D.O.T. 66 ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE NH-IM-75-2(177) Bibb County
P.I. No. 311400

OFFICE Preconstruction

DATE September 20, 1995

FROM C. Wayne Hutto, Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

CWH/cj

Attachment

DISTRIBUTION:

John Lively
Bobby Mustin
David Studstill
Herman Griffin
Darrell Elwell
Marion Waters
Toni Dunagan
Paul Liles
Walker Scott
Joe Street
FHWA

D.O.T. 88

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE NH-IM-75-2(177) Bibb County
P.I. No. 311400

OFFICE Preconstruction

DATE July 25, 1995

FROM Hoyt J. Lively, Jr., P.E., Director of Preconstruction

TO Wayne Shackelford, Commissioner

SUBJECT PROJECT CONCEPT REPORT

This project is the widening and reconstruction of I-75 from CR 478 to just west of the I-16 interchange for a total of 3.56km. The existing roadway consists of four 3.6m lanes with a 12.19m depressed grassed median. The existing major structures are:

LOCATION	DIMENSIONS	SUFF RATING
I-75 over Pierce Ave	NBL 56.6m x 11.6m bridge	70.9
	SBL 57.3m x 11.6m bridge	90.6
I-75 over utility crossing	NBL & SBL 37.5m x 11.6m bridges	94.2
I-75 over Southern Railroad	NBL 171.9m x 8.5m bridge	71.4
	SBL 131.1m x 8.5m bridge	71.4

Accident history for four years within the limits of the proposed project consist of 617 accidents with 305 injuries and one fatality. The base year traffic (1997) is 31,000 VPD and the design year traffic (2017) is 47,500 VPD. The posted speed and design speed is 88km/h.

This project consists of the widening and reconstruction of I-75 from two lanes in each direction to three lanes in each direction with a median barrier. I-75 will be realigned approximately 366m south of the Southern Railroad to 366m north of the railroad to flatten the existing 3° curve to a 1° curve. This realignment will require two new bridges to be constructed over the Southern Railroad.

Bridge construction will be as follows:

1. I-75 over Pierce Avenue - widen NBL and SBL to the inside, one additional lane with median barrier.

2. I-75 over utility crossing - widen NBL and SBL to the inside, one additional lane with median barrier.

3. I-75 over Southern Railroad - construct two new bridges.

NH-IM-75-1(177) Bibb

Pierce Avenue Interchange

1. New bridge over utility crossing at northbound exit ramp.

2. New bridge over Riverside Drive at southbound exit ramp.

3. New bridge carrying entrance ramp from Riverside Drive to southbound I-75.

The northbound exit and entrance ramps at Pierce Avenue will be modified. The I-75 southbound exit ramp will be changed to a flyover loop ramp to connect to Riverside Drive. The entrance ramp from Riverside Drive to I-75 southbound will be changed to a loop ramp that will bridge over Riverside Drive and Pierce Avenue. The overall configuration of the I-75 southbound entrance-exit ramps will be a partial cloverleaf. The existing southbound slip ramp will be removed.

Additional rights-of-way will be required for the modifications to the Pierce Avenue interchange and the realignment of I-75 at the Southern Railroad. Design exceptions will be required for the inside shoulder width at the median and the existing pavement cross slope. This roadway will remain open to traffic during construction.

Environmental concerns include requiring a COE 404 permit; an Environmental Assessment will be prepared; 11 displacements--6 businesses and 5 residences; a public hearing will be held; time saving procedures are not appropriate.

The estimated costs for this project are:

	PROPOSED	APPROVED	PROG DATE
Construction (includes E&C and inflation)	$29,814,000	$3,732,000	2000 00-05
Right-of-Way	$20,700,000	$1,000,000	
Utilities	-----	-----	

NH-IM-75-1(177) Bibb

This project will increase capacity, enhance safety and reduce congestion along this portion of I-75. This project is in the STIP. I recommend this project concept be approved.

HJL:JDQ/cj

Attachment

CONCUR _____
Frank L. Danchetz, Chief Engineer

APPROVE _____
Larry R. Dreihaup, P.E., Administrator, FHWA

APPROVE _____
Wayne Shackelford, Commissioner

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

RECEIVED
JUN 15 1995
PRECONSTRUCTION

INTERDEPARTMENT CORRESPONDENCE

FILE NH-IM-75-1(177) BIBB
P.I. NO. 311400

OFFICE Atlanta, Georgia

DATE JUNE 14, 1995

FROM Bob Mustin, P.E., Project Review Engineer DTM

TO C. Wayne Hutto, Assistant Director of Preconstruction

SUBJECT **PROJECT CONCEPT REPORT**

The concept report submitted June 8, 1995 has been reviewed and is considered satisfactory.

The estimated costs for the project are as follows:

Construction	$	21,683,000
Inflation	$	5,421,000
E & C	$	2,710,000
Right of Way	$	20,700,000
Reimbursable Utilities	$	?

DTM

c: Walker Scott

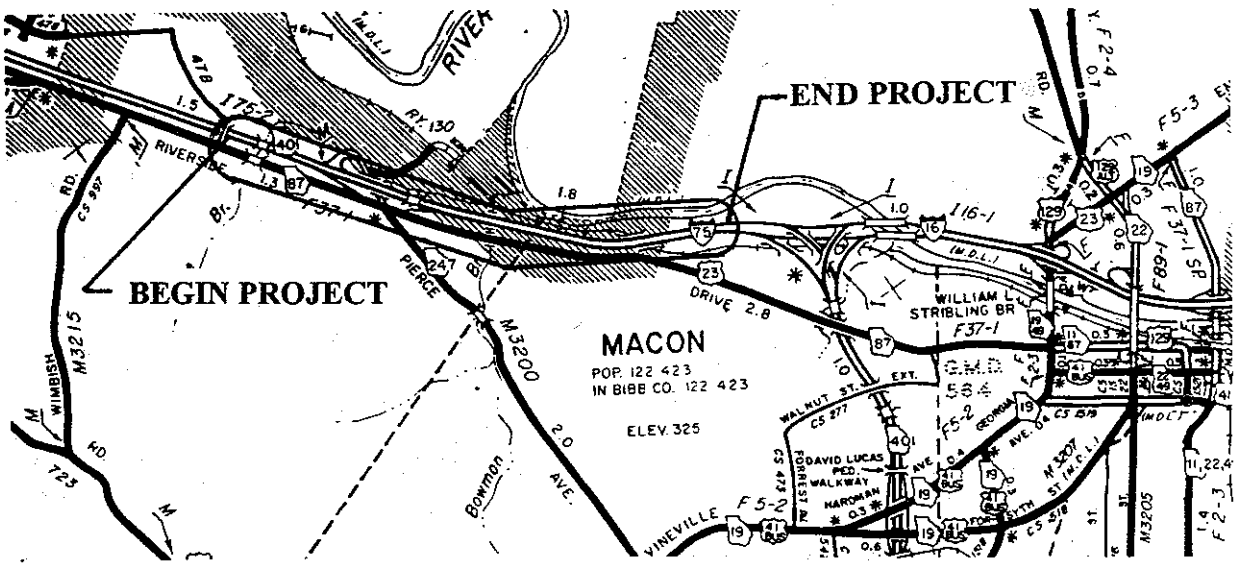
DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

PROJECT CONCEPT REPORT

NH-IM-75-2(177) BIBB COUNTY
I-75 WIDENING FROM
PIERCE AVENUE TO I-16 INTERCHANGE

Federal Route No.: I-75
State Route No. : SR 401
GaDOT P.I. No. : 311400



Date of Report: 5-31-95

RECOMMENDATION FOR APPROVAL

6/6/95 _____
Date State Urban Design Engineer

_____ _____
Date State Environmental Engineer

_____ _____
Date State Traffic Operations Engineer

_____ _____
Date District Engineer

_____ _____
Date State Bridge & Structural Design Engineer

PROJECT CONCEPT REPORT

PROJECT NO.: NH-IM-75-2(177) Bibb County P.I. NO.: 311400

PROJECT DESCRIPTION: Widening I-75 from Pierce Avenue to the I-16 Interchange. ROUTE NO.: SR 401

LOCATION: I-75 in Macon beginning at Pierce Avenue and continuing east to the I-16 interchange.

TRAFFIC: (two-way ADT) (1997) 31000 (2017) 47500

PDP CLASS: Major NON-CA: (X) CA: ( ) EXEMPT: ( )

FUNCTIONAL CLASS: Urban-Principle Arterial-Interstate

EXISTING CONDITIONS

TYPICAL SECTION: 4-3.6m (12 ft) lanes with a 12.19m (40 ft) depressed median

POSTED SPEED LIMIT: 88 km/h (55mph)

MIN. RADIUS OF CURVE: 582.125m radius (1909.85 ft)

MAX. GRADE: 4%

MAJOR STRUCTURES: Bridges carrying I-75 over Pierce Avenue:

NBL,	ID# 021-0101-0	SUFF. RATING 70.9	LENGTH 186	WIDTH 38
SBL,	ID# 021-0102-0	SUFF. RATING 90.6	LENGTH 188	WIDTH 38

Bridges carrying I-75 over utility crossing:

NBL,	ID# 021-0099-0	SUFF. RATING 94.2	LENGTH 123	WIDTH 38
SBL,	ID# 021-0100-0	SUFF. RATING 94.2	LENGTH 123	WIDTH 38

Bridges carrying I-75 over Southern Railroad

NBL,	ID# 021-0097-0	SUFF. RATING 71.4	LENGTH 564	WIDTH 28
SBL,	ID# 021-0098-0	SUFF. RATING 71.4	LENGTH 430	WIDTH 28

ACCIDENT HISTORY: The following is a summary of the accident data as furnished by traffic operations:

	1990	1991	1992	1993
Total Accidents:	144	158	157	158
Total Injuries:	66	92	78	69
Total Fatalities:	0	1	0	0
Accident Rate:	212	208	210	200
Injury Rate:	93	121	104	87

	1990	1991	1992	1993
Statewide Average for Urban FAP Section: (per 100 mil veh miles of travel)				
Accident Rate:	162	154	143	N/A
Injury Rate:	68	62	57	N/A

STATEMENT OF NEED AND PURPOSE OF PROJECT: See attached.

PROPOSED PROJECT CONCEPT

LENGTH: 3.56 km (2.21 mi)

LOCATION: I-75 in Macon beginning at Pierce Avenue and continuing east to the I-16 interchange.

SPEED DESIGN: 88 km/h (55 mph)

	Allowed	Proposed
MIN. RADIUS of CURVE:	335m (1145.91ft)	875m (2864.78 ft)
MAX. GRADE	6%	4%

TYPICAL SECTION: 6 - 3.6m (12 ft) lanes with median barrier. See attached typical sections.

MAJOR STRUCTURES: Existing 2-2 lane bridges carrying I-75 over Pierce Avenue. The existing briges will be widened to the inside to include one additional lane. Shoulders to be improved as well as median barrier added.

Existing 2-2lane bridge carrying I-75 over utility crossing. The existing bridges will be widened on the inside to include one additional lane. Inside and outside shoulders to be improved as well as median barrier added.

Bridge carrying I-75 over Southern Railway. Existing bridge to be replaced.

Proposed bridge carrying northbound exit ramp at Pierce Avenue over utility crossing.

Proposed bridge carrying southbound exit ramp over Riverside Drive.

Proposed bridge carrying entrance ramp from Riverside Drive to southbound I-75.

TYPE ACCESS: I-75 mainline limited access; side streets controlled by permit.

TRAFFIC CONTROL DURING CONSTRUCTION: Traffic will be maintained at all times during construction.

DESIGN VARIANCES REQ'D:

	YES	NO	UNDETERMINED
Horizontal Alignment	( )	(X)	( )
Vertical Grades	( )	(X)	( )
Stopping Sight Distance	( )	(X)	( )
Speed Design	( )	(X)	( )
Roadway Width	( )	(X)	( )
Shoulder Width	(X)	( )	( )
Cross Slopes	(X)	( )	( )
Superelevation Rates	( )	(X)	( )
Horizontal Clearance	( )	(X)	( )
Vertical Clearance	( )	(X)	( )
Bridge Width	( )	(X)	( )
Bridge Struct. Capacity	( )	(X)	( )

ESTIMATED COST:

ITEM		
RIGHT of WAY	$	20,700,000
UTILITIES	$	(LGPA)
CONSTRUCTION	$	21,683,000
INFLATION	$	5,421,000
E & C	$	2,710,000
TOTAL CONSTRUCTION	$	29,814,000

DISPLACEMENTS: 6 Businesses and 5 Residences.

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

LEVEL of ENVIRONMENTAL ANALYSIS: Environmental assessment.

LEVEL of PUBLIC INVOLVEMENT: Public hearing will be required.

TIME SAVING PROCEDURES APPROPRIATE? YES ( ) NO (X)

OTHER PROJECTS IN AREA:

PI 311410	I-16 from I-75 at Hardeman Avenue to Spring Street
PI 311000	Intersection modifications at SR 11 (Spring Street), SR 22 (Second Street), and SR 87 (Coliseum Drive)
PI 311415	I-16 from SR 11 (Spring Street) to SR 87 (Coliseum Drive)
PI 350960	I-475 from Log Cabin Drive to Columbus Road
PI 311560	Hardeman Avenue and Forsyth Street
PI 322000	SR 87 (Riverside Drive) from Hall Road to Northside Drive
PI 350760	Northside Drive from Forest Hill Road to SR 87 (Riverside Drive)

CONCEPT TEAM MEETING DATE: 12-1-94

LOCATION INSPECTION DATE: The site was visited by the designer on 3-1-95.

RAILROAD INVOLVEMENT: Yes

POSSIBLE UNDERGROUND STORAGE TANK SITES: No

POSSIBLE HAZARDOUS WASTE SITES: No

ALTERNATES CONSIDERED: 1) build, 2) no build

COMMENTS: This project will be designed in metric units. An IJR or IMR report may required due to the modification and improvement to the interstate. Project: NH-IM-16-1(104), NH-IM-16-1(105) and NH-IM-16-1(92) will be built in conjunction with this project.

The preliminary cost estimate and design was based on retaining the existing concrete pavement and geometry. There are two areas that would require a design exception. They are the inside shoulder width at the median and the existing pavement cross slope. See the attached typical section.

In order to eliminate the two design exceptions the following would have to be done:

1. The proposed pavement section would have to change to asphalt.
2. The existing concrete pavement would be overlayed in order to achieve the correct inside shoulder width and leveling used to achieve a 2% minimum cross slope.

Once design work is started and detailed construction impacts and sequences are defined, the project limits, project sequencing and the use of the existing pavement may need to be redefined.

This concept report and preliminary cost estimate includes improvements to the Pierce Avenue entrances and exits from I-75. The improvements to the interchange are as follows:

1. The northbound I-75 exit and entrance ramps will be changed from a partial cloverleaf configuration to a half diamond interchange.
2. The I-75 southbound exit ramp will be changed to a flyover loop ramp to connect to Riverside Drive.
3. The entrance ramp from Riverside Drive to I-75 southbound will be changed to a loop ramp that will bridge over Riverside Drive and Pierce Avenue. The overall configuration of the I-75 southbound entrance-exit ramps will be that of a partial cloverleaf. The existing southbound slip ramp will be removed.

The alternate suggested by the Macon/Bibb County representative of relocating the southbound exit ramp to Riverside Plaza has been studied. The results are as follows:

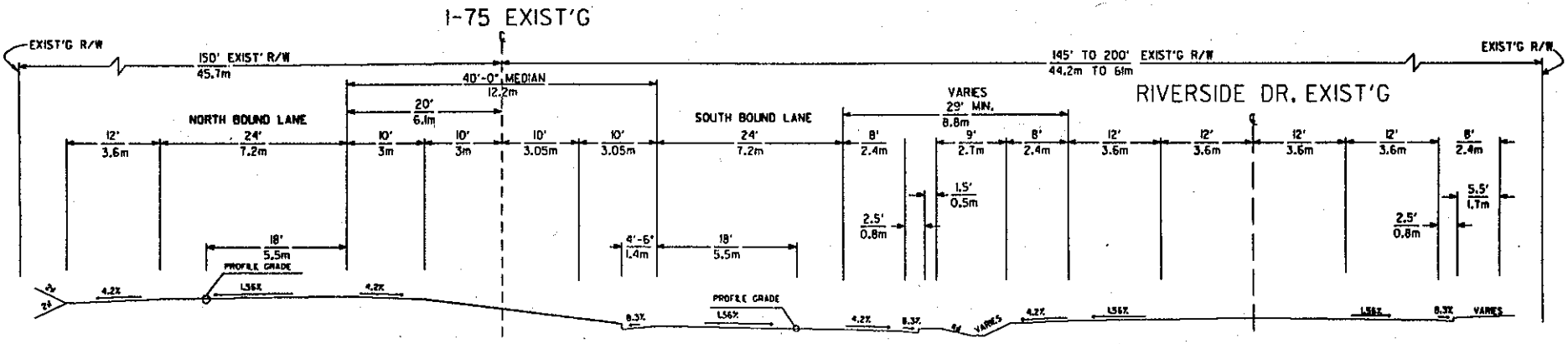
1. The exit taper would have to start just south of the Riverview Road bridge. The proposed ramps would have grades of 2.4% and 1%. The disadvantage to the ramp is that the turning radius at the intersection with Riverside Drive would be equal to or less than 50 ft. This would create a difficult turning movement for trucks and, given the high volume of truck traffic (7%), makes an undesirable condition.
2. Retaining walls would be required between the I-75 mainline and the exit ramp and between the I-75 exit

ramp and Riverside Drive.

ATTACHMENTS: Typical Sections, Traffic Diagrams, Cost Estimates, Need & Purpose Statement, Concept Team Meeting Minutes, Concept Meeting Attendees List, and Letter of Response from Georgia Power Company.

Project No.: NH-IM-75-2(177)
County: BIBB

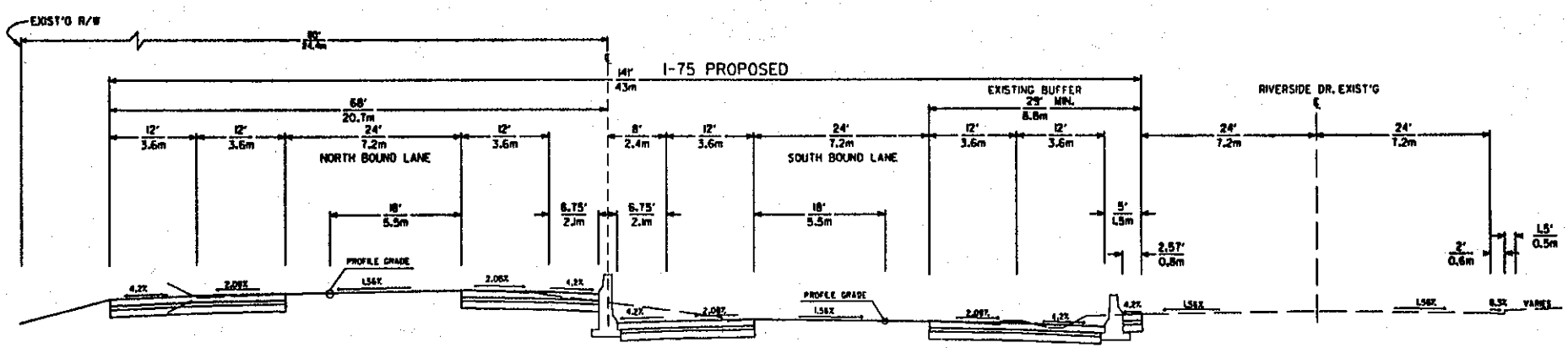
TYPICAL SECTIONS



EXISTING
I-75
RIVERSIDE DRIVE

Project No.: NH-IM-75-2(177)
County: BIBB

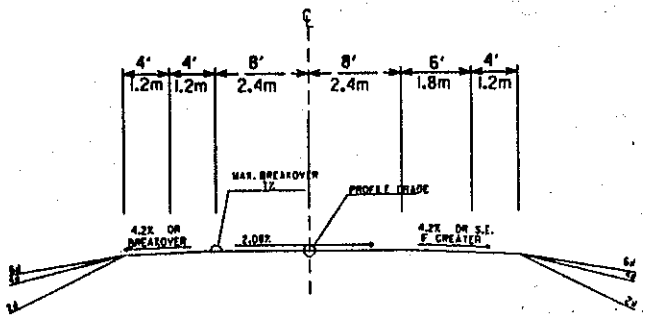
TYPICAL SECTIONS



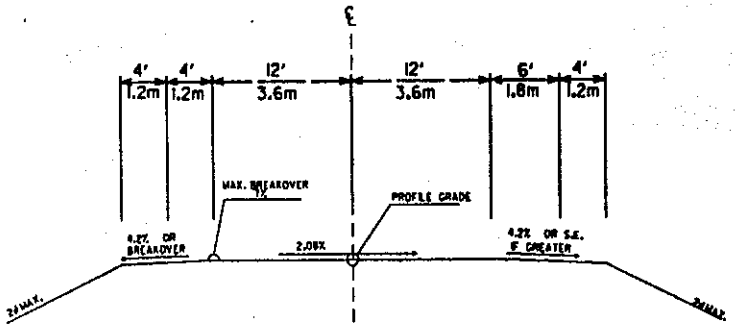
I-75 &
RIVERSIDE DRIVE

Project No.: NH-IM-75-2(177), NH-IM-16-1(104), (105)
County: BIBB

TYPICAL SECTIONS



RAMP



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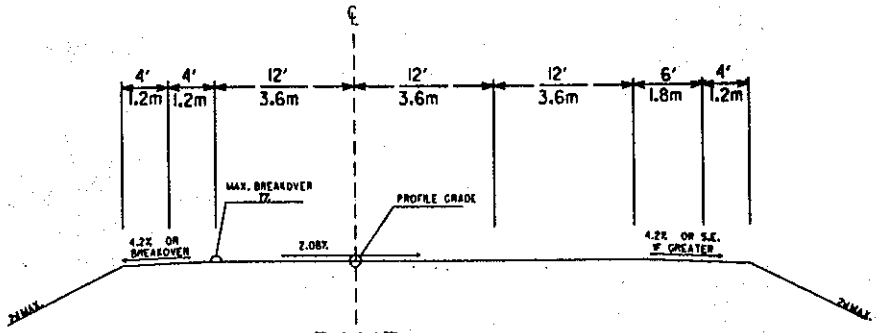

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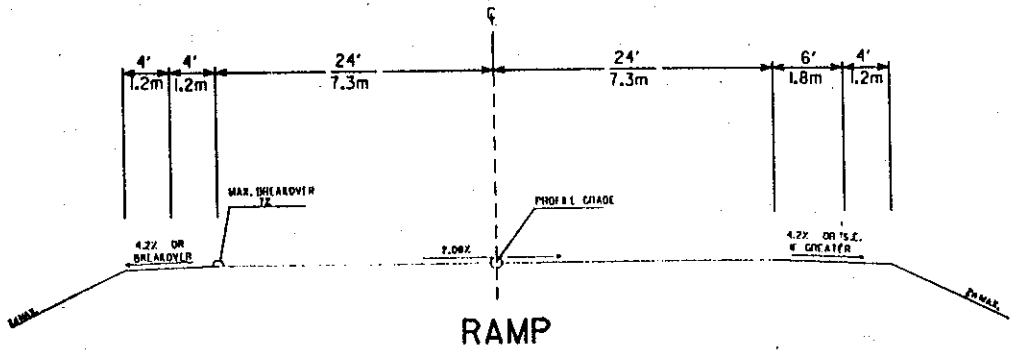
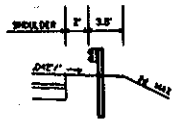


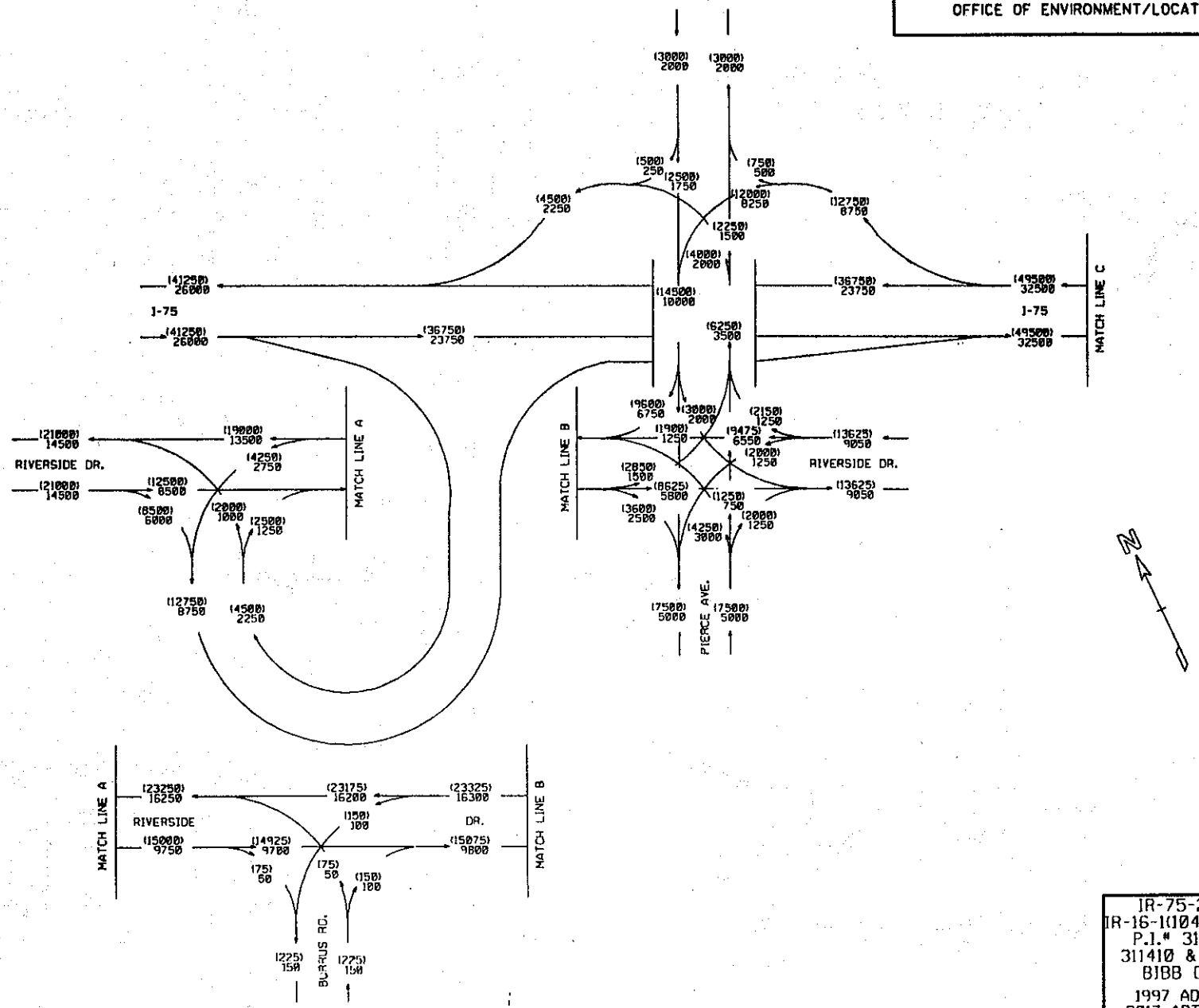
RAMP



GUARDRAIL DETAIL
FOR RAMPS

RAMPS FOR
I-75, I-16 AND COLLECTOR-DISTRIBUTOR

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENT/LOCATION



IR-75-2(177)
IR-16-1(104)&(105)
P.I.# 311400.
311410 & 311415
BIBB COUNTY

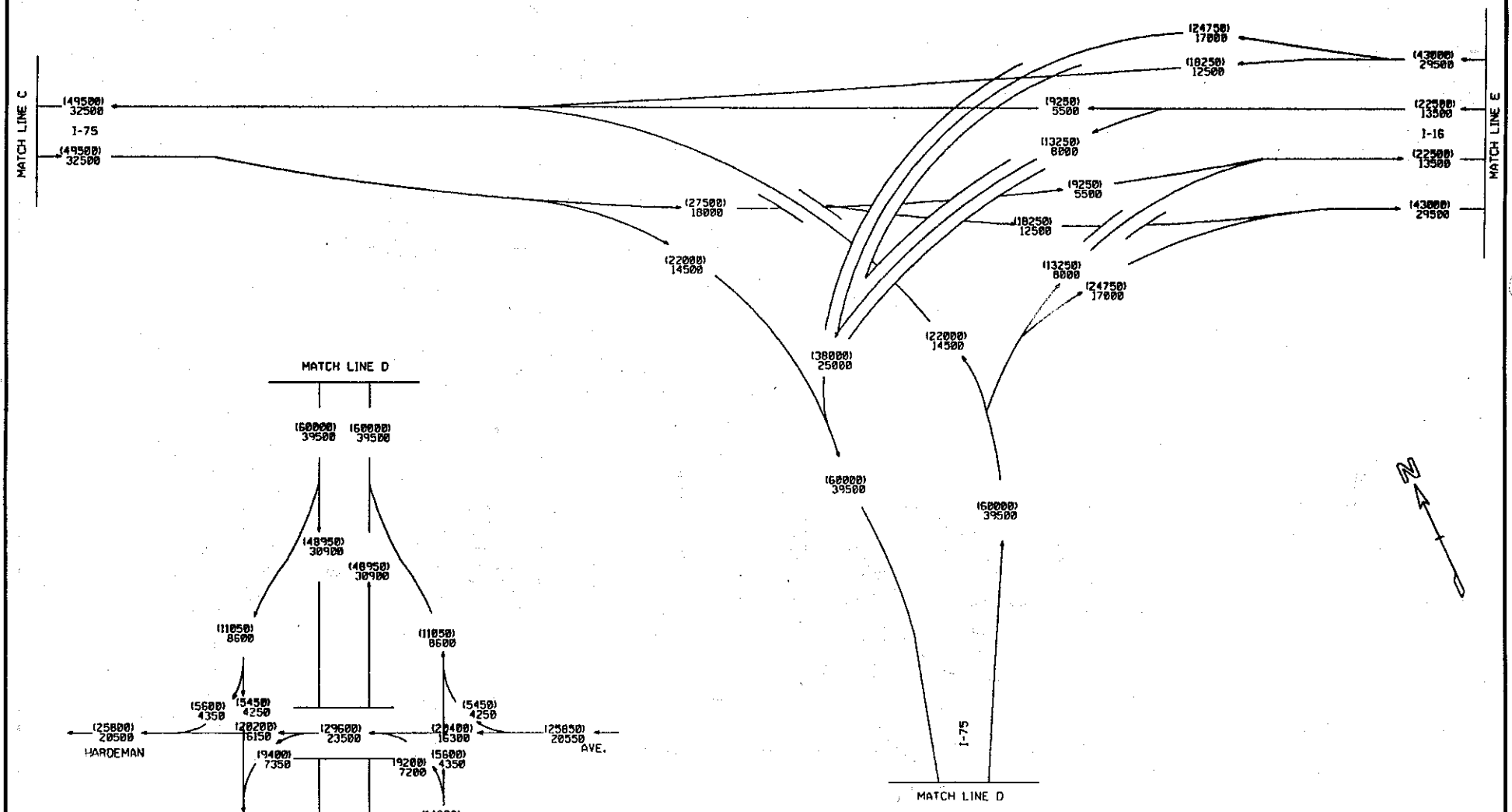
1997 ADT = 000
2017 ADT = (000)

24 HR. T = 11%
S.U. = 3%
COMB. = 8%

RGL
12/94

SHEET 2 OF 10

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENT/LOCATION



IR-75-2(177)
IR-16-1(104)&(105)
P.I.# 311400.
311410 & 311415
BIBB COUNTY

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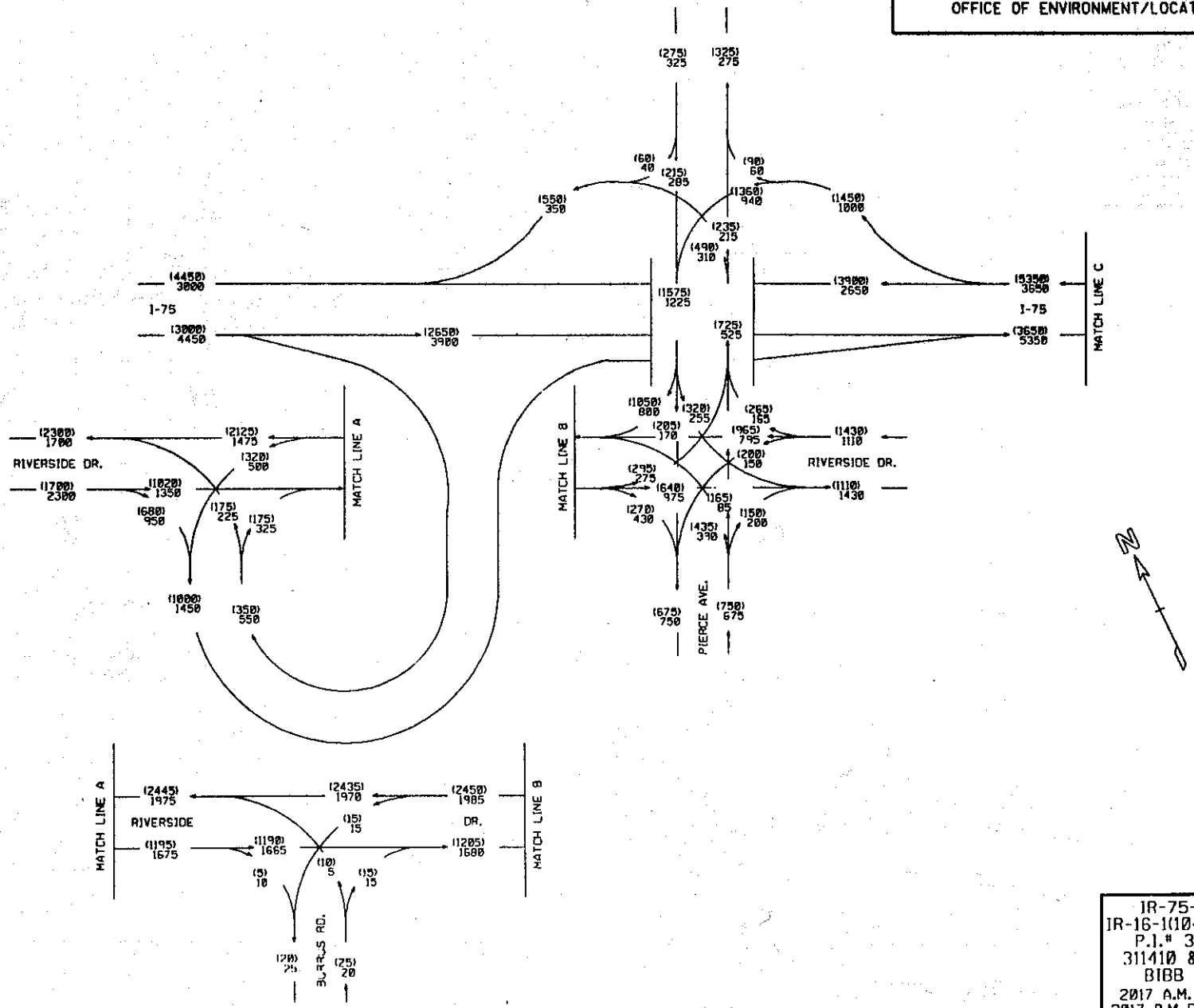
RGL
12/94

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENT/LOCATION

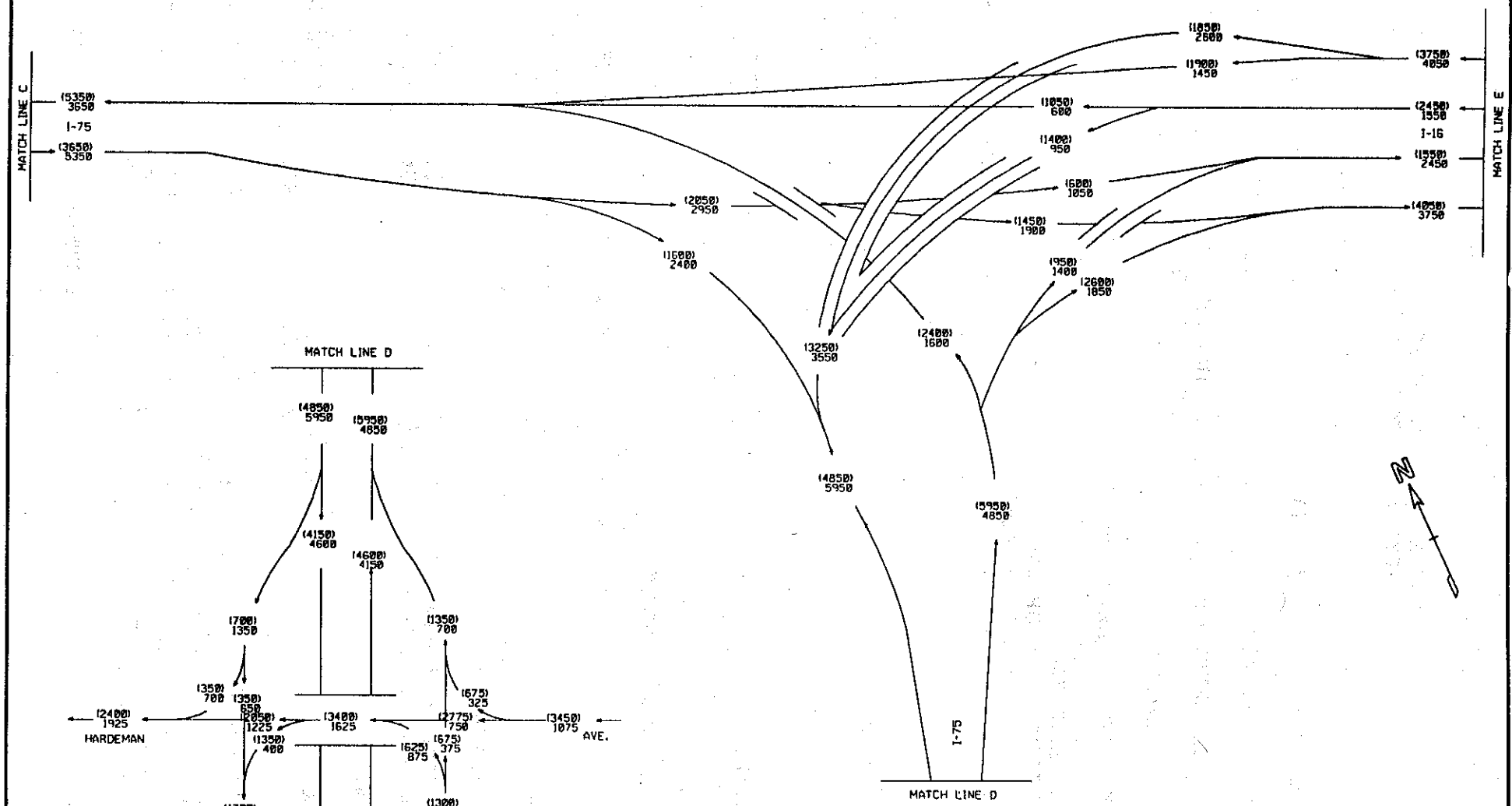


IR-75-2(177)
IR-16-1(104)&(105)
P.I.# 311400.
311410 & 311415
BIBB COUNTY
2017 A.M. DHV = 000
2017 P.M. DHV = (000)

T = 7%

RGL
12/94

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENT/LOCATION



IR-75-2(177)
IR-16-1(104)&(105)
P.I.# 311400.
311410 & 311415
BIBB COUNTY

2017 A.M. DHV = 000
2017 P.M. DHV = (000)

T = 7%

RGL
12/94

PRELIMINARY COST ESTIMATE
URBAN DESIGN OFFICE

DATE: 5-31-95 PREPARED BY: GLO

PROJECT NO.: NH-IM-75-2(177) FILE NAME: 311400CE

P.I. NO.: 311400 MILEAGE: 2.21

PROJECT DESCRIPTION/CONCEPT: WIDENING OF I-75 IN MACON FROM PIERCE AVENUE TO I-16

EXISTING ROADWAY: YES

TRAFFIC (ADT): Existing: 31000 Design: 47500

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

PROJECT COSTS

A.	RIGHT OF WAY				$20,700,000
				SUBTOTAL	$20,700,000
B.	UTILITIES				$ --
				SUBTOTAL	$0
C.	CLEARING AND GRUBBING				
		60.32	AC @	$2,500	$150,800
				SUBTOTAL	$150,800
D.	EARTHWORK				
	EMBANKMENT				
	IN-PLACE EMBANKMENT	0	CY @	$7	$0
	BORROW INCL HAUL	78850	CY @	$6	$473,100
	EXCAVATION				
	SOIL	40000	CY @	$5	$200,000
	ROCK	0	CY @	$10	$0
	MISCELLANEOUS				
	WICK DRAINS	0	LF @	$1	$0
	FILTER FABRIC	0	SY @	$7	$0
	DRAINAGE MATERIAL	0	CY @	$6	$0
	DRILL HOLES	0	LF @	$2	$0
				SUBTOTAL	$673,100

E. BASE AND PAVING

AGGREGATE BASE

GRADED AGGREGATE	72680	TN @	$20	$1,453,600

ASPHALT AND CONCRETE PAVING

9" PCC PAVING	23623	SY @	$21	$496,083
11" PCC PAVING	76797	SY @	$23	$1,766,331
ASPH CONC E	490	TN @	$32	$15,680
ASPH CONC B	650	TN @	$30	$19,500
ASPH CONC BASE	23800	TN @	$28	$666,400
LEVELING	350	TN @	$31	$10,850
TACK COAT	305	GA @	$1	$305
			SUBTOTAL	$4,428,749

F. DRAINAGE

CROSS DRAIN SYSTEM

15" CONC. PIPE	600	LF @	$20	$12,000
18" CONC. PIPE	400	LF @	$24	$9,600
24" CONC. PIPE	800	LF @	$31	$24,800
42" CONC. PIPE	0	LF @	$83	$0
15" F.E.S.	6	EA @	$284	$1,704
18" F.E.S.	2	EA @	$314	$628
24" F.E.S.	1	EA @	$401	$401

LONGITUDINAL SYSTEM

15" CONC. PIPE	0	LF @	$20	$0
18" CONC. PIPE	0	LF @	$24	$0
24" CONC. PIPE	0	LF @	$31	$0

DRAINAGE STRUCTURES

CATCH BASINS	0	EA @	$1,302	$0
DROP INLETS	14	EA @	$1,608	$22,512
MANHOLES	3	EA @	$1,245	$3,735

DRAINAGE LUMP SUM

(COST PER MILE)	0	MI @	$0	$0
			SUBTOTAL	$75,380

G. CONCRETE WORK

APPROACH SLABS	2880	SY @	$73	$210,240
MEDIAN BARRIER	12174	LF @	$32	$389,568
CURB AND GUTTER	19600	LF @	$9	$176,400
VALLEY GUTTER	0	SY @	$26	$0
SIDEWALK	0	SY @	$17	$0
MEDIAN PAVING	220	SY @	$17	$3,740
DITCH PAVING	1027	SY @	$21	$21,567
			SUBTOTAL	$801,515

H.	TRAFFIC CONTROL	1	LS @	$100,000	$100,000
			SUBTOTAL		$100,000
I.	EROSION CONTROL	1	LS @	$69,600	$69,600
			SUBTOTAL		$69,600
J.	GUARDRAIL				
	W-BEAM RAIL	4815	LF @	$11	$52,965
	T-BEAM RAIL	435	LF @	$30	$13,050
	TYPE 1 ANCHORS	6	EA @	$365	$2,190
	TYPE 11 ANCHORS	10	EA @	$850	$8,500
			SUBTOTAL		$76,705
K.	SIGNS, STRIPING, SIGNALS, LIGHTING				
	STRIPING	1	LS @	$24,300	$24,300
	ROADSIDE SIGNS	1	LS @	$46,500	$46,500
	O.H. SIGNS W/LIGHTS	1	EA @	$61,000	$61,000
	TRAFFIC SIGNALS	2	EA @	$30,000	$60,000
	LIGHTING	1	LS @	$504,800	$504,800
			SUBTOTAL		$696,600
L.	GRASSING/LANDSCAPING				
	GRASSING	30.59	AC @	$1,750	$53,533
			SUBTOTAL		$53,533
M.	MISCELLANEOUS				
	FIELD ENGINEER OFFICE	1	EA @	$37,420	$37,420
	FENCING	16690	LF @	$15	$250,350
	RIGHT-OF-WAY MARKERS	0	EA @	$52	$0
			SUBTOTAL		$287,770
N.	MAJOR STRUCTURES				
	BRIDGES	222498	SF @	$60	$13,349,880
	RETAINING WALLS	17883	SF @	$45	$804,735
	BOX CULVERTS				
	CONCRETE	293	CY @	$280	$82,040
	BAR REINF. STEEL	29997	LB @	$1	$29,997
			SUBTOTAL		$14,266,652

ESTIMATE SUMMARY

A.	RIGHT OF WAY	$20,700,000
B.	REIMBURSABLE UTILITIES	$0

CONSTRUCTION COST SUMMARY

C.	CLEARING AND GRUBBING	$151,000
D.	EARTHWORK	$673,000
E.	BASE AND PAVING	$4,429,000
F.	DRAINAGE	$75,000
G.	CONCRETE WORK	$802,000
H.	TRAFFIC CONTROL	$100,000
I.	EROSION CONTROL	$70,000
J.	GUARDRAIL	$77,000
K.	SIGNS, STRIPING, SIGNALS, LIGHTING	$697,000
L.	GRASSING/LANDSCAPING	$54,000
M.	MISCELLANEOUS	$288,000
	SUBTOTAL OF ROADWAY ITEMS	$7,416,000
N.	MAJOR STRUCTURES	$14,267,000
	TOTAL CONSTRUCTION ESTIMATE	$21,683,000
	5 YEARS OF INFLATION AT 5.00%	$5,421,000
	10% E & C	$2,710,000
	TOTAL CONSTRUCTION ESTIMATE	$29,814,000

Need and Purpose Statement
Bibb County

NH-IM-75-2(177); PI# 311400; I-75 from Pierce Avenue to I-16
NH-IM-16-1(104); PI# 311410; I-16 from I-75 to SR 11
NH-IM-16-1(105); PI# 311415; I-16 from SR 11 to SR 87
IM-16-1(92); PI# 311000; I-16 @ SR 11, 22, & 87

The subject projects represent the general upgrading of part of Macon's original Interstate System. As such, the subject sections of I-75 and I-16 are still characterized as having two through lanes in each direction with interchanges generally not reflective of today's design standards. In addition, access between I-16 and downtown Macon is hampered by several partial interchanges, dense interchange spacing, and limited turning movement storage on surface streets within the interchanges. Due to lane configurations and limited section length, the weaving movement between the I-16/Spring Street (SR 11) interchange and the I-75/I-16 interchange is of particular concern. In the vicinity of the I-75/I-16 interchange, the two lane I-75 southbound approach to the I-16 interchange splits with one lane designated for I-16 and one lane for I-75. Although this configuration may have been adequate with the original Interstate System, it is no longer appropriate for either through or local travel demands.

To address these concerns, the Department proposes to widen the subject sections of I-75 and I-16 from the existing four through lanes to six through lanes, three lanes in each direction. To better utilize the existing interchange locations along I-16 and improve the operational and safety aspects of I-16, the Department proposes construction of a collector/distributor (CD) system linking the three downtown interchanges to each other and ultimately to the I-75/I-16 interchange. To better provide for weaving movements, the Department also proposes the reconstruction of the I-75/I-16 interchange to that of a fully directional interchange incorporating the proposed I-16 CD system. In essence, the proposed redesign of this part of Macon's Interstate System will enable separation of through and local traffic onto the Interstate and CD system, respectively.

The subject proposed improvements are integral components to improving the quality and safety of transportation within the Macon area and the State. To that end, the subject proposed improvements are included in the adopted Macon Area Transportation Study and current Transportation Improvement Program.

I-16/I-75 Interchange

Concept Meeting
December 1, 1994
9:30 A.M.
Department of Transportation
Room 401

A concept meeting was held on December 1, 1994 to discuss the scope of work for the following projects:

PI 311400 NH-IM-75-2(177) Pierce Avenue to I-16 Interchange

PI 311410 NH-IM-16-1(104) I-16 from I-75 @ Hardeman Avenue to SR 11 (Spring Street)

PI 311415 NH-IM-16-1(105) I-16 from SR 11 (Spring Street) to SR 87 (Coliseum Drive)

PI 311000 IM-16-1(92) Intersection modification at SR 11 (Spring Street), SR 22 (Second Street), and SR 87 (Coliseum Drive).

The attendance list is attached. The following are the minutes of the meeting:

Joe Palladi - Welcome. This concept includes four projects. This concept influences other projects in the area (ex. Arkwright Road).

Joe Wheeler - Defined the four project numbers and their original scope.

PI 311400 NH-IM-75-2(177) Pierce Avenue to I-16 Interchange

PI 311410 NH-IM-16-1(104) I-16 from I-75 @ Hardeman Avenue to SR 11 (Spring Street)

PI 311415 NH-IM-16-1(105) I-16 from SR 11 (Spring Street) to SR 87 (Coliseum Drive)

PI 311000 IM-16-1(92) Intersection modification at SR 11 (Spring Street), SR 22 (Second Street), and SR 87 (Coliseum Drive)

Three alternates for the I-16/I-75 interchange were presented. Two alternates for the I-75/Pierce Avenue interchange were also presented.

Gary Owens - Noted the proposed let date of 1999. Project will be metric, but the concept materials will be a mix of English and metric. We will look at project limits and possible changes to the existing programmed limits based on funding and constructability for logical termination points. Note: 1999, being in Tier 2, is not funded.

Cora Cook - NEED AND PURPOSE: Upgrade needed, interstate not up to current design guiedlines; outdated interchange design; inadequate for traffic volumes. Propose four to six thru

lanes, and a collector-distributor. See need and purpose statement attached.

Gary Owens - ACCIDENT HISTORY: The accident history is split into two parts: From I-75 @ Riverview Road to Hardeman Avenue the accident rate is 1.5 times the statewide average, and the injury rate is 1.8 times the statewide average. At the interchange and on I-16 from the interchange to the railroad crossing east of Coliseum Drive, the accident rate is 1.6 times the statewide average, and the injury rate is 2.4 times the statewide average.

TRAFFIC COUNTS: From Pierce Avenue to the I-75/I-16 interchange, the 1995 two way ADT is 31000 vpd. The projected 2015 ADT is 47500 vpd. From the I-75/I-16 interchange to Hardeman Avenue, the 1995 two way ADT is 36500 vpd. The projected 2015 ADT is 56500 vpd. On I-16 from the I-75/I-16 interchange to Spring Street, the 1995 two way ADT is 40500 vpd. The projected 2015 ADT is 62000 vpd. Between Spring Street and Coliseum Drive the 1995 two way ADT is 20750 vpd. The projected 2015 ADT is 34250 vpd. On I-16 east of Coliseum Drive the 1995 two way ADT is 14500 vpd. The projected 2015 ADT is 25500 vpd.

TYPICAL SECTIONS: I-75 existing and proposed, proposed ramp typical, I-16 existing and proposed were shown. See attached.

PROPOSED PROJECT DESCRIPTION: Beginning at Pierce Avenue, one lane and a median barrier will be added, giving a total of three 12' (3.6 m) through lanes in each direction. One auxiliary outside lane in both directions will be added on the outside from south of Pierce Avenue to the I-75/I-16 interchange. The ramps in the I-75/I-16 interchange will be widened to accommodate the required extra lanes. One additional lane will be added to I-75 from the I-75/I-16 interchange to Hardeman Avenue. Ramps will be added to I-16 @ Second Street, and a collector-distributor will be added between Spring, Second, and Coliseum Drive.

DESIGN CRITERIA: Mainline will have a minimum speed design of 55 MPH (90 km/h). The collector-distributor will have a minimum speed design of 45 MPH (70 km/h), and the ramps will have a minimum speed design of 35 MPH (60km/h).

MINIMUM RADII: Existing: The maximum degree of curve on I-75 from Pierce Avenue to the interchange is 3 degrees (585 m radius), and the minimum radius is 150' (45 m) at the Pierce Avenue ramps. In the I-75/I-16 interchange the maximum degree of curve is 6 degrees 30 minutes (270 m radius) at the southbound ramp from I-16. On I-16 from the I-75/I-16 interchange to Coliseum Drive the maximum degree of curve is 2 degrees (875 m radius)

mainline, and the minimum radius is 100' (30 m) at the Spring Street ramp.

Proposed: At the railroad bridge a 45 minute (2330 m radius) curve will be used to improve speed design and stage construction. The maximum degree of curve in the I-75/I-16 interchange is 6 degrees (295 m radius) on the I-16 exit ramp to I-75 southbound. The minimum radius on I-16 is 150' (45 m) at the Spring Street ramp.

MAXIMUM GRADES: Existing: The maximum grade on I-75 to the I-75/I-16 interchange is 3.6%. The maximum grade in the I-75/I-16 interchange is 4.5%. On I-16 from Spring Street to Coliseum Drive the maximum grade is 3.6%.

Proposed: The maximum grade proposed for the I-75/I-16 interchange is 4.54%. The maximum grade for the collector-distributor and the ramps is 3.8%. The maximum allowable grade for level 60 MPH is 5%.

RIGHT-OF-WAY: All required right-of-way will be limited access. The drainage system will consist of median barrier inlets and v-gutter, with shoulder ditches beyond the clear zone.

RIGHT-OF-WAY DISPLACEMENTS: Residences at I-16 at the Ocmulgee River and one business at Spring Street will be required right-of-way acquisitions. All necessary right-of -way will be acquired by the D.O.T.

MAJOR STRUCTURES: All existing bridges are in fair to good condition. D.O.T. Maintenance will perform minor repairs to concrete deck and joints prior to the construction of this project. Many of the existing bridges will be utilized by widening and adding shoulders. New bridges will be needed at I-75 over the railroad , in the I-75/I-16 interchange, and at the collector- distributor and proposed additional ramps along I-16.

UTILITIES: Major utilities exist along the project. Macon's main water treatment plant is located just north of I-75 near Pierce Road. There are three pumping stations also along this project. The railroad has an existing track that runs parallel to I-75, through the interchange area and parallel to I-16.

ALTERNATES: A concept review with F.H.W.A. prior to this meeting produced two alternates. The main design objective of the alternates is to have I-75 the major thru interstate, with I-16 as a right exit ramp from I-75 southbound. In addition, I-16 is brought around as a right entrance ramp to I-75 southbound. Both alternates accomplish these goals. The major difference between alternates is the ramp from I-16 to I-75 southbound. The first alternate has a

higher horizontal speed design than the second alternate. Alternate two has a higher vertical speed design than alternate one. Neither alternate is preferred at this time by either the D.O.T. or the F.H.W.A. The Pierce Avenue alternate creates a diamond interchange connecting I-75 directly to Riverside Drive on the west side. South bound traffic will exit by use of a circular ramp that travels over Riverside and ties back to Riverside on the west. At the same location we propose to construct an parallel circular entrance ramp to I-75 south bound.

STAGING: For staging and construction purposes the project will be split into two main sections. From Pierce Avenue to the interchange, the north bound outside lanes and the new north bound railroad bridge would be constructed first; then shifting north bound traffic to the new lanes and finishing the north bound inside lane and median barrier. Next construct the south bound new railroad bridge and inside lanes. Shift south bound lanes to new lanes and finish outside lanes.

The second section , I-75/I-16 interchange and I-16 to Coliseum Drive, is recommended at this time to be constructed as a unit. Construct the collector distributors and connecting ramps first. Then, by utilizing the collectors and ramps with lane shift and detours, construct the new lanes on I-16.

There will be a public hearing and possibly several information meetings as the project progresses. Other projects in the area are:

PI 350960 I-475 from Log Cabin Drive to Columbus Road - concept report being circulated, let date 1996.

PI 311560 Hardeman Avenue and Forsyth Street - working on concept, let date 1997.

PI 322000 SR 87 (Riverside Drive) from Hall Road to Northside Drive - concept meeting has been held, let date 1997.

PI 350760 Northside Drive from Forest Hill Road to SR 87 (Riverside Drive) - working on final plans, let date was 1995, currently 1997.

QUESTIONS AND COMMENTS

Macon/Bibb County: *Macon Coliseum is planning multi-million dollar expansion on the east side of the coliseum. What will be the right-of-way requirements on the north side of the interstate?* Hopefully existing right-of-way on that side of the interstate will be adequate.

A park is being planned for the area between the interstate and the river stretching from Spring Street to Coliseum Drive. How will this effect those plans? Will the interstate widening and the collector-distributor be bridged or fill sections? Effects on the proposed park will try to be minimized as much as possible. It is still unclear as to what areas have been specifically designated as park space except for two acres and the boat ramp at Spring Street.

Is it possible to coordinate park development with the D.O.T. concept study? The exact areas designated for the park and any requirements need to be clarified before the D.O.T. can make plans regarding park space.

What about the flooding in the past four years? The project will be modeled to determine the possible impacts. This will also help decide which sections are bridges and which are fill sections.

Engineering Services: *The design speed on the ramps is 35 MPH. Can right-of-way be purchased to increase that?* The cemetery on both sides of I-75 at the interchange, topography, existing development, and utilities restrict the options available.

Do the existing bridges have an asphalt overlay? Yes. Maintenance will remove any current overlay, make necessary repairs, and redo the overlay before the project begins.

Programming: *Is the 1999 let date correct?* Currently the four projects have different let dates. This needs to be based on the approved concept and possible redefinition of the project limits, scope, and schedules.

Traffic Operations: *Will this increase traffic on Second Street?* The purpose of the collector-distributor is to distribute the traffic among Spring, Second, and Coliseum Drive in order to relieve some of the pressure on the Spring Street interchange.

Macon/Bibb County: *Have peak event traffic counts been considered for the Coliseum Drive exit?* No, but they will be taken into consideration if they are provided by the city or the Coliseum.

What about the Music and Sports Halls of Fame that will be using the Coliseum Drive exit? The anticipated traffic will be taken into consideration. The local government will supply special event traffic counts to aid the designer.

Can a left turn from Spring Street to I-16 east be added to the design? It will be looked at, but the proximity of the Second Street exit makes it a low priority.

Traffic Operations: *Can the I-75 south/I-16 gore be moved further north from the I-16/Spring Street gore?* The cemeteries limit the curvature of the ramps, but it will be looked at. The locations of the splits must be coordinated with signing and marking.

Can the ramp itself be moved north to increase the curvature? It will be difficult to make I-75/I-16 tangent, but it will be looked at in conjunction with signing and marking.

Planning: *What about right hand exit expectations for I-16?* The alternates address this issue, but because they require more bridges, they will be more expensive. The cost differences are being calculated now.

Instead of the proposed Pierce Avenue interchange, can the old K-Mart property near the river be used for an exit or a collector-distributor? This will be looked at, but again the cemeteries limit the possibilities. The I-16/I-75 interchange may make this proposal impossible to function adequately.

Macon/Bibb County: *Can the slip ramps for I-75 south at Pierce Avenue be relocated to the signal at Riverside Plaza?* The grade of the ramps would be steeper due to the higher elevation of that intersection. The Riverview Road bridge over I-75 would affect the location and grade of these ramps. This will be expanded on and noted during the preparation of the concept report.

Can the lack of storage on I-75 southbound exit ramp at Pierce Avenue to Riverside Drive be alleviated? This will be studied.

Can the surface streets at Coliseum Drive be widened to provide left turn storage? This will be studied when the traffic counts are received.

Planning: *What studies will be required?* It is not known how ISTEA will affect this project. This may be the first project that completely falls under all ISTEA guidelines and study requirements. Coordination between the local government, transit operator(s), F.H.W.A. and the Georgia D.O.T. will address the applicability and extent of a Major Investment Study.

Environmental: No representatives

Planning: No additional comments.

District Office: No additional comments.

Right-of Way: No representatives.

Georgia Power: There are two substations that may be affected. One is at Spring Street, between I-16 and the river. The second is on the south side of the river at the railroad bridge.

While the second one is not directly affected, there is a line that crosses the I-16 bridge over Coliseum Drive carrying power to a manufacturer. There is also a line over I-16 by Spring Street. A set of parallel transmission lines and towers run between the I-16 and the river from Spring Street to Coliseum Drive.

Phone: No representatives.

Cable: No representatives.

Macon Water Authority: There is a water main under the utility bridge at Pierce Avenue.

Atlanta Gas Light: Two 10" lines run under I-75 900' south of Pierce Avenue, in the same location as the water main. There are also 8" high pressure lines at Spring Street and Coliseum Drive.

F.H.W.A.: No representatives.

Gary Owens: The Urban Office awaits the special events traffic from Macon for analysis. The Macon-Bibb Planning and Zoning Commission was sent a copy of the concept prior to the concept meeting and all concerned were asked to provide comments by January 15, 1995. All comments and questions will be included in the concept report and should be addressed to:

Walker Scott
No.2 Capitol Square SW
Room 356
Atlanta, GA, 30334

At the conclusion of the meeting, an alternative concept for the Arkwright Road/I-75 interchange was presented and reviewed.

RECORD OF ATTENDEES:

Gary Owens	D.O.T.-Urban Design
Joe Wheeler	D.O.T.-Urban Design
Joe Palladi	D.O.T.-Urban Design
Larry Choate	Georgia Power
Fred Moody	Georgia Power
Walker Scott	D.O.T.-Urban Design
Vernon Ryle	MATS MPO
Don Tussing	MATS MPO
Van Etheridge	D.O.T.-District Office

Lewis Walker	D.O.T.-District Office
Marvin Helms	D.O.T.-District Office
Joe Leoni	D.O.T.-District Office
Bob Gardner	Atlanta Gas Light Co.
Jim Stancil	D.O.T.-Engineering Services
Ken Reeves	D.O.T.-Traffic Operations
Del Clippard	D.O.T.-Traffic Operations
Hilman Pitts	D.O.T.-Utilities
Kenneth H. Sheets	City of Macon
Cora Cook	D.O.T.-Planning
Johnny Quarles	D.O.T.-Preconstruction
Reba P. Scott	D.O.T.-Programming
Patricia Hinman	D.O.T.-Urban Design
Vickie Dodson	D.O.T.-Urban Design
Wouter Gulden	D.O.T.-Office of Materials and Research
Sabrina Price	D.O.T.-Urban Design
R. Nagabhushana	Macon Water Authority
Bill Vaughn	Bibb County
Bob Fountain	Bibb County
Bill Wikle	Macon-Bibb County

Georgia Power Company
200 Cherry Street
Post Office Box 4968
Macon, Georgia 31213
Telephone 912 738-0502

Power Delivery

FEB 199

February 14, 1995

SCOTT
BUCHAN
CHAMBERS
✓ angie
WHITE, JUST
FILE

Georgia Power
the southern electric system

Mr. Walter Scott, Jr. P. E.
State Urban Design Engineer
Department of Transportation
State of Georgia
2 Capital Square, Room 356
Atlanta, Georgia 30334

Dear Mr. Scott:

We would like to respond to the impact the projects listed below will have on Georgia Power Company Transmission/Distribution lines:

Proposed Improvements to Riverside Drive and the Arkwright Road/I-75 Interchange
Macon, Georgia

PROJECT	P.I. NUMBER	DESCRIPTION
NH-IM-75-2 (177)	311400	Pierce Avenue to I-16 Interchange
NH-IM-16-1 (104)	311410	I-16 from I-75 at Hardeman Avenue to Spring Street
NH-IM-16-1 (105)	311415	I-16 from Spring Street to Coliseum Drive
IM-16-1 (92)	311000	Intersection modifications at Spring Street, Second Street, and Coliseum Drive

TRANSMISSION CONCERNS

The impact of this project would be from the intersection of I-16 and I-75 to the East side of Martin Luther King Jr. Boulevard.

The existing 115 KV line crosses I-16 from the North of I-16 and continues to the "Spring Street Switching Frame". At the switching frame, the line loops across the Ocmulgee River for the two feeds to the North Macon Substation. These two feeds are the only source to this substation.

The 115 KV line then leaves the "switching frame" and parallels I-16 and the Ocmulgee River to the East side of Martin Luther King, Jr. Boulevard. At this point, the 115 KV line is adjoined by a 69 KV line that crosses I-16 to the North to serve the Bibb Manufacturing Substation.

The 69 KV line is a radial transmission line that is the only source to Bibb Manufacturing Company. The 115 KV then turns south crossing the Ocmulgee River to the Ocmulgee Street Substation.

This 115 KV line that parallels I-16 is the source that serves several substations in Macon, including the Water Works Substation, and other substations not referred to in this letter.

The transmission lines in conflict are constructed mainly on steel towers along I-16. Your proposed ramps and access roads would be built along our existing right-of-way, with no additional right-of-way between I-16 and the river for our lines. Service must be maintained to the three substations that we have in this vicinity.

If we should need to relocate our facilities, steel poles have a twenty--six weeks delivery time at present. The acquisition of right-of-ways will require considerable amount of time, as this is considered a commercial area in Macon.

Also, temporary lines may be needed to avoid work at the intersection. Therefore, the normal sixty-days notice will not be sufficient. In fact this time frame could easily exceed a year, depending on line routes, etc.

DISTRIBUTION CONCERNS

Pierce Avenue Proposal "Alternate A" There are no apparent conflicts obvious if the existing Department of Transportation right-of-way is used.

Pierce Avenue Proposal "Alternate B" Georgia Power has distribution lines parallel and adjacent to Riverside Drive on both the East and West side of Riverside Drive. There will be a significant conflict with the proposed I-75 southbound "off" ramp to Riverside Drive. This ramp will bridge over Riverside Drive. There is a concern for the distribution lines serving the customers on the West side of Riverside Drive. Relocation of the I-75 northbound ramp to Pierce Avenue may impact the distribution line along North Pierce Avenue. This could effect lines in the Sheraton Drive and Inwood Drive areas. The southbound I-75 "on" ramp from Riverside Drive will significantly effect the distribution lines on both sides of Riverside Drive. Work around the intersection of Riverside Drive and Pierce Avenue, to widening Pierce Avenue East of Riverside Drive may conflict with the distribution line along the East side of Riverside Drive at this location.

From the present southbound I-75 "on" ramp from Riverside Drive on to the I-75/I-16 Interchange, there does not appear to be a conflict if the existing right-of-way is used.

There is one overhead line crossing at the Corbin Avenue intersection of Riverside Drive. This line provides service to a pump for the Macon Water Authority.

Interchange "Alternates A, B, and C"

From Hardeman Avenue, northbound on I-75 to the interchange, there appears to be no conflicts if widening occurs within existing right-of-way.

The are two overhead crossings over I-75. One crossing is at Riverside Drive and the other one is at Fourth Avenue.

The proposed southbound I-75 bridge over the Ocmulgee River (to be located North of the existing northbound lane of I-75) appears to conflict with the distribution line to the rear of the houses on Glenridge Drive, and may impact the line on Parkview Drive.

Collector - Distributor

The widening of the northbound I-75 "on" ramp from westbound Spring Street may create a conflict with the existing distribution line along Spring Street, East of I-16.

There is a distribution line crossing the river and crossing I-16 on the West side (upstream side) of Spring Street. This distribution line will be impacted significantly by bridge work on the I-16 bridge over Spring Street, by the Collector - Distributor bridge over Spring Street; and by the proposed "off" ramp from the Collector - Distributor onto Spring Street.

Also, the relocated ramp northbound to I-75 from eastbound Spring Street may be in conflict with the distribution line providing service to the new Health Department located on Emery Highway as well as service to an interstate lighting service point.

There is a significant conflict at Martin Lurther King, Jr. Boulevard. Presently, there are two distribution lines crossing I-16 along both the North and South sides of Martin Luther King, Jr. Boulevard. Conflicts with the I-16 bridge work, the Collector - Distributor, and the proposed "off" ramp to the Martin Luther King, Jr. Boulevard appear certain. Also, there is a possible conflict with the new eastbound I-16 "on" ramp from Spring Street and the distribution line on the south side of Martin Luther King, Jr. Boulevard.

We apologize for this rather lengthy letter, however, hopefully this information will be helpful in your design of I-16 and I-75. Please realize these concerns are preliminary, but we will be happy to provide a more detailed analysis of conflicts when we receive more detailed prints.

Thank you for allowing us to work with you on these projects. Please keep us informed so that we can assist the Department of Transportation with our relocation work and together strive to maintain quality customer service for both your customers and ours. If you have any questions, please give us a call. Please call Larry Choate at (912) 784-5870; or Fred Moody at (912) 784-5945.

Sincerely,

Larry Choate

LARRY N. CHOATE
GEORGIA POWER COMPANY
TRANSMISSION ENGINEER

Fred Moody

FRED MOODY
GEORGIA POWER COMPANY
DISTRIBUTION ENGINEER

LNC/FM/aep

CC: Mr. Kline Petty
Mr. Ed Grubb
Mr. Dan Everitt

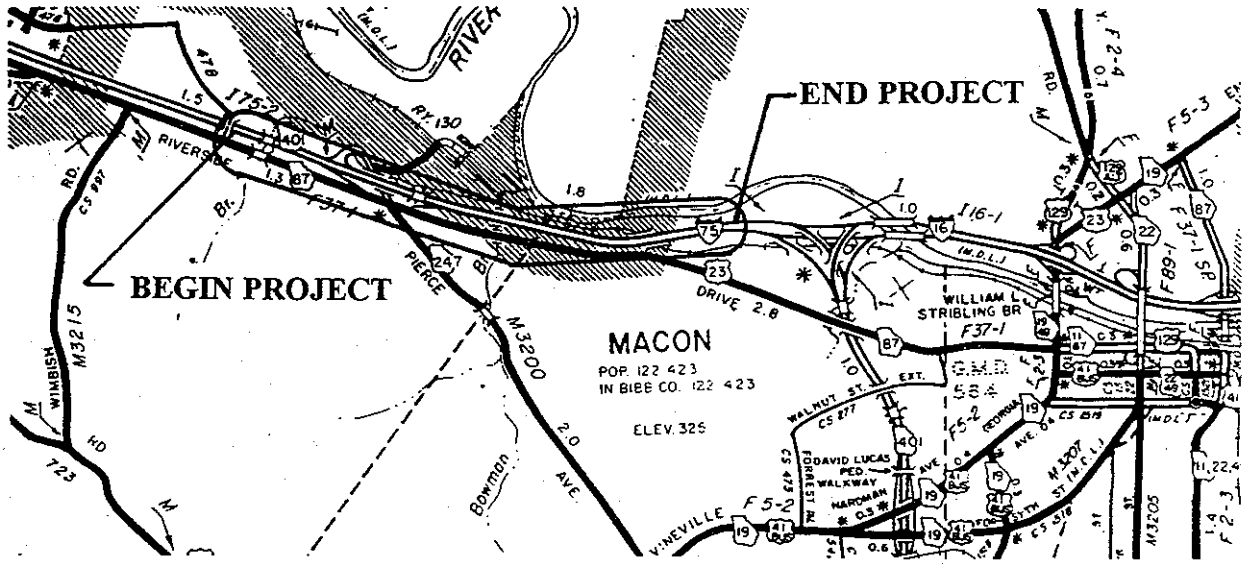
DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

PROJECT CONCEPT REPORT

NH-IM-75-2(177) BIBB COUNTY
I-75 WIDENING FROM
PIERCE AVENUE TO I-16 INTERCHANGE

Federal Route No.: I-75
State Route No. : SR 401
GaDOT P.I. No. : 311400



Date of Report: 5-31-95

RECOMMENDATION FOR APPROVAL

6/6/95 — Walter W. Scott
Date — State Urban Design Engineer

Date — State Environmental Engineer

Date — State Traffic Operations Engineer

Date — District Engineer

6/19/95 — Paul V. Liles Jr.
Date — State Bridge & Structural Design Engineer

D.O.T.66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

RECEIVED
JUN 27 1995
PRECONSTRUCTION

INTERDEPARTMENT CORRESPONDENCE

FILE NH-IM-75-2(177) Bibb County
P.I. No. 311400

OFFICE Traffic Operations
Atlanta, Georgia
DATE June 23, 1995

FROM ABR for Marion G. Waters, III, P.E., State Traffic Operations Engineer

TO Wayne Hutto, Assistant Director of Preconstruction

SUBJECT Project Concept Report Review

We have reviewed the concept report on the above project for the reconstruction of I-75 from Pierce Avenue to the I-16 interchange. The basic section of I-75 will be widened to three lanes in each direction with the addition of a lane to the inside, adding median barrier, and improvements to the outside shoulders. The Pierce Avenue/Riverside Drive interchange will be reconstructed to make a diamond configuration on the northbound side and to add loop ramps for the southbound exit and entrance connecting to Riverside Drive.

We will desire to have conduit for ATMS communications, and possibly other items such as sign foundations, included in this project. The exact number and location of these conduits and other items will need to be determined by our Design Office at the time plans are being developed.

We believe this concept will improve safety and operational capacity along this section of roadway. We therefore find this report satisfactory for approval.

MGW:TOC:dc

Attachment (signature page)

cc: David Studstill
Walker Scott (Attn: Joe Wheeler)
Bob Mustin, w/attachment
Sam Zeigler
General Files

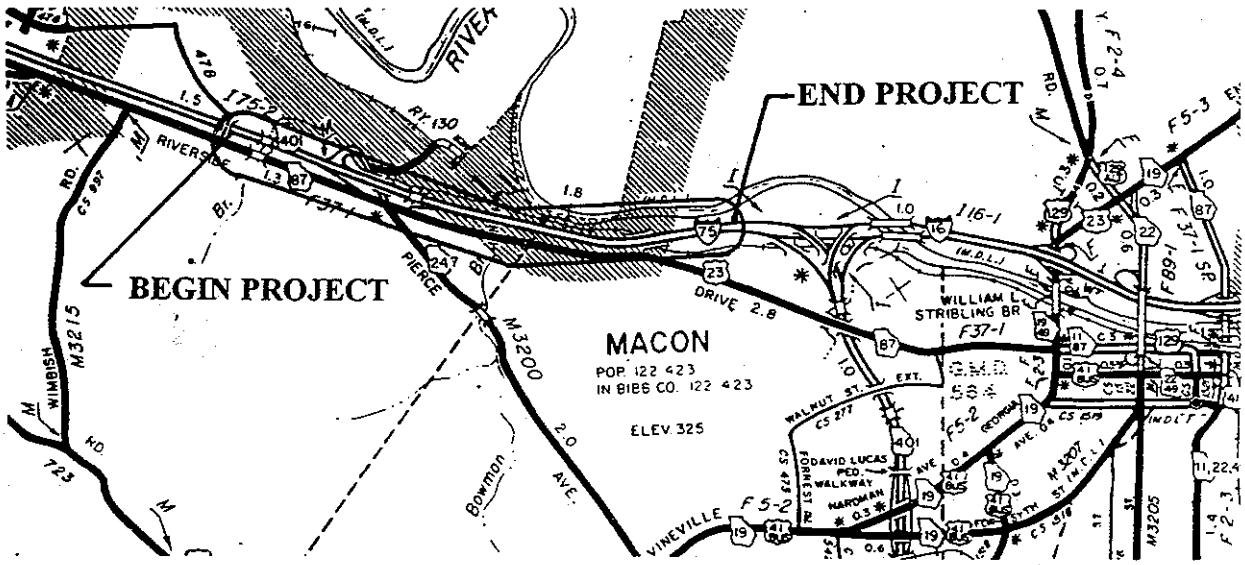
DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

PROJECT CONCEPT REPORT

NH-IM-75-2(177) BIBB COUNTY
I-75 WIDENING FROM
PIERCE AVENUE TO I-16 INTERCHANGE

Federal Route No.: I-75
State Route No. : SR 401
GaDOT P.I. No. : 311400



Date of Report: 5-31-95

RECOMMENDATION FOR APPROVAL

6/6/95 — Walter Woodall
Date — State Urban Design Engineer

Date — State Environmental Engineer

6/26/95 — M. G. Waters, PE
Date — State Traffic Operations Engineer

Date — District Engineer

Date — State Bridge & Structural Design Engineer