

ADDENDUM TO THE CONTRACT

for the

DOWNTOWN STREET IMPROVEMENTS – PHASE IIIA Contract No. BE19-112

ADDENDUM NO.: ONE <u>CURRENT DEADLINE FOR BIDS</u>:

January 8, 2019

PREVIOUS ADDENDA: NONE

ISSUED BY: City and Borough of Juneau

ENGINEERING DEPARTMENT 155 South Seward Street Juneau, Alaska 99801

DATE ADDENDUM ISSUED:

December 31, 2018

The following items of the contract are modified as herein indicated. All other items remain the same. This addendum has been issued and is posted online. Please refer to the CBJ Engineering Contracts Division webpage at: http://www.juneau.org/engineering_ftp/contracts/Contracts.php

PROJECT MANUAL:

Item No. 1 SECTION 00310, BID SCHEDULE, *delete* and *replace* with the attached bid schedule dated December 31, 2018.

Item No. 2 SPECIAL PROVISIONS, SECTION 02801, *replace* in its entirety with the attached Section 02801.

Item No. 3 add the attached SECTION 00840, Compliance Certificate and Release form.

DRAWINGS:

Item No. 1 SHEET C.105, SUMMARY TABLES AND MISCELLANEOUS DETAILS, Catch Basin Frame and Grate Summary Table, *change* the frame and grate for CB-8 *to* an OF SM43.

Item No. 2 SHEET C.301, PLAN – FERRY WAY STA "F" 10+00 TO STA "F" 12+86, replace in its entirety with the attached SHEET C.301.

Changes include a revision to the finished grade for CB-8 and the addition of 29.5-ft of Type III Valley Gutter adjacent to CB-8.

Item No. 3 SHEET C.501, ENLARGED PLAN - FERRY WAY BULBOUTS AND MARINE WAY CROSSWALK AT SEWARD STREET, *replace* in its entirety with the attached SHEET C.501. Changes include minor revisions to grades within the Ferry Way Bulbouts, and the edition of a Type III Valley Gutter behind the northwest bulbout planter.

- Item No. 4 SHEET C.502, BULBOUT LANDSCAPING DETAILS, *replace* in its entirety with the attached SHEET C.502. Changes to Sections 1 and 2 include revisions to the planter walls and planting soil. Section 4 was added to depict the addition of the Type III Valley Gutter behind the new planter where new Type I Curb and Gutter is to be constructed.
- Item No. 5 SHEET E.001, LEGEND AND LUMINAIRE SCHEDULES, *replace* in its entirety with the attached SHEET E.001. Within the "Light Pole Stationing Schedule", revisions were made to the top of base elevation for light pole P1, and a second light fixture was added to light pole P6.
- Item No. 6 SHEET E.201, ELECTRICAL AND LIGHTING PLAN FERRY WAY STA "F" 10+27 TO STA "F" 12+86, *replace* in its entirety with the attached SHEET E.201. Changes include the addition of a second light fixture at light pole P6, relocation of the handhole at station "F" 12+10, RT, and the addition of note 6.

Greg Smith, Contract Administrator

Total number of pages contained within this Addendum: 16

SECTION 00310 - BID SCHEDULE

F - T -				UNIT PRICE		AMOUNT	
PAY ITEM NO.	PAY ITEM DESCRIPTION	PAY UNIT	APPROX. QUANTITY	DOLLARS	CENTS	DOLLARS	CENTS
1505.1	Mobilization	Lump Sum	All Req'd	LUMP	SUM		
1530.1	Utilwalk Removal Coordination	Lump Sum	All Req'd	LUMP	SUM		
1550.1	Traffic Control	Contingent Sum	All Req'd	CONTINGENT	SUM	\$10,000	00
1550.2	Temporary Pedestrian Walkway	Contingent Sum	All Req'd	CONTINGENT	SUM	\$7,000	00
1570.1	Erosion and Sediment Control	Lump Sum	All Req'd	LUMP	SUM		
2202.1	Excavation	CY	848				
2202.2	Shot Rock Borrow	CY	444				
2202.3	Mining Area Restoration & Road Cleaning Guarantee	Contingent Sum	All Req'd	CONTINGENT	SUM	\$2,500	00
2203.1	Flowable Fill	Lump Sum	All Req'd	LUMP	SUM		
2204.1	2-Inch Minus Shot Rock w/ Base Course	CY	197				
2401.1	Sanitary Sewer Pipe 12-Inch PVC	LF	202				
2401.2	Sanitary Sewer Service Lateral, 6-Inch	EA	3				
2402.1	Sanitary Sewer Manhole Frame/Cover	EA	1				
2402.2	Sanitary Sewer Manhole and Mainline Connection	Lump Sum	All Req'd	LUMP	SUM		
2501.1	4 & 6-Inch PVC Pipe Culvert	LF	150				
2501.2	12-Inch Pipe Culvert	LF	96				
2501.3	18-Inch Pipe Culvert	LF	228				
2502.1	Catch Basin, Type III	EA	3				
2502.2	Catch Basin, Type IV	EA	3				
2502.3	Storm Drain Manhole Frame and Grate	EA	1				
2601.1	Install Corrosion Protection Anode	EA	4				
2602.1	Replace Valve Box	EA	4				
2603.1	Fire Hydrant Assembly w/Guard Post	EA	1				
2607.1	Pipe Insulation	Boards	10				
2702.1	Construction Surveying	Lump Sum	All Req'd	LUMP	SUM		
2716.1	Remove and Dispose of Storm Pipe	Lump Sum	All Req'd	LUMP	SUM		
2717.1	Remove and Dispose of Storm Structures	Lump Sum	All Req'd	LUMP	SUM		
2718.1	Sign Assemblies	Lump Sum	All Req'd	LUMP	SUM		
2720.1	Painted Traffic Markings	Lump Sum	All Req'd	LUMP	SUM		

SECTION 00310 - BID SCHEDULE

				UNIT PRIC	Œ	AMOUN	Т
PAY ITEM NO.	PAY ITEM DESCRIPTION	PAY UNIT	APPROX. QUANTITY	DOLLARS	CENTS	DOLLARS	CENTS
2722.1	Utility Conduit Relocation	EA	10				
2801.1	Asphalt Concrete Pavement, Type II-A, Class B	Ton	178				
2806.1	Remove Existing Asphalt Surfacing	SY	861				
2870.1	Landscaping	Lump Sum	All Req'd	LUMP	SUM		
2870.2	Bollards	EA	2				
2870.3	Trash Can With Ash Trays	EA	2				
3302.1	Wayfinding Foundation	Lump Sum	All Req'd	LUMP	SUM		
3303.1	Concrete Sidewalk	SY	607				
3303.2	Detectable Tile	SF	76				
3303.3	Curb and Gutter, Type I	LF	500				
3303.4	Valley Gutter, Type III	LF	174				
3303.5	Marine Way Crosswalk At Seward Street	Lump Sum	All Req'd	LUMP	SUM		
3304.1	Removal of Concrete Sidewalks	SY	632				
3304.2	Removal of Curb and Gutter	LF	506				
3304.3	Demolition of Planters	Lump Sum	All Req'd	LUMP	SUM		
16000.1	Lighting	Lump Sum	All Req'd	LUMP	SUM		

	TOTAL BID: \$
COMPANY NAME:	

SPECIAL PROVISIONS

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 1 - GENERAL, Article 1.1, DESCRIPTION, *revise paragraph B as follows:*

B. Asphaltic concrete mix for this Project shall be Type IIA, Class B.

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 1 – GENERAL, Article 1.1, DESCRIPTION, *revise* TABLE 02801-1, ASPHALTIC CONCRETE MIX REQUIREMENTS, *as follows:*

Design Parameters	Class A	<u>Class B</u>
Voids in total mix, percent	2.5 - 4.0	2.5 - 4.0%
Percent oil content	6.0 - 6.8	6.0 - 6.8%

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 2 – PRODUCTS, Article 2.1, COMPOSITION OF ASPHALT CONCRETE MIXTURES – JOB MIX DESIGN, paragraph C., *delete subparagraph 6 and replace with the following:*

6. The mix design shall be 50 blow Marshall Method.

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 2 - PRODUCTS, Article 2.3, ASPHALT MATERIALS, *revise paragraph B as follows:*

B. Asphalt cement shall be designated PG 58-28 Plus.

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 2 - PRODUCTS, **add** the following section:

2.6 RECLAIMED ASPHALT PAVEMENT

- A. Reclaimed Asphalt Pavement (RAP) may be used in the asphalt mix up to 20% of the total mix.
- B. RAP will be available at no cost from the CBJ Lemon Creek Stockpile. The contractor will notify Alec Venechuk, CBJ Pits and Quarries Manager, 586-0874, of quantity needed, to coordinate access and for Lemon Creek Gravel Pit permit compliance requirements, prior to taking any RAP. The Contractor shall weigh each load at the CBJ scales and record on a CBJ scale ticket. The CBJ makes no guarantees of the quantity or quality of the RAP.
- C. The Contractor shall provide a mix design showing the inclusion of the specified percentage of RAP according to the mix design requirements in this section.
- D. Use of RAP in the Contractor's asphalt mix does not nullify any of the other specification requirements or associated asphalt quality deductions.

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 3 - EXECUTION, Article 3.8, SPREADING AND PLACING, *delete paragraph H and replace with the following:*

H. Manhole frame and covers and water valve boxes shall be set to final grade in accordance to CBJ Standard 205 – MANHOLE HEIGHTS, prior to paving operations. If the cover lugs or frame, whichever is higher, does not meet the

SPECIAL PROVISIONS

required depression range following the finish paving operations, the CONTRACTOR shall construct a transition slab with asphalt pavement overlay, per CBJ Standard 126 – CONCRETE COLLAR or as approved by the Engineer, at no additional cost to the OWNER.

SECTION 02801 -- ASPHALT CONCRETE PAVEMENT, PART 3 – EXECUTION, Article 3.10, JOINTS, *add* the following paragraph:

J. All joints with existing asphalt pavement shall be resealed with asphalt cement after the new pavement has cooled to ambient temperature. All joints with concrete gutters found to have a gap shall be blown out using a weed burner torch, filled with asphalt cement and covered with a layer of dry sand. Excess sand shall be removed and asphalt cement placed on the concrete gutter more than one-inch from the edge of gutter shall be removed using solvent or other approved methods.

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 3 – EXECUTION, Article 3.13, Acceptance Sampling and Testing, *add* the following paragraph:

K. For each lot of asphalt pavement produced, at least two (2) samples shall be taken by the CONTRACTOR for purposes of acceptance testing by the OWNER. The CONTRACTOR shall split the sample with the OWNER to retain a portion for their use. The sample shall be taken according to proper sampling methods, from the asphalt pavement on the grade.

The deduction amounts will be determined from the OWNER's acceptance testing results. The values will be calculated by averaging the amount of the absolute value of the two tests outside the job mix design tolerance (the difference between the actual test result and the job mix design tolerance range). A test value within the job mix design tolerance will be considered a zero (0) value for averaging the two values. Deduction from the asphalt pavement pay item shall be made at the following amounts:

- 1. #200 Sieve: the greater of either 1.0% the contract price for asphalt pavement placed within the sampled lot or \$500 per each 0.1% outside the job mix design tolerance, not exceeding 6% maximum, of the percent passing the #200 sieve. The allowable tolerance for this Contract shall be +/-1.0% of the target mix design and shall not exceed the content limits specified in this Contract.
- 2. Asphalt Content: the greater of either 1.0% of the contract price for asphalt pavement placed within the sampled lot or \$500 per each 0.1% outside the allowable job mix design asphalt content tolerance. The allowable asphalt content tolerance for this Contract shall be +/- 0.4% of the target job mix design asphalt content and shall not exceed the asphalt oil content limits specified in this Contract.

The pay deductions for exceeding the job mix design tolerances does not constitute acceptance of a mix that does not meet the specifications. Variations that are excessively large in a lot may be considered for larger deductions or non-

SPECIAL PROVISIONS

payment. Further acceptance testing will be performed to determine if the asphalt pavement specifications have been met. No payment for asphalt pavement will be made for asphalt pavement exceeding job mix design tolerances, or not meeting asphalt pavement specifications, until additional testing determines whether the asphalt pavement meets all other specifications.

For the purposes of this Contract, one lot of asphalt pavement is defined as 500 tons, or a single day's asphalt pavement production of at least 100 tons.

COMPLIANCE CERTIFICATE AND RELEASE FORM

		WINDER CENTIL TOTAL TRIVE	CEETSE I OKN	
PROJECT:CONTRACT NO: 1	B <u>E</u>			
	comple	complete and submit this form to the Coneted Subcontractor Compliance forms for export.		
		ubmitted upon completion of the Project. made to the CONTRACTOR.	All requirements and submittals	must be met
I certify that the foll	owing a	nd any referenced attachments are true:		
		been performed, materials supplied, and gs, Specifications, and Contract Documents		ce with the
36.90.210.	If not,	Subcontractors and Suppliers have been please provide written explanation, for each with the Supplier or Subcontractor.		
- CHECK O	All Su	appliers and Subcontractors have been paid services outstanding.	in full with no claims for labor,	materials or
	the re	ollowing Suppliers and Subcontractors are lease of the final payment by the CBJ. Least they are due below (attach separate sheet	ist the Suppliers and Subcontrac	
		Supplier or Subcontractor	Amount Owed	
	1.		\$	
	2.		\$	

	Supplier or Subcontractor	Amount Owed
1.		\$
2.		\$
3.		\$
4.		\$
5.		\$
6.		\$
7.		\$

- All employees have been paid not less than the current prevailing wage rates set by the State of Alaska (or U.S. Department of Labor, as applicable).

- All equal employment opportunity, certified payroll and other reports have been filed in accordance with the prime contract.
- The attached list of Subcontractors is complete (required from CONTRACTOR). The City Engineer was advised and approved of all Subcontractors before WORK was performed and has approved any substitutions of Subcontractors.
- All DBE firms listed as a precondition of the prime contract award must have performed a commercially
 useful function in order for the WORK to count to a DBE goal. All DBE firms performed the WORK
 stated and have received at least the amount claimed for credit in the Contract Documents.
- All DBE Subcontractors must attach a signed statement of the payment amount received, the nature of WORK performed, whether any balance is outstanding, and indicate that no rebates are involved.
- If the amount paid is less than the amount originally claimed for DBE credit, the CONTRACTOR has attached approval from the City Engineer for underutilization.

I understand it is unlawful to misrepresent information in order to receive a payment which would otherwise be withheld if these conditions were not met. I am an authorized agent of this firm and sign this freely and voluntarily. The foregoing statements are true and apply to the following project contractor.

	Capacity: CONTRAC	T∩R
Firm Name		TOR
Signed	Printed Name and Title	Date
Return completed form to: F Juneau, AK 99801 or by ema	Engineering Contracts Division, City and Borough of Juneal to: contracts@juneau.org	au, 155 South Seward Street

Call (907) 586-0873 if we can be of further assistance or if you have any questions.

SUBCONTRACTOR COMPLIANCE CERTIFICATE AND RELEASE FORM

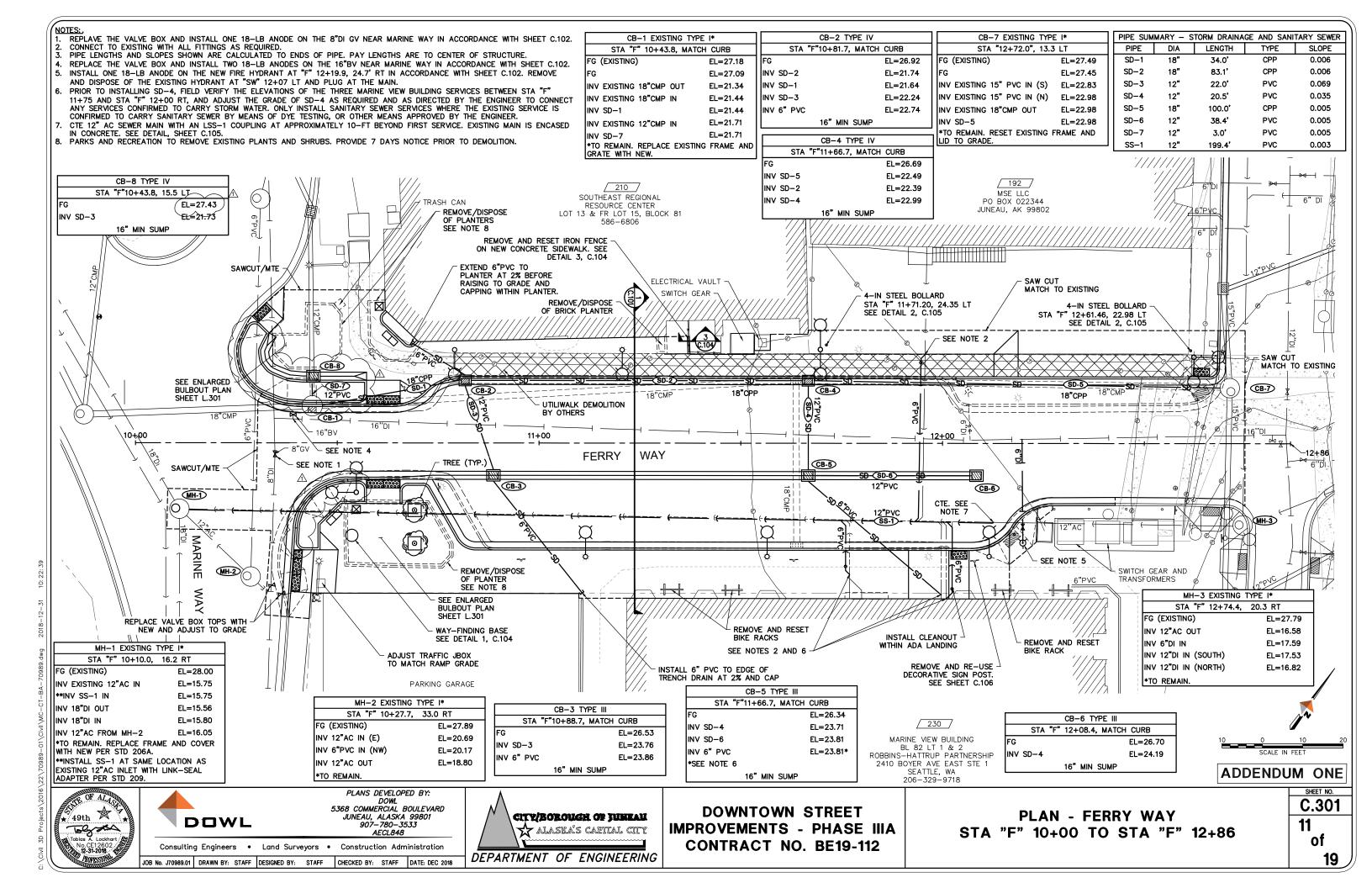
CONTRACT NO: BE Each SUBCONTRACTOR must complete and submit this form to the Contract Administrator, through the Gener
Each SUBCONTRACTOR must complete and submit this form to the Contract Administrator, through the Gener
Contractor, with respect to the entire contract.
Completed forms shall be submitted upon completion of the Project. All requirements and submittals must be m before final payment will be made to the CONTRACTOR.
I certify that the following and any referenced attachments are true:
- All WORK has been performed, materials supplied, and requirements met in accordance with the applicable Drawings, Specifications, and Contract Documents.
- (name of firm) has been paid by the Contractor in accordance with Alass Statute 36.90.210. (If not, please provide written explanation on an attached sheet, for each case. Provide specific details why payment was not made and the specific mutual payment agreement reached with the Contractor if it is still unresolved.)
- CHECK ONE:
 I / WE have been paid in full by the Contractor, with no claims for labor, materials or oth services outstanding.
☐ I / WE are due the following amount from the Contractor which is included in the Contractor Request for Final Payment. WE are due a total of \$
for the following individual items that have yet to be paid (attach separate sheet if necessary).

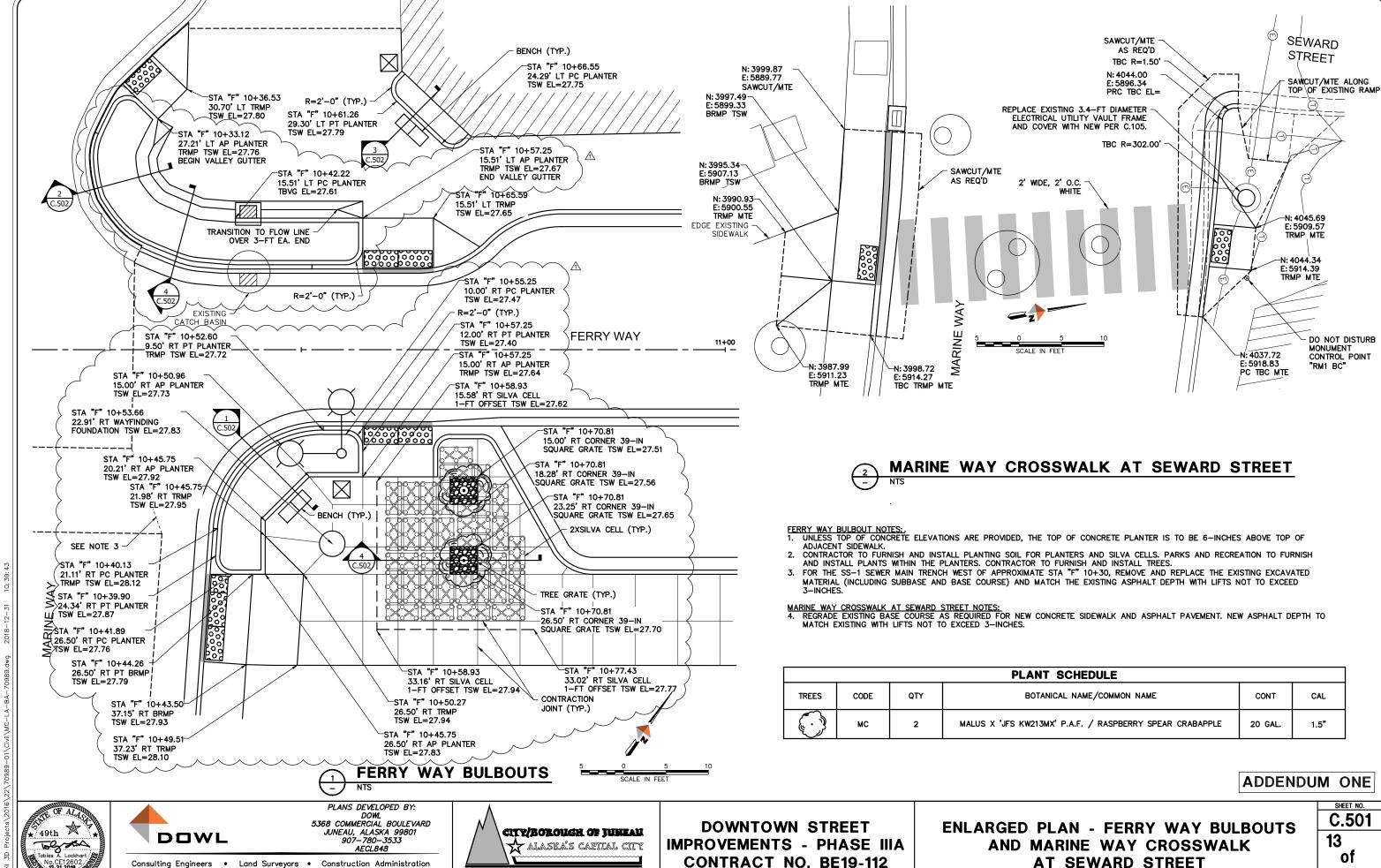
	Outstanding Payment Item	Outstanding Amount Owed
1.		\$
2.		\$
3.		\$
4.		\$
5.		\$
6.		\$
7.		\$

- All employees have been paid not less than the current prevailing wage rates set by the State of Alaska (or U.S. Department of Labor, as applicable).

- All equal employment opportunity, certified payroll and other reports have been filed in accordance with

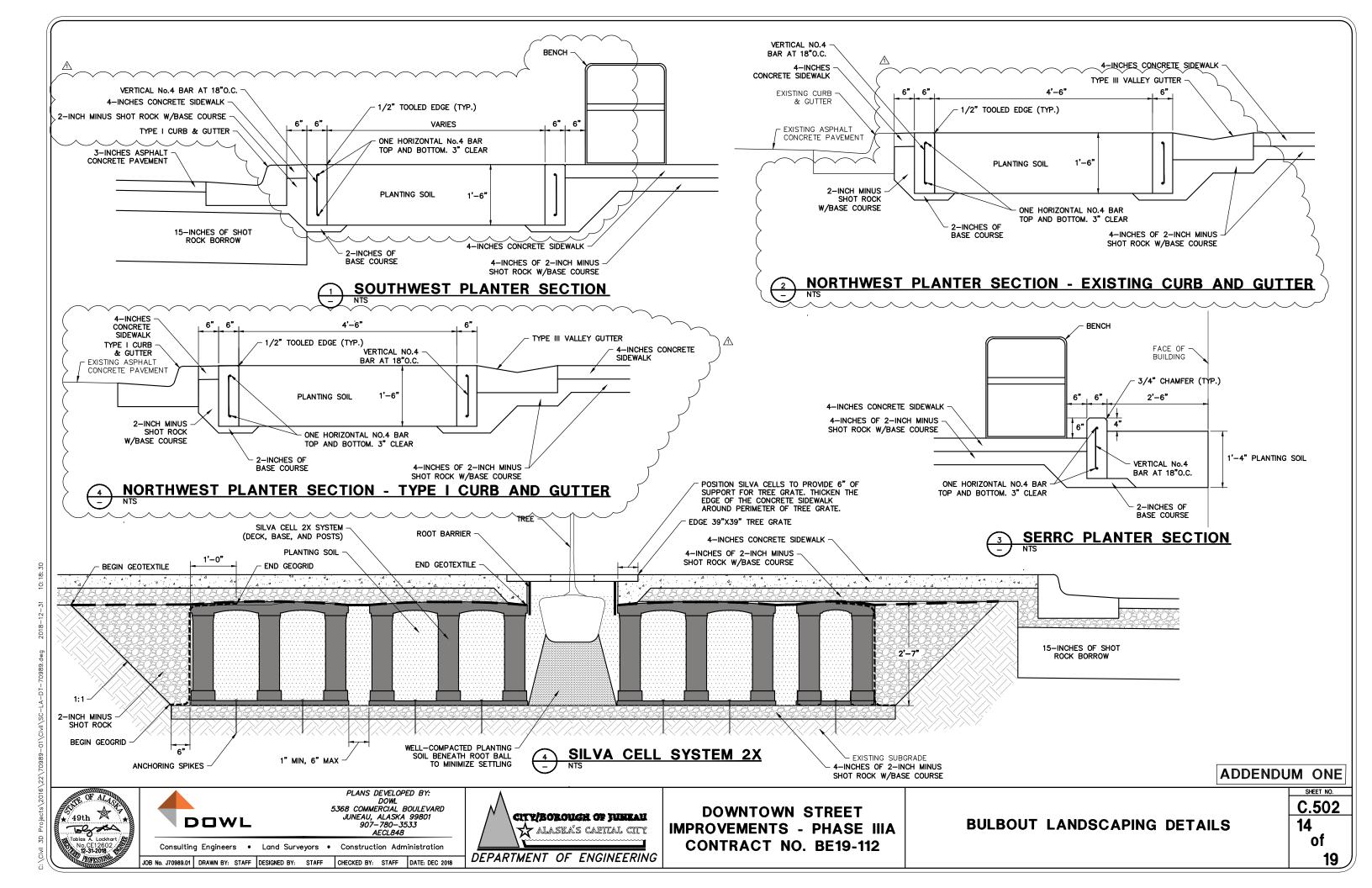
the prime contract.		
withheld if these conditions	to misrepresent information in order to receive a paymen were not met. I am an authorized agent of this firm and sig	n this freely and voluntarily.
	Capacity: SUBCONTF	RACTOR
Firm Name		
Sign	Printed Name and Title	Date
	rn completed form to: Engineering Contracts Division, City au, AK 99801 or email: greg.smith@juneau.org Call (907) have any questions.	





DEPARTMENT OF ENGINEERING

JOB No. J70989.01 DRAWN BY: STAFF DESIGNED BY: STAFF CHECKED BY: STAFF DATE: DEC 2018



	LUMINAIRE SCHEDULE						
TYPE	DESCRIPTION	MANUFACTURER	LAMPS	REMARKS			
A2	21" DIA BELL DOME STYLE LED POLE MOUNTED AREA LIGHT, SPUN ALUMINUM, FLARED EDGE, TYPE 5 DISTRIBUTION, INTEGRAL ELECTRONIC DRIVER, 120—277V, IP65 RATED, BLACK TEXTURED FINISH	STERNBERG LIGHTING 1A-1521LED-F-4ARC-35K-T5- MDL03-SV1-HSHB-CAS4-BKT	64W WHITE LED 3500K, CRI 80	MOUNT ON 4' ARM @ 15'-0" AFG TO BOTTOM OF LUMINAIRE UON.			
B2	21" DIA BELL DOME STYLE LED POLE MOUNTED AREA LIGHT, SPUN ALUMINUM, FLARED EDGE, TYPE 4 DISTRIBUTION, INTEGRAL ELECTRONIC DRIVER, 120—277V, IP65 RATED, BLACK TEXTURED FINISH	STERNBERG LIGHTING 1A-1521LED-F-4ARC-35K-T4- MDL03-SV1-HSHB-CAS4-BKT	64W WHITE LED 3500K, CRI 80	MOUNT ON 4' ARM @ 15'-0" ABOVE BOTTOM OF POLE TO BOTTOM OF LUMINARE UON. PROVIDE 6' ARM FOR LUMINAIRES WALL MOUNTED TO CITY HALL, WITH LUMINAIRES @ 18' AFF (TYP-4).			
D2	21" DIA BELL DOME STYLE LED POLE MOUNTED AREA LIGHT, SPUN ALUMINUM, FLARED EDGE, TYPE 3 DISTRIBUTION, INTEGRAL ELECTRONIC DRIVER, 120—277V, IP65 RATED, BLACK TEXTURED FINISH	STERNBERG LIGHTING 1A-1521LED-F-4ARC-35K-T3- MDL03-SV1-HSHB-CAS4-BKT	64W WHITE LED 3500K, CRI 80	MOUNT ON 4' ARM @ 15'-0" AFG TO BOTTOM OF LUMINAIRE UON.			
F2	21" DIA BELL DOME STYLE LED POLE MOUNTED AREA LIGHT, SPUN ALUMINUM, FLARED EDGE, TYPE 2 DISTRIBUTION, HOUSE SIDE SHIELD, INTEGRAL ELECTRONIC DRIVER, 120–277V, IP65 RATED, BLACK TEXTURED FINISH	STERNBERG LIGHTING 1A-1521LED-F-4ARC-35K-T2- MDL03-SV1-HSHB-HSS-CAS4- BKT	64W WHITE LED 3500K, CRI 80	MOUNT ON 4' ARM @ 15'-0" AFG TO BOTTOM OF LUMINAIRE UON.			
POLE	16'x4" DIA ROUND STRAIGHT GALVANIZED STEEL WITH POWDER COAT FINISH, DECORATIVE POLE BASE, 4' ARM FOR TYPE A2, D2 & F2 LUMINAIRES, (1 EA) BANNER ARM, (2 EA) PLANTER ARMS, BLACK TEXTURED FINISHES	STERNBERG LIGHTING POLE: RSS-RSS16F400-D1-BKT BASE: MONROVIA 8400 ARM: BRACKET CAS4 BANNER ARM: SBAR PLANTER ARM: DHPA		POLE BASES SHALL BE 14.5" FROM FACE OF CURB, UON. SEE DETAIL E.402.			

NOTE: ALL LUMINAIRE MOUNTING HEIGHTS ARE TO THE BOTTOM OF THE LUMINAIRE, UNLESS OTHERWISE NOTED AND OR APPLICABLE.

LIGHT POLE STATIONING SCHEDULE							
DESIGNATION	STATION	OFFSET	TSW ELEV	BASE STYLE	REMARKS		
P1	10+54.8	12.72 RT	WITHIN PLANTER TOP OF BASE 27.69	LONG	DOUBLE HEAD (SEE NOTE)		
P2	10+79.1	23.04 LT	27.69	LONG			
P3	11+11.6	28.16 RT	27.67		REUSE EXISTING BASE		
P4	11+20.6	23.08 LT	27.80		REUSE EXISTING BASE		
P5	11+56.6	28.09 RT	27.77		REUSE EXISTING BASE		
P6	11+69.7	23.22 LT	27.38	LONG	DOUBLE HEAD		
P7	12+11.6	23.03 RT	27.47	LONG			
P8	12+62.3	21.38 LT	27.66	SHORT	DOUBLE HEAD		

NOTE: TOP OF POLE P1 BASE TO MATCH THE PLANTER WALL.

LEGEND

ABBREVIATIONS:

ABOVE FINISHED FLOOR ABOVE FINISHED GRADE GFI GROUND FAULT INTERRUPTED HDG HOT-DIPPED GALVANIZED HAND-OFF-AUTO HOA PHOTOELECTRIC CELL

LB LONG POLE BASE FOUNDATION PEC POLYVINYL CHLORIDE CONDUIT

RIGID STEEL CONDUIT SB SHORT POLE BASE FOUNDATION UGE UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED

WEATHERPROOF XFMR TRANSFORMER

SHEET NOTE SYMBOLS:

Œ EXISTING TO REMAIN

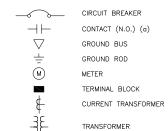
 $\langle N \rangle$ NEW

 $\langle R \rangle$ RELOCATE EXISTING REMOVE EXISTING $\langle X \rangle$

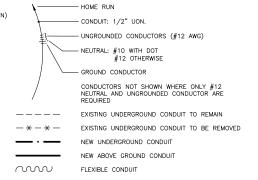
LIGHTING:

POLE MOUNTED LUMINAIRE, XX/XX/XXX (LUMINAIRE TYPE/BASE TYPE/DESIGNATION)

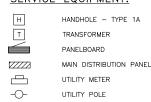
DIAGRAM SYMBOLS:



CONDUIT & CONDUCTORS:



SERVICE EQUIPMENT:



CONSTRUCTION NOTES:

- PROVIDE TEMPORARY LIGHTING ON SIDEWALKS THAT IS PERMISSIBLE FOR PEDESTRIANS DURING NON-DAYLIGHT HOURS WHERE STREET LIGHTING IS NOT ACTIVE. THE LUMINAIRES MAY INCLUDE EXISTING LUMINAIRES.
- 2. TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE HORIZONTAL ILLUMINANCE LEVEL OF 1 FOOT-CANDLE WITH AN AVERAGE-TO-MINIMUM UNIFORMITY RATIO OF 6 MEASURED AT THE SEDENAL TO-MINIMUM UNIFORMITY RATIO OF 6 MEASURED AT THE
- 3. PROVIDE A PLAN FOR TEMPORARY LIGHTING THAT IDENTIFIES THE LUMINAIRES AND CIRCUIT FEATURES PRIOR TO DEMOLITION.
- 4. PROVIDE POWER DURING NON-DAYLIGHT HOURS TO EXISTING ACTIVE LIGHT POLES.
- 5. SPLICES IN BELOW GRADE HANDHOLES BASIS OF DESIGN: BURNDY

ADDENDUM ONE

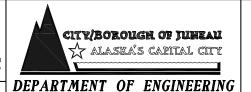


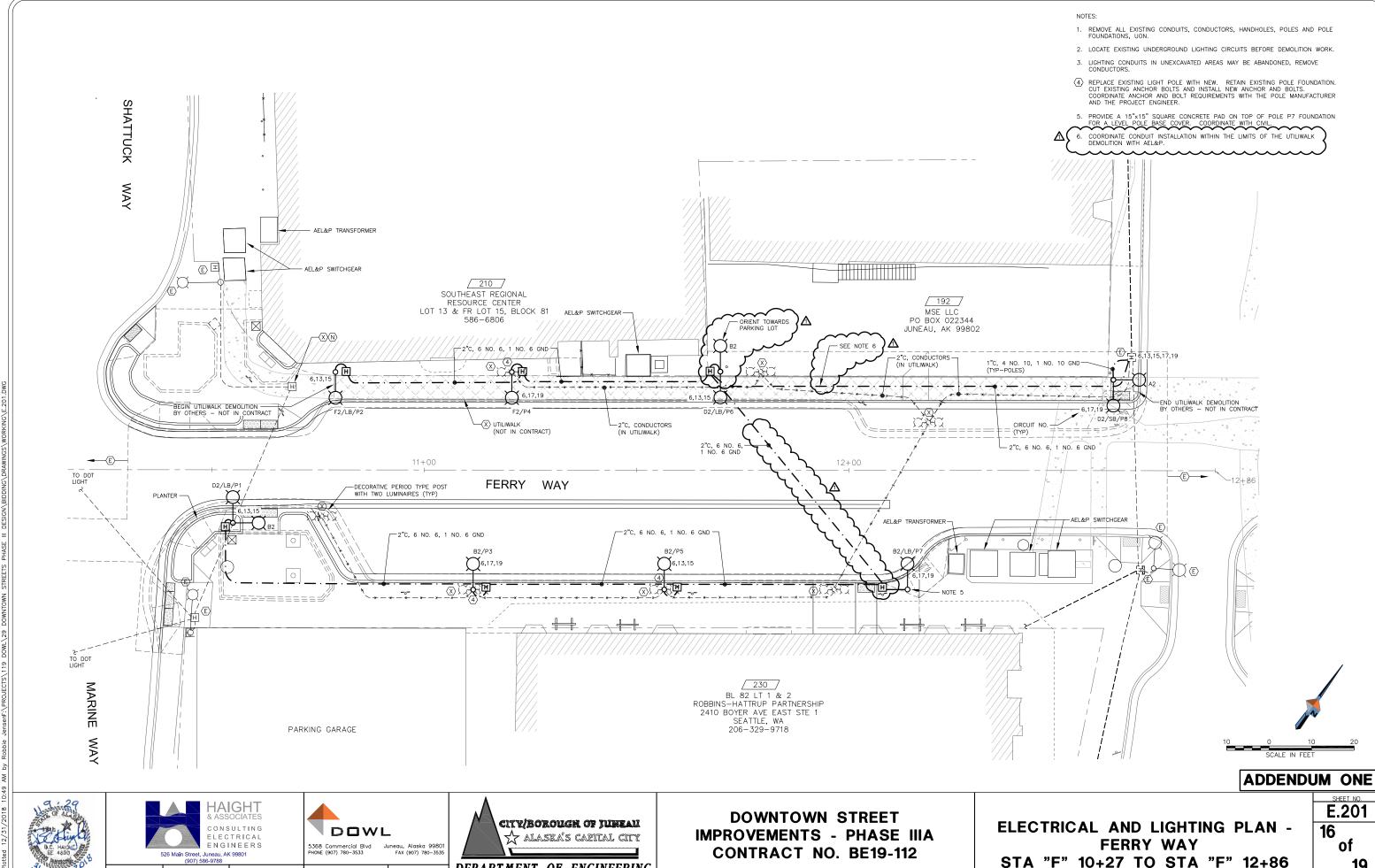




JOB No. J70989.01 DRAWN BY: PEL/REJ DESIGNED BY: KHD/PEL CHECKED BY: BCH DATE: DEC. 2018







DEPARTMENT OF ENGINEERING

JOB No. J70989.01 DRAWN BY: PEL/REJ DESIGNED BY: KHD/PEL

CHECKED BY: BCH DATE: DEC. 2018