

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

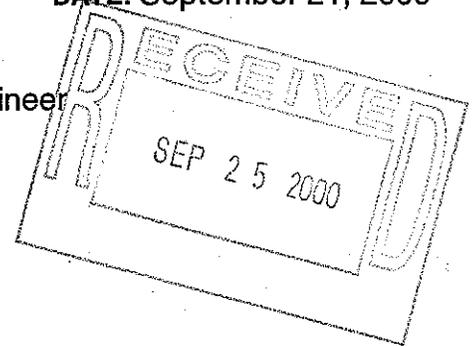
INTERDEPARTMENT CORRESPONDENCE

FILE: STP-0001-00(418) Catoosa County
P.I. No.: 0001418
SR 2 @ CR 6/Pine Grove Road
Intersection Improvements

OFFICE: Traffic Operations
Atlanta, Georgia
DATE: September 21, 2000

FROM: ^{for Mr} Marion G. Waters, III, P.E., State Traffic Operations Engineer

TO: Kent Sager, District Engineer, Cartersville
Attn: DeWayne Comer



SUBJECT: APPROVED CONCEPT REPORT

Attached is a copy of the approved concept report and a copy of our files on the above listed project for your use and further handling.

This project consists of constructing left & right turn lanes on SR 2 & CR 6/Pine Grove Road. A stop & go Traffic Signal will also be installed.

By copy of this letter, this office is transmitting a copy of the approved concept report to the Office of Environmental/Location for their use in performing the appropriate environmental studies.

Should you have any questions, please contact Ken Werho of this office at 404-635-8125.

MGW:KPW

Attachments

cc: Frank Danchetz
Tom Turner, w/attach.
David Mullins, w/attach.
Wayne Hutto, w/attach.
Herman Griffin, w/attach.
Harvey Keepler, w/attach.
Harry Maddox, w/attach.
Dick Graves, w/attach.
General Files

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT

CATOOSA COUNTY

STP-0001-00(418)

FEDERAL ROUTE NO:

STATE ROUTE NO: 2

GADOT P.I. NO: 0001418

SEE ATTACHED
LOCATION SKETCH

Date of Report: June 7, 2000

RECOMMENDED:	<u>6/18/2000</u>	<u><i>Marion Sullivan</i></u>
	DATE	STATE TRAFFIC OPERATIONS ENGINEER
RECOMMENDED:	<u>7/27/00</u>	<u><i>Keith Soren</i></u>
	DATE	DISTRICT ENGINEER
RECOMMENDED:	<u>8-15-00</u>	<u><i>Al D. Smith</i></u>
	DATE	CHIEF ENGINEER
APPROVED:	<u>8.16.00</u>	<u><i>Tom Colvin</i></u>
	DATE	COMMISSIONER

PROJECT CONCEPT REPORT

P.I. No.: 0001418

Project No.: STP-0001-00(418) Catoosa County

Route No.: S.R. 2
 C.R. 6/Pine Grove Road

Location: The intersection of SR 2 @ CR 6/Pine Grove Road is located approximately 4.45 miles east of the Walker County Line and 2.31 miles west of I-75 in Catoosa County.

Description: SR 2 Type A left turn lanes will be reconstructed as a Type B with an additional 12 foot auxiliary right turn lanes in both directions.
 CR 6 will be widened 6 feet symmetrically to provide a left turn lane in both directions.

Traffic – Current ADT: SR 2 ----- 20,000 (1998 ADT)
 CR 6 ----- 4,280 (1998 ADT)

Existing Typical: SR 2: 4 – 12 ft. travel lanes, two in each direction, with a 33' grassed median and variable width grassed shoulders.

CR 6: 2 – 12 ft. travel lanes, one in each direction, with variable grassed shoulders.

Existing Right of Way: SR 2 ----- Varies 200' to 355' (Estimated)
 CR 6 ----- Varies 30' to 80' (Estimated)

Existing Traffic Control: This intersection is controlled by a stop signs and flashing beacons on CR 6.

Existing Major Structures: None.

Statement of Need & Purpose: Accident history for this location shows eleven accidents over a four year period with one fatality in July '96 (angle intersecting). The safety & operational improvements with the installation of a traffic signal will greatly enhance the operational efficiency of this intersection. To improve the safety and orderly progression of traffic through the intersection, these improvements are recommended.

Bike & Pedestrian Considerations: None.

Length: 0.36 miles

<u>Termini:</u>	- SR 2 -	- CR 6 -
<u>From M.P.:</u>	4.35	0.48
<u>To M.P.:</u>	4.55	0.64

PDP Class: Minor Existing

Functional Class: SR 2 ----- Urban Minor Arterial
CR 6 ----- Urban Collector Street

Max Degree of Curve: +/- 1 Degrees **Max Grades:** +/- 5.0 %

Design Speed: SR 2 – 55mph; CR 6 – 35mph.

Proposed Typical Section: SR 2: 4 – 12 ft. travel lanes, two in each direction, with a Type B left turn lanes in both directions with 12' auxiliary right turn lanes.

CR 6: 2 – 12 ft. travel lanes, one in each direction, with a 12 ft. left turn lane.

Proposed major structures: None.

Type Access: By Permit.

Traffic Control During Construction: Existing operation shall be maintained during construction.

Right-of-Way Requirement: Catoosa County shall be responsible for the acquisition of all Required Right-of-Way for this project.

Utilities: Catoosa County shall be responsible for all Utility adjustments.

Estimated Cost:

<u>Item</u>	<u>Total Amount</u>
R/W -----	\$ 5,600 (By County LGPA)
Utilities -----	\$ 23,970 (By County LGPA)
Estimated LGPA Total -----	\$ 29,570
Construction -----	\$ 166,857
Traffic Signal -----	\$ 50,000
Railroad Equipment -----	\$ 0
E & C 10% -----	\$ 21,686
Total Construction -----	\$ 238,543

Permits Required: None.

Level of Environmental Analysis: Categorical Exclusion.

Level of Public Involvement: None.

Time Saving Procedures Appropriate: Yes (X) No ()

Design Variances Required: None.

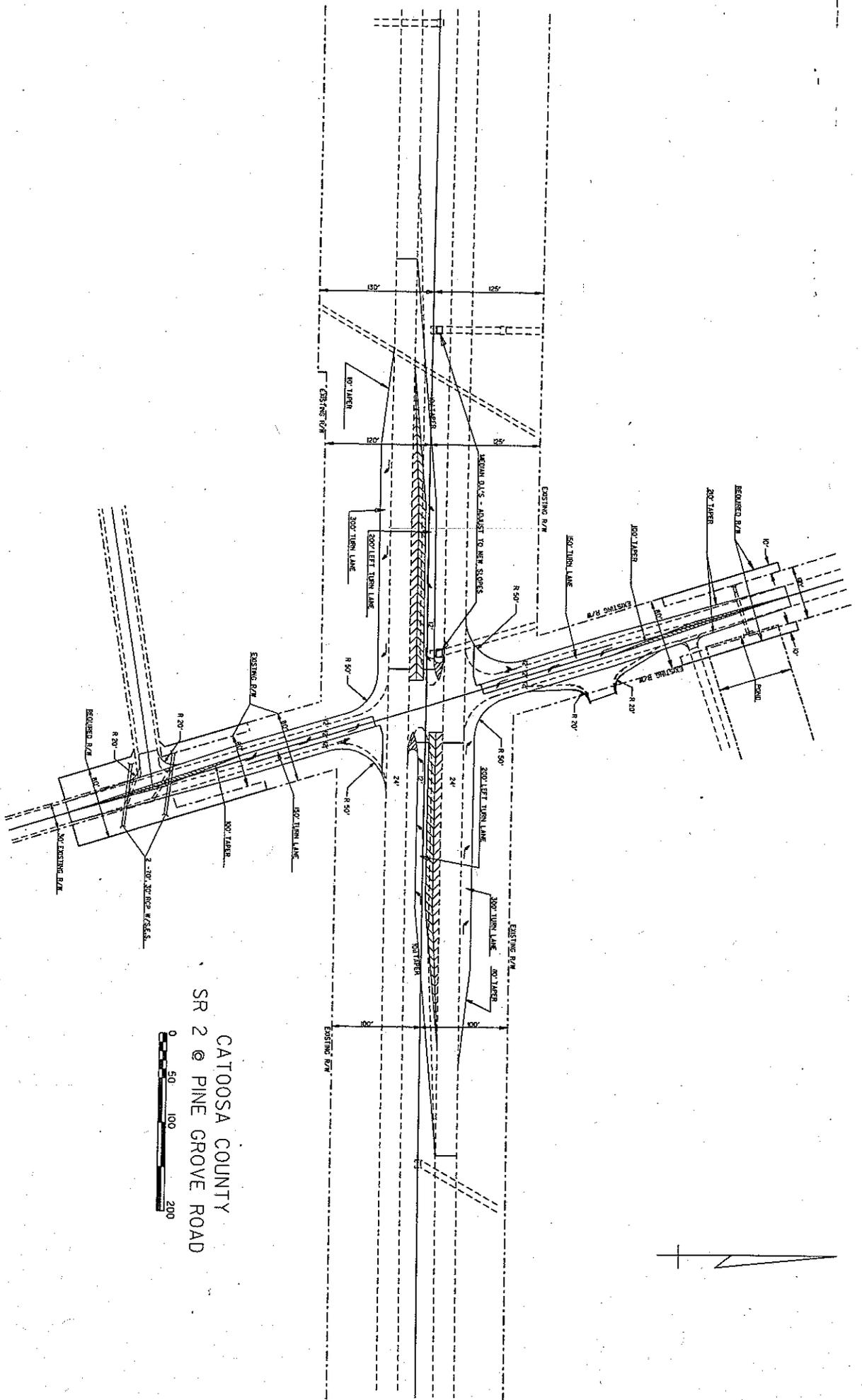
Alternatives Considered: None.

Comments:

Prepared By:



Ken Werho



CATOOOSA COUNTY
 SR 2 @ PINE GROVE ROAD



DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

TRAFFIC ENGINEERING INVESTIGATION

CARTERSVILLE, GEORGIA

DISTRICT SIX

September 16, 1996

COUNTY

CATOOSA

PRIMARY ROUTE

SR 2 (BATTLEFIELD PARKWAY)

SECONDARY ROUTE

PINE GROVE RD.

MILE POST

4.4

PREPARED BY:

**HARRY MADDOX
TRANSPORTATION ENGINEER II**

SR 2 @ Pine Grove Rd. Catoosa Co.

REQUESTED BY: The subject investigation was requested by James D. Callaway, County Manager.

REASON FOR INVESTIGATION: To determine if a stop and go traffic signal is warranted at this location.

TOPOGRAPHY: The subject intersection is located approximately 3 miles to the East of the City of Ft. Oglethorpe in the northwest portion of Catoosa County which is bordered by the state of Tennessee to the North, Walker County to the West and Southwest, and Whitfield County to the East and Southeast.

State Route 2 is an East-West arterial route, traversing the northern half of Catoosa County. State Route 2 spans a large portion of District 6, and travels westward through Fannin, Gilmer, and Murray Counties, terminating at State Route 193 in Walker County. Development along this corridor consists of agricultural, single and multi - family residential developments becoming more commercial and industrial in the Whitfield/Catoosa County areas.

At the subject intersection, State Route 2 is a four lane roadway, consisting of four twelve (12) foot through lanes, a twelve (12) foot left turn lane for both eastbound and westbound traffic, eight (8) foot paved shoulders, ten (10) foot grass shoulders and approximately thirty-five (35) foot radii. Horizontal alignment is tangent. The subject intersection is located on a vertical grade which is approximately +3% westbound and -4% eastbound. The grade on Pine Grove Rd. is approximately +1% northbound and +2% southbound. Sight distance along SR 2 is 750'+ to the West and 1500'+ to the East. The only business located in the vicinity of the intersection is the Pine Grove Pottery store located in the northeast quadrant. This business has a commercial driveway approximately 100' North of the intersection.

Pine Grove Rd. is 20' wide with two (2) through lanes and grass shoulders which vary from 2' to 4'.

EXISTING TRAFFIC CONTROL: Traffic control devices on State Route 2 consist of standard regulatory signing such as "Do Not Enter" at the median opening and advance warning signs (W2-1) which indicate the presence of the Pine Grove Rd. intersection. The striping consists of skip white, solid yellow, and solid white edge lines. Markings are paint and in good condition. There is an overhead flasher at the intersection which flashes red for Pine Grove Rd. and yellow for SR 2. Pine Grove Rd. has stop signs and stop bars.

SR 2 @ Pine Grove Rd. Catoosa Co.

ADJACENT SIGNALIZED INTERSECTIONS: An existing traffic signal is located on SR 2, 1.2 miles to the East of the subject intersection at Three Notch Rd. This is an Eagle Epac 300 8 phase controller with 8 phases operating at this time. This controller was installed in 1990 and is fully actuated. Another traffic signal is located 0.8 miles to the West of the subject intersection at Dietz Rd. This is an Eagle Epac 8 phase controller utilizing 8 phases in fully-actuated operation. This signal was installed in 1990.

VEHICULAR VOLUMES: The 1994 AADT for this section of State Route 2 is 12970 vehicles per day. Peak hour turning movement counts are as follows:

	State Route 2 East and West	Pine Grove Rd. Southbound
0700 - 0800	1436	166
0800 - 0900	1292	76
1600 - 1700	1330	78
1700 - 1800	1434	87

SPEED STUDY: The posted speed limit on State Route 2 at the subject location is 55 miles per hour. This limit is enforceable by radar surveillance under permit from the Department of Public Safety to Walker County. A spot speed study, conducted in October 1995, revealed an 85th percentile speed of 64 miles per hour and a ten mile per hour pace range of 43 to 75 miles per hour with 68.5% of total sample (111 observations) within that range. The average speed was calculated to be 58 miles per hour.

DELAY STUDY: A calculated delay study was not conducted. On-site observations indicate that delays are minimal. Queues were observed stacking only three or four cars during peak hours. Average delays were estimated to be 20 to 30 seconds for short periods during the peak hours.

SR 2 @ Pine Grove Rd. Catoosa Co.

ACCIDENT HISTORY: Hard copy accident (1994-1995) reports were obtained from the Georgia State Patrol in Whitfield County. An analysis of the twenty (22) month period, January 1994 through October 1995 revealed that a total of 4 accidents, resulting in three (3) non-fatal injuries had occurred at the subject location.

Type of accident is summarized as follows:

	1995	1994
Angle Intersecting		1
Rear End		
Sideswipe (SD)	1	
Left Turn		2

INTERSECTION HISTORY: This is the first traffic engineering study performed at this location within the past few years. With the proposed construction of the new Super Wal-Mart, it is anticipated that this area will experience increased congestion in the future.

PROJECTS: No projects are programmed for this area at this time.

OTHER INFORMATION: This segment of SR 2 in this area of Catoosa Co. is a primary arterial route for this area of District 6. State Route 2 intersects I-75 approximately 2.3 miles to the East of the intersection and continues eastward through the city of Ft. Oglethorpe. To the West, SR 2 connects with SR 1 in downtown Ft. Oglethorpe. SR 1 is a major North - South corridor which travels the entire length of the state of Georgia. Pine Grove Rd. provides access to SR 2 for rural areas of Catoosa County which include, to a large extent, single family dwellings.

The area of SR 2 near Pine Grove Rd. is growing commercially with the construction of the new Super Wal-Mart. Presently there are several used car businesses along this corridor. There are also gas stations and other businesses in the area.

CONCLUSIONS: Our findings indicate that volumes on State Route 2 are heavy during the peak (AM & PM) traffic periods; however, with the relatively light volumes on Pine Grove Rd. during off peak hours, the criteria for warrant #1 (minimum vehicular volume) was satisfied for only one hour. The criteria for warrant #2 (interruption of continuous traffic) was satisfied for 11 hours, the criteria for warrant #9 (four hour volume) was satisfied for 10 hours, and for warrant #11 (peak hour volume), the criteria was satisfied for 5 hours.

Our investigation revealed that, with moderate delay on Pine Grove Rd., a traffic signal installation is not justified at this time; however, since warrants #2, #9, and #11 were satisfied and growth in this area is almost certain, it is concluded that future signalization should be addressed at this time.

RECOMMENDATIONS

It is recommended that a project be initiated to construct turn lanes on Pine Grove Rd., construct offset turn lanes on SR 2, and install a traffic signal at the intersection. Due to the vertical curvature of the west approach of SR 2, it is recommended that an advance warning flasher be installed on that approach.

RECOMMENDED BY: Harry A. Maddox DATE 9/18/96
Harry A. Maddox
Transportation Engineer II

RECOMMENDED BY: Joseph M. Fletcher DATE 9/18/96
Joseph M. Fletcher
District Traffic Operations Engineer

RECOMMENDED BY: _____ DATE _____
Marion G. Waters, III, P.E.
State Traffic Operations Engineer

APPROVED BY: _____ DATE _____
Steve Parks
Director of Operations

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