035

11-08-2019 LETTING ITEM 035

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

PROJECT IS LOCATED WILLIAMS TOWNSHIP

TRAFFIC DATA:

DESIGN CLASSIFICATION
MAJOR COLLECTOR (NON-URBAN)
2015 ADT = 6,600
DESIGN SPEED = 50 MPH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

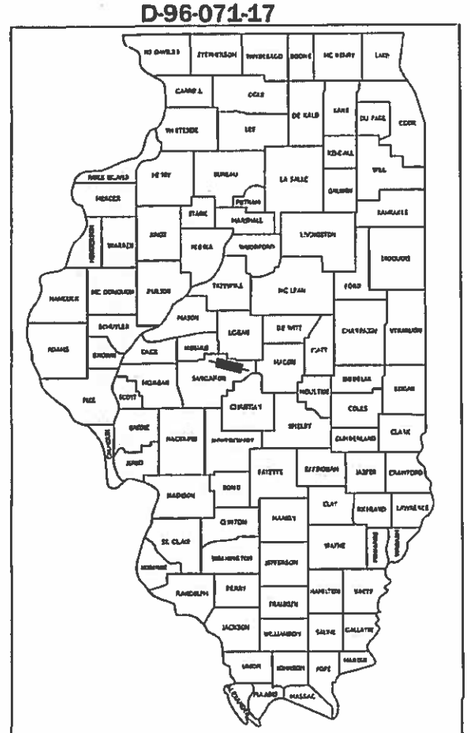
IL 123 OVER FAI-55
SECTION (84-1)D, (150) RS-2
PROJECT NHPP-LVRH(022)
STRUCTURE REPAIRS, DECK REPLACEMENT AND RESURFACING
SANGAMON COUNTY

C-96-071-17

* 63 + 4 = 67 TOTAL SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	1
	ILLINOIS	CONTRACT NO. 72K07		

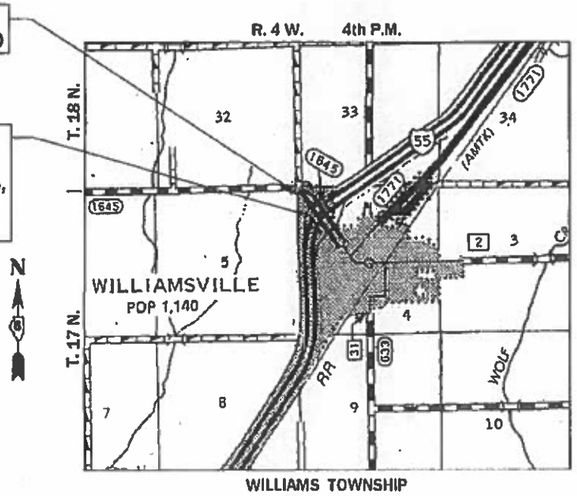
D-96-071-17



LOCATION OF SECTION INDICATED THUS: -

SECTION (84-1)D, (150) RS-2
STA 37+05.00 TO STA 63+77.00

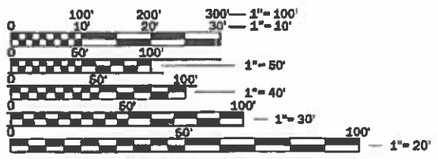
STRUCTURE NO. 084-0171
EXISTING TWO SPAN STRUCTURE W/ A REINFORCED CONCRETE DECK ON STEEL WELDED PLATE GIRDERS, 275'-7" BK. TO BK., 68'-10" O. TO O., SKEWED 21.3° RT



WILLIAMS TOWNSHIP

LOCATION MAP

NOT TO SCALE



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

GROSS LENGTH = 2,672.00 FT. = 0.506 MILE
NET LENGTH = 2,672.00 FT. = 0.506 MILE

LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Aug. 20 2019
REGIONAL ENGINEER
Oct 4 2019
ENGINEER OF DESIGN AND ENVIRONMENT
Oct 4 2019
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PROJECT ENGINEER: JON KELLEY (217) 785-2739
PROJECT MANAGER: ED KERN (217) 524-7547

CONTRACT NO. 72K07

SHIRAZ TARIQUE
062-064219
LICENSED PROFESSIONAL ENGINEER
OF
ILLINOIS

8/20/19
Shiraz Tarique
Illinois Registered Engineer No. 062-064219
Registration Expires Nov. 30, 2019
Date

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV. - MS

INDEX OF SHEETS

HIGHWAY STANDARDS

000001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420401-13	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
442201-03	CLASS C AND D PATCHES
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
542401-03	METAL FLARED END SECTION FOR PIPE CULVERTS
601001-05	PIPE UNDERDRAINS
606001-07	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
610001-08	SHOULDER INLET WITH CURB
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701306-04	LANE CLOSURE, 2L, 2W SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45MPH
701311-03	LANE CLOSURE, 2L, 2W MOVING OPERATIONS - DAY ONLY
701400-09	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-12	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH
701428-01	TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
701446-09	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
725001-01	OBJECT AND TERMINAL MARKERS
728001-01	TELESCOPING STEEL SIGN SUPPORT
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE USE(S)	HMA SURFACE
PG	SBS PG 70-22
DESIGN AIR VOIDS	4.0% @ N DESIGN = 90
MIXTURE COMPOSITION	IL-9.5
FRICTION AGGREGATE	MIX "D"
QUALITY MANAGEMENT	QC/QA

MIXTURE USE(S)	HMA BINDER
PG	SBS PG 70-22
DESIGN AIR VOIDS	4.0% @ N DESIGN = 90
MIXTURE COMPOSITION	IL-9.5 FG
FRICTION AGGREGATE	N/A
QUALITY MANAGEMENT	QC/QA

MIXTURE USE(S)	HMA BASE COURSE
PG	PG 64-22
DESIGN AIR VOIDS	4.0% @ N DESIGN = 50
MIXTURE COMPOSITION	IL-19.0
FRICTION AGGREGATE	N/A
QUALITY MANAGEMENT	QC/QA

MIXTURE USE(S)	HMA SHOULDERS
PG	PG 64-22
DESIGN AIR VOIDS	4.0% @ N DESIGN = 50
MIXTURE COMPOSITION	IL-9.5
FRICTION AGGREGATE	MIX "C"
QUALITY MANAGEMENT	QC/QA

FACTORS FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

HOT-MIX ASPHALT BINDER COURSE	112 LB/SQ YD/IN
HOT-MIX ASPHALT SURFACE COURSE	112 LB/SQ YD/IN
BITUMINOUS MATERIALS: PRIME COAT FOR AGGREGATE BASES	0.25 LB/SF
TACK COAT FOR HMA LIFTS	0.025 LB/SF
AGGREGATE SHOULDERS	1.60 TONS/CU YD
SEEDING, CLASS 2	200 LB/ACRE
TEMPORARY EROSION CONTROL SEEDING	100 LB/ACRE
NITROGEN FERTILIZER NUTRIENT	90 LB/ACRE
PHOSPHORUS FERTILIZER NUTRIENT	90 LB/ACRE
POTASSIUM FERTILIZER NUTRIENT	90 LB/ACRE
MULCH	2 TON/ACRE

GENERAL NOTES

1. THE CONTRACTOR SHALL MAKE A REASONABLE EFFORT TO MINIMIZE THE SIZE OF DISTURBED AREAS. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE.
2. IN ADDITION TO THE REQUIREMENTS OF ARTICLE 107.16, THE CONTRACTOR SHALL PROTECT THE SURFACE OF ALL BRIDGE DECKS AND BRIDGE APPROACH PAVEMENTS IN A MANNER SATISFACTORY TO THE ENGINEER BEFORE ANY EQUIPMENT IS ALLOWED TO CROSS THE STRUCTURE. PROTECTION SHALL BE PROVIDED FOR All EQUIPMENT IS DEFINED IN ARTICLE 107.16 REGARDLESS IF TRACK MOUNTED OR WHEELED.
3. EXISTING PAVEMENT CROSS SLOPES, SUPERELEVATION RATES, TRANSITION LENGTHS, AND SHOULDER CROSS SLOPES SHALL BE RETAINED WITH THE PROPOSED RESURFACING AND TEMPORARY PAVEMENT CONSTRUCTION.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ASSURE THAT NO DEBRIS FALLS INTO THE WATERWAYS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE VARIOUS PAY ITEMS.
5. THE CONTRACTOR SHALL ENSURE THAT ALL MUD, SEDIMENT, AND DEBRIS RESULTING FROM CONSTRUCTION RELATED ACTIVITIES SHALL BE CONTAINED WITHIN THE PROJECT LIMITS.
6. SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
7. THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
8. THE STATE LIGHTING SYSTEM IS NOT ON JULIE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND NOTIFYING STAN CLOW (PH 217-524-9161) IN ADVANCE OF ANY CONSTRUCTION ACTIVITIES TO CONFIRM THE LOCATIONS OF THE STATE LIGHTING SYSTEM. ANY DAMAGE TO THE STATE LIGHTING FACILITIES, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE, INCLUDING TEMPORARY REPAIRS WHICH MAY BE REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS.
9. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
10. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, PAVEMENT MARKING LINES SHALL NOT BE LAID DIRECTLY OVER A LONGITUDINAL CRACK OR JOINT NOR OVER A TAR OR ASPHALT PAINTED LINE. THE EDGE OF A CENTERLINE OR LANE SHALL BE OFFSET A MINIMUM DISTANCE OR 2" (TWO INCHES) FROM A LONGITUDINAL CRACK OR JOINT. EDGE LINES SHALL BE APPROXIMATELY 2" (TWO INCHES) FROM THE EDGE LINE OF PAVEMENT. SEE SECTION 780 OF THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS.
11. THE DISTRICT BUREAU OF OPERATIONS SHALL BE NOTIFIED AT LEAST FOURTEEN (14) DAYS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS (PH 217-785-7314).
12. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS BITUMINOUS LIFTS.
13. RAISED REFLECTIVE PAVEMENT MARKERS INSTALLED INTO THE ORIGINAL CONCRETE PAVEMENT MAY NOT HAVE BEEN REMOVED WHEN THE PAVEMENT WAS RESURFACED. ANY MARKERS FOUND IN THE ORIGINAL CONCRETE WILL BE REMOVED AND PAID FOR AS RAISED REFLECTIVE PAVEMENT MARKER REMOVAL.

COMMITMENTS

NONE.

EXAMINED _____ 20 ____
PROJECT IMPLEMENTATION ENGINEER

DISTRICT SIX

EXAMINED _____ 20 ____
OPERATIONS ENGINEER

EXAMINED August 7 20 19
PROGRAM DEVELOPMENT ENGINEER

REV. - MS

Since 1945
Hutchison Engineering, Inc.
Jacksonville • Quad Cities • Peoria • Shorewood
Illinois Professional Design Firm No. 184-000825

USER NAME = tlin
PLOT SCALE = 2.0000 ' / In.
PLOT DATE = 8/19/2019

DESIGNED - TJD | REVISED -
DRAWN - JCW | REVISED -
CHECKED - AWM | REVISED -
DATE - 8/2019 | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
INDEX, HIGHWAY STANDARDS AND GENERAL NOTES
SCALE: N.T.S | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	2
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	6-01009-0000		6-01009-0100
				90% FED 10% ST	90% FED 10% ST	90% FED 10% ST
				ROADWAY	BRIDGE	ROADWAY
				0013	0013	0013
				084-0171	084-0171	RURAL
20200100	EARTH EXCAVATION	CU YD	500	500		
20400800	FURNISHED EXCAVATION	CU YD	100	100		
25000210	SEEDING, CLASS 2A	ACRE	0.25	0.25		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	30	30		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	30	30		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	30	30		
25100115	MULCH, METHOD 2	ACRE	0.25	0.25		
28000400	PERIMETER EROSION BARRIER	FOOT	75	75		
28100707	STONE DUMPED RIPRAP, CLASS A4	SQ YD	555	555		
28200200	FILTER FABRIC	SQ YD	555	555		
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	881	881		
35300300	PORTLAND CEMENT CONCRETE BASE COURSE 8"	SQ YD	881	881		
35501331	HOT-MIX ASPHALT BASE COURSE, 11 3/4"	SQ YD	1,247	1,247		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	3,964			3,964

* SPECIALTY ITEM

REV. - MS

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

USER NAME = Lin	DESIGNED - RC	REVISED -
	DRAWN - RC	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED -
PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
SUMMARY OF QUANTITIES

SCALE: N.T.S. | SHEET 1 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	3
		CONTRACT NO. 72K07		
		ILLINOIS FED. AID PROJECT		

				6-01009-0000		6-01009-0100
				90% FED 10% ST	90% FED 10% ST	90% FED 10% ST
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE	ROADWAY
				0013	0013	0013
				084-0171	084-0171	RURAL
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	600			600
40603219	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N90	TON	17			17
40604164	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N90	TON	1,083			1,083
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	340	340		
44000100	PAVEMENT REMOVAL	SQ YD	495	495		
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	14,910			14,910
44004250	PAVED SHOULDER REMOVAL	SQ YD	1,161	1,161		
44201383	CLASS C PATCHES, TYPE IV, 12 INCH	SQ YD	27			27
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	320			320
48203003	HOT-MIX ASPHALT SHOULDERS, 1 1/2"	SQ YD	3,889			3,889
50102400	CONCRETE REMOVAL	CU YD	216.0		216.0	
50104650	SLOPE WALL REMOVAL	SQ YD	48		48	
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1		1	
50157300	PROTECTIVE SHIELD	SQ YD	1,644		1,644	

* SPECIALTY ITEM

REV. - MS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	6-01009-0000		6-01009-0100
				90% FED 10% ST	90% FED 10% ST	90% FED 10% ST
				ROADWAY	BRIDGE	ROADWAY
				0013	0013	0013
				084-0171	084-0171	RURAL
50300225	CONCRETE STRUCTURES	CU YD	54.1		54.1	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	797.6		797.6	
50300260	BRIDGE DECK GROOVING	SQ YD	1,671		1,671	
50300300	PROTECTIVE COAT	SQ YD	2,770		2,770	
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	189.2		189.2	
50500505	STUD SHEAR CONNECTORS	EACH	918		918	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	286,590		286,590	
50800515	BAR SPLICERS	EACH	1,234		1,234	
51100100	SLOPE WALL 4 INCH	SQ YD	48		48	
51500100	NAME PLATES	EACH	1		1	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	146		146	
54213447	END SECTIONS 12"	EACH	4	4		
58600100	SAND BACKFILL	CU YD	115.0		115.0	
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	33.3		33.3	

* SPECIALTY ITEM

REV. - MS

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	6-01009-0000		6-01009-0100
					90% FED 10% ST	90% FED 10% ST	90% FED 10% ST
					ROADWAY	BRIDGE	ROADWAY
					0013	0013	0013
					084-0171	084-0171	RURAL
	60100945	PIPE DRAINS 12"	FOOT	40	40		
	61000225	TYPE F INLET BOX, STANDARD 610001	EACH	4	4		
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2		
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2		
	63200310	GUARDRAIL REMOVAL	FOOT	193	193		
	66201120	CONCRETE SHOULDER CURB	FOOT	60	60		
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12		
	67100100	MOBILIZATION	L SUM	1	1		
	70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	4	4		
	70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1		
	70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1		
	70100815	TRAFFIC CONTROL AND PROTECTION, STANDARD 701446	L SUM	1	1		
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	300	300		
	70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1		1	
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	1,235	1,235		

* SPECIALTY ITEM

REV. - MS

					6-01009-0000		6-01009-0100
					90% FED 10% ST	90% FED 10% ST	90% FED 10% ST
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE	ROADWAY
					0013	0013	0013
					084-0171	084-0171	RURAL
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	2,059	2,059		
	70300900	PAVEMENT MARKING TAPE, TYPE IV - LETTERS AND SYMBOLS	SQ FT	63	63		
	70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	12,352	12,352		
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	825.0	825.0		
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1,537.5	1,537.5		
	70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	3	3		
	70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	5	5		
*	72000100	SIGN PANEL - TYPE 1	SQ FT	18	18		
*	72400310	REMOVE SIGN PANEL - TYPE 1	SQ FT	9	9		
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2		
*	72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	28	28		
*	78003100	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LETTERS AND SYMBOLS	SQ FT	312	312		
*	78003120	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 5"	FOOT	131	131		
*	78003180	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 24"	FOOT	68	68		

* SPECIALTY ITEM

REV. - MS

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

USER NAME = Lin	DESIGNED - RC	REVISED -
	DRAWN - RC	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED -
PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
SUMMARY OF QUANTITIES

SCALE: N.T.S. | SHEET 5 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	7
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	6-01009-0000		6-01009-0100
					90% FED 10% ST	90% FED 10% ST	90% FED 10% ST
					ROADWAY	BRIDGE	ROADWAY
					0013	0013	0013
					084-0171	084-0171	RURAL
*	78009005	MODIFIED URETHANE PAVEMENT MARKING - LINE 5"	FOOT	11,109	11,109		
*	78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	1,673	1,673		
*	78009008	MODIFIED URETHANE PAVEMENT MARKING - LINE 8"	FOOT	1,200	1,200		
*	78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	418	418		
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	85	85		
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	8	8		
*	78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	34	34		
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	85	85		
	X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	2,049	2,049		
	X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	2,062			2,062
	X4403300	CONCRETE MEDIAN REMOVAL	SQ FT	7,929	7,929		
	X4406440	PARTIAL DEPTH REMOVAL, TYPE III, 4"	SQ YD	80			80
	X4406640	PARTIAL DEPTH REMOVAL, TYPE IV, 4"	SQ YD	107			107
	X4421000	PARTIAL DEPTH PATCHING	TON	39			39

* SPECIALTY ITEM

REV. - MS

				6-01009-0000		6-01009-0100
				90% FED 10% ST	90% FED 10% ST	90% FED 10% ST
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE	ROADWAY
				0013	0013	0013
				084-0171	084-0171	RURAL
X6061702	CONCRETE MEDIAN, TYPE SM (DOWELLED)	SQ FT	6,856	6,856		
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1		
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	4,180	4,180		
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1	1		
* X7830072	GROOVING FOR RECESSED PAVEMENT MARKING 6"	FOOT	11,109	11,109		
Z0004552	APPROACH SLAB REMOVAL	SQ YD	406	406		
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	82		82	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
Z0018004	DRAINAGE SCUPPER, DS-12	EACH	2		2	
Z0033700	LONGITUDINAL JOINT SEALANT	FOOT	2,777	2,777		
Ø Z0076600	TRAINEES	HOUR	2,000	2,000		
Ø Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	2,000	2,000		

* SPECIALTY ITEM Ø 0042

REV. - MS

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

USER NAME = Lin	DESIGNED - RC	REVISED -
	DRAWN - RC	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED -
PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
SUMMARY OF QUANTITIES

SCALE: N.T.S. | SHEET 7 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	9
		CONTRACT NO. 72K07		
		ILLINOIS FED. AID PROJECT		

BITUMINOUS MATERIALS (TACK COAT)

FROM STATION	TO STATION	LT/RT	# OF LIFTS	POUND	
37+05.00	37+35.00	CL	1	23.04	
37+05.00	43+30.69	LT	1	114.25	
37+05.00	43+28.91	RT	1	81.93	
37+35.00	48+07.84	CL	1	1,270.88	
43+47.09	48+07.84	RT	1	99.26	
43+52.01	48+07.84	LT	1	107.42	
51+98.41	56+17.58	LT	1	113.21	
51+98.41	63+47.00	CL	1	1,628.57	
51+98.41	52+43.09	LT	1	25.37	
51+98.41	52+43.09	RT	1	28.42	
51+98.41	56+42.67	RT	1	105.74	
56+32.59	63+77.00	LT	1	129.89	
56+70.60	63+77.00	RT	1	123.27	
63+47.00	63+77.00	LT	1	18.00	
63+47.00	63+77.00	RT	1	27.00	
18+93.72	19+23.72	CL	1	18.40	(RAMP A)
1+24.90	1+54.90	CL	1	14.63	(RAMP B)
1+64.47	1+94.47	CL	1	12.45	(RAMP C)
23+85.58	24+15.58	CL	1	21.46	(RAMP D)
			ROUNDED TOTAL	3,964	

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

FROM STATION	TO STATION	LT/RT	SQ YD	
37+05.00	37+35.00	CL	102.41	
63+47.00	63+77.00	LT	82.34	
63+47.00	63+77.00	RT	80.00	
18+93.72	19+23.72	CL	120.02	(RAMP A)
1+24.90	1+54.90	CL	65.01	(RAMP B)
1+64.47	1+94.47	CL	55.33	(RAMP C)
23+85.58	24+15.58	CL	95.40	(RAMP D)
		ROUNDED TOTAL	600	

POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N90

FROM STATION	TO STATION	LT/RT	TON
51+98.41	52+43.09	LT	7.89
51+98.41	52+43.09	RT	8.84
		ROUNDED TOTAL	17

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N90

FROM STATION	TO STATION	LT/RT	TON
37+35.00	48+07.84	CL	747.46
51+98.41	63+47.00	CL	608.00
		ROUNDED TOTAL	1,083

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"

FROM STATION	TO STATION	LT/RT	SQ YD
37+35.00	45+50.00	CL	6,131.81
53+00.00	63+47.00	CL	8,777.97
		ROUNDED TOTAL	14,910

HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

FROM STATION	TO STATION	LT/RT	SQ YD
45+50.00	48+07.84	LT	864.42
45+50.00	48+07.84	RT	628.31
51+98.41	53+00.00	LT	253.89
51+98.41	53+00.00	RT	315.16
		ROUNDED TOTAL	2,062

PAVED SHOULDER REMOVAL

FROM STATION	TO STATION	LT/RT	SQ YD
43+96.22	48+64.59	RT	407.13
46+80.02	48+40.23	LT	143.31
51+41.35	56+05.27	LT	436.18
51+66.63	53+57.43	RT	174.07
		ROUNDED TOTAL	1,161

HOT-MIX ASPHALT SHOULDERS, 1 1/2"

FROM STATION	TO STATION	LT/RT	SQ YD
37+05.00	43+30.69	LT	507.79
37+05.00	43+28.91	RT	364.13
43+47.09	48+07.84	RT	441.15
43+52.01	48+07.84	LT	477.44
51+98.41	56+17.58	LT	503.15
51+98.41	56+42.67	RT	469.95
56+32.59	63+77.00	LT	577.28
56+70.60	63+77.00	RT	547.88
		ROUNDED TOTAL	3,889

CONCRETE MEDIAN, TYPE SM (DOWELLED)

FROM STATION	TO STATION	LT/RT	SQ FT
44+40.89	48+39.39	CL	3,596.30
51+66.90	55+55.93	CL	3,259.23
		ROUNDED TOTAL	6,856

CONCRETE MEDIAN REMOVAL

FROM STATION	TO STATION	LT/RT	SQ FT
44+40.89	48+69.44	CL	4,131.84
51+36.60	55+55.93	CL	3,796.53
		ROUNDED TOTAL	7,929

SUBBASE GRANULAR MATERIAL, TYPE B 4"

FROM STATION	TO STATION	LT/RT	SQ YD
PRE-STAGE 2			
44+40.89	48+69.44	CL	459.09
51+36.60	55+55.93	CL	421.84
		ROUNDED TOTAL	881

PORTLAND CEMENT CONCRETE BASE COURSE 8"

FROM STATION	TO STATION	LT/RT	SQ YD
PRE-STAGE 2			
44+40.89	48+69.44	CL	459.09
51+36.60	55+55.93	CL	421.84
		ROUNDED TOTAL	881

PAVEMENT REMOVAL

FROM STATION	TO STATION	LT/RT	SQ YD
47+45.56	48+39.95	LT	23.89
48+07.81	48+62.51	LT	100.51
48+07.81	48+78.76	RT	115.16
51+27.47	51+98.44	LT	114.05
51+41.35	52+67.77	LT	11.64
51+43.74	51+98.44	RT	103.14
51+66.71	52+85.56	RT	25.65
		ROUNDED TOTAL	495

APPROACH SLAB REMOVAL

FROM STATION	TO STATION	LT/RT	SQ YD
48+52.47	49+04.91	CL	196.85
50+98.79	51+53.25	CL	208.44
		ROUNDED TOTAL	406

HOT-MIX ASPHALT BASE COURSE,11 3/4"

FROM STATION	TO STATION	LT/RT	SQ YD
PRE-STAGE 1			
43+96.22	48+64.59	RT	407.13
46+80.02	48+39.95	LT	167.20
51+41.35	56+05.27	LT	472.74
51+58.81	53+57.43	RT	199.15
		ROUNDED TOTAL	1,247

PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB

FROM STATION	TO STATION	LT/RT	SQ YD
48+07.84	48+44.95	CL	170.43
51+61.35	51+98.41	CL	169.04
		ROUNDED TOTAL	340

LONGITUDINAL JOINT SEALANT

FROM STATION	TO STATION	LT/RT	FOOT
37+54.23	43+43.03	RT	580.50
44+41.33	48+01.78	LT	361.65
48+22.64	48+49.10	CL	72.81
51+57.15	51+83.61	CL	72.81
51+73.74	55+53.49	RT	379.75
56+44.70	58+55.04	RT	207.14
56+47.17	63+77.00	LT	730.32
60+05.36	63+77.00	RT	371.64
		ROUNDED TOTAL	2,777

AGGREGATE WEDGE SHOULDER, TYPE B

FROM STATION	TO STATION	LT/RT	TON
37+05.00	43+26.08	LT	43.51
37+05.00	43+21.95	RT	39.77
43+53.23	48+34.10	RT	35.60
43+56.44	48+07.84	LT	35.00
51+72.15	56+13.28	LT	37.35
51+98.41	56+37.80	RT	33.38
56+39.28	63+77.00	LT	48.18
56+76.32	63+77.00	RT	46.55
		ROUNDED TOTAL	320

TRAFFIC BARRIER TERMINAL, TYPE 6

FROM STATION	TO STATION	LT/RT	EACH
48+27.46	48+66.86	RT	1
51+39.39	51+78.79	LT	1
		TOTAL	2

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

FROM STATION	TO STATION	LT/RT	EACH
47+77.47	48+27.46	RT	1
51+78.79	52+28.78	LT	1
		TOTAL	2

GUARDRAIL REMOVAL

FROM STATION	TO STATION	LT/RT	FOOT
47+77.24	48+73.74	RT	96.51
51+31.14	52+27.53	LT	96.42
		ROUNDED TOTAL	193

TERMINAL MARKER-DIRECT APPLIED

STATION	LT/RT	EACH
47+77.47	RT	1
52+28.78	LT	1
	TOTAL	2

PAVEMENT PATCHING SCHEDULE

STATION	STATION	LT/RT	44201383	X4406440	X4406640	X4421000
			CLASS C PATCHES, TYPE IV, 12 INCH	PARTIAL DEPTH REMOVAL, TYPE III, 4"	PARTIAL DEPTH REMOVAL, TYPE IV, 4"	PARTIAL DEPTH PATCHING
			SQ YD	SQ YD	SQ YD	TON
37+54.20	42+40.32	RT			106.54	22.37
44+41.33	48+01.79	LT		79.13		16.62
55+88.00	56+12.00	CL	26.67			
		ROUNDED TOTAL	27	80	107	39

TEMPORARY CONCRETE BARRIER

FROM STATION	TO STATION	LT/RT	FOOT
PRE-STAGE 2			
47+42.89	51+55.39	RT	412.50
48+50.59	52+63.09	LT	412.50
		ROUNDED TOTAL	825.0

RELOCATE TEMPORARY CONCRETE BARRIER

FROM STATION	TO STATION	LT/RT	FOOT
STAGE 1			
46+93.02	47+79.73	RT	87.50
48+13.43	54+62.09	CL	650.00
STAGE 2			
45+63.98	52+37.66	CL	675.00
52+34.82	53+59.31	LT	125.00
		ROUNDED TOTAL	1,537.5

BARRIER WALL REFLECTORS, TYPE C

FROM STATION	TO STATION	LT/RT	EACH
PRE-STAGE 2			
47+42.89	51+55.39	RT	17
48+50.59	52+63.09	LT	17
		TOTAL	34

IMPACT ATTENUATORS,TEMPORARY (FULLY REDIRECTIVE,NARROW),TEST LEVEL 3

STATION	LT/RT	EACH
PRE-STAGE 2		
47+29.89	RT	1
52+63.09	LT	1
STAGE 1		
46+93.02	RT	1
	TOTAL	3

IMPACT ATTENUATORS,RELOCATE (FULLY REDIRECTIVE,NARROW),TEST LEVEL 3

STATION	LT/RT	EACH
STAGE 1		
48+13.43	RT	1
54+62.09	LT	1
STAGE 2		
45+63.98	RT	1
52+37.66	LT	1
53+59.31	LT	1
	TOTAL	5

GUARDRAIL REFLECTORS, TYPE A

FROM STATION	TO STATION	LT/RT	EACH
47+77.47	48+66.86	RT	4
51+39.39	52+28.78	LT	4
		TOTAL	8

PAVEMENT MARKING TAPE, TYPE IV 4"

FROM STATION	TO STATION	LT/RT	FOOT
STAGE 1			
43+72.73	56+18.70	CL	1,252.30
44+22.12	46+89.36	CL	536.91
46+88.93	53+57.43	RT	669.68
46+89.36	53+59.25	RT	1,341.67
53+59.25	55+75.57	CL	436.98
STAGE 2			
44+37.71	46+72.60	CL	286.40
44+41.14	45+81.48	LT	141.16
44+63.14	54+62.77	CL	1,001.96
45+81.39	53+58.63	CL	1,558.42
46+80.03	53+59.07	LT	679.83
53+58.63	55+46.69	LT	378.99
54+62.80	55+55.89	RT	93.17
STAGE 3			
43+96.21	52+40.64	RT	839.98
44+29.47	55+68.93	CL	2,302.10
47+73.39	56+05.27	LT	832.36
		ROUNDED TOTAL	12,352

PAVEMENT MARKING TAPE, TYPE IV - LETTERS AND SYMBOLS

STATION	LT/RT	SQ FT
STAGE 2		
44+82.03	LT	15.6
45+81.45	LT	15.6
54+62.80	RT	15.6
54+37.80	RT	15.6
ROUNDED TOTAL		63

PAVEMENT MARKING SCHEDULE

LOCATION	78003100	78003120	78003140	78009005		78003130		78003140	78003140	78100100	X7830072	X7830072
	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B			MODIFIED URETHANE PAVEMENT MARKING						RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	GROOVING FOR RECESSED PAVEMENT MARKING 6"
	LETTERS & SYMBOLS	LINE 5"	LINE 24"	LINE 5"		LINE 6"		LINE 8"	LINE 12"			
	SOLID WHITE	WHITE SKIP DASH	SOLID WHITE	SOLID WHITE	SOLID YELLOW	WHITE DASHED	SOLID WHITE	SOLID WHITE	SOLID WHITE			
STATION TO STATION	SQ FT	FOOT								EACH	EACH	FOOT
ILLINOIS ROUTE 123												
STA 37+05.00 TO STA 63+77.00	187.2	131.0		4,657.0	4,951.0	232.0	1,441.0			67	67	9,608.0
RAMP A												
STA 18+93.93 TO STA 20+49.78	62.4		34.0	238.0	162.0			293.0	115.0	8	8	400.0
RAMP B												
STA 0+23.08 TO STA 1+54.87				155.0	141.0			268.0	90.0	2	2	296.0
RAMP C												
STA 23+85.58 TO STA 25+30.87	62.4		34.0	205.0	146.0			355.0	110.0	6	6	351.0
RAMP D												
STA 0+23.00 TO STA 1+94.45				284.0	170.0			284.0	103.0	2	2	454.0
TOTAL	312.0	131.0	68.0	5,539.0	5,570.0	232.0	1,441.0	1,200.0	418.0	85	85	11,109.0
ROUNDED TOTAL	312	131	68	11,109		1,673		1,200	418	85	85	11,109

PAVEMENT MARKING REMOVAL - GRINDING

FROM STATION	TO STATION	LT/RT	WIDTH (IN.)	SQ FT
EXISTING PAVEMENT MARKINGS				
43+96.21	53+57.43	RT	5	398.52
44+41.01	55+55.91	CL	5	467.05
44+41.01	55+55.91	CL	5	466.39
44+41.33	46+38.05	LT	6	98.95
44+54.81	-	LT	LT ARROW	15.60
45+44.86	-	LT	LT ARROW	15.60
46+34.81	-	LT	LT ARROW	15.60
46+38.05	47+67.32	LT	6	16.17
46+80.02	56+05.27	LT	5	385.32
52+13.66	53+41.58	RT	6	15.55
53+41.58	55+55.89	RT	6	107.17
53+41.58	-	RT	LT ARROW	15.60
54+40.81	-	RT	LT ARROW	15.60
55+40.64	-	RT	LT ARROW	15.60
			ROUNDED TOTAL	2,049

END SECTIONS 12"

STATION	LT/RT	EACH
48+15.31	LT	1
48+41.43	RT	1
51+64.82	LT	1
51+90.94	RT	1
	TOTAL	4

PIPE DRAINS, 12"

STATION	LT/RT	FOOT
48+15.31	LT	10.00
48+41.43	RT	10.00
51+64.82	LT	10.00
51+90.94	RT	10.00
	ROUNDED TOTAL	40

SIGN PANEL - TYPE 1

STATION	LT/RT	TYPE	SQ FT	
57+97.25	RT	W4-3	9.00	
24+74.00	RT	RIGHT TURN	9.00	(RAMP C)
		ROUNDED TOTAL	18	

TYPE F INLET BOX, STANDARD 610001

STATION	LT/RT	EACH
48+15.31	LT	1
48+41.43	RT	1
51+64.82	LT	1
51+90.94	RT	1
	TOTAL	4

CONCRETE SHOULDER CURB

STATION	STATION	LT/RT	FOOT
48+07.81	48+22.81	LT	15.00
48+33.93	48+48.93	RT	15.00
51+57.32	51+72.32	LT	15.00
51+83.44	51+98.44	RT	15.00
		ROUNDED TOTAL	60

TELESCOPING STEEL SIGN SUPPORT

STATION	LT/RT	TYPE	FOOT	
57+97.25	RT	W4-3	14.00	
24+74.00	RT	RIGHT TURN	13.50	(RAMP C)
		ROUNDED TOTAL	28	

STONE DUMPED RIPRAP, CLASS A4

STATION	LT/RT	SQ YD
48+15.31	LT	140.04
48+41.43	RT	152.81
51+64.82	LT	140.12
51+90.94	RT	121.96
	ROUNDED TOTAL	555

FILTER FABRIC

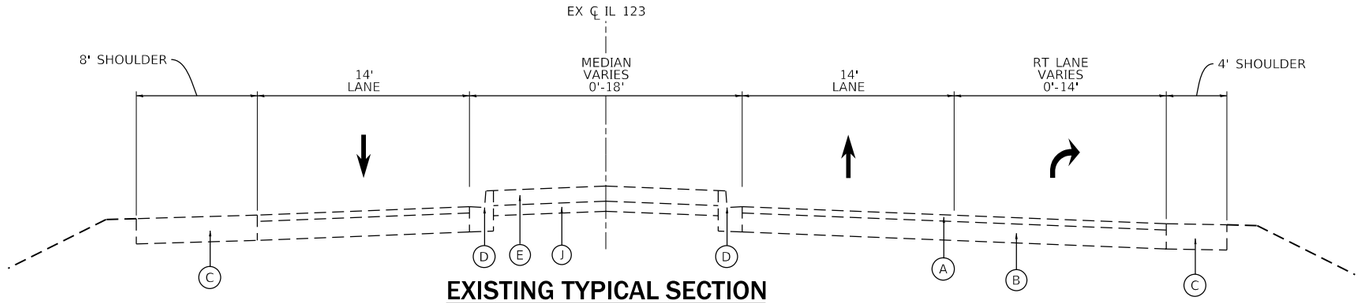
STATION	LT/RT	SQ YD
48+15.31	LT	140.04
48+41.43	RT	152.81
51+64.82	LT	140.12
51+90.94	RT	121.96
	ROUNDED TOTAL	555

REMOVE SIGN PANEL - TYPE 1

STATION	LT/RT	TYPE	SQ FT
25+15.00	RT	RIGHT TURN	9.00
		ROUNDED TOTAL	9

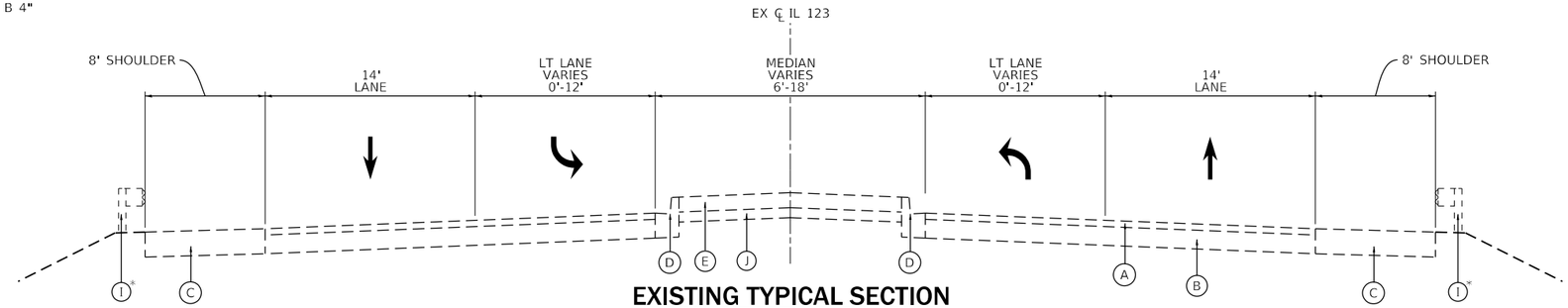
LEGEND

- (A) EXISTING HMA PAVEMENT, 3¾"
- (B) EXISTING REINFORCED PCC PAVEMENT, 8"
- (C) EXISTING HMA SHOULDERS, 11¾"
- (D) EXISTING TYPE M-6.06 COMBINATION C&G
- (E) EXISTING CONCRETE MEDIAN SURFACE 4"
- (F) EXISTING REINFORCED CONCRETE DECK WITH MICROSILICA OVERLAY, 9½"
- (G) EXISTING CONCRETE PARAPET AND RAILING
- (H) EXISTING CONCRETE MEDIAN (BRIDGE)
- (I) EXISTING GUARDRAIL
- (J) EXISTING SUBBASE GRANULAR MATERIAL, TYPE B 4"



EXISTING TYPICAL SECTION

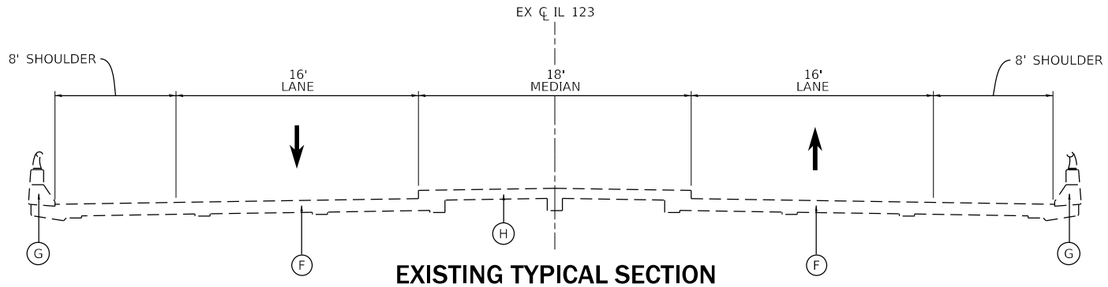
IL 123
LOOKING NORTH
STA 37+05 TO STA 42+03



EXISTING TYPICAL SECTION

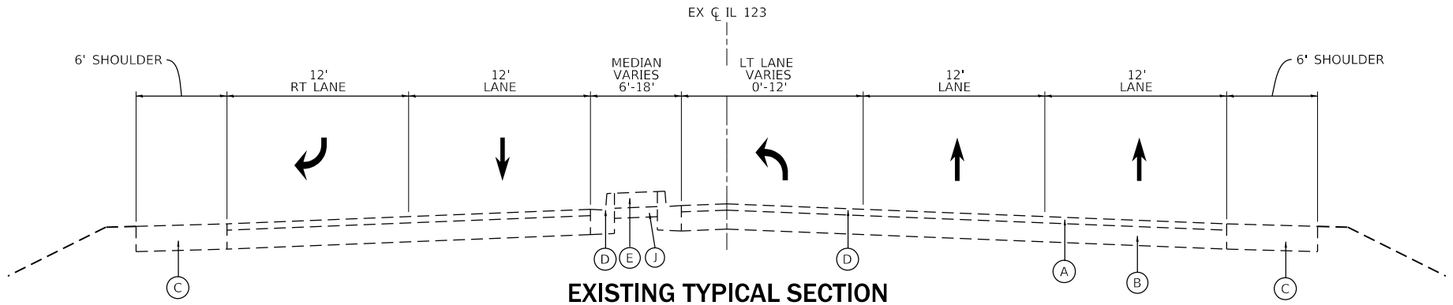
IL 123
LOOKING NORTH
STA 43+85 TO 48+37
STA 51+71 TO 56+20

* LIMITS OF EX GUARDRAIL:
STA 47+78 TO 48+75 RT
STA 51+32 TO 52+29 LT



EXISTING TYPICAL SECTION

IL 123
LOOKING NORTH
STA 48+37 TO 51+71



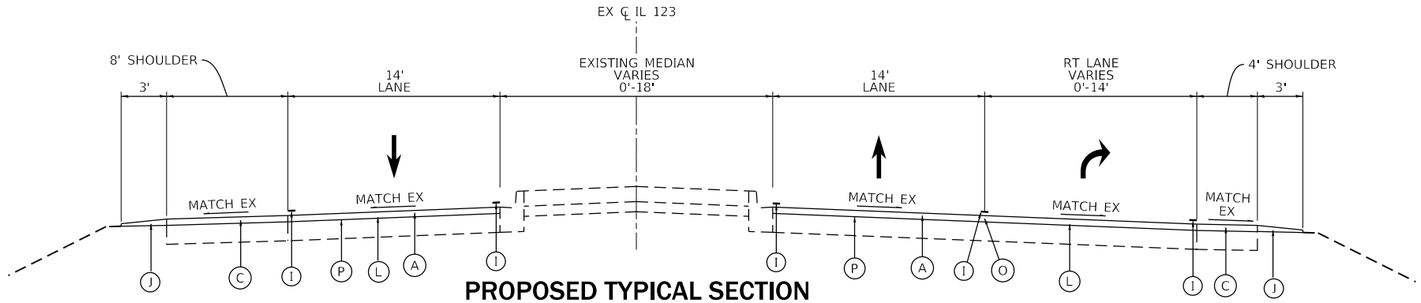
EXISTING TYPICAL SECTION

IL 123
LOOKING NORTH
STA 56+20 TO 63+77

LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 123 OVER FAI-55 TYPICAL SECTIONS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - RC	REVISED -					55	(84-1)D, (150) RS-2	SANGAMON	63	13
	PLOT SCALE = 10.0000 ' / in.	CHECKED - ST	REVISED -							CONTRACT NO. 72K07		
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -		SCALE: N.T.S.	SHEET 1 OF 3 SHEETS	STA. TO STA.		ILLINOIS	FED. AID PROJECT		

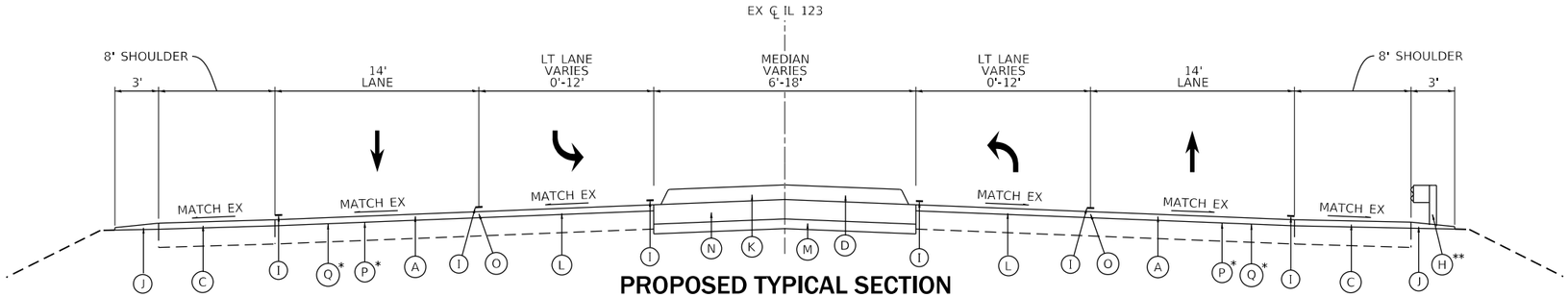
LEGEND

- (A) PROPOSED POLY HMA SURFACE COURSE, 1 1/2"
- (B) PROPOSED POLY HMA BINDER COURSE, 1 1/4"
- (C) PROPOSED HMA SHOULDERS, 1 1/2"
- (D) PROPOSED CONCRETE MEDIAN, TYPE SM-6.06 (DOWELLED)
- (E) PROPOSED CONCRETE DECK, 8"
- (F) PROPOSED CONCRETE PARAPET
- (G) PROPOSED CONCRETE RAISED MEDIAN (BRIDGE)
- (H) PROPOSED GUARDRAIL
- (I) PROPOSED PAVEMENT MARKING
- (J) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- (K) PROPOSED MEDIAN REMOVAL
- (L) PROPOSED PAVEMENT SURFACE REMOVAL (SEE PLANS FOR DEPTH)
- (M) PROPOSED SUBBASE GRANULAR MATERIAL, TYPE B, 4"
- (N) PROPOSED PCC BASE COURSE, 8"
- (O) PROPOSED LONGITUDINAL JOINT SEALANT
- (P) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"
- (Q) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH



PROPOSED TYPICAL SECTION

IL 123
LOOKING NORTH
STA 37+05 TO STA 42+03



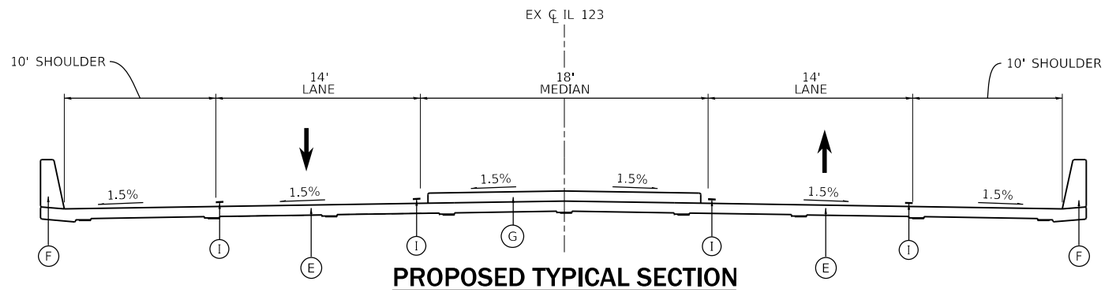
PROPOSED TYPICAL SECTION

IL 123
LOOKING NORTH
STA 43+85 TO 48+08
STA 52+43 TO 56+20

* LIMITS OF PR HMA SURF REM, 1 1/2":
STA 43+85 TO 45+50, 53+00 TO 56+20

LIMITS OF PR HMA SURF REM, VAR DEPTH:
STA 45+50 TO 48+08

** LIMITS OF PR GUARDRAIL:
STA 47+78 TO 48+68 RT



PROPOSED TYPICAL SECTION

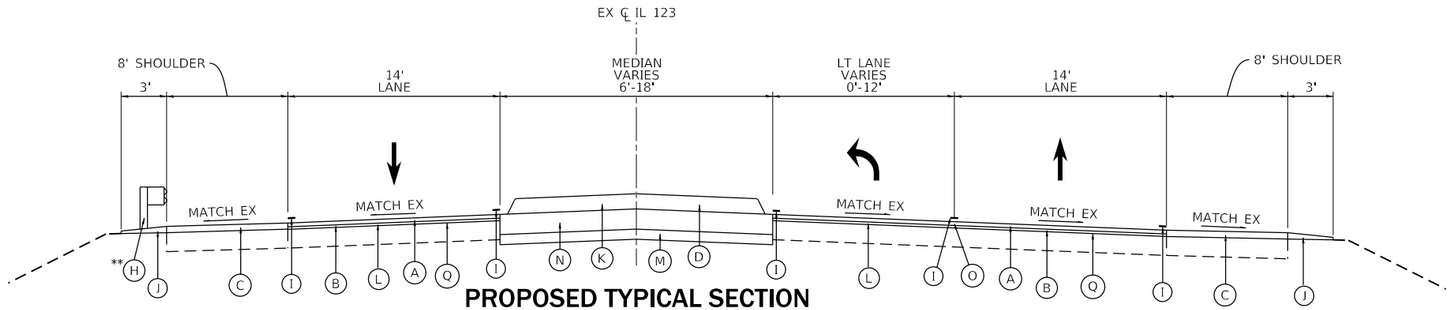
IL 123
LOOKING NORTH
STA 48+08 TO 51+98

NOTE:

BITUMINOUS MATERIALS (TACK COAT) SHALL BE APPLIED ON THE MILLED OR EXISTING ASPHALT SURFACE AND BETWEEN EACH LIFT OF BINDER COURSE AND SURFACE COURSE.

LEGEND

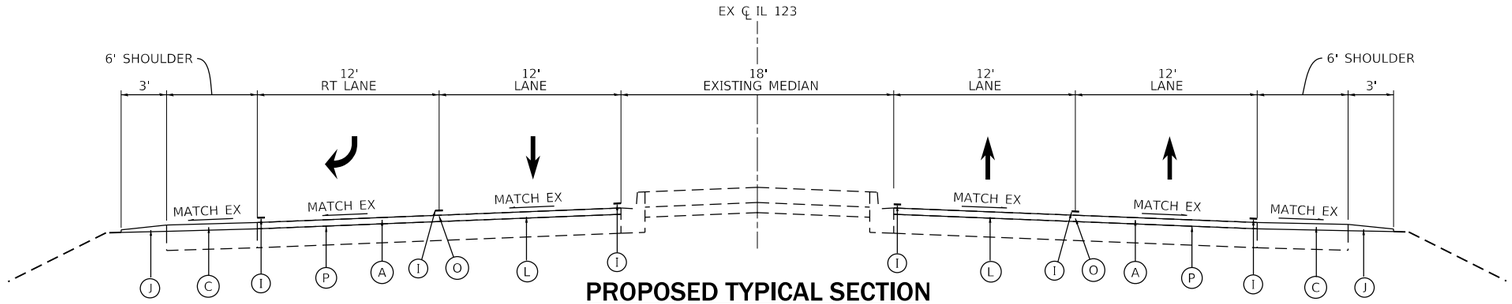
- (A) PROPOSED POLY HMA SURFACE COURSE, 1 1/2"
- (B) PROPOSED POLY HMA BINDER COURSE, 1 1/4"
- (C) PROPOSED HMA SHOULDERS, 1 1/2"
- (D) PROPOSED CONCRETE MEDIAN, TYPE SM-6.06 (DOWELLED)
- (E) PROPOSED CONCRETE DECK, 8"
- (F) PROPOSED CONCRETE PARAPET
- (G) PROPOSED CONCRETE RAISED MEDIAN (BRIDGE)
- (H) PROPOSED GUARDRAIL
- (I) PROPOSED PAVEMENT MARKING
- (J) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- (K) PROPOSED MEDIAN REMOVAL
- (L) PROPOSED PAVEMENT SURFACE REMOVAL (SEE PLANS FOR DEPTH)
- (M) PROPOSED SUBBASE GRANULAR MATERIAL, TYPE B, 4"
- (N) PROPOSED PCC BASE COURSE, 8"
- (O) PROPOSED LONGITUDINAL JOINT SEALANT
- (P) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"
- (Q) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH



** LIMITS OF PR GUARDRAIL:
STA 51+71 TO 52+30 LT

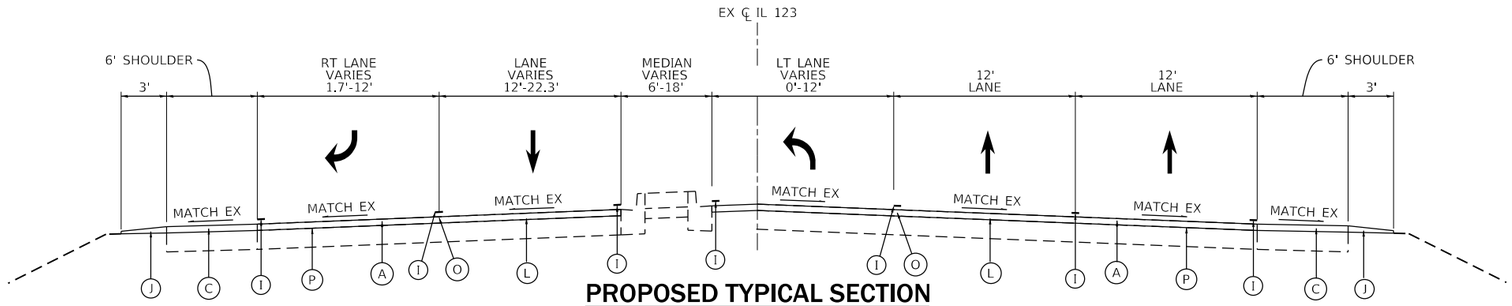
PROPOSED TYPICAL SECTION

IL 123
LOOKING NORTH
STA 51+98 TO 52+43



PROPOSED TYPICAL SECTION

IL 123
LOOKING NORTH
STA 56+20 TO 60+05



PROPOSED TYPICAL SECTION

IL 123
LOOKING NORTH
STA 60+05 TO 63+77

NOTE:

BITUMINOUS MATERIALS (TACK COAT) SHALL BE APPLIED ON THE MILLED OR EXISTING ASPHALT SURFACE AND BETWEEN EACH LIFT OF BINDER COURSE AND SURFACE COURSE.

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

USER NAME = Lin	DESIGNED - RC	REVISED -
	DRAWN - RC	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - ST	REVISED -
PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

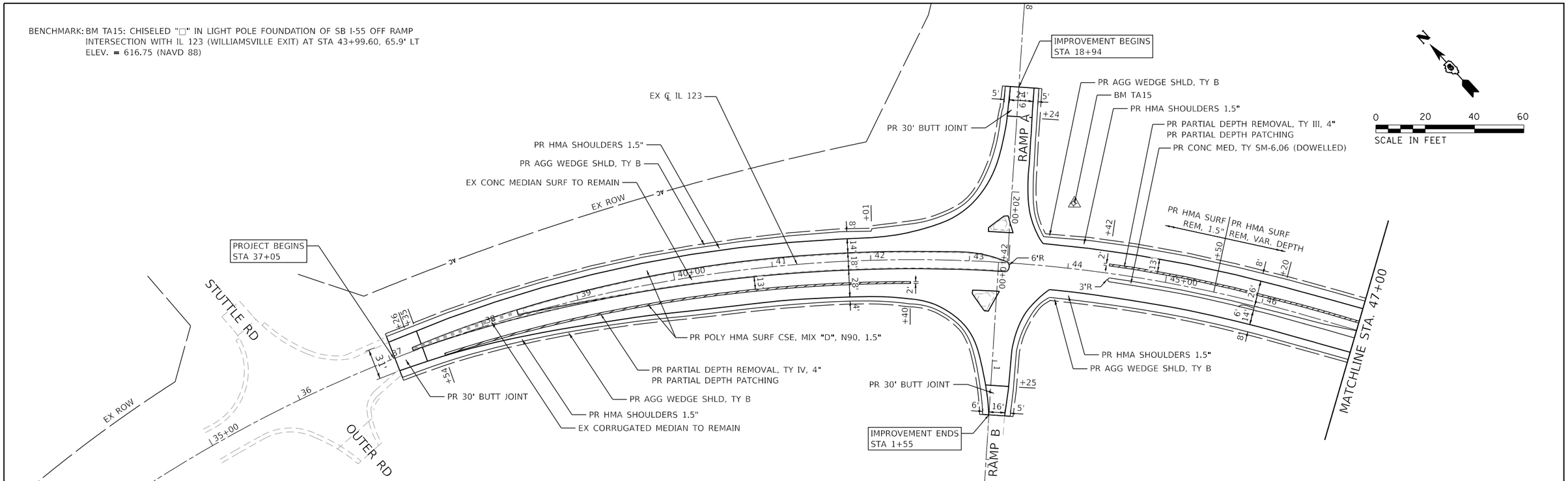
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

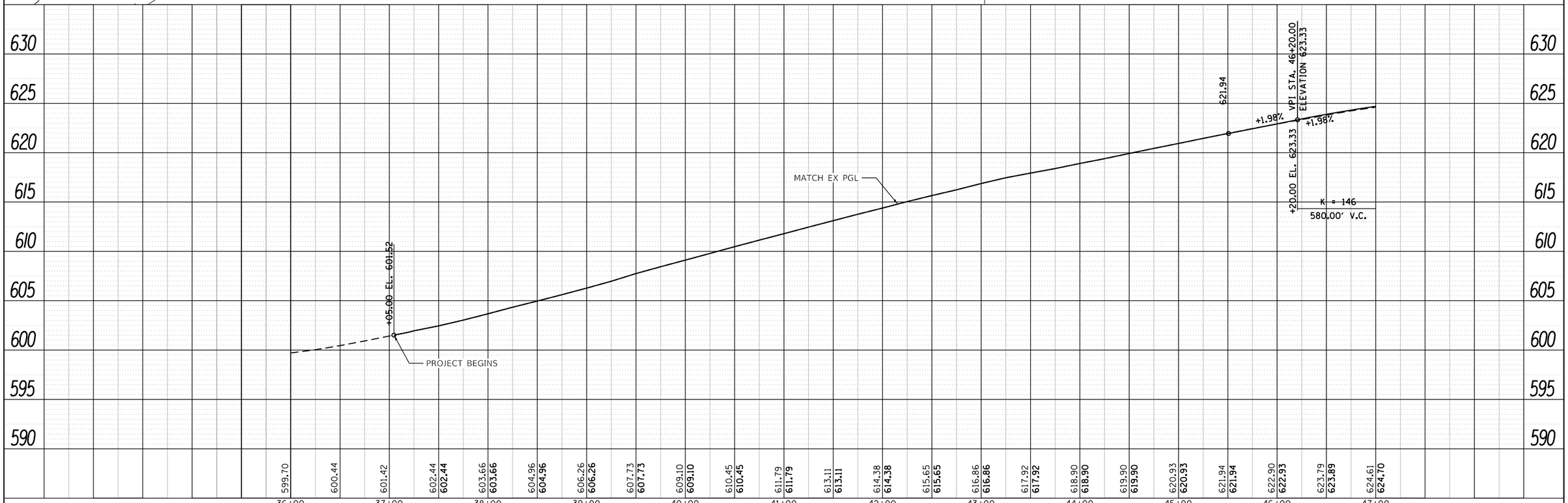
IL 123 OVER FAI-55
TYPICAL SECTIONS

SCALE: N.T.S. | SHEET 3 OF 3 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	15
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

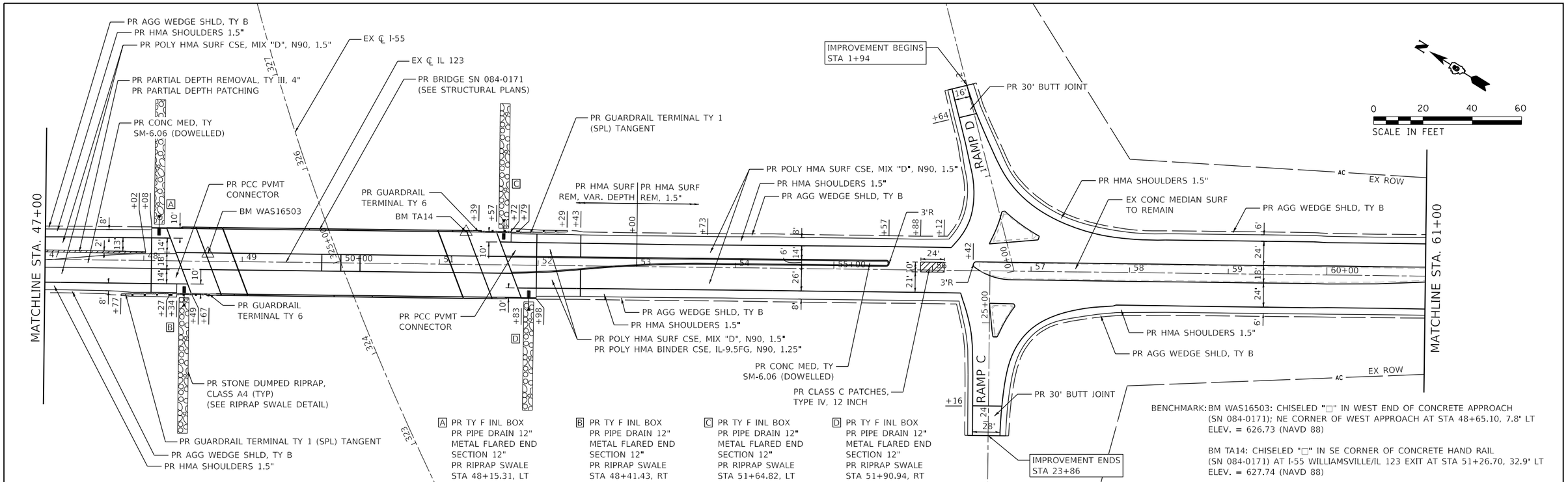
BENCHMARK: BM TA15: CHISELED "□" IN LIGHT POLE FOUNDATION OF SB I-55 OFF RAMP INTERSECTION WITH IL 123 (WILLIAMSVILLE EXIT) AT STA 43+99.60, 65.9' LT ELEV. = 616.75 (NAVD 88)





LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 123 OVER FAI-55 PLAN & PROFILE
		DRAWN - RC	REVISED -		
	PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED -		SCALE: 1"=50' SHEET 1 OF 3 SHEETS STA. 37+05.00 TO STA. 47+00.00
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	16
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			



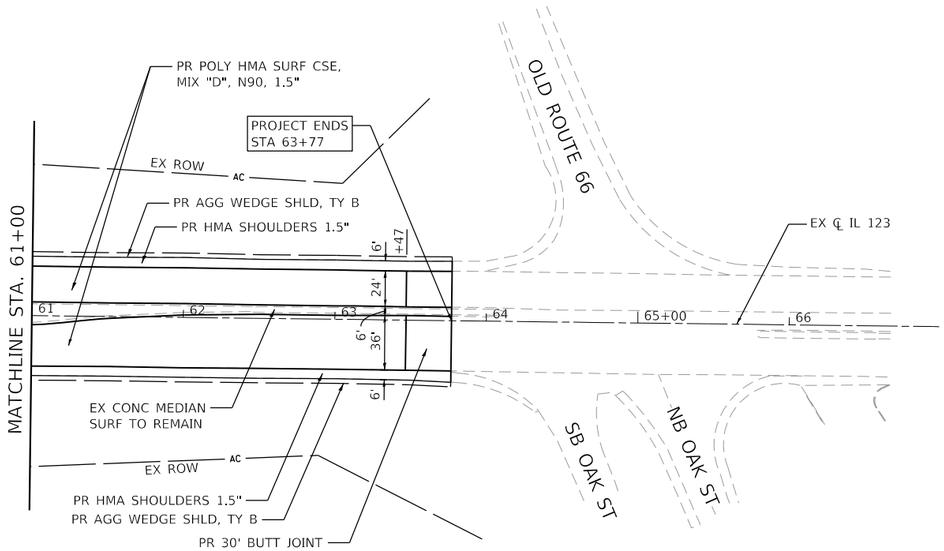
LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -
		DRAWN - RC	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED -
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

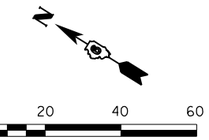
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
PLAN & PROFILE

SCALE: 1"=50' | SHEET 2 OF 3 SHEETS | STA. 47+00.00 | TO STA. 61+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	17
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			





640 635 630 625 620 615 610 605 600

MATCH EX PGL

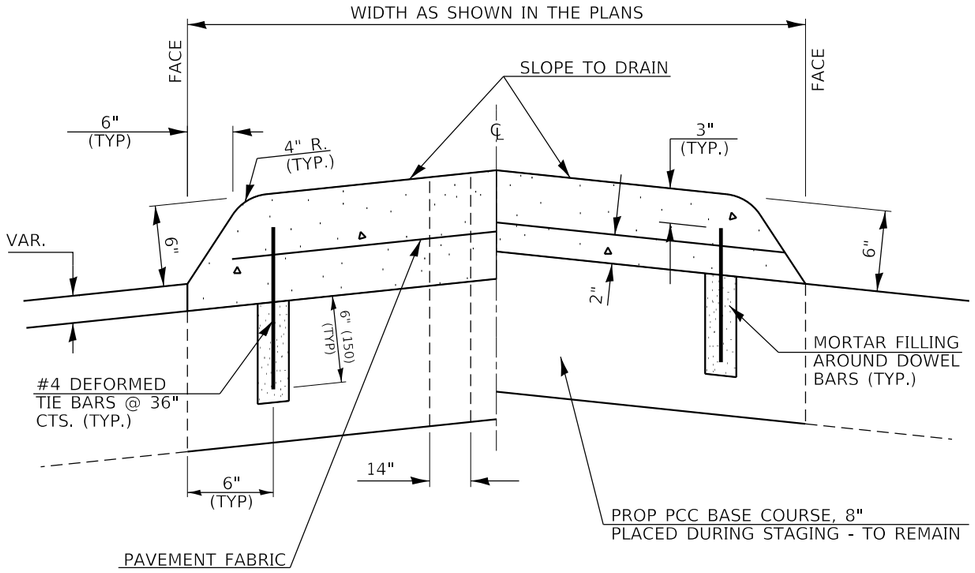
61+00 62+00 63+00 64+00

LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - RC	REVISED -	
	PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED -	
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -	

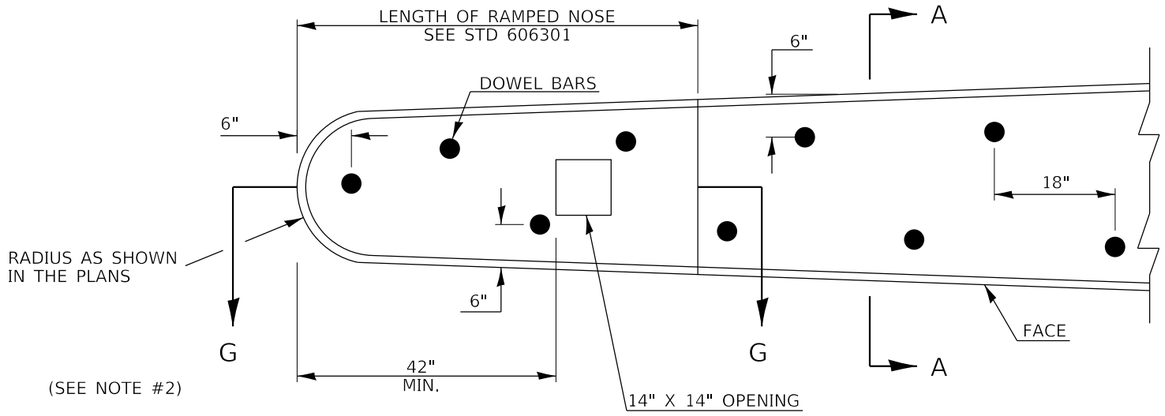
IL 123 OVER FAI-55
PLAN & PROFILE

SCALE: 1"=50' | SHEET 3 OF 3 SHEETS | STA. 61+00.00 | TO STA. 63+77.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	18
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		



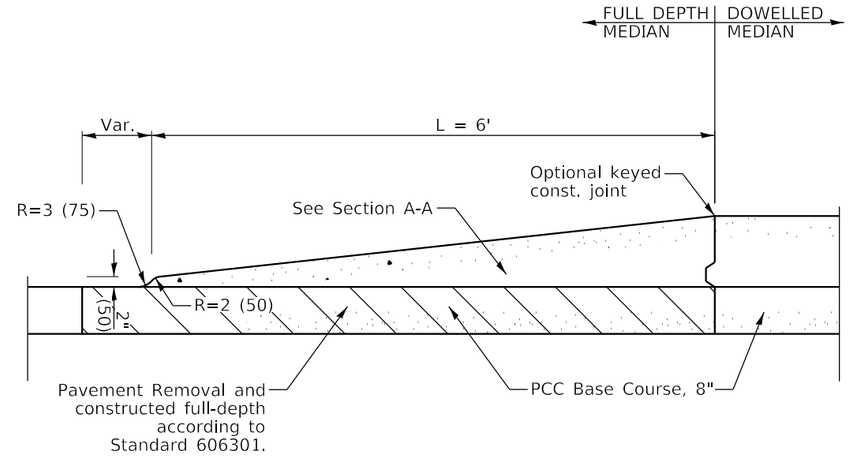
SECTION A-A



PLAN OF MEDIAN

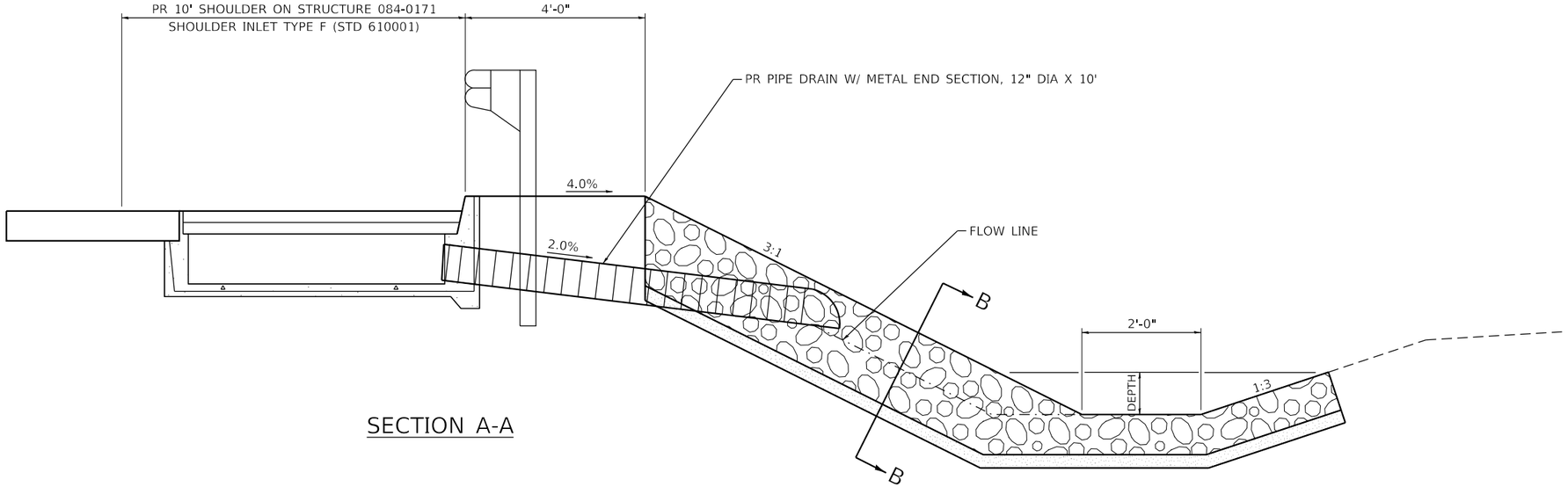
GENERAL NOTES

1. THE GENERAL NOTES FOR STANDARD 606301 SHALL APPLY.
2. DOWEL BARS @ 36" CTS. OR AS DIRECTED BY THE ENGINEER.
3. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQ FOOT FOR CONCRETE MEDIAN, OF THE SIZE AND TYPE SHOWN ON THE PLANS, INCLUDING THE COST OF FURNISHING AND INSTALLING THE DOWEL BARS, MORTAR FILLING, AND PAVEMENT FABRIC. THE COST OF REMOVAL AND DISPOSAL OF THE EXISTING PAVEMENT, FOR THE 14" X 14" OPENING AND THE RAMP NOSE WILL BE INCLUDED IN THE COST FOR CONCRETE MEDIAN, TYPE SM-6.06. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

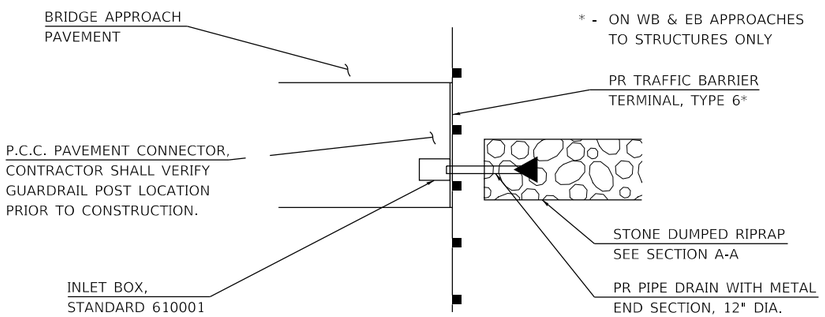


SECTION G-G

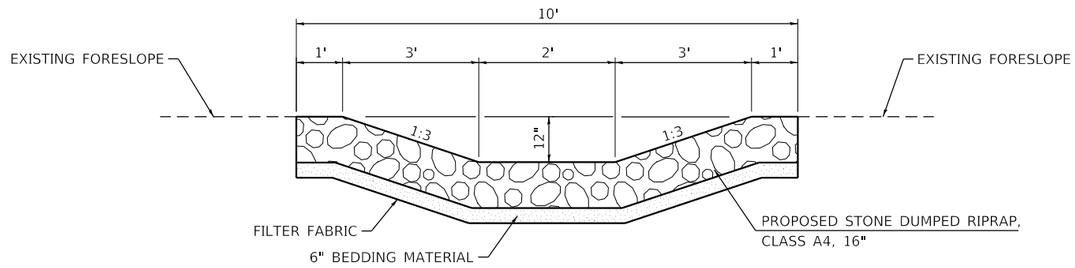
LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 123 OVER FAI-55 CONCRETE MEDIAN, TYPE SM 6 (SM-15) (DOWELLED)	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - RC	REVISED -			55	(84-1)D, (150) RS-2	SANGAMON	63	19
	PLOT SCALE = 0.0833 ' / in.	CHECKED - ST	REVISED -					CONTRACT NO. 72K07		
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -		SCALE: N.T.S. SHEET 1 OF 2 SHEETS STA. TO STA.			ILLINOIS	FED. AID PROJECT	



SECTION A-A



PLAN



SECTION B-B

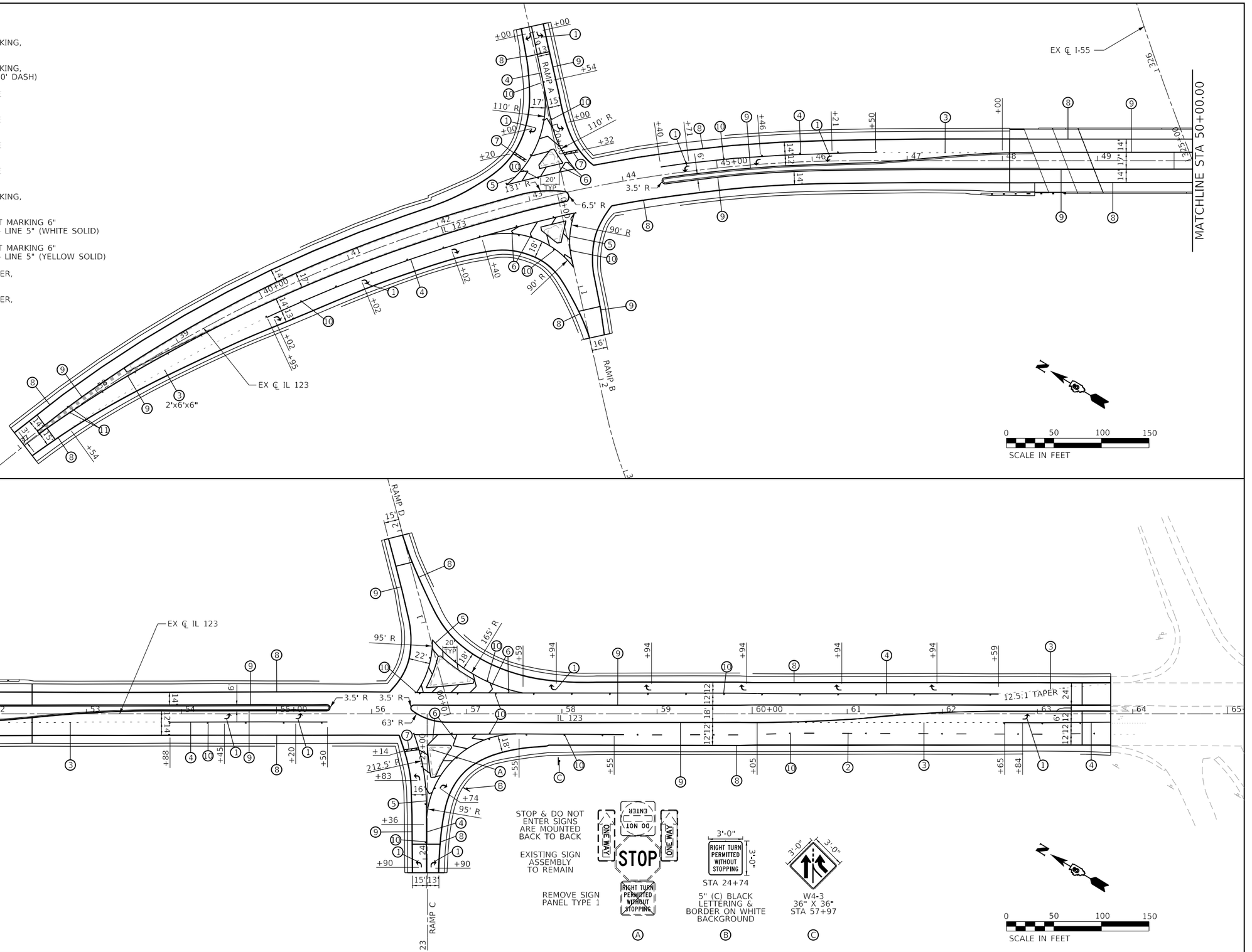
NOTE:
SEE STD 610001 FOR DETAILS NOT SHOWN.

LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 123 OVER FAI-55 RIPRAP SWALE DETAIL
		DRAWN - RC	REVISED -		
	PLOT SCALE = 0.0833 ' / in.	CHECKED - ST	REVISED -		SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. TO STA.
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	20
		CONTRACT NO. 72K07		
		ILLINOIS	FED. AID PROJECT	

PAVEMENT MARKING LEGEND

1. PROPOSED PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LETTER & SYMBOLS (WHITE ARROWS)
2. PROPOSED PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - 5 INCH (WHITE SKIP-DASH, 30' SKIP - 10' DASH)
3. MODIFIED URETHANE PAVEMENT MARKING - LINE 6 INCH (WHITE SKIP-DASH, 6' SKIP - 2' DASH)
4. MODIFIED URETHANE PAVEMENT MARKING - LINE 6 INCH (WHITE SOLID)
5. MODIFIED URETHANE PAVEMENT MARKING - LINE 8 INCH (WHITE SOLID)
6. MODIFIED URETHANE PAVEMENT MARKING - LINE 12 INCH (WHITE SOLID)
7. PROPOSED PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - 24 INCH (WHITE STOP BARS)
8. PROPOSED GROOVING FOR RECESSED PAVEMENT MARKING 6" AND MODIFIED URETHANE PAVEMENT MARKING - LINE 5" (WHITE SOLID)
9. PROPOSED GROOVING FOR RECESSED PAVEMENT MARKING 6" AND MODIFIED URETHANE PAVEMENT MARKING - LINE 5" (YELLOW SOLID)
10. PROPOSED RAISED REFLECTIVE PAVEMENT MARKER, 1-WAY CRYSTAL
11. PROPOSED RAISED REFLECTIVE PAVEMENT MARKER, 1-WAY AMBER



Since 1945
Hutchison Engineering, Inc.
Jacksonville • Quad Cities • Peoria • Shorewood
Illinois Professional Design Firm No. 184-000825

USER NAME = Lin	DESIGNED - TJD	REVISED -	
	DRAWN - JCW	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - AWM	REVISED -	
PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
PAVEMENT MARKING PLAN

SCALE: 1"=50' | SHEET 1 OF 1 SHEETS | STA. 37+05.00 TO STA. 63+77.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	21
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

MAINTENANCE OR TRAFFIC GENERAL NOTES

BRIDGE REPAIRS

1. THE MAINTENANCE OF TRAFFIC PLANS SHALL SERVE AS A GUIDE FOR THE SAFE DIVERSION OF TRAFFIC DURING THE EXECUTION OF THIS CONTRACT. THE CONTRACTOR MAY MODIFY THE MAINTENANCE OF TRAFFIC PLANS TO MEET CONSTRUCTION NEEDS BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE TRAFFIC CONTROL PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

2. EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH TEMPORARY MARKINGS SHALL BE REMOVED. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR PAVEMENT MARKING REMOVAL - GRINDING.

3. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE RELATED PAVEMENT MARKING PAY ITEMS.

4. EXISTING RAISED REFLECTIVE PAVEMENT MARKER REFLECTORS THAT CONFLICT WITH THE REVISED TRAFFIC PATTERN SHALL BE REMOVED FROM THE EXISTING CASTINGS LOCATED IN THE PAVEMENT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR RAISED REFLECTIVE PAVEMENT MARKER REMOVAL.

5. THE CONTRACTOR SHALL REMOVE ALL PAVEMENT MARKINGS THAT CONFLICT WITH THE FOLLOWING STAGE OR THE FINAL PAVEMENT MARKING. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR PAVEMENT MARKING REMOVAL - GRINDING.

6. THE REMOVAL OF ALL PAVEMENT MARKING TAPE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE SQUARE FOOT FOR SHORT TERM PAVEMENT MARKING REMOVAL.

7. ALL TRAFFIC CONTROL DEVICES SHALL BE REFLECTORIZED PRIOR TO INSTALLATION AND CLEANED AS SPECIFIED IN THE TRAFFIC CONTROL SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

8. ALL DRUMS, VERTICAL PANELS, AND BARRICADES ADJACENT TO THE EDGE OF THE TRAVELED WAY SHALL BE EQUIPPED WITH MONO-DIRECTIONAL STEADY BURNING LIGHTS.

9. FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

10. EXISTING SIGNS WITHIN THE LIMITS OF TRAFFIC CONTROL WHICH ARE OBSTRUCTED BY OR OTHERWISE INTERFERED WITH BY CONSTRUCTION OPERATIONS OF DESIGNATED TRAFFIC CONTROL, SHALL BE COVERED OR REMOVED BY THE CONTRACTOR UNLESS SPECIFIED IN THE PLANS OR WHEN DIRECTED BY THE ENGINEER. THIS WORK SHALL BE AS SPECIFIED IN ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.

11. A CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ALONG INTERSTATE 55, IN ADVANCE OF THE IL 123 INTERCHANGE, FOR EACH DIRECTION OF TRAVEL, AT A LOCATION DETERMINED BY THE ENGINEER PRIOR TO THE START OF CONSTRUCTION FOR THE DURATION OF THE CONTRACT.

12. SEE STRUCTURAL PLANS FOR ADDITIONAL BRIDGE STAGING INFORMATION.

13. THE CONTRACTOR SHALL CONTACT THE DISTRICT 6 TRAFFIC CONTROL SECTION OF THE BUREAU OF OPERATIONS AT (217) 785-5312 AT LEAST 21 DAYS PRIOR TO IMPLEMENTING ANY LANE CLOSURES, 48 HOURS PRIOR TO A SWITCH IN TRAFFIC STAGING, AND ONE WEEK PRIOR TO CLOSING A RAMP.

SUGGESTED SEQUENCE OF OPERATIONS

PRE-STAGE 1

1. CONSTRUCT BASE COURSE ALONG EB AND WB OUTSIDE SHOULDERS AT LOCATIONS SHOWN ON STAGING TYPICAL SECTIONS AND STAGING PLANS.

PRE-STAGE 2

1. REMOVE EXISTING CONCRETE MEDIAN SURFACE AT LOCATIONS SHOWN ON PLANS.
2. CONSTRUCT BASE COURSE WITHIN MEDIAN AREA AT LOCATIONS SHOWN ON STAGING TYPICAL SECTIONS AND STAGING PLANS.

STAGE 1

1. CLOSE WB LANES AND SHOULDER AT S.N. 084-0171 AND SHIFT WB TRAFFIC ONTO EB SIDE OF S.N. 084-0171. INSTALL TRAFFIC CONTROL DEVICES AND TEMPORARY PAVEMENT MARKINGS AS SHOWN ON THE PLAN SHEETS "STAGING PLAN - STAGE 1".
2. REMOVE AND REPLACE EXISTING CONCRETE DECK UTILIZING STAGE CONSTRUCTION WHILE PROVIDING PROTECTIVE SHIELD OVER LIVE TRAFFIC.
3. PROVIDE NEW EXPANSION JOINTS AT ABUTMENTS.
4. MAKE NEW DECK COMPOSITE FULL LENGTH.
5. REMOVE AND REPLACE EACH VAULTED SPAN SLAB.
6. REMOVE APPROACH PAVEMENT AND PROVIDE BRIDGE APPROACH SLABS.
7. PERFORM CONCRETE REPAIR AT EACH ABUTMENT AND PIER AS REQUIRED.
8. REPAIR DAMAGED SECTIONS OF CONCRETE SLOPE WALLS AS REQUIRED.
9. RAISE EXISTING PIER CRASH WALL TO 5'-0" ABOVE GROUND ELEVATION.
10. REMOVE AND REPLACE EXISTING APPROACH GUARDRAILS.

STAGE 2

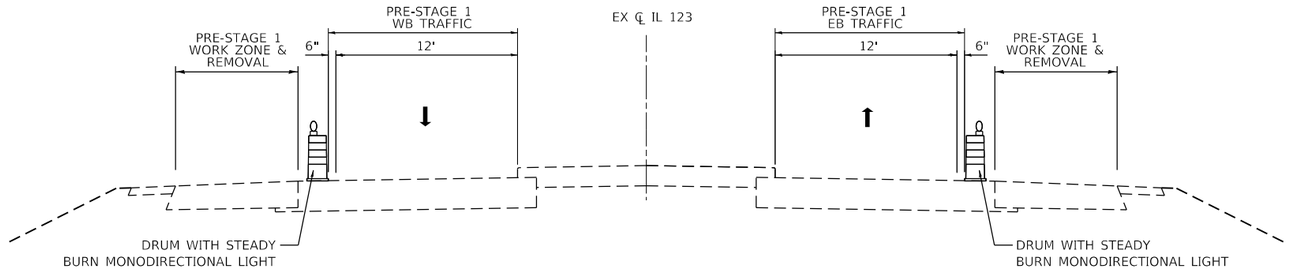
1. CLOSE EB LANES AND SHOULDER AT S.N. 084-0171 AND SHIFT EB TRAFFIC ONTO EB SIDE OF S.N. 084-0171. INSTALL TRAFFIC CONTROL DEVICES AND TEMPORARY PAVEMENT MARKINGS AS SHOWN ON THE PLAN SHEETS "STAGING PLAN - STAGE 2".
2. REMOVE AND REPLACE EXISTING CONCRETE DECK UTILIZING STAGE CONSTRUCTION WHILE PROVIDING PROTECTIVE SHIELD OVER LIVE TRAFFIC.
3. PROVIDE NEW EXPANSION JOINTS AT ABUTMENTS.
4. MAKE NEW DECK COMPOSITE FULL LENGTH.
5. REMOVE AND REPLACE EACH VAULTED SPAN SLAB.
6. REMOVE APPROACH PAVEMENT AND PROVIDE BRIDGE APPROACH SLABS.
7. PERFORM CONCRETE REPAIR AT EACH ABUTMENT AND PIER AS REQUIRED.
8. REPAIR DAMAGED SECTIONS OF CONCRETE SLOPE WALLS AS REQUIRED.
9. RAISE EXISTING PIER CRASH WALL TO 5'-0" ABOVE GROUND ELEVATION.
10. REMOVE AND REPLACE EXISTING APPROACH GUARDRAILS.

STAGE 3

1. SHIFT EB AND WB TRAFFIC ONTO OUTSIDE SHOULDERS AT S.N. 084-0171. INSTALL TRAFFIC CONTROL DEVICES AND BASE COURSE MARKINGS AS SHOWN ON THE PLAN SHEETS "STAGING PLAN - STAGE 3".
2. CONSTRUCT PROPOSED CONCRETE MEDIAN AND COMBINATION CURB AND GUTTER.

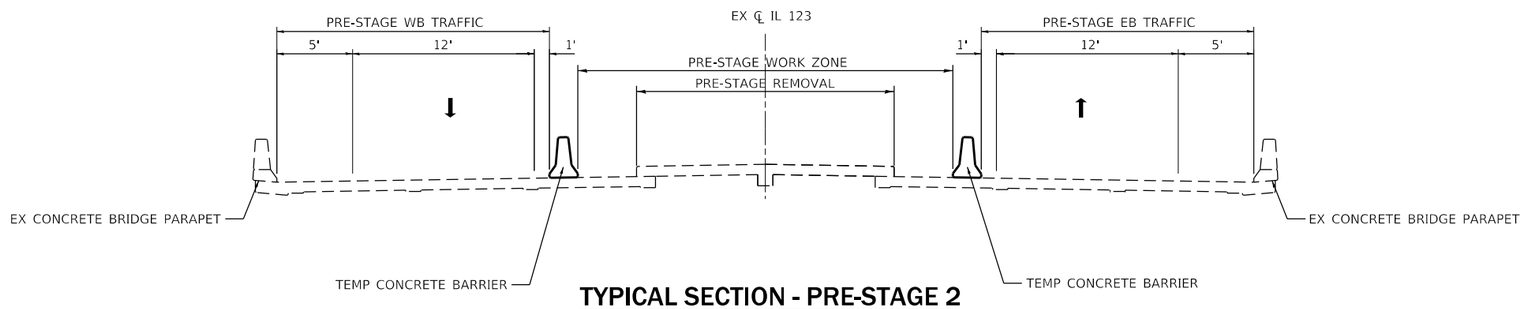
POST-STAGE

1. PERFORM PAVEMENT AND SHOULDER RESURFACING AND PAVEMENT PATCHING UTILIZING HIGHWAY STANDARD 701306.
2. PLACE PERMANENT PAVEMENT MARKINGS UTILIZING HIGHWAY STANDARD 701311.



TYPICAL SECTION - PRE-STAGE 1

(LOOKING SOUTH)
STA 43+96 TO STA 48+48
STA 51+57 TO STA 56+05

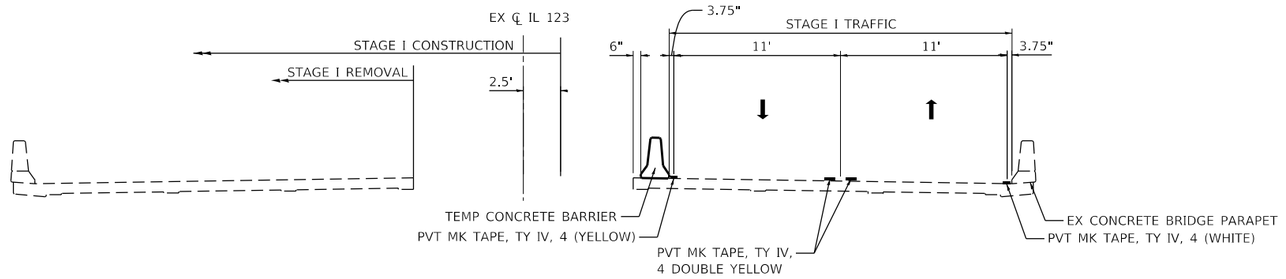


TYPICAL SECTION - PRE-STAGE 2

(LOOKING SOUTH)
STA 48+53 TO STA 51+53

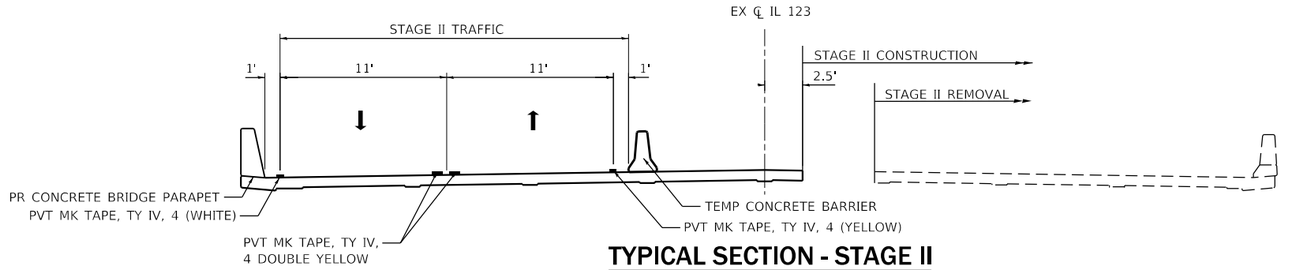
LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 123 OVER FAI-55 STAGING TYPICAL SECTIONS
		DRAWN - RC	REVISED -		
	PLOT SCALE = 10.0000 ' / in.	CHECKED - ST	REVISED -		
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -		SCALE: N.T.S. SHEET 2 OF 16 SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	23
		CONTRACT NO. 72K07		
		ILLINOIS	FED. AID PROJECT	



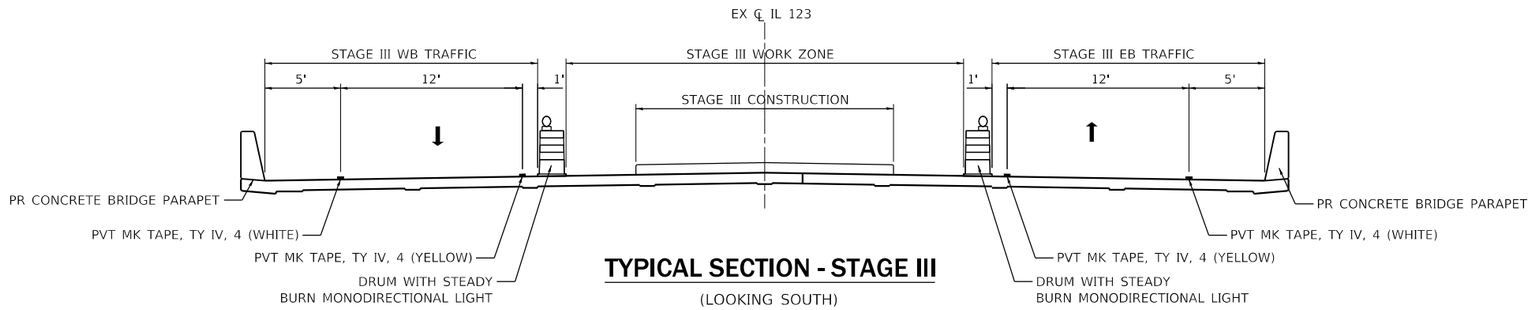
TYPICAL SECTION - STAGE I

(LOOKING SOUTH)
STA 48+24 TO STA 51+84



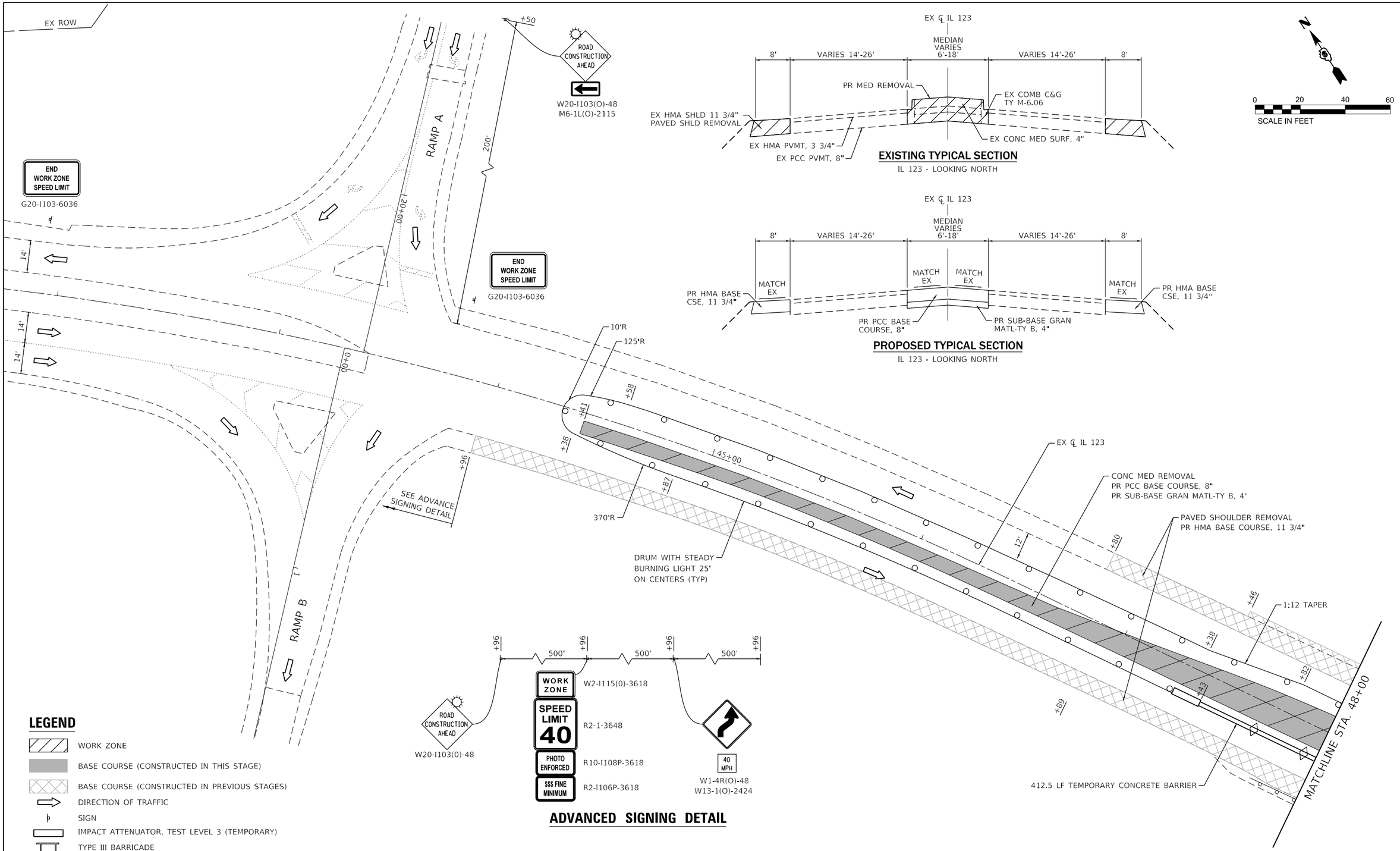
TYPICAL SECTION - STAGE II

(LOOKING SOUTH)
STA 48+24 TO STA 51+84



TYPICAL SECTION - STAGE III

(LOOKING SOUTH)
STA 48+24 TO STA 51+84



EXISTING TYPICAL SECTION

IL 123 - LOOKING NORTH

PROPOSED TYPICAL SECTION

IL 123 - LOOKING NORTH

ADVANCED SIGNING DETAIL

LEGEND

- WORK ZONE
- BASE COURSE (CONSTRUCTED IN THIS STAGE)
- BASE COURSE (CONSTRUCTED IN PREVIOUS STAGES)
- DIRECTION OF TRAFFIC
- SIGN
- IMPACT ATTENUATOR, TEST LEVEL 3 (TEMPORARY)
- TYPE III BARRICADE
- TYPE C BIDIRECTIONAL REFLECTOR (25' C-C)
- TEMPORARY CONCRETE BARRIER

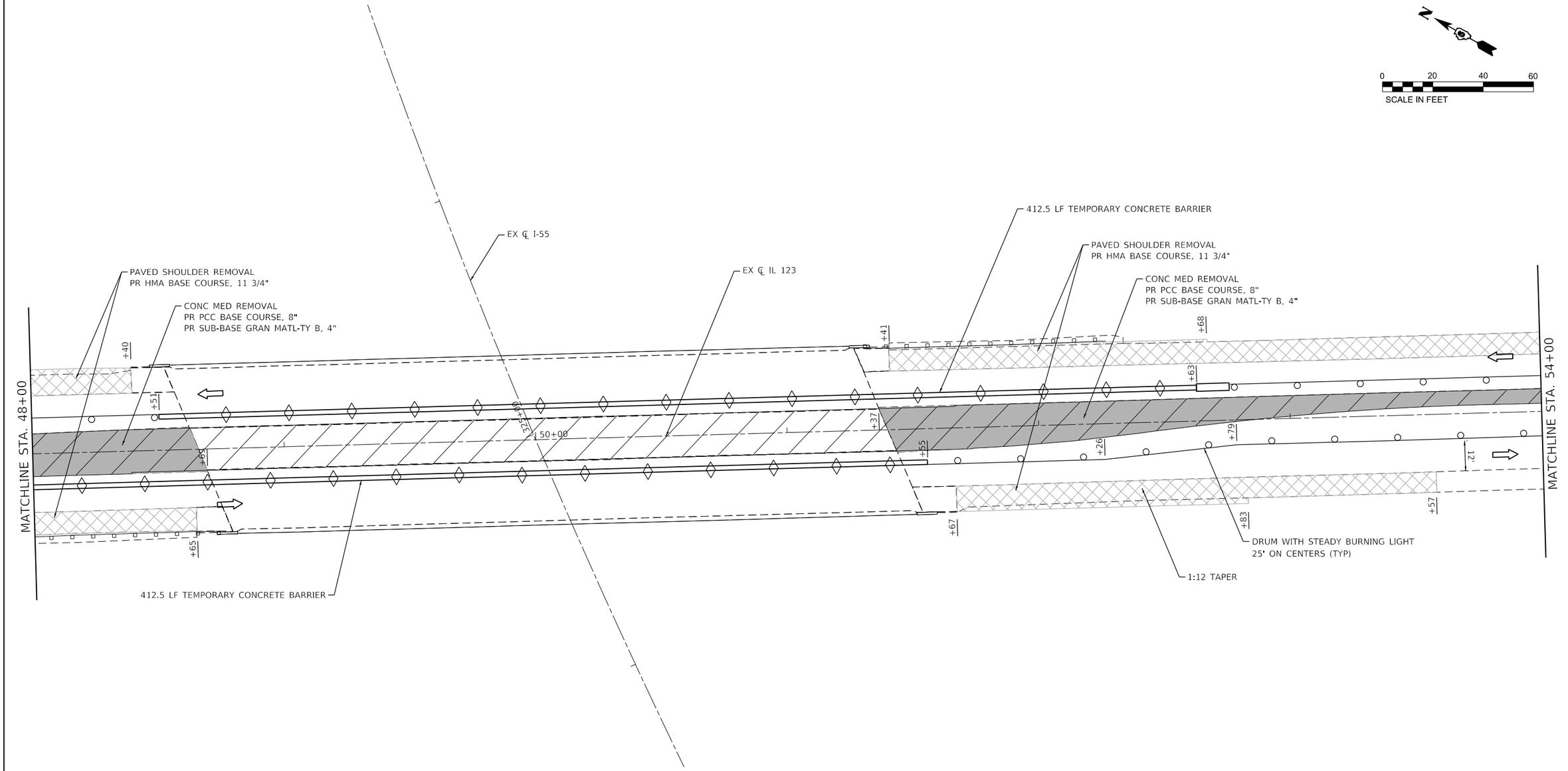
LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -
		DRAWN - RC	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
STAGING PLAN - PRE-STAGE 2

SCALE: 1"=50' | SHEET 4 OF 16 SHEETS | STA. 42+00.00 | TO STA. 48+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	25
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			



LEGEND

- WORK ZONE
- BASE COURSE - (CONSTRUCTED IN THIS STAGE)
- BASE COURSE - (CONSTRUCTED IN PREVIOUS STAGES)
- DIRECTION OF TRAFFIC
- SIGN
- IMPACT ATTENUATOR, TEST LEVEL 3 (TEMPORARY)
- TYPE III BARRICADE
- TYPE C BIDIRECTIONAL REFLECTOR (25' C-C)
- TEMPORARY CONCRETE BARRIER

LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -
		DRAWN - RC	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

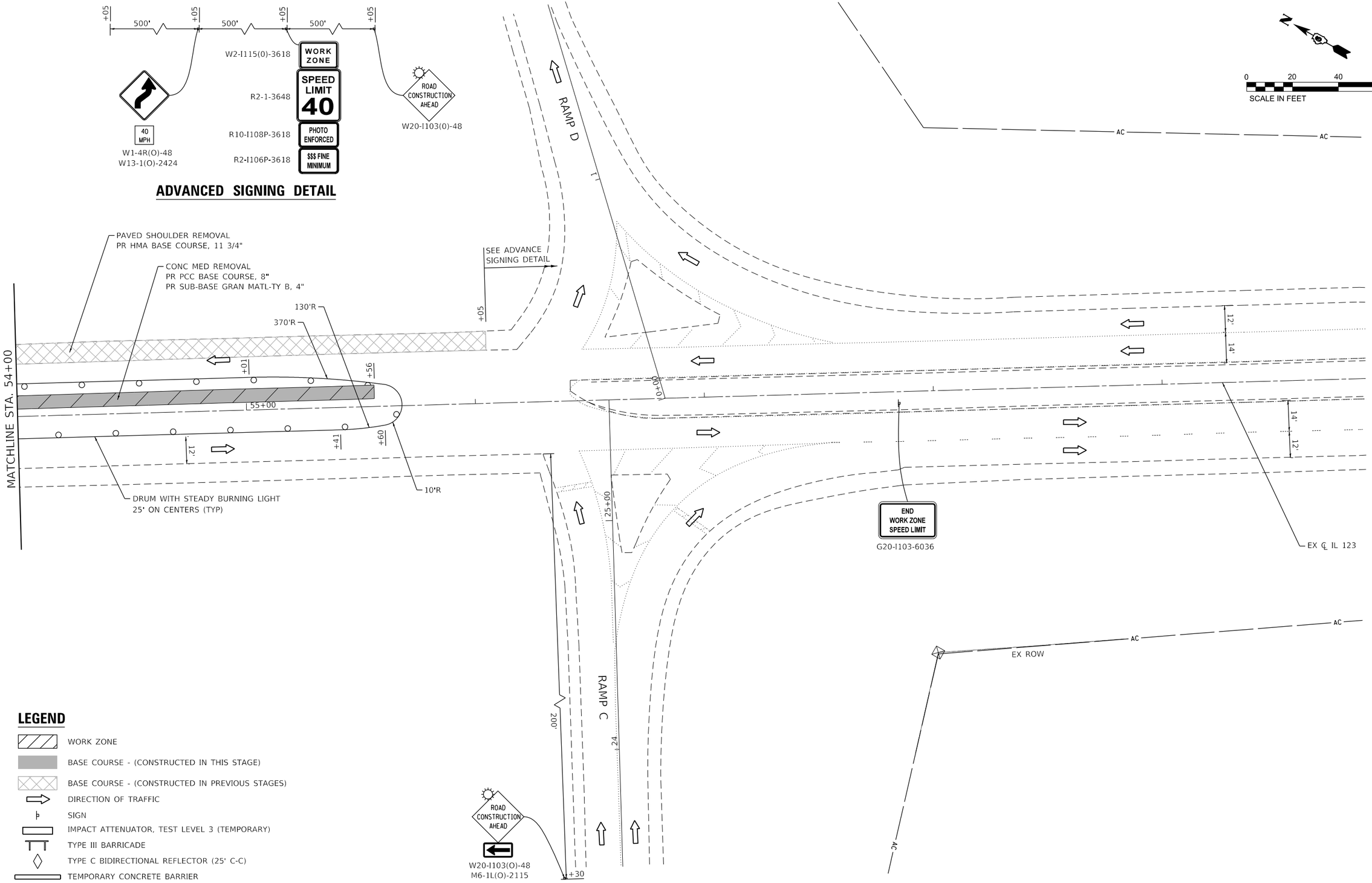
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
STAGING PLAN - PRE-STAGE 2

SCALE: 1"=50' | SHEET 5 OF 16 SHEETS | STA. 48+00.00 TO STA. 54+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	26
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		

ADVANCED SIGNING DETAIL



LEGEND

- WORK ZONE
- BASE COURSE - (CONSTRUCTED IN THIS STAGE)
- BASE COURSE - (CONSTRUCTED IN PREVIOUS STAGES)
- DIRECTION OF TRAFFIC
- SIGN
- IMPACT ATTENUATOR, TEST LEVEL 3 (TEMPORARY)
- TYPE III BARRICADE
- TYPE C BIDIRECTIONAL REFLECTOR (25' C-C)
- TEMPORARY CONCRETE BARRIER

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

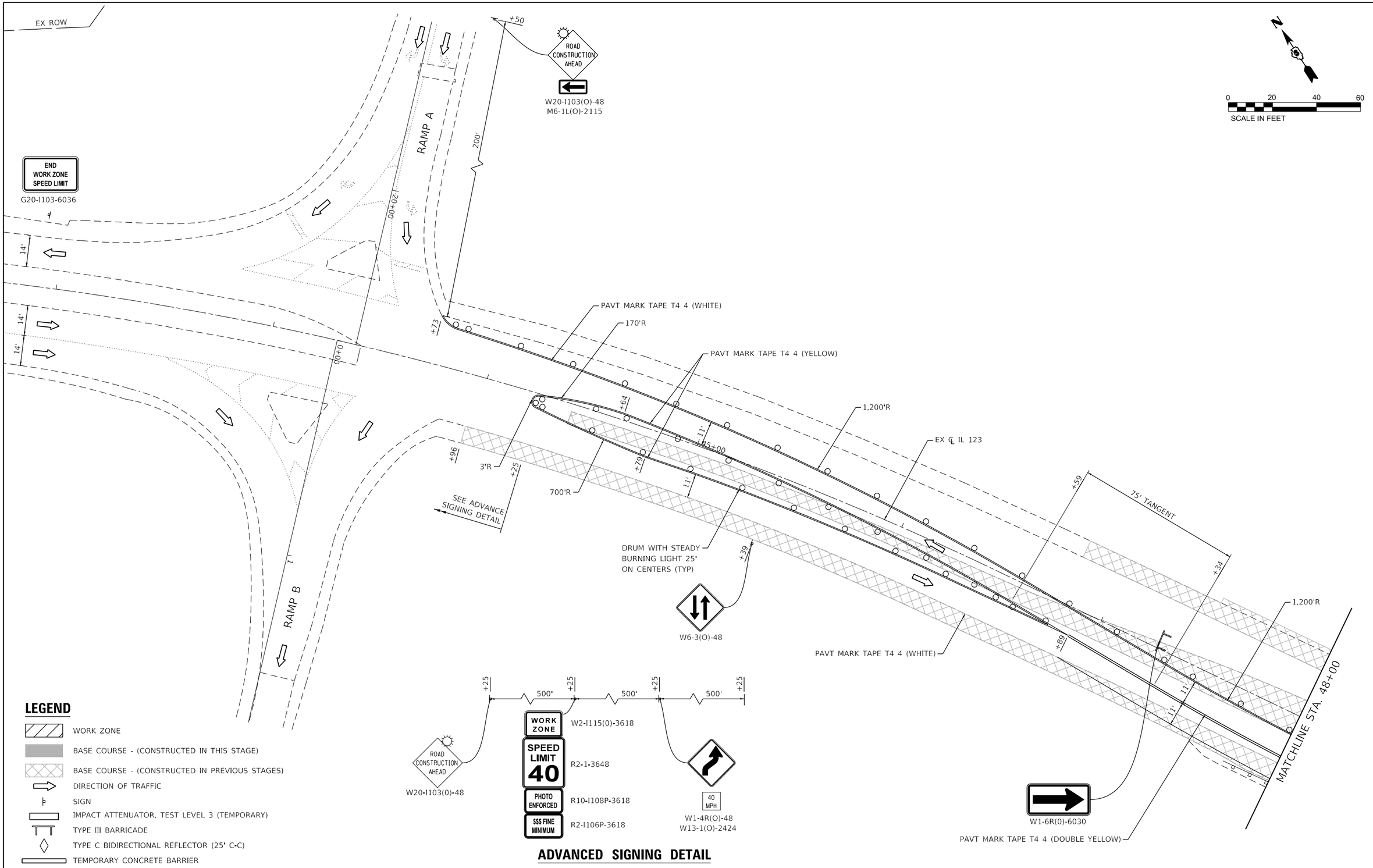
USER NAME = Lin	DESIGNED - RC	REVISED -
	DRAWN - RC	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -
PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
STAGING PLAN - PRE-STAGE 2

SCALE: 1"=50' | SHEET 6 OF 16 SHEETS | STA. 54+00.00 | TO STA. 60+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	27
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			



LEGEND

- WORK ZONE
- BASE COURSE - (CONSTRUCTED IN THIS STAGE)
- BASE COURSE - (CONSTRUCTED IN PREVIOUS STAGES)
- DIRECTION OF TRAFFIC
- SIGN
- IMPACT ATTENUATOR, TEST LEVEL 3 (TEMPORARY)
- TYPE III BARRICADE
- TYPE C BIDIRECTIONAL REFLECTOR (25' C-C)
- TEMPORARY CONCRETE BARRIER

ADVANCED SIGNING DETAIL

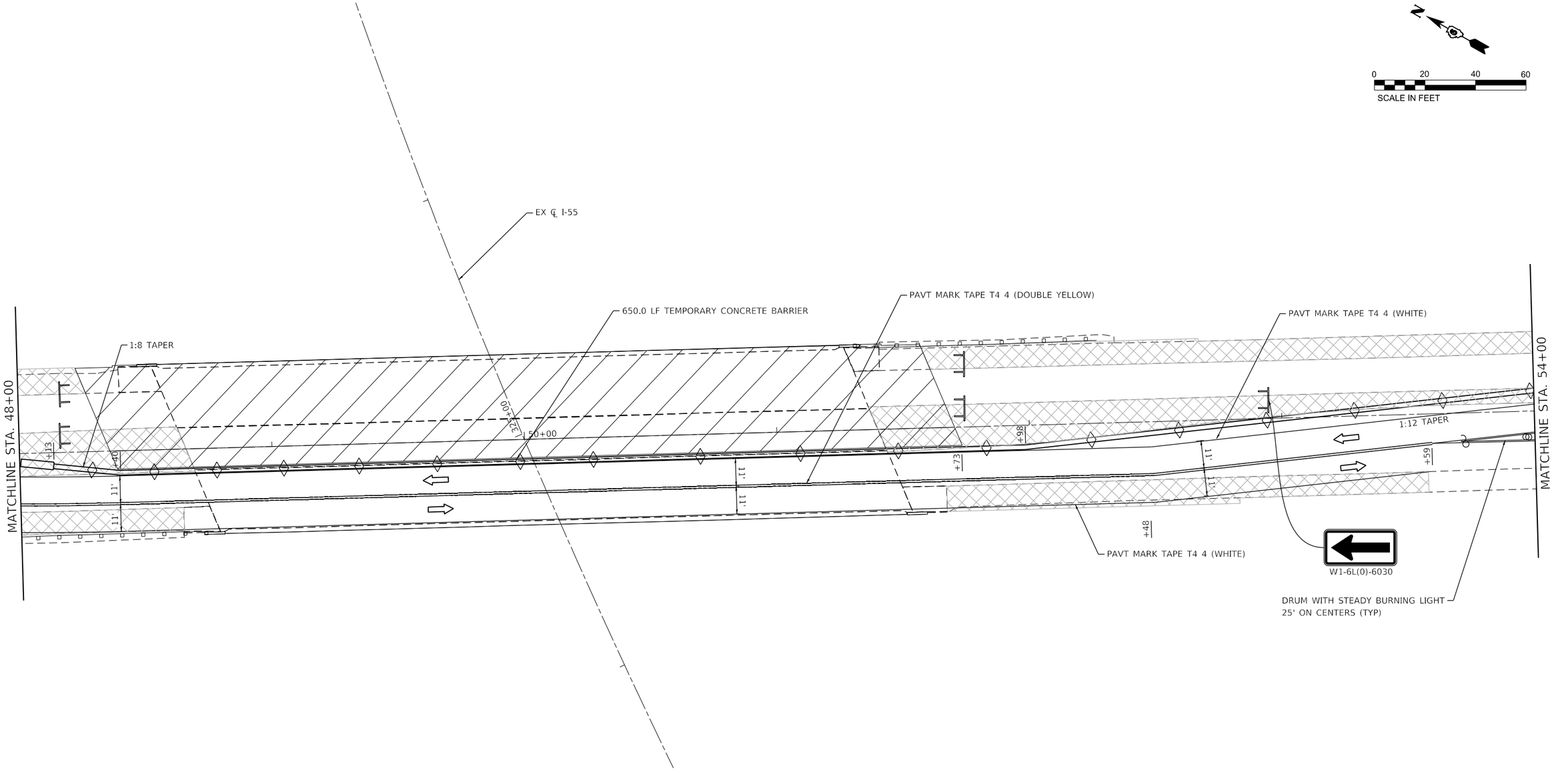
LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC
		DRAWN - RC
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ST
	PLOT DATE = 8/19/2019	DATE - 8/2019
		REVISED -
		REVISED -
		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
STAGING PLAN - STAGE 1

SCALE: 1"=50' | SHEET 7 OF 16 SHEETS | STA. 42+00.00 | TO STA. 48+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	28
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- WORK ZONE
- BASE COURSE - (CONSTRUCTED IN THIS STAGE)
- BASE COURSE - (CONSTRUCTED IN PREVIOUS STAGES)
- DIRECTION OF TRAFFIC
- SIGN
- IMPACT ATTENUATOR, TEST LEVEL 3 (TEMPORARY)
- TYPE III BARRICADE
- TYPE C BIDIRECTIONAL REFLECTOR (25' C-C)
- TEMPORARY CONCRETE BARRIER

LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -
		DRAWN - RC	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

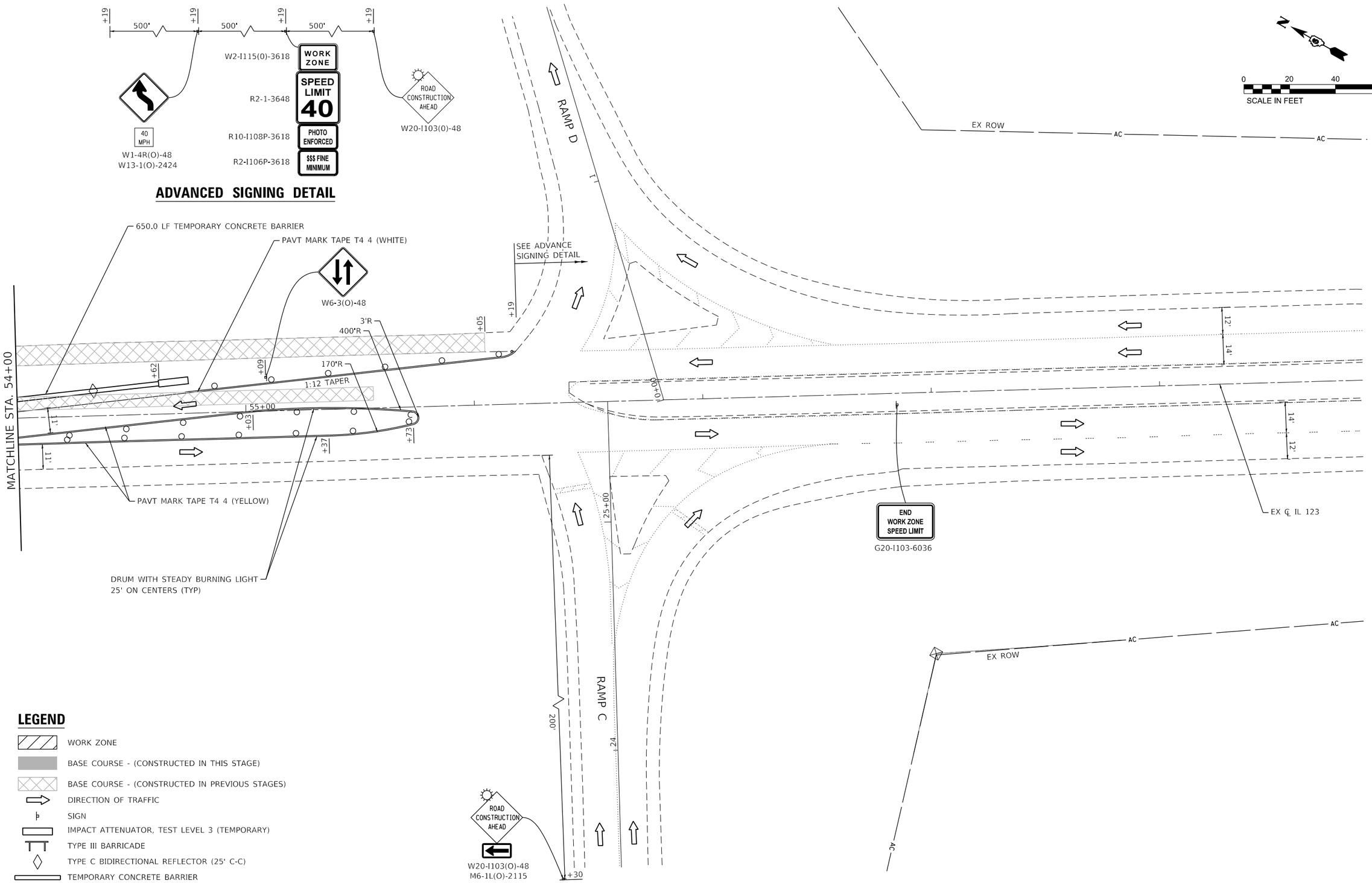
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
STAGING PLAN - STAGE 1

SCALE: 1"=50' | SHEET 8 OF 16 SHEETS | STA. 48+00.00 TO STA. 54+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	29
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		

ADVANCED SIGNING DETAIL



LEGEND

- WORK ZONE
- BASE COURSE - (CONSTRUCTED IN THIS STAGE)
- BASE COURSE - (CONSTRUCTED IN PREVIOUS STAGES)
- DIRECTION OF TRAFFIC
- SIGN
- IMPACT ATTENUATOR, TEST LEVEL 3 (TEMPORARY)
- TYPE III BARRICADE
- TYPE C BIDIRECTIONAL REFLECTOR (25' C-C)
- TEMPORARY CONCRETE BARRIER

LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -
		DRAWN - RC	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
STAGING PLAN - STAGE 1

SCALE: 1"=50' | SHEET 9 OF 16 SHEETS | STA. 54+00.00 TO STA. 60+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	30
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		

EX ROW

RAMP A

RAMP B

+50

ROAD CONSTRUCTION AHEAD

W20-I103(O)-48
M6-1L(O)-2115

200'

20+00

0+00

14'

14'

14'

END WORK ZONE SPEED LIMIT

G20-I103-6036

PAVT MARK TAPE T4 4 (WHITE)

DRUM WITH STEADY BURNING LIGHT 25' ON CENTERS (TYP)

+33

75' TANGENT

+08

14'

12'

3'R

145+00

+81

+29

11'

+64

EX ℄ IL 123

ONLY ONLY

R3-8-3030

+31

+41

+63

W6-3(O)-48

SEE ADVANCE SIGNING DETAIL

1,200'R

PAVT MARK TAPE T4 4 (YELLOW)

PAVT MARK TAPE T4 - LETTERS AND SYMBOLS (TYP)

PAVT MARK TAPE T4 4 (WHITE)

1,200'R

+93

11'

11'

W1-6L(O)-6030

MATCHLINE STA. 48+00

0 20 40 60

SCALE IN FEET

LEGEND

- WORK ZONE
- BASE COURSE - (CONSTRUCTED IN THIS STAGE)
- BASE COURSE - (CONSTRUCTED IN PREVIOUS STAGES)
- DIRECTION OF TRAFFIC
- SIGN
- IMPACT ATTENUATOR, TEST LEVEL 3 (TEMPORARY)
- TYPE III BARRICADE
- TYPE C BIDIRECTIONAL REFLECTOR (25' C-C)
- TEMPORARY CONCRETE BARRIER

+41 500' +41 500' +41 500' +41

ROAD CONSTRUCTION AHEAD

W20-I103(0)-48

WORK ZONE

W2-I115(0)-3618

SPEED LIMIT 40

R2-1-3648

PHOTO ENFORCED

R10-I108P-3618

$$$ FINE MINIMUM

R2-I106P-3618

40 MPH

W1-4R(O)-48
W13-1(O)-2424

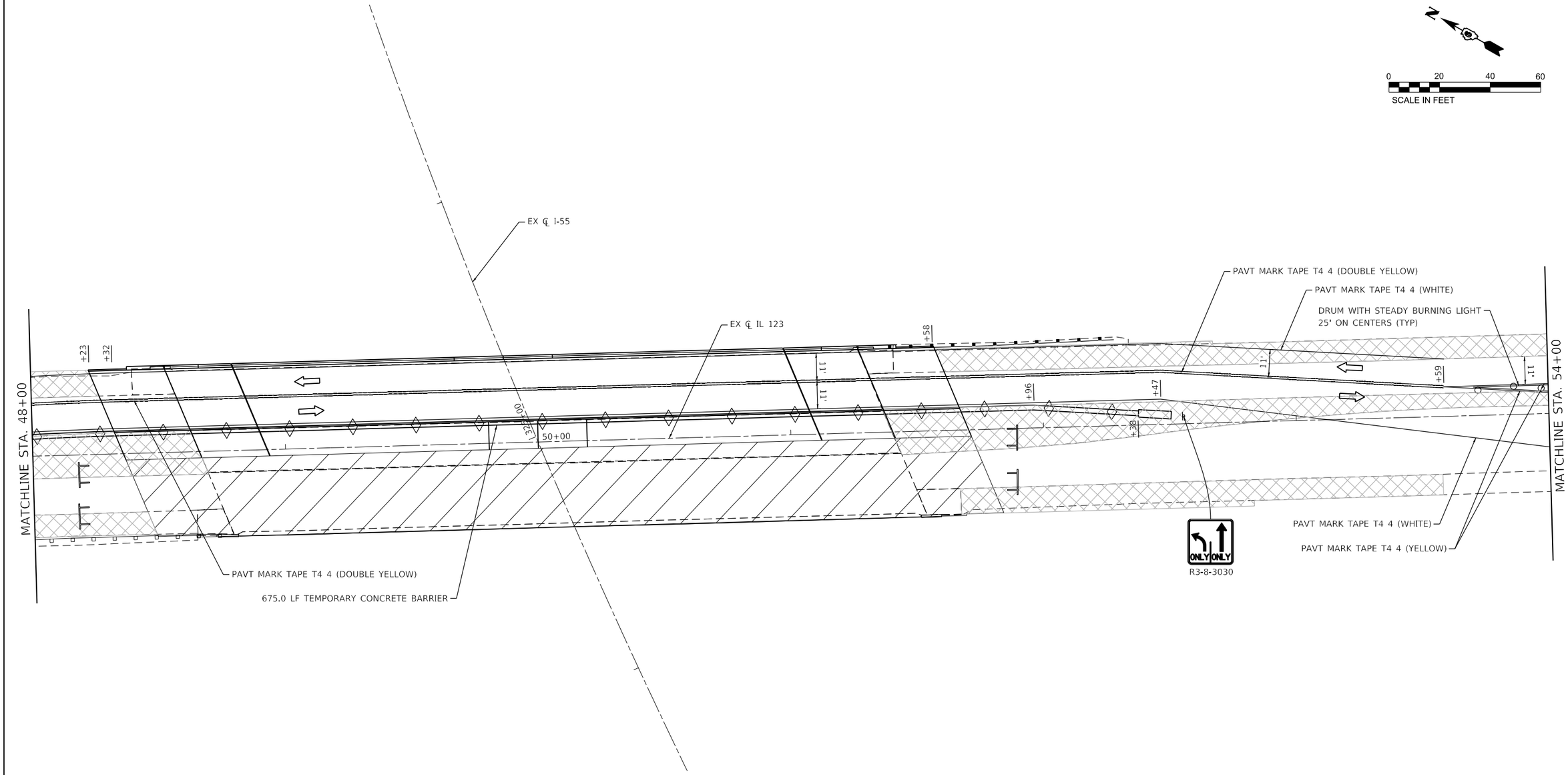
ADVANCED SIGNING DETAIL

LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - RC	REVISED -	
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -	
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -	

IL 123 OVER FAI-55
STAGING PLAN - STAGE 2

SCALE: 1"=50' | SHEET 10 OF 16 SHEETS | STA. 42+00.00 TO STA. 48+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	31
		CONTRACT NO. 72K07		
		ILLINOIS	FED. AID PROJECT	



LEGEND

- WORK ZONE
- BASE COURSE - (CONSTRUCTED IN THIS STAGE)
- BASE COURSE - (CONSTRUCTED IN PREVIOUS STAGES)
- DIRECTION OF TRAFFIC
- SIGN
- IMPACT ATTENUATOR, TEST LEVEL 3 (TEMPORARY)
- TYPE III BARRICADE
- TYPE C BIDIRECTIONAL REFLECTOR (25' C-C)
- TEMPORARY CONCRETE BARRIER

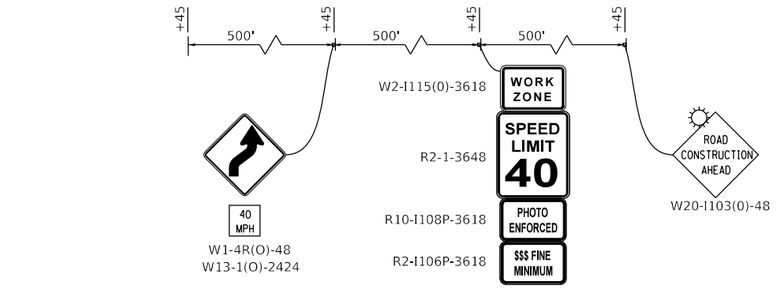
LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -
		DRAWN - RC	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

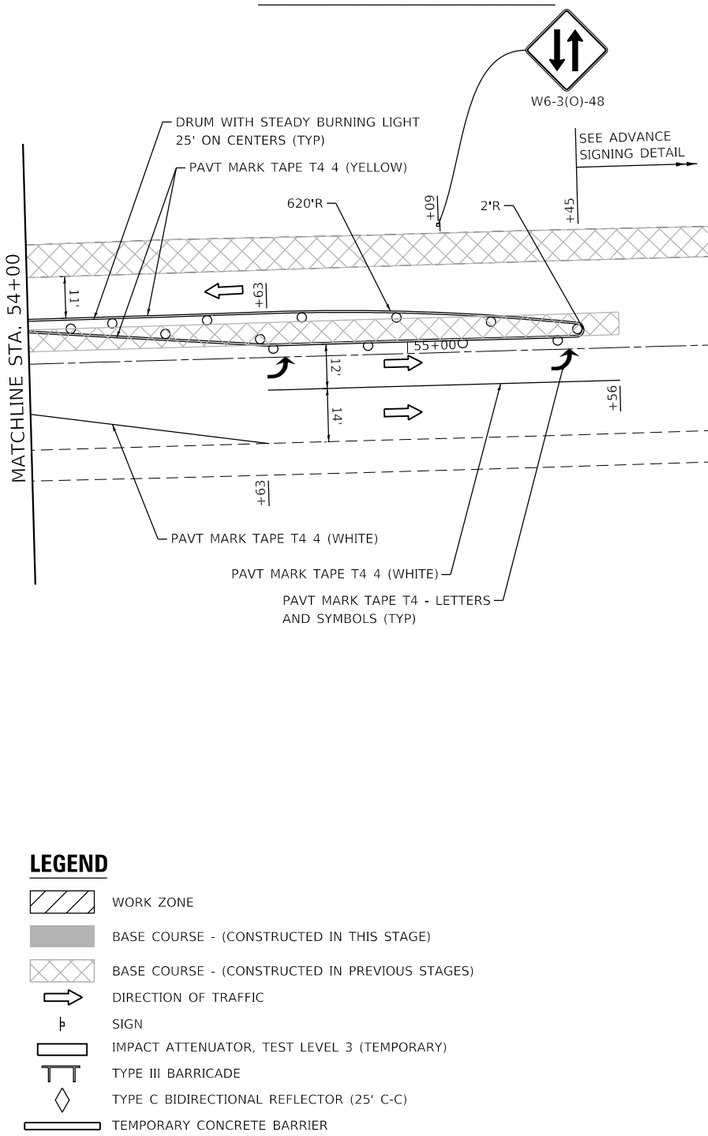
IL 123 OVER FAI-55
STAGING PLAN - STAGE 2

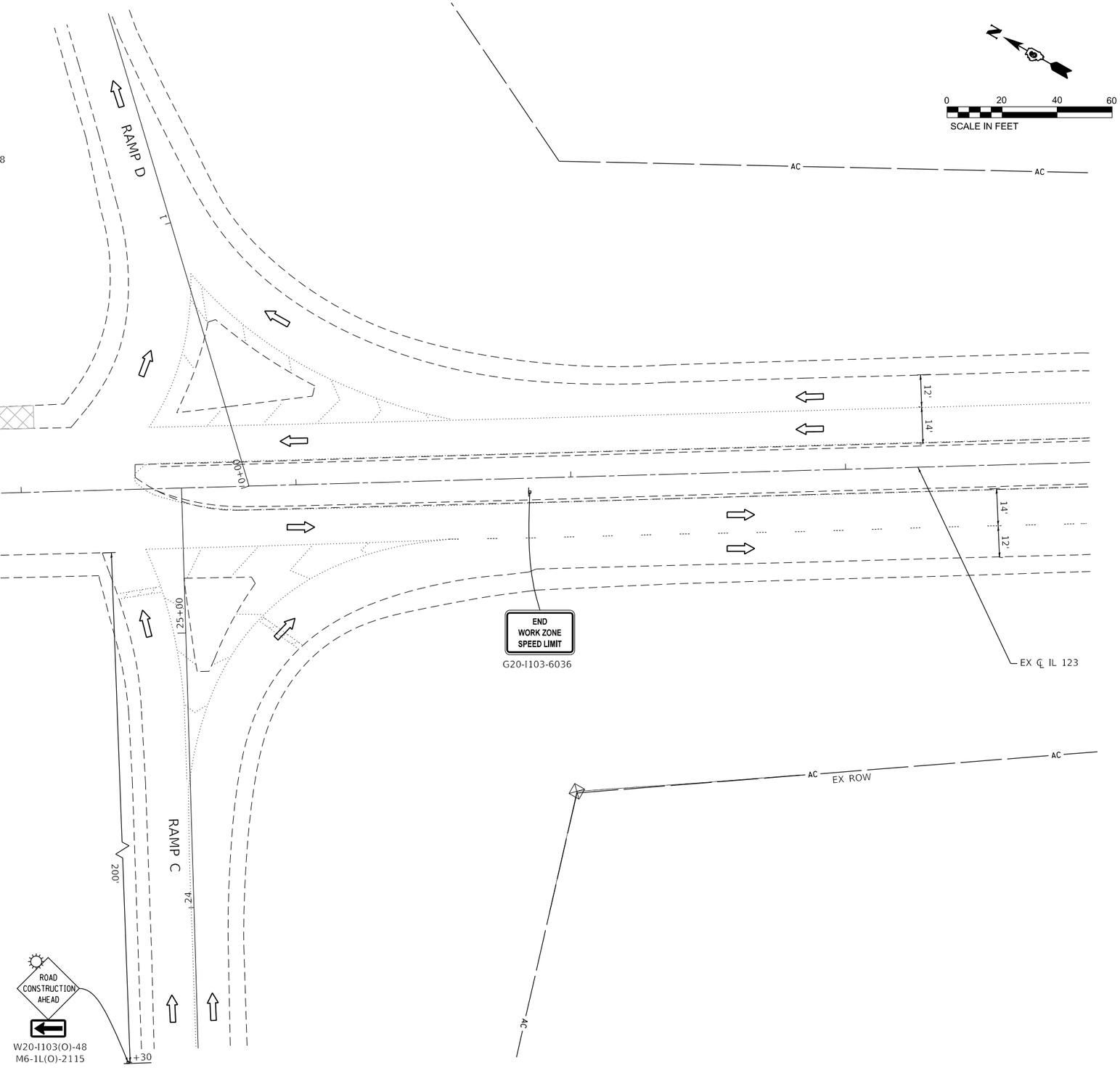
SCALE: 1"=50' | SHEET 11 OF 16 SHEETS | STA. 48+00.00 | TO STA. 54+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	32
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		



ADVANCED SIGNING DETAIL





LEGEND

- WORK ZONE
- BASE COURSE - (CONSTRUCTED IN THIS STAGE)
- BASE COURSE - (CONSTRUCTED IN PREVIOUS STAGES)
- DIRECTION OF TRAFFIC
- SIGN
- IMPACT ATTENUATOR, TEST LEVEL 3 (TEMPORARY)
- TYPE III BARRICADE
- TYPE C BIDIRECTIONAL REFLECTOR (25' C-C)
- TEMPORARY CONCRETE BARRIER

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

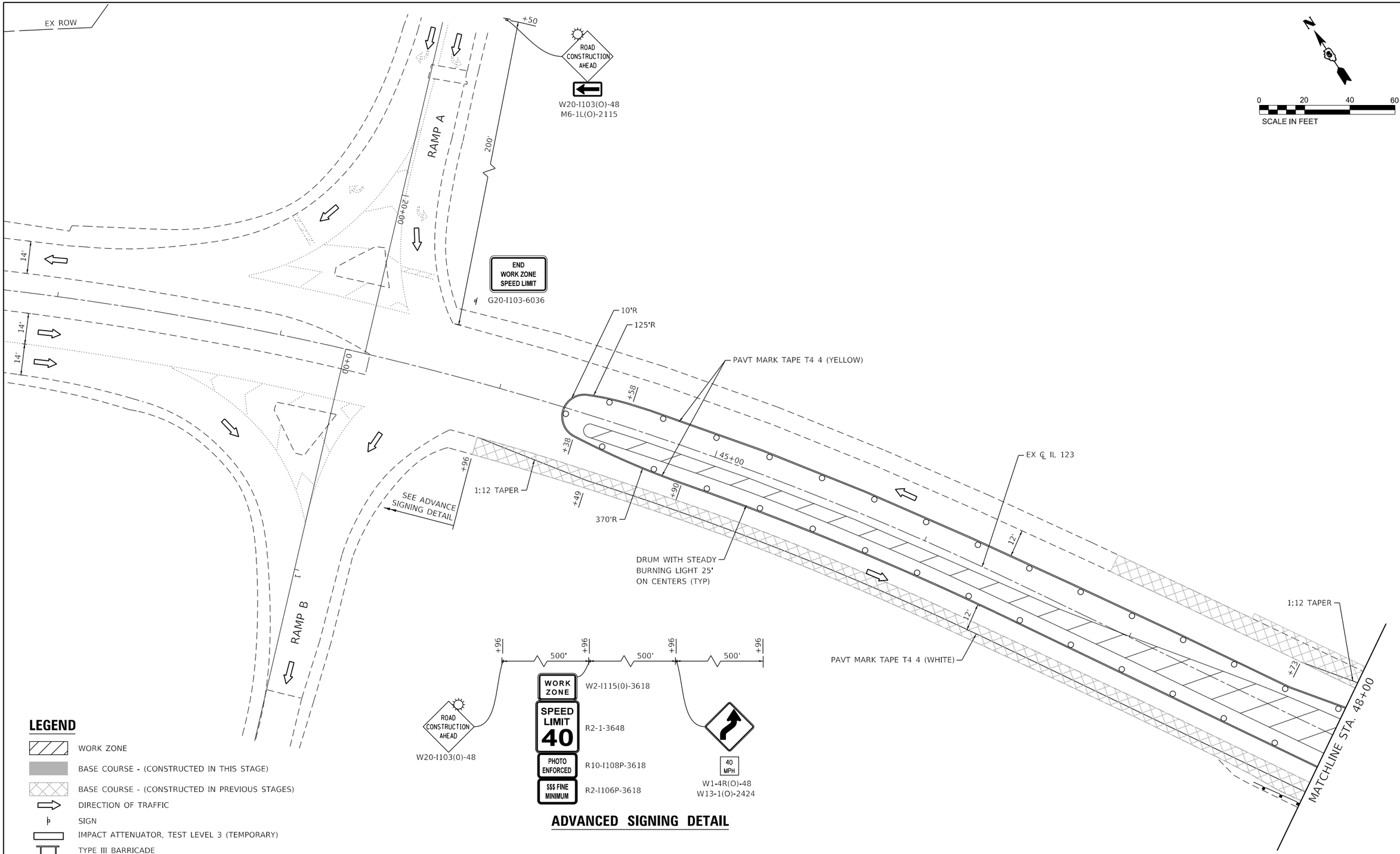
USER NAME = Lin	DESIGNED - RC	REVISED -
	DRAWN - RC	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -
PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
STAGING PLAN - STAGE 2

SCALE: 1"=50' | SHEET 12 OF 16 SHEETS | STA. 54+00.00 | TO STA. 60+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	33
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			



ADVANCED SIGNING DETAIL

LEGEND

- WORK ZONE
- BASE COURSE - (CONSTRUCTED IN THIS STAGE)
- BASE COURSE - (CONSTRUCTED IN PREVIOUS STAGES)
- DIRECTION OF TRAFFIC
- SIGN
- IMPACT ATTENUATOR, TEST LEVEL 3 (TEMPORARY)
- TYPE III BARRICADE
- TYPE C BIDIRECTIONAL REFLECTOR (25' C-C)
- TEMPORARY CONCRETE BARRIER

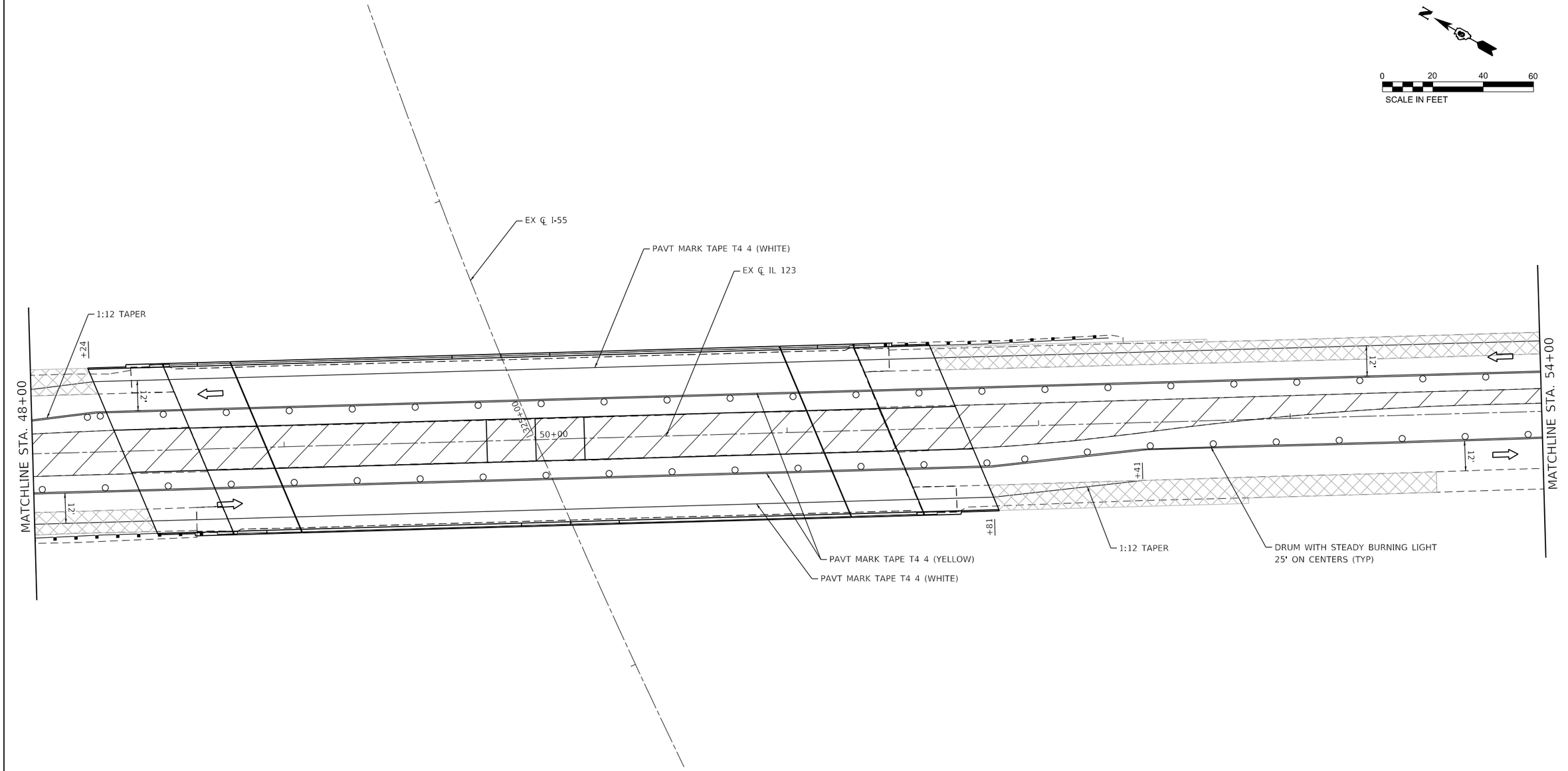
LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -
		DRAWN - RC	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
STAGING PLAN - STAGE 3

SCALE: 1"=50' | SHEET 13 OF 16 SHEETS | STA. 42+00.00 | TO STA. 48+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	34
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- WORK ZONE
- BASE COURSE - (CONSTRUCTED IN THIS STAGE)
- BASE COURSE - (CONSTRUCTED IN PREVIOUS STAGES)
- DIRECTION OF TRAFFIC
- SIGN
- IMPACT ATTENUATOR, TEST LEVEL 3 (TEMPORARY)
- TYPE III BARRICADE
- TYPE C BIDIRECTIONAL REFLECTOR (25' C-C)
- TEMPORARY CONCRETE BARRIER

LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	USER NAME = Lin	DESIGNED - RC	REVISED -
		DRAWN - RC	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -
	PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

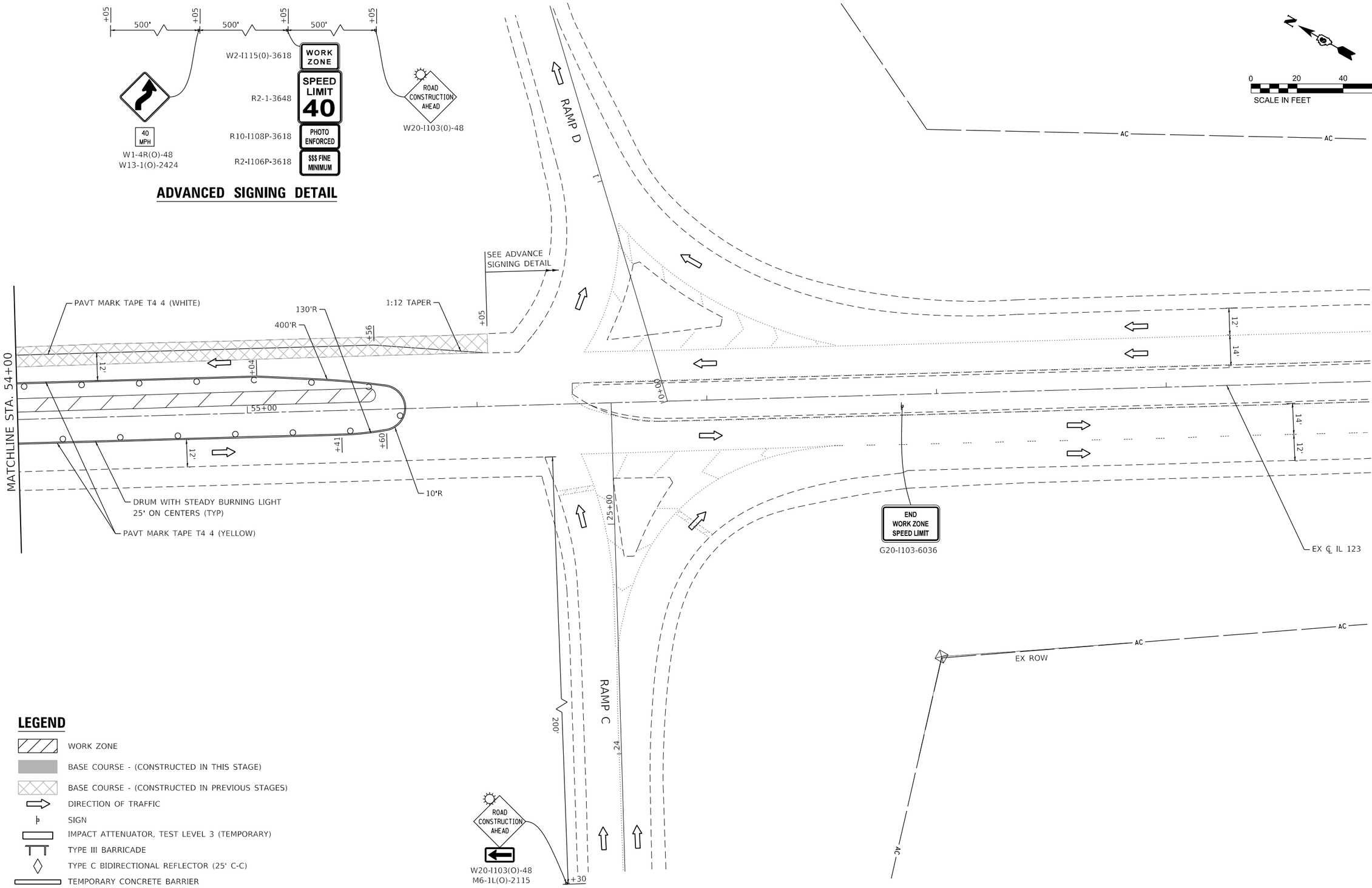
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
STAGING PLAN - STAGE 3

SCALE: 1"=50' | SHEET 14 OF 16 SHEETS | STA. 48+00.00 | TO STA. 54+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	35
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		

ADVANCED SIGNING DETAIL



LEGEND

- WORK ZONE
- BASE COURSE - (CONSTRUCTED IN THIS STAGE)
- BASE COURSE - (CONSTRUCTED IN PREVIOUS STAGES)
- DIRECTION OF TRAFFIC
- SIGN
- IMPACT ATTENUATOR, TEST LEVEL 3 (TEMPORARY)
- TYPE III BARRICADE
- TYPE C BIDIRECTIONAL REFLECTOR (25' C-C)
- TEMPORARY CONCRETE BARRIER

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

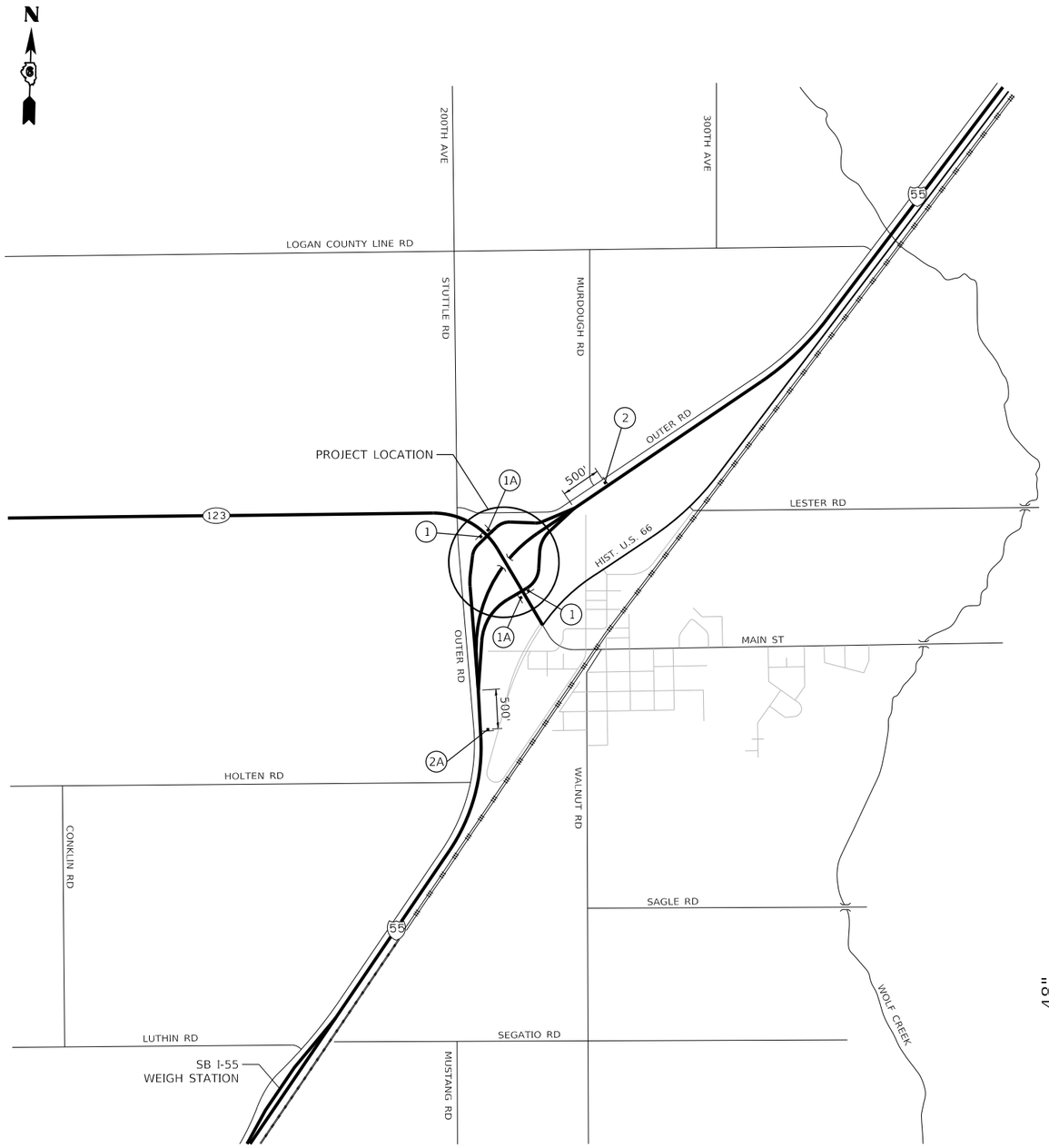
USER NAME = Lin	DESIGNED - RC	REVISED -
	DRAWN - RC	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -
PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
STAGING PLAN - STAGE 3

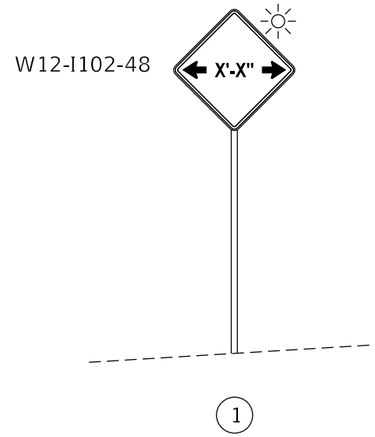
SCALE: 1"=50' | SHEET 15 OF 16 SHEETS | STA. 54+00.00 | TO STA. 60+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	36
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

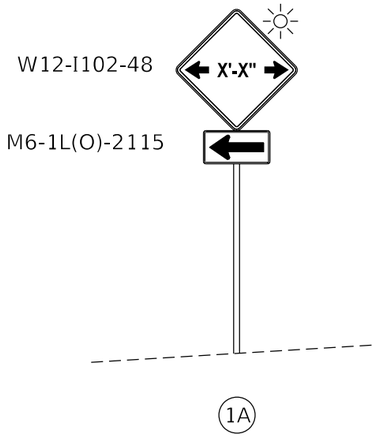


LOCATION MAP

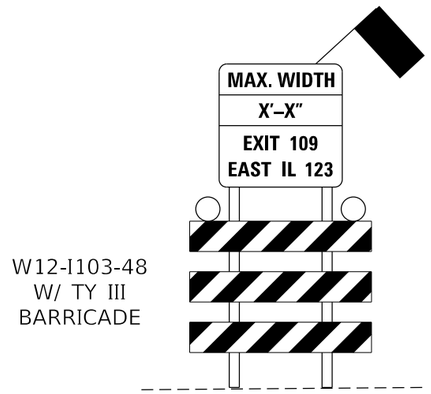
NOT TO SCALE



1

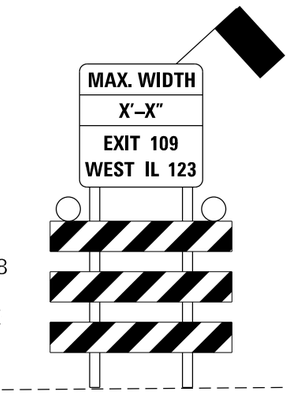


1A



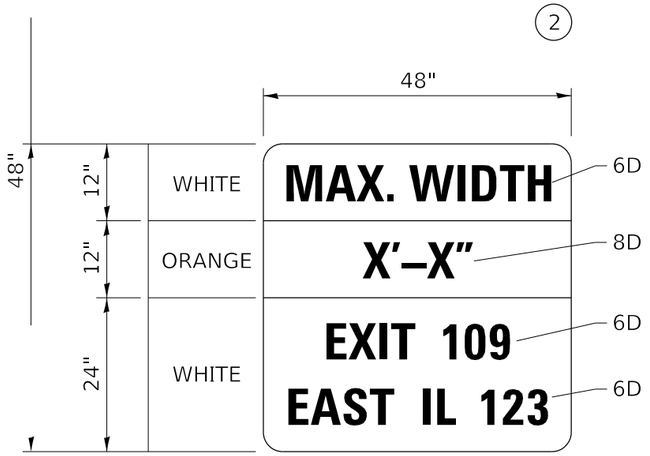
W12-I103-48
W/ TY III
BARCADE

2



W12-I103-48
W/ TY III
BARCADE

2A



W12-I103-48

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. THE LOCATION OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
3. ALL TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
4. THE WIDTH SHOWN ON THE SIGN SHALL BE 18" LESS THAN THE ACTUAL WIDTH SHOWN ON THE PLANS.

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

USER NAME = Lin	DESIGNED - RC	REVISED -
	DRAWN - RC	REVISED -
PLOT SCALE = 60.0000 ' / in.	CHECKED - ST	REVISED -
PLOT DATE = 8/19/2019	DATE - 8/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 123 OVER FAI-55
STAGING TYPICAL SECTIONS

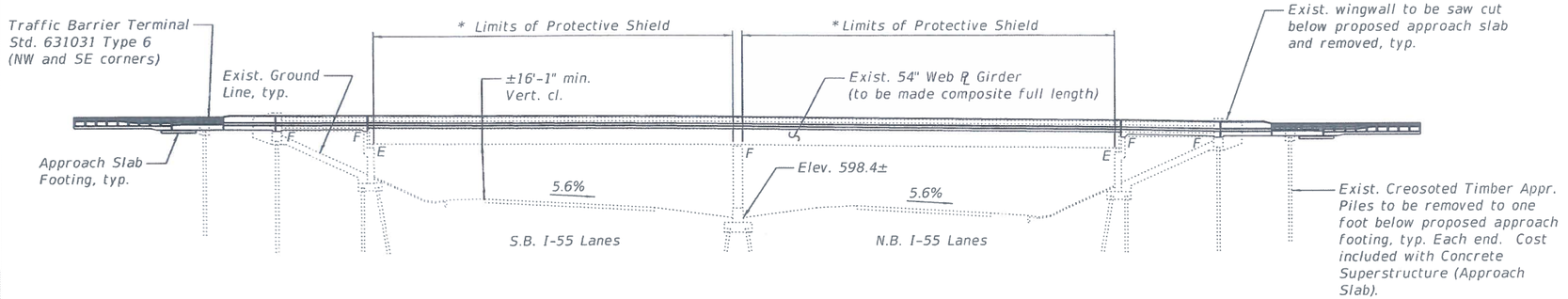
SCALE: 1"=50' | SHEET 16 OF 16 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150) RS-2	SANGAMON	63	37
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

Bench Mark: Chiseled "⌴" on southeast corner of concrete handrail of SN 084-0171. Elev. 627.74.

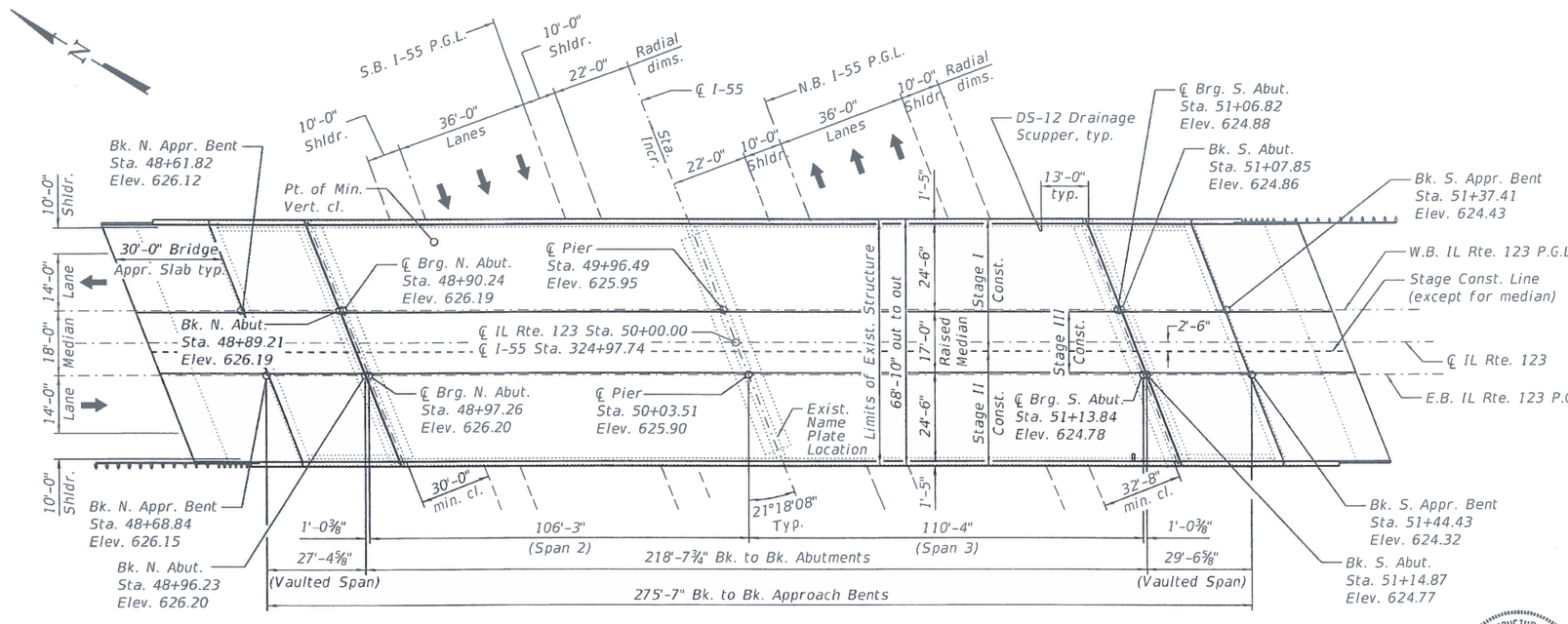
Existing Structure: S.N. 084-0171, built in 1974 as FAI Route 55, Section 84-1HB at Station 324+97.95. The structure is a two span continuous steel girder bridge composite in positive moment regions, supported on sand-filled vaulted abutments and a multi-column pier. 275'-7" back to back approach bents and 68'-0" out to out deck. Concrete deck and slab over vaulted abutment to be removed and replaced using Stage Construction, while maintaining one lane of traffic in each direction at all times.

No Salvage.



ELEVATION

* Transverse limit shall be out to out of superstructure.



PLAN

SCOPE OF WORK

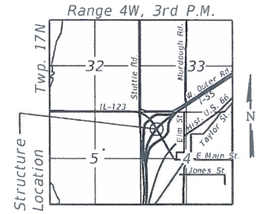
1. Remove and replace existing concrete deck utilizing stage construction, while providing protective shield over live traffic.
2. Provide new expansion joints at abutments.
3. Make new deck composite full length.
4. Remove and replace each vaulted span slab.
5. Remove approach pavement and provide bridge approach slabs.
6. Perform concrete repair at each abutment and pier as required.
7. Repair damaged sections of concrete slope walls as required.
8. Raise existing pier crash wall to 5'-0" above ground elevation.
9. Remove and replace existing approach guardrails.
10. Clean and paint existing structural steel under separate "Paint Only" contract.

INDEX OF SHEETS

DESIGN STRESSES

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

FIELD UNITS (Exist. Construction)
f'c = 3,000 psi (Deck Slab Spans 2 & 3)
f'c = 3,500 psi (All other concrete)
fy = 36,000 psi (Reinforcement)
fy = 36,000 psi (Structural Steel)



LOCATION SKETCH

DESIGN SPECIFICATIONS

(New Construction)
2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS20-44

(New Construction)
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.047g
Site Coefficient (S) = 1.0

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
ENGINEER OF BRIDGES AND STRUCTURES

LICENSED STRUCTURAL ENGINEER * STATE OF ILLINOIS * MICHAEL T. HALEY 81-5991 CHATHAM

Michael T. Haley 8-16-2019
Michael T. Haley — Date
Licensed Structural Engineer
State of Illinois No. 81-5991
Expires 11/30/2020

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 123 OVER I-55
F.A.I. RTE. 55 - SEC. (84-1)D, (150)RS-2
SANGAMON COUNTY
STATION 324+97.74
STRUCTURE NO. 084-0171

LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE =	DRAWN - DAS	REVISED -	
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 084-0171
SHEET 1 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	38
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: E:\1136-7\Struct\LG, SN 084-0171\Final Design\CADD\CADD Sheets\0840171-72K07-001-GPE.dgn
8/16/2019 4:10:22 PM

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.

2. No field welding is permitted except as specified in the contract documents.

3. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
   As directed by the Engineer, existing construction accessories welded to the top flange of girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding ¼ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

4. If the Contractor elects to use cantilever forming brackets on the exterior girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

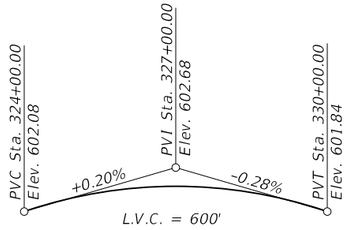
5. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations 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.

6. Cleaning and field painting of structural steel shall be done under a separate painting contract.

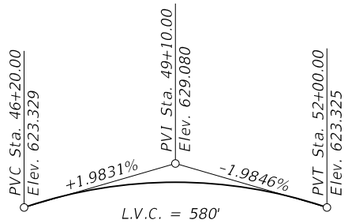
7. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

8. The Contractor shall resurvey the I-55 vertical clearance over each lane and shoulder following the deck replacement. This work will not be paid for separately, but shall be included with the contract lump sum price for "Construction Layout".

9. The existing electrical conduit attached to the steel girder shall remain in place and be protected during construction. Any damage to the conduit during construction shall be repaired at the Contractor's expense.



I-55 PROFILE GRADE
(along median edge of pavement)



IL RTE. 123 PROFILE GRADE
(along edge of median)

STATION 324+97.74
REBUILT 20 BY
STATE OF ILLINOIS
F.A.I. RT. 55 SEC. (84-1)D, (150)RS-2
LOADING HS20
STRUCTURE NO. 084-0171

NAME PLATE
See Std. 515001

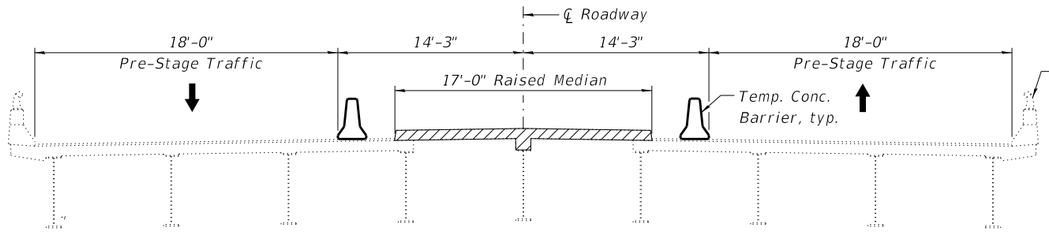
New Name Plate shall be placed next to existing Name Plate on Pier.

I-55 CURVE DATA
(Exist. Curve 320)
P.I. Sta. = 320+70.63
Δ = 60°-00'-17" (Rt)
D = 2°-00'-01"
R = 2,864.52'
T =1,653.99'
L = 2,999.96'
E = 443.22'
P.C. Sta. = 304+16.64
P.T. Sta. = 334+16.59

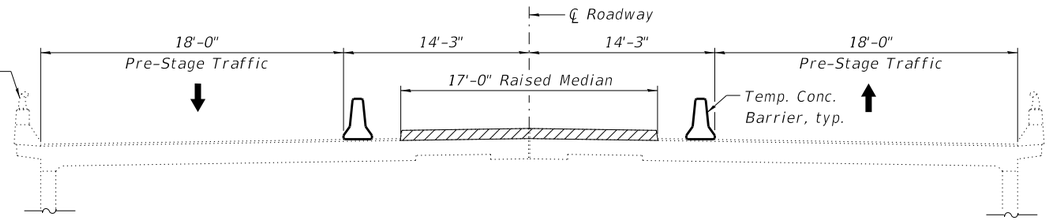
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	210.1	5.9	216.0
Removal of Existing Concrete Deck	Each	1	-	1
Protective Shield	Sq. Yd.	1644	-	1644
Concrete Structures	Cu. Yd.	-	54.1	54.1
Concrete Superstructure	Cu. Yd.	797.6	-	797.6
Bridge Deck Grooving	Sq. Yd.	1671	-	1671
Protective Coat	Sq. Yd.	2770	-	2770
Concrete Superstructure (Approach Slab)	Cu. Yd.	189.2	-	189.2
Stud Shear Connectors	Each	918	-	918
Reinforcement Bars, Epoxy Coated	Pound	276,650	9,940	286,590
Bar Splicers	Each	1154	80	1234
Name Plates	Each	-	1	1
Preformed Joint Strip Seal	Foot	146	-	146
Sand Backfill	Cu. Yd.	-	115	115
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	-	82	82
Drainage Scuppers, DS-12	Each	2	-	2
Slope Wall Removal	Sq. Yd.	-	48	48
Slope Wall 4 Inch	Sq. Yd.	-	48	48
Controlled Low-Strength Material	Cu. Yd.	-	33.3	33.3

PRE-STAGE CONSTRUCTION

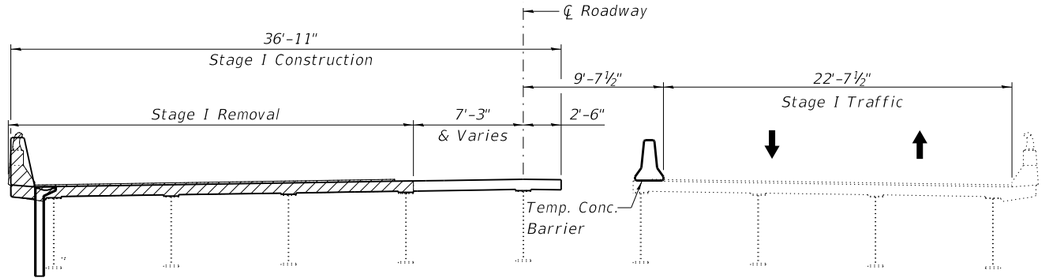


SECTION THRU BRIDGE

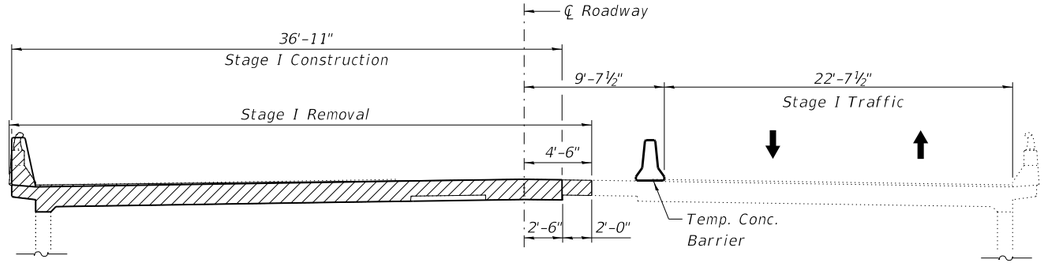


SECTION THRU VAULT SLAB

STAGE I CONSTRUCTION

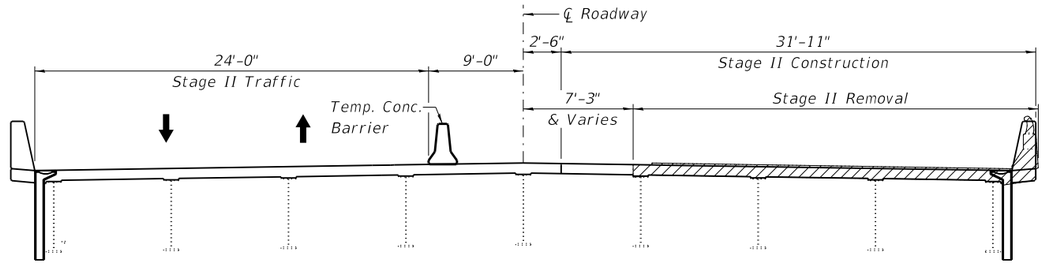


SECTION THRU BRIDGE

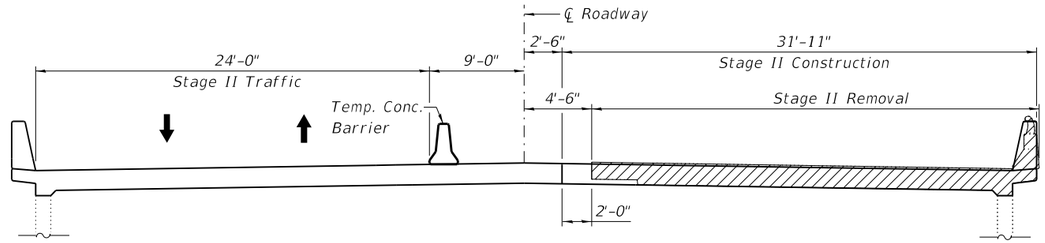


SECTION THRU VAULT SLAB

STAGE II CONSTRUCTION

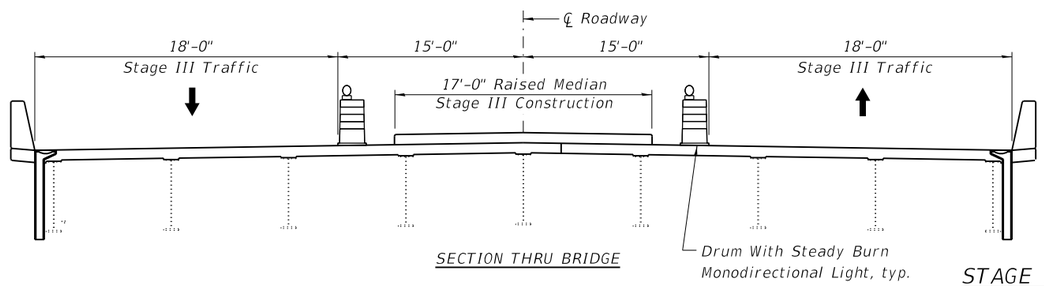


SECTION THRU BRIDGE

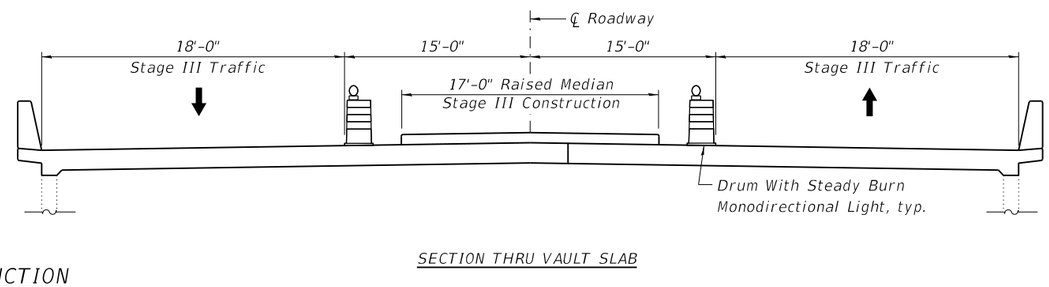


SECTION THRU VAULT SLAB

STAGE III CONSTRUCTION



SECTION THRU BRIDGE



SECTION THRU VAULT SLAB

Notes:

1. *All sections are looking south.*
2. *Hatching represents limits of removal.*
3. *See sheet 4 of 26 for details of Temporary Concrete Barrier.*
4. *See Roadway Plans for quantity of Temporary Concrete Barrier and Drums.*
5. *Cost of removal of existing aluminum railing and wearing surface is included with Removal of Existing Concrete Deck.*

MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\08401 71-72K07-003-StageConstDetail.dgn

8/16/2019 4:10:31 PM

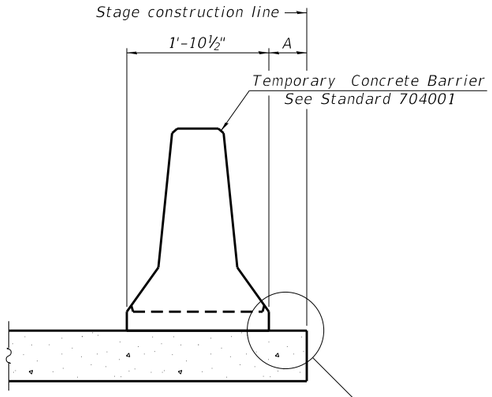
LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -
	CHECKED - MTH	REVISED -
PLOT SCALE =	DRAWN - DAS	REVISED -
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

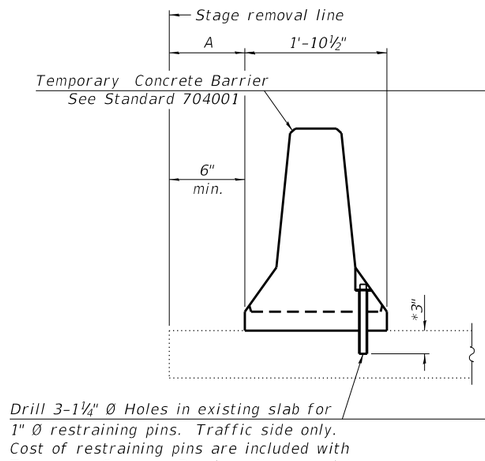
STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 084-0171
SHEET 3 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	40
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			



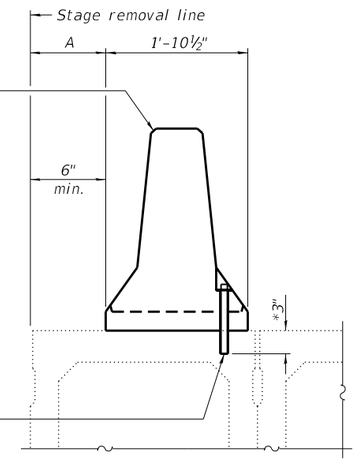
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

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".

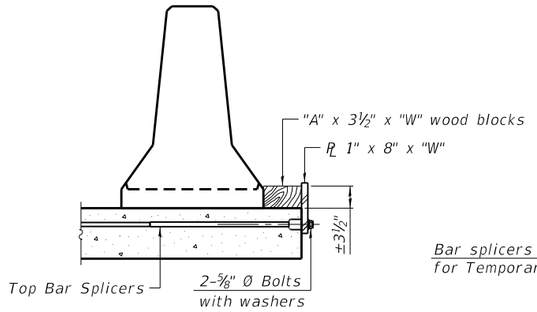
EXISTING SLAB



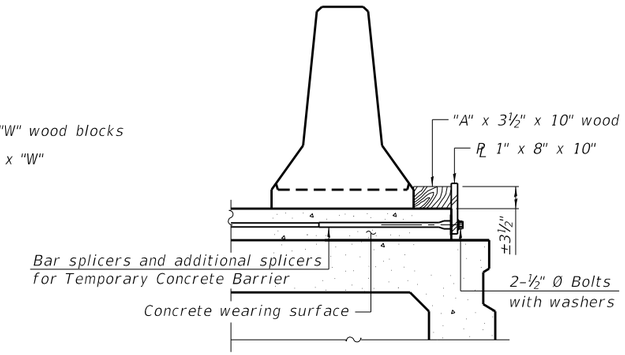
* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

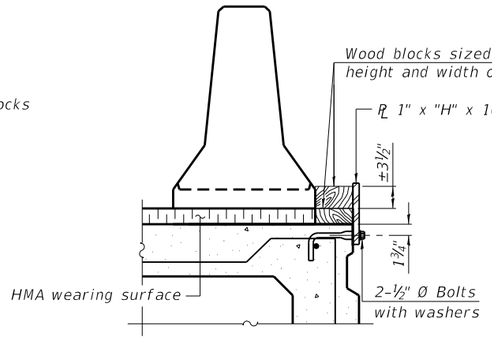
SECTIONS THRU SLAB OR DECK BEAM



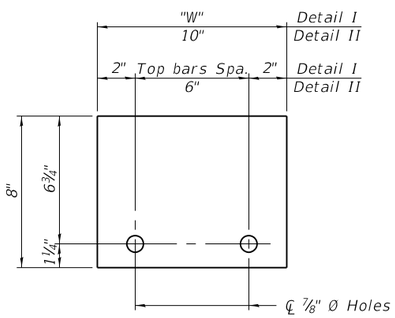
DETAIL I



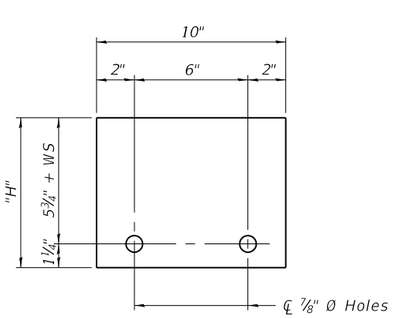
DETAIL II



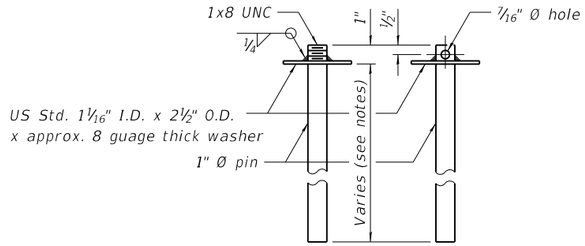
DETAIL III



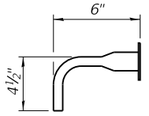
STEEL RETAINER ℄ 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER ℄ 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

2-17-2017

LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

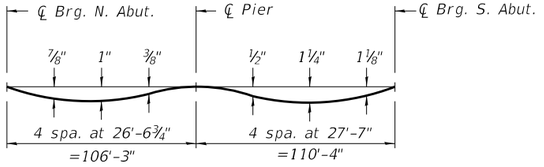
USER NAME =	DESIGNED - HZT	REVISED -
	CHECKED - MTH	REVISED -
PLOT SCALE =	DRAWN - DAS	REVISED -
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 084-0171
SHEET 4 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	41
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

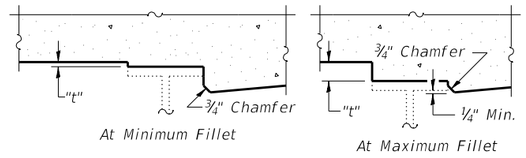
MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\08401171-72K07-004-StageConst.dgn
8/16/2019 4:10:36 PM



DEAD LOAD DEFLECTION DIAGRAM

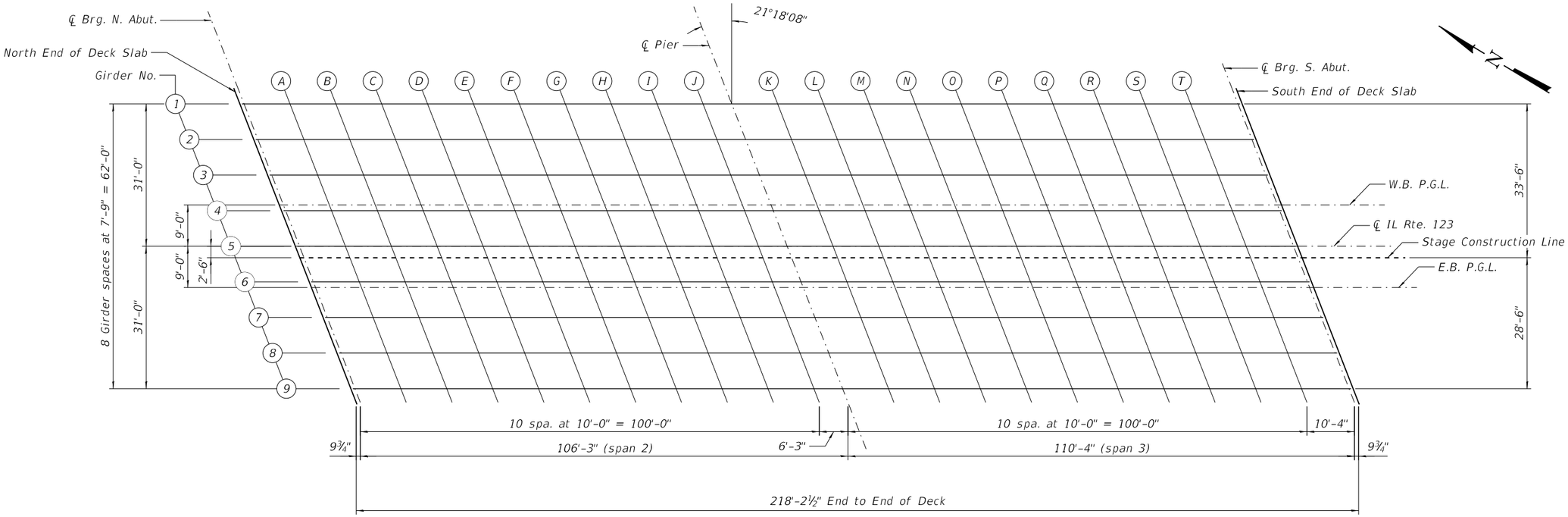
(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 6 thru 9 of 26.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 6 thru 9 of 26, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

MODEL: Default
FILE NAME: E:\1136-7\Structr\G. SN 084-0171\Final Design\CADD\CADD Sheets\0840171-72K07-005-Top_of_Slab.dgn
8/16/2019 4:10:41 PM

LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE =	DRAWN - DAS	REVISED -	
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 084-0171
SHEET 5 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	42
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
North End of Deck Slab	48+80.85	-31.00	625.84	625.84
℄ Brg N. Abut.	48+81.66	-31.00	625.85	625.85
A	48+91.66	-31.00	625.86	625.89
B	49+01.66	-31.00	625.87	625.93
C	49+11.66	-31.00	625.87	625.95
D	49+21.66	-31.00	625.87	625.95
E	49+31.66	-31.00	625.86	625.94
F	49+41.66	-31.00	625.84	625.91
G	49+51.66	-31.00	625.81	625.86
H	49+61.66	-31.00	625.78	625.81
I	49+71.66	-31.00	625.74	625.75
J	49+81.66	-31.00	625.70	625.70
℄ Pier	49+87.91	-31.00	625.67	625.67
K	49+97.91	-31.00	625.61	625.62
L	50+07.91	-31.00	625.54	625.57
M	50+17.91	-31.00	625.47	625.52
N	50+27.91	-31.00	625.40	625.47
O	50+37.91	-31.00	625.31	625.41
P	50+47.91	-31.00	625.22	625.33
Q	50+57.91	-31.00	625.12	625.23
R	50+67.91	-31.00	625.02	625.12
S	50+77.91	-31.00	624.91	624.98
T	50+87.91	-31.00	624.79	624.83
℄ Brg S. Abut.	50+98.25	-31.00	624.66	624.66
South End of Deck Slab	50+99.06	-31.00	624.65	624.65

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
North End of Deck Slab	48+83.87	-23.25	625.97	625.97
℄ Brg N. Abut.	48+84.68	-23.25	625.97	625.97
A	48+94.68	-23.25	625.98	626.02
B	49+04.68	-23.25	625.99	626.05
C	49+14.68	-23.25	625.99	626.07
D	49+24.68	-23.25	625.98	626.07
E	49+34.68	-23.25	625.97	626.05
F	49+44.68	-23.25	625.95	626.02
G	49+54.68	-23.25	625.92	625.97
H	49+64.68	-23.25	625.89	625.91
I	49+74.68	-23.25	625.85	625.86
J	49+84.68	-23.25	625.80	625.80
℄ Pier	49+90.93	-23.25	625.77	625.77
K	50+00.93	-23.25	625.71	625.71
L	50+10.93	-23.25	625.64	625.67
M	50+20.93	-23.25	625.57	625.62
N	50+30.93	-23.25	625.49	625.57
O	50+40.93	-23.25	625.40	625.50
P	50+50.93	-23.25	625.31	625.42
Q	50+60.93	-23.25	625.21	625.32
R	50+70.93	-23.25	625.10	625.20
S	50+80.93	-23.25	624.99	625.06
T	50+90.93	-23.25	624.87	624.91
℄ Brg S. Abut.	51+01.27	-23.25	624.74	624.74
South End of Deck Slab	51+02.08	-23.25	624.73	624.73

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
North End of Deck Slab	48+86.90	-15.50	626.09	626.09
℄ Brg N. Abut.	48+87.71	-15.50	626.09	626.09
A	48+97.71	-15.50	626.10	626.13
B	49+07.71	-15.50	626.11	626.17
C	49+17.71	-15.50	626.10	626.18
D	49+27.71	-15.50	626.10	626.18
E	49+37.71	-15.50	626.08	626.16
F	49+47.71	-15.50	626.06	626.13
G	49+57.71	-15.50	626.03	626.08
H	49+67.71	-15.50	625.99	626.02
I	49+77.71	-15.50	625.95	625.96
J	49+87.71	-15.50	625.90	625.90
℄ Pier	49+93.96	-15.50	625.86	625.86
K	50+03.96	-15.50	625.80	625.81
L	50+13.96	-15.50	625.74	625.76
M	50+23.96	-15.50	625.66	625.71
N	50+33.96	-15.50	625.58	625.66
O	50+43.96	-15.50	625.49	625.59
P	50+53.96	-15.50	625.40	625.51
Q	50+63.96	-15.50	625.29	625.41
R	50+73.96	-15.50	625.19	625.29
S	50+83.96	-15.50	625.07	625.15
T	50+93.96	-15.50	624.95	624.99
℄ Brg S. Abut.	51+04.29	-15.50	624.81	624.81
South End of Deck Slab	51+05.10	-15.50	624.80	624.80

Note:
Stations and Offsets are measured along ℄ IL Rte. 123.

MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\0840171-72K07-006-Top_of_Slab.dgn
8/16/2019 4:10:44 PM

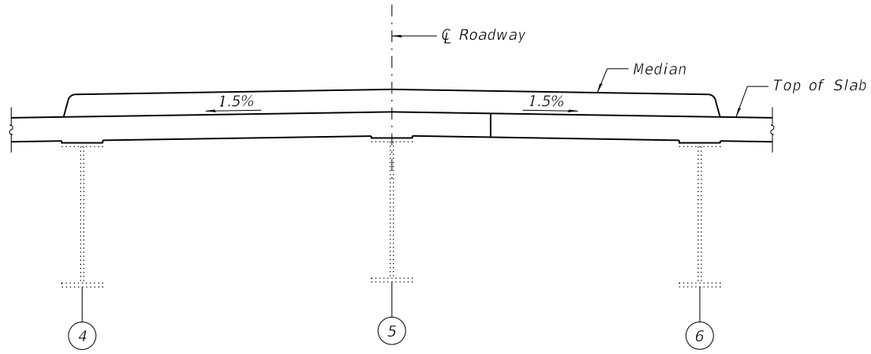
LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE =	DRAWN - DAS	REVISED -	
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 084-0171
SHEET 6 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	43
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			



DETAIL AT MEDIAN

Elevations at ℄ Roadway, Girders 4 thru 6 are given at Theoretical Top of Slab below median. (Looking South)

W.B. P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
North End of Deck Slab	48+89.43	-9.00	626.19	626.19
℄ Brg N Abut	48+90.24	-9.00	626.19	626.19
A	49+00.24	-9.00	626.20	626.23
B	49+10.24	-9.00	626.20	626.27
C	49+20.24	-9.00	626.20	626.28
D	49+30.24	-9.00	626.19	626.28
E	49+40.24	-9.00	626.17	626.26
F	49+50.24	-9.00	626.15	626.22
G	49+60.24	-9.00	626.12	626.17
H	49+70.24	-9.00	626.08	626.11
I	49+80.24	-9.00	626.03	626.04
J	49+90.24	-9.00	625.98	625.98
℄ Pier	49+96.49	-9.00	625.95	625.95
K	50+06.49	-9.00	625.88	625.89
L	50+16.49	-9.00	625.81	625.84
M	50+26.49	-9.00	625.74	625.79
N	50+36.49	-9.00	625.66	625.73
O	50+46.49	-9.00	625.57	625.66
P	50+56.49	-9.00	625.47	625.58
Q	50+66.49	-9.00	625.36	625.48
R	50+76.49	-9.00	625.25	625.35
S	50+86.49	-9.00	625.14	625.21
T	50+96.49	-9.00	625.01	625.05
℄ Brg S. Abut.	51+06.82	-9.00	624.88	624.88
South End of Deck Slab	51+07.63	-9.00	624.87	624.87

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
North End of Deck Slab	48+89.92	-7.75	626.21	626.21
℄ Brg N Abut	48+90.73	-7.75	626.21	626.21
A	49+00.73	-7.75	626.22	626.25
B	49+10.73	-7.75	626.22	626.28
C	49+20.73	-7.75	626.22	626.30
D	49+30.73	-7.75	626.21	626.30
E	49+40.73	-7.75	626.19	626.27
F	49+50.73	-7.75	626.17	626.24
G	49+60.73	-7.75	626.13	626.18
H	49+70.73	-7.75	626.10	626.12
I	49+80.73	-7.75	626.05	626.06
J	49+90.73	-7.75	626.00	626.00
℄ Pier	49+96.98	-7.75	625.96	625.96
K	50+06.98	-7.75	625.90	625.91
L	50+16.98	-7.75	625.83	625.86
M	50+26.98	-7.75	625.75	625.80
N	50+36.98	-7.75	625.67	625.75
O	50+46.98	-7.75	625.58	625.68
P	50+56.98	-7.75	625.48	625.59
Q	50+66.98	-7.75	625.38	625.49
R	50+76.98	-7.75	625.27	625.37
S	50+86.98	-7.75	625.15	625.23
T	50+96.98	-7.75	625.02	625.07
℄ Brg S. Abut.	51+07.31	-7.75	624.89	624.89
South End of Deck Slab	51+08.12	-7.75	624.88	624.88

GIRDER 5 & ℄ IL 123

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
North End of Deck Slab	48+92.94	0.00	626.33	626.33
℄ Brg N Abut	48+93.75	0.00	626.33	626.33
A	49+03.75	0.00	626.34	626.37
B	49+13.75	0.00	626.34	626.40
C	49+23.75	0.00	626.33	626.41
D	49+33.75	0.00	626.32	626.41
E	49+43.75	0.00	626.30	626.38
F	49+53.75	0.00	626.27	626.34
G	49+63.75	0.00	626.24	626.29
H	49+73.75	0.00	626.20	626.23
I	49+83.75	0.00	626.15	626.16
J	49+93.75	0.00	626.10	626.10
℄ Pier	50+00.00	0.00	626.06	626.06
K	50+10.00	0.00	626.00	626.00
L	50+20.00	0.00	625.92	625.95
M	50+30.00	0.00	625.84	625.90
N	50+40.00	0.00	625.76	625.84
O	50+50.00	0.00	625.67	625.77
P	50+60.00	0.00	625.57	625.68
Q	50+70.00	0.00	625.46	625.57
R	50+80.00	0.00	625.35	625.45
S	50+90.00	0.00	625.23	625.30
T	51+00.00	0.00	625.10	625.14
℄ Brg S. Abut.	51+10.33	0.00	624.96	624.96
South End of Deck Slab	51+11.14	0.00	624.95	624.95

Note:
Stations and Offsets are measured along ℄ IL Rte. 123.

LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =
PLOT SCALE =
PLOT DATE = 8/16/2019

DESIGNED - HZT | REVISED -
CHECKED - MTH | REVISED -
DRAWN - DAS | REVISED -
CHECKED - MTH | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 084-0171
SHEET 7 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	44
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
North End of Deck Slab	48+93.91	2.50	626.29	626.29
℄ Brg N Abut	48+94.72	2.50	626.29	626.29
A	49+04.72	2.50	626.30	626.33
B	49+14.72	2.50	626.30	626.36
C	49+24.72	2.50	626.29	626.37
D	49+34.72	2.50	626.28	626.37
E	49+44.72	2.50	626.26	626.34
F	49+54.72	2.50	626.23	626.30
G	49+64.72	2.50	626.20	626.25
H	49+74.72	2.50	626.16	626.19
I	49+84.72	2.50	626.11	626.12
J	49+94.72	2.50	626.05	626.06
℄ Pier	50+00.97	2.50	626.02	626.02
K	50+10.97	2.50	625.95	625.96
L	50+20.97	2.50	625.88	625.91
M	50+30.97	2.50	625.80	625.85
N	50+40.97	2.50	625.71	625.79
O	50+50.97	2.50	625.62	625.72
P	50+60.97	2.50	625.52	625.63
Q	50+70.97	2.50	625.41	625.53
R	50+80.97	2.50	625.30	625.40
S	50+90.97	2.50	625.18	625.26
T	51+00.97	2.50	625.05	625.09
℄ Brg S. Abut.	51+11.31	2.50	624.91	624.91
South End of Deck Slab	51+12.12	2.50	624.90	624.90

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
North End of Deck Slab	48+95.96	7.75	626.22	626.22
℄ Brg N Abut	48+96.77	7.75	626.22	626.22
A	49+06.77	7.75	626.22	626.26
B	49+16.77	7.75	626.22	626.28
C	49+26.77	7.75	626.21	626.29
D	49+36.77	7.75	626.20	626.29
E	49+46.77	7.75	626.18	626.26
F	49+56.77	7.75	626.15	626.22
G	49+66.77	7.75	626.11	626.16
H	49+76.77	7.75	626.07	626.10
I	49+86.77	7.75	626.02	626.03
J	49+96.77	7.75	625.96	625.96
℄ Pier	50+03.02	7.75	625.93	625.93
K	50+13.02	7.75	625.86	625.87
L	50+23.02	7.75	625.78	625.81
M	50+33.02	7.75	625.70	625.75
N	50+43.02	7.75	625.62	625.69
O	50+53.02	7.75	625.52	625.62
P	50+63.02	7.75	625.42	625.53
Q	50+73.02	7.75	625.31	625.42
R	50+83.02	7.75	625.20	625.30
S	50+93.02	7.75	625.08	625.15
T	51+03.02	7.75	624.95	624.99
℄ Brg S. Abut.	51+13.36	7.75	624.81	624.81
South End of Deck Slab	51+14.17	7.75	624.80	624.80

E.B. P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
North End of Deck Slab	48+96.45	9.00	626.20	626.20
℄ Brg N Abut	48+97.26	9.00	626.20	626.20
A	49+07.26	9.00	626.20	626.24
B	49+17.26	9.00	626.20	626.26
C	49+27.26	9.00	626.19	626.27
D	49+37.26	9.00	626.18	626.27
E	49+47.26	9.00	626.16	626.24
F	49+57.26	9.00	626.13	626.20
G	49+67.26	9.00	626.09	626.14
H	49+77.26	9.00	626.05	626.08
I	49+87.26	9.00	626.00	626.01
J	49+97.26	9.00	625.94	625.94
℄ Pier	50+03.51	9.00	625.90	625.90
K	50+13.51	9.00	625.84	625.84
L	50+23.51	9.00	625.76	625.79
M	50+33.51	9.00	625.68	625.73
N	50+43.51	9.00	625.59	625.67
O	50+53.51	9.00	625.50	625.60
P	50+63.51	9.00	625.40	625.51
Q	50+73.51	9.00	625.29	625.40
R	50+83.51	9.00	625.17	625.27
S	50+93.51	9.00	625.05	625.13
T	51+03.51	9.00	624.92	624.96
℄ Brg S. Abut.	51+13.84	9.00	624.78	624.78
South End of Deck Slab	51+14.65	9.00	624.77	624.77

Note:
Stations and Offsets are measured along ℄ IL Rte. 123.

MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\08401 71-72K07-008-Top_of_Slab.dgn
8/16/2019 4:10:51 PM

LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE =	DRAWN - DAS	REVISED -	
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 084-0171
SHEET 8 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	45
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
North End of Deck Slab	48+98.98	15.50	626.10	626.10
℄ Brg N. Abut.	48+99.79	15.50	626.10	626.10
A	49+09.79	15.50	626.11	626.14
B	49+19.79	15.50	626.10	626.16
C	49+29.79	15.50	626.09	626.17
D	49+39.79	15.50	626.08	626.16
E	49+49.79	15.50	626.05	626.14
F	49+59.79	15.50	626.02	626.09
G	49+69.79	15.50	625.98	626.03
H	49+79.79	15.50	625.94	625.97
I	49+89.79	15.50	625.89	625.90
J	49+99.79	15.50	625.83	625.83
℄ Pier	50+06.04	15.50	625.79	625.79
K	50+16.04	15.50	625.72	625.73
L	50+26.04	15.50	625.64	625.67
M	50+36.04	15.50	625.56	625.61
N	50+46.04	15.50	625.47	625.55
O	50+56.04	15.50	625.38	625.47
P	50+66.04	15.50	625.27	625.38
Q	50+76.04	15.50	625.16	625.27
R	50+86.04	15.50	625.04	625.14
S	50+96.04	15.50	624.92	625.00
T	51+06.04	15.50	624.79	624.83
℄ Brg S. Abut.	51+16.38	15.50	624.65	624.65
South End of Deck Slab	51+17.19	15.50	624.64	624.64

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
North End of Deck Slab	49+02.01	23.25	625.99	625.99
℄ Brg N. Abut.	49+02.82	23.25	625.99	625.99
A	49+12.82	23.25	625.99	626.02
B	49+22.82	23.25	625.98	626.05
C	49+32.82	23.25	625.97	626.05
D	49+42.82	23.25	625.95	626.04
E	49+52.82	23.25	625.93	626.01
F	49+62.82	23.25	625.89	625.96
G	49+72.82	23.25	625.85	625.90
H	49+82.82	23.25	625.81	625.84
I	49+92.82	23.25	625.75	625.76
J	50+02.82	23.25	625.69	625.70
℄ Pier	50+09.07	23.25	625.65	625.65
K	50+19.07	23.25	625.58	625.59
L	50+29.07	23.25	625.50	625.53
M	50+39.07	23.25	625.42	625.47
N	50+49.07	23.25	625.33	625.40
O	50+59.07	23.25	625.23	625.33
P	50+69.07	23.25	625.12	625.23
Q	50+79.07	23.25	625.01	625.12
R	50+89.07	23.25	624.89	624.99
S	50+99.07	23.25	624.77	624.84
T	51+09.07	23.25	624.63	624.67
℄ Brg S. Abut.	51+19.40	23.25	624.49	624.49
South End of Deck Slab	51+20.21	23.25	624.48	624.48

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
North End of Deck Slab	49+05.03	31.00	625.87	625.87
℄ Brg N. Abut.	49+05.84	31.00	625.87	625.87
A	49+15.84	31.00	625.87	625.90
B	49+25.84	31.00	625.86	625.92
C	49+35.84	31.00	625.85	625.93
D	49+45.84	31.00	625.83	625.91
E	49+55.84	31.00	625.80	625.88
F	49+65.84	31.00	625.77	625.83
G	49+75.84	31.00	625.72	625.77
H	49+85.84	31.00	625.68	625.70
I	49+95.84	31.00	625.62	625.63
J	50+05.84	31.00	625.56	625.56
℄ Pier	50+12.09	31.00	625.52	625.52
K	50+22.09	31.00	625.44	625.45
L	50+32.09	31.00	625.36	625.39
M	50+42.09	31.00	625.28	625.33
N	50+52.09	31.00	625.18	625.26
O	50+62.09	31.00	625.08	625.18
P	50+72.09	31.00	624.97	625.08
Q	50+82.09	31.00	624.86	624.97
R	50+92.09	31.00	624.74	624.83
S	51+02.09	31.00	624.61	624.68
T	51+12.09	31.00	624.48	624.52
℄ Brg S. Abut.	51+22.42	31.00	624.33	624.33
South End of Deck Slab	51+23.23	31.00	624.32	624.32

Note:
Stations and Offsets are measured along ℄ IL Rte. 123.

MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\0840171-72K07-009-Top_of_Slab.dgn
8/16/2019 4:10:54 PM

LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE =	DRAWN - DAS	REVISED -	
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 084-0171
SHEET 9 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	46
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

EAST EDGE OF SHOULDER

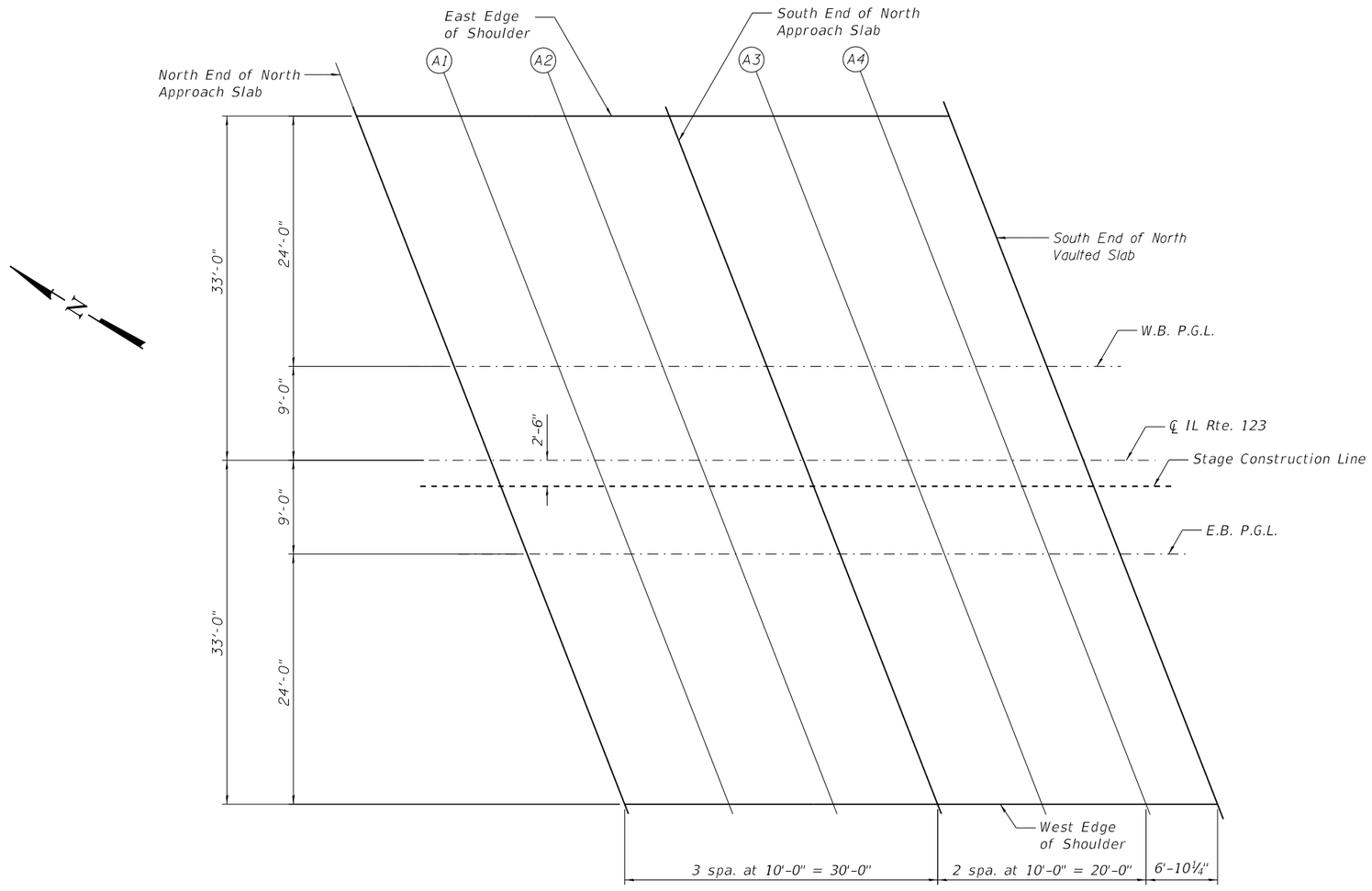
Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Approach	48+23.00	-33.00	625.59
A1	48+33.00	-33.00	625.64
A2	48+43.00	-33.00	625.69
S. End of N. Approach	48+53.00	-33.00	625.73
A3	48+63.00	-33.00	625.77
A4	48+73.00	-33.00	625.80
S. End of N. Vaulted Slab	48+79.85	-33.00	625.81

W.B. P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Approach	48+32.36	-9.00	626.00
A1	48+42.36	-9.00	626.05
A2	48+52.36	-9.00	626.09
S. End of N. Approach	48+62.36	-9.00	626.13
A3	48+72.36	-9.00	626.16
A4	48+82.36	-9.00	626.18
S. End of N. Vaulted Slab	48+89.21	-9.00	626.19

℄ IL RTE 123

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Approach	48+35.87	0.00	626.15
A1	48+45.87	0.00	626.20
A2	48+55.87	0.00	626.24
S. End of N. Approach	48+65.87	0.00	626.27
A3	48+75.87	0.00	626.30
A4	48+85.87	0.00	626.32
S. End of N. Vaulted Slab	48+92.72	0.00	626.33



NORTH APPROACH AND VAULTED PLAN

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Approach	48+36.84	2.50	626.12
A1	48+46.84	2.50	626.16
A2	48+56.84	2.50	626.20
S. End of N. Approach	48+66.84	2.50	626.24
A3	48+76.84	2.50	626.26
A4	48+86.84	2.50	626.28
S. End of N. Vaulted Slab	48+93.70	2.50	626.29

E.B. P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Approach	48+39.38	9.00	626.03
A1	48+49.38	9.00	626.08
A2	48+59.38	9.00	626.12
S. End of N. Approach	48+69.38	9.00	626.15
A3	48+79.38	9.00	626.17
A4	48+89.38	9.00	626.19
S. End of N. Vaulted Slab	48+96.23	9.00	626.20

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Approach	48+48.74	33.00	625.72
A1	48+58.74	33.00	625.75
A2	48+68.74	33.00	625.79
S. End of N. Approach	48+78.74	33.00	625.81
A3	48+88.74	33.00	625.83
A4	48+98.74	33.00	625.84
S. End of N. Vaulted Slab	49+05.59	33.00	625.84

Note:
Stations and offsets measured along ℄ IL Rte. 123.

MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\0840171-72K07-010-Top_of_Appr_Slab.dgn
8/16/2019 4:10:57 PM

LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE =	DRAWN - DAS	REVISED -	
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF APPROACH AND VAULTED SLAB ELEVATIONS
STRUCTURE NO. 084-0171
SHEET 10 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	47
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		

EAST EDGE OF SHOULDER

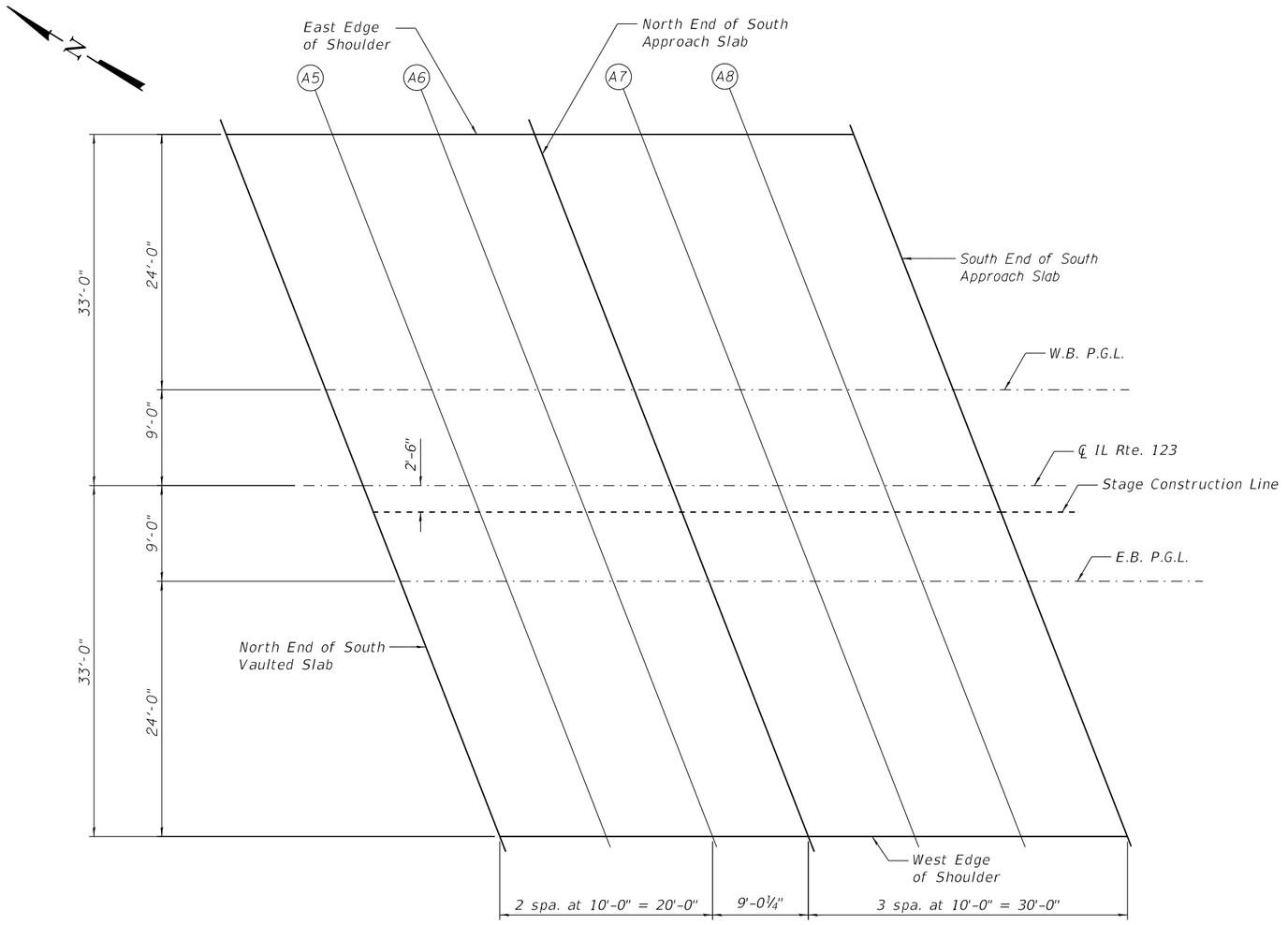
Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Vaulted Slab	50+98.49	-33.00	624.63
A5	51+08.49	-33.00	624.49
A6	51+18.49	-33.00	624.35
N. End of S. Approach	51+27.51	-33.00	624.22
A7	51+37.51	-33.00	624.07
A8	51+47.51	-33.00	623.91
S. End of S. Approach	51+57.51	-33.00	623.75

W.B. P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Vaulted Slab	51+07.85	-9.00	624.86
A5	51+17.85	-9.00	624.72
A6	51+27.85	-9.00	624.58
N. End of S. Approach	51+36.87	-9.00	624.44
A7	51+46.87	-9.00	624.28
A8	51+56.87	-9.00	624.12
S. End of S. Approach	51+66.87	-9.00	623.94

℄ IL RTE 123

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Vaulted Slab	51+11.36	0.00	624.95
A5	51+21.36	0.00	624.81
A6	51+31.36	0.00	624.66
N. End of S. Approach	51+40.38	0.00	624.52
A7	51+50.38	0.00	624.36
A8	51+60.38	0.00	624.19
S. End of S. Approach	51+70.38	0.00	624.02



SOUTH APPROACH AND VAULTED PLAN

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Vaulted Slab	51+12.34	2.50	624.90
A5	51+22.34	2.50	624.76
A6	51+32.34	2.50	624.61
N. End of S. Approach	51+41.35	2.50	624.47
A7	51+51.35	2.50	624.31
A8	51+61.35	2.50	624.14
S. End of S. Approach	51+71.35	2.50	623.96

E.B. P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Vaulted Slab	51+14.87	9.00	624.77
A5	51+24.87	9.00	624.62
A6	51+34.87	9.00	624.47
N. End of S. Approach	51+43.89	9.00	624.33
A7	51+53.89	9.00	624.17
A8	51+63.89	9.00	624.00
S. End of S. Approach	51+73.89	9.00	623.82

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Vaulted Slab	51+24.23	33.00	624.27
A5	51+34.23	33.00	624.12
A6	51+44.23	33.00	623.97
N. End of S. Approach	51+53.25	33.00	623.82
A7	51+63.25	33.00	623.65
A8	51+73.25	33.00	623.47
S. End of S. Approach	51+83.25	33.00	623.29

Note:
Stations and offsets measured along ℄ IL Rte. 123.

MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\08401171-72K07-011-Top_of_Appr_Slab.dgn
8/16/2019 4:11:00 PM

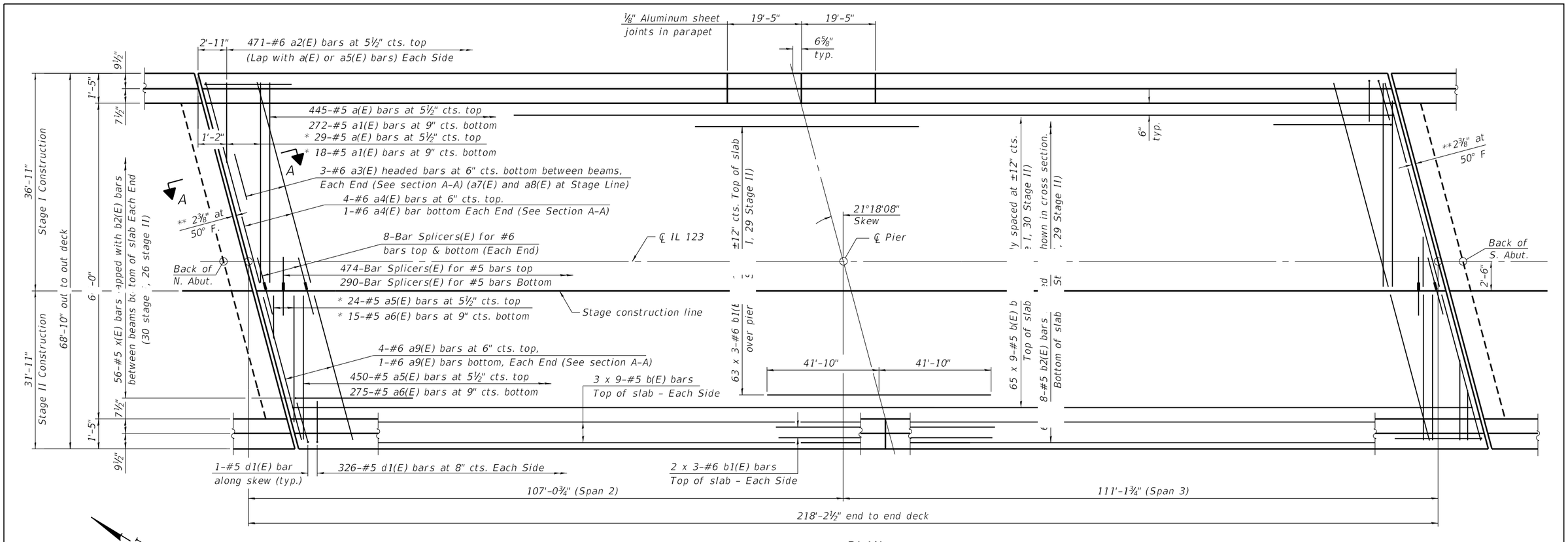
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -
	CHECKED - MTH	REVISED -
PLOT SCALE =	DRAWN - DAS	REVISED -
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF APPROACH AND VAULTED SLAB ELEVATIONS
STRUCTURE NO. 084-0171
SHEET 11 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	48
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		



N

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 3'-7"

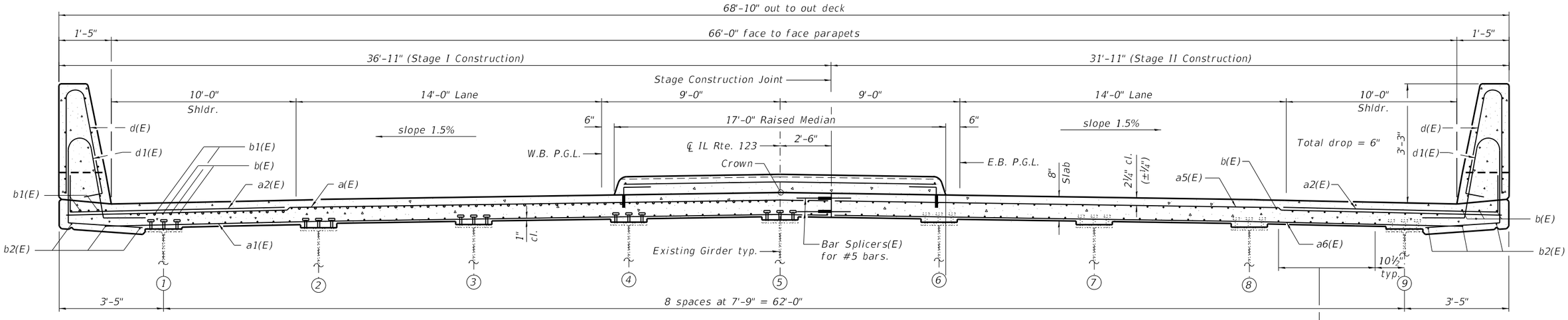
* Order a(E) & a1(E), a5(E), a6(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

** Dimension showing concrete opening. For joint opening see sheet 20 of 26.

PLAN

(Median Not Shown for Clarity)

Notes:
See sheet 15 of 26 for superstructure details, scupper reinforcement detail, and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 16 of 26 for section A-A and Median details.
See Sheet 1 of 26 for location of Drainage Scuppers.



NEAR PIER

CROSS SECTION

(Looking South)
(Scuppers not shown for clarity)

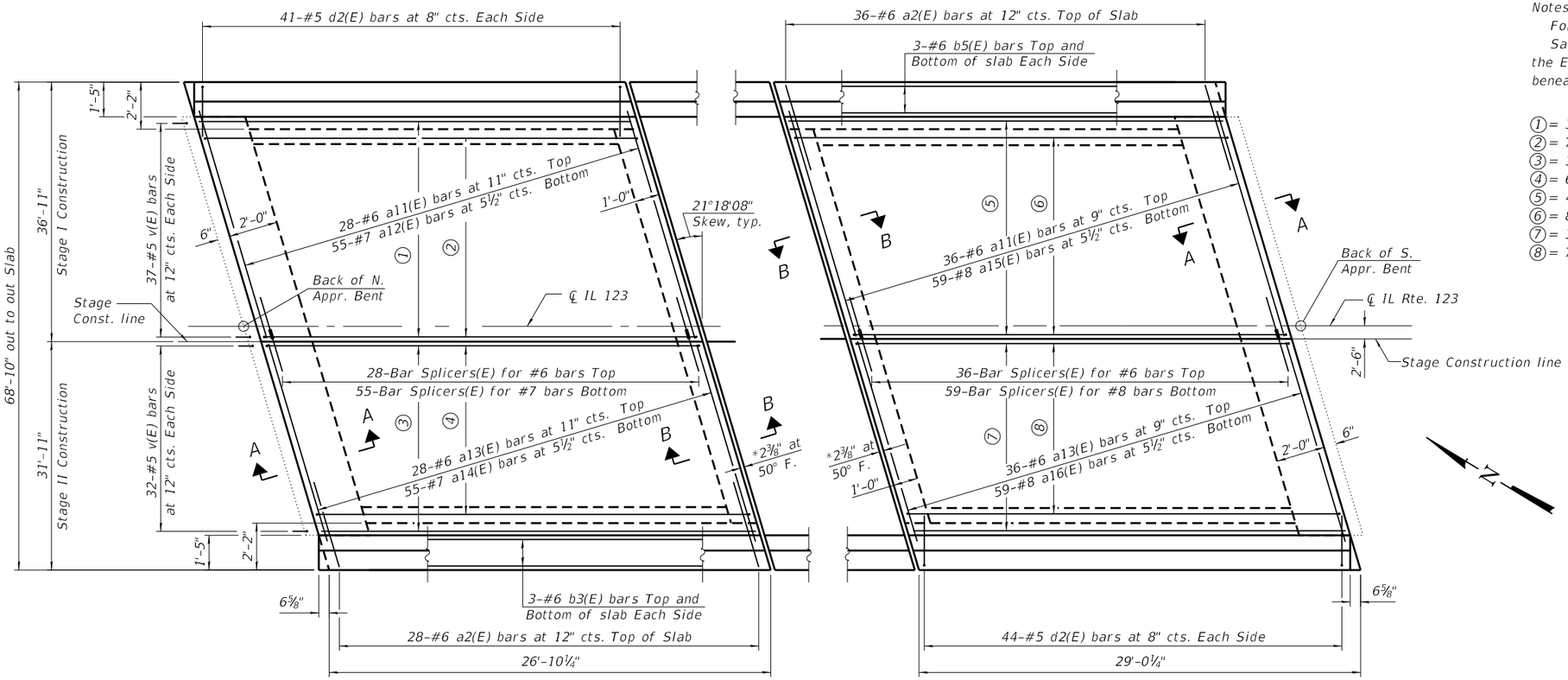
NEAR MIDSPAN

7x8-#5 b2(E) bars at 12" cts. typ. between girders

LIN ENGINEERING, LTD. Consulting Engineers, Springfield, Illinois	USER NAME =	DESIGNED - HZT	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE STRUCTURE NO. 084-0171
		CHECKED - MTH	REVISED -		SHEET 12 OF 26 SHEETS
	PLOT SCALE =	DRAWN - DAS	REVISED -		
	PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	49
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\0840171-72K07-012-Superstructure.dgn
8/16/2019 4:11:04 PM



PLAN – SPAN 1
(Median not shown for clarity)

PLAN – SPAN 4
(Median not shown for clarity)

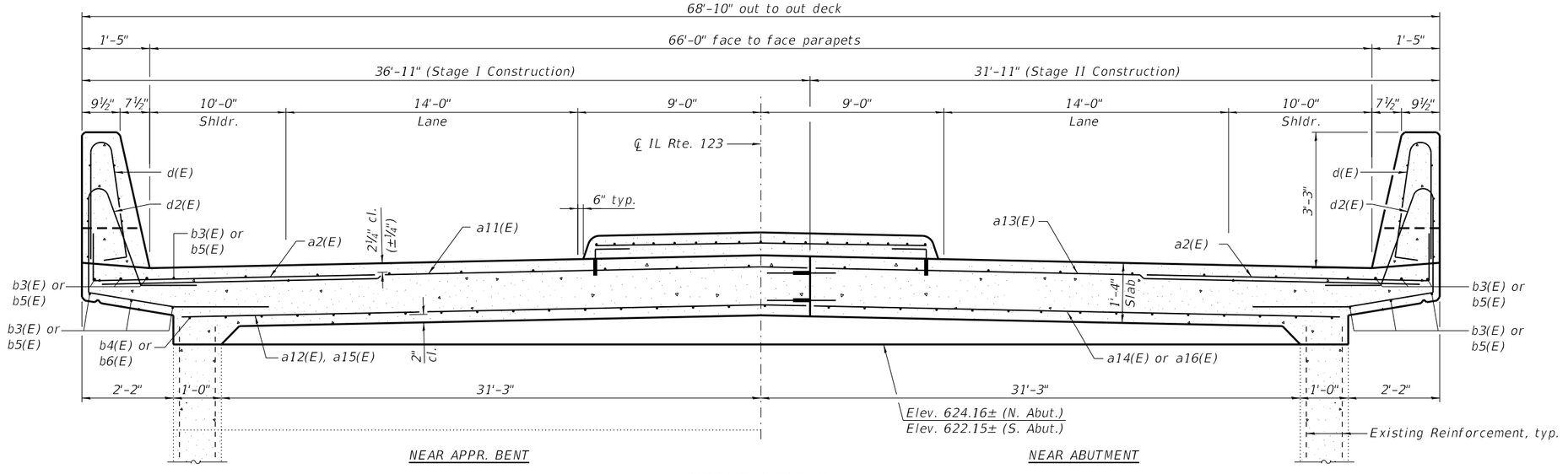
* Dimension showing concrete opening. For joint opening see sheet 20 of 26.

Notes:
For bar splicer details, See Sheet 26 of 26.
Sand Backfill shall be provided as directed by the Engineer in order to provide a level base beneath the vaulted slab prior to pouring concrete.

①= 36-#6 b3(E) bars at 12" cts. Top of slab
②= 71-#9 b4(E) bars at 6" cts. Bottom of slab
③= 31-#6 b3(E) bars at 12" cts. Top of slab
④= 61-#9 b4(E) bars at 6" cts. Bottom of slab
⑤= 43-#6 b5(E) bars at 10" cts. Top of slab
⑥= 86-#9 b6(E) bars at 5" cts. Bottom of slab
⑦= 37-#6 b5(E) bars at 10" cts. Top of slab
⑧= 73-#9 b6(E) bars at 5" cts. Bottom of slab

TWO VAULTED SLABS BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	128	#6	8'-4"	
a11(E)	64	#6	39'-4"	
a12(E)	55	#7	39'-4"	
a13(E)	64	#6	34'-1"	
a14(E)	55	#7	34'-1"	
a15(E)	59	#8	39'-4"	
a16(E)	59	#8	34'-1"	
b3(E)	79	#6	26'-6"	
b4(E)	132	#9	29'-0"	
b5(E)	92	#6	28'-8"	
b6(E)	159	#9	31'-2"	
b7(E)	17	#5	26'-6"	
b8(E)	17	#5	28'-8"	
c(E)	56	#5	16'-8"	
c1(E)	112	#5	1'-4"	
c2(E)	4	#5	18'-0"	
d(E)	170	#5	6'-5"	
d2(E)	170	#5	10'-3"	
e5(E)	12	#4	13'-0"	
e6(E)	12	#4	13'-3"	
e7(E)	12	#4	14'-4"	
e8(E)	12	#4	14'-1"	
e9(E)	4	#4	26'-6"	
e10(E)	4	#4	28'-9"	
e11(E)	2	#4	26'-0"	
e12(E)	2	#4	27'-1"	
e13(E)	2	#4	29'-3"	
e14(E)	2	#4	28'-2"	
v(E)	138	#5	4'-0"	
Reinforcement Bars, Epoxy Coated			Pound	71,900
Concrete Superstructure			Cu. Yd.	236.9



NEAR APPR. BENT

NEAR ABUTMENT

CROSS SECTION
(Looking South)

MODEL: Default
FILE NAME: E:\1136-7\Struct\G, SN 084-0171\Final Design\CADD\CADD Sheets\0840171-72K07-013-VaultedSlabDetails.dgn
8/16/2019 4:11:07 PM

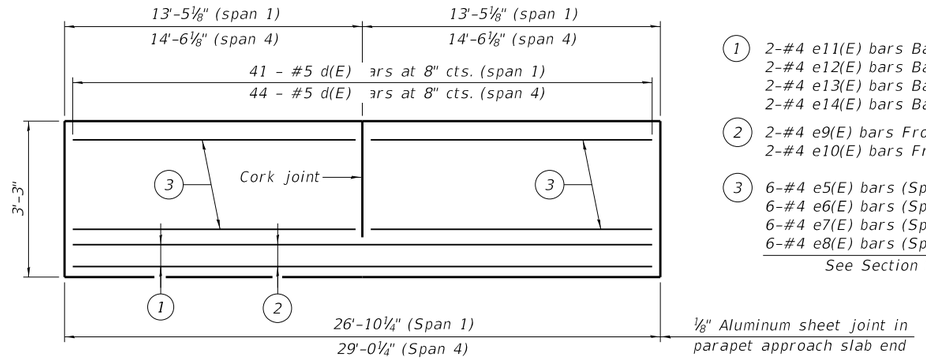
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -
	CHECKED - MTH	REVISED -
PLOT SCALE =	DRAWN - DAS	REVISED -
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VAULTED SLAB DETAILS
STRUCTURE NO. 084-0171
SHEET 13 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	50
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		



INSIDE ELEVATION OF PARAPET

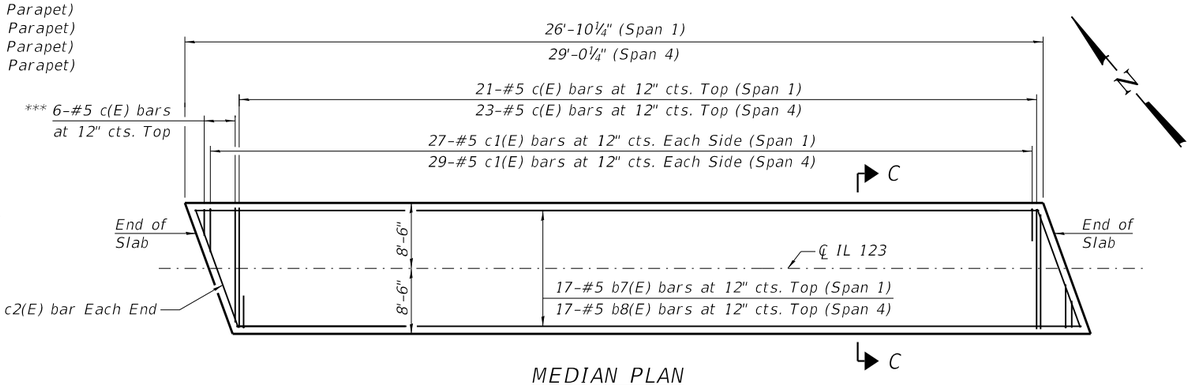
(measured along front face of parapet)

(1) 2-#4 e11(E) bars Back face (Span 1, East Parapet)
2-#4 e12(E) bars Back face (Span 1, West Parapet)
2-#4 e13(E) bars Back face (Span 4, East Parapet)
2-#4 e14(E) bars Back face (Span 4, West Parapet)

(2) 2-#4 e9(E) bars Front face (Span 1)
2-#4 e10(E) bars Front face (Span 4)

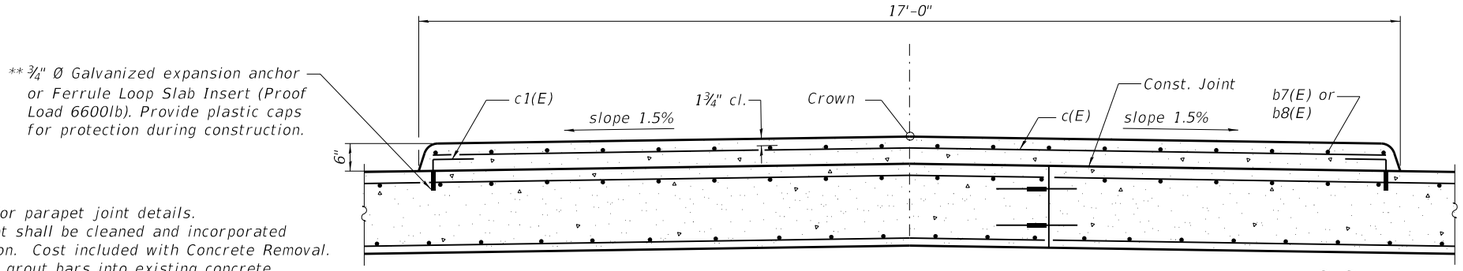
(3) 6-#4 e5(E) bars (Span 1, East Parapet)
6-#4 e6(E) bars (Span 1, West Parapet)
6-#4 e7(E) bars (Span 4, East Parapet)
6-#4 e8(E) bars (Span 4, West Parapet)

See Section thru parapet



MEDIAN PLAN

*** Order c(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

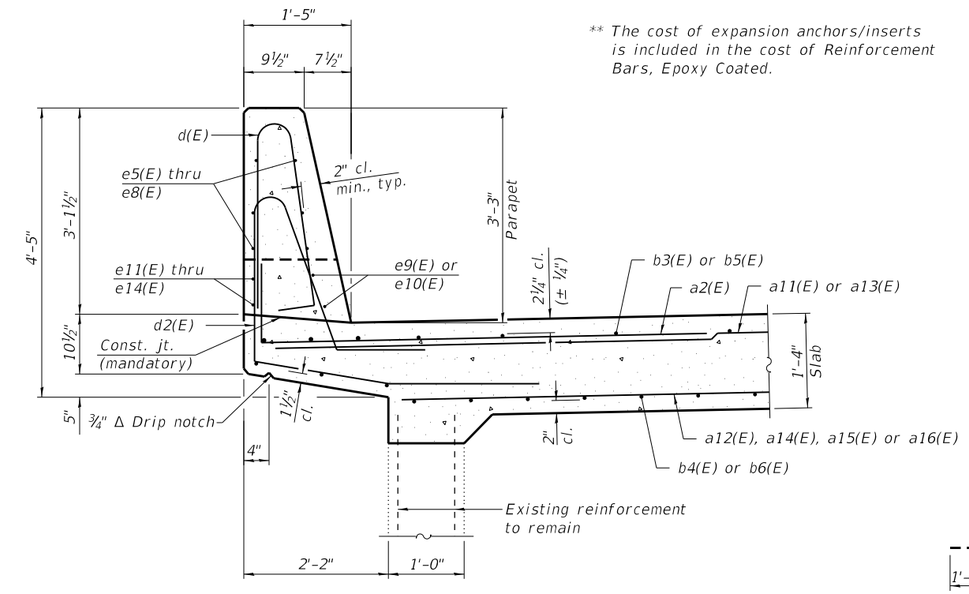


SECTION C-C

(Looking South)

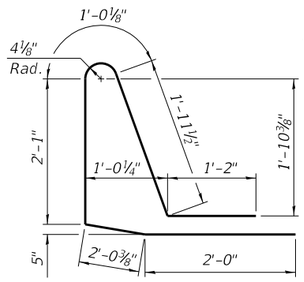
Notes:
See Sheet 15 of 26 for parapet joint details.
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
Drill holes and epoxy grout bars into existing concrete according to Article 584 of Standard Specifications.

** The cost of expansion anchors/inserts is included in the cost of Reinforcement Bars, Epoxy Coated.

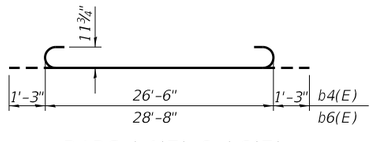


SECTION THRU PARAPET

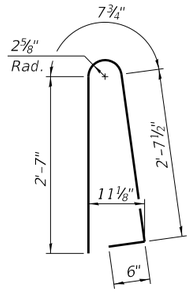
BAR v(E)



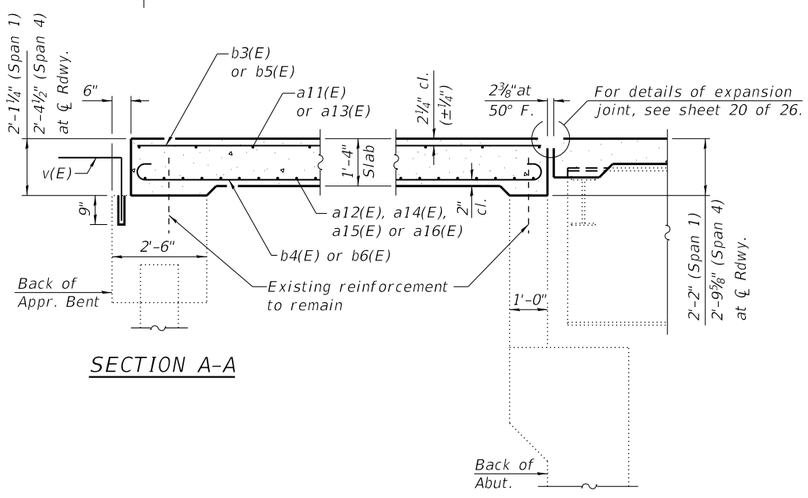
BAR d2(E)



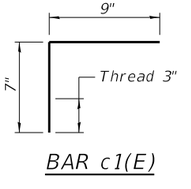
BARS b4(E) & b6(E)



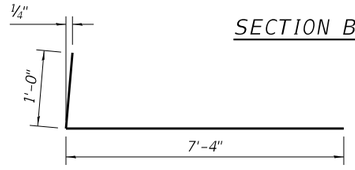
BAR d(E)



SECTION A-A



BAR c1(E)



BAR a2(E)

SECTION B-B

MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\0840171-72K07-014-VaultedSlabDetails.dgn
8/16/2019 4:11:10 PM

LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

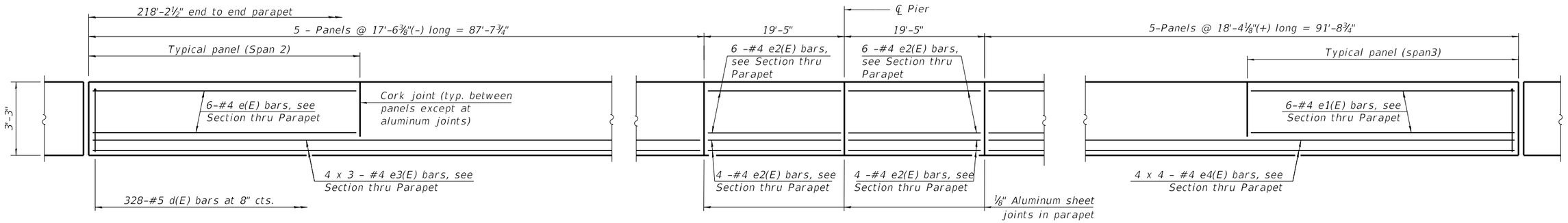
USER NAME =
PLOT SCALE =
PLOT DATE = 8/16/2019

DESIGNED - HZT | REVISED -
CHECKED - MTH | REVISED -
DRAWN - DAS | REVISED -
CHECKED - MTH | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

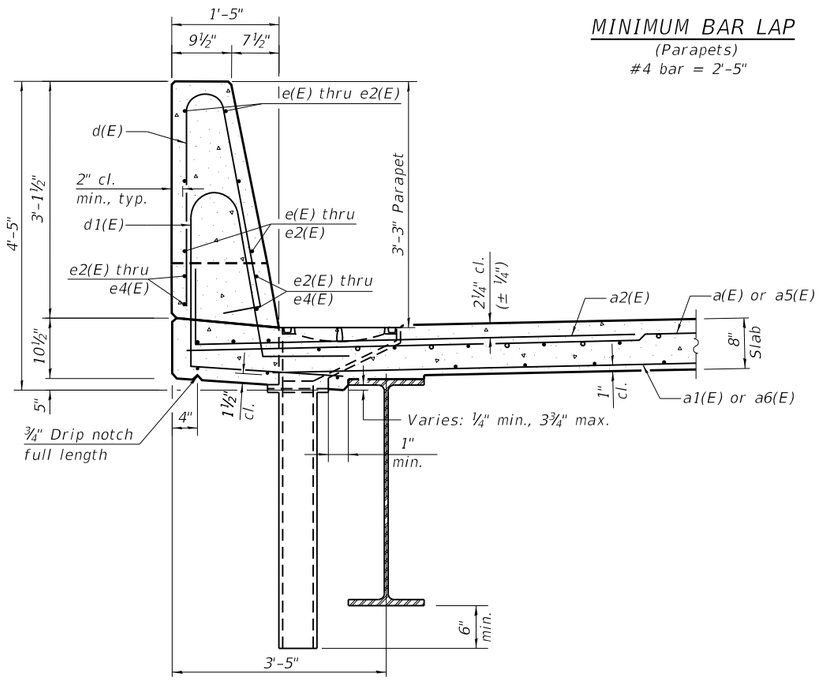
VAULTED SLAB DETAILS
STRUCTURE NO. 084-0171
SHEET 14 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	51
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			



INSIDE ELEVATION OF PARAPET

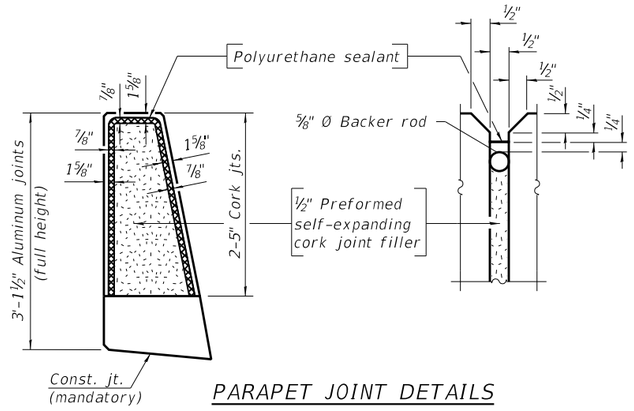
(Measured along front face of parapet)
(East Parapet shown; West parapet mirror image)



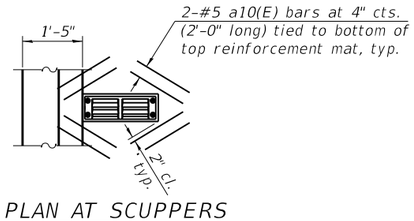
MINIMUM BAR LAP

(Parapets)
#4 bar = 2'-5"

SECTION THRU PARAPET



PARAPET JOINT DETAILS



PLAN AT SCUPPERS

Cut longitudinal reinforcement to clear drainage scuppers.

Notes:

The ⅛" aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	474	#5	36'-7"	
a1(E)	290	#5	36'-3"	
a2(E)	942	#6	8'-4"	
a3(E)	42	#6	8'-1"	
a4(E)	10	#6	39'-3"	
a5(E)	474	#5	31'-7"	
a6(E)	290	#5	31'-3"	
a7(E)	6	#6	2'-4"	
a8(E)	6	#6	5'-3"	
a9(E)	10	#6	33'-11"	
a10(E)	16	#5	2'-0"	
b(E)	792	#5	27'-5"	
b1(E)	201	#6	30'-4"	
b2(E)	496	#5	30'-4"	
c(E)	218	#5	16'-8"	
c1(E)	436	#5	1'-4"	
c2(E)	2	#5	18'-0"	
d(E)	656	#5	6'-5"	
d1(E)	656	#5	8'-9"	
e(E)	60	#4	17'-3"	
e1(E)	60	#4	18'-1"	
e2(E)	40	#4	19'-1"	
e3(E)	24	#4	30'-10"	
e4(E)	24	#4	24'-9"	
x(E)	112	#5	6'-4"	
Reinforcement Bars, Epoxy Coated		Lbs.	133,490	
Concrete Superstructure		Cu. Yds.	534.0	

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

MODEL: Default
FILE NAME: E:\1136-7\Struct\G, SN 084-0171\Final Design\CADD\CADD Sheets\0840171-72K07-015-SuperstructureDetails.dgn
8/16/2019 4:11:14 PM

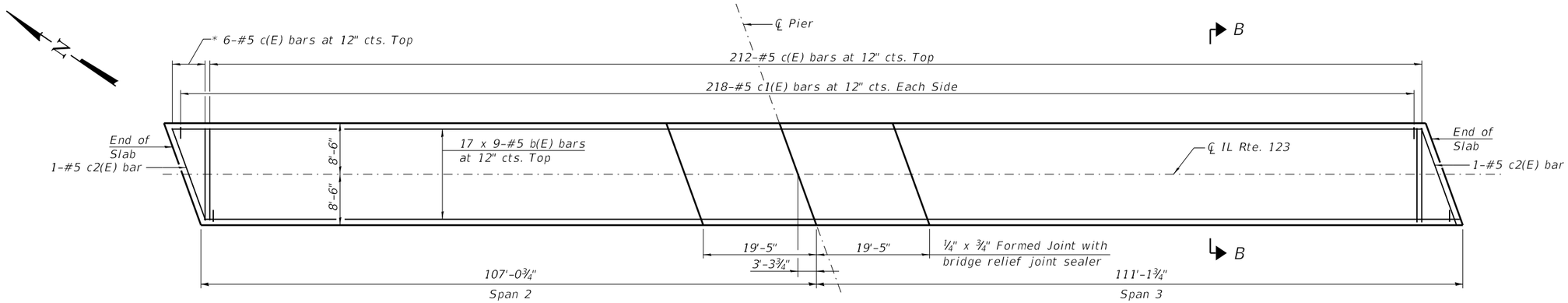
LIN ENGINEERING,LTD. Consulting Engineers Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE =	DRAWN - DAS	REVISED -	
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -	

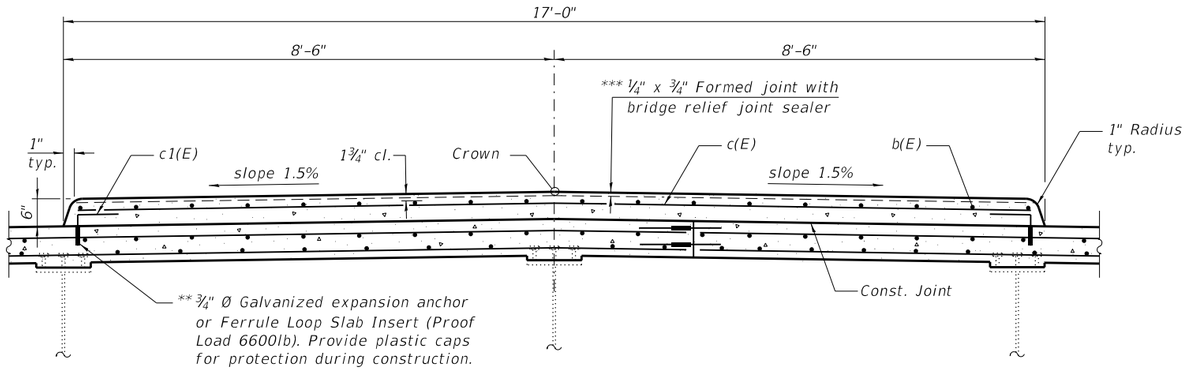
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 084-0171
SHEET 15 OF 26 SHEETS

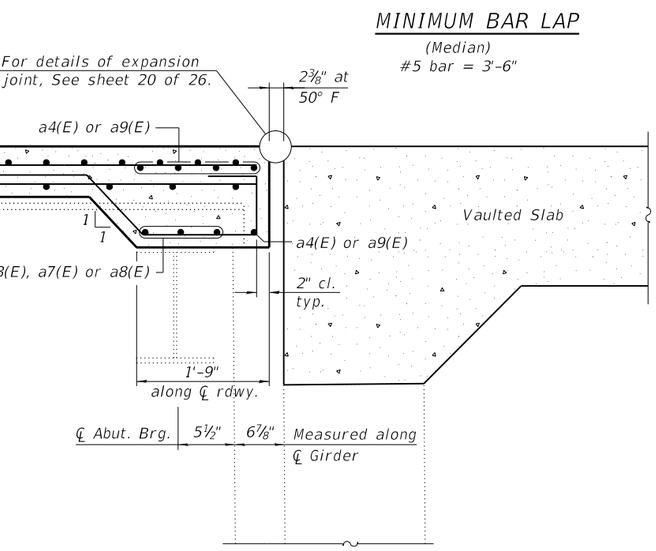
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	52
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		



MEDIAN PLAN



SECTION B-B



MINIMUM BAR LAP

(Median)
#5 bar = 3'-6"

SECTION A-A

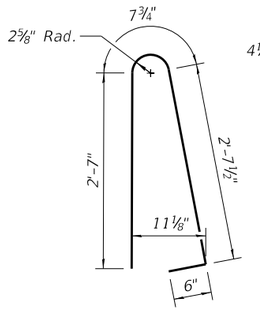
(at Rt. ∠'s)

* Order c(E) bars full length. Cut to fit skew and use ramainder of bars in opposite end

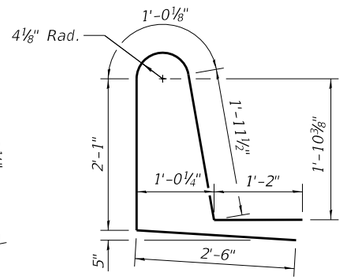
** The cost of expansion anchors/inserts is included in the cost of Reinforcement Bars, Epoxy Coated.

*** Full width-backer rod not required.

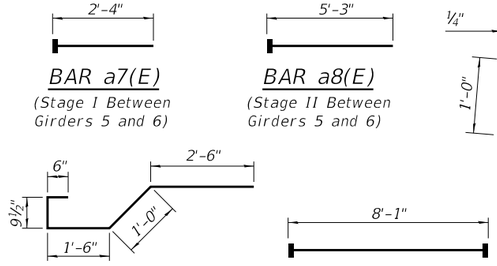
Notes:
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

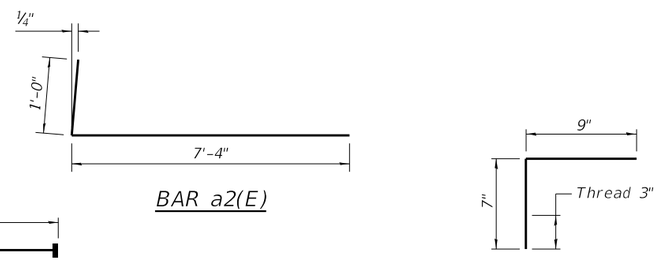


BAR d(E)



BAR d1(E)



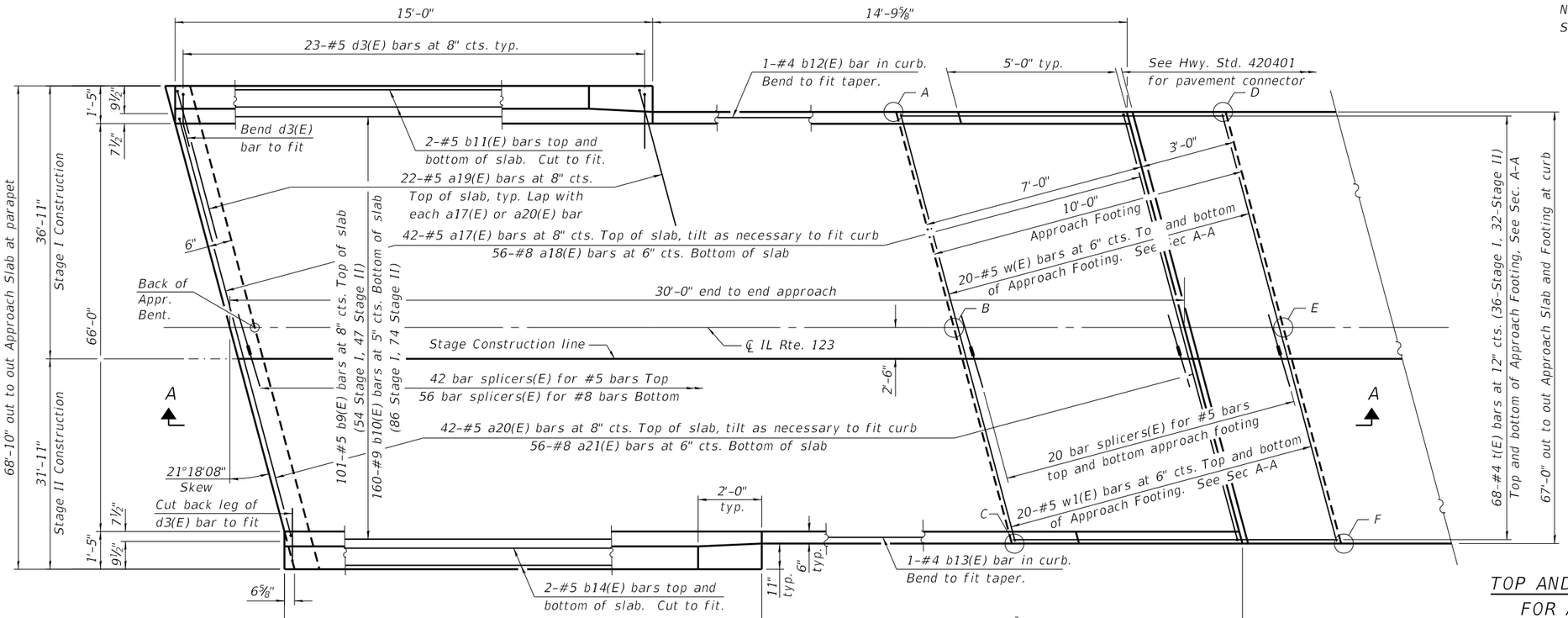


LIN ENGINEERING,LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - HZT	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS STRUCTURE NO. 084-0171
		CHECKED - MTH	REVISED -		
	PLOT SCALE =	DRAWN - DAS	REVISED -		SHEET 16 OF 26 SHEETS
	PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	53
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\084t0171-72K07-016-SuperstructureDetails.dgn
8/16/2019 4:11:17 PM

Note:
See sheet 18 of 26 for Section A-A.

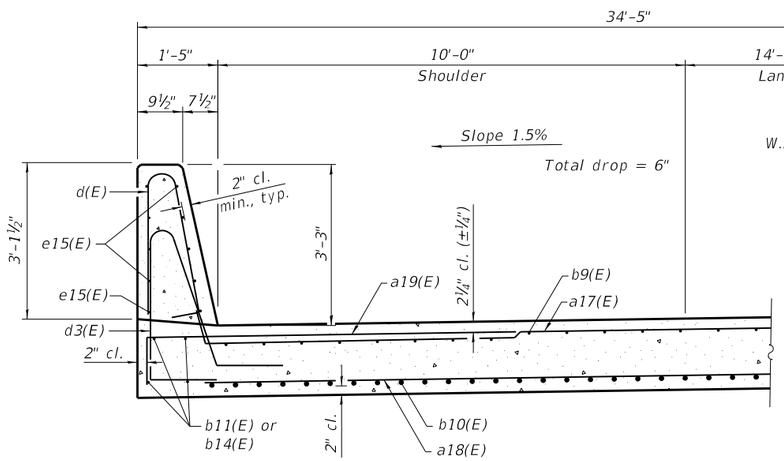


PLAN

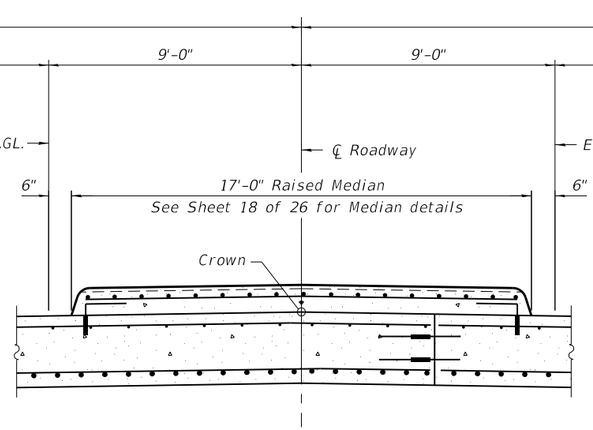
(South Approach Slab shown)
(North Approach Slab opposite hand)
(Median not shown for clarity)

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

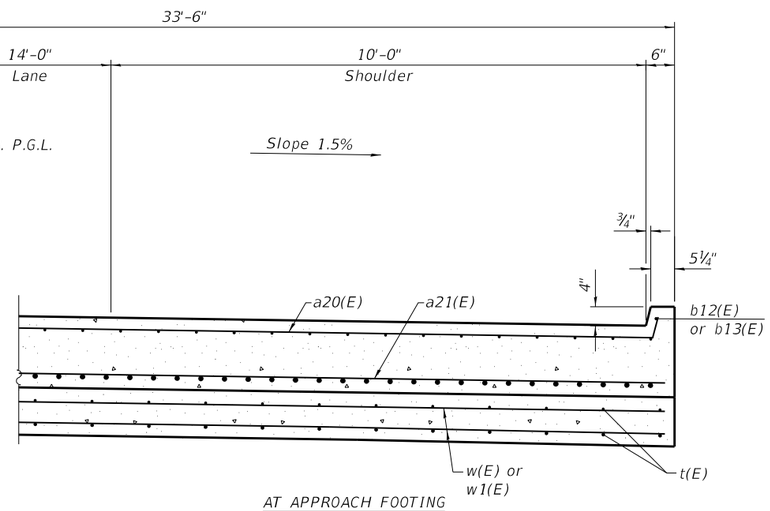
	North Approach		South Approach	
Point	Top	Bottom	Top	Bottom
A	624.36	623.53	622.61	621.78
B	624.94	624.10	622.90	622.07
C	624.48	623.65	622.16	621.32
D	624.30	623.47	622.43	621.60
E	624.88	624.05	622.71	621.88
F	624.44	623.61	621.96	621.12



NEAR ABUTMENT



CROSS SECTION
(Looking South)



AT APPROACH FOOTING

(Sheet 1 of 2)

MODEL: Default
FILE NAME: E:\1136-7\StructG. SN 084-0171\Final Design\CADD\CADD Sheets\08401171-72K07-017-ApprSlabDetails.dgn
8/16/2019 4:11:20 PM

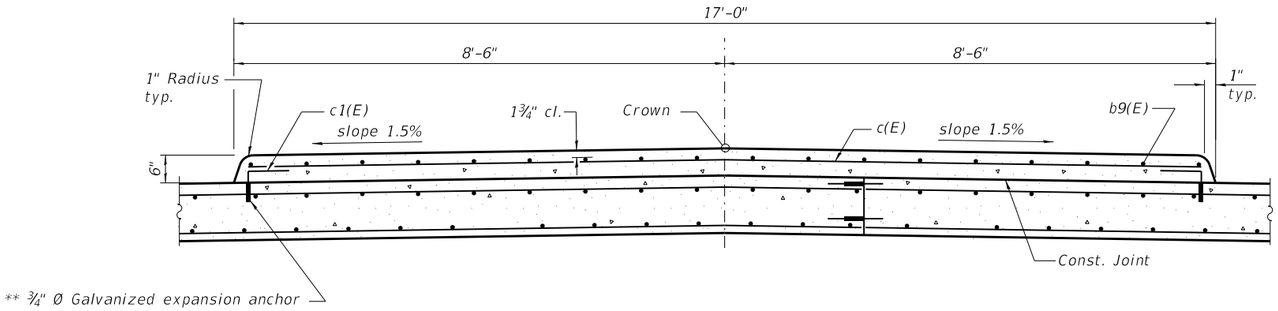
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -
	CHECKED - MTH	REVISED -
PLOT SCALE =	DRAWN - DAS	REVISED -
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

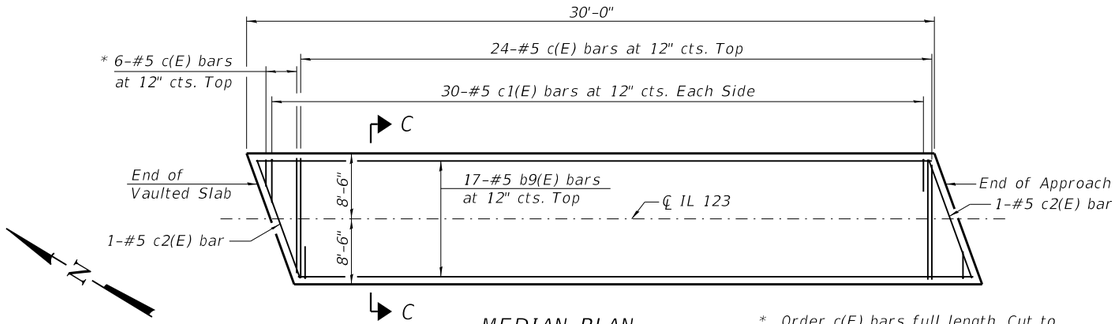
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 084-0171
SHEET 17 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	54
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		



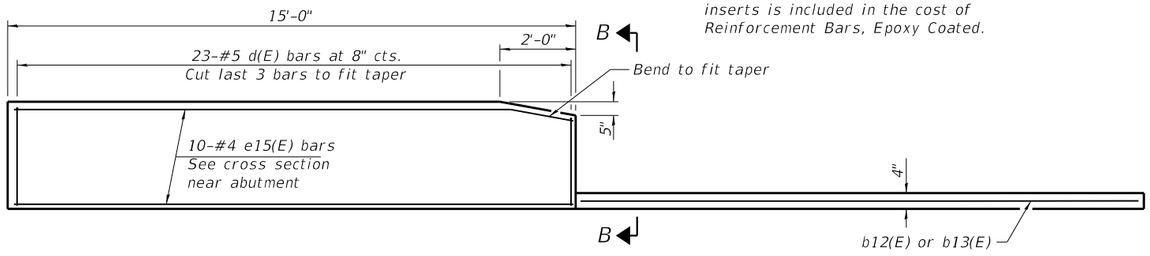
** ¾" Ø Galvanized expansion anchor or Ferrule Loop Slab Insert (Proof Load 6600lb). Provide plastic caps for protection during construction.

SECTION C-C



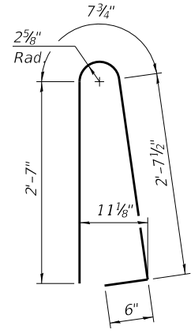
MEDIAN PLAN

(South Approach Median Shown
North Approach Median Similar)

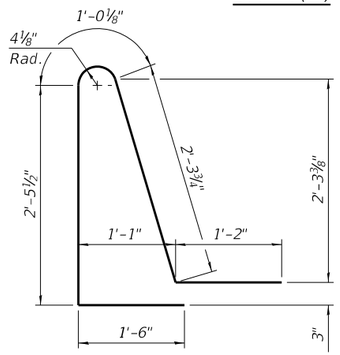


* Order c(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

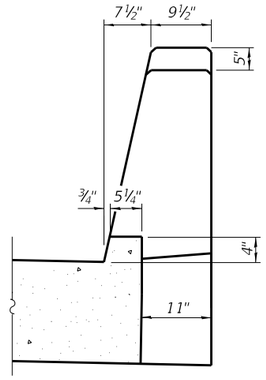
** The cost of expansion anchors/ inserts is included in the cost of Reinforcement Bars, Epoxy Coated.



BAR d(E)



BAR d3(E)



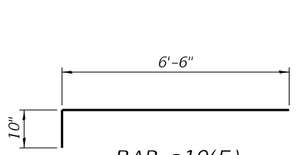
VIEW B-B

Notes:

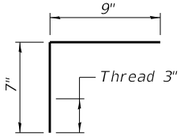
Parapet and median concrete shall be paid for as Concrete Superstructure.
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.
For bar splicer details, see sheet 26 of 26.

TWO APPROACHES BILL OF MATERIAL

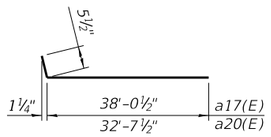
Bar	No.	Size	Length	Shape
a17(E)	84	#5	38'-6"	
a18(E)	112	#8	38'-4"	
a19(E)	88	#5	7'-4"	
a20(E)	84	#5	33'-1"	
a21(E)	112	#8	33'-0"	
b9(E)	236	#5	29'-8"	
b10(E)	320	#9	29'-8"	
b11(E)	8	#5	15'-3"	
b12(E)	2	#4	14'-7"	
b13(E)	2	#4	14'-10"	
b14(E)	8	#5	14'-8"	
c(E)	60	#5	16'-8"	
c1(E)	120	#5	1'-4"	
c2(E)	4	#5	18'-0"	
d(E)	92	#5	6'-5"	
d3(E)	92	#5	8'-6"	
e15(E)	40	#4	14'-8"	
t(E)	272	#5	10'-5"	
w(E)	80	#5	38'-4"	
w1(E)	80	#5	33'-0"	
Concrete Superstructure		Cu. Yd.	26.7	
Concrete Superstructure (Approach Slab)		Cu. Yd.	189.2	
Concrete Structures		Cu. Yd.	44.4	
Reinforcement Bars, Epoxy Coated		Pound	80,170	



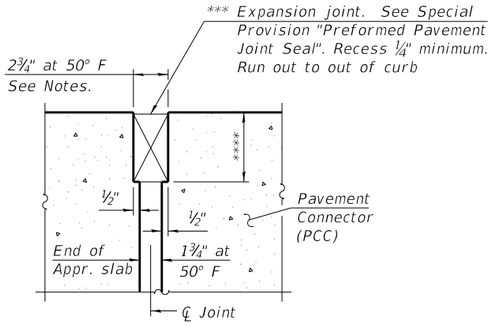
BAR a19(E)



BAR c1(E)



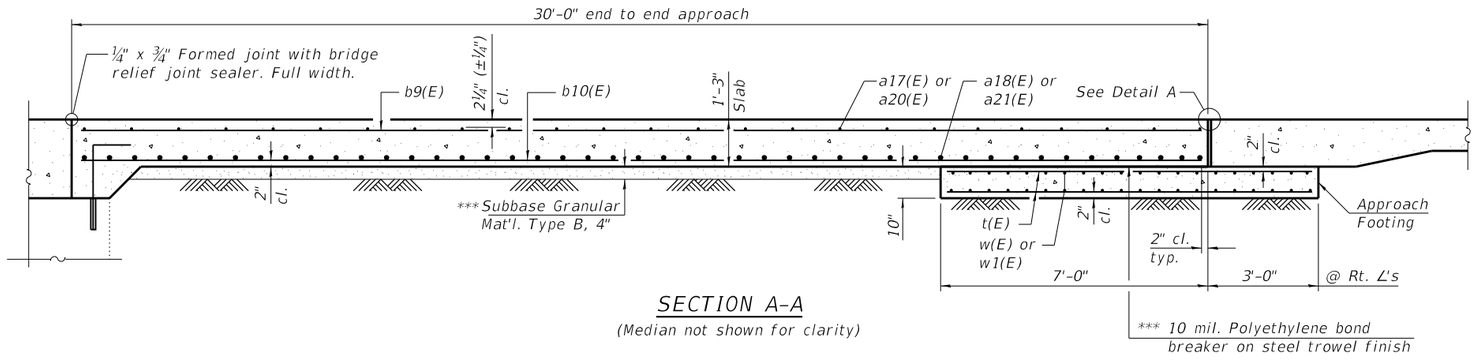
BARS a17(E), a20(E)



DETAIL A

(@ Rt. ∠'s)

INSIDE ELEVATION OF PARAPET AND CURB



SECTION A-A

(Median not shown for clarity)

*** Cost included with Concrete Superstructure (Approach Slab).

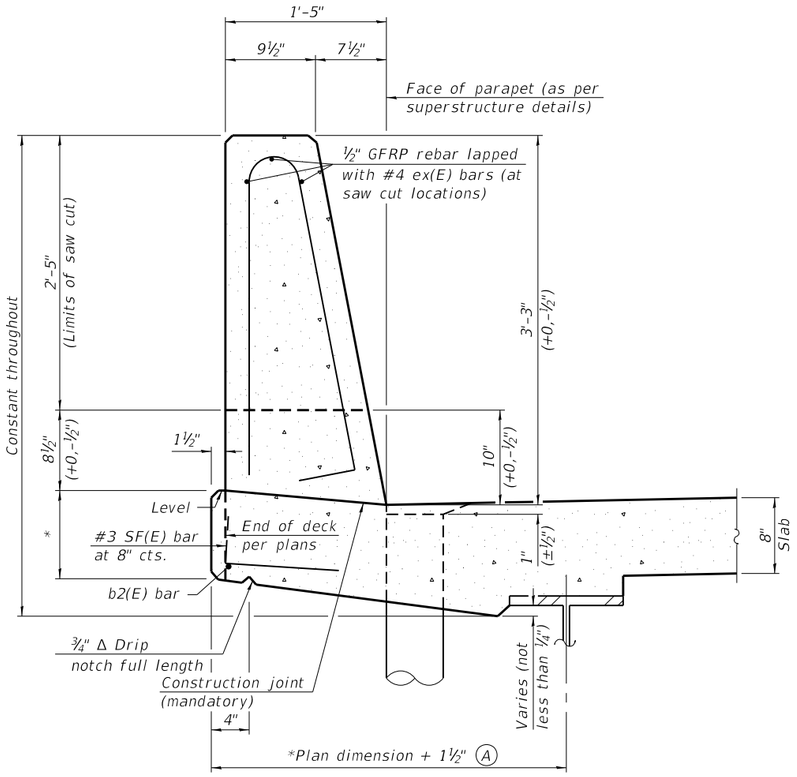
**** Per manufacturer recommendations

(Sheet 2 of 2)

LIN ENGINEERING,LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - HZT	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 084-0171
		CHECKED - MTH	REVISED -		
	PLOT SCALE =	DRAWN - DAS	REVISED -		SHEET 18 OF 26 SHEETS
	PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -		

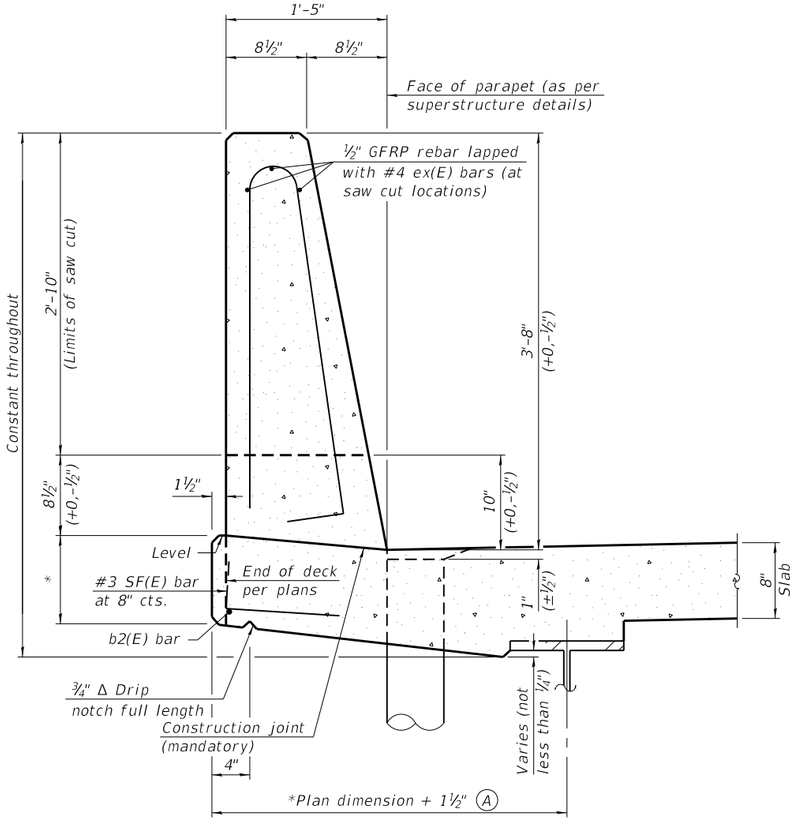
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	55
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\084I171-72K07-018-ApprSlabDetailE.dgn
8/16/2019 4:11:23 PM



39" CONSTANT-SLOPE PARAPET SECTION

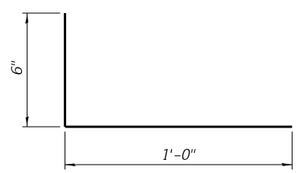
(Showing dimensions, d(E), and ½" Ø GFRP rebar)



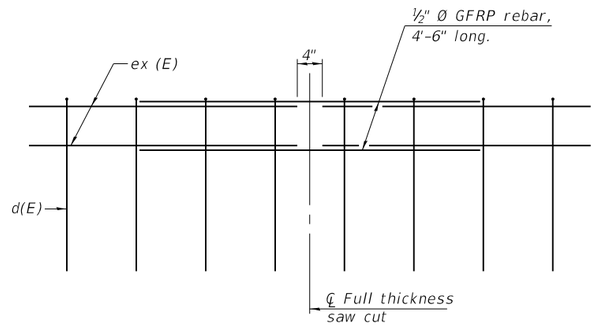
44" CONSTANT-SLOPE PARAPET SECTION

(Showing dimensions, d(E), and ½" Ø GFRP rebar)

*See Superstructure Details.



#3 (E) BAR



GFRP REBAR STIFFENING DETAIL

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

GENERAL NOTES

All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 39" and 44" parapets.

Place full depth aluminum sheets as shown on superstructure details.

Replace all cork joint filler locations with a full thickness saw cut.

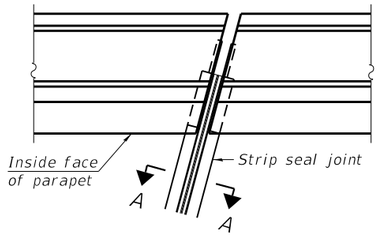
Steel superstructure shown. Other superstructure types similar.

SFP 39-44 1-14-2019

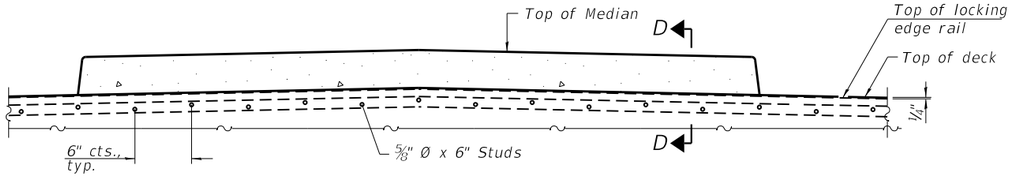
LIN ENGINEERING, LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - HZT	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCRETE PARAPET SLIPFORMING OPTION STRUCTURE NO. 084-0171
		CHECKED - MTH	REVISED -		
	PLOT SCALE =	DRAWN - DAS	REVISED -		SHEET 19 OF 26 SHEETS
	PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	56
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\0840171-72K07-019-Parapet.dgn
8/16/2019 4:11:27 PM



PLAN AT PARAPET



ELEVATION AT MEDIAN

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.

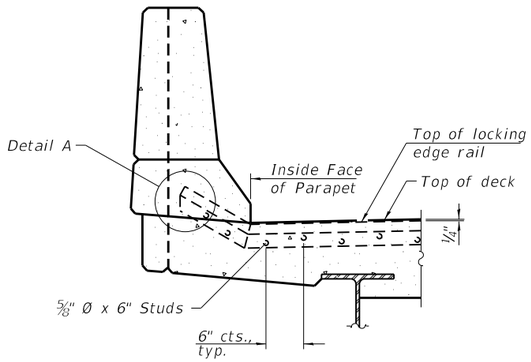
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

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.

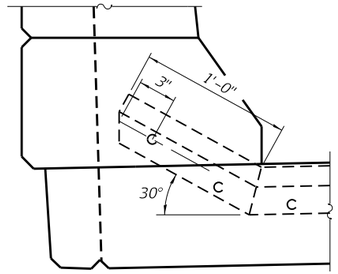
Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

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

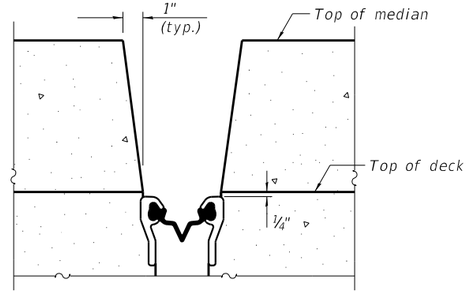
The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to 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.



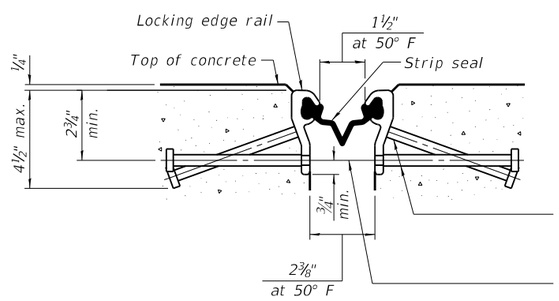
ELEVATION AT PARAPET



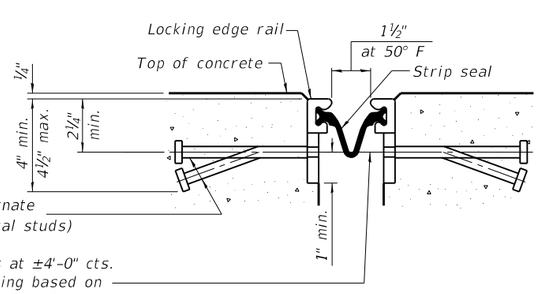
DETAIL A



SECTION D-D
(at Rt. ∠'s)



SHOWING ROLLED RAIL JOINT



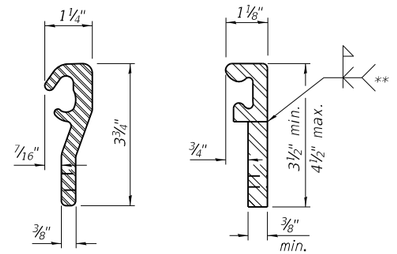
SHOWING WELDED RAIL JOINT

* 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.

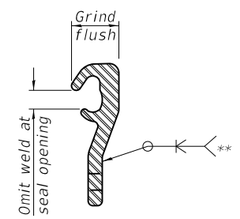


ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAILS

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

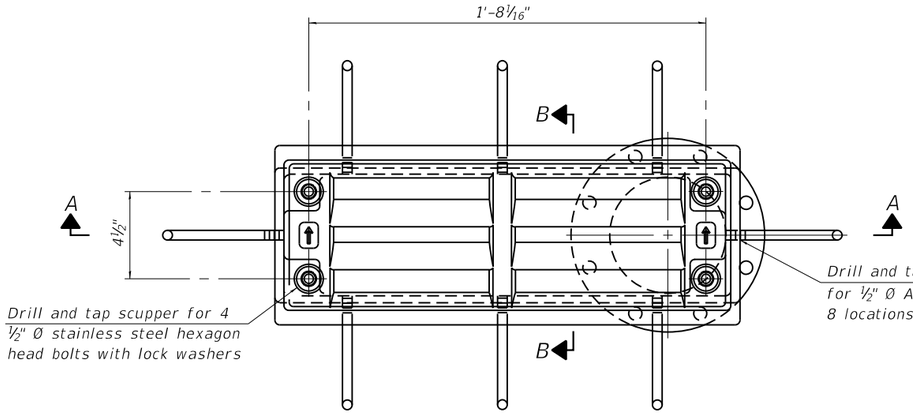


LOCKING EDGE RAIL SPLICE

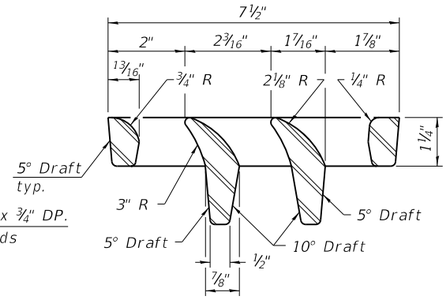
The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

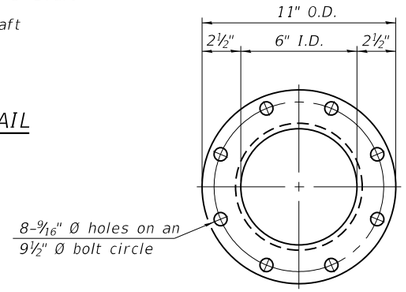
Item	Unit	Total
Preformed Joint Strip Seal	Foot	146



PLAN



VANE GRATE DETAIL



Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

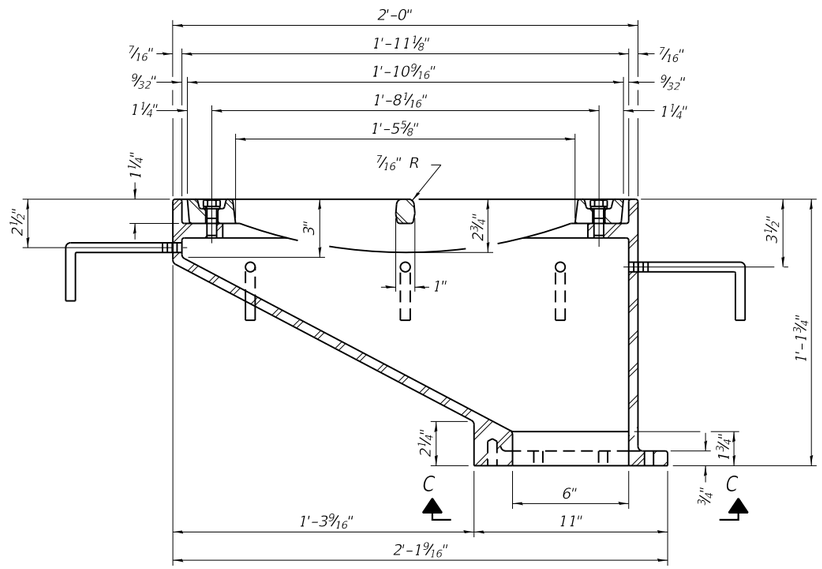
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

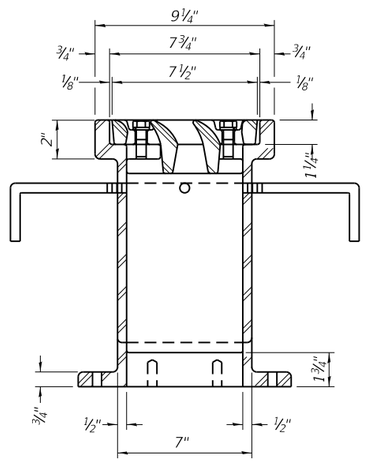
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

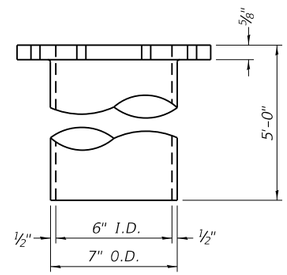


SECTION A-A

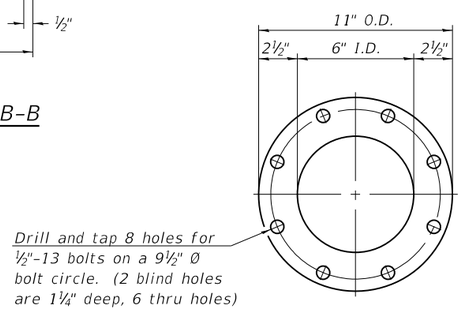
See sheet 15 of 26 for scupper location relative to parapet.



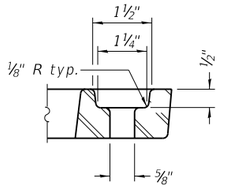
SECTION B-B



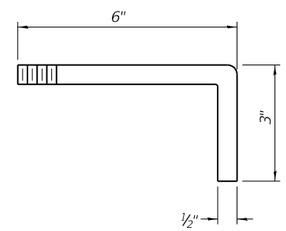
DOWNSPOUT



VIEW C-C



BOLT HOLE DETAIL



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	2

DS-12 2-17-2017

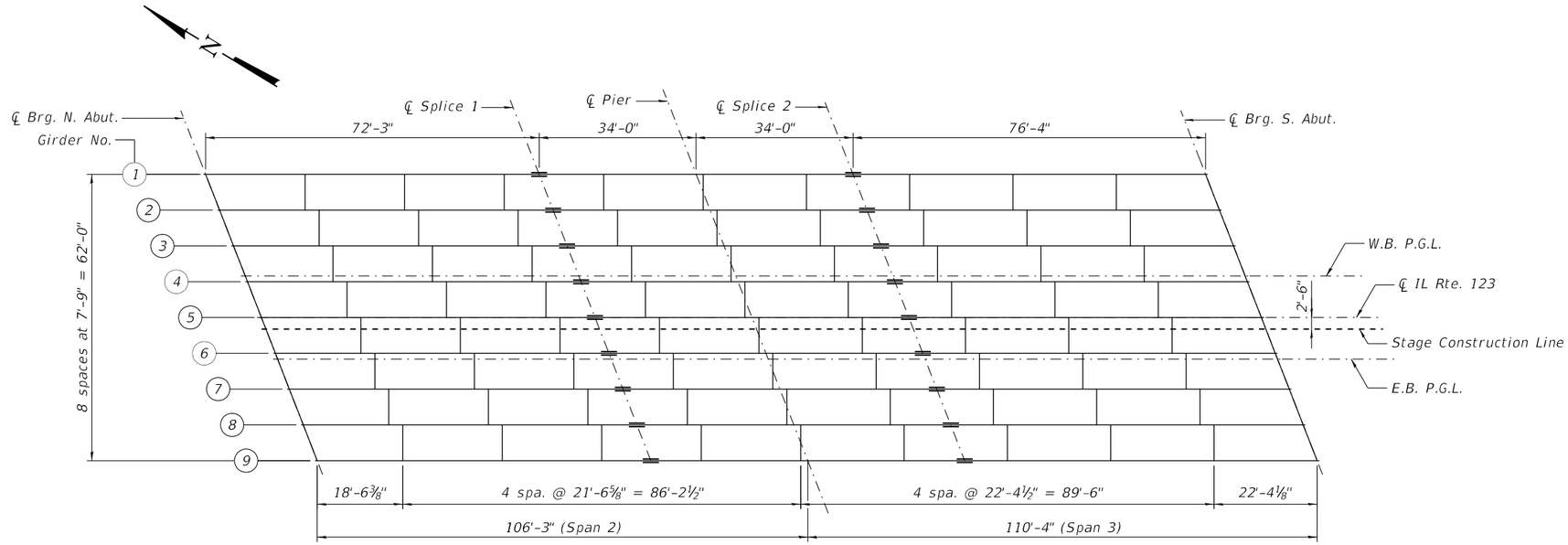
LIN ENGINEERING, LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - HZT	REVISED -
		CHECKED - MTH	REVISED -
	PLOT SCALE =	DRAWN - DAS	REVISED -
	PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

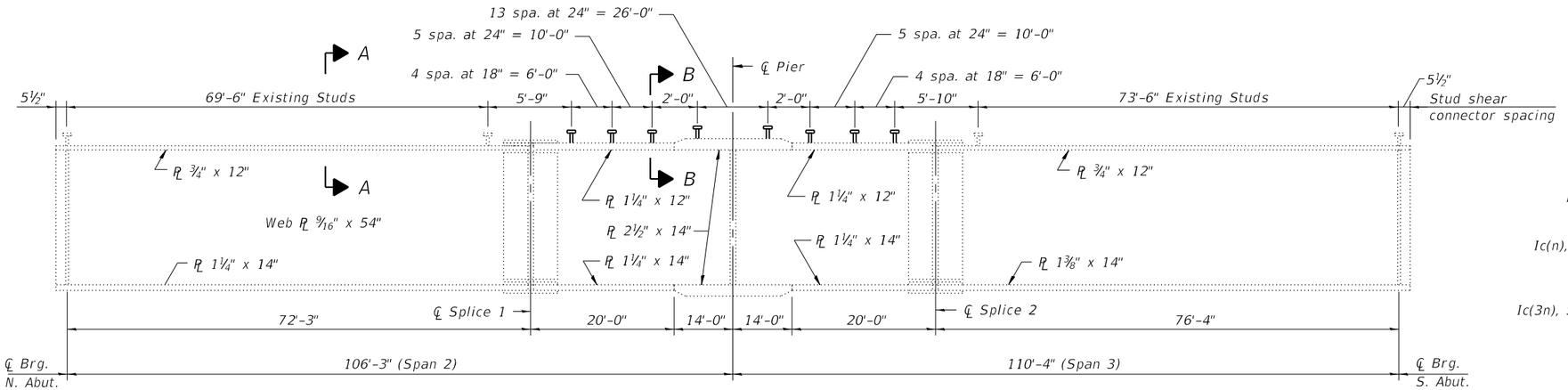
DRAINAGE SCUPPER, DS-12
STRUCTURE NO. 084-0171
SHEET 21 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	58
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

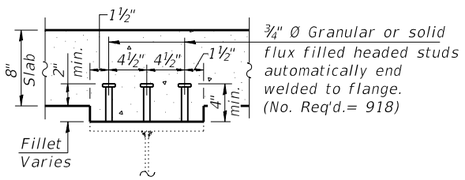
MODEL: Default
FILE NAME: E:\1136-7\StructG. SN 084-0171\Final Design\CADD\CADD Sheets\08401171-72K07-021-Drainage.dgn
8/16/2019 4:11:33 PM



EXISTING FRAMING PLAN

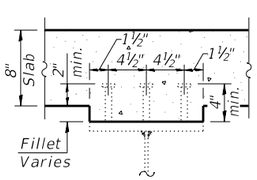


EXISTING GIRDER ELEVATION



¾" Ø Granular or solid flux filled headed studs automatically end welded to flange. (No. Req'd.= 918)

SECTION B-B



SECTION A-A

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 2	Pier	0.6 Sp. 3
Is	(in^4)	26495	63282	27485
Ic(n)	(in^4)	82190	73090	86290
Ic(3n)	(in^4)	58042	73090	60532
Ss	(in^3)	1100	2145	1170
Sc(n)	(in^3)	1690	2277	1791
Sc(3n)	(in^3)	1526	2277	1618
w_{ℓ}	(k/')	1.083	1.291	1.091
M_{ℓ}	('k)	707	1936	831
s_{ℓ}	(k/')	0.531	0.531	0.531
$M_{s\ell}$	('k)	371	870	427
M_L	('k)	913	1018	952
M_{IM}	('k)	197	218	202
$^5/_3\,[M_L + I]$	('k)	1851	2061	1924
Ma	('k)	3812	6333	4144
* Mu	('k)	6878	8357	7198
$f_{s\ell}$ non-comp	(ksi)	7.71	10.83	8.52
$f_{s\ell}$ (comp)	(ksi)	2.91	4.59	3.17
$f_{s}\,^5/_3\,[M_L + M_I]$	(ksi)	13.14	10.86	12.90
fs (Overload)	(ksi)	23.76	26.28	24.59
** fs (Total)	(ksi)	-	-	-
VR	(k)	53.4	65.1	53.4

INTERIOR GIRDER REACTION TABLE				
		N. Abut.	Pier	S. Abut.
R_{ℓ}	(k)	60.7	233.0	65.3
R_L	(k)	49.9	80.5	50.1
R_I	(k)	10.8	11.8	10.6
R_{Total}	(k)	121.4	325.3	126.0

* Compact section
** Braced non-compact and partially braced section

Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing fs(Total and Overload) due to non-composite dead loads ($in.^4$ and $in.^3$).
Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing fs(Total and Overload) due to short-term composite live loads ($in.^4$ and $in.^3$).
Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing fs(Total and Overload) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).
w_{ℓ}: Un-factored non-composite dead load (kips/ft.).
M_{ℓ}: Un-factored moment due to non-composite dead load (kip-ft.).
s_{ℓ}: Un-factored long-term composite (superimposed) dead load (kips/ft.)
$M_{s\ell}$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
M_L: Un-factored live load moment (kip-ft.).
MI: Un-factored moment due to impact (kip-ft.).
Ma: Factored design moment (kip-ft.).
$1.3\,[M_{\ell} + M_{s\ell} + \frac{5}{3}\,(M_L + MI)]$
Mu: Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
fs (Overload): Sum of stresses as computed from the moments below (ksi).
$M_{\ell} + M_{s\ell} + \frac{5}{3}\,(M_L + MI)$
fs (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.3\,[M_{\ell} + M_{s\ell} + \frac{5}{3}\,(M_L + MI)]$
VR: Maximum$_L$ + impact shear range within the composite portion of the span for stud shear connector design (kips).

MODEL: Default
FILE NAME: E:\1136-7\Structl\G. SN 084-0171\Final Design\CADD\CADD Sheets\08401?1-72K07-022-Framing.dgn
8/16/2019 4:11:36 PM

LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE =	DRAWN - DAS	REVISED -	
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -	

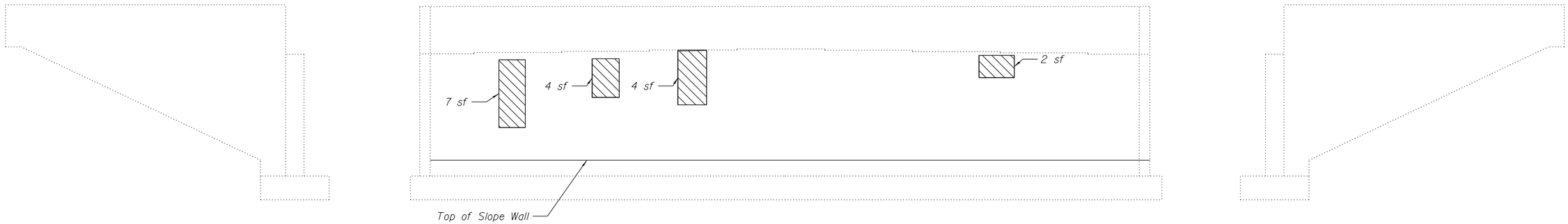
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND DESIGN DATA
STRUCTURE NO. 084-0171
SHEET 22 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	59
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

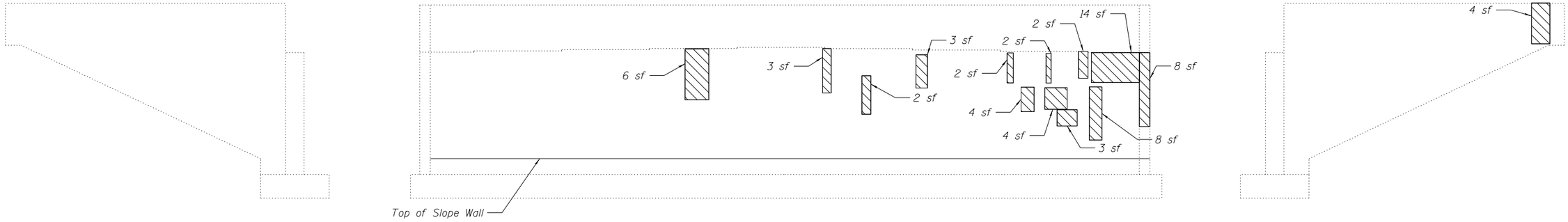
NOTES

Repair of existing abutments shall include but may not be limited to the areas shown.
The actual areas to be repaired shall be determined by the Engineer at time of construction.



NORTH ABUTMENT ELEVATION

(Looking North)



SOUTH ABUTMENT ELEVATION

(Looking South)

LEGEND

Structural Repair of Concrete (Depth Equal To or Less Than 5in.)

sf Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth ≤ 5 Inches)	Sq. Ft.	82

MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\0840171-72K07-023-Abutment.dgn

LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE =	DRAWN - DAS	REVISED -	
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -	

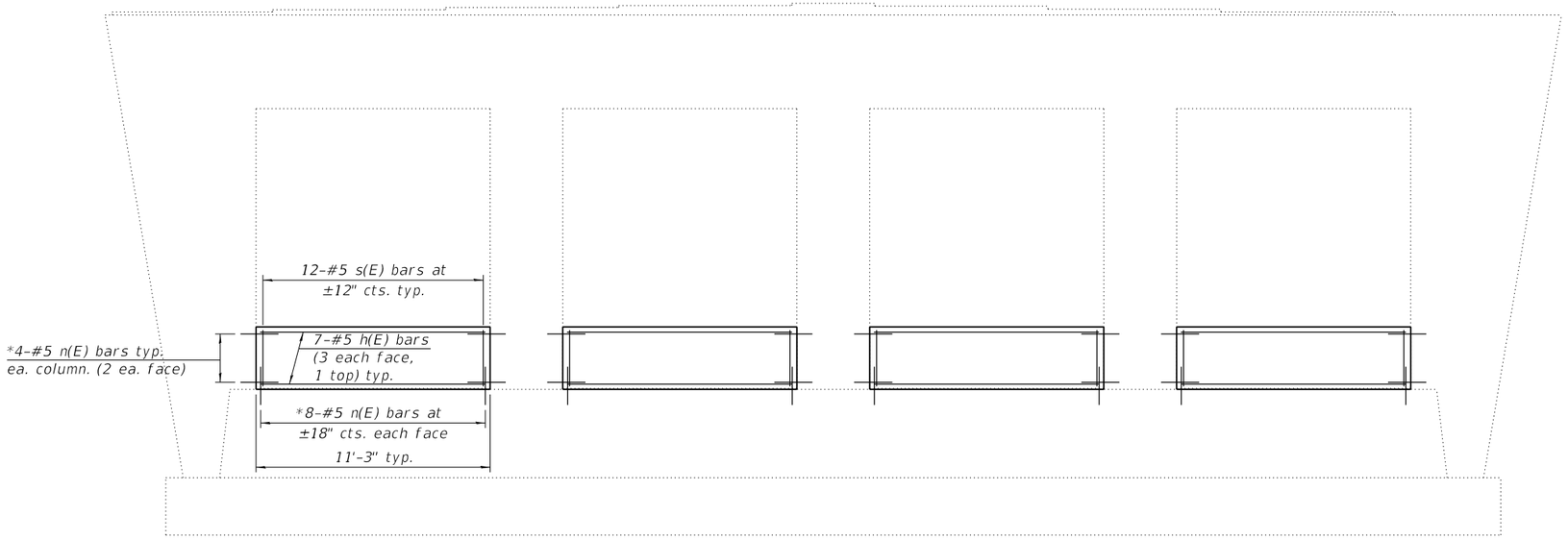
8/16/2019 4:11:40 PM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

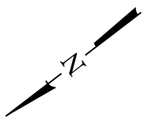
ABUTMENT REPAIR DETAILS
STRUCTURE NO. 084-0171
SHEET 23 OF 26 SHEETS

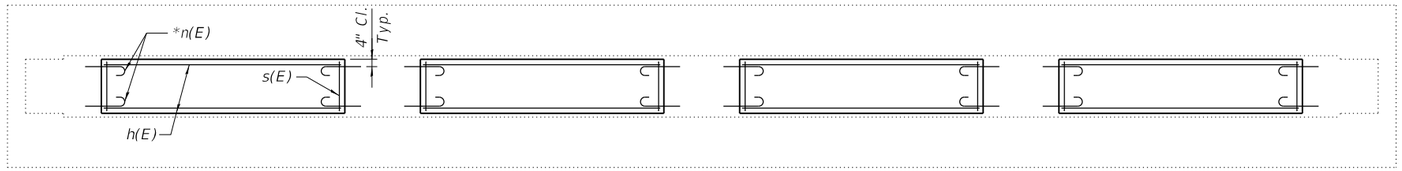
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	60
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		

Note:
The cost of epoxy grouting threaded rods shall be included with Reinforcement Bars, Epoxy Coated.

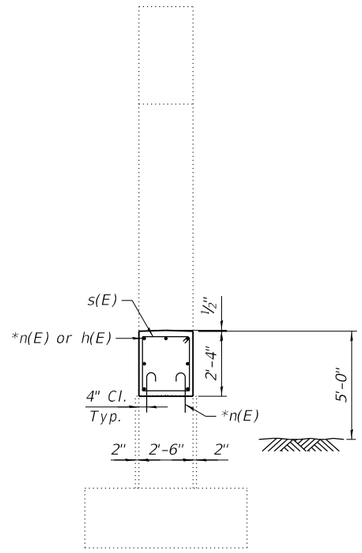


ELEVATION
(Looking South)





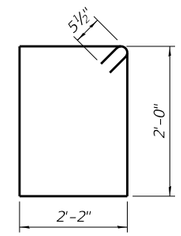
PLAN



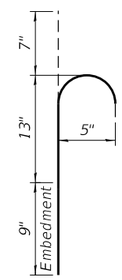
* Epoxy grout n(E) bars in 9" min. deep holes according to Article 584 of the Standard Specifications.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	28	#5	10'-11"	——
n(E)	96	#5	2'-5"	⌐
s(E)	48	#5	9'-3"	□
Concrete Structures		Cu. Yd.	9.7	
Reinforcement Bars, Epoxy Coated		Pound	1030	



BAR s(E)



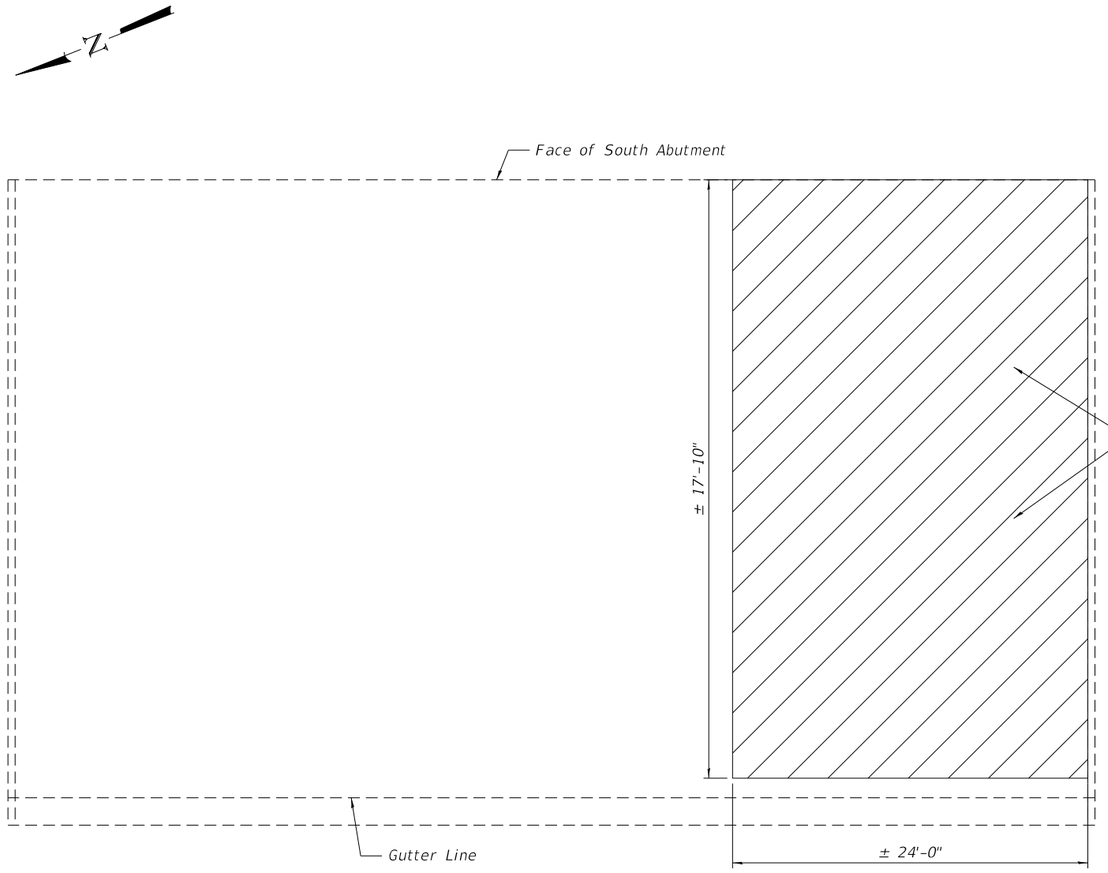
BAR n(E)

MODEL: Default
FILE NAME: E:\1136-7\Structu\G. SN 084-0171\Final Design\CADD\CADD Sheets\08401?1-72K07-024-Pier.dgn
8/16/2019 4:11:43 PM

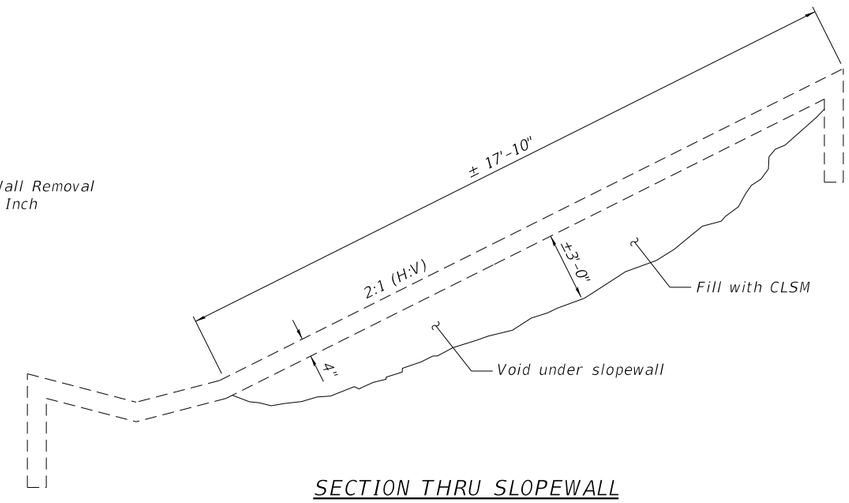
LIN ENGINEERING,LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - HZT	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - MTH	REVISED -	
	PLOT SCALE =	DRAWN - DAS	REVISED -	
	PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -	

PIER REPAIR DETAILS
STRUCTURE NO. 084-0171
SHEET 24 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	61
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			



PLAN



SECTION THRU SLOPEWALL

Notes:

Hatched areas indicate assumed limits of Slope Wall Removal and Slope Wall 4 Inch. Actual limits to be determined by the Engineer.

All silt, sand and other debris in gutter at bottom of slope wall to be removed. Cost included with Slope Wall Removal.

Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Slope Wall Removal	Sq. Yd.	48
Slope Wall 4 Inch	Sq. Yd.	48
Controlled Low-Strength Material	Cu. Yd.	33.3

MODEL: Default
FILE NAME: E:\1136-7\Struct\G. SN 084-0171\Final Design\CADD\CADD Sheets\0840171-72K07-025-SlopeWall.dgn
8/16/2019 4:11:46 PM

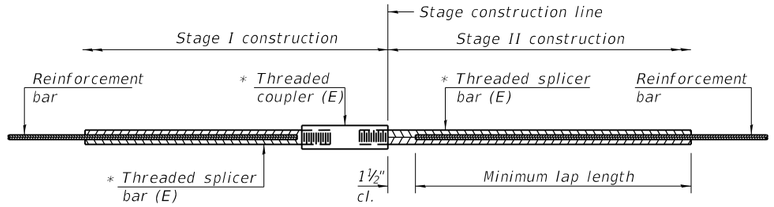
LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - HZT	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE =	DRAWN - DAS	REVISED -	
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPE WALL REPAIR DETAILS
STRUCTURE NO. 084-0171
SHEET 25 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	62
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		

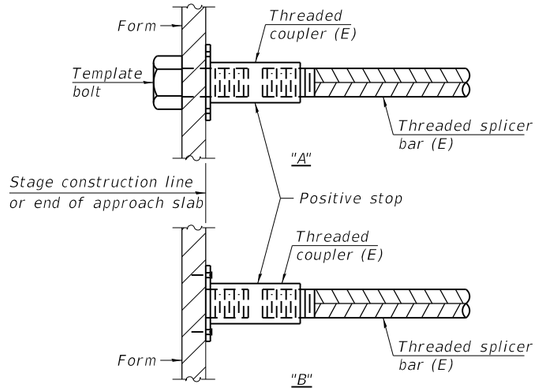


STANDARD BAR SPLICER ASSEMBLY

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

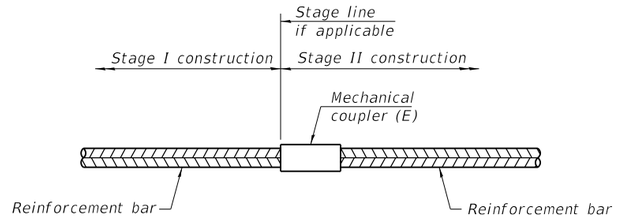
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck Slab	#5	764	3'-6"
Deck Slab	#6	16	3'-7"
Vaulted Slab	#6	64	4'-0"
Vaulted Slab	#7	55	5'-2"
Vaulted Slab	#8	59	6'-9"
Approach Slab	#5	84	3'-4"
Approach Slab	#8	112	4'-9"
Approach Footing	#5	80	3'-2"



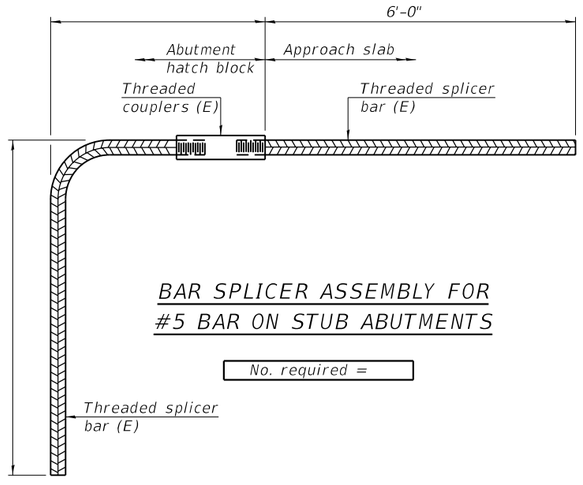
INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



NOTES

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

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

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

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

BSD-1 2-17-2017

LIN ENGINEERING,LTD. Consulting Engineers Springfield, Illinois

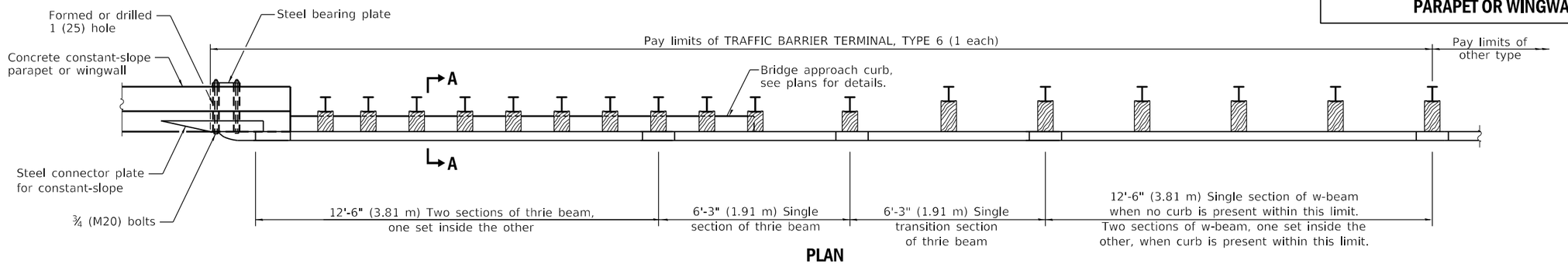
USER NAME =	DESIGNED - HZT	REVISED -
	CHECKED - MTH	REVISED -
PLOT SCALE =	DRAWN - DAS	REVISED -
PLOT DATE = 8/16/2019	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

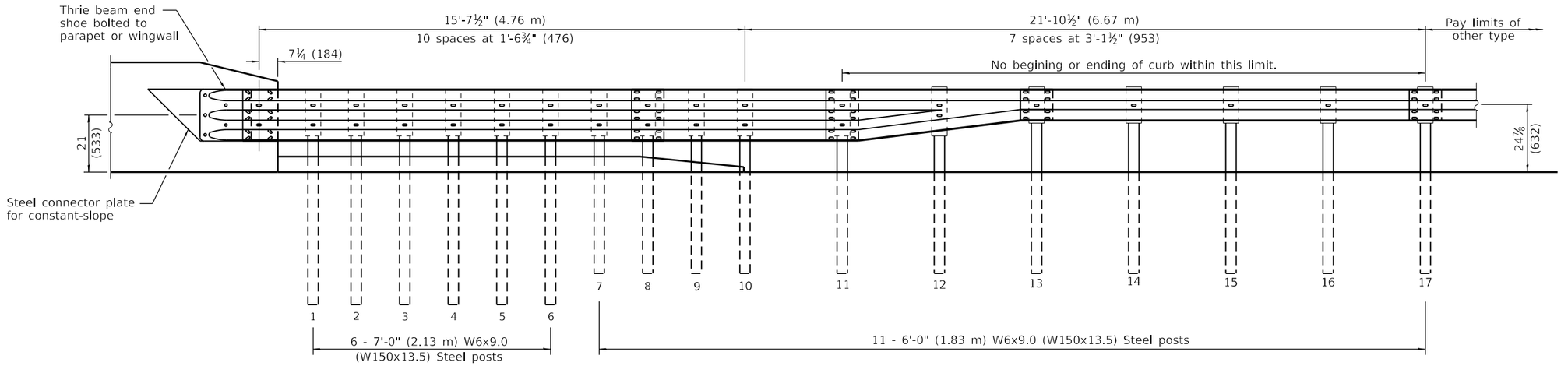
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 084-0171
SHEET 26 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1)D, (150)RS-2	SANGAMON	63	63
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			

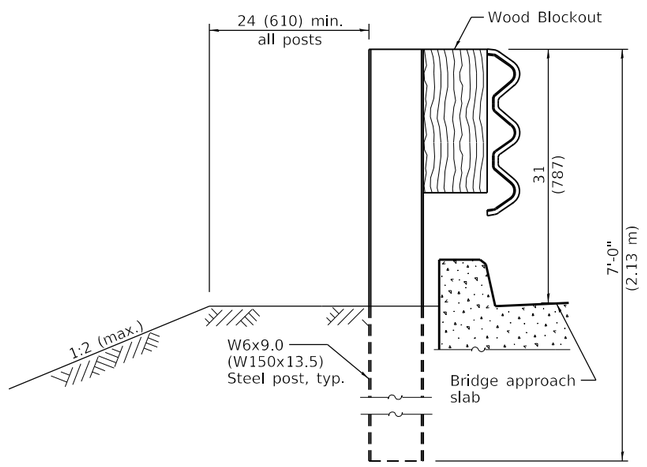
MODEL: Default
FILE NAME: E:\1136-7\Struct\G, SN 084-0171\Final Design\CADD\CADD Sheets\0840171-72K07-026-BarDetails.dgn
8/16/2019 4:11:49 PM



PLAN



ELEVATION



SECTION A-A

GENERAL NOTES

See Standard 630001 for details of guardrail not shown.

Thrie beam rail shall be bolted to block-out at all posts.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

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

TRAFFIC BARRIER TERMINAL, TYPE 6

(Sheet 1 of 4)

DETAIL

USER NAME = kernee	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 0:2.1600 ':" / in.	CHECKED -	REVISED -	
PLOT DATE = 10/1/2019	DATE -	REVISED -	

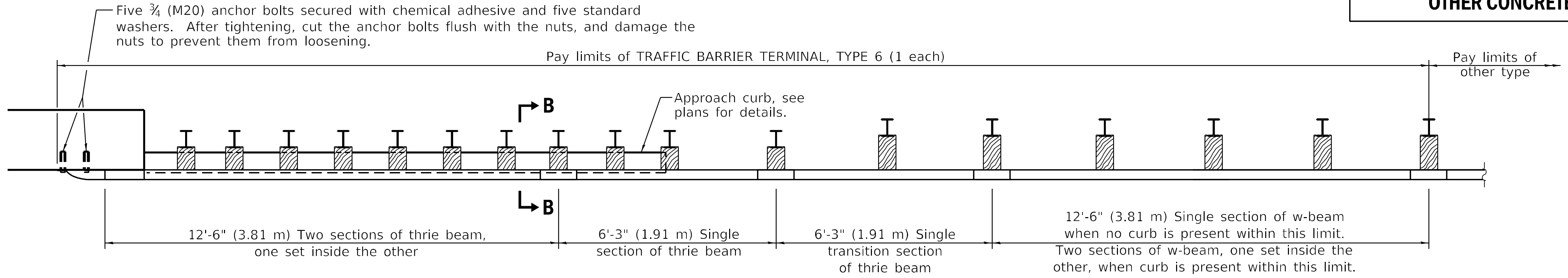
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC BARRIER TERMINAL, TYPE 6 DETAIL

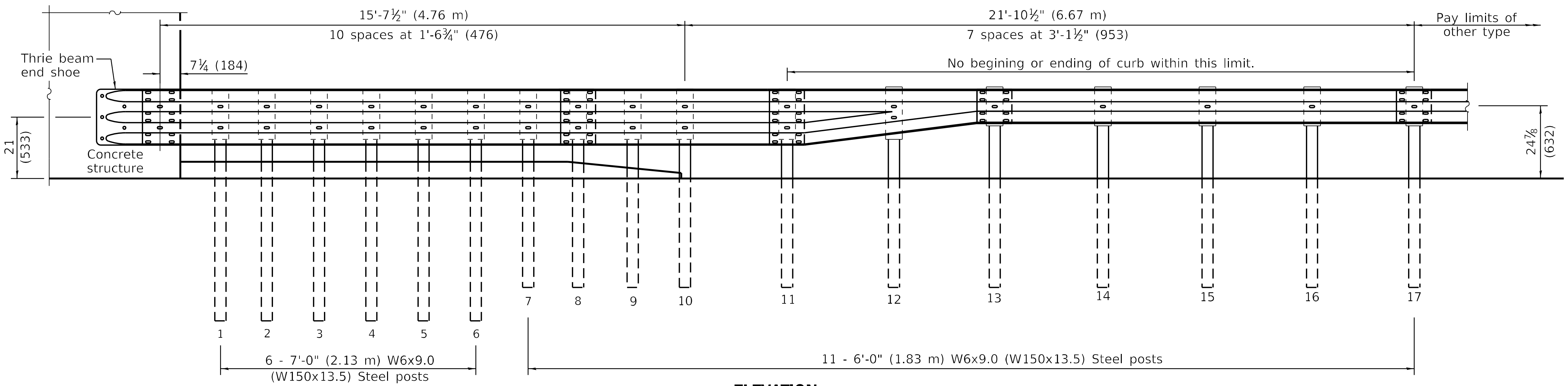
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1) D, (150) RS-2	SANGAMON	63	63A
		CONTRACT NO. 72K07		
		ILLINOIS	FED. AID PROJECT	

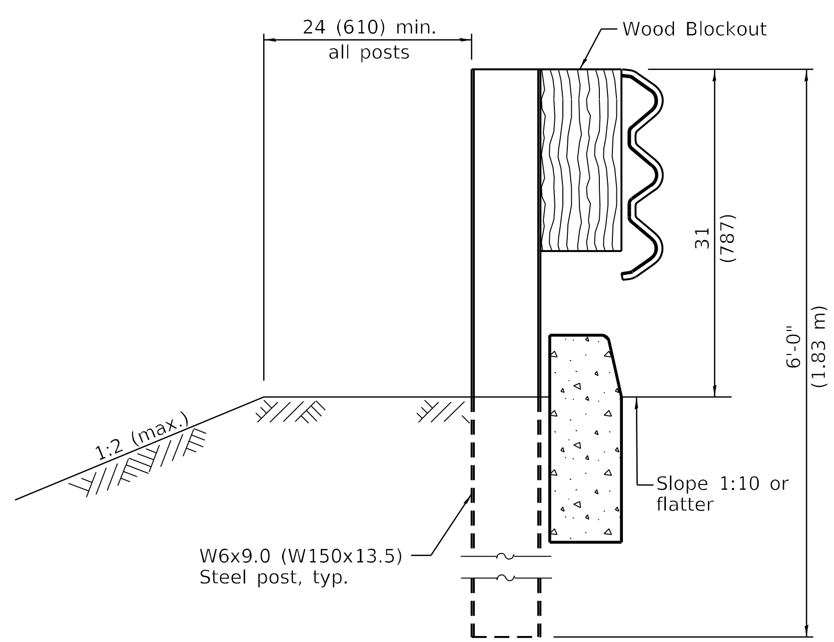
OTHER CONCRETE STRUCTURE



PLAN



ELEVATION



SECTION B-B

TRAFFIC BARRIER TERMINAL, TYPE 6

(Sheet 2 of 4)

DETAIL

MODEL: Default
FILE NAME: pw:\\planroom.dot.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Projects\D672K07\ConsultantData\Lin\2019-08-23 Final\20190823 Final CADD Submittal\223-631031-16 TrafBarTermType6.dgn

USER NAME = kernee	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0:2.1600 ':' / in.	CHECKED -	REVISED -
PLOT DATE = 10/1/2019	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

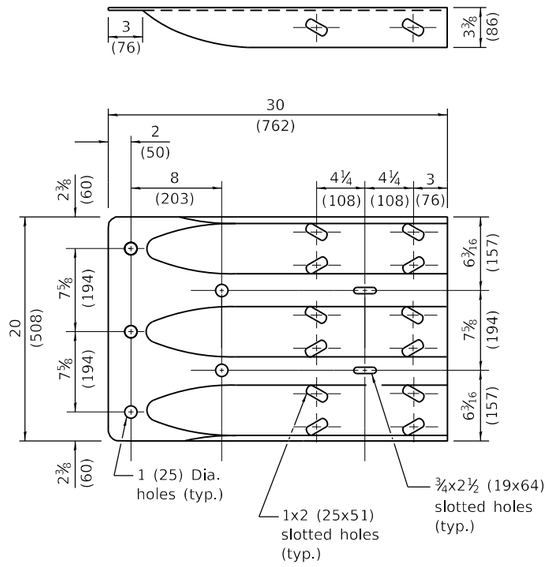
TRAFFIC BARRIER TERMINAL, TYPE 6 DETAIL

SCALE: | SHEET OF SHEETS | STA. TO STA.

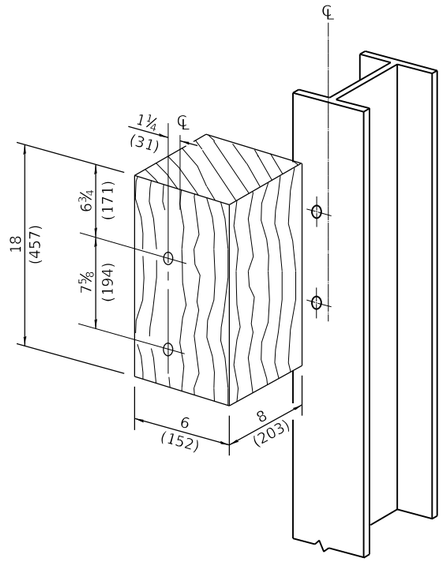
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1) D, (150) RS-2	SANGAMON	63	63B

CONTRACT NO. 72K07

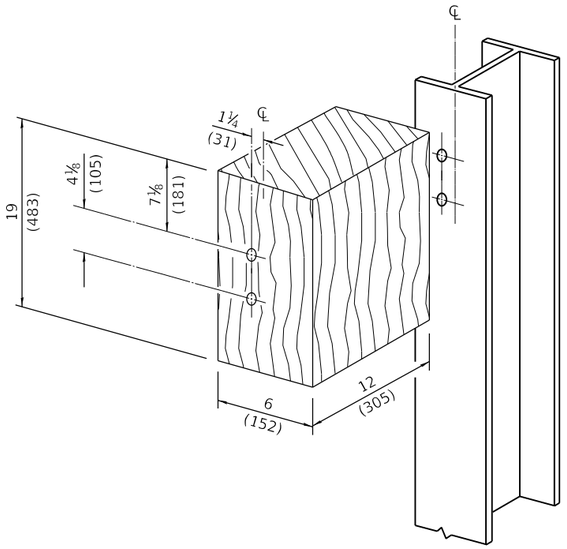
ILLINOIS | FED. AID PROJECT



THRIE BEAM END SHOE DETAIL

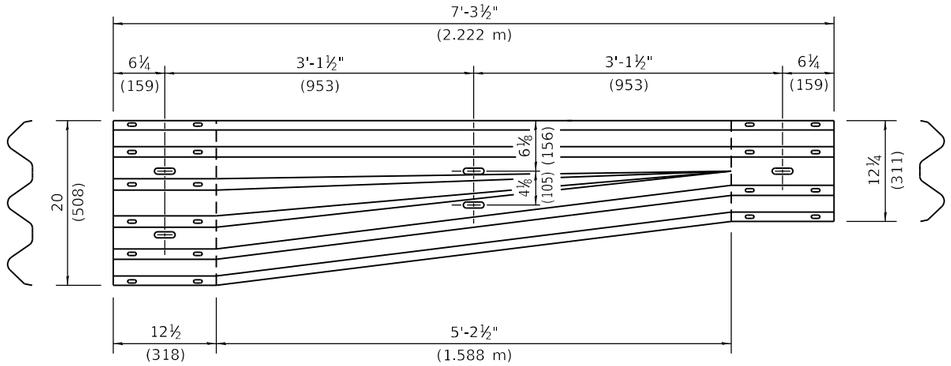


POSTS 1-11 WOOD BLOCKOUT DETAIL



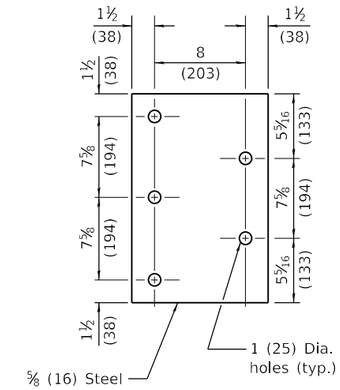
POST 12 WOOD BLOCKOUT DETAIL

(See Standard 630001 for post 13-17 blockouts.)



TRANSITION SECTION

(10 gauge (3.4) rail element)



PARAPET STEEL BEARING PLATE DETAIL

(5 each individual 5x5x⅝ (125x125x16) steel plates with centered 1 (25) holes may be substituted for the plate shown.)

TRAFFIC BARRIER TERMINAL, TYPE 6

(Sheet 3 of 4)

DETAIL

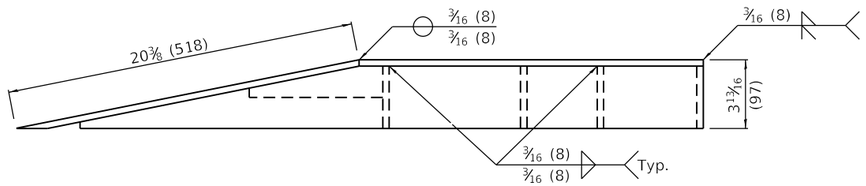
USER NAME = kernee	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 0:2.1600 ":" / in.	CHECKED -	REVISED -	
PLOT DATE = 10/1/2019	DATE -	REVISED -	

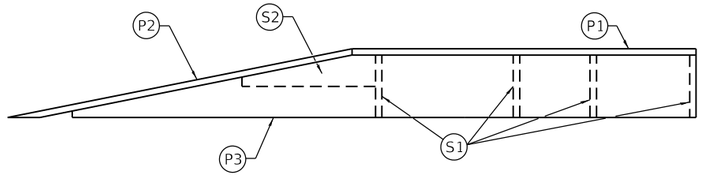
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

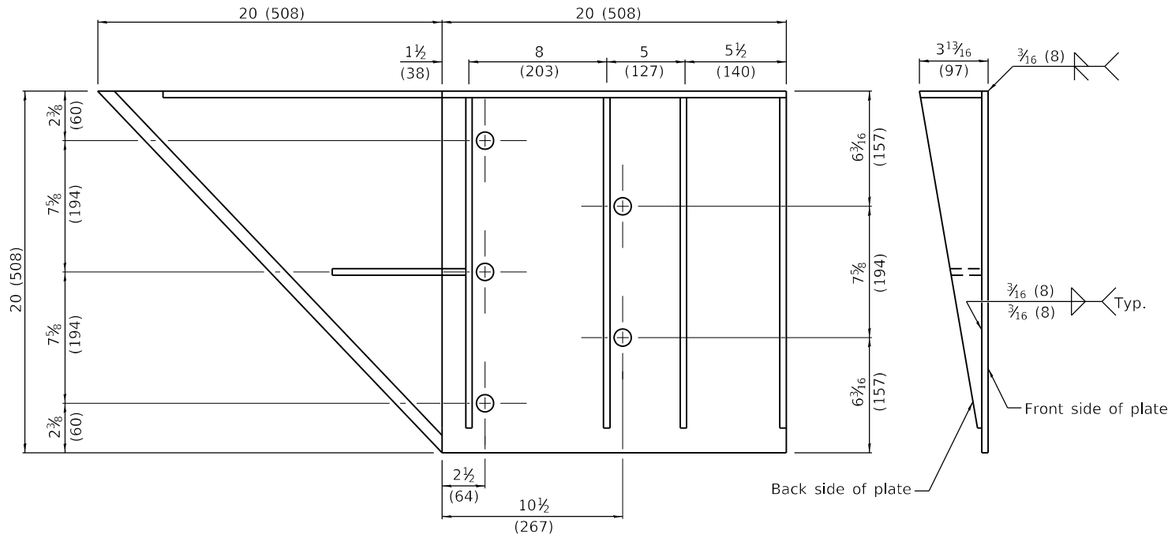
TRAFFIC BARRIER TERMINAL, TYPE 6 DETAIL

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1) D, (150) RS-2	SANGAMON	63	63C
		CONTRACT NO. 72K07		
	ILLINOIS FED. AID PROJECT			







WELDING INSTRUCTION
(Back side of plate shown)

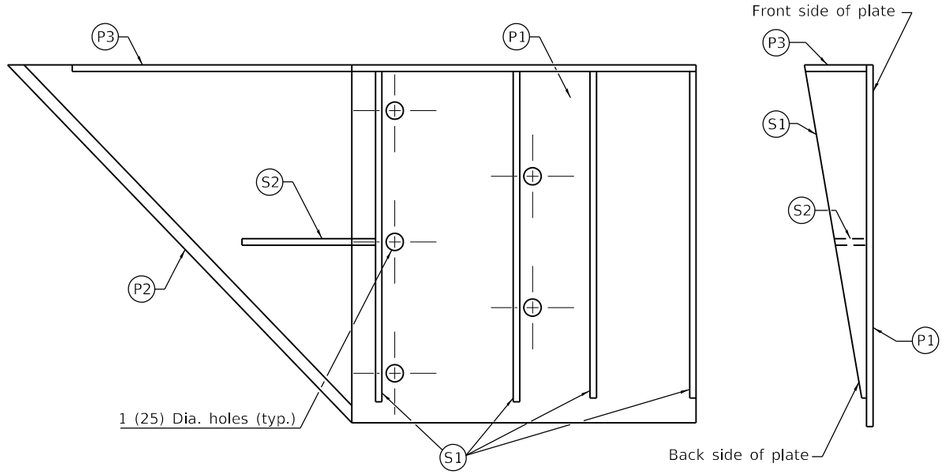


PLATE AND STIFFENER IDENTIFICATION
(Back side of plate shown)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE A x B x C x D x E	THICKNESS
P1	1	A, B	20 x 20 (508 x 508)	⅜ (10)
P2	1	A, B, C	20⅜ x 20 x 28 9/16 (518 x 508 x 522)	⅜ (10)
P3	1	A, B, C, D, E	36¾ x 3 7/16 x 20 x 17 1/16 x ¼ (933 x 87 x 508 x 433 x 6)	⅜ (10)
S1	4	A, B, C, D	18⅜ x 3 7/16 x 18 11/16 x ¼ (476 x 87 x 475 x 6)	⅜ (10)
S2	1	A, B, C, D, E	8 1/16 x 1 11/16 x 1 5/16 x 6⅞ x ⅜ (205 x 43 x 33 x 175 x 10)	⅜ (10)

STEEL CONNECTOR PLATE FOR CONSTANT SLOPE

Steel connector plate shall be fabricated from AASHTO M 270 Grade 36 (M 270M Grade 250) steel and galvanized according to AASHTO M 111.

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

TRAFFIC BARRIER TERMINAL, TYPE 6

(Sheet 4 of 4)

DETAIL

USER NAME = kernee	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0:2.1600 ':" / in.	CHECKED -	REVISED -
PLOT DATE = 10/1/2019	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC BARRIER TERMINAL, TYPE 6 DETAIL

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-1) D, (150) RS-2	SANGAMON	63	63D
		CONTRACT NO. 72K07		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw:\\planroom.dot.illinois.gov:PWIDOTDocuments\IDOT Offices\District 6\Projects\D6726071\ConsultantData\Jun2019-08-23 final\20190823 Final CADD Submittal\223-631031-16_TrafBarTermTypes6.dgn