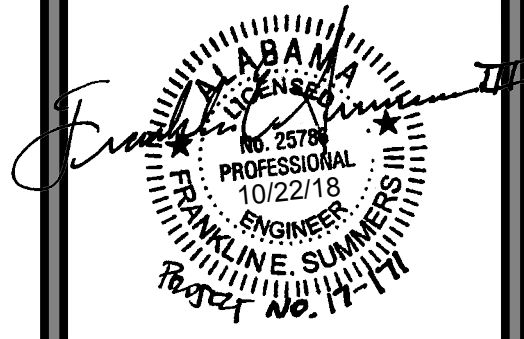




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**LURLEEN WALLACE BLVD
MATERIALS BID PACKAGE**
CITY OF TUSCALOOSA
2201 UNIVERSITY BLVD
TUSCALOOSA, AL



BID SCHEDULE AND NOTES

No.	Date	Revision Description
1	10/08/18	Revision Notes
2	10/12/18	Revised Model Numbers and Notes
3	10/23/18	Revised Notes

Drawn By: D H T
Date: 07/27/18
Proj. No.: 17-171
File Name: 17171_Bid_Sheet_C1.0.1_Details.dwg

Sheet No.
C1.1

****37 ft Traffic Signal Poles**

	20ft Mast Arm	25ft Mast Arm	30ft Mast Arm	35ft Mast Arm	40ft Mast Arm	50ft Mast Arm	30ft & 50ft Mast Arm	30ft & 55ft Mast Arm	30ft & 60ft Mast Arm	35ft & 40ft Mast Arm	35ft & 45ft Mast Arm	35ft & 50ft Mast Arm	40ft & 45ft Mast Arm	40ft & 50ft Mast Arm	40ft & 55ft Mast Arm	45ft & 45ft Mast Arm	50ft & 50ft Mast Arm	50ft & 55ft Mast Arm	6' Luminaire* Extension (Fixture "T")	Luminaire* Assembly
Total	5	3	2	4	1	2	1	1	1	1	3	1	1	1	1	2	1	1	32	32

Street Signs

	12th Street	11th Street	Paul W. Bryant Dr	Stillman Blvd	8th Street	7th Street	6th Street	University Blvd	Lurleen B. Wallace Blvd N	Lurleen B. Wallace Blvd S
Total	2	2	2	2	2	2	2	2	16	15

****Light Poles**

	30ft Pole With 6ft & 3ft Luminaire Extension Arms (Fixture "A")	16ft Pole With 3ft Luminaire Extension Arm (Fixture "B")	20ft Pole With 6ft Luminaire Extension Arm (Fixture "D")	20ft Pole With Dual 6ft Luminaire Extension Arms (Fixture "E")	Luminaire* Assembly
Total	42	72	4	1	162

****Pedestrian Poles**

	4ft Pedestrian Push Button Pole	10ft Pedestrian Signal Pole
Total	11	73

GENERAL NOTES:

- THE SERVICE VOLTAGE TO THE NEW AND THE EXISTING LIGHTING CONTROLLERS IS 120/208 VOLTS, 3 PHASE, 4 WIRE.
- COMPLY WITH THE NATIONAL ELECTRIC CODE (VERIFY THE EDITION ADOPTED BY THE AUTHORITY HAVING JURISDICTION), STATE AND LOCAL CODES.
- THE LOCATION OF OUTLETS, FIXTURES, AND EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE, OFFSET AS REQUIRED OR AS REQUESTED BY THE OWNER. THE OWNER SHALL HAVE THE RIGHT TO RELOCATE ANY EQUIPMENT OR FIXTURES BEFORE THEY ARE INSTALLED WITHOUT ANY ADDITIONAL COST.
- UPON APPROVAL OF ALL SHOP DRAWINGS, THE MANUFACTURER SHALL SUPPLY ALL ANCHOR BOLTS FOR EACH POLE AND ANY NECESSARY TEMPLATES IN ADVANCE FOR POLE ANCHOR FORMING AND INSTALLATION.
- SHOP DRAWINGS SHALL BE PROVIDED FOR ALL MATERIALS IN ADVANCE FOR OWNER REVIEW. THE OWNER SHALL SIGN SHOP DRAWINGS FOR COLOR AND LOGO APPROVING BASED ON THEIR CURRENT PREFERENCE.
- ALL SIGNAL POLES SHALL BE MANUFACTURED BY UNION METAL, VALMONT, OR APPROVED EQUAL. ALL DECORATIVE METAL POLES SHALL MATCH THE FLUTED, DECORATIVE DESIGN CITY Poles FOUND THROUGHOUT THE DOWNTOWN TUSCALOOSA AREA. ANY SUBSTITUTES SHALL BE APPROVED BY THE OWNER IN ADVANCE.
- ANCHORAGE FOR EACH POLE SHALL BE A MINIMUM OF 4 STEEL ANCHORAGE BOLTS, COMPLETE WITH DOUBLE HEX NUTS AND WASHERS AND THREADED AREAS OF ANCHOR BOLTS SHALL BE HOT-DIP GALVANIZED TO ASTM-A135. ANCHOR BOLTS SHALL HAVE A 55,000 PSI MINIMUM YIELD STRENGTH.
- PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED USING CAST ALUMINUM ALLOY CLAMSHELL MOUNTING HARDWARE (BLACK).

SIGNAL POLES:

- STEEL TRAFFIC SIGNAL MAST ARM POLES SHALL BE UNION METAL CORPORATION COLUMBIAN FAMILY SERIES (OR APPROVED EQUAL).
- ALL POLES AND MAST ARMS SHALL BE PAINTED BLACK.
- SIGNAL POLES MUST BE COLD ROLLED ASTM-A595 GRADE A STEEL WITH 16 EQUALLY SPACED DORIC FLUTES, SHARP AND CLEAR CUT THROUGHOUT THE ENTIRE LENGTH OF THE SHAFT.
- POLE SHALL BE FURNISHED WITH A 4" X 8" REINFORCING HANDHOLD FRAME AND A 1/2"-13 UNC GROUNDING PROVISION.
- POLES SHALL PROVIDE BANNER ARMS. A WELDED COUPLING WILL BE PUT DIRECTLY UNDER THE MAST ARM AND THE LOWER ARM WILL BE PLACED AS TO ACCEPT A 4" X 2" BANNER.
- FITTING FOR PEDESTRIAN SIGNALS SHALL BE INSTALLED BY POLE MANUFACTURER. FITTINGS SHALL BE SPACED TO ACCOMMODATE A 16" PEDESTRIAN HEAD WITH HARDWARE PROVIDED BY POLE MANUFACTURER.
- ANCHORAGE FOR EACH POLE SHALL BE A MINIMUM OF FOUR STEEL ANCHOR BOLTS, COMPLETE WITH DOUBLE HEX NUTS AND WASHERS. NUTS, WASHERS AND THREADED AREAS OF ANCHOR BOLTS SHALL BE HOT-DIP GALVANIZED TO ASTM-A135. ANCHOR BOLTS SHALL HAVE A 55,000 PSI MINIMUM YIELD STRENGTH.
- THE SIGNAL POLE BASE SHALL BE UNION METAL, BASE 260 OR APPROVED EQUAL. THE BASE SHALL BE A MINIMUM OF 4 1/2" IN HEIGHT AND 3 1/2" IN DIAMETER AT THE BOTTOM. THE BASE HALVES SHALL BE SPLIT EQUALLY AND FITTED TO PROVIDE A HAIRLINE SEAM WHEN ASSEMBLED. THE DECORATIVE BASE MUST HAVE A FLUTED OPENING AT THE TOP OF THE BASE TO MATCH THE SHAPE OF THE 16 FLUTE POLE. THE DECORATIVE BASE MUST BE PROVIDED BY THE POLE MANUFACTURER TO INSURE CAPABILITY WITH THE POLE SHAFT.
- EACH SIGNAL POLE SHALL BE PROVIDED WITH AN ORNAMENTAL POLE TOP. THE MULTI-CASTING STACKED POLE TOP SHALL BE MECHANICALLY ATTACHED TO THE TOP OF THE SHAFT TO PROVIDE ACCESS FOR WIRING SIGNALS SECURED BY A J-HOOK WIRE SUPPORT.

1

LUMINAIRES:

- LUMINAIRE ARMS SHALL BE STEEL ROUND PIPE AND SCROLL PER UMC #70028 OR APPROVED EQUAL.
- LUMINAIRES SHALL BE MANUFACTURED BY HOLOPHANE, KING LUMINAIRE, OR APPROVED EQUAL.

STREET SIGNS:

- STREET SIGNS SHALL BE L.E.D. EDGE-LIT INTERNALLY ILLUMINATED STREET NAME SIGNS, SINGLE SIDED, RIGID MOUNTED.
- STREET SIGNS PREVIOUSLY PROVIDED BY CARMANAH TECHNOLOGIES, CONTACT OWNER'S REPRESENTATIVE TO VERIFY DESIGN, SPECIFICALLY COLORS WITH THE CITY OF TUSCALOOSA.
- ALL MOUNTING HARDWARE NECESSARY TO MOUNT THE SIGNS ON THE MAST ARMS IN THE LOCATIONS SHOWN ON THE REFERENCE SIGNAL DRAWINGS SHALL BE PROVIDED.

3

4

LIGHT AND PEDESTRIAN POLES:

- LIGHTING STANDARDS (POLES) SHALL BE STEEL ANCHOR BASE POLES AS SCHEDULED AND DETAILED. ACCEPTABLE MANUFACTURERS SHALL BE UNION METAL, VALMONT, MILLERBERND OR APPROVED EQUAL.
- POLES SHALL BE FACTORY PREDRILLED FOR ARM AND FIXTURE MOUNTING.
- HAND HOLES SHALL BE PROVIDED AS DETAILED.
- A GROUNDING LUG SHALL BE PROVIDED INSIDE THE HAND HOLE.
- THE POLES SHALL BE FURNISHED WITH A BLACK, CORROSION RESISTANT FINISH, APPLIED AFTER FABRICATION.
- THE BASE PLATE SHALL BE FURNISHED WITH SLOTTED HOLES FOR POLE ALIGNMENT.
- A BASE COVER SHALL BE FURNISHED WITH THE POLE WITH MATCHING FINISH.
- ANCHOR BOLTS SHALL BE 36" LONG.
- BREAKAWAY FITTINGS FOR LIGHT POLES IN CLEAR ZONE SHALL COMPLY WITH ALL ALABAMA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
- POLE SPECIFICATIONS SHALL MEET 2009 AASHTO SPECIFICATIONS.

2

POLE AND MAST ARM FINISH:

- POLES AND MAST ARMS ARE TO BE H.D. GALVANIZED AND FINISH PAINTED. THE GALVANIZING SHALL BE PER ASTM-A123 AND THEN FINISH PAINTED.
- THE CITY OF TUSCALOOSA SHALL ALLOW PAINTING PROCESSES BELOW:
 - BASE COAT: HOT-DIP GALVANIZED TO ASTM A123, PRIME COAT: POLYAMIDOAMINE OR POLYAMIDE EPOXY, FINISH COAT: ALIPHATIC ACRYLIC POLYURETHANE
 - POWDER COATING
 - THE FINISHED COLOR SHALL BE GLOSS BLACK.

LIGHTING FIXTURE SCHEDULE

MARK	LOCATION	MANUFACTURER	*MODEL NUMBER	*LAMPS			*MOUNTING			*LIGHTING STANDARD			REMARKS
				NO.	WATTS	TYPE	TYPE	HEIGHT	VOLTS	POLE	POLE DECOR RECEPTACLE	POLE BASE RECEPTACLE	
A	STREET - GENERAL	HOLOPHANE	ESL2-P60S-40K-AS-BK-TG-3-S ESPL2-P40-40K-AS-B-4	1	242 77	LED LED	P P	30' 16'	240 240	30' WITH 6' STREET LIGHTING FIXTURE ARM AND 3' PEDESTRIAN FIXTURE ARM.	YES	NO	NOTE 1, 2, 3, 4
B	SIDEWALK - GENERAL	HOLOPHANE	ESPL2-P40-40K-AS-B-4	1	77	LED	P	16'	240	16' WITH SINGLE 3' FIXTURE ARM.	YES	NO	NOTE 1, 2, 3, 4
D	PARKING - GENERAL	HOLOPHANE	ESL2-P40S-40K-AS-BK-TG-3-S	1	142	LED	P	20'	240	20' WITH SINGLE 6' FIXTURE ARM.	YES	NO	NOTE 1, 2, 3, 4
F	PARKING - GENERAL	HOLOPHANE	ESL2-P40S-40K-AS-BK-TG-3-S ESL2-P40S-40K-AS-BK-TG-3-S	1 1	142 142	LED LED	P P	20' 20'	240 240	20' WITH DUAL 6' FIXTURE ARM.	YES	NO	NOTE 1, 2, 3, 4
T	STREET - GENERAL	HOLOPHANE	ESL2-P60S-40K-AS-BK-TG-3-S	1	242	LED	P	37'	240	37' TRAFFIC SIGNAL POLE WITH 6' STREET LIGHTING FIXTURE ARM	NO	NO	NOTE 3, 4, 5

SOURCE: LIGHT EMITTING DIODE

MOUNTING TYPE: S = SURFACE; R = RECESSED; H = HANGER PROVIDE W/ FIXTURE;
P = POLE; W = WALL; G = GROUND

NOTES:

- RECEPTACLE OUTLETS ON POLES SHALL BE SUPPLIED FROM MANUFACTURER WITH METAL IN-USE COVERS FACTORY PAINTED BLACK TO MATCH POLE.
- EQUAL PRODUCT BY VALMONT SHALL BE ACCEPTABLE.
- FIXTURE SHOWN FOR INFORMATIONAL PURPOSES ONLY. POLE, ARM(S), AND LUMINAIRE(S) SHALL BE SUPPLIED BY THE CITY OF TUSCALOOSA AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- FIXTURE SHALL BE PROVIDED WITH INTEGRAL PHOTO ELECTRIC SWITCH OR WIRELESS CONTROL TRANSMITTER.
- SEE TRAFFIC SIGNAL AND ELECTRICAL PLANS FOR FIXTURE LOCATIONS AND ORIENTATION OF LUMINAIRE(S) ON POLES.