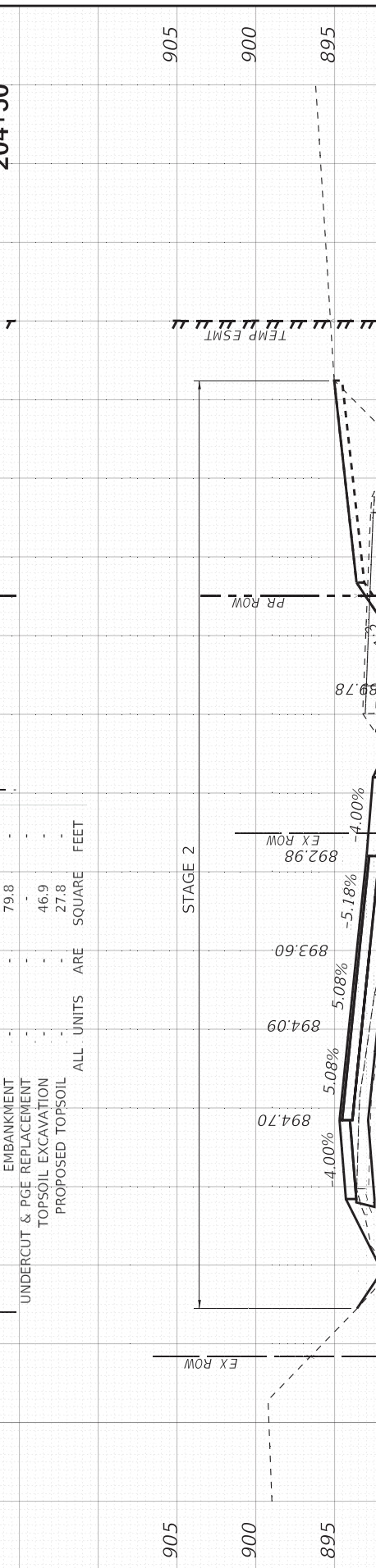
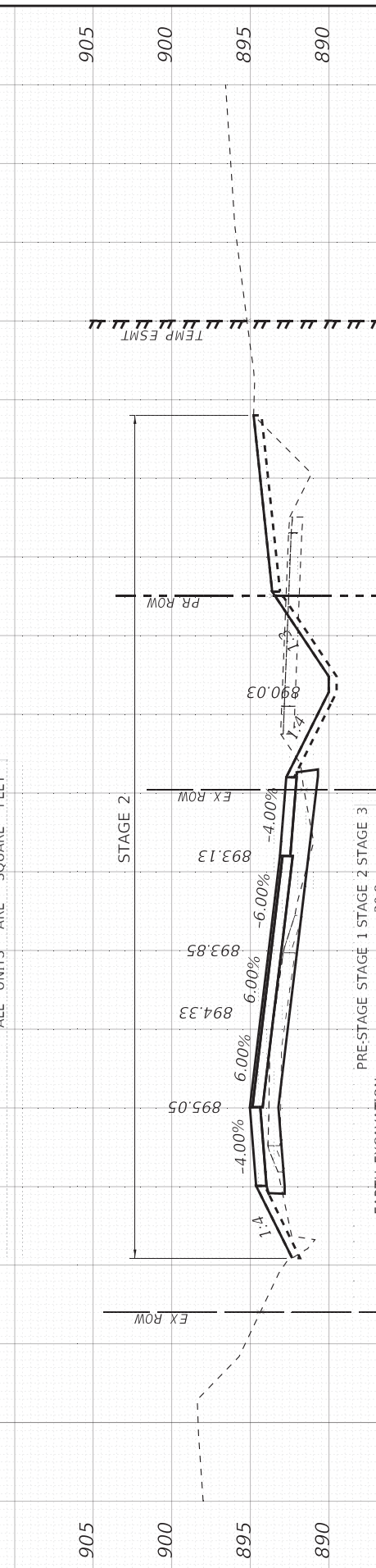
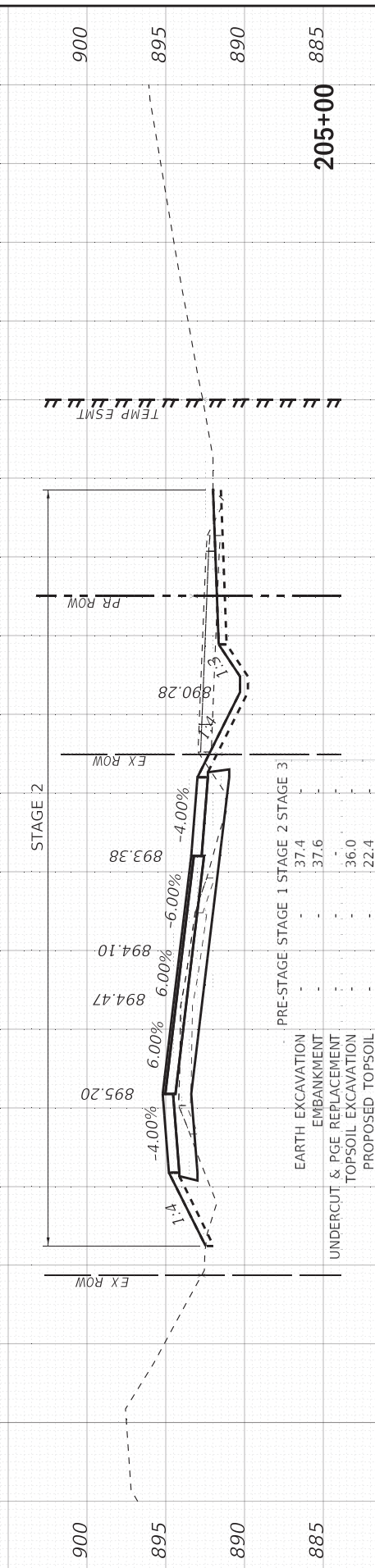
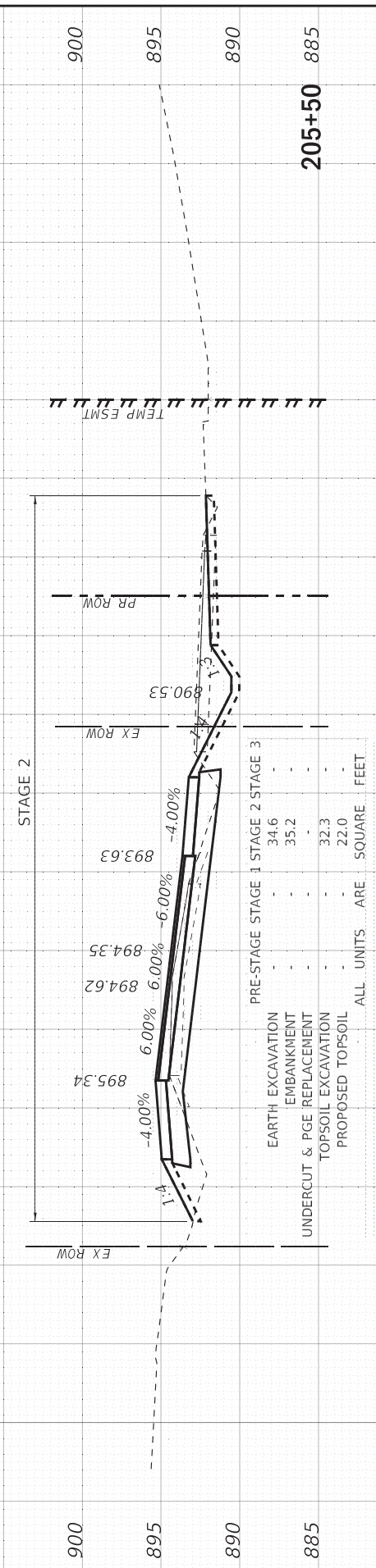
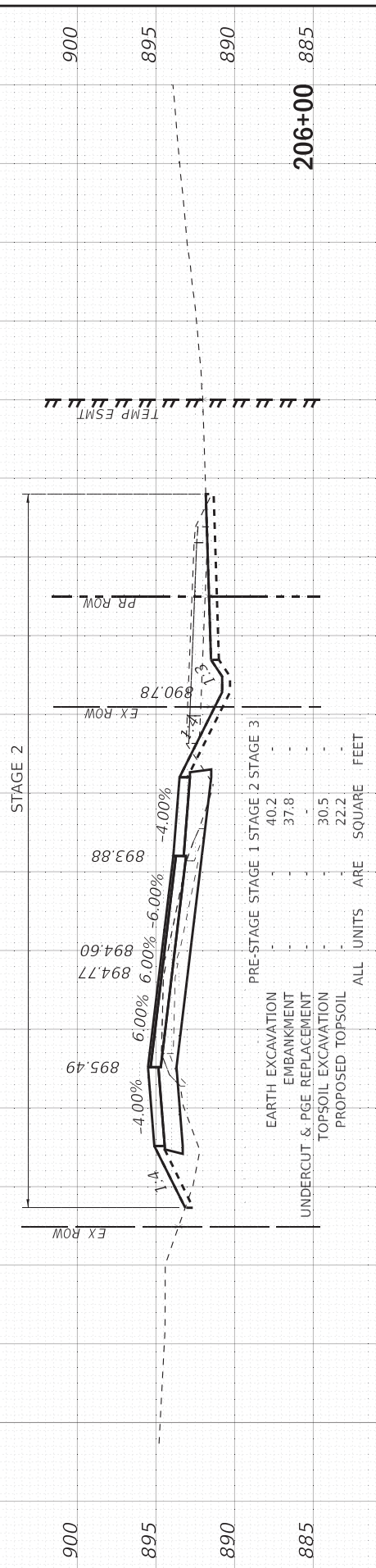
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		DATE - 01-24-20	FILE - D162D36-sht-xssht_Marengo_EB.dwg

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 MARENGO RD - EB**

SCALE: 1"=10'; 1"=5' SHEET 2 OF 5 SHEETS STA. 204+00 TO STA. 206+00

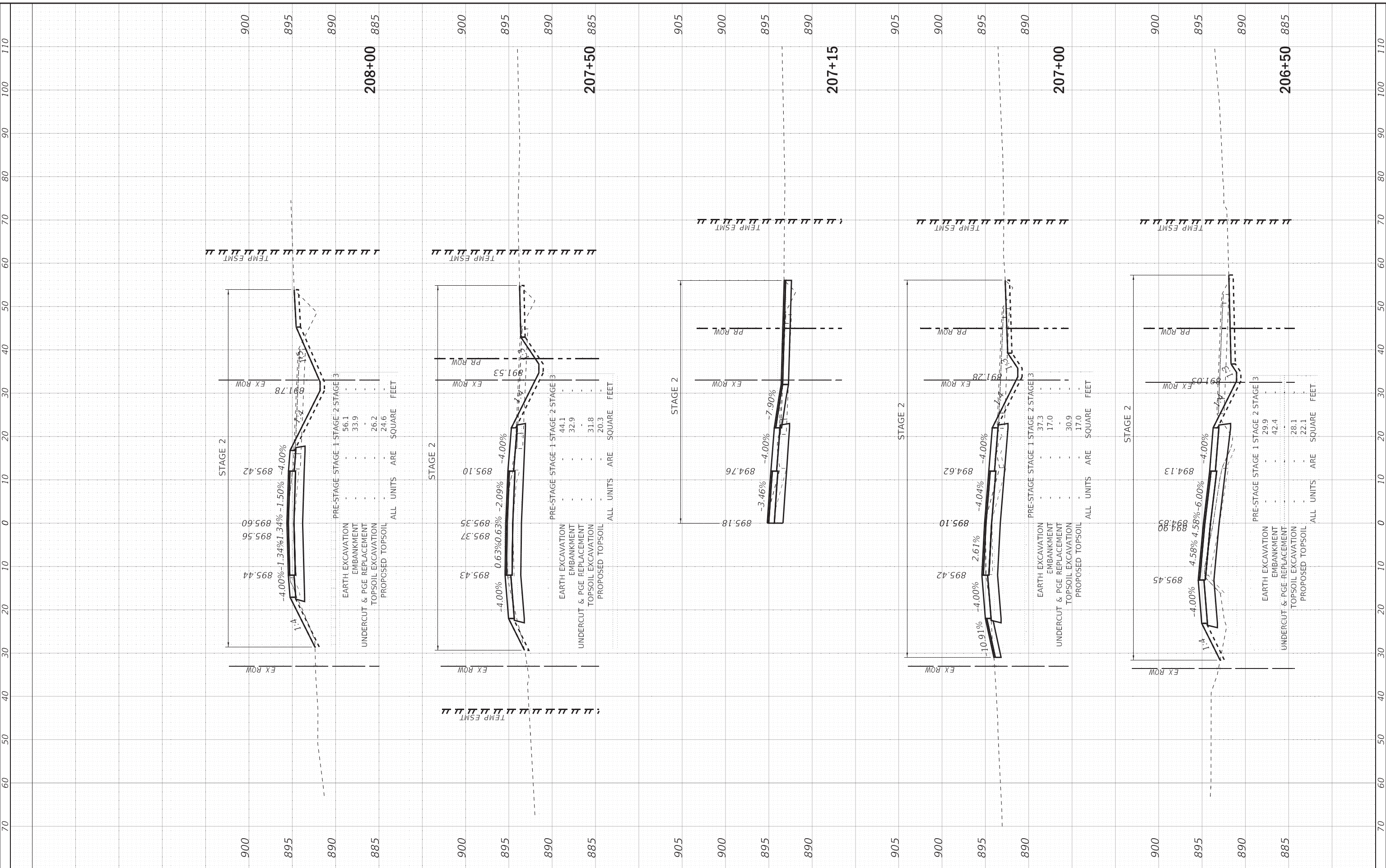
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525	2016-092B&R	MCHENRY	329	295
ILLINOIS FED. AID PROJECT GMW(759)			CONTRACT NO. 62D36	



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

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

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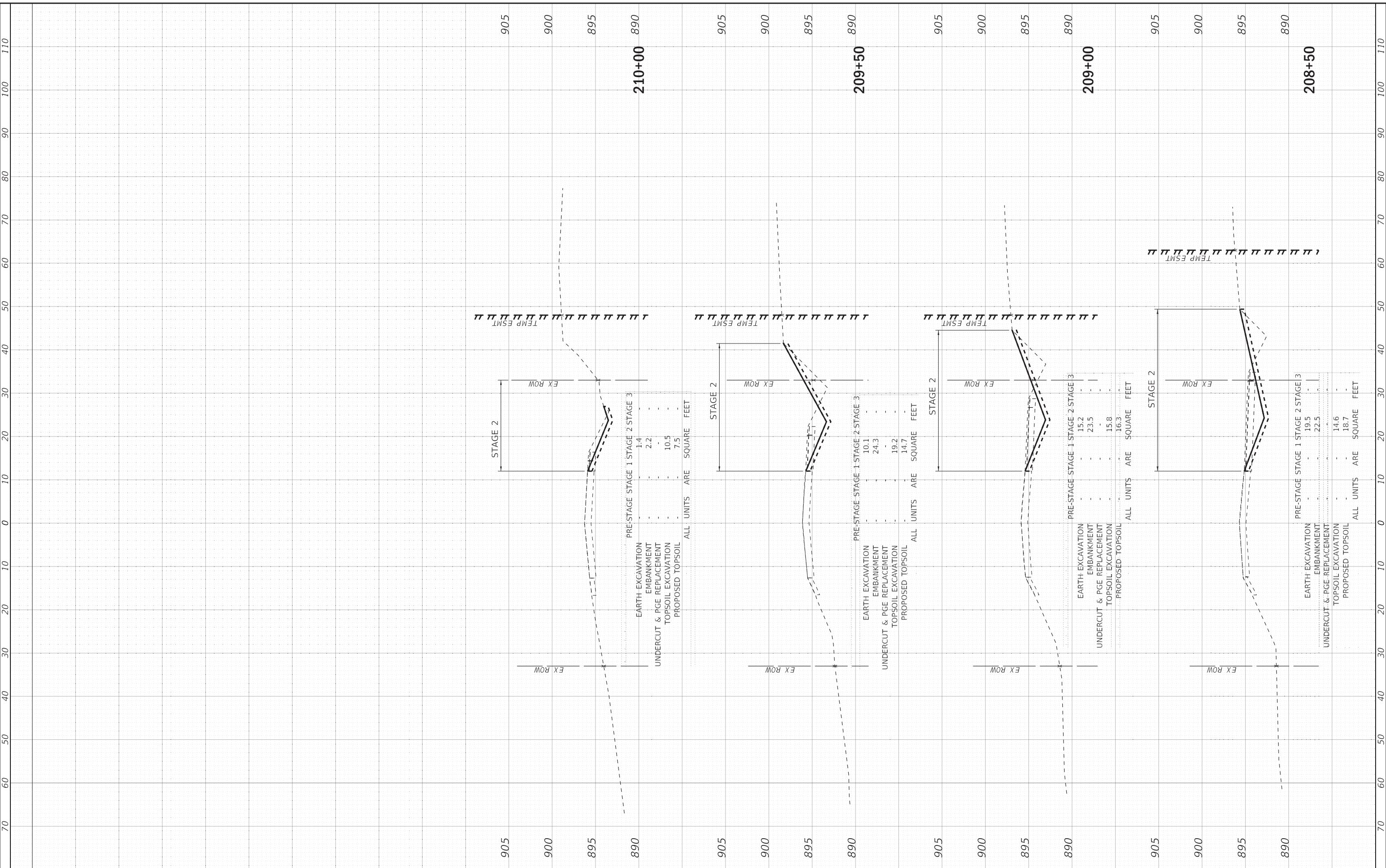


FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	AREAS CHECKED		

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

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USER NAME = 560KAR	DESIGNED - AMW	REVISED -
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PLOT DATE = 1/17/2020	DATE - 01-24-20	FILE - D162D36-sht-xxsht_Marengo_EB.dgn

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

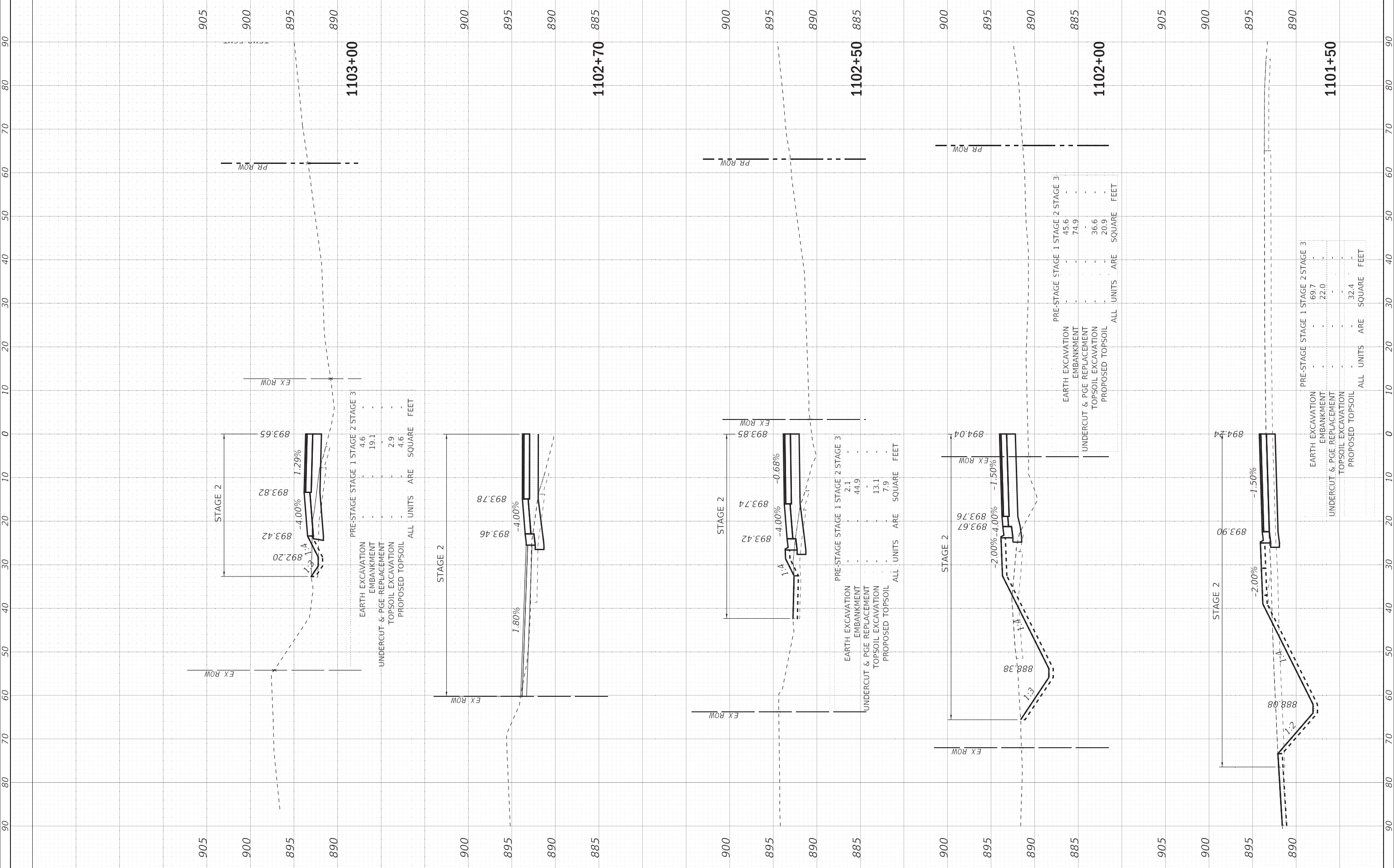
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**MARENGO RD - EB**  
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F.A.P. RTE. 525	SECTION 2016-092B&R	COUNTY MCHENRY	TOTAL SHEETS 329	SHEET NO. 297
ILLINOIS FED. AID PROJECT GW1(759)			CONTRACT NO. 62D36	

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

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

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**BAXTER & WOODMAN**  
Consulting Engineers

USER NAME = 5606AR	DESIGNED - AMW	REVISED -
PLOT SCALE = 10.0000' / in.	DRAWN - CJC	REVISED -
PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
	DATE - 01-24-20	FILE - D162D36-sht-xsst_Marengo_WB.dgn

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: 1"=10';1"=5'	SHEET 5	OF 5 SHEETS	STA. 1101+50 TO STA. 1103+00
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**CROSS SECTIONS  
MARENGO RD - WB**

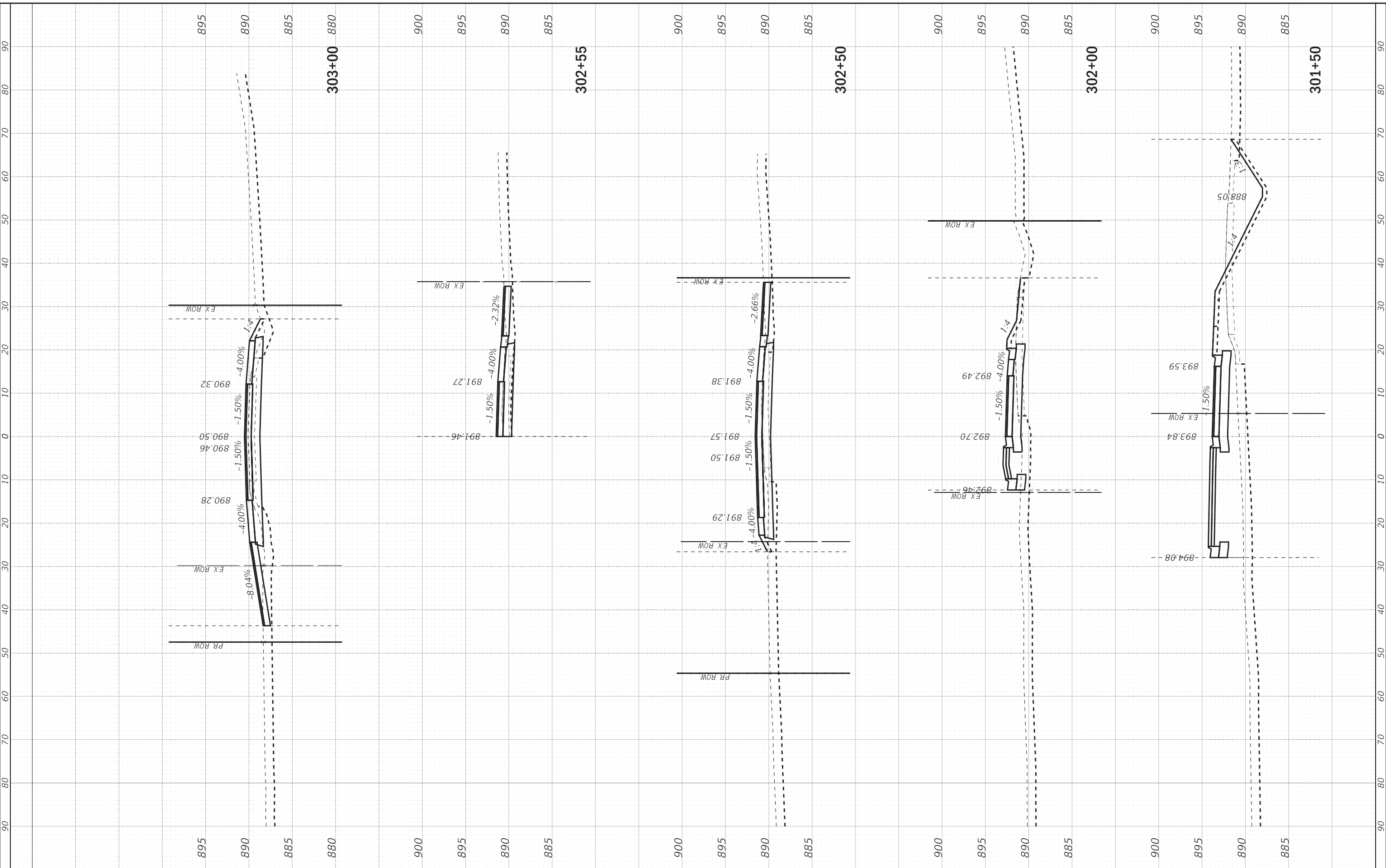
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ILLINOIS FED. AID PROJECT GW1(759)			CONTRACT NO. 62D36	

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

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

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USER NAME = 560KAR	DESIGNED - AMW	REVISED -
PLOT SCALE = 10.0000' / in.	DRAWN - CJC	REVISED -
PLOT DATE = 1/17/2020	CHECKED - JFM	REVISED -
	DATE - 01-24-20	FILE - D162D36-sht-xxsht_SUnion_NB.dgn

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**  
**S UNION RD - NB**

SCALE: 1"=10':1"=5' SHEET 1 OF 2 SHEETS STA. 301+50 TO STA. 303+00

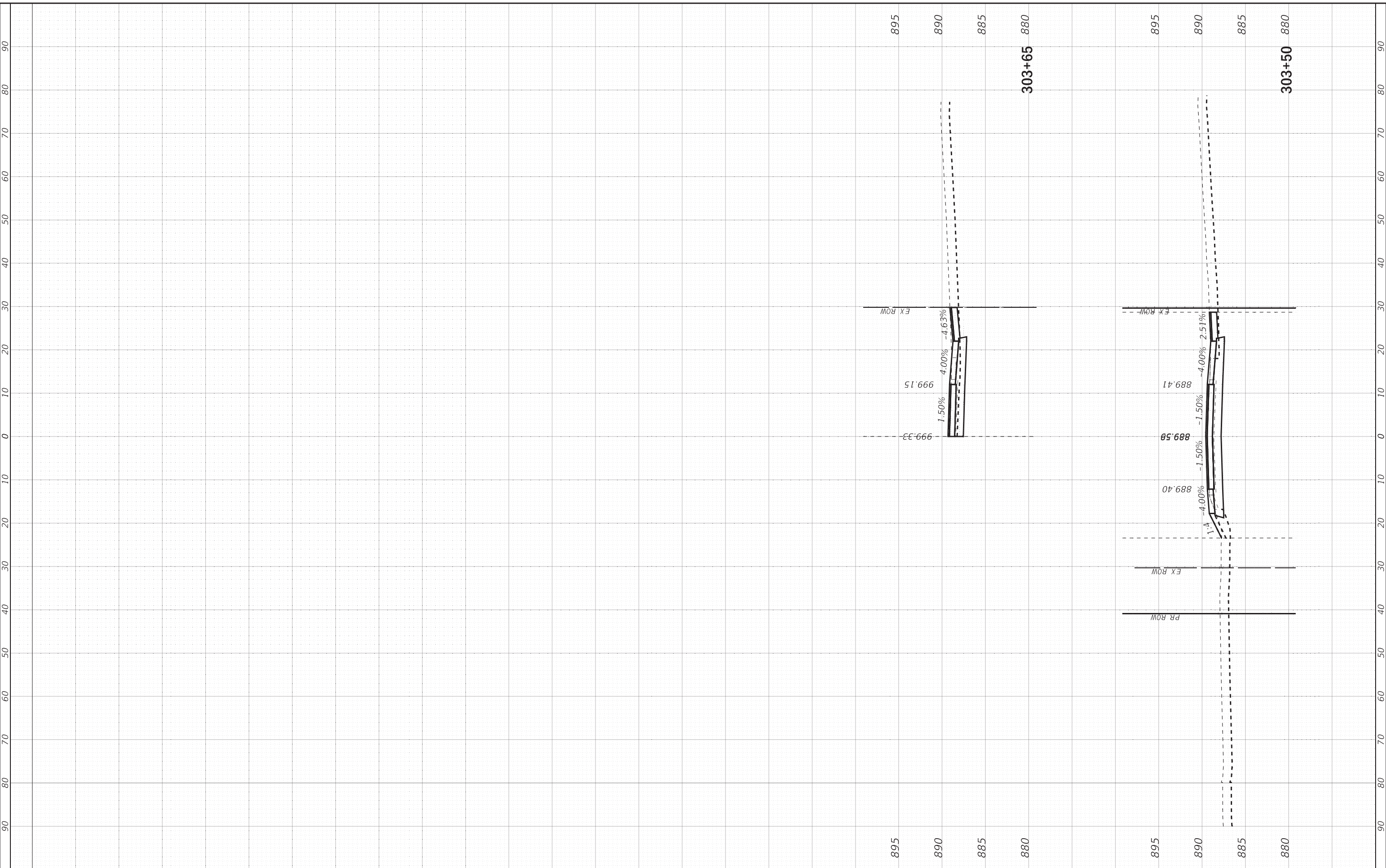
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			CONTRACT NO. 62D36	
ILLINOIS FED. AID PROJECT GMW(759)				

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

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

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USER NAME = 5606AR	DESIGNED - AMW	REVISED -
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**  
**S UNION RD - NB**

SCALE: 1"=10':1"=5' SHEET 2 OF 2 SHEETS STA. 303+50 TO STA. 303+65

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
525	2016-092B&R	MCHENRY	329	300
CONTRACT NO. 62D36				
ILLINOIS FED. AID PROJECT GMW(759)				