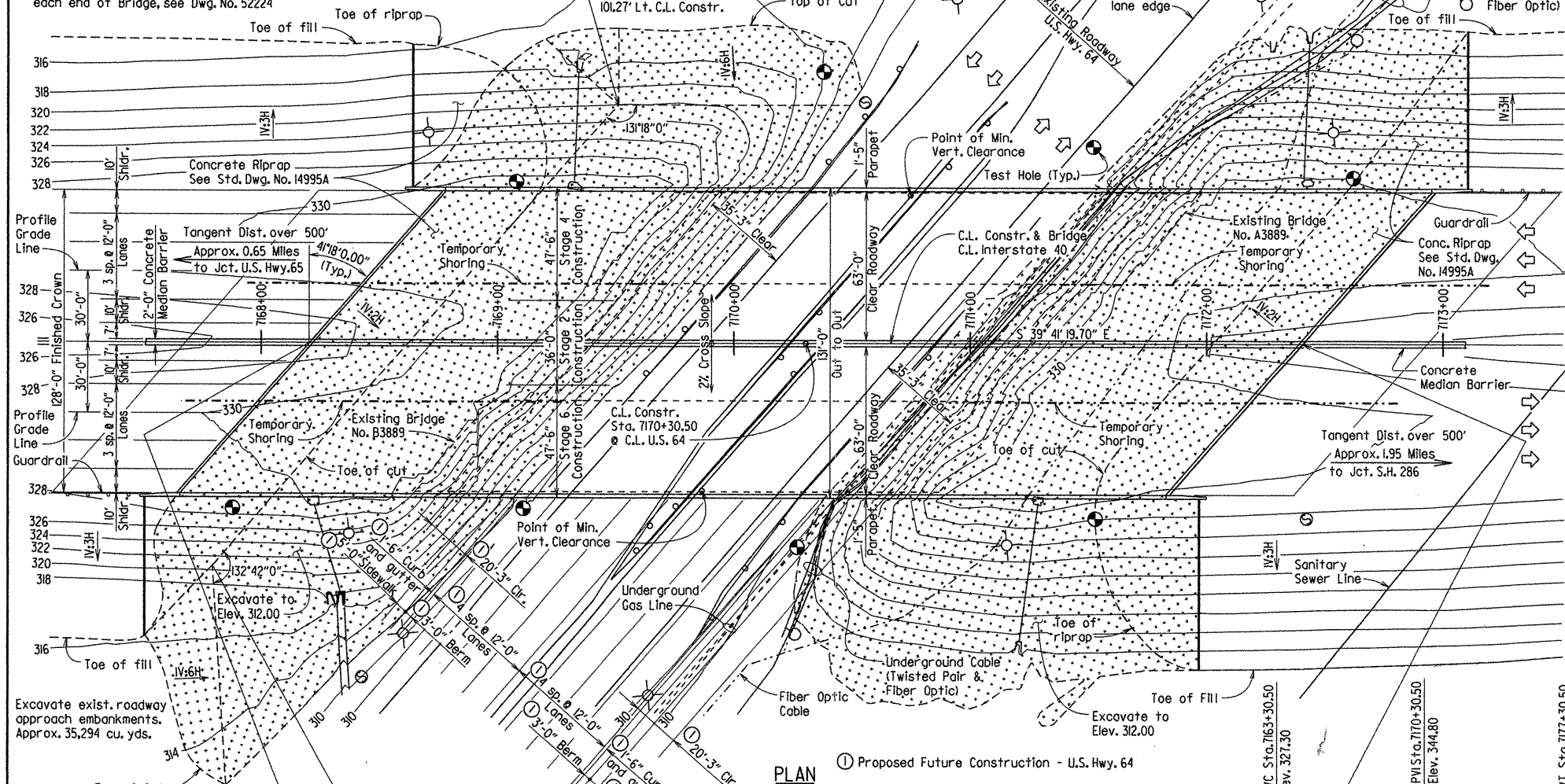


For R/W Data, See Rdwy. Plans

NOTE: Use Type Special I Approach Slabs at each end of Bridge, see Dwg. Nos. 52222 & 52223  
Use Type Special I Approach Gutters (W=10') at each end of Bridge, see Dwg. No. 52224



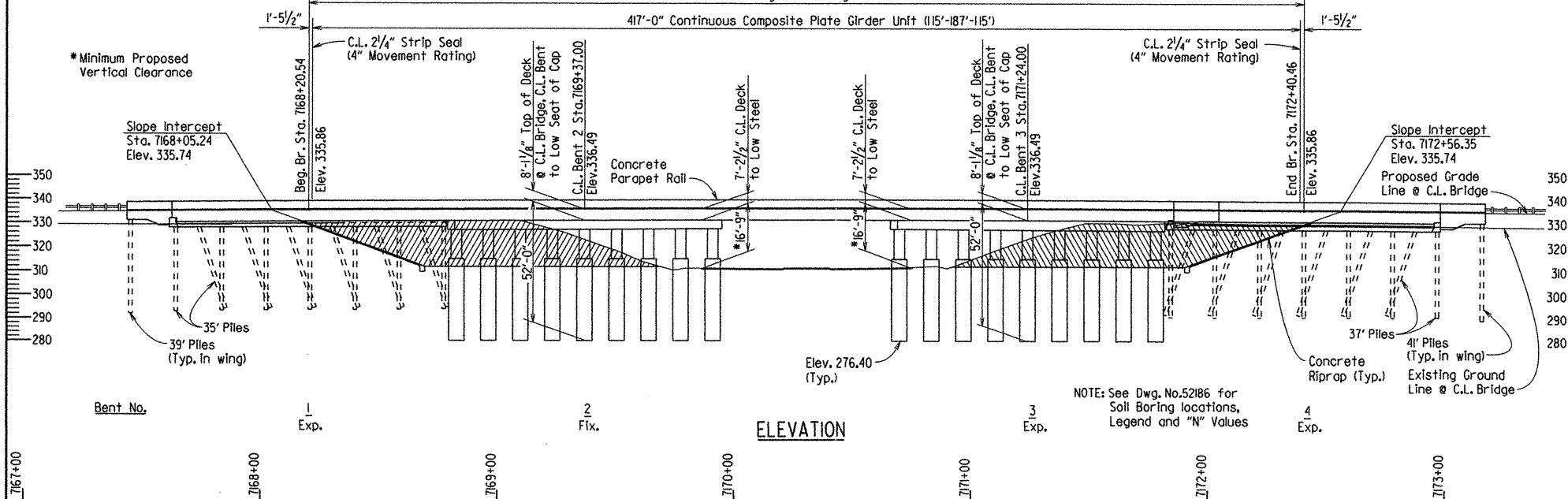
PLAN

① Proposed Future Construction - U.S. Hwy. 64

Stations and elevations shown along C.L. Bridge.

Total Length of Bridge = 419'-11"

Vertical Curve Length = 1400'  
Along Profile Grade Line



ELEVATION

NOTE: See Dwg. No. 52186 for Soil Boring locations, Legend and "N" Values



BRIDGE ENGINEER

DATE REVISION	DATE FILMED	DATE REVISION	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		184	452
				JOB NO.		080388	184	452
						07226	LAYOUT	52185

#### GENERAL NOTES

BENCH MARK: 3/4" Rebar with 2" Cap, 0.11' Right of C.L. Median I-40 Sta. 7169+09.32, Elev. 330.52

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2003 edition) with applicable supplemental specifications and special provisions. Unless otherwise noted on the plans, section and subsection refer to Standard Specifications for Highway Construction.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications 5th Edition (2010) with 2010 Interim.

LIVE LOADING: HL-93

SEISMIC PERFORMANCE ZONE: I

$S_{DI} = 0.094$

SITE CLASS: B

#### MATERIALS AND STRENGTHS:

Class (SAC) Concrete (Superstructure)  $f'_c = 4,000$  psi  
Class S Concrete (Substructure)  $f'_c = 3,500$  psi  
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)  $f_y = 60,000$  psi  
Structural Steel (AASHTO M270, Gr. 50)  $F_y = 50,000$  psi  
Structural Steel (AASHTO M270, Gr. 36)  $F_y = 36,000$  psi

BORING LOGS: Boring logs may be obtained from the Programs and Contracts Division.

BRIDGE DECK: The concrete bridge deck shall be given a fine finish as specified for final finishing in subsection 802.19 for Class 5 Tined Roadway Surface Finish.

STEEL PILING: Piling in Bents 1 and 4 shall be HPI2x53 (Grade 50) and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 70 tons per pile and into medium hard, slightly weathered shale to shale with sandstone seams as detailed in borings. Lengths of piling shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with the Standard Specifications. Piles to be driven after embankment to bottom of cap is in place. On all piling, the Contractor shall use approved steel H-Pile driving points.

DRILLED SHAFTS: All drilled shafts shall be founded a minimum of 13'-0" into medium hard, slightly weathered shale to shale with sandstone seams as detailed in borings. No adjustment in plan tip elevation shall be made without prior approval from the Engineer. Methods of construction of the drilled shafts shall be in accordance with Special Provision, Job 080388 "Drilled Shaft Foundations".

TEXTURED COATING FINISH: Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision Job No. 080388 "Textured Coating Finish" and in accordance with subsection 802.19(b)(3). Textured Coating Finish shall not be applied on surfaces where Class I Protective Surface Treatment is applied.

PAINTING: All structural steel except galvanized members and as noted in the plans shall be painted as specified in Section 807. Color of paint shall be Dark Brown and shall match Fed. Std. 595B, Color Chip 20108.

#### DETAIL DRAWINGS:

End Bents  
Intermediate Bents  
41' Cont. Comp. Plate Girder Unit  
Elastomeric Bearings  
Steel Piling  
Type Special I Approach Gutters  
Type Special I Approach Slab  
Soil Borings  
Stage Construction

#### DRAWING NUMBER

52192-52197  
52198-52201  
52202-52219  
52220-52221  
14995A  
52224  
52222, 52223 & 52223A  
52226  
52187-52191

TEMPORARY SHORING: Temporary Shoring will be required to retain existing and/or new embankments to maintain traffic during removal of Bridge Nos. A3889 and B3889 and construction of Bridge No. 07226. Shoring shall be constructed in accordance with Special Provision 080388 "Shoring". Payment shall be as specified in Special Provision Job No. 080388 "Shoring".

EXISTING BRIDGES: Existing bridges Nos. A3889 and B3889 (log mile 126.76) are 40.0' wide and 226.9' long consisting of four composite I-Beam simple spans supported by reinforced concrete intermediate bents on concrete footings. The centerline of existing bridges are located approximately 44' left and right of the proposed C.L. Construction.

REMOVAL AND SALVAGE: The new bridge is to be built in stages. Partial removal of bridge Nos. A3889 and B3889 will be required for Stage 1 Construction. After Stage 3 Construction is complete and opened to traffic, the remaining portion of existing Bridge No. A3889 shall be removed in accordance with Section 205 of the Standard Specifications. After Stage 5 Construction is complete and opened to traffic, the remaining portion of existing Bridge No. B3889 shall be removed in accordance with Section 205 of the Standard Specifications. All salvageable approach guard rail, including ET2000 terminals and 40' of the existing 27" W-Beams shall remain the property of the department. The Contractor shall deliver all salvageable guard rail and 28' of the 27" W-Beams to AHTD District 8 Headquarters (372 Aspen Lane, Russellville, Ark.) and 12' of the 27" W-Beams shall be delivered to AHTD Central Shop (1300 West Baseline Road, Little Rock, Ark.). The Contractor shall coordinate with the Engineer for removal and delivery of salvage material. All other material from the existing bridge shall become the property of the contractor.

MAINTENANCE OF TRAFFIC: See Roadway Plans.

SHEET 1 OF 2  
LAYOUT OF BRIDGE OVER U.S. HWY. 64  
HWY. 65 - EAST (WIDENING) (F)  
FAULKNER COUNTY

ROUTE 40 SEC. 32  
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: MRE DATE: 4/28/11 FILENAME: b080388.ll.dgn

CHECKED BY: CSL DATE: Sept 27, 2011 SCALE: 1" = 30'-0"

DESIGNED BY: CSL DATE: Apr 1, 2011

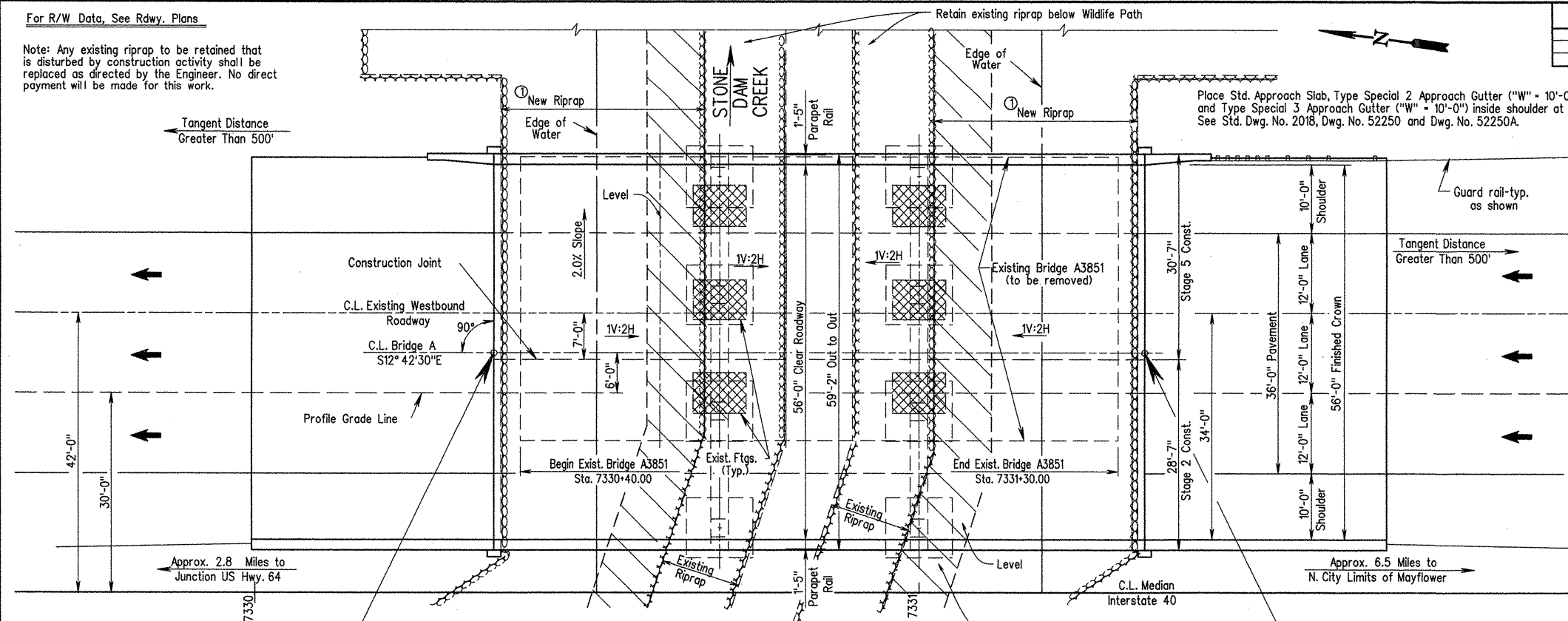
BRIDGE NO. 07226

DRAWING NO. 52185

For R/W Data, See Rdwy. Plans

Note: Any existing riprap to be retained that is disturbed by construction activity shall be replaced as directed by the Engineer. No direct payment will be made for this work.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	080388		225	452
				A6883	LAYOUT		52225	



Note: Contractor shall excavate the channel as shown. Approx. 1400 cu. yds. of excavation.

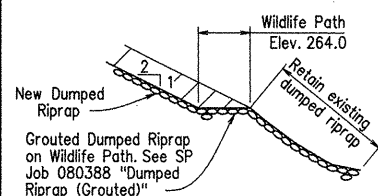
Note: Unless otherwise noted, all dimensions shown are at C.L. of Bridge A. All stations are along C.L. Westbound Roadway Interstate 40. Bridge elevations shown are taken along Profile Grade Line.

① New Dumped Riprap on and above Wildlife Path 1'-6" thick placed on filter blanket. For details see Standard Dwg. No. 1891 F. Typ. both ends of bridge.

Note: For details of Stage Construction, see Dwg. No. 52227 and the Maintenance of Traffic drawings.

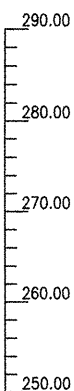
Note: The contractor shall make check measurements and make any adjustments necessary to fit the new work to existing bridge location.

PLAN



WILDLIFE PATH DETAILS

No Scale



Bent Nos.

7330

Note: For Soil Boring Locations, see sheet 2 of 3.

ELEVATION

7331

#### GENERAL NOTES:

BENCH MARK: Elevations and stations are assumed to be the same as shown on the original plans. The original layout shows the elevation at the top of the deck and centerline of existing bridge to be at 278.18 at Sta. 7330+40.00 (Beg. of Br. A3851).

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2003 edition), with applicable supplemental specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges (1996 edition), with current interim specifications.

LIVE LOAD: HS20 + Military Loading METHOD OF DESIGN: Load Factor SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:  
Class S(AE) Concrete (superstructure)  $f'_c = 4,000$  psi  
Class S Concrete (substructure)  $f'_c = 3,500$  psi  
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)  $f_y = 60,000$  psi  
Structural Steel (AASHTO M270, Gr. 36)  $F_y = 36,000$  psi  
Structural Steel (AASHTO M270, Gr. 50W)  $F_y = 50,000$  psi

BRIDGE DECK: The concrete bridge deck shall be given a fine finish as specified for final finishing in Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

CLASS 1 PROTECTIVE SURFACE TREATMENT: Class 1 Protective Surface Treatment shall be applied to the roadway surface and to the face and top of the concrete parapet rail.

STEEL PILING: Piling for Bents shall be HP 12x53 and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 60 tons per pile. Lengths of piling shown are assumed for estimating quantities and for use in determining payment for cut off & build up in accordance with the Standard Specification. On all piles the contractor shall use approved steel H-Pile driving points. Piles in end bents to be driven after embankment to bottom of cap is in place.

FOOTINGS: Footings shall be set a minimum of 2'-0" into material designated as hard brown shale on the boring legend and shall have a minimum cover above top of footing of 1'-0". Foundations for footings shall be prepared in accordance with Section 801.04 of the Standard Specifications. Rock excavations shall be made to neat lines of the concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock. Footings shall be backfilled, and backfill shall conform to Subsection 801.08 of the Standard Specifications.

DETAIL DRAWINGS:  
End Bents 52228  
Intermediate Bents 52229 & 52230  
98'-0" Cont. R.C. Slab Span Unit 52231 thru 52234  
Steel Piling 14995A  
Type Special 2 Approach Gutters 52250  
Type Special 3 Approach Gutters 52250A  
Approach Slab 2018

REMOVAL AND SALVAGE: The existing bridges shall be removed in accordance with Section 205 of the Standard Specifications. All material from existing bridges shall become the property of the contractor. Complete removal of existing footing may be needed to construct new footing.  
EXISTING BRIDGE: Existing Bridge A3851 is 38'-6" wide and 90'-0" long and consists of 3 R.C. Slab Spans Units (with voids) supported by substructures consisting of R.C. Int. Bents with multi-columns on spread footings and Pile End Bents. Plans for existing bridge will be made available to the Contractor upon request to Programs and Contracts Division. Existing Dwg. Nos. 12427, 12427A, 5431-A4, 5434A & 5434B.

For additional GENERAL NOTES, see Dwg. 52226.

SHEET 1 OF 3

BRIDGE A LAYOUT  
INTERSTATE 40 BRIDGE OVER  
STONE DAM CREEK  
HWY. 65 - EAST (WIDENING) (F)  
FAULKNER COUNTY  
ROUTE J-40 SEC.32  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: RLB/KR DATE: Sept. 2011 FILENAME: FILENAME  
CHECKED BY: DKM/JM DATE: Sept. 2011 SCALE: 1" = 10'  
DESIGNED BY: KMM/KM DATE: Sept. 2011  
BRIDGE NO. A6883 DRAWING NO. 52225



For R/W Data, See Rdwy. Plans

Note: Any existing riprap to be retained that is disturbed by construction activity shall be replaced as directed by the Engineer. No direct payment will be made for this work.

Wildlife path-typ. See details

Edge of Water

Existing Riprap

1-6" New Dumped Riprap on and above Wildlife Path 1-6" thick placed on filter blanket. For details see Standard Dwg. No. 1891 F. Typ. both ends of bridge.

C.L. Median Interstate 40

Approx. 6.5 Miles to N. City Limits of Mayflower

Place Std. Approach Slab, Type Special 2. Approach Gutter ("W" = 10'-0") outside shoulder, and Type Special 3 Approach Gutter ("W" = 10'-0") inside shoulder at both ends of bridge. See Std. Dwg. No. 2018, Dwg. No. 52250 and Dwg. No. 52250A.

Construction Joint

Profile Grade Line

C.L. Bridge B S12° 42'30"E

Test Hole No. 2

C.L. Existing Eastbound Roadway

Test Hole No. 3

1V:2H

Existing Bridge B3851 (to be removed)

Stage 5 Const.

Existing Dumped Riprap (retained)

1-5" Parapet Rail

56'-0" Clear Roadway

59'-2" Out to Out

Level

1-5" New Riprap

Level

Note: For details of Stage Construction, see Dwg. No. 52227 and the Maintenance of Traffic drawings.

Guard rail-typ. as shown

Tangent Distance Greater Than 500'

Approx. 2.8 Miles to Junction US Hwy. 64

42'-0"

30'-0"

10'-0" Shoulder

12'-0" Lane

12'-0" Lane

36'-0" Pavement

56'-0" Finished Crown

34'-0"

90°

Test Hole No. 1

1V:2H

2.0% Slope

6'-0"

7'-0"

Begin Exist. Bridge B3851 Sta. 7330+24.00

Exist. Figs. (typ.)

End Exist. Bridge B3851 Sta. 7331+14.00

Stage 2 Const.

28'-7"

30'-7"

1-5" Parapet Rail

56'-0" Clear Roadway

59'-2" Out to Out

Level

1-5" New Riprap

Level

Note: Fiber optic cables are located approx. 50 ft right (looking ahead) of C.L. Existing Bridge B.

PLAN

Begin Bridge Sta. 7330+20.00 Elev. 279.37

Total Length of Bridge = 98'-0"

End Bridge Sta. 7331+18.00 Elev. 279.37

98'-0" Cont. R.C. Slab Span Unit (34'-0", 30'-0", 34'-0")

PGL Elev. 279.37

Level Grade

1" Joint filler between End Bridge Slab & Approach Slab (Typ. both ends of bridge)

2'-8 1/2" Profile Grade Line to Low Chord

4'-7 1/2" Low Chord to 100 Year Water Surface Elevation

C.L. Bent Sta. 7330+54.00 2'-1 1/2" \*\*

Concrete Parapet Rail

C.L. Bent Sta. 7330+84.00 2'-1 1/2" \*\*

Profile Grade Line (PGL) 6'-0" left of C.L. Bridge B

36'-6" Conc. Approach Slab (typ.)

\*\* Top of deck at C.L. Bridge to low side top of cap along C.L. bent.

Guardrail (see roadway plans)

Top of Riprap Elev 275.00

28 Ft. Piles

Elev. 264.0-typ.

Retain existing dumped riprap

100 Year Flood Elevation = 272.0

Bt. Ht. = 24'-6"

Existing Ground Line

Retain existing dumped riprap

Top of Riprap Elev 275.00

28 Ft. Piles

Dumped Riprap-typ.

Wildlife Path Elev. 264.0

New Dumped Riprap

Grouted Dumped Riprap on Wildlife Path. See SP Job 080388 "Dumped Riprap (Grouted)"

WILDLIFE PATH DETAILS

No Scale

2'-8 1/2" Profile Grade Line to Low Chord

4'-7 1/2" Low Chord to 100 Year Water Surface Elevation

C.L. Bent Sta. 7330+54.00 2'-1 1/2" \*\*

Concrete Parapet Rail

C.L. Bent Sta. 7330+84.00 2'-1 1/2" \*\*

Profile Grade Line (PGL) 6'-0" left of C.L. Bridge B

36'-6" Conc. Approach Slab (typ.)

\*\* Top of deck at C.L. Bridge to low side top of cap along C.L. bent.

Guardrail (see roadway plans)

Top of Riprap Elev 275.00

28 Ft. Piles

Elev. 264.0-typ.

Retain existing dumped riprap

100 Year Flood Elevation = 272.0

Bt. Ht. = 24'-6"

Existing Ground Line

Retain existing dumped riprap

Top of Riprap Elev 275.00

28 Ft. Piles

Dumped Riprap-typ.

Wildlife Path Elev. 264.0

New Dumped Riprap

Grouted Dumped Riprap on Wildlife Path. See SP Job 080388 "Dumped Riprap (Grouted)"

WILDLIFE PATH DETAILS

No Scale

2'-8 1/2" Profile Grade Line to Low Chord

4'-7 1/2" Low Chord to 100 Year Water Surface Elevation

C.L. Bent Sta. 7330+54.00 2'-1 1/2" \*\*

Concrete Parapet Rail

C.L. Bent Sta. 7330+84.00 2'-1 1/2" \*\*

Profile Grade Line (PGL) 6'-0" left of C.L. Bridge B

36'-6" Conc. Approach Slab (typ.)

\*\* Top of deck at C.L. Bridge to low side top of cap along C.L. bent.

Guardrail (see roadway plans)

Top of Riprap Elev 275.00

28 Ft. Piles

Elev. 264.0-typ.

Retain existing dumped riprap

100 Year Flood Elevation = 272.0

Bt. Ht. = 24'-6"

Existing Ground Line

Retain existing dumped riprap

Top of Riprap Elev 275.00

28 Ft. Piles

Dumped Riprap-typ.

Wildlife Path Elev. 264.0

New Dumped Riprap

Grouted Dumped Riprap on Wildlife Path. See SP Job 080388 "Dumped Riprap (Grouted)"

WILDLIFE PATH DETAILS

No Scale

2'-8 1/2" Profile Grade Line to Low Chord

4'-7 1/2" Low Chord to 100 Year Water Surface Elevation

C.L. Bent Sta. 7330+54.00 2'-1 1/2" \*\*

Concrete Parapet Rail

C.L. Bent Sta. 7330+84.00 2'-1 1/2" \*\*

Profile Grade Line (PGL) 6'-0" left of C.L. Bridge B

36'-6" Conc. Approach Slab (typ.)

\*\* Top of deck at C.L. Bridge to low side top of cap along C.L. bent.

Guardrail (see roadway plans)

Top of Riprap Elev 275.00

28 Ft. Piles

Elev. 264.0-typ.

Retain existing dumped riprap

100 Year Flood Elevation = 272.0

Bt. Ht. = 24'-6"

Existing Ground Line

Retain existing dumped riprap

Top of Riprap Elev 275.00

28 Ft. Piles

Dumped Riprap-typ.

Wildlife Path Elev. 264.0

New Dumped Riprap

Grouted Dumped Riprap on Wildlife Path. See SP Job 080388 "Dumped Riprap (Grouted)"

WILDLIFE PATH DETAILS

No Scale

2'-8 1/2" Profile Grade Line to Low Chord

4'-7 1/2" Low Chord to 100 Year Water Surface Elevation

C.L. Bent Sta. 7330+54.00 2'-1 1/2" \*\*

Concrete Parapet Rail

C.L. Bent Sta. 7330+84.00 2'-1 1/2" \*\*

Profile Grade Line (PGL) 6'-0" left of C.L. Bridge B

36'-6" Conc. Approach Slab (typ.)

\*\* Top of deck at C.L. Bridge to low side top of cap along C.L. bent.

Guardrail (see roadway plans)

Top of Riprap Elev 275.00

28 Ft. Piles

Elev. 264.0-typ.

Retain existing dumped riprap

100 Year Flood Elevation = 272.0

Bt. Ht. = 24'-6"

Existing Ground Line

Retain existing dumped riprap

Top of Riprap Elev 275.00

28 Ft. Piles

Dumped Riprap-typ.

Wildlife Path Elev. 264.0

New Dumped Riprap

Grouted Dumped Riprap on Wildlife Path. See SP Job 080388 "Dumped Riprap (Grouted)"

WILDLIFE PATH DETAILS

No Scale

2'-8 1/2" Profile Grade Line to Low Chord

4'-7 1/2" Low Chord to 100 Year Water Surface Elevation

C.L. Bent Sta. 7330+54.00 2'-1 1/2" \*\*

Concrete Parapet Rail

C.L. Bent Sta. 7330+84.00 2'-1 1/2" \*\*

Profile Grade Line (PGL) 6'-0" left of C.L. Bridge B

36'-6" Conc. Approach Slab (typ.)

\*\* Top of deck at C.L. Bridge to low side top of cap along C.L. bent.

Guardrail (see roadway plans)

Top of Riprap Elev 275.00

28 Ft. Piles

Elev. 264.0-typ.

Retain existing dumped riprap

100 Year Flood Elevation = 272.0

Bt. Ht. = 24'-6"

Existing Ground Line

Retain existing dumped riprap

Top of Riprap Elev 275.00

28 Ft. Piles

Dumped Riprap-typ.

Wildlife Path Elev. 264.0

New Dumped Riprap

Grouted Dumped Riprap on Wildlife Path. See SP Job 080388 "Dumped Riprap (Grouted)"

WILDLIFE PATH DETAILS

No Scale

2'-8 1/2" Profile Grade Line to Low Chord

4'-7 1/2" Low Chord to 100 Year Water Surface Elevation

C.L. Bent Sta. 7330+54.00 2'-1 1/2" \*\*

Concrete Parapet Rail

C.L. Bent Sta. 7330+84.00 2'-1 1/2" \*\*

Profile Grade Line (PGL) 6'-0" left of C.L. Bridge B

36'-6" Conc. Approach Slab (typ.)

\*\* Top of deck at C.L. Bridge to low side top of cap along C.L. bent.

Guardrail (see roadway plans)

Top of Riprap Elev 275.00

28 Ft. Piles

Elev. 264.0-typ.

Retain existing dumped riprap

100 Year Flood Elevation = 272.0

Bt. Ht. = 24'-6"

Existing Ground Line

Retain existing dumped riprap

Top of Riprap Elev 275.00

28 Ft. Piles

Dumped Riprap-typ.

Wildlife Path Elev. 264.0

New Dumped Riprap

Grouted Dumped Riprap on Wildlife Path. See SP Job 080388 "Dumped Riprap (Grouted)"

WILDLIFE PATH DETAILS

No Scale

2'-8 1/2" Profile Grade Line to Low Chord

4'-7 1/2" Low Chord to 100 Year Water Surface Elevation

C.L. Bent Sta. 7330+54.00 2'-1 1/2" \*\*

Concrete Parapet Rail

C.L. Bent Sta. 7330+84.00 2'-1 1/2" \*\*

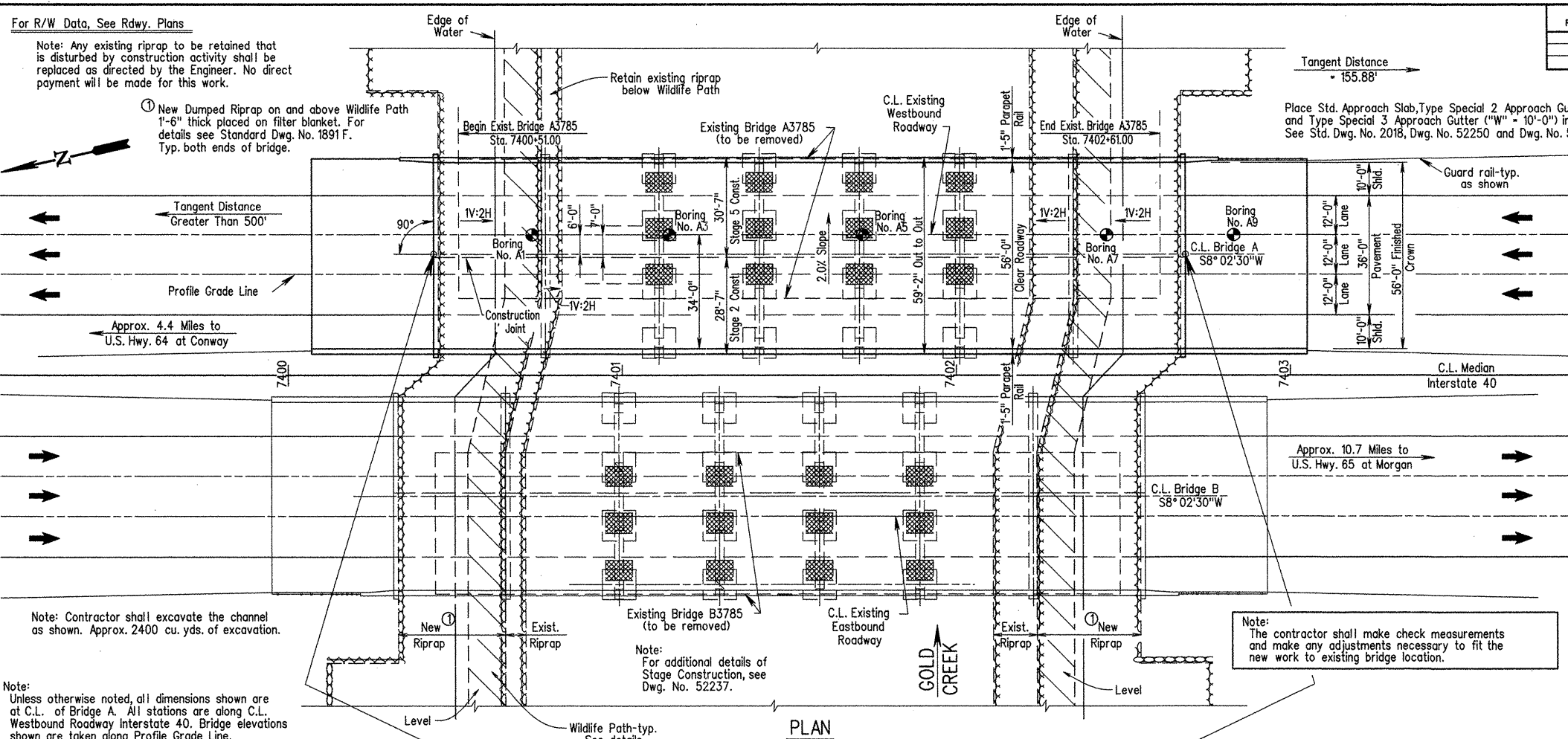
Profile Grade Line (PGL) 6'-0" left of C.L. Bridge B

36

For R/W Data, See Rdwy. Plans

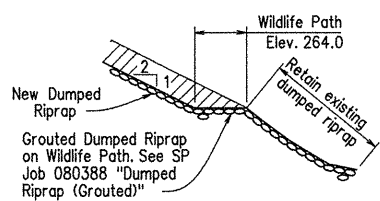
Note: Any existing riprap to be retained that is disturbed by construction activity shall be replaced as directed by the Engineer. No direct payment will be made for this work.

① New Dumped Riprap on and above Wildlife Path 1'-6" thick placed on filter blanket. For details see Standard Dwg. No. 1891F. Typ. both ends of bridge.



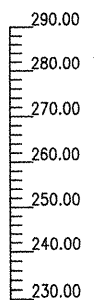
Note: Contractor shall excavate the channel as shown. Approx. 2400 cu. yds. of excavation.

Note: Unless otherwise noted, all dimensions shown are at C.L. of Bridge A. All stations are along C.L. Westbound Roadway Interstate 40. Bridge elevations shown are taken along Profile Grade Line.



WILDLIFE PATH DETAILS

No Scale



Bent Nos.

A1

A2

A3

A4

A5

A6

A7

A8

Bent Nos.

ELEVATION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		235	452
							JOB NO.	080388
							LAYOUT	52235

#### GENERAL NOTES:

BENCH MARK: Elevations and stations are assumed to be the same as shown on the original plans. The original layout shows the elevation at the top of the deck and centerline of existing bridge to be at 278.18 at Sta. 7400+51.00 (Beg. of Br. A3785).

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2003 edition), with applicable supplemental specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges (1996 edition), with current interim specifications.

LIVE LOAD: HS20 + Military Loading SEISMIC PERFORMANCE CATEGORY: A METHOD OF DESIGN: Load Factor

MATERIALS AND STRENGTHS:  
Class S(AE) Concrete (superstructure) f'c = 4,000 psi  
Class S Concrete (substructure) f'c = 3,500 psi  
Reinforcing Steel (AASHTO M31 or M53, Gr. 60) fy = 60,000 psi  
Structural Steel (AASHTO M270, Gr. 36) Fy = 36,000 psi  
Structural Steel (AASHTO M270, Gr. 50W) Fy = 50,000 psi

BRIDGE DECK: The concrete bridge deck shall be given a fine finish as specified for final finishing in Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

CLASS 1 PROTECTIVE SURFACE TREATMENT: Class 1 Protective Surface Treatment shall be applied to the roadway surface and to the face and top of the concrete parapet rail.

STEEL PILING: Piling for Bents shall be HP 12x53 or HP 14x102 (Gr.50), as shown on the plans and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 60 tons per pile. Lengths of piling shown are assumed for estimating quantities and for use in determining payment for cut off & build up in accordance with the Standard Specification. On all piles the contractor shall use approved steel H-pile driving points. Piles in end bents to be driven after embankment to bottom of cap is in place.

FOOTINGS: Footings shall be set a minimum of 2'-0" into material designated as hard brown or blue shale on the boring legend and shall have a minimum cover above top of footing of 1'-0". Foundations for footings shall be prepared in accordance with Section 801.04 of the Standard Specifications. Rock excavations shall be made to neat lines of the concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock.

DETAIL DRAWINGS:  
End Bents 52238  
Intermediate Bents 52239-52242  
68'-0" R.C. Slab Span Unit 52243-52245  
90'-0" R.C. Slab Span Unit 52246-52248  
Common Details for R.C. Slab Span Units 52249  
Steel Piling 14995A  
Type Special 2 Approach Gutters 52250  
Type Special 3 Approach Gutters 52250A  
Approach Slab 2018

REMOVAL AND SALVAGE: The existing bridges shall be removed in accordance with Section 205 of the Standard Specifications. All material from existing bridges shall become the property of the contractor. Complete removal of existing footing may be needed to construct new footing.

EXISTING BRIDGE: Existing Bridge A3785 is 38'-6" wide and 210'-0" long and consists of 7 R.C. Slab Spans Units (with voids) supported by substructures consisting of 7 C.L. Bents with multi-columns on spread footings and Pile-End Bents. Plans for existing bridge will be made available to the Contractor upon request to Programs and Contracts Division. Existing Dwg. Nos. 12429, 5431-A4, 5434A & 5434B.

For additional GENERAL NOTES, see Dwg. 52236.

SHEET 1 OF 3

BRIDGE A LAYOUT  
INTERSTATE 40 BRIDGE OVER  
GOLD CREEK  
HWY. 65 - EAST (WIDENING) (F)  
FAULKNER COUNTY  
ROUTE J-40 SEC.32

ARKANSAS STATE HIGHWAY COMMISSION

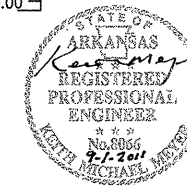
LITTLE ROCK, ARK.

DRAWN BY: RLB/KR DATE: Sept 2011 FILENAME: FILENAME

CHECKED BY: DKM/JM DATE: Sept 2011 SCALE: 1" = 20'

DESIGNED BY: KMM/KM DATE: Sept 2011

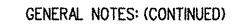
BRIDGE NO. A6884 DRAWING NO. 52235





Note: Any existing riprap to be retained that is disturbed by construction activity shall be replaced as directed by the Engineer. No direct payment will be made for this work.

1	B6884	LAYOUT	52236
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DRAWING NO.  
52238  
52239-52242  
52243-52245  
52246-52248  
52249  
14995A  
52250  
52250A  
2018

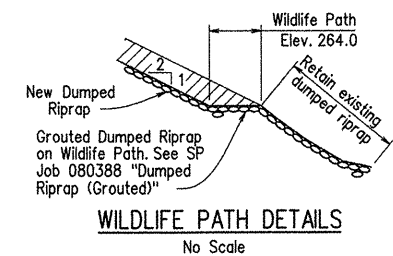
**MAINTENANCE OF TRAFFIC:** Details which relate to maintenance of traffic are shown on the bridge plans for information only; however, payment, job special provisions, etc. are considered as part of the roadway plans.

For Soil Boring Legend, see Dwg. No. 52237.

For additional GENERAL NOTES, see Dwg. No. 52235.

**Note:**  
For additional details of  
Stage Construction, see  
Dwg. No. 52237.

Note:  
The contractor shall make check measurements and make any adjustments necessary to fit the new work to existing bridge location.



SHEET 2 OF 3

BRIDGE B LAYOUT  
INTERSTATE 40 BRIDGE OVER  
GOLD CREEK  
HWY. 65 - EAST (WIDENING) (F)  
FAULKNER COUNTY

ROUTE J-40 SEC.32  
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY:	<u>RLB/KR</u>	DATE:	<u>Sept 2011</u>	FILENAME:	<u>FILENAME</u>
CHECKED BY:	<u>DKM/JM</u>	DATE:	<u>Sept 2011</u>	SCALE:	<u>1" = 20'</u>
DESIGNED BY:	<u>KMM/KM</u>	DATE:	<u>Sept 2011</u>		
BRIDGE NO. B6884			DRAWING NO. 52236		



Note: Existing approach slabs and gutters to be removed and replaced with new Approach Slabs, Type E Approach Gutters at left side of roadway (T=12") and Type "Special" Approach Gutters at Median side of roadway. For details, see drwg. no. 38770, 38770A & 2016E.

$\Delta = 23^\circ 32' 57''$  Lt.  
 $D = 0^\circ 59' 56''$   
 $T = 1195.68'$   
 $L = 2357.60'$   
 $R = 5736.08'$   
 $P.I. Sta. = 7724+80.67$   
 $P.C. Sta. = 7712+86.81$

## GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (1996 edition), with applicable supplemental specifications and special provisions.

LIVE LOADING: HS20 + Military Loading      METHOD OF DESIGN: Load Factor  
SEISMIC PERFORMANCE CATEGORY: A

CONCRETE PILING: Piling for Bents 1 through 4 shall be 16" Oct. or Sq. precast concrete and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 44 tons per pile. Drive all piles to a minimum penetration of 20' below natural ground. Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. Piling records for existing bridge are available upon request. Piles in end bents to be driven after embankment to bottom of cap is in place.

PROTECTIVE SURFACE TREATMENT: Class I Protective Surface Treatment shall be applied to the roadway surface and to the face and top of the concrete parapet rail.

SALVAGE: All material which is not incorporated into the new structure shall become the property of the contractor.

Half-size detail drawings of the existing bridges may be obtained from the Arkansas Highway and Transportation Department.

MAINTENANCE OF TRAFFIC: Details which relate to maintenance of traffic are shown on the bridge plans for information only; however, payment, job special provisions, etc., are considered as part of the roadway plans.

DESCRIPTION OF WORK  
A general description of the work specified in the detail plans, standard specifications, and job special provisions follows:

1. Removal and disposal of the existing concrete deck and replacing with a new concrete deck.
2. Removal and disposal of portions of the existing bents and modifying existing bents for new concrete deck.
3. Reshaping of the existing end slopes.

STATE OF  
ARKANSAS  
*Edward T. Fain*  
REGISTERED  
PROFESSIONAL  
ENGINEER  
\*\*\*  
No. 3915  
1-4-99  
EDWARD T. FAIN

DRAWN BY: KMG DATE: 5 Mar 97  
 CHECKED BY: CAB DATE: 11-20-98 SCALE: 1" = 10'  
 DESIGNED BY: JSB DATE: Sept 96  
 BRIDGE NO. A3696 DRAWING NO. 38764

△ Revised Pile Shapes 4 Jan 99. KMG

7715+00

7716+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
01-04-99	1-29-99			6	ARK.			
				JOB NO.		001765	82	143
						B3696	LAYOUT	38771

# GENERAL NOTES

BENCH MARK: Elevations and stations are assumed to be the same as shown on the original plans. The original layout shows the elevation at the top of the deck and centerline of existing bridge to be at 278.15 at Sta. 7715+23.77 (Beg. of Br. B3696).

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (1996 edition), with applicable supplemental specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges (1996 edition), with current interim specifications.

LIVE LOADING: HS20 + Military Loading  
SEISMIC PERFORMANCE CATEGORY: A

METHOD OF DESIGN: Load Factor

MATERIALS AND STRENGTHS:  
Class (S)AE Concrete (superstructure)  $f'_c = 4,000$  psi  
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)  $f_y = 60,000$  psi  
Structural Steel (AASHTO M270, Gr. 36)  $F_y = 36,000$  psi

△ CONCRETE PILING: Piling for Bents 1 through 4 shall be 16" Oct. or Sq. precast concrete and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 44 tons per pile. Drive all piles to a minimum penetration of 20' below natural ground. Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. Piling records for existing bridge are available upon request. Piles in end bents to be driven after embankment to bottom of cap is in place.

BRIDGE DECK: The concrete bridge deck shall be given a fine finish as specified for final finishing in subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

PROTECTIVE SURFACE TREATMENT: Class I Protective Surface Treatment shall be applied to the roadway surface and to the face and top of the concrete parapet rail.

DETAIL DRAWINGS:  
End Bents: 38772  
Int. Bents: 38773  
29'-11 1/2" R.C. Slab Spans: 38774 thru 38776  
Type C Bridge Name Plate: 2389A  
Embankment Construction: 1888A  
Computing Excavation for Structures: 1891F  
Approach Slabs and Gutters: 38770, 38770A & 2016E

SALVAGE: All material which is not incorporated into the new structure shall become the property of the contractor.

Half-size detail drawings of the existing bridges may be obtained from the Arkansas Highway and Transportation Department.

MAINTENANCE OF TRAFFIC: Details which relate to maintenance of traffic are shown on the bridge plans for information only; however, payment, job special provisions, etc., are considered as part of the roadway plans.

NOTE: The contractor shall make check measurements and make any adjustments necessary to fit the new work to the existing bridge.

## DESCRIPTION OF WORK

A general description of the work specified in the detail plans, standard specifications, and job special provisions follows:

1. Removal and disposal of the existing concrete deck and replacing with a new concrete deck.
2. Removal and disposal of portions of the existing bents and modifying existing bents for new concrete deck.
3. Reshaping of the existing end slopes.

## LAYOUT OF BRIDGE OVER COUNTY ROAD (BR. B3696)

MAYFLOWER - NO. MORGAN (REHAB.) (F)  
FAULKNER COUNTY

ROUTE 1-40 SEC. 32

ARKANSAS STATE HIGHWAY COMMISSION

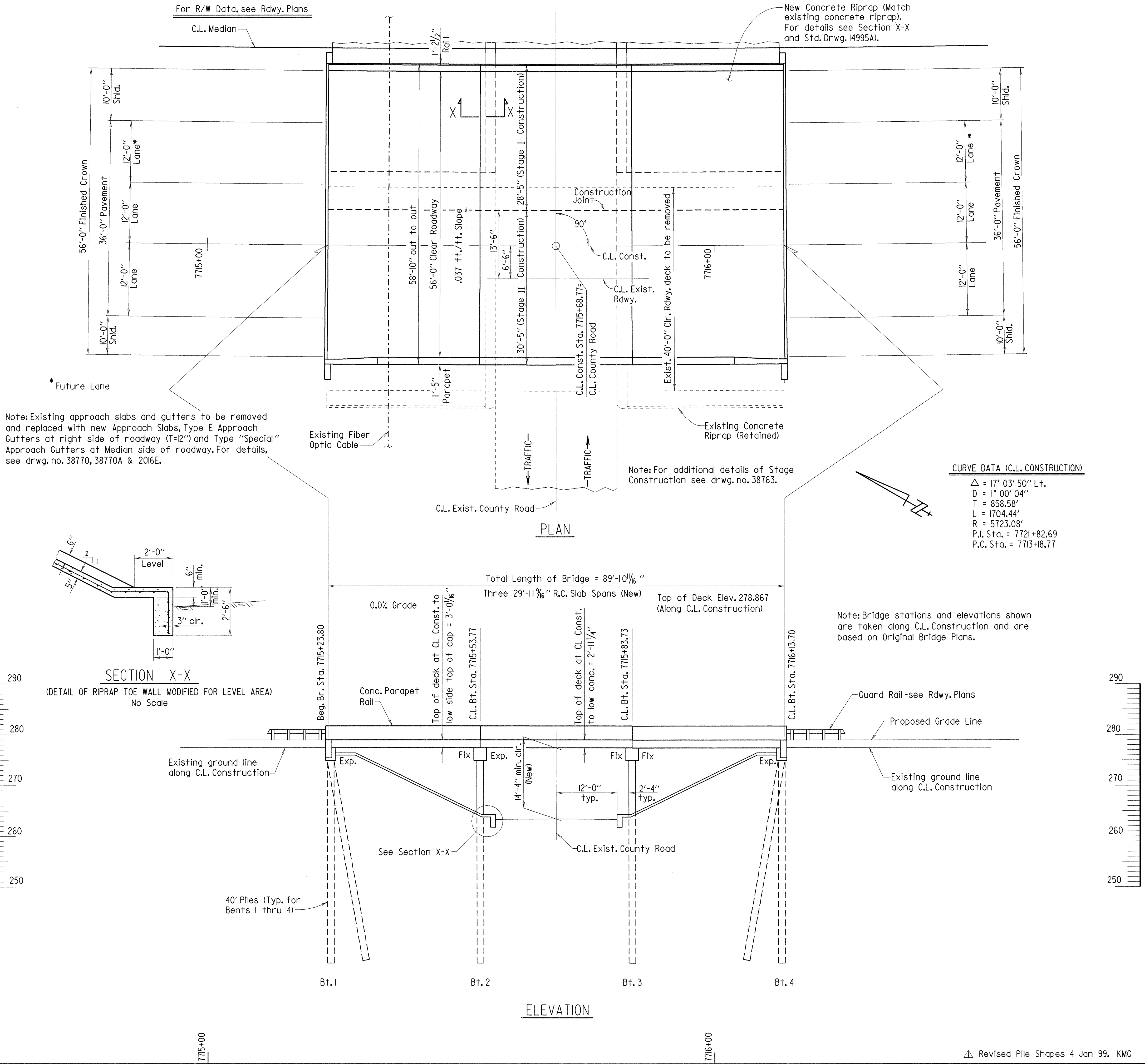
LITTLE ROCK, ARK.

DRAWN BY: KMG DATE: 5 Mar 97  
CHECKED BY: CAB DATE: 11-20-97 SCALE: 1" = 10'  
DESIGNED BY: JSB DATE: Sept 96  
BRIDGE NO. B3696 DRAWING NO. 38771



BRIDGE ENGINEER

△ Revised Pile Shapes 4 Jan 99. KMG



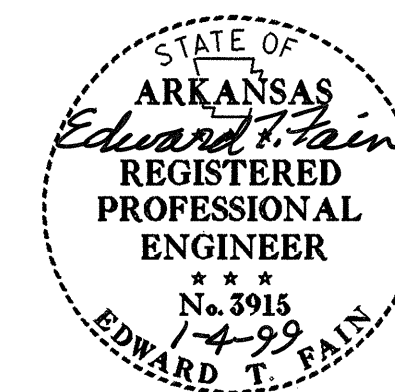


NOTE: The contractor shall make check measurements and make any adjustments necessary to fit the new work to the existing bridge.

PALARM CREEK					ARKANSAS RIVER
Drainage Area = 161.0 sq. mi.			NATURAL WATER SURFACE ELEV.***	WATER SURFACE ELEVATION WITH BACKWATER (Taken 300' Upstream)	WATER SURFACE ELEVATION WITH BACKWATER **
FLOOD	FREQUENCY	DISCHARGE			
DESCRIPTION	YEARS	CFS	FEET	FEET	FEET
DESIGN	50	8550	262.00	263.80	267.40
BASE	100	10300	262.40	264.41	269.00
EXTREME	500	15300	263.50	265.97	273.20
OVERTOPPING	>500	—	—	—	

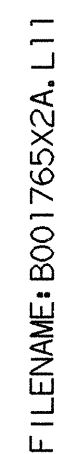
<u>Remarks</u> •No Overtopping of roadway embankment occurs •Historical Highwater Elev. = 266.8	**Backwater elevation at bridge site is controlled by backwater from the Arkansas River.
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## BRIDGE NO. A3667 DRAWING NO. 38778



BRIDGE ENGINEER

BRIDGE NO. A3667 DRAWING NO. 38778





For R/W Data, see Rdwy. Plans

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
01-04-99	1-29-99			6	ARK.			
				JOB NO.		001765	102	143
				1 B3667	LAYOUT			38791

#### GENERAL NOTES

BENCH MARK: Elevations and stations are assumed to be the same as shown on the original plans. The original layout shows the elevation at the top of the deck and centerline of existing bridge to be at 278.10 at Sta. 7724+38.50 (Beg. of Br. B3667).

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (1996 edition), with applicable supplemental specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges (1996 edition), with current interim specifications.

LIVE LOADING: HS20 + Military Loading METHOD OF DESIGN: Load Factor  
SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:  
Class S(AE) Concrete (superstructure)  $f'_c = 4,000$  psi  
Class S Concrete (substructure)  $f'_c = 3,500$  psi  
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)  $f_y = 60,000$  psi  
Structural Steel (AASHTO M270, Gr. 50W)  $F_y = 50,000$  psi  
Structural Steel (AASHTO M270, Gr. 36)  $F_y = 36,000$  psi

BRIDGE DECK: The concrete bridge deck shall be given a fine finish as specified for final finishing in subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

PROTECTIVE SURFACE TREATMENT: Class I Protective Surface Treatment shall be applied to the roadway surface and to the face and top of the concrete parapet rail.

CONCRETE PILING: Piling for Bents 1 through 8 shall be 18" Oct. or Sq. precast concrete and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 55 tons per pile. Drive all piles to a minimum penetration of 20' below natural ground. Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. Piling records for existing bridge are available upon request. Piles in end bents to be driven after embankment to bottom of cap is in place.

DETAIL DRAWINGS:  
End Bents 38792, 38793, 38797, 38798  
Intermediate Bents 38794 thru 38796  
3/4"-7/8" Cont. W-Beam Unit 38799 thru 38803  
Temporary Precast Barrier 1896B  
Approach Slabs and Gutters 38770, 38770A & 2016C

SALVAGE: All material which is not incorporated into the new structure shall become the property of the contractor.

Half-size detail drawings of the existing bridges may be obtained from the Arkansas Highway and Transportation Department.

MAINTENANCE OF TRAFFIC: Details which relate to maintenance of traffic are shown on the bridge plans for information only; however, payment, job special provisions, etc., are considered as part of the roadway plans.

NOTE: The contractor shall make check measurements and make any adjustments necessary to fit the new work to the existing bridge.

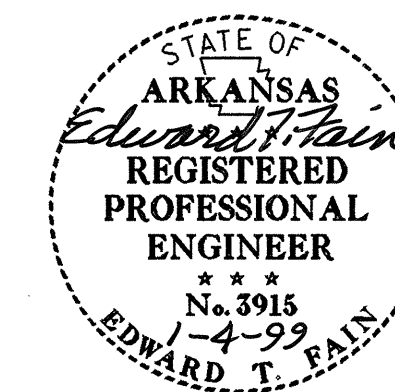
#### DESCRIPTION OF WORK

A general description of the work specified in the detail plans, standard specifications, and job special provisions follows:

1. Removal and disposal of the existing concrete deck and replacing with a new wider concrete deck.
2. Widen the existing 28' clear roadway bridge to 56'.
3. Removal and disposal of portions of the existing intermediate bents and modifying for wider bridge.
4. Removal and disposal of portions of existing end bents and modifying for new widened spans at bridge ends.
5. Reshaping of the existing end slopes.

LAYOUT OF  
BRIDGE OVER PALARM CREEK  
(BR. B3667)  
MAYFLOWER - NO. MORGAN (REHAB.) (F)  
FAULKNER COUNTY  
ROUTE I-40 SEC. 32  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: KMG DATE: 10 Mar 97  
CHECKED BY: CJB DATE: 11-20-97 SCALE: 1" = 20'  
DESIGNED BY: JSB DATE: Sept 96  
BRIDGE NO. B3667 DRAWING NO. 38791



Revised Pile Shapes 4 Jan 99. KMG

#### PLAN

Note: For additional details of Stage Construction see drwg. no. 38777.

Note: Existing approach slabs and gutters to be removed and replaced with new Approach Slabs, Type C Approach Gutters at right side of roadway (T-12") and Type "Special" Approach Gutters at Median side of roadway. For details, see drwg. no. 38770, 38770A & 2016C.

Dumped Riprap 1'-6" thick placed on Filter Blanket. For details, see Std. Drwg. 1891F (Typ. both ends of bridge).

Note: Bridge stations and elevations shown are taken along C.L. Construction and are based on Original Bridge Plans.

Total Length of Bridge = 316'-10 1/8"  
314'-7 5/8" Cont. Composite W-Beam Unit  
(Spans: 7 @ 44'-11 3/8")

\*\* Top of deck at CL Const. to low side top of cap.

#### CURVE DATA (C.L. CONSTRUCTION)

$\Delta = 17^\circ 03' 50''$  Lt.  
 $D = 1^\circ 00' 04''$   
 $T = 858.58'$   
 $L = 1704.44'$   
 $R = 5723.08'$   
P.I. Sta. = 7721+82.69  
P.C. Sta. = 7713+18.77

#### ELEVATION

Note: For Hydraulic Data see drwg. no. 38778.

For R/W Data, see Rdwy. Plans

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		060592	46	145
				1 A3230		LAYOUT		37022

#### GENERAL NOTES

BENCH MARK: Elevations and stations are assumed to be the same as shown on the original plans. The original layout shows the elevation at the top of the deck and centerline of existing bridge to be at 269.02 at Sta. 784+55.00 (Beg. of Br. A3230).

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 1993 edition, with applicable supplemental specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, 1992 with current interim specifications.

LIVE LOADING: HS20 METHOD OF DESIGN: Load Factor  
SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:  
Class S(AE) Concrete (superstructure)  $f'_c = 4,000$  psi  
Reinforcing Steel (A615 or A617, GR. 60)  $F_y = 60,000$  psi  
Structural Steel (A36)  $F_y = 36,000$  psi

BRIDGE DECK: The concrete bridge deck shall be given a fine finish as specified for final finishing in subsection 802.20 for Class 5 Bridge Roadway Surface Finish.

BOILED LINSEED OIL: Boiled linseed oil treatment shall be applied to the roadway surface and to the face and top of the concrete parapet rail.

CONCRETE PILING: Piling for Bents 1 through 6 shall be 16" octagonal precast concrete and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 44 tons per pile. Drive all piles to a minimum penetration of 20' below natural ground. Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. Drive one 50' test pile in bent 2 and one 50' test pile in bent 4. Piling records for existing bridge are available upon request. Piles in end bents to be driven after embankment to bottom of cap is in place.

DETAIL DRAWINGS: DRAWING NO.  
Bents 37025 & 37026  
30'-0" R.C. Deck Girder Spans 37027 thru 37029  
Type C Bridge Name Plate 2389A  
Embankment Construction 1848A  
Computing Excavation for Structures 1891F  
Approach Slabs and Gutters 37035, 2016E & 2017

All material which is not incorporated into the new structure shall become the property of the contractor.

The contractor shall make check measurements and make any adjustments necessary to fit the new work to the existing bridge.

Half-size detail drawings of the existing bridges may be obtained from the Arkansas Highway and Transportation Department.

MAINTENANCE OF TRAFFIC: Details which relate to maintenance of traffic are shown on the bridge plans for information only; Payment, Job special provisions, etc., are considered as part of the roadway plans.

#### DESCRIPTION OF WORK

A general description of the work specified in the detail plans, standard specifications, and Job special provisions follows:

1. Removal and disposal of the existing concrete deck and replacing with new R.C. Deck Girder Spans.
2. Removal and disposal of portions of the existing bents and modifying existing bents for new R.C. Deck Girder Spans.
3. Reshaping of the existing end slopes.
4. For "Modification of Existing Bridge Structures," see section 821 of the Standard Specifications.

#### HYDRAULIC DATA

Drainage Area = 13.7 sq. mi.

FLOOD DESCRIPTION	FREQUENCY YEARS	DISCHARGE CFS	NATURAL WATER SURFACE ELEV.*	WATER SURFACE ELEVATION WITH BACKWATER
			FEET	FEET
DESIGN	50	4960	258.6	261.66
BASE	100	5980	259.0	262.60
EXTREME	500	8740	259.9	265.02

#### Remarks

\* Historical Highwater Elev. = 259.4

\* Low Bridge Member Elev. = 266.4

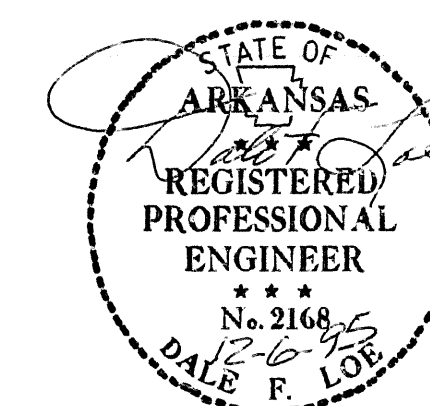
\* No Overtopping of roadway embankment occurs

\* Unconstricted water surface elev. at proposed bridge location.

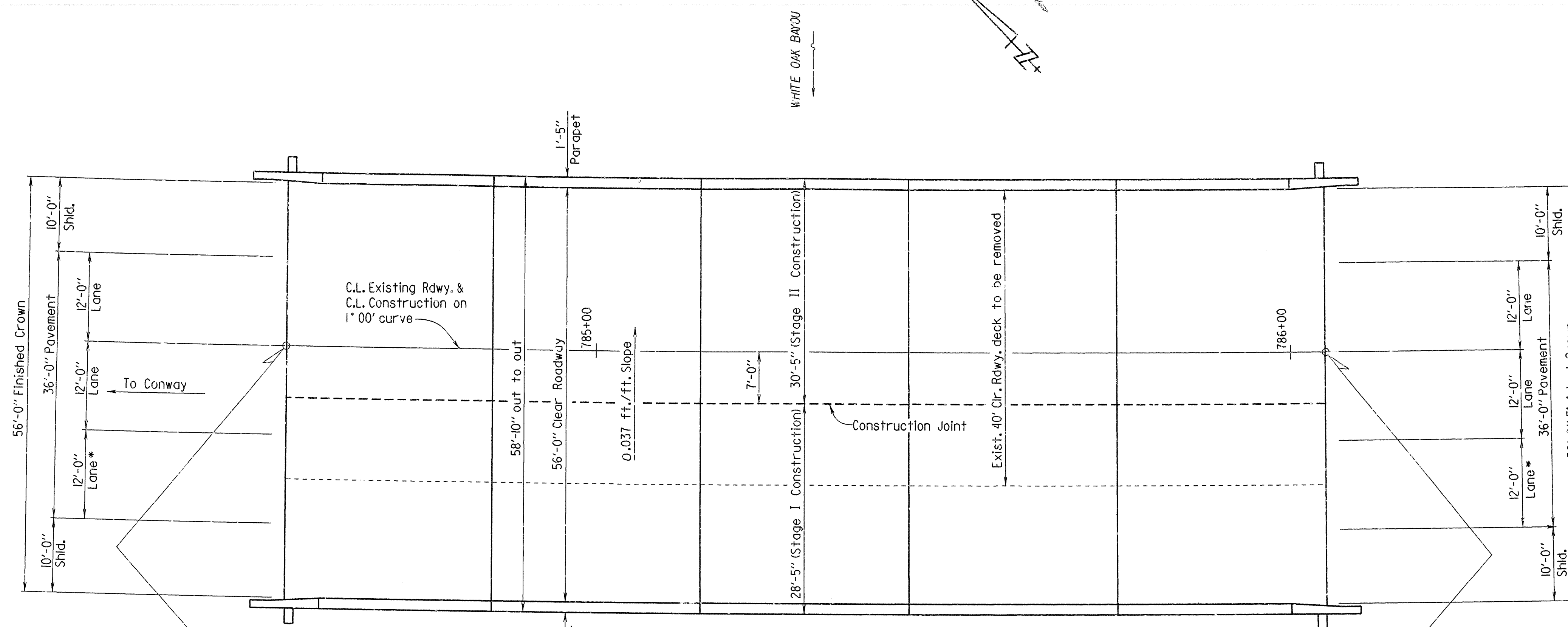
LAYOUT OF  
BRIDGE OVER WHITE OAK BAYOU  
(BR. A3230)  
NO. MORGAN - I430 (F)  
PULASKI COUNTY

ROUTE 1-40 SEC. 33  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: KMG DATE: 6 Sept 95  
CHECKED BY: CAB DATE: Dec 95  
DESIGNED BY: JAS DATE: -  
BRIDGE NO. A3230 DRAWING NO. 37022



BRIDGE ENGINEER



#### PLAN

Note: For additional details of Stage Construction see drwg. no. 37024.

#### CURVE DATA (C.L. CONSTRUCTION)

$\Delta = 22^\circ 57' 00''$  Lt.  
 $D = 1' 00' 00''$   
 $T = 116.31'$   
 $L = 2295.0'$   
 $R = 5729.58'$   
P.I. Sta. = 778+90.30

#### SUPERELEVATION DATA

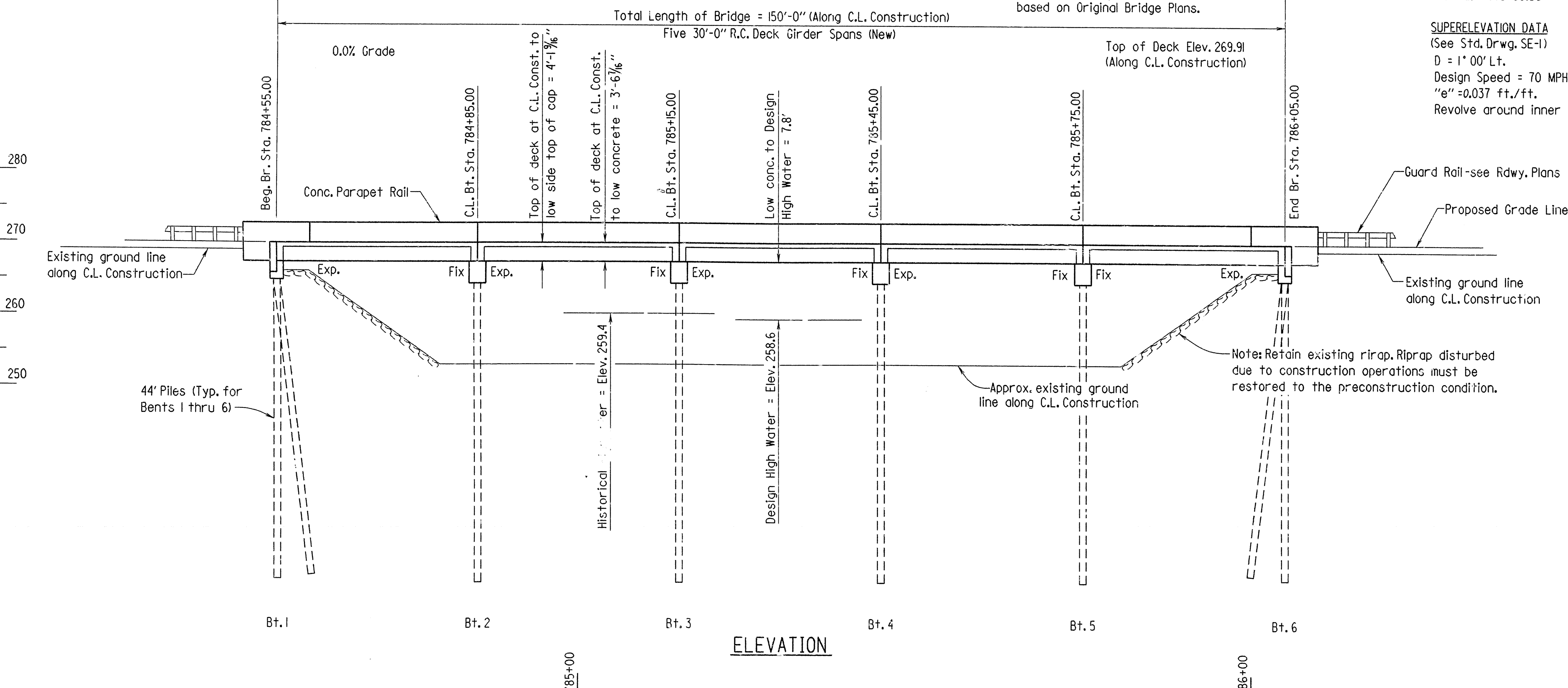
(See Std. Drwg. SE-1)

$D = 1' 00' 00''$  Lt.  
Design Speed = 70 MPH  
"e" = 0.037 ft./ft.  
Revolve around inner pavement edge

Note: Existing approach slabs and gutters to be removed and replaced with new Type "Special" Approach Slabs and Type E Approach Gutters. For details see drwg. no. 37035, 2016E & 2017.

Note: Bridge stations and elevations shown are taken along C.L. Construction and are based on Original Bridge Plans.

Total Length of Bridge = 150'-0" (Along C.L. Construction)  
Five 30'-0" R.C. Deck Girder Spans (New)



#### ELEVATION



For R/W Data, see Rdwy. Plans

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		060592	47	145
				B3230		LAYOUT		37023

#### GENERAL NOTES

BENCH MARK: Elevations and stations are assumed to be the same as shown on the original plans. The original layout shows the elevation at the top of the deck and centerline of existing bridge to be at 269.65 at Sta. 784+52.00 (Beg. of Br. B3230).

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 1993 edition, with applicable supplemental specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, 1992 with current interim specifications.

LIVE LOADING: HS20 METHOD OF DESIGN: Load Factor  
SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:  
Class (S/AE) Concrete (superstructure)  $f'_c = 4,000$  psi  
Reinforcing Steel (A615 or A617, GR. 60)  $F_y = 60,000$  psi  
Structural Steel (A36)  $F_y = 36,000$  psi

BRIDGE DECK: The concrete bridge deck shall be given a fine finish as specified for final finishing in subsection 802.20 for Class 5 Bridge Roadway Surface Finish.

BOILED LINSEED OIL: Boiled linseed oil treatment shall be applied to the roadway surface and to the face and top of the concrete parapet rail.

CONCRETE PILING: Piling for Bents 1 through 6 shall be 16" octagonal precast concrete and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 44 tons per pile. Drive all piles to a minimum penetration of 20' below natural ground. Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. Drive one 50' test pile in bent 2 and one 50' test pile in bent 4. Piling records for existing bridge are available upon request. Piles in end bents to be driven after embankment to bottom of cap is in place.

DETAIL DRAWINGS: DRAWING NO.  
Bents 37030, 37031  
30'-0" R.C. Deck Girder Spans 37032 thru 37034  
Type C Bridge Name Plate 2389A  
Embankment Construction 1888A  
Computing Excavation for Structures 1891F  
Approach Slabs and Gutters 37035, 2016E & 2017

All material which is not incorporated into the new structure shall become the property of the contractor.

The contractor shall make check measurements and make any adjustments necessary to fit the new work to the existing bridge.

Half-size detail drawings of the existing bridges may be obtained from the Arkansas Highway and Transportation Department.

MAINTENANCE OF TRAFFIC: Details which relate to maintenance of traffic are shown on the bridge plans for information only; Payment, job special provisions, etc., are considered as part of the roadway plans.

#### DESCRIPTION OF WORK

A general description of the work specified in the detail plans, standard specifications, and job special provisions follows:

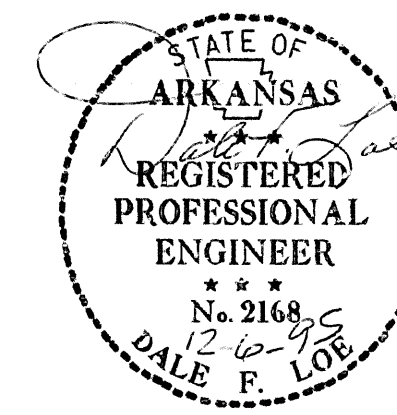
1. Removal and disposal of the existing concrete deck and replacing with new R.C. Deck Girder Spans.
2. Removal and disposal of portions of the existing bents and modifying existing bents for new R.C. Deck Girder Spans.
3. Reshaping of the existing end slopes.
4. For "Modification of Existing Bridge Structure," see Section 821 of the Standard Specifications.

LAYOUT OF  
BRIDGE OVER WHITE OAK BAYOU  
(BR. 53230)  
NO. MORGAN - 1430 (F)  
PULASKI COUNTY

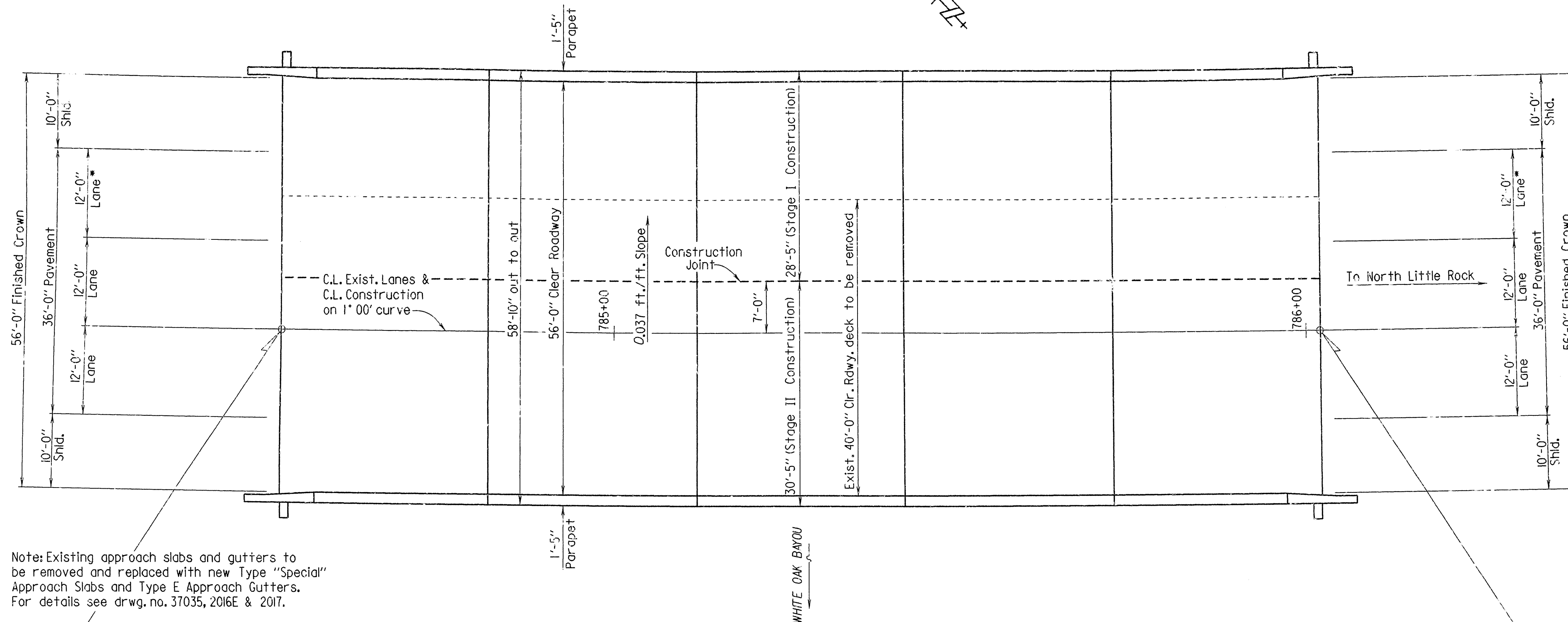
ROUTE 1-40 SEC. 33  
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KMG DATE: 6 Sept 95  
CHECKED BY: CAB DATE: DEC 95 SCALE: 1" = 10'  
DESIGNED BY: JAS DATE: —  
BRIDGE NO. B3230 DRAWING NO. 37023



BRIDGE ENGINEER



Note: Existing approach slabs and gutters to be removed and replaced with new Type "Special" Approach Slabs and Type E Approach Gutters. For details see drwg. no. 37035, 2016E & 2017.

Note: For additional details of Stage Construction see drwg. no. 37024.

#### PLAN

Note: Bridge stations and elevations shown are taken along C.L. Construction and are based on Original Bridge Plans.

Total Length of Bridge = 150'-0" (Along C.L. Construction)  
Five 30'-0" R.C. Deck Girder Spans (New)

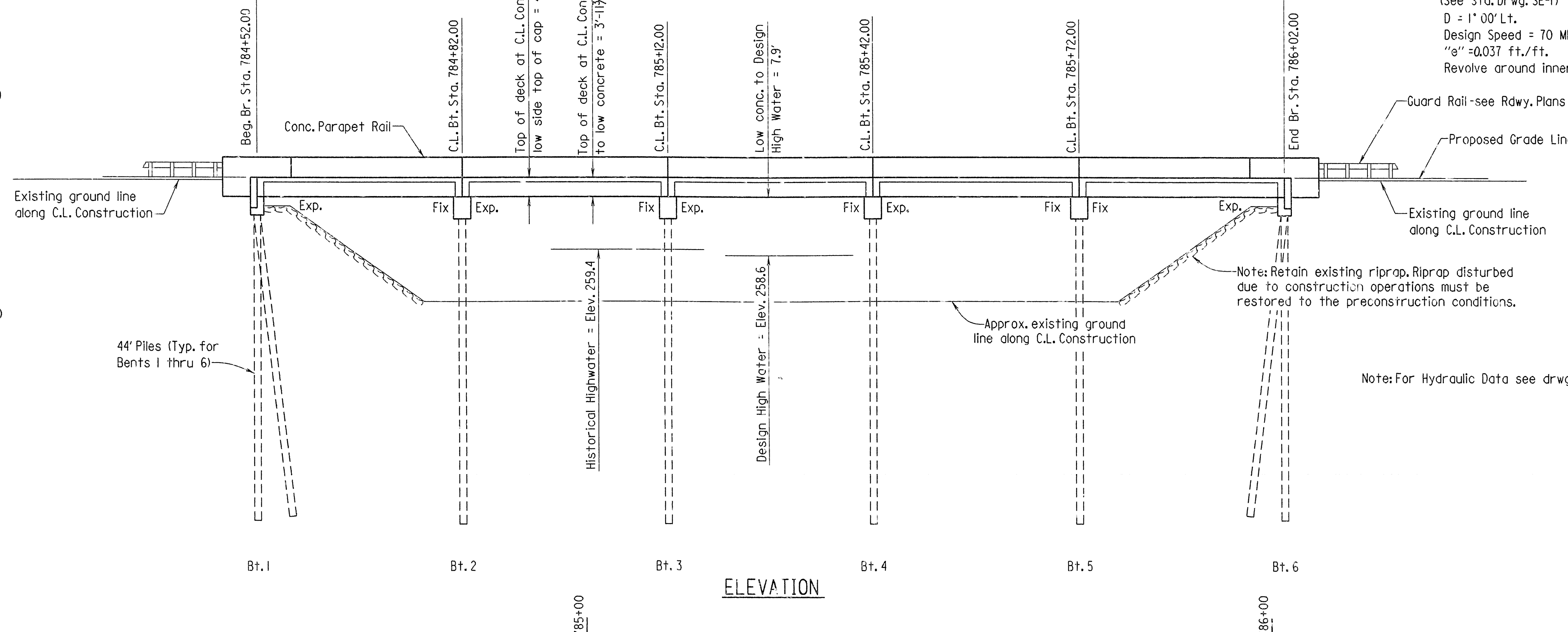
Top of Deck Elev. 270.45  
(Along C.L. Construction)

#### CURVE DATA (C.L. CONSTRUCTION)

$\Delta = 18^\circ 59' 00''$  Lt.  
 $D = 1' 00' 00''$   
 $T = 958.0'$   
 $L = 1898.3'$   
 $R = 5729.58'$   
 $P.L. Sta. = 778+66.20$

#### SUPERELEVATION DATA

(See Std. Drwg. SE-1)  
 $D = 1' 00' Lt.$   
Design Speed = 70 MPH  
 $"e" = 0.037$  ft./ft.  
Revolve around inner pavement edge



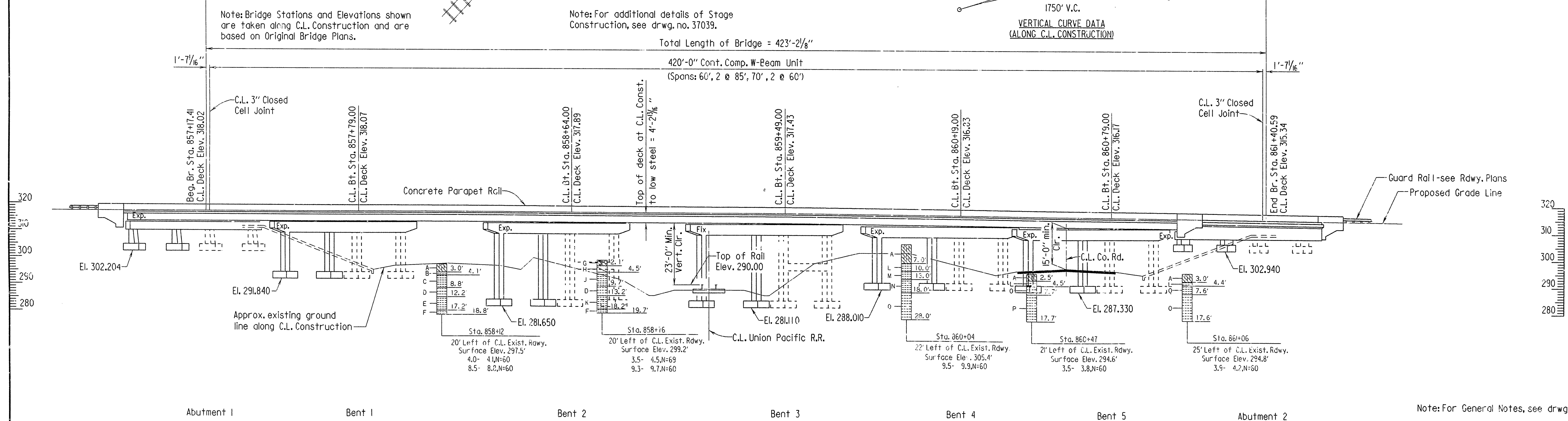
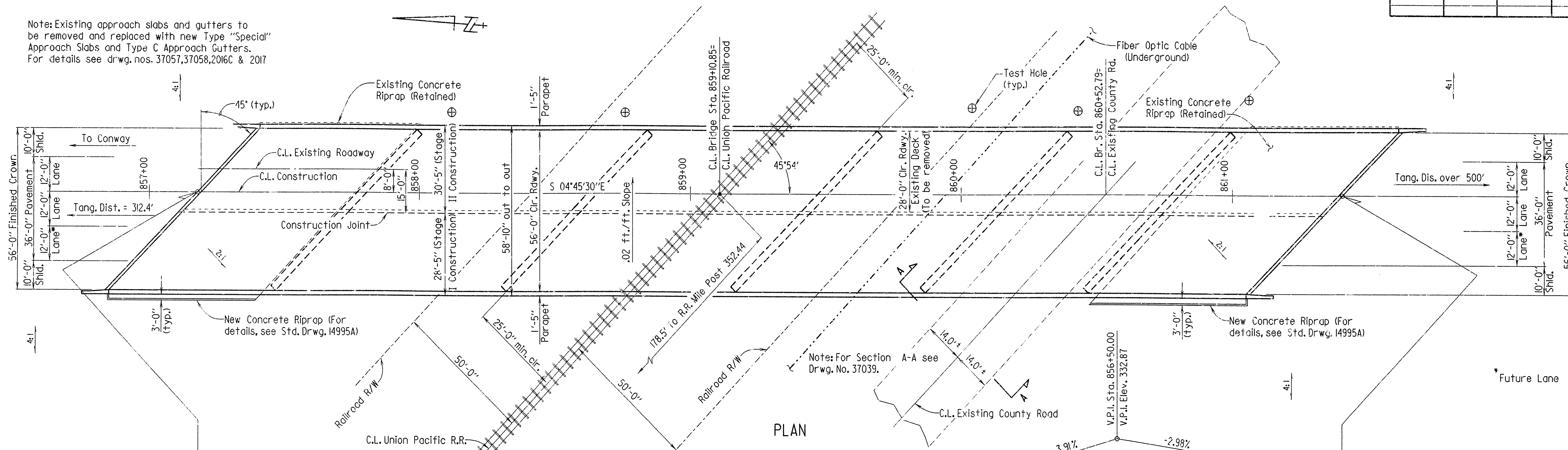
Note: For Hydraulic Data see drwg. no. 37022.

#### ELEVATION

For R/W Data, see Rdwy. Plans

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		060592	60	145
				A3232	LAYOUT			37036

Note: Existing approach slabs and gutters to be removed and replaced with new Type "Special" Approach Slabs and Type C Approach Gutters. For details see drwg. nos. 37057, 37058, 2016C & 2017



- Boring Legend
- A-Moist, Stiff, Brown and Gray Silty Clay
  - B-Medium Hard, Brown and Gray Weathered Shale with some Sandstone Fragments
  - C-Medium Hard, Gray and Brown Weathered Shale
  - D-Medium Hard, Dark Gray and Brown Shale with Gray Sandstone and Weathered Shale Seams
  - E-Medium Hard, Dark Gray and Brown Shale with Highly Weathered Shale Seams
  - F-Medium Hard, Dark Gray Shale
  - G-Moist, Stiff, Brown and Gray Silty Clay with Sandstone Fragments
  - H-Medium Hard, Brown and Gray Poorly-Cemented Sandstone with Clay Seams
  - J-Medium Hard, Gray and Brown Weathered Shale with some Sandstone Fragments
  - K-Medium Hard, Dark Gray and Brown Shale with some Weathered Shale Seams
  - L-Medium Hard, Brown and Gray Weathered Shale
  - M-Medium Hard, Brown and Gray Highly Weathered Shale
  - N-Medium Hard, Gray and Brown Weathered Shale with Highly Weathered Shale Seams
  - O-Medium Hard, Dark Gray Shale with Thin Gray Sandstone Seams
  - P-Medium Hard, Dark Gray Shale with Thin Gray Sandstone and some Weathered Shale Seams
  - Q-Medium Hard, Gray and Brown Highly Weathered Shale

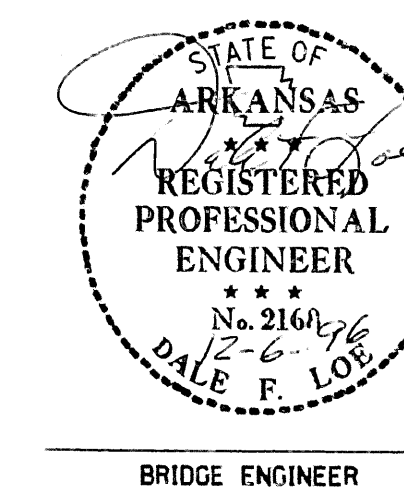
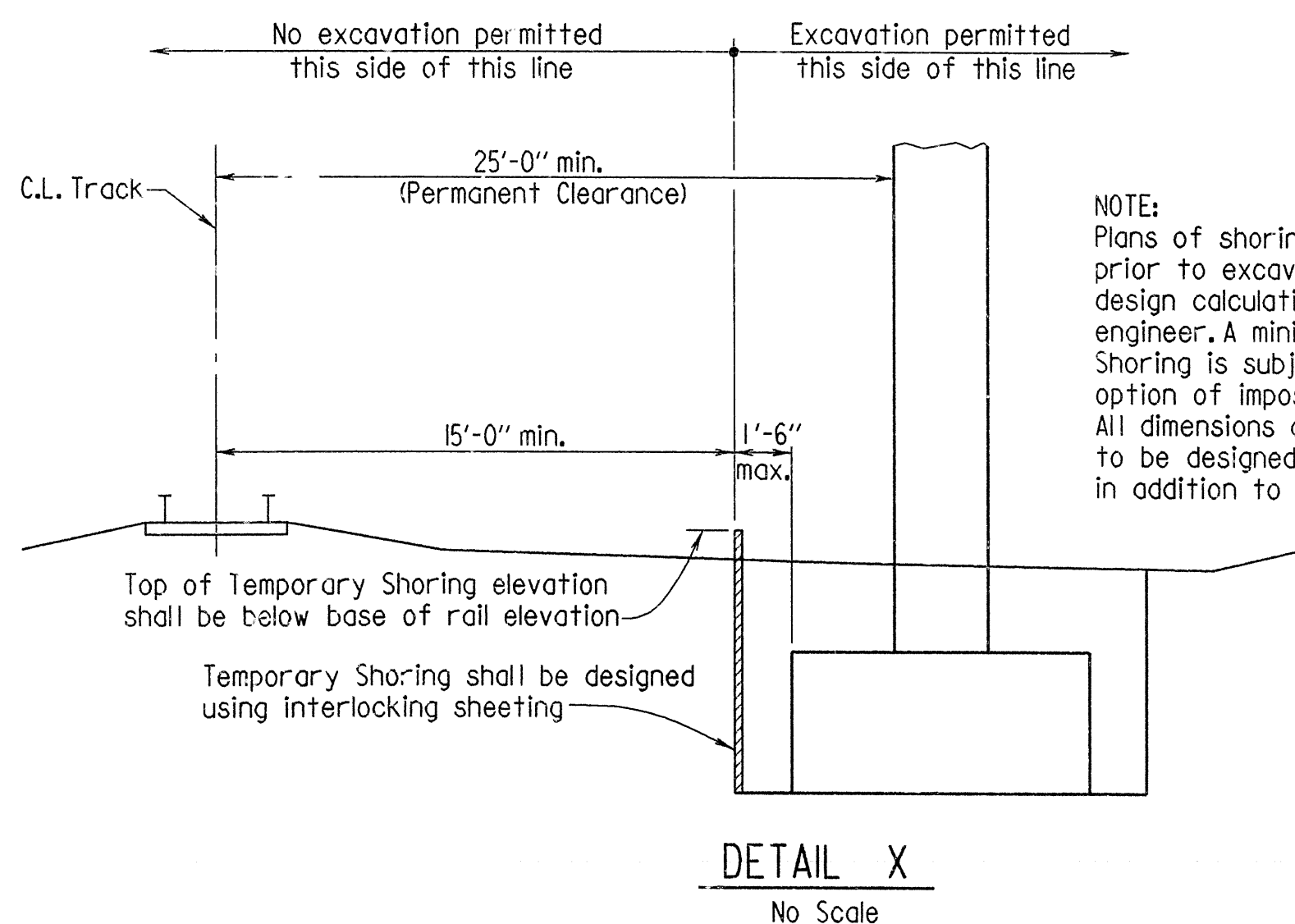
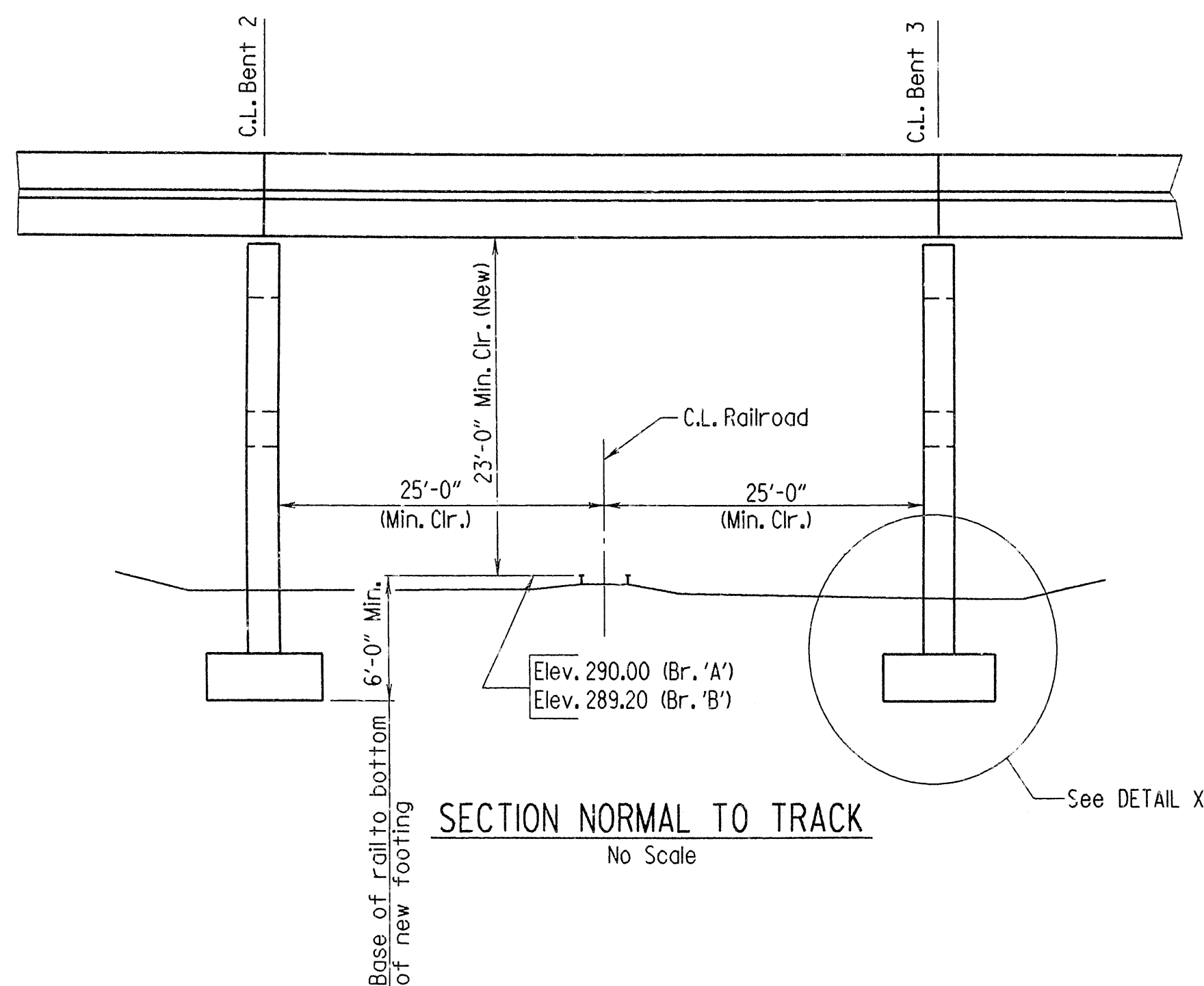
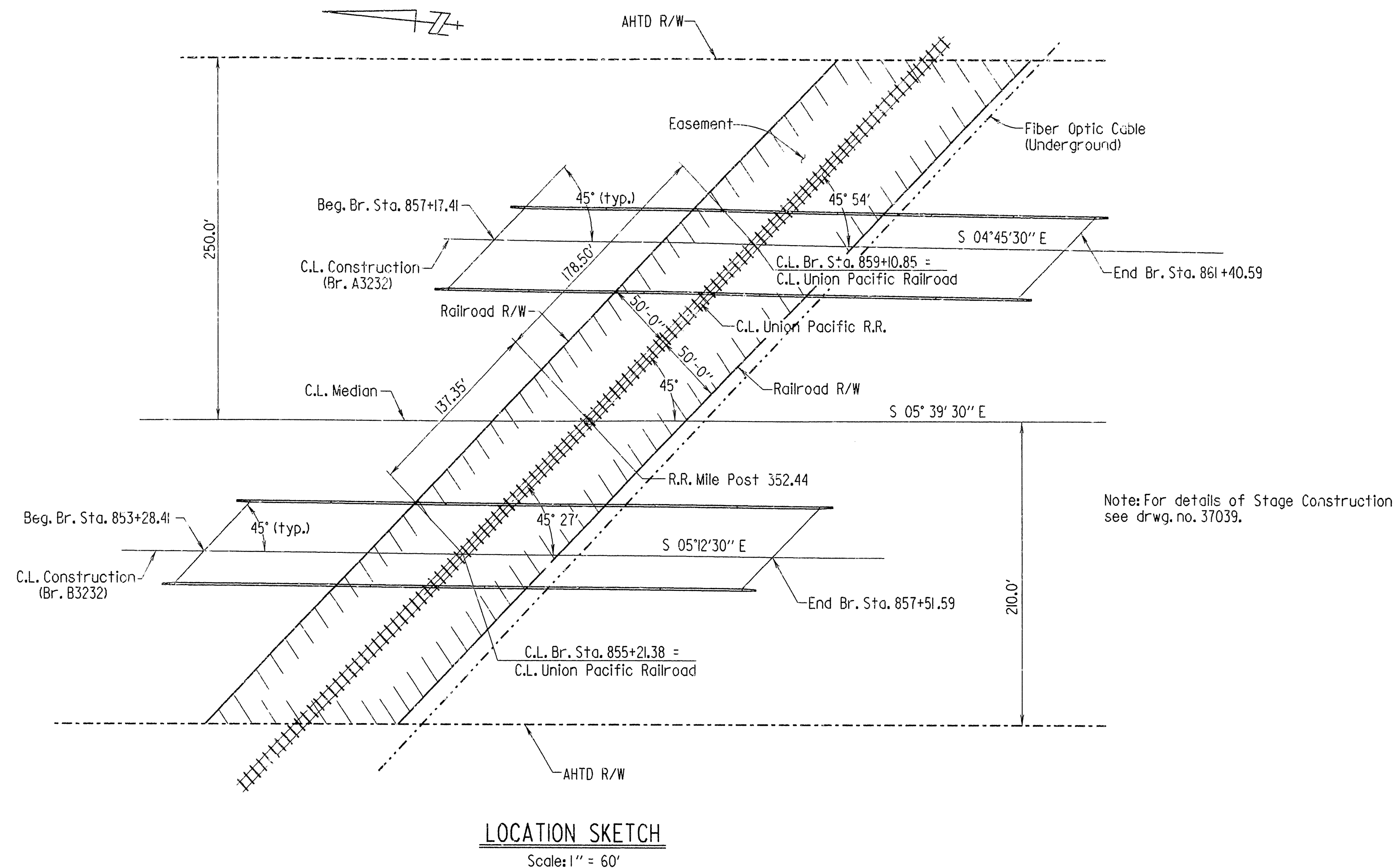


EXHIBIT A  
SHEET 1 OF 3  
LAYOUT OF REHABILITATED BRIDGE 'A'  
OVER UNION PACIFIC RAILROAD  
NO. MORGAN - 1450 (F)  
PULASKI COUNTY  
ROUTE 1-40 SEC. 33  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: KMG DATE: 12 Sept 95  
CHECKED BY: CAB DATE: DEC. 95  
DESIGNED BY: UAS DATE: -  
BRIDGE NO. A3232 DRAWING NO. 37036



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		060592	62	145
A3232,B3232 LAYOUT								37038



#### GENERAL NOTES

**BENCH MARK:** Elevations and stations are assumed to be the same as shown on the original plans. The original layout shows the elevation at the top of the deck and centerline of existing bridge to be at 317.26 at Sta. 857+25.46 (Beg. of Br. A3232) and 315.28 at Sta. 853+20.44 (Beg. of Br. B3232).

**CONSTRUCTION SPECIFICATIONS:** Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 1993 edition, with applicable supplemental specifications and special provisions.

**DESIGN SPECIFICATIONS:** AASHTO Standard Specifications for Highway Bridges, 1992 with current interim specifications.

**LIVE LOADING:** HS20 **METHOD OF DESIGN:** Load Factor  
**SEISMIC PERFORMANCE CATEGORY:** A

**MATERIALS AND STRENGTHS:**  
Class S(AE) Concrete (superstructure)  $f'_c = 4,000$  psi  
Class S Concrete (substructure)  $f'_c = 3,500$  psi  
Reinforcing Steel (A615 or A617, GR. 60)  $F_y = 60,000$  psi  
Structural Steel (A588)  $F_y = 50,000$  psi  
Structural Steel (A36)  $F_y = 36,000$  psi

**BRIDGE DECK:** The concrete bridge deck shall be given a fine finish as specified for final finishing in subsection 802.20 for Class 5 Bridge Roadway Surface Finish.

**BOILED LINSEED OIL:** Boiled linseed oil treatment shall be applied to the roadway surface and to the face and top of the concrete parapet wall.

**FOOTINGS:** Footings shall be set a minimum of 1'-6" into material designated as med. hard shale on the boring legend and shall have a minimum cover above top of footings of 2.0'. Foundations for footings shall be prepared in accordance with section 801.04 of the Standard Specifications. Rock excavations shall be made to neat lines of the concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock.

DETAIL DRAWINGS:	DRAWING NO.
Abutments:	37040, 37041, 37047, 37048, 37059, 37060, 37066, 37067
Bents:	37042 thru 37046 & 37061 thru 37065
420'-0" Cont. Comp. W-Beam Unit:	47049 thru 37056 & 37068 thru 37073
Permanent Steel Bridge Deck Form	14991
Concrete Riprap	14995A
Type C Bridge Name Plate	2389A
Embankment Construction	1888A
Computing Excavation for Structures	1891F
Temporary Precast Barrier	1896B
Approach Slabs and Gutters	37057, 37058, 2016C & 2017

Type A Rail shall be retained by the state. All other material which is not incorporated into the new structure shall become the property of the contractor.

The contractor shall make check measurements and make any adjustments necessary to fit the new work to the existing bridge.

Half-size detail drawings of the existing bridges may be obtained from the Arkansas Highway and Transportation Department.

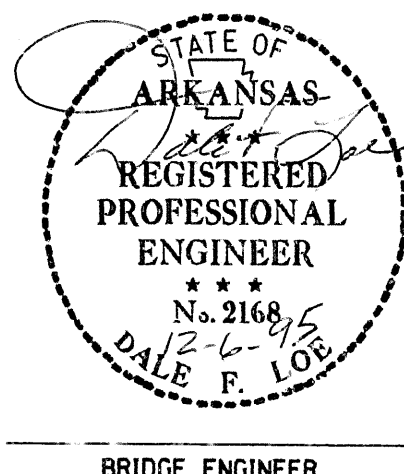
**MAINTENANCE OF TRAFFIC:** Details which relate to maintenance of traffic are shown on the bridge plans for information only; Payment, job special provisions, etc., are considered as part of the roadway plans.

#### DESCRIPTION OF WORK

A general description of the work specified in the detail plans, standard specifications, and job special provisions follows:

1. Removal and disposal of the existing superstructure and replacing with a new wider superstructure.
2. Widen the existing 28' clear roadway bridge to 56'.
3. Removal and disposal of portions of existing intermediate bents and modifying for new wider superstructure.
4. Removal and disposal of portions of existing abutments and modifying for new wider superstructure.
5. Reshaping of the existing end slopes.
6. For "Modification of Existing Bridge Structure", see Section 821 of the Standard Specifications.

**EXHIBIT A**  
**SHEET 3 OF 3**  
**LAYOUT OF REHABILITATED BRIDGE OVER UNION PACIFIC RAILROAD**  
**NO. MORGAN - 1430 (F)**  
**PULASKI COUNTY**  
**ROUTE 1-40 SEC. 33**  
**ARKANSAS STATE HIGHWAY COMMISSION**  
**LITTLE ROCK, ARK.**  
DRAWN BY: KMG DATE: 12 Sept 95  
CHECKED BY: CAB DATE: DEC. 95 SCALE: As Shown  
DESIGNED BY: VAS DATE: —  
BRIDGE NO. A3232, B3232 DRAWING NO. 37038

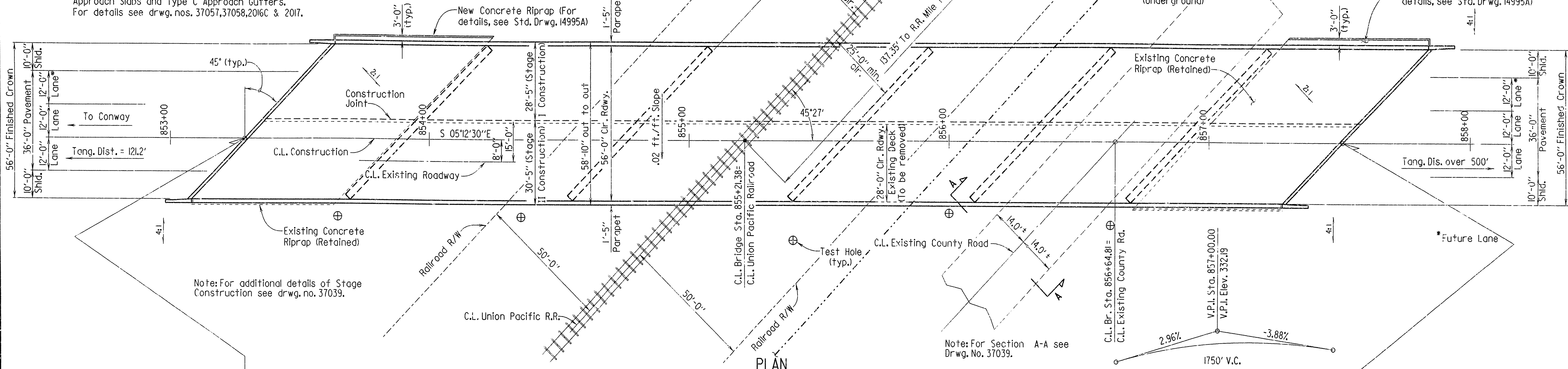


BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		060592	61	145
				B3232		LAYOUT		37037

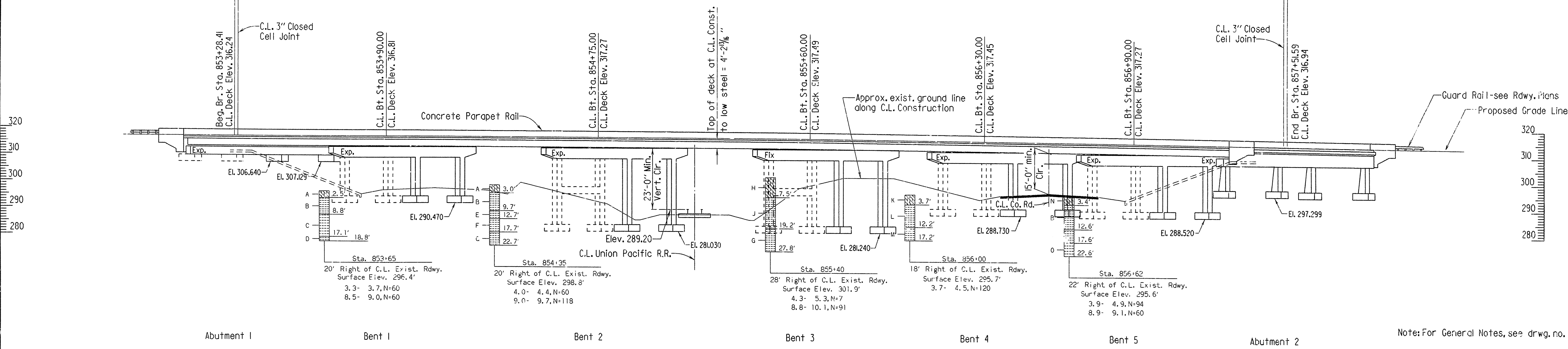
For R/W Data, see Rdwy. Plans

Note: Existing approach slabs and gutters to be removed and replaced with new Type "Special Approach Slabs and Type C Approach Gutters. For details see drwg. nos. 37057, 37058, 2016C & 2017.



Total Length of Bridge = 423'-2 1/8"

420'-0" Cont. Comp. W-Beam Unit  
(Spans: 60', 2 @ 85', 70', 2 @ 60')



ELEVATION

- Boring Log 1
- A-Moist, Stiff, Brown and Gray Silty Clay
  - B-Medium Hard, Brown and Gray Weathered Shale
  - C-Medium Hard, Dark Gray and Brown Shale with Gray Sandstone and Weathered Shale Seams
  - D-Medium Hard, Dark Gray Shale with some Slickensides
  - E-Medium Hard, Dark Gray and Brown Shale with Weathered Shale Seams
  - F-Medium Hard, Dark Gray Shale
  - G-Medium Hard, Dark Gray Shale with some Thin Gray Sandstone Seams
  - H-Moist, Medium Stiff, Reddish Brown Sandy, Silty Clay
  - J-Medium Hard, Gray and Brown Weathered Shale with Highly Weathered Shale Seams
  - K-Moist, Stiff to Very Stiff, Brown Sandy, Silty Clay
  - L-Medium Hard, Brown and Gray Weathered Shale with Highly Weathered Shale Seams
  - M-Medium Hard, Dark Gray and Brown Shale with Weathered Shale and some Thin Gray Sandstone Seams
  - N-Moist, Stiff, Brown Sandy, Silty Clay
  - O-Medium Hard, Dark Gray Shale with Thin Gray Sandstone Seams

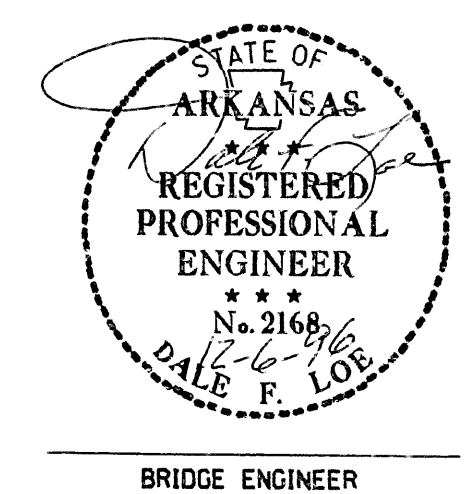
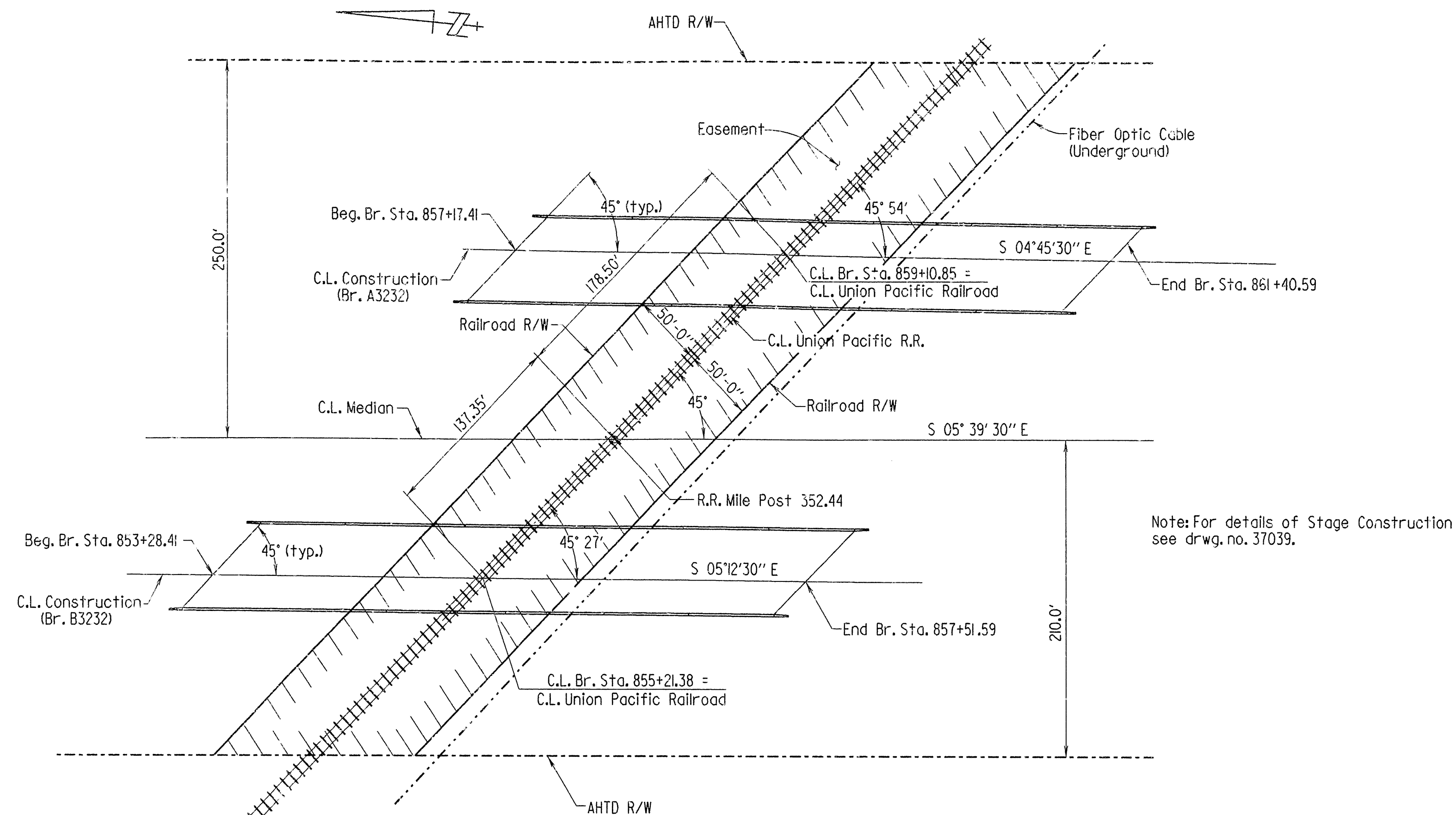


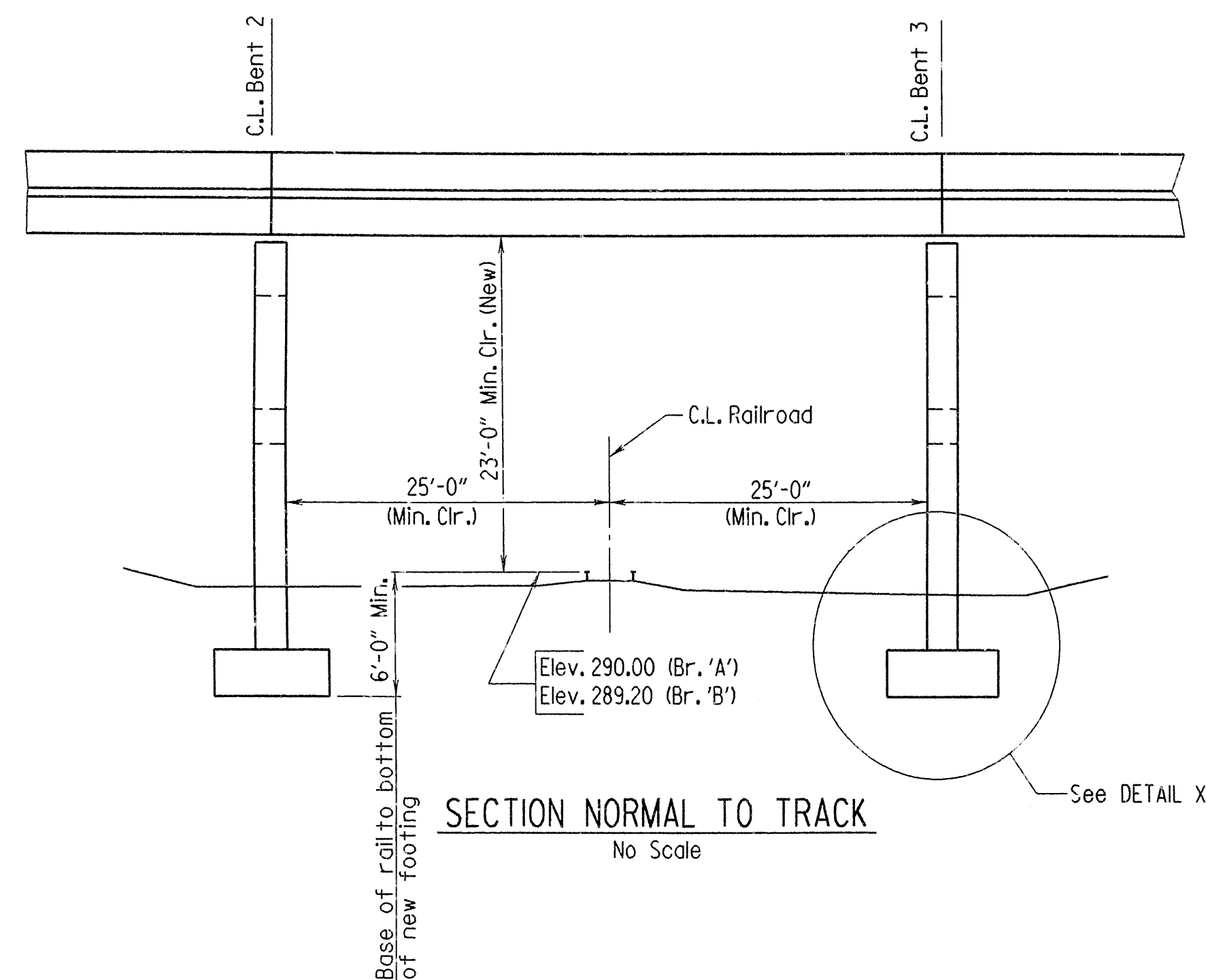
EXHIBIT A  
SHEET 2 OF 3  
LAYOUT OF REHABILITATED BRIDGE 'B'  
OVER UNION PACIFIC RAILROAD  
NO. MORGAN - 1430 (F)  
PULASKI COUNTY  
ROUTE 1-40 SEC. 33  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: KMG DATE: 12 Sept 95  
CHECKED BY: CAB DATE: Dec. 95  
DESIGNED BY: VHS DATE:   
BRIDGE NO. B3232 DRAWING NO. 37037



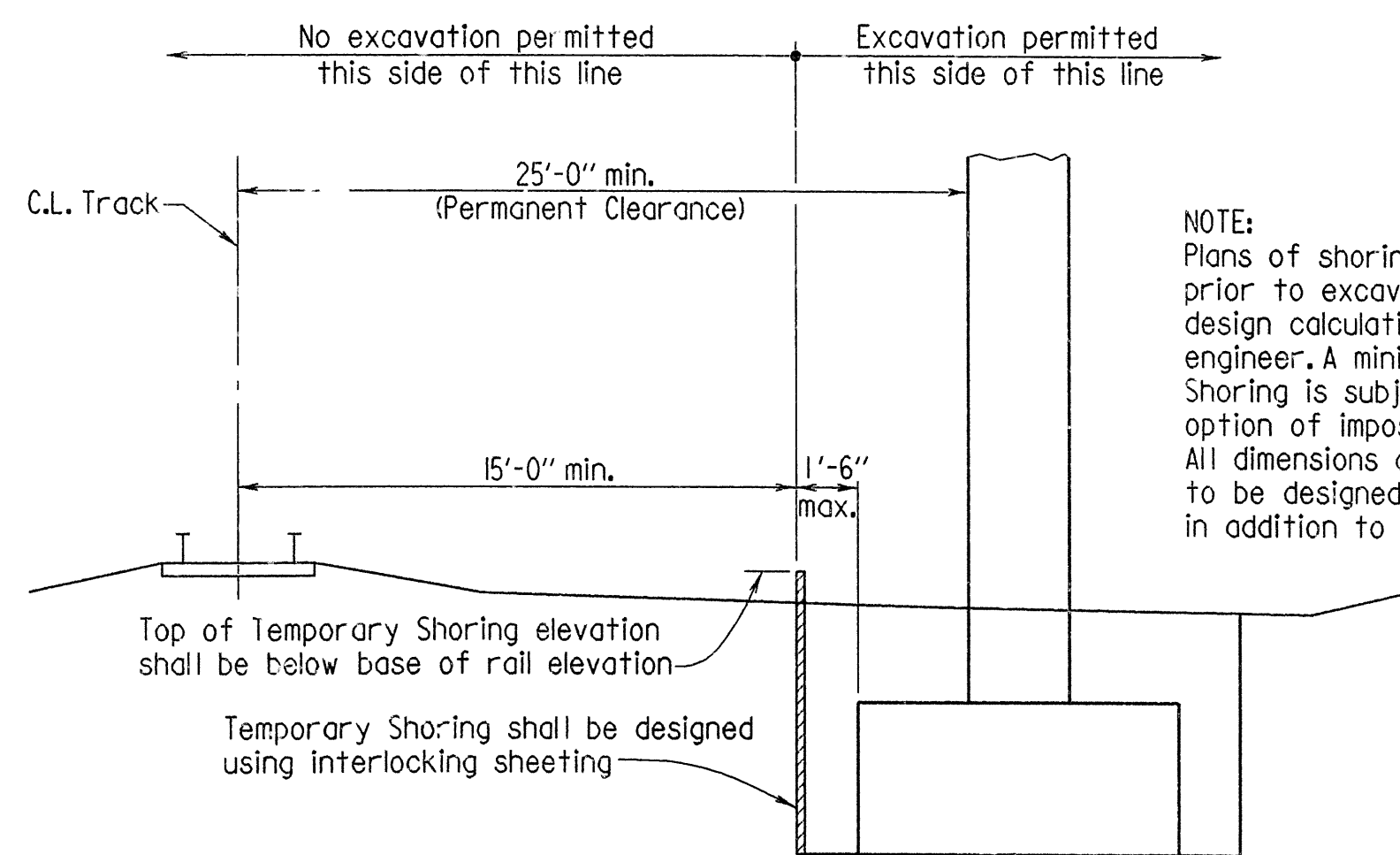
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	060592	62
								145
A3232,B3232 LAYOUT								37038



LOCATION SKETCH  
Scale: 1" = 60'



SECTION NORMAL TO TRACK  
No Scale



DETAIL X  
No Scale

Note: DETAIL "X" is typical for bents 2 and 3.

NOTE:  
Plans of shoring to be submitted to the Railroad Company for approval prior to excavating. Shoring plans to be accompanied by a copy of the design calculations, and both to be stamped by a registered professional engineer. A minimum of 30 days shall be allowed for the Railroad's review. Shoring is subject to approval of the Railroad Company, who reserves the option of imposing more stringent requirements as conditions warrant. All dimensions are measured at right angle to track. Shoring for excavation to be designed for railroad live load surcharge using Cooper E72 live loading in addition to soil pressure.

# GENERAL NOTES

BENCH MARK: Elevations and stations are assumed to be the same as shown on the original plans. The original layout shows the elevation at the top of the deck and centerline of existing bridge to be at 317.26 at Sta. 857+25.46 (Beg. of Br. A3232) and 315.28 at Sta. 853+20.44 (Beg. of Br. B3232).

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 1993 edition, with applicable supplemental specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, 1992 with current interim specifications.

LIVE LOADING: HS20 METHOD OF DESIGN: Load Factor  
SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:  
Class S(AE) Concrete (superstructure)  $f'_c = 4,000$  psi  
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Structural Steel (A588)  $F_y = 50,000$  psi  
Structural Steel (A36)  $F_y = 36,000$  psi

BRIDGE DECK: The concrete bridge deck shall be given a fine finish as specified for final finishing in subsection 802.20 for Class 5 Bridge Roadway Surface Finish.

BOILED LINSEED OIL: Boiled linseed oil treatment shall be applied to the roadway surface and to the face and top of the concrete parapet wall.

FOOTINGS: Footings shall be set a minimum of 1'-6" into material designated as med. hard shale on the boring legend and shall have a minimum cover above top of footings of 2.0'. Foundations for footings shall be prepared in accordance with section 801.04 of the Standard Specifications. Rock excavations shall be made to neat lines of the concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock.

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Concrete Riprap	14995A
Type C Bridge Name Plate	2389A
Embankment Construction	1888A
Computing Excavation for Structures	1891F
Temporary Precast Barrier	1896B
Approach Slabs and Gutters	37057, 37058, 2016C & 2017

Type A Rail shall be retained by the state. All other material which is not incorporated into the new structure shall become the property of the contractor.

The contractor shall make check measurements and make any adjustments necessary to fit the new work to the existing bridge.

Half-size detail drawings of the existing bridges may be obtained from the Arkansas Highway and Transportation Department.

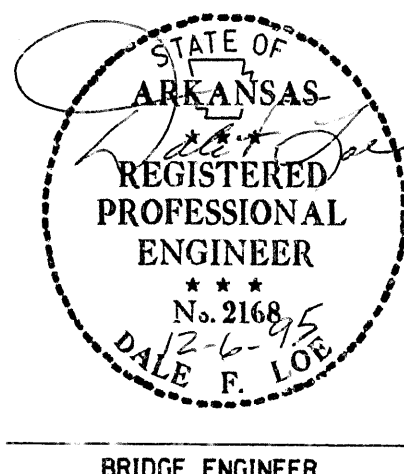
MAINTENANCE OF TRAFFIC: Details which relate to maintenance of traffic are shown on the bridge plans for information only. Payment, job special provisions, etc., are considered as part of the roadway plans.

## DESCRIPTION OF WORK

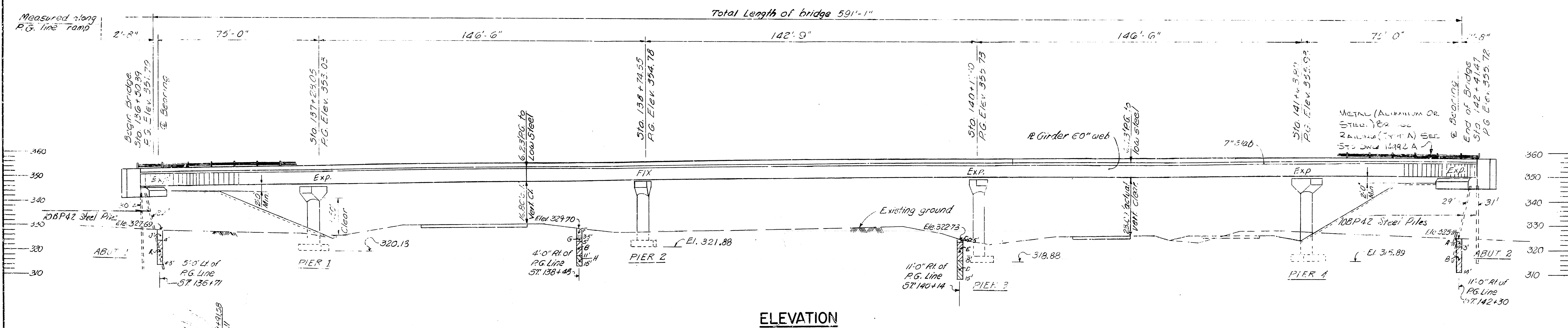
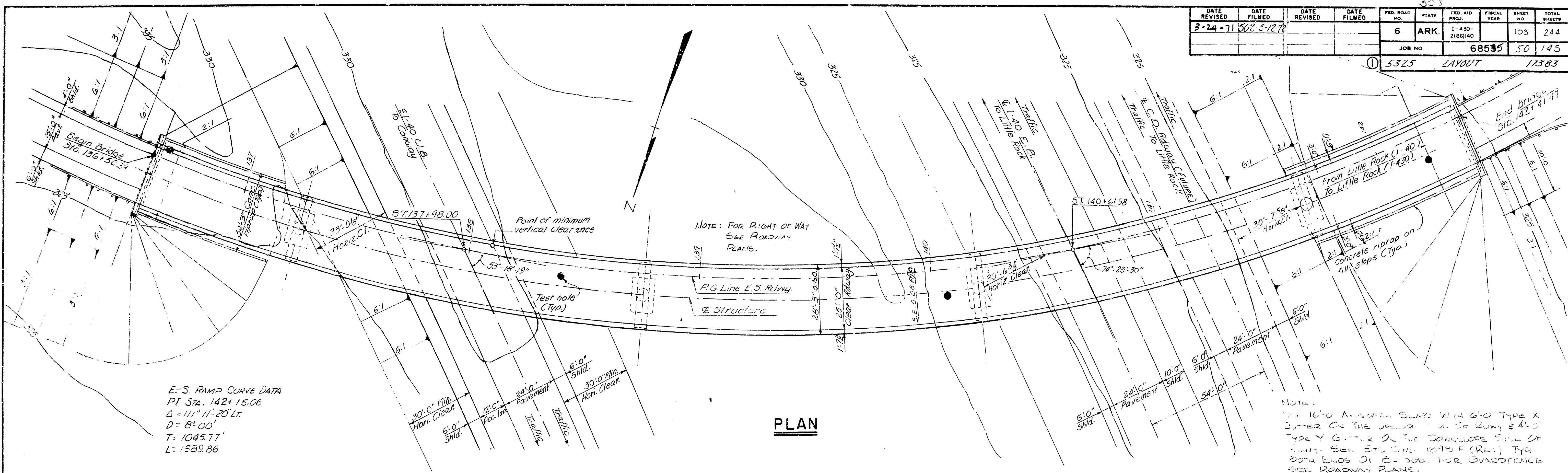
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3. Removal and disposal of portions of existing intermediate bents and modifying for new wider superstructure.
4. Removal and disposal of portions of existing abutments and modifying for new wider superstructure.
5. Reshaping of the existing end slopes.
6. For "Modification of Existing Bridge Structure", see Section 821 of the Standard Specifications.

EXHIBIT A  
SHEET 3 OF 3  
LAYOUT OF REHABILITATED BRIDGE 'B'  
OVER UNION PACIFIC RAILROAD  
NO. MORGAN - 1430 (F)  
PULASKI COUNTY  
ROUTE 1-40 SEC. 33  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: KMG DATE: 12 Sept 95  
CHECKED BY: CAB DATE: Dec. 95 SCALE: As Shown  
DESIGNED BY: VAS DATE: —  
BRIDGE NO. A3232, B3232 DRAWING NO. 37038



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3-24-71	508-5-1272			6	ARK.	1-430- 2160140	103	244
				JOB NO.		68535	50	145
				5325	LAYOUT			12383



### LEGEND

- A = Brown and gray moist medium stiff clayey silt.
- B = Gray and brown very weathered shale.
- C = Top soil
- D = Gray and brown very weathered shaly clay.
- E = Gray and brown weathered shale.
- F = Brown moist stiff silty clay with shale (C fill).
- G = Reddish brown moist stiff silty clay.
- H = Gray and brown weathered shaly clay.
- I = Reddish brown moist medium stiff silty clay.
- J = Gray and brown shaly clay.

## BENCH MARK

T.B.M. "NIS" 10" Pine - 40' SW Sta. 142+15.06, E.I. 320.25

## GENERAL NOTES

SPECIFICATIONS: Arkansas State Highway Commission Standard specifications for Highway construction 1959 edition, the 1966 supplemental specifications thereto, and applicable special provisions.

DESIGN SPECIFICATIONS : A.A.S.H.O. 1969  
Design live load : HS20 AND SPECIAL INTERSTATE LOADING  
OF TWO 24,000 LB AXLES AT 4'-0" ON CENTER

DESIGN STRESSES: Reinforcing steel 20000 P.S.I.  
Structural steel (A36) 20000 P.S.I.  
Foundation pressure 8000 P.S.F. (Gr-I)  
CLASS 5 CONCRETE (f'<sub>c</sub> = 40) 1,200 P.S.I.

For Additional General Notes  
See DWG No 17384.

## LAYOUT

I-40 INTERCHANGE  
E-S RAMP  
PULASKI COUNTY  
INT. ROUTE 430 SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: Rm D. J. M. V. DATE: 4-26-66

TRACED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY: LWD/lwc DATE: 8-8-69

BRIDGE NO. 5325

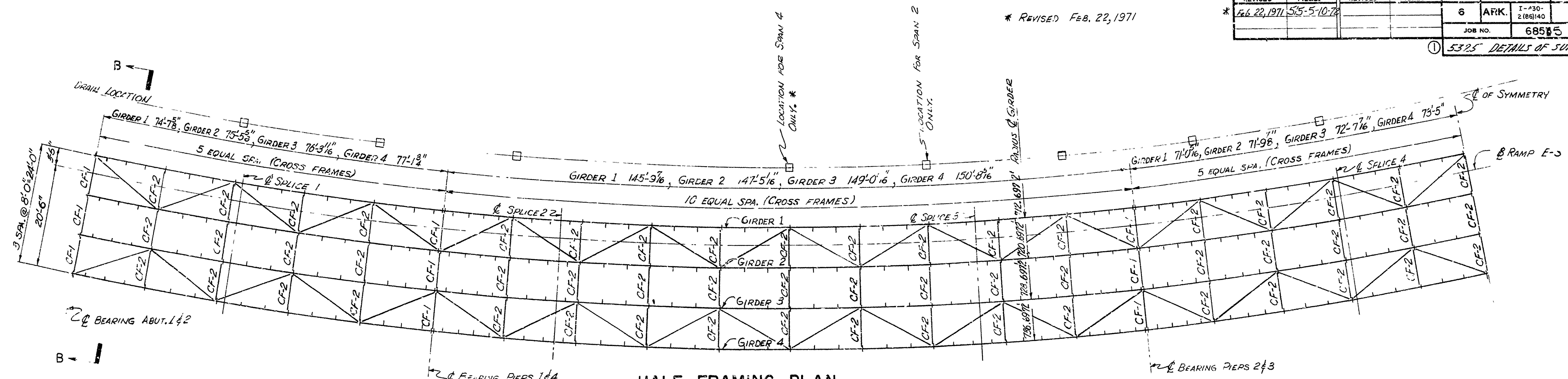
SCALE: 1" = 20'

**DRAWING NO. 17383**

BRIDGE ENGINEER

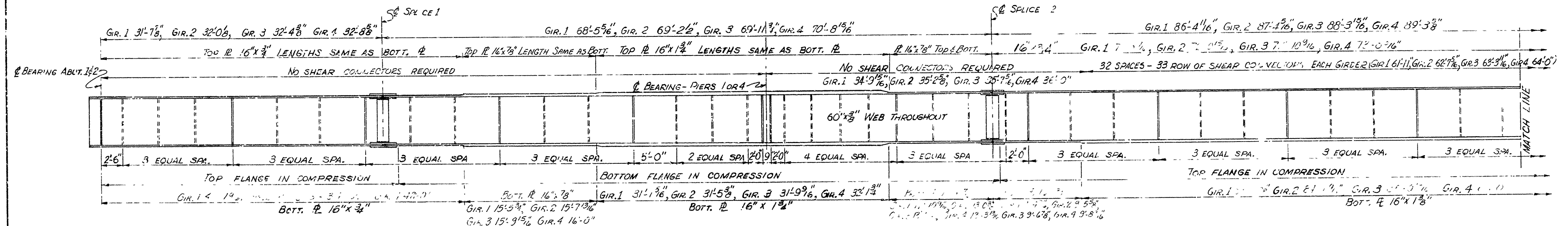


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PRJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
* Feb 22, 1971	5/5-5-10-78			6	ARK.	I-430- 2(80)40		108	244
				JOB NO.		6855		55	145
① 5325 DETAILS OF SUBSTR. 17388									



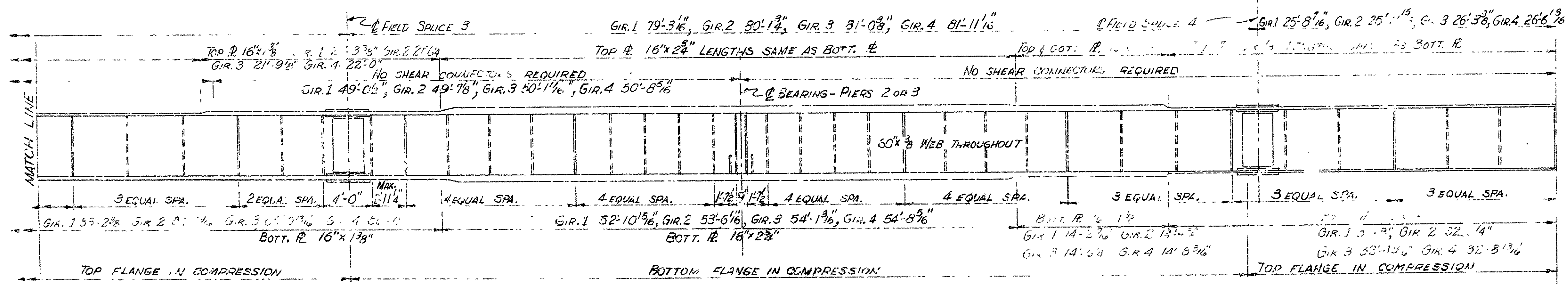
HALF FRAMING PLAN

SCALE: 3/32" = 1'-0"



HALF GIRDER ELEVATION

ALL FIELD SPLICES ARE OPTIONAL  
ALL DIMENSIONS ARE HORIZONTAL, ALONG THE  
CURVED LENGTH OF GIRDERS  
FOR SECTION REF SEE SHEET 17390  
FOR GENERAL NOTES SEE ENCL. 4, 12-20  
WELD INTERMEDIATE STIFFENERS TO COMPRESSION  
FLANGE



HALF GIRDER ELEVATION

DETAILS OF SUPERSTRUCTURE

E-S RAMP BRIDGE

PULASKI COUNTY

NT. ROUTE 430 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

BRIDGE NO. 5325

DRAWING NO. 17388

SCALE: As Shown

DATE: 8-4-69

DATE: 8-4-69

DATE: 8-4-69

DATE: 8-4-69

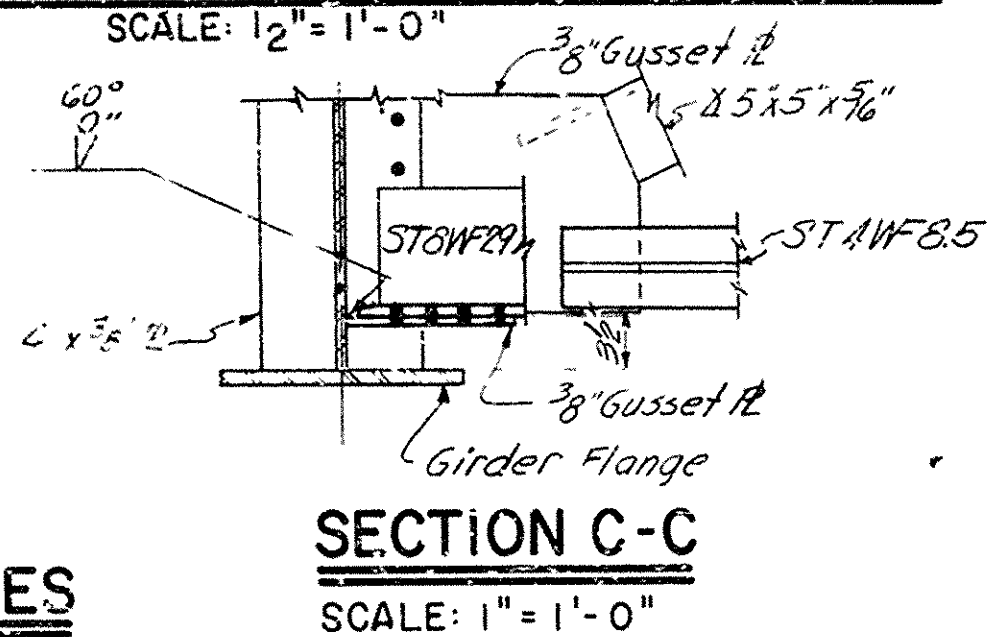
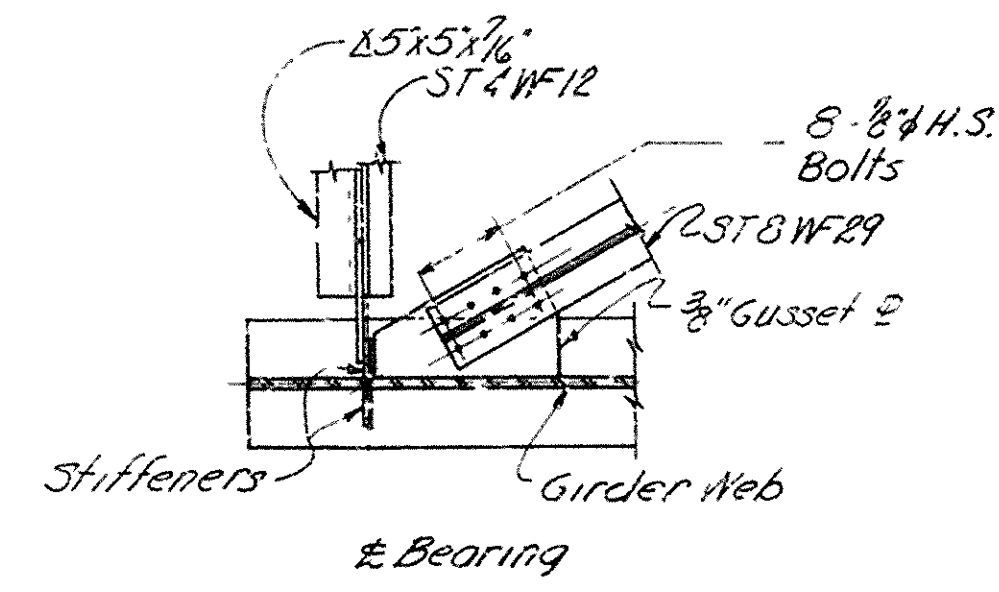
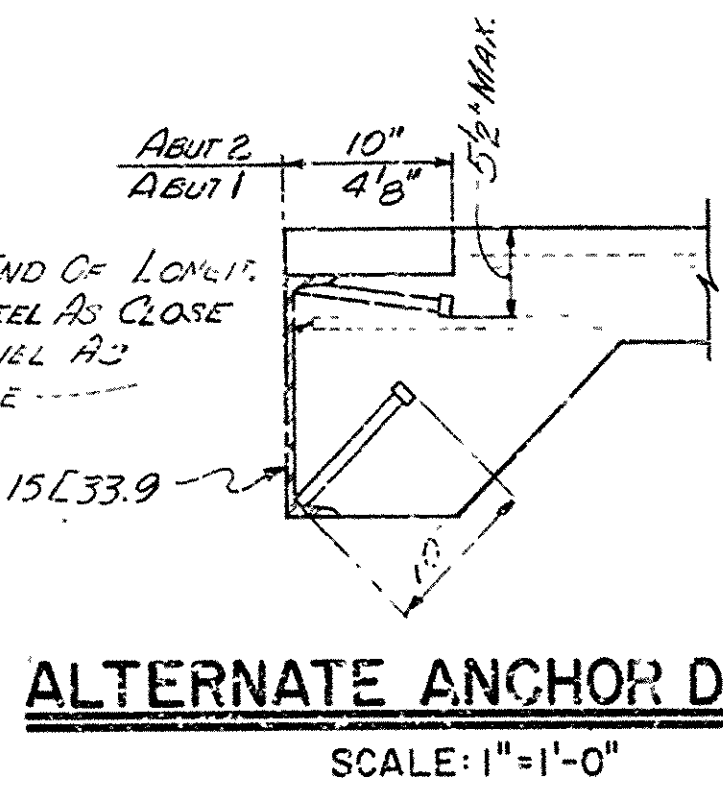
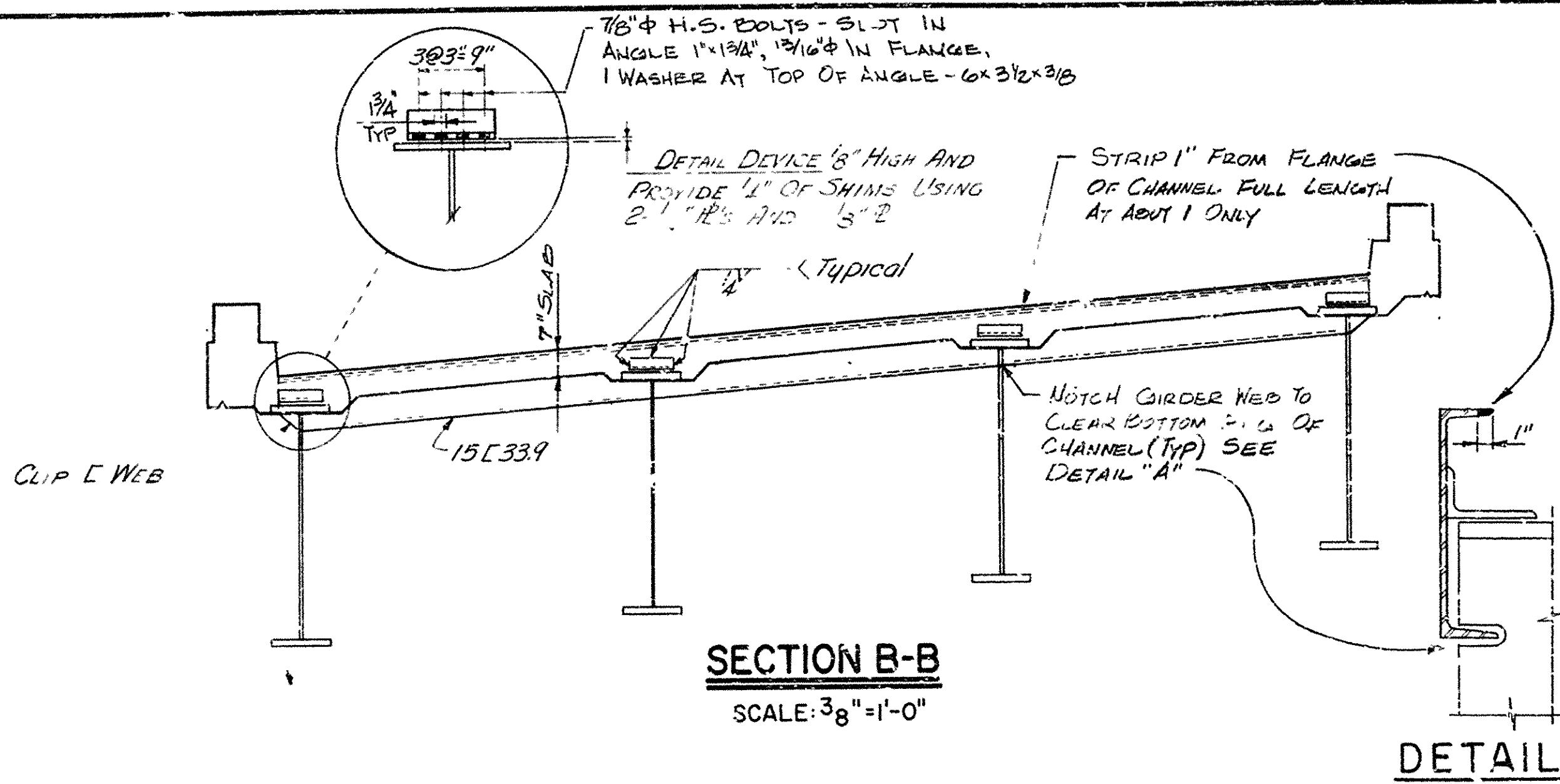






DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
			6	ARK.	I-430- 219.145		53	145
JOB NO. 6855								

5325 DETAILS OF SUBSTR. 17390



### GENERAL NOTES

- STRUCTURAL STEEL:**
- ALL STEEL SHALL BE ASTM A36, UNLESS OTHERWISE NOTED.
  - ANCHOR BOLTS SHALL BE GALVANIZED TO CONFORM TO THE ASTM SPECIFICATION A153.
  - FIELD CONNECTIONS SHALL BE BOLTED WITH HIGH STRENGTH BOLTS.
  - BOLTS - 7/8" Ø, OPEN HOLES - 1/16" Ø
  - WELDED CONNECTIONS TO BE 1/4" FILLER SHOP WELDS, EXCEPT AS NOTED. ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY "STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES", CURRENT EDITION. CURRENT SUPPLEMENTAL SPECIFICATIONS SHALL ALSO APPLY.
  - THE GIRDERS ARE TO BE FABRICATED TO THEIR CORRECT RADIUS OF CURVATURE IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
  - FINISHED SURFACES TO RECEIVE ONE SHOP COAT OF WHITE LEAD AND TALLOW.
  - SHOP PAINT: ALL STRUCTURAL STEEL SHALL BE GIVEN ONE COAT OF RED LEAD AND RAW LINSEED OIL BEFORE SHIPMENT.
  - FIELD PAINT: FIRST COAT-RED LEAD TINTED WITH LAMPBLACK. SECOND COAT-ALUMINUM PAINT.
  - NO SHOP PAINT SHALL BE APPLIED TO TOP FLANGES OF BEAMS AND SHEAR CONNECTORS OR AT POINTS OF WELDED OR BOLTED SPLICES, INCLUDING SPLICE PLATES.

### NOTE:

IF EXPANSION JOINT ALTERNATE NO. 2 IS USED SEE DWG 17381 FOR ALTERATIONS TO BE MADE ON THIS DWG.

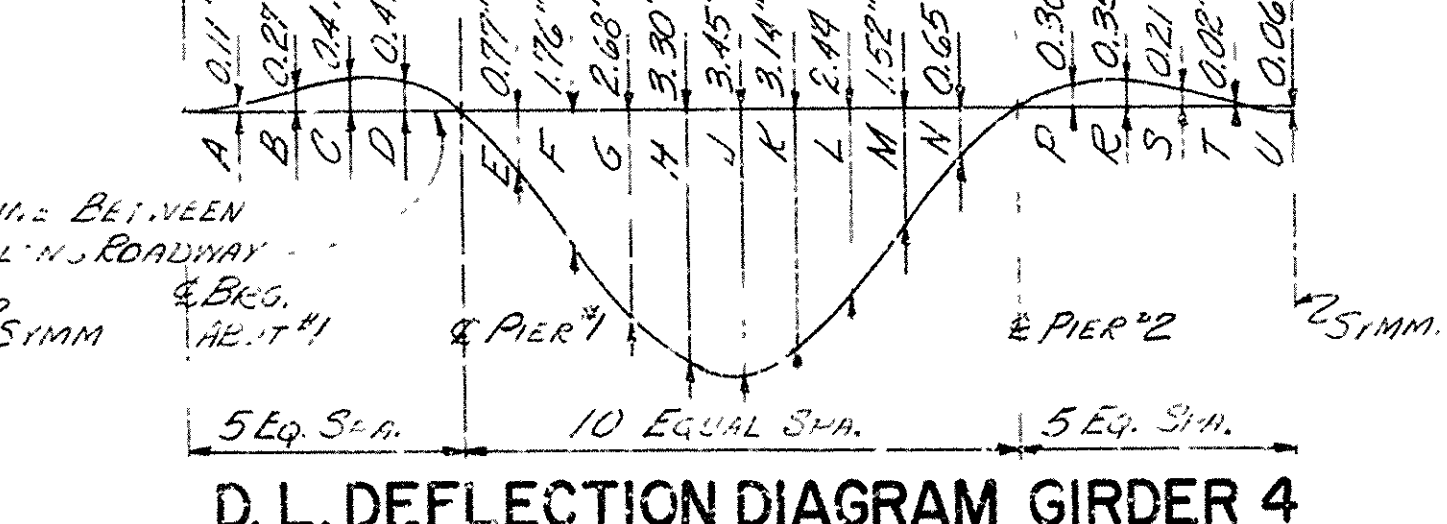
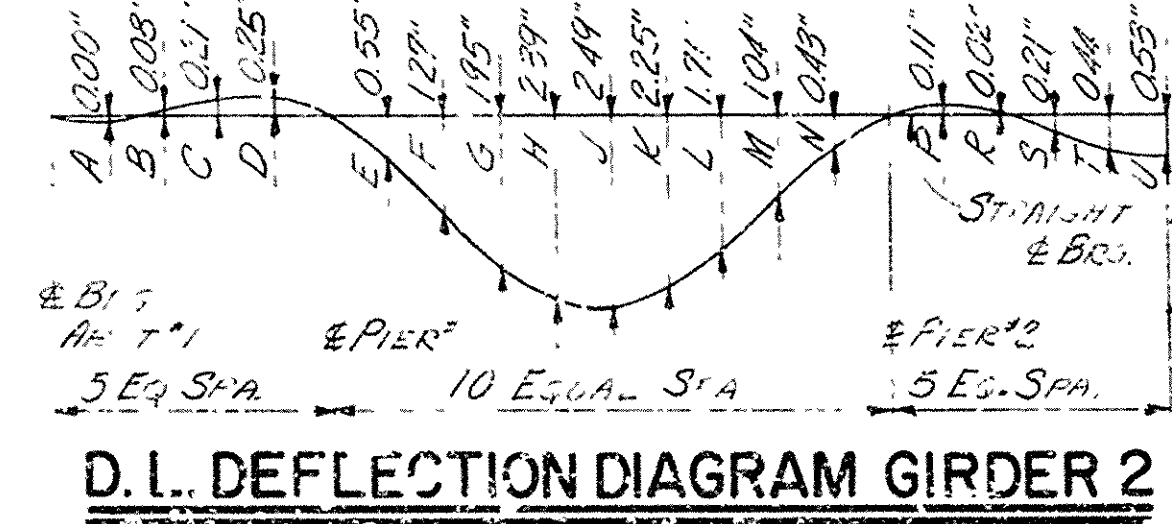
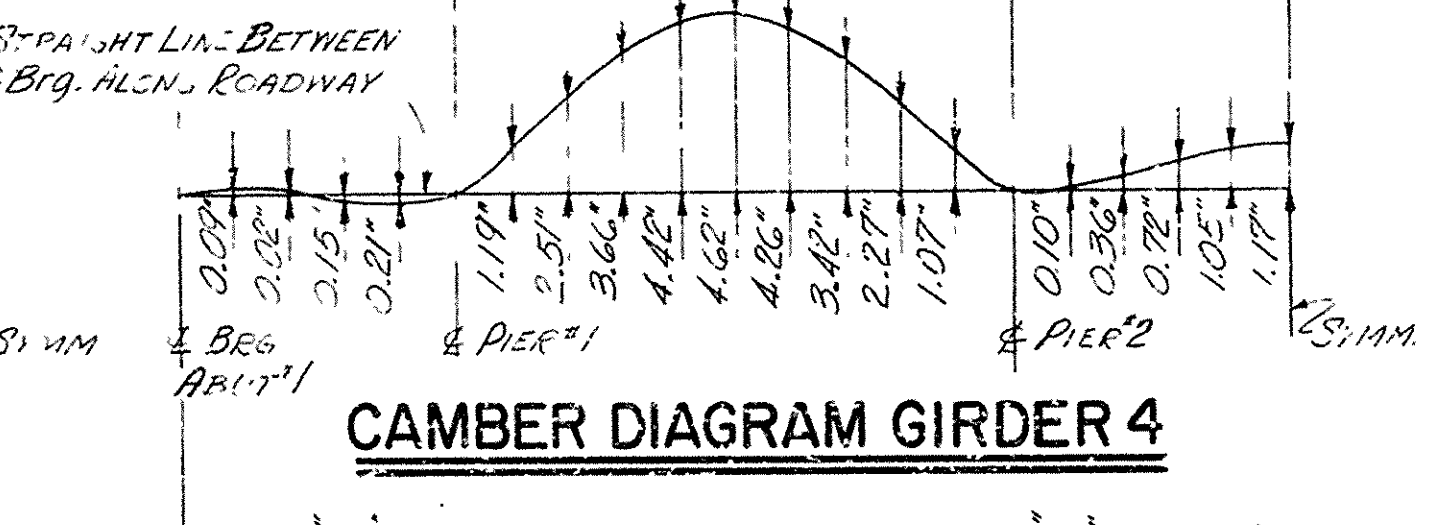
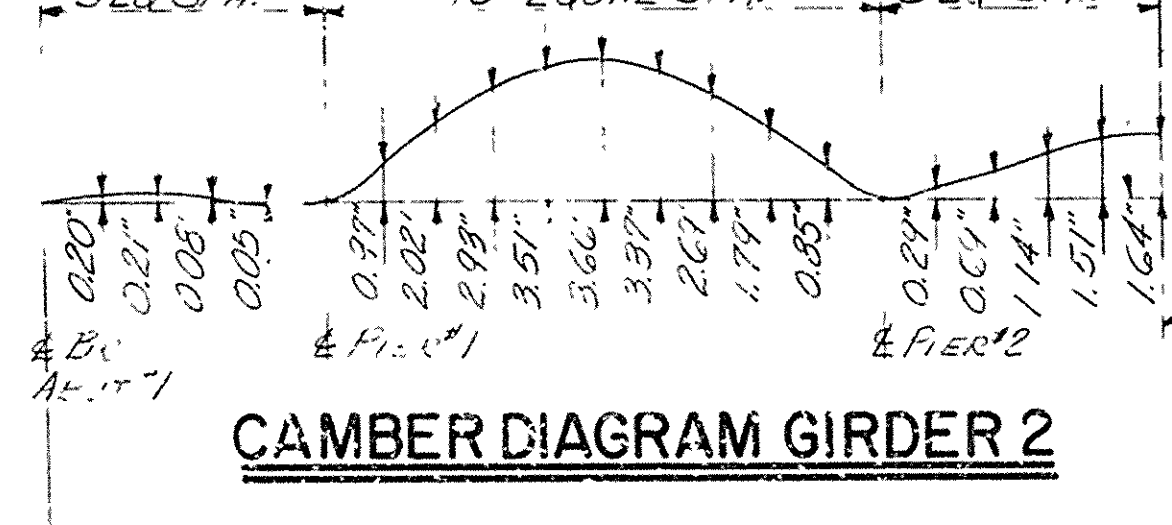
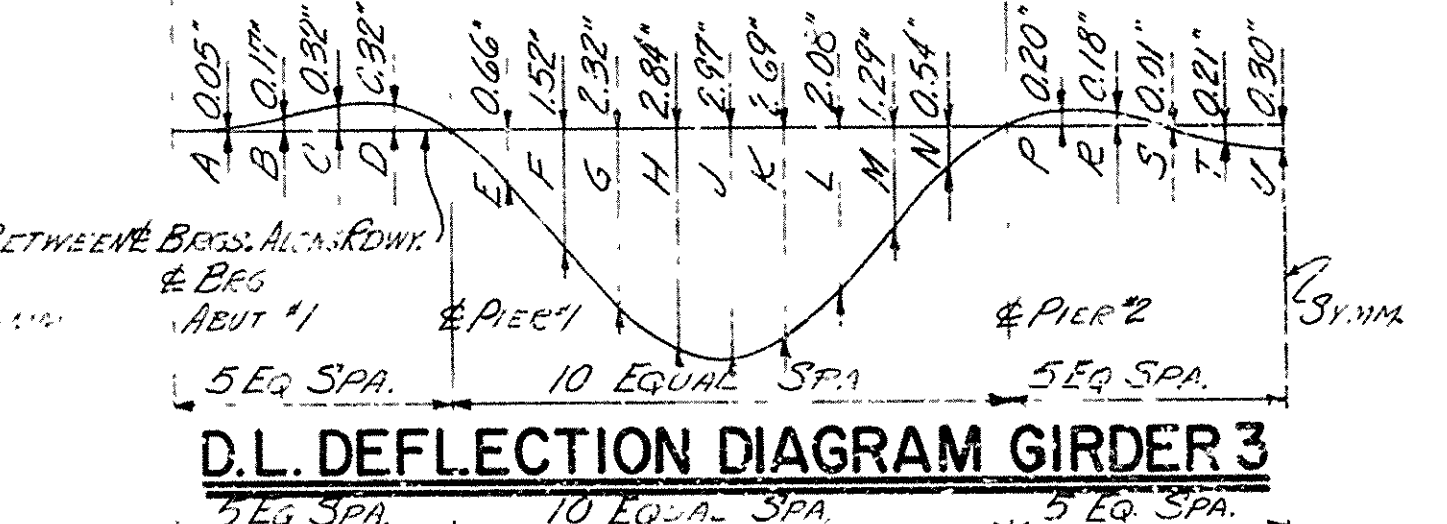
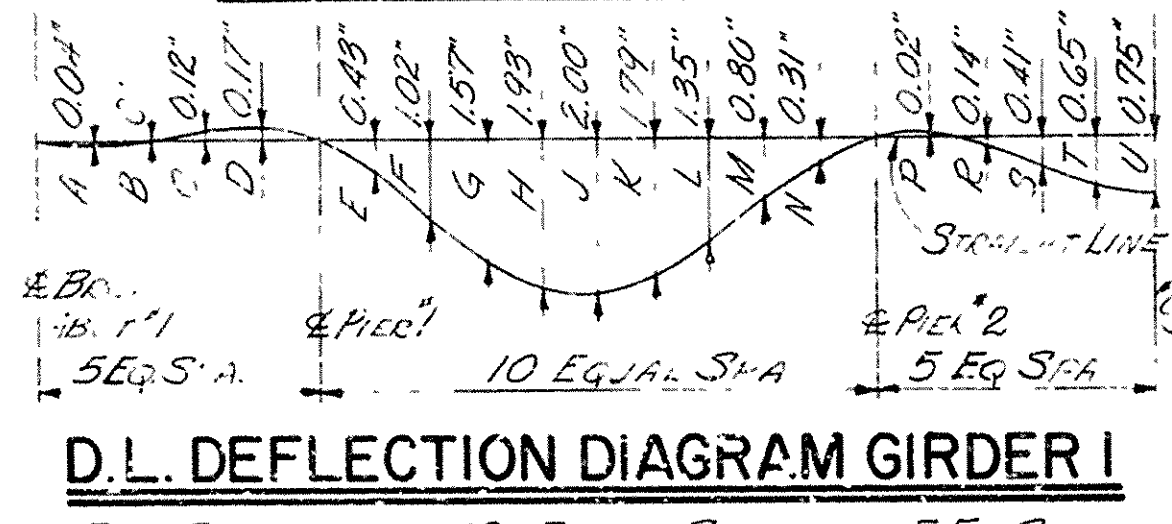
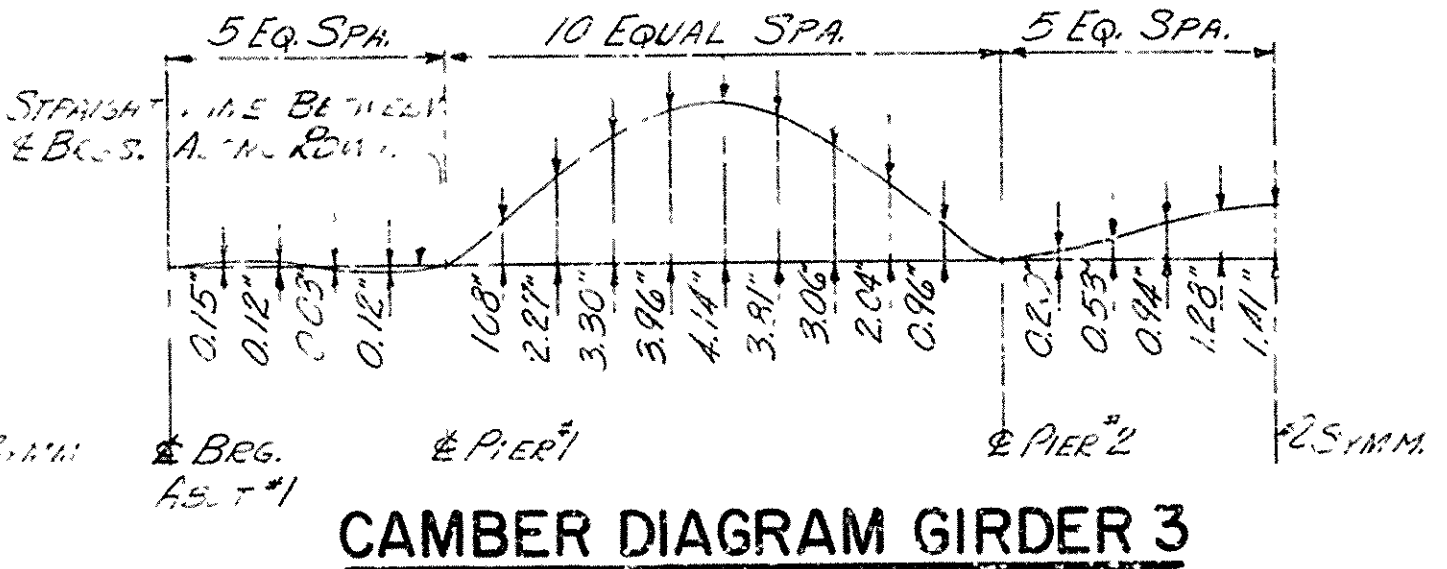
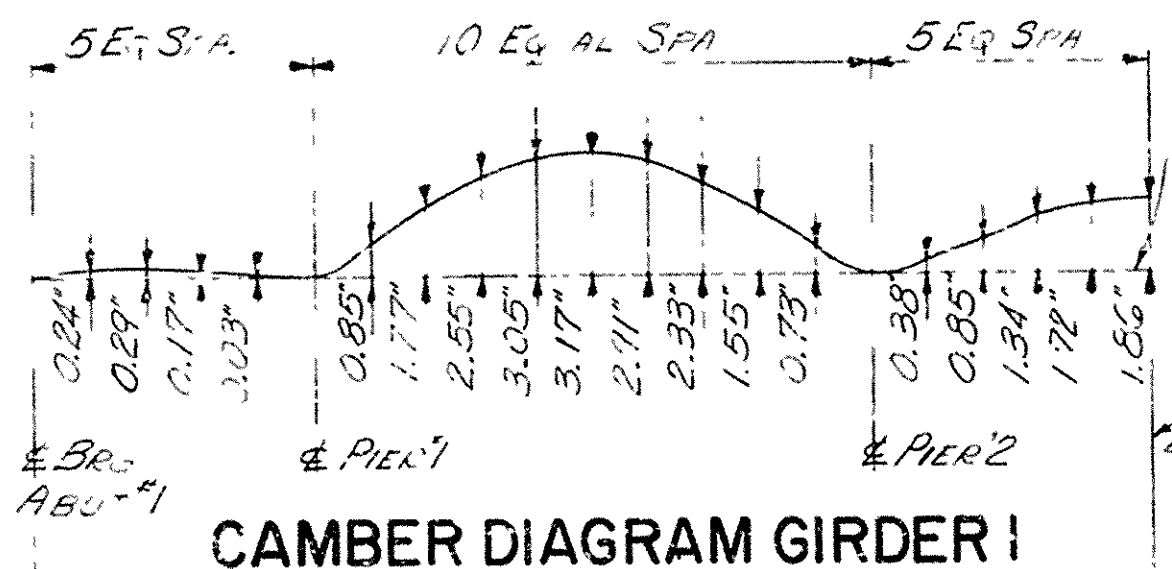


TABLE OF DEFLECTION GIRDER 1					
PT.	STEEL SLAB	DDL	CORR.	CMB.	
A	0.00	0.01	0.03	0.20	0.24
B	-0.01	-0.02	0.03	0.29	0.29
C	-0.03	-0.09	0.0	0.29	0.17
D	-0.04	-0.10	-0.03	0.20	0.03
E	0.11	0.23	0.09	0.42	0.85
F	0.24	0.57	0.21	0.75	1.77
G	0.38	0.88	0.31	0.98	2.55
H	0.47	1.08	0.36	1.12	3.05
J	0.49	1.12	0.39	1.17	3.17
K	0.44	1.00	0.35	1.12	2.91
L	0.35	0.76	0.26	0.98	2.33
M	0.21	0.44	0.15	0.75	1.55
N	0.09	0.17	0.05	0.42	0.73
P	-0.01	-0.03	0.02	0.40	0.38
R	0.02	0.04	0.08	0.71	0.85
S	0.07	0.18	0.16	0.93	1.34
T	0.13	0.29	0.23	1.07	1.72
U	0.15	0.34	0.26	1.11	1.86

TABLE OF DEFLECTION GIRDER 2					
PT.	STEEL SLAB	DDL	CORR.	CMB.	
A	0	-0.02	0.02	0.20	0.20
B	-0.02	-0.07	0.01	0.29	0.21
C	-0.04	-0.14	-0.03	0.29	0.03
D	-0.04	-0.17	-0.04	0.20	-0.05
E	0.11	0.33	0.11	0.42	0.97
F	0.26	0.75	0.26	0.75	2.02
G	0.41	1.15	0.39	0.98	2.93
H	0.50	1.41	0.48	1.12	3.51
J	0.52	1.48	0.49	1.17	3.66
K	0.47	1.33	0.45	1.12	3.37
L	0.35	1.02	0.34	0.98	2.69
M	0.23	0.60	0.21	0.75	1.79
N	0.10	0.25	0.08	0.42	0.85
P	-0.03	-0.08	0.00	0.40	0.29
R	-0.01	-0.05	0.04	0.71	0.67
S	0.02	0.07	0.12	0.93	1.14
T	0.06	0.14	0.19	1.07	1.51
U	0.08	0.23	0.22	1.11	1.64

TABLE OF DEFLECTION GIRDER 3					
PT.	STEEL SLAB	DDL	CORR.	CMB.	
A	-0.01	-0.04	0.00	0.20	0.15
B	-0.03	-0.13	0.01	0.29	0.12
C	-0.06	-0.21	0.05	0.29	-0.05
D	-0.06	-0.20	-0.06	0.20	-0.12
E	0.14	0.38	0.14	0.42	1.08
F	0.31	0.89	0.32	0.75	2.27
G	0.48	1.36	0.48	0.98	3.30
H	0.59	1.67	0.58	1.12	3.96
J	0.62	1.75	0.60	1.17	4.14
K	0.56	1.58	0.55	1.12	3.81
L	0.43	1.23	0.42	0.98	3.06
M	0.29	0.74	0.26	0.75	2.04
N	0.13	0.30	0.11	0.42	0.96
P	-0.05	-0.13	-0.02	0.40	0.20
R	-0.05	-0.14	0.01	0.71	0.53
S	-0.02	-0.05	0.03	0.93	0.94
T	-0.02	0.05	0.16	1.07	1.28
U	0.09	0.10	0.17	1.11	1.41

TABLE OF DEFLECTION GIRDER 4					
PT.	STEEL SLAB	DDL	CORR.	CMB.	
A	-0.02	-0.08	0.01	0.20	0.14
B	-0.06	-0.18	0.03	0.29	0.02
C	-0.10	-0.26	0.08	0.29	-0.15
D	-0.09	-0.24	-0.08	0.20	-0.21
E	0.18	0.42	0.17	0.42	1.19
F	0.41	1.07	0.38	0.75	2.51
G	0.64	1.50	0.56	0.98	3.66
H	0.79	1.83	0.68	1.12	4.42
J	0.83	1.91	0.71	1.17	4.62
K	0.75	1.74	0.65	1.12	4.26
L	0.58	1.35	0.51	0.98	3.42
M	0.38	0.82	0.32	0.75	2.27
N	0.18	0.34	0.13	0.42	1.07
P	-0.09	-0.16	-0.05	0.40	0.10
R	-0.09	-0.23	-0.03	0.71	0.36
S	-0.07	0.15	0.04	0.93	0.72
T	-0.03	0.07	0.10	1.07	1.05
U	-0.02	-0.05	0.13	1.11	1.17

NEGATIVE DEFLECTIONS ARE 1/10

ALL GIRDERS SHALL BE CAMBERED SUCH THAT UNDER TOTAL DEAD LOAD THE TOP OF GIRDERS BESS WILL PARALLEL THE FINISHED ROADWAY GRADE, EXCEPT ALLOWABLE TOLERANCE FOR CAMBER IS 1/4". THE GIRDERS SHALL BE SHOP ASSEMBLED IN THEIR TRUE POSITIONS, FIELD CONNECTION HOLES REAMED, AND ALL PARTS MATCH MARKED. THE SHOP ASSEMBLY SHALL HAVE MINIMUM ASSEMBLED SEQUENCE OF 2 SECTIONS. THE FABRICATOR IS TO SUBMIT A CAMBER BLOCKING DIAGRAM.

BRIDGE ENGINEER

DETAILS OF SUPERSTRUCTURE

E-S RAMP BRIDGE

PULASKI COUNTY

INT. ROUTE 430 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 7-27-69

TRACED BY: DATE: 8-6-69

CHECKED BY: WBS DATE: 8-6-69

BRIDGE NO. 5325

DRAWING NO. 17390



247	SHEET	TOTAL
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1. SPECIFICATIONS-ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION EDITION OF 1959, THE 1966 SUPPLEMENTAL SPECIFICATIONS THERETO AND APPLICABLE SPECIAL PROVISIONS.

1. THESE DRAWINGS SHOW GENERAL FEATURES OF DESIGN ONLY. SHOP DRAWINGS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS, SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

1. ALL DECK CONCRETE IS TO BE "CLASS S-15". ALL OTHER CONCRETE TO BE CLASS S. CHAMBERS TO BE 54 UNLESS OTHERWISE NOTED.

1. REINFORCING STEEL TO BE DEFORMED BARS OF INTERMEDIATE OR HARD GRADE. THE REINFORCING STEEL IS TO BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE BY STEEL WIRE SUPPORTS, SUFFICIENT IN NUMBER AND SIZE TO PREVENT DISPLACEMENT DURING THE COURSE OF CONSTRUCTION. THE WIRE SUPPORTS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM OF "REINFORCING STEEL".

**RAILING:**

1. SHOP DRAWINGS SHOWING DETAILS OF RAILING SHALL BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.
2. FOR METAL BOX JOE RAILING (TYPE A) SEE S.D. CIVIL. NO. 10491-A.

1. SHOP DRAWINGS SHOWING DETAILS OF RAILING SHALL BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.  
2. FOR METAL BOLDBE RAILING (TYPE A) SEE STD. DWG. NO. 1497-A.

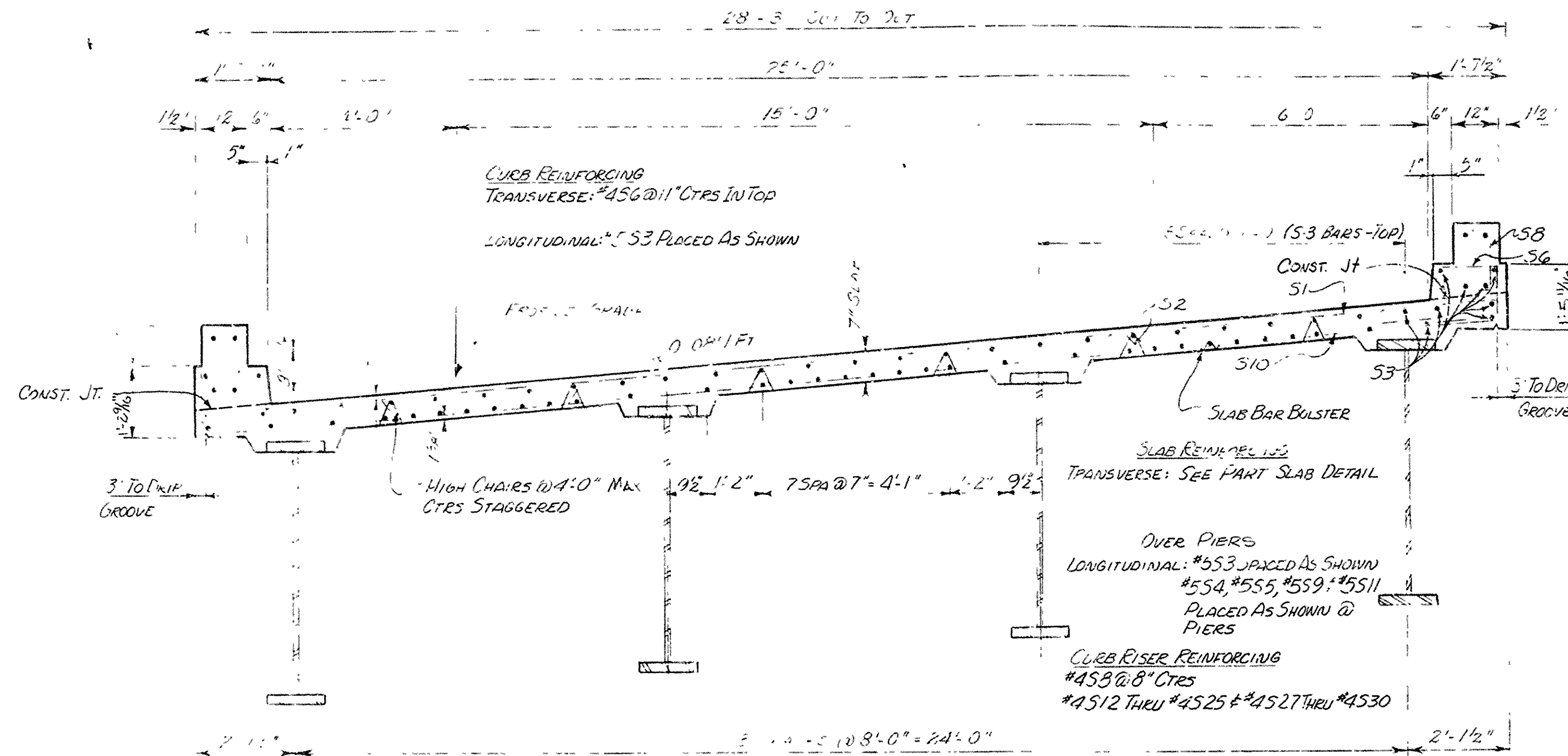
1. INSTALLATION OF EXPANSION DEVICE SHALL BE MADE ACCORDING TO SPECIAL PROVISIONS.
2. FOR DETAILS FOR INSTALLATION OF ELASTOMERIC JOINTS SEE DWG. NO. 11392.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROG.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	T-43C- 2(S.)142			
				JOB NO.		6855		59	145

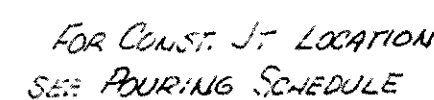
① 5325 DETAILS OF SUPERSTR 17391

MARK	SIZE	LENGTH	NO REQD	FIN DIA.
S1	#6	28'-1"	221	3"
S2	#6	28'-0"	520	3"
S3	#5	37'-0"	1,207	3/4"
S4	#5	19'-7"	48	STR
S5	#5	44'-0"	48	STR
S6	#4	18'-6"	4	
S7	#4	19'-1"	4	
S8	#4	17'-11"	8	
S9	#5	47'-0"	48	STR
S10	#6	17'-0"	521	3"
S11	#5	16'-7"	48	
S12	#4	18'-6"	4	
S13		19'-1"	4	
S14		17'-11"	8	
S15		22'-0"	8	
S16		18'-4"	4	
S17		20'-3"	12	
S18	#4	19'-3"	16	STR
S19	NOT	USED		
S20	#4	20'-0"	4	STR
S21		21'-2"	8	
S22		18'-8"	8	
S23		19'-9"	6	
S24		21'-7"	4	
S25		18'-11"	8	STR
S26		4'-1"	19	22"
S27		23'-0"	4	STR
S28		21'-4"	4	STR
S29		20'-7"	6	STR
S30	#4	22'-3"	8	STR

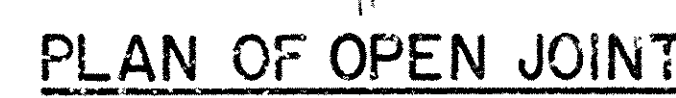
NOTE: ALL DIMENSIONS ARE IN FEET OR INCHES.



SCALE: 12" = 1' - 0'



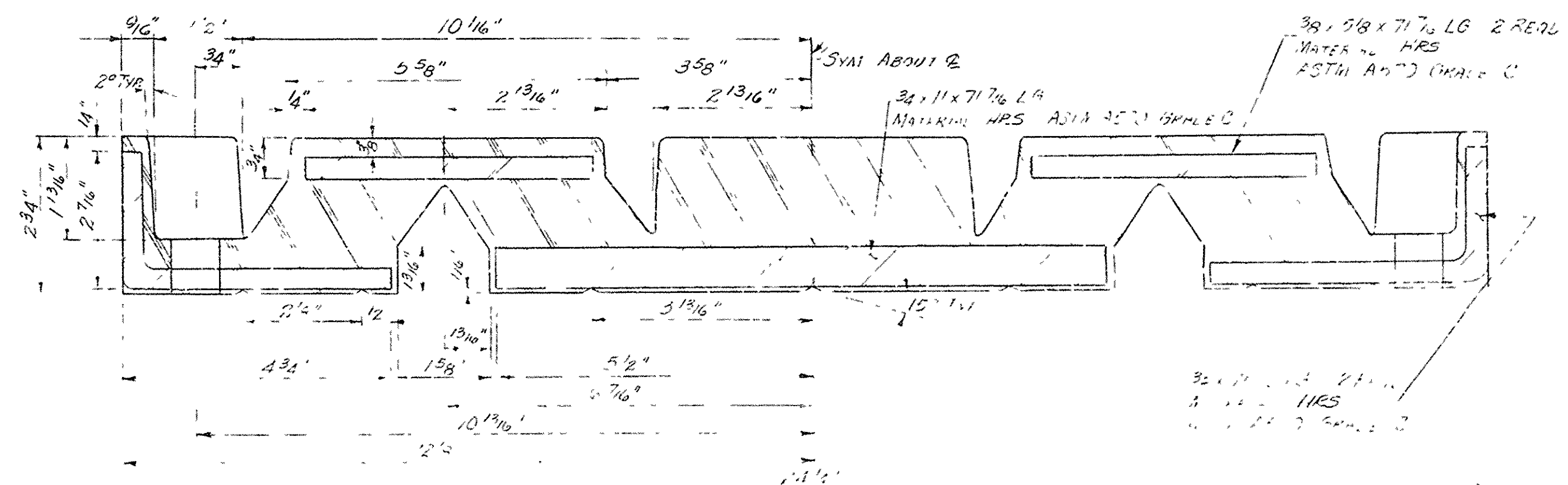
SCALE: NONE



PLAN OF OPEN JOINT



SCALE: NONE

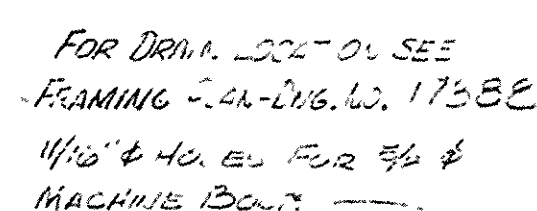


TYPE A

SCALE: 1/2" = 1"

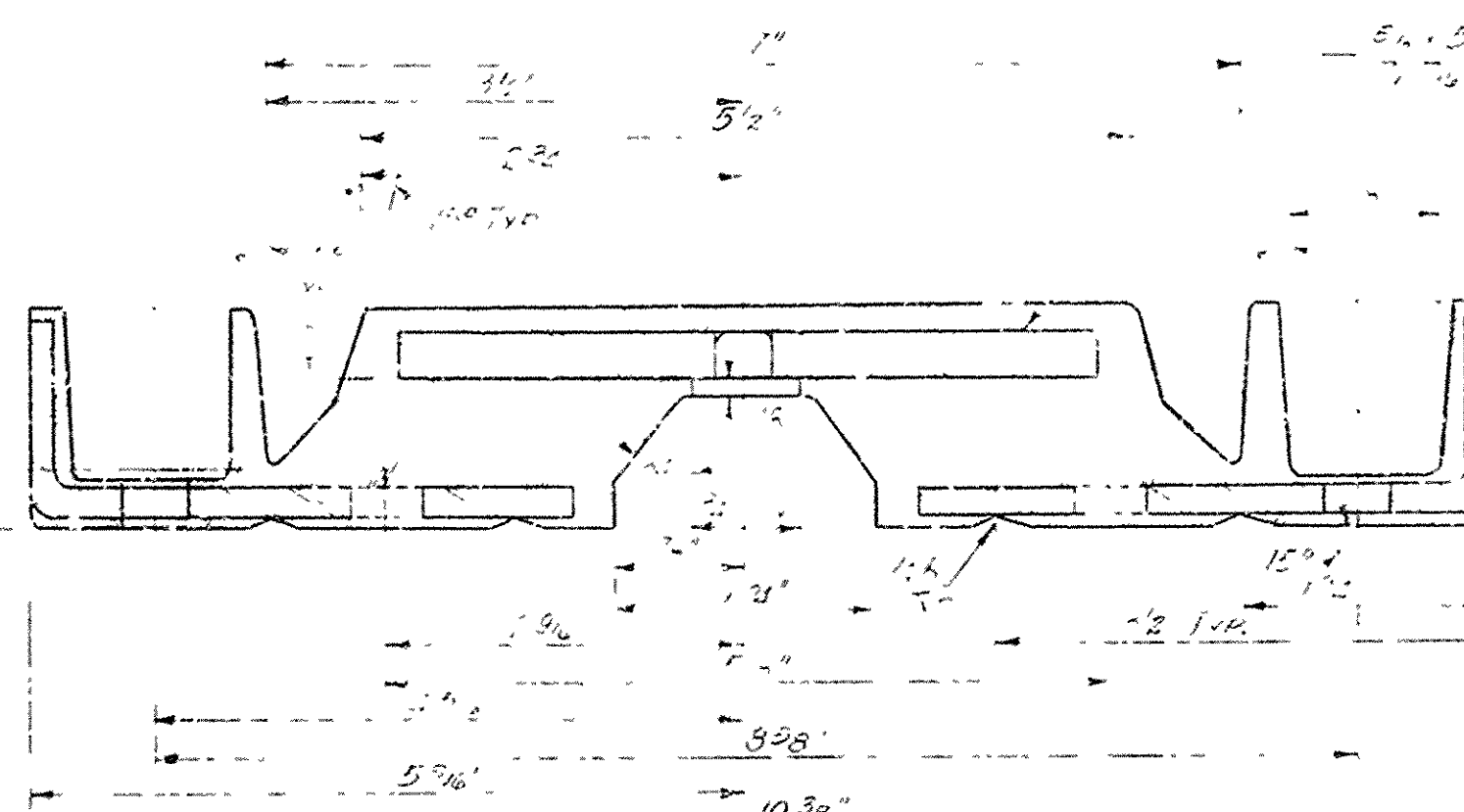


SCALE: NONE



SCALE: 1" = 1'-0"

NOTE: AFTER FABRICATION THE DRAIN PIPES SHALL BE GALVANIZED TO CONFORM TO ASTM A153. DRAIN MAT. TO BE ASTM A36.



TYPE E

SCALE:  $\frac{3}{4}" = 1'$

ELASTOMERIC EXPANSION JOINTS ARE TO BE USED AS ALTERNATE NO. 1 OF THE JOINTS IN THE EXPANSION JOINTS. SEE DWS. NO. 1331 FOR DETAILS OF STEEL FINISHED JOINTS NACH ARE TO BE USED AS ALTERNATE NO. 2 OF THE JOINTS IN THE EXPANSION JOINTS.

SHEET 4 OF 6

E-S RAMP BRIDGE  
PULASKI COUNTY

LITTLE ROCK, ARK.

1000

SCALE: 25-100 ft

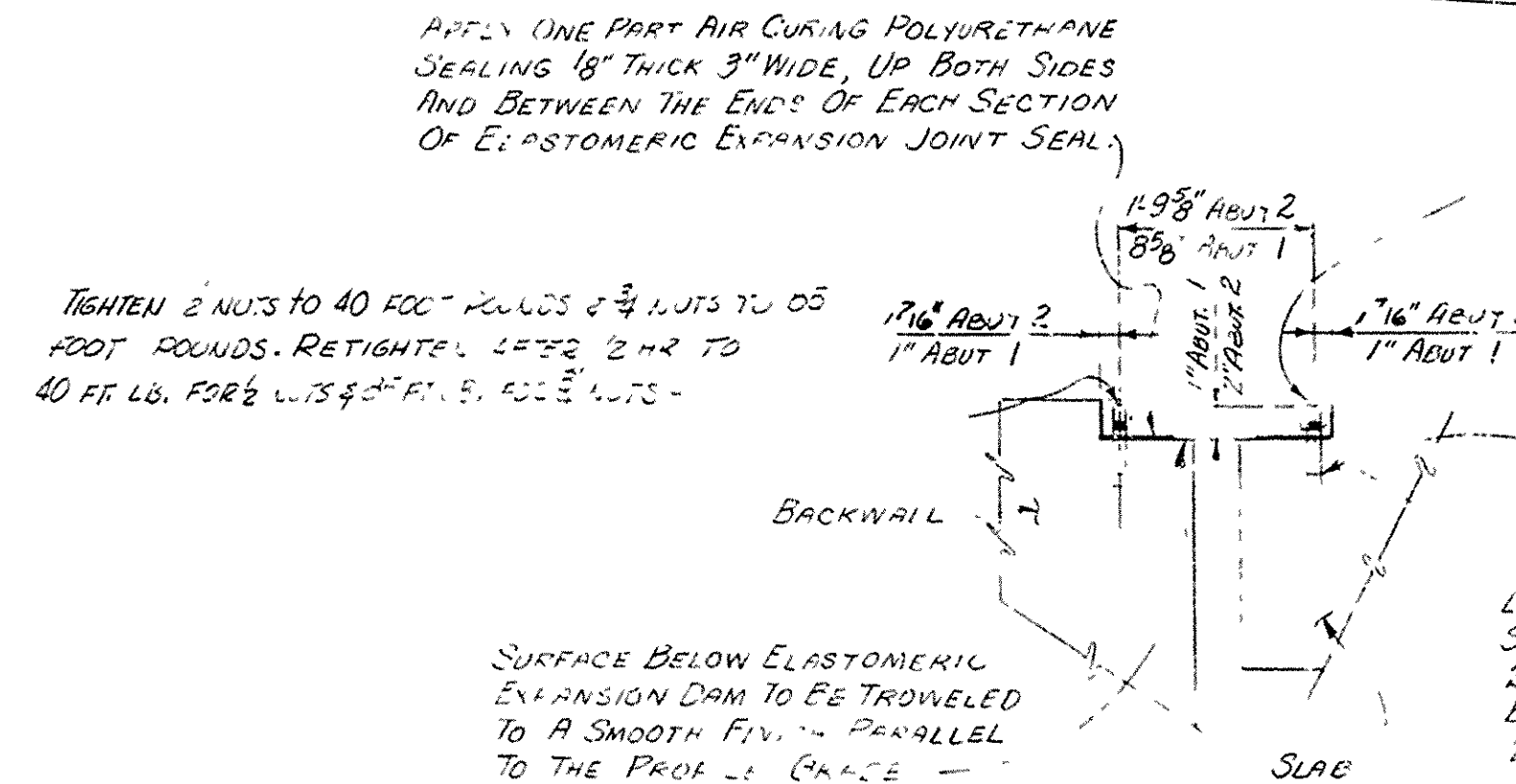
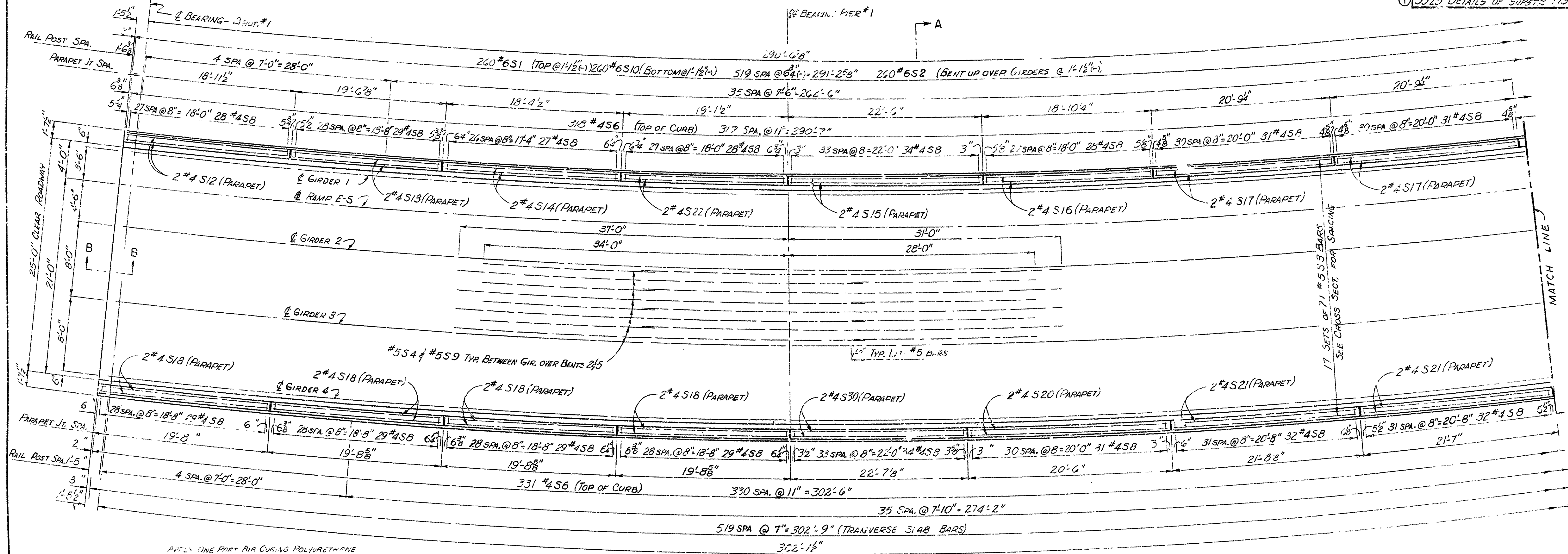
DRAWING NO. 1739!

BRIDGE ENGINEER



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-2(9-1145)		60	145
				JOB NO.		6855		60	145

① 5325 DETAILS OF SUPERS 17392



APPLY ONE PART AIR CURING POLYURETHANE SEALING 18" THICK 3" WIDE, UP BOTH SIDES AND BETWEEN THE ENDS OF EACH SECTION OF ELASTOMERIC EXPANSION JOINT SEAL.

WIRE BRUSH BOLT CAVITY AND APPLY POLYURETHANE SEALANT. PUSH PLUG DOWN TO SNAP LOCK. FILL BLEEDER HOLE WITH POLYURETHANE SEALANT AND SCRAPE OFF ALL EXCESS.

IMPORTANT: WHEN PLACING STUDS, ALWAYS TURN ANCHOR SO THAT SLOT IN 1:3 BASE POINTS TOWARD THE EXPANSION JOINT IN THE DECK.

LOCATE HOLES WITH 1" WOOD TEMPLATE FOR 1/2" OR 3/4" STUD. (EXPANDING ANCHOR TYPE) DRILL 1/2" FOR 3/4" 24" DEEP WITH CARBIDE PERCUSSION DRILL BIT. SET EXPANSION ANCHOR STUD WITH 2 LB. HAMMER.

TIGHTEN 2 NUTS TO 40 FOOT POUNDS & 1/4 NUTS TO 25 FOOT POUNDS. RETIGHTEN LEFT 2 HR TO 40 FT LB. FOR 1/2 NUTS & 1/4 NUTS.

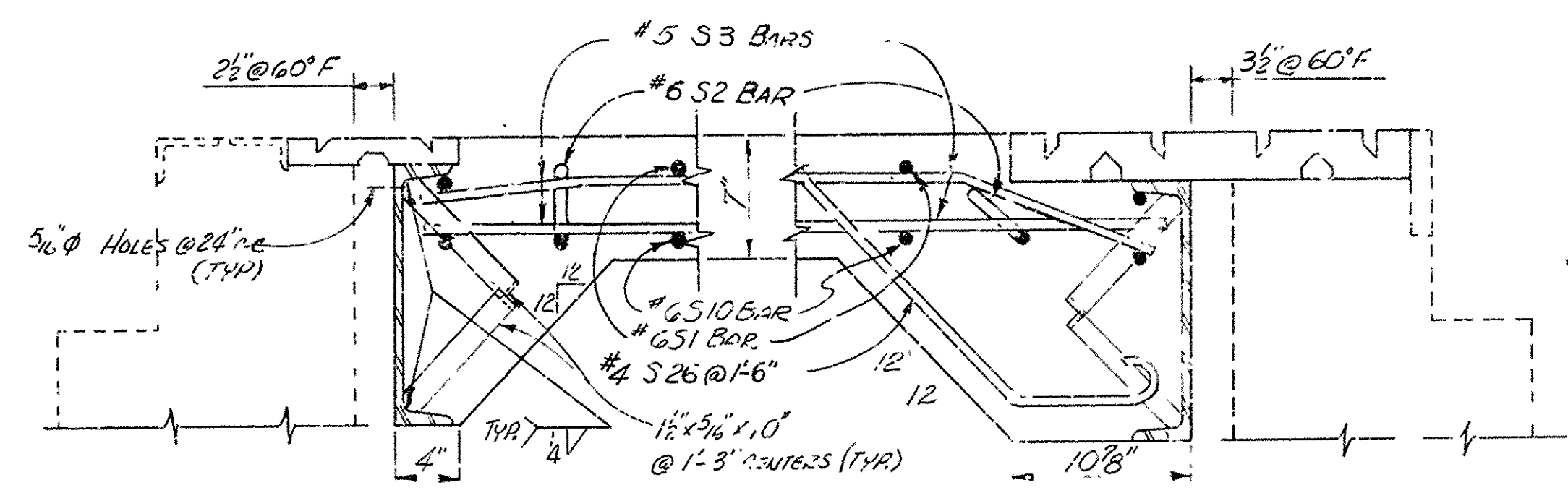
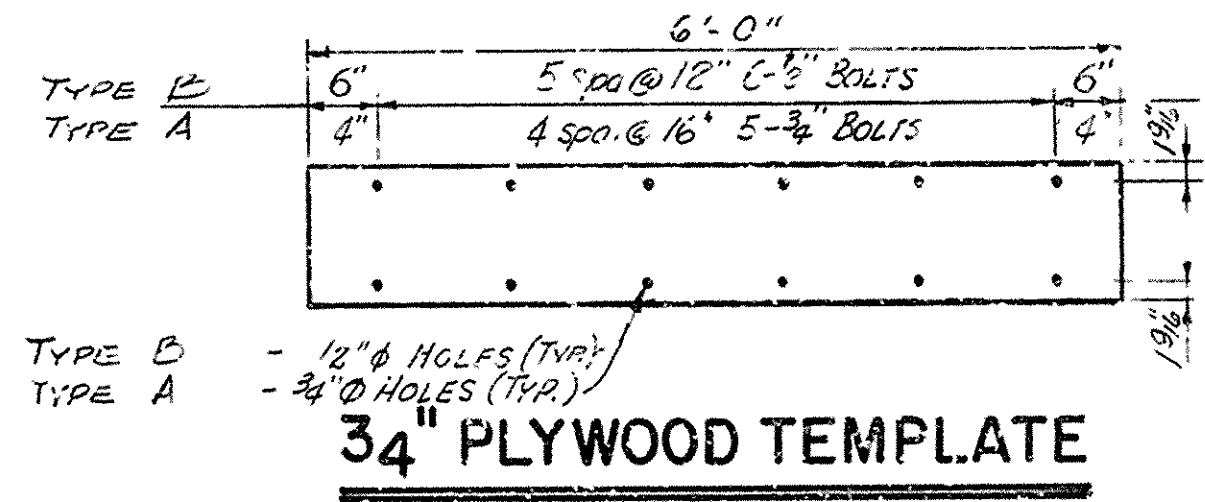
BACKWALL

SLAB

SURFACE BELOW ELASTOMERIC EXPANSION DAM TO BE TROWELED TO A SMOOTH FINISH PARALLEL TO THE PROFILE GRADE.

### PART SLAB DETAIL

SCALE: 3/16" = 1'-0"

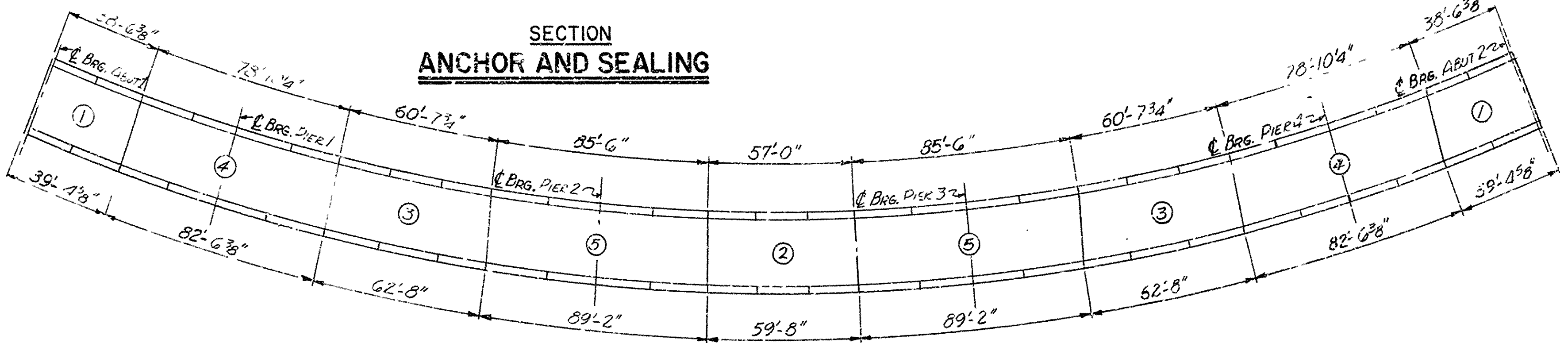


### SEC. BB-ABUT 1

SCALE: 1/2" = 1'-0"

### SEC. BB-ABUT 2

SCALE: 1/2" = 1'-0"



### SLAB POURING DIAGRAM

SCALE: NONE

- NOTES:
1. FOR SECTION A-A SEE DWG. NO. 17391
  2. FOR BAR LIST SEE DWG. NO. 17391
  3. FOR ELASTOMERIC EXPANSION JOINT DETAILS SEE DWG. NO. 17391
  4. FOR ALTERNATE STEEL FINGER EXPANSION JOINT DETAILS SEE DWG. NO. 17381
  5. FOR METAL BRIDGE RAIL (TYPE A) SEE STD. DWG. NO. 14992A
  6. IF EXPANSION JOINT ALTERNATE NO. 2 IS USED SEE DWG. 17381 FOR ALTERATIONS TO BE MADE ON THIS DWG.

**DETAILS OF SUPERSTRUCTURE**

**E-S RAMP BRIDGE**

**PULASKI COUNTY**

**INT. ROUTE 430 SEC. 2**

**ARKANSAS STATE HIGHWAY COMMISSION**

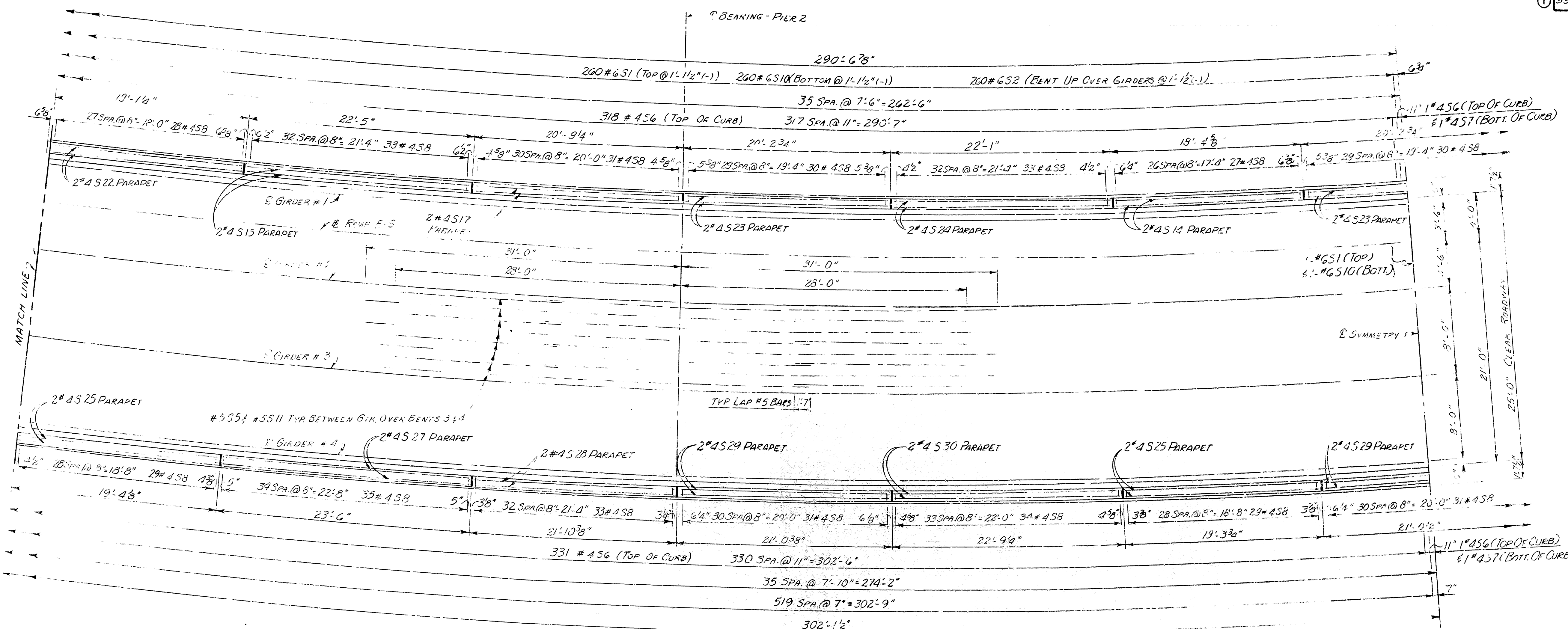
LITTLE ROCK, ARK.

DRAWN BY: <i>WBC</i> DATE: 6-69	SCALE: <i>AS SHOWN</i>
TRACED BY: <i>WBC</i> DATE: 7-23-69	
CHECKED BY: <i>WBC</i> DATE: 7-23-69	
<b>BRIDGE NO. 5325</b>	<b>DRAWING NO. 17392</b>



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STA. NO.	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK	I-430-2(9.1143)			
				JOB NO.		6855		61	145

5325 DETAILS OF SUPERSTR 17393



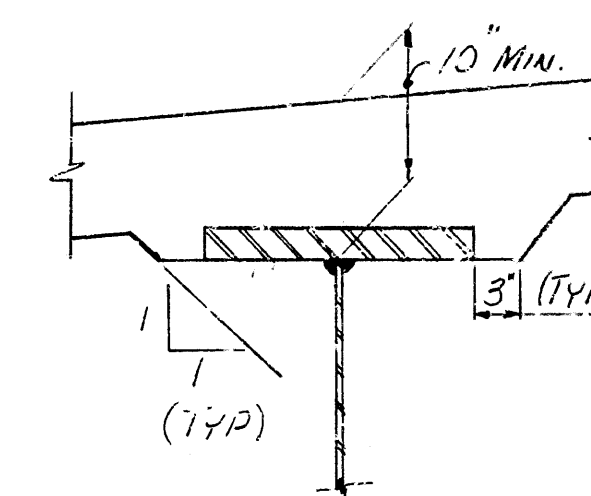
### PART SLAB DETAIL

SCALE: 3/16" = 1'-0"

GIR. 1	5 SPA @ 14.927' = 74.633'	10 SPA @ 14.578' = 145.784'	10 SPA @ 14.205' = 142.052'	10 SPA @ 14.578' = 145.784'	5 SPA @ 14.927' = 74.633'
GIR. 2	5 SPA @ 15.094' = 75.471'	10 SPA @ 14.742' = 147.420'	10 SPA @ 14.365' = 143.647'	10 SPA @ 14.742' = 147.420'	5 SPA @ 15.094' = 75.471'
GIR. 3	5 SPA @ 15.262' = 76.309'	10 SPA @ 14.906' = 149.057'	10 SPA @ 14.524' = 145.241'	10 SPA @ 14.906' = 149.057'	5 SPA @ 15.262' = 76.309'
GIR. 4	5 SPA @ 15.429' = 77.147'	10 SPA @ 15.069' = 150.693'	10 SPA @ 14.684' = 146.836'	10 SPA @ 15.069' = 150.693'	5 SPA @ 15.429' = 77.147'

### NOTE - MINIMUM SLAB THICKNESS

AFTER ALL STRUCTURAL STEEL IS IN PLACE THE CONTRACTOR SHALL TAKE ELEVATIONS ON TOP OF THE GIRDERS AT POINTS INDICATED IN THE ACCOMPANYING DIAGRAM. IF THE FINISHED SLAB ELEVATION MINUS THE TOP OF GIRDER ELEVATION TAKEN IN THE FIELD PLUS THE DEFLECTION DUE TO SLAB CONCRETE, CURB & RAIL DOES NOT EQUAL OR EXCEED 7" @ 4' OF GIRDERS THEN THE SLAB ELEVATIONS SHALL BE RAISED THROUGHOUT THE BRIDGE SO AS TO MEET THE 7" MINIMUM.



### SLAB THICKNESS DETAIL

### POURING NOTES:

SLAB TO BE POURED IN THE ORDER SHOWN OR IN ONE CONTINUOUS POUR FROM END TO END IN LESS THAN 10 HOURS. CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED AND CAREFULLY CLEANED BEFORE ADJACENT SECTION IS POURED. AFTER THE FIRST SECTION IS POURED NOT LESS THAN 48 HOURS SHALL ELAPSE BEFORE THE SECOND SECTION IS POURED AND NOT LESS THAN 72 HOURS SHALL ELAPSE BETWEEN ADJACENT POURS.

A MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN COMPLETION OF THE SLAB POUR AND THE POURING OF THE CURB SECTION. CURB AND PARAPET POURS SHALL BE IN THE SAME SEQUENCE AS SLAB POURS. CURB POURS INCLUDE CURB AND PARAPET. THE CONTRACTOR SHALL USE A RETARDING AGENT AS REQUIRED TO ASSURE THAT ALL CONCRETE IN A POUR SHALL BE PLACED BEFORE ANY PORTION REACHED ITS INITIAL SET.

MOVEMENT OF THE FINISHING MACHINE ACROSS NEW CONCRETE WHEN PROTECTED BY MEANS OF PLANKING PLACED ON THE SURFACE SHALL BE PROHIBITED FOR 72 HOURS AFTER FINISHING THE POUR.

### SLAB ELEVATION LOCATIONS

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
GIR. 1	351.55	351.81	352.06	352.30	352.53	352.75	352.96	353.16	353.36	353.54	353.72	353.89	354.05	354.21	354.36	354.50	354.62	354.75	354.86	354.97	355.06
GIR. 2	352.19	352.45	352.70	352.94	353.17	353.39	353.60	353.80	354.00	354.18	354.36	354.53	354.69	354.85	355.00	355.14	355.26	355.39	355.50	355.61	355.70
GIR. 3	352.83	353.09	353.34	353.58	353.81	354.03	354.24	354.44	354.64	354.82	355.00	355.17	355.33	355.49	355.64	355.78	355.90	356.03	356.14	356.25	356.34
GIR. 4	353.47	353.73	353.98	354.22	354.45	354.67	354.88	355.08	355.28	355.46	355.64	355.81	355.97	356.13	356.28	356.42	356.54	356.67	356.78	356.89	356.98

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
GIR. 1	355.16	355.24	355.32	355.38	355.45	355.50	355.55	355.59	355.62	355.65	355.66	355.67	355.67	355.67	355.65	355.63	355.60	355.56	355.51	355.45	
GIR. 2	355.80	355.88	355.96	356.02	356.09	356.14	356.19	356.23	356.26	356.29	356.30	356.31	356.31	356.31	356.29	356.27	356.24	356.20	356.15	356.09	
GIR. 3	356.44	356.52	356.60	356.66	356.73	356.78	356.83	356.87	356.90	356.93	356.94	356.95	356.95	356.95	356.93	356.91	356.88	356.84	356.79	356.73	
GIR. 4	357.08	357.16	357.24	357.30	357.37	357.42	357.47	357.51	357.54	357.57	357.58	357.59	357.59	357.59	357.57	357.55	357.52	357.48	357.43	357.37	

### TABLES OF FINISHED SLAB ELEVATIONS

### DETAILS OF SUPERSTRUCTURE

E-S RAMP BRIDGE  
PULASKI COUNTY  
INT. ROUTE 430 SEC. 2  
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: <i>abe/DBJ</i>	DATE: 7-69	SCALE: <i>As Shown</i>
TRACED BY: <i>JMD</i>	DATE: 7/23/69	
CHECKED BY: <i>JMD</i>	DATE: 7/23/69	
BRIDGE NO. 5325	DRAWING NO. 17393	

BRIDGE ENGINEER