D.O.T. 66

ORIGINAL COPY - FOR GENERAL FILE

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE FR-002-6(48); BHF-002-6(49) & (50) Hall Cos. OFFICE Preconstruction
P.I. No. 122060; 122064 & 122066
Needs Rating-N/A Suff. Rating-52.4; 56.0 DATE October 21, 1991

FROM C. Wayne Hutto, Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT PROJECT CONCEPT REPORT APPROVAL - WIDENING SR 11 & BRIDGES

Attached for your files is the approval for subject project.

CWH/se

Attachment

DISTRIBUTION:

John Lively
Robert E. Humphrey
David Studstill
Herman Griffin
Roland Hinners
Darrell Elwell
Winn Guthrie
Kirby Hamil
Hugh Tyner
Paul Liles
Ron Colvin
FHWA

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE FR-002-6(48); BHF-002-6(49) & (50) Hall County
P.I. No. 122060; 122064 & 122066
Needs Rating-N/A Suff. Rating-52.4; 56.0

OFFICE Preconstruction

DATE October 15, 1991

FROM Hoyt J. Tively, Director of Preconstruction

TO Hal Rives, Commissioner

SUBJECT WIDENING SR 11 & BRIDGES - PROJECT CONCEPT REPORT

This project is the widening of a 5.4 mile section of SR 11 and the construction of parallel bridges at Chattahoochee River and Little River, all between Limestone Road and Nopone Road north of Gainesville. The existing road has a rural section with 2 and 3 lanes on 100' of right-of-way. The bridges at Chattahoochee River and Little River are 32'x819' and 31'x382', respectively with each being steel and concrete. Base year and design year traffic is 18,700 VPD (1997) and 31,000 VPD (2017).

The proposed project will widen existing SR 11 between above termini to have a rural section with 4-12' lanes (2 each direction) w/20' raised median. Shoulders will be constructed to 10' w/4' paved. The parallel bridges will be constructed to 38' in width and length equal to that of existing bridges while the existing bridges will be retained. Substandard vertical curves and grades will be corrected to 55 MPH design speed except those at the bridge sites, which will be retained in order to keep the existing bridge grades "as is". A request for a design variance will be required for these. Environmental considerations are: (1) displacement of 18 residences, 9 businesses and 1 mobile home; (2) COE 404; (3) a public hearing will be held; (4) 7 possible UST sites. Traffic will be maintained on existing road during construction. The estimated cost of the projects are:

FR-002-6(48)

	PROPOSED	APPROVED	PROG. DATE
Constr(Infl&E/C)	$11,156,000	$11,030,000	FY 95
Right-of-way	$ 6,443,000	No Est.	Preprogram
Utilities	LGPA to be sent	-	

FR-002-6(48), BHF-002-6(49) & (50) Hall County

	BHF-002-6(49)		
	PROPOSED	APPROVED	PROG. DATE
Constr(Infl&E/C)	$4,979,000	$3,100,000	FY 95
Right-of-way	0	0	Preprogram
Utilities	0	0	

	BHF-002-6(50)		
Constr(Infl&E/C)	$1,928,000	$1,400,000	FY 95
Right-of-way	0	0	Preprogram
Utilities	0	0	

I recommend that we approve this project concept report, that the projects be removed from Preprogram Status and added to the Construction Work Program for implementation and proceed to a public hearing.

HJL/WLP/se

Attachment

CONCUR: G. C. Lewis
G. C. Lewis, State Highway Engineer

APPROVED: _____
Hal Rives, Commissioner

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE FR-002-6 (48), BHF-002-6 (49),(50) Hall County
P.I. No. 122060, 122064, 122066
Widening SR 11 & Bridge Replacement

OFFICE Atlanta, Georgia

DATE October 11, 1991

FROM Robert E. Humphrey, Project Review Engineer

TO Hoyt J. Lively, Jr., Director of Preconstruction

SUBJECT **PROJECT CONCEPT REPORT**

We have reviewed the attached Concept Report for this Major project.

We have received signed cover sheets from the following offices:

Bridge Design

Traffic and Safety

Environmental

District Engineer

This report is satisfactory for approval.

The estimated costs of this project are as follows:

	FR-002-6(48)	BHF-002-6(49)	BHF-002-6(50)
Construction	$8,819,000	$3,983,000	$1,542,200
Inflation (5% per year) x 3 yrs.	1,322,850	597,450	231,330
E & C (10%)	1,014,180	398,300	154,220
Preliminary Engineering (5%)	507,090	199,150	77,110
Right of Way	6,443,000	0	0
Utilities	LGPA	0	0

BM/jmf

Attachments

c: Roland W. Hinners

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

OCT 1991

FILE FR-002-6(48); BHF-002-6(49) & (50) Hall County
P.I. Nos. 122060; 122064; 122066

OFFICE Preconstruction

DATE October 3, 1991

FROM C. Wayne Hutto, Assistant Director of Preconstruction

TO Robert E. Humphrey, Project Review Engineer-Engineering Services
ATTENTION Bobby Mustin

SUBJECT PROJECT CONCEPT REPORT - Widening SR 11 at Bridges

Attached is the original concept report for subject projects and the review transmittal letter from your office, dated August 13, 1991. The Director of Preconstruction returned the above to our office with his comments attached.

It is requested that your office review the project cost estimates with the 1st paragraph of Mr. Lively's comments in mind. Please make any necessary changes in the cost estimate and return same to this office as soon as possible.

Thank you for your cooperation and prompt response.

CWH:WLP/cj

Attachments

RECEIVED

OCT - 2 1991

MEMO FROM

JOHN LIVELY
DIRECTOR OF PRECONSTRUCTION

October 1, 1991

TO: Wayne Hutto

I am returning the concept report for the widening of the SR11 roadway and bridges for projects FR-002-6(48), BHF-002-6(49), and BHF-002-6(50) Hall. I believe there is a mistake in the construction estimate reviewed by Engineering Services. The cost per square foot for the replacement bridge should be much greater than $38 and there is no apparent estimate for the provision of New Jersey barrier on the outside of the existing bridges. It is therefore requested that you get with Engineering Services to review the estimates. A copy of the existing bridge elevation view and cross section is attached.

Also, I understand that the median width flares from 20' to 44' at the bridges. This needs to be indicated in the summary narrative.

If you have any questions concerning the above, please do not hesitate to contact me.

HJL

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

MAY 1991
RECD.
Office of
Engineering Services
D. O. T.

PROJECT CONCEPT REPORT

FR-002-6(48)
BHF-002-6(49) & (50)
HALL COUNTY

FEDERAL ROUTE NO: 129
STATE ROUTE NO: 11
GADOT P.I. NO: 122060

Date of Report: APR-15-1991

RECOMMENDATION FOR APPROVAL

May 23, 1991 DATE	State Road & Airport Design Engineer
DATE	State Environmental Engineer
DATE	State Traffic & Safety Engineer
DATE	District Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

MAY 1996

FILE FR-002-6(48) HALL COUNTY
BHF-002-6(49) & BHF-002-6(50)
P.I. No. 122060, 122064 & 122066

OFFICE Atlanta, Georgia

DATE April 18, 1991

FROM Walker W. Scott, Jr., P.E., State Road & Airport Design Engineer JAK

TO Robert E. Humphrey, P.E., Project Review Engineer

SUBJECT Project Concept Report Approval

Attached is a copy of the ~~revised~~ project concept report of the above project for your review and further handling. If there are any additional questions, please contact Ron Braziel (656-5400) of this office.

WWS:AAG
Attachments

c: Juan Durrence
Wayne Hutto, w/att
Frank Danchetz, w/att
Ron Colvin, w/att
Van Ethridge, w/att

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

JUN 1991
D. O. T.

PROJECT CONCEPT REPORT

FR-002-6(48)
BHF-002-6(49) & (50)
HALL COUNTY

FEDERAL ROUTE NO: 129
STATE ROUTE NO: 11
GADOT P.I. NO: 122060

Date of Report: APR-15-1991

RECOMMENDATION FOR APPROVAL	
May 23, 1991 DATE	State Road & Airport Design Engineer
DATE	State Environmental Engineer
DATE	State Traffic & Safety Engineer
6-7-91 DATE	District Engineer

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

JUN 1991
Engineering Service
D. O. T.

INTERDEPARTMENT CORRESPONDENCE

FILE F-002-6 (48), Hall County
BHF-002-6 (49) & BHF-002-6 (50)
P.I. Nos. 122060, 122064 & 122066

OFFICE Gainesville, Georgia

DATE June 10, 1991

FROM Hugh L. Tyner, District Engineer

TO Robert E. Humphrey, Project Review Engineer, Atlanta

SUBJECT Project Concept Review

This is to advise this office has reviewed the Concept Report for the above proposed projects. The widening and reconstruction from Limestone Road to Nopone Road from two and three lanes to a 4-lane divided roadway with a 20' raised median utilizing a 55 MPH speed design criteria except for the bridges over the Chattahoochee River and Little River will improve safety as well as capacity along the proposed segment of roadway.

We do request Limestone Road have continuity with US 129 and relocate US 129 Business to a 90 degree intersection with Tapawingo Drive. This will eliminate a safety problem with residents of Tapawingo Subdivision. This intersection will probably warrant a traffic signal.

If this office may be of further assistance, please advise.

HLT:shg

attachment

JUN 1991
RECEIVED
MAILROOM
DEPT OF TRANS

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

JUL 1991

PROJECT CONCEPT REPORT

FR-002-6(48)
BHF-002-6(49) & (50)
HALL COUNTY

FEDERAL ROUTE NO: 129
STATE ROUTE NO: 11
GADOT P.I. NO: 122060

Date of Report: APR-15-1991

RECOMMENDATION FOR APPROVAL

DATE	State Road & Airport Design Engineer
DATE	State Environmental Engineer
DATE	State Traffic & Safety Engineer
DATE	District Engineer
7/8/91 DATE	Paul V. Liles Jr. STATE BRIDGE ENGINEER

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

JUN 1991

PROJECT CONCEPT REPORT

FR-002-6(48)
BHF-002-6(49) & (50)
HALL COUNTY

FEDERAL ROUTE NO: 129
STATE ROUTE NO: 11
GADOT P.I. NO: 122060

Date of Report: APR-15-1991

RECOMMENDATION FOR APPROVAL	
May 23, 1991 DATE	State Road & Airport Design Engineer
May 31, 1991 DATE	State Environmental Engineer
DATE	State Traffic & Safety Engineer
DATE	District Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

JUN 1991 Engineering Services D.O.T.

FILE FR-002-6 (48), BHF-002-6 (49) & (50) Hall County, P.I. Nos. 122060, 122064, & 122066, S.R. 11

OFFICE Environment/Location

DATE June 3, 1991

DESM

FROM David E. Studstill, P.E., State Environmental/Location Engineer

TO Robert Humphrey, Project Review Engineer

SUBJECT CONCEPT REPORT

The concept report for the above listed project has been reviewed. The "No-Build Alternative" should not be ruled out. Federal regulations, specifically The National Environmental Policy Act of 1969, requires that we include an alternative of "no action" (The No-Build Alternative) in the environmental assessment of all Federal Aid projects.

If you have any questions, please let me know.

FLD/GAS/gas

cc: Walker W. Scott, Jr.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

MAY 1991
Engineering Services
D. O. T.

PROJECT CONCEPT REPORT

FR-002-6(48)
BHF-002-6(49) & (50)
HALL COUNTY

FEDERAL ROUTE NO: 129
STATE ROUTE NO: 11
GADOT P.I. NO: 122060

Date of Report: APR-15-1991

RECOMMENDATION FOR APPROVAL

May 23, 1991 DATE	State Road & Airport Design Engineer
DATE	State Environmental Engineer
5/31/91 DATE	State Traffic & Safety Engineer
DATE	District Engineer

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

MAY 1991 D. O. T.

INTERDEPARTMENT CORRESPONDENCE

FILE FR-002-6 (48), BHF-002-6 (49)
BHF-002-6 (50), Hall County
P.I. No. 122060, 122064 & 122066

OFFICE Atlanta, Ga.

DATE May 28, 1991

FROM Ron Colvin, P.E., State Traffic & Safety Engineer

TO Robert E. Humphrey, P.E., Project Review Engineer

SUBJECT **Project Concept Report Review**

We have reviewed the concept report on the above project for widening and reconstruction of S.R. 11 located north of Gainesville from Limestone Road to Nopone Road. Design speed is 55 MPH. Length of project is 5.400 miles.

Project FR-002-6 (48) will widen the existing two and three lane roadway to a four lane divided facility with a 20 ft. raised median.

Project FR-002-6 (49) provides for construction of a new parallel 818.5' X 38' bridge over the Chattahoochee River. The existing 818.5' X 32' bridge will be retained.

?

~~Project FR-002-6 (49) provides for construction of a new parallel 818.5' X 38' bridge over the Chattahoochee River. The existing 818.5' X 32' bridge will be retained.~~

Project FR-002-6 (50) provides for construction of a new parallel (381.5' X 38' bridge over the Little River. The existing 381.5' X 31' bridge will be retained.

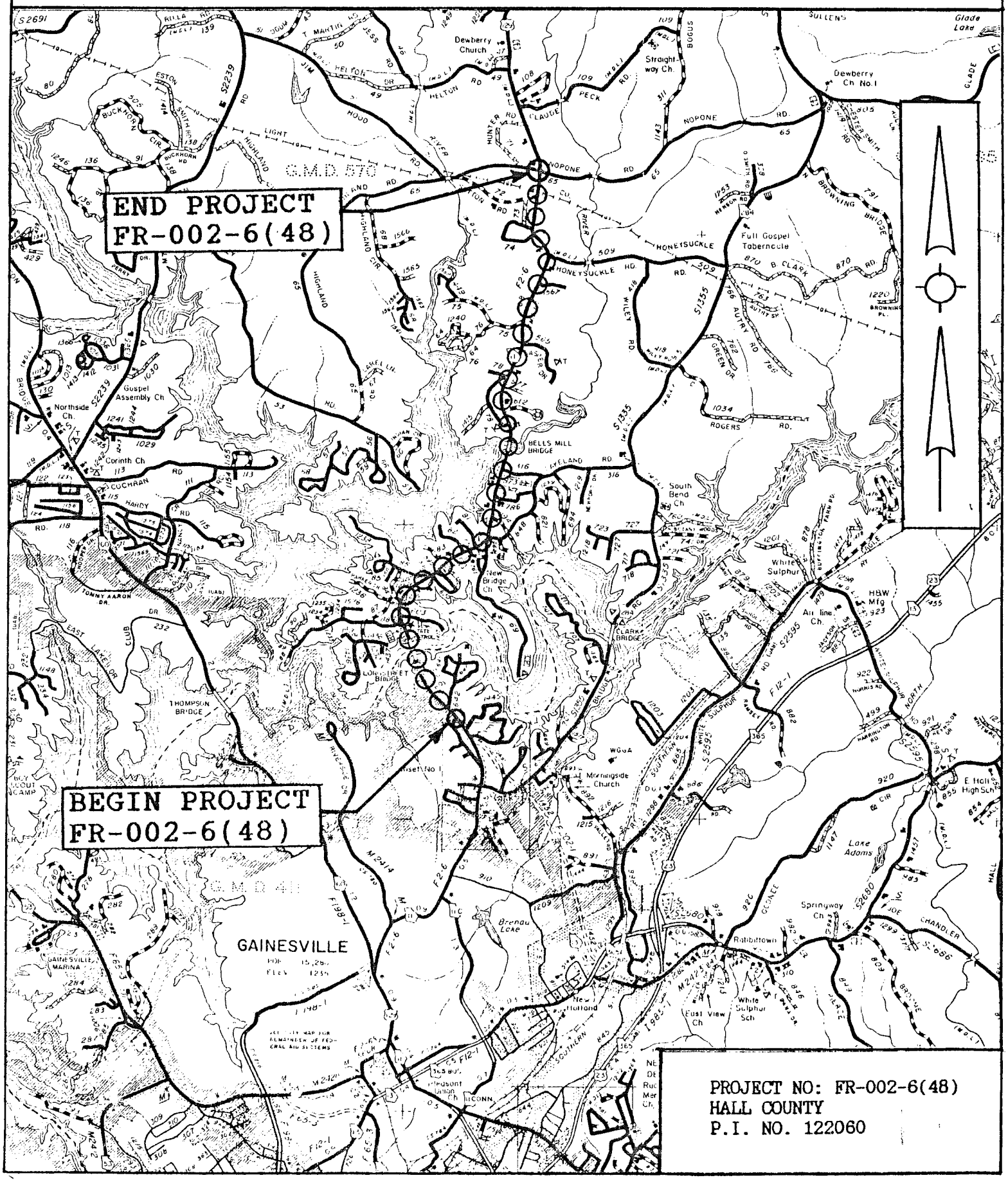
We note that approximately 70% of the existing pavement will be removed and the roadway reconstructed to meet 55 MPH design speed since the existing vertical alignment is inadequate.

We also note that a design variance is needed for roadway approach sections to the existing bridges. The Chattahoochee River Bridge, vertical alignment consists of a 36 MPH Sag, 47 MPH crest and 41 MPH sag and the Little River Bridge has a 43 MPH sag; 55 MPH crest and 39 MPH sag.

With approval of a design variance, inclusion of the above roadway design modifications and with adequate advance warning signs for the bridge approaches, we find the report satisfactory for approval.

RC:LEO:lw
Attachment (signature page)
cc: Walker W. Scott; Hugh Tyner - Gainesville; Burt Riddle

LOCATION SKETCH



PROJECT NO: FR-002-6(48)
HALL COUNTY
P.I. NO. 122060

PROJECT CONCEPT REPORT

PROJECT NUMBER: FR-002-6(48)

PROJECT LOCATION & DESCRIPTION

PROJECT FR-002-6(48) CONSISTS OF THE WIDENING AND RECONSTRUCTION OF S.R. 11, NORTH OF GAINESVILLE FROM LIMESTONE ROAD TO NOPONE ROAD. PROPOSED CONSTRUCTION WILL WIDEN THE EXISTING 2 AND 3 LANE ROADWAY TO A 4 LANE DIVIDED ROADWAY WITH A 20 FOOT RAISED MEDIAN WITH ROADWAY DITCHES LEFT AND RIGHT. PROJECTS BHF-002-6(49) AND BHF-002-6(50) CONSIST OF THE CONSTRUCTION OF PARALLEL BRIDGES OVER THE LITTLE RIVER AND CHATTAHOOCHE RIVER.

PROJECT LENGTH: 5.400 MILES

TRAFFIC

CURRENT		PROJECTED	
YEAR	AADT	YEAR	AADT
1997	18650	2017	31000

PDP CLASSIFICATION	FUNCTIONAL CLASSIFICATION
MAJOR PROJECT ON EXISTING LOCATION	RURAL MINOR ARTERIAL

PROJECT NEED & PURPOSE

GAINESVILLE/HALL COUNTY'S TRANSPORTATION NETWORK CONSISTS OF WIDELY SPACED RADIAL ROUTES WITH FEW LAKE CROSSINGS AND LIMITED INTER-RADIAL CONNECTORS. AS A RESULT, TRAFFIC IS REQUIRED TO CONCENTRATE ON THESE ROUTES WITH LITTLE OPPORTUNITY TO DISPERSE. THE PROPOSED IMPROVEMENT IS A RESULT OF SUCH CONDITION. SERVING THE NORTH CENTRAL AREA OF HALL COUNTY , SR 11 PROVIDES ACCESS TO ARES UNDER INCREASING DEVELOPMENT PRESSURE. IN ADDITION, S.R. 11 HAS AND WILL CONTINUE TO BE A MAJOR TRAVEL ROUTE FOR CLEVELAND, HELEN, UNICOI STATE PARK, AND NORTHEAST GEORGIA IN GENERAL.

EXISTING ROADWAY

TYPICAL SECTION: 2 AND 3 LANE RURAL

R/W WIDTH
100 FT

POSTED SPEED
55 MPH

MAX DEGREE OF CURVE
10.00 DEG.

MAX GRADE
6.00 %

MAJOR STRUCTURES:

1. 818.5′ X 32′ BRIDGE OVER CHATTAHOOCHE RIVER, CONCRETE DECK WITH STEEL AND CONCRETE SUBSTRUCTURE, SUFFICIENCY RATING 52.4
2. 381.5′ X 31′ BRIDGE OVER LITTLE RIVER, CONCRETE DECK WITH STEEL AND CONCRETE SUBSTRUCTURE, SUFFICIENCY RATING 56.0
3.

PROPOSED ROADWAY

TYPICAL SECTION: 4-LANE RURAL DIVIDED WITH A 20 FT RAISED MEDIAN

DESIGN SPEED
55 MPH

MAX DEGREE OF CURVE;
ALLOWABLE: 6.00 DEG.
PROPOSED: 6.00 DEG.

MAX GRADE;
ALLOWABLE: 4.00 %
PROPOSED: 6.00 %

MAJOR STRUCTURES: CONSTRUCT A PARALLEL 818.5′ X 38′ BRIDGE AND RETAIN THE EXISTING BRIDGE
CONSTRUCT A PARALLEL 381.5′ X 38′ BRIDGE AND RETAIN THE EXISTING BRIDGE

PROPOSED RIGHT OF WAY

R/W WIDTH
180 FT

DISPLACEMENTS

RES.: 18 BUS.: 9 M.H.: 1

TYPE OF ACCESS CONTROL: BY DRIVEWAY PERMIT

COORDINATION

CONCEPT TEAM MEETING DATE: APRIL 5, 1991

LOCATION INSPECTION DATE: NONE

PERMITS REQUIRED (COE,404,etc.): COE, 404, FEMA

LEVEL OF PUBLIC INVOLVEMENT: A PUBLIC HEARING WILL BE HELD

TIME SAVING PROCEDURES APPROPRIATE: NO

OTHER PROJECT IN THE AREA: FR-002-6(55)

MISCELLANEOUS

TRAFFIC CONTROL DURING CONSTRUCTION: WILL BE CONSTRUCTED UNDER TRAFFIC

LEVEL OF ENVIRONMENTAL ANALYSIS: ENVIRONMENTAL ASSESSMENT

DESIGN VARIANCES REQUIRED: 1.) A 6 % VERTICAL GRADE AND 2.) 2 SECTIONS OF ROADWAY WITH SPEED DESIGN LESS THAN 55 MPH.

UNDERGROUND STORAGE TANKS: 7 POSSIBLE SITES

HAZARDOUS WASTE SITES: NONE

ALTERNATIVES CONSIDERED

1. NO BUILD.

DISCOUNTED BECAUSE OF FAILURE TO MEET PROJECT NEED.

2. 44′ WIDE MEDIAN. DISCOUNTED DUE TO EXECESSIVE ADJACENT PROPERTY IMPACTS.

ESTIMATED COST

CONSTRUCTION:	$ 8,666,194	RIGHT-OF-WAY:	$ 6,443,000
E & C (10) :	$ 866,619	ACQUIRED BY:	D.O.T
INFLATION :	$ 1,906,563	UTITILITES :	$ 41,750
		ADJUSTED BY:	LGPA

TOTAL CONSTRUCTION COST: $ 11,439,376

COMMENTS: DUE TO THE INADEQUATE EXISTING VERTICAL ALIGNMENT APPROXIMATELY 70 % OF THE EXISTING PAVEMENT WILL BE REMOVED IN ORDER TO MEET THE SPEED DESIGN OF 55 MPH. ALSO IN ORDER TO BE ABLE TO MAINTAIN THE EXISTING BRIDGES OVER THE CHATTAHOOCHE RIVER AND THE LITTLE RIVER, IT WILL BE NECESSARY TO OBTAIN A DESIGN VARIANCE FOR THE APPROACH SECTIONS TO THE EXISTING BRIDGES, AND ON THE CREST ON THE EXISTING BRIDGE OVER THE LITTLE RIVER.
PROJECT NUMBER: FR-002-6(48)

ATTACHMENTS: TYPICAL SECTION, CONCEPT MEETING MINUTES
PREPROGRAM DOCUMENT, COST ESTIMATE

ESTIMATED COST

CONSTRUCTION:	$ 2,578,275	RIGHT-OF-WAY: $	0
E & C (10) :	$ 257,828	ACQUIRED BY: D.O.T.	
INFLATION :	$ 567,221	UTITLITES : $	0
		ADJUSTED BY: LGPA	

TOTAL CONSTRUCTION COST: $ 3,403,324

COMMENTS: THIS PROJECT CONSIST OF THE CONSTRUCTION OF A PARALLEL BRIDGE OVER THE CHATTAHOOCHE RIVER.
PROJECT NUMBER: BHF-002-6(49)

ATTACHMENTS: TYPICAL SECTION, CONCEPT MEETING MINUTES
PREPROGRAM DOCUMENT, COST ESTIMATE

ESTIMATED COST

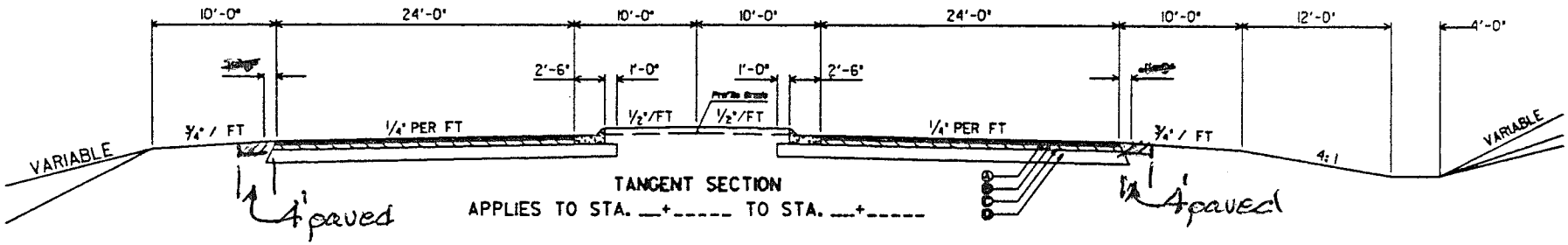
CONSTRUCTION:	$ 1,220,800	RIGHT-OF-WAY:	$ 0
E & C (10) :	$ 122,080	ACQUIRED BY:	D.O.T.
INFLATION :	$ 268,576	UTITLITES :	$ 0
		ADJUSTED BY:	LGPA

TOTAL CONSTRUCTION COST: $ 1,611,456

COMMENTS: THIS PROJECT CONSIST OF THE CONSTRUCTION OF A PARALLEL BRIDGE OVER THE LITTLE RIVER.
PROJECT NUMBER: BHF-002-6(50)

ATTACHMENTS: TYPICAL SECTION, CONCEPT MEETING MINUTES
PREPROGRAM DOCUMENT, COST ESTIMATE

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	EB-002-6(48)	---	---

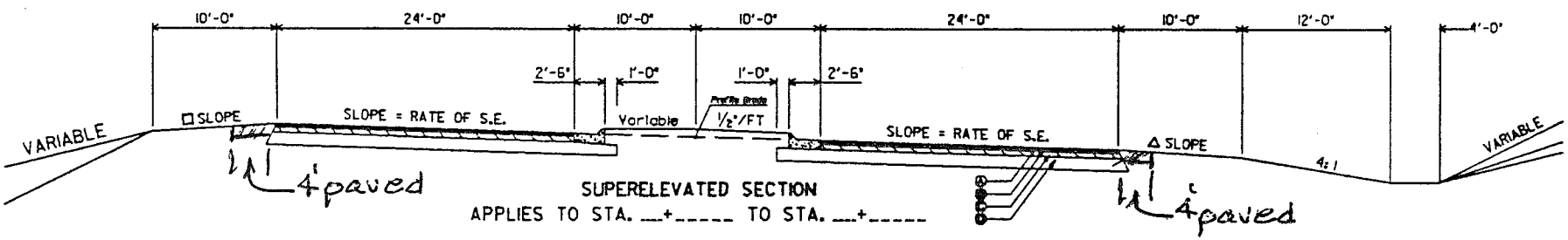


TANGENT SECTION

APPLIES TO STA. ___+_____ TO STA. ___+_____

REQUIRED PAVEMENT

- ASPHALTIC CONCRETE "E", 1½"
- ASPHALTIC CONCRETE "B", 2"
- ASPHALTIC CONCRETE BASE, 4"
- GRADED AGGREGATE BASE, 12"
- ASPHALTIC CONCRETE LEVELING, AS REQ'D



SUPERELEVATED SECTION

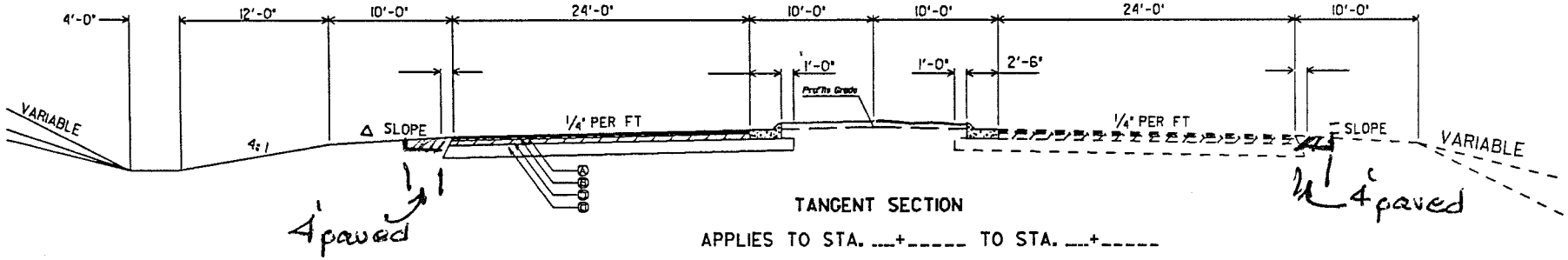
APPLIES TO STA. ___+_____ TO STA. ___+_____

△ SLOPE 3/4" / 1'-0" OR RATE OF S.E. WHICHEVER IS GREATER

□ SLOPE AS FOLLOWS:
- S.E. RATE OF 0.03'/FT OR LESS USE 1/2" IN 1'-0"
- S.E. RATE OF 0.04'/FT. USE 5/8" IN 1'-0"
- S.E. RATE OF 0.05'/FT. USE 3/4" IN 1'-0"
- S.E. RATE OF 0.06'/FT. USE 7/8" IN 1'-0"
- S.E. RATE OF 0.08'/FT. USE +0.01'/FT

ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER SLOPES NOT TO EXCEED 0.07'/FT

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	EB-062-6(48)	---	---

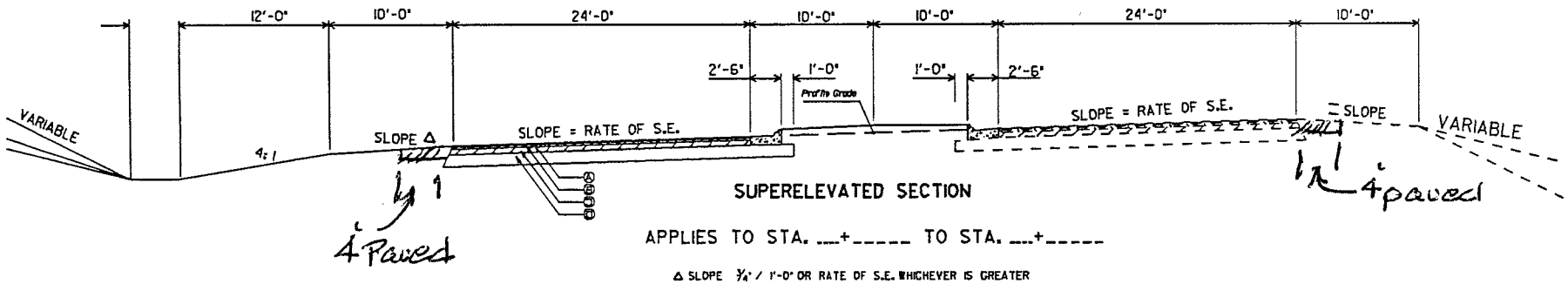


TANGENT SECTION

APPLIES TO STA. ___+_____ TO STA. ___+_____

REQUIRED PAVEMENT

- Ⓐ ASPHALTIC CONCRETE "E", 1½"
- Ⓑ ASPHALTIC CONCRETE "B", 2"
- Ⓒ ASPHALTIC CONCRETE BASE, 4"
- Ⓓ GRADED AGGREGATE BASE, 12"
- Ⓔ ASPHALTIC CONCRETE LEVELING, AS REQ'D



SUPERELEVATED SECTION

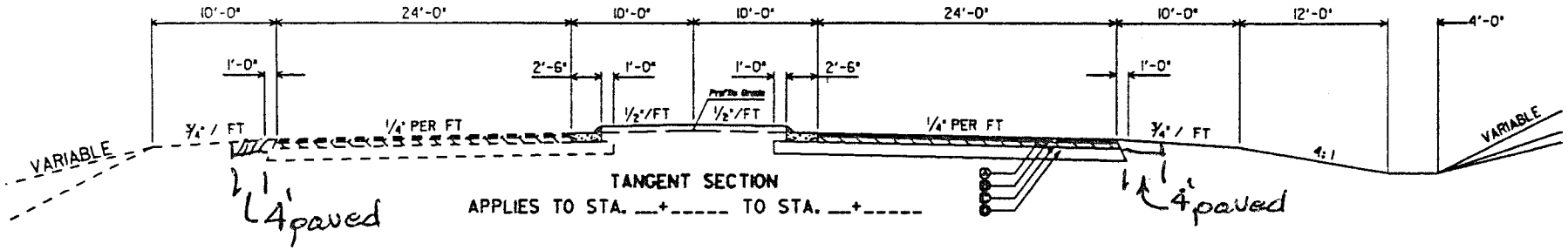
APPLIES TO STA. ___+_____ TO STA. ___+_____

Δ SLOPE ¾" / 1'-0" OR RATE OF S.E. WHICHEVER IS GREATER

□ SLOPE AS FOLLOWS:
- S.E. RATE OF 0.03'/FT OR LESS USE ½" IN 1'-0"
- S.E. RATE OF 0.04'/FT. USE ⅜" IN 1'-0"
- S.E. RATE OF 0.05'/FT. USE ¼" IN 1'-0"
- S.E. RATE OF 0.06'/FT. USE ⅛" IN 1'-0"
- S.E. RATE OF 0.08'/FT. USE +0.01'/FT

ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER SLOPES NOT TO EXCEED 0.07'/FT

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
G.A.	FR-982-6L481		

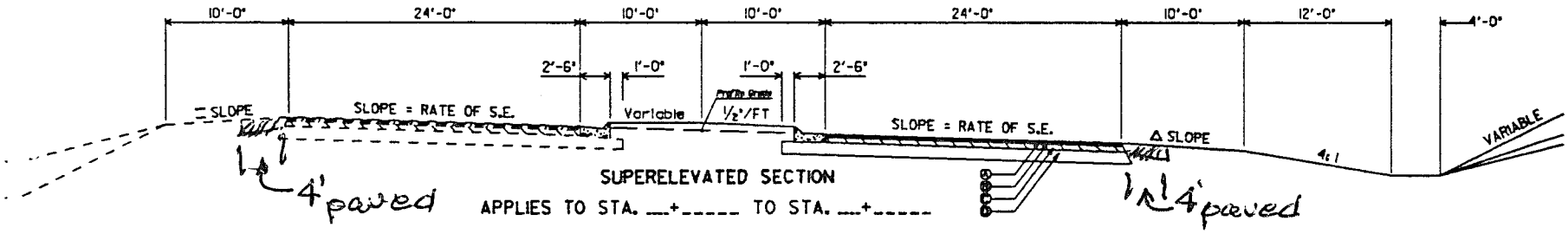


TANGENT SECTION

APPLIES TO STA. ___+_____ TO STA. ___+_____

REQUIRED PAVEMENT

- (A) ASPHALTIC CONCRETE "E", 1 1/2"
- (B) ASPHALTIC CONCRETE "B", 2"
- (C) ASPHALTIC CONCRETE BASE, 4"
- (D) GRADED AGGREGATE BASE, 12"
- (E) ASPHALTIC CONCRETE LEVELING, AS REQ'D



SUPERELEVATED SECTION

APPLIES TO STA. ___+_____ TO STA. ___+_____

Δ SLOPE 3/4" / 1'-0" OR RATE OF S.E. WHICHEVER IS GREATER

□ SLOPE AS FOLLOWS:

S.E. RATE OF 0.03'/FT OR LESS USE 1/2" IN 1'-0"
S.E. RATE OF 0.04'/FT. USE 3/8" IN 1'-0"
S.E. RATE OF 0.05'/FT. USE 1/4" IN 1'-0"
S.E. RATE OF 0.06'/FT. USE 1/8" IN 1'-0"
S.E. RATE OF 0.08'/FT. USE +0.01'/FT

ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER SLOPES NOT TO EXCEED 0.07'/FT

PRELIMINARY COST ESTIMATE

PROJECT NUMBER: FR-002-6(48) COUNTY: HALL

DATE: APR-15-1991 ESTIMATED LETTING DATE: JUN-23-1995

PREPARED BY: ADOLFO GUZMAN PROJECT LENGTH (MILES): 5.400

( ) PROGRAMMING PROCESS (X) CONCEPT DEVELOPMENT ( ) DURING PROJECT DEV.

PROJECT COST

A. RIGHT-OF-WAY:

1. PROPERTY (land & easement)	$	1,050,000
2. DISPLACEMENTS:Res.18 Bus.9 M.H.1	$	2,989,000
3. OTHER COST (adm./court,inflation)	$	2,404,000
SUBTOTAL:A	$	6,443,000

B. REIMBURSABLE UTILITIES:

1. RAILROAD	$	0
2. TRANSMISSION LINES	$	0
3. SERVICES	$	41,750
SUBTOTAL:B	$	41,750

C. CONSTRUCTION:

1. MAJOR STRUCTURES:

a. RETAINING WALLS	$	0
b. BRIDGES	$	0
c. DETOUR BRIDGES	$	0
d. BOX CULVERTS	$	0
SUBTOTAL:C-1	$	0

2. GRADING AND DRAINAGE:

a. EARTHWORK _____ $ 0

b. DRAINAGE:
1) Cross Drain Pipe (exc.box culverts) _____ $ 0

2) Curb and Gutter _____ $ 0

3) Longitudinal System(incl.catch basins) __ $ 0

SUBTOTAL:C-2 $ 0

3. BASE AND PAVING:

a. AGGREGATE BASE _____ $ 0
(specify type of base)

b. ASPHALT PAVING: Surface ___ $ 0
Binder ___ $ 0
Base ___ $ 0
SUBTOTAL:C-3.b $ 0

c. CONCRETE PAVING _____ $ 0

d. OTHER _____ $ 0

SUBTOTAL:C-3 $ 0

4. LUMP ITEMS:

a. TRAFFIC CONTROL _____ $ 0

b. CLEARING AND GRUBBING _____ $ 0

c. LANDSCAPING _____ $ 0

d. EROSION CONTROL _____ $ 0

e. DETOURS _____ $ 0

SUBTOTAL:C-4 $ 0

5. MISCELLANEOUS:

a. LIGHTING _____ $ 0

b. SIGNING - STRIPING - SIGNAL _____ $ 0

c. GUARDRAIL _____ $ 0

d. SIDEWALK - MEDIAN BARRIER _____ $ 0

SUBTOTAL:C-5 $ 0

6. SPECIAL FEATURES _____ SUBTOTAL:C-6 $ 0

2. GRADING AND DRAINAGE:

a. EARTHWORK $ 3,128,890

b. DRAINAGE:
1) Cross Drain Pipe (exc.box culverts) $ 86,967

2) Curb and Gutter (MEDIAN) $ 456,192

3) Longitudinal System(incl.catch basins) $ 0

SUBTOTAL:C-2 $ 3,672,049

3. BASE AND PAVING:

a. AGGREGATE BASE $ 1,796,972
(specify type of base)

b. ASPHALT PAVING: Surface $ 513,099
Binder $ 610,680
Base $ 1,205,624
SUBTOTAL:C-3.b $ 2,329,403

c. CONCRETE PAVING (APPROACH SLABS) $ 39,907

d. OTHER (LEVELING,TACK) $ 43,142

SUBTOTAL:C-3 $ 4,209,424

4. LUMP ITEMS:

a. TRAFFIC CONTROL $ 150,000

b. CLEARING AND GRUBBING $ 458,182

c. LANDSCAPING $ 90,000

d. EROSION CONTROL $ 130,000 ~~67,500~~

e. DETOURS $ 0

SUBTOTAL:C-4 $ 828,182 ~~675,682~~

5. MISCELLANEOUS:

a. LIGHTING $ 0

b. SIGNING - STRIPING - SIGNAL $ 83,077

c. GUARDRAIL $ 25,962

d. SIDEWALK - MEDIAN BARRIER $ 0

SUBTOTAL:C-5 $ 109,039

6. SPECIAL FEATURES SUBTOTAL:C-6 $ 0

ESTIMATE SUMMARY

A. RIGHT-OF-WAY		$ 6,443,000
B. REIMBURSABLE UTILITIES		$ 41,750
C. CONSTRUCTION		
1. MAJOR STRUCTURES	$ 0	
2. GRADING AND DRAINAGE	$ 3,672,049	
3. BASE AND PAVING	$ 4,209,424	
4. LUMP ITEMS	$ ~~675,682~~ 828182	
5. MISCELLANEOUS	$ 109,039	
6. SPECIAL FEATURES	$ 0	
SUBTOTAL CONSTRUCTION COST	$ ~~8,666,194~~ 8,818,694	
E. & C. (10%)	$ ~~866,619~~ Use 8,819,000	
INFLATION (5% PER YEAR)	$ ~~1,906,563~~	
TOTAL CONSTRUCTION COST		$ 11,439,376
GRAND TOTAL PROJECT COST		$ ~~17,924,126~~

PRELIMINARY COST ESTIMATE

PROJECT NUMBER: BHF-002-6(49) COUNTY: HALL

DATE: APR-15-1991 ESTIMATED LETTING DATE: JUN-23-1995

PREPARED BY: ADOLFO GUZMAN PROJECT LENGTH (MILES): 0.155

( ) PROGRAMMING PROCESS (X) CONCEPT DEVELOPMENT ( ) DURING PROJECT DEV.

PROJECT COST

A. RIGHT-OF-WAY:

1. PROPERTY (land & easement) _____ $ 0
2. DISPLACEMENTS: Res. Bus. M.H. $ 0
3. OTHER COST (adm./court, inflation) _____ $ 0

SUBTOTAL: A $ 0

B. REIMBURSABLE UTILITIES:

1. RAILROAD _____ $ 0
2. TRANSMISSION LINES _____ $ 0
3. SERVICES _____ $ 0

SUBTOTAL: B $ 0

C. CONSTRUCTION:

1. MAJOR STRUCTURES:

a. RETAINING WALLS $111/sf $ 0

b. BRIDGES L= 818.5 @ ~~38~~ x 41.25 w $ ~~2,578,275~~

c. DETOUR BRIDGES _____ $ 0

d. BOX CULVERTS _____ $ 0

SUBTOTAL: C-1 $ ~~2,578,275~~ 3983,000

$3,748,000
~~1,290,000~~
+ 235,000 RGHAB
3,983,000

ESTIMATE SUMMARY

A. RIGHT-OF-WAY . . . . . $ 0

B. REIMBURSABLE UTILITIES . . . . . $ 0

C. CONSTRUCTION

1. MAJOR STRUCTURES . . . . . $ ~~2,578,275~~ ~~1,300,000~~ ~~1,290,000~~
2. GRADING AND DRAINAGE . . . . $ 0 $3,983,000
3. BASE AND PAVING . . . . . $ 0
4. LUMP ITEMS . . . . . $ 0
5. MISCELLANEOUS . . . . . $ 0 $3,983,000
6. SPECIAL FEATURES . . . . . $ 0 ~~1,290,000~~

SUBTOTAL CONSTRUCTION COST . $ ~~2,578,275~~ ~~1,300,000~~

E. & C. (10%) . . . . . $ ~~257,828~~

INFLATION (5% PER YEAR) . . $ ~~567,221~~

TOTAL CONSTRUCTION COST . . . . . $ 3,403,324

GRAND TOTAL PROJECT COST . . . . . $ 3,403,324

PRELIMINARY COST ESTIMATE

PROJECT NUMBER: BHF-002-6(50) COUNTY: HALL

DATE: APR-15-1991 ESTIMATED LETTING DATE: JUN-23-1995

PREPARED BY: ADOLFO GUZMAN PROJECT LENGTH (MILES): 0.072

( ) PROGRAMMING PROCESS (X) CONCEPT DEVELOPMENT ( ) DURING PROJECT DEV.

PROJECT COST

A. RIGHT-OF-WAY:

1. PROPERTY (land & easement) $ 0
2. DISPLACEMENTS: Res. Bus. M.H. $ 0
3. OTHER COST (adm./court, inflation) $ 0

SUBTOTAL:A $ 0

B. REIMBURSABLE UTILITIES:

1. RAILROAD $ 0
2. TRANSMISSION LINES $ 0
3. SERVICES $ 0

SUBTOTAL:B $ 0

C. CONSTRUCTION:

1. MAJOR STRUCTURES:

a. RETAINING WALLS $98/SF $ 0 $1,542,214

b. BRIDGES L 381.5 x W 41.25 ~~+ 20%~~ $ ~~1,220,800~~ ~~602,000~~

c. DETOUR BRIDGES $ 0

d. BOX CULVERTS $ 0

SUBTOTAL:C-1 $ ~~1,220,800~~ 1,542,214

2. GRADING AND DRAINAGE:

a. EARTHWORK _____ $ 0

b. DRAINAGE:
1) Cross Drain Pipe (exc.box culverts) _____ $ 0

2) Curb and Gutter _____ $ 0

3) Longitudinal System(incl.catch basins) __ $ 0

SUBTOTAL:C-2 $ 0

3. BASE AND PAVING:

a. AGGREGATE BASE _____ $ 0
(specify type of base)

b. ASPHALT PAVING: Surface ___ $ 0
Binder ___ $ 0
Base ___ $ 0
SUBTOTAL:C-3.b $ 0

c. CONCRETE PAVING _____ $ 0

d. OTHER _____ $ 0

SUBTOTAL:C-3 $ 0

4. LUMP ITEMS:

a. TRAFFIC CONTROL _____ $ 0

b. CLEARING AND GRUBBING _____ $ 0

c. LANDSCAPING _____ $ 0

d. EROSION CONTROL _____ $ 0

e. DETOURS _____ $ 0

SUBTOTAL:C-4 $ 0

5. MISCELLANEOUS:

a. LIGHTING _____ $ 0

b. SIGNING - STRIPING - SIGNAL _____ $ 0

c. GUARDRAIL _____ $ 0

d. SIDEWALK - MEDIAN BARRIER _____ $ 0

SUBTOTAL:C-5 $ 0

6. SPECIAL FEATURES _____ SUBTOTAL:C-6 $ 0

ESTIMATE SUMMARY

A. RIGHT-OF-WAY		$ 0
B. REIMBURSABLE UTILITIES		$ 0
C. CONSTRUCTION		
1. MAJOR STRUCTURES	$ ~~1,220,800~~ ~~602,000~~	$ 1,542,214
2. GRADING AND DRAINAGE	$ 0	
3. BASE AND PAVING	$ 0	
4. LUMP ITEMS	$ 0	
5. MISCELLANEOUS	$ 0	
6. SPECIAL FEATURES	$ 0	
SUBTOTAL CONSTRUCTION COST	$ ~~1,220,800~~ ~~602,000~~	$ 1,542,214
E. & C. (10%)	$ 122,080	
INFLATION (5% PER YEAR)	$ 268,576	
TOTAL CONSTRUCTION COST		$ 1,611,456
GRAND TOTAL PROJECT COST		$ ~~1,611,456~~

1) FR-002-6(49)

NEW $818^{50} \times 41^{25} = 33763^{12}$ SF @ \$111/SF

$\Rightarrow$ \$3,748,000

2) FR-002-6(50)

NEW $381^{50} \times 41^{25} = 15736^{88}$ SF @ \$98/SF

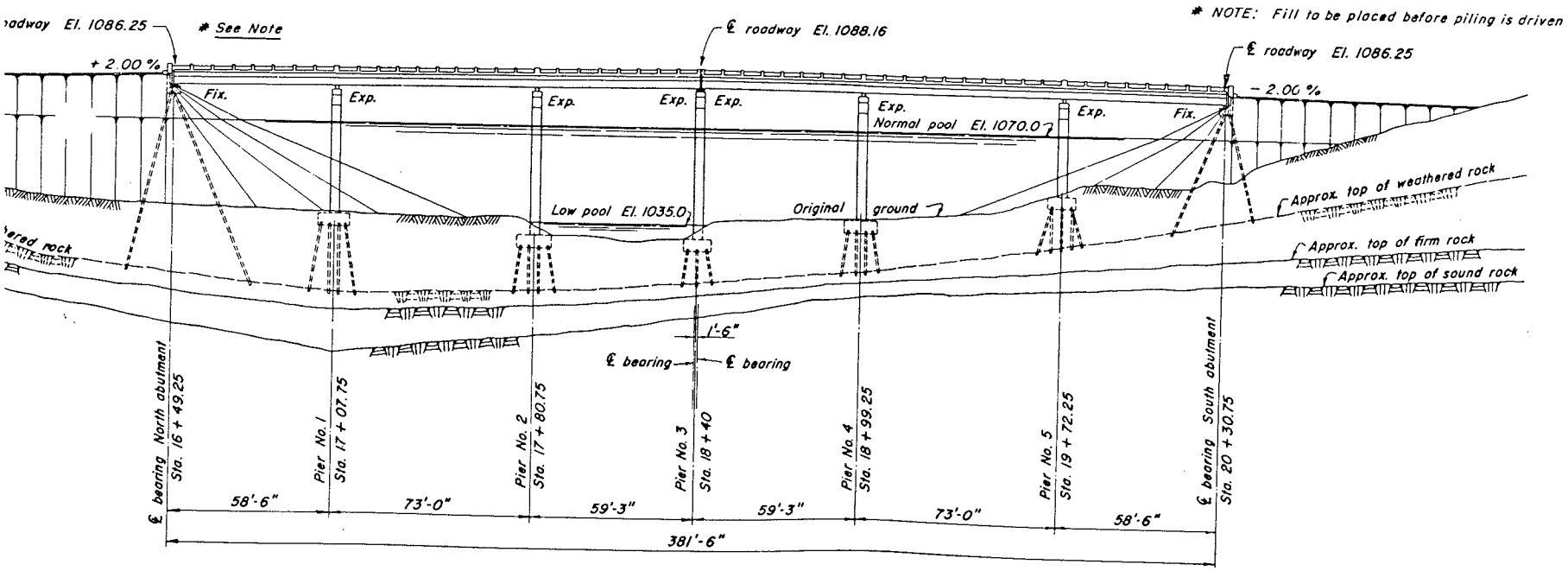
$\Rightarrow$ \$1,542,214

3) REHAB EX BRIDGES

1) \$235,000

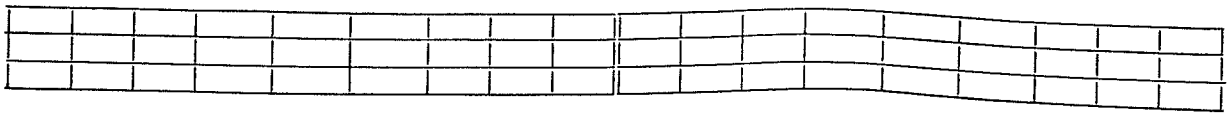
~~2) \$110,000~~

PLAN



ELEVATION

SHOWING CENTERLINE PROFILE



FLOOR PLAN

THERE'S
FOR EAC

LITTLE R

1) FR-002-6(49)

NEW $818^{50} \times 41^{25} = 33763^{12}$ SF @ \$111/SF

$\Rightarrow$ \$3,748,000

2) FR-002-6(50)

NEW $381^{50} \times 41^{25} = 15736^{88}$ SF @ \$98/SF

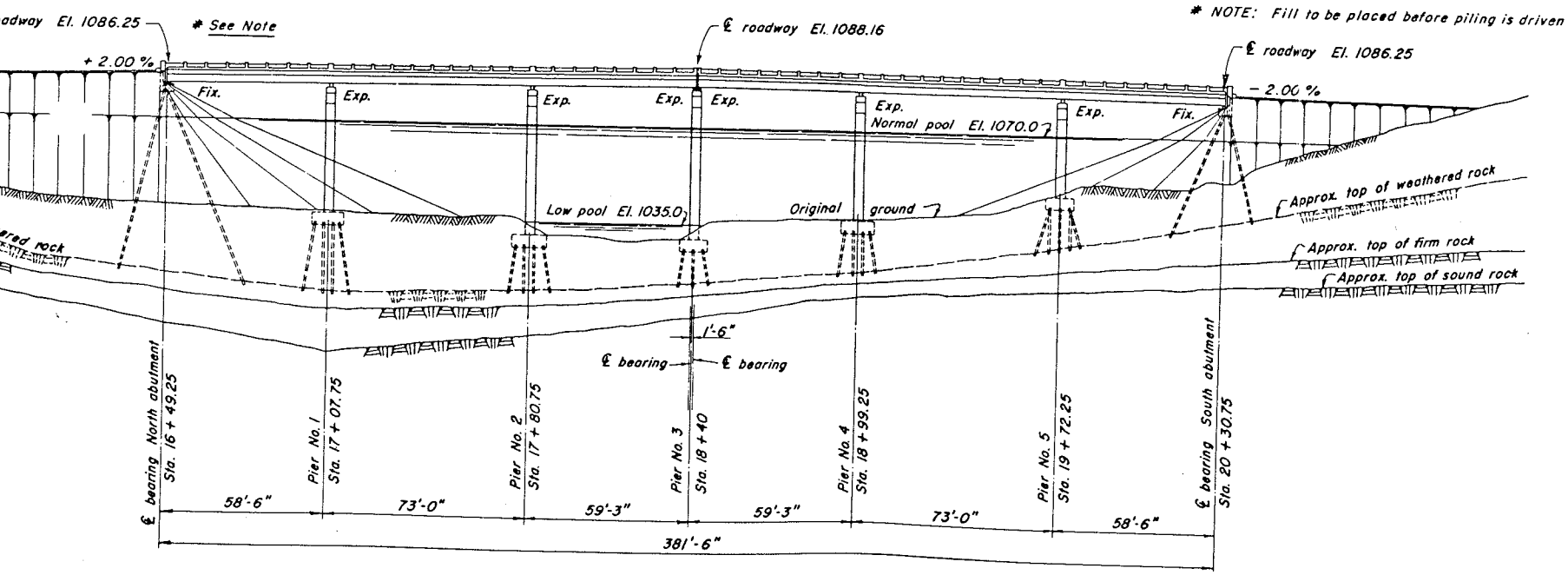
$\Rightarrow$ \$1,542,214

3) REHAB EX BRIDGES

1) \$235,000

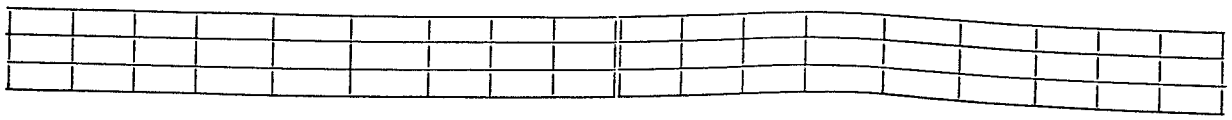
~~2) \$110,000~~

PLAN



ELEVATION

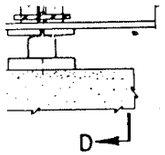
SHOWING CENTERLINE PROFILE



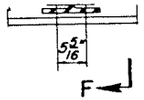
FLOOR PLAN

THERE'S
FOR EAC

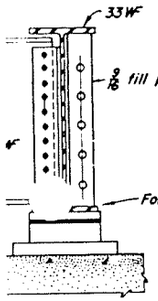
LITTLE R



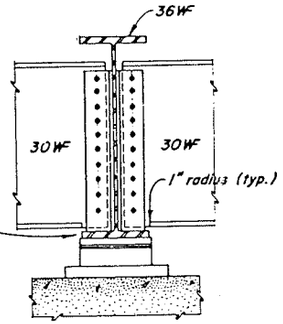
AT ABUTMENT



DETAIL AT INTERMEDIATE DIAPHRAGM

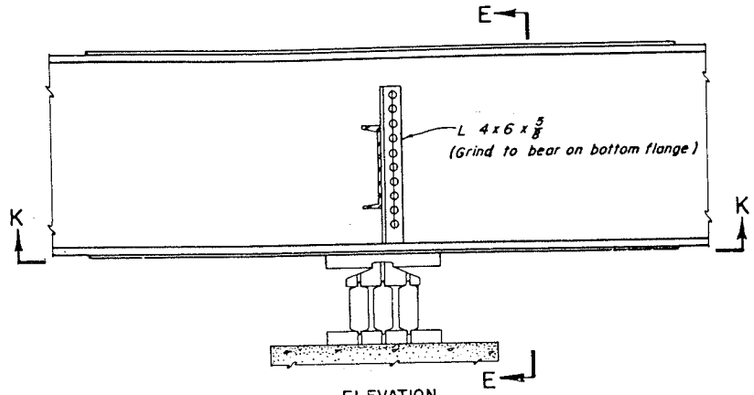


ON D-D (AS SHOWN)
ON G-G (SIMILAR)
OR BEAM

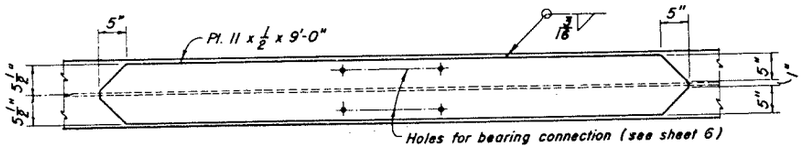


SECTION D-D (AS SHOWN)
SECTION G-G (SIMILAR)
INTERIOR BEAM

Note:
All connection details drawn to 3/4" = 1'-0" scale



ELEVATION



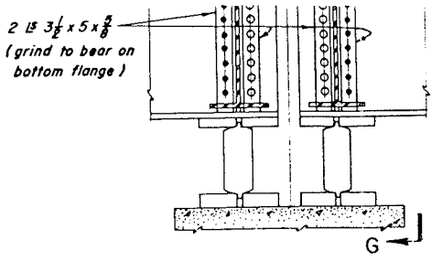
SECTION K-K

DETAIL AT PIERS 1, 2, 4 & 5

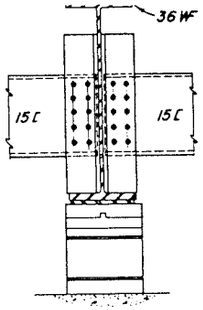
SHOWING COVER PLATES ON INTERIOR BEAMS

SCALE : 3/4" = 1'-0"

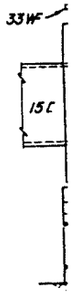
12" 0 3'



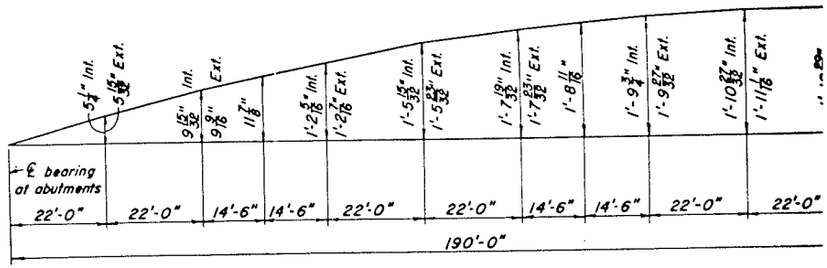
DETAIL AT PIER NO. 3



SECTION E-E
INTERIOR BEAM

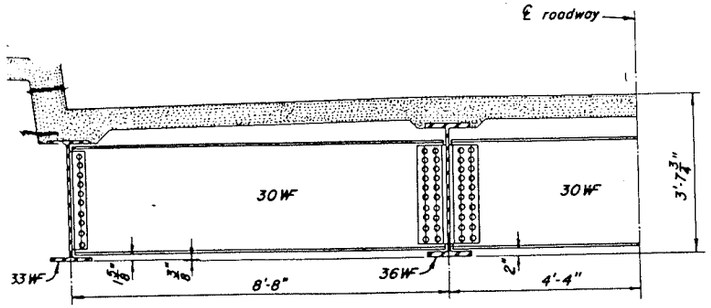


SECTI
EXTER



CAMBER DIAGRAM

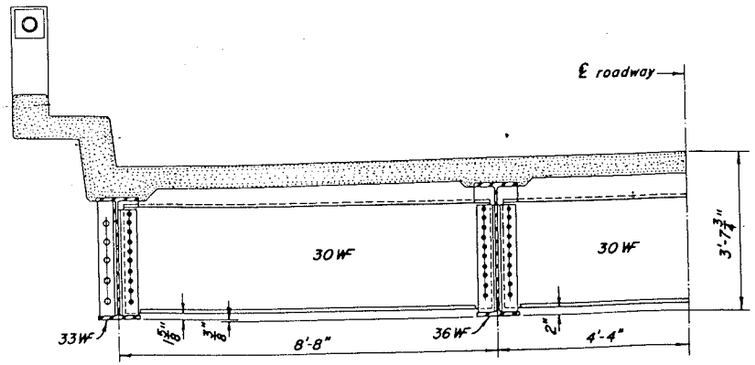
INCLUDES VERTICAL CURVE ELEVATIONS



SECTION A-A

TYPICAL INTERMEDIATE DIAPHRAGM

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

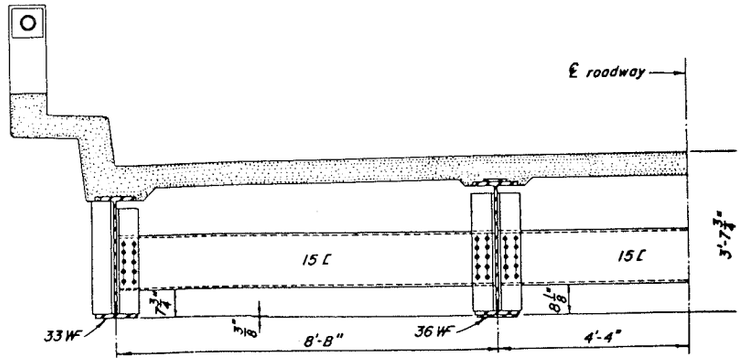


SECTION B-B

TYPICAL DIAPHRAGM AT PIER NO. 3 AND ABUTMENTS

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

12" 0 5'

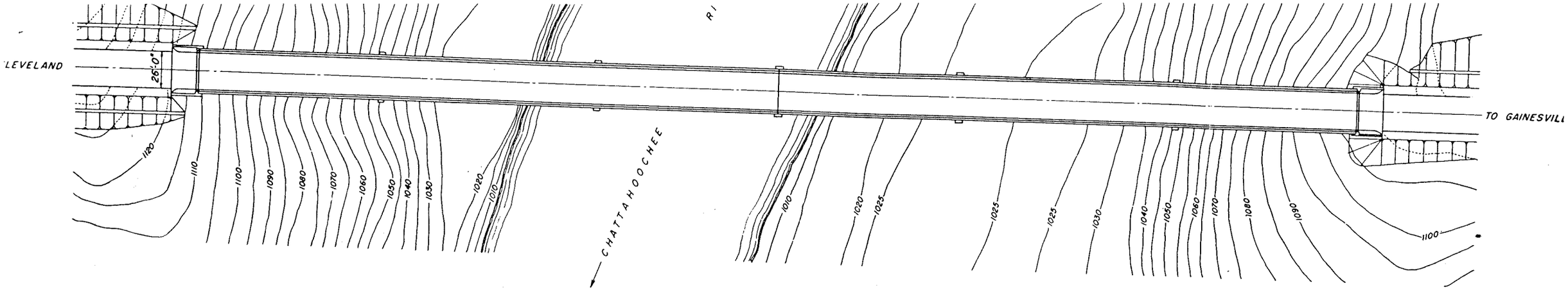


SECTION C-C

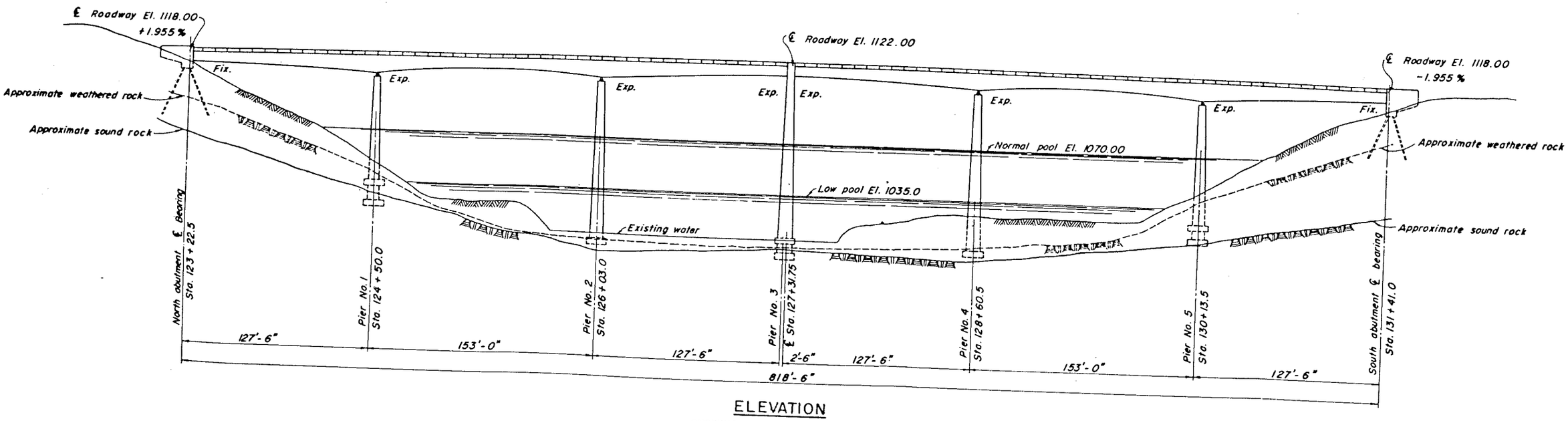
TYPICAL DIAPHRAGM AT PIERS 1, 2, 4 & 5

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

THERE'S A SAFE METHOD FOR EACH JOB. *Think!*

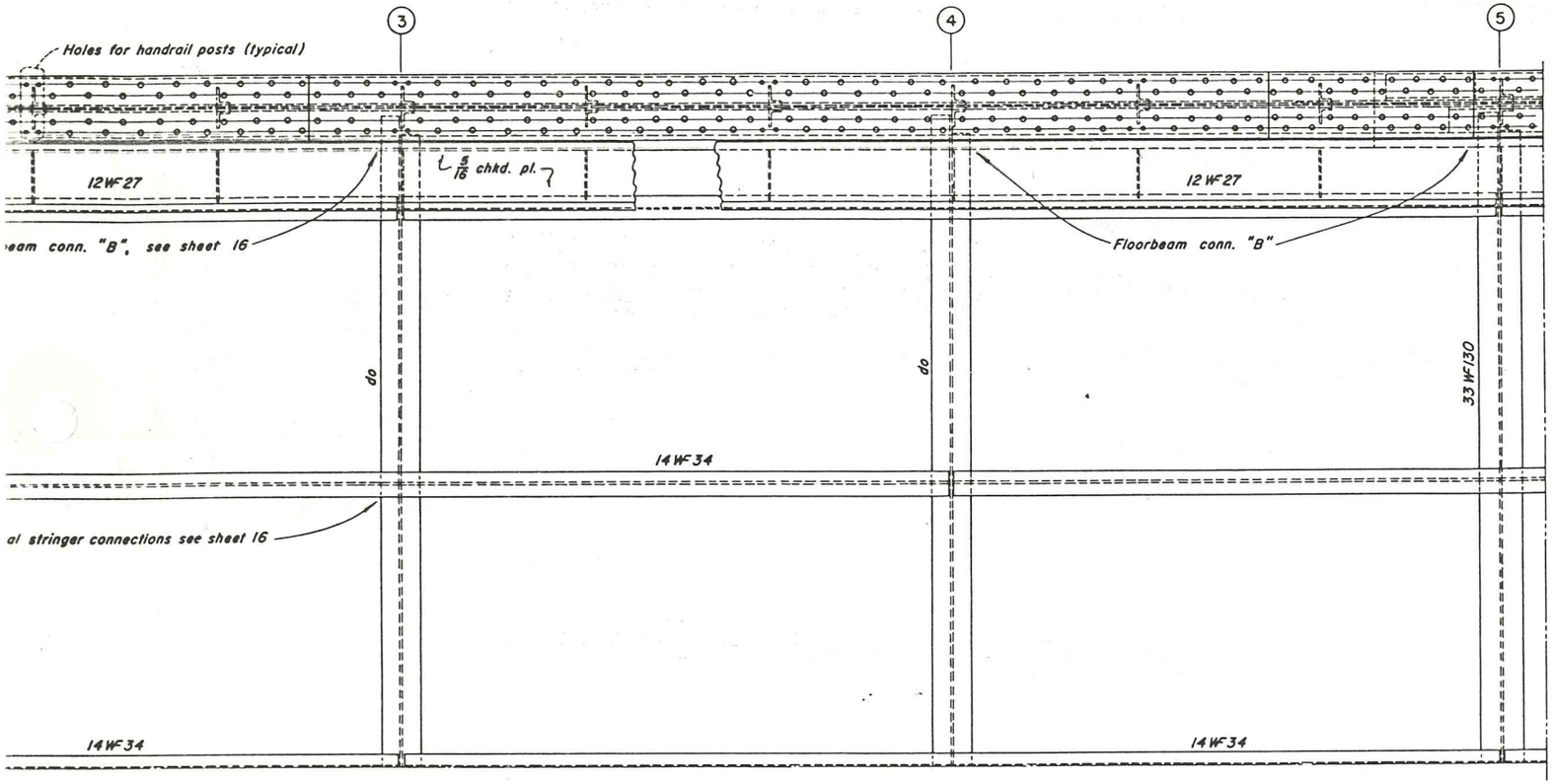


PLAN

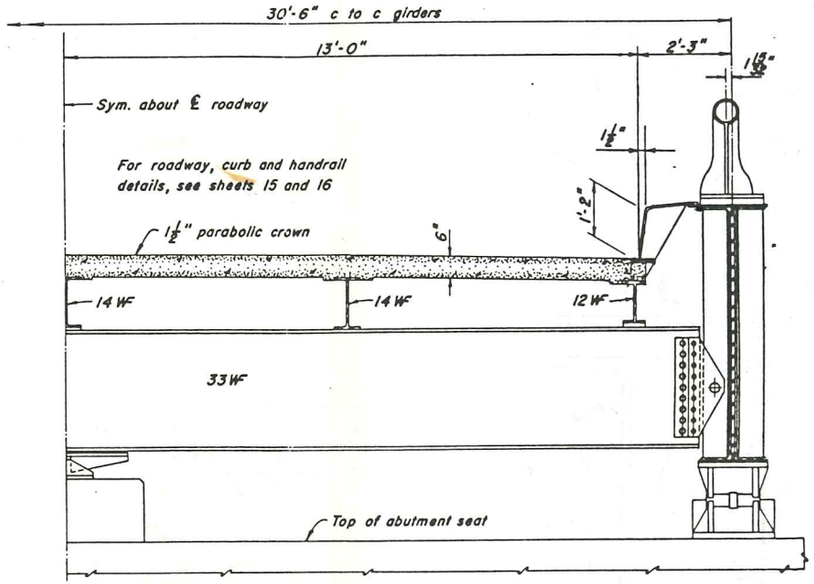


ELEVATION

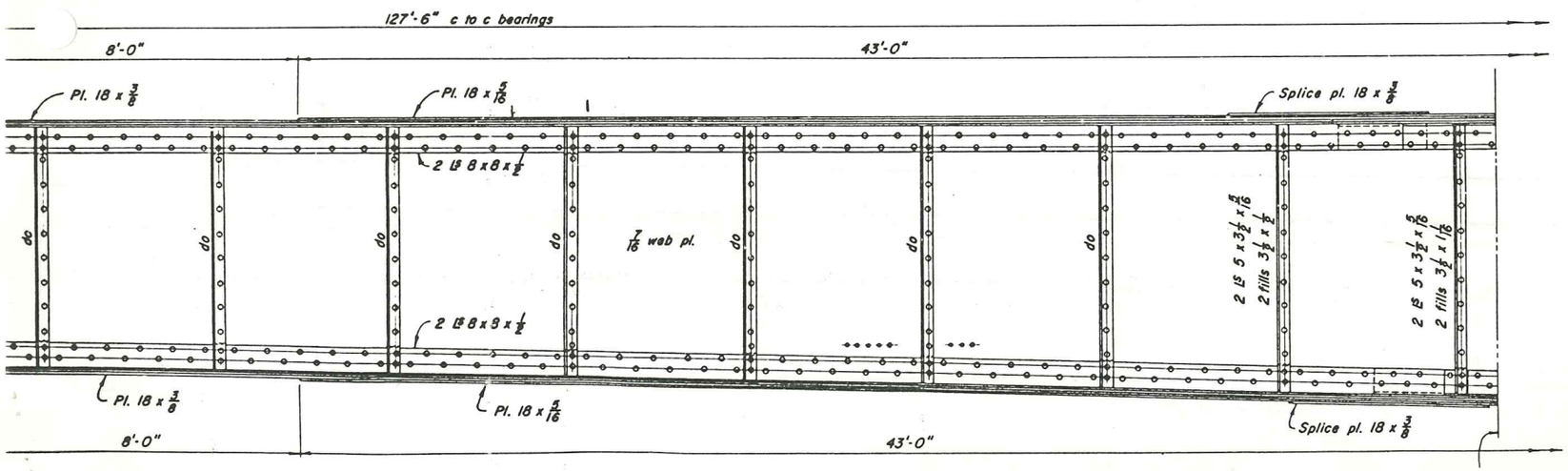
SHOWING CENTERLINE PROFILE



PLAN - GIRDER AND FLOOR SYSTEM



SECTION A - A



GENERAL NOTES : *(Applicable to sheets 10 thru 14 and 16)*

Construction shall conform with Georgia State Highway Department Standard Specifications for Construction of Roads and Bridges, May 1, 1947, except as modified.

Structural Carbon Steel shall conform with ASTM designation A7. Where not noted, steel is carbon.

Structural low-alloy Steel (LA) shall conform to ASTM designation A242. Low-alloy steel is noted by (LA).

All rivet steel shall conform with ASTM designation A141.

Fabrication and erection shall conform with Section 10, Division II of AASHO Standard Specification for Highway Bridges, 1953 Edition.

Rivets 7/8"; open holes 15/16" unless noted.

All welding shall conform to the current Specifications of the American Welding Society for the Design, Construction, and Repair of Welded Highway and Railway Bridges.

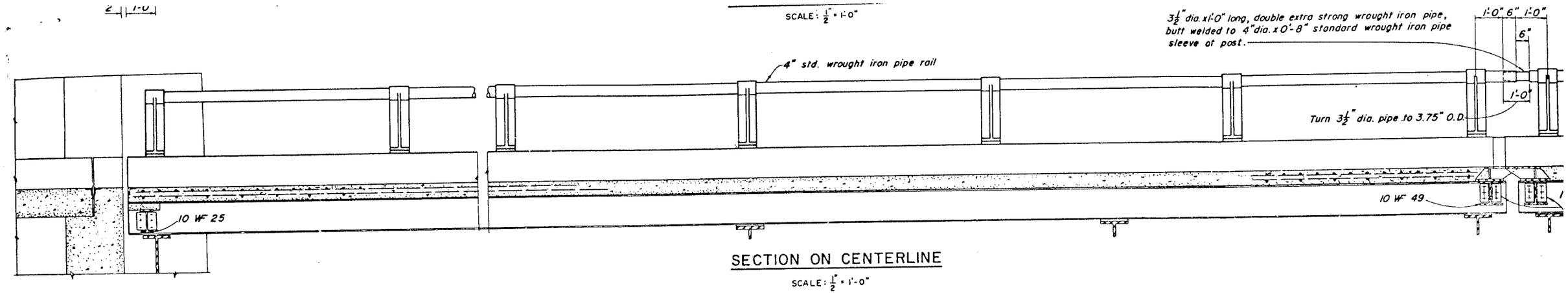
Loading H20-S16-44, AASHO Standard Specifications for Highway Bridges.

See supplementary specifications for painting.

Splice locations may be varied to suit material.

Rivet Pitch :

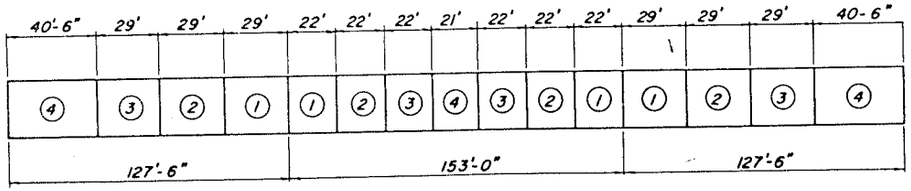
SCALE: $\frac{1}{2}$" = 1'-0"



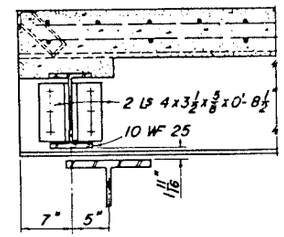
SECTION ON CENTERLINE

SCALE: $\frac{1}{2}$" = 1'-0"

12" 0 5'



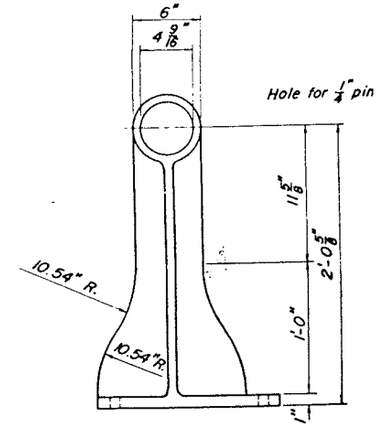
CONCRETE PLACING SCHEDULE



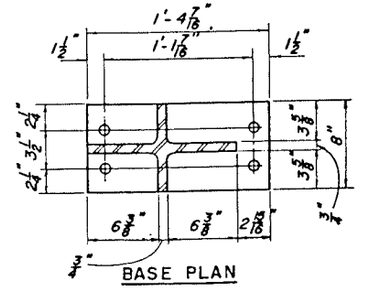
SECTION X-X

SCALE: 1" = 1'-0"

12" 0 2'



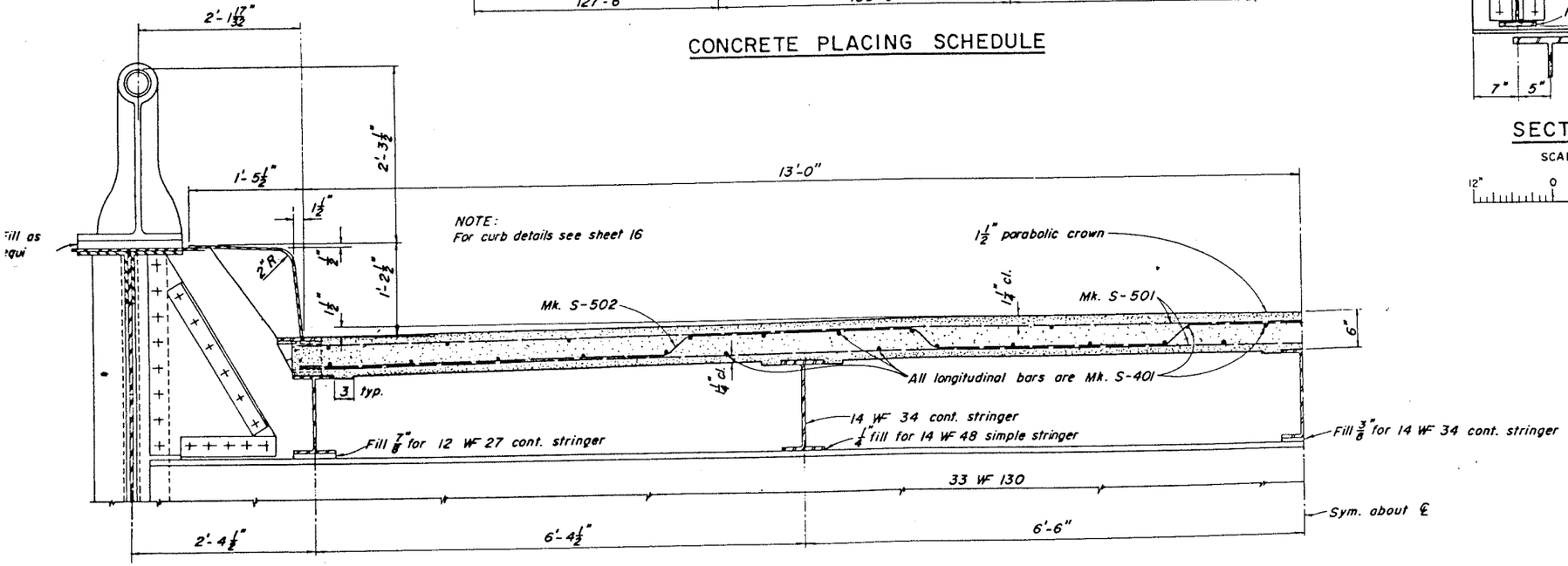
FRONT ELEVATION



BASE PLAN

TYPICAL HANDRA

SCALE: 1½" = 1'-0"



TYPICAL HALF ROADWAY SECTION

SCALE: 1" = 1'-0"