

**ORIGINAL TO GENERAL FILES**

D.O.T. 66

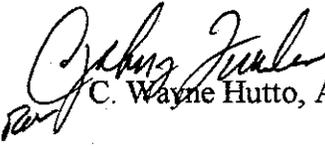
**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE** STP-2348(3) Forsyth County  
P. I. No. 141880

**OFFICE** Preconstruction

**DATE** February 13, 2001

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

**TO** SEE DISTRIBUTION

**SUBJECT** PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

CWH/cj

Attachment

**DISTRIBUTION:**

Tom Turner  
David Mulling  
Harvey Keeper  
Jerry Hobbs  
Herman Griffin  
Michael Henry  
Marion Waters  
Marta Rosen  
Paul Liles  
Jimmy Chambers (ATTN: Ted Cashin)  
Jim Kennerly  
Larry Dent

Frank L. Danchetz  
Page 2

STP-2348(3) Forsyth  
February 5, 2001

\*Forsyth County signed LGPA on 6-30-99 for PE and utilities.

I recommend this project concept be approved.

CWH:JDQ/cj

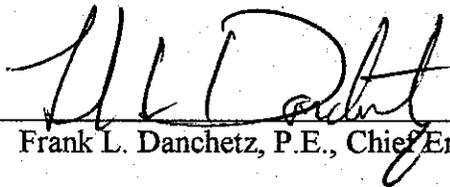
Attachment

CONCUR



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

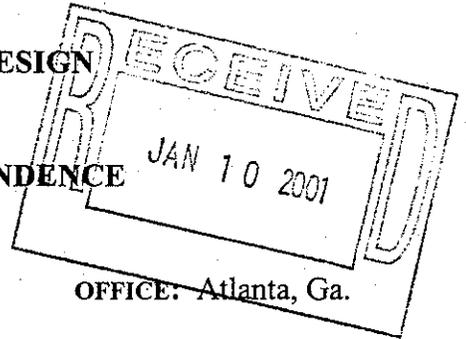
APPROVE



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

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

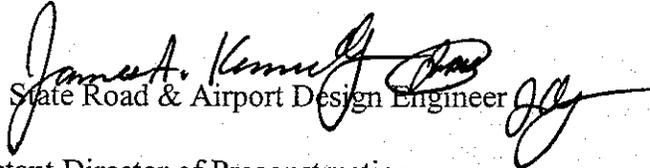
**INTERDEPARTMENT OF CORRESPONDENCE**



**FILE:** STP-2348(3) Forsyth County  
P.I. No. 141880

**OFFICE:** Atlanta, Ga.

**DATE:** January 5, 2001

**FROM:** James A. Kennerly, State Road & Airport Design Engineer 

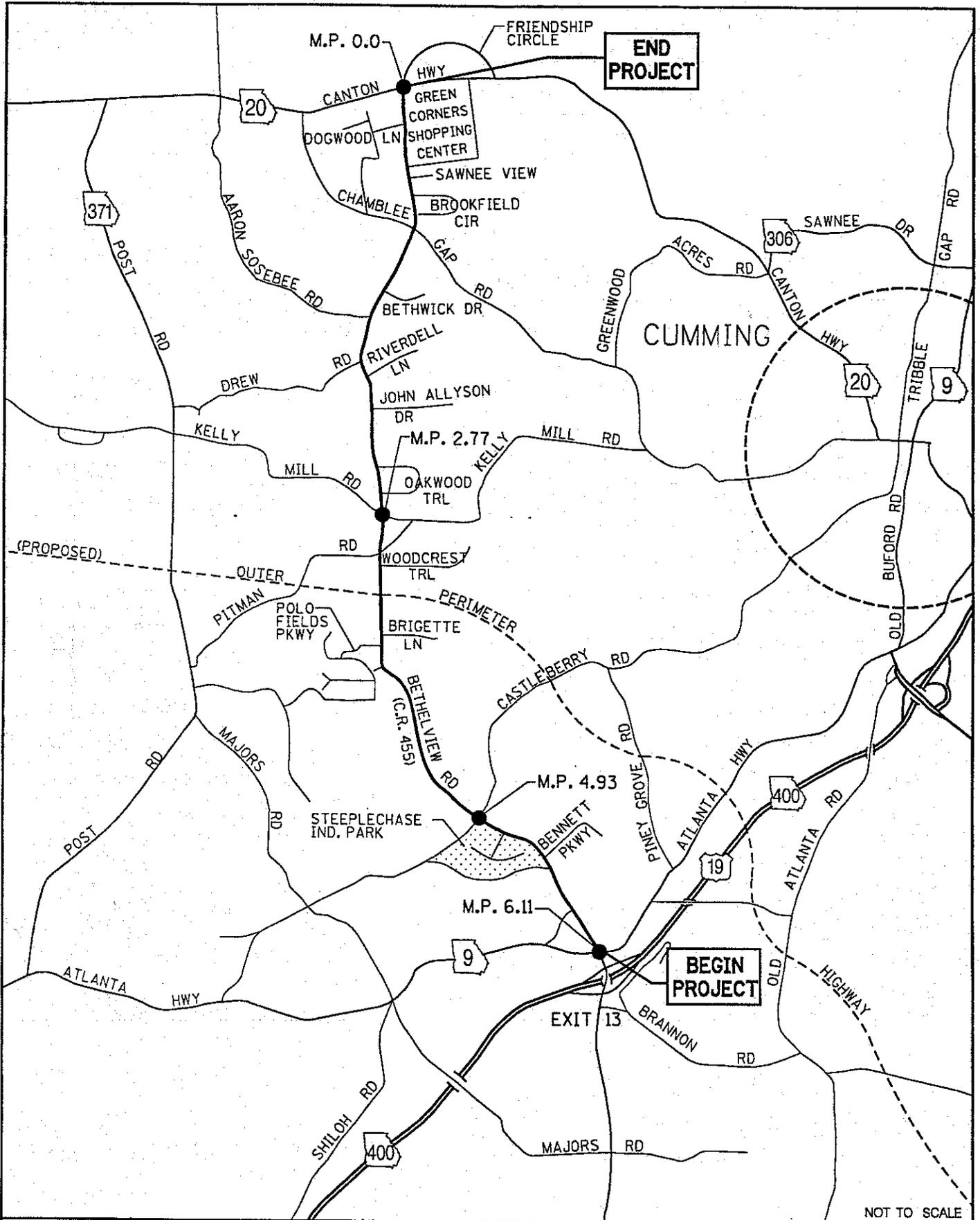
**TO:** Wayne Hutto, Assistant Director of Preconstruction

**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:KDF  
attachment

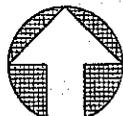
cc: David Mulling, w/attachment  
Harvey Keeper, w/attachment  
Marion Waters, w/attachment  
Marta Rosen, w/attachment  
Herman Griffin, w/attachment  
Larry Dent, w/attachment  
Paul Liles, w/attachment



NOT TO SCALE



Moreland Altobelli  
Associates, Inc.



PROJECT LOCATION SKETCH  
BETHELVIEW ROAD IMPROVEMENTS

GDOT PROJECT STP-2348(3) P.I. 141880

**PROJECT NUMBER: STP-2348(3)**

| <b>PROJECT LOCATION &amp; DESCRIPTION</b>  |                                    |
|--|------------------------------------|
| <p>This project is located along Bethelview Road (C.R. 455) west of the city of Cumming in central Forsyth County approximately 0.38 miles north of GA 400 (Exit-13), beginning at S.R. 9 (Atlanta Highway) and ending at S.R. 20 (Canton Highway).</p>  |                                    |
| <p>The project consists of widening and reconstruction of Bethelview Road from a 2-lane undivided to a 4-lane divided roadway. A number of existing intersections will be reconfigured to provide adequate turn-lanes and storage capacity for the design year traffic (2025), and will include the installation and/or upgrade of traffic signals at major intersections.</p> |                                    |
| PROJECT LENGTH:  | 6.11 miles                         |
| MILE POINT REFERENCE: BEGIN  | 6.11                      END 0.00 |

| <b>TRAFFIC</b> |             |             |             |
|----------------|-------------|-------------|-------------|
| <u>YEAR</u>    | <u>AADT</u> | <u>YEAR</u> | <u>AADT</u> |
| 2005           | 21,000      | 2025        | 35,500      |

| <b>ACCIDENT HISTORY</b> |                      |                    |                      |
|-------------------------|----------------------|--------------------|----------------------|
| <u>YEAR</u>             | <u>Accident Rate</u> | <u>Injury Rate</u> | <u>Fatality Rate</u> |
| 1995                    | 331 (193)            | 162 (122)          | 6.00 (3.40)          |
| 1996                    | 321 (201)            | 107 (122)          | 0.00 (3.67)          |
| 1997                    | 310 (194)            | 158 (112)          | 5.00 (3.62)          |

Note: All rates are per 100 million vehicle miles of travel. Numbers in parentheses are statewide average rates for all Rural Major Collector.

Bethelview Road experienced 53 accidents, consisting of 26 injuries and one fatality in 1995; 57 accidents, consisting of 19 injuries (no fatalities) in 1996; and 59 accidents, consisting of 30 injuries and one fatality in 1997. Additional accident information is located in the attachments.

|                           |                                  |                  |
|---------------------------|----------------------------------|------------------|
| <b>PDP CLASSIFICATION</b> | <b>FUNCTIONAL CLASSIFICATION</b> |                  |
| MAJOR, EXISTING LOCATION  | RURAL MAJOR COLLECTOR            |                  |
| FULL OVERSIGHT ( )        | EXEMPT (X)                       | STATE FUNDED ( ) |

| <b>ALTERNATIVES CONSIDERED</b>   |
|--|
| <ul style="list-style-type: none"> <li>• NO BUILD. This alternative does not meet the capacity and operational needs of the project.</li> <li>• PROPOSED PROJECT - See the Proposed Roadway section above, and the Need &amp; Purpose Statement located in the Attachments.</li> </ul> |

| <b>MISCELLANEOUS</b>  |              |     |     |
|---|--------------|-----|-----|
| TRAFFIC CONTROL DURING CONSTRUCTION: Traffic to be maintained on existing roadways. |              |     |     |
| LEVEL OF ENVIRONMENTAL ANALYSIS: ..... Environmental Assessment                     |              |     |     |
| DESIGN EXCEPTIONS REQUIRED:   |              |     |     |
|   | UNDETERMINED | YES | NO  |
| 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) |
| UNDERGROUND STORAGE TANKS: ..... none.  |              |     |     |
| HAZARDOUS WASTE SITES: ..... None known at this time.                               |              |     |     |

The subsequent traffic analysis of the 2025 design year traffic further substantiates the need and purpose of this project. The proposed improvements to Bethelview Road, i.e....widening and dividing the roadway with a 20-foot median, creating median breaks with designated left-turn lanes, and installing traffic signals at the major intersections; will accommodate design year capacity volumes and improve safety concerns throughout the length of the project.

The proposed project is planned in accordance with the Forsyth County Transportation Plan to upgrade the existing transportation infrastructure of Forsyth County. The northern half of this project, between the intersections of Polo Fields Parkway and Kelly Mill Road, will be crossed by the proposed Outer Perimeter Highway. Other projects in the area include SPLOST 4 Intersection Projects, which is the modification and improvements to 17 intersections involving State Routes in Forsyth County, and project STP-104-1(39) 7- Improvements to S.R. 141 and S.R. 400.

Detailed Cost Estimate

|           |   |              |                 |                    |
|-----------|---|--------------|-----------------|--------------------|
| <b>A.</b> | Right of Way  |              |                 | <b>\$3,000,000</b> |
| <b>B.</b> | Reimbursable Utilities                                |              |                 | <b>\$1,050,000</b> |
| <b>C.</b> | Major Structures                                      |              |                 |                    |
|           | 1. Bridge   | 7,650 SF     | \$55.00         | \$420,750          |
|           | 2. Box Culvert  |              | Lump Sum        | \$120,000          |
|           |   |              | <b>Subtotal</b> | <b>\$540,750</b>   |
| <b>D.</b> | Grading and Earthwork                                 |              |                 |                    |
|           | 1. Unclassified Excavation & Borrow                   | 180,000 CY @ | \$5.00          | \$900,000          |
|           |   |              | <b>Subtotal</b> | <b>\$900,000</b>   |
| <b>E.</b> | Drainage  |              | Lump Sum        | \$890,400          |
|           |   |              | <b>Subtotal</b> | <b>\$890,400</b>   |
| <b>F.</b> | Base & Paving   |              |                 |                    |
|           | 1. Graded Aggregate Base 10"                          | 120,131 TN @ | \$12.00         | \$1,441,572        |
|           | 2. Graded Aggregate Base 6"                           | 6,690 TN @   | \$12.00         | \$80,280           |
|           | 3. Asphalt Concrete 12.5 mm<br>OGFC 90#/SY (1-1/2")   | 10,707 TN @  | \$33.00         | \$353,331          |
|           | 4. Asphalt Concrete 12.5 mm<br>SMA 165#/SY (1-1/2")   | 18,070 TN @  | \$33.00         | \$596,310          |
|           | 5. Asphalt Concrete 19.0 mm<br>Superpave 220#/SY (2") | 24,095 TN @  | \$33.00         | \$795,135          |
|           | 6. Asphalt Concrete 25 mm<br>Superpave 440#/SY (4")   | 48,190 TN @  | \$32.00         | \$1,542,080        |
|           | 7. Bitum Tack Coat                                    | 46,915 GL @  | \$1.50          | \$70,373           |
|           |   |              | <b>Subtotal</b> | <b>\$4,879,081</b> |
| <b>G.</b> | Concrete Work   |              |                 |                    |
|           | 1. Median Paving                                      | 59,693 SY @  | \$25.00         | \$1,492,325        |
|           | 2. Driveway Paving                                    | 4,275 SY @   | \$25.00         | \$106,875          |
|           | 3. Curb & Gutter                                      | 73,079 LF @  | \$12.00         | \$876,948          |
|           | 4. Sidewalk   | 11,285 SY @  | \$25.00         | \$282,125          |
|           |   |              | <b>Subtotal</b> | <b>\$2,758,273</b> |
| <b>H.</b> | Signing, Striping, and Lighting                       |              |                 |                    |
|           | 1. Signs  |              | Lump Sum        | \$100,000          |
|           | 2. Signals  | 9 ea @       | \$80,000.00     | \$720,000          |
|           | 3. Striping   |              | Lump Sum        | \$150,000          |
|           |   |              | <b>Subtotal</b> | <b>\$970,000</b>   |
| <b>I.</b> | Guardrail   |              |                 |                    |
|           | 1. Guardrail, Type T                                  | 400 LF @     | \$21.00         | \$8,400            |
|           | 2. Guardrail, Type W                                  | 400 LF @     | \$12.00         | \$4,800            |
|           | 3. Anchors TP 12                                      | 4 ea @       | \$1,500.00      | \$6,000            |
|           | 4. Anchors TP 1                                       | 4 ea @       | \$400.00        | \$1,600            |
|           |   |              | <b>Subtotal</b> | <b>\$20,800</b>    |

## SUMMARY OF PROJECT COSTS

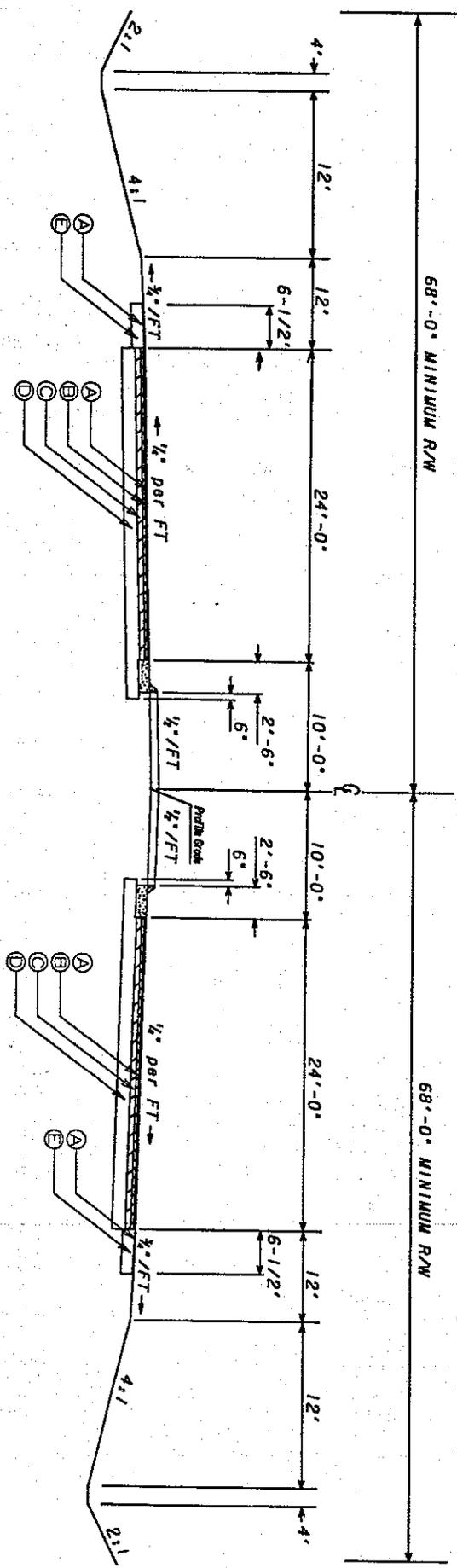
### Non-Construction Costs

|    |                                    |                    |
|----|------------------------------------|--------------------|
| A. | Right of Way                       | \$3,000,000        |
| B. | Reimbursable Utilities             | \$1,050,000        |
|    | <b>Total Non-Construction Cost</b> | <b>\$4,050,000</b> |

### Construction Costs

|    |                                   |                     |
|----|-----------------------------------|---------------------|
| C. | Major Structures                  | \$120,000           |
| D. | Grading and Earthwork             | \$900,000           |
| E. | Drainage                          | \$890,400           |
| F. | Base and Paving                   | \$4,879,081         |
| G. | Concrete Work                     | \$2,758,273         |
| H. | Sign, Stripe & Light              | \$970,000           |
| I. | Guardrail                         | \$20,800            |
| J. | Traffic Control                   | \$300,000           |
| K. | Landscaping                       | \$808,200           |
| L. | Miscellaneous Construction Items  | \$2,735,600         |
|    | <b>Construction Cost Subtotal</b> | <b>\$14,382,354</b> |
|    | Three years of inflation @ 5%     | \$2,267,018         |
|    | Engineering & Construction; 10%   | \$1,438,235         |
|    | <b>Total Construction Cost</b>    | <b>\$18,087,607</b> |
|    | <b>Total Project Cost</b>         | <b>\$22,137,607</b> |

|      |         |       |          |
|------|---------|-------|----------|
| DATE | PROJECT | SCALE | REVISION |
|      |         |       |          |



### TYPICAL SECTION

NOT TO SCALE

#### PROPOSED PAVEMENT

- Ⓐ ASPHALTIC CONC. 12.5 mm SUPERPAVE (165 lbs./SY)
- Ⓑ ASPHALTIC CONC. 19 mm SUPERPAVE (220 lbs./SY)
- Ⓒ ASPHALTIC CONC. 25 mm SUPERPAVE (350 lbs./SY)
- Ⓓ GRADED AGGREGATE BASE (12")
- Ⓔ GRADED AGGREGATE BASE (6")

| NO. | DATE | BY | CHKD. | REVISIONS |
|-----|------|----|-------|-----------|
|     |      |    |       |           |

**MA** **Moreland Altabelli Associates, Inc.**  
 DEPARTMENT OF TRANSPORTATION  
 STATE OF GEORGIA

**BETHELVIEW ROAD**  
**RURAL TYPICAL SECTION**

STATION  
**A-2**

| Bethelview Road (C.R. 455) Detailed Accident Inventory |                     |                 |                |                        |       |        |
|--|---------------------|-----------------|----------------|------------------------|-------|--------|
| 1998 Accident Data                                     |                     |                 |                |                        |       |        |
| Road of Occurrence                                     | Intersecting Street | Total Accidents | Total Injuries | Accident Types         |       |        |
|  |                     |                 |                | Sideswipe/<br>Rear End | Angle | Other* |
| Bethelview Rd.   | Mainline            | 17              | 1              | 6                      |       | 10     |
| Bethelview Rd.   | S.R. 20             | 8               |                | 5                      | 3     |        |
| Bethelview Rd.   | Sawnee View Dr.     | 1               |                |                        | 1     |        |
| Bethelview Rd.   | Brookfield Cir.     | 2               |                | 1                      |       | 1      |
| Bethelview Rd.   | Drew Rd.            | 1               |                | 1                      |       |        |
| Bethelview Rd.   | Kelly Mill Rd.      | 6               | 4              |                        | 1     | 1      |
| Bethelview Rd.   | Pittman Rd.         | 2               |                |                        | 2     |        |
| Bethelview Rd.   | Castleberry Rd.     | 4               | 1              | 1                      | 2     |        |
| Bethelview Rd.   | Steeple Chase Blvd. | 1               |                | 1                      |       |        |
| Bethelview Rd.   | Bethelview Dr.      | 3               |                | 3                      |       |        |
| Bethelview Rd.   | S.R. 9              | 4               |                | 4                      |       |        |
| Totals   |                     | 49              | 6              | 22                     | 9     | 12     |

| Bethelview Road (C.R. 455) Detailed Accident Inventory |                             |                 |                |                    |       |        |
|--|-----------------------------|-----------------|----------------|--------------------|-------|--------|
| 1999 Accident Data: 1/99 - 7/17/99                     |                             |                 |                |                    |       |        |
| Road of Occurrence                                     | Intersecting Street         | Total Accidents | Total Injuries | Accident Types     |       |        |
|  |                             |                 |                | Sideswipe/Rear End | Angle | Other* |
| Bethelview Rd.   | Mainline                    | 17              | 5              | 8                  | 2     | 7      |
| Bethelview Rd.   | S.R. 20                     | 2               | 1              | 2                  |       |        |
| Bethelview Rd.   | Green Corners Shopping Ctr. | 1               |                |                    | 1     |        |
| Bethelview Rd.   | Kelly Mill Rd.              | 1               |                |                    | 1     |        |
| Bethelview Rd.   | Polo Fields Pky.            | 1               | 1              |                    |       | 1      |
| Bethelview Rd.   | Castleberry Rd.             | 1               |                | 1                  |       |        |
| Bethelview Rd.   | S.R. 9                      | 3               |                | 1                  | 1     | 1      |
| Totals   |                             | 26              | 7              | 12                 | 5     | 9      |

\* Includes the following Accident Types: Head On, Struck Object, and Other Non-Collision: Failure to maintain lane.

As the tables indicate, the majority of accidents are "rear end" and "sideswipe" collisions occurring on the Bethelview mainline. Consistent with the increase in the number of accidents are the number of injury related accidents, which in turn are consistent with the annual increase in traffic volumes. Examination of the breakdown of these figures show "rear end / sideswipe" and "angle" collisions resulting from congestion on the mainline, as well as motorists attempting to pass left-turning vehicles at local intersections, and right-turning vehicles at various driveway entrances. With a posted speed of 50 mph for the majority of Bethelview Road, motorists in many cases are traveling too fast for the existing conditions and do not have an auxiliary lane at many locations to avoid left and right-turning vehicles as evidenced by accident reports obtained for 1998 and 1999. These numbers will continue to increase as more new residential and commercial developments abut this rural roadway, and as Bethelview Road continues to collect more traffic in the direction of S.R. 400.

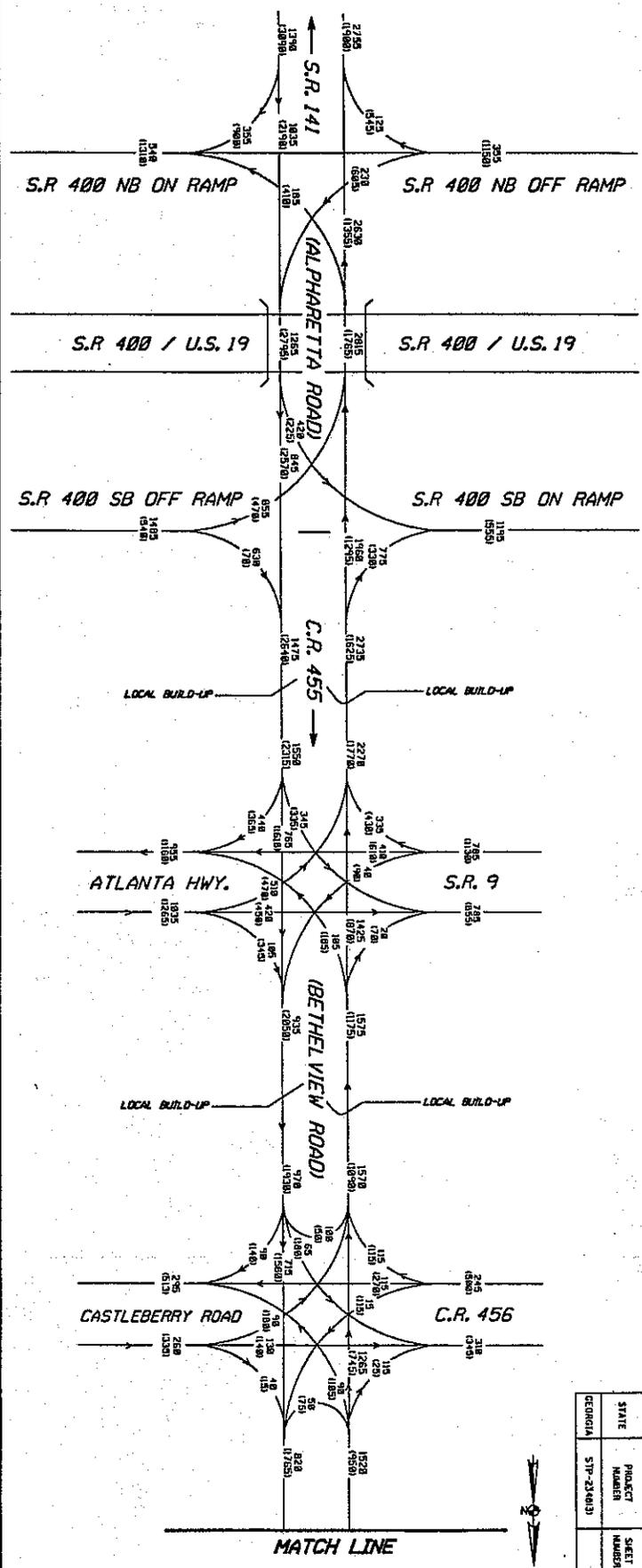
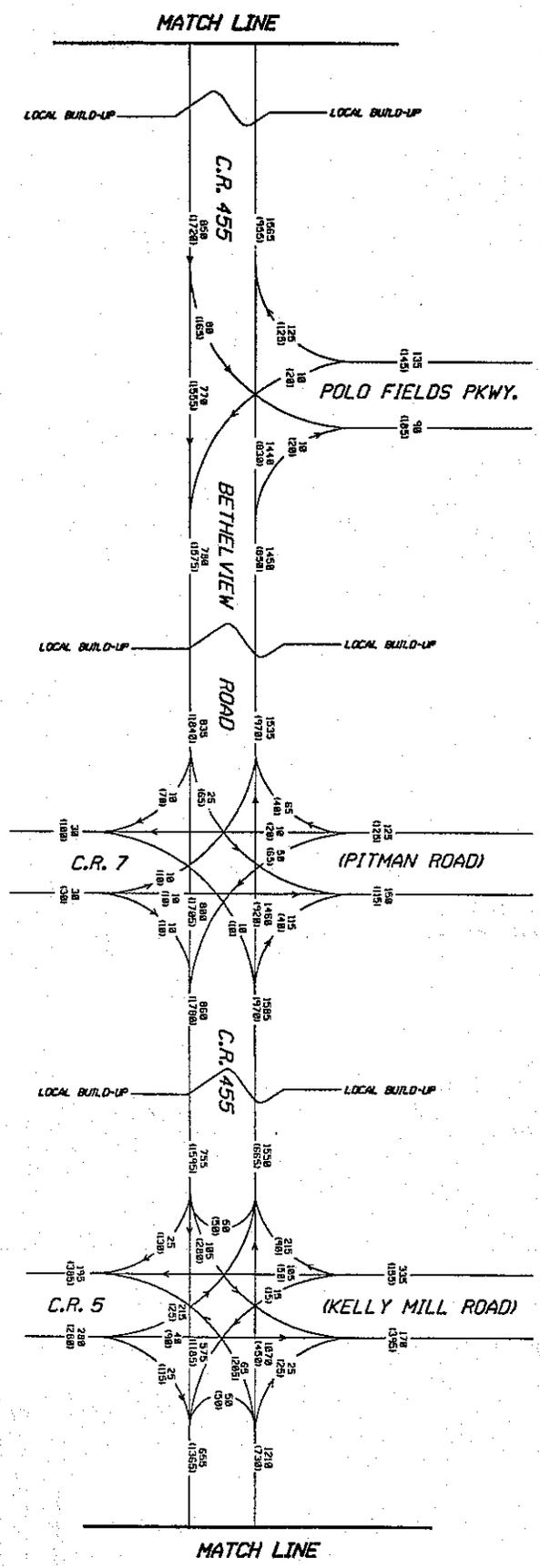
P.I. NO: 141880

existing conditions; however, the installation of traffic signals at the proposed locations listed in this concept report is recommended to improve the safety and peak hour delay of the existing conditions.

|             |      |
|-------------|------|
| DESIGNED BY | DATE |
| CHECKED BY  | DATE |
| APPROVED BY | DATE |

YEAR 2025  
000 AM PEAK HOUR TRAFFIC  
(0000) PM PEAK HOUR TRAFFIC

C.R. 455/ BETHEL VIEW ROAD IMPROVEMENTS  
YEAR 2025 PEAK HOUR DESIGN TRAFFIC  
TRAFFIC FLOW DIAGRAM

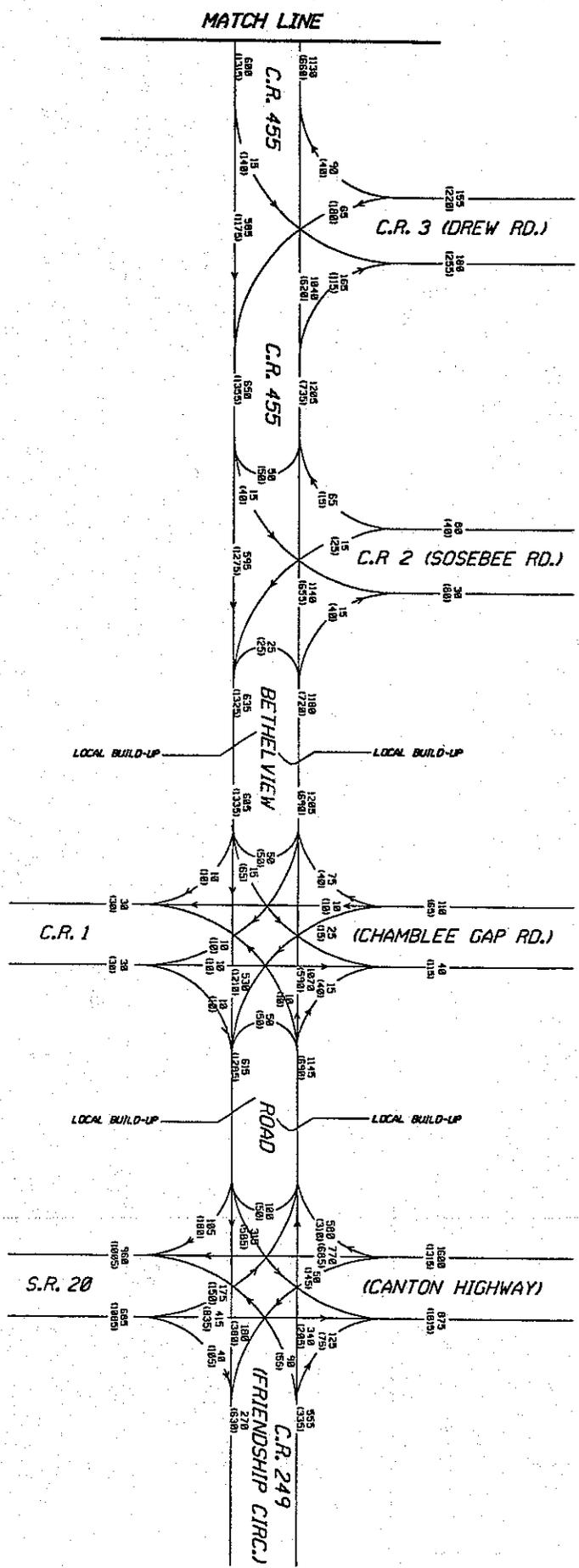


|         |                |              |              |
|---------|----------------|--------------|--------------|
| STATE   | PROJECT NUMBER | SHEET NUMBER | TOTAL SHEETS |
| GEORGIA | 51P-234(413)   |              |              |

|             |      |            |      |
|-------------|------|------------|------|
| DESIGNED BY | DATE | CHECKED BY | DATE |
| APPROVED BY | DATE | DATE       | DATE |

YEAR 2025  
 0900 AM PEAK HOUR TRAFFIC  
 0900 PM PEAK HOUR TRAFFIC

C.R. 455/ BETHELVIEW ROAD IMPROVEMENTS  
 YEAR 2025 PEAK HOUR DESIGN TRAFFIC  
 TRAFFIC FLOW DIAGRAM



|         |            |        |        |
|---------|------------|--------|--------|
| STATE   | PROJECT    | SHEET  | TOTAL  |
| GEORGIA | SIP-24(H1) | NUMBER | SHEETS |

**Minutes of Concept Team Meeting  
Improvements to Bethelview Road (CR 455)  
Project Number: STP-2348-(3) P.I. No. 141880  
Forsyth County**

| <b>ATTENDEES</b> | <b>ORGANIZATION</b>                   | <b>PHONE NUMBER</b> |
|------------------|---------------------------------------|---------------------|
| Kim Fulbright    | GDOT Road Design                      | 404-656-5407        |
| Tim Smith        | GDOT Traffic Operations               | 404-635-8126        |
| Joe Leoni        | GDOT Road Design                      | 404-656-5390        |
| Jimmy Vaughan    | Moreland Altobelli Associates, Inc    | 770-886-5945        |
| Tim Allen        | Forsyth County                        | 770-781-2165        |
| William G. Hasty | 9 <sup>th</sup> District Board Member | 770-425-8528        |
| Chuck Wilson     | Moreland Altobelli Associates, Inc    | 770-263-5945        |
| Nicole Beckman   | Moreland Altobelli Associates, Inc    | 770-263-5945        |
| Steve Walker     | GDOT Planning                         | 404-463-0694        |
| Don Frazier      | City of Cumming                       | 770-781-2010        |
| David Mulling    | GDOT Engineering Services             | 404-656-6846        |
| Katie Mullins    | GDOT Programming                      | 404-656-7043        |
| Karla Poshedly   | Moreland Altobelli Associates, Inc    | 770-263-5945        |
| Brent Cook       | GDOT Gainesville                      | 770-532-5530        |
| R. Keith Canup   | GDOT Gainesville                      | 770-532-5565        |

Mr. Kim Fulbright, GDOT Road Design, opened the meeting and began with introductions of all attendees. Ms. Karla Poshedly then gave a project description of the programmed project: STP-23748-(3) Improvements to Bethelview Road (CR 455). She stated that the proposed project consists of widening and reconstruction of Bethelview Road from a 2-lane undivided to a 4-lane divided roadway. A number of existing intersections will be reconfigured to provide adequate turn-lanes and storage capacity for the design year traffic (2025), and will include the installation and/or upgrade of traffic signals at major intersections.

Ms. Poshedly continued by stating that the functional classification of the road is rural major collector. She affirmed the accident history and traffic projections as found in the concept report. The projected AADT is 35,500 on Bethelview Road. Ms. Poshedly described the existing typical section as being two 12-foot rural lanes with variable grass shoulders. She stated that the proposed design criteria would have a design speed of 45 mph, maximum degree of curve of 4.0°, and a maximum grade of 3%. No special design exceptions are requested for the proposed project. The estimated right-of-way costs for the project are to be \$2,500,000.

Ms. Poshedly described the need and purpose of this project. The proposed improvements serve two primary purposes. The first is to provide additional traffic capacity and improved access to accommodate existing and future traffic volumes in the

project corridor. The second is to improve traffic safety by dividing Bethelview Road with a 20-foot median to separate on-coming traffic and to promote the orderly flow of traffic by providing median breaks with designated left-turn lanes at major intersections. Bethelview Road is a two-lane rural major collector between SR 400 to the south and SR 20 to the north, providing access to residential and small commercial developments located along the roadway, and serving as a collector for SR 400.

Ms. Poshedly stated that there would be 10 residential displacements and 2 businesses. This change has already been made in the Concept Report.

Ms. Poshedly also stated that the Underground Storage Tanks (UST's) have already been removed, which were a concern earlier. Mr. Chuck Wilson further stated that he was recently at the business that had the UST's and confirmed that they were removed.

Mr. Wilson stated that this project would require an Environmental Assessment (EA) for the environmental documentation. He stated that he anticipates the process to be minimal.

Mr. Fulbright asked for additional discussion of the project. There were none at this time.

Mr. Fulbright brought forward some questions and comments regarding the Concept Report. He stated that it should list today's date as the concept team meeting date. The typical sections should be separate and reflect urban and rural sections. He also wanted to ensure that there is enough length for deceleration in the turn lanes. Mr. Fulbright discussed the 350-foot length for deceleration lanes in AASHTO's green book. He mentioned that this minimum should be used, but to check to see if traffic will require more than the minimum length.

Mr. Fulbright also questioned the lack of sidewalks and bike lanes. Ms. Poshedly stated that this project is not included in the GDOT or County Bicycle Route Plan so no bike lanes are included in this project. However, all the urban sections of the roadway include curb and gutter as well as sidewalks.

Mr. Fulbright thought the right-of-way was a bit conservative, especially considering the hilly terrain in the project area. He wants to double-check the number of parcels again.

Mr. Fulbright asked County Representatives for any comments or concerns they may have. Forsyth County Representative Mr. Tim Allen wanted clarification on the number of wetlands in the project area. Mr. Wilson stated that there is one location on one side of the road, and it was considered Waters of the U.S. and therefore a Nationwide 14 permit would be required. A Nationwide 14 permit can be used when less than 1/2 of an acre will be impacted. The bridge is also Waters of the U.S. The channel alignment of the stream is not of any concern. An Ecology Report has not been conducted yet. Mr. Allen also wanted to know the status of the historical survey. Mr. Wilson stated that 2 historic sites were found, and the current alignment avoids impacting these resources. Mr.

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 LONG RANGE

PROJECT DATA

| County   | Project No.<br>P.I. No. | Type Work                    |
|--|-------------------------|------------------------------|
| FORSYTH  | STP-2348(3)<br>141880   | RECST. OR REHAB.<br>WIDENING |
| Description: BETHELVIEW RD FM SR 9 TO SR 20 INCLUDE SR 20 INT. |                         |                              |
| Project Length = 6.10 Miles                                    |                         |                              |

FUNDING INFORMATION

| Estimated Cost<br>(\$1,000's) | DOT<br>Share | Other<br>Share | Fiscal<br>Year | Cong.<br>District | Field<br>District |
|-------------------------------|--------------|----------------|----------------|-------------------|-------------------|
| PE \$190                      |              |                | LR             |                   |                   |
| ROW \$4,200                   |              |                | LR             | 9                 | 1                 |
| CONST \$6,420                 | \$6,420      | \$0            | LR             |                   |                   |

Fund 1 = 33E  
Fund 2 = 33D

REASON FOR REVISION:

Requested by the S.H.I.P Committee

RECOMMENDED

*Wayne Beckford*  
\_\_\_\_\_  
DIRECTOR, DIVISION OF PLANNING AND PROGRAMMING

APPROVED

*Wayne Beckford*  
\_\_\_\_\_  
COMMISSIONER

AGREEMENT

BETWEEN

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

AND

FORSYTH COUNTY

FOR

BETHELVIEW ROAD FROM SR 9 TO SR 20

THIS AGREEMENT, is made and entered into this 30<sup>TH</sup> day of June, 1999, by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and FORSYTH COUNTY, GEORGIA, acting by and through its Chairman and Board of Commissioners, hereinafter called the "LOCAL GOVERNMENT".

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to improve the roadway facility along Bethelview Road from SR 9 to SR 20 including the SR 20 intersection, Georgia Department of Transportation Project Number STP-2348(3), P.I. Number 141880 hereinafter referred to as the "PROJECT"; and

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to participate in providing the preconstruction engineering activities needed for the improvements, relocating the utilities, and other costs as specified in the AGREEMENT, and the DEPARTMENT has relied upon such representations; and

DEPARTMENT shall have final authority. If, for any reason, the LOCAL GOVERNMENT does not produce acceptable deliverables at the milestone dates defined in the STIP, or in the approved schedule, the DEPARTMENT reserves the right to delay the project's implementation until funds can be re-identified for construction or right-of-way, as applicable.

4. All drafting and design work performed on the project shall be done utilizing Microstation and CAICE software respectively, and shall be organized as per the DEPARTMENT'S guidelines on electronic file management.

5. The LOCAL GOVERNMENT shall contribute towards the PROJECT by funding all cost for the preconstruction engineering (design). The preconstruction engineering activities shall be accomplished in accordance with the DEPARTMENT'S Plan Development Process, the Plan Presentation Guide, the applicable guidelines of the American Association of State Highway and Transportation Officials, hereinafter referred to as "AASHTO", the DEPARTMENT'S Standard Specification for the Construction of Transportation Systems, PROJECT schedules, and applicable guidelines of the DEPARTMENT. The LOCAL GOVERNMENT responsibility for design shall include, but is not limited to the following items.

a. Prepare the PROJECT concept report in accordance with the format used by the DEPARTMENT. The concept for the PROJECT shall be developed to accommodate the future traffic volumes as generated by the LOCAL GOVERNMENT as provided for in paragraph 5b and approved by the DEPARTMENT. It is recognized by the parties that the approved concept may be modified by the LOCAL GOVERNMENT as required by the DEPARTMENT and reapproved by the DEPARTMENT during the course of design due to public input,

approvals. These efforts shall be coordinated with the DEPARTMENT.

h. Prepare the PROJECT'S drainage design including erosion control plans and the development of the hydraulic studies for the Federal Emergency Management Agency Floodways and acquisition of all necessary permits associated with the drainage design.

i. Prepare traffic studies, preliminary construction plans, preliminary and final utility plans, preliminary and final right-of-way plans, staking of the required right-of-way, and final construction plans including erosion control, traffic handling, and construction sequence plans and specification including special provisions for the PROJECT.

j. Provide certification, by a Georgia Registered Professional Engineer, that the construction plans have been prepared under the guidance of the professional engineer and are in accordance with acceptable industry standards.

6. The DEPARTMENT shall review and has approval authority for all aspects of the PROJECT. The DEPARTMENT will work with the FHWA to obtain all needed approvals with information furnished by the LOCAL GOVERNMENT.

7. Upon the LOCAL GOVERNMENT'S determination of the rights-of-way required for the PROJECT and the approval of the right-of-way plans by the DEPARTMENT, the DEPARTMENT shall fund the acquisition. The LOCAL GOVERNMENT will acquire the necessary rights-of-way for the PROJECT and be reimbursed for the property costs by the DEPARTMENT. Right-of-way acquisition shall be in accordance with the law and the rules and regulations of the FHWA including, but not limited to, Title 23, United States Code; 23 CFR 710, et. seq., and 49 CFR Part 24, and the rules and regulations of the DEPARTMENT. Failure

12. The LOCAL GOVERNMENT shall follow the DEPARTMENT'S procedures for identification of existing and proposed utility facilities on the PROJECT. These procedures, in part, require all requests for existing, proposed, or relocated facilities to flow through the DEPARTMENT'S Project Liaison and the District Utilities Engineer.

13. Upon completion and approval of the PROJECT plans, certification that all needed rights-of-way have been obtained and cleared of obstructions, and certification that all needed permits for the PROJECT have been obtained by the LOCAL GOVERNMENT, the DEPARTMENT shall let the PROJECT for construction. Except as provided herein and upon receipt of an acceptable bid, the DEPARTMENT shall bear all costs for construction, including all costs associated with inspection and materials testing during construction. The DEPARTMENT shall be solely responsible for securing and awarding the construction contract for the PROJECT.

14. The LOCAL GOVERNMENT agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer diskettes and printouts, and any other data prepared under the terms of this agreement shall become the property of the DEPARTMENT. This data shall be organized, indexed, bound, and delivered to the DEPARTMENT no later than the advertisement of the PROJECT for letting. The DEPARTMENT shall have the right to use this material without restriction or limitation and without compensation to the LOCAL GOVERNMENT.

IN WITNESS WHEREOF, the DEPARTMENT and the LOCAL GOVERNMENT have caused these presents to be executed under seal by their duly authorized representatives.

RECOMMENDED:

James Kennerly  
James A. Kennerly  
State Road & Airport Design Engineer

Walker W. Scott Jr.  
Walker W. Scott, Jr., P.E.  
Director of Preconstruction

Frank L. Danchetz  
Frank L. Danchetz  
Chief Engineer

DEPARTMENT OF TRANSPORTATION

BY: Wayne Shackelford  
Wayne Shackelford  
Commissioner

ATTEST:

Billy J. Sharpe  
Treasurer

REVIEWED AS TO LEGAL FORM:

Andi Bey  
Office of Legal Services

DATE: 6-18-99

Notary Public  
David & Kal

BOARD OF COMMISSIONERS

BY: Bill Jenkins  
Chairman

Signed, sealed and delivered this 24<sup>th</sup>  
day of May, 1999 in  
the presence of:

Donald M. Major  
Witness

Clutch Clabe  
Witness

Cindy Henderson  
Notary Public  
Notary Public, Forsyth County, Georgia  
My Commission Expires May 15, 2001

This Agreement approved by the County  
Commission at a meeting held at:

Forsyth County Administration Building

the 24<sup>th</sup> day of May, 1999

Pat E. Whalley  
County Clerk

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

PROJECT CONCEPT REPORT

Improvements to Bethelview Road (C.R. 455)

Project Number: STP-2348(3)  
P.I. No. 141880  
Forsyth County

FEDERAL ROUTE NO: None  
STATE ROUTE NO: None

Date of Report: January 2, 2001

RECOMMENDATION FOR APPROVAL

01-10-01  
DATE

*James Kennedy*  
State Road and Airport Design Engineer

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

\_\_\_\_\_  
District Engineer / Gainesville

\_\_\_\_\_  
DATE

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

1/23/01  
DATE

*Maria Shuter*  
State Traffic Operations Engineer

\_\_\_\_\_  
DATE

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

**Distribution Continued**

**David Mulling, w/ attachment**  
**Marta Rosen**  
**Chuck Hasty, TMC**  
**General Files**

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

PROJECT CONCEPT REPORT

Improvements to Bethelview Road (C.R. 455)

Project Number: STP-2348(3)

P.I. No. 141880

Forsyth County

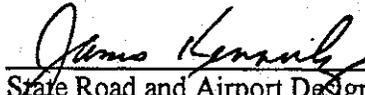
FEDERAL ROUTE NO: None

Date of Report: January 2, 2001

STATE ROUTE NO: None

RECOMMENDATION FOR APPROVAL

01-10-01  
DATE

  
State Road and Airport Design Engineer

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

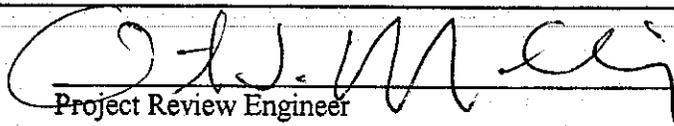
\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

\_\_\_\_\_  
District Engineer / Gainesville

1/17/01  
DATE

  
Project Review Engineer

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

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

PROJECT CONCEPT REPORT

Improvements to Bethelview Road (C.R. 455)

Project Number: STP-2348(3)  
P.L. No. 141880  
Forsyth County

FEDERAL ROUTE NO: None  
STATE ROUTE NO: None

Date of Report: January 2, 2001

RECOMMENDATION FOR APPROVAL

01-10-01  
DATE

*James Kennedy*  
State Road and Airport Design Engineer

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

1/29/01  
DATE

*Larry E. Rantzi*  
District Engineer / Gainesville

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

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

**PROJECT CONCEPT REPORT**

**Improvements to Bethelview Road (C.R. 455)**

Project Number: STP-2348(3)  
P.L. No. 141880  
Forsyth County

Date of Report: January 2, 2001

FEDERAL ROUTE NO: None  
STATE ROUTE NO: None

**RECOMMENDATION FOR APPROVAL**

01-10-01  
DATE

*James Kennedy*  
State Road and Airport Design Engineer

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

\_\_\_\_\_  
DATE

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

1/11/01  
DATE

*Henry J. Griffin*  
State Transportation Programming Engineer

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

\_\_\_\_\_  
District Engineer / Gainesville

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

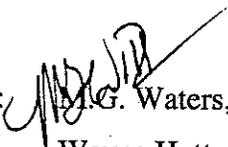
Department of Transportation  
State of Georgia

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INTERDEPARTMENTAL CORRESPONDENCE

File: STP-2348(3)/Forsyth County  
P.I. No. 141880

Office: Traffic Operations  
Atlanta, Georgia  
Date: January 12, 2001

From:  M.G. Waters, III, P.E., State Traffic Operations Engineer  
To: Wayne Hutto, Assistant Director of Preconstruction

Subject: Project Concept Report Review

We have reviewed the concept report on the above project for the widening and reconstruction along Bethelview Road, west of the city of Cumming, from SR 9 (Atlanta Highway) north to SR 20 (Canton Highway), a distance of 6.11 miles.

Bethelview Road is a two lane rural roadway with variable width grassed shoulders and a posted speed limit of 50mph. Between 1995 and 1997, Bethelview Road has experienced 169 accidents resulting in 75 injuries and two fatalities. The accident, injury and fatality rates are higher than the statewide averages for a facility of this type. By the design year 2025 traffic volume is projected at more than 35,000vpd on this roadway.

This project proposes to widen Bethelview Road to consist of an urban typical design section with four 12 foot travel lanes, two in each direction, divided by a 20 foot raised grassed median and 5 foot sidewalk on both sides, from SR 9 to Bennett Parkway and again from Bethwick Drive to SR 20. From Bennett Parkway to Bethwick Drive it proposes a rural typical section with four travel lanes, a 20 foot raised grassed median and 12 foot shoulders, of which 6.5 feet will be paved, a distance of 4.11 miles. Traffic is to be maintained, via staging, during construction.

We believe this concept will improve safety and traffic operations along this section of roadway.

We therefore find this report satisfactory for approval.

MGW:TWS

Attachment (signature page)

c: Harvey Keeper  
James A. Kennerly, State Road and Airport Design Engineer  
Attention: Kim Fulbright

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

PROJECT CONCEPT REPORT

Improvements to Bethelview Road (C.R. 455)

Project Number: STP-2348(3)

P.L. No. 141880

Forsyth County

FEDERAL ROUTE NO: None

Date of Report: January 2, 2001

STATE ROUTE NO: None

RECOMMENDATION FOR APPROVAL

01-10-01  
DATE

*James Kennedy*  
State Road and Airport Design Engineer

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

\_\_\_\_\_  
District Engineer / Gainesville

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

1/13/01  
DATE

*Paul V. Tullis Jr.*  
State Bridge & Structural Engineer

15. The LOCAL GOVERNMENT shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this AGREEMENT. The LOCAL GOVERNMENT shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the designs, drawings, specifications, and other services furnished for this PROJECT. All revisions shall be coordinated with the DEPARTMENT prior to issuance. The LOCAL GOVERNMENT shall also be responsible for any claim, damage, loss or expense that is attributable to negligent acts, errors, or omissions related to the designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this AGREEMENT.

16. The LOCAL GOVERNMENT shall prepare all shop drawings for approval by the DEPARTMENT.

17. This AGREEMENT is made and entered into in Fulton County, Georgia, and shall be governed and construed under the laws of the State of Georgia.

18. The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

to follow these requirements will result in loss of Federal funding for the PROJECT, and it will be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. All required right-of-way shall be obtained and cleared of obstructions, including underground storage tanks, prior to the DEPARTMENT'S advertising the PROJECT for bids. The LOCAL GOVERNMENT shall further be responsible for making all changes to the approved right-of-way plans, as deemed necessary by the DEPARTMENT, for whatever reason, as needed to purchase the right-of-way or to match actual conditions encountered.

8. The LOCAL GOVERNMENT shall be responsible for the design of any bridges which lay within the limits of this PROJECT. The LOCAL GOVERNMENT shall perform all necessary survey efforts regarding the design of the bridge and shall incorporate these plans into this PROJECT as a part of this Agreement.

9. The LOCAL GOVERNMENT shall be responsible for all utility relocation costs necessary for the construction of the PROJECT.

10. The LOCAL GOVERNMENT shall be responsible for all costs for providing energy, maintenance, and operational costs of any roadway and interchange lighting within the PROJECT limits.

11. The LOCAL GOVERNMENT shall be responsible for all costs for continual maintenance, and the continual operations of any and all sidewalks within the PROJECT limits.

environmental requirements, or right-of-way considerations.

b. Develop the PROJECT'S base year (year facility is expected to be open to traffic) and design year (base year plus 20 years) traffic volumes. This shall include average daily traffic (ADT) and morning (am) and evening (pm) peak hour volumes. The traffic shall show all through and turning movement volumes at intersections for the ADT and peak-hour volumes and shall indicate the percentage of trucks expected on the facility.

c. Validate (check and update) the approved PROJECT concept and prepare a PROJECT Design Book for approval by the DEPARTMENT prior to the beginning of preliminary plans.

d. Prepare environmental studies, documentation, and reports for the PROJECT that show the PROJECT is in compliance with the provisions of the National Environmental Protection Act and Georgia Environmental Protection Act, as appropriate to the PROJECT funding. This shall include any and all archaeological, historical, ecological, air, noise, underground storage tanks (UST), and hazardous waste site studies required. The LOCAL GOVERNMENT shall submit to the DEPARTMENT all environmental documents and reports for review and approval by the DEPARTMENT and the FHWA.

e. Prepare all public hearing and public information displays and conduct all required public hearings and public information meetings in accordance with DEPARTMENT practice.

f. Perform all surveys, mapping, and soil investigation studies needed for design of the PROJECT.

g. Perform all work required to obtain project permits, including, but not limited to, US Army Corps of Engineers 404 and Federal Emergency Management Agency (FEMA)

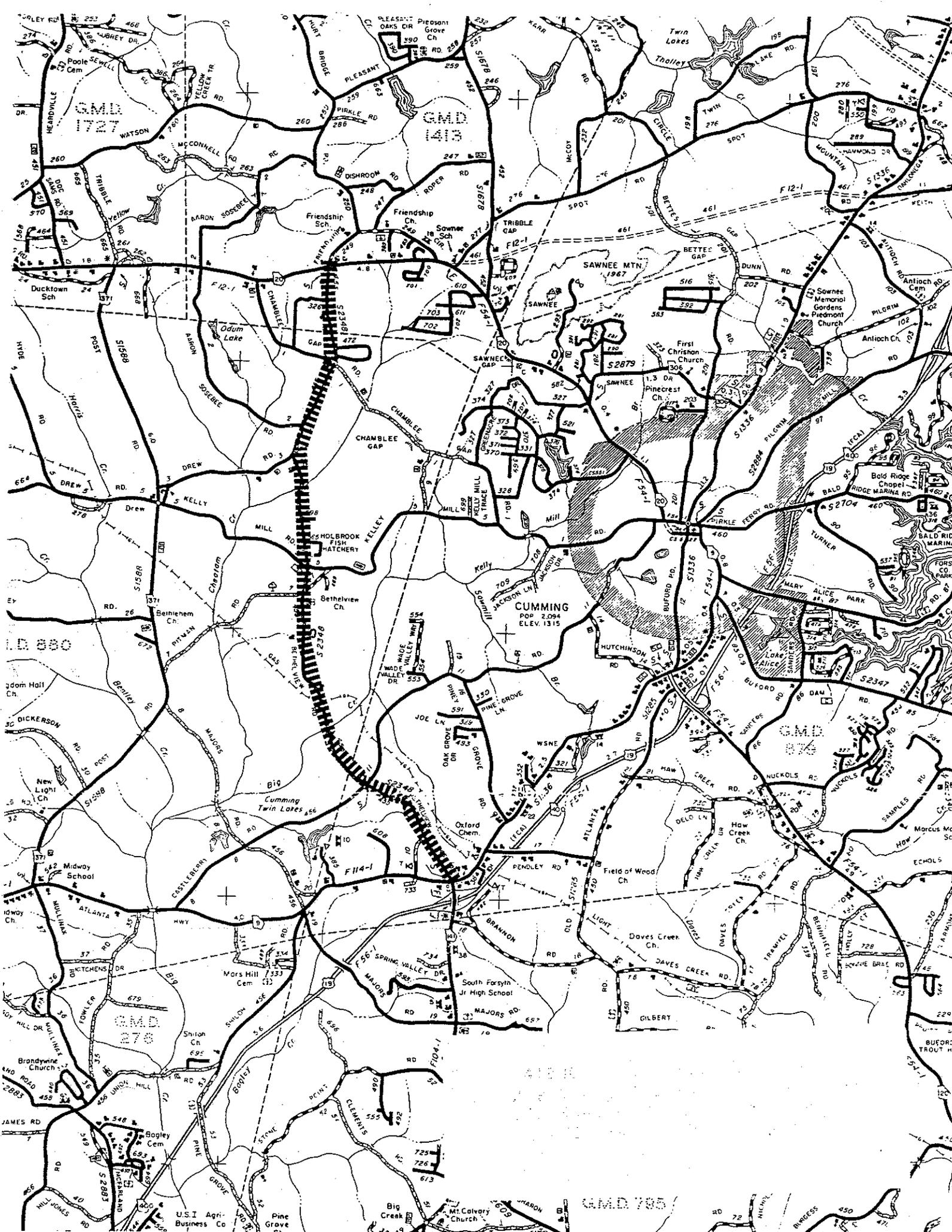
WHEREAS, the DEPARTMENT has expressed a willingness to participate in the funding of the construction of the PROJECT with funds of the DEPARTMENT, funds apportioned to the DEPARTMENT by the Federal Highway Administration, hereinafter referred to as the "FHWA", under Title 23, United States Code, Section 104, or a combination of funds from any of the above sources subject to those certain conditions set forth in the AGREEMENT.

NOW, THEREFORE, in consideration of the mutual promises made and of the benefits to flow from one to the other, the DEPARTMENT and the LOCAL GOVERNMENT hereby agree each with the other as follows:

1. All Primary Consultant firms hired by the LOCAL GOVERNMENT to provide services on the PROJECT shall be prequalified with the DEPARTMENT in the appropriate area-classes. The DEPARTMENT shall, on request, furnish the LOCAL GOVERNMENT with a list of prequalified consultant firms in the appropriate area-classes.

2. The PROJECT construction and right-of-way plans shall be prepared in English units.

3. Both the LOCAL GOVERNMENT and the DEPARTMENT hereby acknowledge that time is of the essence and both parties shall adhere to the priorities established in the approved State Transportation Improvement Program (STIP) or earlier. Furthermore, all parties shall adhere to the detailed project schedule, as approved by the DEPARTMENT. In the completion of respective commitments contained herein, if a change in schedule is needed, the



GMD 1727

GMD 1413

SAWNEE MTN 1967

CUMMING POP. 2,094 ELEV. 1315

GMD 876

GMD 276

GMD 785

U.S.I. Agri-Business Co

Big Creek

Mt. Calvary Church

BRASS

Wilson did however express concern over the YMCA soccer field located behind the cemetery and church. He stated that the soccer field was recently placed in the area, and will need to pursue this resource further. Mr. Wilson reiterated that Moreland Altobelli Associates, Inc. would be preparing all environmental documents for this project.

Mr. Fulbright asked for any comments or concerns from the GDOT Right-of-Way department. Mr. Cook expressed concern over the number of displacements and the right-of-way cost estimate. He would like those estimates to be re-visited.

Mr. Fulbright asked for any comments or concerns from the GDOT Traffic Operations department. Mr. Tim Smith stated that he had no comments at this time, other than there might be problems with reducing the speed limit from 50 mph to 45 mph. He also stated that the radii on traffic for trucks should be matched in the design phase.

Mr. Fulbright asked for any comments or concerns from the GDOT Engineering Services Division. Mr. David Mulling wanted to know how the project would be tied into other projects in the area, particularly the proposed Outer Perimeter Highway and Canton Highway Improvements. Ms. Poshedly stated that she would have to check on how that would be accomplished.

Mr. Fulbright asked the GDOT Utilities division if they had any questions or concerns. Mr. Allen responded by stating that the City and County share the water lines, and this might affect service levels if not properly coordinated. The cost estimates should be examined again, and this should be coordinated through the district.

Mr. Fulbright asked the GDOT Office of Programming for any questions or concerns they might have. Ms. Mullins responded by stating that they had no comments or questions.

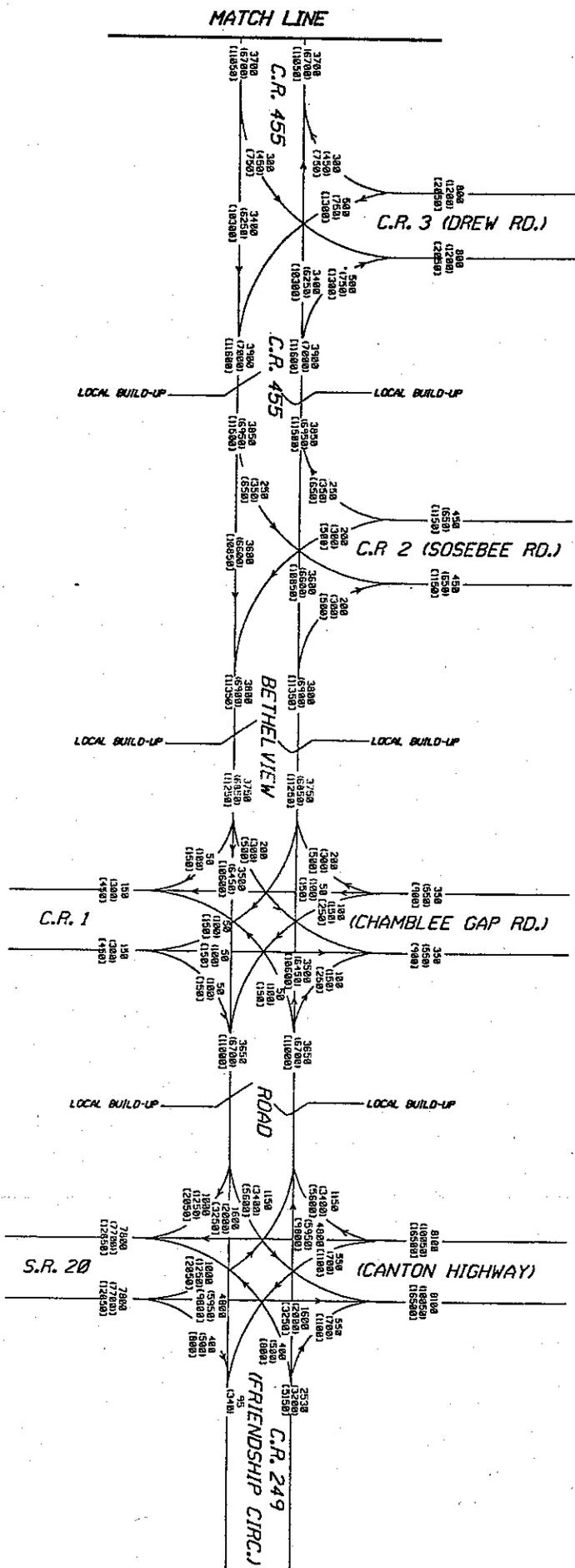
Mr. Fulbright asked the GDOT Planning Office for any questions or concerns they might have. Mr. Steve Walker stated that he had no comments or concerns at this time.

Mr. Fulbright asked for any further comments or questions. It was stated that a Public Information Meeting was up to the County to decide to hold it. The County decided that it was in their best interest to hold a Public Information Meeting, in addition to the required Public Hearing. The concept would most likely be approved in the next few months, and they anticipate having a Public Information Hearing in the first of the year.

Mr. Fulbright then stated that the comments would be incorporated into the concept report and revised accordingly.

Mr. Fulbright then adjourned the meeting.

|         |                |              |              |
|---------|----------------|--------------|--------------|
| STATE   | PROJECT NUMBER | SHEET NUMBER | TOTAL SHEETS |
| GEORGIA | 57F-24(42)     |              |              |



**MA** Moreland Alcolbelli Associates, Inc.

|             |      |      |      |
|-------------|------|------|------|
| DESIGNED BY | DATE | BY   | DATE |
| CHECKED BY  |      | DATE |      |
| APPROVED BY |      |      |      |

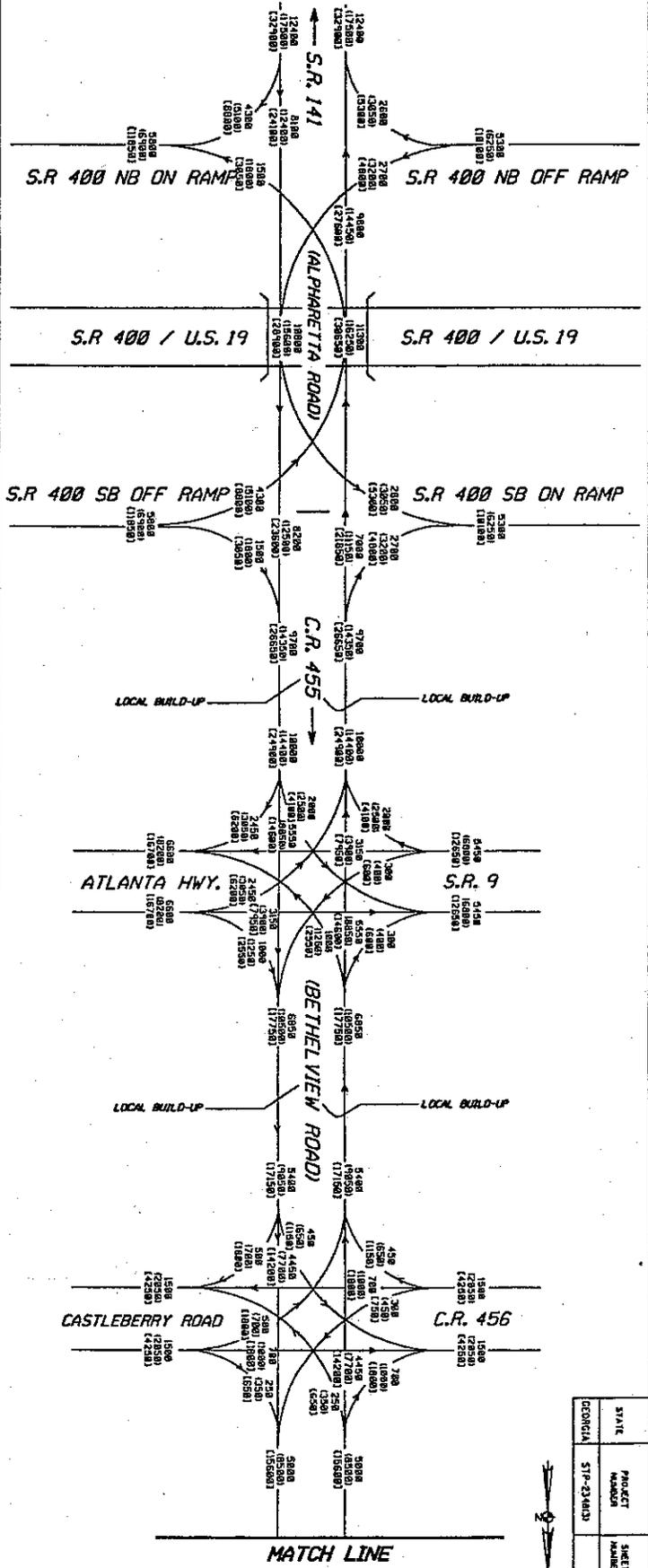
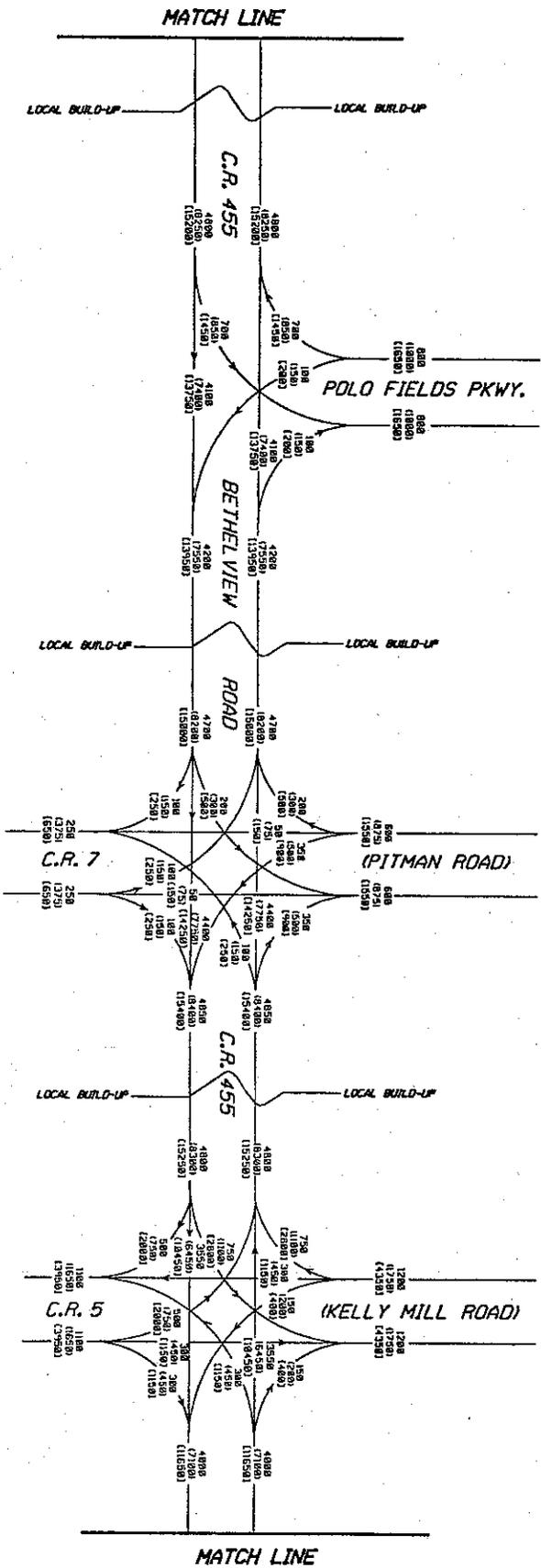
0700 1999 AVERAGE ANNUAL DAILY TRAFFIC  
 (0000) 2005 AVERAGE ANNUAL DAILY TRAFFIC  
 (0000) 2025 AVERAGE ANNUAL DAILY TRAFFIC

**C.R. 455 / BETHELVIEW ROAD IMPROVEMENTS**  
 1999 / 2005 / 2025 ADT  
 TRAFFIC FLOW DIAGRAM

|      |    |      |    |
|------|----|------|----|
| DATE | BY | DATE | BY |
|      |    |      |    |
|      |    |      |    |
|      |    |      |    |

000 1999 AVERAGE ANNUAL DAILY TRAFFIC  
 10001 2005 AVERAGE ANNUAL DAILY TRAFFIC  
 10003 2025 AVERAGE ANNUAL DAILY TRAFFIC

**C.R. 455 / BETHEL VIEW ROAD IMPROVEMENTS**  
 1999 / 2005 / 2025 ADT  
 TRAFFIC FLOW DIAGRAM



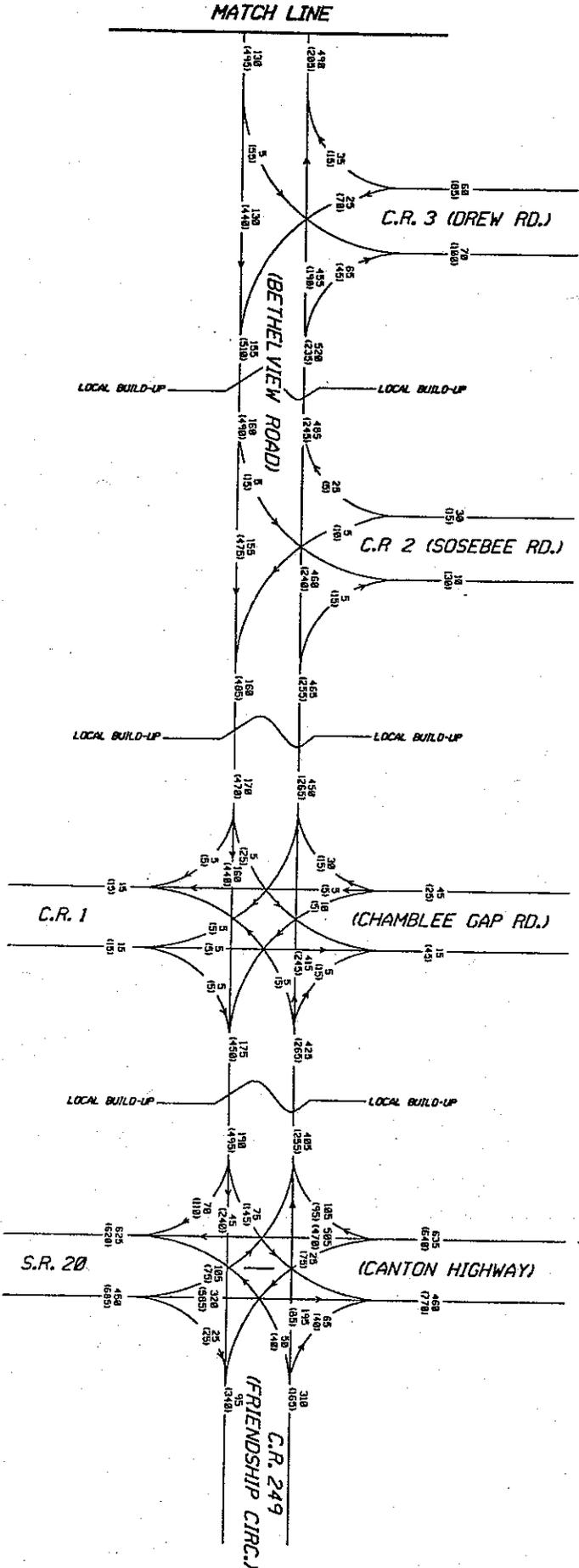
|         |           |       |       |
|---------|-----------|-------|-------|
| STATE   | PROJECT   | SHEET | TOTAL |
| GEORGIA | 579-23483 |       |       |

|             |      |
|-------------|------|
| DESIGNED BY | DATE |
| CHECKED BY  | DATE |
| APPROVED BY | DATE |

|             |      |
|-------------|------|
| PROJECT NO. | DATE |
| SHEET NO.   | DATE |

YEAR 1999  
800 AM PEAK HOUR TRAFFIC  
(800) PM PEAK HOUR TRAFFIC

C.R. 455/ BETHEL VIEW ROAD IMPROVEMENTS  
1999 EXISTING PEAK HOUR TRAFFIC  
TRAFFIC FLOW DIAGRAM



|         |            |           |           |
|---------|------------|-----------|-----------|
| STATE   | PROJECT    | SHEET     | TOTAL     |
| GEORGIA | STP-234813 | NUMBER    | NUMBER    |
|         |            | OF SHEETS | OF SHEETS |

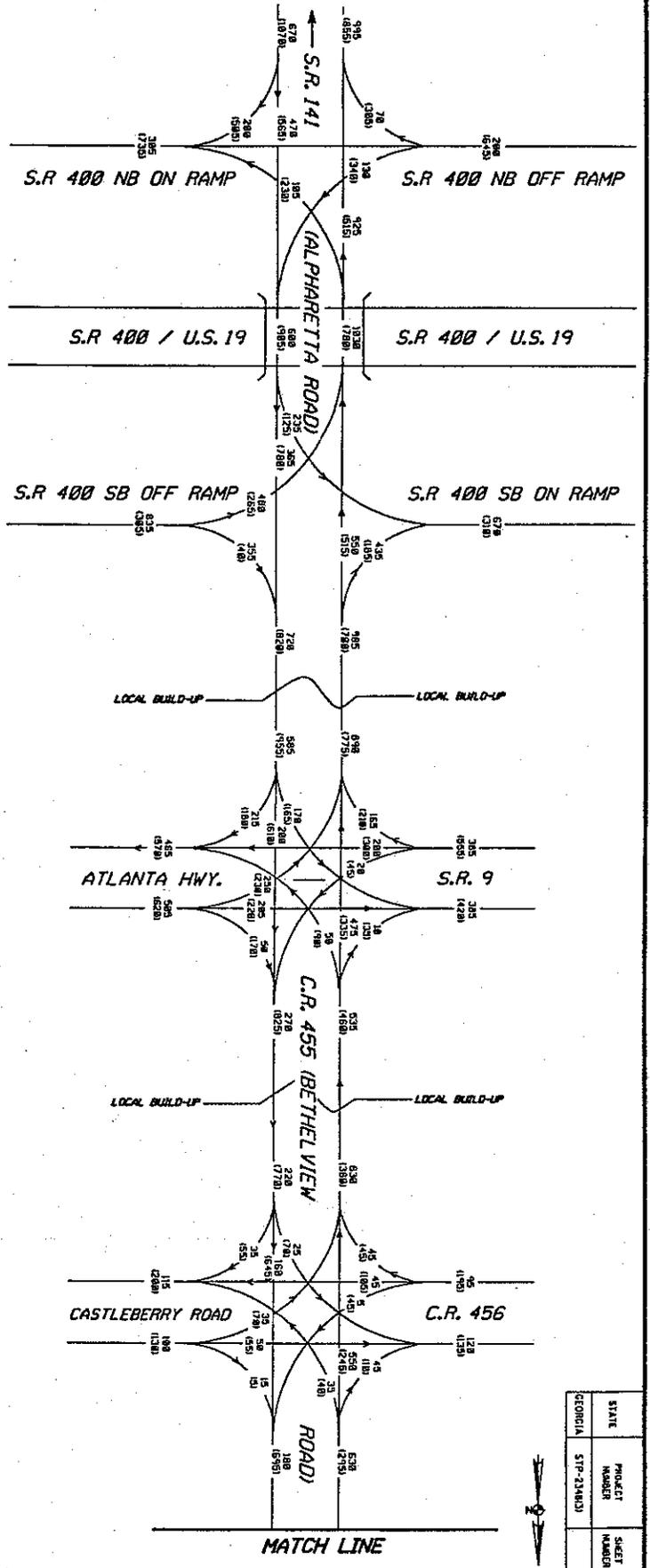
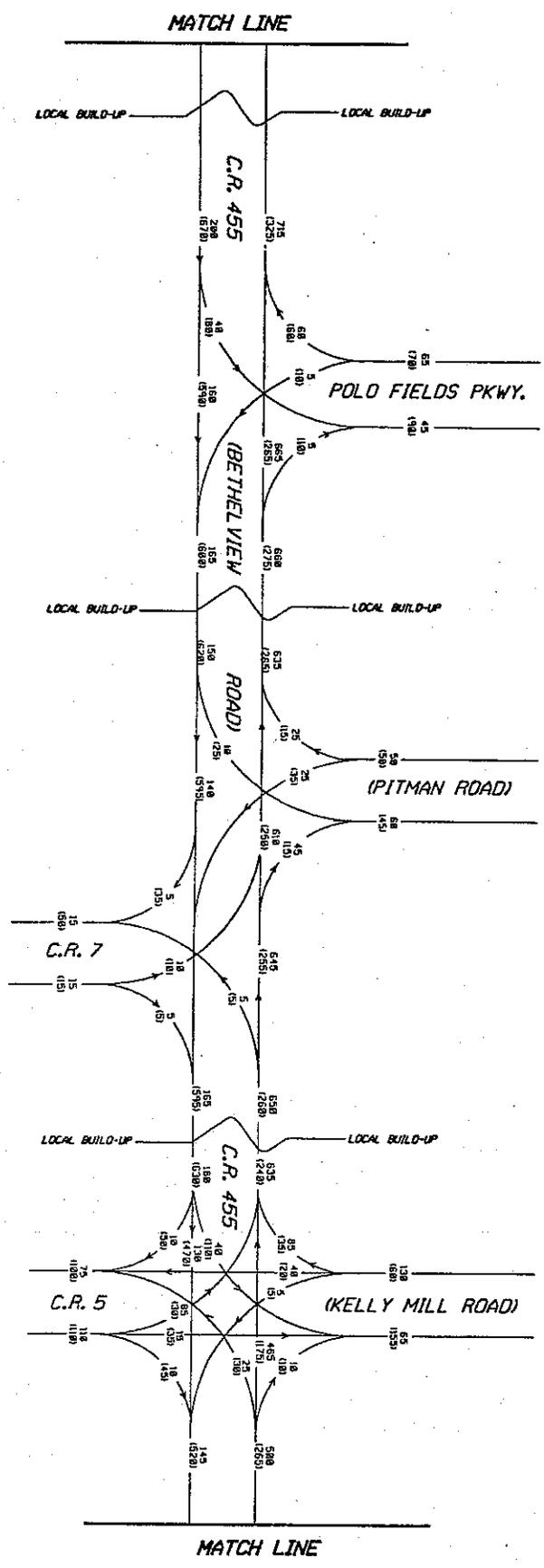


Moreland Alabelli  
Associates, Inc.

|             |      |
|-------------|------|
| DESIGNED BY | DATE |
| CHECKED BY  | DATE |
| APPROVED BY | DATE |

YEAR 1999  
800 AM PEAK HOUR TRAFFIC  
(800) PM PEAK HOUR TRAFFIC

C.R. 455 / BETHEL VIEW ROAD IMPROVEMENTS  
1999 EXISTING PEAK HOUR TRAFFIC  
TRAFFIC FLOW DIAGRAM



|         |                |              |              |
|---------|----------------|--------------|--------------|
| STATE   | PROJECT NUMBER | SHEET NUMBER | TOTAL SHEETS |
| GEORGIA | 51P-21403      |              |              |

## TRAFFIC ANALYSIS & TRAFFIC FLOW DIAGRAMS

Intersection capacity analyses were performed within the study area for the AM and PM peak hours. These analyses were performed for existing conditions and the 2025 design year conditions. The methods used are those described in the 1994 Highway Capacity Manual. Intersection capacity is expressed in terms of level of service (LOS), which is a measure of the amount of delay and congestion experienced by motorists as they pass through an intersection. LOS is designated by the letters "A" through "F". LOS A represents free-flowing conditions with very little delay and LOS F indicates forced flow, extreme congestion and long delays. A summary of the results are shown in the table below.

| Summary of Intersection Capacity Analysis |          |    |      |    |       |    |
|---|----------|----|------|----|-------|----|
| INTERSECTION                              | NO BUILD |    |      |    | BUILD |    |
|   | 1999     |    | 2025 |    | 2025  |    |
| Intersecting Cross-street                 | AM       | PM | AM   | PM | AM    | PM |
| S.R. 9 (Atlanta Highway)                  | C        | C  | F    | F  | D     | D  |
| Castleberry Road.                         | C        | C  | F    | F  | C     | D  |
| Polo Fields Parkway                       | B*       | B* | F*   | F* | B     | B  |
| Pitman Road                               | B*       | B* | F*   | F* | B     | B  |
| Kelly Mill Road                           | B        | B  | F    | F  | C     | D  |
| Drew Road                                 | B*       | C* | F*   | F* | B     | B  |
| Aaron Sosbee Road                         | B*       | B* | F*   | F* | B     | B  |
| Chamblee Gap Road                         | B*       | B* | F*   | F* | C     | C  |
| S.R. 20 (Canton Highway)                  | C        | C  | F    | F  | C     | C  |

\* Represents side street LOS for unsignalized intersection.

The LOS values shown under the 2025 build condition, includes signalization of each intersection and the addition of a separate lane for each turning movement at each intersection in addition to the proposed widening of Bethelview Road. These proposed improvements will sustain the design year volumes and provide an adequate level of service at each intersection. All intersections are operating adequately under

| Bethelview Road (C.R. 455) Detailed Accident Inventory |                     |                 |                |                    |       |        |
|--|---------------------|-----------------|----------------|--------------------|-------|--------|
| 1997 Accident Data                                     |                     |                 |                |                    |       |        |
| Road of Occurrence                                     | Intersecting Street | Total Accidents | Total Injuries | Accident Types     |       |        |
|  |                     |                 |                | Sideswipe/Rear End | Angle | Other* |
| Bethelview Rd.   | Mainline            | 13              | 6              | 3                  | 4     | 6      |
| Bethelview Rd.   | S.R. 20             | 3               | 4              | 1                  | 2     |        |
| Bethelview Rd.   | Brookfield Cir.     | 1               | 5              | 1                  |       |        |
| Chamblee Gap Rd.                                       | Bethelview Rd.      | 3               | 3              | 2                  | 1     |        |
| Drew Rd.   | Bethelview Rd.      | 2               | 1              |                    | 1     | 1      |
| Kelly Mill Rd.   | Bethelview Rd.      | 1               | 0              |                    | 1     |        |
| Pittman Rd.  | Bethelview Rd.      | 1               | 0              | 1                  |       |        |
| Bethelview Rd.   | Polo Fields Pkwy.   | 2               | 0              |                    | 1     | 1      |
| Bethelview Rd.   | Castleberry Rd.     | 5               | 2              | 2                  | 3     |        |
| Bethelview Dr.   | Bethelview Rd.      | 1               | 0              | 1                  |       |        |
| Totals   |                     | 32              | 21             | 11                 | 13    | 8      |

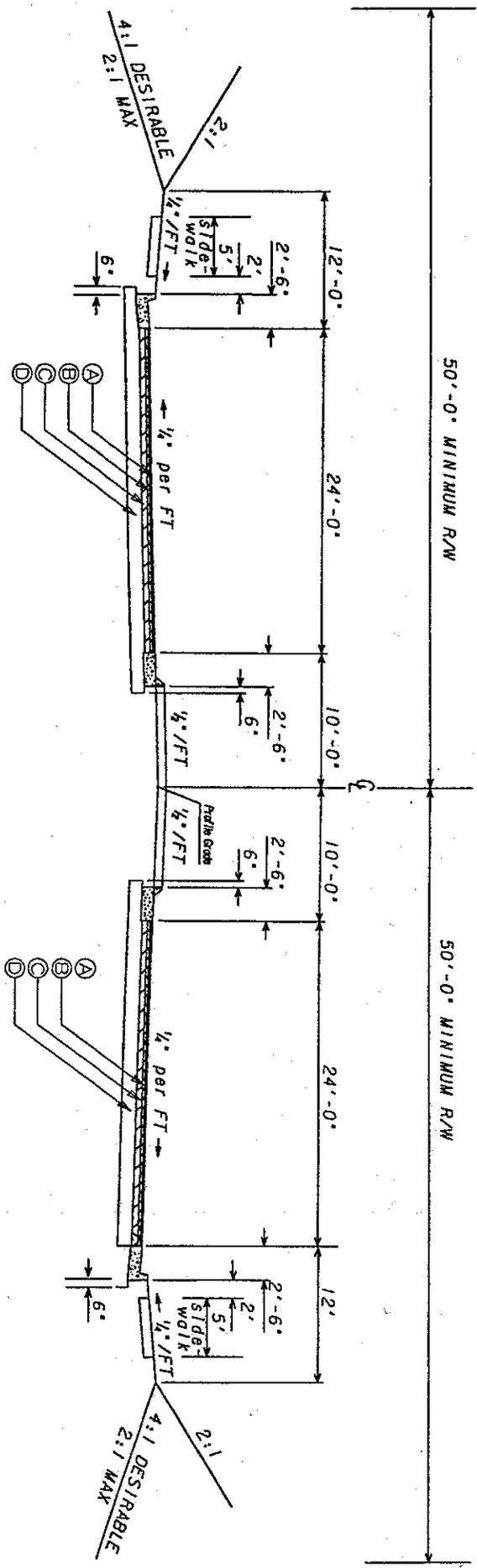
## SUMMARY OF ACCIDENTS

The Accident History has been further classified according to their type and location, and are presented in the following tables. Refer to the Project Location Sketch for the general location of the intersecting roads that are mentioned below.

| Bethelview Road (C.R. 455) Detailed Accident Inventory |                     |                 |                  |                |                    |       |        |
|--|---------------------|-----------------|------------------|----------------|--------------------|-------|--------|
| 1995 Accident Data                                     |                     |                 |                  |                |                    |       |        |
| Road of Occurrence                                     | Intersecting Street | Total Accidents | Total Fatalities | Total Injuries | Accident Types     |       |        |
|  |                     |                 |                  |                | Sideswipe/Rear End | Angle | Other* |
| Bethelview Rd.   | Mainline            | 8               | 1                | 4              | 5                  |       | 3      |
| Chamblee Gap Rd.                                       | Bethelview Rd.      | 1               | 0                | 0              |                    | 1     |        |
| Bethelview Rd.   | Polo Fields Pkwy.   | 2               | 0                | 3              |                    | 2     |        |
| Totals   |                     | 11              | 1                | 7              | 5                  | 3     | 3      |

| Bethelview Road (C.R. 455) Detailed Accident Inventory |                     |                 |                |                    |       |        |  |
|--|---------------------|-----------------|----------------|--------------------|-------|--------|--|
| 1996 Accident Data                                     |                     |                 |                |                    |       |        |  |
| Road of Occurrence                                     | Intersecting Street | Total Accidents | Total Injuries | Accident Types     |       |        |  |
|  |                     |                 |                | Sideswipe/Rear End | Angle | Other* |  |
| Bethelview Rd.   | Mainline            | 10              | 8              | 7                  | 0     | 3      |  |
| Dogwood Ln.  | Bethelview Rd.      | 1               | 0              |                    |       | 1      |  |
| Chamblee Gap Rd.                                       | Bethelview Rd.      | 1               | 1              |                    | 1     |        |  |
| Aaron Sosebee Rd.                                      | Bethelview Rd.      | 2               | 0              | 1                  |       | 1      |  |
| Bethelview Rd.   | John Allison Dr.    | 1               | 0              |                    |       | 1      |  |
| Bethelview Rd.   | Polo Fields Pkwy.   | 2               | 0              | 1                  | 1     |        |  |
| Bethelview Rd.   | Castleberry Rd.     | 3               | 3              | 1                  | 2     |        |  |
| Bethelview Rd.   | Bennett Pkwy.       | 1               | 0              |                    | 1     |        |  |
| Totals   |                     | 21              | 12             | 10                 | 5     | 6      |  |

|      |         |       |      |
|------|---------|-------|------|
| DATE | PROJECT | SHEET | DATE |
|      |         |       |      |
|      |         |       |      |
|      |         |       |      |



## TYPICAL SECTION

NOT TO SCALE

- PROPOSED PAVEMENT
- Ⓐ ASPHALTIC CONC. 12.5 mm SUPERPAVE (165 lbs/SY)
  - Ⓑ ASPHALTIC CONC. 19 mm SUPERPAVE (220 lbs/SY)
  - Ⓒ ASPHALTIC CONC. 25 mm SUPERPAVE (550 lbs/SY)
  - Ⓓ GRADED AGGREGATE BASE (12")

|      |         |       |      |
|------|---------|-------|------|
| DATE | PROJECT | SHEET | DATE |
|      |         |       |      |
|      |         |       |      |
|      |         |       |      |

REVISIONS

|     |      |    |             |
|-----|------|----|-------------|
| NO. | DATE | BY | DESCRIPTION |
|     |      |    |             |
|     |      |    |             |
|     |      |    |             |

MA Worland Atchell Associates, Inc.

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

BETHELVIEW ROAD  
URBAN TYPICAL SECTION

1/Scale  
A-1

g:\hwy\99512\ly9sec.dgn NOV. 03, 2000 11:19:13

**J. Traffic Control & Mobilization**

|                    |                 |                  |
|--------------------|-----------------|------------------|
| 1. Traffic Control | Lump Sum        | \$250,000        |
| 2. Mobilization    | Lump Sum        | \$50,000         |
|                    | <b>Subtotal</b> | <b>\$300,000</b> |

**K. Landscaping**

|                        |                 |                  |
|------------------------|-----------------|------------------|
| 1. Clearing & Grubbing | Lump Sum        | \$305,500        |
| 2. Grassing            | Lump Sum        | \$75,000         |
| 3. Erosion Control     | Lump Sum        | \$427,700        |
|                        | <b>Subtotal</b> | <b>\$808,200</b> |

**L. Miscellaneous Items**

|                             |                 |             |                    |
|-----------------------------|-----------------|-------------|--------------------|
| 1. Field Office TP 3        | 1 ea @          | \$30,000.00 | \$30,000           |
| 2. Remove Exist. Bridge     | 3,150 SF @      | \$25.00     | \$78,750           |
| 3. Remove Exist. Pavement   | 116,810 SY @    | \$5.00      | \$584,050          |
| 4. Remove Concrete Driveway | 8,560 SY @      | \$5.00      | \$42,800           |
| 5. Misc. Construction Items | Lump Sum        |             | \$2,000,000        |
|                             | <b>Subtotal</b> |             | <b>\$2,735,600</b> |

## NEED AND PURPOSE STATEMENT

The proposed improvements contained in this concept serve two primary purposes. The first purpose of this project is to provide additional traffic capacity and improved access to accommodate existing and future traffic volumes in the project corridor through the 2025 design year. The second purpose of this project is to improve traffic safety by dividing Bethelview Road with a 20-foot median to separate on-coming traffic; and to promote the orderly flow of traffic by providing median breaks with designated left-turn lanes at major intersections. Bethelview Road is a two-lane rural major collector between S.R. 400 to the south and S.R. 20 to the north, providing access to residential and small commercial developments located along the roadway, and serving as a collector for S.R. 400.

Currently, the existing land use along the proposed corridor is primarily single family residential with a number of churches and commercial developments and an industrial park. Severe congestion and operational safety problems are occurring at local intersections along the project corridor. Bethelview Road traverses an uneven topography which includes large horizontal and vertical curvature along the roadway. With a posted speed of 50 mph, no paved shoulder, and no acceleration or deceleration lanes approaching or departing the major intersections, the large fast-moving peak hour through traffic volumes conflict with local traffic attempting to access driveways, side streets and cross streets. These conditions create extreme delay and unsafe traffic conditions. Accident reports over the past five years have reported nearly a doubling in "rear-end" and "angle" type collisions between mainline traffic and vehicles entering from the side streets.

The logical southern terminus for the proposed project is located at S.R. 9 (Atlanta Hwy.), where this project ties into Project STP-104-1(39) that will match the proposed typical section and continue the widening to the S.R. 400 interchange. This intersection currently serves as the terminus of Bethelview Road, with S.R. 141 (Peachtree Parkway) continuing south to intersect S.R. 400; therefore, this intersection is selected as the logical southern terminus for the project. The logical northern terminus for the proposed project is located at S.R. 20 (Canton Highway). Although it is a four-way intersection, it primarily serves to distribute traffic to and from Bethelview Road to S.R. 20, with only 11% of traffic entering and less than 1% leaving the intersection onto Friendship Circle (C.R. 249), a horseshoe roadway off of S.R. 20 opposite to Bethelview Road. As this is the natural ending point for Bethelview Road, this intersection was chosen as the logical northern terminus for the project.

| <b>COORDINATION</b>   |                           |
|---|---------------------------|
| CONCEPT TEAM MEETING DATE: .....  | October 18, 2000          |
| TIME SAVING PROCEDURES APPROPRIATE: .....   | No                        |
| LOCATION INSPECTION DATE: .....   | Pending                   |
| PERMITS REQUIRED (COE, 404, etc.): .....  | COE, 404 Permits Required |
| LEVEL OF PUBLIC INVOLVEMENT: .....  | Public Hearing Required   |
| OTHER PROJECTS IN THE AREA:   |                           |
| <ul style="list-style-type: none"> <li>• Outer Perimeter Highway</li> <li>• STP-104-1(39) - Widening of S.R. 141 &amp; S.R. 400 (Exit 13) Interchange improvements</li> <li>• SPLOST 4 Intersections - 17 Forsyth County Intersection Improvements</li> </ul> |                           |
| LOCAL GOVERNMENT COMMITMENTS: LGPA - Require Forsyth County to relocate utilities - Reply is Pending.   |                           |

| <b>ESTIMATED COST</b>        |              |               |              |
|------------------------------|--------------|---------------|--------------|
| CONSTRUCTION:                | \$14,382,354 | RIGHT-OF-WAY: | \$3,000,000  |
| E & C (10%):                 | \$1,438,235  | ACQUIRED BY:  | GDOT         |
| INFLATION (3 yr. @ 5%/yr.):  | \$2,267,018  | UTILITIES:    | \$1,050,000  |
| TOTAL CONSTRUCTION COST:     | \$18,087,607 | ADJUSTED BY:  | GDOT         |
| TOTAL PROJECT COST ESTIMATE: |              |               | \$22,137,607 |

COMMENTS: See Concept Team Meeting Minutes

**ATTACHMENTS:**

- Need & Purpose Statement
- Detailed Cost Estimate
- Typical Section Diagram
- Summary of Accidents
- Traffic Analysis & Traffic Flow Diagrams
- Concept Team Meeting Minutes
- Programming Documents
- Local Government Project Agreements

**PROPOSED ROADWAY**

TYPICAL SECTION: Urban Section: Four 12' lanes with 20' raised grass median and 12' outside shoulders with curb & gutter and 5' wide sidewalks. Rural Section: Four 12' lanes with 20' raised grass median and 12' outside shoulders with 6½' paved

SECTION TYPE:

- S.R. 9 to Bennett Parkway ..... Urban Section (0.59 miles)
- Bennett Parkway to Bethwick Drive ..... Rural Section (4.23 miles)
- Bethwick Drive to S.R. 20 ..... Urban Section (1.29 miles)

R/W WIDTH: ..... 100 - 140 ft.

| DESIGN SPEED | MAX DEGREE OF CURVE             | MAX GRADE                   |
|--------------|---------------------------------|-----------------------------|
| 45 mph       | Allowable 8.0°<br>Proposed 4.0° | Allowable 8%<br>Proposed 3% |

| MAJOR STRUCTURES:  | IDENTIFICATION NO. | LENGTH                  | WIDTH                 |
|--|--------------------|-------------------------|-----------------------|
| Widen Bridge at Big Creek .....                            | 117-02348F-001.8N  | <del>111'</del><br>120' | <del>82'</del><br>82' |
| Extend Dbl. 10' x 9' Box Culvert<br>at Cheatam Creek ..... | 117-02348F-004.02N | 21'                     | 130'                  |

*JDL*  
5-FEB-2006

PROPOSED TRAFFIC CONTROL AT MAJOR INTERSECTIONS:

|                                   |                          |
|-----------------------------------|--------------------------|
| S.R. 9 (Atlanta Highway) .....    | Traffic Signal Upgrade   |
| C.R. 456 (Castleberry Road) ..... | Traffic Signal           |
| Polo Fields Parkway .....         | Side-street Stop Control |
| C.R. 7 (Pitman Road) .....        | Traffic Signal           |
| C.R. 5 (Kelly Mill Road) .....    | Traffic Signal           |
| C.R. 3 (Drew Road) .....          | Side-street Stop Control |
| C.R. 2 (Sosebee Rd.) .....        | Side-street Stop Control |
| C.R. 1 (Chamblee Gap Road) .....  | Side-street Stop Control |
| S.R. 20 (Canton Highway) .....    | Traffic Signal Upgrade   |

**PROPOSED RIGHT-OF-WAY**

| R/W WIDTH: | DISPLACEMENTS |        |
|------------|---------------|--------|
| 100 - 140' | RES: 10       | BUS: 2 |

TYPE OF ACCESS CONTROL: ..... State and County Permits

NUMBER OF PARCELS IMPACTED: ..... 140

|                                   |
|-----------------------------------|
| <b>PROJECT NEED &amp; PURPOSE</b> |
| See Attachments                   |

|   |                     |           |                          |
|---|---------------------|-----------|--------------------------|
| <b>EXISTING ROADWAY</b>   |                     |           |                          |
| TYPICAL SECTION: ..... Two 12' rural lanes; variable grass shoulders. |                     |           |                          |
| R/W WIDTH: ..... 80-100 ft.   |                     |           |                          |
| POSTED SPEED  | MAX DEGREE OF CURVE | MAX GRADE |                          |
| 50 mph  | 10.5°               | 3%        |                          |
| MAJOR STRUCTURES:   | IDENTIFICATION NO.  | LENGTH    | WIDTH                    |
| Bridge at Big Creek .....   | 117-02348F-001.8N   | 111'      | 21'                      |
| Dbl. 10' x 9' Box Culvert at Cheatam Creek ...                        | 117-02348F-004.02N  | 21'       | 76'                      |
| EXISTING TRAFFIC CONTROL AT MAJOR INTERSECTIONS:                      |                     |           |                          |
| S.R. 9 (Atlanta Highway) .....  |                     |           | Traffic Signal           |
| C.R. 456 (Castleberry Road) .....                                     |                     |           | Traffic Signal           |
| Polo Fields Parkway .....   |                     |           | Side-street Stop Control |
| C.R. 7 (Pitman Road) .....  |                     |           | Side-street Stop Control |
| C.R. 5 (Kelly Mill Road) .....  |                     |           | Traffic Signal           |
| C.R. 3 (Drew Road) .....  |                     |           | Side-street Stop Control |
| C.R. 2 (Sosebee Rd.) .....  |                     |           | Side-street Stop Control |
| C.R. 1 (Chamblee Gap Road) .....                                      |                     |           | Side-street Stop Control |
| S.R. 20 (Canton Highway) .....  |                     |           | Traffic Signal           |

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

PROJECT CONCEPT REPORT

Improvements to Bethelview Road (C.R. 455)

Project Number: STP-2348(3)  
P.I. No. 141880  
Forsyth County

FEDERAL ROUTE NO: None  
STATE ROUTE NO: None

Date of Report: January 2, 2001

RECOMMENDATION FOR APPROVAL

01-10-01  
DATE

James Kennedy  
State Road and Airport Design Engineer

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

\_\_\_\_\_  
District Engineer / Gainesville

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
DATE

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

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

**FILE:** STP-2348(3) Forsyth  
P.I. Number 141880-

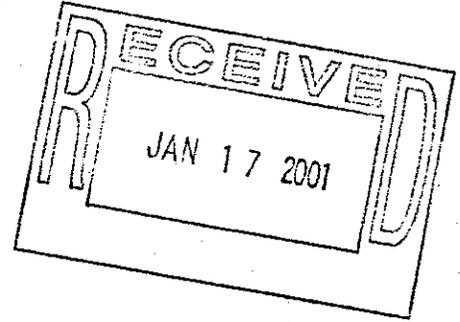
**OFFICE:** Engineering Services

**DATE:** January 17, 2001

**FROM:** David Mulling, Project Review Engineer *DTM*

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

**SUBJECT:** CONCEPT REPORT



We have reviewed the concept report submitted January 11, 2001 by the letter from James A. Kennerly dated January 5, 2001, and have no comment.

The costs for the project are:

|                        |              |
|------------------------|--------------|
| Construction           | \$14,382,000 |
| Inflation              | \$ 2,157,000 |
| E&C                    | \$ 1,654,000 |
| Reimbursable Utilities | \$ 1,050,000 |
| Right of Way           | \$ 3,000,000 |

DTM

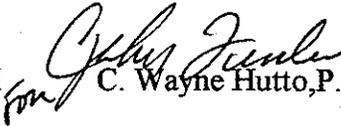
c: Jim Kennerly

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE** STP-2348(3) Forsyth County **OFFICE** Preconstruction  
P.I. No. 141880

**DATE** February 5, 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 widening and reconstruction of Bethelview Road west of the City of Cumming from SR 9/Atlanta Highway north to SR 20/Canton Highway for a total of 6.11 miles. Bethelview Road is a two lane rural major collector between SR 400 to the south and SR 20 to the north, providing access to residential and small commercial developments located along the roadway, serving as a collector for SR 400. Severe congestion and operational safety problems are occurring at intersections along the project corridor. Accident reports over the past five years have reported nearly a doubling in "rear end" and "angle" type collisions between mainline traffic and vehicles entering from side streets. Traffic is projected to be 21,000 VPD and 35,500 VPD in the years 2005 and 2025 respectively.

The construction proposes to widen Bethelview Road to an urban typical section with four, 12' travel lanes, two in each direction, divided by a 20' raised median and 5' sidewalk on both sides, from SR 9 to Bennett Parkway and again from Bethwick Drive to SR 20. From Bennett Parkway to Bethwick Drive (4.11 miles) it proposes a rural typical section with four travel lanes, a 20' raised median and 12' shoulders (6.5' paved). Traffic will be maintained, via staging, during construction.

Environmental concerns include requiring a COE 404 Permit; an Environmental Assessment will 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<br>and inflation) | \$18,193,000    | \$7,383,000     | LR               | LR              |
| Right-of-Way                                 | \$ 3,000,000    | \$4,830,000     |                  |                 |
| Utilities*                                   | \$ 1,050,000    |                 |                  |                 |