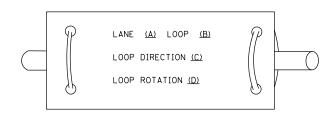
# TRAFFIC SIGNAL LEGEND (NOT TO SCALE)

				(NOT TO BOALL)				
ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET			HANDHOLE -SQUARE			SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD	R (Y) (Y)	R R Y
COMMUNICATION CABINET	ECC	cc	-ROUND HEAVY DUTY HANDHOLE					Y
MASTER CONTROLLER	EMC	MC	-SQUARE -ROUND	H (H)	⊞ ⊕			<b>4</b> G <b>4</b> G P
MASTER MASTER CONTROLLER	ЕММС	ммс	DOUBLE HANDHOLE			SIGNAL HEAD WITH BACKPLATE	(a) (a)	R R R
UNINTERRUPTABLE POWER SUPPLY	<b>4</b>	<b>7</b>	JUNCTION BOX		0	-(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		
SERVICE INSTALLATION -(P) POLE MOUNTED	- <u>-</u> -P	P-	RAILROAD CANTILEVER MAST ARM	$X \longrightarrow X$	X <del>CI X</del>			G G G 4Y 4Y 4G
SERVICE INSTALLATION			RAILROAD FLASHING SIGNAL	<del>∑⊙</del> ∑	¥◆X		P RB	P RB
-(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	$\boxtimes^{G} \boxtimes^{GM}$	$ \square$ $^{G}$ $\square$ $^{GM}$	RAILROAD CROSSING GATE	<del>₹0</del> ₹>	X+X-	PEDESTRIAN SIGNAL HEAD	<b>(P</b> )	•
TELEPHONE CONNECTION	ET	Т	RAILROAD CROSSBUCK	否	*	AT RAILROAD INTERSECTIONS	<b>()</b>	**
STEEL MAST ARM ASSEMBLY AND POLE	0	•——	RAILROAD CONTROLLER CABINET		⋗∢	PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER	© C	<b>₩</b> C ★ D
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL	====	——-			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	o-¤—	•*	TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY	0	<ul> <li>● BM</li> </ul>	SYSTEM ITEM	S	SP	NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE.		
	0	0	INTERSECTION ITEM	I	IP	ALL DETECTOR LOOP CABLE TO BE SHIELDED	<i>&gt;</i>	
WOOD POLE	⊗ >	<b>⊕</b> ≻	REMOVE ITEM		R	GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)	(1#6)	<u> </u>
GUY WIRE SIGNAL HEAD	<i>/</i> -	<b>→</b>	RELOCATE ITEM		RL	ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		
SIGNAL HEAD WITH BACKPLATE	+€>	+-	ABANDON ITEM  CONTROLLER CABINET AND		А		,	
SIGNAL HEAD OPTICALLY PROGRAMMED	_P	→ P + P	FOUNDATION TO BE REMOVED		RCF	COAXIAL CABLE	— <u>c</u>	<u> </u>
FLASHER INSTALLATION	o⊳ <sup>F</sup> o⊳ <sup>FS</sup>	•• FS	MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF	VENDOR CABLE		
-(FS) SOLAR POWERED	o⊳ o⊳ fs	F FS	SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF	COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED	<u>6*18</u>	<del></del>
PEDESTRIAN SIGNAL HEAD	-	-1	DETECTOR LOOP, TYPE I			FIBER OPTIC CABLE -NO. 62.5/125, MM12F	—	—(12F)—
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON	⊚	⊚	PREFORMED DETECTOR LOOP	[P] (P)	РР	-NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		
RADAR DETECTION SENSOR	R	R	SAMPLING (SYSTEM) DETECTOR	$[\underline{s}]$ $(\underline{s})$	s s		—(36F)—	—(36F)—
VIDEO DETECTION CAMERA	V 1	v.¶	INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		IS (IS)		,	_
RADAR/VIDEO DETECTION ZONE			QUEUE AND SAMPLING (SYSTEM) DETECTOR	[ <u>0</u> 5] ( <u>0</u> \$)	as as	GROUND ROD -(C) CONTROLLER -(M) MAST ARM	<u> </u>	±C ±M ±P ±S
PAN, TILT, ZOOM (PTZ) CAMERA	PTZ	PTZ <b>■</b>	WIRELESS DETECTOR SENSOR	<b>®</b>	<b>®</b>	-(P) POST -(S) SERVICE		
EMERGENCY VEHICLE LIGHT DETECTOR	$\bowtie$	<b>~</b>	WIRELESS ACCESS POINT					
CONFIMATION BEACON	<b>○</b> —(]	•4						
WIRELESS INTERCONNECT	<b>○++  </b>	<b>●-+   </b>						
WIRELESS INTERCONNECT RADIO REPEATER	ERR	RR						

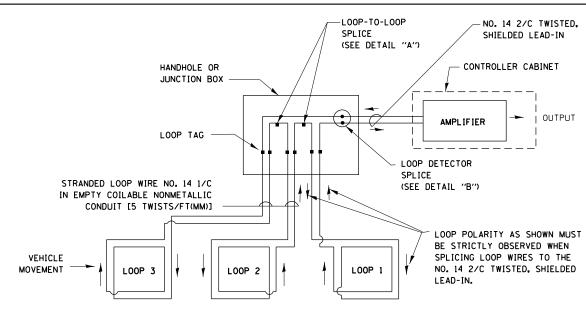
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- 1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- 2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- 3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET. AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- 4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- 5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- 6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- 7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

#### LOOP LEAD-IN CABLE TAG

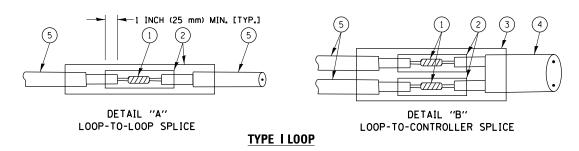


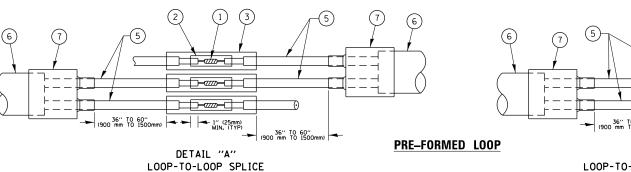
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP \*1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### **DETECTOR LOOP WIRING SCHEMATIC**

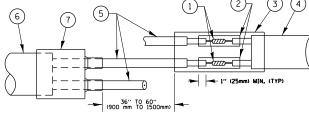
- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE. THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.





#### LOOP DETECTOR SPLICE

- (1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- (2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- (3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.
- (4) NO. 14 2/C TWISTED, SHIELDED CABLE.

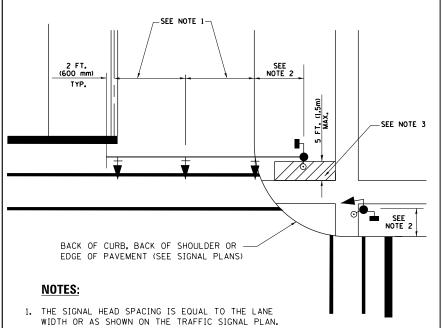


DETAIL "B" LOOP-TO-CONTROLLER SPLICE

- (5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PRE-FORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR TEREAKOUT SEALS. TYCO CBR 2 OR APPROVED EQUA

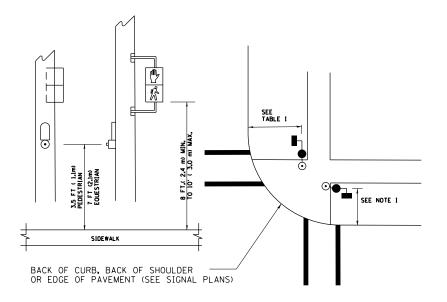
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# TRAFFIC SIGNAL MAST ARM AND SIGNAL POST MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALKBICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



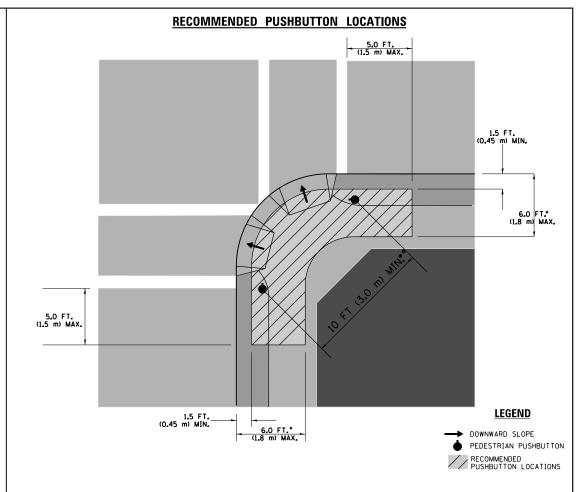
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- 3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST
- 4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
- THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

# PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



#### NOTES:

- 1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- 2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
- 3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
- 4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- \*\* WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

#### NOTES:

- PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK,
- 2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
- 3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
- 4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
- 5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

#### TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)					
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)					
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)					
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)					
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)					
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)					
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.					
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.					

#### NOTES:

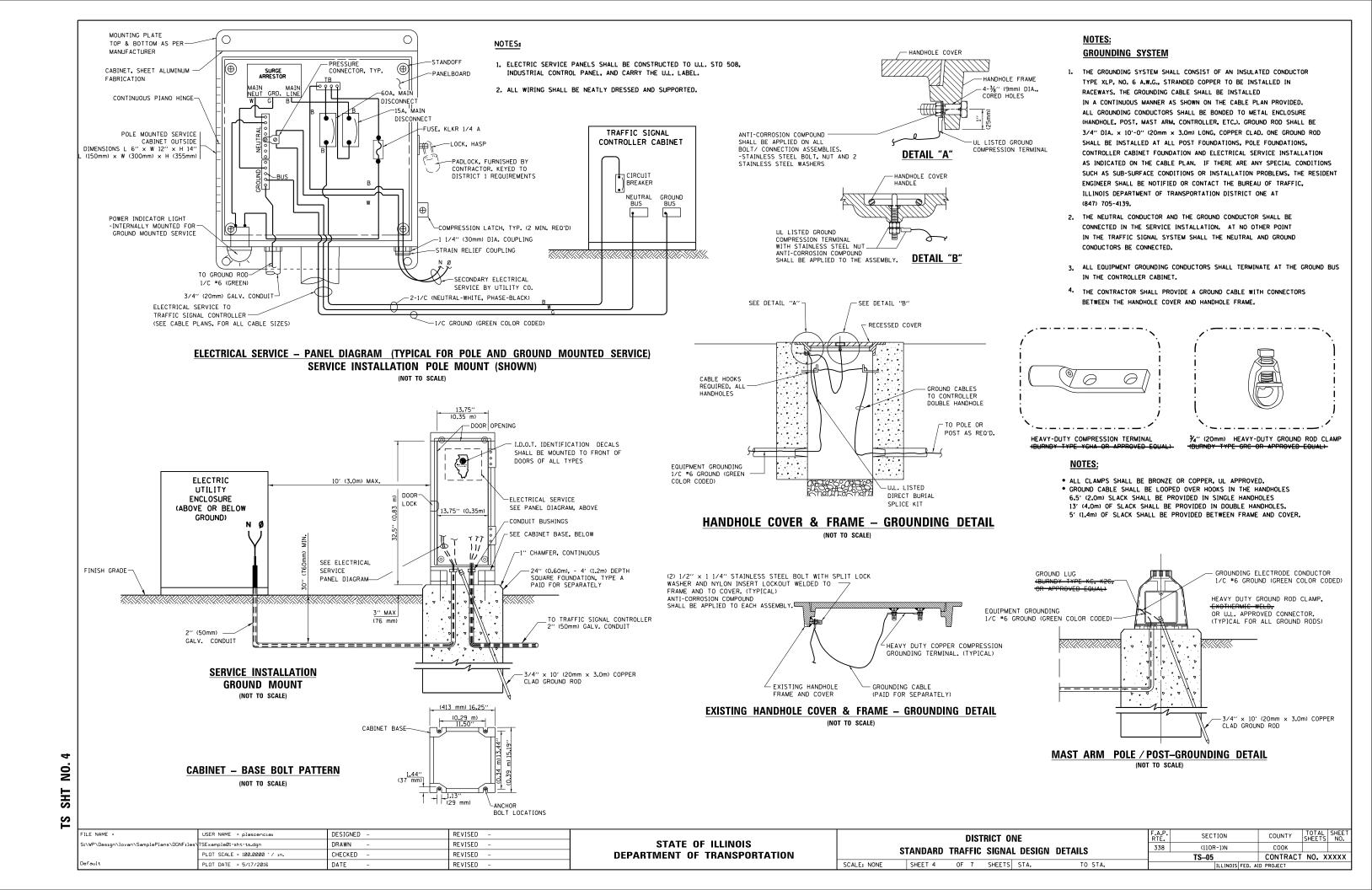
- 1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
- 2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
- 3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TOTHE ROADWAY SIDE OF THE FOUNDATION.
- 4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

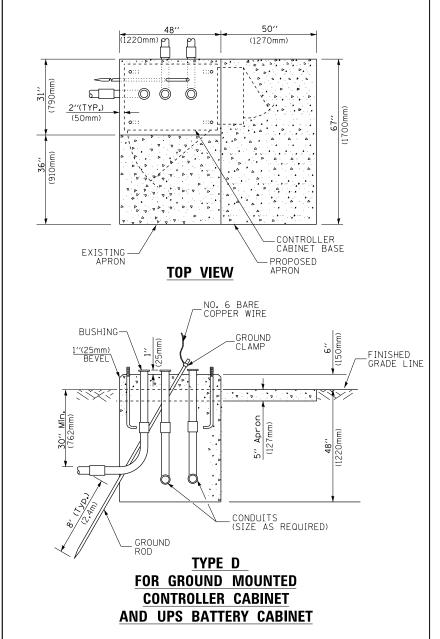
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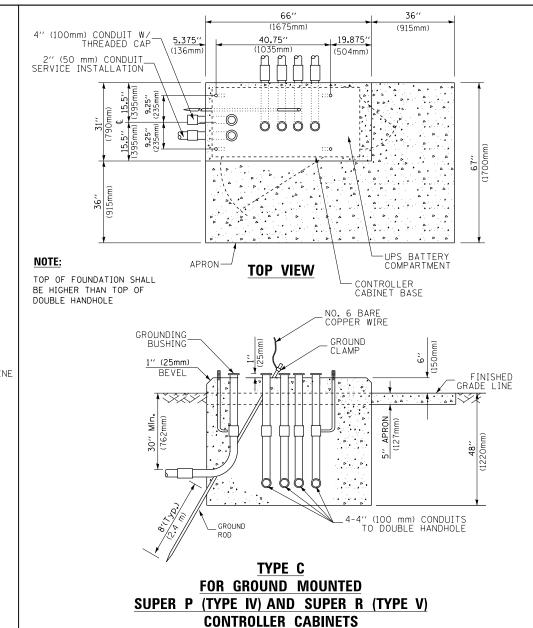
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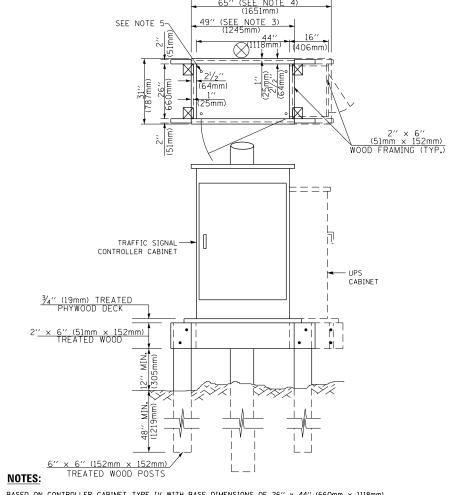
### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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STANDARD TRAFFIC SIGNAL DESIGN DETAILS				TS-05	CONTRACT	NO. X	XXXX			
NONE	SHEET 3	OF 7	SHEETS	STA.	TO STA.		ILLINOIS FED.	AID PROJECT		









- 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

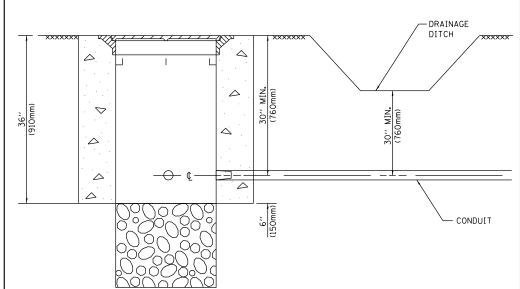
Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30′ (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
30' (9.1 m) and less than 40' (12.2 m)	11'-0'' (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0'' (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0'' (4.6 m)	36'' (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0'' (6.4 m)	42'' (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	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 (Ou) > 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 most 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 most arm assemblies with dual arms refer to state standard 878001..

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

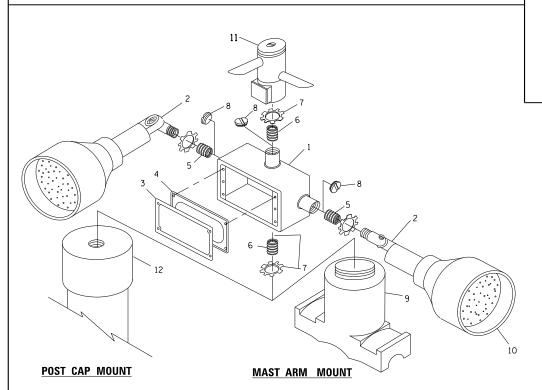
FILE NAME =	USER NAME = plascencia:	DESIGNED -	REVISED -			DISTRICT ONE	F.A.P.	SECTION	COUNTY	TOTAL SHEET
S:\WP\Design\Iovan\SamplePlans	NDGNFiles TSExample01-sht-ts.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS			856	(110R-1)N	соок	STILL IS INC.
	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	;	STANDARD TRAFFIC SIGNAL DESIGN DETAILS	000	TS-05	CONTRACT	NO. XXXXX
Default	PLOT DATE = 5/17/2016	DATE -	REVISED -		SCALE: NONE	SHEET 5 OF 7 SHEETS STA. TO STA.			ID PROJECT	

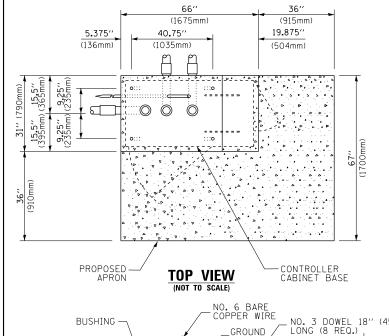


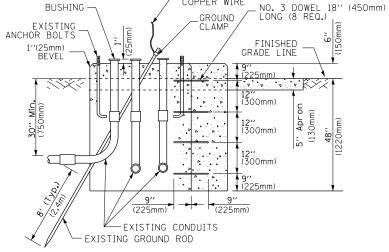
#### NOTES:

- 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)

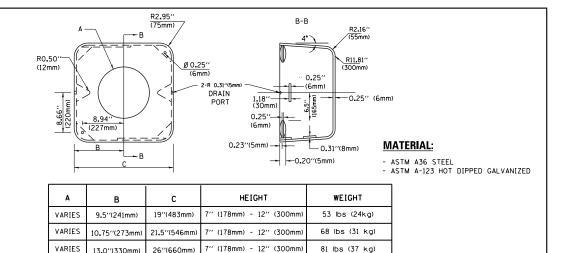






## MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)



126 lbs (57 kg)

#### **SHROUD**

7'' (178mm) - 12'' (300mm

#### NOTES

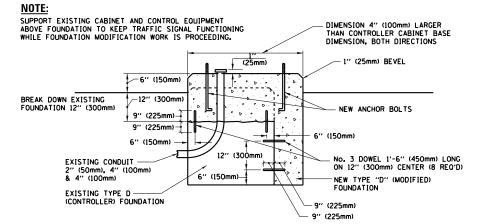
VARIES

18.5"(470mm)

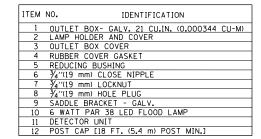
DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD.
THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.

37"(940mm)

- 2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS, AND FOUNDATION DIAMETER.
- 3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



### MODIFY EXISTING TYPE "D" FOUNDATION



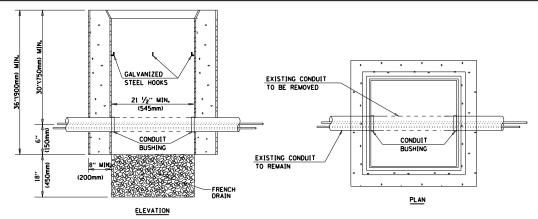
#### **NOTES**

- 1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR
- 2. ITEM \*1 OZ/GEDNEY FSX 1 50 OR EQUIVALENT

  ITEM \*2 MULBERRY CON O SHADE LAMP SHIELD OR EQUIVALENT

  LITEM \*80 "PAND IT" SADDLE BRACKET OR EQUIVALENT
- POST CAP MOUNT

  MAST ARM MOUNT



#### NOTE

SCALE: NONE

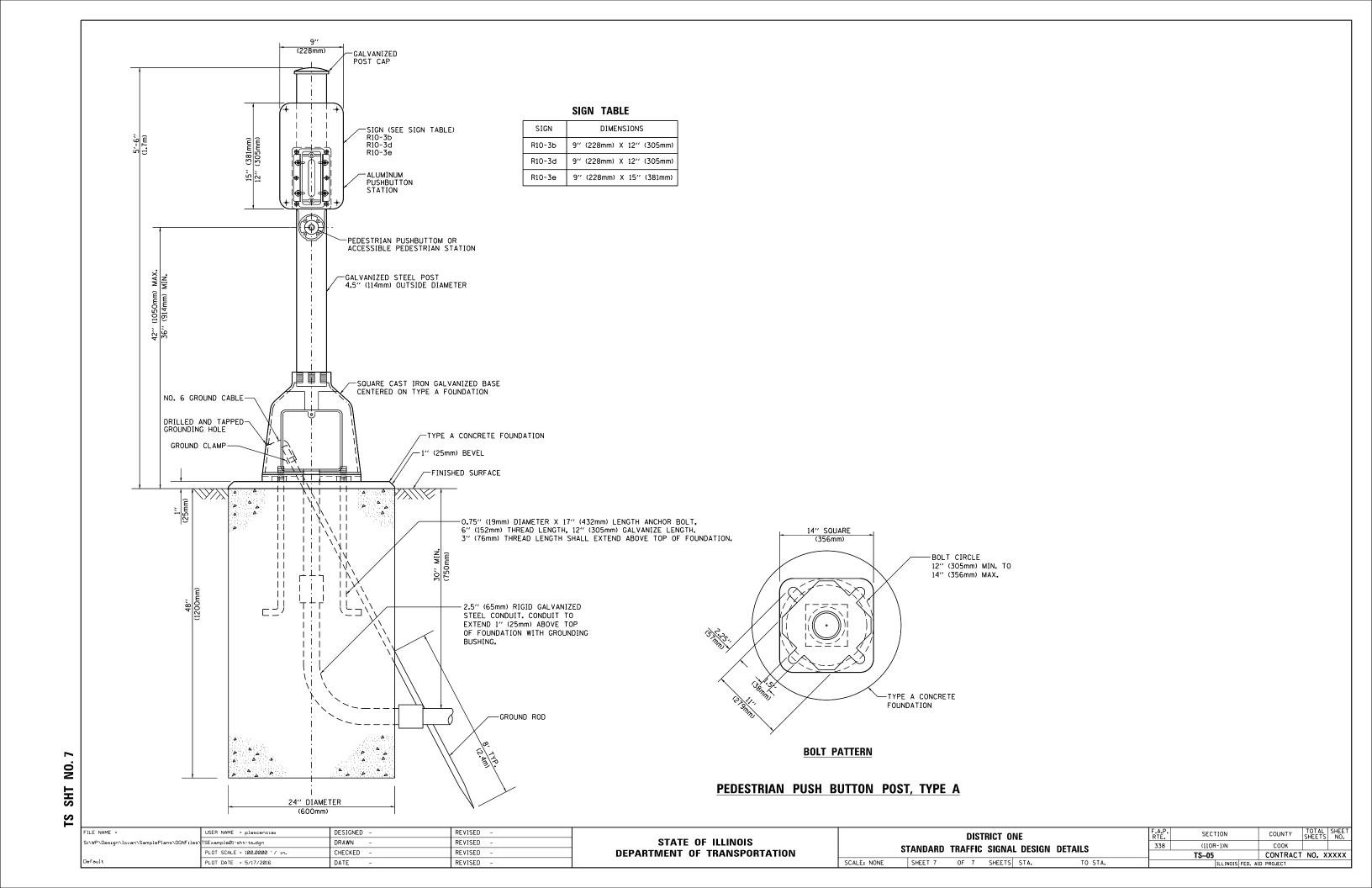
- 1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- 2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

#### HANDHOLE TO INTERCEPT EXISTING CONDUIT

FILE NAME =	USER NAME = plascencia:	DESIGNED -	REVISED -	
S:\WP\Design\lovan\SamplePlans\DGNFiles\	TSE×ample0l-sht-ts.dgn	DRAWN -	REVISED -	
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	
Default	PLOT DATE = 5/17/2016	DATE -	REVISED -	

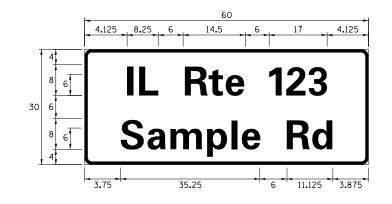
### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

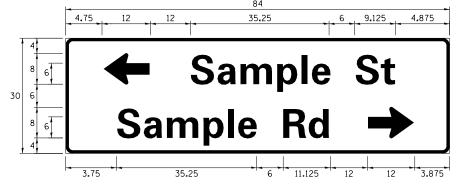
DISTRICT ONE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STANDARD TRAFFIC SIGNAL DESIGN DETAILS		(110R-1)N	COOK		
STANDARD THATTIC SIGNAL DESIGN DETAILS		TS-05	CONTRACT	NO. X	XXXX
SHEET 6 OF 7 SHEETS STA. TO STA.		TILLINOIS FED. AT	D PROJECT		



#### SIGN PANEL – TYPE 1 OR TYPE 2

# 3.75 35.25 6 11.125 3.875 Sample Rd





DESIGN	AREA	SIGN PANEL	SHEETING	QTY.
SERIES	(SQ FT)	TYPE	TYPE	REQUIRED
D OR C	-	1 OR 2	ZZ	

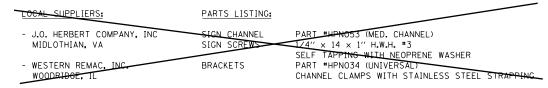
ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

## COMMON STREET NAME ABBREVIATIONS AND WIDTHS

NAME	ABBREVATION	WIDTH (INCH)		
NAME	ADDREVATION	SERIES "C"	SERIES "D"	
AVENUE	Ave	15.000	18.250	
BOULEVARD	Blvd	17.125	20.000	
CIRCLE	Cir	11.125	13.000	
COURT	C†	8. 250	9.625	
DRIVE	Dr	8.625	10.125	
HIGHWAY	Hwy	18.375	22.000	
ILLINOIS	ΙL	7.000	8.250	
LANE	Ln	9.125	10.750	
PARKWAY	Pkwy	23.375	27. 375	
PLACE	PT	7. 125	7. 750	
ROAD	Rd	9.625	11.125	
ROUTE	Rte	12.625	14.500	
STREET	S†	8.000	9.125	
TERRACE	Ter	12.625	14.625	
TRAIL	Tr	7. 750	9.125	
UNITED STATES	US	10.375	12.250	

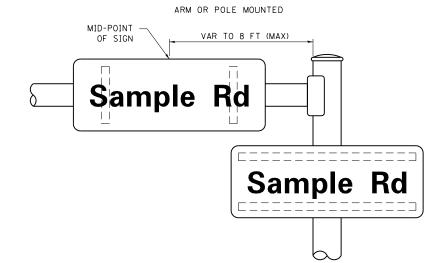
#### **GENERAL NOTES**

- 1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- 2. ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
- 3. THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-O". ALL BORDERS SHALL BE ₹4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- 4. A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-O" IN WIDTH, IF SERIES "D" DOES NOT FIT ON A 8"-O" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-O" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
- 5. LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- 6. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

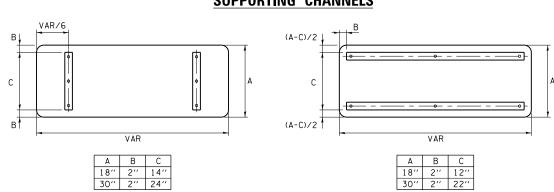


OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

#### **MOUNTING LOCATION**



#### **SUPPORTING CHANNELS**



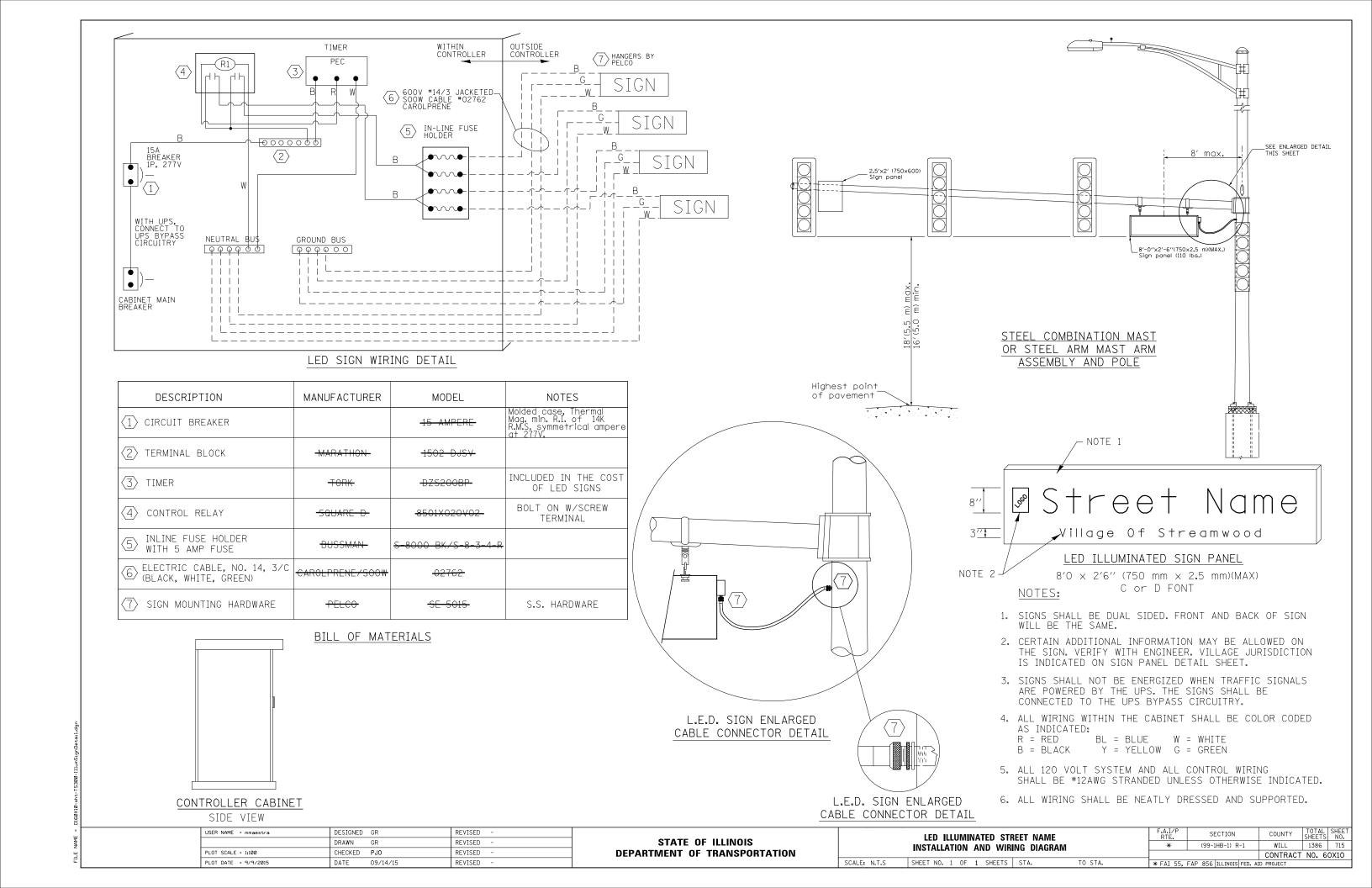
SCALE:

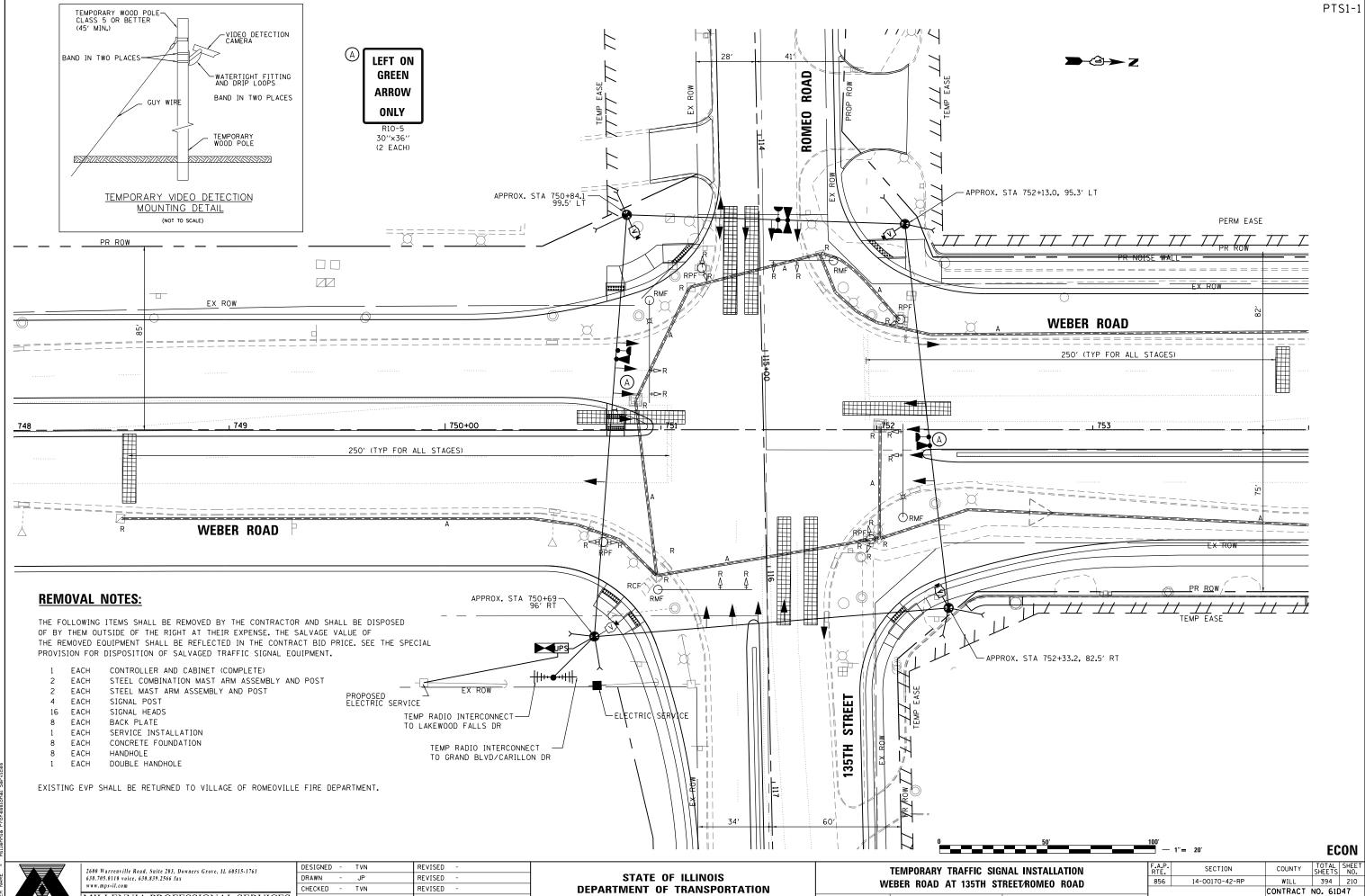
#### STANDARD ALPHABETS SPACING CHART

(8") UPPER CASE AND (6") LOWER CASE

FHWA SERIES "C"				FHWA SERIES "D"			
CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACIN (INCH)
Α	0.240	5, 122	0.240	Α	0.240	6.804	0.240
В	0.880	4.482	0.480	В	0.960	5.446	0.400
C	0.720	4.482	0.720	c	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
Н	0.880	4.482	0.880	Н	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	К .	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M N	0.880	5.284	0.880	M N	0.960	6.244	0.960
0	0.880 0.720	4.482 4.722	0.880 0.720	0	0.960 0.800	5. 446 5. 684	0.960
P	0. 120	4.482	0.720	P	0.960	5.446	0.240
o .	0.720	4.722	0.720	à	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5. 446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
٧	0.240	4.962	0.240	٧	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
Χ	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
Ь	0.720 0.480	4.082 4.002	0.480	Ь	0.800	4.802 4.722	0.480
c d	0.480	4.002	0.720	c d	0.480	4. 802	0. 800
e	0.480	4.082	0. 720	e	0.480	4. 722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	ĥ	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
- 1	0.720	1.120	0.720	I	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7. 926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
0	0.480	4.082	0.480	0	0.480	4.882	0.480
P	0.720	4.082	0.480	P	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720 0.320	2. 642 3. 362	0.160	r	0.800 0.320	3. 042 3. 762	0.160
t = 1	0.080	2. 882	0.080	†	0.320	3. 202	0.080
u	0.640	4.082	0.720	u	0.720	4. 722	0.800
v	0.160	4. 722	0.160	v	0.160	5.684	0.160
w	0.160	7. 524	0.160	w	0.160	9.046	0.160
×	0.000	5. 202	0.000	×	0.000	6. 244	0.000
У	0.160	4.962	0.160	У	0.160	6.004	0.160
Z	0.240	3. 362	0.240	Z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8 9	0.480	4.482 4.482	0.480	8	0.800	5. 446 5. 446	0.800
0	0.480	4.482	0.480	0	0.800	5. 684	0.800
-	0. 720	2.802	0.120	-	0.800	2.802	0. 240
	0.270	2.002	0.270		0.270	2.002	0.270

#### 





SCALE: 1"-20' SHEET NO. OF SHEETS STA.

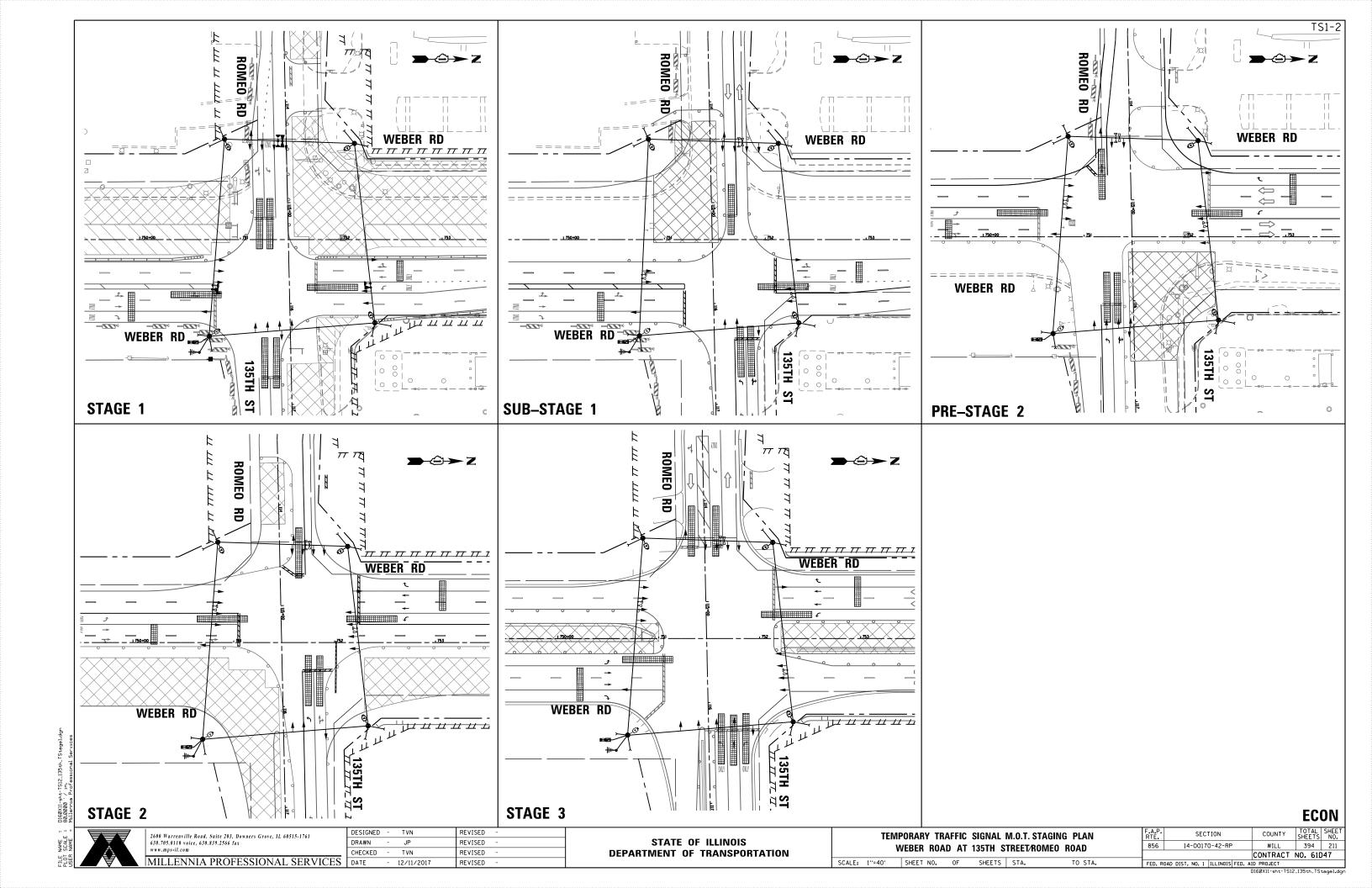
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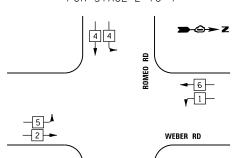
FILE NAME = PLOT SCALE = USER NAME =

MILLENNIA PROFESSIONAL SERVICES

- 12/11/2017

REVISED





88

### **LEGEND**

→ SINGLE ENTRY PHASE **→ O** DUAL ENTRY PHASE ▼ OL OVERLAP

→(•)→ PEDESTRIAN PHASE

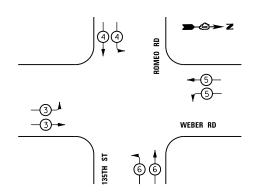
# 4 4 WEBER RD 88

FOR STAGE 1
PROVIDE SPLIT PHASING NORTHBOUND

TEMPORARY CONTROLLER SEQUENCE

FOR STAGE 1 (SPLIT PHASING)

#### TEMPORARY EMERGENCY **VEHICLE PREEMPTION SEQUENCE**



#### TRAFFIC SIGNAL **ELECTRICAL SERVICE REQUIREMENTS**

	NO. OF	LED	%	TOTAL
TYPE	LAMPS	WATTAGE	OPERATION	WATTAGE
SIGNAL (RED)	20	11	50	110.0
(YELLOW)	20	20	5	20.0
(GREEN)	20	12	45	108.0
ARROW	8	10	10	8.0
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	-	-	-	-
			TOTAL =	521.0

ENERGY COSTS TO:

WILL COUNTY DIVISION OF TRANSPORTATION 16841 W. LARAWAY ROAD

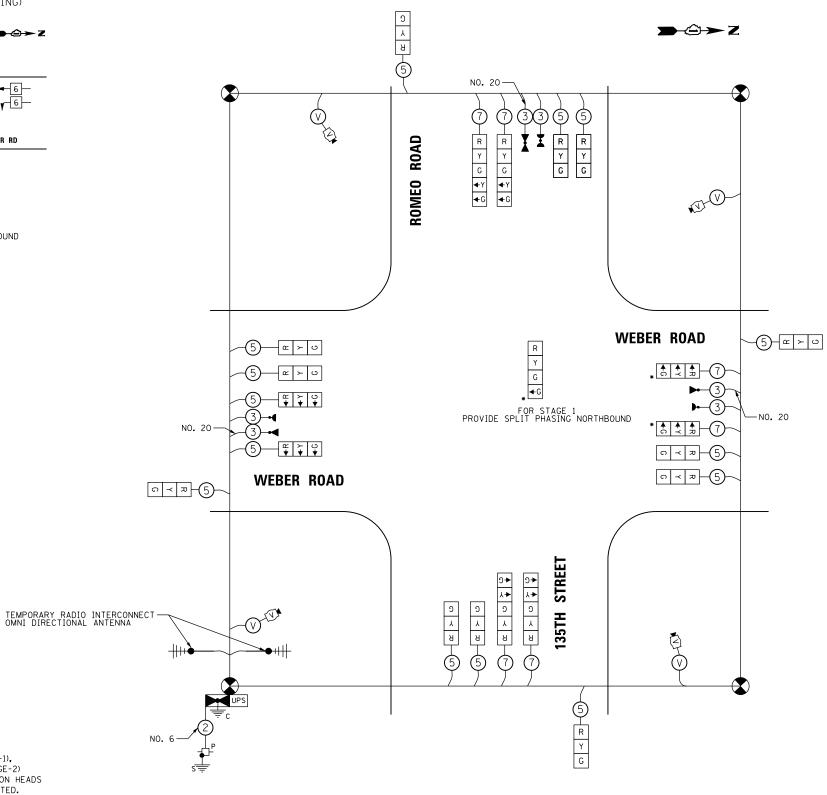
JOLIET, IL 60433

ENERGY SUPPLY - CONTACT: TIM COSLET
PHONE: 815-724-5010
COMPANY: COMMONWEATH EDISON

ACCOUNT NUMBER:

### NOTE:

NORTHBOUND WEBER RD (STAGE-1 AND SUB STAGE-1), ROMEO RD (SUB STAGE-1, PRE STAGE-2, AND STAGE-2) HAS NO LEFT TURN LANE. THE FAR SIDE 3-SECTION HEADS FOR ROMEO RD SHALL BE BAGGED AND DISCONNECTED.



**TEMPORARY CABLE PLAN** 

**ECON** 

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761 630.705.0110 voice, 630.839.2566 fax www.mps-il.com

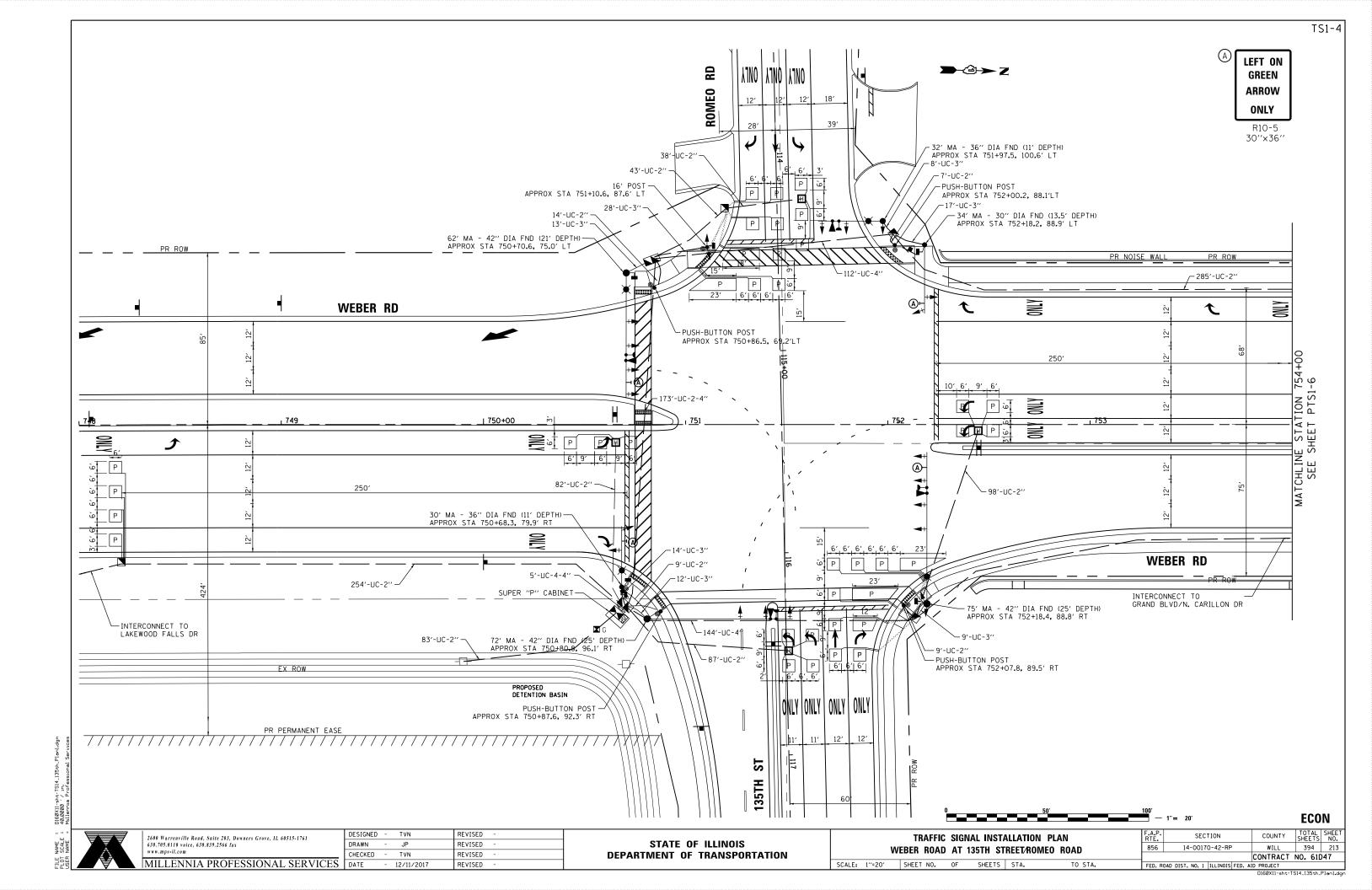
MILLENNIA PROFESSIONAL SERVICES

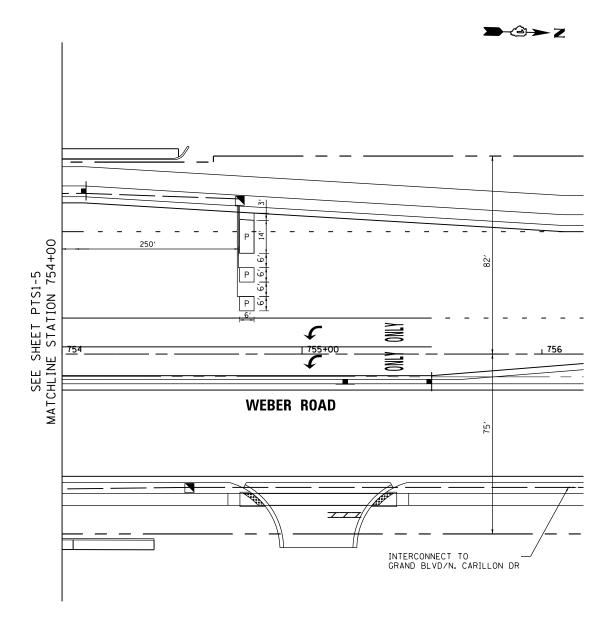
	DESIGNED -	-	TVN	REVISED	-
	DRAWN -	-	JP	REVISED	-
_	CHECKED -	-	TVN	REVISED	-
S	DATE -	-	12/11/2017	REVISED	-

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

TEMPORARY TRAFFIC SIGNAL CABLE PLAN AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE WEBER ROAD AT 135TH STREET/ROMEO ROAD SHEET NO. OF SHEETS STA.

SECTION 856 14-00170-42-RP WILL 394 212 CONTRACT NO. 61D47 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT





**ECON** 

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761 630.705.0110 voice, 630.839.2566 fax www.mps-il.com

DESIGNED - TVN REVISED DRAWN - JP REVISED CHECKED - TVN REVISED MILLENNIA PROFESSIONAL SERVICES DATE - 12/11/2017 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

TRAFFIC SIGNAL INSTALLATION PLAN WEBER ROAD AT 135TH STREET/ROMEO ROAD SCALE: 1"=20" SHEET NO. OF SHEETS STA.

SECTION 856 14-00170-42-RP FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT

**→**②→ Z

PROPOSED INTERCONNECT
TO GRAND BLVD/CARILLON DR

-NO 14. TRACER CABLE

7) 4 5 5

\* SEE LIGHTING PLAN FOR ADDITIONAL INFORMATION

WEBER RD

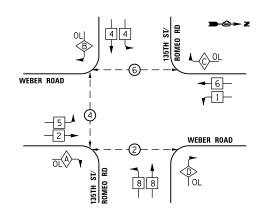
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G Y**→** G**→** 

#### PROPOSED CONTROLLER SEQUENCE



#### **LEGEND**

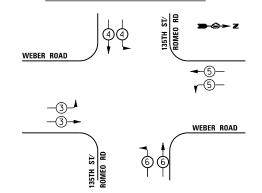
◆ SINGLE ENTRY PHASE

→ DUAL ENTRY PHASE

OVERLAP

→ PEDESTRIAN PHASE

### PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



#### **RIGHT TURN OVERLAP** PHASE DESIGNATION

OVERLAP <u>LETTER</u>		PERMISSIVE PHASE		PROTECTED PHASE
Α	=	2	+	8
В	=	4	+	5
С	=	6	+	4
D	=	8	+	1

### TRAFFIC SIGNAL **ELECTRICAL SERVICE REQUIREMENTS**

	NO. OF	LED	/.	TOTAL	
TYPE	LAMPS	WATTAGE	OPERATION	WATTAGE	
SIGNAL (RED)	22	11	50	121.0	
(YELLOW)	22	20	5	22.0	
(GREEN)	26	12	45	140.4	
ARROW	16	10	10	16.0	
PED. SIGNAL	6	20	100	120.0	
CONTROLLER	1	100	100	100.0	
UPS	1	25	100	25.0	
VIDEO SYSTEM	-	150	100	1	
BLANK-OUT SIGN	-	25	5	-	
FLASHER	-	-	50	-	
STREET NAME SIGN	4	120	50	240.0	
LUMINAIRE	-	ı	-	-	
			TOTAL =	784.4	

ENERGY COSTS TO:

WILL COUNTY DIVISION OF TRANSPORTATION

16841 W. LARAWAY ROAD

JOLIET, IL 60433 ENERGY SUPPLY - CONTACT: TIM COSLET

PHONE: 815-724-5010
COMPANY: COMMONWEATH EDISON ACCOUNT NUMBER: ---

UNT NUMBER:		
2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761	DESIGNED - TVN	REVISED -
630.705.0110 voice, 630.839.2566 fax	DRAWN - JP	REVISED -
www.mps-il.com	CHECKED - TVN	REVISED -
MILLENNIA PROFESSIONAL SERVICES	DATE - 12/11/2017	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

-3-1/C NO. 6 GREEN

1/C NO. 10 -

NO. 20

2-P-P-P

WEBER RD

1/C NO. 10

PROPOSED INTERCONNECT

TO LAKEWOOD FALLS DE

NO. 14 TRACER CABLE SUPER "P" CABINET

1/C NO. 6 (GREEN)

<u>2</u>

-(7)- 12 - 0 + 5

CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE WEBER ROAD AT 135TH STREET/ROMEO ROAD SCALE: N/A SHEET NO. OF SHEETS STA.

RD

ROMEO

RD /135TH

**CABLE PLAN** 

(NOT TO SCALE)

NO. 20

G **◆**G

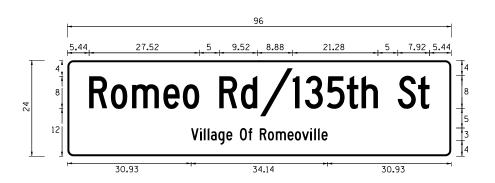
**ECON** SECTION 856 14-00170-42-RP 394 215 CONTRACT NO. 61D47

#### SCHEDULE OF QUANTITIES

	<b>!-</b>	72					
	6.52	2	28.32	8	22.64	6.52	
24	4 + 8	We	ebei	r R	load		
	12		Village 0	f Romeo	ville		
	ļ <del>.</del>	18.93		34.14	18	.93	

ILLUMINATED STREET NAME SIGNS

DESIGN	AREA	OTY.	SIGN
SERIES	(SQ FT)	REQUIRED	WATTAGE
D	12.0	2	60



DESIGN	AREA	OTY.	SIGN
SERIES	(SQ FT)	REQUIRED	WATTAGE
С	16.0	2	

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1009
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	101
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	622
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1096
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2645
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2672
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2866
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2964
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	222
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	666
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 72 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 62 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 75 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	20
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	14
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	22
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	71
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	10
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	17
INDUCTIVE LOOP DETECTOR	EACH	12
PREFORMED DETECTOR LOOP	FOOT	1607
LIGHT DETECTOR	EACH	4
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	6
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	8
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	1082
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1
SIGN PANEL - TYPE 1 (SPECIAL)	SQ FT	30
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON POST, TYPE A	EACH	4
	EACH	1

A = A
A

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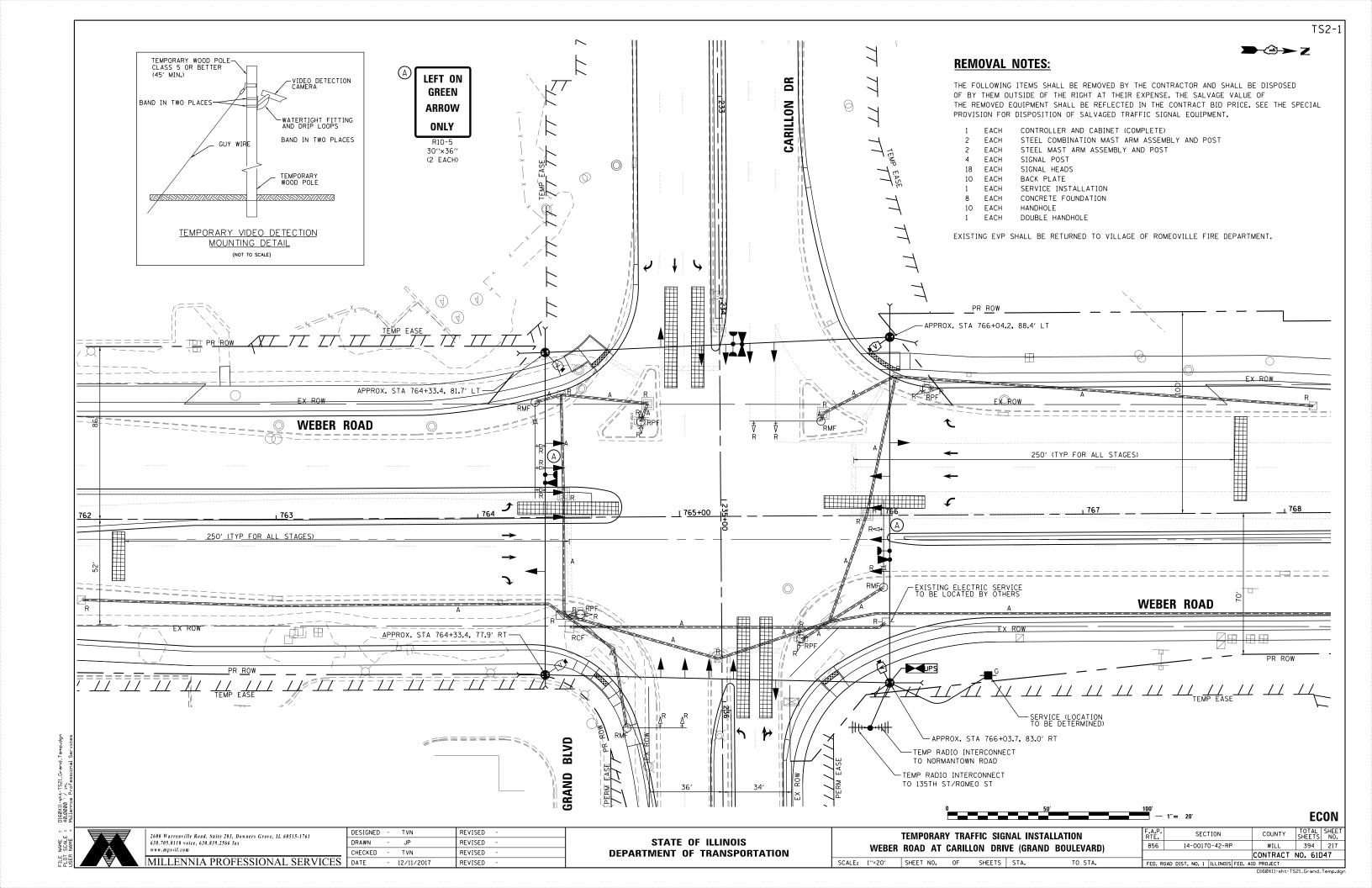
DESIGNED - TVN REVISED DRAWN REVISED CHECKED - TVN REVISED MILLENNIA PROFESSIONAL SERVICES DATE - 12/11/2017 REVISED

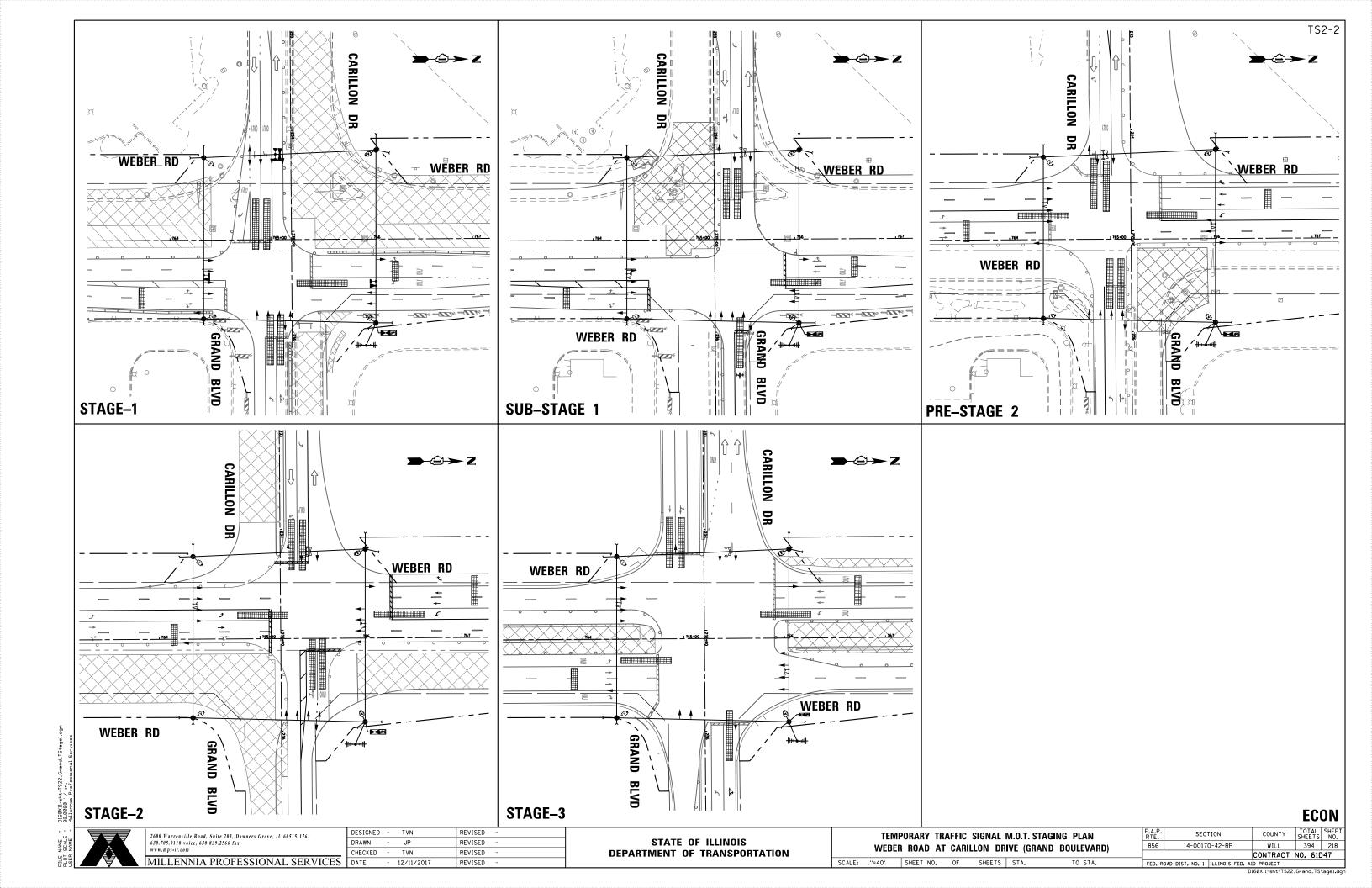
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SCALE:

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TOTAL SHEET NO. 394 216 SECTION 856 14-00170-42-RP CONTRACT NO. 61D47





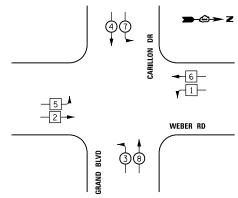
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WEBER ROAD

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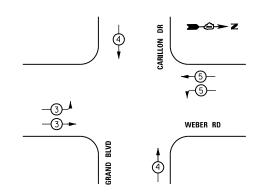
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**▼** SINGLE ENTRY PHASE → DUAL ENTRY PHASE

PEDESTRIAN PHASE

#### TEMPORARY EMERGENCY **VEHICLE PREEMPTION SEQUENCE**



## TRAFFIC SIGNAL

	NO. OF	l LED	/.	TOTAL
TYPE	LAMPS	WATTAGE	OPERATION	WATTAGE
SIGNAL (RED)	20	11	50	110.0
(YELLOW)	20	20	5	20.0
(GREEN)	20	12	45	108.0
ARROW	8	10	10	8.0
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	-	-	-	-
			TOTAL -	E21.0

ENERGY COSTS TO:

WILL COUNTY DIVISION OF TRANSPORTATION

16841 W. LARAWAY ROAD JOLIET, IL 60433

ENERGY SUPPLY - CONTACT: TIM COSLET
PHONE: 815-724-5010
COMPANY: COMMONWEATH EDISON

ACCOUNT NUMBER: ---

2600 Warrenville Road, Suite 203, Downers Grove, 1L 60515-1761 630.705.0110 voice, 630.839.2566 fax www.mps-il.com

MILLENNIA PROFESSIONAL SERVICES

	DESIGNED	-	IVN	KENIZED	-
	DRAWN	-	JP	REVISED	-
_	CHECKED	-	TVN	REVISED	-
S	DATE	-	12/11/2017	REVISED	-

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

TEMPORARY RADIO INTERCONNECT OMNI DIRECTIONAL ANTENNA

TEMPORARY TRAFFIC SIGNAL CABLE PLAN AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE WEBER ROAD AT CARILLON DRIVE (GRAND BOULEVARD) SHEET NO. OF SHEETS STA.

SECTION 856 14-00170-42-RP WILL 394 219 CONTRACT NO. 61D47 FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT

▼ OL OVERLAP

#### **LEGEND**

# FOR STAGE 1 (SPLIT PHASING) 44 FOR STAGE 1 PROVIDE SPLIT PHASING NORTHBOUND

TEMPORARY CONTROLLER SEQUENCE

# **ELECTRICAL SERVICE REQUIREMENTS**

NOTE:

NORTHBOUND WEBER RD (STAGE-1 AND SUB STAGE-1), GRAND BLVD (SUB STAGE-1 AND STAGE-2) HAS NO LEFT TURN LANES. THE FAR SIDE 3-SECTION HEADS SHALL BE BAGGED AND DISCONNECTED.

**TEMPORARY CABLE PLAN** 

-NO. 20

R Y G •G

FOR STAGE 1
PROVIDE SPLIT PHASING NORTHBOUND

**BOULEVARD** 

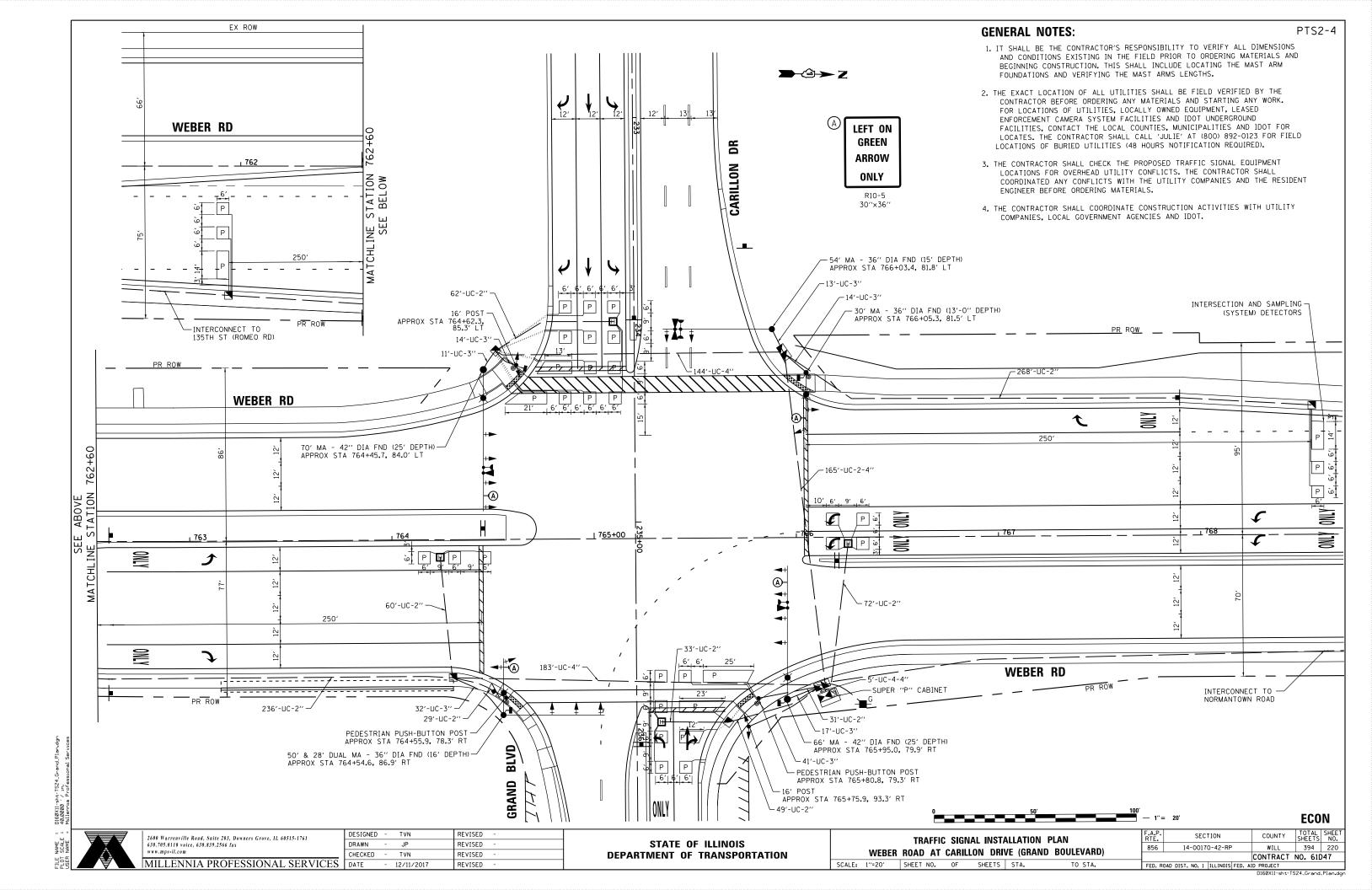
GRAND

CARILLON DRIVE

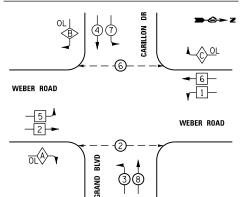
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**WEBER ROAD** 

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#### PROPOSED CONTROLLER SEQUENCE



#### **LEGEND**

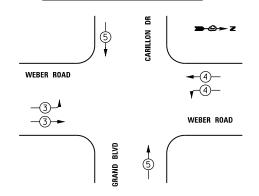
→ SINGLE ENTRY PHASE → DUAL ENTRY PHASE

▼ OL OVERLAP → PEDESTRIAN PHASE

#### **RIGHT TURN OVERLAP** PHASE DESIGNATION

OVERLAP <u>LETTER</u>		PERMISSIVE PHASE		PROTECTED PHASE
А	=	2	+	3
В	=	4	+	5
С	=	6	+	7

#### PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL
<b>ELECTRICAL SERVICE REQUIREMENTS</b>

	NO. OF	LED	%	TOTAL
TYPE	LAMPS	WATTAGE	OPERATION	WATTAGE
SIGNAL (RED)	21	11	50	115.5
(YELLOW)	21	20	5	21.0
(GREEN)	21	12	45	113.4
PERMISSIVE ARROW	20	10	10	20.0
PED. SIGNAL	4	20	100	80.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	4	120	50	240.0
LUMINAIRE	-	-	-	-
			TOTAL =	714.9

ENERGY COSTS TO:

WILL COUNTY DIVISION OF TRANSPORTATION 16841 W. LARAWAY ROAD

JOLIET, IL 60433

ENERGY SUPPLY - CONTACT: TIM COSLET PHONE: 815-724-5010

COMPANY: COMMONWEATH EDISON ACCOUNT NUMBER:

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761 630.705.0110 voice, 630.839.2566 fax www.mps-il.com

MILLENNIA PROFESSIONAL SERVICE

	DESIGNED	-	TVN	REVISED	-
	DRAWN	-	JP	REVISED	-
	CHECKED	-	TVN	REVISED	-
ES	DATE	-	12/11/2017	REVISED	-

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE WEBER ROAD AT CARILLON DRIVE (GRAND BOULEVARD) SCALE: N/A SHEET NO. 30F 3 SHEETS STA.

SECTION 856 14-00170-42-RP WILL 394 221 CONTRACT NO. 61D47

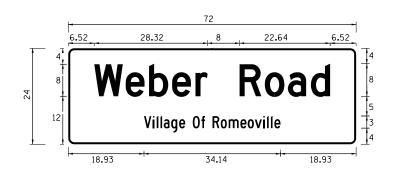
Weber Road DR 3 00 CARILLON (2) $\overline{\bullet}$ Я -1/C NO. 10 RYG -1/C NO. 10 7) 4 5 WEBER RD INTERSECTION AND SAMPLING (SYSTEM) P-P-2-P-P-2-DETECTORS NO. 20 2 P P P WEBER RD PROPOSED INTERCONNECT
TO NORMANTOWN RD 1/C NO. 10 - NO 14. TRACER CABLE GRAND BLVD 1/C NO. 10 -**≯ (**3) R Y G TO 135TH ST (ROMEO RD) -3-1/C NO. 6 GREEN -SUPER "P" CABINET NO. 14 TRACER CABLE -Weber Road ма≑ 1/C NO. 6 (GREEN) **CABLE PLAN** 

(NOT TO SCALE)

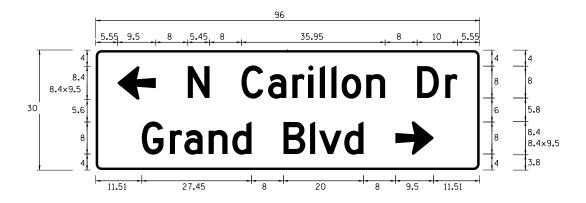
- NO. 6

\* SEE LIGHTING PLAN FOR ADDITIONAL INFORMATION

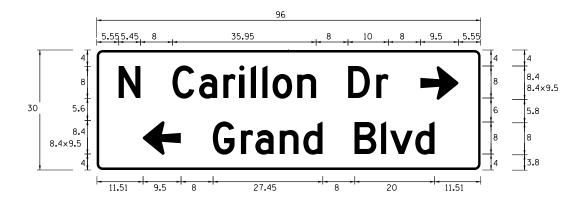
#### **ILLUMINATED STREET NAME SIGNS**



DESIGN	AREA	QTY.	SIGN
SERIES	(SQ FT)	REQUIRED	WATTAGE
D	12.0	2	



DESIGN	AREA	OTY.	SIGN
SERIES	(SQ FT)	REQUIRED	WATTAGE
D	20.0	1	60



DESIGN	AREA	QTY.	SIGN
SERIES	(SQ FT)	REQUIRED	WATTAGE
D	20.0	1	

#### **SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	840
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	142
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	677
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	912
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	3054
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2882
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2785
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3677
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	156
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	786
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 66 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 70 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 28 FT. AND 50 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	44
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	50
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	10
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	7
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	17
INDUCTIVE LOOP DETECTOR	EACH	12
PREFORMED DETECTOR LOOP	FOOT	1471
LIGHT DETECTOR	EACH	4
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	10
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	854
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)		1
SIGN PANEL - TYPE 1 (SPECIAL)		30
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	SQ FT EACH	1
PEDESTRIAN PUSH-BUTTON POST, TYPE A	EACH	2
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

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MILLENNIA PROFESSIONAL SERVICES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS
AND SCHEDULE OF QUANTITIES
WEBER ROAD AT CARILLON DRIVE (GRAND BOULEVARD)

SHEET NO. OF SHEETS STA. TO STA.

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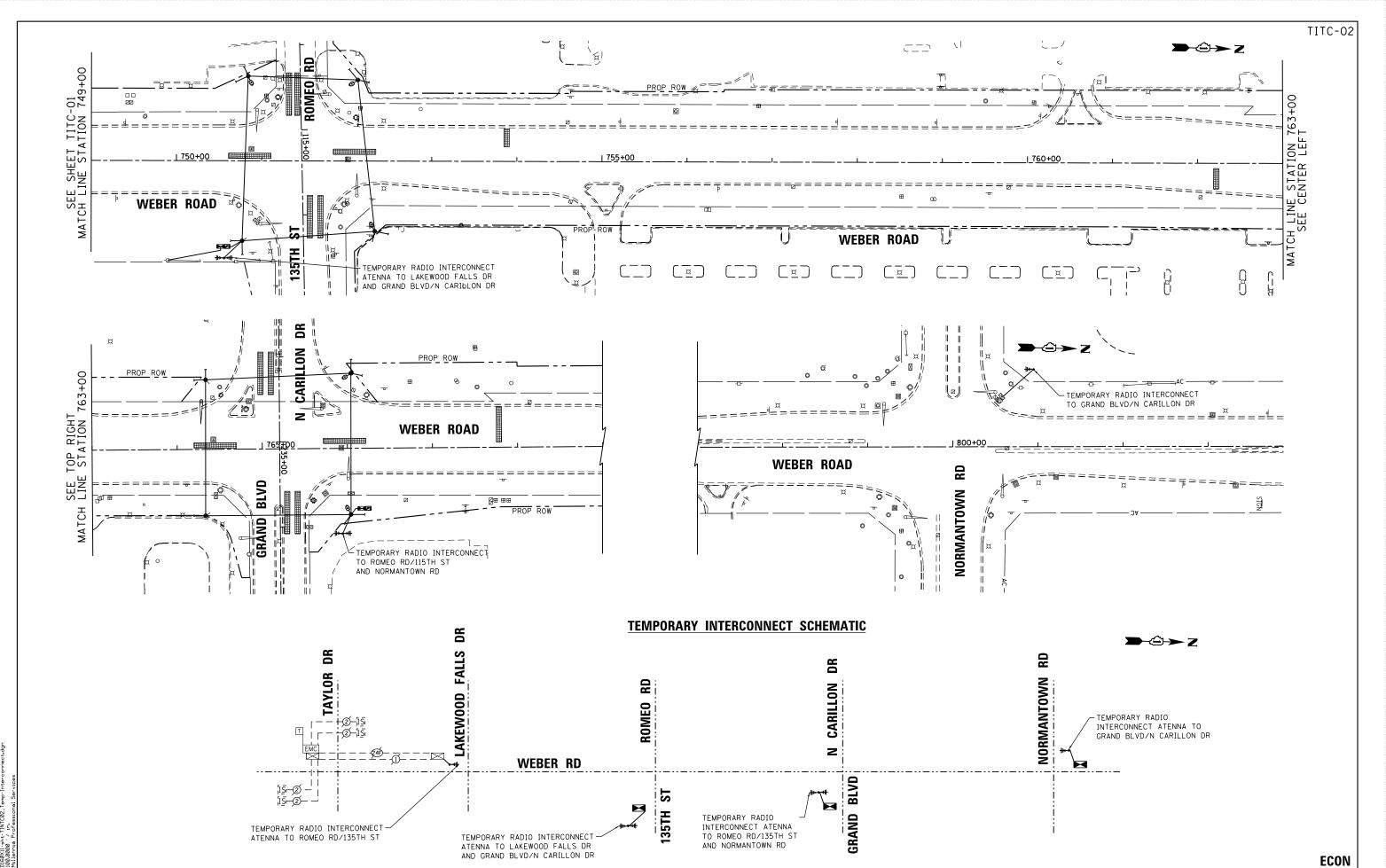
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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SCALE:

TEMPORARY INTERCONNECT PLAN (SHEET 1 OF 2)
LAKEWOOD FALLS DRIVE TO
GRAND BOULEVARD /N CARILLON DRIVE SHEET NO. OF SHEETS STA.

COUNTY | TOTAL SHEETS | NO. | NILL | 394 | 223 | CONTRACT | NO. | 61D47 F.A.P. RTE. 856 SECTION 14-00170-42-RP



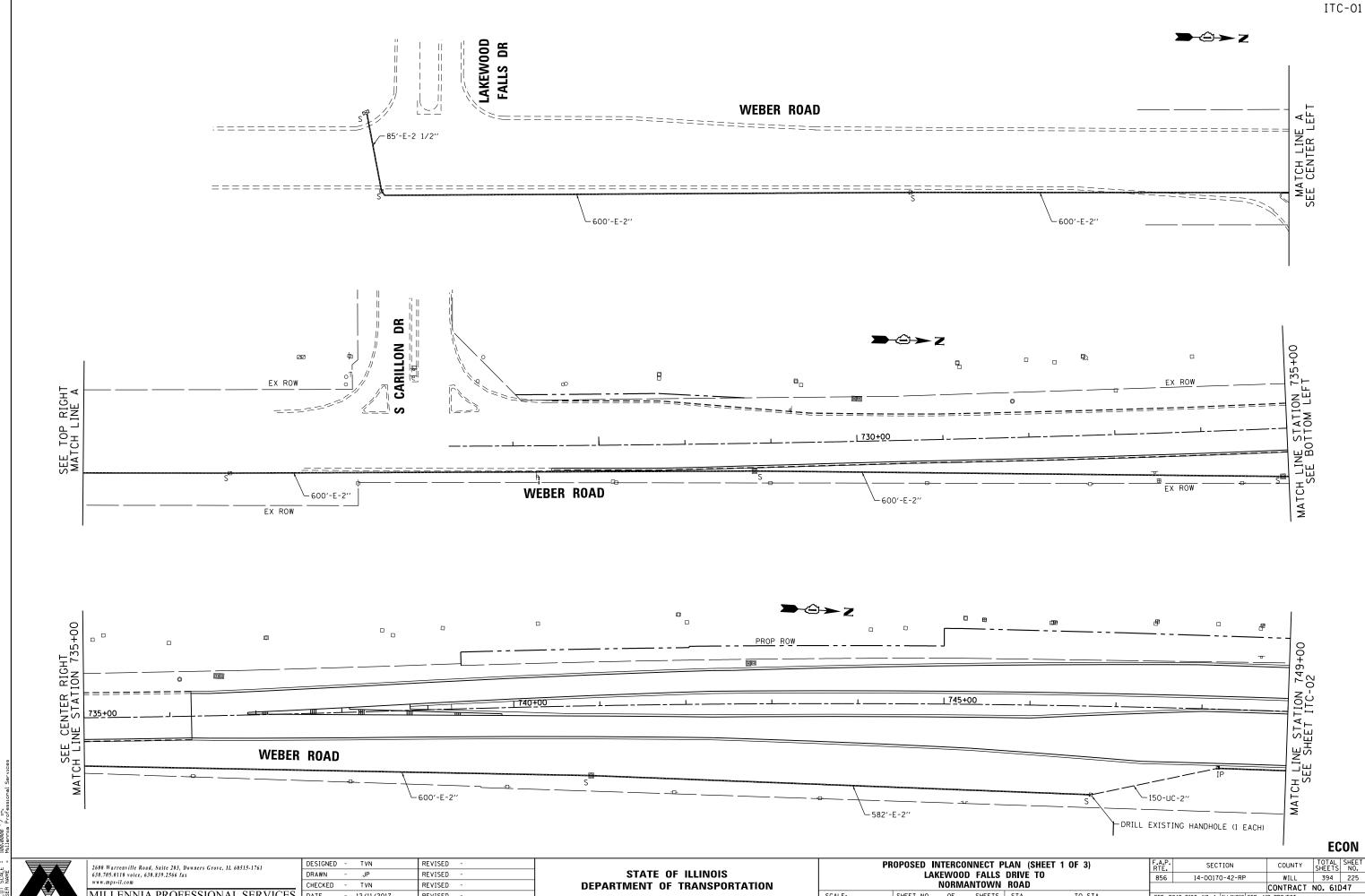
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TVN REVISED DESIGNED -DRAWN REVISED CHECKED REVISED - 12/11/2017

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

TEMPORARY INTERCONNECT PLAN (SHEET 2 OF 2) AND TEMPORARY INTERCONNECT SCHEMATIC LAKEWOOD FALLS DRIVE TO GRAND BOULEVARD /N CARILLON DRIVE SHEET NO. OF SHEETS STA.

TOTAL SHEET SHEETS NO. 394 224 856 14-00170-42-RP CONTRACT NO. 61D47

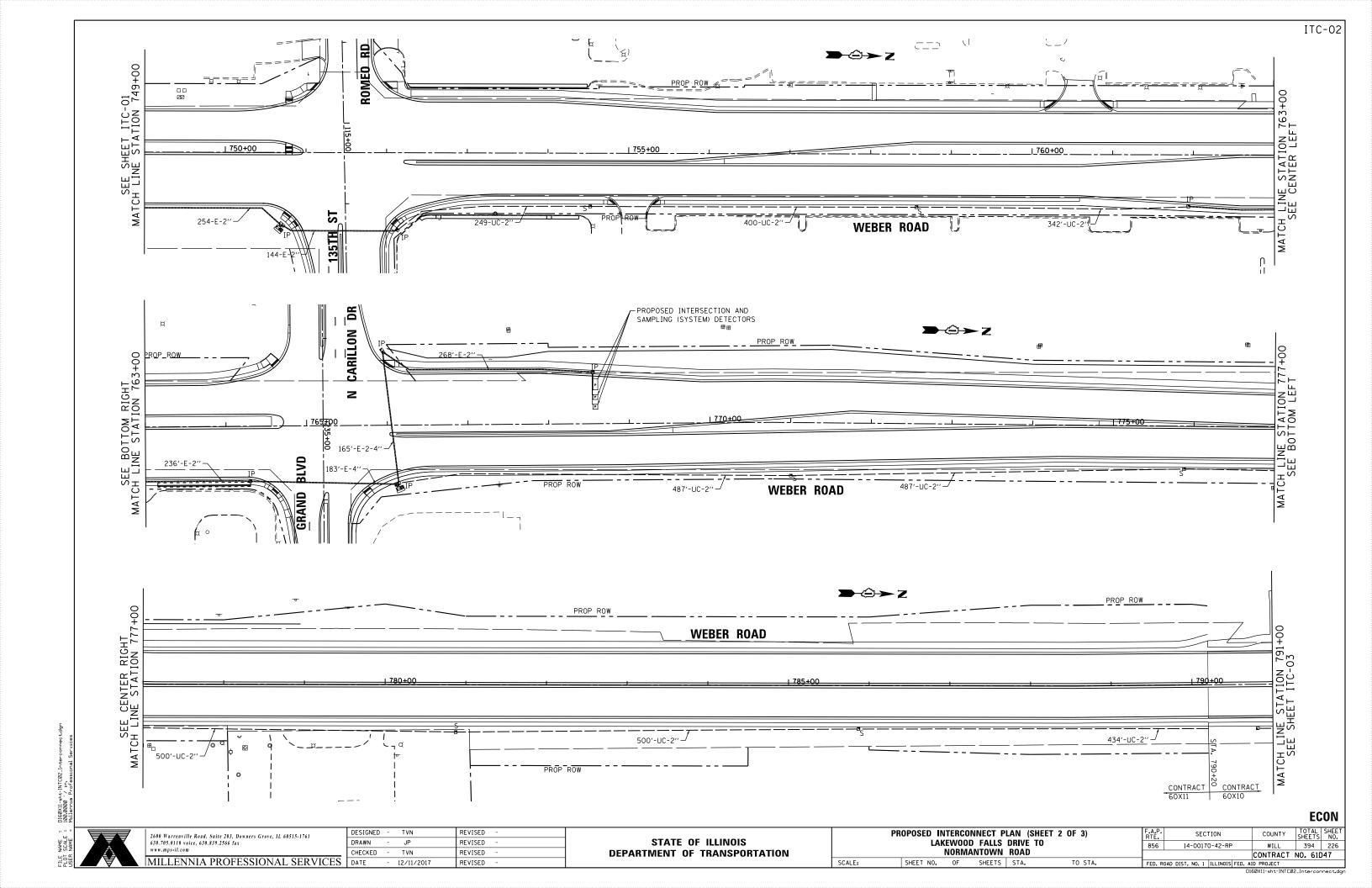


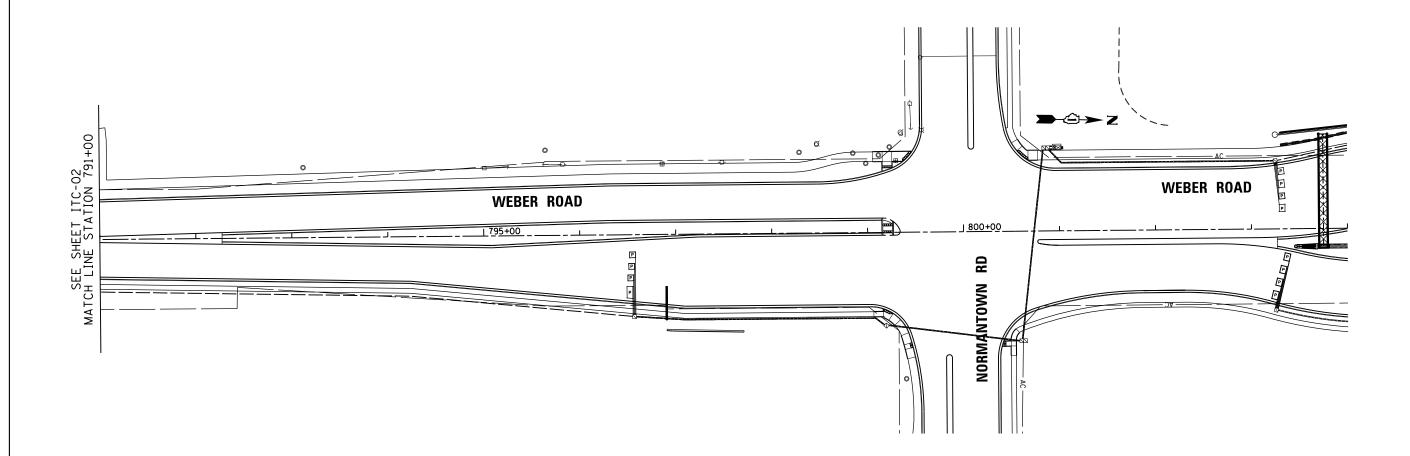
SCALE:

SHEET NO. OF SHEETS STA.

- 12/11/2017

REVISED





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630.705.0110 voice, 630.839.2566 fax
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DATE

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE:

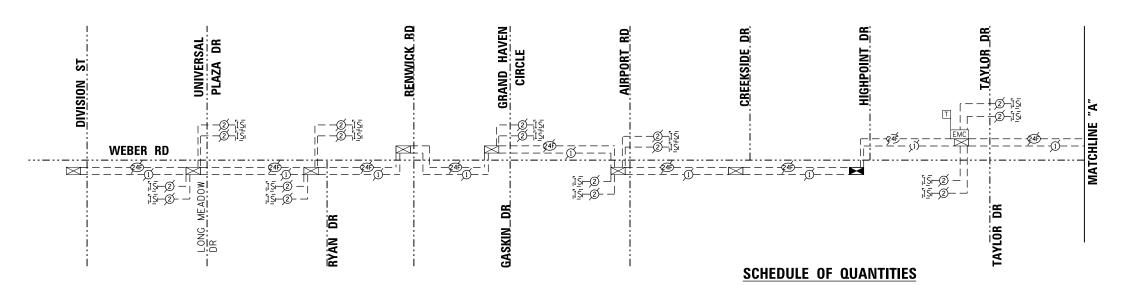
PROPOSED INTERCONNECT PLAN (SHEET 3 OF 3)

LAKEWOOD FALLS DRIVE TO NORMANTOWN ROAD

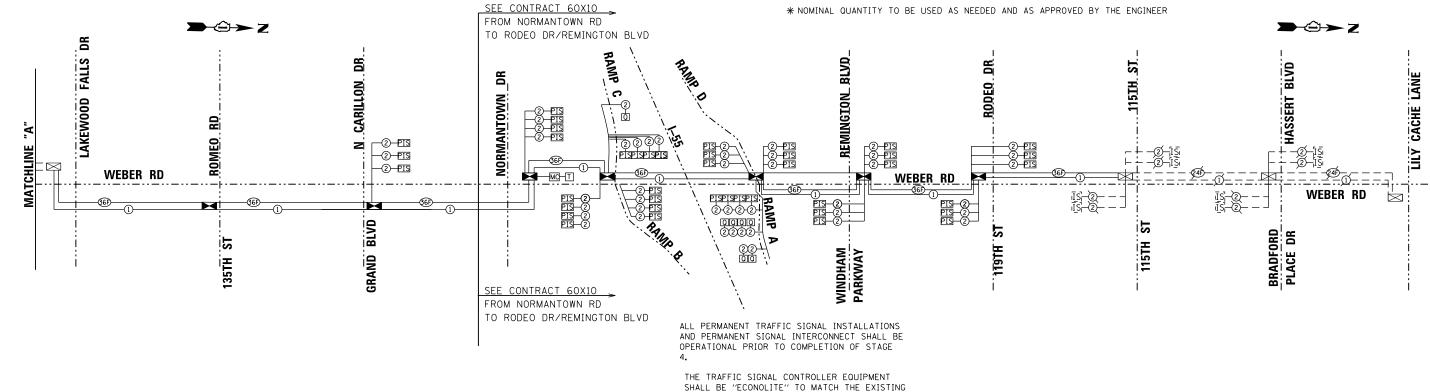
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#### PROPOSED INTERCONNECT SCHEMATIC



_				
	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	3549
	81400100	HANDHOLE	EACH	6
	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
	86400100	TRANSCEIVER - FIBER OPTIC	EACH	1
	87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 141C	FOOT	9720
	87900200	DRILL EXISTING HANDHOLE	EACH	1
	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3672
*	X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	500
	X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	9720
	Z0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1



2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761 630.705.0110 voice, 630.839.2566 fax www.mps-il.com MILLENNIA PROFESSIONAL SERVICES

TVN REVISED DESIGNED -DRAWN REVISED CHECKED REVISED DATE - 12/11/2017 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

ADJACENT SYSTEM.

PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES LAKEWOOD FALLS DRIVE TO NORMANTOWN ROAD SCALE: SHEET NO. OF SHEETS STA.

SECTION 394 228 856 14-00170-42-RP WILL CONTRACT NO. 61D47

#### **GENERAL NOTES:**

- THIS PROJECT INCLUDES THE INSTALLATION OF A NEW LIGHTING SYSTEM AT THE INTERSECTION OF WEBER ROAD AND ROMEO RD./135TH ST. THE PROPOSED LIGHTING SHALL BE OWNED AND MAINTAINED BY THE VILLAGE OF ROMEOVILLE.
- THE CONTRACTOR SHALL REQUEST A FORMAL MAINTENANCE TRANSFER OF EXISTING LIGHTING FROM THE THE VILLAGE OF ROMEOVILLE BEFORE ANY CONSTRUCTION WORK, LIGHTING OR OTHERWISE, BEGINS.
- 3. THE CONTRACTOR SHALL CONTACT JON ZABROCKI (708) 331-6700 AT THE VILLAGE OF ROMEOVILLE TO COORDINATE WORK AT THE EXISTING LIGHTING CONTROLLER AND TO COORDINATE SALVAGE OF LIGHTING UNITS TO BE REMOVED.
- 4. 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.
- 5. THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. TO LOCATE AND MARK/STAKE ALL UNDERGROUND UTILITIES, WITH IN THE PROJECT LIMITS.
- 6. 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 ANY FURTHER WORK.
- 7. ALL LIGHTING RACEWAYS SHALL HAVE A MINIMUM OF 30 INCHES OF COVER.
- 8. LIGHTING SYSTEM INSTALLATION SHALL CONFORM TO THE LATEST IDOT STANDARDS, NEC AND LOCAL CODES.
- 9. ALL ELECTRICAL EQUIPMENT AND PRODUCTS SHALL BE UL LISTED AND LABELED.
- 10. 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.
- 11. THE CONDUIT CROSSING THE ROADWAY SHALL EXTEND 2 FT. BEYOND THE SIDEWALKS.

#### **BILL OF MATERIALS**

DESCRIPTION	UNIT	QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	554
UNIT DUCT, 600V, 3-1C NO. 4, 1/C NO. 6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	1782
AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE	FOOT	1074
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	7
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	8
LIGHT POLE, ALUMINUM, 40 FT. M.H. 15 FT. MAST ARM	EACH	7
LIGHT POLE, WOOD, 60 FOOT, CLASS 3, WITH 15FT MAST ARM	EACH	9
LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	70
BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	7
REMOVAL OF TEMPORARY LIGHTING UNIT	EACH	9
REMOVAL OF LIGHTING UNIT, SALVAGE	EACH	15
REMOVAL OF POLE FOUNDATION	EACH	19
RELOCATE EXISTING LIGHTING UNIT	EACH	4
TEMPORARY LUMINAIRE, HIGH PRESSURE SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	9
REMOVE AND RELOCATE EXISTING LIGTHTING CONTROLLER	EACH	1
LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	7
MAINTENANCE OF LIGHTING SYSTEM	CAL MO	24

#### **LEGEND**

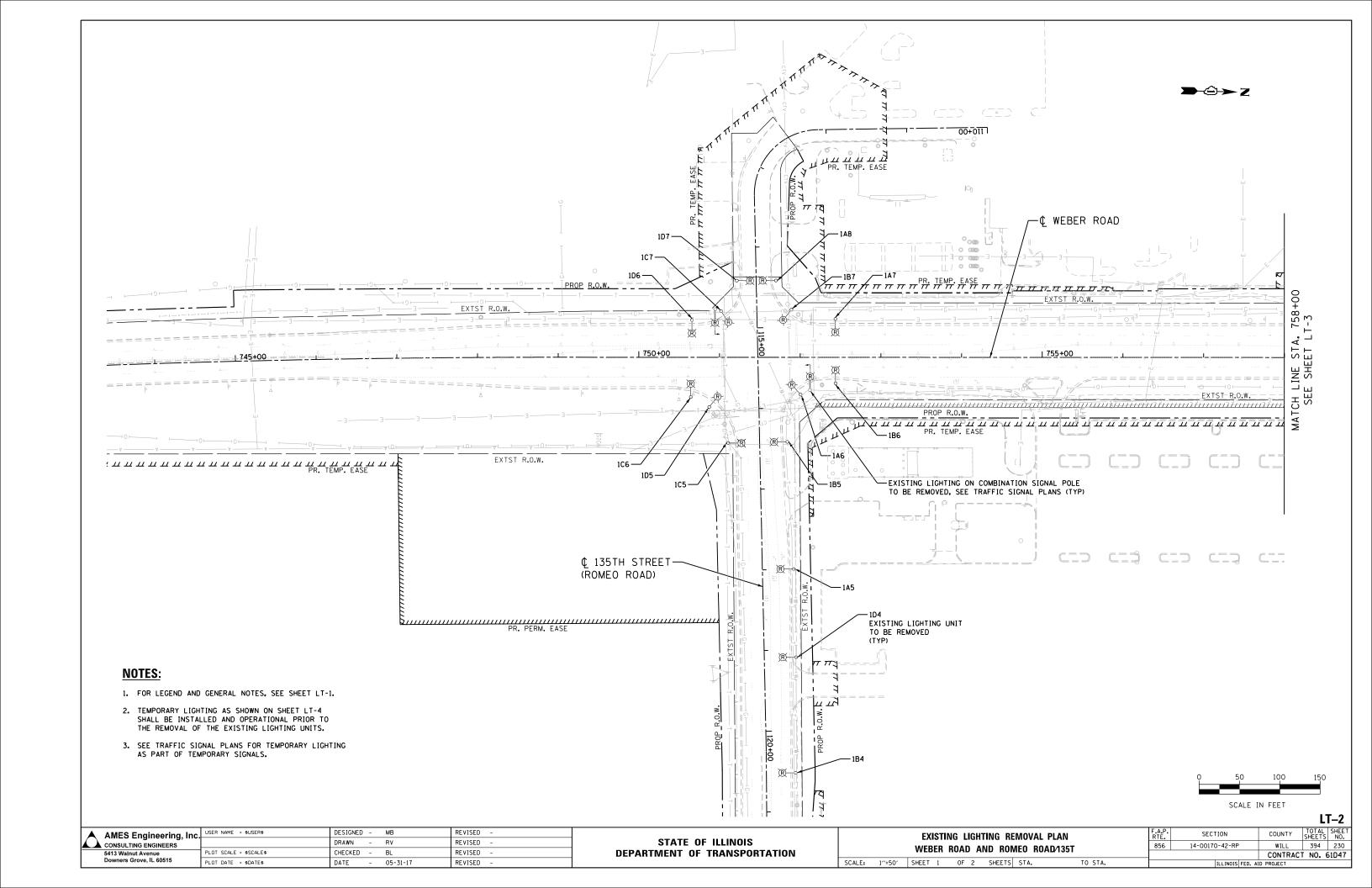
$\sim$	PROPOSED LIGHTING UNIT, 40 FT. MH, 15 FT. MAST ARM 250W, 240V MCIII HPS LUMINAIRE WITH BREAKAWAY DEVICE
$\circ \!$	EXISTING LIGHTING UNIT TO BE REMOVED
<b>M</b> —•— <b>M</b>	EXISTING LIGHTING UNIT TO BE REMOVED AND RELOCATED
$\widetilde{\mathbb{Q}} \hspace{-0.1cm} -\hspace{-0.1cm} \widetilde{\mathbb{Q}}$	RELOCATED LIGHTING UNIT
<b>○</b> ────────────────────────────────────	TEMPORARY WOOD POLE, 50 FT. MH, 15 FT. MAST ARM WITH 400W, 240V MCIII HPS LUMINAIRE
$\circ - \overline{\mathbb{R}} \overline{\hspace{0.1cm}}_{\hspace{0.1cm} \bullet}$	EXISTING COMBINATION SIGNAL/LIGHT POLE TO BE REMOVED
<b>~</b> ₩	PROPOSED COMBINATION SIGNAL/LIGHT POLE, 45 FT. MH, 15 FT. MAST ARM, 400W, 240V MCIII HPS LUMINAIRE
	UNIT DUCT, 600V, 3-1/C #4, 1/C #6 GROUND (XLP-TYPE USE) 1 1/4" DIA. POLYETHYLENE
——— AC ———	- AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE
E3	RIGID GALVANIZED STEEL CONDUIT, 4" DIA. PUSHED OR AS REQUIRED
<del>-</del>	GROUND ROD 5/8" X 10 FT.
⊠ RR	EXISTING LIGHTING CONTROLLER TO BE REMOVED AND RELOCATED
<b>⊠</b> RL	RELOCATED LIGHTING CONTROLLER

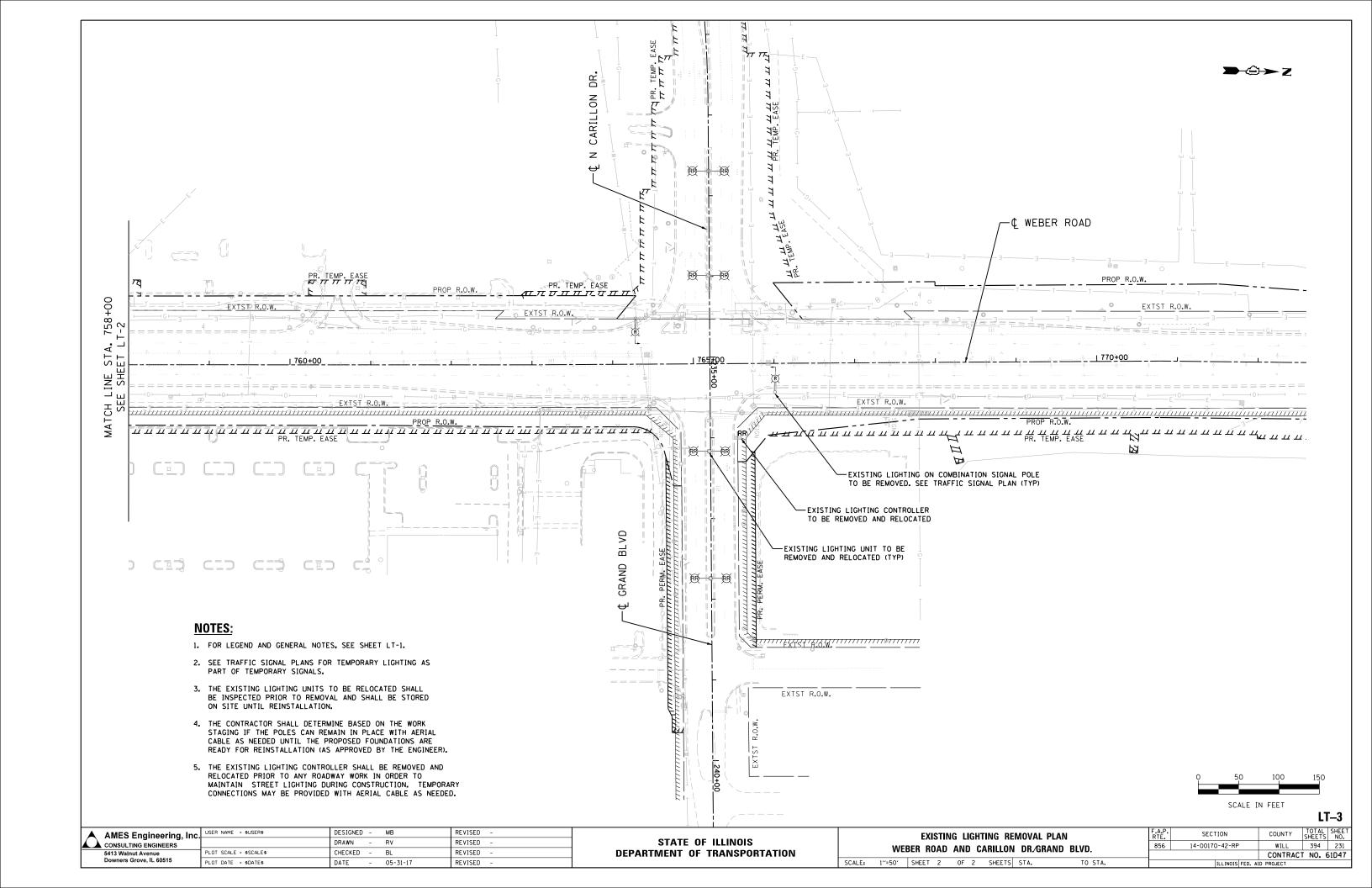
LT-1

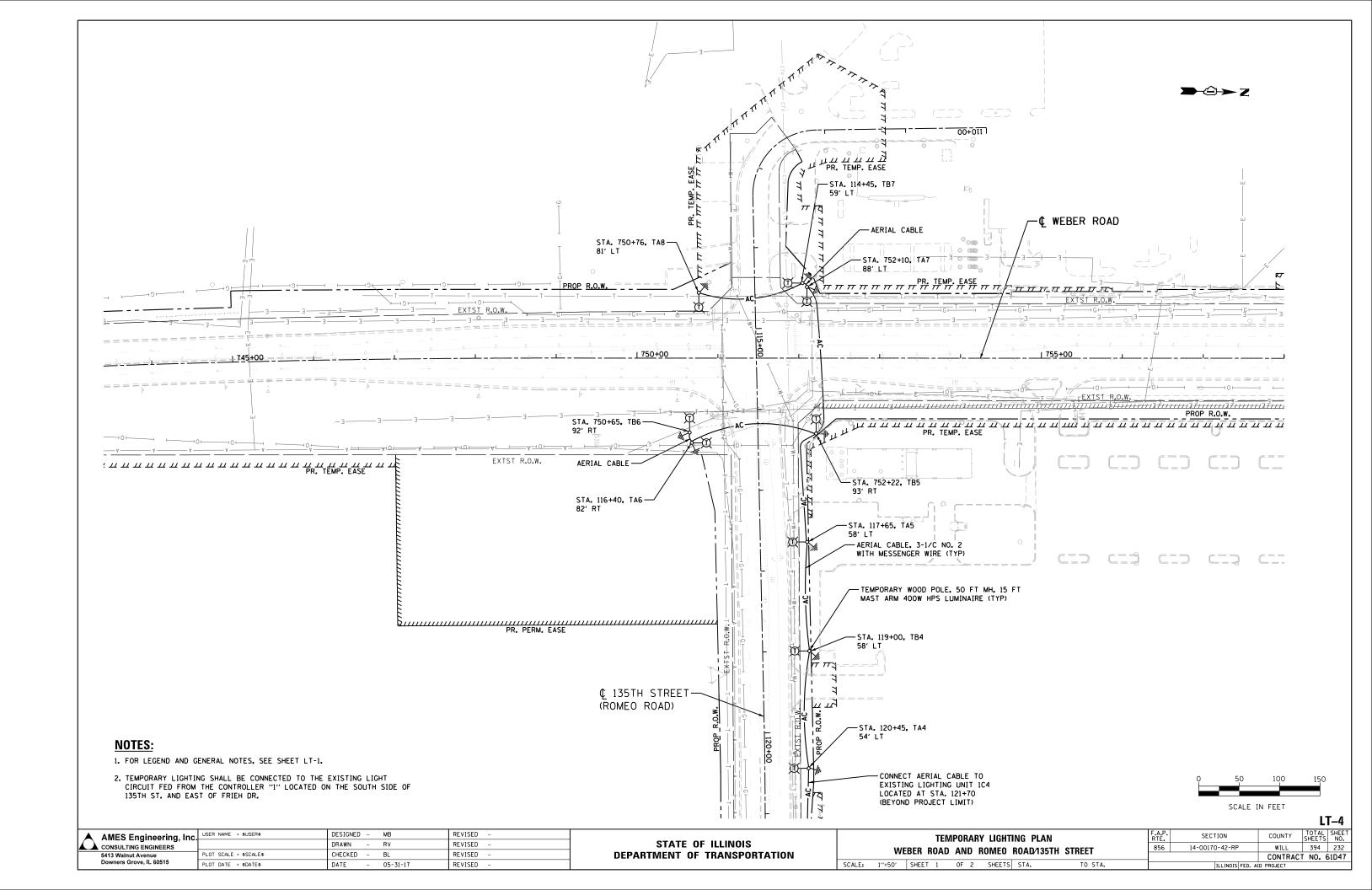
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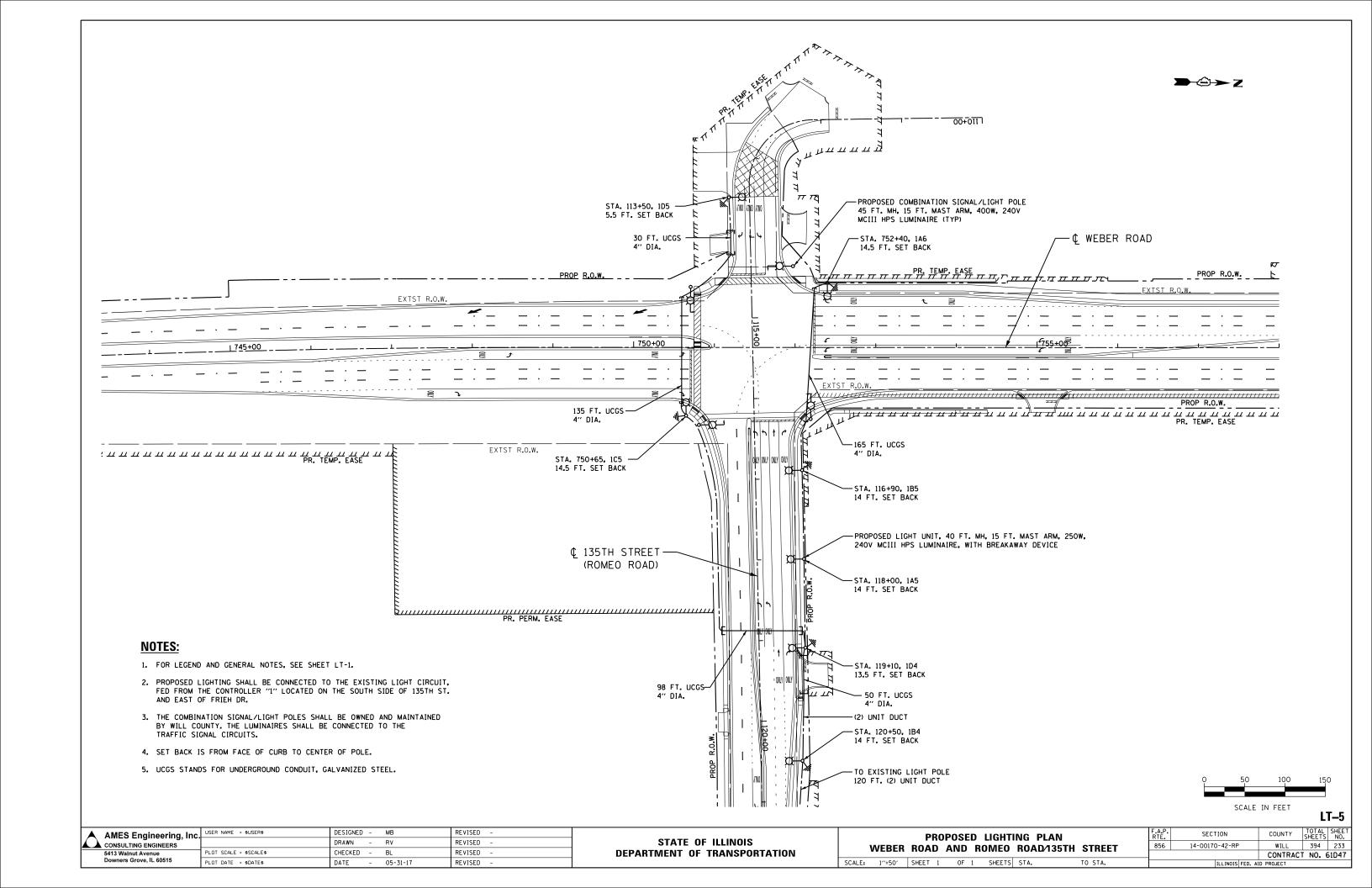
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

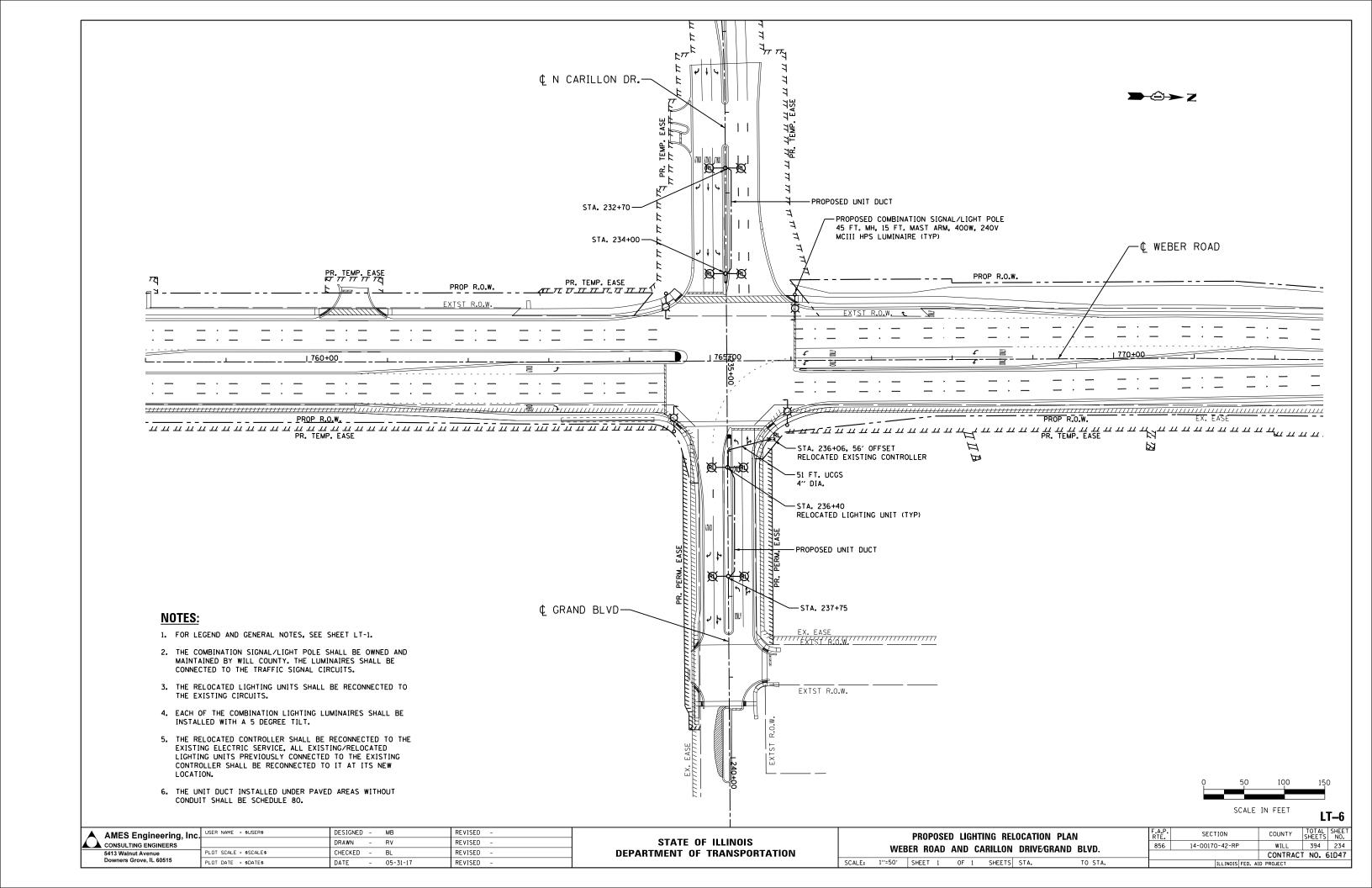
GENERAL NOTES, BILL OF MATERIALS, AND LEGEND					
WEBER ROAD					
WEBEII IIOAD					
SCALE: N.T.S	SHEET 1 OF 1 SHEETS STA. N/A TO STA. N/A		Т		

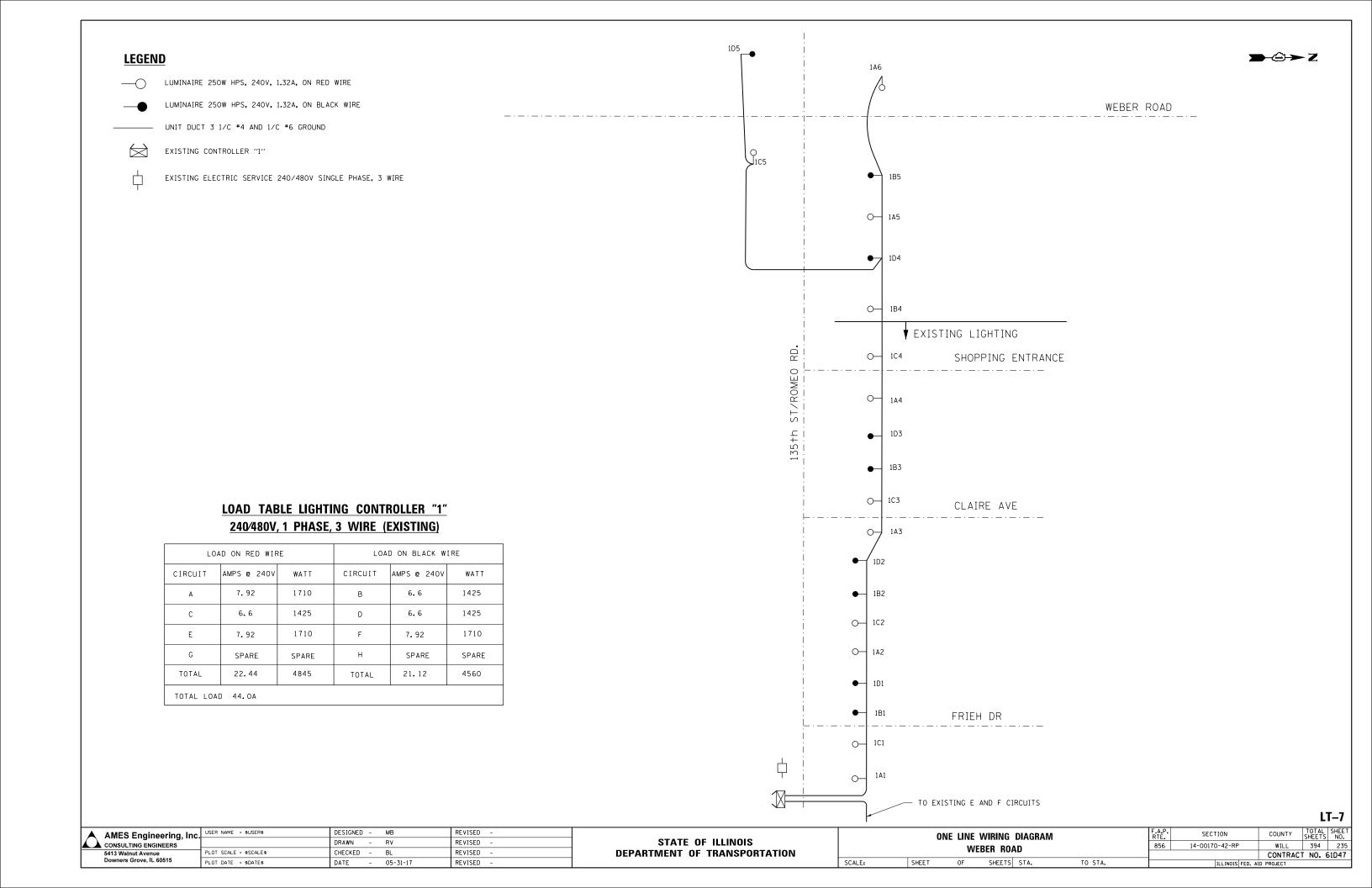






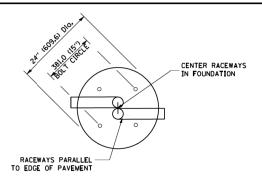




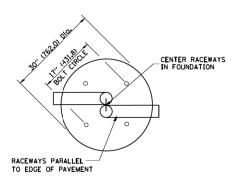




SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION			
SOIL CONDITIONS	SINGLE ARM POLE	TWIN ARM POLE		
SOFT CLAY Ou = 0.375 TON/SO. FT.	13'-0" (3 <b>.</b> 96 m)	15'-0'' (4 <b>.</b> 57 m)		
MEDIUM CLAY Ou = 0.75 TON/SO.FT	9'-6" (2.09 m)	10'-9'' (3.23 m)		
STIFF CLAY Ou = 1.50 TON/SO. FT.	7'-0'' (2 <b>-</b> 13 m)	8'-0'' (2 <b>.</b> 44 m)		
LOOSE SAND Ø = 34°	9'-0'' (2 <b>.</b> 74 m)	10'-0'' (3 <b>.</b> 05 m)		
MEDIUM SAND Ø = 37.5°	8'-3'' (2 <b>.</b> 52 m)	9'-0'' (2.74 m)		
DENSE SAND Ø = 40°	7'-9'' (2 <b>.</b> 36 m)	9'-0'' (2.74 m)		



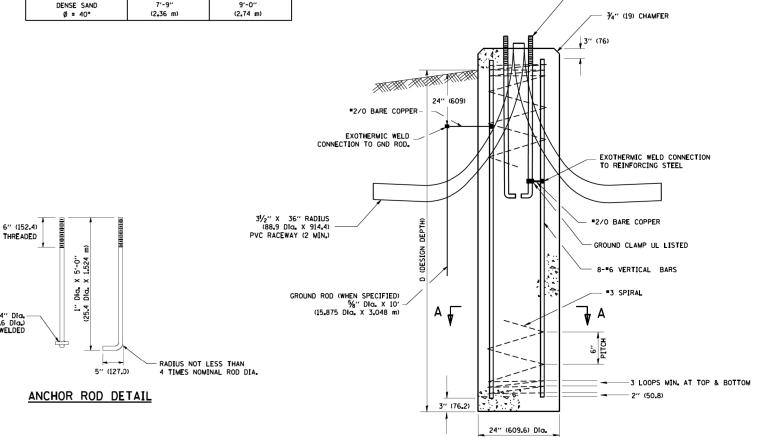
TOP VIEW



TOP VIEW

4-1" Dig. X 5'-0"

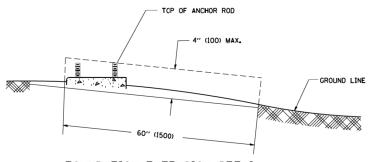
(4-25.4 Dia. X 1.524 m)

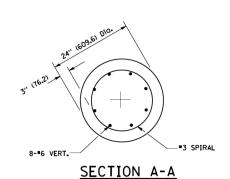


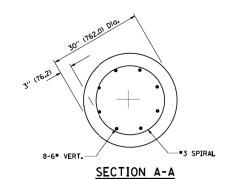
**NOTES** 

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IN 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.
- 4. 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
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- 7. 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
- 8. 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
- 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
- 10. 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  $2\frac{7}{4}$ " (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.
- 12. 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.
- 13. THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- 14. THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

#### FOUNDATION DETAIL







SCALE: NONE

FOUNDATION EXTENSION DETAIL

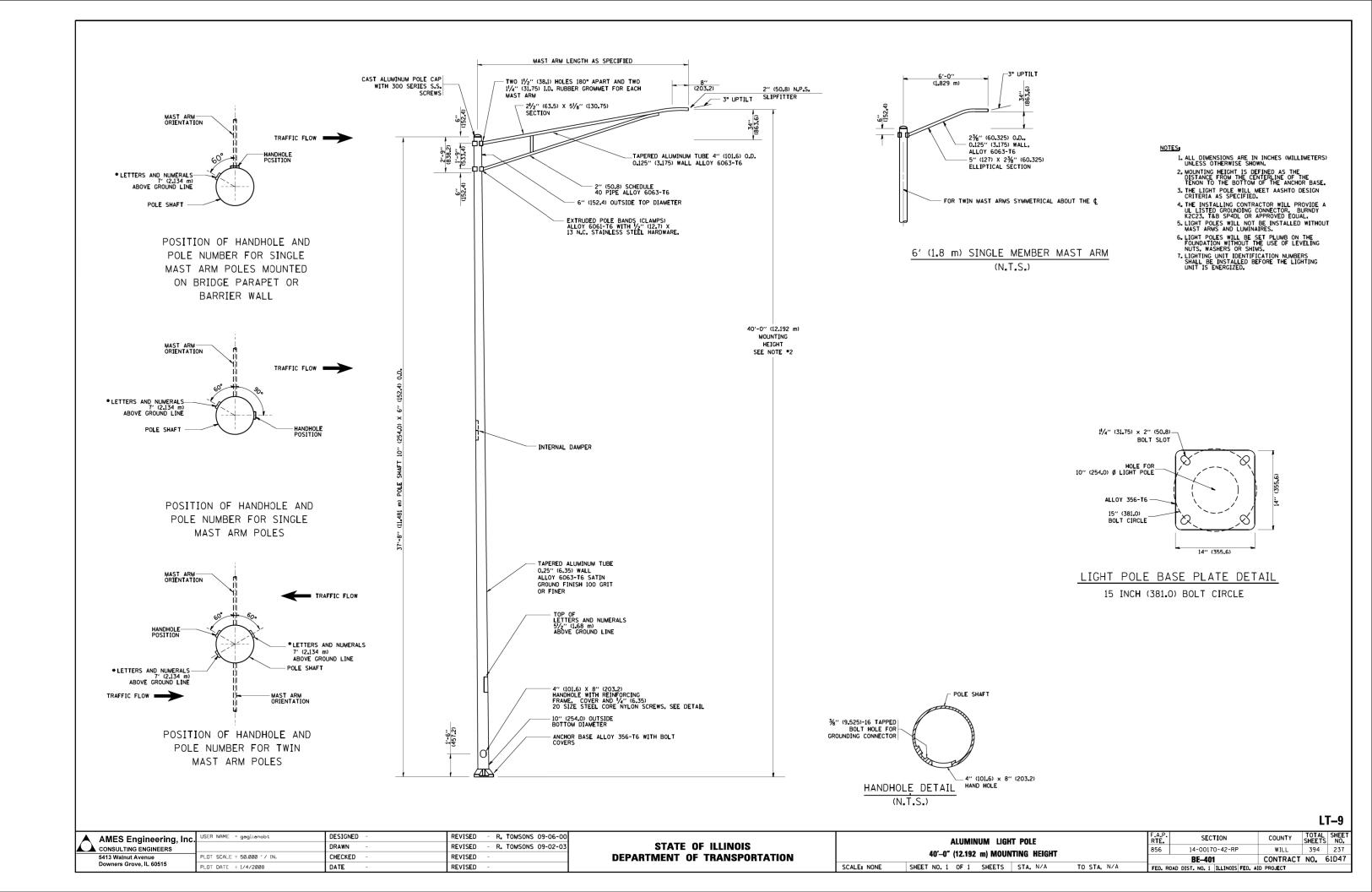
5%" T. X 4" Dia. (15.87 T. X 101.6 Dia.) WASHER, TACK WELDED

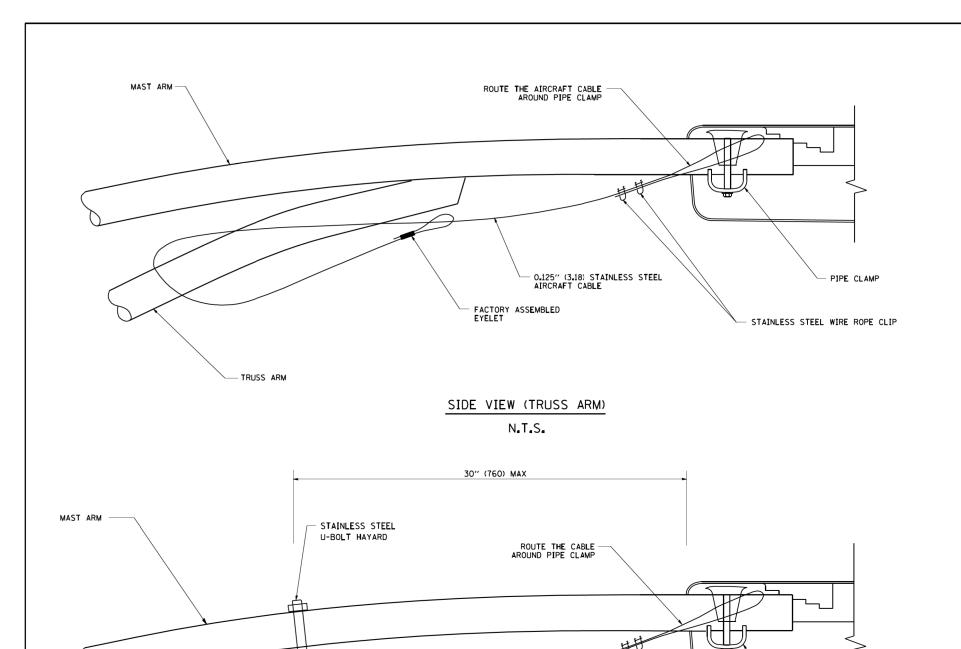
DESIGNED 04-22-02 REVISED USER NAME = gaglianobt AMES Engineering, Inc. DRAWN REVISED CONSULTING ENGINEERS CHECKED REVISED LOT SCALE = 50.0000 '/ IN. 5413 Walnut Avenue Downers Grove, IL 60515 DATE REVISED

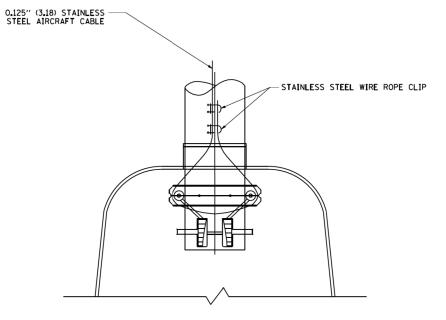
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

	LIGHT POLE	E FOUNDATION		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0' (12.192 m) TO 47 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE		856	14-00170-42-RP	WILL	394	236		
			BE-301	CONTRACT	NO.	61D47		
F	SHEET NO. 1 OF 1 SH	HFFTS STA. N/A	TO STA. N/A	EEU D	DAD DIST NO 1 TILINOIS FED AT	IN PROJECT		

LT-8







BOTTOM VIEW

#### NOTES

- 1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- 2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
- 3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
- 4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

LT-10

SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)

FACTORY ASSEMBLED

MAST ARM

-S.S. NUT &

STAINLESS STEEL U-BOLT HAYARD LOCK WASHER

EYELET

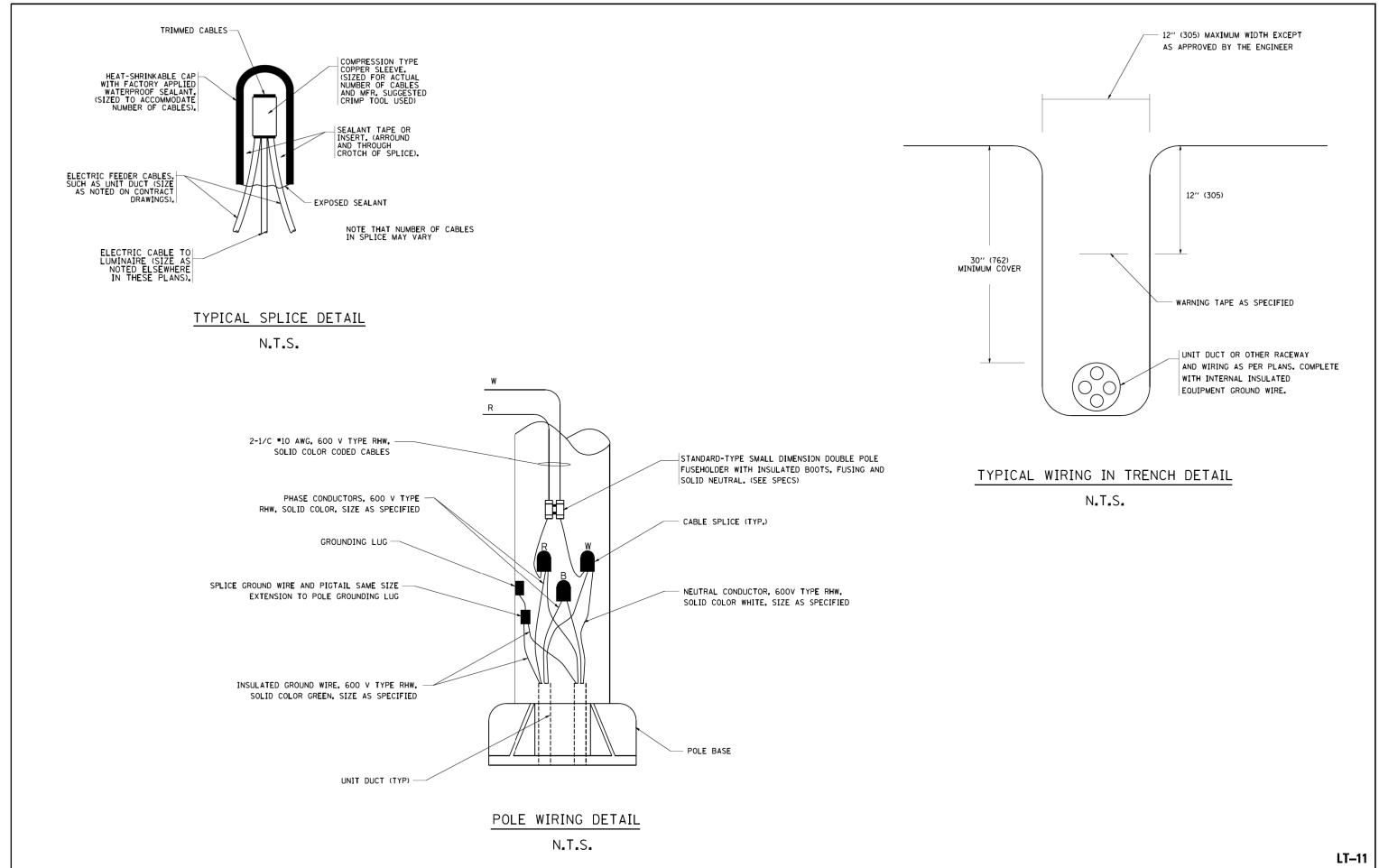
N.T.S.

O.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE

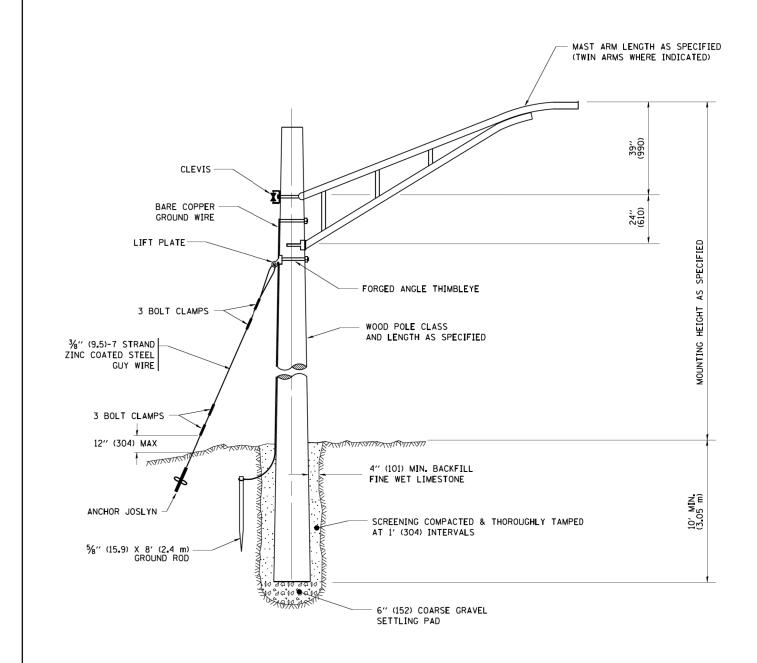
TOTAL SHEET NO. DESIGNED REVISED 08-08-03 AMES Engineering, Inc. USER NAME = geglienobt SECTION COUNTY LUMINAIRE SAFETY CABLE ASSEMBLY STATE OF ILLINOIS DRAWN REVISED CONSULTING ENGINEERS WILL 394 238 856 14-00170-42-RP LOT SCALE = 50.000 '/ [N. CHECKED REVISED **DEPARTMENT OF TRANSPORTATION** 5413 Walnut Avenue Downers Grove, IL 60515 CONTRACT NO. 61D47 BE-701 PLOT DATE = 1/4/2008 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A DATE REVISED FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

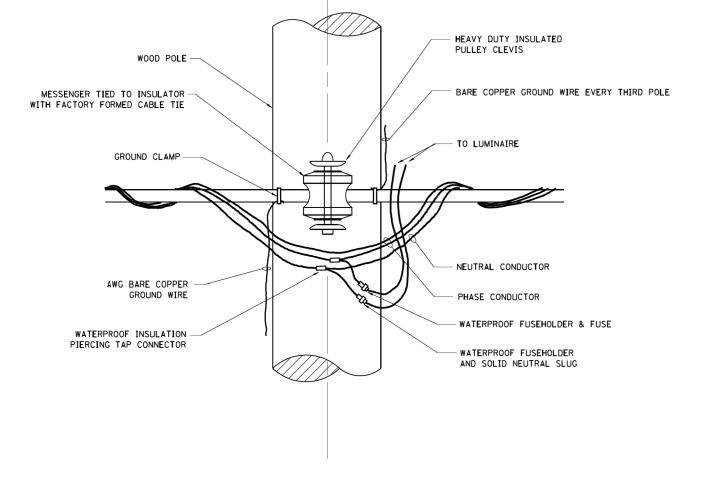
STAINLESS STEEL WIRE ROPE CLIP

- PIPE CLAMP



DESIGNED REVISED 08-08-03 AMES Engineering, Inc. USER NAME = gaglianobt SECTION COUNTY MISC. ELECTRICAL DETAILS STATE OF ILLINOIS DRAWN REVISED CONSULTING ENGINEERS 14-00170-42-RP WILL 394 239 SHEET A LOT SCALE = 50.000 '/ [N. CHECKED REVISED **DEPARTMENT OF TRANSPORTATION** 5413 Walnut Avenue Downers Grove, IL 60515 BE-702 CONTRACT NO. 61D47 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A PLOT DATE = 1/4/2008 DATE REVISED FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT





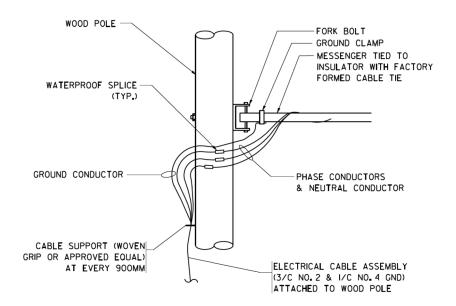
TEMPORARY LIGHT POLE ATTACHMENT DETAIL

# TEMPORARY LIGHT POLE DETAIL

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

LT-12

▲ AMES	S Engineering, Inc.	USER NAME = gaglianobt	DESIGNED -	REVISED - 08-08-03			TEMPORARY LIGHT PO	I F DETAILS		F.A.P.	SECTION	COUNTY	TOTAL SHEET NO.
CONSUL	LTING ENGINEERS		DRAWN -	REVISED -	STATE OF ILLINOIS		TEMPORALI EIGHT FO	LL DLIAILS		856	14-00170-42-RP	WILL	394 240
5413 Wal	inut Avenue	PLOT SCALE = 50.000 '/ [N.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION						BE-800	CONTRACT	NO. 61D47
Downers	s Grove, IL 60515	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. N/A	TO STA. N/A	FED. ROAD			

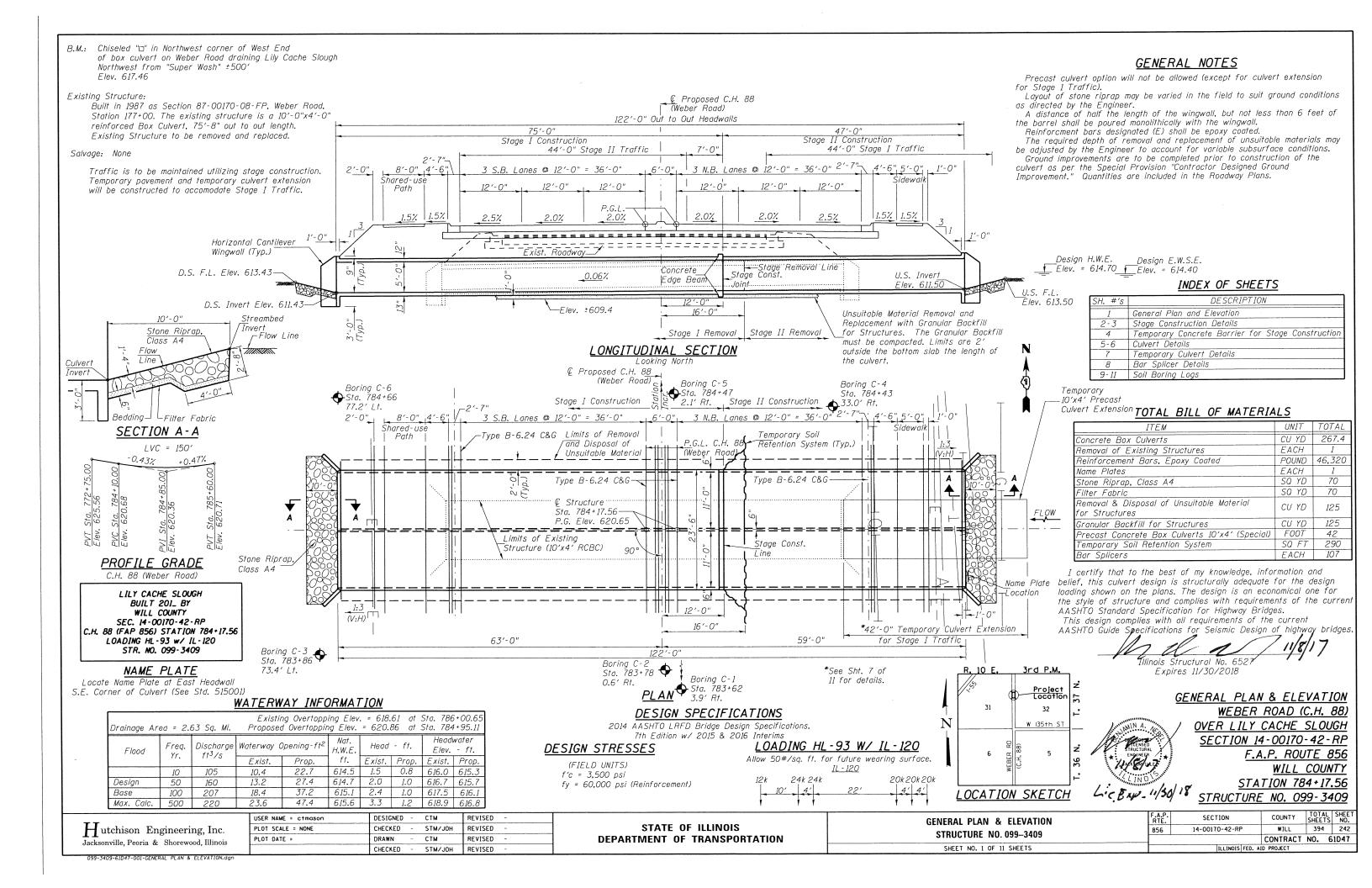


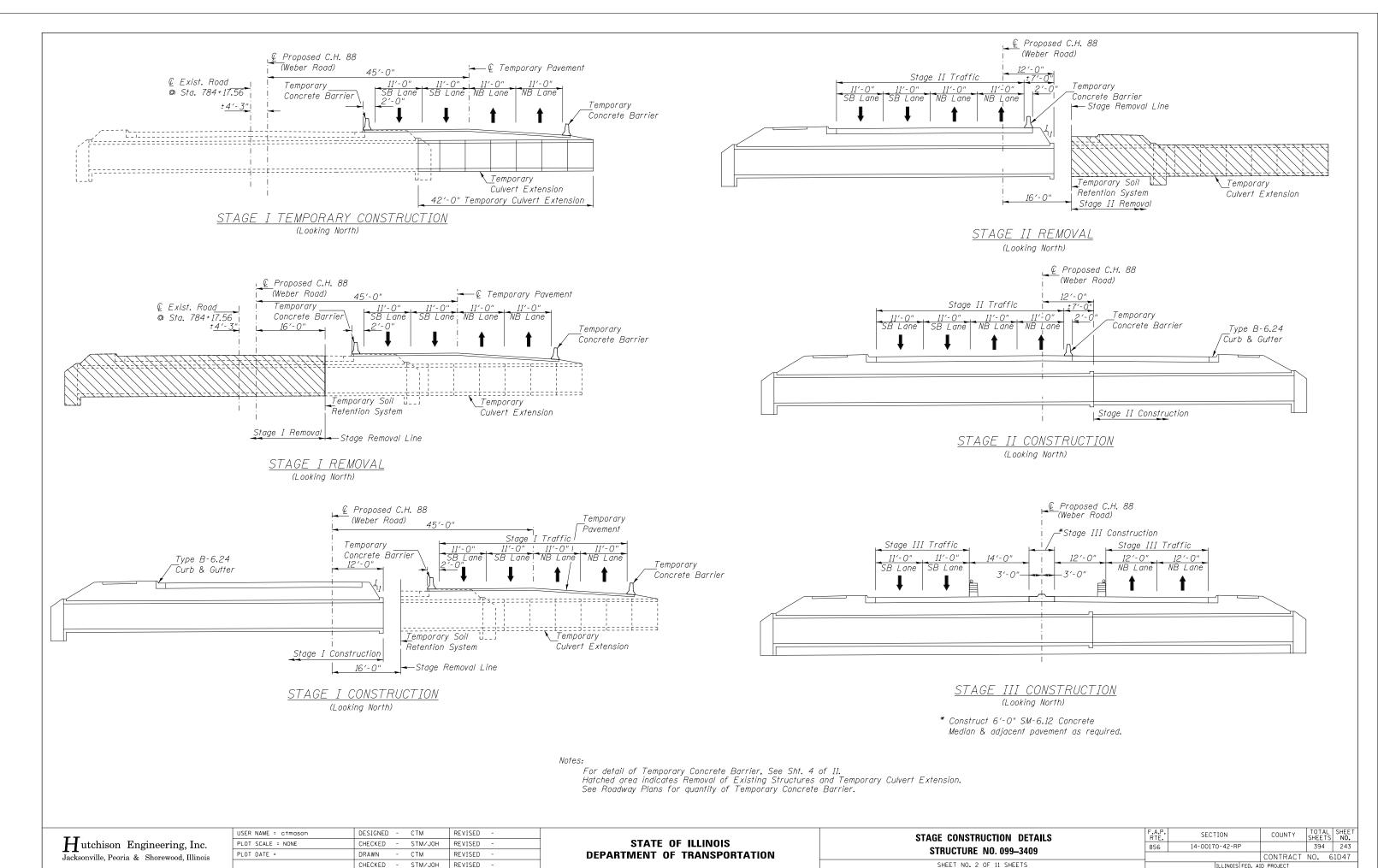
# AERIAL CABLE CONNECTION DETAIL

### NOTES:

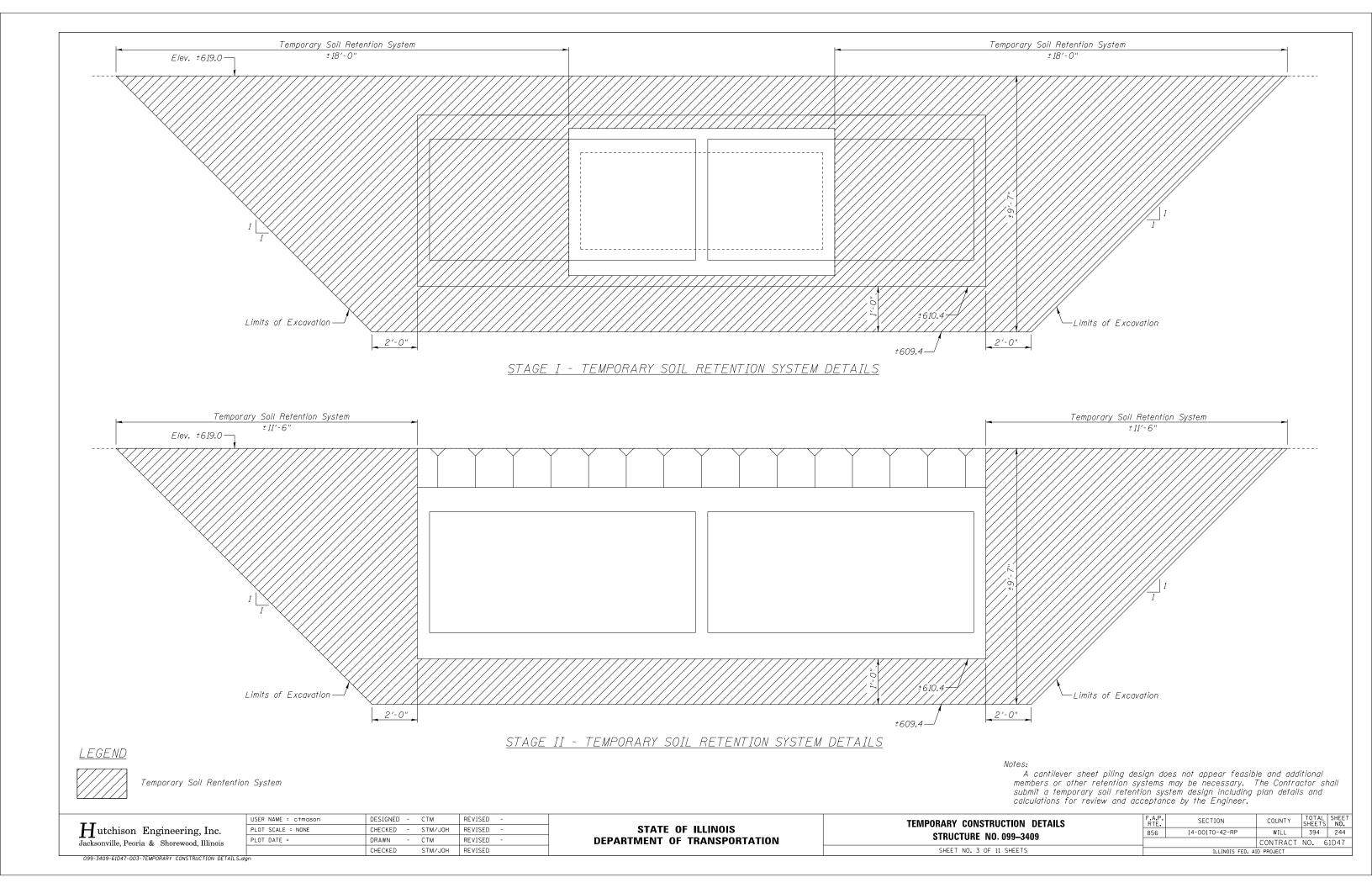
- 1. FOR TEMPORARY LIGHTING PLAN, SEE SHEETS LT-4 AND LT-12.
- 2. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN UNIT PRICE FOR AERIAL CABLE.

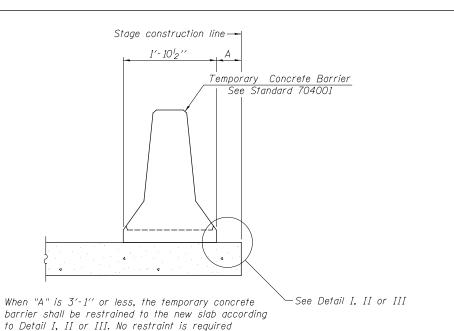
										LT-13
AMES Engineering, Inc.	USER NAME = gaglianobt	DESIGNED -	REVISED - 08-08-03			TEMPORARY AERIAL CABLE INSTALLATION	F.A.P.	SECTION	COUNTY	TOTAL SHEET SHEET NO.
CONSULTING ENGINEERS		DRAWN -	REVISED -	STATE OF ILLINOIS		TENTONANT ACRIAL CABLE INSTALLATION	856	14-00170-42-RP	WILL	394 241
5413 Walnut Avenue	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					CONTRACT	NO. 61D47
Downers Grove, IL 60515	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE NONE	SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A	EED BOAD	DIST NO 1 TILINOIS FED AL		

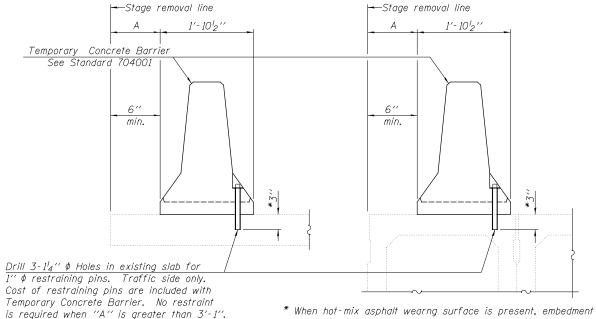




099-3409-61D47-002-STAGE CONSTRUCTION DETAILS.dgn







US Std. 1/16" I.D. x 21/2" O.D. x approx. 8 guage thick washer

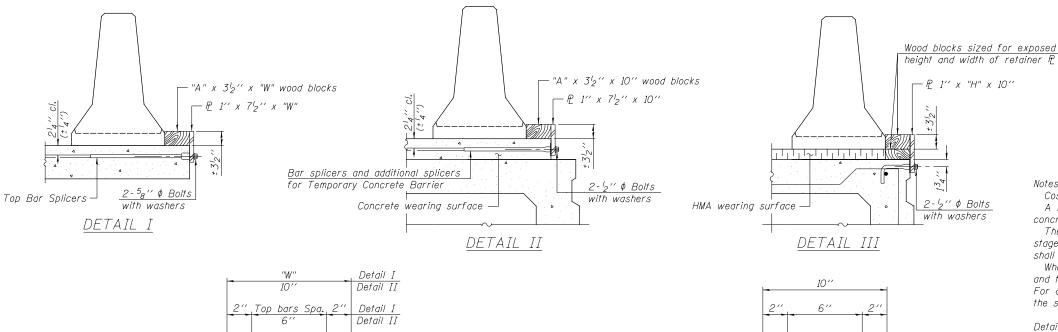
RESTRAINING PIN

NEW SLAB OR NEW DECK BEAM

when "A" is greater than 3'-1".

EXISTING SLAB

## SECTIONS THRU SLAB OR DECK BEAM



-  $\mathbb{Q}^{7}$ 8"  $\phi$  Holes

shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

STEEL RETAINER P 1" x "H" x 10" (Detail III)

R-27

utchison Engineering, Inc.

Jacksonville, Peoria & Shorewood, Illinois

07-22-16

STEEL RETAINER PL 1" x 7 /2" x "W" (Detail I and II)

USER NAME = ctmason DESIGNED -СТМ REVISED PLOT SCALE = NONE CHECKED STM/JOH REVISED PLOT DATE = DRAWN СТМ REVISED CHECKED STM/JOH REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION **STRUCTURE NO. 099-3409** SHEET NO. 4 OF 11 SHEETS

of the bar splicers is included with the deck beam. SECTION COUNTY TOTAL SHEE 14-00170-42-RF WILL 394 245 856 CONTRACT NO. 61D47 ILLINOIS FED. AID PROJECT

BAR SPLICER FOR #4 BAR - DETAIL III

Cost of retainer assembly is included with Temporary Concrete Barrier. A retainer assembly shall be located at the approximate ♀ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than  $I_2^{\prime\prime}$ ', the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

- Detail I Installation for a new bridge deck or bridge slab.
- Detail II Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

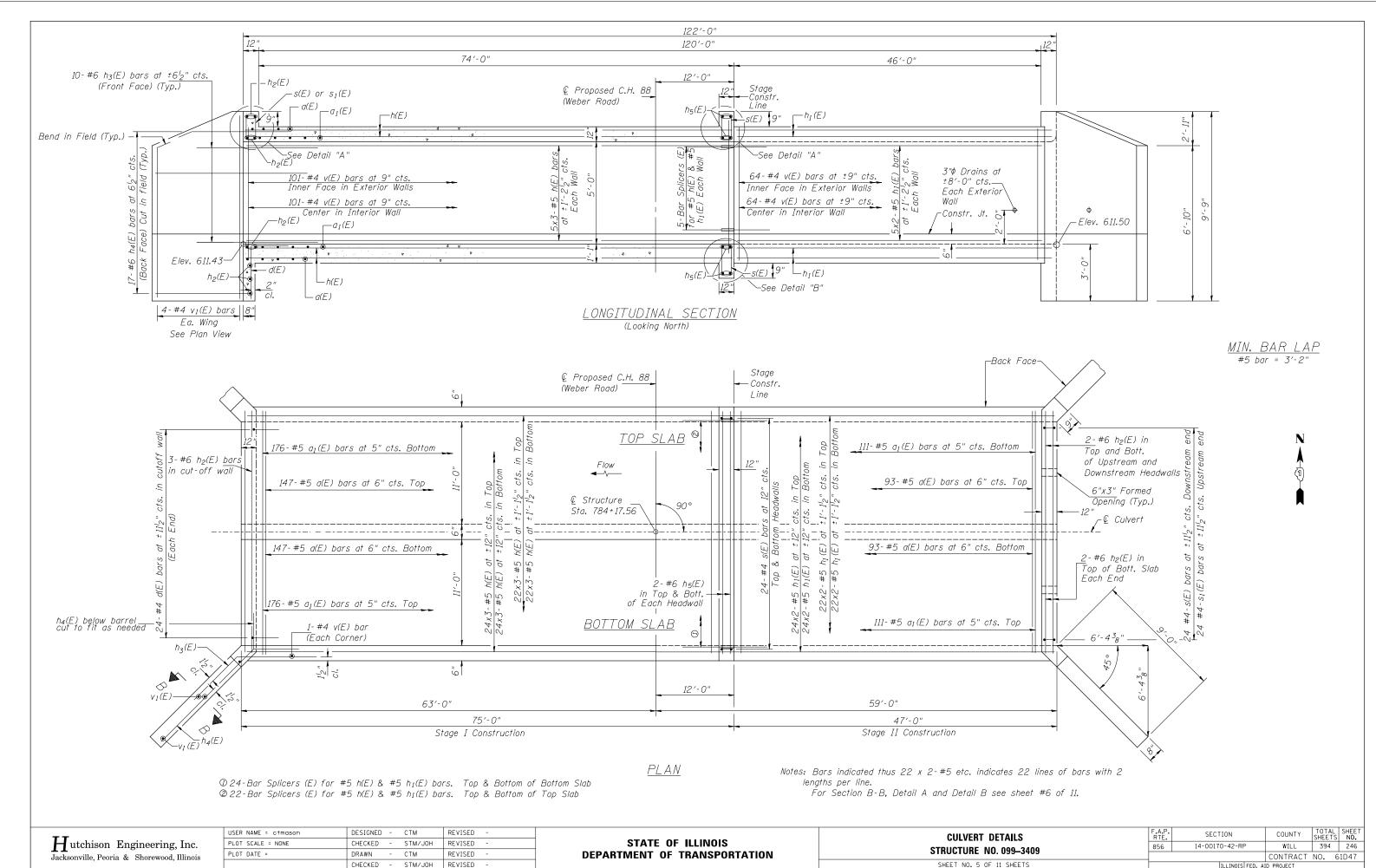
Detail III - Installation for a new deck beam with no initial wearing surface or

with an initial hot-mix asphalt (HMA) wearing surface present. The deck

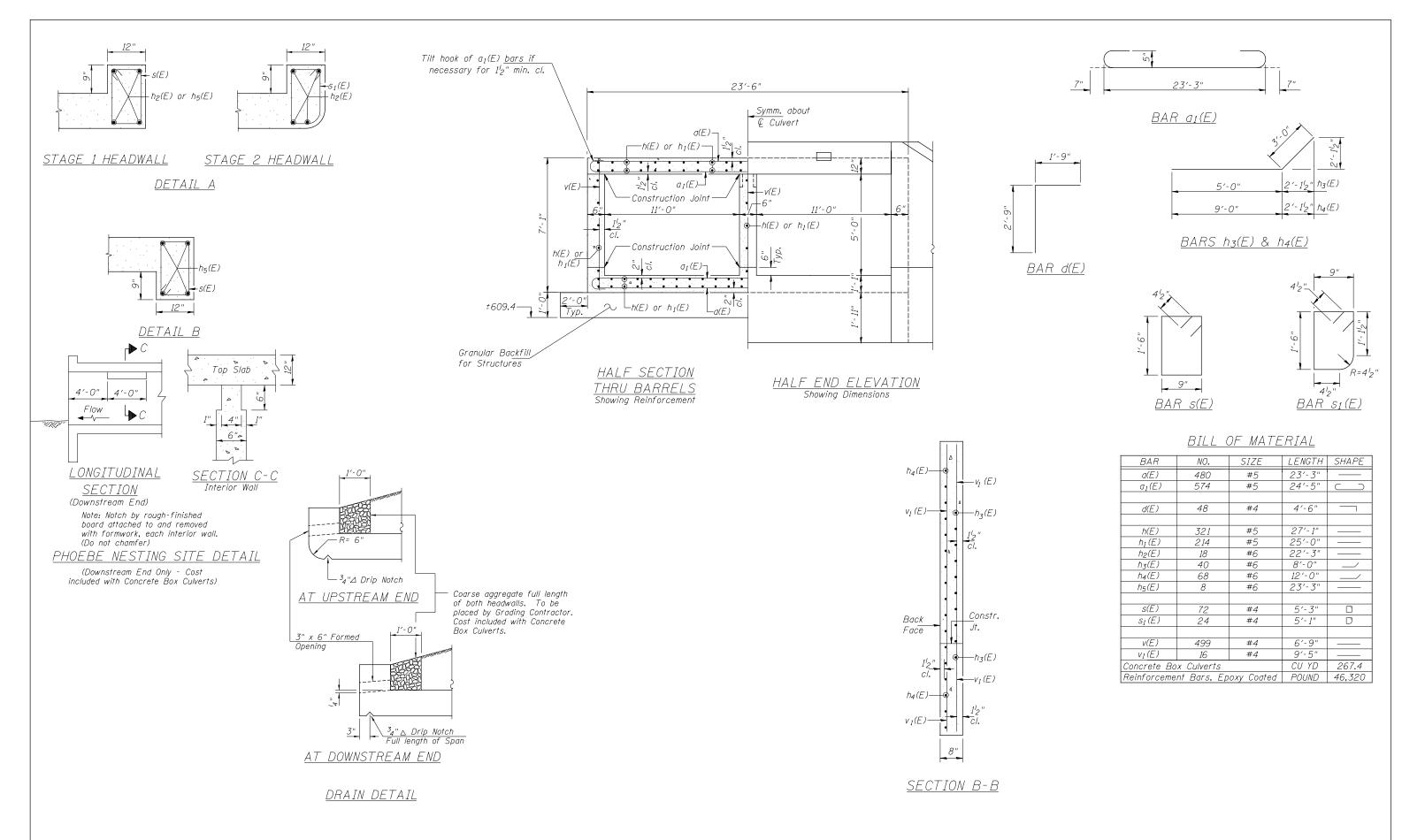
beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart,

shall be placed at 6'-0" centers along the length of the beam. The cost

099-3409-61D47-004-TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION.dgm



099-3409-61D47-005-CULVERT DETAILS 1.dgn



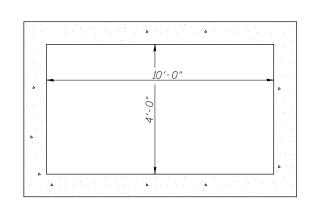
$\mathbf{H}$ utchison	En,	gineering,	Inc.
Jacksonville, Peor			

USER NAME = ctmason	DESIGNED	-	СТМ	REVISED	-
PLOT SCALE = NONE	CHECKED	-	STM/JOH	REVISED	-
PLOT DATE =	DRAWN	-	СТМ	REVISED	-
	CHECKED	-	STM/JOH	REVISED	-

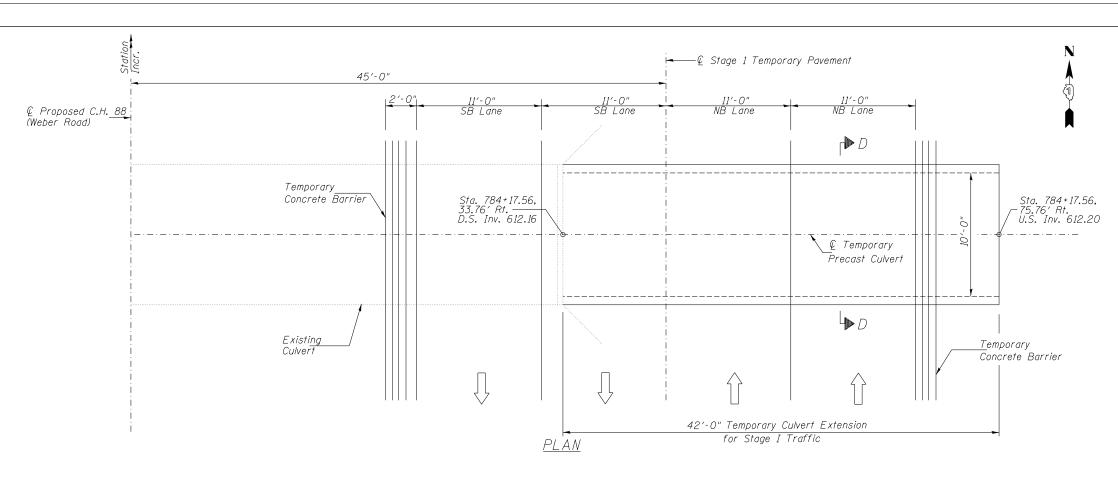
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

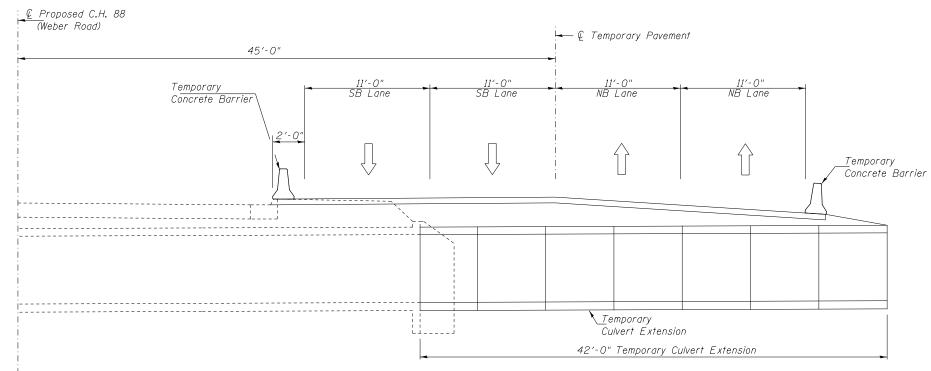
CULVERT DETAILS								
STRUC	TURE	NO	). 0	99–3409				
SHEET	NO. 6	OF	11	SHEETS				

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
856	14-00170-42-RP	WILL	394	247			
CONTRACT NO. 6							
	ILLINOIS FED. AID PROJECT						



SECTION D-D





LONGITUDINAL SECTION
(Looking North)

<u>TOTAL BILL OF MATERIAL</u>

ITEM	UNIT	TOTAL
Precast Concrete Box Culverts 10'x4' (Special)	FOOT	42

Hutchison Engineering, Inc. Jacksonville, Peoria & Shorewood, Illinois

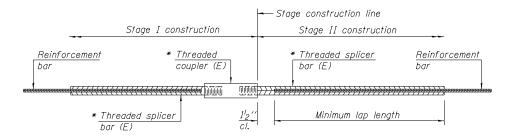
USER NAME = c†mason	DESIGNED	-	СТМ	REVISED	-
PLOT SCALE = NONE	CHECKED	-	STM/JOH	REVISED	-
PLOT DATE =	DRAWN	-	СТМ	REVISED	-
	CHECKED	-	STM/JOH	REVISED	-

Notes: The Contractor shall submit a plan for the connection between the existing culvert and the temporary culvert for review and acceptance by the Field Engineer.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY CULVERT	DETAILS
STRUCTURE NO. 099	-3409
SHEET NO. 7 OF 11 SHE	EETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
856	14-00170-42-RP	WILL	394	248		
		CONTRACT	NO. 6	1D47		
THE INOIS FED. AID PROJECT						

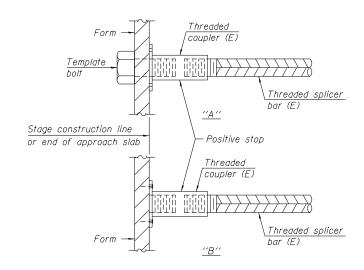


#### STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min, lap length +  $1_2^{l}$ " + thread length

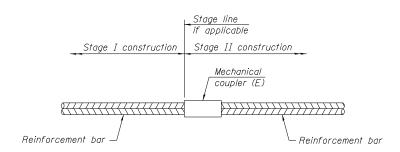
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Top Slab	#5	44	3'-2"
Bottom Slab	#5	48	3'-2"
Sidewalls	#5	<i>1</i> 5	3'-2"



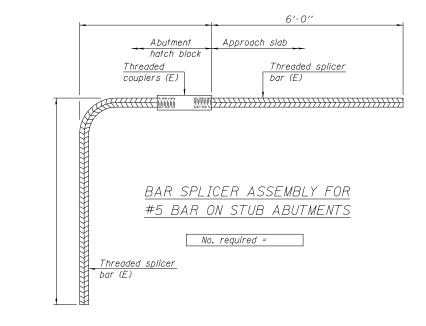
#### INSTALLATION AND SETTING METHODS

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



### STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



#### NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

6-*8-1*5

	USER NAME = ctmason	DESIGNED -	СТМ	REVISED -
utchison Engineering, Inc.	PLOT SCALE = NONE	CHECKED -	STM/JOH	REVISED -
Jacksonville, Peoria & Shorewood, Illinois	PLOT DATE =	DRAWN -	СТМ	REVISED -
		CHECKED -	STM/JOH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER A	SSEMBLY	AND	MECHANICAL	SPLICER	DETAILS		
	SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 099–3409						
	SHEET N	VIO 8	OF 11 SHEETS				

099-3409-61D47-008-BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS.dgn



Page  $\underline{1}$  of  $\underline{1}$ 

Date \_\_5/19/15

ROUTE	Weber Rd.	DES	SCR	IPTION	۱	We	ber Rd / Normantown to	Rormer	OGGED BY		E. M	lueller	
SECTION _			_ ı	LOCAT	ION	, SEC.	, TWP. , RNG. , lde , Longitude						
COUNTY _	Will D	RILLING	ME	THOD			llow Stem Auger	HAMMER T	YPE .		Auto	matic	
Station	). WCHD 617435		D E P	B L O	U C S	M O I	Surface Water Elev Stream Bed Elev			D E P	B L O	U C S	M O I
Station Offset	. C-1 783+62 3.9 ft Right rface Elev. 618.80		H (ft)	W S (/6")	Qu (tsf)	S T (%)	Groundwater Elev.: First Encounter Upon Completion After 24 Hrs.		ft∑	T H (ft)	W S (/6")	Qu (tsf)	S T (%)
	lay Fill, A-7-6	"		,	,		Gray Fractured Rock		598.30	,	3"	,	(/
				4		25			597.50		100 -		
			_	3	1.0	26	End of Boring			_	3"		7
				4	Р								
Dark Silty Cl	ay, Below 3', A-6	615.80	_	3						_			
		613.30	-5	2 4	1.0 P	27				-25			
Black Peat,													
Loss on Ignit	ion 34.6%		_ 	2 2		170				_			
Gray Silty CI	av Loam	610.80											
Gray Gilly Gr	ay Loaiii		_	1						_			
			-10	1	0.2 B	33				-30			
		608.30											
Gray Silty Lo	oam, A-4			1									
			_	3	0.1	22							
		605.80	_	2	В	1				_			
Brown Gray	Silty Clay	003.60	_	3						_			
			-15	4 4	1.9 B	22				-35			
		602.30	<u> </u>	13									
Brown Gray	Silty Loam	302.00		20 21	1.9 S	19				_			
Grav Sandv	Gravel and Fractured	600.80		-									
Rock, Recov	ery 2"			7		E							
			-20			5				-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



# **SOIL BORING LOG**

Page 1 of 1

Date \_\_5/20/15\_

ROUTE Weber Rd.	DE	SCR	IPTION	1			L	OGG	ED BY	E. M	luelle
SECTION		_ ı	LOCAT	ION _	SEC.	, TWP. , RNG. ,					
COUNTY Will	DRILLING	ME	THOD			ide , Longitude llow Stem Auger	HAMMER TYPE		Auto	matic	
STRUCT. NO.		D	В	U	М	Surface Water Elev.	ft	D	В	U	M
Station		E P	L O	C S	0	Stream Bed Elev.		E P	L O	C S	0
BORING NO.         C-2           Station         783+78           Offset         0.6 ft Righ	t	T H	S	Qu " . c	S T	Upon Completion		H H	S	Qu ""	S T
Ground Surface Elev. 619	.20 <b>ft</b>	(ft)	(/6")	(tsf)	(%)	After Hrs.	ft	(ft)	(/6")	(tsf)	(%)
HMA Pavement 8"	618.40	_			6			_			
Brown Sandy Gravel, Fill			13								
			25 33		5				-		
	616.20	_	- 33					_	-		
Gray Crushed Stone, Fill			1								
			13 15		2						
		-5	20		_			-25	-		
	613.70							_	]		
Brown Sandy Gravel, Fill			19						-		
		_	13		8	-		_			
			15								
Brown Organic Silt	611.20	Y	-								
Organic Content= 4.5%			0								
			0	0.9 B	50			_			
	508.70 608.70	-10	┤	В				-30	-		
Gray Silty Clay	222.70										
			1 2	0.6	21						
			3 ,	0.6 B	∠1			_	1		
									1		
			2						-		
			4	1.0	23						-
		-15	4	В				-35			
		_						_	-		
			6						-		
			8	0.6	17				1		
Sand Saam	601.70	_	12	В				_			
Sand Seam Gray Fractured Dolomitic	601.20		-						-		
Limestone	600.30		80						1		
End of Boring			50/4"	1	4						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

**			
$oldsymbol{H}$ utchison	En	gineering, Inc	
Jacksonville, Peor	ia &	Shorewood, Illino	is

USER NAME = c†mason	DESIGNED	-	CTM	REVISED	-
PLOT SCALE = NONE	CHECKED	-	STM/JOH	REVISED	-
PLOT DATE =	DRAWN	-	СТМ	REVISED	-
	CHECKED	-	STM/JOH	REVISED	-

STATE O	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

SOIL BORING LOGS	F.A.P. SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
CTRUCTURE NO 000 2/00	856	14-00170-42-RP	WILL	394	250
31NOCIONE NO. 033-3403			CONTRACT	NO. 6	1D47
		ILLINOIS FEE	. AID PROJECT		



Page  $\underline{1}$  of  $\underline{1}$ 

Date \_\_5/21/15\_

ROUTE Weber Rd.	DE	SCR	IPTION	٧			L	ogg	ED BY	E. M	ueller
SECTION		ı	_OCA1	TION _	, SEC.	. , TWP. , RNG. , ude , Longitude					
COUNTY Will D	RILLING	ME	THOD			Flight Auger	HAMMER TYPE		Auto	matic	
STRUCT. NOStation		D E P	B L O	U C S	M O I	Surface Water Elev. Stream Bed Elev.		D E P	B L O	U C S	M O I
BORING NO.         C-3           Station         783+86           Offset         -73.4 ft Left		T H	W S	Qu	S T	Upon Completion		T H	W S	Qu	S T
Ground Surface Elev. 614.80	ft	(ft)	(/6")	(tsf)	(%)	After 24 Hrs.	614.3 ft. <u>▼</u>	(ft)	(/6")	(tsf)	(%)
Black Clay, A-7-6	Ā	<u>,</u> <u>▼</u> _	2		54			_			
			3		52	-					
	611.80	_	3					_			
Brown and Black Organic Silt, A-4			0					_			
			0	0.1	93						
	609.30	<b>▼</b> -5	'	В				-25			
Gray Silty Loam, A-4			0								
		_	0	0.7	24	-		_			
		_	1	В				_			
		_						_			
			0	0.6	25	_					
		-10	2	В				-30			
		_						_			
			0	0.1	31	_					
		_	2	B	-	-		_			
Gray Gravelly Sand, A-1-a	601.80										
Oray Graverry Garid, A-1-a			7								
		-15	10 9		12			-35			
Auger Refusal at 15.5	599.30										
End of Boring								-35			
		_									
		_	_					_			
						-					
		20	1	1		II.		40	1		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



# **SOIL BORING LOG**

Page  $\underline{1}$  of  $\underline{1}$ 

Date \_\_5/19/15\_\_

ROUTE	Weber Rd.	DE	SCR	IPTION	١				LO	GGI	ED BY	E. M	uelle
						Latitu	, TWP. , RNG. , ide , Longitude						
COUNTY	Will D	RILLING	ME	THOD		Но	llow Stem Auger	_ HAMMER TY	PE _		Auto	matic	
			D E P	B L O	U C S	M 0	Surface Water Elev Stream Bed Elev		ft ft	D E P	B L O	U C S	M 0 1
Offset	C-4 784+43 33.0 ft Right		Н	w s	Qu	S	Groundwater Elev.: First Encounter Upon Completion	608.9 611.9	ft∑	Н	W S	Qu	S
	e Elev. 617.90	) ft	(H)	(/6")	(tsf)	(%)	After 24 Hrs.	616.9	ft¥	(ft)	(/6")	(tsf)	(%)
Black Silty Clay,	Fill	616.90				37	-			_			
Black and Dark E	Brown Silty Clay	010.50	<u>*</u>	5					-				
with Sand, Fill				3 5		23			_				
			_	- 5						_			
									-				
				4					_				
			_	6 7		18				_			
			5	┤ ′					-	-25			
		$\nabla$	. –							_			
			_	0					_				
				1		20			-				
		609.90	_	<u> </u>						_			
Gray Silty Loam									_				
			<u> </u>	0		18			_				
			-10	٠.		10				-30			
									-				
				] .					_				
			_	2	0.6	17				_			
			_	4	\ B .	<del></del>	-		-				
									_				
			_	1						_			
Sand Seam at 14	i'	603.90		2	0.2	16	-		-				
Cana Ccam at 1-	r		-15	1	В					-35			
				17					-				
			_	52	1.7		-			_			
			_	50 -	В				_				
A		599.90		2"					-				
Auger Refusal End of Boring			_	-									
·- · · · · · · · · · · · · · ·							1		-				
			-20	1						-40	1		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

$oldsymbol{H}$ utchison $oldsymbol{1}$	En	gineering, Inc.
		Shorewood, Illinois

USER NAME = c†mason	DESIGNED	-	СТМ	REVISED	-
PLOT SCALE = NONE	CHECKED	-	STM/JOH	REVISED	-
PLOT DATE =	DRAWN	-	СТМ	REVISED	-
	CHECKED	-	STM/JOH	REVISED	-

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

SOIL BORING LOGS	F.A.P. RTE.	SECT	ION		COUNTY	TOTAL SHEETS	SHEET NO.
STRUCTURE NO. 099-3409	856	14-0017	0-42-RF	•	WILL	394	251
31NOCIONE NO. 033-3403					CONTRACT	NO. 6	51D47
SHEET NO. 10 OF 11 SHEETS			ILLIN0IS	FED. A	D PROJECT		



Page  $\underline{1}$  of  $\underline{1}$ 

Date <u>5/20/15</u>

ROUTE	Weber Rd.	D	ESCR	IPTIO	N				_ LC	GG	ED BY	_E. M	lueller
SECTION	2013-052	2WRS		LOCAT	TION _	, SEC.	. , TWP. , RNG. , ude , Longitude						
COUNTY	Will	_ DRILLIN	IG ME	THOD			Flight Auger	HAMMER T	YPE _		Auto	matic	
STRUCT. NO. Station			D E P	B L O	U C S	M 0 1	Surface Water Elev. Stream Bed Elev.			D E P	B L O	U C S	M O I
BORING NO. Station Offset Ground Surfa	C-5 784+4 2.1 ft Rig ace Elev. 6	7 ght	H (ft)	W S (/6")	Qu (tsf)	S T (%)	Groundwater Elev.: First Encounter Upon Completion After 24 Hrs.		ft∑	T H (ft)	W S (/6")	Qu (tsf)	S T (%)
HMA Paveme	nt 12.0"								98.40				
Brown Sandy	Gravel, Fill, A-	617.9 <b>1-a</b>	0 _	16		5	Gray Fracture Dolomitic Limestone Auger Refusal at 22.0 f	4		_	18 \ 50/0 /		13
				32		5	End of Boring	<u>. 5</u>	96.90	_	Auger Refusa		13
			<u></u>	25 25		5	_						
			5	4.4		3				-25			
				13		-	-						
				26 18		7			-				
Dark Gray Silt	y Loam, A-7-6	610.9		0					-				
PI:42		608.4	-10	0 2	0.8 B	59				-30			
Shells below 1	0.5'			2									
			_	3	1.1	25	]						
		605.9	0 -	4	В	1							
Gray Silty Clay	/ Loam, A-6		_	2						_			
			-15	3 4	2.1 B	24			-	-35			
			_	4	2.4	21	-		-				
Brown Sandy	Graval	600.9	0	9	В					_			
Brown Sandy	Giavei		_	13						_			
				43		9							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



# **SOIL BORING LOG**

Page 1 of 1

Date \_\_\_5/21/15\_\_

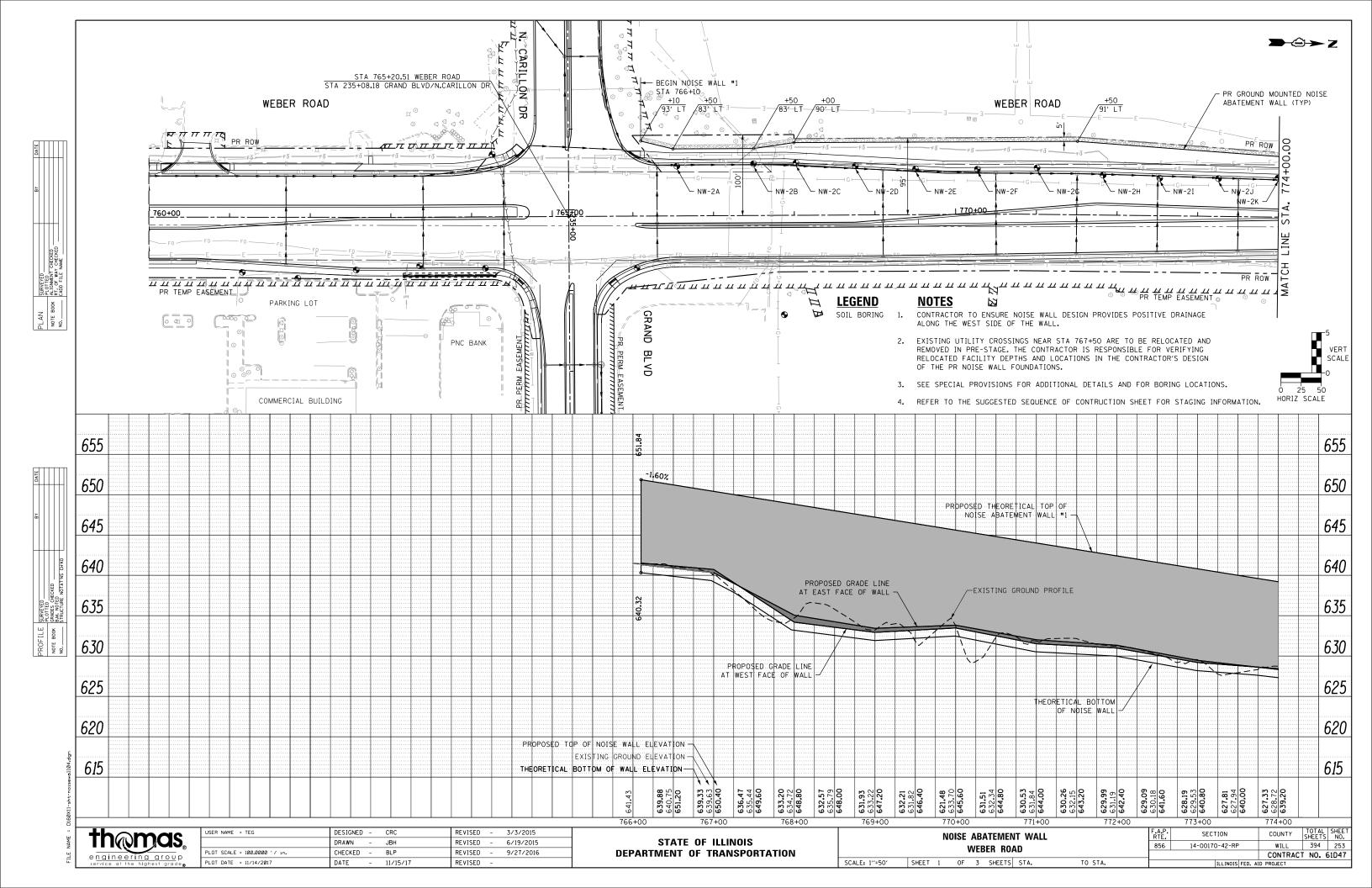
ROUTE Weber Rd.	DES	SCR	IPTION	١				L0	OGG	ED BY	E. M	1ueller
SECTION		_ ı	LOCAT	ION _	, SEC.	, TWP. , RNG. , ide , Longitude						
COUNTY Will DRI	LLING	ME	THOD			Flight Auger	HAMMER	TYPE		Auto	matic	
STRUCT. NOStation	_	D E P T	B L O W	U C S	M O I S	Surface Water Elev Stream Bed Elev			D E P T	B L O W	U C S	M O I S
BORING NO.         C-6           Station         784+66           Offset         -77.2 ft Left           Ground Surface Elev.         614.20		Н	S	Qu (tsf)	Т	Groundwater Elev.: First Encounter Upon Completion After 24 Hrs.		ft	H (ft)	S	Qu (tsf)	T (%)
Black Silty Clay		<u>V</u>						593.70				
			1		69	Gray Clay				2		
		_	1		53				_	2 2	0.6 B	31
Brown Gray Organic Silt, A-4	611.20 <b>y</b>	_	0			Gray Fractured Dolom	itic Rock	591.20 590.20		17		
		-5	0	0.2 B	72	Spoon Refusal End of Boring		<sub>590.10</sub>	-25	100/2		10
Brown Gray Silty Loam, A-4	608.70	_	1						_			
		_	2	0.8 B	26				_			
		_	2	0.9	25				_			
		-10	3	В	25				-30			
		_	0	0.2	35				_			
Gray Fractured Dolomitic Limestone	601.70		21 0 0	В	7				_			
Limestone		_	0 7						_			
		-15	11		4				-35			
			6									
		_	8 13		14				_			
			21						_			
		-20	19 21		11				-40			

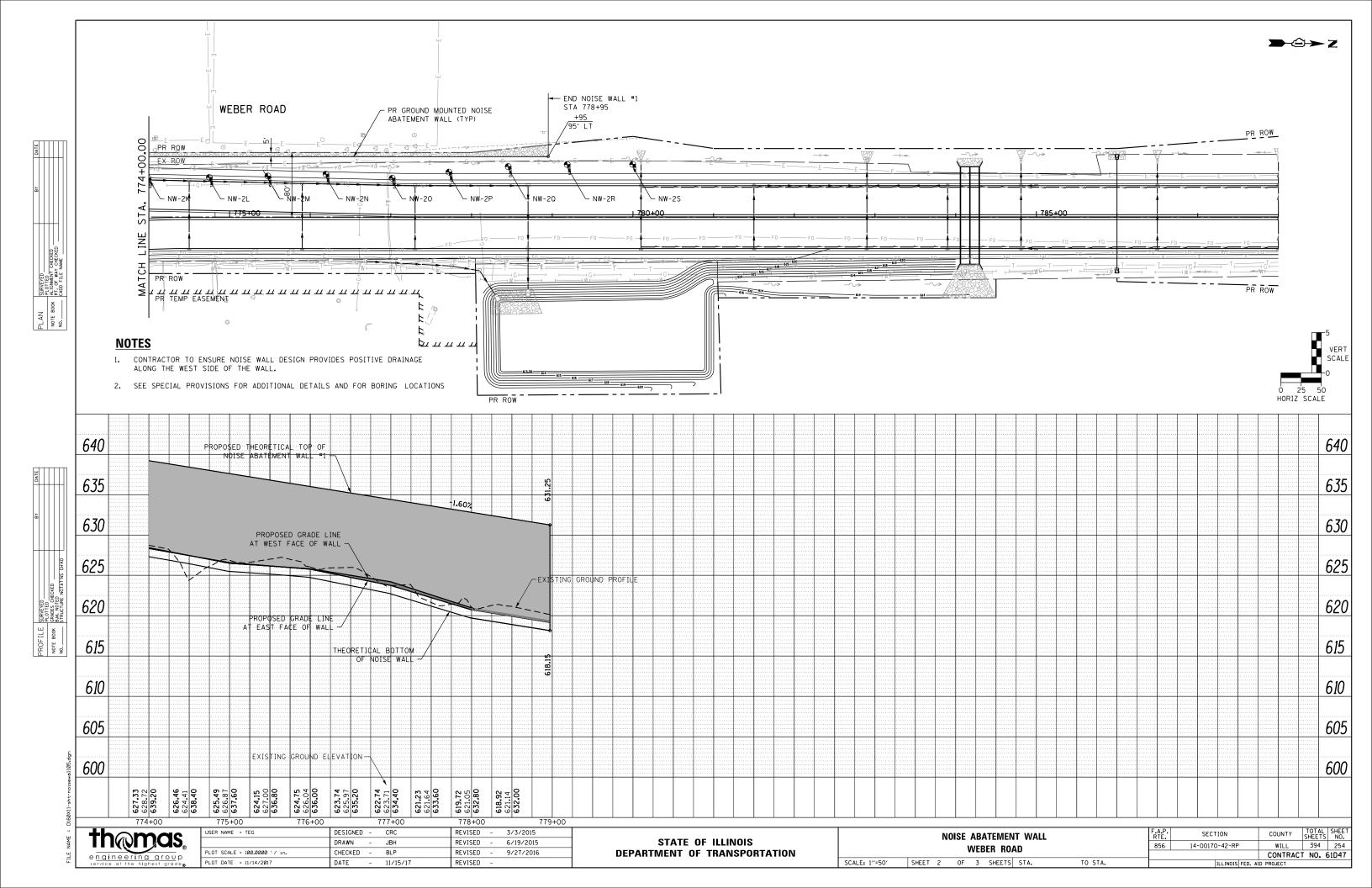
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

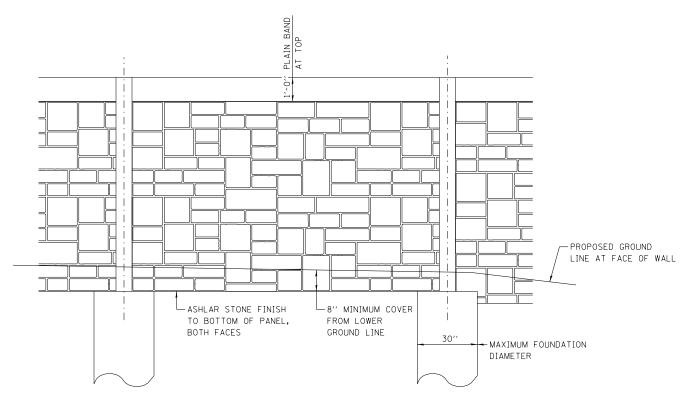
Hutchison En	gineering, Inc.
Jacksonville, Peoria &	Shorewood, Illinois

USER NAME = c†mason	DESIGNED	-	СТМ	REVISED	-
PLOT SCALE = NONE	CHECKED	-	STM/JOH	REVISED	-
PLOT DATE =	DRAWN	-	СТМ	REVISED	-
	CHECKED	-	STM/JOH	REVISED	-

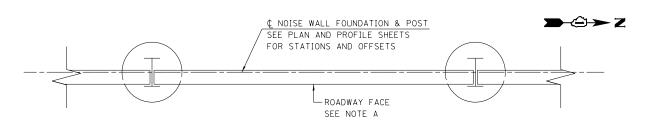
SOIL BORING LOGS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
STRUCTURE NO 000 3/00	856	14-00170-42-RP	WILL	394	252
SOIL BORING LOGS STRUCTURE NO. 099-3409 SHEET NO. 11 OF 11 SHEETS			CONTRACT	NO. 6	51D47
SHEET NO. 11 OF 11 SHEETS		ILLINOIS FED. A	D PROJECT		







# **ELEVATION** N.T.S.



PLAN N.T.S.

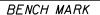
NOTE A THE ROADWAY FACE OF THE NOISE WALL PANELS
SHALL BE PLACED FLUSH WITH THE ROADWAY
FACING FLANGE OF THE SUPPORT PILING AS
SHOWN IN THE PLAN VIEW.

th and an
engineering group
service at the highest grade

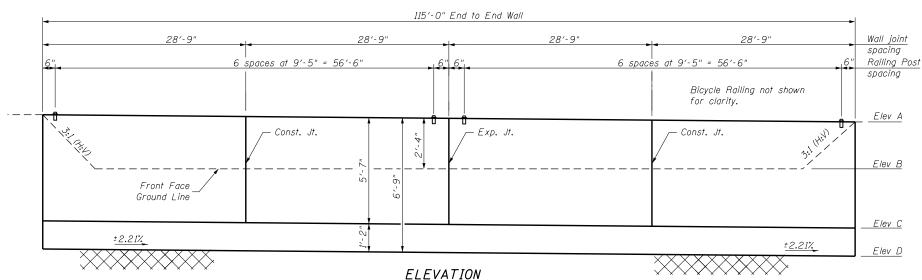
JSER NAME = TEG	DESIGNED -	REVISED - 3/3/2015
	DRAWN -	REVISED - 6/19/2015
PLOT SCALE = 4.0000 '/ in.	CHECKED -	REVISED - 9/27/2016
PLOT DATE = 11/14/2017	DATE - 11/15/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

			N	DISE	AB/	ATEMEN	T WALL		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				1	<b>MF</b> E	ER ROA	۸n		856	14-00170-42-RP	WILL	394	255
					VLL	LII IIO	ער				CONTRAC	T NO. (	51D47
SCALE:	NTS	SHEET	3	OF	3	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		



B.M. Lin 2 Chiseled "" in East side of foundation for mast arm with light in Southwest Quad of Weber Road and North Carillon Drive and Grand Boulevard. Elev. = 644.84



© Proposed C.H. 88

(Weber Road)

Inc<u>reasing</u>

Stations

1764

- Proposed Edge of Pavement

RW2E

# RETAINING WALL BILL OF MATERIAL

Bar	No.	Size	Length	Shape		
h(E)	20	#4	33'-1"			
h1(E)	20	#4	27'-1"			
n(E)	116	116 #5 4'-11"				
v(E)	116	#5	5′-3"			
v 1(E)	78	#4	5′-3"			
t	232	#5	5′-0"			
W	48	#4	30′-11"			
Reinfo	cement	Bars	Pounds	2,210		
	cement Coated	Bars,	Pounds	2,310		
	te Struc ing Wall.		Cu. Yds.	48.0		
Geocom Drain	nposite I	Wall	Sq. Yds.	46.0		
Granulo Structu	ır Backi ıres	fill for	Cu. Yds.	60.0		
Structu	ire Exc	avation	Cu. Yds.	215.0		
	nderdrai ıres 4"	ns for	Feet	127.0		

## NOTES:

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

epoxy coated.

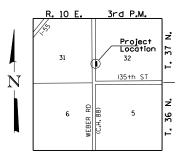
All exposed concrete edges shall be chamfered  $3_{4}$ " except as noted.

over excavation with the same material specified for roadway embankment. Any unsuitable material, as identified by the

Engineer, encountered below the proposed footing limits shall be removed in accordance with Article

See sheet 257 of 394 for Retaining Wall Details. See sheet 258 of 394 for Bicycle Railing Details

See sheet 259 of 394 for Soil Boring Logs. All rail posts and concrete joints shall be vertical.



GENERAL PLAN WEBER ROAD (C.H. 88) RETAINING WALL F.A.P. ROUTE 856 SECTION 14-00170-42-RP WILL COUNTY

WALL ELEVATIONS

tation | Elev. A | Elev. B | Elev. C | Elev. D

763+15 | 646.77 | 646.77 | 641.19 | 640.02

63+20 646.67 645.10 641.09 639.92

63+30 646,46 644,13 640,88 639,71 763+40 646.25 643.92 640.67 639.50

*'63+50 646.04 643.71 640.46 639.29* 

63+60 645.83 643.50 640.25 639.08 763+70 | 645,61 | 643,28 | 640,03 | 638,86

763+80 645.39 643.06 639.8/ 638.64

63+90 645.16 642.83 639.58 638.41 64+00 644,93 642.60 639.35 638.18 764·10 644.70 642.37 639.12 637.95 764·20 644.47 642.14 638.89 637.72

764+30 644.22 644.22 638.64 637.47

Pipe Underdrain

(S178)

Proposed Edge of Sidewalk.

- Sta.: 764+30.00

Sta.: 764+30.00

Offset: 73.50' RT

Offset: 72.67' RT

to drain into Inlet

Reinforcement bars designated (E) shall be

Backfill remainder of structure excavation and

Existing Utilites will be removed and relocated prior to construction.

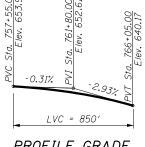
and Bill of Material.

#### LOCATION SKETCH

STA. 763+15

# HIGHWAY CLASSIFICATION

Functional Class: Urban SRA ADT: 39,200 (2010); 57,000 (2040) ADTT: 3.0% Design Speed: 45 m.p.h. Posted Speed: 45 m.p.h. Directional Distribution: 50:50



# PROFILE GRADE

# C.H. 88 (Weber Road)

SCALE: NTS SHEET 1

#### 2 ft Live Load Surcharge Equivalent Fluid Soil Pressure = 40 psf Ka = 0.30

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design

Specifications, 7th Edition, 2014

**DESIGN STRESSES** 

f'c = 3,500 psi

fy = 60,000 psi

**LOADING** 

# JUSTIN R. BROWN, P.E., S.E. ILLINOIS LICENSED STRUCTURAL ENGINEER LICENSE EXPIRES NOVEMBER 30, 2018 e<u>ngineering grou</u>p

081-007916

LICENSED

Sta.: 763+15.00 -

Sta.: 763+15.00 -

Offset: 73.50' RT

Offset: 72.67' RT

USER NAME = TEG	DESIGNED - NPH	REVISED -	3/3/2015
	DRAWN - JBH	REVISED -	6/19/2015
PLOT SCALE = 13.5861 ' / in.	CHECKED - JRB	REVISED -	9/27/2016
PLOT DATE = 11/14/2017	DATE - 11/15/17	REVISED -	

RW2D-

**> ≥ > Z** 

I certify that to the best of my knowledge, information

and belief, this design is structurally adequate for the

design loading shown on the plans. The design is an

economical one for the style of structure and complies

with the requirements of the current AASHTO LRFD

Bridge Design Specifications.

DATE: 11/13/17

Pine Underdrain, See -

Sheet 257 For Details

Proposed Back of Curb-

Proposed R.O.W.

Proposed Temp. —

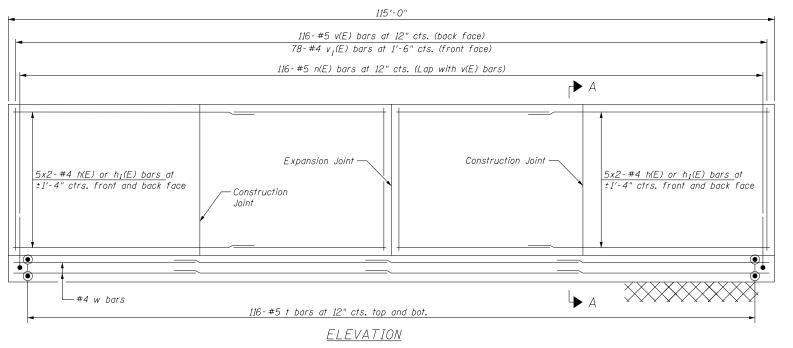
Easement

115'-0"

PLAN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION						F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RETAINING WALL						856	14-00170-42-RP	WILL	394	256
								CONTRAC	T NO.	61D47
T 1	OF	4	SHEETS	STA.	TO STA.		TILLINOIS FED. AT	D PROJECT		



MINIMUM BAR LAP #4 bar = 2'-11'' #5 bar = 3'-3" #5 v(E) Front
Face

2" cl.

#4 h(E) bars
or h<sub>1</sub>(E) bars

3'-8"

#5 t bars

#5 n(E) bars

#5 n(E) bars

#6 x4-#4 w bars at 12" ctrs.

#6 your front
Face

2" cl.

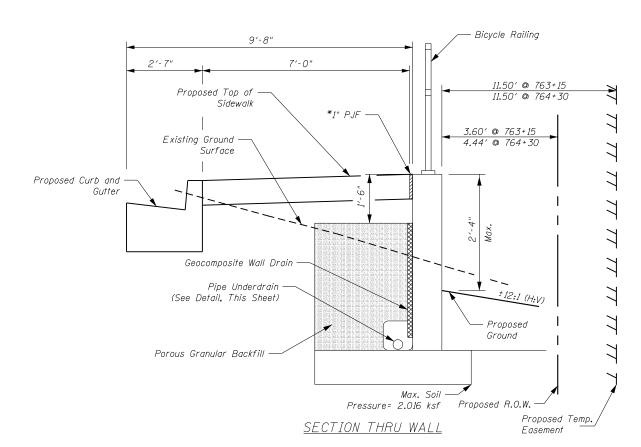
#6 your front
Face

4 your front
F

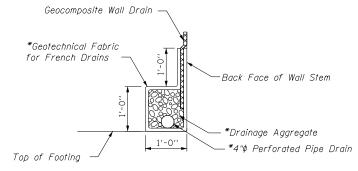
7" 4'-4"

n(E) BAR

SECTION A-A

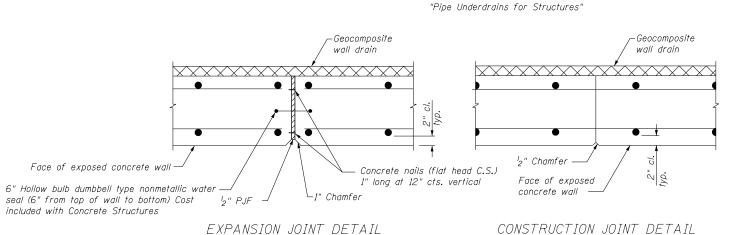


\*Cost of preformed joint filler between sidewalk and wall included in Concrete Structures (Retaining Wall).



PIPE UNDERDRAIN DETAIL

\*Included in the cost of

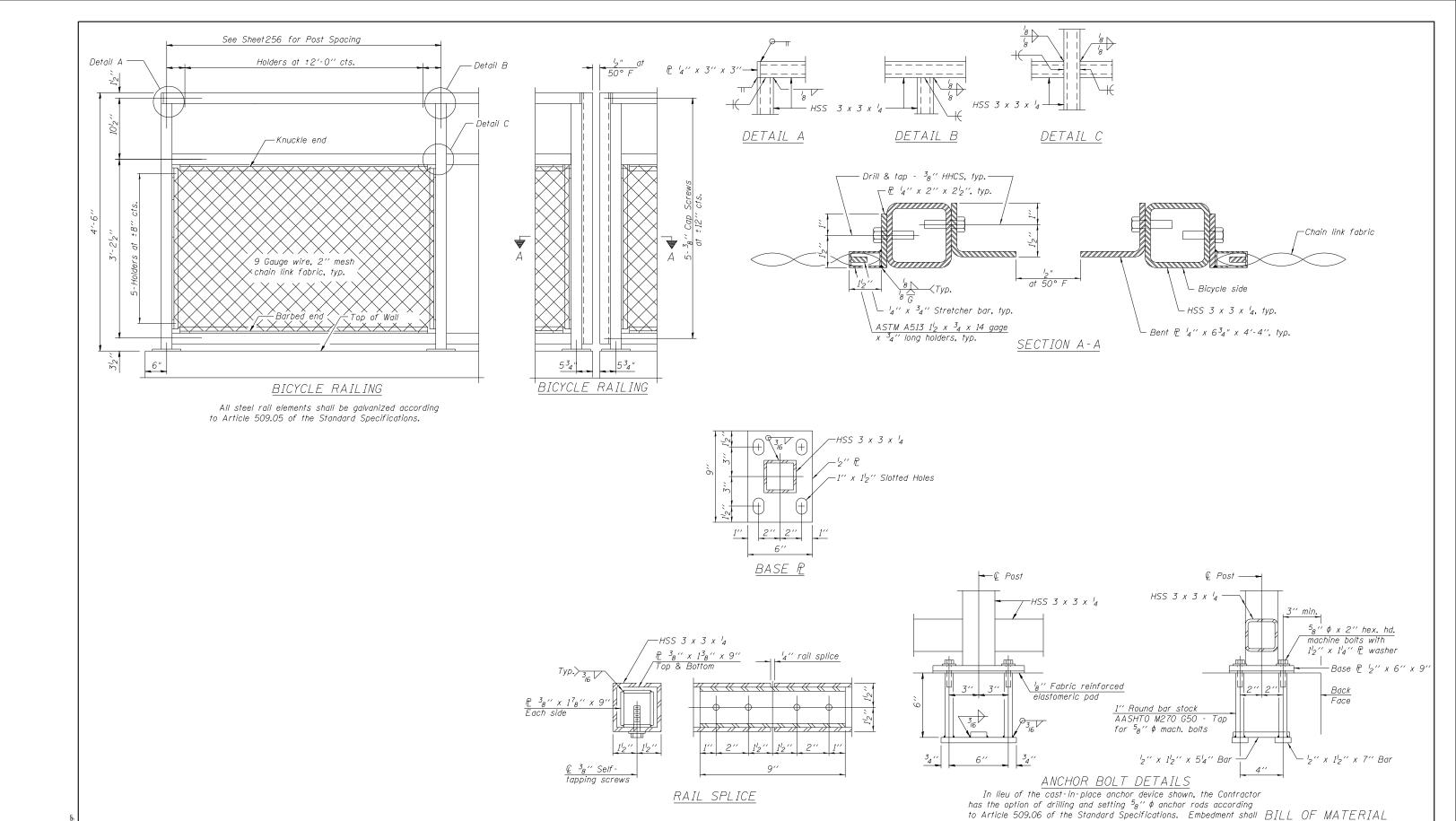


thomas engineering group

USER NAME = TEG	DESIGNED	-	NPH	REVISED	-	3/3/2015
	DRAWN	-	JBH	REVISED	-	6/19/2015
PLOT SCALE = 10.0000 '/ in.	CHECKED	-	JRB	REVISED	-	9/27/2016
PLOT DATE = 11/14/2017	DATE	-	11/15/17	REVISED	-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RETAINING WALL	856	14-00170-42-RP	WILL	394	257
ILIAMINU WALL			CONTRAC	T NO. (	51D47
SCALE: NTS   SHEET 2 OF 4 SHEETS STA. TO STA.		ILLINOIS FED. A	ID PROJECT		



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service at the highest grade	ı

USER NAME = TEG	DESIGNED - NPH	REVISED - 3/3/2015
	DRAWN - JBH	REVISED - 6/19/2015
PLOT SCALE = 10.0000 '/ in.	CHECKED - JRB	REVISED - 9/27/2016
PLOT DATE = 11/14/2017	DATE - 11/15/17	REVISED -

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTAT	ΓΙΟΝ

SCALE:

		BICYCLE RAIL	ING		F.A.P. RTE.	SECTION	C
		RETAINING W	'ALL		856	14-00170-42-RP	
		HEIAHMING W			C		
NTS	SHEET 3	OF 4 SHEETS	STA.	TO STA.		TILLINOIS FED. A	ID PRO

be according to the manufacturer's specifications.

COUNTY TOTAL SHEET NO.
WILL 394 258 CONTRACT NO. 61D47

Unit Quantity

Foot

Item

Bicycle Railing



Page <u>1</u> of <u>1</u>

Date 5/22/15

ROUTE	Weber Rd.	DE	SCR	IPTION	1				Lo	OGGI	ED BY	E. M	ueller
SECTION	2013-052WR	S	ι	_OCA1	ION _	, SEC.	, TWP. , RNG. , ide , Longitude						
COUNTY	Will D	RILLING	ME	THOD			Flight Auger	HAMMER T	YPE		Auto	matic	
Station			D E P	B L O	U C S	M O I	Surface Water Elev Stream Bed Elev		ft ft	D E P	B L O	U C S	M O I
Station	RW2D 763+35 60.2 ft Right		H	S S	Qu	S T	Groundwater Elev.: First Encounter Upon Completion	<u>Dry</u> Dry	ft ft	H	W S	Qu	S T
Ground Surfa	ce Elev. 647.20	<u>ft</u>	(ft)	(/6")	(tsf)	(%)	After 24 Hrs.	634.7	ft∑	(ft)	(/6")	(tsf)	(%)
Black Silty Clay	y, Fill, A-7-6		_			125				_			
			_	4									
				4		21							
		644.20	_	'						_			
Dark Brown Sil	ty Clay, A-6	044.20		-									
				8	L								
			<u>-</u> 5	9 17	4.5 P	18				-25			
		641.70								-23			
Brown below 5	.5'												
			_	8	E E	15				_			
				12	5.5 S	15							
			_	-						_			
				8	8.0	16							
			-10	40	S	10				-30			
			_	6 8	4.5	17				_			
			$\overline{f  abla}$	10	В	<del></del>				_			
			_	8						_			
				9	8.2	17							
		632.20	-15	13	S					-35			
End of Boring			_							_			
										_			
			_	-						-			
										-30			
				-									
			_	-						_			
			-20	1	1	1	II .			-40		1	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



# **SOIL BORING LOG**

Page <u>1</u> of <u>1</u>

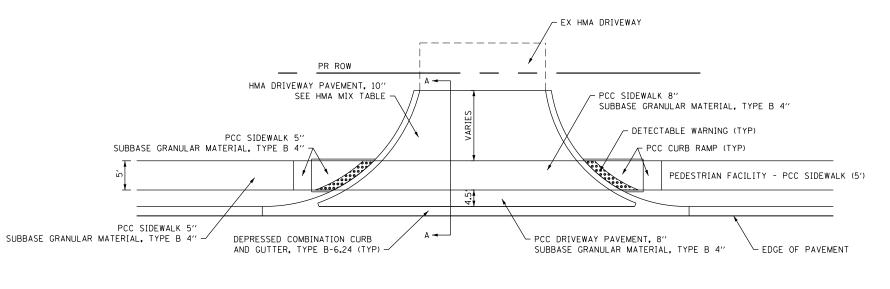
Date 5/22/15

ROUTE	Weber Rd	D	ESCR	IPTION	۱				L0	OGG	ED BY	E. M	lueller
SECTION	2013-05	52WRS		LOCAT	TION _	, SEC.	. , TWP. , RNG. , ude , Longitude						
COUNTY	Will	DRILLIN	IG ME	THOD			Flight Auger	HAMMER T	YPE		Auto	matic	
			D E P	B L O	U C S	M O I	Surface Water Elev Stream Bed Elev		ft ft	D E P	B L O	U C S	M 0 -
BORING NO. Station Offset Ground Surf	63.7 ft F	E 17 Right 644.70 <b>f</b>	H (ft)	W S (/6")	Qu (tsf)	S T (%)	Groundwater Elev.: First Encounter Upon Completion After 24 Hrs.	638.7 630.7 630.7	ft $ar{oxtime}$	H (ft)	W S (/6")	Qu (tsf)	S T (%)
Black Silty Cla				, ,						_			. ,
Brown Silty CI	av. Fill. A-4	643.7	0	5		18							
	,			5 7		16				_			
				1 0		16							
				1						-25			
				0	0.5	20							
		636.7	0 -	1	0.5 P	28							
Brown to Brow Clay, A-6	vn and Gray S	ilty	_	4						_			
			-10	6 8	6.1 S	19				-30			
			_	4						_			
			_	9	5.4 \ S	18				_			
				8 10 15	7.3 S	19				-35			
End of Boring		629.7	0 -15	- 13	3					-35			
			_							_			
			_	-						_			
			_										
			-20							-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

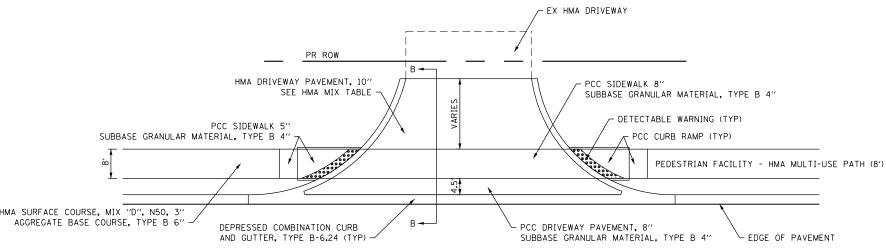
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	DRAWN	-	JBH	REVISED	-	6/19/2015
PLOT SCALE = 2.0000 '/ in.	CHECKED	-	JRB	REVISED	-	9/27/2016
PLOT DATE = 11/14/2017	DATE	_	11/15/17	REVISED	_	

RETAINING WALL	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE1
SOIL BORING LOGS	856	14-00170-42-RP	WILL	394	259
			CONTRAC	T NO. 6	61D47
SCALE: NTS SHEET 4 OF 4 SHEETS STA. TO STA.		ILLINOIS FED. A	ID PROJECT		



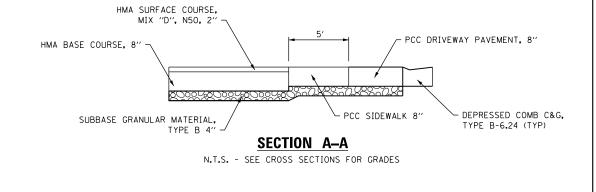
### COMMERCIAL DRIVEWAY WITH PCC SIDEWALK PEDESTRIAN FACILITIES

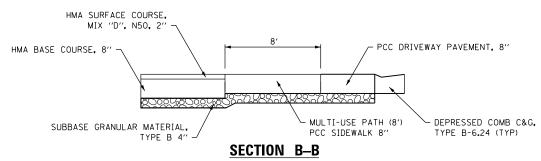
N.T.S. - SEE PLANS FOR LOCATIONS



### COMMERCIAL DRIVEWAY WITH HMA MULTI-USE PATH PEDESTRIAN FACILITIES

N.T.S. - SEE PLANS FOR LOCATIONS





N.T.S. - SEE CROSS SECTIONS FOR GRADES

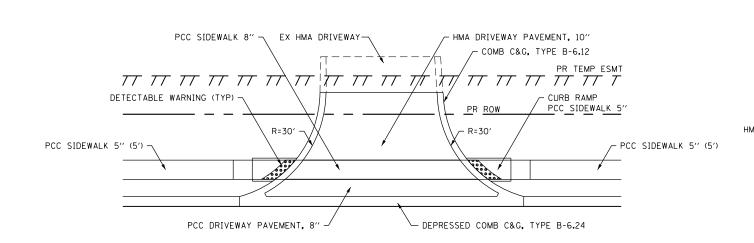
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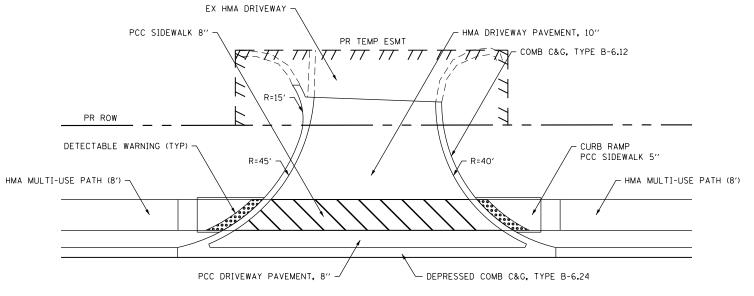
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	DRAWN -	REVISED - 6/19/2015
PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED - 9/27/2016
PLOT DATE = 11/14/2017	DATE - 11/15/17	REVISED -

STATE	: OF	ILLINOIS	
DEPARTMENT	OF	TRANSPORTATION	

SCALE: N

CONSTRUCTION DETAILS									SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
ENTRANCES								856	14-00170-42-RP	WILL	394	260
LIVITAIVOLO										CONTRAC	NO.	61D4
NTS	SHEET	1	OF	6	SHEETS	STA.	TO STA.		ILLINOIS FED. AI	D PROJECT		





### WEBER ROAD COMMERICAL ENTRANCE STA 755+05.90 (RT)

N.T.S.

# WEBER ROAD COMMERICAL ENTRANCE STA 760 + 58.97 (LT)

N.T.S

### NOTES:

- 1. PREMOLDED EXPANSION JOINTS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF PCC DRIVEWAY PAVEMENT 8".
- 2. COMBINATION CONCRETE CURB AND GUTTER AND CONCRETE CURB SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY RETURN. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB TRANSITION SECTIONS.
- ALL POURS MUST BE SEPARATE. NO MONOLITHIC POURS WITH CURB AND GUTTER, DRIVEWAY APPROACHES, AND SIDEWALKS.
- 4. ALL SAWCUTS ARE TO BE FULL DEPTH.
- 5. PROTECTIVE COATING SHALL BE INSTALLED ON ALL CONCRETE WORK.
- 6. SEE HMA MIXTURE REQUIREMENTS IN TYPICAL SECTIONS FOR MIX DETAILS.

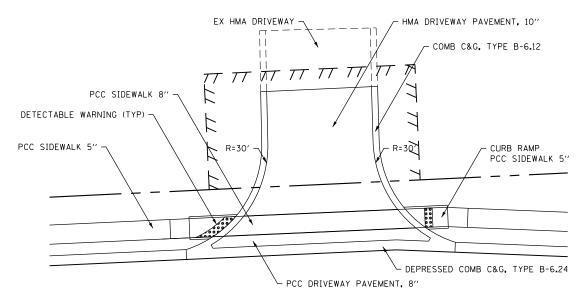
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USER NAME = TEG	DESIGNED -	REVISED -	3/3/2015
	DRAWN -	REVISED -	6/19/2015
PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -	9/27/2016
PLOT DATE = 11/14/2017	DATE - 11/15/17	REVISED -	

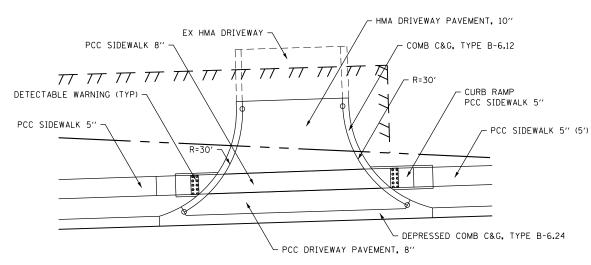
STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

SCALE: NTS SHEET

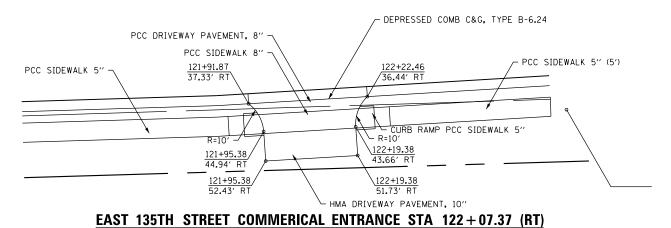
CONSTRUCTION DETAILS ENTRANCES						F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
						856	394	261		
								CONTRAC	NO. 6	51D47
2	OF	6	SHEETS	STA.	TO STA.		ILLINOIS FED. AI	D PROJECT		



EAST 135TH STREET COMMERICAL ENTRANCE STA 119 + 44.27 (LT)



EAST 135TH STREET COMMERICAL ENTRANCE STA 122+07.37 (LT)

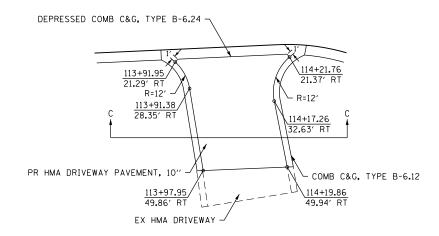


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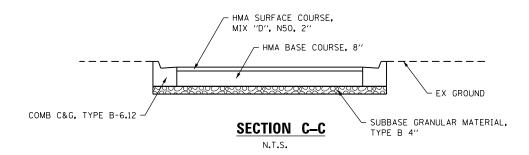
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	DRAWN -	REVISED - 6/19/2015
PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED - 9/27/2016
PLOT DATE = 11/14/2017	DATE - 11/15/17	REVISED -

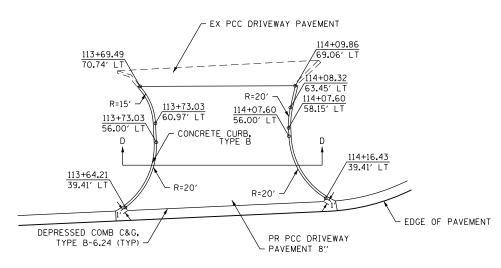
	CONSTRUCTION DETAILS								F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
CONTRACT NO. 6		ENTRANCES						856	14-00170-42-RP	WILL	394	262			
										CONTRAC	T NO.	61D47			
SCALE: NTS   SHEET 3 OF 6 SHEETS   STA. TO STA.   ILLINOIS   FED. AID PROJECT		SCALE:	NTS	_   :	SHEET	3	OF	6	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			



### FIRE DEPARTMENT ENTRANCE STA 114+07.02 (RT)

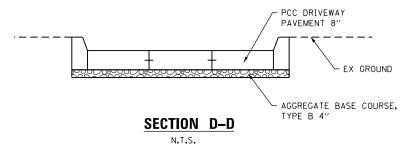
N.T.S.

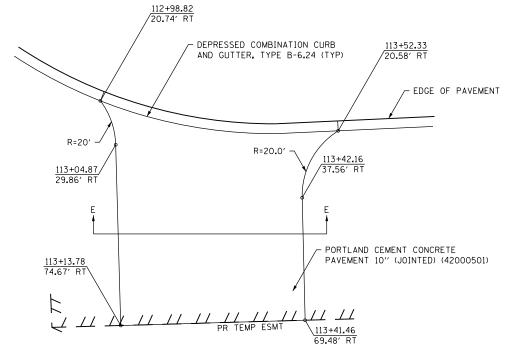




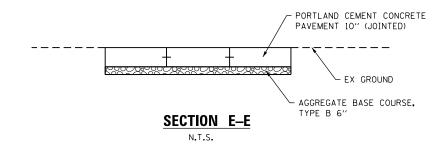
# **BP GAS STATION ENTRANCE STA 113 + 89.36 (LT)**

N.T.S.





# LOCKPORT TOWNSHIP FIRE PROTECTION DISTRICT ENTRANCE STA 113 + 25.24 (RT)



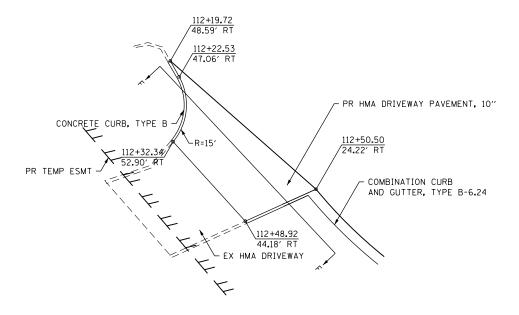
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USER NAME = TEG	DESIGNED -	REVISED -	3/3/2015
	DRAWN -	REVISED -	6/19/2015
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	9/27/2016
PLOT DATE = 11/14/2017	DATE - 11/15/17	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

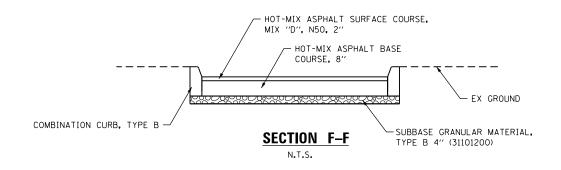
SCALE: NTS

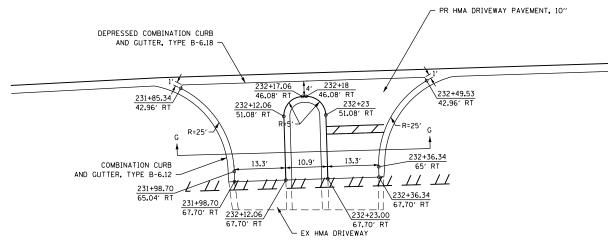
		(	CONST	ΓRU	CTION	DETAILS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ENTRANCES					856	14-00170-42-RP	WILL	394	263		
LIVITIANOLO										CONTRAC	T NO.	61D47
	SHEET	4	OF	6	SHEETS	STA.	TO STA.		ILLINOIS FED.	AID PROJECT		



# WEST 135TH STREET DRIVEWAY STA 112 + 37.53 (RT)

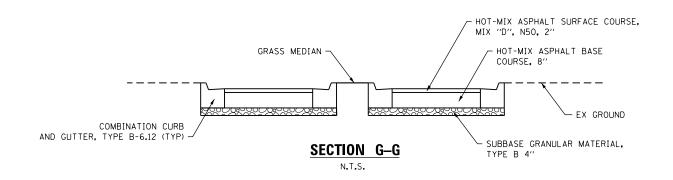
NTS





### N. CARILLON COMMERICAL ENTRANCE STA 232 + 17.42 (RT)

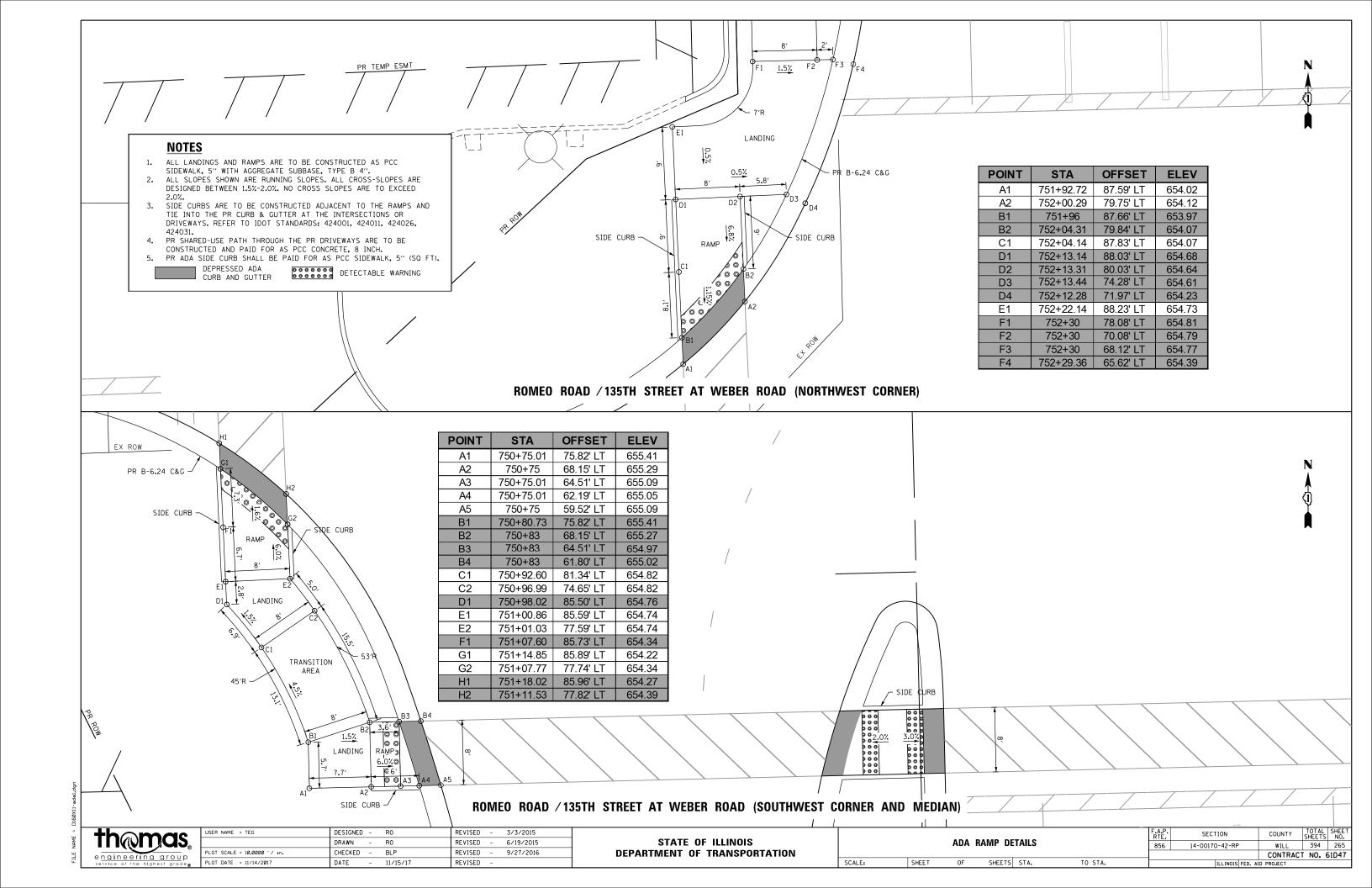
N.T.S.

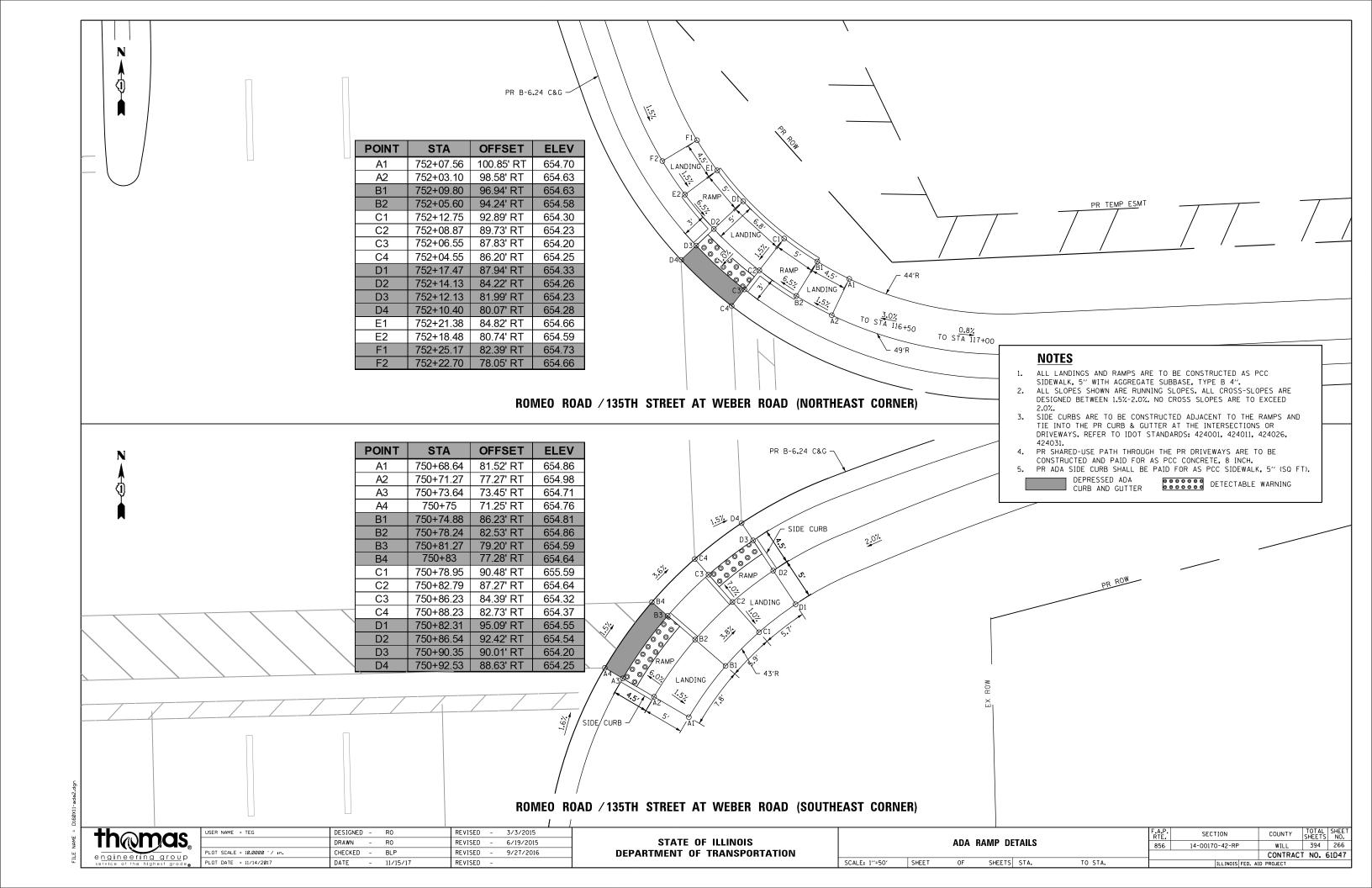


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JSER NAME = TEG	DESIGNED -	REVISED -	3/3/2015
	DRAWN -	REVISED -	6/19/2015
PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -	9/27/2016
PLOT DATE = 11/14/2017	DATE - 11/15/17	REVISED -	

	CONST	RUCTION	DETAILS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE1
ENTRANCES						14-00170-42-RP	WILL	394	264
				CONTRAC	T NO. 6	51D47			
SCALE: NTS SH	HEET 5 OF	6 SHEETS	STA.	TO STA.		ILLINOIS FED	. AID PROJECT		

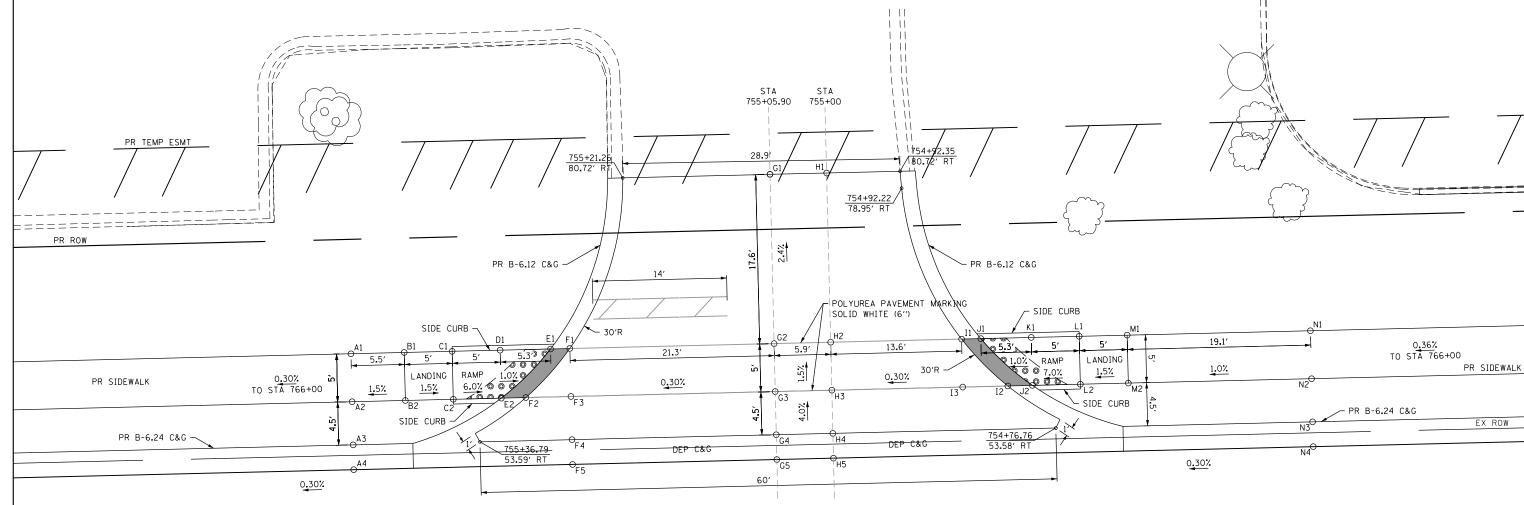




# **NOTES** ALL LANDINGS AND RAMPS ARE TO BE CONSTRUCTED AS PCC SIDEWALK, 5" WITH AGGREGATE SUBBASE, TYPE B 4". ALL SLOPES SHOWN ARE RUNNING SLOPES. ALL CROSS-SLOPES ARE DESIGNED BETWEEN 1.5%-2.0%. NO CROSS SLOPES ARE TO EXCEED SIDE CURBS ARE TO BE CONSTRUCTED ADJACENT TO THE RAMPS AND TIE INTO THE PR CURB & GUTTER AT THE INTERSECTIONS OR DRIVEWAYS. REFER TO IDOT STANDARDS: 424001, 424011, 424026, 424031. 4. PR SHARED-USE PATH THROUGH THE PR DRIVEWAYS ARE TO BE CONSTRUCTED AND PAID FOR AS PCC CONCRETE, 8 INCH. PR ADA SIDE CURB SHALL BE PAID FOR AS PCC SIDEWALK, 5" (SO FT). DEPRESSED ADA CURB AND GUTTER DETECTABLE WARNING Z PR TEMP ESMT

Λ.4		OFFSET	ELEV
A1	755+50	63.08' RT	653.74
A2	755+50	58.08' RT	653.81
A3	755+50	53.58' RT	653.88
A4	755+50	51' RT	653.50
B1	755+44.45	63.08' RT	653.82
B2	755+44.45	58.08' RT	653.89
C1	755+39.45	63.08' RT	653.89
C2	755+39.45	58.08' RT	653.96
D1	755+34.45	63.08' RT	653.59
E1	755+29.20	63.08' RT	653.63
E2	755+34.45	58.08' RT	653.66
F1	755+27.19	63.08' RT	653.64
F2	755+31.89	58.08' RT	653.67
F3	755+27.19	58.08' RT	653.71
F4	755+27.19	53.58' RT	653.96
F5	755+27.19	51' RT	653.95
G1	755+05.90	80.72' RT	653.28
G2	755+05.90	63.08' RT	653.70
G3	755+05.90	58.08' RT	653.77
G4	755+05.90	53.58' RT	653.96
G5	755+05.90	51' RT	653.95

POINT	STA	OFFSET	ELEV
H1	755+00	80.72' RT	653.37
H2	755+00	63.08' RT	653.72
H3	755+00	58.08' RT	653.79
H4	755+00	53.58' RT	653.98
H5	755+00	51' RT	653.97
11	754+86.36	63.08' RT	653.76
12	754+81.65	58.08' RT	653.83
13	754+86.36	58.08' RT	653.83
J1	754+84.35	63.08' RT	653.75
J2	754+79.10	58.08' RT	653.82
K1	754+79.10	63.08' RT	653.80
L1	754+74.10	63.08' RT	654.10
L2	754+74.10	58.08' RT	654.17
M1	754+69.10	63.08' RT	654.17
M2	754+69.10	58.08' RT	654.24
N1	754+50	63.08' RT	654.34
N2	754+50	58.08' RT	654.44
N3	754+50	53.58' RT	654.51
N4	754+50	51' RT	654.13



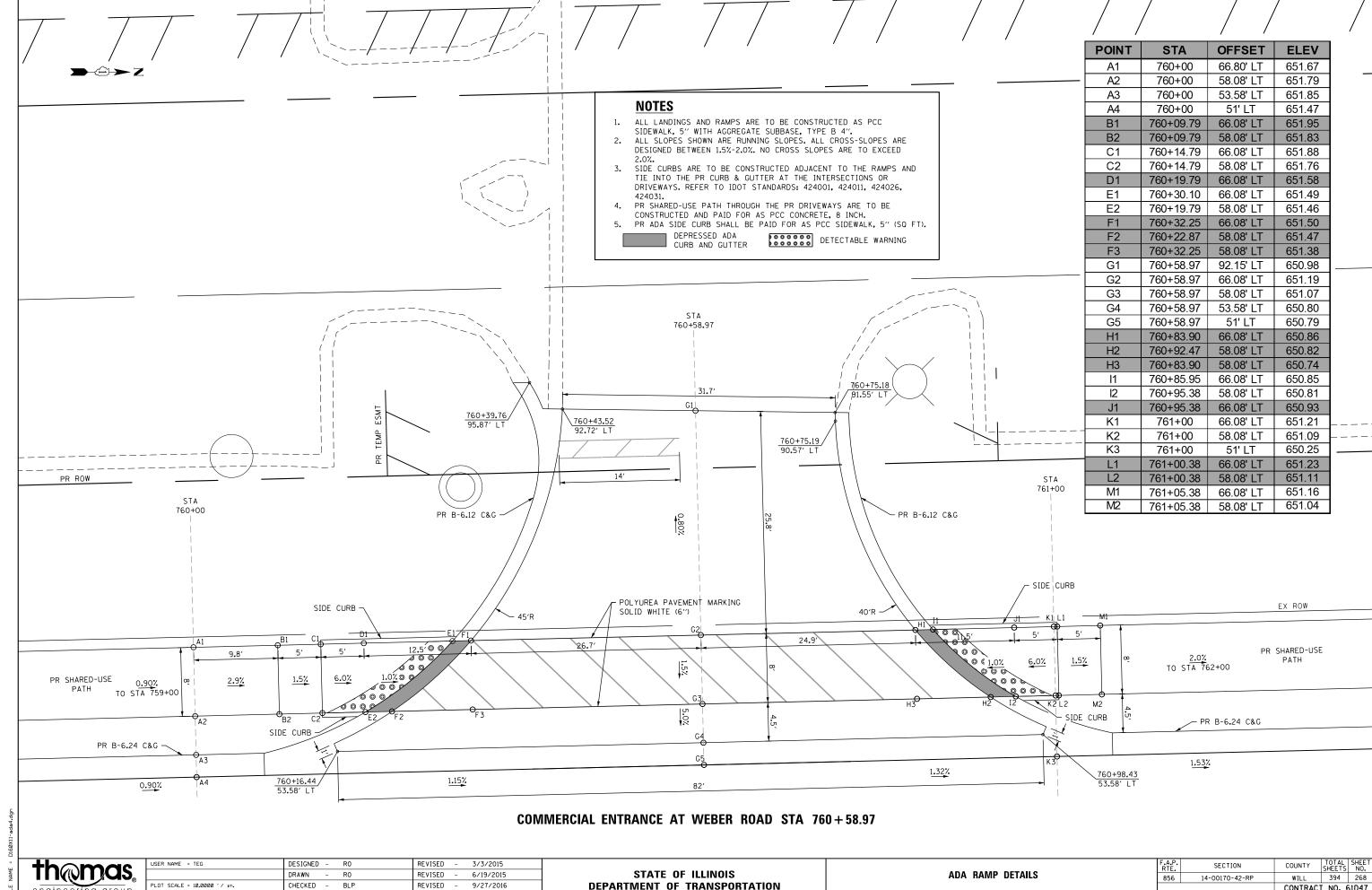
#### **COMMERCIAL ENTRANCE AT WEBER ROAD STA 755 + 05.90**

$\vdash$	
1	
1	
1	
1	
1	engineering group
	service at the highest grade-

USER NAME = TEG	DESIGNED	-	R0	REVISED	-	3/3/2015
	DRAWN	-	RO	REVISED	-	6/19/2015
PLOT SCALE = 10.0000 '/ in.	CHECKED	-	BLP	REVISED	-	9/27/2016
PLOT DATE = 11/14/2017	DATE	-	11/15/17	REVISED	-	

STATI	STATE OF ILLINOIS						
DEPARTMENT	OF TRANSPORTATI	ON					

F. F							SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ADA RAMP DETAILS							WILL	394	267
								CONTRAC	T NO. (	61D47
SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				



SCALE:

SHEET

OF SHEETS STA.

TO STA.

CONTRACT NO. 61D47

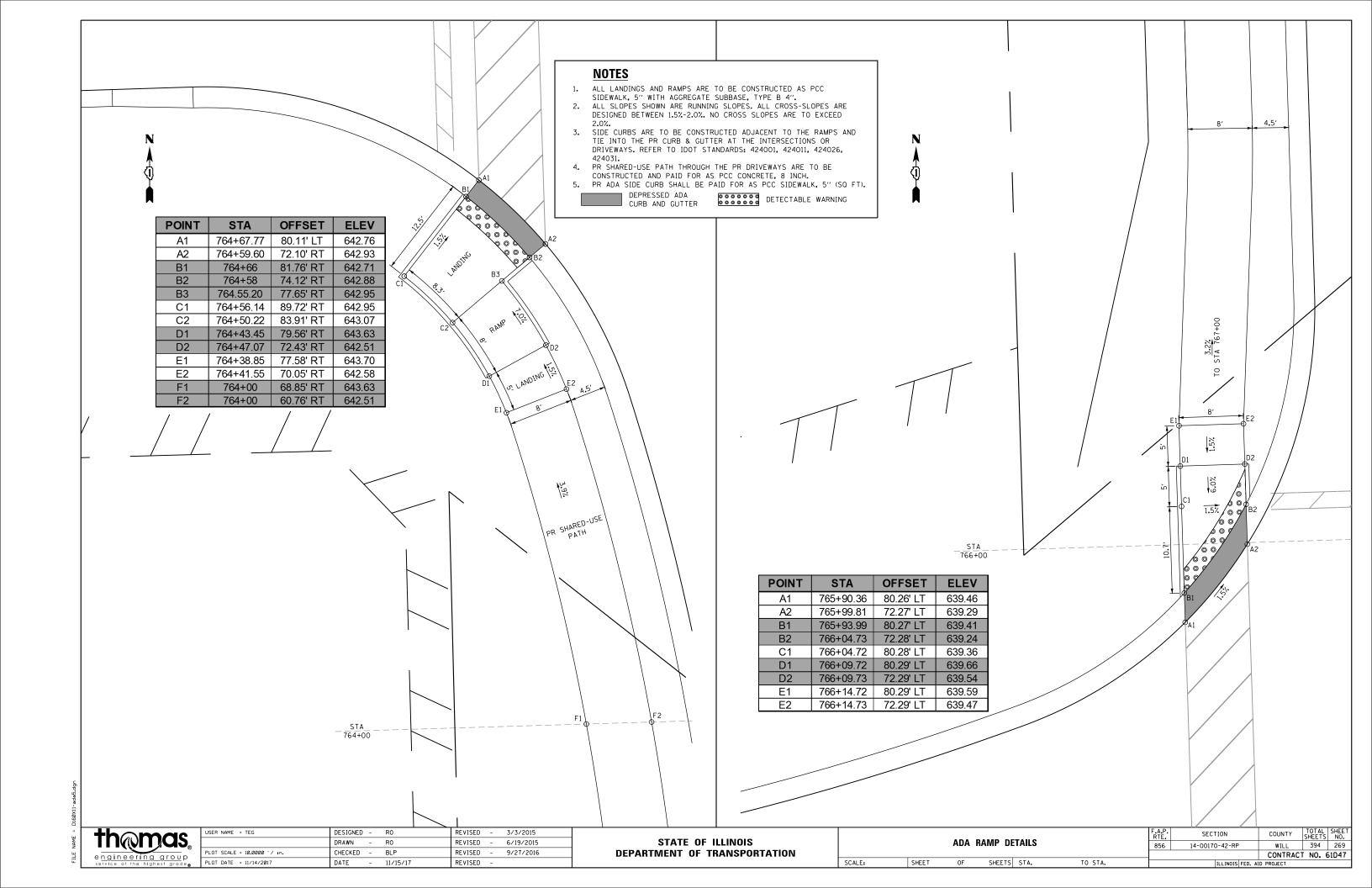
e<u>ngineering grou</u>p

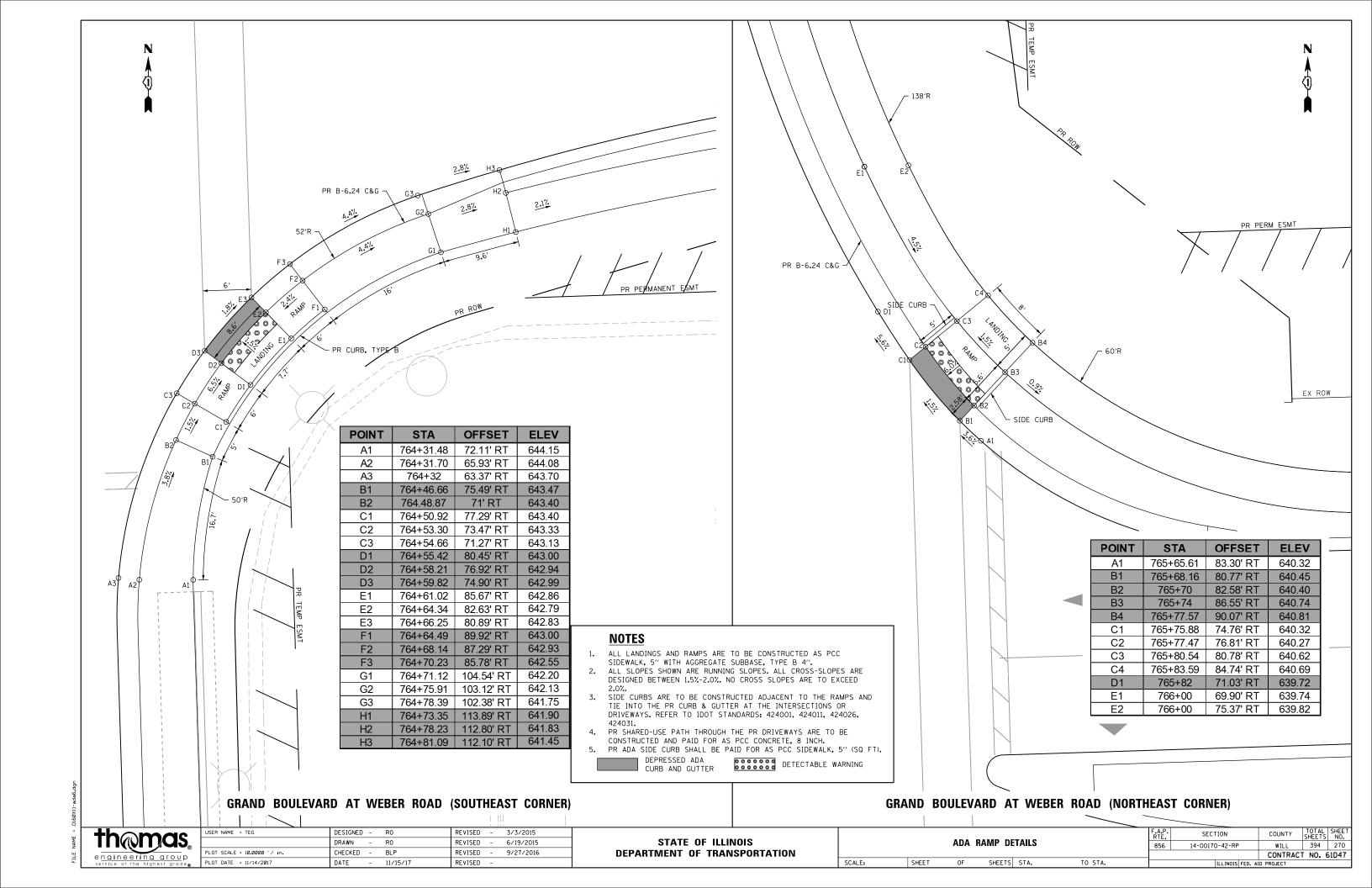
PLOT DATE = 11/14/2017

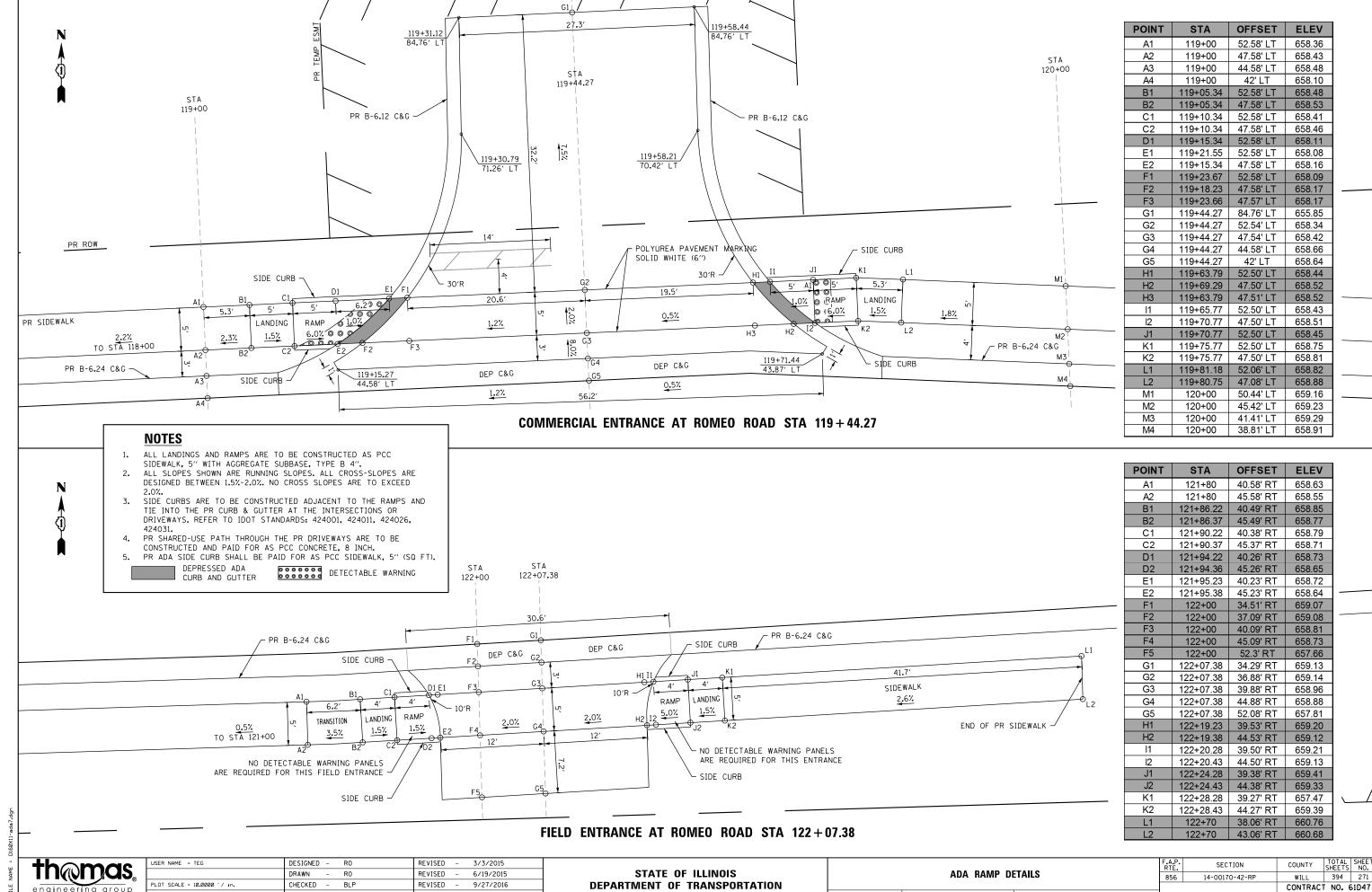
DATE

11/15/17

REVISED







SCALE:

SHEET

SHEETS STA.

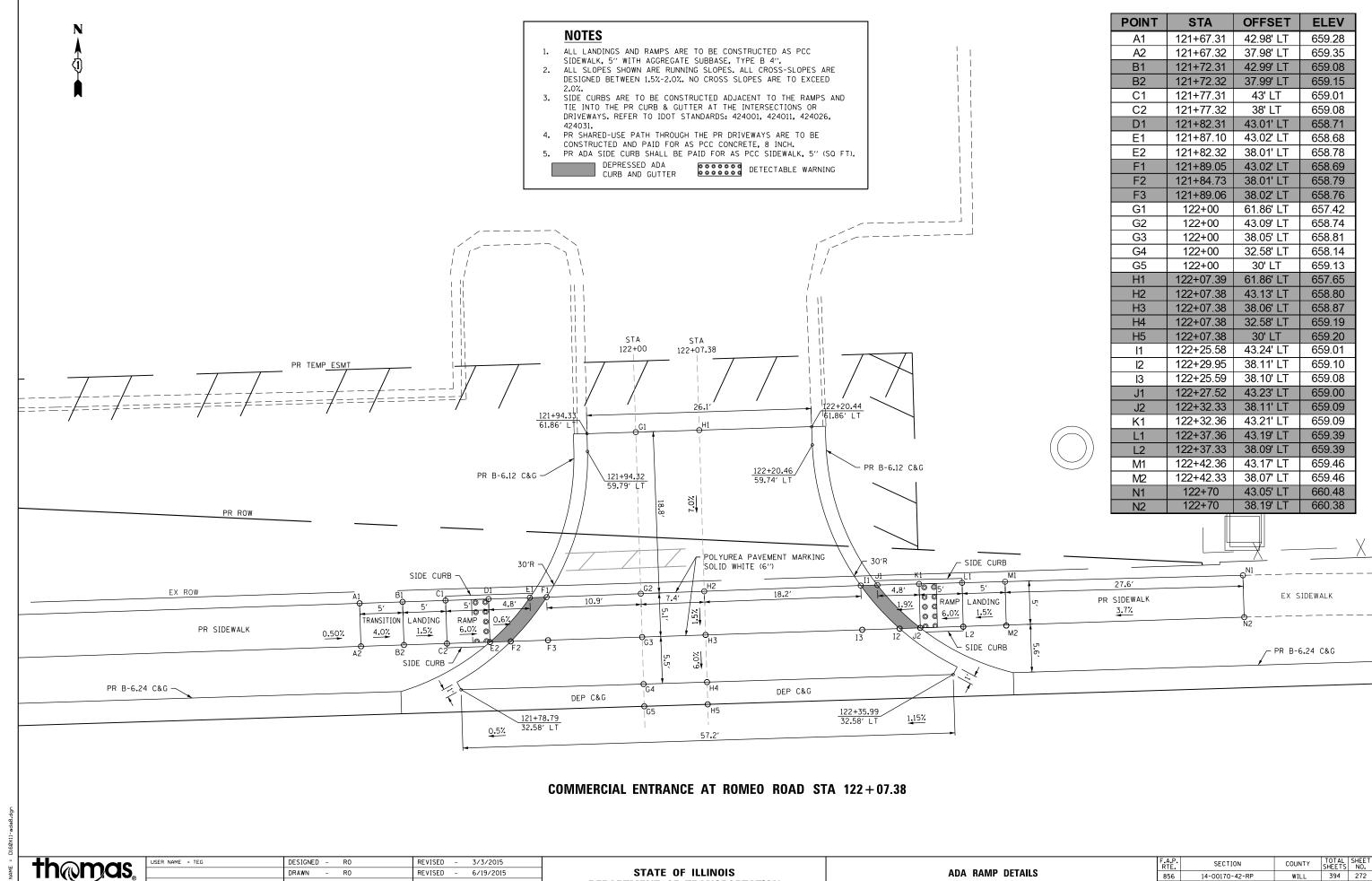
TO STA.

PLOT DATE = 11/14/2017

DATE

11/15/17

REVISED



**DEPARTMENT OF TRANSPORTATION** 

SCALE:

SHEET

OF SHEETS STA.

TO STA.

CONTRACT NO. 61D47

e<u>ngineering grou</u>p

LOT SCALE = 10.0000 '/ in.

PLOT DATE = 11/14/2017

CHECKED -

DATE

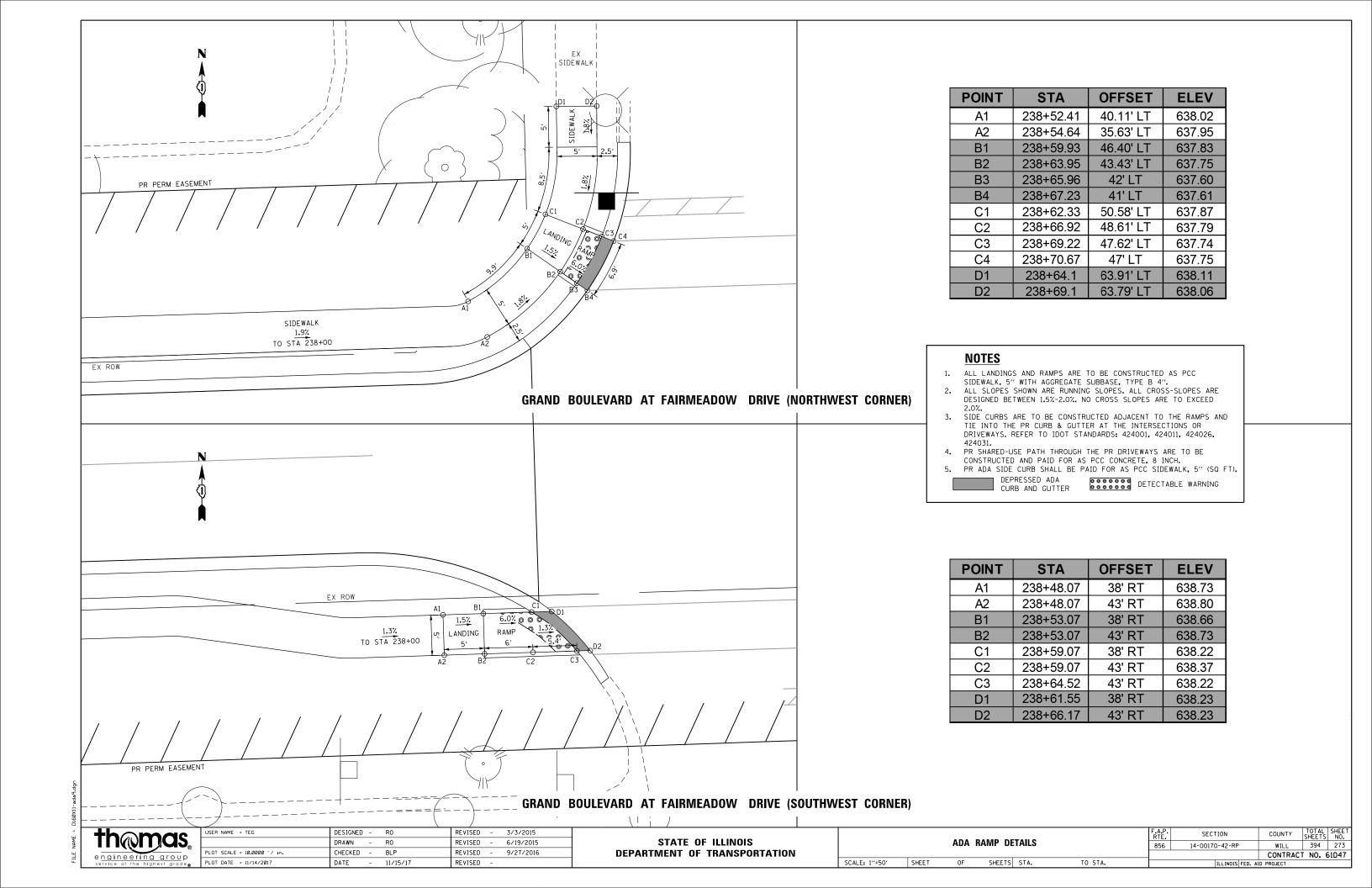
BLP

11/15/17

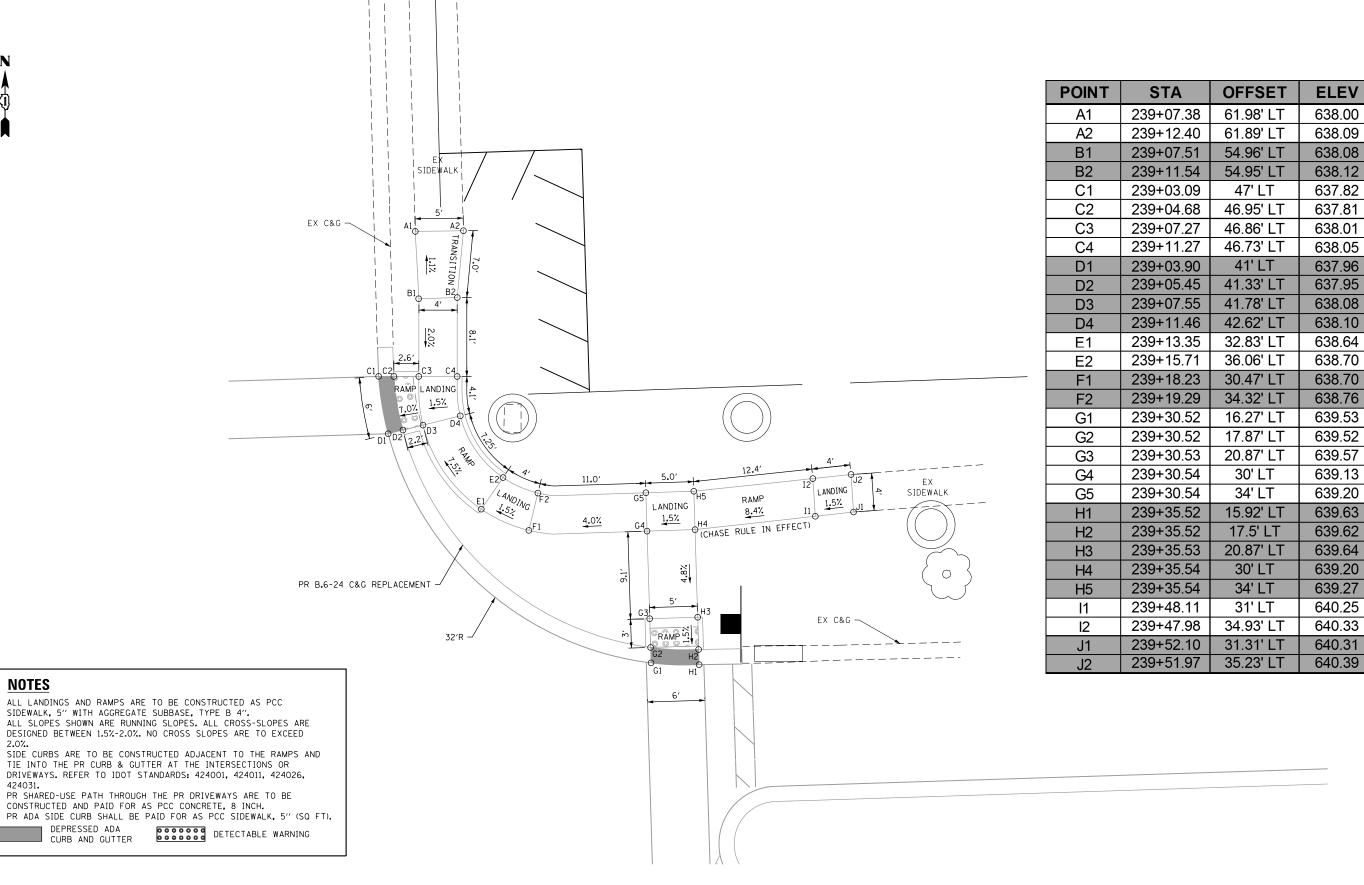
REVISED

REVISED

9/27/2016







#### GRAND BOULEVARD AT FAIRMEADOW DRIVE (SOUTHWEST CORNER)



NOTES

424031.

DEPRESSED ADA

CURB AND GUTTER

USER NAME = TEG	DESIGNED	-	R0	REVISED	-	3/3/2015
	DRAWN	-	RO	REVISED	-	6/19/2015
PLOT SCALE = 10.0000 '/ in.	CHECKED	-	BLP	REVISED	-	9/27/2016
PLOT DATE = 11/14/2017	DATE	-	11/15/17	REVISED	-	

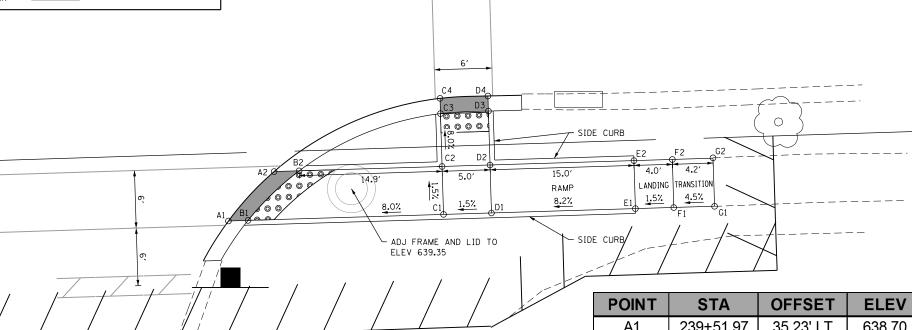
STATE	OF ILLINOIS	
DEPARTMENT	OF TRANSPORTAT	ION

ADA DANID DETAILE							SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ADA RAMP DETAILS						856	14-00170-42-RP	WILL	394	274
								CONTRAC	T NO. (	S1D47
SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				

#### **NOTES**

- 1. ALL LANDINGS AND RAMPS ARE TO BE CONSTRUCTED AS PCC SIDEWALK, 5" WITH 4" AGGREGATE SUBBASE, TYPE B.
  2. ALL SLOPES SHOWN ARE RUNNING SLOPES. ALL CROSS-SLOPES ARE DESIGNED BETWEEN 1.5%-2.0%. NO CROSS SLOPES ARE TO EXCEED 2.0% AND NO RUNNING SLOPE SHALL EXCEED 5.0%.
  3. SIDE CURBS ARE TO BE CONSTRUCTED ADJACENT TO THE RAMPS AND TIE INTO THE PR CURB & GUTTER AT THE INTERSECTIONS OR DRIVEWAYS. REFER TO IDOT STANDARDS: 424001, 424011, 424026, 424031. 424031.
- 4. PR SHARED-USE PATH THROUGH THE PR DRIVEWAYS ARE TO BE CONSTRUCTED AND PAID FOR AS PCC CONCRETE, 8 INCH.
- 5. PR ADA SIDE CURB SHALL BE PAID FOR AS PCC SIDEWALK, 5".

DEPRESSED ADA DETECTABLE WARNING CURB AND GUTTER



POINT	STA	OFFSET	ELEV
A1	239+51.97	35.23' LT	638.70
A2	239+12.94	38.07' LT	638.88
B1	239+10.07	43.06' LT	638.69
B2	239+15.55	38.07' LT	638.87
C1	239+30.45	43.09' LT	640.13
C2	239+30.45	38.09' LT	640.06
C3	239+30.46	32.58' LT	639.62
C4	239+30.46	30.99' LT	639.63
D1	239+35.45	43.09' LT	640.20
D2	239+35.45	38.03' LT	640.13
D3	239+35.46	32.47' LT	639.69
D4	239+35.46	30.9' LT	639.70
E1	239+50.45	43.11' LT	641.44
E2	239+50.45	38.11' LT	641.37
F1	239+54.45	43.12' LT	641.50
F2	239+54.45	38.12' LT	641.43
G1	239+58.7	43.13' LT	641.77
G2	239+58.7	38.08' LT	641.62

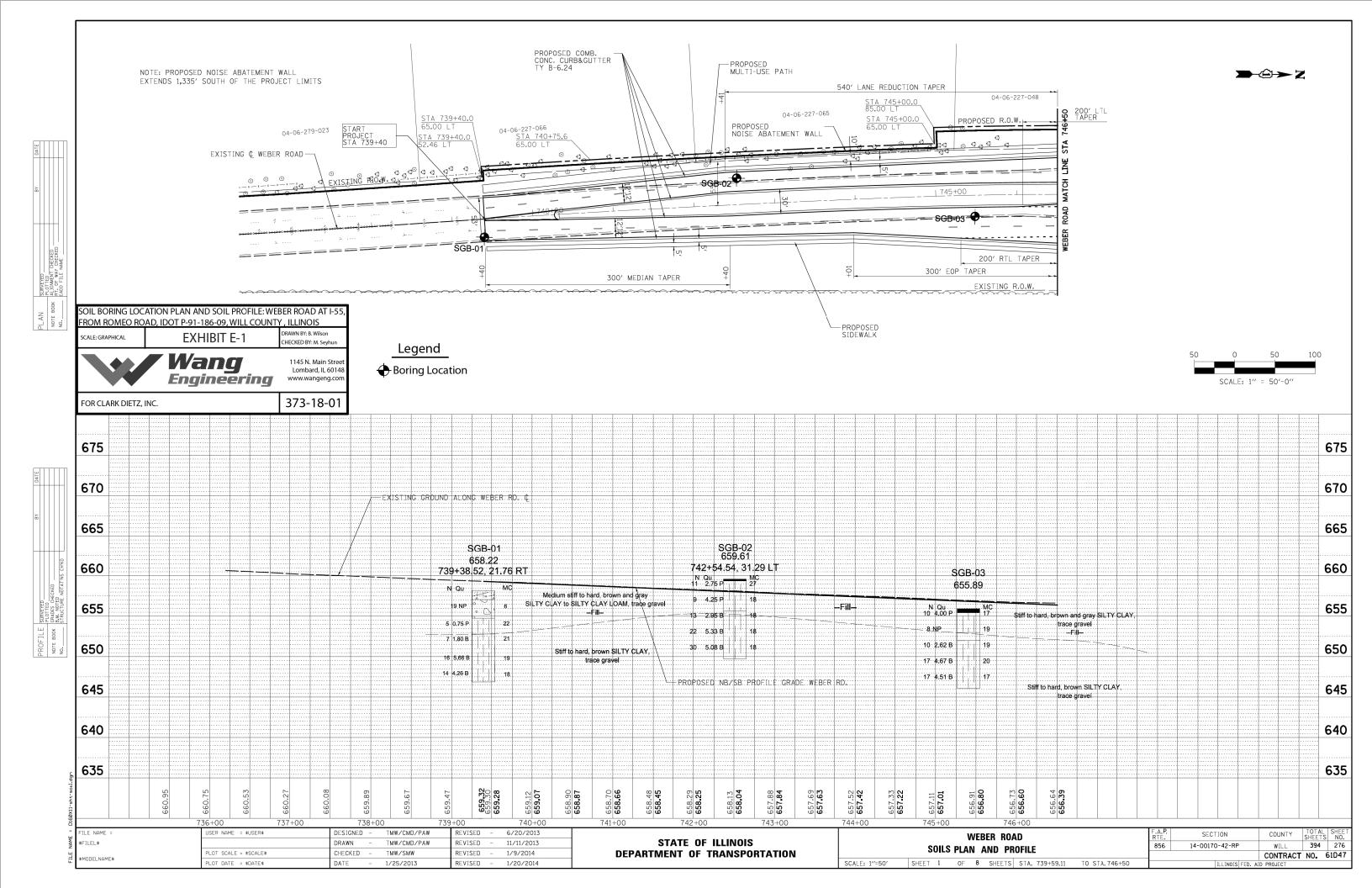
SCALE:

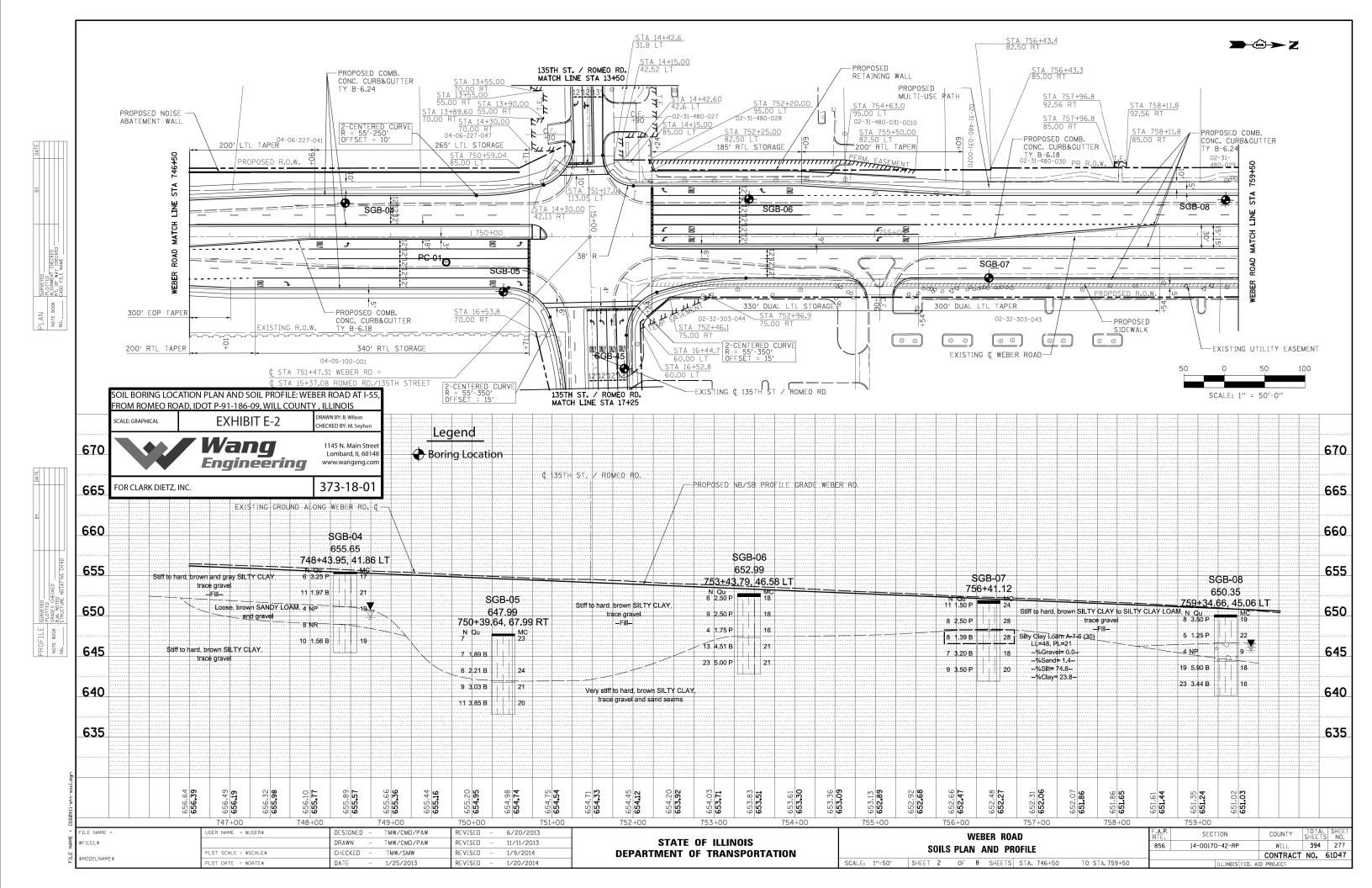
<b>4</b> 6 0 100 010
engineering group
service at the highest grade.

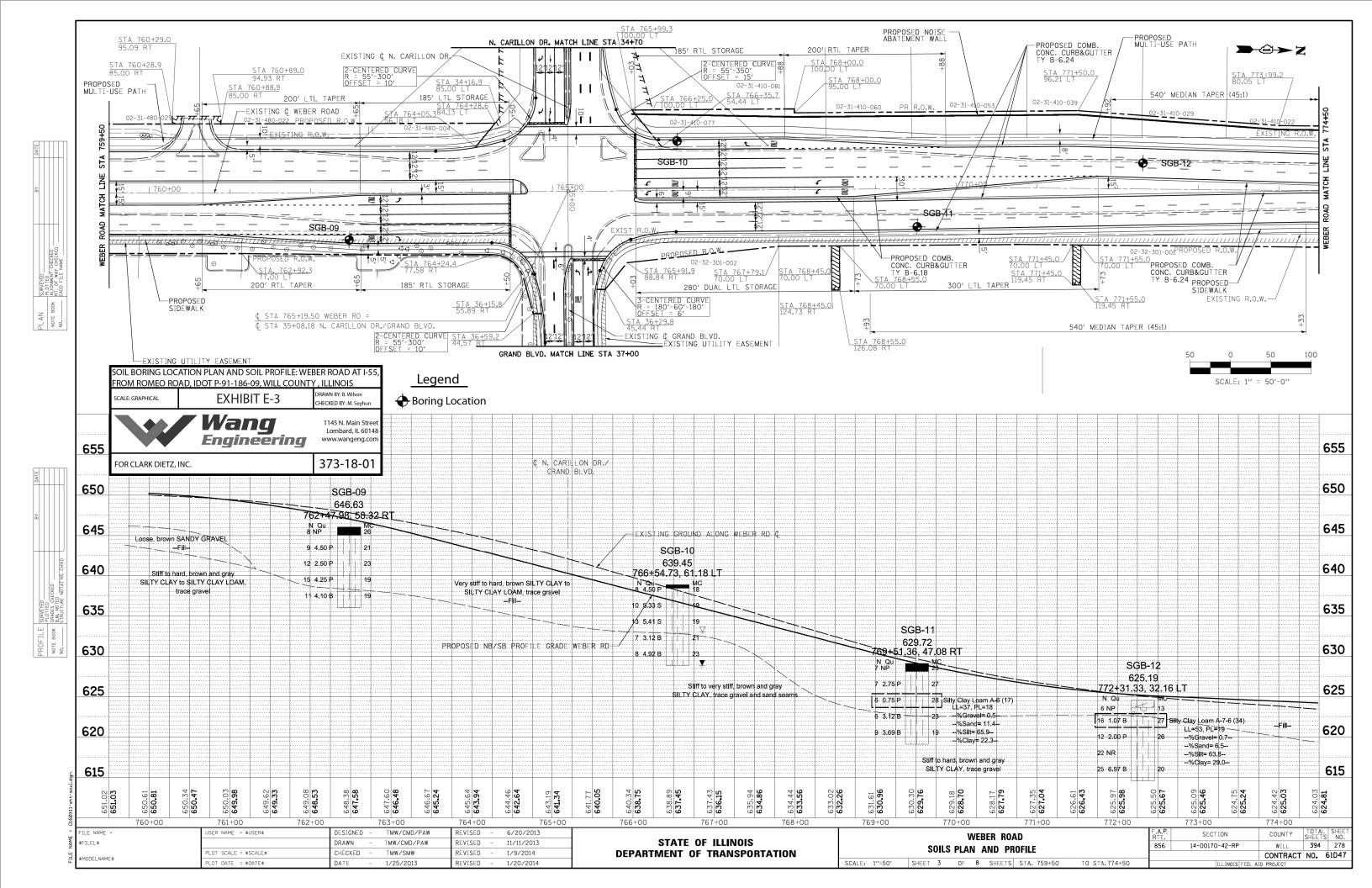
USER NAME = TEG	DESIGNED	-	RO	REVISED	-	3/3/2015
	DRAWN	-	RO	REVISED	-	6/19/2015
PLOT SCALE = 10.0000 ' / in.	CHECKED	-	BLP	REVISED	-	9/27/2016
PLOT DATE = 11/14/2017	DATE	-	11/15/17	REVISED	-	

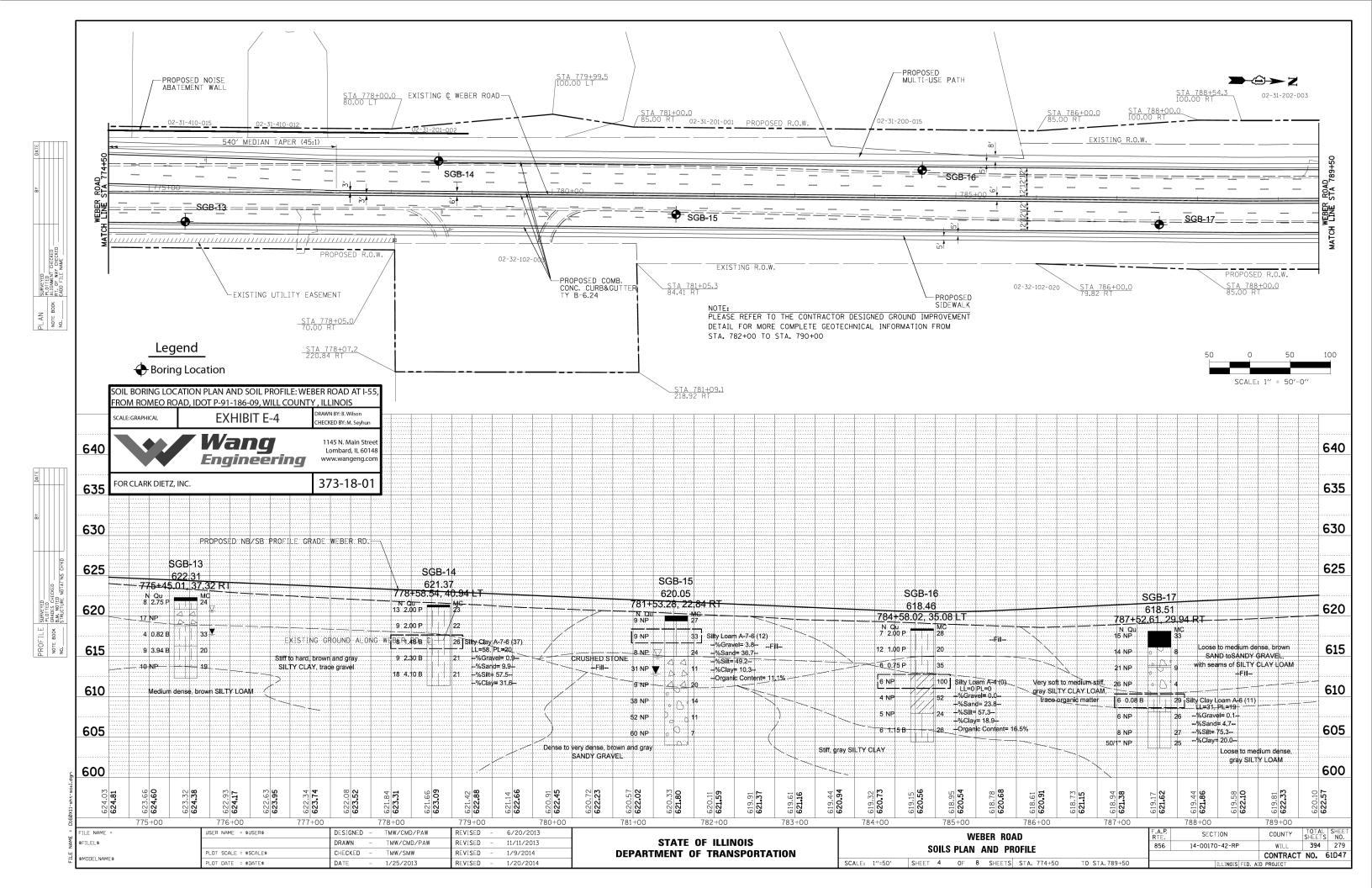
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

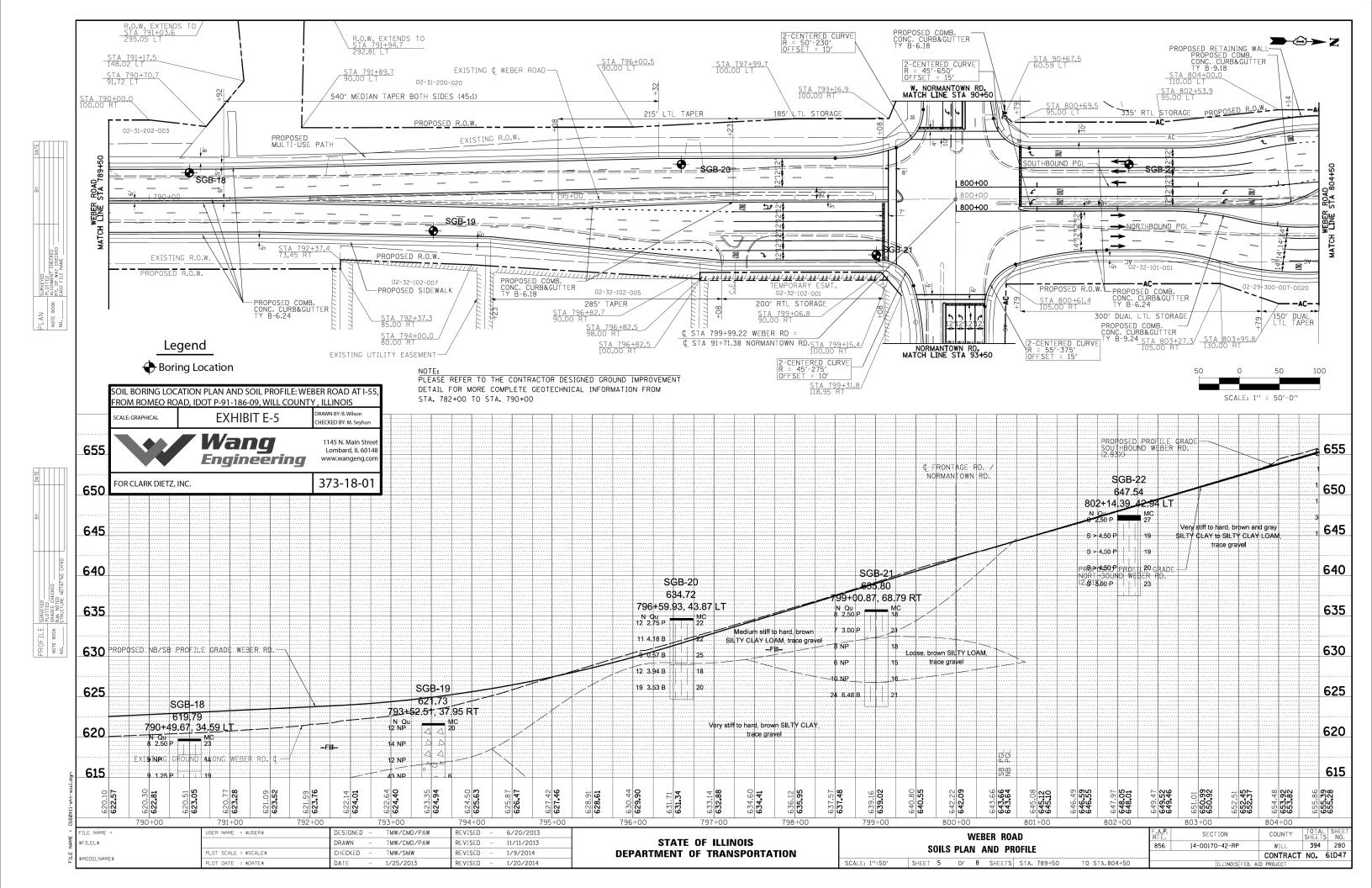
					F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ADA	RAMP DE	TAILS		856	14-00170-42-RP	WILL	394	275
							CONTRAC	NO. 6	SID47
SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. AI	D PROJECT		

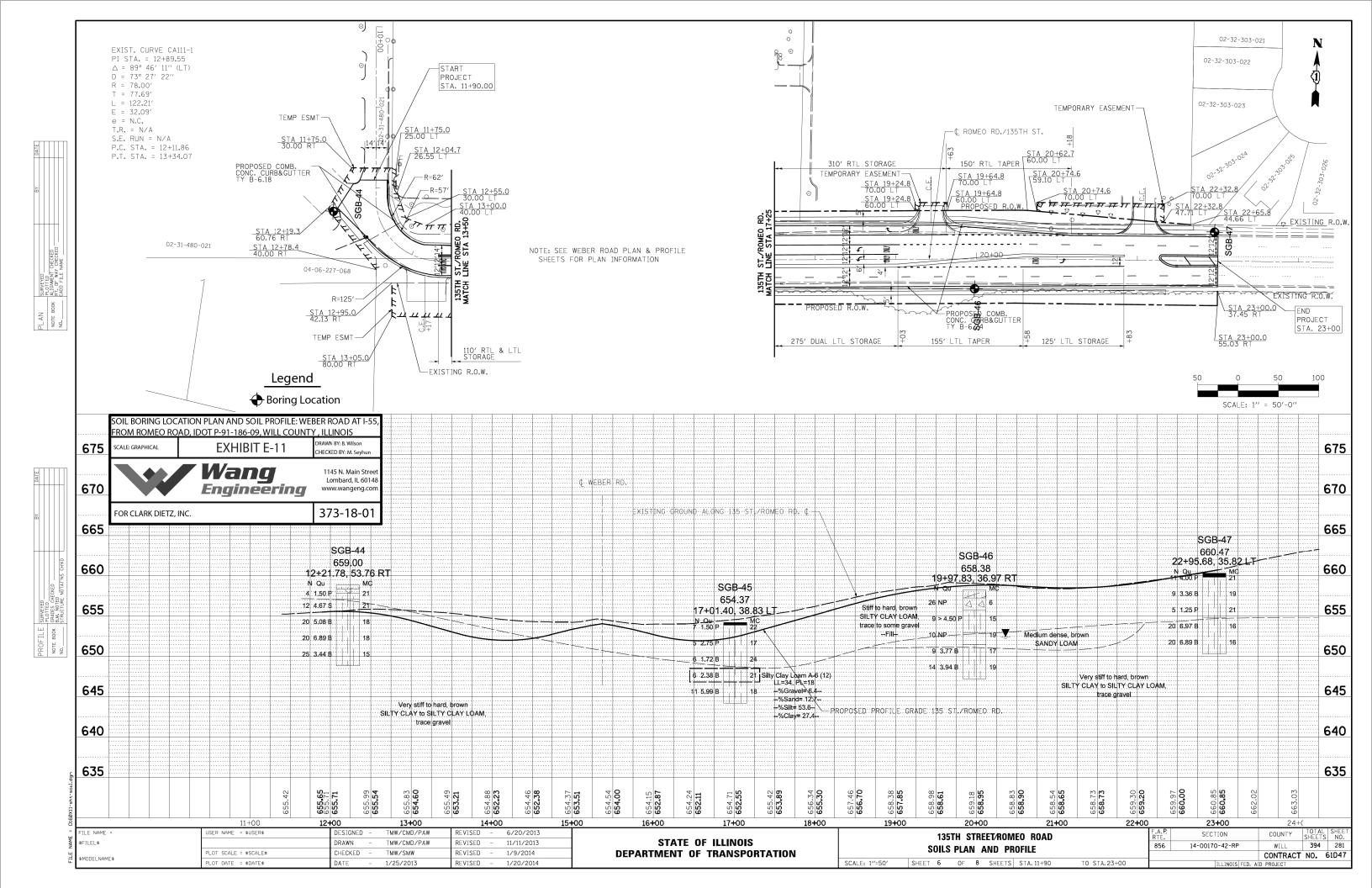


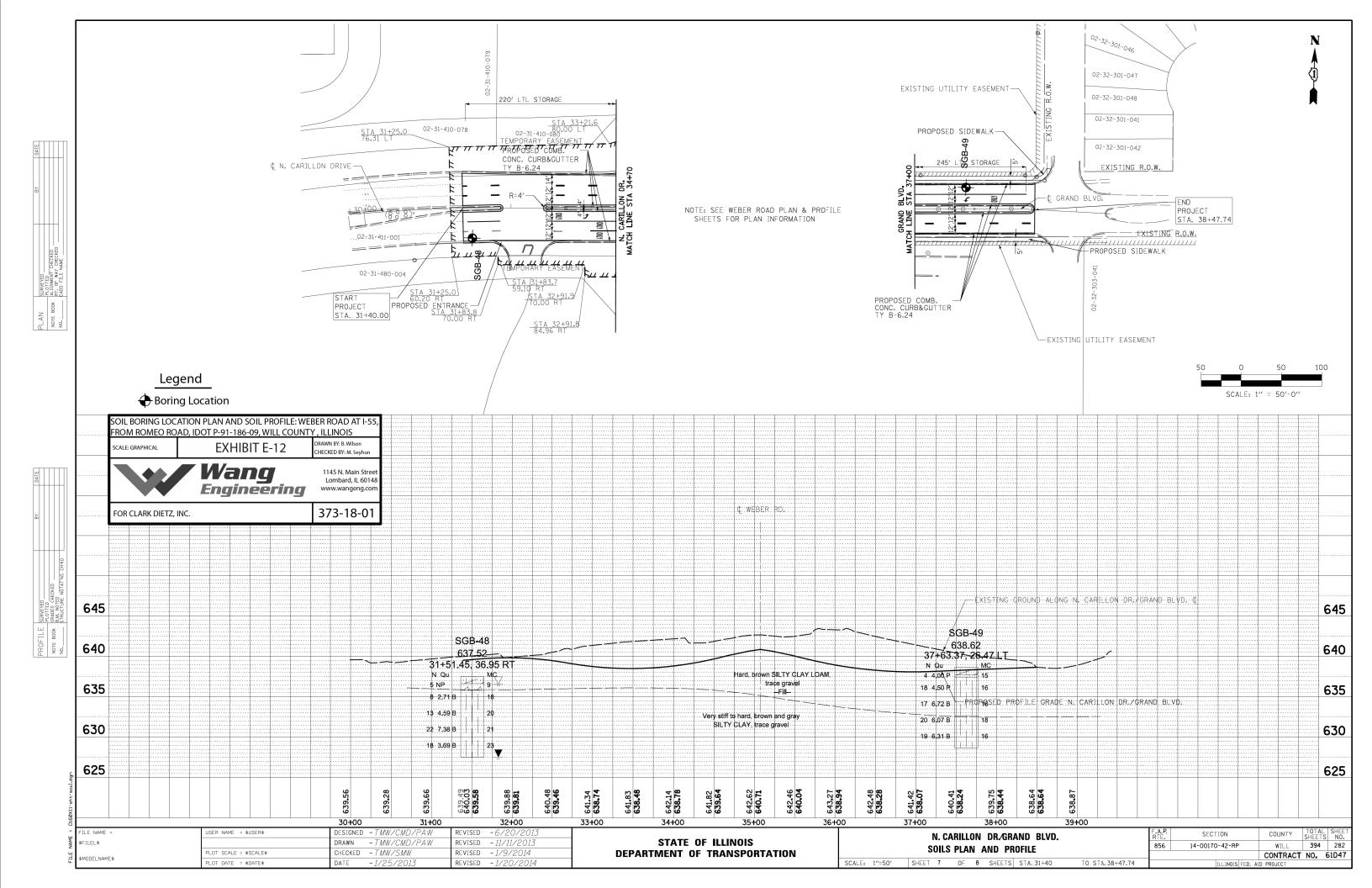


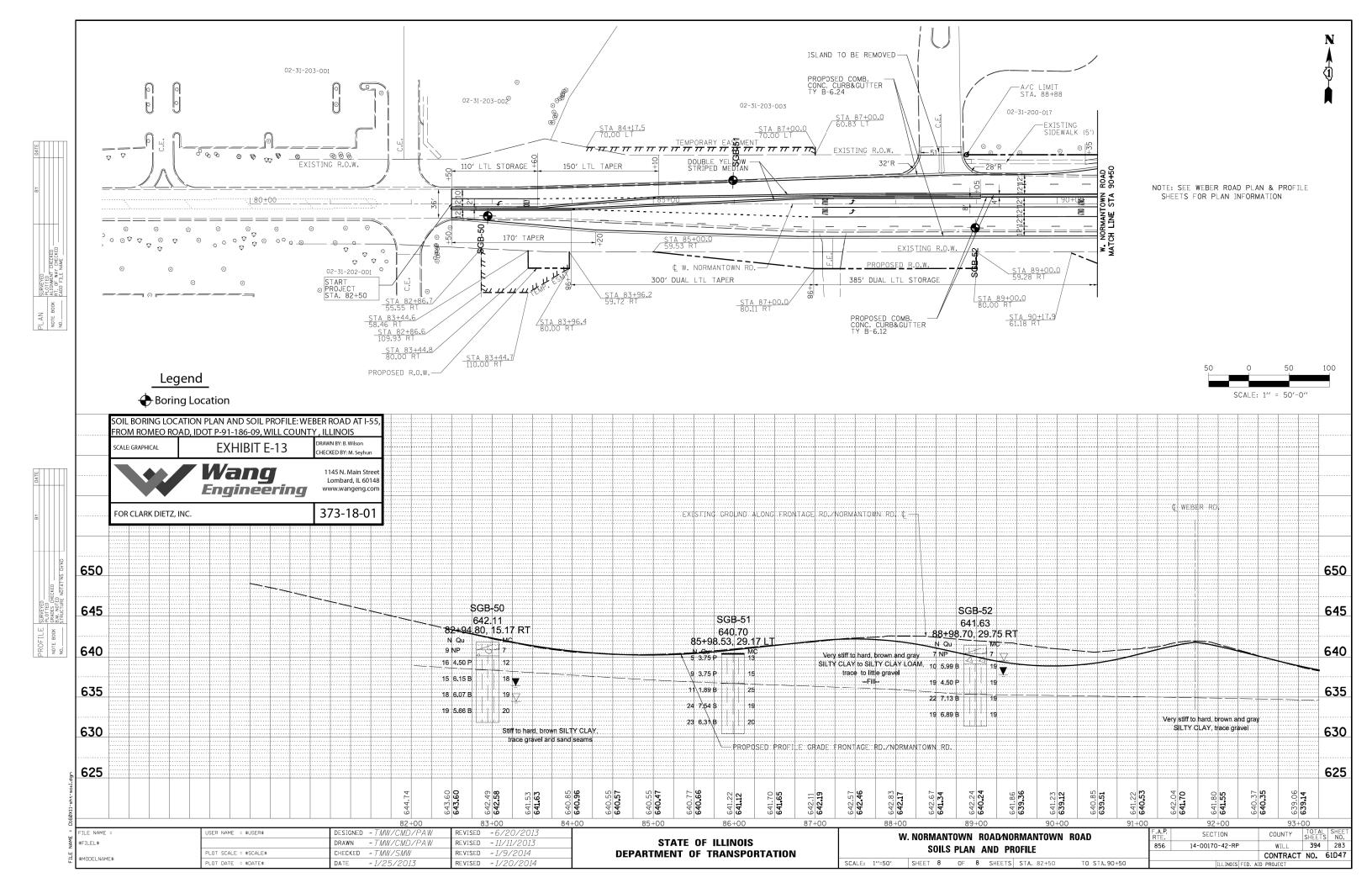


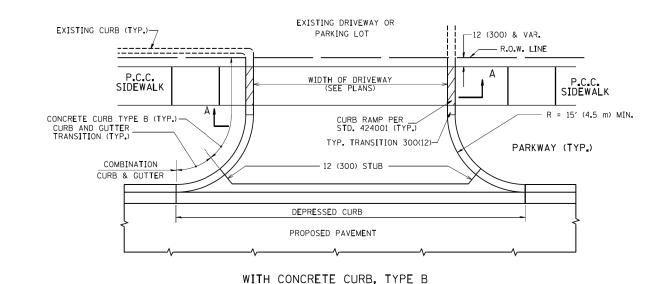


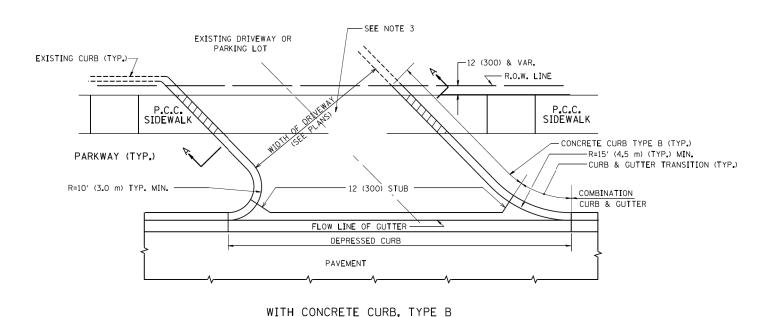


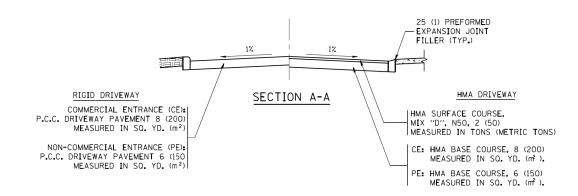


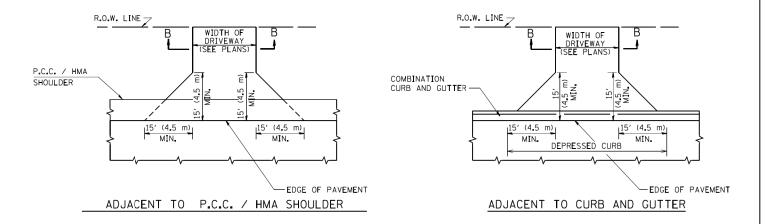


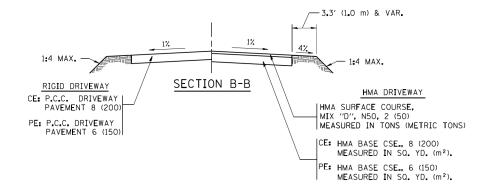












#### RURAL FIELD ENTRANCE (FE)

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

AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SO. 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 OUESTIONS 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.

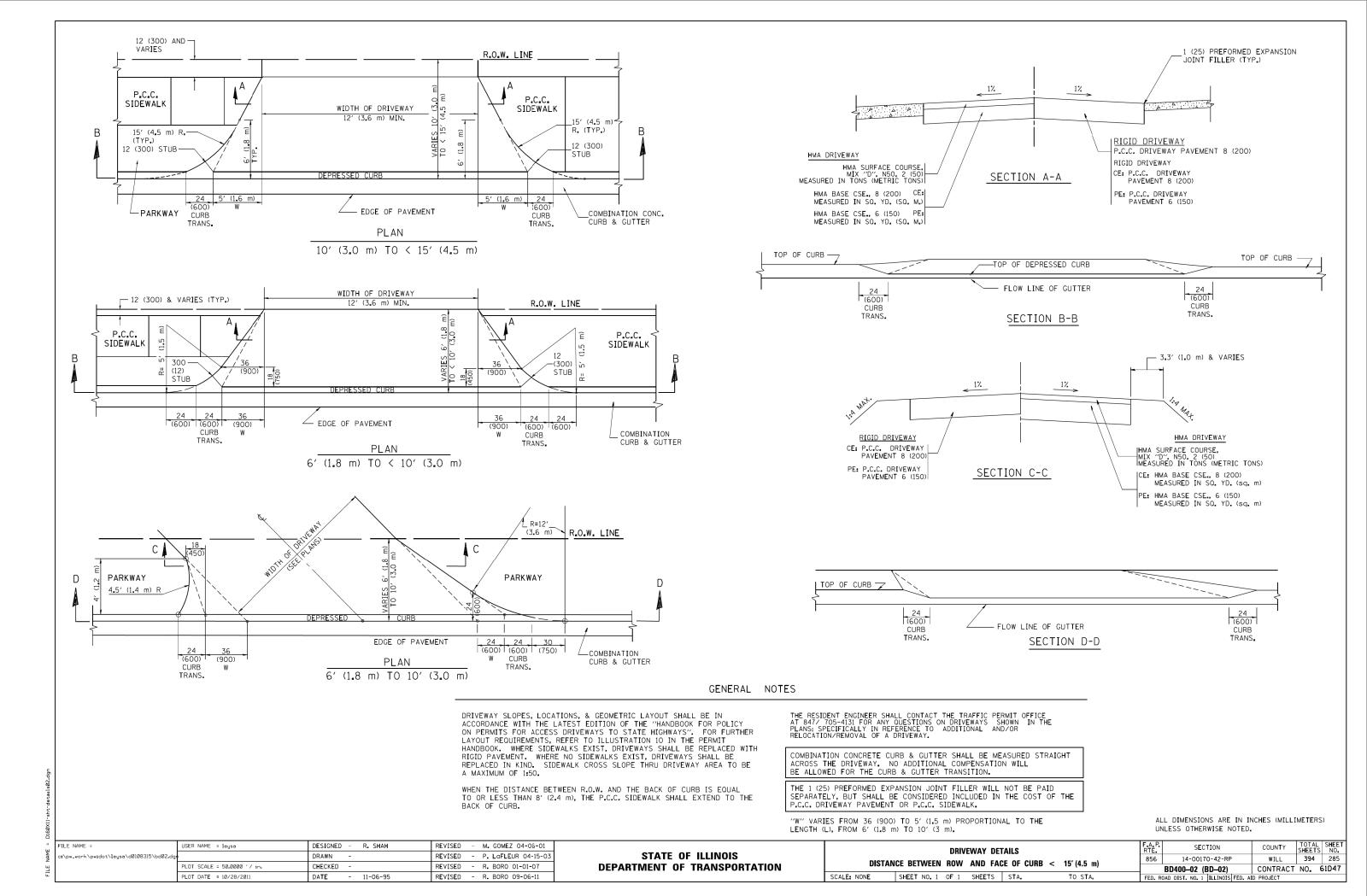
WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

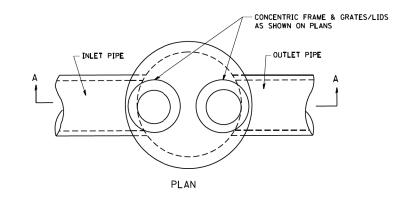
SCALE: NONE

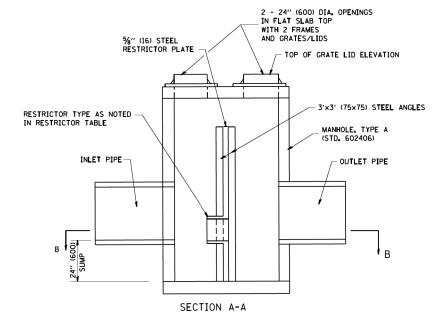
FILE NAME =	USER NAME = leysa	DESIGNED	-	R. SHAH	REVISED	- P. LaFLUER 04-15-03
c:\pw_work\pw1dot\leysa\d0108315\bd01.dgr		DRAWN	-		REVISED	- R. BORO 01-01-07
	PLOT SCALE = 50.0000 ' / in.	CHECKED	-		REVISED	- R. BORO 06-11-08
	PLOT DATE = 9/6/2011	DATE	-	11-04-95	REVISED	- R. BORO 09-06-11

STATE	OF	ILLINOIS
DEPARTMENT (	OF '	TRANSPORTATION

DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W.  AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
				856	14-00170-42-RP	WILL	394	284	
AND FACE OF CORB & EDGE OF SHOULDER > = 15 (4.5 m)						BD0156-07 (BD-01)	CONTRACT	NO.	51D47
	SHEET NO. 1 OF	1 SHEETS	STA.	TO STA.	FED. R	DAD DIST. NO. 1 ILLINOIS FED. A	D PROJECT		







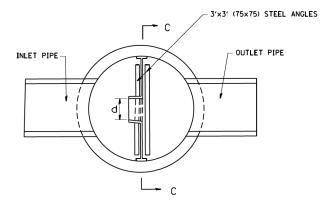


ELEVATION

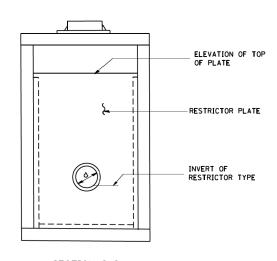
OF TOP OF PLATE

OVERFLOW

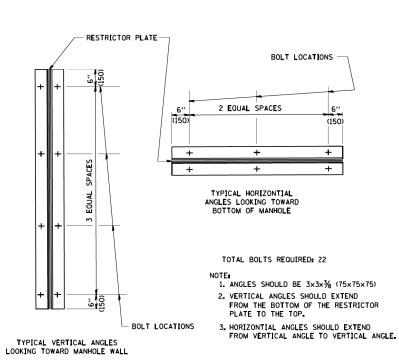
653.00

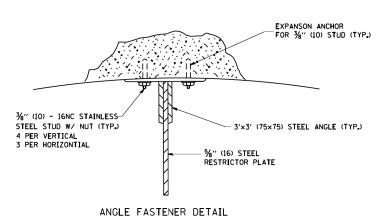


SECTION B-B



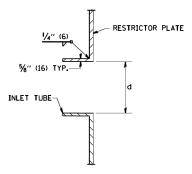
SECTION C-C





#### NOTES:

- ALL STEEL ANGLES AND PLATES TO BE GALVANIZED AFTER FABRICATION.
- 2. ALL RESTRICTOR PLATES, ANGLES AND HARDWARE TO BE INCLUDED IN THE COST OF THE MANHOLE.
- 3. BASIS OF PAYMENT: "MANHOLES TYPE A, 6 FT, (1,8 m)-DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE" EACH



INLET TUBE DETAIL

	RESTRICTOR TYPE											
1	2	3	4	5	6							
RE-ENTRANT TUBE	SHARP EDGED	SOUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED							
LENGTH: 1/2 TO 1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-1/2 DIA.	LENGTH: 2-1/2 DIA.								
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98							

VALUES OF "C" FOR CIRCULAR AND SQUARE ORIFICES

#### STEEL ANGLE BOLTING DETAILS

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

	FILE NAME =	USER NAME = gaglianobt	DESIGNED - R. SHAH	REVISED -	R. SHAH 10-25-94
	W:\diststd\22x34\bd[2.dgn		DRAWN -	REVISED -	E. GOMEZ 08-28-00
		PLOT SCALE = 50.000 '/ [N.	CHECKED -	REVISED -	M. GOMEZ 01-08-01
:		PLOT DATE = 1/4/2008	DATE - 09-09-94	REVISED -	

•SEE DRAINAGE DETAILS FOR MORE INFORMATION•

RESTRICTOR TYPE

SHARP EDGED

FRAME AND GRATE

TY 1 CLOSED

MANHOLE DIAMETER

6′

STATION

750+50.00

RESTRICTOR

DIAMETER

in. (mm)

(d)

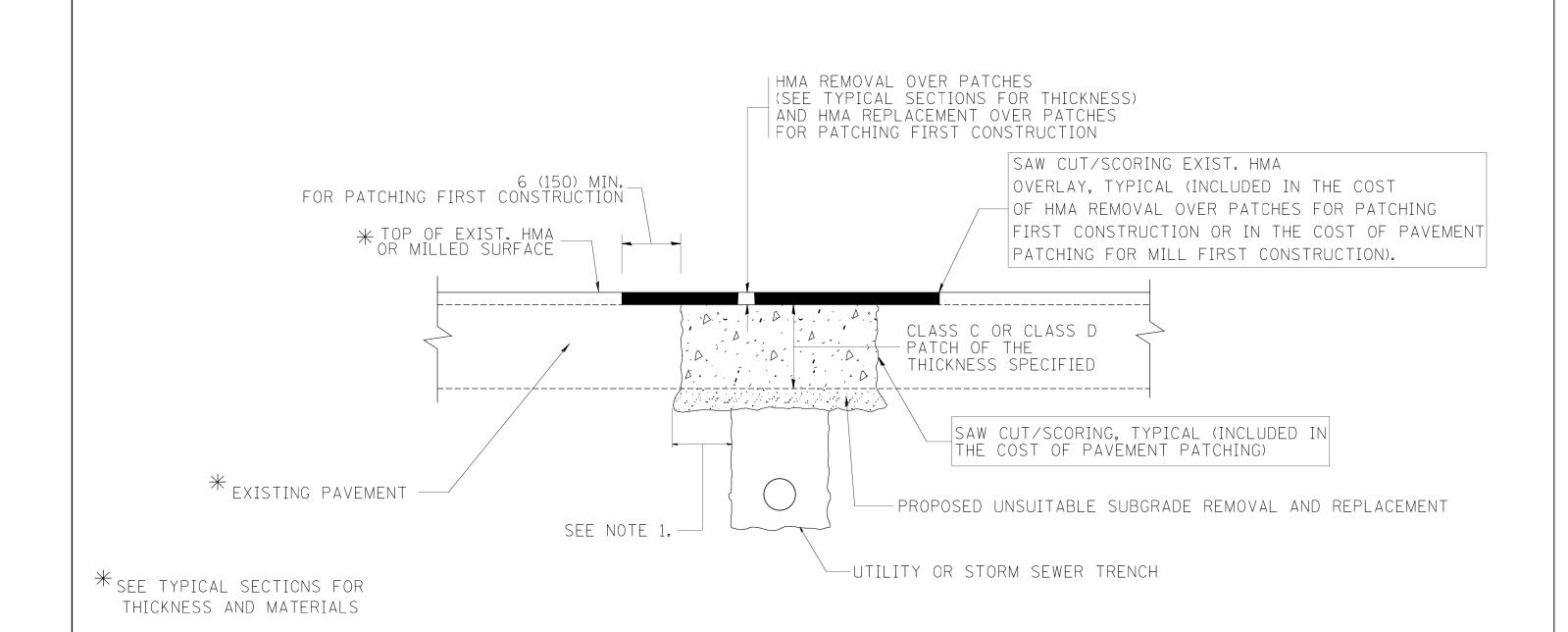
15′′

RESTRICTOR

649.30

STATE	OF	ILLINOIS
DEPARTMENT	OF 1	TRANSPORTATION

	MANHOLE WITH					RTE.	SECT	ION	COUNTY	SHEETS	NO.
	RESTRICTOR PLATE					856	14-00170	D-42-RP	WILL	394	286
		NESI	NICIUN FI	LAIL		BI	D600-04	(BD-12)	CONTRACT	NO.	61D47
SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO. 1	ILLINOIS FED. AI	D PROJECT		



#### NOTES:

- 1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
- 2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

#### SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

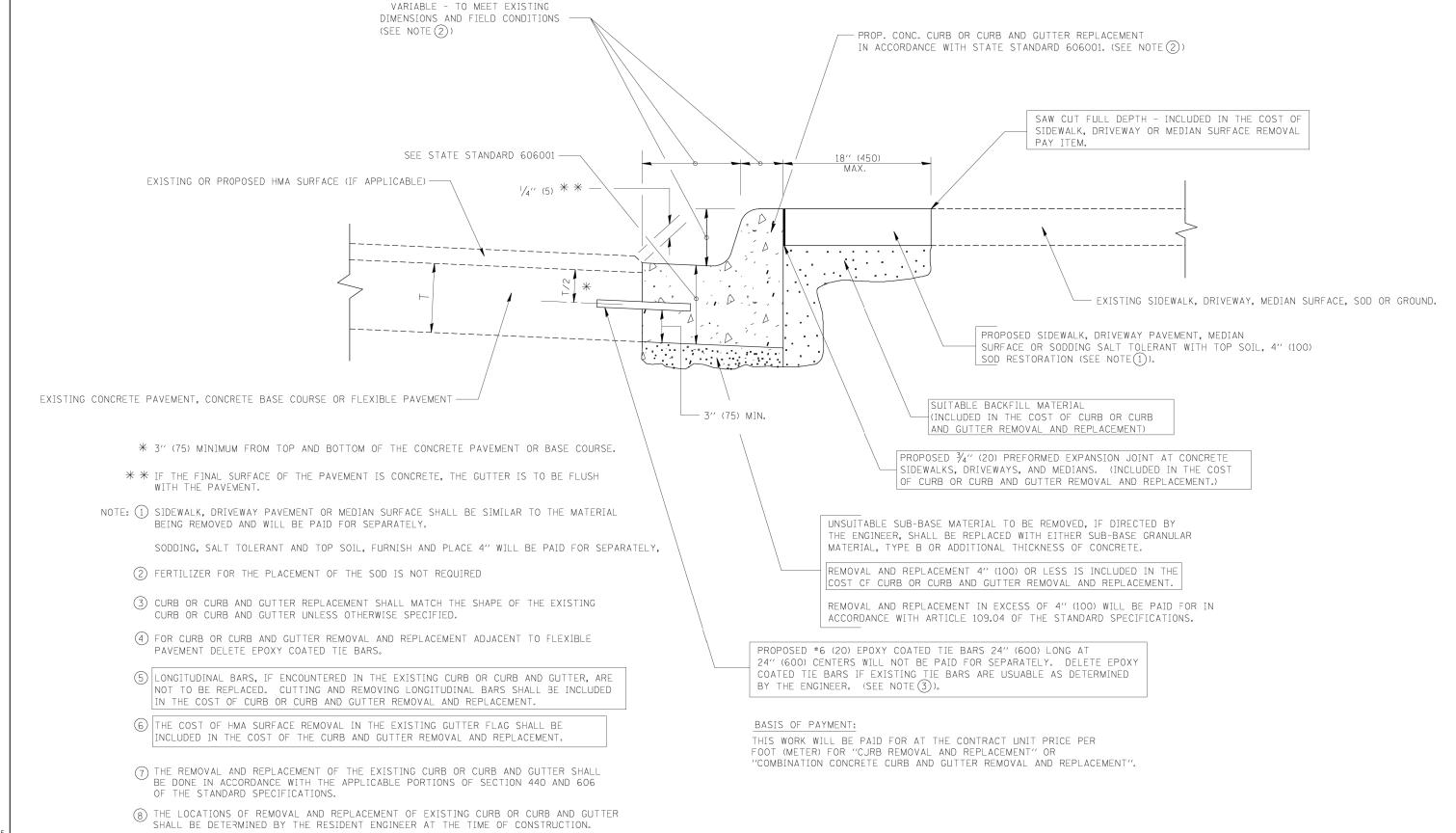
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

#### SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

ш	FILE NAME =	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98		PAVEMENT PATCHING FOR	F.A.P. SECTION	COUNTY TOTAL SHEE
MAM	c:\projects\diststd22x34\bd22.dgn		DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS	HMA SURFACED PAVEMENT	856 14-00170-42-RP	WILL 394 287
빌		PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION		BD400-04 (BD-22)	CONTRACT NO. 61D4
ш		PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE   SHEET NO. 1 OF 1 SHEETS   STA. TO STA.	FED. ROAD DIST, NO. 1 ILLINOIS FED.	AID PROJECT



# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: NONE

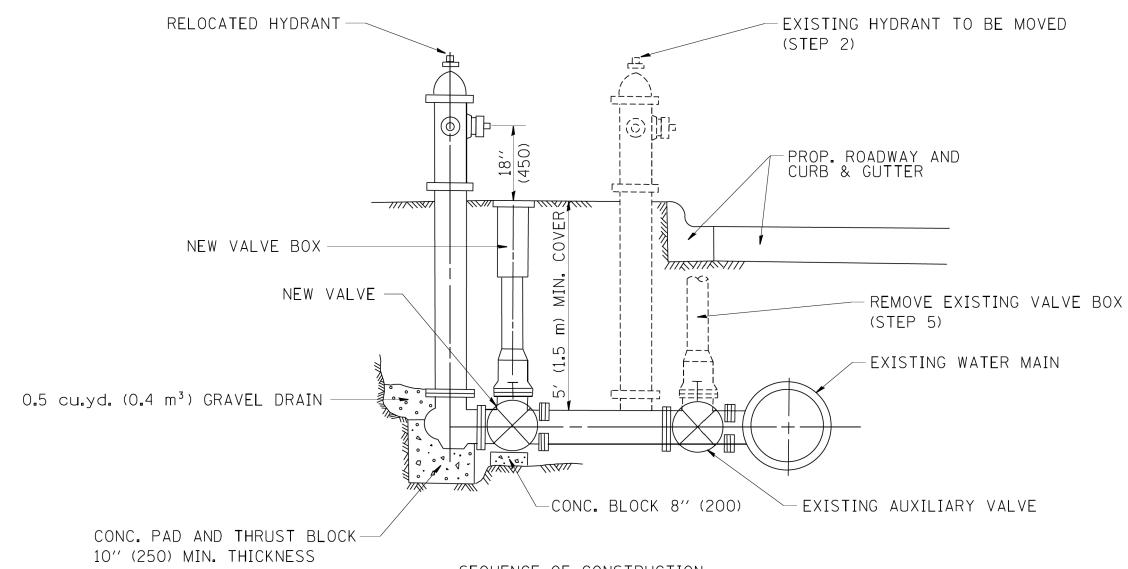
SHEET NO.

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

	FILE NAME =	USER NAME = drivakosgn	DESIGNED	-	A. HOUSEH	REVISED	-	R. SHAH 10-03-96
ΜĀ	c:\pw_work\pwidot\drivakosgn\d0108315\bd	24.dgn	DRAWN	-		REVISED	-	A. ABBAS 03-21-97
Щ		PLOT SCALE = 50.000 '/ IN.	CHECKED	-		REVISED	-	M. GOMEZ 01-22-01
Ξ		PLOT DATE = 12/15/2009	DATE	-	03-11-94	REVISED	-	R. BORO 12-15-09

STATE	OF ILLI	NOIS
DEPARTMENT	F TRA	NSPORTATION

CURB OR CURB AND GUTTER			F.A.P. RTE.	RTE. SECTION				SHEETS	SHEET NO.	
			856	14-0017	0-42-RP	WILL	394	288		
REMOVAL AND REPLACEMENT				BD600-06 (I	3D-24)		CONTRACT	NO.	51D47	
1 OF 1	SHEETS	STA.	TO STA.	FED. R	OAD DIST. NO. 1	ILLINOIS	FED. AI	D PROJECT		



SEQUENCE OF CONSTRUCTION:

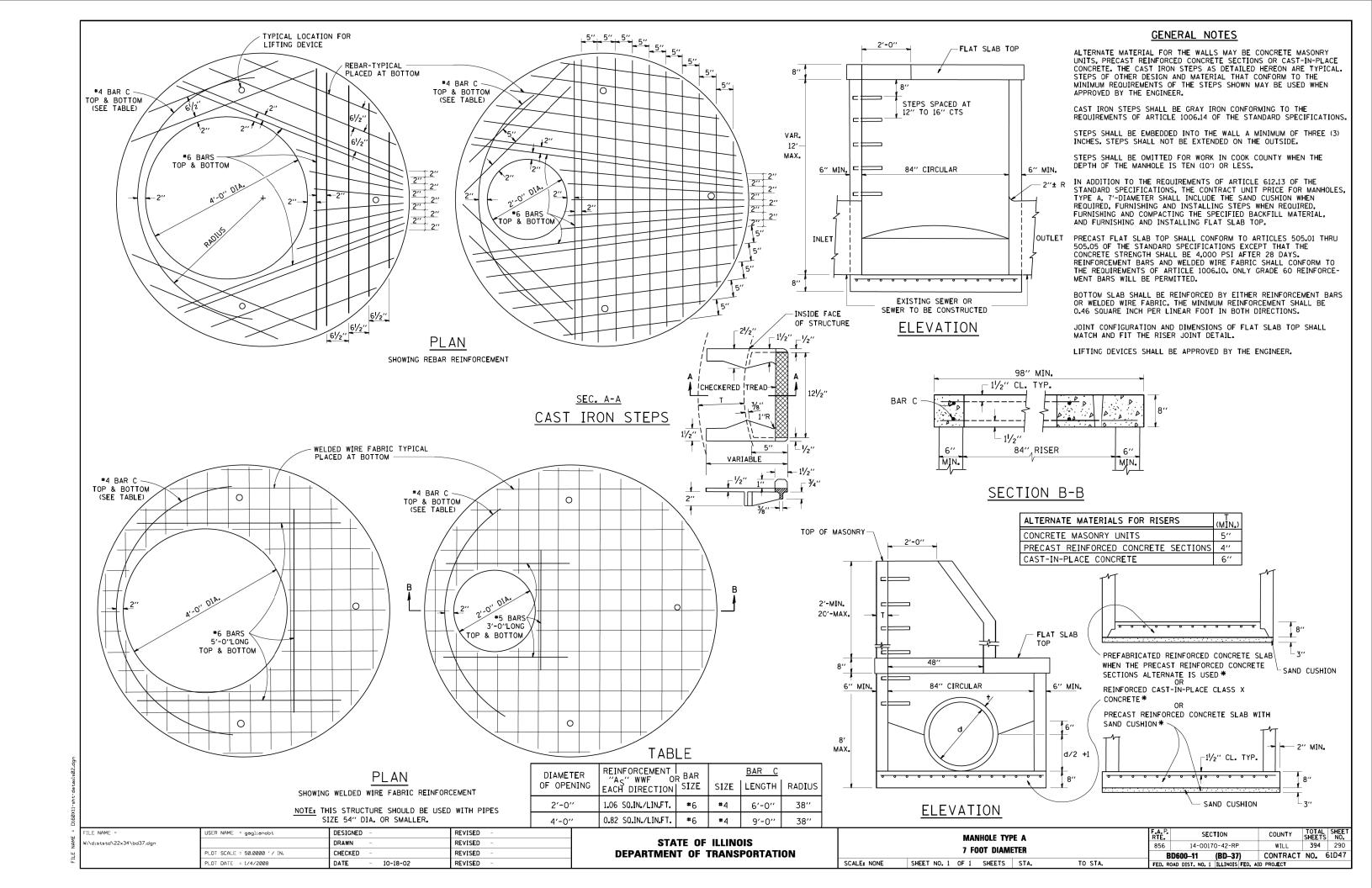
- 1. CLOSE EXISTING VALVE.
- 2. REMOVE EXISTING HYDRANT.
- 3. INSTALL HYDRANT EXTENSION AND NEW VALVE.
- 4. RELOCATE EXISTING HYDRANT.
- 5. OPEN EXISTING VALVE, REMOVE BOX.
- 6. BACKFILL.
- 7. FLUSH AND TEST FOR CHLORIDE RESIDUAL AND PROVIDE TEST.

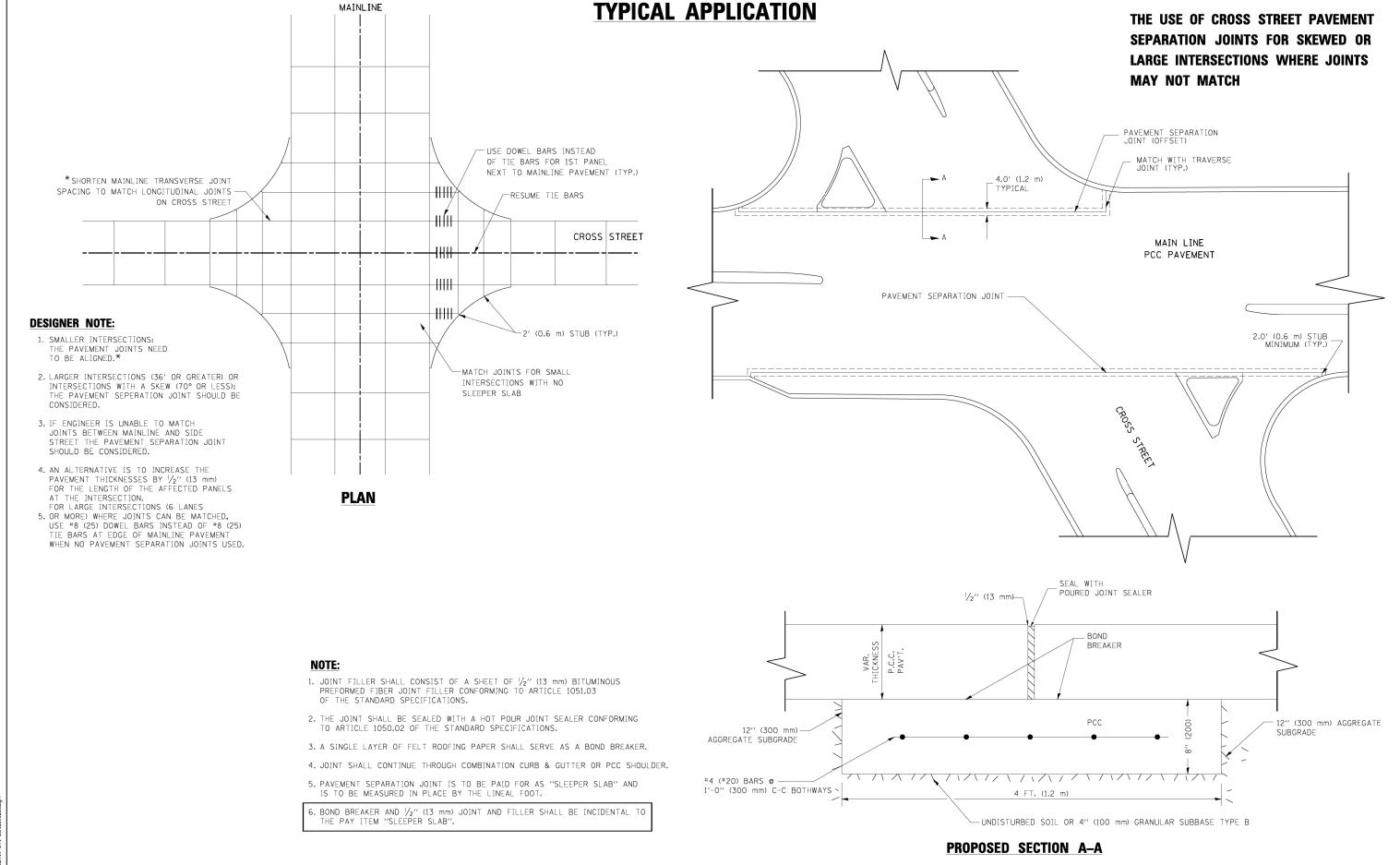
ALL WORK TO BE DONE IN ACCORDANCE WITH ARTICLE 564 OF THE STANDARD SPECIFICATIONS. NEW VALVE AND BOX SHALL BE SAME MAKE AND MODEL AS EXISTING.

# FIRE HYDRANT TO BE MOVED

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

FILE NAME = ISER NAME = gaglianobt DESIGNED REVISED - R. SHAH 09-09-94 SECTION FIRE HYDRANT TO BE MOVED **STATE OF ILLINOIS** /:\diststd\22x34\bd36.dgn DRAWN REVISED R. SHAH 10-25-94 14-00170-42-RP WILL PLOT SCALE = 50.0000 '/ IN. CHECKED REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 61D47 BD-36
FED. ROAD DIST. NO. 1 ILLINOIS FED SHEET NO. 1 OF 1 SHEETS STA. SCALE: NONE TO STA. PLOT DATE = 1/4/2008 DATE REVISED





FILE NAME = D160X11-sht-detai

FILE NAME

bd52.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF PAVEMENT SEPARATION

JOINT FOR JOINTED PCC PAVEMENTS AT INTERSECTIONS

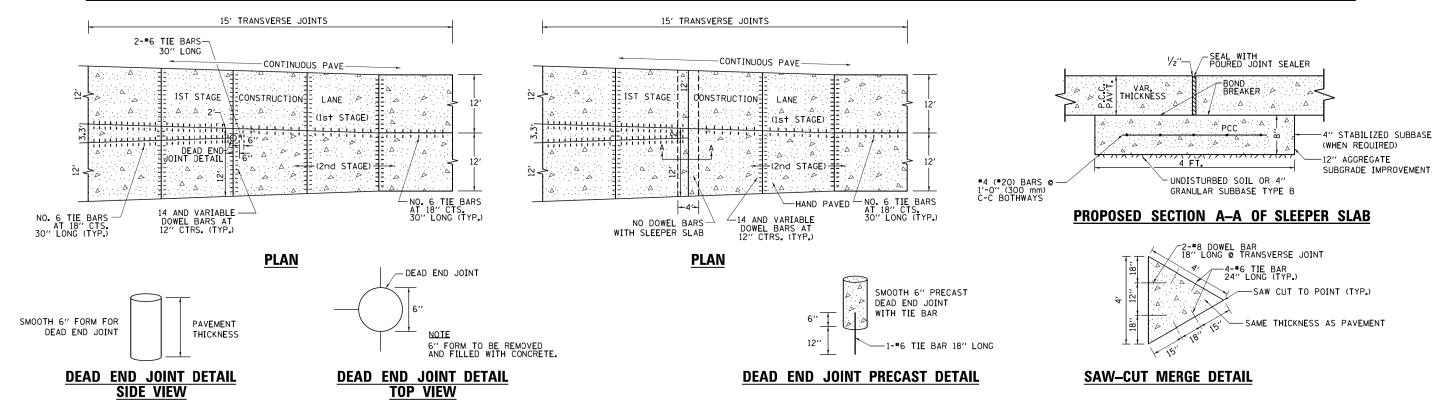
ONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P SECTION COUNTY TOTAL SHEET NO.

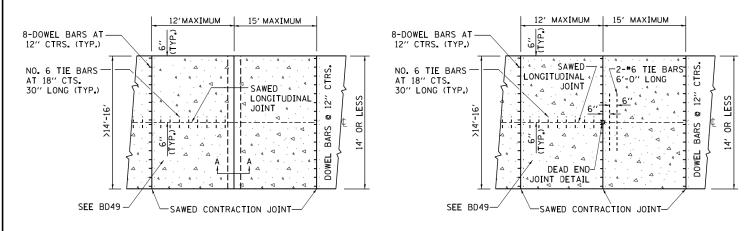
856 14-00170-42-RP WILL 394 291

BD52 CONTRACT NO. 61D47

## LANE REDUCTION WITH A CONTINUOUS PAVEMENT FOR 1ST STAGE WITH DEAD END JOINT OR SLEEPER SLAB



# TRANSITION DETAILS FOR CENTERLINE SAW CUT FOR DEAD END JOINT INTERIOR LANE REDUCTION FOR THREE LANE SECTION OR SLEEPER SLAB FOR VARIABLE JOINTED PCC PAVEMENT FOR LANES OVER 14'



PLAN USING SLEEPER SLAB

PLAN USING DEAD END JOINT

NO. 6 TIE BARS
30" LONG (TYP.)

15' MAX. (TYP.)

NO. 6 TIE BARS
AT 18" CTS.
30" LONG (TYP.)

NO. 6 TIE BARS
AT 18" CTS.
30" LONG (TYP.)

NO. 6 TIE BARS
AT 18" CTS.
30" LONG (TYP.)

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AT 18" CTS.
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30" LONG (TYP.)

NO. 6 TIE BARS
AT 18" CTS.
30" LONG (TYP.)

NO. 6 TIE BARS
AT 18" CTS.
30" LONG (TYP.)

NO. 6 TIE BARS
AT 18" CTS.
30" LONG (TYP.)

#### **NOTES:**

- SAW-CUT MERGE DETAIL: THE 4' TRIANGLE SECTION COULD BE PRECAST OR CAST INPLACE AND PROPERLY PLACED WITH TIE BARS AND PROPERLY ALIGNED DOWEL BARS.
- 2. TRANSVERSE JOINT SPACING MAY DECREASE DEPENDING ON PAVEMENT THICKNESS BELOW 9.5". USE FORMULA JOINT SPACING IN (FT) = 2 X PAVEMENT THICKNESS IN (IN)-4.
- 3. USE SAW-CUT MERGE DETAIL IN SITUATIONS WHERE THERE IS NO STAGING.
- PRECAST DEAD END JOINT SET IN PLACE WITH DRILLED HOLE INTO SUBBASE/SUBGRADE FOR \*6 TIE BAR.
- DEAD END JOINTS WILL NOT BE PAID SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PCC PAVEMENT.
- SLEEPER SLAB WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR SLEEPER SLAB.

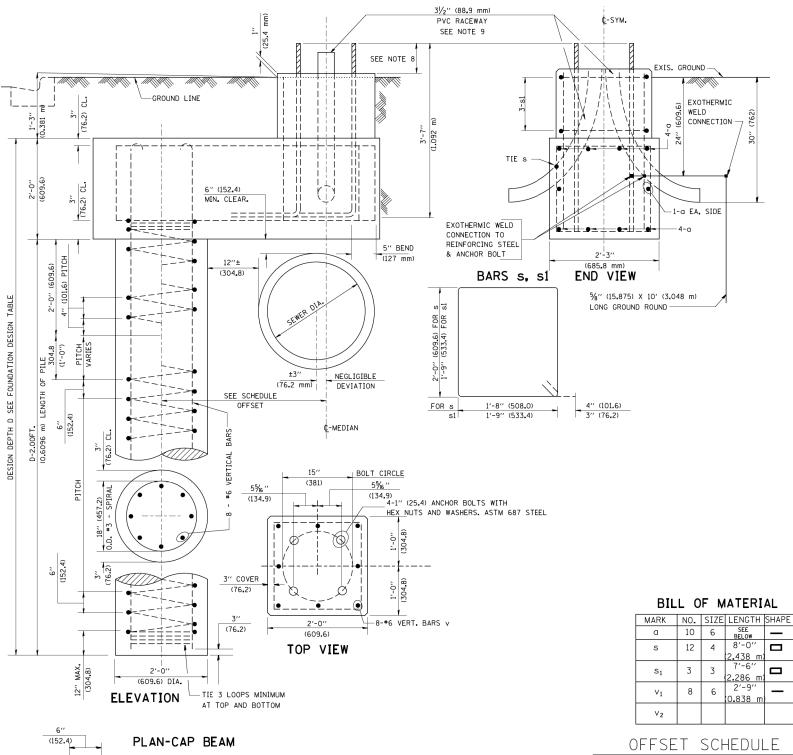
FILE NAME =	USER NAME = drivakosgn	DESIGNED - TGM, EAJ	REVISED - CADD 05-02-12		DETAIL OF VARIOUS TYPES OF LANE REDUCTION		SECTION	COUNTY TOTAL SHEET SHEETS NO.
pw:\\IL084EBIDINTEG.:ll:no:s.gov:PWIDOT\Do	cuments\IDOT Offices\District 1\Projects\Dis	tot <b>DRAWM</b> \CADData\CA <b>M</b> heets\bd53.dgn	REVISED - CADD 11-02-15	STATE OF ILLINOIS			14-00170-42-RP	WILL 394 292
	PLOT SCALE = 50.0000 '/ in.	CHECKED - JD	REVISED -	DEPARTMENT OF TRANSPORTATION	FOR PCC PAVEMENT		BD53	CONTRACT NO. 61D47
Default	PLOT DATE = 11/2/2015	DATE - 03/07/12	REVISED -		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.			AID PROJECT

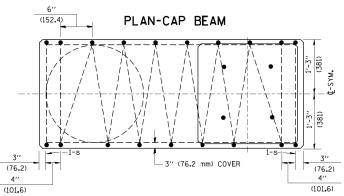
#### FOUNDATION DESIGN TABLE

	DESIGN DEPTH (	F FOUNDATION	REINFORCEMENT IN FOUNDATION				
TYPE OF SOIL	SINGLE ARM	TWIN ARM	SINGLE	ARM	TWIN ARM		
	D	D	VERT BARS	SPIRAL	VERT BARS	SPIRAL	
SOFT CLAY	13'-0''	15'-0''	8-#6X12'-6''	#3X122′	8-#6X14'-3''	#3X141′	
	(3 <sub>•</sub> 962 m)	(4 <b>.</b> 572 m)	(3.810 m)	(37 <b>.</b> 186 m)	(4.343 m)	(42.977 m)	
MEDIUM CLAY	9'-6''	10′-9′′	8-#6X9'-0''	#3X90′	8-#6X10'-0''	#3X100′	
	(2.896 m)	(3.277 m)	(2.743 m)	(27 <b>.</b> 432 m)	(3.048 m)	(30.480 m)	
STIFF CLAY	7′-0′′	8'-0''	8-#6X6'-6''	#3X66′	8-#6X7'-6''	#3X76′	
	(2 <b>.</b> 134 m)	(2.438 m)	(1.981 m)	(20 <b>.</b> 112 m)	(2.286 m)	(23.165 m)	
LOOSE SAND	9'-0''	10'-0''	8-#6X8'-6''	#3X85′	8-#6X9'-6''	#3X94 <sup>7</sup>	
	(2.743 m)	(3.048 m)	(2 <b>.</b> 591 m)	(25.908 m)	(2.896 m)	(28.651 m)	
MEDIUM SAND	8'-3''	9'-0''	8-#6X8'-0''	#3X78′	8-#6X8'-6''	#3X85′	
	(2.515 m)	(2.743 m)	(2.438 m)	(23.774 m)	(2.591 m)	(25.908 m)	
DENSE SAND	7′-9′′	9'-0''	8-#6X7'-6''	#3X73′	8-#6X8'-6''	#3X85′	
	(2 <b>.</b> 362 m)	(2.743 m)	(2.286 m)	(22.250 m)	(2.591 m)	(25.908 m)	
ROCK OR SOLIDIFIED SLAG	5′-0′′ (1.524 m)	5′-0′′ (1 <b>.</b> 524 m)	NONE	NONE	NONE	NONE	

#### NOTES

- 1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- 2. THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
- 3. EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" (609.6 mm) OR 30" (762.0 mm) IN DIAMETER.
- 4. 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.
- 5. THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
- 6. 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.
- 7. THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS. IF LIGHT POLE IS MOUNTED WITHOUT BREAKAWAY DEVICE, ANCHOR BOLTS SHALL PROJECT 2¾4" (69.9 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
- 8. RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
- 9. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.

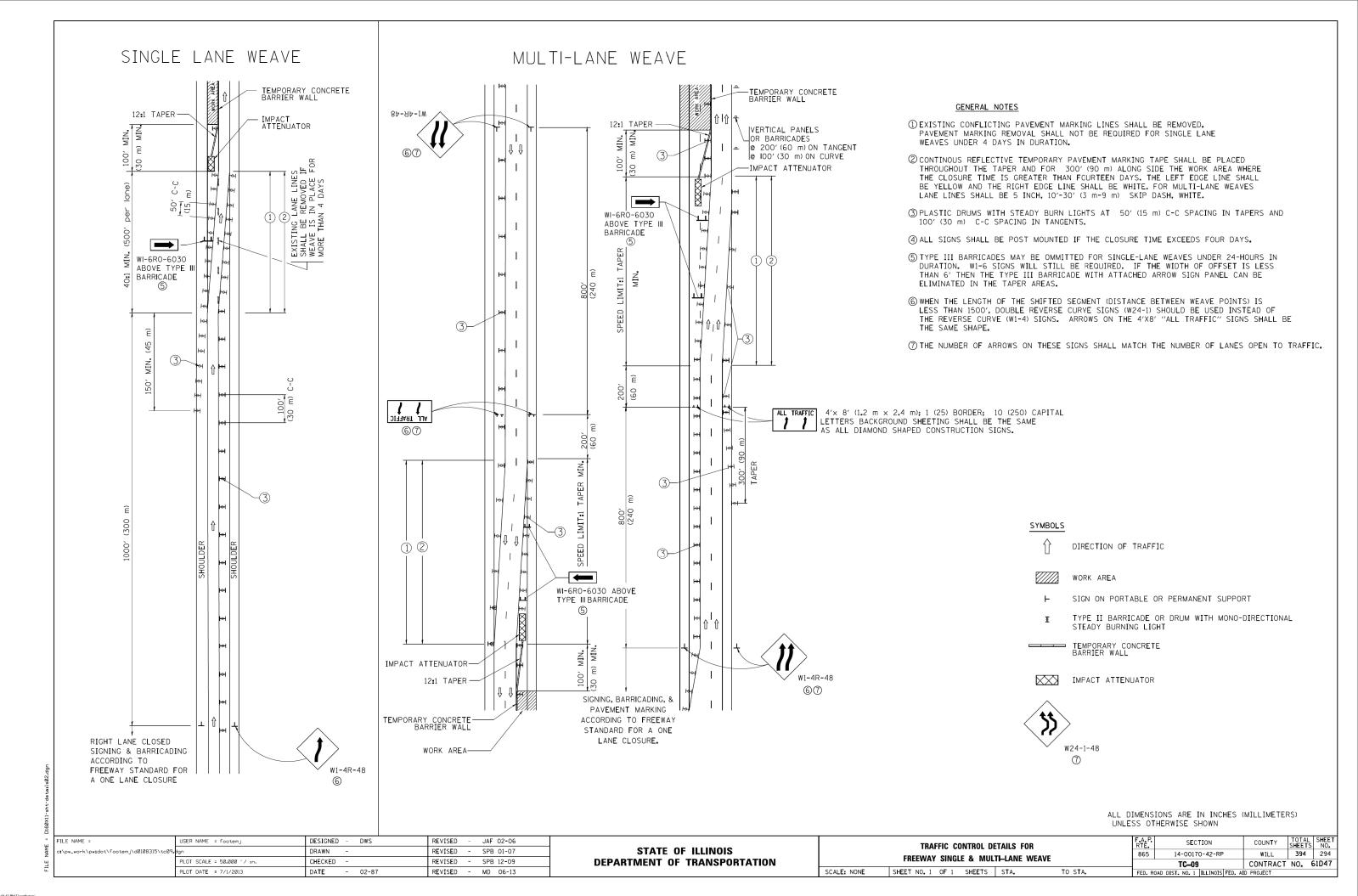


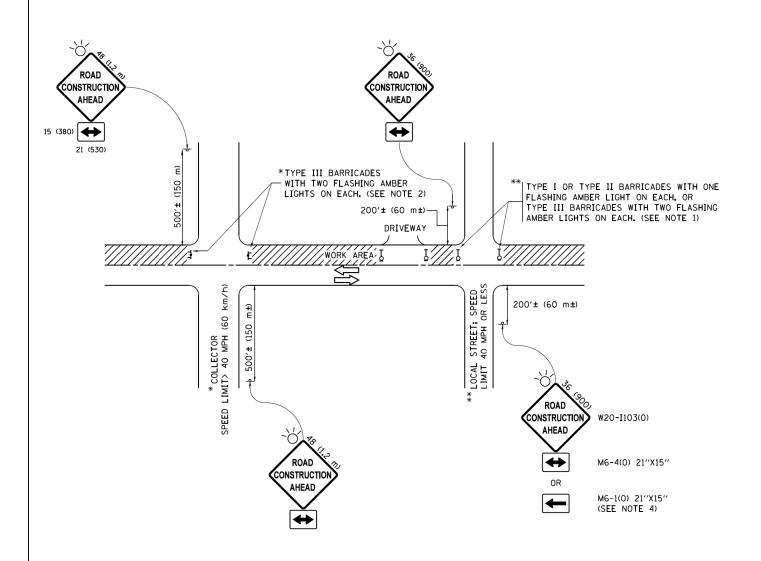


SCALE:

SEWER	PILE OFFSET	LENGIL
DIAM. d	from¢-MED′N	BAR a
IN.	FT.	FT.
UP TO 24"	3′-3′′	#6 × 5′-3′′
(609.6 mm)	(0.991 m)	(1.600 m)
27" (685.8 m)TO	3'-9''	5′-9′′
36" (914.4 mm)	(1.143 m)	(1.753 m)
42" (1066.8 mm) TO	4′-6′′	6′-6′′
48" (1219.2 mm)	(1.372 m)	(1.981 m)
54" (1371.6 mm) TO	5′-0′′	7′-0′′
60" (1524.0 mm)	(1.524 m)	(2.134 m)
66" (1676.4 mm) TO	5′-6′′	7′-6′′
72" (1828 <sub>8</sub> 8 mm)	(1.676 m)	(2.286 m)
	·	

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	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -
	PLOT DATE = 6/16/2008	DATE -	REVISED -





#### **NOTES:**

- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200" (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48  $\times$  48 (1.2 m  $\times$  1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710)
- 4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

SCALE: NONE

- 5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- 6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE
- 7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

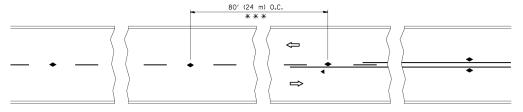
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Œ.	Default	PLOT DATE = 9/15/2016	DATE - 06-89	REVISED	- A. SCHUETZE 09-15-16

STATE O	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

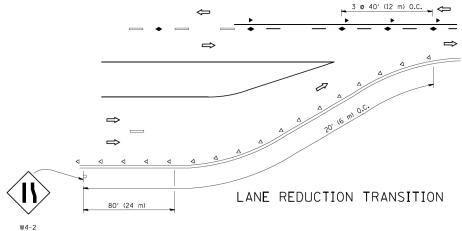
TRAFFIC CONTROL AND PROTECTION FOR F.A.P SECTION	DE ROADS, INTERSECTIONS, AND DRIVEWAYS		14-00170-42-F
			SECTION

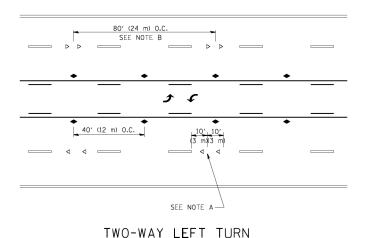
TOTAL SHEET SHEETS NO. 394 295 70-42-RP WILL CONTRACT NO. 61D47 ILLINOIS FED. AID PROJECT SHEET 1 OF 1 SHEETS STA. TO STA.



\*\*\* 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





80' (24 m) 0.C.

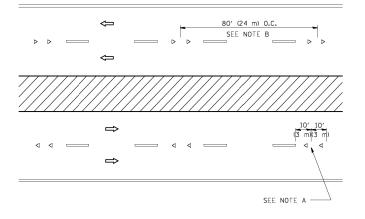
SEE NOTE B

40' (12 m) 0.C.

(3 m)(3 m)

SEE NOTE A

MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

#### GENERAL NOTES

- 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.

#### 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.

#### SYMBOLS

\_\_\_\_\_ YELLOW STRIPE

---- WHITE STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (₩/O)
- ◆ TWO-WAY AMBER MARKER

#### DESIGN NOTES

- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 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.
- 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.

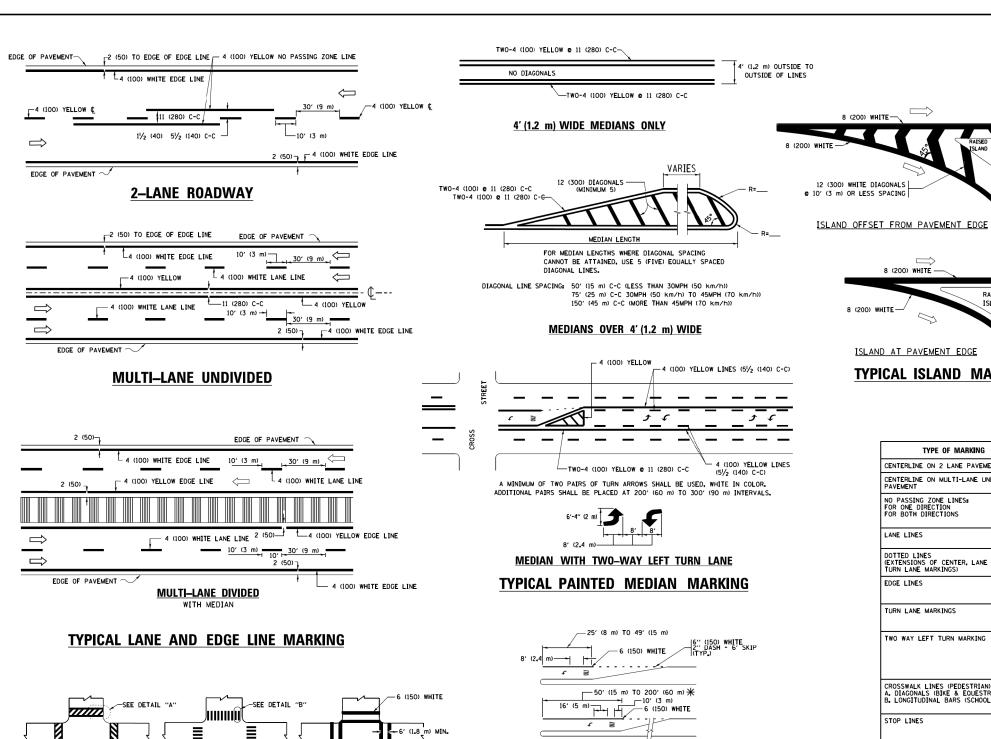
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394 296

CONTRACT NO. 61D47

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		PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED	-T. RAMMACHER C	01-06-00
		PLOT DATE = 3/2/2011	DATE -	REVISED	- C. JUCIUS C	09-09-09



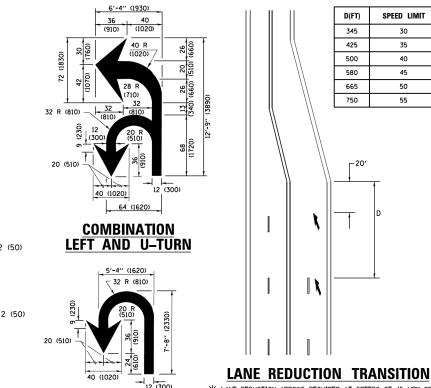
# OVER 200' (60 m) \_\_\_ 6 (150) WHITE

FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SO. FT. (1.5 m² )

 $\divideontimes$  Turn lanes in excess of 400' (120 m) in length may have an additional set of arrow - "only" installed midway between the other two sets of

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OF GREATER OR WHEN SPECIFIED IN PLANS.

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 2 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 <b>Q</b> 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 <b>e</b> 6 (150) 12 (300) <b>e</b> 45° 12 (300) <b>e</b> 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART 5EE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSMALK, IF PRESENT. OTHERNISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIACONALS: 15' (4,5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"*3.6 SO, FT. (0.33 m²) EACH "X"*54.0 SO, FT. (5.0 m²)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS > 8')	12 (300) <b>@</b> 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h) 150' (45 m) C-C (0VER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

**U-TURN** 

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

SCALE: NONE

8 (200) WHITE -

ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

8 (200) WHITE-

RAISED

unless otherwise shown.

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Default	PLOT DATE = 4/13/2016	DATE - 03-19-90	REVISED -	C. JUCIUS 04-12-16

TYPICAL CROSSWALK MARKING

 $oldsymbol{st}$  markings shall be installed parallel to the centerline of the road which it crosses

2' (600)

DETAIL "B"

-12 (300) WHITE

PEDESTRIAN

- 6 (150) WHITE

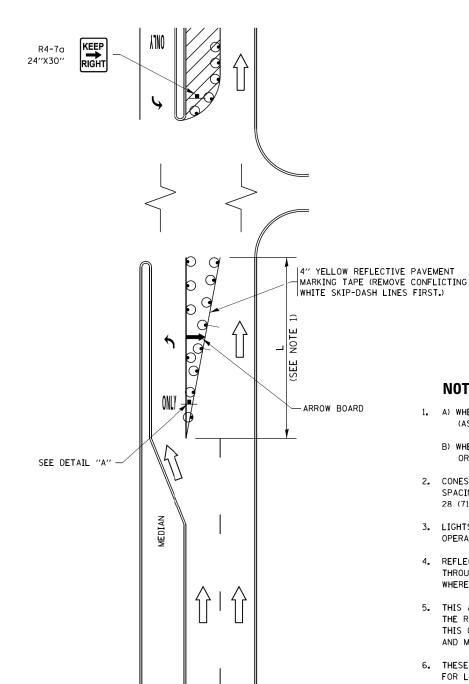
DETAIL "A"

BICYCLE & EQUESTRIAN

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

TOTAL SHEET NO. 394 297 SECTION COUNTY DISTRICT ONE 14-00170-42-RP WILL TYPICAL PAVEMENT MARKINGS CONTRACT NO. 61D47 TC-13 SHEET 1 OF 1 SHEETS STA. TO STA.

# TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER



# FIGURE 1

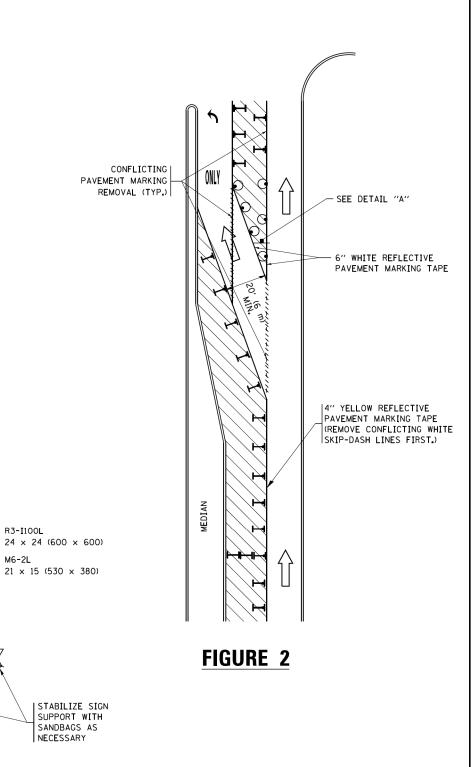
# **LEGEND** WORK AREA LANE OPEN TO TRAFFIC ARROW BOARD TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT DRUM WITH STEADY BURN LIGHT

TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

#### NOTES:

- 1. A) WHEN "L" IS ≤ THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.
  - B) WHEN "L" IS > THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
- 2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
- 3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
- 4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
- 5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-I100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
- 6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
- 7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.
- 8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

# TURN BAY ENTRANCE WITHIN A LANE CLOSURE



### **DETAIL A**

LANE

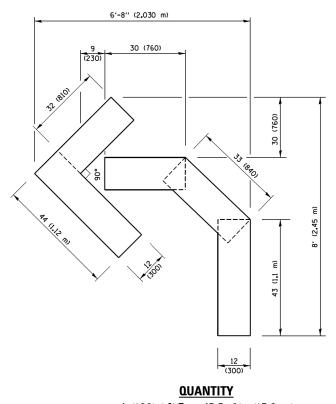
All dimensions are in inches (millimeters) unless otherwise shown.

REVISED -T. RAMMACHER 09-08-94 REVISED - R. BORO 09-14-09 FILE NAME = USER NAME = footem.j w:\\ILØ84EBIDINTEG.:ll:nois.gov:PWIDOT\ nents\IDOT Offices\District 1\Projects\Di HREWISEO ADDota \CAQsHOUSEH:414907-95 REVISED - A. SCHUETZE 07-01-13 PLOT SCALE = 50.0000 '/ 10. REVISED - A. HOUSEH 10-12-96 REVISED - A. SCHUETZE 09-15-16 PLOT DATE = 9/15/2016 REVISED -T. RAMMACHER 01-06-00 REVISED

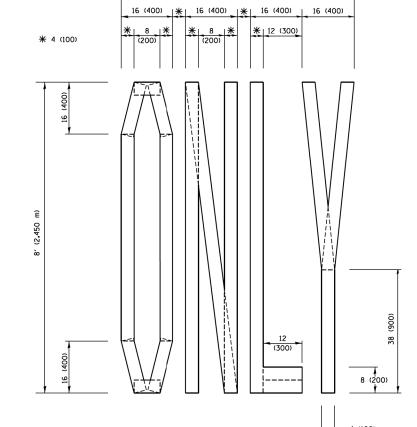
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHEET 1 OF 1 SHEETS STA. TO STA. SCALE: NONE

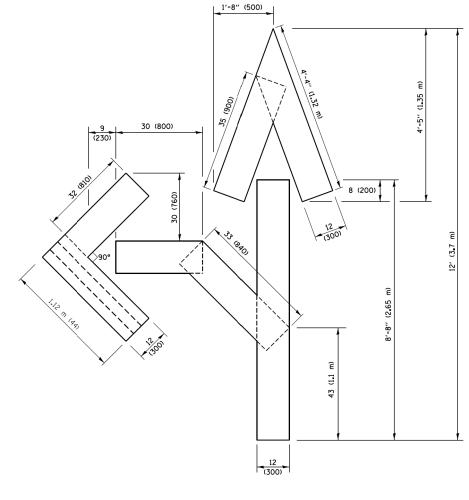
TOTAL SHEE SHEETS NO. 394 298 SECTION COUNTY 14-00170-42-RP WILL TC-14 CONTRACT NO. 61D47



4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.41 sq. m)



4 (100) LINE = 64.1 ft. (19.5 m) 21.4 sq. ft. (1.99 sq. m)

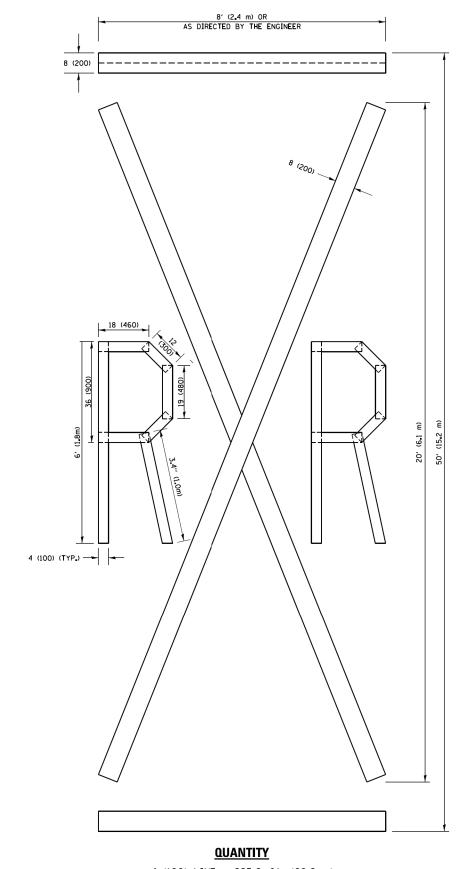


#### QUANTITY

4 (100) LINE = 82.5 ft. (25.1 m) 27.5 sq. ft. (2.53 sq. m)

#### NOTE:

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



4 (100) LINE = 225.9 ft. (68.9 m) 75.3 sq. ft. (6.99 sq. m)

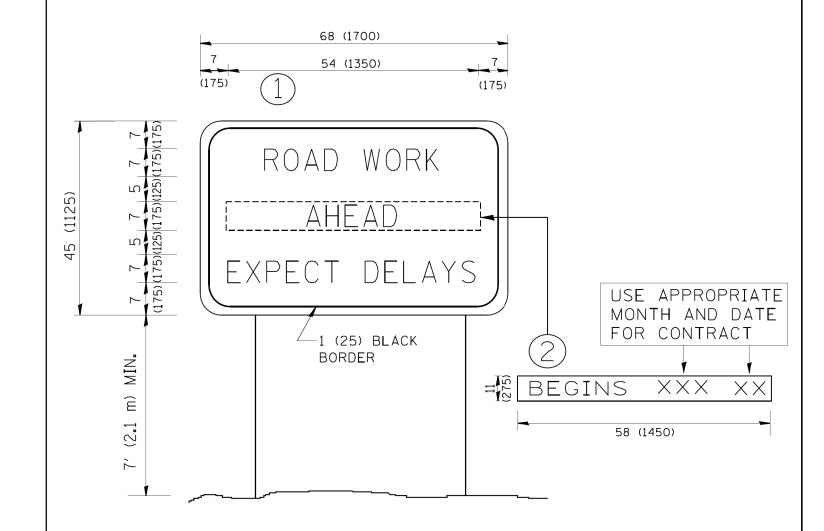
All dimensions are in inches (millimeters) unless otherwise shown.

	FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED	-T. RAMMACHER 03-02-98
		cuments\IDOT Offices\District 1\Projects\Dist	Gt <b>DR'AWM</b> \CADData\CADsheets\tc16.dgn	REVISED	-E. GOMEZ 08-28-00
<u> </u>		PLOT SCALE = 50.0000 '/ in.	CHECKED -	REVISED	-E. GOMEZ 08-28-00
Ξ		PLOT DATE = 9/15/2016	DATE - 09-18-94	PEVISED	- A SCHIETTE 09-15-16

QUANTITY

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA. FED. ROAD DIST.



### NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.

SCALE: NONE

- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN () 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 =	USER NAME = gaglianobt	DESIGNED -	REVISED	- R. MIRS 09-15-97
W:\diststd\22x34\tc22.dgn		DRAWN -	REVISED	- R. MIRS 12-11-97
	PLOT SCALE = 50.000 '/ [N.	CHECKED -	REVISED	-T. RAMMACHER 02-02-
	PLOT DATE = 1/4/2008	DATE -	REVISED	- C. JUCIUS 01-31-0

ARTERIAL ROAD		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
INFORMATION SIGN					856	14-00170-42-RP	WILL	394	300
INFURMATION SIGN				TC-22	CONTRACT	NO.	51D47		
SHEET NO. 1	OF 1 S	HEETS	STA.	TO STA.	EED P	DAD DIST NO 1 THINNIS FED AT	n ppn FrT		