

**NOT WASHINGTON METROPOLITAN TRANSIT AUTHORITY
600 FIFTH STREET, NW
WASHINGTON, DC 20001**

Tender Number:	IFB-FQ18102/KKB
Date of Issuance:	May 11, 2018
Tender Due Date:	May 16, 2018
Revised Tender Opening Date:	May 23, 2018

**AMENDMENT NO. 02
TO
INVITATION FOR BIDS
FOR**

Replacement of Chiller and Cooling Tower Accessories at Eight (8) Metro-rail Stations:
DC, MD, and VA
IFB-FQ18102/KKB

TO WHOM IT MAY CONCERN:

The Invitation for Bids Documents accompanying IFB FQ18102/KKB requesting proffers for above procurement action are herewith changed in part as listed below. The changes are bolded and denoted with ## signs.

1. SECTION 00800, SUPPLEMENTAL CONDITIONS

<u>DELETE</u>	<u>SUBSTITUTE</u>	<u>DESCRIPTION</u>
Section 00800, Wage Rates, Pages Appendix D-1 thru Appendix D-2.	Section 00800, Wage Rates, Pages Appendix D-1 thru Appendix D-2. Amendment No. 02	Revised Wage Rates

2. SECTION 00800, SUPPLEMENTAL CONDITIONS

<u>DELETE</u>	<u>SUBSTITUTE</u>	<u>DESCRIPTION</u>
Section 00800, DBE, Pages Appendix B-17 to Appendix B-25 Amendment No. 01	Section 00800, DBE, Pages Appendix B-17, to Appendix B-27 Amendment No. 2	Revised to include Attachment B-8 Form

3. CONTRACT DRAWINGS

<u>DELETE</u>	<u>SUBSTITUTE</u>	<u>DESCRIPTION</u>
Drawing Nos. CWPC03-M-103-Farragut West, CWPE05-M-101-Georgia Ave-Petworth, And CWPB11-M-101-Glenmont	Drawing Nos. CWPC03-M-103 - Farragut West, CWPE05-M-101 - Georgia Ave-Petworth, and CWPB11-M-101- Glenmont, Amendment No. 02	Revised to include Horns & Strobes

4 SECTION 00100, BIDDING REQUIREMENTS

<u>DELETE</u>	<u>SUBSTITUTE</u>	<u>DESCRIPTION</u>
Section 00100, Invitation for Bids, Page 2-Section 00100	Section 00100, Invitation for Bids, Page 2-Section 00100 Amendment No. 02	Revised Project Bid Schedule

5. There are no further changes.
6. THE SOLICITATION PROVISIONS ENTITLED "SOLICITATION AMENDMENT" IS APPLICABLE TO THIS AMENDMENT. THE CHANGES SET FORTH ARE HEREWITH INCORPORATED INTO THE ABOVE CITED SOLICITATION. THE HOUR AND DATE SPECIFIED FOR RECEIPT OF PROFFERS IS NOT EXTENDED AND WILL REMAIN MAY 23, 2018 AT 2:00 PM EST.
7. Acknowledgement: Bidders are required to acknowledge receipt of this amendment on Bid Form in the space provided. Failure to acknowledge all Amendments may cause the proffer to be considered non-responsive to the invitation for bids, which may cause its rejection.

Issued By: 
Norie A. Calvert, Contracting Officer, Office of Procurement and Materials

General Decision Number: DC180002 ## 05/04/2018 ## DC2

Superseded General Decision Number: DC20170002

State: District of Columbia

Construction Type: Building

County: District of Columbia Statewide.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above – mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2018
1	01/12/2018
2	02/09/2018
3	03/23/2018
4	04/20/2018
## 5	05/04/2018 ##

ASBE0024-007 10/01/2017

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR	\$ 35.13	16.22

Includes the application of all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems

ASBE0024-008 10/01/2017

	Rates	Fringes
ASBESTOS WORKER: HAZARDOUS MATERIAL HANDLER	\$ 22.81	7.34

Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems

ASBE0024-014 10/01/2017

	Rates	Fringes
FIRESTOPPER	\$ 28.01	7.78

Includes the application of materials or devices within or around penetrations and openings in all rated wall or floor assemblies, in order to prevent the passage of fire, smoke or other gases. The application includes all components involved in creating the rated barrier at perimeter slab edges and exterior cavities, the head of

gypsum board or concrete walls, joints between rated wall or floor components, sealing of penetrating items and blank openings.

BRDC0001-002 04/30/2017

	Rates	Fringes
BRICKLAYER	\$ 30.91	10.24

CARP0177-003 05/01/2017

	Rates	Fringes
CARPENTER, Includes Drywall Hanging, Form Work, and Soft Floor Laying-Carpet	\$ 28.36	11.53

* CARP0179-001 05/01/2018

	Rates	Fringes
## PILEDRIVERMAN	\$ 31.44	10.95 ##

CARP0219-001 05/01/2017

	Rates	Fringes
MILLWRIGHT	\$ 32.49	11.23

ELEC0026-016 11/06/2017

	Rates	Fringes
ELECTRICIAN, Includes Installation of HVAC/Temperature Controls	\$ 45.15	17.15

ELEC0026-017 09/05/2016

	Rates	Fringes
ELECTRICAL INSTALLER (Sound & Communication Systems)	\$ 27.55	10.20

SCOPE OF WORK: Includes low voltage construction, installation, maintenance and removal of teledata facilities (voice, data and video) including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, railroad communications, micro waves, VSAT, bypass, CATV, WAN (Wide area networks), LAN (Local area networks) and ISDN (Integrated systems digital network).

WORK EXCLUDED: The installation of computer systems in industrial applications such as assembly lines, robotics and computer controller manufacturing systems. The installation of conduit and/or raceways shall be installed by Inside Wiremen. On sites where there is no Inside Wireman employed, the Teledata Technician may install raceway or conduit not greater than 10 feet. Fire alarm work is excluded on all new construction sites or wherever the fire alarm system is installed in conduit. All HVAC control work.

ELEV0010-001 01/01/2018

	Rates	Fringes
ELEVATOR MECHANIC	\$ 44.12	32.645+a+b

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day and the Friday after Thanksgiving.

**Washington Metropolitan Area Transit Authority
Disadvantage Business Enterprise Program
Termination/Substitution/Reduction Request (TSR) Form
(Attachment B-8)**

Contract No.: _____ MOD No.: _____ Task Order No.: _____

Prime: _____ Vendor ID No.: _____

DBE Firm: _____ DBE Certification No.: _____

Requestor: _____ Email: _____ Phone No.: _____

Type of Request: _____ Termination: _____ Substitution: _____ Reduction: _____

1. Is this request due to a WMATA Change Order/Scope

_____ Yes, explain the Change Order/Scope impact on DBE participation.

_____ No, select below the fact(s) and the reason(s) for the request (see attached instructions)

_____ Fails or refuses to execute written contract;

_____ Fails or refuses to perform work in accordance with normal industry standards;

_____ Becomes bankrupt, insolvent or exhibits credit unworthiness;

_____ Is ineligible to work because of suspension or debarment proceedings;

_____ Is not a responsible contract;

_____ Voluntarily withdraws from the project and provides to WMATA written notice of its withdrawal;

_____ Is ineligible to receive DBE credit for the type of work required;

_____ Owner dies or becomes disable resulting in inability to complete work on the contract;
or

_____ Other documented good cause (Attach documentation).

Attach a brief statement of facts describing the situation and any documentation to substantiate selection and any documentation to substantiate selection above

2. Date determined the DBE is unwilling, unable or ineligible to perform work: _____

3. Date of written notice to DBE: _____ (Attach a notice with this request, along with a copy of the DBE response.)

4. Amount of DBE subcontract. \$ _____
5. Amount paid to DBE for work completed \$ _____
6. DBE amount to be substituted \$ _____
7. Proposed Subcontractor Name(s) (if applicable).
- _____
- _____
- _____

8. Projected date for replacement Subcontractor to commence work _____
9. Is the replacement a WMATA certified DBE?
- ____ Yes, please provide new DBE Letter of Intent, Vendor ID No. or DBE Cert. No.: _____
- ____ No, provide Good Faith Effort (GFE) documentation
10. Is this project scheduled to meet the assessed DBE goal? ____ Yes ____ No

Original DBE Subcontractor Signature

Date

Prime Contractor Signature

Date

WMATA Contracting Officer Signature

Date

FOR WMATA USE ONLY

Request is: ____ Approved ____ Denied

WMATA DBE LO: _____

Signature _____ Date _____

DBE Certification Instructions

Important Notice

If you do not have a current, official letter of certification from WMATA, D.C. DOT or MWUCP, you are not pre-certified and are therefore not eligible to participate as a Disadvantaged Business Enterprise on the bid.

For those who wish to access the MWUCP certification application, it may be found on the internet at the following address:

https://www.wmata.com/business/disadvantaged_business_enterprise. Go to "Procurement and Contracting", click on "Disadvantaged Business Enterprise", then click on "DBE Application for Certification".

49 CFR Part 26 gives Metropolitan Washington Unified Certification Program (MWUCP) ninety (90) days in which to process a complete DBE application. In order to become certified and participate in the MWUCP, you must comply with the procedures that follow. Certification must be final before the due date for bids or offers on a contract on which a firm seeks to participate as a DBE.

Instructions

49 C.F.R. § 26.81(d) of the Certification Procedures requires a firm to be certified as a DBE in its "home state," where its principal place of business is located, in order to become certified outside such "home state". Therefore, you must attach to the MWUCP application, a copy of a valid DBE Certification letter from your home state's Department of Transportation. In addition, submit the pertinent documents for your company listed below. The application should be completed in full and NOTARIZED.

General (All firms must submit these documents.)

- Current (unaudited) Financial Statements;
- Prior three (3) years Federal Tax Returns;
- Resume of Principal(s) and Key Personnel;
- Third Party Agreements, such as Rental and Management Agreements;
- Licenses to Do Business;
- Personal Net Worth (PNW) Statement;
- Statement of Disadvantage;
- No Change Affidavit or Notice of Change (where applicable).

Corporations

- Articles of Incorporation;
- By-Laws;
- Copies of any Stock Options;
- Copies of Stock Certifications of Each Holder;
- Copies of Stockholders' Voting Rights;
- Record of First Organizational Meeting.

Partnerships

- Partnership Agreement

Proprietorships

IRS Employer ID Number
WMATA Vendor ID#

Limited Liability Companies

Operating Agreement with any amendments;
Certificate of Formation, U.S. Income Tax Returns.

Change of Status Review

On or before each certification anniversary date, you must submit a No Change Statement attesting that there have been no changes in the firm's circumstances affecting its ability to meet the eligibility requirements of 49 CFR Part 26 or WMATA's DBE Program Plan. Firms with changed circumstances must submit a Notice Regarding Change for review by the DBE Office. A review of these changes shall be made to determine if the firm is in compliance with the 49 CFR Part 26.

Affidavit Enclosure

NOTE: When completing MWUCP Application, complete all information blocks. Type "N/A" if item does not apply to you or your firm.

DBE MANUFACTURER'S AFFIDAVIT

I hereby declare and affirm that I am _____ (Title)
and duly authorized representative of _____ (Name of Company),
a _____ owned and controlled enterprise
whose address is _____

I further declare and affirm that company employees (persons not on the payroll of and/or performing the same tasks for disadvantaged owned business having any interest in the affiant's business) operate the following company equipment relative to the manufacturing process:

Equipment

Type	Function	Model	Age	Make
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Number of employees involved in the manufacturing process: _____

The undersigned swears that the foregoing statements are true and correct and fully understands that WMATA may rely on these statements in determining whether a WMATA prime contractor purchasing goods from the undersigned's manufacturing concern is entitled to a 100% credit of such purchases towards its DBE goal. The undersigned further understands that any material misrepresentation will be grounds for initiating action under Federal or state laws concerning false statements.

_____ Signature of Affiant	_____ Printed Name
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Date: _____ State: _____ County: _____

On this _____ day of _____, 19____

before me appeared _____
(Name)

to me personally known, who, being duly sworn, did execute the foregoing Affidavit, and did state that he or she was properly authorized by _____
(Name of Firm)

to execute the Affidavit and did so as his or her free act and deed.

(Seal) Sworn and subscribed before me _____
(Notary Public)

Commission Expires: _____

23.29 (10/99)

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Information for Determining Joint Venture Eligibility

Page 1

.....
Name and address of Joint Venture:

Contact Person: _____ Telephone: _____

Have you attached a copy of the Joint Venture agreement? ☐ Yes ☐ No

NOTE: Affidavit will not be processed without a copy of the Joint Venture agreement.
.....

Name and address of Joint Venture partner: _____

Contact Person: _____ Telephone: _____

Status of firm: ☐ DBE. ☐ Non-Minority.

Does firm have current WMATA, D.C. DOT or MWUCP DBE certification? ☐ Yes ☐ No
.....

Name and address of Joint Venture partner: _____

Contact Person: _____ Telephone: _____

Status of firm: ☐ DBE. ☐ Non-Minority.

Does firm have current WMATA, D.C. DOT or MWUCP DBE certification? ☐ Yes ☐ No
.....

Describe the nature of the Joint Venture's business:

Describe the role in the Joint Venture of each partner listed above:

Describe the experience and business qualifications of each partner in the Joint Venture listed above:
.....

Information for Determining Joint Venture Eligibility

Page 2

Indicate the percentage of ownership in the Joint Venture for each Joint Venture partner, indicating dollar amounts wherever applicable.

Name of Partner	Percentage of Ownership	Profit and Loss Sharing	Capital Contributions including Equipment	Other Agreements
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

TOTALS:

Identify by name, title, race, sex and company affiliation those individuals responsible for the management control of and participation in this contract:

1. Financial decisions, such as payroll, insurance, surety and/or bonding requirements:

Name: _____ Race: _____

Title: _____ Sex: ☐ Male ☐ Female

Company affiliation: _____

2. Management decisions, such as estimating, marketing and sales, hiring and firing, purchasing supplies:

Name: _____ Race: _____

Title: _____ Sex: ☐ Male ☐ Female

Company affiliation: _____

3. Supervision of field operations:

Name: _____ Race: _____

Title: _____ Sex: ☐ Male ☐ Female

Company affiliation: _____



.06c (Rev 10/99)

Information for Determining Joint Venture Eligibility

Page 3

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The undersigned swear that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operations of our following named Joint Venture:

and the intended participation by each Joint Venturer in the undertaking. Further, the undersigned covenant and agree to provide the Authority current, complete and accurate information regarding actual Joint Venture work and the payment thereof and any proposed changes in any of the Joint Venture arrangements and to permit the audit and examination of the books, records and files of the Joint Venture, or those of each Joint Venturer relevant to the Joint Venture, by authorized representatives of the Authority or the Federal funding agency. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under Federal and State laws concerning false statements.

It is recognized and acknowledged that the Authority's DBE Program shall have access to the information provided herein above for the purpose of establishing eligibility and authenticity of the minority/woman-owned status of the Joint Venture.

It is understood that trade secrets and information privileged by law, as well as commercial, financial, geological and geophysical data furnished will be protected.

(NAME OF FIRM)

(NAME OF SECOND FIRM)

(SIGNATURE OF AFFIANT)

(SIGNATURE OF AFFIANT)

(PRINT NAME)

(PRINT NAME)

(TITLE)

(TITLE)

(DATE)

(DATE)

.....

23.29 (10/99)

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Information for Determining Joint Venture Eligibility

Page 4

.....
Date: _____ State: _____ County: _____

On this _____ day of _____, 19_____,

before me appeared _____
(Name)

to me personally known, who, being duly sworn, did execute the foregoing Affidavit, and did state that he
or she was properly authorized by _____
(Name of Firm)

to execute the Affidavit and did so as his or her free act and deed.

(Seal) Sworn and subscribed before me _____
(Notary Public)

Commission Expires: _____

.....
Date: _____ State: _____ County: _____

On this _____ day of _____, 19_____,

before me appeared _____
(Name)

to me personally known, who, being duly sworn, did execute the foregoing Affidavit, and did state that he
or she was properly authorized by _____
(Name of Firm)

to execute the Affidavit and did so as his or her free act and deed.

(Seal) Sworn and subscribed before me _____
(Notary Public)

Commission Expires: _____



23.06c (Rev 10/99)

Washington Metropolitan Area Transit Authority

**DISADVANTAGED BUSINESS ENTERPRISE (DBE)
MONTHLY PROMPT PAYMENT REPORT**

PRIME – CONTRACTOR'S REPORT

This report is required to be submitted to the Office of Procurement, DBE Branch 600 5th Street, NW, Suite 3C, Washington, DC 20001, pursuant to the requirements of WMATA's DBE Program Plan and §26.29 of 49 CFR Part 26.

Contract No.: _____ Reporting Period: _____

Name of Prime Contractor: _____ DBE – Yes or No _____

Prime Contract Amount: _____ Total Received this Reporting Period: _____ Total Received to Date: _____ DBE Goal _____

Name of Sub-Contractor	DBE (Y/N)	Description of Work	Date of Contract Awarded	Amount of Sub-Contractor Award	Amount Paid This Reporting Period	Cumulative Paid To Sub-Contractor	% of Physical Work Complete
TOTAL							

I certify the information furnished with respect to DBE subcontractor performance correct to the best of my knowledge and represents a current status of the prime contractor with the DBE subcontractors for the designated period covered by this report. Further, those subcontractors, due payment pursuant to the terms of their subcontracts will be paid within ten days after receipt of payment from WMATA.

By: _____ Title: _____ Date: _____

Washington Metropolitan Area Transit Authority

**DISADVANTAGED BUSINESS ENTERPRISE (DBE)
MONTHLY PROMPT PAYMENT REPORT**

SUBCONTRACTOR'S REPORT

This report is required to be submitted to WMATA's DBE Office, 600 5th Street, NW, Suite 3C, Washington, DC 20001, pursuant to the requirements of WMATA's DBE Program Plan and 49 C.F.R. §26.29.

Contract No.: _____ Reporting Period: _____

Name of Subcontractor: _____ DBE – Yes or No _____

Subcontractor Contract Amount: _____ Total Received this Reporting Period: _____ Total Received to Date: _____

Name of Sub-Contractor	DBE (Y/N)	Description of Work	Date of Contract Awarded	Amount of Sub-Contractor Award	Amount Paid This Reporting Period	Cumulative Paid To Sub-Contractor	% of Physical Work Complete
TOTAL							

I certify the information furnished with respect to DBE subcontractor performance correct to the best of my knowledge and represents a current status for the designated period covered by this report. Further, those contractors, due payment pursuant to the terms of their subcontracts will be paid within ten days after receipt of payment from the Contractor.

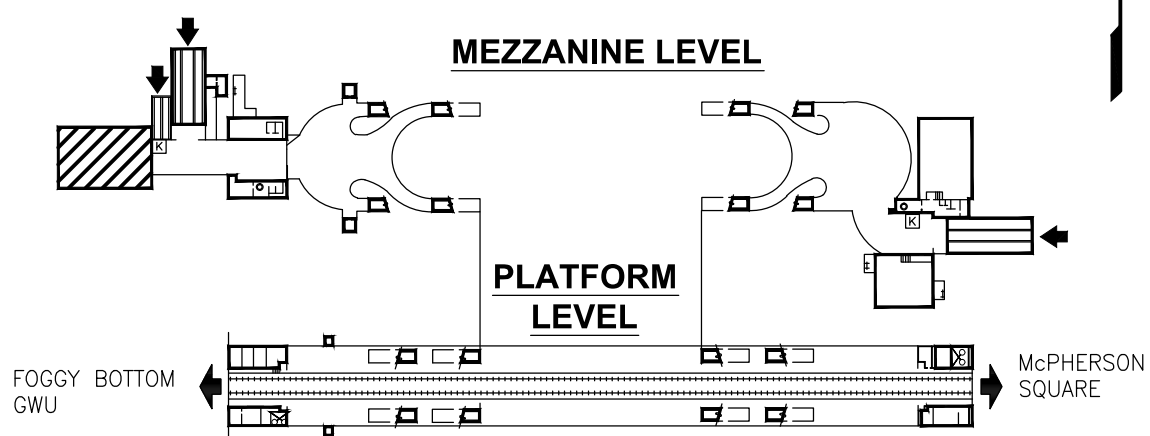
By: _____ Title: _____ Date: _____

GENERAL NOTES:

- A. CONTRACTOR SHALL FIELD VERIFY AND COORDINATE LOCATION OF NEW EQUIPMENT, PIPING, VALVES, DUCTWORK, ELECTRICAL AND CONTROL WIRING WITH EXISTING PRIOR TO INSTALLATION. ITEMS SHOWN ON THIS PLAN ARE APPROXIMATE.
- B. REFER TO LEGEND SHEET FOR GENERAL ABBREVIATIONS AND SYMBOLS.
- C. INSTALL ALL EQUIPMENT, COMPONENTS PER MANUFACTURER'S RECOMMENDATION.

KEYNOTES:

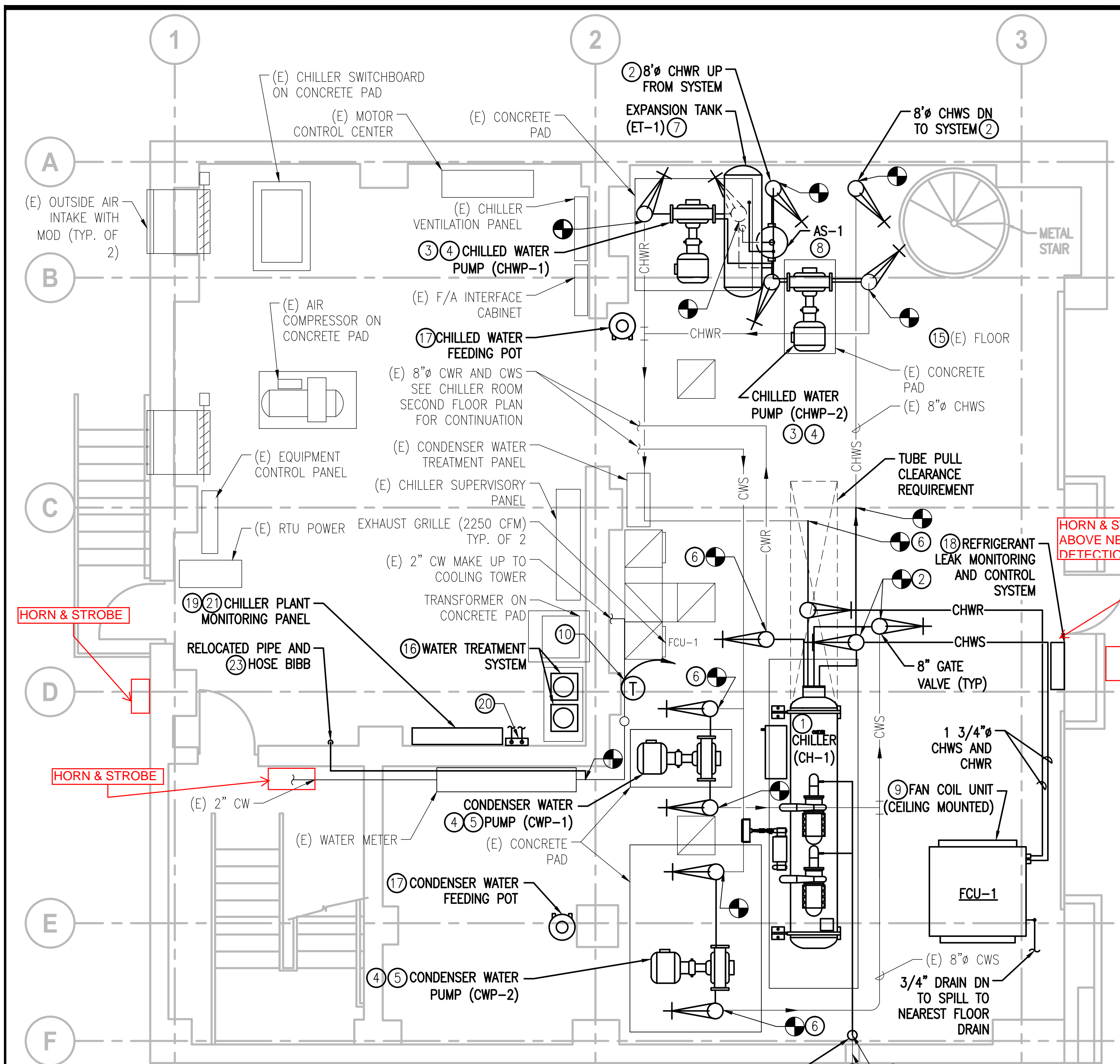
- 1 PROVIDE AND INSTALL NEW THERMOSTATICALLY CONTROLLED FAN COIL UNIT INCLUDING PIPING, VALVES, AND SUPPORTS. SUPPLY WATER TO THE UNIT SHALL BE TAPPED FROM THE CHWS; RETURN SHALL TAP INTO THE CHWR. CONTRACTOR SHALL FIELD ROUTE CONDENSATE DRAINAGE FROM FAN COIL UNIT TO THE NEAREST ACCESSIBLE FLOOR DRAIN.
- 2 PROVIDE AND INSTALL NEW THERMOSTAT FOR NEW FAN COIL UNIT.
- 3 PROVIDE AND INSTALL NEW EXHAUST DUCTWORK, INCLUDING, BUT NOT LIMITED TO: ALL NECESSARY FITTINGS, SUPPORTS, DAMPERS, AND GRILLES. CONTRACTOR SHALL FIELD COORDINATE THE HEIGHT OF DUCTWORK ABOVE FLOOR TO AVOID ANY INTERFERENCE WITH OTHER PIPING, EQUIPMENT, AND LIGHTING.
- 4 PROVIDE AND INSTALL NEW EXHAUST FAN, INCLUDING SUPPORTS AND ANY ASSOCIATED WIRING AND CONTROLS. CONTRACTOR SHALL UTILIZE FLEXIBLE CONNECTIONS AND TRANSITION AS REQUIRED AT FAN INLET AND OUTLET FOR CONNECTION TO NEW DUCTWORK AND PROVIDE APPROPRIATE TRANSITION. PROVIDE SUPPORT WITH SPRING VIBRATION ISOLATORS. EXHAUST FAN F-7 TO BE SIZED TO MEET THE REQUIREMENTS OF ASHRAE 15.
- 5 PROVIDE AND INSTALL NEW REFRIGERANT LEAK MONITORING AND CONTROL SYSTEM, INCLUDING TUBING, SENSORS, STROBE LIGHTS, AND ALARM. INTEGRATE WITH NEW EXHAUST FAN EF-7. INTEGRATE WITH CHILLER PLANT MONITORING PANEL. REFRIGERANT DETECTION SYSTEM SHALL UTILIZE SHERLOCK 402-4 CONTROL MODULE AND SHERLOCK REFRIGERANT GAS SENSOR FOR R134A. TWO REFRIGERANT DETECTION SENSORS SHALL BE USED AND THE PROBES SHALL BE LOCATED BELOW EACH REFRIGERANT MONITORING PANEL. CONTRACTOR SHALL FIELD VERIFY AND INSTALL SENSORS 18" ABOVE FINISHED FLOOR LEVEL. REFER TO EXHAUST FAN SEQUENCE OF OPERATION ON DRAWING CWPC03-M-610.
- 6 PROVIDE AND INSTALL NEW UNIT HEATER INCLUDING SUPPORTS.
- 7 PROVIDE AND INSTALL NEW EYEWASH, UTILITY SINK AND FAUCET, AND ASSOCIATED INSTANTANEOUS WATER HEATER AND PIPING. EYEWASH WATER SUPPLY SHALL BE FIELD ROUTED TO CONNECT UPSTREAM OF THE EXISTING MAKE-UP WATER BACKFLOW PREVENTER. PROVIDE INLINE ISOLATION VALVE, STRAINER, REDUCED PRESSURE TYPE BACKFLOW PREVENTER AT AN ACCESSIBLE LOCATION. SEE SCHEMATIC ON DWG M-502 FOR FURTHER DETAIL OF EYEWASH, UTILITY SINK, AND WATER HEATER PIPING CONFIGURATION.
- 8 PROVIDE AND INSTALL NEW THERMOSTATICALLY CONTROLLED AUTOMATIC DAMPER FOR FRESH AIR INTAKE, HINGED FOR EMERGENCY EGRESS.
- 9 TERMINATE EXHAUST DUCT WITH A 16x14 WIREMESH SCREEN AT A 45° ANGLE AND 18" ABOVE FINISHED FLOOR. WIREMESH SCREEN SHALL BE 1/4"x1/4"



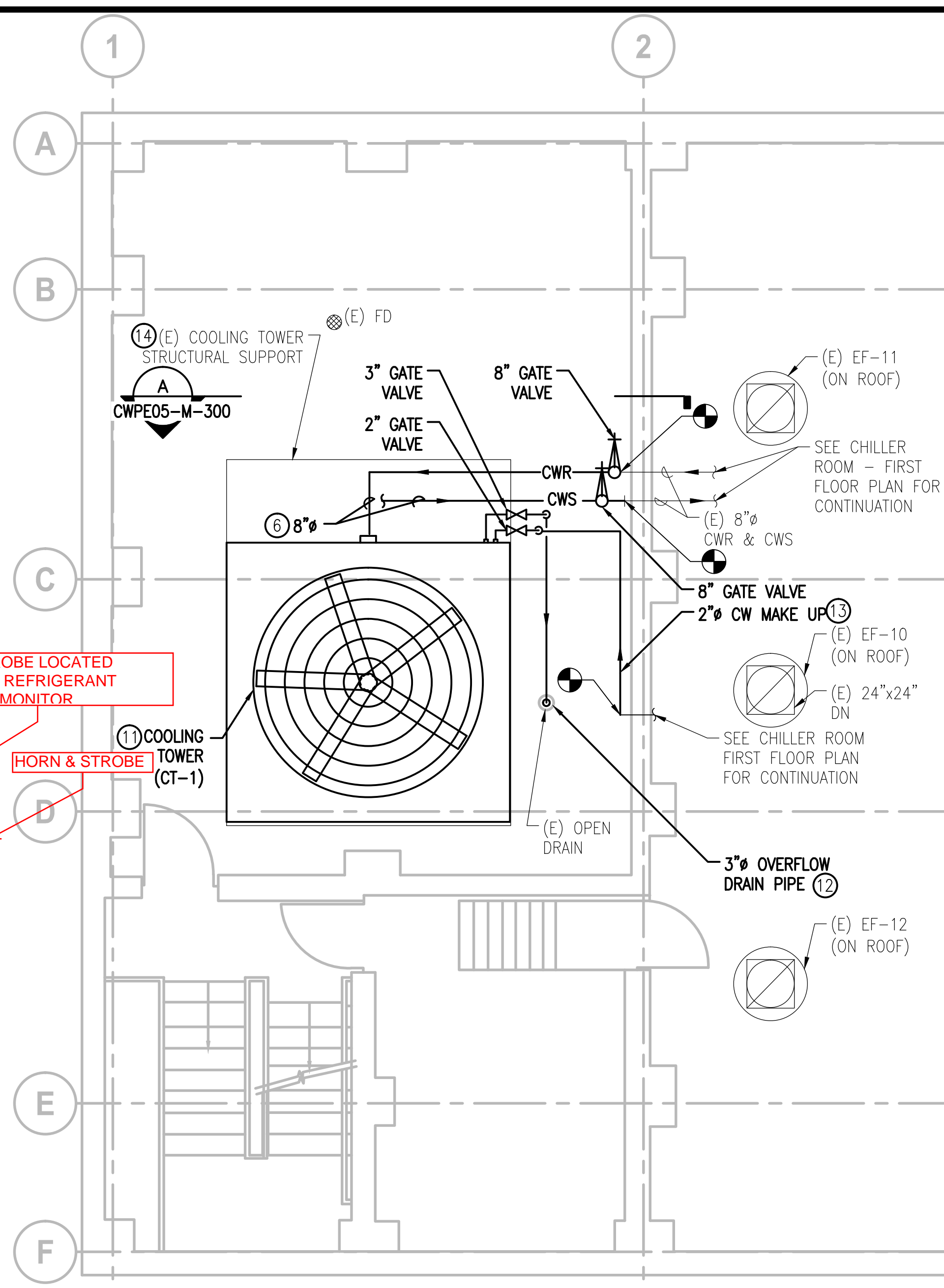
AIR SYSTEM - CHILLER ROOM FLOOR PLAN - NEW WORK

SCALE: 1/4"=1'-0"

DESIGNED B. VISWANATHAN 05/17 DATE 05/17 DRAWN M. OLAYA 05/17 DATE 05/17 CHECKED R. SILVA 05/17 DATE 05/17 APPROVED R. SILVA 05/17 DATE 05/17			REFERENCE DRAWINGS NUMBER DESCRIPTION DATE BY DESCRIPTION			REVISIONS NUMBER DESCRIPTION DATE BY DESCRIPTION			DISTRICT OF COLUMBIA RICHARD A. SILVA 12/05/2016 No. 096926 PROFESSIONAL ENGINEER			WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM APPROVED Mark H. Magnuson			GFP A Gannett Fleming/Parsons JOINT VENTURE SUBMITTED PROJECT MANAGER			REPLACEMENT OF CHILLERS AND COOLING TOWERS AT THREE METRO-RAIL STATIONS CWPC03 - FARRAGUT WEST MECHANICAL PLAN - NEW WORK SCALE 1/4"=1'-0" 1 0 1 2 3 4 5 DRAWING NO. CWPC03-M-103 M1299-024		
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CHILLER PLANT - FIRST FLOOR PLAN
SCALE: 1/4"=1'-0"



CHILLER PLANT - PARTIAL SECOND FLOOR PLAN
SCALE: 1/4"=1'-0"

KEYNOTES:

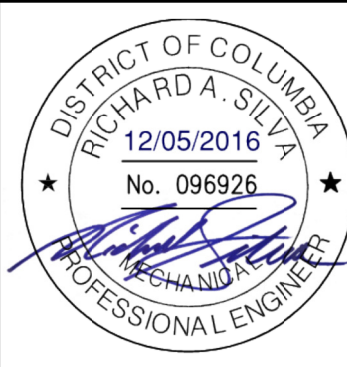
- 1 PROVIDE AND INSTALL CHILLER INCLUDING VIBRATION ISOLATION AND SUPPORT.
- 2 PROVIDE AND INSTALL PIPING, FITTINGS, VALVES, INSULATIONS AND INSTRUMENTATION FOR CHILLER.
- 3 PROVIDE AND INSTALL CHILLED WATER PUMPS, CHWP-1 AND CHWP-2. INCLUDE PUMP, INVERTER RATED MOTOR, VIBRATION SUPPORT, IMMEDIATE PIPING, ISOLATION VALVES, FLEXIBLE CONNECTORS, STRAINER, AND CHECK VALVE WITH ALL INSTRUMENTATION AND CONTROLS. INSULATE PUMPS AND PIPING.
- 4 INTEGRATE PUMP VFD DRIVES WITH CHILLER CONTROL PANELS.
- 5 PROVIDE AND INSTALL CONDENSER WATER PUMPS, CWP-1 AND CWP-2. INCLUDE PUMP, INVERTER RATED MOTOR, VIBRATION SUPPORT, IMMEDIATE PIPING, ISOLATION VALVES, FLEXIBLE CONNECTORS, STRAINER, AND CHECK VALVE WITH ALL INSTRUMENTATION AND CONTROLS.
- 6 PROVIDE AND INSTALL PIPING, FITTINGS, VALVES, AND INSTRUMENTATION FOR CONDENSER WATER PIPES. PROVIDE AND INSTALL INSULATION AND JACKETING FOR PIPES LOCATED OUTSIDE ON THE ROOF.
- 7 PROVIDE AND INSTALL EXPANSION TANK, INCLUDING PIPES AND SUPPORT.
- 8 PROVIDE AND INSTALL AIR SEPARATOR, INCLUDING PIPES AND SUPPORT. INSULATE AIR SEPARATOR AND PIPING.
- 9 PROVIDE AND INSTALL FAN COIL UNIT INCLUDING PIPING, VALVING AND SUPPORT. REFER TO DRAWING CWPE05-M-605 FOR FAN COIL SEQUENCE OF OPERATION.
- 10 PROVIDE AND INSTALL SPACE TEMPERATURE SENSOR. INTEGRATE WITH CHILLER PLANT MONITORING PANEL.
- 11 PROVIDE AND INSTALL COOLING TOWER WITH DIRECT DRIVEN ASSEMBLY AND MONITORING HARDWARE. THE VARIABLE FREQUENCY DRIVE CONTROLLERS SHALL BE LOCATED ADJACENT TO THE COOLING TOWER ON THE ROOF, INSIDE A NEMA 4X WEATHER PROOF ENCLOSURE.
- 12 PROVIDE AND INSTALL OVERFLOW DRAIN PIPE INCLUDING VALVE AND SUPPORT. INSULATE PIPE AND VALVE.
- 13 PROVIDE AND INSTALL DOMESTIC COLD WATER PIPE INCLUDING VALVE AND SUPPORT. INSULATE PIPE AND VALVE. FOR PIPING EXPOSED TO OUTSIDE, PROVIDE HEAT TRACING AND INSULATION. HEAT TRACING SHALL BE FED FROM PANEL CH IN CHILLER ROOM, CKT#8.
- 14 PAINT EXISTING STEEL SUPPORT FOR COOLING TOWER. BEFORE PAINTING REMOVE RUST AND PROVIDE PRIMER AND FINISH PAINT FOR EXTERIOR WEATHER.
- 15 CONTRACTOR TO PAINT CHILLER PLANT FLOORS AND EQUIPMENT PADS WITH BATTLE SHIP GRAY OR EQUAL. TRIPPING HAZARDS YELLOW OR RED.
- 16 A. PROVIDE AND INSTALL NALCO 3D TRASAR SOLIDS (OR APPROVED EQUAL) WATER TREATMENT SYSTEM.
B. PROVIDE AND INSTALL A CHILLED WATER TREATMENT SYSTEM. WATER TREATMENT SYSTEM SHALL INCLUDE PIPING, CHEMICAL SENSORS, AND CONTROLS. SENSORS SHALL INCLUDE: HACH INDUCTIVE CONDUCTIVITY SENSOR - 3725E2T (PART OF THE CHILLER CONTROL PANEL), SENSOR FOR CONDUCTIVITY - 9013000, FLOW SWITCH F-1, AND A CONVERTIBLE DIGITAL DIFFERENTIAL PH SENSOR PRODUCT NUMBER DCP1R2A.
C. PROVIDE AND INSTALL A CONDENSER WATER TREATMENT SYSTEM. WATER TREATMENT SYSTEM SHALL INCLUDE PIPING, CHEMICAL SENSORS, AND CONTROLS. SENSORS SHALL INCLUDE: HACH INDUCTIVE CONDUCTIVITY SENSOR - 3725E2T (PART OF THE CHILLER CONTROL PANEL), SENSOR FOR CONDUCTIVITY - 9013000, FLOW SWITCH F-2, AND A CONVERTIBLE DIGITAL DIFFERENTIAL PH SENSOR PRODUCT NUMBER DCP1R2A.
- 17 PROVIDE AND INSTALL CONDENSER AND CHILLED WATER FEEDING POT. CONDENSER FEEDING POT SHALL BE EQUIVALENT TO NEPTUNE BT-15. CHILLED WATER FEEDING POT SHALL BE EQUIVALENT TO NEPTUNE VTF-SHP.

- 18 PROVIDE AND INSTALL REFRIGERANT LEAK MONITORING AND CONTROL SYSTEM. INTEGRATE WITH EXISTING EF-10. INTEGRATE WITH CHILLER PLANT MONITORING PANEL. REFRIGERANT DETECTION SYSTEM SHALL UTILIZE SHERLOCK 402-4 CONTROL MODULE AND SHERLOCK INFRARED REFRIGERANT GAS SENSOR FOR R134A. REFER TO SEQUENCE OF OPERATION ON CWPE05-M-610. CONTRACTOR SHALL FIELD VERIFY AND MOUNT INFRARED SENSOR UNDERNEATH THE REFRIGERANT MONITORING PANEL, 18" ABOVE FINISHED FLOOR LEVEL.
- 19 PROVIDE AND INSTALL CHILLER PLANT MONITORING PANEL FOR CHILLER. CHILLER PLANT MONITORING PANEL SHALL INCLUDE AUTOMATIC DIRECT PRODUCTIVITY 3000 PAC CONTROLLER, MODBUS CAPABLE INPUT AND OUTPUT CARDS, ETC. PROVIDE TWO HACH SC200 CONTROLLERS THAT SHALL BE CAPABLE OF ACCEPTING INPUT FROM PH PROBES OF THE WMATA CHILLED WATER & CONDENSER WATER TREATMENT SYSTEMS. HACH CONTROLLERS SHALL INCLUDE A RS485 COMMUNICATIONS CARD.

- 20 PROVIDE AND INSTALL CHILLED WATER AND CONDENSER WATER FLOW MONITORING SYSTEM. PROVIDE AND INSTALL COMMUNICATIONS WIRING IN RIGID CONDUIT FROM FLOW METER MONITORING PANEL TO THE CHILLER PLANT CONTROL PANEL, UTILIZING BELDEN 89842 MULTI-CONDUCTOR - LOW CAPACITANCE COMPUTER AND COMPUTER POS CABLE OR EQUIVALENT. FLOW METER SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES. FLOW METERS & SENSOR CABLES SHOULD NOT BE INSTALLED WITHIN EIGHT FEET OF VFD'S OR FLORESCENT LIGHT FIXTURES.
- 21 PROVIDE AND INSTALL OUTDOOR AIR TEMPERATURE, RELATIVE HUMIDITY, AND INSIDE TEMPERATURE SENSORS, AND INTERFACE WITH CHILLER PLANT MONITORING PANEL; AUTOMATION DIRECT PRODUCTIVITY 3000 PAC. P3-08RTD INPUT MODULE IN PRODUCTIVITY 3000 PAC TO ACCEPT INPUT FROM RTD TEMPERATURE SENSORS.

- 22 PROVIDE AND INSTALL REFRIGERANT VENT PIPING.
- 23 PIPING SHALL BE TAPPED OFF THE MAIN, DOWNSTREAM OF THE BACKFLOW PREVENTER. PROVIDE ISOLATION BALL VALVE AT AN ACCESSIBLE LOCATION, THE SAME SIZE AS THE PIPING.

	REFERENCE DRAWINGS			REVISIONS		
	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	
DESIGNED	B. VISWANATHAN	05/17				
DRAWN	A. PINKOWSKI	05/17				
CHECKED	R. SILVA	05/17				
APPROVED	R. SILVA	05/17				



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE
AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

APPROVED *Mark H. Magnuson*

GFP A Gannett Fleming/Parsons
JOINT VENTURE

SUBMITTED *John C. ...*
PROJECT MANAGER

**REPLACEMENT OF CHILLERS AND COOLING
TOWERS AT THREE METRO-RAIL STATIONS**
CWPE05 - GEORGIA AVE - PETWORTH
MECHANICAL PLAN - NEW WORK

SCALE 1/4"=1'-0" 1 0 1 2 3 4 5
DRAWING NO. **CWPE05-M-101** **M1299-006**

CONTRACT NO.
FQ17162

Contractor shall be responsible for all permits and inspections. Contractor shall comply with Federal and jurisdictional requirements and codes pertaining to this project. Contractor shall also comply with all safety requirements and permits required by WMATA.

00103 PROJECT BID SCHEDULE

The Bid schedule for this Project is as follows:

1. Issue Invitation for Bid: April 17, 2018
2. Pre-Bid Conference/Site Visit: Monday, April 30, 2018 at 08:00a.m. (Please arrive at the Lobby Receptionist between 7:30 – 08:00 a.m.) at WMATA, Jackson Graham Building, 600 5th Street, Washington, DC 20001. The second site visit will be on the following day after the first site visit at 10:00 and the starting location would be arranged during the first site visit.

WMATA will have representatives of our procurement, insurance, DBE, safety, and DECO. WMATA certified DBE's are strongly encouraged to attend.

All attendees must provide a WMATA Contractor ID or a government issued identification for entry into the Jackson Graham Building. Individuals that plan to attend the meeting are requested, but not required, to send an email to kkanjo@wmata.com, 24 hours in advance, with name, title, company name, mailing address, telephone, and email for each attendee.

Attendees should arrive early in order to clear security and/or receive temporary badges.

WMATA will conduct site visits at all locations immediately after the Pre-Bid Conference. The site visit will start at the Pre Bid Conference. Attendees must ride the Metrorail to each station. Attendees must be escorted by WMATA personnel.

Attendees that have a current WMATA Contractor ID shall display their ID and bring PPE and WMATA approved safety vest. Attendees not holding WMATA Contractor ID with PPE and vest should specifically identify themselves to the WMATA escorts. WMATA must arrange escorts based upon the number of attendees.

3. **## Bid Opening: May 23, 2018 ##**
4. **## Projected Contract Award: July 02, 2018 ##**
5. **## Projected Notice To Proceed: September 24, 2018 ##**

END OF SECTION



May 11, 2018

Re: IFB FQ18102/KKB
Replacement of Chiller and Cooling Tower Accessories
At Eight (8) Metro-Rail Stations: DC, MD, and VA
Request for Clarification/Information Response

Dear Prospective Respondent:

In response to your Request for Clarification/Information, the response is provided to question.

WMATA appreciates your interest in its procurement process and we look forward to receiving your bid on or before May 23, 2018.

As always, should you require further assistance, kindly contact Kamoru Banjo of the Office of Procurement and Materials by email at kkbanjo@wmata.com.

**Washington
Metropolitan Area
Transit Authority**

600 Fifth Street, NW
Washington, D.C. 20001
202/962-1234

Sincerely,

Norie A. Calvert
Contracting Officer
Office of Procurement and Materials

By Metrorail:
Judiciary Square-Red Line
Gallery Place-Chinatown
Red, Green and
Yellow Lines

A District of Columbia
Maryland and Virginia
Transit Partnership

**Solicitation FQ18102/KKB; Replacement of Chiller and Cooling Accessories at Eight (8)
Metro-Rail Stations: DC, MD, and VA**

RFI Log Responses

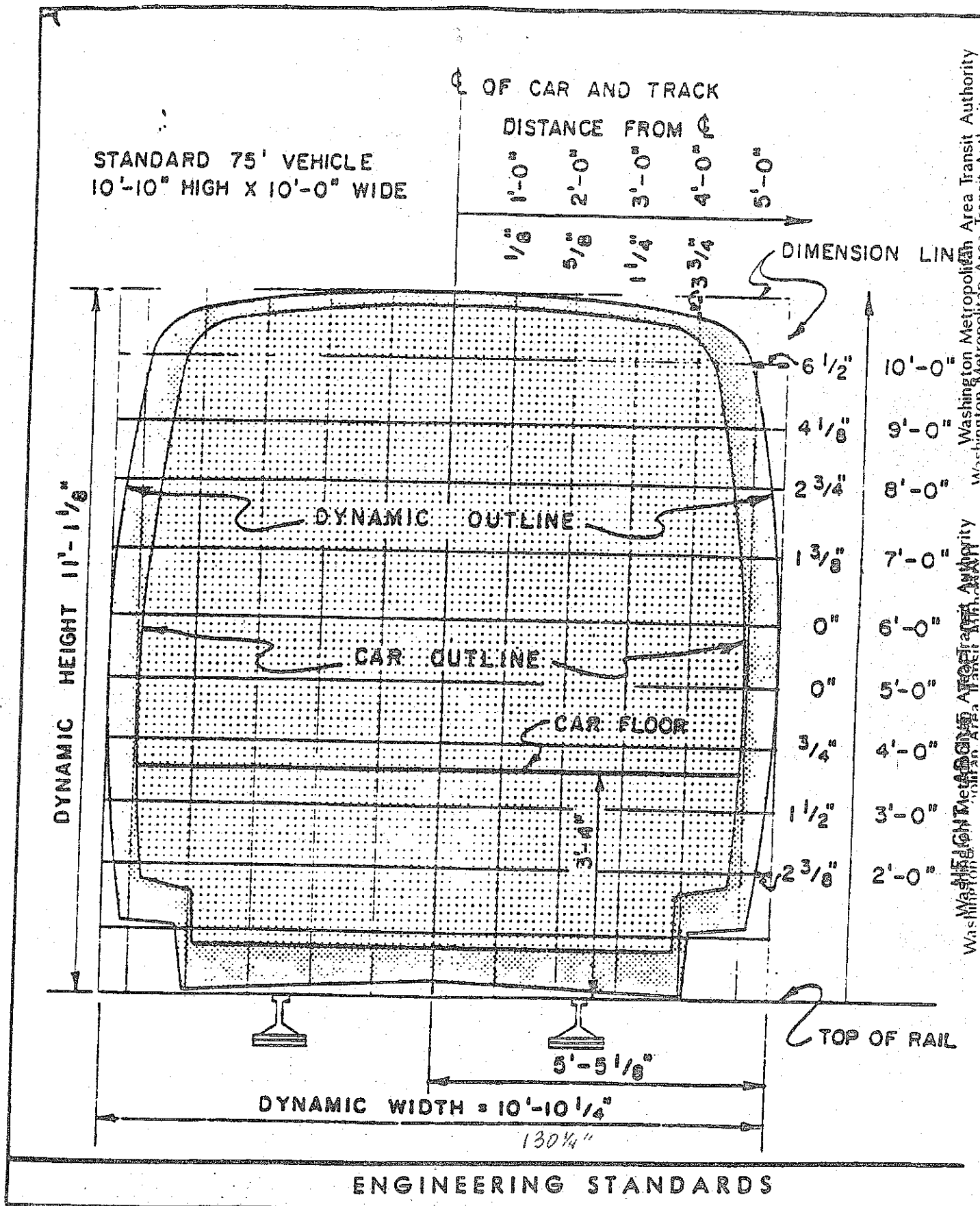
RFI Responses/Clarifications-RFI No. 1 thru 21

RFI No.	Amendment No.	RFI Description	RFI Response
1		The specifications call for a Quality Control Manager to be onsite whenever work is occurring. Since we will be working at multiple stations simultaneously, do we need to have six separate QC Managers(one at each site)? Or can we have a Roving QC Manager who visits each station on a daily basis?	One Quality Control Manager can visit each location and coordinate with each site Project Foreman.
2		The specifications call for a Safety Superintendent to be onsite whenever work is occurring. Since we will be working at multiple stations simultaneously, do we need to have six separate Safety Superintendents (one at each site)? Or can we have a Roving Safety Superintendent who visits each station on a daily basis?	The Safety Superintendent can be the Project Foreman for each site. See Spec 01114 Section 1.05.B Safety Requirements, specifying "Category II".
3		Does the Safety Superintendent have to be a CSP? This involves special degrees and extensive coursework. Most Safety Superintendent do not possess a CSP certification.	See Spec 01114 Section 1.05B. Safety Requirements, specifying "Category II".
4		The specifications call for a General Superintendent to be onsite whenever work is occurring. Since we will be working at multiple stations simultaneously, do we need to have six separate General Superintendents (one at each site)? Or can we have a Roving General Superintendent who visits each station on a daily basis?	No, each Project Foreman at each site can act as the General Superintendent.

RFI No.	Amendment No.	RFI Description	RFI Response
5	2	The Power Point presentation from the pre bid meeting states that the NTP for this project will be approximately September 24, 2018. Does that information appear anywhere in the bid documents?	Yes, Advert to Amendment No. 02
6		Several subcontractors have requested the opportunity to visit each site. The rigging companies, in particular, need to confirm existing conditions, so as to be able to give an accurate price for the work. Is there any way that an additional site visit might be arranged?	No, there will be no additional site surveys.
7		Please advise if it is acceptable to use the existing rigging bolts (in the ceiling) at Farragut North chiller plant for rigging of equipment and material.	No, the existing rigging bolts cannot be used.
8		Please advise if tunnel access panels can remain open for extended shifts. Openings would be safely secured to ensure no trash, material, etc. could fall through.	No, but a PE Stamped designed plywood cover secured and anchored over the opening can be submitted for approval.
9		Please advise if it is acceptable to use the monorail and chainfall that was in place during the pre-bid walk through. This rigging equipment was located outside the chiller plant above the tunnel access panels.	The existing trolley and chain fall appears to be in great condition, but will have to be approved by SAFE before using to confirm it can handle the weight capacity of the existing and new chiller.
10		<p>Please provide the following clarification for utilizing prime movers for equipment and material.</p> <p>Please provide the dimensions of the bed of the prime mover.</p>	<p>Prime mover support must be requested 3 weeks in advance.</p> <p>The average flat car of a prime mover is 53'6" long x 10' wide x 3'6" tall from the top of the rail. See attached dynamic outline/envelope figure for bringing in equipment.</p>

RFI No.	Amendment No.	RFI Description	RFI Response
11		<p>Please provide the following clarification for utilizing prime movers for equipment and material.</p> <p>Please provide the maximum allowable height/clearance required of equipment and material on the prime mover.</p> <p>What is the maximum usable space above the bed of the prime mover?</p>	<p>See attached dynamic outline/envelope figure and photos of the prime mover flat car.</p> <p>The average flat car of a prime mover is 53'6" long x 10' wide x 3'6" tall from the top of the rail. See attached dynamic outline/envelope figure for bringing in equipment.</p>
12		<p>Please provide the following clarification for utilizing prime movers for equipment and material.</p> <p>Please provide the availability of prime movers for contractors in a typical week.</p> <p>How much advance notice is required to use a prime mover.</p>	<p>Prime mover support must be requested 3 weeks in advance</p> <p>Prime mover support must be requested 3 weeks in advance</p>
13		Will Johnson Controls Metasys be an approved DDC Vendor for this project?	Metasys is a BAS system. This project does not call for a BAS system to be installed.
14		Please advise if gantrys are acceptable for rigging of equipment and material. The intent is to use them over the openings above the train tracks and certain air shafts.	Gantry's are acceptable, but must be approved by WMATA SAFE before using.
15		The documents call for a HACH SC200 for both the CHW and Tower systems. This controller can only handle 2 sensors (1 conductivity and 1 PH or a combination of any sensors with a max of 2). The CHW has a conductivity probe and the condenser water has a PH and conductivity probe. For this	Bidders offering "equal" products including products of the brand name manufacturer other than the one described by brand name, will be considered by the Authority if such product are clearly identified in the Bid and are determined by the Authority to meet fully the

RFI No.	Amendment No.	RFI Description	RFI Response
		<p>you would need to purchase 2 controllers. The Webmaster is a much better unit and can be integrated to monitor the Chilled water conductivity, as required, with one controller rather than 2 HACH which saves WMATA money on equipment. Webmaster is definitely an equal if not an upgrade.</p> <p>Can we use one webmaster instead of two HACH SC200 controllers.</p>	<p>salient characteristics requirements in the IFB Specification.</p> <p>Unless the Bidder clearly indicates that it is offering an “equal” product by submitting Section 00433, BRAND NAME OR EQUAL FORM, the Bidder shall be considered as offering a brand name product referenced in the IFB Documents.</p>
16		Are the chemical treatment tanks to be single or double wall?	Chemical treatment is not part of this contract. The contract drawings provide a basis of design for the shock pots. Shock pots need to be installed across all CHW & CW pumps at each site.
17		Please verify the existing to remain conduit raceway is intact between the chillers and towers for the interlock.	Existing conduits between the chiller and the cooling tower can be reused. Damaged or corroded conduits need to be replaced.
18		Please confirm the leak detection systems being installed currently under a different contract will remain. If so, please provide a list to delete the new units not needed in this package.	Medical Center, Columbia Heights, Clarendon and Ballston.
19		Spec Section 15280-3 Para 3.01 2.a. states that all locations except mechanical rooms calls for cellular glass. 2.b calls for fiberglass in mechanical rooms but no thickness is given.	2 inch thick cellular glass is to be installed. Fiberglass is not acceptable in the chiller plant.
20		Section 15208-5C. Insulation thickness calls for cellular glass no fiberglass.	2 inch thickness.
21		Please clarify what type of insulation is required for the mechanical rooms and insulation thickness.	All chilled water piping shall have 2 inch cellular glass insulation.



Washington Metropolitan Area Transit Authority
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DYNAMIC OUTLINE DIAGRAM
TANGENT TRACK



UDC

PM 59

F523

F523



PM 59

F523

F523

SC





F523

W-1

SPRG D-4

WMATA



SPRG D-4