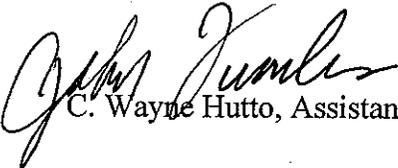


**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE** STP-1119 (1) Catoosa County **OFFICE** Preconstruction  
P.I. No. 650520  
**DATE** November 27, 2001

**FROM**  C. Wayne Hutto, Assistant Director of Preconstruction

**TO** SEE DISTRIBUTION

**SUBJECT** PROJECT CONCEPT REPORT APPROVAL

Attached for your file(s) is the approval for subject project.

CWH/cj

Attachment

**DISTRIBUTION:**

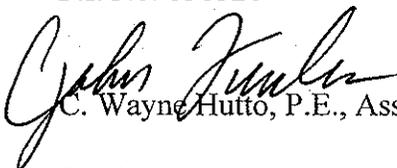
Tom Turner  
David Mulling  
Harvey Keepler  
Jerry Hobbs  
Herman Griffin  
Michael Henry  
Phillip Allen  
Marta Rosen  
Paul Liles  
Jimmy Chambers  
Kent Sager

*JIM KENNERLY*

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE** STP-1119(1) Catoosa County **OFFICE** Preconstruction  
P.I. No. 650520 **DATE** November 7, 2001

**FROM**  C. Wayne Hutto, P.E., Assistant Director of Preconstruction

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

**SUBJECT PROJECT CONCEPT REPORT**

This project is the roadway improvements along Dietz Road in Catoosa County. The project begins just south of the Boynton Drive/Reeds Bridge Road/Dietz Road intersection and continues north to Cloud Springs Road/SR 146 intersection for a total of 2.5 miles. Dietz Road (SR 384) is an urban minor arterial in unincorporated Catoosa County that runs south/north just east of the city of Fort Oglethorpe, connecting SR 2 and SR 146. This section of Dietz Road has a high accident rate that is typically twice as high as the statewide rate for minor arterials. The accident rate is related to the existing substandard roadway characteristics along this corridor. The existing roadway consists of two, 10' lanes with no shoulders on 40' of existing right-of-way. Traffic is projected to be 9,800 VPD and 17,680 VPD in the years 2005 and 2025 respectively.

The proposed construction will provide two, 12' lanes with curb and gutter and additional turn lanes and through lanes at major intersections. A 5' sidewalk will be constructed on the east side of the project. Some minor shifts to the horizontal and vertical alignments are proposed to enhance safety and improve sight distance. Traffic will be maintained during construction.

Environmental concerns include requiring an Environmental Assessment be prepared; 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)	\$3,366,000	\$7,150,000	LR	LR
Right-of-Way & Utilities*	Local	Local		

\*LGPA sent 3-16-01 requesting Catoosa County be responsible for right-of-way and utilities.

Frank L. Danchetz

Page 2

STP-1119(1) Catoosa

November 7, 2001

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**

**FILE:** STP-1119(1) Catoosa  
P.I. Number 650520-

**OFFICE:** Engineering Services

**DATE:** October 18, 2001

**FROM:** David Mulling, <sup>DTM</sup> Project Review Engineer

**TO:** Wayne Hutto, Assistant Director of Pre-construction

**SUBJECT: CONCEPT REPORT**

OCT 19 2001

We have reviewed the concept report submitted October 5, 2001 by the letter from James Kennerly dated September 27, 2001, and have no comments.

The costs for the project are:

Construction	\$2,782,000
Inflation	\$ 278,000
E&C	\$ 306,000
Reimbursable Utilities	\$1,748,000
Right of Way	\$1,845,000

DTM

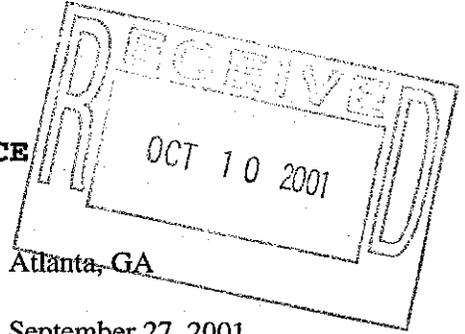
c: Jim Kennerly – Attention: Jim Simpson

## SCORING RESULTS AS PER MOG 2440-2

<b>Project Number:</b> STP-1119(1)	<b>County:</b> Cattoosa	<b>PI No.:</b> 650520-	
<b>Report Date:</b> 9/27/01			
<b>Concept By:</b> DOT Office: ROAD DESIGN			
<input checked="" type="checkbox"/> CONCEPT			
<b>Consultant:</b> GREENHORN & O'MARA			
<b>Project Type:</b> 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 <input type="checkbox"/> Building <input type="checkbox"/> Interchange <input type="checkbox"/> Intersection <input type="checkbox"/> Interstate <input type="checkbox"/> New Location <input checked="" type="checkbox"/> Widening & Reconstruction <input type="checkbox"/> Miscellaneous
<b>FOCUS AREAS</b>	<b>SCORE</b>	<b>RESULTS</b>	
<b>Presentation</b>	100%		
<b>Judgement</b>	100%		
<b>Environmental</b>	100%		
<b>Right of Way</b>	100%		
<b>Utility</b>	100%		
<b>Constructability</b>	100%		
<b>Schedule</b>	100%		

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**



**FILE** STP-1119(1) Catoosa County  
P.I. No. 650520

**OFFICE** Atlanta, GA

**DATE** September 27, 2001

**FROM** *for* *James T. No*  
James Kennerly, State Road & Airport Design Engineer

**TO** C. Wayne Hutto, 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).

JAK:JSS:lc

Attachment

cc: Tom Turner  
Marta Rosen, w/attachment  
Herman Griffin, w/attachment  
Harvey Keepler, w/attachment  
Kent Sager, w/attachment  
David Mulling, w/attachment  
Phillip Allen, w/attachment

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

PROJECT CONCEPT REPORT

Project Number: STP-1119(1)

County: Catoosa

P. I. Number: 650520

Federal Route Number: N/A

State Route Number: N/A

County Route Number: 384

Recommendation for approval:

DATE 9/27/01

DATE 10-3-01

James A. Simpson Jr.  
Project Manager  
James A. Kennedy  
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 the State Transportation Improvement Program (STIP).

DATE \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

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

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

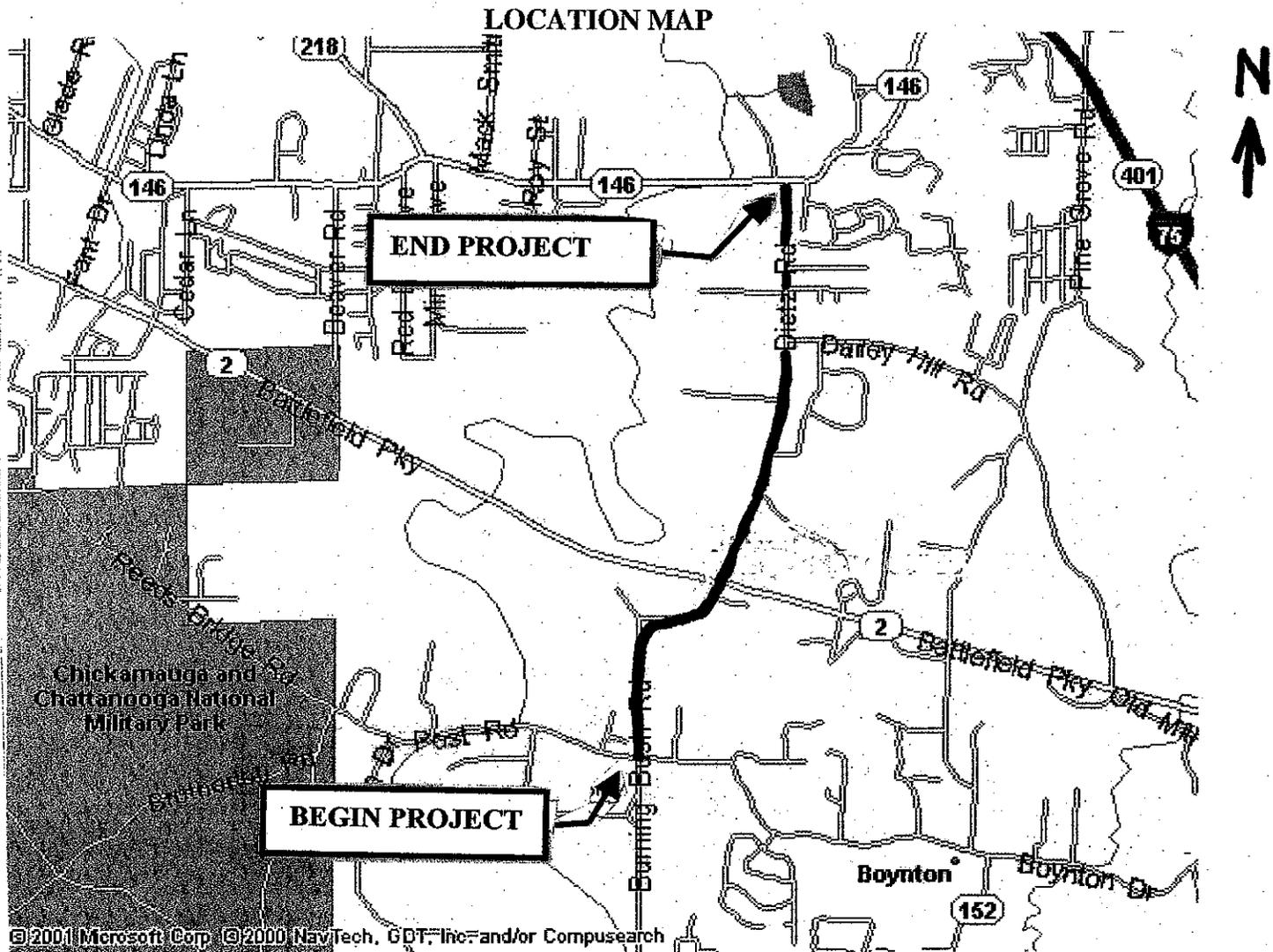
\_\_\_\_\_  
State Environmental/Location Engineer

\_\_\_\_\_  
State Traffic Safety and Design Engineer

\_\_\_\_\_  
District Engineer

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

Project Concept Report page 2  
 Project Number: STP-1119(1)  
 P. I. Number: 650520  
 County: Catoosa



<b>DIETZ ROAD/CR 384</b> STP-1119(1), CATOOSA COUNTY P.I. NO. 650520 PROJECT LOCATION MAP	DATE: 9/20/01
	SCALE: NONE
	FIGURE NO. 1

Project Concept Report page 3  
Project Number: STP-1119(1)  
P. I. Number: 650520  
County: Catoosa

**Need and Purpose:** See attachment.

**Description of the proposed project:** The proposed project is a roadway improvement project along Dietz Road in Catoosa County. The project begins just south of the Boynton Drive/Reeds Bridge Road/Dietz Road intersection and continues north to the Cloud Springs Road/SR 146 intersection. Improvements will include widening to two 12 foot lanes with curb and gutter and sidewalk and the addition of turn lanes at intersections where warranted. Some minor shifts to the horizontal and vertical alignments are proposed to enhance safety and improve sight distance.

**Is the project located in a Non-attainment area?** ( ) Yes (X) No

**PDP Classification:** Major (X) Minor ( )

**Federal Oversight:** Full Oversight ( ), Exempt (X), State Funded ( ), or Other ( )

**Functional Classification:** Urban Minor Arterial

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

**State Route Number(s):** N/A

**Traffic (AADT):**

Current Year: (2005) 9,800 Design Year: (2025) 17,680

**Existing design features:**

- Typical Section: Two 10-foot lanes with no shoulders and narrow ditch section.
- Posted speed : 35 mph Maximum degree of curvature: 37
- Maximum grade: 11 %
- Width of right of way: 40 ft.
- Major structures: None
- Major interchanges or intersections along the project: Dietz Road / SR 2 (Battlefield Parkway)
- Existing length of roadway segment = 2.5 miles

**Proposed Design Features:**

- Proposed typical section(s): Two 12 ft. lanes with curb and gutter and sidewalk.
- Proposed Design Speed Mainline: 35 mph
- Proposed Maximum grade Mainline: 7.5%                      Maximum grade allowable: 7.5%.
- Proposed Maximum grade Side Street: 8%                      Maximum grade allowable: 8%.
- Proposed Maximum grade driveway: 10%
- Proposed Maximum degree of curve: 19.                      Maximum degree allowable: 14.
- Right of way
  - Width: Varies with construction limits. (50' to 100')
  - Easements: Temporary (X), Permanent ( ), Utility ( ), Other ( ).
  - Type of access control: Full ( ), Partial ( ), By Permit ( ), Other (X).
  - Number of parcels: 58                      Number of displacements:
    - Business: 0
    - Residences: 0
    - Mobile homes: 0
    - Other: 0
- Structures:
  - Culverts: 8'x 4' box culvert at Chickamauga Creek tributary.
- Major intersections: Dietz Road / SR 2 (Battlefield Parkway)
- Traffic control during construction: This project will be mostly widen and overlay constructed under traffic. There is one area where the profile needs to be lowered. This area is on Dietz Road just North of Boynton Drive/Reeds Bridge Road at the Clearview Baptist Church. At this location, the alignment will be shifted slightly and turn lanes are being added to the intersection that will facilitate the change in grade.

At Grant Drive there is an intersection sight distance problem caused by the mainline profile. This will be remedied by using leveling on each side of the crest to flatten the vertical curve. It is anticipated that this can be done keeping one lane of traffic open at all times.

Project Concept Report page 5  
 Project Number: STP-1119(1)  
 P. I. Number: 650520  
 County: Catoosa

- Design Exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL 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 expected.
- Environmental concerns: Project can be constructed under Nationwide Permit. There are no cultural resource impacts. There are eight potential UST sites: Cowboy's Gas Station, Hyundai Construction Equipment/Park Equipment Sales and Rentals, Work Clothes Outlet, David Turner's Paint and Body Shop, Stardan Motor Company/Dietz Auto Body, Favorite Market, North Georgia EMC, and Robinson's Corner Market. In addition, there are six potential hazardous waste sites: Card Services Company on Dietz Road, International Ceramic Products, Inc. on Cloud Springs Road, Mountain Photo and Reprographics on Dietz Road, American Flooring on Dietz Road, North Georgia Ready Mix on Dietz Road, and Boynton Cleaners at the Boynton Road intersection.
- Level of environmental analysis:
  - Are Time Savings Procedures appropriate? Yes ( ), No (X),
  - Categorical exclusion ( ),
  - Environmental Assessment/Finding of No Significant Impact (FONSI) (X), or
  - Environmental Impact Statement (EIS) ( ).
- Utility involvements: North Georgia EMC, Atlanta Gas Light Co., Comcast Communication, BellSouth, Catoosa Utility District, City of Fort Oglethorpe, AT&T

**Project responsibilities:**

- Design: GDOT
- Right of Way Acquisition: Catoosa County
- Relocation of Utilities: Catoosa County
- Letting to contract: GDOT
- Supervision of construction: GDOT
- Providing material pits: Contractor
- Providing detours: Contractor

Project Concept Report page 6  
Project Number: STP-1119(1)  
P. I. Number: 650520  
County: Catoosa

### **Coordination**

- Initial Concept Meeting date: May 23, 2001 at Catoosa County Offices with local officials. Memorandum of Meeting No. 3 attached.
- Concept Team Meeting date: September 24, 2001. Minutes of Concept Team Meeting attached.
- P. A. R. meetings, dates and results: N/A
- FEMA, USCG, and/or TVA: N/A
- Public involvement: Public Information Meeting to be scheduled.
- Local government comments: See attached Memorandum of Meeting No. 3.
- Other projects in the area. SR 146/Cloud Springs Road, STP-1111(11), Catoosa County, P.I. No. 642220, STP-1111(7), Catoosa County, P.I. No. 650440
- Other coordination to date: None.
- Railroads: N/A

### **Scheduling – Responsible Parties' Estimate**

- Time to complete the environmental process: 6 Months.
- Time to complete preliminary construction plans: 8 Months.
- Time to complete right of way plans: 3 Months.
- Time to complete the Section 404 Permit: 4 Months.
- Time to complete final construction plans: 6 Months.
- Time to purchase right of way: 18 Months.
- List other major items that will affect the project schedule: N/A.

### **Other alternates considered:**

1. A four-lane urban section was considered, but the property impacts would be much more significant and the projected traffic volumes do not demand a four-lane section. The local residents favor the proposed two-lane urban section with sidewalks. The proposed intersection improvements will alleviate most of the traffic congestion.
2. No build. This was not done because the dangerous situations created by the narrow travel lanes and shoulders and the inadequate sight distances need to be addressed.

**Comments:** None

Project Concept Report page 7  
Project Number: STP-1119(1)  
P. I. Number: 650520  
County: Catoosa

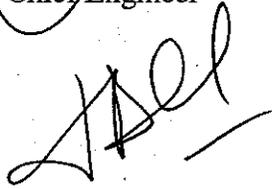
**Attachments:**

1. Need and Purpose Statement
2. Cost Estimate
3. Typical sections
4. Minutes of Initial Concept and Concept Team meetings
5. Traffic/Accident analysis

**Approvals:**

Concur: \_\_\_\_\_  
Director of Preconstruction

Approve: \_\_\_\_\_  
Chief Engineer



**Need and Purpose Statement**  
**Dietz Road/CR 384 from SR 146 to Post Road/CR382**  
**STP-119(1), Catoosa County, P.I. No. 650520**

**Need and Purpose**

Due to increasing traffic congestion and safety concerns, improvements are needed to Dietz Road to provide a safely designed roadway that satisfies future travel demand in harmony with community values.

**Context**

[Dietz Road (CR 384) is an urban minor arterial in unincorporated Catoosa County that runs south/north just east of the City of Fort Oglethorpe, connecting two major arterials: SR 2 and SR 146.] The south end of this project begins at the intersection with Post Road (CR 382). The western leg of this intersection is signed as Reeds Bridge Road, while street name signs on the eastern leg call it Boynton Drive. Traveling north about 0.9 mile, Dietz Road intersects with newly improved SR 2 (Battlefield Parkway). About 1.4 miles further north, Dietz Road tees into SR 146 (Cloud Springs Road).

**Included in RTP and STIP**

In 2000, the Chattanooga Urban Area Transportation Study (CUATS) adopted its Regional Transportation Plan (RTP), addressing travel needs through the year 2025. The adopted Year 2025 Chattanooga Area RTP was prepared by the local governments and the Georgia and Tennessee Departments of Transportation in cooperation with Federal Highway and Federal Transit Administrations. The CUATS recommends in its 2025 RTP the widening of Dietz Road/ CR 384 from two to four lanes, from SR 146/Cloud Springs Road to Post Road/CR 382. The proposed project is also part of Georgia Department of Transportation's State Transportation Improvement Program (STIP).

**Safety**

[This section of Dietz Road has a high accident rate that is typically twice as high as the statewide rate for urban minor arterials.)

**Accident Rates (per 100 million vehicle miles)**

	<b>1995</b>	<b>1996</b>	<b>1997</b>
Dietz Road	504	379	633
Statewide Rate	200	216	205

[The high accident rate is related to substandard roadway characteristics that have become critical due to increased traffic volume.] These include narrow lanes and horizontal and vertical curves that are deficient as compared to standards for existing 35 mph speed limit.

The pavement width is narrow. Existing lane widths measure from ten feet to ten feet eight inches compared to standard twelve-foot lanes. The existing roadside ditches are roadway hazards because they do not provide a shoulder adjacent to the road, and do not provide gentle front slopes near the road to minimize severe accidents. If a vehicle leaves the pavement, it will likely drop off into the ditch and collide with the back of the ditch. There are no shoulders that are flush with the pavement, which would

allow an errant vehicle to recover and steer back onto the road. Several "fixed-object" type of accidents occurred in areas with narrow lane widths and ditches with no shoulders.

There are two deficient horizontal curves south of SR 2, Battlefield Parkway. There are three deficient crest vertical curves related to inadequate stopping sight distance. The first is at the Clearview Baptist Church, about 300 feet north of the Reeds Bridge Road/Boynton Drive intersection. The second is north of SR 2, between the North Georgia Ready Mix Concrete Plant and the North Georgia Driving Range. The third is south of the Dyer Bridge Road intersection. Most accidents have occurred adjacent to sight distance problems.

Measurements from each side road indicate that there is inadequate intersection sight distance at Grant Drive and Dyer Bridge Road mainly due to adjacent crest vertical curves.

### **Travel Demand**

The RTP recommendation to widen Dietz Road to four lanes may have been to help carry heavy north-south traffic volumes in the US 27 corridor. However, unlike US 27, Dietz Road does not extend north of SR 146 and is not linked with Chattanooga, so projected traffic volumes, using the regional travel demand model, are not so heavy that Dietz Road must be widened to four lanes from one end to the other. Existing and projected travel demands on Dietz Road are as follows:

<b>South of SR 2</b>	2001 ADT: 7,050	2005 ADT: 7,760	2025 ADT: 14,020
<b>SR 2 to Dailey Hill Road</b>	2001 ADT: 8,630	2005 ADT: 8,960	2025 ADT: 16,180
<b>Dailey Hill Rd. to SR 146</b>	2001 ADT: 8,680	2005 ADT: 9,800	2025 ADT: 17,680

### **Operating Conditions**

The speed limit is 35 miles per hour (MPH) throughout the project. Both of the intersections at SR 2 and SR 146 are currently signalized, while the Boynton Drive intersection is a four-way stop.

On average, the project corridor is presently operating at level of service (LOS) D. With no improvements the Dietz Road corridor will operate at LOS F by 2025. The two-lane upgrade, with additional turn lanes and through lanes at major intersections, will improve the corridor to LOS D or better. The two-lane sections of Dietz Road will operate at level of service C or better.

### **Community Issues**

Catoosa County wants to improve Dietz Road to address safety and congestion concerns, while minimizing impacts on adjacent residential properties. The area between Battlefield Parkway and Cloud Springs Road is especially sensitive.

Catoosa County has been considering widening Dietz Road from time to time over the years, mainly to upgrade it and make it safer, assuming it should be widened to four through lanes. If so, four houses on the north end near SR 146 must be purchased. Most of the houses fronting on Dietz Road were constructed with minimum setbacks, so widening would take up most of their front yards.

Several of the residents living along Dietz Road, between Battlefield Parkway and Cloud Springs Road (SR 146), are strongly against widening the road to four lanes. Although there are some bad curves south of Battlefield Parkway, the County received no opposition to widening and improving the road from citizens in the area. Citizens north of Battlefield Parkway did not want a change at all. When the County

talked with them about widening to three lanes the citizens said they did not want that either. Some residents went door-to-door with a petition and obtained signatures against the widening (this may have been against widening to four lanes).

At one time the County was considering a four-lane road on new alignment between Dietz Road and Chickamauga Creek, to try to avoid impacts to properties along Dietz Road. Two people built their homes in the path of this alignment, apparently unintentionally. Georgia DOT said that no curb cuts would be allowed along this new alignment, and the property owners on the east side of the new alignment were against it because they would not have direct access. The County is no longer pursuing a new alignment to the west of Dietz Road.

Dietz Road is not a designated bike route. There are no known environmentally sensitive features or community values that would affect the design or that would benefit from enhancements.

### **Design**

Dietz Road is currently a two-lane road between SR 146 and Post Road/CR 382. The proposed improvement will provide a two-lane upgrade with wider through lanes, curb and gutter and enclosed longitudinal drainage replacing drainage ditches to minimize right of way impacts, with additional turn lanes and through lanes at major intersections. A sidewalk will be incorporated into the project on the east side of the road.

The project will add turn lanes at the SR 146 intersection, including two left turn lanes on the westbound SR 146 approach. The project will widen Dietz Road to two lanes southbound south of SR 146 intersection for about 1,000 feet.

North of Grant Drive, the project will adjust the crest vertical curve to improve sight distance.

The project will realign Hidden Creek Lane opposite Richard Drive.

The project will provide a southbound left turn lane at the Dailey Hill Road intersection.

The project will adjust the horizontal and vertical alignment of Dietz Road south of the Dyer Bridge Road intersection to improve sight distance.

The project will improve the SR 2 intersection by providing turn lanes and an additional through lane both northbound and southbound on Dietz Road. The project will widen Dietz Road to two lanes in each direction for about 1,200 feet north of SR 2 and into the first horizontal curve south of SR 2.

The project will improve two sharp horizontal curves on Dietz Road south of SR 2. The project will flatten the eastern horizontal curve using a larger radius for a 35 mph design speed. The western curve will be improved with a larger radius for a 30 mph design speed.

The project will lower the sharp crest vertical curve north of Boynton Drive, lengthening the vertical curve for a 35 mph design speed.

The project will improve the Boynton Drive intersection by providing left turn lanes on all approaches, a southbound right turn lane and signalization.

**Land Use**

The land use along Dietz Road is predominantly single family residential with a few light industrial uses, such as car repair shops, scattered along the northern third of the corridor. However, the Boynton Drive, SR 2 and SR 146 intersections are zoned for commercial and industrial uses. Large areas of land have been cleared for new commercial uses on both sides of the SR 2 intersection that will generate additional traffic.

**Other Projects in the Area**

Project Number	Project Description	FY 01 – 03 TIP Schedule
TIP No. STP-98 (4) P.I. No. 642220 Project No. STP-1111(11)	Widen SR 146 from US 27 to Lakeview Drive. Widen to 4 lanes with turn lanes as needed.	PE – Authorized ROW – FY 01 CST – FY 02
TIP No. STP-99-2 P.I. No. 650440-65Y4400 Project No. STP-1111(7)	Widen SR 146 from Lakeview Drive to I-75. Widen to 4 lanes with turn lanes as needed.	PE – Authorized ROW – FY 01 CST – FY 02
TIP No. GA-01 P.I. No. 611210 Project No. NH-STP-75-3(239)	I-75 Bridge and ramp reconstruction at SR 146 interchange.	PE – Authorized ROW – FY 01 CST – FY 05
TIP No. STP-98(3) P.I. No. 642210 Project No. STP-1119(10)	Widen SR 146 from 2 lanes to 4 lanes from I-75 to US 41.	PE – Authorized ROW – FY 01 CST – FY 03

**PRELIMINARY COST ESTIMATE**

PROJECT NUMBER: STP-1119(1)

COUNTY: CATOOSA

DATE: 8/28/01

ESTIMATED LETTING DATE:

PREPARED BY: GREENHORNE & O'MARA, INC.

PROJECT LENGTH: 2.32 MILES

( ) PROGRAMMING PROCESS

(X) CONCEPT DEVELOPMENT

( ) DURING PROJECT DEV.

**PROJECT COST**

**A. RIGHT-OF-WAY:**

1. PROPERTY (LAND & EASEMENTS)	\$ 578,188
2. DISPLACEMENTS	\$ 0
3. OTHER COSTS (ADMIN. COST, INFLATION)	\$ 1,266,312
SUBTOTAL: A	\$ 1,844,500

**B. REIMBURSABLE/NON-REIMBURSABLE UTILITIES**

1. RAILROAD	\$ 0
2. TRANSMISSION AND DISTRIBUTION LINES	\$ 1,747,842
3. SERVICES	\$ 0
SUBTOTAL: B	\$ 1,747,842

**C. CONSTRUCTION:**

1. STRUCTURES:

a. 8' x 4' Concrete Box Culvert - 90 LF	\$ 54,000
SUBTOTAL: C-1	\$ 54,000

2. GRADING AND DRAINAGE

a. Earthwork - Unclassified Excavation		
50,000 CY @ \$7.00	\$	350,000
b. Stormdrain	12,000 LF @ \$40/LF	\$ 480,000
c. Catch Basin	55 @ \$1,600/EA	\$ 88,000
d. Conc. Curb & Gutter	23,350 LF @ \$12/LF	\$ 280,200
SUBTOTAL: C-2	\$	1,198,200

**PROJECT COST****3. BASE AND PAVING:**

a. Graded Aggregate Base	18,440 TONS @ \$13/TON	\$	239,720
b. Asphalt Paving	Surface - 4,310 TONS @ \$38/TON	\$	163,780
	Binder - 2,100 TONS @ \$34/TON	\$	71,400
	Base - 4,190 TONS @ \$33/TON	\$	138,270
	Leveling - 500 TONS @ \$36/TON	\$	18,000
	Bit. Tack Coat - 4,750 GAL @ \$1	\$	4,750
	<b>SUBTOTAL: C-3</b>	\$	<b>635,920</b>

**4. LUMP ITEMS:**

a. Grassing / Landscaping	6 AC.	\$	5,000
b. Clearing and Grubbing	13 AC.	\$	100,000
c. Erosion Control		\$	135,000
d. Traffic Control		\$	150,000
	<b>SUBTOTAL: C-4</b>	\$	<b>390,000</b>

**5. MISCELLANEOUS:**

a. Sidewalk	9,360 SY @ \$30/SY	\$	280,800
b. Traffic Signals	1 new signal, 2 upgrades	\$	155,000
c. Guardrail	Type W	\$	14,700
	Anchorage	\$	8,000
d. Signing and Marking	8 EA @ \$1,000/EA	\$	25,000
	<b>SUBTOTAL: C-5</b>	\$	<b>483,500</b>

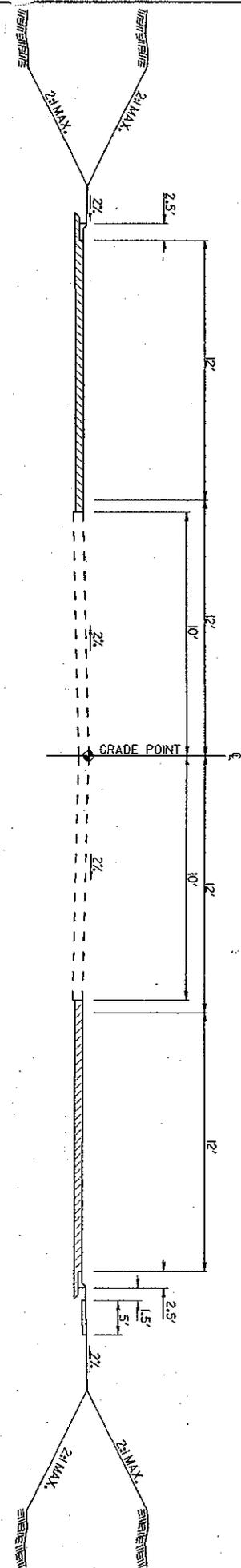
**6. SPECIAL FEATURES:**

a. Field Engineer's Office		\$	20,000
	<b>SUBTOTAL: C-6</b>	\$	<b>20,000</b>

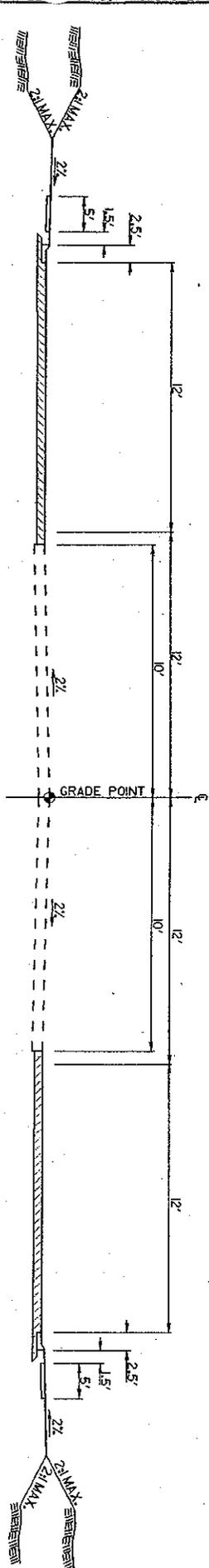
**SUBTOTAL CONSTRUCTION COST**      \$    **2,781,620**

**ESTIMATE SUMMARY**

A. RIGHT-OF-WAY		\$ 1,844,500
B. REIMBURSABLE/NONREIMBURSABLE UTILITIES		\$ 1,747,842
C. CONSTRUCTION		
1. STRUCTURES	\$	54,000
2. GRADING AND DRAINAGE	\$	1,198,200
3. BASE AND PAVING	\$	635,920
4. LUMP ITEMS	\$	390,000
5. MISCELLANEOUS	\$	483,500
6. SPECIAL FEATURES	\$	20,000
SUBTOTAL CONSTRUCTION COST		<u>\$ 2,781,620</u>
E. & C. (10%)		\$ 278,162
INFLATION (2 YRS. @ 5% PER YR.)		<u>\$ 285,116</u>
TOTAL CONSTRUCTION COST		\$ 3,344,898
GRAND TOTAL PROJECT COST		<b>\$ 6,937,240</b>

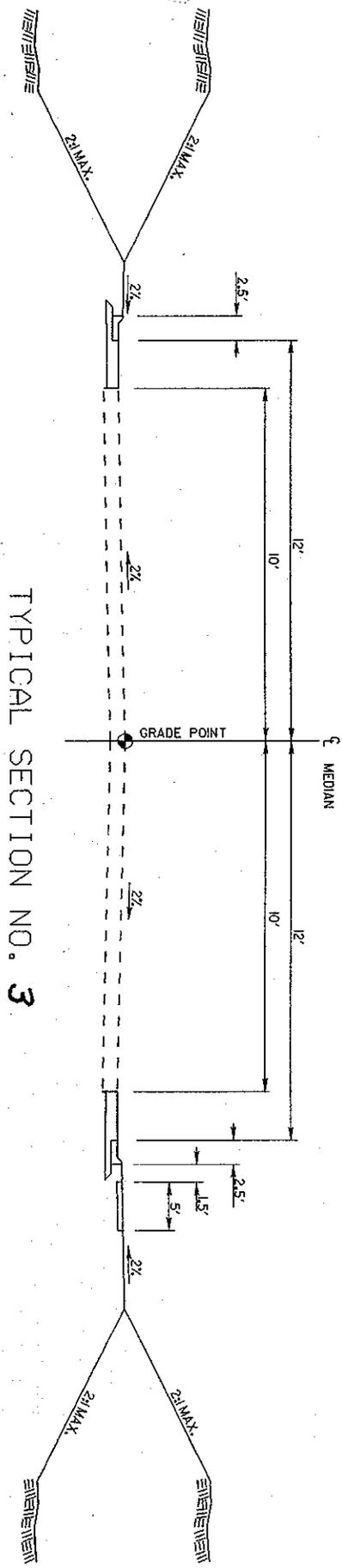


TYPICAL SECTION NO. 1



TYPICAL SECTION NO. 2

STP-1119(1) Cattoosa  
P.I. 650520



TYPICAL SECTION NO. 3

STP-1119(1) Catosa  
P.I. 650520



## MEMORANDUM OF MEETING NO. 3 INITIAL CONCEPT MEETING

- PROJECT:** Dietz Road/CR384 from SR 146 to Post Road/CR 382  
STP-1119(1) Catoosa County  
P.I. No. 650520  
Work Order No. 20  
G&O No. 0094
- DATE/PLACE:** May 23, 2001 Catoosa County Offices in Ringgold
- PRESENT:**
- |                                    |                       |
|------------------------------------|-----------------------|
| Jim Simpson, GDOT Road Design      | 404-657-9192          |
| Theon Grojean, Greenhorne & O'Mara | 770-956-8510 ext. 218 |
| David Low, Greenhorne & O'Mara     | 770-956-8510 ext. 252 |
| DeWayne Comer, GDOT Dist. 6        | 770-397-3619          |
| Lee Bridges, Catoosa Co.           | 706-935-3574          |
| Winford Long, Catoosa Co.          | 706-935-2526          |
| Mark Fletcher, Catoosa Co.         | 706-866-2927          |
| Jim Callaway, Catoosa Co.          | 706-965-2500          |
| Paul Page, City of Ft. Oglethorpe  | 706-866-2544 ext. 201 |
| Dan Wright, City of Ringgold       | 706-935-3061          |
- DISTRIBUTION:** Those present  
Xuewen Le, G&O
- PURPOSE:** Review Concept Plan with local officials
- DISCUSSION:**
1. David circulated design memo "Key Traffic Issues for Dietz Road/CR 384" and reviewed the major points in the memo.
  2. The question was asked why have 2 through lanes at the SR 2 intersection? Having 2 through lanes will allow the signalization to work better, even though the 2 through lanes merge back into 1 lane on each side of the intersection.

RE: Memorandum of Meeting No. 3

May 23, 2001

Page 2 of 2

3. How much traffic will the 2-lane configuration accommodate? It will be at capacity at the anticipated 2025 traffic projection.
4. The proposed concept plan features a new traffic signal on the south end of the project at Boynton Drive. The plan currently calls for a right-turn lane from Boynton EB onto Dietz Rd. SB. This causes us to have 2 displacements. G&O will take another look at this to see if the turn lane can be deleted in order to avoid these impacts.
5. The alignment shift near the Clearview Baptist Church will facilitate the construction staging required to improve the centerline profile.
6. The concept plan shows realigning Hidden Creek Lane with Richard Drive to create one intersection.
7. Among the attendees there was general acceptance of the Concept Plan. The consensus was that the 2-lane design will be much more acceptable to the public than a 4-lane design. The curb and gutter and sidewalk was well received.
8. G&O will continue with the Concept Report based on the design presented to prepare for the Concept Team Meeting.
9. G&O will look at reducing the curve radius on the Forester property to see if we can reduce impacts.
10. GDOT Right-of-Way Office will prepare the ROW cost estimate. The District 6 Office will prepare the utility estimate. G&O will incorporate this information into the Concept Report.
11. G&O will provide 3 more plots to Jim for distribution to other GDOT offices in advance of the Concept Team Meeting.

The above represents our understanding of the items discussed. Please notify me of any changes or questions as soon as possible. My direct number is 770-956-8510 ext. 218.

Sincerely,

*Greenhorne & O'Mara, Inc.*

Theon F. Grojean, P.E.

Project Director



## MINUTES OF CONCEPT TEAM MEETING

**PROJECT:** Dietz Road/CR384 from SR 146 to Post Road/CR 382  
 STP-1119(1) Catoosa County  
 P.I. No. 650520

**DATE/PLACE:** September 24, 2001 / GDOT District 6 Offices

**PRESENT:**

Jim Simpson, GDOT Road Design	404-657-9192
Theon Grojean, Greenhorne & O'Mara	770-956-8510 ext. 218
William Darby, GDOT Dist. 6	770-387-3622
Hudon Tatum, Catoosa Co.	706-935-2754
Pat Page, Catoosa Co.	706-861-3697
Winford Long, Catoosa Co.	706-935-2526
Mark Fletcher, Catoosa Co.	706-866-2927
Jim Callaway, Catoosa Co.	706-965-2500
Charlie Stamey, Catoosa Co.	706-965-2500
Kevin Crisp, GDOT Dalton Area Const.	706-272-2211
Pat Myers, GDOT Dalton Area Const.	706-272-2211
Royce Turner, GDOT Dist. 6 Utilities	770-387-3615
Steve Sanders, GDOT Dist. 6 Traffic Ops.	770-387-3637
Paul Page, City of Ft. Oglethorpe	706-866-2544 ext. 201
Jeff Long, City of Ft. Oglethorpe	706-866-7141
Michelle Brouillette, GDOT OEL	404-699-4412

### DISCUSSION:

1. Jim Simpson opened the meeting by welcoming everyone and explaining the purpose of the meeting. Introductions were made by each individual in attendance.
2. Pat Page questioned how this project came about as she was unaware of it until notified by one of the county residents that there were workers along the road. Jim Simpson explained that the county usually initiates these projects by requesting assistance from the Georgia DOT. Pat stated that she had no recollection of this occurring within her seven years with the county. Jim replied that it is possible the request came even before that.

3. Theon Grojean gave a brief overview of the project, which starts at Boynton Drive and runs northward to Cloud Springs Road/SR 146. The existing two-lane road has sub-standard lane widths and shallow ditches running along the edges of pavement. There are also some sharp curves and crests that limit visibility and safety. Improvements will include widening to two 12 foot lanes with curb and gutter and sidewalk and adding turn lanes at intersections where warranted. Some minor shifts to the horizontal and vertical alignments are proposed to enhance safety and improve sight distance.
4. Michelle Brouillette (OEL) explained that there are 5 eligible properties that may be a problem with 4f clearance. She expressed particular concern about a property at the SW corner of Dietz Rd. and SR 146. Others noted that this property was currently under renovation. Michelle said that she would follow up on this since that would certainly affect its eligibility.
5. Michelle stated that the requirement for logical termini might also be a problem for the southern portion of the project. Usually projects will connect either two state routes or major traffic generators or something of that nature. It did not appear that Boynton Road would satisfy this requirement. She will present the case to FHWA for their input.
6. County officials expressed concern that the current bypass (US 27) construction will force truck traffic to Dietz Road as a way to get to the interstate.
7. District Traffic Operations – no comments.
8. District Utility Office – no comments.
9. It has not been determined how the right-of-way acquisition and utility relocation will be funded. Jim Callaway stated that he has written the state to say that the county would not be responsible for the utility relocation.
10. A Public Information Meeting or Public Hearing is not in the immediate future. This will be scheduled later in the project development.

Respectfully submitted,  
**Greenhorne & O'Mara, Inc.**

Theon F. Grojean, P.E.  
Project Director

## TRAFFIC ANALYSIS

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### Accident Analysis

Traffic accident reports from 1995 through 1997 were reviewed to identify any correctable accident patterns that might suggest a safer design.

Dietz Road within this section has a high accident rate that is typically twice as high as the statewide rate. The rates are 504 (100 MVM) for 1995, 379 for 1996, 633 for 1997. The corresponding statewide average rates are 200 for 1995, 216 for 1996, and 205 for 1997. The high accident rate may relate to narrow lanes, inadequate site distance and deficient horizontal and vertical curves.

### Sight Distance

Sight distance measurements were conducted at each side road to identify any potential safety concerns. The national standard for sight distance is *A Policy on Geometric Design of Highways and Streets*, often referred to as "the green book", published by the American Association of Highway and Transportation Officials (AASHTO). The 1990 edition, published in English Units, is the reference cited here.

Intersection Sight Distance (ISD) is the minimum distance required for an approaching driver to perceive and react accordingly to an exiting vehicle while only slowing from the design speed to 85% of the design speed. The values are based on a perception and reaction time of 2.5 seconds and a braking distance for wet, level pavement. When the roadway is either on an upgrade or downgrade, grade correction factors are applied. Figure IX-40, on page 762 in the 1990 green book, provides the minimum ISD for wet pavement used as the standard. Field measurements are based on a driver's eye height of 3.5 feet and an object height of 4.25 feet. The available ISD at the side road was compared to these values. The available and required sight distances for these side roads are summarized in **Table 1**.

The speed limit on Dietz Road is 35 mph. Existing lane widths measure from ten feet to ten feet eight inches. Sight distance was measure through field visit and was summarized in **Table 1**. It indicates that there are sight distance problems at Grant Drive, Dyer Bridge Road, and an apparent site distance problem at the church just about 300 feet north of the Reeds Bridge Road/Boynton Drive intersection. The sight distance problems are mainly due to crest vertical curves. The collision diagrams indicate most accidents happened in the places adjacent to sight distance problems. Several fixed-object accidents indicate narrow lane widths and no shoulder. As a result of these problems, proposed improvements include a better vertical profile and wider lanes.

**Table 1: Sight Distance Analysis**

	Intersection Sight Distance (feet)			Speed Limit (mph)	Adequate?
	Available Looking Left	Available Looking Right	Required		
Dirt Driveway (North)	>1000	640	470	35	Yes
Dirt Driveway (South)	>1000	320	470	35	No
Grant Drive	>1000	312	470	35	No
Richard Road	>1000	585	470	35	Yes
Hidden Creek Lane	685	>1000	470	35	Yes
Poppy Lane	>1000	>1000	470	35	Yes
Dailey Hill Road	>1000	>1000	470	35	Yes
Ed Winters Lane	>1000	>1000	470	35	Yes
Pierce Drive	540	>1000	470	35	Yes
Dyer Bridge Road	237	>1000	470	35	No
Battle Field Pkwy	>1000	>1000	470	35	Yes

Source: *A Policy on Geometric Design of Highways and Streets*, AASHTO, 1990, Figure IX-40. The requirements for Intersection Sight Distance are based on Case B-2b.

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

PROJECT CONCEPT REPORT

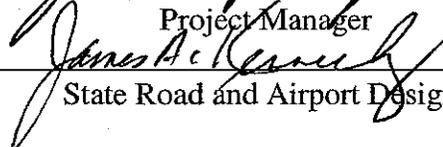
Project Number: STP-1119(1)  
County: Catoosa  
P. I. Number: 650520

Federal Route Number: N/A  
State Route Number: N/A  
County Route Number: 384

Recommendation for approval:

DATE 9/27/01

DATE 10-3-01

  
\_\_\_\_\_  
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 the State Transportation Improvement Program (STIP).

DATE \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

DATE 10/12/01

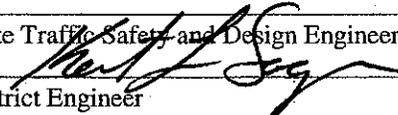
DATE \_\_\_\_\_

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

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

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

\_\_\_\_\_  
State Traffic Safety and Design Engineer

  
\_\_\_\_\_  
District Engineer

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

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

PROJECT CONCEPT REPORT

Project Number: STP-1119(1)

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Federal Route Number: N/A

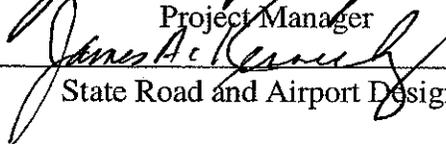
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Project Manager  
  
State Road and Airport Design Engineer

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DATE 10-11-01

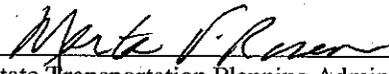
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State Transportation Planning Administrator  
\_\_\_\_\_  
State Transportation Programming Engineer  
\_\_\_\_\_  
State Environmental/Location Engineer  
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State Traffic Safety and Design Engineer  
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District Engineer  
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Project Review Engineer

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

PROJECT CONCEPT REPORT

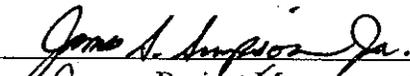
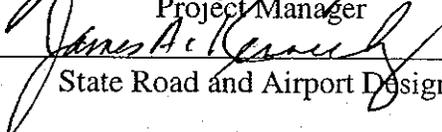
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Project Manager  
  
State Road and Airport Design Engineer

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DATE 10/12/01

DATE \_\_\_\_\_

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DATE \_\_\_\_\_

DATE \_\_\_\_\_

State Transportation Planning Administrator

  
State Transportation Programming Engineer

State Environmental/Location Engineer

State Traffic Safety and Design Engineer

District Engineer

Project Review Engineer

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

PROJECT CONCEPT REPORT

Project Number: STP-1119(1)  
County: Catoosa  
P. I. Number: 650520

Federal Route Number: N/A  
State Route Number: N/A  
County Route Number: 384

Recommendation for approval:

DATE 9/27/01

DATE 10-3-01

James A. Simpson Jr.  
Project Manager  
James A. Kennedy  
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 the State Transportation Improvement Program (STIP).

DATE \_\_\_\_\_

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

DATE \_\_\_\_\_

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

DATE \_\_\_\_\_

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

DATE \_\_\_\_\_

\_\_\_\_\_  
State Traffic Safety and Design Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
District Engineer

DATE 10/17/01

[Signature]  
Project Review Engineer

Department of Transportation  
State of Georgia

INTERDEPARTMENTAL CORRESPONDENCE

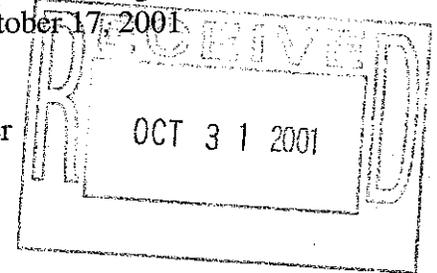
File: STP-1119 (1) / Catoosa  
P.I. No. 650520

Office: Traffic Safety & Design  
Atlanta, Georgia

Date: October 17, 2001

*PMA*

From: Phillip M. Allen, State Traffic Safety and Design Engineer  
To: Wayne Hutto, Assistant Director of Preconstruction



Subject: Project Concept Report Review

We have reviewed the above referenced concept report for the widening of Dietz Road/CR 384 from Reeds Bridge Road north to SR 146.

Dietz Road is currently a 2-lane roadway with 10-foot lanes and a posted speed limit of 35 mph. This concept proposes to widen Dietz Road to 12-foot lanes with curb and gutter and sidewalk. Some turn lanes will be added at various intersections throughout the project limits. The length of this project is 2.5 miles.

We believe this concept will improve safety and traffic operations within this area, therefore find this report satisfactory for approval.

PMA/bm

Attachment (signature page)

Cc: Harvey Keeper, Environment/Location Engineer  
James Kennerly, State Road and Airport Design Engineer  
Attention: Jim Simpson, Design Engineer  
David Mulling, Engineer Services, w/ attachment  
Marta Rosen, State Transportation Planning Administrator  
Chuck Hasty, TMC  
General Files  
Office Files

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

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Federal Route Number: N/A  
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Recommendation for approval:

DATE 9/27/01  
DATE 10-3-01

James A. Simpson Jr.  
Project Manager  
James H. Curney  
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 the State Transportation Improvement Program (STIP).

DATE \_\_\_\_\_

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

DATE \_\_\_\_\_

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

DATE \_\_\_\_\_

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

DATE 10-29-01

Phillip M. Allen  
State Traffic Safety and Design Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
District Engineer

DATE \_\_\_\_\_

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