D774835-sht-cover01.dgn 8/15/2023 8:17:37 AM mhc

ESCA PROJECT NO. 1363.05

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	1
	(BRIDGES)	CONTRACT NO. 74B35		

II-17-2023 LETTING ITEM 080

SEE SHEET NO. 2 FOR INDEX OF SHEETS

US 40 ADT = 4,450 (2023)
I-70 ADT = 28,000 (2023)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

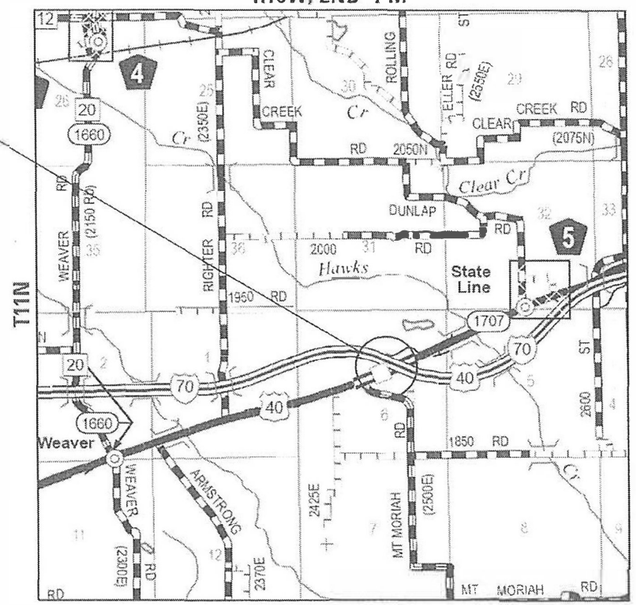
PROPOSED
HIGHWAY PLANS

FAI ROUTE 70 (I-70)
SECTION D7 BRIDGE REPAIRS 2024-9
PROJECT NHPP-1ZJA(489)
BRIDGE REPAIR
US-40 OVER I-70
CLARK COUNTY

C-97-103-22

R10W, 2ND PM

SN 012-0025
US-40 (FAS 1707) OVER I-70 (FAI 70)
FOUR-SPAN CONTINUOUS STEEL BEAMS
305'-8½" BK TO BK ABUTMENTS
41°-27'-43" RIGHT FORWARD SKEW



LOCATION MAP

SCALE
0 0.5 1 1.5 2 2.5 3 MILES
0 2500 5000 7500 10000 12500 15000 FEET

D-97-056-22

LOCATION OF SECTION INDICATED THUS:

US-40 POSTED SPEED: 55 MPH
I-70 POSTED SPEED: 70 MPH

0' 100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0' 50' 100' — 1" = 50'
0' 40' 80' — 1" = 40'
0' 30' 60' 90' — 1" = 30'
0' 20' 40' 60' 80' 100' — 1" = 20'

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.

ERIC L. HENKEL
54498
LICENSED PROFESSIONAL ENGINEER
OF
STATE OF ILLINOIS

EXPIRES 11-30-23

SIGNATURE

08-15-2023
DATE

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

DISTRICT 7
PROJECT ENGINEER: MATT BOWER (217)-342-8359
PROJECT MANAGER: ERIC HENKEL - ESCA CONSULTANTS
TOWNSHIP: WABASH
CONTRACT NO.: 74B35

GROSS LENGTH = 485 FT. = 0.1 MI.
NET LENGTH = 485 FT. = 0.1 MI.

ESCA CONSULTANTS, INC.

ESCA JOB NO. 1363.05

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 25 2023
Jeffrey P Myers
REGIONAL ENGINEER

October 13, 2023
Scott A. Eck
ENGINEER OF DESIGN AND ENVIRONMENT

October 13, 2023
Stephen M Travis
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

REV. - MS

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420001-10	PAVEMENT JOINTS
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
606301-04	PC CONCRETE ISLANDS AND MEDIANS
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-18	TRAFFIC BARRIER TERMINAL, TYPE 6
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
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
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
701316-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR, FOR SPEEDS ≥ 45 MPH
701400-11	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-13	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
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-08	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

GENERAL NOTES

1. THIS PROJECT IS LOCATED OVER I-70 AT THE US-40 INTERCHANGE IN CLARK COUNTY. THIS WORK INCLUDES THE FOLLOWING REPAIRS TO SN 012-0025 CARRYING US-40 OVER I-70: DECK PATCHING, NEW CONCRETE WEARING SURFACE, EXPANSION JOINT REPLACEMENT, PIER CRASH WALL EXTENSIONS, SLOPE WALL REPAIR, AND OTHER ITEMS AS SHOWN IN THESE DOCUMENTS.

2. 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 WORK; HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

3. FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.

4. THIS SECTION OF US-40 IS LOCATED WITHIN A LARGE RADIUS HORIZONTAL CURVE; HOWEVER, THE EXISTING BRIDGE WAS CONSTRUCTED TANGENT.

5. PAVEMENT MARKING BLACKOUT TAPE IS TO BE USED ON INTERSTATE 70 TO COVER THE SKIP-DASHES IN THE TEMPORARY LANE TAPERS.

INDEX OF SHEETS

HMA MIXTURES REQUIREMENTS TABLE

LOCATIONS	HOT-MIX ASPHALT SURFACE COURSE
MIXTURE USES	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5 MIX "C", N70
PG:	PG 64-22
DESIGN AIR VOIDS:	4.0% @ N70
MIX COMPOSITION:	IL-9.5 mm
FRICTION AGGREGATE:	MIXTURE C
MIXTURE WEIGHT:	112 LB/SQ YD/IN
QUALITY MANAGEMENT PROGRAM:	QC/QA
SUBLOT SIZE:	NA
DENSITY TEST METHOD:	CORES
MATERIAL TRANSFER DEVICE REQUIRED:	NO

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MODEL: PLOT
FILE NAME: Y:\IDOT\1363-05_74B35\CADD\Highway\CADD Sheets\D774B35-sht-gennote01.dgn

ESCA CONSULTANTS, INC.

USER NAME = nhc	DESIGNED - ELH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES	
ESCA PROJECT NO. 1363.05	DRAWN - NHC	REVISED -			
PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -			
PLOT DATE = 8/21/2023	DATE - 08/23	REVISED -		SCALE: NA | SHEET NO. 1 OF 1 SHEETS | STA. TO STA.	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	2
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 90% FED / 10% STATE 0047
31101000	SUBBASE GRANULAR MATERIAL, TYPE B	TON	30	30
35300600	PORTLAND CEMENT CONCRETE BASE COURSE 11"	SQ YD	134	134
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	349	349
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	369	369
40604052	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70	TON	78	78
42000060	WELDED WIRE REINFORCEMENT	SQ YD	134	134
50102400	CONCRETE REMOVAL	CU YD	22.9	22.9
50157300	PROTECTIVE SHIELD	SQ YD	731	731
50300225	CONCRETE STRUCTURES	CU YD	33.0	33.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	25	25
50300300	PROTECTIVE COAT	SQ YD	1592	1592
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	8780	8780
50800515	BAR SPLICERS	EACH	42	42
52000110	PREFORMED JOINT STRIP SEAL	FOOT	154	154

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PLOT DATE = 8/21/2023	DATE - 08/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: NA | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	3
		CONTRACT NO. 74B35		
		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 90% FED / 10% STATE 0047
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4
67100100	MOBILIZATION	L SUM	1	1
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	1	1
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	2	2
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5	5
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70107006	PAVEMENT MARKING BLACKOUT TAPE, 6"	FOOT	1040	1040
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	56	56
70300100	SHORT TERM PAVEMENT MARKING	FOOT	216	216
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	592	592
70300211	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - PAINT	SQ FT	156	156
70300221	TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT	FOOT	3416	3416

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SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 90% FED / 10% STATE 0047
	70300241	TEMPORARY PAVEMENT MARKING - LINE 6"- PAINT	FOOT	616	616
	70500665	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2
*	78001100	PAINT PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	156	156
*	78004620	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - STANDARD - LINE 4"	FOOT	3416	3416
*	78004630	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - STANDARD - LINE 6"	FOOT	616	616
*	78011025	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	3416	3416
*	78011035	GROOVING FOR RECESSED PAVEMENT MARKING 7"	FOOT	616	616
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	4	4
*	78200020	CURB REFLECTORS	EACH	18	18
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	4	4
	78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	2609	2609
	X4403300	CONCRETE MEDIAN REMOVAL	SQ FT	1200	1200
	X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	1033	1033
	X6026200	INLETS TO BE ADJUSTED (SPECIAL)	EACH	4	4

* SPECIALTY ITEM

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 90% FED / 10% STATE 0047
X6061702	CONCRETE MEDIAN, TYPE SM (DOWELLED)	SQ FT	823	823
X7050167	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH	2	2
Z0012111	BRIDGE DECK FLY ASH OR GGBF SLAG CONCRETE OVERLAY, 2 1/2"	SQ YD	1317	1317
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	1317	1317
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	18	18
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	10	10
Z0018051	DRAINAGE SCUPPERS TO BE ADJUSTED	EACH	4	4
Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	1101	1101
Z0065700	SLOPE WALL REPAIR	SQ YD	70	70

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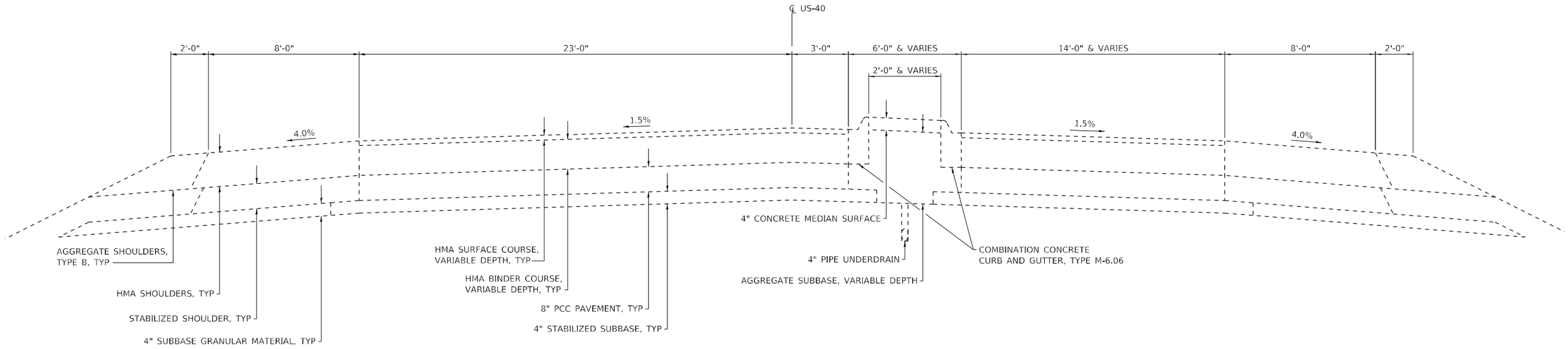
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

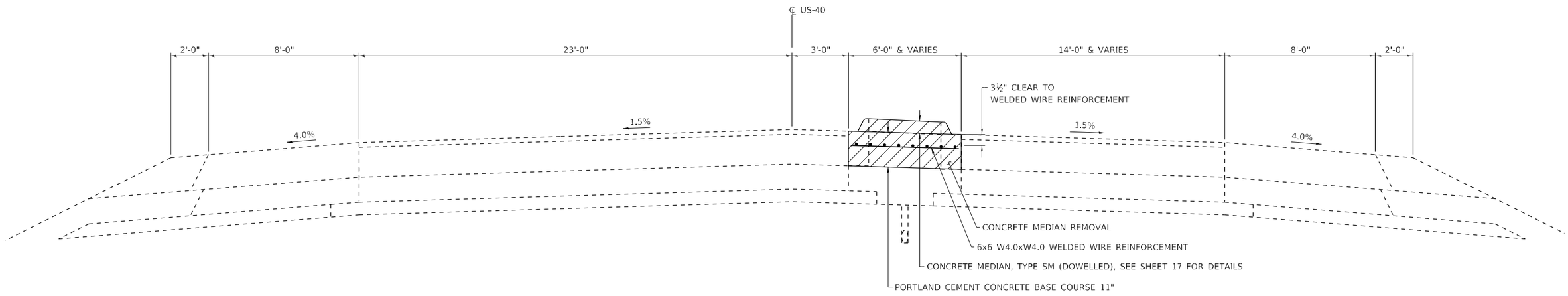
SCALE: NA | SHEET NO. 4 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	6
		CONTRACT NO. 74B35		
		ILLINOIS FED. AID PROJECT		



US–40 EXISTING TYPICAL SECTION

NEAR MEDIAN REMOVAL AND REPLACEMENT



US–40 PROPOSED TYPICAL SECTION

NEAR MEDIAN REMOVAL AND REPLACEMENT

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ESCA PROJECT NO. 1363.05	DRAWN - NHC	REVISED -
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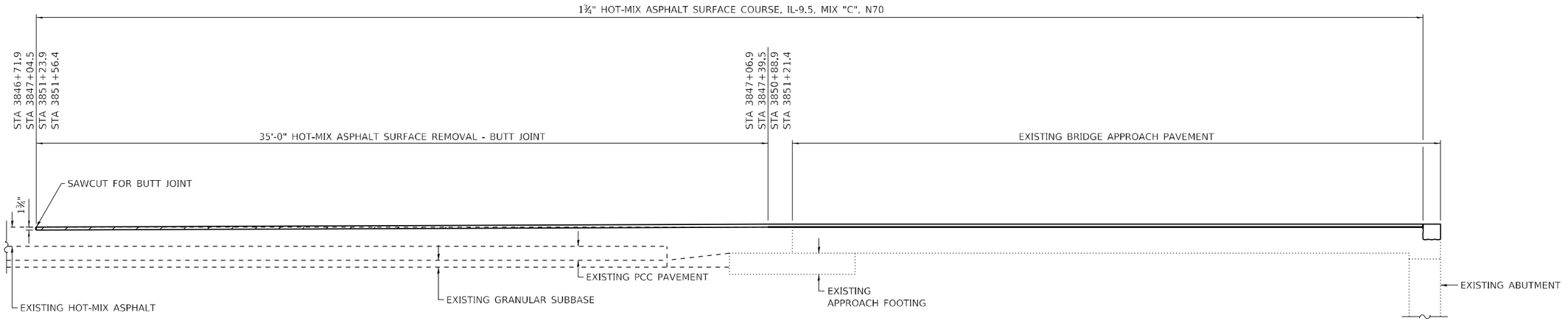
PLOT DATE = 8/21/2023	DATE - 06/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY SECTIONS

SCALE: NONE | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	7
		CONTRACT NO. 74B35		
	ILLINOIS	FED. AID PROJECT		



US–40 LONGITUDINAL TYPICAL SECTION

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PLOT DATE = 8/21/2023	DATE - 06/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY SECTIONS

SCALE: NONE | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	8
		CONTRACT NO. 74B35		
	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKING REMOVAL SCHEDULE

LOCATION	TYPE	DISTANCE	PAVEMENT MARKING REMOVAL - WATER BLASTING
		FOOT	SQ FT
STA 3842+72 TO STA 3844+00, LT	6" WHITE LEFT TURN LANE	128	64
STA 3842+80 TO STA 3843+87, LT	WHITE LEFT TURN LANE ARROWS	107	32
STA 3842+80 TO STA 3843+61, RT	4" YELLOW EDGE LINE AT MEDIAN	81	81
STA 3848+00 TO STA 3854+43, LT	4" YELLOW EDGE LINE AT MEDIAN	643	322
STA 3843+61 TO STA 3850+00, RT	4" YELLOW EDGE LINE AT MEDIAN	639	320
STA 3854+43 TO STA 3855+30.5, LT	4" YELLOW EDGE LINE AT MEDIAN	87.5	88
STA 3854+15 TO STA 3855+30.5	WHITE LEFT TURN LANE ARROWS	115.5	32
STA 3854+00 TO STA 3855+30.5	6" WHITE LEFT TURN LANE	130.5	66
TEMPORARY PAVEMENT MARKING	WHITE LEFT TURN LANE ARROWS		156
TEMPORARY PAVEMENT MARKING	6" WHITE LEFT TURN LANE	616	308
TEMPORARY PAVEMENT MARKING	4" YELLOW EDGE LINE AT MEDIAN	2512	838
TEMPORARY PAVEMENT MARKING	4" WHITE EDGE LINE	904	302
TOTALS			2609

CONCRETE MEDIAN SCHEDULE

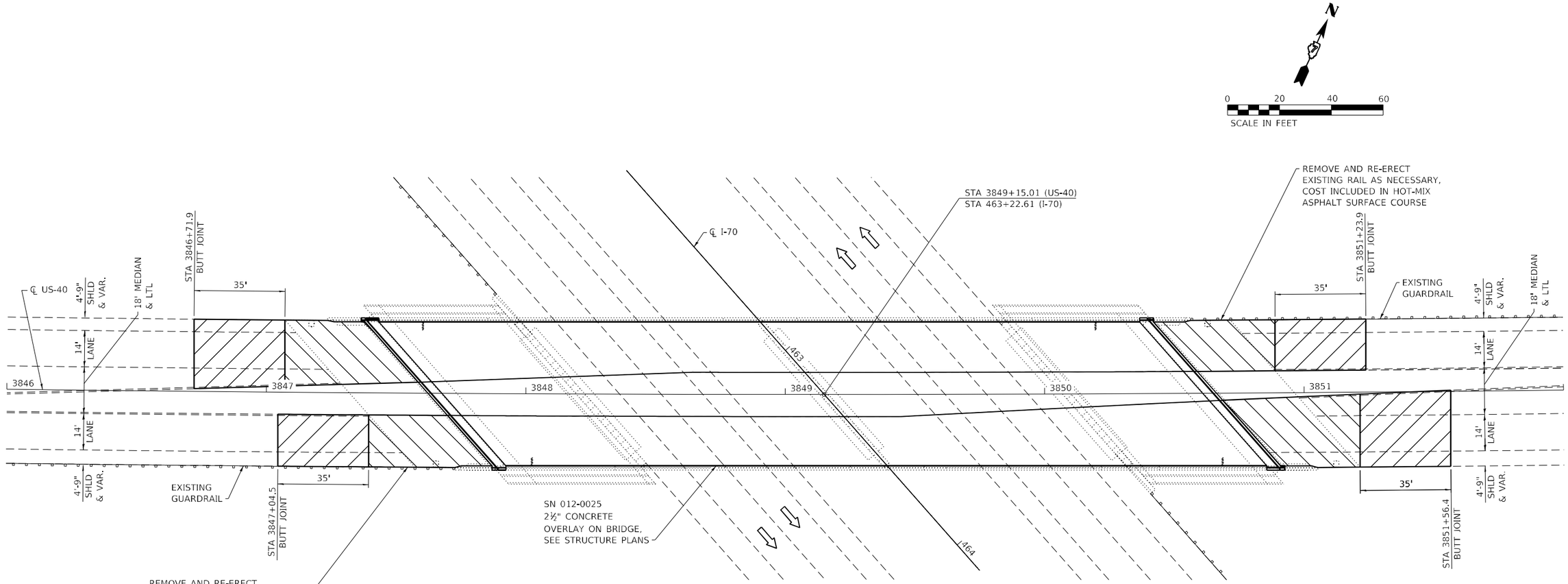
LOCATION	DISTANCE	CONCRETE MEDIAN REMOVAL	CONCRETE MEDIAN, TYPE SM (DOWELLED)	PCC BASE COURSE 11"	WELDED WIRE REINFORCEMENT
	FOOT	SQ FT	SQ FT	SQ YD	SQ YD
STA 3842+80 TO STA 3843+61	81	582	395	65	65
STA 3854+43 TO STA 3855+30.5	87.5	618	428	69	69
TOTALS		1200	823	134	134

CURB REFLECTORS SCHEDULE

LOCATION	COLOR	CURB REFLECTORS
		EACH
STA 3842+80 TO STA 3843+61, LT	AMBER	9
STA 3854+43 TO STA 3855+30.5, LT	AMBER	9
TOTAL		18

PAVEMENT MARKING SCHEDULE

LOCATION	TYPE	DISTANCE	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - STANDARD - LINE 4"		PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - STANDARD - LINE 6"		GROOVING FOR RECESSED PAVEMENT MARKING 5"		GROOVING FOR RECESSED PAVEMENT MARKING 7"		PAINT PAVEMENT MARKING - LETTERS AND SYMBOLS	TEMPORARY PAVEMENT MARKING - LINE 4" PAINT		TEMPORARY PAVEMENT MARKING - LINE 6" PAINT		TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - PAINT	SHORT TERM PAVEMENT MARKING
		FOOT	FOOT		FOOT		FOOT		FOOT		SQ FT	FOOT		FOOT		SQ FT	FOOT
			WHITE	YELLOW	WHITE	YELLOW	WHITE	YELLOW	WHITE	YELLOW	WHITE	WHITE	YELLOW	WHITE	YELLOW	WHITE	WHITE
STA 3842+80 TO STA 3855+30.5, LT & RT	EDGE LINE AT MEDIAN	1250.5		2512				2512					2512				
STA 3842+72 TO STA 3845+85, LT	EDGE LEFT TURN LANE	313			313				313					313			36
STA 3842+72 TO STA 3845+85, LT	LEFT TURN ARROWS	300									63					63	60
STA 3846+71.9 TO STA 3851+23.9, LT	EDGE LINE	452	452				452					452					12
STA 3847+04.5 TO STA 3851+56.4, RT	EDGE LINE	452	452				452					452					12
STA 3852+25 TO STA 3855+28, RT	EDGE LEFT TURN LANE	303			303				303					303			36
STA 3852+25 TO STA 3855+28, RT	LEFT TURN ARROWS	303									63					63	60
SUBTOTALS			904	2512	616	0	904	2512	616	0	126	904	2512	616	0	126	216
TOTALS			3416		616		3416		616		126	3416		616		126	216



LEGEND

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT & 1¾" HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70

1¾" HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70

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ESCA CONSULTANTS, INC.

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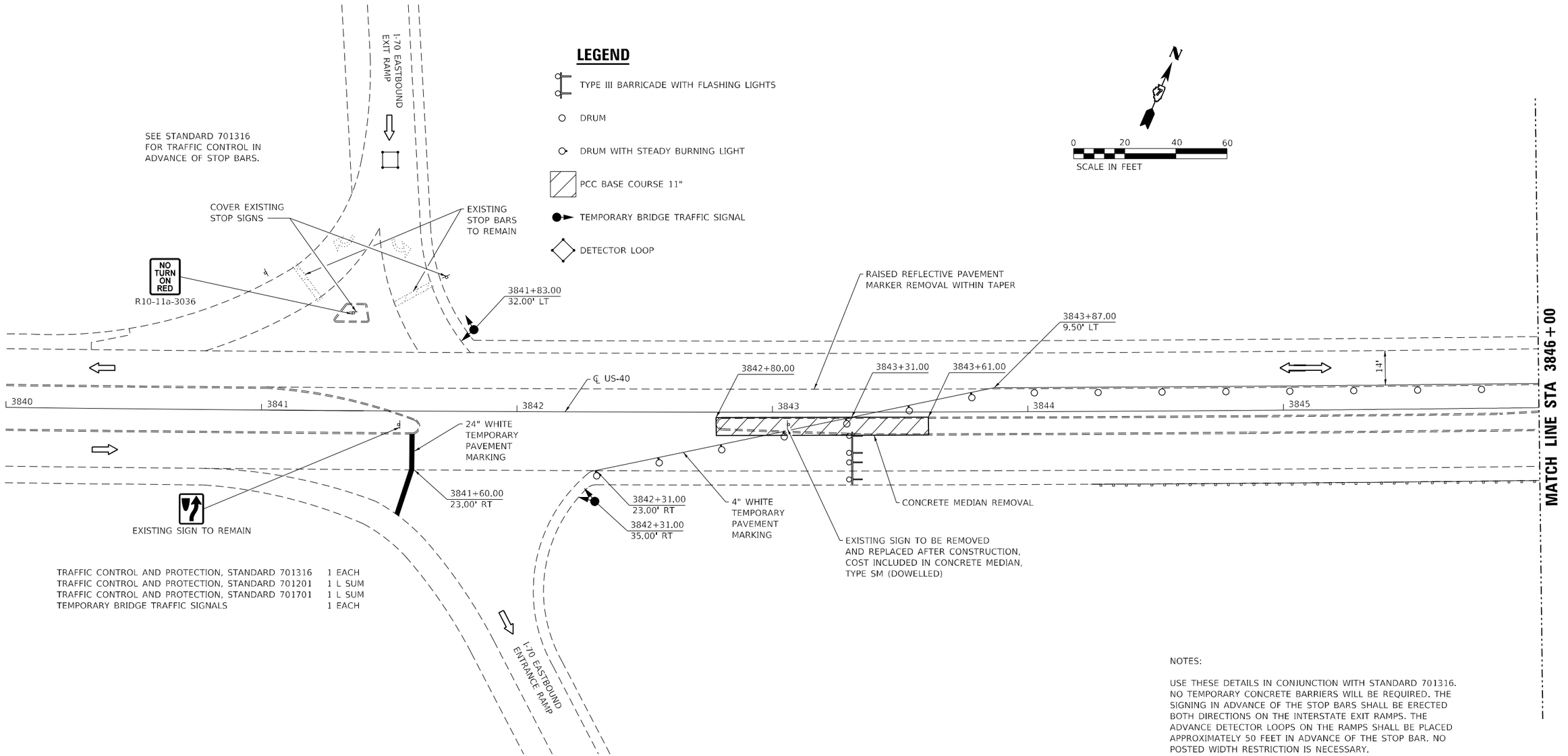
ESCA PROJECT NO. 1363.05	DRAWN - NHC	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -	
PLOT DATE = 8/21/2023	DATE - 08/23	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVING PLAN

SCALE: 1"=20' | SHEET 1 OF 1 SHEETS | STA. 3846+00 | TO STA. 3852+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	10
		CONTRACT NO. 74B35		
	ILLINOIS	FED. AID PROJECT		



TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	1	EACH
TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	1	L SUM
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	1	L SUM
TEMPORARY BRIDGE TRAFFIC SIGNALS	1	EACH

NOTES:

USE THESE DETAILS IN CONJUNCTION WITH STANDARD 701316. NO TEMPORARY CONCRETE BARRIERS WILL BE REQUIRED. THE SIGNING IN ADVANCE OF THE STOP BARS SHALL BE ERECTED BOTH DIRECTIONS ON THE INTERSTATE EXIT RAMPS. THE ADVANCE DETECTOR LOOPS ON THE RAMPS SHALL BE PLACED APPROXIMATELY 50 FEET IN ADVANCE OF THE STOP BAR. NO POSTED WIDTH RESTRICTION IS NECESSARY.

THE EXISTING CONCRETE MEDIAN, CONCRETE MEDIAN SURFACE, AND CURB AND GUTTER SHALL BE REMOVED TO THE LIMITS SHOWN ON THE PLANS PRIOR TO THE INSTALLATION OF THE STAGE I TRAFFIC CONTROL. THIS AREA SHALL BE FILLED WITH PCC BASE COURSE AS SHOWN ABOVE, CONSTRUCTED LEVEL WITH THE ADJACENT PAVEMENT. MEDIAN WORK SHALL BE PERFORMED UNDER STANDARD 701201.

MODEL: PLOT
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ESCA CONSULTANTS, INC.

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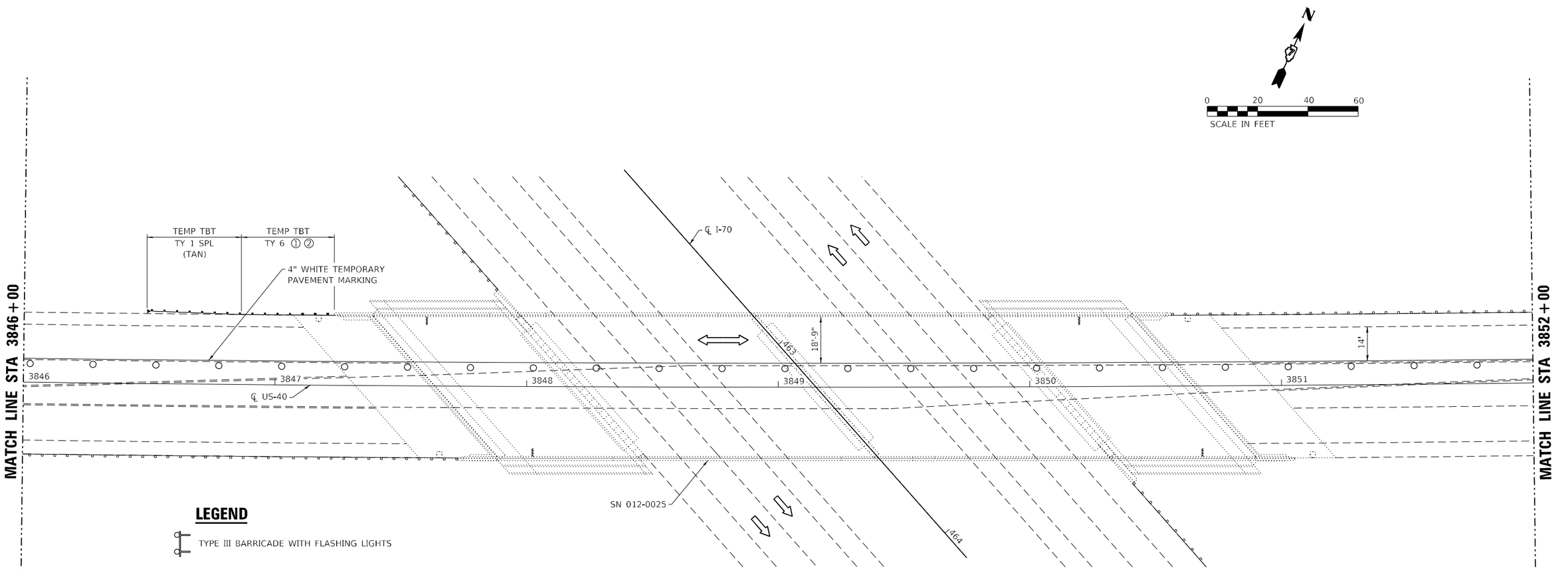
ESCA PROJECT NO. 1363.05	DRAWN - NHC	REVISED -
PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -
PLOT DATE = 8/21/2023	DATE - 08/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE I TRAFFIC CONTROL

SCALE: 1"=20' | SHEET NO. 1 OF 3 SHEETS | STA. 3840+00 TO STA. 3846+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	11
		CONTRACT NO. 74B35		
		ILLINOIS	FED. AID PROJECT	



LEGEND

- TYPE III BARRICADE WITH FLASHING LIGHTS
- DRUM
- DRUM WITH STEADY BURNING LIGHT
- PCC BASE COURSE 11"
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- DETECTOR LOOP

① CONCRETE CURB EXTENSION NOT REQUIRED; DRILL HOLES IN EXISTING PARAPET FOR TERMINAL CONNECTION, COST INCLUDED IN TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6

② INSTALL 2-CRYSTAL GUARDRAIL REFLECTORS, TYPE A, ONE EACH DIRECTION

MODEL: PLOT
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ESCA CONSULTANTS, INC.

USER NAME = nhc	DESIGNED - ELH	REVISED -
ESCA PROJECT NO. 1363.05	DRAWN - NHC	REVISED -
PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -
PLOT DATE = 8/21/2023	DATE - 08/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE I TRAFFIC CONTROL

SCALE: 1"=20' | SHEET NO. 2 OF 3 SHEETS | STA. 3846+00 TO STA. 3852+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	12
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			

LEGEND

- TYPE III BARRICADE WITH FLASHING LIGHTS
- DRUM
- DRUM WITH STEADY BURNING LIGHT
- PCC BASE COURSE 11"
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- DETECTOR LOOP

N

0 20 40 60
SCALE IN FEET

SEE STANDARD 701316 FOR TRAFFIC CONTROL IN ADVANCE OF STOP BARS

MATCH LINE STA 3852+00

14'

3852 3853 3854 3855 3856 3857

CONCRETE MEDIAN REMOVAL

3854+43.00

3854+73.00
9.50' LT

3855+30.50

3855+70.00
36.00' LT

I-70 WESTBOUND ENTRANCE RAMP

3856+60.00
23.00' LT

24" WHITE TEMPORARY PAVEMENT MARKING

3857+60.00
36.00' LT

℄ US-40

4" WHITE TEMPORARY PAVEMENT MARKING

3856+38.00
36.00' RT

COVER EXISTING STOP SIGNS

EXISTING SIGN TO REMAIN

3857+30.00
42.00' RT

NO TURN ON RED
R10-11a-3036

COVER EXISTING STOP SIGN

EXISTING STOP BARS TO REMAIN

I-70 WESTBOUND EXIT RAMP

MODEL: PLOT
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ESCA CONSULTANTS, INC.

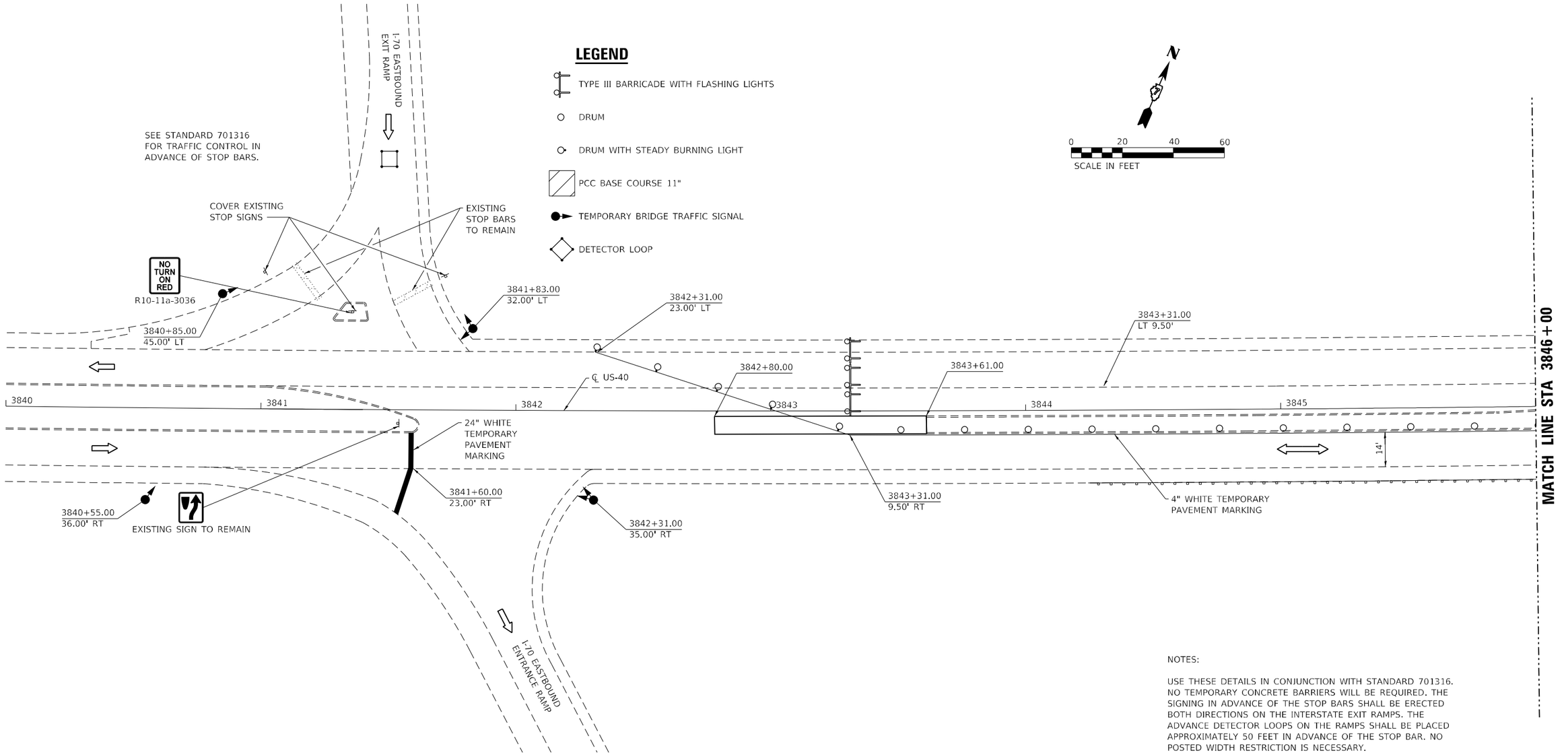
USER NAME = nhc	DESIGNED - ELH	REVISED -
ESCA PROJECT NO. 1363.05	DRAWN - NHC	REVISED -
PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -
PLOT DATE = 8/21/2023	DATE - 08/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE I TRAFFIC CONTROL

SCALE: 1"=20' | SHEET NO. 3 OF 3 SHEETS | STA. 3852+00 | TO STA. 3858+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	13
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			



NOTES:

USE THESE DETAILS IN CONJUNCTION WITH STANDARD 701316. NO TEMPORARY CONCRETE BARRIERS WILL BE REQUIRED. THE SIGNING IN ADVANCE OF THE STOP BARS SHALL BE ERECTED BOTH DIRECTIONS ON THE INTERSTATE EXIT RAMPS. THE ADVANCE DETECTOR LOOPS ON THE RAMPS SHALL BE PLACED APPROXIMATELY 50 FEET IN ADVANCE OF THE STOP BAR. NO POSTED WIDTH RESTRICTION IS NECESSARY.

AT THE CONCLUSION OF THE BRIDGE DECK REPAIR OPERATIONS, CONCRETE MEDIAN, TYPE SM (DOWELLED) SHALL BE CONSTRUCTED TO REPLACE THE MEDIAN. MEDIAN WORK SHALL BE PERFORMED UNDER STANDARD 701201.

MODEL: PLOT
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ESCA CONSULTANTS, INC.

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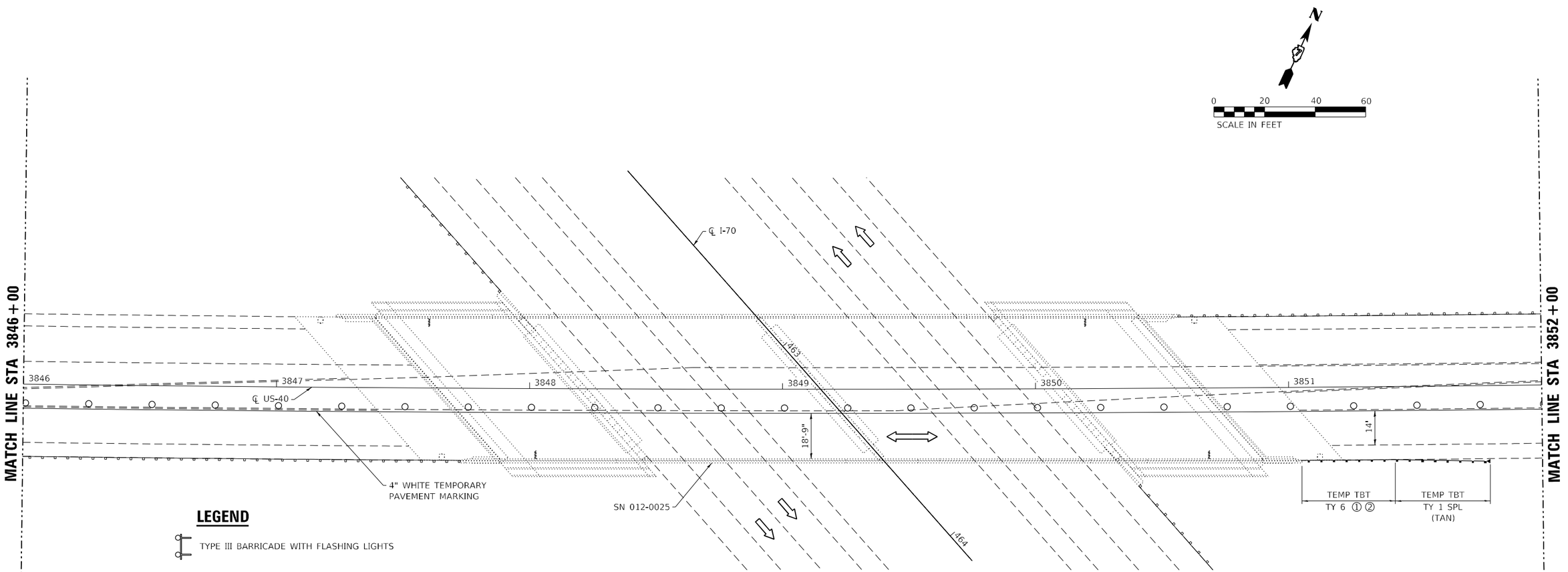
ESCA PROJECT NO. 1363.05	DRAWN - NHC	REVISED -
PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -
PLOT DATE = 8/21/2023	DATE - 08/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II TRAFFIC CONTROL

SCALE: 1"=20' | SHEET NO. 1 OF 3 SHEETS | STA. 3840+00 TO STA. 3846+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	14
		CONTRACT NO. 74B35		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- TYPE III BARRICADE WITH FLASHING LIGHTS
- DRUM
- DRUM WITH STEADY BURNING LIGHT
- PCC BASE COURSE 11"
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- DETECTOR LOOP

① CONCRETE CURB EXTENSION NOT REQUIRED; DRILL HOLES IN EXISTING PARAPET FOR TERMINAL CONNECTION, COST INCLUDED IN TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6

② INSTALL 2-CRYSTAL GUARDRAIL REFLECTORS, TYPE A, ONE EACH DIRECTION

MODEL: PLOT
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ESCA CONSULTANTS, INC.

USER NAME = nhc	DESIGNED - ELH	REVISED -	
ESCA PROJECT NO. 1363.05	DRAWN - NHC	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -	
PLOT DATE = 8/21/2023	DATE - 08/23	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II TRAFFIC CONTROL

SCALE: 1"=20' | SHEET NO. 2 OF 3 SHEETS | STA. 3846+00 TO STA. 3852+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	15
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			

LEGEND

- TYPE III BARRICADE WITH FLASHING LIGHTS
- DRUM
- DRUM WITH STEADY BURNING LIGHT
- PCC BASE COURSE 11"
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- DETECTOR LOOP

N

0 20 40 60
SCALE IN FEET

SEE STANDARD 701316 FOR TRAFFIC CONTROL IN ADVANCE OF STOP BARS

MATCH LINE STA 3852+00

I-70 WESTBOUND ENTRANCE RAMP

3855+70.00
36.00' LT

3855+73.00
23.00' LT

3856+60.00
23.00' LT

3854+43.00

3855+30.50

4" WHITE TEMPORARY PAVEMENT MARKING

24" WHITE TEMPORARY PAVEMENT MARKING

℄ US-40

3852 3853 3854 3855 3856 3857

14'

3854+73.00

3854+15.00
9.50' RT

RAISED REFLECTIVE PAVEMENT MARKER REMOVAL WITHIN TAPER

3856+38.00
36.00' RT

EXISTING SIGN TO REMAIN

COVER EXISTING STOP SIGNS

NO TURN ON RED
R10-11a-3036

EXISTING STOP BARS TO REMAIN

I-70 WESTBOUND EXIT RAMP

MODEL: PLOT
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ESCA CONSULTANTS, INC.

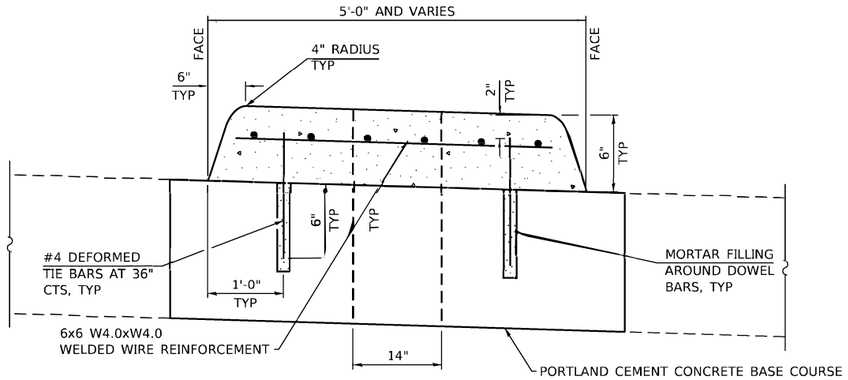
USER NAME = nhc	DESIGNED - ELH	REVISED -
ESCA PROJECT NO. 1363.05	DRAWN - NHC	REVISED -
PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -
PLOT DATE = 8/21/2023	DATE - 08/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II TRAFFIC CONTROL

SCALE: 1"=20' | SHEET NO. 3 OF 3 SHEETS | STA. 3852+00 | TO STA. 3858+00

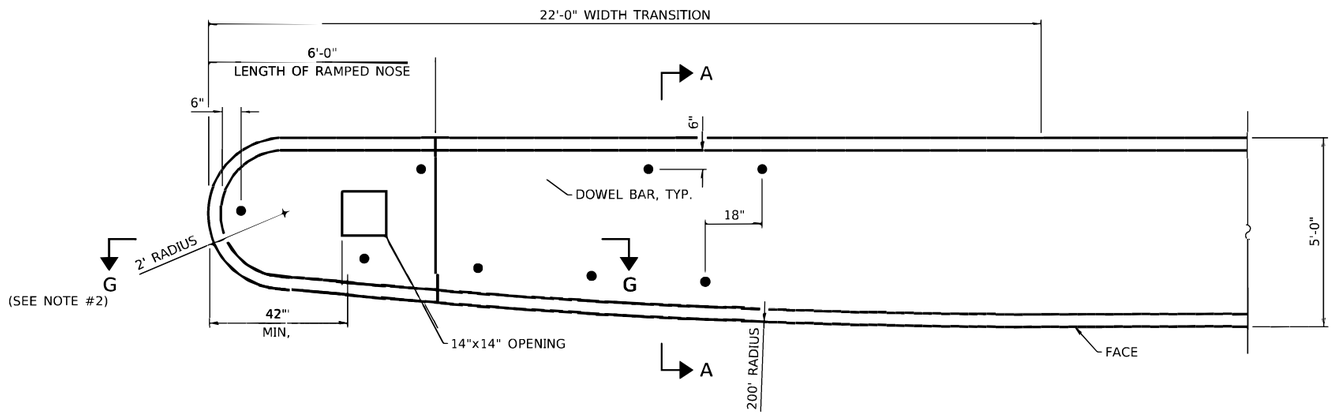
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	16
		CONTRACT NO. 74B35		
	ILLINOIS	FED. AID PROJECT		



SECTION A–A

NOTES

1. THE GENERAL NOTES FOR STANDARD 606301 SHALL APPLY.
2. SECTION G-G SHALL BE SIMILAR TO THAT SHOWN ON STANDARD 606301.
3. PROVIDE DOWEL BARS AT 36" CTS OR AS DIRECTED BY THE ENGINEER.
4. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR CONCRETE MEDIAN, TYPE SM (DOWELED). INCLUDING THE COST OF FURNISHING AND INSTALLING THE DOWEL BARS, MORTAR FILLING, WELDED WIRE REINFORCEMENT, AND THE REMOVAL AND DISPOSAL OF THE EXISTING PAVEMENT FOR THE 14" x 14" OPENING, IF REQUIRED, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.



PLAN

MODEL: PLOT
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ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

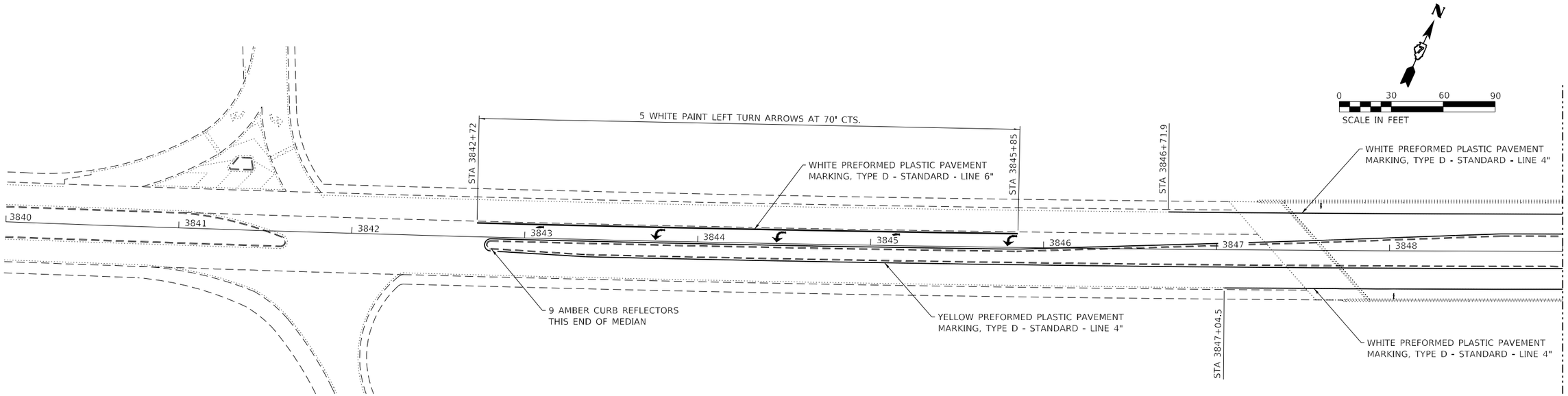
USER NAME = nhc	DESIGNED - ELH	REVISED -
ESCA PROJECT NO. 1363.05	DRAWN - NHC	REVISED -
PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -
PLOT DATE = 8/21/2023	DATE - 06/23	REVISED -

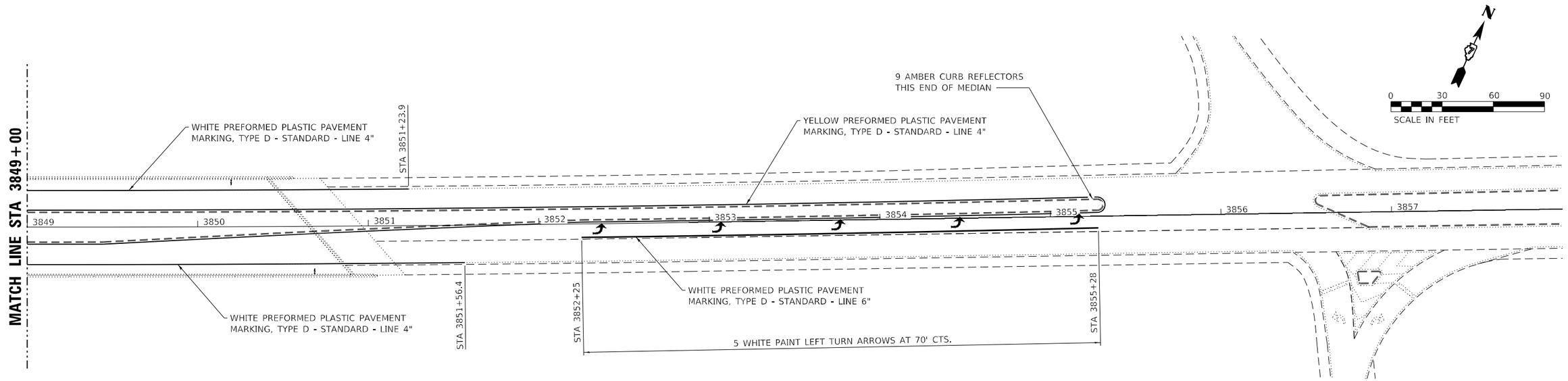
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE MEDIAN DETAILS

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	17
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			





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ESCA CONSULTANTS, INC.

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PLOT DATE = 8/21/2023	DATE - 08/23	REVISED -

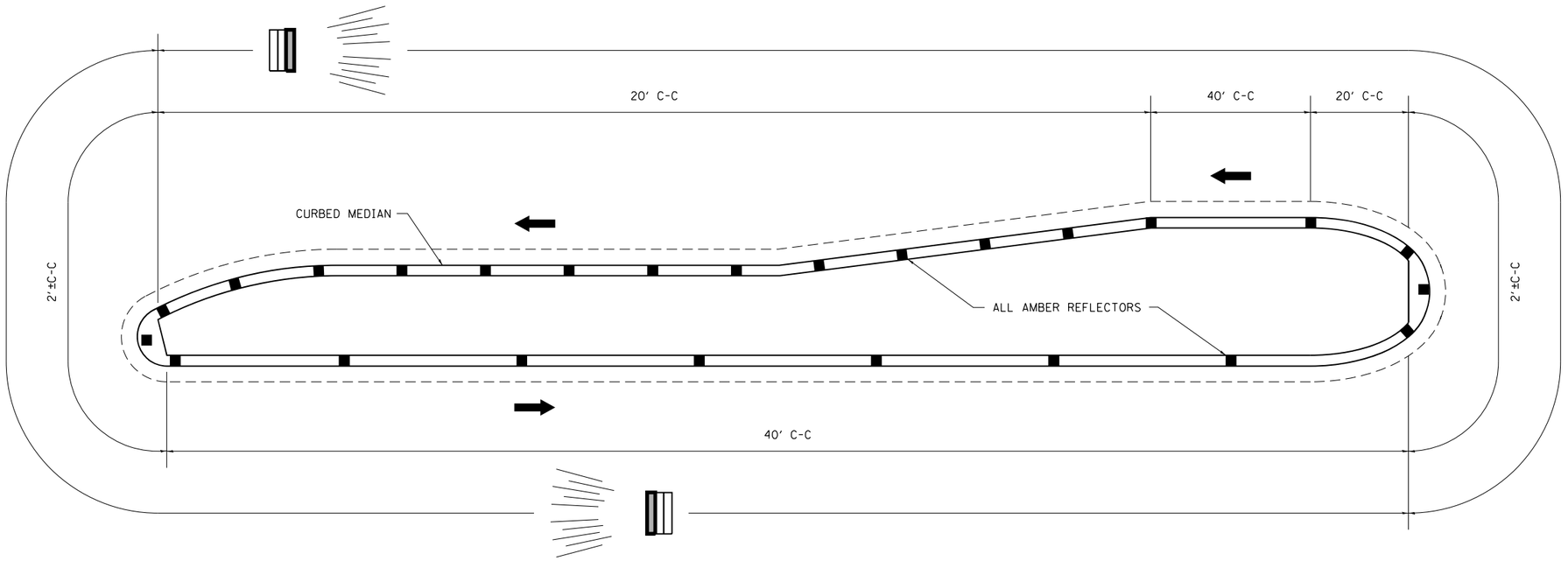
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

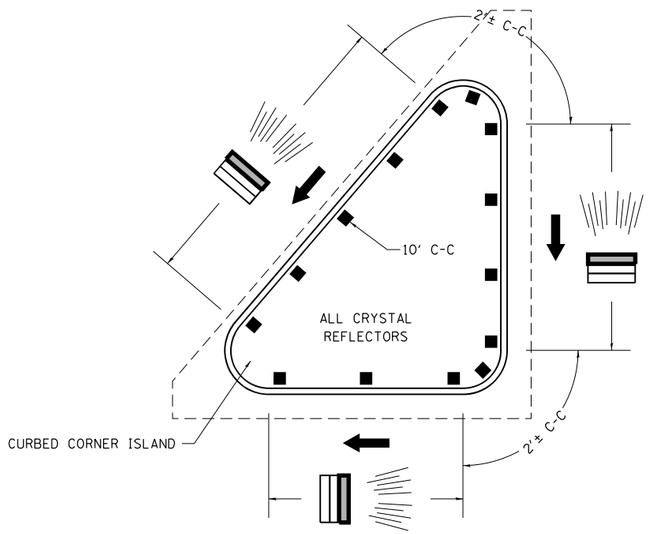
PAVEMENT MARKING

SCALE: 1"=30' | SHEET NO. 1 OF 1 SHEETS | STA. 3840+00 TO STA. 3858+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	18
		CONTRACT NO. 74B35		
	ILLINOIS	FED. AID PROJECT		

TYPICAL PLACEMENT OF PRISMATIC CURB REFLECTORS

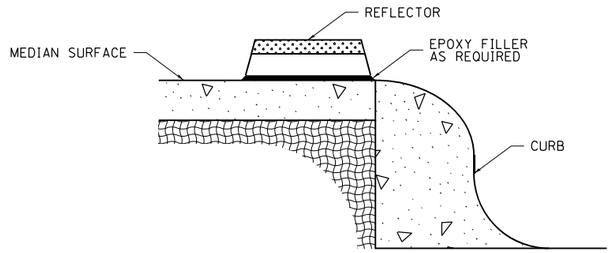




1. PRISMATIC REFLECTORS SHALL BE MONO-DIRECTIONAL AND POSITIONED SO THAT THE REFLECTIVE FACE IS FACING THE APPROACHING TRAFFIC.
2. PRISMATIC REFLECTORS SHALL BE SECURED IN PLACE WITH AN EPOXY ADHESIVE.
3. REFER TO SCHEDULES FOR PRISMATIC REFLECTOR QUANTITIES.
4. USE A MINIMUM OF 3 REFLECTORS ON ISLAND NOSES.

LEGEND

➡	DIRECTION OF TRAFFIC
■	PRISMATIC REFLECTOR



SECTION VIEW

NOT TO SCALE

DISTRICT 7 DETAIL NO. 78200300

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ESCA CONSULTANTS, INC.

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ESCA PROJECT NO. 1363.05	DRAWN - NHC	REVISED -
PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -
PLOT DATE = 8/21/2023	DATE - 06/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRISMATIC CURB REFLECTOR

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	19
		CONTRACT NO. 74B35		
		ILLINOIS	FED. AID PROJECT	

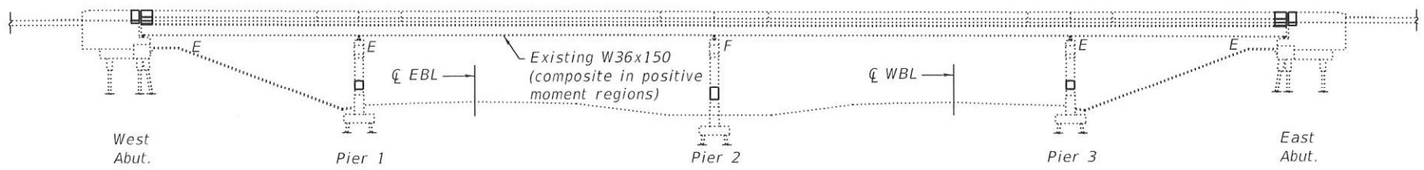
EXISTING STRUCTURE:
The existing four-span continuous steel beam structure was constructed in 1968 as F.A.I. 70 Section 12-54HB-2 at Station 463+22.61. SN 012-0025 carries US-40 over Interstate 70. In 2002, the concrete deck was replaced, and the joints, bearings, abutment backwalls, and wingwalls were replaced. New bridge approach pavements were included in the 2002 project. The concrete stub abutments and piers are supported on steel piles. The bridge is 305'-8½" back-to-back of abutments. The superstructure is 58'-8" out-to-out and is skewed 41°-27'-43" right-forward.

The proposed project consists of new expansion joints, new overlay, bridge deck repairs, raising pier crash walls, and slope wall repairs. Traffic is to be maintained utilizing stage construction.

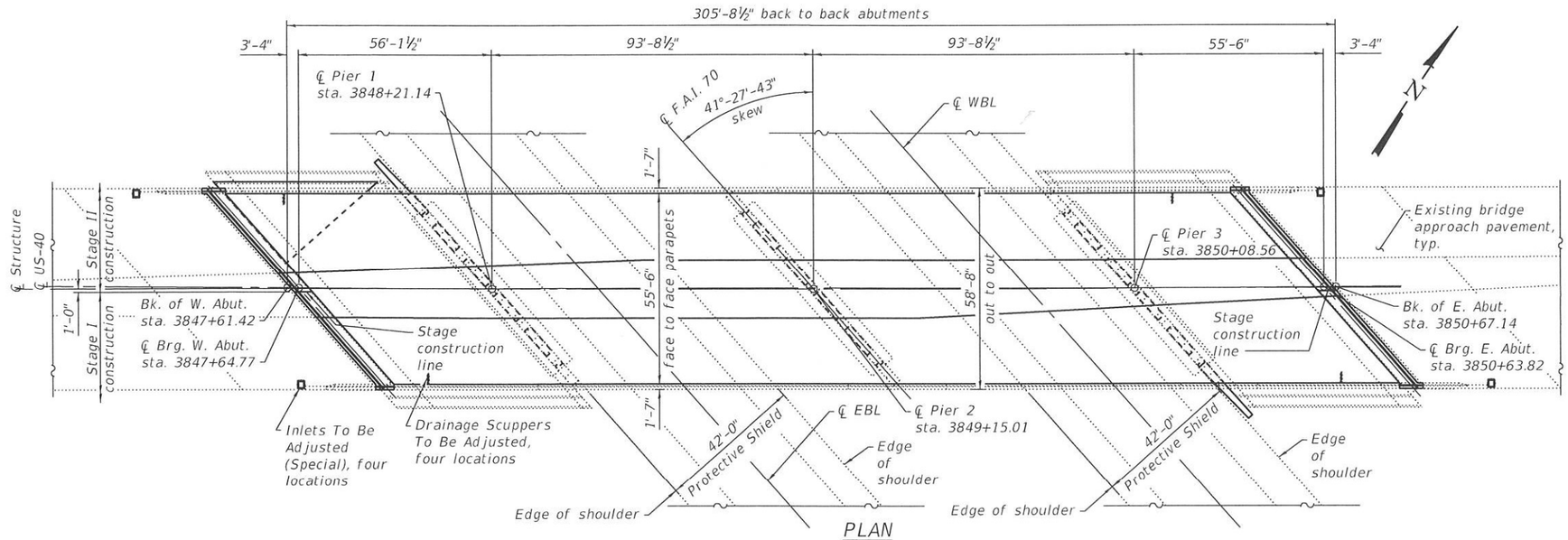
STRUCTURE INDEX OF SHEETS

SCOPE OF WORK

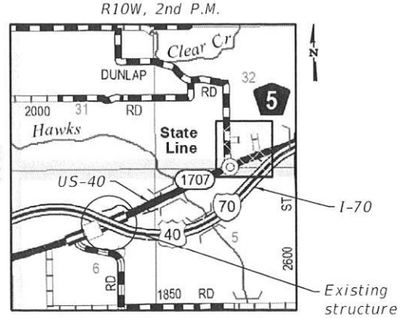
1. Remove existing neoprene expansion joints at the abutments and install Preformed Joint Strip Seal expansion joints.
2. Perform Bridge Deck Scarification ¾".
3. Perform bridge deck patching.
4. Clean and modify existing scuppers and approach shoulder inlets to accommodate new wearing surface.
5. Construct Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 2½" wearing surface.
6. Perform Diamond Grinding (Bridge Section).
7. Perform Bridge Deck Grooving (Longitudinal).
8. Raise crash walls at all piers.
9. Repair slope wall at West Abutment.



ELEVATION



PLAN



LOCATION SKETCH

DESIGN SPECIFICATIONS (new const.)

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

LOADING HS20-44 (new const.)

No allowance for future wearing surface

DESIGN STRESSES

FIELD UNITS

EXISTING CONSTRUCTION

f'c = 3,500 psi (concrete superstructure, abutment backwalls and wings)
fy = 60,000 psi (reinforcement for superstructure, abutment backwalls and wings)
fc = 1,400 psi (other concrete substructure)
fs = 20,000 psi (other substructure reinforcement)

NEW CONSTRUCTION

f'c = 4,000 psi (concrete)
fy = 60,000 psi (reinforcement)

STATE OF ILLINOIS
ERIC L. HEMKE
No. 081-006159
LICENSED STRUCTURAL ENGINEER
EXPIRES 11-30-24
SIGNATURE
08-15-2023
DATE

GENERAL PLAN & ELEVATION
US-40 OVER I-70
F.A.I. ROUTE 70
SECTION D7 BRIDGE REPAIRS 2024-09
CLARK COUNTY
STATION 3849+15.01
STRUCTURE NO. 012-0025

REV. - MS

ESCA CONSULTANTS, INC.	USER NAME = n/c	DESIGNED - SHL	05/23	REVISED -
	ESCA PROJECT NO. 1363.05	CHECKED - ELH	06/23	REVISED -
	PLOT SCALE = 0.2 ' / in.	DRAWN - NHC	06/23	REVISED -
	PLOT DATE = 8/15/2023	CHECKED - ELH	06/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION

SHEET 1 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	20
		CONTRACT NO. 74B35		
		ILLINOIS	FED. AID PROJECT	

MODEL: PLOT
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GENERAL NOTES

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

2. 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 work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

3. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal operations shall be replaced using an approved bar splicer or anchorage system. Cost included in Concrete Removal.

4. Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on as-built plans.

5. Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

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

7. 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 surface 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.

8. Bridge Deck Grooving (Longitudinal) shall be completed only after Diamond Grinding (Bridge Section) is complete.

9. Protective Coat shall be applied to areas of Concrete Superstructure consisting of the front faces and tops of the parapets, wingwalls, and median and the top surfaces of the expansion joint blockouts. Protective Coat shall also be applied to the top of the new concrete overlay and to the tops and sides of the pier crash wall extensions. Protective Coat shall also be applied to the new concrete slope wall.

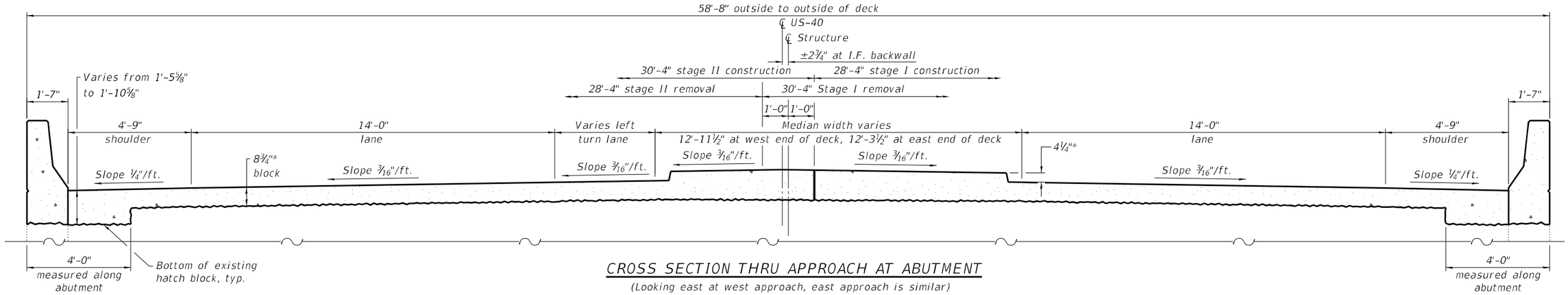
10. Dimensions are based on a rolled rail strip seal joint. If the Contractor elects to use the welded rail strip seal joint, deck dimensions may require adjustments to satisfy the details on Sheets 11 and 12 of 18.

11. The existing hatch blocks at the abutments were poured monolithically with the approach pavements. The Contractor shall exercise caution while partially removing the approach pavements so as not to remove their support on the abutments.

TOTAL BILL OF MATERIAL

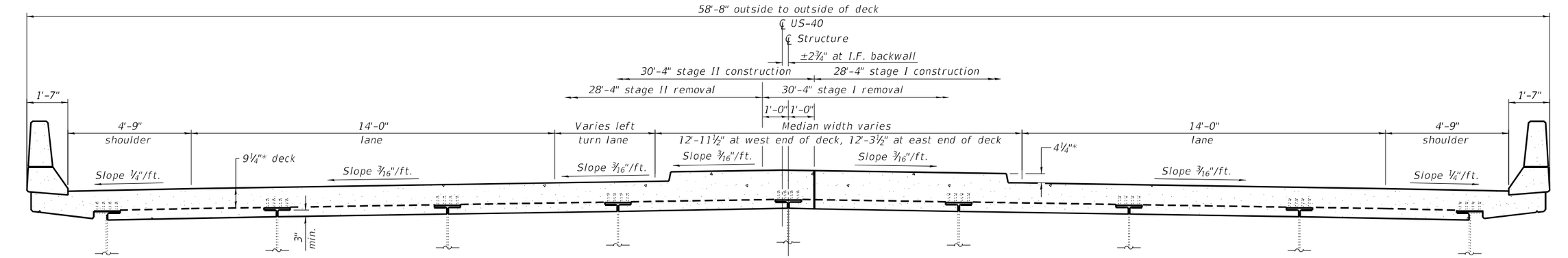
	ITEM	UNIT	TOTAL
	Subbase Granular Material, Type B	Ton	30
	Concrete Removal	Cu. Yd.	22.9
	Protective Shield	Sq. Yd.	731
	Concrete Structures	Cu. Yd.	33.0
	Concrete Superstructure	Cu. Yd.	25.0
*	Protective Coat	Sq. Yd.	1,592
	Reinforcement Bars, Epoxy Coated	Pound	8,780
	Bar Splicers	Each	42
	Preformed Joint Strip Seal	Foot	154
	Bridge Deck Grooving (Longitudinal)	Sq. Yd.	1,033
	Inlets To Be Adjusted (Special)	Each	4
	Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 2½"	Sq. Yd.	1,317
	Bridge Deck Scarification ¾"	Sq. Yd.	1,317
	Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	18
	Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	10
	Drainage Scuppers To Be Adjusted	Each	4
	Diamond Grinding (Bridge Section)	Sq. Yd.	1,101
	Slope Wall Repair	Sq. Yd.	70

* Apply on new concrete only.



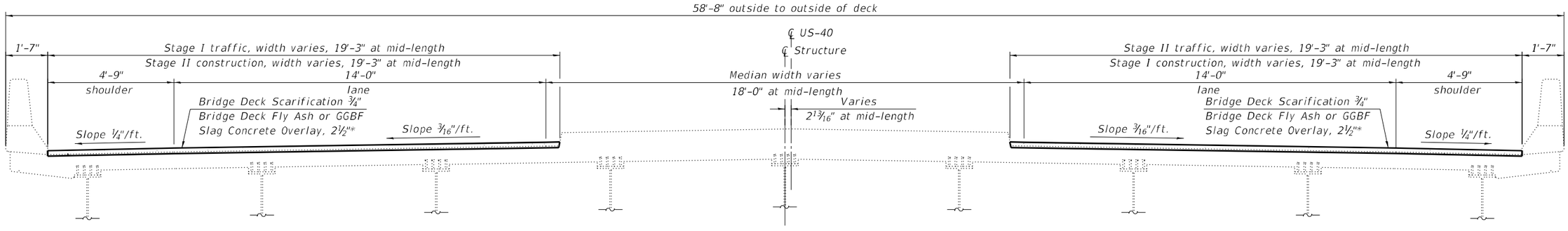
CROSS SECTION THRU APPROACH AT ABUTMENT

(Looking east at west approach, east approach is similar)



CROSS SECTION THRU BRIDGE DECK AT ABUTMENT

(Looking east near West Abutment, East Abutment is similar)



CROSS SECTION THRU BRIDGE DECK AT MID-SPAN

(Looking east)

* Prior to grinding

MODEL: PLOT
FILE NAME: Y:\IDOT\1363-05_74B35\CADD\SP SN 012-0025\120025-74B35-03-StageConst.dgn

9/29/2023 9:14:29 AM

ESCA CONSULTANTS, INC.

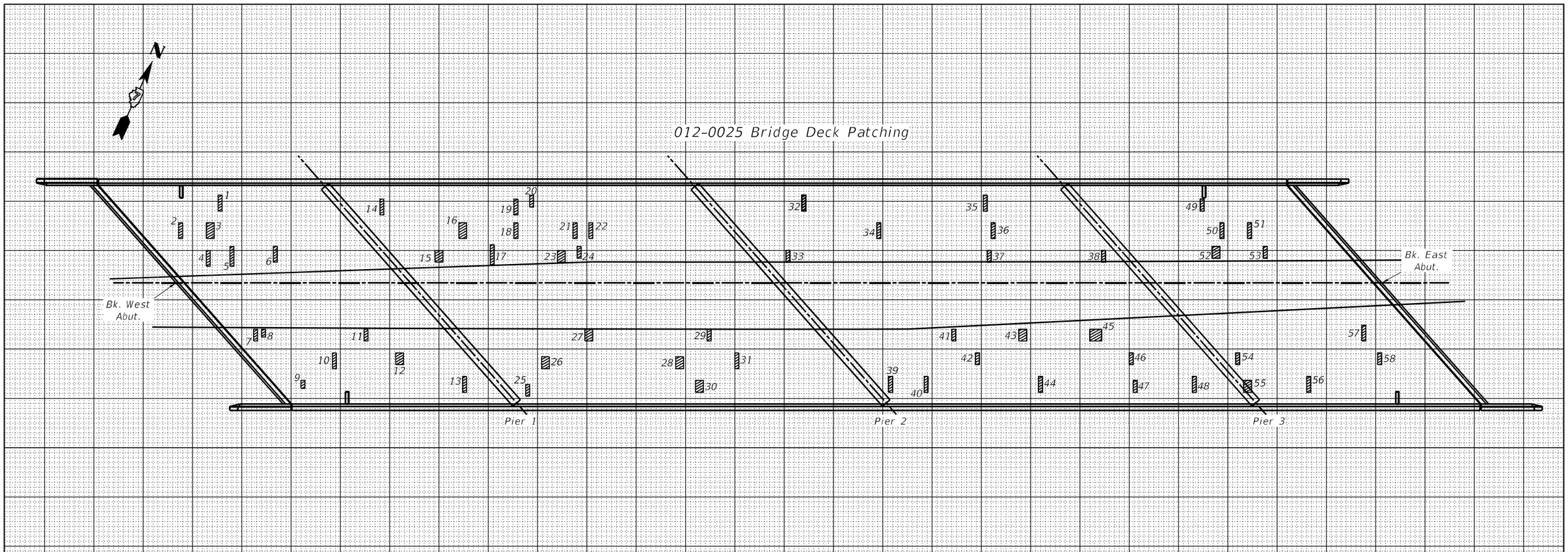
USER NAME = nhc	DESIGNED - SHL 05/23	REVISED -	
ESCA PROJECT NO. 1363.05	CHECKED - ELH 06/23	REVISED -	
PLOT SCALE = 0:2 ':' / in.	DRAWN - NHC 09/23	REVISED -	
PLOT DATE = 9/29/2023	CHECKED - ELH 09/23	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION
SN 012-0025

SHEET 3 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	22
		CONTRACT NO. 74B35		
	ILLINOIS	FED. AID PROJECT		



PATCH	SIZE		DECK SLAB REPAIR (FD TY I)	DECK SLAB REPAIR (FD TY II)
NO.	LENGTH	WIDTH	SQ YD	SQ YD
1	1.0	4.0	0.4	
2	1.0	4.0	0.4	
3	2.0	4.0		0.9
4	1.0	4.0	0.4	
5	1.0	5.0	0.6	
6	1.0	4.0	0.4	
7	1.0	3.0	0.3	
8	1.0	2.0	0.2	
9	1.0	2.0	0.2	
10	1.0	4.0	0.4	
11	1.0	3.0	0.3	
12	2.0	3.0		0.7
13	1.0	4.0	0.4	
14	1.0	4.0	0.4	
15	2.0	3.0		0.7
16	2.0	4.0		0.9

PATCH	SIZE		DECK SLAB REPAIR (FD TY I)	DECK SLAB REPAIR (FD TY II)
NO.	LENGTH	WIDTH	SQ YD	SQ YD
17	1.0	5.0	0.6	
18	1.0	4.0	0.4	
19	1.0	4.0	0.4	
20	1.0	3.0	0.3	
21	1.0	4.0	0.4	
22	1.0	4.0	0.4	
23	2.0	3.0		0.7
24	1.0	3.0	0.3	
25	1.0	3.0	0.3	
26	2.0	3.0		0.7
27	2.0	3.0		0.7
28	2.0	3.0		0.7
29	1.0	3.0	0.3	
30	2.0	3.0		0.7
31	1.0	4.0	0.4	
32	1.0	4.0	0.4	

PATCH	SIZE		DECK SLAB REPAIR (FD TY I)	DECK SLAB REPAIR (FD TY II)
NO.	LENGTH	WIDTH	SQ YD	SQ YD
33	1.0	3.0	0.3	
34	1.0	4.0	0.4	
35	1.0	4.0	0.4	
36	1.0	4.0	0.4	
37	1.0	3.0	0.3	
38	1.0	3.0	0.3	
39	1.0	4.0	0.4	
40	1.0	4.0	0.4	
41	1.0	3.0	0.3	
42	1.0	3.0	0.3	
43	2.0	3.0		0.7
44	1.0	4.0	0.4	
45	3.0	3.0		1.0
46	1.0	3.0	0.3	
47	1.0	3.0	0.3	
48	1.0	4.0	0.4	

PATCH	SIZE		DECK SLAB REPAIR (FD TY I)	DECK SLAB REPAIR (FD TY II)
NO.	LENGTH	WIDTH	SQ YD	SQ YD
49	1.0	3.0	0.3	
50	1.0	4.0	0.4	
51	1.0	4.0	0.4	
52	2.0	3.0		0.7
53	1.0	3.0	0.3	
54	1.0	3.0	0.3	
55	2.0	3.0		0.7
56	1.0	4.0	0.4	
57	1.0	4.0	0.4	
58	1.0	3.0	0.3	
TOTAL ROUNDS TO:			18.0	10.0

THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.

DECK REPAIR FULL DEPTH TY 1 & TY 2

DATE OF SURVEY: 3-4-23
SURVEY BY: DPM & TMW
METHOD OF SURVEY: VISUAL

ESTIMATED PAY QUANTITIES:

DECK SLAB REPAIR (FULL DEPTH TYPE I) 18.0 SQ YD

DECK SLAB REPAIR (FULL DEPTH TYPE II) 10.0 SQ YD

MODEL: PLOT
FILE NAME: Y:\IDOT\1363-05_74B35\CADD\SP SN 012-0025\0120025-74B35-04-DeckPatchHq.dgn

USER NAME = nhc	DESIGNED - T. Walk	REVISED -
	DRAWN - T. Walk	REVISED -
PLOT SCALE = 0.2 '' / in.	CHECKED - D. Macklin	REVISED -
PLOT DATE = 8/21/2023	DATE - March 2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE DECK PATCHING
SN 012-0025
SHEET 4 OF 18 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	23
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			

Notes:

The Contractor shall field verify dimensions and details of the existing scupper and make necessary adjustments prior to construction of new adjusting ring or ordering material for adjusting drainage scupper.

All structural steel shall conform to AASHTO M-270, Grade 36.

The adjusting bars shall be galvanized according to AASHTO M111 and ASTM A385.

All cast iron parts shall be grey iron conforming to the requirements of AASHTO M105, Class 35B, and AASHTO M306.

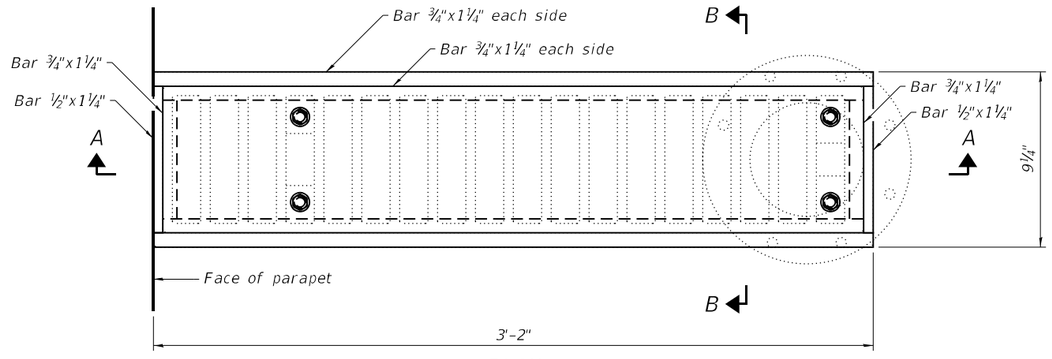
Bolts, anchor studs, washers, and nuts shall conform to the requirements of ASTM A307 and shall be galvanized according to the requirements of AASHTO M232.

Cast iron parts shall be unfinished.

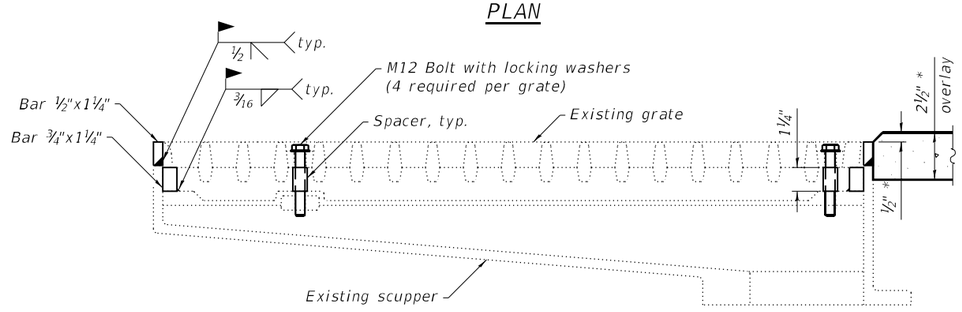
Adjusting ring shall be from Neenah or approved equal.

Structural steel weldments or equal sections of the same configuration may be submitted for cast iron. Fillet or full penetration welds may be used for weldments. Details shall be submitted to the Engineer for approval.

All labor and materials necessary to remove the existing grate, clean the existing scupper, install the adjusting bars, and reinstall the existing grate are included in the cost of Drainage Scuppers To Be Adjusted.

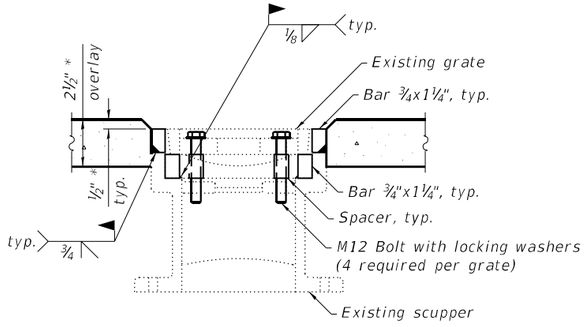


PLAN



*Prior to grinding

SECTION A-A



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Drainage Scuppers To Be Adjusted	Each	4

MODEL: PLOT
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8/21/2023 9:17:40 AM

ESCA CONSULTANTS, INC.

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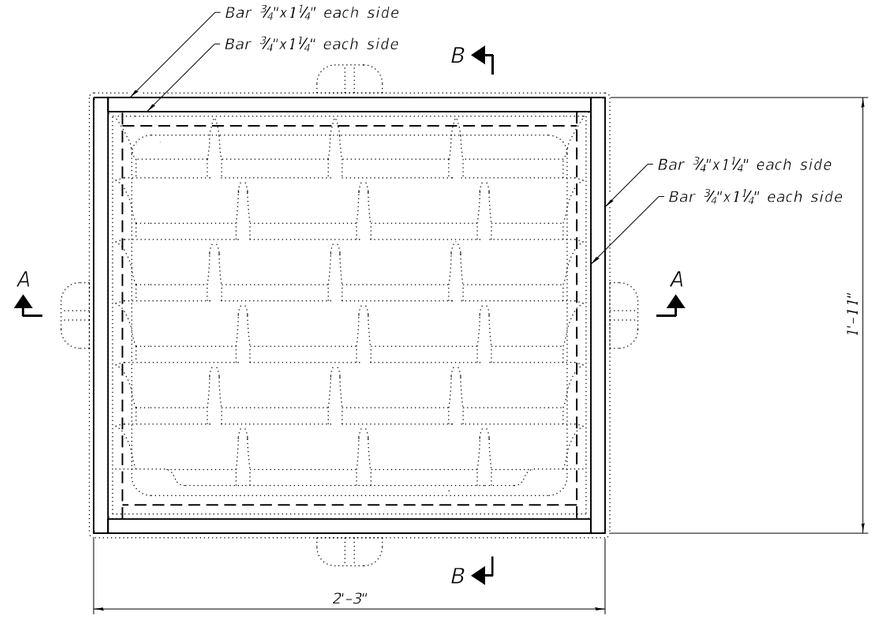
ESCA PROJECT NO. 1363.05	CHECKED - ELH	06/23	REVISED -		
PLOT SCALE = 0.2 '' / in.	DRAWN - NHC	06/23	REVISED -		
PLOT DATE = 8/21/2023	CHECKED - ELH	06/23	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

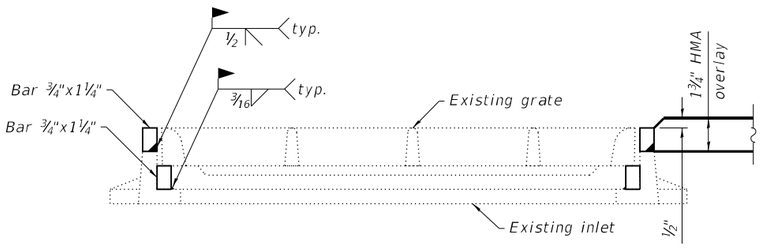
DRAINAGE SCUPPERS
SN 012-0025

SHEET 5 OF 18 SHEETS

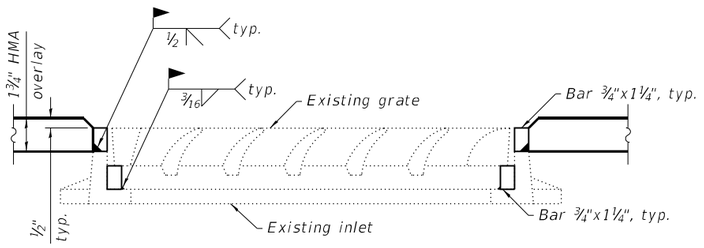
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	24
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			



PLAN



SECTION A-A



SECTION B-B

Notes:

The Contractor shall field verify dimensions and details of the existing inlet and make necessary adjustments prior to construction of new adjusting ring or ordering material for adjusting inlet.

All structural steel shall conform to AASHTO M-270, Grade 36.

The adjusting bars shall be galvanized according to AASHTO M111 and ASTM A385.

All cast iron parts shall be grey iron conforming to the requirements of AASHTO M105, Class 35B, and AASHTO M306.

Cast iron parts shall be unfinished.

Adjusting ring shall be from Neenah or approved equal.

Structural steel weldments or equal sections of the same configuration may be submitted for cast iron. Fillet or full penetration welds may be used for weldments. Details shall be submitted to the Engineer for approval.

All labor and materials necessary to remove the existing grate, clean the existing inlets, install the adjusting bars, and reinstall the existing grate are included in the cost of Inlets To Be Adjusted (Special).

BILL OF MATERIAL

Item	Unit	Total
Inlets To Be Adjusted (Special)	Each	4

MODEL: PLOT
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9/28/2023 9:01:45 AM

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

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ESCA PROJECT NO. 1363.05	CHECKED - ELH 06/23	REVISED -	
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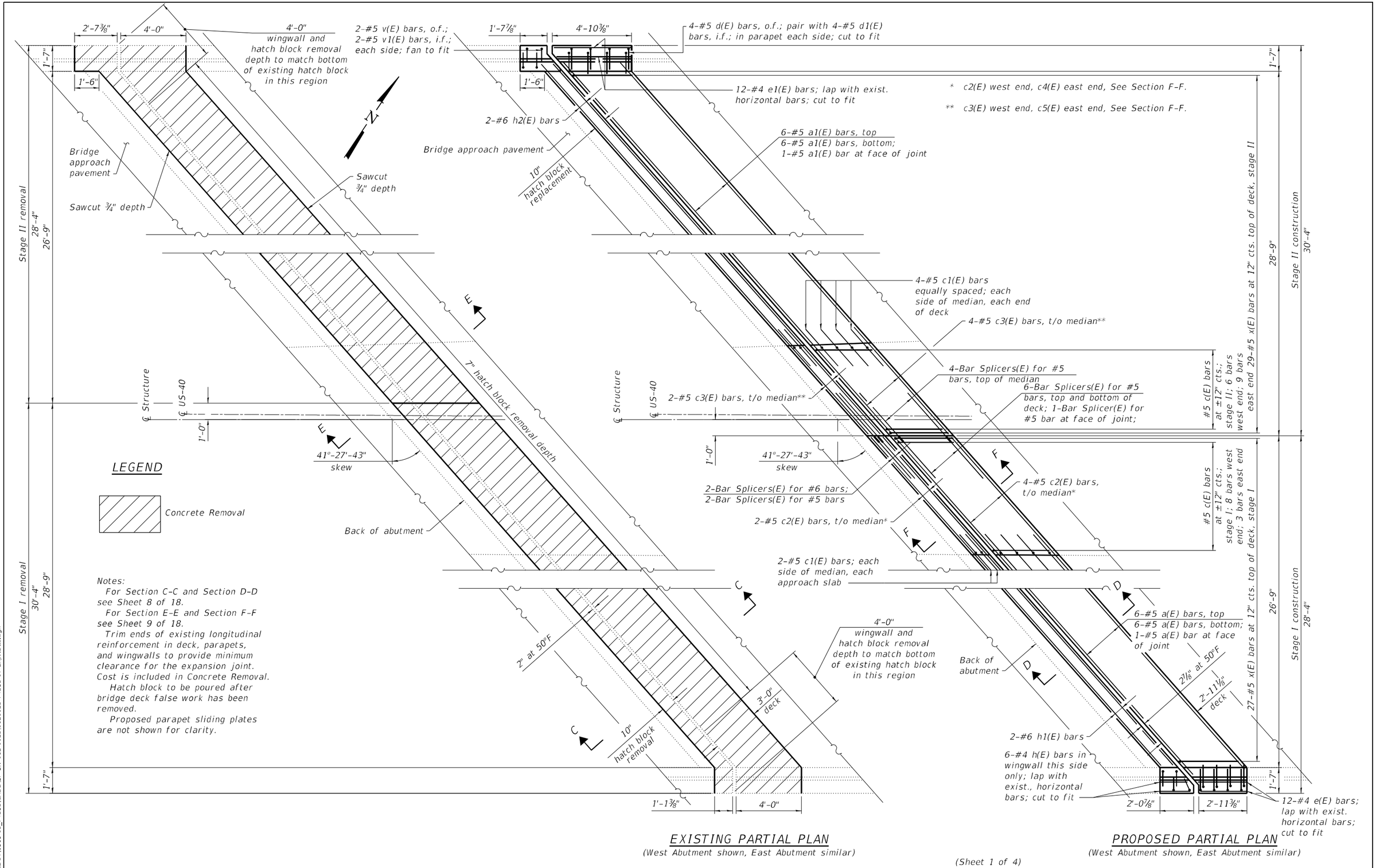
PLOT DATE = 9/28/2023	CHECKED - ELH 09/23	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SHOULDER INLETS
SN 012-0025
SHEET 6 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	25
		CONTRACT NO. 74B35		
	ILLINOIS	FED. AID PROJECT		



EXISTING PARTIAL PLAN
(West Abutment shown, East Abutment similar)

PROPOSED PARTIAL PLAN
(West Abutment shown, East Abutment similar)

(Sheet 1 of 4)

MODEL: PLOT
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9/29/2023 10:49:54 AM

ESCA CONSULTANTS, INC.

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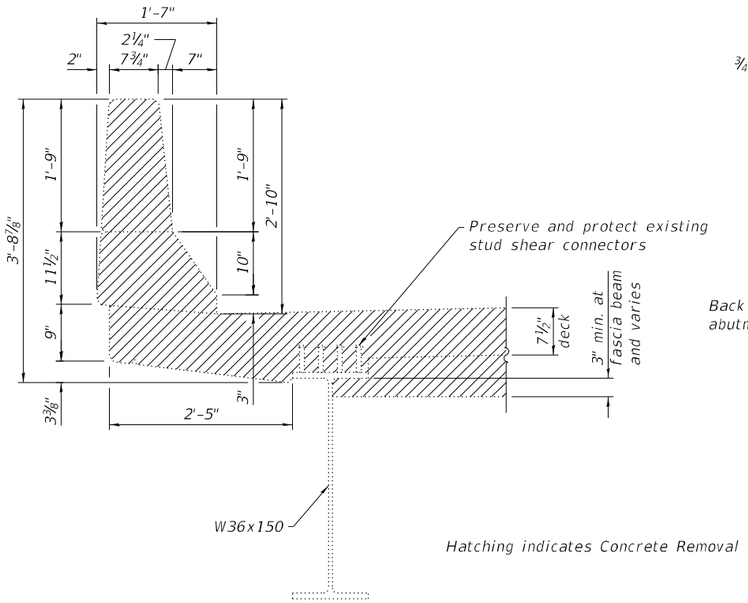
PLOT DATE = 9/29/2023	CHECKED - ELH	09/23	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

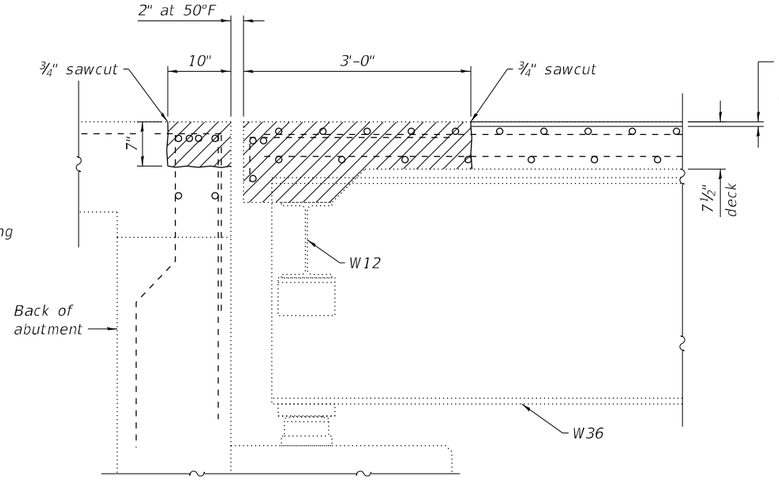
EXPANSION JOINT REPLACEMENT DETAILS
SN 012-0025
SHEET 7 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	26
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			



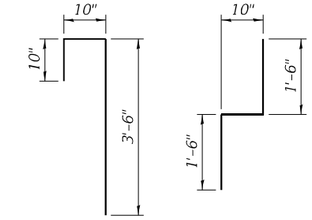
Hatching indicates Concrete Removal

SECTION THRU EXISTING PARAPET

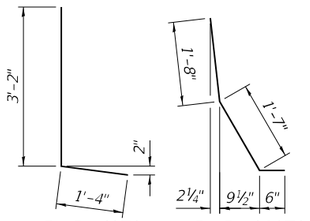


SECTION C-C

(Horizontal dimensions at rt. L's)



BAR c(E) BAR c1(E)

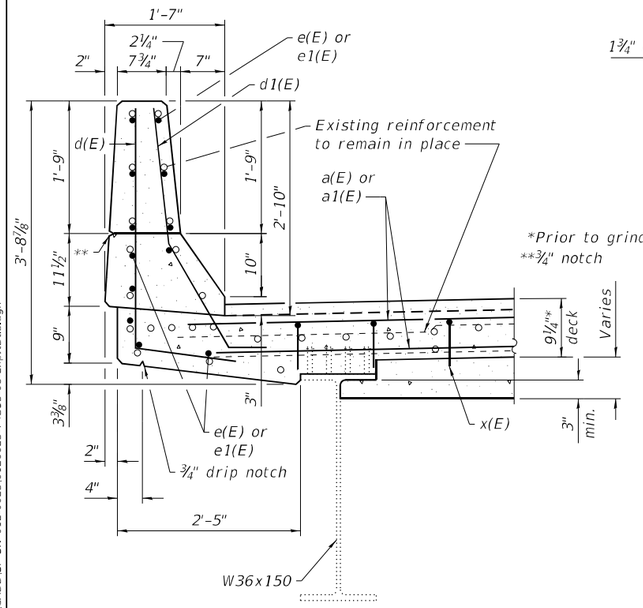


BAR d(E) BAR d1(E)

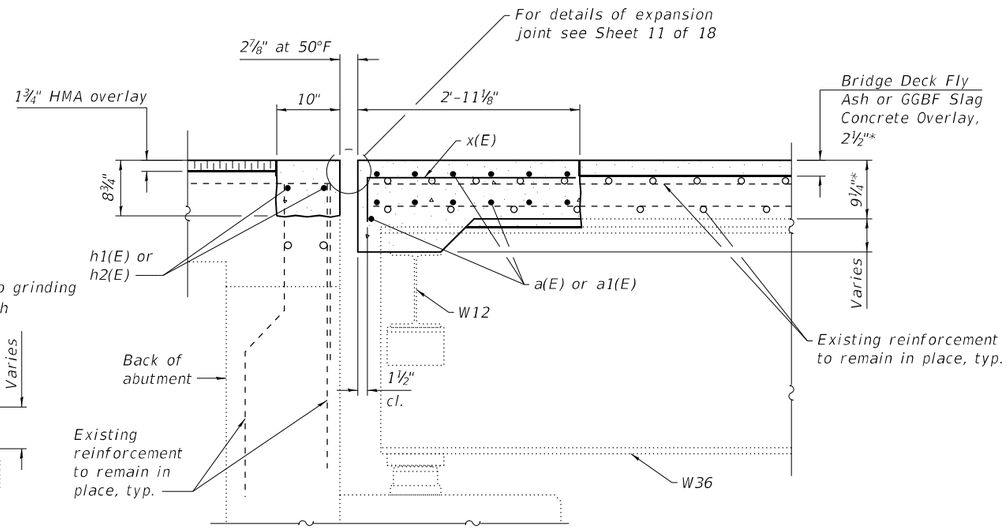
BILL OF MATERIAL

West Abutment

Bar	Number Stage I	Number Stage II	Total	Size	Length	Shape
a(E)	13	–	13	#5	36'-2"	
a1(E)	–	13	13	#5	39'-0"	
c(E)	8	6	14	#5	5'-2"	
c1(E)	6	6	12	#5	3'-10"	
c2(E)	6	–	6	#5	9'-5"	
c3(E)	–	6	6	#5	7'-1"	
d(E)	4	4	8	#5	4'-6"	
d1(E)	4	4	8	#5	3'-9"	
e(E)	12	–	12	#4	3'-0"	
e1(E)	–	12	12	#4	4'-9"	
h(E)	6	–	6	#4	1'-10"	
h1(E)	2	–	2	#6	35'-5"	
h2(E)	–	2	2	#6	38'-10"	
v(E)	2	2	4	#5	4'-0"	
v1(E)	2	2	4	#5	4'-0"	
x(E)	27	29	56	#5	4'-3"	
Reinforcement Bars, Epoxy Coated				Pound	1,890	
Concrete Removal				Cu. Yd.	11.5	
Concrete Superstructure				Cu. Yd.	12.5	
Bar Splicers				Each	21	

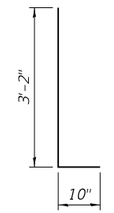


SECTION THRU PROPOSED PARAPET

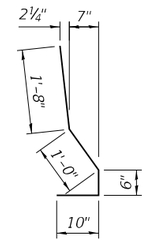


SECTION D-D

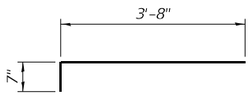
(Horizontal dimensions at rt. L's)



BAR v(E)



BAR v1(E)



BAR x(E)

BILL OF MATERIAL

East Abutment

Bar	Number Stage I	Number Stage II	Total	Size	Length	Shape
a(E)	13	–	13	#5	36'-2"	
a1(E)	–	13	13	#5	39'-0"	
c(E)	3	9	12	#5	5'-2"	
c1(E)	6	6	12	#5	3'-10"	
c4(E)	6	–	6	#5	1'-8"	
c5(E)	–	6	6	#5	12'-7"	
d(E)	4	4	8	#5	4'-6"	
d1(E)	4	4	8	#5	3'-9"	
e(E)	–	12	12	#4	3'-0"	
e1(E)	12	–	12	#4	4'-9"	
h(E)	–	6	6	#4	1'-10"	
h1(E)	2	–	2	#6	35'-5"	
h2(E)	–	2	2	#6	38'-10"	
v(E)	2	2	4	#5	4'-0"	
v1(E)	2	2	4	#5	4'-0"	
x(E)	27	29	56	#5	4'-3"	
Reinforcement Bars, Epoxy Coated				Pound	1,870	
Concrete Removal				Cu. Yd.	11.4	
Concrete Superstructure				Cu. Yd.	12.5	
Bar Splicers				Each	21	

MODEL: PLOT
FILE NAME: Y:\IDOT\1363-05_74835\CADD\SP SN 012-0025\0120025-74835-08-ExpJtDtls.dgn

9/29/2023 10:18:53 AM

ESCA CONSULTANTS, INC.

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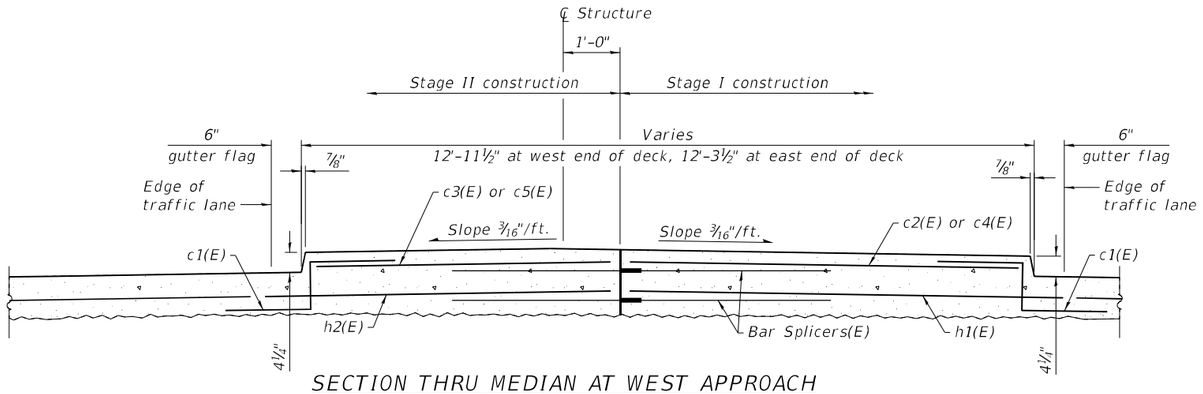
PLOT DATE = 9/29/2023	CHECKED - ELH	09/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT REPLACEMENT DETAILS
SN 012-0025

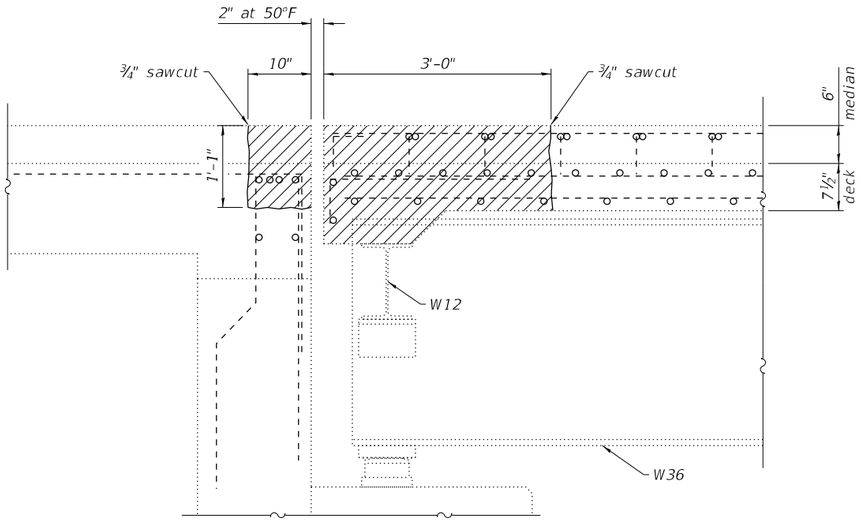
SHEET 8 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	27
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			



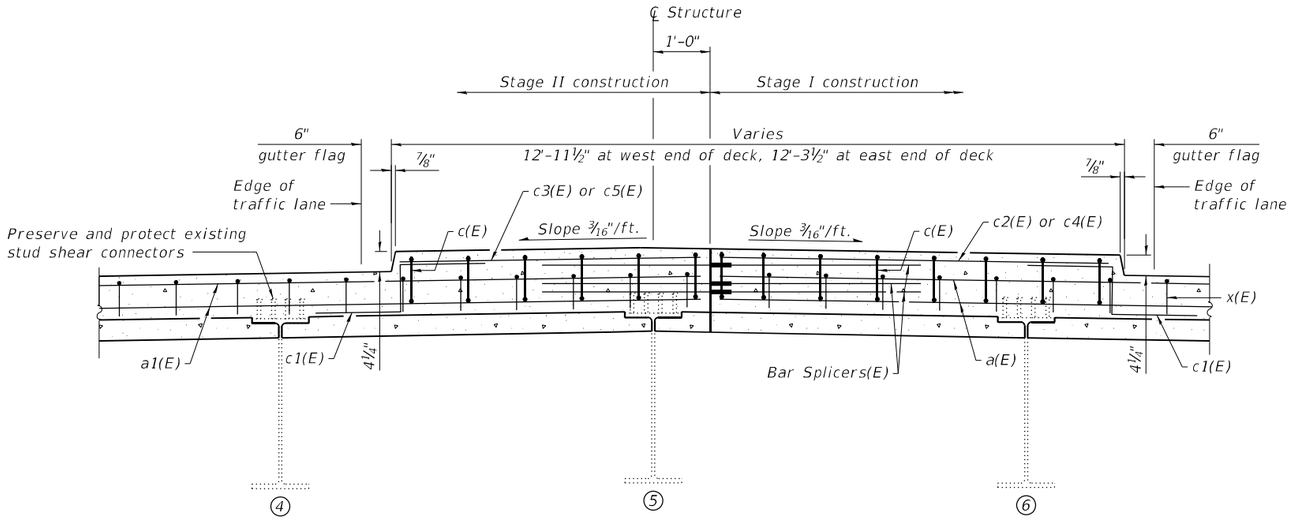
SECTION THRU MEDIAN AT WEST APPROACH

(Looking east, east approach similar)



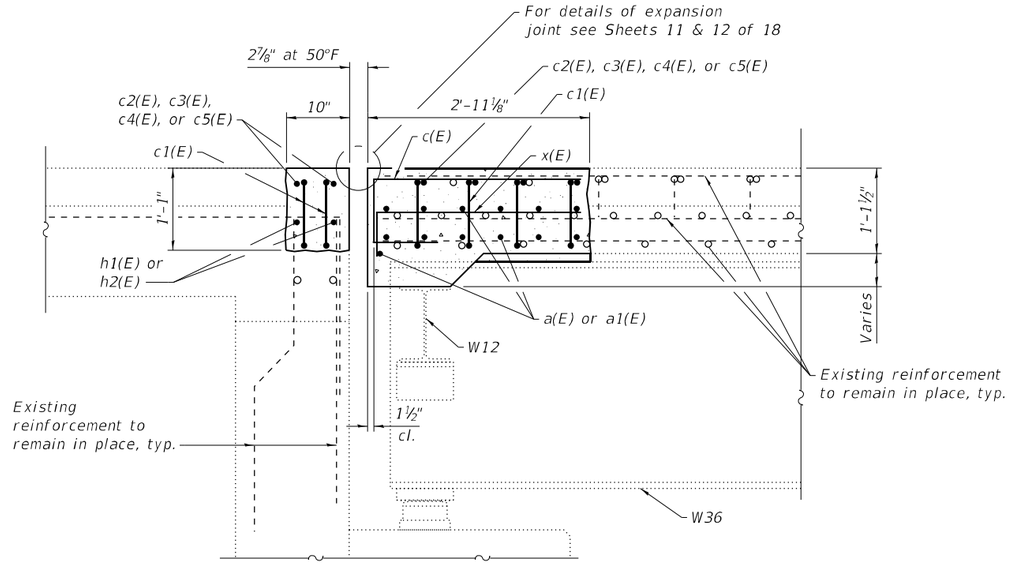
SECTION E-E

(Horizontal dimensions at rt. L's)



SECTION THRU MEDIAN NEAR WEST ABUTMENT

(Looking east, East Abutment similar)



SECTION F-F

(Horizontal dimensions at rt. L's)

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8/21/2023 9:17:44 AM

ESCA CONSULTANTS, INC.

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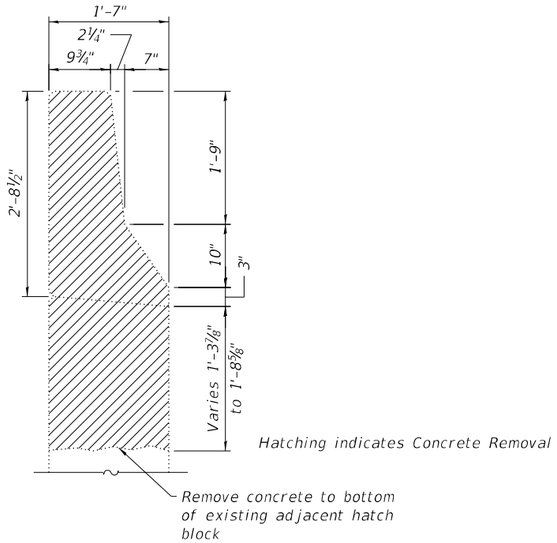
PLOT SCALE = 0:2 ':' / in.	DRAWN - NHC 06/23	REVISED -	
PLOT DATE = 8/21/2023	CHECKED - ELH 06/23	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

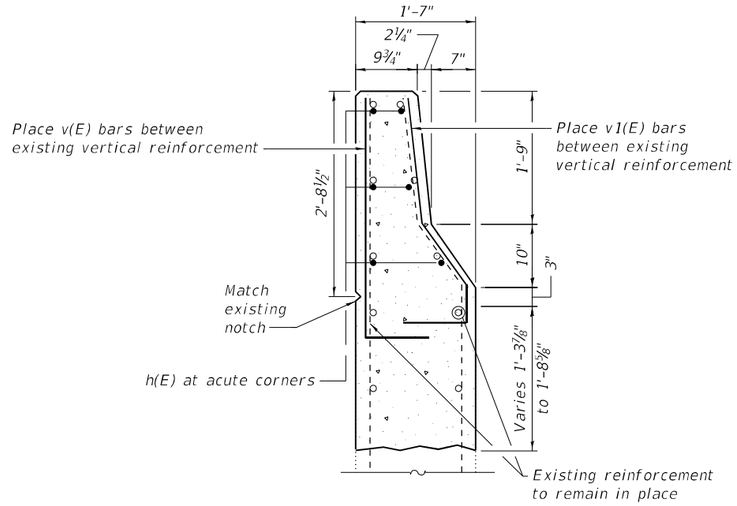
EXPANSION JOINT REPLACEMENT DETAILS
SN 012-0025

SHEET 9 OF 18 SHEETS

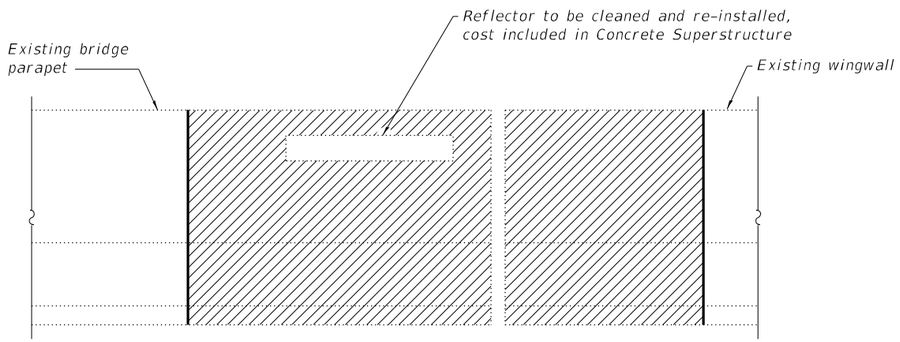
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	28
		CONTRACT NO. 74B35		
		ILLINOIS	FED. AID PROJECT	



SECTION THRU EXISTING WINGWALL



SECTION THRU PROPOSED WINGWALL



REMOVAL ELEVATION SHOWING PARAPET AND WINGWALL

MODEL: PLOT
FILE NAME: Y:\IDOT\1363-05_74835\CADD\SP SN 012-0025\0120025-74B35-10-ExpJtDtls.dgn

9/29/2023 9:56:18 AM

ESCA CONSULTANTS, INC.

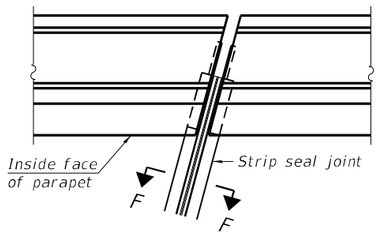
USER NAME = nhc	DESIGNED - SHL	05/23	REVISED -		
ESCA PROJECT NO. 1363.05	CHECKED - ELH	06/23	REVISED -		
PLOT SCALE = 0.2 '/ in.	DRAWN - NHC	09/23	REVISED -		
PLOT DATE = 9/29/2023	CHECKED - ELH	09/23	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

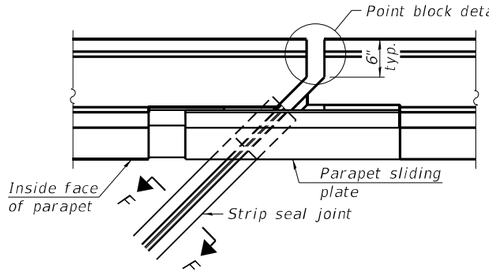
EXPANSION JOINT REPLACEMENT DETAILS
SN 012-0025

SHEET 10 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	29
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			

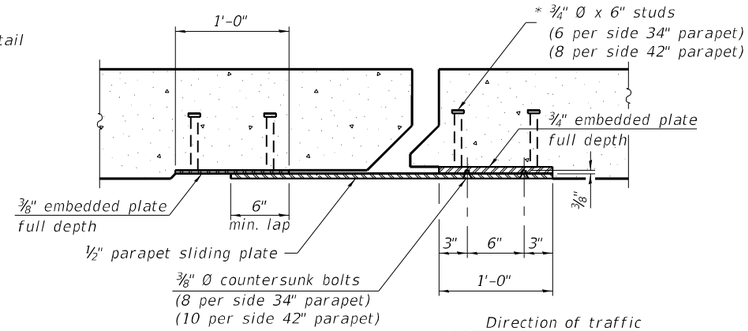


FOR SKEWS ≤ 30°

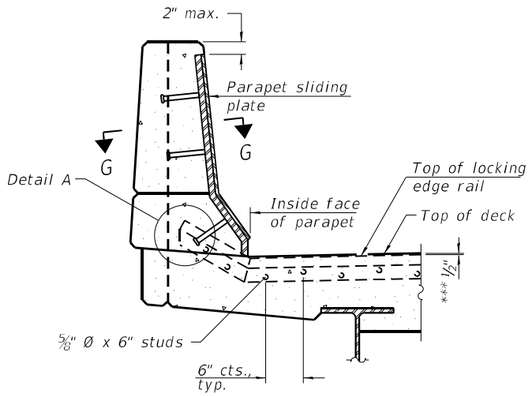


FOR SKEWS > 30°

PLAN AT PARAPET

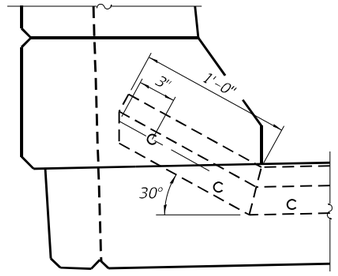


SECTION G-G



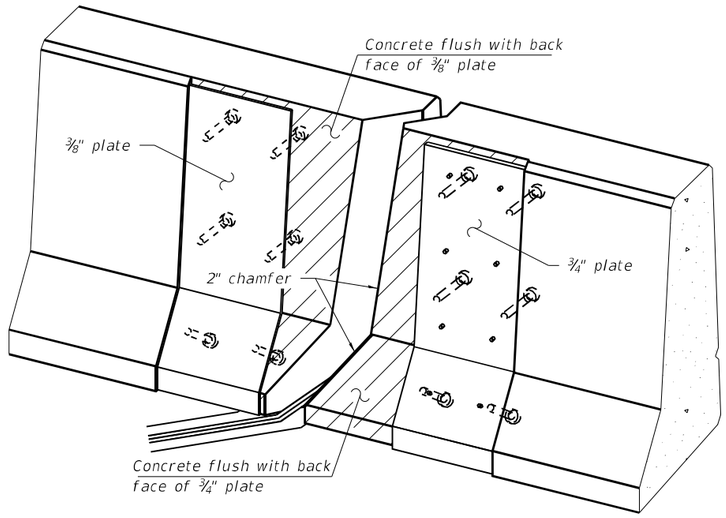
ELEVATION AT PARAPET

(Skews > 30° shown. skews ≤ 30° similar except as shown in plan view.)



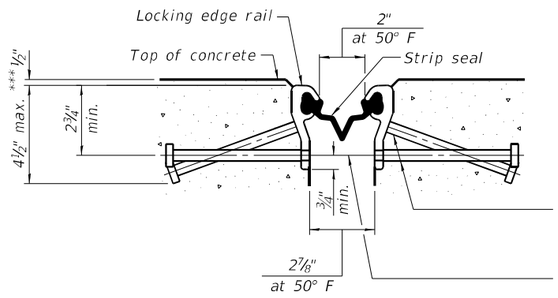
DETAIL A

*** Prior to grinding



TRIMETRIC VIEW

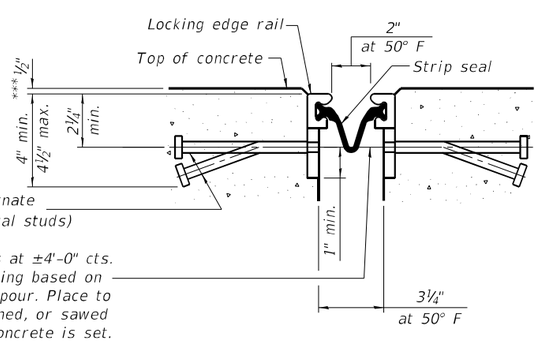
(Showing embedded plates only)



SHOWING ROLLED RAIL JOINT

* ⅜" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

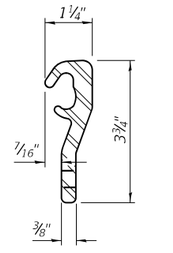
⅜" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.



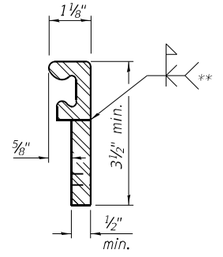
SHOWING WELDED RAIL JOINT

SECTION F-F

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



ROLLED (EXTRUDED) RAIL

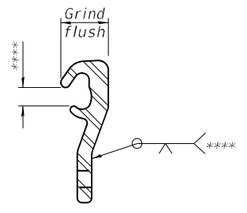


WELDED RAIL

LOCKING EDGE RAILS

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

**** Omit weld at seal opening.



LOCKING EDGE RAIL SPLICE

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

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 height and thickness of the locking edge rails shown are minimum dimensions. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

The inside of the locking edge rail groove shall be free of weld residue.

Locking edge rails may be spliced at slope discontinuities and stage construction joints.

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.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	154

MODEL: PLOT
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8/21/2023 9:17:46 AM

ESCA CONSULTANTS, INC.

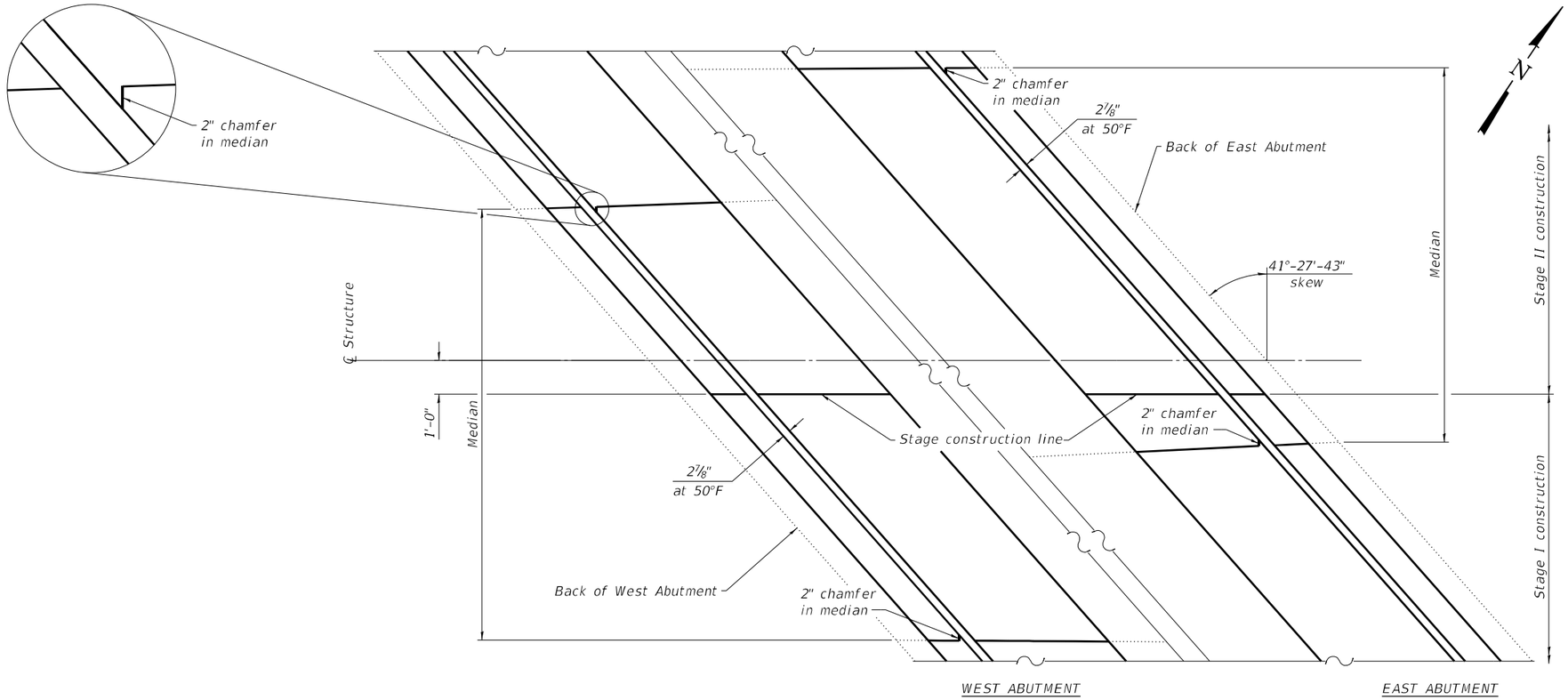
USER NAME = nhc	DESIGNED - SHL	05/23	REVISED -		
ESCA PROJECT NO. 1363.05	CHECKED - ELH	06/23	REVISED -		
PLOT SCALE = 0.1667 ' / in.	DRAWN - NHC	06/23	REVISED -		
PLOT DATE = 8/21/2023	CHECKED - ELH	06/23	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
SN 012-0025

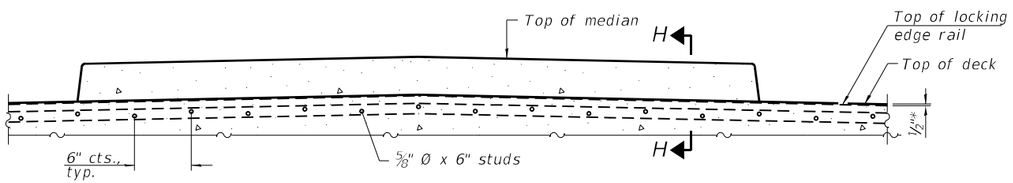
SHEET 11 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	30
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			



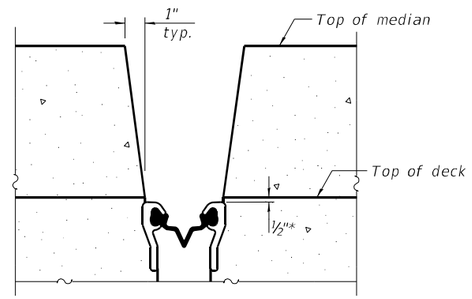
PARTIAL PLAN

* Prior to grinding



SECTION AT MEDIAN

Chamfer acute corners of median 2", see Partial Plan.



SECTION H-H

(at right angles)

(Sheet 2 of 2)

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ESCA CONSULTANTS, INC.

USER NAME = nhc	DESIGNED - SHL	05/23	REVISED -		
ESCA PROJECT NO. 1363.05	CHECKED - ELH	06/23	REVISED -		
PLOT SCALE = 0.2 '' / in.	DRAWN - NHC	06/23	REVISED -		
PLOT DATE = 8/21/2023	CHECKED - ELH	06/23	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

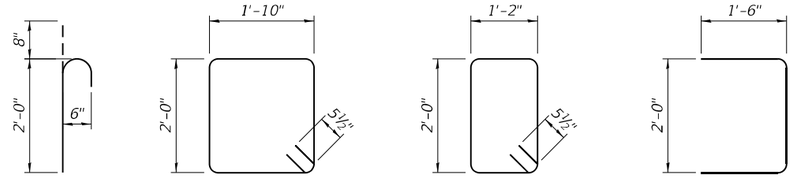
PREFORMED JOINT STRIP SEAL
SN 012-0025
SHEET 12 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	31
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			

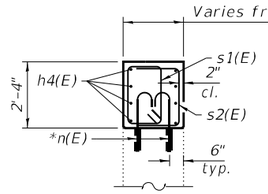
NOTES

The cost of epoxy grouting reinforcement bars shall be included in Reinforcement Bars, Epoxy Coated.

Remove and re-erect traffic barrier terminal as necessary for the work shown, cost included in Concrete Structures.



BAR n(E) BAR s(E) BAR s1(E) BAR s2(E)



SECTION C-C

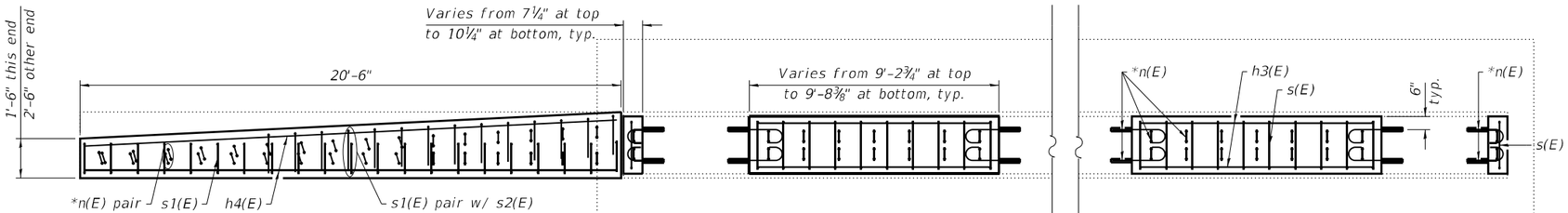
B

SECTION B-B

*Epoxy grout n(E) bars in 9" holes according to Article 584 of the Standard Specifications. Adjust location to clear existing reinforcement.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h3(E)	36	#5	8'-10"	——
h4(E)	8	#5	20'-2"	——
n(E)	152	#6	2'-8"	⊂—
s(E)	42	#5	8'-7"	□
s1(E)	21	#5	7'-3"	▯
s2(E)	14	#5	5'-0"	⌐
Concrete Structures			Cu. Yd.	11.0
Reinforcement Bars, Epoxy Coated			Pound	1720



B

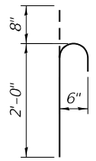
ELEVATION

(Looking east; Only exterior bays are shown, two interior bays are similar)

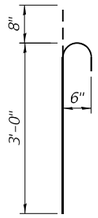
SECTION A-A

NOTES

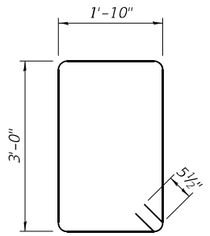
The cost of epoxy grouting reinforcement bars shall be included in Reinforcement Bars, Epoxy Coated.



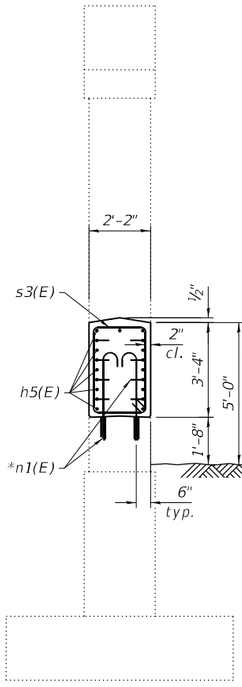
BAR n(E)



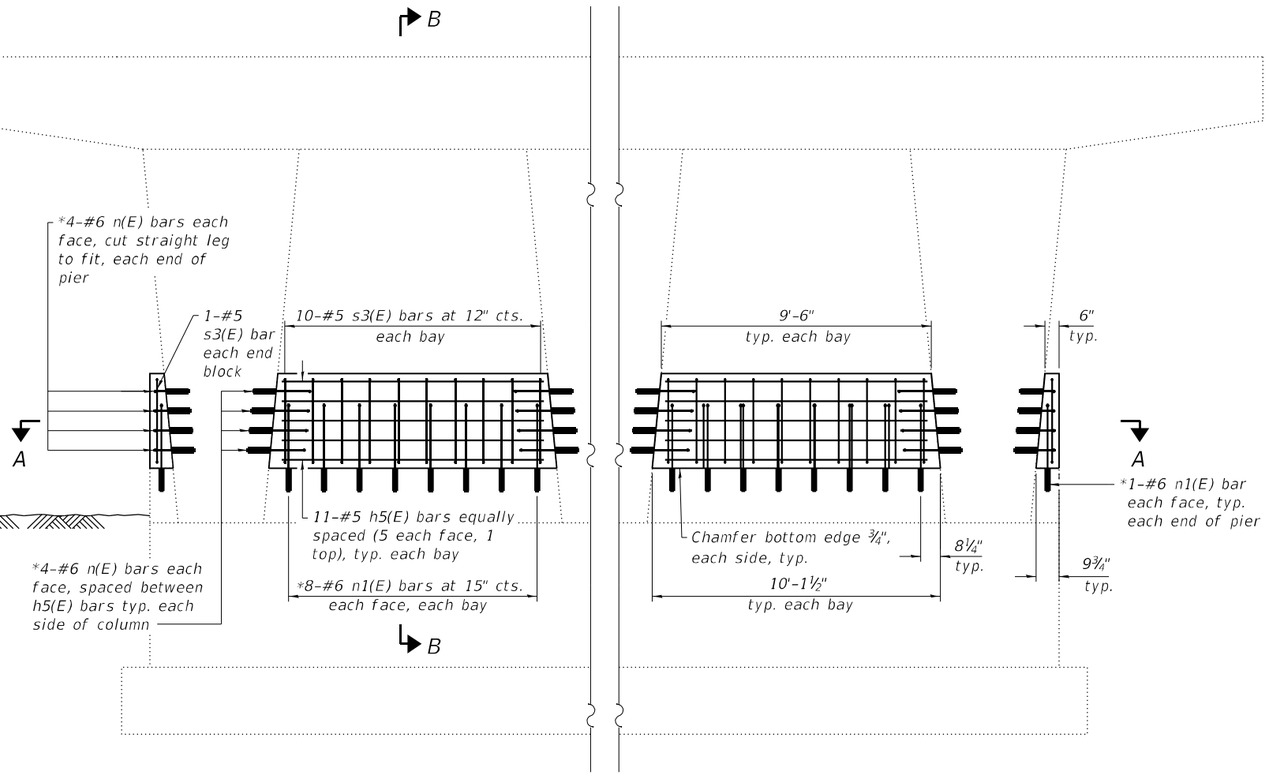
BAR n1(E)



BAR s3(E)



SECTION B-B



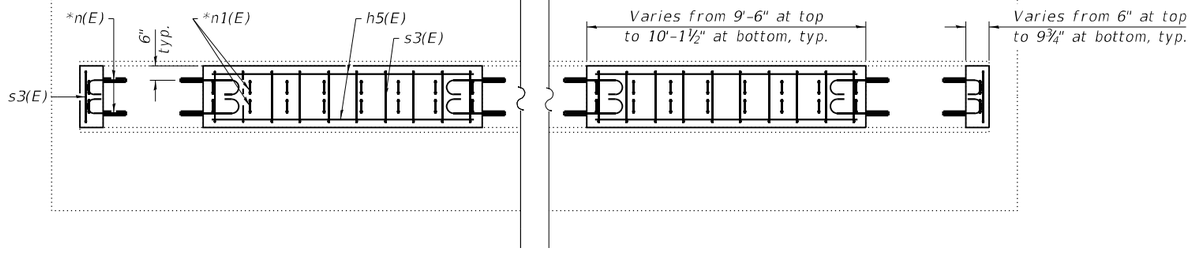
ELEVATION

(Looking east;
Only exterior bays are shown, two interior bays are similar)

*Epoxy grout n(E) bars in 9" holes according to Article 584 of the Standard Specifications. Adjust location to clear existing reinforcement.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h5(E)	44	#5	9'-2"	
n(E)	80	#6	2'-8"	
n1(E)	68	#6	3'-8"	
s3(E)	42	#5	10'-7"	
Concrete Structures			Cu. Yd.	11.0
Reinforcement Bars, Epoxy Coated			Pound	1580

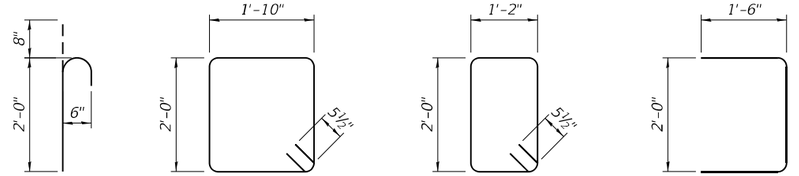


SECTION A-A

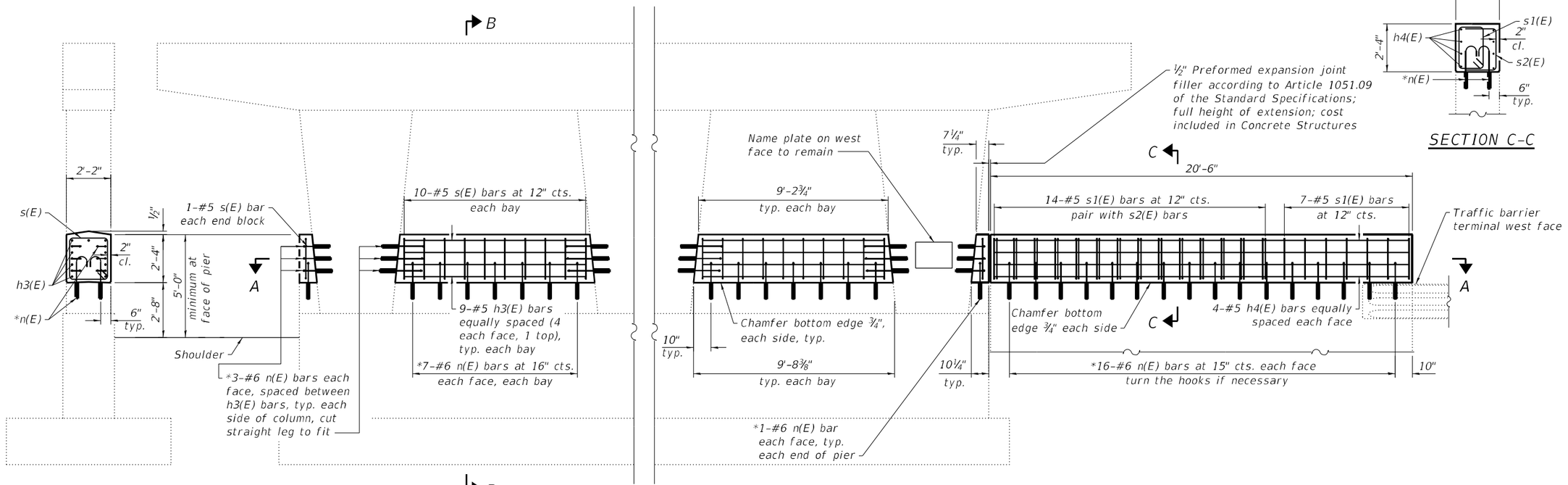
NOTES

The cost of epoxy grouting reinforcement bars shall be included in Reinforcement Bars, Epoxy Coated.

Remove and re-erect traffic barrier terminal as necessary for the work shown, cost included in Concrete Structures.



BAR n(E) BAR s(E) BAR s1(E) BAR s2(E)



SECTION C-C

SECTION B-B

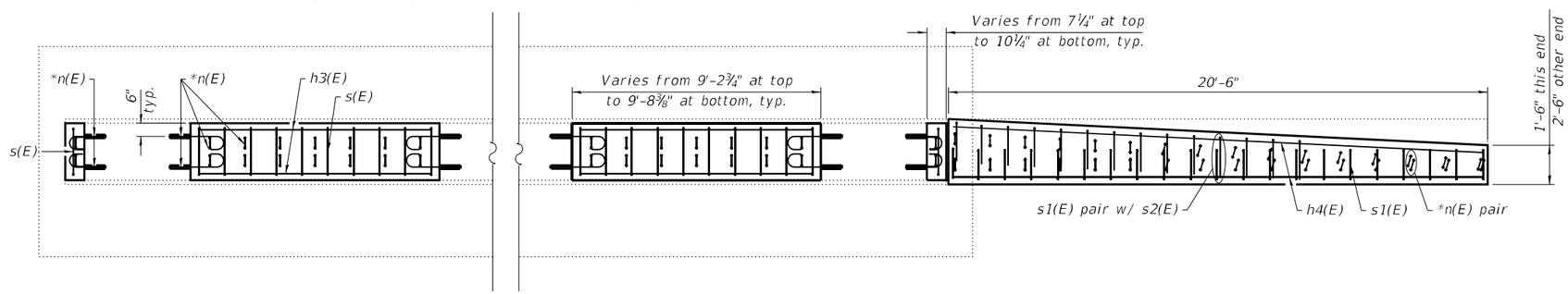
*Epoxy grout n(E) bars in 9" holes according to Article 584 of the Standard Specifications. Adjust location to clear existing reinforcement.

BILL OF MATERIAL

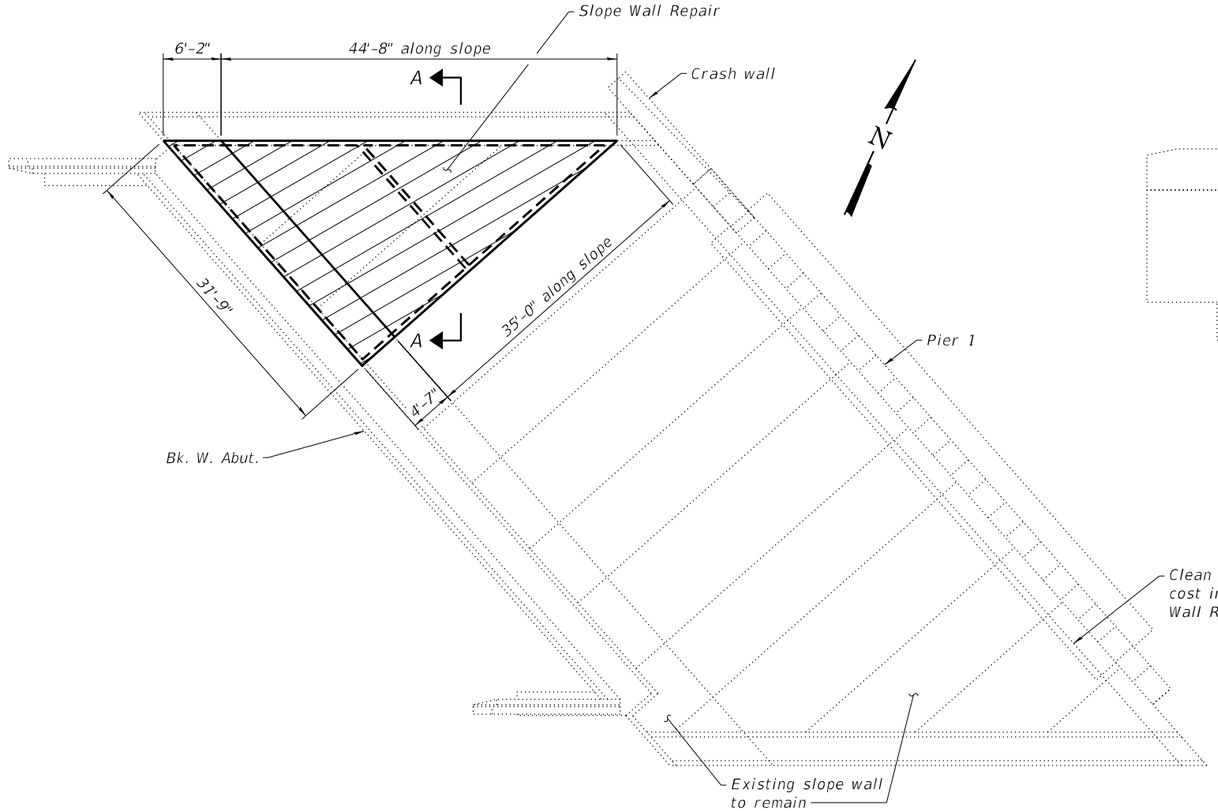
Bar	No.	Size	Length	Shape
h3(E)	36	#5	8'-10"	——
h4(E)	8	#5	20'-2"	——
n(E)	152	#6	2'-8"	⊂—⊃
s(E)	42	#5	8'-7"	□
s1(E)	21	#5	7'-3"	□
s2(E)	14	#5	5'-0"	⊔
Concrete Structures			Cu. Yd.	11.0
Reinforcement Bars, Epoxy Coated			Pound	1720

ELEVATION

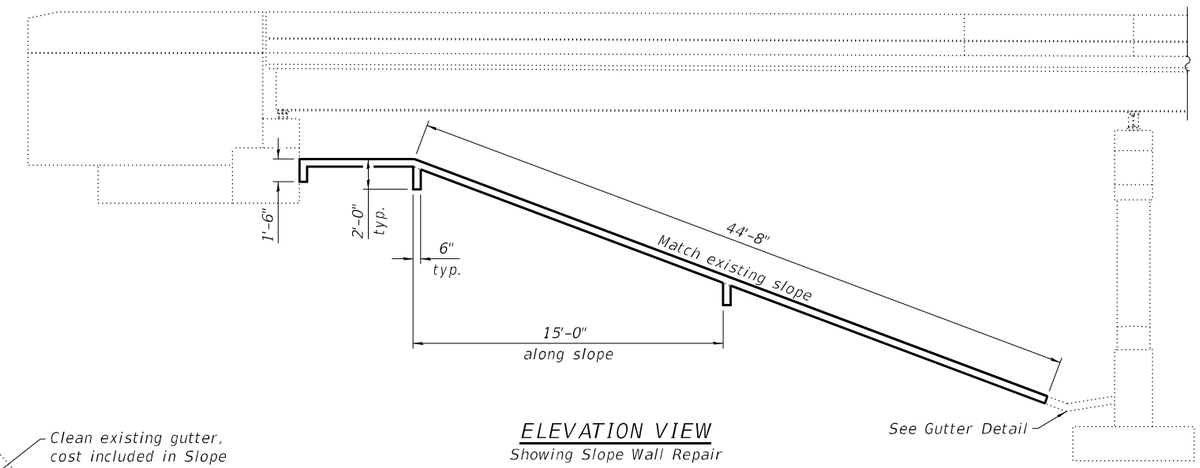
(Looking east; Only exterior bays are shown, two interior bays are similar)



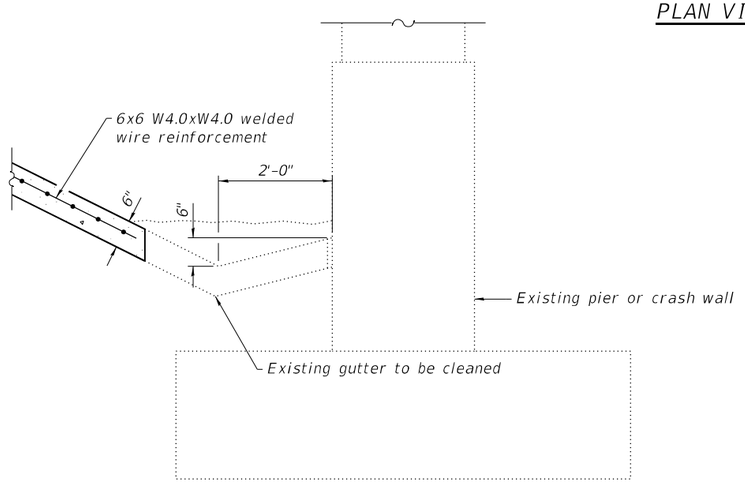
SECTION A-A



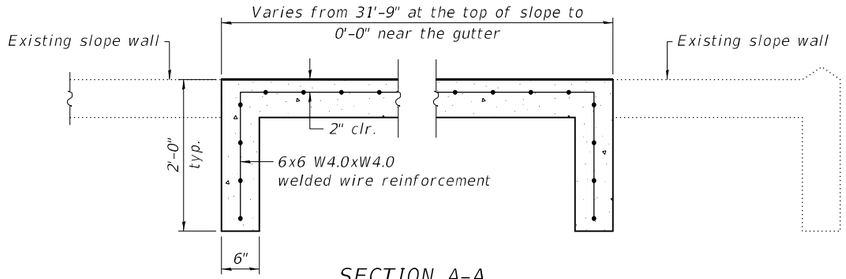
PLAN VIEW WEST SLOPE WALL



ELEVATION VIEW
Showing Slope Wall Repair



GUTTER DETAIL
Dimensions at right angles



SECTION A-A

Notes:

Prior to partial removal of any concrete structure a ¾" deep saw cut shall be made along all boundaries of the removal area. Saw cuts are included with the cost of Slope Wall Repair.

To fill voids under the existing slope wall, the embankment shall be reconstructed with Subbase Granular Material, Type B. The subbase granular material shall be gradation CA6 unless otherwise specified by the Engineer.

There is over one foot of silt and sand on top of the gutter next to the pier. The Contractor shall remove and dispose of this material and clean out the gutter prior to repairs, cost included in Slope Wall Repair.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Slope Wall Repair	Sq. Yd.	70
Subbase Granular Material, Type B	Ton	30
Protective Coat	Sq. Yd.	70

MODEL: PLOT
FILE NAME: Y:\IDOT\1363-05_74835\CADD\SP SN 012-0025\0120025-74B35-16-SlopeWall Repair.dgn

8/21/2023 9:17:52 AM

ESCA CONSULTANTS, INC.

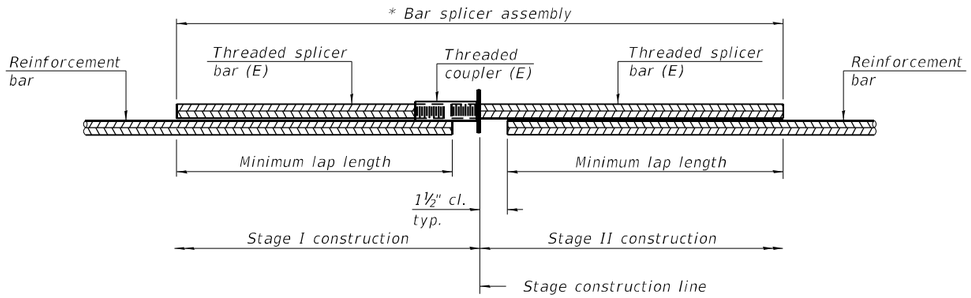
USER NAME = nhc	DESIGNED - SHL	06/23	REVISED -	
ESCA PROJECT NO. 1363.05	CHECKED - ELH	06/23	REVISED -	
PLOT SCALE = 0.2 '/' in.	DRAWN - NHC	06/23	REVISED -	
PLOT DATE = 8/21/2023	CHECKED - ELH	06/23	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPE WALL REPAIR
SN 012-0025

SHEET 16 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	35
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			



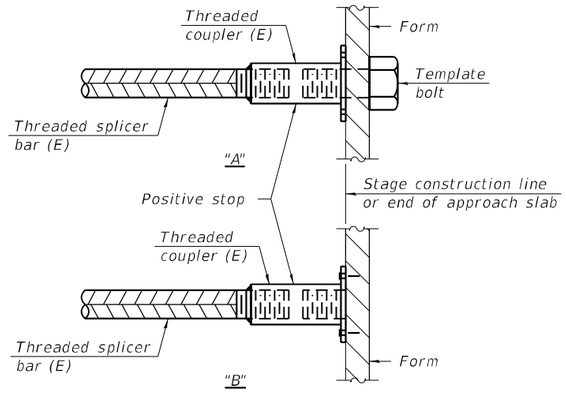
STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

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
Top of bridge deck	#5	12	3'-6"
Mid-depth of bridge deck	#5	2	3'-6"
Bottom of bridge deck	#5	12	3'-6"
Hatch block	#6	4	4'-0"
Bridge median	#5	8	3'-4"
Approach median	#5	4	3'-0"



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.

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 for alternatives.

BSD-1

2-1-2023

ESCA CONSULTANTS, INC.

USER NAME = nhc	DESIGNED - SHL 06/23	REVISED -	
ESCA PROJECT NO. 1363.05	CHECKED - ELH 06/23	REVISED -	
PLOT SCALE = 0.2 '=' / in.	DRAWN - NHC 09/23	REVISED -	
PLOT DATE = 9/29/2023	CHECKED - ELH 09/23	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY DETAILS
SN 012-0025
SHEET 17 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	36
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			

MODEL: PLOT
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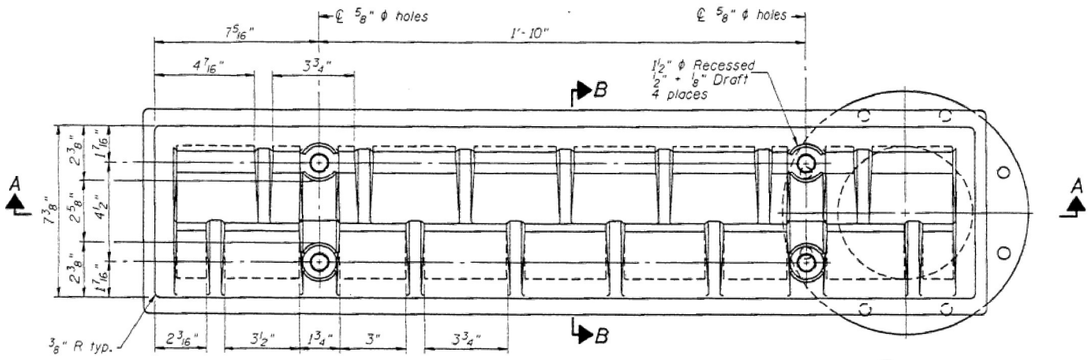
9/29/2023 10:02:19 AM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

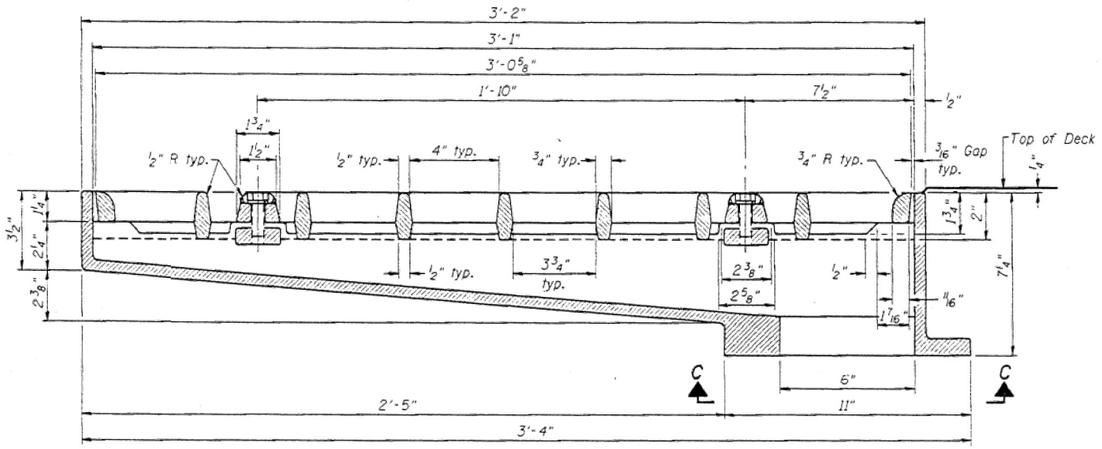
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	★	CLARK	1034	531
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 28
31 SHEETS

★ 12(53,54)R & (12-53)RA-2

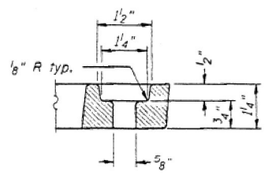


PLAN

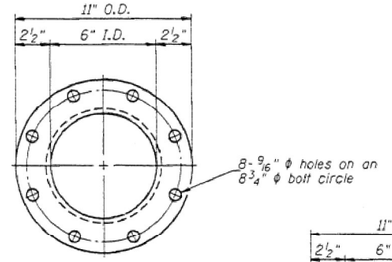


SECTION A-A

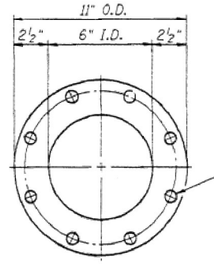
See Sheet 8 of 31 for scupper location relative to parapet.



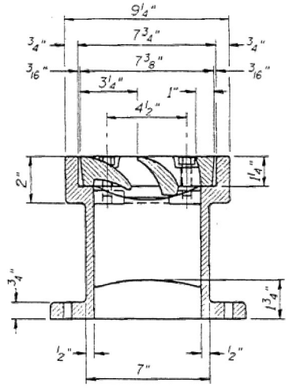
BOLT HOLE DETAIL



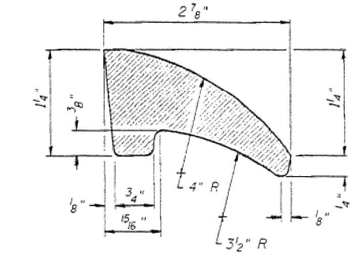
DOWNSPOUT



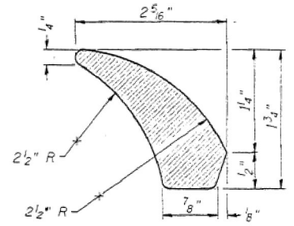
VIEW C-C



SECTION B-B



FIRST VANE DETAIL



SECOND VANE 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.

The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. 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 cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.

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-33.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-33	Each	4

Illinois Firm Registration No. 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

DRAINAGE SCUPPER DS-33
US ROUTE 40 (FAS ROUTE 1707) OVER
FAI ROUTE 70
FAI ROUTE 70 SECTION (12-54HB-2)BR
CLARK COUNTY
STA 3849+15.01
STRUCTURE NO 012-0025

DESIGNED	KFA
CHECKED	SPK
DRAWN	RTT
CHECKED	SPK
DATE	August 31, 2001

8/1/2000

FOR INFORMATION ONLY

ESCA CONSULTANTS, INC.

USER NAME = nhc	DESIGNED - SHL	06/23	REVISED -		
ESCA PROJECT NO. 1363.05	CHECKED - ELH	06/23	REVISED -		
PLOT SCALE = 0:2 ':' / in.	DRAWN - NHC	09/23	REVISED -		
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SCUPPERS PLAN SHEET
SN 012-0025
SHEET 18 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2024-9	CLARK	37	37
		CONTRACT NO. 74B35		
	ILLINOIS FED. AID PROJECT			