### MECHANICAL NOTES:

- 1. WORK IN THIS SECTION INCLUDES THE PROVIDING OF LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY FOR COMPLETE AND SAFE INSTALLATION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND AUTHORITIES HAVING JURISDICTION.
- 2. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS. MAINTAIN HEADROOM AND SPACE CONDITIONS.
- 3. SCALED AND FIGURED DIMENSIONS ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. BEFORE PROCEEDING WITH WORK, CHECK AND VERIFY ALL DIMENSIONS.
- 4. MAKE ADJUSTMENTS THAT MAY BE NECESSARY OR REQUIRED IN ORDER TO RESOLVE SPACE PROBLEMS.
- 5. CONTRACTOR SHALL BE RESPONSIBLE TO APPLY AND PAY FOR ALL REQUIRED PERMITS. CERTIFICATES AND AGENCY APPROVALS, ALL DOCUMENTS REQUIRED IN ADDITION TO THE CONTRACT DOCUMENTS SHALL BE PROVIDED BY THE CONTRACTOR. PROVIDE COPIES OF ALL REQUIRED CERTIFICATIONS AND APPROVALS TO THE OWNER.
- 6. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE AND PROFESSIONAL MANNER CONSISTENT WITH ALL APPLICABLE INDUSTRY STANDARDS. SYSTEM INSTALLATIONS SHALL CONFORM WITH ALL APPLICABLE INDUSTRY STANDARDS.
- 7. BEFORE SUBMITTING PROPOSAL, THE CONTRACTOR SHALL VISIT AND CAREFULLY EXAMINE THOSE PORTIONS OF THE SITE AND/OR PRESENT BUILDING AFFECTED BY THIS WORK SO AS TO FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND THE DIFFICULTIES ASSOCIATED WITH THE EXECUTION OF THE WORK. THESE DIFFICULTIES INCLUDE ACCESS FOR EQUIPMENT REMOVAL/INSTALL AND THE AVAILABILITY OF THE EQUIPMENT AND MATERIALS. REPORT IN WRITING ANY CONDITIONS WHICH MIGHT ADVERSELY AFFECT THEIR WORK.
- 8. PROVIDE THREE SETS OF OPERATION AND MAINTENANCE MANUALS COVERING ALL INSTALLED EQUIPMENT ITEMS TO THE OWNER. THE O&M MANUALS SHALL ALSO INCLUDE AS—BUILT DRAWINGS AND BALANCING REPORT.
- 9. CONTRACTOR SHALL ENGAGE THE SERVICES OF AN APPROVED TESTING AND BALANCING CONTRACTOR WITH NEBB OR AABC CERTIFICATION. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL NECESSARY ADJUSTMENTS TO OBTAIN FLOW RATES AS INDICATED ON DRAWINGS. PROVIDE A FINAL TEST REPORTS INCLUDING BUT NOT LIMITED TO THE FOLLOWING: CFM, STATIC PRESSURE, COOLING COIL DISCHARGE TEMPERATURE, & FINAL FAN RPM.
- 10. THE CONTRACTOR SHALL LABEL ALL PIPING AND EQUIPMENT.
- 11. CONTRACTOR SHALL MAKE TESTS AT HIS OWN EXPENSE, AS REQUIRED BY OWNER AND/OR ANY INSPECTION DEPARTMENT. TEST SHALL BE MADE TO VERIFY WHETHER THE SYSTEM AND EQUIPMENT INSTALLED COMPLY WITH THE SPECIFICATIONS AND ARE IN PROPER WORKING ORDER.
- 12. AS PART OF THIS CONTRACT, ALL WORK AND EQUIPMENT FURNISHED AND INSTALLED SHALL BE COVERED UNDER A FULL YEAR GUARANTEE. THE WARRANTY SHALL COMMENCE ON THE DATE OF THE OWNER'S FINAL ACCEPTANCE.
- 13. PROVIDE DIELECTRIC ISOLATORS BETWEEN DISSIMILAR METALS.
- 14. IT IS NOT INTENDED THAT THE PLANS OR SPECIFICATIONS SHOW OR STATE EVERY DETAILED REQUIREMENT OF THE WORK, BUT RATHER THAT THEY FURNISH ADEQUATE INFORMATION FOR THE CONTRACTOR TO MAKE COMPLETELY APPROVED INSTALLATION.
- 15. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING, WITHOUT ADDITIONAL CHARGE, ANY EXISTING WORK DAMAGED BY HIM DURING THE COURSE OF THIS CONSTRUCTION.
- 16. MECHANICAL CONTRACTOR SHALL PROVIDE NECESSARY CONTROLS AND INSTALLATION OF EQUIPMENT SUPPLIED BY THE UNIT MANUFACTURER TO MEET THE OPERATIONAL REQUIREMENTS OF THE MANUFACTURER SPECIFICATION.
- 17. CONTRACTOR SHALL LEAVE ALL SYSTEMS IN PROPER WORKING ORDER AND SHALL, WITHOUT ADDITIONAL CHARGE, REPLACE ANY WORK, MATERIALS, OR EQUIPMENT FURNISHED AND INSTALLED BY HIM UNDER HIS CONTRACT WHICH DEVELOPS DEFECTS, EXCEPT FROM ORDINARY WEAR AND TEAR, WITHIN ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.

- 18. ALL WORK SHALL BE COORDINATED WITH OTHER DISCIPLINES. COORDINATE ALL WALL, FLOOR, CEILING AND ROOF PENETRATIONS WITH THE GENERAL CONTRACTOR AND AS APPROVED BY THE ENGINEER.
- 19. ALL CONSTRUCTION DEBRIS SHALL BE DISPOSED OF AS PER DIRECTION OF THE OWNER.
- 20. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL MAJOR MANUFACTURED ITEMS REQUIRED ON THIS PROJECT. PURCHASE OR INSTALLATION OF EQUIPMENT OR SYSTEM COMPONENTS PRIOR TO APPROVAL OF SHOP DRAWINGS IS FORBIDDEN. APPROVAL OF SHOP AND SETTING DRAWINGS SHALL ONLY BE CONSTRUED TO APPLY TO GENERAL LAYOUT AND CONFORMANCE TO THE DESIGN CONCEPT OF THE PRODUCT AND FOR COMPLIANCE WITH THE GENERAL REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE RESPONSIBILITY FOR ANY DEVIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS SHALL REMAIN THE CONTRACTOR'S UNLESS HE/SHE HAS SPECIFICALLY IN WRITING, SPECIFICALLY CALLED ATTENTION TO SUCH DEVIATIONS AT THE TIME OF THE SUBMISSION AND HAS RECEIVED WRITTEN APPROVAL OF SUCH DEVIATION FROM THE OWNER.
- 21. CONTRACTOR SHALL PROVIDE PRODUCT DATA INCLUDING INSTALLATION AND STARTUP INSTRUCTIONS FOR ALL EQUIPMENTS PROVIDED BY HIM/HER. SUBMITTALS SHALL INCLUDE PERFORMANCE DATA, DETAILED SHOP DRAWINGS, WIRING DIAGRAMS AND MAINTENANCE INSTRUCTIONS.
- 22. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS.
- 23. CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS STEEL SHAPES, HANGER RODS, STRAPS, ETC. REQUIRED FOR ALL SYSTEM INSTALLATION.
- 24. PROVIDE ALL CUTTING AND PATCHING AS REQUIRED. COORDINATE THIS WORK WITH THE GENERAL CONTRACTOR AND AS APPROVED BY THE ENGINEER.
- 25. SEAL ALL EXTERIOR WALL PENETRATIONS WEATHER TIGHT, PROVIDE FIRE RATED SLEEVES AT ALL FIRE WALL PENETRATIONS AND SEAL AROUND ALL PIPE WITH FIRE STOP SEALANT. COORDINATE PENETRATIONS AND FIRE STOPPING WITH THE GENERAL CONTRACTOR AND/OR CONSTRUCTION MANAGER.
- 26. AT THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE TO THE OWNER COMPLETE AND ACCURATE "AS CONSTRUCTED DOCUMENTATION" FOR ALL SYSTEMS INSTALLED OR ALTERED UNDER THIS CONTRACT.

#### GENERAL NOTES:

- 1. REFER TO CONTRACT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 2. ALL REPLACEMENT WORK AND SHUTDOWNS SHALL BE COORDINATED WITH METRO-NORTH.
- ALL WORK SHALL BE DISCUSSED WITH METRO-NORTH TWO WEEKS PRIOR TO COMMENCING WORK. CONTRACTOR SHALL PROVIDE "ACTION PLAN".
- 4. THE MECHANICAL CONTRACTOR IS RESPONSIBLE TO EXTEND ALL POWER WIRING, CONTROL WIRING AND FIRE ALARM WIRING AS NECESSARY, TO CONNECT UP TO ALL NEW AND REPLACED HVAC EQUIPMENT.
- 5. MECHANICAL CONTRACTOR TO OBSERVE EXISTING CONDITIONS PRIOR TO WORK. CONTRACTOR IS RESPONSIBLE TO REPAIR/REPLACE ANY DAMAGED ITEMS (CEILING, WALLS, ROOFING, ETC.) TO MATCH AS—BUILT CONSTRUCTION.
- 6. ALL WORK SHALL BE COORDINATED WITH OTHER DISCIPLINES.
  COORDINATE ALL WALL, FLOORS AND CEILING PENETRATIONS WITH THE
  GENERAL CONTRACTOR AND AS APPROVED BY THE ENGINEER.
- 7. THERE ARE UNRELATED MECHANICAL, ELECTRICAL, AND COMMUNICATION FEATURES (AIR HANDLING UNITS, PIPING, ETC.) THAT ARE NOT SHOWN. CONTRACTOR SHALL UNDERSTAND THE EXISTING EQUIPMENT AND CAREFULLY EXECUTE THEIR WORK IN WAYS TO AVOID DAMAGE TO ALL UNRELATED EQUIPMENT.

### <u>CLEANING NOTES:</u>

- 1. ALL "EXISTING TO REMAIN", EXISTING RELOCATED OR NEW ITEMS INSTALLED BY THE GENERAL CONTRACTOR IN ADDITION TO BEING AMPLY PROTECTED THROUGHOUT THE PERIOD OF CONSTRUCTION SHALL BE THOROUGHLY CLEANED AND VACUUMED TO THE SATISFACTION OF THE OWNER PRIOR TO BEING TURNED OVER TO THE OWNER.
- 2. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO THOROUGHLY CLEAN OUT ALL DEBRIS AND FLUSH CLEAN ALL NEW PIPING TO THE SATISFACTION OF THE ENGINEER.

#### COMMISSIONING NOTES:

- 1. BECAUSE THIS PROJECT IS BY NATURE A REPLACEMENT, THE COMMISSIONING SCOPE IS MINIMAL.
- 2. THE OWNER OR AUTHORIZED REPRESENTATIVE WILL ACT AS THE COMMISSIONING AGENT.
- 3. ALL CONTRACTORS AND EQUIPMENT VENDORS WILL PROVIDE THEIR CUSTOMARY STARTUP AND TEST WORK, INCLUDING THE WORK DESCRIBED IN THE PROJECT DOCUMENTS. CONTRACTORS AND VENDORS WILL SUBMIT ALL THEIR STARTUP REPORTS TO THE COMMISSIONING AGENT FOR REVIEW.
- 4. THE COMMISSIONING AGENT WILL REVIEW AND COMMENT ON THE STARTUP DOCUMENTATION AND PROVIDE ACCEPTANCE OR COMMENTS. FINAL ACCEPTANCE OF THIS DOCUMENTATION INDICATES A SUCCESSFUL CONSTRUCTION EFFORT.
- 5. THE COMMISSIONING AGENT WILL DEVELOP FUNCTIONAL TEST PROCEDURES TO DOCUMENT SUCCESSFUL IMPLEMENTATION OF THE CONTROL SYSTEM. THESE TEST PROCEDURES WILL TEST ALL FACETS OF THE SEQUENCE OF OPERATION, IT WILL INCLUDE SPOT CHECKS OF INSTRUMENTATION ACCURACY AND VALIDATE THE GRAPHIC DISPLAY CORRECTLY INDICATES THE OPERATING CONDITIONS. THIS TEST PROCEDURE WILL BE AVAILABLE FOR REVIEW AND COMMENT BY CONTRACTORS AND VENDORS BEFORE BEGINNING TESTING. CONTRACTORS AND VENDORS WILL ACTIVELY PARTICIPATE IN THIS TESTING BY OPERATING THE EQUIPMENT AS DIRECTED IN THE TEST PROCEDURES. CONTRACTORS AND VENDORS WILL CORRECT DEFICIENCIES REVEALED IN THIS TESTING AND SUBMIT FOR RETESTING. RETESTING WILL CONTINUE UNTIL THE COMMISSIONING AGENT AND OWNER ARE SATISFIED THE SYSTEM IS OPERATING CORRECTLY.

#### NEW YORK STATE BUILDING NOTES:

- 1. ALL WORK SHALL BE GOVERNED BY THE 2015 N.Y.S. BUILDING CODE, AND BUILDING STANDARDS. ALL REQUIREMENTS SPECIFIED IN THE CODE SHALL BE ADHERED TO AS IF THEY WERE CALLED FOR, OR SHOWN ON THE DRAWINGS. THIS SHALL NOT BE CONSTRUED TO MEAN THAT ANY REQUIREMENTS SET FORTH ON THE DRAWINGS MAY BE MODIFIED BECAUSE THEY ARE MORE STRINGENT THAN THE CODE REQUIREMENTS OR BECAUSE THEY ARE NOT SPECIFICALLY REQUIRED BY CODE.
- 2. VERIFY ALL CONDITIONS COVERING OR AFFECTING THE WORK, OBTAIN & VERIFY ALL DIMENSIONS TO ENSURE ITS PROPER STRENGTH, FIT & LOCATION. VISIT EXISTING SITE TO BECOME FAMILIAR WITH ITS CONSTRUCTION REQUIREMENTS, REPORT TO THE ENGINEER ANY & ALL CONDITIONS WHICH MAY INTERFERE WITH & OTHERWISE AFFECT OR PREVENT THE PROPER EXECUTION & COMPLETION OF THE WORK.
- 3. ANY EXISTING CONSTRUCTION, INCLUDING FIREPROOFING, DISTURBED AS A RESULT OF THIS CONTRACT SHALL BE REPLACED AS REQUIRED TO THE SATISFACTION OF THE ENGINEER.
- 4. EXISTING CONSTRUCTION NOT UNDERGOING ALTERATION IS TO REMAIN UNDISTURBED. WHERE SUCH CONSTRUCTION IS DISTURBED AS A RESULT OF THE OPERATIONS OF THIS CONTRACT, IT SHALL BE REPAIRED OR REPLACED AS REQUIRED BY & TO THE SATISFACTION OF THE ENGINEER.
- 5. COORDINATE FOR EASE & RAPIDITY OF CONSTRUCTION, THE WORK OF OTHER TRADES. ALL SLOTS, SLEEVES, AND/OR OTHER OPENINGS TO BE COORDINATED & SET BEFORE CLOSING OPENINGS.
- 6. EACH CONTRACTOR SHALL PROVIDE ALL THE NECESSARY SUPPORT, BRACING, SHORING, ETC. (TEMPORARY &/OR PERMANENT) OF BOTH NEW & EXISTING CONSTRUCTION AS REQUIRED FOR THE SAFE INSTALLATION OF NEW CONSTRUCTION & EQUIPMENT.
- 7. DURING CONSTRUCTION OPERATIONS "BUSINESS AS USUAL" IS TO BE MAINTAINED THROUGHOUT THE BUILDING, THEREFORE THE CONSTRUCTION TECHNIQUES, TIME OF CONSTRUCTION, TEMPORARY PARTITIONS & PROTECTION METHODS SHALL SAFELY ALLOW FOR THIS REQUIREMENT.
- 8. PROVIDE TEMPORARY PROTECTION & WEATHER SEAL OF ALL WINDOW OPENINGS DURING CONSTRUCTION.
- 9. FINAL CLEAN-UP (BROOM CLEAN) & THE REMOVAL OF ALL DEBRIS ON A DAILY BASIS SHALL BE INCLUDED AS PART OF THE CONTRACT. CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENT THAT IT IS MANDATORY TO MINIMIZE ALL DUST.

### 100% DESIGN SUBMISSION

DESIGNED
J. CRESPO
DRAWN
J. CRESPO
CHECKED
M. MELLER
APPROVED
AR. GULERIA, P.E.

REVISIONS

CONFORMED

CONFORMED

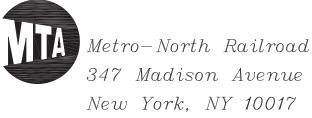
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REVISIONS

REVISIONS



Fax (212) 268-7497



METRO-NORTH
STATION IMPROVEMENTS
PURDY'S STATION
GENERAL NOTES

ONTRACT NO. 1000106733 SCALE DATE

 NONE
 11-20-2019

 DRAWING NO.

**M-001**SHEET 40 OF 76

### **ABBREVIATIONS:**

EΑ

EF

EG

ENT

ESP

ETC.

EXIST.

EXH

FC

FLTR

HP

IN. KW

LBS

MAX.

OΑ

PΗ

AIR CONDITIONING

EXHAUST AIR

EXHAUST FAN

ENTERING EQUIPMENT

ET CETERA

EXISTING

EXHAUST FARENHEIT

FAN

FILTER

FEET

HEIGHT

HERTZ INCH

KILOWATT

POUNDS

MAXIMUM

MINIMUM

NEW

NUMBER

PHASE

MAKE-UP AIR

MAKE-UP WATER

NORMALLY OPENED

NORMALLY CLOSED

OUTSIDE AIR INTAKE

SOME SYMBOLS AND ABBREVAITIONS MAY NOT

BE USED ON THIS PROJECT'S DRAWINGS

NOISE CRITERIA

OUTSIDE AIR

HEATING COIL

HORSE POWER

LEAVING AIR TEMPERATURE

MAXIMUM OVERCURRENT PROTECTION

MINIMUM CIRCUIT AMPS

DOOR)

(W/AD)

EXHAUST GRILLE

EXTERNAL STATIC PRESSURE

FLEXIBLE CONNECTION

FD/AD FIRE DAMPER (W/ACCESS

FSD/AD COMB. FIRE/SMOKE DAMPER

/ (0	7.111. 001121110111110	Q(111
ACD	AUTOMATIC CONTROL DAMPER	RA
ACT	ACOUSTICAL TILE CEILING	RF
AD	ACCESS DOOR	RG
AFF	ABOVE FINISH FLOOR	RLA
AHU	AIR HANDLING UNIT	RM
ALD	ACOUSTICALLY LINED DUCTWORK	RPM
APPROX	APPROXIMATE	RR
BDD	BACKDRAFT DAMPER	SA
BMS	BUILDING MANAGEMENT	SD
SYST	ГЕМ	SDET
BOD	BOTTOM OF DUCT	SEF
BOU	BOTTOM OF UNIT	SF
BTU/H	BRITISH THERMAL	SG
	UNITS PER HOUR	SP
CC	COOLING COIL	SR
CD	CEILING DIFFUSER	SQFT
CG	CEILING GRILLE	TG
CSER	CUSTOMER SERVICE	TOD
	EQUIPMENT ROOM	TOU
DB	DRY BULB	TSP
DEG	DEGREE	TYP.
DIA	DIAMETER	V
DIFF	DIFFUSER	VD
(E)	EXISTING	W
•		

# SYMBOLS:

QUANTITY

ROOM

RETURN AIR

RETURN FAN

SUPPLY AIR

SUPPLY FAN

SUPPLY GRILLE

SQUARE FOOT

TOP OF DUCT

VOLUME DAMPER

TOP OF UNIT

TYPICAL

VOLTS

WIDTH

W.G.

WMS

WET BULB

WATER GAUGE

WIRE MESH SCREEN

STATIC PRESSURE

SUPPLY REGISTER

TRANSFER GRILLE

TOTAL STATIC PRESSURE

RETURN GRILLE

RETURN REGISTER

SMOKE DAMPER

SMOKE DETECTOR

SMOKE EXHAUST FAN

RATED LOAD AMPERAGE

REVOLUTIONS PER MINUTE

SYMBOL	DESCRIPTION
	SUPPLY AIR
	RETURN OR EXHAUST AIR
SD/AD	SMOKE DAMPER W/AD
TFD/AD	FIRE DAMPER W/AD
	COMBINATION FIRE & SMOKE DAMPER W/AD
——M	MOTORIZED DAMPER
T	THERMOSTAT/SENSOR
	GRILLE OR REGISTER
	DIFFUSER, 4—WAY BLOW
S	DUCT MOUNTED SMOKE DETECTOR
H	HUMIDITY SENSOR OR HUMIDISTAT
SD	SMOKE DETECTOR
	DIFFUSER, GRILLE, REGISTER LETTER DESIGNATOR (SEE SCHEDULE FOR ATD TYPE)
≥—X A(200)	DESIGN CFM
<b>₹</b>	CIRCUIT SETTER BALANCING VALVE
<b>₹</b>	BALL VALVE
·	STRAINER
· + · · ·	CAPPED OUTLET
<b>₽</b>	PRESSURE GAUGE
₹—— <del>}</del>	THERMOMETER
<b>₹</b>	SOLENOID VALVE
<b>────</b>	AIR FLOW
	CONNECT NEW TO EXISTING
	TERMINATION POINT OF DEMOLITION

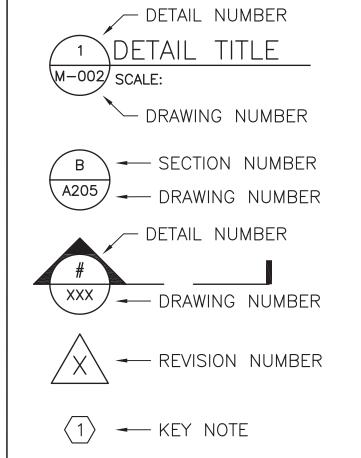
CONNECT TO MANUFACTURERS PRE-PIPED CONNECTION

### LINE DESIGNATIONS:

LINE DESIG	<u>INATIONS.</u>
NAME	PIPING/EQUIPMENT (SERVICE AS INDICATED)
—— (E)NAME ——	EXISTING PIPING/EQUIPMENT TO REMAIN (SERVICE AS INDICATED)
	EXISTING PIPING/DUCTWORK/EQUIPMENT TO BE REMOVED (SERVICE AS INDICATED)
— · · · — (NAME) —	FUTURE EQUIPMENT (SERVICE AS INDICATED)
CD	CONDENSATE DRAIN
GCHWR	GLYCOL CHILLED WATER RETURN
GCHWS	GLYCOL CHILLED WATER SUPPLY
—— CHWR ——	CHILLED WATER RETURN
——————————————————————————————————————	CHILLED WATER SUPPLY
D	DRAIN
——— EA ———	EXHAUST AIR
—— RA ——	RETURN AIR
—— RL ——	REFRIGERANT LIQUID
——— RS ———	REFRIGERANT SUCTION
——— RD ———	REFRIGERANT DISCHARGE
———— SA ————	SUPPLY AIR

LOW VOLTAGE WIRING

### REFERENCE SYMBOLS:



### 100% DESIGN SUBMISSION

DESIGNED

J. CRESPO

DRAWN

J. CRESPO

CHECKED

M. MELLER

APPROVED

AR. GULERIA, P.E.

OF NEW LORK SINGH GULERIA SING

NO. DATE

REVISIONS

CONFORMED

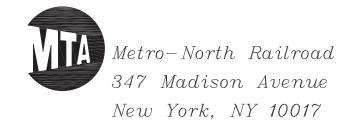
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DRWN CHKD APPVD NO. DATE

REVISIONS

REVISIONS





METRO-NORTH
STATION IMPROVEMENTS
PURDY'S STATION
ABBREVIATIONS
AND SYMBOLS

NTRACT NO.

1000106733

SCALE DAT

 SCALE
 DATE

 NONE
 11-20-2019

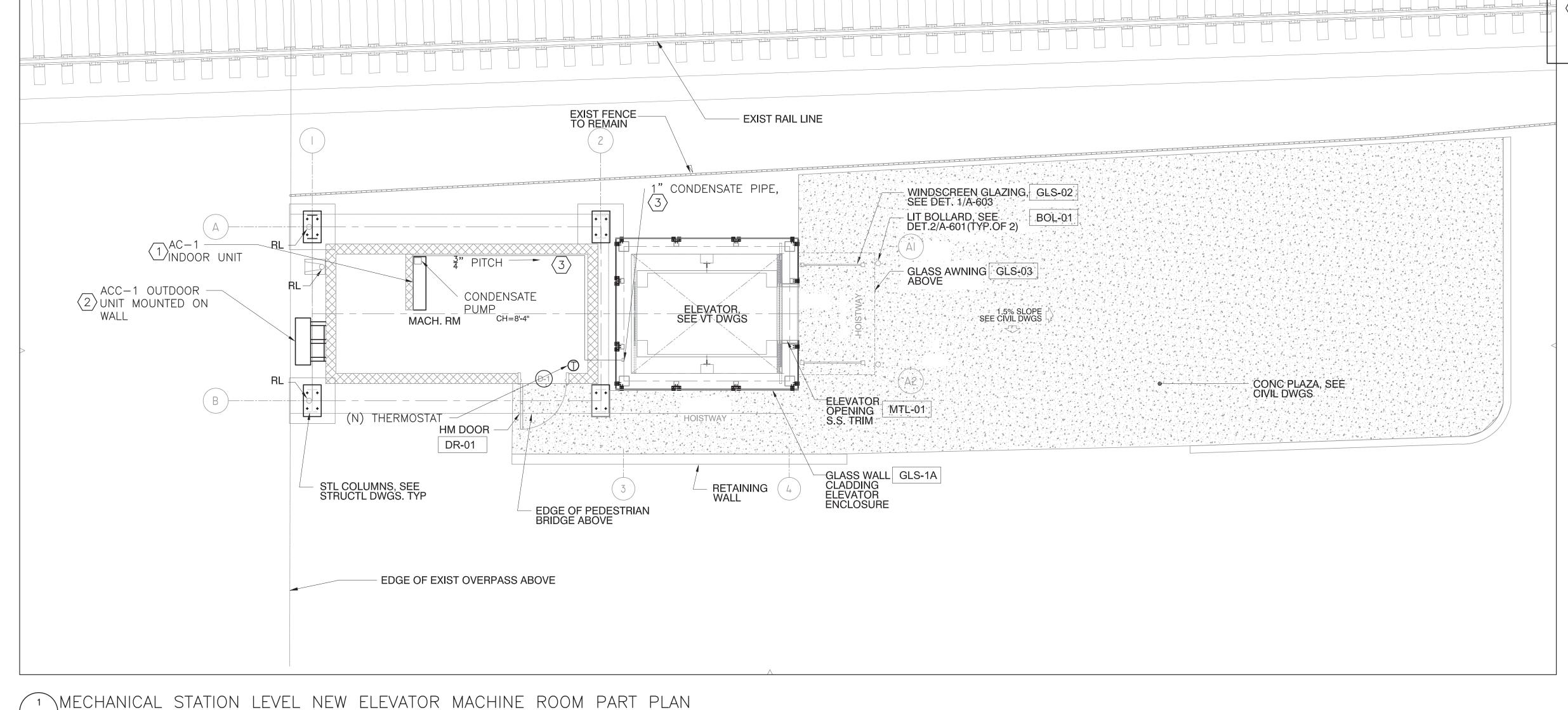
 DRAWING NO.

M-002
<sub>SHEET</sub> 41 <sub>OF</sub> 76

### NOTES:

- FOR SYMBOLS, ABBREVIATIONS REFER TO DWG. M-002 FOR GENERAL MECHANICAL NOTES
- 2. THIS DRAWING IS INTENDED TO SHOW A CONCEPTUAL DESIGN AND IS NOT MEANT TO DEPICT ACTUAL HARDWARE ARRANGEMENTS OPTIONS ARE POSSIBLE.
- KEY NOTES:
- AC-1 PROVIDE NEW DUCTLESS INDOOR HEAT-PUMP UNIT (WALL MOUNTED 6 FEET FROM AFF) WITH FACTORY INSTALLED DRAIN PUMP. REFER TO SCHEDULE DWG M-501
- PROVIDE NEW HEAT-PUMP UNIT (ACC-1) OUTDOOR FOR UNIT (AC-1). SEE SCHEDULE DWG. NO. M-501. HEAT-PUMP OUTDOOR UNIT (WALL MOUNTED 2 FEET ABOVE GROUND) MECHANICAL CONTRACTOR TO PROVIDE WALL BRACKETS AND PROTECTIVE CAGE. LOCAL DISCONNECT SWITCH BY ELECTRICAL CONTRACTOR.
- PROVIDE 1" COPPER PIPING SCH 80 CONDENSATE PIPING. TERMINATE IN SUMP PUMP PIT.

  REFER TO PLUMBING DWG. P-201



STATION LEVEL

0' 64' 128'

### 100% DESIGN SUBMISSION

NEW

ELEVATOR

MACHINE

ROOM

EXISTING -

PLATFORM

DESIGNED
J. CRESPO

DRAWN
J. CRESPO

CHECKED
M. MELLER

APPROVED
AR. GULERIA, P.E.

REVISIONS

CONFORMED

CONFORMED

DRWN CHKD APPVD NO. DATE

REVISIONS

REVISIONS





Metro-North Railroad 347 Madison Avenue New York, NY 10017 METRO-NORTH
STATION IMPROVEMENTS
PURDY'S STATION
STATION LEVEL NEW ELEVATOR
MACHINE ROOM PART PLAN

CONTRACT NO.

1000106733

SCALE DATE

AS NOTED 11-20-2019

DRAWING NO.

M-201

SHEET 42 OF 76

M-201 SCALE: 1/4"=1'-0"

	DUCTLESS HEAT PUMP SYSTEM SCHEDULE (CONTINUATION)																					
		AREA	INDOOR UNIT	NOMINAL	TYPE	CFM	COOLING		ENTERING AIR TEMPERATURE	HEATING		MANUFACTURER AND MODEL										
IN	IDOOR	SERVICED	LOCATION	TONS	TIPE	CFIVI	(BTU/HR)	R) (BTU/HR)	(F DB/DB)	(BTU/H)	V/PH/HZ	MCA	MOP	DIMENSIONS (WxHxD)	WEIGHT OPERATING LBS	DRAIN PIPE SIZE INCHES	REFRIG. PIPE SIZE GAS	REFRIG. PIPE SIZE LIQUID	NUMBER			
	AC-1	ELEVATOR MACHINE ROOM	ELEVATOR MACHINE ROOM	2	WALL MOUNTED	635	24,283	18,929	80.0/67.6	27,520	208/1/60	0.6	15.0	41.1x11.4x9.3	30.9	3/4"	5/8"	3/8"	DAIKIN FXAQ24PVJU			

### NOTES:

1. REFER TO DRAWING M-201 FOR MECHANICAL PLANS.

#### DUCTLESS HEAT-PUMP SYSTEM SCHEDULE (CONTINUATION)

CONDENSING UNIT																
OUTDOOR	LOCATION	NOMINAL TONNAGE	DESCRIPTION	COOLING BTU/H	AMBIENT DESIGN (F DB)	REFRIGE RANT TYPE	HEATING BTU/H	AMBIENT DESIGN TEMP. (F DB/WB)	V/PH/HZ	MCA	MOP	RUNNING CURRENT AMPS (RLA)	DIMENSIONS (WxHxD)	WEIGHT (LBS.)	EER	MANUFACTURER AND MODEL NUMBER
ACC-1	EXTERIOR WALL	2	AIR COOLED HEAT-PUMP	24,143	95.0	410A	26,827	9.0/9.0	208/1/60	16.5	25	15.3	37.0x39.0x12.6	172	14.3/11	DAIKIN RXSQ24TAVJU

#### NOTES

- 1. CONTRACTOR SHALL PROVIDE THE FOLLOWING ACCESSORIES AND FACTORY OPTIONS: R410 REFRIGERANT, AUTO RESTART/RESET, TWO YEAR PARTS WARRANTY LOW AMBIENT CONTROL. OPTIONAL WIRED REMOTE CONTROL AND OUTDOOR UNIT, EQUIPMENT SUPPORT BRACKETS AND PROTECTIVE CAGE.
- 2. PROVIDE WALL MOUNTED MICROPROCESSOR CONTROL FOR TEMPERATURE CONTROL WITH LCD DISPLAY.
- 3. PROVIDE FACTORY INSTALLED CONDENSATE PUMP, INCLUDING ALL ACCESSORIES AND WALL MOUNTING BRACKET.
- 4. UNIT SHALL HAVE 5 YEARS COMPRESSOR WARRANTY.
- 5. REFRIGERANT PIPE SIZES AND PIPE TRIM SHALL BE VERIFIED BY UNIT MANUFACTURES BASED ON ACTUAL PIPING RUNS TO BE INSTALLED. MINIMUM PIPE SIZES SHALL BE 3/8" LIQUID AND 5/8" SUCTION. SUBMIT ALL SIZING AND CALCULATIONS TO ENGINEER BEFORE INSTALLATION.
- 6. INDOOR AND OUTDOOR SECTIONS ARE POWERED ELECTRICALLY INDEPENDENTLY.
- 7. PROVIDE MANUFACTURER'S EXTERNAL POWER DISCONNECT SWITCH

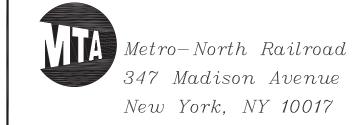
### SEQUENCE OF OPERATIONS:

- 1. WHEN THE WALL MOUNTED THERMOSTAT CONTROLLER SENSES THE RISE IN THE TEMPERATURE ABOVE THE SET POINT (90°F ADJUSTABLE) THE HEAT PUMP UNIT (AC-1,) SHALL RUN CONTINUOUSLY TO COOL THE SPACE UNTIL THE TEMPERATURE REACHES (85°F ADJUSTABLE)
- 2. WHEN THE WALL MOUNTED THERMOSTAT CONTROLLER SENSES THE DROP IN THE TEMPERATURE BELOW THE SET POINT (50°F ADJUSTABLE) THE HEAT PUMP UNIT (AC-1,) SHALL RUN CONTINUOUSLY TO WARM UP THE SPACE UNTIL THE TEMPERATURE REACHES (55°F ADJUSTABLE).

## 100% DESIGN SUBMISSION

DESIGNED											(	CONFORMED					
J. CRESPO	OF NEW																
DRAWN	AP JAN SINGA OD																
J. CRESPO	(0) 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																
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M. MELLER	130 \	NO.	DATE			DRWN	CHKD	APPVD	NO.	DATE				DRWN	CHKD	APPVL	
APPROVED	1 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \																
AR. GULERIA, P.E.									REVISIONS								

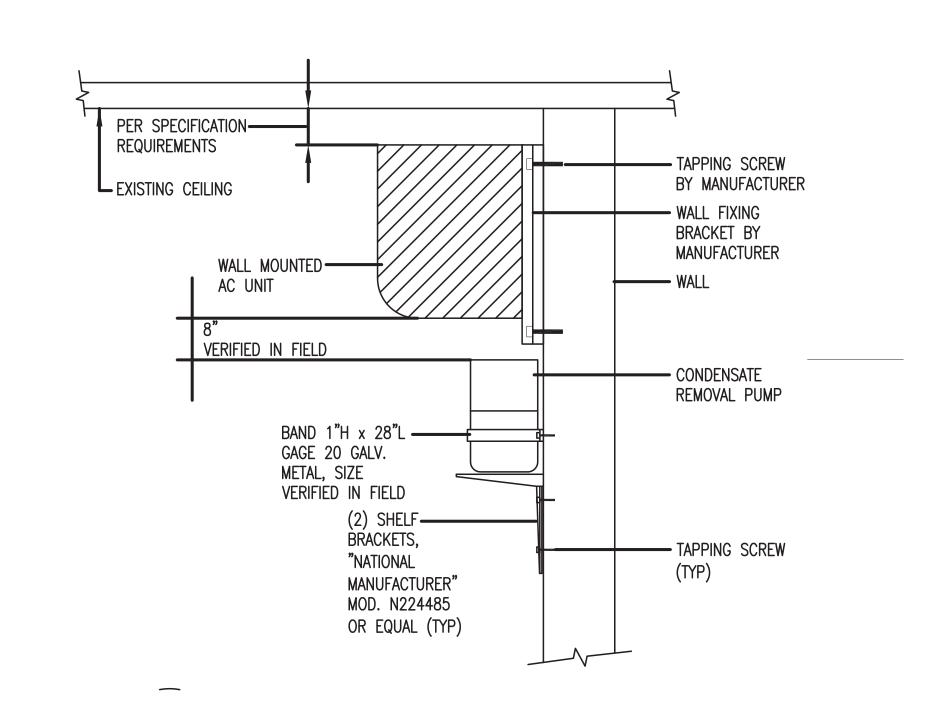




METRO-NORTH
STATION IMPROVEMENTS
PURDY'S STATION
SCHEDULES

CONTRACT NO.	
10001	06733
SCALE	D
NONE	11-2

M-501
SHEET 43 OF 76



**EXISTING** CMU WALL [EXPANSION BOLT (TYP). FILL PROTECTIVE CAGE BY -**EXTERIOR** CMU WITH GROUT IN PROXIMITY OF BOLTS. PROPERTY ARMOR BOLT DIAMETER AND QUANTITY MODEL SERIES P2 SLAMMER (OR APPROVED PER OUTDOOR UNIT AND BRACKETS MANUFACTURER EQUAL.) REQUIREMENTS (TYP) WALL BRACKET BY "DAIKIN" WALL MOUNTED -(OR APPROVED EQUAL) OUTDOOR AC UNIT WITH WIND BAFFLE ISOLATION PAD MINIMUM THICKNESS: 1"+ BY UNIT MANUFACTURER— CMU WALL INTERIOR EXISTING GROUND

2 TYPICAL SUPPORT FOR WALL MOUNTED OUTDOOR UNIT M-601 SCALE: NOT TO SCALE

### 100% DESIGN SUBMISSION

CONFORMED DESIGNED J. CRESPO DRAWNJ. CRESPO CHECKEDNO. DATE DRWN CHKD APPVD M. MELLER REVISIONS REVISIONS APPROVEDAR. GULERIA, P.E.





**METRO-NORTH** STATION IMPROVEMENTS PURDY'S STATION

1000106733 NONE 11-20-2019

DRAWING NO. M-601 SHEET **44** OF **76** 

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1 TYPICAL SUPPORT FOR WALL MOUNTED AC UNIT

M-601 SCALE: NOT TO SCALE