ORIGINAL TO GENERAL FILES

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0006699, Columbia County
CSMLS-0006-00(699)
SR 402/I-20 Noise Barriers West of
SR 383/Belair Road

OFFICE Preconstruction

DATE May 2, 2007

FROM Genetha Rice-Singleton, Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

GRS/cj

Attachment

DISTRIBUTION:

Brian Summers
Harvey Keepler
Ken Thompson
Jamie Simpson
Michael Henry
Keith Golden
Angela Alexander (file copy)
Babs Abubakar
Ben Buchan
Mike Thomas
BOARD MEMBER
FHWA

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE CSMLS-0006-00(699)/ Columbia County
P.I. No. 0006699
S.R. 402/I-20 Noise Barriers west of S.R. 383/Belair Road

OFFICE Urban Design

DATE February 21, 2007

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

TO Genetha Rice-Singleton, Assistance Director of Preconstruction

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 revised concept report will provide TP 2S concrete side barrier throughout the project instead of guardrail. This decision was made to minimize maintenance at the PFPR by District Construction and also suggested by FHWA. The cost estimate has been revised accordingly.

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

If you have any additional questions or comments, please contact Jill Franks or Nebiat Abraham at (404) 656-5442.

Date 2-26-07

State Transportation Planning Administrator

CAH
JBB: NA
Attachments
cc: Brian Summers
Jamie Simpson
Harvey Keepler
Angela Alexander
Keith Golden
Paul Liles
Michael L. Thomas, P.E. (District 2 Engineer)

REVISED PROJECT CONCEPT REPORT

Need and Purpose: The need of the proposed improvement is due to the increasing noise impact caused by the traffic growth to the surrounding environment. The primary purpose of this project is to provide a reduction in noise on I-20 west of S.R. 383. This condition will continue to deteriorate as traffic grows if the noise barriers are not implemented. This project is a congressional earmark identified in FY 2004 under the "Section 115 Surface Transportation Project" category.

S.R. 402/I-20 in Columbia County is functionally classified as an Interstate Principal Arterial. The posted speed limit is 65 MPH. The current year 2009 traffic counts is 50,940 AADT and the projected traffic is 77,760 AADT in 2029.

Description of the approved concept: The proposed project will install noise barrier walls along the shoulder break line of the proposed S.R. 402/I-20 corridor. This project proposes to construct 1.33 miles of noise barriers on the north side and 0.624 miles on the south side of S.R. 402/I-20, and is 100% in Congressional District 9 in Columbia County. The limits of the project are from BMP (beginning mile post) 14.19 or Sta. 765+00 to EMP (ending mile post) 15.67 or Sta. 843+00.

PDP Classification: Major_____ Minor X

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

Functional Classification: Interstate Principal Arterial

U. S. Route Number(s): I-20 **State Route Number(s):** *402*

Traffic (AADT): S.R. 402/I-20
Current Year: (2009) *50,940* Design Years: (2029) *77, 760*

Proposed features to be revised:

The features to be revised in the approved concept are the typical sections, project termini and congressional district.

- The typical section is a 14' paved shoulder with guardrail, v-gutter, and noise barrier offset 5' behind guardrail.
- Project termini are from State Route BMP (beginning mile post) 14.19 or STA 765+00 to State Route EMP (end mile post) 15.67 or STA 843+00.
- Congressional District in the approved concept report is 9.

Describe the revised feature(s) to be approved:

- The revised typical section is a 14' paved shoulder with TP 2S concrete side barrier throughout the project and noise barrier wall offset 1' behind the TP 2S concrete barrier. This decision was made to minimize maintenance. The cost estimate has been revised also accordingly.

- The revised limits of the project are from State Route BMP (beginning mile post) 14.171 or Sta. 764+00 to State Route EMP (ending mile post) 15.689 or Sta. 844+00.

- The project is 100% in Congressional District 10.

Updated traffic data (AADT):
Current Year: (2009) 50,940 Design Year: (2029) 77,760

Programmed/Schedule:

P.E. $200,000.00/**2005** R/W: **N/A** Construction: $6,125,000.00/**2007**

VE Study Required Yes ( ) No(X)

Revised cost estimates:
1. Construction cost including E&C is **$ 8,324,194.01**

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

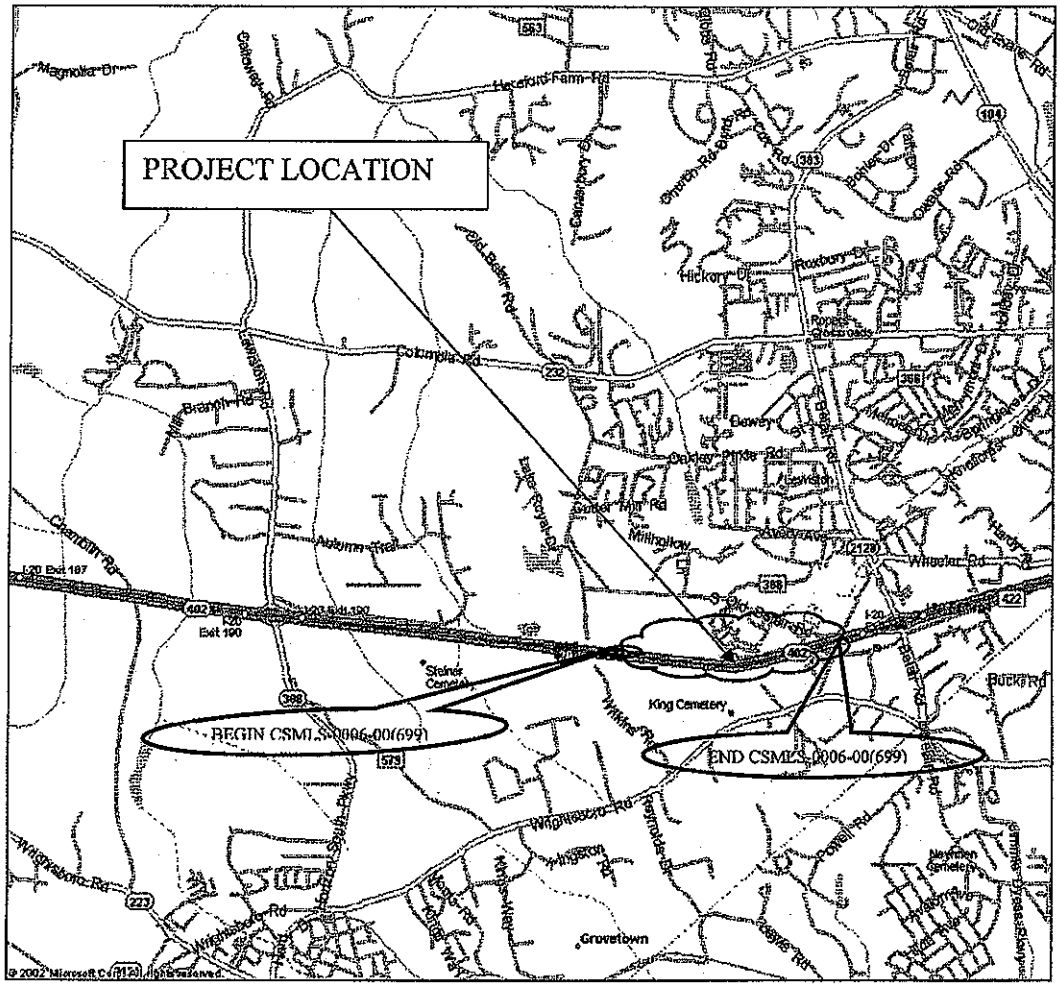
Recommendation: Recommend that the proposed revision to the concept be approved for implementation.

Attachments:
1. Sketch Map
2. Typical Section
3. Cost Estimate,
4. Project Layout

Concur: _____
Director of Preconstruction

Approve: Richard Wayne Fedora
Division Administrator, FHWA

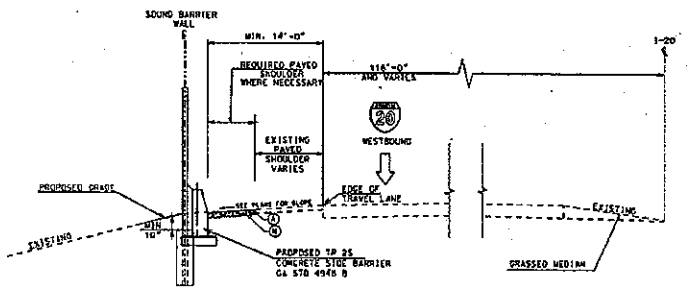
Approve: _____
Chief Engineer



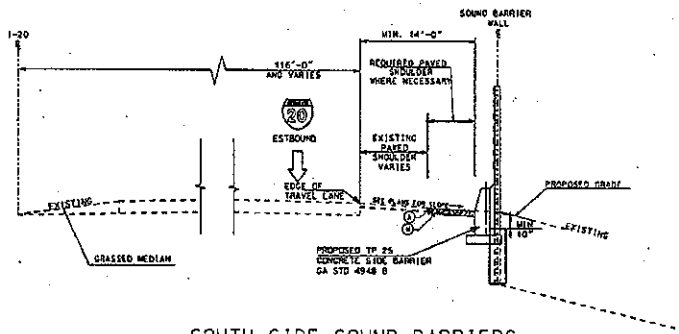
LOCATION MAP
PROJECT; CSMLS-0006-00(699)
Urban Design

COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
COLUMBIA	CSNHS-0006-00(699)		

TYPICAL SECTIONS



NORTH SIDE SOUND BARRIERS
FROM STA. # 765+00 TO 835+00



SOUTH SIDE SOUND BARRIERS
FROM STA. # 810+00 TO 843+00

A ASPHALTIC CONCRETE 12.5 mm SUPERPAVE, 165 lb/yd

M CLASS 'B' CONCRETE, 8.5"

GEORGIA
DEPARTMENT OF TRANSPORTATION

NOT TO SCALE

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: URBAN DESIGN
TYPICAL SECTIONS
I-20 SOUND BARRIERS WEST OF S.R. 383/BELAIR RD.

DRAWING NO. 5-01

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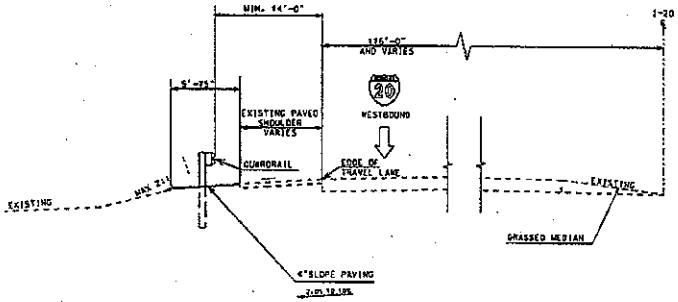
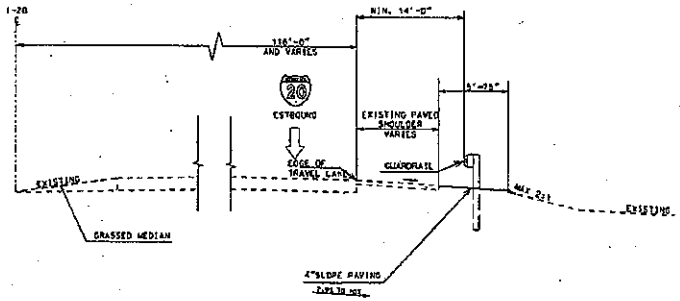
COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
COLUMBIA	CSNL5-0006-00(699)		

TYPICAL SECTIONS



NORTH SIDE NOISE BARRIERS
FROM STA. # 835+00 TO 838+52.32



NORTH SIDE NOISE BARRIERS
FROM STA. # 806+25.35 TO 810+00

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: URBAN DESIGN
TYPICAL SECTIONS
I-20 NOISE BARRIERS WEST OF S.R. 383/BELAIR RD.
DRAWING NO. 5-02

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Estimate Report for file "CSMLS-0006-00(699)"

Section ROADWAY QUANTITIES

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	200000.00	TRAFFIC CONTROL - CSMLS-0006-00(699)	200000.00
210-0100	1	LS	160000.00	GRADING COMPLETE - CSMLS-0006-00(6699)	160000.00
402-3130	813	TN	58.94	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	47918.22
413-1000	394	GL	1.84	BITUM TACK COAT	724.96
441-0004	637	SY	53.13	CONC SLOPE PAV, 4 IN	33843.81
500-3200	2325	CY	530.90	CLASS B CONCRETE	1234342.50
620-0100	5000	LF	38.72	TEMPORARY BARRIER, METHOD NO. 1	193600.00
621-6200	10300	LF	239.50	CONCRETE SIDE BARRIER, TP 2-S	2466850.00
641-1100	41	LF	51.47	GUARDRAIL, TP T	2110.27
641-1200	593	LF	18.54	GUARDRAIL, TP W	10994.22
641-5012	2	EA	1871.80	GUARDRAIL ANCHORAGE, TP 12	3743.60
650-1100	1	EA	22841.01	IMPACT ATTENUATOR UNIT (CRASH COMPRESSION CUSHION) TYPE T-3-S-30	22841.01
				Section Sub Total:	**$4,376,968.59**

Section ROADWAY QUANTITIES

Item Number	Quantity	Units	Unit Price	Item Description	Cost
624-0400	148560	SF	19.45	SOUND BARRIER, TYPE -C	2889492.00
				Section Sub Total:	**$2,889,492.00**

Section TEMPORARY EROSION CONTROL QUANTITIES

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	16	AC	571.97	TEMPORARY GRASSING	9151.52
163-0240	111	TN	183.84	MULCH	20406.24
163-0300	6	EA	2872.37	CONSTRUCTION EXIT	17234.22
163-0520	533	LF	16.83	CONSTRUCT AND REMOVE TEMPORARY PIPE SLOPE DRAIN	8970.39
163-0524	20	Each	79.16	CONSTRUCT AND REMOVE TEMPORARY DITCH CHECKS - STONE RIP RAP	1583.20
163-0550	23	EA	301.53	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	6935.19
165-0010	5315	LF	0.93	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	4942.95
165-0040	20	EA	87.11	MAINTENANCE OF EROSION CONTROL CHECKDAMS	1742.20
165-0101	6	EA	660.01	MAINTENANCE OF CONSTRUCTION EXIT	3960.06
165-0105	23	EA	112.96	MAINTENANCE OF INLET SEDIMENT TRAP	2598.08
167-1000	2	EA	1349.35	WATER QUALITY MONITORING AND SAMPLING	2698.70
167-1500	12	MO	1035.76	WATER QUALITY INSPECTIONS	12429.12
171-0010	10630	LF	1.92	TEMPORARY SILT FENCE, TYPE A	20409.60
				Section Sub Total:	**$113,061.47**

Section PERMANENT EROSION CONTROL QUANTTIES

Item Number	Quantity	Units	Unit Price	Item Description	Cost
603-2182	77	SY	48.61	STN DUMPED RIP RAP, TP 3, 24 IN	3742.97
603-7000	77	SY	4.83	PLASTIC FILTER FABRIC	371.91
700-6910	8	AC	906.91	PERMANENT GRASSING	7255.28
700-7000	23	TN	58.05	AGRICULTURAL LIME	1335.15
700-7010	19	GL	19.30	LIQUID LIME	366.70
700-8000	5	TN	348.14	FERTILIZER MIXED GRADE	1740.70
700-8100	403	LB	2.04	FERTILIZER NITROGEN CONTENT	822.12
716-2000	6558	SY	1.33	EROSION CONTROL MATS, SLOPES	8722.14
				Section Sub Total:	**$24,356.97**

Section DRAINAGE QUANTITIES

Item Number	Quantity	Units	Unit Price	Item Description	Cost
441-0204	57	SY	31.73	PLAIN CONC DITCH PAVING, 4 IN	1808.61
550-1180	615	LF	41.02	STORM DRAIN PIPE, 18 IN, H 1-10	25227.30

550-4218	17	EA	678.07	FLARED END SECTION 18 IN, STORM DRAIN	11527.19
668-2100	20	EA	4405.96	DROP INLET, GP 1	88119.20
668-2110	9	LF	275.74	DROP INLET, GP 1, ADDL DEPTH	2481.66
668-2231	3	EA	8039.13	DROP INLET, GP 1, MODIFIED TP M-1	24117.39
668-4300	3	EA	2224.60	STORM SEWER MANHOLE, TP 1	6673.80
668-4311	11	LF	286.92	STORM SEWER MANHOLE, TP 1, ADDL DEPTH, CL 1	3156.12
				Section Sub Total:	**$163,111.27**

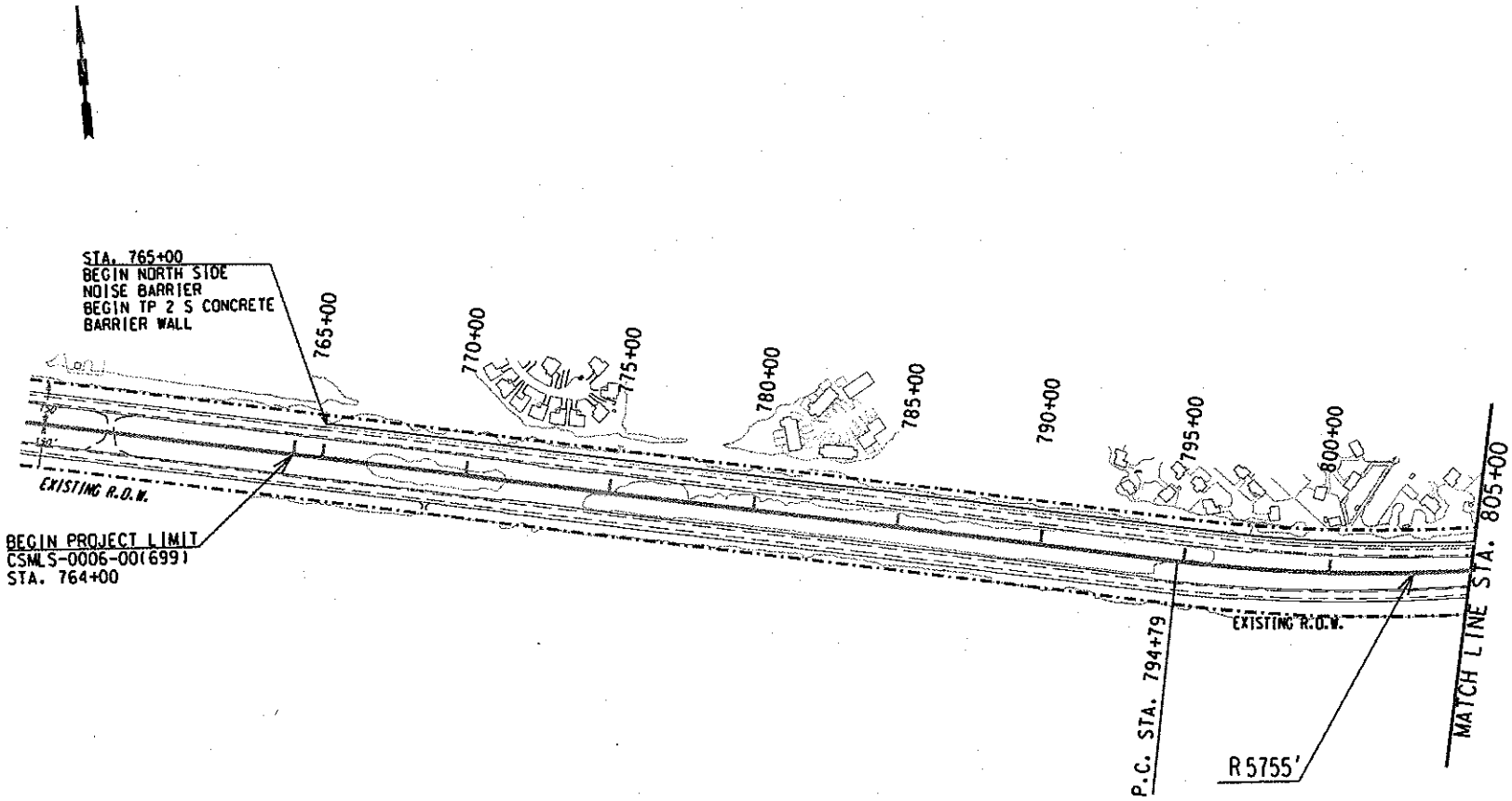
Section SIGNING AND MARKING

Item Number	Quantity	Units	Unit Price	Item Description	Cost
636-1020	31	SF	14.80	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	458.80
				Section Sub Total:	**$458.80**

Total Estimated Cost: $7,567,449.10

Subtotal Construction Cost	**$7,567,449.10**
E&C Rate 10.0 %	$756,744.91
Inflation Rate 0.0 % @ 0.0 Years	$0.00
Total Construction Cost	**$8,324,194.01**
Right Of Way	$0.00
ReImb. Utilities	$0.00
Grand Total Project Cost	**$8,324,194.01**

COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
COLUMBIA	CSMLS-0006-00(699)	1	2



EXISTING R.O.W
EXISTING EDGE OF PAVEMENT
EXISTING EDGE OF SHOULDER
PROPOSED GUARDRAIL
PROPOSED NOISE BARRIER WALL

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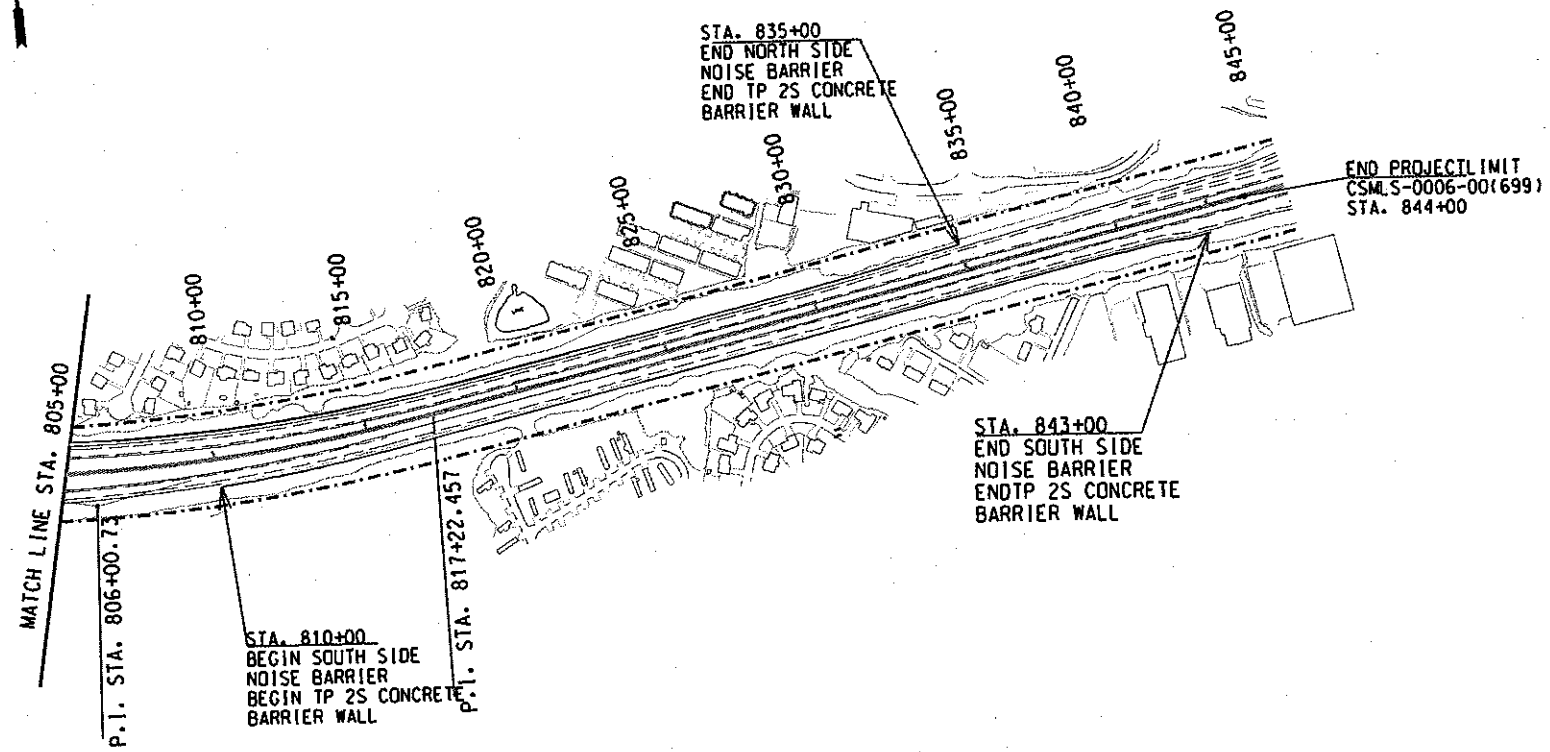
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: URBAN DESIGN
CONCEPT LAYOUT

I-20 NOISE BARRIERS WEST OF
S.R. 383/BELAIR ROAD

DRAWING NO. C-1

COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
COLUMBIA	CSML-0006-00(699)	3	3



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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: URBAN DESIGN
CONCEPT LAYOUT

I-20 NOISE BARRIERS WEST OF
S.R. 383 /BELAIR ROAD

DRAWING NO. C-1