

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

**OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE**

FILE P.I. # 0009864 **OFFICE** Design Policy & Support
Haralson County
GDOT District 6 - Cartersville **DATE** 11/3/2015
Bridge Replacement: SR 120 over Beech
Creek

FROM  for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED REVISED CONCEPT REPORT

Attached is the approved Revised Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Glenn Bowman, Director of Engineering
Joe Carpenter, Director of P3/Program Delivery
Genetha Rice-Singleton, Assistant Director of P3/Program Delivery
Albert Shelby, State Program Delivery Engineer
Darryl VanMeter, State Innovative Delivery Engineer
Bobby Hilliard, Program Control Administrator
Cindy VanDyke, State Transportation Planning Administrator
Hiral Patel, State Environmental Administrator
Bill DuVall & Lyn Clements for State Bridge Engineer
Andrew Heath, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Lee Upkins, State Utilities Engineer
Richard Cobb, Statewide Location Bureau Chief
Andy Casey, State Roadway Design Engineer
Attn: Clay Bastian, Design Group Manager
DeWayne Comer, District Engineer
David Acree, District Preconstruction Engineer
Jun Birnkammer, District Utilities Engineer
Jeff Simmons, Project Manager
BOARD MEMBER - 14th Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

REVISED PROJECT CONCEPT REPORT

Project Type: Bridge Replacement P.I. Number: 0009864
GDOT District: 6 County: Haralson
Federal Route Number: N/A State Route Number: SR 120
Project Number: N/A

S.R. 120/Beech Creek Bridge Replacement

Submitted for approval:
C. Andy Curry 8/28/15
State Roadway Design Engineer Date
Albert Shelby 9-1-15
State Program Delivery Engineer Date
[Signature] 9-1-15
GDOT Project Manager Date

Recommendation for approval:
* HIRAL FATEH 9/22/2015
State Environmental Administrator Date
* KEN WERHO 9/8/2015
for State Traffic Engineer Date
* BEW RABUN 9/3/2015
State Bridge Engineer Date

This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

* CLYTHIA L. VANDIKE 9/22/2015
State Transportation Planning Administrator Date

* RECOMMENDATION ON FILE / [Signature]

County: Haralson

ENVIRONMENTAL AND PERMITS

Potential environmental impacts of proposed revision: No anticipated environmental effects.
 No anticipated effects to the environmental/project schedule.

Environmental Permits/Variations/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	YES	NO	Remarks
1. U.S. Coast Guard Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Forest Service/Corps Land	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. CWA Section 404 Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NW 23 Permit (No Individual Permit anticipated).
4. Tennessee Valley Authority Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Buffer Variance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Coastal Zone Management Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. NPDES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The 15 foot alignment shift to the south will require more than an acre of disturbance, so this will be needed.
8. FEMA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Cemetery Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10. Other Permits	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
11. Other Commitments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Special provisions for protected species and/or migratory birds.
12. Other Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Have proposed revisions been reviewed by environmental staff? No Yes

Environmental responsibilities (Studies/Documents/Permits): NEPA reevaluation will be completed in-house by OES; Ecology and 404 Permit to be completed by consultant.

Air Quality:

- Is the project located in a PM 2.5 Non-attainment area? No Yes
- Is the project located in an Ozone Non-attainment area? No Yes
- Is a Carbon Monoxide hotspot analysis required? No Yes

If yes to either PM 2.5 or Ozone Non-attainment, provide a comparison between the proposed revisions and the conforming plan's model description. Include such features as project limits, number of through lanes, proposed open to traffic year, etc. If project is exempt from conforming plan, explain why. If the project corridor contains a traffic signal, the design year traffic volumes exceed 10,000 vpd and the level of service is D, E or F, a CO hotspot analysis is required.

Environmental Comments and Information:

County: Haralson

NEPA: The Aquatic Survey Report has been approved and the Ecology Report Addendum is in process, History is complete (No Historic Properties Affected), Archaeology will be finishing when required ROW and easements are provided, and Air/Noise should take a minimal amount of time. The Environmental Reevaluation appears to be on schedule for October 2015 approval.

Ecology: The following studies were completed: Aquatic Survey, Protected Species Surveys for bats and Allegheny-spurge, and an Ecology Resource Survey Assessment of Effects Report and Addendum. Special Provisions are included for federal and state protected species. Waters delineations were provided to Design on 6/09/15. A Section 404 Nationwide 23 Permit is required. No Buffer Variance is required.

Archeology: Nothing was found in the archaeology screening. However, actual testing will not occur until required ROW and easements have been defined. Something could still turn up during the field testing phase.

History: Nothing was found (No Historic Properties Affected).

Air Quality: Air and Noise studies for this project should consist of a short 1-2 page report for each with no in-depth analysis required.

Noise Effects: Air and Noise studies for this project should consist of a short 1-2 page report for each with no in-depth analysis required.

Public Involvement: No public involvement should be required unless some new public controversy arises. However, it appears that the on-site detour alleviates the concerns of the stakeholders.

PROJECT COST AND ADDITIONAL INFORMATION

Item	Estimated Cost	Date of Estimate	Funded By
Base Construction Cost:	\$5,843,159.70	6/18/2015	
Engineering and Inspection:	\$292,157.99	6/18/2015	
Contingencies:	\$306,765.88	6/18/2015	
Liquid AC Adjustment:	\$71,816.09	6/18/2015	
<u>Total Construction Cost:</u>	<u>\$6,513,899.66</u>		
Right-of-Way:	\$120,000 <i>AUTHORIZED</i>	12/28/2011 <i>AS</i>	
Utilities (reimbursable costs):	n/a	7/14/2015	
Environmental Mitigation:	n/a		
TOTAL PROJECT COST:	\$6,633,899.66		
TOTAL PROJECT COST:	\$6,633,899.66		

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

Attachments:

1. Sketch map
2. Cost Estimate(s)

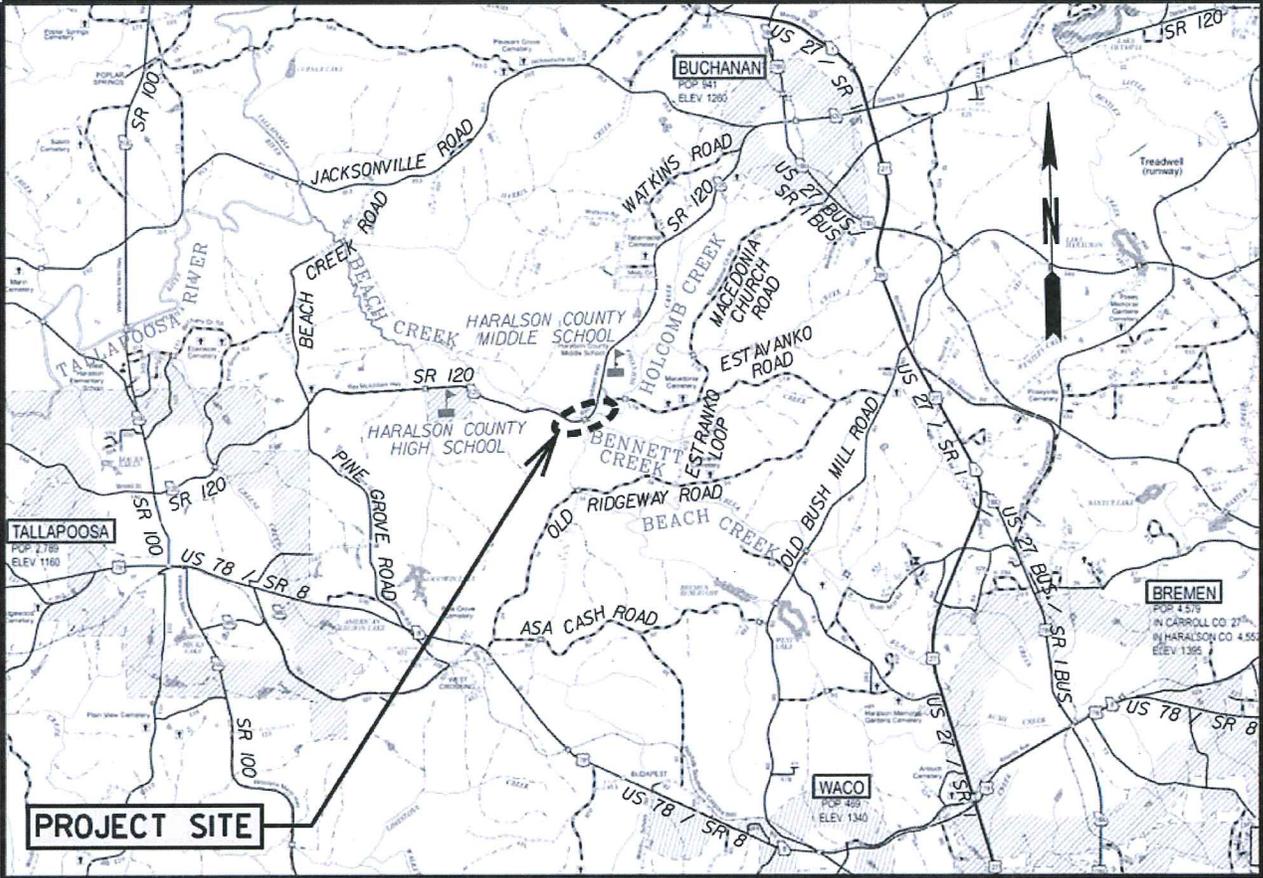
APPROVALS

Concur: *Glenn Bonner* *
 Director of Engineering

Approve: *Margaret B. Purke* *10.26.15*
 Chief Engineer Date

* COST ESCALATION WAS INVESTIGATED AND ADDRESSED. MOSTLY DUE TO WALL COST INCREASE (TYPE & SIZE) BETWEEN PFPR & FFPR.
 GLENN B.

PROJECT LOCATION



BRIDGE REPLACEMENT - SR 120 OVER BEECH CREEK

P.I. Number: 0009864

HARALSON COUNTY

DETAILED COST ESTIMATE



Job: 0009864

JOB NUMBER 0009864

FED/STATE PROJECT NUMBER

SPEC YEAR: 13

DESCRIPTION: SR 120 @ BEECH CREEK - BRIDGE REPLACEMENT
FINAL FIELD PLAN REVIEW ESTIMATE - FFPR

ITEMS FOR JOB 0009864

0010 - ROADWAY ITEMS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0340	150-1000	1.000	LS	\$200,000.00000	TRAFFIC CONTROL - 0009864	\$200,000.00
0345	153-1300	1.000	EA	\$86,784.74723	FIELD ENGINEERS OFFICE TP 3	\$86,784.75
0040	433-1000	230.000	SY	\$171.17481	REINF CONC APPROACH SLAB	\$39,370.21
0060	441-0204	170.000	SY	\$41.04122	PLAIN CONC DITCH PAVING, 4 IN AC	\$6,977.01
0370	634-1200	14.000	EA	\$117.10961	RIGHT OF WAY MARKERS	\$1,639.53
0065	641-1100	126.000	LF	\$59.73691	GUARDRAIL, TP T	\$7,526.85
0070	641-1200	2300.000	LF	\$21.19094	GUARDRAIL, TP W	\$48,739.16
0400	641-2200	130.000	LF	\$19.84000	DBL FACED GUARDRAIL, TP W	\$2,579.20
0075	641-5012	4.000	EA	\$2,029.07572	GUARDRAIL ANCHORAGE, TP 12	\$8,116.30
0150	648-1350	1.000	EA	\$16,595.74667	IMPACT ATT UNIT, TP-P- 0009864	\$16,595.75
SUBTOTAL FOR ROADWAY ITEMS:						\$418,328.76

0020 - PAVEMENT ITEMS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0330	310-1101	3050.000	TN	\$25.84070	GR AGGR BASE CRS, INCL MATL	\$78,814.14
0115	402-1812	100.000	TN	\$76.83376	RECYL AC LEVELING, INC BM&HL	\$7,683.38
0010	402-3103	860.000	TN	\$81.34271	REC AC 9.5 MM SP, TP II, GP2, INCL BM & H L	\$69,954.73
0020	402-3121	3150.000	TN	\$73.08411	RECYL AC 25MM SP, GP 1/2, BM&HL	\$230,214.95
0015	402-3190	1000.000	TN	\$86.71769	RECYL AC 19 MM SP, GP 1 OR 2, INC BM&HL	\$86,717.69
0026	413-1000	315.000	GL	\$3.05171	BITUM TACK COAT	\$961.29
0027	432-5010	1400.000	SY	\$5.41907	MILL ASPH CONC PVMT, VARB DEPTH	\$7,586.70
SUBTOTAL FOR PAVEMENT ITEMS:						\$481,932.88

0030 - EARTHWORK ITEMS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0380	210-0100	1.000	LS	\$1,088,881.00000	GRADING COMPLETE - 0009864	\$1,088,881.00
SUBTOTAL FOR EARTHWORK ITEMS:						\$1,088,881.00

0040 - DRAINAGE ITEMS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0055	500-3900	1.340	CY	\$1,100.00000	CL B CONC, INCL REINF STEEL	\$1,474.00
0050	550-1300	15.000	LF	\$64.91157	STM DR PIPE 30,H 1-10	\$973.67
0405	603-2024	5.000	SY	\$94.35389	STN DUMPED RIP RAP, TP 1, 24	\$471.77
0385	603-7000	5.000	SY	\$6.10256	PLASTIC FILTER FABRIC	\$30.51
SUBTOTAL FOR DRAINAGE ITEMS:						\$2,949.95

DETAILED COST ESTIMATE



Job: 0009864

0070 - SIGNING AND MARKING ITEMS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0200	636-1020	24.000	SF	\$14.35846	HWY SGN,TP1MAT,REFL SH TP3	\$344.60
0205	636-1033	61.000	SF	\$19.90755	HWY SIGNS, TP1MAT,REFL SH TP 9	\$1,214.36
0190	636-2070	82.000	LF	\$7.23725	GALV STEEL POSTS, TP 7	\$593.45
0195	636-2080	90.000	LF	\$9.01453	GALV STEEL POSTS, TP 8	\$811.31
0085	652-2501	1.100	LM	\$689.42009	SOLID TRAF STRIPE, 5 IN, WHITE	\$758.36
0175	652-2502	1.100	LM	\$662.26274	SOLID TRAF STRIPE, 5 IN, YELLO	\$728.49
0180	657-3085	570.000	GLF	\$4.14634	PRF PL SK PVMT MKG,8,B/W,TPPB	\$2,363.41
0185	657-3086	570.000	GLF	\$3.01629	FPR PL SK PVMT MKG,8,B/Y,TPPB	\$1,719.29
SUBTOTAL FOR SIGNING AND MARKING ITEMS:						\$8,533.27

0080 - SIGNAL ITEMS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0089	632-0003	2.000	EA	\$8,241.85901	CHANGEABLE MESS SIGN,PORT,TP 3	\$16,483.72
0125	647-1000	1.000	LS	\$35,000.00000	TRAF SIGNAL INSTALLATION NO - ON SITE, TEMP SIGNAL	\$35,000.00
SUBTOTAL FOR SIGNAL ITEMS:						\$51,483.72

0100 - RETAINING WALL ITEMS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0490	617-0510	1.000	LS	\$267,750.00000	PERMANENTLY ANCHORED WALL NO - 2	\$267,750.00
0520	617-0510	1.000	LS	\$969,390.00000	PERMANENTLY ANCHORED WALL NO - 4	\$969,390.00
0290	621-4021	600.000	LF	\$385.00000	CONCRETE SIDE BARRIER, TY 2A WALL # 1 AND 2	\$231,000.00
0295	621-4022	500.000	LF	\$550.00000	CONCRETE SIDE BARRIER, TY 2B WALL # 1 AND 3	\$275,000.00
0300	621-4023	200.000	LF	\$770.00000	CONCRETE SIDE BARRIER, TY 2C WALL # 3	\$154,000.00
0305	621-4061	50.000	LF	\$340.78000	CONCRETE SIDE BARRIER, TY 6A WALL#	\$17,039.00
0495	627-1000	34.000	SF	\$49.68704	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 3	\$1,689.36
0500	627-1010	10337.000	SF	\$38.15595	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 3	\$394,418.06
0505	627-1100	18.000	LF	\$100.12602	COPING A, WALL NO - 3	\$1,802.27
0510	627-1160	747.000	LF	\$205.41136	TRAFFIC BARRIER H, WALL NO - 3	\$153,442.29
0515	627-1180	424.000	CY	\$33.00000	ADDITIONAL MSE BACKFILL WALL NO- 3	\$13,992.00
SUBTOTAL FOR RETAINING WALL ITEMS:						\$2,479,522.98

DETAILED COST ESTIMATE



Job: 0009864

0110 - BRIDGE ITEMS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0415	500-0100	929.000	SY	\$5.88984	GROOVED CONCRETE	\$5,471.66
0420	500-1011	1.000	LS	\$276,675.00000	SUPERSTR CONCRETE, CL D, BR NO - 1(357)	\$276,675.00
0425	500-2100	428.000	LF	\$52.59276	CONCRETE BARRIER	\$22,509.70
0430	500-3002	194.000	CY	\$645.46388	CL AA CONCRETE	\$125,219.99
0435	507-9002	567.000	LF	\$130.01967	PSC BEAMS,AASHTO TP II, BR NO- 1	\$73,721.15
0440	507-9031	708.000	LF	\$210.62764	PSC BEAMS,AASHTO,BULB TEE, 63 IN, BR NO- 1	\$149,124.37
0445	511-1000	23455.000	LB	\$0.88119	BAR REINF STEEL	\$20,668.31
0450	511-3000	81055.000	LS	\$0.90000	SUPERSTR REINF STEEL, BR NO - 1(81,055)	\$72,949.50
0455	524-0010	132.000	LF	\$1,433.47221	DRILLED CAISSON - 54 IN	\$189,218.33
0410	540-1101	1.000	LS	\$107,000.00000	REM OF EX BR, STA NO - 111+25	\$107,000.00
0460	603-2024	210.000	SY	\$69.47159	STN DUMPED RIP RAP, TP 1, 24 IN	\$14,589.03
0465	603-7000	210.000	SY	\$4.83804	PLASTIC FILTER FABRIC	\$1,015.99
0470	620-0100	620.000	LF	\$25.85207	TEMP BARRIER, METHOD NO. 1	\$16,028.28
0475	620-0200	540.000	LF	\$58.73878	TEMP BARRIER, METHOD NO. 2	\$31,718.94
0480	999-7500	371.000	LF	\$100.00000	MICROPILE (IN DIA) - 7.625 IN	\$37,100.00
0485	999-7510	2.000	EA	\$25,000.00000	LOAD TEST MICROPILE (IN DIA) - 7.625 IN	\$50,000.00
SUBTOTAL FOR BRIDGE ITEMS:						\$1,193,010.25

0140 - EROSION CONTROL

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0215	163-0232	5.000	AC	\$725.76508	TEMPORARY GRASSING	\$3,628.83
0220	163-0240	120.000	TN	\$194.40214	MULCH	\$23,328.26
0225	163-0300	2.000	EA	\$1,501.95685	CONSTRUCTION EXIT	\$3,003.91
0260	163-0520	350.000	LF	\$21.96952	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	\$7,689.33
0235	163-0527	14.000	EA	\$311.92193	CNST/REM RIP RAP CKDM,STN P RIPRAP/SN BG	\$4,366.91
0250	163-0541	3.000	EA	\$638.23571	CONSTR & REM ROCK FILTER DAMS	\$1,914.71
0230	165-0030	2650.000	LF	\$0.18810	MAINT OF TEMP SILT FENCE, TP C	\$498.47
0240	165-0101	4.000	EA	\$667.43598	MAINT OF CONST EXIT	\$2,669.74
0255	165-0110	3.000	EA	\$98.22275	MAINT OF ROCK FILTER DAM	\$294.67
0390	167-1000	8.000	EA	\$258.52803	WATER QUALITY MONITORING AND SAMPLING	\$2,068.22
0395	167-1500	30.000	MO	\$624.89680	WATER QUALITY INSPECTIONS	\$18,746.90
0245	171-0030	5300.000	LF	\$3.52363	TEMPORARY SILT FENCE, TYPE C	\$18,675.24
0265	700-6910	10.000	AC	\$1,093.32962	PERMANENT GRASSING	\$10,933.30
0270	700-7000	15.000	TN	\$93.35082	AGRICULTURAL LIME	\$1,400.26
0275	700-8000	5.000	TN	\$556.35300	FERTILIZER MIXED GRADE	\$2,781.77
0280	700-8100	250.000	LB	\$3.06548	FERTILIZER NITROGEN CONTENT	\$766.37
0375	711-0100	3500.000	SY	\$4.50000	TURF REINFORCING MATTING, TP 1	\$15,750.00
SUBTOTAL FOR EROSION CONTROL :						\$118,516.89

TOTALS FOR JOB 0009864

DETAILED COST ESTIMATE



Job: 0009864

ITEMS COST:	\$5,843,159.70
COST GROUP COST:	\$0.00
ESTIMATED COST:	\$5,843,159.70
CONTINGENCY PERCENT:	0.00
ENGINEERING AND INSPECTION:	0.00
ESTIMATED COST WITH CONTINGENCY AND E&I:	\$5,843,159.70

PROJ. NO. 9864
P.I. NO. 0009864
DATE 6/18/15

CALL NO.

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Jun-15	\$ 2.681
DIESEL		\$ 2.867
LIQUID AC		\$ 466.00

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

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)					71437.8	\$	71,437.80
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$		745.60		
Monthly Asphalt Cement Price month project let (APL)			\$		466.00		
Total Monthly Tonnage of asphalt cement (TMT)					255.5		

ASPHALT	Tons	%AC	AC ton
Leveling	100	5.0%	5
12.5 OGFC		5.0%	0
12.5 mm		5.0%	0
9.5 mm SP	860	5.0%	43
25 mm SP	3150	5.0%	157.5
19 mm SP	1000	5.0%	50
	5110		255.5

BITUMINOUS TACK COAT

Price Adjustment (PA)				\$	378.29	\$	378.29
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$		745.60		
Monthly Asphalt Cement Price month project let (APL)			\$		466.00		
Total Monthly Tonnage of asphalt cement (TMT)					1.35295679		

Bitum Tack

Gals	gals/ton	tons
315	232.8234	1.35295679

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)					0	\$	-
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$		745.60		
Monthly Asphalt Cement Price month project let (APL)			\$		466.00		
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 \$ 71,816.09