## **SIGNATURE PAGE**

## P-32-2021

To the Monmouth County Board of County Commissioners:

# THE UNDERSIGNED HEREBY DECLARES THAT I (WE) HAVE CAREFULLY EXAMINED THE SPECIFICATIONS. I (WE) HEREBY CERTIFY PRICES QUOTED ARE IN ACCORDANCE WITH YOUR REQUIREMENTS.

Company Name:	Colliers Engineering & Design, Inc. DBA Maser Consulting
	(PRINT)
Preparer's Name:	Eduardo M. Freire, PE, CWI
Signature:	(PRINT) 6/7/2/
Address:	5439 Harding Highway
	Mays Landing, New Jersey 08330
Telephone No.:	877-627-3772
Fax No.:	1-609-939-2581
E-Mail Address:	ed.freire@colliersengineering.com
•	***(This should be the email where Contracts would be sent)***
Contact Person:	Eduardo M. Freire, PE, CWI
FEIN:	
(Federal Employee ID)	

(Revised 2/2017)

CON	Billing Rate		
I. Preliminary Test of Aggregates			
Fine Aggregate			
(a)	Sieve Analysis & Fineness Modulus:		
	A.S.T.M. C-33 (C-136) per sample	\$ 85.00	
(b)	Specific gravity & absorption: A.S.T.M. C-128 per sample	\$ 75.00	
(c)	Organic impurities: A.S.T.M. C-40 per sample	\$ 75.00	
(d)	Silt & Clay: A.S.T.M. C-117 per sample	\$ 35.00	
(e)	Unit weight & void content: A.S.T.M. C-29 per sample	\$ 65.00	
(f)	Strength Comparison: A.S.T.M. C-87 per sample	\$ 95.00	
(g)	Efflorescence: A.S.T.M. C-67 per sample	\$ 75.00	
(h)	Soundness (Sodium or Magnesium Sulfate: A.S.T.M. C-88		
	First five (5) cycles	\$ 450.00	
	Each additional cycle	\$ 150.00	
Cours	se Aggregate		
(a)	Sieve Analysis & Fineness Modulus:		
	A.S.T.M. C-33 (C-136) per sample	\$ 85.00	
(b)	Specific gravity & absorption: A.S.T.M. C-127 per sample	\$ 75.00	
(c)	Organic impurities: A.S.T.M. C-40 per sample	\$ 75.00	
(d)	Unit weight & void content: A.S.T.M. C-29 per sample	\$ 65.00	
(e)	Abrasion (Los Angeles): A.S.T.M. C-131 per sample	\$ 275.00	
(f)	Deleterious substances: A.S.T.M. C-33 per sample	\$ 50.00	
(g)	Soundness: (Sodium or Magnesium Sulfate): A.S.T.M. C-88		
	First Five (5) cycles	\$ 450.00	
	Each additional cycle	\$ 150.00	

Billing Rate

#### **CONCRETE**

## II. Concrete Design Mix

### III. Controlled Concrete

(a) Batch Plant Inspector

Furnish a technical inspector to be placed at the batch plant or the project site to assure that only the approved materials are used; observe mixing and placing of concrete, fabricate test cylinders, conduct slump test, air test, monitor temperature and check yield as required......per day \$495.00

(b) Field Inspector

(c) Senior Field Inspector

### IV. Test Cylinders

(a) Cap, cure, test and report results of 6" x 12" test cylinders.....per cylinder \$17.00

(b) Transportation of test cylinders.......per trip \$50.00

# Billing Rate

## **CONCRETE**

# V. Core Drilling

(a)	Supply one drilling unit and labor to obtain specimens of hardened concrete A.S.T.M. C-42 (4 ½ diameter or less)
	vertical
(b)	*Minimum per day \$ 850.00 Prepare concrete cores for compression testingper core\$ 25.00
(c)	Compression tests & reportsper core \$85.00
VI.	Chemical Analysis
(a) (b)	Chemical analysis of hardened concrete A.S.T.M. C-85 *per sample \$2,200.00  * C-85 is not an existing standard. Prices for C-856 (Petrographic Analysis) Chloride content testing and analysis A.S.T.M. C-1218per sample \$125.00
VII.	Winsor Probes Test of Hardened Concrete
(a)	Furnish a technical inspector along with Windsor Probe apparatus to test in-place concrete
VIII.	Swiss Hammer Test of Hardened Concrete
(a)	Furnish a technical inspector along with Swiss Hammer apparatus to test in-place concrete

Billing Rate

## **BITUMINOUS CONCRETE**

BITOMINOUS CONCRETE		
I. Preliminary Test of Aggregates - N.J.D.O.T. Specifications		
(a)	Sieve analysis (dry)per sample	\$ 85.00
(b)	Sieve analysis (wet)per sample	\$ 85.00
(c)	Abrasion (Los Angeles)per sample	\$ 275.00
(d)	Absorption & specific gravityper sample	\$ 75.00
(e)	Clay & clay lumpsper sample	\$ 35.00
(f)	Organic impuritiesper sample	\$ 75.00
(g)	Soundness (Sodium Sulfate) five (5) cyclesper sample	\$ 450.00
II. Bitumino	us Mix Design - N.J.D.O.T. Specifications	
(a)	Marshall Methodper mix	\$ 175.00
III. Quality C	ontrol Test - N.J.D.O.T. Specifications	
(a) E2	ctraction analysis per sample	\$ 40.00
(b) St	ability & flow per sample	\$ 65.00
(c) B	ulk Specific gravity (density determination) per sample	\$ 25.00
(d)	Maximum theoretical specific gravity by	
	A.S.T.M. D2041per sample	\$ 25.00
IV. Plant Con	trol & Inspection - N.J.D.O.T. Specification	
(a)	Furnish a technician to witness all weighting of delivery	
	trucks and accordingly determine the quantity of materials	
	furnished to the projectper day	595.00
(b)	Furnish an asphalt mixing plant inspector to witness the	
	loading of all materials and to make continuous	
	temperature checks of finished products; this inspector shall	
	also take samples of materials and perform all quality control	l
	test as per the specificationsper day\$ :	595.00

## Billing Rate

## **BITUMINOUS CONCRETE**

## V. Field inspection

- (a) Furnish an inspector at the field site to witness the preparing
  of sub-base and tack coat as well as witness placing all
  asphaltic materials to determine the thickness of material being
  laid and to see that it is properly compacted and rolled......per day \$495.00
- (b) Nuclear Density Testing

Furnish a certified senior inspector to monitor compaction on effort during lay down operation or to obtain data for acceptance criteria..... per day \$ 495.00

## VI. Core Drilling

(a) Supply one drilling unit and labor to obtain specimens of finished pavement:

6" diameter per linear foot \$230.00 8" diameter per linear foot \$240.00 Minimum day \$1,350.00

#### PIPE PRECAST, PILES

#### I. Manufacturing Inspection

(a) Place a technical inspector at point of fabrication to observe all phases of production and to witness and monitor all quality control test as required by the governing specification.

Precast Concrete Pipeper day	\$ 495.00
Asbestos Cement Pipeper day_	\$ 495.00
Poly Vinyl Chloride Pipeper day	\$ 495.00
Vitrified Clay Pipeper day	\$ 495.00
Ductile Iron Pipeper day	\$ 495.00
Steel Pipeper day	\$ 495.00
Manholesper day	\$ 495.00
Precast Pilesper day	\$ 495.00
Precast Beam, Column & Architectural Memberper day	\$ 495.00

Billing Rate

## PIPE PRECAST, PILES (cont.)

II.	II. Piles (wood, steel, concrete, Franki)		
	(a)	Pile Driving Inspection Senior inspector to check driving rig, hammer, pile dimensions, monitor blow count and determine tip and cut off elevationsper day\$ 545.00	
	(b)	Pile Driving Inspection Professional Engineer to check driving rig, hammer, pile dimension, monitor blow count and determine top and cut-off elevations	
<u>ST</u>	RUCTURA	AL STEEL	
I.	Plant Inspe	nspection	
	(a)	Place a technical inspector at the point of fabrication to monitor all dimensions, painting, bolt hole placement, shop welds and any other required inspectionsper hour\$ 175.00 *	
II.	Field Insp	ection	
	(a)	Inspector to test high strength bolts for proper torqueper hour <u>\$150.00</u> *	
	(b)	Inspector to check plumbness of erected membersper hour \$150.00 *	
	(c)	Inspector to visually inspect field welding at job siteper hour \$\_\$150.00 *	
		*Minimum 4 hours	

Billing Rate

# **MASONRY**

MAS	<u>ONRY</u>			
I.	Preliminary Test of Aggregates			
	(a)	Sieve Analysis of fineness modulus:		
		A.S.T.M. C-144		
	(b)	Deleterious Substances A.S.T.M. C-144 per sample \$75.00		
	(c)	Organic Impurities A.S.T.M. C-144 per sample \$75.00		
	(d)	Soundness: A.S.T.M. C-88 (First 5 cycles) per sample \$450.00		
		(Each additional cycle) per sample \$150.00		
II.	<u>Morta</u>	r & Grout Mix Designs		
	(a) (b)	Review mixes submitted for approval by "others"  (A.S.T.M. C-270, mortar C-476 grout)		
III.	Field l	Inspection		
	(a)	Senior inspector inspect masonry construction to see that proper brick and block are used to check mortar & grout proportions and take periodic 2 x 2 x 2 cubes and to witness reinforcing, plank and grout placement		
	(b)	Cure, test, and report 2 x 2 x 2 test specimen		
		(set of 3)per set\$ 51.00		
	(c)	Transportation of specimensper trip \$50.00		
IV.	Masor	ete Masonry Units (Concrete Building Brick A.S.T.M. C-55, bry units for catch basins and manholes C-139, hollow load bearing non-load bearing C-129, solid load bearing (C-145)  Compressive strength, absorption & dimension A.S.T.M.  C-140 (set of 3 units)		
V.	Prisms	S		
	(a)	Compressive strength A.S.T.M. E-447		