

GENERAL NOTES

- Calculated weight of Structural Steel Repair = 28,910 lbs (Grade 36)
- Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8" φ, holes 15/16" φ, unless otherwise noted.
- No field welding is permitted except as specified in the contract documents.
- The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the existing top flange cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications.
- Reinforcement bars designated (E) shall be epoxy coated.
- Prior to pouring the new concrete diaphragms and 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 Removal of Existing Concrete Deck.
As directed by the Engineer, the existing construction accessories welded to the top flange of beams and 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 1/4" 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.
- 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.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8" (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Cleaning and field painting of structural steel shall be done under a separate paint contract except as noted.
- "CLEANING AND PAINTING STRUCTURAL STEEL, LOCATION 1 shall be as specified in the Special Provision for "Cleaning and Painting Existing Steel Structures". The area consists of cleaning and painting the south end of beam #1 in span 5. Paint limits shall be from the south end of the beam to the first splice to the north (approximately 46'). Areas to be cleaned and painted shall include the entire outer half of the beam and the bottom of the bottom flange. All steel described here shall be cleaned per commercial Grade Power tool cleaning SSPC-SP 15 and painted according to the requirements of paint system 1 - OZ/E/U. The color of the final finish coat for the designated area shall be gray, Munsell No. 5B 7/1."

- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M300, Type 1.
- Existing structural steel that will be in contact with new structural steel shall be cleaned and painted as required by the Special Provision for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."

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TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu Yd		56.4	56.4
Slopedwall Removal	Sq Yd		649	649
Removal of Existing Concrete Deck	Each	1		1
Protective Shield	Sq Yd	1,093		1,093
Structure Excavation	Cu Yd		222	222
Floor Drains	Each	6		6
Concrete Structures	Cu Yd		101.3	101.3
Concrete Superstructure	Cu Yd	1,011.2		1,011.2
Bridge Deck Grooving	Sq Yd	3,427		3,427
Protective Coat	Sq Yd	3,804		3,804
Stud Shear Connectors	Each	11,271		11,271
Reinforcement Bars, Epoxy Coated	Pound	207,270	3,990	211,260
Bar Splicers	Each	1,175	92	1,267
Slopedwall 4"	Sq Yd		605	605
Slopedwall 6"	Sq Yd		44	44
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	175		175
Elastomeric Bearing Assembly, Type II	Each	23		23
Anchor Bolts 1"	Each	46		46
Epoxy Crack Injection	Foot		18	18
Geocomposite Wall Drain	Sq Yd		112	112
Slope Wall Crack Sealing	Foot		219	219
Concrete Wearing Surface, 5"	Sq Yd	432		432
Precast Bridge Approach Slab	Sq Ft	3,838		3,838
Granular Backfill for Structures	Cu Yd		180	180
Structural Steel Repair	L. Sum	1		1
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq Ft		124	124
Drainage Scuppers, DS-II	Each	6		6
Temporary Sheet Piling	Sq Ft		497	497
Diamond Grinding (Bridge Section)	Sq Yd	3,427		3,427
Jacking and Cribbing	Each		23	23
Pipe Underdrains for Structures 4"	Foot		223	223
Bituminous Coated Aggregate Slopedwall 6"	Sq Yd		216	216
Containment and Disposal of Lead Paint Cleaning Residues	L. Sum	1		1
Cleaning and Painting Structural Steel, Location 1	L. Sum	1		1

** Quantity includes Textured Epoxy Coated Reinforcement Bars. See sheets 58, 61, & 62 of 86.

STATION 346+93.36
RE-BUILT 20 BY
STATE OF ILLINOIS
F.A.I. RT. 55 SEC. (84-2) BR-3
LOADING HS20 & ALT.
STRUCTURE NO. 084-0021

NAME PLATE
See Std. 515001

Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost Included with Name Plates.

CURVE DATA - BL I-55

P.I. = Sta. 357+89.25
Δ = 32° 04' 20" (R1)
D = 2° 00' 17"
R = 2,857.99'
L = 1,599.81'
T = 821.47'
E = 115.71'
T.R. = MATCH EX
S.E. RUN = MATCH EX
P.C. = Sta. 349+67.78
P.T. = Sta. 365+67.60
S.E. = 3.2 %

FLOOR DRAIN LOCATIONS

E. Curb	W. Curb
Sta. 345+41.00	Sta. 345+94.00
Sta. 345+56.00	Sta. 346+09.00
Sta. 345+71.00	Sta. 346+23.00

SCUPPER LOCATIONS

E. Curb	W. Curb
Sta. 346+89.00	Sta. 347+40.00
Sta. 347+17.00	Sta. 347+66.00
Sta. 348+44.00	Sta. 348+92.00

FILE NAME = S:\P\2015\13-48\1001 D6 P18 I17 Item 28 407 58 1-55 Bridge\CAD\CADD Sheets\0840021-2ZF.dwg:2015-General Data.dwg
MODEL = 3RDELS
PLOT DRIVER = PLOTDR54



USER NAME = tgray	DESIGNED - KRG	REVISED / 1/9/2015 D.R.B.
	CHECKED - MJK	REVISED
PLOT SCALE =	DRAWN - TF	REVISED
PLOT DATE = 1/9/2015	CHECKED - SCD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 084-0021

SHEET NO. 2 OF 38 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-2) BR-3, RS-4	SANGAMON	86	43
				CONTRACT NO. 72F49
ILLINOIS FED. AID PROJECT				

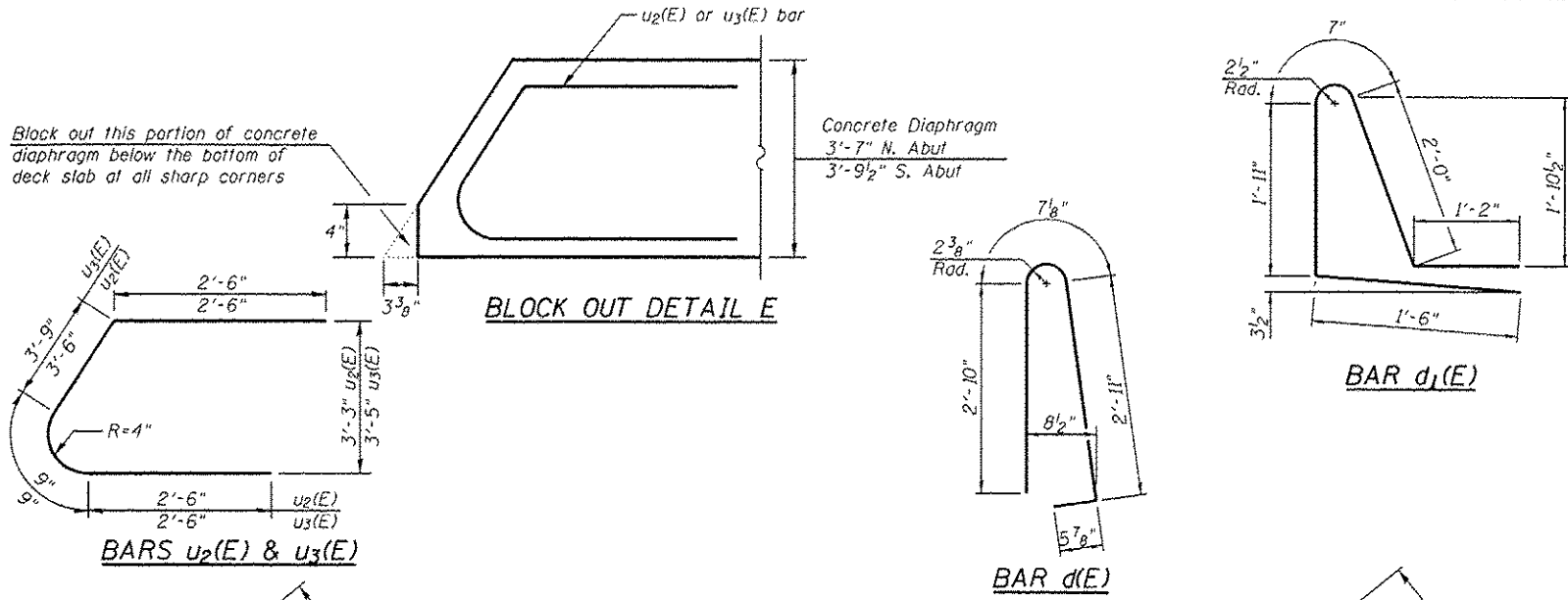


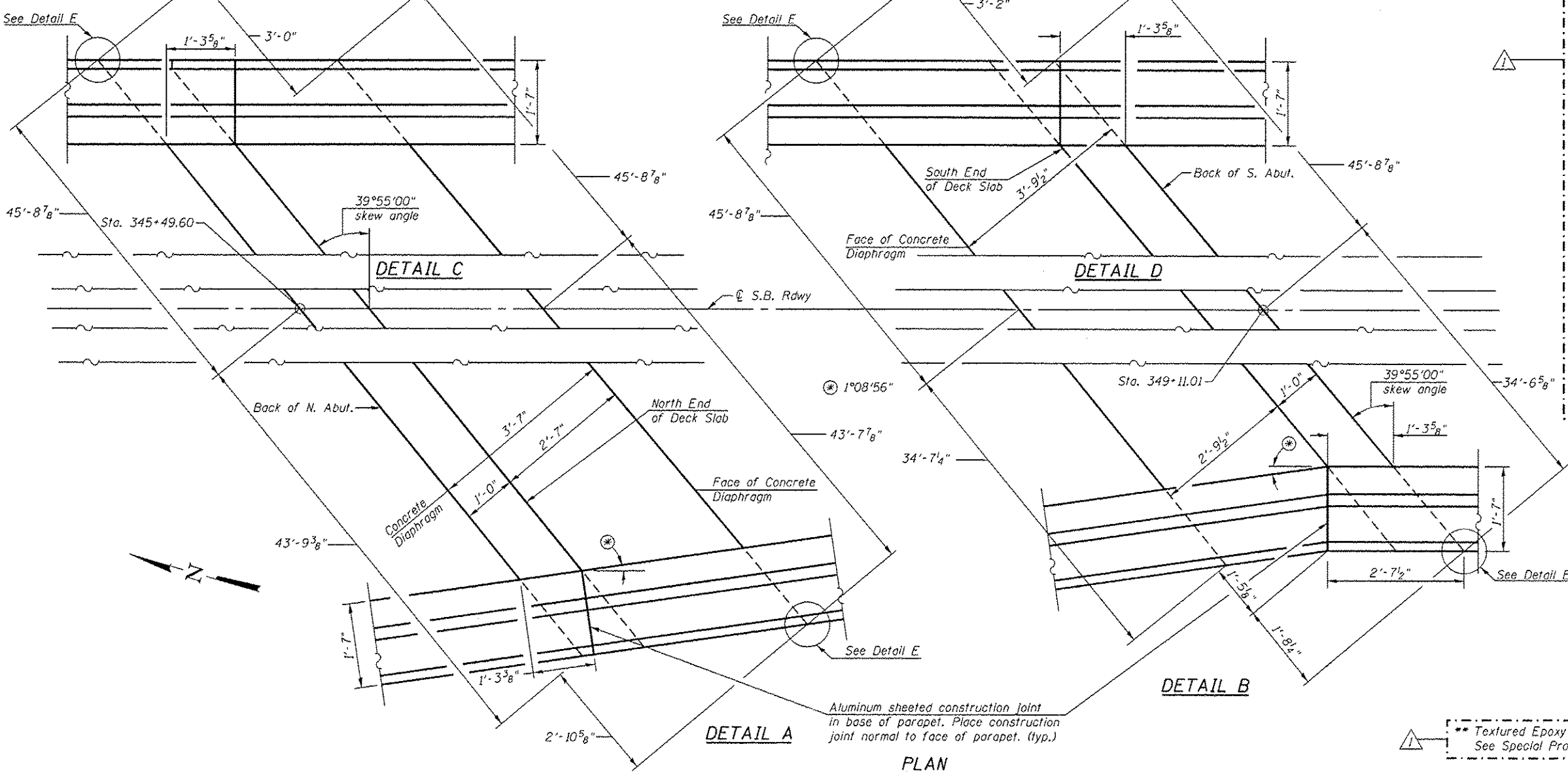
TABLE A

Location	Layer	No. of bars	Total length after Splicing
Line B ₁	Top of Slab	10-b ₁ (E) bars plus 1-b ₃ (E) bar	283'-0"
	Bott. of Slab	11-b ₂ (E) bars	
Line B ₂	Top of Slab	8-b ₁ (E) bars plus 1-b ₃ (E) bar	232'-0"
	Bott. of Slab	9-b ₂ (E) bars	
Line B ₃	Top of Slab	6-b ₁ (E) bars plus 1-b ₄ (E) bar	181'-3"
	Bott. of Slab	7-b ₂ (E) bars	
Line B ₄	Top of Slab	4-b ₁ (E) bars plus 1-b ₄ (E) bar	130'-6"
	Bott. of Slab	5-b ₂ (E) bars	
Line B ₅	Top of Slab	3-b ₁ (E) bars	79'-8"
	Bott. of Slab	3-b ₂ (E) bars	
Line B ₆	Top of Slab	1-b ₁ (E) bar cut to fit	28'-0"
	Bott. of Slab	1-b ₂ (E) bar	

**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a ₁ (E)	662	#5	29'-0"	
a ₂ (E)	431	#5	28'-6"	
a ₃ (E)	662	#5	24'-3"	
a ₄ (E)	431	#5	27'-0"	
a ₅ (E)	275	#5	16'-7"	
a ₆ (E)	396	#5	13'-9"	
a ₇ (E)	1324	#6	6'-6"	
a ₈ (E)	4	#5	38'-0"	
a ₉ (E)	4	#5	26'-0"	
a ₁₀ (E)	4	#5	21'-0"	
a ₁₁ (E)	48	#5	1'-6"	
a ₁₂ (E)	176	#5	13'-10"	
a ₁₃ (E)	258	#5	11'-0"	
b ₁ (E)	877	#5	30'-0"	
b ₂ (E)	777	#6	17'-11"	
b ₃ (E)	890	#5	28'-0"	
b ₄ (E)	2	#6	12'-6"	
b ₅ (E)	2	#5	20'-8"	
d ₁ (E)	777	#5	6'-10"	
d ₂ (E)	777	#5	7'-2"	
e ₁ (E)	32	#4	9'-5"	
e ₂ (E)	32	#4	9'-9"	
e ₃ (E)	32	#4	8'-9"	
e ₄ (E)	42	#4	9'-0"	
e ₅ (E)	42	#4	17'-7"	
e ₆ (E)	105	#4	19'-0"	
e ₇ (E)	21	#4	18'-10"	
e ₈ (E)	42	#4	17'-5"	
e ₉ (E)	8	#4	27'-11"	
e ₁₀ (E)	24	#4	16'-0"	
e ₁₁ (E)	8	#8	29'-5"	
e ₁₂ (E)	24	#8	18'-4"	
e ₁₃ (E)	4	#8	9'-5"	
e ₁₄ (E)	4	#8	9'-9"	
e ₁₅ (E)	4	#8	8'-9"	
e ₁₆ (E)	4	#8	9'-0"	
m ₁ (E)	16	#7	38'-6"	
m ₂ (E)	16	#7	27'-9"	
m ₃ (E)	16	#7	23'-2"	
m ₄ (E)	24	#5	7'-3"	
m ₅ (E)	40	#5	7'-6"	
m ₆ (E)	8	#5	7'-0"	
m ₇ (E)	8	#5	6'-3"	
m ₈ (E)	4	#5	3'-9"	
m ₉ (E)	69	#5	4'-0"	
s ₁ (E)	59	#5	9'-11"	U
s ₂ (E)	59	#5	10'-3"	U
s ₃ (E)	13	#5	9'-9"	U
s ₄ (E)	6	#5	10'-1"	U
u ₁ (E)	171	#5	3'-8"	U
u ₂ (E)	150	#5	6'-5"	U
u ₃ (E)	6	#6	9'-3"	C
u ₄ (E)	6	#6	9'-6"	C
Reinforcement Bars, Epoxy Coated	Pound	189,980		
Concrete Superstructure	Cu. Yds.	1,003		

Lines of B₁ to B₆ at the bottom of slab shall be placed in a flared fashion between Beams 10 to 12 to avoid interference with the shear connectors. Minimum spacing between longitudinal bars shall be 5/2". Transverse bars a₁(E) and a₂(E) may also be flared.



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

QEI QUIGG ENGINEERING INC	USER NAME : tfray	DESIGNED - KRG	REVISED - 1/9/2015 D.R.B.
	PLOT SCALE :	CHECKED - MJK	REVISED
	PLOT DATE : 1/9/2015	DRAWN - TF	REVISED
		CHECKED - SCD	REVISED

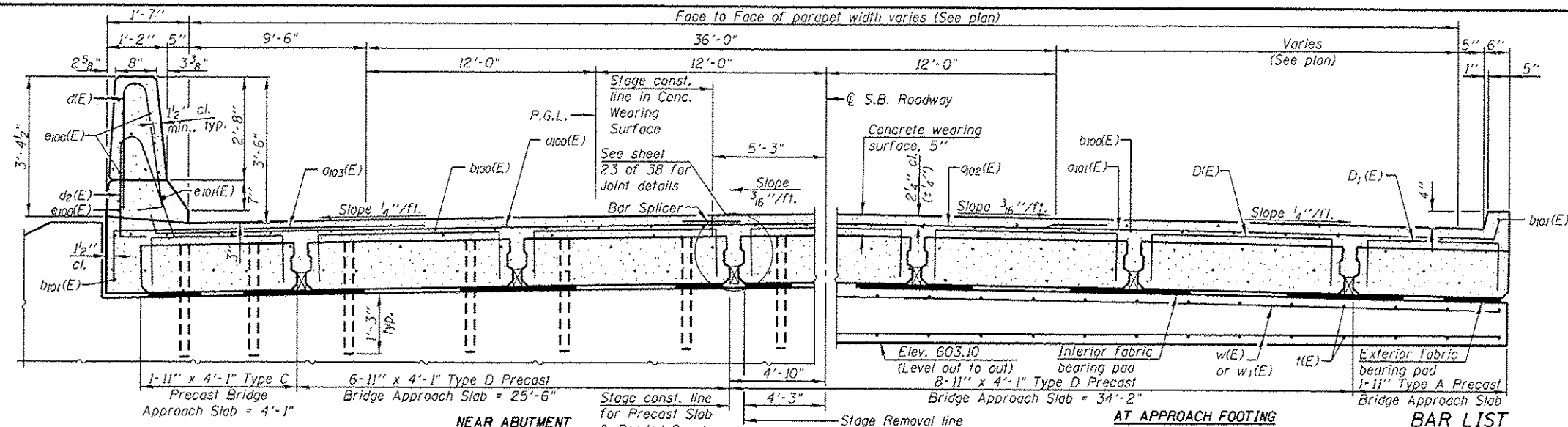
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE BILL OF MATERIAL
STRUCTURE NO. 084-0021

SHEET NO. 17 OF 38 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-2) BR-3, RS-4	SANGAMON	86	58
ILLINOIS FED. AID PROJECT			CONTRACT NO. 72F49	

FILE NAME : S:\Projects\2013 Jobs\13-42 ICDT 06 P18 137 Item 20 W07 59 1-95 Bridge\CAD\CAD00 Sheets\0840021-22F49-07-Superstructure Details 02.dgn
PLOT DATE : 1/9/2015
PLOT BY : SCD



Notes:
 For Sections A-A, C-C, Parapet reinforcement and Bar bending details see sheet 22 of 38.
 For Precast Bridge Approach Slab Section D-D and Joint Seal details see sheet 24 of 38.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₁₀₀ (E)	31	#4	37'-8"	—
a ₁₀₁ (E)	31	#4	40'-5"	—
a ₁₀₂ (E)	31	#4	11'-3"	—
a ₁₀₃ (E)	30	#4	7'-5"	—
b ₁₀₀ (E)	66	#4	29'-8"	—
b ₁₀₁ (E)	4	#4	14'-8"	—
d(E)	34	#5	6'-10"	—
d ₂ (E)	34	#5	5'-11"	—
e ₁₀₀ (E)	16	#4	14'-8"	—
e ₁₀₁ (E)	2	#8	14'-8"	—
f(E)	138	#4	12'-8"	—
w(E)	80	#5	20'-6"	—
w ₁ (E)	80	#5	26'-0"	—

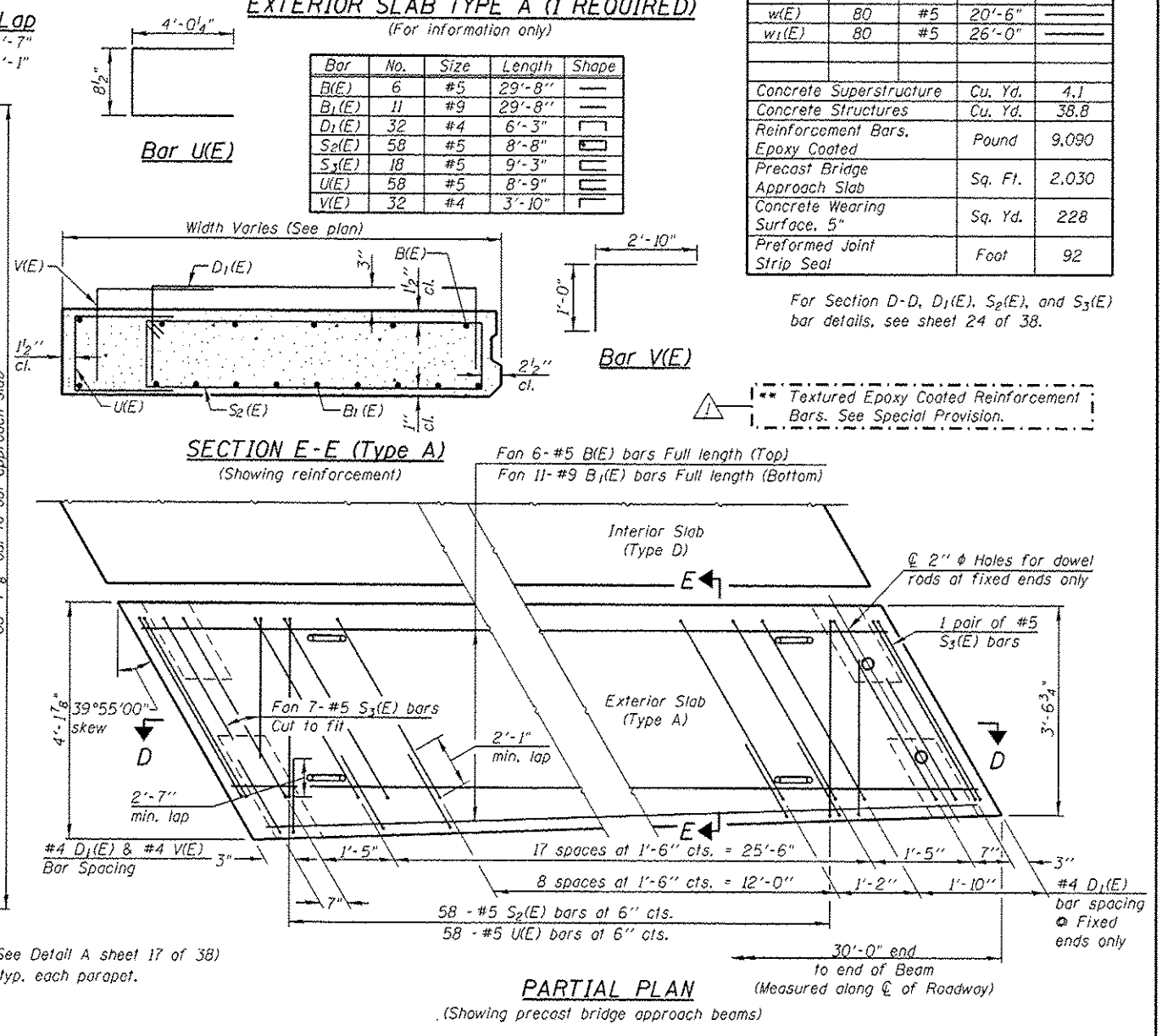
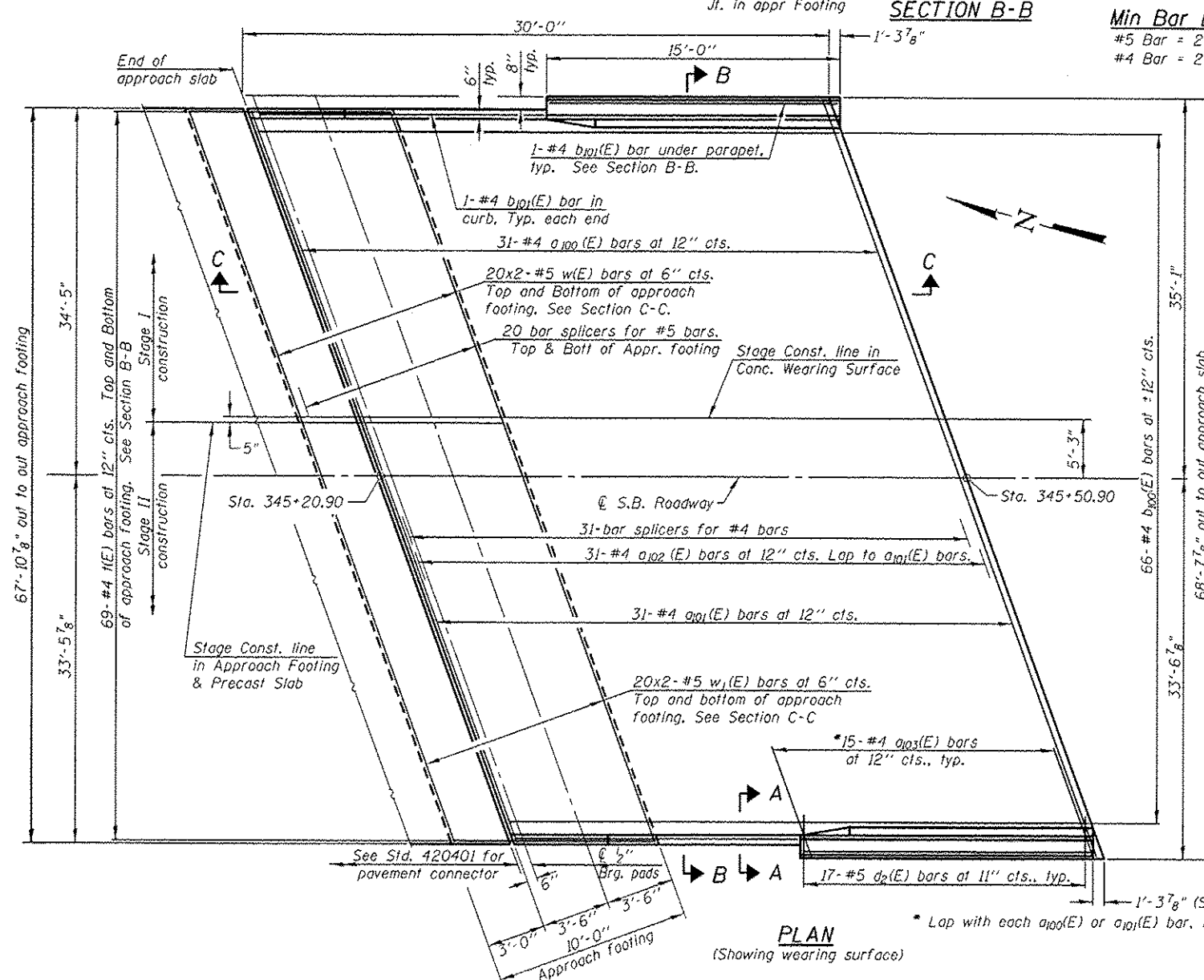
BAR LIST
EXTERIOR SLAB TYPE A (1 REQUIRED)
 (For information only)

Bar	No.	Size	Length	Shape
B ₁ (E)	6	#5	29'-8"	—
B ₂ (E)	11	#9	29'-8"	—
D ₁ (E)	32	#4	6'-3"	—
S ₂ (E)	58	#5	8'-8"	—
S ₃ (E)	18	#5	9'-3"	—
U(E)	58	#5	8'-9"	—
V(E)	32	#4	3'-10"	—

Concrete Superstructure	Cu. Yd.	4.1
Concrete Structures	Cu. Yd.	38.8
Reinforcement Bars, Epoxy Coated	Pound	9,090
Precast Bridge Approach Slab	Sq. Ft.	2,030
Concrete Wearing Surface, 5"	Sq. Yd.	228
Preformed Joint Strip Seal	Foot	92

For Section D-D, D₁(E), S₂(E), and S₃(E) bar details, see sheet 24 of 38.

Textured Epoxy Coated Reinforcement Bars. See Special Provision.



FILE NAME = S:\projects\2013\080512-18\1021 06 P18 137 Item 20 W07 58 1-55 Bridge\CAD\00\Sheet\080512-18-20-W07-58-1-55 Bridge Approach Slab.dwg
 MODEL
 PLOT DRIVER = PLOTDRV38



USER NAME	xrfay	DESIGNED	KRG	REVISED	1/9/2015 D.R.B.
PLOT SCALE		CHECKED	MJK	REVISED	
PLOT DATE	1/12/2015	DRAWN	TF	REVISED	
		CHECKED	SCD	REVISED	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

NORTH BRIDGE APPROACH SLAB
 STRUCTURE NO. 084-0021
 SHEET NO. 20 OF 38 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	104-21 BR-3, RS-4	SANGAMON	86	61

CONTRACT NO. 72F49
 ILLINOIS FED. AID PROJECT

