

MEMORANDUM

To: Mayor and City Council

From: Michael Smith, Public Works Director

Date: February 12, 2017

Subject: **Approval of a Construction Contract for the Dunwoody Intelligent Transportation System Expansion**

ITEM DESCRIPTION

Approval of a construction contract in the amount of \$1,505,982 with Carlson Construction for the Dunwoody Intelligent Transportation System (ITS) Expansion Project.

BACKGROUND

This project to improve signal communication and efficiency was recommended as a high priority project in the city's transportation plan. The construction will expand the fiber optic signal communications and closed circuit camera system currently prevalent in the Perimeter Community Improvement District (PCID) to other areas in Dunwoody (see map on following page). Upon completion of the project the city will be able to remotely access and adjust all of the signals on Mount Vernon Road, North Shallowford Road and North Peachtree Road as well as all signals from Roberts Drive south on Chamblee Dunwoody Road. Of the 60 traffic signals the city maintains all but 5 will be on line and accessible from the traffic control center at the new city hall.

Several items of the project scope were moved from the base bid to three add alternates to provide flexibility in the event that bid prices came in higher than projected. Invitation to bid 17-06 was advertised in the fall of 2017 and 4 bids were received. The bid package including engineering plans can be found on the city website at:

http://dunwoodyga.gov/index.php?section=for_businesses_doing_business_with_the_city_a_warded_opportunities&docid=149.

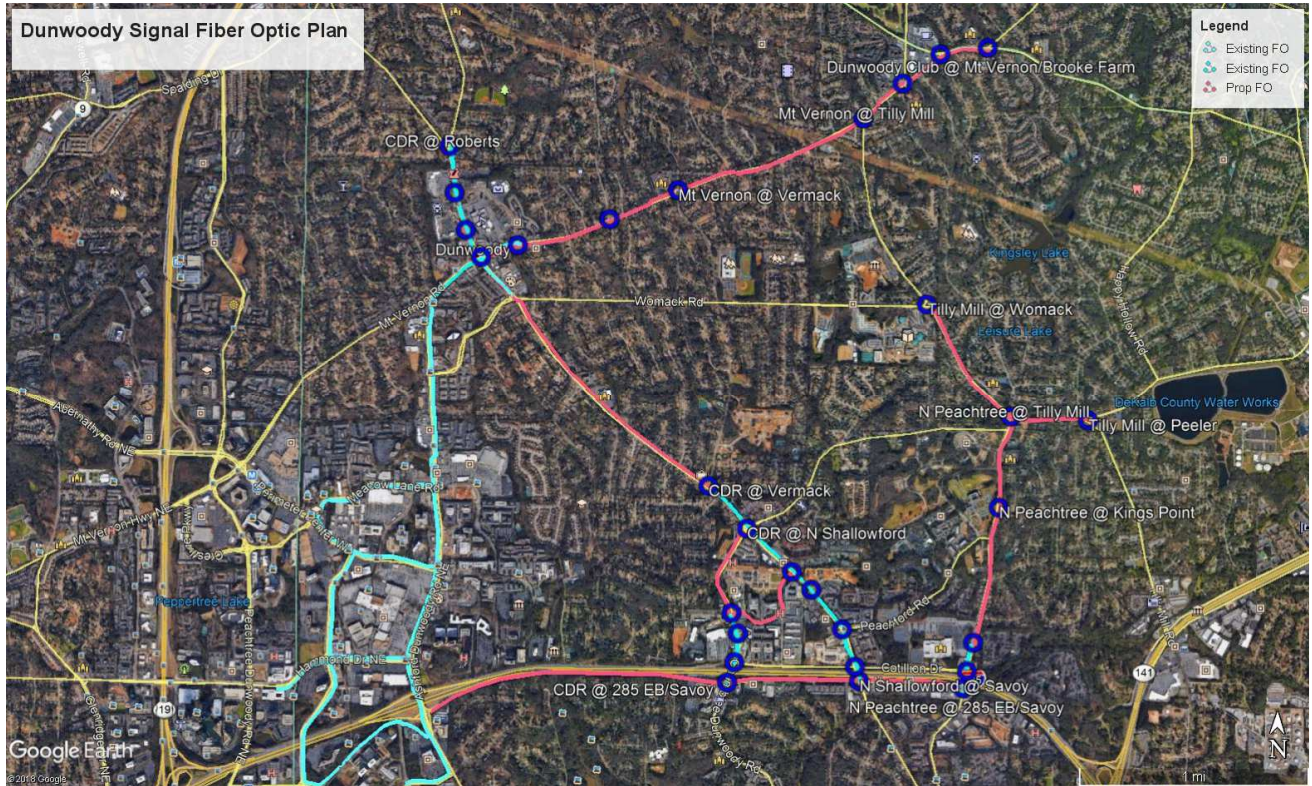
As shown on the attached bid tabulation, Carlson Construction submitted a low bid, including the three alternate bid items, of \$1,505,340.50.

FUNDING

The city has \$1,796,338 available for this project including \$1,204,273.40 in federal funds as outlined in the construction agreement included as a separate agenda item. The \$1,505,340.50 bid including alternates plus contingency and construction management costs is under the budgeted amount.

RECOMMENDED ACTION

Staff recommends that Council: (1) award Purchasing Contract ITB 17-06 to Carlson Construction; (2) authorize staff to provide funding for the construction, plus a 10% contingency; and (3) authorize the City Manager to execute the necessary documents following satisfactory review by legal counsel.



CITY OF DUNWOODY ITS EXPANSION															
P.I. No. 0013139															
KIMLEY-HORN CES, (1/23/2017)					CARLSON CONSTRUCTION					RJ HAYNIE & ASSOCIATES					
CES Base Bid Total					Base Bid Total					Base Bid Total					
\$1,173,067.79					\$1,286,981.75					\$1,440,183.00					
CES BASE BID PLUS ALT 1-3					CARLSON BASE BID PLUS ALT 1-3					RJ HAINIEY BASE BID PLUS ALT 1-3					
\$1,372,647.54					\$1,505,340.50					\$1,649,469.75					
BID ITEM NO.	DESCRIPTION	UNIT COST	U/M	QTY	TOTAL	UNIT COST	U/M	QTY	TOTAL	UNIT COST	U/M	QTY	TOTAL		
150-1000	Traffic Control	\$21,000.00	LS	1	\$21,000.00	\$86,750.00	LS	LUMP	\$86,750.00	\$137,950.00	LS	LUMP	\$137,950.00		
210-1000	Grading Complete					\$3,000.00	LS	LUMP	\$3,000.00	\$28,750.00	LS	LUMP	\$28,750.00		
EROSION CONTROL															
163-0529	Constr/Rem Temp Sed Barrier or Straw CD	\$4.30	LF	1,700	\$7,318.62	\$1.00	LF	1,700	\$1,700.00	\$1.50	LF	1700	\$2,550.00		
165-0030	Maint Temp Silt Fence - TP C	\$1.10	LF	910	\$1,002.90	\$0.75	LF	910	\$682.50	\$0.25	LF	910	\$227.50		
165-0071	Maint Sed. Barr - B Straw	\$1.32	LF	1,105	\$1,461.69	\$1.00	LF	1,105	\$1,105.00	\$0.30	LF	1105	\$331.50		
171-0030	Temp Silt Fence, Type C	\$3.33	LF	1,400	\$4,670.99	\$3.00	LF	1,400	\$4,200.00	\$0.75	LF	1400	\$1,050.00		
643-8200	Barrier Fence (Orange), 4 FT	\$1.52	LF	700	\$1,067.87	\$1.50	LF	620	\$930.00	\$1.25	LF	620	\$775.00		
700-6910	Permanent Grassing	\$933.08	ACRE	0.10	\$93.31	\$2,500.00	AC	0.100	\$250.00	\$1,050.00	AC	0.1	\$105.00		
SIGNING/MARKING /SIGNALS															
647-1000	Traffic Signal install No. 1	\$18,353.50	LS	1	\$18,353.50	\$21,400.00	LS	LUMP	\$21,400.00	\$25,240.00	LS	LUMP	\$25,240.00		
647-1000	Traffic Signal Install No. 2	\$18,353.50	LS	1	\$18,353.50	\$21,400.00	LS	LUMP	\$21,400.00	\$25,240.00	LS	LUMP	\$25,240.00		
647-1000	Traffic Signal Install No. 3	\$18,353.50	LS	1	\$18,353.50	\$21,400.00	LS	LUMP	\$21,400.00	\$25,240.00	LS	LUMP	\$25,240.00		
647-1000	Traffic Signal Install No. 4	\$18,353.50	LS	1	\$18,353.50	\$21,400.00	LS	LUMP	\$21,400.00	\$25,240.00	LS	LUMP	\$25,240.00		
647-1000	Traffic Signal Install No. 5	\$18,353.50	LS	1	\$18,353.50	\$23,550.00	LS	LUMP	\$23,550.00	\$28,285.00	LS	LUMP	\$28,285.00		
647-2160	Pullbox, PB-6	\$1,353.17	EA	70	\$94,722.41	\$1,250.00	EA	70	\$87,500.00	\$1,265.00	EA	70	\$88,550.00		
647-2170	Pullbox, PB-7	\$1,582.52	EA	15	\$23,737.83	\$1,350.00	EA	15	\$20,250.00	\$1,375.00	EA	15	\$20,625.00		
682-6120	Cond, Rigid, 2" with Weather head on Existing Wood Pole	\$12.12	LF	210	\$2,547.05	\$19.50	LF	120	\$2,340.00	\$16.00	LF	120	\$1,920.00		
682-6120	Cond, Rigid, 2" with Weather head on Existing Strain Pole	\$13.30	LF	30	\$399.11	\$19.50	LF	30	\$585.00	\$20.00	LF	30	\$600.00		
682-6222	Conduit, Nonmetl., TP 2, 2"	\$8.36	LF	425	\$3,555.13	\$8.00	LF	425	\$3,400.00	\$12.50	LF	425	\$5,312.50		
682-6233	Conduit, Nonmetl., TP 3, 2"	\$1.50	LF	66,970	\$100,455.00	\$8.00	LF	66,970	\$535,760.00	\$8.00	LF	66,970	\$535,760.00		
682-9950	Directional Bore - 5"	\$17.00	LF	33,465	\$568,905.00	\$5.00	LF	33,465	\$167,325.00	\$5.00	LF	33,465	\$167,325.00		
935-1116	OSP F/O Cable, Loose Tube, Single Mode, 72 Fiber	\$1.00	LF	69,245	\$69,245.00	\$1.65	LF	69,245	\$114,254.25	\$2.10	LF	69,245	\$145,414.50		
935-1512	OSP F/O Cable, Drop, Single Mode, 12 Fiber	\$0.75	LF	2,520	\$1,890.00	\$1.25	LF	2,520	\$3,150.00	\$1.85	LF	2,520	\$4,662.00		
935-3106	F/O Closure, U/G, 72 Fiber	\$250.00	EA	15	\$3,750.00	\$750.00	EA	15	\$11,250.00	\$940.00	EA	15	\$14,100.00		
935-3108	F/O Closure, U/G, 144 Fiber	\$777.88	EA	1	\$777.88	\$750.00	EA	1	\$750.00	\$940.00	EA	1	\$940.00		
935-3402	F/O Closure, FDC (Rack-Mtd), 12 Fiber	\$750.00	EA	17	\$12,750.00	\$450.00	EA	17	\$7,650.00	\$830.00	EA	17	\$14,110.00		
935-4010	Fiber Optic Splice, Fusion	\$8.25	EA	794	\$6,550.50	\$25.00	EA	794	\$19,850.00	\$40.00	EA	794	\$31,760.00		
936-1000	CCTV System	\$5,200.00	EA	18	\$93,600.00	\$4,950.00	EA	14	\$69,300.00	\$3,800.00	EA	14	\$53,200.00		
939-2237	GBIC, Type D (LX)	\$350.00	EA	38	\$13,300.00	\$100.00	EA	38	\$3,800.00	\$350.00	EA	38	\$13,300.00		
939-2300	Field Switch, Type A	\$1,500.00	EA	19	\$28,500.00	\$1,450.00	EA	19	\$27,550.00	\$1,930.00	EA	19	\$36,670.00		
940-1000	Navigator Integration	\$20,000.00	LS	1	\$20,000.00	\$4,500.00	LS	LUMP	\$4,500.00	\$4,950.00	LS	LUMP	\$4,950.00		
					\$1,173,067.79						\$1,286,981.75				
DBE GOAL (8%)						CARLSON CONSTR						CARLSON CONSTR (F/O CABLE INSTALL)			
						DBE %						GT 95%			
												DBE %			
												15.38%			

- 355 -

CITY OF DUNWOODY ITS EXPANSION															
P.I. No. 0013139															
KIMLEY-HORN CES, (1/23/2017)					CARLSON CONSTRUCTION					RJ HAYNIE & ASSOCIATES					
CES Base Bid Total					Base Bid Total					Base Bid Total					
\$1,173,067.79					\$1,286,981.75					\$1,440,183.00					
CES BASE BID PLUS ALT 1-3					CARLSON BASE BID PLUS ALT 1-3					RJ HAYNIE BASE BID PLUS ALT 1-3					
\$1,372,647.54					\$1,505,340.50					\$1,649,469.75					
BID ITEM NO.	DESCRIPTION	UNIT COST	U/M	QTY	TOTAL	UNIT COST	U/M	QTY	TOTAL	UNIT COST	U/M	QTY	TOTAL		
ALTERNATE #1 (TILLY MILL SECTION)															
647-2160	Pullbox, PB-6	\$350.00	EA	7	\$2,450.00	\$1,150.00	EA	7	\$8,050.00	\$1,265.00	EA	7	\$8,855.00		
647-2170	Pullbox, PB-7	\$450.00	EA	1	\$450.00	\$1,250.00	EA	1	\$1,250.00	\$1,375.00	EA	1	\$1,375.00		
682-6233	Conduit, Nonmetl., TP 3, 2"	\$1.50	LF	6,460	\$9,690.00	\$8.00	LF	6,460	\$51,680.00	\$8.00	LF	6460	\$51,680.00		
682-9950	Directional Bore - 5"	\$17.00	LF	3,230	\$54,910.00	\$5.00	LF	3,230	\$16,150.00	\$5.00	LF	3230	\$16,150.00		
935-1116	OSP F/O Cable, Loose Tube, SM, 72 Fiber	\$1.00	LF	4,110	\$4,110.00	\$1.65	LF	4,110	\$6,781.50	\$2.10	LF	4110	\$8,631.00		
935-1512	OSP F/O Cable, Drop, SM, 12 Fiber	\$0.75	LF	55	\$41.25	\$1.25	LF	55	\$68.75	\$1.85	LF	55	\$101.75		
935-3106	F/O Closure, U/G, 72 Fiber	\$250.00	EA	1	\$250.00	\$750.00	EA	1	\$750.00	\$940.00	EA	1	\$940.00		
935-3402	F/O Closure, FDC (Rack-Mtd), 12 Fiber	\$750.00	EA	1	\$750.00	\$450.00	EA	1	\$450.00	\$940.00	EA	1	\$940.00		
935-4010	Fiber Optic Splice, Fusion	\$8.25	EA	4	\$33.00	\$25.00	EA	4	\$100.00	\$40.00	EA	4	\$160.00		
939-2237	GBIC, Type D (LX)	\$350.00	EA	2	\$700.00	\$100.00	EA	2	\$200.00	\$350.00	EA	2	\$700.00		
969-2300	Field Switch, Type A	\$1,500.00	EA	1	\$1,500.00	\$1,450.00	EA	1	\$1,450.00	\$1,930.00	EA	1	\$1,930.00		
					\$74,884.25						\$86,930.25				
ALTERNATE #2 (DUNWOODY PARK SECTION)															
647-2160	Pullbox, PB-6	\$350.00	EA	7	\$2,450.00	\$1,150.00	EA	7	\$8,050.00	\$1,265.00	EA	7	\$8,855.00		
682-6233	Conduit, Nonmetl., TP 3, 2"	\$1.50	LF	4,600	\$6,900.00	\$8.00	LF	4,600	\$36,800.00	\$8.00	LF	4600	\$36,800.00		
682-9950	Directional Bore - 5"	\$17.00	LF	2,300	\$39,100.00	\$5.00	LF	2,300	\$11,500.00	\$5.00	LF	2300	\$11,500.00		
935-1116	OSP F/O Cable, Loose Tube, SM, 72 Fiber	\$1.00	LF	3,290	\$3,290.00	\$1.65	LF	3,290	\$5,428.50	\$2.10	LF	3290	\$6,909.00		
935-4010	Fiber Optic Splice, Fusion	\$8.25	EA	14	\$155.50	\$25.00	EA	14	\$350.00	\$40.00	EA	14	\$560.00		
					\$51,895.50						\$62,128.50				
ALTERNATE #3															
936-1000	CCTV System	\$5,200.00	EA	14	\$72,800.00	\$4,950.00	EA	14	\$69,300.00	\$3,800.00	EA	14	\$53,200.00		
					\$72,800.00						\$69,300.00				
					\$199,579.75						\$218,358.75				
SUBTOTAL, ADD ALTERNATES 1-3					\$199,579.75						\$218,358.75				

-356-

BROOKS BERRY HAYNIE & ASSOC						AMERICAN LIGHTING & SIGNAL				
Base Bid Total						Base Bid Total				
\$1,558,247.85						\$1,333,072.71				
BBH BASE BID PLUS ALT 1-3						ALS BASE BID PLUS ALT 1-3				
\$1,784,178.85						\$1,580,568.00				
BID ITEM NO.	DESCRIPTION	UNIT COST	U/M	QTY	TOTAL	UNIT COST	U/M	QTY	TOTAL	
150-1000	Traffic Control	\$148,670.00	LS	LUMP	\$148,670.00	\$49,877.26	LS	LUMP	\$49,877.26	
210-1000	Grading Complete	\$91,000.00	LS	LUMP	\$91,000.00	\$36,328.88	LS	LUMP	\$36,328.88	
EROSION CONTROL										
163-0529	Constr/Rem Temp Sed Barrier or Straw CD	\$5.00	LF	1700	\$8,500.00	\$11.58	LF	1700	\$19,686.00	
165-0030	Maint Temp Silt Fence - TP C	\$0.85	LF	910	\$773.50	\$7.22	LF	910	\$6,570.20	
165-0071	Maint Sed. Barr - B Straw	\$1.90	LF	1105	\$2,099.50	\$7.22	LF	1105	\$7,978.10	
171-0030	Temp Silt Fence, Type C	\$3.25	LF	1400	\$4,550.00	\$7.34	LF	1400	\$10,276.00	
643-8200	Barrier Fence (Orange), 4 FT	\$1.60	LF	620	\$992.00	\$9.15	LF	620	\$5,673.00	
700-6910	Permanent Grassing	\$1,700.00	AC	0.1	\$170.00	\$2,422.70	AC	0.1	\$242.27	
SIGNING/MARKING /SIGNALS										
647-1000	Traffic Signal install No. 1	\$23,200.00	LS	LUMP	\$23,200.00	\$17,403.39	LS	LUMP	\$17,403.39	
647-1000	Traffic Signal Install No. 2	\$23,200.00	LS	LUMP	\$23,200.00	\$17,403.39	LS	LUMP	\$17,403.39	
647-1000	Traffic Signal Install No. 3	\$23,200.00	LS	LUMP	\$23,200.00	\$17,403.39	LS	LUMP	\$17,403.39	
647-1000	Traffic Signal Install No. 4	\$23,200.00	LS	LUMP	\$23,200.00	\$17,403.39	LS	LUMP	\$17,403.39	
647-1000	Traffic Signal Install No. 5	\$23,200.00	LS	LUMP	\$23,200.00	\$17,971.60	LS	LUMP	\$17,971.60	
647-2160	Pullbox, PB-6	\$1,380.00	EA	70	\$96,600.00	\$975.10	EA	70	\$68,257.00	
647-2170	Pullbox, PB-7	\$1,500.00	EA	15	\$22,500.00	\$1,720.99	EA	15	\$25,814.85	
682-6120	Cond, Rigid, 2" with Weather head on Existing Wood Pole	\$17.40	LF	120	\$2,088.00	\$15.72	LF	120	\$1,886.40	
682-6120	Cond, Rigid, 2" with Weather head on Existing Strain Pole	\$26.87	LF	30	\$806.10	\$16.33	LF	30	\$489.90	
682-6222	Conduit, Nonmetl., TP 2, 2"	\$10.35	LF	425	\$4,347.00	\$6.83	LF	425	\$2,902.75	
682-6233	Conduit, Nonmetl., TP 3, 2"	\$8.00	LF	66970	\$535,760.00	\$1.88	LF	66970	\$125,903.60	
682-9950	Directional Bore - 5"	\$8.50	LF	33465	\$284,452.50	\$14.86	LF	33465	\$497,289.90	
935-1116	OSP F/O Cable, Loose Tube, Single Mode, 72 Fiber	\$1.45	LF	69245	\$100,405.25	\$2.13	LF	69245	\$147,491.85	
935-1512	OSP F/O Cable, Drop, Single Mode, 12 Fiber	\$1.20	LF	2520	\$3,024.00	\$1.87	LF	2520	\$4,712.40	
935-3106	F/O Closure, U/G, 72 Fiber	\$650.00	EA	15	\$9,750.00	\$968.02	EA	15	\$14,520.30	
935-3108	F/O Closure, U/G, 144 Fiber	\$650.00	EA	1	\$650.00	\$968.02	EA	1	\$968.02	
935-3402	F/O Closure, FDC (Rack-Mtd), 12 Fiber	\$400.00	EA	17	\$6,800.00	\$854.14	EA	17	\$14,520.38	
935-4010	Fiber Optic Splice, Fusion	\$20.00	EA	794	\$15,880.00	\$39.82	EA	794	\$31,617.08	
936-1000	CCTV System	\$3,950.00	EA	14	\$55,300.00	\$7,593.33	EA	14	\$106,306.62	
939-2237	GBIC, Type D (LX)	\$110.00	EA	38	\$4,180.00	\$209.12	EA	38	\$7,946.56	
939-2300	Field Switch, Type A	\$1,650.00	EA	19	\$31,350.00	\$2,756.00	EA	19	\$52,364.00	
940-1000	Navigator Integration	\$11,600.00	LS	LUMP	\$11,600.00	\$5,864.23	LS	LUMP	\$5,864.23	
					\$1,558,247.85					
DBE GOAL (8%)		GC ELECTR. SOLUTIONS (ATMS EQPT)			\$237,900.00	CARLSON CONSTR (F/O CABLE INSTALL)		\$250,151.25		
		DBE %			15.27%	DBE %			18.77%	

- 357 -

BROOKS BERRY HAYNIE & ASSOC						AMERICAN LIGHTING & SIGNAL				
Base Bid Total						Base Bid Total				
\$1,558,247.85						\$1,333,072.71				
BBH BASE BID PLUS ALT 1-3						ALS BASE BID PLUS ALT 1-3				
\$1,784,178.85						\$1,580,568.00				
BID ITEM NO.	DESCRIPTION	UNIT COST	U/M	QTY	TOTAL	UNIT COST	U/M	QTY	TOTAL	
ALTERNATE #1 (TILLY MILL SECTION)										
647-2160	Pullbox, PB-6	\$1,380.00	EA	7	\$9,660.00	\$990.46	EA	7	\$6,933.22	
647-2170	Pullbox, PB-7	\$1,500.00	EA	1	\$1,500.00	\$1,809.04	EA	1	\$1,809.04	
682-6233	Conduit, Nonmetl., TP 3, 2"	\$8.00	LF	6460	\$51,680.00	\$1.87	LF	6460	\$12,080.20	
682-9950	Directional Bore - 5"	\$8.50	LF	3230	\$27,455.00	\$15.00	LF	3230	\$48,450.00	
935-1116	OSP F/O Cable, Loose Tube, SM, 72 Fiber	\$1.45	LF	4110	\$5,959.50	\$2.09	LF	4110	\$8,589.90	
935-1512	OSP F/O Cable, Drop, SM, 12 Fiber	\$1.20	LF	55	\$66.00	\$1.87	LF	55	\$102.85	
935-3106	F/O Closure, U/G, 72 Fiber	\$650.00	EA	1	\$650.00	\$968.02	EA	1	\$968.02	
935-3402	F/O Closure, FDC (Rack-Mtd), 12 Fiber	\$650.00	EA	1	\$650.00	\$968.02	EA	1	\$968.02	
935-4010	Fiber Optic Splice, Fusion	\$20.00	EA	4	\$80.00	\$39.82	EA	4	\$159.28	
939-2237	GBIC, Type D (LX)	\$110.00	EA	2	\$220.00	\$209.56	EA	2	\$419.12	
969-2300	Field Switch, Type A	\$1,650.00	EA	1	\$1,650.00	\$2,759.52	EA	1	\$2,759.52	
					\$99,570.50					
						\$83,239.17				
ALTERNATE #2 (DUNWOODY PARK SECTION)										
647-2160	Pullbox, PB-6	\$1,380.00	EA	7	\$9,660.00	\$990.46	EA	7	\$6,933.22	
682-6233	Conduit, Nonmetl., TP 3, 2"	\$8.00	LF	4600	\$36,800.00	\$1.87	LF	4600	\$8,602.00	
682-9950	Directional Bore - 5"	\$8.50	LF	2300	\$19,550.00	\$15.09	LF	2300	\$34,707.00	
935-1116	OSP F/O Cable, Loose Tube, SM, 72 Fiber	\$1.45	LF	3290	\$4,770.50	\$2.09	LF	3290	\$6,876.10	
935-4010	Fiber Optic Splice, Fusion	\$20.00	EA	14	\$280.00	\$39.82	EA	14	\$557.48	
					\$71,060.50					
						\$57,675.80				
ALTERNATE #3										
936-1000	CCTV System	\$3,950.00	EA	14	\$55,300.00	\$7,612.88	EA	14	\$106,580.32	
					\$55,300.00					
						\$106,580.32				
					\$225,931.00					
						\$247,495.29				

-358-