

D.O.T. 66

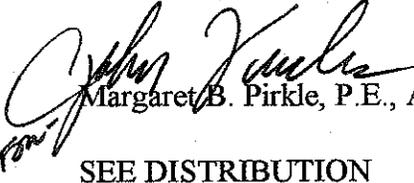
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE STP-0804(1) Carroll County
P. I. No. 650620

OFFICE Preconstruction

DATE October 30, 2002

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
Herman Griffin
Michael Henry
Phillip Allen
Marta Rosen
Paul Liles
Ben Buchan
Gerald Ross
Kent Sager
BOARD MEMBER

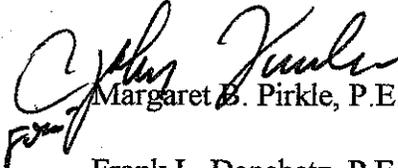
**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: STP-0804(1) Carroll County
P.I. No. 650620

OFFICE Preconstruction

DATE October 21, 2002

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

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

SUBJECT PROJECT CONCEPT REPORT

This project consists of drainage improvements along SR 16 between Columbia Road and US 27/SR 1 (including Tanyard Creek Branch). The total project length is 1.1 miles. The area is experiencing substantial flooding during heavy rainfall. The existing structures are inadequate and unable to accommodate the runoff. Excessive gutter spreads on SR 16 is a safety concern, as well as an undersized culvert at the creek. The existing roadway consists of a two lane urban/rural roadway with varying 24'-44' pavement width, grassed shoulders or concrete curb and gutter with and without sidewalks. State Route 16 is functionally classified as an urban minor arterial. Base year (2005) traffic is projected at 11,500 VPD and 2025 traffic is projected at 15,000 VPD.

The proposed construction will improve the drainage systems along SR 16 by adding curb and gutter along the entire project length and by upgrading and increasing the number of drainage structures. The profile of the existing roadway will be raised (5') at Tanyard Creek Branch to construct a larger box culvert (double 6' x 6'). The grade change and new drainage structure will prevent overtopping of the existing roadway in a 100-year storm event. Presently, a 10-year storm overtops the roadway by almost 2 feet. The limits of the grade change will extend 500'± in each direction from Tanyard Creek Branch. The proposed typical section will consist of a two lane urban roadway with 24' pavement width, curb and gutter and sidewalk. Turn lanes will be added as appropriate.

Traffic will be maintained on the existing road using staged construction, except for proposed grade change at Tanyard Creek Branch, which will be accomplished by detouring traffic on an off-site detour.

Frank L. Danchetz

Page 2

STP-0804(1) Carroll

October 21, 2002

Environmental concerns include requiring a COE 404 Permit; an Environmental Assessment will be prepared; possible historic properties; wetland impact at creek; a public hearing will be held; time saving procedures are not appropriate.

The estimated costs for this project are:

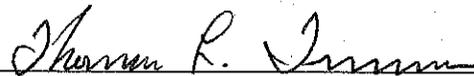
	<u>PROPOSED</u>	<u>APPROVED</u>	<u>PROG DATE</u>	<u>LET DATE</u>
Construction (includes E&C and inflation)	\$1,744,000	\$1,755,000	2005	05-04
Right-of-Way	\$1,671,000	\$1,670,000		
Utilities	LGPA	LGPA		

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

MBP:JDQ/cj

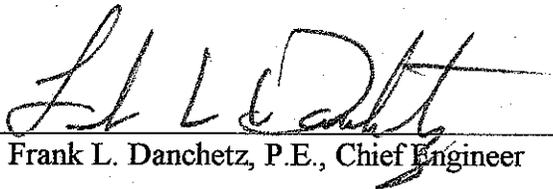
Attachment

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

FILE: STP-0804(1) Carroll
P.I. Number 650620

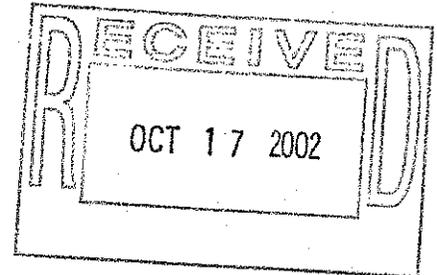
OFFICE: Engineering Services

DATE: October 16, 2002

FROM: David Mulling, Project Review Engineer *REW*

TO: Meg Pirkle, Assistant Director of Preconstruction

SUBJECT: **CONCEPT REPORT**



We have reviewed the concept report submitted October 10, 2002 by the letter from Gerald Ross dated October 9, 2002, and have no additional comments.

The costs for the project are:

Construction	\$1,377,875
Inflation	\$206,681
E&C	\$158,456
Reimbursable Utilities	\$469,000
Right of Way	\$1,670,000

REW

c: Gerald Ross, Attn.: Stanley Hill

SCORING RESULTS AS PER MOG 2440-2

Project Number: STP-0804(1)		County: Carroll		PI No.: 650620	
Report Date: October 9, 2002		Concept By: DOT Office: Road Design			
<input checked="" type="checkbox"/> Concept Stage		Consultant: URS Corporation			
Project Type: Choose One From Each Column		<input checked="" type="checkbox"/> Major <input type="checkbox"/> Minor	<input checked="" type="checkbox"/> Urban <input type="checkbox"/> Rural	<input type="checkbox"/> ATMS <input type="checkbox"/> Bridge Replacement <input type="checkbox"/> Building <input type="checkbox"/> Interchange Reconstruction <input type="checkbox"/> Intersection Improvement <input type="checkbox"/> Interstate <input type="checkbox"/> New Location <input type="checkbox"/> Widening & Reconstruction <input checked="" type="checkbox"/> 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

Office of Road and Airport Design

PROJECT CONCEPT REPORT

STP-0804(1)
CARROLL COUNTY
P.I. No.: 650620

Federal Route Number: N/A
State Route Number: 16

Prepared by:

DATE 9-26-02

Recommendation for approval:

DATE 9-27-02

DATE 10/12/02

URS

Consultant

Stanley Hill
Project Manager

Dorell M. B.
State Road and Airport 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

State Financial Management Administrator

DATE

State Environmental / Location Engineer

DATE

State Traffic Safety and Design Engineer

DATE

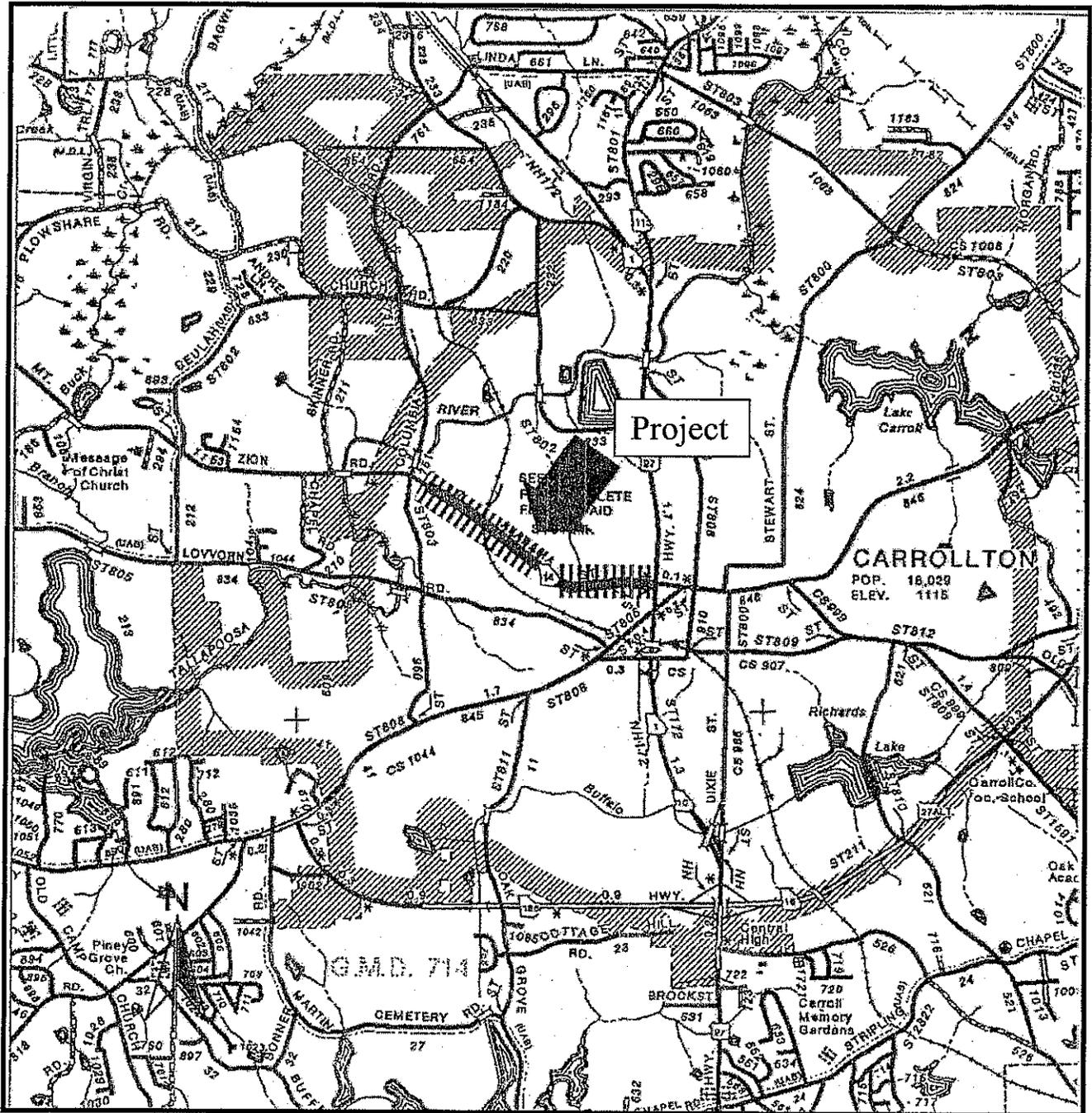
District Engineer

DATE

Project Review Engineer

DATE

State Bridge & Structural Design Engineer



PROJECT LOCATION MAP

Need and Purpose: Roadway project STP-0804(1) is proposed to improve roadway drainage along SR 16 between Columbia Road and US 27 including Tanyard Creek Branch. The area is experiencing substantial flooding during heavy rainfalls. The existing drainage structures are inadequate and unable to accommodate the runoff. Excessive gutter spreads on SR 16 is a safety concern, as well as an undersized culvert at the creek. In addition, the area is mixed use residential and commercial with an incomplete sidewalk network. This project will also improve pedestrian access by completing and upgrading the sidewalks, pedestrian street crossings and ADA compliance.

State Route 16 is functionally classified as an urban minor arterial. The posted speed limit along SR 16 is 35 mph. The Average Daily Traffic (ADT) along this section of roadway was 10,500 in 2000 with 4 percent trucks. Base year (2005) traffic is projected at 11,500 ADT and 2025 traffic is projected at 15,000 ADT. The project begins at CR 751/Columbia Road and ends at US 27/SR 1, a total project length of 1.1 miles.

This project will bring this segment of roadway up to current design standards and drainage guidelines, and in doing so will provide a safer operating environment, not only for vehicles, but pedestrians as well.

Description of the proposed project: The proposed project will improve the drainage systems along 1.1 miles of SR 16 by adding curb and gutter to the entire length and by upgrading and increasing the number of drainage structures. The existing typical section will also be upgraded to include sidewalks. At present there is an incomplete sidewalk network. The improved roadway will be reconstructed to a consistent 24 feet (plus turn lanes in some locations). The existing roadway width varies to almost 40 feet, but carries only two lanes of traffic. There is no apparent on street parking. This will allow more of the project, including sidewalks, to be constructed within the existing right of way.

The project will begin at CR 751/Columbia Road where curb and gutter and sidewalk will be added to the existing road width. From Columbia Road to Hammond Street, the improvements will be added to the outside of the existing pavement. In the next segment, sidewalk and curb and gutter will replace the extra width within a 40-44 foot wide roadway from Hammond Street to Burson Street. The antiquated and damaged drainage structures and pipes will be replaced along this same stretch. From Burson Street to the end of the project at King Street, 300 feet west of US27/SR1, the improvements will be added again to the outside of the existing pavement. Extensive right of way impacts may occur in this area. The cemetery on the south side of SR16 past Tanyard Creek Branch may require reduction in lane widths and sidewalk offsets to fit within the exist right of way. Some drainage structures would need to be added however.

The profile of the roadway is proposed to be raised at Tanyard Creek Branch in order for a larger box culvert (Double 6'x 6') to be constructed. It is estimated that the grade of the road needs to be raised 5 feet. This is needed in order to prevent overtopping of the existing roadway in a 100-year storm event. Presently, a 10-year storm overtops the roadway by almost 2 feet. The limits of the grade change section would extend approximately 500' each direction from the Tanyard Creek Branch. One business, a flower shop, will need to be acquired and a retaining wall will be needed to minimize impacts to an adjacent cemetery and an industrial building east of Tanyard Creek Branch. This area is a FEMA Zone A flood zone and will have to be modeled to determine a final solution.

Is the project located in a Non-attainment area? Yes No.

PDP Classification: Major , or Minor

Federal Oversight: Full Oversight , Exempt , State Funded , or Other

Functional Classification: Urban Minor Arterial

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

State Route Number(s): 16

Traffic (AADT): Current Year: (2005) 11,500 Design Year: (2025) 15,000

K = 10%

D = 60%

T = 2%

24 HR T = 4%

Existing design features:

- Typical Section: A 2 lane urban/rural roadway with varying 24-44 ft. pavement width, grassed shoulders or concrete curb and gutter with and without sidewalks.
- Posted speed 35 mph Maximum degree of curvature: 12.5 degrees
- Maximum grade: 6.3 % (SR 16)
- Width of right of way: 50-80 ft.
- Major structures: Double 3 x 3 foot culvert with a 36 inch pipe at Tanyard Creek Branch
- Existing length = 1.1 miles, beginning mile log 11.6, ending mile log 12.7, all in Carroll County.

Proposed Design Features:

- Proposed typical section(s): A 2 lane urban roadway with 24 ft. pavement width, curb and gutter and sidewalk. Turn lanes will be added as appropriate.
- Proposed Design Speed Mainline 35 mph
- Proposed Maximum grade Mainline 6.3 %
- Maximum grade allowable 8.5 %
- Proposed Maximum grade Side Street 9.5%
- Maximum grade allowable 9.5%
- Proposed Maximum grade driveway 15%
- Proposed Maximum degree of curve 12.5 degrees
- Maximum degree allowable 13.5 degrees (e-max: 4%)
- Right of way
 - Width: Varies from 50 ft. to 80 ft.
 - Easements: Temporary , Permanent , Utility , Other .
 - Type of access control: Full , Partial , By Permit , Other .
 - Number of parcels: 20 Number of displacements:
 - Business: 1

- Residences: 1
- Mobile homes: 0
- Other: 0

- Structures:
 - Culverts – proposed Double 6' x 6' box culvert for Tanyard Creek Branch.
 - Retaining walls: GA STD 9031L gravity walls likely at Tanyard Creek Branch.
- Traffic control during construction: Traffic will be maintained on the existing road using staged construction, except for proposed grade change at Tanyard Creek Branch, which will be accomplished by detouring traffic on an off-site detour. See attached detour route map for details. It is recommended a precast culvert be used to shorten the duration the detour will be in effect.
- Design Exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ROADWAY WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SHOULDER WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VERTICAL GRADES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CROSS SLOPES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
STOPPING SIGHT DISTANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SUPERELEVATION RATES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
HORIZONTAL CLEARANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SPEED DESIGN:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VERTICAL CLEARANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BRIDGE WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BRIDGE STRUCTURAL CAPACITY:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- Design Variances/Exceptions – Possible variance needed for mid-block crossing at Pearl St and/or ADA compliance from the beginning of the cemetery on the south side of the road to the intersection with SR1.
- Environmental concerns: possible historic properties, wetland impacts at creek.
- Level of environmental analysis:
 - Are Time Savings Procedures appropriate? Yes , No ,
 - Categorical exclusion ,
 - Environmental Assessment/Finding of No Significant Impact (FONSI) , or
 - Environmental Impact Statement (EIS) .
- Utility involvements: Charter Communications, Georgia Power Co., Atlanta Gas-Light, City of Carrollton Water & Sewer, and BellSouth

Project responsibilities:

- Design, GDOT
- Right of Way Acquisition, GDOT
- Relocation of Utilities, City of Carrollton (LGPA to be prepared)
- Letting to contract, GDOT
- Supervision of construction, GDOT
- Providing material pits, GDOT

Coordination

- Concept meeting date and brief summary. Concept Team Meeting held June 27, 2002 at 1:00 pm in the conference room of the GDOT Office of Road and Airport Design. See meeting minutes attached.

- P. A. R. meetings, dates and results. Not required
- FEMA, USCG, and/or TVA: FEMA coordination required at Tanyard Creek Branch. A 404 permit may be required.
- Public involvement. A public meeting will be held.
- Local government comments.: City of Carrollton representative Dana Strickland expressed support for the project as well as the concept proposed within this report.
- Other projects in the area.: None
- Railroad: Central of Georgia Railroad

Scheduling – Responsible Parties' Estimate

- Time to complete the environmental process: 12 Months.
- Time to complete preliminary construction plans: 6 Months.
- Time to complete right of way plans: 4 Months.
- Time to complete the Section 404 Permit: 12 Months.
- Time to complete final construction plans: 6 Months.
- Time to purchase right of way: 12 Months.
- List other major items that will affect the project schedule: N/A

Other alternates considered:

1. No Build
2. Two alternates solving the Tanyard Creek Branch drainage problem were considered including raising the grade of SR 16 to get above the 100-year flood combined with a new multi-barrel culvert or a bridge. See the Drainage Analysis Memorandum for a more complete description and costs of these alternates.
3. An alternate was considered that retained 3 lanes of pavement with the center lane being a two-way left turn lane. This alternate was rejected because the R/W and displacements necessary for the three lanes and sidewalk on both sides of the street would be too costly and destructive to the neighborhood. Also, extra traffic capacity was not needed as much as improved pedestrian access.
4. The last alternate considered was to keep the existing pavement width and widen the shoulders to accommodate the drainage and sidewalk. While saving money for curb and gutter work, this alternate would require the most R/W and displacements to implement. With both sides of the road being heavily traveled by pedestrians, it would not be as beneficial to place sidewalk on only one side of the road and reduce the necessary R/W. As with the previous alternate the extra traffic capacity is not worth the cost of the destructiveness to the community.

Comments: Some of the problems that were discussed at the Concept Team Meeting, including the grade change at Tanyard Creek Branch and the connectivity of the sidewalk on the south side of SR16 at SR1, can be better analyzed with the help of the detailed survey. With the detailed survey, the HEC-RAS model will be more accurate and the amount of grade change can be better determined. Also, with this data it will be possible to determine the true limits of the cemetery and its effect on the usable shoulder width for sidewalk location and possible retaining wall location. See the attached memorandum discussing the drainage analysis. Methodology, alternates considered, effects to drainage basin, and recommendations are presented.

Attachments:

1. Cost Estimates
2. Typical sections

Project Concept Report Page 7

Project Number: STP-0804(1)

P.I. Number: 650620

County: Carroll

3. Minutes of Concept meeting and Sign-in Sheet
4. Drainage Analysis Memorandum
5. Programming Document
6. Utility Cost Estimate
7. R/W Cost Estimate
8. Detour Route Map
9. Concept Rating Form

PRELIMINARY COST ESTIMATE

PREPARED BY: Nick Castronova

PROJECT LENGTH: 1.1 miles

ESTIMATED LETTING DATE: FY05

PROGRAMMING PROCESS CONCEPT DEVELOPMENT DURING PROJECT DEV.

PROJECT COST	
A. RIGHT-OF-WAY:	
1. PROPERTY (LAND & EASEMENT)	\$ 81,000.00
2. DISPLACEMENTS: RES: 1 BUS: 1 M.H.: 0	\$ 400,000.00
3. OTHER COST (ADM./COST, INFLATION)	\$ 1,189,200.00
SUBTOTAL:A	\$ 1,670,200.00
B. REIMBURSABLE UTILITIES:	
1. RAILROAD	\$ 0.00
2. TRANSMISSION LINES	\$ 0.00
3. SERVICES	\$ 469,000.00
SUBTOTAL:B	\$ 469,000.00
C. CONSTRUCTION:	
1. MAJOR STRUCTURES	
a. BOX Culvert (Dbl. 6'X6') 90' long, 117 cy Conc., 11,600 lb steel	\$ 45,000.00
b. RETAINING WALL (1000 LF x 5' @ \$40/SF)	\$ 200,000.00
SUBTOTAL:C-1	\$ 245,000.00
2. GRADING AND DRAINAGE:	
a. EARTHWORK (60,000 cy @ \$2.45)	\$ 150,000.00
b. DRAINAGE:	
1) Curb and Gutter (13,800 ft @ \$10.00/ft)	\$ 138,000.00
2) Longitudinal System	
Catch Basins (34 @ \$2000/EA)	\$ 68,000.00
Drop Inlets (6 @ \$2000/EA)	\$ 12,000.00

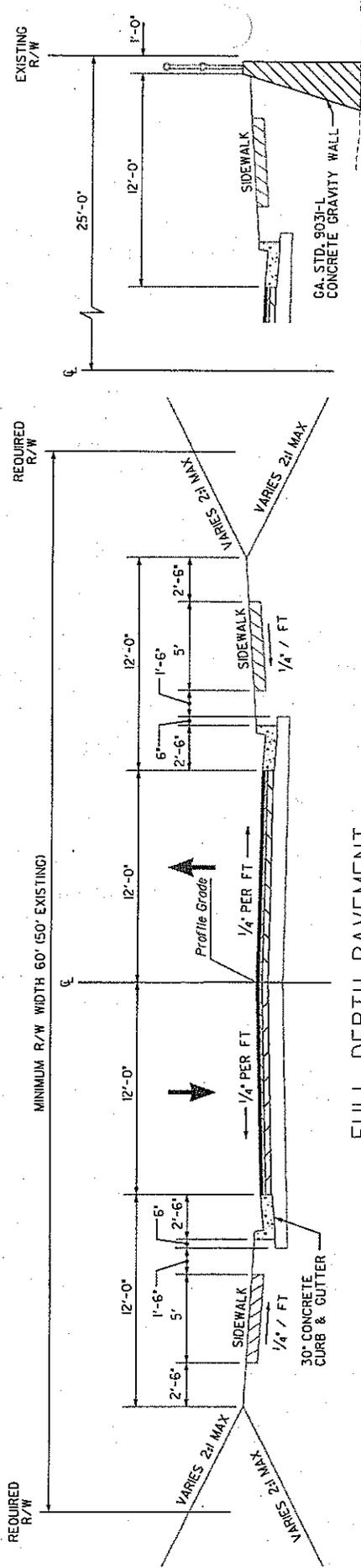
PROJECT COST		
Flared End Section (10 @ \$495/EA)	\$	5,000.00
Safety End Section (4 @ \$400/EA)	\$	1,600.00
MH (2 @ \$2000)	\$	4,000.00
Pipe - 18" (2500 ft @ \$29/ft) and 24" pipe (700 ft @ \$34/ft)	\$	98,000.00
SUBTOTAL:C-2	\$	476,600.00
3. BASE AND PAVING:		
a. AGGREGATE BASE (1315 tons @ \$15/ton)	\$	19,725.00
b. ASPHALT PAVING:		
Milling (16535 yd ² @ \$2.17/ yd ²)	\$	35,900.00
12.5mm Superpave (1400 tons @ \$42/ton)	\$	58,950.00
25mm Superpave (756 tons @ \$35/ton)	\$	26,500.00
19mm Superpave (284 tons @ \$38/ton)	\$	10,800.00
SUBTOTAL:C-3.b	\$	151,875.00
c. CONCRETE VALLEY GUTTER (2000 SY @ \$33.27/SY)	\$	66,540.00
d. OTHER	\$	0.00
SUBTOTAL:C-3	\$	218,415.00
4. LUMP ITEMS:		
a. GRASSING (2 acre @ \$2000/acre) (Temp&Perm Grassing and Fertilizer)	\$	4,000.00
b. CLEARING AND GRUBBING	\$	50,000.00
c. LANDSCAPING	\$	0.00
d. EROSION CONTROL (1.1 mile @ \$50,000/mile)	\$	55,000.00
e. TRAFFIC CONTROL	\$	75,000.00
SUBTOTAL:C-4	\$	184,000.00
5. MISCELLANEOUS:		
a. LIGHTING	\$	0.00
b. SIGNING - MARKING	\$	15,000.00
c. GUARDRAIL		
W Beam (400 ft @ \$13/ft)		5,200.00
TP 12 Anchor (2 @ \$1,350)	\$	2,700.00

PROJECT COST	
TP 1 Anchor (2 @ \$480)	\$ 960.00
d. SIDEWALK (8500 yd ² @ \$25.75/ yd ²)	\$ 220,000.00
SUBTOTAL:C-5	\$ 243,860.00
6. SPECIAL FEATURES: Removal of Existing Culvert	
SUBTOTAL:C-6	\$ 10,000.00

ESTIMATE SUMMARY	
A. RIGHT-OF-WAY ()	\$ 1,670,000.00
B. REIMBURSABLE UTILITIES	\$ 469,000.00
C. CONSTRUCTION	
1. MAJOR STRUCTURES	\$ 245,000.00
2. GRADING AND DRAINAGE	\$ 476,600.00
3. BASE AND PAVING	\$ 218,415.00
4. LUMP ITEMS	\$ 184,000.00
5. MISCELLANEOUS	\$ 243,860.00
6. SPECIAL FEATURES	\$ 10,000.00
SUBTOTAL CONSTRUCTION COST	\$ 1,377,875.00
E. & C. (10%)	\$ 138,000.00
INFLATION (5% PER YEAR)	\$ 215,900.00
NUMBER OF YEARS	3
TOTAL CONSTRUCTION COST	\$ 1,754,570.00
GRAND TOTAL PROJECT COST	\$ 3,893,570.00

This project is 100 percent in Carroll County.

STATE: GA. PROJECT NUMBER: STP-0804(1) SHEET TOTAL NO. 1 OF 1

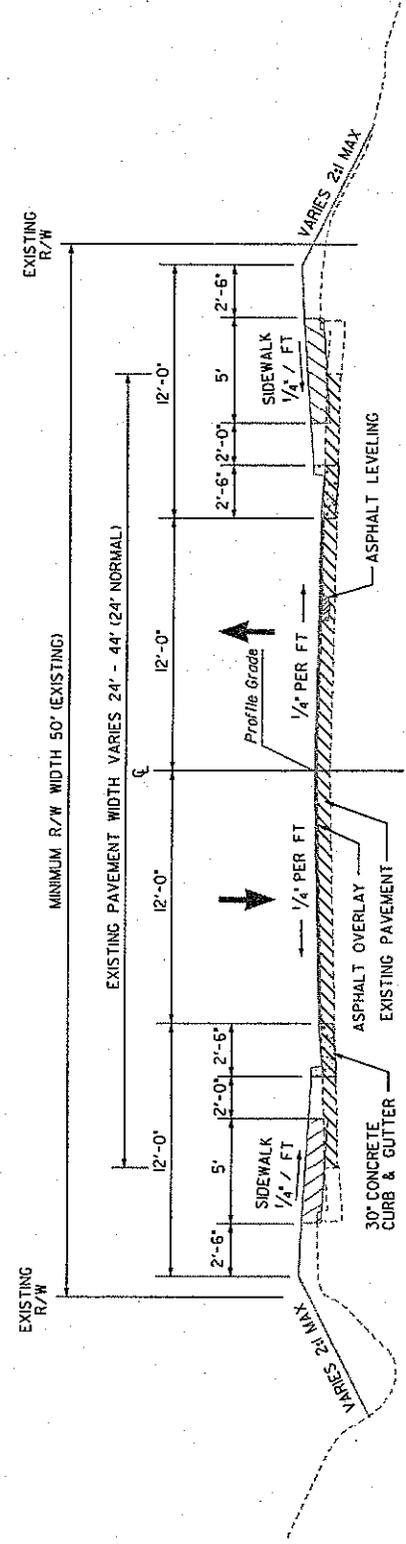


FULL DEPTH PAVEMENT

(USED FOR GRADE CHANGE THROUGH TANYARD CREEK BRANCH AREA)

GRAVITY WALL DETAIL

(MAY BE USED ADJACENT TO CEMETERY EAST OF TANYARD CREEK BRANCH)
SEE GA. STD. 903IR FOR HANDRAIL DETAIL



OVERLAY PAVEMENT

NO SCALE

DATE	REVISIONS	DATE	REVISIONS

GEORGIA
DEPARTMENT OF TRANSPORTATION
CONCEPT TYPICAL SECTION
STP-0804(1) CARROLL CO.

MINUTES OF CONCEPT TEAM MEETING

I. Welcome

The concept team meeting for Georgia DOT project STP-0804(1) Carroll County, P.I. No. 650620, was held at 1:00pm on June 27, 2002 in the conference room of the Georgia DOT Office of Road and Airport Design. The meeting was opened promptly at 1:00pm with Ms. Cynthia Clements, of Road Design, welcoming everyone.

II. Introduction of Each Attendee

Team members present at the meeting included Georgia DOT office representatives Mr. Stanley Hill (Road Design Project Manager), Mr. Kerry Bonner (District 6 Utilities), Ms. Jennifer Deems (District 6 Utilities), Ms. Kathy Spradley (District 6 Environmental), Mr. Mark Grindstaff (OEL Environmental), Mr. Jerry Milligan (R/W), Rick Ford (R/W), Mr. Ron Wishon (Engineering Services), Mr. Bill Moskal (Road Design), Mr. Scott Zehngraft (TS&D), Mr. Stan Petoski (TS&D), Mr. Royce Turner (District 6 Utilities), Ms. Windy Bickers (Financial Management), and Ms. Lasharon Rogers (Road Design); City of Carrollton representative Ms. Dana Strickland, and URS Corporation representatives Mr. Nick Castronova and Mr. Tom Kuzmeskus.

III. Project Identification

After introductions of the attendees, Ms. Clements presented some general facts about the corridor including the project identification, which she stated was the drainage and pedestrian improvements of SR16 in Carrollton from Columbia Road to US27/SR1.

IV. Functional Classification

Ms. Clements spoke on the functional classification of the project and stated that this roadway functions as an urban minor arterial.

V. Need and Purpose Statement

Mr. Castronova read aloud the Need and Purpose Statement found in the Concept Report.

VI. Traffic Projections

Mr. Castronova read aloud the build year and design year traffic volumes found in the Concept Report.

VII. Existing Typical Section

Mr. Castronova described existing typical section as a varying width two-lane road which is mostly curb and gutter but possess some rural shoulder toward the beginning of the project.

VIII. Design Criteria

Mr. Castronova described the current and proposed speed design of 35mph and the constraints on the horizontal and vertical design, especially as it pertained to the grade change in the area of the new culvert.

IX. Proposed Project Description

Several 50-scale concept layouts were used for display purposes, along with two typical section plan sheets and an offsite detour route map. These were later left with Mr. Hill and District 6 for future reference. Questions were asked to be withheld until after the presentation by Mr. Castronova.

Along the SR16 corridor there are three distinct areas of existing conditions. The first area encompasses SR16 from Columbia Road to the railroad crossing which has an existing R/W of 80' to 100' and is a two-lane facility with rural shoulders. Curb and gutter and sidewalk will be added to both sides of the road, and drainage structures will be added to improve the drainage along this section.

The second area encompasses SR16 from the railroad crossing to Burson Street. This area has an existing pavement width that varies from 24' to 38' with curb and gutter and a sidewalk on the north side of the road. The width of the existing R/W is 50'. The proposed typical section will narrow the variable width roadway to two 12-foot lanes while providing sidewalk on the south side of the road and drainage structures will be upgraded and repaired. The sidewalk on the north side of the road will be maintained and repaired if necessary. There are minor R/W and easement impacts at some intersections for improvements to existing turning radii.

The third area encompasses SR16 from Burson Street to SR1. This section includes the deficient box culvert crossing SR16 at Tanyard Branch and the City of Carrollton Cemeteries. Using data from topographic maps and FEMA reports, preliminary HEC-RAS study was performed at Tanyard Branch which is a FEMA controlled waterway. It was found that the smallest box culvert that meets the FEMA guidelines and fits in the natural channel was a double 6'X6' box culvert. To accommodate this taller structure, the existing roadway grade above the structure would have to be raised approximately 5 feet. It appears possible to tie this grade change back to the existing roadway profile within 500 feet in each direction with the use of gravity walls to keep the limits from encroaching on the cemetery and the commercial business across from the cemetery east of the creek. This work can not be accomplished using staged construction, so a road closure will be necessary and traffic rerouted on the suggested detour route. That route starts at SR1 and continues on to Maple Street, then to Aycock Street, then to Burson Street (since Burson Street has a signal with its intersection with SR16), and then to SR16. The length of this detour route is approximately 1.1 miles.

X. Major Structures

This was largely covered in the description of the project. A preliminary HEC-RAS study was done to size the box culvert structure and will need to be further addressed upon receiving further data.

XI. Design Variances/Exceptions

It was discussed that failure to meet ADA requirements would possibly result in a design exception.

XII. Right of Way Displacements/Relocations

Mr. Ford stated that the originally proposed \$55,000 budget for right of way acquisition would not cover the cost of the 2 displacements and that the R/W budget for this project would need to be recalculated and updated. He confirmed the 2 displacements as being one commercial and one residential property.

XIII. Utilities

The Utilities office identified the existing facility owners as being Atlanta Gas-Light, Carroll EMC, Charter Communications, GA Power, City of Carrollton Water and Sewer, and BellSouth. They also informed the group of a 9 conduit system BellSouth owns under the north sidewalk.

XIV. Alternatives Considered and Reasons for Rejection

There was some discussion of the alternates presented in this project as noted by the question and answer session summarized at the end of these minutes. The most discussion was the effect this project had on the parcels and achieving the goals of the project. Minimizing the cost and impact of the project was a priority and picking the alternate that will best accomplish these goals.

XV. Level of Environmental Analysis & Environmental Concerns

- a. **Historic Areas** - Mr. Grindstaff also gave a report on the environmental concerns for the corridor in the area of historic sites. He determined that there could be as many as 20 historic properties and they may form a Historic District. The determination would be made by SHPO and that he was meeting within the week of July 1 or July 7, 2002. He will be distributing his findings once a determination of eligibility is made. Mark said many of the

properties might not

qualify due to alterations on the historic structure.

- b. **Hazardous Wastes** - Ms. Spradley informed us that there were 7 UST sites along the corridor, including gas stations and auto body shops, and that there are 3 hazardous waste sites including a funeral home. She informed us that she has the locations and she would send them to URS for inclusion on the layout.
- c. **Underground Storage Tanks** - Combined in the comments above.

XVI. Project Development Schedule

Ms. Bickers provided scheduling information as scheduled let date, currently in FY05, and that the funding source is viable.

XVII. Public Hearing

It was stated that a public information meeting would be scheduled following the approval of the concept report.

XVIII. Other Projects in Area

No one knew of other projects in the immediate vicinity.

XIX. Comments from Attendees

- a. **Local Government Representatives**
 - 1. **Carroll County**— No further comments were offered
 - 2. **City of Carrollton**— No further comments were offered
- b. **Engineering Services**— Mr. Wishon commented that the cost estimate needs to be broken down as detailed as possible and that the design meets all ADA guidelines.
- c. **Office of Financial Management**— No further comments were offered
- d. **Traffic Safety and Design**— No further comments were offered
- e. **Environment/Location** — No further comments were offered
- f. **Planning**— No further comments were offered
- g. **District**— No further comments were offered
- h. **Right of Way**— No further comments were offered
- i. **Utilities**
 - 1. **Electrical** — No representatives were present.
 - 2. **Telephone** — No representatives were present.
 - 3. **Water/Sewer** - No representatives were present.
 - 4. **Gas** - No representatives were present.
 - 5. **Cable** - No representatives were present.
 - 6. **Others** - None

XX. Other Comment or Concerns

These questions represent the questions that were asked during the presentation and throughout the Concept

Meeting.

Q: Mr. Hill – Is the detour route able to handle this traffic?

A: Mr. Castronova – We have driven the route. It is an industrial area and should be capable of carrying the type of traffic we could expect for a short-term detour, with no problems.

A comment was made that Burson Street may need to be resurfaced even though only 2% trucks use SR16.

A comment was made that we may need to have a public meeting if we temporarily close SR16.

Q: Would it be possible to acquire R/W from the cemetery for the new box culvert?

A: Mr. Moskal – We need to find out if there is a planned burial area that is set back from the centerline of the creek. The R/W acquisition may not be an adverse effect on the cemetery if it remains in the creek area.

Comment: Ms. Strickland – I will try to find that on record at the City.

Q: Mr. Moskal – Does the preferred typical section continue to SR1?

A: Mr. Kuzmeskus – Sidewalk can't be provided in front of the cemetery on the south side of SR16. There is not enough R/W due to the close proximity of the edge of the cemetery, and there is an existing wall.

Comment: Mr. Wishon – If the sidewalk does not continue to SR1, then this is not ADA compliant and it is possible that you will need an exception for not putting sidewalk on the south side of SR16 in front of the cemetery.

Comment: Mr. Moskal - When the area is surveyed it might be possible to fit a sidewalk if a retaining wall can be used at the edge of the cemetery. He discussed the Cemetery Protection Act as a reason for ending the sidewalk before the cemetery, and only having a sidewalk on the north side of the project at the cemetery location.

Comment: Mr. Castronova pointed out that Leroy Childs Road is a one-way street that serves a community center and an elementary school, highlighting the highly pedestrian nature of this area. A lengthy discussion on the issue of a mid-block crossing at Leroy Childs Road followed.

No one was in favor of the mid-block crossing but a pedestrian activated signal might alleviate the problem of students crossing the block to get to school or to the community center. A representative from TS&D might have important input on how this situation could be handled.

Q: Mr. Wishon – Are you going to suggest we have a mid-block crossing?

A: Mr. Moskal – This decision was up to Traffic Operations, however there was no one present from Traffic Operations who could comment on the crossing.

Comment: Mr. Wishon – He did not believe that Mr. Danchetz would not approve a design exception for a mid-block crossing.

Comment: There was general discussion on mid-block crossings and pedestrian signals in relation to the school and community center pedestrian generation which was a reiteration of the previous discussion on this topic.

Q: Mr. Moskal – Why are we reducing pavement width throughout this corridor?

A: Mr. Castronova – The pavement reduction was to limit the R/W impacts. Nick reviewed the alternate typical sections at this time, especially the 3-lane alternate.

Comment: Ms. Strickland – The City was in full support with the 2-lane option with sidewalk on both sides of the road due to the large amount of pedestrian traffic in this corridor.

Q: Is the signal going to be replaced and is there adequate pedestrian equipment on Burson Street?

A: Ms. Strickland – There should be adequate pedestrian equipment because the City upgraded Burson Street with sidewalks recently.

Q: Mr. Petoski - Will there be pedestrian gates on the sidewalks at the railroad crossing?

A: If they were necessary we would put them in the plans. No one knew what the railroad pedestrian gates were.

Q: Mr. Wishon - Are the existing sidewalk ADA compliant?

A: Mr. Kuzmeskus - All non-ADA compliant sidewalks will be replaced with ADA compliant sidewalks.

Q: Mr. Wishon - Is this corridor on the bicycle system?

A: Mr. Castronova - It is not proposed to be a bicycle path at this time.

Comment: Ms. Strickland said she would find out if there is one proposed by the City of Carrollton.

A comment was also made that the pavement need to be cored prior to design since there is existing asphalt over an old concrete pavement section.

With no further comments, Ms. Clements adjourned the meeting at approximately 3:00pm.



Memorandum

Date: May 15, 2002

To:

From:

Subject: *SR 16/Tanyard Creek Branch alternatives considered*

Existing Conditions

A hydraulic analysis was performed at the SR16 road crossing over the Tanyard Creek Branch. A rain event was measured and the flow through the box culverts was measured and calculated. A hydrograph was then plotted from the data obtained. The lag time and the time of concentration for the drainage basin were then determined from the hydrograph. Several field investigations determined the approximate delineation of the total drainage area. An average runoff co-efficient was determined and used in the final equations to find the 10, 25, 50, and 100-year storm events and the peak flows that would occur at the box culverts. The hydraulic analysis of SR 16 at Tanyard Creek Branch indicates that the 10-year storm is overtopping the road by 0.6 feet, and the 100-year storm is overtopping the road by 1.2 feet. Data was gathered from site visits, pictures, quad sheets, FEMA maps and aerial photos then analyzed in HEC-RAS. A detailed survey is needed to obtain accurate flood stage elevations.

Proposed Conditions

Alternate 1: Raise the road elevation approximately 5 feet and construct new culvert at Tanyard Creek Branch.

By raising the road elevation in the sag curve through this low point from 1039.29' to 1044' and installing a double 6x6 box culvert in the existing stream channel, the 50 yr backwater flood elevation increases roughly 0.4 feet and the 100-year backwater elevation less than 1 foot. The grade change will impact SR 16 approximately 400 feet to the West of Tanyard Creek Branch and 300 feet to the East of Tanyard Creek Branch. This preliminary analysis and grade change conforms to chapter 6 guidelines of Georgia Department of Transportation's Drainage Manual, with respect to freeboard requirements, and backwater limitations. This portion of Tanyard Creek Branch is in a FEMA floodway and will require coordination with FEMA and the community.

While this option does not increase the backwater of the 100-year flood by more than one foot, it may be necessary to raise the grade a few more feet to accommodate a structure which can satisfy a NO RISE condition. A detailed survey is needed to determine the elevations of two nearby buildings.

URS

Alternate 1 Costs

700 feet of roadway reconstruction:	\$59,520
Retaining wall cost: 1000 L.F. x 5' @ \$40/sf	\$200,000
Culvert Costs: Double 6' X 6'	\$45,000
Total Cost of Alternate 1	\$304,520

Alternate 1 R/W Impacts

1 displacement-Florist
1 displacement-Residential

Alternate 2: Raise the road elevation and provide a bridge over Tanyard Creek Branch.

A bridge over Tanyard Creek Branch would require a grade change of roughly 5 feet, impacting the same amount of SR 16 as the culvert option. The bridge would need to span an estimated 140 feet to remain out of the floodway.

Alternate 2 Costs

700 feet of roadway reconstruction:	\$59,520
Retaining wall cost: 1000 L.F. x 5' @ \$40/sf	\$200,000
Bridge Costs: 40' X 140' @ \$50/sf	\$280,000
Total Cost of Alternate 2	\$539,520

Alternate 2 R/W Impacts

1 displacement-Florist
1 displacement-Residential

Alternative 3: No build

Recommendation

We recommend alternative number 1. Alternative one is considerably lower in cost than alternative 2 and still accomplishes the same goal. Preliminary calculations suggest the 10 year storm event produces flows that overtop SR 16, so the no build alternative does not address the need and purpose of the project.

Bridging the creek can keep the proposed structure out of the floodway and may be more environmentally desirable, but since Tanyard Creek Branch is located in a FEMA ZONE "A" and does not have a designated floodway, there is no requirement that the structure be located out of the floodway.

MONTH: MARCH 1999

REVISION REQUEST
for the
LONG RANGE PROGRAM

Authorization is requested to proceed with development of a project concept on the following project:

Action Requested: ADDITION TO THE PROGRAM

PROJECT DATA

County	Project No. P.I. No.	Type Work
CARROLL	STP-0804 (1) 650620	MAINTENANCE MISCELLANEOUS IMPROVEMENTS
Description: SR 16/CARROLLTON FM COLUMBIA RD TO SR 1 DRAINAGE IMPROVMENTS		
Project Length = 1.10 Miles		

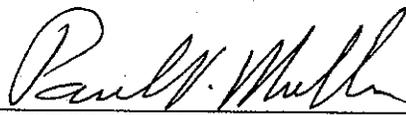
FUNDING INFORMATION

Estimated Cost (\$1,000's)	DOT Share	Other Share	Fiscal Year	Cong. District	Field District
PE	\$30		2002		
ROW	\$55		LR	7	6
CONST	\$1,003	\$1,003	LR		
Fund 1 = Q20					
Fund 2 = Q24					

REASON FOR REVISION:

Requested by the S. H. I. P. Committee

RECOMMENDED


DIRECTOR, DIVISION OF PLANNING AND PROGRAMMING

APPROVED


COMMISSIONER

Preliminary Right of Way Cost Estimate



Harvey P. Booker
Right of Way Administrator
By Rick Ford

Date: July 2, 2002
Project: STP-0180804 (1) Carroll
Existing/Required R/W: Varies/Varies
Project Termini: SR 16 Widening Improvements
Project Description: SR 16 Widening Improvements

P.I. Number: 650620
No. Parcels: 21

Land:					
Commercial					
0.62 acres @ \$	130,680/ acre	=	\$	81,022	
Improvements:					
1 Commercial, 1 SFR, misc. site improvemnets			\$	275,000	
Relocation					
1 - Residential	\$ 20,000				
1 - Commercial	\$ 25,500				
			\$	55,000	
Damages:					
Cost To Cure - 1 Parcel	\$ 20,000				
Proximity 2 Parcels	\$ 50,000				
			\$	70,000	
					\$ 481,022
Net Cost			\$	481,022	
Scheduling Contingency	55 %		\$	264,562	
Adm/Court Cost	60 %		\$	447,350	
Inflation Factor	40 %		\$	477,174	
			\$	1,670,108	

Total Cost \$ 1,670,200

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

Office of Road and Airport Design

PROJECT CONCEPT REPORT

STP-0804(1)
CARROLL COUNTY
P.I. No.: 650620

Federal Route Number: N/A
State Route Number: 16

Prepared by:

DATE 9-26-02

Recommendation for approval:

DATE 9-27-02

DATE _____

URS

Consultant

Stanley Hill
Project Manager

State Road and Airport 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).

10/16/02
DATE

DATE

DATE

DATE

DATE

DATE

DATE

Marta V. Rosen
State Transportation Planning Administrator

State Financial Management Administrator

State Environmental / Location Engineer

State Traffic Safety and Design Engineer

District Engineer

Project Review Engineer

State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

Office of Road and Airport Design

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DATE _____	State Transportation Planning Administrator
DATE _____	State Financial Management Administrator
DATE _____	State Environmental / Location Engineer
DATE _____	State Traffic Safety and Design Engineer
DATE _____	District Engineer
DATE _____	Project Review Engineer
<u>10/19/02</u> DATE	<i>Paul V. Tate Jr</i> State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

Office of Road and Airport Design

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DATE _____

State Transportation Planning Administrator

DATE _____

State Financial Management Administrator

DATE _____

State Environmental / Location Engineer

DATE _____

State Traffic Safety and Design Engineer

10/16/02
DATE _____

Karl L. Sage
District Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

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DATE _____
10/10/02
DATE _____

State Transportation Planning Administrator
David S. Huff

State 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