

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: HPP00-0000-00(345), Chatham County
P.I. No.: 0000345
SR 307 over Port Authority Rail Line

OFFICE: Engineering Services

DATE: April 29, 2009

FROM: Ronald E. Wishon, State Project Review Engineer *REW*

TO: James B. Buchan, P.E., State Urban Design Engineer
Attention: Albert Welch

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project.

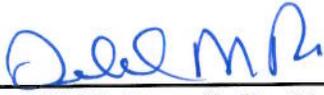
ALT No.	Description	Savings PW & LCC	Implement	Comments
ROADWAY (RD)				
RD-3	Reduce outside paved shoulder width from 10-feet to 8-feet in areas bound by MSE wall.	\$41,515	No	The future 24-hour truck percentage is 85% and the route is a designated Truck Route. This area experiences frequent breakdowns from the trailers that are stored in the Port facility for long periods of time. Reducing the width of shoulder to 8-feet will provide an unsafe environment due to the high truck volume. The cost savings of \$41,515 per the VE report will be offset by engineering design costs of approximately \$15,000 and possible schedule delays.
RD-4	Use PCC to construct the western portion of the project from Sta. 100+00 to Sta. 109+00	\$50,528	Yes	This should be done. The Initial Cost savings are \$7,648 plus LCC \$42,880 = \$50,528.

DETOUR ROADWAY (D)				
D-2	Eliminate temporary concrete barrier.	Proposed= \$131,638 Actual= \$119,000	Yes	This should be done. Temporary concrete barrier will still be used at tapers and barrels used along the tangents.
D-3	Construct "Detour" as permanent to the North – abandon existing alignment after using as a detour.	\$1,733,886	No	Most of the R/W and easement required for the detour is fronted by GPA property. GPA has agreed to donate the R/W and easements required. The majority of the \$377,875 suggested in R/W cost savings will not be realized. Alignment encroaches onto the southernmost section of the Mason Intermodal Facility of which is on property owned by GPA. Will reduce the amount of work area on this intermodal facility and is not acceptable to GPA. GPA only agreed to accommodate minor R/W encroachment required for the temporary detour during construction of this project. The tie-in with SR25/ US17 will have to be considered as it relates to the relocation of equipment and interruptions during construction at the GPA main access gate. GPA has made substantial investments in the queuing area at this gate which provides the processing of container traffic through the terminal. Requires splitting traffic in Phase 2 which will create a work zone between traffic and given the high percentage of trucks, an unsafe working condition. Savings of \$1,733,866 will be offset by approximately \$500,000 for additional design costs and will delay the project schedule.

BRIDGE (BR)				
BR-1	Optimize span arrangement. Five intermediate spans 2,3,4,5 & 6 can be rearranged to accommodate four 132'3" spans and elimination of one intermediate bent. All other geometry remains the same as in the original design.	\$111,824	No	Current design is for HS-25 live loading due to high truck traffic volumes. This alternative may exceed the length of beam recommended for HS-25 live loading. The cost savings of \$111,824 will be offset by approximately \$75,000 of additional design costs and delay to the project schedule.
BR-2	Reduce shoulders to 8-feet on bridge and provide an intermediate barrier.	\$254,028	No	The future 24-hour truck percentage is 85% and the route is a designated Truck Route. This corridor provides direct access to the main GPA gate and the truck volume is expected to grow as GPA continues to grow. This area experiences frequent breakdowns from the trailers that are stored in the Port facility for long periods of time. Reducing the width of shoulder to 8-feet will provide an unsafe environment due to the high truck volume. Providing an intermediate concrete barrier will require an impact attenuator at each end of the barrier and is not recommended by the Office of Bridge Design. The cost savings of \$254,028 will be offset by approximately \$75,000 of additional design costs and delay to the project schedule.

BRIDGE (BR) Continued				
BR-3	Use 6-feet on the in-bound shoulders, use 10-foot shoulders on the out-bound and provide an intermediate barrier.	\$254,028	No	<p>The future 24-hour truck percentage is 85% and the route is a designated Truck Route. This corridor provides direct access to the main GPA gate and the truck volume is expected to grow as GPA continues to grow.</p> <p>Reducing the width of shoulder to 6-feet will provide an unsafe environment due to the high truck volume entering GPA's main access gate. Providing an intermediate concrete barrier will require an impact attenuator at each end of the barrier and is not recommended by the Office of Bridge Design. The cost savings of \$254,028 will be offset by approximately \$75,000 of additional design costs and delay to the project schedule.</p>
BR-8	Replace spans 3 and 4 with fill.	\$70,086	No	<p>Constructability of this Alternate is not feasible due to the soil conditions present in the Savannah area. The amount of required fill material will have to be placed in 10-foot intervals with a 30 day waiting period between each interval. The cost savings of \$70,086 per the VE report will be offset by engineering design costs of approximately \$125,000 and delay to the project schedule.</p>

The Office of Engineering Services concurs with the Project Manager's responses.

Approved:  Date: 5/1/09
Gerald M. Ross, P. E., Chief Engineer

REW / DMF

Attachments

c: Genetha Rice Singleton
Ben Buchan
Darrell Richardson
Butch Welch
Andrew Hoenig
Paul Liles
Bill Ingalsbe
Bill Duvall
Lyn Clements
James Magnus
Will Murphy
Slade Cole
Ken Werho
Lisa Myers
Douglas Fadool
General Files

3. Value Engineering Alternative D-2: Eliminate temporary concrete barrier – *Recommended.*

This alternative is recommended for implementation with the following modifications:

- Temporary concrete barrier will still be used at the tapers to protect workers.
- Barrels will be used along the tangents.
- Most of the \$131,638 in cost savings will be realized.

4. Value Engineering Alternative D-3: Construct detour as permanent to the north – abandon existing alignment after using as a detour – *Not recommended.*

This alternative is not recommended for implementation for the following reasons:

- Most of the R/W and easement required for the detour is fronted by GPA property. GPA has agreed to donate the R/W and easements required for this project. The majority of the \$377,875 suggested in R/W cost savings will not be realized.
- This proposed alignment encroaches onto the southernmost section of the Mason Intermodal Facility of which is on property owned by GPA. This Alternative will reduce the amount of work area on this intermodal facility and is not acceptable to GPA. GPA only agreed to accommodate minor R/W encroachment required for the temporary detour during construction of this project.
- The tie-in with SR25/ US17 will have to be considered in evaluating this Alternative as it relates to the relocation of equipment and interruptions during construction at the GPA main access gate. GPA has made substantial investments in the queuing area at this gate which provides the processing of container traffic through the terminal.
- This Alternative will require splitting traffic in phase 2. This split will create a work zone between traffic and given the high percentage of trucks, an unsafe working condition.
- The cost savings of \$1,733,866 will be offset by approximately \$500,000 for additional design costs and will delay the project schedule.

5. Value Engineering Alternative BR-1: Optimize span arrangement – *Not recommended.*

This alternative is not recommended for implementation for the following reasons:

- Current design is for HS-25 live loading due to high truck traffic volumes.
- This alternative may exceed the length of beam recommended for HS-25 live loading.
- The cost savings of \$111,824 will be offset by approximately \$75,000 of additional design costs and delay to the project schedule.

6. Value Engineering Alternative BR-2: Reduce shoulders to 8-ft on bridge and provide an intermediate concrete barrier – *Not recommended.*

This alternative is not recommended for implementation for the following reasons:

- The future 24-hr truck percentage is 85% and the route is a designated Truck Route. This corridor provides direct access to the main GPA gate and the truck volume is expected to grow as GPA continues to grow.
- This area experiences frequent breakdowns from the trailers that are stored in the Port facility for long periods of time. Reducing the width of shoulder to 8-ft will provide an unsafe environment due to the high truck volume.
- Providing an intermediate concrete barrier will require an impact attenuator at each end of the barrier and is not recommended by the Office of Bridge Design.
- The cost savings of \$254,028 will be offset by approximately \$75,000 of additional design costs and delay to the project schedule.

7. Value Engineering Alternative BR-3: Use 6-ft on inbound shoulders, use 10-ft shoulders on the out-bound and provide an intermediate barrier – *Not recommended.*

This alternative is not recommended for implementation for the following reasons:

- The future 24-hr truck percentage is 85% and the route is a designated Truck Route. This corridor provides direct access to the main GPA gate and the truck volume is expected to grow as GPA continues to grow.
- Reducing the width of shoulder to 6-ft will provide an unsafe environment due to the high truck volume entering GPA's main access gate.
- Providing an intermediate concrete barrier will require an impact attenuator at each end of the barrier and is not recommended by the Office of Bridge Design.
- The cost savings of \$254,028 will be offset by approximately \$75,000 of additional design costs and delay to the project schedule.

8. Value Engineering Alternative BR-8: Replace spans 3 & 4 with fill – *Not recommended.*

This alternative is not recommended for implementation for the following reason:

- Constructability of this Alternate is not feasible due to the soil conditions present in the Savannah area. The amount of required fill material will have to be placed in 10-ft intervals with a 30 day waiting period between each interval.
- The cost savings of \$70,086 per the VE report will be offset by engineering design costs of approximately \$125,000 and delay to the project schedule.

JBB:ASW:gn(KHA)



Fadool, Douglas

From: Welch, Albert (Butch)
Sent: Wednesday, April 29, 2009 11:28 AM
To: Fadool, Douglas
Cc: Myers, Lisa; Hoenig, Andrew
Subject: FW: VE Responses, PI No. 0000345

Doug,

The actual cost savings is \$119,000.

Thanks,

Butch

Albert S. Welch, Jr. (Butch)
Design Group Manager - UD5
ph. 404-631-1690

From: Hoenig, Andrew
Sent: Wednesday, April 29, 2009 11:26 AM
To: Welch, Albert (Butch)
Subject: RE: VE Responses, PI No. 0000345 & PI No. 562165

For 350-ft of temp barrier, the cost would be \$12,250.
This would represent a savings of \$119,000.

- C. Andrew Hoenig, P.E.
Asst. Design Group Manager
GDOT, Urban Design
P: (404)-631-1691
F: (404)-631-1947

From: Fadool, Douglas
Sent: Tuesday, April 28, 2009 11:53 AM
To: Welch, Albert (Butch)
Cc: Myers, Lisa; Hoenig, Andrew
Subject: RE: VE Responses, PI No. 0000345 & PI No. 562165

Butch,

Thanks for the quick responses. The Implementation Letter packages are ready to submit for approval except for one request:

Regarding PI No. 0000345, recommendation D-2, please provide the estimated cost savings to be realized.

Thank you.

Douglas Fadool, AVS
Value Specialist
404-631-1764

From: Welch, Albert (Butch)
Sent: Tuesday, April 28, 2009 8:17 AM
To: Fadool, Douglas

Cc: Myers, Lisa; Hoenig, Andrew
Subject: RE: VE Responses

See attached word files for each. The .pdf cover sheets will be sent shortly.

Thanks,

Butch

Albert S. Welch, Jr. (Butch)
Design Group Manager - UD5
ph. 404-631-1690

From: Fadool, Douglas
Sent: Tuesday, April 28, 2009 7:42 AM
To: Welch, Albert (Butch)
Cc: Myers, Lisa
Subject: VE Responses

Butch,
We have received hard copies of the VE responses to PI No. 562165 & PI No. 0000345. Please send an 8.5" X 11" pdf of each Cover Sheet and a Word document of the responses for cutting and pasting.
Thank you.

Douglas Fadool, AVS
Value Specialist
404-631-1764

Help GDOT serve you better. Visit <http://www.howmyservice.dot.ga.gov> and rate the service you received from Team GDOT.

PRECONSTRUCTION STATUS REPORT FOR PI:0000345

SR 307 CONSTRUCT OVERPASS OVER NEW PORT AUTHORITY RAIL LINE

MGMT LET DATE : 12/11/2009
 MGMT ROW DATE : 11/21/2008

SCHED LET DATE : 1/1/2010
 WHO LETS? : GDOT Let
 LET WITH : 0007482

DOT DIST: 5
 CONG. DIST: 12
 BIKE: N
 MEASURE: E
 NEEDS SCORE: 5
 BRIDGE SUFF:

MPO: Savannah TMA
 TIP #: 2000-H-12
 MODEL YR :
 TYPE WORK: Bridges
 CONCEPT: BRIDGE
 PROG TYPE: New Construction
 Prov. for ITS: N

PROJ ID : 0000345
 COUNTY : Chatham
 LENGTH (MI) : 0.54
 PROJ NO. : HPP00-0000-00(345)
 PROJ MGR: Welch, Albert
 OFFICE : Urban Design
 CONSULTANT: Local Design, Local PE funds
 SPONSOR : Georgia Ports Authority
 DESIGN FIRM: Kimley-Horn and Associates, Inc.

SCHED START	SCHED FINISH	ACTIVITY	ACTUAL START	ACTUAL FINISH	%	Phase	Approved	Proposed	Cost	Fund	Status	Date Auth
		Concept Development	1/10/2000	6/22/2000	100	PE	2002	2002	70,000.00	Q20	AUTHORIZED	1/7/2002
		Concept Meeting	8/9/1999	8/9/1999	100	ROW	2009	2009	387,143.00	LY10S	PRECST	
		PM Submit Concept Report	5/30/2000	6/5/2000	100	CST	2010	2010	11,094,615.16	C230	PRECST	
		Receive Preconstruction Concept Approval	6/5/2000	6/15/2000	100	CST	2010	2010	4,370,857.00	LY10S	PRECST	
		Management Concept Approval Complete	6/1/2000	6/22/2000	100							
		Value Engineering Study	10/20/2008		85							
	5/19/2009	Environmental Approval	5/1/2002	11/6/2007	100							
		Mapping	6/20/2002	7/10/2002	100							
		Field Surveys/SDE	7/10/2002	8/5/2002	100							
		Preliminary Plans	1/1/2002	12/16/2007	100							
		Preliminary Bridge Design	9/1/2003	9/7/2003	100							
		Underground Storage Tanks	10/12/2007	11/5/2007	100							
		404 Permit Obtainment	5/1/2002	6/24/2002	100							
		FPFR Inspection	1/15/2008	1/15/2008	100							
		R/W Plans Preparation	12/31/2007	2/8/2008	100							
		R/W Plans Final Approval	2/11/2008	2/28/2008	100							
		L & D Approval	2/4/2008	2/6/2008	100							
	11/5/2009	R/W Acquisition			0							
	8/7/2009	Stake R/W			0							
		Soil Survey	7/11/2000	1/18/2008	100							
		Bridge Foundation Investigation	7/7/2000	7/9/2008	100							
	6/4/2009	Final Design	2/1/2008	7/11/2003	75							
	6/29/2009	Final Bridge Plans Preparation	6/16/2003		100							
	7/13/2009	FPFR Inspection			0							
		Submit FPFR Responses (OES)			0							

SCHED START	SCHED FINISH	ACTIVITY	ACTUAL START	ACTUAL FINISH	%	Phase	Approved	Proposed	Cost	Fund	Status	Date Auth
		Accelerated GPA proj.RW 02,CST 03.3/15/01.GPA reconsidering proj.3/5/03.RW & CST=04 doubtful.										
		9/30/03.No activity,3/3/04										
		WEI 08/01/08 CONSUL-KHA - (FINAL PLANS SENT 7/28/08)										
		UD-Weich, Hoening Consultant working on prep for FPFR										
		CEIA(pvd)1-6-07(2ndRev)pvvd4.8.09(OnSched)SEP09Leil.B4.9.09										
		PMA SGN GEORGIA PORTS AUTHORITY DO PE 11-20-00.										
		RW & CST STIP AMENDMENT #30A 3-09										
		#1 8-08#2 10-08										
		Need TIP approved for funding auth Also need reveal. RR & Ports parcels. District can make 3/10 letting. kta										
		3-5.09										
		3/10/08 sent plans to RR. 6/3/08 plans under review by RR										
		CAH(C)SND LCL CNSLTNT PLNS FR REVW032801:FPFR sent 1/2/07										
		2nd sub. utility plans to dgn6 of 6: 3/16/2009										
		BRIDGES										
		Conceptual Design:Training Comment Additions										

District Comments

UD to manage Local Caslmt PE activities(CAH) 022706/9-26-06/T&H working on concept report/2-12-07/Kimberly-Horn is new consultant& will validate concept report & begin preliminary plans/9-24-07/revised concept report sent for approval; working on CH2-22-08/FPFR held 1-15-08/ Preparing plans for FPFR; working closely with GA Power to relocate facilities Awaiting ROW authorization to begin ROW acquisition,2 of 5 parcels are owned by GA Ports Auth.& are also part of 0007482 Twinned with 0007482 which includes int inp at SR307 & SR25/ US17.ASW Utilities Ofc. to acq RR.

Acquired by: DOT
 Acquisition MGR: O'Quinn, Andy
 R/W Cert Date:

Cond. Filled:
 Relocations:
 Acquired:

Total Parcel in ROW System:
 Options - Pending:
 Condemnations- Pend:

Prel. Parcel CT: 5
 Under Review:
 Released:

DEEDS CT:

