HVAC GENERAL NOTES

1. ALL WORK AND EQUIPMENT SHALL COMPLY WITH ALL APPLICABLE LAWS, CODES, ETC., OF ALL AUTHORITIES HAVING JURISDICTION, INCLUDING BUT NOT LIMITED TO: THE INTERNATIONAL MECHANICAL CODE, THE LOCAL FIRE MARSHAL, UNDERWRITERS LABORATORY (UL), IRI, FM, OSHA, AND THE NATIONAL ELECTRICAL CODE (NEC). MODIFICATIONS REQUIRED BY THE ABOVE SAID AUTHORITIES TO BRING THE SPACE UNDER CONTRACT UP TO CODE SHALL BE MADE WITHOUT ADDITIONAL CHARGE. WHERE CONTRACT DOCUMENT REQUIREMENTS ARE IN EXCESS OF CODE REQUIREMENTS, THE CONTRACT DOCUMENTS SHALL GOVERN. DEVIATIONS FROM THE CONTRACT DOCUMENTS REQUIRED BY THE ABOVE AUTHORITIES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

2. ALL SPECIFICATIONS AND DRAWINGS, I.E., ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL ARE COMPLIMENTARY AND MUST BE USED IN COMBINATION TO OBTAIN COMPLETE CONSTRUCTION INFORMATION. ANY INFORMATION CONFLICTS WITHIN THE SPECIFICATIONS AND DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION.

3. CONTRACTOR SHALL VERIFY ALL POINTS OF CONNECTION BEFORE COMMENCING WORK. CONTRACTOR SHALL COORDINATE WORK WITH EXISTING WORK AND OTHER TRADES. CONTRACTOR SHALL REMOVE ALL WASTE MATERIALS, DEBRIS, AND RUBBISH FROM SITE AND LEGALLY DISPOSE OF IT. ALL UNUSED EQUIPMENT SERVING THIS AREA SHALL BE REMOVED AND RETURNED TO THE OWNER.

4. EXISTING EQUIPMENT TO REMAIN, BE REUSED, OR RELOCATED WITHIN OR SERVING THE SPACE, WHICH IS DAMAGED OR DOES NOT COMPLY WITH THE SPECIFICATIONS, SHALL BE RESTORED TO LIKE NEW CONDITION SUBJECT TO REVIEW BY THE ARCHITECT AND ENGINEER, OR SHALL BE REPLACED WITH NEW MATERIALS MEETING THE SPECIFICATION REQUIREMENTS.

5. SOME WORK SHOWN MAY REQUIRE PREMIUM TIME TO AVOID DISRUPTION OF ACTIVITIES AND MEP SERVICES. CONTRACTOR SHALL CONFIRM THE REQUIREMENTS FOR PREMIUM TIME OR SPECIAL PROCEDURES WITH THE OWNER AND INCLUDE THE COST IN HIS BID PROPOSAL. THE CONTRACTOR, BY SUBMITTING HIS BID PROPOSAL AGREES TO ACCEPT ALL EXISTING SITE CONDITIONS NOT SPECIFICALLY EXCEPTED. ALL EXCEPTIONS SHALL BE PROVIDED IN WRITING TO THE ARCHITECT AND ENGINEER.

6. CONTRACTOR SHALL COORDINATE, PREPARE AND SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND ENGINEER FOR THEIR APPROVAL. SHOP DRAWINGS TO BE SUBMITTED INCLUDE: SHEETMETAL, DIFFUSERS, GRILLES, REGISTERS, FIRE DAMPERS, AND ALL EQUIPMENT. SHEETMETAL SHOP DRAWINGS SHALL BE COORDINATED WITH ALL DISCIPLINES AND SHOW DUCT ELEVATIONS. PROVIDE RISES, DROPS AND OFFSETS AS REQUIRED. BRING AREAS OF POTENTIAL CONFLICT TO THE ENGINEERS ATTENTION.

7. A SET OF MEP RECORD/COORDINATION DRAWINGS SHALL BE MAINTAINED IN THE GENERAL CONTRACTORS OFFICE AT THE JOB SITE. ACTUAL LOCATIONS OF ALL EQUIPMENT, PIPING, DUCTWORK, ETC., AND ALL DEVIATIONS OF THE WORK FROM THAT SHOWN ON THE CONTRACT DOCUMENTS SHALL BE MARKED ON THE RECORD/COORDINATION DRAWINGS. EACH TRADE SHALL REVIEW THE COORDINATION DRAWINGS AND RESOLVE ANY POTENTIAL CONFLICTS WITH OTHER TRADES PRIOR TO INSTALLING ANY PORTION OF THEIR WORK. CONTRACTOR SHALL NOT CORE, DRILL, OR CUT CONCRETE SLABS FOR ANY REASON WITHOUT THE KNOWLEDGE AND WRITTEN CONSENT OF THE STRUCTURAL ENGINEER AND THE OWNER.

8. WORK SHALL BE EXECUTED IN A GOOD WORKMANLIKE MANNER USING MECHANICS SKILLED IN THEIR RESPECTIVE TRADES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES FOR COORDINATING THE WORK UNDER THIS CONTRACT. MAINTAIN THE CONSTRUCTION PREMISES IN A NEAT AND ORDERLY CONDITION AT THE END OF EACH WORKING DAY.

9. IN CASES OF DOUBT AS TO THE WORK INTENDED, OR IN THE EVENT OF NEED FOR EXPLANATION THEREOF, THE CONTRACTOR SHALL REQUEST SUPPLEMENTARY INSTRUCTIONS FROM THE ENGINEER. NO CHANGES ARE TO BE MADE TO THE WORK OF THIS CONTRACT WITHOUT PRIOR KNOWLEDGE AND APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL HOLD THE OWNER AND ITS CONSULTANTS HARMLESS AGAINST ALL CLAIMS AND JUDGMENTS ARISING OUT OF THE CONTRACTORS PERFORMANCE OF THE WORK OF THIS CONTRACT. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK, WHICH HE EXPECTS ADDITIONAL COMPENSATION BEYOND THE CONTRACT AMOUNT, WITHOUT WRITTEN AUTHORIZATION FROM THE APPROPRIATE AUTHORITY. FAILURE TO OBTAIN SUCH AUTHORIZATION SHALL INVALIDATE ANY CLAIM FOR EXTRA COMPENSATION.

10. THE GENERAL CONTRACTOR SHALL BRING TO THE ATTENTION OF THE MECHANICAL CONTRACTOR ANY SLAB-TO-SLAB PARTITIONS IN ORDER TO PRESERVE RETURN AIR PATHWAYS. ALL PENETRATIONS OF SLAB-TO-SLAB PARTITIONS SHALL BE SEALED AIRTIGHT. CONTRACTOR SHALL VERIFY PARTITION RATING AND PROVIDE FIRE DAMPER AND ACCESS DOOR AS REQUIRED. CURTAIN TYPE DAMPERS SHALL BE W/ THE CURTAIN OUT OF THE AIR STREAM.

11. WHEREVER FIRE RATED PARTITIONS ARE PENETRATED FOR WIRE, DUCT, OR PIPE PASSAGE, SEAL PASSAGES WITH CODE APPROVED, LABORATORY TESTED AND LABELED SEALANT OF FIRE RESISTANCE RATING NOT LESS THAN THAT OF PENETRATED ASSEMBLY THAT WILL PREVENT PASSAGE OF FIRE AND SMOKE.

12. CONTRACTOR SHALL VERIFY THAT THE LOCATION OF CEILING MOUNTED DIFFUSERS, GRILLES, AND REGISTERS SHOWN ON THE DRAWINGS ARE ACCEPTABLE TO THE ARCHITECT PRIOR TO INSTALLATION.

13. ALL AUTOMATIC TEMPERATURE CONTROL SYSTEM WORK, MODIFICATION AND INSPECTION SHALL BE ACCOMPLISHED BY THIS CONTRACTOR. ALL DAMAGED, DEFECTIVE, MISSING, OR INAPPROPRIATE DEVICES SHALL BE REPAIRED OR REPLACED AS REQUIRED. THERMOSTATS SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS UNDER THIS CONTRACT. STANDARD MOUNTING HEIGHT TO TOP OF THERMOSTAT IS 48" ABOVE FINISHED FLOOR OR AS INDICATED ON THE ARCHITECTURAL DRAWINGS. DO NOT INSTALL THERMOSTATS NEAR DIMMER SWITCHES. WIRING OF ALL MOTORIZED OPERATORS AND THERMOSTATS (REGARDLESS OF VOLTAGE) ARE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.

14. CONTRACTOR SHALL MAKE ALL FINAL EQUIPMENT CONNECTIONS AND PROVIDE THE NECESSARY ADAPTORS, FITTINGS, VALVES, DEVICES, ETC. FOR A COMPLETE AND OPERABLE SYSTEM. COORDINATE REQUIREMENT FOR PROVISION OF MOTOR STARTERS, DISCONNECTS, CONTACTORS, CONTROL WIRING, ETC. AS REQUIRED FOR PROPER FUNCTIONING SYSTEM WITH DIVISION 26.

15. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO INSTALL THE HEATING, VENTILATION AND AIR CONDITIONING SYSTEM SO AS TO INSURE QUIET OPERATION. NO VIBRATION OR SOUND SHALL BE TRANSMITTED TO THE BUILDING, STRUCTURE OR OCCUPIED AREAS. THE DECISION OF THE ENGINEER AS TO THE QUIETNESS OF THE SYSTEM AND EQUIPMENT SHALL BE FINAL. IT SHALL BE THIS CONTRACTORS RESPONSIBILITY TO CORRECT OR REPLACE ANY NOISY SYSTEM OR EQUIPMENT AS REQUIRED.

16. ALL PACKAGED EQUIPMENT SHALL BE INDEPENDENTLY THIRD PARTY LABELED AS A SYSTEM FOR ITS INTENDED USE BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) IN ACCORDANCE WITH OSHA FEDERAL REGULATIONS 29CFR1910.303 AND .399, AS WELL AS NFPA PAMPHLET NO. 70, AND THE NATIONAL ELECTRICAL CODE (NEC), ARTICLE 90-7.

17. CLEAN ALL MECHANICAL EQUIPMENT AND DUCTWORK OF ALL CONSTRUCTION DUST AT PROJECT COMPLETION. REPLACE ALL FILTERS PRIOR TO AIR BALANCING. PROVIDE ONE SPARE SET OF FILTERS FOR EACH PIECE OF EQUIPMENT TO THE OWNER.

MISCELLANEOUS EQUIPMENT SPECIFICATIONS:

PERFORATED FACE DIFFUSERS - PRICE MODEL PDSP OR APPROVED EQUAL. 24" x 24" FACE, STEEL CONSTRUCTION, WHITE FINISH, FLUSH FACE, LAY-IN BORDER, STAR PATTERN.

PERFORATED FACE RETURN AIR GRILLES - PRICE MODEL PDDR OR APPROVED EQUAL. 24" x 24" FACE, STEEL CONSTRUCTION, WHITE FINISH, FLUSH FACE, LAY-IN BORDER (TYPICAL). PROVIDE SURFACE MOUNT BORDER FOR INSTALLATIONS IN DRYWALL CEILING.

EXHAUST & TRANSFER REGISTERS - PRICE MODEL 630 FL OR APPROVED EQUAL. ALUMINUM CONSTRUCTION, BLADES SHALL HAVE 3/4" SPACING & 45º FIXED DEFLECTION. BLADES SHALL BE PARALLEL TO LONG DIMENSION. PROVIDE REGISTERS WITH OPPOSED BLADE DAMPER. DAMPER SHALL BE ADJUSTABLE FROM FACE OF AIR DEVICE.

SUPPLY AIR REGISTERS - PRICE MODEL 620 FS OR APPROVED EQUAL. ALUMINUM CONSTRUCTION, DOUBLE DEFLECTION BLADES SHALL HAVE 3/4" SPACING, FRONT BLADES PARALLEL TO SHORT DIMENSION. ALL BLADES SHALL BE INDIVIDUALLY ADJUSTABLE.

LOUVERED DOOR GRILLES - PRICE MODEL STGIBF OR APPROVED EQUAL. STEEL CONSTRUCTION, SIGHT PROOF, 20 GAUGE STEEL BLADES, BLADES PARALLEL TO THE LONG DIMENSION.

OUTSIDE AIR INTAKE LOUVER - GREENHECK MODEL ESD-603 OR APPROVED EQUAL. STATIONARY, EXTRUDED ALUMINUM CONSTRUCTION, 6" FRAME, DRAINABLE BLADES, WITH BIRDSCREEN.

EXHAUST LOUVER - GREENHECK MODEL ESJ-602 OR APPROVED EQUAL. STATIONARY, EXTRUDED ALUMINUM CONSTRUCTION, 6" FRAME, J STYLE BLADES, WITH BIRDSCREEN.

REEL-1 THRU REEL-4 - MONOXIVENT SERIES 9000W OR APPROVED EQUAL, DRUM DIAMETER = 18", DRUM WIDTH = 28" SPRING RETURN W/ 30' OF 6" SERIES 4000 HIGH TEMPERATURE HOSE AND RUBBER COATED CLAMPING NOZZLE. PROVIDE 23859-T PULL DOWN ROPE WITH T-HANDLE. PROVIDE SUPPORT STRUCTURE AND BRACING REQUIRED FOR SIDE MOUNTING TO WALL. 600 CFM EACH.

Y-KIT - MONOXIVENT 6" X 5" X 5" Y FITTING OR APPROVED EQUAL, WITH 2 PIECES OF 5' X 5" NO CRUSH 7600 SERIES HOSE AND 2 RUBBER COATED CLAMPING NOZZLES.

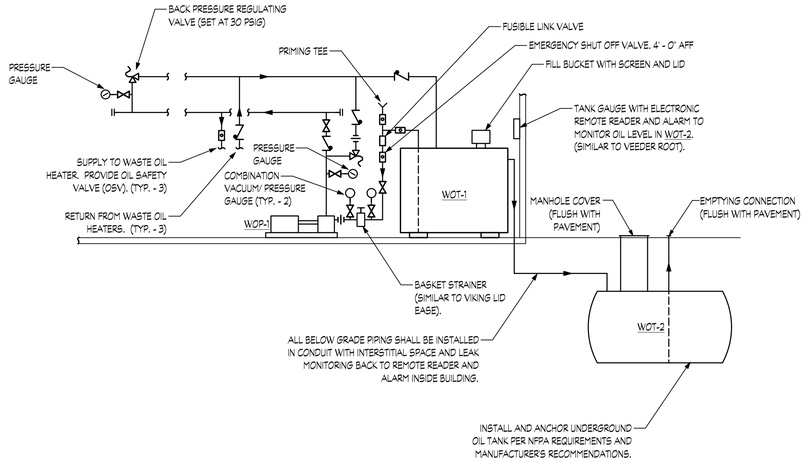
DIESEL CANE- 8' HIGH 6'Ø DSP MONOXIVENT SERIES 41000, OR APPROVED EQUAL.

GAS DETECTION SYSTEM - VULCAIN, OR APPROVED EQUAL. SYSTEM SHALL BE FULLY FUNCTIONAL, STAND-ALONE, AND SHALL CONSIST OF THE FOLLOWING MINIMUM REQUIREMENTS: VA301C CONTROLLER WITH VISUAL AND AUDIBLE ALARMS, 120V TO 17-27 VAC STEP-DOWN TRANSFORMER, VA301AD1 ANALOG / DIGITAL INPUT CONVERTER, VA201T-Q1-CO CARBON MONOXIDE GAS DETECTION TRANSMITTER (WITH A RANGE OF 0-500 PPM, INSTALLED AT 3'-0" ABOVE FINISHED FLOOR), VA201T-Q1-NO2 NITROGEN DIONIDE GAS DETECTION TRANSMITTER (WITH A RANGE OF 0-10 PPM, INSTALLED AT 3'-0" BELOW CEILING), 201T-Q1-H2 HYDROGEN GAS DETECTION TRANSMITTER, 301R POWER RELAYS FOR VENTILATION EQUIPMENT, AND STROBE / HORN ALARM.

WOT-1 - HIGHLAND TANK OR APPROVED EQUAL. DOUBLE WALL LUBE TANK MODEL DL-350. 350 GALLON CAPACITY, UL-142, WELDED CONSTRUCTION STEEL WITH LIFTING LUGS, 8 GALLON FILL CONTAINER WITH SCREEN AND LID, AND RED PRIMER PAINT. 5.1 LONG, 3.5 WIDE, AND 2.7 HIGH.

WOT-2 - HIGHLAND TANK OR APPROVED EQUAL. DOUBLE WALL UNDERGROUND TANK HIGH GUARD MODEL 1000 GALLON CAPACITY, UL-58 AND UL-1746, WELDED CONSTRUCTION STEEL WITH POLYURETHANE COATING, AND LIFTING LUGS. 6' LONG AND 5.3' DIAMETER. PROVIDE LEAK MONITORING SYSTEM FOR TANK AND PIPING BACK TO REMOTE READER AND ALARM INSIDE BUILDING. PROVIDE OVERFILL PROTECTION WITH AUTOMATIC SHUTOFF DEVICE, TANK GUAGE WITH REMOTE READER AND OVERFILL ALARM LOCATED INSIDE BUILDING, MANHOLE TO GRADE WITH LADDER INSIDE TANK, AND TANK EMPTYING CONNECTION AT GRADE.

WOP-1 - CUMMINS-WAGNER OR APPROVED EQUAL. SIMPLEX PACKAGED HEAVY DUTY ABRASIVE LIQUID PUMP SET MODEL FPP-20F WITH DRIVE, REDUCER, VALVES & ACCESSORIES, FLOW SWITCH, BY-PASS VALVE, FLOAT AND CONTROL PANEL. VIKING PUMP MODEL F-4625HD RATED FOR 3.5 GPH AT 50 PSI, 1/2" PORT, 1/4 HP, 120 VOLT, 1 PHASE, 870 RPM, RATED FOR THE VISCOSITY OF WASTE OIL.



WASTE OIL PIPING SCHEMATIC

NO SCALE

NOTE:
RETURN LINE MUST NOT BE ELEVATED ABOVE THE RELIEF VALVE DISCHARGE AND MUST BE FREE FLOWING BACK TO TANK.

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PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NUMBER: 30756
EXPIRATION DATE: 06/28/2012

PROJECT TITLE

TCC/SHORE TRANSIT BUS MAINTENANCE FACILITY - PHASE II

31955 TRI-COUNTY WAY
SALISBURY, MD. 21804

ISSUED
FOR BIDDING
DATE: 01/05/12

SHEET TITLE

MECHANICAL SPECIFICATIONS, NOTES, AND SCHEMATIC

ISSUE BLOCK

Mark	Date	Description
2	12.21.2011	FIRE SPRINKLER ADDITION
1	11.4.2011	CODE REVIEW COMMENTS

Revision Schedule

Project Number	2009145.00
Date	01/05/12
Scale	NONE
Drawn By	AM
Checked By	DC

M100