

ORIGINAL TO GENERAL FILES

D.O.T. 66

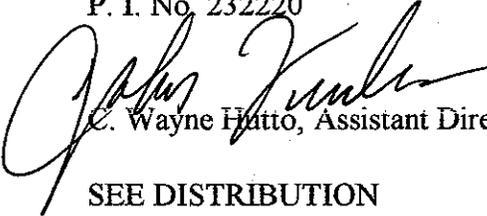
DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE STP-004-3(38) Warren County  
P. I. No. 232220

OFFICE Preconstruction

DATE November 1, 2001

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

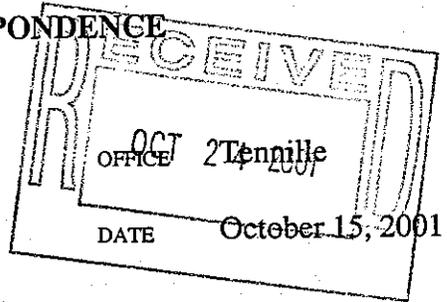
Attachment

DISTRIBUTION:

Tom Turner  
David Mulling  
Harvey Keepler  
Jerry Hobbs  
Herman Griffin  
Michael Henry  
Phillip Allen  
Marta Rosen  
Paul Liles  
Jimmy Chambers  
Mike Thomas  
BOARD MEMBER

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE



FILE STP-004-3(38) Warren County  
P.I. No. 232220

FROM *GMB* George M. Brewer, District Design Engineer

TO Wayne Hutto, Assistant Director of Preconstruction

SUBJECT **REVISED PROJECT CONCEPT REPORT**

Attached is the original copy of the revised Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

The project has been revised to add the construction of a county road from SR 12 to the East Warrenton Road and the paving of an existing dirt road.

The revised concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Improvement Plan (RTP) and/or the State Transportation Improvement Program (STIP).

Date 10-19-01

*Marta V. Rosen*  
\_\_\_\_\_  
State Transportation Planning Administrator

GMB

Cc: David Mulling  
Harvey Keeper  
Marion Waters  
Marta Rosen  
Herman Griffin

**REVISED PROJECT CONCEPT REPORT**  
**STP-004-3(38) WARREN P.I. NO. 232220**

**Need and Purpose:** This project will remove the existing railroad bridge and thereby improve the functional capacity and safety of this route. The existing bridge has insufficient vertical and horizontal clearance.

**Project Location and Description:** This project consists of the removal of the Norfolk-Southern Railroad bridge at State Route 12 just east of Warrenton. The total length of the project is 0.60 miles.

**PDP Classification:** Exempt

**Functional Classification:** Rural Minor Arterial

**U.S. Route Number:** 278

**State Route Number:** 12 & 80 Alt.

**Traffic (AADT):** 3800 (2002)

5300 (2022)

**Proposed features to be revised:** In the February 15, 2001 letter from Norfolk-Southern, the railway approved the proposed at-grade crossing with the condition that the project also incorporates closure of the existing at-grade crossing on the East Warrenton Road. Warren County has agreed to close the crossing provided that deceleration lanes are added at the new county road and an existing dirt road just east of the railroad is paved.

This revision is being done to add the removal of the existing railroad crossing on the East Warrenton Road and the construction of a county road extending from SR 80 Alt. to the East Warrenton Road as well as the paving of a dirt road east of the railroad(see attached sketch).

**Programmed/Schedule:**

P.E.: 8/2/99

R/W: FY 2002

Construction: FY 2003

**Revised cost estimates:**

	<u>Proposed</u>	<u>Approved</u>
Construction:	\$867,000	\$751,000
Right-of-Way:	60,000	50,000
Utilities:	LGPA	LGPA

Is this project located in a Non-attainment area? \_\_\_\_\_ Yes     X  No

**Recommendation:** This office recommends that the proposed revision to the concept be approved for implementation.

**Attachments:**

- Sketch Map
- Cost Estimates
- Letter from Norfolk-Southern
- Letter from Warren County

Concur: Thomas L. Turner  
Thomas L. Turner, Director of Preconstruction

Approve: Frank Danchetz  
Frank Danchetz, Chief Engineer

ITEM	DESCRIPTION	UD0123220STP-004-3(38)	WARREN	RR BRIDGE REMOVAL ON SR 12	UNITS	WT. AVG.	QUANTITY	COST
	UD0123220STP-004-3(38)							
	****ROADWAY****							
150-1000	TRAFFIC CONTROL				LUMP	60000	LUMP	\$60000.00
210-0100	GRADING COMPLETE				LUMP	300000	LUMP	\$300000.00
310-1101	GR AGGR BASE CRS, INCL MATL				TN	20	480	\$9600.00
318-3000	AGGR SURF CRS				TN	15	500	\$7500.00
232-0200	DETOUR TRACK CONSTR AND REMOVED				LF	75	600	\$45000.00
402-0111	RECYCLED ASPH CONC B, GP 1 OR 2, INCL BITUM MATL & H LIME				TN	40	600	\$24000.00
402-0113	RECYCLED ASPH CONC E, GP 1 OR 2, INCL BITUM MATL & H LIME				TN	40	800	\$32000.00
402-0120					TN	40	1000	\$40000.00
402-1812	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME				TN	40	200	\$8000.00
413-1000	BITUM TACK COAT				GL	0.25	600	\$150.00
500-3101	CLASS A CONCRETE				CY	410	12	\$4920.00
511-1000	BAR REINF STEEL				LB	0.6	1300	\$780.00
540-1102	REMOVAL OF EXISTING BRIDGE NO. 1				EA	10000	LUMP	\$10000.00
550-1180					LF	25	30	\$750.00
550-1240	STORM DRAIN PIPE, 24 IN, H 1-10				LF	35	30	\$1050.00
550-2180	SIDE DRAIN PIPE, 18 IN, H 1-10				LF	20	110	\$2200.00
550-3618	SAFETY END SECTION 18 IN, SIDE DRAIN				EA	500	4	\$2000.00
573-2006	UNDRR PIPE INCL DRAINAGE AGGR, 6 IN				LF	9	100	\$900.00
634-1200	RIGHT OF WAY MARKER				EA	60	10	\$600.00
668-8011	SAFETY GRATE, TP 1				SF	25	23	\$575.00
						Section SUB TOTAL		\$550025.00
603-2018	STN DUMPED RIP RAP, TP 1, 18 IN				SY	30	50	\$1500.00
700-0001	GRASSING				LUMP	20000	LUMP	\$20000.00
715-2200	BITUMINOUS TREATED ROVING, WATERWAYS				SY	3	600	\$1800.00
						Section SUB TOTAL		\$23300.00
161-1000	EROSION CONTROL				LUMP	20000	LUMP	\$20000.00
163-2051	CONSTR, MAINT, & REM. BLD STRAW EROSION CH				LF	3.25	2000	\$6500.00
171-0010	TEMPORARY SILT FENCE, TYPE A				LF	3.15	2000	\$6300.00
171-0030	TEMPORARY SILT FENCE, TYPE C				LF	5	1000	\$5000.00
						Section SUB TOTAL		\$37800.00
636-1023	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 1				SF	17	74	\$1258.00
647-0500	RAILROAD CROSSING SIGNAL SYSTEM, NO-1				LUMP	100000	LUMP	\$100000.00
						Section SUB TOTAL		\$101258.00
100-0001	INFLATION(5% FOR 2 YEARS)				LUMP	75000	LUMP	\$75000.00
100-0002	E & C(10%)				LUMP	80000	LUMP	\$80000.00
						Section SUB TOTAL		\$155000.00
						Total Project Cost		\$867383.00

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**INTERDEPARTMENT CORRESPONDENCE**

**FILE** STP-004-3(38) - Warren County  
PI No. - 232220

**OFFICE:** Tennille Utilities

**DATE:** August 22, 2001

**FROM** James F. Hobby, Jr., District Utilities Engineer

**TO** David Griffith, District Preconstruction Engineer  
Attention: George Brewer

**SUBJECT** REVISED UTILITY COST ESTIMATE

A Utility Cost Estimate has been completed on the above referenced project. The estimate was done by Alan Smith of this office. This estimate is based on an estimate prepared by Leonard Hart, District Utilities Engineer, dated February 17, 2000. The information provided for that estimate has been incorporated into this estimate with costs added for the proposed Norfolk Southern Railway "at grade" crossing. Also, unit prices are based on the "Mean Item Index" and current installation prices from completed force accounts.

**SEWER**

*City of Warrenton*

Relocate 560 L.F. of 6" Sanitary Sewer (gravity) @ \$20.00 / L.F. =	\$11,200.00
Install 4 Sanitary Sewer Manholes @ \$1570.00 each =	\$6,280.00
*1200 L.F. 6" Sanitary Sewer Force Main @ \$20.00 / L.F. =	\$24,000.00
Install 1 Sanitary Sewer pumping station =	<u>\$65,000.00</u>
	<b>\$106,480.00</b>

- Includes costs of railroad bore.

**GAS**

*Atlanta Gas Light Company*

Relocate 200 L.F. of 8" HP Steel Gas Main @ \$28.75 L.F.	\$5,750.00
Jack or Bore 150 L.F. of 8" casing @ \$115.00 / L.F.	\$17,250.00
Install 2 - 8" gas main "Hot Taps" @ \$6,000.00 each	<u>\$12,000.00</u>
	<b>\$35,000.00</b>

**POWER**

*Georgia Power Company*

Relocate 1 timber transmission structure @ \$18,000.00 each	\$18,000.00
Reset 2 sets of anchors and stub pole @ \$2,000.00	<u>\$2,000.00</u>
	<b>\$20,000.00</b>

**RAILROAD CROSSING**

*Norfolk Southern Railroad*

Construct 1 at grade railroad crossing @ \$125,000.00	<b>\$125,000.00</b>
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**RAILROAD SIGNALS AND GATES**

*Norfolk Southern Railroad*

Install railroad signals and gates for at grade crossing @ \$125,000.00	<b>\$110,000.00</b>
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<b>TOTAL ESTIMATED UTILITY COSTS:</b>	<b>\$396,480.00</b>
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Atlanta Gas Light Company, Georgia Power Company and BellSouth all have other facilities located within the project limits that are also located on the existing Right of Way and should not be considered eligible for reimbursement.

All of the above information is an estimate and may be revised when project plans are developed and prior rights research has been performed. If you should have questions, please contact Alan Smith in the Utilities Section of this office at 478-552-4637.

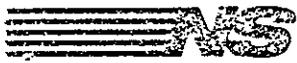
JFH:DAS

cc: Jeff Baker / Scott Greene via e-mail

Herman Griffin

David Griffith

Debbie Pennington



**NORFOLK  
SOUTHERN**

Norfolk Southern Corporation  
99 Spring Street, S.W.  
Atlanta, Georgia 30303-0142  
404 529-1408  
404 527-2589 FAX



J. N. Carter, Jr.  
Chief Engineer  
Bridges and Structures

Subject: East Warrenton, Georgia – Proposed Removal of SR 12/US 278 Underpass and Construction of Signalized Grade Crossing, MP SA-141.50, Project No. STP-004-3(38)01, Warren County

February 15, 2001  
File: 117-15353 TMB

Mr. Jeff Baker, P.E.  
State Utilities Engineer  
Georgia Department of Transportation  
#2 Capitol Square, S.W.  
Atlanta, GA 30334-1002

Dear Mr. Baker:

Reference is made to recent discussions between the GA DOT and Railway concerning the above captioned project.

Regarding the GA DOT's proposal to replace the existing single span bridge carrying the Railway's track over SR 12/US 278 at MP SA-141.50 with a signalized at-grade crossing, our management has reconsidered and will now approve the GA DOT's project provided the project also incorporates closure of the existing East Warrenton at-grade crossing at MP SA-141.32. See attached part copy of our valuation map and track chart sheet.

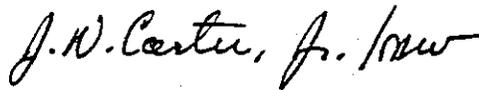
We understand the GA DOT's project will eliminate a substandard clearance problem underneath the bridge and to convert the bridge to an at-grade crossing will require construction of a temporary detour runaround track. Please furnish three (3) sets of the roadway and track plans (including track cross-sections) for our further review.

Mr. Jeff Baker, P.E.  
February 15, 2001  
File: 117-15353 TMB  
Page Two

Also, as previously noted, we currently operate two (2) trains per day, five (5) days per week, at 25 MPH at this location.

Should you have any questions, please contact Mr. T. M. Bracey of this office at 404/527-2536.

Sincerely,



J. N. Carter, Jr.  
Chief Engineer  
Bridges and Structures

# Warren County Board of Commissioners

P.O. Box 46

Warrenton, Georgia 30828

706-465-2171 FAX 706-465-1300

John R. Graham

Chairman

Richard Burley, Jr.

Commissioner, District 1

Terry M. Johnson

Commissioner, District 2

Cathy Cooper

County Clerk

Pamela H. Lester

Administrative Assistant

October 8, 2001

Mr. Mike Thomas  
District Engineer  
Ga. Department of Transportation  
P.O. Box 8  
Tennille, GA 31089

RE: Georgia Project STP-004-3 (38)

Dear Mr. Thomas:

At the regular meeting of the Warren County Board of Commissioners held on September 14, 2001, the Board discussed the two different alternatives that were proposed at the Public Information Meeting held by the Georgia Department of Transportation on August 28<sup>th</sup>.

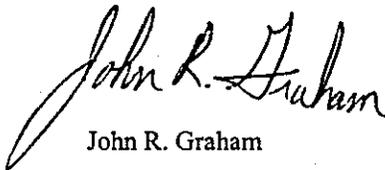
The Board of Commissioners voted unanimously to approve Proposed Alternate A for an at grade crossing for Highway 278 and signals for Norfolk Southern Railroad track with the following additions:

At the intersection made by the new road with Alternate 80, the Department of Transportation to include a deceleration lane from Highway 278 to Alternate 80 and the proposed new road. Also, paving the dirt road west of the railroad. This road lies between Highway 278 and the East Warrenton Road.

The Board of Commissioners feels that Alternate A with the above additions is more feasible and will be in the best interest of the citizens of Warren County.

If you have any questions concerning this, please feel free to contact me at (706) 465-2171.

Sincerely,



John R. Graham

Chairman

cc: David Griffith, District Preconstruction Engineer  
George Brewer, District Design Engineer

ORIGINAL TO GENERAL FILES

D.O.T. 66

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE** STP-004-3(38) Warren County **OFFICE** Preconstruction  
P. I. No. 232220  
**DATE** June 8, 1999  
**FROM** *CWH*  
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:**

Walker Scott  
Bobby Mustin  
David Studstill (ATTN: Harvey Keeper)  
Jerry Hobbs  
Herman Griffin  
Georgene Geary (ATTN: Michael Henry)  
Marion Waters  
Marta Rosen  
Paul Liles  
Don Mills  
Mike Thomas

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE** STP-004-3(38) Warren County **OFFICE** Preconstruction  
P.I. No. 232220

**DATE** April 23, 1999

**FROM** *Walker W. Scott*  
Walker W. Scott, J., P.E., Director of Preconstruction

**TO** Wayne Shackelford, Commissioner

**SUBJECT PROJECT CONCEPT REPORT**

This project is the removal of the Southern Railroad Bridge over SR 12 and construction of an at-grade crossing with the railroad. The project length is 0.40 miles. The existing bridge has insufficient vertical (14.5') and horizontal clearance. The present roadway serves as an important east-west arterial providing access between Warrenton and Thomson. The existing roadway consists of a two lane rural roadway on 100' of existing right-of-way. The existing Southern Railroad line serves Wheland Foundry, Georgia Pacific and a chip mill. Under normal conditions, two trains cross the bridge each night. There are no trains which normally cross the bridge during the day. An evaluation indicated that the hazard index will be 1.67 with the protection of flashing lights, gates and bells. The base year traffic (2002) for this project is 3,800 VPD and the design year (2022) projection is 5,300 VPD. The posted speed and the design speed are 55 MPH.

The proposed construction will remove the Southern Railroad bridge over SR 12 and adjust the roadway profile to an at-grade crossing. State Route 12 within the project limits will consist of two, 12' lanes with 10' rural shoulders (4' paved) on 130' of proposed right-of-way. State Route 12 will be closed during construction and traffic will be routed along SR 80 and SR 80 Alt. An on-site railroad detour will be constructed.

Environmental concerns include requiring a Categorical Exclusion be prepared; a public hearing is not required; time saving procedures are appropriate.

The estimated costs for this project are:

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>PROG DATE</u>	<u>LET DATE</u>
Construction (includes E&C and inflation)	\$751,000	\$745,000	2004	02-03
Right-of-Way	\$ 50,000	\$ 26,000		
Utilities*				

\*LGPA to be sent.

Wayne Shackelford

Page 2

STP-004-3(38) Warren

April 23, 1999

This project is in the STIP. I recommend this project concept be approved.

WWS:JDQ/cj

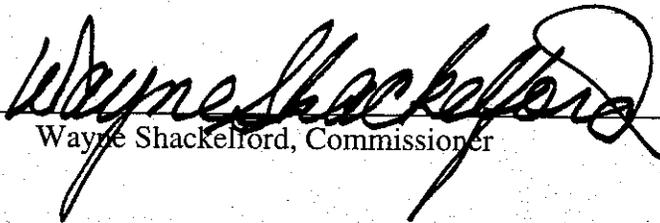
Attachment

CONCUR



Frank L. Danchetz, P.E., Chief Engineer

APPROVE

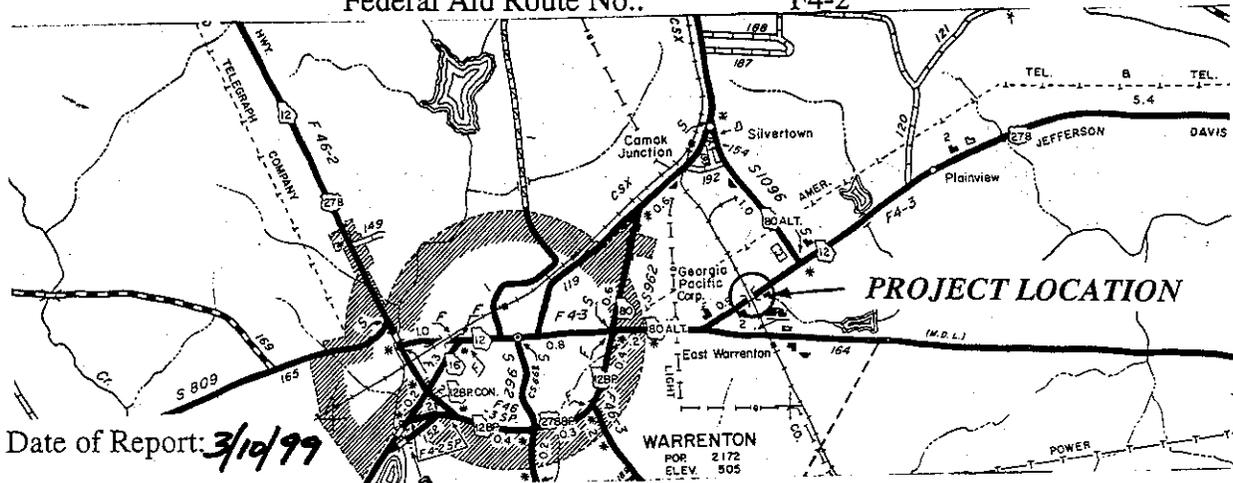


Wayne Shackelford, Commissioner

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
PROJECT CONCEPT REPORT  
RAILROAD BRIDGE REMOVAL ON SOUTHERN RAILROAD  
AT STATE ROUTE 12**

STP-004-3(38)  
WARREN COUNTY

U.S. Route No.: 278  
State Route No.: 12/80 Alt.  
GaDOT P.I. No.: 232220  
Federal Aid Route No.: F4-2



**RECOMMENDATION FOR APPROVAL**

\_\_\_\_\_  
Date

\_\_\_\_\_  
State Transportation Planning Administrator

\_\_\_\_\_  
Date

\_\_\_\_\_  
State Transportation Programming Engineer

\_\_\_\_\_  
Date

\_\_\_\_\_  
State Environmental/Location Engineer

\_\_\_\_\_  
Date

\_\_\_\_\_  
State Road Design Engineer

*3-16-99*  
Date

*Michael L. Thome*  
\_\_\_\_\_  
District Engineer/Tennille

\_\_\_\_\_  
Date

\_\_\_\_\_  
Project Review Engineer

\_\_\_\_\_  
Date

\_\_\_\_\_  
State Traffic Operations Engineer

\_\_\_\_\_  
Date

\_\_\_\_\_  
State Bridge & Structural Design Engineer

## PROJECT CONCEPT REPORT

**PROJECT NUMBER:** STP-004-3(38) Warren County

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### PROJECT LOCATION AND DESCRIPTION

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This project consists of the removal of the Southern Railroad bridge at State Route 12 just east of Warrenton. The total length of the project is 0.40 miles.

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### TRAFFIC

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CURRENT		PROJECTED	
YEAR	AADT	YEAR	AADT
2002	3800	2022	5300

---

#### PDP CLASSIFICATION

Minor on existing alignment

NON-CA ( )

CA ( )

---

#### FUNCTIONAL CLASSIFICATION

Rural Minor Arterial

EXEMPT (X)

N/A ( )

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### NEED AND PURPOSE

The purpose of this project is to remove the existing bridge and thereby improve the functional capacity and safety of this route. The existing bridge has insufficient vertical and horizontal clearance.

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**EXISTING ROADWAY**

<b>TYPICAL SECTION:</b>	2 Lane Rural	<b>RIGHT-OF-WAY WIDTH:</b> 100'
<b>POSTED SPEED</b>	<b>MAXIMUM DEGREE OF CURVE</b>	<b>MAX. GRADE</b>
55 mph	3°	3.29%

**MAJOR STRUCTURES**

FEATURES INTERSECTED/TYPE	LENGTH	WIDTH	SUFF. RATING
Existing Railroad Bridge over SR 12	24'	14'	N/A

**HAZARD INDEX:** The existing hazard index is 0.0.

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**PROPOSED ROADWAY**

**TYPICAL SECTION:** 2-12' lanes and 10' shoulders (4' paved)  
(Existing turn lane and decel lanes will be replaced at the east end of the project.)

DESIGN SPEED	MAXIMUM DEGREE OF CURVE		MAX. GRADE	
55 mph	<b>ALLOWABLE</b>	6°	<b>ALLOWABLE</b>	4.5%
	<b>PROPOSED</b>	3°	<b>PROPOSED</b>	4%

**PROPOSED MAJOR STRUCTURES**

FEATURES INTERSECTED/TYPE	LENGTH	WIDTH
None		

**PROPOSED RIGHT-OF-WAY**

RIGHT-OF-WAY WIDTH	PARCELS IMPACTED	DISPLACEMENTS
130'	4	0

**TYPE OF ACCESS CONTROL:** Permit

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**COORDINATION AND SCHEDULING**

**CONCEPT TEAM MEETING DATE:** March 9, 1999

**CONFORMS TO TIP/STIP?** Y X N \_\_\_

**MEETS LOGICAL TERMINI REQUIREMENTS?** Y X N \_\_\_

**P.A.R. MEETING:** Not required

**PERMITS REQUIRED:** Categorical Exclusion (Less than one acre of Hydric Soils affected)

**LEVEL OF PUBLIC INVOLVEMENT:** None

**TIME SAVING PROCEDURES APPROPRIATE:  
SCHEDULING CONSIDERATIONS:** Yes

**TIME TO COMPLETE ENVIRONMENTAL:** 12 months

**TIME TO COMPLETE PRELIM. RD/RW PLANS:** 12 months

**TIME TO COMPLETE 404 PERMIT:** N/A

**TIME TO COMPLETE FINAL CONSTR. PLANS:** 6 months

**TIME TO BUY RIGHTS-OF-WAY:** 12 months

**OTHER PROJECTS IN THE AREA:** BRN-014-1(54) Warren

**LOCAL GOVERNMENT COMMITMENTS:** The LGPA will request that Warren County pay for all reimbursable utilities.

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**MISCELLANEOUS**

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**TRAFFIC CONTROL DURING CONSTRUCTION:** The SR 12 will be closed during construction and traffic will be detoured by way of SR 80 and SR 80 Alternate. (See attached detour sketch.) A minor amount of shoulder paving will be required at the intersection of SR 80 and SR 80 Alternate to facilitate turning movements.

**LEVEL OF ENVIRONMENTAL ANALYSIS:** Categorical Exclusion

**UNDERGROUND STORAGE TANKS:** None

**HAZARDOUS WASTE SITES:** None

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**DESIGN VARIATIONS REQUESTED**

	YES	NO	UNDETERMINED
SUBST HORIZ ALIGNMENT	( )	(X)	( )
SUBST ROADWAY WIDTH	( )	(X)	( )
SUBST SHOULDER WIDTH	( )	(X)	( )
SUBST VERTICAL GRADES	( )	(X)	( )
SUBST CROSS SLOPES	( )	(X)	( )
SUBST STOPPING SIGHT DIST	( )	(X)	( )
SUBST SUPERELEV RATES	( )	(X)	( )
SUBST HORIZONTAL CLEARANCE	( )	(X)	( )
SUBST SPEED DESIGN	( )	(X)	( )
SUBST VERTICAL CLEARANCE	( )	(X)	( )
SUBST BRIDGE WIDTH	( )	(X)	( )
SUBST BR STRUCT CAPACITY	( )	(X)	( )

## ALTERNATIVES CONSIDERED

---

1. Remove the existing railroad bridge and construct an at-grade crossing with gates lights and bells at the intersection of State Route 12 and Southern Railroad. The hazard index would be increased from 0.0 to 1.67. This is the recommended alternate due to the low volume of train traffic and the lower construction cost involved. This line does not connect to the CSX line which goes to Camak (See attached map.) The bridge serves Wheland Foundry, Georgia Pacific and a chip mill. Under normal operations, two trains cross the bridge each night. There are no trains which normally cross the bridge during the day. An on-site railroad detour would be required.
  2. Remove the existing bridge and construct a new railroad bridge over State Route 12 providing adequate horizontal and vertical clearance. An on-site railroad detour will be required.
- 

### ESTIMATED COST

<b>CONSTRUCTION:</b>	\$523,650	<b>RIGHT-OF-WAY:</b>	\$50,000
<b>E &amp; C (10%):</b>	163,000	<b>ACQUIRED BY:</b>	DOT
<b>INFLATION:</b> (3 yrs @ 5% per yr)	<u>64,000</u>	<b>UTILITIES:</b>	LGPA*

**TOTAL CONS'T COST:** \$705,650

\* A force account will be required for the construction of the mainline track. This cost will be approximately \$100,000.

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### COMMENTS

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**ATTACHMENTS:** Detour Location Sketch, Cost Estimate, Typical Sections, Traffic Data, Pavement Design, Traffic Operations Letter, Team Meeting Minutes

**PREPARED BY:** George Brewer, District Design Squad Leader

CAMAK  
POP. 283  
ELEV. 590

+ G.M.D. 425

Ambassador  
Ch.

Camak  
Junction

Silvertown

PROPOSED  
DETOUR

278 JEFFERSON

Plainview

PROJECT  
LOCATION

WARRENTON  
POP. 2172  
ELEV. 505

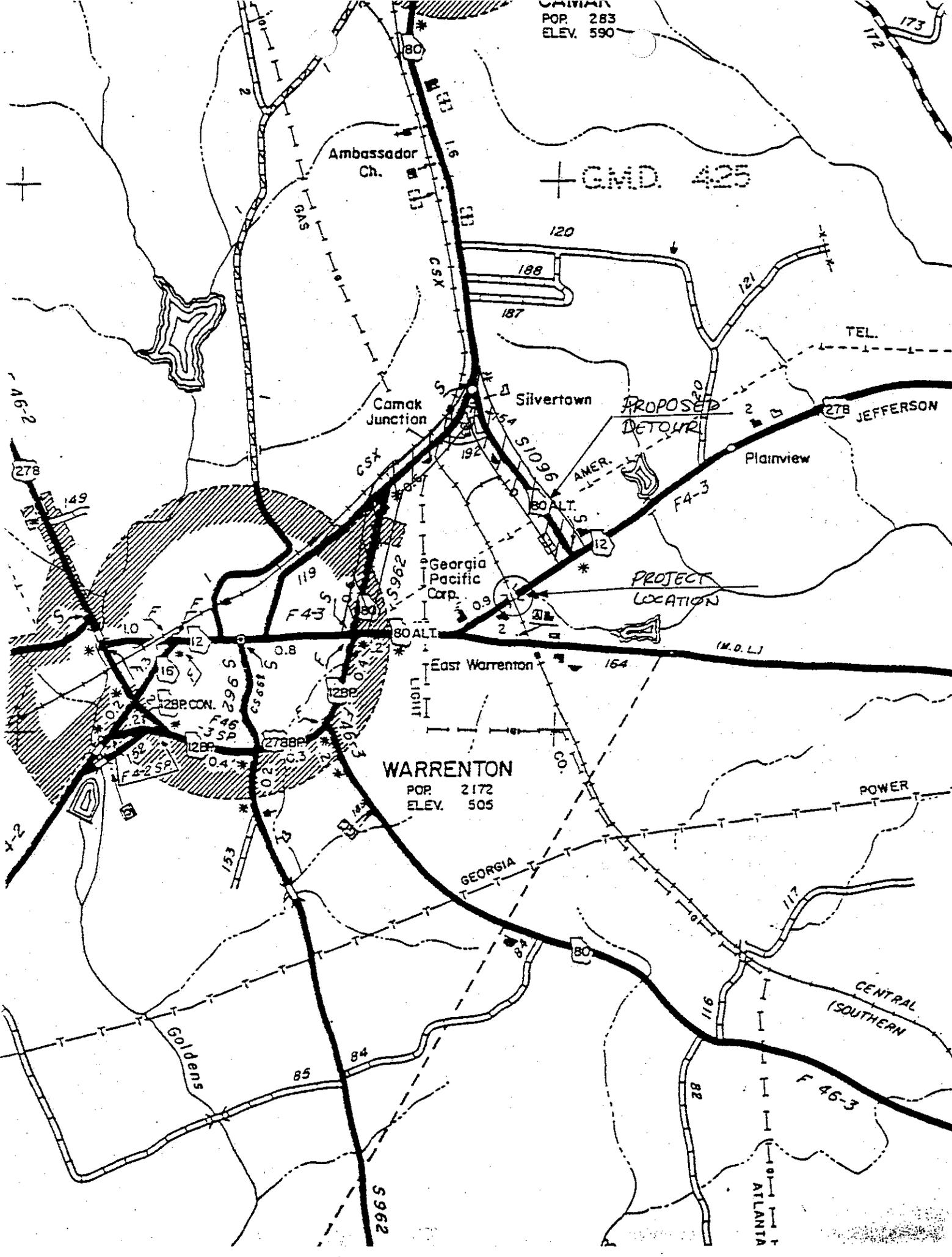
East Warrenton

GEORGIA

POWER

CENTRAL  
(SOUTHERN)

ATLANTA



DRIVEWAY TO  
WHELAND FOUNDRY

END PROJECT  
M.L. 14.89

REQ'D R/W

EXIST R/W

1218.06'

FROM  $\phi$  OF RAILROAD  
TO  $\phi$  OF DRIVEWAY

50'

50'

EXIST R/W

REQ'D R/W

TO THOMSON

TO WARRENTON

M.L. 14.64

EXIST EOP

S.R. 12

EXIST EOP

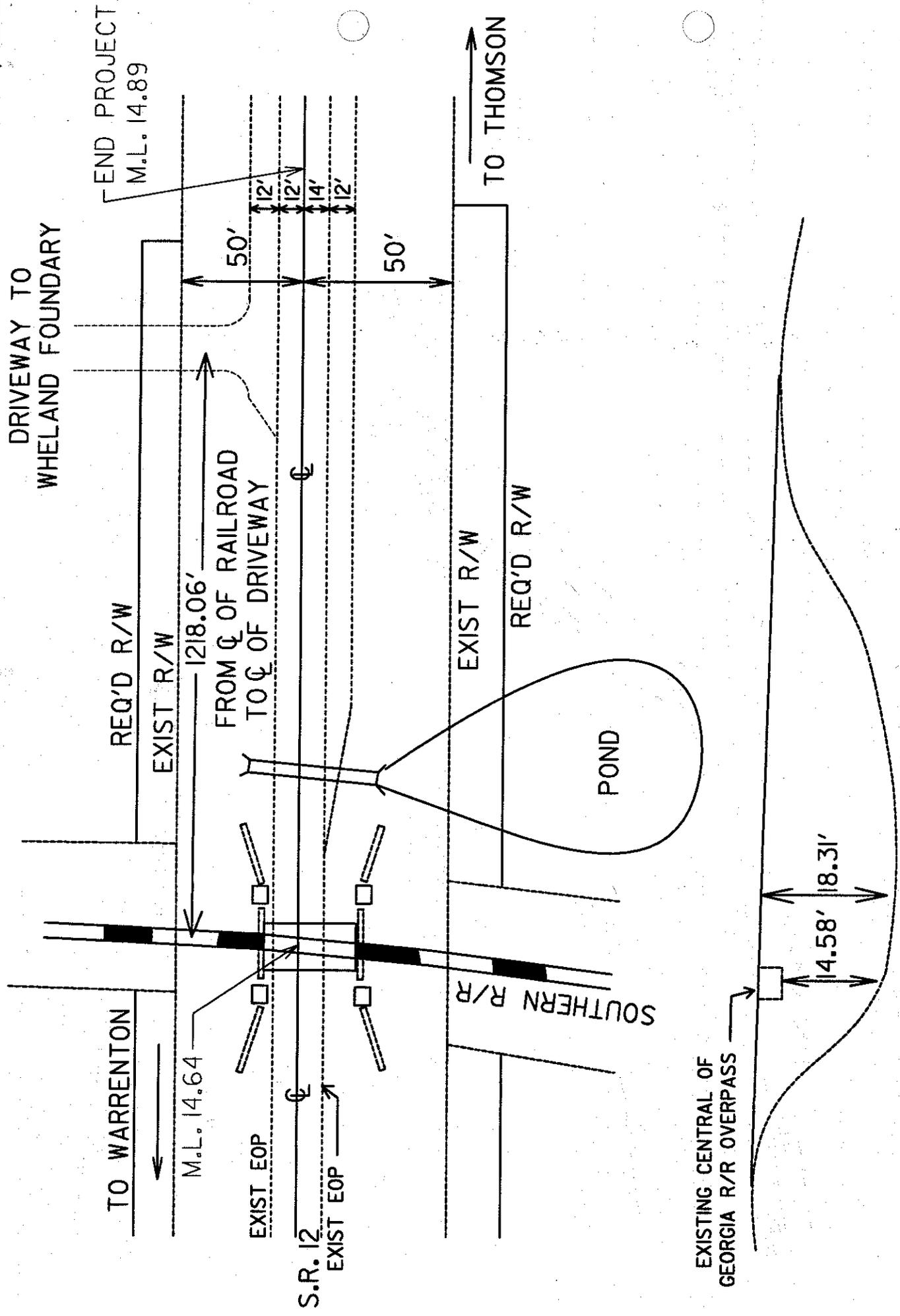
SOUTHERN R/R

POND

EXISTING CENTRAL OF  
GEORGIA R/R OVERPASS

14.58'

18.31'



TO WARRENTON  
←

GEORGIA PACIFIC

EXIST R/W

REQ'D R/W

BEGIN PROJECT  
M.L. 14.50

EXIST EOP

12'

24'

S.R. 12

EXIST EOP →

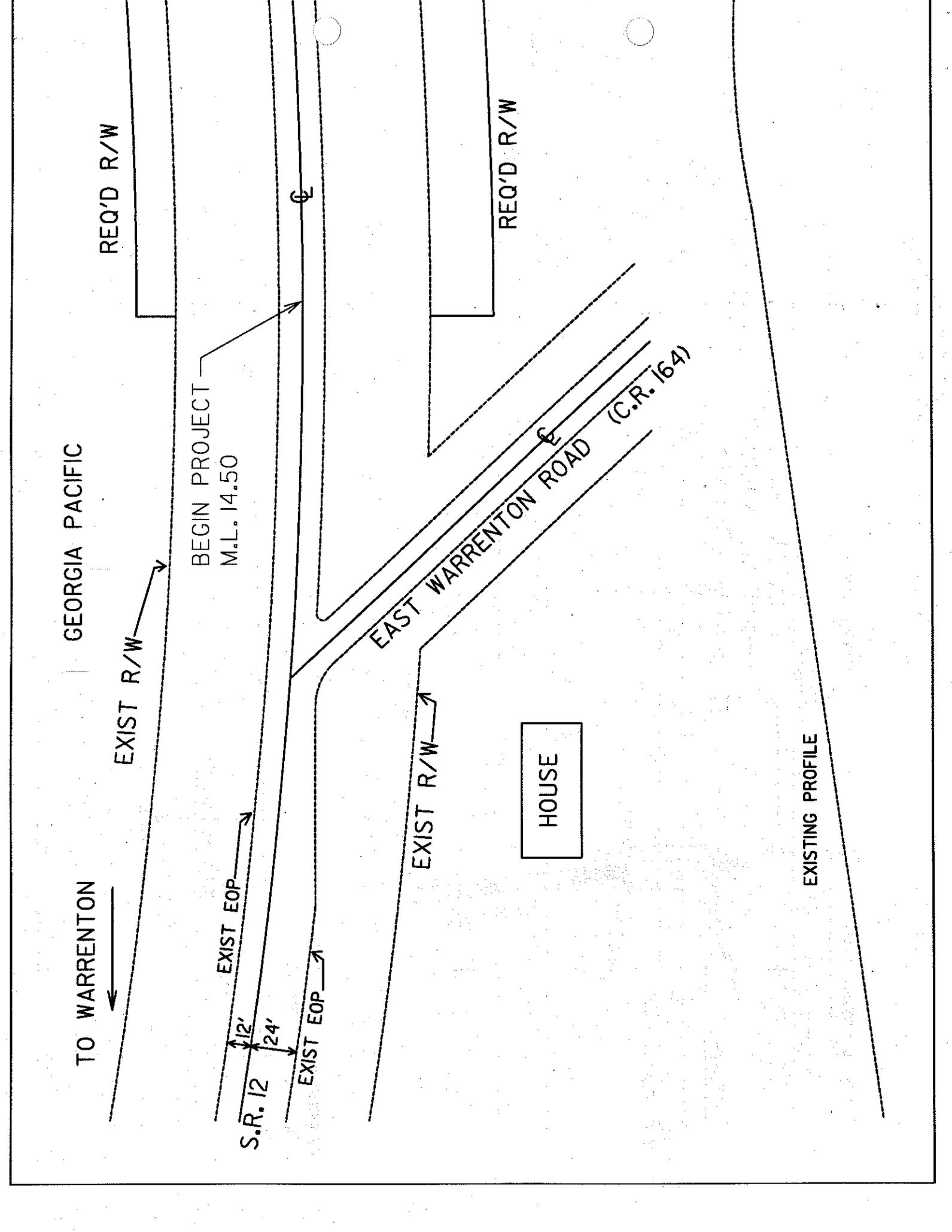
EXIST R/W

HOUSE

REQ'D R/W

EAST WARRENTON ROAD (C.R. 164)

EXISTING PROFILE

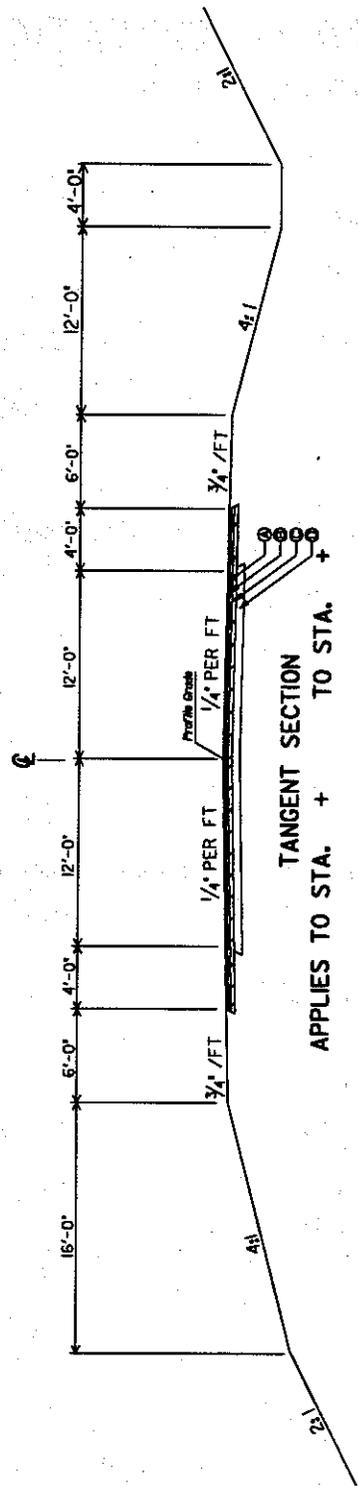


ITEM NO.	ITEM DESCRIPTION	UNITS	UNIT COST	QUANTITY	ITEM COST
****ALTERNATE NO. 1****					
****ROADWAY****					
150-1000	TRAFFIC CONTROL	LIMP	50000.000	LIMP	50000.00
210-0100	GRADING COMPLETE	LIMP	175000.000	LIMP	175000.00
310-1101	GR AGGR BASE CRS, INCL MAIL	TN	20.000	480	9600.00
318-3000	AGGR SURF CRS	TN	15.000	500	7500.00
232-0200	DETOUR TRACK CONSTR AND REMOVED	LF	75.000	600	45000.00
402-0111	RECYCLED ASPH CONC B, GP 1 CR 2, INCL BITUM MAIL & H LIME	TN	40.000	440	17600.00
402-0113	RECYCLED ASPH CONC E, GP 1 CR 2, INCL BITUM MAIL & H LIME	TN	40.000	660	26400.00
402-0120	RECYCLED ASPH CONC BASE, GP 1 CR 2, INCL BITUM MAIL & H LIME	TN	40.000	880	35200.00
402-1812	RECYCLED ASPH CONC LEVELING, INCL BITUM MAIL & H LIME	TN	40.000	200	8000.00
413-1000	BITUM TACK COAT	GL	0.250	480	120.00
500-3101	CLASS A CONCRETE	CY	410.000	12	4920.00
511-1000	BAR REINF STEEL	LB	0.600	1300	780.00
540-1102	REMOVAL OF EXISTING BRIDGE NO. 1	EA	10000.000	LIMP	10000.00
550-1180	STORM DRAIN PIPE, 18 IN, H 1-10	LF	25.000	30	750.00
550-1240	STORM DRAIN PIPE, 24 IN, H 1-10	LF	35.000	30	1050.00
550-2180	SIDE DRAIN PIPE, 18 IN, H 1-10	LF	20.000	110	2200.00
550-3618	SAFETY END SECTION 18 IN, SIDE DRAIN	EA	500.000	4	2000.00
573-2006	UNDER PIPE INCL DRAINAGE AGGR, 6 IN	LF	9.000	100	900.00
634-1200	RIGHT OF WAY MARKER	EA	60.000	10	600.00
668-8011	SAFETY GRATE, TP 1	SF	25.000	23	575.00
					PARTIAL PROJECT COST = 398195.00
****EROSION CONTROL****					
603-2018	SIN DUMPED RIP RAP, TP 1, 18 IN	SY	30.000	50	1500.00
700-0001	GRASSING	LIMP	7000.000	LIMP	7000.00
715-2200	BITUMINOUS TREATED ROVING, WATERWAYS	SY	3.000	600	1800.00
					PARTIAL PROJECT COST = 10300.00

ITEM NO.	ITEM DESCRIPTION	U	UNIT COST	QUANTITY	ITEM COST
****TEMPORARY EROSION CONTROL****					
161-1000	EROSION CONTROL	LIMP	5000.000	LIMP	5000.00
163-2051	CONSTR, MAINT, & REM. BLD STRAW EROSION CH	LF	3.250	1000	3250.00
171-0010	TEMPORARY SILT FENCE, TYPE A	LF	3.150	1000	3150.00
171-0030	TEMPORARY SILT FENCE, TYPE C	LF	5.000	500	2500.00
PARTIAL PROJECT COST =					13900.00
****TRAFFIC SIGNS & MARKINGS****					
636-1023	HIGHWAY SIGNS, TP 2 MAIL - REFL SHEETING, TP 1, LEVEL A	SF	17.000	74	1258.00
647-0500	RAILROAD CROSSING SIGNAL SYSTEM, NO-1	LIMP	100000.000	LIMP	100000.00
PARTIAL PROJECT COST =					101258.00
****INFLATION AND E & C****					
100-0001	INFLATION(5% FOR 3 YEARS)	LIMP	163000.000	LIMP	163000.00
100-0002	E & C(10%)	LIMP	64000.000	LIMP	64000.00
PARTIAL PROJECT COST =					227000.00
TOTAL PROJECT COST =					750653.00

ITEM NO.	ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITY	ITEM COST
****ALTERNATE NO. 2****					
****ROADWAY****					
150-1000	TRAFFIC CONTROL	LIMP	50000.000	LIMP	50000.00
210-0100	GRADING COMPLETE	LIMP	400000.000	LIMP	400000.00
232-0200	DETOUR TRACK CONSTR AND REMOVED	LF	75.000	600	45000.00
310-1101	GR AGGR BASE CRS, INCL MAIL	TN	20.000	480	9600.00
318-3000	AGGR SURF CRS	TN	15.000	500	7500.00
402-0111	RECYCLED ASPH CONC B, GP 1 OR 2, INCL BITUM MAIL & H LIME	TN	40.000	440	17600.00
402-0113	RECYCLED ASPH CONC E, GP 1 OR 2, INCL BITUM MAIL & H LIME	TN	40.000	660	26400.00
402-0120	RECYCLED ASPH CONC BASE, GP 1 OR 2, INCL BITUM MAIL & H LIME	TN	40.000	880	35200.00
402-1812	RECYCLED ASPH CONC LEVELING, INCL BITUM MAIL & H LIME	TN	40.000	200	8000.00
413-1000	BITUM TACK COAT	GL	0.250	480	120.00
500-3101	CLASS A CONCRETE	CY	410.000	12	4920.00
511-1000	BAR REINF STEEL	LB	0.600	1300	780.00
540-1102	REMOVAL OF EXISTING BRIDGE NO. 1	EA	10000.000	LIMP	10000.00
550-1180	STORM DRAIN PIPE, 18 IN, H 1-10	LF	25.000	30	750.00
550-1240	STORM DRAIN PIPE, 24 IN, H 1-10	LF	35.000	30	1050.00
550-2180	SIDE DRAIN PIPE, 18 IN, H 1-10	LF	20.000	110	2200.00
550-3618	SAFETY END SECTION 18 IN, SIDE DRAIN	EA	500.000	4	2000.00
573-2006	UNDER PIPE INCL DRAINAGE AGGR, 6 IN	LF	9.000	100	900.00
634-1200	RIGHT OF WAY MARKER	EA	60.000	10	600.00
668-8011	SAFETY GRADE, TP 1	SF	25.000	23	575.00
					PARTIAL PROJECT COST = 623195.00
****EROSION CONTROL****					
603-2018	SIN DUMPED RIP RAP, TP 1, 18 IN	SY	30.000	50	1500.00
700-0001	GRASSING	LIMP	7000.000	LIMP	7000.00
715-2200	BITUMINOUS TREATED ROVING, WATERWAYS	SY	3.000	600	1800.00
					PARTIAL PROJECT COST = 10300.00

ITEM NO.	ITEM DESCRIPTION	UNITS	UNIT COST	QUANTITY	ITEM COST
****TEMPORARY EROSION CONTROL****					
161-1000	EROSION CONTROL	LIMP	5000.000	LIMP	5000.00
163-2051	CONSTR, MAINT, & REM. ELD STRAW EROSION CH	LF	3.250	1000	3250.00
171-0010	TEMPORARY SILT FENCE, TYPE A	LF	3.150	1000	3150.00
171-0030	TEMPORARY SILT FENCE, TYPE C	LF	5.000	500	2500.00
PARTIAL PROJECT COST =					13900.00
****TRAFFIC SIGNS & MARKINGS****					
636-1023	HIGHWAY SIGNS, TP 2 MAIL - REFL SHEETING, TP 1, LEVEL A	SF	17.000	74	1258.00
647-0500	RAILROAD CROSSING SIGNAL SYSTEM, NO-1	LIMP	100000.000	LIMP	100000.00
PARTIAL PROJECT COST =					101258.00
****CONSTRUCTION OF RAILROAD BRIDGE NO. 1 ****					
543-9000	CONSTRUCTION OF BRIDGE COMPLETE	LIMP	750000.000	LIMP	750000.00
PARTIAL PROJECT COST =					750000.00
****INFLATION AND E & C****					
100-0001	INFLATION(5% FOR 3 YEARS)	LIMP	240000.000	LIMP	240000.00
100-0002	E & C(10%)	LIMP	175000.000	LIMP	175000.00
PARTIAL PROJECT COST =					415000.00
TOTAL PROJECT COST =					1913653.00



**REQUIRED PAVEMENT**

- Ⓐ ASPHALTIC CONCRETE 12.5 mm SUPERPAVE, 165 #/sy
- Ⓑ ASPHALTIC CONCRETE 19 mm SUPERPAVE, 220 #/sy
- Ⓒ ASPHALTIC CONCRETE 25 mm SUPERPAVE, 440 #/sy
- Ⓓ GRADED AGGREGATE BASE, 6"

**Brewer, George**

**From:** Posey, Keith  
**Sent:** Wednesday, December 16, 1998 2:46 PM  
**To:** Brewer, George

## DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

### INTERDEPARTMENT CORRESPONDENCE

**FILE** STP-004-3(38), WARREN COUNTY      **OFFICE** Environmental / Location  
P.I.# 232220  
**DATE** December 9, 1998

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

**TO** Mike Thomas, P. E. , District Engineer, Tennille  
Attn: George Brewer

**SUBJECT** TRAFFIC ASSIGNMENT FOR S.R. 12

We are furnishing estimated traffic assignments for the above project as follows:

2022 AADT = 5300  
2002 AADT = 3800  
K = 10 %  
D = 60 %  
T = 6 %  
24 Hr.T = 8 %  
S.U. = 3 %  
Comb. = 5 %

DS/ EKP

Project: STP-004-3(38)

County: WARREN

P.I. no.: 232220

Description: BRIDGE REMOVAL ON SR 12 @ SOUTHERN RAILROAD

**Traffic Data** (NOTE: AADTs are one-way)

24-hour Truck Percentage: 8.00%

AADT initial year of design period: 1,900 vpd (2002)

AADT final year of design period: 2,650 vpd (2022)

Mean AADT (one-way): 2,275 vpd

**Design Loading**

Mean AADT	LDF	Trucks	18-K ESAL	Total Daily Loads
2,275 *	1.00 *	0.080 *	0.95	= 174

Total predicted design period loading = 174 \* 20 \* 365 = 1,270,200

**Design Data**

Terminal Serviceability Index: 2.50

Soil Support: 3.00

Regional Factor: 1.60

**PROPOSED FLEXIBLE PAVEMENT STRUCTURE**

Material	Thickness mm	(in.)	Structural Coefficient	Structural Value
12.5 mm Superpave	40	(1.57)	0.0173	0.69
19 mm Superpave	50	(1.97)	0.0173	0.86
25 mm Superpave	24	(0.94)	0.0173	0.42
	76	(2.99)	0.0118	0.90
Graded Aggregate Base	150	(5.91)	0.0063	0.94

Required SN = 4.42

Proposed SN = 3.81

>>> Proposed pavement is 13.8% Underdesign <<<

Remarks:

Prepared by George M. Brewer, DDSL February 24, 1999

Date

Recommended \_\_\_\_\_

State Materials & Research Engineer

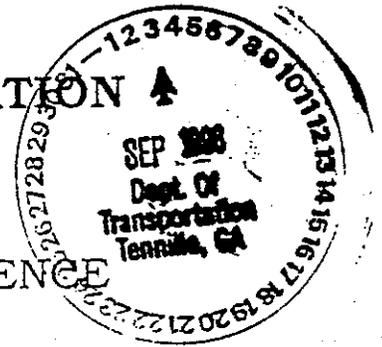
Date

Approved \_\_\_\_\_

District Engineer

Date

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA



INTERDEPARTMENT CORRESPONDENCE

**FILE:** STP-004-3(38) Warren County  
S.R. 12/U.S. 80 Alt. @ Central  
Of Georgia Railroad

**OFFICE:** Traffic Operations

**DATE:** September 1, 1998

**FROM:** *M. C. Waters III* M. C. Waters III, P. E., State Traffic Operations Engineer

**TO:** Mike Thomas, District Engineer, Tennille  
Attention: Thomas L. Clark/George Brewer

**SUBJECT:** Replacement of Existing Roadway/Rail Grade Separated  
Intersection with At-grade Crossing

Reference is made to your letter of July 29, 1998 concerning the removal of an existing railroad overpass and replacement with an at-grade crossing. Your letter requested us to review the preliminary concept and provide any comments we may have.

Based on information available there are approximately 4700 vehicles and 4 trains per day that would share the same intersection, if the grade separation were replaced with an at-grade railroad crossing. This would shift the Hazard Index of 0.00 to 6.32 with signs only. However with gates, lights and bells this would be reduced to 1.67. The addition of gates, lights and bells would provide the safest means of warning that we use today for an at-grade crossing.

Although your proposal addresses a bridge clearance problem with a practical approach, we do not advocate the replacement of a grade separated crossing with an at-grade crossing for several reasons.

1. **Safety:** The Department would be removing a crossing with no possibility of a vehicle making into contact with rail traffic. When a crossing is at grade there is that potential even with train activated warning devices.

Page 2 of 3  
Mike Thomas  
September 1, 1998

2. **Liability:** The Department could be found in a legal dispute after a vehicle /train accident explaining why we reduced the safety factor for financial savings.

We concur that if the Department chooses to go with the at-grade crossing that train activated warning devices consisting of gates, lights and bells should be required.

If you have any questions or you care to discuss this further please contact Otis Hammock or myself at 404-635-8121.

MGW:OH:oh

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**INTERDEPARTMENT CORRESPONDENCE**

FILE            STP-004-3(38) Warren County            OFFICE   Tennille  
                  P.I. No. 232220

DATE    March 10, 1999

FROM           George M. Brewer, District Design Squad Leader

TO                Files

SUBJECT        **CONCEPT TEAM MEETING MINUTES**

A Concept Team Meeting was held March 9, 1999 on the above-mentioned project. The following were in attendance:

George Brewer, District Design Squad Leader  
Tom Clark, District Design Engineer  
Curtis Grovner, Asst. Area Engineer, Louisville  
Gus Cooper, Area Engineer, Louisville  
Terrell McMillian, Construction Inspector, Louisville  
Jimmy Smith, Traffic Operations  
John McCarty, R/W Squad Manager  
Phillip Scarborough, District Environmentalist  
Leonard Hart, District Utilities Engineer  
Austin Sapp, BellSouth  
Palmer Hadden, Georgia Power  
Tommy Harwell, Georgia Natural Gas  
Freddie Wiggins, City of Warrenton

The Concept Team made the following recommendations:

1. If Alternate 2 (Grade Separation) is used, the pond on the southeast side of the project will have to be drained in order to get flow from the 3'x3' box culvert in that area.
2. Pond restoration should be set up in the contract.
3. The shoulders need to be paved at the intersection of SR 80 and SR 80 Alt. to help the turning movements on the detour.
4. If the intersection of East Warrenton Road and SR 12 is within the project limits, East Warrenton Road must be brought in at a minimum of a 60° angle.

5. Palmer Hadden stated that Georgia Power has 4 or 5 poles which will be in conflict with the proposed project. These poles appear to be on the existing right-of-way.
6. Austin Sapp stated that BellSouth has three copper cables and one fiber optic cable on the north side on SR 12 about two or three feet inside the existing right-of-way.
7. Tommy Harwell stated that Georgia Natural Gas has a gas line crossing SR 12 just west of the railroad crossing. The line would be in conflict if the grade separation alternate is chosen. If the at grade crossing alternate is chosen, the gas line would not be in conflict, but the casing would have to be extended.
8. Freddie Wiggins stated that the City of Warrenton has a sewage lift station on the east side of the railroad crossing which may be in conflict.
9. Phillip Scarborough stated that the existing railroad bridge is historic and that there would be a minor amount of wetland impact and approximately one acre of "waters of the U.S." impacted (farm pond).

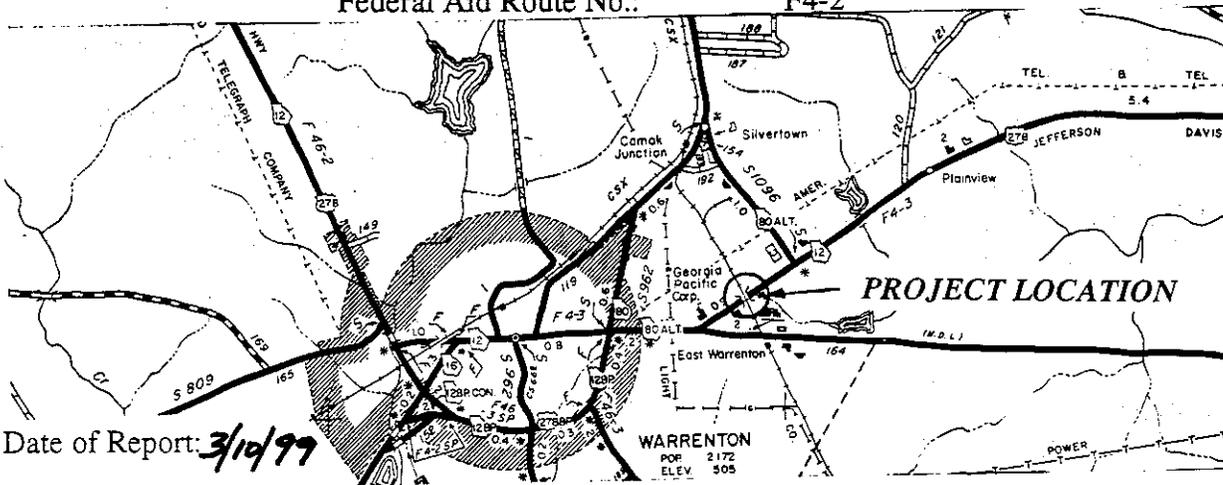
If any assistance is needed, please contact George Brewer at (912)552-4640.

TC:GMB

Cc: Gus Cooper  
Jimmy Smith  
Phillip Scarborough  
Leonard Hart

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
PROJECT CONCEPT REPORT  
RAILROAD BRIDGE REMOVAL ON SOUTHERN RAILROAD  
AT STATE ROUTE 12  
STP-004-3(38)  
WARREN COUNTY**

U.S. Route No.: 278  
 State Route No.: 12/80 Alt.  
 GaDOT P.I. No.: 232220  
 Federal Aid Route No.: F4-2



Date of Report: 3/14/99

**RECOMMENDATION FOR APPROVAL**

3/29/99  
Date

*Zari Jung*  
State Transportation Planning Administrator

\_\_\_\_\_  
Date

\_\_\_\_\_  
State Transportation Programming Engineer

\_\_\_\_\_  
Date

\_\_\_\_\_  
State Environmental/Location Engineer

Date  
3-16-99

State Road Design Engineer  
*Michael L. Thomas*  
District Engineer/Tennille

\_\_\_\_\_  
Date

\_\_\_\_\_  
Project Review Engineer

\_\_\_\_\_  
Date

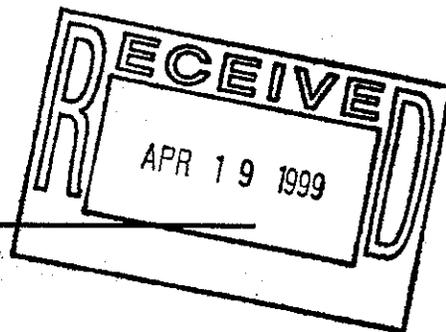
\_\_\_\_\_  
State Traffic Operations Engineer

\_\_\_\_\_  
Date

\_\_\_\_\_  
State Bridge & Structural Design Engineer

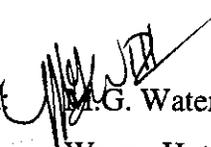
Department of Transportation  
State of Georgia

INTERDEPARTMENTAL CORRESPONDENCE



File: STP-004-3(38)/Warren County  
P.I. No. 232220

Office: Traffic Operations  
Atlanta, Georgia  
Date: April 15, 1999

From:  M.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 removal of the existing Southern Railroad overpass, of insufficient vertical and horizontal clearance, located on SR 12 just east of the city of Warrenton.

SR 12 is a two lane rural roadway with a posted speed limit of 55mph. The existing railroad bridge over SR 12 is 24 feet in length, 14 feet wide and has a vertical clearance of 14.58 feet.

It is proposed to make this intersection an at grade crossing with lights, bells, and gates. The hazard index will then increase from 0.00 to 1.67. The roadway will consist of two 12 foot lanes with 10 foot shoulders, 4 foot paved. The existing turn lane and decel lanes will be replaced at the east end of the project. During construction, SR 12 will be closed and traffic will be detoured utilizing SR 80 and SR 80 Alternate.

Although we prefer replacement of the existing Railroad Bridge with a new structure providing adequate clearance, as described as Alternate 2, due to the lower construction cost and the adherence to departmental standards and policy for at grade railroad crossings, we find this report satisfactory for approval.

MGW:TWS

Attachment (signature page)

c: David Studstill

Michael Thomas, District Engineer, Tennille

Attn: George Brewer

Bob Mustin, w/ attachment

Toni Dunagan

Otis Hammock, TMC

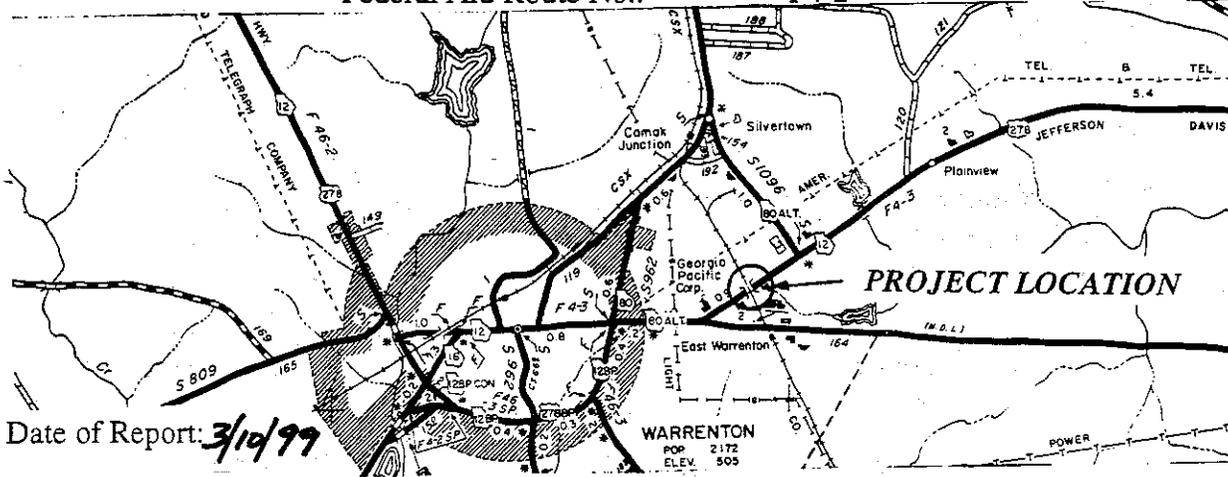
General Files

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
PROJECT CONCEPT REPORT  
RAILROAD BRIDGE REMOVAL ON SOUTHERN RAILROAD  
AT STATE ROUTE 12**

STP-004-3(38)

WARREN COUNTY

U.S. Route No.: 278  
 State Route No.: 12/80 Alt.  
 GaDOT P.I. No.: 232220  
 Federal Aid Route No.: F4-2



**RECOMMENDATION FOR APPROVAL**

Date

State Transportation Planning Administrator

Date

State Transportation Programming Engineer

Date

State Environmental/Location Engineer

Date

State Road Design Engineer

3-16-99

*Michael L. Thomas*

Date

District Engineer/Tennille

Date

Project Review Engineer

4-16-99

*Marion H. Walters*

Date

State Traffic Operations Engineer

Date

State Bridge & Structural Design Engineer