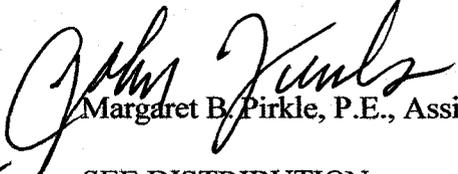


DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 771270- , Fulton County **OFFICE** Preconstruction
BRZLB-121(17)
CR 85/ Kimball Bridge Road at Big Creek **DATE** June 16, 2006

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

TO  SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

Attachment

DISTRIBUTION:

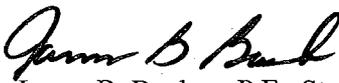
Brian Summers
Harvey Keeper
Ken Thompson
Michael Henry
Keith Golden
Joe Palladi
Paul Liles
Ben Buchan
Bryant Poole
BOARD MEMBER

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

JUN 08 2006

FILE BRZLB-121(17), Fulton County **OFFICE** Urban Design
C.R. 85 / Kimball Bridge Road at Big Creek
P.I. No. 771270 **DATE** May 15, 2006

FROM 
James B. Buchan, P.E., State Urban Design Engineer

TO Buddy Gratton, P.E., State Preconstruction Engineer
ATTN: Meg Pirkle, P.E., Assistant State Preconstruction Engineer

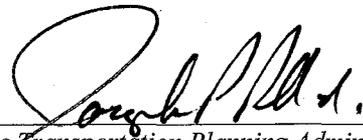
SUBJECT Revised Project Concept Report

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

The proposed project replaces the existing Kimball Bridge Road bridge over the Big Creek with a higher, parallel bridge south of the existing structure. The parallel bridge is located to accommodate for future widening of Kimball Bridge Road from two lanes to four lanes with a 24 foot raised median. This future project (FN107) is a local project programmed in the TIP for the 2015 Network year. The existing bridge will be used for maintenance of traffic during construction, and then demolished.

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

DATE 6/9/06


State Transportation Planning Administrator

JBB:AAJ ^{AVS}
Attachments

Distribution:

Harvey Keepler, State Environmental/Location Engineer
Keith Golden, P.E., State Traffic Operations Engineer
Joseph P. Palladi, P.E., State Transportation Planning Administrator
Jamie Simpson, State Transportation Financial Management Administrator
Bryant Poole, District 7 Engineer
Paul Liles, P.E., State Bridge Design Engineer
Brian Summers, P.E. Project Review Engineer

REVISED PROJECT CONCEPT REPORT

Need and Purpose:

Project BRZLB-121 (17) will replace the bridge located on County Road (CR) 85 over Big Creek that is below the 50 year flood elevation. The bridge has a sufficiency rating of 64.1. This project will replace the existing bridge and its approaches with a structurally adequate bridge raised above the 100 year flood elevation.

Project location:

The bridge is located 2 miles southeast of Alpharetta and was constructed in 1940. This section of CR 85 is functionally classified as a local urban street. Within the project limits CR 85 has a posted speed limit of 45 mph. The projected 2005 and 2025 ADT for this section of roadway is 24,800 and 36,800 respectively.

Description of the approved concept:

The project is 0.2 miles consisting of removal of the existing Big Creek Bridge and replacing it with a higher, wider bridge and improving and raising the grade of the bridge approaches from Rock Mill Road to Sheridan Ridge Court. There will be two 12' lanes with four foot bike lanes, 16' shoulders, curb and gutter, and six foot sidewalks. The pavement will also be replaced. Traffic would be maintained by an on-site detour bridge.

PDP Classification: Major _____ Minor: X

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

Functional Classification: Urban Local Street

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

State Route Number(s): N/A

Traffic (AADT):

Current Year: (2005) 24,800

Design Year: (2025) 36,800

Proposed features to be revised: The alignment will be shifted from the current location to a new location 56' to the south

Describe the revised feature(s) to be approved:

The proposed project replaces the existing Kimball Bridge Road bridge over the Big Creek with a higher, parallel bridge south of the existing structure. The parallel bridge is located to accommodate for future widening of Kimball Bridge Road from two lanes to four lanes with a 24 foot raised median. This future project (FN107) is a local project programmed in the TIP for the 2015 Network year. The existing bridge will be used for maintenance of traffic during construction, and then demolished.

Updated traffic data (AADT):

Current Year: (2005) 24,800

Design Year: (2025) 36,800

Programmed/Schedule:

P.E.: 2000

R/W: Local

Construction: 2008

Revised cost estimates:

Construction cost including E&C,

\$2,280,628.00

Right-of-way,

\$1,894,050.00

Utilities

No Reimbursables

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

The project is a bridge replacement, adding no capacity

Recommendation:

This office recommends that the above-proposed revision to the concept be approved for implementation

Attachments:

1. Sketch Map,
2. Cost Estimate.
3. Traffic and Typical Sections

• **Exempt projects**

Concur:



Director of Preconstruction

Approve:



Chief Engineer

Estimate Report for file "P.I. #771270 Kimball Bridge @ Big Creek"

Section Earthwork					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
xxx-xxxx	1	Lump Sum	200000.00	Earthwork	200000.00
Section Sub Total:					\$200,000.00

Section Base and Paving					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
310-5120	1239	SY	13.22	GR AGGR BASE CRS, 12 INCH, INCL MATL	16379.58
400-3130	539	TN	62.47	ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2, INCL POLYMER-MODIFIED BITUM MATL & H LIME	33671.33
402-3121	2516	TN	43.39	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	109169.24
402-4514	719	TN	47.18	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL POLYMER-MODIFIED BITUM MATL & H LIME	33922.42
413-1000	784	GL	1.10	BITUM TACK COAT	862.40
Section Sub Total:					\$194,004.97

Section Drainage					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
xxx-xxxx	1	Per Mile	50000.00	Drainage: Lump Sum	50000.00
Section Sub Total:					\$50,000.00

Section Concrete Work					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
433-1000	196	SY	137.00	REINF CONC APPROACH SLAB	26852.00
441-0104	200	SY	26.84	CONC SIDEWALK, 4 IN	5368.00
441-6222	3936	LF	13.62	CONC CURB & GUTTER, 8 IN X 30 IN, TP 2	53608.32
Section Sub Total:					\$85,828.32

Section Erosion Control					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
xxx-xxxx	1	Lump Sum	100000.00	Erosion Control	100000.00
Section Sub Total:					\$100,000.00

Section Traffic Control					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
xxx-xxxx	1	Lump Sum	500000.00	Traffic Control	500000.00
Section Sub Total:					\$500,000.00

Section Guardrail					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
641-1100	120	LF	31.40	GUARDRAIL, TP T	3768.00
641-1200	260	LF	14.32	GUARDRAIL, TP W	3723.20
641-5001	4	EA	499.46	GUARDRAIL ANCHORAGE, TP 1	1997.84
641-5012	4	EA	1590.44	GUARDRAIL ANCHORAGE, TP 12	6361.76
Section Sub Total:					\$15,850.80

Section Grassing/Landscaping					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
xxx-xxxx	1	Lump	20000.00	Grassing/Landscaping	20000.00

		Sum		
Section Sub Total:				\$20,000.00

Section Misc.					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
153-1300	1	EA	57614.09	FIELD ENGINEERS OFFICE TP 3	57614.09
Section Sub Total:					\$57,614.09

Section Major Structures					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
xxx-xxxx	10000	SF	75.00	Bridge 80 by 44	750000.00
xxx-xxxx	1	Lump Sum	100000.00	Removal of Existing Bridge	100000.00
Section Sub Total:					\$850,000.00

Total Estimated Cost: \$2,073,298.18

Subtotal Construction Cost \$2,073,298.18

E&C Rate 10.0 % \$207,329.82

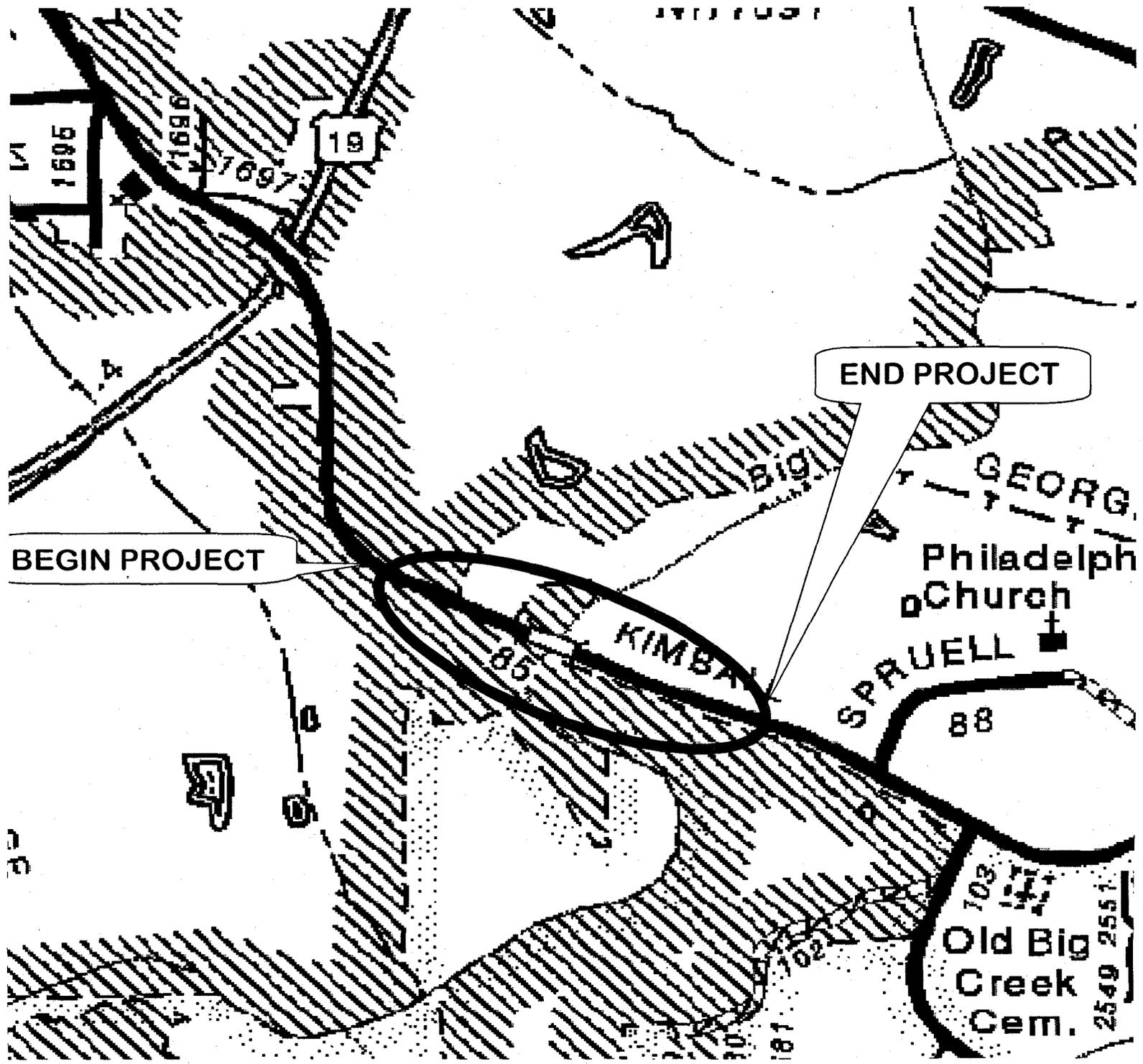
Inflation Rate 0.0 % @ 0.0 Years \$0.00

Total Construction Cost \$2,280,628.00

Right Of Way \$1,894,050.00

ReImb. Utilities \$0.00

Grand Total Project Cost \$4,174,678.00



BEGIN PROJECT

END PROJECT

1695

1696

1697

19

85

KIMBA

BIG

GEORG

Philadelph
Church

SPRUELL

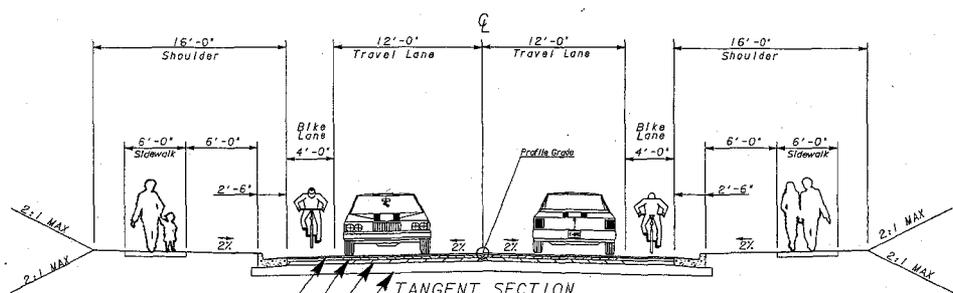
88

Old Big
Creek
Cem.

2549 2551

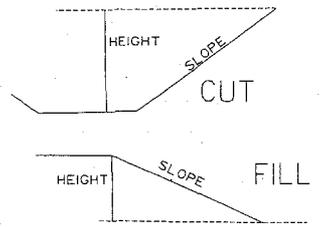
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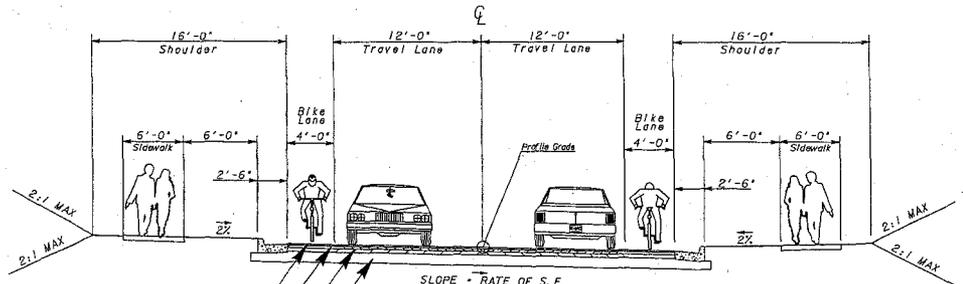
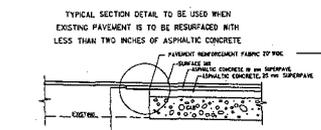
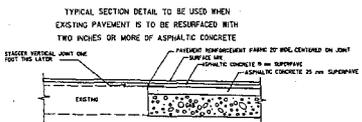
SLOPE SELECTION		
SLOPE	CUT	FILL
6:1	0'-2'	0'-2'
4:1	2'-6'	2'-6'
3:1	6'-10'	6'-10'
2:1	10+	10+



TANGENT SECTION
 FROM
 STA. 14+00 TO 16+01.90
 STA. 32+15.49 TO

①
 ②
 ③
 ④

- ① 165#/SY 12.5 mm SUPERPAVE MIX DESIGN LEVEL C
- ② 220#/SY 19 mm SUPERPAVE MIX DESIGN LEVEL C
- ③ 770#/SY 25 mm SUPERPAVE MIX DESIGN LEVEL C
- ④ 12" GRADED AGGREGATE BASE

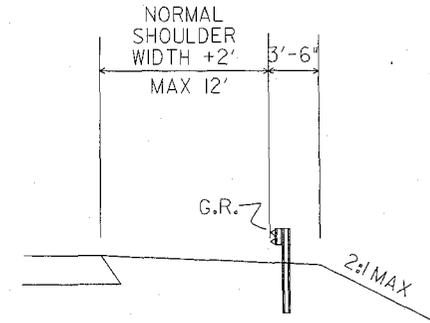
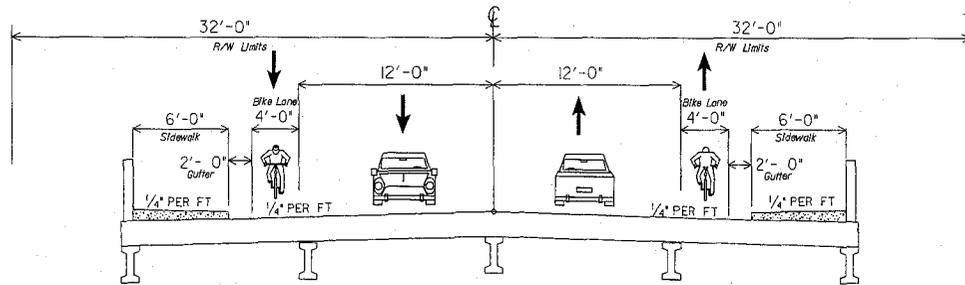


SLOPE - RATE OF S.E. SEE PLANS

SUPER ELEVATED SECTION
 FROM
 STA 16+01.90 TO 32+15.49

①
 ②
 ③
 ④

STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE OF URBAN DESIGN	REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: URBAN DESIGN
	TYPICAL SECTIONS	DRAWING NO. 5-01



ALLOWABLE RANGES TABLE

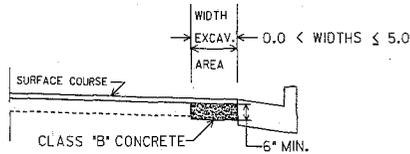
FOR THIS PROJECT, CROSS SLOPES THAT ARE ADJUSTED TO "BEST FIT" EXISTING PAVEMENT SLOPES ARE SUBJECT TO THE FOLLOWING LIMITS:

- A. NORMAL CROWN

SECTION WITH GRADES 0.5% OR GREATER	SECTION WITH GRADES LESS THAN 0.5%
0.0150 FT/FT - MINIMUM	0.0156 FT/FT - MINIMUM
0.0208 FT/FT - DESIRABLE	0.0208 FT/FT - DESIRABLE
0.0250 FT/FT - MAXIMUM	0.0300 FT/FT - MAXIMUM
- B. SUPERELEVATION RATE
SE RATE SHOWN ON PLANS OR SE RATE EXISTING IN FIELD WHICHEVER IS GREATER
- C. SUPERELEVATION TRANSITION LENGTH (LENGTH FROM FLAT POINT TO FULL SE)

	RATE OF CHANGE	CORRESPONDING DIFFERENCE IN GRADE BETWEEN PIVOT POINT AND EDGE OF PAVEMENT
MINIMUM	1:150	0.57%
DESIRABLE	1:200	0.50%
MAXIMUM	1:300	0.33%

SHOULDER DETAIL FOR GUARDRAIL
 (SEE PLANS FOR LOCATION)
 (SEE GA STD 4051 OR 4052 FOR DETAILS)



NO SCALE
 CLASS 'B' CONCRETE BASE OR PAVEMENT WIDENING
 Item Code 500-9999 - Cu. Yds.

In excavated areas between the existing paving and new curb and gutter that are 5'-0" or less in width, Class 'B' concrete shall be placed in lieu of the base and paving specified by the typical section. Payment will be made under "Class B Concrete Base and Pavement Widening".

In excavated areas greater than 5'-0" in width, the Contractor shall place base and paving as specified on the typical section.
 See plans for details of curb and gutter construction.

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

- D. POSITIONING OF SUPERELEVATION TRANSITION LENGTH ON SIMPLE CURVES

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

NOTE: CROWN WIPE OUT SHALL BE AT THE SAME RATE AS THE SE TRANSITION
 E. SMOOTHING OF BREAKS IN EDGE PROFILE AT BEGIN AND END OF TRANSITION SHALL BE ACCOMPLISHED BY VERTICAL CURVE WITH A MINIMUM LENGTH (IN FEET) EQUAL TO THE SPEED DESIGN (IN MPH).

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE OF URBAN DESIGN

REVISION DATES

NO.	DATE	DESCRIPTION

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE OF URBAN DESIGN
TYPICAL SECTIONS