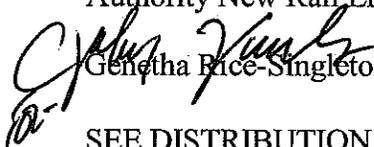


**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE** P. I. No. 0000345, Chatham County **OFFICE** Preconstruction  
HPP-0000-00(345)  
SR 307 Overpass over Georgia Ports **DATE** October 26, 2007  
Authority New Rail Line

**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.

Attachment

**DISTRIBUTION:**

Brian Summers  
Glenn Bowman  
Ken Thompson  
Michael Henry  
Keith Golden  
Angela Alexander  
Ben Buchan  
Glenn Durrence  
BOARD MEMBER

# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

## PLAN AND PROFILE OF PROPOSED S.R. 307 OVERPASS OVER PORT AUTHORITY NEW RAIL LINE

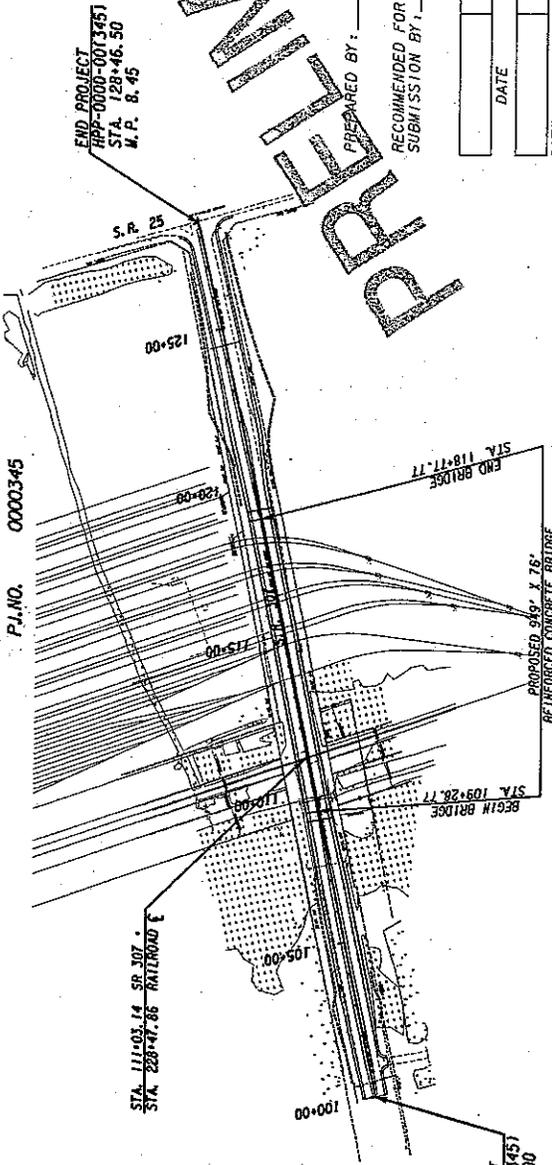


NOTE: REFERENCES IN THIS DOCUMENT WHICH INCLUDES ALL PAPERS, WRITINGS, DOCUMENTS, DRAWINGS, OR RECORDS ARE TO BE USED IN CONNECTION WITH THIS DOCUMENT TO STATE HIGHWAY DEPARTMENT OF TRANSPORTATION, GEORGIA STATE HIGHWAY DEPARTMENT. "HIGHWAY DEPARTMENT" OR "DEPARTMENT" WHEN THE CONTEXT THEREOF MEANS THE STATE HIGHWAY DEPARTMENT OF GEORGIA AND SHALL BE DEEMED TO MEAN THE DEPARTMENT OF TRANSPORTATION.

FEDERAL AID PROJECT  
HPP-0000-0013451  
CHATHAM COUNTY

FEDERAL ROUTE • N/A  
STATE ROUTE • 307  
P.L.NO. 0000345

PRELIMINARY

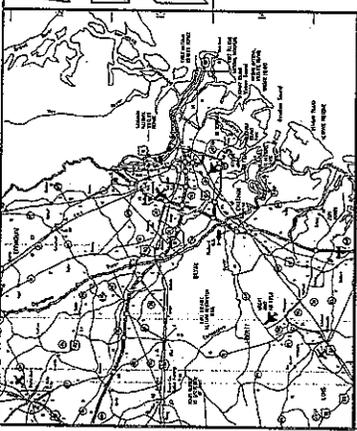


PREPARED BY: KIMLEY-HORN AND ASSOCIATES, INC.  
RECOMMENDED FOR SUBMISSION BY: STATE CONSULTANT DESIGN ENGINEER

DATE	LOCATION AND DESIGN APPROVAL
PLANS COMPLETED	DATE
REVISIONS	CHIEF ENGINEER



LENGTH OF PROJECT	COUNTY M.S.U. Project No. HPP-0000-0013451	MILES
NET LENGTH OF ROADWAY	0.359	
NET LENGTH OF BRIDGES	0.60	
NET LENGTH OF PROJECT	0.539	
NET LENGTH OF EXCEPTIONS	N/A	
GROSS LENGTH OF PROJECT	0.539	



LOCATION SKETCH

DESIGN DATE:	2010 / 2030
TRAFFIC A.D.T.:	11000 / 39630
DIRECTIONAL DIST.:	50 / 50
% TRUCKS:	72% / 93%
24 HR. TRUCKS %:	66% / 85%
SPEED DESIGN:	45 MPH

LOCATION & DESIGN APPROVAL DATE: JUNE 23, 2000

FUNCTIONAL CLASS: URBAN PRINCIPAL ARTERIAL

THIS PROJECT IS 100% IN CHATHAM COUNTY AND IS 100% IN CONG. DIST. NO. 12.

PROJECT DESIGNATION: DESIGNED IN ENGLISH UNITS.

THIS PROJECT HAS BEEN PREPARED USING THE HORIZONTAL GEORGIA COORDINATE SYSTEM OF 1984 AND AROUND WEST ZONE AND THE NORTH AMERICAN VERTICAL DATUM (NAD) OF 1983.

MUTUAL POINT COORDINATES  
S. R. 307 STA. 114+23.25  
N 774971.5908  
E 9686836.2986

THE DATA TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANYWAY REFERENCED THEREON IS THE PROPERTY OF THE ENGINEER AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER. THE ENGINEER'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE PROJECT AND DOES NOT EXTEND TO ANY OTHER MATTER. THE DEPARTMENT OF TRANSPORTATION IN ANY WAY THE ATTENTION OF BORDER IS SPECIFICALLY DIRECTED TO SUBSECTIONS 0224, 0225, AND 10403 OF THE SPECIFICATIONS.

BEGIN PROJECT  
HPP-0000-0013451  
STA. 100+00.00  
M. P. 7.91

**Quarles, Johnny**

**From:** Welch, Albert (Butch)  
**Sent:** Monday, October 15, 2007 5:44 PM  
**To:** Quarles, Johnny  
**Cc:** Richardson, Darrell  
**Subject:** PI#0000345, SR307 Overpass at GPA, Chatham County - Median Width

Johnny,

The existing typical section consists of 2 12-ft travel lanes in each direction with a 14-ft paved flush median and 10-ft rural shoulders. The proposed typical section is 2 12-ft travel lanes in each direction with 10-ft shoulders with a 20-ft raised concrete median along the roadway section and a 8-ft raised concrete median along the bridge section. The 8-ft median on the 949-ft bridge will reduce the width of structure by 12-ft.

Although the ADT for the base year is only 6000, it is expected that the design year ADT will be 26,500 due to the anticipated expansion of the Georgia Ports and the surrounding area. With the expected growth in this area, particularly the addition of several large warehouses along GPA's proposed Jimmy DeLoach Parkway Connector which is to tie in just to the west of this project, the addition of the 20-ft raised median was thought to be prudent at this time. The adjacent project PI# 562165 is to widen SR307 just to the west of this project and will also have a 20-ft raised concrete median.

If you need any more information, please let me know.

Butch

Albert S. Welch, Jr. (Butch)  
Design Group Manager - UD5  
Georgia Department of Transportation  
(404) 656-5447 (voice)  
(404) 657-7921 (fax)

GERALD, 9/28/07

① No Access Points ARE PROPOSED ALONG THE ROUTES

② THIS PROJECT WILL GRADE SEPARATE THE ~~ROAD~~ 45-GRADE CROSSING....

③ A Layout is Attached..

IF GRADE SEPARATION W/O ACCESS POINTS WHAT IS THE PURPOSE OF CONSTRUCTING A 20' RAISED MEDIUM?

GERALD/TODD 10/14/2007

SEE ATTACHED NOTE

Thank  
Tale

SEP 13 2007

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE** HPP-0000-00(345), Chatham County  
SR307 Overpass over Georgia Ports  
Authority New Rail Line  
P.I. No. 0000345

**OFFICE** Urban Design

**DATE** September 11, 2007

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

**TO** Genetha Rice-Singleton, Assistant 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).

This project, located on SR307 approximately 1,350-ft west of the intersection of SR25 and SR307, is necessary to provide a grade separation between rail and vehicular traffic. This proposal is for the construction of a bridge and approaches to carry SR307 traffic over both existing (Norfolk Southern) and proposed (Intermodal Facility) railroad tracks. SR307 presently has an at-grade crossing with the Norfolk Southern Foundation Lead track. In addition, six tracks are being installed by the Georgia Ports Authority as part of the James D. Mason Intermodal Facility.

The original concept report is being revised to accommodate changes to the typical section, including the lane configuration at the SR25 intersection, and to the on-site detour required to maintain traffic during construction. The original typical section consisted of four 12-ft travel lanes in each direction divided by a 14-ft flush median with 10-ft rural shoulders. The typical section is being revised to four 12-ft travel lanes separated by a 20-ft raised median (8-ft raised on the bridge). The detour typical section is being revised from two 12-ft travel lanes to four 12-ft travel lanes with 10-ft rural shoulders.

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

DATE 9/14/07

  
State Transportation Planning Administrator

JBB: ASW: cah   
Attachments  
See Distribution List

September 11, 2007

P.I. No. 0000345 - Revised Concept Report

Page 2 of 2

**DISTRIBUTION:**

Todd Long, Preconstruction Director, letter only  
Glenn Durrence, District 5 Engineer, w/attachment  
Brian Summers, Project Review Engineer, w/ attachment  
Glenn Bowman, State Environmental/Location Engineer, w/attachment  
Keith Golden, State Traffic Safety and Design Engineer, w/attachment  
Angela Alexander, State Transportation Planning Administrator, w/attachment  
Jamie Simpson, Financial Management Administrator, w/attachment  
Paul Liles, State Bridge Design Engineer, w/ attachment

# REVISED PROJECT CONCEPT REPORT

HPP-0000-00(345)

SR307 Overpass over Georgia Port Authority New Rail Line

P.I. No. 0000345

Chatham County

**Need and Purpose:** Project HPP-0000-00(345) is needed to provide a grade separation between rail and vehicular traffic. This project proposes the construction of a bridge and approaches to carry SR307 traffic over both existing (Norfolk Southern) and proposed (Intermodal Facility) railroad tracks. SR307 presently has an at-grade crossing with the Norfolk Southern Foundation Lead track. The Georgia Ports Authority (GPA) has long range plans to install up to twelve working tracks and eight storage tracks at the James D. Mason Intermodal Container Transfer Facility (ICTF). Additionally, a connection from the working tracks and storage tracks on the south end of the ICTF is necessary for train movements into and out of the facility. These connecting tracks will eventually lead to 14 total tracks that will lie across the present location of SR307. The grade separation will provide a much safer and more efficient movement of vehicles. The grade separation of SR307 from the rail traffic was identified in the Chatham County Intermodal Freight Study.

**Project location:** Project HPP-0000-00(345) begins in Chatham County at Mile Post 7.93 on SR307 west of the Norfolk Southern Foundation Lead Track crossing and continues east to the intersection of SR25 at Mile Post 8.47. The total project length is 0.54 miles.

**Description of the approved concept:** The proposed project would provide grade separation between vehicular traffic and existing Norfolk Southern Foundation Lead as well as numerous rails that are being installed as part of the GPA intermodal facility. The existing 4-lane rural roadway with 14-ft flush median would be reconstructed along existing alignment. The proposed bridge would be a 4-lane section with a 14-ft raised median. An on-site 2-lane detour would be required to maintain traffic during construction.

**PDP Classification:** Major  Minor

**Federal Oversight:** Full Oversight , Exempt , State Funded , Other

**Functional Classification:** Urban Principal Arterial

**U. S. Route Number(s):** None

**State Route Number(s):** SR307

**Traffic (AADT) as shown in the approved concept:**

Current Year: 7,000 (1999)

Design Year: 9,500 (2023)

**Proposed features to be revised:**

**Typical Section:** The typical sections described in the original concept for SR307 and detour are to be revised to meet current GDOT policy. The original typical section for SR307 consists of two 12-ft travel lanes in each direction divided by a 14-ft flush median with 10-ft rural shoulders (8-foot paved on the north side). The detour typical section described in the original concept consists of one 12-ft travel lane in each direction with 10-ft rural shoulders (4-ft paved).

**SR307 @ SR25 Intersection Configuration:** The original concept calls for this intersection laneage to remain the same. The eastbound approach laneage would remain a single left-turn, through, and right-turn.

**Describe the revised feature(s) to be approved:**

**Proposed SR307 Typical Section:** Four 12-ft travel lanes (two in each direction) with a 20-ft raised median and 10-ft (6.5-ft paved, 3.5-ft grassed) rural shoulders.

**Proposed SR307 Bridge Typical Section:** Four 12-ft travel lanes (two in each direction) with an 8-ft raised median and 10-ft shoulders. This allows for a total width of 79.25-ft, including side barriers, along a length of approximately 949-ft.

**Proposed SR307 Detour Typical Section:** Four 12-ft travel lanes (two in each direction) with 10-ft (2-ft paved, 8-ft grassed) rural shoulders.

**SR307 @ SR25 Intersection Configuration:** The east bound approach laneage will consist of a single left-turn, two through, and a single right-turn.

**Updated traffic data (AADT):**

Current Year: 8,700 (2007)

Design Year: 39,630 (2030)

Vehicle volume counts were collected at the signalized intersection of SR25 at SR307 during the AM and PM peak hours to quantify existing peak hour traffic conditions and patterns. The traffic analysis in the Revised Concept Report utilized the traffic volumes from GDOT traffic count #350 in Chatham County, which recorded an average of 8,700 vehicles per day (4,350 eastbound, 4,350 westbound). The average growth rate per year over the past 5 years (2000-2005) along SR307 was calculated to be approximately 7.26% per year.

The SR307 overpass is projected to be completed in the year 2010. The port has a projected growth in containerized cargo of approximately 250% over the next 15 years (2006-2021), which equates to a 16% per year growth rate. This anticipated growth will significantly increase the amount of truck traffic entering and exiting the port along the east leg of the SR25 at SR307 intersection. The Base Year 2010 traffic conditions were developed by increasing the Existing Year 2007 peak hour traffic volumes at 16% per year for 3 years for only the traffic entering and exiting the port (eastbound through, westbound left-turn, through, and right-turn). The additional Existing Year 2007 traffic volumes (northbound, southbound, and eastbound left-turn and right-

turn) were increased at 1% per year for 3 years. To determine Design Year 2030 traffic conditions the Base Year 2010 volumes for traffic entering and exiting the port (eastbound through, westbound left-turn, through, and right-turn) were increased at 9% per year for 20 years. The additional traffic volumes (northbound, southbound, and eastbound left-turn and right-turn) were increased at 1% per year for 20 years.

**Programmed/Schedule:**

P.E. Authorized

R/W: 2008

Construction: 2009

**VE Study Required:** Yes ( ) No (X)

**Revised cost estimates:**

1. Construction cost including inflation and E&C = \$14,069,650.

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

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

JBB:ASW:Kimley-Horn *AKH*

**Attachments:**

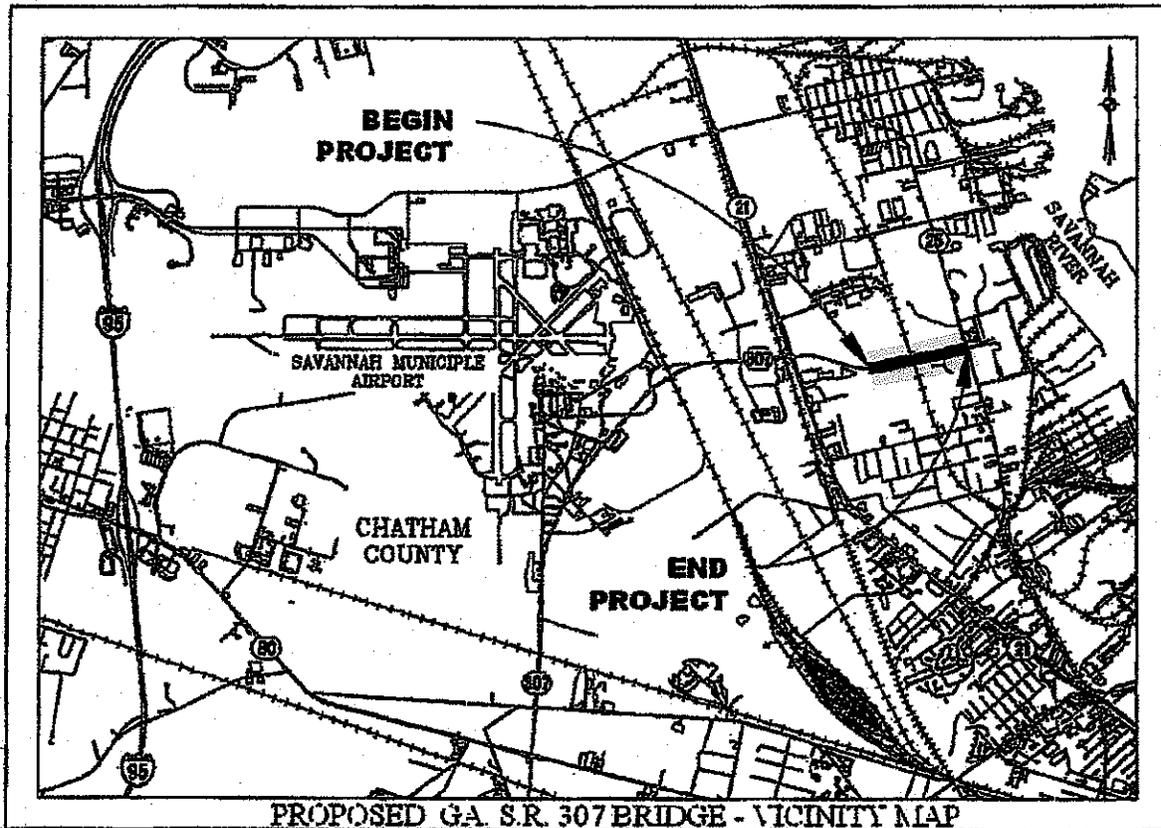
1. Sketch Map
2. Cost Estimate
3. Typical Sections (letter size)
4. Traffic Diagram

Concur: \_\_\_\_\_

*[Signature]*  
Director of Preconstruction

Approve: \_\_\_\_\_

*[Signature]*  
Chief Engineer



**Location Map**  
HPP-0000-00(345) Chatham County PI No. 0000345  
SR 307 CONSTRUCT OVERPASS OVER PORT AUTHORITY NEW RAIL LINE

**Estimate Report for file "0000345\_20070804200787318"**

<b>Section DRAINAGE ITEMS</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
550-1180	100	LF	44.54	STORM DRAIN PIPE, 18 IN, H 1-10	4454.00
550-1300	100	LF	70.20	STORM DRAIN PIPE, 30 IN, H 1-10	7020.00
550-2240	60	LF	38.48	SIDE DRAIN PIPE, 24 IN, H 1-10	2308.80
550-3424	2	EA	727.52	SAFETY END SECTION 24 IN, SIDE DRAIN, 4:1 SLOPE	1455.04
550-4218	2	EA	664.32	FLARED END SECTION 18 IN, STORM DRAIN	1328.64
550-4230	2	EA	942.53	FLARED END SECTION 30 IN, STORM DRAIN	1885.06
<b>Section Sub Total:</b>					<b>\$18,451.54</b>

<b>Section EROSION CONTROL - PERMANENT</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
700-6910	13	AC	1050.40	PERMANENT GRASSING	13655.20
716-2000	10000	SY	1.23	EROSION CONTROL MATS, SLOPES	12300.00
<b>Section Sub Total:</b>					<b>\$25,955.20</b>

<b>Section SIGNING AND MARKING</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
636-1033	100	SF	19.60	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 9	1960.00
636-2070	80	LF	8.27	GALV STEEL POSTS, TP 7	661.60
652-5451	5600	LF	0.23	SOLID TRAFFIC STRIPE, 5 IN, WHITE	1288.00
652-6501	5600	GLF	0.16	SKIP TRAFFIC STRIPE, 5 IN, WHITE	896.00
654-1001	100	EA	3.13	RAISED PVTM MARKERS TP 1	313.00
<b>Section Sub Total:</b>					<b>\$5,118.60</b>

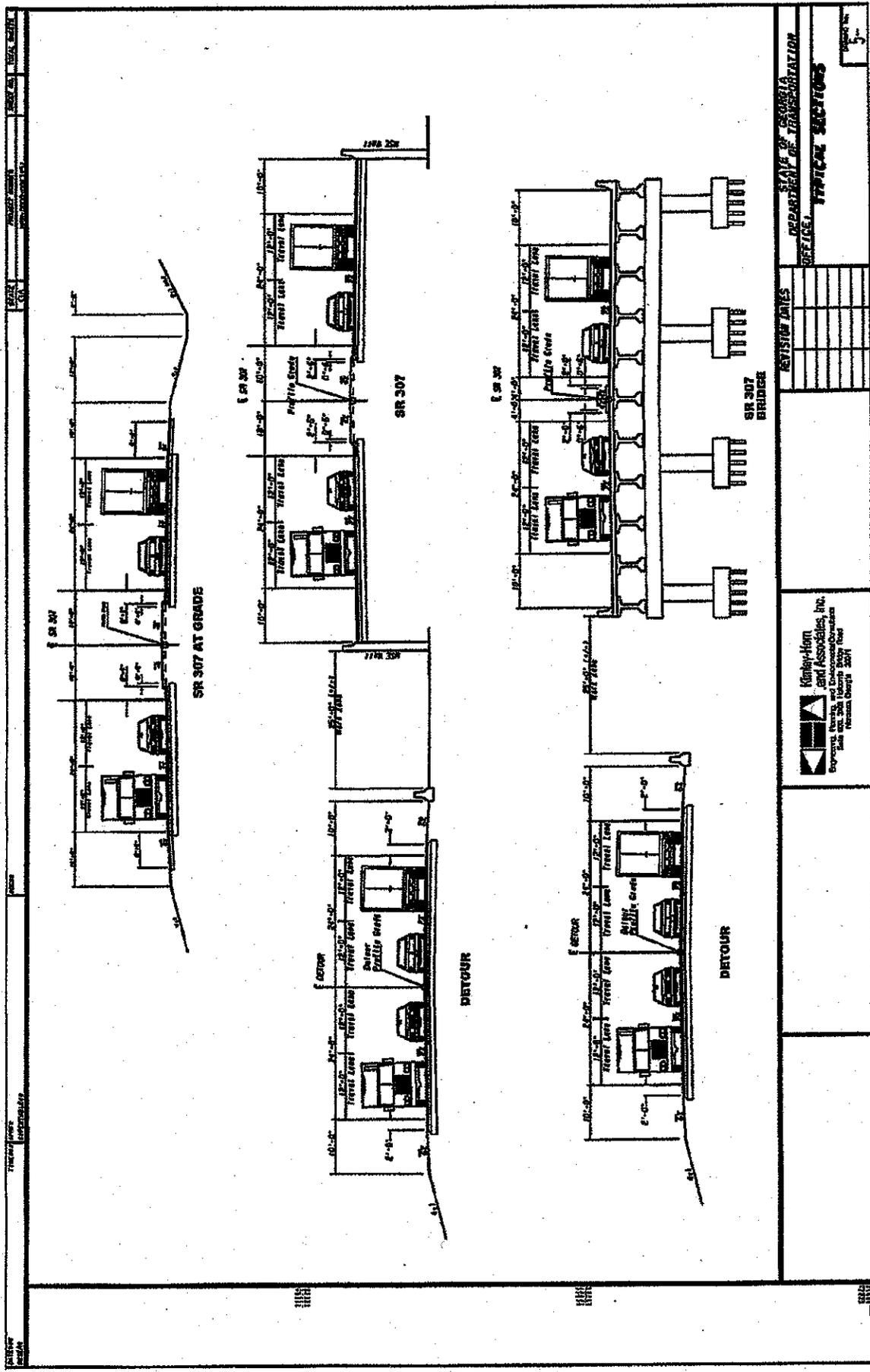
<b>Section ROADWAY ITEMS</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	150000.00	TRAFFIC CONTROL - HPP-0000-00(345)	150000.00
153-1300	1	EA	75763.76	FIELD ENGINEERS OFFICE TP 3	75763.76
210-0100	1	LS	600000.00	GRADING COMPLETE -	600000.00
310-1101	5200	TN	19.78	GR AGGR BASE CRS, INCL MATL	102856.00
402-1812	76	TN	65.59	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	4984.84
402-3113	2150	TN	80.00	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	172000.00
402-3121	7500	TN	80.00	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	600000.00
402-3190	2900	TN	80.00	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	232000.00
413-1000	4792	GL	1.97	BITUM TACK COAT	9440.24
433-1000	533	SY	126.22	REINF CONC APPROACH SLAB	67275.26
441-0748	4300	SY	54.78	CONCRETE MEDIAN, 6 IN	235554.00
441-6720	3720	LF	15.91	CONC CURB & GUTTER, 6 IN X 30 IN, TP 7	59185.20
610-9999	1	Lump Sum	100000.00	REMOVE DETOUR PAVING	100000.00
620-0100	2750	LF	34.58	TEMPORARY BARRIER, METHOD NO. 1	95095.00
627-1020	44900	SF	58.90	MSE WALL FACE, 20 - 30 FT HT, WALL NO -	2644610.00
641-1100	40	LF	50.01	GUARDRAIL, TP T	2000.40
641-1200	600	LF	17.12	GUARDRAIL, TP W	10272.00
641-5012	2	EA	1835.14	GUARDRAIL ANCHORAGE, TP 12	3670.28
999-9999	75208	SF	100.00	BRIDGE (949FT X 79.25 FT)	7520800.00
<b>Section Sub Total:</b>					<b>\$12,685,506.98</b>

<b>Section EROSION CONTROL - TEMPORARY</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0300	2	EA	1620.67	CONSTRUCTION EXIT	3241.34
163-0503	4	EA	530.48	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 3	2121.92
163-0530	1000	LF	4.29	CONSTRUCT AND REMOVE BALED STRAW EROSION CHECK	4290.00
165-0101	4	EA	584.83	MAINTENANCE OF CONSTRUCTION EXIT	2339.32
171-0030	11200	LF	3.89	TEMPORARY SILT FENCE, TYPE C	43568.00

**Section Sub Total: \$55,560.58**

**Total Estimated Cost: \$12,790,592.90**

<b>Subtotal Construction Cost</b>	<b>\$12,790,592.90</b>
E&C Rate 10.0 %	\$1,279,059.29
Inflation Rate 0.0 % @ 0.0 Years	\$0.00
<hr/>	
<b>Total Construction Cost</b>	<b>\$14,069,652.19</b>
Right Of Way	\$100,000.00
ReImb. Utilities	\$3,000,000.00
<hr/>	
<b>Grand Total Project Cost</b>	<b>\$17,169,652.19</b>



**Kimley-Horn and Associates, Inc.**  
 1000 Peachtree Street, N.E.  
 Atlanta, Georgia 30309  
 Phone: 404.525.8800  
 Fax: 404.525.8801

