MANAGEMENT SERVICES DEPARTMENT
Purchasing Division
241 West South Street
Kalamazoo, MI 49007-4796
Phone: 269.337.8020
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www.kalamazoocity.org
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ADDENDUM #1
March 17, 2022

TO: **ALL MANDATORY Pre-Bid Meeting Attendees**
PROJECT NAME: **Contract 76 B.1-Biological Foul Air Mitigation System-Construction-Rebid**
BID REFERENCE #: **91359-003.0**
BID DUE/OPENING DATE: Tuesday, March 29, 2022 at 3:00 p.m. Local Time

The purpose of this addendum is to clarify and/or modify the Bid Items, Drawings and/or Specifications for this project. All work affected is subject to all applicable terms and conditions of the Bidding and Contract Documents.

1. REPLACE

Replace SECTION II, BID AND AWARD (Bid Document Page 2) with the attached **REVISED** – **SECTION II, BID AND AWARD** (***Attachment A***), which should be used when submitting bids for this project.

2. ADDITION

Add the attached Typical Concrete Encased Conduit Detail (***Attachment B***) to the Bid Document specifications when submitting bids for this project.

3. RESPONSE TO QUESTIONS (from MANDATORY PRE-BID MEETING)

Q1: Is the Contractor to provide butterfly damper valves and motor operators?

A: The Contractor is responsible to provide the equipment shown on the drawings which is not listed to be supplied in the provided Envirogen Scope of Supply (***Attachment C***).

Q2: Is the Contractor responsible to provide the building anchor bolts? If so, how many?

A: The Contractor is responsible to provide the building anchor bolts. All columns and framed openings shall have four (4) 1-1/2" diameter anchor rods with nut and hardened washer. Anchor rods shall be ASTM F1554 Grade 36 with a minimum 14" embedment and a minimum 4" projection. Anchor rod projection may be required to be cut to provide clearance for other components as necessary.

Q3: Is there a list of what equipment is being provided by Envirogen vs. what the Contractor is expected to provide?

A: Please see the attached Envirogen Scope of Supply document (***Attachment C***).

Q4: Is there a list of support grading, media, etc. for bidders to figure out labor costs?

A: Media volume is approximately 800 CY per biofilter. Media will be delivered in flexible intermediate bulk containers (FIBCs) with a capacity of approximately 1 CY each. Each FIBC may have a full weight of up to 4,000 lbs. Please see ***Attachment C*** and ***Attachment D*** for additional information.

Q5: What details can be provided regarding the Contractor's General Warranty?

A: Contractor shall only be responsible for items provided under this Contract and for the Installation of all products and materials installed, assembled, erected, etc., under this Contract.

Q6: Are you able to provide details on temporary fuel tank locations?

A: Spill Containment Berms shall be utilized for storage of fuel cells temporary placed at the Site for fueling of construction equipment. Spill Containment Berm shall be of adequate size to contain a spill from the vessel placed within it. Maintenance of Spill Containment Berm shall be on the Contractor. Removal of liquids in the Spill Containment Berm shall be on the Contractor. Uncontaminated storm runoff liquid contained within the Spill Containment Berm may be discharged to the headworks of the KWRP for complete treatment. Contaminated liquid contained within the Spill Containment Berm shall be properly removed and disposed of per any and all Federal, State, and Local requirements.

Q7: Power feed locations are not called out in the plans.

A: Please see sheet E-6 and sheet C-5.
Remove: Sheet C-5, Note 4
Remove: Sheet C-5, Note 5
Remove: Sheet C-5, Note 6
Add: Sheet C-5, Note 9 – Underground 480VAC feeder from Load Center LC-1 conduit and duct bank shall be encased in concrete died red from the redi-mix plant.
Add: Sheet C-5, Note 10 – 480VAC feeder length provided under this contract shall be of adequate length to route from Existing Load Center 1 (LC-1) to under construction Load Center 1 (LC-1) without splicing. Additional feeder length not shown on the drawings is approximately 250 LF.

Q8: Purchase of metal building. When will it be procured?

A: Contractor shall utilize a delivery date of the PEMB supplier of March 31, 2023.

Q9: Who is responsible for removal of trees?

A: Tree removal shall be included under this Contract.

Q10: Who is responsible for the care/maintenance of delivered and stored equipment?

A: City will be responsible for all long-term storage requirements of the City-procured equipment while equipment located in long-term storage.

Q11: Can the City provide routes for construction traffic?

A: Contractor may utilize either of the two entrances/exits to the facility. The City expects the Contractor to appropriately coordinate with ongoing activities at the Site to maintain a safe facility. The City also expects the Contractor to coordinate with chemical and/or material deliveries which are in direct support of the Facility fulfilling its NPDES Permit Requirements.

Q12: Where will lay down areas be located?

A: Lay down areas will be coordinated and shared with other Contractors on site. The City expects all Contractors to coordinate with other Contractors on site in a professional and ethical manner.

4. RESPONSE TO QUESTIONS (Received after MANDATORY PRE-BID MEETING)

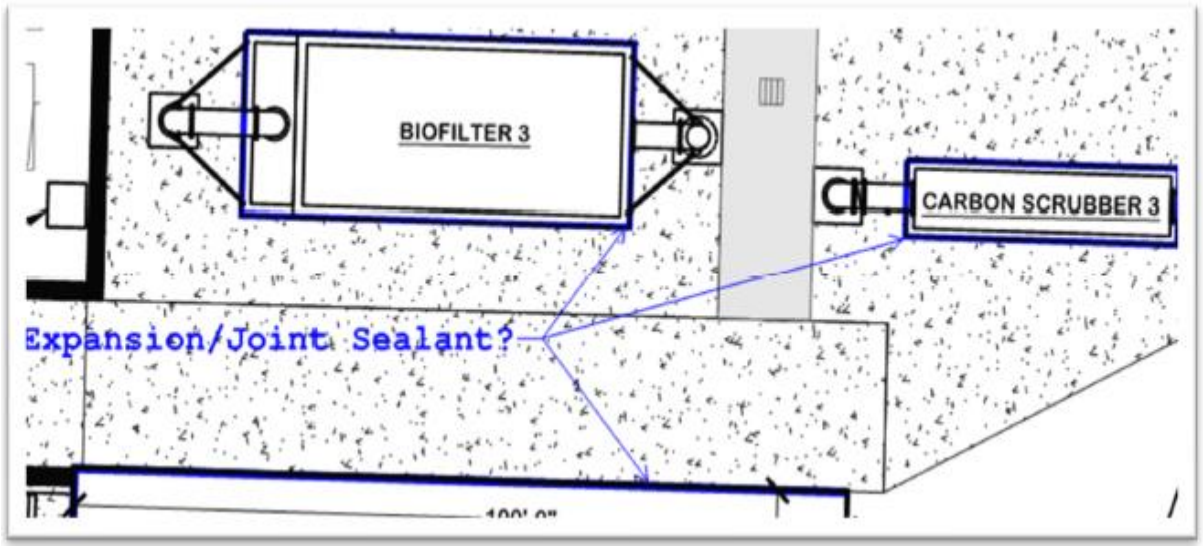
Q1: Is there any type of reinforcement required at the mudmat leveling pad for the retaining wall? Reference Sheet S-9

A: The mudmat constructed as detailed does not require reinforcement.

Q2: There does not appear to be any asphalt paving cross-section(s) in the plans or the specs. Could you please provide a cross-section detail?

A: Please see attached detail (***Attachment E***).

Q3: Do you expect us to install expansion/joint sealant at the new site and building concrete interface as shown below?



A: Yes, detail "Perimeter Isolation Joint" on sheet S-6 (page 19 of 44 of original Bid Document, Attachment D, Drawings/Plans) shall be utilized where a concrete slab meets a foundation wall. Rigid Insulation may be omitted around Carbon Scrubber Foundations. Detail shall also be used at joints where any two (2) non-continuous concrete pours meet.

Q4: Does the Owner have a Controls House/Integrator they are already working with for the existing plant areas that we can approach for pricing for Division 16 Electrical Sections 16901, 16902, 16905?

A: The City has no preference on Controls Vendor / Contractor / Integrator secured as part of this Contract.

If you have any questions related to this addendum please contact Ryan Stoughton, PE, Assistant City Engineer, at stoughtonr@kalamazoocity.org.

The Addendum can be viewed and downloaded from the City's website at https://www.kalamazoocity.org/bidopportunities.

In order for a bid to be responsive, this addendum must be returned, signed and dated, with your bid. If you have already submitted your bid, acknowledge receipt and acceptance of this addendum by signing in the place provided and returning it to the undersigned and it shall be incorporated in your bid. Please identify your return envelope with the bid reference number and project description.

Sincerely,

Michelle Emig
Purchasing Division Manager

c: Ryan Stoughton, Public Services
Chris Nelson, Public Services
James Cornell, Public Services
Prevailing Wage File

FIRM: _____ SIGNED: _____

NAME: _____ DATE: _____
(Type or Print)

ADDENDUM #1

Attachment A

REVISED – SECTION II
BID AND AWARD
(Page 2)

To be used when submitting bids for this project.

Contract 76 B.1-Biological Foul Air Mitigation System-Construction-Rebid

91359-003.0

REVISED - SECTION II
BID AND AWARD

The undersigned having become thoroughly familiar with all of the Bidding Documents incorporated herein, the project site and the location conditions affecting the Work, hereby proposes and agrees to perform all Work in strict conformity with the requirements of these documents, and to provide and furnish all the equipment, labor and materials necessary to complete in a professional manner the furnishing and installing of all of the following, meeting or exceeding the specifications as set forth herein for the prices and times as stated below.

It is the intention of the City of Kalamazoo to perform all of the Work that the budget allows for the cost of the Work (other than excluded Work), determined as provided in the General Provisions & Conditions, for the Lump Sum Bid Price stated below.

Contract 76 B.1 – Biological Foul Air Mitigation System – Construction - Rebid

Lump Sum Bid Price:	**$**

Bidder agrees that the Work will be Substantially Complete on or before **December 31, 2023** and will be completed and ready for Final Payment in accordance with Section V herein on or before **June 30, 2024**.

Bidder shall provide all of the information as requested herein and as necessary for Bidder evaluation, which is in a referable and verifiable format, with their Bid. **Failure to do so and/or failure to provide post-bid requested information may be cause for rejecting the bid as non-responsive.**

Work shall start within **90** working days after receipt of notification by Contractor of Notice to Proceed.

Bidder/Contractor has examined and carefully studied the bidding documents and attachments, and hereby acknowledges receipt of the following addenda:

Addendum No: _____ _____ _____ _____ _____

Dated: _____ _____ _____ _____ _____

The City encourages the use of local labor in fulfilling the requirements of this contract.

By my signature below, I certify that the firm bidding on this contract, when making hiring decisions, does not use a past criminal conviction as a bar to or preclude a person with a criminal conviction from being considered for employment with the bidding firm unless otherwise precluded by federal or state law. I further certify that I have read and agree to be bound by the provisions of the City's Non-Discrimination Clause found in Appendix A as updated by City Ordinance 1856.

Signed: _____ Name: _____

Title: _____

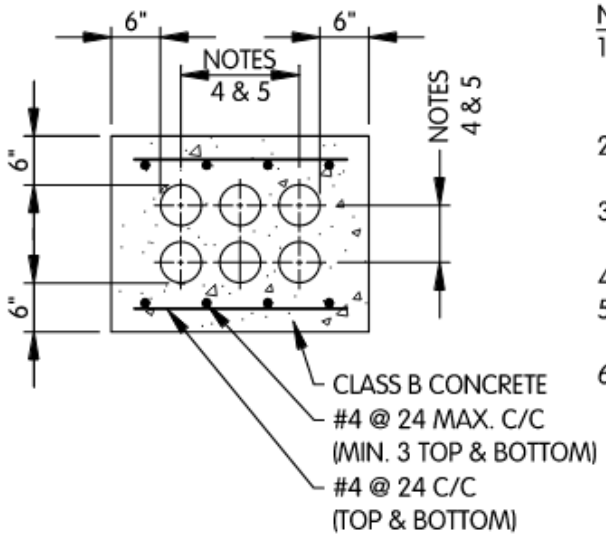
ADDENDUM #1

Attachment B

Typical Concrete Encased Conduit Detail

Contract 76 B.1-Biological Foul Air Mitigation System-Construction-Rebid

91359-003.0



NOTES:

1. ALL DUCT BANKS TO BE REINFORCED UNDER ALL EXISTING & PROPOSED ROADS, DRIVES AND PARKING AREAS.
2. REINFORCING TO EXTEND A MINIMUM OF 5'-0" FROM EACH SIDE OF PAVEMENT.
3. REINFORCING SHOWN IS TYPICAL FOR ALL SIZES OF DUCT BANKS.
4. 7½" MIN.SPACING EXCEPT TO SIGNAL COND.
5. SIGNAL CONDUITS TO BE MAINTAINED 12" MIN. FROM ALL OTHER.
6. THE CONCRETE ENCASEMENT OF ANY NUMBER OF CONDUITS ONE THROUGH SIX CONDUIT(S) SHALL USE THIS DETAIL AS AN EXAMPLE OF AN INSTALLATION. CROSS SECTIONAL SIZE SHALL VARY WITH THE NUMBER OF CONDUITS REQUIRED.

TYPICAL CONCRETE ENCASED CONDUIT DETAIL

NTS

ADDENDUM #1

Attachment C

Envirogen Scope of Supply

Contract 76 B.1-Biological Foul Air Mitigation System-Construction-Rebid

91359-003.0

Envirogen Scope of Supply:

Table 2 Major Equipment List		
Description of Item	**Quantity**	**Description (or equal)**
Grease/Mist Eliminator Rated for 20,000 CFM One (1) Mist & Grease housing designed for 20,000 CFM Constructed of Fiber Reinforced Plastic (FRP) with 46" Flanged Ends.	1 EA	PureAir Filtration or equal
Odor Control Fan Rated for 10,000 CFM @ 20" W.C. S.P. Single-width single inlet centrifugal fan Radial Blade 20" AMCA Certified Ratings Seal for Air Performance FRP Fan Housing – Premium Vinyl Ester Resin FRP with Antimony (Flame Retardant). Sound abatement paint 3 6 " I D Flanged Transition Inlet and Rectangular to 36" ID Round Outlet Transition. VFD compatible 50HP Motor for 460V/3Ph/60Hz and Class 1, Division 2, Group D service	3 EA	Verantis or equal
Custom Build in Place Model 3B15C BioFilter Vessel Internal Components - Retained	3 LOT	Custom

Table 2 Major Equipment List		
Description of Item	**Quantity**	**Description (or equal)**
Three (3) lots of ETI Standard dry-cast concrete media support grating designed for low pressure drop and uniform air distribution for use in individual chambers. Upper surface spray irrigation system. Lower in-bed irrigation system Biofilter Media Inorganic Scorfil and Organic Vamfil Biofilter Media Support Matting Biofilter Upper Media Internal Baffle (3) ea 36"x36" Aluminum Side Access Hatches (provided separate to be cast into concrete side walls by others). Humidification Sprayers Assys & Penetration Assys (provided Separate to be cast into concrete by others). 316SS Humidification Chamber Air Deflectors		
Biofilter Covers, Aluminum Three (3) complete, individual sets of Aluminum Covers to be used to cover over the Biofilter Chambers. Pressure rated at 5.5" w.c.. Includes (1) access hatchway per chamber, hardware support beams, and gasket.	1 LOT	UltraFlote or equal
Carbon Adsorber Vessel with Integral Mist/Grease Filter Rated for 10,000 CFM Constructed of Fiber Reinforced Plastic (FRP) with 36" Inlet Transitions. Includes 9'H exhaust stack with rain cover, screen, and sensor port	3 EA	PureAir Filtration VTS or equal
Water Irrigation Control Panel Wall Mountable, 42"x36", 304SS Enclosure Threaded Water Inlet and Outlet Connections, PVC All Internal piping and fittings to be Schedule 80 PVC.	3 ASY	Custom
Nutrient Metering Pump 115VAC Diaphragm pump (included within the Water Irrigation Control Panel)	3 EA	Grundfos DDA
Nutrient Tank Horizontal XLPE Tank with Approx. 300 gal Capacity With 10" Handway, NPT Drain and Valve, and float switch	1 EA	Snyder or equal
Humidification Recirculation Sump Pump Vertical Submersible Pump 48 gpm@75ft w.c. TDH 5 HP, 460 VAC	2 EA	IFS-Stancor or equal

Table 2 Major Equipment List		
Description of Item	**Quantity**	**Description (or equal)**
Instruments: Three (3)Thermal Mass flow transmitter with flow conditioning plate, One (1) Magnetic flow indicating transmitters, and three (3) H_2S Indicating transmitter	lot	Sierra, Rosemount, USG, or equal
Instruments: Six (6) Thermal Mass flow indicating transmitter with flow conditioning plate, Three (3) Magnetic flow transmitters, 26 Pressure Indicating Transmitters	lot	Sierra, Rosemount, USG, or equal
Valves: Ball Valves, Check Valves, Diaphragm Valves, & Strainers. PVC, True-Union	Increased lot	Envirogen
Inoculum & Nutrients For initial start up	1 lot	Envirogen
Biofilter Control Panel PLC Controller with HMI and I/O cards in a Free Standing NEMA 4X, 304SS Enclosure, 60" x 60" x 12"D. In Rated for Service on 120V/1ph/60 Hz Incl: Fused Disconnect with external operating handle, On/off switches, terminals, relays, circuit breakers, fuses, lightbulbs, UPS, 20% spare I/O points, & E-Stop.	1 EA	Allen Bradley Compact Logix
VFD Control Panel w/Externally Operated Circuit Breaker NEMA 4X, 304SS, Wall Mountable Enclosure, 36" x 30" x 16"D w/AC Rated for Service on 460V/3ph/60Hz Includes: (3) ea Inlet Fan Variable Frequency Drives (VFDs) rated for 50HP,	3 EA	Allen Bradley or equal

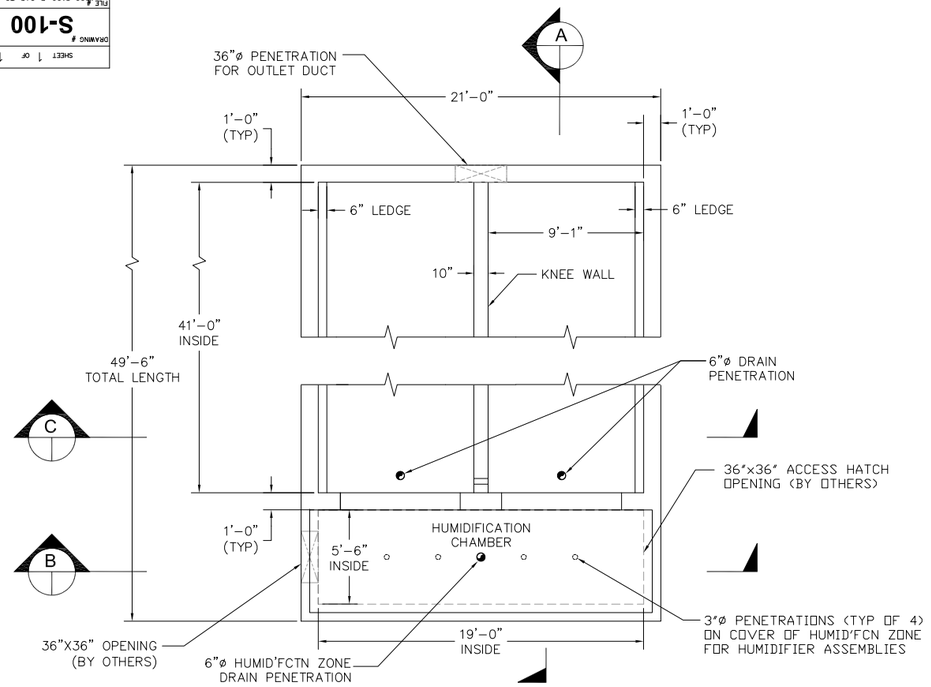
ADDENDUM #1

Attachment D

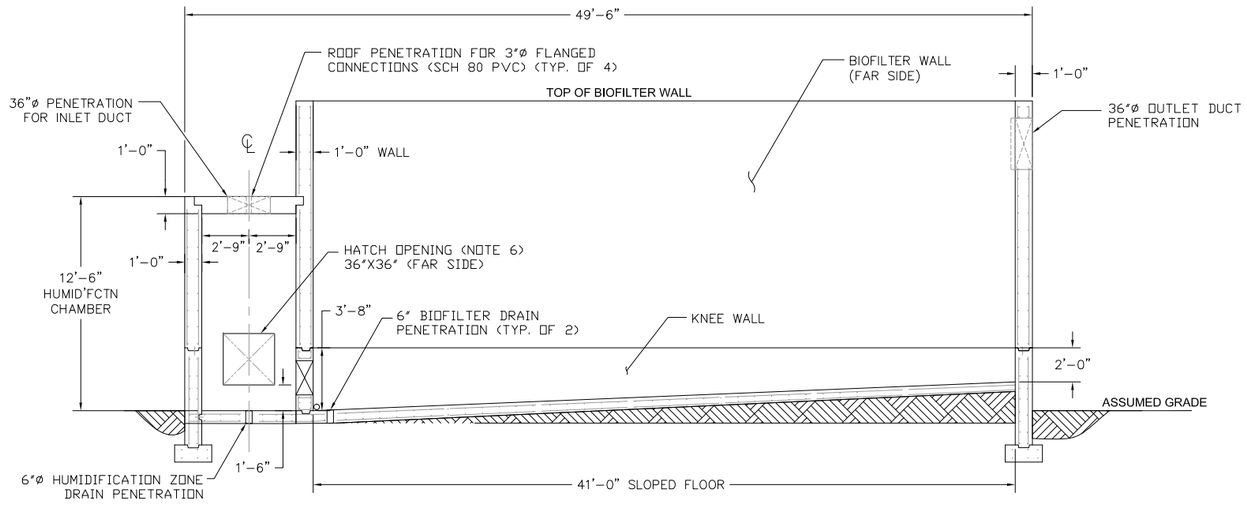
Additional Details and Example Photos

Contract 76 B.1-Biological Foul Air Mitigation System-Construction-Rebid

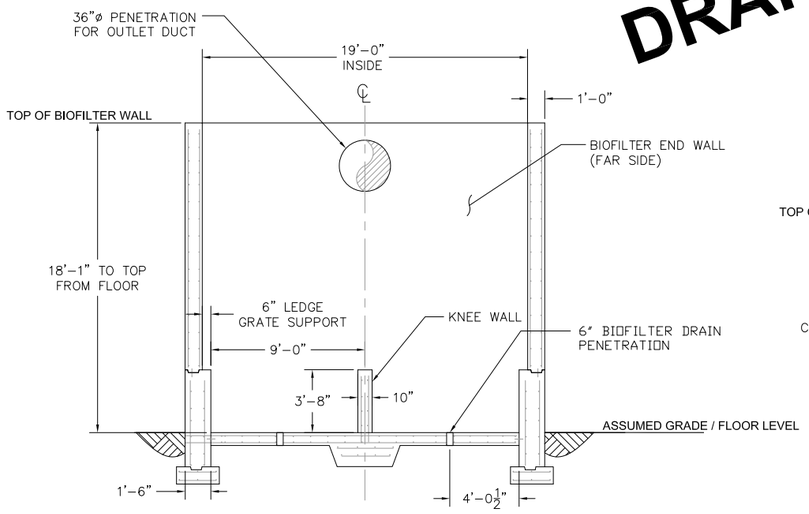
91359-003.0



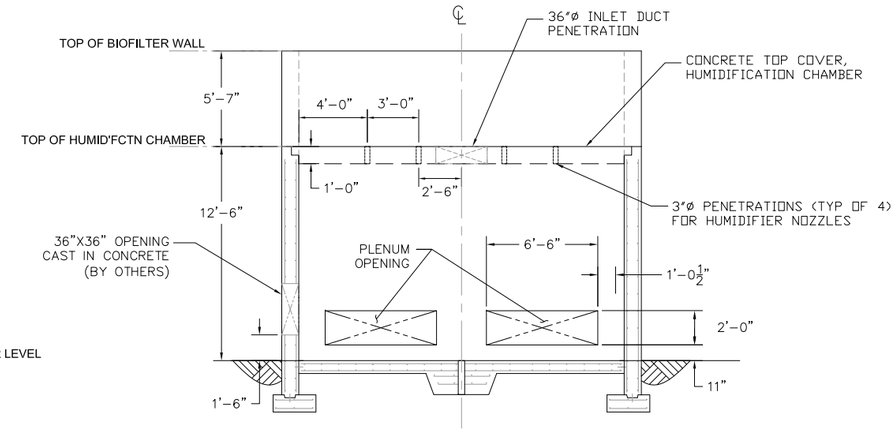
PLAN VIEW



CROSS SECTION (ELEV.) VIEW A



CROSS SECTION (ELEV.) VIEW C



CROSS SECTION (ELEV.) VIEW B

GENERAL NOTES:

1. FINAL CIVIL AND STRUCTURAL DESIGN INCL. BEARING LOADS ON EXTERIOR WALLS, LEDGES AND KNEE WALLS TO BE DETERMINED BY DESIGNATED STRUCTURAL ENGINEER.
2. REFER TO CONTRACT DWGS. FOR ALL STRUCTURAL MEASUREMENTS AND ELEVATION VERIFICATION.
3. REFER TO PROJECT PLANS FOR ACTUAL ORIENTATION AND LOCATION.
4. CONTRACTOR TO SUPPLY ALL EMBEDDED ITEMS UNLESS NOTED OTHERWISE.
5. DETAILS ON FINISH AND EDGING OF CONCRETE WALLS TO BE DETERMINED LATER.
6. 36"X36" OPENING (FOR ACCESS HATCH) CAST IN CONCRETE (BY OTHERS), 18" ABOVE FLOOR SURFACE AS SHOWN.

REV	DATE	DESCRIPTION OF REVISION	REVISED BY	CHECKED BY
3				
2				
1				
6	08-16-21	ADDED HATCH OPENING IN HUMIDIFICATION CHAMBER.	MAP	RL/CP
5	08-13-21	FOR INFORMATION ONLY. NOT FOR CONSTRUCTION.	MAP	RL/CP

THIS IS A COMPUTER GENERATED DRAWING AND ONLY EDITS CONSISTENT WITH ENVIROGEN'S ORIGINAL CAD FORMAT SHALL BE CONSIDERED VALID COPIES.

BIOLOGICAL FOUL AIR TREATMENT
KALAMAZOO, MICHIGAN

CIVIL STRUCTURE KEY DIMENSIONS
1 BAY X 5 COVERS STANDARD DESIGN
BUILT-IN-PLACE BIOFILTER
CONCRETE CONSTRUCTION

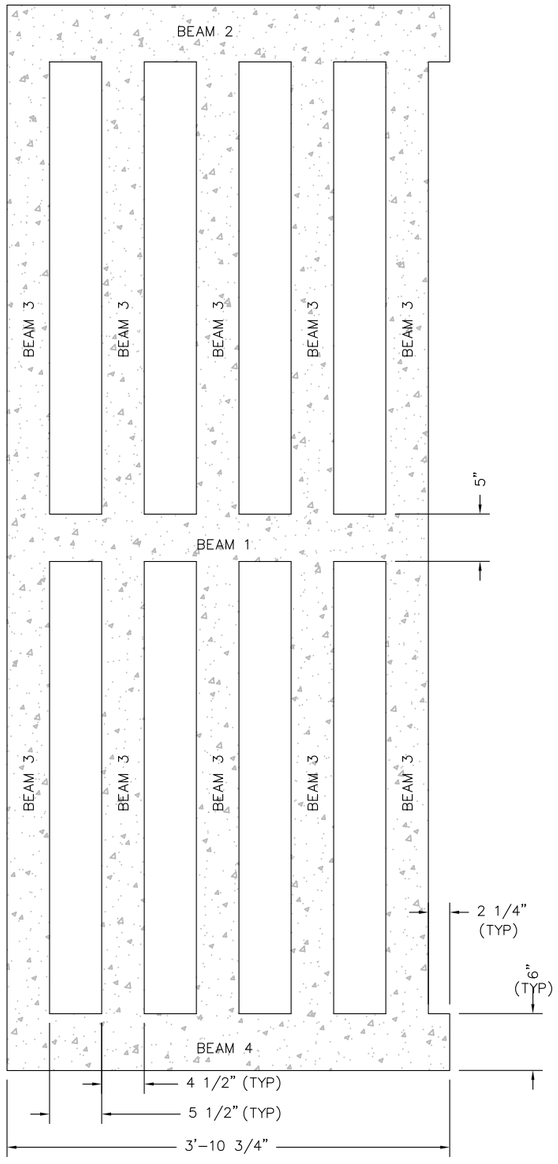
DRAWING SCALE: 1/4"=1'-0"
DESIGNED BY/DATE: MAP/08-13-21
DRAWN BY/DATE: MAP/08-13-21
CHECKED BY/DATE: RL/CP/08-13-21
SHEET SIZE: D
REVISION: B
SHEET 1 OF 1
DRAWING # S-100
FILE # 1600 S100-B CAD TO CLIENT

U.S. PATENTS 5445660, 5821114, 5861303 AND PATENTS PENDING.

THIS DRAWING IS A VISUAL REPRESENTATION OF THE EQUIPMENT AND/OR SYSTEM PROPOSED. IT IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

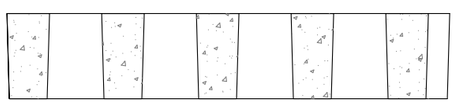
ENVIROGEN TECHNOLOGIES
84A TWIN RIVERS DRIVE
EAST WINDSOR, NJ 08520
A Lifecycle Performance Company

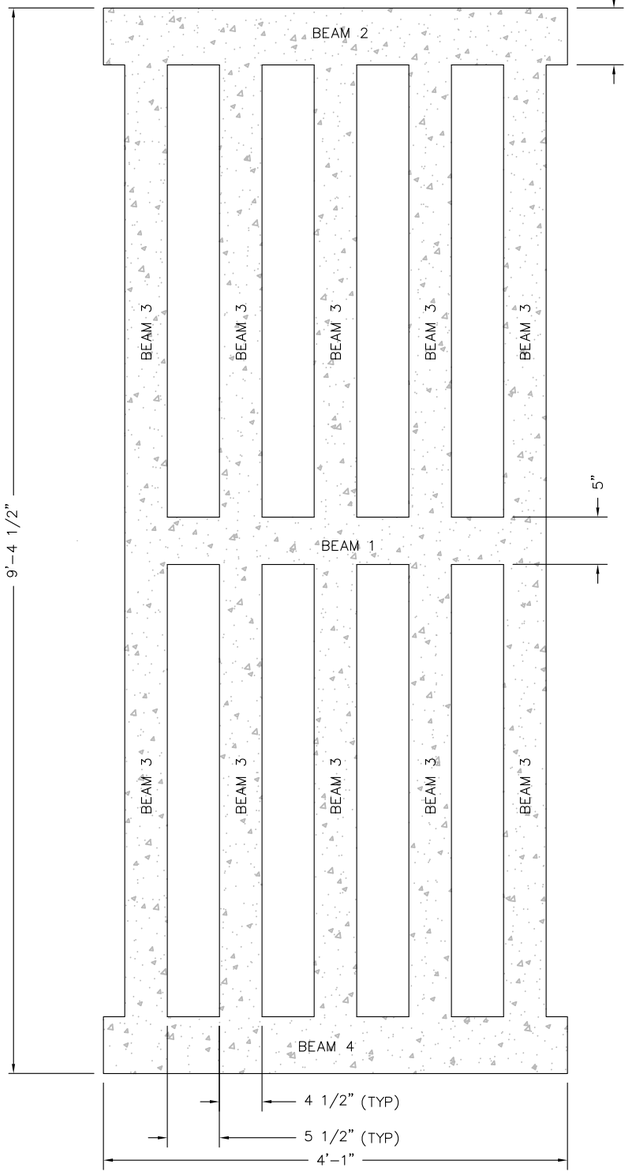
PRELIMINARY
FOR INFORMATION ONLY
NOT FOR CONSTRUCTION



END GRATING

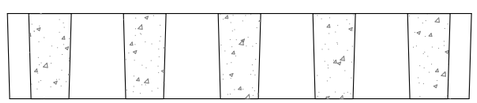
APPROX. WT. 2690 LBS.

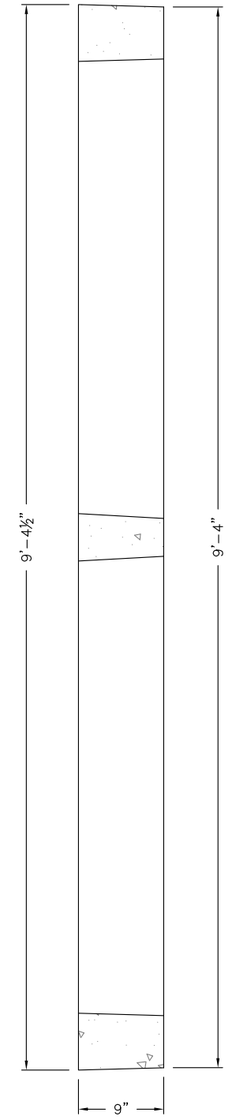




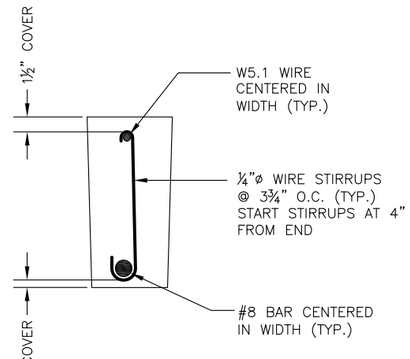
INTERIOR GRATING

APPROX. WT. 2710 LBS.





TYPICAL CROSS SECTION



ALL BEAMS

N.T.S.

GENERAL NOTES:

1. GRATING FABRICATED FROM 8,000 PSI CONCRETE.
2. REBAR IS EPOXY COATED; STIRRUPS ARE GALVANIZED.
3. GRATING OPEN AREA EQUALS ±50%

REV	DATE	DESCRIPTION OF REVISION	REVISED BY	CHECKED BY
1	07-26-16	ENGINEERING STANDARD	DL	CP
0	06-19-15	RECORD DRAWING	DL	CP

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ENVIROGEN TECHNOLOGIES, INC.
STANDARD DRAWING

CONCRETE GRATING
FOR BUILT-IN-PLACE BIOFILTER

DRAWING SCALE: 6"=1'-0"
DESIGNED BY/DATE: RL 01-14-13
DRAWN BY/DATE: JP 01-15-13
CHECKED BY/DATE: RL 02-14-13
SHEET SIZE: D
REVISION: 1
SHEET 1 OF 1
DRAWING #: SD10-M340
FILE #: SD10-M340-1

U.S. PATENTS 5750028, 5788842, 6706521 AND PATENTS PENDING.

ENVIROGEN TECHNOLOGIES
84A TWIN RIVERS DRIVE
EAST WINDSOR, NJ 08520
A Lifecycle Performance Company

Example Construction Photos

Empty Biofilter

Support Grading Installation

Matting and Media placement

ADDENDUM #1

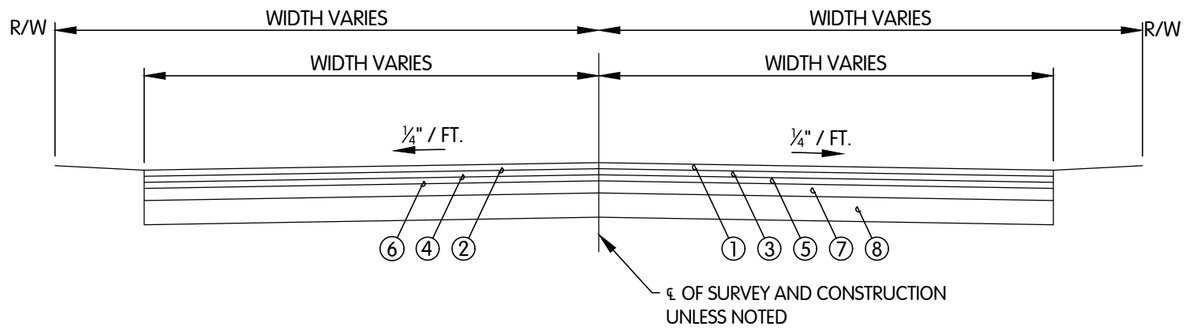
Attachment E

Typical HMA Pavement Section

Contract 76 B.1-Biological Foul Air Mitigation System-Construction-Rebid

91359-003.0

① 2" MDOT HMA 13A WEARING COURSE
② TACK COAT 0.05 GAL/SQ.YD.
③ 2" MDOT HMA 13A LEVELING COURSE
④ TACK COAT 0.05 GAL/SQ.YD.
⑤ 2" MDOT HMA 2C BASE COURSE
⑥ PRIME COAT 0.10 GAL/SQ.YD.
⑦ 8" CIP MDOT 22A AGGREGATE BASE
⑧ 24" CIP MDOT GRANULAR MATERIAL CLASS III SUBBASE



TYPICAL HMA PAVEMENT SECTION

NTS

KAL-772500ISRDETAIL-ANSI-B-REPORT
3/15/2022 7:24 AM - CFERRELL
3/15/2022 7:24 AM

CITY OF KALAMAZOO, MICHIGAN
KWRP BIOFILTRATION
CONTRACT 76

TYPICAL HMA PAVEMENT SECTION

Jones & Henry Engineers, Ltd.
www.jheng.com Fluid Thinking©.