

**RESOLUTION 2012-73**

**A RESOLUTION FUNDING CAROTHERS PARKWAY SOUTH FROM FALCON CREEK SUBDIVISION TO THE HIGHLANDS AT LADD PARK SUBDIVISION**

**WHEREAS**, the Carothers Parkway South Project is listed as a Short Term Priority Project within the City of Franklin Major Thoroughfare Plan; and

**WHEREAS**, The construction of the Carothers Parkway South shall generally include a 2-lane typical section with grading to accommodate the future 4-lane typical section with curb and gutter, sidewalk (east side only), lighting, drainage and other appurtenances as required; and

**WHEREAS**, The estimated construction cost associated with the Carothers Parkway South Project as a 2-lane typical section with grading to accommodate the future 4-lane section from the Falcon Creek Subdivision to Truman Drive in the Highlands at Ladd Park Subdivision is approximately \$12,764,722; and

**WHEREAS**, the Board of Mayor and Aldermen has adopted financial policies related to general fund reserves and debt issuance; and

**WHEREAS**, financial models have been developed to project the impact of various funding scenarios associated with the funding of the Carothers Parkway South Project.

**NOW THEREFORE, BE IT RESOLVED** by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that the Carothers Parkway South Project shall be funded for construction to include a 2-lane typical section with grading to accommodate the future 4-lane typical section with curb and gutter, sidewalk (east side only), lighting, drainage and other appurtenances as required.

**IT IS SO RESOLVED AND DONE** on this 8<sup>th</sup> day of January, 2013

**ATTEST:**

**CITY OF FRANKLIN, TENNESSE**

**By:** \_\_\_\_\_

**ERIC S. STUCKEY**  
City Administrator

**By:** \_\_\_\_\_

**Dr. Ken Moore**  
Mayor

**Approved as to Form**

**By:** \_\_\_\_\_

**Shauna R. Billingsley**  
City Attorney






HISTORIC  
FRANKLIN  
TENNESSEE

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December 10, 2012

TO: Board of Mayor and Aldermen

FROM: Eric S. Stuckey, City Administrator   
David Parker, P.E., City Engineer/CIP Executive  
Paul Holzen, P.E., Director of Engineering  
Dan Allen, P.E., Assistant Director of Engineering  
Jonathan Marston, P.E., Staff Engineer 2

SUBJECT: South Carothers Parkway Extension Project Information & Options

**Purpose**

The purpose of this memorandum is to provide the Board of Mayor and Alderman (BOMA) with additional information and potential options for the South Carothers Parkway Extension Project.

**Background**

On July 10, 2007, the BOMA unanimously approved a professional services agreement (PSA) in an amount not to exceed \$1,420,000 with Sullivan Engineering, Inc. (SEI) for the design of the South Carothers Extension. The proposed extension of South Carothers Parkway, from Falcon Creek Subdivision to the Highlands at Ladd Park Subdivision, was to consist of a 4-lane, median divided roadway, with sidewalk and multi-use trail. This design was in keeping with previous iterations of Carothers Parkway.

On December 11, 2007 the BOMA unanimously approved Amendment 1 to the PSA with SEI in an amount of \$100,000. The purposed of this amendment was to modify the South Carothers Parkway Extension design to accommodate the proposed Nichols Bend development. This amendment was to be funded by the developer of Nichols Bend.

On September 9, 2008, the BOMA unanimously approved Amendment 2 to the PSA with SEI, in an amount of \$30,020, for hydraulic modeling of the Harpeth River. Amendment 3 to the PSA with SEI, at a cost of \$61,000 was approved unanimously by the BOMA on January 13, 2009. The purpose of Amendment 3 was to modify the design plans to allow for the detention requirements of the Nichols Bend development and to redesign of the proposed bridge over the Harpeth River to allow the inclusion of a Milcrofton water line.

On September 22, 2009, the BOMA approved COF Contract 2009-0052 with SEI, in an amount not to exceed \$242,570 for additional design services related to the South Carothers Parkway Extension. The additional design services approved within COF Contract 2009-0052 provide a continuous roadway from the South Carothers Parkway bridge over the Harpeth river to Long Lane.



On April 24, 2012, an option to authorize a 2-lane design of the South Carothers Parkway Extension was offered to the BOMA. Subsequently, COF Contract 2012-0078 with SEI, was presented to the BOMA on May 8, 2012. This contract provides for the redesign of South Carothers Parkway Extension as a 2-lane roadway. Two (2) options were offered for a 2-lane design. The first option, at a design cost of \$262,970, was for a 2-lane curb and gutter typical section, with sidewalk. The second option, at a design cost of \$406,350, was for a 2-lane typical section, with ditch drainage and no sidewalk. The BOMA ultimately chose option 1 for COF Contract 2012-0078.

On November 27, 2012 City Staff presented *preliminary* construction cost estimates (e.g. opinion of probable cost) for the redesigned, 2-lane typical section South Carothers Parkway Extension. Those estimates are as follows:

	<u>North Only</u>	<u>South Only</u>	<u>Entire Project</u>
Roadway	\$ 5,047,542.83	\$ 5,522,563.06	\$ 10,120,436.04
Lighting	\$ 234,260.68	\$ 237,230.83	\$ 471,267.08
Bridge	\$ 0.00	\$ 1,565,174.04	\$ 1,565,174.04
Contingency	\$ 264,090.18	\$ 366,248.40	\$ 607,843.86
Total	\$ 5,545,893.68	\$ 7,691,216.32	\$ 12,764,721.02

At this November 27, 2012 meeting, the BOMA requested that the estimated construction costs for a 4-lane typical section of South Carothers Parkway also be presented.

### Financial Impact

SEI, the design consultant for the South Carothers Parkway Extension Project has prepared construction estimates for 2-lane & 4-lane typical sections. Also, for each typical section, the costs are broken down into their major components for: north segment construction only, south segment construction only, and entire project construction. You will notice that costs for the 2-lane section differ significantly from the costs presented on November 13, 2012. Additional information about the construction of detention ponds and recent bid information (i.e. McEwen Drive Temporary Connector & Hillsboro Road) was used to create a more up-to-date *estimate* of construction costs.

### 2-Lane Typical Section Estimates

	<u>North Only</u>	<u>South Only</u>	<u>Entire Project</u>
Add'l Design	\$ 0.00	\$ 0.00	\$ 0.00
Roadway	\$ 2,537,681.74	\$ 2,675,395.14	\$ 4,944,708.96
Sidewalk/Trail	\$ 125,003.12	\$ 153,630.15	\$ 278,633.27
Bridge/Wall(s)	\$ 189,000.00	\$ 1,643,432.74	\$ 1,832,432.74
Lighting	\$ 221,376.34	\$ 224,183.13	\$ 442,353.28
*Miscellaneous	\$ 2,839,918.65	\$ 2,968,466.76	\$ 5,547,267.37
Total	\$ 5,912,979.85	\$ 7,665,107.92	\$ 13,045,395.62



4-Lane Typical Section Estimates

	<u>North Only</u>	<u>South Only</u>	<u>Entire Project</u>
Add'l Design	\$ 31,500.00	\$ 44,100.00	\$ 44,100.00
Roadway	\$ 3,996,945.69	\$ 3,896,921.09	\$ 7,825,841.49
Sidewalk/Trail	\$ 125,003.12	\$ 153,630.15	\$ 278,633.27
Bridge/Wall(s)	\$ 189,000.00	\$ 3,286,865.48	\$ 3,475,865.48
Lighting	\$ 277,430.46	\$ 284,619.89	\$ 502,790.03
*Miscellaneous	<u>\$ 2,785,266.71</u>	<u>\$ 3,258,661.14</u>	<u>\$ 5,722,527.75</u>
Total	\$ 7,405,145.98	\$ 10,924,797.75	\$ 17,849,758.02

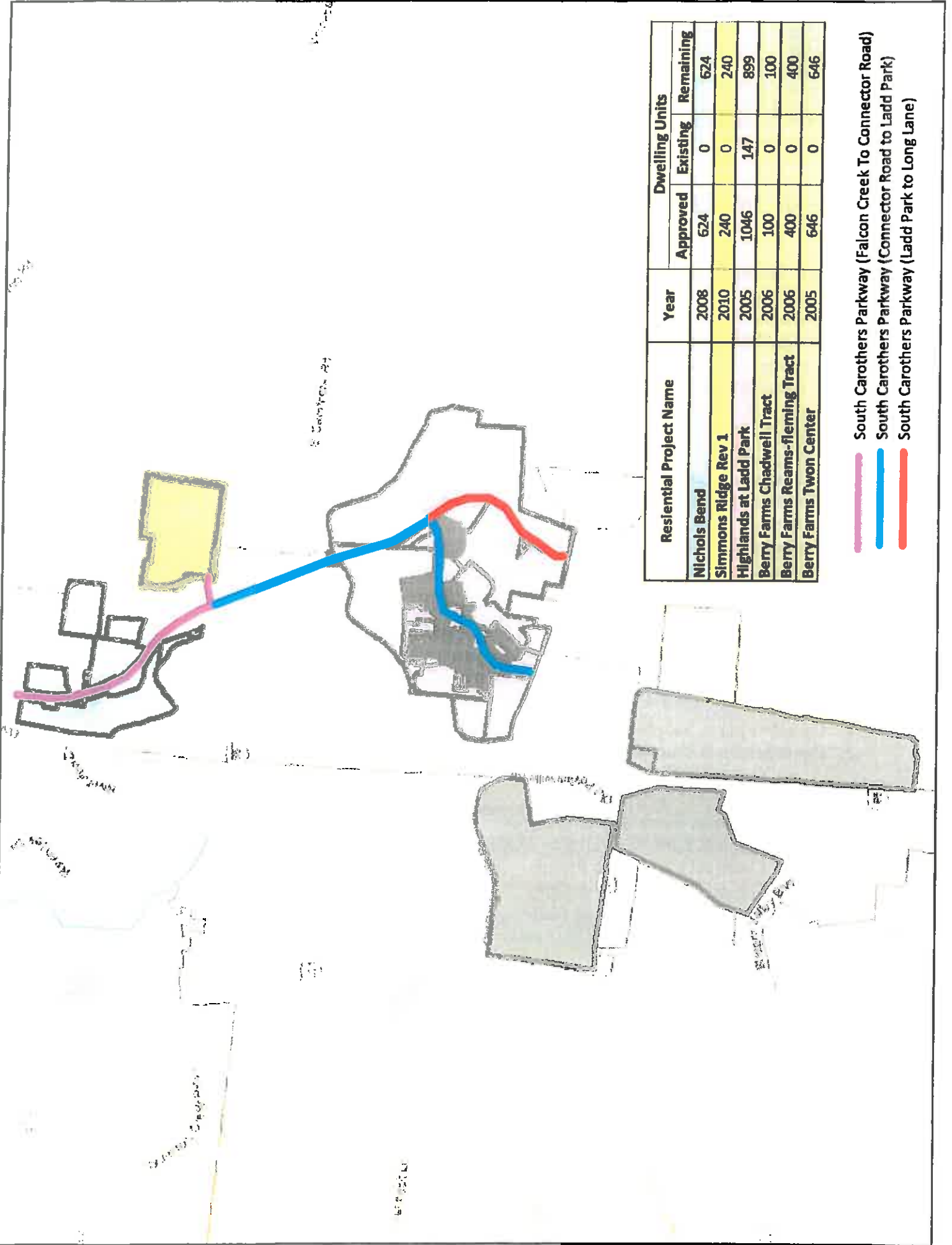
**\*Notes:**

1. It is assumed that the borrow excavation can be obtained locally, on or near the construction site. However, if off site material is required, then the cost per unit would increase to \$18+/- per cubic yard in lieu of the \$7+/- used in the cost analysis. Please keep in mind, that from all indications, it appears the necessary borrow material is obtainable on site.
2. This cost includes the retention/detention ponds that are to be constructed as a part of the City's Agreement with Nichols Bend.

**Recommendation**

In order to prepare final plans and specifications for construction, staff needs final direction from the BOMA. The options are:

1. Complete plans, but place construction on hold indefinitely,
2. Construct South Carothers Parkway Extension as a 2-lane facility
  - a. Construct Full Length Project
  - b. Construct North Section Only
  - c. Construct South Section Only
3. Construct South Carothers Parkway Extension as a 4-lane facility
  - a. Construct Full Length Project
  - b. Construct North Section Only
  - c. Construct South Section Only



Residential Project Name	Year	Dwelling Units		
		Approved	Existing	Remaining
Nichols Bend	2008	624	0	624
Simmons Ridge Rev 1	2010	240	0	240
Highlands at Ladd Park	2005	1046	147	899
Berry Farms Chadwell Tract	2006	100	0	100
Berry Farms Reams-fleming Tract	2006	400	0	400
Berry Farms Twon Center	2005	646	0	646

- South Carothers Parkway (Falcon Creek To Connector Road)
- South Carothers Parkway (Connector Road to Ladd Park)
- South Carothers Parkway (Ladd Park to Long Lane)

DATE 10/24/2012  
 Project  
 Length  
 1.05 L.M.

WILLIAMSON COUNTY  
 SOUTH CAROTHERS PARKWAY  
 FROM: CONNECTOR ROAD  
 TO: FALCON CREST  
 CITY OF FRANKLIN PROJECT # \_\_\_\_\_  
 SULLIVAN ENGINEERING, INC PROJECT #12-005

PROJECT QUANTITIES (COORDINATE WITH TABULATED DATA FOR ADDITIONAL FOOTNOTES)					
ITEM NO.	ITEM DESCRIPTION	UNIT	EST QTY.	UNIT PRICE	TOTAL PRICE
105-01	CONSTRUCTION STAKES LINES AND GRADES	L.S.	1	\$90,576.39	\$90,576.39
201-01	CLEARING AND GRUBBING	L.S.	1	\$196,791.94	\$196,791.94
202-01	REMOVAL OF STRUCTURES AND OBSTRUCTIONS (INCLUDES BUT NOT LIMITED TO ITEMS SUCH AS SIGNS, FLEXIBLE DELINEATORS, FENCES, CONCRETE CURBS, MAILBOXES AND ALL OTHER ITEMS WITHIN THE GRADING LIMITS UNLESS OTHERWISE NOTED.)	L.S.	1	\$22,582.57	\$22,582.57
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED, INCLUDES 13 C.Y. FOR CONSTRUCTION ENTRANCE)	C.Y.	27657	\$12.75	\$352,626.75
203-03	BORROW EXCAVATION (UNCLASSIFIED)	C.Y.	116700	\$7.07	\$825,069.00
203-04	PLACING & SPREADING TOPSOIL	C.Y.	8858	\$4.56	\$40,392.48
203-05	UNDERCUTTING (UNIT PRICE BIDS INCLUDES MINERAL AGGREGATE (SURGE STONE) BACKFILL)	C.Y.	2766	\$32.53	\$89,968.22
203-06	WATER	M.G.	1345	\$7.10	\$9,549.50
203-07	FURNISHING & SPREADING TOPSOIL	C.Y.	15738	\$17.23	\$271,165.74
204-07	BEDDING MATERIAL (PIPE) CLASS "B"	C.Y.	2559	\$29.36	\$75,132.24
204-08	FOUNDATION FILL MATERIAL	C.Y.	1112	\$49.10	\$54,599.20
209-05	SEDIMENT REMOVAL	C.Y.	2246	\$7.73	\$17,361.58
209-08.02	TEMPORARY SILT FENCE (WITH BACKING), (AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	L.F.	11092	\$3.71	\$41,151.32
209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING), (AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	L.F.	11092	\$1.16	\$12,866.72
209-08.07	ROCK CHECK DAM ("V-DITCH", 2'-/- DEPTH, OR AS DIRECTED BY THE ENGINEER, AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	EACH	32	\$359.83	\$11,514.56
209-09.03	SEDIMENT FILTER BAG (15' X 15')	EACH	8	\$529.64	\$4,237.12
209-40.41	CATCH BASIN FILTER ASSEMBLY (TYPE 1), (AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	EACH	4	\$387.20	\$1,548.80
209-40.46	CATCH BASIN FILTER ASSEMBLY (TYPE 6), (AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	EACH	106	\$406.70	\$43,110.20
209-40.47	CATCH BASIN FILTER ASSEMBLY (TYPE 7), (AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	EACH	11	\$660.00	\$7,260.00
303-01	MINERAL AGGREGATE TYPE A BASE GRADING "D", (INCLUDES XXX TONS FOR STONE WEDGE)	TON	14793	\$17.13	\$253,404.09
303-01.01	GRANULAR BACKFILL FOR STRUCTURES	TON	5000	\$19.52	\$97,600.00
307-02.02	ASPHALT CEMENT (PG70-22)(BPMB-HM) GRADING A-S	TON	112	\$857.10	\$95,995.20
307-02.03	AGGREGATE(BPMB-HM) GRADING AS	TON	3323	\$41.85	\$139,067.55
307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	TON	4388	\$67.55	\$296,409.40
307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	2156	\$75.48	\$162,734.88
402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC), (INCLUDES 15 TONS FOR MAINTENANCE OF TRAFFIC)	TON	44	\$700.74	\$30,832.56

PROJECT QUANTITIES (COORDINATE WITH TABULATED DATA FOR ADDITIONAL FOOTNOTES)					
ITEM NO.	ITEM DESCRIPTION	UNIT	EST QTY.	UNIT PRICE	TOTAL PRICE
402-02	AGGREGATE FOR COVER MATERIAL (PC), (INCLUDES 57 TONS FOR MAINTENANCE OF TRAFFIC)	TON	173	\$38.65	\$6,686.45
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC), (INCLUDES 1 TONS FOR MAINTENANCE OF TRAFFIC)	TON	17	\$684.68	\$11,639.56
407-20.05	SAW CUTTING ASPHALT PAVEMENT, (TO BE USED AS DIRECTED BY THE ENGINEER FOR CONNECTIONS AT EXISTING ROADWAYS. IF THE CONTRACTOR ELECTS TO SAW CUT FOR OTHER PURPOSES, PAYMENT SHALL BE DISALLOWED UNLESS PRE-APPROVED BY THE ENGINEER.)	L.F.	651	\$3.12	\$2,031.12
411-02.10	ACS MIX(PG70-22) GRADING D	TON	1471	\$95.64	\$140,686.44
604-08.10	RETAINING WALL, UNIT PRICE INCLUDES: ALL MATERIALS, LABOR, EXCAVATION, GRANULAR BACKFILL, CAP STONE, INCLUSIVE OF ALL APPURTENAMCES FOR A COMPLETE SYSTEM.)	S.F.	4000	\$50.00	\$200,000.00
611-01.03	MANHOLES, 8' - 12' DEPTH (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	1	\$5,650.00	\$5,650.00
611-07.01	CLASS "A" CONCRETE (PIPE END WALLS)	C.Y.	48	\$1,279.74	\$61,427.52
611-07.02	STEEL BAR REINFORCEMENT (PIPE END WALLS)	LB.	4361	\$1.88	\$8,198.68
611-07.03	STRUCTURAL STEEL (PIPE END WALLS)	LB.	1578	\$5.17	\$8,158.26
611-12.01	CATCH BASINS, TYPE 12, DEPTH 0' - 4' (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	2	\$2,331.68	\$4,663.36
611-12.02	CATCH BASINS, TYPE 12, DEPTH 4' - 8' (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	80	\$2,690.46	\$215,236.80
611-12.03	CATCH BASINS, TYPE 12, DEPTH 8' - 12' (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	16	\$5,888.71	\$94,219.36
611-14.02	CATCH BASINS, TYPE 14, DEPTH 4' - 8' (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	12	\$7,237.09	\$86,845.08
611-14.02	CATCH BASINS, TYPE 14, DEPTH 8' - 12' (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	1	\$7,653.83	\$7,653.83
611-42.01	CATCH BASINS, TYPE 42, DEPTH 0' - 4' (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION, QUANTITY INCLUDES 6 STRUCTURES TO BE COORDINATED WITH STREETScape PLANS PREPARED BY EG&G, INC.)	EACH	3	\$2,331.68	\$6,995.04
611-42.02	CATCH BASINS, TYPE 42, DEPTH 4' - 8' (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	4	\$2,690.46	\$10,761.84
611-02.10	JUNCTION BOX, TYPE 1 (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	2	\$3,133.89	\$6,267.78
701-01.01	CONCRETE SIDEWALK (4" THICKNESS W/ FIBER MESH AND 6" AGGREGATE CLASS "A" GRADING "D" BASE)	S.F.	28105	\$4.23	\$118,884.15
701-02	CONCRETE DRIVEWAY (APPROACH APRON WITHIN RIGHT-OF-WAY, 8" THICKNESS W/ FIBER MESH AND 4" AGGREGATE CLASS "A" GRADING "D" BASE)	S.F.	2116	\$6.33	\$13,394.28
702-03	CONCRETE COMBINED CURB & GUTTER	C.Y.	475	\$167.20	\$79,420.00
705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	0	\$17.62	\$0.00
705-04.01	GUARDRAIL TERMINAL ANCHOR (TYPE 11)	EACH	0	\$400.00	\$0.00
705-04.29	CRASH-CUSHION, NCHRP350 TC3	EACH	0	\$2,724.56	\$0.00
708-02.02	MARKERS (CITY OF FRANKLIN AS SHOWN ON THE DETAIL SHEET)	EACH	19	\$235.82	\$4,480.58



PROJECT QUANTITIES (COORDINATE WITH TABULATED DATA FOR ADDITIONAL FOOTNOTES)					
ITEM NO.	ITEM DESCRIPTION	UNIT	EST QTY.	UNIT PRICE	TOTAL PRICE
707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE, (INCLUDES 900 L.F. TO BE USED WITH EROSION CONTROL, UNIT PRICE BID INCLUDES COST OF ADJUSTMENTS NECESSARY AS THE CONSTRUCTION PHASES EVOLVE THROUGHOUT THE CONSTRUCTION PROJECT.)	L.F.	1950	\$2.38	\$4,641.00
709-05.05	MACHINED RIP-RAP (CLASS A-3), INCLUDES 100 TONS FOR CONSTRUCTION ENTRANCE, 00 TONS FOR CULVERT PROTECTION TYPE 1)	TON	100	\$35.17	\$3,517.00
709-05.06	MACHINED RIP-RAP (CLASS A-1), INCLUDES 00 TON FOR TEMPORARY SLOPE DRAINS, 00 TON FOR CULVERT PROTECTION TYPE 1)	TON	250	\$39.02	\$9,755.00
709-05.09	MACHINED RIP-RAP (CLASS "C"),	TON	300	\$41.23	\$12,369.00
710-02	AGGREGATE UNDERDRAINS (WITH PIPE)	L.F.	13287	\$5.18	\$68,826.66
712-01	TRAFFIC CONTROL (UNIT PRICE BID INCLUDES INSTALLATION AND REMOVAL COST OF ALL TEMPORARY PAVEMENT MARKINGS INCLUSIVE OF TEMPORARY MARKINGS ON THE FINAL ASPHALT TOPPING. THIS ITEM SHALL ALSO INCLUDE ALL TRAFFIC CONTROL FOR INSTALLATION OF TRAFFIC SIGNALS AS NOTED ON THE DESIGN DOCUMENTS AS REQUIRED TO COMPLETE THE PROJECT.)	L.S.	1	\$33,023.07	\$33,023.07
712-04.10	28-INCH TEMPORARY FLEXIBLE TUBULAR DELINEATOR, (ESTIMATED QUANTITY IS BASED ON PHASE WHICH REQUIRES HIGHEST QUANTITY. UNIT PRICE BID INCLUDES COST OF ADJUSTMENTS NECESSARY AS THE CONSTRUCTION PHASES EVOLVE THROUGHOUT THE CONSTRUCTION PROJECT.)	EACH	60	\$50.00	\$3,000.00
712-06	SIGNS (CONSTRUCTION), (ESTIMATED QUANTITY IS BASED ON PHASE WHICH REQUIRES HIGHEST QUANTITY. UNIT PRICE BID INCLUDES COST OF ADJUSTMENTS NECESSARY AS THE CONSTRUCTION PHASES EVOLVE THROUGHOUT THE CONSTRUCTION PROJECT.)	S.F.	321	\$7.31	\$2,346.51
712-06.01	VERTICAL PANELS (ESTIMATED QUANTITY IS BASED ON PHASE WHICH REQUIRES HIGHEST QUANTITY. UNIT PRICE BID INCLUDES COST OF ADJUSTMENTS NECESSARY AS THE CONSTRUCTION PHASES EVOLVE THROUGHOUT THE DURATION OF THE PROJECT.)	S.F.	4	\$10.37	\$41.48
712-06.11	CONSTRUCTION IDENTIFICATION SIGNS	EACH	2	\$772.72	\$1,545.44
712-07.03	TEMPORARY BARRICADES (TYPE III), (UNIT PRICE BID INCLUDES SIGN (R11-2 AND TYPE "A" FLASHING LIGHTS, ESTIMATED QUANTITY IS BASED ON PHASE WHICH REQUIRES HIGHEST QUANTITY. UNIT PRICE BID INCLUDES COST OF ADJUSTMENTS NECESSARY AS THE CONSTRUCTION PHASES EVOLVE THROUGHOUT THE CONSTRUCTION PROJECT.)	L.F.	90	\$24.73	\$2,225.70
713-16.04	CHANGEABLE MESSAGE SIGN UNIT (MEETS MUTCD REQUIREMENTS FOR PORTABLE MESSAGE SIGNS, COORDINATE WITH PROJECT MANUAL. SHALL BE IN ACCORDANCE WITH SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL. AT COMPLETION OF THE PROJECT THE SIGNS SHALL BECOME PROPERTY OF THE CITY OF FRANKLIN STREET DEPARTMENT. THE SIGNS SHALL BE IN LIKE NEW CONDITION, PROPER WORKING ORDER WITH ALL FACTORY MANUALS. A WARRANTY SHALL BE CONVEYED TO THE CITY OF FRANKLIN AT THE COMPLETION OF THE PROJECT FOR A PERIOD EQUAL TO THAT OF THE ORIGINAL AS FURNISHED BY THE MANUFACTURER.)	EACH	2	\$11,000.00	\$22,000.00
713-16.40	SIGNS (STOP, R1-1, UNIT PRICE BID INCLUDES SQUARE TUBE PERFORATED POST (P8), COORDINATE WITH PAVEMENT MARKING AND SIGNING SHEETS AS MULTIPLE SIGNS MAY BE ATTACHED TO ONE POST)	EACH	3	\$146.43	\$439.29
713-16.41	SIGNS (SPEED LIMIT-35 MPH, R2-1, UNIT PRICE BID INCLUDES SQUARE TUBE PERFORATED POST (P8), COORDINATE WITH PAVEMENT MARKING AND SIGNING SHEETS AS MULTIPLE SIGNS MAY BE ATTACHED TO ONE POST)	EACH	6	\$146.43	\$878.58
713-16.42	SIGNS (LANE TAPER, W4-2R, UNIT PRICE BID INCLUDES SQUARE TUBE PERFORATED POST (P8), COORDINATE WITH PAVEMENT MARKING AND SIGNING SHEETS AS MULTIPLE SIGNS MAY BE ATTACHED TO ONE POST)	EACH	2	\$146.43	\$292.86

PROJECT QUANTITIES (COORDINATE WITH TABULATED DATA FOR ADDITIONAL FOOTNOTES)					
ITEM NO.	ITEM DESCRIPTION	UNIT	EST QTY.	UNIT PRICE	TOTAL PRICE
713-16.57	SIGNS (BIKE, D11-1, UNIT PRICE BID INCLUDES SQUARE TUBE PERFORATED POST (P8), COORDINATE WITH PAVEMENT MARKING AND SIGNING SHEETS AS MULTIPLE SIGNS MAY BE ATTACHED TO ONE POST)	EACH	2	\$146.43	\$292.86
716-12.01	ENHANCED FLATLINE THERMO PAVEMENT MARKING (4" LINE, SSWL, SSSL, DSYL, SBYL & SBWL)	LIN. MI.	5.7	\$3,464.12	\$19,745.48
716-02.04	PLASTIC PVMNT MARKING (CHANNELIZATION STRIPING)	S.Y.	0	\$28.90	\$0.00
716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	254	\$10.94	\$2,778.76
716-02.06	PLASTIC PAVEMENT MARKING TURN LANE ARROW (LEFT OR RIGHT)	EACH	6	\$169.29	\$1,015.74
716-02.09	PLASTIC PVMNT MARKING (LONGITUDINAL CROSS-WALK), (QUANTITY IS CALCULATED FROM FACE OF CURB TO FACE OF CURB)	L.F.	90	\$33.66	\$3,029.40
716-04.11	PLASTIC PAVEMENT MARKING (BICYCLE SYMBOL W/RIDER)	EACH	6	\$358.00	\$2,148.00
716-04.14	PLASTIC PAVEMENT MARKING (LANE REDUCTION ARROW)	EACH	2	\$177.27	\$354.54
717-01	MOBILIZATION	L.S.	1	\$207,090.21	\$207,090.21
740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL), (INCLUDES 172 S.Y. FOR CONSTRUCTION ENTRANCE, 00 S.Y. FOR CULVERT PROTECTION TYPE I)	S.Y.	172	\$3.05	\$524.60
740-11.03	TEMPORARY SEDIMENT TUBE 18 INCH (TO BE USED FOR EROSION CONTROL AS DIRECTED BY THE ENGINEER, AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	L.F.	300	\$4.11	\$1,233.00
801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	1119	\$22.81	\$25,524.39
801-03	WATER (SEEDING & SODDING)	M.G.	1096	\$8.70	\$9,535.20
803-01	SODDING (NEW SOD, INSTALLATION SHALL BE INSTALLED ON TOPSOIL. TOPSOIL SHALL HAVE A MINIMUM DEPTH OF 6 INCHES)	S.Y.	98383	\$2.77	\$272,520.91
	<b>LIGHTING</b>				\$5,047,542.83
714-09.09	LUMINAIRE ((LIGHT EMITTING DIODE "LED" - COOPER #VSTB04LEDEUSL3BK47060AIS), W/6"+/- MOUNTING ARM A-BOLTS AND HARDWARE, (TO BE COORDINATED WITH PROJECT MANUAL FOR APPROVED PRODUCTS AND SPECIFICATIONS)	EACH	37	\$1,287.75	\$47,646.75
773-90.01	PHOTO CONTROL, RIPLEY LONGLIFE 6390L-BK MULTI-VOLT	EACH	37	\$48.93	\$1,810.36
714-03.01	2" SCHEDULE 40 PVC, ELECTRICAL GRAY	L.F.	5500	\$4.65	\$25,575.00
714-03.02	2" SCHEDULE 40 PVC, STANDARD RADIUS ELBOW	EACH	148	\$25.15	\$3,722.20
714-03.04	3" SCHEDULE 80 PVC MIN 24" STANDARD RADIUS ELBOW	L.F.	8	\$23.51	\$188.08
714-08.09	SQUARE ALUMINUM LIGHTING POLE, 30', (BLACK, HAPCO #11-290-A5-D-30', ALUM POLE WITH BLACK ANODIZED FINISH, WITH A-BOLTS AND HARDWARE, OR APPROVED EQUAL)	EACH	34	\$1,707.85	\$58,066.90
	Round tapered Aluminum Lighting Pole, 30', with Single 6' Davit Arm, Black, Hapco # B41-176	EACH	3	\$1,900.00	\$5,700.00
714-08.28	FOUNDATION PREPERATION (INCLUSIVE OF ALL RELATED ITEMS FOR ROADWAY LIGHT STANDARDS, CAST IN PLACE FOUNDATION, 22" DIAMETER, 6'-6" DEPTH. THIS DOES NOT INCLUDE CLASS "A" CONCRETE OR REINFORCING STEEL)	EACH	37	\$637.63	\$23,592.31
714-08.43	FOUNDATION FOR ROADWAY LIGHT STANDARDS (CLASS "A" CONCRETE FOR STREET LIGHT FOUNDATIONS))	C.Y.	23.5	\$145.93	\$3,429.30
730-12.03	CONDUIT 3" DIAMETER (SCHEDULE 40 PVC, W/PULL STRING AND 2 @ 1" INNERDUCT SLEEVES, WITH #14 BARE COPPER LOCATE WIRE), (LOCATION TO BE COORDINATED WITH THE EXISTING FIBER OPTIC SYSTEM, HDPE MAY BE SUBSTITUTED FOR SCHEDULE 40 PVC.)	L.F.	215	\$6.68	\$1,436.20
	3" Schedule 80 PVC, Electrical Gray, Service Riser	EACH	80	\$12.00	\$960.00
773-90.06	SMALL PULL BOX, CDR#PA10-1324-18-0299, QUAZITE #PG2436ZS10MT, HIGHLINE #PHA243618SE1-32, 94 OLDCASTLE #243618PB7021	EACH	39	\$396.21	\$15,452.19
773-90.07	NO. 2 REINFORCING STEEL BAR (FOR STREET LIGHT FOUNDATIONS)	L.F.	1110	\$0.60	\$667.39
773-90.08	NO. 4 REINFORCING STEEL BAR (FOR STREET LIGHT FOUNDATIONS)	L.F.	1110	\$0.77	\$849.15
773-90.09	MILBANK METERING PEDESTAL WITH SWITCHED LOAD CENTER, #CP3B1110A22SL1	EACH	2	\$2,400.00	\$4,800.00

PROJECT QUANTITIES (COORDINATE WITH TABULATED DATA FOR ADDITIONAL FOOTNOTES)					
ITEM NO.	ITEM DESCRIPTION	UNIT	EST QTY.	UNIT PRICE	TOTAL PRICE
773-90.11	RISER CONDUIT STAND-OFF BRACKET, NEHRWESS, BARFILED OR ALUMAFORM	EACH	6	\$124.11	\$744.66
773-90.14	CUTLER HAMMER #BR230, 2-POLE, 30AMP BREAKER	EACH	2	\$20.00	\$40.00
	#4 Conductor Reducer, Burndy #YC4L12	EACH	4	\$20.00	\$80.00
303-10.04	MINERAL AGGREGATE (1/2" GRAVEL FOR SECONDARY BOX INSTALLATION)	C.Y.	56	\$49.81	\$2,789.36
773-90.15	#12 SOLID TYPE UF-B FOR LIGHT POST RISERS	L.F.	4260	\$0.50	\$2,119.35
773-90.17	#6 BARE SOFT DRAWN COPPER FOR LIGHT POST GROUNDING	L.F.	340	\$0.58	\$197.20
773-90.16	#10 COPPER, THHN OR THWN, GREEN, GROUND/GROUNDING CONDUCTOR	L.F.	6050	\$0.57	\$3,471.19
773-90.16	#4 BARE COPPER FOR LIGHT POLE GROUNDING	L.F.	215	\$1.12	\$240.80
773-90.13	#2 COPPER, THHN OR THWN, INCLUDES TWO (2) SERVICE CONDUCTORS	L.F.	430	\$2.91	\$1,252.91
773-90.14	#4 COPPER, THHN OR THWN, WHITE, FOR SERVICE GROUNDED CONDUCTOR	L.F.	12100	\$1.44	\$17,393.75
773-90.20	8' GROUND ROD, 5/8" COPPER-CLAD STEEL, EQUAL TO BLACKBURN #6258	EACH	34	\$55.36	\$1,882.33
773-90.21	GROUND BONDING CLAMP FOR 5/8" GROUND ROD	EACH	34	\$8.64	\$293.89
773-90.22	BREAKAWAY FUSE HOLDER FOR EACH POLE MOUNT, HOMAC #SLK-M	EACH	142	\$23.50	\$3,379.60
773-90.23	FUSE FOR BREAKAWAY FUSE HOLDER, LITTLEFUSE #FLM9	EACH	142	\$7.22	\$1,025.60
773-90.24	PARALLEL BONDING CONNECTOR FOR POLE GROUNDS, ANDERSON #C-4-L OR EQUAL	EACH	34	\$6.86	\$233.11
773-90.25	SUBMERSIBLE SECONDARY CONNECTORS HOMAC RAB-4 OR CMC #SSBC350-4LI	EACH	68	\$26.19	\$1,780.92
773-90.26	ABOVE GRADE CONNECTOR FOR #12 CONDUCTOR, RED WIRE NUT	EACH	142	\$0.33	\$47.39
714-30.02	MISCELLANEOUS ACTIVITIES, SUCH AS SERVICES AND FEES FOR PERMITS, MOBILIZATION, AND SCHEDULING	LOT	1	\$2,943.93	\$2,943.93
714-30.01	AS-BUILT MARK-UPS	SET	1	\$448.87	\$448.87
<b>TOTAL ENGINEERING ESTIMATE</b>					<b>\$5,281,803.50</b>
<b>TOTAL ROADWAY ENGINEERING ESTIMATE</b>					<b>\$5,047,542.83</b>
<b>TOTAL LIGHTING ENGINEERING ESTIMATE</b>					<b>\$234,260.68</b>
<b>CONTINGENCY ALLOWANCE</b>			<b>5.00%</b>	<b>\$264,090.18</b>	
<b>TOTAL ROADWAY ENGINEERING ESTIMATE</b>					<b>\$5,545,893.68</b>



DATE 10/24/2012

WILLIAMSON COUNTY  
SOUTH CAROTHERS PARKWAY  
FROM: LONG LANE/TRUMAN DRIVE  
TO: CONNECTOR ROAD/OLD SOUTH CAROTHERS  
CITY OF FRANKLIN PROJECT # \_\_\_\_\_  
SULLIVAN ENGINEERING, INC PROJECT #12-005

Project Length  
1.05 L.M.

PROJECT QUANTITIES (COORDINATE WITH TABULATED DATA FOR ADDITIONAL FOOTNOTES)					
ITEM NO.	ITEM DESCRIPTION	UNIT	EST QTY.	UNIT PRICE	TOTAL PRICE
105-01	CONSTRUCTION STAKES LINES AND GRADES	L.S.	1	\$90,576.39	\$90,576.39
201-01	CLEARING AND GRUBBING	L.S.	1	\$196,791.94	\$196,791.94
202-01	REMOVAL OF STRUCTURES AND OBSTRUCTIONS (INCLUDES BUT NOT LIMITED TO ITEMS SUCH AS SIGNS, FLEXIBLE DELINEATORS, FENCES, CONCRETE CURBS, MAILBOXES AND ALL OTHER ITEMS WITHIN THE GRADING LIMITS UNLESS OTHERWISE NOTED.)	L.S.	1	\$22,582.57	\$22,582.57
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED, INCLUDES 25 C.Y. FOR CONSTRUCTION ENTRANCE)	C.Y.	94253	\$12.75	\$1,201,725.75
203-03	BORROW EXCAVATION (UNCLASSIFIED)	C.Y.	41969	\$7.07	\$296,720.83
203-04	PLACING & SPREADING TOPSOIL	C.Y.	8021	\$4.56	\$36,575.76
203-05	UNDERCUTTING (UNIT PRICE BIDS INCLUDES MINERAL AGGREGATE (SURGE STONE) BACKFILL)	C.Y.	9425	\$32.53	\$306,605.01
203-06	WATER	M.G.	1597	\$7.10	\$11,338.70
203-07	FURNISHING & SPREADING TOPSOIL	C.Y.	11170	\$17.23	\$192,459.10
204-07	BEDDING MATERIAL (PIPE) CLASS "B"	C.Y.	2630	\$29.36	\$77,216.80
209-05	SEDIMENT REMOVAL	C.Y.	1546	\$7.73	\$11,950.58
209-08.02	TEMPORARY SILT FENCE (WITH BACKING), (AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	L.F.	11060	\$3.71	\$41,032.60
209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING), (AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	L.F.	11060	\$1.16	\$12,829.60
209-08.07	ROCK CHECK DAM ("V-DITCH", 2'+/- DEPTH, OR AS DIRECTED BY THE ENGINEER, AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	EACH	28	\$359.83	\$10,075.24
209-09.03	SEDIMENT FILTER BAG (15' X 15')	EACH	10	\$529.64	\$5,296.40
209-40.41	CATCH BASIN FILTER ASSEMBLY (TYPE 1), (AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	EACH	7	\$387.20	\$2,710.40
209-40.46	CATCH BASIN FILTER ASSEMBLY (TYPE 6), (AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	EACH	98	\$406.70	\$39,856.60
209-40.47	CATCH BASIN FILTER ASSEMBLY (TYPE 7), (AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	EACH	13	\$660.00	\$8,580.00
209-65.03	TEMPORARY DIVERSION CHANNEL	L.F.	0	\$3.44	\$0.00
303-01	MINERAL AGGREGATE TYPE A BASE GRADING "D", (INCLUDES XXX TONS FOR STONE WEDGE)	TON	17571	\$17.13	\$300,991.23
307-02.02	ASPHALT CEMENT (PG70-22)(BPMB-HM) GRADING A-S	TON	132	\$857.10	\$113,137.20
307-02.03	AGGREGATE(BPMB-HM) GRADING AS	TON	3941	\$41.85	\$164,930.85
307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	TON	5205	\$67.55	\$351,597.75
307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	2557	\$75.48	\$193,002.36
402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC), (INCLUDES 15 TONS FOR MAINTENANCE OF TRAFFIC)	TON	81	\$700.74	\$56,759.94
402-02	AGGREGATE FOR COVER MATERIAL (PC), (INCLUDES 57 TONS FOR MAINTENANCE OF TRAFFIC)	TON	203	\$38.65	\$7,845.95

PROJECT QUANTITIES (COORDINATE WITH TABULATED DATA FOR ADDITIONAL FOOTNOTES)					
ITEM NO.	ITEM DESCRIPTION	UNIT	EST QTY.	UNIT PRICE	TOTAL PRICE
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC), (INCLUDES 1 TONS FOR MAINTENANCE OF TRAFFIC)	TON	31	\$684.68	\$21,225.08
411-02.10	ACS MIX(PG70-22) GRADING D	TON	3132	\$95.64	\$299,544.48
611-07.01	CLASS "A" CONCRETE (PIPE END WALLS)	C.Y.	41	\$1,279.74	\$52,469.34
611-07.02	STEEL BAR REINFORCEMENT (PIPE END WALLS)	LB.	3860	\$1.88	\$7,256.80
611-07.03	STRUCTURAL STEEL (PIPE END WALLS)	LB.	1820	\$5.17	\$9,409.40
611-12.01	CATCH BASINS, TYPE 12, DEPTH 0' - 4' (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	1	\$2,331.68	\$2,331.68
611-12.02	CATCH BASINS, TYPE 12, DEPTH 4' - 8' (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	95	\$2,690.46	\$255,593.70
611-12.03	CATCH BASINS, TYPE 12, DEPTH 8' - 12' (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	8	\$5,888.71	\$47,109.68
611-12.04	CATCH BASINS, TYPE 12, DEPTH 12+ (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	2	\$7,440.95	\$14,881.90
611-14.02	CATCH BASINS, TYPE 14, DEPTH 4' - 8' (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	11	\$7,237.09	\$79,607.99
611-42.01	CATCH BASINS, TYPE 42, DEPTH 0' - 4' (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL, CASTINGS, BRICK WORK AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION, QUANTITY INCLUDES 6 STRUCTURES TO BE COORDINATED WITH STREETScape PLANS PREPARED BY EG&G, INC.)	EACH	4	\$2,331.68	\$9,326.72
611-02.10	JUNCTION BOX, TYPE 1 (COMPLETE IN-PLACE, INCLUSIVE OF ALL EXCAVATION, BACKFILL AND APPURTENAMCES NECESSARY FOR A COMPLETE INSTALLATION)	EACH	3	\$3,133.89	\$9,401.67
701-01.01	CONCRETE SIDEWALK (4 "THICKNESS W/ FIBER MESH AND 6" AGGREGATE CLASS "A" GRADING "D" BASE)	S.F.	30415	\$4.23	\$128,655.45
701-02	CONCRETE DRIVEWAY (APPROACH APRON WITHIN RIGHT-OF-WAY, 8" THICKNESS W/ FIBER MESH AND 4" AGGREGATE CLASS "A" GRADING "D" BASE)	S.F.	5358	\$6.33	\$33,916.14
702-01.01	EXTRUDED MOUNTABLE CURB	L.F.	500	\$8.44	\$4,220.00
702-03	CONCRETE COMBINED CURB & GUTTER	C.Y.	715	\$167.20	\$119,548.00
705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	1200	\$17.62	\$21,144.00
705-04.01	GUARDRAIL TERMINAL ANCHOR (TYPE 11)	EACH	4	\$400.00	\$1,600.00
705-04.29	CRASH-CUSHION, NCHRP350 TC3	EACH	4	\$2,724.56	\$10,898.24
708-02.02	MARKERS (CITY OF FRANKLIN AS SHOWN ON THE DETAIL SHEET)	EACH	11	\$235.82	\$2,594.02
707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE, (INCLUDES 900 L.F. TO BE USED WITH EROSION CONTROL, UNIT PRICE BID INCLUDES COST OF ADJUSTMENTS NECESSARY AS THE CONSTRUCTION PHASES EVOLVE THROUGHOUT THE CONSTRUCTION PROJECT.)	L.F.	2150	\$2.38	\$5,117.00
709-05.05	MACHINED RIP-RAP (CLASS A-3), INCLUDES 200 TONS FOR CONSTRUCTION ENTRANCE, 00 TONS FOR CULVERT PROTECTION TYPE 1)	TON	200	\$35.17	\$7,034.00
709-05.09	MACHINED RIP-RAP (CLASS "C"),	TON	300	\$41.23	\$12,369.00
710-02	AGGREGATE UNDERDRAINS (WITH PIPE)	L.F.	14211	\$5.18	\$73,612.98
712-01	TRAFFIC CONTROL (UNIT PRICE BID INCLUDES INSTALLATION AND REMOVAL COST OF ALL TEMPORARY PAVEMENT MARKINGS INCLUSIVE OF TEMPORARY MARKINGS ON THE FINAL ASPHALT TOPPING. THIS ITEM SHALL ALSO INCLUDE ALL TRAFFIC CONTROL FOR INSTALLATION OF TRAFFIC SIGNALS AS NOTED ON THE DESIGN DOCUMENTS AS REQUIRED TO COMPLETE THE PROJECT.)	L.S.	1	\$33,023.07	\$33,023.07

PROJECT QUANTITIES (COORDINATE WITH TABULATED DATA FOR ADDITIONAL FOOTNOTES)					
ITEM NO.	ITEM DESCRIPTION	UNIT	EST QTY.	UNIT PRICE	TOTAL PRICE
712-04.10	28-INCH TEMPORARY FLEXIBLE TUBULAR DELINEATOR, (ESTIMATED QUANTITY IS BASED ON PHASE WHICH REQUIRES HIGHEST QUANTITY. UNIT PRICE BID INCLUDES COST OF ADJUSTMENTS NECESSARY AS THE CONSTRUCTION PHASES EVOLVE THROUGHOUT THE CONSTRUCTION PROJECT.)	EACH	60	\$50.00	\$3,000.00
712-05.01	WARNING LIGHTS (TYPE A)	EACH	0	\$32.62	\$0.00
712-06	SIGNS (CONSTRUCTION), (ESTIMATED QUANTITY IS BASED ON PHASE WHICH REQUIRES HIGHEST QUANTITY. UNIT PRICE BID INCLUDES COST OF ADJUSTMENTS NECESSARY AS THE CONSTRUCTION PHASES EVOLVE THROUGHOUT THE CONSTRUCTION PROJECT.)	S.F.	641	\$7.31	\$4,685.71
712-06.11	CONSTRUCTION IDENTIFICATION SIGNS	EACH	2	\$772.72	\$1,545.44
712-07.03	TEMPORARY BARRICADES (TYPE III), (UNIT PRICE BID INCLUDES SIGN (R11-2 AND TYPE "A" FLASHING LIGHTS, ESTIMATED QUANTITY IS BASED ON PHASE WHICH REQUIRES HIGHEST QUANTITY. UNIT PRICE BID INCLUDES COST OF ADJUSTMENTS NECESSARY AS THE CONSTRUCTION PHASES EVOLVE THROUGHOUT THE CONSTRUCTION PROJECT.)	L.F.	204	\$24.73	\$5,044.92
713-16.04	CHANGEABLE MESSAGE SIGN UNIT (MEETS MUTCD REQUIREMENTS FOR PORTABLE MESSAGE SIGNS, COORDINATE WITH PROJECT MANUAL. SHALL BE IN ACCORDANCE WITH SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL. AT COMPLETION OF THE PROJECT THE SIGNS SHALL BECOME PROPERTY OF THE CITY OF FRANKLIN STREET DEPARTMENT. THE SIGNS SHALL BE IN LIKE NEW CONDITION, PROPER WORKING ORDER WITH ALL FACTORY MANUALS. A WARRANTY SHALL BE CONVEYED TO THE CITY OF FRANKLIN AT THE COMPLETION OF THE PROJECT FOR A PERIOD EQUAL TO THAT OF THE ORIGINAL AS FURNISHED BY THE MANUFACTURER.)	EACH	2	\$11,000.00	\$22,000.00
713-16.40	SIGNS (STOP, R1-1, UNIT PRICE BID INCLUDES SQUARE TUBE PERFORATED POST (P8), COORDINATE WITH PAVEMENT MARKING AND SIGNING SHEETS AS MULTIPLE SIGNS MAY BE ATTACHED TO ONE POST)	EACH	3	\$146.43	\$439.29
713-16.41	SIGNS (SPEED LIMIT-35 MPH, R2-1, UNIT PRICE BID INCLUDES SQUARE TUBE PERFORATED POST (P8), COORDINATE WITH PAVEMENT MARKING AND SIGNING SHEETS AS MULTIPLE SIGNS MAY BE ATTACHED TO ONE POST)	EACH	4	\$146.43	\$585.72
713-16.57	SIGNS (BIKE, D11-1, UNIT PRICE BID INCLUDES SQUARE TUBE PERFORATED POST (P8), COORDINATE WITH PAVEMENT MARKING AND SIGNING SHEETS AS MULTIPLE SIGNS MAY BE ATTACHED TO ONE POST)	EACH	4	\$146.43	\$585.72
716-12.01	ENHANCED FLATLINE THERMO PAVEMENT MARKING (4" LINE, SSWL, SSYL, DSYL, SBYL & SBWL)	LIN. MI.	3.4	\$3,464.12	\$11,778.01
716-02.06	PLASTIC PAVEMENT MARKING TURN LANE ARROW (LEFT OR RIGHT)	EACH	4	\$169.29	\$677.16
716-02.09	PLASTIC PVMNT MARKING (LONGITUDINAL CROSS-WALK), (QUANTITY IS CALCULATED FROM FACE OF CURB TO FACE OF CURB)	L.F.	300	\$33.66	\$10,098.00
717-01	MOBILIZATION	L.S.	1	\$207,090.21	\$207,090.21
740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL), (INCLUDES 343 S.Y. FOR CONSTRUCTION ENTRANCE, 00 S.Y. FOR CULVERT PROTECTION TYPE 1)	S.Y.	343	\$3.05	\$1,046.15
740-11.03	TEMPORARY SEDIMENT TUBE 18 INCH (TO BE USED FOR EROSION CONTROL AS DIRECTED BY THE ENGINEER, AFTER THE INITIAL INSTALLATION ALL COST ASSOCIATED WITH REPAIR, MAINTENANCE AND REPLACEMENT DURING THE LIFE OF THIS CONTRACT SHALL BE AT THE CONTRACTORS EXPENSE.)	L.F.	300	\$4.11	\$1,233.00
801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	775	\$22.81	\$17,677.75
801-03	WATER (SEEDING & SODDING)	M.G.	845	\$8.70	\$7,351.50
803-01	SODDING (NEW SOD, INSTALLATION SHALL BE INSTALLED ON TOPSOIL. TOPSOIL SHALL HAVE A MINIMUM DEPTH OF 6 INCHES)	S.Y.	76767	\$2.77	\$212,644.59
	LIGHTING				

PROJECT QUANTITIES (COORDINATE WITH TABULATED DATA FOR ADDITIONAL FOOTNOTES)					
ITEM NO.	ITEM DESCRIPTION	UNIT	EST QTY.	UNIT PRICE	TOTAL PRICE
714-09.09	LUMINAIRE ((LIGHT EMITTING DIODE "LED" - COOPER #VSTB04LEDEUSL3BK47060AIS), W/6"± MOUNTING ARM A-BOLTS AND HARDWARE, (TO BE COORDINATED WITH PROJECT MANUAL FOR APPROVED PRODUCTS AND SPECIFICATIONS)	EACH	43	\$1,287.75	\$55,373.25
773-90.01	PHOTO CONTROL, RIPLEY LONGLIFE 6390L-BK MULTI-VOLT	EACH	43	\$48.93	\$2,103.94
773-90.06	SMALL PULL BOX, CDR#PA10-1324-18-0299, QUAZITE #PG2436ZS10MT, HIGHLINE #PHA243618SE1-32, 94 OLDCASTLE #243618PB7021	EACH	39	\$345.59	\$13,478.06
714-03.01	2" SCHEDULE 40 PVC, ELECTRICAL GRAY	L.F.	6275	\$4.65	\$29,178.75
714-03.02	2" SCHEDULE 40 PVC, STANDARD RADIUS ELBOW	EACH	160	\$25.15	\$4,024.00
714-03.04	3" SCHEDULE 80 PVC MIN 24" STANDARD RADIUS ELBOW	L.F.	8	\$23.51	\$188.08
714-08.09	SQUARE ALUMINUM LIGHTING POLE, 30', (BLACK, HAPCO #11-290-A5-D-30', ALUM POLE WITH BLACK ANODIZED FINISH, WITH A-BOLTS AND HARDWARE, OR APPROVED EQUAL)	EACH	31	\$1,707.85	\$52,943.35
	Round tapered Aluminum Lighting Pole, 30', with Single 6' Davit Arm, Black, Hapco # B41-176	EACH	3	\$1,900.00	\$5,700.00
714-08.28	FOUNDATION PREPERATION (INCLUSIVE OF ALL RELATED ITEMS FOR ROADWAY LIGHT STANDARDS, CAST IN PLACE FOUNDATION, 22" DIAMETER, 6'-6" DEPTH. THIS DOES NOT INCLUDE CLASS "A" CONCRETE OR REINFORCING STEEL)	EACH	43	\$637.63	\$27,418.09
714-08.43	FOUNDATION FOR ROADWAY LIGHT STANDARDS (CLASS "A" CONCRETE FOR STREET LIGHT FOUNDATIONS))	C.Y.	28	\$145.93	\$4,085.97
730-12.03	CONDUIT 3" DIAMETER (SCHEDULE 40 PVC, W/PULL STRING AND 2 @ 1" INNERDUCT SLEEVES, WITH #14 BARE COPPER LOCATE WIRE), (LOCATION TO BE COORDINATED WITH THE EXISTING FIBER OPTIC SYSTEM, HDPE MAY BE SUBSTITUTED FOR SCHEDULE 40 PVC.)	L.F.	215	\$6.68	\$1,436.20
	3" Schedule 80 PVC, Electrical Gray, Service Riser	EACH	80	\$12.00	\$960.00
773-90.07	NO. 2 REINFORCING STEEL BAR (FOR STREET LIGHT FOUNDATIONS)	L.F.	1290	\$0.60	\$775.61
773-90.08	NO. 4 REINFORCING STEEL BAR (FOR STREET LIGHT FOUNDATIONS)	L.F.	1290	\$0.77	\$986.85
773-90.09	MILBANK METERING PEDESTAL WITH SWITCHED LOAD CENTER, #CP3B1110A22SL1	EACH	2	\$2,400.00	\$4,800.00
773-90.11	RISER CONDUIT STAND-OFF BRACKET, NEHRWESS, BARFILED OR ALUMAFORM	EACH	6	\$124.11	\$744.66
773-90.14	CUTLER HAMMER #BR230, 2-POLE, 30AMP BREAKER	EACH	5	\$20.00	\$100.00
303-10.04	MINERAL AGGREGATE (1/2" GRAVEL FOR SECONDARY BOX INSTALLATION)	C.Y.	56	\$49.81	\$2,789.36
773-90.15	#12 SOLID TYPE UF-B FOR LIGHT POST RISERS	L.F.	4440	\$0.50	\$2,208.90
773-90.17	#6 BARE SOFT DRAWN COPER FOR LIGHT POST GROUNDING	L.F.	310	\$0.58	\$179.80
773-90.18	#8 COPPER, THHN OR THWN, INCLUDES TWO (2) CIRCUIT CONDUCTORS	L.F.	13805	\$0.87	\$11,941.33
773-90.16	#10 COPPER, THHN OR THWN, GREEN, GROUND/GROUNDING CONDUCTOR	L.F.	6903	\$0.57	\$3,960.60
773-90.20	8' GROUND ROD, 5/8" COPPER-CLAD STEEL, EQUAL TO BLACKBURN #6258	EACH	31	\$55.36	\$1,716.24
773-90.21	GROUND BONDING CLAMP FOR 5/8" GROUND ROD	EACH	31	\$8.64	\$267.96
773-90.22	BREAKAWAY FUSE HOLDER FOR EACH POLE MOUNT, HOMAC #SLK-M	EACH	148	\$23.80	\$3,522.40
773-90.23	FUSE FOR BREAKAWAY FUSE HOLDER, LITTLEFUSE #FLM9	EACH	148	\$7.22	\$1,068.93
773-90.24	PARALLEL BONDING CONNECTOR FOR POLE GROUNDS, ANDERSON #C-4L OR EQUAL	EACH	31	\$6.86	\$212.54
773-90.25	SUBMERSIBLE SECONDARY CONNECTORS HOMAC RAB-4 OR CMC #SSBC350-4LI	EACH	62	\$26.19	\$1,623.78
773-90.26	ABOVE GRADE CONNECTOR FOR #12 CONDUCTOR, RED WIRE NUT	EACH	148	\$0.33	\$49.40
714-30.02	MISCELLANEOUS ACTIVITIES, SUCH AS SERVICES AND FEES FOR PERMITS, MOBILIZATION, AND SCHEDULING	LOT	1	\$2,943.93	\$2,943.93
714-30.01	AS-BUILT MARK-UPS	SET	1	\$448.87	\$448.87
	<b>BRIDGE</b>				
204-02.01	DRY EXCAVATION (BRIDGES)	CY	173	\$18.24	\$3,155.52
204-02.10	DRILLED CAISSON - EARTH (54" DIA.)	LF	66	\$402.00	\$26,532.00
204-02.20	DRILLED CAISSON - ROCK (48" DIA.)	LF	36	\$1,051.20	\$37,843.20
204-05	ROCK DRILLING (BRIDGES)	LF	48	\$22.77	\$1,092.96
303-01.02	GRANULAR BACKFILL (BRIDGES)	TON	30	\$43.32	\$1,299.60



PROJECT QUANTITIES (COORDINATE WITH TABULATED DATA FOR ADDITIONAL FOOTNOTES)					
ITEM NO.	ITEM DESCRIPTION	UNIT	EST QTY.	UNIT PRICE	TOTAL PRICE
604-02.03	EPOXY COATED REINFORCING STEEL	LB	135408	\$1.01	\$136,762.08
604-03.01	CLASS A CONCRETE (BRIDGES)	CY	346	\$383.00	\$132,518.00
604-03.02	STEEL BAR REINFORCEMENT (BRIDGES)	LB	48302	\$0.88	\$42,505.76
604-03.04	PAVEMENT AT BRIDGE ENDS	SY	188	\$184.64	\$34,712.32
604-03.35	CLASS L CONCRETE (BRIDGE DECK)	CY	550	\$370.13	\$203,571.50
604-04	CONCRETE STAINING	SY	589	\$67.52	\$39,769.28
604-04.01	APPLIED TEXTURE FINISH (NEW STRUCTURES)	SY	1839	\$6.75	\$12,413.25
604-05.31	BRIDGE DECK GROOVING (MECHANICAL)	SY	1352	\$2.17	\$2,933.84
606-02.03	STEEL PILES (10-INCH)	LF	327	\$42.17	\$13,789.59
606-02.06	PILE TIPS (STEEL PILES, 10-INCH)	EA	22	\$102.07	\$2,245.54
615-01.12	PRESTRESSED CONCRETE BULB TEE BEAM (6" WEB)(BT-72)	LF	2059	\$230.40	\$474,393.60
620-03.11	CONCRETE PARAPET (MODIFIED STD-11-1)	LF	454	\$275.60	\$125,122.40
620-03.12	CONCRETE PARAPET (CONCRETE POSTS WITH STRUCTURAL TUBING)	LF	454	\$243.80	\$110,685.20
620-03.13	CONCRETE PARAPET (CURB MOUNTED BARRIER RAIL)	LF	468	\$318.00	\$148,824.00
710-09.01	6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	LF	131	\$20.90	\$2,737.90
710-09.02	6" PIPE UNDERDRAIN	LF	38	\$11.10	\$421.80
714-01.01	STRUCTURAL LIGHTING	LS	1	\$10,000.00	\$10,000.00
920-10	ROCK CORES (2" DIA.)	LF	55	\$33.54	\$1,844.70

SWUB-TOTAL ENGINEERING ESTIMATE

\$7,324,967.93

TOTAL ROADWAY ENGINEERING ESTIMATE

\$5,522,563.06

TOTAL LIGHTING ENGINEERING ESTIMATE

\$237,230.83

TOTAL BRIDGE ENGINEERING ESTIMATE

\$1,565,174.04

CONTINGENCY ALLOWANCE

5.00%

\$366,248.40

TOTAL ROADWAY ENGINEERING ESTIMATE

\$7,691,216.32