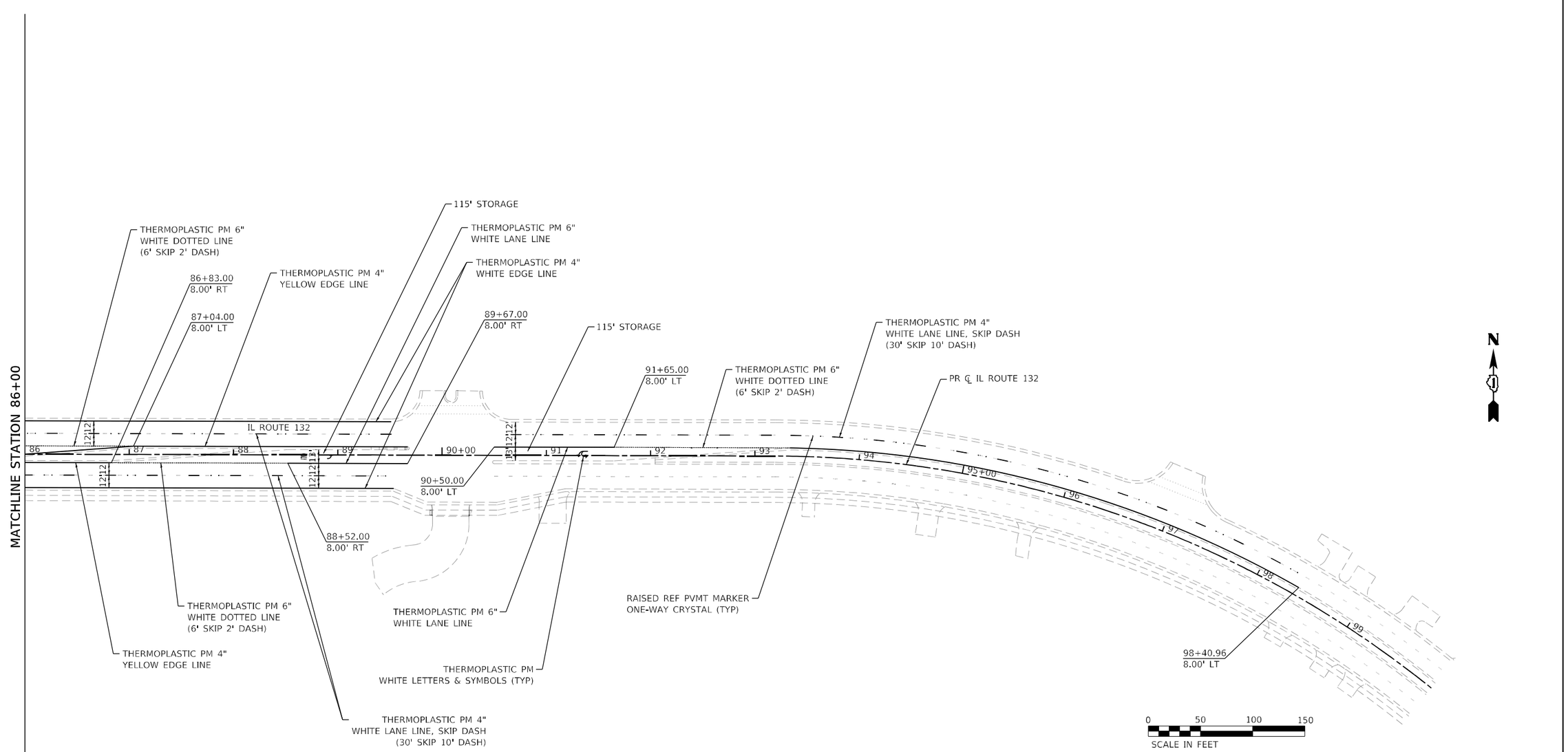


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PATRICK ENGINEERING

USER NAME = nschilling	DESIGNED - JAC	REVISED -
	DRAWN - JAC	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - NJS	REVISED -
PLOT DATE = 5/2/2021	DATE - 3/30/21	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GRAND AVENUE (ILLINOIS ROUTE 132)
PAVEMENT MARKING AND SIGNING PLAN

SCALE: 1" = 50' | SHEET 6 OF 6 SHEETS | STA. 86+00 | TO STA. 98+40.96

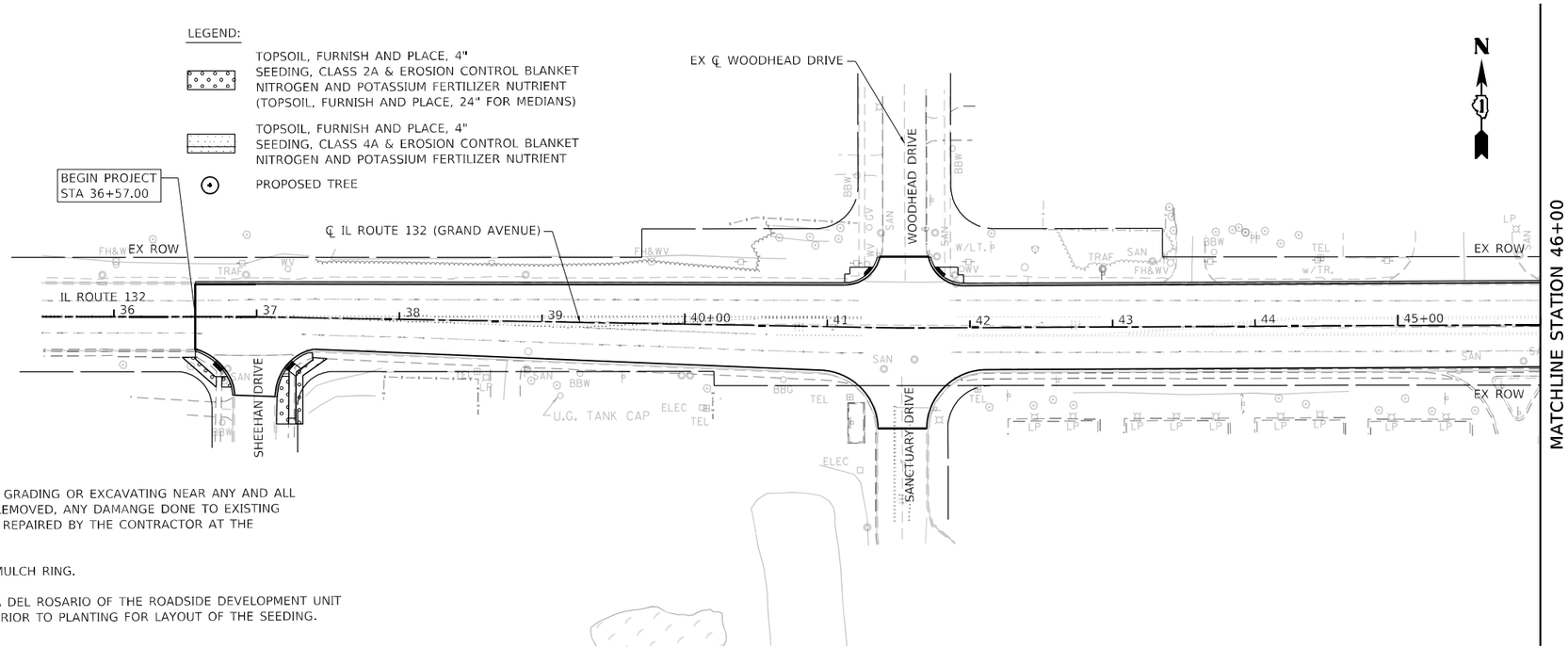
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	101
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			

LEGEND:

TOPSOIL, FURNISH AND PLACE, 4"
SEEDING, CLASS 2A & EROSION CONTROL BLANKET
NITROGEN AND POTASSIUM FERTILIZER NUTRIENT
(TOPSOIL, FURNISH AND PLACE, 24" FOR MEDIANS)

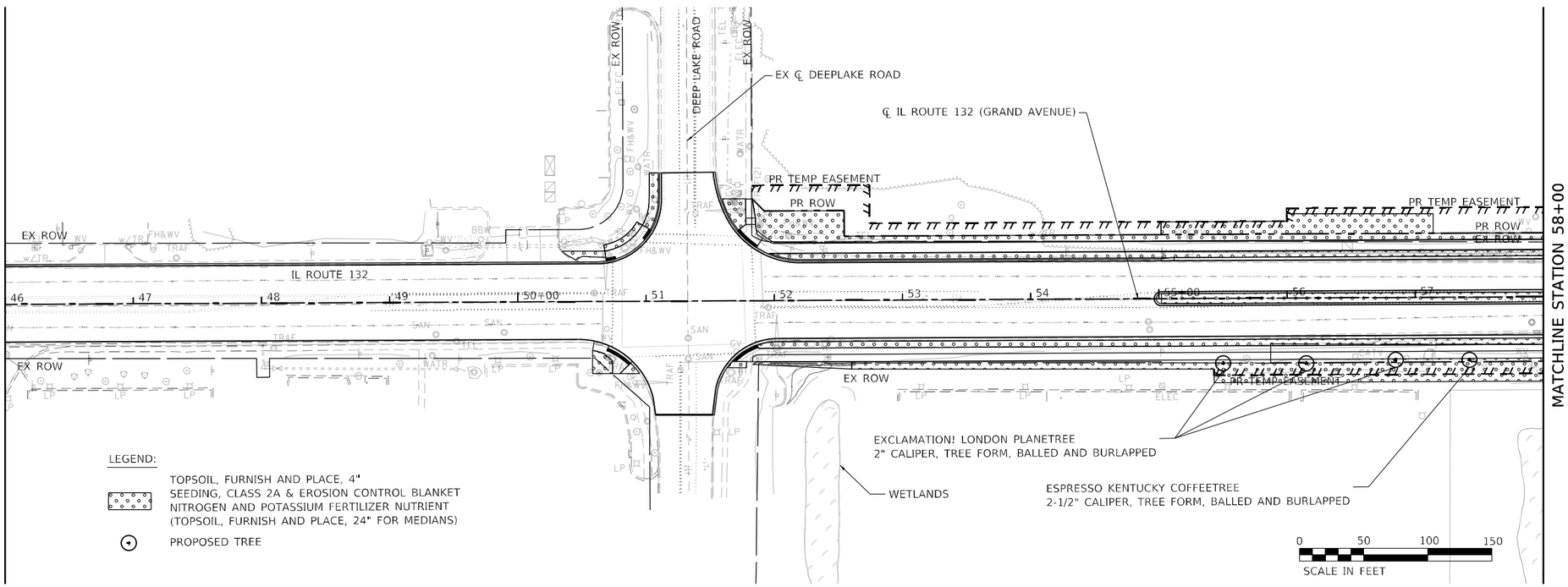
TOPSOIL, FURNISH AND PLACE, 4"
SEEDING, CLASS 4A & EROSION CONTROL BLANKET
NITROGEN AND POTASSIUM FERTILIZER NUTRIENT

PROPOSED TREE



GENERAL NOTES:

1. THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS WHICH WILL NOT BE REMOVED, ANY DAMANGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE.
2. ALL TREES SHALL HAVE 5' DIAMETER MULCH RING.
3. THE ENGINEER WILL CONTACT MELISSA DEL ROSARIO OF THE ROADSIDE DEVELOPMENT UNIT AT (847) 705-4391 AT LEAST 7 DAYS PRIOR TO PLANTING FOR LAYOUT OF THE SEEDING.



LEGEND:

TOPSOIL, FURNISH AND PLACE, 4"
SEEDING, CLASS 2A & EROSION CONTROL BLANKET
NITROGEN AND POTASSIUM FERTILIZER NUTRIENT
(TOPSOIL, FURNISH AND PLACE, 24" FOR MEDIANS)

PROPOSED TREE

PATRICK ENGINEERING

USER NAME = nschilling	DESIGNED - JAC	REVISED -
	DRAWN - BAW	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - NJS	REVISED -
PLOT DATE = 5/2/2021	DATE - 3/30/21	REVISED -

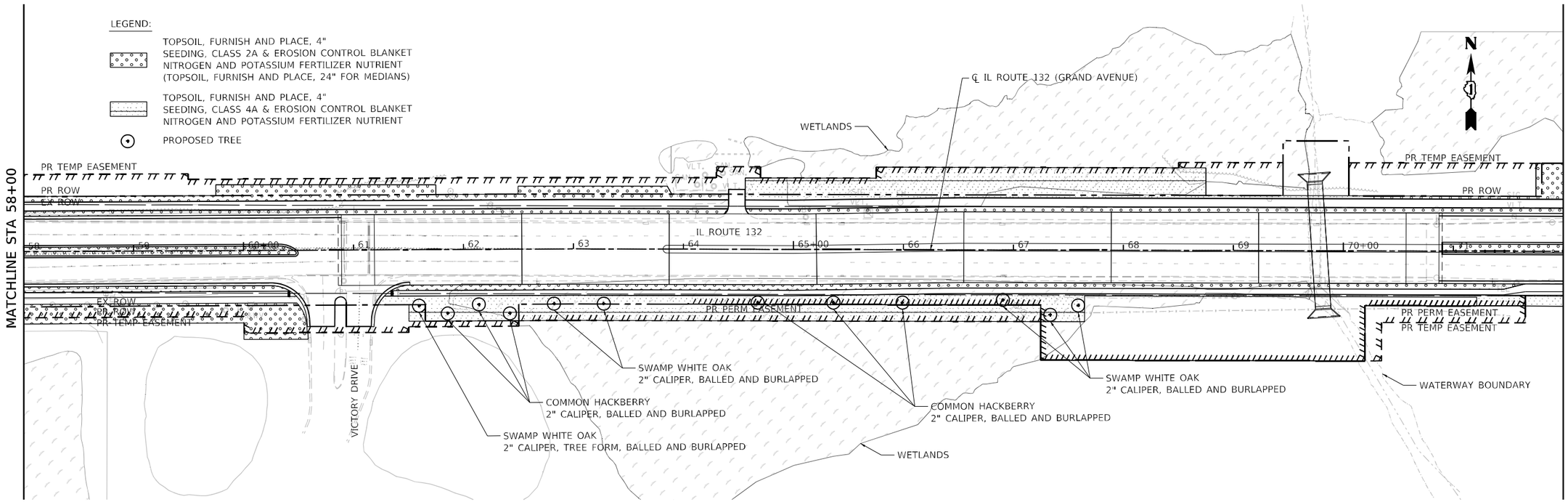
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

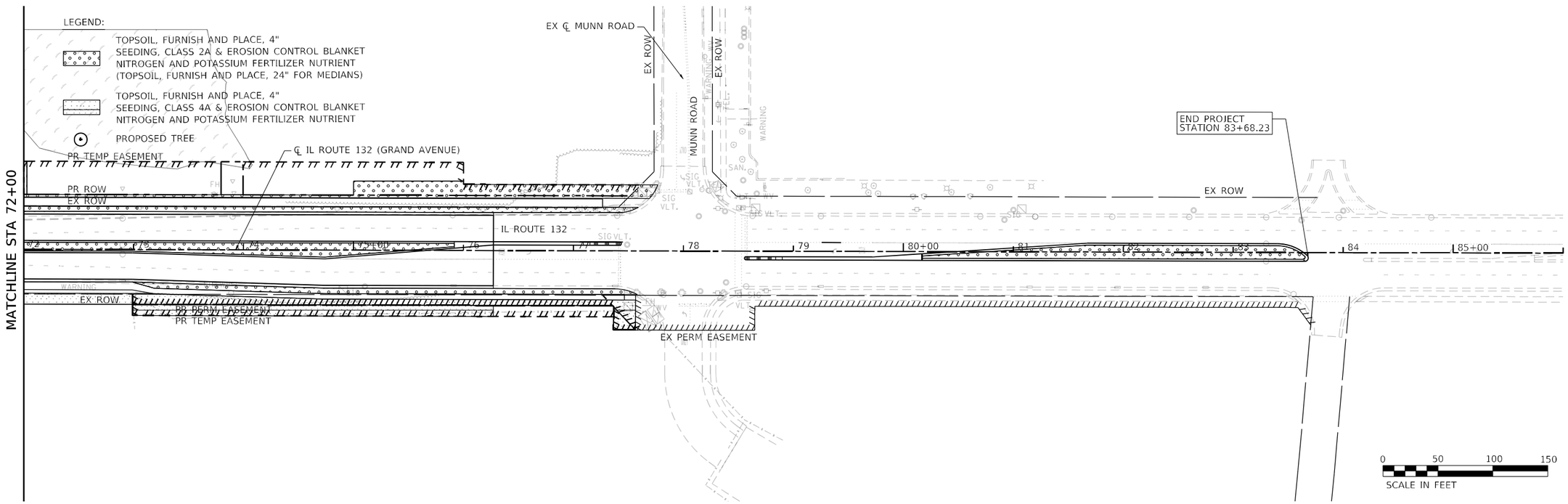
GRAND AVENUE (ILLINOIS ROUTE 132)
LANDSCAPING PLAN

SCALE: 1" = 50' | SHEET 1 OF 2 SHEETS | STA. 35+00 TO STA. 58+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	102
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

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PATRICK ENGINEERING	USER NAME = nschilling	DESIGNED - JAC	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**GRAND AVENUE (ILLINOIS ROUTE 132) LANDSCAPING PLAN**
		DRAWN - BAW	REVISED -		
	PLOT SCALE = 100.0000 ' / in.	CHECKED - NJS	REVISED -		SCALE: 1" = 50' SHEET 2 OF 2 SHEETS STA. 58+00 TO STA. 83+00
	PLOT DATE = 5/2/2021	DATE - 3/30/21	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	103
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

ITEM	EXISTING	PROPOSED
CONTROLLER CABINET		
COMMUNICATION CABINET	CC	CC
MASTER CONTROLLER	MC	MC
MASTER MASTER CONTROLLER	MMC	MMC
UNINTERRUPTABLE POWER SUPPLY		
SERVICE INSTALLATION -(P) POLE MOUNTED	P	P
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	G GM	G GM
TELEPHONE CONNECTION	ET	T
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY		BM
WOOD POLE		
GUY WIRE		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED	P P	P P
FLASHER INSTALLATION -(FS) SOLAR POWERED	F FS F FS	F FS F FS
PEDESTRIAN SIGNAL HEAD		
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON	APS	APS
RADAR DETECTION SENSOR	R	R
VIDEO DETECTION CAMERA	V	V
RADAR/VIDEO DETECTION ZONE		
PAN, TILT, ZOOM (PTZ) CAMERA	PTZ	PTZ
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIMATION BEACON		
WIRELESS INTERCONNECT		
WIRELESS INTERCONNECT RADIO REPEATER	RR	RR

ITEM	EXISTING	PROPOSED
HANDHOLE -SQUARE -ROUND		
HEAVY DUTY HANDHOLE -SQUARE -ROUND	H	H
DOUBLE HANDHOLE		
JUNCTION BOX		
RAILROAD CANTILEVER MAST ARM		
RAILROAD FLASHING SIGNAL		
RAILROAD CROSSING GATE		
RAILROAD CROSSBUCK		
RAILROAD CONTROLLER CABINET	RR	RR
UNDERGROUND CONDUIT (UC), GALVANIZED STEEL		
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE		
SYSTEM ITEM	S	SP
INTERSECTION ITEM	I	IP
REMOVE ITEM		R
RELOCATE ITEM		RL
ABANDON ITEM		A
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF
MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF
SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP	P	P
SAMPLING (SYSTEM) DETECTOR	S	S
INTERSECTION AND SAMPLING (SYSTEM) DETECTOR	IS	IS
QUEUE AND SAMPLING (SYSTEM) DETECTOR	QS	QS
WIRELESS DETECTOR SENSOR	W	W
WIRELESS ACCESS POINT		

ITEM	EXISTING	PROPOSED
SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD	R Y G ◄Y ◄G (P)	R Y G ◄Y ◄G (P)
SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE	R Y G ◄Y ◄G (P) (RB)	R Y G ◄Y ◄G (P) (RB)
PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER	C D	C D
ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED	5	5
GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)	1#6	1#6
ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C	1	1
COAXIAL CABLE	C	C
VENDOR CABLE	V	V
COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED	6#18	6#18
FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F	12F 24F 36F	12F 24F 36F
GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE	C M P S	C M P S

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PLOT DATE = 3/19/2020	DATE - 9/29/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 1 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	104
	TS-05	CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

LOOP DETECTOR NOTES

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.

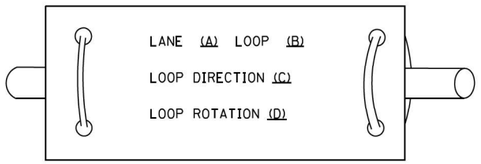
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

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

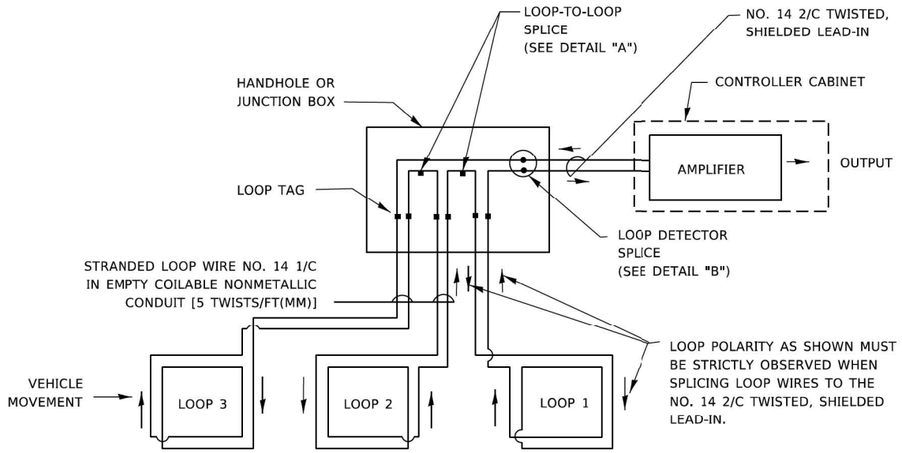


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

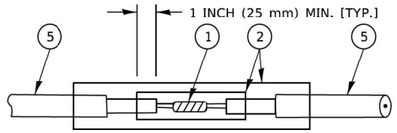
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

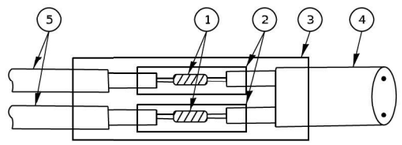


DETECTOR LOOP WIRING SCHEMATIC

- 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.

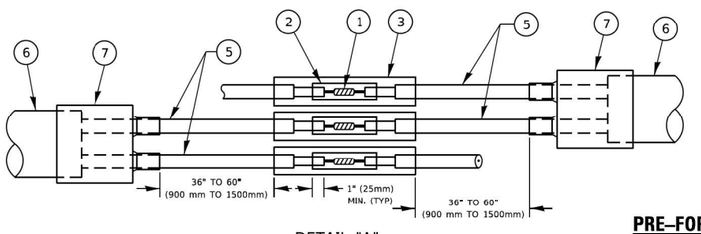


DETAIL "A"
LOOP-TO-LOOP SPLICE



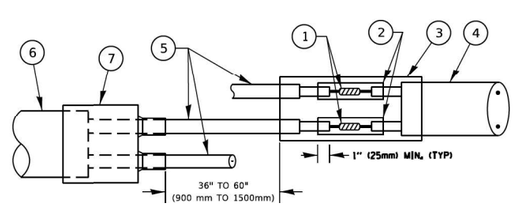
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

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.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE. PRE-FORMED LOOP

(6) XL POLYOLEFIN 2 CONDUCTOR

(7) BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

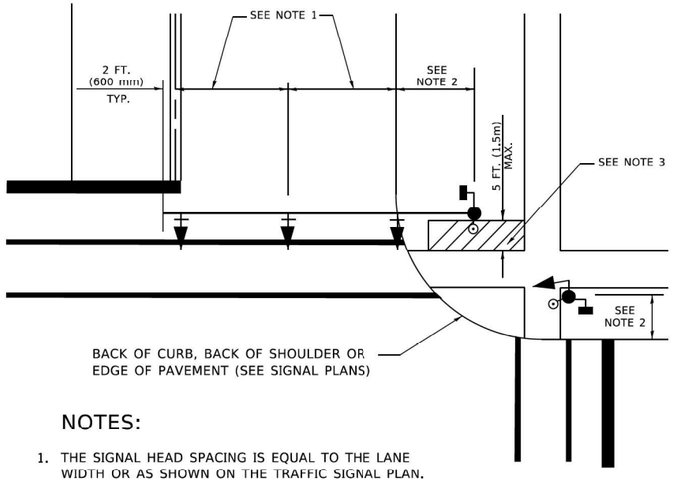
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 2 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	105
	TS-05	CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

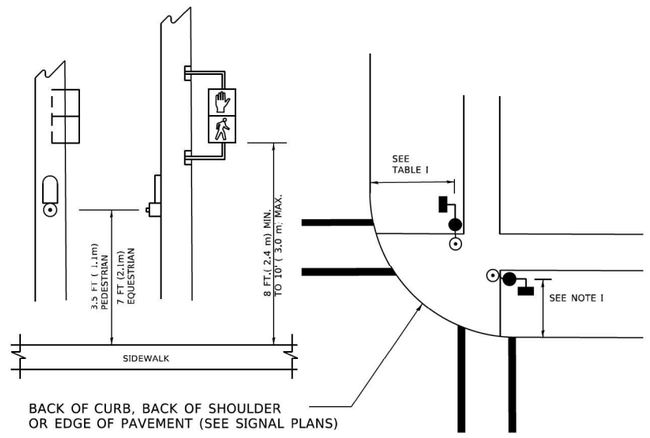
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
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.
5. 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."

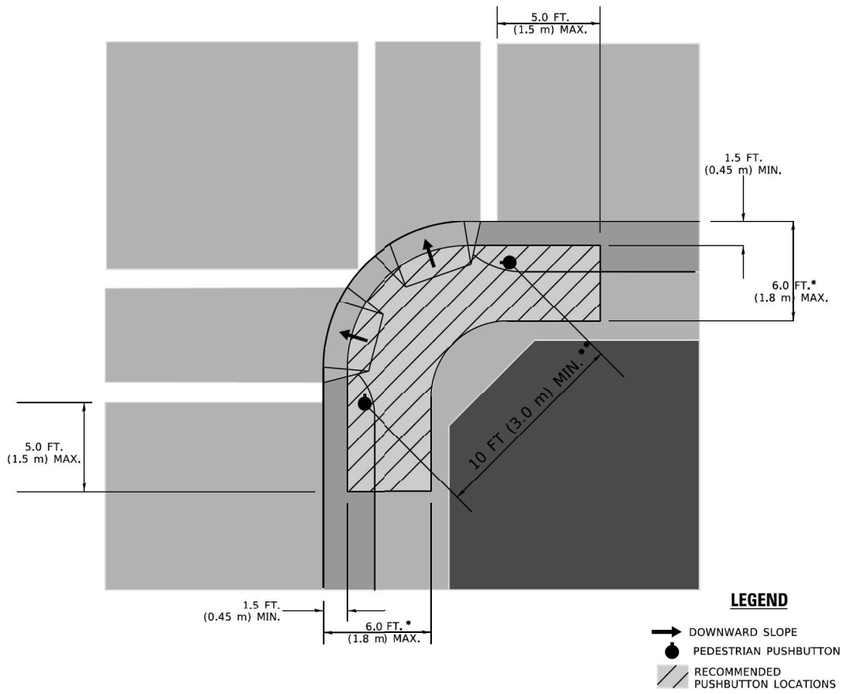
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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."

RECOMMENDED PUSHBUTTON LOCATIONS



* 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:

1. 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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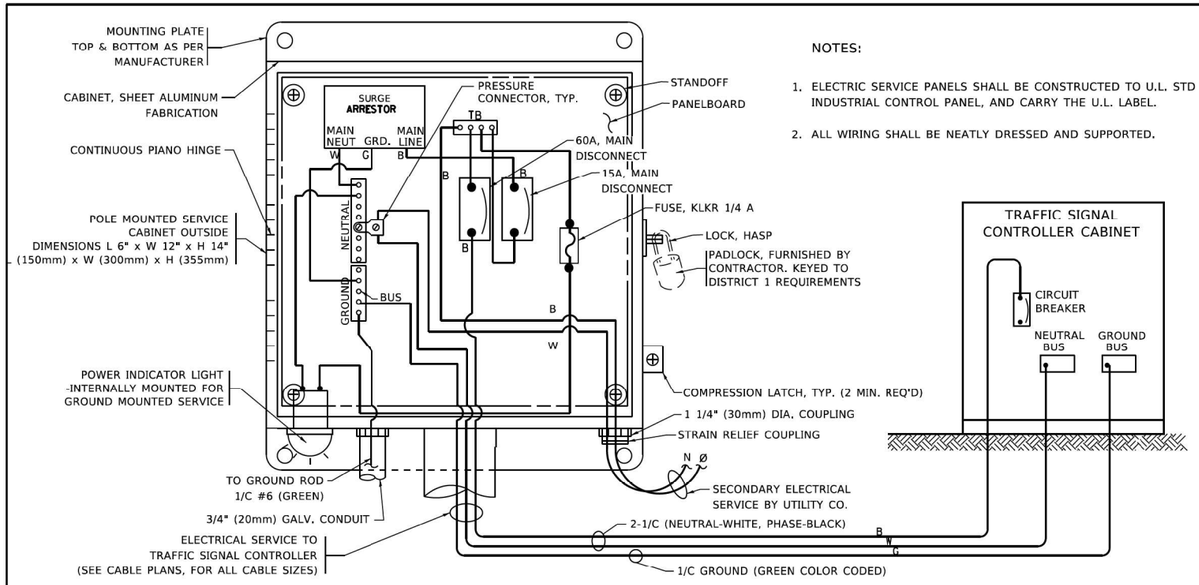
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 3 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	TS-05	CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			



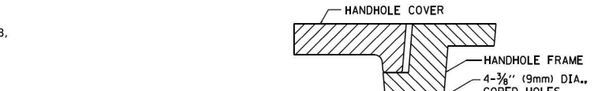
NOTES:

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

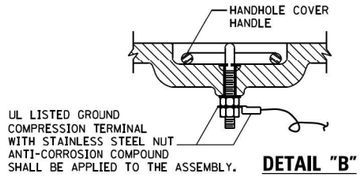
ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)



DETAIL "A"

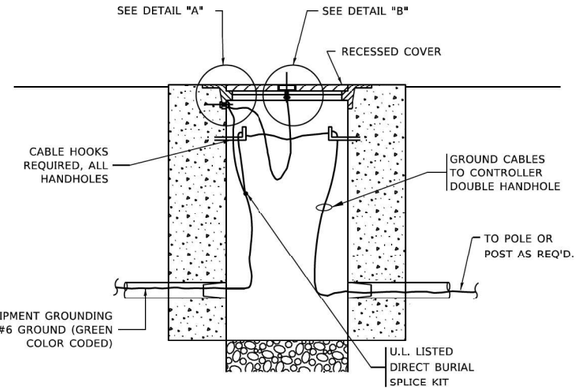


DETAIL "B"

NOTES:

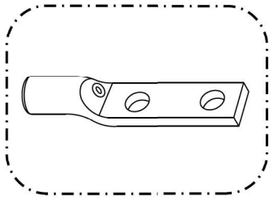
GROUNDING SYSTEM

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

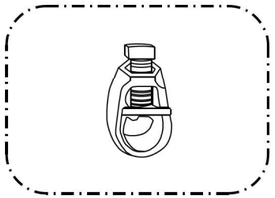


HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



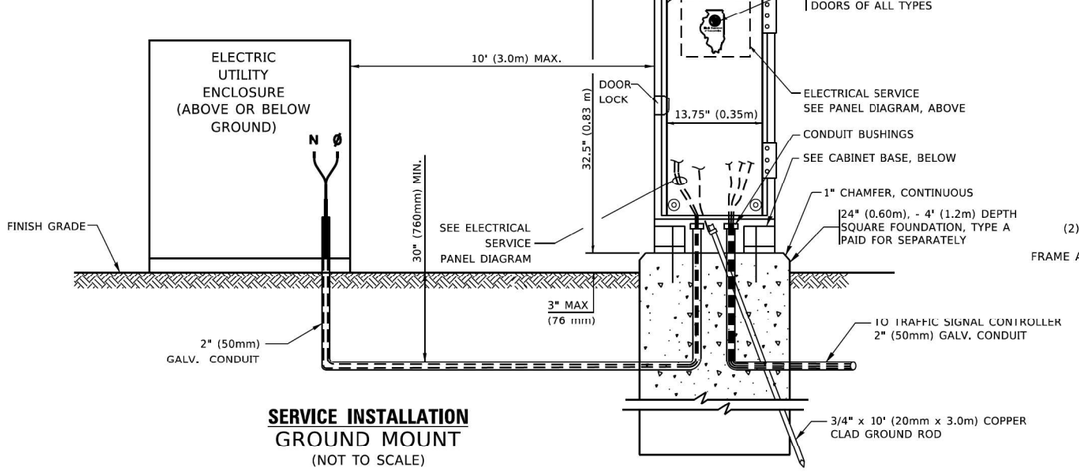
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



¾" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

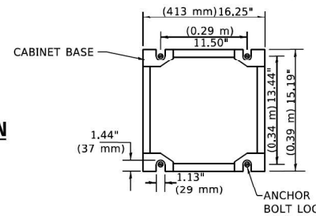
NOTES:

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



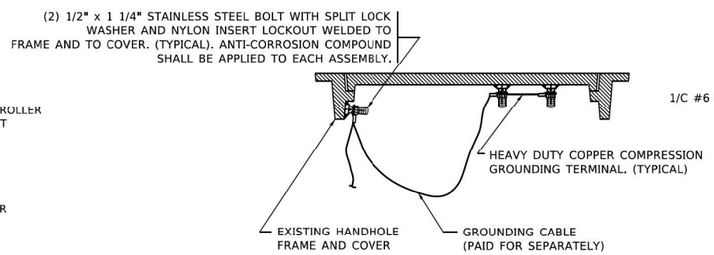
SERVICE INSTALLATION GROUND MOUNT

(NOT TO SCALE)



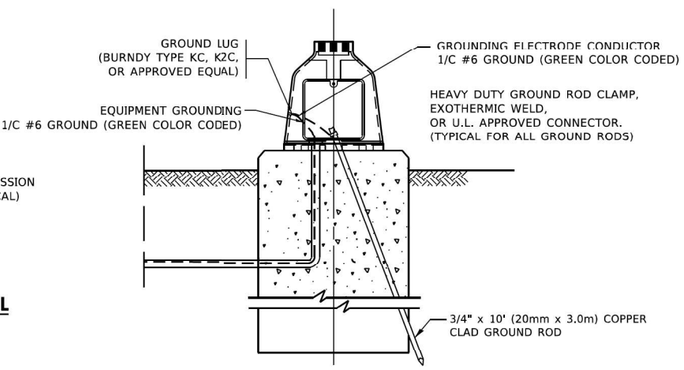
CABINET – BASE BOLT PATTERN

(NOT TO SCALE)



EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



MAST ARM POLE /POST–GROUNDING DETAIL

(NOT TO SCALE)

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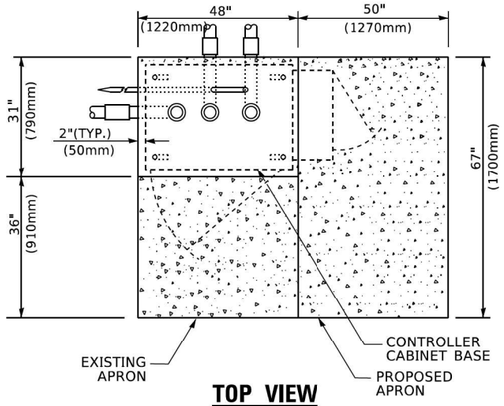
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

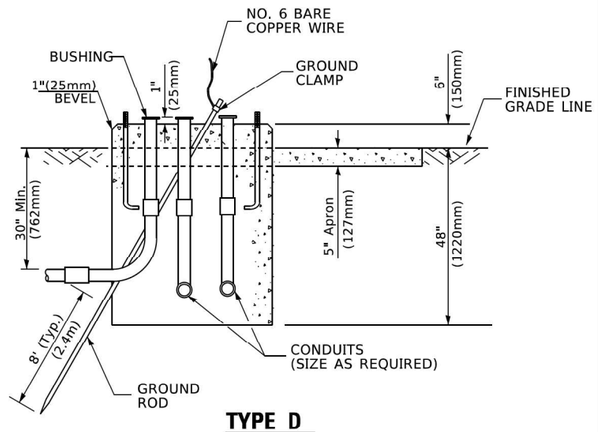
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 4 OF 7 SHEETS | STA. | TO STA.

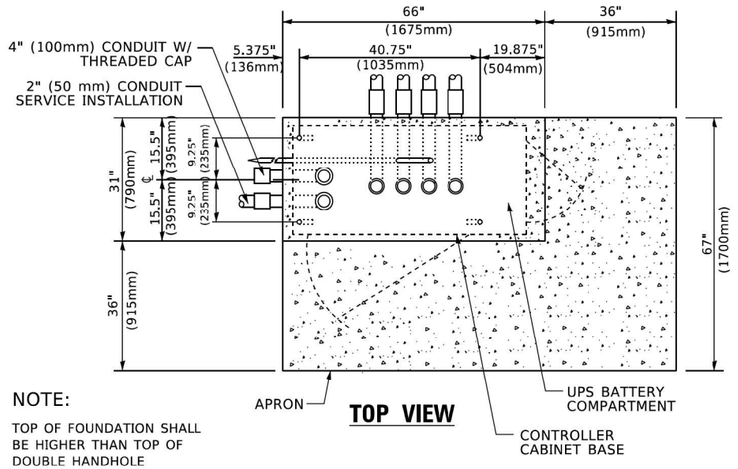
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	TS-05	CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			



TOP VIEW



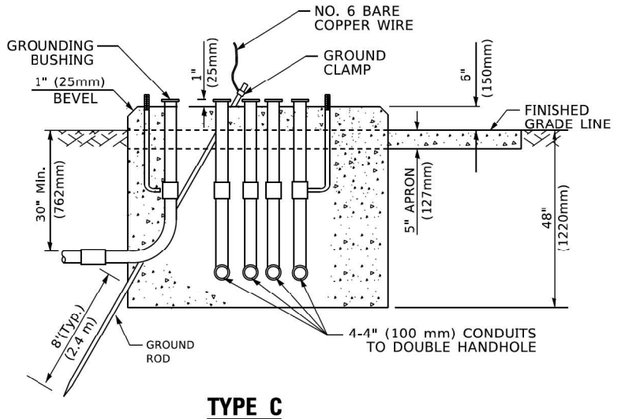
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



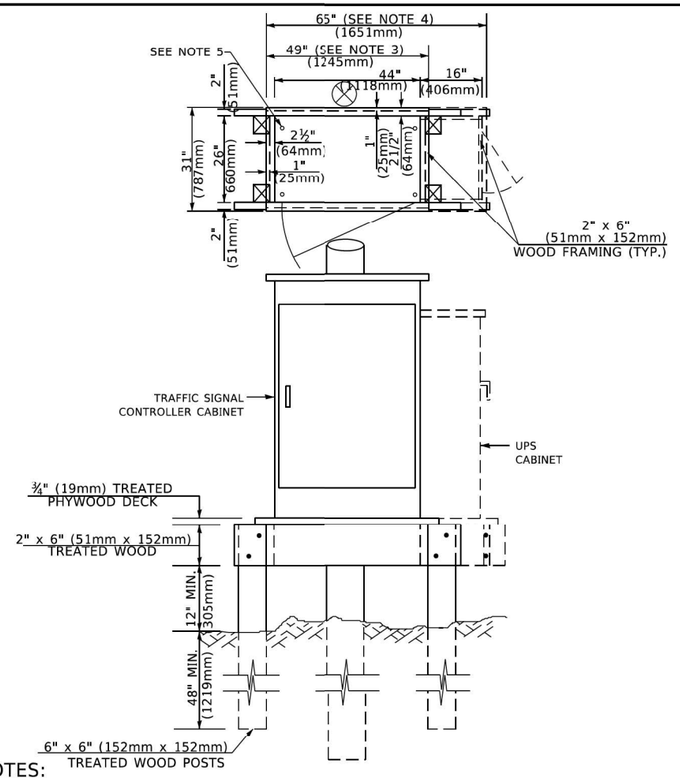
NOTE:

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE

TOP VIEW



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



NOTES:

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

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

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

CABLE SLACK

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

VERTICAL CABLE LENGTH

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

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	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 (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations
4. For mast arm assemblies with dual arms refer to state standard 878001..

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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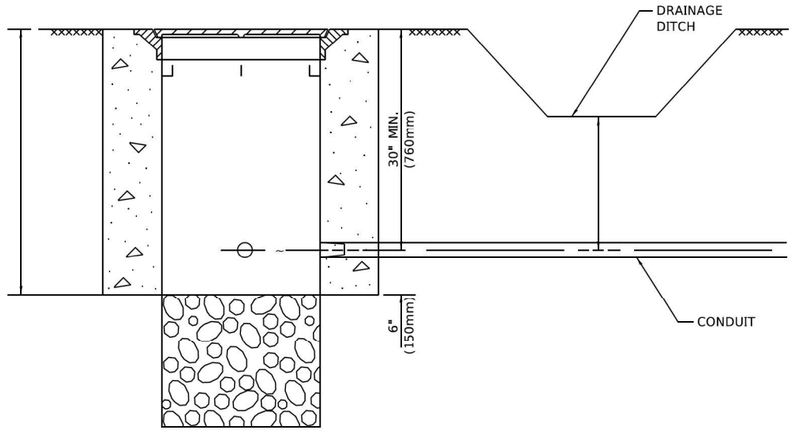
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STATE OF ILLINOIS
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DISTRICT ONE
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SCALE: NONE | SHEET 5 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	TS-05	CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			

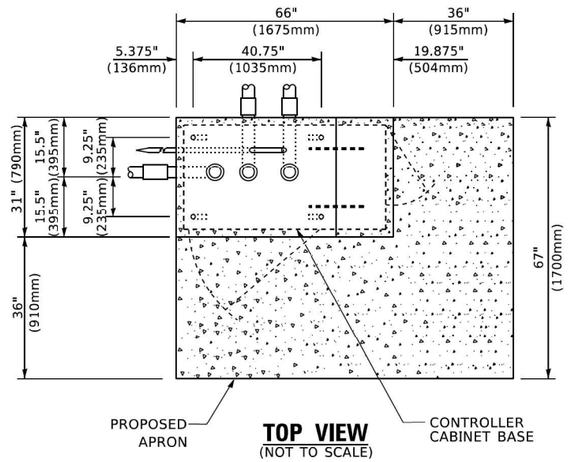


NOTES:

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

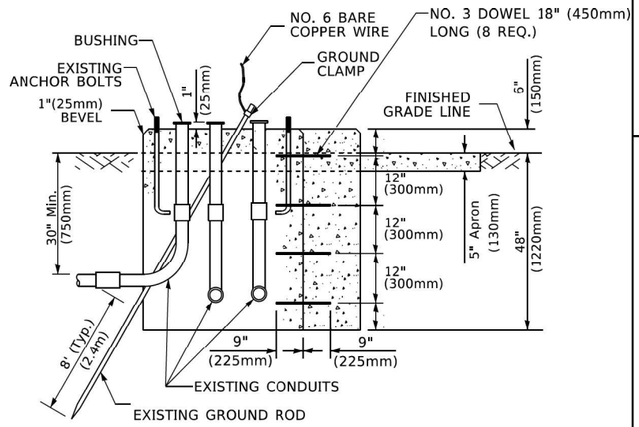
HANDHOLE WITH MINIMUM CONDUIT DEPTH

(NOT TO SCALE)



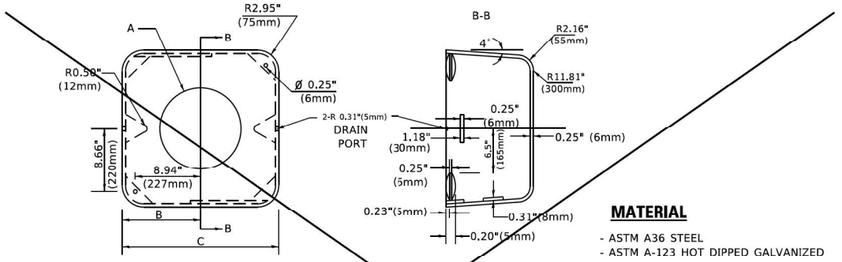
TOP VIEW

(NOT TO SCALE)



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

(NOT TO SCALE)



MATERIAL

- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

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

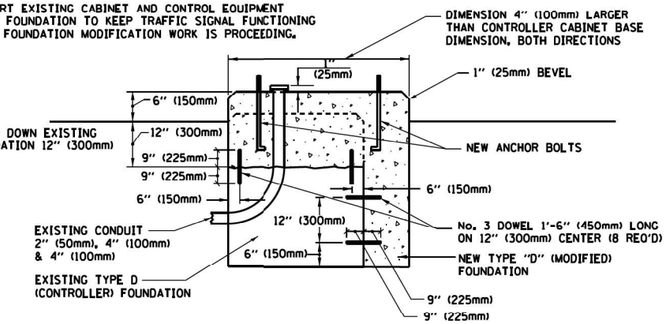
SHROUD

NOTES:

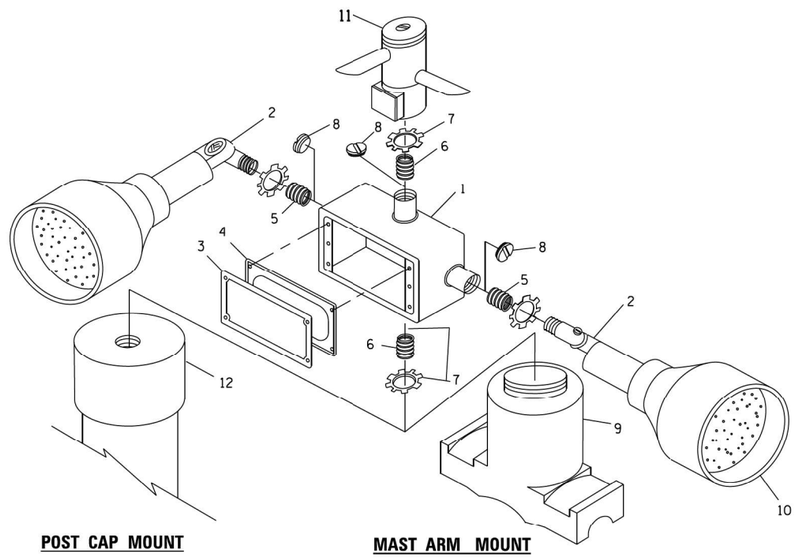
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE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

NOTE:

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



MODIFY EXISTING TYPE "D" FOUNDATION



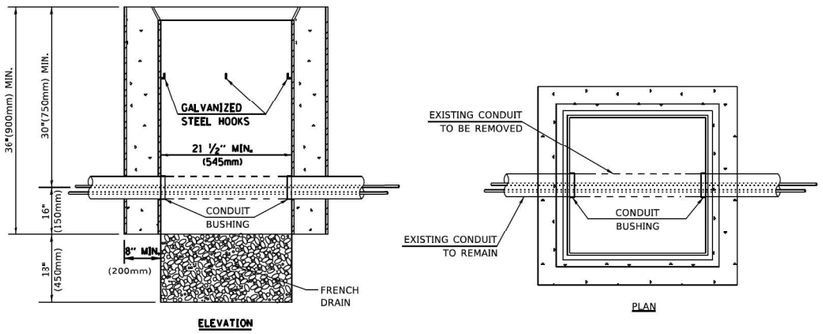
POST CAP MOUNT **MAST ARM MOUNT**

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

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



NOTES:

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

HANDHOLE TO INTERCEPT EXISTING CONDUIT

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	DRAWN -	REVISED -
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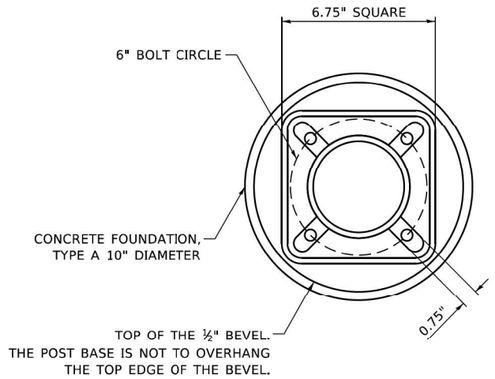
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 6 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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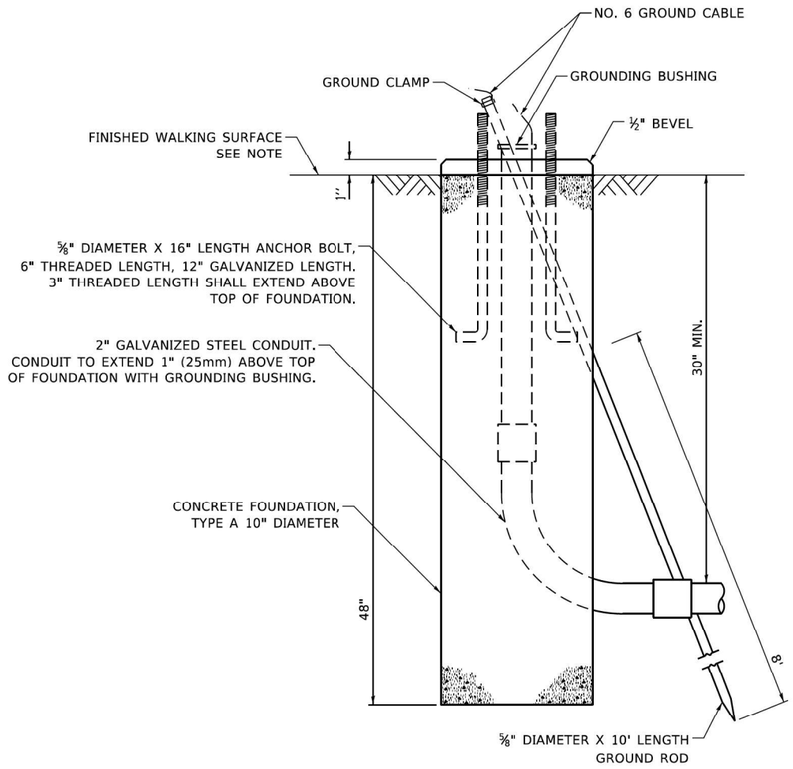
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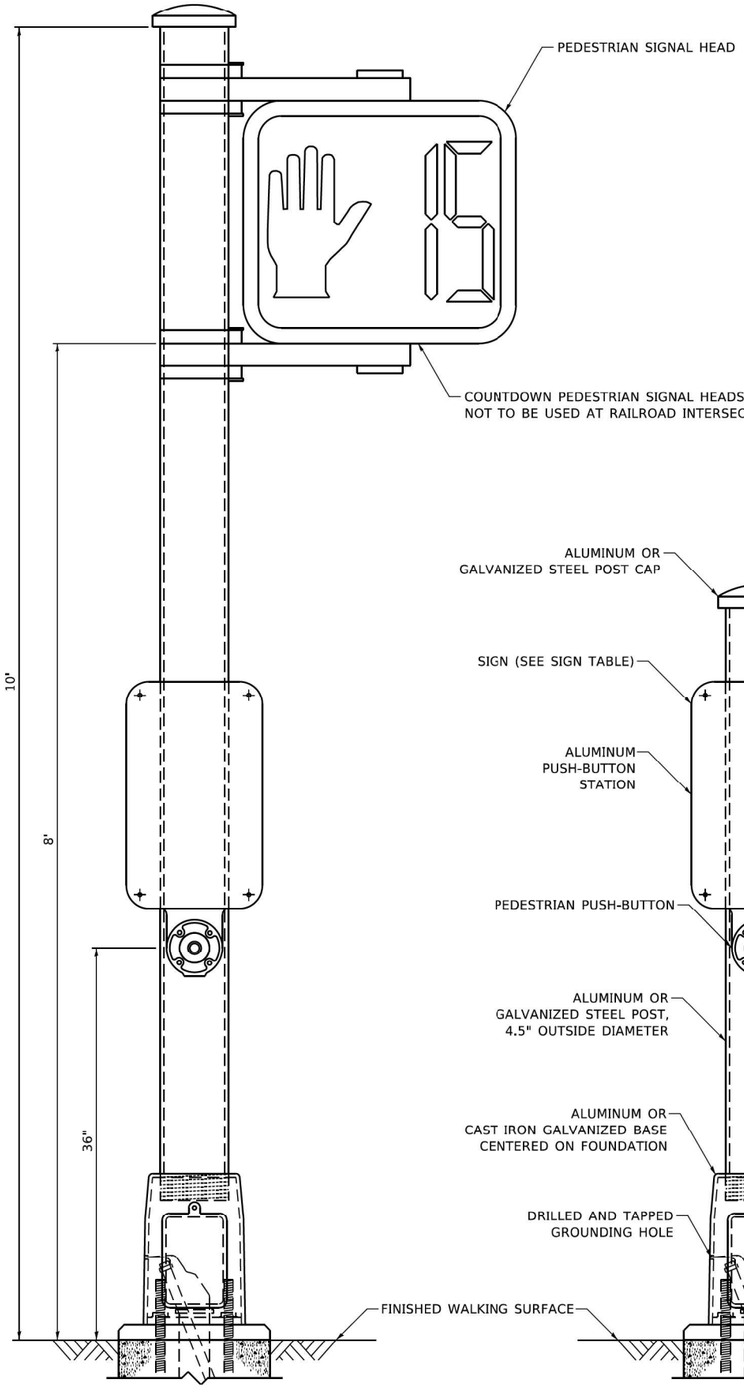
BOLT PATTERN

NOTE:

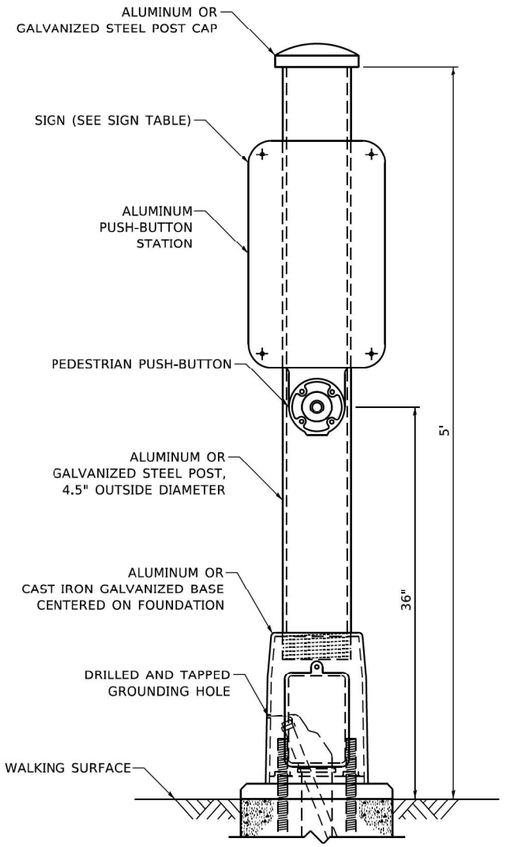
1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



CONCRETE FOUNDATION, TYPE A 10–INCH DIAMETER



PEDESTRIAN SIGNAL POST, 10 FT.



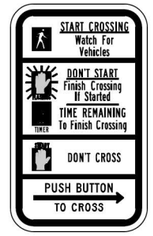
PEDESTRIAN SIGNAL POST, 5 FT.



R10-3b



R10-3d



R10-3e

SIGN TABLE

SIGN	DIMENSIONS
R10-3b (RAILROAD ONLY)	9" X 12"
R10-3d (RAILROAD ONLY)	9" X 12"
R10-3e	9" X 15"

NOTES:

1. THE SIGN PANELS SHALL BE TYPE AP SHEETING.
2. THE ARROW ON SIGNS FOR PUSH-BUTTONS SERVING TWO DIRECTIONS ON THE SAME PHASE SHALL BE BI-DIRECTIONAL.
3. THE SIGN FOR DUAL-CALL PUSH-BUTTONS SHALL HAVE NO ARROW.

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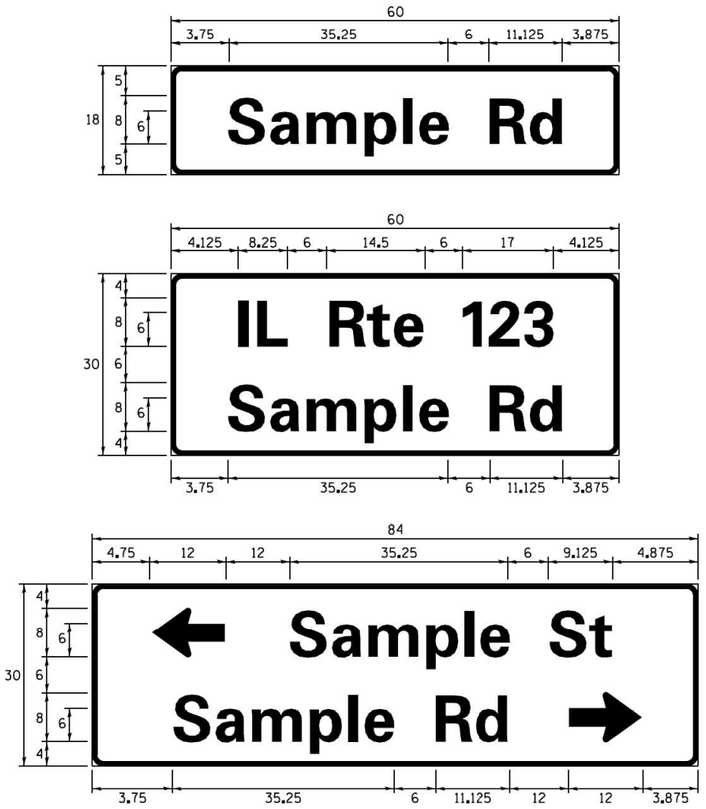
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NTS | SHEET NO. 7 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	110
	TS-05	CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			

SIGN PANEL – TYPE 1 OR TYPE 2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. 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)	
		SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	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

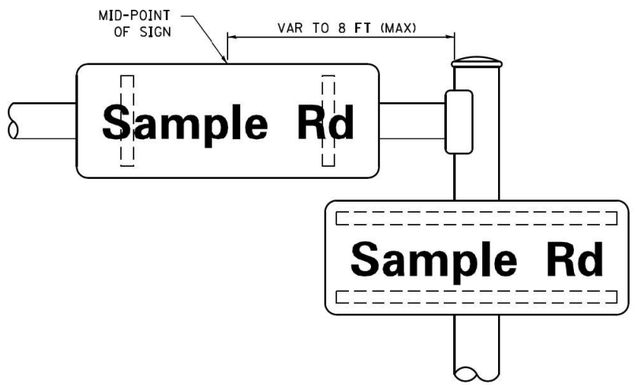
1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE 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'-0". ALL BORDERS SHALL BE ¾" 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'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8"-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" 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.

LOCAL SUPPLIERS:	PARTS LISTING:	
- J.O. HERBERT COMPANY, INC MIDLOTHIAN, VA	SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
	SIGN SCREWS	1/4" x 14 x 1" H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
- WESTERN REMAC, INC. WOODRIDGE, IL	BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

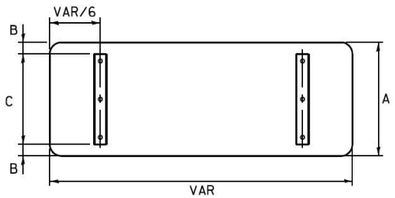
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

MOUNTING LOCATION

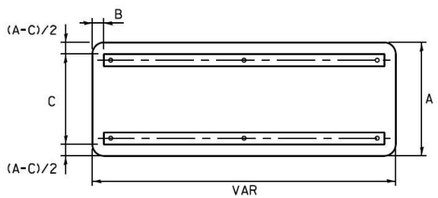
ARM OR POLE MOUNTED



SUPPORTING CHANNELS



A	B	C
18"	2"	14"
30"	2"	24"



A	B	C
18"	2"	12"
30"	2"	22"

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 SPACING (INCH)
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	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
H	0.880	4.482	0.880	H	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	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	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
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	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
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	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	h	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
l	0.720	1.120	0.720	l	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
o	0.480	4.082	0.480	o	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	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	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
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	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	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
MAST ARM MOUNTED STREET NAME SIGNS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	111
	TS-02	CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			

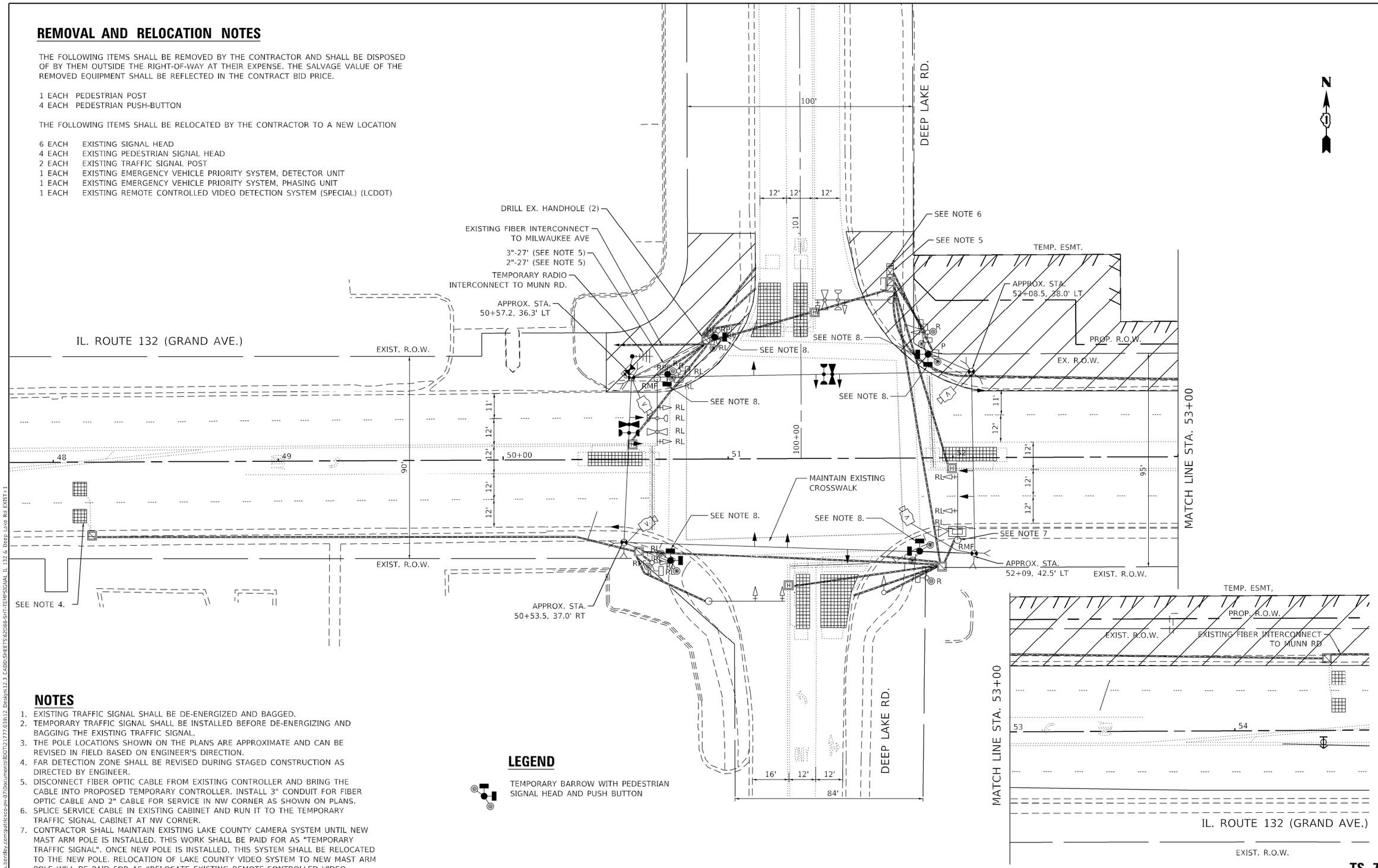
REMOVAL AND RELOCATION NOTES

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

1 EACH PEDESTRIAN POST
4 EACH PEDESTRIAN PUSH-BUTTON

THE FOLLOWING ITEMS SHALL BE RELOCATED BY THE CONTRACTOR TO A NEW LOCATION

6 EACH EXISTING SIGNAL HEAD
4 EACH EXISTING PEDESTRIAN SIGNAL HEAD
2 EACH EXISTING TRAFFIC SIGNAL POST
1 EACH EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
1 EACH EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1 EACH EXISTING REMOTE CONTROLLED VIDEO DETECTION SYSTEM (SPECIAL) (LCDOT)



NOTES

1. EXISTING TRAFFIC SIGNAL SHALL BE DE-ENERGIZED AND BAGGED.
2. TEMPORARY TRAFFIC SIGNAL SHALL BE INSTALLED BEFORE DE-ENERGIZING AND BAGGING THE EXISTING TRAFFIC SIGNAL.
3. THE POLE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND CAN BE REVISED IN FIELD BASED ON ENGINEER'S DIRECTION.
4. FAR DETECTION ZONE SHALL BE REVISED DURING STAGED CONSTRUCTION AS DIRECTED BY ENGINEER.
5. DISCONNECT FIBER OPTIC CABLE FROM EXISTING CONTROLLER AND BRING THE CABLE INTO PROPOSED TEMPORARY CONTROLLER. INSTALL 3" CONDUIT FOR FIBER OPTIC CABLE AND 2" CABLE FOR SERVICE IN NW CORNER AS SHOWN ON PLANS.
6. SPLICE SERVICE CABLE IN EXISTING CABINET AND RUN IT TO THE TEMPORARY TRAFFIC SIGNAL CABINET AT NW CORNER.
7. CONTRACTOR SHALL MAINTAIN EXISTING LAKE COUNTY CAMERA SYSTEM UNTIL NEW MAST ARM POLE IS INSTALLED. THIS WORK SHALL BE PAID FOR AS "TEMPORARY TRAFFIC SIGNAL". ONCE NEW POLE IS INSTALLED, THIS SYSTEM SHALL BE RELOCATED TO THE NEW POLE. RELOCATION OF LAKE COUNTY VIDEO SYSTEM TO NEW MAST ARM POLE WILL BE PAID FOR AS "RELOCATE EXISTING REMOTE-CONTROLLED VIDEO SYSTEM (SPECIAL) (LCDOT)".
8. DE-ENERGIZE AND BAG DURING THIS STAGE INCLUDING CORRESPONDING PUSH BUTTON.

LEGEND

TEMPORARY BARROW WITH PEDESTRIAN SIGNAL HEAD AND PUSH BUTTON

TS 7080
EAGLE 7F

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TranSmart/EJM
411 South Wells Street Suite 1000
Chicago, Illinois 60607

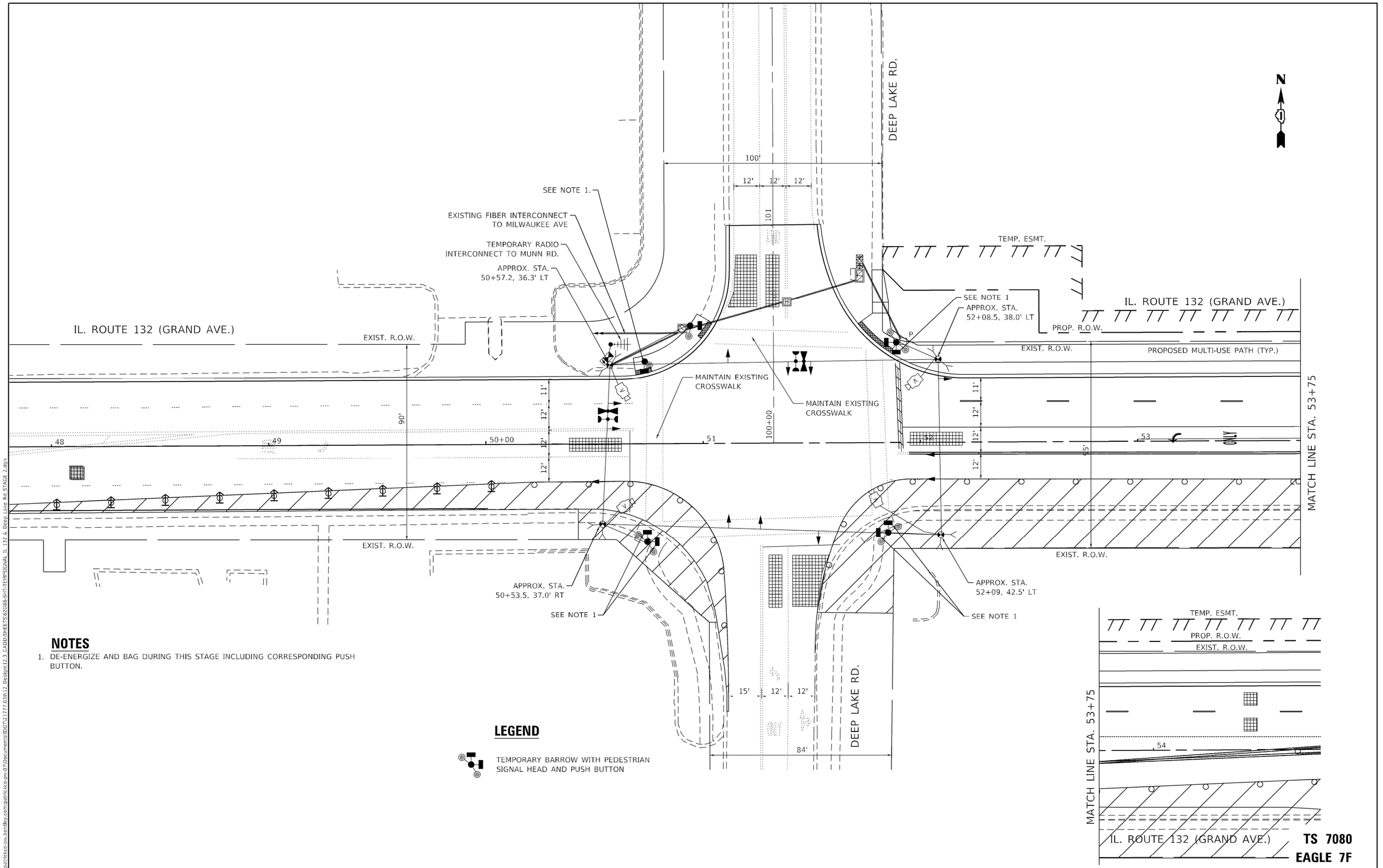
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PLOT DATE =5/2/2021	DATE - 6/30/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN
ILLINOIS ROUTE 132 (GRAND AVE) AT DEEP LAKE ROAD
STAGE 1

SCALE: 1:20 SHEET 9 OF 22 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	112
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			



NOTES

1. DE-ENERGIZE AND BAG DURING THIS STAGE INCLUDING CORRESPONDING PUSH BUTTON.

LEGEND

TEMPORARY BARROW WITH PEDESTRIAN SIGNAL HEAD AND PUSH BUTTON

TS 7080

EAGLE 7F

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TranSmart/EJM
411 South Wells Street Suite 1000
Chicago, Illinois 60607

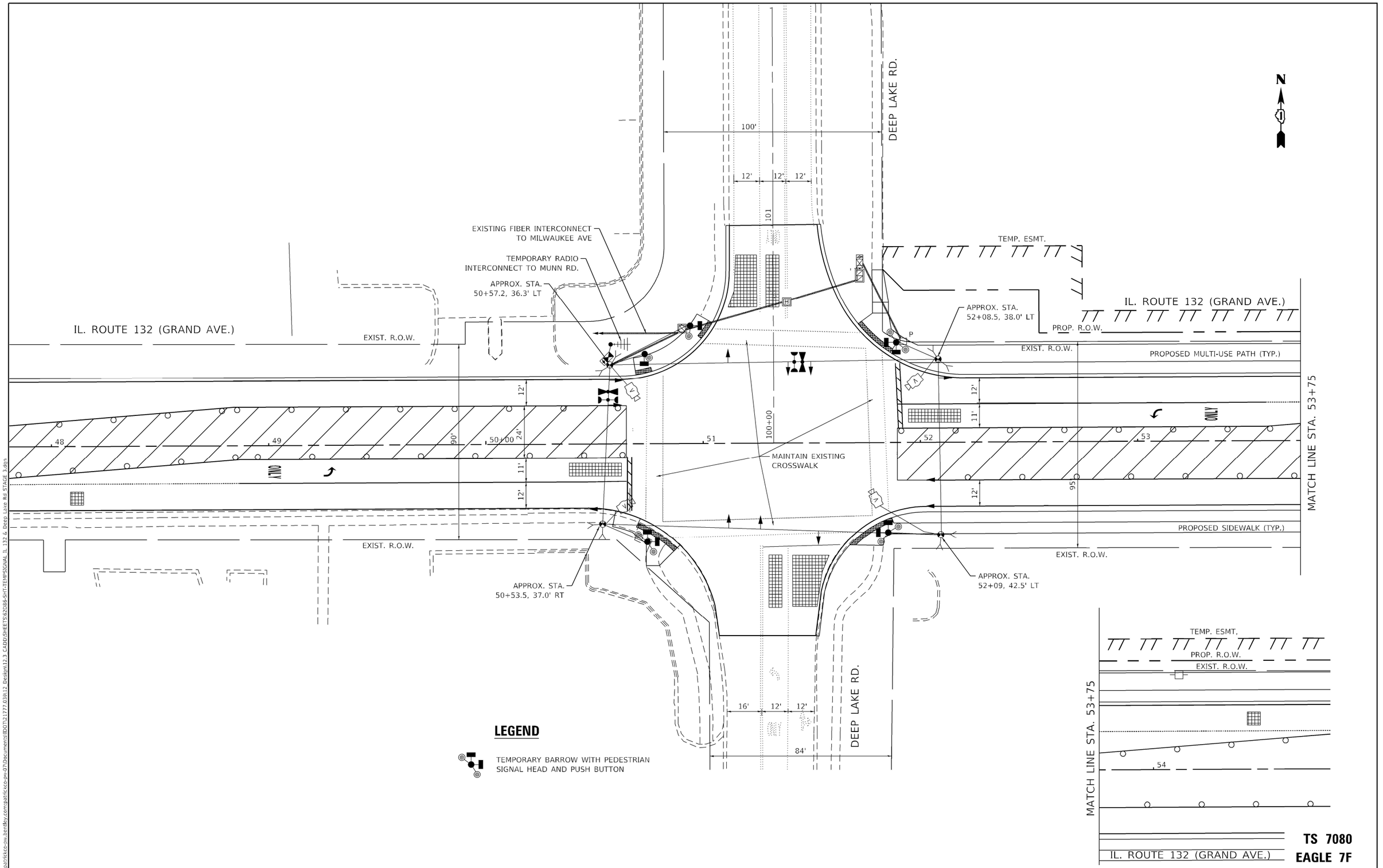
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PLOT DATE =5/2/2021	DATE - 6/30/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN
ILLINOIS ROUTE 132 (GRAND AVE) AT DEEP LAKE ROAD
STAGE 2

SCALE: 1:20 SHEET 10 OF 22 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	113
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			



LEGEND

TEMPORARY BARROW WITH PEDESTRIAN SIGNAL HEAD AND PUSH BUTTON

TS 7080
EAGLE 7F

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TranSmart/EJM
411 South Wells Street Suite 1000
Chicago, Illinois 60607

USER NAME=nschilling	DESIGNED - BRIDGET DONAHUE	REVISED -
	DRAWN - BRIDGET DONAHUE	REVISED -
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PLOT DATE =5/2/2021	DATE - 6/30/2020	REVISED -

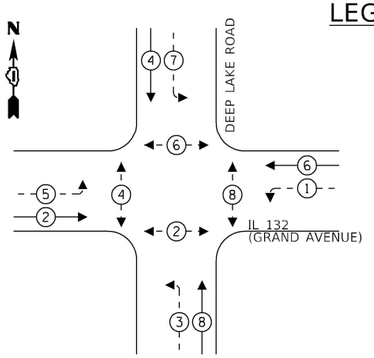
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN
ILLINOIS ROUTE 132 (GRAND AVE) AT DEEP LAKE ROAD
STAGE 3

SCALE: 1:20 SHEET 11 OF 22 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	114
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			

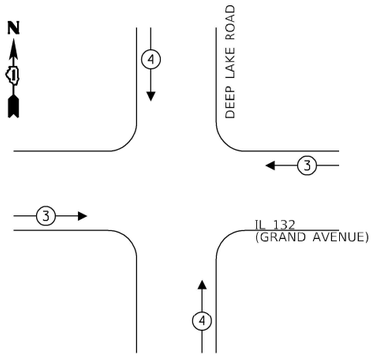
PROPOSED CONTROLLER SEQUENCE



LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



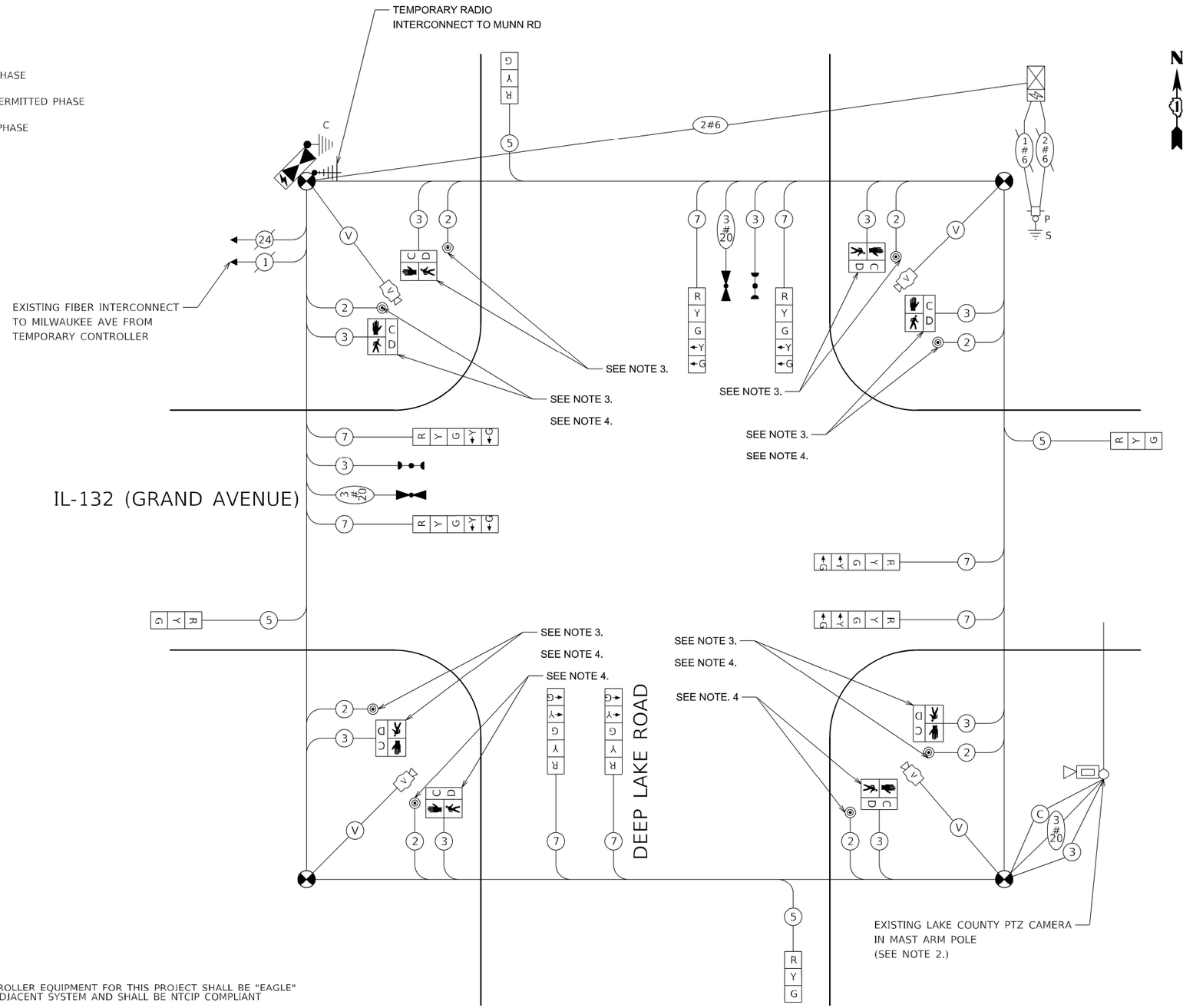
TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	8	20	100	160.0
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 =	585.8

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 CENTER CT,
SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: XX
PHONE: XX
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: XX



TEMPORARY CABLE PLAN

(NOT TO SCALE)

NOTES:

1. THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM AND SHALL BE NTCIP COMPLIANT AND HAVE ETHERNET PORT.
2. LAKE COUNTY PTZ CAMERA TO BE MAINTAINED DURING CONSTRUCTION. THE CAMERA SYSTEM SHALL BE RELOCATED AFTER THE INSTALLATION OF NEW MAST ARM POLE.
3. DE-ENERGIZE AND BAG DURING STAGE 1 DURING CONSTRUCTION OF ADA RAMPS.
4. DE-ENERGIZE AND BAG DURING STAGE 2 DURING CONSTRUCTION OF ADA RAMPS.

TS 7080
EAGLE 7F

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TranSmart/EJM
411 South Wells Street Suite 1000
Chicago, Illinois 60607

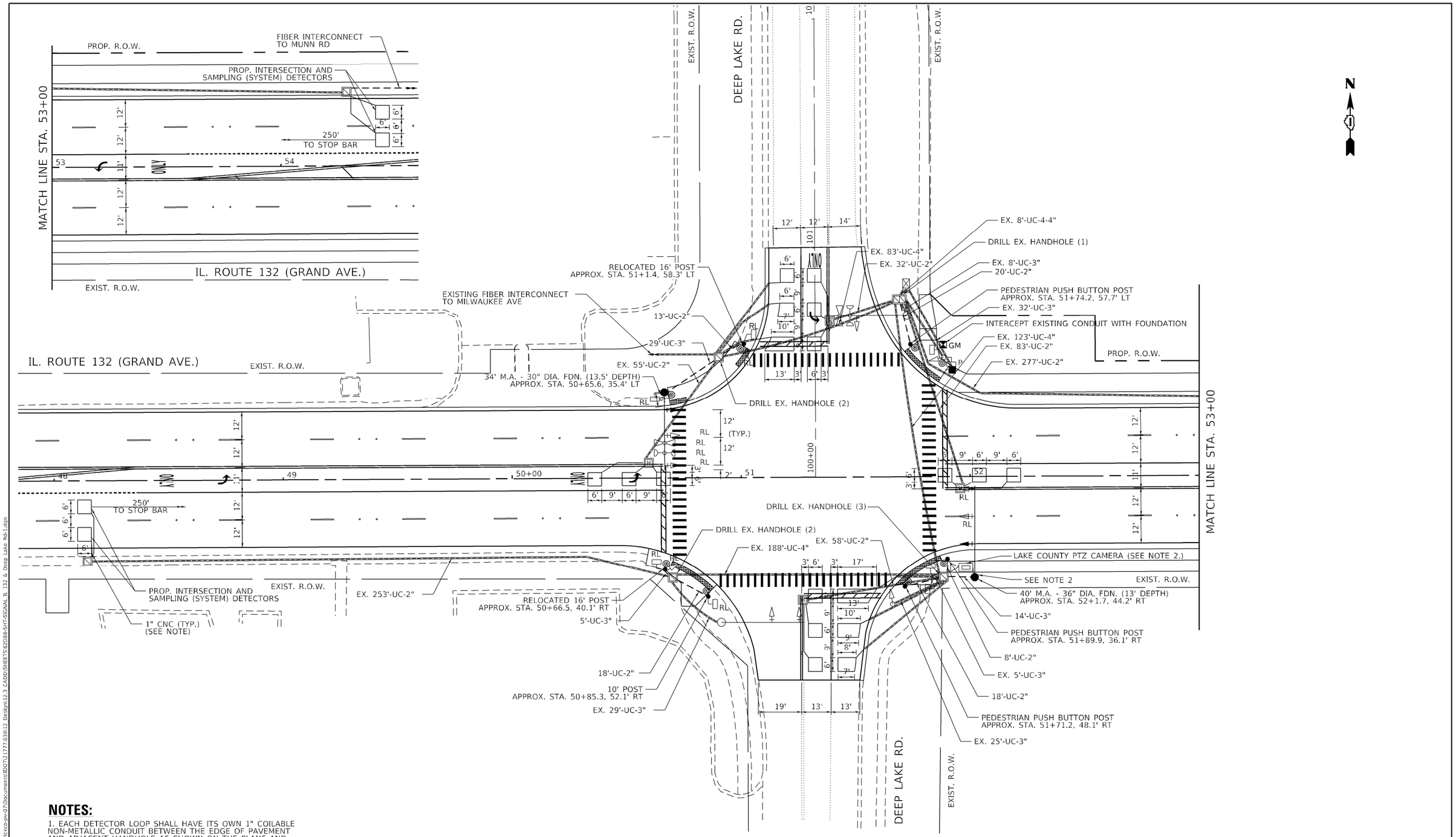
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	DRAWN - BRIDGET DONAHUE	REVISED -	
PLOT SCALE=40.0000 ' / in.	CHECKED - SRIJAN ADHIKARI	REVISED -	
PLOT DATE =5/2/2021	DATE - 6/30/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILLINOIS ROUTE 132 (GRAND AVE) AT DEEP LAKE ROAD

SCALE: NONE SHEET 12 OF 22 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	115
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		



NOTES:

1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

2. RELOCATION OF LAKE COUNTY VIDEO SYSTEM WILL BE PAID FOR AS "RELOCATE EXISTING REMOTE-CONTROLLED VIDEO SYSTEM (SPECIAL) (LCDOT)".

TS 7080
EAGLE 7F

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411 South Wells Street Suite 1000
Chicago, Illinois 60607

USER NAME=nschilling	DESIGNED -	BRIDGET DONAHUE	REVISED -		
	DRAWN -	BRIDGET DONAHUE	REVISED -		
PLOT SCALE=40.0000 ' / in.	CHECKED -	SRIJAN ADHIKARI	REVISED -		
PLOT DATE =6/8/2021	DATE -	6/30/2020	REVISED -		

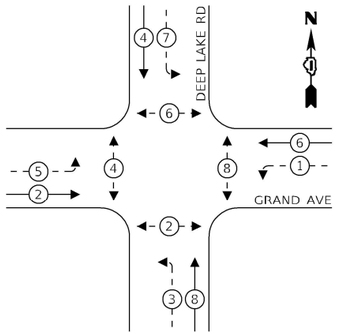
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN
ILLINOIS ROUTE 132 (GRAND AVE) AND DEEP LAKE ROAD

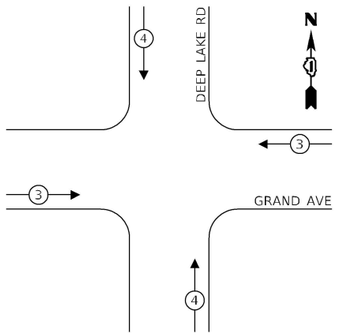
SCALE: SHEET 13 OF 22 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	116
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			

PROPOSED CONTROLLER SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND:

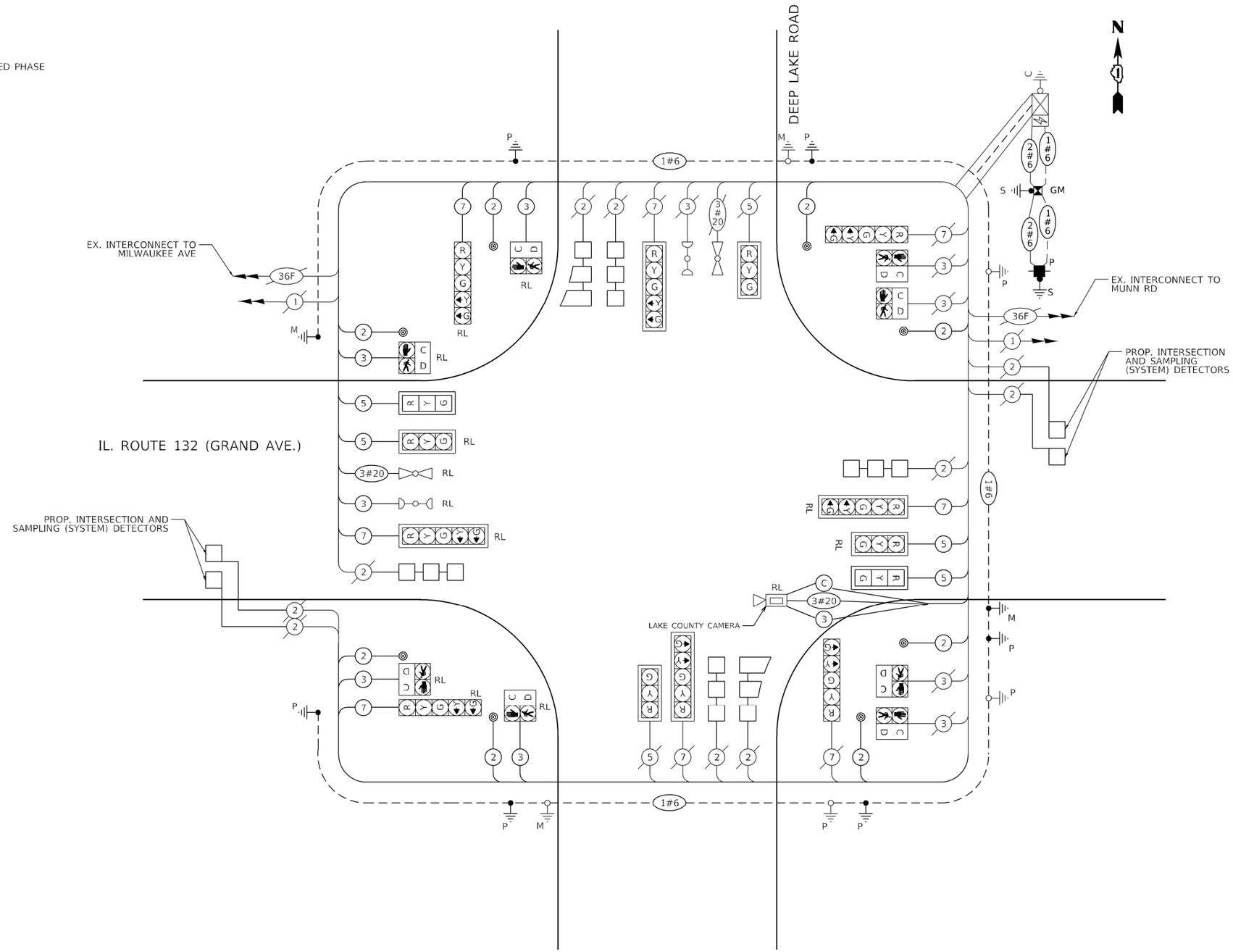
- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.00
(YELLOW)	14	20	5	14.00
(GREEN)	14	12	45	75.60
PERMISSIVE ARROW	16	10	10	16.00
PED. SIGNAL	8	20	100	160.00
CONTROLLER	1	100	100	100.00
UPS	1	25	100	25.00
VIDEO SYSTEM		150	100	
BLANK-OUT SIGN		25	5	
FLASHER		-	50	
STREET NAME SIGN		120	50	
LUMINAIRE		-	-	
			TOTAL =	467.60

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 W CENTER COURT
SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT:_____
PHONE:_____
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ---



CABLE PLAN
(NOT TO SCALE)

TS 7080
EAGLE 7F

MODEL: Default
FILE NAME: pw:\\patrickco-pw.bentley.com:patrickco-pw-07\Documents\IDOT\21777.03\12 Design\12.3 CADD\SHEETS\62D86-SHT-SIGNAL IL 132 & Desp Lake Rd-2.dgn

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411 South Wells Street Suite 1000
Chicago, Illinois 60607

USER NAME=nschilling	DESIGNED - BRIDGET DONAHUE	REVISED -	
	DRAWN - BRIDGET DONAHUE	REVISED -	
PLOT SCALE=40.0000 ' / in.	CHECKED - SRIJAN ADHIKARI	REVISED -	
PLOT DATE = 6/8/2021	DATE - 6/30/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

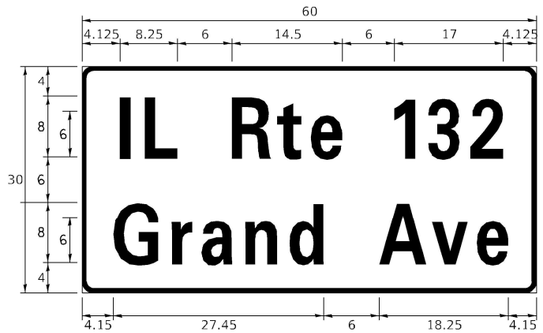
CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ILLINOIS ROUTE 132 (GRAND AVE) AND DEEP LAKE ROAD

SCALE: SHEET 14 OF 22 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	117
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			

SIGN PANEL – TYPE 1 OR TYPE 2

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	12.5	2	ZZ	2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	9.75	2	ZZ	2

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

SCHEDULE OF QUANTITIES

	ITEM DESCRIPTION	UNITS	TOTAL QTY.
	SIGN PANEL - TYPE 2	SQ FT	44.5
	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	82
	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	101
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1320
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1081
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	768
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	704
	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	80
	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	791
	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1
	CONCRETE FOUNDATION, TYPE A	FOOT	12
	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	13.5
	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	13
	DRILL EXISTING HANDHOLE	EACH	9
	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	2
	DETECTOR LOOP REPLACEMENT	FOOT	795
	PEDESTRIAN PUSH-BUTTON	EACH	8
	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
	RELOCATE EXISTING SIGNAL HEAD	EACH	6
	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	4
	RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	2
✳	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	1
✳	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	541
	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
	REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
	SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	1
✳	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	187
	ROD AND CLEAN EXISTING CONDUIT	FOOT	541
	RELOCATE EXISTING REMOTE-CONTROLLED VIDEO SYSTEM (SPECIAL) (LCDOT)	EACH	1
	PEDESTRIAN SIGNAL POST, 5 FT.	EACH	3
	PEDESTRIAN SIGNAL POST, 10 FT.	EACH	1
	INTERCEPT EXISTING CONDUIT	EACH	1
	CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	16
	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

✳ 100% OF THE COST TO THE VILLAGE OF LAKE VILLA

TS 7080
EAGLE 7F

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411 South Wells Street Suite 1000
Chicago, Illinois 60607

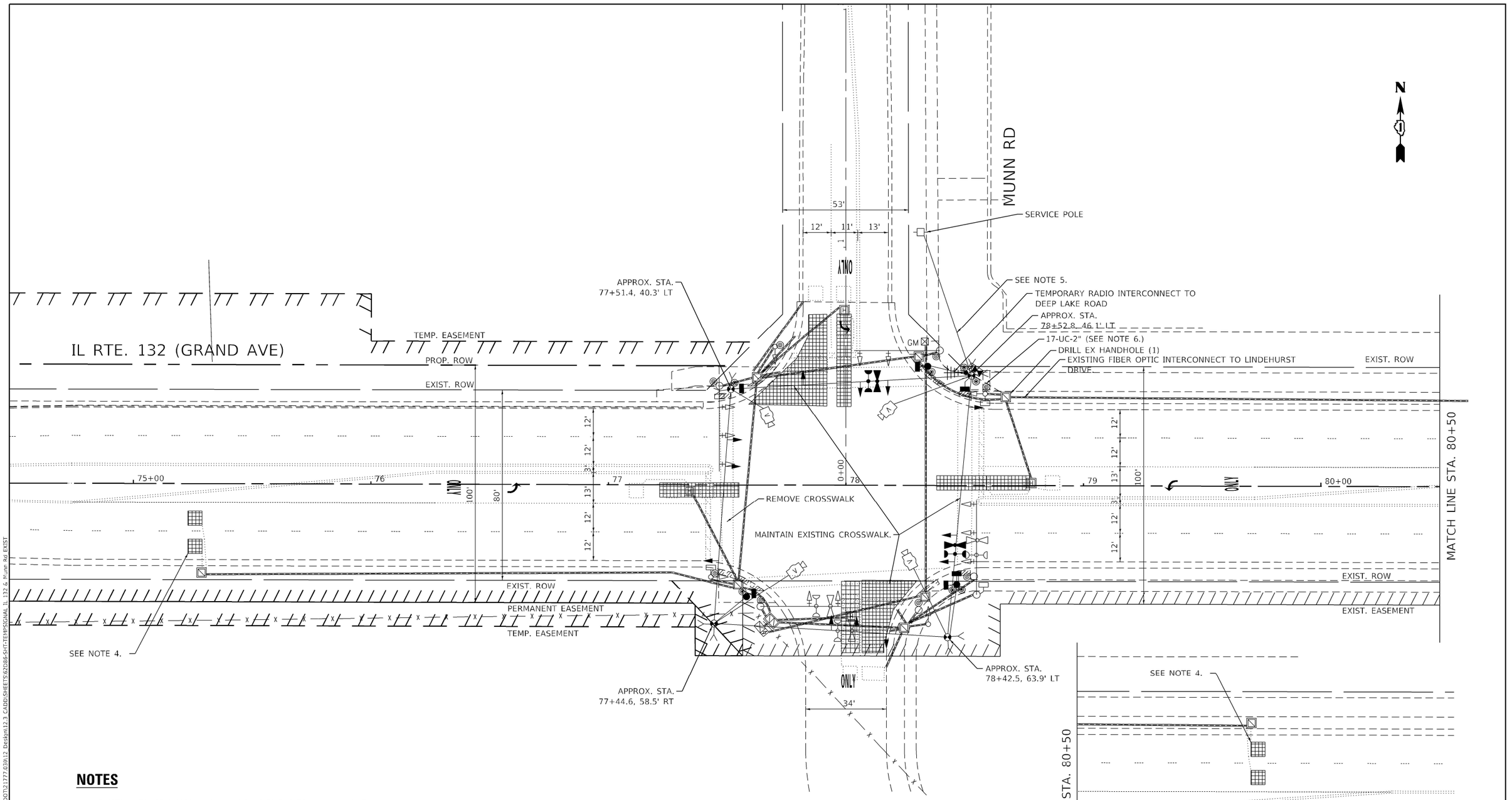
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PLOT SCALE=40.0000 ' / in.	CHECKED - SRIJAN ADHIKARI	REVISED -	
PLOT DATE =6/8/2021	DATE - 6/30/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES
ILLINOIS ROUTE 132 (GRAND AVE) AND DEEP LAKE ROAD

SCALE: SHEET 15 OF 22 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	118
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		



NOTES

1. EXISTING TRAFFIC SIGNAL SHALL BE DE-ENERGIZED AND BAGGED.
2. TEMPORARY TRAFFIC SIGNAL SHALL BE INSTALLED BEFORE DE-ENERGIZING AND BAGGING THE EXISTING TRAFFIC SIGNAL.
3. THE POLE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND CAN BE REVISED IN FIELD BASED ON ENGINEER'S DIRECTION.
4. FAR DETECTION ZONE SHALL BE REVISED DURING STAGED CONSTRUCTION AS DIRECTED BY ENGINEER.
5. TEMPORARY SERVICE TO BE INSTALLED BELOW EXISTING ELECTRICAL LINES.
6. DISCONNECT EXISTING FIBER OPTIC CABLE FROM EXISTING CONTROLLER AND BRING THE CABLE INTO PROPOSED TEMPORARY CONTROLLER. INSTALL 2" CONDUIT FOR FIBER OPTIC CABLE AT NE CORNER AS SHOWN ON PLANS.

LEGEND

TEMPORARY BARROW WITH PEDESTRIAN SIGNAL HEAD AND PUSH BUTTON

TS 7081
EAGLE 7F

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Chicago, Illinois 60607

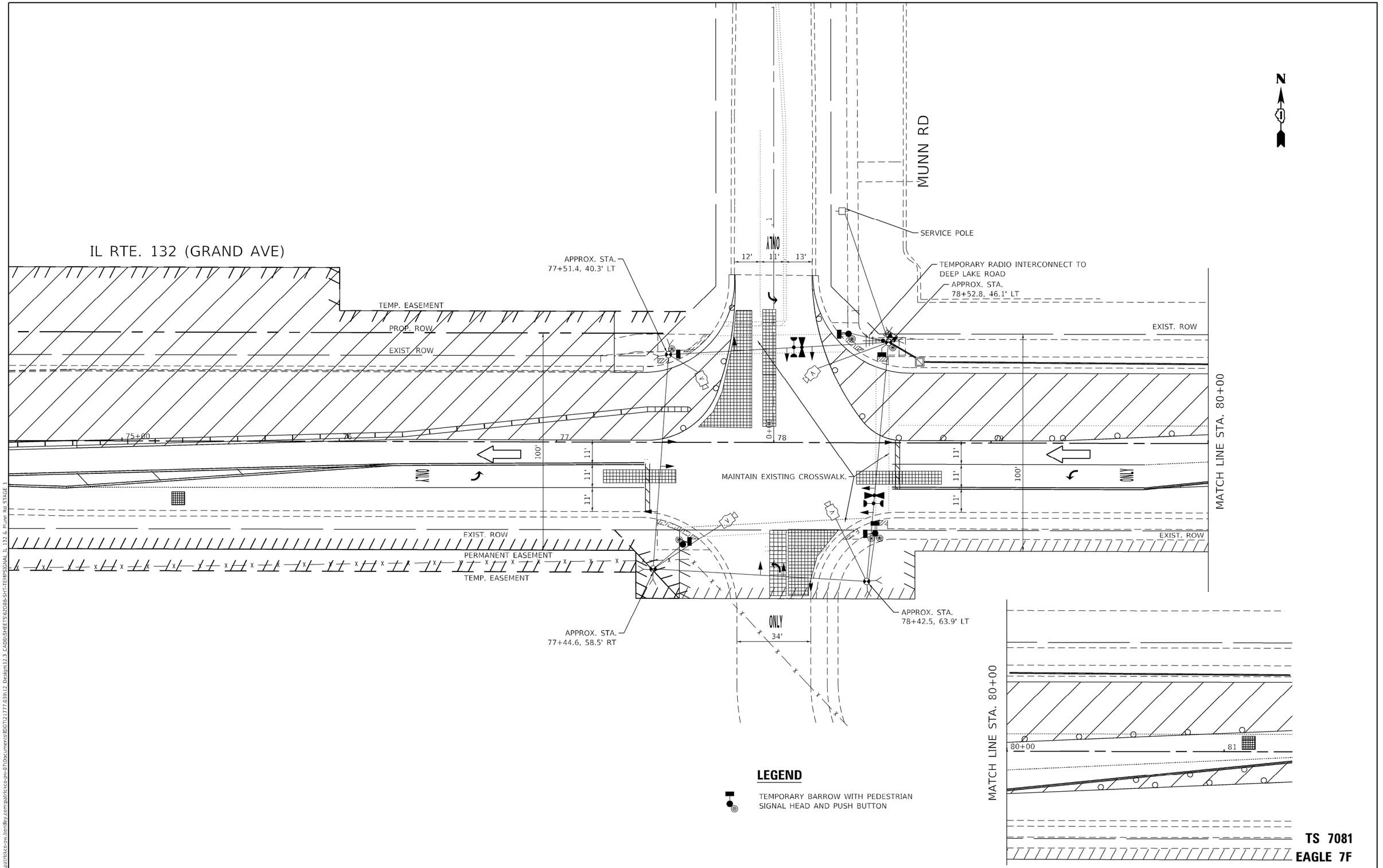
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	DRAWN -	BRIDGET DONAHUE	REVISED -	
PLOT SCALE= 40.0000 ' / in.	CHECKED -	SRIJAN ADHIKARI	REVISED -	
PLOT DATE = 6/8/2021	DATE -	6/30/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN
ILLINOIS ROUTE 132 (GRAND AVE) AT MUNN ROAD
PRE-STAGE

SCALE: 1:20 SHEET 16 OF 22 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	119
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			



LEGEND

TEMPORARY BARROW WITH PEDESTRIAN SIGNAL HEAD AND PUSH BUTTON

TS 7081
EAGLE 7F

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411 South Wells Street Suite 1000
Chicago, Illinois 60607

USER NAME= nschilling	DESIGNED - BRIDGET DONAHUE	REVISED -	
	DRAWN - BRIDGET DONAHUE	REVISED -	
PLOT SCALE= 40.0000 ' / in.	CHECKED - SRIJAN ADHIKARI	REVISED -	
PLOT DATE = 6/8/2021	DATE - 6/30/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN
ILLINOIS ROUTE 132 (GRAND AVE) AT MUNN ROAD
STAGE 1

SCALE: 1:20 SHEET 17 OF 22 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	120
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

N

MUNN RD

53'

12' 11' 13'

ONLY

SERVICE POLE

APPROX. STA.
77+51.4, 40.3' LT

TEMPORARY RADIO INTERCONNECT TO
DEEP LAKE ROAD

APPROX. STA.
78+52.8, 46.1' LT

TEMP. EASEMENT

IL RTE. 132 (GRAND AVE)

PROP. ROW

EXIST. ROW

PROPOSED MUTI-USE PATH (TYP.)

EXIST. ROW

MAINTAIN EXISTING
CROSSWALK

ONLY

11' 10' 11'

100'

75+00 76 77 78 79

EXIST. ROW

EXIST. ROW

PERMANENT EASEMENT

TEMP. EASEMENT

EXIST. EASEMENT

APPROX. STA.
77+44.6, 58.5' RT

APPROX. STA.
78+42.5, 63.9' LT

ONLY
34'

MATCH LINE STA. 80+00

MATCH LINE STA. 80+00

80+00 81

LEGEND

TEMPORARY BARROW WITH PEDESTRIAN
SIGNAL HEAD AND PUSH BUTTON

TS 7081
EAGLE 7F

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411 South Wells Street Suite 1000
Chicago, Illinois 60607

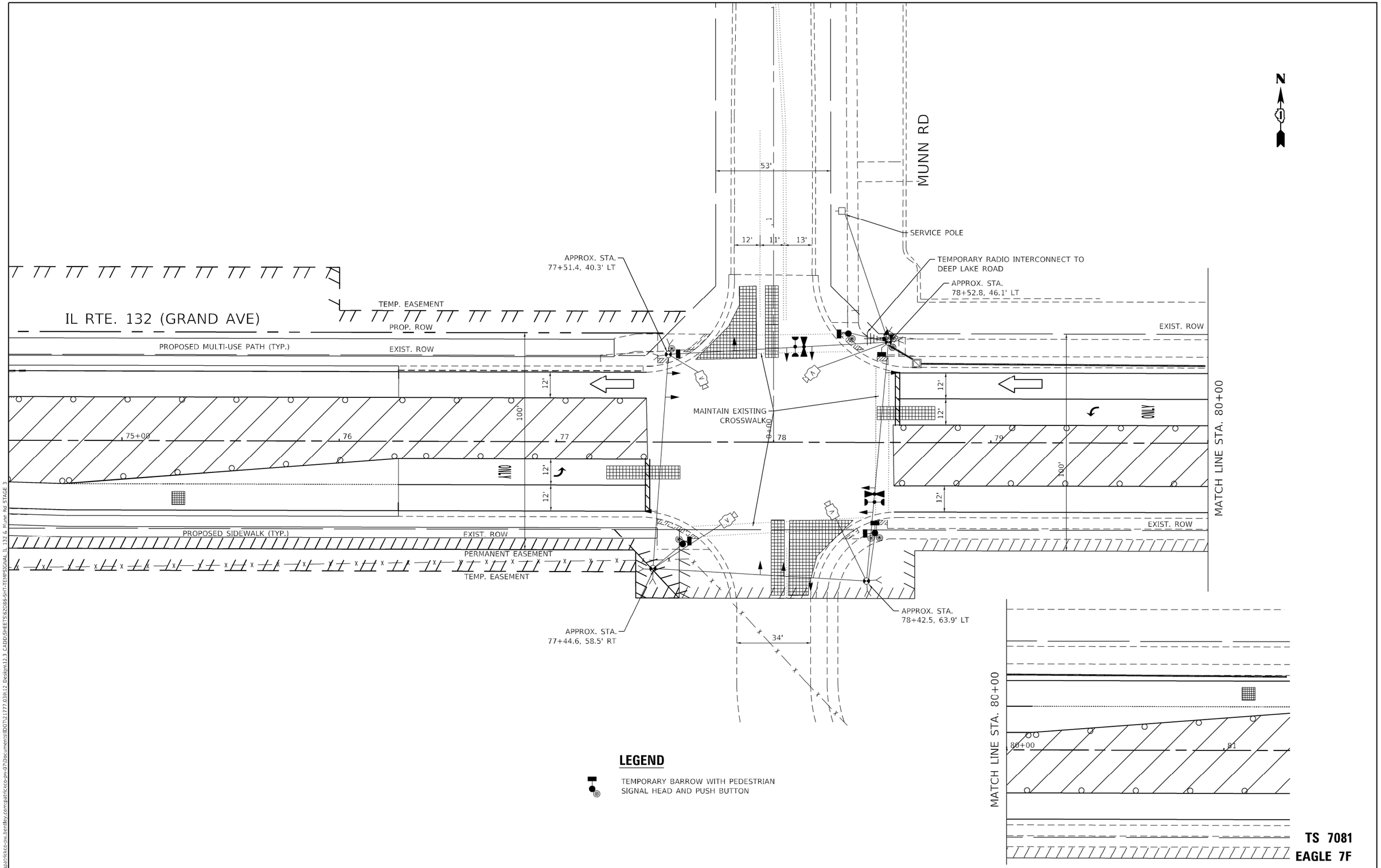
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PLOT DATE = 5/2/2021	DATE - 6/30/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN
ILLINOIS ROUTE 132 (GRAND AVE) AT MUNN ROAD
STAGE 2

SCALE: 1:20 SHEET 18 OF 22 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	121
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			



LEGEND

TEMPORARY BARROW WITH PEDESTRIAN SIGNAL HEAD AND PUSH BUTTON

TS 7081
EAGLE 7F

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411 South Wells Street Suite 1000
Chicago, Illinois 60607

USER NAME= nschilling	DESIGNED - BRIDGET DONAHUE	REVISED -	
	DRAWN - BRIDGET DONAHUE	REVISED -	
PLOT SCALE= 40.0000 ' / in.	CHECKED - SRIJAN ADHIKARI	REVISED -	
PLOT DATE = 5/2/2021	DATE - 6/30/2020	REVISED -	

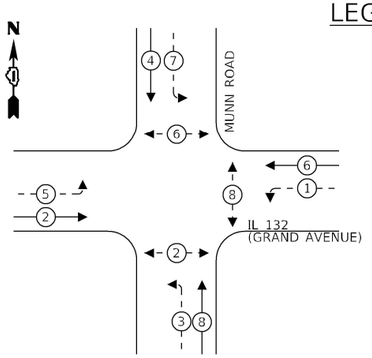
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN
ILLINOIS ROUTE 132 (GRAND AVE) AT MUNN ROAD
STAGE 3

SCALE: 1:20 SHEET 19 OF 22 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	122
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

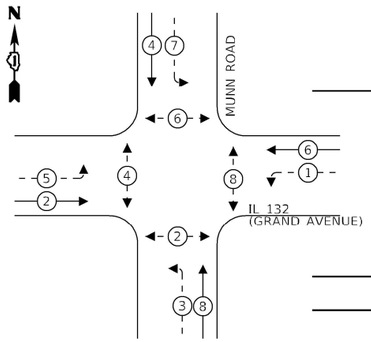
PROPOSED CONTROLLER SEQUENCE



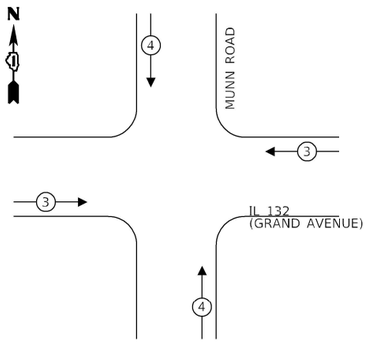
LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP

EXISTING CONTROLLER SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

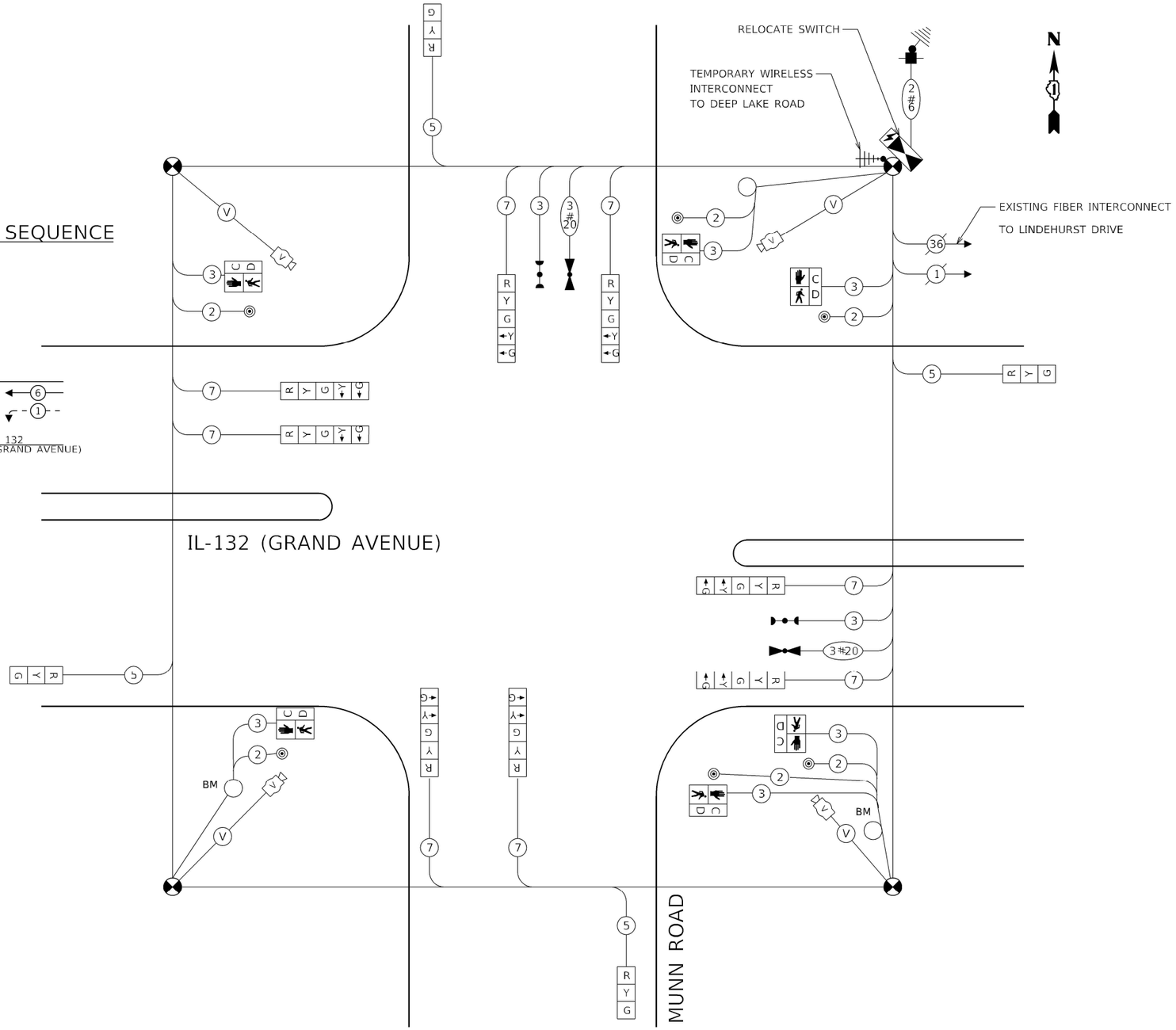
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	2	20	100	40.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
			TOTAL =	473.8

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 CENTER CT,
SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: XX
PHONE: XX
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: XX

NOTE 1: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM AND SHALL BE NTCIP COMPLIANT AND HAVE ETHERNET PORT.



TEMPORARY CABLE PLAN

(NOT TO SCALE)

ALL STAGES

TS 7081
EAGLE 7F

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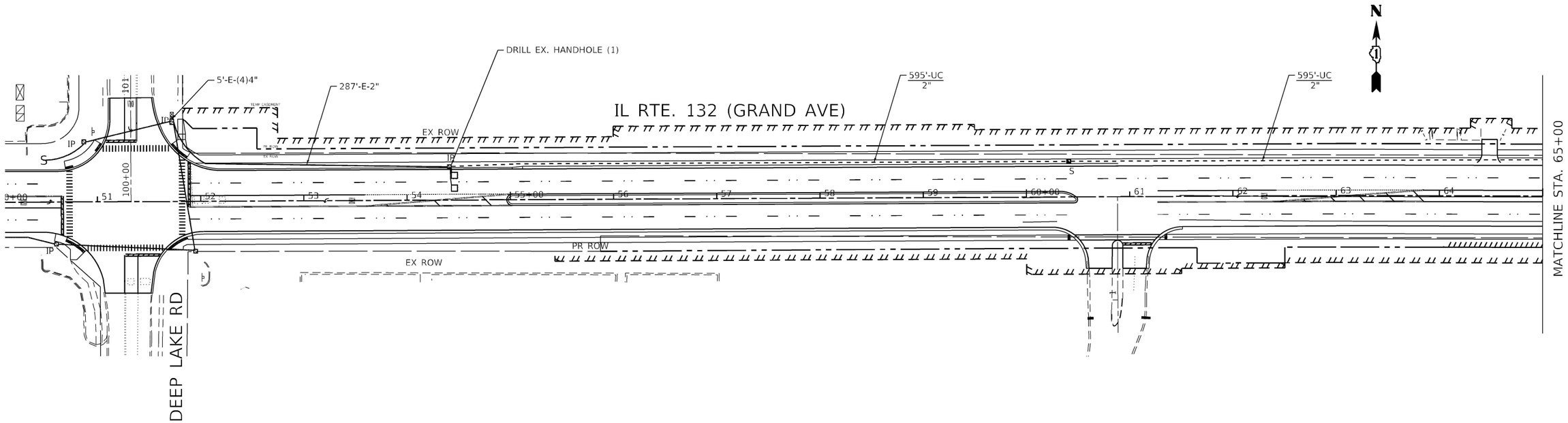
TranSmart/EJM
411 South Wells Street Suite 1000
Chicago, Illinois 60607

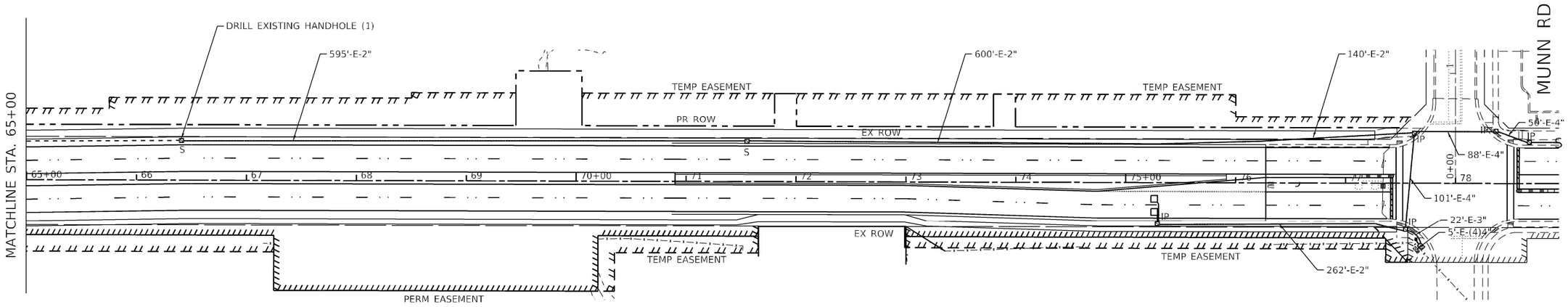
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PLOT SCALE=40.0000 ' / in.	CHECKED - SRIJAN ADHIKARI	REVISED -	
PLOT DATE = 6/8/2021	DATE - 6/30/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILLINOIS ROUTE 132 (GRAND AVE) AT MUNN ROAD
SCALE: NONE SHEET 20 OF 22 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	123
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	





NOTES:

1. THE CONTRACTOR SHALL REMOVE EXISTING FIBER OPTIC CABLE BETWEEN MUNN ROAD AND DEEP LAKE ROAD. THE CONTRACTOR SHALL STORE THE CABLE IN A MANNER APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL REINSTALL THE CABLE ONCE THE INTERCONNECT CONDUIT WEST OF STATION 66+40 IS CONSTRUCTED.

EAGLE 7F

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TranSmart/EJM
411 South Wells Street Suite 1000
Chicago, Illinois 60607

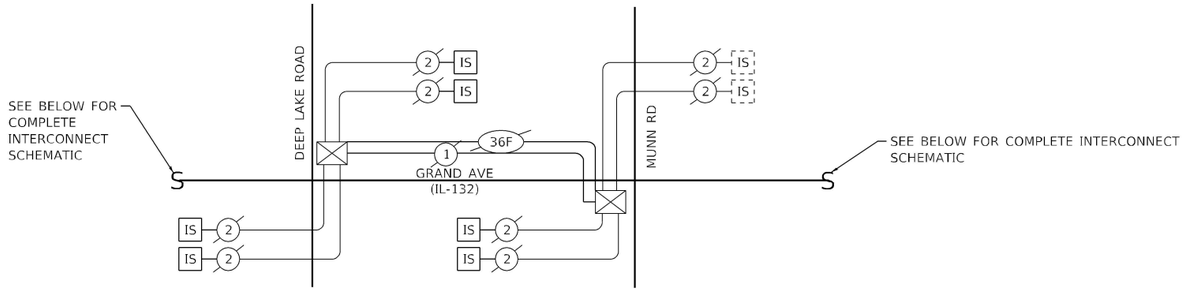
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	DRAWN - BRIDGET DONAHUE	REVISED -	
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PLOT DATE =5/2/2021	DATE - 6/30/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT (SHEET 1 OF 2)
ILLINOIS ROUTE 132 (GRAND AVE)
DEEP LAKE ROAD TO MUNN ROAD

SCALE: 1:50 SHEET 21 OF 22 STA. TO STA.

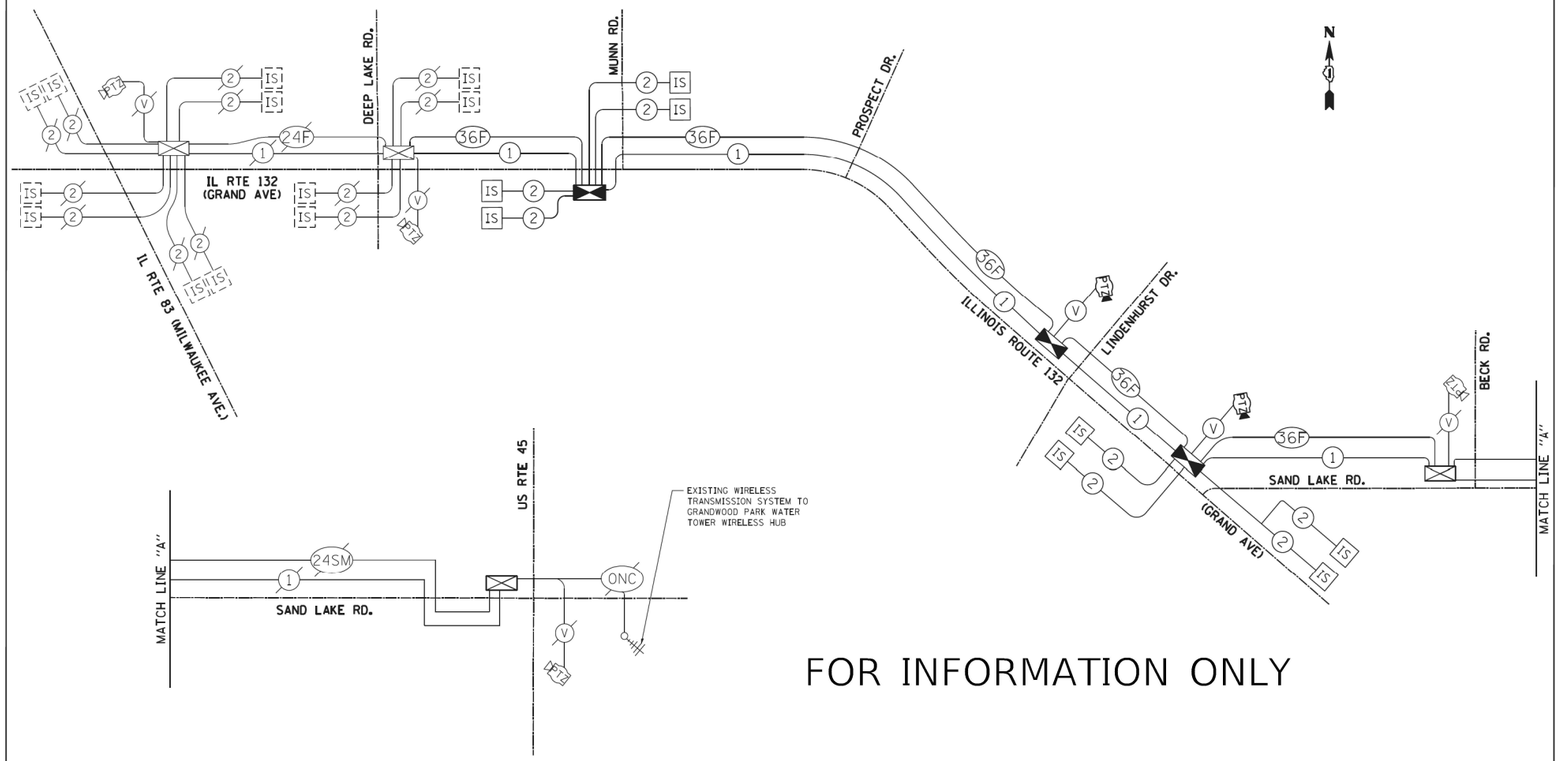
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541	A-W&RS-2	LAKE	205	124
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		



SCHEDULE OF QUANTITIES

	ITEM DESCRIPTION	UNITS	TOTAL QTY.
	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1,190
	HANDHOLE	EACH	1
	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	2,898
	DRILL EXISTING HANDHOLE	EACH	2
	REMOVE EXISTING HANDHOLE	EACH	1
*	ROD AND CLEAN EXISTING CONDUIT	FOOT	100
	REMOVE AND REINSTALL FIBER OPTIC CABLE IN CONDUIT	FOOT	2,898
	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1
	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2

* NOMINAL QUANTITY TO BE USED AS NEEDED AND AS APPROVED BY THE ENGINEER



FOR INFORMATION ONLY

EAGLE 7F

GANDHI AND ASSOCIATES, INC.	USER NAME = #USER#	DESIGNED - PKG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT SCHEMATIC ILLINOIS ROUTE 132 (GRAND AVE) FROM DEEP LAKE RD. TO SAND LAKE RD.
		DRAWN - EA	REVISED -		
	PLOT SCALE = 50.0149 ' / IN.	CHECKED - PKG	REVISED -		
	PLOT DATE = 6/28/2017	DATE - 6/26/2017	REVISED -		SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-WRS-2	LAKE	345	239
		CONTRACT NO. 60V55		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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TranSmart/EJM
411 South Wells Street Suite 1000
Chicago, Illinois 60607

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PLOT DATE = 6/8/2021	DATE - 6/30/2020	REVISED -	

PROPOSED INTERCONNECT (SHEET 2 OF 2)
ILLINOIS ROUTE 132 (GRAND AVE)
DEEP LAKE ROAD TO MUNN ROAD

SCALE: NONE SHEET 22 OF 22 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	125
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

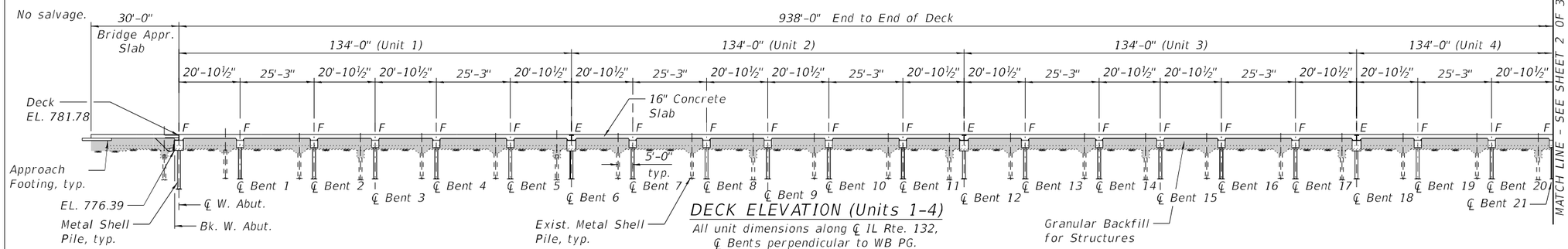
Benchmark: Chisel "x" on upper flange bolt of fire hydrant at southeast corner of IL Rte. 132 and Victory Dr. intersection just west of dry land bridge, Elev. 791.41

Existing Structure: SN 049-D002, Dry Land Bridge built in 1978 as F.A.P. Rte. 541, Section A-W and RS-1 as 14 three span continuous RC slab units at 67'-0" c.c. piles and 49'-2" wide, 938'-0" total length. Slab is 12" thick at center and tapers to 36" thick at interior supports supported by concrete caps on 12" dia. metal shell piles, 8 piles (interior caps) and 6 piles (exterior caps). Existing bridge, including RC slab, pile caps, and tops of interfering metal shell piles to be removed and replaced. Traffic to be maintained utilizing staged construction.

Proposed Structure: SN 049-D030, Dry Land Bridge. Each unit is six spans of varying from 20'-10½" to 25'-3" for a back-to-back of abutments length of 134'-0" and an out-to-out of deck width of 64'-2". Slab of 16" increases in thickness over pile bent piers.

Traffic to be maintained using staged construction.

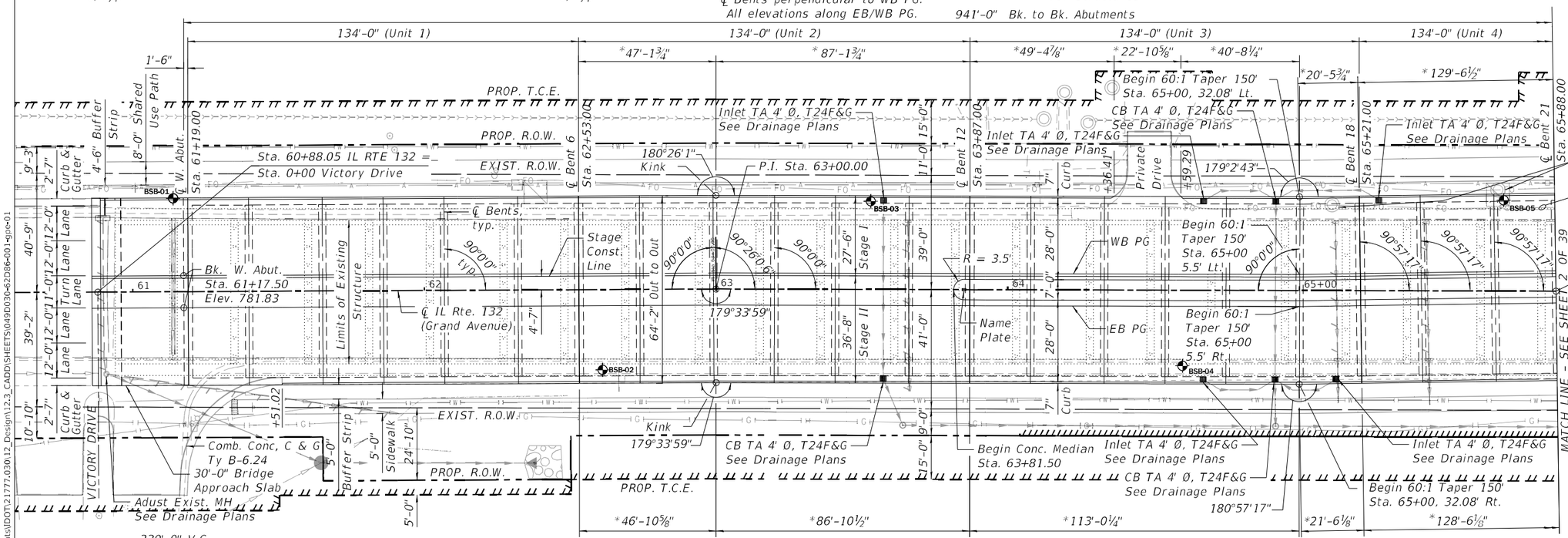
No salvage.



DECK ELEVATION (Units 1-4)

All unit dimensions along ℄ IL Rte. 132, ℄ Bents perpendicular to WB PG.
All elevations along EB/WB PG.

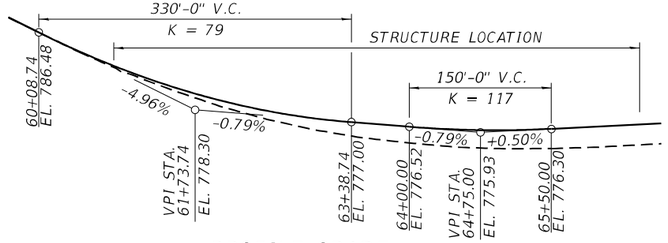
941'-0" Bk. to Bk. Abutments



PLAN (Units 1-4)

All unit stations/dimensions along ℄ IL Rte. 132, ℄ Bents perpendicular to WB PG.

* Dimensions along the Deck edge. For taper stations and offsets, see table on sheet 12



PROFILE GRADE

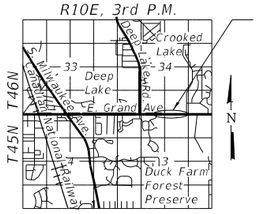
ALONG EB/WB PG RTE. 132 (GRAND AVE.)

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

LICENSED STRUCTURAL ENGINEER
YINGHONG CAO
081.008508
STATE OF ILLINOIS

02/15/2021

Yinghong Cao P.E., S.E. Date
State of Illinois No. 081.008508
Expires 11/30/2022



LOCATION SKETCH

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
f'c = 4,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.076 g
Design Spectral Acceleration at 0.2 sec. (SDs) = 0.124 g
Soil Site Class = D

N

LEGEND

- Exist. Water
- Exist. Aerial Lines
- Exist. Sanitary Sewer
- Exist. Fiber Optic
- Exist. Gas Line
- Exist. Fence
- Boring Location
- Removal

GENERAL PLAN & ELEVATION I
IL RTE. 132 DRY LAND BRIDGE
VICTORY DR. TO MUNN RD.
F.A.P. RTE. 541 - SEC. A-W&RS-2
LAKE COUNTY
STATION 65+88.00
STRUCTURE NO. 049-D030

PATRICK ENGINEERING

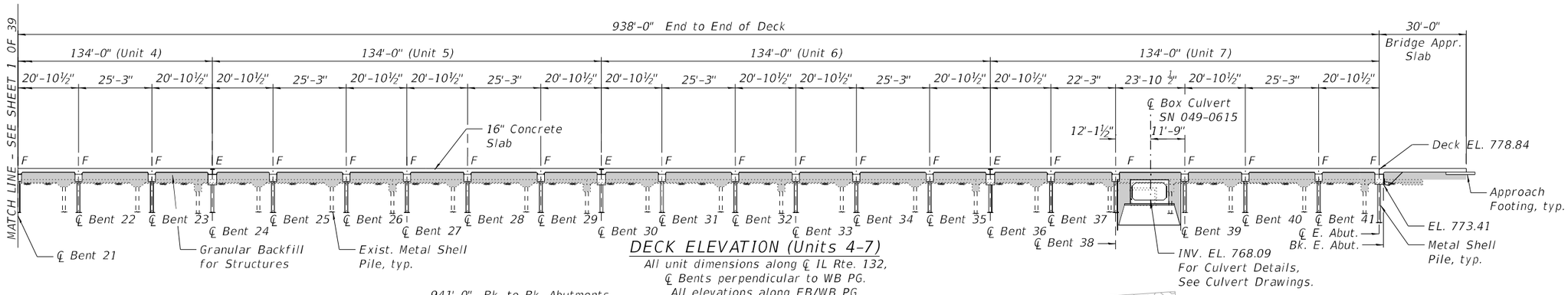
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET 1 OF 39 SHEETS

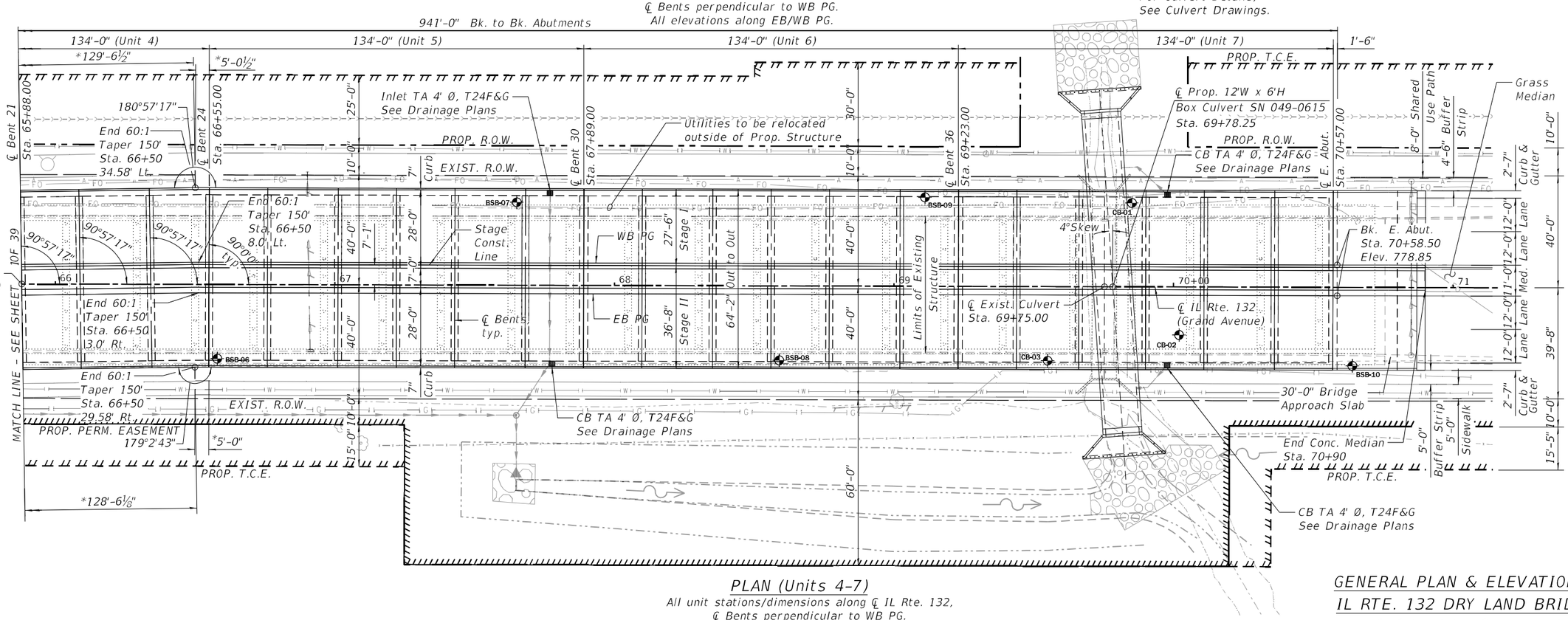
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	126
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

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DECK ELEVATION (Units 4-7)

All unit dimensions along ℄ IL Rte. 132, ℄ Bents perpendicular to WB PG.
All elevations along EB/WB PG.



PLAN (Units 4-7)

All unit stations/dimensions along ℄ IL Rte. 132, ℄ Bents perpendicular to WB PG.
* Dimensions along the Deck edge. For taper stations and offsets, see table on sheet 12

GENERAL PLAN & ELEVATION II
IL RTE. 132 DRY LAND BRIDGE
VICTORY DR. TO MUNN RD.
F.A.P. RTE. 541 - SEC. A-W&RS-2
LAKE COUNTY
STATION 65+88.00
STRUCTURE NO. 049-D030

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PATRICK ENGINEERING

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET 2 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	127
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Refer to Roadway Plans for type and quantity of fill material required with the limits of Dry Land Bridge.
3. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contactor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
4. Protective Coat shall be applied to the top surface and sides of the concrete deck, top and sides of curbs and median if present.
5. The deck when pouring must be uniform and complete a unit.
6. See Bridge General Plan for bridge staging and dimensions.
7. Utility locations shown on these plans may not be correct or complete. The Contractor shall coordinate construction activities with the respective utilities. Before starting any excavation, the contractor shall call "J.U.L.I.E." (Joint Utility Location Information for Excavation) at 1-800-892-0123 for field locations of buried electric, telephone, and gas facilities (48 hour notification is required).
8. Concrete Sealer shall be applied to the designated areas of the top of bents.
9. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
10. When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:
    1) At least 72 hours shall have elapsed from the end of the previous pour.
    2) The concrete strength shall have attained a minimum flexural strength of 700 psi or a minimum compressive strength of 4000 psi.
11. According to Article 512.09(c) of the Standard Specifications. Cost included in driving piles.
12. Culvert installation shall coincide with the installation of the Dry Land Bridge Stage Construction. See Culvert Plans.

INDEX OF SHEETS

SHEET	TITLE
1	GENERAL PLAN AND ELEVATION I
2	GENERAL PLAN AND ELEVATION II
3	GENERAL DATA
4	FOUNDATION PLAN
5	STAGE CONSTRUCTION DETAILS
6	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
7	TOP OF SLAB ELEVATIONS I
8	TOP OF SLAB ELEVATIONS II
9	TOP OF SLAB ELEVATIONS III
10	TOP OF SLAB ELEVATIONS IV
11	TOP OF SLAB ELEVATIONS V
12	TOP OF SLAB ELEVATIONS VI
13	TOP OF APPROACH SLAB ELEVATIONS
14	SUPERSTRUCTURE - END UNIT 1
15	SUPERSTRUCTURE - INTERIOR UNIT 2
16	SUPERSTRUCTURE - INTERIOR UNIT 3
17	SUPERSTRUCTURE - INTERIOR UNIT 4
18	SUPERSTRUCTURE - INTERIOR UNITS 5 & 6
19	SUPERSTRUCTURE - END UNIT 7
20	SUPERSTRUCTURE DETAILS
21	BRIDGE APPROACH SLAB DETAILS I
22	BRIDGE APPROACH SLAB DETAILS II
23	BRIDGE APPROACH SLAB DETAILS III
24	PREFORMED JOINT STRIP SEAL
25	BENT REMOVAL DETAILS
26	BENT DETAILS I
27	BENT DETAILS II
28	METAL SHELL PILE DETAILS
29	BAR SPLICER AND MECHANICAL SPLICERS DETAILS
30	SOIL BORING LOGS I
31	SOIL BORING LOGS II
32	SOIL BORING LOGS III
33	SOIL BORING LOGS IV
34	SOIL BORING LOGS V
35	SOIL BORING LOGS VI
36	SOIL BORING LOGS VII
37	SOIL BORING LOGS VIII
38	SOIL BORING LOGS IX
39	SOIL BORING LOGS X

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
REMOVAL OF EXISTING STRUCTURES	EACH		1	1
STRUCTURE EXCAVATION	CU YD		1,449	1,449
CONCRETE STRUCTURES	CU YD		762	762
CONCRETE SUPERSTRUCTURE	CU YD	3,239		3,239
BRIDGE DECK GROOVING	SQ YD	6,442		6,442
PROTECTIVE COAT	SQ YD	7,752		7,752
CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	186		186
REINFORCEMENT BARS, EPOXY COATED	POUND	1,560,790	132,030	1,692,820
BAR SPLICERS	EACH	4,232	301	4,533
FURNISHING METAL SHELL PILES 12" X 0.250"	FOOT		26,974	26,974
DRIVING PILES	FOOT		26,974	26,974
TEST PILE METAL SHELLS	EACH		16	16
NAME PLATES	EACH	1		1
PREFORMED JOINT STRIP SEAL	FOOT	385		385
GEOTEXTILE RETAINING WALL	SQ FT		4,990	4,990
CONCRETE SEALER	SQ FT		1,156	1,156
GRANULAR BACKFILL FOR STRUCTURES	CU YD		11,152	11,152
GEOCOMPOSITE WALL DRAIN	SQ YD		50	50
FRENCH DRAINS	CU YD		10	10
GEOTECHNICAL FABRIC FOR FRENCH DRAINS	SQ YD		70	70
PILE EXTRACTION	EACH		8	8
PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT		136	136
STEEL CASINGS 30"	FOOT		630	630

STATION 68+88.00
BUILT BY
STATE OF ILLINOIS
LOADING HL-93
STRUCTURE NO. 049-D030

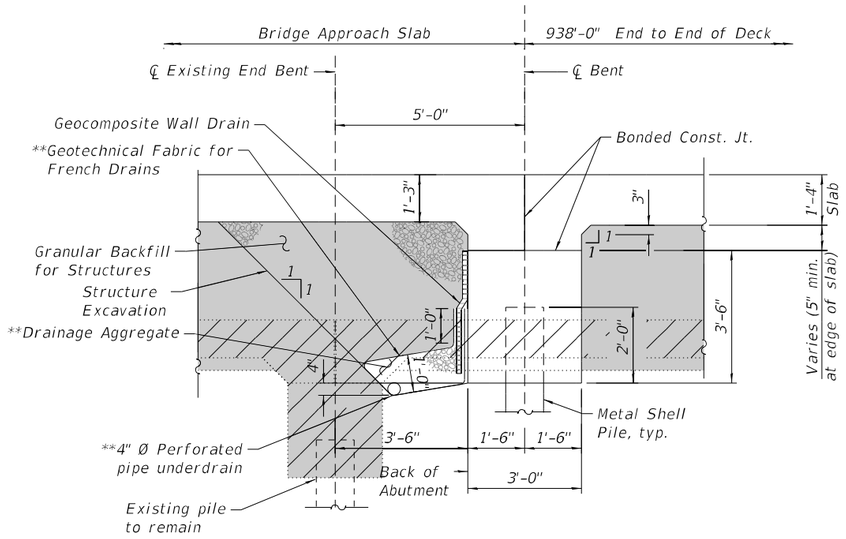
NAME PLATE

See Std. 515001
(Located at concrete median Sta. 63+85)

LEGEND

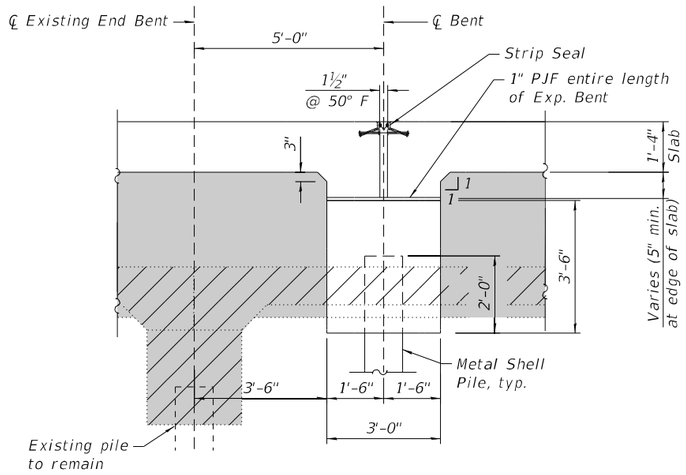
Removal of Existing Structures

Granular Backfill for Structures

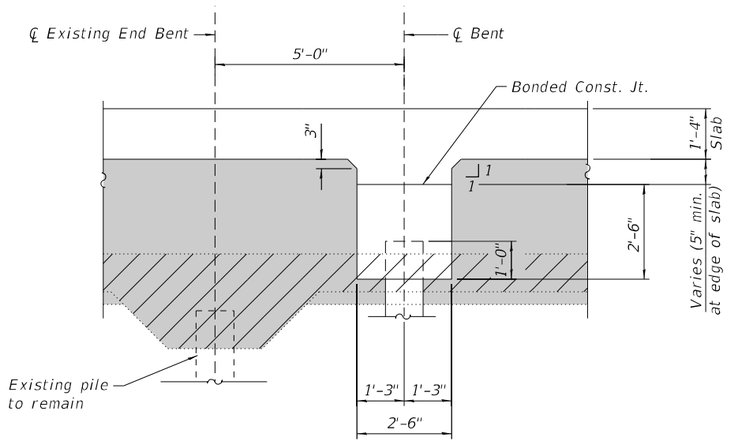


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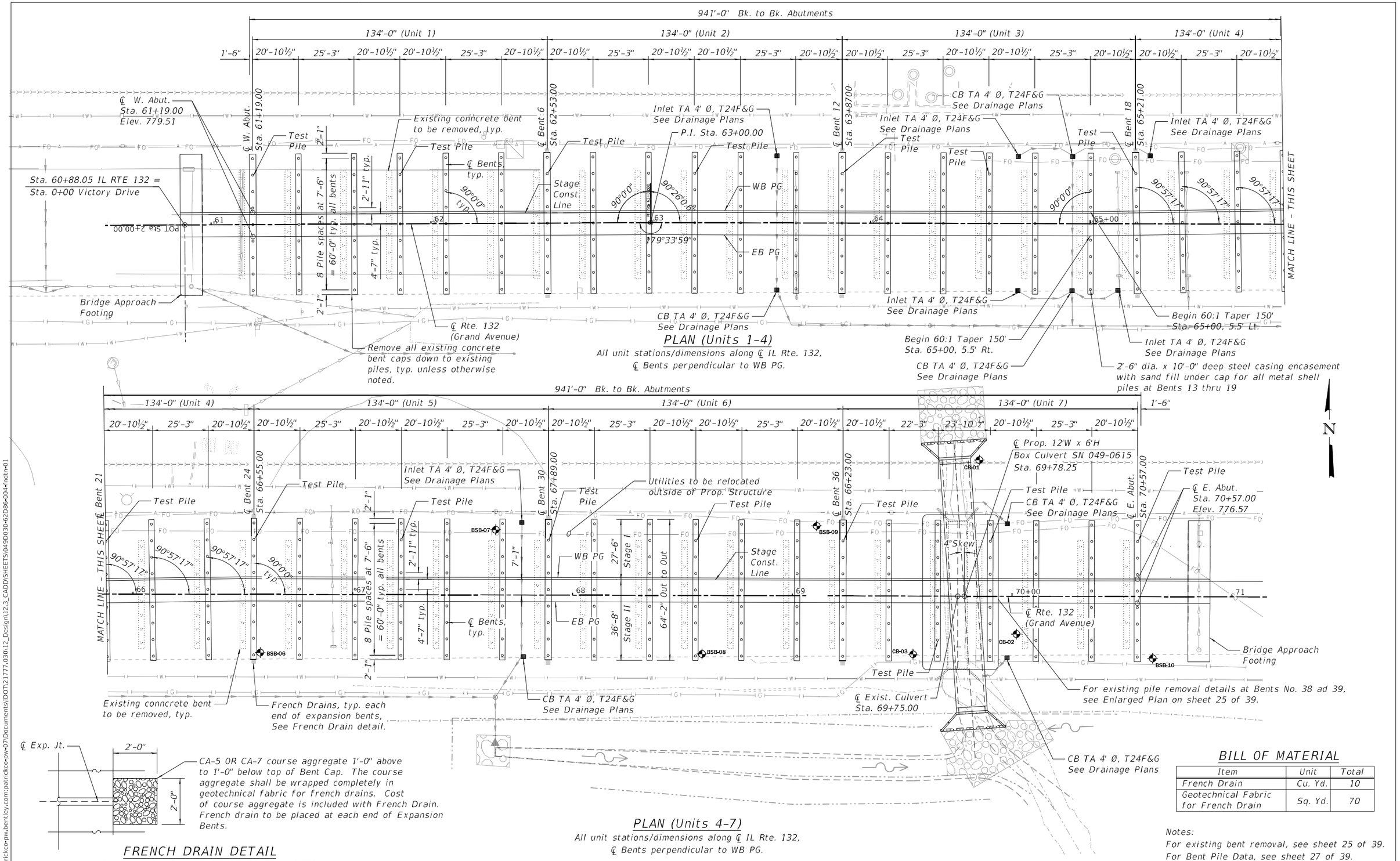
**Included in the cost of Pipe Underdrains for Structures.



SECTION THRU EXPANSION BENT



SECTION THRU FIXED BENT



CA-5 OR CA-7 course aggregate 1'-0" above to 1'-0" below top of Bent Cap. The course aggregate shall be wrapped completely in geotechnical fabric for french drains. Cost of course aggregate is included with French Drain. French drain to be placed at each end of Expansion Bents.

FRENCH DRAIN DETAIL

(At Expansion Bents 6, 12, 18, 24, 30 and 36)

BILL OF MATERIAL

Item	Unit	Total
French Drain	Cu. Yd.	10
Geotechnical Fabric for French Drain	Sq. Yd.	70

Notes:
For existing bent removal, see sheet 25 of 39.
For Bent Pile Data, see sheet 27 of 39.

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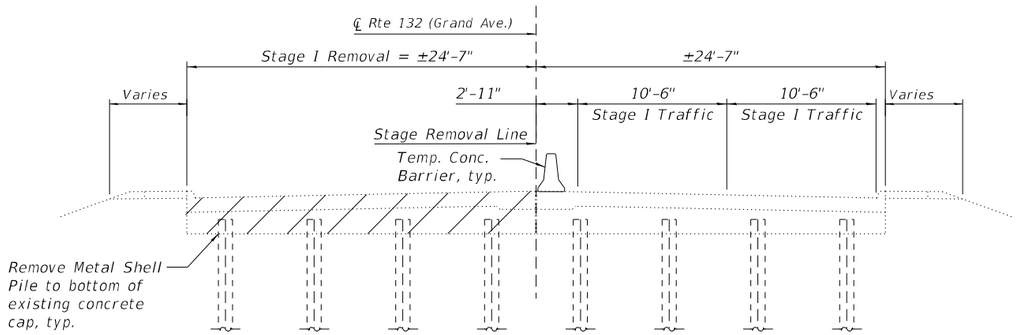
PATRICK ENGINEERING

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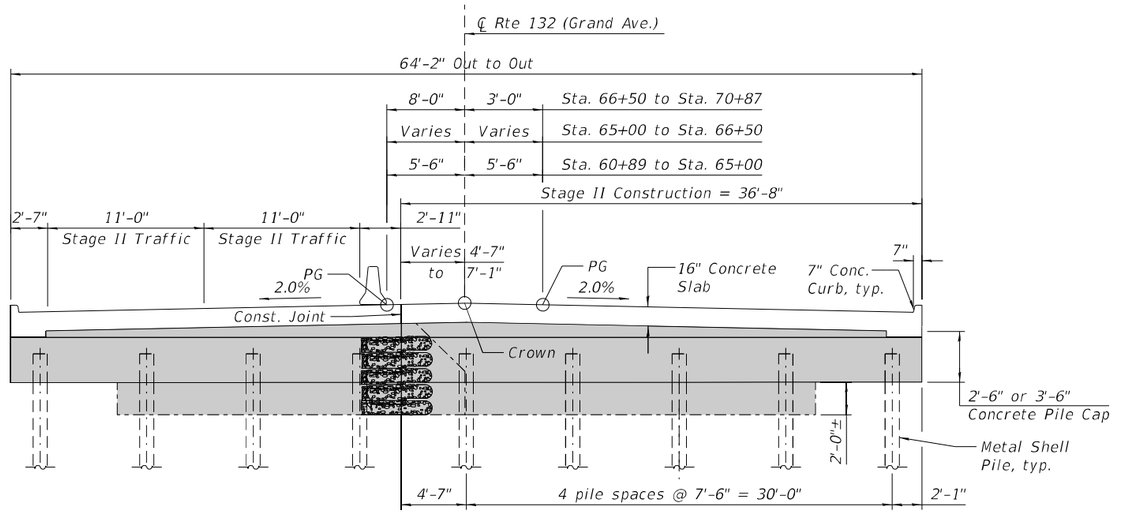
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOUNDATION PLAN
STRUCTURE NO. 049-D030
SHEET 4 OF 39 SHEETS

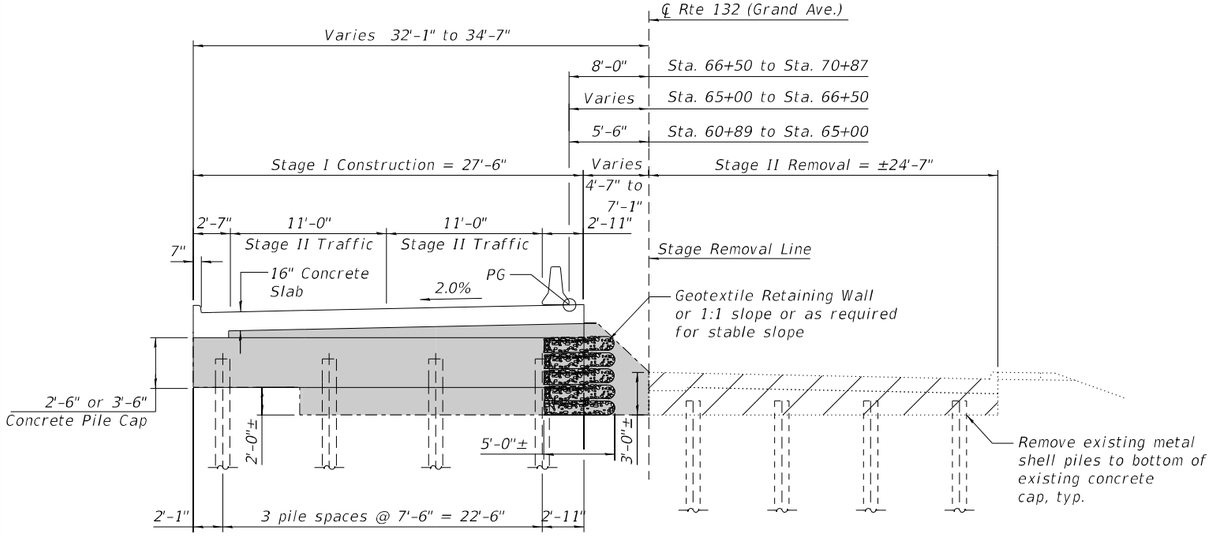
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	129
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			



STAGE I REMOVAL
(Looking East)

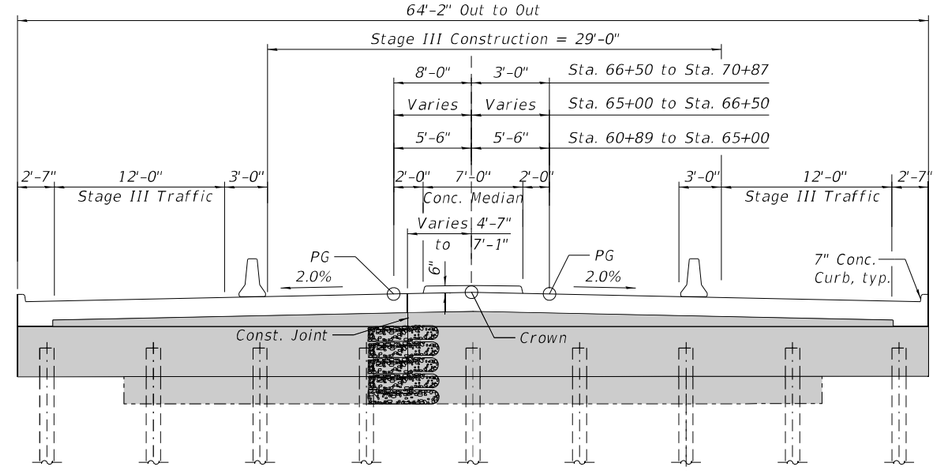


STAGE II CONSTRUCTION
(Looking East)



STAGE I CONSTRUCTION & STAGE II REMOVAL
(Looking East)

Contractor has the option to use Geotextile Retaining Wall or soil retention system designed by the contractor. If the Contractor decides to design temporary soil retention system, the Contractor must hire a Licensed Structural Engineer in the State of Illinois and the design and documentation must be approved by the engineer.



STAGE III CONSTRUCTION
(Looking East)

LEGEND

Removal of Existing Structures

Granular Backfill for Structures

Notes:
Piles shall be driven before placement of granular backfill.
Concrete removal paid for as Removal Of Existing Structures. See Culvert Plans, sheet 3 of 8 for Geotextile Wall Details.

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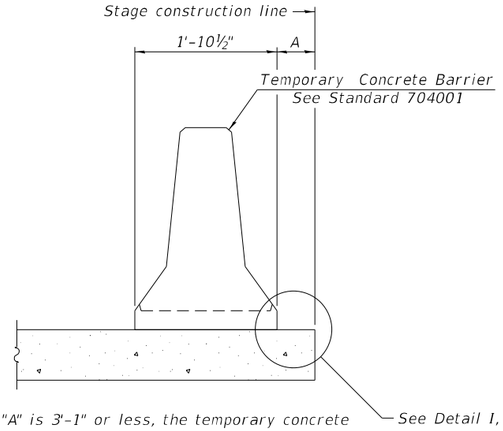
PATRICK ENGINEERING

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

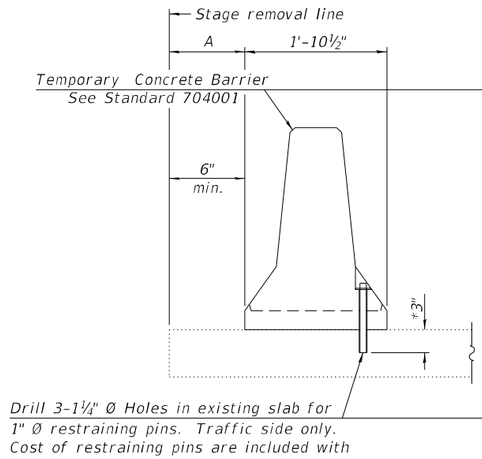
STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 049-D030
SHEET 5 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	130
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	



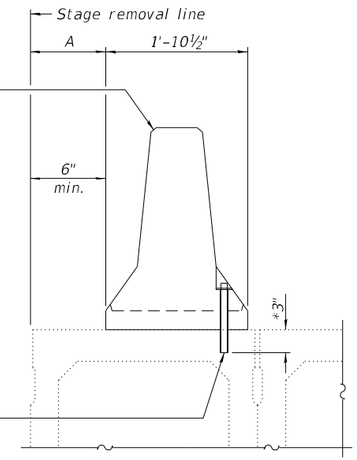
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

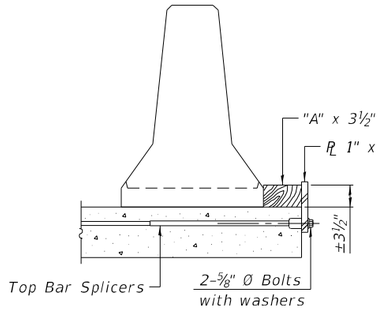
EXISTING SLAB



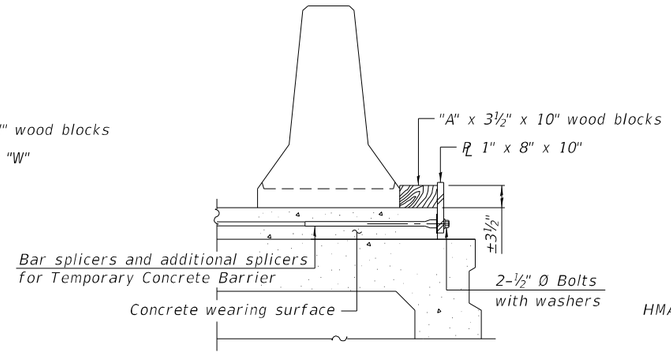
* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

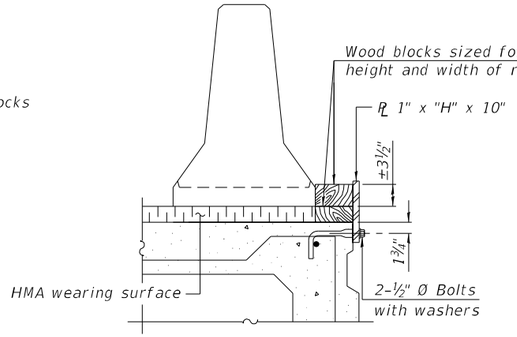
SECTIONS THRU SLAB OR DECK BEAM



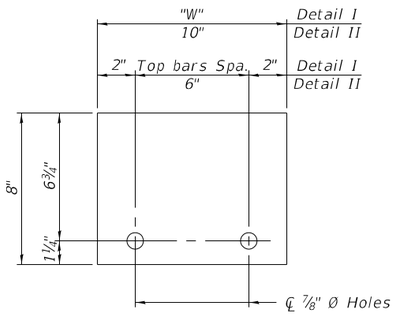
DETAIL I



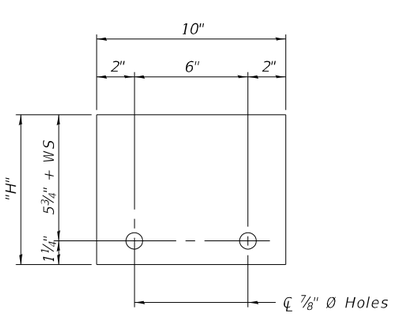
DETAIL II



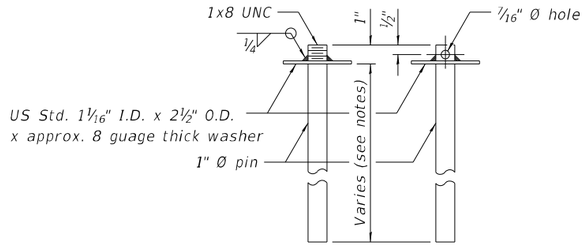
DETAIL III



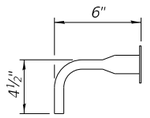
STEEL RETAINER PL 1" x 8" x "W"
(Detail I and II)



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



RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

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 1½", 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 of the bar splicers is included with the deck beam.

R-27

8-11-2017

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PATRICK ENGINEERING

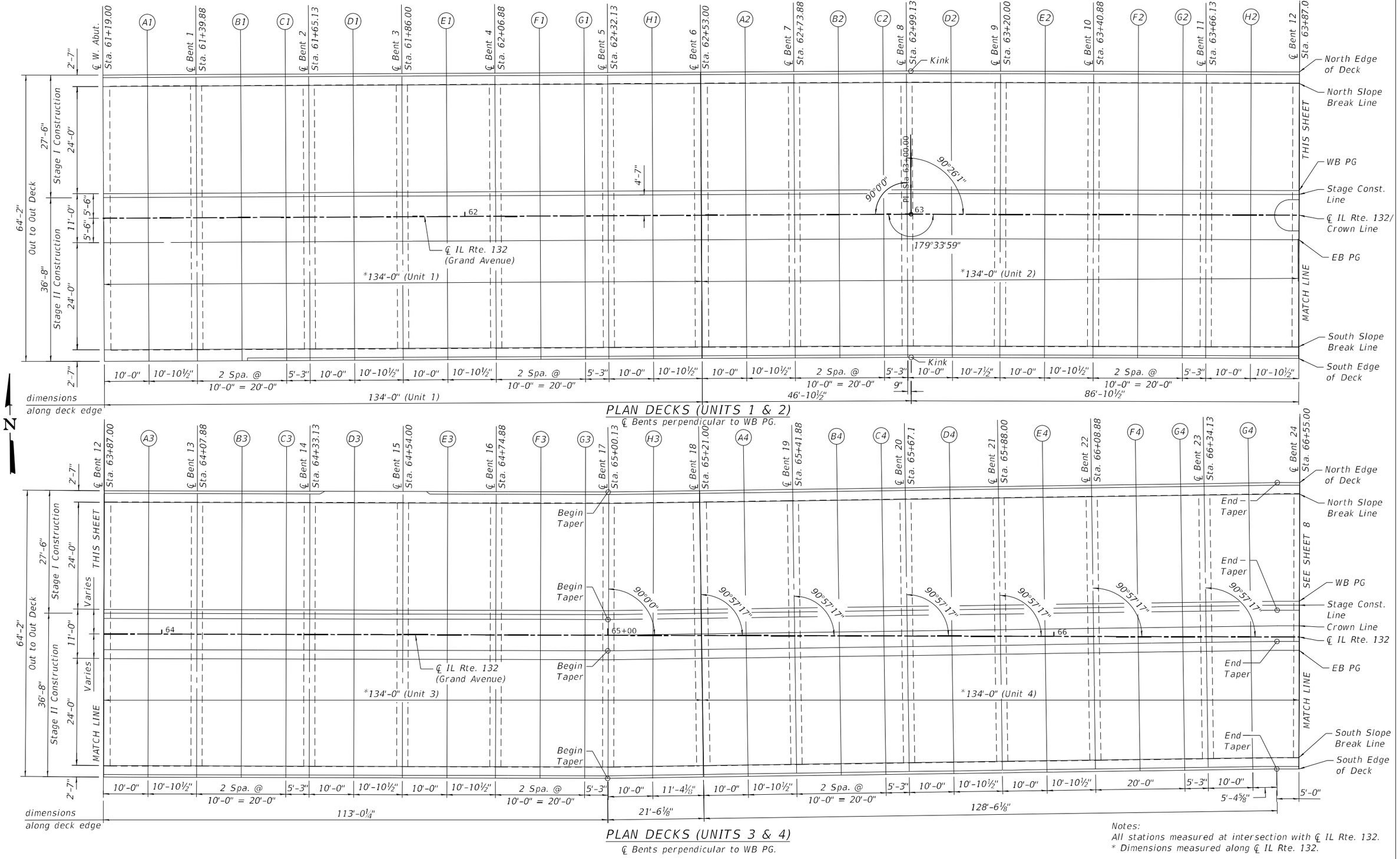
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 049-D030

SHEET 6 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	131
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			



PLAN DECKS (UNITS 1 & 2)

℄ Bents perpendicular to WB PG.

PLAN DECKS (UNITS 3 & 4)

℄ Bents perpendicular to WB PG.

Notes:
All stations measured at intersection with ℄ IL Rte. 132.
* Dimensions measured along ℄ IL Rte. 132.

PATRICK ENGINEERING

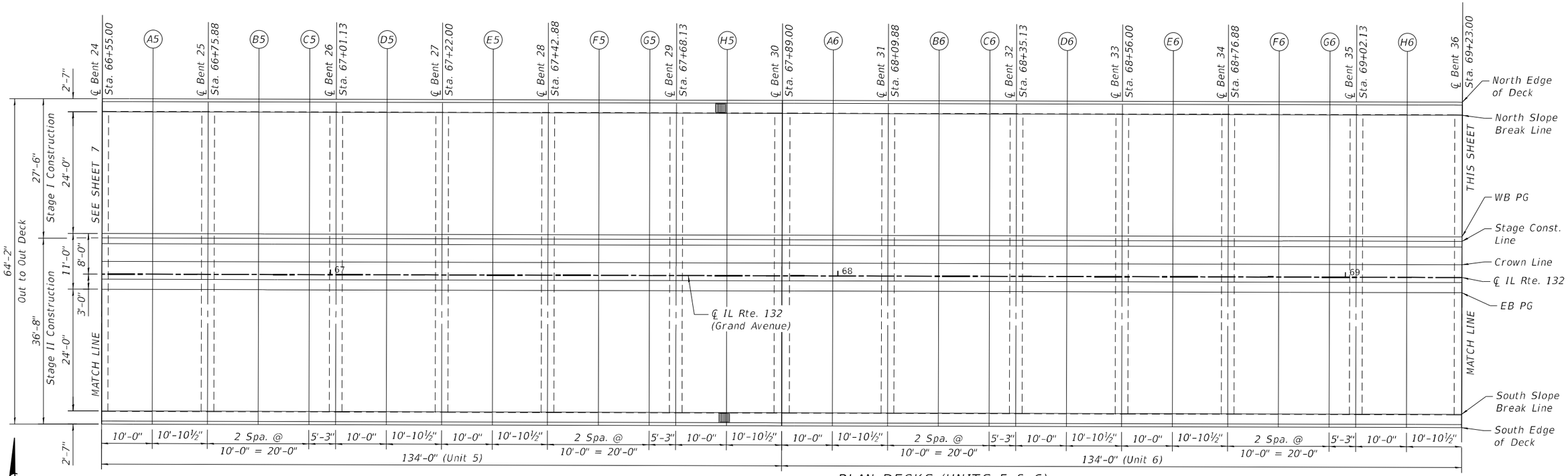
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS I
STRUCTURE NO. 049-D030
SHEET 7 OF 39 SHEETS

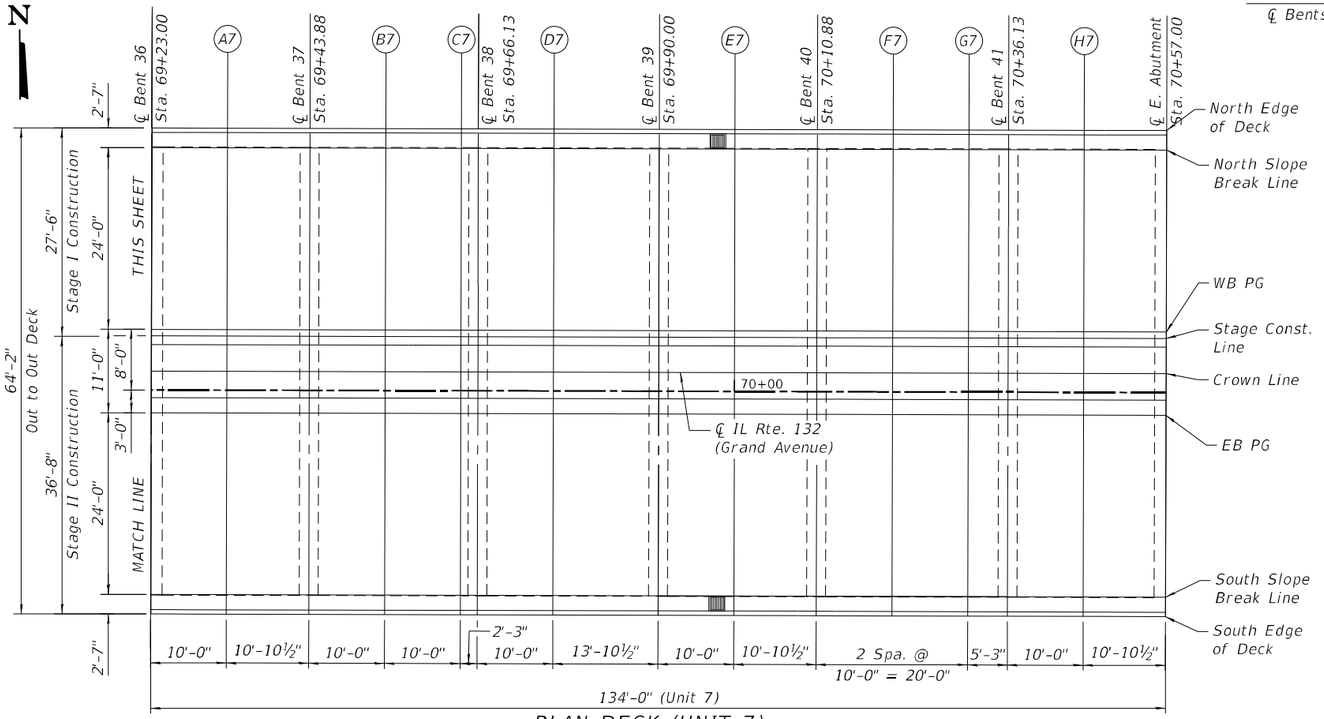
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	132
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

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PLAN DECKS (UNITS 5 & 6)

℄ Bents perpendicular to WB PG.



PLAN DECK (UNIT 7)

℄ Bents perpendicular to WB PG.

Notes:
All stations measured at intersection with ℄ IL Rte. 132.
All dimensions mesured along ℄ IL Rte. 132.

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PATRICK ENGINEERING

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS II
STRUCTURE NO. 049-D030

SHEET 8 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	133
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

NORTH EDGE OF DECK

Location	Station	Offset from WB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk of W Abut	61+17.50	-26.58	781.30	781.30
CL of W Abut	61+19.00	-26.58	781.25	781.25
A1	61+29.00	-26.58	780.90	780.90
CL Bent 1	61+39.88	-26.58	780.53	780.53
B1	61+49.88	-26.58	780.21	780.21
C1	61+59.88	-26.58	779.90	779.90
CL Bent 2	61+65.13	-26.58	779.74	779.74
D1	61+75.13	-26.58	779.45	779.45
CL Bent 3	61+86.00	-26.58	779.14	779.14
E1	61+96.00	-26.58	778.88	778.88
CL Bent 4	62+06.88	-26.58	778.60	778.60
F1	62+16.88	-26.58	778.36	778.36
G1	62+26.88	-26.58	778.14	778.14
CL Bent 5	62+32.13	-26.58	778.02	778.02
H1	62+42.13	-26.58	777.82	777.82
CL Bent 6	62+53.00	-26.58	777.61	777.61
A2	62+63.00	-26.58	777.43	777.43
CL Bent 7	62+73.88	-26.58	777.24	777.24
B2	62+83.88	-26.58	777.09	777.09
C2	62+93.88	-26.58	776.95	776.95
CL Bent 8	62+99.13	-26.58	776.88	776.88
D2	63+09.13	-26.58	776.76	776.76
CL Bent 9	63+20.00	-26.58	776.64	776.64
E2	63+30.00	-26.58	776.54	776.54
CL Bent 10	63+40.88	-26.58	776.45	776.45
F2	63+50.88	-26.58	776.37	776.37
G2	63+60.88	-26.58	776.29	776.29
CL Bent 11	63+66.13	-26.58	776.25	776.25
H2	63+76.13	-26.58	776.17	776.17
CL Bent 12	63+87.00	-26.58	776.09	776.09
A3	63+97.00	-26.58	776.01	776.01
CL Bent 13	64+07.88	-26.58	775.93	775.93
B3	64+17.88	-26.58	775.86	775.86
C3	64+27.88	-26.58	775.80	775.80
CL Bent 14	64+33.13	-26.58	775.77	775.77
D3	64+43.13	-26.58	775.73	775.73
CL Bent 15	64+54.00	-26.58	775.69	775.69
E3	64+64.00	-26.58	775.66	775.66
CL Bent 16	64+74.88	-26.58	775.64	775.64
F3	64+84.88	-26.58	775.63	775.63
G3	64+94.88	-26.58	775.62	775.62
CL Bent 17	65+00.13	-26.58	775.63	775.63
H3	65+10.13	-26.58	775.64	775.64
CL Bent 18	65+21.00	-26.58	775.66	775.66
A4	65+31.00	-26.58	775.69	775.69
CL Bent 19	65+41.88	-26.58	775.73	775.73
B4	65+51.88	-26.58	775.78	775.78
C4	65+61.88	-26.58	775.83	775.83
CL Bent 20	65+67.13	-26.58	775.85	775.85
D4	65+77.13	-26.58	775.90	775.90

NORTH EDGE OF DECK (CONT.)

Location	Station	Offset from WB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL Bent 21	65+88.00	-26.58	775.96	775.96
E4	65+98.00	-26.58	776.01	776.01
CL Bent 22	66+08.88	-26.58	776.06	776.06
F4	66+18.88	-26.58	776.11	776.11
G4	66+28.88	-26.58	776.16	776.16
CL Bent 23	66+34.13	-26.58	776.19	776.19
H4	66+44.13	-26.58	776.24	776.24
CL Bent 24	66+55.00	-26.58	776.29	776.29
A5	66+65.00	-26.58	776.34	776.34
CL Bent 25	66+75.88	-26.58	776.40	776.40
B5	66+85.88	-26.58	776.45	776.45
C5	66+95.88	-26.58	776.50	776.50
CL Bent 26	67+01.13	-26.58	776.52	776.52
D5	67+11.13	-26.58	776.57	776.57
CL Bent 27	67+22.00	-26.58	776.63	776.63
E5	67+32.00	-26.58	776.68	776.68
CL Bent 28	67+42.88	-26.58	776.73	776.73
F5	67+52.88	-26.58	776.78	776.78
G5	67+62.88	-26.58	776.83	776.83
CL Bent 29	67+68.13	-26.58	776.86	776.86
H5	67+78.13	-26.58	776.91	776.91
CL Bent 30	67+89.00	-26.58	776.96	776.96
A6	67+99.00	-26.58	777.01	777.01
CL Bent 31	68+09.88	-26.58	777.07	777.07
B6	68+19.88	-26.58	777.12	777.12
C6	68+29.88	-26.58	777.17	777.17
CL Bent 32	68+35.13	-26.58	777.19	777.19
D6	68+45.13	-26.58	777.24	777.24
CL Bent 33	68+56.00	-26.58	777.30	777.30
E6	68+66.00	-26.58	777.35	777.35
CL Bent 34	68+76.88	-26.58	777.40	777.40
F6	68+86.88	-26.58	777.45	777.45
G6	68+96.88	-26.58	777.50	777.50
CL Bent 35	69+02.13	26.58	777.53	777.53
H6	69+12.13	-26.58	777.58	777.58
CL Bent 36	69+23.00	-26.58	777.63	777.63
A7	69+33.00	-26.58	777.68	777.68
CL Bent 37	69+43.88	-26.58	777.74	777.74
B7	69+53.88	-26.58	777.79	777.79
C7	69+63.88	-26.58	777.84	777.84
CL Bent 38	69+66.13	-26.58	777.85	777.85
D7	69+76.13	-26.58	777.90	777.90
CL Bent 39	69+90.00	-26.58	777.97	777.97
E7	70+00.00	-26.58	778.02	778.02
CL Bent 40	70+10.88	-26.58	778.07	778.07
F7	70+20.88	-26.58	778.12	778.12
G7	70+30.88	-26.58	778.17	778.17
CL Bent 41	70+36.13	-26.58	778.20	778.20
H7	70+46.13	-26.58	778.25	778.25
CL of E Abut	70+57.00	-26.58	778.30	778.30
Bk of E Abut	70+58.50	-26.58	778.31	778.31

NORTH SLOPE BREAK LINE

Location	Station	Offset from WB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk of W Abut	61+17.50	-24.00	781.35	781.35
CL of W Abut	61+19.00	-24.00	781.30	781.30
A1	61+29.00	-24.00	780.95	780.95
CL Bent 1	61+39.88	-24.00	780.58	780.58
B1	61+49.88	-24.00	780.26	780.26
C1	61+59.88	-24.00	779.95	779.95
CL Bent 2	61+65.13	-24.00	779.79	779.79
D1	61+75.13	-24.00	779.50	779.50
CL Bent 3	61+86.00	-24.00	779.20	779.20
E1	61+96.00	-24.00	778.93	778.93
CL Bent 4	62+06.88	-24.00	778.66	778.66
F1	62+16.88	-24.00	778.42	778.42
G1	62+26.88	-24.00	778.19	778.19
CL Bent 5	62+32.13	-24.00	778.08	778.08
H1	62+42.13	-24.00	777.87	777.87
CL Bent 6	62+53.00	-24.00	777.66	777.66
A2	62+63.00	-24.00	777.48	777.48
CL Bent 7	62+73.88	-24.00	777.30	777.30
B2	62+83.88	-24.00	777.14	777.14
C2	62+93.88	-24.00	777.00	777.00
CL Bent 8	62+99.13	-24.00	776.93	776.93
D2	63+09.13	-24.00	776.81	776.81
CL Bent 9	63+20.00	-24.00	776.69	776.69
E2	63+30.00	-24.00	776.59	776.59
CL Bent 10	63+40.88	-24.00	776.50	776.50
F2	63+50.88	-24.00	776.42	776.42
G2	63+60.88	-24.00	776.35	776.35
CL Bent 11	63+66.13	-24.00	776.30	776.30
H2	63+76.13	-24.00	776.22	776.22
CL Bent 12	63+87.00	-24.00	776.14	776.14
A3	63+97.00	-24.00	776.06	776.06
CL Bent 13	64+07.88	-24.00	775.98	775.98
B3	64+17.88	-24.00	775.91	775.91
C3	64+27.88	-24.00	775.85	775.85
CL Bent 14	64+33.13	-24.00	775.83	775.83
D3	64+43.13	-24.00	775.78	775.78
CL Bent 15	64+54.00	-24.00	775.74	775.74
E3	64+64.00	-24.00	775.71	775.71
CL Bent 16	64+74.88	-24.00	775.69	775.69
F3	64+84.88	-24.00	775.68	775.68
G3	64+94.88	-24.00	775.68	775.68
CL Bent 17	65+00.13	-24.00	775.68	775.68
H3	65+10.13	-24.00	775.69	775.69
CL Bent 18	65+21.00	-24.00	775.71	775.71
A4	65+31.00	-24.00	775.74	775.74
CL Bent 19	65+41.88	-24.00	775.78	775.78
B4	65+51.88	-24.00	775.83	775.83
C4	65+61.88	-24.00	775.88	775.88
CL Bent 20	65+67.13	-24.00	775.91	775.91
D4	65+77.13	-24.00	775.96	775.96

NORTH SLOPE BREAK LINE (CONT.)

Location	Station	Offset from WB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL Bent 21	65+88.00	-24.00	776.01	776.01
E4	65+98.00	-24.00	776.06	776.06
CL Bent 22	66+08.88	-24.00	776.11	776.11
F4	66+18.88	-24.00	776.16	776.16
G4	66+28.88	-24.00	776.21	776.21
CL Bent 23	66+34.13	-24.00	776.24	776.24
H4	66+44.13	-24.00	776.29	776.29
CL Bent 24	66+55.00	-24.00	776.35	776.35
A5	66+65.00	-24.00	776.40	776.40
CL Bent 25	66+75.88	-24.00	776.45	776.45
B5	66+85.88	-24.00	776.50	776.50
C5	66+95.88	-24.00	776.55	776.55
CL Bent 26	67+01.13	-24.00	776.58	776.58
D5	67+11.13	-24.00	776.63	776.63
CL Bent 27	67+22.00	-24.00	776.68	776.68
E5	67+32.00	-24.00	776.73	776.73
CL Bent 28	67+42.88	-24.00	776.78	776.78
F5	67+52.88	-24.00	776.83	776.83
G5	67+62.88	-24.00	776.88	776.88
CL Bent 29	67+68.13	-24.00	776.91	776.91
H5	67+78.13	-24.00	776.96	776.96
CL Bent 30	67+89.00	-24.00	777.02	777.02
A6	67+99.00	-24.00	777.07	777.07
CL Bent 31	68+09.88	-24.00	777.12	777.12
B6	68+19.88	-24.00	777.17	777.17
C6	68+29.88	-24.00	777.22	777.22
CL Bent 32	68+35.13	-24.00	777.25	777.25
D6	68+45.13	-24.00	777.30	777.30
CL Bent 33	68+56.00	-24.00	777.35	777.35
E6	68+66.00	-24.00	777.40	777.40
CL Bent 34	68+76.88	-24.00	777.45	777.45
F6	68+86.88	-24.00	777.50	777.50
G6	68+96.88	-24.00	777.55	777.55
CL Bent 35	69+02.13	-24.00	777.58	777.58
H6	69+12.13	-24.00	777.63	777.63
CL Bent 36	69+23.00	-24.00	777.69	777.69
A7	69+33.00	-24.00	777.74	777.74
CL Bent 37	69+43.88	-24.00	777.79	777.79
B7	69+53.88	-24.00	777.84	777.84
C7	69+63.88	-24.00	777.89	777.89
CL Bent 38	69+66.13	-24.00	777.90	777.90
D7	69+76.13	-24.00	777.95	777.95
CL Bent 39	69+90.00	-24.00	778.02	778.02
E7	70+00.00	-24.00	778.07	778.07
CL Bent 40	70+10.88	-24.00	778.12	778.12
F7	70+20.88	-24.00	778.17	778.17
G7	70+30.88	-24.00	778.22	778.22
CL Bent 41	70+36.13	-24.00	778.25	778.25
H7	70+46.13	-24.00	778.30	778.30
CL of E Abut	70+57.00	-24.00	778.36	778.36
Bk of E Abut	70+58.50	-24.00	778.36	778.36

Notes:
All stations measured at the intersection of ℄ IL Rte. 132 with a line perpendicular to PG. At the tapered spans, they are not the true stations measured perpendicular to ℄ IL Rte. 132.
All offset are measured from PG.

E-S

2-17-2017

PATRICK ENGINEERING

USER NAME = bwitort		DESIGNED - TAH	REVISED -	
		CHECKED - YC	REVISED -	
PLOT SCALE = 0:2.0000 ':' / in.		DRAWN - RMH	REVISED -	
PLOT DATE = 3/30/21		CHECKED - YC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS III
STRUCTURE NO. 049-D030
SHEET 9 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	134
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw:\\patrickcorppw.bentley.com:patrickcorp-pw-07\Documents\IDOT\21777.030\12_Design\12-3_CADD\SHEETS\049D030-62D86-009-topslab-03

3/31/2021 12:19:44 PM

WB/EB PG

Location	Station	Offset from WB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk of W Abut	61+17.50	0.00	781.83	781.83
CL of W Abut	61+19.00	0.00	781.78	781.78
A1	61+29.00	0.00	781.43	781.43
CL Bent 1	61+39.88	0.00	781.06	781.06
B1	61+49.88	0.00	780.74	780.74
C1	61+59.88	0.00	780.43	780.43
CL Bent 2	61+65.13	0.00	780.27	780.27
D1	61+75.13	0.00	779.98	779.98
CL Bent 3	61+86.00	0.00	779.68	779.68
E1	61+96.00	0.00	779.41	779.41
CL Bent 4	62+06.88	0.00	779.14	779.14
F1	62+16.88	0.00	778.90	778.90
G1	62+26.88	0.00	778.67	778.67
CL Bent 5	62+32.13	0.00	778.56	778.56
H1	62+42.13	0.00	778.35	778.35
CL Bent 6	62+53.00	0.00	778.14	778.14
A2	62+63.00	0.00	777.96	777.96
CL Bent 7	62+73.88	0.00	777.78	777.78
B2	62+83.88	0.00	777.62	777.62
C2	62+93.88	0.00	777.48	777.48
CL Bent 8	62+99.13	0.00	777.41	777.41
D2	63+09.13	0.00	777.29	777.29
CL Bent 9	63+20.00	0.00	777.17	777.17
E2	63+30.00	0.00	777.07	777.07
CL Bent 10	63+40.88	0.00	776.98	776.98
F2	63+50.88	0.00	776.90	776.90
G2	63+60.88	0.00	776.83	776.83
CL Bent 11	63+66.13	0.00	776.78	776.78
H2	63+76.13	0.00	776.70	776.70
CL Bent 12	63+87.00	0.00	776.62	776.62
A3	63+97.00	0.00	776.54	776.54
CL Bent 13	64+07.88	0.00	776.46	776.46
B3	64+17.88	0.00	776.39	776.39
C3	64+27.88	0.00	776.33	776.33
CL Bent 14	64+33.13	0.00	776.31	776.31
D3	64+43.13	0.00	776.26	776.26
CL Bent 15	64+54.00	0.00	776.22	776.22
E3	64+64.00	0.00	776.19	776.19
CL Bent 16	64+74.88	0.00	776.17	776.17
F3	64+84.88	0.00	776.16	776.16
G3	64+94.88	0.00	776.16	776.16
CL Bent 17	65+00.13	0.00	776.16	776.16
H3	65+10.13	0.00	776.17	776.17
CL Bent 18	65+21.00	0.00	776.19	776.19
A4	65+31.00	0.00	776.22	776.22
CL Bent 19	65+41.88	0.00	776.26	776.26
B4	65+51.88	0.00	776.31	776.31
C4	65+61.88	0.00	776.36	776.36
CL Bent 20	65+67.13	0.00	776.39	776.39
D4	65+77.13	0.00	776.44	776.44

WB/EB PG (CONT.)

Location	Station	Offset from WB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL Bent 21	65+88.00	0.00	776.49	776.49
E4	65+98.00	0.00	776.54	776.54
CL Bent 22	66+08.88	0.00	776.59	776.59
F4	66+18.88	0.00	776.64	776.64
G4	66+28.88	0.00	776.69	776.69
CL Bent 23	66+34.13	0.00	776.72	776.72
H4	66+44.13	0.00	776.77	776.77
CL Bent 24	66+55.00	0.00	776.83	776.83
A5	66+65.00	0.00	776.88	776.88
CL Bent 25	66+75.88	0.00	776.93	776.93
B5	66+85.88	0.00	776.98	776.98
C5	66+95.88	0.00	777.03	777.03
CL Bent 26	67+01.13	0.00	777.06	777.06
D5	67+11.13	0.00	777.11	777.11
CL Bent 27	67+22.00	0.00	777.16	777.16
E5	67+32.00	0.00	777.21	777.21
CL Bent 28	67+42.88	0.00	777.26	777.26
F5	67+52.88	0.00	777.31	777.31
G5	67+62.88	0.00	777.36	777.36
CL Bent 29	67+68.13	0.00	777.39	777.39
H5	67+78.13	0.00	777.44	777.44
CL Bent 30	67+89.00	0.00	777.50	777.50
A6	67+99.00	0.00	777.55	777.55
CL Bent 31	68+09.88	0.00	777.60	777.60
B6	68+19.88	0.00	777.65	777.65
C6	68+29.88	0.00	777.70	777.70
CL Bent 32	68+35.13	0.00	777.73	777.73
D6	68+45.13	0.00	777.78	777.78
CL Bent 33	68+56.00	0.00	777.83	777.83
E6	68+66.00	0.00	777.88	777.88
CL Bent 34	68+76.88	0.00	777.93	777.93
F6	68+86.88	0.00	777.98	777.98
G6	68+96.88	0.00	778.03	778.03
CL Bent 35	69+02.13	0.00	778.06	778.06
H6	69+12.13	0.00	778.11	778.11
CL Bent 36	69+23.00	0.00	778.17	778.17
A7	69+33.00	0.00	778.22	778.22
CL Bent 37	69+43.88	0.00	778.27	778.27
B7	69+53.88	0.00	778.32	778.32
C7	69+63.88	0.00	778.37	778.37
CL Bent 38	69+66.13	0.00	778.38	778.38
D7	69+76.13	0.00	778.43	778.43
CL Bent 39	69+90.00	0.00	778.50	778.50
E7	70+00.00	0.00	778.55	778.55
CL Bent 40	70+10.88	0.00	778.60	778.60
F7	70+20.88	0.00	778.65	778.65
G7	70+30.88	0.00	778.70	778.70
CL Bent 41	70+36.13	0.00	778.73	778.73
H7	70+46.13	0.00	778.78	778.78
CL of E Abut	70+57.00	0.00	778.84	778.84
Bk of E Abut	70+58.50	0.00	778.84	778.84

STAGE CONSTRUCTION LINE

Location	Station	Offset from WB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk of W Abut	61+17.50	0.92	781.85	781.85
CL of W Abut	61+19.00	0.92	781.80	781.80
A1	61+29.00	0.92	781.45	781.45
CL Bent 1	61+39.88	0.92	781.08	781.08
B1	61+49.88	0.92	780.76	780.76
C1	61+59.88	0.92	780.45	780.45
CL Bent 2	61+65.13	0.92	780.29	780.29
D1	61+75.13	0.92	780.00	780.00
CL Bent 3	61+86.00	0.92	779.69	779.69
E1	61+96.00	0.92	779.43	779.43
CL Bent 4	62+06.88	0.92	779.15	779.15
F1	62+16.88	0.92	778.91	778.91
G1	62+26.88	0.92	778.69	778.69
CL Bent 5	62+32.13	0.92	778.57	778.57
H1	62+42.13	0.92	778.37	778.37
CL Bent 6	62+53.00	0.92	778.16	778.16
A2	62+63.00	0.92	777.98	777.98
CL Bent 7	62+73.88	0.92	777.79	777.79
B2	62+83.88	0.92	777.64	777.64
C2	62+93.88	0.92	777.50	777.50
CL Bent 8	62+99.13	0.92	777.43	777.43
D2	63+09.13	0.92	777.31	777.31
CL Bent 9	63+20.00	0.92	777.19	777.19
E2	63+30.00	0.92	777.09	777.09
CL Bent 10	63+40.88	0.92	777.00	777.00
F2	63+50.88	0.92	776.92	776.92
G2	63+60.88	0.92	776.84	776.84
CL Bent 11	63+66.13	0.92	776.80	776.80
H2	63+76.13	0.92	776.72	776.72
CL Bent 12	63+87.00	0.92	776.64	776.64
A3	63+97.00	0.92	776.56	776.56
CL Bent 13	64+07.88	0.92	776.48	776.48
B3	64+17.88	0.92	776.41	776.41
C3	64+27.88	0.92	776.35	776.35
CL Bent 14	64+33.13	0.92	776.32	776.32
D3	64+43.13	0.92	776.28	776.28
CL Bent 15	64+54.00	0.92	776.24	776.24
E3	64+64.00	0.92	776.21	776.21
CL Bent 16	64+74.88	0.92	776.19	776.19
F3	64+84.88	0.92	776.18	776.18
G3	64+94.88	0.92	776.17	776.17
CL Bent 17	65+00.13	0.92	776.18	776.18
H3	65+10.13	0.92	776.19	776.19
CL Bent 18	65+21.00	0.92	776.21	776.21
A4	65+31.00	0.92	776.24	776.24
CL Bent 19	65+41.88	0.92	776.28	776.28
B4	65+51.88	0.92	776.33	776.33
C4	65+61.88	0.92	776.38	776.38
CL Bent 20	65+67.13	0.92	776.40	776.40
D4	65+77.13	0.92	776.45	776.45

STAGE CONSTRUCTION LINE (CONT.)

Location	Station	Offset from WB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL Bent 21	65+88.00	0.92	776.51	776.51
E4	65+98.00	0.92	776.56	776.56
CL Bent 22	66+08.88	0.92	776.61	776.61
F4	66+18.88	0.92	776.66	776.66
G4	66+28.88	0.92	776.71	776.71
CL Bent 23	66+34.13	0.92	776.74	776.74
H4	66+44.13	0.92	776.79	776.79
CL Bent 24	66+55.00	0.92	776.84	776.84
A5	66+65.00	0.92	776.89	776.89
CL Bent 25	66+75.88	0.92	776.95	776.95
B5	66+85.88	0.92	777.00	777.00
C5	66+95.88	0.92	777.05	777.05
CL Bent 26	67+01.13	0.92	777.07	777.07
D5	67+11.13	0.92	777.12	777.12
CL Bent 27	67+22.00	0.92	777.18	777.18
E5	67+32.00	0.92	777.23	777.23
CL Bent 28	67+42.88	0.92	777.28	777.28
F5	67+52.88	0.92	777.33	777.33
G5	67+62.88	0.92	777.38	777.38
CL Bent 29	67+68.13	0.92	777.41	777.41
H5	67+78.13	0.92	777.46	777.46
CL Bent 30	67+89.00	0.92	777.51	777.51
A6	67+99.00	0.92	777.56	777.56
CL Bent 31	68+09.88	0.92	777.62	777.62
B6	68+19.88	0.92	777.67	777.67
C6	68+29.88	0.92	777.72	777.72
CL Bent 32	68+35.13	0.92	777.74	777.74
D6	68+45.13	0.92	777.79	777.79
CL Bent 33	68+56.00	0.92	777.85	777.85
E6	68+66.00	0.92	777.90	777.90
CL Bent 34	68+76.88	0.92	777.95	777.95
F6	68+86.88	0.92	778.00	778.00
G6	68+96.88	0.92	778.05	778.05
CL Bent 35	69+02.13	0.92	778.08	778.08
H6	69+12.13	0.92	778.13	778.13
CL Bent 36	69+23.00	0.92	778.18	778.18
A7	69+33.00	0.92	778.23	778.23
CL Bent 37	69+43.88	0.92	778.29	778.29
B7	69+53.88	0.92	778.34	778.34
C7	69+63.88	0.92	778.39	778.39
CL Bent 38	69+66.13	0.92	778.40	778.40
D7	69+76.13	0.92	778.45	778.45
CL Bent 39	69+90.00	0.92	778.52	778.52
E7	70+00.00	0.92	778.57	778.57
CL Bent 40	70+10.88	0.92	778.62	778.62
F7	70+20.88	0.92	778.67	778.67
G7	70+30.88	0.92	778.72	778.72
CL Bent 41	70+36.13	0.92	778.75	778.75
H7	70+46.13	0.92	778.80	778.80
CL of E Abut	70+57.00	0.92	778.85	778.85
Bk of E Abut	70+58.50	0.92	778.86	778.86

Notes:

All stations measured at the intersection of ℄ IL Rte. 132 with a line perpendicular to PG. At the tapered spans, they are not the true stations measured perpendicular to ℄ IL Rte. 132.

All offset are measured from PG.

E-S

2-17-2017

PATRICK ENGINEERING

USER NAME = bwitort		DESIGNED - TAH		REVISED -	
		CHECKED - YC		REVISED -	
PLOT SCALE = 0:2.0000 ':" / in.		DRAWN - RMH		REVISED -	
PLOT DATE = 3/30/21		CHECKED - YC		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS IV
STRUCTURE NO. 049-D030

SHEET 10 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	135
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw:\\patrickcc-pw.bentley.com:patrickcc-pw-07\Documents\IDOT\21777.030\12_Design\12-3_CADD\SHEETS\049D030-62D86-010-topslab-04

3/31/2021 12:20:04 PM

CROWN LINE

Location	Station	Offset from WB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk of W Abut	61+17.50	5.50	781.94	781.94
CL of W Abut	61+19.00	5.50	781.89	781.89
A1	61+29.00	5.50	781.54	781.54
CL Bent 1	61+39.88	5.50	781.17	781.17
B1	61+49.88	5.50	780.85	780.85
C1	61+59.88	5.50	780.54	780.54
CL Bent 2	61+65.13	5.50	780.38	780.38
D1	61+75.13	5.50	780.09	780.09
CL Bent 3	61+86.00	5.50	779.79	779.79
E1	61+96.00	5.50	779.52	779.52
CL Bent 4	62+06.88	5.50	779.25	779.25
F1	62+16.88	5.50	779.01	779.01
G1	62+26.88	5.50	778.78	778.78
CL Bent 5	62+32.13	5.50	778.67	778.67
H1	62+42.13	5.50	778.46	778.46
CL Bent 6	62+53.00	5.50	778.25	778.25
A2	62+63.00	5.50	778.07	778.07
CL Bent 7	62+73.88	5.50	777.89	777.89
B2	62+83.88	5.50	777.73	777.73
C2	62+93.88	5.50	777.59	777.59
CL Bent 8	62+99.13	5.50	777.52	777.52
D2	63+09.13	5.50	777.40	777.40
CL Bent 9	63+20.00	5.50	777.28	777.28
E2	63+30.00	5.50	777.18	777.18
CL Bent 10	63+40.88	5.50	777.09	777.09
F2	63+50.88	5.50	777.01	777.01
G2	63+60.88	5.50	776.94	776.94
CL Bent 11	63+66.13	5.50	776.89	776.89
H2	63+76.13	5.50	776.81	776.81
CL Bent 12	63+87.00	5.50	776.73	776.73
A3	63+97.00	5.50	776.65	776.65
CL Bent 13	64+07.88	5.50	776.57	776.57
B3	64+17.88	5.50	776.50	776.50
C3	64+27.88	5.50	776.44	776.44
CL Bent 14	64+33.13	5.50	776.42	776.42
D3	64+43.13	5.50	776.37	776.37
CL Bent 15	64+54.00	5.50	776.33	776.33
E3	64+64.00	5.50	776.30	776.30
CL Bent 16	64+74.88	5.50	776.28	776.28
F3	64+84.88	5.50	776.27	776.27
G3	64+94.88	5.50	776.27	776.27
CL Bent 17	65+00.13	5.50	776.27	776.27
H3	65+10.13	5.50	776.28	776.28
CL Bent 18	65+21.00	5.50	776.30	776.30
A4	65+31.00	5.50	776.33	776.33
CL Bent 19	65+41.88	5.50	776.37	776.37
B4	65+51.88	5.50	776.42	776.42
C4	65+61.88	5.50	776.47	776.47
CL Bent 20	65+67.13	5.50	776.50	776.50
D4	65+77.13	5.50	776.55	776.55

CROWN LINE (CONT.)

Location	Station	Offset from WB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL Bent 21	65+88.00	5.50	776.60	776.60
E4	65+98.00	5.50	776.65	776.65
CL Bent 22	66+08.88	5.50	776.70	776.70
F4	66+18.88	5.50	776.75	776.75
G4	66+28.88	5.50	776.80	776.80
CL Bent 23	66+34.13	5.50	776.83	776.83
H4	66+44.13	5.50	776.88	776.88
CL Bent 24	66+55.00	5.50	776.94	776.94
A5	66+65.00	5.50	776.99	776.99
CL Bent 25	66+75.88	5.50	777.04	777.04
B5	66+85.88	5.50	777.09	777.09
C5	66+95.88	5.50	777.14	777.14
CL Bent 26	67+01.13	5.50	777.17	777.17
D5	67+11.13	5.50	777.22	777.22
CL Bent 27	67+22.00	5.50	777.27	777.27
E5	67+32.00	5.50	777.32	777.32
CL Bent 28	67+42.88	5.50	777.37	777.37
F5	67+52.88	5.50	777.42	777.42
G5	67+62.88	5.50	777.47	777.47
CL Bent 29	67+68.13	5.50	777.50	777.50
H5	67+78.13	5.50	777.55	777.55
CL Bent 30	67+89.00	5.50	777.61	777.61
A6	67+99.00	5.50	777.66	777.66
CL Bent 31	68+09.88	5.50	777.71	777.71
B6	68+19.88	5.50	777.76	777.76
C6	68+29.88	5.50	777.81	777.81
CL Bent 32	68+35.13	5.50	777.84	777.84
D6	68+45.13	5.50	777.89	777.89
CL Bent 33	68+56.00	5.50	777.94	777.94
E6	68+66.00	5.50	777.99	777.99
CL Bent 34	68+76.88	5.50	778.04	778.04
F6	68+86.88	5.50	778.09	778.09
G6	68+96.88	5.50	778.14	778.14
CL Bent 35	69+02.13	5.50	778.17	778.17
H6	69+12.13	5.50	778.22	778.22
CL Bent 36	69+23.00	5.50	778.28	778.28
A7	69+33.00	5.50	778.33	778.33
CL Bent 37	69+43.88	5.50	778.38	778.38
B7	69+53.88	5.50	778.43	778.43
C7	69+63.88	5.50	778.48	778.48
CL Bent 38	69+66.13	5.50	778.49	778.49
D7	69+76.13	5.50	778.54	778.54
CL Bent 39	69+90.00	5.50	778.61	778.61
E7	70+00.00	5.50	778.66	778.66
CL Bent 40	70+10.88	5.50	778.71	778.71
F7	70+20.88	5.50	778.76	778.76
G7	70+30.88	5.50	778.81	778.81
CL Bent 41	70+36.13	5.50	778.84	778.84
H7	70+46.13	5.50	778.89	778.89
CL of E Abut	70+57.00	5.50	778.95	778.95
Bk of E Abut	70+58.50	5.50	778.95	778.95

SOUTH SLOPE BREAK LINE

Location	Station	Offset from EB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk of W Abut	61+17.50	24.00	781.35	781.35
CL of W Abut	61+19.00	24.00	781.30	781.30
A1	61+29.00	24.00	780.95	780.95
CL Bent 1	61+39.88	24.00	780.58	780.58
B1	61+49.88	24.00	780.26	780.26
C1	61+59.88	24.00	779.95	779.95
CL Bent 2	61+65.13	24.00	779.79	779.79
D1	61+75.13	24.00	779.50	779.50
CL Bent 3	61+86.00	24.00	779.20	779.20
E1	61+96.00	24.00	778.93	778.93
CL Bent 4	62+06.88	24.00	778.66	778.66
F1	62+16.88	24.00	778.42	778.42
G1	62+26.88	24.00	778.19	778.19
CL Bent 5	62+32.13	24.00	778.08	778.08
H1	62+42.13	24.00	777.87	777.87
CL Bent 6	62+53.00	24.00	777.66	777.66
A2	62+63.00	24.00	777.48	777.48
CL Bent 7	62+73.88	24.00	777.30	777.30
B2	62+83.88	24.00	777.14	777.14
C2	62+93.88	24.00	777.00	777.00
CL Bent 8	62+99.13	24.00	776.93	776.93
D2	63+09.13	24.00	776.81	776.81
CL Bent 9	63+20.00	24.00	776.69	776.69
E2	63+30.00	24.00	776.59	776.59
CL Bent 10	63+40.88	24.00	776.50	776.50
F2	63+50.88	24.00	776.42	776.42
G2	63+60.88	24.00	776.35	776.35
CL Bent 11	63+66.13	24.00	776.30	776.30
H2	63+76.13	24.00	776.22	776.22
CL Bent 12	63+87.00	24.00	776.14	776.14
A3	63+97.00	24.00	776.06	776.06
CL Bent 13	64+07.88	24.00	775.98	775.98
B3	64+17.88	24.00	775.91	775.91
C3	64+27.88	24.00	775.85	775.85
CL Bent 14	64+33.13	24.00	775.83	775.83
D3	64+43.13	24.00	775.78	775.78
CL Bent 15	64+54.00	24.00	775.74	775.74
E3	64+64.00	24.00	775.71	775.71
CL Bent 16	64+74.88	24.00	775.69	775.69
F3	64+84.88	24.00	775.68	775.68
G3	64+94.88	24.00	775.68	775.68
CL Bent 17	65+00.13	24.00	775.68	775.68
H3	65+10.13	24.00	775.69	775.69
CL Bent 18	65+21.00	24.00	775.71	775.71
A4	65+31.00	24.00	775.74	775.74
CL Bent 19	65+41.88	24.00	775.78	775.78
B4	65+51.88	24.00	775.83	775.83
C4	65+61.88	24.00	775.88	775.88
CL Bent 20	65+67.13	24.00	775.91	775.91
D4	65+77.13	24.00	775.96	775.96

SOUTH SLOPE BREAK LINE (CONT.)

Location	Station	Offset from EB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL Bent 21	65+88.00	24.00	776.01	776.01
E4	65+98.00	24.00	776.06	776.06
CL Bent 22	66+08.88	24.00	776.11	776.11
F4	66+18.88	24.00	776.16	776.16
G4	66+28.88	24.00	776.21	776.21
CL Bent 23	66+34.13	24.00	776.24	776.24
H4	66+44.13	24.00	776.29	776.29
CL Bent 24	66+55.00	24.00	776.35	776.35
A5	66+65.00	24.00	776.40	776.40
CL Bent 25	66+75.88	24.00	776.45	776.45
B5	66+85.88	24.00	776.50	776.50
C5	66+95.88	24.00	776.55	776.55
CL Bent 26	67+01.13	24.00	776.58	776.58
D5	67+11.13	24.00	776.63	776.63
CL Bent 27	67+22.00	24.00	776.68	776.68
E5	67+32.00	24.00	776.73	776.73
CL Bent 28	67+42.88	24.00	776.78	776.78
F5	67+52.88	24.00	776.83	776.83
G5	67+62.88	24.00	776.88	776.88
CL Bent 29	67+68.13	24.00	776.91	776.91
H5	67+78.13	24.00	776.96	776.96
CL Bent 30	67+89.00	24.00	777.02	777.02
A6	67+99.00	24.00	777.07	777.07
CL Bent 31	68+09.88	24.00	777.12	777.12
B6	68+19.88	24.00	777.17	777.17
C6	68+29.88	24.00	777.22	777.22
CL Bent 32	68+35.13	24.00	777.25	777.25
D6	68+45.13	24.00	777.30	777.30
CL Bent 33	68+56.00	24.00	777.35	777.35
E6	68+66.00	24.00	777.40	777.40
CL Bent 34	68+76.88	24.00	777.45	777.45
F6	68+86.88	24.00	777.50	777.50
G6	68+96.88	24.00	777.55	777.55
CL Bent 35	69+02.13	24.00	777.58	777.58
H6	69+12.13	24.00	777.63	777.63
CL Bent 36	69+23.00	24.00	777.69	777.69
A7	69+33.00	24.00	777.74	777.74
CL Bent 37	69+43.88	24.00	777.79	777.79
B7	69+53.88	24.00	777.84	777.84
C7	69+63.88	24.00	777.89	777.89
CL Bent 38	69+66.13	24.00	777.90	777.90
D7	69+76.13	24.00	777.95	777.95
CL Bent 39	69+90.00	24.00	778.02	778.02
E7	70+00.00	24.00	778.07	778.07
CL Bent 40	70+10.88	24.00	778.12	778.12
F7	70+20.88	24.00	778.17	778.17
G7	70+30.88	24.00	778.22	778.22
CL Bent 41	70+36.13	24.00	778.25	778.25
H7	70+46.13	24.00	778.30	778.30
CL of E Abut	70+57.00	24.00	778.36	778.36
Bk of E Abut	70+58.50	24.00	778.36	778.36

Notes:

All stations measured at the intersection of ℄ IL Rte. 132 with a line perpendicular to PG. At the tapered spans, they are not the true stations measured perpendicular to ℄ IL Rte. 132.

All offset are measured from PG.

E-S

2-17-2017

PATRICK ENGINEERING

USER NAME = bwitort		DESIGNED - TAH	REVISED -	
		CHECKED - YC	REVISED -	
PLOT SCALE = 0:2.0000 ':' / in.		DRAWN - RMH	REVISED -	
PLOT DATE = 3/30/21		CHECKED - YC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS V
STRUCTURE NO. 049-D030

SHEET 11 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	136
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: pw:\\patrickc-pw.bentley.com:patrickc-pw-07\Documents\IDOT\21777.030\12_Design\12-3_CADD\SHEETS\049D030-62D86-011-topslab-05

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SOUTH EDGE OF DECK

Location	Station	Offset from EB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk of W Abut	61+17.50	26.58	781.30	781.30
CL of W Abut	61+19.00	26.58	781.25	781.25
A1	61+29.00	26.58	780.90	780.90
CL Bent 1	61+39.88	26.58	780.53	780.53
B1	61+49.88	26.58	780.21	780.21
C1	61+59.88	26.58	779.90	779.90
CL Bent 2	61+65.13	26.58	779.74	779.74
D1	61+75.13	26.58	779.45	779.45
CL Bent 3	61+86.00	26.58	779.14	779.14
E1	61+96.00	26.58	778.88	778.88
CL Bent 4	62+06.88	26.58	778.60	778.60
F1	62+16.88	26.58	778.36	778.36
G1	62+26.88	26.58	778.14	778.14
CL Bent 5	62+32.13	26.58	778.02	778.02
H1	62+42.13	26.58	777.82	777.82
CL Bent 6	62+53.00	26.58	777.61	777.61
A2	62+63.00	26.58	777.43	777.43
CL Bent 7	62+73.88	26.58	777.24	777.24
B2	62+83.88	26.58	777.09	777.09
C2	62+93.88	26.58	776.95	776.95
CL Bent 8	62+99.13	26.58	776.88	776.88
D2	63+09.13	26.58	776.76	776.76
CL Bent 9	63+20.00	26.58	776.64	776.64
E2	63+30.00	26.58	776.54	776.54
CL Bent 10	63+40.88	26.58	776.45	776.45
F2	63+50.88	26.58	776.37	776.37
G2	63+60.88	26.58	776.29	776.29
CL Bent 11	63+66.13	26.58	776.25	776.25
H2	63+76.13	26.58	776.17	776.17
CL Bent 12	63+87.00	26.58	776.09	776.09
A3	63+97.00	26.58	776.01	776.01
CL Bent 13	64+07.88	26.58	775.93	775.93
B3	64+17.88	26.58	775.86	775.86
C3	64+27.88	26.58	775.80	775.80
CL Bent 14	64+33.13	26.58	775.77	775.77
D3	64+43.13	26.58	775.73	775.73
CL Bent 15	64+54.00	26.58	775.69	775.69
E3	64+64.00	26.58	775.66	775.66
CL Bent 16	64+74.88	26.58	775.64	775.64
F3	64+84.88	26.58	775.63	775.63
G3	64+94.88	26.58	775.62	775.62
CL Bent 17	65+00.13	26.58	775.63	775.63
H3	65+10.13	26.58	775.64	775.64
CL Bent 18	65+21.00	26.58	775.66	775.66
A4	65+31.00	26.58	775.69	775.69
CL Bent 19	65+41.88	26.58	775.73	775.73
B4	65+51.88	26.58	775.78	775.78
C4	65+61.88	26.58	775.83	775.83
CL Bent 20	65+67.13	26.58	775.85	775.85

SOUTH EDGE OF DECK (CONT.)

Location	Station	Offset from EB PG	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
D4	65+77.13	26.58	775.90	775.90
CL Bent 21	65+88.00	26.58	775.96	775.96
E4	65+98.00	26.58	776.01	776.01
CL Bent 22	66+08.88	26.58	776.06	776.06
F4	66+18.88	26.58	776.11	776.11
G4	66+28.88	26.58	776.16	776.16
CL Bent 23	66+34.13	26.58	776.19	776.19
H4	66+44.13	26.58	776.24	776.24
CL Bent 24	66+55.00	26.58	776.29	776.29
A5	66+65.00	26.58	776.34	776.34
CL Bent 25	66+75.88	26.58	776.40	776.40
B5	66+85.88	26.58	776.45	776.45
C5	66+95.88	26.58	776.50	776.50
CL Bent 26	67+01.13	26.58	776.52	776.52
D5	67+11.13	26.58	776.57	776.57
CL Bent 27	67+22.00	26.58	776.63	776.63
E5	67+32.00	26.58	776.68	776.68
CL Bent 28	67+42.88	26.58	776.73	776.73
F5	67+52.88	26.58	776.78	776.78
G5	67+62.88	26.58	776.83	776.83
CL Bent 29	67+68.13	26.58	776.86	776.86
H5	67+78.13	26.58	776.91	776.91
CL Bent 30	67+89.00	26.58	776.96	776.96
A6	67+99.00	26.58	777.01	777.01
CL Bent 31	68+09.88	26.58	777.07	777.07
B6	68+19.88	26.58	777.12	777.12
C6	68+29.88	26.58	777.17	777.17
CL Bent 32	68+35.13	26.58	777.19	777.19
D6	68+45.13	26.58	777.24	777.24
CL Bent 33	68+56.00	26.58	777.30	777.30
E6	68+66.00	26.58	777.35	777.35
CL Bent 34	68+76.88	26.58	777.40	777.40
F6	68+86.88	26.58	777.45	777.45
G6	68+96.88	26.58	777.50	777.50
CL Bent 35	69+02.13	26.58	777.53	777.53
H6	69+12.13	26.58	777.58	777.58
CL Bent 36	69+23.00	26.58	777.63	777.63
A7	69+33.00	26.58	777.68	777.68
CL Bent 37	69+43.88	26.58	777.74	777.74
B7	69+53.88	26.58	777.79	777.79
C7	69+63.88	26.58	777.84	777.84
CL Bent 38	69+66.13	26.58	777.85	777.85
D7	69+76.13	26.58	777.90	777.90
CL Bent 39	69+90.00	26.58	777.97	777.97
E7	70+00.00	26.58	778.02	778.02
CL Bent 40	70+10.88	26.58	778.07	778.07
F7	70+20.88	26.58	778.12	778.12
G7	70+30.88	26.58	778.17	778.17
CL Bent 41	70+36.13	26.58	778.20	778.20
H7	70+46.13	26.58	778.25	778.25
CL of E Abut	70+57.00	26.58	778.30	778.30
Bk of E Abut	70+58.50	26.58	778.31	778.31

PG OFFSET FROM ℄ IL RTE. 132

Location	Offset from WB PG	Offset from WB PG	Location	Offset from WB PG	Offset from WB PG
61+17.50	-5.50	5.50	65+98.00	-7.13	3.87
61+19.00	-5.50	5.50	66+08.88	-7.31	3.69
61+29.00	-5.50	5.50	66+18.88	-7.48	3.52
61+39.88	-5.50	5.50	66+28.88	-7.65	3.35
61+49.88	-5.50	5.50	66+34.13	-7.74	3.26
61+59.88	-5.50	5.50	66+44.13	-7.90	3.10
61+65.13	-5.50	5.50	66+50.00	-8.00	3.00
61+75.13	-5.50	5.50	66+55.00	-8.00	3.00
61+86.00	-5.50	5.50	66+65.00	-8.00	3.00
61+96.00	-5.50	5.50	66+75.88	-8.00	3.00
62+06.88	-5.50	5.50	66+85.88	-8.00	3.00
62+16.88	-5.50	5.50	66+95.88	-8.00	3.00
62+26.88	-5.50	5.50	67+01.13	-8.00	3.00
62+32.13	-5.50	5.50	67+11.13	-8.00	3.00
62+42.13	-5.50	5.50	67+22.00	-8.00	3.00
62+53.00	-5.50	5.50	67+32.00	-8.00	3.00
62+63.00	-5.50	5.50	67+42.88	-8.00	3.00
62+73.88	-5.50	5.50	67+52.88	-8.00	3.00
62+83.88	-5.50	5.50	67+62.88	-8.00	3.00
62+93.88	-5.50	5.50	67+68.13	-8.00	3.00
62+99.13	-5.50	5.50	67+78.13	-8.00	3.00
63+09.13	-5.50	5.50	67+89.00	-8.00	3.00
63+20.00	-5.50	5.50	67+99.00	-8.00	3.00
63+30.00	-5.50	5.50	68+09.88	-8.00	3.00
63+40.88	-5.50	5.50	68+19.88	-8.00	3.00
63+50.88	-5.50	5.50	68+29.88	-8.00	3.00
63+60.88	-5.50	5.50	68+35.13	-8.00	3.00
63+66.13	-5.50	5.50	68+45.13	-8.00	3.00
63+76.13	-5.50	5.50	68+56.00	-8.00	3.00
63+87.00	-5.50	5.50	68+66.00	-8.00	3.00
63+97.00	-5.50	5.50	68+76.88	-8.00	3.00
64+07.88	-5.50	5.50	68+86.88	-8.00	3.00
64+17.88	-5.50	5.50	68+96.88	-8.00	3.00
64+27.88	-5.50	5.50	69+02.13	-8.00	3.00
64+33.13	-5.50	5.50	69+12.13	-8.00	3.00
64+43.13	-5.50	5.50	69+23.00	-8.00	3.00
64+54.00	-5.50	5.50	69+33.00	-8.00	3.00
64+64.00	-5.50	5.50	69+43.88	-8.00	3.00
64+74.88	-5.50	5.50	69+53.88	-8.00	3.00
64+84.88	-5.50	5.50	69+63.88	-8.00	3.00
64+94.88	-5.50	5.50	69+69.13	-8.00	3.00
65+00.13	-5.50	5.50	69+79.13	-8.00	3.00
65+10.13	-5.67	5.33	69+90.00	-8.00	3.00
65+21.00	-5.85	5.15	70+00.00	-8.00	3.00
65+31.00	-6.02	4.98	70+10.88	-8.00	3.00
65+41.88	-6.20	4.80	70+20.88	-8.00	3.00
65+51.88	-6.36	4.64	70+30.88	-8.00	3.00
65+61.88	-6.53	4.47	70+36.13	-8.00	3.00
65+67.13	-6.62	4.38	70+46.13	-8.00	3.00
65+77.13	-6.79	4.21	70+57.00	-8.00	3.00
65+88.00	-6.97	4.03			

Notes:
All stations measured at the intersection of ℄ IL Rte. 132 with a line perpendicular to PG. At the tapered spans, they are not the true stations measured perpendicular to ℄ IL Rte. 132.
All offset are measured from PG.

E-S

2-17-2017

PATRICK ENGINEERING

USER NAME = bwitort		DESIGNED - TAH		REVISED -	
		CHECKED - YC		REVISED -	
PLOT SCALE = 0:2.0000 ':' / in.		DRAWN - RMH		REVISED -	
PLOT DATE = 3/30/21		CHECKED - YC		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS VI
STRUCTURE NO. 049-D030
SHEET 12 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	137
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw:\\patrickcc-pw.bentley.com:patrickcc-pw-07\Documents\IDOT\21777.030\12_Design\12.3_CADD\SHEETS\049D030-62D86-012-topslab-06

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NORTH EDGE OF APPROACH SLAB

Location	Station	Offset from WB PG	Theoretical Grade Elevations
W. End of W. Approach Pav't.	60+89.00	-26.58	782.37
A	60+99.00	-26.58	781.99
B	61+09.00	-26.58	781.61
E. End of W. Approach Pav't.	61+19.00	-26.58	781.25
W. End of E. Approach Pav't.	70+57.00	-26.58	778.30
C	70+67.00	-26.58	778.35
D	70+77.00	-26.58	778.40
E. End of E. Approach Pav't.	70+87.00	-26.58	778.45

NORTH SLOPE OF BREAK LINE

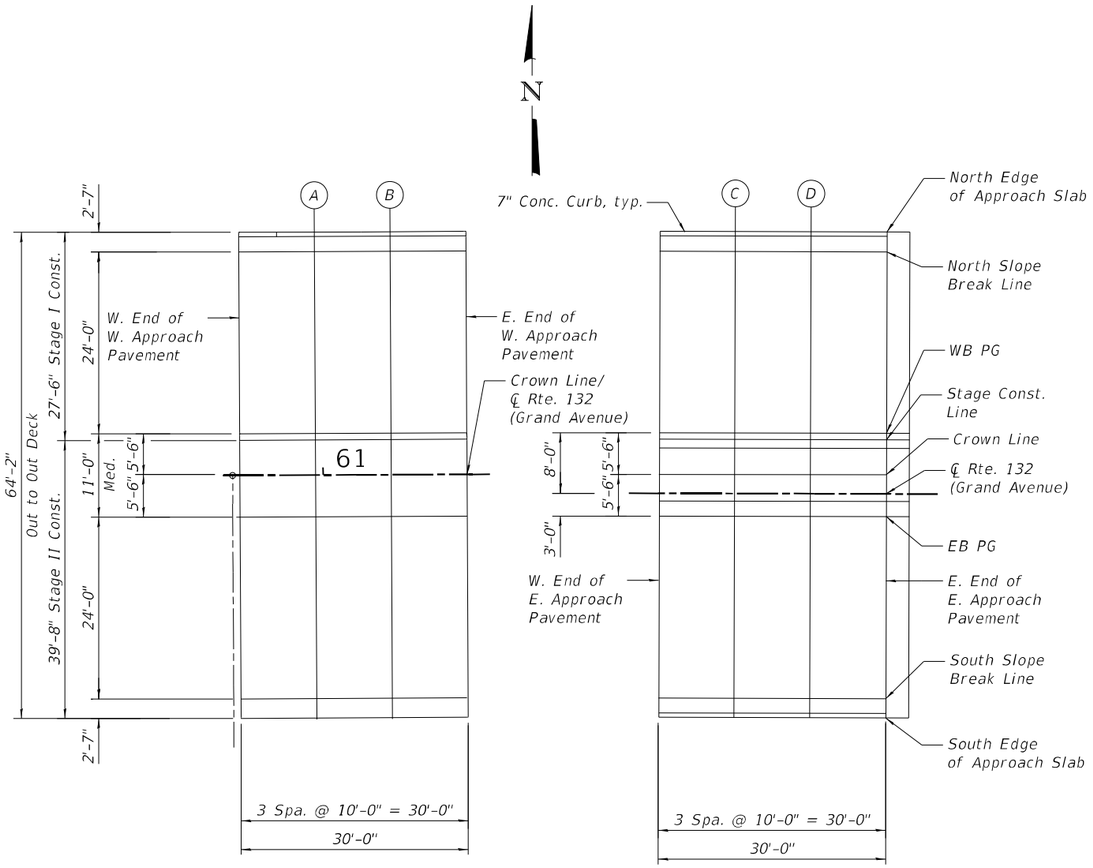
Location	Station	Offset from WB PG	Theoretical Grade Elevations
W. End of W. Approach Pav't.	60+89.00	-24.00	782.43
A	60+99.00	-24.00	782.04
B	61+09.00	-24.00	781.66
E. End of W. Approach Pav't.	61+19.00	-24.00	781.30
W. End of E. Approach Pav't.	70+57.00	-24.00	778.36
C	70+67.00	-24.00	778.41
D	70+77.00	-24.00	778.46
E. End of E. Approach Pav't.	70+87.00	-24.00	778.51

WB PG

Location	Station	Offset from EB PG	Theoretical Grade Elevations
W. End of W. Approach Pav't.	60+89.00	0.00	782.91
A	60+99.00	0.00	782.52
B	61+09.00	0.00	782.14
E. End of W. Approach Pav't.	61+19.00	0.00	781.78
W. End of E. Approach Pav't.	70+57.00	0.00	778.84
C	70+67.00	0.00	778.89
D	70+77.00	0.00	778.94
E. End of E. Approach Pav't.	70+87.00	0.00	778.99

STAGE CONST. LINE

Location	Station	Offset from WB PG	Theoretical Grade Elevations
W. End of W. Approach Pav't.	60+89.00	0.92	782.92
A	60+99.00	0.92	782.54
B	61+09.00	0.92	782.16
E. End of W. Approach Pav't.	61+19.00	0.92	781.80
W. End of E. Approach Pav't.	70+57.00	0.92	778.85
C	70+67.00	0.92	778.90
D	70+77.00	0.92	778.95
E. End of E. Approach Pav't.	70+87.00	0.92	779.00



PLAN

CROWN LINE (From WB PG)

Location	Station	Offset from WB PG	Theoretical Grade Elevations
W. End of W. Approach Pav't.	60+89.00	5.50	783.02
A	60+99.00	5.50	782.63
B	61+09.00	5.50	782.25
E. End of W. Approach Pav't.	61+19.00	5.50	781.89
W. End of E. Approach Pav't.	70+57.00	5.50	778.95
C	70+67.00	5.50	779.00
D	70+77.00	5.50	779.05
E. End of E. Approach Pav't.	70+87.00	5.50	779.10

EB PG

Location	Station	Offset from EB PG	Theoretical Grade Elevations
W. End of W. Approach Pav't.	60+89.00	0.00	782.91
A	60+99.00	0.00	782.52
B	61+09.00	0.00	782.14
E. End of W. Approach Pav't.	61+19.00	0.00	781.78
W. End of E. Approach Pav't.	70+57.00	0.00	778.84
C	70+67.00	0.00	778.89
D	70+77.00	0.00	778.94
E. End of E. Approach Pav't.	70+87.00	0.00	778.99

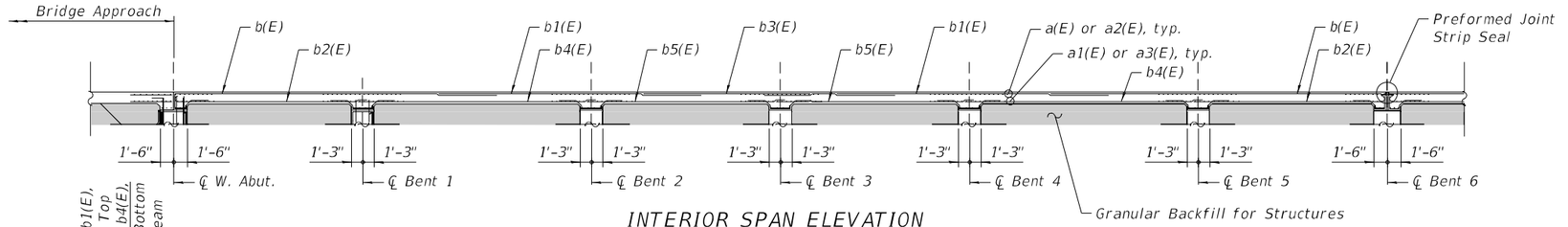
SOUTH SLOPE BREAK LINE

Location	Station	Offset from EB PG	Theoretical Grade Elevations
W. End of W. Approach Pav't.	60+89.00	24.00	782.43
A	60+99.00	24.00	782.04
B	61+09.00	24.00	781.66
E. End of W. Approach Pav't.	61+19.00	24.00	781.30
W. End of E. Approach Pav't.	70+57.00	24.00	778.36
C	70+67.00	24.00	778.41
D	70+77.00	24.00	778.46
E. End of E. Approach Pav't.	70+87.00	24.00	778.51

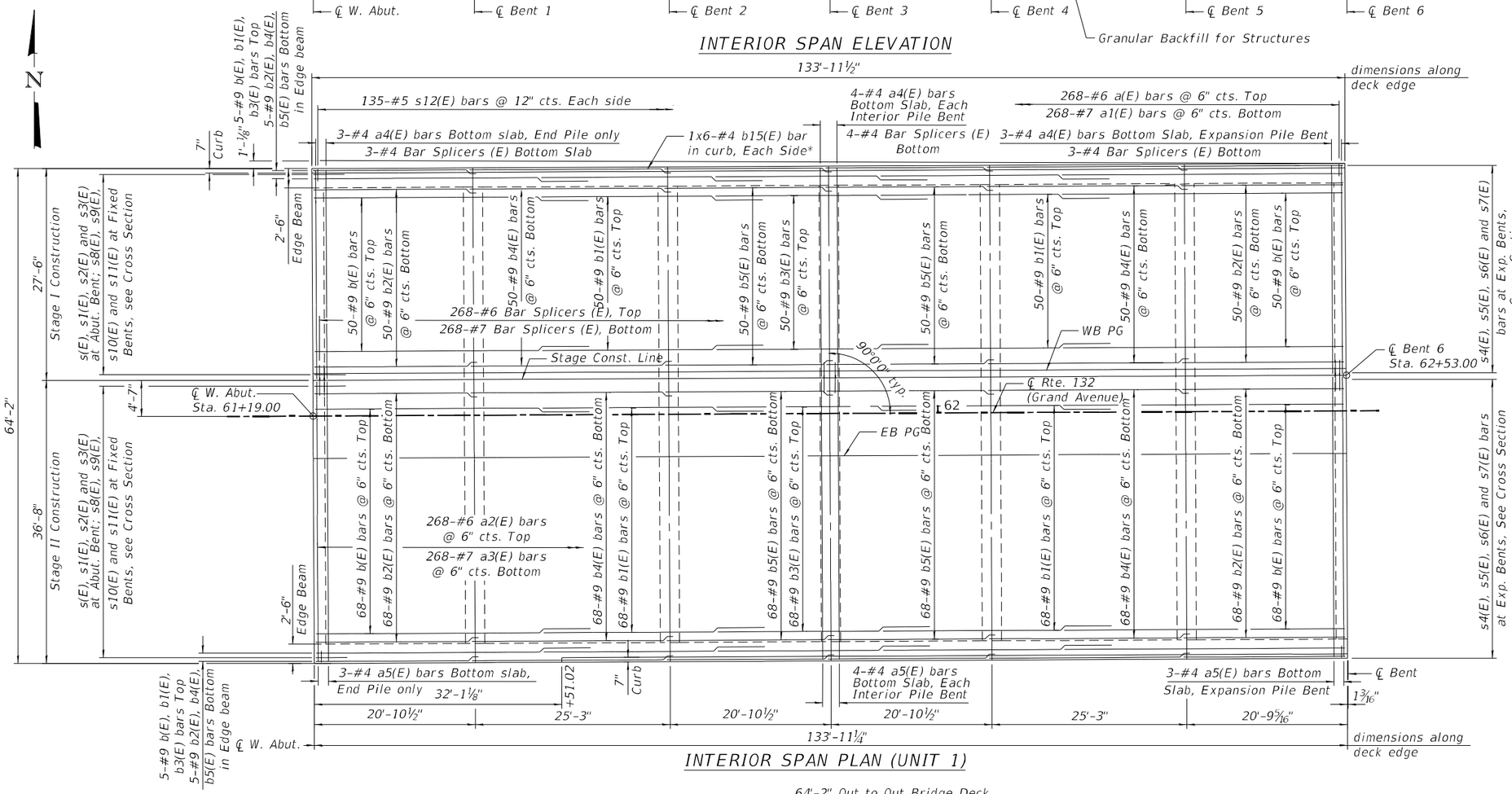
SOUTH EDGE OF APPROACH SLAB

Location	Station	Offset from EB PG	Theoretical Grade Elevations
W. End of W. Approach Pav't.	60+89.00	26.58	782.37
A	60+99.00	26.58	781.99
B	61+09.00	26.58	781.61
E. End of W. Approach Pav't.	61+19.00	26.58	781.25
W. End of E. Approach Pav't.	70+57.00	26.58	778.30
C	70+67.00	26.58	778.35
D	70+77.00	26.58	778.40
E. End of E. Approach Pav't.	70+87.00	26.58	778.45

All offsets are measured from PG.



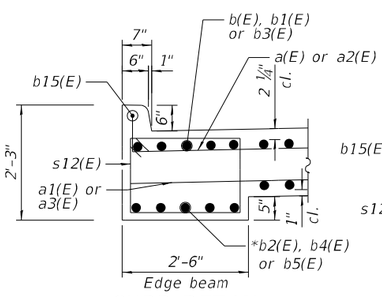
INTERIOR SPAN ELEVATION



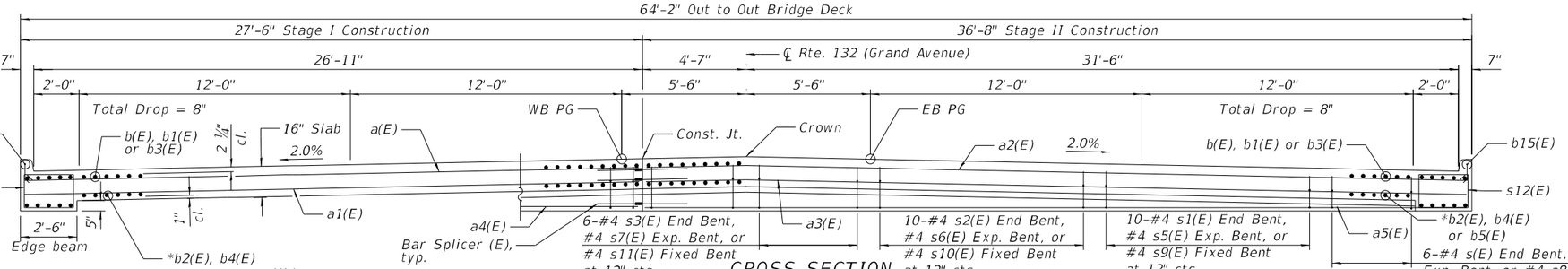
INTERIOR SPAN PLAN (UNIT 1)

Note:
See Sheet 20 of 39 for Expansion Bent Pile Cap Section, Fixed Bent Pile Cap Section, Abutment Bent Pile Cap Section, Bar Diagrams and Bill of Materials.

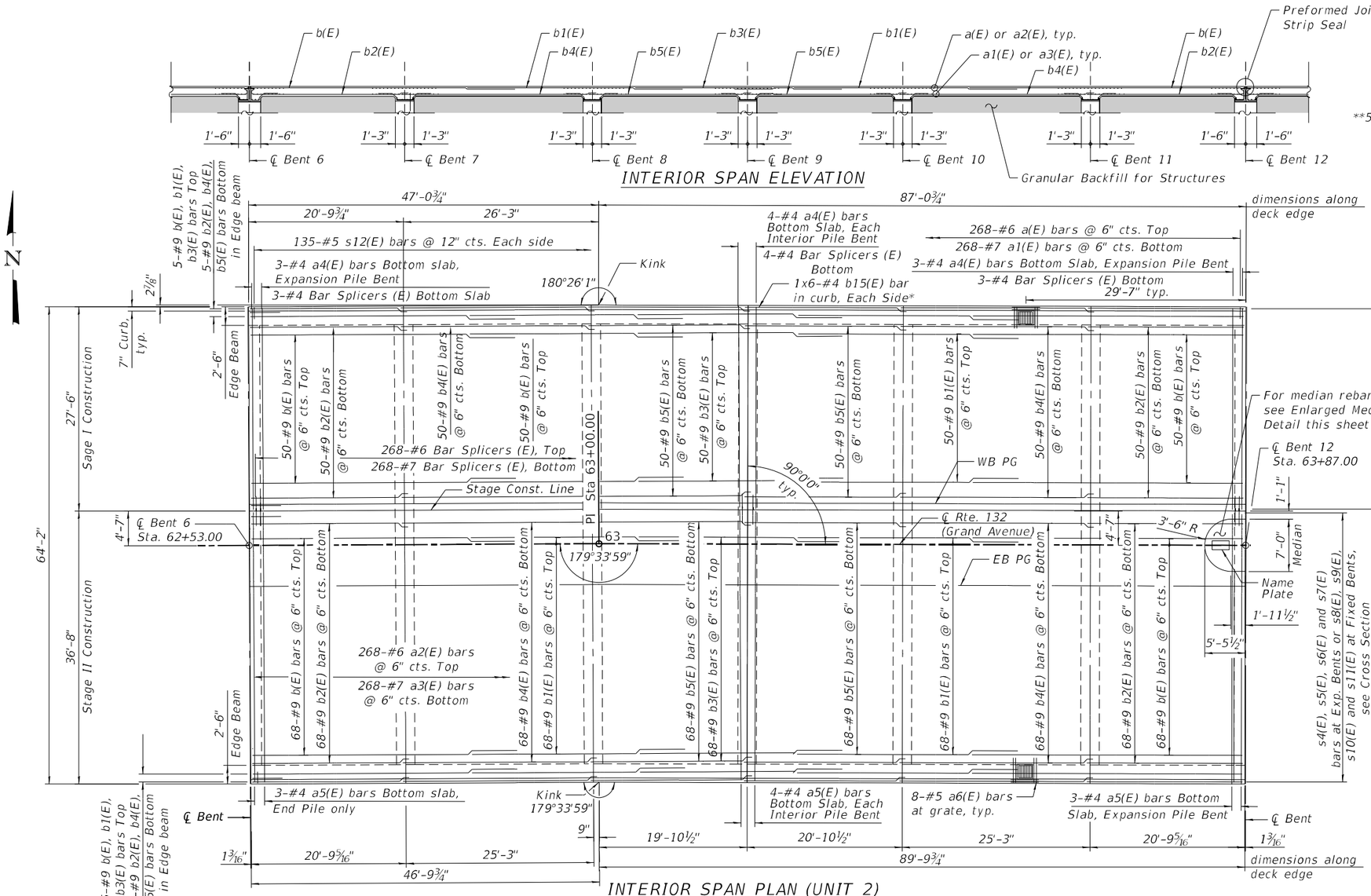
* With 1'-0" lap splice, typ.



CURB DETAIL



CROSS SECTION (Looking East)



Notes:

See sheet 14 of 39 for Curb Detail.

See sheet 20 of 39 for Expansion Bent Pile Cap Section, Fixed Bent Pile Cap Section, Abutment Bent Pile Cap Section, Median Section, Bar Diagrams and Bill of Materials.

Concrete Median: 3/4" dia. Galvanized expansion anchors or Ferrule Loop Slab Insert (Proof Load 6600 lb.) for c3(E) bars to be installed 3'-3" offset from ℄ concrete median at 12" cts. (5 Each side) during Stage II Construction. Bars c1(E), c2(E) and c3(E) to be installed with concrete median during Stage III Construction.

* With 1'-0" lap splice, typ.

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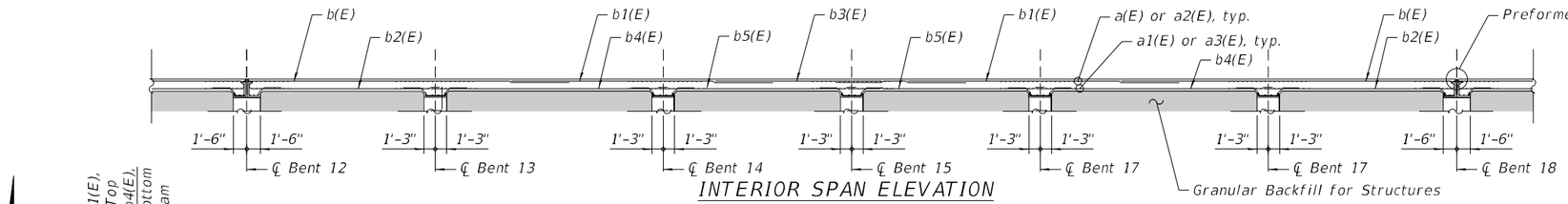
PATRICK ENGINEERING

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

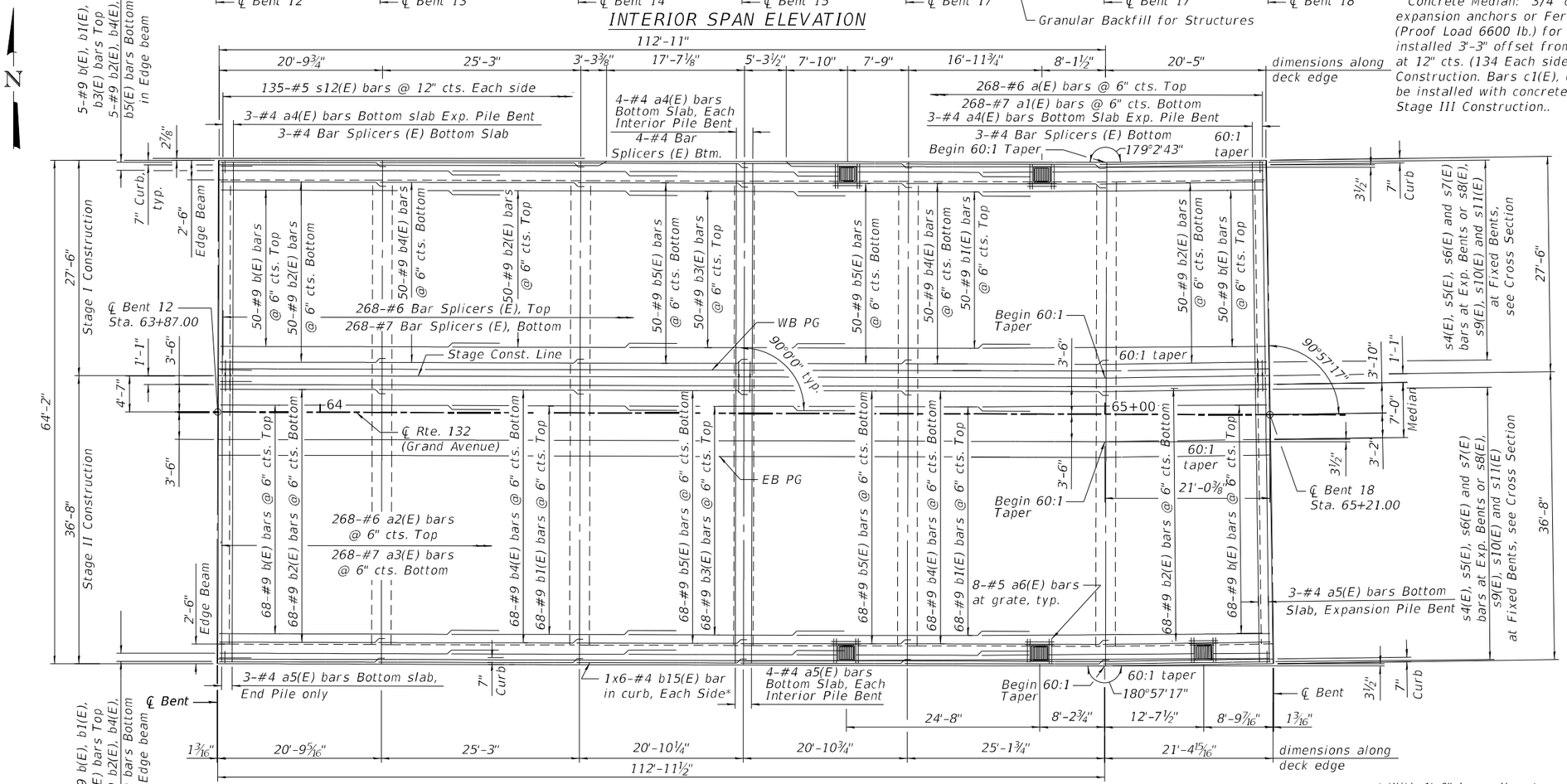
SUPERSTRUCTURE - INTERIOR UNIT 2
STRUCTURE NO. 049-D030
SHEET 15 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		



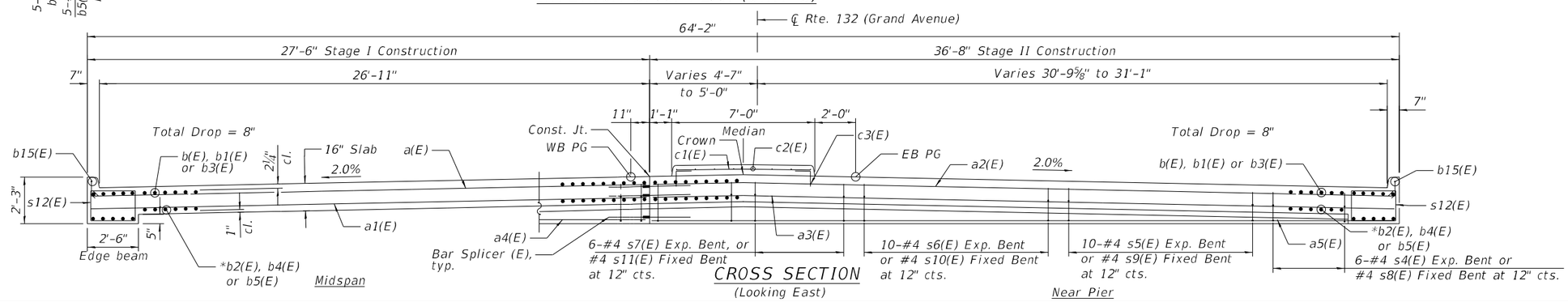
INTERIOR SPAN ELEVATION

Notes:
See sheet 14 of 39 for Curb Detail.
See sheet 20 of 39 for Expansion Bent Pile Cap Section, Fixed Bent Pile Cap Section, Abutment Bent Pile Cap Section, Median Section, Bar Diagrams and Bill of Materials.
Concrete Median: 3/4" dia. Galvanized expansion anchors or Ferrule Loop Slab Insert (Proof Load 6600 lb.) for c3(E) bars to be installed 3'-3" offset from ℄ concrete median at 12" cts. (134 Each side) during Stage II Construction. Bars c1(E), c2(E) and c3(E) to be installed with concrete median during Stage III Construction..



INTERIOR SPAN PLAN (UNIT 3)

* With 1'-0" lap splice, typ.



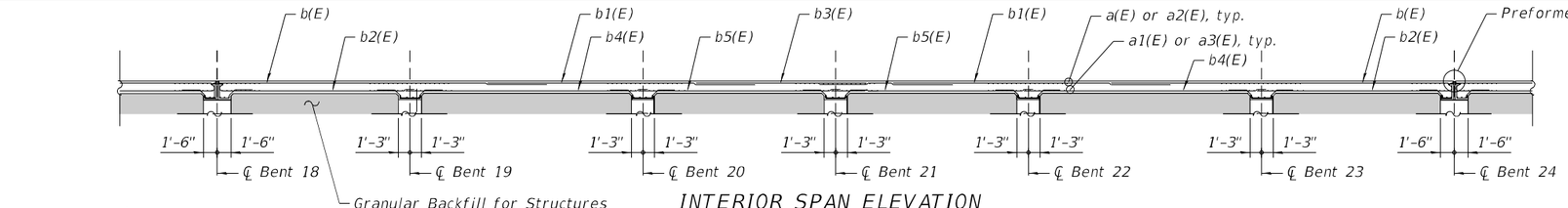
CROSS SECTION
(Looking East)

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

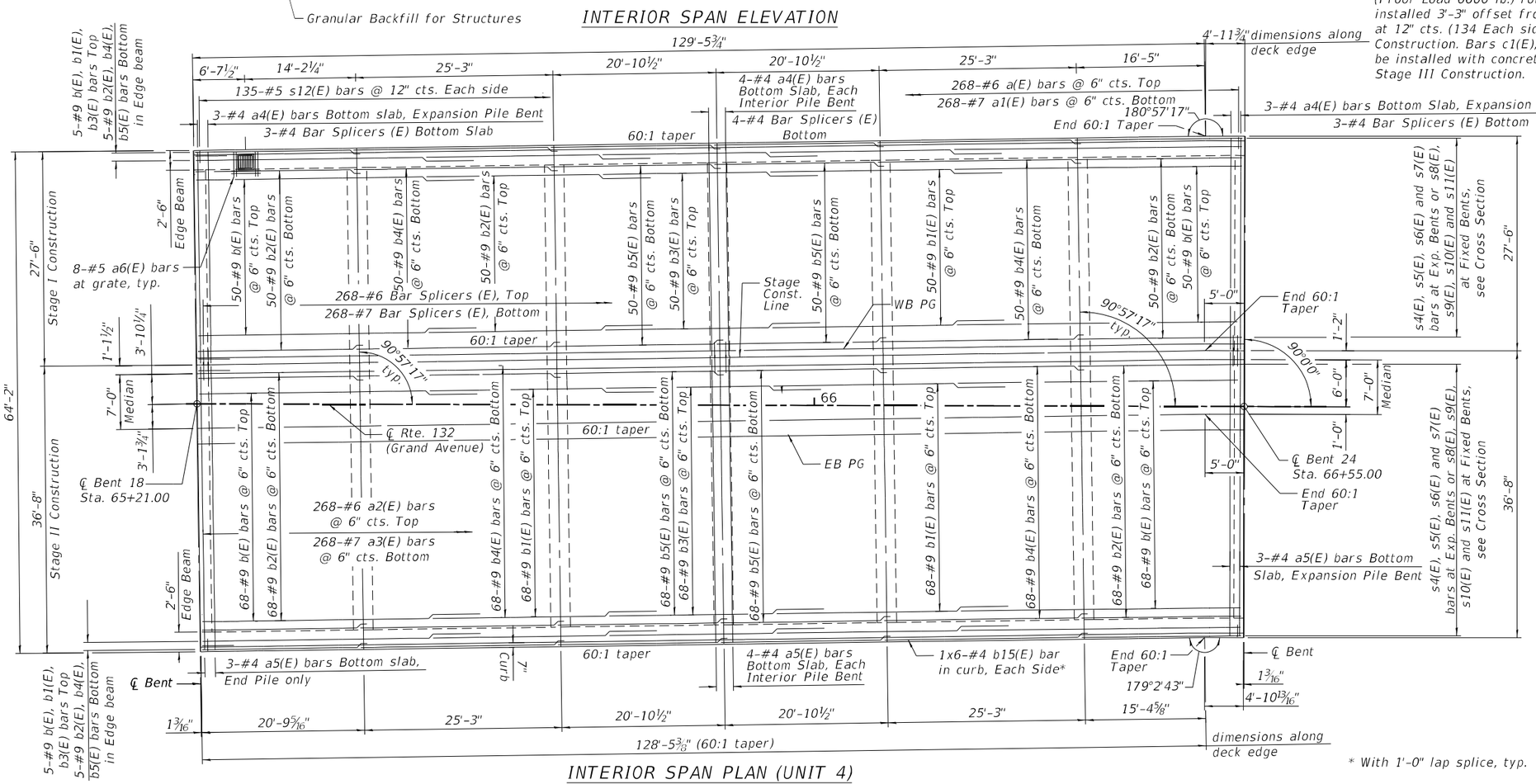
PATRICK ENGINEERING

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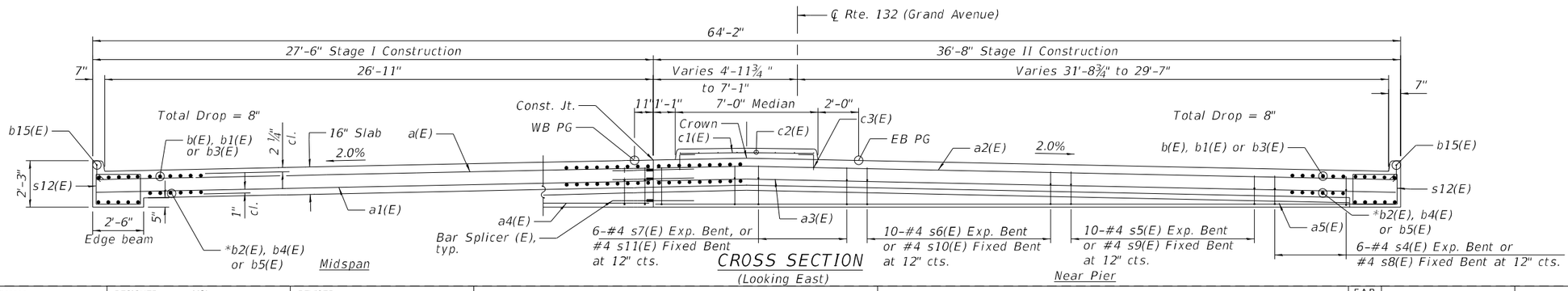
INTERIOR SPAN ELEVATION

Notes:
See sheet 14 of 39 for Curb Detail.
See sheet 20 of 39 for Expansion Bent Pile Cap Section, Fixed Bent Pile Cap Section, Abutment Bent Pile Cap Section, Median Section, Bar Diagrams and Bill of Materials.
Concrete Median: 3/4" dia. Galvanized expansion anchors or Ferrule Loop Slab Insert (Proof Load 6600 lb.) for c3(E) bars to be installed 3'-3" offset from ℄ concrete median at 12" cts. (134 Each side) during Stage II Construction. Bars c1(E), c2(E) and c3(E) to be installed with concrete median during Stage III Construction.



INTERIOR SPAN PLAN (UNIT 4)

* With 1'-0" lap splice, typ.



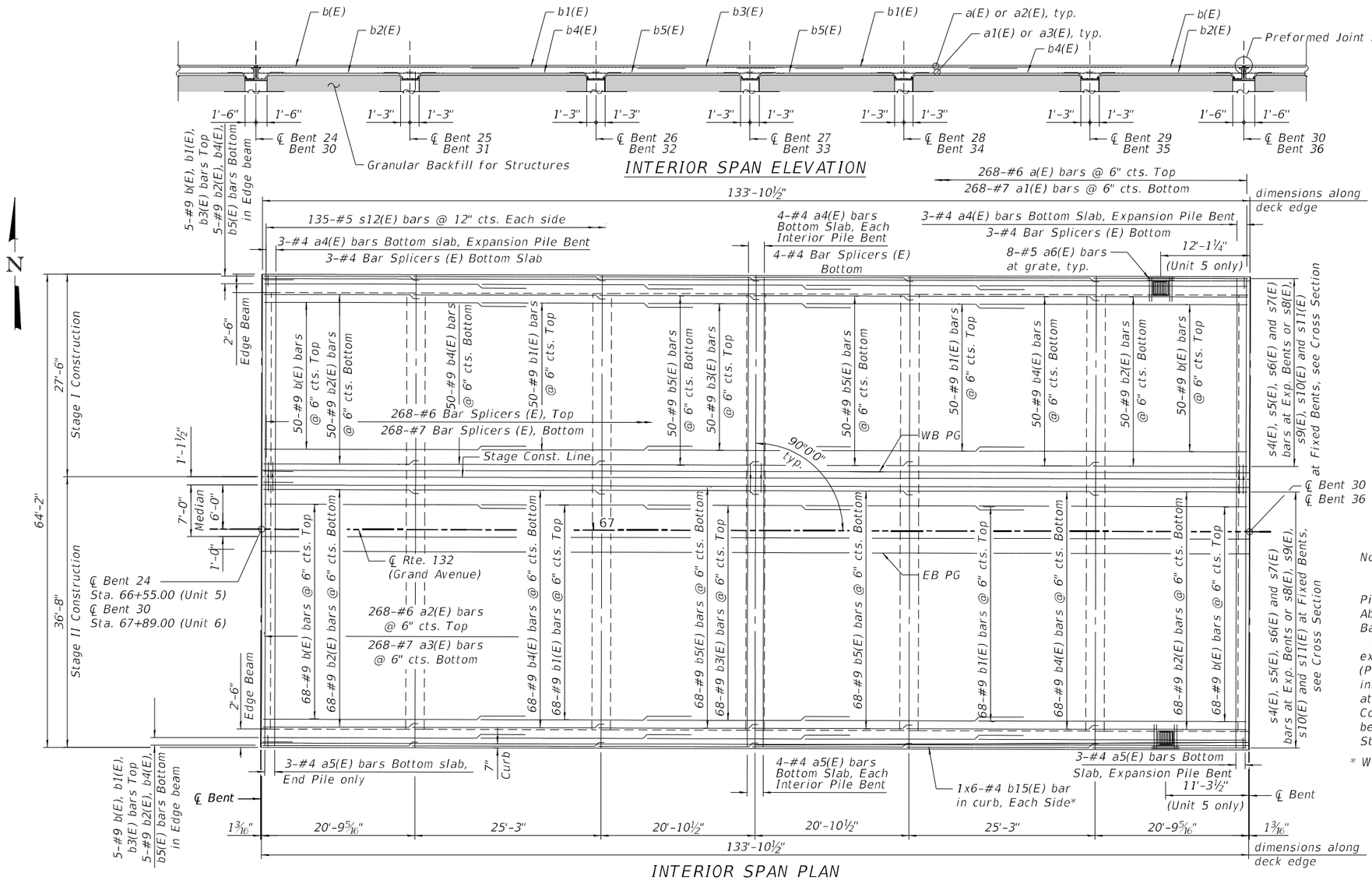
CROSS SECTION
(Looking East)

USER NAME = rhansen	DESIGNED - MSL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE - INTERIOR UNIT 4 STRUCTURE NO. 049-D030	SHEET 17 OF 39 SHEETS
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PLOT DATE = 3/30/21	CHECKED - TAH	REVISED -			

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	142
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

PATRICK ENGINEERING

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Notes:
See sheet 14 of 39 for Curb Detail.
See sheet 20 of 39 for Expansion Bent Pile Cap Section, Fixed Bent Pile Cap Section, Abutment Bent Pile Cap Section, Median Section, Bar Diagrams and Bill of Materials.
Concrete Median: 3/4" dia. Galvanized expansion anchors or Ferrule Loop Slab Insert (Proof Load 6600 lb.) for c3(E) bars to be installed 3'-3" offset from ℄ concrete median at 12" cts. (134 Each side) during Stage II Construction. Bars c1(E), c2(E) and c3(E) to be installed with concrete median during Stage III Construction.

* With 1'-0" lap splice, typ.

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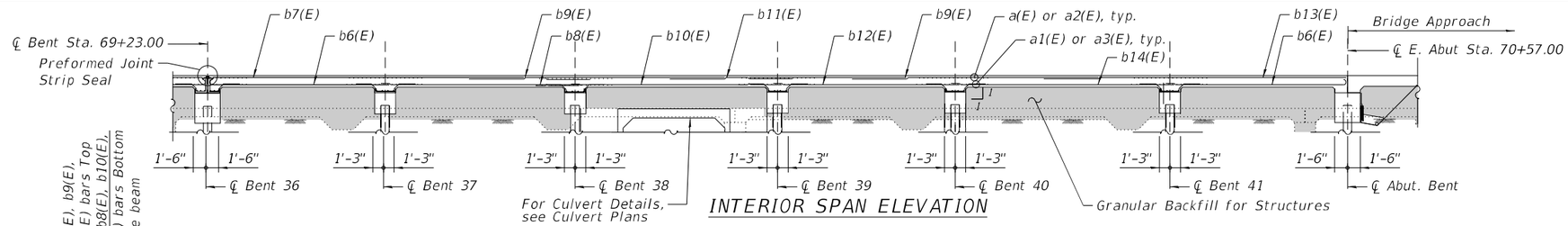
PATRICK ENGINEERING

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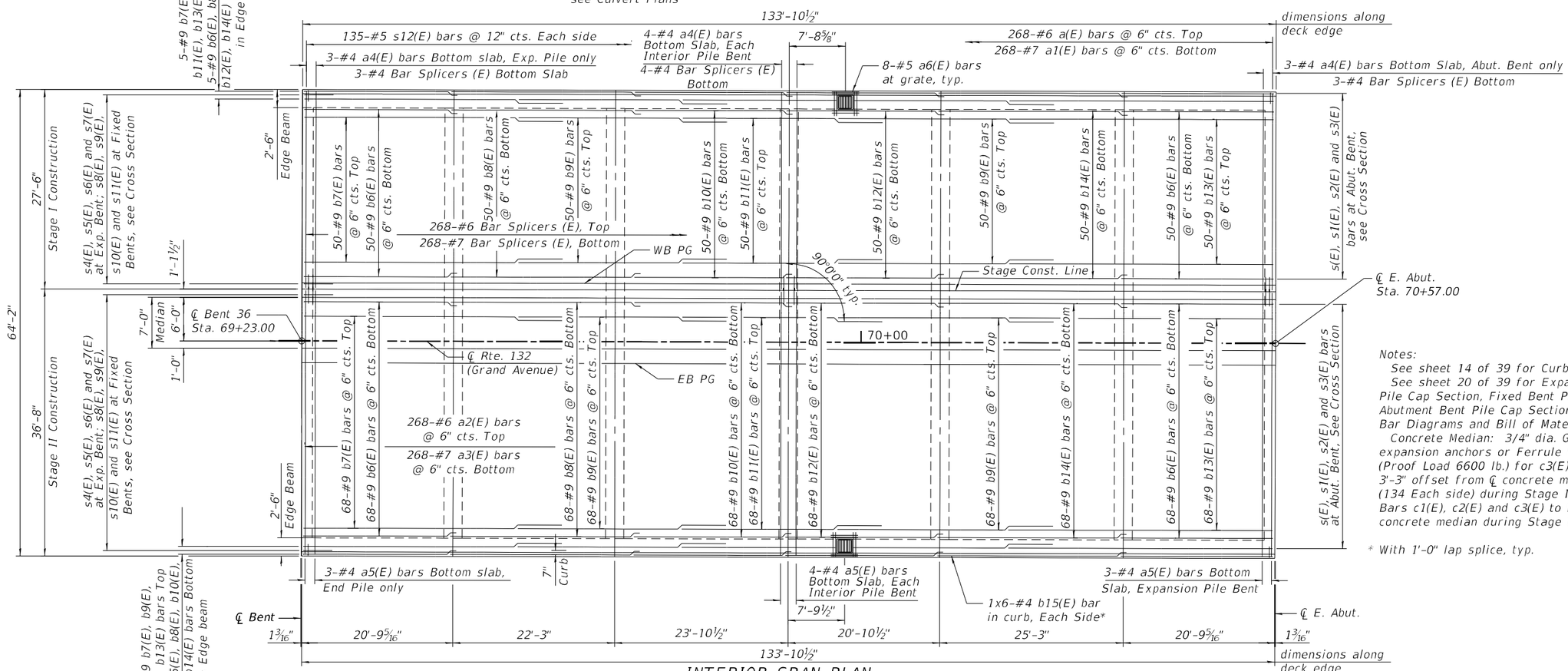
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE - INTERIOR UNITS 5 & 6
STRUCTURE NO. 049-D030
SHEET 18 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	143
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			

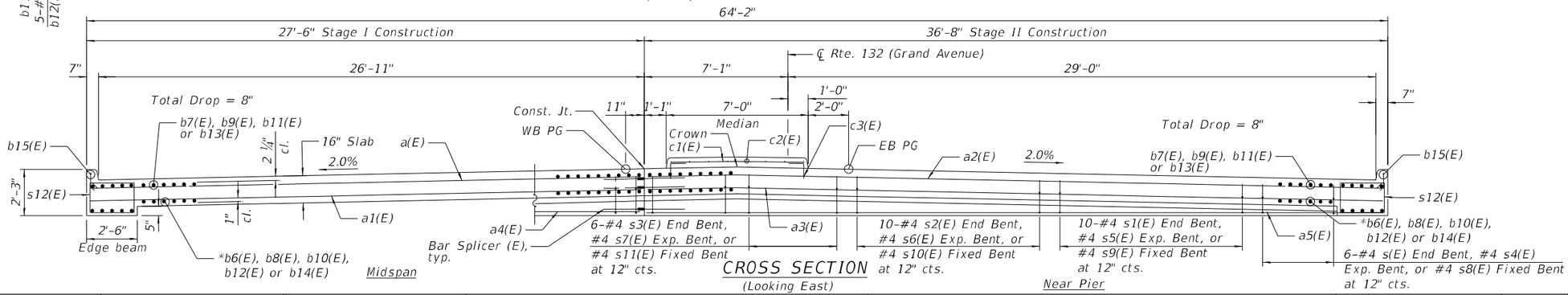


INTERIOR SPAN ELEVATION



INTERIOR SPAN PLAN

(Unit 7)



CROSS SECTION

(Looking East)

Notes:
See sheet 14 of 39 for Curb Detail.
See sheet 20 of 39 for Expansion Bent Pile Cap Section, Fixed Bent Pile Cap Section, Abutment Bent Pile Cap Section, Median Section, Bar Diagrams and Bill of Materials.
Concrete Median: 3/4" dia. Galvanized expansion anchors or Ferrule Loop Slab Insert (Proof Load 6600 lb.) for c3(E) bars to be installed 3'-3" offset from ℄ concrete median at 12" cts. (134 Each side) during Stage II Construction. Bars c1(E), c2(E) and c3(E) to be installed with concrete median during Stage III Construction.

* With 1'-0" lap splice, typ.

PATRICK ENGINEERING

USER NAME = rhansen	DESIGNED - MSL	REVISED -			
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PLOT DATE = 3/30/21	CHECKED - TAH	REVISED -			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE - END UNIT 7
STRUCTURE NO. 049-D030

SHEET 19 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	144
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

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SUPERSTRUCTURE BILL OF MATERIAL

(Unit 1)

Bar	No.	Size	Length	Shape
a(E)	268	#6	27'-8"	
a1(E)	268	#7	27'-2"	
a2(E)	268	#6	36'-10"	
a3(E)	268	#7	36'-1"	
a4(E)	26	#4	27'-2"	
a5(E)	26	#4	36'-4"	
b(E)	256	#9	37'-5"	
b1(E)	256	#9	29'-8"	
b2(E)	256	#9	26'-1"	
b3(E)	128	#9	27'-6"	
b4(E)	256	#9	31'-10"	
b5(E)	256	#9	27'-6"	
b15(E)	12	#4	24'-7"	
s(E)	12	#4	5'-6"	
s1(E)	20	#4	5'-7"	
s2(E)	20	#4	5'-11"	
s3(E)	12	#4	6'-1"	
s4(E)	12	#4	5'-5"	
s5(E)	20	#4	5'-6"	
s6(E)	20	#4	5'-10"	
s7(E)	12	#4	6'-0"	
s8(E)	60	#4	7'-10"	
s9(E)	100	#4	8'-2"	
s10(E)	100	#4	8'-6"	
s11(E)	60	#4	8'-10"	
s12(E)	270	#5	8'-3"	
Concrete Superstructure			Cu. Yd.	451.0
Reinforcement Bars, Epoxy Coated			Pound	211,210
Protective Coat			Sq. Yd.	956
Bridge Deck Grooving			Sq. Yd.	938

SUPERSTRUCTURE BILL OF MATERIAL

(Unit 2)

Bar	No.	Size	Length	Shape
a(E)	268	#6	27'-8"	
a1(E)	268	#7	27'-2"	
a2(E)	268	#6	36'-10"	
a3(E)	268	#7	36'-1"	
a4(E)	26	#4	27'-2"	
a5(E)	26	#4	36'-4"	
a6(E)	16	#5	4'-0"	
b(E)	256	#9	37'-5"	
b1(E)	256	#9	29'-8"	
b2(E)	256	#9	26'-1"	
b3(E)	128	#9	27'-6"	
b4(E)	256	#9	31'-10"	
b5(E)	256	#9	27'-6"	
b15(E)	12	#4	24'-7"	
s4(E)	24	#4	5'-5"	
s5(E)	40	#4	5'-6"	
s6(E)	40	#4	5'-10"	
s7(E)	24	#4	6'-0"	
s8(E)	60	#4	7'-10"	
s9(E)	100	#4	8'-2"	
s10(E)	100	#4	8'-6"	
s11(E)	60	#4	8'-10"	
s12(E)	270	#5	8'-3"	
Concrete Superstructure			Cu. Yd.	449
Reinforcement Bars, Epoxy Coated			Pound	211,273
Protective Coat			Sq. Yd.	956
Bridge Deck Grooving			Sq. Yd.	935

SUPERSTRUCTURE BILL OF MATERIAL

(Unit 3)

Bar	No.	Size	Length	Shape
a(E)	268	#6	27'-8"	
a1(E)	268	#7	27'-2"	
a2(E)	268	#6	36'-10"	
a3(E)	268	#7	36'-1"	
a4(E)	26	#4	27'-2"	
a5(E)	26	#4	36'-4"	
a6(E)	40	#5	4'-0"	
b(E)	256	#9	37'-5"	
b1(E)	256	#9	29'-8"	
b2(E)	256	#9	26'-1"	
b3(E)	128	#9	27'-6"	
b4(E)	256	#9	31'-10"	
b5(E)	256	#9	27'-6"	
b15(E)	12	#4	24'-7"	
s4(E)	24	#4	5'-5"	
s5(E)	40	#4	5'-6"	
s6(E)	40	#4	5'-10"	
s7(E)	24	#4	6'-0"	
s8(E)	60	#4	7'-10"	
s9(E)	100	#4	8'-2"	
s10(E)	100	#4	8'-6"	
s11(E)	60	#4	8'-10"	
s12(E)	270	#5	8'-3"	
Concrete Superstructure			Cu. Yd.	449
Reinforcement Bars, Epoxy Coated			Pound	211,373
Protective Coat			Sq. Yd.	956
Bridge Deck Grooving			Sq. Yd.	834

SUPERSTRUCTURE BILL OF MATERIAL

(Unit 4)

Bar	No.	Size	Length	Shape
a(E)	268	#6	27'-8"	
a1(E)	268	#7	27'-2"	
a2(E)	268	#6	36'-10"	
a3(E)	268	#7	36'-1"	
a4(E)	26	#4	27'-2"	
a5(E)	26	#4	36'-4"	
a6(E)	8	#5	4'-0"	
b(E)	256	#9	37'-5"	
b1(E)	256	#9	29'-8"	
b2(E)	256	#9	26'-1"	
b3(E)	128	#9	27'-6"	
b4(E)	256	#9	31'-10"	
b5(E)	256	#9	27'-6"	
b15(E)	12	#4	24'-7"	
s4(E)	24	#4	5'-5"	
s5(E)	40	#4	5'-6"	
s6(E)	40	#4	5'-10"	
s7(E)	24	#4	6'-0"	
s8(E)	60	#4	7'-10"	
s9(E)	100	#4	8'-2"	
s10(E)	100	#4	8'-6"	
s11(E)	60	#4	8'-10"	
s12(E)	270	#5	8'-3"	
Concrete Superstructure			Cu. Yd.	449
Reinforcement Bars, Epoxy Coated			Pound	211,240
Protective Coat			Sq. Yd.	956
Bridge Deck Grooving			Sq. Yd.	834

SUPERSTRUCTURE BILL OF MATERIAL

(Unit 5)

Bar	No.	Size	Length	Shape
a(E)	268	#6	27'-8"	
a1(E)	268	#7	27'-2"	
a2(E)	268	#6	36'-10"	
a3(E)	268	#7	36'-1"	
a4(E)	26	#4	27'-2"	
a5(E)	26	#4	36'-4"	
a6(E)	16	#5	4'-0"	
b(E)	256	#9	37'-5"	
b1(E)	256	#9	29'-8"	
b2(E)	256	#9	26'-1"	
b3(E)	128	#9	27'-6"	
b4(E)	256	#9	31'-10"	
b5(E)	256	#9	27'-6"	
b15(E)	12	#4	24'-7"	
s4(E)	24	#4	5'-5"	
s5(E)	40	#4	5'-6"	
s6(E)	40	#4	5'-10"	
s7(E)	24	#4	6'-0"	
s8(E)	60	#4	7'-10"	
s9(E)	100	#4	8'-2"	
s10(E)	100	#4	8'-6"	
s11(E)	60	#4	8'-10"	
s12(E)	270	#5	8'-3"	
Concrete Superstructure			Cu. Yd.	449
Reinforcement Bars, Epoxy Coated			Pound	211,273
Protective Coat			Sq. Yd.	956
Bridge Deck Grooving			Sq. Yd.	834

SUPERSTRUCTURE BILL OF MATERIAL

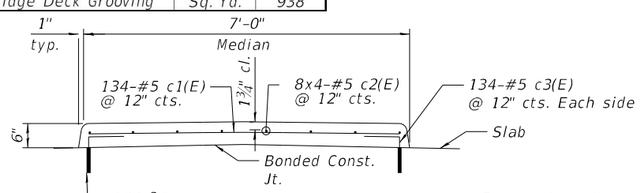
(Unit 6)

Bar	No.	Size	Length	Shape
a(E)	268	#6	27'-8"	
a1(E)	268	#7	27'-2"	
a2(E)	268	#6	36'-10"	
a3(E)	268	#7	36'-1"	
a4(E)	26	#4	27'-2"	
a5(E)	26	#4	36'-4"	
b(E)	256	#9	37'-5"	
b1(E)	256	#9	29'-8"	
b2(E)	256	#9	26'-1"	
b3(E)	128	#9	27'-6"	
b4(E)	256	#9	31'-10"	
b5(E)	256	#9	27'-6"	
b15(E)	12	#4	24'-7"	
s4(E)	24	#4	5'-5"	
s5(E)	40	#4	5'-6"	
s6(E)	40	#4	5'-10"	
s7(E)	24	#4	6'-0"	
s8(E)	60	#4	7'-10"	
s9(E)	100	#4	8'-2"	
s10(E)	100	#4	8'-6"	
s11(E)	60	#4	8'-10"	
s12(E)	270	#5	8'-3"	
Concrete Superstructure Reinforcement Bars, Epoxy Coated			Cu. Yd.	449
			Pound	211,206
Protective Coat			Sq. Yd.	956
Bridge Deck Grooving			Sq. Yd.	834

SUPERSTRUCTURE BILL OF MATERIAL

(Unit 7)

Bar	No.	Size	Length	Shape
a(E)	268	#6	27'-8"	
a1(E)	268	#7	27'-2"	
a2(E)	268	#6	36'-10"	
a3(E)	268	#7	36'-1"	
a4(E)	26	#4	27'-2"	
a5(E)	26	#4	36'-4"	
a6(E)	16	#5	4'-0"	
b6(E)	256	#9	25'-4"	
b7(E)	128	#9	35'-3"	
b8(E)	128	#9	28'-10"	
b9(E)	256	#9	29'-8"	
b10(E)	128	#9	30'-6"	
b11(E)	128	#9	29'-0"	
b12(E)	128	#9	27'-6"	
b13(E)	128	#9	36'-8"	
b14(E)	128	#9	31'-10"	
b15(E)	12	#4	24'-7"	
s(E)	12	#4	5'-6"	
s1(E)	20	#4	5'-7"	
s2(E)	20	#4	5'-11"	
s3(E)	12	#4	6'-1"	
s4(E)	12	#4	5'-5"	
s5(E)	20	#4	5'-6"	
s6(E)	20	#4	5'-10"	
s7(E)	12	#4	6'-0"	
s8(E)	60	#4	7'-10"	
s9(E)	100	#4	8'-2"	
s10(E)	100	#4	8'-6"	
s11(E)	60	#4	8'-10"	
s12(E)	270	#5	8'-3"	
Concrete Superstructure			Cu. Yd.	451
Reinforcement Bars, Epoxy Coated			Pound	210,007
Protective Coat			Sq. Yd.	956
Bridge Deck Grooving			Sq. Yd.	834



134-¾" dia. galvanized expansion anchors or Ferrule Loop Slab Insert (Proof Load 6600 lb.) @ 12" cts. Each side (Stage II Construction only). Cost of expansion anchors/inserts is included in the cost of Reinforcement Bars, Epoxy Coated.

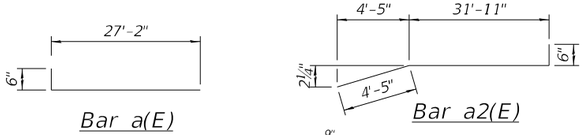
MEDIAN SECTION

(Units 2-7 Stage III Construction)

SUPERSTRUCTURE BILL OF MATERIAL

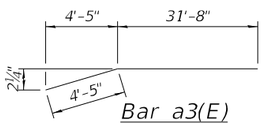
(Median - Stage III Construction)

Bar	No.	Size	Length	Shape
c1(E)	676	#5	6'-8"	
c2(E)	168	#5	30'-0"	
c3(E)	1353	#5	1'-3"	
Concrete Superstructure			Cu. Yd.	88
Reinforcement Bars, Epoxy Coated			Pound	11,722
Protective Coat			Sq. Yd.	605

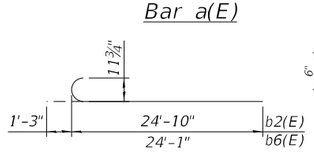


Bar a(E)

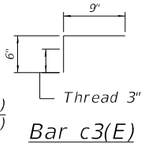
Bar a2(E)



Bar a3(E)

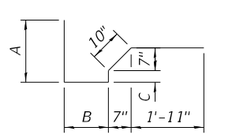


Bar b2(E) & b6(E)

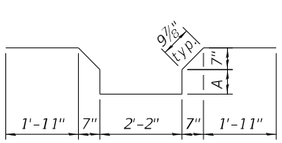


Bar c3(E)

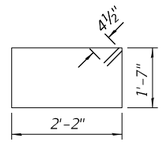
(in Median)



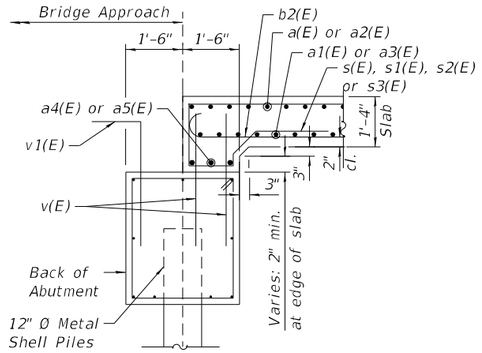
Bar	A	B	C
s(E)	1'-5"	1'-2"	2"
s1(E)	1'-5"	1'-2"	3"
s2(E)	1'-7"	1'-2"	5"
s3(E)	1'-7"	1'-2"	7"
s4(E)	1'-5"	1'-1"	2"
s5(E)	1'-5"	1'-1"	3"
s6(E)	1'-7"	1'-1"	5"
s7(E)	1'-7"	1'-1"	7"



Bar	A
s8(E)	1"
s9(E)	3"
s10(E)	5"
s11(E)	7"

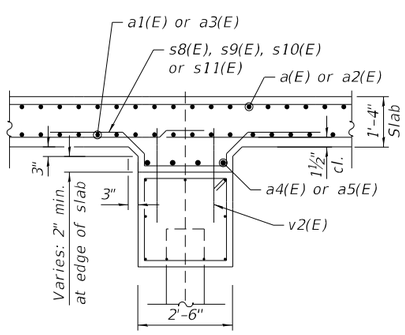


Bar s12(E)



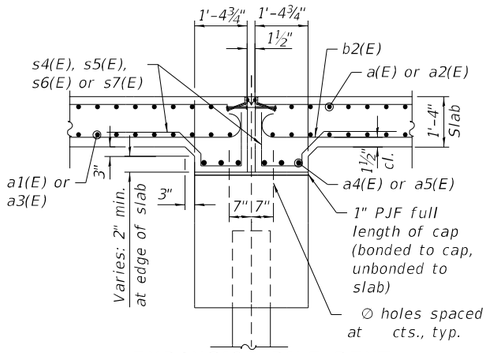
END PILE BENT CAP SECTION

(W. Abut. Bent shown, E. Abut. Bent similar)



INTERIOR FIXED PILE BENT CAP SECTION

(Bents 1-5, 7-11, 13-17, 19-23, 25-29, 31-35 and 37-41)



EXPANSION PILE BENT CAP SECTION

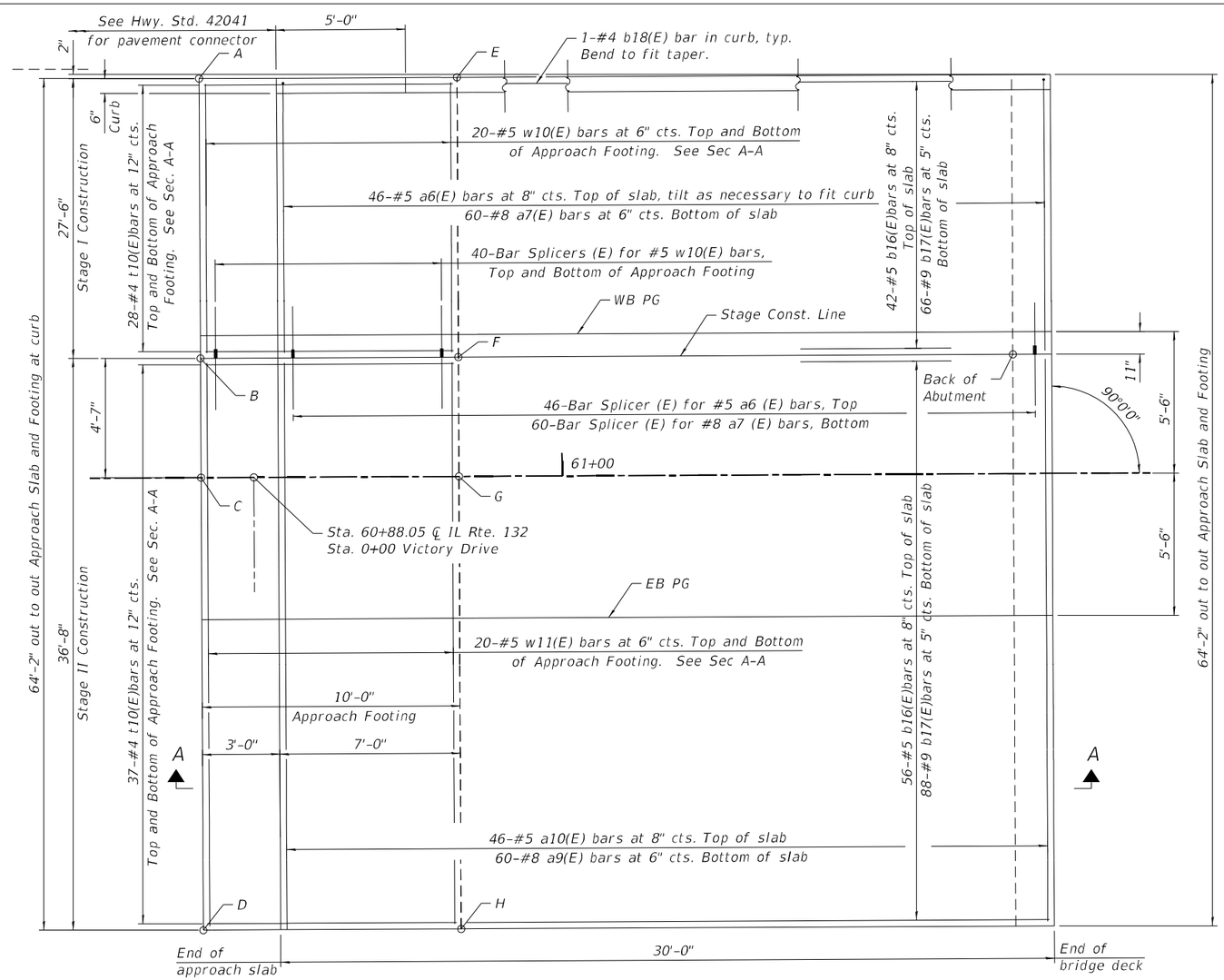
(Bents 6, 12. 18. 24. 30 and 36)

TYP. LAP SPLICE

Bar Size	Min. Lap
#4	2'-8"
#5	3'-4"
#9	6'-7"

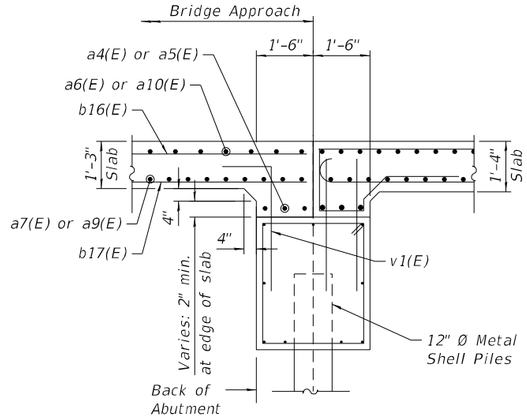
Bars indicated thus 1 x 6-#4 etc. indicates 1 line of bars with 6 lengths per line.

Note:
See Sheet 29 of 39 for Bar Splicer Details.



PLAN

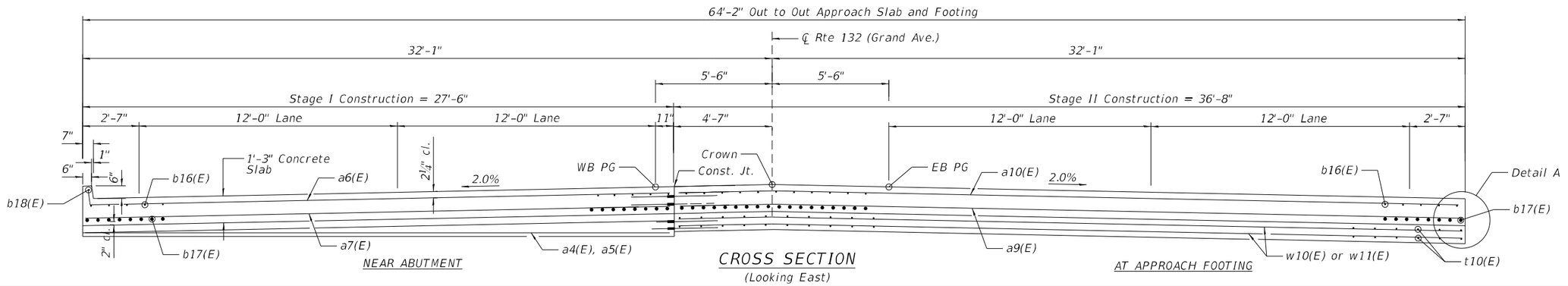
West Approach Slab



APPROACH SLAB SECTION
AT END PILE BENT

(W. Abut. Bent)

Note:
For Section A-A, Detail A, Bill of Materials and Bar Diagrams, see sheet 23 of 39.



NEAR ABUTMENT

CROSS SECTION

(Looking East)

AT APPROACH FOOTING

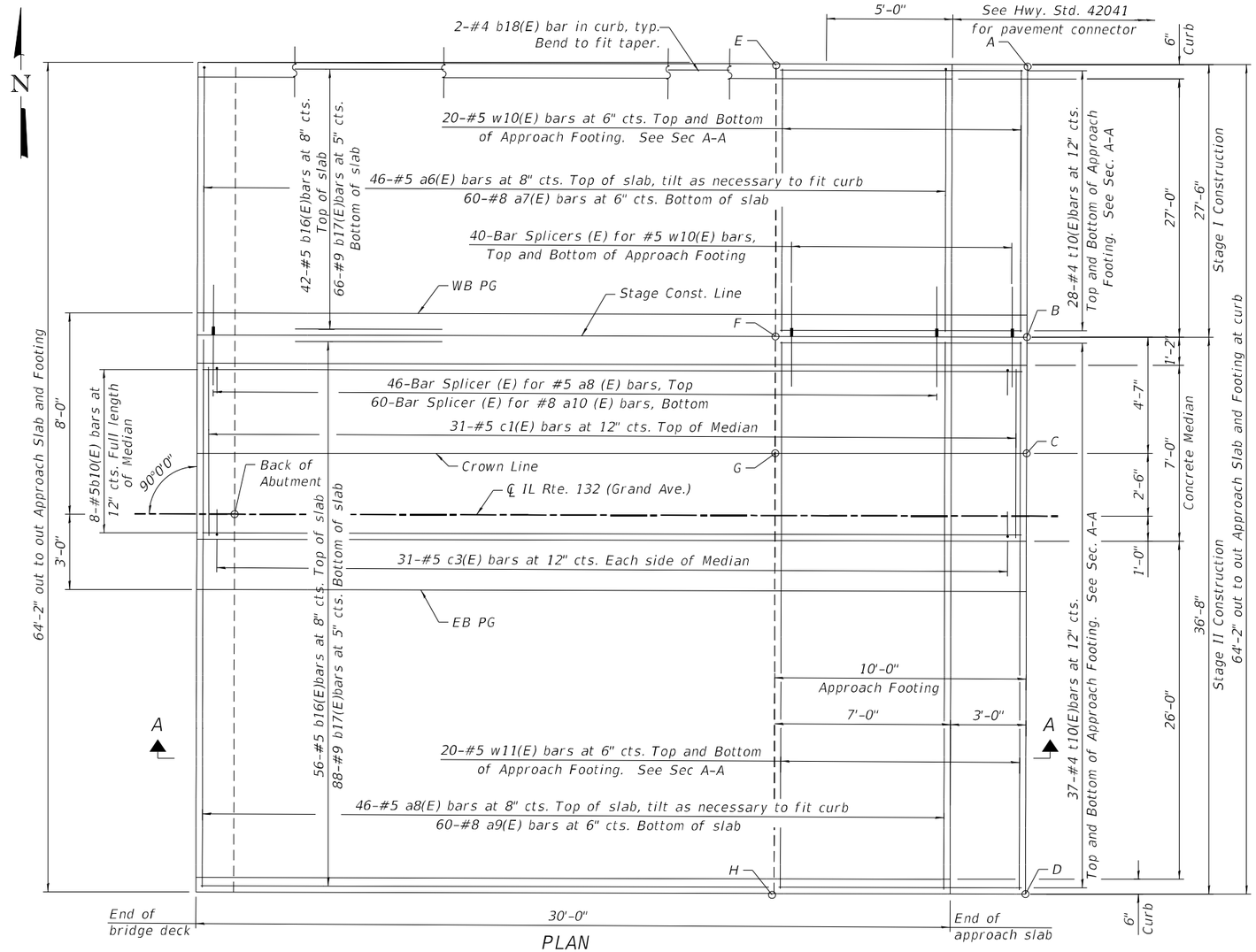
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	CHECKED - YC	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**STRUCTURE NO. 049-D030**	
PLOT SCALE = 5:4.0000 ':' / in.	DRAWN - RMH	REVISED -		SHEET 21 OF 39 SHEETS	
PLOT DATE = 3/30/21	CHECKED - TAH	REVISED -			

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	146
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

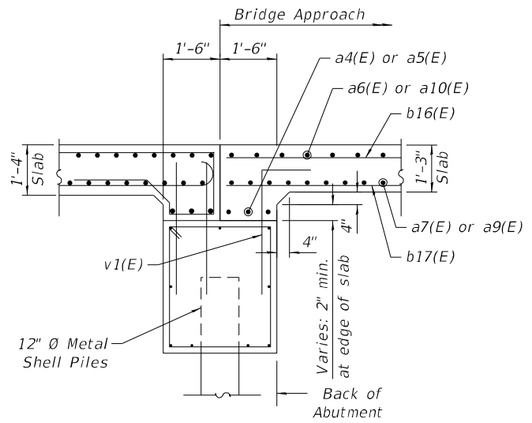
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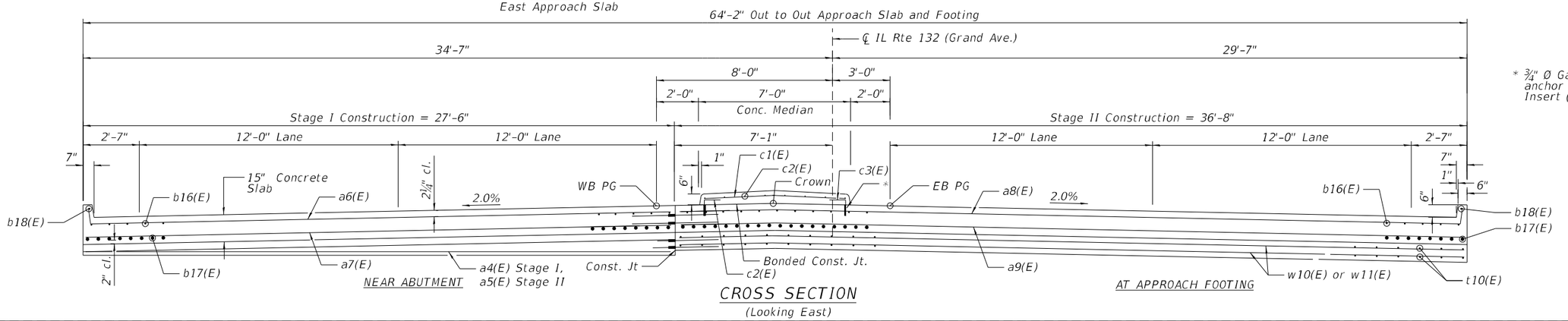


PLAN
East Approach Slab



APPROACH SLAB SECTION AT END PILE BENT
(E. Abut. Bent)

Note:
For Section thru End Pile Bent, see sheet 21 of 39.
For Section A-A, Bill of Materials and Bar Diagrams, see sheet 23 of 39.
Concrete Median: 3/4" dia. Galvanized expansion anchors or Ferrule Loop Slab Insert (Proof Load 6600 lb.) for c3(E) bars to be installed 3'-3" offset from ℄ concrete median at 12" cts. (31 Each side) during Stage II Construction. Bars c1(E), c2(E) and c3(E) to be installed with concrete median during Stage III Construction.



CROSS SECTION
(Looking East)

* ¾" Ø Galvanized expansion anchor or Ferrule Loop slab Insert (Proof Load 6600 lb.)

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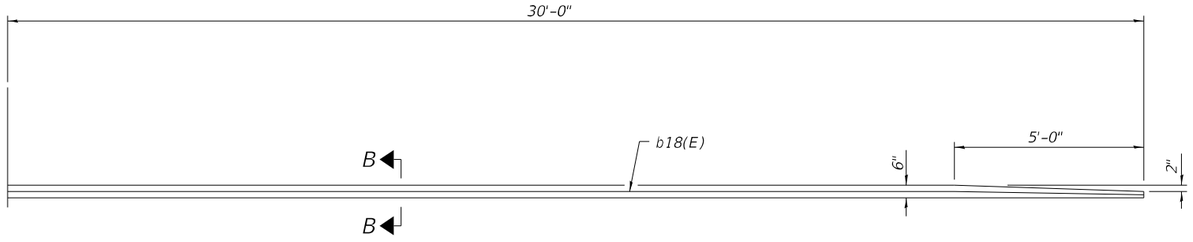
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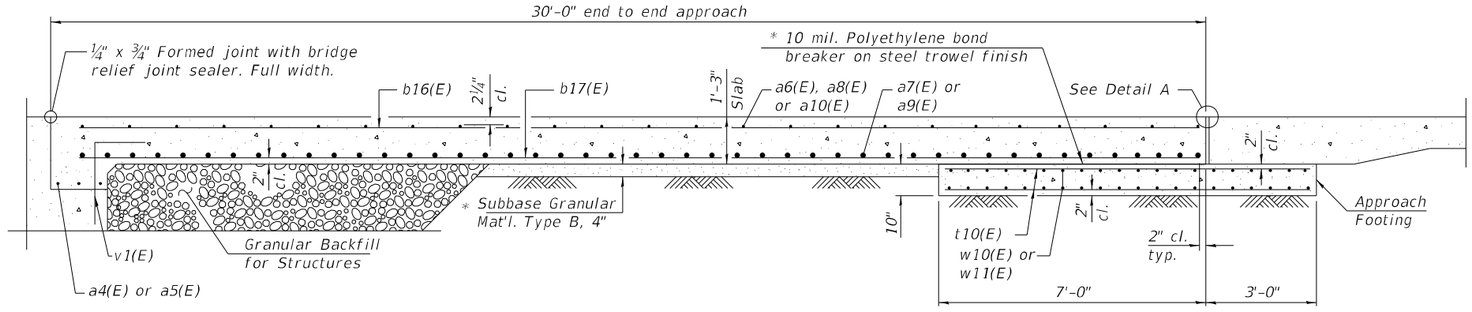
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS II
STRUCTURE NO. 049-D030
SHEET 22 OF 39 SHEETS

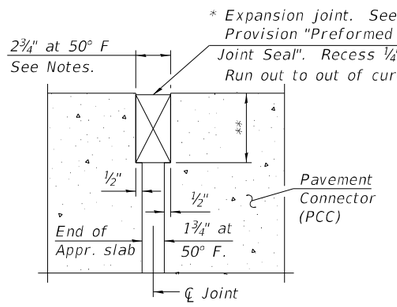
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		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		



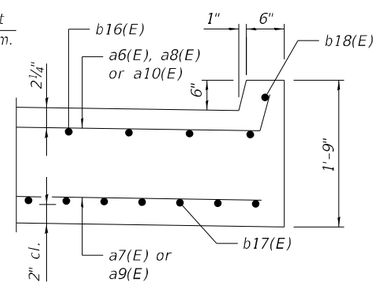
INSIDE ELEVATION OF CURB



SECTION A-A



DETAIL A



SECTION B-B

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill for Structures and drainage treatment details, see sheet 3 of 39.

BILL OF MATERIAL

(East Approach – Stage III Construction)

Bar	No.	Size	Length	Shape
c1(E)	31	#5	6'-8"	———
c2(E)	8	#5	29'-8"	———
c3(E)	62	#5	1'-3"	⌐
Concrete Superstructure			Cu. Yd.	4
Reinforcement Bars, Epoxy Coated			Pound	544
Protective Coat			Sq. Yd.	27

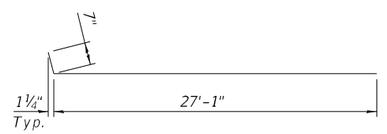
BILL OF MATERIAL

(West Approach Slab)

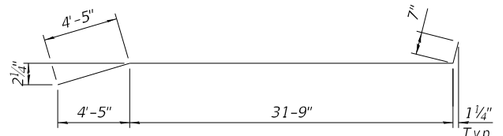
Bar	No.	Size	Length	Shape
a4(E)	3	#4	27'-2"	———
a5(E)	3	#4	36'-4"	———
a6(E)	46	#5	27'-8"	———
a7(E)	60	#8	27'-2"	———
a9(E)	60	#8	36'-4"	———
a10(E)	46	#5	36'-4"	———
b16(E)	98	#5	29'-8"	———
b17(E)	154	#9	29'-8"	———
b18(E)	1	#4	29'-8"	———
t10(E)	130	#4	9'-8"	———
w10(E)	40	#5	27'-2"	———
w11(E)	40	#5	36'-4"	———
Concrete Superstructure (Approach Slab)			Cu. Yd.	93
Concrete Structures			Cu. Yd.	20
Reinforcement Bars, Epoxy Coated			Pound	35,445
Protective Coat			Sq. Yd.	214
Bridge Deck Grooving			Sq. Yd.	212

TOP AND BOTTOM ELEVATIONS FOR APPRAOCH FOOTING

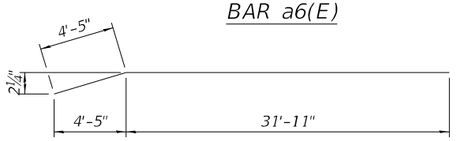
	West Approach		East Approach	
Location	Top	Bottom	Top	Bottom
A	781.24	780.41	777.17	776.34
B	781.79	780.96	777.72	776.89
C	781.89	781.05	777.81	776.98
D	781.24	780.41	777.17	776.34
E	780.85	780.02	777.22	776.39
F	781.40	780.57	777.77	776.94
G	781.49	780.66	777.86	777.03
H	780.85	780.02	777.22	776.39



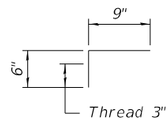
BAR a6(E)



BAR a8(E)



BARS a9(E), a10(E)



BAR c3(E)

(in Median)

BILL OF MATERIAL

(East Approach Slab)

Bar	No.	Size	Length	Shape
a4(E)	3	#4	27'-2"	———
a5(E)	3	#4	36'-4"	———
a6(E)	46	#5	27'-8"	———
a7(E)	60	#8	27'-2"	———
a8(E)	46	#5	36'-11"	———
a9(E)	60	#8	36'-4"	———
b16(E)	98	#5	29'-8"	———
b17(E)	154	#9	29'-8"	———
b18(E)	2	#4	29'-8"	———
t10(E)	130	#4	9'-8"	———
w10(E)	40	#5	27'-2"	———
w11(E)	40	#5	36'-4"	———
Concrete Superstructure (Approach Slab)			Cu. Yd.	93
Concrete Structures			Cu. Yd.	20
Reinforcement Bars, Epoxy Coated			Pound	35,493
Protective Coat			Sq. Yd.	214
Bridge Deck Grooving			Sq. Yd.	187

Notes:

For Bar Splicer Details, see sheet 29 of 39.

For v1(E) Bar Detail, see sheet 27 of 39.

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PATRICK ENGINEERING

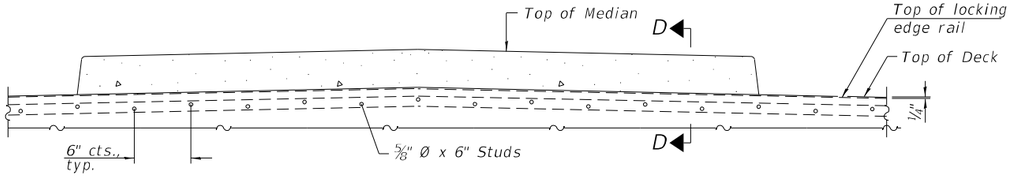
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS III
STRUCTURE NO. 049-D030

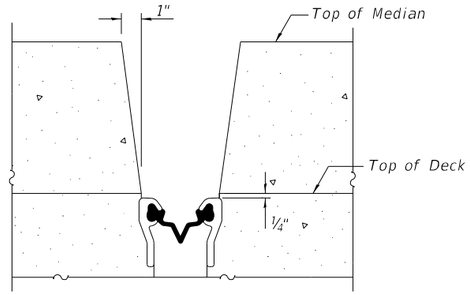
SHEET 23 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	148
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			



ELEVATION AT MEDIAN

For skews > 30°, chamfer acute corners 2" similar to sidewalk.



SECTION D-D

(at Rt. ∠'s)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

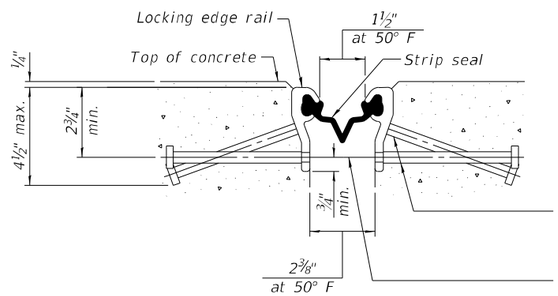
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

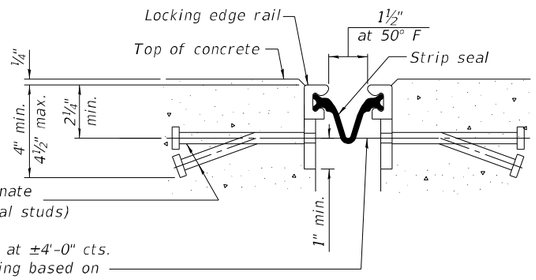
Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

34" F-shape barrier shown, 42" F-shape similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



SHOWING ROLLED RAIL JOINT



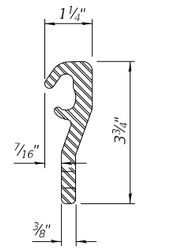
SHOWING WELDED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

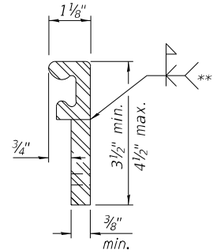
⅜" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



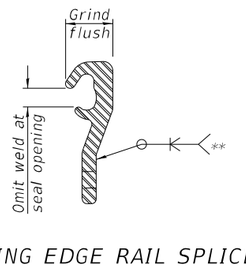
ROLLED (EXTRUDED) RAIL



WELDED RAIL

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	385

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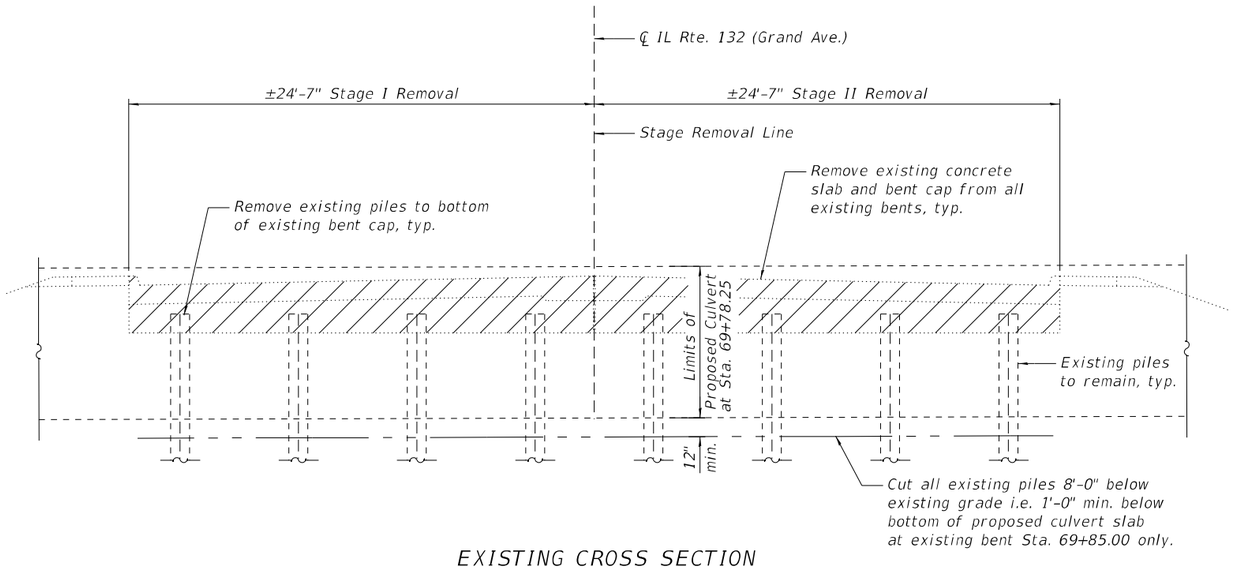
PATRICK ENGINEERING

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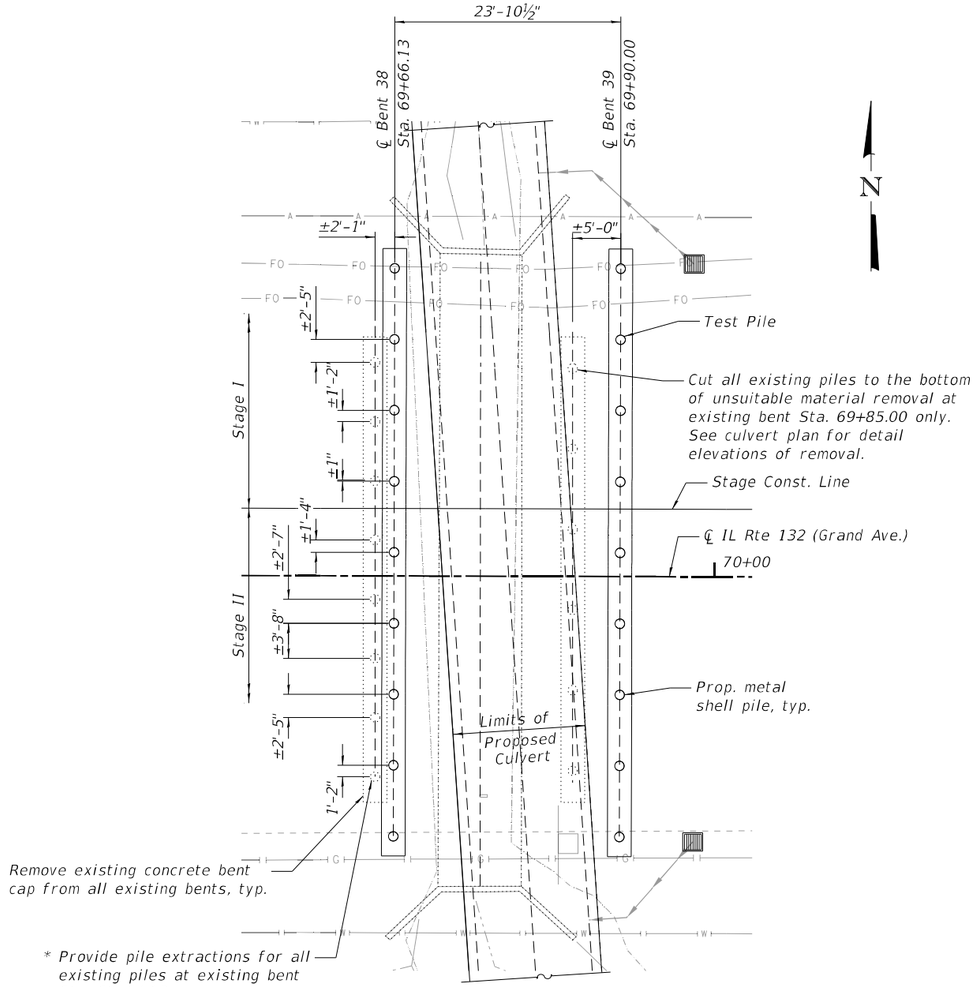
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 049-D030
SHEET 24 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	149
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		



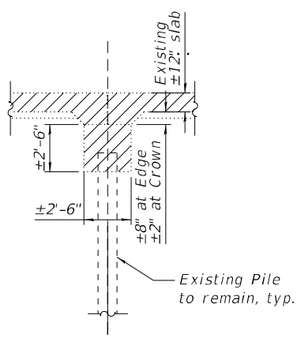
EXISTING CROSS SECTION



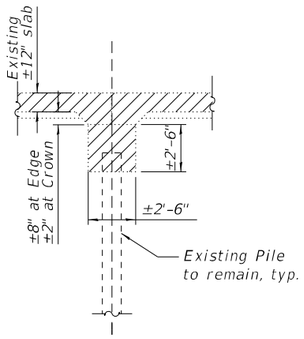
ENLARGED PILE PLAN

** Contractor to field verify existing pile clearances between proposed pile locations. Contractor to notify Structural Engineer if there are conflicts between an existing pile and a proposed pile prior to any existing pile extraction.*

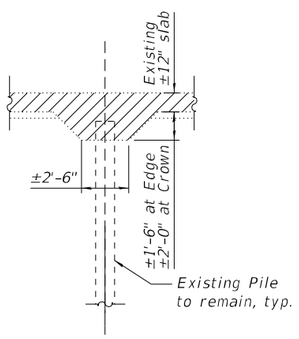
Metal shell piles at bent 38 and 39 need to be installed after the backfilling of culvert construction. See culvert plan for detail.



EXISTING END BENT



EXISTING EXPANSION BENT



EXISTING FIXED BENT

Dimensions of existing structures are approximate.

BILL OF MATERIAL

Item	Unit	Total
Pile Extraction	Each	8

Notes:

Piles shall be driven before placement of Granular Backfill for Structures except bents 38 and 39.

For Bent Pile data, see sheet 27 of 39.

Hatched areas indicate Removal Of Existing Structures.

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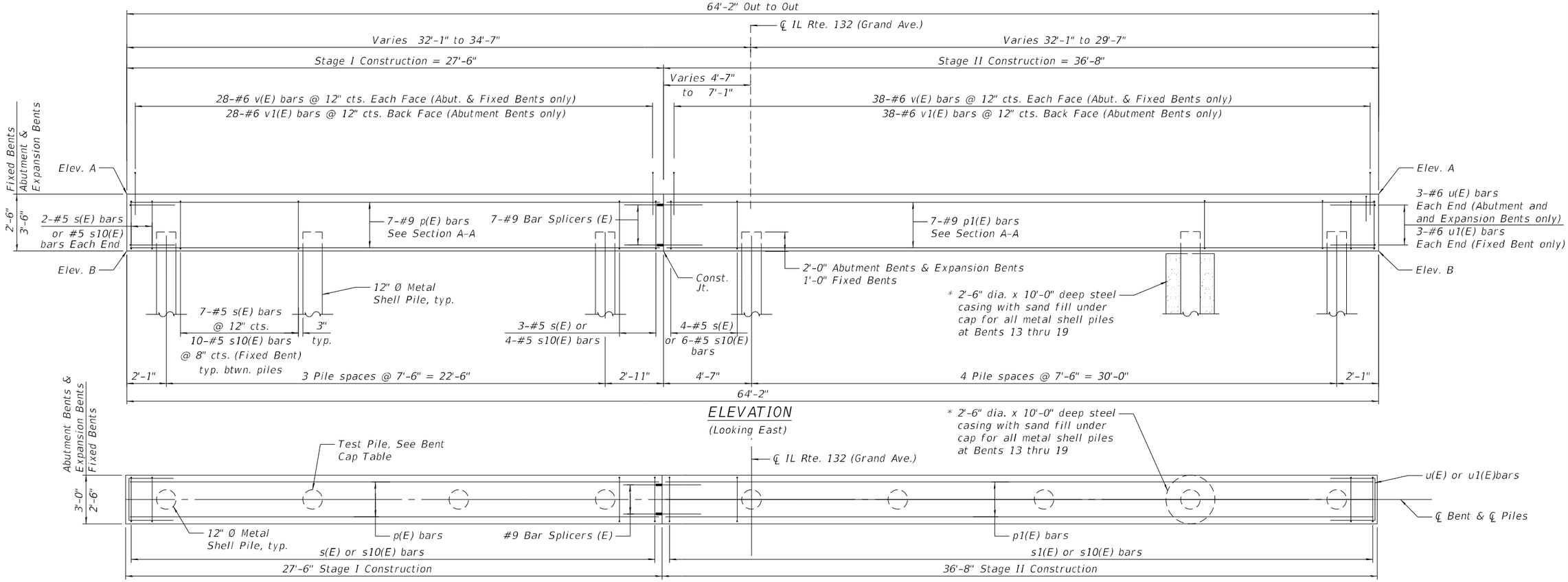
PATRICK ENGINEERING

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PLOT DATE = 3/30/21	CHECKED - TAH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BENT REMOVAL
STRUCTURE NO. 049-D030
SHEET 25 OF 39 SHEETS

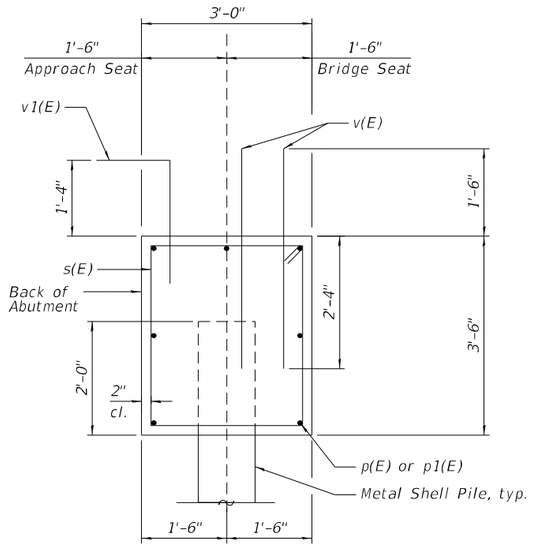
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	150
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			



ELEVATION

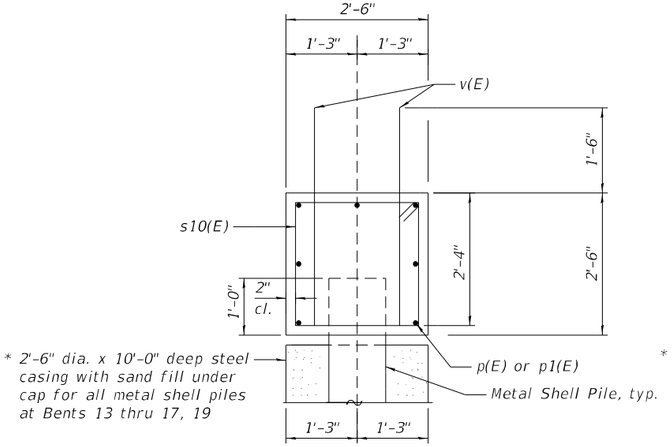
(Looking East)

PLAN



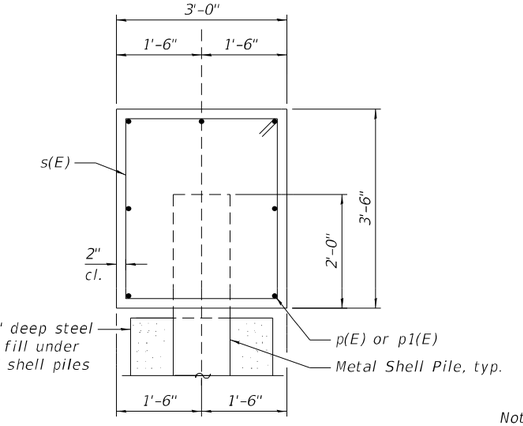
SECTION A-A THRU ABUTMENT BENT

(W. Abut. shown, E. Abut. similar)



SECTION A-A THRU FIXED BENT

(Bents 1-5, 7-11, 13-17, 19-23, 25-29, 31-35, and 37-41)



SECTION A-A THRU EXPANSION BENT

(Bents 6, 12, 18, 24, 30, and 36)

* For piles with Steel casing, the gap between Steel casing and pile shall be filled with sand.

Notes:
For Bent Bill of Materials, Bar Diagrams, Pile Data and Bent Cap Table, see sheet 27 of 39.
For Metal Shell Pile Details, see sheet 28 of 39.
For Bar Splicer Details, see sheet 29 of 39.

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PATRICK ENGINEERING

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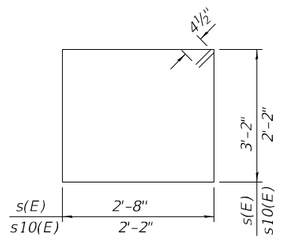
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	151
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

Note:
℄ Bents are perpendicular to WB PG from ℄ IL Rte. 132.

BENT AND PILE DATA

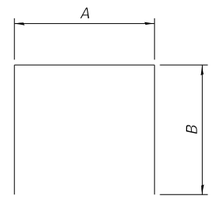
Bent Cap Table							Pile Load Table (Kips)			Pile Data Table				Pile Bill Of Material				
			PGL	Edge of Curb	Top of Bent	Bottom of Bent	Factored Pile Load	Factored Resistance Available	Nominal Required Bearing	Pile Length		Stage 1	Stage 2	Test Pile	Furnishing Metal Shells	Driving Piles	Steel Casing 30"
Type	Location	Station	Top of Deck	Top of Deck	Point A	Point B				Stage 1	Stage 2	4 piles	5 piles	Stage 1	12" dia x 0.250"		
			(ft)	(ft)	(ft)	(ft)	(kips)	(kips)	(kips)	(ft)	(ft)	(ft)	(ft)		(ft)	(ft)	(ft)
fixed	CL of W Abut	61+19.00	781.78	781.26	779.51	776.01	137	216	352	57	57	171	285	1	456	456	
fixed	Bent 1	61+39.88	781.06	780.54	778.79	776.29	166	216	352	57	57	228	285		513	513	
fixed	Bent 2	61+65.13	780.27	779.75	778.00	775.50	157	216	352	57	57	228	285		513	513	
fixed	Bent 3	61+86.00	779.68	779.16	777.41	774.91	141	216	352	57	57	171	285	1	456	456	
fixed	Bent 4	62+06.88	779.14	778.62	776.87	774.37	157	165	352	72	72	288	360		648	648	
fixed	Bent 5	62+32.13	778.56	778.04	776.29	773.79	165	165	352	72	72	288	360		648	648	
exp	Bent 6	62+53.00	778.14	777.62	775.79	772.29	118	165	352	72	72	216	360	1	576	576	
fixed	Bent 7	62+73.88	777.78	777.26	775.51	773.01	165	165	352	72	72	288	360		648	648	
fixed	Bent 8	62+99.13	777.41	776.89	775.14	772.64	157	165	352	72	72	288	360		648	648	
fixed	Bent 9	63+20.00	777.17	776.65	774.90	772.40	141	165	352	72	72	216	360	1	576	576	
fixed	Bent 10	63+40.88	776.98	776.46	774.71	772.21	157	165	352	72	72	288	360		648	648	
fixed	Bent 11	63+66.13	776.78	776.26	774.51	772.01	165	165	352	72	72	288	360		648	648	
exp	Bent 12	63+87.00	776.62	776.10	774.27	770.77	118	165	352	72	72	216	360	1	576	576	
fixed	Bent 13	64+07.88	776.46	775.94	774.19	771.69	166	172	352	82	82	328	410		738	738	90
fixed	Bent 14	64+33.13	776.31	775.79	774.04	771.54	157	172	352	82	82	328	410		738	738	90
fixed	Bent 15	64+54.00	776.22	775.70	773.95	771.45	141	172	352	82	82	246	410	1	656	656	90
fixed	Bent 16	64+74.88	776.17	775.65	773.90	771.40	157	172	352	82	82	328	410		738	738	90
fixed	Bent 17	65+00.13	776.16	775.64	773.89	771.39	166	172	352	82	82	328	410		738	738	90
exp	Bent 18	65+21.00	776.19	775.67	773.84	770.34	118	172	352	82	82	246	410	1	656	656	90
fixed	Bent 19	65+41.88	776.26	775.74	773.99	771.49	166	172	352	82	82	328	410		738	738	90
fixed	Bent 20	65+67.13	776.39	775.87	774.12	771.62	157	183	352	73	73	292	365		657	657	
fixed	Bent 21	65+88.00	776.49	775.97	774.22	771.72	141	183	352	73	73	219	365	1	584	584	
fixed	Bent 22	66+08.88	776.59	776.07	774.32	771.82	157	183	352	73	73	292	365		657	657	
fixed	Bent 23	66+34.13	776.72	776.20	774.45	771.95	166	183	352	73	73	292	365		657	657	
exp	Bent 24	66+55.00	776.83	776.31	774.47	770.97	118	198	352	71	71	213	355	1	568	568	
fixed	Bent 25	66+75.88	776.93	776.41	774.66	772.16	166	198	352	71	71	284	355		639	639	
fixed	Bent 26	67+01.13	777.06	776.54	774.79	772.29	157	198	352	71	71	284	355		639	639	
fixed	Bent 27	67+22.00	777.16	776.64	774.89	772.39	141	198	352	71	71	213	355	1	568	568	
fixed	Bent 28	67+42.88	777.26	776.74	774.99	772.49	157	198	352	71	71	284	355		639	639	
fixed	Bent 29	67+68.13	777.39	776.87	775.12	772.62	166	198	352	71	71	284	355		639	639	
exp	Bent 30	67+89.00	777.50	776.98	775.14	771.64	118	198	352	71	71	213	355	1	568	568	
fixed	Bent 31	68+09.88	777.60	777.08	775.33	772.83	166	198	352	71	71	284	355		639	639	
fixed	Bent 32	68+35.13	777.73	777.21	775.46	772.96	157	198	352	71	71	284	355		639	639	
fixed	Bent 33	68+56.00	777.83	777.31	775.56	773.06	141	188	352	81	81	243	405	1	648	648	
fixed	Bent 34	68+76.88	777.93	777.41	775.66	773.16	157	188	352	81	81	324	405		729	729	
fixed	Bent 35	69+02.13	778.06	777.54	775.79	773.29	166	188	352	81	81	324	405		729	729	
exp	Bent 36	69+23.00	778.17	777.65	775.81	772.31	118	188	352	81	81	243	405	1	648	648	
fixed	Bent 37	69+43.88	778.27	777.75	776.00	773.50	166	188	352	81	81	324	405		729	729	
fixed	Bent 38	69+66.13	778.38	777.86	776.11	773.61	157	196	352	82	82	246	410	1*	656	656	
fixed	Bent 39	69+90.00	778.50	777.98	776.23	773.73	141	196	352	75	75	225	375	1	600	600	
fixed	Bent 40	70+10.88	778.60	778.08	776.33	773.83	157	216	352	61	61	244	305		549	549	
fixed	Bent 41	70+36.13	778.73	778.21	776.46	773.96	166	216	352	61	61	244	305		549	549	
fixed	CL of E Abut	70+57.00	778.84	778.32	776.57	774.07	137	216	352	61	61	183	305	1	488	488	
													Total	16	26974	26974	630

* Test pile at bent 38 is in Stage II.

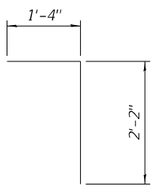


Bars s(E), s10(E)

Bar	A	B
u(E)	2'-8"	2'-11"
u1(E)	2'-2"	2'-11"



Bars u(E), u1(E)



Bar v1(E)

ABUTMENT BENT BILL OF MATERIAL

(2 Required)

Bar	No	Size	Length	Shape
p(E)	14	#9	27'-2"	———
p1(E)	14	#9	36'-4"	———
s(E)	120	#5	12'-5"	☐
u(E)	12	#6	8'-6"	⊓
v(E)	264	#6	3'-10"	———
v1(E)	132	#6	3'-6"	⌝
Concrete Structures			Cu. Yd.	50
Reinforcement Bars, Epoxy Coated			Pound	6,944
Structure Excavation			Cu. Yd.	90

FIXED BENT BILL OF MATERIAL

(35 Required)

Bar	No	Size	Length	Shape
p(E)	245	#9	27'-2"	———
p1(E)	245	#9	36'-4"	———
s10(E)	2940	#5	9'-5"	☐
u1(E)	210	#6	8'-0"	⊓
v(E)	4620	#6	3'-10"	———
Concrete Structures			Cu. Yd.	522
Reinforcement Bars, Epoxy Coated			Pound	110,895
Structure Excavation			Cu. Yd.	1,102

EXPANSION BENT BILL OF MATERIAL

(6 Required)

Bar	No	Size	Length	Shape
p(E)	42	#9	27'-2"	———
p1(E)	42	#9	36'-4"	———
s(E)	360	#5	12'-5"	☐
u(E)	36	#6	8'-6"	⊓
Concrete Structures			Cu. Yd.	150
Reinforcement Bars, Epoxy Coated			Pound	14,190
Structure Excavation			Cu. Yd.	257

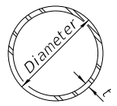
Bars indicated thus 1 x -#4 etc. indicates 1 line of bars with lengths per line.

Notes:
For Bar Splicer Details, see Sheet 29 of 39.
For Steel Pile Casing Details, See Sheet 28 of 39.

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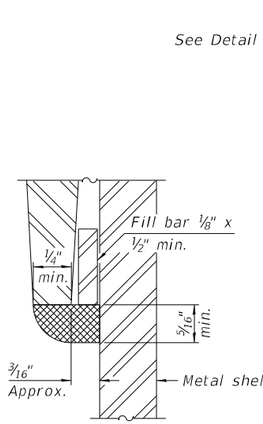
PATRICK ENGINEERING

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					SHEET NO. 152
					CONTRACT NO. 62D86
					ILLINOIS FED. AID PROJECT

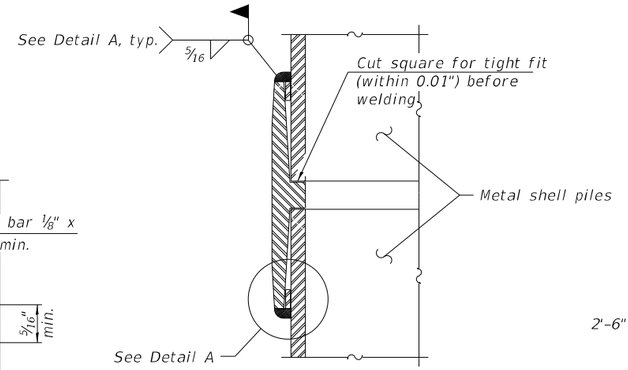


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd.³/ft.)
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470

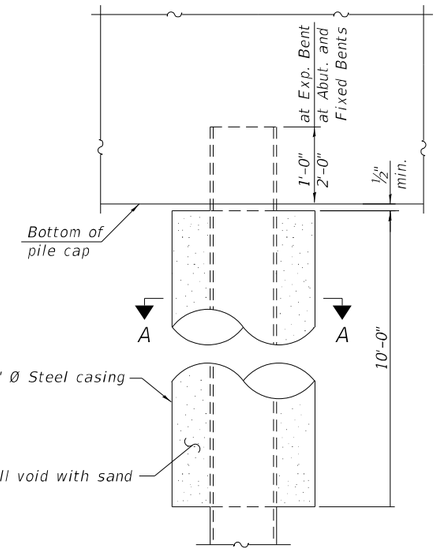


DETAIL A

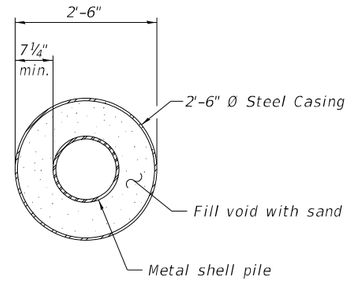


WELDED COMMERCIAL SPLICE

Notes:
The ⅛" x ½" min. fill bar may be constructed of 2 bars with a ⅛" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

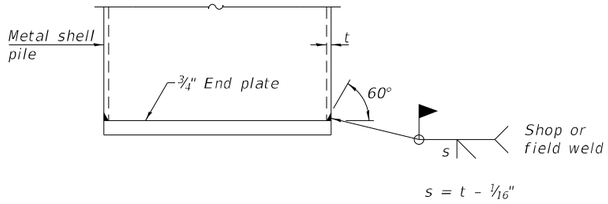


ELEVATION



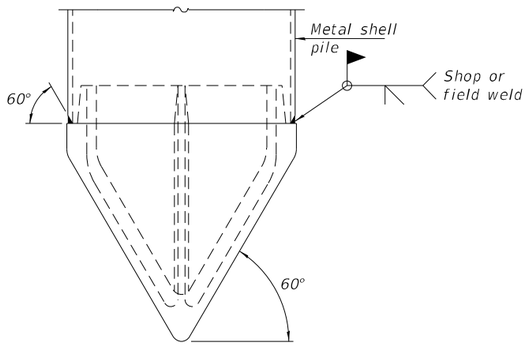
SECTION A-A

INDIVIDUAL PILE ENCASEMENT AT BENTS



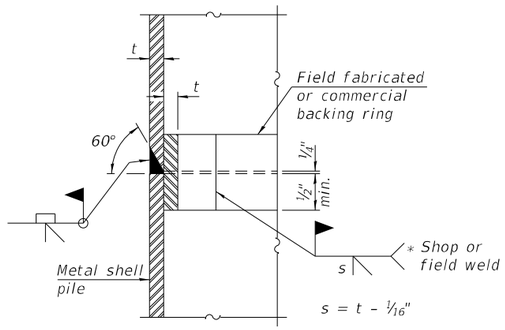
s = t - 1/16"

END PLATE ATTACHMENT



PILE SHOE ATTACHMENT

(When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld).



s = t - 1/16"

COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

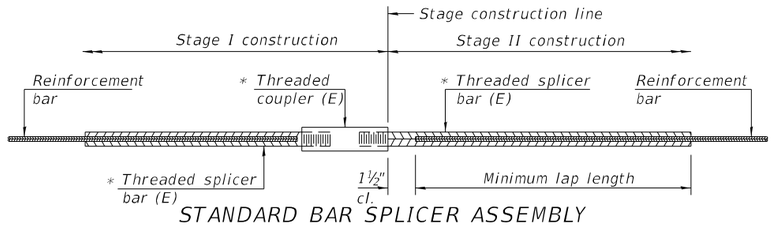
Note:
The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.

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PATRICK ENGINEERING

USER NAME = bwitort	DESIGNED - TAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	METAL SHELL PILE DETAILS STRUCTURE NO. 049-D030
	CHECKED - YC	REVISED -		
PLOT SCALE = 0:2.0000 ':' / in.	DRAWN - RMH	REVISED -		
PLOT DATE = 3/30/21	CHECKED - TAH	REVISED -		SHEET 28 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	153
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

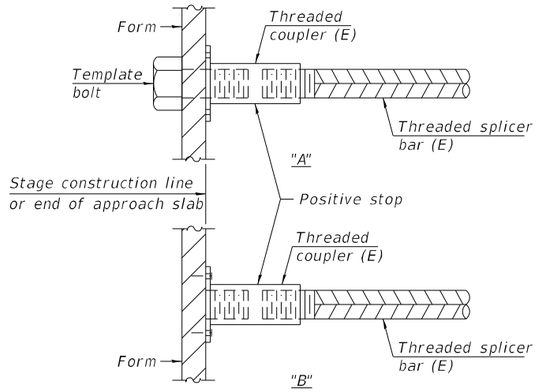


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1½" + thread length

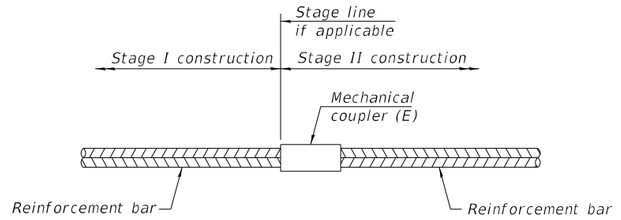
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location		Bar Size	No. assemblies required	Minumum lap length
Superstructure – End Unit 1				
top	a(E)	#6	268	3'-7"
bottom	a1(E)	#7	268	6'-3"
haunch	a4(E)	#4	26	2'-5"
Superstructure – Interior Unit 2				
top	a(E)	#6	268	3'-7"
bottom	a1(E)	#7	268	6'-3"
haunch	a4(E)	#4	26	2'-5"
Superstructure – Interior Unit 3				
top	a(E)	#6	268	3'-7"
bottom	a1(E)	#7	268	6'-3"
haunch	a4(E)	#4	26	2'-5"
Superstructure – Interior Unit 4				
top	a(E)	#6	268	3'-7"
bottom	a1(E)	#7	268	6'-3"
haunch	a4(E)	#4	26	2'-5"
Superstructure – Interior Unit 5				
top	a(E)	#6	268	3'-7"
bottom	a1(E)	#7	268	6'-3"
haunch	a4(E)	#4	26	2'-5"
Superstructure – Interior Unit 6				
top	a(E)	#6	268	3'-7"
bottom	a1(E)	#7	268	6'-3"
haunch	a4(E)	#4	26	2'-5"
Superstructure – End Unit 7				
top	a(E)	#6	268	3'-7"
bottom	a1(E)	#7	268	6'-3"
haunch	a4(E)	#4	26	2'-5"
Approach Slab – West				
top	a6(E)	#5	46	3'-0"
bottom	a7(E)	#8	60	7'-10"
haunch	a4(E)	#4	3	2'-5"
footing	w10(E)	#5	40	3'-0"
Approach Slab – East				
top	a6(E)	#5	46	3'-0"
bottom	a7(E)	#8	60	7'-10"
haunch	a4(E)	#4	3	2'-5"
footing	w10(E)	#5	40	3'-0"
Abutments- East and West				
cap	p(E)	#9	14	9'-7"
Fixed Bents				
cap	p(E)	#9	245	9'-7"
Expansion Bents				
cap	p(E)	#9	42	9'-7"
		Total =	4533	



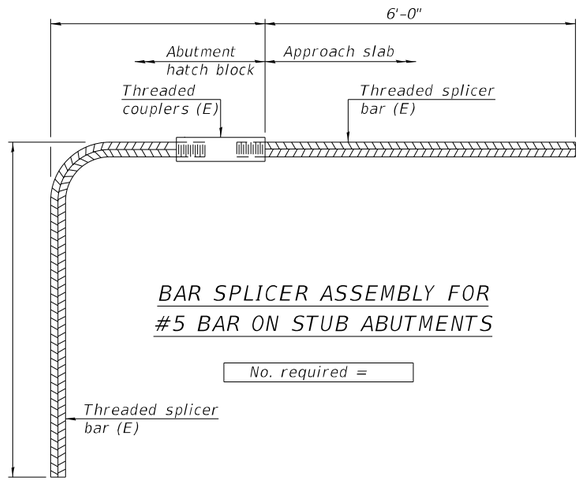
INSTALLATION AND SETTING METHODS

"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



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. 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.

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PATRICK ENGINEERING

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PLOT DATE = 3/30/21		CHECKED - TAH		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 049-D030
SHEET 29 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	154
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 1 of 3
Date 10/27/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION SW 1/4, SEC. 34, TWP. T46N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-01
Station 61+14
Offset 32.00ft Left
Ground Surface Elev. 781.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 763.6 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6.0" ASPHALT 781.10				CLAY LOAM-brown-stiff to hard *(continued)*			
CLAY LOAM-dark brown-medium stiff (Fill)	3				3		
	3	0.8	15		6	1.6	15
778.60	4	P			8	B	
SILTY CLAY-dark brown spotted black-medium stiff (Fill)	3				3		
	3	0.8	26		4	2.2	14
-5 776.10	3	P		-25	8	B	
CLAY LOAM-brown-stiff to hard	3				4		
	4	3.0	18		8	2.6	14
	6	B			12	B	
	5				5		
	6	3.5	16		13	3.0	11
-10	9	B		-30	11	P	
	6						
	8	4.8	15	749.60			
	11	B		CLAY-gray-stiff to very stiff			
becoming gray @ -13.0'	6				6		
	7	2.4	13		8	1.0	18
-15	9	B		-35	11	P	
	6						
	6	3.4	13				
	9	B					
▼					5		
	6	2.7	14		8	2.4	17
-20	7	B		-40	13	B	

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, from 137 (Rev. 8-99)

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Geotechnical, Environmental & Civil Engineering
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Naperville, Illinois 60565
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SOIL BORING LOG

GSI Job No. 17004
Page 2 of 3
Date 10/27/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION SW 1/4, SEC. 34, TWP. T46N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-01
Station 61+14
Offset 32.00ft Left
Ground Surface Elev. 781.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 763.6 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff to very stiff *(continued)*				CLAY-gray-stiff to very stiff *(continued)*			
	5				6		
	8	2.1	17		9	2.8	15
-45	11	B		-65	14	B	
	5			silt seams from -68.5' to -70.0'	12		
	9	2.7	17		13	2.2	15
-50	12	B		-70	15	B	
	5			709.60			
	7	1.9	17	SILTY CLAY-gray-very stiff	15		
-55	9	B			38	2.8	15
				-75	42	B	
	8			702.60	14		
	12	3.3	15	SAND-gray-dense	28	4.5	18
-60	19	B		-80	36	P	

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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SOIL BORING LOG

GSI Job No. 17004
Page 3 of 3
Date 10/27/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION SW 1/4, SEC. 34, TWP. T46N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-01
Station 61+14
Offset 32.00ft Left
Ground Surface Elev. 781.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 763.6 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray-dense *(continued)*			
	6		
	16		
	27		17
-85	32		
694.60			
CLAY-gray-hard	12		
	12		
End Of Boring @ -90'. Boring backfilled with cuttings.	15	4.0	13
691.60 -90	18	B	
-95			
-100			

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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PATRICK ENGINEERING

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS I
STRUCTURE NO. 049-D030
SHEET 30 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	155
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
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SOIL BORING LOG

GSI Job No. 17004
Page 1 of 3
Date 10/16/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NW 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-02
Station 62+61
Offset 27.50ft Right
Ground Surface Elev. 777.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 773.8 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
ASPHALT			
776.30			
CRUSHED ASPHALT & STONE-loose (Fill)	2		
	2		5
	3		
774.30			
CLAY LOAM-dark brown & gray-very stiff (Fill) ▼			
	4		
	4	2.4	19
-5	5	B	
771.80			
SILTY CLAY-dark brown & gray-medium stiff	1		
	1	0.7	30
	2	B	
769.30			
SILTY LOAM-gray	ST		
			24
-10			
766.80			
SAND-gray-loose to medium dense	9		
	11		18
	15		
	5		
	7		17
-15	1		
761.80			
PEAT-dark brown to black-very loose	ST		
			280
	0		
	0	0.7	258
-20	1	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
756.80			
ORGANIC SILTY CLAY-dark gray to black-very loose	0		
	0	0.3	51
	0	B	
	0		
	0	0.2	63
-25	0	B	
751.80			
SILTY CLAY-brown & gray-medium stiff	2		
	2	0.8	18
	3	B	
	3		
	4	0.8	19
-30	5	B	
	5		
	6	0.7	17
-35	8	B	
	8		
740.30			
CLAY to CLAY LOAM-gray-stiff to very stiff			
	8		
	10	2.3	13
-40	11	B	

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, from 137 (Rev. 8-99)

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SOIL BORING LOG

GSI Job No. 17004
Page 2 of 3
Date 10/16/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NW 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-02
Station 62+61
Offset 27.50ft Right
Ground Surface Elev. 777.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 773.8 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY to CLAY LOAM-gray-stiff to very stiff *(continued)*			
	7		
	10	2.3	13
-45	13	B	
	7		
	11	1.8	13
-50	13	B	
	6		
	8	1.9	16
-55	10	B	
	5		
	10	2.1	17
-60	12	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY to CLAY LOAM-gray-stiff to very stiff *(continued)*			
	7		
	11	3.1	17
-65	15	B	
	6		
	8	2.2	17
-70	14	B	
	12		
	16	2.3	16
-75	18	B	
	14		
	15	2.0	19
-80	17	B	

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, from 137 (Rev. 8-99)

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SOIL BORING LOG

GSI Job No. 17004
Page 3 of 3
Date 10/16/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NW 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-02
Station 62+61
Offset 27.50ft Right
Ground Surface Elev. 777.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 773.8 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY to CLAY LOAM-gray-stiff to very stiff *(continued)*			
695.30			
SILTY CLAY-gray-stiff to very stiff			
	10		
	19	3.8	17
-85	24	B	
	12		
	16	1.8	17
-90	19	B	
End Of Boring @ -90'. Boring backfilled with cuttings. 687.30			
-95			
-100			

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, from 137 (Rev. 8-99)

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PLOT DATE = 3/30/21	CHECKED -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS II
STRUCTURE NO. 049-D030
SHEET 31 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	156
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

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Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
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SOIL BORING LOG

GSI Job No. 17004
Page 1 of 3
Date 10/26/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** SW 1/4, **SEC.** 34, **TWP.** T46N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-03
Station 63+53
Offset 30.20ft Left
Ground Surface Elev. 775.20 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 769.2 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
775.03 2.0" ASPHALT				CLAY LOAM-gray-stiff to very stiff *(continued)*			
CLAY LOAM-dark brown & gray-very stiff (Fill)			9		6		
	2				6	2.7	15
	2	2.5	14		9	B	
	3	P					
772.20 SILTY CLAY-brown & gray-medium stiff					5		
	1						
	2	0.9	28		7	2.5	14
-5	2	B		-25	8	B	
769.70 SAND-brown & gray-very loose ▼					4		
	2						
	1		20		6	1.7	15
	2				10	B	
767.20 PEAT-black-very loose					4		
	0						
	1		235		7	2.4	13
-10	1			-30	9	B	
764.70 SILTY CLAY-dark gray-soft					5		
	ST						
		0.3	31		8	2.9	15
		P			11	B	
762.20 CLAYEY SAND & GRAVEL-gray							
	ST						
			10				
-15				-35			
759.70 SILTY CLAY-gray-medium stiff							
	1						
	1	0.6	16	738.20			
	2	B		SILTY CLAY LOAM-gray-medium stiff			
757.20 CLAY LOAM-gray-stiff to very stiff					4		
	3						
	6	1.6	17		8	0.5	13
-20	6	B		-40	9	P	

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 2 of 3
Date 10/26/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** SW 1/4, **SEC.** 34, **TWP.** T46N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-03
Station 63+53
Offset 30.20ft Left
Ground Surface Elev. 775.20 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 769.2 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY CLAY LOAM-gray-medium stiff *(continued)*				CLAY-gray-stiff to very stiff *(continued)*			
733.20 CLAY-gray-stiff to very stiff							
	5				14		
	10	3.5	17		24	3.0	20
-45	14	B		-65	30	B	
	5				9		
	9	1.9	18	some gravel from -68.5' to -70.0'	28	2.3	11
-50	10	B		-70	17	P	
	7				9		
	9	2.8	16		12	2.3	18
-55	11	P		-75	16	B	
	6				8		
	9	2.8	16		13	2.1	16
-60	13	B		-80	12	B	

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, from 137 (Rev. 8-99)

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Geotechnical, Environmental & Civil Engineering
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Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 3 of 3
Date 10/26/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** SW 1/4, **SEC.** 34, **TWP.** T46N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-03
Station 63+53
Offset 30.20ft Left
Ground Surface Elev. 775.20 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 769.2 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff to very stiff *(continued)*			
693.20 CLAY LOAM-gray-hard			
	11		
	20	6.5	12
-85	26	B	
	24		
End Of Boring @ -90'. Boring backfilled with cuttings.	25	5.1	12
685.20 -90	42	B	
-95			
-100			

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, from 137 (Rev. 8-99)

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PLOT DATE = 3/30/21	CHECKED -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS III
STRUCTURE NO. 049-D030
SHEET 32 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	157
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004

Date 10/13/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NE 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-04
Station 64+60
Offset 25.90ft Right
Ground Surface Elev. 774.10 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 772.1 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
ASPHALT			
773.10			
CLAYEY SAND, GRAVEL & STONE-dark brown & gray-medium dense to dense (Fill)	1		
	5		7
	6		
	12		
	16		13
-5	16		
768.60			
SILTY CLAY-brown & gray-medium stiff	0		
	2	0.9	20
	3	B	
766.10			
PEAT-dark gray to black-very loose (A-8) O.C.=5.1%	0		
	0		80
-10	0		
	ST		
			299
	ST		
			132
-15			
	0		
	0	0.4	97
	0	B	
756.10			
ORGANIC SILTY CLAY-dark gray-very loose	1		
	1		40
-20	1		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
753.60			
SILTY CLAY-dark brown & gray-soft to medium stiff	1		
	2	0.4	21
	2	B	
	2		
	4	0.9	20
-25	6	B	
748.60			
CLAY to CLAY LOAM-gray-stiff to hard	3		
	5	1.1	18
	7	B	
	3		
	5	1.6	17
-30	8	B	
	5		
	7	1.7	15
-35	10	B	
	6		
	8	1.9	15
-40	11	B	

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, from 137 (Rev. 8-99)

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Geotechnical, Environmental & Civil Engineering
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Naperville, Illinois 60565
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SOIL BORING LOG

GSI Job No. 17004

Date 10/13/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NE 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-04
Station 64+60
Offset 25.90ft Right
Ground Surface Elev. 774.10 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 772.1 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY to CLAY LOAM-gray-stiff to hard *(continued)*			
	4		
	8	1.9	15
-45	12	B	
	5		
	9	1.5	13
-50	13	B	
	9		
	15	4.6	14
-55	21	B	
	10		
	15	3.9	16
-60	20	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY to CLAY LOAM-gray-stiff to hard *(continued)*			
	6		
	8	2.5	17
-65	13	B	
	8		
	12	1.9	18
-70	14	B	
	6		
	10	2.3	17
-75	14	B	
697.10			
SANDY CLAY LOAM with Gravel-gray-very stiff			
	16		
	29	3.6	10
-80	42	B	

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
806 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004

Date 10/13/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NE 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-04
Station 64+60
Offset 25.90ft Right
Ground Surface Elev. 774.10 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 772.1 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY CLAY LOAM with Gravel-gray-very stiff *(continued)*			
692.10			
CLAY-gray-very stiff	6		
	14		
	27		24
-85	39		
	8		
	15	2.1	20
End Of Boring @ -90'. Boring backfilled with cuttings.	17	B	
684.10 -90			
-95			
-100			

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, from 137 (Rev. 8-99)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS IV
STRUCTURE NO. 049-D030
SHEET 33 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	158
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 1 of 3
Date 10/25/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** SE 1/4, **SEC.** 34, **TWP.** T46N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-05
Station 65+70
Offset 31.10ft Left
Ground Surface Elev. 773.40 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 770.9 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
2.0" ASPHALT 773.23			
CLAYEY SAND, GRAVEL & STONE-dark brown & gray spotted black-loose (Fill)			15
	3		
	3		8
	4		
770.40			
SILTY CLAY-dark brown & gray spotted black-stiff			
	2		
	2	1.5	23
-5	3	B	
767.90			
PEAT-black-very loose			
	0		
	0		214
	0		
	ST		
		<0.25 P	88
-10			
762.90			
ORGANIC SILTY CLAY-dark gray-very soft			
	ST		
		<0.25 P	66
760.40			
SILTY CLAY-gray-medium stiff to stiff			
	0		
	1	0.6	18
-15	3	B	
	2		
	4	1.0	19
	6	B	
755.40			
CLAY LOAM-gray-stiff to very stiff			
	3		
	6	1.5	16
-20	8	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY LOAM-gray-stiff to very stiff *(continued)*			
	4		
	6	2.1	17
	8	B	
	4		
	7	3.2	15
-25	7	B	
	4		
	7	1.7	15
	8	B	
	5		
	6	2.7	15
-30	10	B	
	4		
	6	1.5	15
-35	8	B	
	3		
	6	1.3	15
-40	7	B	

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
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Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 2 of 3
Date 10/25/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** SE 1/4, **SEC.** 34, **TWP.** T46N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-05
Station 65+70
Offset 31.10ft Left
Ground Surface Elev. 773.40 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 770.9 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY LOAM-gray-stiff to very stiff *(continued)*			
	5		
	8	2.2	15
-45	10	B	
	7		
	9	1.6	13
-50	12	B	
721.40			
SILTY SAND & GRAVEL-gray-medium dense			
	12		
	13		12
-55	13		
716.40			
CLAY-gray-stiff to very stiff			
	7		
	9	1.9	18
-60	10	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff to very stiff *(continued)*			
	7		
	9		23
-65	11		
	6		
	9	2.4	17
-70	12	B	
	8		
	11	2.1	16
-75	16	B	
	11		
	17	3.3	18
-80	25	B	

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
806 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 3 of 3
Date 10/25/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** SE 1/4, **SEC.** 34, **TWP.** T46N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-05
Station 65+70
Offset 31.10ft Left
Ground Surface Elev. 773.40 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 770.9 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff to very stiff *(continued)*			
	12		
	12	2.8	19
-85	13	B	
	8		
End Of Boring @ -90'. Boring backfilled with cuttings.	10	2.0	18
683.40 -90	15	B	
-95			
-100			

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, from 137 (Rev. 8-99)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS V
STRUCTURE NO. 049-D030
SHEET 34 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	159
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 1 of 3
Date 10/12/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NE 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-06
Station 66+58
Offset 26.50ft Right
Ground Surface Elev. 774.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 772.6 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
ASPHALT			
773.60			
SAND, GRAVEL, CONCRETE & STONE-dense to very dense (Fill)	4		
	5		11
	35		
	50/1"		
			10
-5			
769.10			
PEAT-black (A-8) O.C.=7.0%	ST		
			143
766.60			
ORGANIC SANDY LOAM-black (A-7) O.C.=1.6	ST		
			67
-10			
764.10			
ORGANIC SILTY CLAY-dark gray-very loose	2		
	2		87
	2		
761.60			
PEAT-dark brown to black-very loose	3		
	3		17
-15	2		
759.10			
CLAY LOAM-brown-medium stiff to stiff	5		
	4	1.5	17
	6	B	
	6		
	5	0.7	18
-20	7	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
754.10			
CLAYEY SAND & GRAVEL-brown-medium dense	4		
	5		16
	7		
751.60			
CLAY LOAM-gray-stiff	4		
	7	1.5	16
-25	8	B	
	4		
	5	1.3	15
	7	B	
	3		
	6		18
-30	8		
	5		
	7	1.8	15
-35	11	B	
	11		
	14		16
-40	14		

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, from 137 (Rev. 8-99)

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SOIL BORING LOG

GSI Job No. 17004
Page 2 of 3
Date 10/12/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NE 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-06
Station 66+58
Offset 26.50ft Right
Ground Surface Elev. 774.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 772.6 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray-medium dense *(continued)*			
732.60			
CLAY to CLAY LOAM-gray-stiff to hard	3		
	6	2.1	23
-45	8	B	
	5		
	9	2.5	19
-50	12	B	
	6		
	7	3.0	17
-55	11	B	
	6		
	10	1.9	17
-60	14	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY to CLAY LOAM-gray-stiff to hard *(continued)*			
	11		
	15	4.1	12
-65	32	B	
	9		
	14	3.3	17
-70	22	B	
	6		
	10	2.1	18
-75	11	B	
	11		
	13	1.9	16
-80	18	B	

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 3 of 3
Date 10/12/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NE 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-06
Station 66+58
Offset 26.50ft Right
Ground Surface Elev. 774.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 772.6 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY to CLAY LOAM-gray-stiff to hard *(continued)*			
	9		
	14	2.8	15
-85	20	B	
	12		
	19	3.9	15
End Of Boring @ -90'. Boring backfilled with cuttings.	22	B	
684.60 -90			
-95			
-100			

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, from 137 (Rev. 8-99)

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PATRICK ENGINEERING

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS VI
STRUCTURE NO. 049-D030
SHEET 35 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	160
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 1 of 3
Date 10/20/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** SE 1/4, **SEC.** 34, **TWP.** T40N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-07
Station 67+65
Offset 29.70ft Left
Ground Surface Elev. 774.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 772.3 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY SAND, ASPHALT & STONE (Fill) 773.30			?	CLAY to CLAY LOAM-gray-medium stiff to very stiff *(continued)*			
	5				4		
SANDY CLAY LOAM with Stone-dark brown, gray & black-loose (Fill) 771.30	4		17		5	2.9	14
	3				7	B	
CLAYEY TOPSOIL-black-very loose							
	0				4		
	1		25		6	1.5	17
-5	1			-25	7	B	
768.80							
SAND-brown-very loose							
	2				5		
	1		22		7	2.3	15
	1				9	B	
766.30							
ORGANIC SILTY CLAY-black-very loose	AS				4		
		<0.25	66		6	2.0	15
-10		P		-30	9	B	
763.80							
SILTY CLAY LOAM-gray-soft	ST						
		0.3	21				
		P					
761.30							
CLAY to CLAY LOAM-gray-medium stiff to very stiff	4				5		
	1	0.7	19		9	2.3	15
-15	1	B		-35	11	B	
	3						
	4	1.0	17	737.30			
	6	B		SILTY CLAY LOAM with Sand Seams-gray-dense			
	3				10		
	4	1.8	17		16	0.8	20
-20	7	B		-40	16	P	

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, from 137 (Rev. 8-99)

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Geotechnical, Environmental & Civil Engineering
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(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 2 of 3
Date 10/20/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** SE 1/4, **SEC.** 34, **TWP.** T40N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-07
Station 67+65
Offset 29.70ft Left
Ground Surface Elev. 774.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 772.3 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY CLAY LOAM with Sand Seams-gray-dense *(continued)*				CLAY to CLAY LOAM-gray-stiff to hard *(continued)*			
732.30							
LOAM-gray-dense							
	14				8		
	17		18		10	1.7	16
-45	15			-65	17	B	
727.30							
SANDY CLAY LOAM-gray-medium dense	5				50/4"		
	10	2.5	12			2.8	18
-50	13	P		-70		P	
722.30							
CLAY to CLAY LOAM-gray-stiff to hard	5				8		
	7	2.7	17		18	7.7	16
-55	8	B		-75	24	B	
	8				10		
	9	1.3	18		14	2.3	18
-60	12	P		-80	24	B	

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
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Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 3 of 3
Date 10/20/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** SE 1/4, **SEC.** 34, **TWP.** T40N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-07
Station 67+65
Offset 29.70ft Left
Ground Surface Elev. 774.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 772.3 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY to CLAY LOAM-gray-stiff to hard *(continued)*			
	8		
	12	3.2	15
-85	15	B	
687.30			
SILTY CLAY-gray-hard			
	28		
	46	11.8	11
End Of Boring @ -90'. Boring backfilled with cuttings. 684.30	50/3"	B	
-90			
-95			
-100			

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, from 137 (Rev. 8-99)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS VII
STRUCTURE NO. 049-D030
SHEET 36 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	161
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
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Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 1 of 3
Date 10/11/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION NE 1/4, SEC. 3, TWP. T45N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-08
Station 68+59
Offset 26.60ft Right
Ground Surface Elev. 775.40 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 769.4 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
ASPHALT 774.40			
CLAY LOAM with Gravel-brown-very stiff (Fill)	4		
	9	3.5	15
	8	P	
772.40			
CLAYEY SAND & GRAVEL-brown-loose	2		
	2		10
-5	3		
769.90			
SILTY CLAY-dark brown, gray & black-soft ▼	ST		
		0.3	34
		P	
767.40			
ORGANIC SILTY CLAY-dark gray to black-very soft	ST		
		0.3	45
-10		P	
764.90			
PEAT-dark brown & gray-very loose	0		
	0	0.2	105
	1	P	
	ST		
			445
-15			
759.90			
SILTY CLAY LOAM to SILTY LOAM-gray-very loose	0		
	0	0.3	20
	1	P	
757.40			
ORGANIC SILTY CLAY-dark brown & gray-very loose	2		
	0	0.3	40
-20	1	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
754.90			
SILTY CLAY-dark gray-medium stiff	2		
	3	0.5	26
	2	B	
752.40			
CLAYEY SAND & GRAVEL-dark brown & gray-loose	4		
	5		13
-25	3		
749.90			
SILTY SAND & GRAVEL-dark brown & gray-medium dense	5		
	7		13
	9		
747.40			
CLAY LOAM-gray-stiff to hard	5		
	6	1.8	15
-30	8	B	
	2		
	4	1.8	19
-35	6	P	
	6		
	8	1.9	15
-40	10	B	

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
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(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 2 of 3
Date 10/11/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION NE 1/4, SEC. 3, TWP. T45N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-08
Station 68+59
Offset 26.60ft Right
Ground Surface Elev. 775.40 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 769.4 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY LOAM-gray-stiff to hard *(continued)*			
	6		
	9	2.2	14
-45	17	B	
727.40			
CLAYEY SAND & GRAVEL-gray-medium dense	14		
	11		11
-50	16		
723.40			
SILTY LOAM to LOAM-gray-medium dense	10		
	8		18
-55	6		
718.40			
CLAY to CLAY LOAM-gray-stiff to hard	5		
	7	1.5	13
-60	10	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY to CLAY LOAM-gray-stiff to hard *(continued)*			
	6		
	8	2.3	18
-65	10	B	
	7		
	10	2.8	16
-70	14	B	
	8		
	14	3.2	16
-75	16	B	
	8		
	15	5.9	14
-80	31	B	

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, from 137 (Rev. 8-99)

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Geotechnical, Environmental & Civil Engineering
806 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 3 of 3
Date 10/11/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION NE 1/4, SEC. 3, TWP. T45N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-08
Station 68+59
Offset 26.60ft Right
Ground Surface Elev. 775.40 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 769.4 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY to CLAY LOAM-gray-stiff to hard *(continued)*			
	13		
	22	5.8	16
-85	27	B	
	11		
End Of Boring @ -90'. Boring backfilled with cuttings.	14	2.8	19
685.40 -90	20	B	
-95			
-100			

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, from 137 (Rev. 8-99)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS VIII
STRUCTURE NO. 049-D030
SHEET 37 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	162
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 1 of 3
Date 10/19/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION SE 1/4, SEC. 34, TWP. T40N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-09
Station 69+11
Offset 31.80ft Left
Ground Surface Elev. 775.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 769.3 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
			7	SILTY SAND, GRAVEL & STONE-dark brown to black-very loose (Fill)
	5			
	2		14	
	2			
772.30				
				CLAY LOAM-dark brown & gray spotted black-very loose (Fill)
	1			
	1	0.4	25	
-5	1	B		
769.80				
				SILTY CLAY-dark gray-soft ▼
	ST			
		0.3	33	
		P		
766.80				
	1			PEAT-dark brown & gray-very loose
	1		51	
-10	1			
	ST			
			64	
	0			
	0	0.4	66	
-15	0	B		
759.80				
	1			SILTY CLAY LOAM-gray-very loose
	1	<0.25	16	
	1	P		
757.30				
				SILTY CLAY-brown & gray-soft
	0			
	1	0.3	19	
-20	3	B		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				SILTY CLAY-brown & gray-soft *(continued)*
	1			
	2	0.3	19	
	2	B		
	3			
	3	0.3	18	
-25	5	B		
749.80				
				CLAY LOAM-gray-stiff
	5			
	6	1.3	14	
	10	B		
	6			
	7	1.9	14	
-30	9	B		
	7			
	9	1.6	15	
-35	12	B		
	3			
	6	1.7	15	
-40	8	B		

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
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SOIL BORING LOG

GSI Job No. 17004
Page 2 of 3
Date 10/19/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION SE 1/4, SEC. 34, TWP. T40N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-09
Station 69+11
Offset 31.80ft Left
Ground Surface Elev. 775.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 769.3 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				CLAY LOAM-gray-stiff *(continued)*
	5			
	8	1.8	15	
-45	11	B		
728.30				
				SAND-gray-medium dense
	7			
	8		20	
-50	9			
723.30				
				CLAY to CLAY LOAM-gray-stiff to hard
	6			
	6	2.0	23	
-55	8	B		
	13			
	19	4.1	16	
-60	19	B		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				CLAY to CLAY LOAM-gray-stiff to hard *(continued)*
	9			
	12	2.8	17	
-65	16	B		
	11			
	14	2.8	16	
-70	19	B		
	8			
	15	1.7	17	
-75	19	B		
	7			
	10	2.5	18	
-80	12	B		

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
806 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 3 of 3
Date 10/19/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION SE 1/4, SEC. 34, TWP. T40N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-09
Station 69+11
Offset 31.80ft Left
Ground Surface Elev. 775.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 769.3 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				CLAY to CLAY LOAM-gray-stiff to hard *(continued)*
	10			
	16	3.7	17	
-85	19	B		
688.30				
				CLAY LOAM with Fractured Rock-gray-very dense
	34			
	33	2.0	10	
	30	P		End Of Boring @ -90'. Boring backfilled with cuttings.
685.30	-90			
	-95			
	-100			

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, from 137 (Rev. 8-99)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS IX
STRUCTURE NO. 049-D030
SHEET 38 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	163
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 1 of 3
Date 10/9/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION NE 1/4, SEC. 3, TWP. T45N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-10
Station 70+64
Offset 28.10ft Right
Ground Surface Elev. 776.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 762.1 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
			11	CLAY LOAM-brown & gray-very stiff (Fill)
	2			
	9	2.5	17	
	9	P		
773.60				
	1			SILTY CLAY LOAM-brown & gray-stiff to hard
	3	1.5	27	
-5	3	P		
	4			
	4	4.5	17	
	5	P		
768.60				
	3			CLAY LOAM-brown & gray-very stiff
	5	3.1	6	
-10	7	B		
766.10				
	5			CLAY to CLAY LOAM-gray-stiff to hard
	6	2.8	13	
	9	B		
	5			
▼	6	2.9	15	
-15	8	B		
	5			
	6	2.2	14	
	2	B		
	3			
	6	1.3	15	
-20	8	B		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				CLAY to CLAY LOAM-gray-stiff to hard *(continued)*
	4			
	5	1.8	15	
	8	B		
	4			
	5	4.5	11	
-25	7	P		
751.10				
	5			SILTY SAND & GRAVEL-gray-medium dense
	6		10	
	9			
740.60				
	4			SAND & GRAVEL-gray-medium dense
	6		10	
-30	8			
744.60				
				SILTY CLAY LOAM-gray-stiff
	3			
	4	1.0	19	
-35	6	P		
739.60				
	5			CLAY to CLAY LOAM-gray-stiff to very stiff
	9	3.3	17	
-40	15	B		

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 2 of 3
Date 10/9/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION NE 1/4, SEC. 3, TWP. T45N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-10
Station 70+64
Offset 28.10ft Right
Ground Surface Elev. 776.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 762.1 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				CLAY to CLAY LOAM-gray-stiff to very stiff *(continued)*
	6			
	9	2.3	18	
-45	11	B		
	9			
	10	2.1	16	
-50	13	B		
	6			
	11	1.7	17	
-55	11	B		
	5			
	9	1.8	19	
-60	11	B		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				CLAY to CLAY LOAM-gray-stiff to very stiff *(continued)*
	9			
	17	2.1	15	
-65	21	B		
	10			
	19	3.3	14	
-70	24	B		
704.60				
				SILTY LOAM to LOAM-gray-dense to very dense
	19			
	31		13	
-75	32			
	29			
	26		16	
-80	30			

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
806 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 3 of 3
Date 10/9/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION NE 1/4, SEC. 3, TWP. T45N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-10
Station 70+64
Offset 28.10ft Right
Ground Surface Elev. 776.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 762.1 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				SILTY LOAM to LOAM-gray-dense to very dense *(continued)*
694.60				
				SILTY CLAY-gray-hard
	9			
	12			
692.10				
	21	4.8	12	SILTY LOAM-gray-very dense
-85	50/5"	B		
	50/5"			
			16	End Of Boring @ -90'. Boring backfilled with cuttings.
686.60				
-90				
-95				
-100				

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, from 137 (Rev. 8-99)

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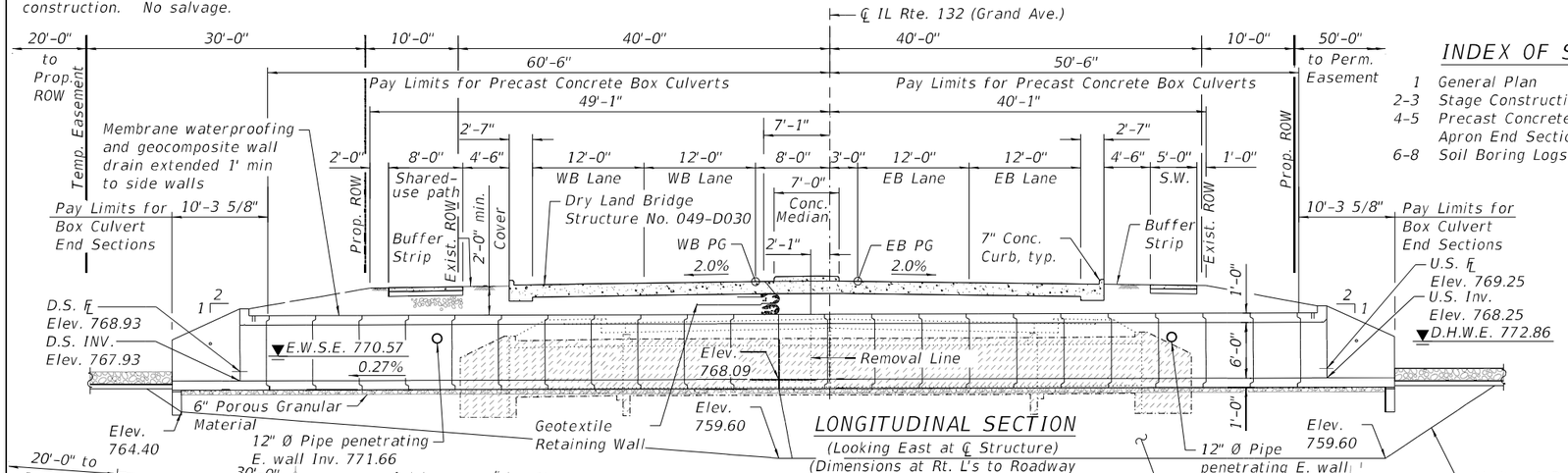
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS X
STRUCTURE NO. 049-D030
SHEET 39 OF 39 SHEETS

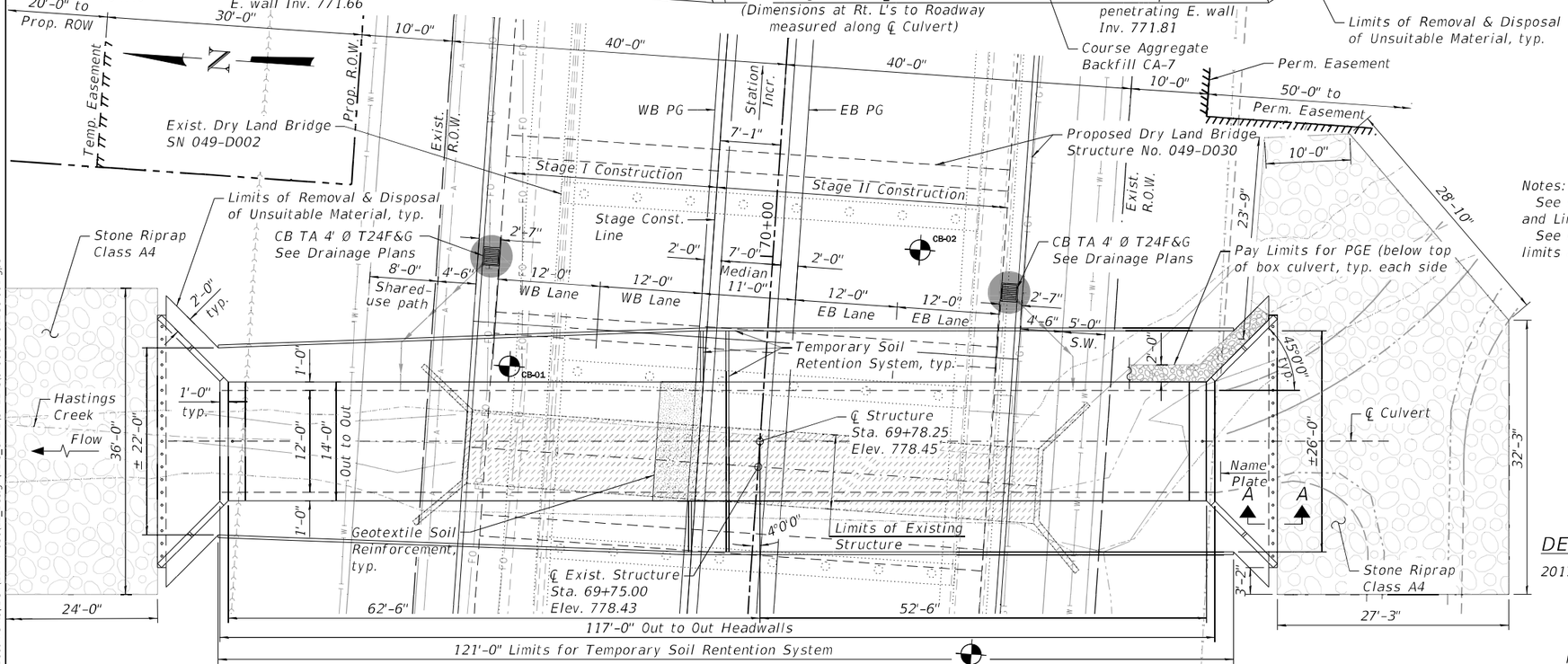
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541	A-W&RS-2	LAKE	205	164
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

Benchmark: Chisel "x" on upper flange bolt of fire hydrant at Southeast corner of IL Rte. 132 and Victory Dr. intersection just west of Dry Land Bridge, Elev. 791.41
Existing Structure: SN 049-0586 was built in 1978 under as a cast-in-place 8'-0" wide x 4'-6" high x 44'-7" long single box culvert with wingwalls at 45 degrees. In 1978, the culvert was lengthened to 66'-9" with 12'-0" long wingwalls at 45 degree angles. No wearing surface. No skew. The existing structure is to be removed and replaced utilizing stage construction. No salvage.



LONGITUDINAL SECTION

(Looking East at ℄ Structure)
(Dimensions at Rt. L's to Roadway measured along ℄ Culvert)



PLAN

INDEX OF SHEETS

1	General Plan
2-3	Stage Construction Details
4-5	Precast Concrete Box Culvert Apron End Section Details
6-8	Soil Boring Logs

GENERAL NOTES

The design fill height for this box is 2 ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.

Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.

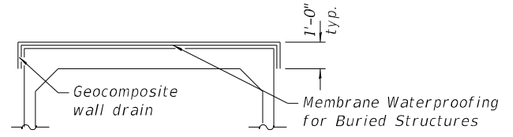
The 6 in. thick layer of porous granular material required for the precast concrete box culvert per Art. 540.06 of the Standard Specifications shall also apply to the end sections. Cost of the porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.

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

Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert, 2 ft from the back face of the end sections, and not closer than 2 ft from the face of embankment.

Backfill with CA-7, see section 205.06 and 1004 of the Standard Specifications. Compaction of CA-7 to follow 95% Standard Proctor Maximum Dry Density According to ASTM D698/ AASHTO T99 method. Backfill to be paid for under "Coarse Aggregate Backfill (Special)"

Membrane waterproofing system shall conform to IDOT Guide Spec. GBSP81.



LIMITS OF WATERPROOFING

Notes:
See sheet 2 of 8 for Temporary Soil Retention System and Limits of Removal & Disposal of Unsuitable Material.
See Dryland Bridge Plans for Geotextile Retaining Wall limits and quantities.

TOTAL BILL OF MATERIAL

Item	Unit	Total
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	777
STONE RIPRAP, CLASS A4	SQ YD	243
STRUCTURE EXCAVATION	CU YD	1675
NAME PLATES	EACH	1
TEMPORARY SOIL RETENTION SYSTEM	SQ FT	3451
BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2
PRECAST CONCRETE BOX CULVERTS 12' X 6'	FOOT	111
GRANULAR BACKFILL FOR STRUCTURES	CU YD	632
COARSE AGGREGATE BACKFILL (SPECIAL)	CU YD	671
MEMBRANE WATERPROOFING FOR BURIED STRUCTURES	SQ YD	197
GEOCOMPOSITE WALL DRAIN	SQ YD	197
BOX CULVERT REMOVAL	FOOT	67

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

DESIGN STRESSES

PRECAST UNITS

f'c = 5,000 psi
fy = 65,000 psi (Welded Wire Reinforcement)

LOADING HL-93

Allow 50#/sq. ft. for future wearing future.

WATERWAY INFORMATION

Drainage Area = 1.16 sq. mi. Existing Overtopping Elev. 774.19 @ Sta. 65+04 Proposed Overtopping Elev. 776.15 @ Sta. 64+90

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	2	36	15	20	770.93	0.17	0.11	771.10	771.04
	10	82	22	32	771.90	0.29	0.13	772.19	772.03
Design	50	137	28	40	772.59	0.64	0.27	773.23	772.86
Base	100	160	29	43	772.80	0.87	0.30	773.67	773.10
Max. Calc.	500	225	29	48	773.25	0.82	0.46	774.07	773.71

10-Year Velocity through Existing Structure = 3.63 ft/s
10-Year Velocity through Proposed Box Culvert = 2.49 ft/s

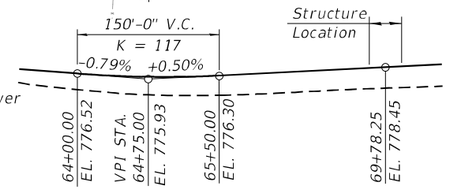
NAME PLATE

See Std. 515001

STATION 69+78.25
BUILT BY
STATE OF ILLINOIS
F.A.P. RT. 541 SEC. A-W&RS-2
LOADING HL-93
STR. NO. 049-0615

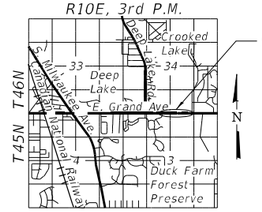
LEGEND

- Exist. Water
- Exist. Aerial Lines
- Exist. Sanitary Sewer
- Exist. Fiber Optic
- Exist. Gas Line
- Exist. Fence
- Boring Location
- Removal



PROFILE GRADE

ALONG EB/WB PG RTE. 132 (GRAND AVE.)



LOCATION SKETCH

GENERAL PLAN

IL RTE. 132 OVER HASTINGS CREEK
EAST OF DEEP LAKE RD.
F.A.P. RTE. 541 - SEC. A-W&RS-2
LAKE COUNTY
STATION 69+78.25
STRUCTURE NO. 049-0615

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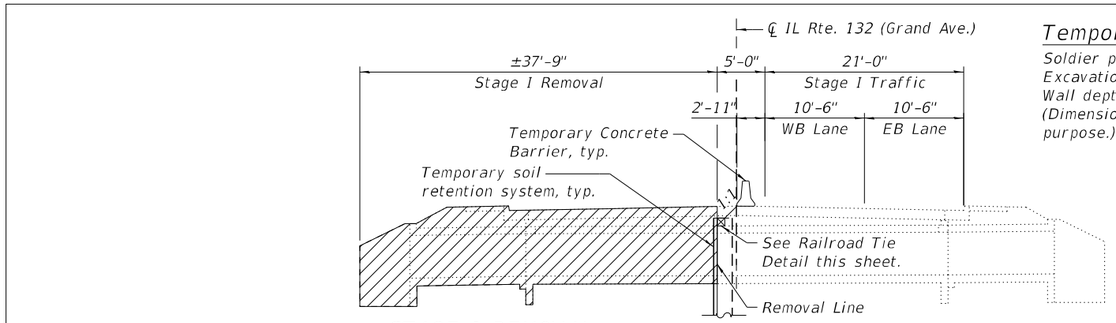
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET 1 OF 8 SHEETS

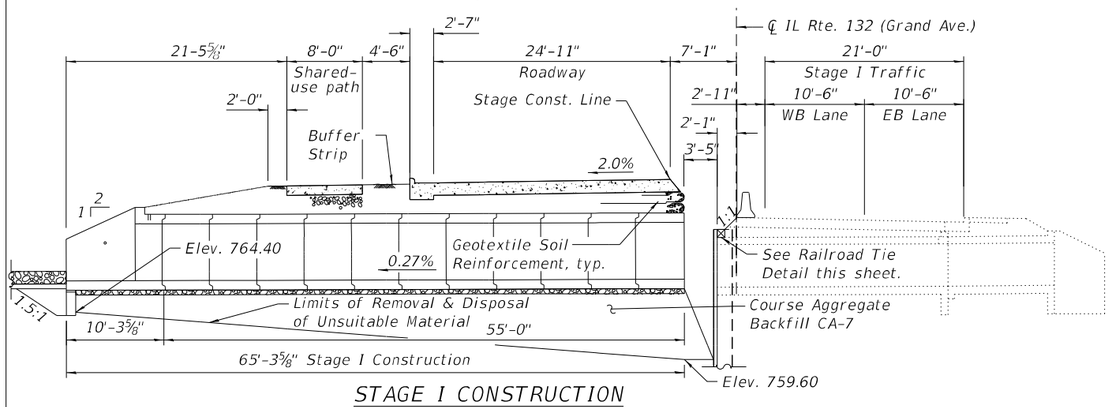
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		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

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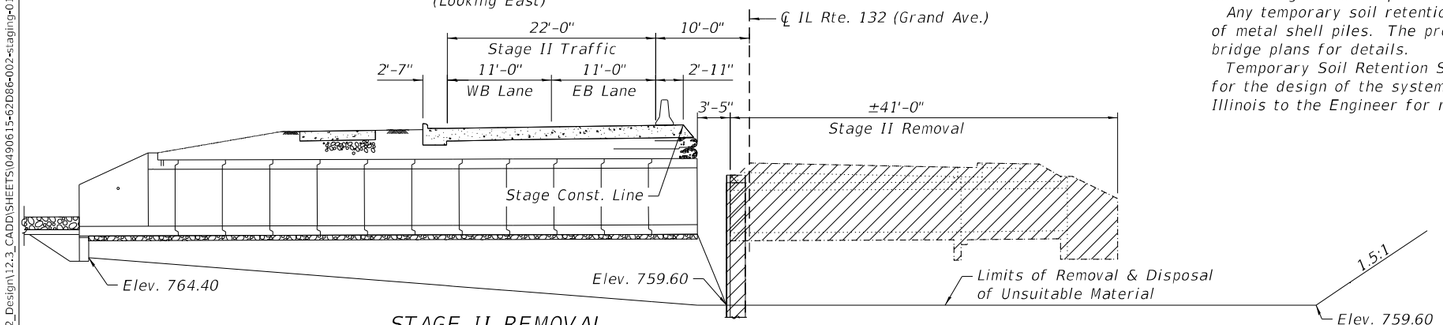
STAGE I REMOVAL

(Looking East)



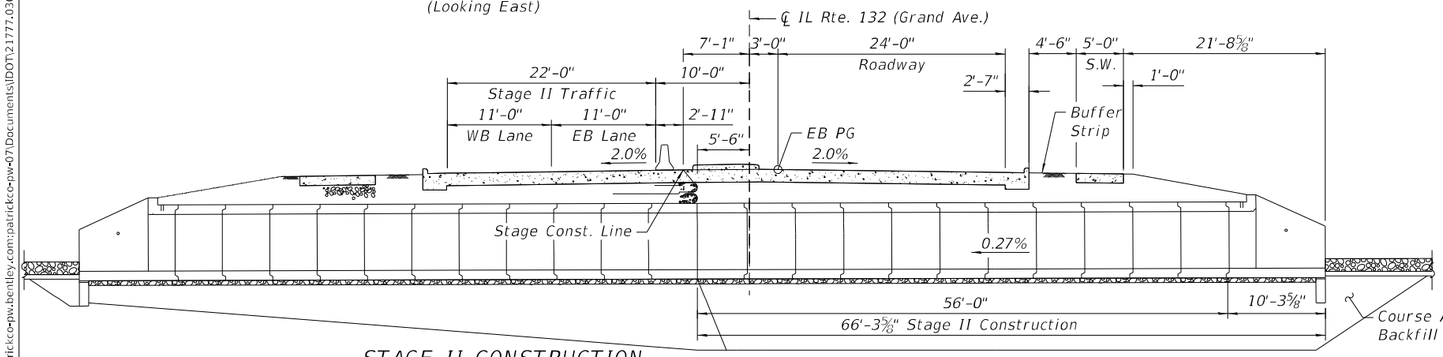
STAGE I CONSTRUCTION

(Looking East)



STAGE II REMOVAL

(Looking East)

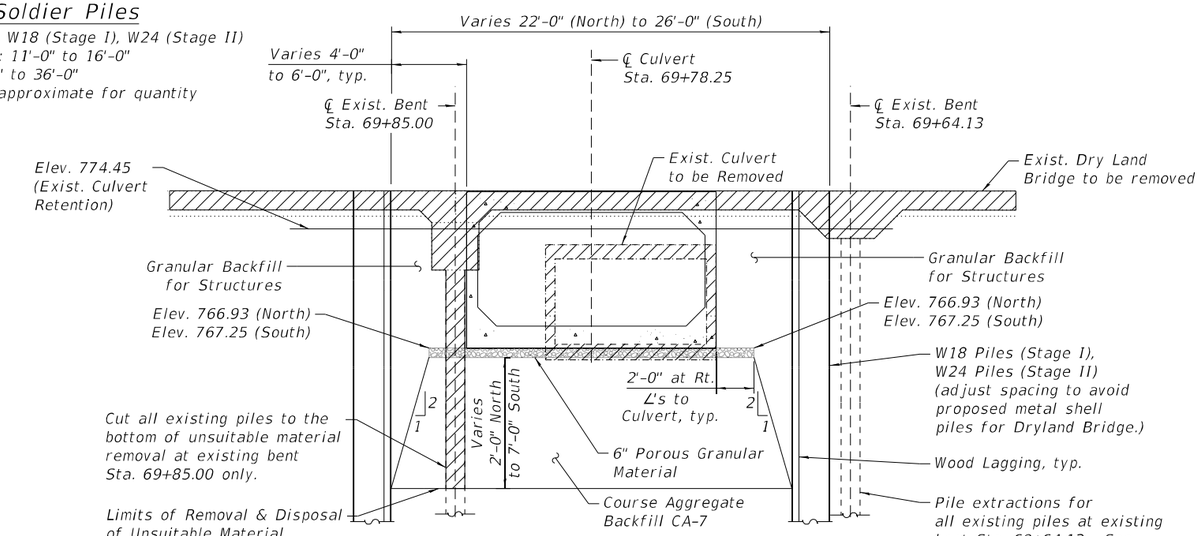


STAGE II CONSTRUCTION

(Looking East)

Temporary Soldier Piles

Soldier pile wall: W18 (Stage I), W24 (Stage II)
Excavation depth: 11'-0" to 16'-0"
Wall depth: 30'-0" to 36'-0"
(Dimensions are approximate for quantity purpose.)



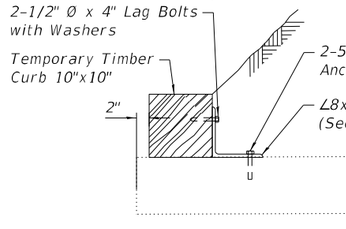
TEMPORARY SOIL RETENTION SYSTEM

(Looking South)
Slope and distances shown along skew
(Proposed Dry Land Bridge not shown for clarity. See Dry Land Bridge Plans for details.)

The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field. The subgrade should be observed by the geotechnical engineer at the time of excavation/construction. If any unsuitable soils are present, the soils should be undercut to the depth encountered. From the IDOT Standard Specifications for Roadway and Bridge Construction, any removal and backfill for structures should be in compliance with Section 502. After removal of the unsuitable soil, a non-woven geo-fabric should be placed to stabilize the subgrade soil before placement of the structural fill. Due to ground water level (approximate elevation 767.5 to 771.5 feet) encountered at the proposed invert depths, dewatering will be required during construction.

Any temporary soil retention piles closer than 3'-0" from the centerline of bridge metal shell piles shall be removed before the installation of metal shell piles. The proposed metal shell piles at bents 38 and 39 need to be installed after the backfilling of the culvert. See Dryland bridge plans for details.

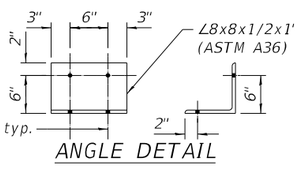
Temporary Soil Retention System details shown on this sheet is a suggested alternative retention system but the Contractor is responsible for the design of the system and must submit the design calculations and details sealed by a licensed Structural Engineer in the State of Illinois to the Engineer for review and acceptance. This process must be followed regardless of the temporary soil retention system used.



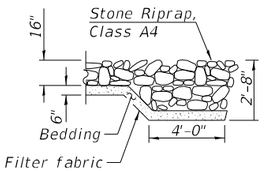
RAILROAD TIE DETAIL

The ∠8x8x1/2x1'-0" and Temporary Timber shall not be removed until Stage II Traffic has started.

Connect one (1) ∠8x8x1/2x1'-0" to the top of existing culvert with two (2) expansion anchors placed in two (2) holes. Angles to be positioned near each end of all timber curbs, but the outside lag bolt shall be placed at least 6" from end of timber. Cost included with Precast Concrete Box Culverts.



ANGLE DETAIL



SECTION A-A

LEGEND

Removal of Existing Culvert and Roadway

Notes:
See Sheet 3 of 8 for Geotextile Wall Details.
See Dryland Bridge Plans for Geotextile Soil Reinforcement limits and quantities.

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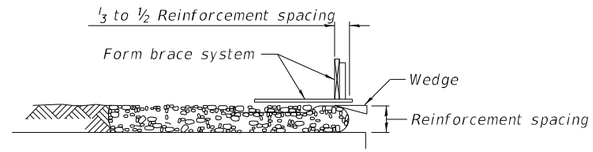
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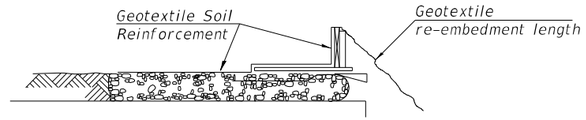
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS I
STRUCTURE NO. 049-0615
SHEET 2 OF 8 SHEETS

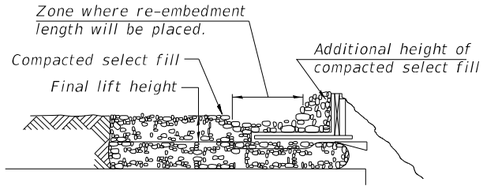
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		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		



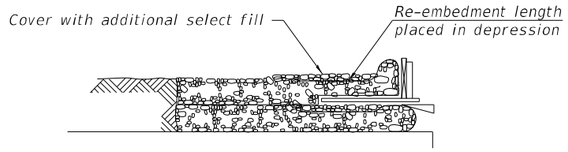
1. Place form brace system on completed reinforcement level; back from the finished fabric face a distance of 1/3 to 1/2 the geotextile reinforcement spacing.



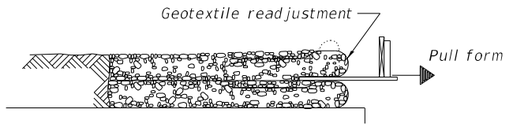
2. Position fabric so that the required geotextile re-embedment length extends over the top of the form brace and the design reinforcement width is placed with no slack against the previous level.



3. Compact select fill material in lifts to final lift height, create (±3") depression in zone where re-embedment length will be located and place additional height of compacted select fill against form brace.



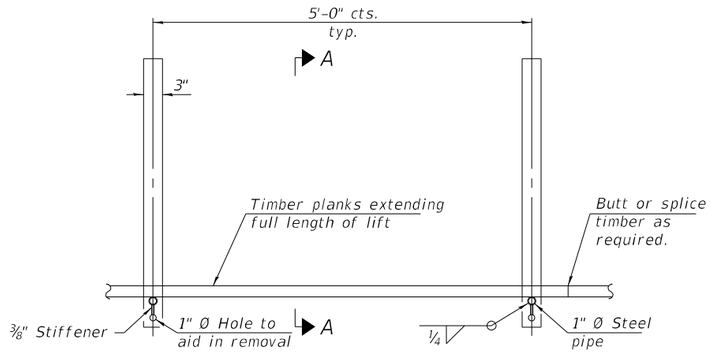
4. Fold geotextile re-embedment length back over form brace into zone where depression was made in select fill and place additional select fill (±3") to embed geotextile and bring to final lift height.



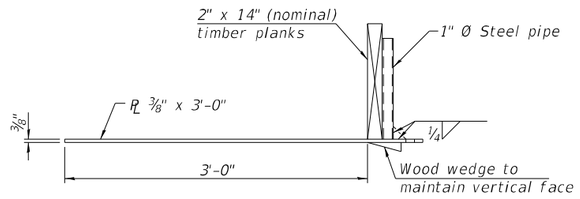
5. Pull form brace outward allowing geotextile face to slightly readjust to form tight round face level with plan reinforcement spacing.

GEOTEXTILE WALL CONSTRUCTION SEQUENCE

Note:
The geotextile soil reinforcement shall have a minimum allowable tensile strength (T min.) of 30 lb./in. as determined by the procedure described in the Special Provision. The computations supporting the determination of (T min.) shall be submitted to the engineer for approval.



PLAN



SECTION A-A

GEOTEXTILE FORM BRACE DETAIL

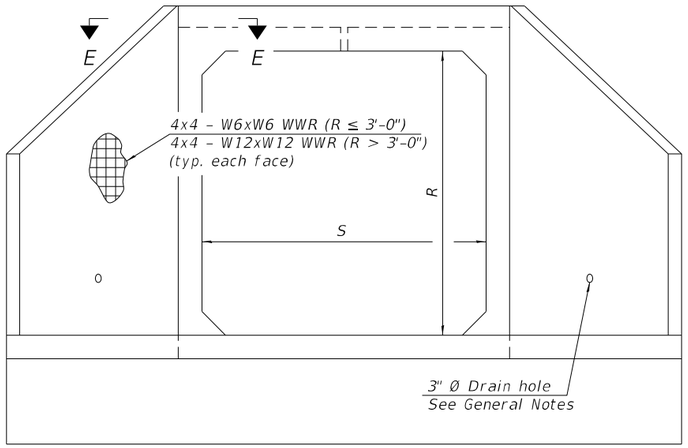
Note:
This is a suggested detail, the Contractor is responsible for the design of the form brace system to be used.

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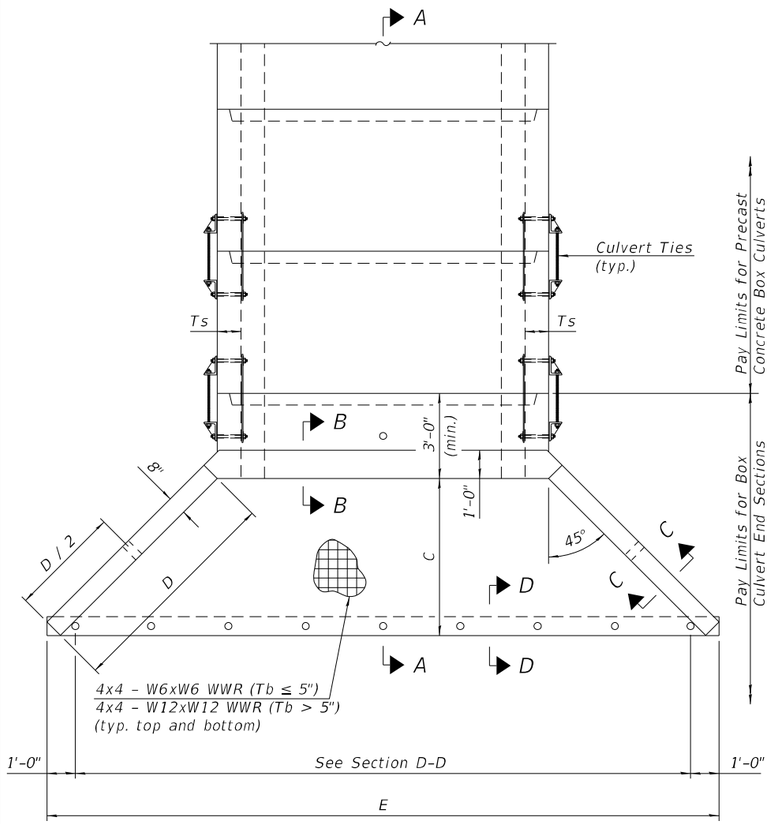
PATRICK ENGINEERING

USER NAME = bwitort	DESIGNED - TAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE CONSTRUCTION DETAILS II STRUCTURE NO. 049-0615
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PLOT DATE = 3/30/21	CHECKED - YC	REVISED -		SHEET 3 OF 8 SHEETS

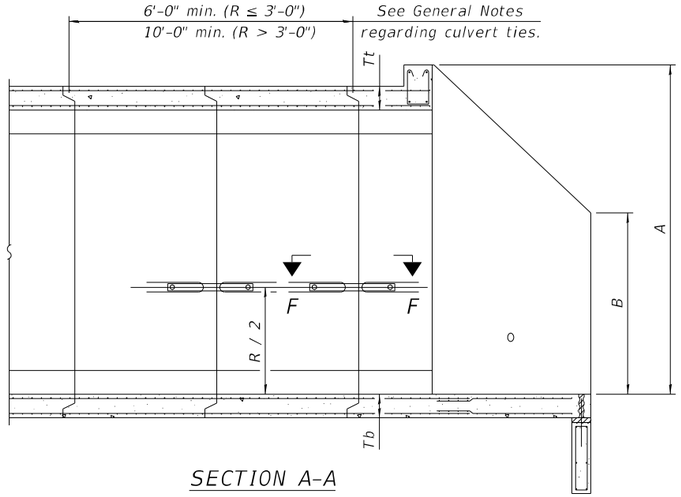
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	167
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		



END VIEW



PLAN



SECTION A-A

GENERAL NOTES

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

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

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

The number of culvert ties shall be sufficient to engage the minimum length of culvert barrel shown within the pay limits for Precast Concrete Box Culverts and will be dependent upon the length of box culvert segments furnished by the Contractor. Culvert ties are not required for box culverts having a rise (R) less than or equal to 3 ft and a span (S) greater than or equal to 10 ft.

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

Shop drawings that detail slab thickness and reinforcement layout for the Box Culvert End Sections shall be provided to the Engineer for review and approval. Reinforcement bars not detailed herein shall be detailed with a clear distance at the end of the reinforcement not less than ½" nor more than 2". For the precast option, it shall be the Contractor's responsibility for determining a method of handling and a construction procedure shall be included on the shop drawings. The Contractor shall determine and detail in the shop drawings any necessary strengthening or stiffening provisions necessary to handle the precast segment. Any required modifications shall be at no extra charge.

The Contractor may use reinforcement bars in lieu of welded wire reinforcement (WWR). Reinforcement bars shall be limited to the sizes of #3 through #5 bars, a maximum spacing of the lesser of 8" or the member thickness, and shall result in an area of reinforcement equal to or greater than that provided by the WWR. Minimum lap lengths detailed herein are applicable to WWR and reinforcement bars.

Reinforcement (circumferential and longitudinal) in the culvert barrel portion of the end section being lapped with reinforcement from the wingwalls or bottom slab of the end section shall not be less than that required by ASTM C 1577 for the design fill height or the reinforcement detailed for the end section, whichever is greater.

One drain hole shall be provided in each wingwall for end sections of box culverts having an opening with a clear rise greater than 3 ft. The drain hole shall be located within the lower 1/3 of the clear rise of the box culvert and shall conform to the requirements of Article 503.11 of the Standard Specifications.

APRON END SECTION DIMENSIONS

Span (S)	Rise (R)	Tt	Tb	Ts	A	B	C	D	E	Concrete Cu. Yd.	Culvert Ties Required
3'-0"	2'-0"	7"	6"	4"	3'-4"	2'-2"	2'-10⅝"	4'-1"	10'-4⅝"	2.8	Yes
3'-0"	2'-0"	4"	4"	4"	3'-1"	2'-1"	2'-7⅞"	3'-9"	9'-11"	2.3	Yes
3'-0"	3'-0"	7"	6"	4"	4'-4"	2'-8"	3'-10⅜"	5'-6"	12'-4⅝"	3.7	Yes
3'-0"	3'-0"	4"	4"	4"	4'-1"	2'-7"	3'-7⅞"	5'-2"	11'-11"	3.1	Yes
4'-0"	2'-0"	7.5"	6"	5"	3'-4½"	2'-2½"	2'-11⅜"	4'-2"	11'-8"	3.3	Yes
4'-0"	2'-0"	5"	5"	5"	3'-2"	2'-1"	2'-8½"	3'-10"	11'-2⅜"	2.8	Yes
4'-0"	3'-0"	7.5"	6"	5"	4'-4½"	2'-8½"	3'-11⅜"	5'-7"	13'-8⅛"	4.2	Yes
4'-0"	3'-0"	5"	5"	5"	4'-2"	2'-7"	3'-8½"	5'-3"	13'-2⅜"	3.7	Yes
4'-0"	4'-0"	7.5"	6"	5"	5'-4½"	3'-2½"	4'-11⅜"	7'-0"	15'-8⅛"	5.3	Yes
4'-0"	4'-0"	5"	5"	5"	5'-2"	3'-1"	4'-8⅝"	6'-8"	15'-2½"	4.7	Yes
5'-0"	2'-0"	8"	7"	6"	3'-5"	2'-3"	2'-11⅜"	4'-2"	12'-10"	3.9	Yes
5'-0"	2'-0"	6"	6"	6"	3'-3"	2'-2"	2'-10"	4'-0"	12'-7¼"	3.5	Yes
5'-0"	3'-0"	8"	7"	6"	4'-5"	2'-9"	3'-11⅜	5'-7"	14'-10⅛"	4.9	Yes
5'-0"	3'-0"	6"	6"	6"	4'-3"	2'-8"	3'-10"	5'-5"	14'-7¼"	4.5	Yes
5'-0"	4'-0"	8"	7"	6"	5'-5"	3'-3"	4'-11⅜"	7'-0"	16'-10⅛"	6.1	Yes
5'-0"	4'-0"	6"	6"	6"	5'-3"	3'-2"	4'-9¼"	6'-9"	16'-5⅞"	5.5	Yes
5'-0"	5'-0"	8"	7"	6"	6'-5"	3'-9"	5'-11⅜"	8'-5"	18'-10⅛"	7.4	Yes
5'-0"	5'-0"	6"	6"	6"	6'-3"	3'-8"	5'-9¼"	8'-2"	18'-5⅞"	6.8	Yes
6'-0"	2'-0"	8"	7"	7"	3'-5"	2'-3"	2'-11⅜"	4'-2"	14'-0"	4.3	Yes
6'-0"	2'-0"	7"	7"	7"	3'-4"	2'-2"	2'-10⅝"	4'-1"	13'-10⅝"	4.2	Yes
6'-0"	3'-0"	8"	7"	7"	4'-5"	2'-9"	3'-11⅜"	5'-7"	16'-0⅛"	5.4	Yes
6'-0"	3'-0"	7"	7"	7"	4'-4"	2'-8"	3'-10⅝"	5'-6"	15'-10⅜"	5.2	Yes
6'-0"	4'-0"	8"	7"	7"	5'-5"	3'-3"	4'-11⅜"	7'-0"	18'-0⅛"	6.5	Yes
6'-0"	4'-0"	7"	7"	7"	5'-4"	3'-2"	4'-10¾"	6'-11"	17'-10¾"	6.5	Yes
6'-0"	5'-0"	8"	7"	7"	6'-5"	3'-9"	5'-11⅜"	8'-5"	20'-0⅛"	8.0	Yes
6'-0"	5'-0"	7"	7"	7"	6'-4"	3'-8"	5'-10¾"	8'-4"	19'-10¾"	7.8	Yes
6'-0"	6'-0"	8"	7"	7"	7'-5"	4'-3"	6'-11½"	9'-10"	22'-0¼"	9.5	Yes
6'-0"	6'-0"	7"	7"	7"	7'-4"	4'-2"	6'-10¾"	9'-9"	21'-10¾"	9.3	Yes
7'-0"	2'-0"	8"	8"	8"	3'-5"	2'-3"	2'-11⅜"	4'-2"	15'-2"	4.9	Yes
7'-0"	3'-0"	8"	8"	8"	4'-5"	2'-9"	3'-11⅜"	5'-7"	17'-2⅛"	6.1	Yes
7'-0"	4'-0"	8"	8"	8"	5'-5"	3'-3"	4'-11⅜"	7'-0"	19'-2⅛"	7.4	Yes
7'-0"	5'-0"	8"	8"	8"	6'-5"	3'-9"	5'-11⅜"	8'-5"	21'-2⅛"	8.9	Yes
7'-0"	6'-0"	8"	8"	8"	7'-5"	4'-3"	6'-11½"	9'-10"	23'-2¼"	10.6	Yes
8'-0"	2'-0"	8"	8"	8"	3'-5"	2'-3"	2'-11⅜"	4'-2"	16'-2"	5.3	Yes
8'-0"	3'-0"	8"	8"	8"	4'-5"	2'-9"	3'-11⅜"	5'-7"	18'-2⅛"	6.5	Yes
8'-0"	4'-0"	8"	8"	8"	5'-5"	3'-3"	4'-11⅜"	7'-0"	20'-2⅛"	7.8	Yes
8'-0"	5'-0"	8"	8"	8"	6'-5"	3'-9"	5'-11⅜"	8'-5"	22'-2⅛"	9.3	Yes
8'-0"	6'-0"	8"	8"	8"	7'-5"	4'-3"	6'-11½"	9'-10"	24'-2¼"	11.0	Yes
9'-0"	2'-0"	9"	9"	9"	3'-6"	2'-3"	3'-0¾"	4'-4"	17'-6⅞"	6.2	Yes
9'-0"	3'-0"	9"	9"	9"	4'-6"	2'-9"	4'-0¾"	5'-9"	19'-6⅞"	7.5	Yes
9'-0"	4'-0"	9"	9"	9"	5'-6"	3'-3"	5'-0¾"	7'-2"	21'-6⅞"	9.0	Yes
9'-0"	5'-0"	9"	9"	9"	6'-6"	3'-9"	6'-0⅞"	8'-7"	23'-7"	10.6	Yes
9'-0"	6'-0"	9"	9"	9"	7'-6"	4'-3"	7'-0⅛"	9'-11"	25'-5⅝"	12.4	Yes
10'-0"	2'-0"	10"	10"	10"	3'-7"	2'-4"	3'-1½"	4'-5"	18'-10¼"	7.1	No
10'-0"	3'-0"	10"	10"	10"	4'-7"	2'-10"	4'-1½"	5'-10"	20'-10¼"	8.6	No
10'-0"	4'-0"	10"	10"	10"	5'-7"	3'-4"	5'-1½"	7'-3"	22'-10⅜"	10.2	Yes
10'-0"	5'-0"	10"	10"	10"	6'-7"	3'-10"	6'-1½"	8'-8"	24'-10⅜"	12.0	Yes
10'-0"	6'-0"	10"	10"	10"	7'-7"	4'-4"	7'-1½"	10'-1"	26'-10⅜"	13.9	Yes
11'-0"	2'-0"	11"	11"	11"	3'-8"	2'-4"	3'-2⅞"	4'-7"	20'-3⅛"	8.2	No
11'-0"	3'-0"	11"	11"	11"	4'-8"	2'-10"	4'-2⅞"	6'-0"	22'-3⅛"	9.8	No
11'-0"	4'-0"	11"	11"	11"	5'-8"	3'-4"	5'-2¼"	7'-4"	24'-1¾"	11.5	Yes
11'-0"	5'-0"	11"	11"	11"	6'-8"	3'-10"	6'-2¼"	8'-9"	26'-1¾"	13.3	Yes
11'-0"	6'-0"	11"	11"	11"	7'-8"	4'-4"	7'-2¼"	10'-2"	28'-1⅞"	15.5	Yes
12'-0"	2'-0"	12"	12"	12"	3'-9"	2'-5"	3'-3⅜"	4'-8"	21'-6½"	9.3	No
12'-0"	3'-0"	12"	12"	12"	4'-9"	2'-11"	4'-3⅜"	6'-1"	23'-6½"	11.1	No
12'-0"	4'-0"	12"	12"	12"	5'-9"	3'-5"	5'-3⅜"	7'-6"	25'-6⅝"	13.0	Yes
12'-0"	5'-0"	12"	12"	12"	6'-9"	3'-11"	6'-3⅝"	8'-11"	27'-6⅝"	14.1	Yes
* 12'-0"	6'-0"	12"	12"	12"	7'-9"	4'-5"	7'-3⅝"	10'-4"	29'-6⅝"	17.4	Yes

Note:
Two sets of apron end section dimensions are shown above for some box culvert sizes due to the top and bottom slabs having different thicknesses per ASTM C 1577 for design fill heights less than 2 ft.

SCB-AES

2-17-2017

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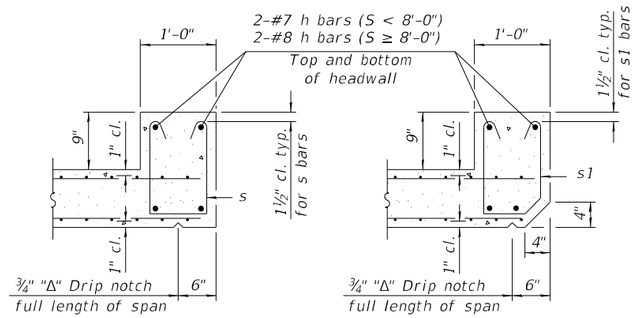
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT APRON END SECTION DETAILS - STRUCTURE NO. 049-0615

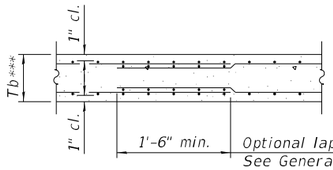
SHEET 4 OF 8 SHEETS

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		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

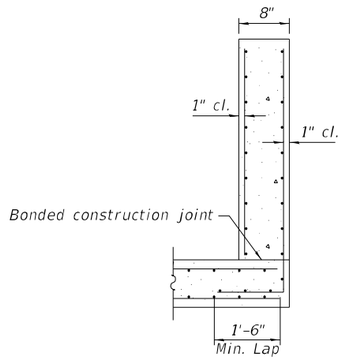


SECTION B-B
(Top slab at downstream end)

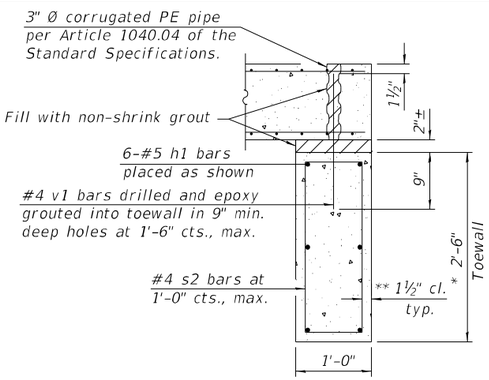
SECTION B-B
(Top slab at upstream end)



SECTION B-B
(Bottom Slab)

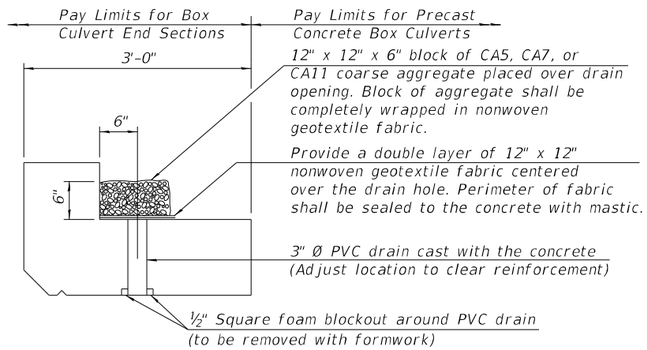


SECTION C-C



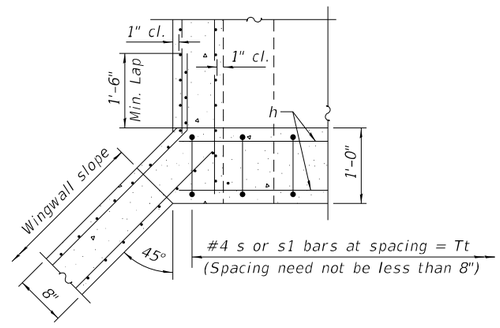
SECTION D-D

*** This dimension shall be increased by 2" for CIP construction.

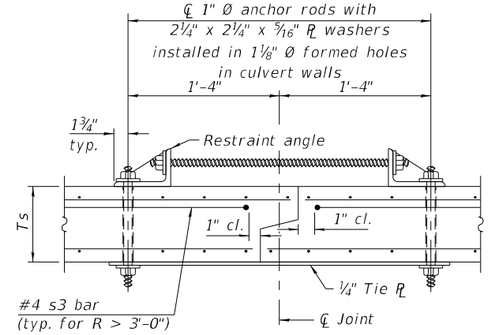


DRAIN DETAIL

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



SECTION E-E



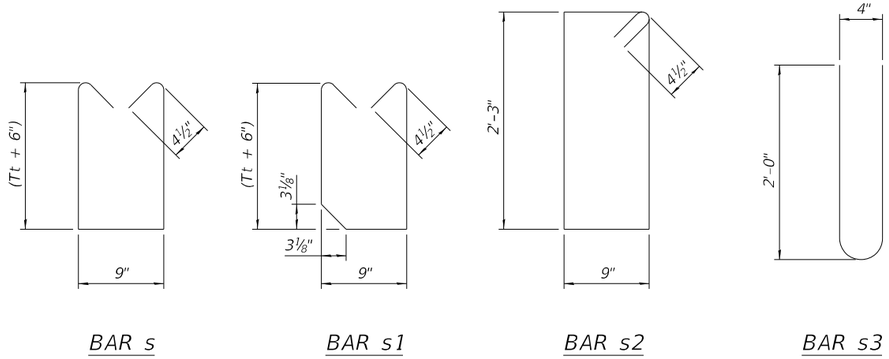
SECTION F-F
(Showing culvert tie details)

TOEWALL CONSTRUCTION SEQUENCE

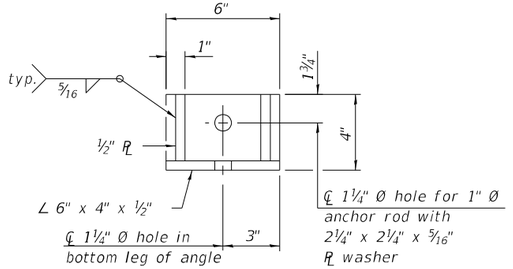
1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids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

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

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



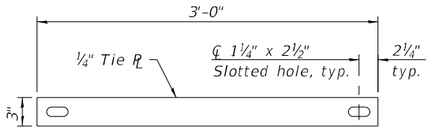
BAR s BAR s1 BAR s2 BAR s3



RESTRAINT ANGLE DETAIL

Notes:

1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for the tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2¼"x2¼"x5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional ½ turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.



TIE PLATE DETAIL

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PLOT DATE = 3/30/21		CHECKED - YC		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT APRON END
SECTION DETAILS - STRUCTURE NO. 049-0615
SHEET 5 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	169
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1586

SOIL BORING LOG

GSI Job No. 17004
Page 1 of 3
Date 10/18/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION SE 1/4, SEC. 34, TWP. T40N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. CB-01
Station 69+85
Offset 30.00ft Left
Ground Surface Elev. 775.10 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 769.6 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
774.60				6.0" TOPSOIL-black
			19	SAND & GRAVEL-brown-loose (Fill)
	6			
	6		6	
	3			
772.10				
				CLAY LOAM-dark brown, gray & black-medium stiff (Fill)
	2			
	1	0.7	19	
-5	2			
769.60 ▼				
				CLAYEY SAND & GRAVEL-gray
	ST			
			11	
767.10				
				PEAT-dark brown, gray & black-very loose
	0			
	0	0.4	83	
-10	0			
764.60				
				CLAY to CLAY LOAM-brown & gray-stiff to very stiff
	ST			
		1.8	19	
		P		
	2			
	5	1.2	18	
-15	5	B		
	2			
	4	1.4	17	
	5	B		
	2			
	5	1.0	17	
-20	5	B		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				CLAY to CLAY LOAM-brown & gray-stiff to very stiff *(continued)* becoming gray @ -20.5'
	5			
	6	1.2	15	
	9	B		
	5			
	7	1.8	15	
-25	8	B		
	4			
	8	1.8	14	
	12	B		
	3			
	5	1.6	15	
-30	8	B		
	3			
	7	1.8	16	
-35	10	B		
	5			
	12	2.0	14	
-40	14	B		

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
806 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1586

SOIL BORING LOG

GSI Job No. 17004
Page 2 of 3
Date 10/18/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION SE 1/4, SEC. 34, TWP. T40N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. CB-01
Station 69+85
Offset 30.00ft Left
Ground Surface Elev. 775.10 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 769.6 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				CLAY to CLAY LOAM-brown & gray-stiff to very stiff *(continued)*
733.10				
				SILTY SAND-gray-medium dense
	9			
	10		18	
-45	11			
728.10				
				SILTY CLAY LOAM-gray-medium stiff
	5			
	7	0.9	19	
-50	11	B		
723.10				
				CLAY to CLAY LOAM-gray-stiff to very stiff
	6			
	7	1.3	15	
-55	8	B		
	4			
	8	1.9	18	
-60	12	B		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				CLAY to CLAY LOAM-gray-stiff to very stiff *(continued)*
	6			
	11	2.8	14	
-65	15	B		
	6			
	12	2.4	18	
-70	13	B		
	5			
	9	2.1	18	
-75	12	B		
	6			
	14	2.9	17	
-80	19	B		

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
806 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1586

SOIL BORING LOG

GSI Job No. 17004
Page 3 of 3
Date 10/18/17

ROUTE IL-132 DESCRIPTION IDOT Job No. D-91-116-17, Contract No. 62D86 LOGGED BY MM
SECTION A-W&RS-2 LOCATION SE 1/4, SEC. 34, TWP. T40N, RNG. R10E, 3rd PM
COUNTY Lake DRILLING METHOD HSA/Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. CB-01
Station 69+85
Offset 30.00ft Left
Ground Surface Elev. 775.10 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 769.6 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				CLAY to CLAY LOAM-gray-stiff to very stiff *(continued)*
				some fractured rock from -83.5' to -85.0'
	26			
	32		15	
-85	46			
688.10				
				SILTY CLAY-gray-hard
	14			
	23	5.2	10	
	32	B		End Of Boring @ -90'. Boring backfilled with cuttings.
685.10	-90			
-95				
-100				

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, from 137 (Rev. 8-99)

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PATRICK ENGINEERING

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS I
STRUCTURE NO. 049-0615
SHEET 6 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	170
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 1 of 3
Date 10/30/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NE 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. CB-02
Station 70+02
Offset 17.20ft Right
Ground Surface Elev. 775.70 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 772.2 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY TOPSOIL-black			
774.70			21
CLAYEY SAND & GRAVEL-brown-loose	6		
	5		7
	4		
772.70			
SILTY CLAY-dark brown & gray spotted black-medium stiff ▼	4		
	3	0.9	23
-5	3	B	
770.20			
CLAY LOAM-gray-stiff to very stiff	2		
	3	1.5	19
	4	B	
	3		
	4	2.0	17
-10	4	B	
	4		
	3	1.0	18
	4	P	
becoming gray @ -13.0'	3		
	5	1.5	15
-15	7	P	
	4		
	5	1.0	15
	7	B	
	3		
	4	2.1	15
-20	7	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY LOAM-gray-stiff to very stiff *(continued)*			
	6		
	7	1.7	15
	10	B	
	4		
	6	1.9	15
-25	9	B	
	5		
	8	1.8	15
	11	B	
	7		
	8	1.8	15
-30	12	P	
	11		
	10		12
-35	9		
743.70			
SILTY SAND with Gravel-gray-medium dense	6		
738.70			
CLAY-gray-stiff to very stiff	8	1.7	20
-40	6	B	

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
806 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 2 of 3
Date 10/30/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NE 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. CB-02
Station 70+02
Offset 17.20ft Right
Ground Surface Elev. 775.70 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 772.2 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff to very stiff *(continued)*			
	5		
	7	2.0	16
-45	8	P	
	6		
	6	1.3	18
-50	7	B	
	6		
	10	2.4	15
-55	15	B	
	5		
	7	2.5	22
-60	9	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff to very stiff *(continued)*			
silt seams from -63.5' to -65.0'	8		
	10	2.5	18
-65	13	P	
	11		
	14	1.8	18
-70	19	P	
	10		
	12	3.5	16
-75	17	B	
698.70			
SILT-gray-very dense	28		
-80	50/3"		17

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
806 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 3 of 3
Date 10/30/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NE 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. CB-02
Station 70+02
Offset 17.20ft Right
Ground Surface Elev. 775.70 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 772.2 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILT-gray-very dense *(continued)*			
693.70			
SANDY LOAM-gray-very dense	30		
	39		12
-85	42		
	33		
End Of Boring @ -90'. Boring backfilled with cuttings.	40		14
685.70 -90	50/5"		
-95			
-100			

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, from 137 (Rev. 8-99)

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PATRICK ENGINEERING

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS II
STRUCTURE NO. 049-0615
SHEET 7 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	171
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 1 of 3
Date 10/10/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NE 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. CB-03
Station 69+55
Offset 26.50ft Right
Ground Surface Elev. 775.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 768.1 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY SILT with Gravel-brown (Fill) 774.60			11
SANDY CLAY LOAM-dark brown & gray spotted black-loose to medium dense (Fill)	2		
	4 9	4.5 P	16
	1		
-5	3 3		18
SILTY CLAY-dark gray to black-very soft 770.10	ST		
		<0.25 P	17
▼ 767.60	ST		
SILTY CLAY LOAM-dark gray-very soft		<0.25 P	22
-10 765.10			
SILTY CLAY-gray-very soft	ST		
		<0.25 P	18
	1		
-15	2 2	0.2 B	18
760.10			
CLAY LOAM-gray-stiff to very stiff	2		
	4 4	1.1 B	17
	3		
-20	5 9	2.0 B	16

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY LOAM-gray-stiff to very stiff *(continued)*	6		
	10 10	3.2 B	13
752.60 SILTY LOAM-gray-medium dense	6		
	7 11		16
-25 750.10 CLAY LOAM-gray-stiff to very stiff	5		
	8 11	2.2 B	15
	5		
-30	7 9	1.1 B	15
	5		
-35	16 12	2.3 B	14
738.60 SILTY LOAM to LOAM-gray-medium dense	5		
-40	9 16		11

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
806 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 2 of 3
Date 10/10/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NE 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. CB-03
Station 69+55
Offset 26.50ft Right
Ground Surface Elev. 775.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 768.1 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY LOAM to LOAM-gray-medium dense *(continued)*	6		
-45	8 11		17
728.60 SILT-gray-medium dense	6		
	7 6		17
723.60 CLAY-gray-stiff to very stiff	4		
	7 8	2.3 B	18
	5		
-60	7 9	1.8 B	17

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff to very stiff *(continued)*	9		
-65	12 14	3.0 B	17
	4		
-70	7 11	2.3 B	18
	7		
-75	12 23	2.5 B	17
	10		
-80	18 21	2.7 B	18

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, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
806 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-1588

SOIL BORING LOG

GSI Job No. 17004
Page 3 of 3
Date 10/10/17

ROUTE IL-132 **DESCRIPTION** IDOT Job No. D-91-116-17, Contract No. 62D86 **LOGGED BY** MM
SECTION A-W&RS-2 **LOCATION** NE 1/4, **SEC.** 3, **TWP.** T45N, **RNG.** R10E, 3rd **PM**
COUNTY Lake **DRILLING METHOD** HSA/Mud Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station
BORING NO. CB-03
Station 69+55
Offset 26.50ft Right
Ground Surface Elev. 775.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 768.1 ft ▼
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff to very stiff *(continued)*	9		
-85	13 11	2.7 B	16
688.60 SILTY CLAY LOAM-gray-dense	20		
End Of Boring @ -90'. Boring backfilled with cuttings. 685.60	27 30		11
-90			
-95			
-100			

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, from 137 (Rev. 8-99)

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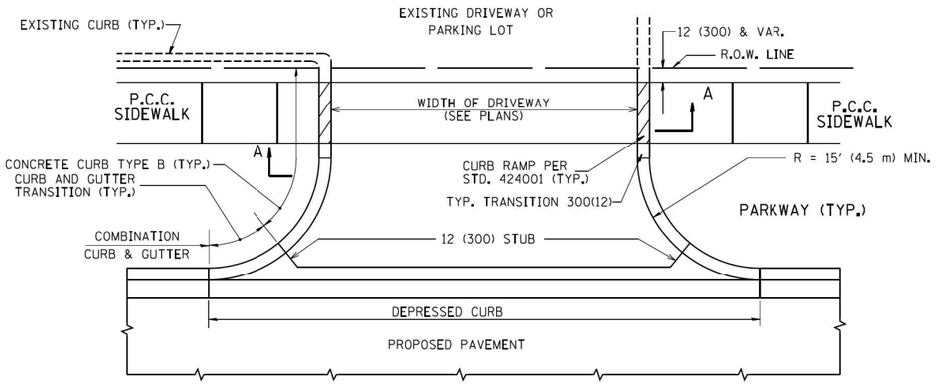
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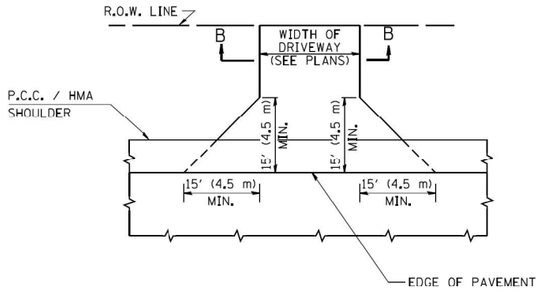
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS III
STRUCTURE NO. 049-0615
SHEET 8 OF 8 SHEETS

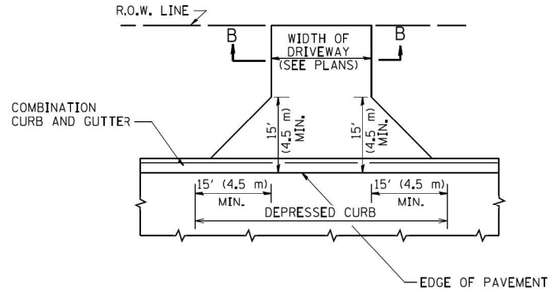
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		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		



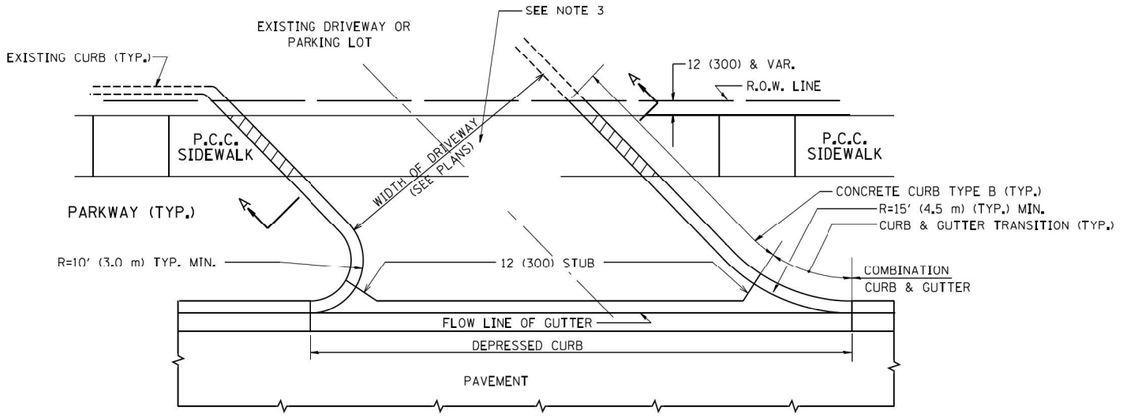
WITH CONCRETE CURB, TYPE B



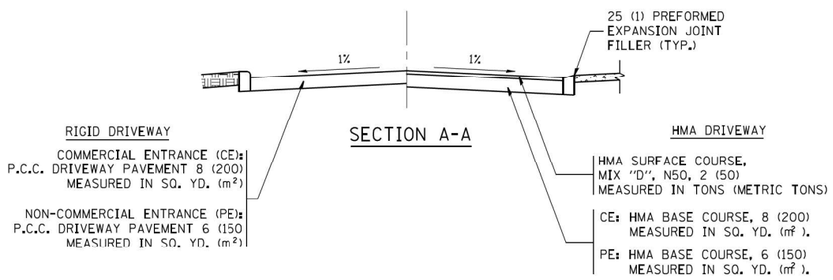
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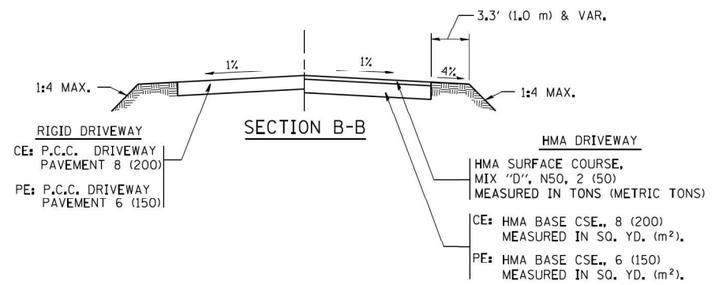


ADJACENT TO CURB AND GUTTER



WITH CONCRETE CURB, TYPE B





RURAL FIELD ENTRANCE (FE)

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

AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SQ. YD. (m^2).

GENERAL NOTES:

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

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

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

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

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

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

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	PLOT DATE = 9/6/2011	DATE - 11-04-95	REVISED - R. BORO 09-06-11

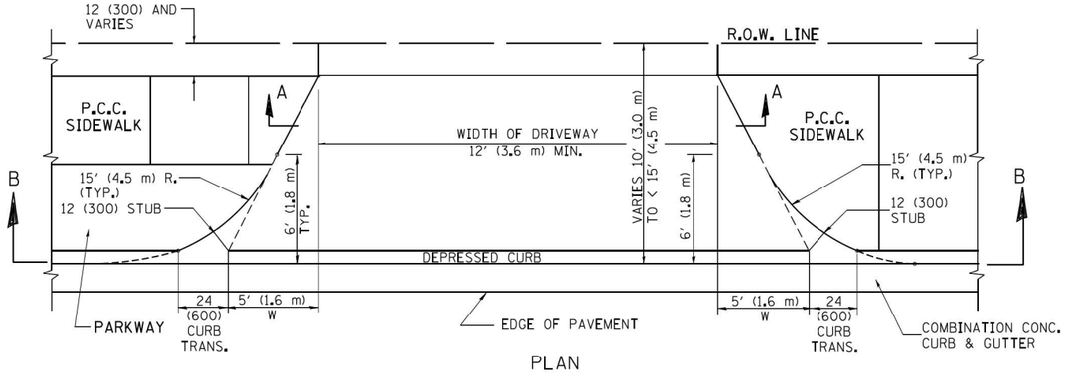
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS – DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)

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

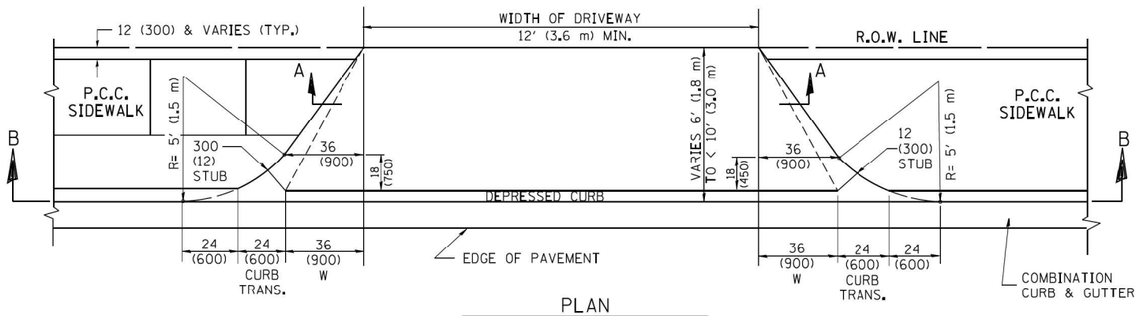
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	BD0156-07 (BD-01)	CONTRACT NO. 62D86		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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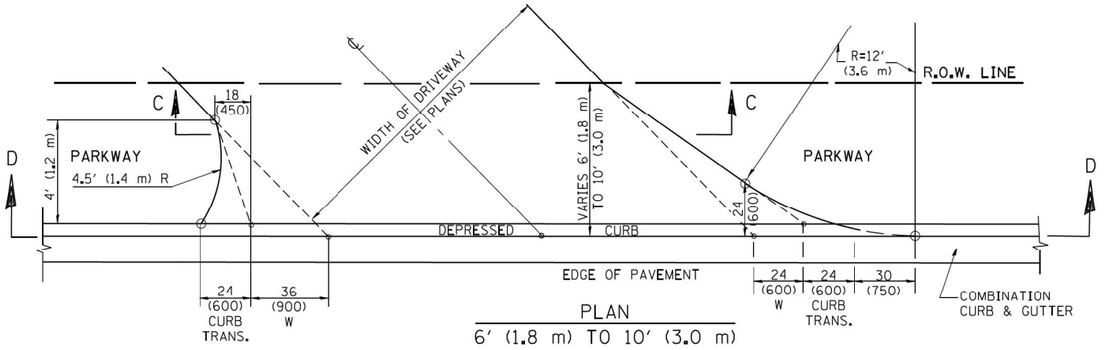
PLAN

10' (3.0 m) TO < 15' (4.5 m)



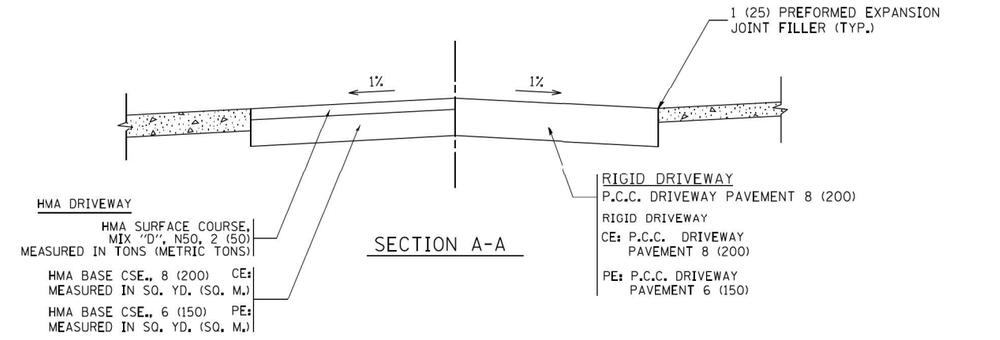
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6' (1.8 m) TO < 10' (3.0 m)

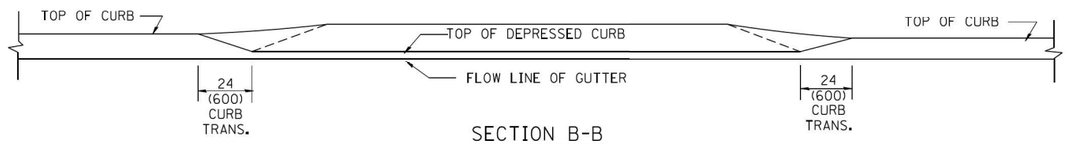


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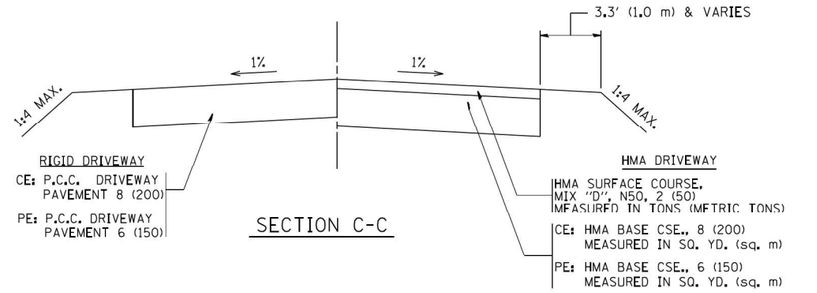
6' (1.8 m) TO 10' (3.0 m)



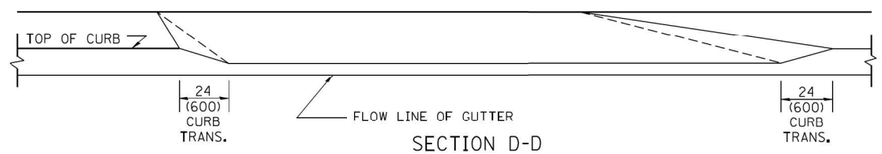
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

GENERAL NOTES

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

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

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

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

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

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

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

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	PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - R. BORO 01-01-07
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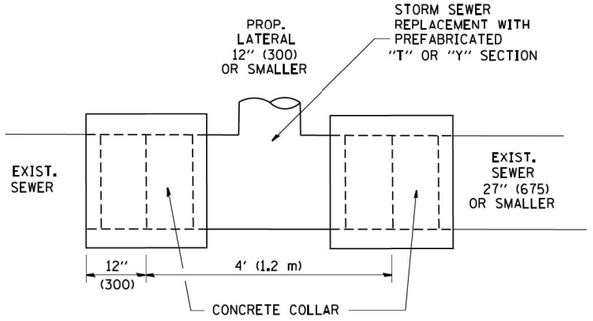
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)

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

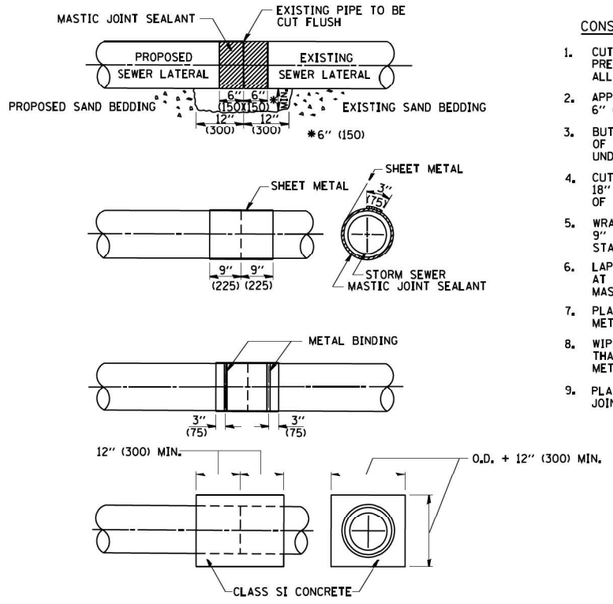
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	174
	BD400-02 (BD-02)	CONTRACT NO. 62D86		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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DETAIL "A"

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

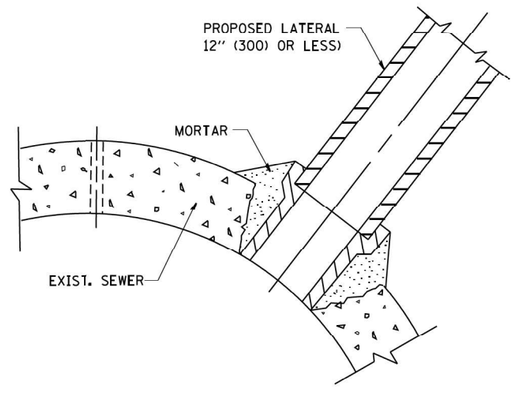


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

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



DETAIL "C"

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

NOTES

MATERIAL

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

CONSTRUCTION METHODS

I. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.

II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:

A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".

B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

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

GENERAL

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

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

BASIS OF PAYMENT

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

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

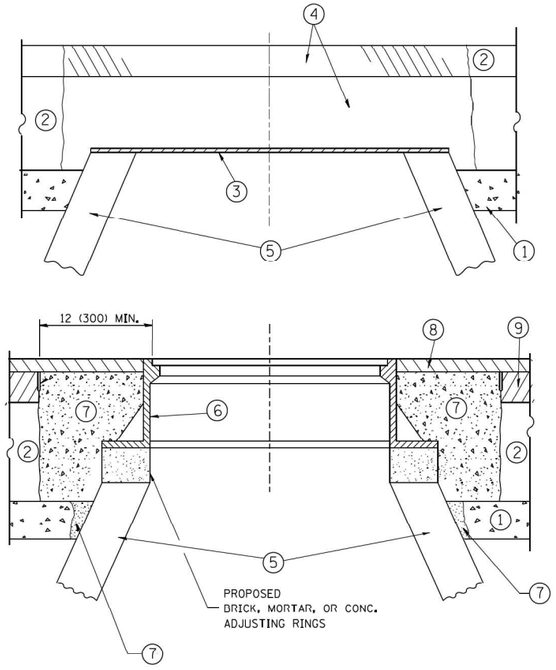
TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

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

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

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		DRAWN -	REVISED - R. SHAH 09-09-94		
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - R. SHAH 10-25-94		
	PLOT DATE = 1/4/2008	DATE - 07-25-90	REVISED - R. SHAH 06-12-96		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	175
	BD500-01 (BD-7)	CONTRACT NO. 62D86		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1½ (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

LEGEND

(1) SUB-BASE GRANULAR MATERIAL
(2) EXISTING PAVEMENT
(3) 36 (900) DIAMETER METAL PLATE
(4) PROPOSED CRUSHED STONE AND HMA SURFACE MIX
(5) EXISTING STRUCTURE
(6) FRAME AND LID (SEE NOTES)
(7) CLASS PP-1* CONCRETE
(8) PROPOSED HMA SURFACE COURSE
(9) PROPOSED HMA BINDER COURSE

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT:

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)"

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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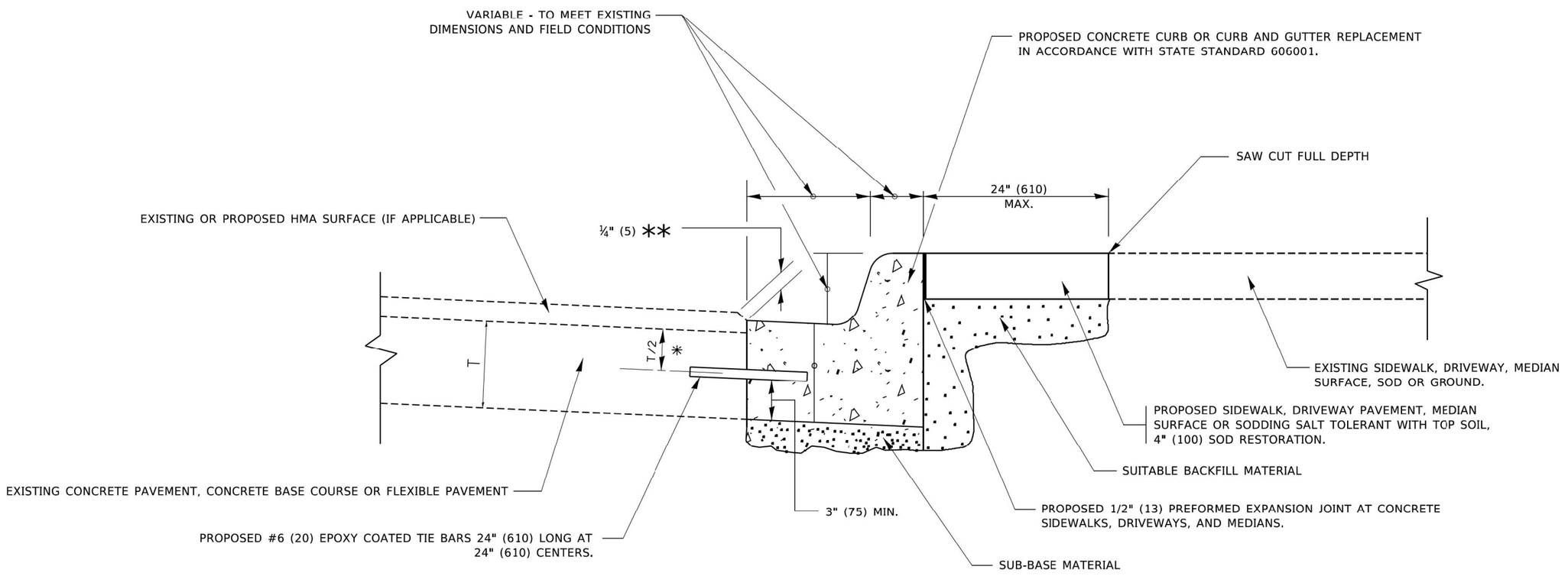
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS FOR
FRAMES AND LIDS ADJUSTMENT WITH MILLING

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	176
	BD600-03 (BD-8)	CONTRACT NO. 62D86		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

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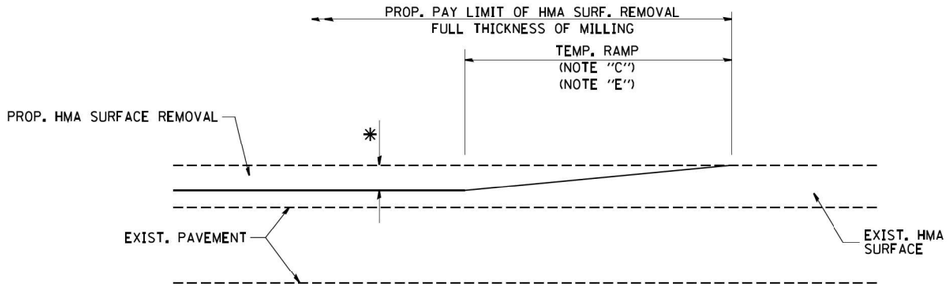
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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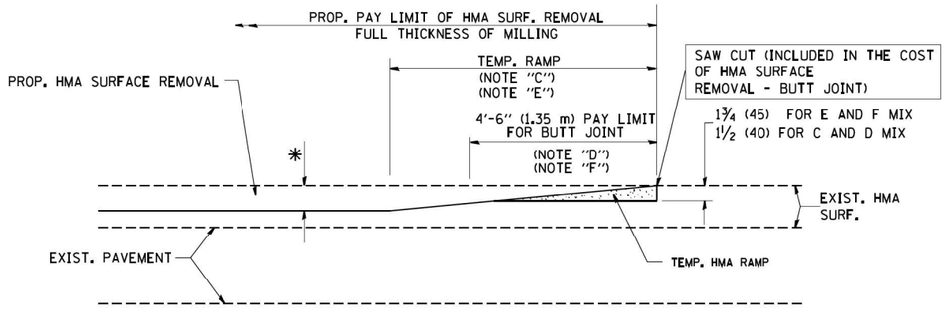
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	ILLINOIS FED. AID PROJECT			



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

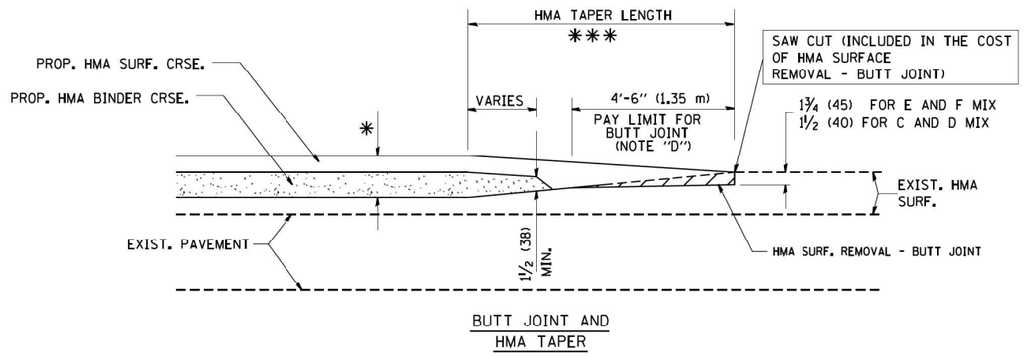


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

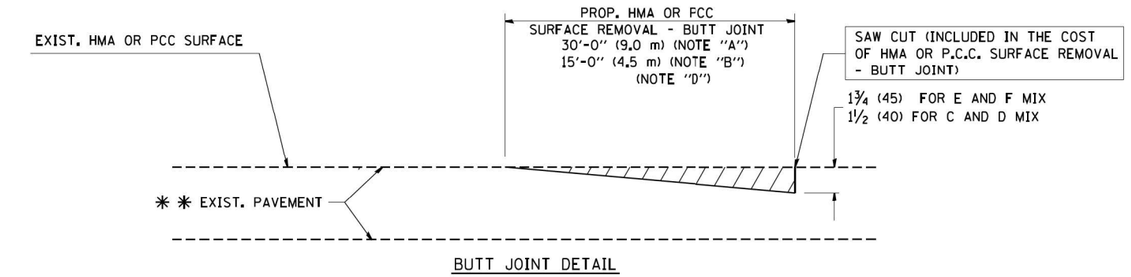
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TYPICAL TEMPORARY RAMP

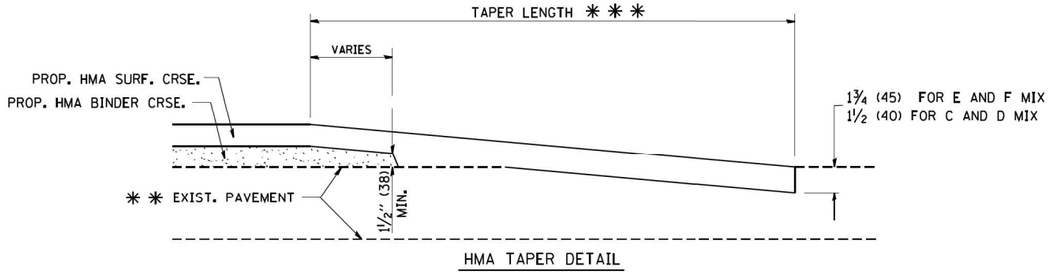


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

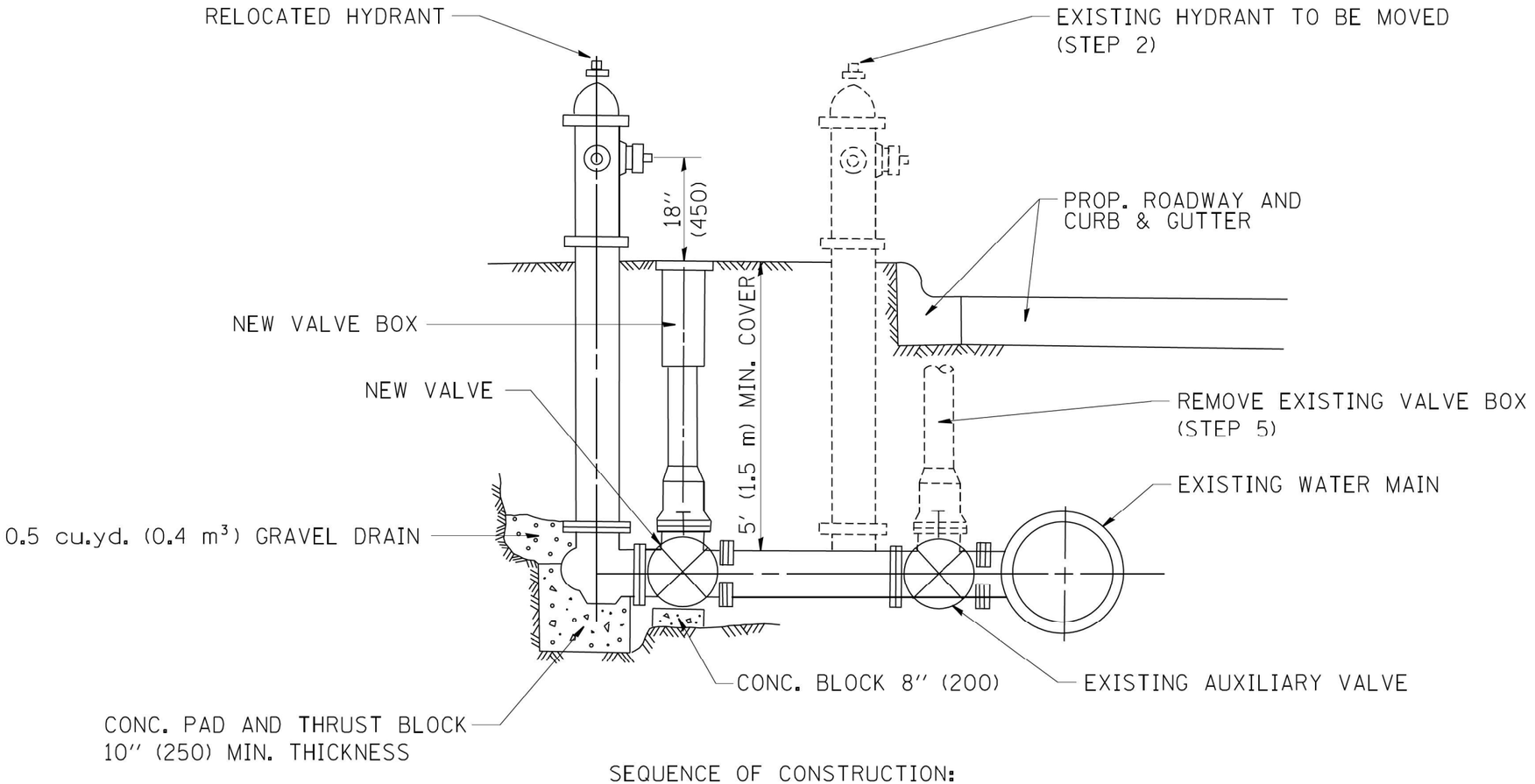
BASIS OF PAYMENT:

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

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

FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUTT JOINT AND HMA TAPER DETAILS
		DRAWN -	REVISED - A. ABBAS 03-21-97		
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01		
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	178
	BD400-05 BD32	CONTRACT NO. 62D86		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



SEQUENCE OF CONSTRUCTION:

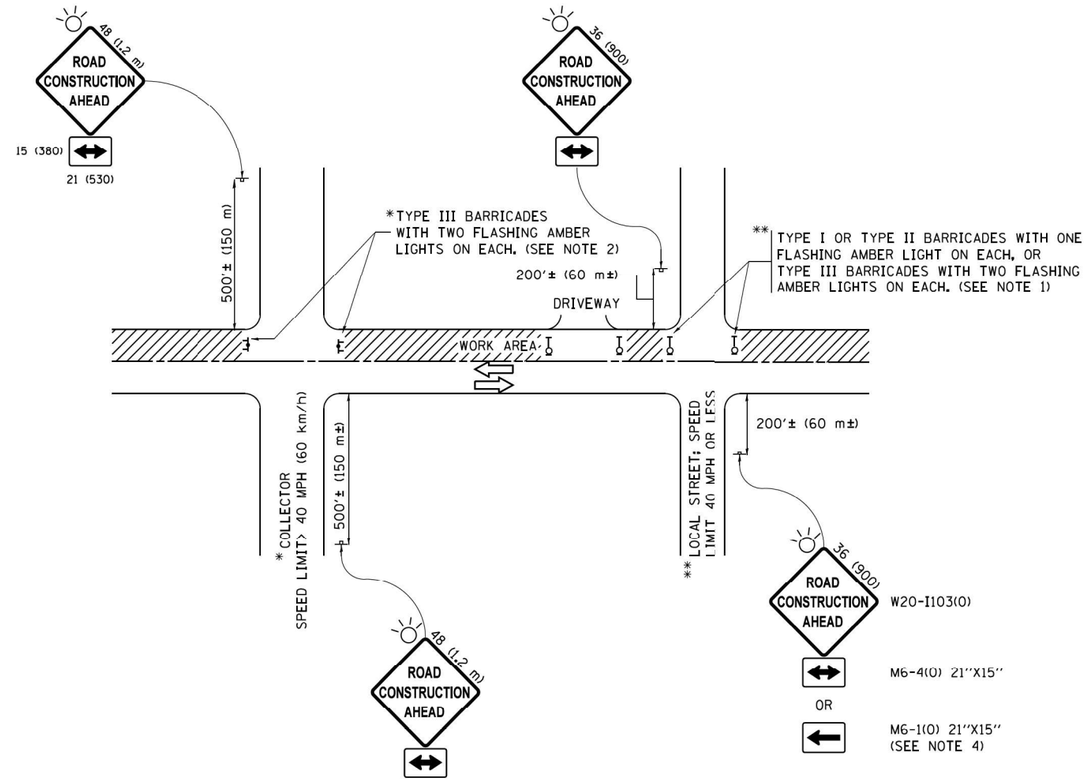
1. CLOSE EXISTING VALVE.
2. REMOVE EXISTING HYDRANT.
3. INSTALL HYDRANT EXTENSION AND NEW VALVE.
4. RELOCATE EXISTING HYDRANT.
5. OPEN EXISTING VALVE, REMOVE BOX.
6. BACKFILL.
7. FLUSH AND TEST FOR CHLORIDE RESIDUAL AND PROVIDE TEST.

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 = W:\diststd\22x34\bd36.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - R. SHAH 09-09-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIRE HYDRANT TO BE MOVED	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - R. SHAH 10-25-94			541	A-W&RS-2	LAKE	205	179
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -				BD-36		CONTRACT NO. 62D86	
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.		FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	



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 x 48 (1.2 m x 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) IN HEIGHT.
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).
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 ENGINEER.
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.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist$\Default	USER NAME = footemj	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
	PLOT SCALE = 50.000 ' / in.	DRAWN - T. RAMMACHER 01-06-00	REVISED - A. SCHUETZE 07-01-13
	PLOT DATE = 9/15/2016	CHECKED -	REVISED - A. SCHUETZE 09-15-16
		DATE - 06-89	

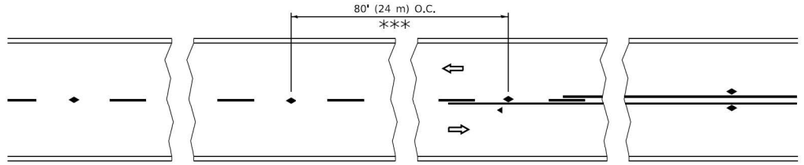
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	TC-10	CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			

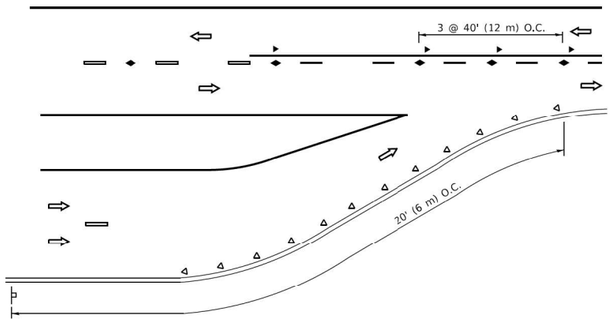
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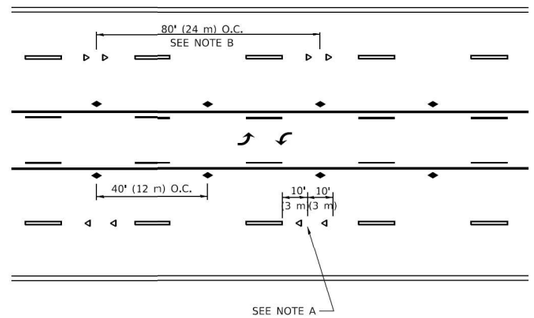
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO–LANE/TWO–WAY

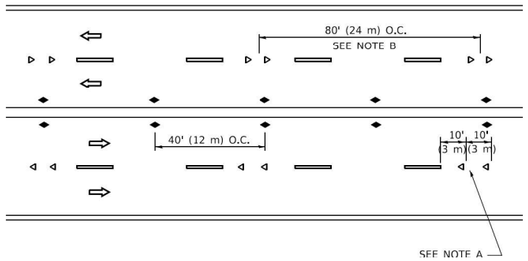
SEE FIGURE 3B-14 MUTCD



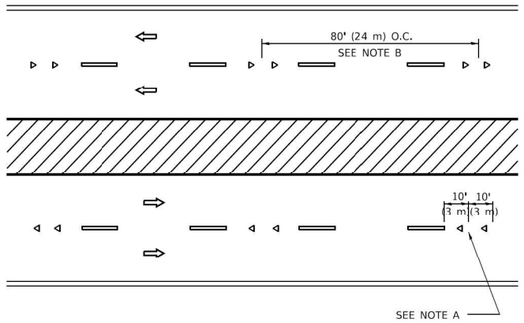
LANE REDUCTION TRANSITION



TWO–WAY LEFT TURN



MULTI–LANE/UNDIVIDED



MULTI–LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

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

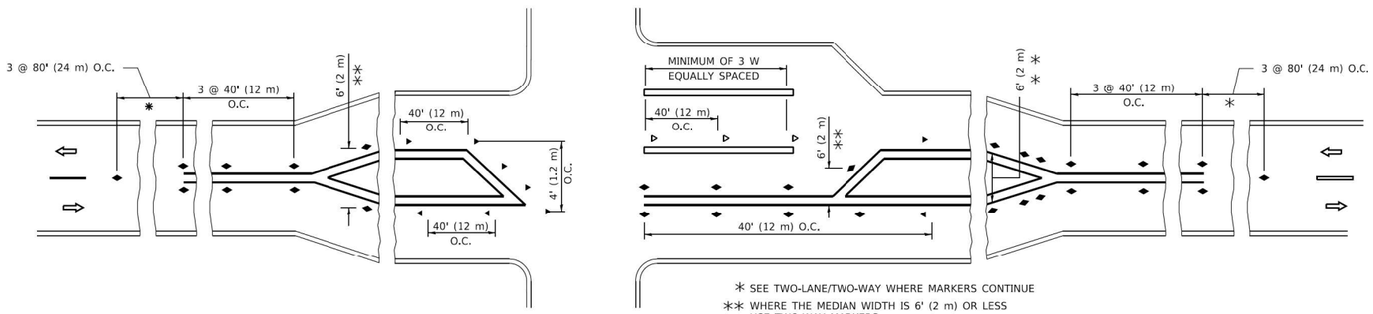
LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

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



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

TURN LANES

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

USER NAME = footemj	DESIGNED -	REVISED - T. RAMMACHER 03-12-99	
	DRAWN -	REVISED - T. RAMMACHER 01-06-00	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - C. JUCIUS 09-09-09	
PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 07-01-13	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

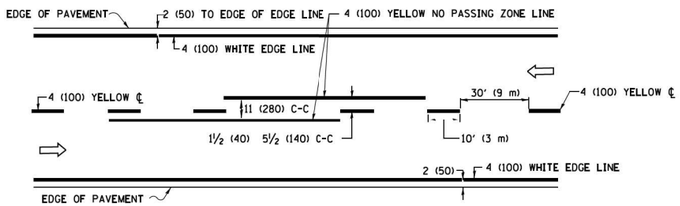
TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW–PLOW RESISTANT)

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

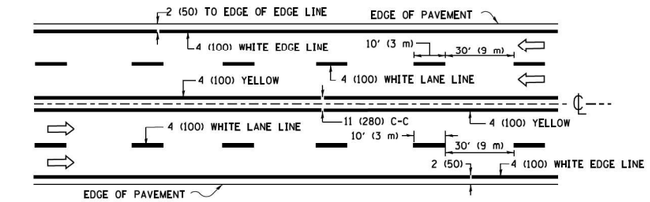
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	181
	TC-11	CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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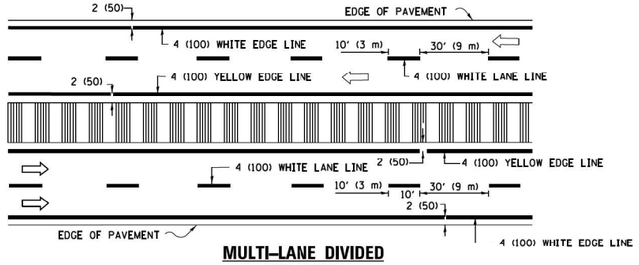
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2–LANE ROADWAY

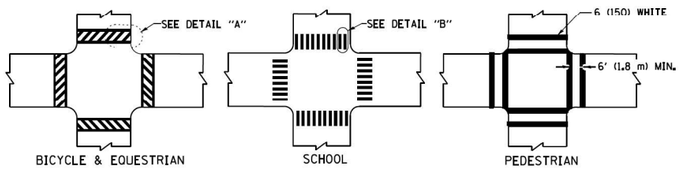


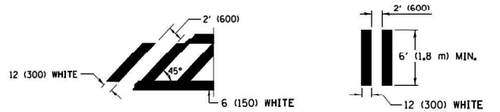
MULTI–LANE UNDIVIDED



MULTI–LANE DIVIDED
WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

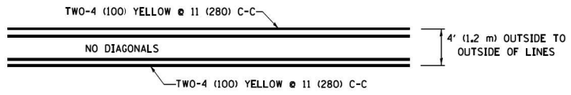




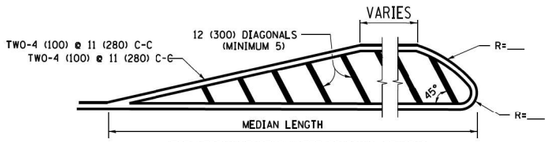
DETAIL "A" **DETAIL "B"**

TYPICAL CROSSWALK MARKING

✳ MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



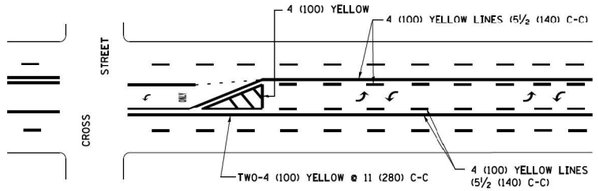
4' (1.2 m) WIDE MEDIANS ONLY



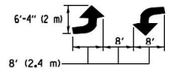
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

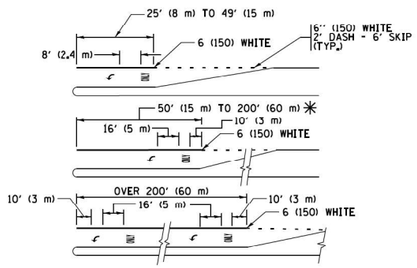


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO–WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

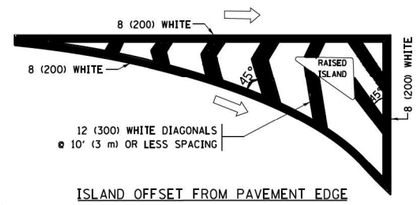


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

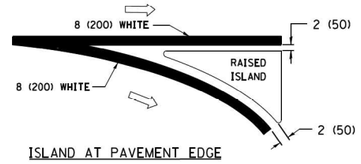
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

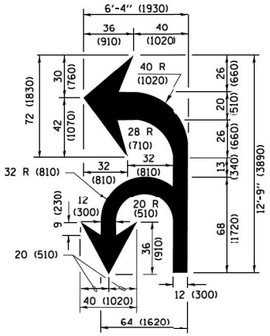


ISLAND OFFSET FROM PAVEMENT EDGE

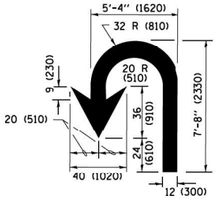


ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

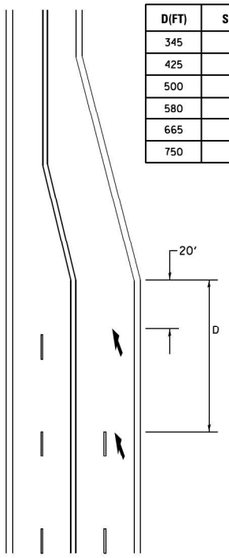


COMBINATION LEFT AND U–TURN



U–TURN

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55



LANE REDUCTION TRANSITION

✳ LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR 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 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 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 WHITE	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 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, 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	DIAGONALS: 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 SQ. FT. (0,33 m^2) EACH "X"=54,0 SQ. FT. (5,0 m^2)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 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 (OVER 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

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

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

FILE NAME = W:\diststd\22x34\tcl3.dgn	USER NAME = leyse	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
		DRAWN -	REVISED - C. JUCIUS 07-01-13
	PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED - C. JUCIUS 12-21-15
Default	PLOT DATE = 6/23/2017	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	182
	TC-13	CONTRACT NO. 62D86		
		ILLINOIS FED. AID PROJECT		

TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

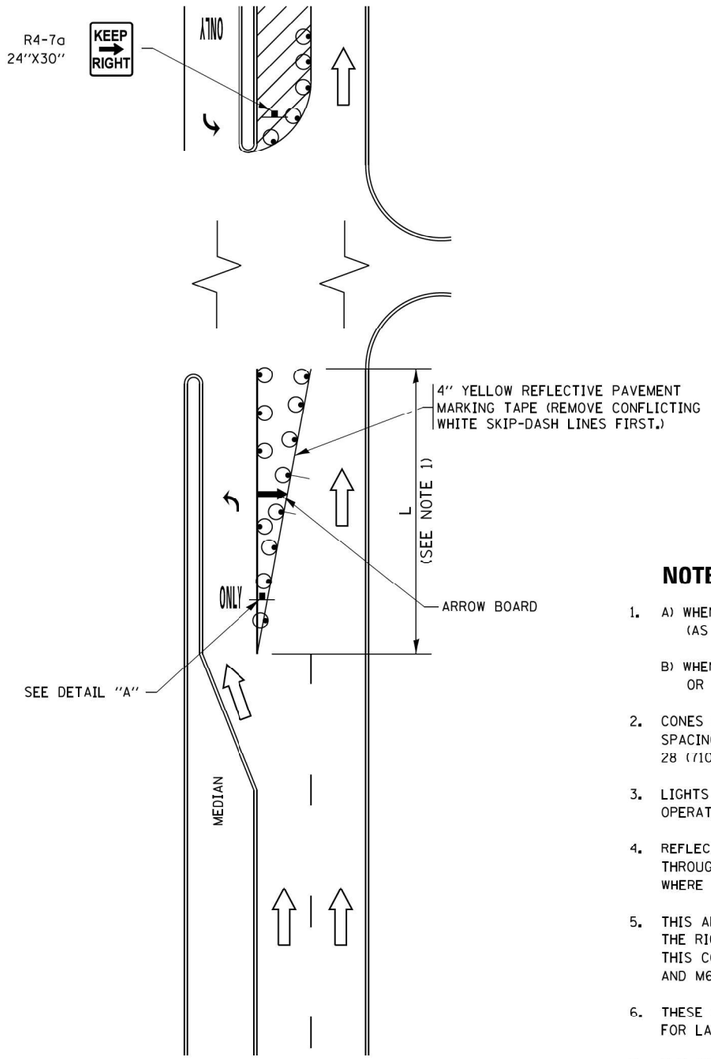


FIGURE 1

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
- SIGN ASSEMBLY
- 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-I10OR 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

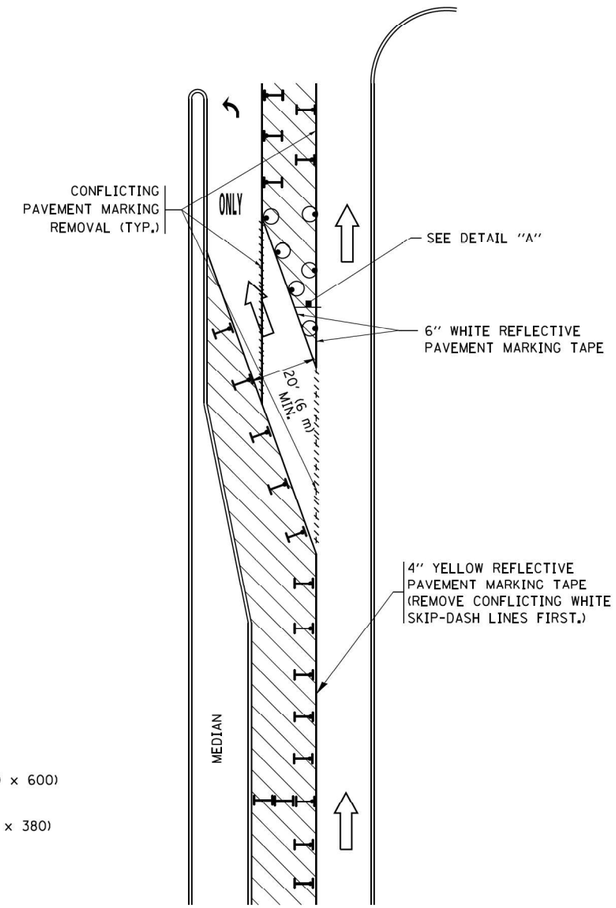
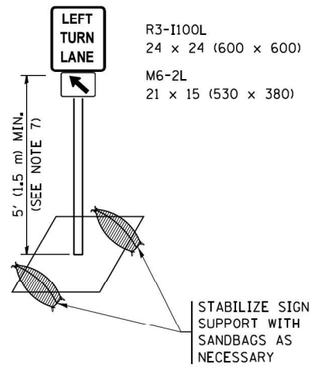


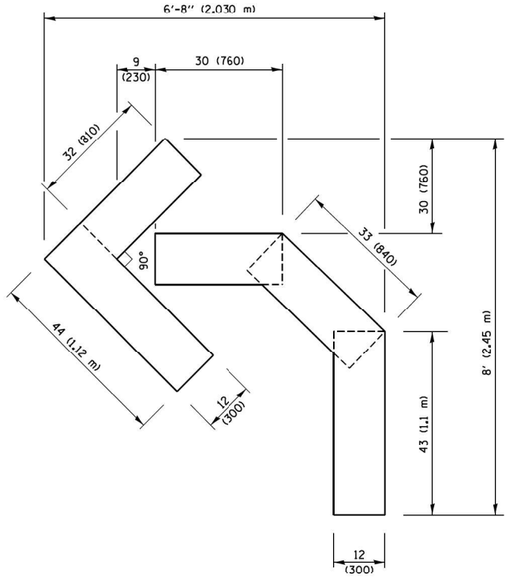
FIGURE 2



DETAIL A

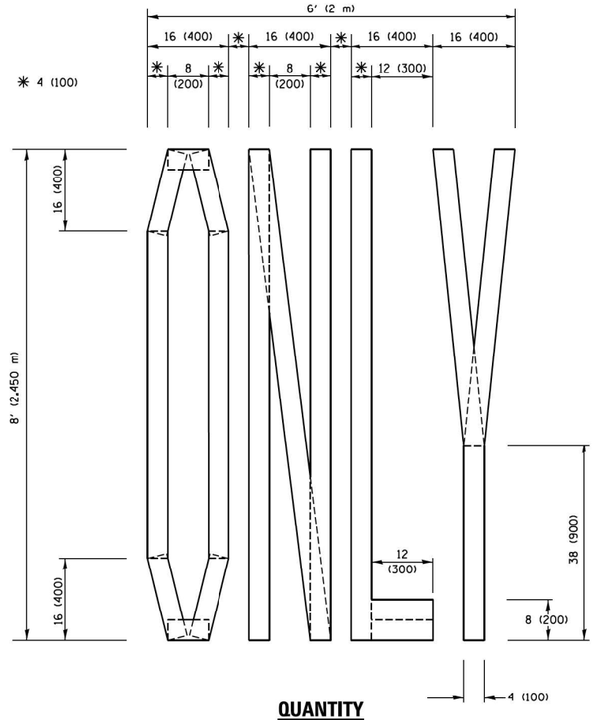
All dimensions are in inches (millimeters) unless otherwise shown.

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	PLOT SCALE = 50.0000 ' / in.	REVISED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 07-01-13		SCALE: NONE	SHEET 1 OF 1 SHEETS STA. TO STA.	541	A-W&RS-2	LAKE	205	183
	PLOT DATE = 9/15/2016	REVISED -T. RAMMACHER 01-06-00	REVISED - A. SCHUETZE 09-15-16				TC-14		CONTRACT NO. 62D86		
							ILLINOIS FED. AID PROJECT				



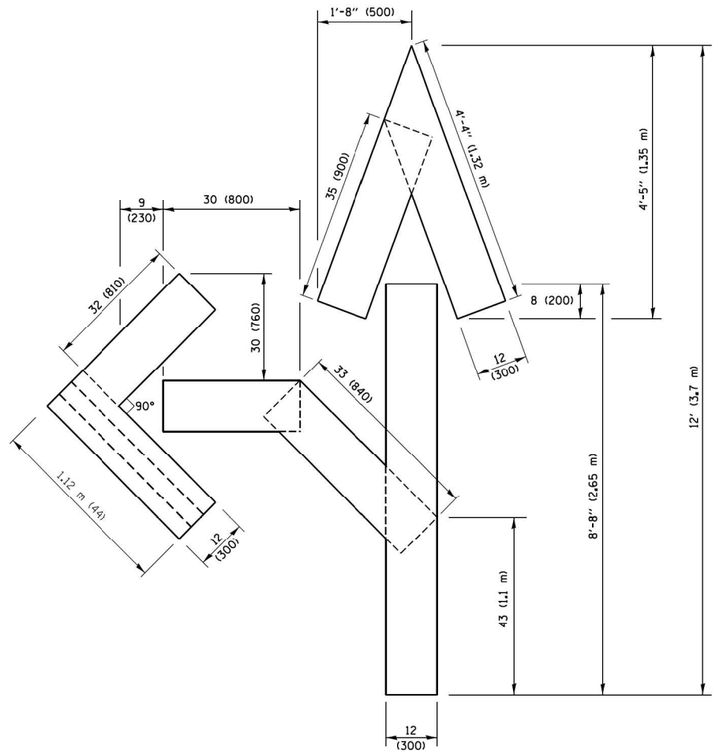
QUANTITY

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



QUANTITY

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

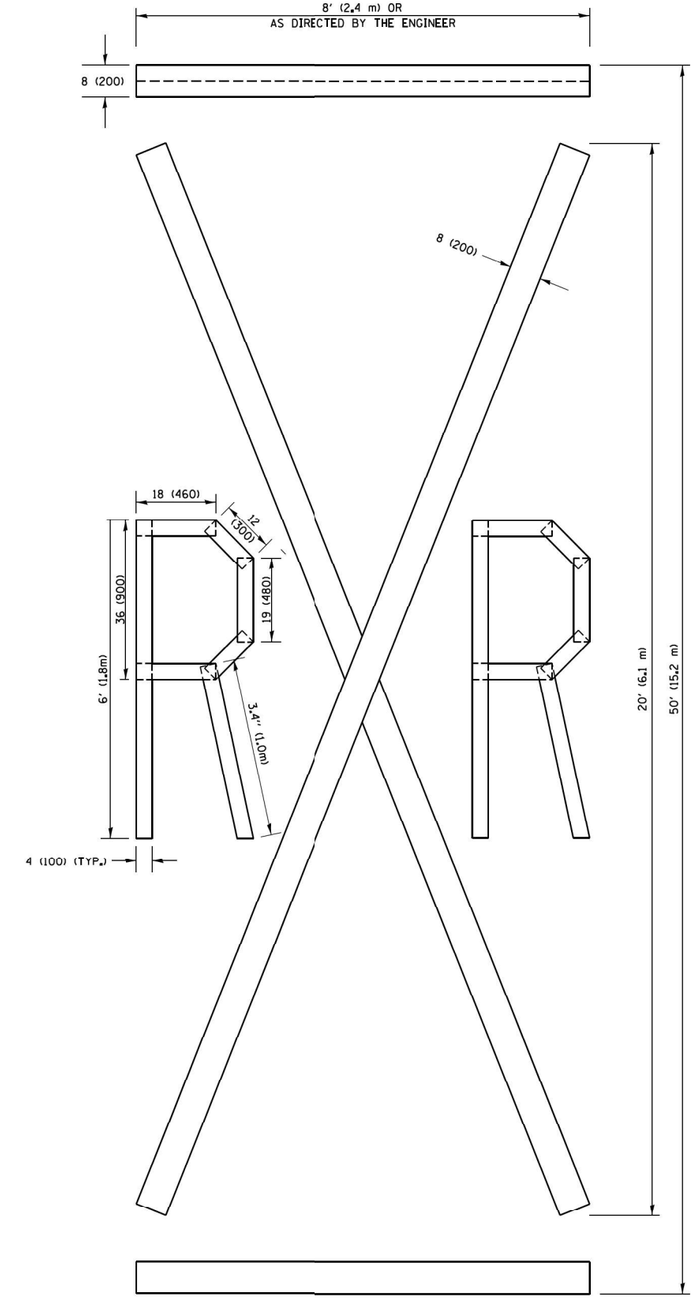


QUANTITY

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.



QUANTITY

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.

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	PLOT DATE = 9/15/2016	CHECKED -	REVISED -E. GOMEZ 08-28-00
		DATE - 09-18-94	REVISED -A. SCHUETZE 09-15-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	184
	TC-16	CONTRACT NO. 62D86		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

tc16.dgn 9/15/2016 12:45:20 PM | tsm:footemj

ROUTE MARKERS

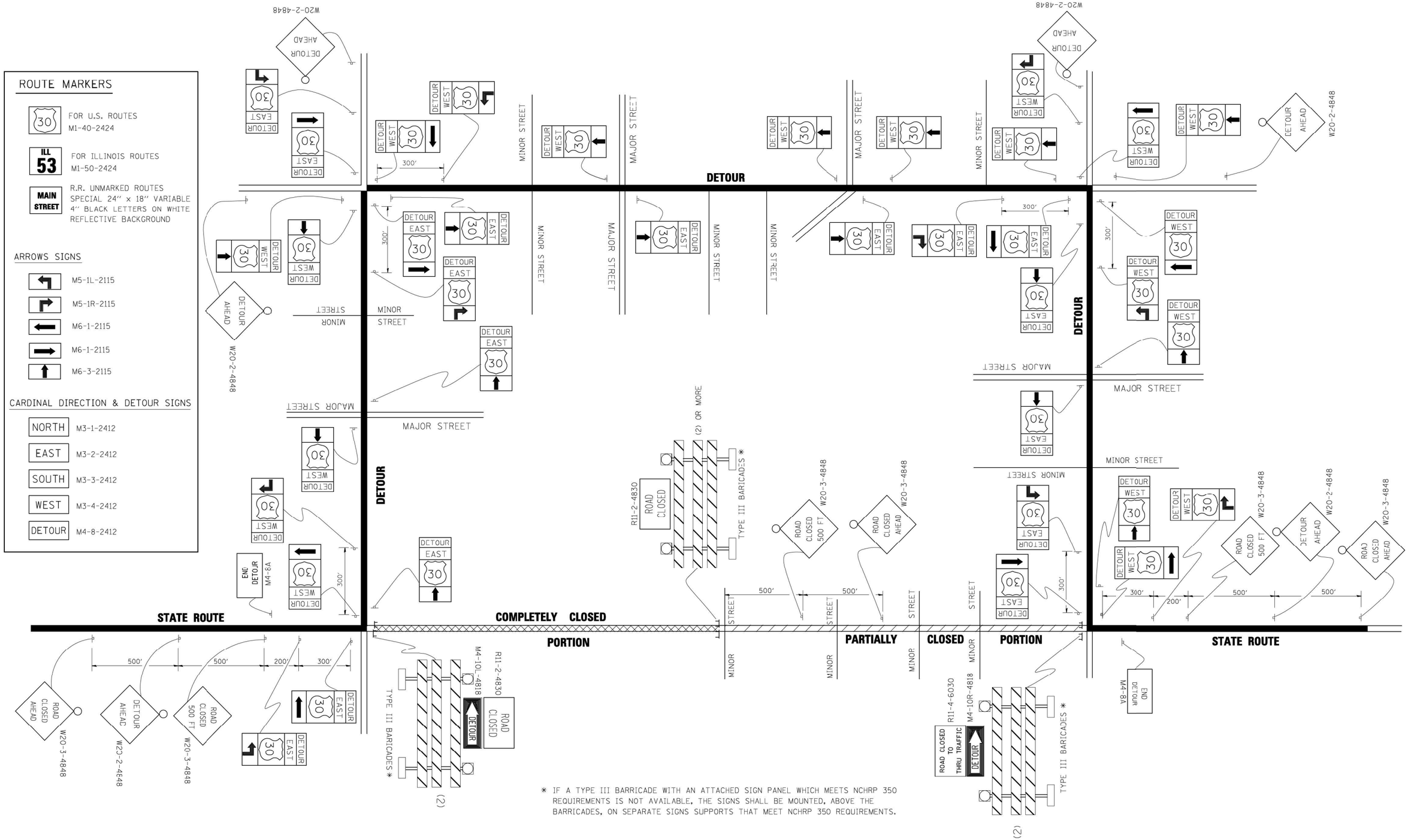
- 30 — FOR U.S. ROUTES M1-40-2424
- ILL 53 — FOR ILLINOIS ROUTES M1-50-2424
- MAIN STREET — R.R. UNMARKED ROUTES SPECIAL 24" x 18" VARIABLE 4" BLACK LETTERS ON WHITE REFLECTIVE BACKGROUND

ARROWS SIGNS

- M5-1L-2115
- M5-1R-2115
- M6-1-2115
- M6-1-2115
- M6-3-2115

CARDINAL DIRECTION & DETOUR SIGNS

- NORTH M3-1-2412
- EAST M3-2-2412
- SOUTH M3-3-2412
- WEST M3-4-2412
- DETOUR M4-8-2412



* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

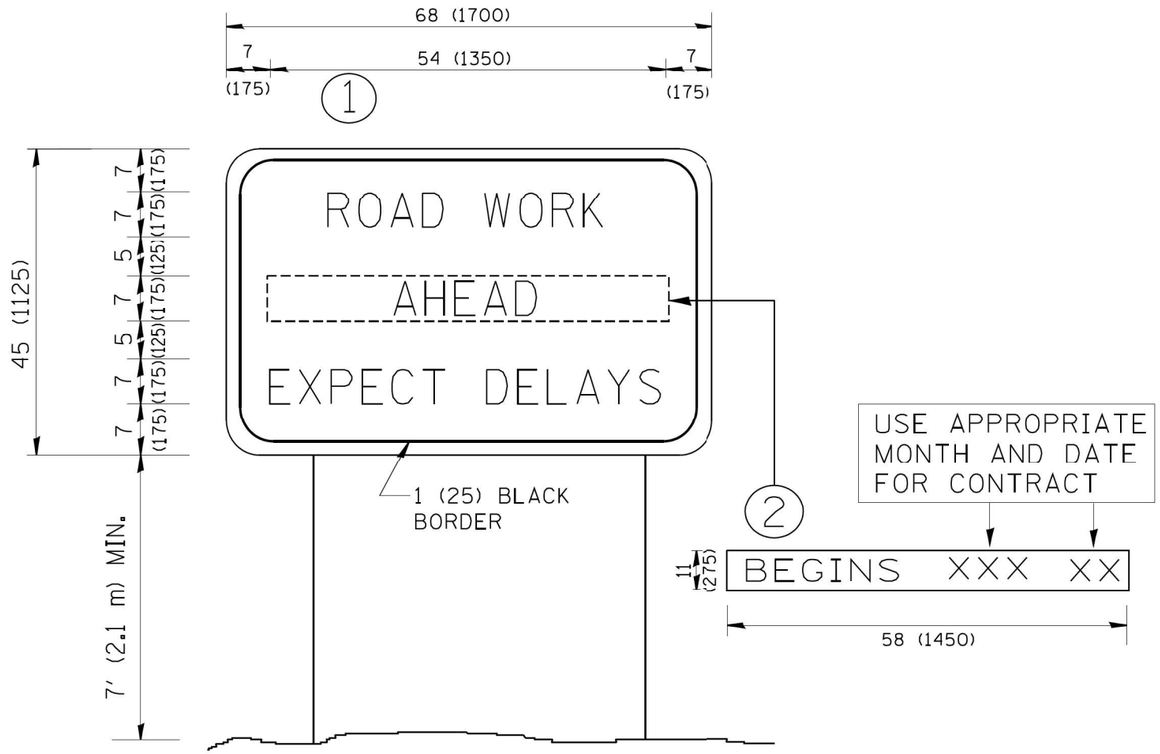
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	PLOT DATE = 9/14/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETOUR SIGNING
FOR CLOSING STATE HIGHWAYS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	185
	TC-21	CONTRACT NO. 62D86		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:

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

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

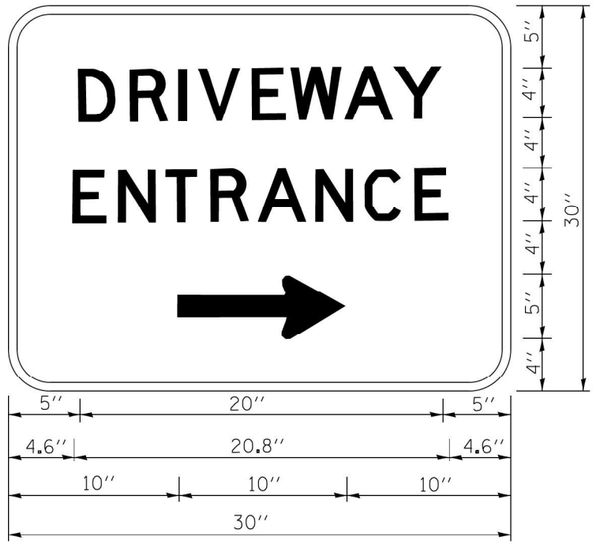
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	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	186
	TC-22	**CONTRACT NO.** 62D86		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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

NOTES:

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

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY ENTRANCE SIGNING

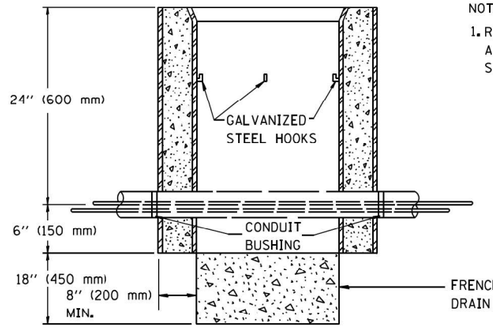
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	187
	TC-26	CONTRACT NO. 62D86		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

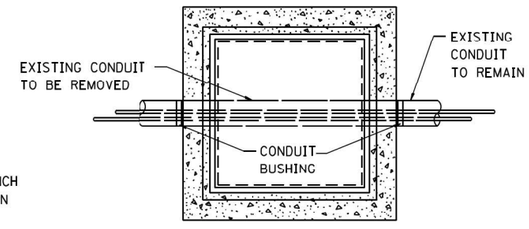
tc26.dgn 12/13/2012 2:26:37 PM User:gaglianobt

NOTES:

1. REMOVAL OF EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHING SHALL BE INCIDENTAL TO THE HANDHOLE.



ELEVATION



PLAN

DETAIL
HANDHOLE TO INTERCEPT EXISTING CONDUIT

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

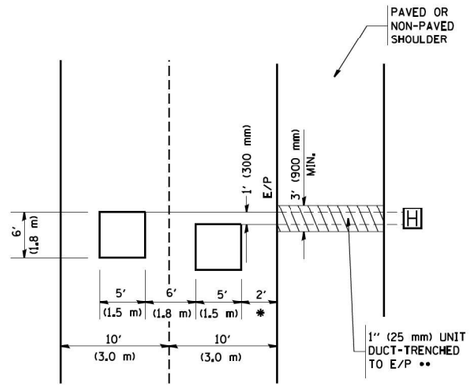
HANDHOLE TO INTERCEPT EXISTING CONDUIT

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	188
	TS-03	CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			

LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.



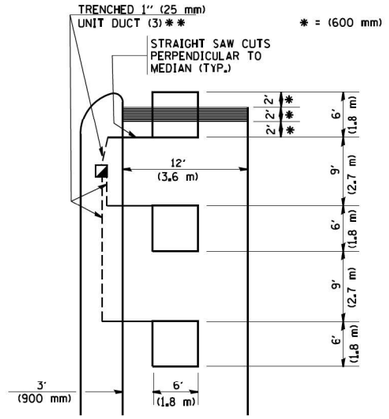
* = (600 mm)

** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

LEFT TURN LANES WITH MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.

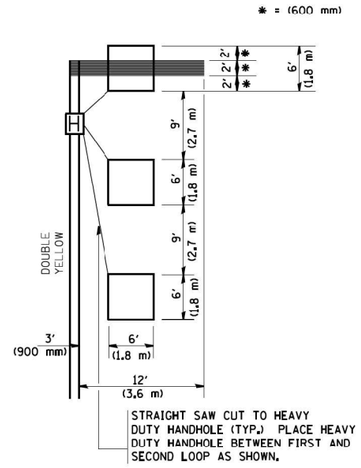


** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

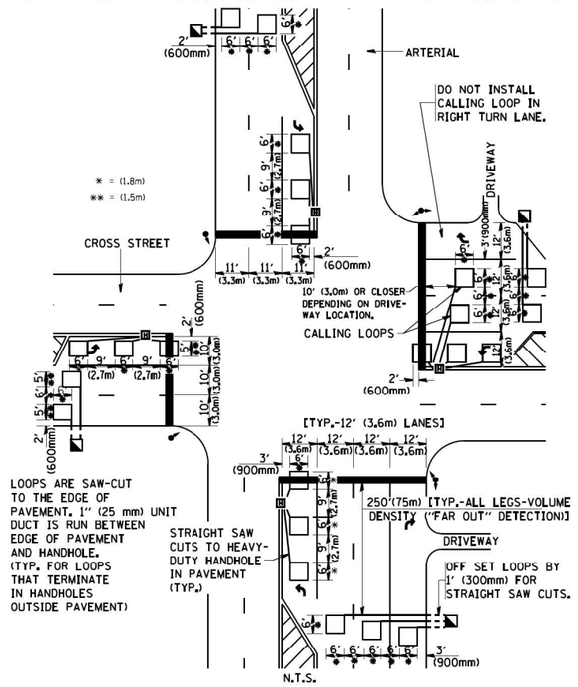
LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)



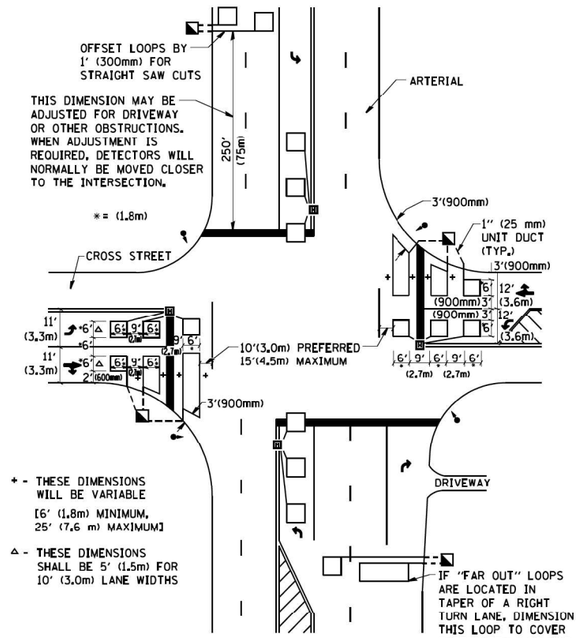
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)



DETAIL 1
N.T.S.

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)



DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

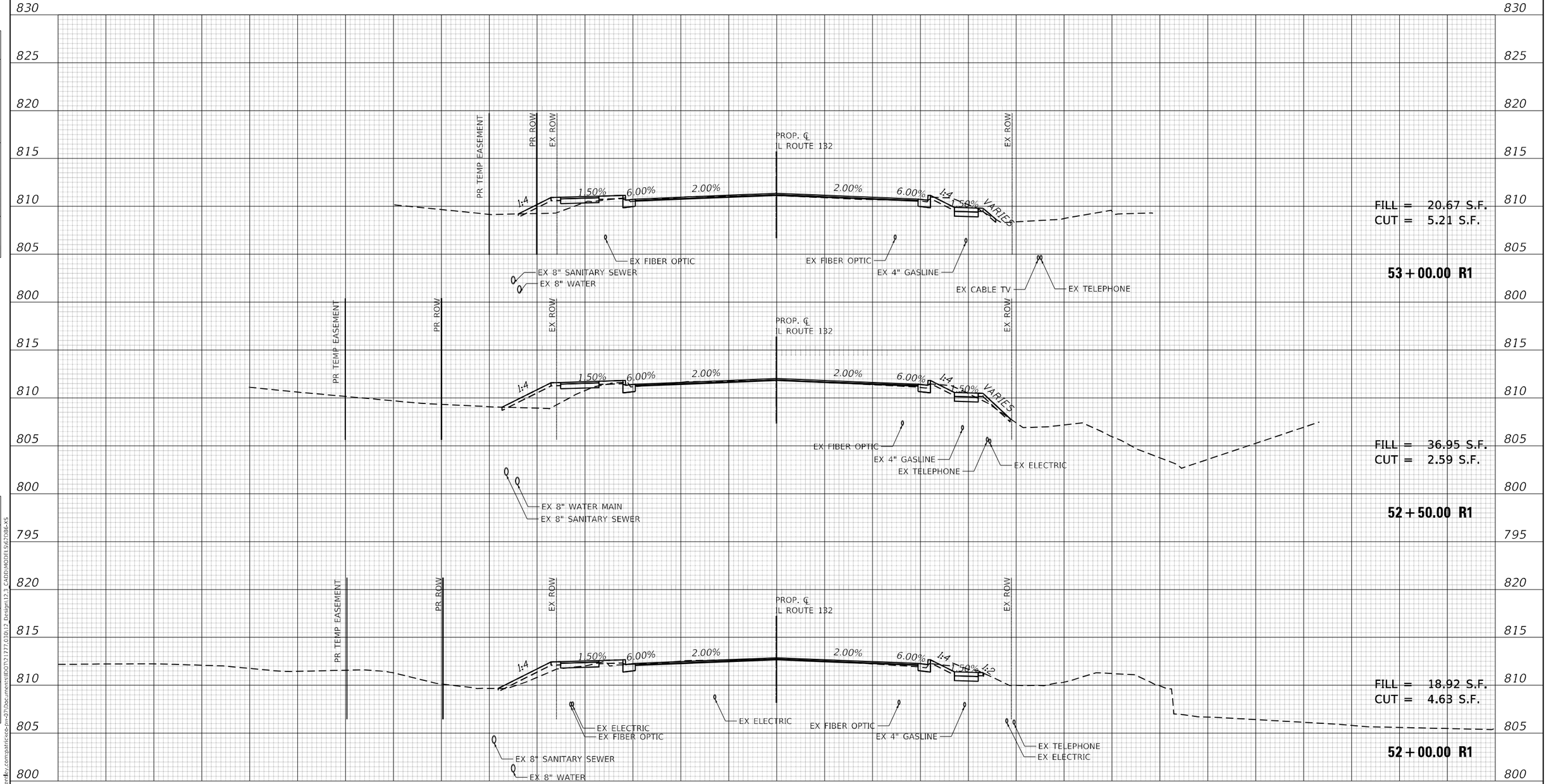
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	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 – DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	189
	TS-07	CONTRACT NO. 62D86		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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

BY	DATE

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

BY	DATE

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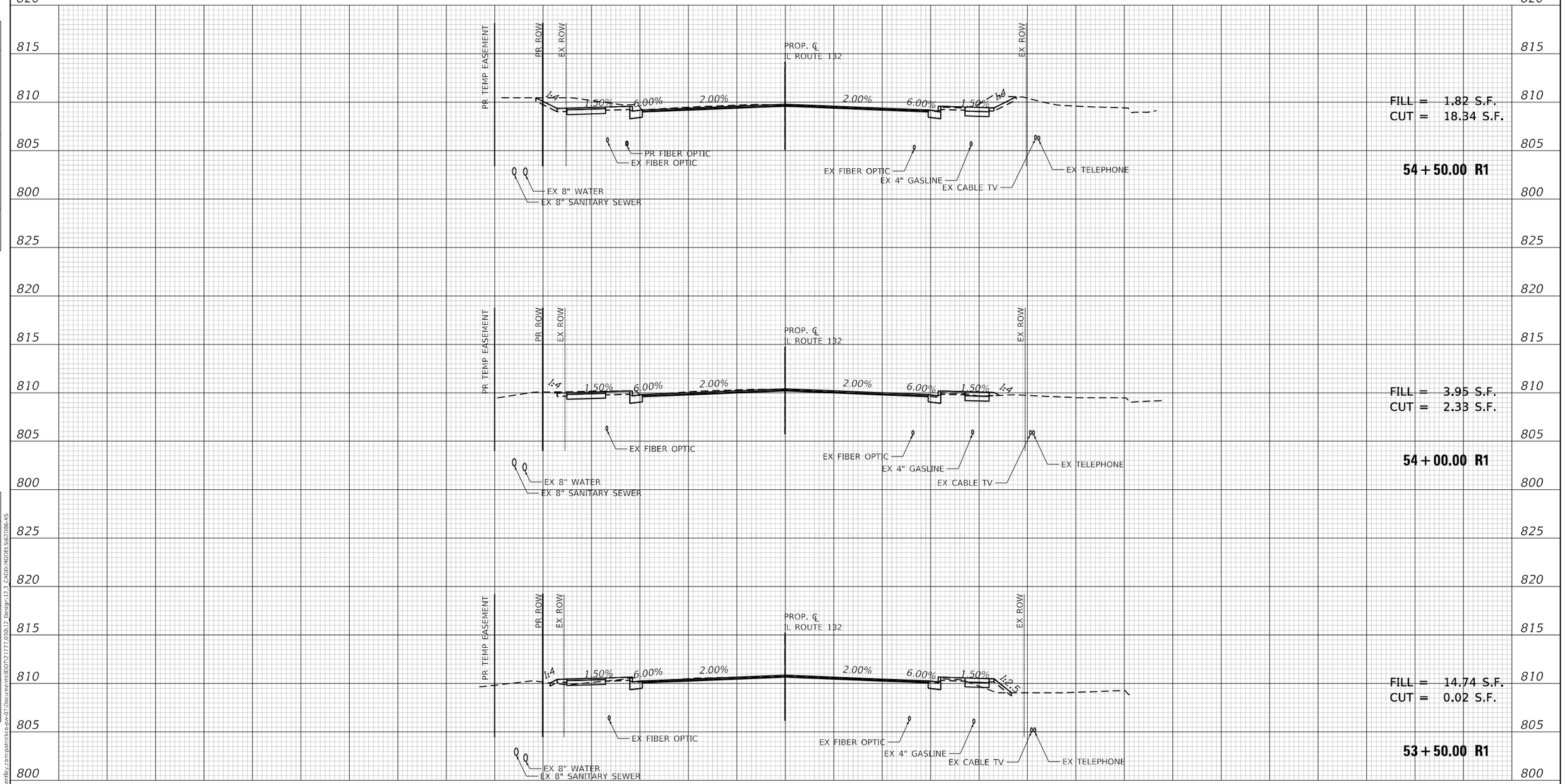
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		DRAWN - BAW	REVISED -
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	PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 132

SCALE: 1"=10' | SHEET OF SHEETS | STA. 52+00.00 R1 TO STA. 53+00.00 R1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	190
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	



PATRICK ENGINEERING	USER NAME = nschilling	DESIGNED - PAK	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
		DRAWN - BAW	REVISED -	
	PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -	
	PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -	

CROSS SECTIONS
IL ROUTE 132

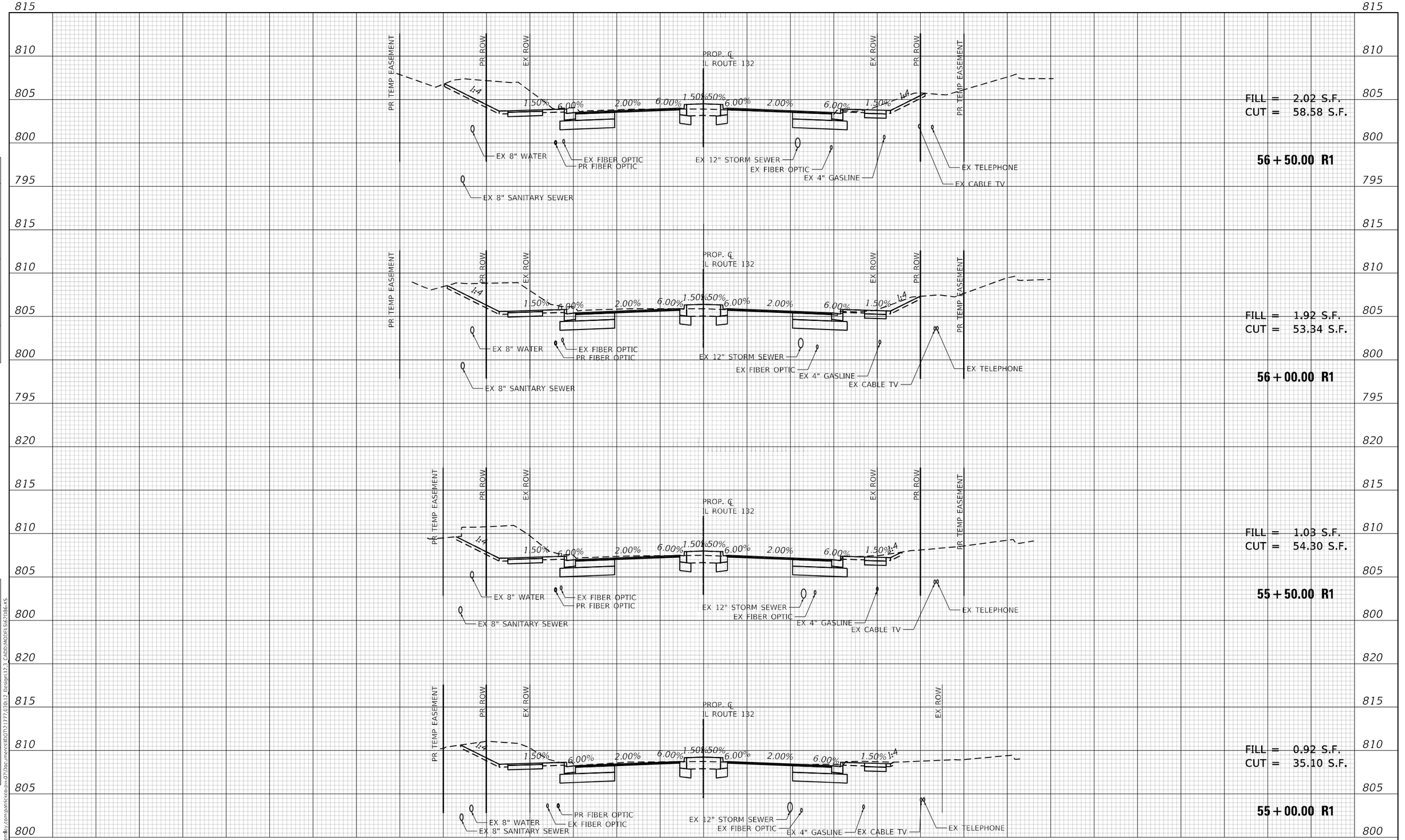
SCALE: 1"=10' | SHEET OF SHEETS | STA. 53+50.00 R1 TO STA. 54+50.00 R1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	191
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

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

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

MODEL: P_All Il 132
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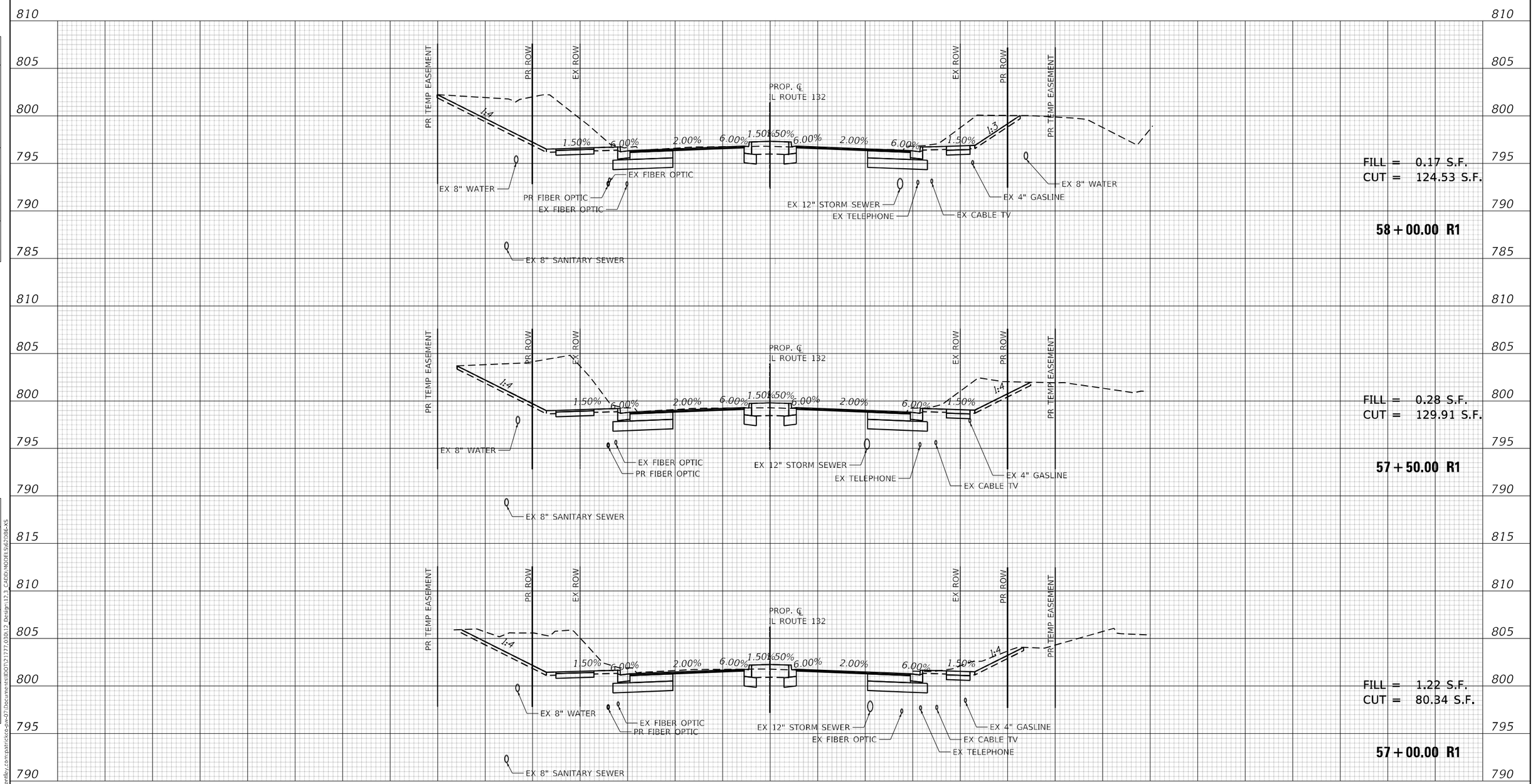
FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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

MODEL: P_Alt_IL132
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PATRICK ENGINEERING	USER NAME = nschilling	DESIGNED - PAK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS IL ROUTE 132
		DRAWN - BAW	REVISED -		
	PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -		SCALE: 1"=10' SHEET OF SHEETS STA. 55+00.00 R1 TO STA. 56+50.00 R1
	PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	192
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	



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

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

MODEL: P_ALL_IL132
FILE NAME: pw:\\patrickcce-pw.bentley.com:patrickcce-pw-07\Documents\IDOT\21777.030\12 Design\12_3 CADD\MODELS\62D86-XS

USER NAME = nschilling	DESIGNED - PAK	REVISED -	
	DRAWN - BAW	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -	
PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -	

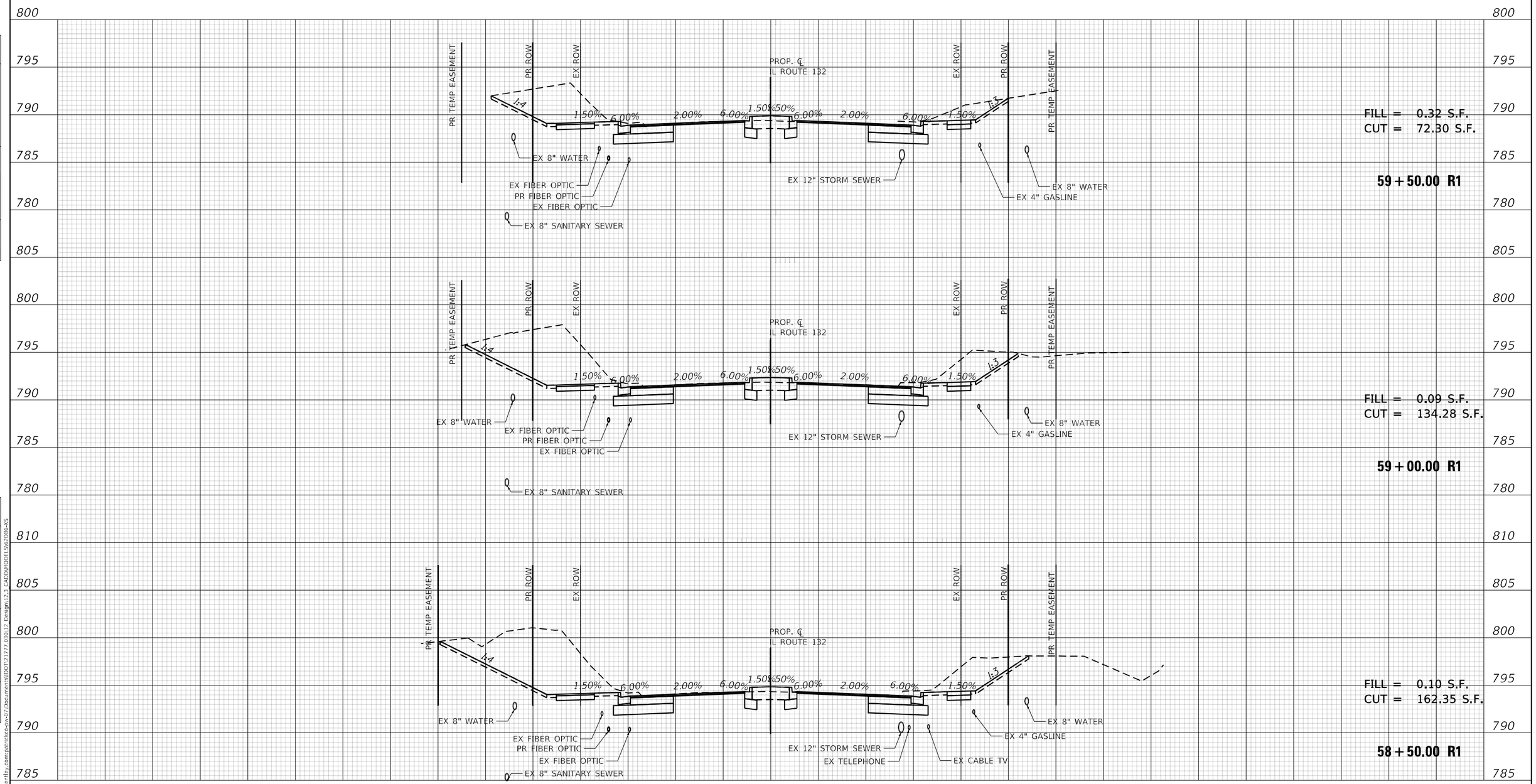
PATRICK ENGINEERING

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 132

SCALE: 1"=10' | SHEET OF SHEETS | STA. 57+00.00 R1 TO STA. 58+00.00 R1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	193
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		



PATRICK ENGINEERING	USER NAME = nschilling	DESIGNED - PAK	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
		DRAWN - BAW	REVISED -	
	PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -	
	PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -	

CROSS SECTIONS
IL ROUTE 132

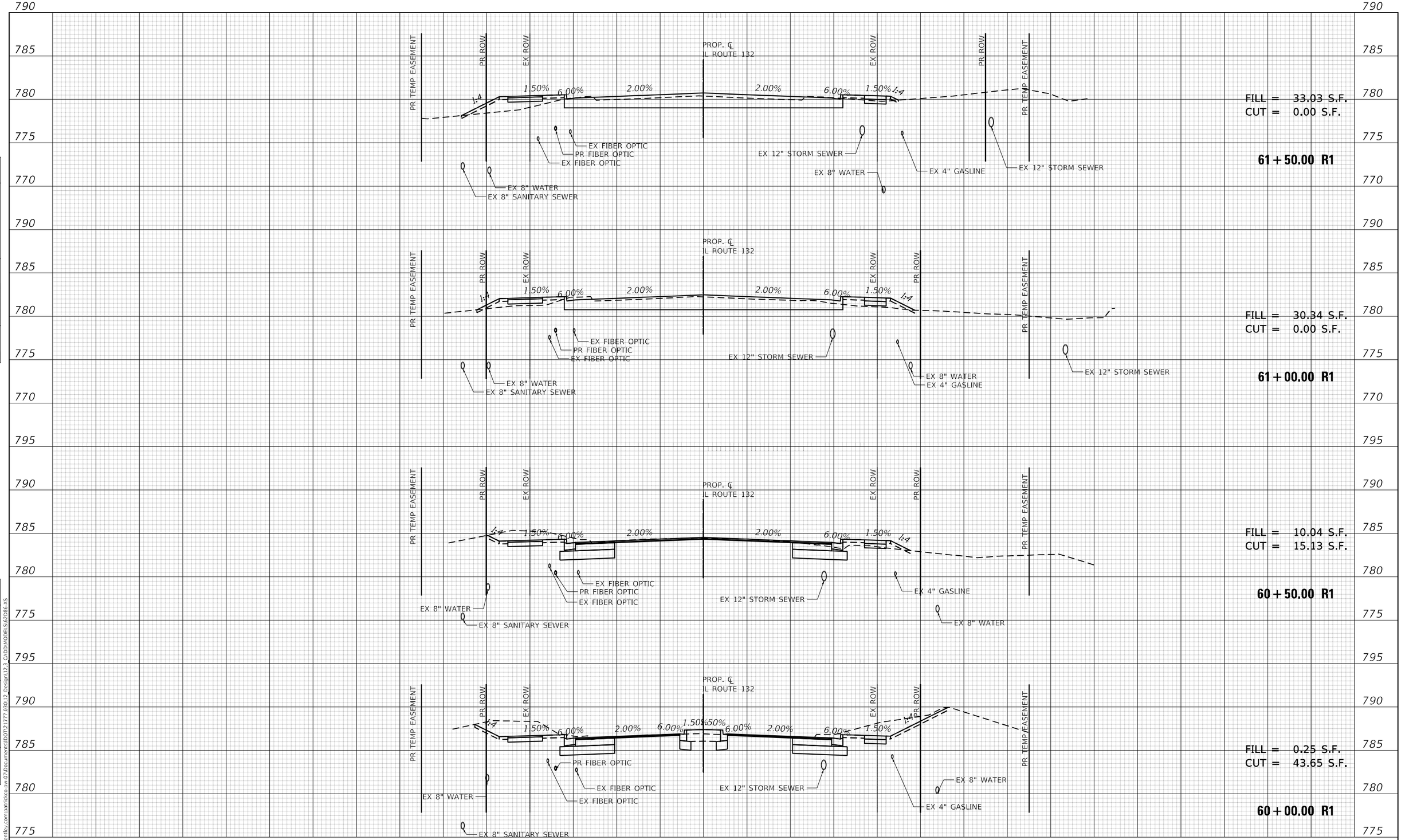
SCALE: 1"=10' | SHEET OF SHEETS | STA. 58+50.00 R1 TO STA. 59+50.00 R1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	194
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

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

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

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PATRICK ENGINEERING	USER NAME = nschilling	DESIGNED - PAK	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
		DRAWN - BAW	REVISED -	
	PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -	
	PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -	

CROSS SECTIONS
IL ROUTE 132

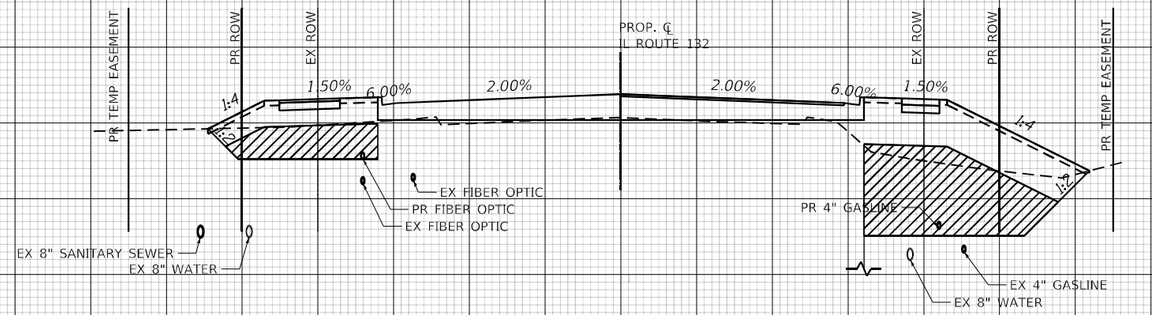
SCALE: 1"=10' | SHEET OF SHEETS | STA. 60+00.00 R1 TO STA. 61+50.00 R1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	195
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

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

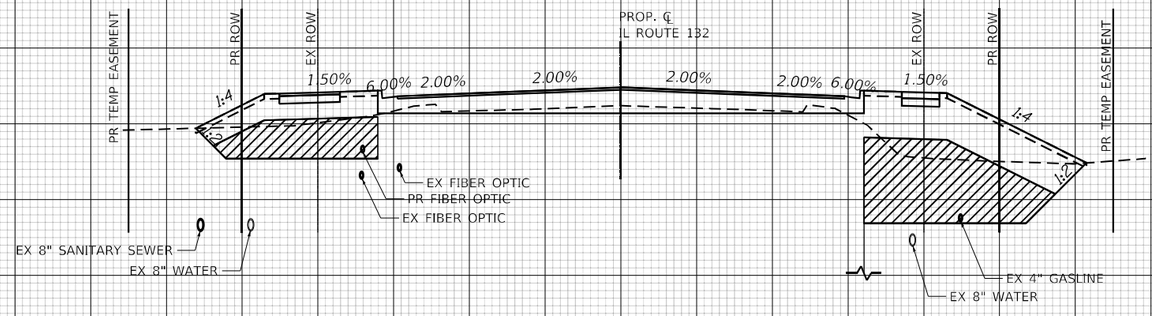
ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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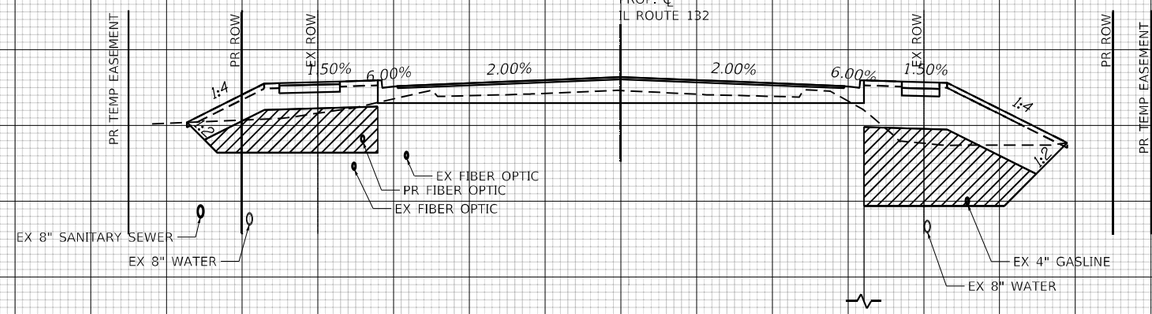
FILL = 106.60 S.F.
CUT = 139.76 S.F.
LCCF = 160.72 S.F.

63+50.00 R1



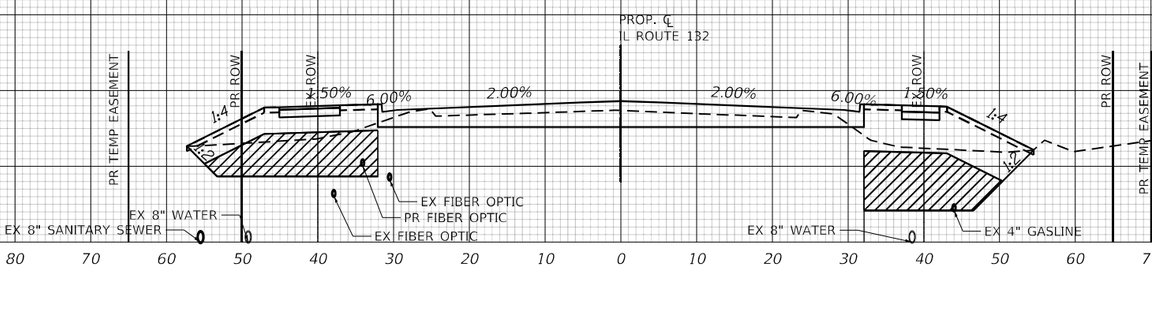
FILL = 104.92 S.F.
CUT = 140.51 S.F.
LCCF = 161.34 S.F.

63+00.00 R1



FILL = 99.90 S.F.
CUT = 133.70 S.F.
LCCF = 151.45 S.F.

62+50.00 R1



FILL = 87.81 S.F.
CUT = 115.59 S.F.
LCCF = 117.18 S.F.

62+00.00 R1

LEGEND

LIGHTWEIGHT CELLULAR CONCRETE FILL (LCCF)

785 780 775 770 765

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

PATRICK ENGINEERING	USER NAME = nschilling	DESIGNED - PAK	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
		DRAWN - BAW	REVISED -	
	PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -	
	PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -	

CROSS SECTIONS
IL ROUTE 132

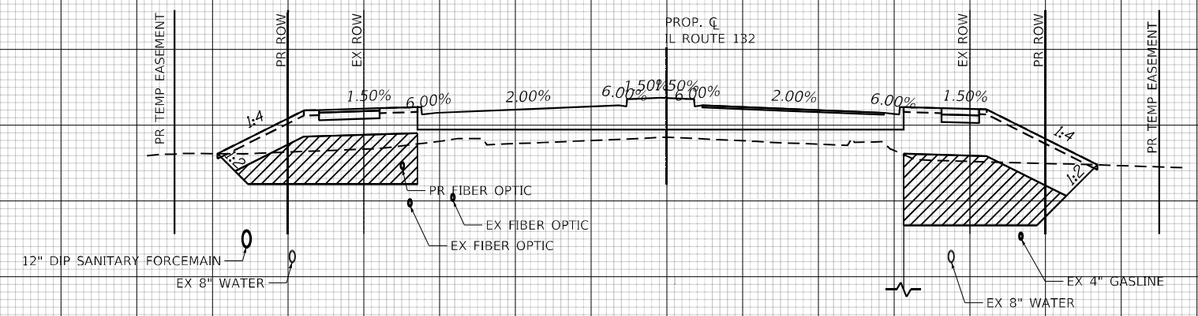
SCALE: 1"=10' | SHEET OF SHEETS | STA. 62+00.00 R1 TO STA. 63+50.00 R1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	196
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

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

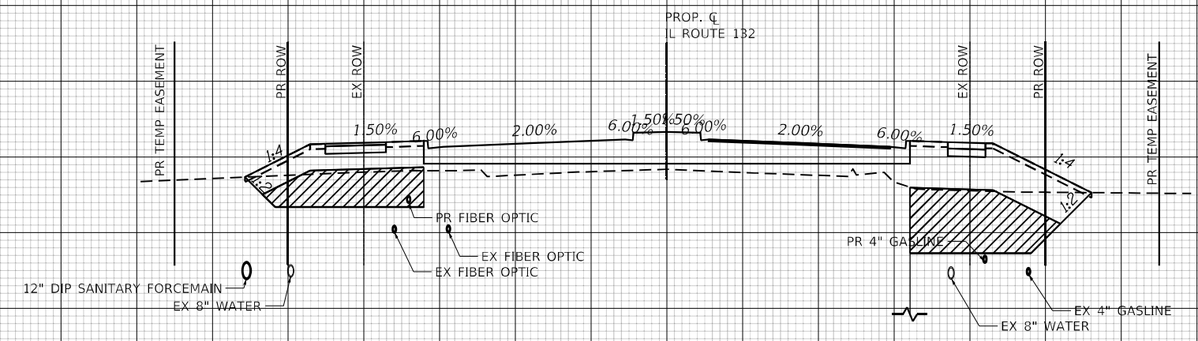
FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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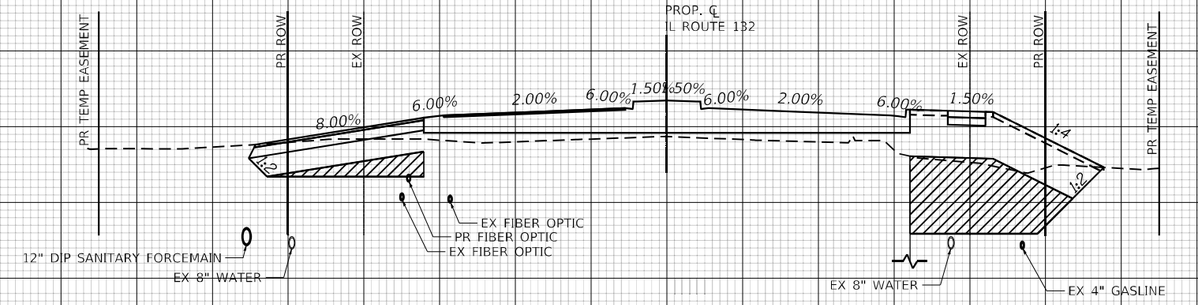
FILL = 97.64 S.F.
CUT = 122.26 S.F.
LCCF = 147.26 S.F.

65 + 50.00 R1



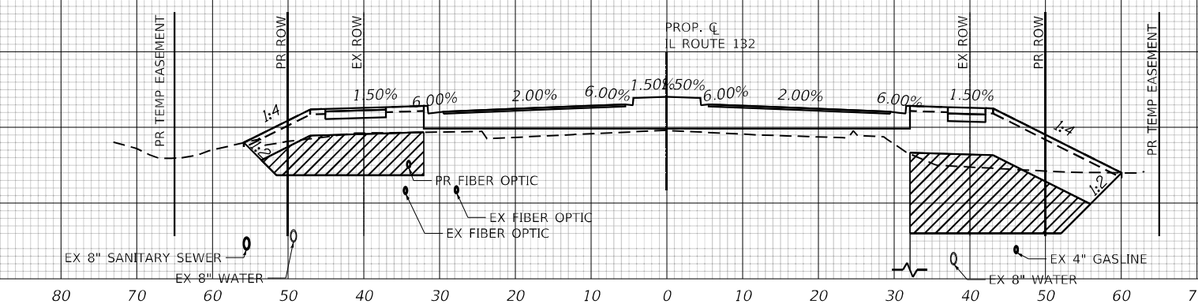
FILL = 88.53 S.F.
CUT = 109.69 S.F.
LCCF = 117.69 S.F.

65 + 00.00 R1



FILL = 95.44 S.F.
CUT = 126.88 S.F.
LCCF = 105.23 S.F.

64 + 50.00 R1



FILL = 96.32 S.F.
CUT = 136.36 S.F.
LCCF = 151.16 S.F.

64 + 00.00 R1

LEGEND

LIGHTWEIGHT CELLULAR CONCRETE FILL (LCCF)

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

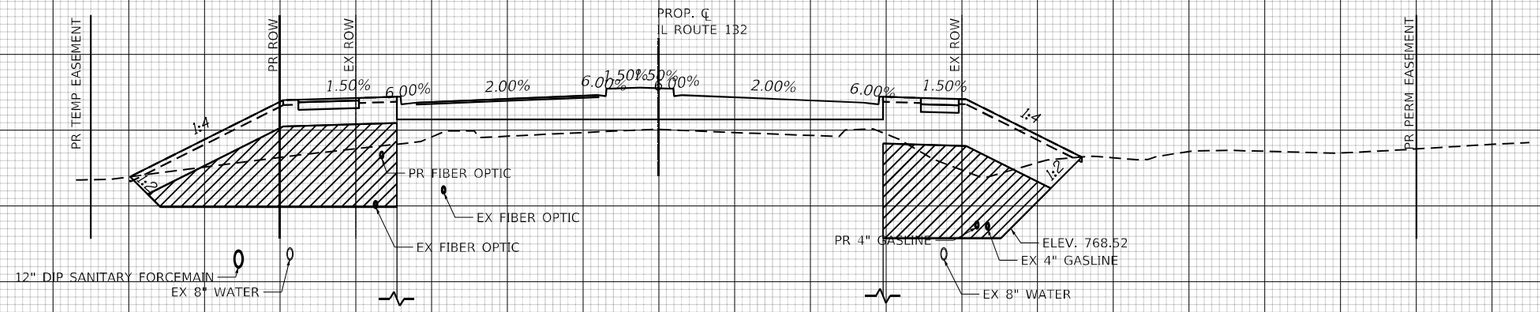
PATRICK ENGINEERING	USER NAME = nschilling	DESIGNED - PAK	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**CROSS SECTIONS IL ROUTE 132**
		DRAWN - BAW	REVISED -		
	PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -		SCALE: 1"=10' SHEET OF SHEETS STA. 64+00.00 R1 TO STA. 65+50.00 R1
	PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	197
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

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

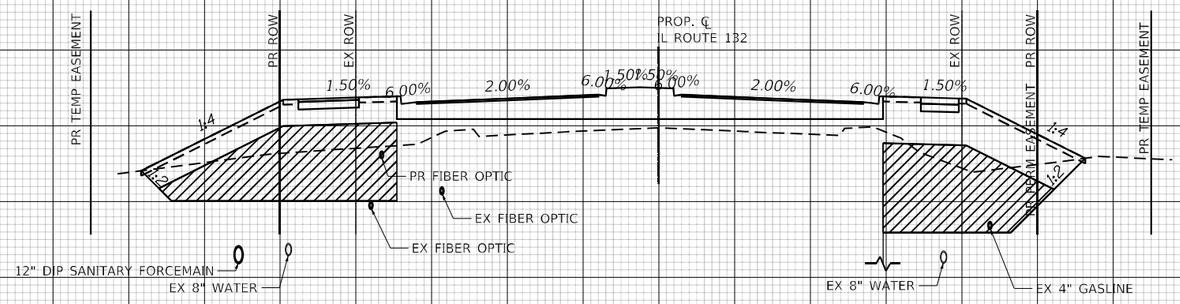
ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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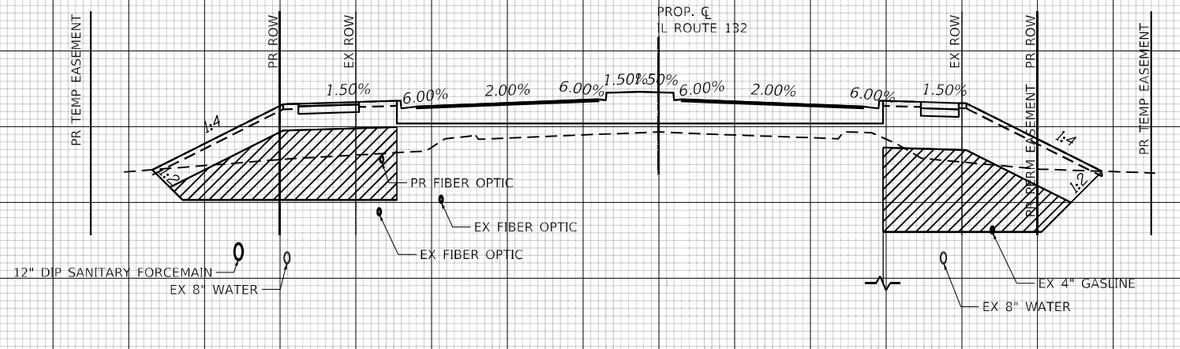
FILL = 108.10 S.F.
CUT = 179.26 S.F.
LCCF = 245.14 S.F.

67+50.00 R1



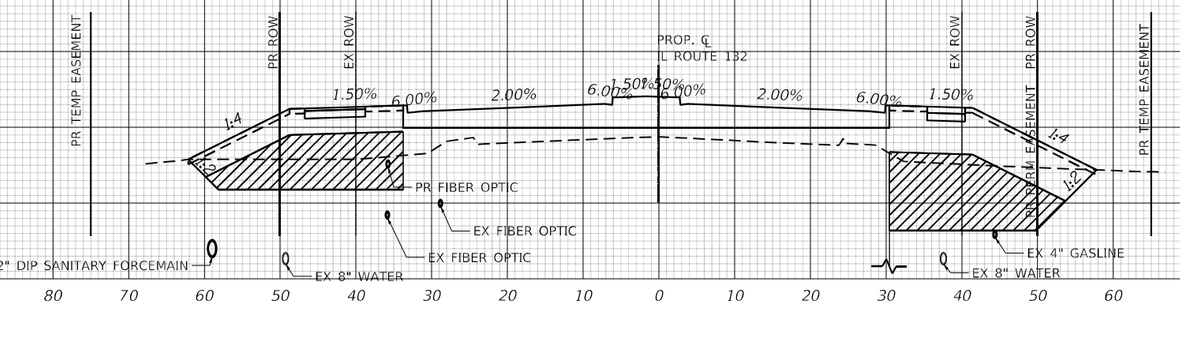
FILL = 112.81 S.F.
CUT = 174.83 S.F.
LCCF = 228.95 S.F.

67+00.00 R1



FILL = 116.34 S.F.
CUT = 169.20 S.F.
LCCF = 217.86 S.F.

66+50.00 R1



FILL = 104.27 S.F.
CUT = 129.71 S.F.
LCCF = 174.76 S.F.

66+00.00 R1

LEGEND

LIGHTWEIGHT CELLULAR CONCRETE FILL (LCCF)

785 780 775 770 765

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

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

FINAL SURVEY — NOTE BOOK — NO.

ORIGINAL SURVEY — NOTE BOOK — NO.

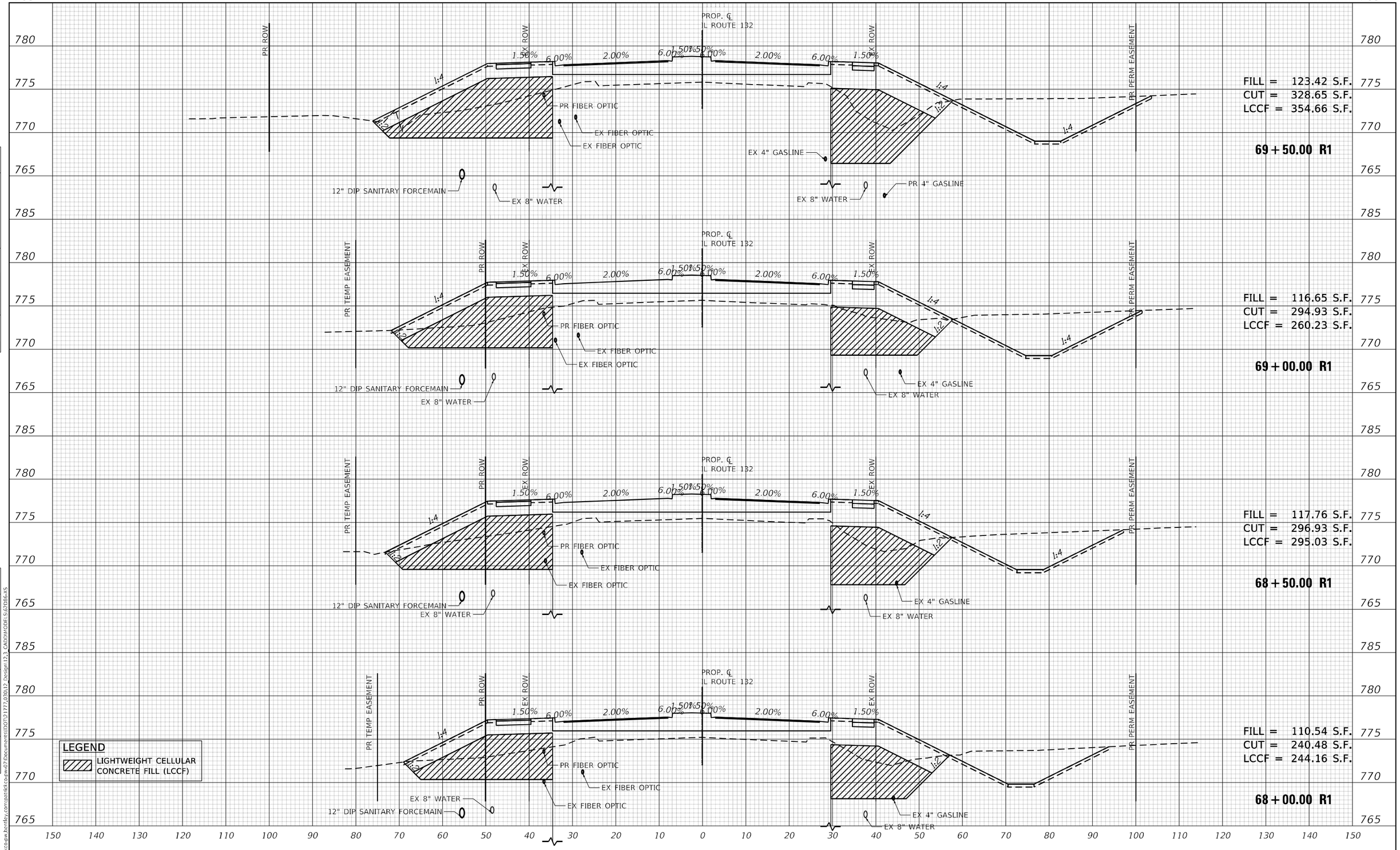
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PATRICK ENGINEERING	USER NAME = nschilling	DESIGNED - PAK	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
		DRAWN - BAW	REVISED -	
	PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -	
	PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -	

CROSS SECTIONS
IL ROUTE 132

SCALE: 1"=10' | SHEET OF SHEETS | STA. 66+00.00 R1 TO STA. 67+50.00 R1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	198
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		



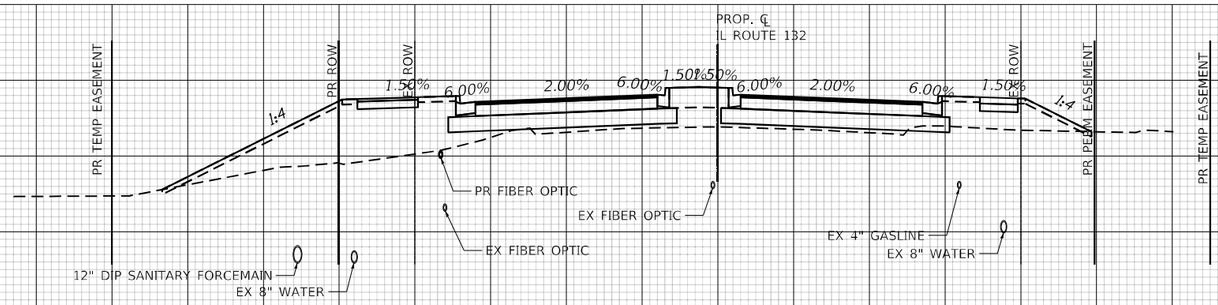
PATRICK ENGINEERING	USER NAME = nschilling	DESIGNED - PAK	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**CROSS SECTIONS IL ROUTE 132**
		DRAWN - BAW	REVISED -		
	PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -		SCALE: 1"=10' SHEET OF SHEETS STA. 68+00.00 R1 TO STA. 69+50.00 R1
	PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	199
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

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

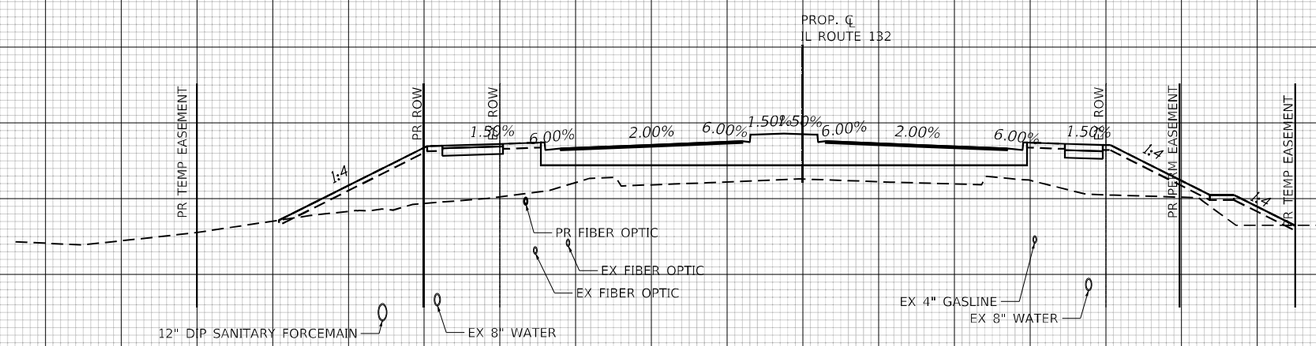
ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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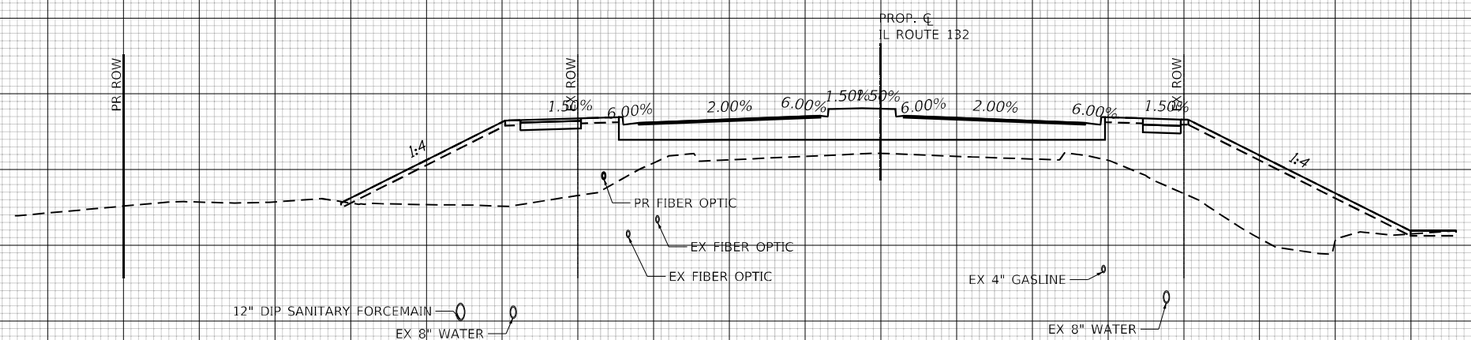
FILL = 138.40 S.F.
CUT = 0.00 S.F.

71+00.00 R1



FILL = 165.34 S.F.
CUT = 0.00 S.F.

70+50.00 R1



FILL = 306.18 S.F.
CUT = 0.00 S.F.

70+00.00 R1

785 780 775 770 765 760

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

FINAL SURVEY	NOTE BOOK	NO.
ORIGINAL SURVEY	NOTE BOOK	NO.

	DATE	BY
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

MODEL: P_All IL132
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PATRICK ENGINEERING

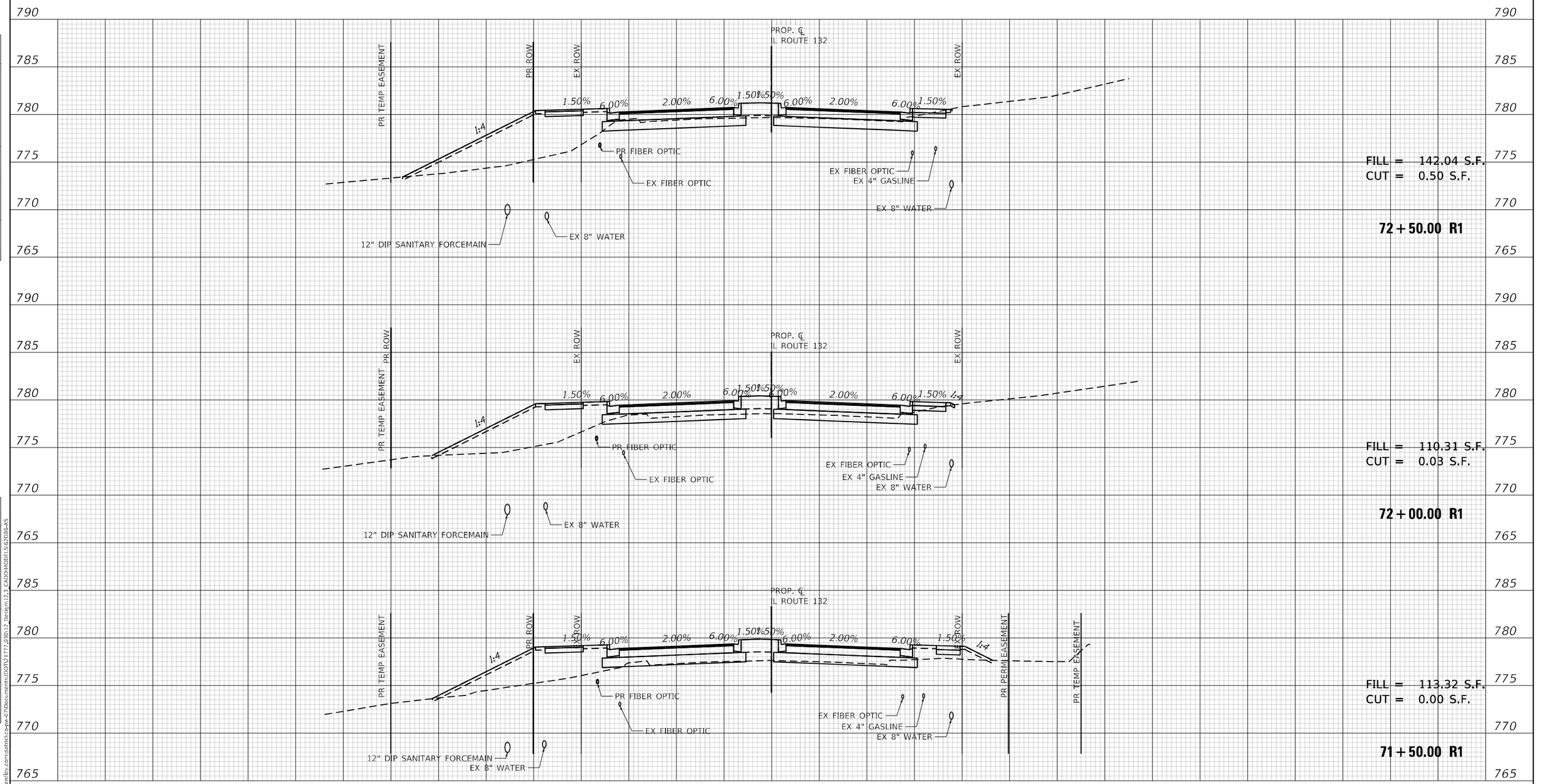
USER NAME = nschilling	DESIGNED - PAK	REVISED -	
	DRAWN - BAW	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -	
PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 132

SCALE: 1"=10' | SHEET OF SHEETS | STA. 70+00.00 R1 TO STA. 71+00.00 R1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	200
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	



PATRICK ENGINEERING	USER NAME = nschilling	DESIGNED - PAK	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
		DRAWN - BAW	REVISED -	
	PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -	
	PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -	

CROSS SECTIONS
IL ROUTE 132

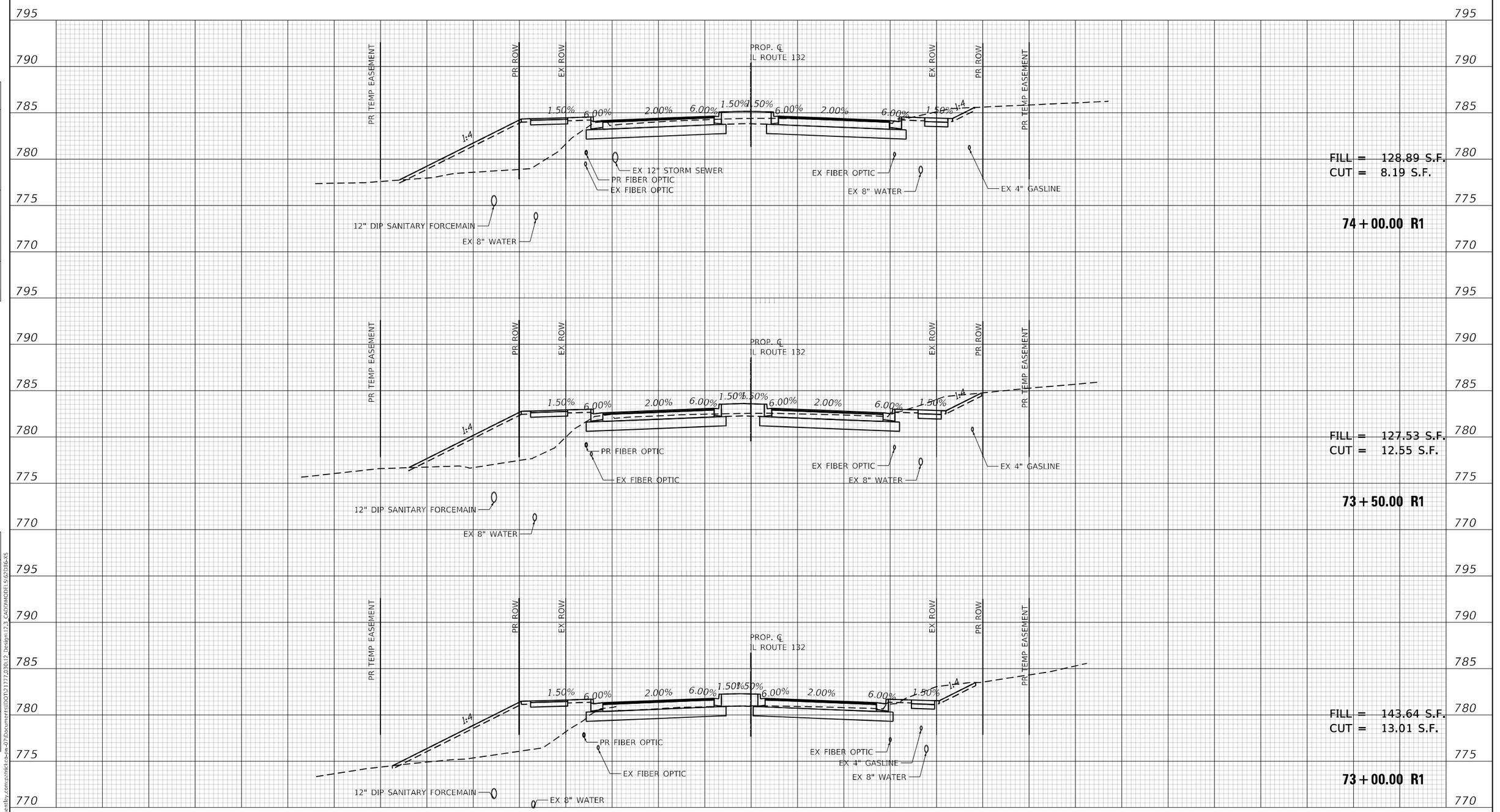
SCALE: 1"=10' | SHEET OF SHEETS | STA. 71+50.00 R1 TO STA. 72+50.00 R1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	201
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

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

ORIGINAL SURVEY | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | NOTE BOOK | NO.

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FINAL SURVEY | ORIGINAL SURVEY

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

MODEL: P_All_IL132
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PATRICK ENGINEERING

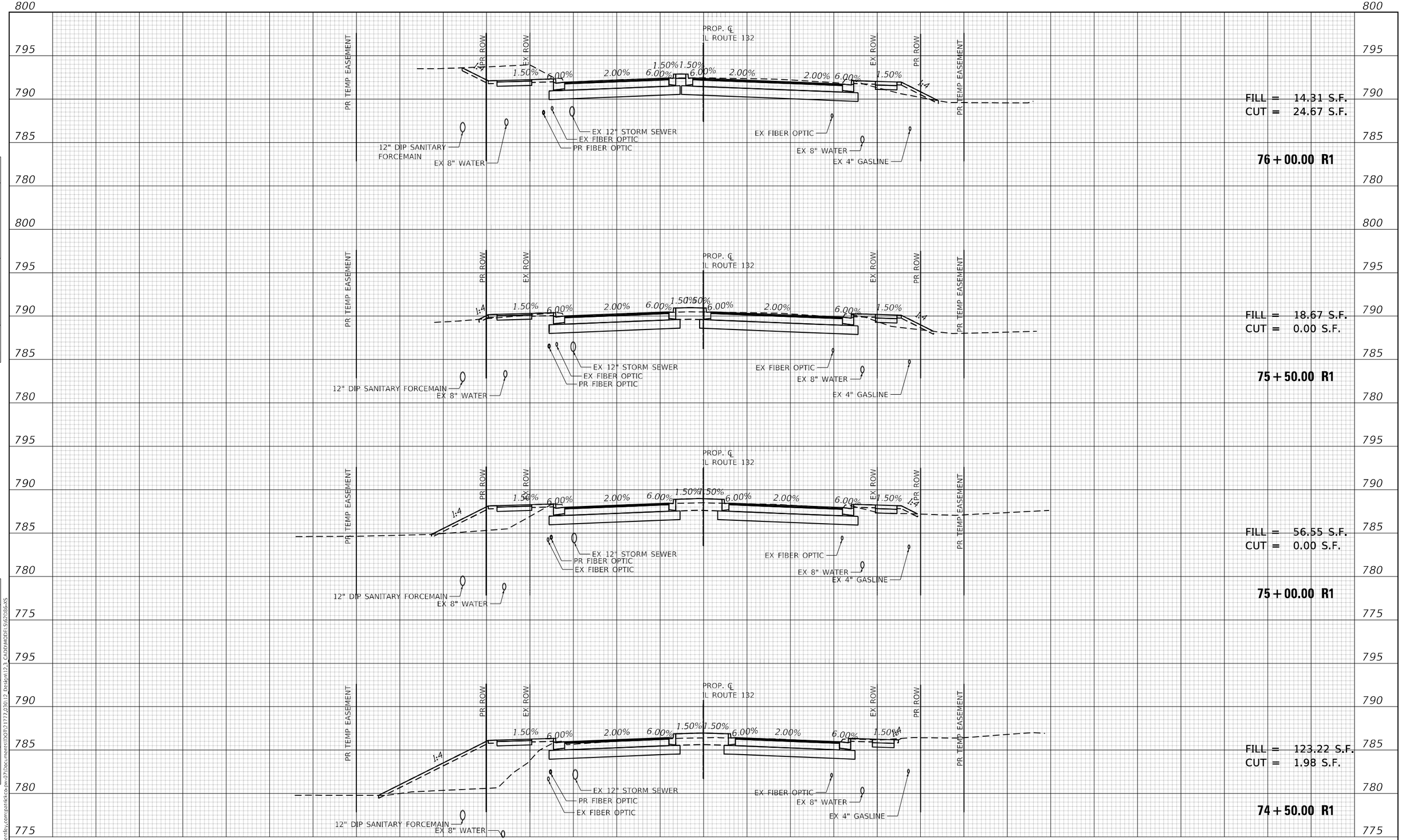
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PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 132

SCALE: 1"=10' | SHEET OF SHEETS | STA. 73+00.00 R1 TO STA. 74+00.00 R1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	202
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		



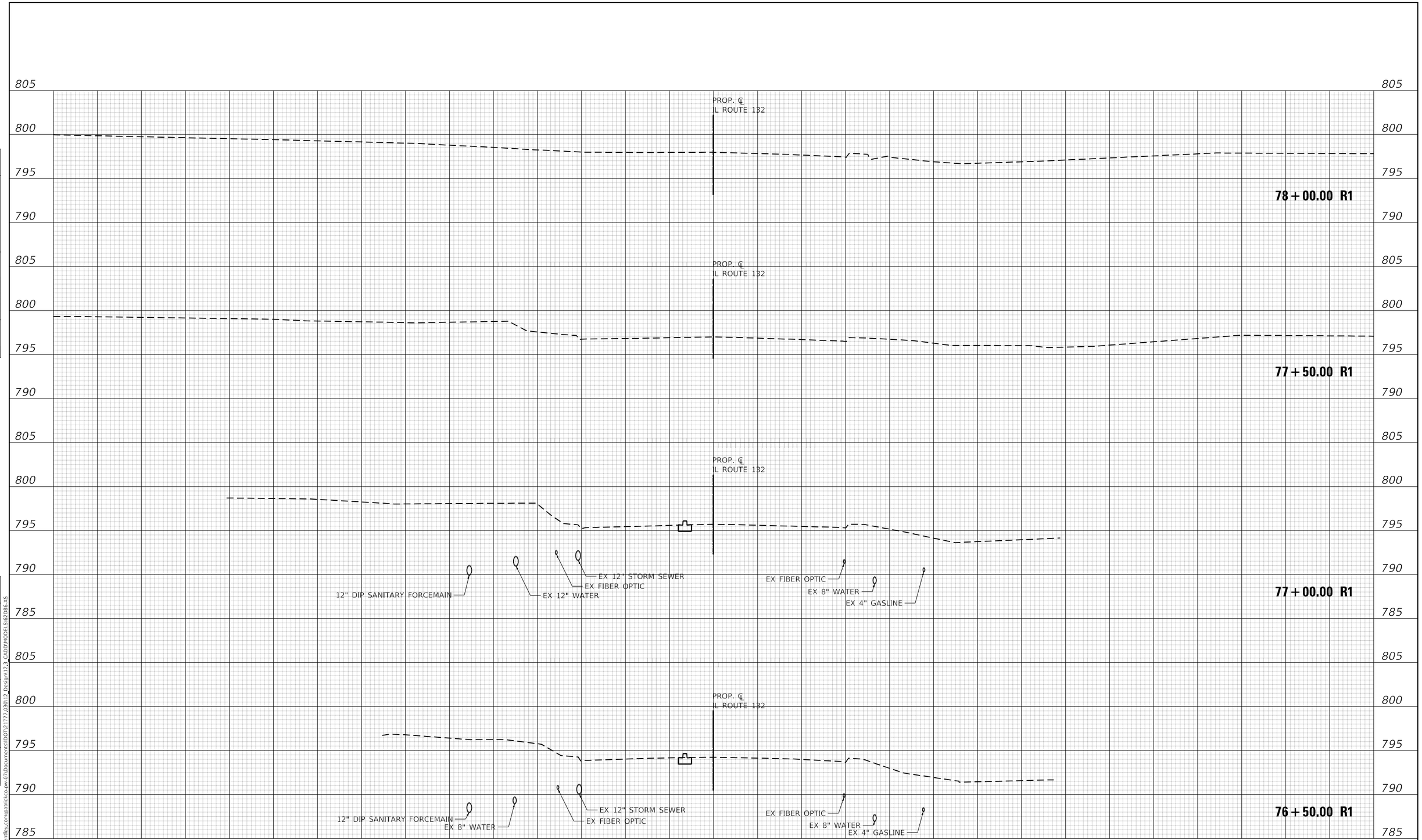
PATRICK ENGINEERING	USER NAME = nschilling	DESIGNED - PAK	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**CROSS SECTIONS IL ROUTE 132**
		DRAWN - BAW	REVISED -		
	PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -		SCALE: 1"=10' SHEET OF SHEETS STA. 74+50.00 R1 TO STA. 76+00.00 R1
	PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	203
		CONTRACT NO. 62D86		
	ILLINOIS	FED. AID PROJECT		

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

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

MODEL: P_all_IL132
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FINAL SURVEY	DATE	BY
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

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

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PATRICK ENGINEERING	USER NAME = nschilling	DESIGNED - PAK	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
		DRAWN - BAW	REVISED -	
	PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -	
	PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -	

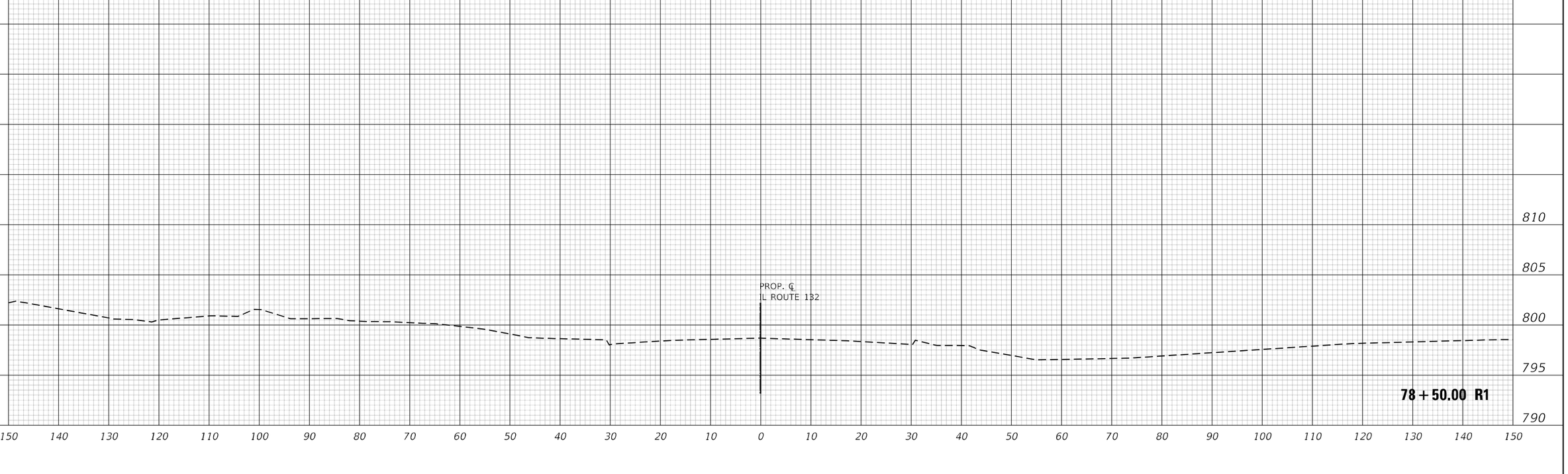
CROSS SECTIONS
IL ROUTE 132

SCALE: 1"=10' | SHEET OF SHEETS | STA. 76+50.00 R1 TO STA. 78+00.00 R1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	204
		CONTRACT NO. 62D86		
		ILLINOIS	FED. AID PROJECT	

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

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



MODEL: P_All_IL132
FILE NAME: /w:\ipatrickco-pw.bentley.com:patrickco-pw-07\Documents\IDOT\21777\030\12 Design\2-3 CAD\MODEL\S62D86-XS

PATRICK ENGINEERING

USER NAME = nschilling	DESIGNED - PAK	REVISED -	
	DRAWN - BAW	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - NJS	REVISED -	
PLOT DATE = 5/12/2021	DATE - 3/30/21	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 132

SCALE: 1"=10' | SHEET OF SHEETS | STA. 78+50.00 R1 TO STA. 80+00.00 R1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	A-W&RS-2	LAKE	205	205
		CONTRACT NO. 62D86		
	ILLINOIS FED. AID PROJECT			