ORIGINAL TO GENERAL FILES

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE BRST-074-1(49) Coweta County
P. I. No. 333175

OFFICE Preconstruction

DATE July 23, 2003

FROM Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT **PROJECT CONCEPT REPORT APPROVAL**

Attached for your files is the approval for subject project.

MBP/cj

Attachment

DISTRIBUTION:

David Mulling
Harvey Keepler
Jerry Hobbs
Percy Middlebrooks
Michael Henry
Phillip Allen
Joe Palladi
Paul Liles
Brent Story
Thomas Howell
BOARD MEMBER

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE BRST-074-1(49) Coweta County
P.I. No. 333175

OFFICE Preconstruction

DATE July 10, 2003

FROM Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

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

SUBJECT PROJECT CONCEPT REPORT

This project is the replacement of a structurally deficient bridge on SR 74 over CSX Railroad, 3.4 miles south of Senoia, Georgia. The existing bridge, constructed in 1950, is load limited with a sufficiency rating of 41. State Route 74 at this location is a rural two lane roadway with 12' travel lanes with rural shoulders. This section of SR 74 is functionally classified as a rural minor arterial. Traffic is projected to be 5,300 VPD and 8,000 VPD in the years 2006 and 2026 respectively. The posted speed and the design speed are 55 MPH.

The construction proposes to construct a new 160' x 44' concrete bridge over CSX Railroad at the existing bridge site. The approaches will consist of two, 12' lanes with 10' rural shoulders (2' paved). Traffic will be maintained during construction utilizing an on-site detour.

Environmental concerns include requiring a COE 404 Permit; a Categorical Exclusion will be prepared; a public hearing is not required; time saving procedures are appropriate.

The estimated costs for this project are:

	PROPOSED	APPROVED	PROG DATE	LET DATE
Construction (includes E&C and inflation)	$1,402,000	$1,402,000	2006	FY-06
Right-of-Way	$ 79,000	$ 79,000		
Utilities*	$ 130,000	-----		

*LGPA sent 7-12-99 requesting Coweta County do utilities.

BRST-074-1(49) Coweta
July 10, 2003

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

CWH:JDQ/cj

Attachment

CONCUR_____
Thomas L. Turner, P.E., Director of Preconstruction

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

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE JUN 24 2003

FILE: BRST-074-1(49) Coweta
P.I. Number 333175
S.R. 74 @ CSX Railroad

OFFICE: Engineering Services

DATE: June 24, 2003

FROM: David Mulling, Project Review Engineer REW

TO: Meg Pirkle, Assistant Director of Preconstruction

SUBJECT: **CONCEPT REPORT**

We have reviewed the Concept Report submitted June 20, 2003 by the letter from Brent A. Story dated June 19, 2003, and have no additional comments.

The costs for this project are:

Construction	$1,155,399
Inflation	$118,428
E&C	$127,383
Reimbursable Utilities	$130,000 (LGPA signed on 7/12/99)
Right of Way	$78,600

REW

c: Brent Story, Attn: Ted Cashin

SCORING RESULTS AS PER MOG 2440-2

Project Number:	County:	PI No.:
BRST-074-1(49))	Coweta	333175

Report Date:	Concept By:
June 19, 2003	DOT Office: Consultant Design
☒ Concept Stage	Consultant: Transportation Systems Design, Inc.

Project Type: Choose One From Each Column			
	☐ Major	☐ Urban	☐ ATMS
	☒ Minor	☒ Rural	☒ Bridge Replacement
			☐ Building
			☐ Interchange Reconstruction
			☐ Intersection Improvement
			☐ Interstate
			☐ New Location
			☐ Widening & Reconstruction
			☐ Miscellaneous

FOCUS AREAS	SCORE	RESULTS
Presentation	100	
Judgement	100	
Environmental	100	
Right of Way	100	
Utility	100	
Constructability	100	
Schedule	100	

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

RECEIVED
JUN 23 2003
OFFICE Atlanta

INTERDEPARTMENT CORRESPONDENCE

FILE **BRST-074-1(49) Coweta County**
SR 74 @ CSX Railroad (639456G) 3.4 mi S of Senoia
P.I. No. 333175-

FROM Brent A. Story, State Consultant Design Engineer

DATE June 19, 2003

TO Margaret B. Pirkle, Assistant Director of Preconstruction

SUBJECT **PROJECT CONCEPT REPORT**

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

Those on the distribution list below should review the Concept Report and send comments and/or the signature page to the Preconstruction Office within 10 days as per the PDP.

If you have any questions or require further information please call (404)463-6135 or Dan Bodycomb of Transportation Systems Design, Inc. at (770) 396-4877.

Distribution:
David Mulling, Project Review Engineer
Harvey Keepler, State Environmental/Location Engineer
Phillip Allen, State Traffic Safety and Design Engineer
Joe Palladi, State Transportation Planning Administrator
Percy Middlebrooks, Office of Financial Management Administrator
Thomas Howell, District Engineer – Thomaston
Paul Liles, State Bridge & Structural Engineer

BAS:MBA:EJC

cc: Transportation Systems Design, Inc.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF CONSULTANT DESIGN

PROJECT CONCEPT REPORT

Project Number: BRST-074-1(49)
County: Coweta
P.I. Number: 333175

Federal Route Number: N/A
State Route Number: 74

Recommendation for approval:

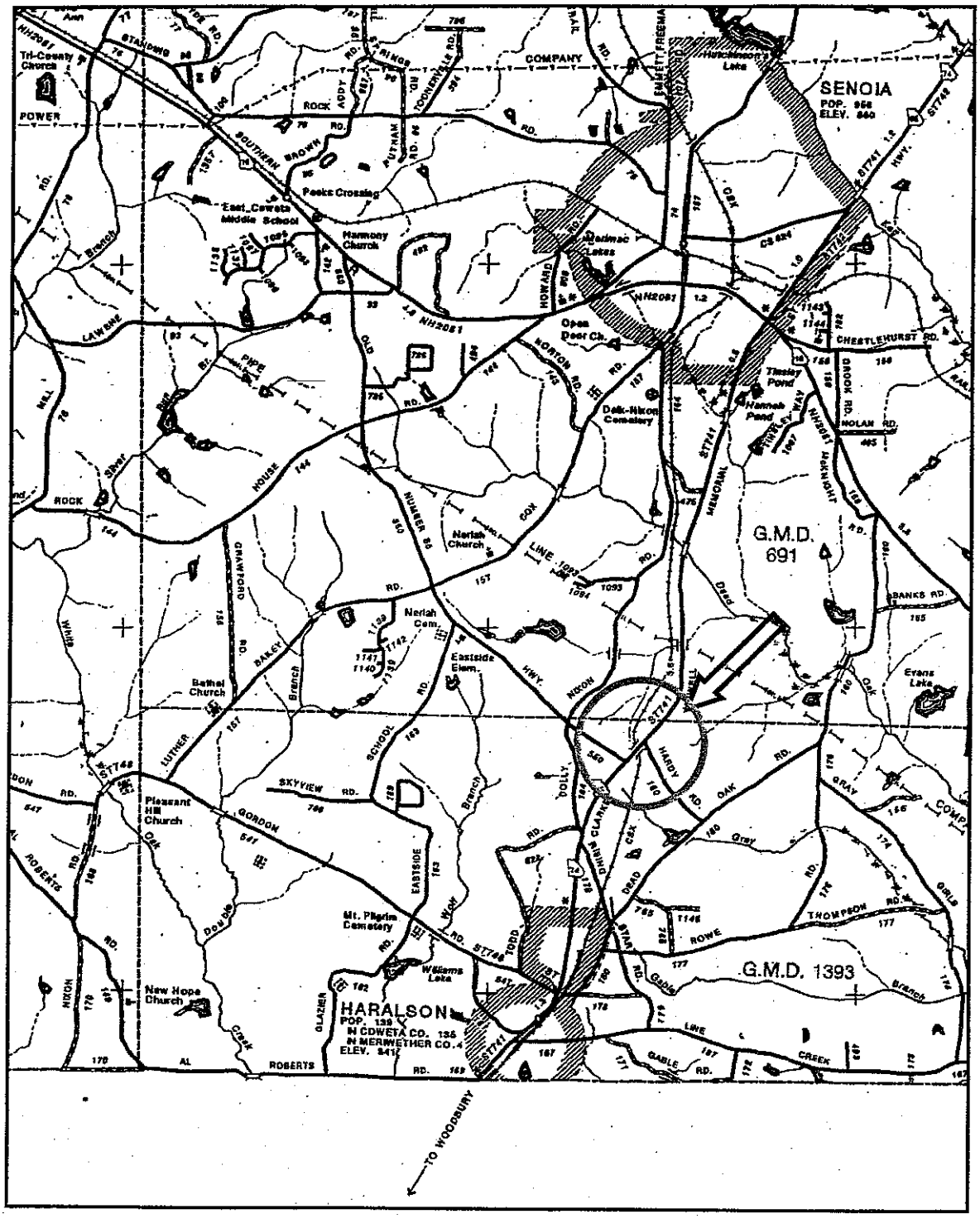
DATE 6-19-03 _____ Project Manager

DATE 6-19-03 MBA _____ Brent A. Story MBA
State Consultant Design Engineer

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

DATE	State Transportation Planning Administrator
DATE	Office of Financial Management Administrator
DATE	State Environmental / Location Engineer
DATE	State Traffic Safety and Design Engineer
DATE	District Engineer
DATE	Project Review Engineer
DATE	State Bridge & Structural Design Engineer

Project Concept Report Page 2
Project Number: BRST-074-1(49)
P.I. Number: 333175
County: Coweta



Scale: 1 inch = 1 mile

N

Location Map

Project: BRST-074-1(49) Coweta County **PI No.:** 333175-
Description: SR 74 @ CSX Railroad (639456G) 3.4 Mi S. of Senoia

NEED AND PURPOSE
PROJECT BRST-074-1(49), COWETA COUNTY
PI NO. 333175
BRIDGE REPLACEMENT

Project BRST-074-1(49) consists of the replacement of the bridge on SR 74/Clarke Howell Memorial Highway over the CSX Railroad, 3.4 miles south of Senoia in Coweta County. This route serves commuter traffic traveling north to Senoia and Fayetteville. SR 74/Clarke Howell Memorial Highway is classified as a Rural Minor Arterial and is not a designated bike route. This stretch of SR 74 is part of a designated school bus route.

This bridge was constructed in 1950 and consists of concrete bents, steel beam superstructure, and a concrete deck. The original design load capacity is H-15. The sufficiency rating on the structure is 41.96, and the bridge is classified as functionally obsolete and requires replacement. The sufficiency rating is a number from 0 to 100 and is a method of evaluating structural adequacy and safety, serviceability, and functional obsolescence. The Office of Bridge Maintenance has determined that any structure with a sufficiency rating less than 50 should be replaced rather than improved.

Existing 2000 traffic volumes along this section of roadway are approximately 4,650 vehicles per day (VPD). Future volumes are expected to be approximately 5,300 VPD in 2006; and 8,000 VPD in 2026 with 15 % trucks.

Replacing this bridge will also bring it up to current AASHTO geometric design standards and in doing so will improve the operation and safety of this roadway.

PROJECT CONCEPT REPORT

Description of the proposed project: *The proposed project would consist of replacing the existing bridge and approaches on SR 74 at the CSX Railroad (639456G). The existing 2 lane bridge is 160 feet long and 33.8 feet wide and has 1 main span-52' long and 4 approach spans- each 27' feet in length. The proposed bridge will be 44 feet wide, consisting of two 12-foot lanes and two 10-foot shoulders. The proposed bridge is expected to be approximately 160 feet in length . The existing approach roadway has 2 lanes with rural shoulders on an existing right-of-way of 80-140 feet. The proposed approaches would consist of two 12-foot lanes and two 10-foot shoulders, 2 feet of which will be paved. An onsite detour will be constructed to accommodate traffic during construction. Additional right-of-way acquisition on the east side of the road is anticipated. The total length of bridge and approaches is approximately 1500 feet (0.29 miles).*

Is the project located in a Non-attainment area? __X__ **Yes** ____ **No**

PDP Classification: Major_____ Minor___X___

PDP Designation: Full Oversight ( ), Exempt (X), State Funded ( ), or Other ( )

Functional Classification: *Rural Minor Arterial*

U.S. Route Number(s): N/A **State Route Number(s):** 74

Traffic (AADT):

Current Year: (2006) 5,300 Design Year: (2026) 8000

Existing design features:

- Typical Section: Two, 12' Lanes with grassed shoulders and ditches
- Posted Speed: 55 mph Maximum degree of curvature: N/A
- Maximum grade: 6.00% Mainline
- Width of right of way: Varies 80'-105'
- Major structures:
  - *33.8' x 160' bridge over CSX Railroad(639456G) on SR 74.*
    Structure ID: 077-0025-0 Sufficiency rating: 41.96
- Major interchanges or intersections along the project: N/A
- Existing length of roadway segment: 0.29 mi.
- Road inventory mile post: 002.40

- **Proposed Design Features:**

- Proposed typical section(s): *The proposed roadway will consist of two 12' lanes with 2' paved shoulder and 8' grassed shoulders with side slopes*
- Proposed Design Speed Mainline: 55 mph
- Proposed Maximum grade Mainline: 5.5% Maximum grade allowable: 7.0%
- Proposed Maximum grade Side Street: *N/A* Maximum grade allowable: *N/A*
- Proposed Maximum grade driveway: 10% Maximum grade allowable: 15%
- Proposed Maximum degree of curve: 1°00'00" Maximum degree allowable: 5°15'00"
- Right of Way
  - Width: *Varies from existing to 200'*
  - Easements: Temporary( ), Permanent(X), Utility( ), Other( ).
  - Type of access control: Full( ), Partial( ), By Permit(X), Other( ).
  - Number of parcels: 7 Number of displacements:
    - Business: 0
    - Residences: 1
    - Mobile Homes: 0
    - Other: 0
- Structures:
  - Bridges: *The proposed bridge will be approximately 160' long and 44' wide.*
  - Retaining Walls: *None*
- Major intersections and interchanges: N/A

- Traffic control during construction: *A temporary onsite detour will be constructed 52' (CL. To CL.) east of the existing bridge centerline to handle traffic during the removal and construction of the proposed bridge. The proposed detour length will be approximately 0.29 miles.*
- Design Exceptions to controlling criteria anticipated:

	UNDETERMINED	YES	NO
HORIZ ALIGNMENT:	( )	( )	(X)
ROADWAY WIDTH:	( )	( )	(X)
SHOULDER WIDTH:	( )	( )	(X)
VERTICAL GRADES	( )	( )	(X)
CROSS SLOPES:	( )	( )	(X)
STOPPING SIGHT DISTANCE:	( )	( )	(X)
SUPERELEVATION RATES:	( )	( )	(X)
HORIZONTAL CLEARANCE:	( )	( )	(X)
SPEED DESIGN:	( )	( )	(X)
VERTICAL CLEARANCE:	( )	( )	(X)

BRIDGE WIDTH:	( )	( )	(X)
BRIDGE STRUCTURAL CAPACITY:	( )	( )	(X)

- Design Variances: *None*
- **Environmental Concerns:** ***Environmental study under way***
- Level of Environmental Analysis:
  - **Are Time Saving Procedures Appropriate?** Yes (X), No ~~(X)~~
  - Categorical Exclusion Anticipated? Yes (X), No ( )
  - **Environmental Assessment/Finding of No Significant Impact:** Yes ( ), No (X)
  - Environmental Impact Statement (EIS): Yes ( ), No (X)

- **Utility Involvements:**
  - Telephone: *Bellsouth*
  - **Power:** *Georgia Power*
  - Water/Sewer: *Coweta Co.Water*
  - **Cable TV: Owner to be determined**

Project Responsibilities:

- **Design:** ***Transportation Systems Design, Inc. (TSD)***
- Right of way acquisition: *GDOT*
- **Relocation of utilities:** ***Coweta County is responsible for reimbursable utilities. LGPA signed 7-12-99.***
- **Letting to contract:** *GDOT*
- Supervision of construction: *GDOT*
- **Providing material pits:** ***Contractor***
- Providing detours: *TSD, Inc. provides detour plan, Contractor to construct it*

Coordination:

- Concept Meeting date(Minutes Attached): *March 21, 2003*
- **P.A.R. meetings, dates, and results:** ***None anticipated***
- FEMA, USCG and/or TVA: *None anticipated*
- **Public involvement:** ***None anticipated***
- Local government comments:
- **Other projects in the area:** ***None***
- Other coordination to date: *None*

Scheduling – Responsible Parties' Estimate

Time to complete the environmental process:	6 Months
Time to complete preliminary construction plans:	4 Months
Time to complete right of way plans:	2 Months
Time to complete the section 404 permit:	3 Months
Time to complete final construction plans:	3 Months
Time to complete ~~the purchase~~ right-of-way:	9 Months
Other major items that will affect project schedule:	None

Other alternates considered:

Alternate 1 – *Permanently realigning SR 74/85. This alternate was not chosen because it would introduce unnecessary compound curves and create an undesirable roadway alignment. This situation would not serve driver expectancy and might increase the accident rate in the area. Also, a permanent realignment would require the acquisition of additional right-of-way. The preferred alternate would require minimal right-of-way.*

Alternate 2 –*Replace the bridge on existing location and constructing a temporary detour bridge to the west of the existing bridge centerline to handle traffic. This alternate was not chosen because it suffers more potential right-of-way impacts along the length of the project.*

Alternate 3 – *Replace the bridge on existing location and provide an offsite detour. Two potential routes were identified. One alternate route utilizes Hardy Rd, Dead Oak Rd & Rising Star Rd, for a total distance of 3.1 miles. This route involves sharp turns without sufficient turning movement width for trucks and heavy vehicles. The second route identified utilizes Nixon Rd & Old HWY 85, for a total distance 3.4 miles. This route was determined to have insufficient pavement for the type of traffic which it would accommodate. Overall, it was determined that a reasonable detour does not exist.*

Alternate 4 – *Rehabilitate the existing bridge. This alternate was not chosen because the bridge is very narrow and has a high daily traffic volume. Its sufficiency rating is below 50, and it has been classified as functionally obsolete and requires replacement.*

Alternate 5 – *No build. Due to its low sufficiency rating, the bridge is obsolete and needs replacement.*

Comments: *It is recommended to construct the proposed bridge on existing location and provide a temporary onsite detour to the east of the proposed bridge. This alternate creates the least impacts to adjacent properties and it provides a smooth geometric alignment.*

Attachments:

1. Cost Estimates:
    a. Construction including E&C
    b. Right of Way, and
    c. Utilities.
2. ~~Sketch~~ location map,
3. Typical sections,
4. Bridge Inventory
5. Concept Meeting Minutes
6. Location and Design Notice
7. Preliminary Pavement Design
8. Traffic Counts

PRELIMINARY COST ESTIMATE

PROJECT NUMBER: BRST-074-1(49), PI 333175 COUNTY: Coweta

DATE:01.28.2003 ESTIMATED LETTING DATE: Jul-05

PREPARED BY: LT PROJECT LENGTH: 0.29

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

PROJECT COST			
A. RIGHT-OF-WAY:			
1. PROPERTY (LAND & EASEMENT) 1.27 AC		$	32000
2. DISPLACEMENTS; RES: 1, BUS: 0, M.H.: 0		$	45000
3. OTHER COST (ADM./COST, INFLATION)		$	1,600
NUMBER OF YEARS	1		
	SUBTOTAL: A	$	**78,600**
B. REIMBURSABLE UTILITIES:			
1. RAILROAD		$	30000
2. TRANSMISSION LINES		$	
3. SERVICES		$	100000
	SUBTOTAL: B	$	**130,000**
C. CONSTRUCTION:			
1. MAJOR STRUCTURES			
a. BRIDGES (160' X 47.25'X $75)	7560		567,000
		$	567,000
		$	
	SUBTOTAL: C-1.a	$	567,000
b. OTHER			
		$	-
		$	
	SUBTOTAL: C-1	$	**567,000**
2. GRADING AND DRAINAGE:			
a. EARTHWORK (Mainline)			
Borrow	11766	$	88,245
Excavation	1320		9,900
	SUBTOTAL: C-2a	$	98,145
b. EARTHWORK (Detour)			
Borrow	10902	$	81,765
Excavation	470		3,525
	SUBTOTAL: C-2b	$	85,290

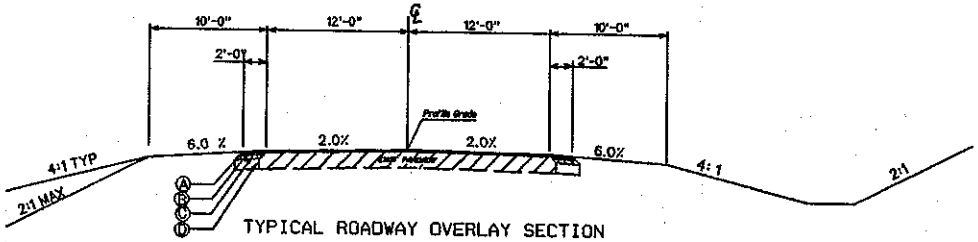
c.. DRAINAGE			
1) Side Drain Pipe	170	$	4,590
2) Storm drain pipe	20	$	880
3) Longitudinal System (incl. catch basins)		$	-
4) Flared End Sections 18" side drain	14	$	5,642
5) Flared End Section 24"storm drain	2	$	1,132
6)Temporary Pipe Slope Drain	450	$	4,500
	SUBTOTAL: C-2.c	$	16,744
	SUBTOTAL: C-2	$	**200,179**
3. BASE AND PAVING:			
a. AGGREGATE BASE CRS	1463	$	19,019
b. ASPHALT PAVING (Mainline & Cross-Roads):			
19 mm Superpave	51	$	1,887
25 mm Superpave	152	$	5,016
9.5 mm Superpave	218	$	8,066
Tack Coat	59	$	59
	SUBTOTAL: C-3.b	$	15,028
c. ASPHALT PAVING (Onsite detour):			
19 mm Superpave	304	$	11,248
25 mm Superpave	914	$	30,162
9.5 mm Superpave	187	$	6,919
Tack Coat	291	$	291
d. AGGREGATE BASE CRS	1254	$	16,302
	SUBTOTAL: C-3.c	$	64,922
e. OTHER (Leveling,Milling, etc.)		$	1000
f. AGGREGATE SURFACE COURSE		$	-
	SUBTOTAL: C-3	$	**99,969**

4. EROSION CONTROL (Mainline)			
a. SILT FENCE			
1. TYPE A	250	$	875
2. TYPE B	1800	$	4,680
3. TYPE C	900	$	4,770
		$	
b. RIP RAP	200	$	6,000
c. PLASTIC FILTER FABRIC	200	$	1,160
d. PERMANENT SOIL REINFORCING MAT	6410	$	32,050
e.MULCH	50		21,650
f.PERMANENT GRASS	150		6,300
h.TEMPORARY GRASS	22		726
	SUBTOTAL: C-4a	$	**78,211**
EROSION CONTROL (Detour)			
e. SILT FENCE			
1. TYPE A	200	$	700
2. TYPE B	1500	$	3,900
3. TYPE C	800	$	4,240
		$	8,840
f. RIP RAP	150	$	4,500
g. PLASTIC FILTER FABRIC	150	$	870
h. PERMANENT SOIL REINFORCING MAT		$	-
	SUBTOTAL: C-4b		**23,050**
	SUBTOTAL: C-4	$	**101,261**
5 TRAFFIC CONTROL		$	20000
CLEARING&GRUBBING			10000
	SUBTOTAL: C-5	$	**30,000**
6. MISCELLANEOUS:			
a. LIGHTING		$	
b. SIGNING - MARKING		$	2000
c. GUARDRAIL			
W Beam	680	$	8,160
T Beam	120	$	4,800
Anchors TYPE 12	2	$	3,200
TYPE 1	2	$	900
	SUBTOTAL: C-6.c	$	17,060
d. SIDEWALK		$	
e. MEDIAN / SIDE BARRIER		$	
f. APPROACH SLABS	293	$	26,370
g. REMOVAL			
Bridges		$	20000
	SUBTOTAL: C-6.g	$	20,000
h. Detour bridge	4360	$	91,560
	SUBTOTAL: C-6	$	**156,990**
7. SPECIAL FEATURES			
	SUBTOTAL: C-7	$	-

SUMMARY		
A. RIGHT-OF-WAY	$	78,600
B. REIMBURSABLE UTILITIES	$	130,000
C. CONSTRUCTION		
1. MAJOR STRUCTURES	$	567,000
2. GRADING AND DRAINAGE	$	200,179
3. BASE AND PAVING	$	99,969
4. EROSION CONTROL	$	101,261
5. LUMP ITEMS	$	30,000
6. MISCELLANEOUS	$	156,990
7. SPECIAL FEATURES	$	-
SUBTOTAL CONSTRUCTION COST	$	1,155,399
INFLATION (5% PER YEAR)	$	118,428
NUMBER OF YEARS 2		
E. & C. (10%)	$	127,383
TOTAL CONSTRUCTION COST	$	**1,401,210**
DETOUR COST (for information only)	$	265,822
GRAND TOTAL PROJECT COST	$	**1,609,810**

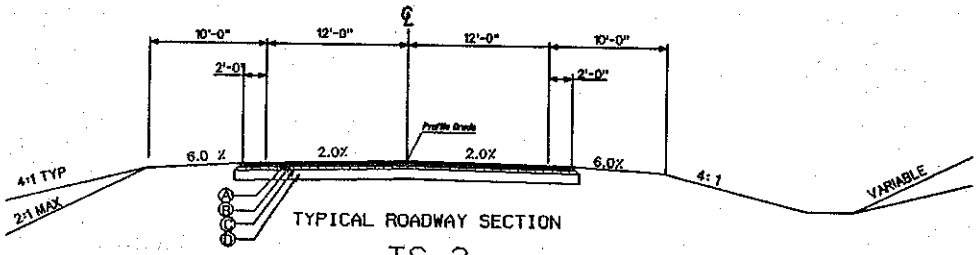
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	BRST-074-1(49)		

TS-1



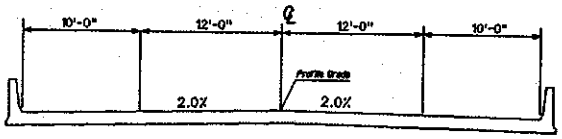
TYPICAL ROADWAY OVERLAY SECTION

TS-2



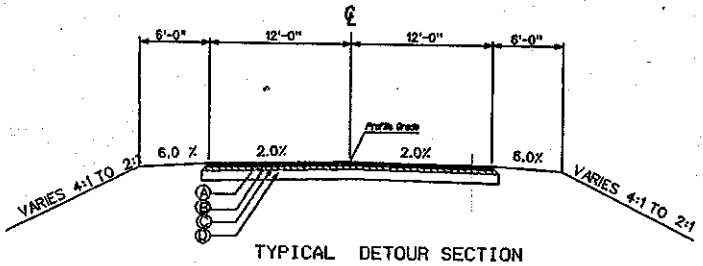
TYPICAL ROADWAY SECTION

TS-3



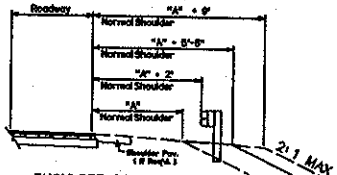
BRIDGE SECTION

TS-4



TYPICAL DETOUR SECTION

SLOPE CONTROLS		
SLOPE	CUT	FILL
4:1	0-4'	0-10'
3:1	4'-6'	--
2:1	OVER 10	OVER 10



SHOULDER DETAIL FOR GUARDRAIL
SEE PLAN FOR LOCATION
SEE GA STD 4061 OR 4062 FOR DETAILS
NOT TO SCALE

ALLOWABLE RANGES TABLE

FOR THIS PROJECT, CROSS SLOPES THAT ARE ADJUSTED TO "BEST FIT" EXISTING PAVEMENT SLOPES ARE SUBJECT TO THE FOLLOWING LIMITS:

A. NORMAL CROWN

SECTION WITH GRADES 0.5% OR GREATER	SECTION WITH GRADES LESS THAN 0.5%
0.0150 FT/FT - MINIMUM	0.0156 FT/FT - MINIMUM
0.0200 FT/FT - DESIRABLE	0.0200 FT/FT - DESIRABLE
0.0250 FT/FT - MAXIMUM	0.0300 FT/FT - MAXIMUM

B. SUPERELEVATION RATE

S.E. RATE SHOWN ON PLANS OR SE RATE EXISTING IN FIELD, WHICHEVER IS GREATER.

C. SUPERELEVATION TRANSITION LENGTH. (LENGTH FROM FLAT POINT TO FULL SE)

	RATE OF CHANGE	CORRESPONDING DIFFERENCE IN GRADE BETWEEN PIVOT POINT AND EDGE OF PAVEMENT
MINIMUM	1:150	0.67%
DESIRABLE	1:200	0.50%
MAXIMUM	1:300	0.33%

LENGTH SHALL BE SET TO AVOID CREATING A FLAT GUTTER GRADE ON LOW SIDE AND TO AVOID FLAT CROSS SLOPES AT OR NEAR THE LOW POINT OF VERTICAL CURVES.

D. POSITIONING OF SUPERELEVATION TRANSITION LENGTH ON SIMPLE CURVES

50% OF TRANSITION INSIDE CURVE - MAXIMUM
33% OF TRANSITION INSIDE CURVE - DESIRABLE
20% OF TRANSITION INSIDE CURVE - MINIMUM

NOTE: CROWN WIPE-OUT SHALL BE AT THE SAME RATE AS THE SE TRANSITION.

E. SMOOTHING OF BREAKS IN EDGE PROFILE AT BEGIN AND END OF TRANSITION SHALL BE ACCOMPLISHED BY VERTICAL CURVE WITH A MINIMUM LENGTH (IN FEET) EQUAL TO THE SPEED DESIGN (IN MPH).

REQUIRED PAVEMENT

Ⓐ 9.5 MM ASPHALTIC CONCRETE SUPERPAVE -135 LB/SY
Ⓑ 19 MM RECYCLED ASPHALTIC CONCRETE SYPERPAVE-220 LB/SY
Ⓒ 25 MM RECYCLED ASPHALTIC CONCRETE SYPERPAVE-660 LB/SY
Ⓓ GRADED AGGREGATE BASE, 8"
Ⓔ ASPHALTIC CONCRETE LEVELING, AS REQ'D

REQUIRED SUPERPAVE MIX DESIGN: LEVEL B FOR ROADWAY SURFACE
REQUIRED SUPERPAVE MIX DESIGN: LEVEL A FOR SHOULDER SURFACE

NOT TO SCALE

TSD
TRANSPORTATION SYSTEMS DESIGN, INC.
ENGINEERS & SURVEYORS
[illegible]
ATLANTA GA 30338
(770) 396-4877

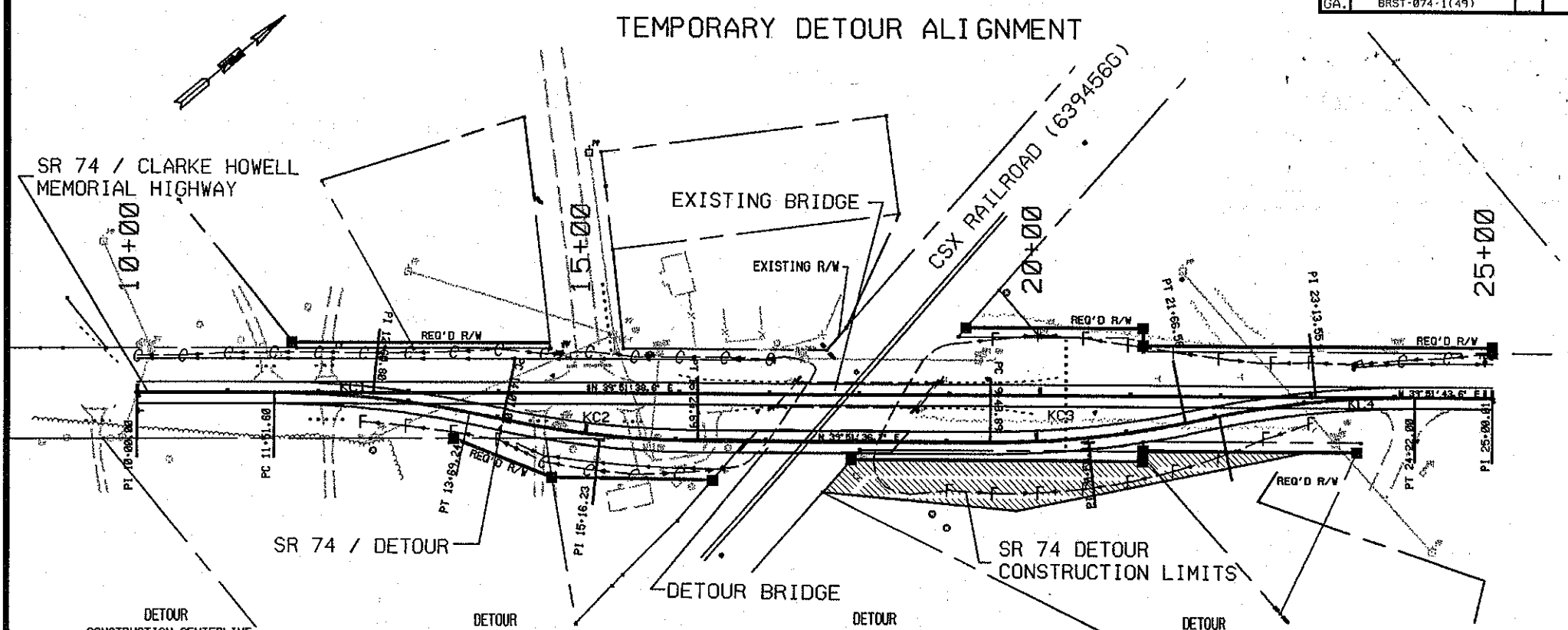
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE OF CONSULTANT TASK FORCE

DATE	REVISIONS	DATE	REVISIONS

GEORGIA
DEPARTMENT OF TRANSPORTATION
CONCEPT TYPICAL SECTIONS
PROJECT BRST-074-1(49)
COUNTY: COWETA
DATE 01.28.03 SH 1 OF 1

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	BRST-074-1(49)		

TEMPORARY DETOUR ALIGNMENT



DETOUR CONSTRUCTION CENTERLINE KC1

DEGREE = 5°22'47.6"	DELTA = 11°42'32.3"
RADIUS = 1065.00	LENGTH = 217.64
TANGENT = 109.20	LENGTH OF CORD = 217.26
EXTERNAL = 5.58	S.E. RATE = %
PC STA = 11+51.60	DB = N 39°51'43.6" E
NORTH 1182753.19	EAST 2176149.17
PI STA = 12+60.80	
NORTH 1182837.01	EAST 2176219.16
PT STA = 13+69.24	DA = N 51°34'15.8" E
NORTH 1182904.88	EAST 2176304.71

DETOUR CONSTRUCTION CENTERLINE KC2

DEGREE = 5°22'47.6"	DELTA = 11°42'38.7"
RADIUS = 1065.00	LENGTH = 217.68
TANGENT = 109.22	LENGTH OF CORD = 217.30
EXTERNAL = 5.59	S.E. RATE = %
PC STA = 14+07.01	DB = N 51°34'15.8" E
NORTH 1182928.36	EAST 2176334.29
PI STA = 15+16.23	
NORTH 1182996.24	EAST 2176419.85
PT STA = 16+24.69	DA = N 39°51'37.2" E
NORTH 1183000.08	EAST 2176489.85

DETOUR CONSTRUCTION CENTERLINE KC3

DEGREE = 5°22'47.6"	DELTA = 11°42'37.4"
RADIUS = 1065.00	LENGTH = 217.67
TANGENT = 109.22	LENGTH OF CORD = 217.29
EXTERNAL = 5.59	S.E. RATE = %
PC STA = 19+48.89	DB = N 39°51'38.4" E
NORTH 1183328.94	EAST 2176697.64
PI STA = 20+58.11	
NORTH 1183412.78	EAST 2176767.64
PT STA = 21+66.56	DA = N 28°09'01.0" E
NORTH 1183509.07	EAST 2176819.17

DETOUR CONSTRUCTION CENTERLINE KC4

DEGREE = 5°22'47.6"	DELTA = 11°42'37.3"
RADIUS = 1065.00	LENGTH = 217.67
TANGENT = 109.22	LENGTH OF CORD = 217.29
EXTERNAL = 5.59	S.E. RATE = %
PC STA = 22+04.33	DB = N 28°09'01.0" E
NORTH 1183542.37	EAST 2176836.98
PI STA = 23+13.55	
NORTH 1183638.67	EAST 2176888.51
PT STA = 24+22.00	DA = N 39°51'38.4" E
NORTH 1183722.50	EAST 2176958.51

NOT TO SCALE

TSD
TRANSPORTATION SYSTEMS DESIGN, INC.
ENGINEERS & SURVEYORS
800 CHARLES DONOHOO ROAD
BLDG. 1500, SUITE 100
ATLANTA, GA. 30308
(770) 399-4977

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE OF CONSULTANT TASK FORCE

DATE	REVISIONS	DATE	REVISIONS

GEORGIA
DEPARTMENT OF TRANSPORTATION

PROJECT BRST-074-1(49)
COUNTY: COWETA
DATE 05.07.02 SH 1 OF 1

BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

Structure ID: 077-0025-0 **Coweta** SUFF. RATING 41.96

Location & Geography

*	Structure I.D.No:	077-0025-0
200	Bridge Information	07
* 6A	Feature Int:	CSX RAILROAD (639456G)
* 6B	Critical Bridge:	0
* 7A	Route Number Carried:	SR00074
* 7B	Facility Carried:	SR 74
* 9	Location:	3.4 MI S OF SENOIA
2	DOT District:	3
207	Year Photo:	1999
* 91	Inspection Frequency:	24 Date: 10/23/2001
92A	Fract Crit Insp Freq:	00 Date: 02/01/1901
92B	Underwater Insp Freq:	00 Date: 02/01/1901
92C	Other Spc. Insp Freq:	00 Date: 02/01/1901
* 4	Place Code:	00000
* 5	Inventory Route (O/U):	1
	Type:	3
	Designation:	1
	Number:	00074
	Direction:	0
* 16	Latitude: 33-15.1	MMS Prefix: SR
* 17	Longitud 84-33.6	MMS Suffix: 00 MP: 5.16
98	Border Bridge: 000	%Shared: 00
99	ID Number:	000000000000000
* 100	STRAHNET:	0
12	Base Highway Network:	1
13A	LRS Inventory Route:	771007400
13B	Sub Inventory Route:	0
* 101	Parallel Structure:	N
* 102	Direction of Traffic:	2
* 264	Road Inventory Mile Post:	002.40
* 208	Inspection Area: 03	Initials: BDH
	Engineer's Initial:	bem

* Location I.D. No.: 077-00074D-005.16E

* 104	Highway System:	0
* 26	Functional Classification:	06
* 204	Federal Route Type:	F No.: 00741
105	Federal Lands Highway:	0
* 110	Truck Route:	0
206	School Bus Route:	1
217	Benchmark Elevation:	0000.00
218	Datum:	0
* 19	Bypass Length:	03
* 20	Toll:	3
* 21	Maintenance:	01
* 22	Owner:	01
* 31	Design Load:	2
37	Historical Significance:	5
205	Congressional District:	03
27	Year Constructed:	1950
106	Year Reconstructed:	0000
33	Bridge Median:	0
34	Skew:	41
35	Structred Flared:	0
38	Navigation Control:	N
213	Special Steel Design:	0
267	Type of Paint:	5
* 42	Type of Service on:	1
	Under:	2
214	Movable Bridge:	0
203	Type Bridge:	O-N-M-O
259	Pile Encasement:	2
* 43	Structure Type Main:	3 02
45	No. Spans Main:	001
44	Structure Type Appr:	4 02
46	No. Spans Appr:	0004
226	Bridge Curve Horz:	0 Vert: 1
111	Pier Protection:	0
107	Deck Structure Type:	1
108	Wearing Surface Type:	6
	Membrance:	0
	Protection:	0

Signs & Attachments

225	Expansion Joint Type:	02
242	Deck Drains:	1
243	Parapet Location:	0
	Height:	0.00
	Width:	0.00
238	Curb:	1.00 1
239	Handrail:	1 1
* 240	Median Barrier Rail:	0
241	Bridge Median Height:	0.00
	Width:	0.00
* 230	Guardrail Loc Dir Rear:	3
	Fwrd:	3
	Oppo Dir Rear:	0
	Fwrd:	0
244	Approach Slab:	3
224	Retaining Wall:	0
233	Posted Speed Limit:	55
236	Warning Sign:	1
234	Delineator:	1
235	Hazard Boards:	1
237	Utilities Gas:	00
	Water:	00
	Electric:	00
	Telephone:	00
	Sewer:	00
247	Lighting Street:	0
	Naviagtion:	0
	Aerial:	0
* 248	County Continuity No.:	00

BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

Structure ID: 077-0025-0 **Coweta** SUFF. RATING 41.96

Programming Data

201 Project No.: F-074-1 (1)
202 Plans Available: 4
249 Prop. Proj. No. BRST-074-1 (49)
250 Approval Status: 0000
251 P.I. No.: 333175-
252 Contract Date: 02/01/2004
260 Seismic No.: 00000
75 Type Work: 34 1
94 Bridge Imp. Cost $ 111
95 Roadway Imp. Cos $ 236
96 Total Imp Cost: $ 435
76 Imp. Length: 001480
97 Imp. Year: 1990
114 Future ADT: 008100 Year: 2020

Hydraulic Data

215 Waterway Data
Highwater Elev.: 0000.0 Year: 1900
Avg. Streambed Elev.: 0000.0 Freq.: 00
Drainage Area: 00000
Area Of Opening: 000000
113 Scour Critical: N
216 Water Depth: 00.0 Br. Height: 00.0
222 Slope Protection: 0
221 Spur Dikes Rear: 0 Fwrd: 0
219 Fender System: 0
220 Dolphin: 0
223 Culvert Cover: 000
Type: 0
No. Barrels: 0
Width: 0.00 Height: 0.00
Length: 0 Apron: 0
* 265 U/W Insp. Area: 0 Diver: ZZZ

* Location I.D. No.: 077-00074D-005.16E

Measurements

* 29 ADT: 005400 Year: 2000
109 % Trucks: 15
* 28 Lanes On: 02 Under: 00
210 No. Tracks On: 00 Under: 01
* 48 Max. Span Length: 0052
* 49 Structure Length: 160
51 Br. Rwdy. Width: 27.80
52 Deck Width: 33.80
* 47 Tot. Horz. Cl: 27.80
50 Curb/Sdewlk Width: 2.00/2.00
32 Approach Rdwy Width: 027
* 229 Shoulder Width:
Rear Lt: 2.50 Type: 2 Rt: 2.50
Fwrd Lt: 2.50 Type: 2 Rt: 2.50
Pavement Width:
Rear: 22.00 Type: 2
Fwrd: 22.00 Type: 2
Intersection Rear: 1 Fwrd: 1
36 Safety Features Br. Rail: 2
Transition: 2
App. G. Rail: 1
App. Rail End: 1
53 Minimum Cl.Over: 99 ' 99 "
Under: R 21 ' 06 "
* 228 Min. Vertical Cl
Act. Odm Dir: 99 ' 99 "
Oppo. Dir: 99 ' 99 "
Posted Odm. Dir: 00 ' 00 "
Oppo. Dir: 00 ' 00 "
55 Lateral Undercl. Rt: R 11.30
56 Lateral Undercl. Lt: 0.00
* 10 Max Min Vert Cl: 99 ' 99 " Dir: 0
39 Nav Vert Cl: 000 Horz: 0000
116 Nav Vert Cl Closed: 000
245 Deck Thickness Main: 6.50
Deck Thick Approach: 6.50
246 Overlay Thickness: 4.00
212 Year Last Painted: Sup: 1999 Sub: 1999

Ratings

65 Inventory Rating Method: 1
63 Inventory Rating Method: 1
66 Inventory Type: 2 Rating: 13
64 Operating Type: 2 Rating: 29
231 Calculated Loads
H-Modified: 15 1
HS-Modified: 25 0
Type 3: 27 1
Type 3s2: 40 0
Timber: 33 1
Piggyback: 40 0
261 H Inventory Rating: 10
262 H Operating Rating: 15
67 Structural Evaluation: 2
58 Deck Condition: 7
59 Superstructure Condition: 7
* 227 Collision Damage: 0
60A Substructure Condition: 7
60B Scour Condition: N
60C Underwater Condition: N
71 Waterway Adequacy: N
61 Channel Protection Cond: N
68 Deck Geometry: 2
69 UnderClr. Horz/Vert: 5
72 Appr. Alignment: 8
62 Culvert: N

Posting Data

70 Bridge Posting Required: 3
41 Struct Open, Posted, Cl: P
* 103 Temporary Structure: T
232 Posted Loads H-Modified: 15
HS-Modified: 00
Type 3: 27
Type3s2: 00
Timber: 33
Piggyback: 00
253 Notification Date 02/01/1901
253 Fed Notify Date: 02/01/1901 2

TRANSPORTATION SYSTEMS DESIGN, INC.

March 21, 2003

RE: BRST-074-1(49), Coweta County – Concept meeting minutes
P.I. No. 333175
TSD Proj. No. 0108.05 WO4

Present:

Anna Shmukler, PE	770-396-4877	ashmukler@tsdengineers.com	TSD, Inc.
Larisa Tabakhova	770-396-4877	ltabakhova@tsdengineers.com	TSD, Inc.
Don Conway	770-254-3785		Coweta Co.
Melanie Mikko	770-254-2393		BellSouth
Mike Cope	770-254-2406		BellSouth
Reg James	678-423-0603		PAC, LLC
Allen Rhineheat	770-254-2820		Coweta County School System
Kerry Core	706-646-6548	kerrycore@dot.state.ga.us	GDOT Utilities, District 3

Minutes:

1. The meeting opened with introductions from everyone that was present.
2. Anna started with a brief description of the project, and listed alternatives, which were considered during concept preparation.
3. Kerry raised a question concerning utility relocation and potential impacts to R/W.
4. Allen noted that this stretch of SR74 is a part of school bus route. School busses cross the bridge 6 times a day, and we need to consider that in our staging design.
5. Kerry raised a question about the intersections of SR-74 at Old Highway 85 and at Hardy Rd. We should contact traffic operations office to receive traffic counts for these intersections to determine potential need for turn lanes.
6. Kerry request that we need include $ 100,000 in our cost estimate for reimbursable utilities, and $ 30,000 for railroad impact.
7. Group determined concept is constructible and should proceed with further development.
8. Meeting was adjourned.

NOTICE OF LOCATION AND DESIGN APPROVAL

BRST-074-1(49), Coweta County
P. I. NUMBER 333175

Notice is hereby given in compliance with Georgia Code 22-2-109 that the Georgia Department of Transportation has approved the Location and Design of this project.

The date of location approval is _____.

The project is located in Coweta County on SR 74 at the CSX Railroad (639456G). The project is located in Land District 1 in Land Lots 266.

The project consists of the replacement of the structurally deficient bridge on SR 74 over the CSX Railroad. The proposed bridge structure will be built on existing location with a detour bridge to the east of the existing bridge.

Drawings or maps or plats of the proposed project, as approved, are on file and are available for public inspection at the Georgia Department of Transportation:

Mr. Kenneth D. Crabtree Jr. – Area 6 Engineer
Email address: ken.crabtree@dot.state.ga.us
1107 Hogansville Road
LaGrange, Georgia 30241
706-845-4115

Any interested party may obtain a copy of the drawings or maps or plats or portions thereof by paying a nominal fee and requesting in writing to:

James B. Buchan, P.E.
Office of Consultant Design
Ben.Buchan@dot.state.ga.us
No. 2 Capital Square
Atlanta, Georgia 30334
404-463-6265

Any written request or communication in reference to this project or notice MUST include the Project and P. I. Numbers as noted at the top of this notice.

Department of Transportation
State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE BRST-074-1(49), Coweta County
P.I. # 333175

OFFICE Environment/Location

DATE May 24, 2002

FROM Harvey D. Keepler, State Environment/Location Engineer

TO James B. Buchan, P.E., State Consultant Design Engineer
Attn. Otis Clark

SUBJECT Traffic Assignments for S.R. 74 @ CSX Railroad (639456G) 3.4 Mi S. of Senoia in Coweta County.

We are furnishing estimated Traffic Assignments for the above project as below:

2000 AADT = 4650
2006 AADT = 5300
2026 AADT = 8000
K = 10%
D = 60%
24 HR. T. = 15%
S.U. = 6%
COMB. = 9%

If you have any questions concerning this information please contact Abby Ebodaghe at (404) 699-4460.

HDK/AFE

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF CONSULTANT DESIGN

PROJECT CONCEPT REPORT

Project Number: BRST-074-1(49)
County: Coweta
P.I. Number: 333175

Federal Route Number: N/A
State Route Number: 74

Recommendation for approval:

DATE 6-19-03 — Project Manager

DATE 6-19-03 MBH — Brent A. Story MBH
State Consultant Design Engineer

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

DATE — State Transportation Planning Administrator

DATE — Office of Financial Management Administrator

DATE — State Environmental / Location Engineer

DATE — State Traffic Safety and Design Engineer

DATE — District Engineer

DATE — Project Review Engineer

6-27-03
DATE — Paul V. Liles Jr.
State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF CONSULTANT DESIGN

PROJECT CONCEPT REPORT

Project Number: BRST-074-1(49)
County: Coweta
P.I. Number: 333175

Federal Route Number: N/A
State Route Number: 74

Recommendation for approval:

DATE 6-19-03 _____ Project Manager

DATE 6-19-03 mRA _____ State Consultant Design Engineer

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

7/2/03 _____ State Transportation Planning Administrator
DATE

_____ Office of Financial Management Administrator
DATE

_____ State Environmental / Location Engineer
DATE

_____ State Traffic Safety and Design Engineer
DATE

_____ District Engineer
DATE

_____ Project Review Engineer
DATE

_____ State Bridge & Structural Design Engineer
DATE

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF CONSULTANT DESIGN

PROJECT CONCEPT REPORT

Project Number: BRST-074-1(49)
County: Coweta
P.I. Number: 333175

Federal Route Number: N/A
State Route Number: 74

Recommendation for approval:

DATE 6-19-03 — Project Manager

DATE 6-19-03 mWA — State Consultant Design Engineer

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

DATE — State Transportation Planning Administrator

DATE 6/23/03 — Office of Financial Management Administrator

DATE — State Environmental / Location Engineer

DATE — State Traffic Safety and Design Engineer

DATE — District Engineer

DATE — Project Review Engineer

DATE — State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF CONSULTANT DESIGN

PROJECT CONCEPT REPORT

Project Number: BRST-074-1(49)
County: Coweta
P.I. Number: 333175

Federal Route Number: N/A
State Route Number: 74

Recommendation for approval:

DATE 6-19-03 — Project Manager

DATE 6-19-03 mBA — State Consultant Design Engineer

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

DATE — State Transportation Planning Administrator

DATE — Office of Financial Management Administrator

DATE — State Environmental / Location Engineer

DATE — State Traffic Safety and Design Engineer

6/23/03 DATE — District Engineer

DATE — Project Review Engineer

DATE — State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: **P.I. No. 333175**

OFFICE: Environment/Location

DATE: July 7, 2003

FROM: Harvey D. Keepler, State Environmental/Location Engineer

TO: Meg Pirkle, Assistant Director of Preconstruction

SUBJECT: **PROJECT CONCEPT REPORT**
BRST-074-1(49), Coweta County

The above subject concept report has been reviewed.

If you have any questions, please contact me at (404) 699-4401. Bridge built in 1950 and listed in Historic Bridge Survey as Not Eligible. Anticipate no adverse effect to railroad. CE – Public Involvement - None. Time saving procedures should be "Appropriate".

HDK/rtt

Attachment

cc: David Mulling, P.E.
Brent Story
Jill Baur

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF CONSULTANT DESIGN

PROJECT CONCEPT REPORT

Project Number: BRST-074-1(49)
County: Coweta
P.I. Number: 333175

Federal Route Number: N/A
State Route Number: 74

Recommendation for approval:

DATE 6-19-03 — Project Manager

DATE 6-19-03 mBA — State Consultant Design Engineer

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

DATE — State Transportation Planning Administrator

DATE — Office of Financial Management Administrator

6/27/03 DATE — State Environmental / Location Engineer

DATE — State Traffic Safety and Design Engineer

DATE — District Engineer

DATE — Project Review Engineer

DATE — State Bridge & Structural Design Engineer

Department of Transportation
State of Georgia

INTERDEPARTMENTAL CORRESPONDENCE

File: BRST-074-1(49) / Coweta County
P.I. No. 333175

Office: Traffic Safety & Design
Atlanta, Georgia
Date: June 25, 2003

From: PMAllen Phillip M. Allen, State Traffic Safety and Design Engineer

To: Meg Pirkle, Assistant Director of Preconstruction

Subject: Project Concept Report Review

We have reviewed the above referenced concept report for the proposed bridge replacement on SR 74 over CSX Railroad in Coweta County.

The Office of Traffic Safety & Design finds this report satisfactory for approval because it will improve safety and traffic operations within this area.

PMA/sz

Attachment (signature page)

Cc: Harvey Keepler, Environment/Location Engineer
Brent Story, State Consultant Design Engineer
Attention: Ted Cashin
Thomas Howell, District Engineer – Thomaston
Attention: David Millen, District Preconstruction Engineer
David Mulling, Engineer Services, w/ attachment
Joe Palladi, State Transportation Planning Administrator
Paul Liles, State Bridge & Structural Design Engineer
Kathy Bailey, TMC
General Files
Office Files

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF CONSULTANT DESIGN

PROJECT CONCEPT REPORT

Project Number: BRST-074-1(49)
County: Coweta
P.I. Number: 333175

Federal Route Number: N/A
State Route Number: 74

Recommendation for approval:

DATE 6-19-03 — Project Manager

DATE 6-19-03 mRA — State Consultant Design Engineer

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

DATE — State Transportation Planning Administrator

DATE — Office of Financial Management Administrator

DATE — State Environmental / Location Engineer

6-26-03 DATE — State Traffic Safety and Design Engineer

DATE — District Engineer

DATE — Project Review Engineer

DATE — State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF CONSULTANT DESIGN

PROJECT CONCEPT REPORT

Project Number: BRST-074-1(49)
County: Coweta
P.I. Number: 333175

Federal Route Number: N/A
State Route Number: 74

Recommendation for approval:

DATE 6-19-03 — Project Manager

DATE 6-19-03 MBA — Brent A. Story MBA
State Consultant Design Engineer

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

DATE — State Transportation Planning Administrator

DATE — Office of Financial Management Administrator

DATE — State Environmental / Location Engineer

DATE — State Traffic Safety and Design Engineer

DATE — District Engineer

6/24/03
DATE — David J. Mulling REW
Project Review Engineer

DATE — State Bridge & Structural Design Engineer