

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
SURFACE TRANSPORTATION PROGRAM**

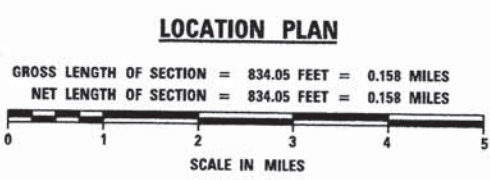
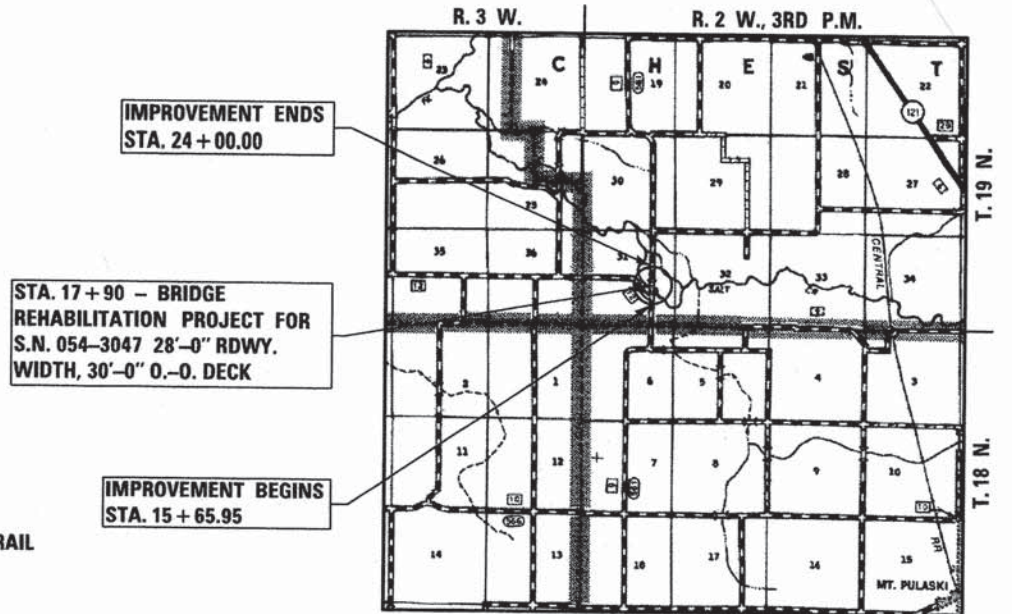
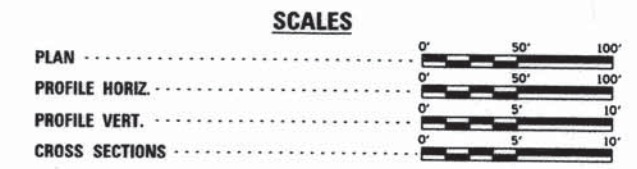
SECTION 14-00083-01-BR
LOGAN COUNTY
C.H. 9 (FAS 561)
BHS-0561 (107)
C-96-212-15



CLASSIFICATION: MAJOR COLLECTOR
DESIGN VOLUME: 400 TO 700 ADT
CURRENT ADT: 450 (2011)
DESIGN SPEED: 40 M.P.H.

SHEET NO.	TITLE
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES, GENERAL NOTES & TYPICAL SECTIONS
3.	PLAN AND PROFILE SHEET
4.	SHOULDER AND GUARDRAIL DETAILS
5-40.	BRIDGE PLANS
41-45.	STATION CROSS SECTIONS

STANDARDS	TITLE
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-03	NAME PLATE FOR BRIDGES
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631026-06	TRAFFIC BARRIER TERMINAL, TYPE 5
701901-05	TRAFFIC CONTROL DEVICES
720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS AND MARKERS)
BLR 20-7	TRAFFIC BARRIER TERMINAL TYPE 5R
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS



FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL
ILLINOIS IOWA WISCONSIN

ILLINOIS PROFESSIONAL DESIGN FIRM NUMBER: 184003525



Gary J. Cartwright 1-13-16
ILLINOIS PROFESSIONAL NO. 43408
EXPIRES 11-30-17

TOLL FREE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (J.U.L.I.E.)
TELEPHONE NUMBER 1-800-892-0123

APPROVED	<i>Janey 14</i> 2016
	COUNTY ENGINEER
PASSED	<i>FEBRUARY 10</i> 2016
	DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS
RELEASED FOR BID BASED ON LIMITED REVIEW	<i>FEBRUARY 10</i> 2016
	DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER
	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
20400800	FURNISHED EXCAVATION	CU YD	85
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	10
28000400	PERIMETER EROSION BARRIER	FOOT	362
28100207	STONE RIPRAP, CLASS A4	TON	216
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	227
28200200	FILTER FABRIC	SQ YD	251
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	24
44000100	PAVEMENT REMOVAL	SQ YD	20
50102400	CONCRETE REMOVAL	CU YD	24.5
50300255	CONCRETE SUPERSTRUCTURE	CU YD	24.5
50300300	PROTECTIVE COAT	SQ YD	148
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	5550
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	6180
52000110	PREFORMED JOINT STRIP SEAL	FOOT	123
Δ 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	37.5
Δ 63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	2
Δ 63100080	TRAFFIC BARRIER TERMINAL, TYPE 5R	EACH	2
Δ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	3
Δ 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	1
Δ 63200310	GUARDRAIL REMOVAL	FOOT	364
67100100	MOBILIZATION	L SUM	1
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
Δ 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	3
Δ Z0007114	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES	L SUM	1
Δ Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL OR LESS THAN 5")	SQ FT	12
Z0016001	DECK SLAB REPAIR (FULL DEPTH TYPE I)	SQ YD	2
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	69
XX004633	FIELD TILE ADJUSTMENT	EACH	1

*SEE SPECIAL PROVISIONS
 Δ SPECIALTY ITEMS

GENERAL NOTES

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 PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

THE AREA TO BE SEEDDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY, AS DIRECTED BY THE ENGINEER.

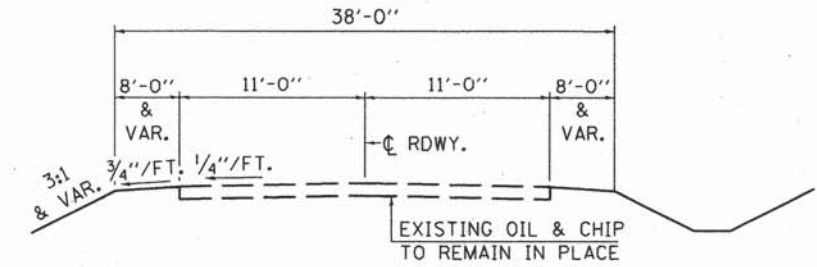
AREA OF FINAL SEEDING = 0.1 ACRE
 (FINAL SEEDING BY OTHERS, FOR INFORMATION ONLY)

WETLAND SITES 1 & 2 SHALL BE AVOIDED DURING CONSTRUCTION.

ANY AREA OF WELAND SITES 1 & 2 WHICH ARE DISTURBED BY CONSTRUCTION SHALL BE RESTORED AND SEEDDED WITH AGROSTIS ALBA (REDTOP) AT A RATE OF 5 POUNDS PER ACRE. COST IS INCLUDED IN "TEMPORARY EROSION CONTROL SEEDING."

**EROSION CONTROL
 BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
TEMPORARY EROSION CONTROL SEEDING	POUND	10
PERIMETER EROSION BARRIER	FOOT	362



SUGGESTED FILL SECTION
 CONSTRUCT AS SHOWN BY
 STATION CROSS SECTIONS

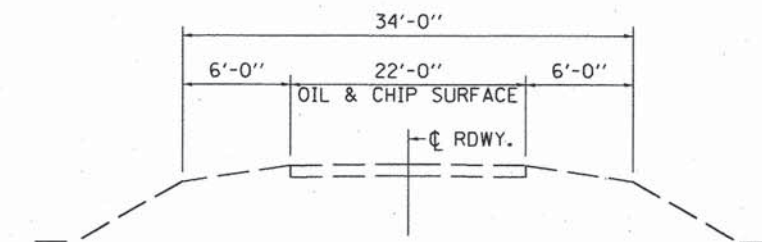
TYPICAL PROPOSED CROSS SECTION

STA. 15+65.95 TO STA. 16+72.83 AND
 STA. 22+48.42 TO STA. 24+00

NOTE: FOR PAVEMENT REMOVAL
 AND REPLACEMENT SEE
 SHEETS 11 & 12 OF 44.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE USE(S)	H. M. A. SURFACE COURSE
PG:	PG 64-22
DESIGN AIR VOIDS:	4% @ N50
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5
FRICTION AGGREGATE	MIX "C"
QUALITY MANAGEMENT	QC/QA



TYPICAL EXISTING CROSS SECTION

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ILLINOIS DESIGN FIRM NO. 184-003525
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ILLINOIS
 IOWA
 WISCONSIN

AGENCY:
 LOGAN COUNTY
 HIGHWAY DEPARTMENT

PROJECT:
 SECTION 14-00083-01-BR
 C.H. 9 OVER SALT CREEK

DESIGNED: G. J. C.
 CHECKED: R. D. Γ.
 DRAWN: A. D. S.
 CHECKED: R. D. Γ.

REVISIONS	
REV. NO.	DATE
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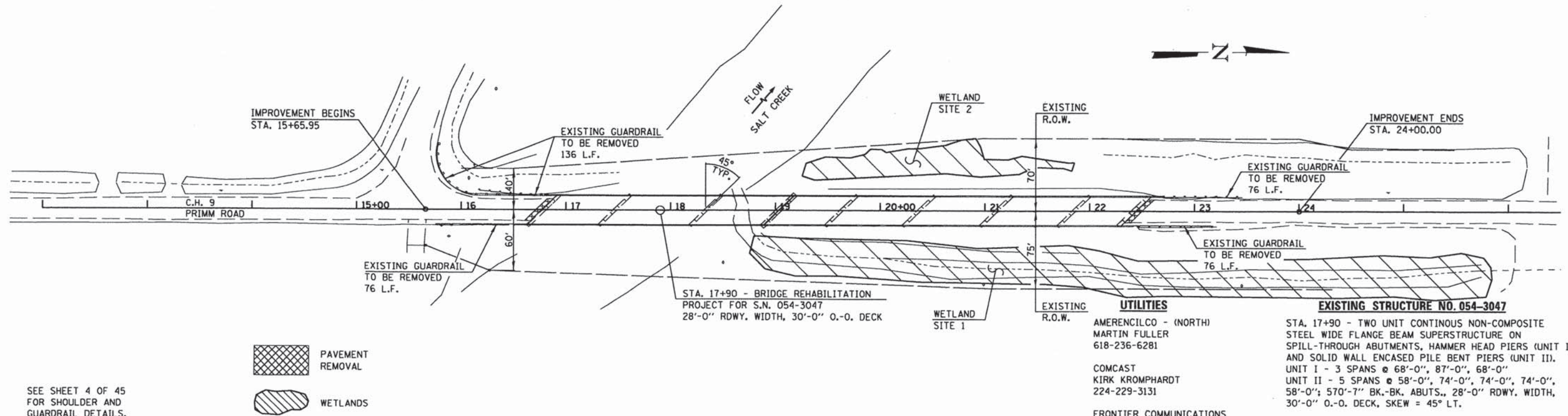
DRAWING:
 SUMMARY OF QUANTITIES, GENERAL NOTES
 AND TYPICAL CROSS SECTIONS

CONTRACT #: 93675

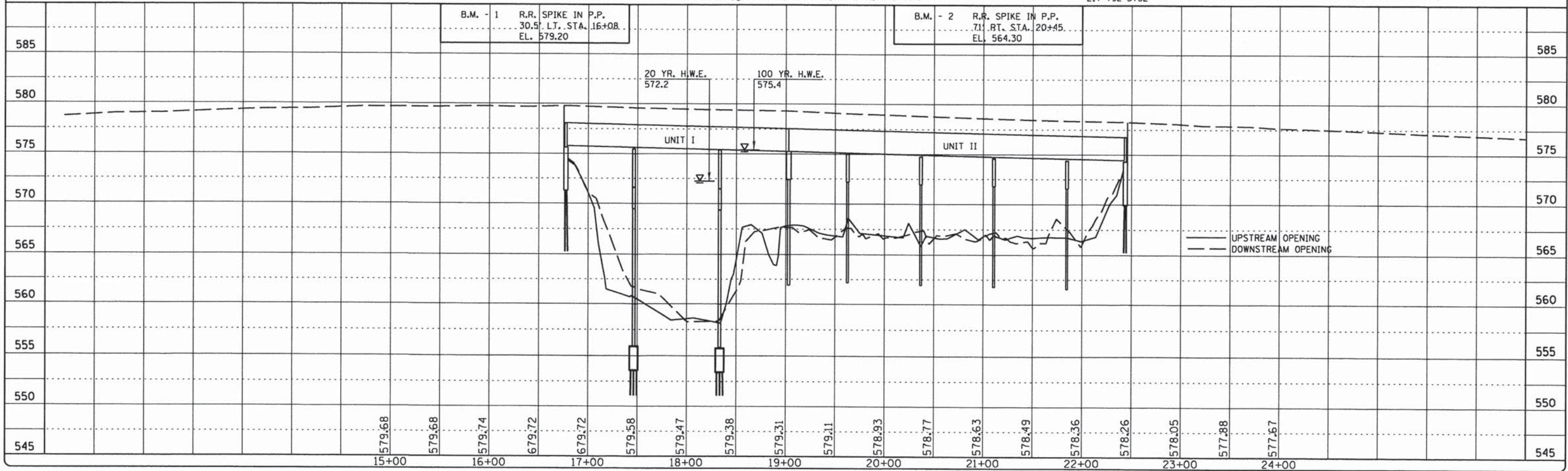
JOB NUMBER:
 14-589

SHEET NUMBER
 2 of 45

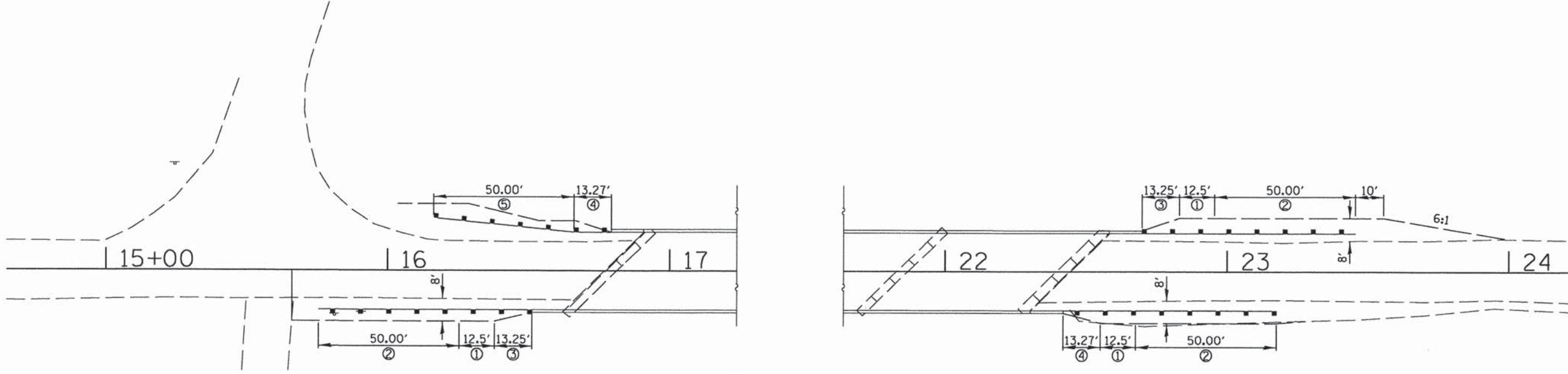
NOTE: THE REMOVAL OF STEEL PLATE BEAM GUARDRAIL, BARRIER TERMINALS AND TERMINAL ANCHORAGES WITHIN THE EXISTING EMBANKMENT IS INCLUDED IN THE COST OF GUARDRAIL REMOVAL.



SEE SHEET 4 OF 45 FOR SHOULDER AND GUARDRAIL DETAILS.



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REV. NO.	DESCRIPTION	DATE



GUARDRAIL & SHOULDER DETAIL

LEGEND

- ① STEEL PLATE BEAM GUARDRAIL, TYPE A
6 FOOT POSTS
- ② TRAFFIC BARRIER TERMINAL, TYPE 1
(SPECIAL) TANGENT
- ③ TRAFFIC BARRIER TERMINAL, TYPE 5R
- ④ TRAFFIC BARRIER TERMINAL, TYPE 5
- ⑤ TRAFFIC BARRIER TERMINAL, TYPE 1
(SPECIAL) FLARED

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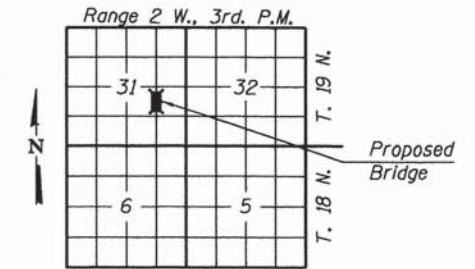
DRAWING:
SHOULDER AND GUARDRAIL
SF FILES#
CONTRACT #: 93675

JOB NUMBER:
14-589
SHEET NUMBER:
4 of 45

Existing Structure S.N. 054-3047 was built in 1976 as Section 83B in F.A. Project RS-56K102) at Sta. 17+90. It is composed of two continuous (non-composite) steel wide flange beam units with 7 1/2" R.C. decks. Unit I is a three-span unit over the main channel founded upon R.C. hammer-head piers with timber pile supported footings (in channel) and a solid wall encased metal shell concrete pile bent pier. Unit II is a five-span unit over the floodplain founded upon solid wall encased metal shell concrete pile bent piers. Abutments are R.C. spill through pile (concrete metal shells) bent stub abutments. Structure Length is 570'-7" bk.-bk. of abutments, 30'-0" o.-o. deck, 28'-0" Rdwy. width (fc.-fc. Parapets). Skew = 45°Lt.

DESIGN SCOUR ELEVATION TABLE

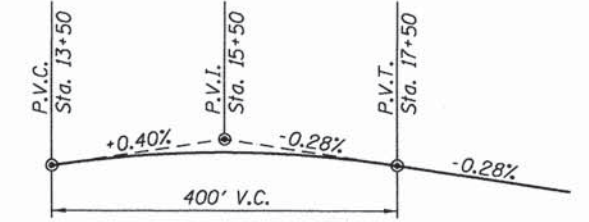
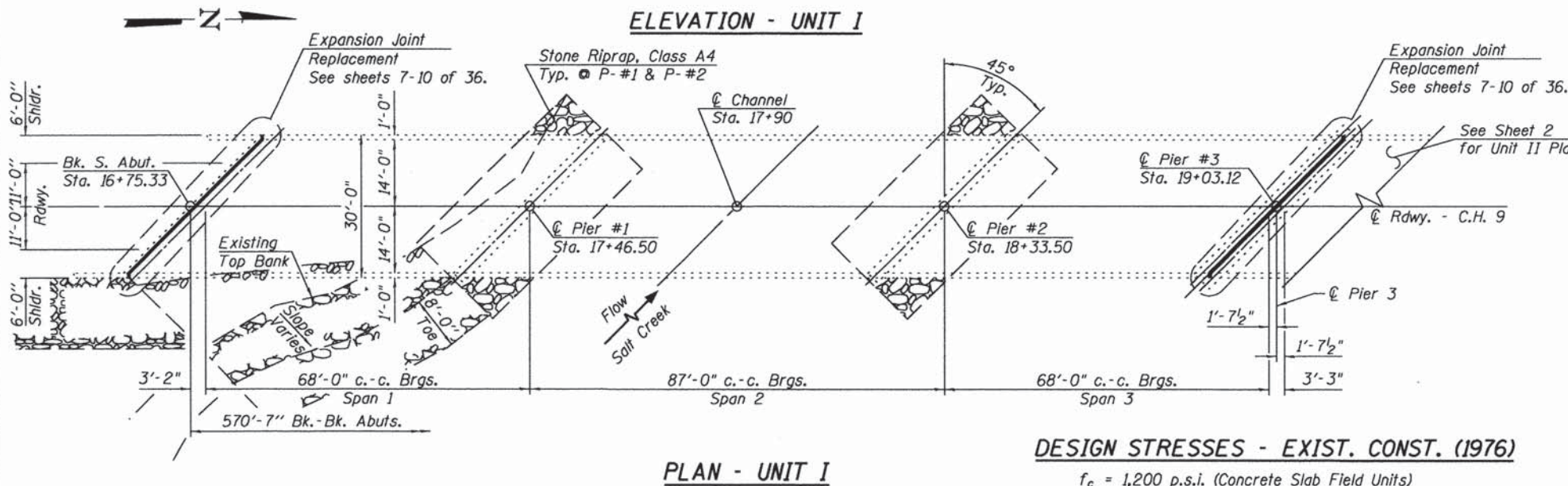
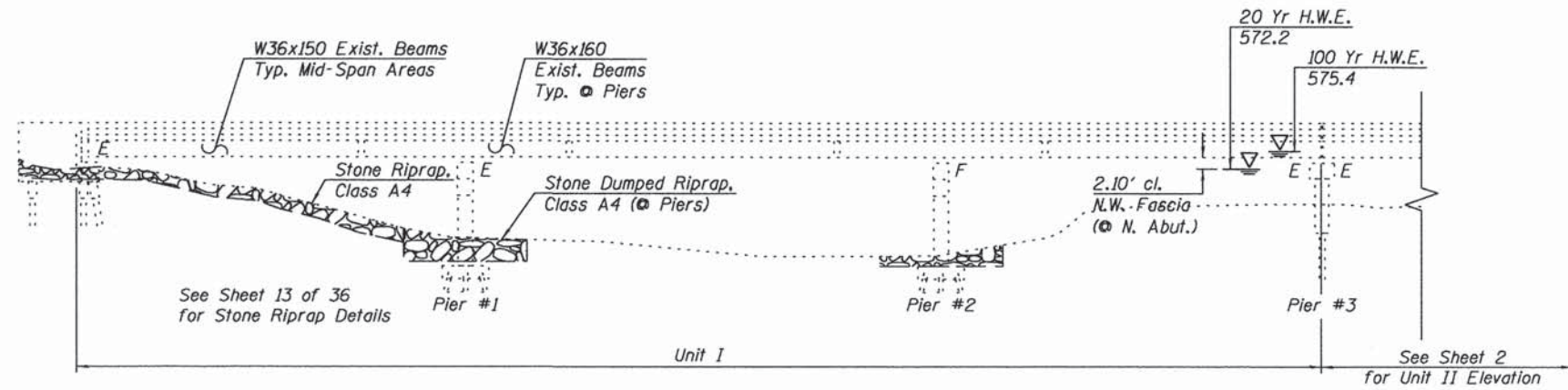
Event/Limit State	Design Scour Elevations (ft.)		Item
	Pier 1	Pier 2	
Q100	543.0	547.0	5



LOCATION PLAN

INDEX OF SHEETS

1. General Plan & Elevation - Unit I
2. General Plan & Elevation - Unit II & General Notes
3. Deck Slab Repairs & Concrete Removal - Unit I
4. As-Built Deck Slab Repairs - Unit I
5. Deck Slab Repairs & Concrete Removal - Unit II
6. As-Built Deck Slab Repairs - Unit II
7. Concrete Removal Details - Expansion Joints
- 8-9. Superstructure Details - Expansion Joints
10. Preformed Joint Strip Seal
- 11-12. Structural Steel Repairs
13. Pier 3 Repairs
14. Stone Riprap Details
- 15-36. Existing Plan Information



EXISTING PROFILE GRADE

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	24.5		24.5
Concrete Superstructure	Cu. Yd.	24.5		24.5
Reinforcement Bars, Epoxy Coated	Pound	6180		6180
Cleaning and Painting Steel Bridge No. 1	L. Sum	1		1
Preformed Joint Strip Seal	Foot	123		123
Deck Slab Repair (Partial)	Sq. Yd.	69		69
Deck Slab Repair (Full Depth Type I)	Sq. Yd.	2		2
Structural Repair of Concrete (Depth Equal or Less Than 5")	Sq. Ft.		12	12
Furnish & Erect Structural Steel	Pound	5550		5550
Stone Riprap, Class A4	Ton		216	216
Filter Fabric	Sq. Yd.		251	251
Stone Dumped Riprap, Class A4	Ton		227	227
Containment and Disposal of Non Lead Paint Cleaning Residues	L. Sum	1		1
Protective Coat	Sq. Yd.	148		148

WATERWAY INFORMATION

Drainage Area = 481 Sq. Mi.

Flood Event	Freq. Yr.	Discharge Ft ³ /s	Waterway Opening - ft ²		Natural H.W.E. ft.	Head - ft.		Headwater Elevation ft.	
			Existing	Proposed		Existing	Proposed	Existing	Proposed
Design	20	8025	2410	2410	572.2	0.1	0.1	572.3	572.3
Base	100	15171	3512	3512	575.4	0.2	0.2	575.6	575.6
Scour Design Check	100	15171	3512	3512	575.4	0.2	0.2	575.6	575.6

DESIGN STRESSES - EXIST. CONST. (1976)

f_c = 1,200 p.s.i. (Concrete Slab Field Units)
 f_c = 1,400 p.s.i. (Substructure)
 f_s = 27,000 p.s.i. Structural Steel (M222 Grade 50W)
 LOADING HS 20-44
 Design Specifications: 1973 AASHO
 25#/Sq. Ft. included in dead load for future wearing surface.

DESIGN STRESSES - NEW CONST.

f_c = 3,500 p.s.i.
 f_c = 4,000 p.s.i. (Superstructure Concrete)
 f_y = 60,000 p.s.i. (Reinforcement Bars)
 f_y = 50,000 p.s.i. (AASHTO M270-Grade 50W)
 LOADING HS 20-44

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications, 17th Edition



GENERAL PLAN & ELEVATION

F.A.S. ROUTE 561 - C.H. 9

SECTION 14-00083-01-BR

LOGAN COUNTY

STATION 17+90

S.N. 054-3047

John A. Morris 12-31-15
 ILLINOIS STRUCTURAL NO. 4277 (Expires 11/30/16)

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ILLINOIS DESIGN FIRM NO. 184-003525

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AGENCY:
 LOGAN COUNTY
 HIGHWAY DEPARTMENT

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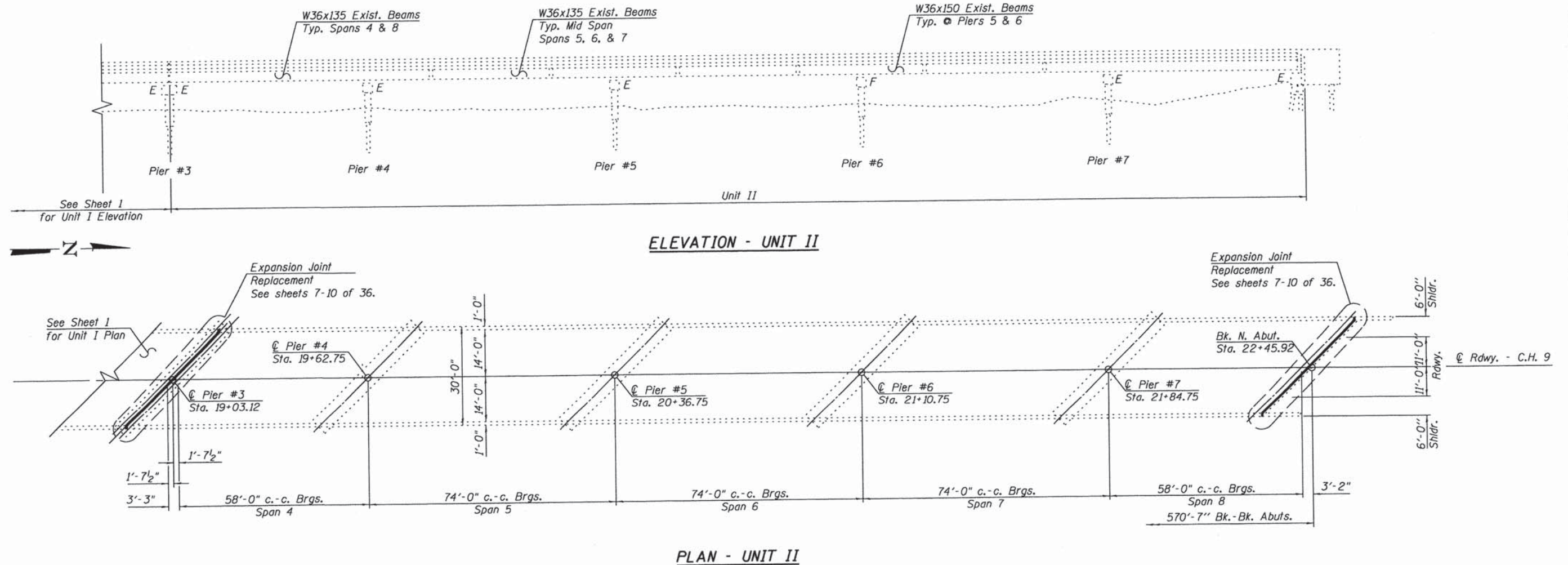
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REV. NO.	DESCRIPTION	DATE

DRAWING:
 GPE UNIT I

CONTRACT #: 93675

JOB NUMBER:
 14-589

SHEET NUMBER
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GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60.

Reinforcement bars designated (E) shall be epoxy coated.

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.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts (in painted areas and ASTM A325 Type 3 in unpainted areas). Bolts 3/4 in. φ, holes 13/16 in. φ, unless otherwise noted.

Calculated weight of Structural Steel = 5550 Pound

All structural steel shall be AASHTO M 270 Grade 50W (except expansion joints which shall be AASHTO M 270 Grade 50).

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 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 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.

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.

Threaded rods shall be ASTM A449 Type 1, with nuts and washers complying with A563A and F436 respectively.

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel within 9 ft (measured along the beam) of either side of deck joints shall be cleaned per Near White Blast Cleaning - SSPC-SP10.

The existing and new structural steel within 9 ft. of either side of the deck joints shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the final finish coat for the painted areas shall be Reddish Brown, Munsell No 2.5YR 3/4.

Containment of cleaning residue is required to control nuisance dust. See special provisions.

GENERAL PLAN & ELEVATION
F.A.S. ROUTE 561 - C.H. 9
SECTION 14-00083-01-BR
LOGAN COUNTY
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S.N. 054-3047



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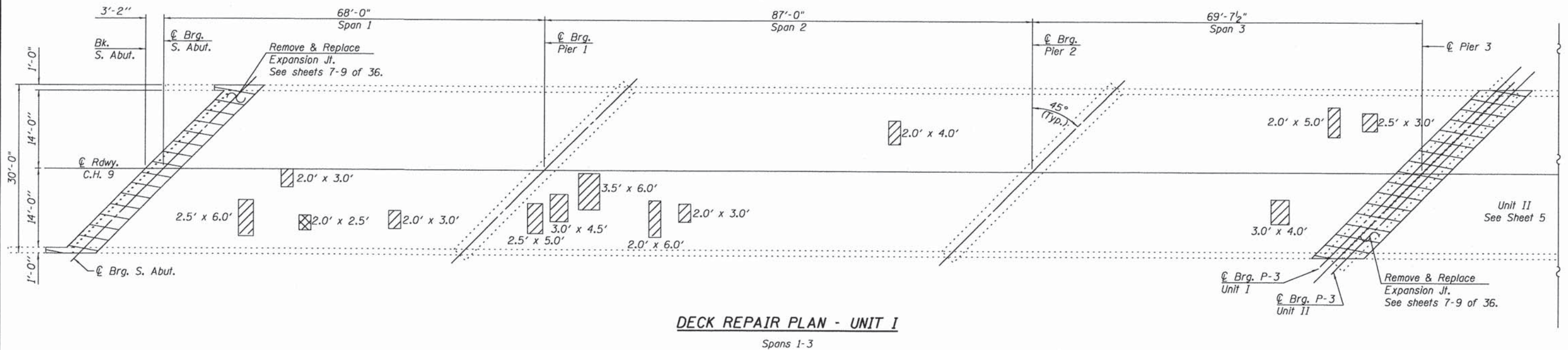
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REV. NO.	DATE

DRAWING:
 GPE UNIT II

CONTRACT #: 93675

JOB NUMBER:
 14-589

SHEET NUMBER
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DECK REPAIR PLAN - UNIT I
Spans 1-3

CONCRETE REPAIR LEGEND

- Deck Slab Repair (Partial)
- Deck Slab Repair (Full Depth)

BILL OF MATERIAL - UNIT I

ITEM	UNIT	TOTAL
Deck Slab Repair (Partial)	Sq. Yd.	15
Deck Slab Repair (Full Depth Type I)	Sq. Yd.	1
Protective Coat	Sq. Yd.	16

Note: Quantities and repair areas shown are estimated. Actual areas are to be determined by the Resident Engineer and recorded on As-Built Plan - Sheet 4.

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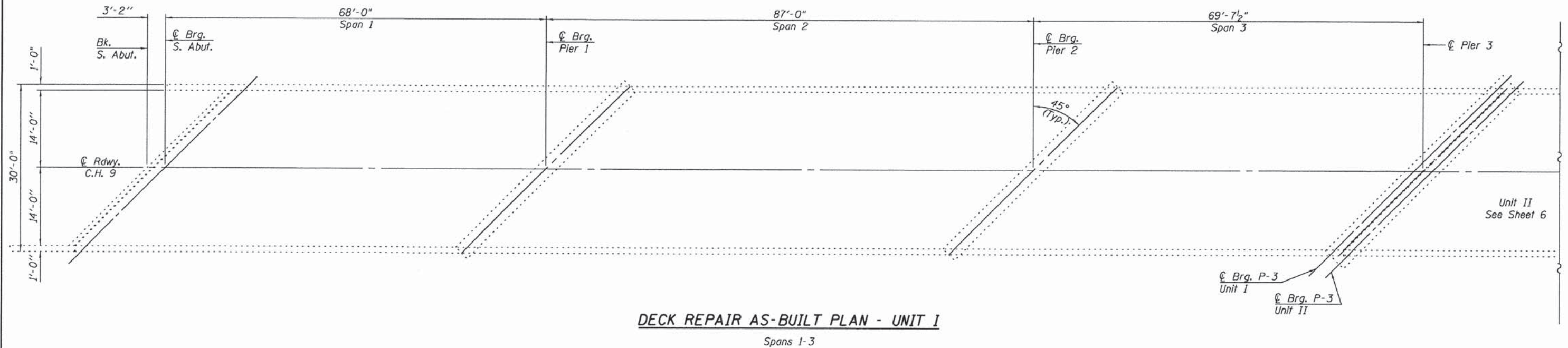
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DESCRIPTION	
REV. NO.	DATE
DESCRIPTION	
REV. NO.	DATE
DESCRIPTION	
REV. NO.	DATE
DESCRIPTION	

DRAWING:
DECK SLAB REPAIRS &
CONCRETE REMOVAL - UNIT I

CONTRACT #: 93675

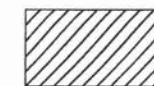
JOB NUMBER:
14-589

SHEET NUMBER
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DECK REPAIR AS-BUILT PLAN - UNIT I
Spans 1-3

CONCRETE REPAIR LEGEND



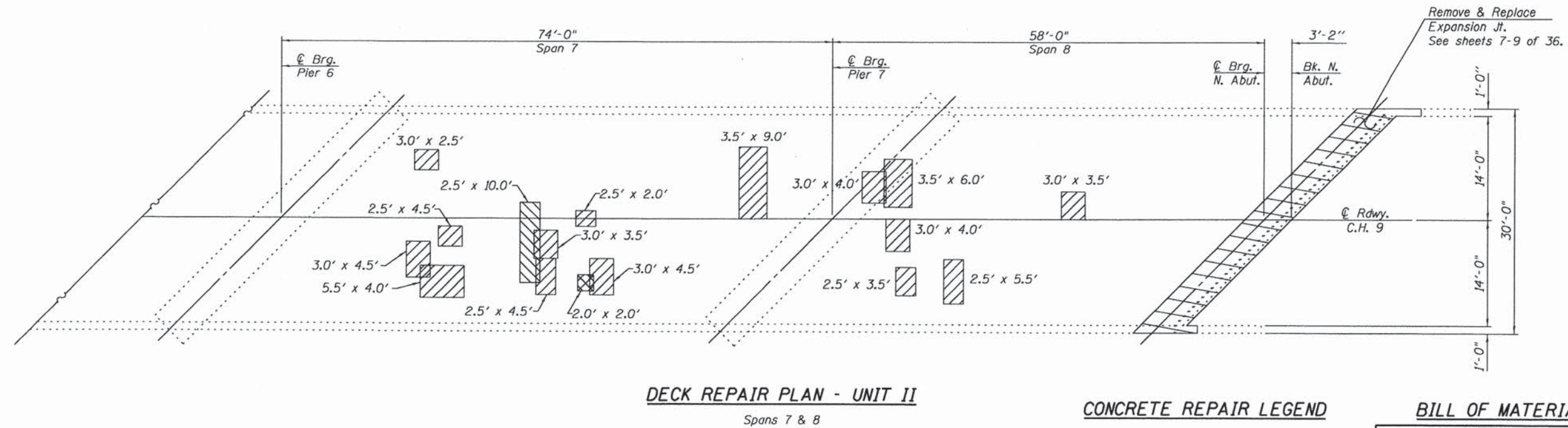
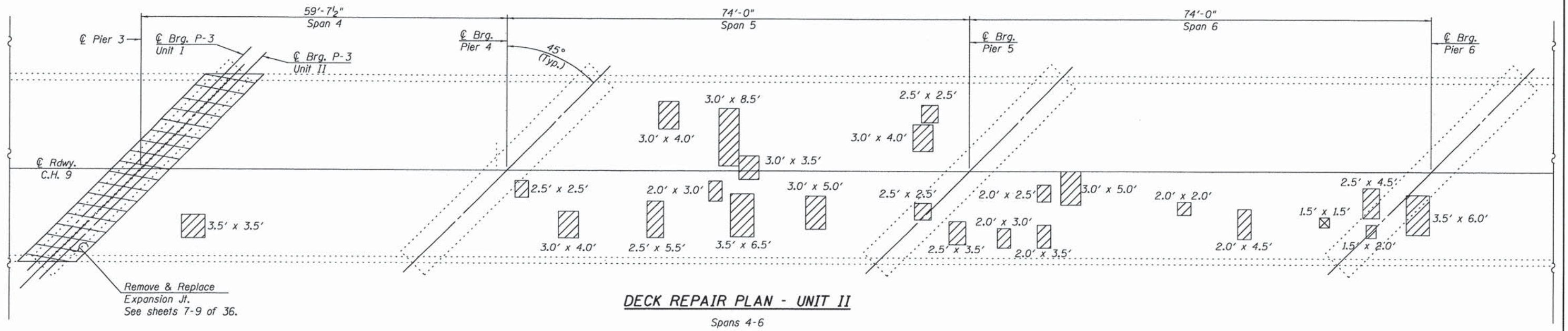
Deck Slab Repair (Partial)



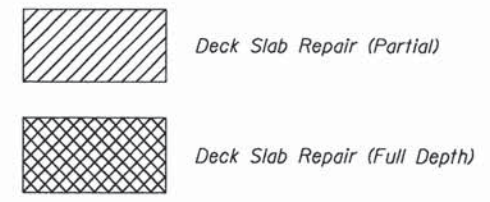
Deck Slab Repair (Full Depth)

BILL OF MATERIAL - UNIT I

ITEM	UNIT	TOTAL
Deck Slab Repair (Partial)	Sq. Yd.	
Deck Slab Repair (Full Depth Type I)	Sq. Yd.	



CONCRETE REPAIR LEGEND



BILL OF MATERIAL - UNIT II

ITEM	UNIT	TOTAL
Deck Slab Repair (Partial)	Sq. Yd.	54
Deck Slab Repair (Full Depth Type I)	Sq. Yd.	1
Protective Coat	Sq. Yd.	55

Note: Quantities and repair areas shown are estimated. Actual areas are to be determined by the Resident Engineer and recorded on As-Built Plan - Sheet 6.

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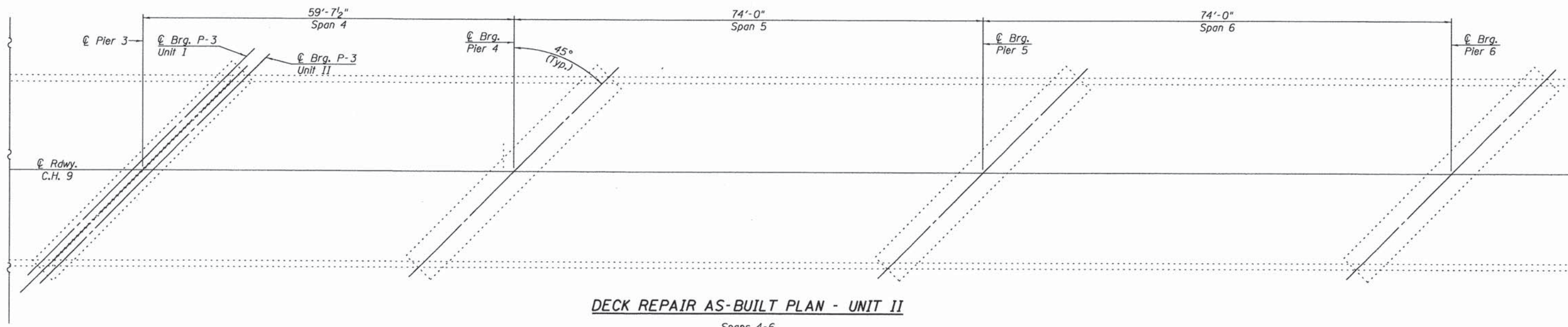
REVISIONS		
REV. NO.	DESCRIPTION	DATE

DRAWING:
DECK SLAB REPAIRS &
CONCRETE REMOVAL - UNIT II

FILES#
CONTRACT #: 93675

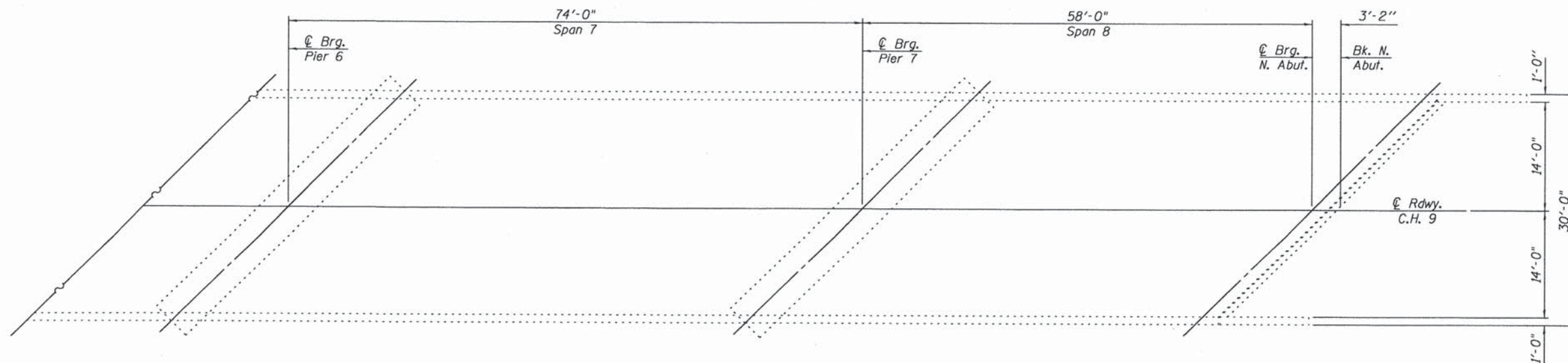
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14-589

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9 of 45



DECK REPAIR AS-BUILT PLAN - UNIT II

Spans 4-6



DECK REPAIR AS-BUILT PLAN - UNIT II

Spans 7 & 8

CONCRETE REPAIR LEGEND



Deck Slab Repair (Partial)



Deck Slab Repair (Full Depth)

BILL OF MATERIAL - UNIT II

ITEM	UNIT	TOTAL
Deck Slab Repair (Partial)	Sq. Yd.	
Deck Slab Repair (Full Depth Type I)	Sq. Yd.	

FEHR GRAHAM

ENGINEERING & ENVIRONMENTAL

ILLINOIS DESIGN FIRM NO. 184-003525

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ILLINOIS
IOWA
WISCONSIN

AGENCY:
LOGAN COUNTY
HIGHWAY DEPARTMENT

PROJECT:
SECTION 14-00083-01-BR
C.H. 9 OVER SALT CREEK
S.N. 054-3047

DESIGNED: A. R. K.
CHECKED: J. A. M.
DRAWN: A. D. S.
CHECKED: A. R. K.
J. A. M.

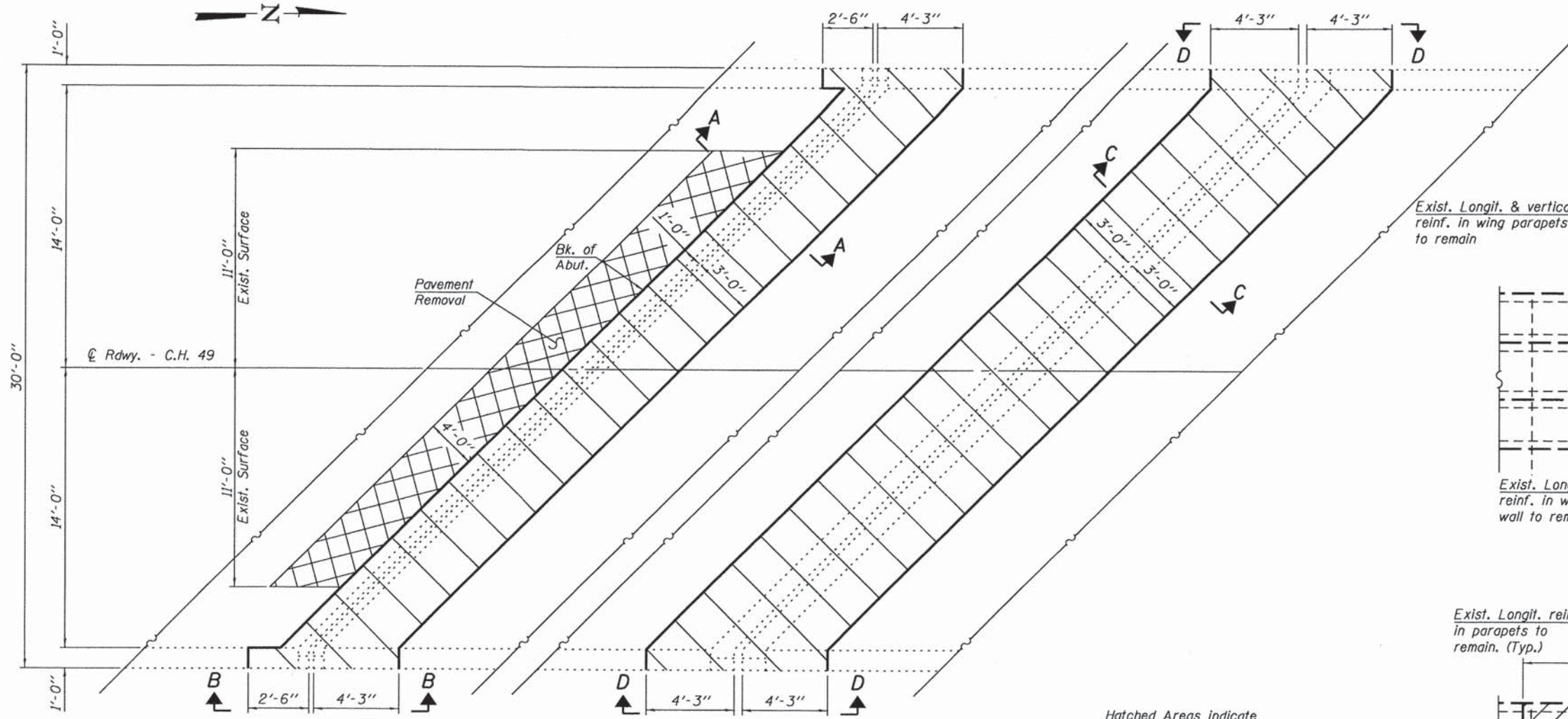
REVISIONS		
REV. NO.	DESCRIPTION	DATE

DRAWING:
DECK SLAB REPAIRS - UNIT II
AS BUILT

CONTRACT #: 93675

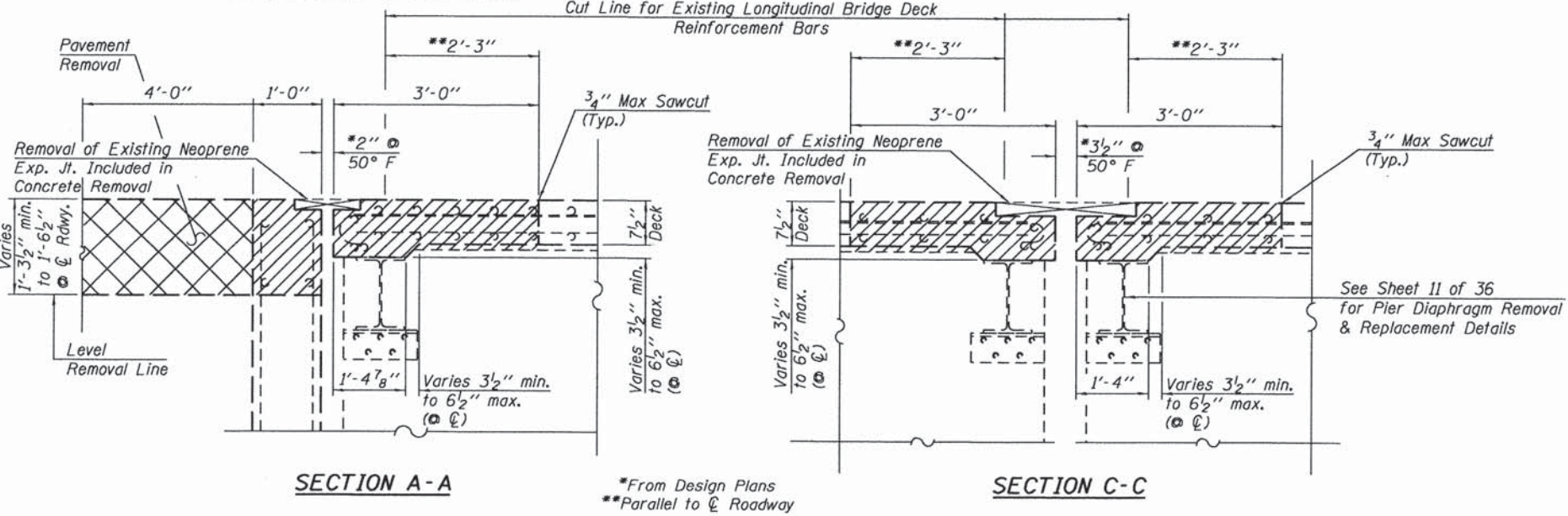
JOB NUMBER:
14-589

SHEET NUMBER
10 of 45



ABUTMENT JOINT PLAN
(S. Abut. Shown - N. Abut. Similar)

PIER-3 JOINT PLAN



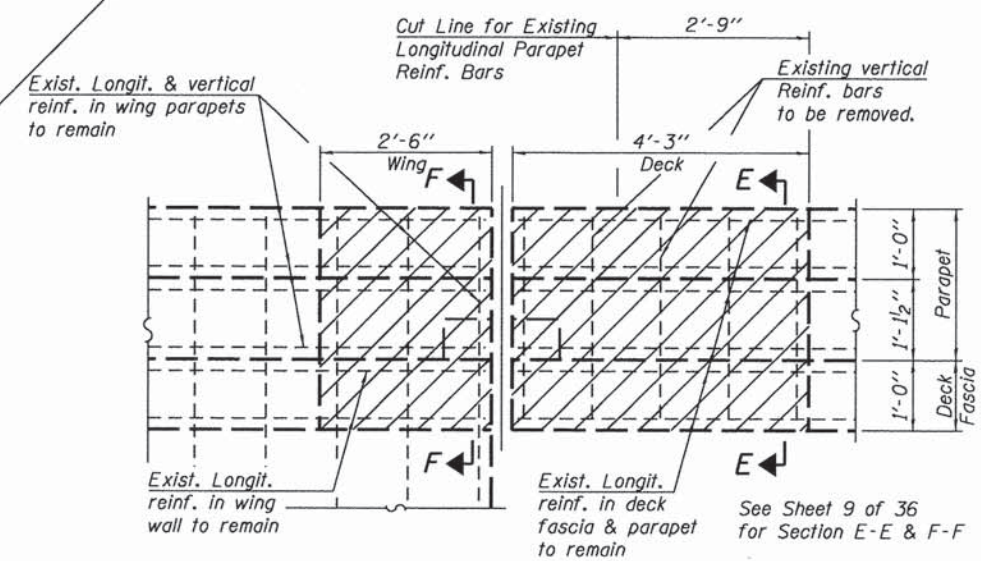
SECTION A-A

SECTION C-C

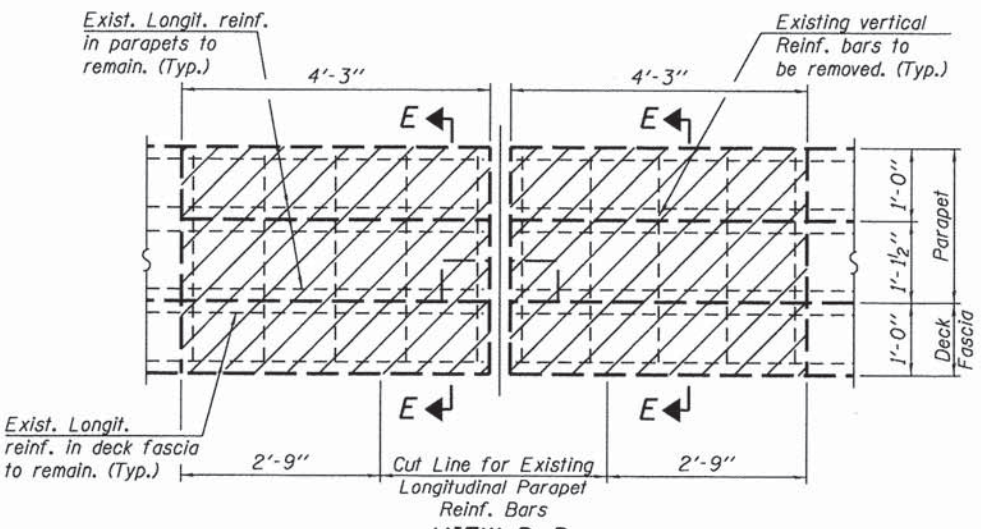
*From Design Plans
**Parallel to Roadway

Hatched Areas indicate concrete removal.

See Sheet 11 of 36 for Pier Diaphragm Removal & Replacement Details



VIEW B-B
(Abut. End of Deck)



VIEW D-D
(Pier 3)

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	24.5

Notes:
Existing longitudinal wingwall, deck and parapet reinforcement shall be cleaned, cut and incorporated into the new construction.
Cost included with Concrete Removal.

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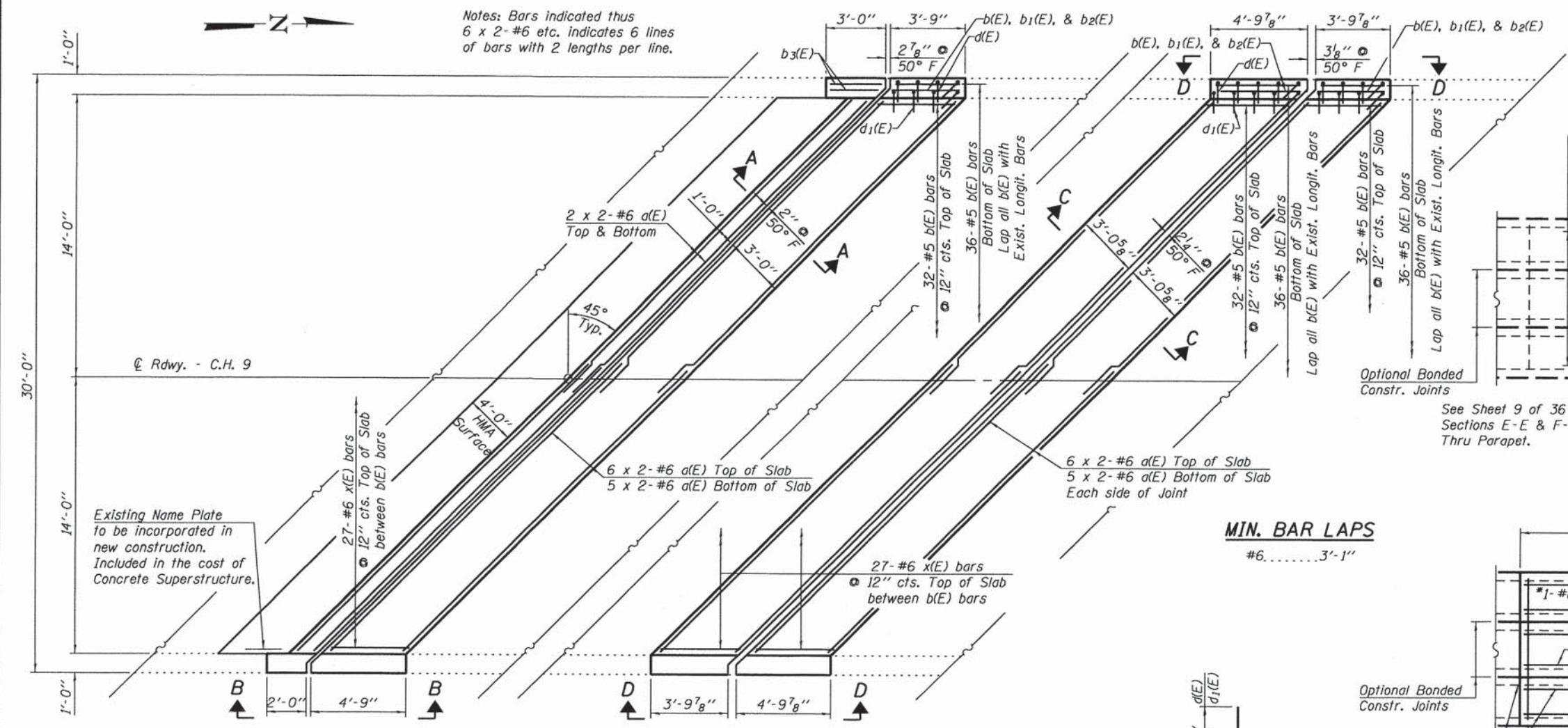
REVISIONS

REV. NO.	DESCRIPTION	DATE

DRAWING:
CONCRETE REMOVAL DETAILS
AT EXPANSION JOINTS
CONTRACT #: 93675

JOB NUMBER:
14-589
SHEET NUMBER
11 of 45

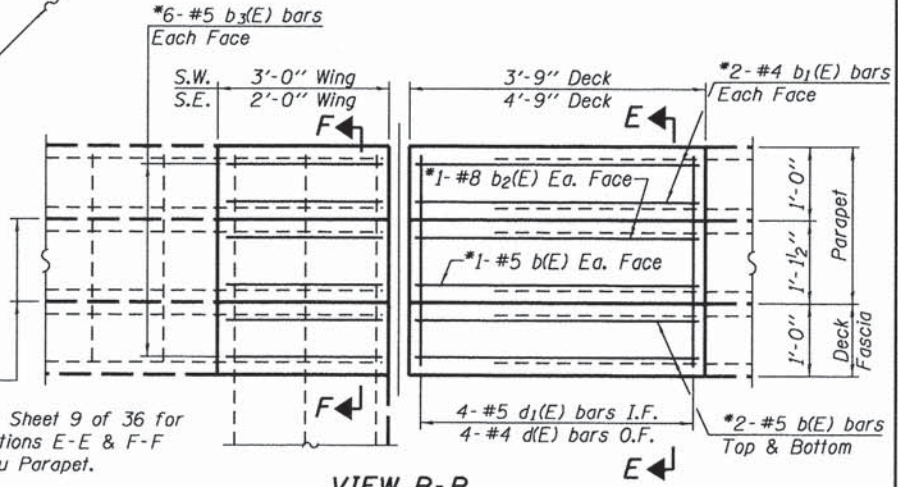
Notes: Bars indicated thus
6 x 2-#6 etc. indicates 6 lines
of bars with 2 lengths per line.



ABUTMENT JOINT PLAN
(S. Abut. Shown - N. Abut. Similar)

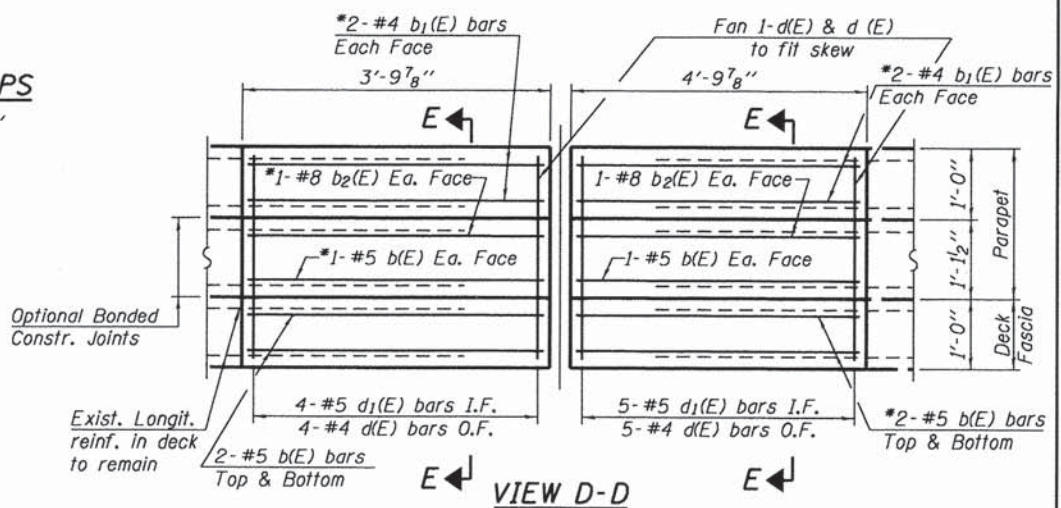
PIER-3 JOINT PLAN

*Cut b(E), b1(E), b2(E), & b3(E) bars to fit in parapets.



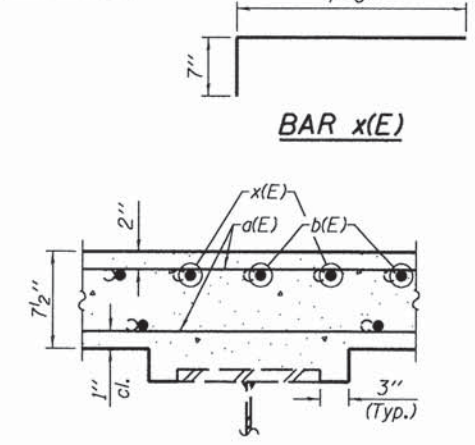
VIEW B-B

MIN. BAR LAPS
#6.....3'-1"



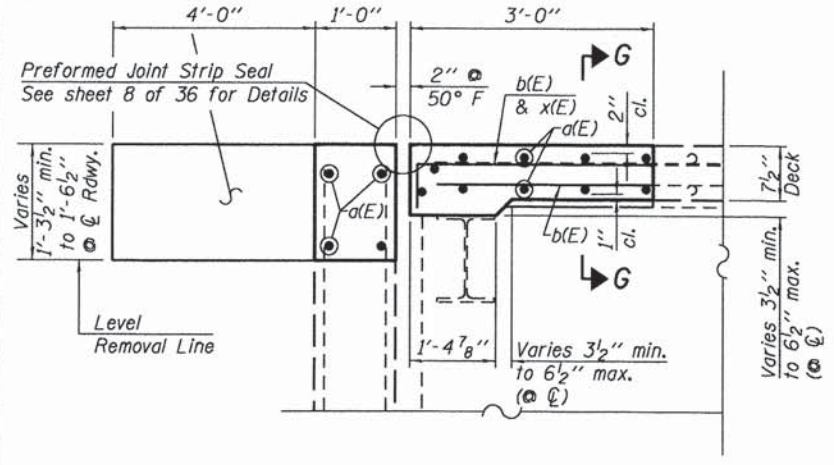
VIEW D-D

BAR d(E) & d1(E)

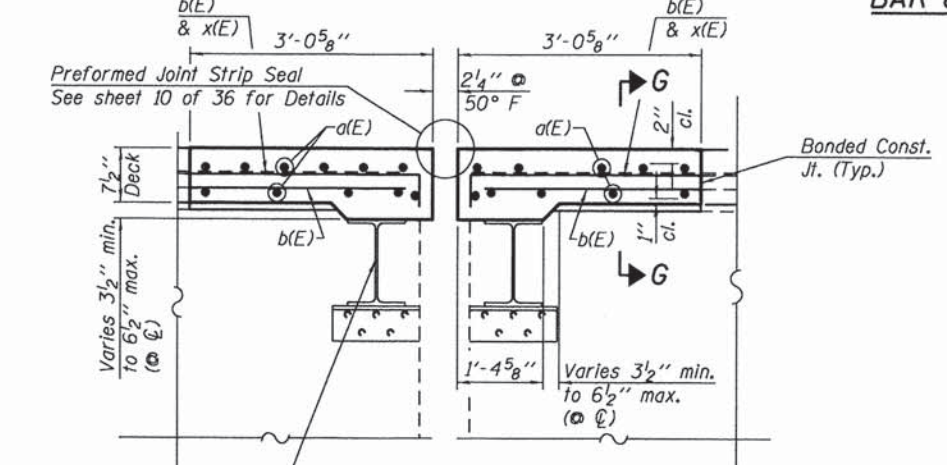


SECTION G-G

Hot Mix Asphalt
Surface Course
Mix C, N 50



SECTION A-A



SECTION C-C

See Sheet 11 of 36 for
Diaphragm Details @ Pier 3

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	104	#6	22'-7"	—
b(E)	288	#5	4'-2"	—
b1(E)	32	#4	4'-6"	—
b2(E)	16	#8	4'-6"	—
b3(E)	48	#5	2'-8"	—
d(E)	34	#4	3'-7"	L
d1(E)	34	#5	4'-4"	L
x(E)	108	#4	4'-7"	—
Concrete Superstructure		Cu. Yd.	24.5	
Reinforcement Bars, Epoxy Coated		Pound	6180	
Protective Coat		Sq. Yd.	77	

Notes:
Existing longitudinal wingwall, deck and parapet reinforcement shall be cleaned, cut and incorporated into the new construction. Cost included with Concrete Removal.

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PROJECT:
SECTION 14-00083-01-BR
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S.N. 054-3047

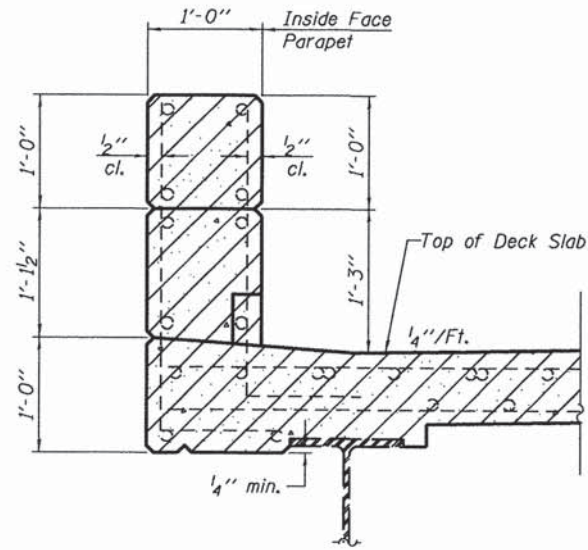
DESIGNED: A. R. K.
CHECKED: J. A. M.
DRAWN: A. D. S.
CHECKED: A. R. K., J. A. M.

REVISIONS		
REV. NO.	DESCRIPTION	DATE

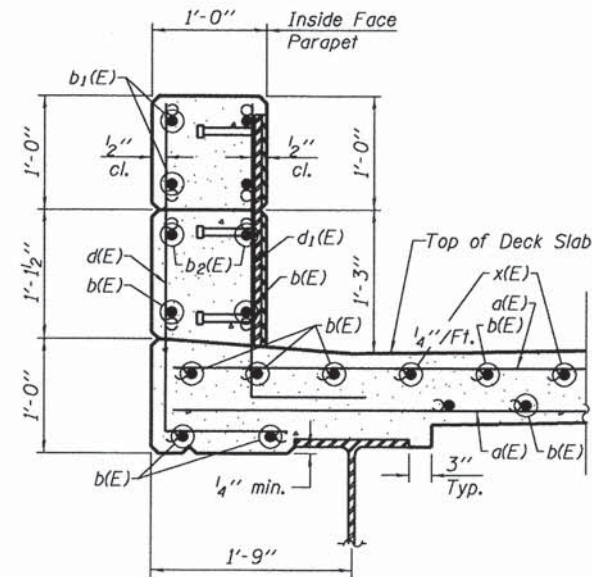
DRAWN:
SUPERSTRUCTURE DETAILS
AT EXPANSION JOINTS

JOB NUMBER:
14-589
SHEET NUMBER
12 of 45

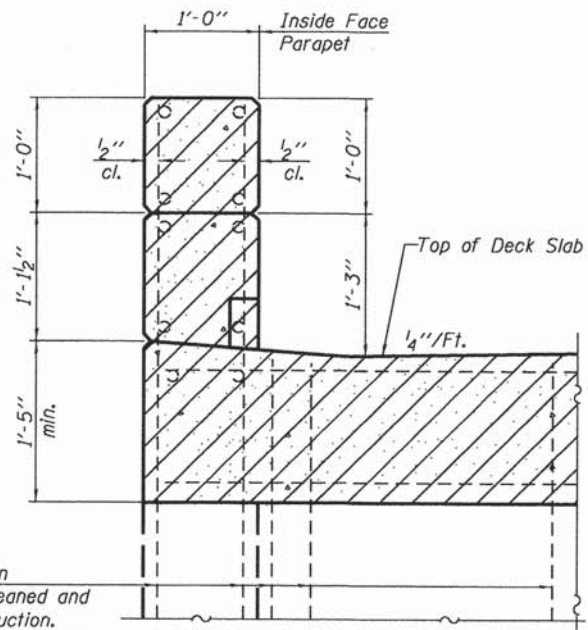
CONTRACT #: 93675



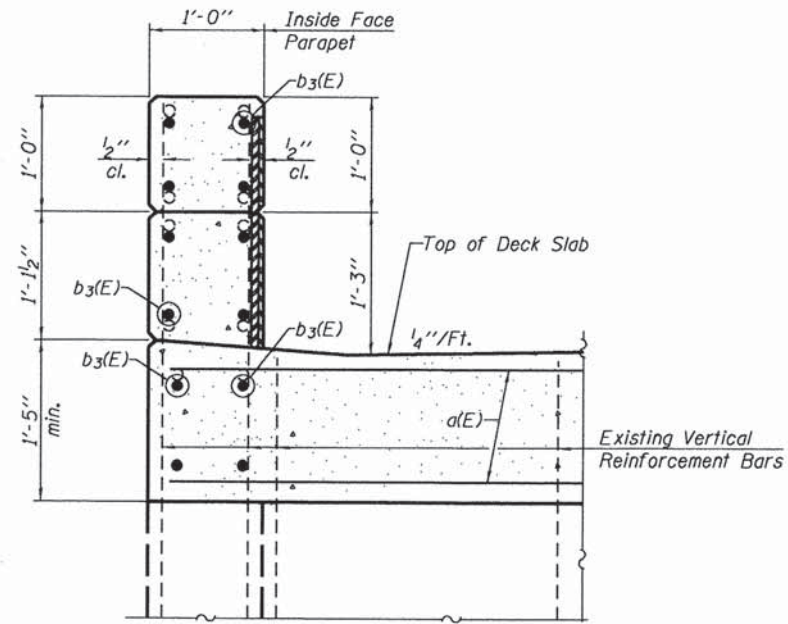
SECTION E-E
(Showing Removal)



SECTION E-E
(Showing Proposed Construction)



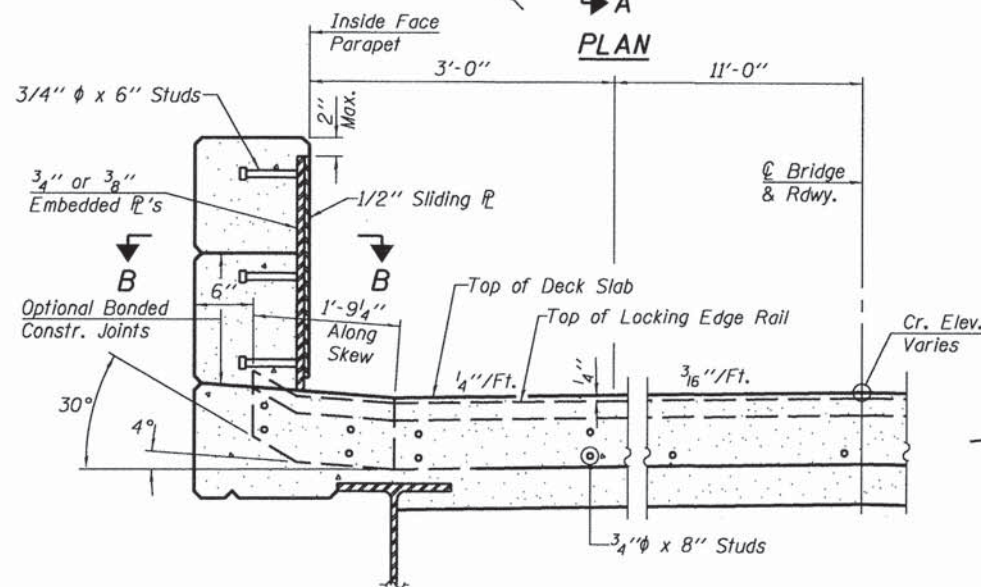
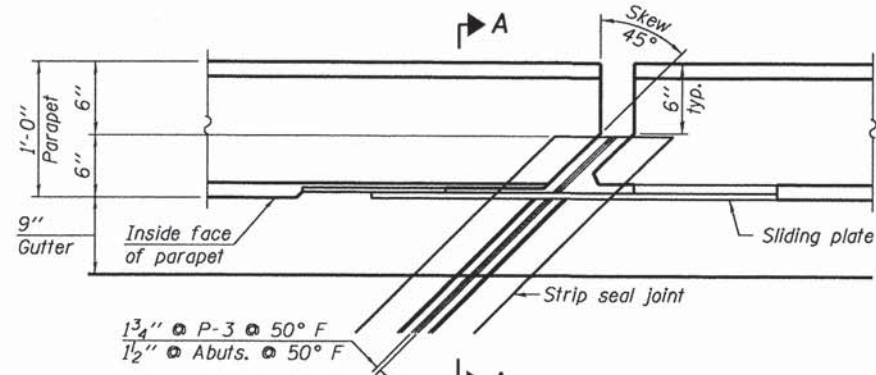
SECTION F-F
(Showing Removal)



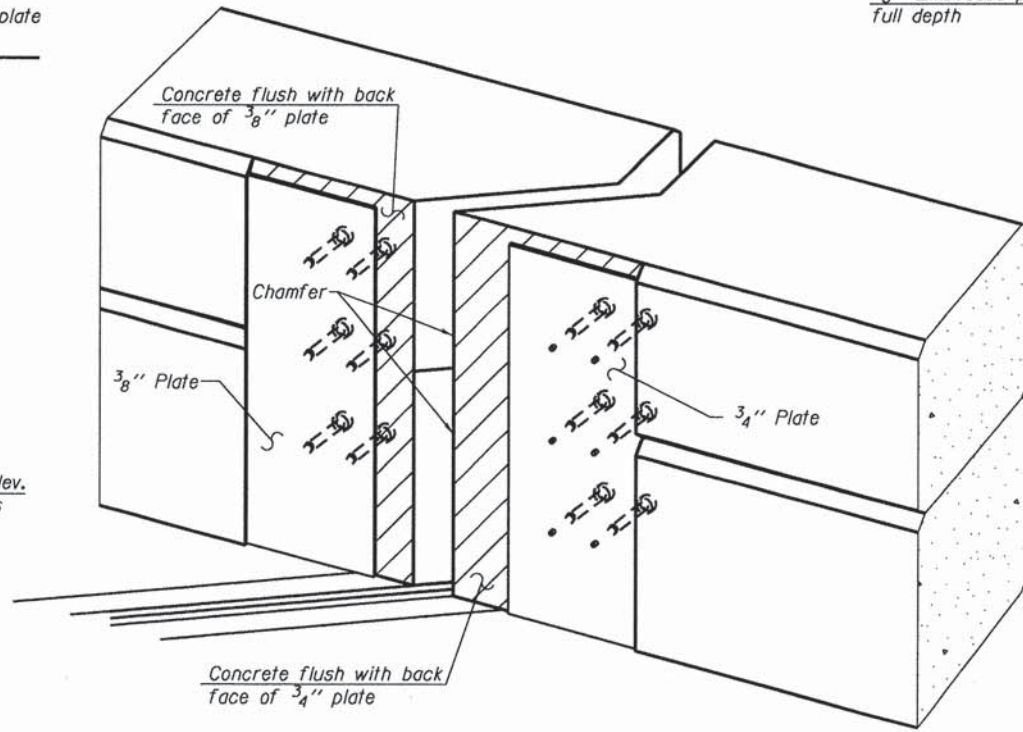
SECTION F-F
(Showing Proposed Construction)

Vertical reinforcement bars in existing abutment shall be cleaned and incorporated into new construction. Cost included with Concrete Removal

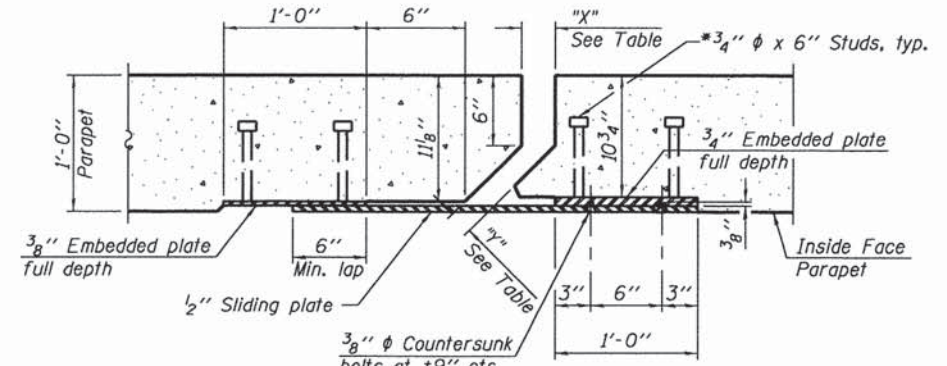
REVISIONS		
REV. NO.	DESCRIPTION	DATE



SECTION A-A



TRIMETRIC VIEW
(Showing back plates only)



SECTION B-B

DIMENSIONS "X" & "Y"

Location	Rail Type	X	Y
Abut.	Rolled	2 7/8"	2"
	Welded	3 3/8"	2 3/4"
Pier	Rolled	3 3/8"	2 1/4"
	Welded	4 1/4"	3"

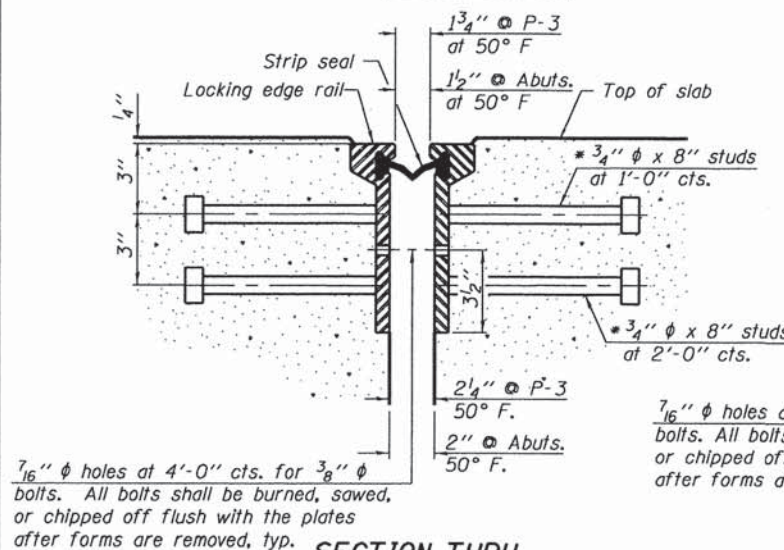
Notes:
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. 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. Locking Edge Rails may be spliced at slope discontinuities.

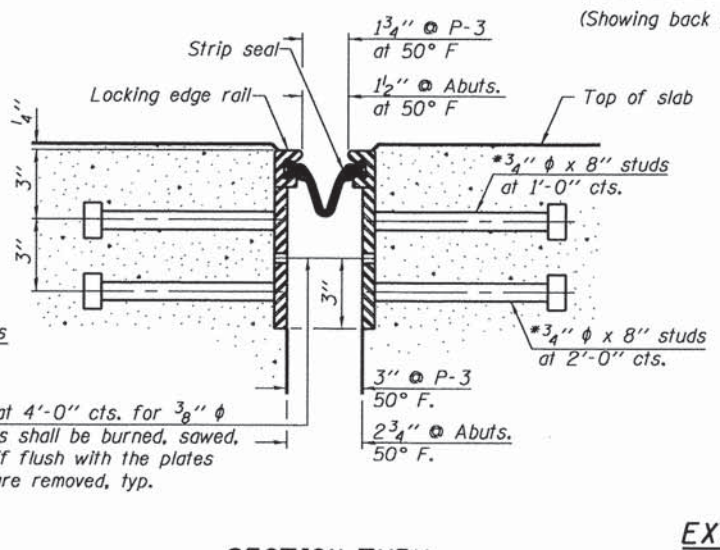
The manufacturer's recommended installation methods shall be followed.
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

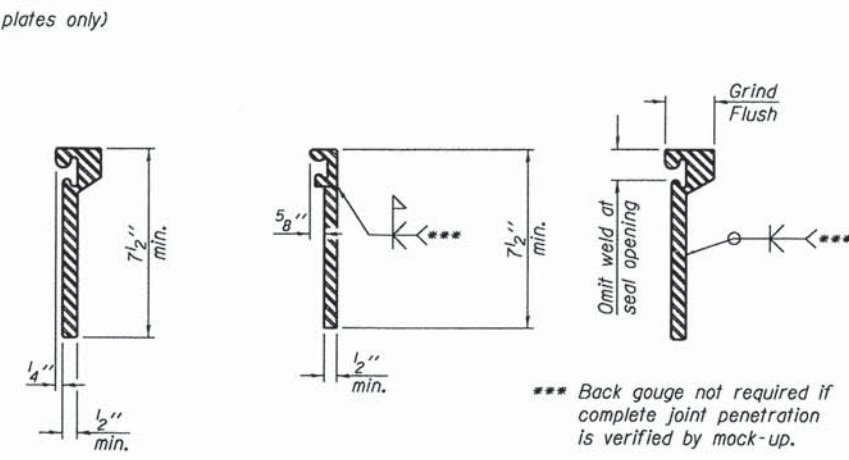
Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.



SECTION THRU ROLLED RAIL JOINT



SECTION THRU WELDED RAIL JOINT



ROLLED EXTRUDED RAIL WELDED RAIL

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	123

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

LOCKING EDGE RAILS

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AGENCY:
LOGAN COUNTY
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PROJECT:
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DESIGNED: A. R. K.
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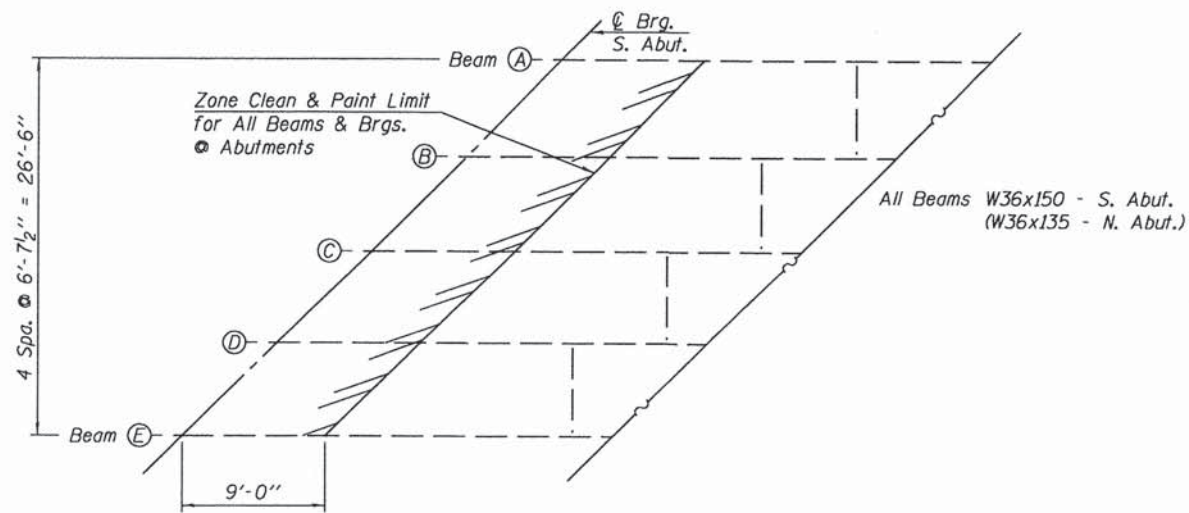
REVISIONS		
REV. NO.	DESCRIPTION	DATE

DRAWING:
PREFORMED JOINT STRIP SEAL

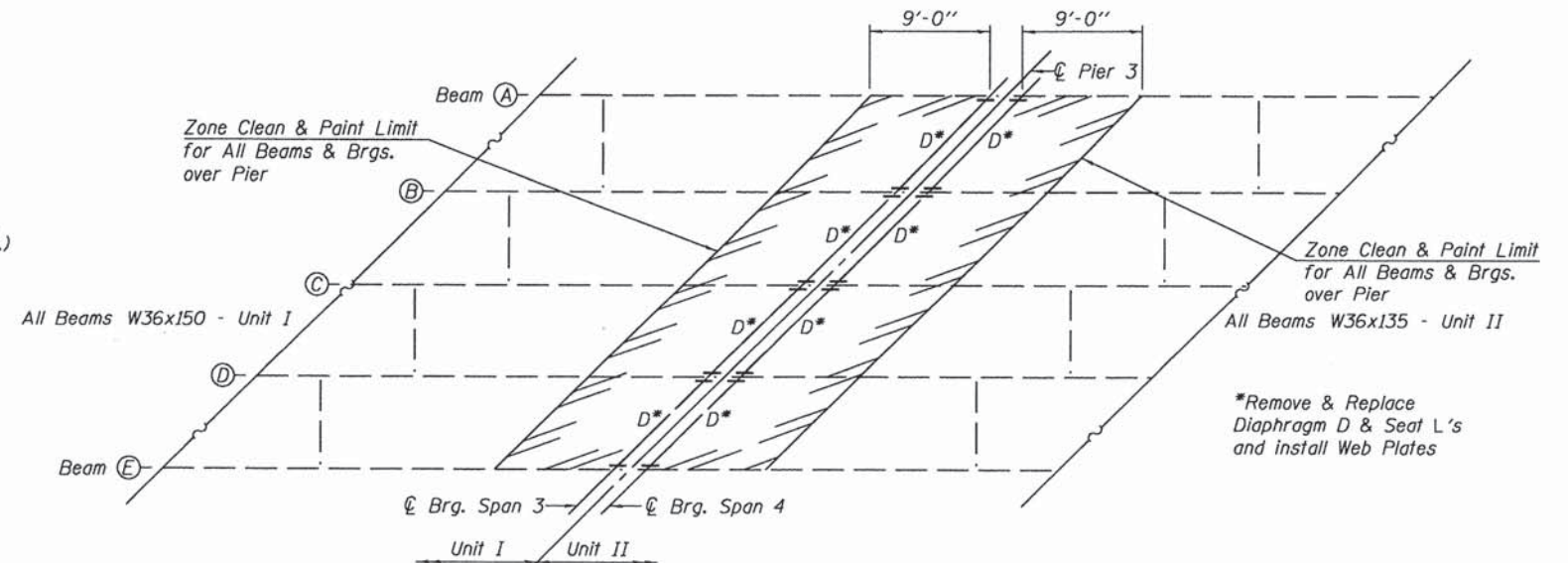
JOB NUMBER:
14-589

SHEET NUMBER
14 of 45

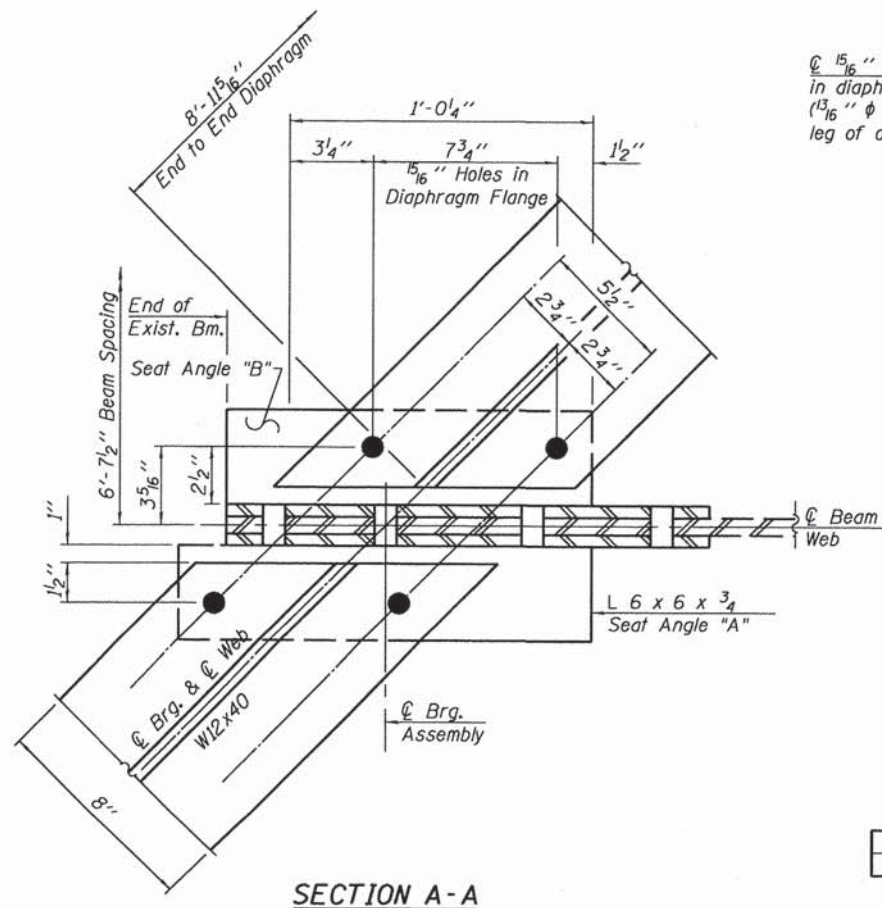
CONTRACT #: 93675



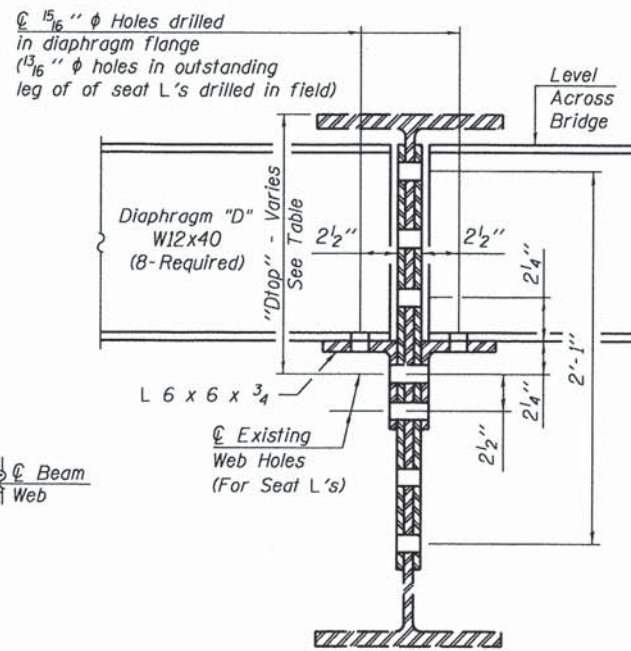
FRAMING PLAN ABUTMENT
S. Abut. Shown - N. Abut. Similar



FRAMING PLAN PIER 3



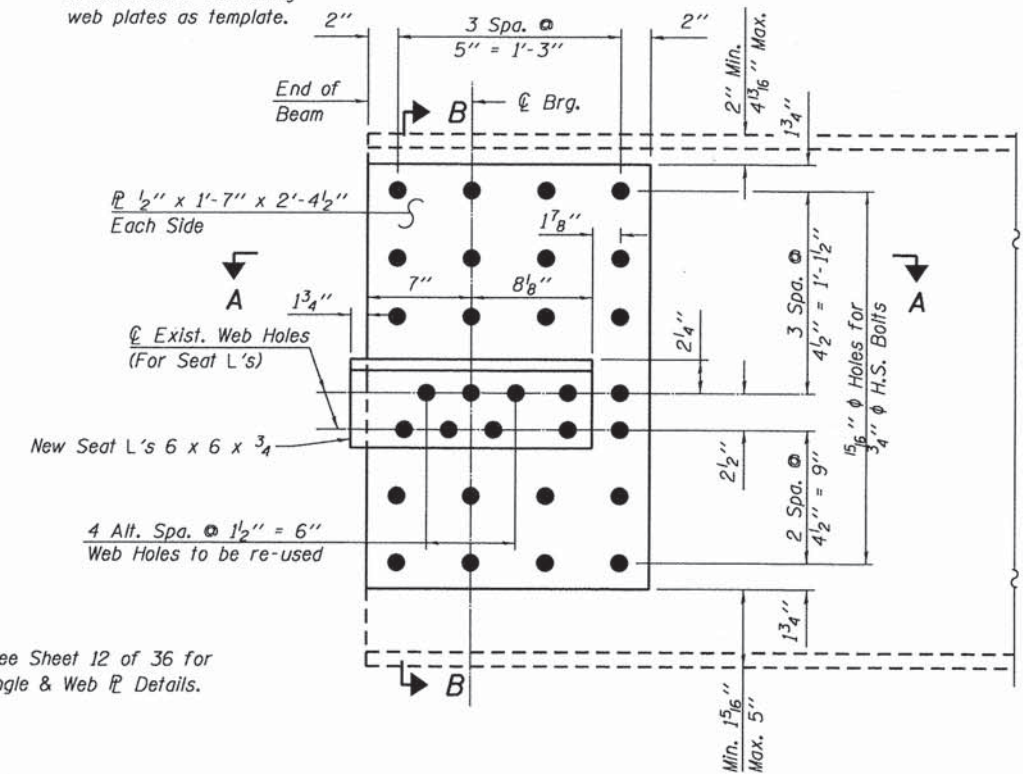
SECTION A-A



SECTION B-B
(Omit seat L on Exterior of Fascia Beams)

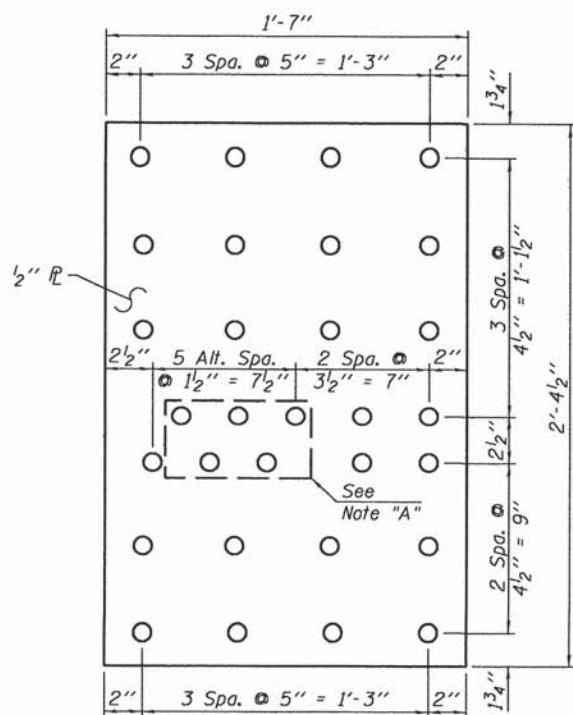
Beam Line	A	B	C	D	E
"Dtop"	1'-5 1/4"	1'-6 7/8"	1'-8 5/16"	1'-7 1/4"	1'-6 1/8"

Field drill 1 5/16" ϕ holes in exist beam web using web plates as template.

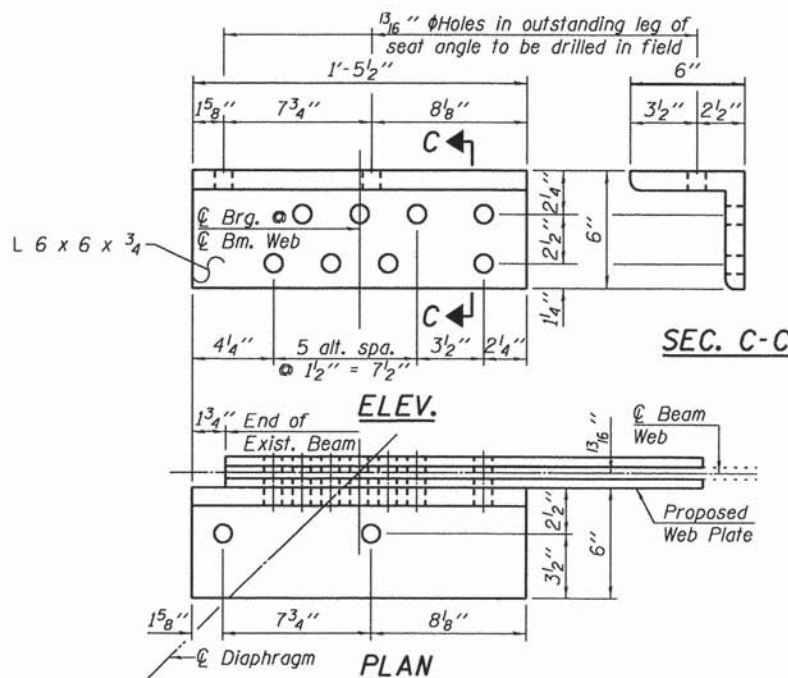


BEAM END REPAIR
Pier 3 - 10 Locations
(Diaphragm not shown)

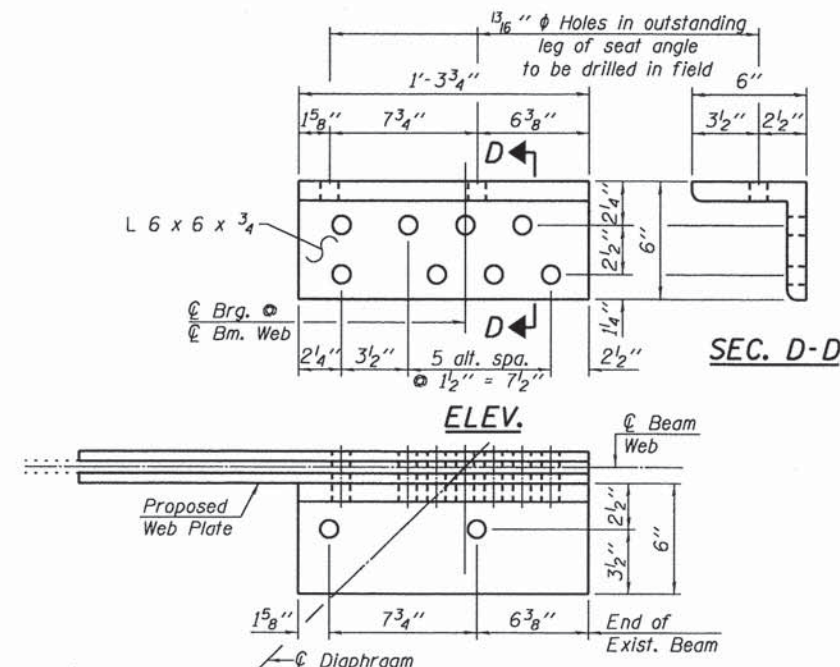
Note "A": All holes shown in the proposed web plate shall be $\frac{15}{16}$ " dia. drilled in the shop. The holes in the dashed rectangular area shown in the web plate details are intended to match existing hole locations in the existing beam webs.



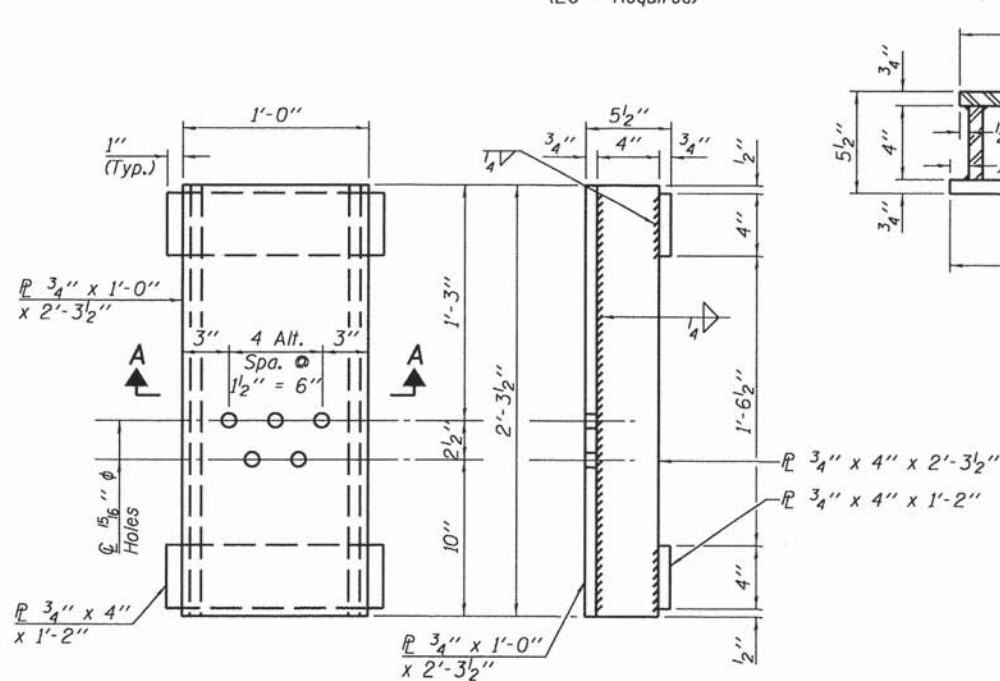
WEB PLATE DETAIL
(20 - Required)



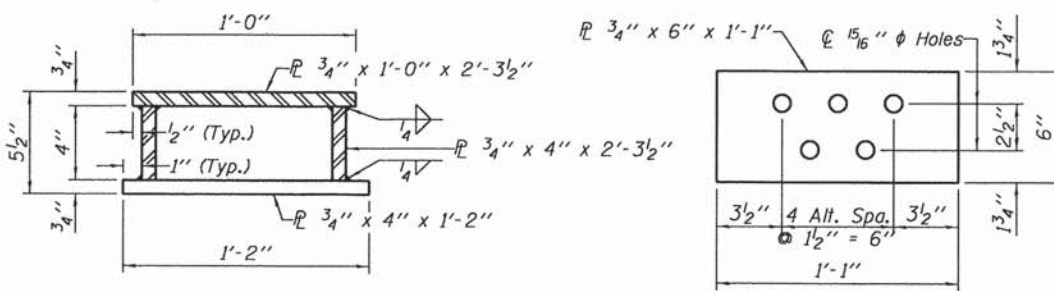
SEAT ANGLE "A" DETAILS
(8 - Required)



SEAT ANGLE "B" DETAILS
(8 - Required)



STRAIGHTENING BRACE DETAILS
(1 - Required)

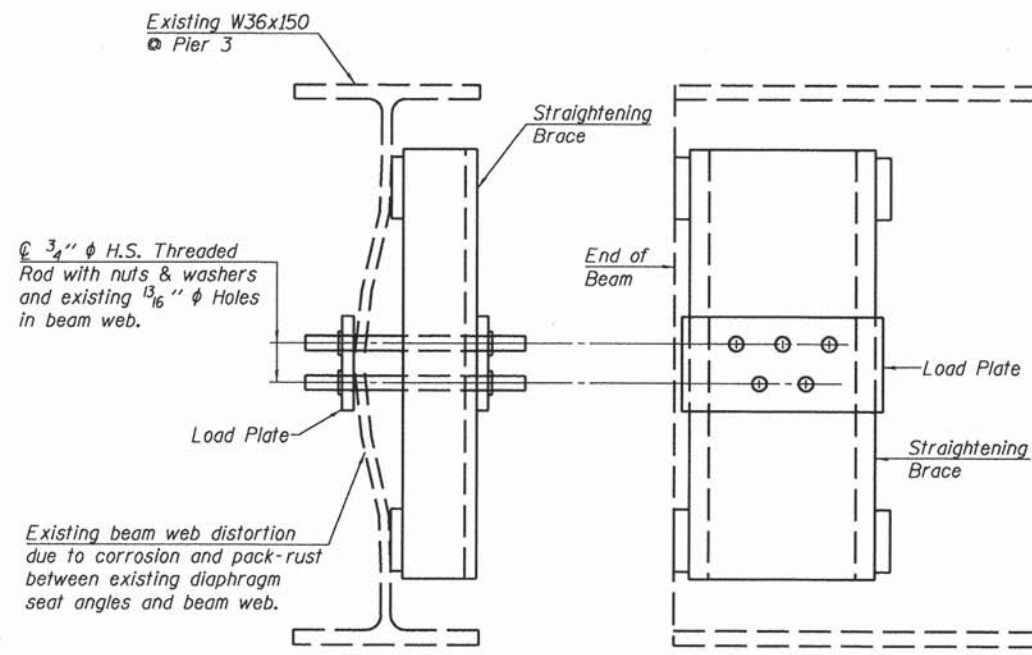


LOAD PLATE DETAIL
(2 - Required)

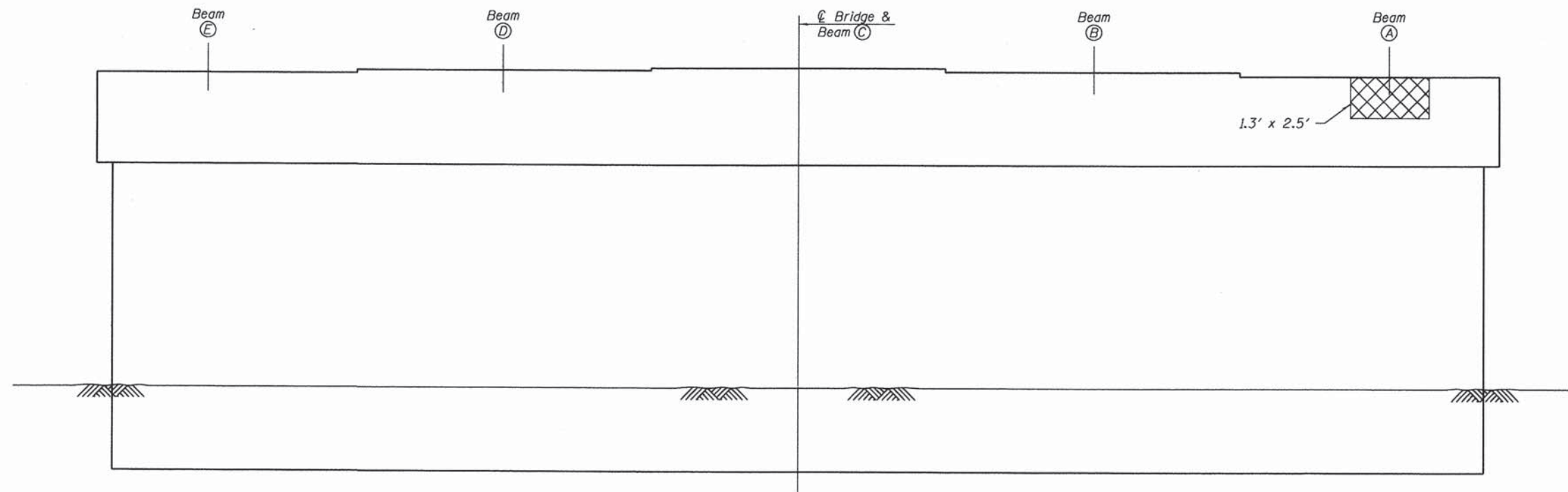
Note:
The webs at the ends of the existing beams at Pier #3 are distorted laterally. Lateral displacement of the webs varies from minor distortion at the centerline of the bridge (beam line "C") to approximately $\frac{3}{4}$ inch at the exterior beams (beam lines "A" and "E"). Prior to painting and the placement of structural steel for beam end repairs and diaphragm replacement at Pier #3, existing beam webs shall be sufficiently straightened to comply with acceptable fabrication tolerances for new beam webs in order to facilitate the placement of proposed steel web reinforcement plates. Web straightening is included in the cost of Furnishing and Erecting Structural Steel.

Sequencing for Painting and Beam End Repairs

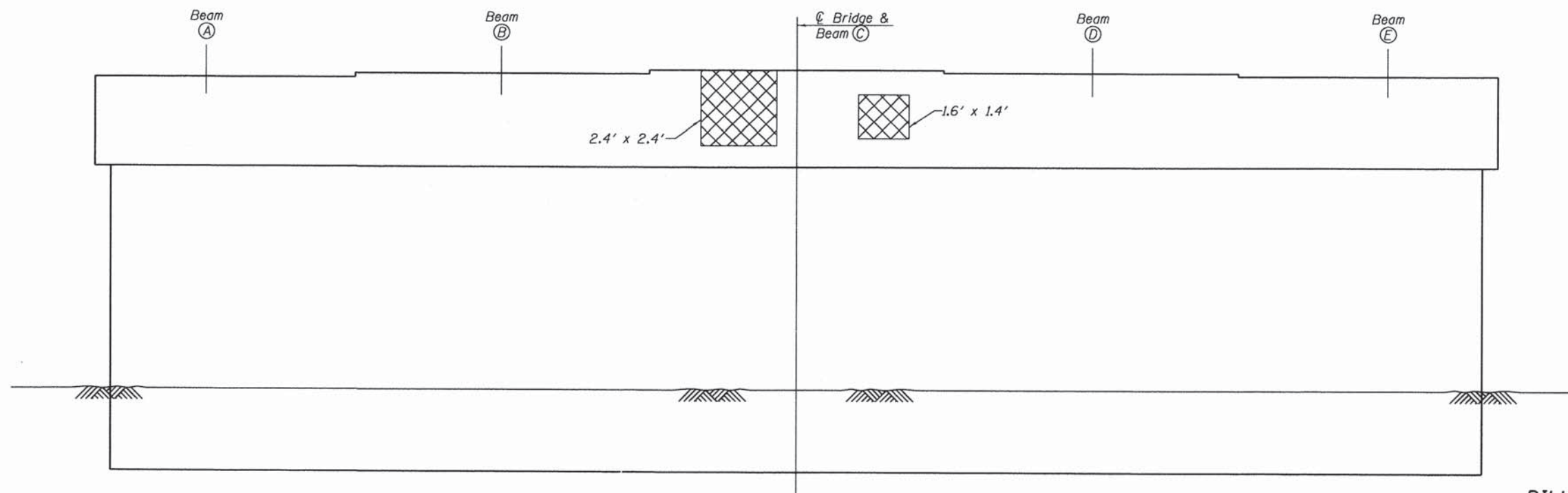
1. Remove concrete deck adjacent to expansion joints.
2. Straighten existing beam webs at Pier #3.
3. Clean all existing steel surfaces within 9 feet of the centerline of bearings
4. Apply a prime coat to all cleaned steel surfaces and new structural steel.
5. Assemble, place and install all new structural steel for beam end repairs.
6. Apply final finish coat for paint.



EXISTING BEAM WEB DISTORTION & STRAIGHTENING
(12 - Locations)



NORTH ELEVATION
(Looking South - Unit II Side)



SOUTH ELEVATION
(Looking North - Unit I Side)

CONCRETE REPAIR LEGEND



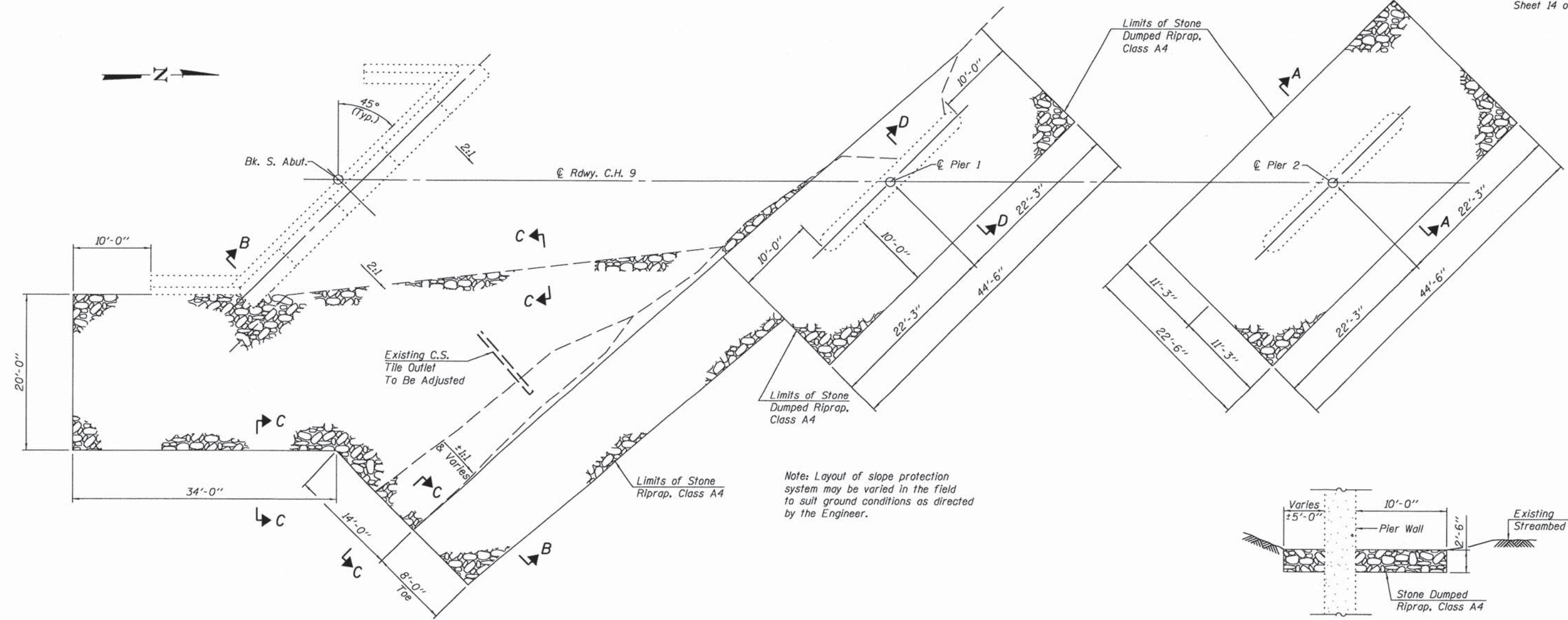
Structural Repair of Concrete (Depth ≤ 5")

BILL OF MATERIAL - UNIT II

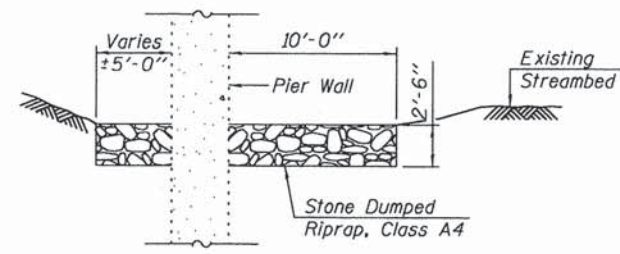
ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal or Less than 5")	Sq. Ft.	12

Note: Quantities and repair areas shown are estimated. Actual areas for repair are to be determined by the Resident Engineer.

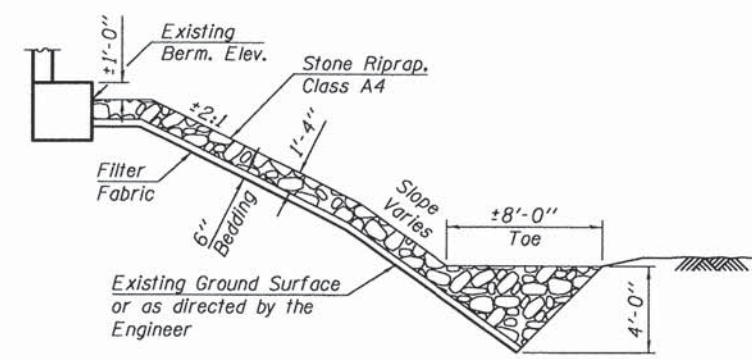
REVISIONS		
REV. NO.	DESCRIPTION	DATE



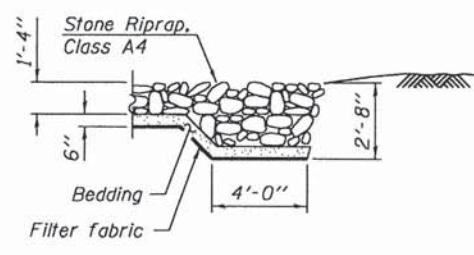
RIPRAP LOCATION PLAN



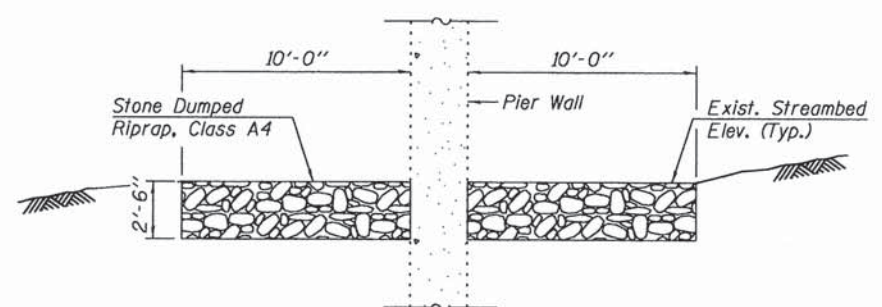
SECTION D-D



SECTION B-B



SECTION C-C



SECTION A-A

Note: Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

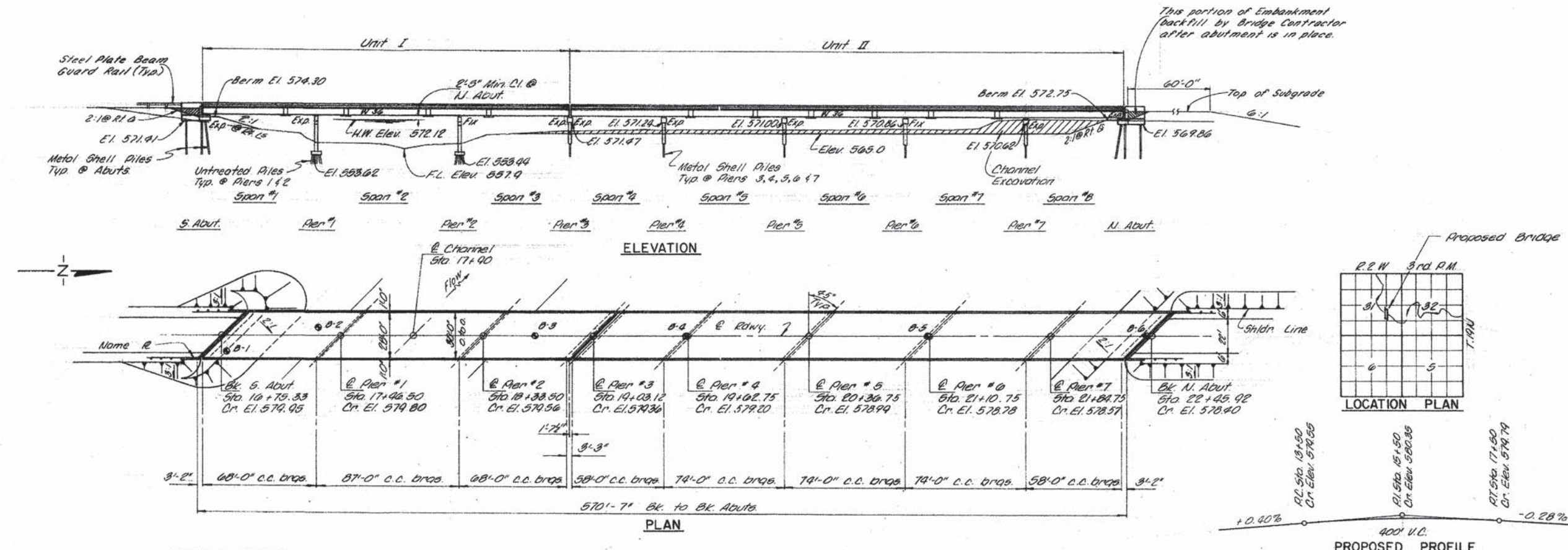
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Dumped Riprap, Class A4	Ton	227
Stone Riprap, Class A4	Ton	216
Filter Fabric	Sq. Yd.	251

B.M. #1 - R.R. Spike in P.P.
33' RT., 119' 50' Sta. 0+00
Elev. 578.74
B.M. #2 - R.R. Spike in P.P.
21' RT. Sta. 14+32
Elev. 580.11

PROJECT NO.	SECTION	DATE	SCALE	BY
561	83B	LOGAN	55	26
SHEET 1 OF 22				

FOR INFORMATION ONLY



GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.

Fasteners shall be high strength bolts. Bolts 3/4"; open holes 1/16" unless otherwise noted.

All structural steel shall conform to A.A.S.H.O. Designation M-222 and shall be used in the bare unpainted condition. Calculated weight of structural steel = 494,070 (210,500 Unit I; 283,570 Unit 2)

Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before bolting diaphragms over supports.

The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to the construction of the abutments.

The Contractor shall drive four test piles in permanent locations as directed by the Engineer before ordering the remainder of the piles. One metal shell test pile each in the south abutment, pier 5 and north abutment; and one timber test pile in pier 2.

The main load carrying member components subject to the supplemental requirement for notch toughness are the flanges, webs and splice plates. See Special Provisions.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.		429	429
Protective Coat	Sq. Yd.	2,167	17	2,184
Class X Concrete	Cu. Yd.	390.4	422.4	812.8
Structural Steel	Lump Sum			1
Reinforcement Bars	Lb.	146,007	36,120	182,127
Untreated Piles 30.1 to 45 Feet	Lin. Ft.		1,600	1,600
Metal Pile Shells 12"	Lin. Ft.		2,420	2,420
Test Piles Timber	Each		1	1
Test Piles Metal Shells	Each		3	3
Name Plates	Each		1	1
Neoprene Expansion Joint 4"	Lin. Ft.		42	42
Neoprene Expansion Joint 2"	Lin. Ft.		84	84

WATERWAY DATA

Drainage Area	481 Sq. Mi.
Req'd. Opening (25 Yr.)	2,910 Sq. Ft.
Present Opening	1,500 Sq. Ft. (Overlook Bridge 900 Sq. Ft.)
Proposed Opening	2,910 Sq. Ft.
Computed Discharge	1,600 C.F.S.

STRUCTURE NO. 3047
STATION 17+90
SALT CREEK
BUILT 1971
F.A.S. RT. 561 SEC. 83 B
F.A. PROJ. RS-561 (102)
LOADING H5 20
LETTERING FOR NAME PLATE
See Std. 2113

DESIGN STRESSES

$f_c = 1,200$ p.s.i. (Slab)
 $f_c = 1,400$ p.s.i. (Substructure)
 $f_s = 27,000$ p.s.i. (M-222)
 $w_c = 75$ p.s.i. (Footings)
 $n = 10$
Allowable & Deflection = $L/1800$
25" / ft. included in e for future wearing surface.
Design Specification AASHTO 1973 as applicable.
LOADING H5 20-44
Fred A. Stone Jr.
Illinois Structural No. 2934

INDEX OF SHEETS

1. General Plan & Elevation	14. Bearings
2. Footing Layout & Pile Detail	15. South Abutment
3-4. Slab Elevations - Unit I	16. North Abutment
5-6. Slab Elevations - Unit II	17. Pier 1
7. Superstructure - Unit I	18. Pier 2
8. Superstructure - Unit II	19. Pier 3
9. Expansion Joint Details	20. Piers 4, 5, 6, 7
10. Parapet & Drainage Details - Unit I	21. Borings
11. Parapet & Drainage Details - Unit II	22. Borings
12. Framing Plan - Unit I	
13. Framing Plan - Unit II	

SALT CREEK

GENERAL PLAN & ELEVATION

PROJECT RS-561(102)

F.A.S. RT. 561 SECTION 83B

LOGAN COUNTY

STATION 17+90

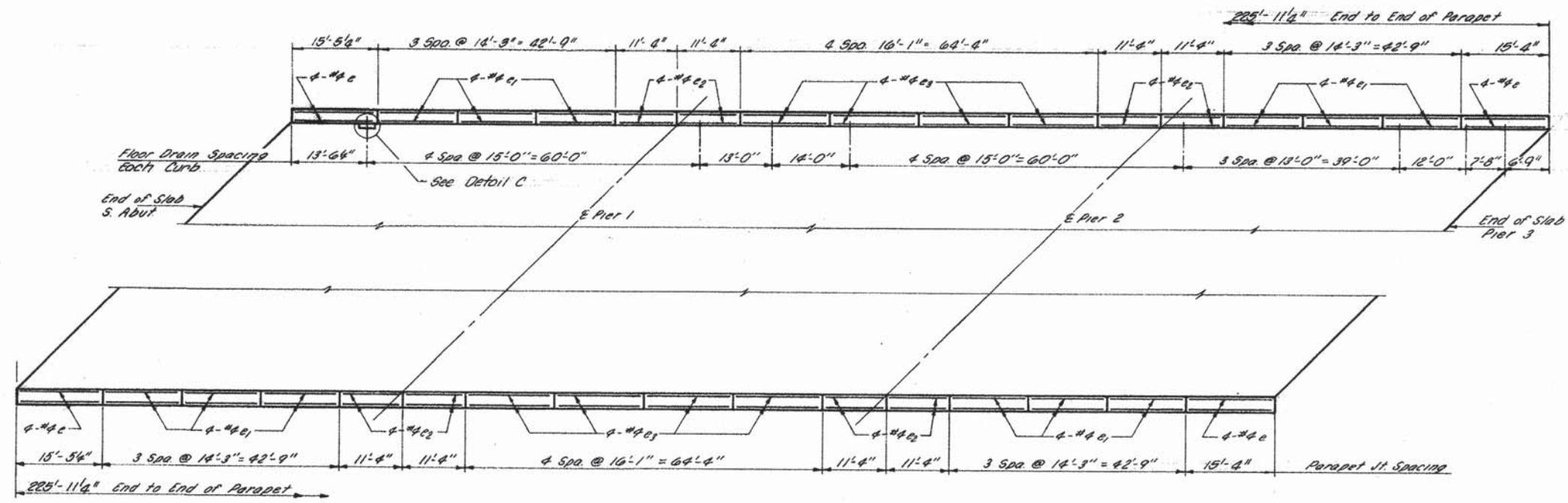
COLLINS AND RICE
CONSULTING ENGINEERS

DESIGNED: M.B. DRAWN: J.F. CHECKED: F.S. DATE: 3-29-73 NO. 809

REVISIONS

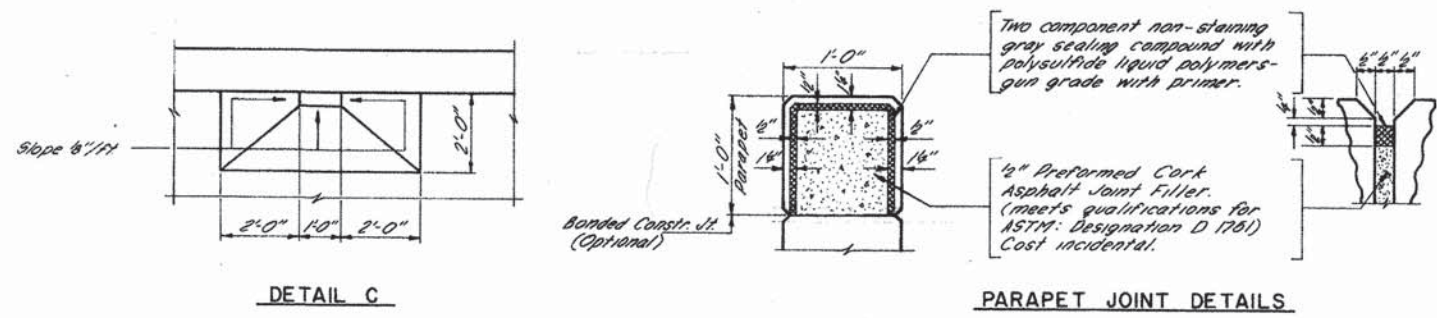
REV. NO.	DESCRIPTION	DATE

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 561	83B	LOGAN	95	95
SHEET 10 OF 22				



PLAN-UNIT I

FOR INFORMATION ONLY



DETAIL C

PARAPET JOINT DETAILS

BILL OF MATERIAL UNIT I

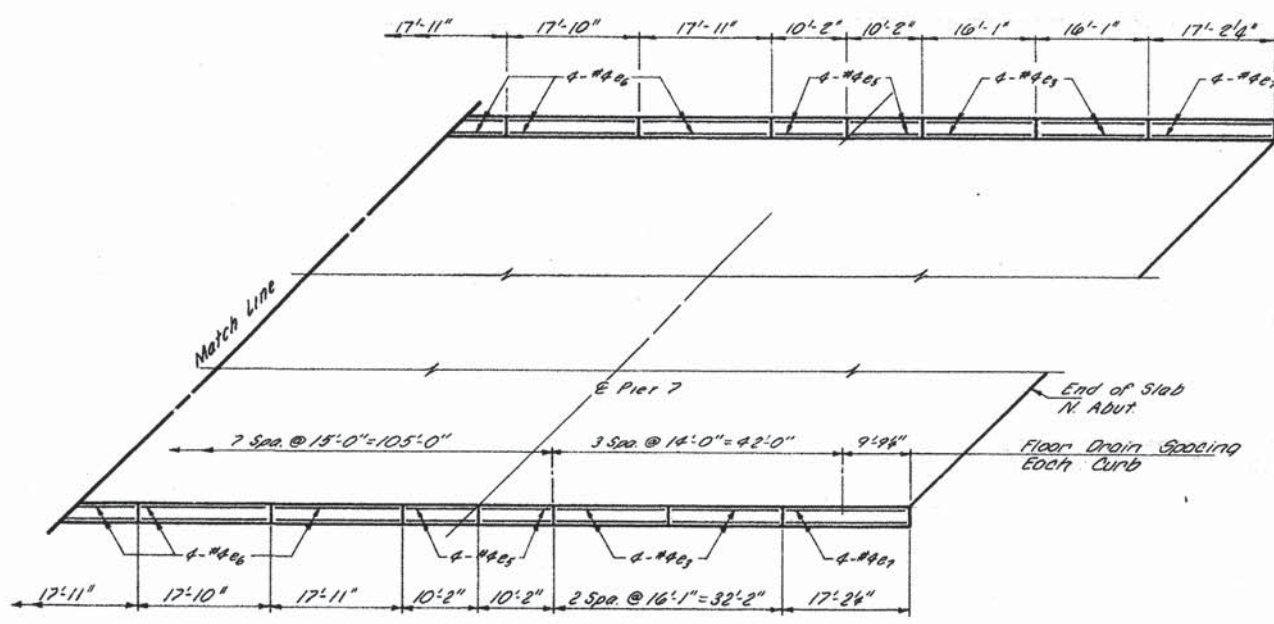
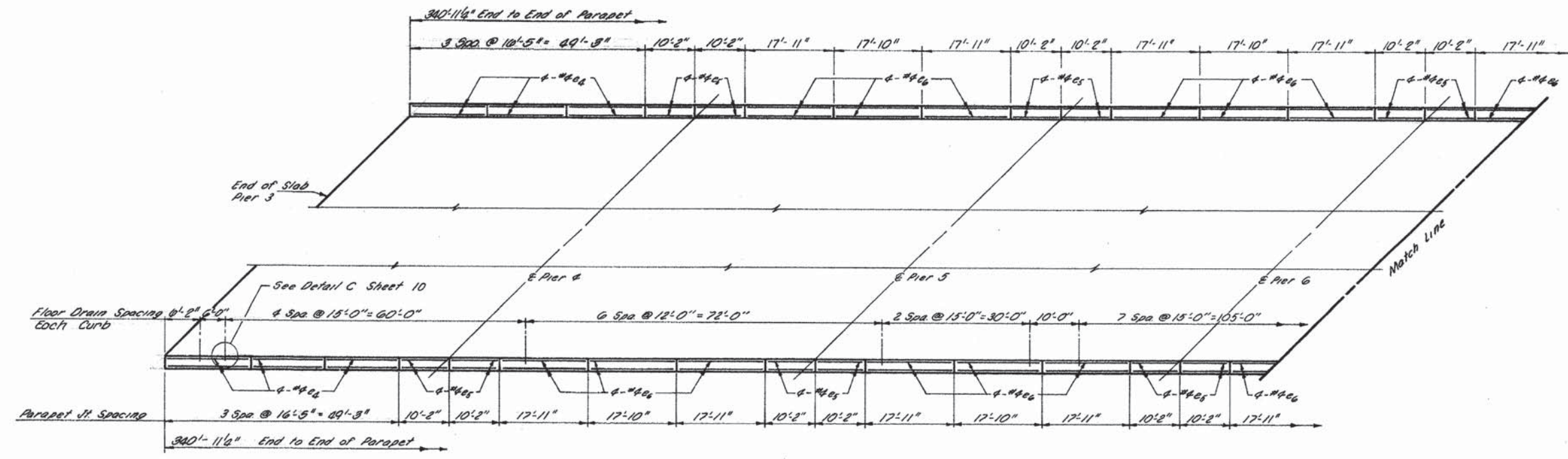
BAR NO	SIZE	LENGTH	SHAPE
e	#4	15'-1"	---
c	#4	14'-0"	---
g	#4	11'-7"	---
es	#4	15'-10"	---
Class X Concrete Cu.Yd. 18.6			
Reinforcement Bars Lb. 1,190			

PARAPET & DRAINAGE DETAILS-UNIT I
 F.A.S. RT. 561 SECTION 83B
 LOGAN COUNTY
 STATION 17+90
 COLLINS AND RICE
 CONSULTING ENGINEERS
 DRAWN: M.B. R.S. CHECKED: F.S. DATE: 9-28-78 NO. 809

REVISIONS

REV. NO.	DESCRIPTION	DATE

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 561	83B	LOGAN	55	36
SHEET 11 OF 22				



PLAN-UNIT II

FOR INFORMATION ONLY

BILL OF MATERIAL UNIT II

BAR	NO	SIZE	LENGTH	SHAPE
e3	16	#4	15'-10"	---
e5	64	#4	9'-11"	---
e6	72	#4	17'-7"	---
e2	8	#4	16'-11"	---
e4	24	#4	10'-2"	---
Class X Concrete				Cu Yd 27.1
Reinforcement Bars				Lb 1,740

PARAPET & DRAINAGE DETAILS-UNIT II
 EAS. RT. 561 SECTION 83B
 LOGAN COUNTY
 STATION 17+90
 COLLINS AND RICE
 CONSULTING ENGINEERS
 DRAWN: M.B. CHECKED: F.S.
 TITLED: R.S. DATE: 3-29-78 NO. 803

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ILLINOIS
 IOWA
 WISCONSIN

AGENCY:
 LOGAN COUNTY
 HIGHWAY DEPARTMENT

PROJECT:
 SECTION 14-00083-01-BR
 C.H. 9 OVER SALT CREEK
 S.N. 054-3047

DESIGNED: A.R.K.
 CHECKED: J.A.M.
 DRAWN: A.D.S.
 CHECKED: A.R.K.
 J.A.M.

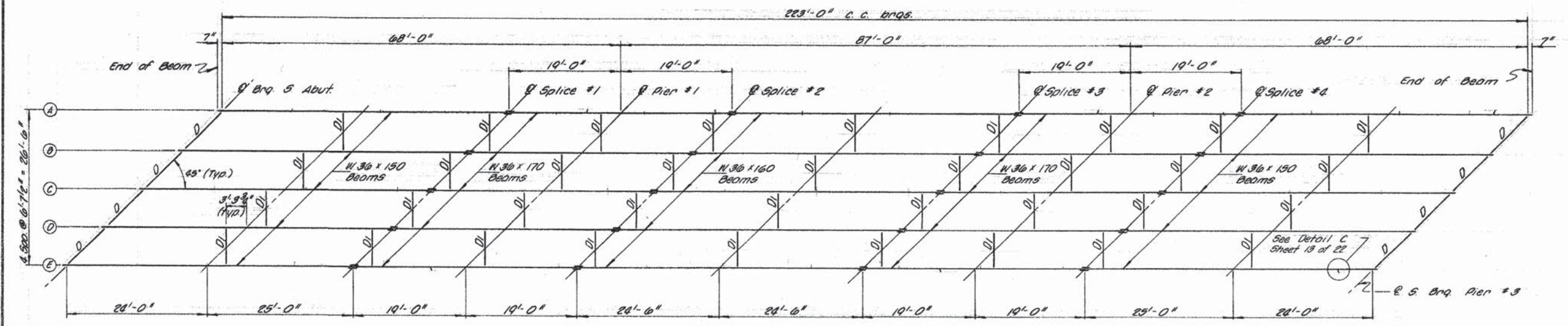
REVISIONS

REV. NO.	DESCRIPTION	DATE

DRAWING:
 EXISTING PLANS
 (FOR INFORMATION ONLY)
 CONTRACT #: 93675

JOB NUMBER:
 14-589
 SHEET NUMBER
 21 of 45

PROJECT NO.	DATE	COUNTY	TITLE	SHEET NO.
FAS 361 83B	LOGAN	55	37	
SHEET 18 OF 22				

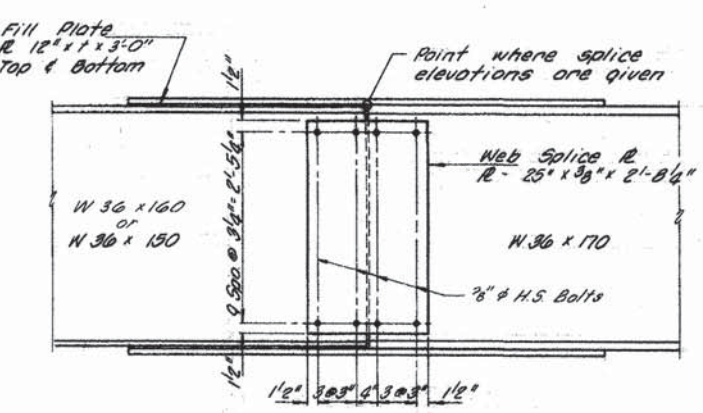
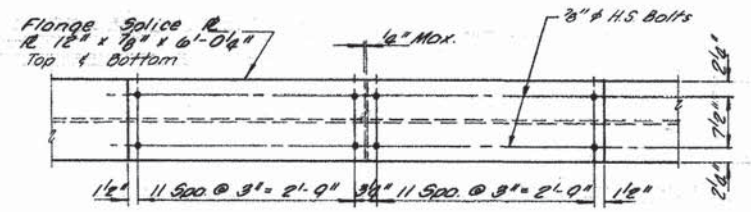


FRAMING PLAN - UNIT I

FOR INFORMATION ONLY

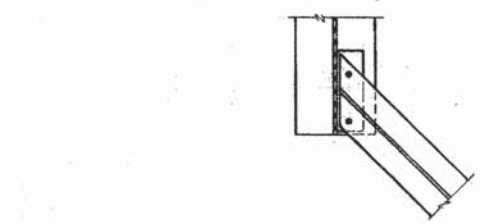
TOP OF WF ELEVATIONS

	Beam A	Beam B	Beam C	Beam D	Beam E
@ Brq. 5 Abut.	579.085	579.160	579.275	579.185	579.075
@ Splice #1	578.890	579.025	579.145	579.060	578.965
@ Pier #1	578.840	578.975	579.095	579.010	578.915
@ Splice #2	578.790	578.925	579.045	578.960	578.865
@ Splice #3	578.650	578.785	578.905	578.820	578.725
@ Pier #2	578.600	578.735	578.855	578.770	578.675
@ Splice #4	578.550	578.685	578.805	578.720	578.625
@ S. Brq. Pier #3	578.445	578.580	578.700	578.615	578.520



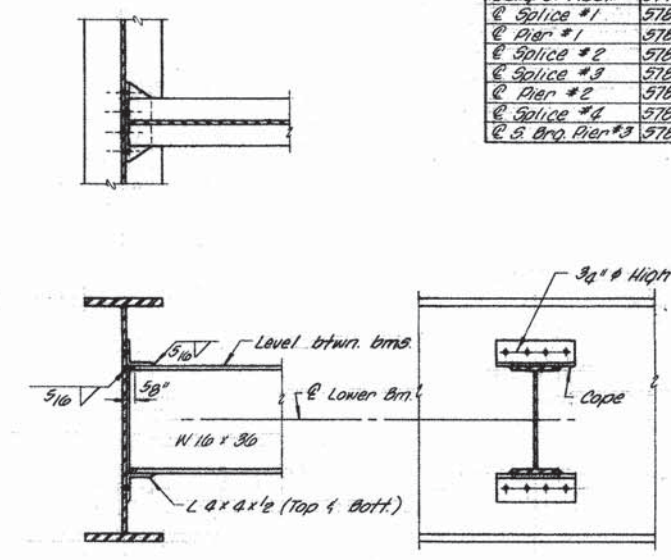
SPLICE DETAIL - UNIT I

1/2" Fill Rs - Splices 1 & 2
 1/2" Fill Rs - Splices 3 & 4



DIAPHRAGM D

8 Required - Unit I
 8 Required - Unit II



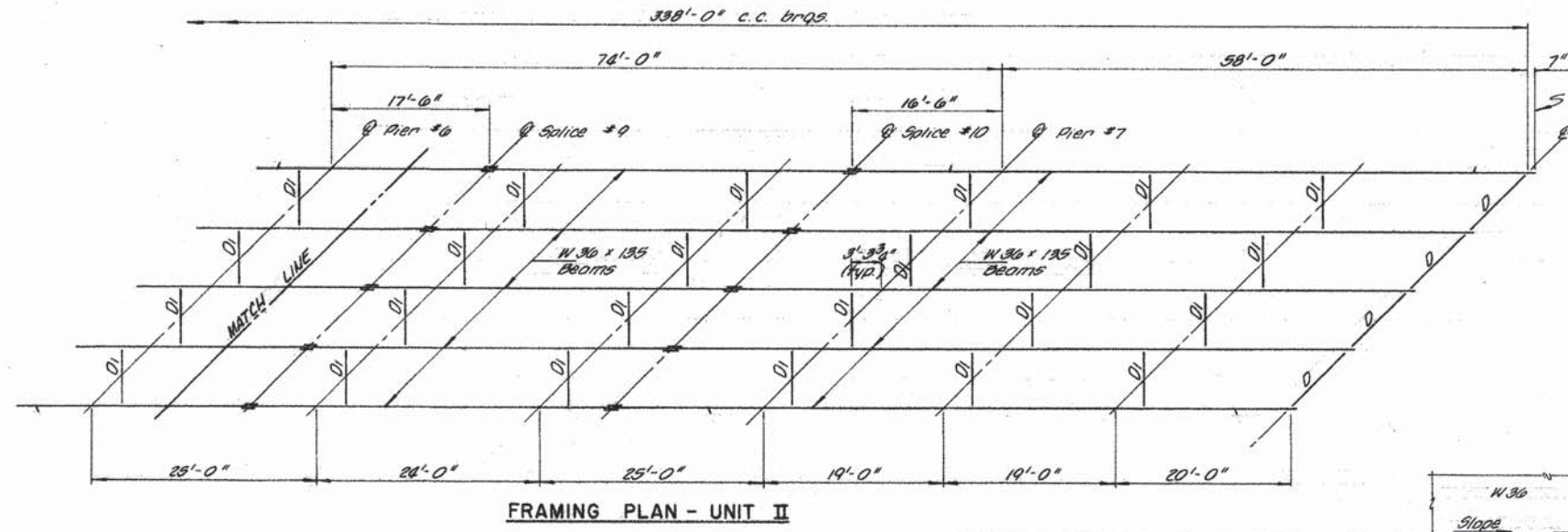
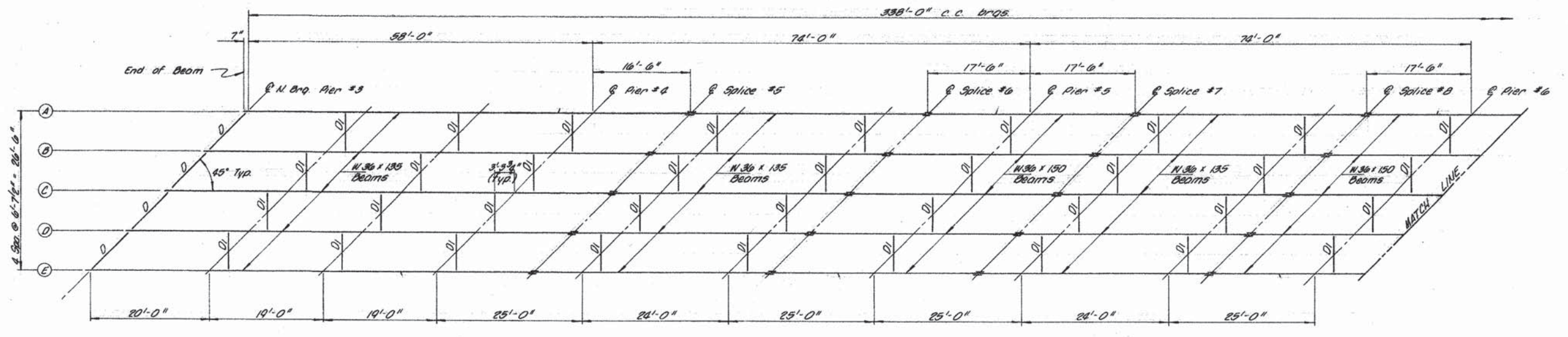
DIAPHRAGM D1

3/8 Required - Unit I
 5/8 Required - Unit II

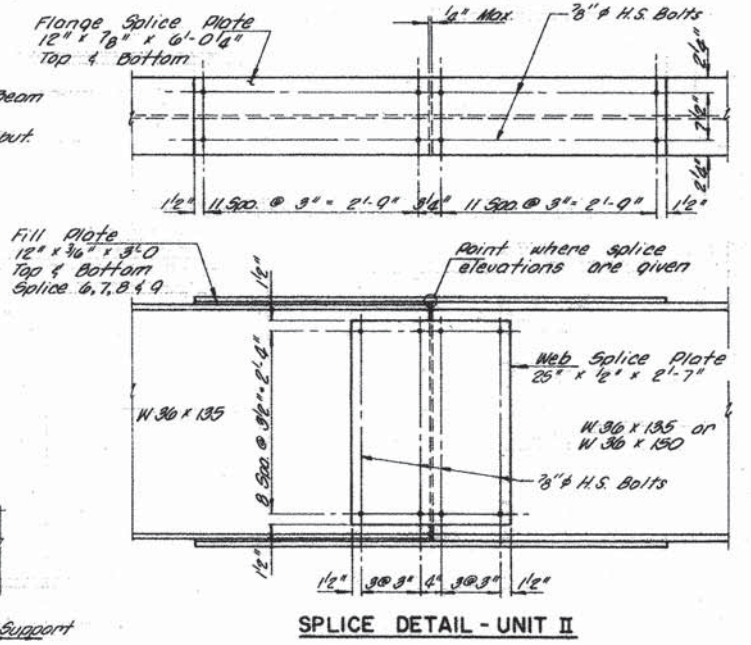
FRAMING PLAN - UNIT I
 FAS. RT. 561 SECTION 83B
 LOGAN COUNTY
 STATION 17+90
 COLLINS AND RICE
 CONSULTING ENGINEERS
 DRAWN: M.B. DATE: 8-23-78 NO. 808
 CHECKED: A.D.

REVISIONS		
REV. NO.	DESCRIPTION	DATE

DATE	NO.	REV.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S.	561	838	LOGAN	55	38
PROJECT: 561 (102)					
SHEET 19 OF 22					

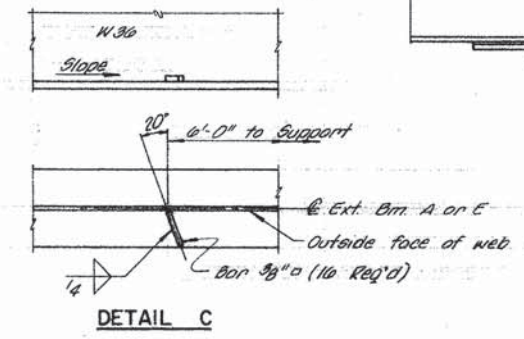


FOR INFORMATION ONLY



TOP OF WF ELEVATIONS

	@ N. Brq. Pier #3	@ Pier #4	@ Splice #5	@ Splice #6	@ Pier #5	@ Splice #7	@ Splice #8	@ Pier #6	@ Splice #9	@ Splice #10	@ Pier #7	@ Brq. N. Abut.
Beam A	578.395	578.235	578.190	578.075	578.025	577.975	577.875	577.825	577.775	577.660	577.615	577.455
Beam B	578.530	578.370	578.325	578.210	578.160	578.110	578.010	577.960	577.910	577.795	577.750	577.590
Beam C	578.650	578.490	578.445	578.330	578.280	578.230	578.130	578.080	578.030	577.915	577.870	577.710
Beam D	578.565	578.405	578.360	578.245	578.195	578.145	578.045	577.995	577.945	577.830	577.785	577.625
Beam E	578.470	578.310	578.265	578.150	578.100	578.050	577.950	577.900	577.850	577.735	577.690	577.530



FRAMING PLAN-UNIT II
 F.A.S. RT. 561 SECTION 838
 LOGAN COUNTY
 STATION 17+90
 COLLINS AND RICE
 CONSULTING ENGINEERS
 DRAWN BY: M.B. ENGINEER: F.S.
 CHECKED BY: A.D. DATE: 3-28-79 NO. 803

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ILLINOIS
 IOWA
 WISCONSIN

AGENCY:
 LOGAN COUNTY
 HIGHWAY DEPARTMENT

PROJECT:
 SECTION 14-00083-01-BR
 C.H. 9 OVER SALT CREEK
 S.N. 054-3047

DESIGNED: A.R.K.
 CHECKED: J.A.M.
 DRAWN: A.D.S.
 CHECKED: A.R.K.
 J.A.M.

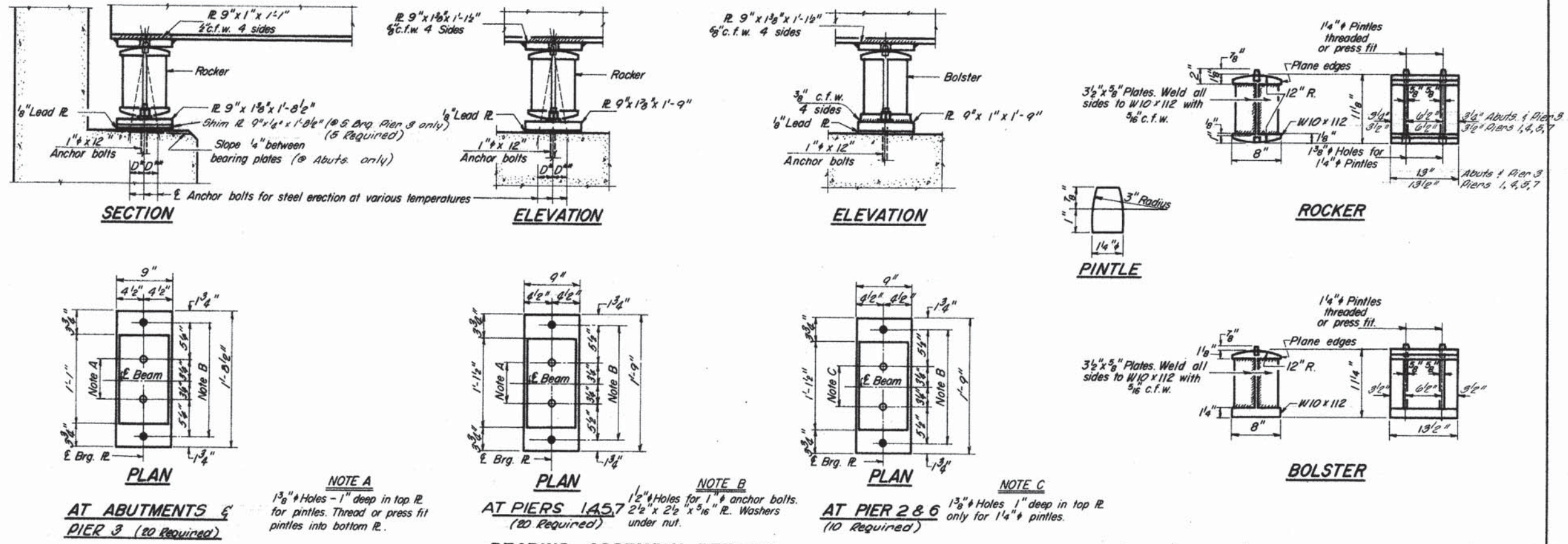
REVISIONS

REV. NO.	DESCRIPTION	DATE

DRAWING:
 EXISTING PLANS
 (FOR INFORMATION ONLY)
 CONTRACT #: 93675

JOB NUMBER:
 14-589
 SHEET NUMBER
 23 of 45

PROJECT NO.	561 83B	COUNTY	LOGAN	SHEET NO.	39
DATE	5/5	SCALE		PROJECT NO.	561 (100)
SHEET 14 OF 22					



NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- a) D* (Side of brg. away from fixed brg.)
 D* = 1/8" per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
- D** (Side of brg. toward fixed brg.)
 D** = 1/8" per each 100' of expansion for every 15° rise above the normal temp. of 50°F.
- b) After beams have been erected and dimensions D* or D** determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

BEARING ASSEMBLY DETAILS

FOR INFORMATION ONLY

INTERIOR BEAM MOMENT TABLE - UNIT I

	0.4 Span 1st Brg	Pier 1 or 2	0.5 Span 2
I (in ⁴)	9090	10,500	9760
S (in ³)	504	580	542
Q (K/FF)	1,125	1,125	1,125
M _R (FT-K)	334	784	341
M _L (FT-K)	460	443	469
Imp. (FT-K)	119	111	111
M _{TOTAL} (FT-K)	913	1,278	921
F _s (KSI)	* 21.7	26.4	* 20.4

INTERIOR BEAM MOMENT TABLE - UNIT II

	0.4 Span 4th Brg	Pier 4 or 7	0.5 Span 5th Brg	Pier 5 or 6	0.5 Span 6
I (in ⁴)	7820	7820	7820	9090	7820
S (in ³)	440	440	440	504	440
Q (K/FF)	1,125	1,125	1,125	1,125	1,125
M _R (FT-K)	262	530	233	555	220
M _L (FT-K)	367	363	375	405	376
Imp. (FT-K)	100	94	94	105	94
M _{TOTAL} (FT-K)	709	987	702	1,065	690
F _s (KSI)	* 19.3	26.9	* 19.1	25.4	* 18.8

INTERIOR BEAM REACTION TABLE - UNIT I

	S. Abut. or S. Brg. Pier 3	Pier 1 or 2
R _Q (K)	27.5	97.9
R _L (K)	36.2	51.4
Imp. (K)	9.4	12.9
R _{TOTAL} (K)	73.2	162.2

INTERIOR BEAM REACTION TABLE - UNIT II

	N. Abut. or N. Brg. Pier 4	Pier 4 or 7	Pier 5 or 6
R _Q (K)	23.4	83.3	83.9
R _L (K)	34.8	47.2	49.2
Imp. (K)	9.5	12.3	12.8
R _{TOTAL} (K)	67.7	142.8	145.9

BEARINGS
 F.A.S. RT 561 SECTION 83B
 LOGAN COUNTY
 STATION 17 + 90

COLLINS AND RICE
 CONSULTING ENGINEERS

DESIGNED: M.B. CHECKED: F.S.
 DRAWN: R.S. DATE: 8-29-78 NO. 803

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AGENCY:
 LOGAN COUNTY
 HIGHWAY DEPARTMENT

PROJECT:
 SECTION 14-00083-01-BR
 C.H. 9 OVER SALT CREEK
 S.N. 054-3047

DESIGNED: A. R. K.
 CHECKED: J. A. M.
 DRAWN: A. D. S.
 CHECKED: A. R. K.
 J. A. M.

REVISIONS

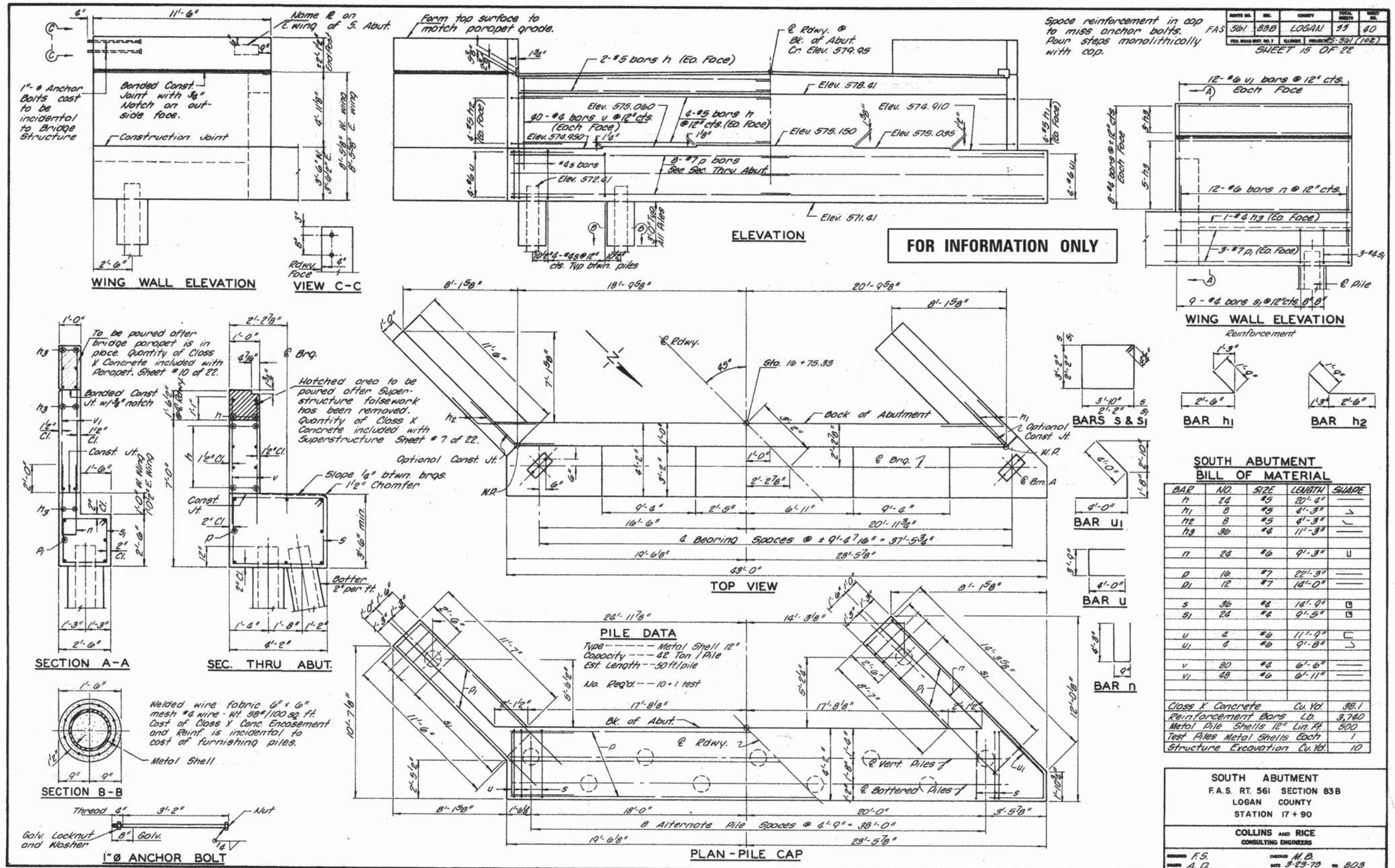
REV. NO.	DESCRIPTION	DATE

DRAWING:
 EXISTING PLANS
 (FOR INFORMATION ONLY)

JOB NUMBER:
 14-589

SHEET NUMBER
 24 of 45

CONTRACT #: 93675



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AGENCY:
LOGAN COUNTY
HIGHWAY DEPARTMENT

PROJECT:
SECTION 14-00083-01-BR
C.H. 9 OVER SALT CREEK
S.N. 054-3047

DESIGNED: A.R.K.
CHECKED: J.A.M.
DRAWN: A.D.S.
CHECKED: A.R.K.
J.A.M.

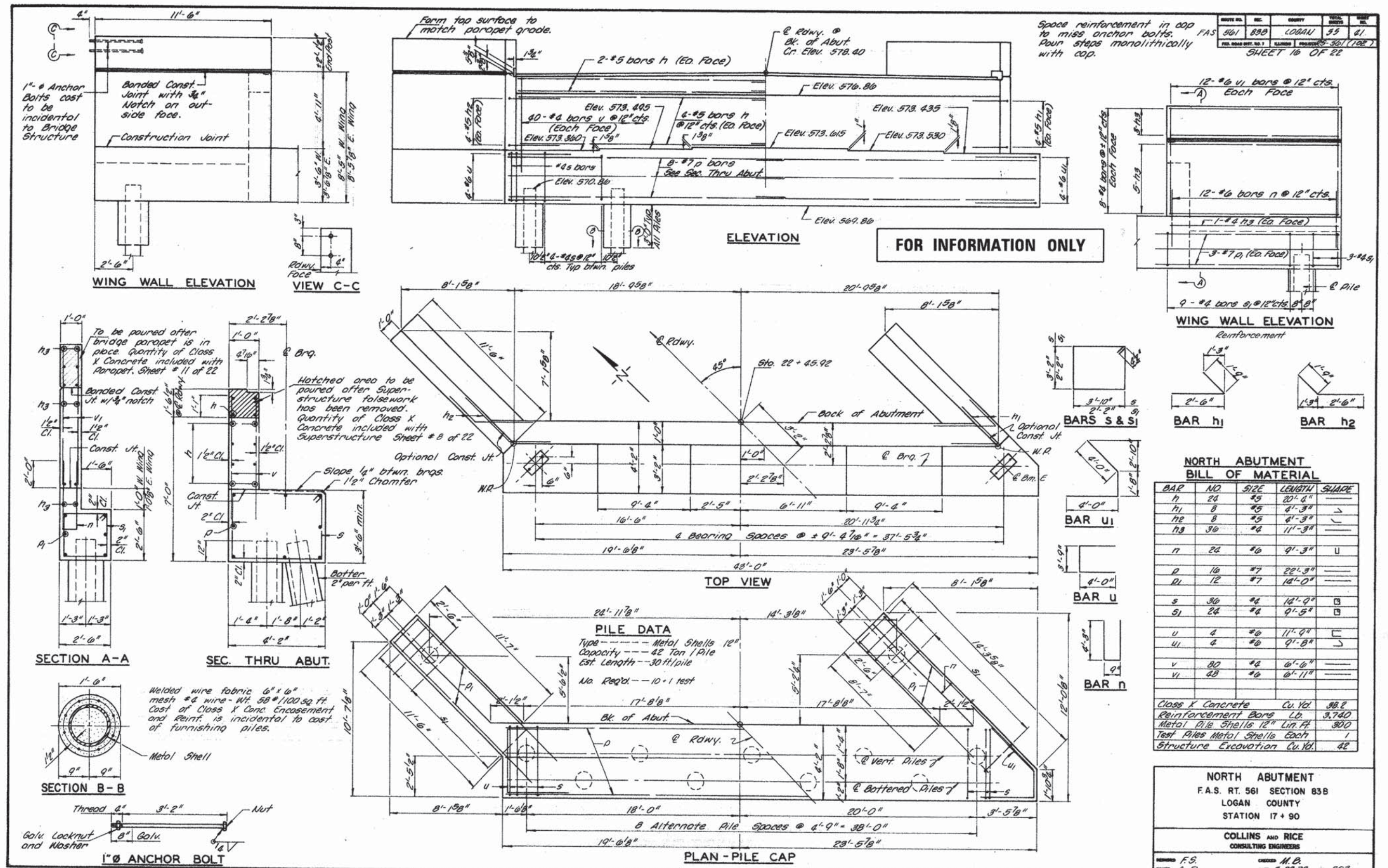
REVISIONS	
REV. NO.	DESCRIPTION
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REV. NO.	DESCRIPTION

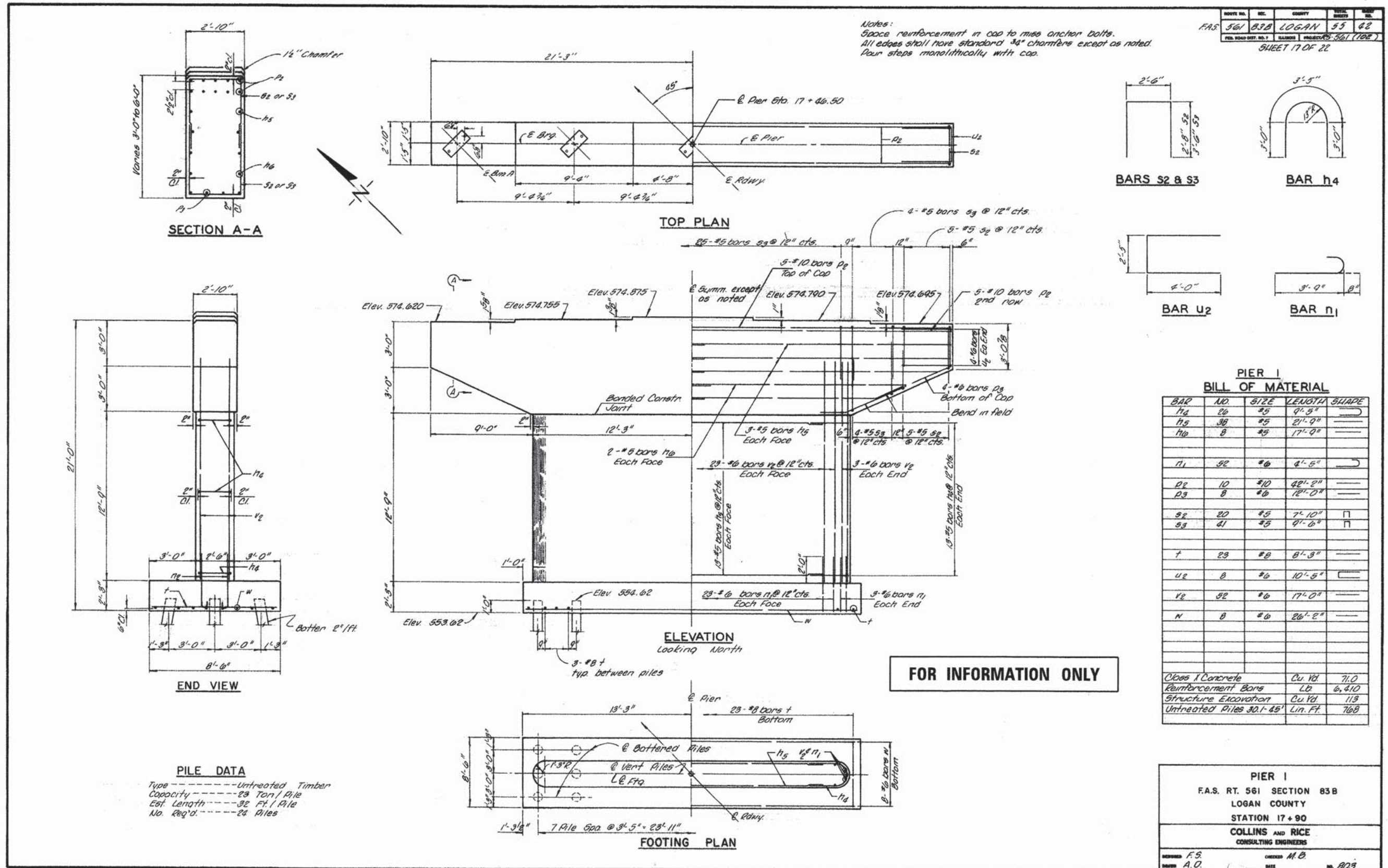
DRAWING:
EXISTING PLANS
(FOR INFORMATION ONLY)

JOB NUMBER:
14-589

SHEET NUMBER
25 of 45

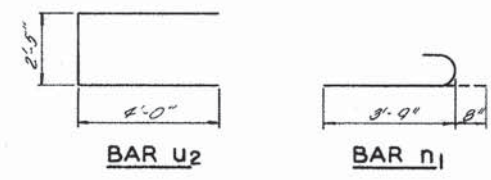
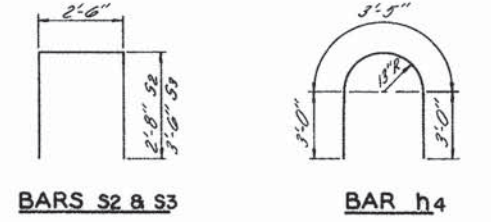
CONTRACT #: 93675





Notes:
 Space reinforcement in cap to miss anchor bolts.
 All edges shall have standard 3/4" chamfers except as noted.
 Pour steps monolithically with cap.

ROUTE NO.	SEC.	COUNTY	STATION	SHEET NO.
F.A.S. 561	83B	LOGAN	17 + 90	22
SHEET 17 OF 22				



PIER I
 BILL OF MATERIAL

BAR NO.	SIZE	LENGTH	SHAPE
h4	#5	7'-5"	U
h5	#5	21'-9"	U
h6	#5	17'-9"	U
n1	#6	4'-5"	U
U2	#6	42'-2"	U
S2	#5	7'-10"	U
S3	#5	9'-6"	U
t	#8	8'-3"	U
U2	#6	10'-8"	U
v2	#6	17'-0"	U
N	#6	26'-2"	U

FOR INFORMATION ONLY

PILE DATA

Type	Untreated Timber
Capacity	28 Ton/Pile
Est Length	32 Ft./Pile
No. Req'd.	24 Piles

PIER I
 F.A.S. RT. 561 SECTION 83B
 LOGAN COUNTY
 STATION 17 + 90
 COLLINS AND RICE
 CONSULTING ENGINEERS

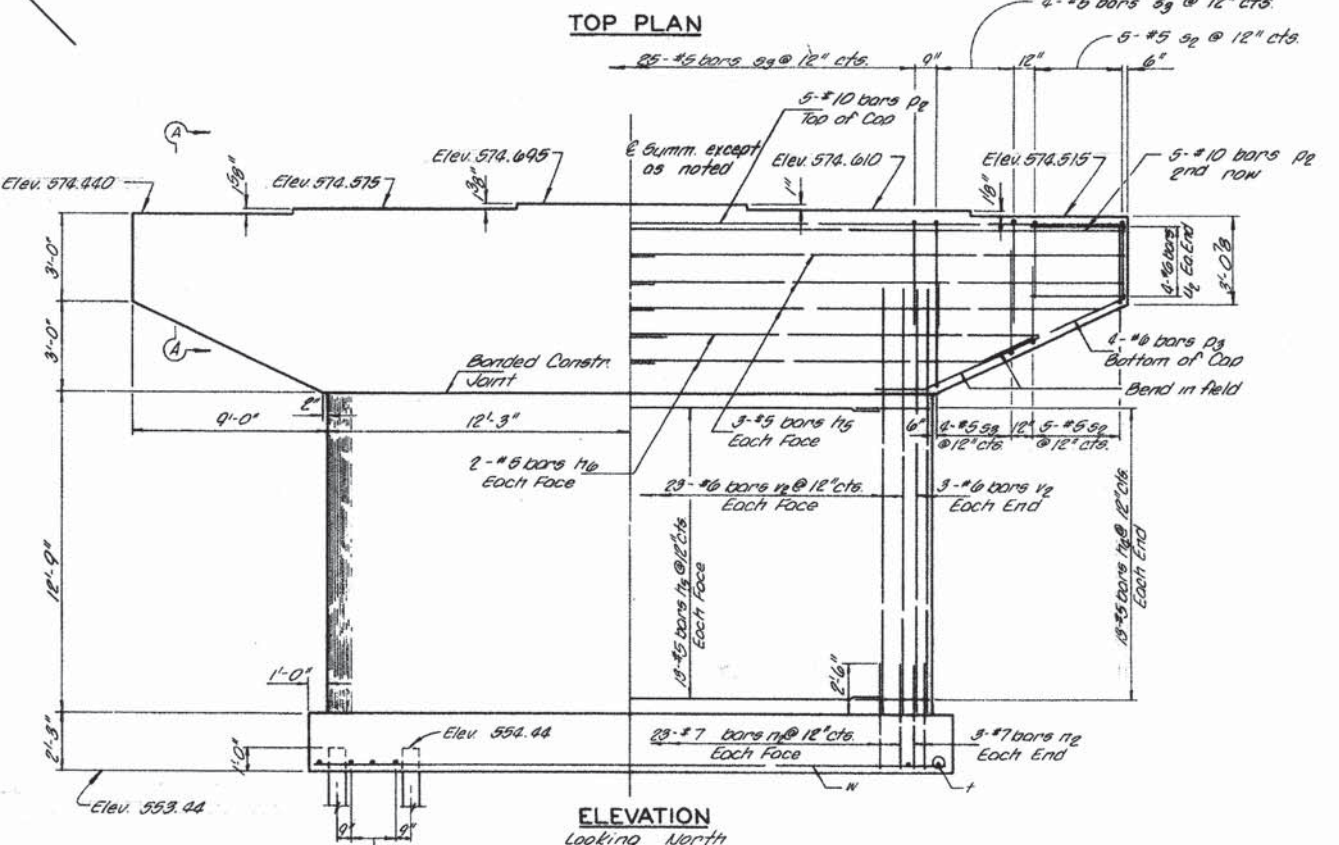
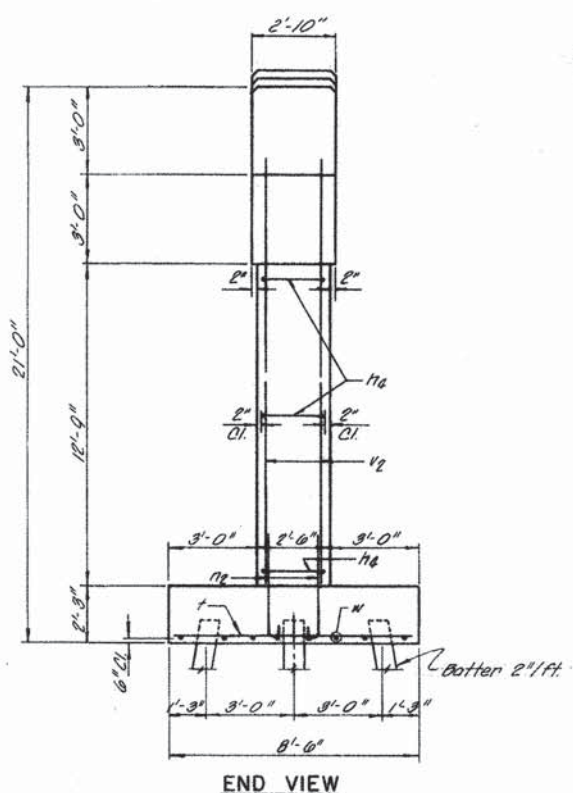
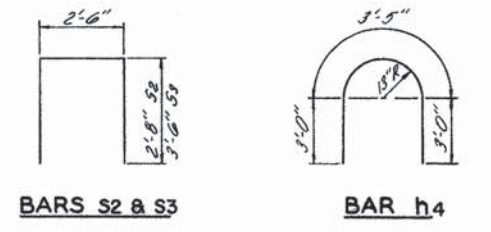
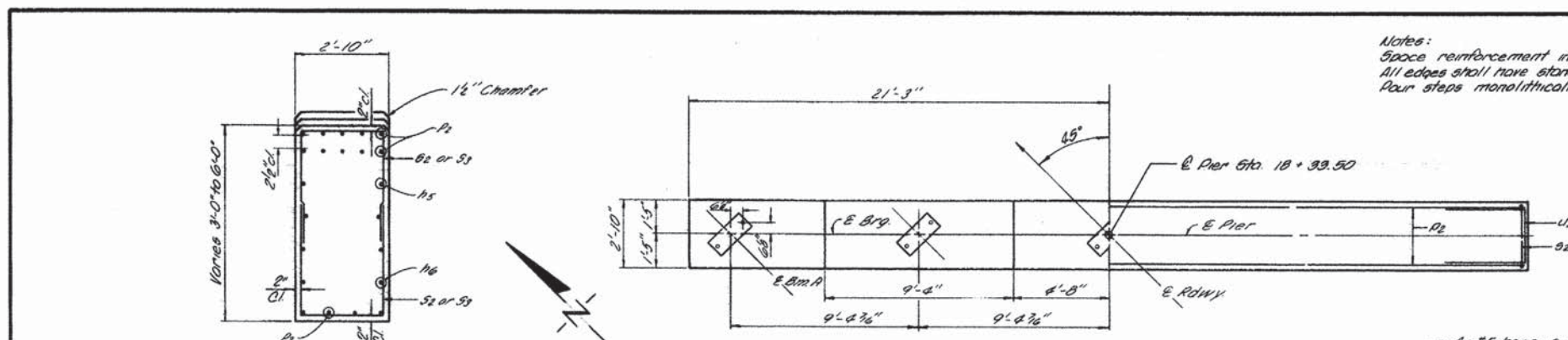
DESIGNED: F.S. CHECKED: M.B.
 DRAWN: A.O. DATE: 803

REVISIONS

REV. NO.	DESCRIPTION	DATE

DATE	REV.	COUNTY	TRAIL	SHEET
F.A.S.	561	83B	LOGAN	93 43
FED. ROAD DIST. NO. 7		ALJMS	PROJECT	E-561 (102)
SHEET 18 OF 22				

Notes:
 Space reinforcement in cap to miss anchor bolts.
 All edges shall have standard 3/8" chamfers except as noted.
 Four steps monolithically with cap.

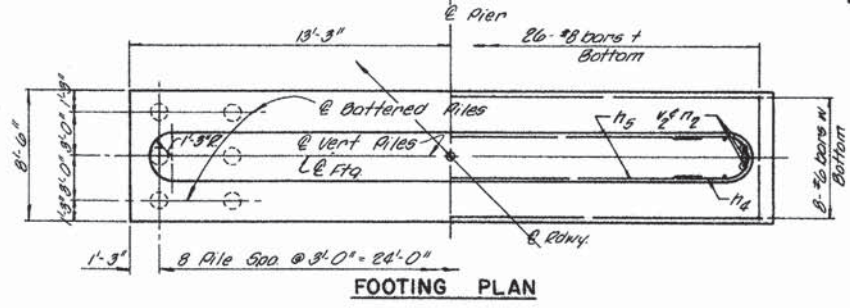


**PIER 2
BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h4	26	#5	9'-3"	U
h5	38	#5	21'-9"	—
h6	8	#5	17'-9"	—
h7	92	#7	5'-1"	—
P2	10	#10	42'-2"	—
P3	8	#6	12'-0"	—
S2	20	#5	7'-10"	□
S3	41	#5	9'-6"	□
T	26	#8	8'-3"	—
U2	8	#6	10'-5"	—
V2	92	#6	17'-0"	—
N	8	#6	26'-2"	—

Class I Concrete	Cu. Yd.	70.9
Reinforcement Bars	Lb.	6,670
Structure Excavation	Cu. Yd.	99
Untreated Piles 30.1-45'	Lin. Ft.	832
Test Piles Timber	Each	1

PILE DATA
 Type----- Untreated Timber
 Capacity----- 23 Ton / Pile
 Est. Length----- 32 Ft. / Pile
 No. Req'd----- 26 * 1 Test

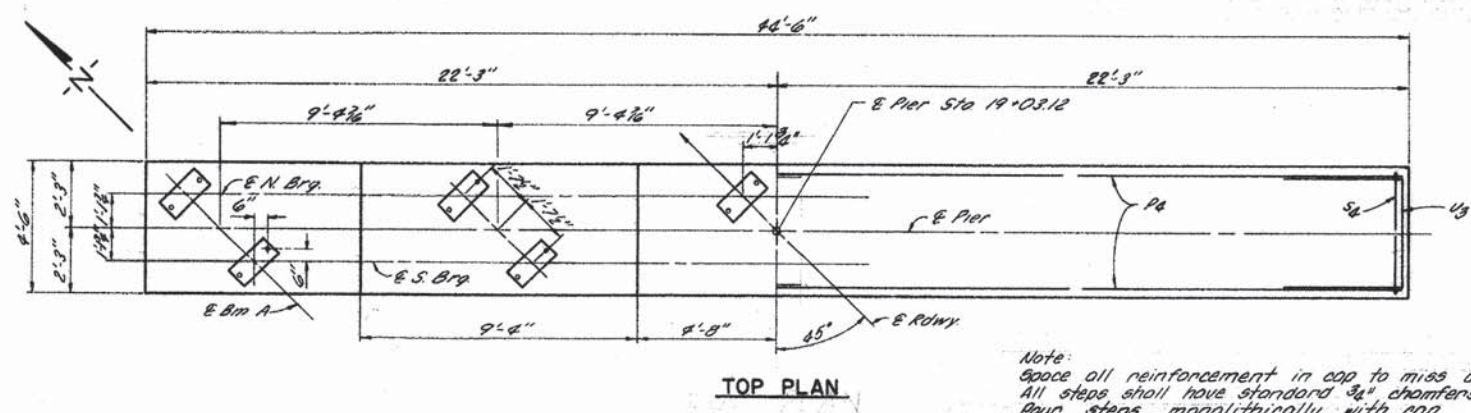
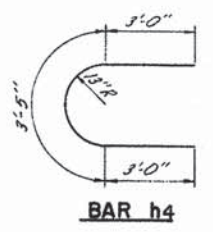
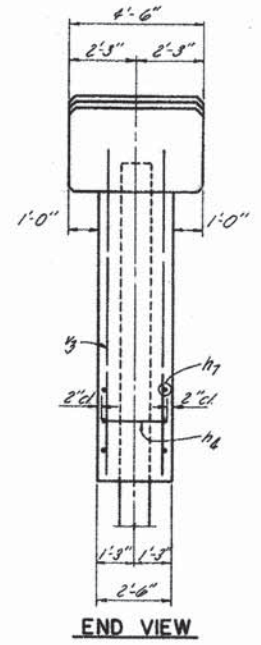
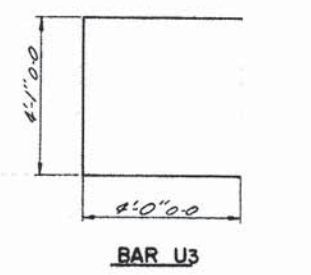
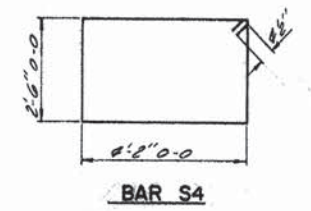


FOR INFORMATION ONLY

PIER 2
 F.A.S. RT. 561 SECTION 83B
 LOGAN COUNTY
 STATION 17+90
COLLINS AND RICE
 CONSULTING ENGINEERS
 DRAWN F.S. CHECKED M.B.
 SCALE A.O. DATE 3-23-73 NO. 803

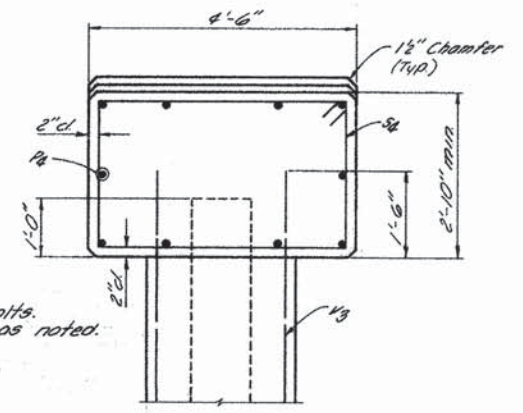
REVISIONS		
REV. NO.	DESCRIPTION	DATE

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 561	838	LOGAN	55	44
SHEET 19 OF 22				

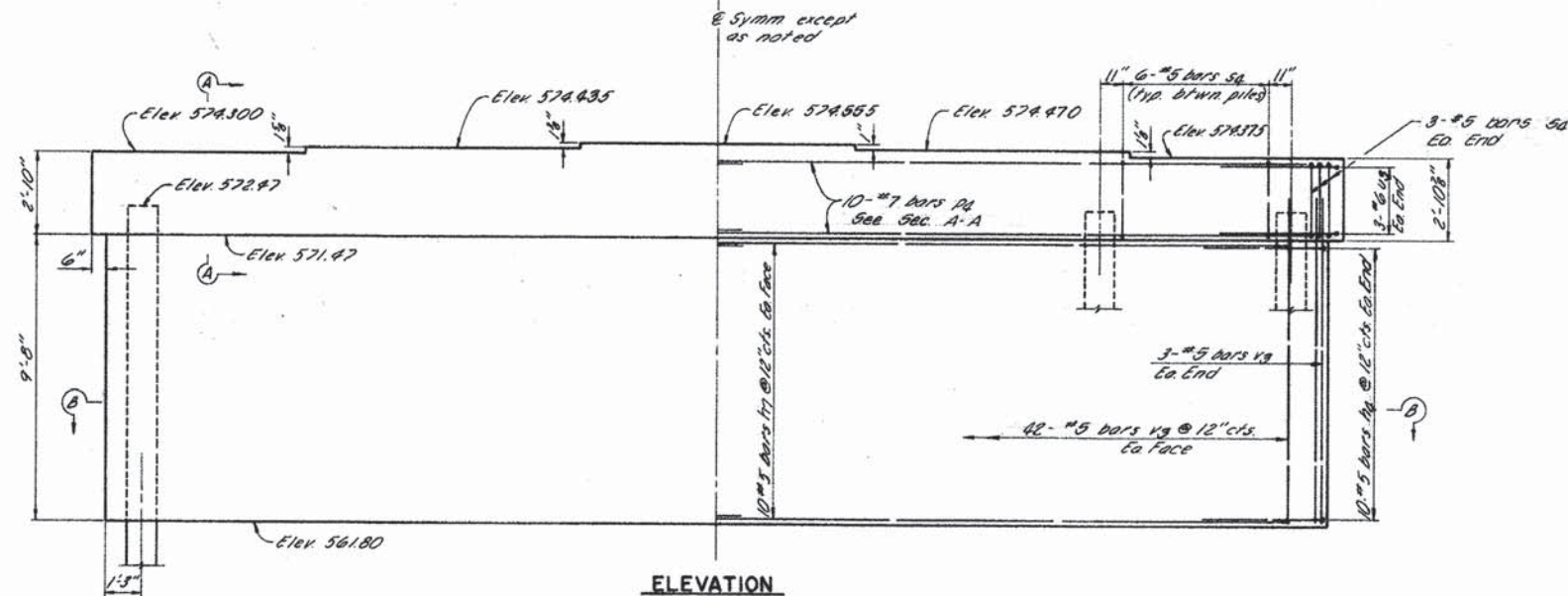


TOP PLAN

Note:
Space all reinforcement in cap to miss anchor bolts.
All steps shall have standard 3/4" chamfers except as noted.
Pour steps monolithically with cap.

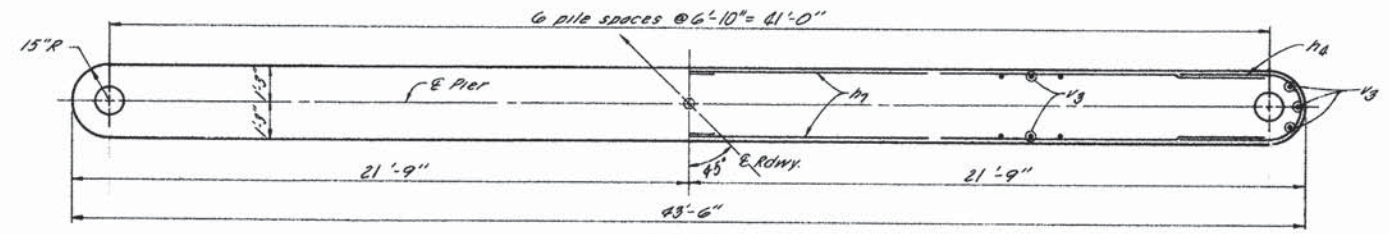


SECTION A-A



ELEVATION
Looking North

FOR INFORMATION ONLY



SECTION B-B

PILE DATA
Type ----- Metal Shell 12"
Capacity ----- 45 Ton/Pile
Est. Length ----- 55 Ft./Pile
No. Required ----- 7 Piles

PIER 3
BILL OF MATERIAL

BAR	NO	SIZE	LENGTH	SHAPE
h4	20	#5	9'-5"	U
h7	40	#5	21'-2"	—
Pa	20	#7	29'-0"	—
S4	42	#5	14'-1"	U
U3	6	#6	12'-1"	U
V3	40	#5	11'-0"	—
Class X Concrete		Cu. Yd.	58.3	
Reinforcement Bars		Lb.	3,780	
Metal Pile Shells 12"		Lin. Ft.	385	
Structure Excavation		Cu. Yd.	37	

PIER 3
F.A.S. RT. 561 SECTION 838
LOGAN COUNTY
STATION 17+90
COLLINS AND RICE
CONSULTING ENGINEERS
DESIGNED: F.S. CHECKED: M.C.
DRAWN: R.S. DATE: 3-23-78

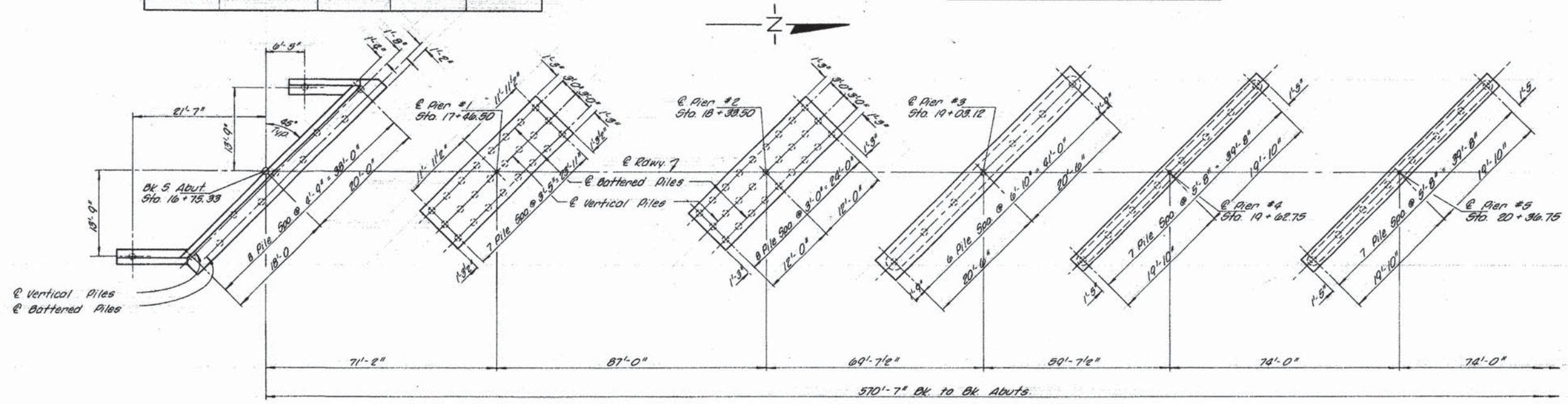
REVISIONS

REV. NO.	DESCRIPTION	DATE

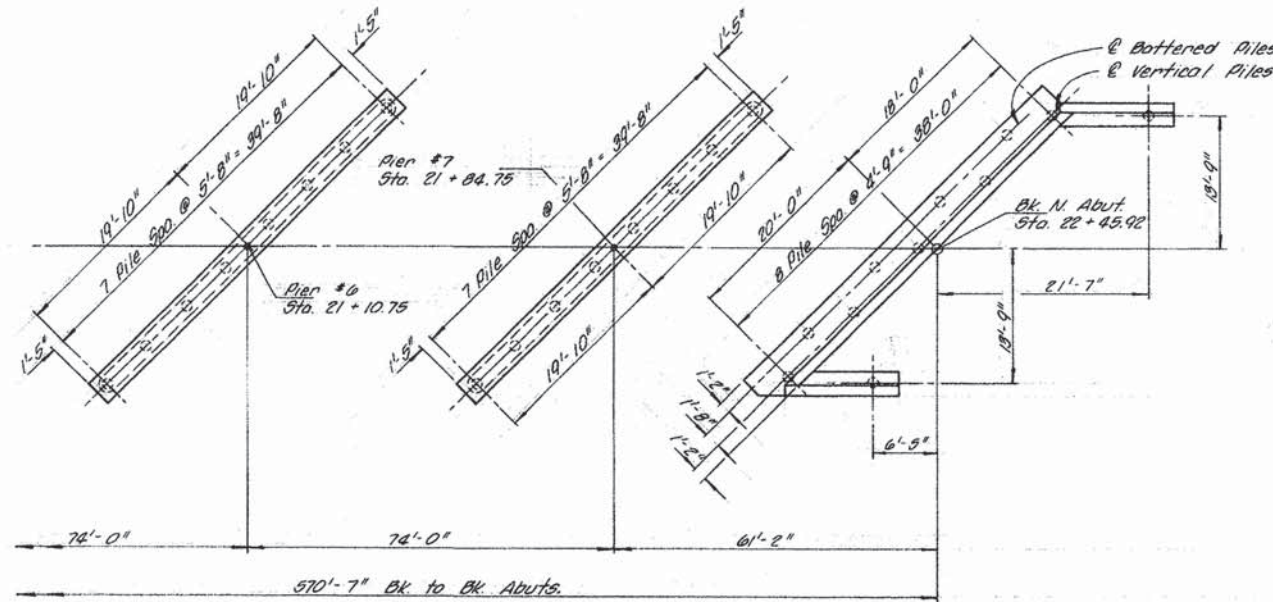
PILE DATA				
LOCATION	TYPE	PILE CUT OFF ELEV	EST LENGTH	CAPACITY TONS
S. Abut.	Metal Shell, 12"	572.41	50 FT	42
Pier 1	Untreated Timber	558.62	32 FT	29
Pier 2	Untreated Timber	558.84	32 FT	29
Pier 3	Metal Shell, 12"	572.47	35 FT	45
Pier 4	Metal Shell, 12"	572.24	30 FT	45
Pier 5	Metal Shell, 12"	572.00	45 FT	45
Pier 6	Metal Shell, 12"	571.86	35 FT	45
Pier 7	Metal Shell, 12"	571.62	30 FT	45
N. Abut.	Metal Shell, 12"	570.86	30 FT	42

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
561	83B	LOGAN	53	27
F.A.S. 561 83B LOGAN 53 27				
SHEET 2 OF 22				

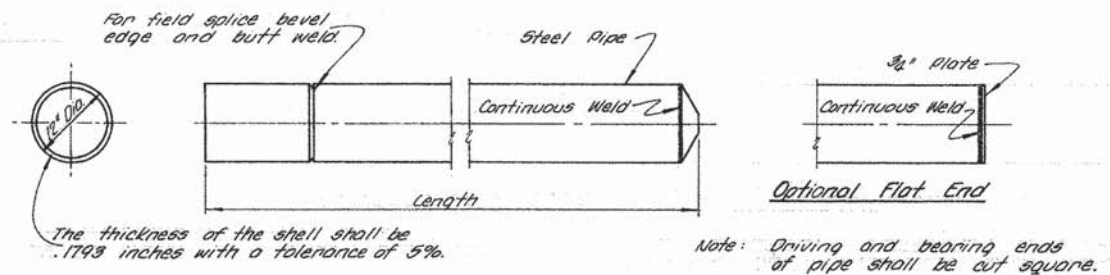
FOR INFORMATION ONLY



FOOTING LAYOUT



FOOTING LAYOUT



METAL SHELL DETAIL

FOOTING LAYOUT & PILE DETAILS F.A.S. RT. 561 SECTION 83B LOGAN COUNTY STATION 17+90 COLLINS AND RICE CONSULTING ENGINEERS DRAWN M.B. CHECKED A.D. DESIGNED F.S. DATE 3-23-75 NO. 809	
--	--

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ILLINOIS
 IOWA
 WISCONSIN

AGENCY:
 LOGAN COUNTY
 HIGHWAY DEPARTMENT

PROJECT:
 SECTION 14-00083-01-BR
 C.H. 9 OVER SALT CREEK
 S.N. 054-3047

DESIGNED: A.R.K.
 CHECKED: J.A.M.
 DRAWN: A.D.S.
 CHECKED: A.R.K.
 J.A.M.

REVISIONS		
REV. NO.	DESCRIPTION	DATE

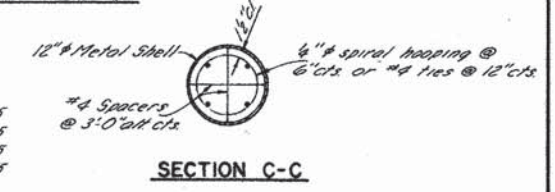
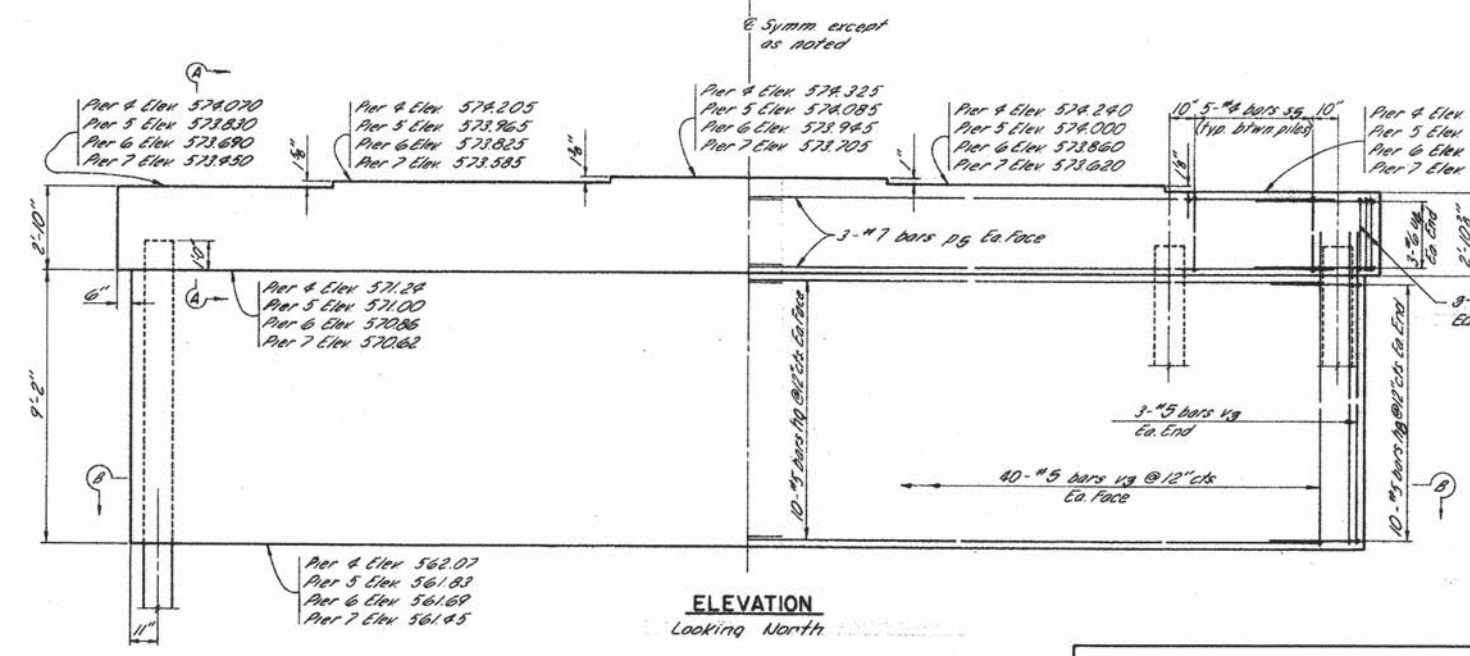
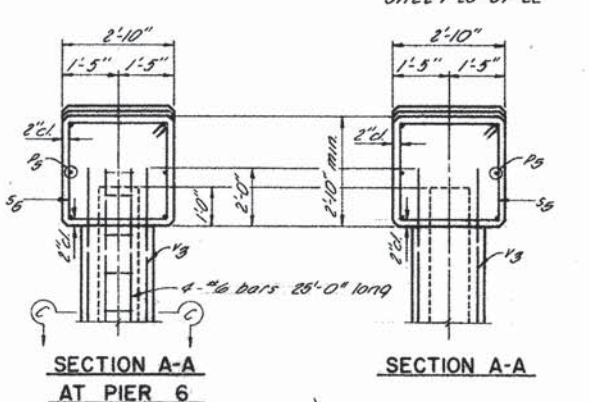
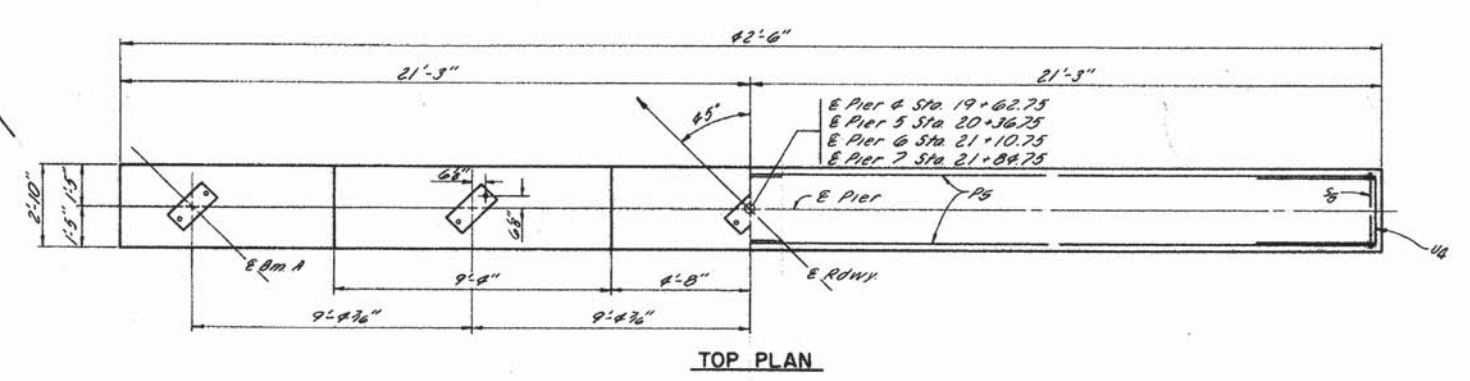
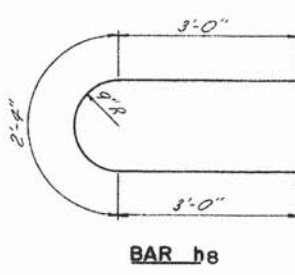
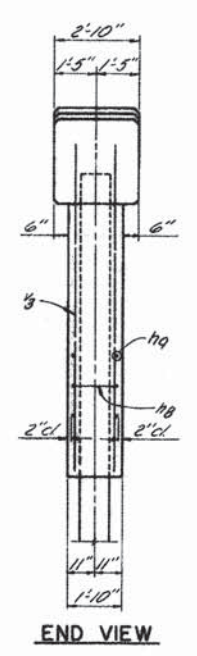
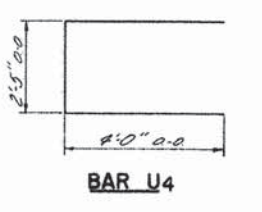
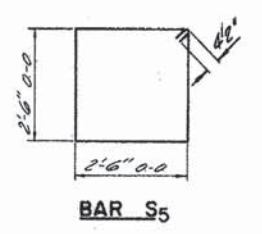
DRAWING:
 EXISTING PLANS
 (FOR INFORMATION ONLY)

CONTRACT #: 93675

JOB NUMBER:
 14-589

SHEET NUMBER
 30 of 45

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 561	838	LOGAN	55	45
REL. ROAD DIST. NO. 1	STATION	PROJECT	RS-561 (102)	
			SHEET 20 OF 22	



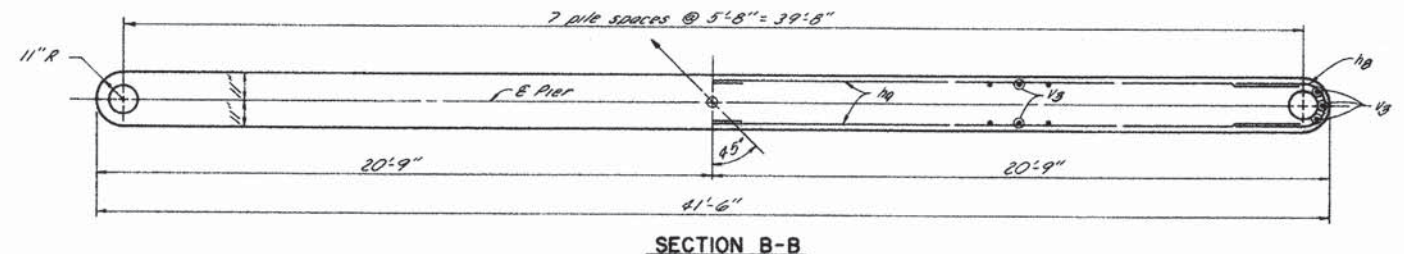
PILE DATA

Type	Metal Shells 12"
Capacity	45 Ton/Pile
Est. Length	
Pier 4	50 Ft./Pile
Pier 5	45 Ft./Pile
Pier 6	35 Ft./Pile
Pier 7	30 Ft./Pile
No. Required	31 + 1 Test Pile @ (4 Piers) Pier 5

FOR INFORMATION ONLY

BILL OF MATERIAL - 4 PIERS

BAR NO.	SIZE	LENGTH	SHAPE
h9	#5	8'-4"	U
h8	#5	20'-6"	U
P5	#7	22'-0"	—
S5	#4	10'-9"	□
U4	#6	10'-5"	□
V3	#5	11'-0"	—
Class X Concrete		Cu. Yd.	146.9
Reinforcement Bars		Lb.	11,780
Metal Pile Shells 12"		Lin. Ft.	1,235
Structure Excavation		Cu. Yd.	120
Test Piles Metal Shells Each			1



PIERS 4, 5, 6, & 7
 FAS. RT 561 SECTION 838
 LOGAN COUNTY
 STATION 17+90
 COLLINS AND RICE
 CONSULTING ENGINEERS
 DESIGNED: F.S. CHECKED: M.B.
 DRAWN: R.S. DATE: 3-28-78 NO. 803

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 ILLINOIS DESIGN FIRM NO. 184-003525
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ILLINOIS
 IOWA
 WISCONSIN

AGENCY:
 LOGAN COUNTY
 HIGHWAY DEPARTMENT

PROJECT:
 SECTION 14-00083-01-BR
 C.H. 9 OVER SALT CREEK
 S.N. 054-3047

DESIGNED: A.R.K.
 CHECKED: J.A.M.
 DRAWN: A.D.S.
 CHECKED: A.R.K.
 J.A.M.

REVISIONS

REV. NO.	DESCRIPTION	DATE

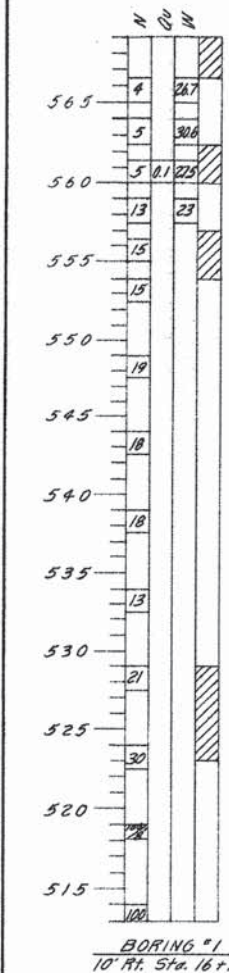
DRAWING:
 EXISTING PLANS
 (FOR INFORMATION ONLY)

CONTRACT #: 93675

JOB NUMBER:
 14-589

SHEET NUMBER:
 31 of 45

PROJECT NO.	REC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAS. 561	83B	LOGAN	53	46
SHEETS 561-561 (102)				
SHEET 21 OF 22				



Black very moist, soft, silty clay

Dark brown wet, soft, silty clay

Dark brown wet, soft, silty clay, with occasional small gravel

Dark brown wet, stiff, clay, with some sand and gravel

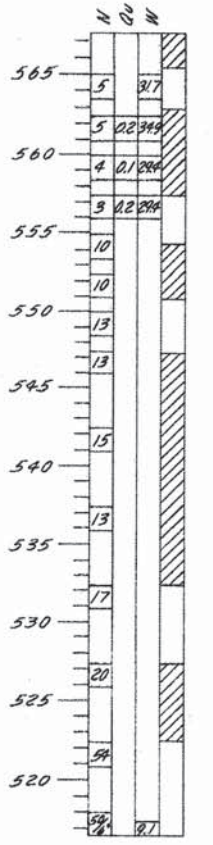
Brown saturated, medium dense, sand loam, trace of gravel

Brown saturated, medium dense medium sand, with small to medium gravel

Brown saturated, medium dense, medium sand, with a trace of gravel, and occasional silt layers

Gray moist, hard, clay loam, with some gravel, Glacial Till

BORING #1
10' Rt. Sta. 16+70



Black very moist, soft, silty clay

Dark brown moist, firm, clay

Mottled brown very moist, soft, silty clay, with occasional sand seams

Dark gray wet, soft, silty clay loam, with a trace of organic material and sand

Brown wet, loose, medium sand with some small gravel

Brown wet, loose, medium sand, with some gravel and occasional clay seams

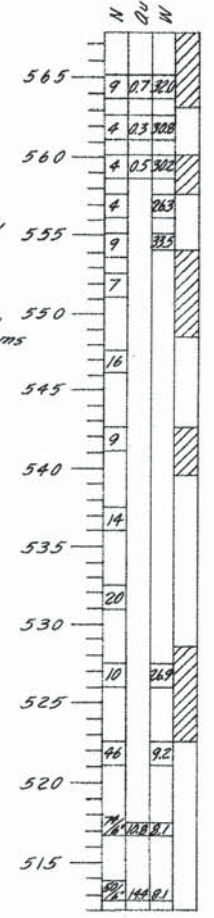
Brown saturated, loose, medium sand, with some gravel

Grey wet, medium dense, coarse sand, with some gravel

Grey wet, medium dense, fine sand, with occasional clay layers

Grey moist, hard, clay loam, with some gravel, Glacial Till

BORING #2
5' Lt. Sta. 17+35



Dark brown moist, stiff, silty clay

Mottled dark brown wet, moist silty clay

Dark gray with brown very moist, soft, silty clay

Mottled dark gray wet, soft, silty clay, trace of sand

Brown saturated, loose, medium sand, trace of gravel

Brown saturated, medium dense, medium to coarse sand, with gravel

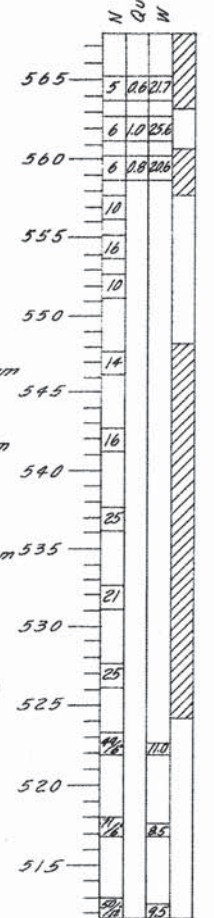
Gray saturated, loose, fine to medium sand, trace of gravel

Gray saturated, medium dense, medium sand, with gravel

Gray very moist, stiff, silt loam, trace of organic material, with sand and gravel layers

Gray moist, very hard, clay loam, trace of small gravel

BORING #3
5' Lt. Sta. 18+65



Dark brown very moist, firm, silty clay

Mottled brown very moist, firm silty clay

Mottled brown & gray very moist, firm, clay

Brown saturated, loose to medium dense, medium sand, trace of gravel

Brown saturated, medium dense, medium to coarse sand, with gravel

Gray saturated, loose, fine to medium sand, trace of gravel

Gray saturated, medium dense, medium sand, a little gravel

Gray moist, very hard, clay loam, trace of small gravel, Glacial Till

BORING #4
5' Lt. Sta. 19+62

- N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30"
- Qu - Unconfined Compressive Strength t/ft
- W - Water Content - percentage of oven dry wt. %
- B - Bulge Failure
- S - Shear Failure
- E - Estimated Value

FOR INFORMATION ONLY

BORINGS
FAS. RT. 561 SECTION 83B
LOGAN COUNTY
STATION 17+90
COLLINS AND RICE
CONSULTING ENGINEERS
DRAWN: M.B. CHECKED: F.S. DATE: 3-29-78 NO. 803

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ILLINOIS DESIGN FIRM NO. 184-003525
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ILLINOIS
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AGENCY:
LOGAN COUNTY
HIGHWAY DEPARTMENT

PROJECT:
SECTION 14-00083-01-BR
C.H. 9 OVER SALT CREEK
S.N. 054-3047

DESIGNED: A.R.K.
CHECKED: J.A.M.
DRAWN: A.D.S.
CHECKED: A.R.K.
J.A.M.

REVISIONS		
REV. NO.	DESCRIPTION	DATE

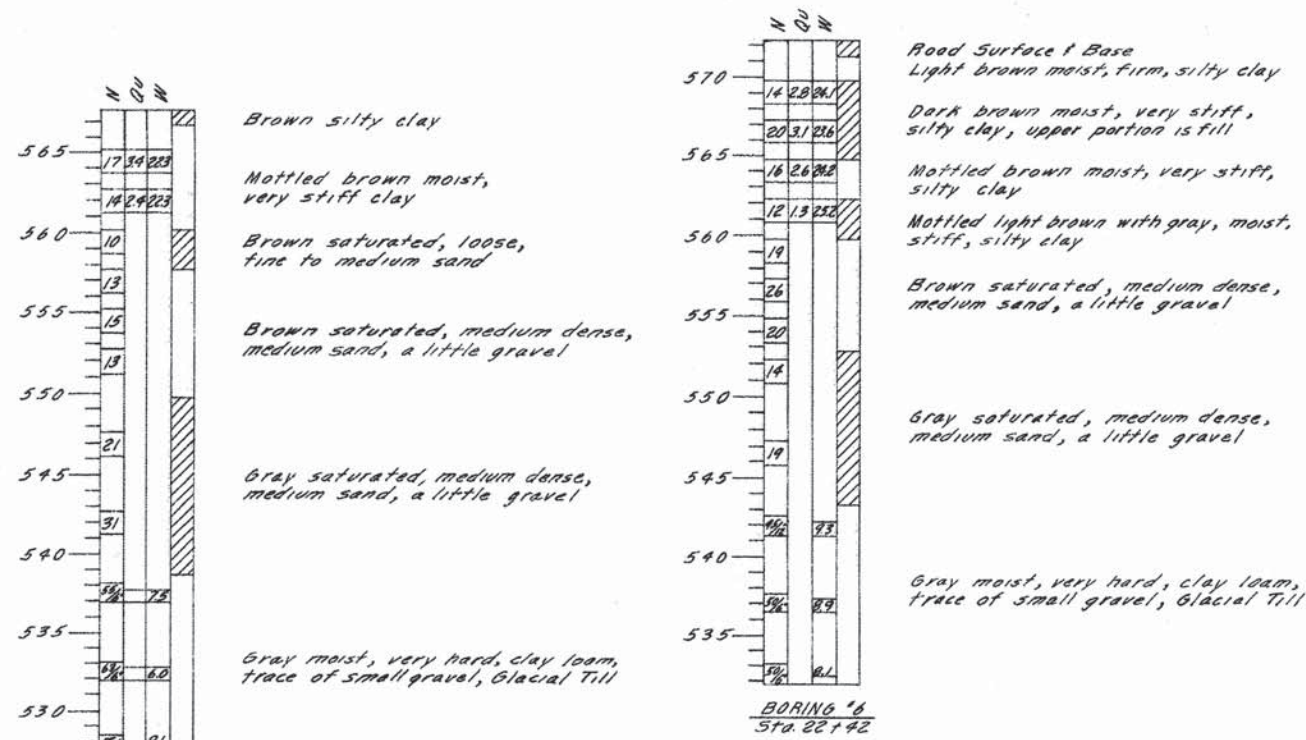
DRAWING:
EXISTING PLANS
(FOR INFORMATION ONLY)

CONTRACT #: 93675

JOB NUMBER:
14-589

SHEET NUMBER
32 of 45

ROUTE NO.	SEC.	COUNTY	LOCAL SECT.	POST MILE
F.A.S. 561	83B	LOGAN	99	47
SHEET 22 OF 22				



N - Standard Penetration Test - Blows per foot to drive 2" Split Spoon Sampler 12" with 140# hammer falling 30".
 Qu - Unconfined Compressive Strength t/ft
 W - Water Content - percent of oven dry wt. %
 B - Bulge Failure
 S - Shear Failure
 E - Estimated Value

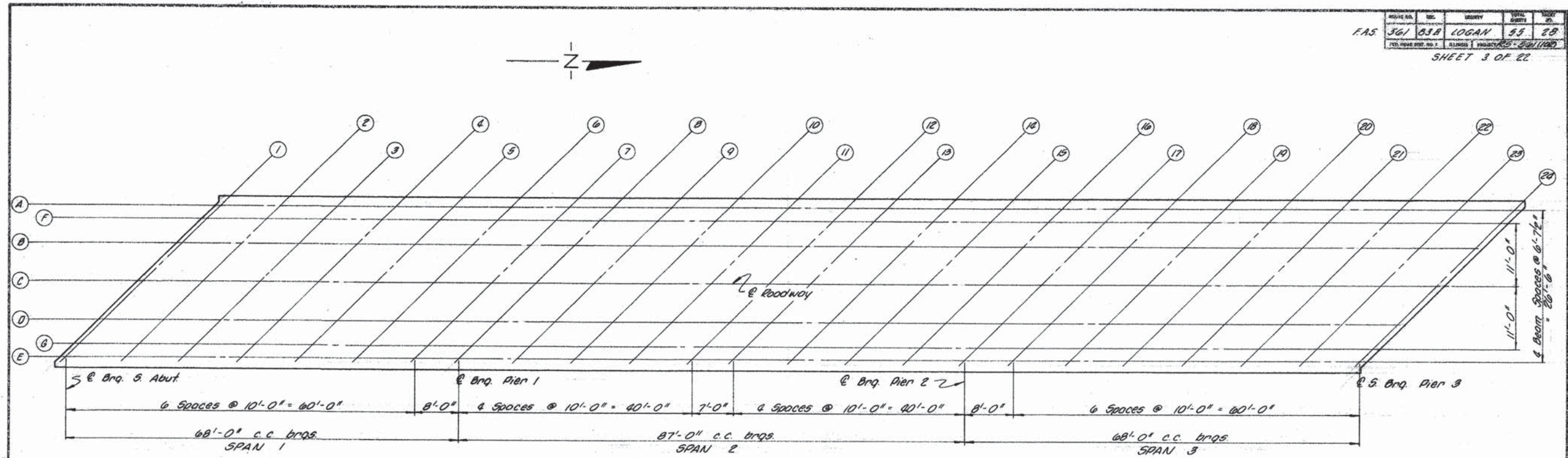
FOR INFORMATION ONLY

BORINGS
 F.A.S. RT. 561 SECTION 83B
 LOGAN COUNTY
 STATION 17+90
 COLLINS AND RICE
 CONSULTING ENGINEERS

DESIGNED: M.B. DATE: 8-28-78 NO. 203

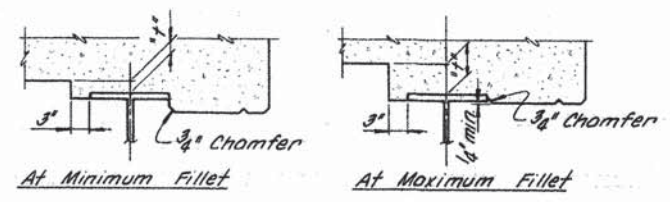
REVISIONS		
REV. NO.	DESCRIPTION	DATE

NO. FE. SA.	SEC.	SECTION	TOTAL QUANTITY	NO. OF
FAS 361	83B	LOGAN	55	28
TOTAL PAGES NO. 7		SHEET 3 OF 22		



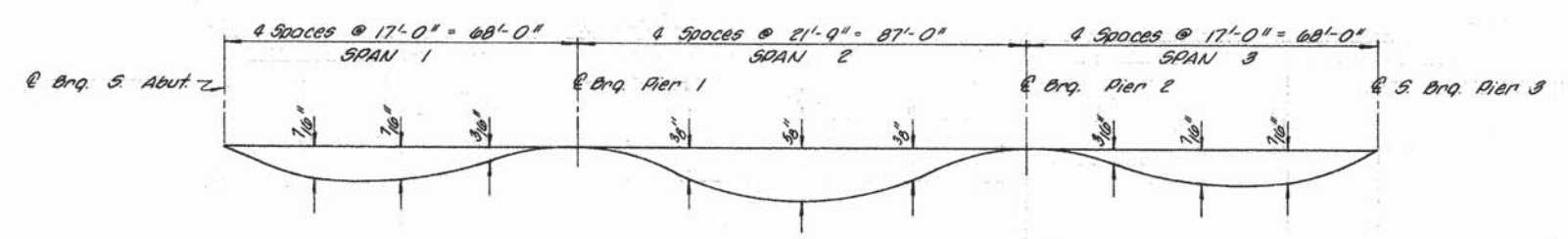
PLAN

FOR INFORMATION ONLY



FILLET HEIGHT "f"

To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown. These elevations subtracted from "Bottom of slab (adj.)" elevation shown on sheet #4 equals the fillet height "f" above the top flange of beams.



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only)

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 in "Table of Elevations".

SLAB ELEVATIONS-UNIT I	
FAS. RT. 561 SECTION 83B	
LOGAN COUNTY	
STATION 17+90	
COLLINS AND RICE CONSULTING ENGINEERS	
DESIGNED: M.B.	CHECKED: F.S.
DRAWN: A.D.	DATE: 3-28-73 NO. 809

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AGENCY:
LOGAN COUNTY
HIGHWAY DEPARTMENT

PROJECT:
SECTION 14-00083-01-BR
C.H. 9 OVER SALT CREEK
S.N. 054-3047

DESIGNED: A.R.K.
CHECKED: J.A.M.
DRAWN: A.D.S.
CHECKED: A.R.K.
J.A.M.

REVISIONS	
REV. NO.	DESCRIPTION

DRAWING:
EXISTING PLANS
(FOR INFORMATION ONLY)

CONTRACT #: 93675

JOB NUMBER:
14-589

SHEET NUMBER
34 of 45

Project No.	561	Section	838	County	LOGAN	Sheet No.	29
Scale				Project	RT-561(838)		

SHEET 4 OF 22

TABLE OF ELEVATIONS

LOCATION		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Beam A	T	579.705	9.085	9.095	9.045	9.020	9.595	9.545	9.515	9.490	9.460	9.430	9.410	9.385	9.355	9.330	9.300	9.280	9.290	9.220	9.195	9.165	9.140	579.110	
	Adj.	579.705	9.715	9.705	9.685	9.650	9.610	9.570	9.545	9.525	9.520	9.505	9.490	9.460	9.430	9.340	9.300	9.285	9.245	9.250	9.235	9.205	9.170	579.110	
	Bot. of Slab (adj.)	579.080	9.090	9.080	9.060	9.025	8.985	8.945	8.920	8.900	8.895	8.880	8.855	8.835	8.805	8.760	8.715	8.675	8.660	8.640	8.625	8.610	8.580	8.545	578.485
	Top of Steel Fillet Ht. "4"																								

LOCATION		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Beam B	T	579.830	9.815	9.795	9.775	9.750	9.725	9.700	9.680	9.650	9.620	9.595	9.565	9.545	9.520	9.490	9.460	9.435	9.410	9.385	9.355	9.330	9.300	9.270	579.285
	Adj.	579.830	9.845	9.835	9.815	9.780	9.740	9.705	9.680	9.660	9.650	9.640	9.615	9.595	9.565	9.520	9.470	9.435	9.415	9.400	9.385	9.370	9.300	9.270	579.285
	Bot. of Slab (adj.)	579.205	9.220	9.210	9.190	9.155	9.115	9.080	9.055	9.035	9.025	9.015	8.990	8.970	8.940	8.895	8.845	8.810	8.790	8.775	8.760	8.745	8.715	8.675	578.620
	Top of Steel Fillet Ht. "4"																								

LOCATION		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Beam C	T	579.945	9.930	9.910	9.890	9.870	9.845	9.820	9.800	9.770	9.745	9.715	9.690	9.670	9.640	9.610	9.585	9.555	9.535	9.505	9.480	9.450	9.420	9.395	579.365
	Adj.	579.945	9.960	9.950	9.930	9.900	9.860	9.820	9.800	9.780	9.775	9.760	9.740	9.720	9.685	9.640	9.595	9.555	9.540	9.520	9.510	9.490	9.460	9.425	579.365
	Bot. of Slab (adj.)	579.320	9.335	9.325	9.305	9.275	9.235	9.200	9.175	9.155	9.150	9.135	9.115	9.095	9.060	9.015	8.970	8.930	8.915	8.895	8.885	8.865	8.835	8.800	578.790
	Top of Steel Fillet Ht. "4"																								

LOCATION		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Beam D	T	579.855	9.835	9.820	9.800	9.780	9.760	9.735	9.715	9.685	9.660	9.630	9.605	9.585	9.555	9.525	9.500	9.470	9.450	9.420	9.395	9.365	9.335	9.310	579.280
	Adj.	579.855	9.865	9.860	9.840	9.810	9.775	9.740	9.715	9.695	9.690	9.675	9.655	9.635	9.600	9.555	9.510	9.470	9.455	9.435	9.425	9.405	9.375	9.340	579.280
	Bot. of Slab (adj.)	579.230	9.240	9.235	9.215	9.185	9.150	9.115	9.090	9.070	9.065	9.050	9.030	9.010	8.975	8.930	8.885	8.845	8.830	8.810	8.800	8.780	8.750	8.715	578.635
	Top of Steel Fillet Ht. "4"																								

LOCATION		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Beam E	T	579.745	9.735	9.715	9.700	9.680	9.660	9.635	9.615	9.590	9.560	9.535	9.505	9.485	9.460	9.430	9.405	9.375	9.350	9.325	9.295	9.270	9.240	9.210	579.185
	Adj.	579.745	9.765	9.755	9.740	9.710	9.675	9.640	9.615	9.600	9.590	9.580	9.565	9.535	9.505	9.460	9.415	9.375	9.355	9.340	9.325	9.310	9.280	9.240	579.185
	Bot. of Slab (adj.)	579.120	9.140	9.130	9.115	9.085	9.050	9.015	8.990	8.975	8.965	8.955	8.930	8.910	8.880	8.835	8.790	8.750	8.730	8.715	8.700	8.685	8.655	8.615	578.560
	Top of Steel Fillet Ht. "4"																								

LOCATION		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Line F	T	579.755	9.735	9.715	9.695	9.670	9.645	9.620	9.595	9.570	9.540	9.515	9.485	9.465	9.440	9.410	9.380	9.355	9.330	9.305	9.275	9.245	9.220	9.190	579.165
	Adj.	579.755	9.765	9.755	9.735	9.700	9.660	9.625	9.595	9.580	9.570	9.560	9.535	9.515	9.485	9.440	9.390	9.355	9.320	9.305	9.285	9.260	9.220	9.185	579.165
	Bot. of Slab (adj.)	579.130	9.140	9.130	9.110	9.075	9.035	9.000	8.970	8.955	8.945	8.935	8.910	8.890	8.860	8.815	8.765	8.730	8.710	8.695	8.680	8.660	8.635	8.595	578.540

LOCATION		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Line G	T	579.790	9.775	9.760	9.740	9.720	9.700	9.675	9.655	9.630	9.605	9.575	9.545	9.525	9.500	9.470	9.445	9.415	9.395	9.365	9.335	9.310	9.280	9.255	579.225
	Adj.	579.790	9.805	9.800	9.780	9.750	9.715	9.680	9.655	9.640	9.635	9.620	9.595	9.575	9.545	9.500	9.455	9.415	9.400	9.380	9.365	9.350	9.320	9.285	579.225
	Bot. of Slab (adj.)	579.165	9.180	9.175	9.155	9.125	9.090	9.055	9.030	9.015	9.010	8.995	8.970	8.950	8.920	8.875	8.830	8.790	8.775	8.755	8.740	8.725	8.695	8.660	578.600

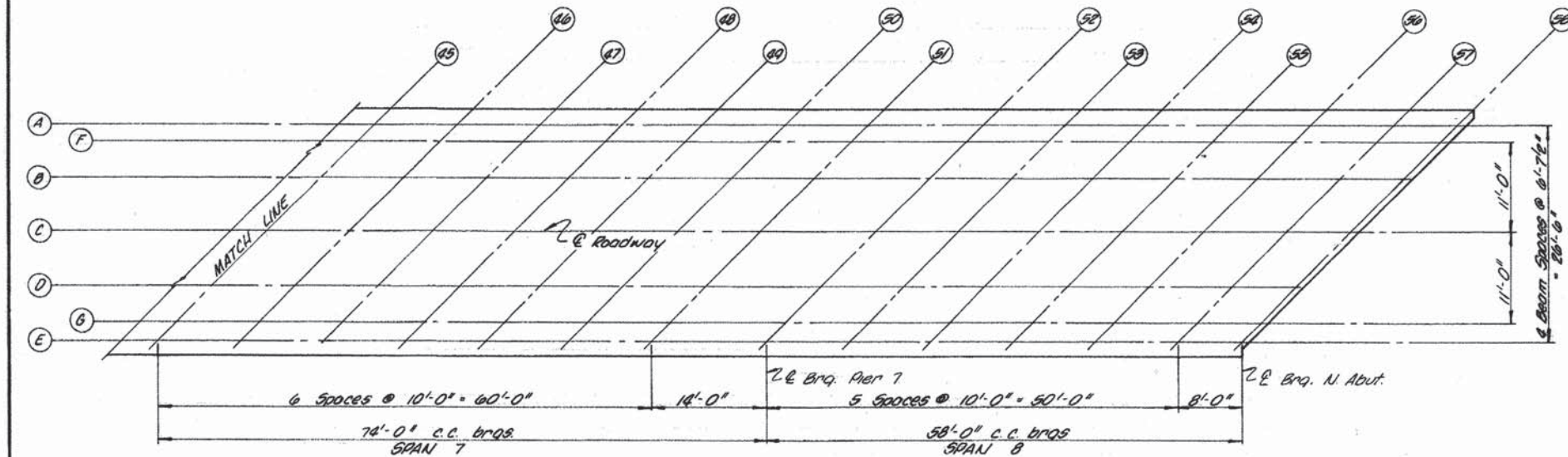
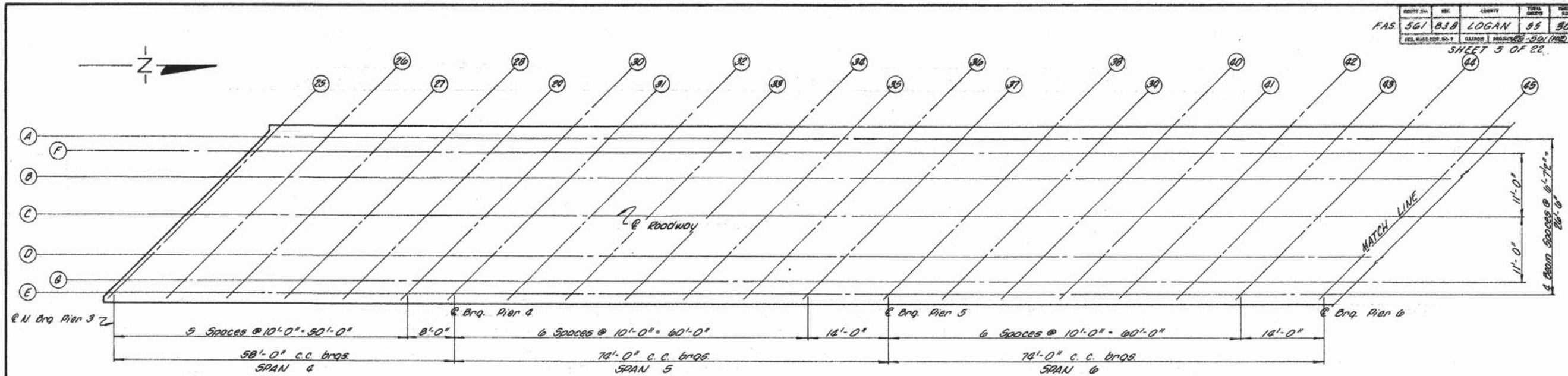
T - Theoretical elevation of top of slab
Adj - Theoretical elevation of top of slab adjusted for dead load deflection.

FOR INFORMATION ONLY

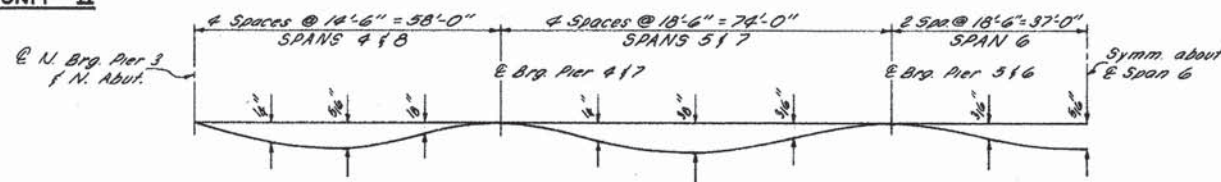
SLAB ELEVATIONS - UNIT I
FAS. RT. 561 SECTION 838
LOGAN COUNTY
STATION 17+90
COLLINS AND RICE
CONSULTING ENGINEERS
CHECKED: M.B. DATE: 3-28-79
DRAWN: A.D. & J.F. DATE: 3-28-79

REVISIONS		
REV. NO.	DESCRIPTION	DATE

PROJECT NO.	561	SECTION	838	COUNTY	LOGAN	SHEET NO.	30
SHEET 5 OF 22							

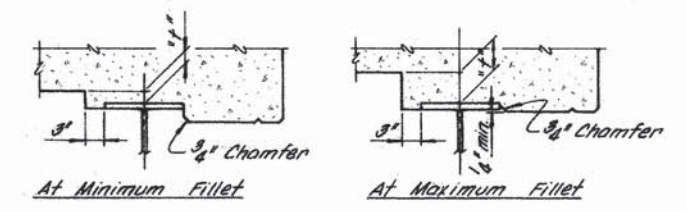


PLAN - UNIT II



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)
 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 in "Table of Elevations".



FILLET HEIGHT "t"

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown. These elevations subtracted from "Dott. of slab (adj.)" elevation shown on sheet #6 equals the fillet height "t" above the top flange of beams.

FOR INFORMATION ONLY

SLAB ELEVATIONS - UNIT II	
F.A.S. RT. 561 SECTION 838	
LOGAN COUNTY	
STATION 17+90	
COLLINS AND RICE CONSULTING ENGINEERS	
DESIGNED M.C.	CHECKED F.S.
DRAWN A.D.	DATE 3-23-78

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 ENGINEERING & ENVIRONMENTAL
 ILLINOIS DESIGN FIRM NO. 184-003525
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ILLINOIS
 IOWA
 WISCONSIN

AGENCY:
 LOGAN COUNTY
 HIGHWAY DEPARTMENT

PROJECT:
 SECTION 14-00083-01-BR
 C.H. 9 OVER SALT CREEK
 S.N. 054-3047

DESIGNED: A. R. K.
 CHECKED: J. A. M.
 DRAWN: A. D. S.
 CHECKED: A. R. K.
 J. A. M.

REVISIONS		
REV. NO.	DESCRIPTION	DATE

DRAWING:
 EXISTING PLANS
 (FOR INFORMATION ONLY)
 CONTRACT #: 93675

JOB NUMBER:
 14-589
 SHEET NUMBER
 36 of 45

FAS	561	838	LOGAN	57	31
DES. NO. OR. NO. 1					
DES. NO. OR. NO. 2					

SHEET 6 OF 22

TABLE OF ELEVATIONS

LOCATION		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	
Beam A	T	579.100	9.075	9.045	9.015	8.990	8.960	8.930	8.910	8.880	8.855	8.825	8.800	8.770	8.730	8.705	8.675	8.645	8.620	8.590	8.565	8.525	8.495	8.470	8.440	8.410	8.385	8.355	8.315	8.290	8.260	8.235	8.205	8.175	8.155	
	Adj.	579.100	9.090	9.070	9.040	9.005	8.965	8.940	8.920	8.900	8.885	8.855	8.825	8.790	8.730	8.710	8.685	8.670	8.645	8.610	8.575	8.525	8.500	8.490	8.470	8.440	8.410	8.370	8.315	8.295	8.280	8.240	8.230	8.190	8.190	
	Bot. of Slab (adj.)	578.975	8.665	8.645	8.615	8.580	8.540	8.515	8.495	8.475	8.455	8.430	8.400	8.370	8.330	8.310	8.285	8.270	8.245	8.210	8.175	8.125	8.100	8.090	8.070	8.040	8.010	7.970	7.915	7.895	7.880	7.840	7.830	7.790	7.790	
	Top of Steel Fillet Ht. "f"																																			
Beam B	T	579.235	9.205	9.180	9.150	9.125	9.095	9.070	9.045	9.015	8.990	8.960	8.930	8.905	8.875	8.845	8.810	8.780	8.755	8.725	8.695	8.660	8.630	8.600	8.575	8.545	8.520	8.490	8.455	8.425	8.395	8.365	8.340	8.310	8.290	
	Adj.	579.235	9.220	9.205	9.175	9.140	9.100	9.070	9.055	9.035	9.020	8.990	8.955	8.915	8.865	8.840	8.830	8.805	8.780	8.745	8.705	8.660	8.635	8.620	8.605	8.575	8.545	8.505	8.450	8.430	8.415	8.370	8.365	8.325	8.325	
	Bot. of Slab (adj.)	578.610	8.595	8.580	8.550	8.515	8.475	8.445	8.430	8.410	8.395	8.365	8.330	8.290	8.240	8.215	8.205	8.180	8.155	8.120	8.080	8.035	8.010	7.995	7.980	7.950	7.920	7.880	7.825	7.805	7.790	7.765	7.740	7.700	7.700	
	Top of Steel Fillet Ht. "f"																																			
Beam C	T	579.365	9.330	9.300	9.275	9.245	9.215	9.195	9.165	9.140	9.110	9.080	9.055	9.025	8.995	8.960	8.930	8.905	8.875	8.845	8.820	8.780	8.750	8.725	8.695	8.670	8.640	8.610	8.575	8.545	8.515	8.490	8.460	8.435	8.410	
	Adj.	579.365	9.345	9.325	9.300	9.265	9.225	9.195	9.165	9.140	9.110	9.080	9.055	9.025	8.995	8.960	8.930	8.905	8.875	8.845	8.820	8.780	8.750	8.725	8.695	8.670	8.640	8.610	8.575	8.545	8.515	8.490	8.460	8.435	8.410	
	Bot. of Slab (adj.)	578.740	8.720	8.700	8.675	8.635	8.595	8.570	8.550	8.535	8.515	8.485	8.455	8.420	8.380	8.335	8.310	8.295	8.275	8.240	8.205	8.165	8.130	8.120	8.100	8.075	8.040	8.000	7.950	7.925	7.910	7.890	7.860	7.825	7.785	
	Top of Steel Fillet Ht. "f"																																			
Beam D	T	579.270	9.245	9.215	9.190	9.160	9.130	9.110	9.080	9.055	9.025	8.995	8.970	8.940	8.910	8.880	8.855	8.825	8.795	8.770	8.740	8.715	8.685	8.660	8.630	8.600	8.575	8.545	8.515	8.490	8.460	8.430	8.405	8.375	8.350	
	Adj.	579.270	9.260	9.240	9.215	9.175	9.135	9.110	9.080	9.055	9.025	8.995	8.970	8.940	8.910	8.880	8.855	8.825	8.795	8.770	8.740	8.715	8.685	8.660	8.630	8.600	8.575	8.545	8.515	8.490	8.460	8.430	8.405	8.375	8.350	
	Bot. of Slab (adj.)	578.645	8.635	8.615	8.590	8.550	8.510	8.485	8.465	8.450	8.430	8.400	8.370	8.335	8.295	8.255	8.230	8.220	8.190	8.165	8.130	8.100	8.080	8.065	8.035	8.010	7.975	7.935	7.920	7.900	7.870	7.835	7.800	7.765	7.725	
	Top of Steel Fillet Ht. "f"																																			
Beam E	T	579.175	9.145	9.120	9.090	9.065	9.035	9.015	8.985	8.955	8.930	8.900	8.875	8.845	8.815	8.785	8.760	8.735	8.705	8.680	8.650	8.625	8.595	8.570	8.545	8.515	8.490	8.460	8.430	8.405	8.375	8.350	8.325	8.300		
	Adj.	579.175	9.160	9.145	9.115	9.080	9.040	9.015	8.985	8.970	8.960	8.930	8.900	8.875	8.845	8.815	8.785	8.760	8.735	8.705	8.680	8.650	8.625	8.595	8.570	8.545	8.515	8.485	8.455	8.430	8.405	8.375	8.350	8.325	8.300	
	Bot. of Slab (adj.)	578.550	8.535	8.520	8.490	8.455	8.415	8.390	8.370	8.350	8.335	8.305	8.275	8.240	8.200	8.165	8.145	8.120	8.095	8.060	8.025	7.985	7.950	7.935	7.920	7.890	7.860	7.820	7.765	7.745	7.730	7.705	7.680	7.640	7.605	
	Top of Steel Fillet Ht. "f"																																			
Line F	T	579.195	9.165	9.140	9.110	9.080	9.055	9.025	8.995	8.965	8.940	8.910	8.880	8.855	8.825	8.795	8.770	8.745	8.715	8.690	8.660	8.635	8.605	8.580	8.555	8.525	8.500	8.470	8.440	8.415	8.385	8.360	8.335	8.310		
	Adj.	579.195	9.180	9.165	9.135	9.105	9.075	9.050	9.025	9.000	8.975	8.945	8.915	8.885	8.855	8.825	8.795	8.770	8.745	8.715	8.690	8.660	8.635	8.605	8.580	8.555	8.525	8.500	8.470	8.440	8.415	8.385	8.360	8.335	8.310	
	Bot. of Slab (adj.)	578.570	8.555	8.540	8.510	8.475	8.435	8.410	8.390	8.370	8.350	8.325	8.295	8.265	8.235	8.205	8.180	8.160	8.145	8.120	8.095	8.060	8.025	7.985	7.950	7.935	7.920	7.890	7.860	7.820	7.765	7.745	7.730	7.705	7.680	
	Top of Steel Fillet Ht. "f"																																			
Line G	T	579.215	9.190	9.160	9.130	9.105	9.075	9.055	9.025	8.995	8.970	8.940	8.915	8.885	8.855	8.825	8.795	8.770	8.745	8.715	8.690	8.660	8.635	8.605	8.580	8.555	8.525	8.500	8.470	8.440	8.415	8.385	8.360	8.335	8.310	
	Adj.	579.215	9.205	9.185	9.155	9.120	9.085	9.055	9.035	9.015	9.000	8.970	8.940	8.915	8.885	8.855	8.825	8.795	8.770	8.745	8.715	8.690	8.660	8.635	8.605	8.580	8.555	8.525	8.500	8.470	8.440	8.415	8.385	8.360	8.335	8.310
	Bot. of Slab (adj.)	578.590	8.580	8.560	8.530	8.495	8.460	8.430	8.410	8.390	8.375	8.355	8.335	8.310	8.280	8.250	8.230	8.215	8.190	8.165	8.145	8.120	8.100	8.085	8.015	7.990	7.980	7.960	7.930	7.900	7.860	7.805	7.785	7.770	7.750	7.720
	Top of Steel Fillet Ht. "f"																																			

FOR INFORMATION ONLY

SLAB ELEVATIONS - UNIT II
 FAS. RT. 561 SECTION 83B
 LOGAN COUNTY
 STATION 17+90
 COLLINS AND RICE
 CONSULTING ENGINEERS
 CHECKED: M.B. DATE: 3-29-79 BY: B.O.B.
 DRAWN: A.D. & J.F.

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 ENGINEERING & ENVIRONMENTAL
 ILLINOIS DESIGN FIRM NO. 184-003525
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ILLINOIS
 IOWA
 WISCONSIN

AGENCY:
 LOGAN COUNTY
 HIGHWAY DEPARTMENT

PROJECT:
 SECTION 14-00083-01-BR
 C.H. 9 OVER SALT CREEK
 S.N. 054-3047

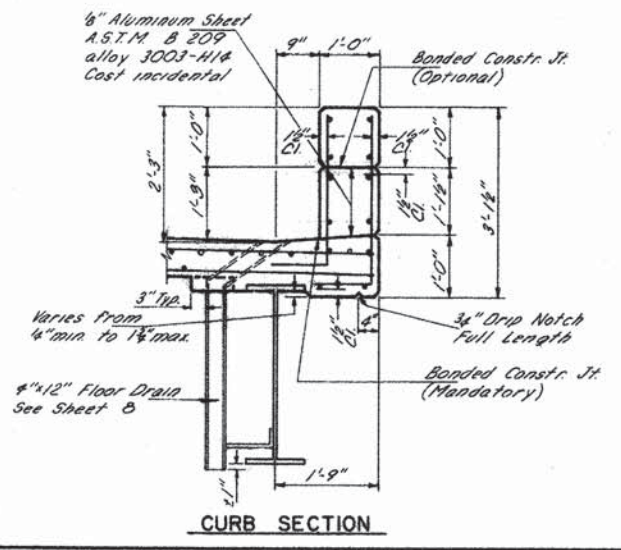
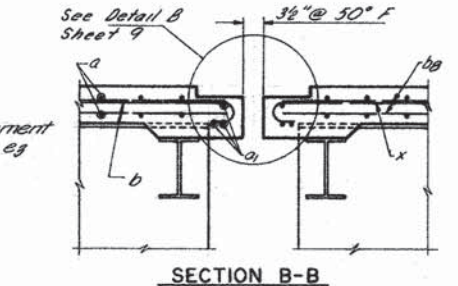
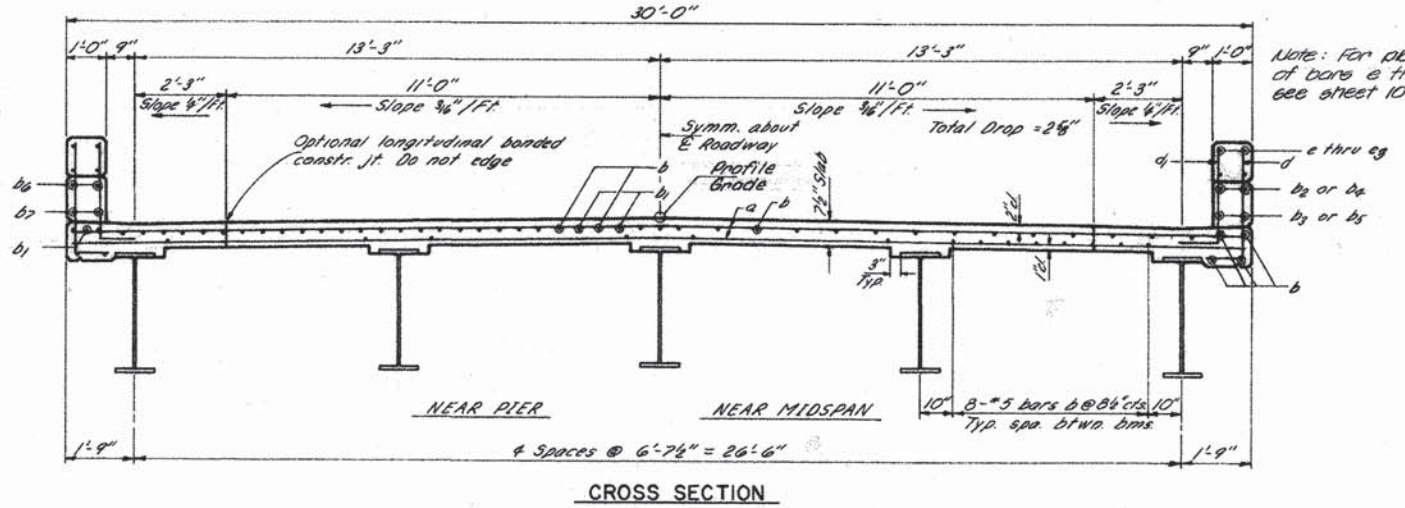
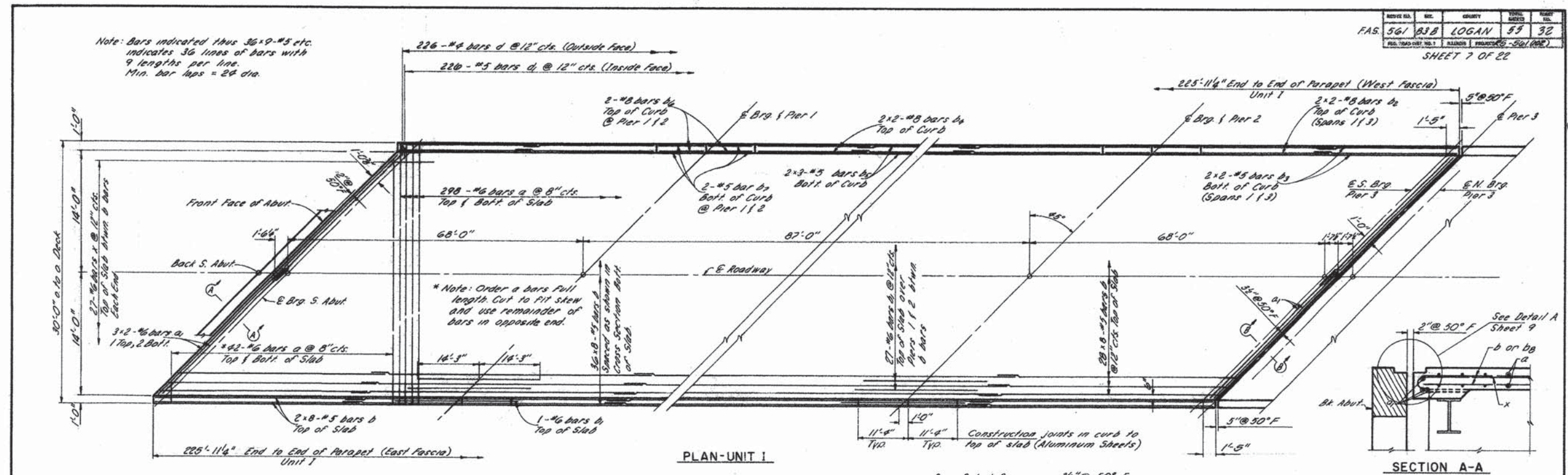
DESIGNED: A.R.K.
 CHECKED: J.A.M.
 DRAWN: A.D.S.
 CHECKED: A.R.K.
 J.A.M.

REVISIONS	
REV. NO.	DATE
DESCRIPTION	
REV. NO.	DATE
DESCRIPTION	
REV. NO.	DATE
DESCRIPTION	
REV. NO.	DATE
DESCRIPTION	

DRAWING:
 EXISTING PLANS
 (FOR INFORMATION ONLY)
 \$FILES\$
 CONTRACT #: 93675

JOB NUMBER:
 14-589
 SHEET NUMBER
 37 of 45

PROJECT NO.	561	SECTION	83B	DATE	5/9/78
CLIENT	LOGAN	SHEET NO.	32	SHEET 7 OF 22	



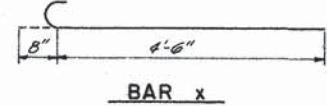
BILL OF MATERIAL - UNIT I

BAR NO	SIZE	LENGTH	SHAPE
a	680 #6	29'-9"	—
a ₁	12 #6	21'-10"	—
b	544 #5	29'-4"	—
b ₁	38 #6	28'-6"	—
b ₂	16 #8	30'-4"	—
b ₃	16 #5	29'-11"	—
b ₄	8 #8	33'-1"	—
b ₅	12 #5	28'-3"	—
b ₆	16 #8	11'-1"	—
b ₇	16 #5	11'-1"	—
d	452 #4	3'-7"	J
d ₁	452 #5	4'-1"	J
x	54 #6	5'-2"	—

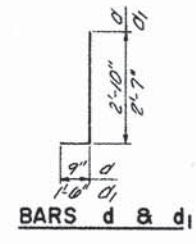
Class X Concrete Cu Yd 198.8
 Reinforcement Bars Lb. 56,770

Work this sheet with sheets 8, 9, 10, & 11. The lengths and quantities of longitudinal reinforcement and Class X Concrete in parapets are not included in above quantities. See Sheet 10.

SUPERSTRUCTURE - UNIT I
 FAS. RT 561 SECTION 83B
 LOGAN COUNTY
 STATION 17+90
 COLLINS AND RICE
 CONSULTING ENGINEERS
 M.B. AD & FE
 R.S. DATE 9-29-78 NO. 803



FOR INFORMATION ONLY



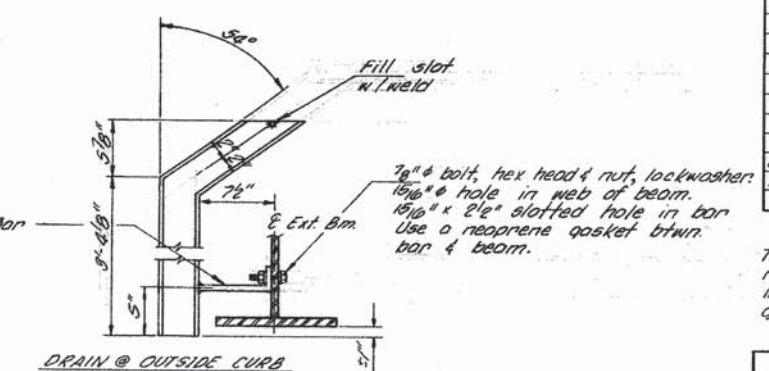
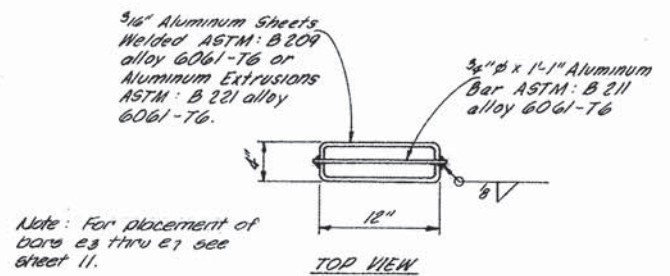
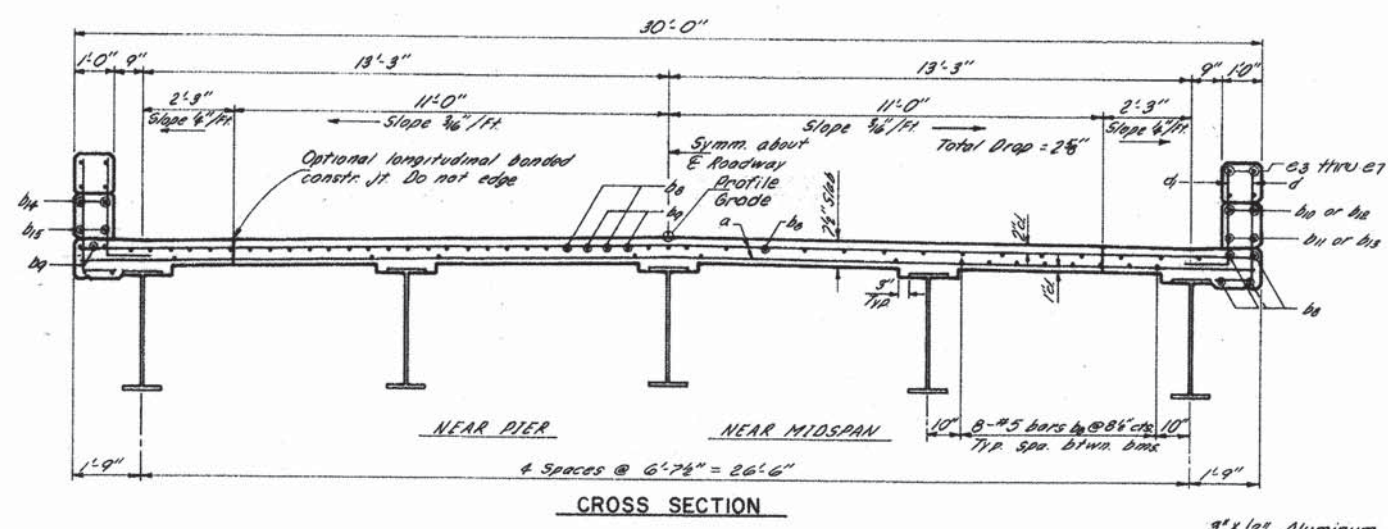
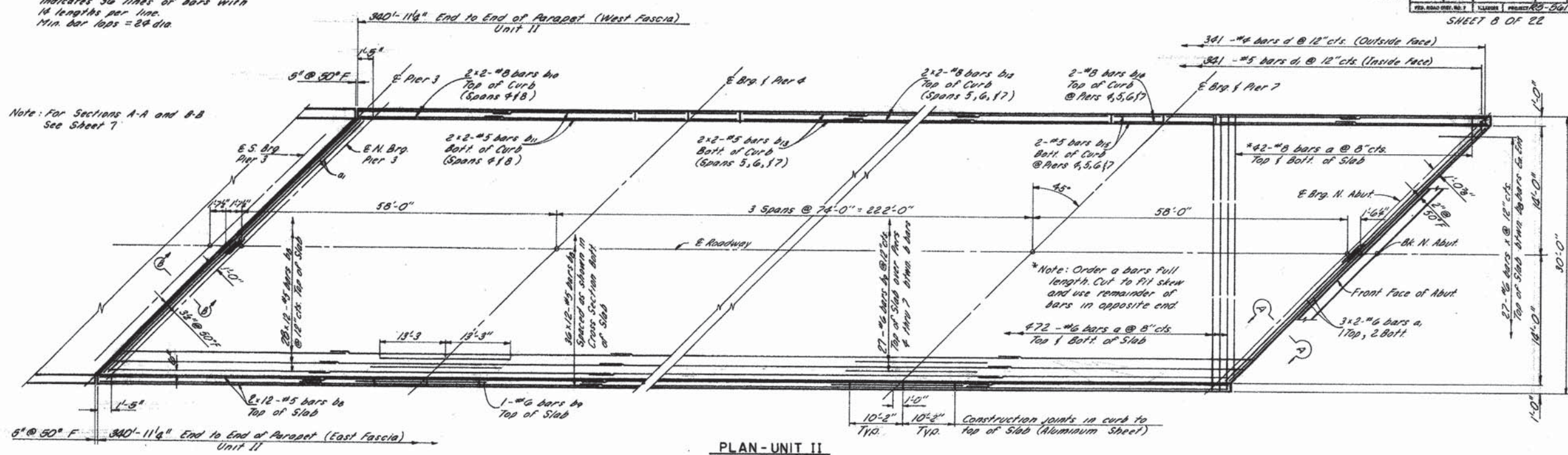
REVISIONS

REV. NO.	DESCRIPTION	DATE

Note: Bars indicated thus 36x14-#5 etc indicates 36 lines of bars with 14 lengths per line. Min. bar laps = 24 dia.

ROUTE NO.	REC.	COUNTY	POST MILE	SHEET NO.
561	B3B	LOGAN	59	33
SHEET 8 OF 22				

Note: For Sections A-A and B-B See Sheet 7



BILL OF MATERIAL - UNIT II

BAR	NO.	SIZE	LENGTH	SHAPE
a	1028	#6	29'-9"	—
a1	12	#6	21'-10"	—
b1	816	#5	29'-7"	—
b2	116	#6	26'-6"	—
b3	16	#8	25'-11"	—
b4	16	#5	25'-6"	—
b5	28	#8	27'-9"	—
b6	24	#5	27'-4"	—
b7	32	#8	9'-11"	—
b8	32	#5	9'-11"	—
d	682	#4	3'-7"	J
d1	682	#5	2'-1"	J
x	54	#6	5'-2"	—
Class X Concrete			Cu Yd	290.9
Reinforcement Bars			Lb	80,200

Work this sheet with sheets 7,9,10,11
The lengths and quantities of longitudinal reinforcement and Class X Concrete in parapets are not included in above quantities. See sheet 11.

FOR INFORMATION ONLY

SUPERSTRUCTURE - UNIT II
 FAS. RT 561 SECTION 83B
 LOGAN COUNTY
 STATION 17+90
 COLLINS AND RICE
 CONSULTING ENGINEERS
 DESIGNED M.B. CHECKED A.D.F.S.
 DRAWN R.S. DATE 3-23-79 NO. 803

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ILLINOIS
 IOWA
 WISCONSIN

AGENCY:
 LOGAN COUNTY
 HIGHWAY DEPARTMENT

PROJECT:
 SECTION 14-00083-01-BR
 C.H. 9 OVER SALT CREEK
 S.N. 054-3047

DESIGNED: A.R.K.
 CHECKED: J.A.M.
 DRAWN: A.D.S.
 CHECKED: A.R.K.
 J.A.M.

REVISIONS		
REV. NO.	DESCRIPTION	DATE

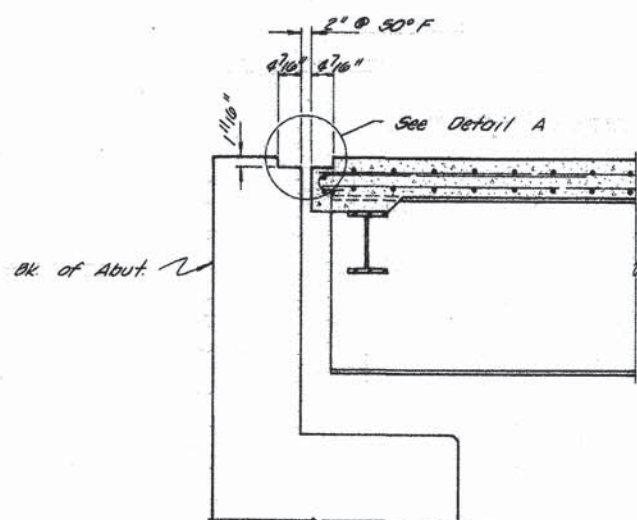
DRAWING:
 EXISTING PLANS
 (FOR INFORMATION ONLY)

JOB NUMBER:
 14-589

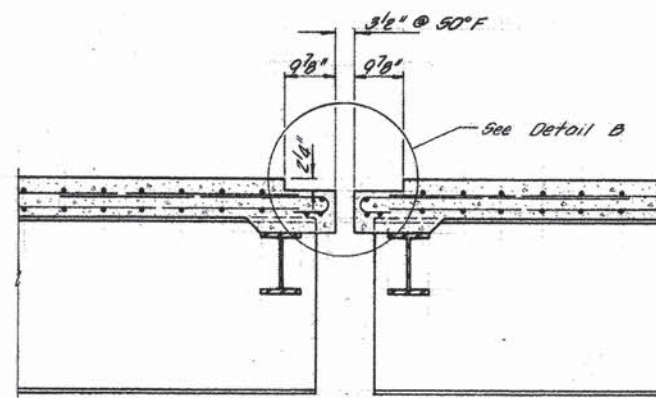
SHEET NUMBER
 39 of 45

CONTRACT #: 93675

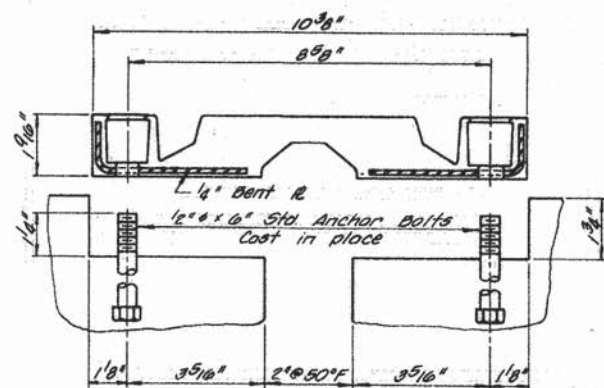
F.A.S.	561	83B	LOGAN	55	34
SHEET 9 OF 22					



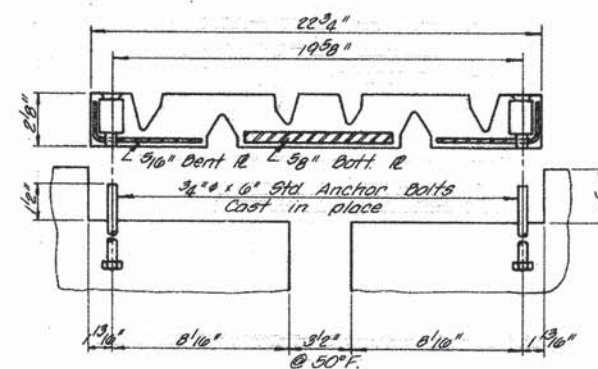
SECTION AT ABUTMENTS



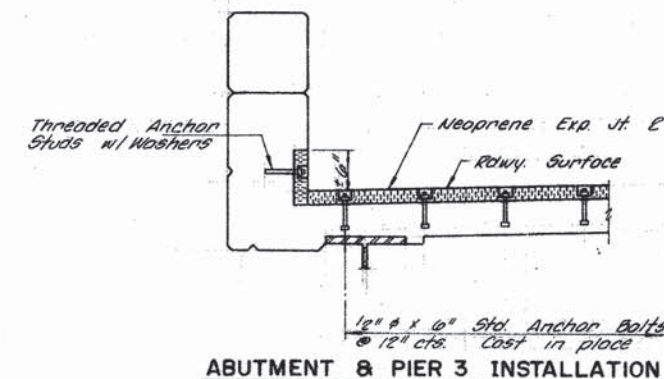
SECTION AT PIER 3



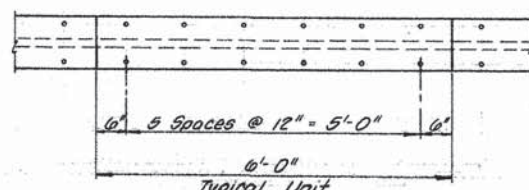
DETAIL A



DETAIL B

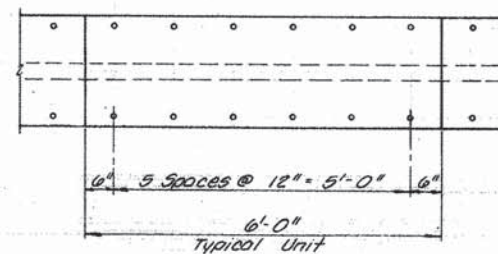


ABUTMENT & PIER 3 INSTALLATION



PLAN

Note: Anchor bolts require a clipped washer, lockwasher and hex nut.

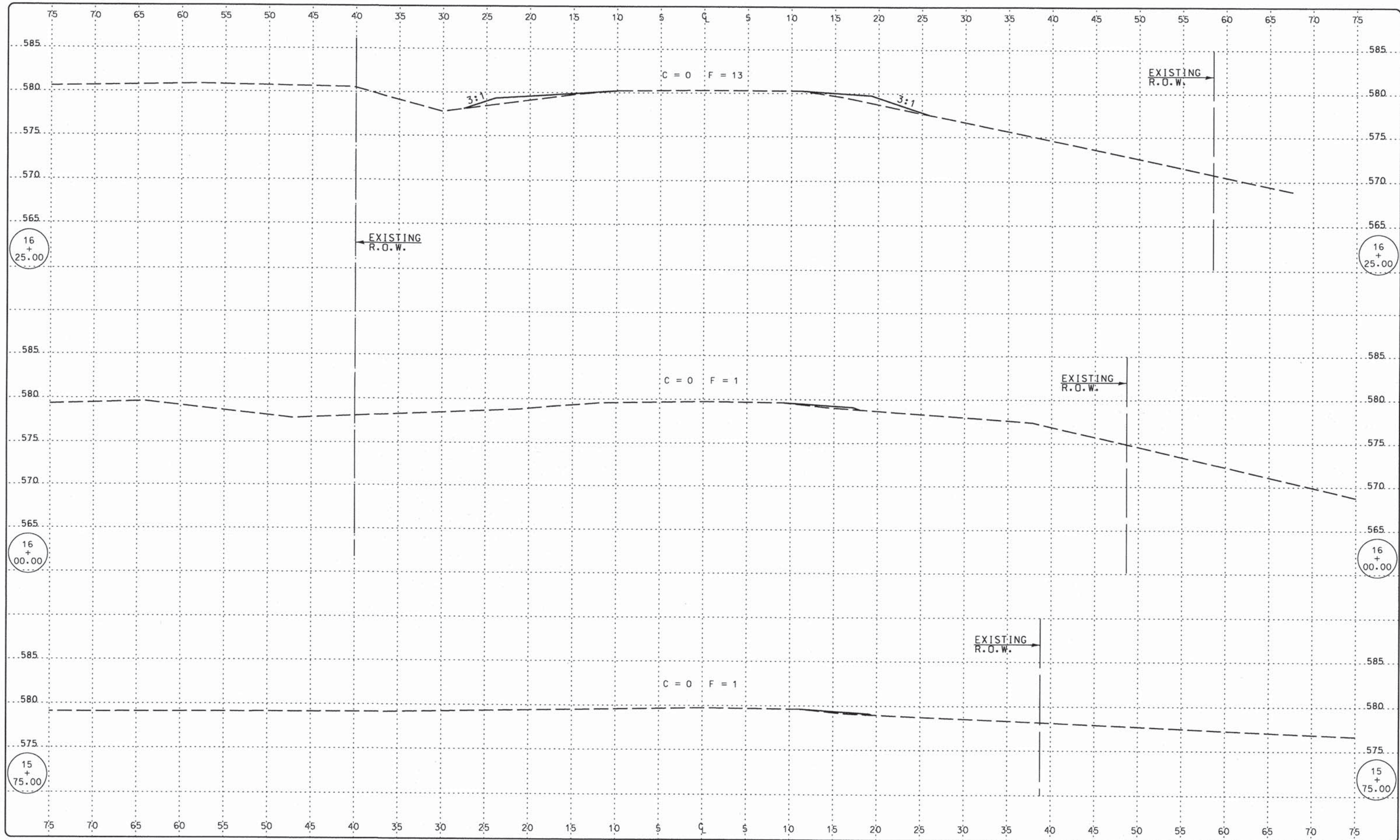


PLAN

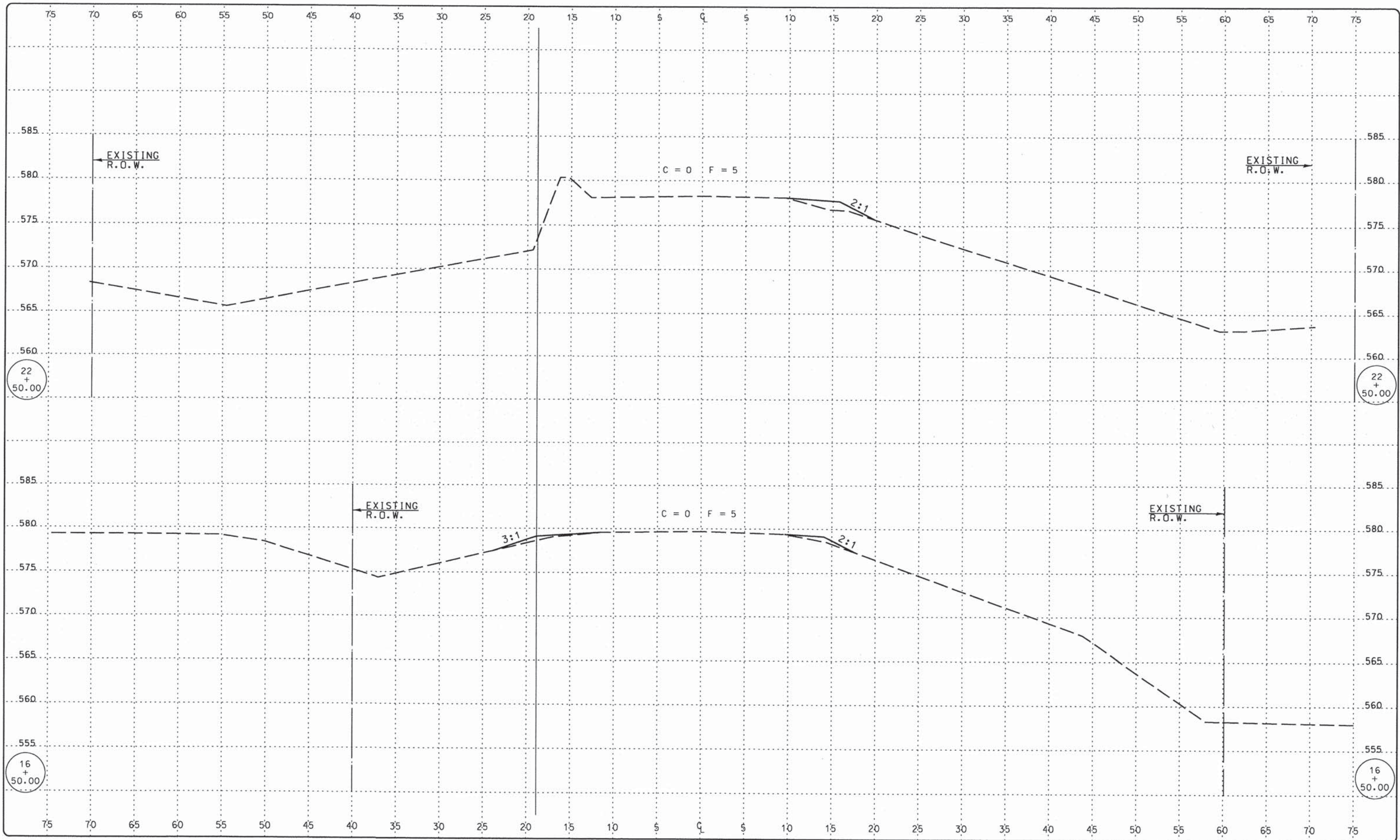
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EXPANSION JOINT DETAILS	
F.A.S. RT. 561 SECTION 83B	
LOGAN COUNTY	
STATION 17+90	
COLLINS AND RICE CONSULTING ENGINEERS	
DESIGNED: M.B.	CHECKED: F.S.
DRAWN: A.D.	DATE: 5-29-78

REVISIONS		
REV. NO.	DESCRIPTION	DATE



REVISIONS		
REV. NO.	DESCRIPTION	DATE



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ILLINOIS
 IOWA
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AGENCY:
 LOGAN COUNTY
 HIGHWAY DEPARTMENT

PROJECT:
 SECTION 14-00083-01-BR
 C.H. 9 OVER SALT CREEK

DESIGNED: G. J. C.
 CHECKED: R. D. F.
 DRAWN: A. D. S.
 CHECKED: R. D. F.

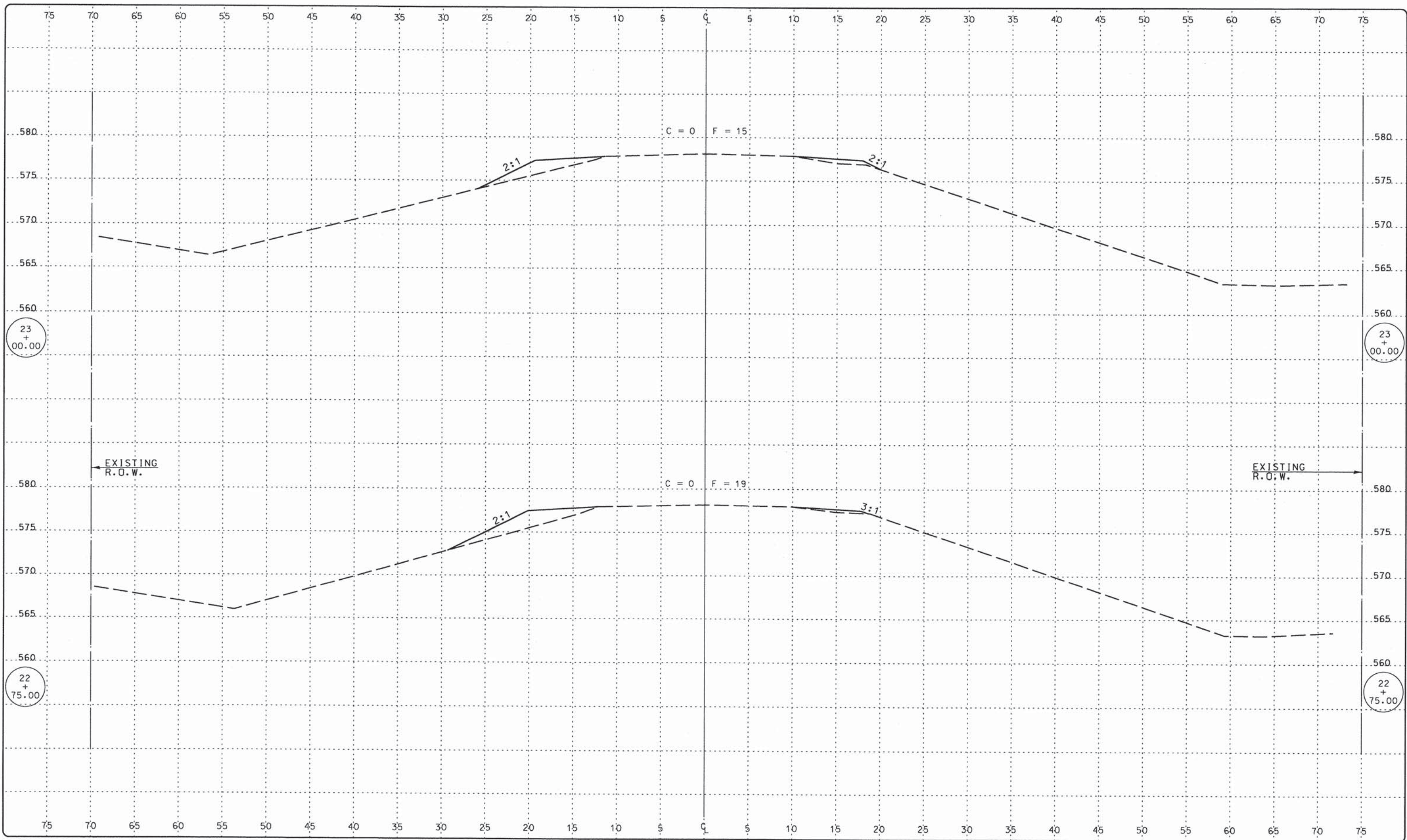
REVISIONS		
REV. NO.	DESCRIPTION	DATE

DRAWING:
 STATION CROSS SECTIONS
 STA. 16+50 TO STA. 22+50

CONTRACT #: 93675

JOB NUMBER:
 14-589

SHEET NUMBER
 42 of 45



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AGENCY:
LOGAN COUNTY
HIGHWAY DEPARTMENT

PROJECT:
SECTION 14-00083-01-BR
C.H. 9 OVER SALT CREEK

DESIGNED: G. J. C.
CHECKED: R. D. F.
DRAWN: A. D. S.
CHECKED: R. D. F.

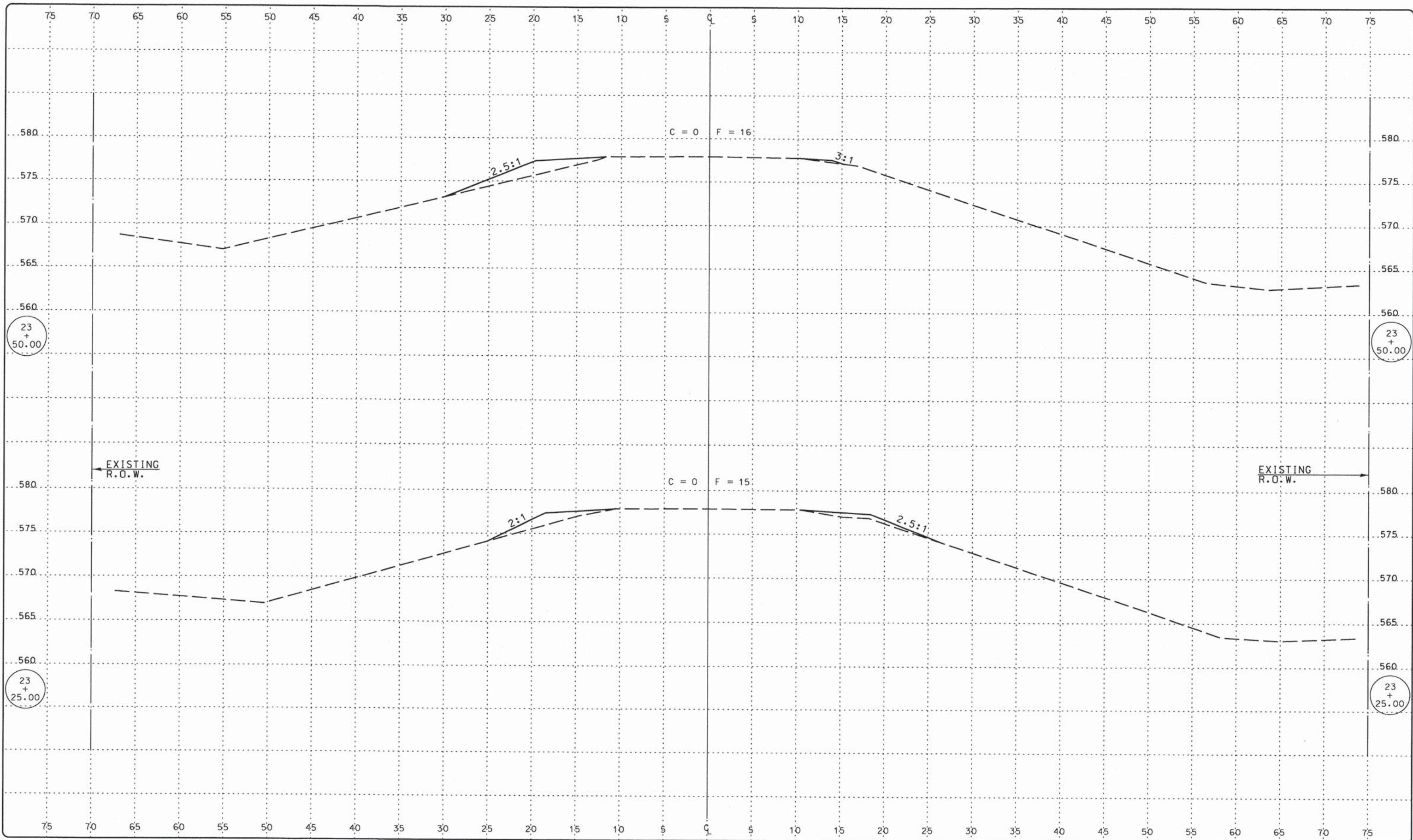
REVISIONS		
REV. NO.	DESCRIPTION	DATE

DRAWING:
STATION CROSS SECTIONS
STA. 22+75 TO STA. 23+00

CONTRACT #: 93675

JOB NUMBER:
14-589

SHEET NUMBER
43 of 45



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ILLINOIS DESIGN FIRM NO. 184-003829

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ILLINOIS
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AGENCY:
LOGAN COUNTY
HIGHWAY DEPARTMENT

PROJECT:
SECTION 14-00083-01-BR
C.H. 9 OVER SALT CREEK

DESIGNED: G. J. C.
CHECKED: R. D. F.
DRAWN: A. D. S.
CHECKED: R. D. F.

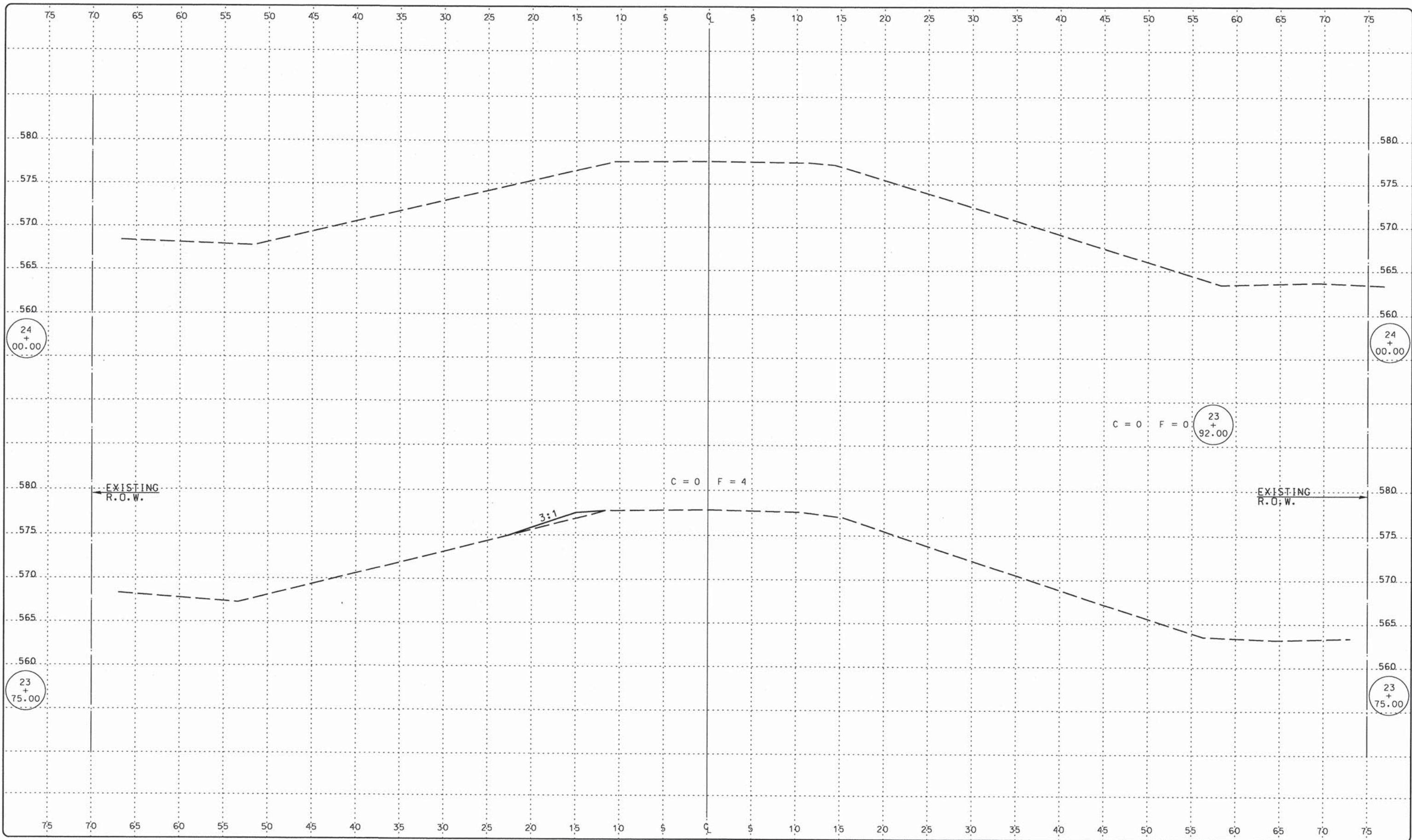
REVISIONS		
REV. NO.	DESCRIPTION	DATE

DRAWING:
STATION CROSS SECTIONS
STA. 23+25 TO STA. 23+50

CONTRACT #: 93675

JOB NUMBER:
14-589

SHEET NUMBER
44 of 45



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ILLINOIS
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AGENCY:
 LOGAN COUNTY
 HIGHWAY DEPARTMENT

PROJECT:
 SECTION 14-00083-01-BR
 C.H. 9 OVER SALT CREEK

DESIGNED: G.J.C.
 CHECKED: R.D.F.
 DRAWN: A.D.S.
 CHECKED: R.D.F.

REVISIONS		
REV. NO.	DESCRIPTION	DATE

DRAWING:
 STATION CROSS SECTIONS
 STA. 23+75 TO STA. 24+00
 \$FILES\$
 CONTRACT #: 93675

JOB NUMBER:
 14-589

SHEET NUMBER
 45 of 45