

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-1B-2R	BUREAU	94	57
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

Bridge Sheet 1 of 15 Sheets

GENERAL NOTES

1. Reinforcement Bars shall conform to the requirements of AASHTO M31M, M42M, or M53M, Grade 400.
2. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the scope of the work. However, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
3. The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of false work, in addition to allowance for dead load deflection.
4. All dimensions are in millimeters (mm) except as noted.
5. All Structural Steel shall be AASHTO M270M, Gr 250
6. All new structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1.
7. Forms for the deck slab shall be removed before the placement of the approach slab.

TWO STRUCTURES  
TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	2		2
Reinforcement Bars, Epoxy Coated	kg.	53,830	2,250	56,080
Concrete Structures	m <sup>3</sup>		19.7	19.7
Concrete Superstructure	m <sup>3</sup>	531.4		531.4
Protective Coat	m <sup>2</sup>	1,025		1,025
Bridge Deck Grooving	m <sup>2</sup>	802		802
Name Plates	Each	2		2
Bar Splicers	Each	234	184	418
Floor Drains	Each	28		28
Concrete Removal	m <sup>3</sup>		13.2	13.2
Channel Excavation	m <sup>3</sup>		570	570
Elastomeric Bearing Assembly, Type 1	Each	36		36
Furnishing and Erecting Structural Steel	kg.		9,880	9,880
Preformed Jt. Seal (64)	m	66		66

\* See Special Provisions WRONG STATIONS !!!

STATION 63+561.941  
REBUILT 20 BY  
STATE OF ILLINOIS  
F.A.I. RTE. 80  
SECTION 06-1B-2R  
F.A. PROJ.  
LOADING MS18 AND ALT.  
STRUCTURE NO. 006-0005 (E.B.)

STATION 63+424.374  
REBUILT 20 BY  
STATE OF ILLINOIS  
F.A.I. RTE. 80  
SECTION 06-1B-2R  
F.A. PROJ.  
LOADING MS18 AND ALT.  
STRUCTURE NO. 006-0006 (W.B.)

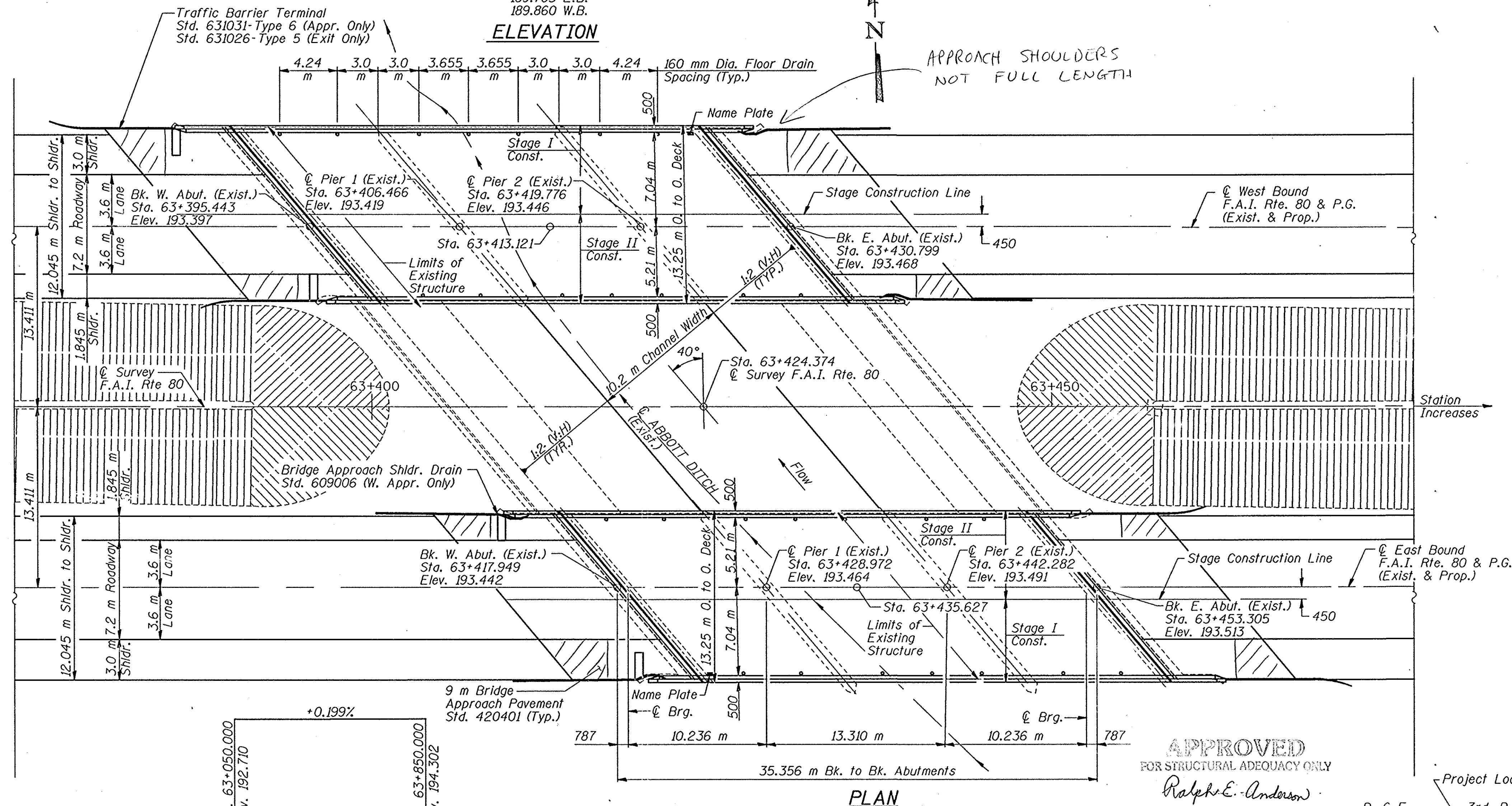
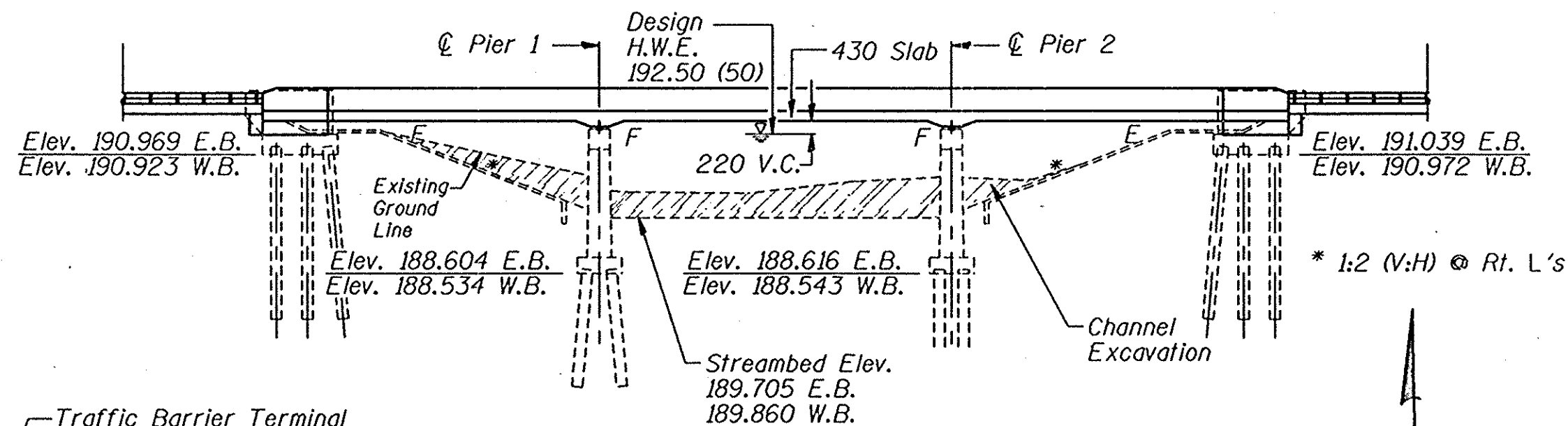
NAME PLATES

See Std. 515001

note: The existing Name Plate is to be cleaned and relocated next to the new Name Plate. Cost is included with Name Plates.

Bench Mark: Top of curb at Northwest abutment of Bridge 006-0006 at Station 63+389.953, 20.801 m Lt., Elev. 193.319

Existing Structures: S.N. 006-0005 (E.B.) and S.N. 006-0006 (W.B.). Both structures are 3 span continuous R.C. slab bridges built on R.C. stub abutments and solid piers. The end spans are 10.23 m long and the center span is 13.31 m long. The total length bk. to bk. of abutments is 35.36 m. The structure is 13.31 m wide out to out of deck. The slab thickness varies from 381 mm to 533 mm and is protected with a waterproofing membrane and a 50 mm bituminous overlay. Both structures were built as F.A.I. Route 80, Section 06-1B-2 at Station 182+52.00 (English) in 1963. The Contractor shall remove both existing superstructures and replace. Reuse existing substructures. One way traffic in each direction to be maintained at all times utilizing stage construction.



PROFILE GRADE

(Along @ Roadway)

WATERWAY INFORMATION

Drainage Area = 23.0 km <sup>2</sup>		Low Grade Elev. = 192.96 @ Unknown				
Flood Class	Freq. Yr.	Q (m <sup>3</sup> /s)	Opening (m <sup>2</sup> )	Natural Head (m)	Headwater Elev. (m)	
			Exist.	Prop.	Exist.	Prop. (*)
Design	50	64.2	59.27	59.27	192.50	192.55
Base	100	74.2	59.27	59.27	192.60	192.69
Max. Calc.	400	95.0	59.27	59.27	192.80	192.96

\* HEADWATER EL. = W.S.EL. @ UPSTREAM FACE OF PROPOSED STRUCTURE.

DESIGN SPECIFICATIONS

1996 AASHTO With 1997 - 1999 Interims

LOADING MS18 AND ALT.

Allow 2.4 kN/m<sup>2</sup> for future wearing surface.

SEISMIC DATA

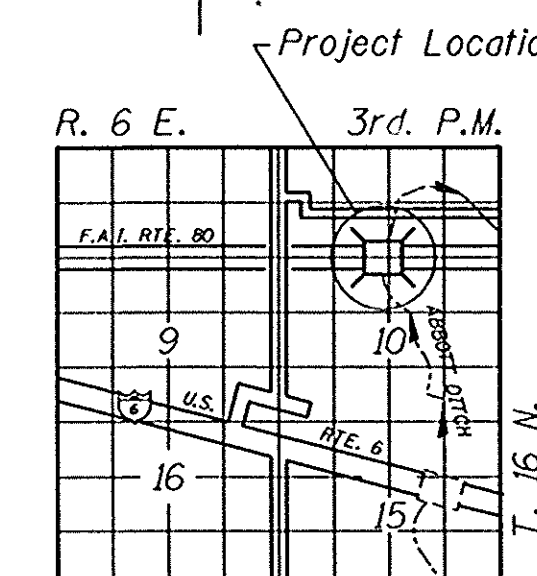
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.04  
Site Coefficient (S) = 1.5

DESIGN STRESSES

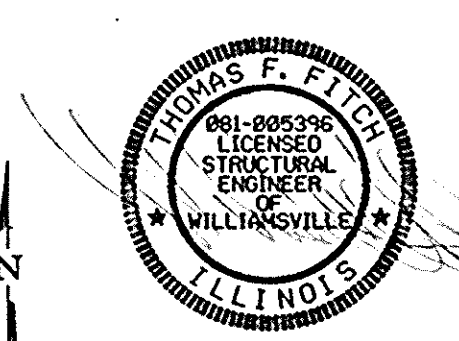
FIELD UNITS

f<sub>c</sub> = 24 MPa  
f<sub>y</sub> = 400 MPa (Reinforcement)  
f<sub>y</sub> = 250 MPa (Steel M270M Gr250)

APPROVED  
FOR STRUCTURAL ADEQUACY ONLY  
Ralph E. Anderson  
ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH



ILLINOIS DEPARTMENT OF TRANSPORTATION  
GENERAL PLAN & ELEVATION

FAI ROUTE 80 OVER ABBOTT DITCH  
SECTION 06-1B-2R  
BUREAU COUNTY  
STATION 63+424.374  
S.N. 006-0005 (E.B.)  
S.N. 006-0006 (W.B.)

REVISIONS	
NAME	DATE
PER B.O.	12/5/01

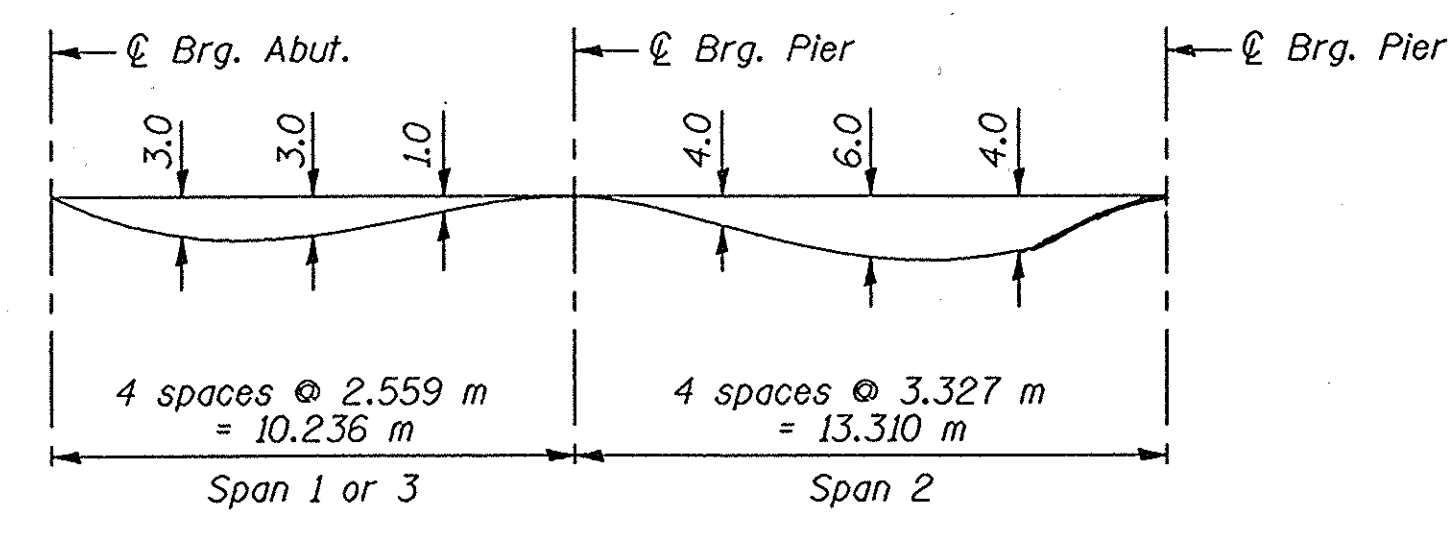
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DATE: 5/13/99-TMJ  
DRAWN BY: BISHOP  
DESIGNED BY: FITCH  
CHECKED BY: BRADFORD  
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PROJECT 01159  
03/20/02-RPB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-1B-2R	BUREAU	94	58
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Bridge Sheet 2 of 15 Sheets

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DESIGN		
INT.	DATE	REASON



**DEAD LOAD DEFLECTION DIAGRAM**  
(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown.

PLOTS & CHECKS		
INT.	DATE	REASON

**OUTSIDE PARAPET (FACE)**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK WEST ABUT	63+389.536	-7.040	193.263	193.263
CL BRG	63+390.323	-7.040	193.264	193.264
A	63+393.323	-7.040	193.270	193.273
B	63+396.323	-7.040	193.276	193.279
CL PIER 1	63+400.559	-7.040	193.285	193.285
C	63+403.559	-7.040	193.291	193.294
D	63+406.559	-7.040	193.297	193.303
E	63+409.559	-7.040	193.303	193.307
CL PIER 2	63+413.869	-7.040	193.311	193.311
F	63+416.869	-7.040	193.317	193.319
G	63+419.869	-7.040	193.323	193.327
CL BRG	63+424.105	-7.040	193.331	193.331
BACK EAST ABUT	63+424.892	-7.040	193.333	193.333

**STAGE CONSTRUCTION LINE**

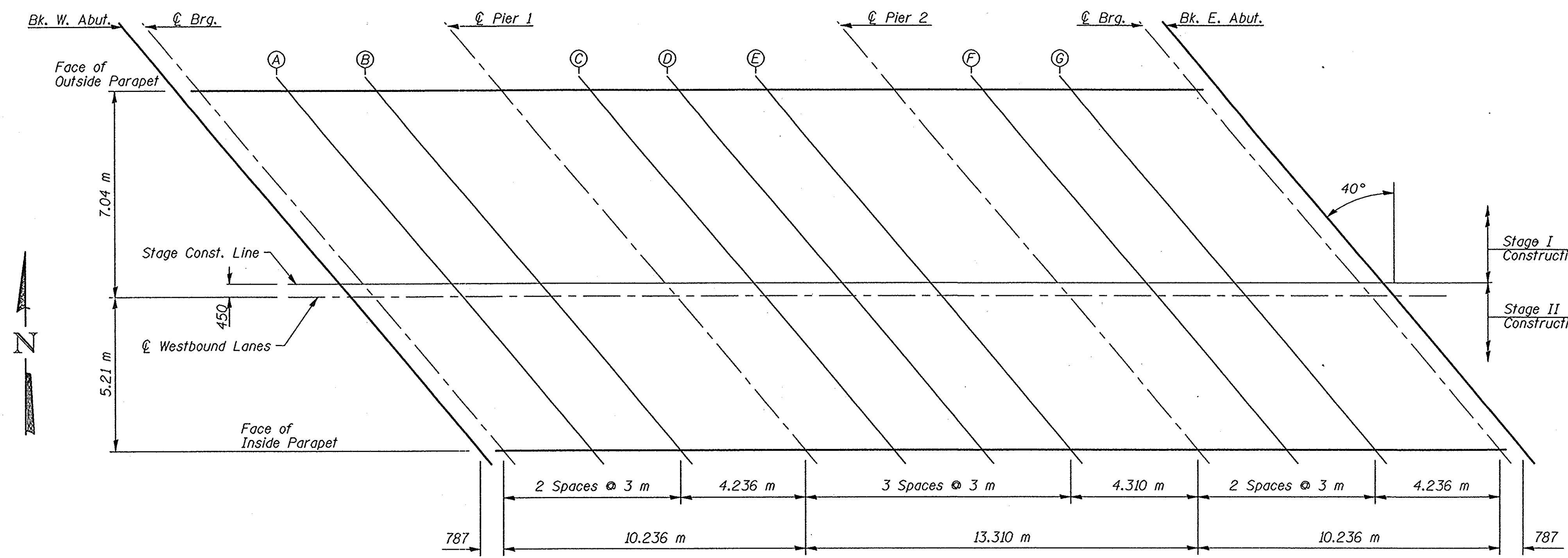
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK WEST ABUT	63+395.065	-0.450	193.329	193.329
CL BRG	63+395.852	-0.450	193.331	193.331
A	63+398.852	-0.450	193.337	193.340
B	63+401.852	-0.450	193.343	193.346
CL PIER 1	63+406.088	-0.450	193.351	193.351
C	63+409.088	-0.450	193.357	193.360
D	63+412.088	-0.450	193.363	193.369
E	63+415.088	-0.450	193.369	193.374
CL PIER 2	63+419.398	-0.450	193.378	193.378
F	63+422.398	-0.450	193.384	193.385
G	63+425.398	-0.450	193.390	193.393
CL BRG	63+429.634	-0.450	193.398	193.398
BACK EAST ABUT	63+430.421	-0.450	193.400	193.400

**CENTERLINE AND PROFILE GRADE LINE**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK WEST ABUT	63+395.443	0.000	193.397	193.397
CL BRG	63+396.230	0.000	193.399	193.399
A	63+399.230	0.000	193.405	193.408
B	63+402.230	0.000	193.411	193.414
CL PIER 1	63+406.466	0.000	193.419	193.419
C	63+409.466	0.000	193.425	193.429
D	63+412.466	0.000	193.431	193.438
E	63+415.466	0.000	193.437	193.442
CL PIER 2	63+419.776	0.000	193.446	193.446
F	63+422.776	0.000	193.452	193.454
G	63+425.776	0.000	193.458	193.461
CL BRG	63+430.012	0.000	193.466	193.466
BACK EAST ABUT	63+430.799	0.000	193.468	193.468

**INSIDE PARAPET (FACE)**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK WEST ABUT	63+399.815	5.210	193.320	193.320
CL BRG	63+400.602	5.210	193.321	193.321
A	63+403.602	5.210	193.327	193.330
B	63+406.602	5.210	193.333	193.336
CL PIER 1	63+410.838	5.210	193.339	193.339
C	63+413.838	5.210	193.345	193.348
D	63+416.838	5.210	193.351	193.357
E	63+419.838	5.210	193.357	193.361
CL PIER 2	63+424.148	5.210	193.364	193.364
F	63+427.148	5.210	193.370	193.372
G	63+430.148	5.210	193.376	193.380
CL BRG	63+434.384	5.210	193.382	193.382
BACK EAST ABUT	63+435.171	5.210	193.394	193.394



**WEST BOUND BRIDGE**

CHECKS		
INT.	DATE	REASON

REVISIONS	
NAME	DATE
PER B.O.	

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TOP OF SLAB ELEVATIONS (W.B.)**

FAI ROUTE 80 OVER ABBOTT DITCH  
SECTION 06-1B-2R  
BUREAU COUNTY  
STATION 63+424.374  
S.N. 006-0005 (E.B.)  
S.N. 006-0006 (W.B.)

SCALE: VERT. HORIZ.  
DATE: 08/28/01-RPB

DRAWN BY: BISHOP  
DESIGNED BY: FITCH  
CHECKED BY: BRADFORD

COMPUTER FILE NO.  
SHT1608-5  
PROJECT 01159  
12/10/01-RPB

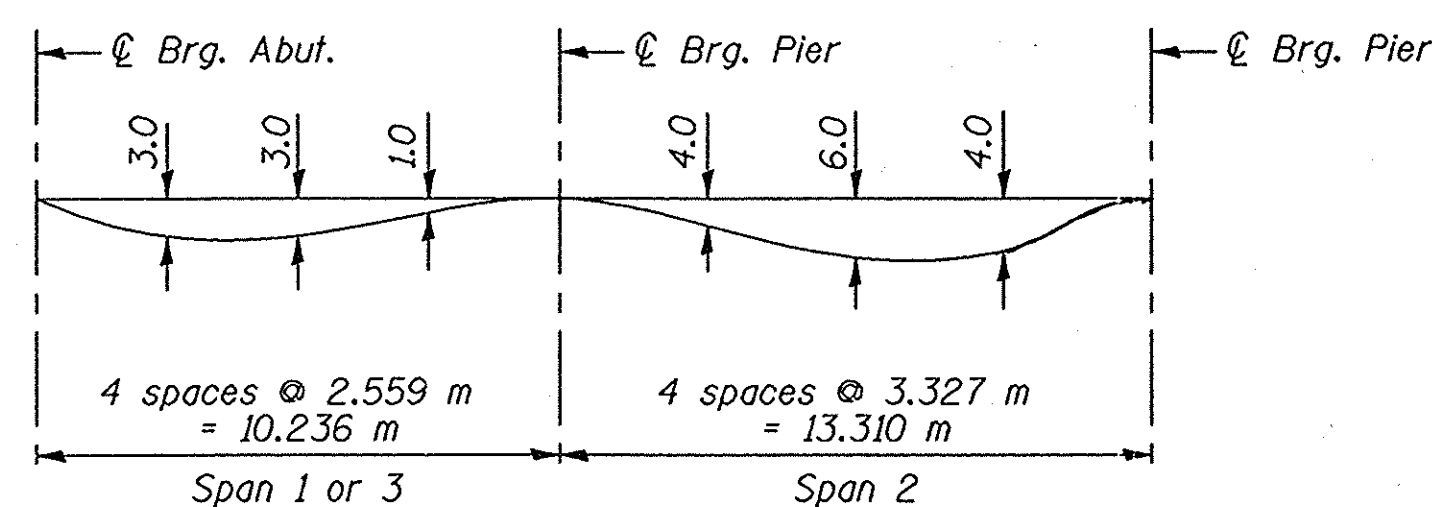
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OF SPRINGFIELD  
CONSULTING ENGINEERS  
REGISTERED PROFESSIONAL ENGINEERS  
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-1B-2R	BUREAU	94	59
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Bridge Sheet 3 of 15 Sheets

DESIGN		
INT.	DATE	REASON



**DEAD LOAD DEFLECTION DIAGRAM**  
(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown.

INSIDE PARAPET (FACE)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK WEST ABUT	63+413.577	-5.210	193.348	193.348
CL BRG	63+414.364	-5.210	193.349	193.349
A	63+417.364	-5.210	193.355	193.358
B	63+420.364	-5.210	193.361	193.364
CL PIER 1	63+424.600	-5.210	193.369	193.369
C	63+427.600	-5.210	193.375	193.379
D	63+430.600	-5.210	193.381	193.388
E	63+433.600	-5.210	193.387	193.392
CL PIER 2	63+437.910	-5.210	193.396	193.396
F	63+440.910	-5.210	193.402	193.404
G	63+443.910	-5.210	193.408	193.411
CL BRG	63+448.146	-5.210	193.416	193.416
BACK EAST ABUT	63+448.933	-5.210	193.418	193.418

CENTERLINE AND PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK WEST ABUT	63+417.949	0.000	193.442	193.442
CL BRG	63+418.736	0.000	193.444	193.444
A	63+421.736	0.000	193.450	193.453
B	63+424.736	0.000	193.456	193.459
CL PIER 1	63+428.972	0.000	193.464	193.464
C	63+431.972	0.000	193.470	193.473
D	63+434.972	0.000	193.476	193.482
E	63+437.972	0.000	193.482	193.487
CL PIER 2	63+442.282	0.000	193.491	193.491
F	63+445.282	0.000	193.497	193.498
G	63+448.282	0.000	193.503	193.506
CL BRG	63+452.518	0.000	193.511	193.511
BACK EAST ABUT	63+453.305	0.000	193.513	193.513

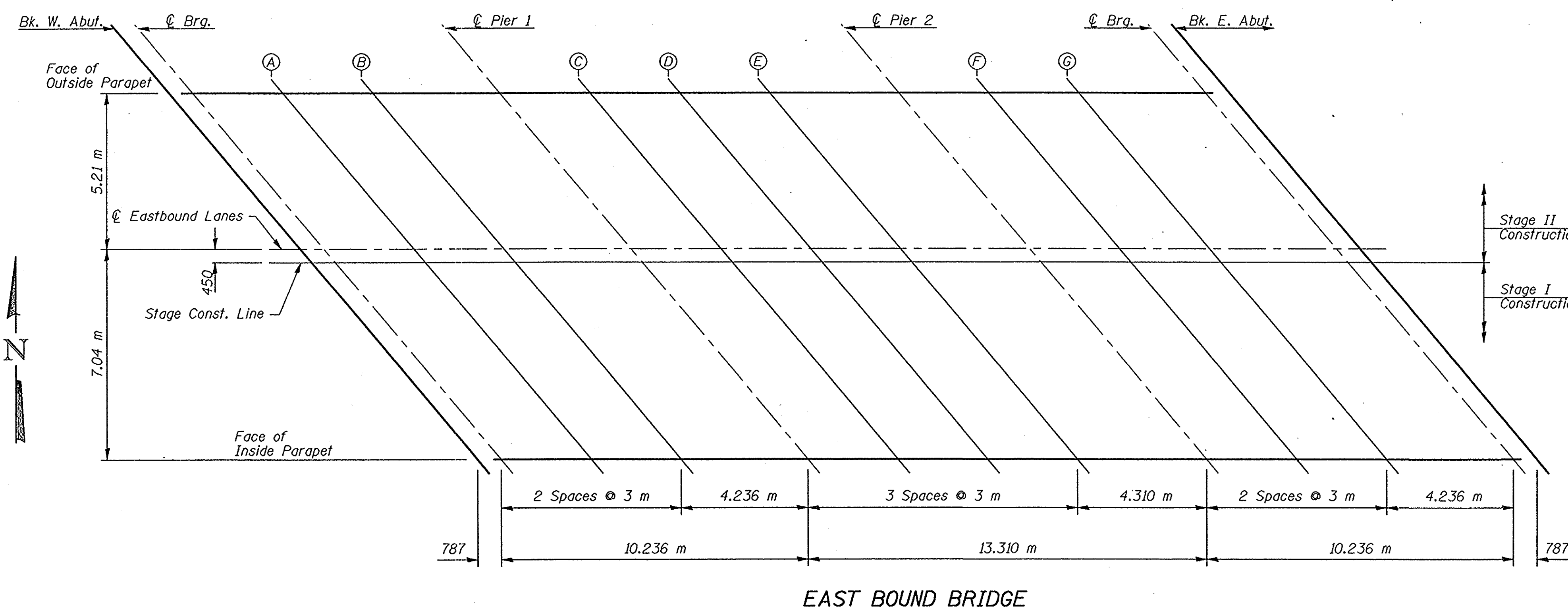
STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK WEST ABUT	63+418.209	0.450	193.375	193.375
CL BRG	63+418.996	0.450	193.377	193.377
A	63+421.736	0.450	193.382	193.385
B	63+424.996	0.450	193.389	193.392
CL PIER 1	63+429.232	0.450	193.397	193.397
C	63+432.232	0.450	193.403	193.406
D	63+435.232	0.450	193.409	193.415
E	63+438.232	0.450	193.415	193.420
CL PIER 2	63+442.542	0.450	193.424	193.424
F	63+445.542	0.450	193.430	193.431
G	63+448.542	0.450	193.436	193.439
CL BRG	63+452.778	0.450	193.444	193.444
BACK EAST ABUT	63+453.565	0.450	193.446	193.446

OUTSIDE PARAPET (FACE)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK WEST ABUT	63+423.856	7.040	193.331	193.331
CL BRG	63+424.643	7.040	193.332	193.332
A	63+427.643	7.040	193.338	193.341
B	63+430.643	7.040	193.344	193.347
CL PIER 1	63+434.879	7.040	193.350	193.350
C	63+437.879	7.040	193.356	193.359
D	63+440.879	7.040	193.362	193.368
E	63+443.879	7.040	193.368	193.372
CL PIER 2	63+448.189	7.040	193.375	193.375
F	63+451.189	7.040	193.381	193.383
G	63+454.189	7.040	193.387	193.390
CL BRG	63+458.425	7.040	193.393	193.393
BACK EAST ABUT	63+459.212	7.040	193.405	193.405

PLOTS & CHECKS		
INT.	DATE	REASON



**EAST BOUND BRIDGE**

CHECKS		
INT.	DATE	REASON

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TOP OF SLAB ELEVATIONS (E.B.)**

FAI ROUTE 80 OVER ABBOTT DITCH  
SECTION 06-1B-2R  
BUREAU COUNTY  
STATION 63+424.374  
S.N. 006-0005 (E.B.)  
S.N. 006-0006 (W.B.)

SCALE: VERT. 1"=10'  
HORIZ. 1"=40'

DATE: 08/28/01-RPB

DRAWN BY: BISHOP  
DESIGNED BY: FITCH  
CHECKED BY: BRADFORD

COMPUTER FILE NO. SHT1609-5  
PROJECT 01159  
12/10/01-RPB

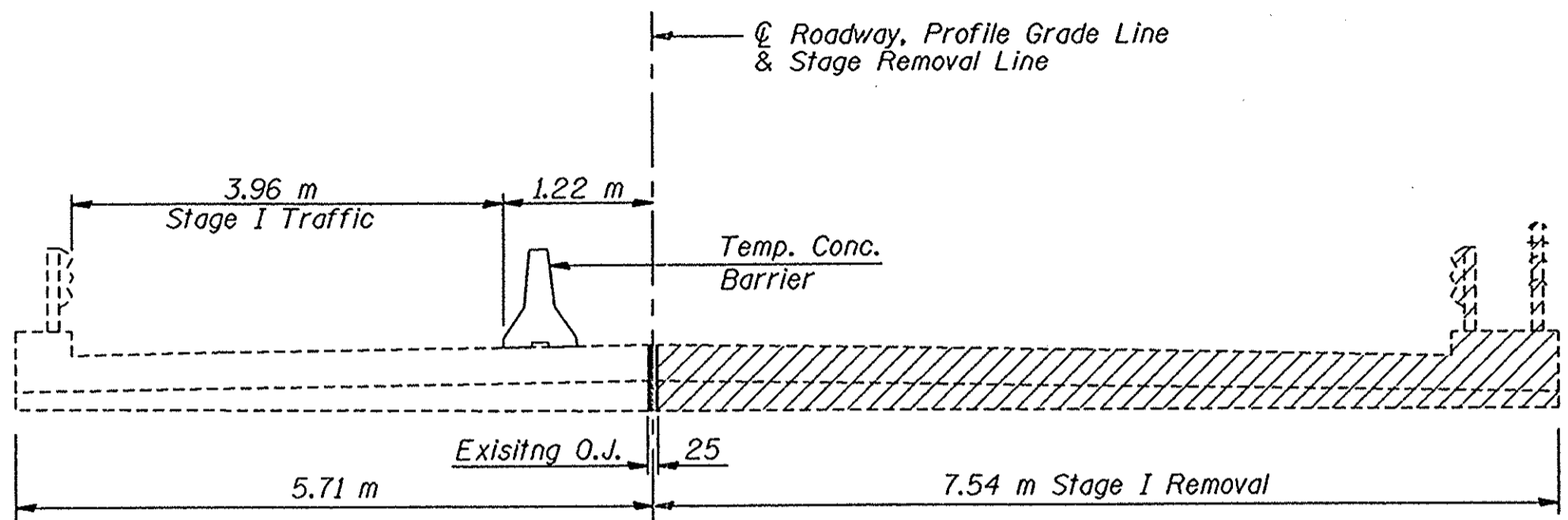
GREENE & BRADFORD, INC.  
OF SPRINGFIELD  
CONSULTING ENGINEERS  
REGISTERED PROFESSIONAL ENGINEERS  
ILLINOIS LICENSE NO. 011-01159  
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

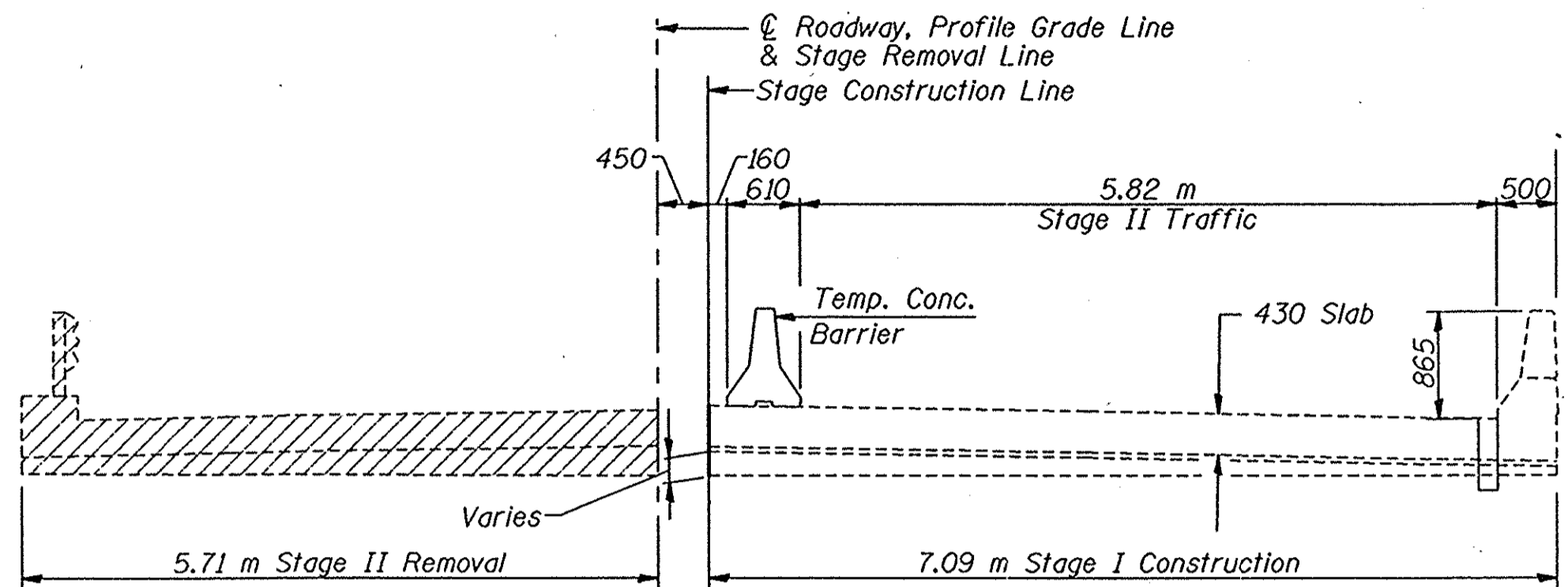
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-1B-2R	BUREAU	94	60
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Bridge Sheet 4 of 15 Sheets

DESIGN		
INT.	DATE	REASON

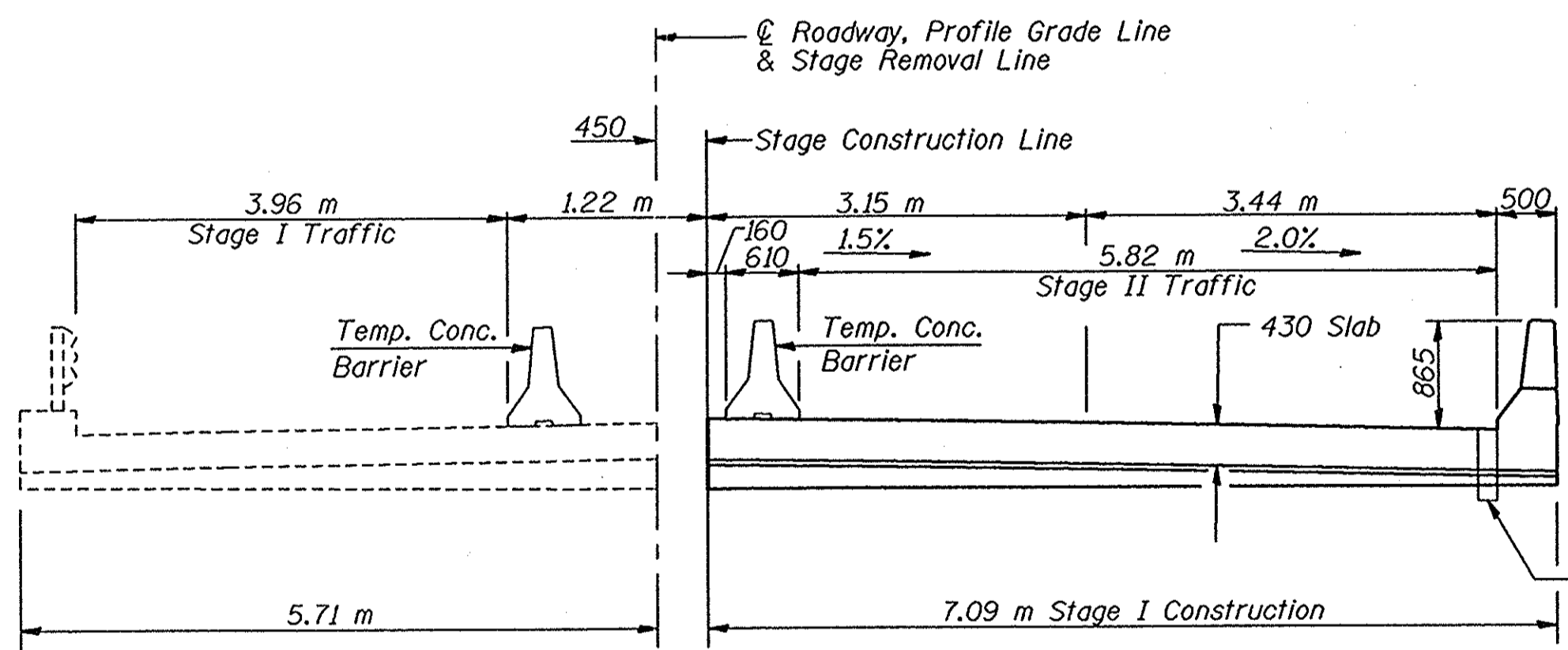


**STAGE I REMOVAL**  
(Looking in direction of traffic)

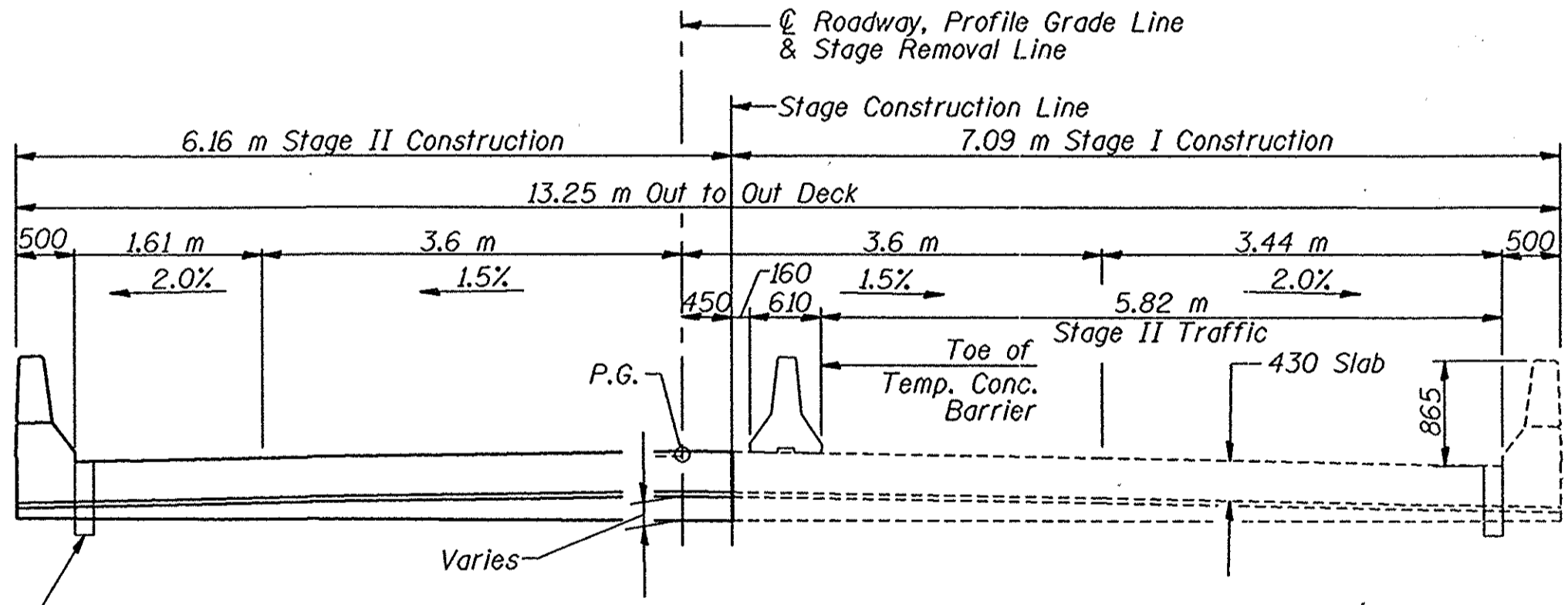


**STAGE II REMOVAL**  
(Looking in direction of traffic)

PLOTS & CHECKS			
INT.	DATE	NO.	REASON



**STAGE I CONSTRUCTION**  
(Looking in direction of traffic)



**STAGE II CONSTRUCTION**  
(Looking in direction of traffic)

160 Dia. Floor Drain  
(See General Plan & Elevation sheet  
for location and spacing).

Notes:

- 1. Hatched area indicates Removal of Existing Superstructure.
- 2. For details of Temporary Concrete Barrier, see sheet 5 of 15.
- 3. For quantity of Temporary Concrete Barrier, see Roadway Plans.
- 4. Steel handrail removal shall be included with Removal of Existing Superstructure.

CHECKS		
INT.	DATE	REASON

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STAGE CONSTRUCTION DETAILS**

FAI ROUTE 80 OVER ABBOTT DITCH  
SECTION 06-1B-2R  
BUREAU COUNTY  
STATION 63+424.374  
S.N. 006-0005 (E.B.)  
S.N. 006-0006 (W.B.)

SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_

DATE: 08/28/01-RPB

DRAWN BY: JONES  
DESIGNED BY: PETERSON  
CHECKED BY: BRADFORD

REVISIONS	
NAME	DATE
PER B.O.	12/5/01

GREENE & BRADFORD, INC.  
OF SPRINGFIELD

CONSULTING ENGINEERS  
REGISTERED PROFESSIONAL ENGINEERS  
ILLINOIS LICENSE NO. 0870-0186-0001-0002-0003-0004-0005-0006-0007-0008-0009-0010-0011-0012-0013-0014-0015-0016-0017-0018-0019-0020-0021-0022-0023-0024-0025-0026-0027-0028-0029-0030-0031-0032-0033-0034-0035-0036-0037-0038-0039-0040-0041-0042-0043-0044-0045-0046-0047-0048-0049-0050-0051-0052-0053-0054-0055-0056-0057-0058-0059-0060-0061-0062-0063-0064-0065-0066-0067-0068-0069-0070-0071-0072-0073-0074-0075-0076-0077-0078-0079-0080-0081-0082-0083-0084-0085-0086-0087-0088-0089-0090-0091-0092-0093-0094-0095-0096-0097-0098-0099-0100-0101-0102-0103-0104-0105-0106-0107-0108-0109-0110-0111-0112-0113-0114-0115-0116-0117-0118-0119-0120-0121-0122-0123-0124-0125-0126-0127-0128-0129-0130-0131-0132-0133-0134-0135-0136-0137-0138-0139-0140-0141-0142-0143-0144-0145-0146-0147-0148-0149-0150-0151-0152-0153-0154-0155-0156-0157-0158-0159-0160-0161-0162-0163-0164-0165-0166-0167-0168-0169-0170-0171-0172-0173-0174-0175-0176-0177-0178-0179-0180-0181-0182-0183-0184-0185-0186-0187-0188-0189-0190-0191-0192-0193-0194-0195-0196-0197-0198-0199-0200-0201-0202-0203-0204-0205-0206-0207-0208-0209-0210-0211-0212-0213-0214-0215-0216-0217-0218-0219-0220-0221-0222-0223-0224-0225-0226-0227-0228-0229-0230-0231-0232-0233-0234-0235-0236-0237-0238-0239-0240-0241-0242-0243-0244-0245-0246-0247-0248-0249-0250-0251-0252-0253-0254-0255-0256-0257-0258-0259-0260-0261-0262-0263-0264-0265-0266-0267-0268-0269-0270-0271-0272-0273-0274-0275-0276-0277-0278-0279-0280-0281-0282-0283-0284-0285-0286-0287-0288-0289-0290-0291-0292-0293-0294-0295-0296-0297-0298-0299-0300-0301-0302-0303-0304-0305-0306-0307-0308-0309-0310-0311-0312-0313-0314-0315-0316-0317-0318-0319-0320-0321-0322-0323-0324-0325-0326-0327-0328-0329-0330-0331-0332-0333-0334-0335-0336-0337-0338-0339-0340-0341-0342-0343-0344-0345-0346-0347-0348-0349-0350-0351-0352-0353-0354-0355-0356-0357-0358-0359-0360-0361-0362-0363-0364-0365-0366-0367-0368-0369-0370-0371-0372-0373-0374-0375-0376-0377-0378-0379-0380-0381-0382-0383-0384-0385-0386-0387-0388-0389-0390-0391-0392-0393-0394-0395-0396-0397-0398-0399-0400-0401-0402-0403-0404-0405-0406-0407-0408-0409-0410-0411-0412-0413-0414-0415-0416-0417-0418-0419-0420-0421-0422-0423-0424-0425-0426-0427-0428-0429-0430-0431-0432-0433-0434-0435-0436-0437-0438-0439-0440-0441-0442-0443-0444-0445-0446-0447-0448-0449-0450-0451-0452-0453-0454-0455-0456-0457-0458-0459-0460-0461-0462-0463-0464-0465-0466-0467-0468-0469-0470-0471-0472-0473-0474-0475-0476-0477-0478-0479-0480-0481-0482-0483-0484-0485-0486-0487-0488-0489-0490-0491-0492-0493-0494-0495-0496-0497-0498-0499-0500-0501-0502-0503-0504-0505-0506-0507-0508-0509-0510-0511-0512-0513-0514-0515-0516-0517-0518-0519-0520-0521-0522-0523-0524-0525-0526-0527-0528-0529-0530-0531-0532-0533-0534-0535-0536-0537-0538-0539-0540-0541-0542-0543-0544-0545-0546-0547-0548-0549-0550-0551-0552-0553-0554-0555-0556-0557-0558-0559-0560-0561-0562-0563-0564-0565-0566-0567-0568-0569-0570-0571-0572-0573-0574-0575-0576-0577-0578-0579-0580-0581-0582-0583-0584-0585-0586-0587-0588-0589-0590-0591-0592-0593-0594-0595-0596-0597-0598-0599-0600-0601-0602-0603-0604-0605-0606-0607-0608-0609-0610-0611-0612-0613-0614-0615-0616-0617-0618-0619-0620-0621-0622-0623-0624-0625-0626-0627-0628-0629-0630-0631-0632-0633-0634-0635-0636-0637-0638-0639-0640-0641-0642-0643-0644-0645-0646-0647-0648-0649-0650-0651-0652-0653-0654-0655-0656-0657-0658-0659-0660-0661-0662-0663-0664-0665-0666-0667-0668-0669-0670-0671-0672-0673-0674-0675-0676-0677-0678-0679-0680-0681-0682-0683-0684-0685-0686-0687-0688-0689-0690-0691-0692-0693-0694-0695-0696-0697-0698-0699-0700-0701-0702-0703-0704-0705-0706-0707-0708-0709-0710-0711-0712-0713-0714-0715-0716-0717-0718-0719-0720-0721-0722-0723-0724-0725-0726-0727-0728-0729-0730-0731-0732-0733-0734-0735-0736-0737-0738-0739-0740-0741-0742-0743-0744-0745-0746-0747-0748-0749-0750-0751-0752-0753-0754-0755-0756-0757-0758-0759-0760-0761-0762-0763-0764-0765-0766-0767-0768-0769-0770-0771-0772-0773-0774-0775-0776-0777-0778-0779-0780-0781-0782-0783-0784-0785-0786-0787-0788-0789-0790-0791-0792-0793-0794-0795-0796-0797-0798-0799-0800-0801-0802-0803-0804-0805-0806-0807-0808-0809-0810-0811-0812-0813-0814-0815-0816-0817-0818-0819-0820-0821-0822-0823-0824-0825-0826-0827-0828-0829-0830-0831-0832-0833-0834-0835-0836-0837-0838-0839-0840-0841-0842-0843-0844-0845-0846-0847-0848-0849-0850-0851-0852-0853-0854-0855-0856-0857-0858-0859-0860-0861-0862-0863-0864-0865-0866-0867-0868-0869-0870-0871-0872-0873-0874-0875-0876-0877-0878-0879-0880-0881-0882-0883-0884-0885-0886-0887-0888-0889-0890-0891-0892-0893-0894-0895-0896-0897-0898-0899-0900-0901-0902-0903-0904-0905-0906-0907-0908-0909-0910-0911-0912-0913-0914-0915-0916-0917-0918-0919-0920-0921-0922-0923-0924-0925-0926-0927-0928-0929-0930-0931-0932-0933-0934-0935-0936-0937-0938-0939-0940-0941-0942-0943-0944-0945-0946-0947-0948-0949-0950-0951-0952-0953-0954-0955-0956-0957-0958-0959-0960-0961-0962-0963-0964-0965-0966-0967-0968-0969-0970-0971-0972-0973-0974-0975-0976-0977-0978-0979-0980-0981-0982-0983-0984-0985-0986-0987-0988-0989-0990-0991-0992-0993-0994-0995-0996-0997-0998-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COMPUTER FILE NO. SHT1500-5  
PROJECT 01159  
12/10/01-RPB

DESIGN		
INT.	DATE	REASON

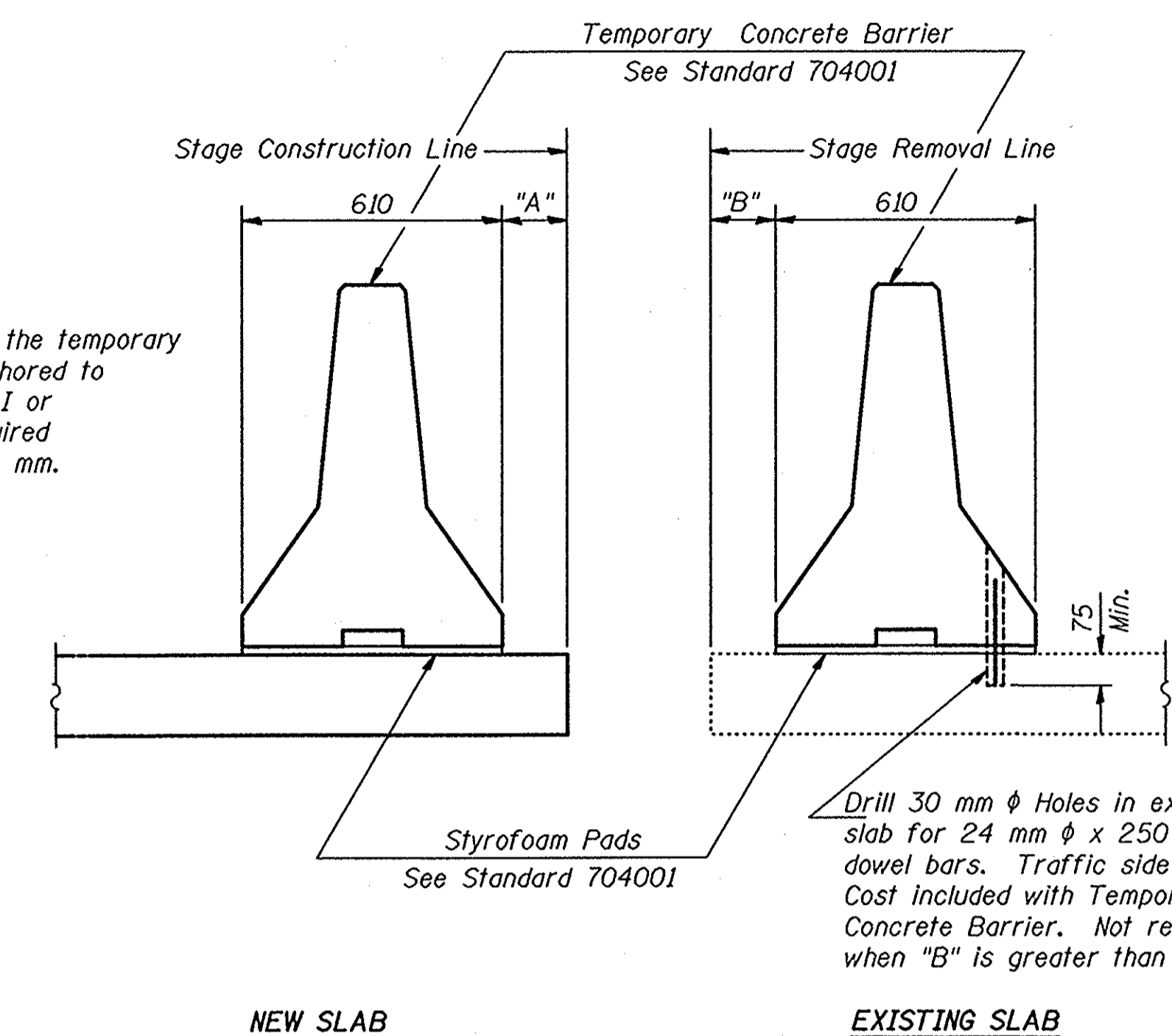
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-1B-2R	BUREAU	94	61
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Bridge Sheet 5 of 15 Sheets

PLOTS & CHECKS		
INT.	DATE	REASON

CHECKS		
INT.	DATE	REASON



When "A" is 150 mm or less, the temporary concrete barrier shall be anchored to new slab according to Detail I or Detail II. No anchorage required when "A" is greater than 150 mm.

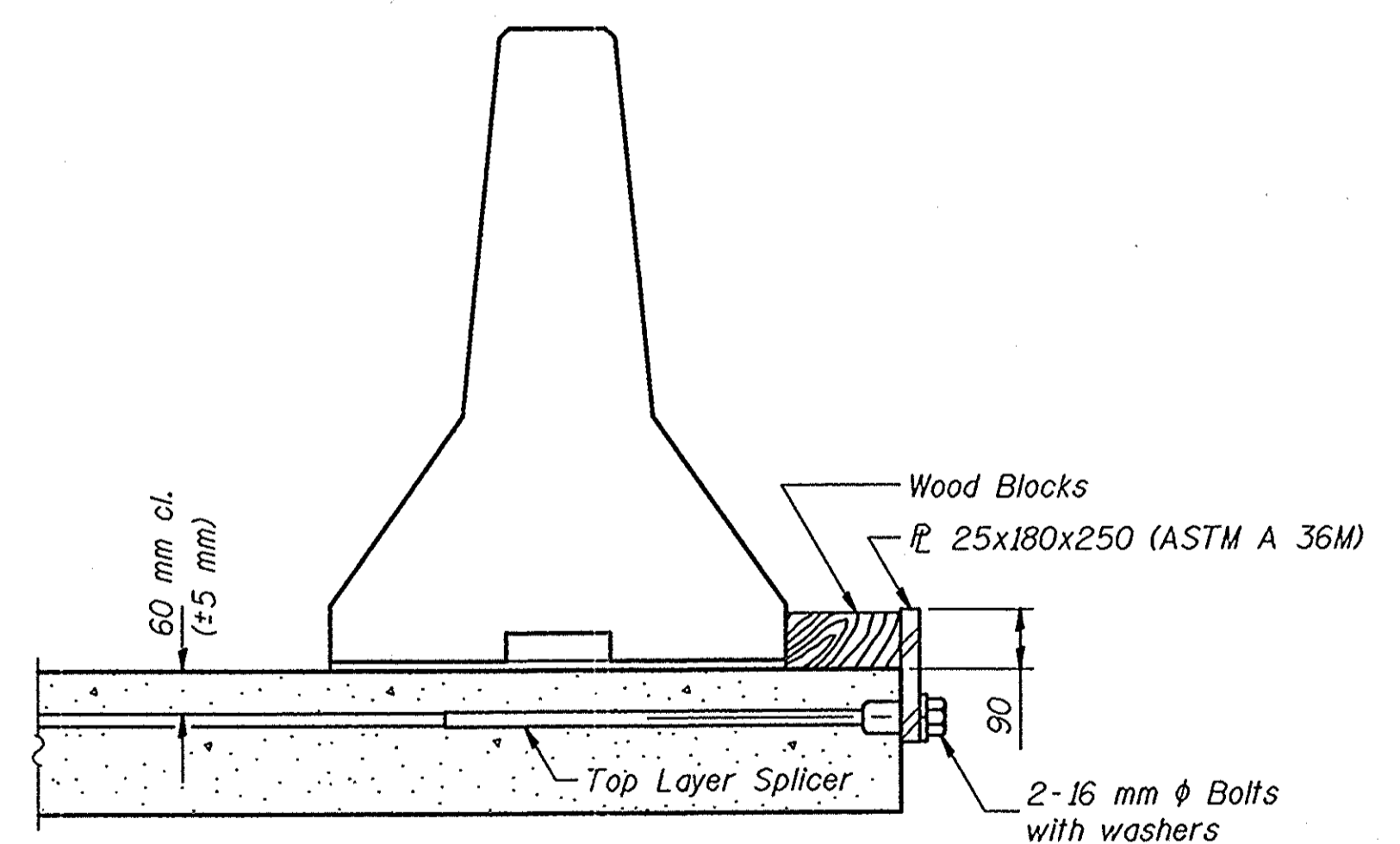
**NOTES**

**Detail I - With Bar Splicer or Couplers:**  
Connect one (1) 25x180x250 steel  $\bar{L}$  to the top layer of couplers with 2-16 mm  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each 3 m barrier panel.

**Detail II - With Extended Reinforcement Bars:**  
Connect one (1) 25x180x250 steel  $\bar{L}$  to the concrete slab with 2-16 mm  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each 3 m barrier panel.

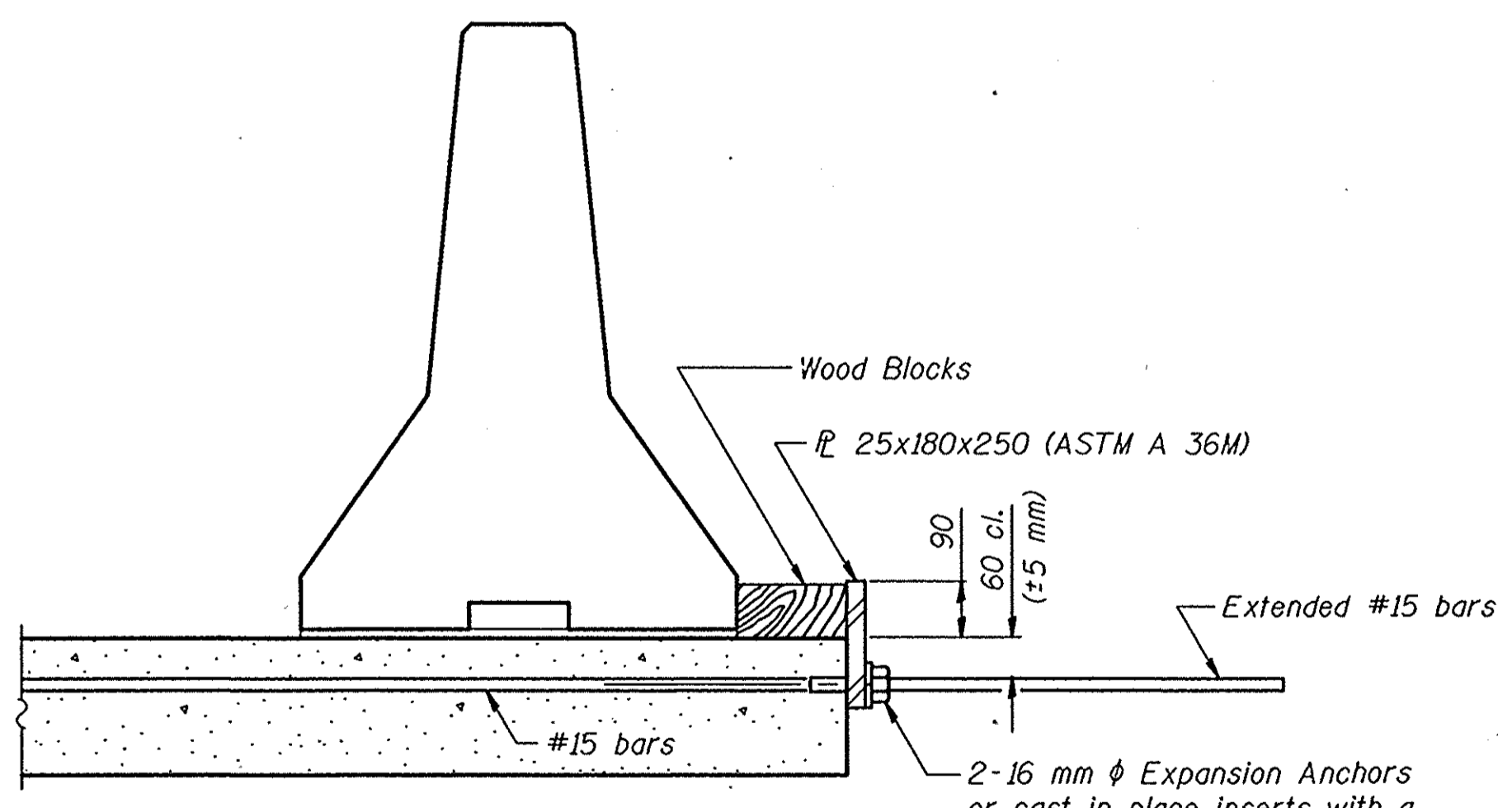
Cost of anchorage included with Temporary Concrete Barrier.

All dimensions are in millimeters (mm) except as noted.



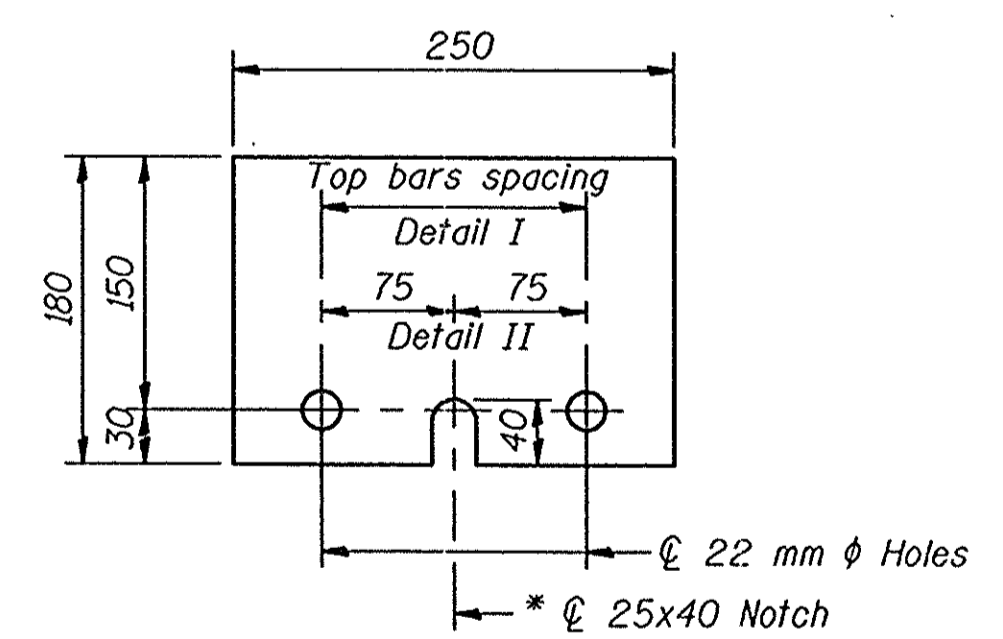
**DETAIL I**

The 25x180x250 Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



**DETAIL II**

The 25x180x250 Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



**25x180x250**

\* Required only with Detail II

R-27 (M) 4-30-99

METPLN - 1:100 8/24/98

<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>TEMPORARY CONCRETE BARRIERS</b>						
FAI ROUTE 80 OVER ABBOTT DITCH SECTION 06-1B-2R BUREAU COUNTY STATION 63+424.374 S.N. 006-0005 (E.B.) S.N. 006-0006 (W.B.)						
<b>REVISIONS</b> <table border="1"> <tr><th>NAME</th><th>DATE</th></tr> <tr><td>PER B.O.</td><td>12/5/01</td></tr> </table>	NAME	DATE	PER B.O.	12/5/01	SCALE: VERT.    HORIZ. DATE: 08/28/01-RPB	DRAWN BY: BISHOP DESIGNED BY: FITCH CHECKED BY: BRADFORD
NAME	DATE					
PER B.O.	12/5/01					
<b>GREENE &amp; BRADFORD, INC.</b> OF SPRINGFIELD <small>CONSULTING ENGINEERS 2000 CENTRAL EXPRESS SPRINGFIELD, ILLINOIS 62722 (618) 795-4444, (618) 795-4277 FAX</small>		<b>COMPUTER FILE NO.</b> SHT1505-5  <b>PROJECT</b> 01159 12/05/01-RPB				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

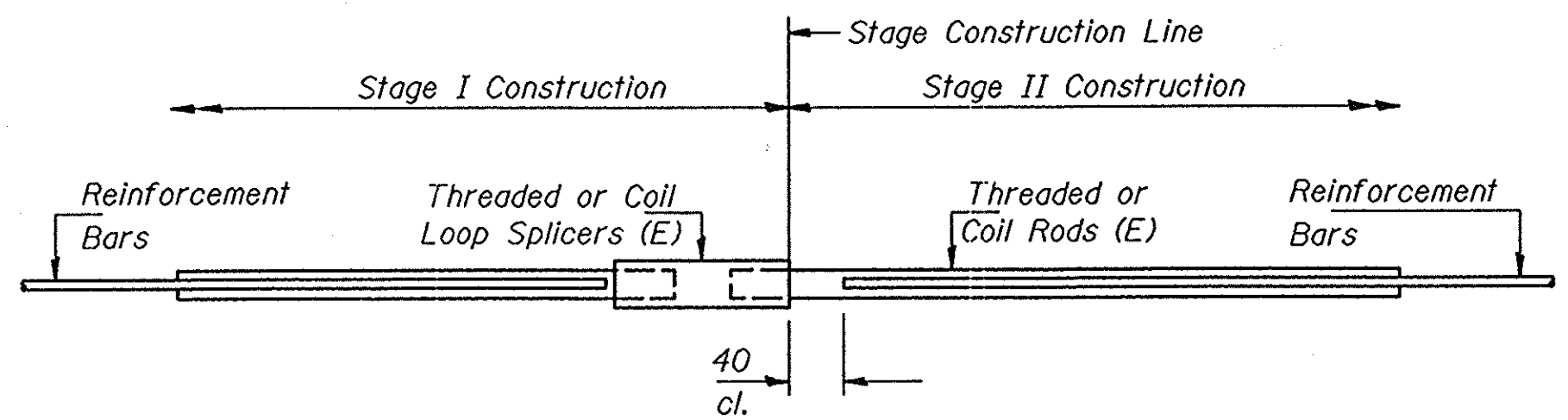
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-1B-2R	BUREAU	94	62
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Bridge Sheet 6 of 15 Sheets

DESIGN		
INT.	DATE	REASON

PLOTS & CHECKS			
INT.	DATE	NO.	REASON

CHECKS		
INT.	DATE	REASON



**SPLICER DETAIL**

Bar Size	No. Req'd. (Splicers)	Location
#15	206	Superstructures
#20	28	Abutments
#15	24	Abutments
#20	160	Abutments

The diameter of this part of Splicer is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

**ROLLED THREAD DOWEL BAR**



**\*\* ONE PIECE**

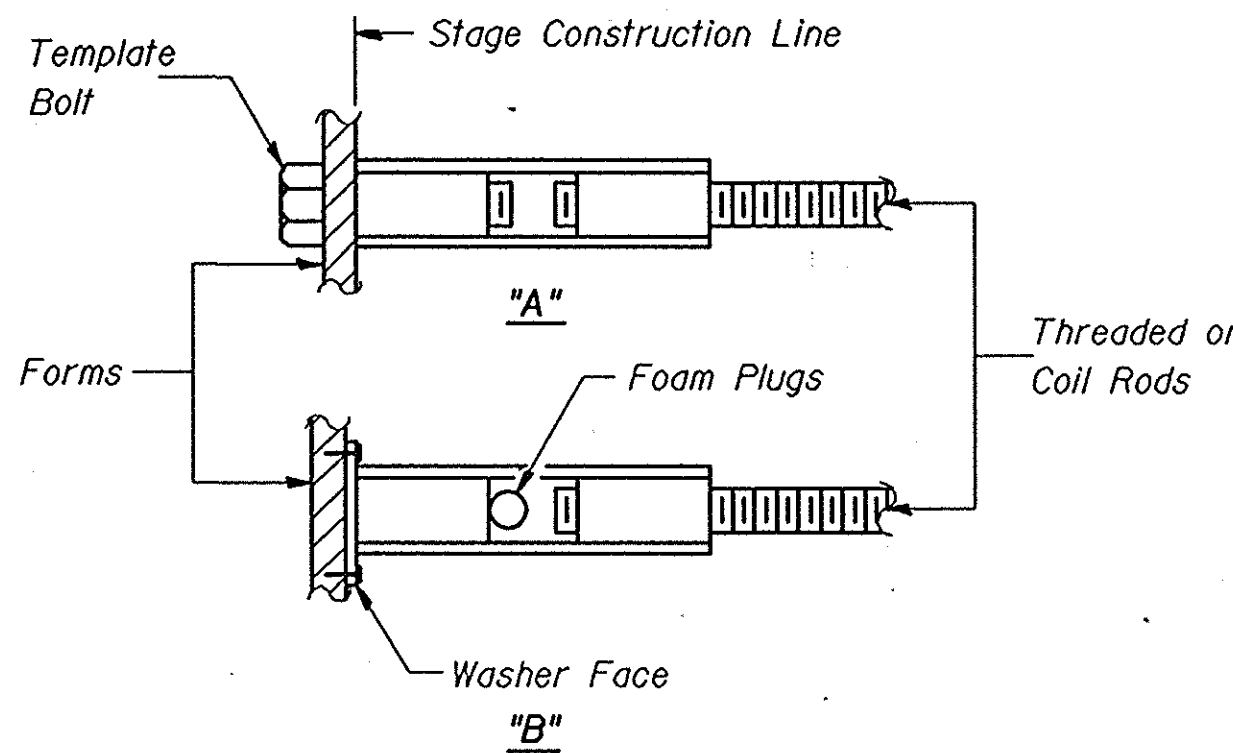
**Wire Connector**



**WELDED SECTIONS**

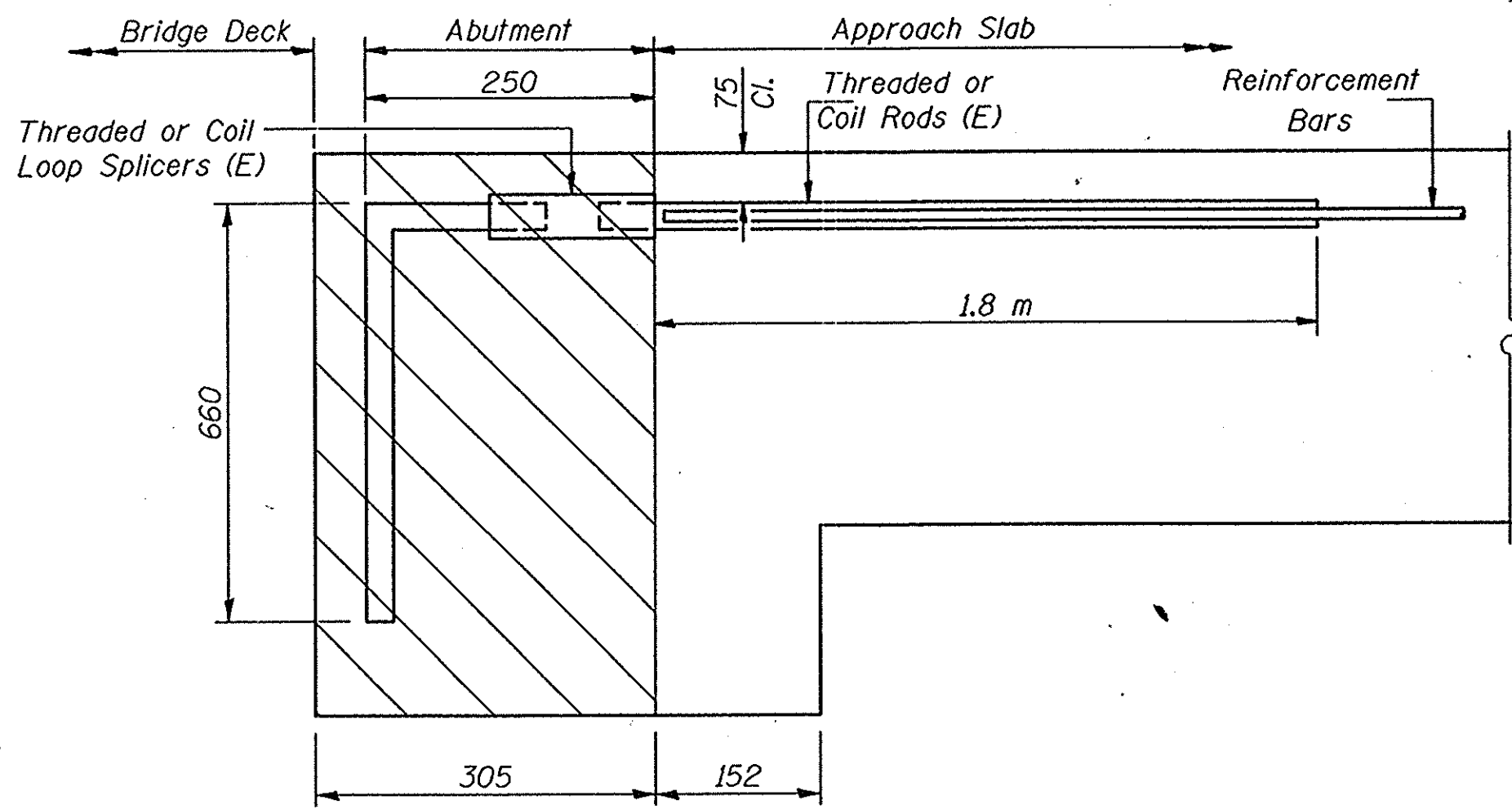
**SPLICER ALTERNATIVES**

\*\* Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



**INSTALLATION AND SETTING METHODS**

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



**BAR SPLICER ASSEMBLY DETAIL FOR ABUTMENT**

(160 Required)

20 mm  $\phi$  Bar Splicer Assembly x 1.2 m and 1.8 m Splicer Rods — Minimum Capacity = 100 kN-tension  
 Minimum Pull-out Strength = 40 kN-tension

**NOTES**

Bar Splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
 Steel Splicer rods shall be of minimum 400 MPa yield strength, threaded or coiled full length.  
 All reinforcement bars shall be lapped and tied to the splicer rods.  
 Splicer (coupler) assembly shall be epoxy coated in accordance with the requirements for reinforcement bars.  
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed splicer (coupler) assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kN) =  $1.25 \times 10^{-3} \times f_y \times A_l$
- ② Minimum \*Pull-out Strength (Tension in kN) =  $1.25 \times 10^{-3} \times f_{s\text{allow}} \times A_l$

Where  $f_y$  = Yield strength of lapped reinforcement bars in MPa.  
 $f_{s\text{allow}}$  = Allowable tensile stress in lapped reinforcement bars in MPa (Service Load)  
 $A_l$  = Tensile stress area of lapped reinforcement bars ( $\text{mm}^2$ )  
 \* = 28 day concrete

Typical Splicer (Coupler) Assembly Sizes:

- #15 bar lap with 20 mm  $\phi$  Splicer (Coupler) x 610 mm Splicer Rods } Minimum Capacity = 100 kN-tension  
 Minimum Pull-out Strength = 40 kN-tension
- #20 bar lap with 25 mm  $\phi$  Splicer (Coupler) x 790 mm Splicer Rods } Minimum Capacity = 150 kN-tension  
 Minimum Pull-out Strength = 60 kN-tension
- #25 bar lap with 30 mm  $\phi$  Splicer (Coupler) x 1.04 m Splicer Rods } Minimum Capacity = 250 kN-tension  
 Minimum Pull-out Strength = 100 kN-tension
- #30 bar lap with 36 mm  $\phi$  Splicer (Coupler) x 1.37 m Splicer Rods } Minimum Capacity = 350 kN-tension  
 Minimum Pull-out Strength = 140 kN-tension

Bar splicer assemblies shall be in accordance with Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."  
 All dimensions are in millimeters (mm) except as noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**BAR SPLICER ASSEMBLY**

FAI ROUTE 80 OVER ABBOTT DITCH  
 SECTION 06-1B-2R  
 BUREAU COUNTY  
 STATION 63+424.374  
 S.N. 006-0005 (E.B.)  
 S.N. 006-0006 (W.B.)

REVISIONS	
NAME	DATE
PER B.O.	12/5/01

SCALE: VERT.  
 HORIZ.  
 DATE: 08/28/01-RPB

DRAWN BY: BISHOP  
 DESIGNED BY: FITCH  
 CHECKED BY: BRADFORD

COMPUTER FILE NO.  
 SHT1501-5  
 PROJECT 01159  
 12/10/01-RPB

**GREENE & BRADFORD, INC.**  
 OF SPRINGFIELD  
 CONSULTING ENGINEERS  
 520 SOUTH MAIN ST.  
 SPRINGFIELD, ILL. 62761  
 (618) 792-8440 (618) 792-8277 FAX

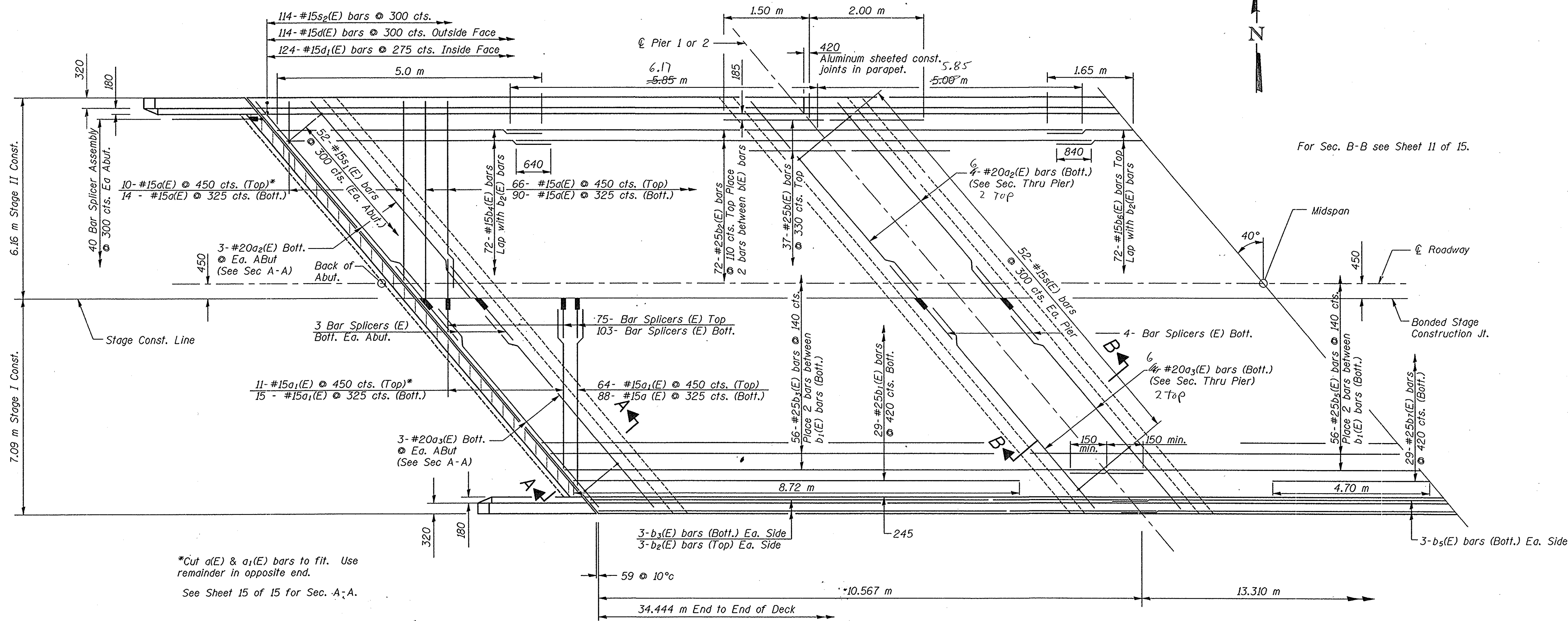
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

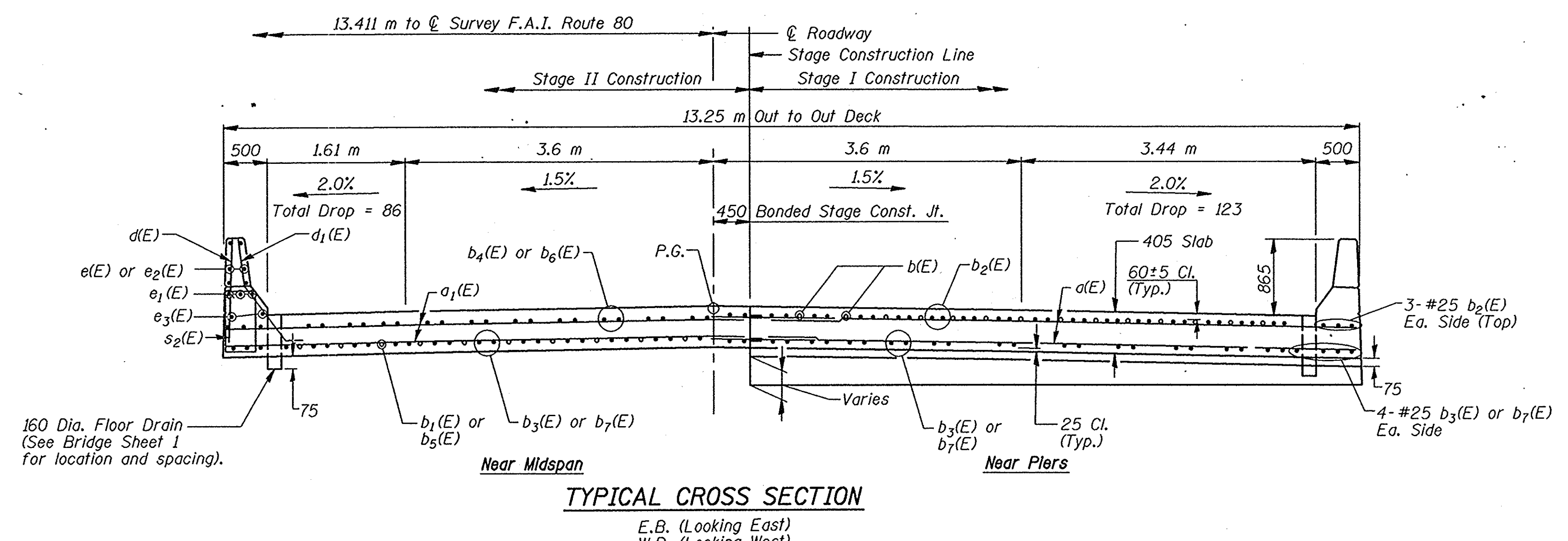
Bridge Sheet 7 of 15 Sheets

DESIGN		
INT.	DATE	REASON

PLOTS & CHECKS		
INT.	DATE	REASON



HALF PLAN - WEST BOUND  
(Plan similar by 180° rotation about midspan.)  
(Eastbound similar by 180° rotation about ⊙ Roadway)



MINIMUM BAR LAPS

#15	890
#25	1060

- NOTES
1. Reinforcement Bars designated (E) shall be epoxy coated.
  2. See Sheet 8 of 15 for parapet reinforcement, superstructure details and Bill of Materials.
  3. See Sheet 6 of 15 for bar splicer details.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUPERSTRUCTURE**

FAI ROUTE 80 OVER ABBOTT DITCH  
SECTION 06-1B-2R  
BUREAU COUNTY  
STATION 63+424.374  
S.N. 006-0005 (E.B.)  
S.N. 006-0006 (W.B.)

REVISIONS

NAME	DATE
PER B.O.	12/5/01

SCALE: VERT.    HORIZ.  
DATE: 9/07/01-PAM

DRAWN BY: BISHOP  
DESIGNED BY: FITCH  
CHECKED BY: BRADFORD

COMPUTER FILE NO. SHT1502-5  
PROJECT 01159  
12/17/01-RPB

GREENE & BRADFORD, INC.  
OF SPRINGFIELD  
CONSULTING ENGINEERS  
2200 CENTURY DRIVE  
SPRINGFIELD, ILL. 62777  
(618) 752-4444, (618) 752-4222 FAX

CHECKS		
INT.	DATE	REASON

SI-2-L (M) 4-30-99  
METPLN - 1:100 8/24/98

DESIGN		
INT.	DATE	REASON

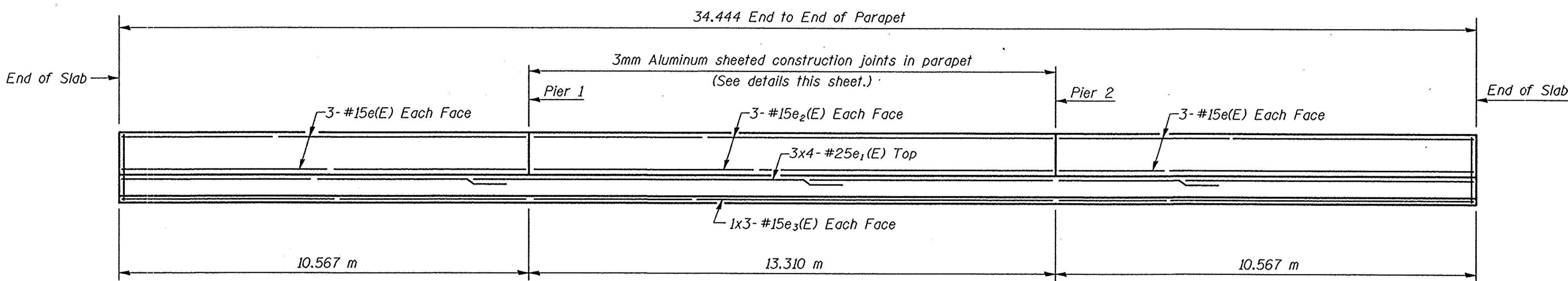
PLOTS & CHECKS			
INT.	DATE	NO.	REASON

CHECKS		
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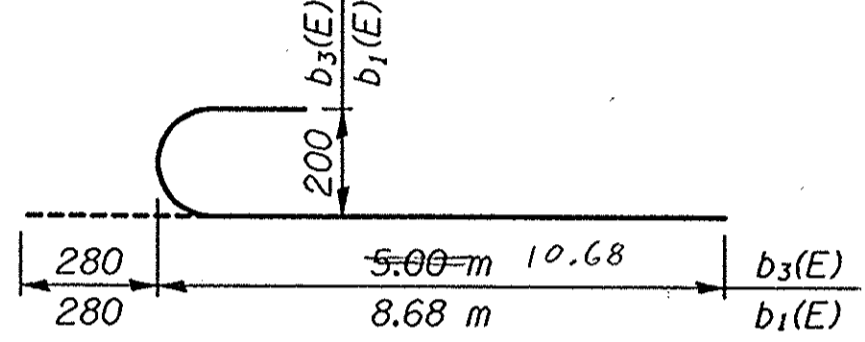
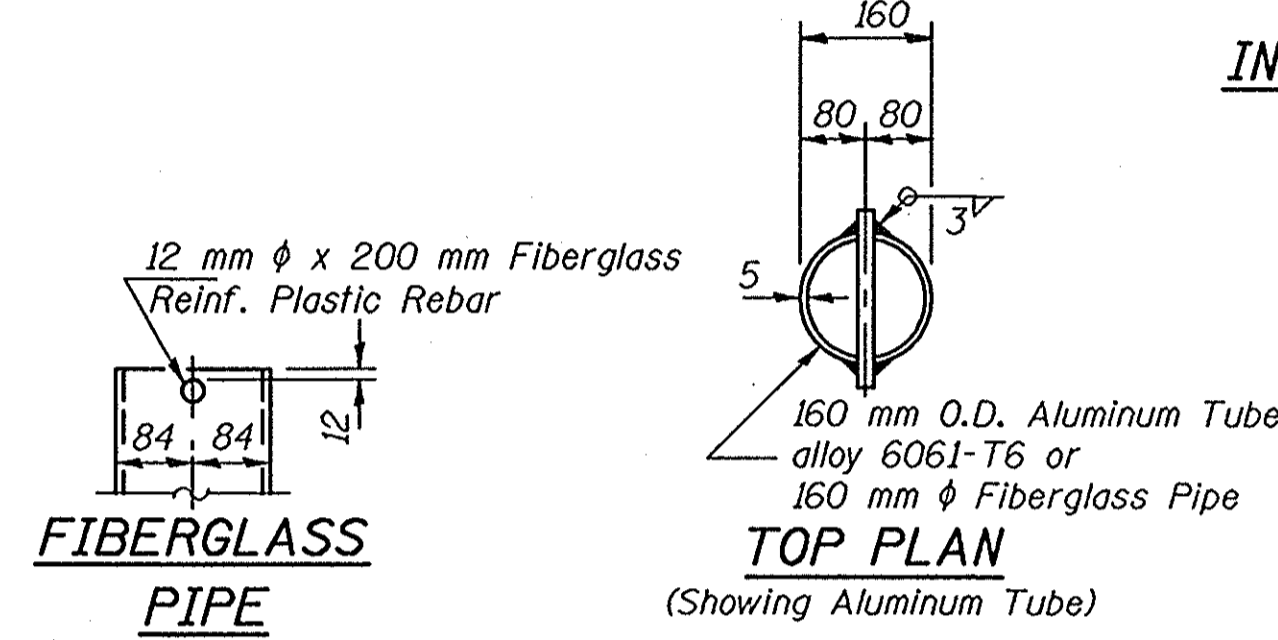
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-1B-2R	BUREAU	94	64
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Bridge Sheet 8 of 15 Sheets



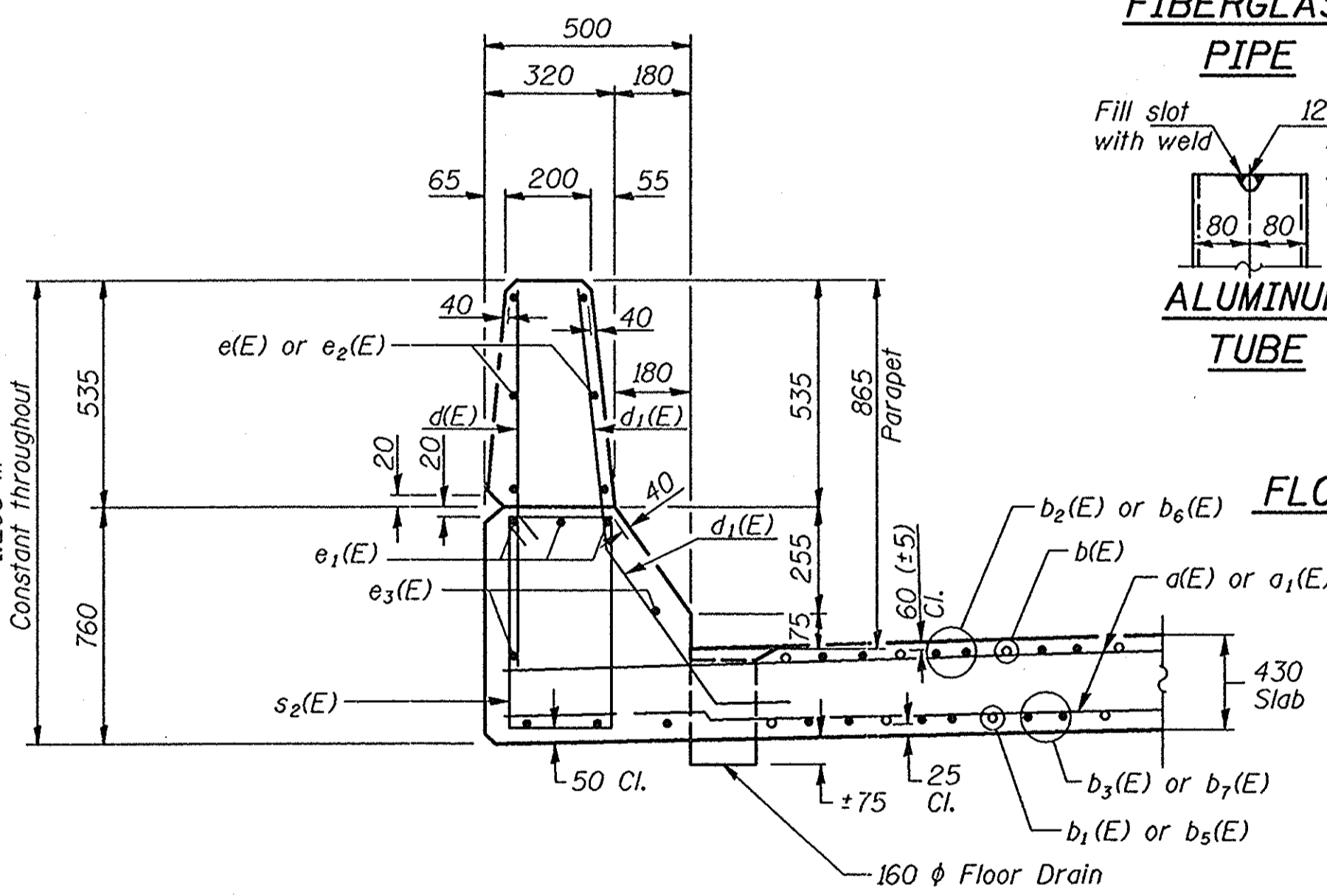
INSIDE ELEVATION OF PARAPET



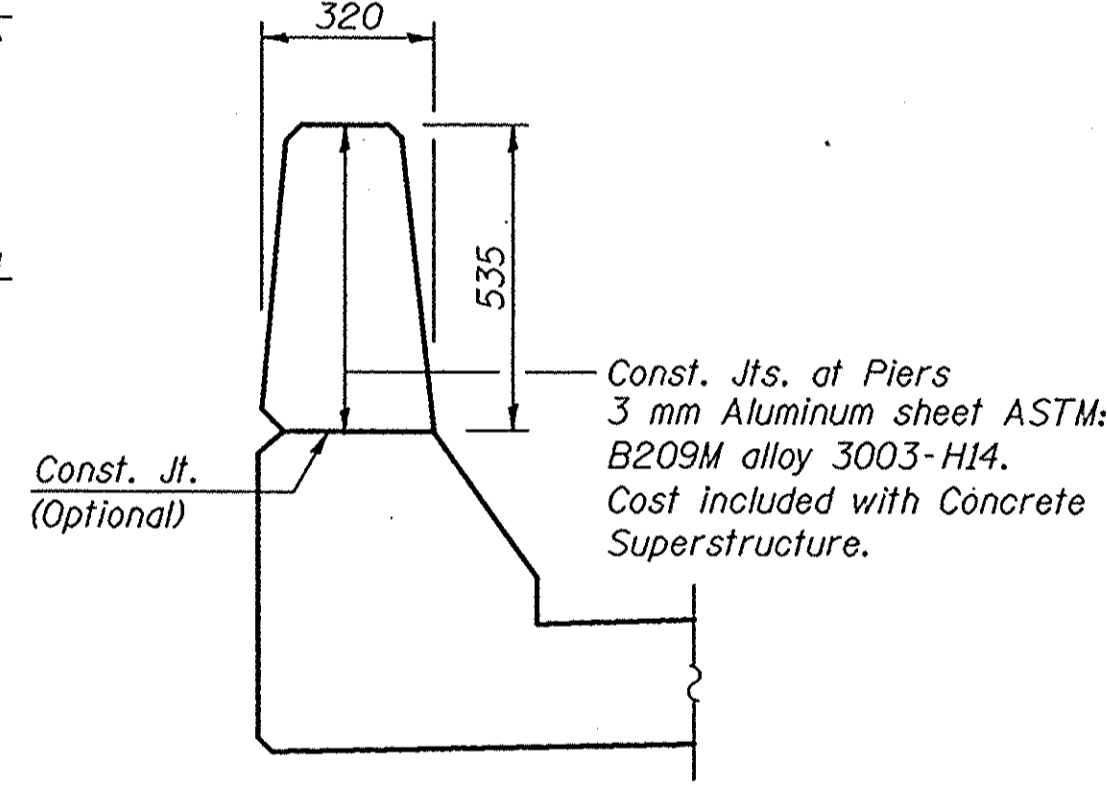
BARS b1(E) & b3(E)

TWO (2)  
SUPERSTRUCTURES  
BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape	
a(E)	360	#15	6.08		
a1(E)	356	#15	7.00		
a2(E)	28	#20	7.90		
a3(E)	28	#20	9.10		
b(E)	148	#25	3.50		
b1(E)	116	#25	8.96		
b2(E)	312	#25	10.85	12.02	
b3(E)	248	#25	5.28	10.76	
b4(E)	288	#15	5.00		
b5(E)	124	#25	13.61		
b6(E)	144	#15	3.30		
b7(E)	58	#25	9.40		
d(E)	456	#15	0.910		
d1(E)	496	#15	1.39	1.42	
e(E)	48	#15	10.46		
e1(E)	48	#25	9.35		
e2(E)	24	#15	13.23		
e3(E)	42	#25	11.80	12.13	
s(E)	208	#15	3.99		
s1(E)	208	#15	2.90	2.68	
s2(E)	456	#15	2.04		
s1(E)	208	#15	2.96		
Reinforcement Bars, Epoxy Coated				kg	53,830
Concrete Superstructure				m <sup>3</sup>	531.4
Bar Splicers				Each	234



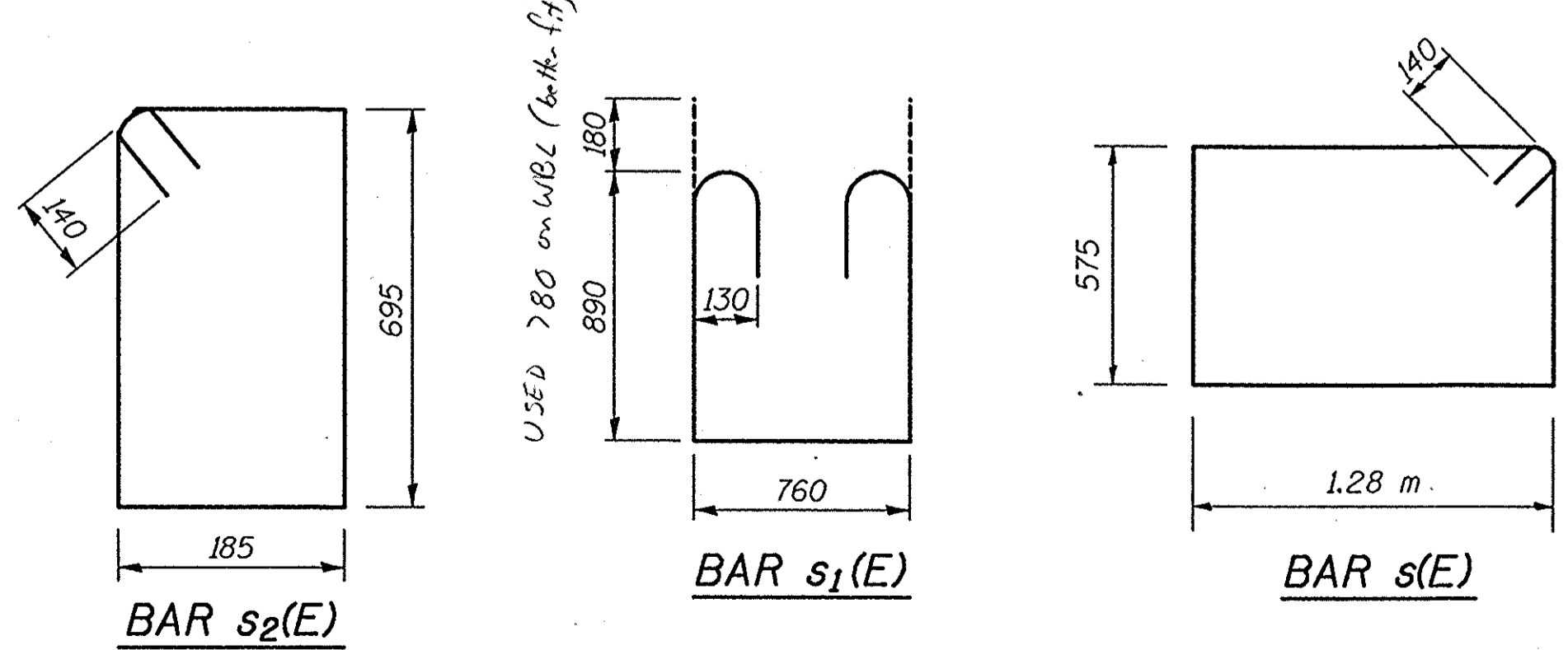
FLOOR DRAIN DETAILS



PARAPET JOINT DETAILS

Notes:  
The exterior surfaces of the floor drains shall be coated or pigmented by the Manufacturer with a color that matches the color of the concrete.  
Fiberglass pipe shall conform to ASTM: D2996, with short-time rupture strength hoop tensile stress of 200 MPa minimum.  
All dimensions are in millimeters (mm) except as noted.

SECTION THRU PARAPET



MIN. BAR LAPS

(Parapets)  
#15 - 490  
#25 - 1.010 m

Reinforcement bars designated (E) shall be epoxy coated.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PARAPET DETAILS**  
FAI ROUTE 80 OVER ABBOTT DITCH  
SECTION 06-1B-2R  
BUREAU COUNTY  
STATION 63+424.374  
S.N. 006-0005 (E.B.)  
S.N. 006-0006 (W.B.)

REVISIONS  
NAME PER B.O. DATE 12/5/01

SCALE: VERT. HORIZ.  
DATE: 08/28/01-RPB

DRAWN BY: BISHOP  
DESIGNED BY: FITCH  
CHECKED BY: BRADFORD

COMPUTER FILE NO. SHT1602-5  
PROJECT 01159 12/17/01-RPB

GREENE & BRADFORD, INC.  
CONSULTING ENGINEERS  
300 NORTH MAIN ST.  
SPRINGFIELD, ILL. 62761  
TEL: 217-524-1414 FAX: 217-524-1421



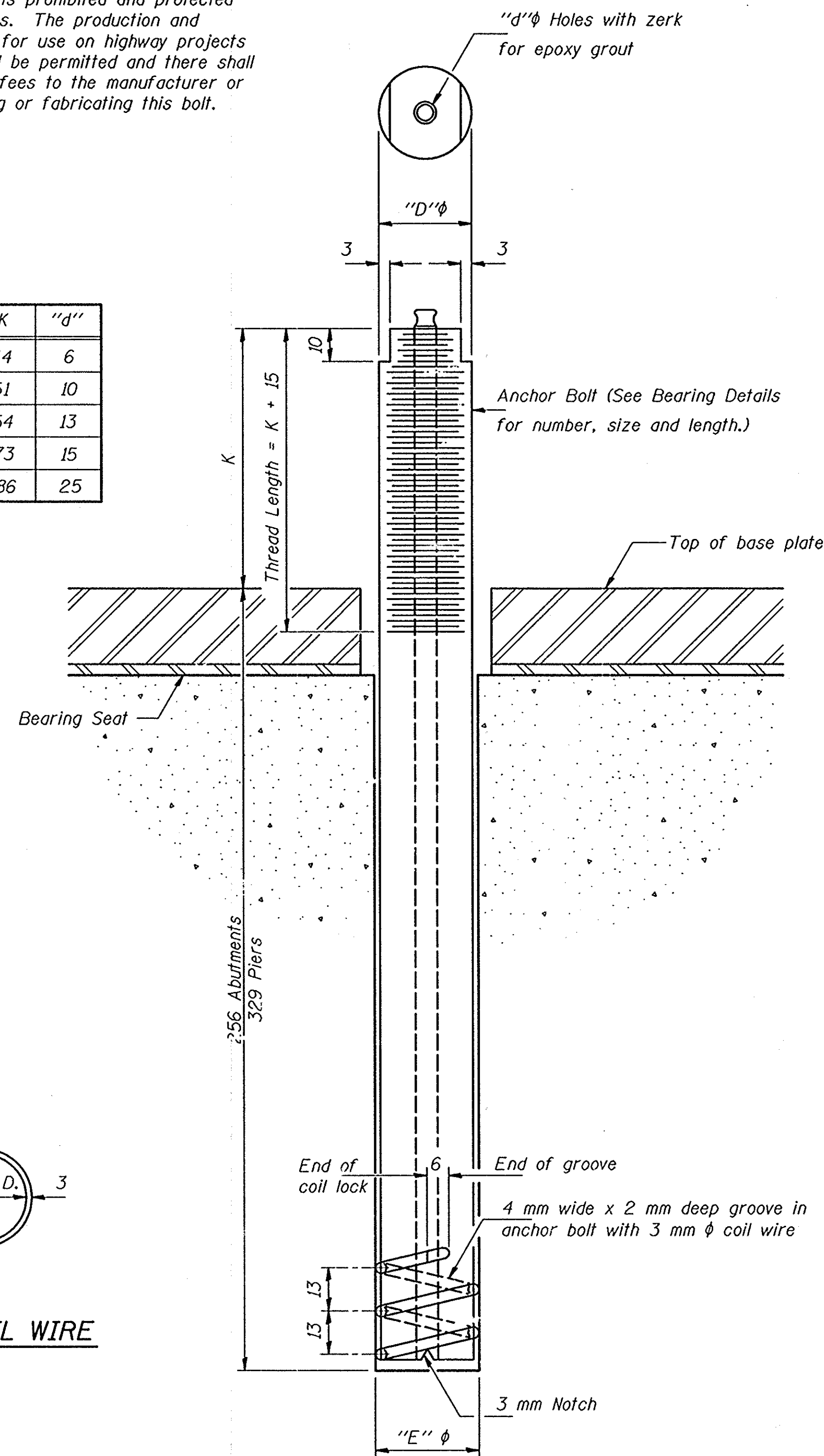
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-1B-2R	BUREAU	94	65
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Bridge Sheet 9 of 15 Sheets

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
24	27	20	44	6
30	33	26	51	10
36	39	32	54	13
48	51	44	73	15
64	67	60	86	25



**ILLINOIS COIL-LOCK ANCHOR BOLT**

**GENERAL NOTES**

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.  
Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.  
The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".  
All dimensions are in millimeters (mm) except as noted.

**MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT**

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.  
The coil wire shall be made of any suitable soft steel wire.  
The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.  
The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade I and of a Class suitable for the temperature at installation.

**INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT**

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

**ALTERNATE ANCHOR BOLTS**

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
A307	Abut.
A307	Pier

ASTM F 1554 (Fy = 724 MPa), ASTM A 449 and AASHTO M 314 (Fy = 724 MPa) anchor bolts may be substituted for the anchor bolts shown above.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**ANCHOR BOLT DETAILS**

FAT ROUTE 80 OVER ABBOTT DITCH  
SECTION 06-1B-2R  
BUREAU COUNTY  
STATION 63+424.374  
S.N. 006-0005 (E.B.)  
S.N. 006-0006 (W.B.)

REVISIONS	
NAME	DATE
PER B.O.	12/5/01

SCA. WERT. HURIZ.  
09/24/01-RPB  
**GREENE & BRADFORD, INC.**  
CONSULTING ENGINEERS  
100 N. WASHINGTON ST., SUITE 200  
CHICAGO, ILL. 60610  
TEL: 312-281-1100 FAX: 312-281-1101

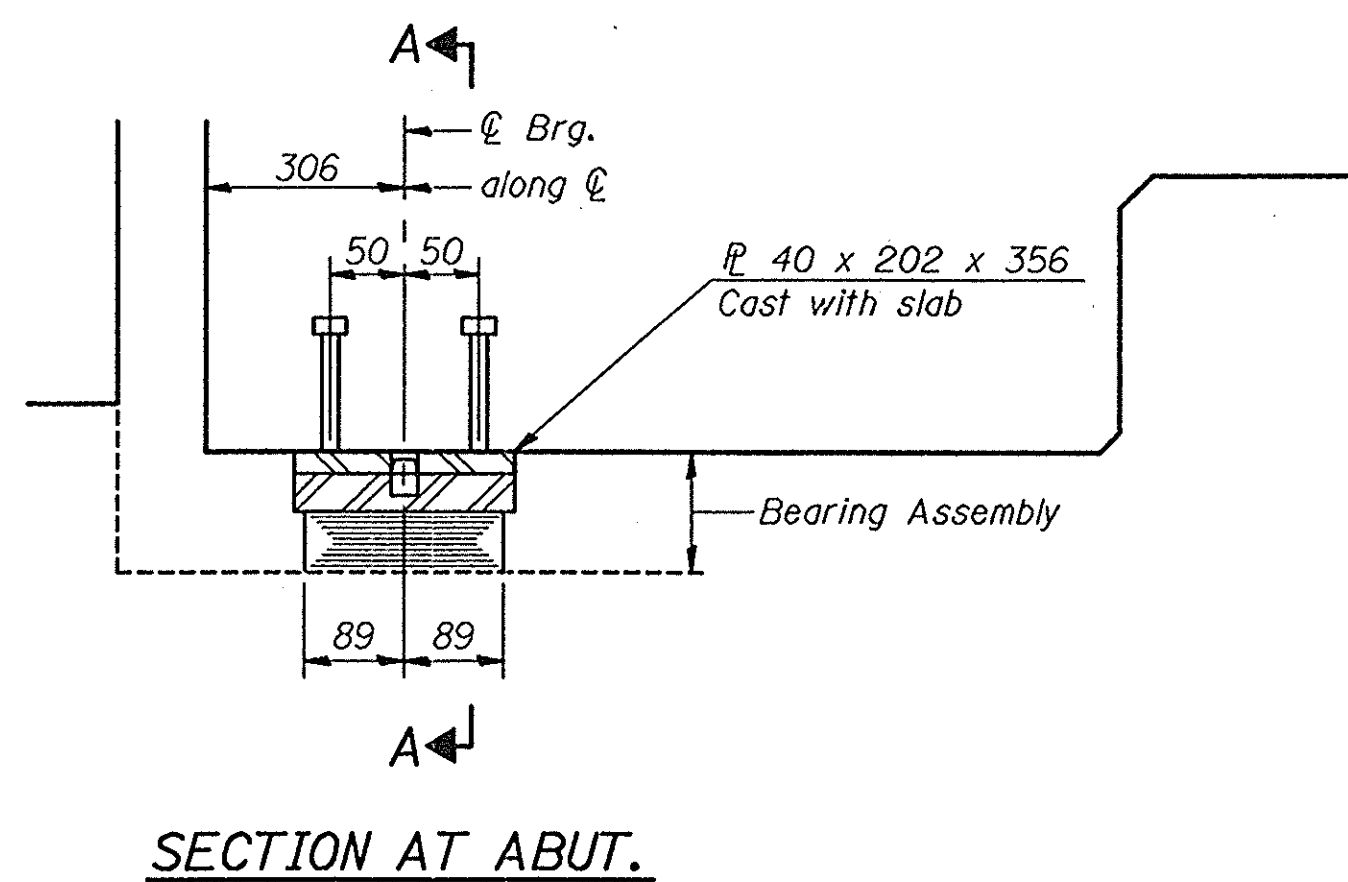
DRAWN BY: BISHOP  
DESIGNED BY: FITCH  
CHECKED BY: BRADFORD  
COMPUTER FILE NO: SHT1503-5  
PROJECT: 01-59  
12/05/01 RPB

DESIGN		
INT.	DATE	REASON

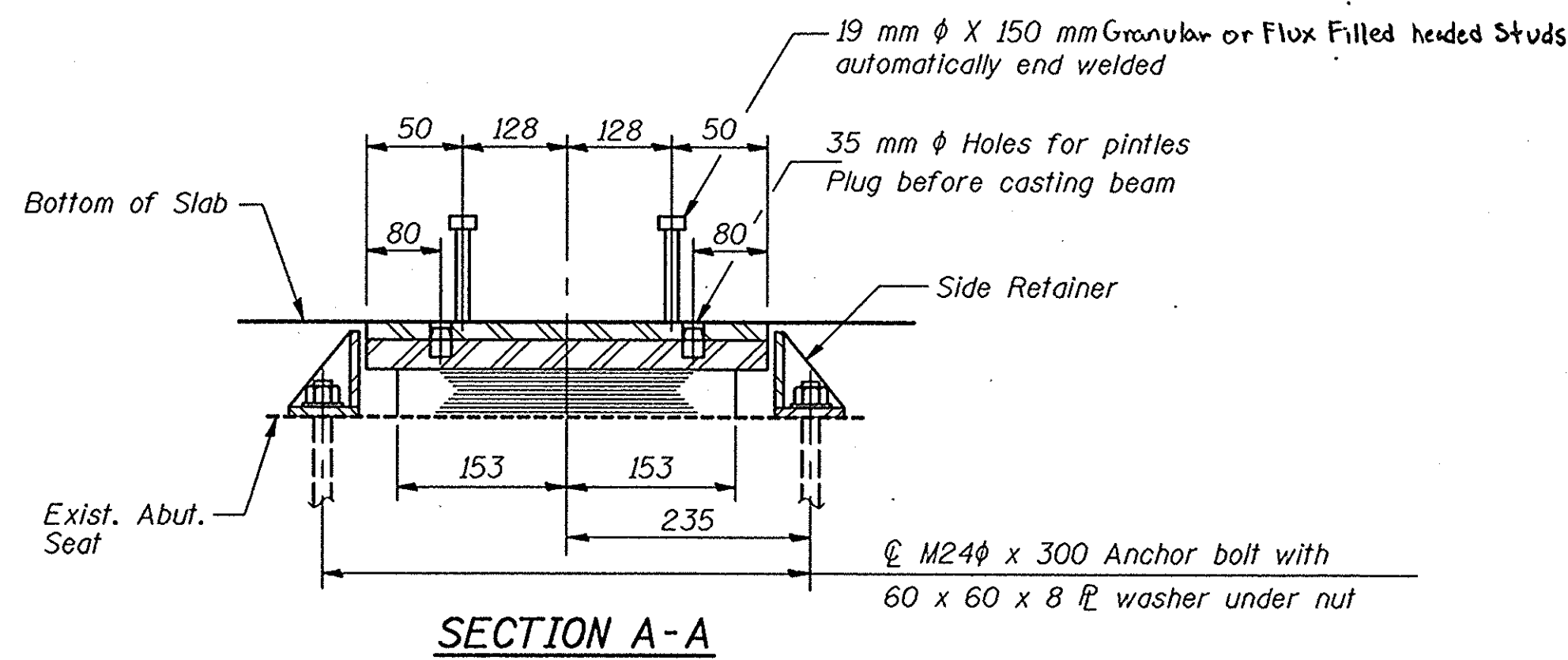
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-1B-2R	BUREAU	94	66
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

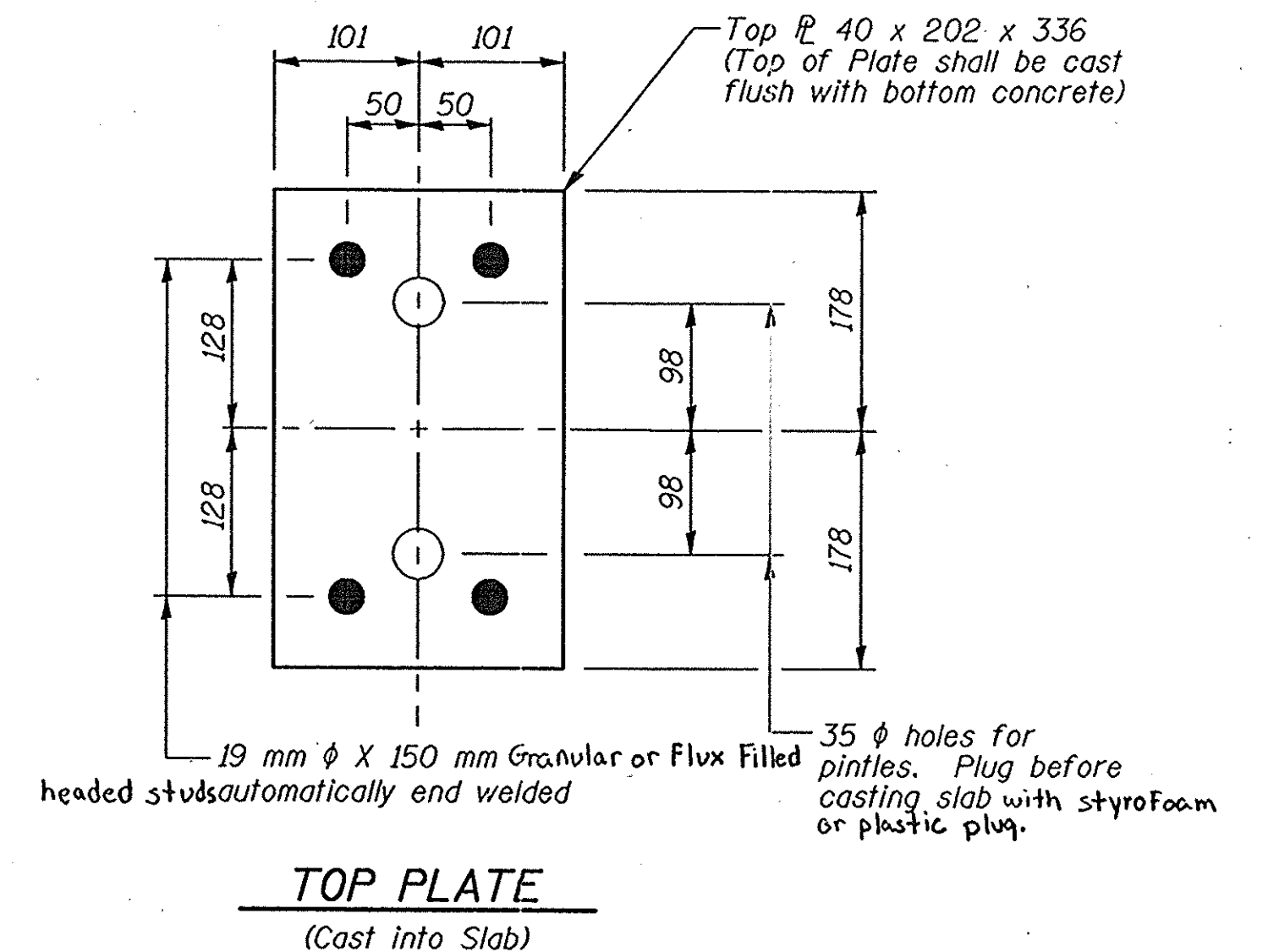
Bridge Sheet 10 of 15 Sheets



**SECTION AT ABUT.**



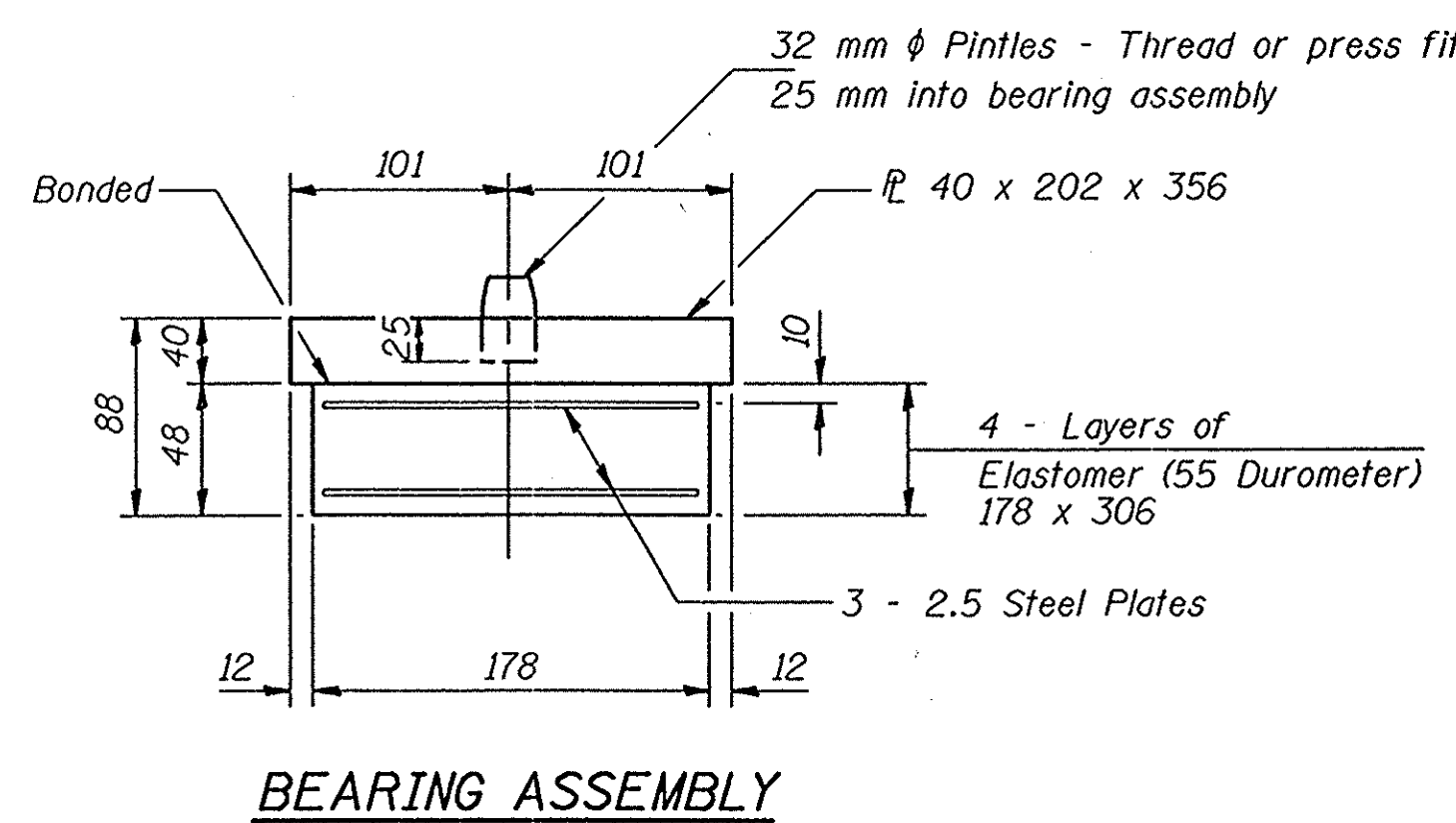
**SECTION A-A**



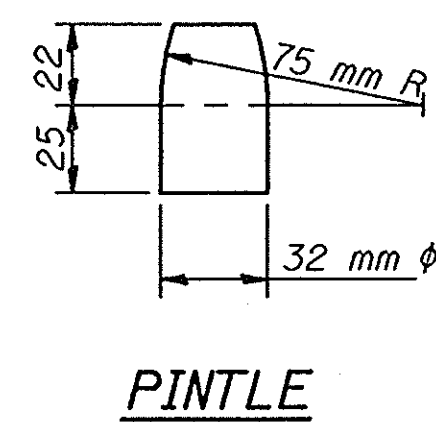
**TOP PLATE**  
(Cast into Slab)

**TYPE I ELASTOMERIC EXP. BRG.**

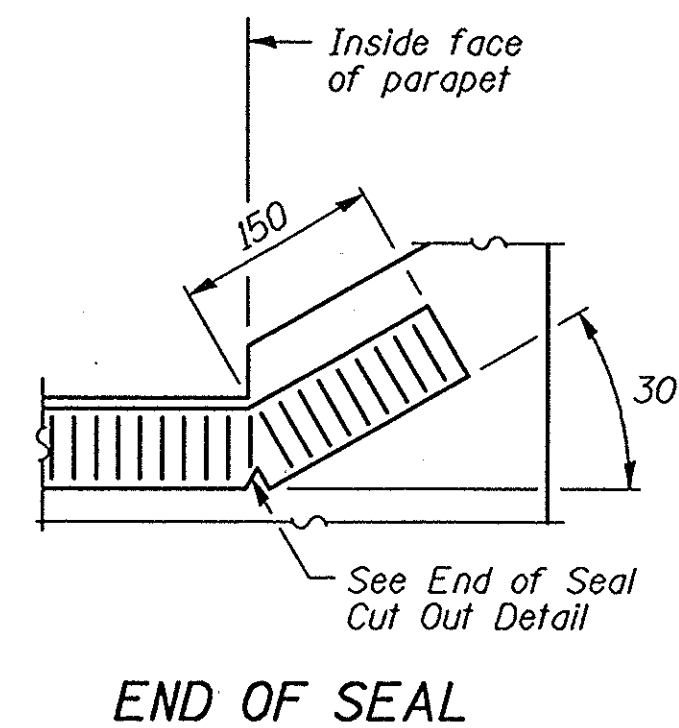
Notes: Elastomeric Bearing Assembly, Side Retainers and Top Plate shall be in place prior to casting slab.  
All dimensions are in millimeters (mm).



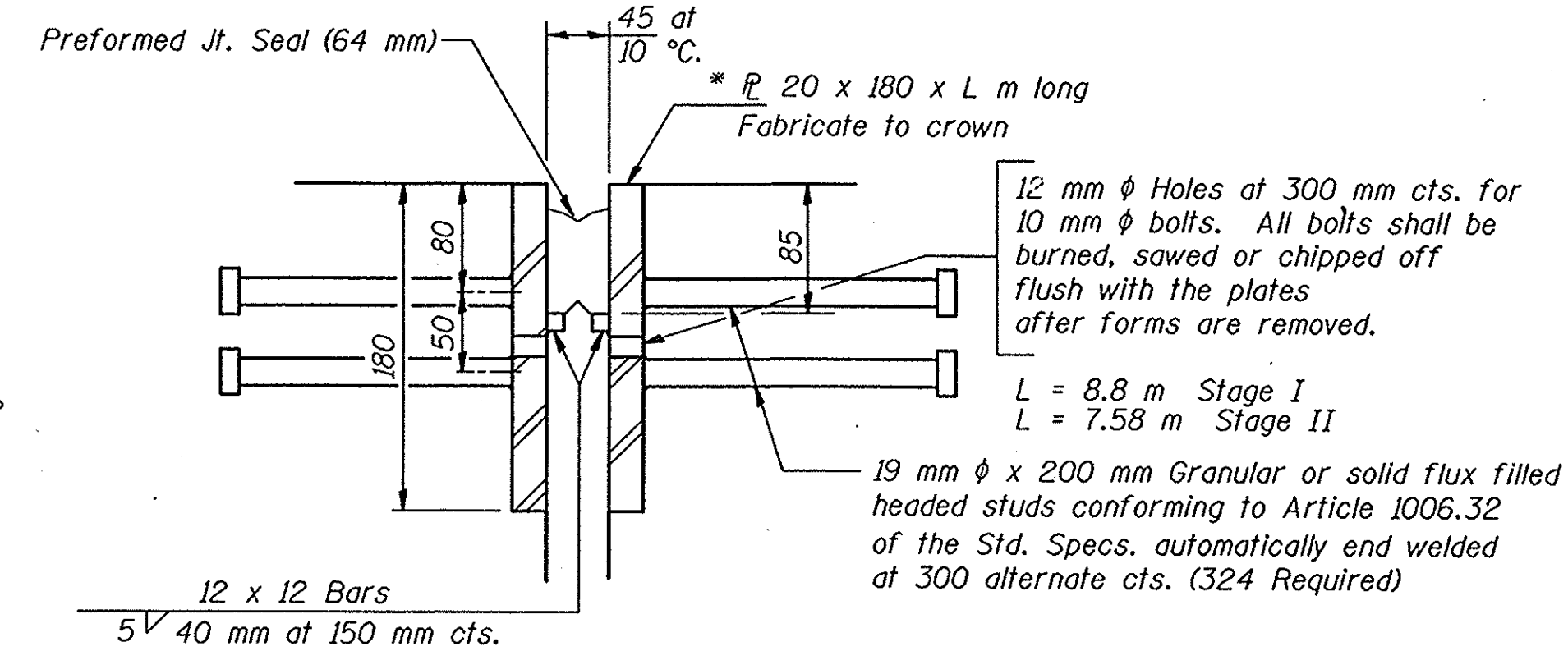
**BEARING ASSEMBLY**



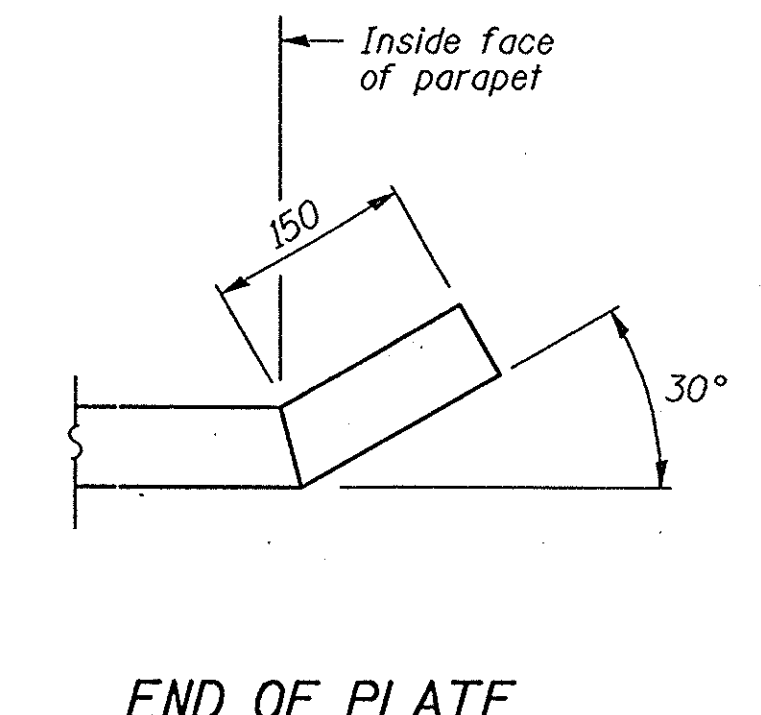
**PINTLE**



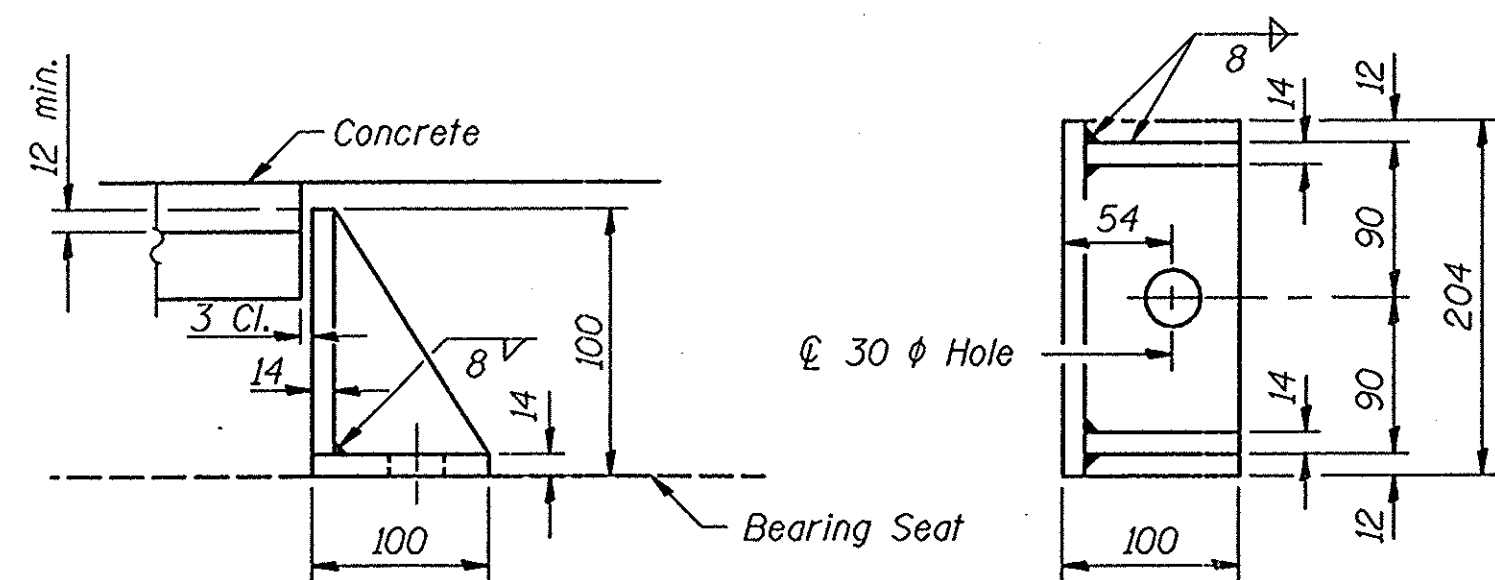
**END OF SEAL**



**DETAIL A**



**END OF PLATE**

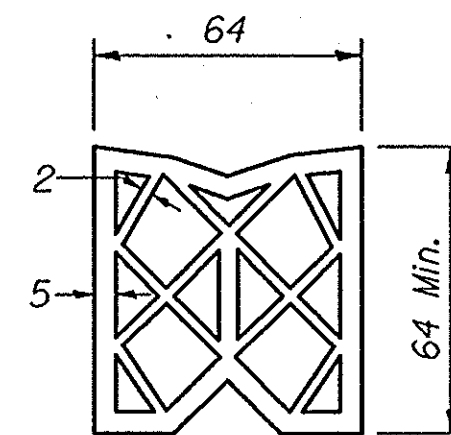


**SIDE RETAINER**

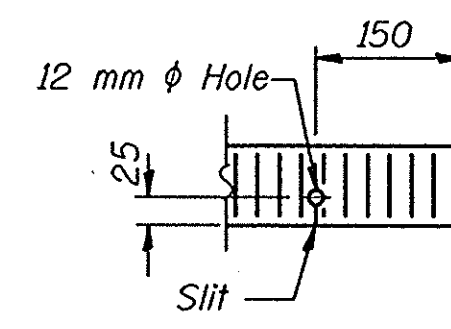
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Note: After fabrication all surfaces of the steel plates shall be given one shop coat of paint specified for Structural Steel. No field painting required.

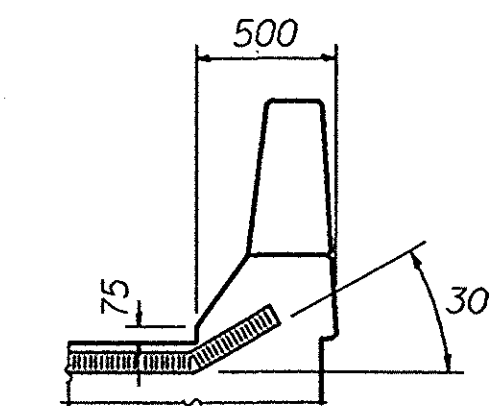
\* Furnish in segments of 6 m maximum length. Maximum space between installed segments shall be 5 mm. Seal space with Silicone Sealant suitable for Structural Steel.



**PREFORMED JOINT SEAL (64 mm)**



**SEAL CUT-OUT**



**END TREATMENT**

Note: Top Plate cast into slab paid for as Furnishing and Erecting Structural Steel.

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	36
Preformed Jt. Seal, 64	m	66
Furnishing and Erecting, Structural Steel	kg	5,460

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
JOINT SEALER &  
ABUTMENT BEARING DETAILS**

FAT ROUTE 80 OVER ABBOTT DITCH  
SECTION 06-1B-2R  
BUREAU COUNTY  
STATION 63+424.374  
S.N. 006-0005 (E.B.), S.N. 006-0006 (W.B.)

SCALE: VERT. DRAWN BY: BISHOP  
HORIZ. DESIGNED BY: FITCH  
DATE: 9/07/01-PAM CHECKED BY: BRADFORD

**GREENE & BRADFORD, INC.**  
OF SPRINGFIELD  
CONSULTING ENGINEERS  
3900 MONROE DRIVE  
SPRINGFIELD, ILLINOIS 62707  
(618) 792-8144 (618) 792-8172 FAX

COMPUTER FILE NO.  
SHT1504-5  
PROJECT 01159  
12/17/01-RPB

PLOTS & CHECKS		
INT.	DATE	REASON

CHECKS		
INT.	DATE	REASON

PI-2E-1 (M) 7-1-94

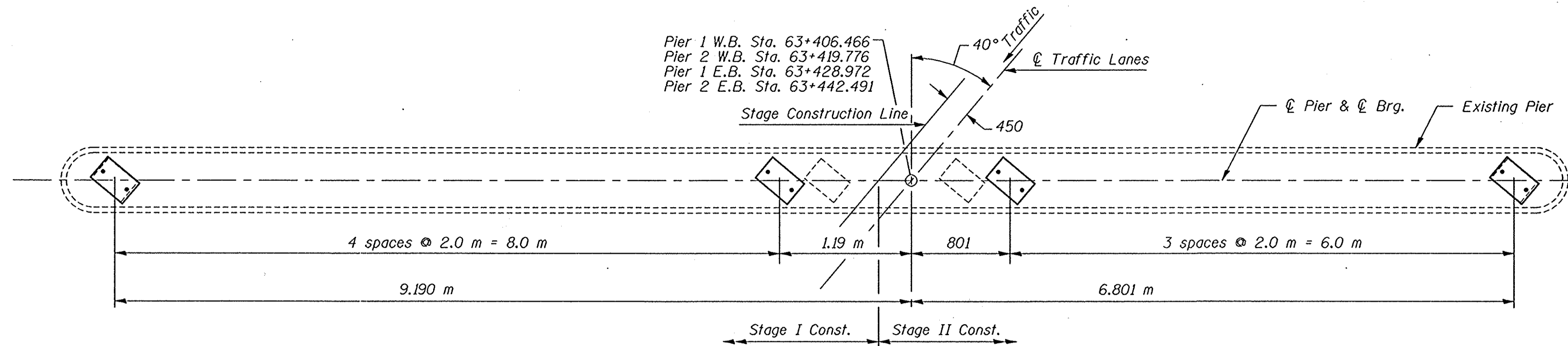
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F.A.I. RTE. 80 - BUREAU COUNTY

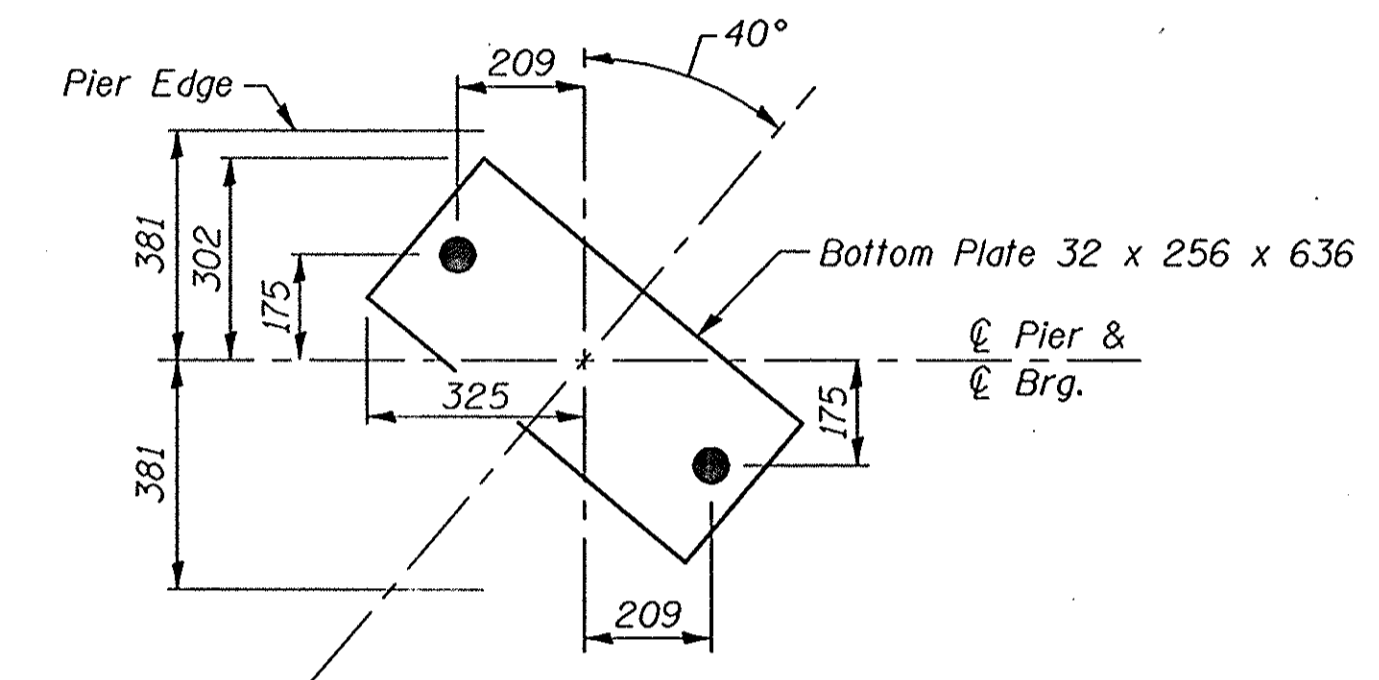
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

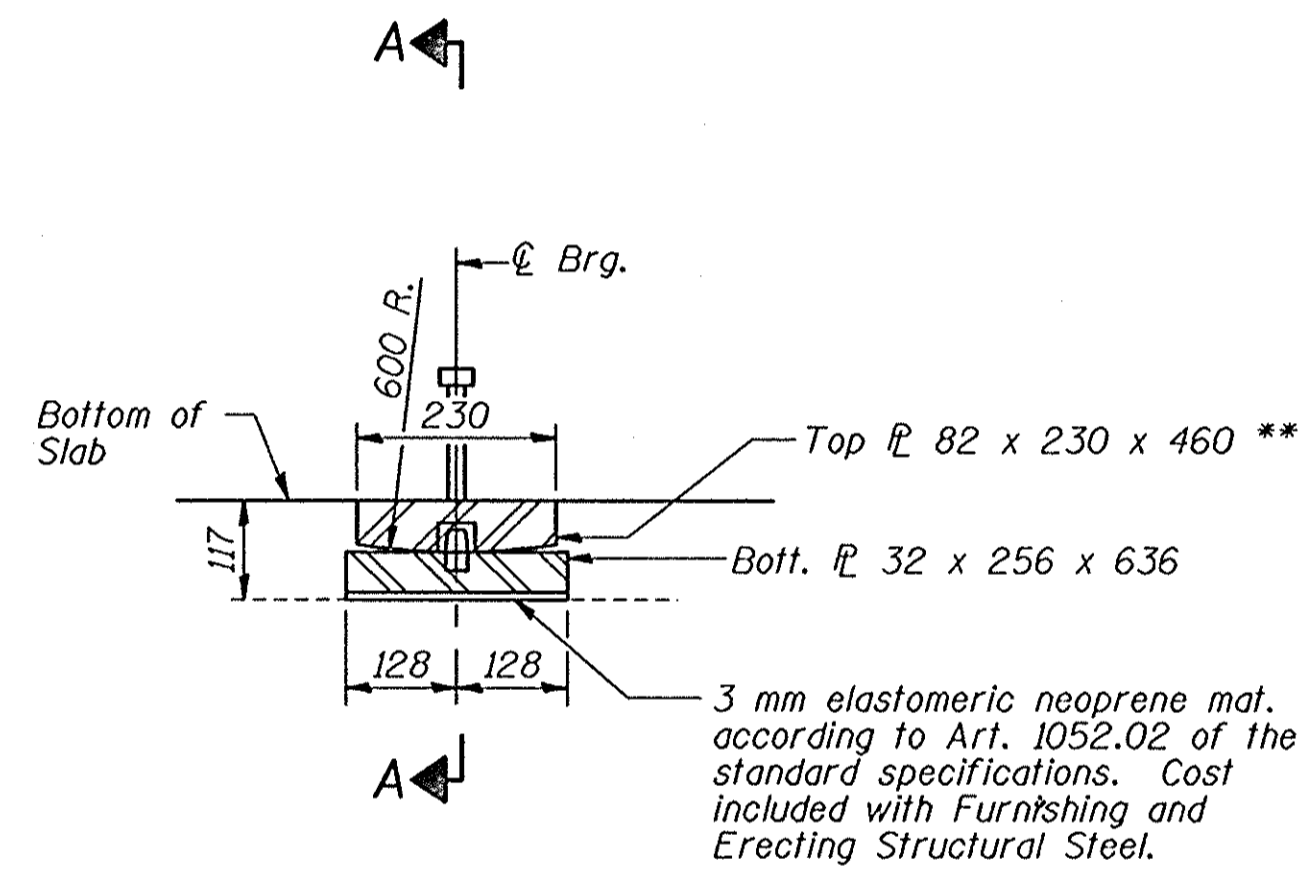
Bridge Sheet 11 of 15 Sheets



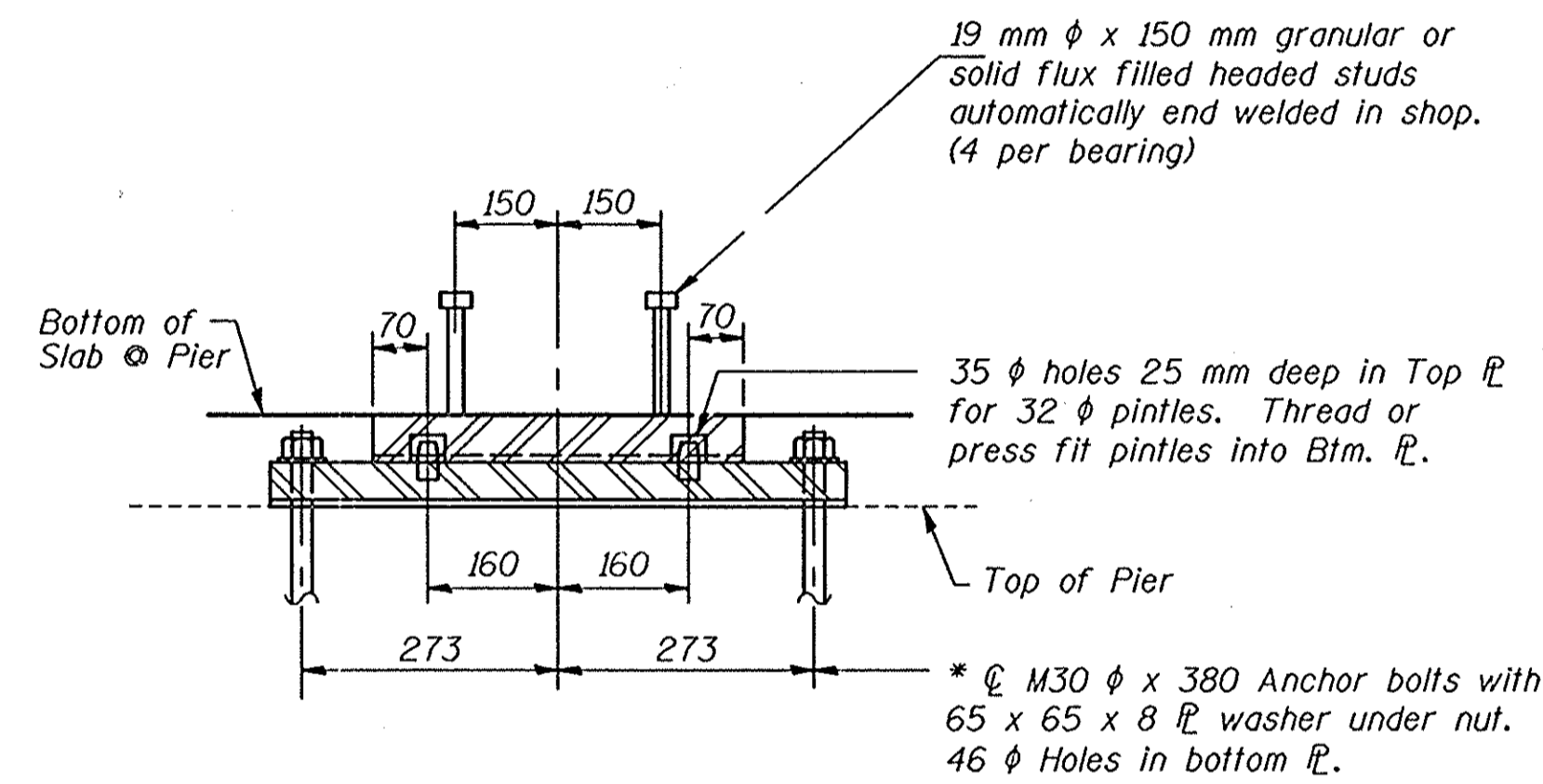
TOP PLAN PIERS 1 & 2



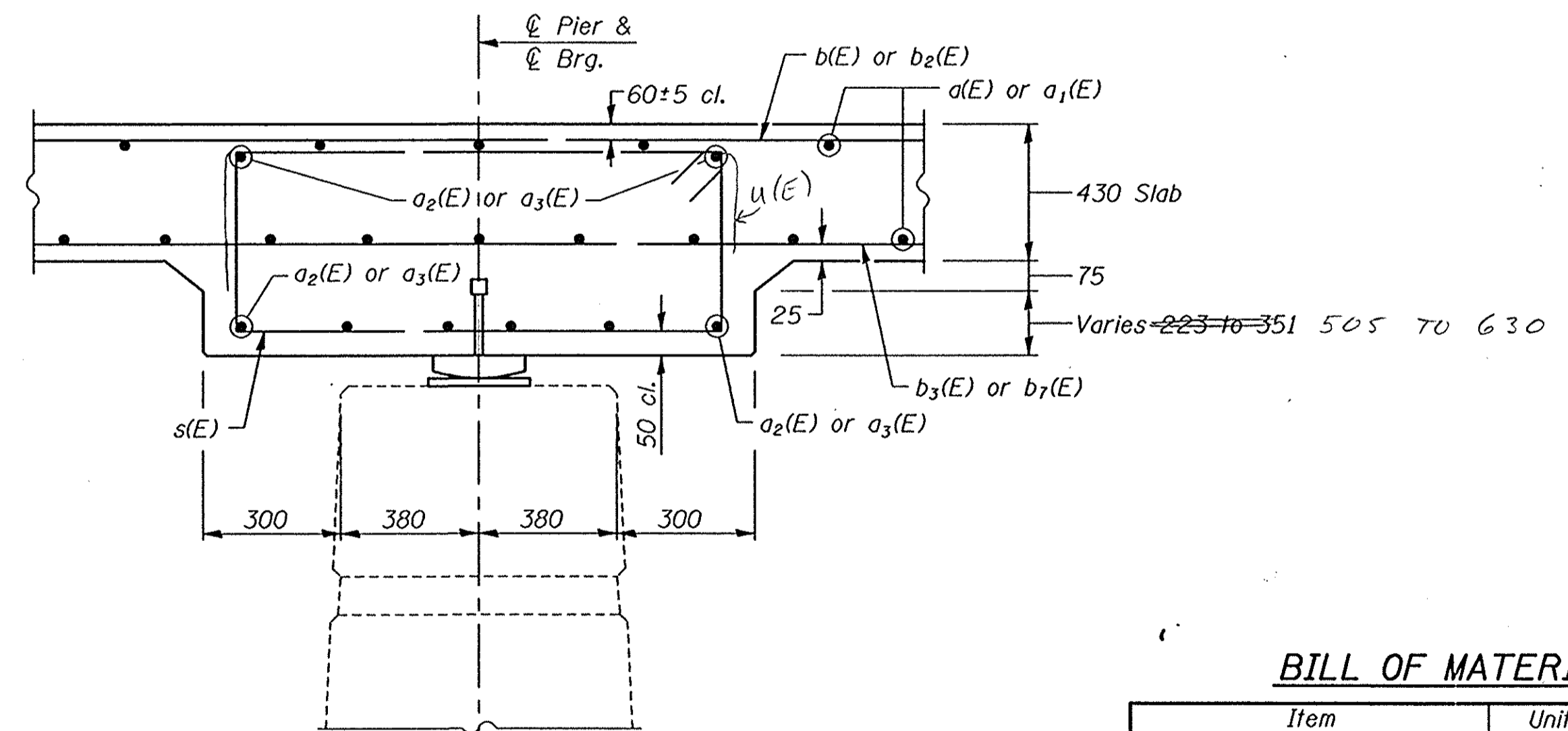
ANCHOR BOLT LOCATION  
(Typical all Piers)



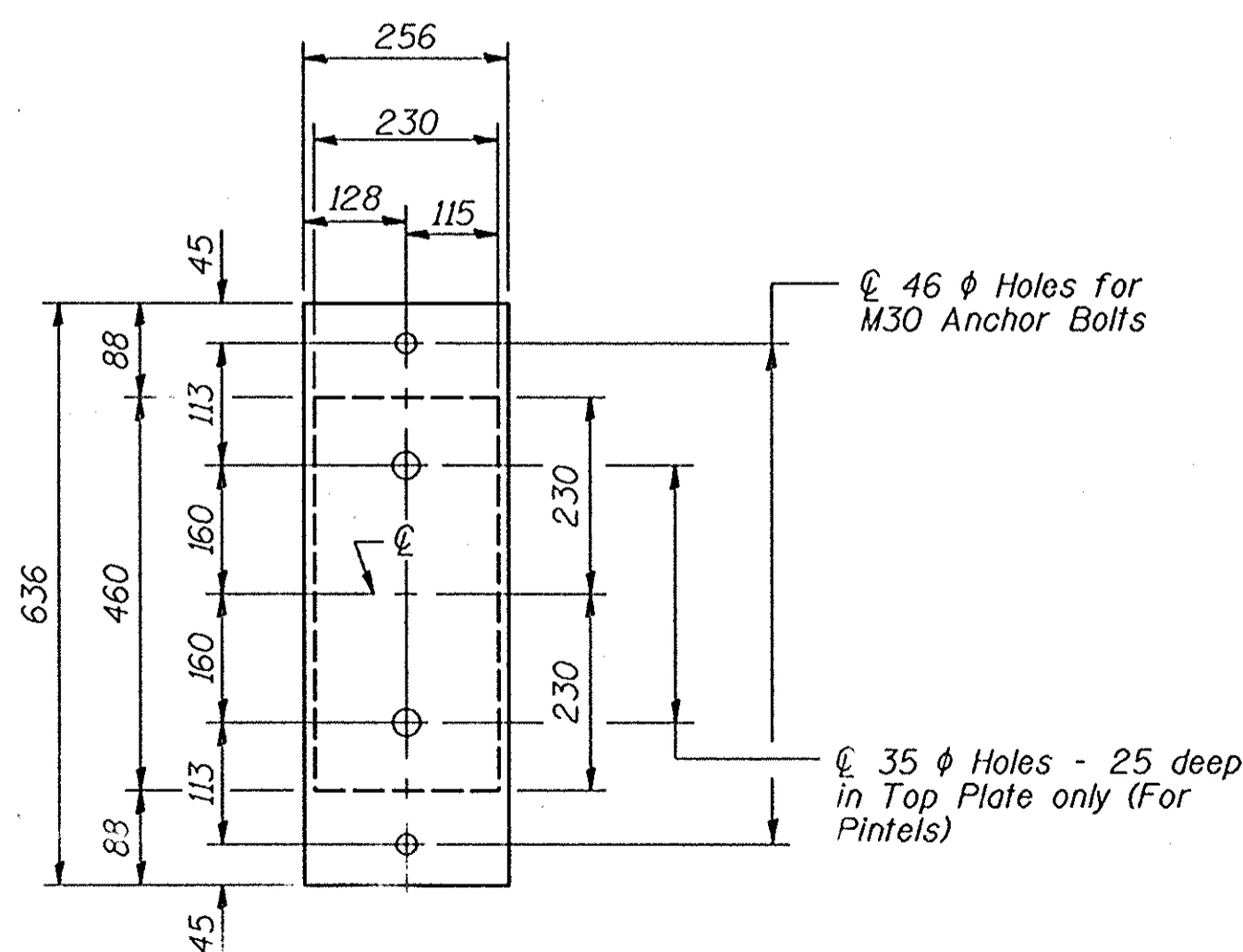
SECTION AT PIER



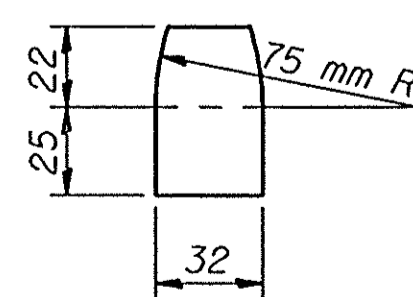
SECTION A-A



SECTION B-B  
@ BRG.



PLAN OF  
TO: BOTTOM PLATES



PINTLE

- \* Anchor bolts shall be drilled and grouted into place and the bearings set prior to superstructure concrete placement. See sheet 9 of 15 for anchor bolt installation. Note: All dimensions are in millimeters (mm) except as noted. Removal of existing bearings included in the cost of "Removal of Existing Superstructure".
- Burn existing anchor bolts flush with existing concrete surface. Grind flush if necessary and seal with epoxy. Cost included with removal of existing Superstructures.
- \*\* Equivalent stacked plates, with an all around partial penetration weld, can be used in lieu of a single plate. The minimum plate thickness shall be 38mm.

FIXED BEARING

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Structural Steel	kg	4,420

ILLINOIS DEPARTMENT OF TRANSPORTATION  
PIER BEARING & DETAILS

FAI ROUTE 80 OVER ABBOTT DITCH  
SECTION 06-1B-2R  
BUREAU COUNTY  
STATION 63+424.374  
S.N. 006-0005 (E.B.)  
S.N. 006-0006 (W.B.)

SCALE: VERT. DATE: 08/28/01-RPB  
DESIGNED BY: BISHOP  
CHECKED BY: BRADFORD

DRAWN BY: BISHOP  
COMPUTER FILE NO. SHT1607-5  
PROJECT 01159  
03/20/02-RPB

REVISIONS	
NAME	DATE
PER B.O.	12/5/01



GREENE & BRADFORD, INC.  
OF SPRINGFIELD  
INSULATING ENGINEERS  
CONSTRUCTION DIVISION  
SPRINGFIELD, ILLINOIS 62701  
ONE THE SQUARE, ONE THE SQUARE

COMPUTER FILE NO. SHT1607-5  
PROJECT 01159  
03/20/02-RPB

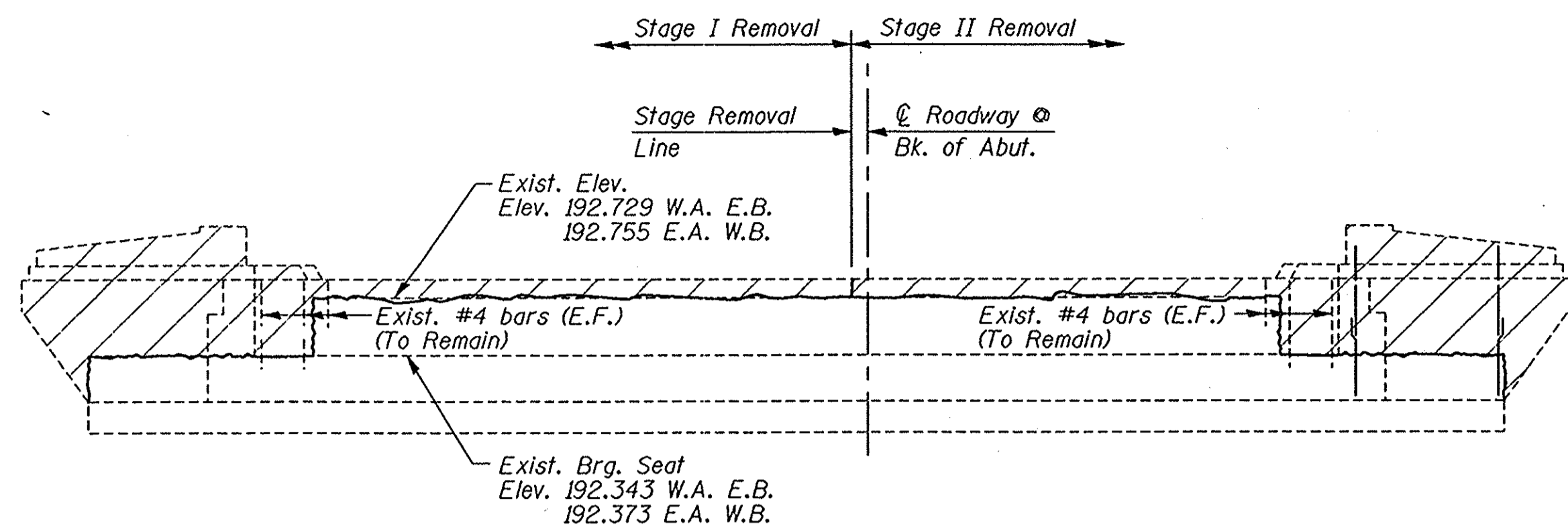
PI-2FB (M) 7-1-94

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-1B-2R	BUREAU	94	68
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

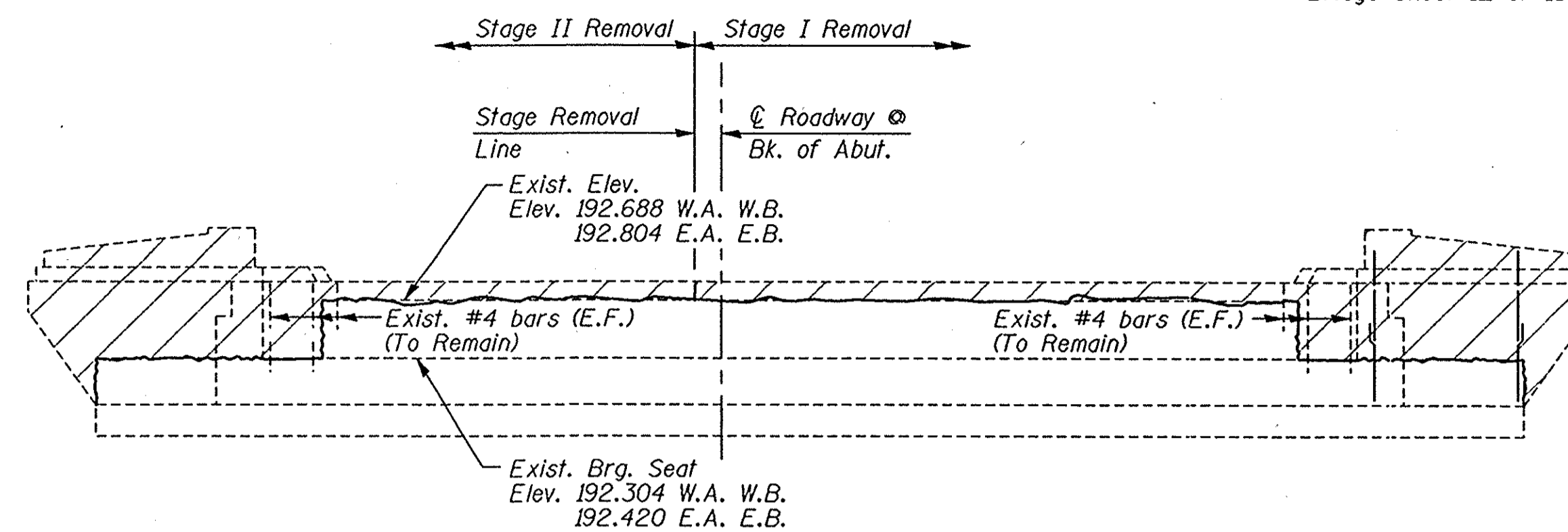
Bridge Sheet 12 of 15 Sheets

DESIGN		
INT.	DATE	REASON



**ELEVATION**

W.A. E.B. (Looking West)  
E.A. W.B. (Looking East)

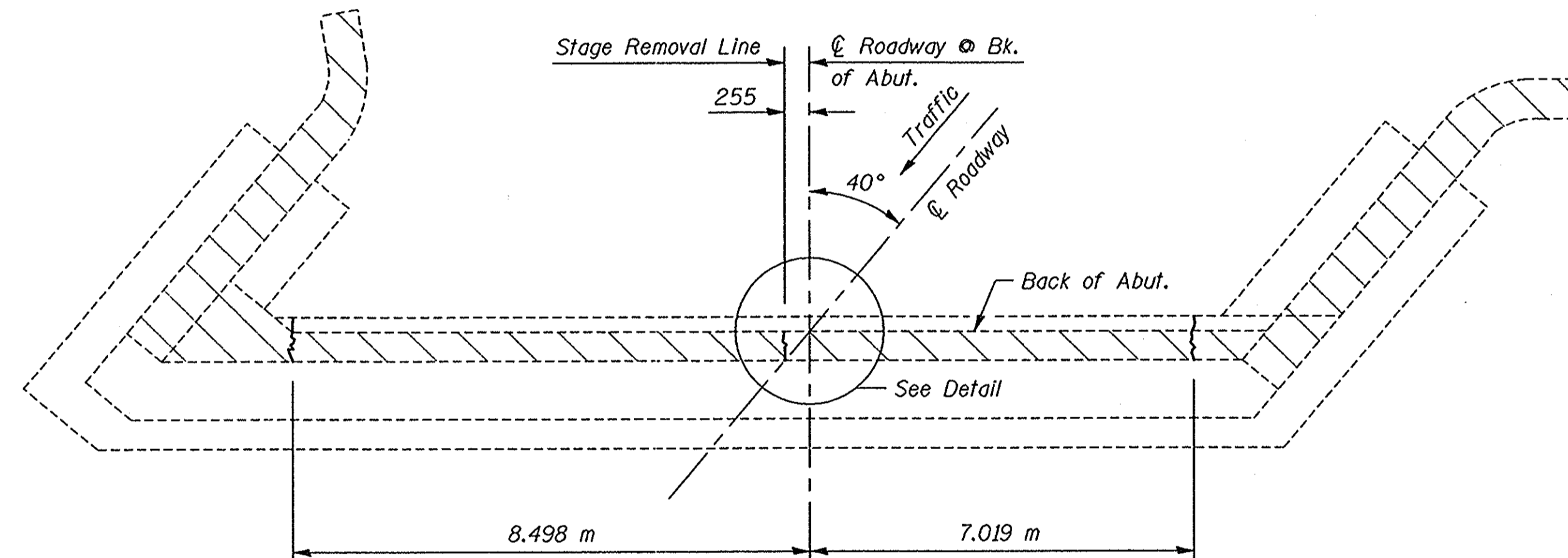


**ELEVATION**

W.A. W.B. (Looking West)  
E.A. E.B. (Looking East)

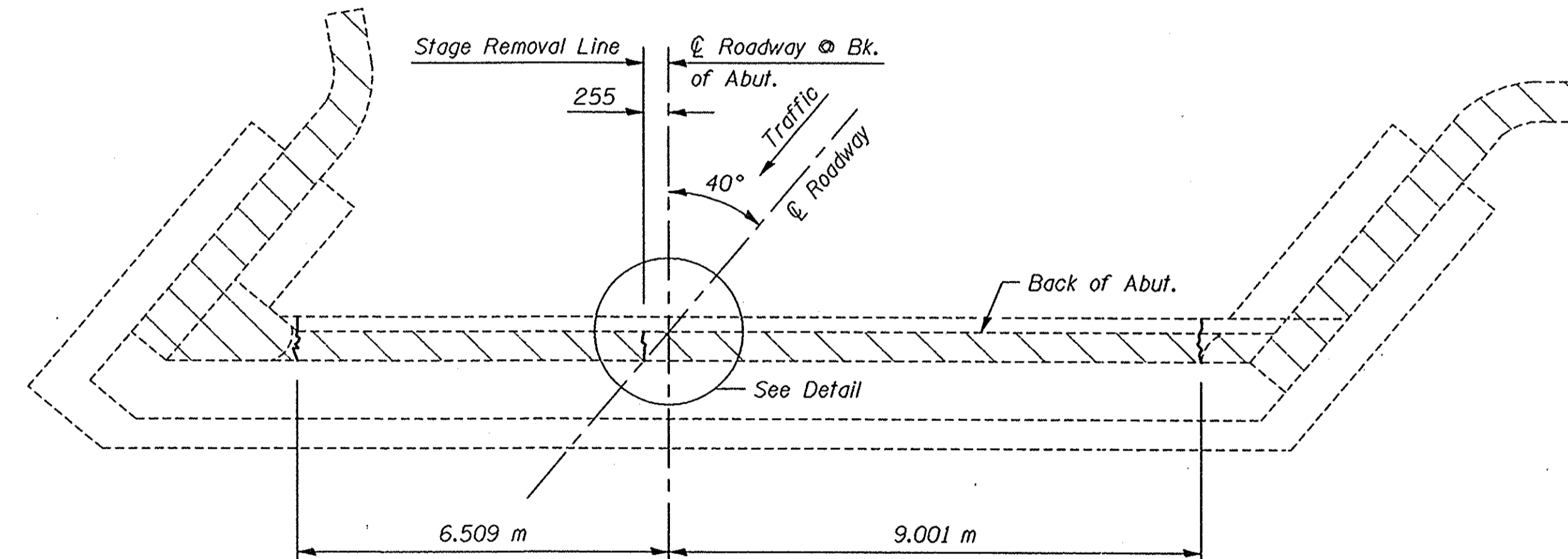
- Notes:
- Hatched area indicates Concrete Removal.
  - Existing Reinf. extending into new concrete shall be cleaned, straightened and incorporated into new construction. Cost included with Concrete Removal.
  - Existing Reinf. not extending into new concrete shall be cut off flush.
  - See Sheet 13 of 15 for Concrete Removal Quantity.

PLOTS & CHECKS		
INT.	DATE	REASON



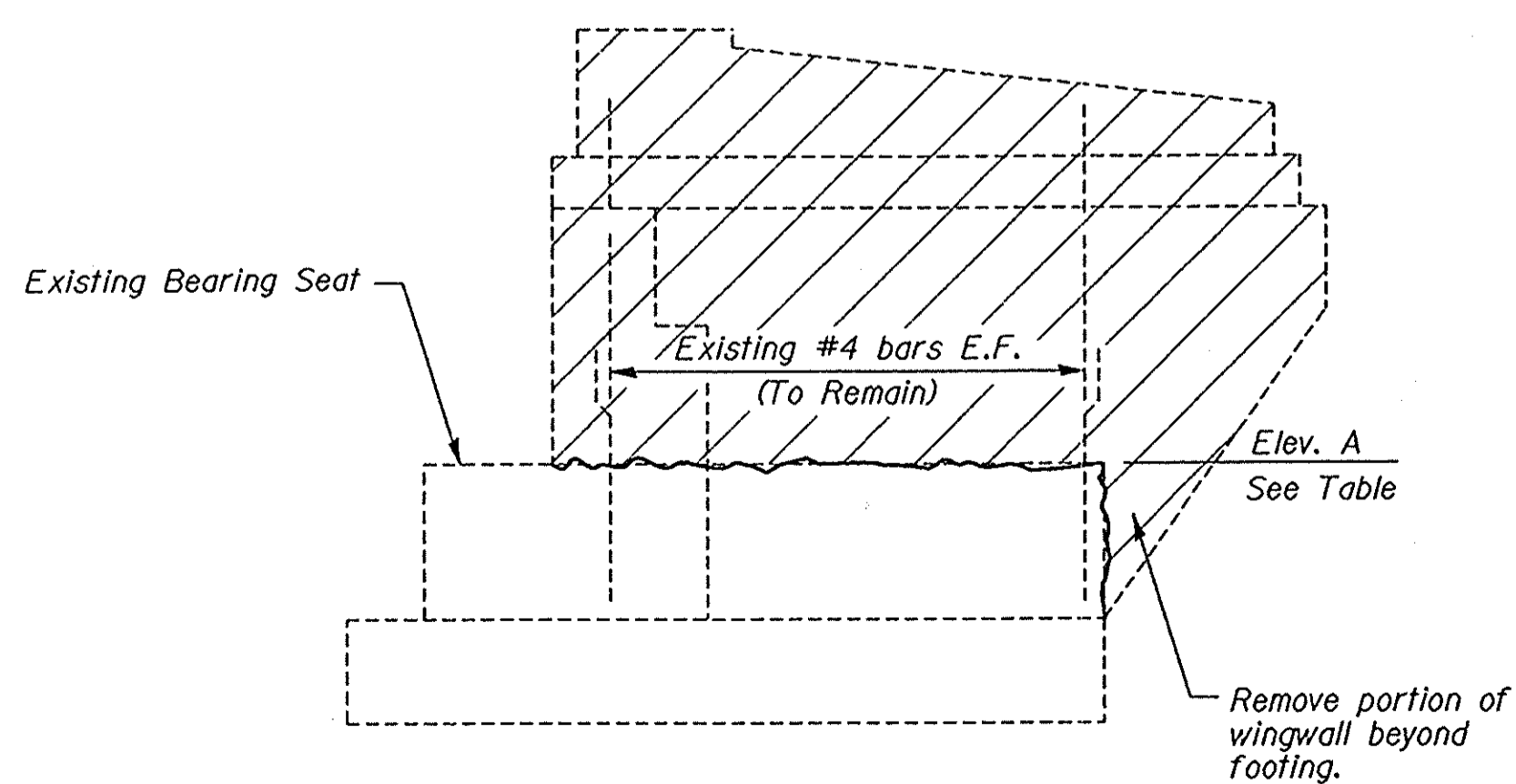
**PLAN**

(W.A. E.B. & E.A. W.B.)



**PLAN**

(W.A. W.B. & E.A. E.B.)

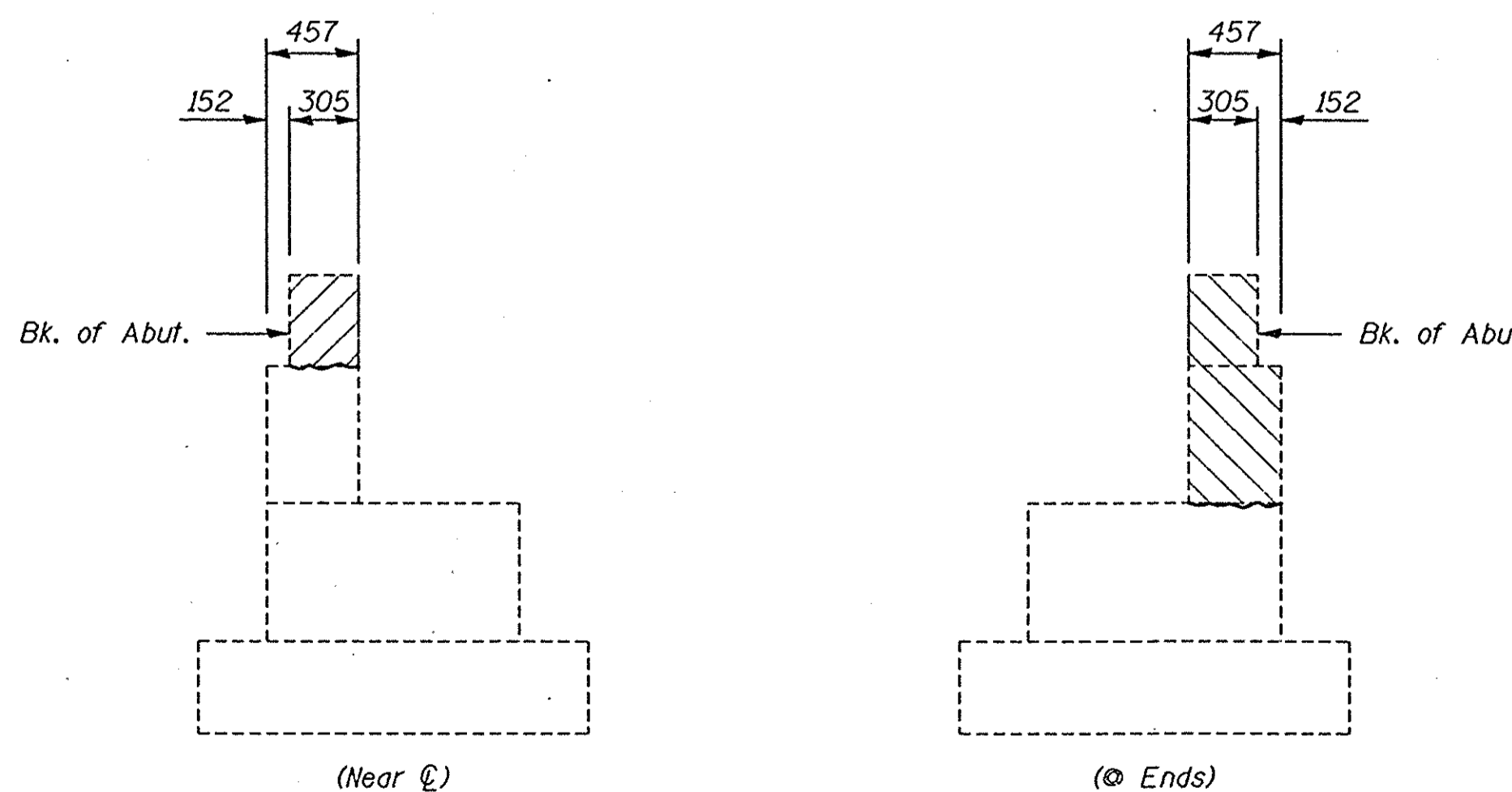


**EXISTING WINGWALL REMOVAL**

(Typical)

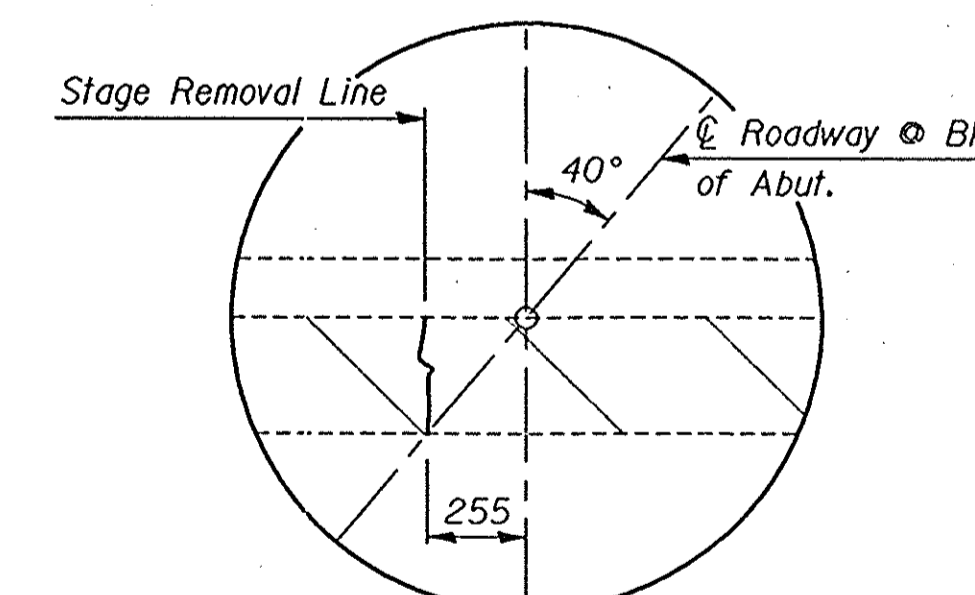
**ELEVATION A**

REVISIONS	
Location	Elevation
W.A. E.B.	192.343
E.A. W.B.	192.373
W.A. W.B.	192.304
E.A. E.B.	192.420



**EXISTING ABUTMENT REMOVAL**

Dimensions are at Right Angles.



**DETAIL**

CHECKS		
INT.	DATE	REASON

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**ABUTMENT REMOVAL**  
FAI ROUTE 80 OVER ABBOTT DITCH  
SECTION 06-1B-2R  
BUREAU COUNTY  
STATION 63+424.374  
S.N. 006-0005 (E.B.)  
S.N. 006-0006 (W.B.)

SCALE: VERT. HORIZ.  
DATE: 08/28/01-RPB

DRAWN BY: BISHOP  
DESIGNED BY: FITCH  
CHECKED BY: BRADFORD

COMPUTER FILE NO. SHT1610-5  
PROJECT 01159  
12/05/01-RPB

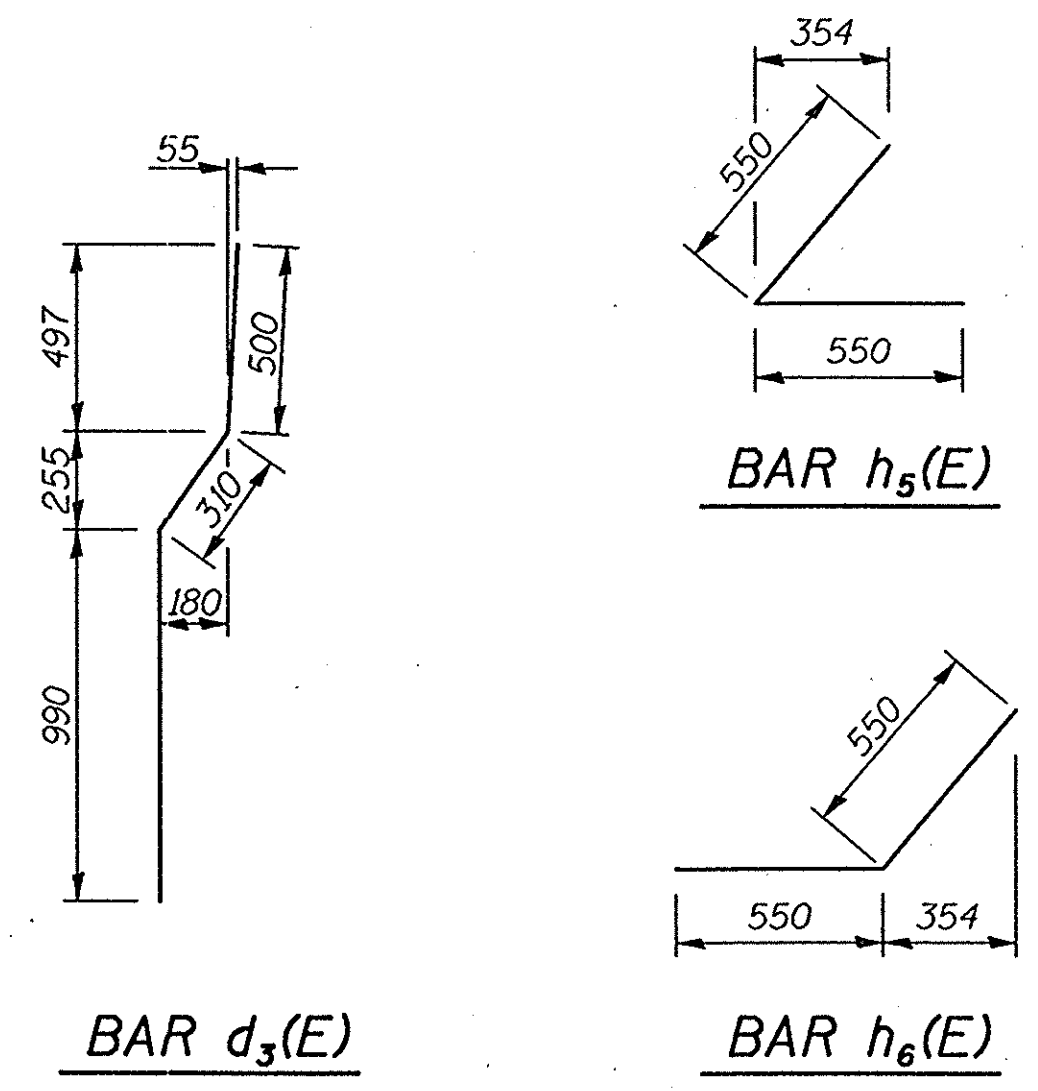
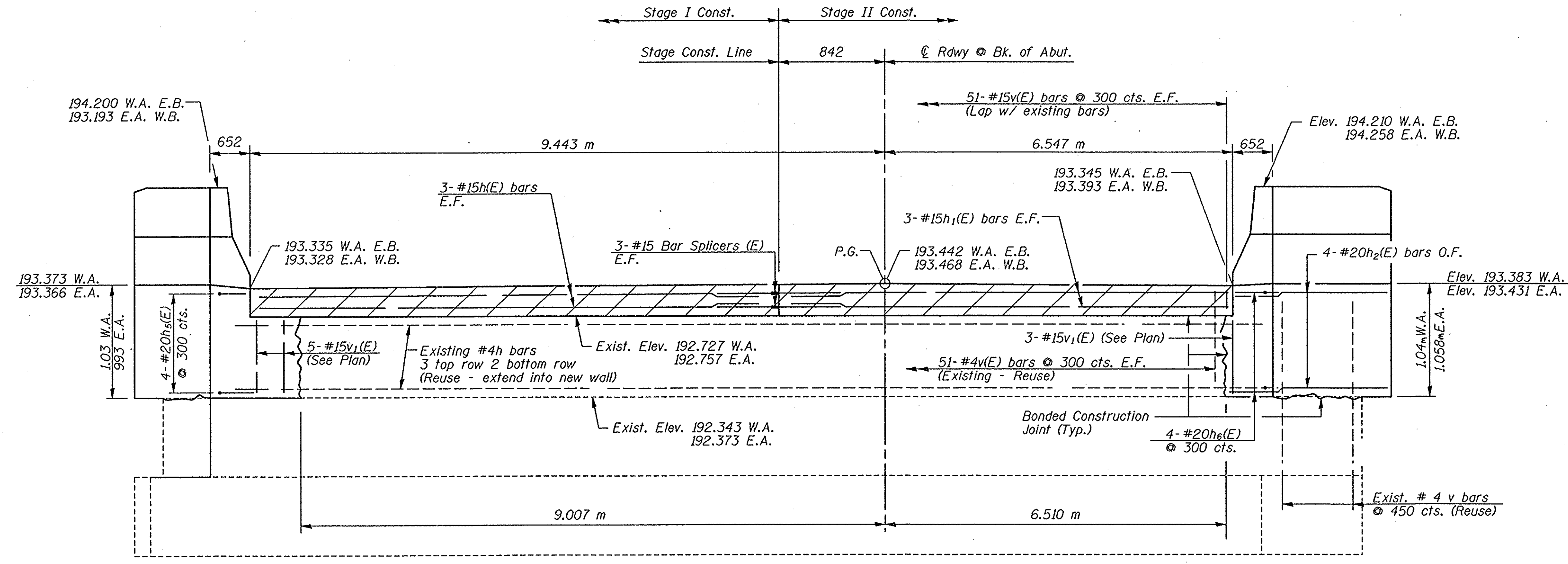
GREENE & BRADFORD, INC.  
OF SPRINGFIELD  
CONSULTING ENGINEERS  
320 COMMERCIAL DRIVE  
SPRINGFIELD, ILLINOIS 62761  
(618) 793-8444, (618) 793-4337 FAX

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-1B-2R	BUREAU	94	69
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Bridge Sheet 13 of 15 Sheets

DESIGN		
INT.	DATE	REASON



ELEVATION

Hatched portion to be poured after each Stage of Superstructure forms are removed.

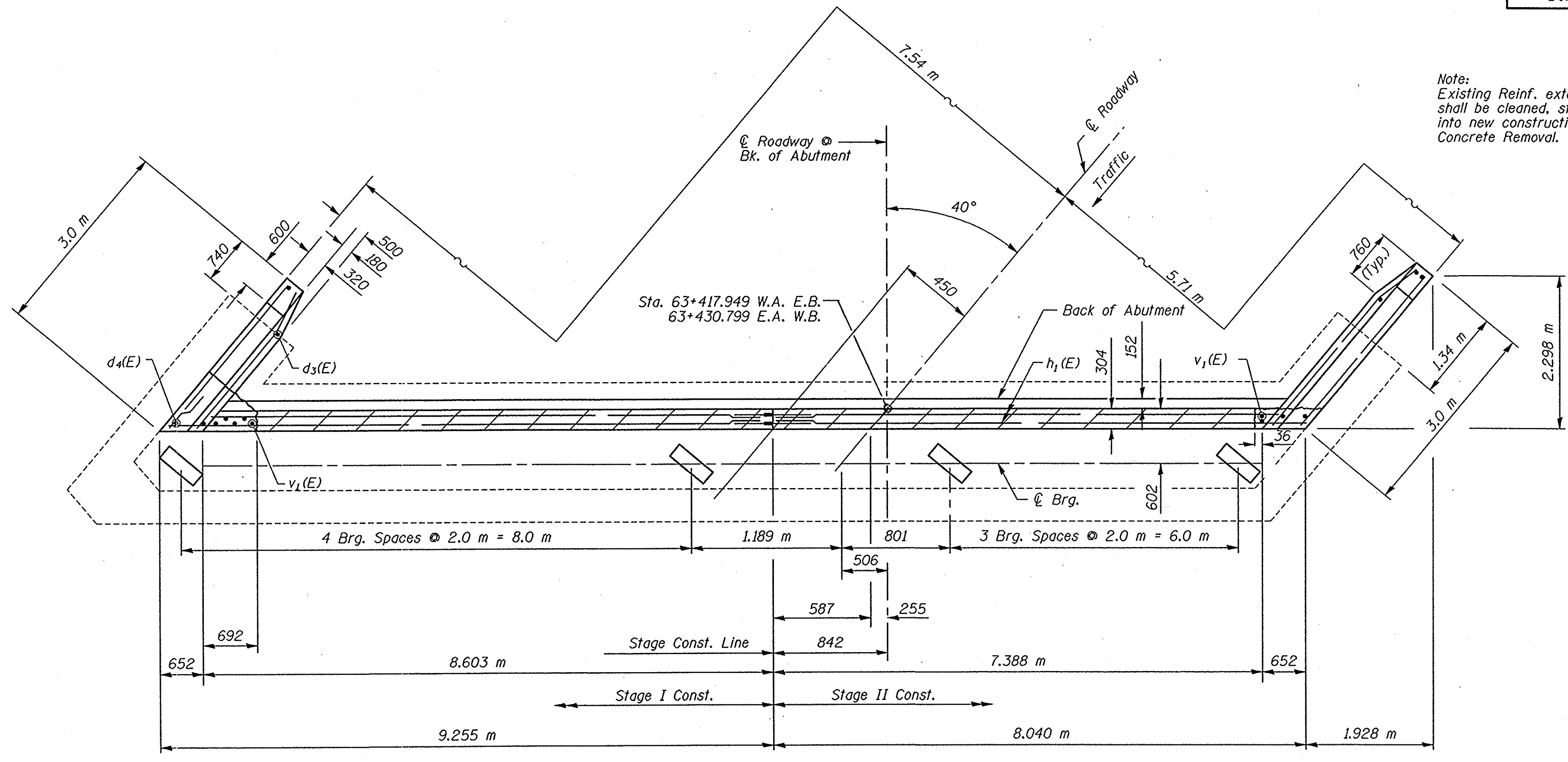
Note: See Sheet 8 for Wingwall/Parapet Details.

Note: Existing Reinf. extending into new concrete shall be cleaned, straightened and incorporated into new construction. Cost included with Concrete Removal.

BILL OF MATERIALS  
WEST ABUT. (E.B.)  
EAST ABUT. (W.B.)

Bar	No.	Size	Length	Shape
d <sub>3</sub> (E)	38	#15	1.80	—
d <sub>4</sub> (E)	34	#15	1.78	—
e <sub>4</sub> (E)	12	#15	2.92	—
e <sub>5</sub> (E)	6	#15	3.30	—
e <sub>6</sub> (E)	6	#15	2.50	—
e <sub>7</sub> (E)	4	#25	2.92	—
e <sub>8</sub> (E)	2	#25	3.30	—
e <sub>9</sub> (E)	2	#25	2.50	—
h(E)	12	#15	8.26	—
h <sub>1</sub> (E)	12	#15	7.30	—
h <sub>2</sub> (E)	16	#20	2.92	—
h <sub>3</sub> (E)	8	#20	3.30	—
h <sub>4</sub> (E)	8	#20	2.50	—
h <sub>5</sub> (E)	8	#20	1.10	—
h <sub>6</sub> (E)	8	#20	1.10	—
v(E)	204	#15	0.490	—
v <sub>1</sub> (E)	16	#15	0.300	—
Concrete Removal		m <sup>3</sup>	6.6	
Concrete Structures		m <sup>3</sup>	9.8	
Reinforcement Bars Epoxy Coated		kg	1,125	
Bar Splicers		Each	12	

PLOTS & CHECKS		
INT.	DATE	REASON



PLAN

CHECKS		
INT.	DATE	REASON

REVISIONS	
NAME	DATE
PER B.O.	12/5/01

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**ABUTMENT DETAILS**  
FAI ROUTE 80 OVER ABBOTT DITCH  
SECTION 06-1B-2R  
BUREAU COUNTY  
STATION 63+424.374  
S.N. 006-0005 (E.B.)  
S.N. 006-0006 (W.B.)

SCALE: VERT. HORIZ.  
DATE: 08/28/01-RPB

DRAWN BY: BISHOP  
DESIGNED BY: FITCH  
CHECKED BY: BRADFORD

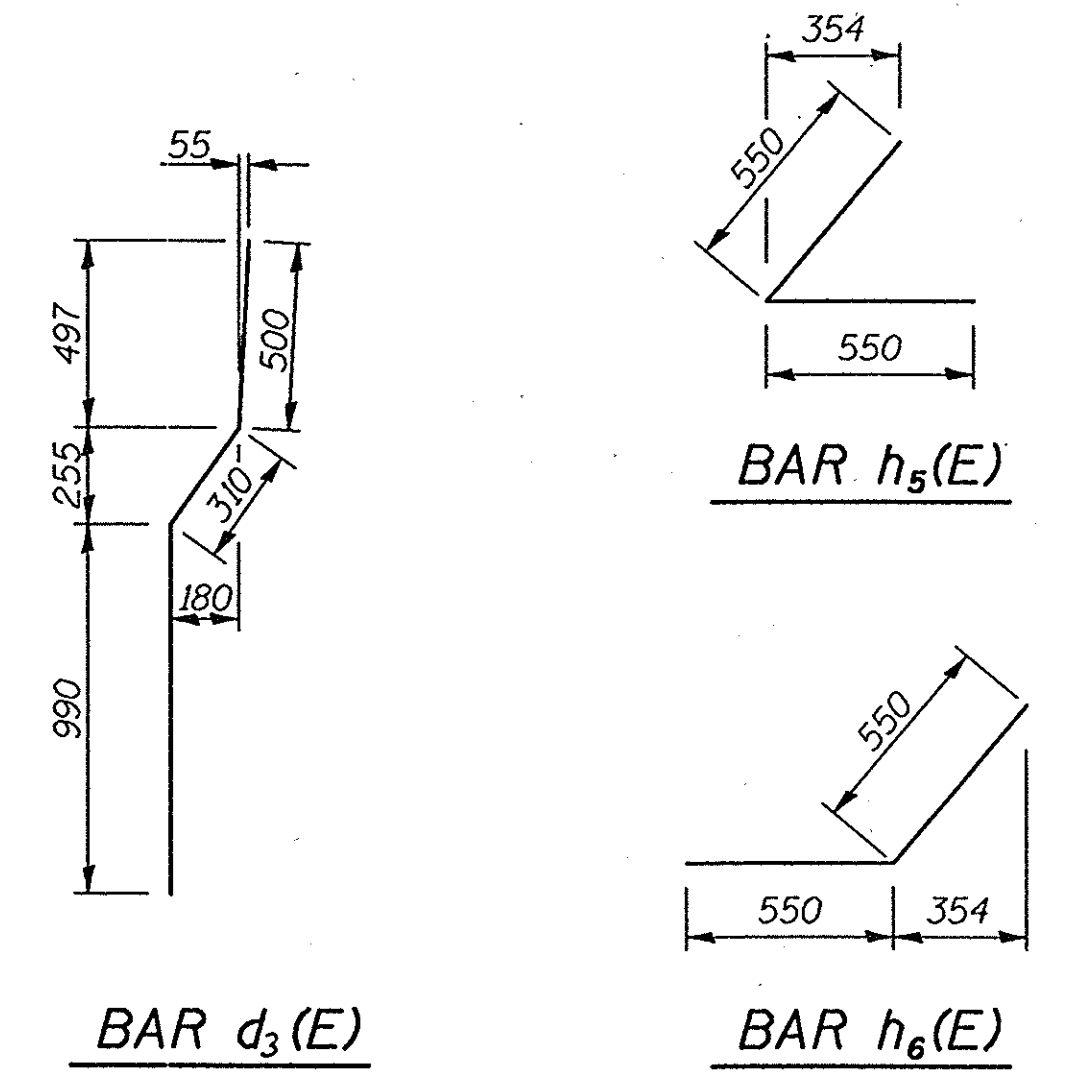
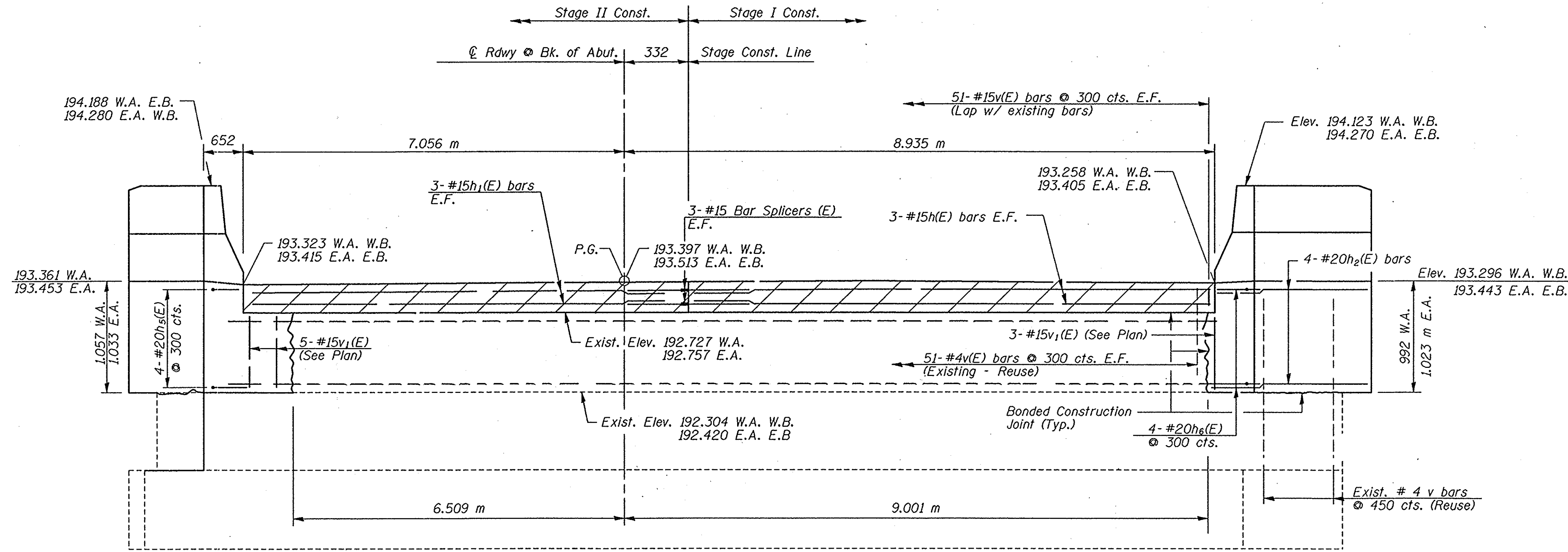
COMPUTER FILE NO. SHT1612-5  
PROJECT 01159  
12/05/01-RPB

GREENE & BRADFORD, INC.  
OF SPRINGFIELD  
CONSULTING ENGINEERS  
300 COMMERCIAL DRIVE  
SPRINGFIELD, ILLINOIS 62701  
618-793-8444, 618-793-4257 FAX

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-18-2R	BUREAU	94	70
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

Bridge Sheet 14 of 15 Sheets



**BILL OF MATERIALS**  
**WEST ABUT. (W.B.)**  
**EAST ABUT. (E.B.)**

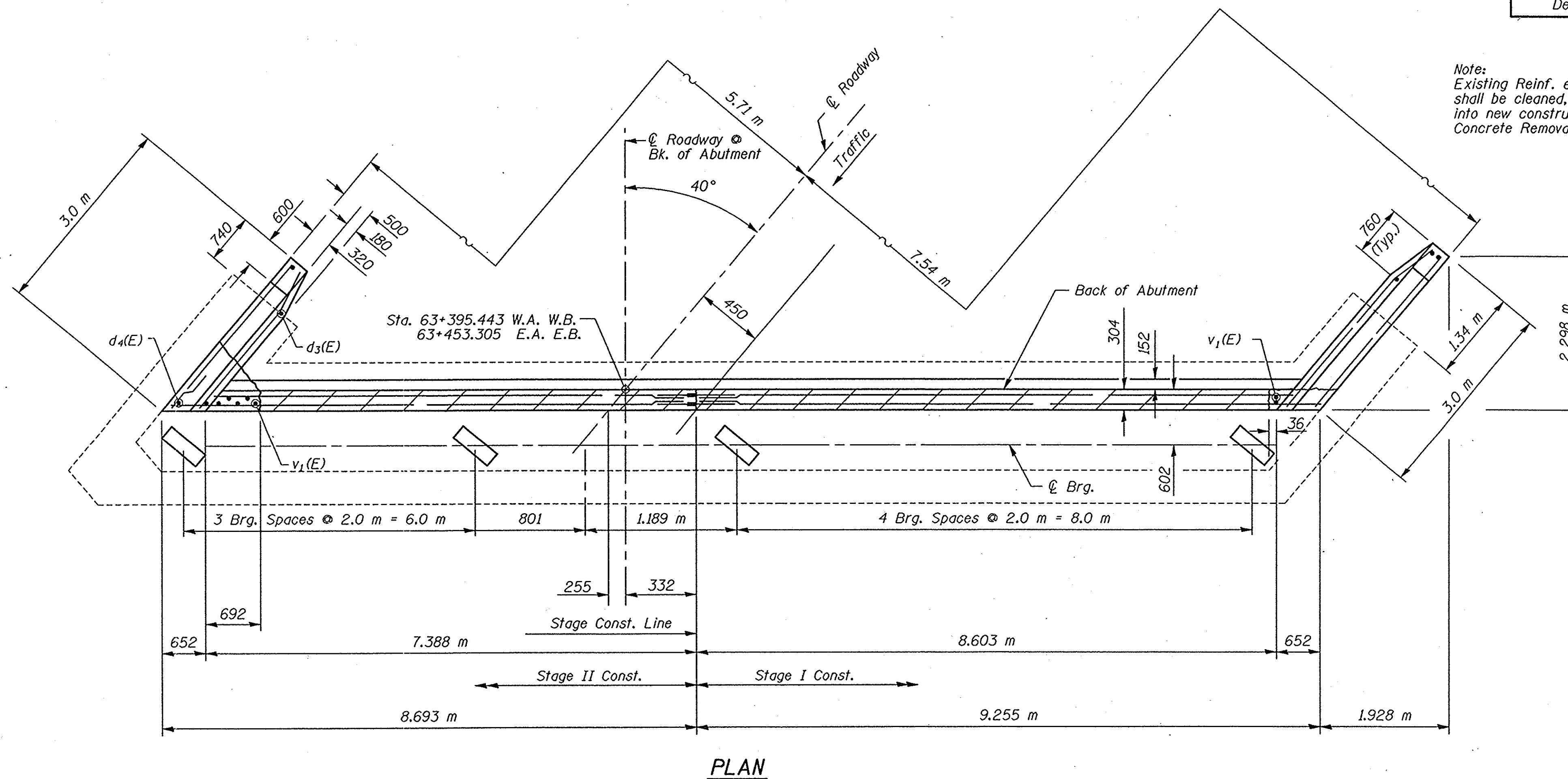
Bar	No.	Size	Length	Shape
d3(E)	38	#15	1.80	—
d4(E)	34	#15	1.78	—
e4(E)	12	#15	2.92	—
e5(E)	6	#15	3.30	—
e6(E)	6	#15	2.50	—
e7(E)	4	#25	2.92	—
e8(E)	2	#25	3.30	—
e9(E)	2	#25	2.50	—
h(E)	12	#15	8.26	—
h1(E)	12	#15	7.30	—
h2(E)	16	#20	2.92	—
h3(E)	8	#20	3.30	—
h4(E)	8	#20	2.50	—
h5(E)	8	#20	1.10	—
h6(E)	8	#20	1.10	—
v(E)	204	#15	0.490	—
v1(E)	16	#15	0.300	—
Concrete Removal		m <sup>3</sup>	6.6	
Concrete Structures		m <sup>3</sup>	9.8	
Reinforcement Bars Epoxy Coated		kg	1,125	
Bar Splicers		Each	12	

**ELEVATION**

Hatched portion to be poured after each Stage of Superstructure forms are removed.

Note: See Sheet 8 for Wingwall/Parapet Details.

Note: Existing Reinf. extending into new concrete shall be cleaned, straightened and incorporated into new construction. Cost included with Concrete Removal.



**PLAN**

DESIGN		
INT.	DATE	REASON

PLOTS & CHECKS			
INT.	DATE	NO.	REASON

CHECKS		
INT.	DATE	REASON

REVISIONS	
NAME	DATE
PER B.O.	12/5/01

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**ABUTMENT DETAILS**  
FAI ROUTE 80 OVER ABBOTT DITCH  
SECTION 06-18-2R  
BUREAU COUNTY  
STATION 63+424.374  
S.N. 006-0005 (E.B.)  
S.N. 006-0006 (W.B.)

SCALE: VERT. 1"=4'-0"  
HORIZ. 1"=40'-0"

DATE: 08/28/01-RPB

DRAWN BY: BISHOP  
DESIGNED BY: FITCH  
CHECKED BY: BRADFORD

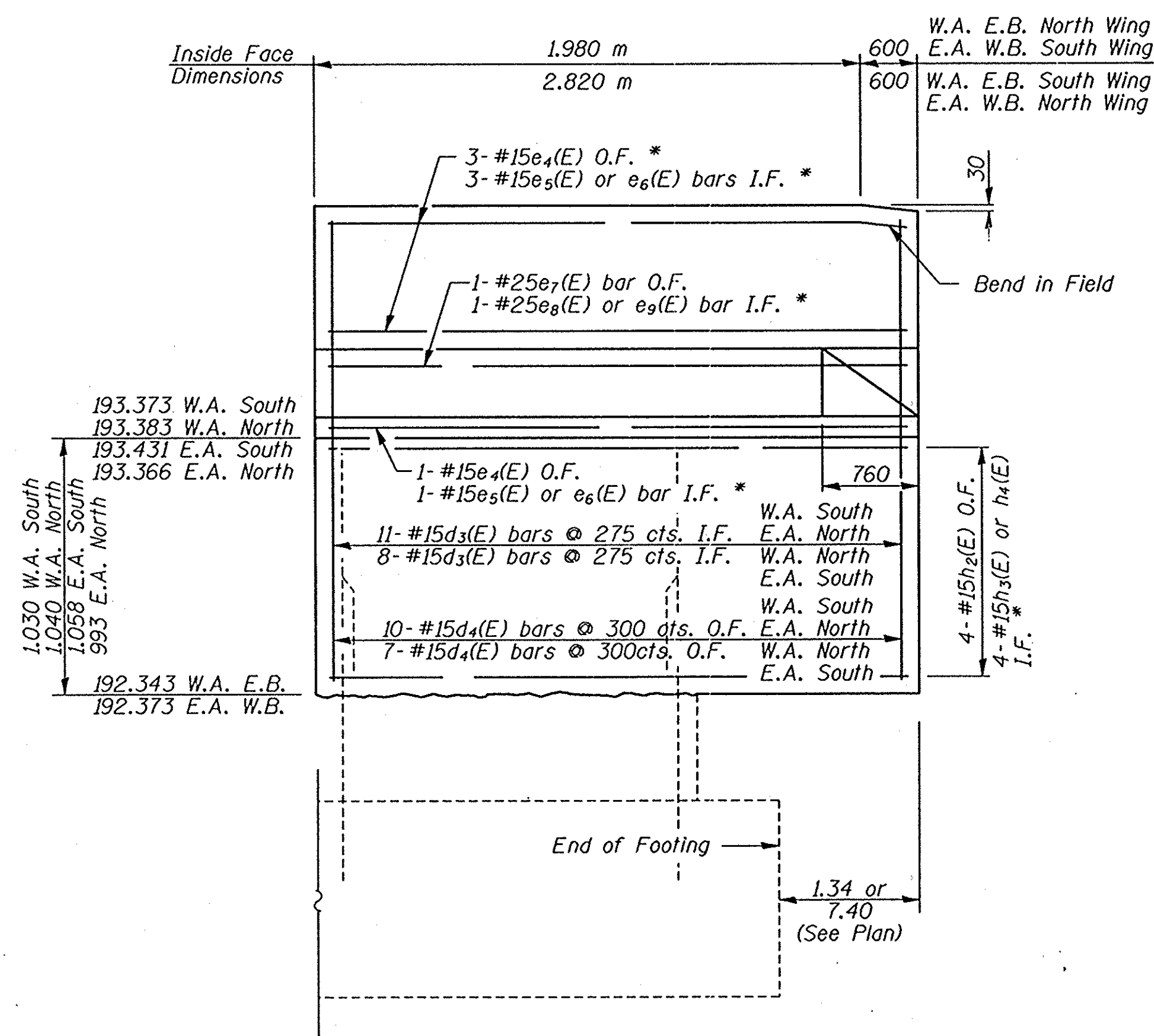
COMPUTER FILE NO. SHT1611-5  
PROJECT 01159  
12/05/01-RPB

GREENB & BRADFORD, INC.  
OF SPRINGFIELD  
CONSULTING ENGINEERS  
200 EAST WASHINGTON STREET  
SPRINGFIELD, ILLINOIS 62761  
618-793-4414, 618-793-4277 FAX

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

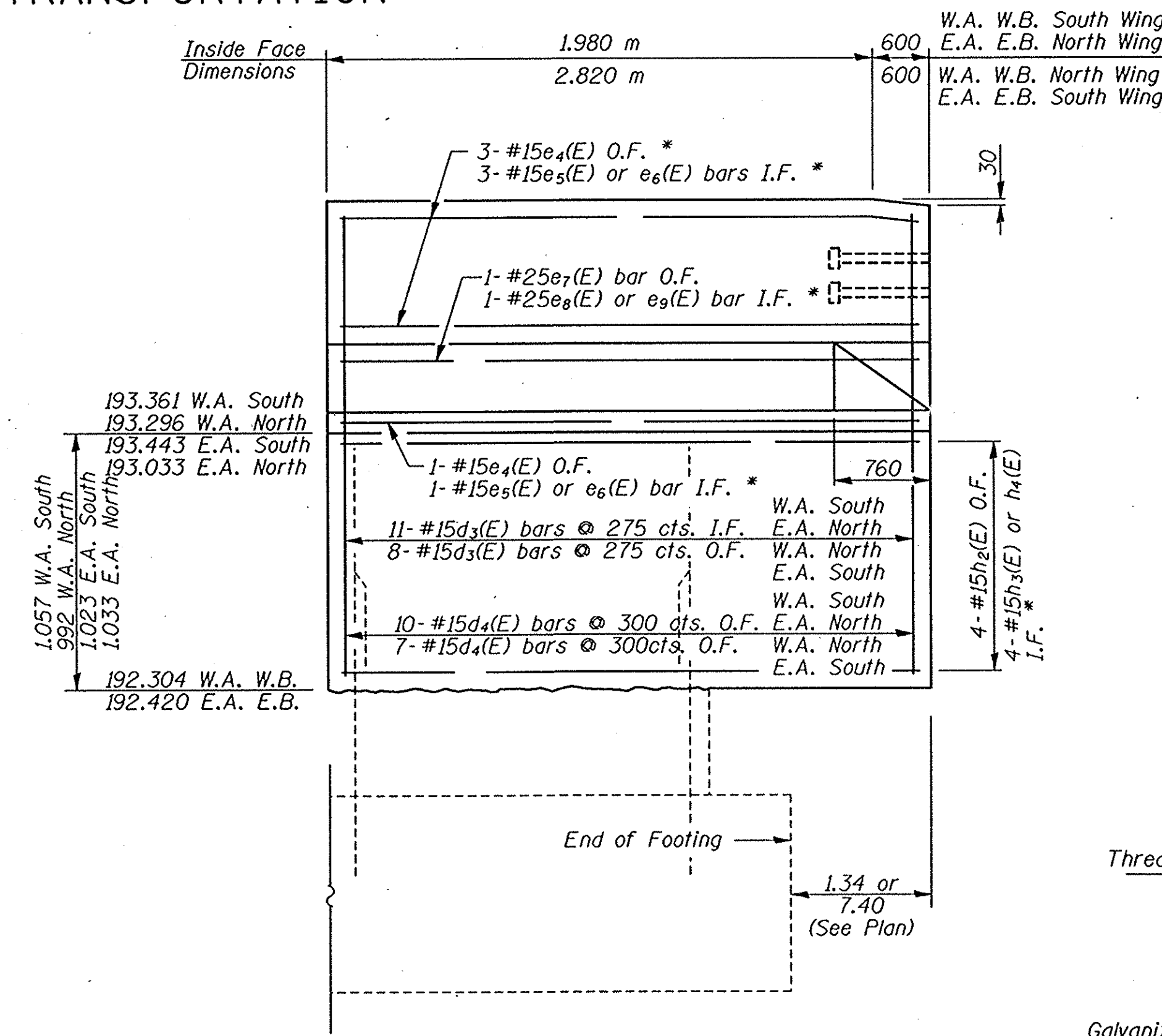
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-1B-2R	BUREAU	94	71
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Bridge Sheet 15 of 15 Sheets



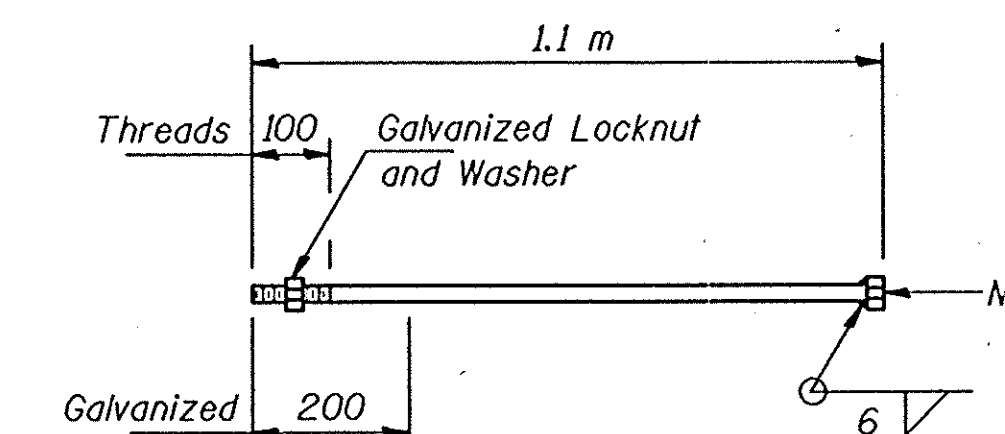
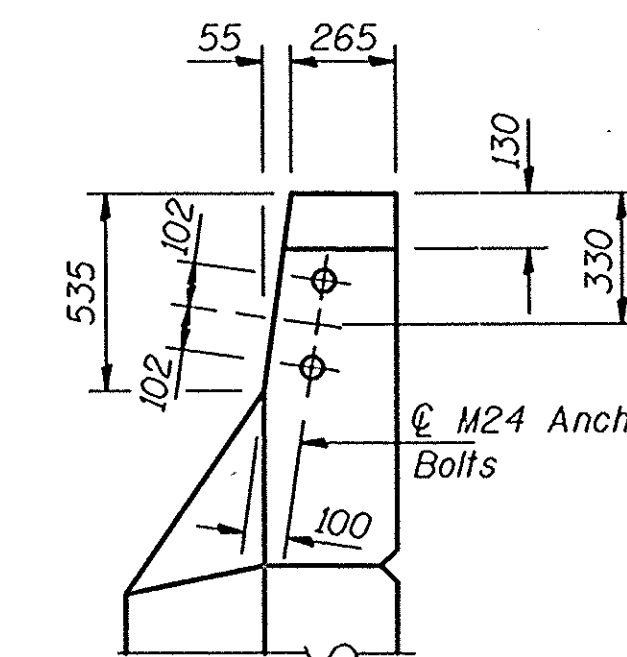
WINGWALL/PARAPET REINFORCEMENT

- \* e5(E) W.A. (North) & E.A. (South)
- e6(E) W.A. (South) & E.A. (North)
- e7(E) W.A. (North) & E.A. (South)
- e8(E) W.A. (South) & E.A. (North)
- h3(E) W.A. (North) & E.A. (South)
- h4(E) W.A. (South) & E.A. (North)



WINGWALL/PARAPET REINFORCEMENT

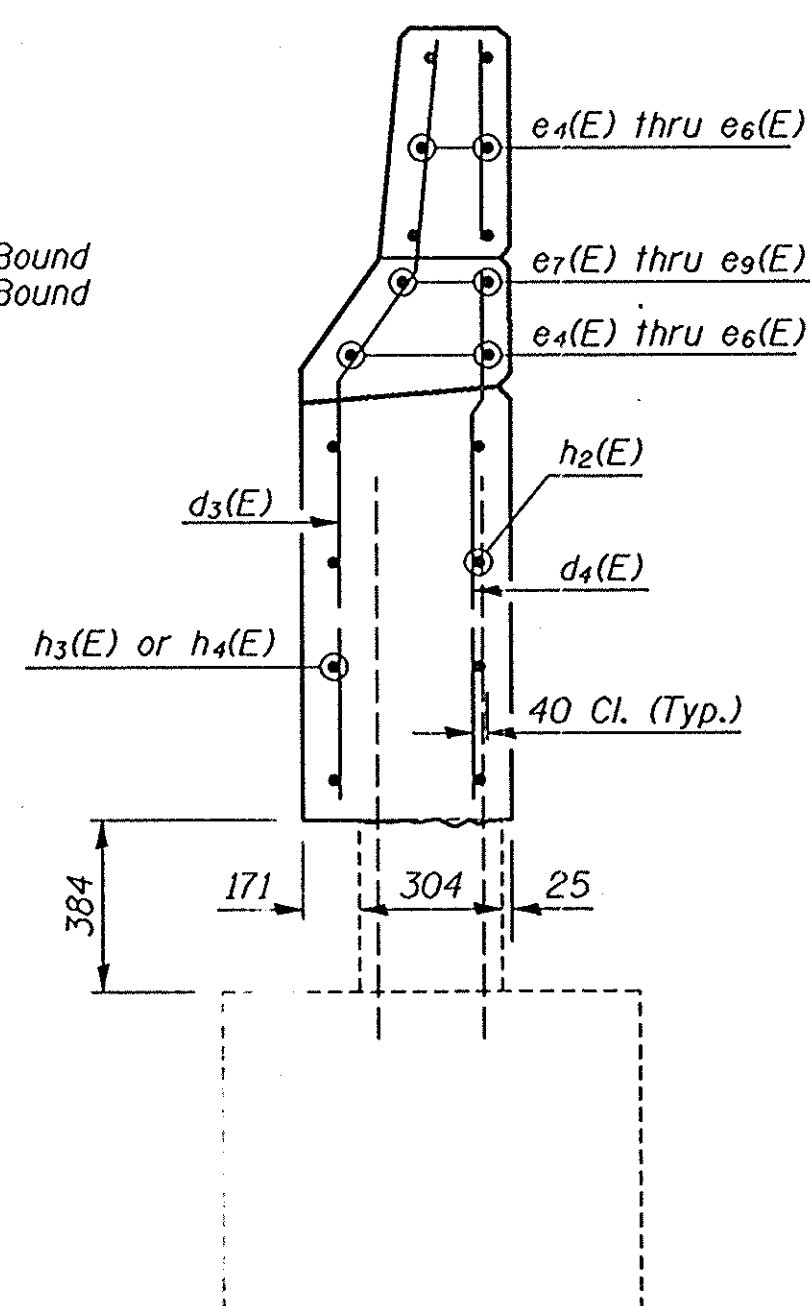
- \* e5(E) W.A. (North) & E.A. (South)
- e6(E) W.A. (South) & E.A. (North)
- e7(E) W.A. (North) & E.A. (South)
- e8(E) W.A. (South) & E.A. (North)
- h3(E) W.A. (North) & E.A. (South)
- h4(E) W.A. (South) & E.A. (North)



G.R. ANCHOR BOLTS

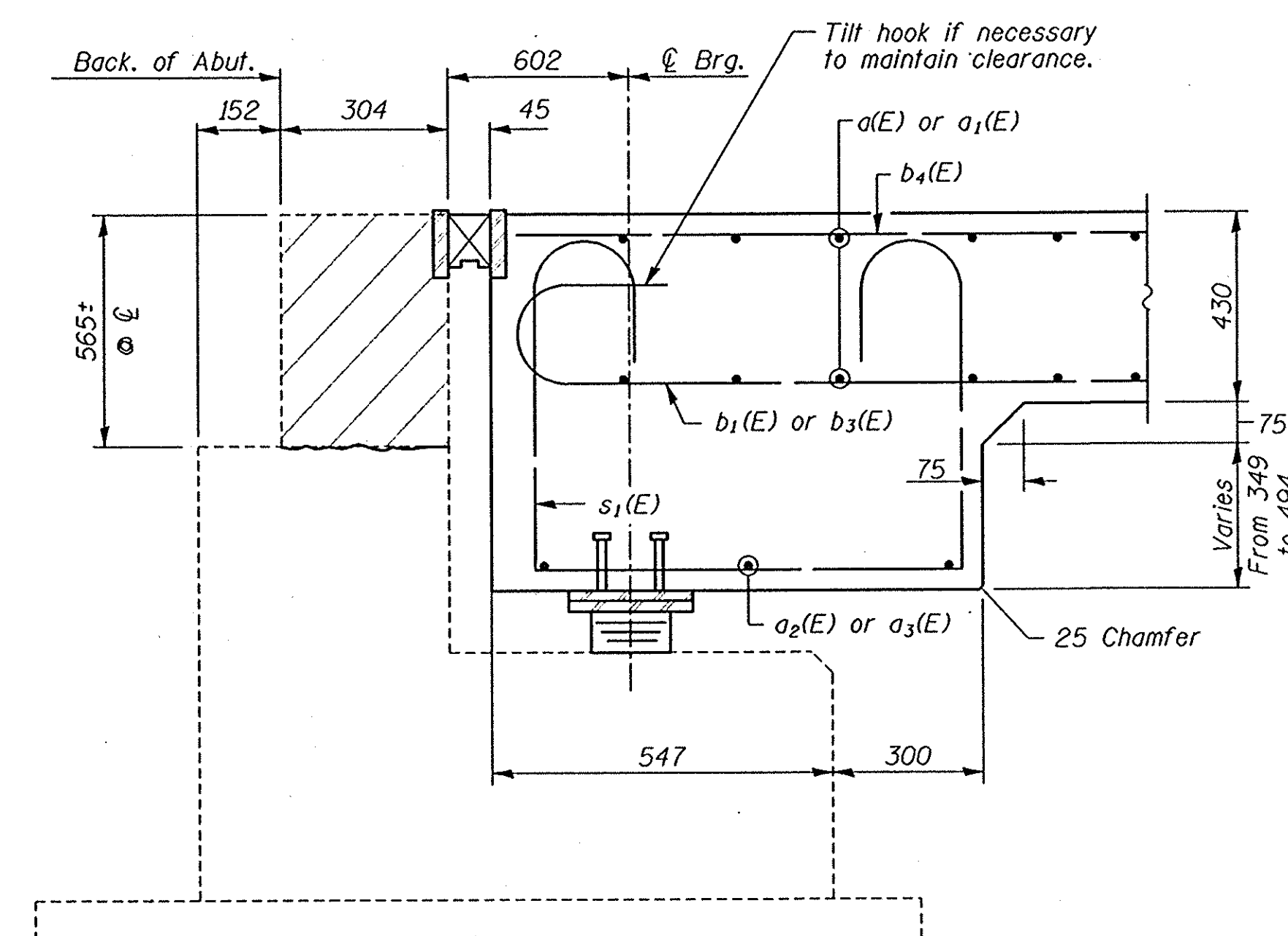
(Exit Ends Only)

West Abutment East Bound  
East Abutment West Bound



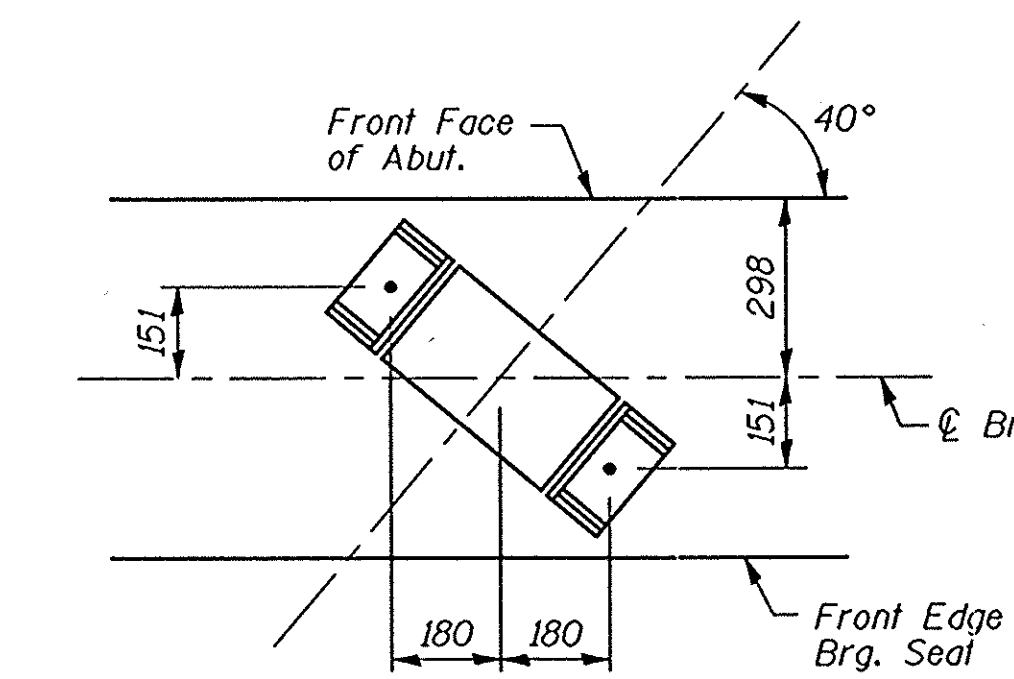
SEC. THRU WING/PARAPET

(All Wings)



SEC. A-A

(Dimensions @ rt. L's)



ANCHOR BOLT LOCATIONS

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ABUTMENT DETAILS  
FAI ROUTE 80 OVER ABBOTT DITCH  
SECTION 06-1B-2R  
BUREAU COUNTY  
STATION 63+424.374  
S.N. 006-0005 (E.B.)  
S.N. 006-0006 (W.B.)

SCALE: VERT. HORIZ.  
DATE: 08/28/01-RPB  
DRAWN BY: BISHOP  
DESIGNED BY: FITCH  
CHECKED BY: BRADFORD

COMPUTER FILE NO. SHT1613-5  
PROJECT 01159  
12/10/01-RPB

REVISIONS	
NAME	DATE
PER B.O.	12/5/01



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