

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

REVISED PROJECT CONCEPT REPORT

Project Number: NH000-0051-01(025)
County: Clarke
P. I. Number: 122850
Federal Route Number: 129 and 441
State Route Number: 8, 10 Loop and 15

The significant changes include revising the typical section width of Peter Street / Olympic Drive and lowering the profile of Peter Street / Olympic Drive as recommended in a Value Engineering report.

Submitted for approval:

DATE 3-26-10

MACTEC

Design Consultant Name and Firm Name (if applicable)

DATE _____

Local Government (if applicable)

DATE _____

Design Phase Office Head (if applicable)

DATE 3-30-2010

Bobby Hilliard
Office Head (Project Manager's Office)

DATE 3-30-2010

Hiral Patel
Project Manager

Recommendation for approval:

DATE 4/15/10

Glenn Bowman ^{KRF} *Rec. on file*
State Environmental Administrator

DATE 4/2/10

Paul Liles ^{KRF} *Rec. on file*
State Bridge Design Engineer (if applicable)

The 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).

DATE 2/2/10

[Signature]
State Transportation Planning Administrator

REVISED PROJECT CONCEPT REPORT

Need and Purpose: The proposed project is the addition of a new interchange at the existing intersection of SR 10 Loop and Peter Street/Olympic Drive in Clarke County. This intersection is the only at-grade intersection on SR 10 Loop. The project will provide a continuous controlled access facility around the city of Athens. This project was identified by and is a component of the Madison Athens-Clarke-Oconee Regional Transportation Study (MACORTS) adopted in September 1997. This interchange is significant regionally in that it provides access to and between SR 10 Loop, which is a perimeter route around Athens, from Peter Street/Olympic Drive. Peter Street/Olympic Drive provides direct access to downtown Athens. It also serves a wide variety of other shopping eating and employment opportunities in the immediate vicinity.

Existing Conditions: The SR 10 loop/Peter Street/Olympic Drive intersection represents a point of merger for traffic originating in or destined to northeast Clarke County and points beyond. Peter Street provides a major access route into downtown Athens and to the University of Georgia parking facilities located around the perimeter of the campus. In the past decade, new developments have transformed this area from undeveloped to a rapidly growing mix of residential, multi-family and commercial development. This development is expected to continue as the Athens-Clarke County area expands. Since 1989, traffic volumes along SR 10 Loop, Peter Street, and Olympic Drive have nearly doubled. 1998 ADT was approximately 4,000 vehicles per day (VPD) on Peter Street, 9,000 vehicles per day (VPD) on Olympic Drive and 25,000 vehicles per day (VPD) on SR 10 Loop. These volumes are forecasted to increase by the year 2026 to 9,200 vehicles per day (VPD) on Peter Street, 18,000 vehicles per day on Olympic Drive, and 69,000 vehicles per day (VPD) on SR 10 Loop.

Accident data for this location indicates that the number of accidents is average for an intersection of this type. The new interchange will facilitate the flow of traffic to and from Peter Street/Olympic Drive as well as the through traffic on Peter Street/Olympic Drive by eliminating many conflicting turning movements.

Project Termini: The project termini are logical in that the project is the addition of an interchange between two major arterial routes.

Other Planned Projects: There are no other planned projects in the immediate vicinity.

Local Support: Construction of the SR 10 Loop/Peter Street/Olympic Drive interchange is a critical component of the Athens-Clarke-Oconee Regional Transportation Plan. The proposed improvement was originally identified in the adopted 1997 Athens-Clarke-Oconee Regional Transportation Plan. This project is contained in the fiscal year 2000-2002 Transportation

has. Construction on SR 10 Loop will begin just north of the Nellie B. Avenue overpass and end just south of the bridge over the CSX railroad.

Peter Street and Olympic Drive will be widened to a 4-lane urban section with a 32 foot raised median. The urban shoulders will be 12 feet wide. The project calls for 4 foot bicycle lanes adjacent to the proposed travel way along Peter Street/Olympic Drive in each direction. Two traffic signals are proposed for the ramp intersections with Peter Street and Olympic Drive. Construction work on Peter Street will begin at the intersection of East Carver Drive and proceed eastward to approximately 1600 feet east of SR 10 Loop along Olympic Drive.

Proposed features to be revised:

- 1) Revise the typical section width of Peter Street/Olympic Drive from a 4-lane with a 32' wide raised median to a 2-lane with no median. Turn lanes will still be added at the intersections as required.
- 2) Rather than raising SR 10 Loop over Peter Street/Olympic Dr. the project was revised to keep SR 10 Loop on its current vertical alignment and lower Peter Street/Olympic Drive instead. Both SR 10 Loop and Peter Street/Olympic Drive will retain their current typical sections (except as noted above).

Describe the revised feature(s) to be approved:

1. A value engineering study (VE) was held September 16-19, 2008. Revising the typical section width of Peter Street/Olympic Drive from a 4-lane with a 32' wide raised median to a 2-lane with no median was one of the approved recommendations from the study. Based on a traffic analysis done by the VE team and subsequently done by MACTEC, a 2-lane road with added turn lanes at the intersections will carry the projected traffic volumes. Additionally, reducing the footprint for Peter Street/Olympic Drive will reduce the required right-of-way impacts and the number of residential displacees from 4 to 2 for the project. The required right-of way is reduced by approximately 9265 S.F. (0.213 Ac.) for residential right-of-way and by approximately 16,500 S.F. (0.379 Ac.) for commercial right-of-way. There is a decrease in the commercial construction easements by approximately 2285 S.F. (0.052 Ac.). However, the residential construction easements are increased by approximately 585 S.F. (0.013 Ac.). It will also reduce the stream encroachments for the project.
2. In reviewing the existing topography, it was noted that there is a large box culvert (quadruple 10' x 12') buried approximately 35 feet under SR 10 loop just north of the current intersection of SR 10 loop and Peter Street/Olympic Drive. Raising the grade on SR 10 Loop would necessitate the removal and reconstruction of this structure due to

the additional weight of the 15' to 20' of fill over the culvert. Staging the traffic for this grade change and for the removal and replacement of the culvert would be difficult. In looking at the profile for Peter Street/Olympic Drive, it was believed that the profile could be lowered sufficiently to keep SR 10 Loop on its current vertical alignment and still provide for the grade separated structure at Peter Street/Olympic Drive. Additionally, the profile of Peter Street/Olympic Drive would still be above the top elevation of the culvert and the flood elevation of this existing structure just north of the intersection. Meetings were held with the GDOT Project Manager, Joe Wheeler, and staff from GDOT to discuss the issue. Russell McMurray, the GDOT District Engineer, noted at one meeting that the existing intersection was built on a layer of boulders. MACTEC did some preliminary investigation to determine the presence of the rock in the existing fill. The report indicated that there was a layer of large rocks or boulders in the fill but it is believed that Peter Street/Olympic Drive can be lowered and remain out of this rock fill layer.

Another advantage in lowering Peter Street is in coordinating a driveway that Athens/Clarke County is building that will connect Peter Street to a park. The driveway intersection is located across from the intersection of the proposed southbound ramps to and from SR 10 Loop. By lowering the grade of Peter Street the vertical tie-in for this driveway will change little between the existing road and the proposed profile for Peter Street. The original proposed profile for Peter Street would have raised the Peter Street intersection by nearly 10 feet. This would have made tying in the new driveway profile excessively long and could possibly have impacted Athens/Clarke County's new bridge.

As a result of the meetings and studies it was decided that Peter Street/Olympic Drive should be lowered and SR 10 Loop should be kept on its current profile.

REVISED COST ESTIMATES

CONSTRUCTION* \$ 14,084,687.49

RIGHT OF WAY \$3,016,700.00

UTILITIES** \$640,000

* Costs contain 5% Engineering and Inspection and 0% Construction Contingencies.

** Costs contain 0% contingency.

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

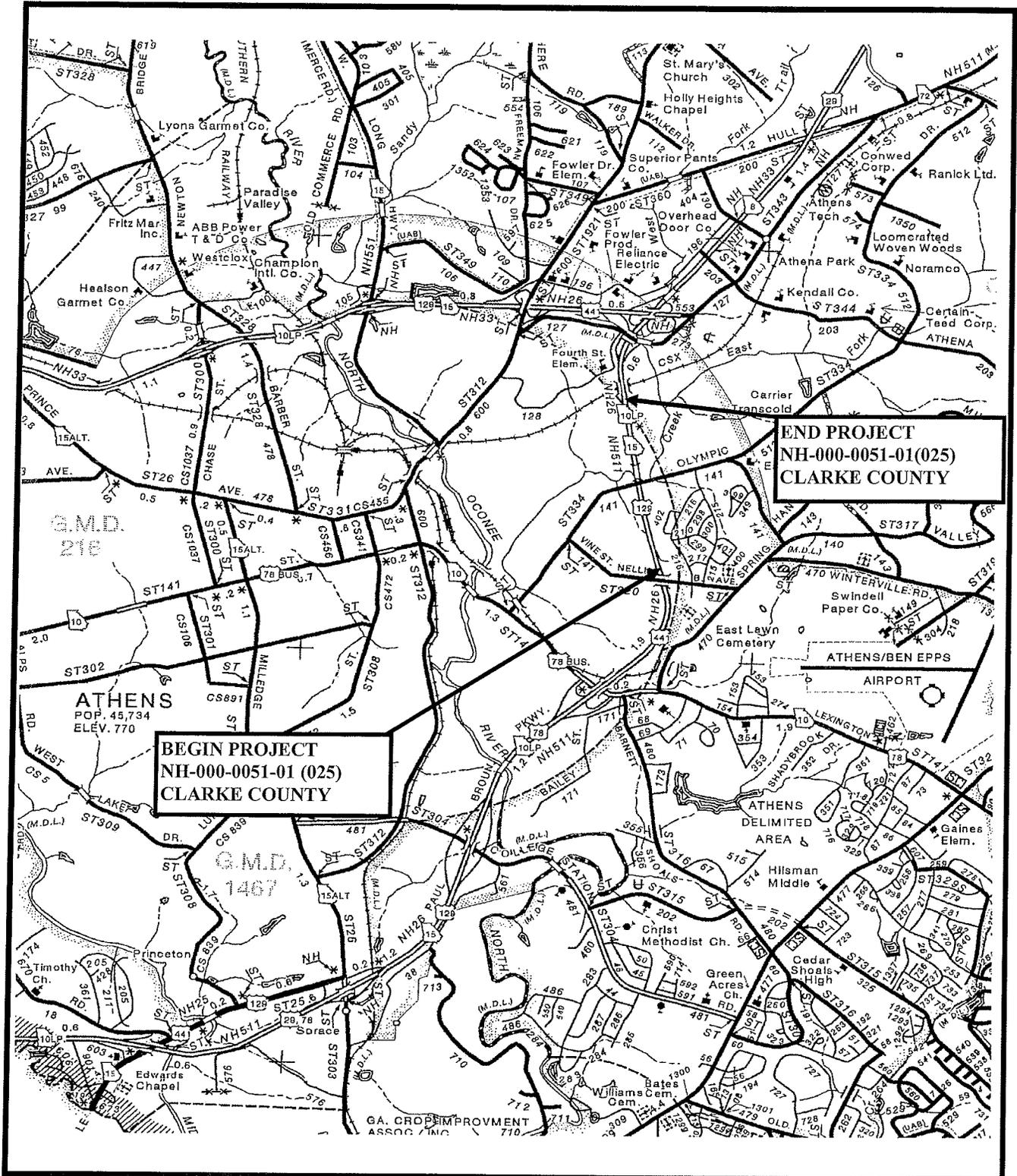
Attachments:

- 1. Location Map
- 2. Construction Cost Estimate
- 3. Peter Street / Olympic Drive Typical Section
- 4. Profiles

Exempt projects

Concur: James B. Bule
Director of Engineering

Approve: Dee M. Pen Date: 4/23/2016
Chief Engineer



END PROJECT
NH-000-0051-01(025)
CLARKE COUNTY

BEGIN PROJECT
NH-000-0051-01 (025)
CLARKE COUNTY

G.M.D.
218

G.M.D.
1467

ATHENS
POP. 45,734
ELEV. 770

GA. CROP IMPROVEMENT
ASSOC. INC.

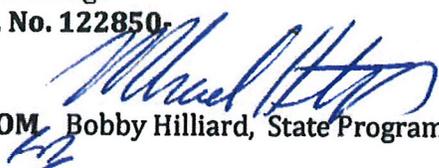
**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE PROJECT No. NH000-0051-01(025), Clarke
SR 10 Loop and Peter Street/ Olympic Drive
Interchange
P.I. No. 122850-

OFFICE Program Delivery

DATE 2/8/2010


FROM Bobby Hilliard, State Program Delivery Engineer

TO Ronald E. Wishon, Project Review Engineer

SUBJECT REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER: Hiral Patel

MNGT LET DATE 1/15/2012

MNGT R/W DATE 5/15/2010

PROGRAMMED COST (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$19,539,000.00

DATE 5/12/2008

RIGHT OF WAY \$3,056,300.00

DATE 7/13/2009

UTILITIES \$(0)

DATE none

REVISED COST ESTIMATES

CONSTRUCTION* \$ 14,084,687.49

RIGHT OF WAY \$3,016,700.00

UTILITIES \$640,000**

*** Costs contain 5% Engineering and Inspection and 0% Construction Contingencies.**

**** Costs contain 0% contingency.**

REASON FOR COST INCREASE: Annual Update

CONTINGENCY SUMMARY

Construction Cost Estimate: \$11,778,188.00
Engineering and Inspection: \$588,909.40
Construction Contingency: \$none
Total Fuel Adjustment \$ 903,699.68
Total Liquid AC Adjustment \$ 813,890.41
Construction Total: \$14,084,687.49
Utility Cost Estimate: \$640,000.00
Utility Contingency: \$none 0 %
Utility Total: \$640,000

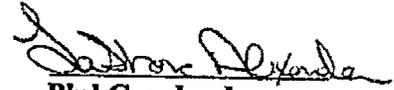
REIMBURSABLE UTILITY COST

Utility Owner	Reimbursable Costs
Georgia Power- Transmission	500,000.00
Georgia Power -Distribution	60,000.00
Athens-Clarke County (Sewer)	80,000.00

Attachments

c: Genetha Rice - Singleton, Assistant Director of Preconstruction

Preliminary Right of Way Cost Estimate



Phil Copeland
Right of Way Administrator
By LaShone Alexander

Date: October 27, 2009
Project NH-051-1(25)Clarke
Existing/Required R/W: Varies/Varies
Project Termini : SR 10 Loop and Peter St. / Olympic Dr Interchange
Project Description: SR 10 and Peter St. Interchange Improvement Project

PI Number 122850
No. Parcels: 8

Land.

Commercial R/W 72,675sf @ \$ 7.25/sf	\$	526,900	
Commercial Esmt, 2,283sf @ \$ 7.25/sf @ 50%		8,276	
Residential R/W 1,721sf @ \$ 70/sf		<u>1,205</u>	\$ 536,381

Improvements residences, mobile home, misc site improvements 520,000

Relocation Commercial (0)
Residential (4) 160,000

Damage Proximity
Consequential
Cost to Cure 0

Net Cost \$ 1,216,381

Net Cost	\$	1,216,381
Scheduling Contingency 55 %		669,009
Adm/Court Cost 60		<u>1,131,234</u>
	\$	3,016,624

Total Cost \$3,016,700

Note: The Market Appreciation (40%) is not included in the updated Preliminary Cost Estimate

CONSTRUCTION COST ESTIMATE

Detailed Estimate Cost Estimate Report

Estimate Report for file "122850"

Section ALL-PRELIMINARY					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
009-3000	1	Lump Sum	100000 0	Miscellaneous Construction	100000
150-1000	1	LS	1150000 0	TRAFFIC CONTROL -	1150000
153-1300	1	EA	76058 0	FIELD ENGINEERS OFFICE TP 3	76058
163-xxxx	1	Lump Sum	1200000 0	Erosion Control	1200000
201-1500	1	LS	250000 0	CLEARING & GRUBBING -	250000
205-0001	189243	CY	4 0	UNCLASS EXCAV	756972
205-0210	100000	CY	10 0	EXCAVATION - ROCK	1000000
208-0100	46751	CY	4 0	IN PLACE EMBANKMENT	187004
310-1101	58600	TN	21 0	GR AGGR BASE CRS INCL MATL	1230600
402-1811	1000	TN	105 0	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL	105000
402-3113	9460	TN	70 0	RECYCLED ASPH CONC 12 5 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	662200
402-3121	10900	TN	63 0	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2 INCL BITUM MATL & H LIME	686700
402-3190	12250	TN	63 0	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2 INCL BITUM MATL & H LIME	771750
413-1000	6500	GL	1 0	BITUM TACK COAT	6500
433-1000	590	SY	153 0	REINF CONC APPROACH SLAB	90270
441-0016	281	SY	40 0	DRIVEWAY CONCRETE, 6 IN TK	11240
441-0104	1650	SY	34 0	CONC SIDEWALK, 4 IN	56100
441-0301	1	EA	2163 0	CONC SPILLWAY TP 1	2163
441-0740	150	SY	32 0	CONCRETE MEDIAN 4 IN	4800
441-0748	500	SY	52 0	CONCRETE MEDIAN 6 IN	26000
441-3999	1705	LF	20 0	CONCRETE V GUTTER	34100
441-4020	45	SY	43 0	CONC VALLEY GUTTER, 6 IN	1935
441-6022	6400	LF	19 0	CONC CURB & GUTTER, 6 IN X 30 IN TP 2	121600
500-3101	1424	CY	639 0	CLASS A CONCRETE	909936
511-1000	118550	LB	0 92	BAR REINF STEEL	109066
543-9000	13260	SF	80 0	Construction of Bridge Complete	1060800
550-1180	1260	LF	44 0	STORM DRAIN PIPE 18 IN H 1-10	55440
550-1181	339	LF	57 0	STORM DRAIN PIPE, 18 IN, H 10-15	19323
550-1240	480	LF	50 0	STORM DRAIN PIPE, 24 IN, H 1-10	24000
550-4215	1	EA	629 0	FLARED END SECTION 15 IN, STORM DRAIN	629
550-4218	3	EA	661 0	FLARED END SECTION 18 IN, STORM DRAIN	1983
550-4224	5	EA	780 0	FLARED END SECTION 24 IN, STORM DRAIN	3900
611-8040	11	EA	1744 0	ADJUST DROP INLET TO GRADE	19184
620-0100	5000	LF	30 0	TEMPORARY BARRIER, METHOD NO 1	150000
621-3020	50	LF	103 0	CONCRETE BARRIER, TYPE 20	5150
621-3021	535	LF	160 0	CONCRETE BARRIER, TYPE 21	85600
621-4020	290	LF	313 0	CONCRETE SIDE BARRIER, TYPE 2	90770
638-1001	1	LS	84023 0	STR SUPPORT FOR OVERHEAD SIGN, TP I, STA -	84023
639-4004	8	EA	7288 0	STRAIN POLE, TP IV	58304
641-1100	200	LF	48 0	GUARDRAIL, TP T	9600
641-1200	6525	LF	15 0	GUARDRAIL, TP W	97875
641-5001	10	EA	635 0	GUARDRAIL ANCHORAGE TP 1	6350
641-5012	16	EA	1775 0	GUARDRAIL ANCHORAGE TP 12	28400
647-0220	3	LS	84500 0	TRAFFIC SIGNAL INSTALLATION, TEMPORARY	253500
648-1350	2	EA	18390 0	IMPACT ATTENUATOR UNIT TYPE P -	36780
668-1100	19	EA	2840 0	CATCH BASIN GP 1	53960
668-2100	17	EA	2979 0	DROP INLET GP 1	50643
700-6910	30	AC	1066 0	PERMANENT GRASSING	31980
Section Sub Total					\$11,778,188.00

Total Estimated Cost \$11,778,188 00

P I NO 122850
 DATE 10/27/2009

INDEX (TYPE)	DATE	INDEX
REG UNLEADED	Sep-09	\$ 2 444
DIESEL		\$ 2 592
LIQUID AC		\$ 397 00

Link to Fuel and AC Index
<http://www.dot.nh.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

LIQUID AC ADJUSTMENTS
 PA=[[(APM-APL)/APL]-0.05]*TMT*APL

Asphalt
 Price Adjustment (PA) \$ 800,590.20
 Monthly Asphalt Cement Price month placed (APM) \$ 893.25
 Monthly Asphalt Cement Price month project let (APL) \$ 397.00
 Total Monthly Tonnage of asphalt cement (TMT) 1680.5

ASPHALT	Tons	%AC	AC ton
Leveling	1000	5.0%	50
12.5 OGFC		5.0%	0
12.5 mm	9460	5.0%	473
9.5 mm SP		5.0%	0
25 mm SP	10900	5.0%	545
19 mm SP	12250	5.0%	612.5
	33610		1680.5

BITUMINOUS TACK COAT
 Price Adjustment (PA) \$ 13,300.21
 Monthly Asphalt Cement Price month placed (APM) \$ 893.25
 Monthly Asphalt Cement Price month project let (APL) \$ 397.00
 Total Monthly Tonnage of asphalt cement (TMT) 27 91815599

Bitum Tack	Gals	gals/ton	tons
	6500	232 8234	27 918156

PROJ. NO

NH000-0051-01(025)

CALL NO N/A

9/29/2009

P I NO

122850

DATE

10/27/2009

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA) \$ - \$

Monthly Asphalt Cement Price month placed (APM) \$ 893.25

Monthly Asphalt Cement Price month project let (APL) \$ 397.00

Total Monthly Tonnage of asphalt cement (TMT) 0

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf Trmt		0.20	0	232.8234	0
Double Surf Trmt		0.44	0	232.8234	0
Triple Surf Trmt		0.71	0	232.8234	0

TOTAL LIQUID AC ADJUSTMENT

\$ 813,890.41

PROJ NO NH000-0051-01(025)
P I NO 122850
DATE 10/27/2009

CALL NO N/A

9/29/2009

FUEL ADJUSTMENTS - BRIDGE

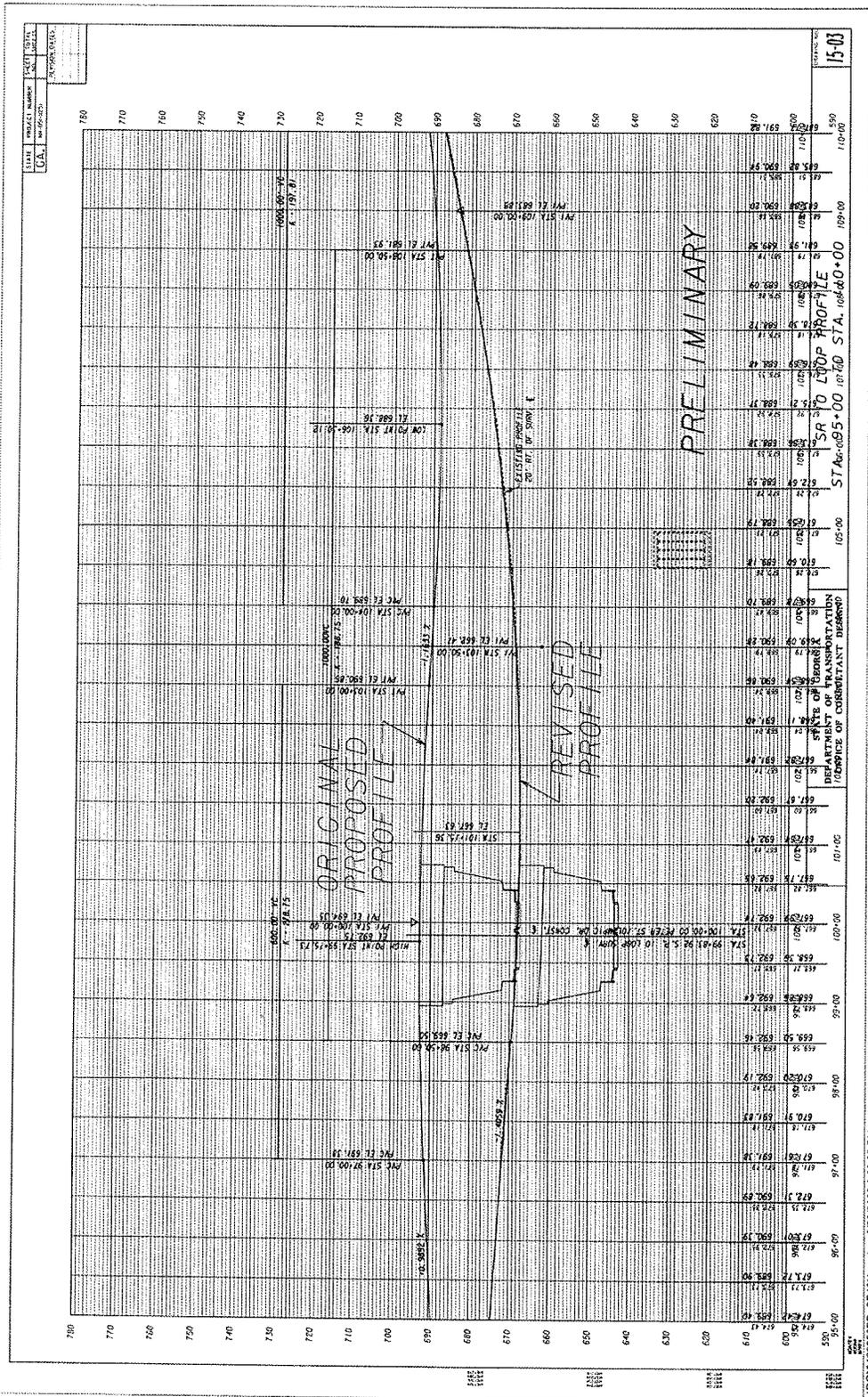
FPA = (((FPM-FPL)/FPL) - 10)(OXF/1000))FPL

Fuel Price Adjustment (FPA) REGULAR
 Monthly Fuel Price for month work was accomplished (FPM) UNLEADED
 Monthly Fuel Price for month when project was let (FPL) DIESEL
 Quantity Placed (Q) TOTALS
 Fuel Usage Factor (F)

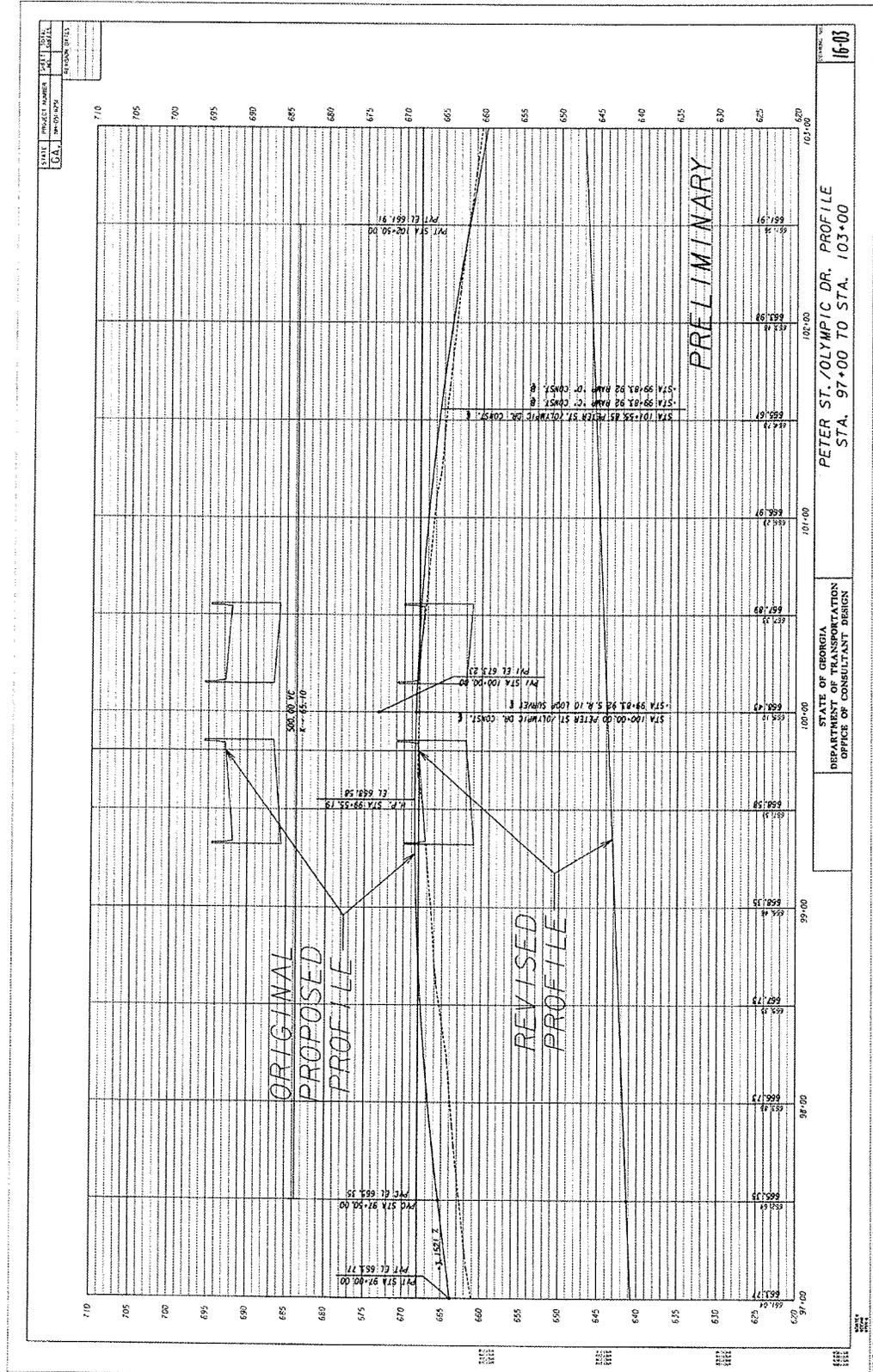
Bridge 1 Cost Bridge 2 Cost Bridge 3 Cost Bridge 4 Cost
 1.5 8

Section	Bridge 1 Cost	Bridge 2 Cost	Bridge 3 Cost	Bridge 4 Cost	EST BRIDGE COST	% COST w/ADI
211 Bridge Excavation						
500 Superstr Conc Cl AA						
500 Class A Concrete						
500 Class AA Concrete						
500 Concrete Handrail						
500 Concrete Barrier						
501 Structural Steel						
507 Prestressed Conc Beams						
507 Prestressed Conc Beams						
507 Prestressed Conc Beams						
511 Super Reinforcement					\$ 1,060,800.00	80%
511 Bar Reinf Steel						
520 Piling						
520 Piling						
524 Drilled Caisson						
547 Pile Encasement						
547 Pile Encasement						
TOTAL BRIDGE FUEL ADJUSTMENTS					\$ 3,577.78	\$ 20,237.01
TOTAL FUEL ADJUSTMENT (ROADWAY AND BRIDGE)					\$ 251,827.40	\$ 651,872.28
						\$ 23,814.79
						\$ 903,699.68

Use when bridge items haven't been established Assumes 80% of the estimated bridge cost will qualify for fuel adjustments



SR 10 Loop Profile at Peter St./Olympic Dr.



Peter Street/Olympic Drive Profile at SR 10 Loop

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE OF CONSULTANT DESIGN

PETER ST./OLYMPIC DR. PROFILE
STA. 97+00 TO STA. 103+00

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE OF CONSULTANT DESIGN

16-03

12/26/2009 6:25:23 PM