

# HVAC Upgrades for: SCENIC REGIONAL LIBRARY

251 Union Plaza Dr, Union, Missouri 63084

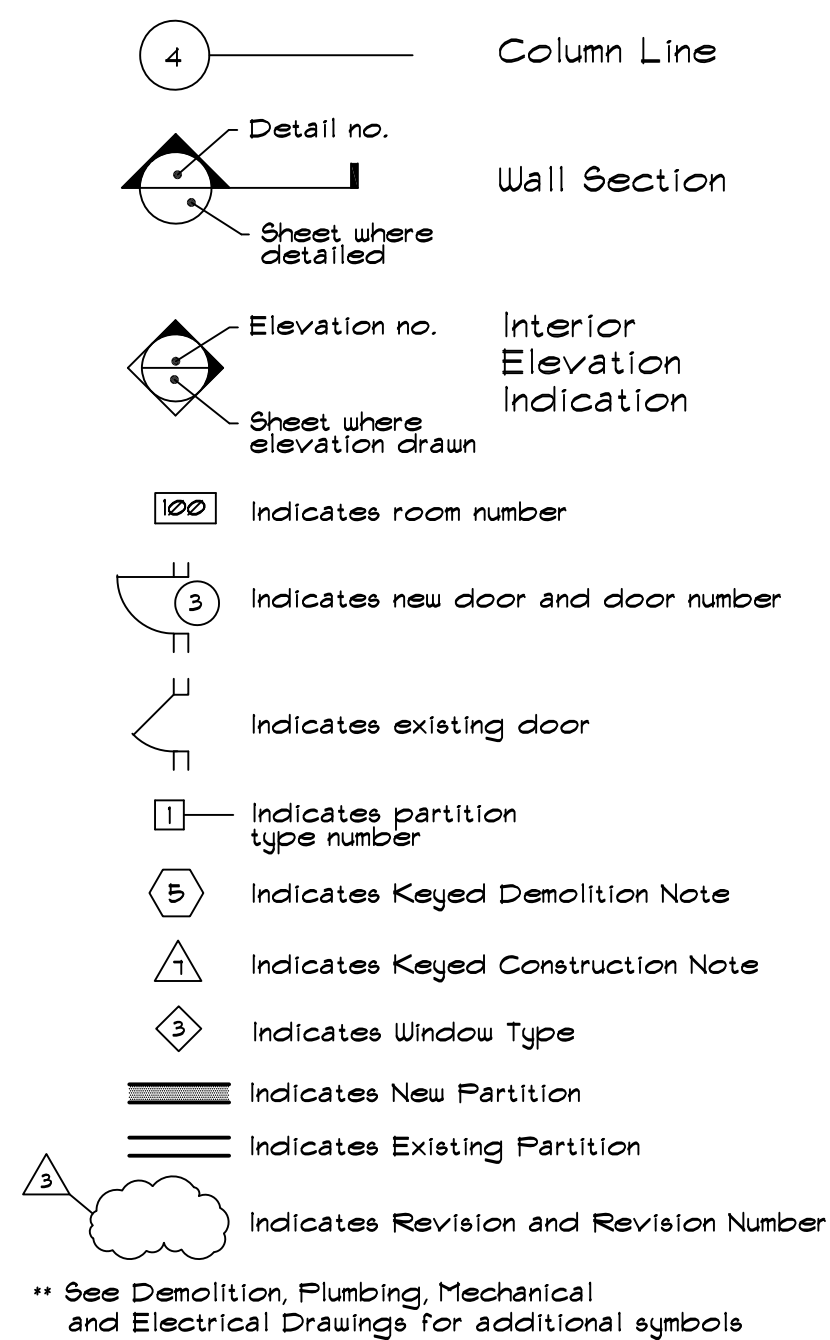
**NOTE:**

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION, INCLUDING ALL SHORING AND BRACING, AND ALL REQUIRED SAFETY PRECAUTIONS

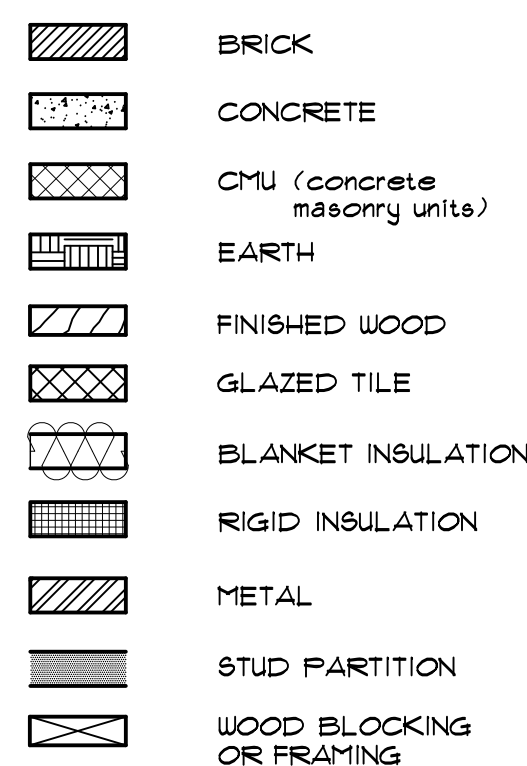
**ABBREVIATIONS** See MEP, Structural & Civil Drawings for additional abbreviations

Ac	Acoustical	Insl	Insulation
Adj	Adjustable	Joint	Joint
Alum	Aluminum	KO	Knock out panel
at	at	Lav.	Lavatory
AP	Access Panel	LP	Liner Panel
B	Brick	Ma. T.	Marble Threshold
Bm	Beam	mas	Masonry
B&B	Brick Shelf	MC	Mechanical Contractor
Btm	Bottom	Met.	Metal
By Owner	Furnished and delivered by Owner.	MBM	Metal Building Manufacturer
CE&S	Carpet Edge Strip	mid	Molding
CG	Corner Guard	MO	Masonry Opening
CH&D	Chalk Board	MJR	Masonry Joint Reinforcing
CJ	Control Joint	MT	Metal Threshold
CMU, CM	Concrete Block Masonry Unit	MES	Metal Edge Strip
Col	Column	NIC	Not in Contract. Installed & furnished by Owner (shown dotted)
Conc. C	Concrete	NR	Napkin Receptacle
Cont	Continuous	N.T.S.	Not To Scale
Conv	Convactor	oc	on center
CP, CPT	Carpet	oprg	opening
CR	Coat Rack	opp	opposite
CS	Chanel	Pa, P	Paint
CL	Centerline	FC	Flumbing Contractor
CW	Cold Water	FH	Paper Holder
CT	Ceramic tile	FL, plas. lam.	Plastic Laminate
DA&S	Dovetail Anchor Slot	Fly	Flywood
DF	Drinking Fountain	FTD	Paper Towel Dispenser
DJ	Dummy Joint	Fig.	Figure
DP	Dampproofing	FL	Flats
DPH	Dual paper holder	Fres.	Present
DS	Downspout	R	Rubber
DW, D	Driveway	RAG	Return Air Grille
ea	each	RD	Roof Drain
EC	Electrical Contractor	Recep.	Receptacle
Elect.	Electric	Ref.	Refrigerator
EP	Electric Panel	Reinf.	Reinforced reinforcement
ES	Edge Strip	RM	Removable Mullion
exp	expansion	Ø	Round
EXT	Extruded	SA	Shelf angle
Ex, Exist.	Existing	SAR	Supply Air Register
FAP	Fire Alarm Panel	SD	Scrap Dispenser
FCU	Fan Coil Unit	sh	shelves
FCD	Floor Drain	S & P	Shelf & Pole
FDC	Fire Dept. Connection	SS	Stainless Steel
FIE	Fire Extinguisher	St	Steel
FEC	Fire Extinguisher Cabinet	Susp	Suspended
FHC	Fire Hose Cabinet	Sq.	Square
FHEC	Fire Hose & Extinguisher Cabinet	Ta Bd.	Tackboard
FHC&S	Flat Head Countersunk	TB	Towel Bar
Fin.	Finished	TC	Top of concrete
Fl, Fir.	Flammable	TD	Towel Dispenser
FRT	Fire Retardant Treated	Tel.	Telephone
Gal	Galvanized	T.O.M.	Top of Masonry
Galv.	Galvanized	TP	Tack Panel
GB	Grab Bar	TUF	Through Wall Flashing
GC	General Contractor	typ.	typical
G	Glass	UNO	Unless Noted Otherwise
GT	Structural Glazed Tile	V	Vinyl
HC	Handicapped	Vac	Vacuum
HVAC	Heating, Ventilating & Air Conditioning	VAP	Visual Aid Panel
HW	Hot Water	VCPB	Vinyl Coated Particle Board
HCW	Hot & Cold Water	VCT	Vinyl Composition Tile
HM	Hollow Metal	VB	Vapor Barrier
HR	Handrail	wd	wood
		WDU, win	window
		WP	Waterproofing
		WRB	Weather Resistant Barrier
		WUF	Welded Wire Fabric

**SYMBOLS**



**MATERIAL INDICATIONS**



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DRAWING INDEX		ISSUE DATE
PRELIMINARY	FOR CONSTRUCTION	
BIDDING / CODE	REVISION	
<b>ARCHITECTURAL</b>		
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A2.2	LOCATION MAPS	
<b>MECHANICAL</b>		
M1.1	MECHANICAL DETAILS	
M1.2	MECHANICAL DETAILS	

**INSTRUCTIONS TO READERS**

- DO NOT SCALE THE DRAWINGS as a means of obtaining exact dimensions.
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- The Architect accepts no responsibility for the consequences of the use of these documents or any other written or oral instructions by persons inexperienced, unqualified or for any other reason unable to read, understand and comprehend them correctly.
- It is the Contractor's installer, subcontractor, tradesman, material supplier, general contractor, etc.'s responsibility to be familiar with any local, city, county, state or federal regulations, codes, ordinances, etc. that may apply to their work, materials, equipment or methods of construction.
- The Architect has not intended for these documents to describe each and every single component or method of construction needed to construct the project, but to develop documents -- that when used by competent tradesmen and material suppliers -- will sufficiently describe explicitly or implicitly the appropriate materials and methods of assembly.
- The contents of these documents -- as well as any other written or oral communications issued by the Architect for this project -- are furnished to the party that contracted orally or in writing for the services on the condition that the Architect's total liability is limited now and forever to the party that contracted for the services and to the fee paid for the services.
- The Architect shall not be held responsible for Contractor's construction means, methods, techniques, sequences, procedures, or safety precautions or any programs incident thereto.
- The Architect shall not be held responsible for Contractor's failure to perform work in accordance with the Contract Documents.
- The Architect shall not be held responsible for acts or omissions of the Contractor or any subcontractor or their agents or employees or any other persons performing any of the work.

**GENERAL REQUIREMENTS**

- Summary of Work: The Contractor shall provide for the work outlined in these documents. Any modification to the scope work shall be approved by the Owner prior to commencement of the work.
- Applicable Codes and Standards: All work outlined in these documents, and performed as part of the contractor's services shall be performed in strict accordance with all applicable codes and standards required by the Governing Authority.
- Insurance: The Contractor shall carry all required insurance, and shall provide the Owner with proof of such insurance.
- Warranty: The Contractor shall warrant all work for a period of one year from the date of substantial completion. All product and equipment warranties shall be provided to the Owner at the completion of the project.
- Testing: All required testing services shall be provided by the Owner, and performed by an independent test service. This may include, but is not limited to: Soils Testing, Concrete Testing, or Hazardous Materials Evaluation & Testing.
- General requirements of the Work:
  - All Materials shall be new and of good quality.
  - All work shall be performed in a neat and professional manner.
  - The job site shall be kept clean and free of debris and rubbish.
  - The Cont. shall provide all req. safety precautions and barriers.
  - The contractor shall be responsible for all shoring and bracing.
  - The Cont. shall be responsible for means and methods of const.
- Project Close Out:
  - Project and job site are to be cleaned and left free of debris.
  - All Labels, Stickers, or tags are to be removed.
  - All Product manuals and warranties are to be submitted to the Owner.
  - All temp. utilities, safety barriers, or facilities are to be removed.

**SELECTIVE DEMOLITION**

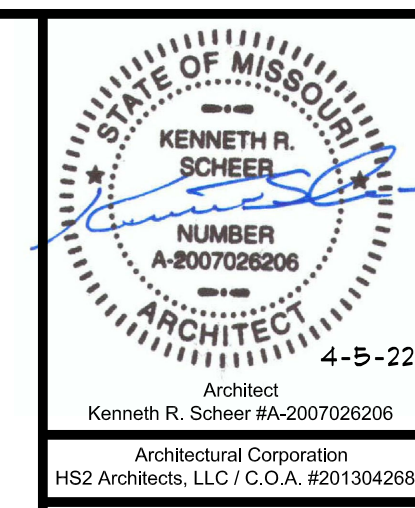
- Unless otherwise indicated, demolished materials become Contractor's property and shall be removed from the site.
- Items indicated to be removed and salvaged remain the Owner's property. Remove, clean and deliver to Owner's designated storage area.
- Comply w/ EPA regulations and disposal regulations of authorities having jurisdiction.
- Conduct demolition w/o disrupting Owner's use of building.
- Maintain & protect existing utilities to remain in service before proceeding w/ demolition, providing bypass connections to other parts of the building.
- Conduct demolition operations and remove debris to prevent injury to people and damage to adjacent buildings and site improvements.
- Provide and maintain bracing or structural support to preserve building stability and prevent movement, settlement, or collapse.
- Protect building structure or interior from weather, water leakage and damage.
- Protect remaining walls, ceilings, floors and exposed finishes. Erect and maintain dustproof partitions. Cover and protect remaining furniture, furnishings and equipment.
- Neatly cut openings and holes plumb, square and true to dimensions req'd. Use cutting methods least likely to damage construction to remain or adjoining construction.
- Promptly patch and repair holes and damaged surfaces of building caused by demolition. Restore exposed finishes of patched areas and extend finish restoration into remaining existing construction.
- Promptly remove demolished materials from Owner's property and legally dispose of them. Do not burn demolished materials.

**MECHANICAL**

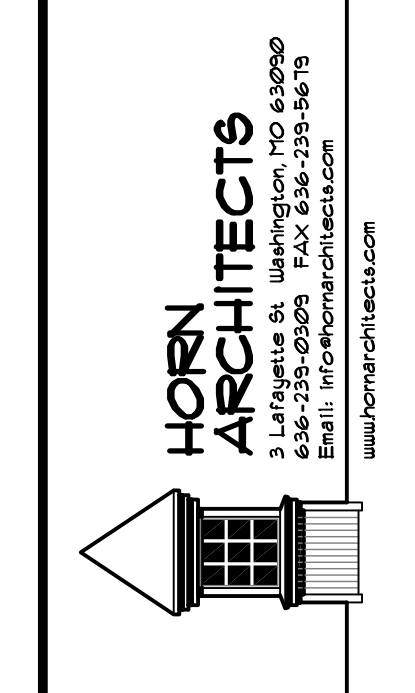
- All Mechanical installations shall be in strict accordance with all Governing codes and standards.
- The system design, fuel source, and features are to be reviewed and approved by the Owner prior to construction. Equipment locations shown on the drawings are generic, and final locations shall be approved by the Owner. Systems shall be designed with high efficiency, low noise output equipment.
- Provide programmable system controls selected by the Owner with a min of 'on-auto' and night setback features.
- Contractor shall be responsible for obtaining all necessary permits, inspections, and approvals for the work.
- Contractor shall be responsible for preparing all design calculations, including any required heat loss and heat gain calculations.
- Contractor shall be responsible for coordination of his work with other trades.
- Contractor shall be responsible for all digging, cutting, patching, ETC related to his work and shall make required repairs thereafter. In no case shall Contractor cut into any major structural element without the approval of the Architect / Structural Engineer. The contractor requiring the opening shall be responsible for verifying the existence of any concealed utilities or services within the surface and shall pay all cost of repairing or replacing any such surfaces or utilities which are damaged.
- Seal all penetrations of fire rated walls, floors, or ceilings in accordance with all Governing Codes and Standards. Sealing assembly / materials shall be UL listed.
- Coordinate electrical and/or plumbing connections with the associated trades including power supply, condensate drains, etc.
- Contractor shall be responsible for all excavation procedures and shall provide adequate protection to any adjacent structures. Backfill all excavations to 95% proctor density. Subgrade where disturbed shall be replaced w/ 6" of new compacted material.
- Provide access panels where required.
- The Contractor shall Test and balance the Mechanical Systems to ensure they are installed in a professional manner, and in accordance of Governing Codes and Standards.
- The Contractor shall replace all filters prior to Occupancy.
- Provide MFG standard equipment warranty, and one year parts and labor warranty.

**ELECTRICAL**

- All electrical installations shall be in strict accordance with all Governing codes and standards.
- Contractor shall be responsible for obtaining all necessary permits, inspections, and approvals for the work.
- Contractor shall be responsible for verifying all fixture types, requirements, finishes, equipment loads, and exact locations with the Owner.
- Contractor shall be responsible for coordination of his work with other trades.
- The Drawings indicate a 'schematic layout' and show approximate locations. Exact Locations shall be coordinated by the Contractor and field verified prior to rough-in.
- Contractor shall be responsible for all digging, cutting, patching, etc. related to his work and shall make required repairs thereafter. In no case shall Contractor cut into any major structural element without the approval of the Architect / Structural Engineer. The contractor requiring the opening shall be responsible for verifying the existence of any concealed utilities or services within the surface and shall pay all cost of repairing or replacing any such surfaces or utilities which are damaged.
- Seal all penetrations of fire rated walls, floors, or ceilings in accordance with all Governing Codes and Standards. Sealing assembly / materials shall be UL listed.
- Conduit shall be 3/4" Min. UNCL PVC conduit w/ pull strings for future wiring as shown on drawings. Raceways shall be compatible an suitable for use and locations. Keep raceways at least 6" away from flues, hot water pipes, and steam pipes. Protect stub-ups & stub-outs from damage and foreign matter. Conceal conduit & EMT within finished walls, ceilings and floors UNO.
- Conductors shall be copper wire #2 AWG Min. 60° conductor insulation for wires up to 4 including # AWG, 75° insulation above #4 AWG UNO Max voltage drop for branch circuits shall be 3%.
- Contractor shall be responsible for all excavation procedures and shall provide adequate protection to any adjacent structures. Backfill all excavations to 95% proctor density. Subgrade where disturbed shall be replaced w/ 6" of new compacted material.
- Grounding shall comply w/ NEC & local requirements. Install insulated grounding conductors in all circuits. Water heater 120 V, air-duct equipment, ETC. Ground rods tops shall be 2' below finish floor or grade.
- Panelboard breakers shall be 20 AMP UNO. Refer to panelboard schedule for sizes and type. Buses shall be hard drawn copper, 98% conductivity. Compression type terminators and ground lugs.
- Mounting heights shall be typical as follows UNO on the drawings.
  - Switches - 48" AFF
  - Receptacles - 18" AFF
  - Telephone - Center of wall hung device 54" AFF
  - Telephone / Data - center - 18" AFF
  - Thermostat - center - 54" AFF
- Coordinate building service and metering equipment w/ utility company.
- The Contractor shall Test and adjust all of the electrical systems to verify the performance of all systems and subsystems installed.

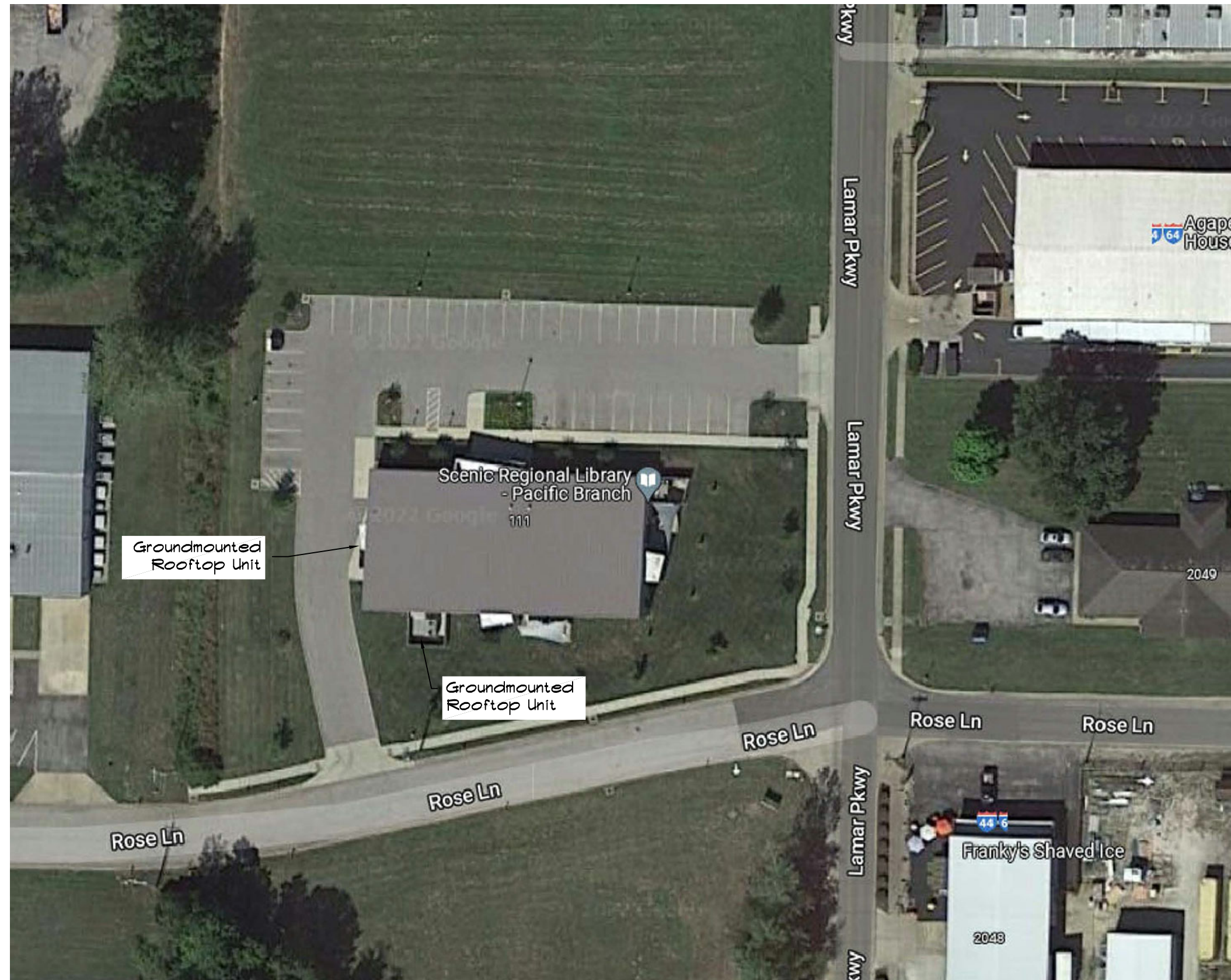


Kenneth R. Scheer #A-2007026206  
Architect  
Architectural Corporation  
H&S Architects, LLC / C.O.A. #2013042689



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**SCENIC REGIONAL LIBRARY**  
251 Union Plaza Dr, Union, Missouri 63084

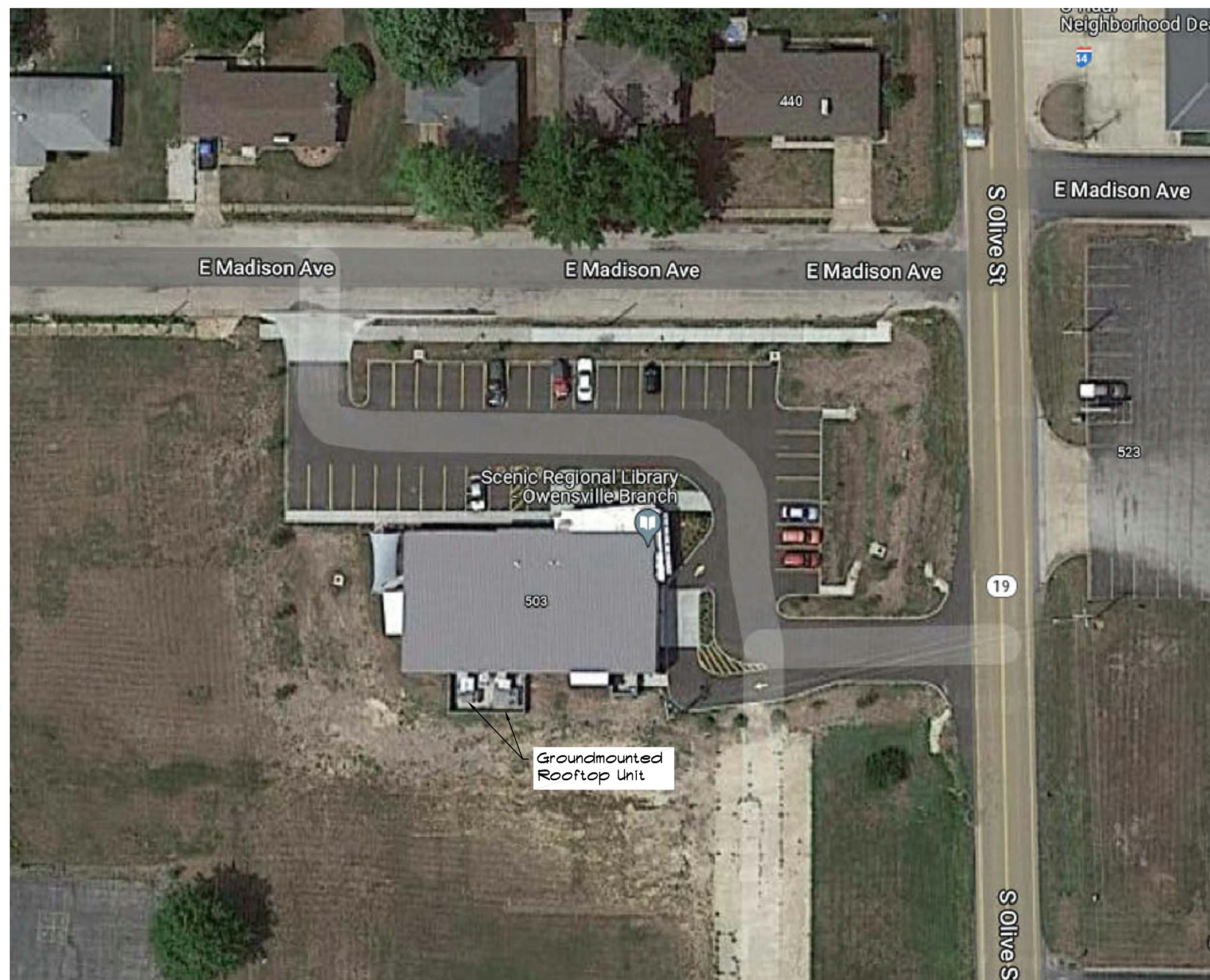
SHEET TITLE	Cover Sheet Drawing Index
REVISIONS	
PROJECT NO.	2215
ISSUE DATE	April 5, 2022
SHEET NO.	A.1.1



**LOCATION MAP  
PACIFIC BRANCH**  
111 Lamar Parkway  
Pacific MO 63069  
Scale: NTS



**LOCATION MAP  
SULLIVAN BRANCH**  
525 Cumberland Way  
Sullivan MO 63080  
Scale: NTS



**LOCATION MAP  
OWENSVILLE BRANCH**  
503 South Olive St.  
Owensville MO 63066  
Scale: NTS



**LOCATION MAP  
NEW HAVEN BRANCH**  
200 Douglas St.  
New Haven, MO 63068  
Scale: NTS

**PROJECT DESCRIPTION:**

The project consist of installing new AFR Control valves on 14 existing RTU's, and replacing the existing building temperature controls at the seven branch library locations indicated. The HVAC Contractor is to provide all components necessary for a complete, professional installation.

When complete the building and site shall be left in a state comparable to when the Contractor arrived. All trash, litter, and debris shall be removed from the site.

**PROJECT TIMING:**

The Owner wishes to have the work related to this project completed prior to June 1, 2022, with the exception of RTU-2 at the Sullivan Branch.

At the time these documents were completed all components were available in stock with the exception of the AFR Control valve for RTU-2 at the Sullivan Branch. It is the Owner's intent to have the AFR Control Valve for RTU-1 at Sullivan on-line prior to the June 1 deadline. The AFR Control Valve for RTU-2 at Sullivan will be installed at a later date when the equipment becomes available.

**BUILDING ACCESS:**

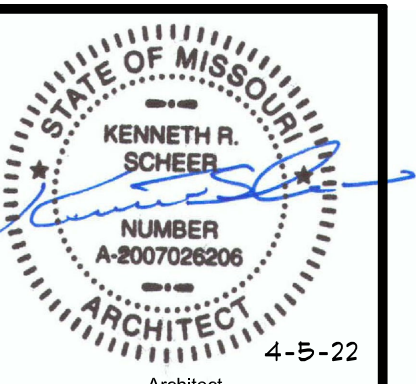
The branch libraries will be open and in use during there normal business hours. The HVAC Contractor shall coordinate with the local branch manager a time to access the units to complete the work. Every effort shall be made to limit the amount of time that the building systems are off-line. The Contractor shall limit any disruptions to the library staff and patrons.

**SUBSTITUTIONS:**

Substitution request must be submitted in writing to the Architect prior to the bid submittal. No substitutions will be allowed post Bid.

**DESIGN BASIS:**

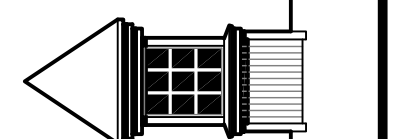
The work described in these documents is based on the recommendations put forth in the HVAC Assessment Reports dated 3/3/2021 & 10/22/2021 prepared by Henderson Building Solutions. A copy of these reports is included with the bidding documents.



4-5-22  
Architect  
Kenneth R. Scheer KA-2007026206

Architectural Corporation  
HS2 Architects, LLC / C.O.A. #2013042689

**HORN  
ARCHITECTS**  
3 Lafayette St., Washington, MO 63090  
Phone: 636-351-2676  
Email: info@hornarchitects.com  
www.hornarchitects.com



HVAC Upgrades for:  
**SCENIC REGIONAL LIBRARY**  
251 Union Plaza Dr, Union, Missouri 63084

SHEET TITLE  
Location Maps  
Project Notes

REVISIONS


△	
△	
△	

PROJECT NO.  
**2215**

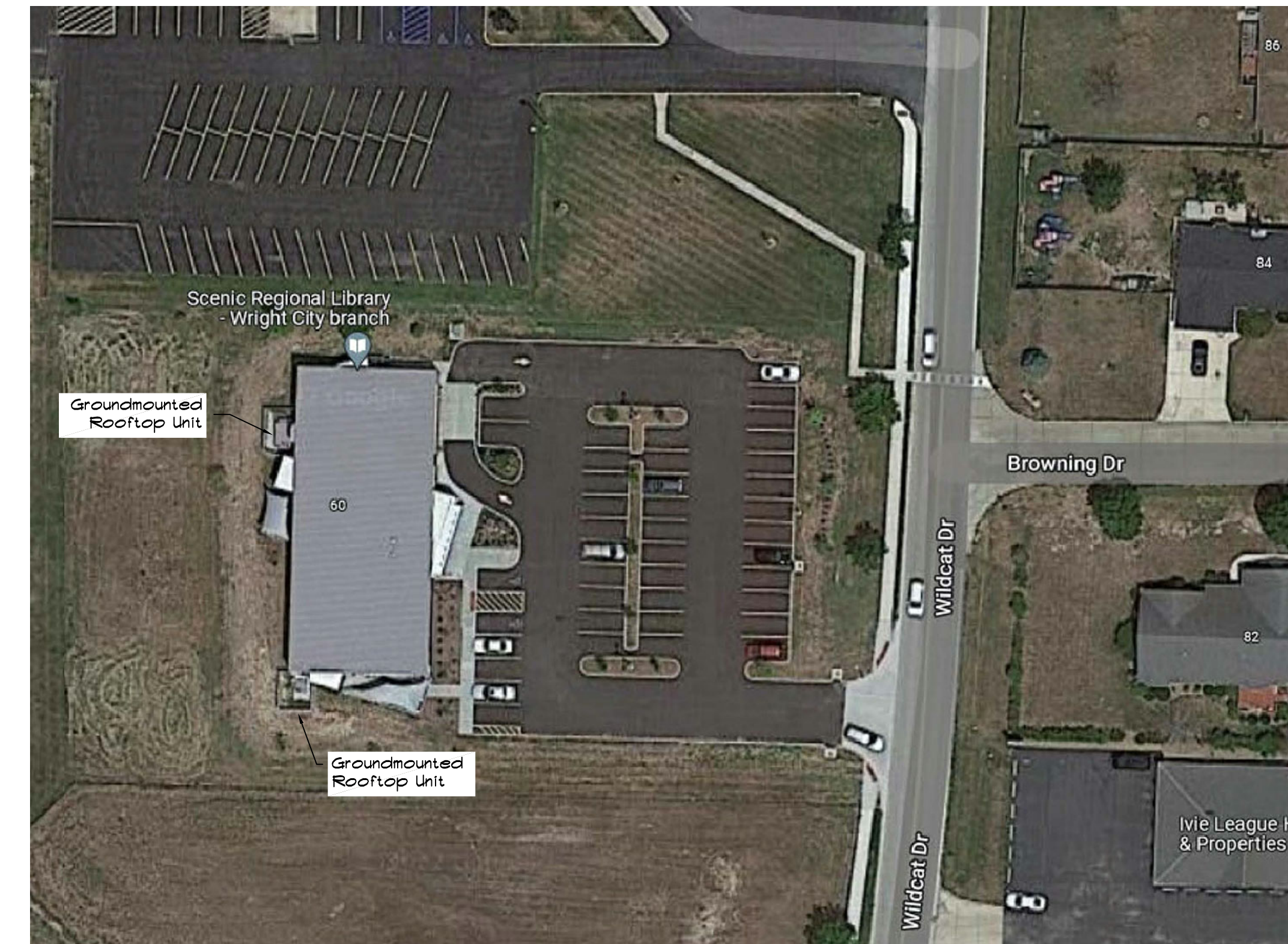
ISSUE DATE  
April 5, 2022

SHEET NO.  
**A2.1**



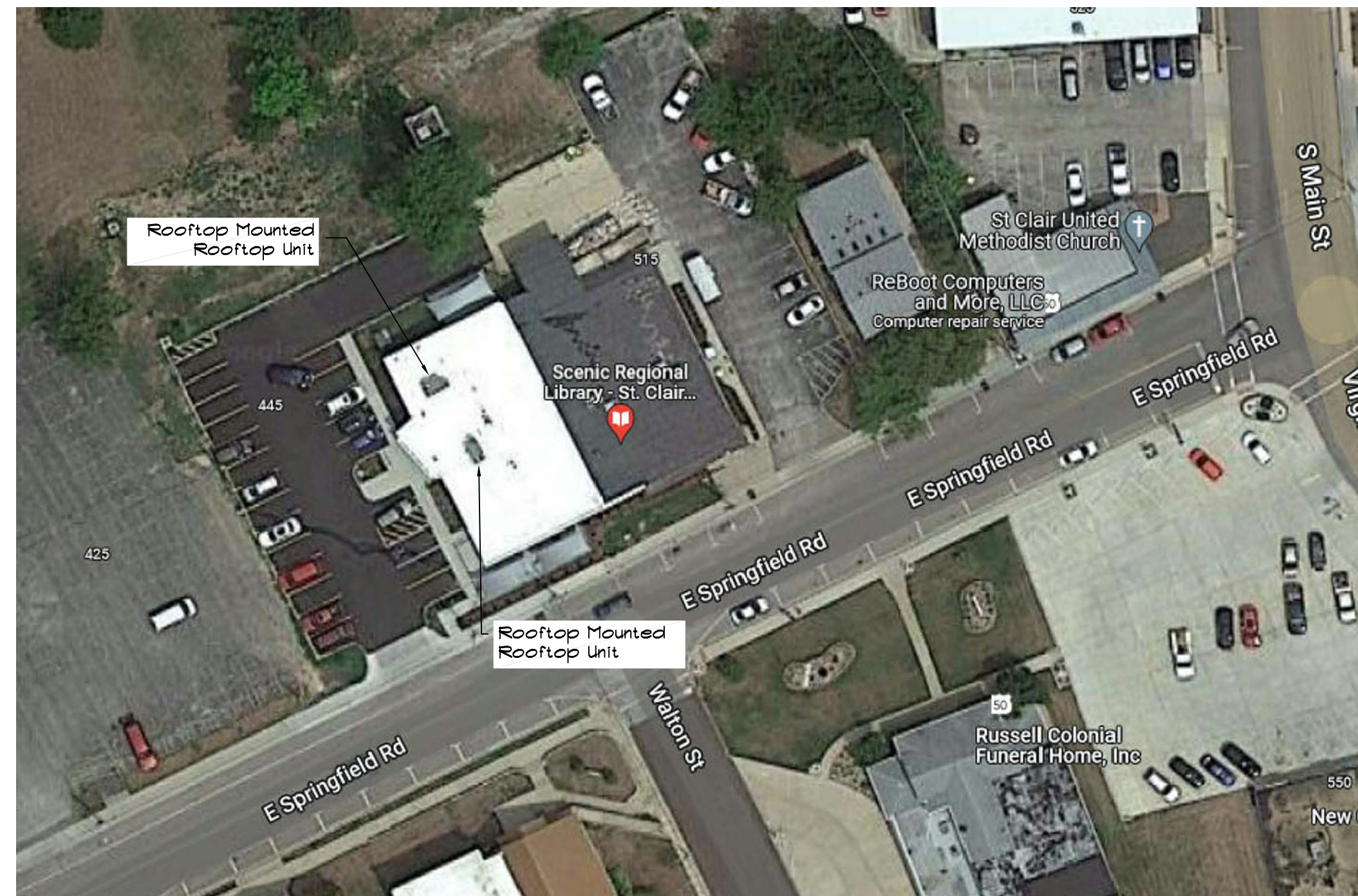


**LOCATION MAP**  
**WARRENTON BRANCH** 912 Mo Hwy 47  
 Warrenton MO 63383  
 Scale: NTS





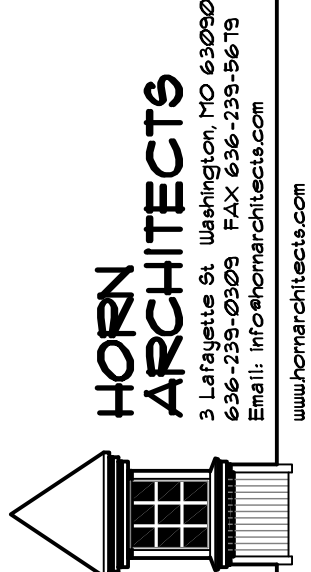
**LOCATION MAP**  
**WRIGHT CITY BRANCH** 60 Wildcat Drive  
 Wright City MO 63390  
 Scale: NTS








**LOCATION MAP**  
**SAINT CLAIR BRANCH** 515 East Springfield Road  
 St. Clair MO 63011  
 Scale: NTS

STATE OF MISSOURI  
 KENNETH R. SCHEER  
 NUMBER  
 A-2007026206  
 ARCHITECT  
 4-5-22  
 Architect  
 Kenneth R. Scheer #A-2007026206  
 Architectural Corporation  
 HS2 Architects, LLC / C.O.A. #2013042689

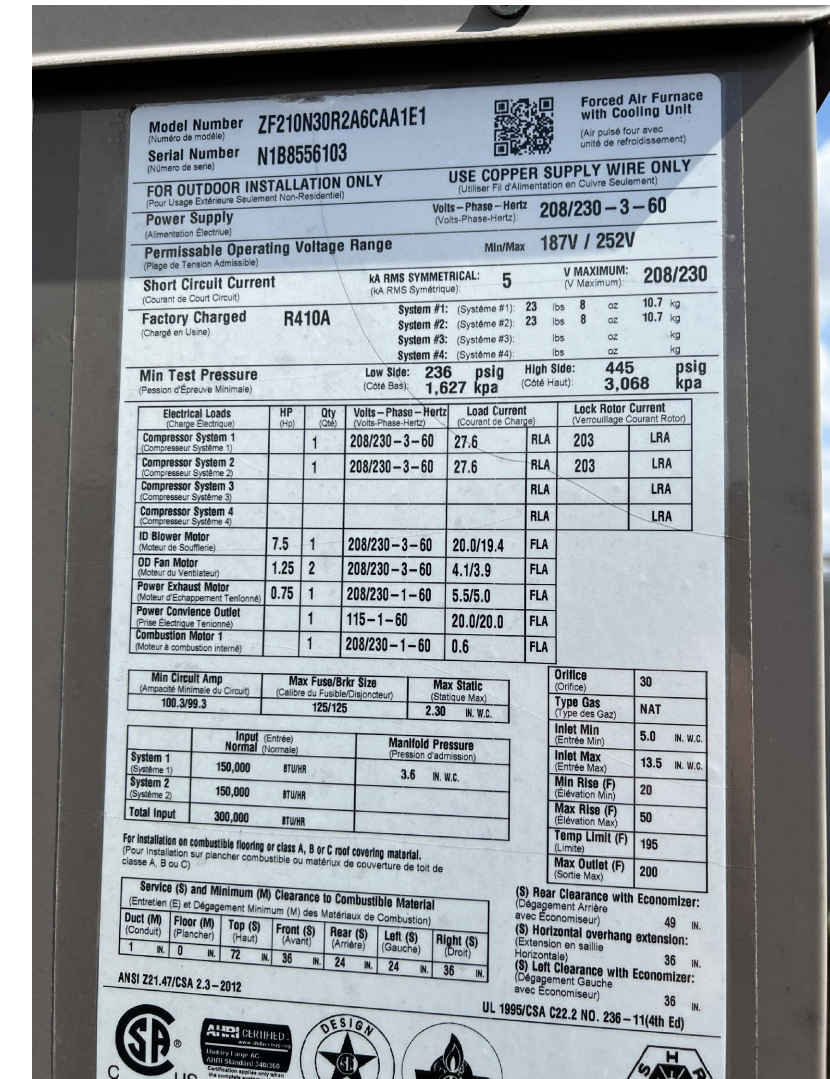


3 Lafayette St., Washington, MO 63090  
 Phone: 636-336-7676  
 Email: info@hornarchitects.com  
 www.hornarchitects.com

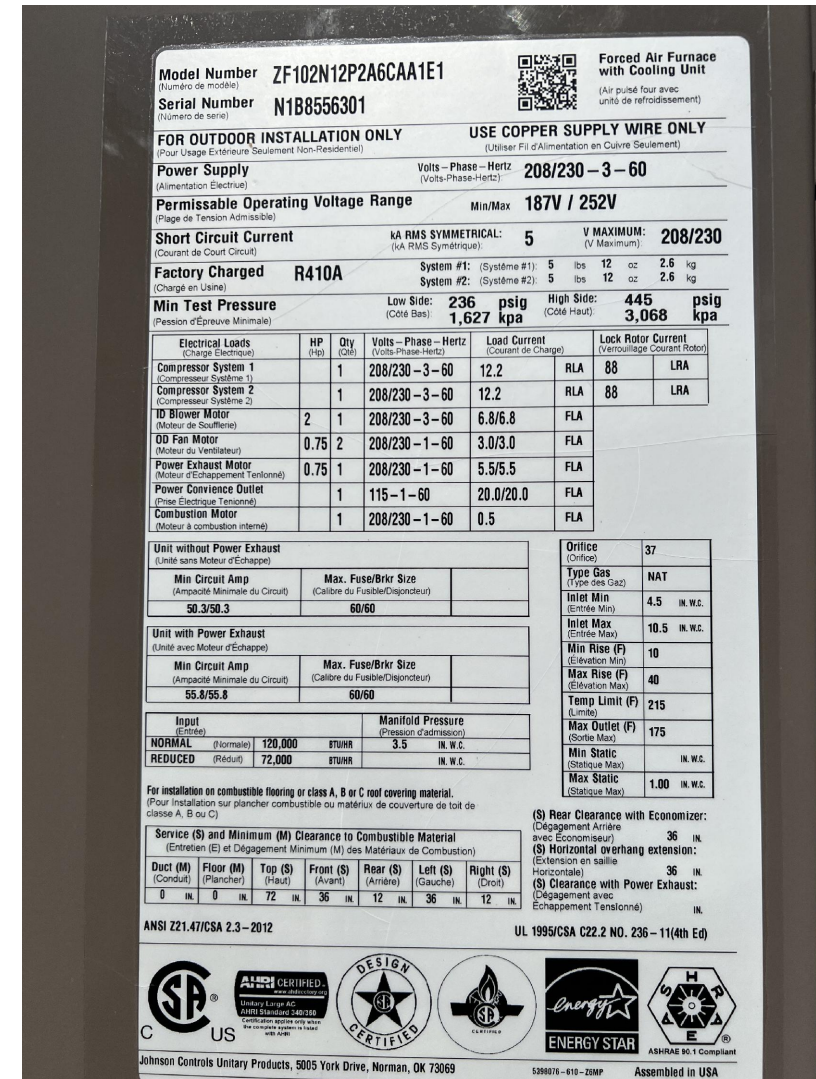
HVAC Upgrades for:  
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 251 Union Plaza Dr, Union, Missouri 63084

SHEET TITLE	Location Maps
REVISIONS	  
PROJECT NO.	2215
ISSUE DATE	April 5, 2022
SHEET NO.	A2.2

LOCATION: 111 LAMAR PKWY, PACIFIC, MO 63069



RTU-1  
SCALE: NTS



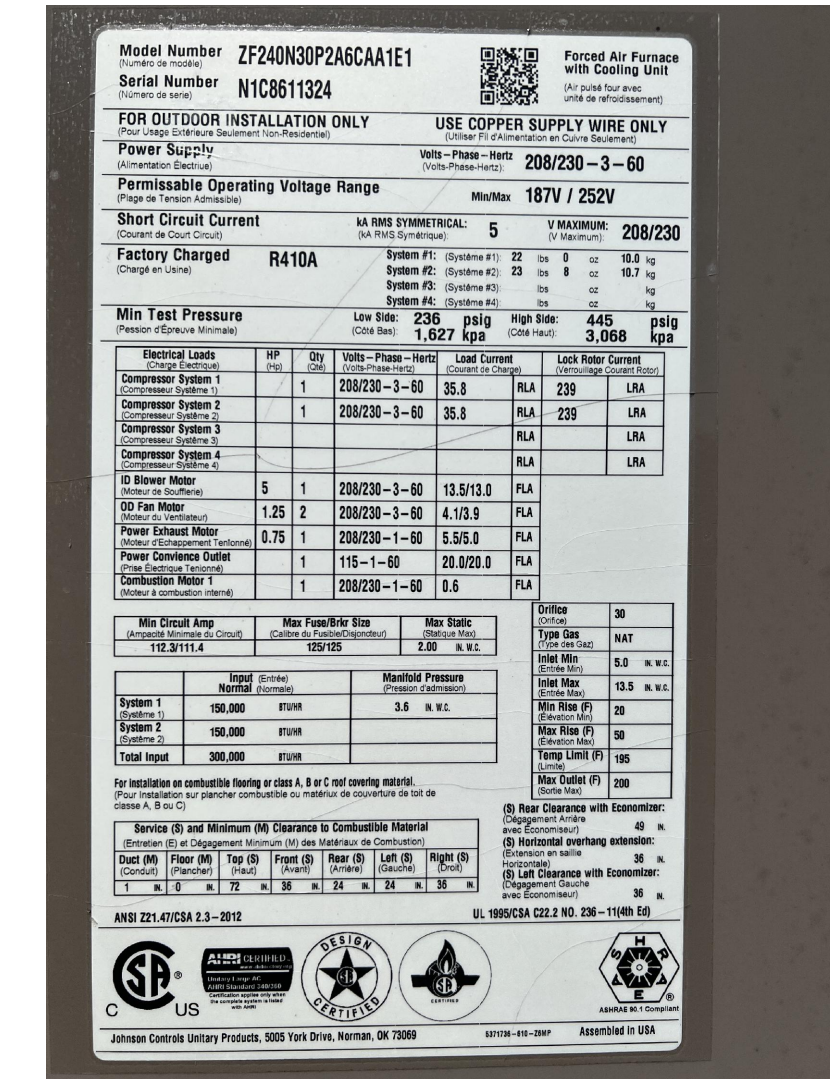
RTU-2  
SCALE: NTS

PACIFIC, MO RTU SCHEDULE

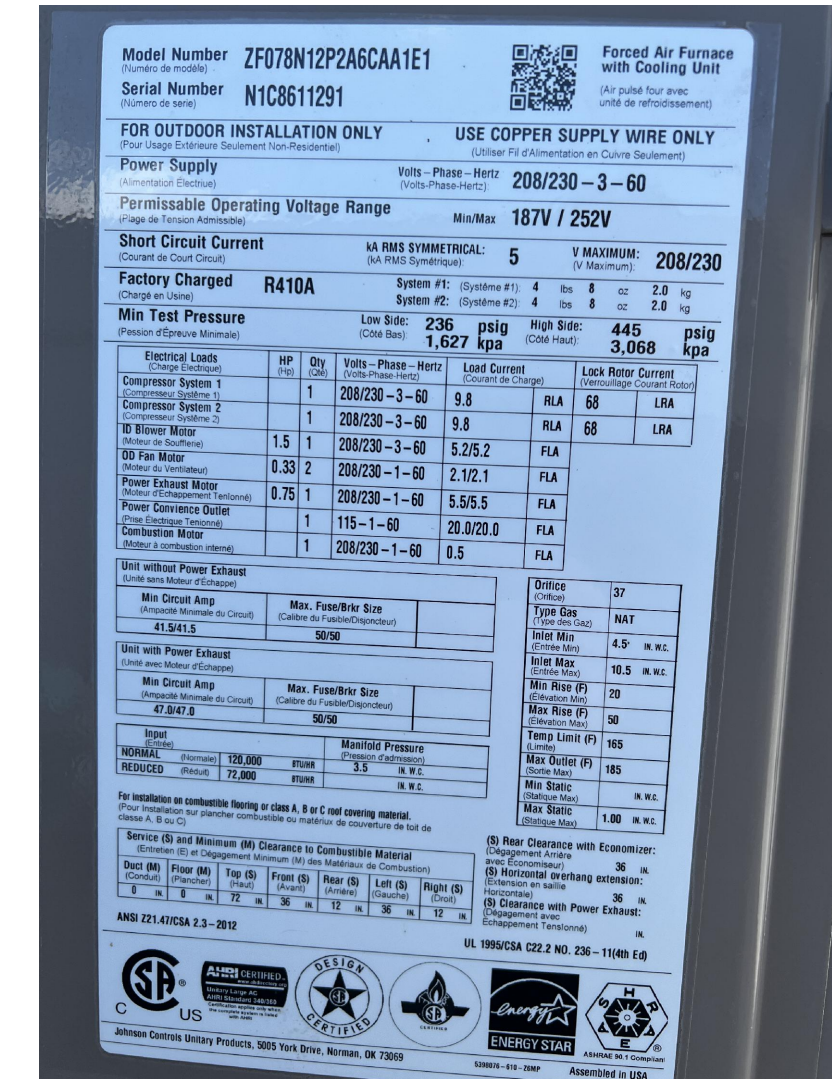
TAG	MANUFACTURER	MODEL	REFRIG.	NOM. SIZE [TON]	# CIRCUITS	CAP. STEPS	COMP A [TON]	COMP B [TON]	APR CONTROL VALVE
RTU-1	YORK	ZF210	R410A	17.5	2	50%/100%	8.75/2.25	8.75	APR-410-6
RTU-2	YORK	ZF102	R410A	8.5	2	50%/100%	4.25/1.75	4.25	APR-410-2

NOTES:  
 1. FURNISH AND INSTALL RAWAL APR CONTROL VALVE TO MODULATE THE SYSTEM'S REFRIGERATION CIRCUIT CAPACITY TO MATCH VARYING LOAD CONDITIONS OF THE SPACE.  
 2. FURNISH AND INSTALL VCONICS V17657B5000 THERMOSTAT WITH HUMIDITY CONTROL

LOCATION: 525 CUMBERLAND WAY, SULLIVAN, MO 63080



RTU-1  
SCALE: NTS



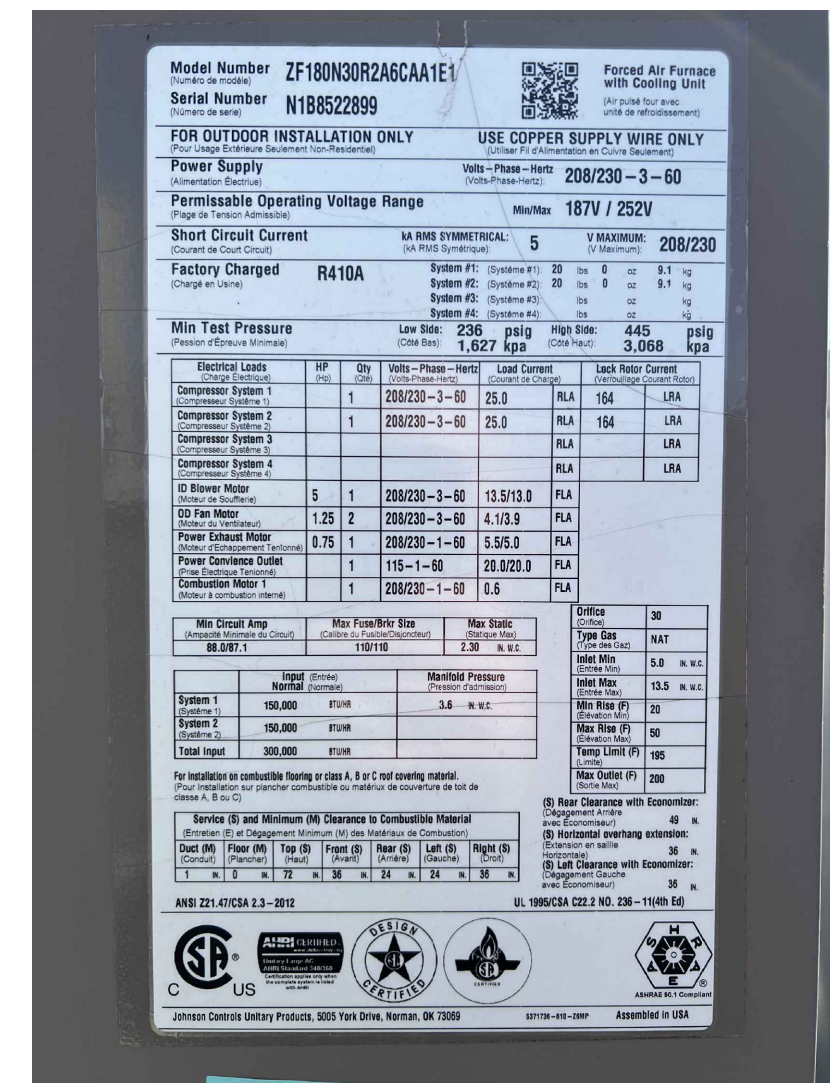
RTU-2  
SCALE: NTS

SULLIVAN, MO RTU SCHEDULE

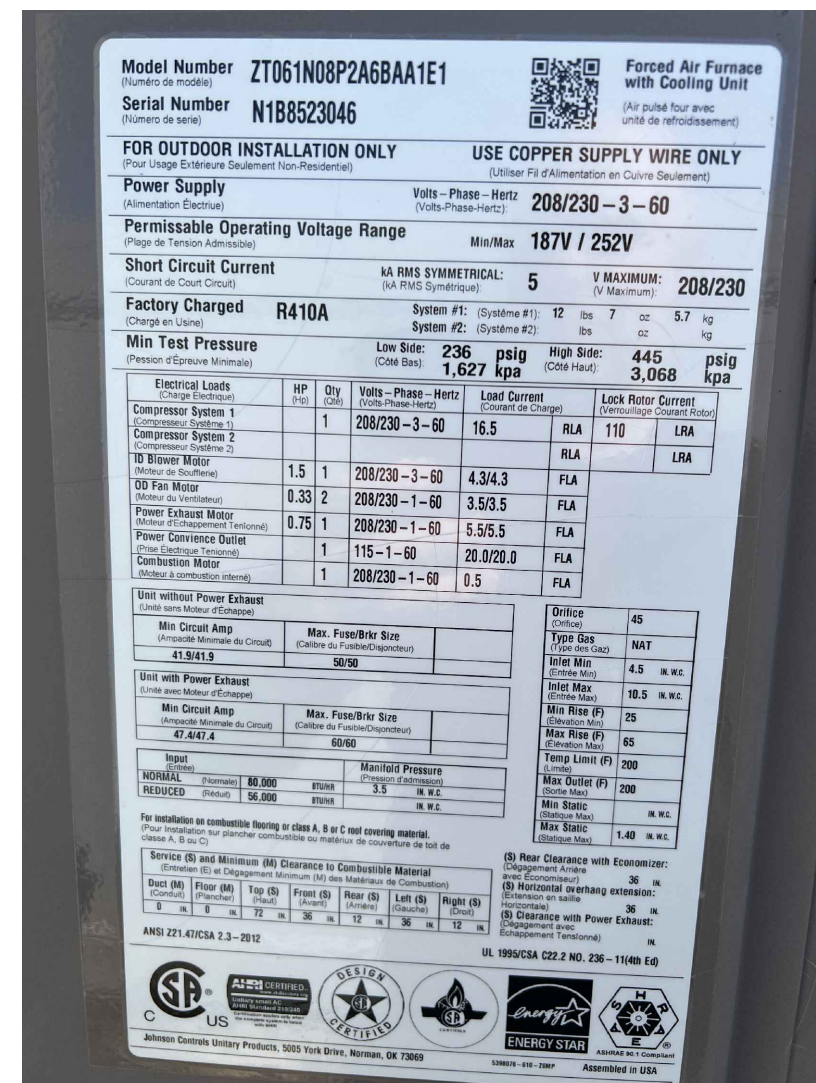
TAG	MANUFACTURER	MODEL	REFRIG.	NOM. SIZE [TON]	# CIRCUITS	CAP. STEPS	COMP A [TON]	COMP B [TON]	APR CONTROL VALVE
RTU-1	YORK	ZF240	R410A	20	2	50%/100%	10/3.5	10	APR-410-6
RTU-2	YORK	ZF078	R410A	6.5	2	50%/100%	3.25/1.75	3.25	APR-410-1

NOTES:  
 1. FURNISH AND INSTALL RAWAL APR CONTROL VALVE TO MODULATE THE SYSTEM'S REFRIGERATION CIRCUIT CAPACITY TO MATCH VARYING LOAD CONDITIONS OF THE SPACE.  
 2. FURNISH AND INSTALL VCONICS V17657B5000 THERMOSTAT WITH HUMIDITY CONTROL

LOCATION: 503 S OLIVE ST, OWENSVILLE, MO 65066



RTU-1  
SCALE: NTS



RTU-2  
SCALE: NTS

OWENSVILLE, MO RTU SCHEDULE

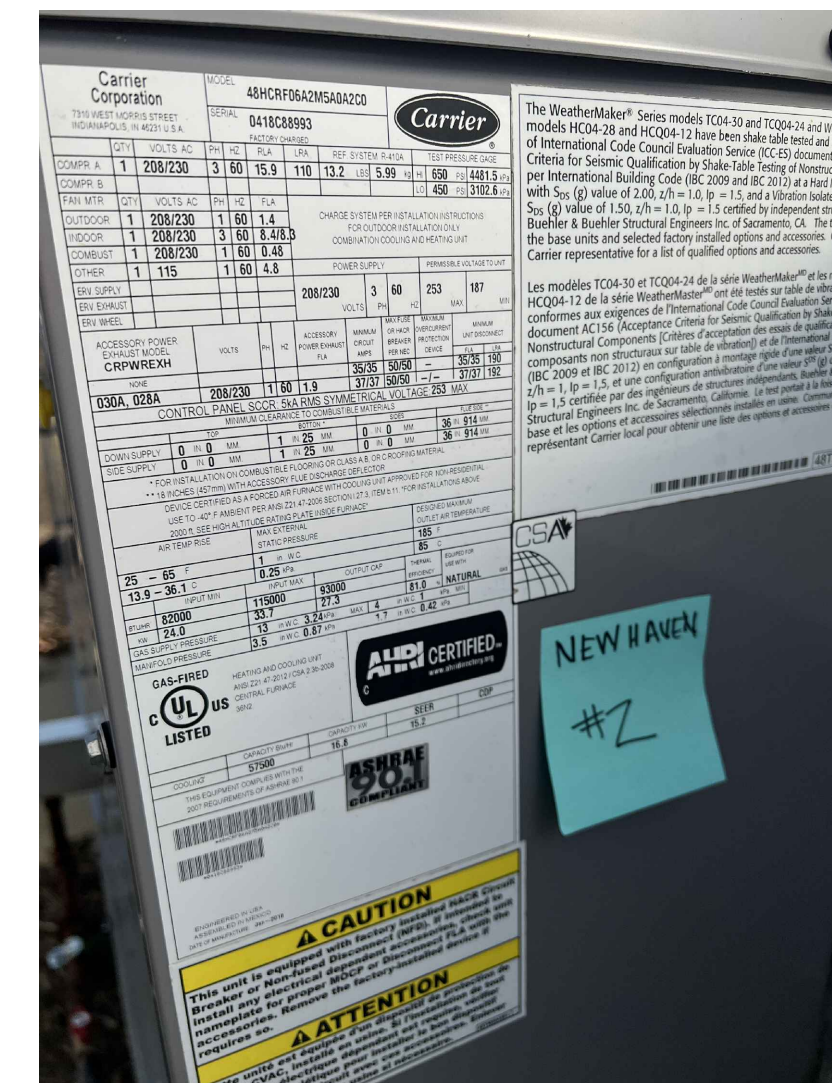
TAG	MANUFACTURER	MODEL	REFRIG.	NOM. SIZE [TON]	# CIRCUITS	CAP. STEPS	COMP A [TON]	COMP B [TON]	APR CONTROL VALVE
RTU-1	YORK	ZF180	R410A	15	2	50%/100%	7.5/4	7.5	APR-410-3
RTU-2	YORK	ZT061	R410A	5	1	100%	5/1.5	N/A	APR-410-3

NOTES:  
 1. FURNISH AND INSTALL RAWAL APR CONTROL VALVE TO MODULATE THE SYSTEM'S REFRIGERATION CIRCUIT CAPACITY TO MATCH VARYING LOAD CONDITIONS OF THE SPACE.  
 2. FURNISH AND INSTALL VCONICS V17657B5000 THERMOSTAT WITH HUMIDITY CONTROL

LOCATION: 200 DOUGLAS ST, NEW HAVEN, MO 63068



RTU-1  
SCALE: NTS



RTU-2  
SCALE: NTS

NEW HAVEN, MO RTU SCHEDULE

TAG	MANUFACTURER	MODEL	REFRIG.	NOM. SIZE [TON]	# CIRCUITS	CAP. STEPS	COMP A [TON]	COMP B [TON]	APR CONTROL VALVE
RTU-1	CARRIER	48HCSG12	R410A	10	2	50%/100%	5/1.5	5	APR-410-3
RTU-2	CARRIER	48HCRF06	R410A	5	1	100%	5/1.5	N/A	APR-410-3

NOTES:  
 1. FURNISH AND INSTALL RAWAL APR CONTROL VALVE TO MODULATE THE SYSTEM'S REFRIGERATION CIRCUIT CAPACITY TO MATCH VARYING LOAD CONDITIONS OF THE SPACE.  
 2. FURNISH AND INSTALL VCONICS V17657B5000 THERMOSTAT WITH HUMIDITY CONTROL



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HVAC upgrades  
 SCENIC REGIONAL LIBRARY  
 VARIOUS BRANCH LOCATIONS  
 MISSOURI

SHEET TITLE  
 MECHANICAL PLAN

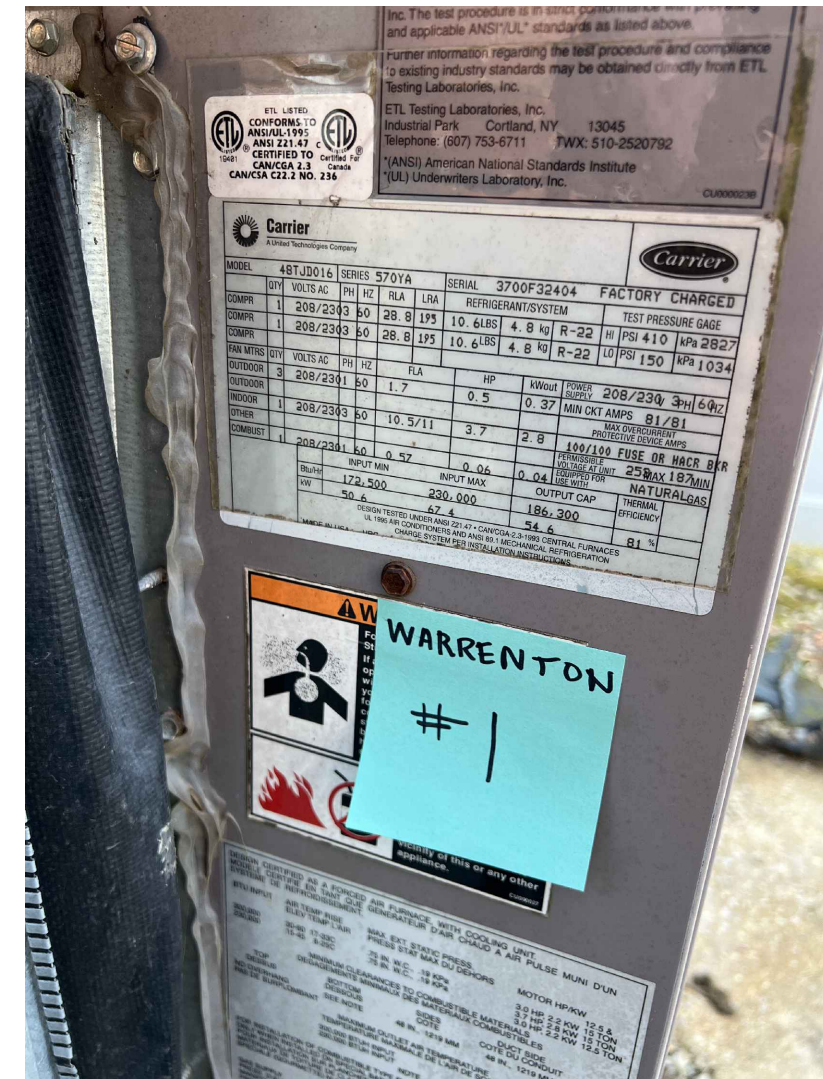
REVISIONS

PROJECT NO.  
 2215 (1120)

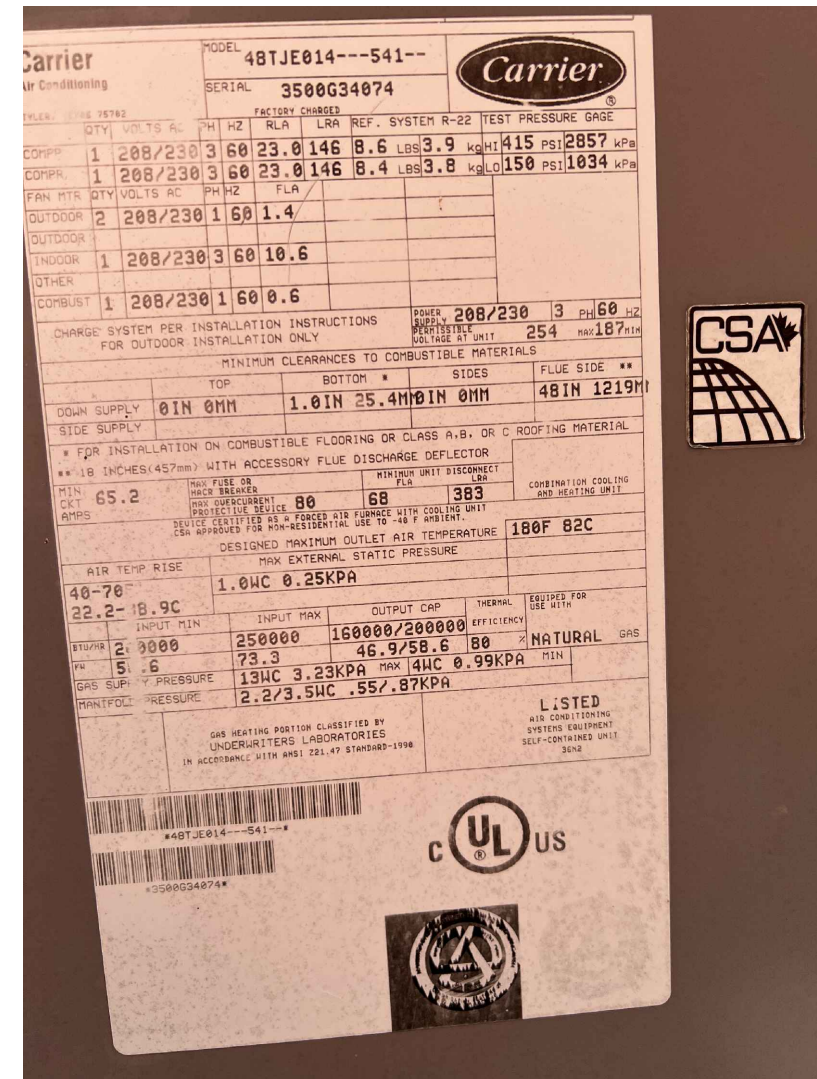
ISSUE DATE  
 April 5, 2022

SHEET NO.  
 M1.1

LOCATION: 912 STATE HWY 47, WARRENTON, MO 63383



RTU-1  
SCALE: NTS

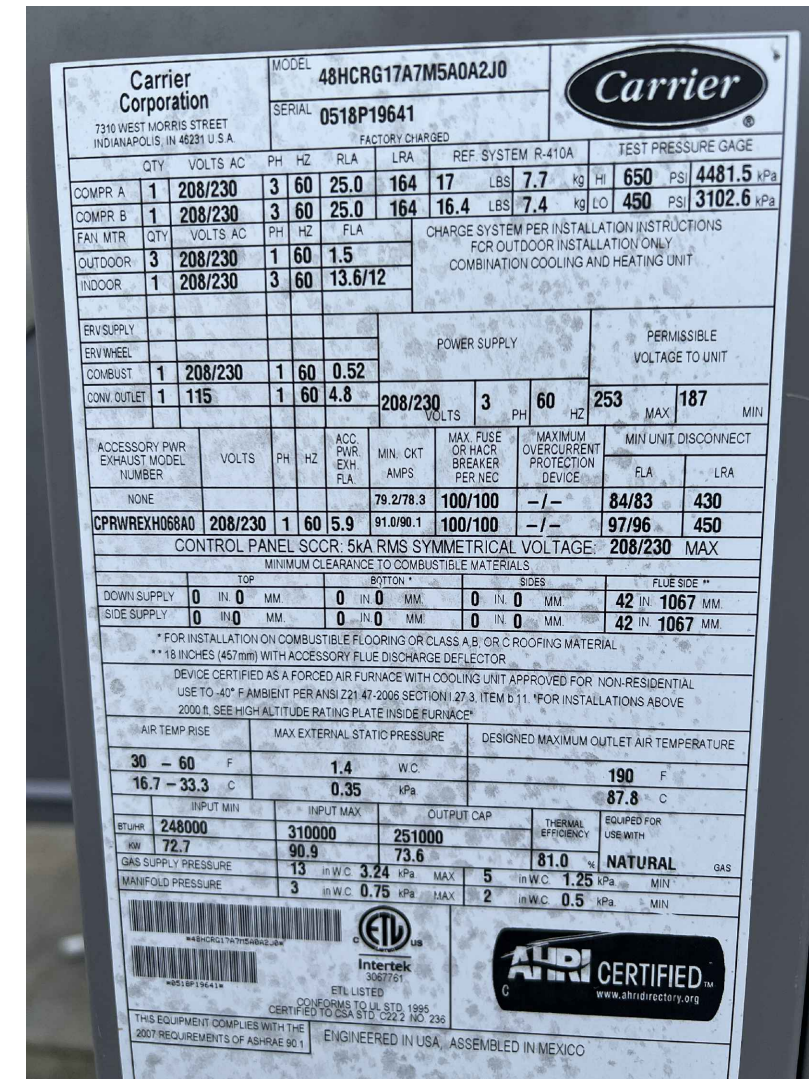


RTU-2  
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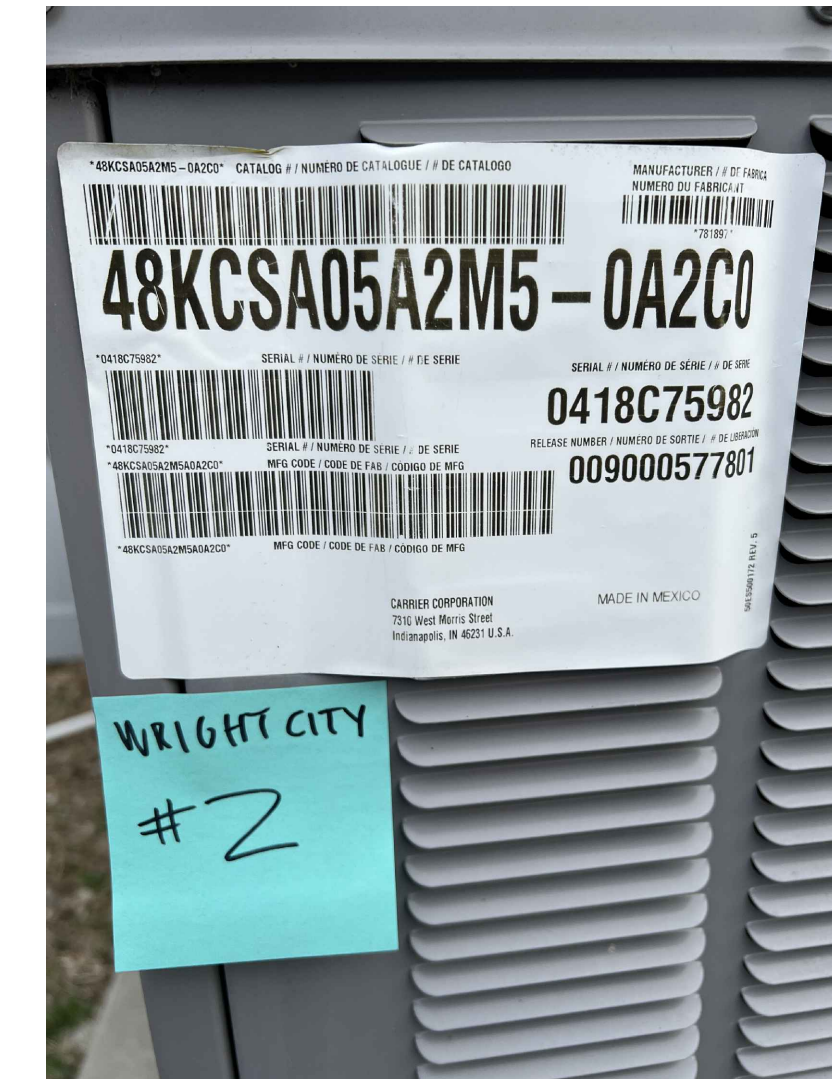
WARRENTON, MO RTU SCHEDULE									
TAG	MANUFACTURER	MODEL	REFRIG.	NOM. SIZE [TON]	# CIRCUITS	CAP. STEPS	COMP A [TON]	COMP B [TON]	APR CONTROL VALVE
RTU-1	CARRIER	48TJ016	R22	15	2	50%/100%	7.5/2.5	7.5	APR-2
RTU-2	CARRIER	48TJ014	R22	12.5	2	50%/100%	6.25/1.25	6.25	APR-2

NOTES:  
1. FURNISH AND INSTALL RAWAL APR CONTROL VALVE TO MODULATE THE SYSTEM'S REFRIGERATION CIRCUIT CAPACITY TO MATCH VARYING LOAD CONDITIONS OF THE SPACE.  
2. FURNISH AND INSTALL WICONICS VT765/7B5000 THERMOSTAT WITH HUMIDITY CONTROL

LOCATION: 60 WILDCAT DR, WRIGHT CITY, MO 63390



RTU-1  
SCALE: NTS



RTU-2  
SCALE: NTS

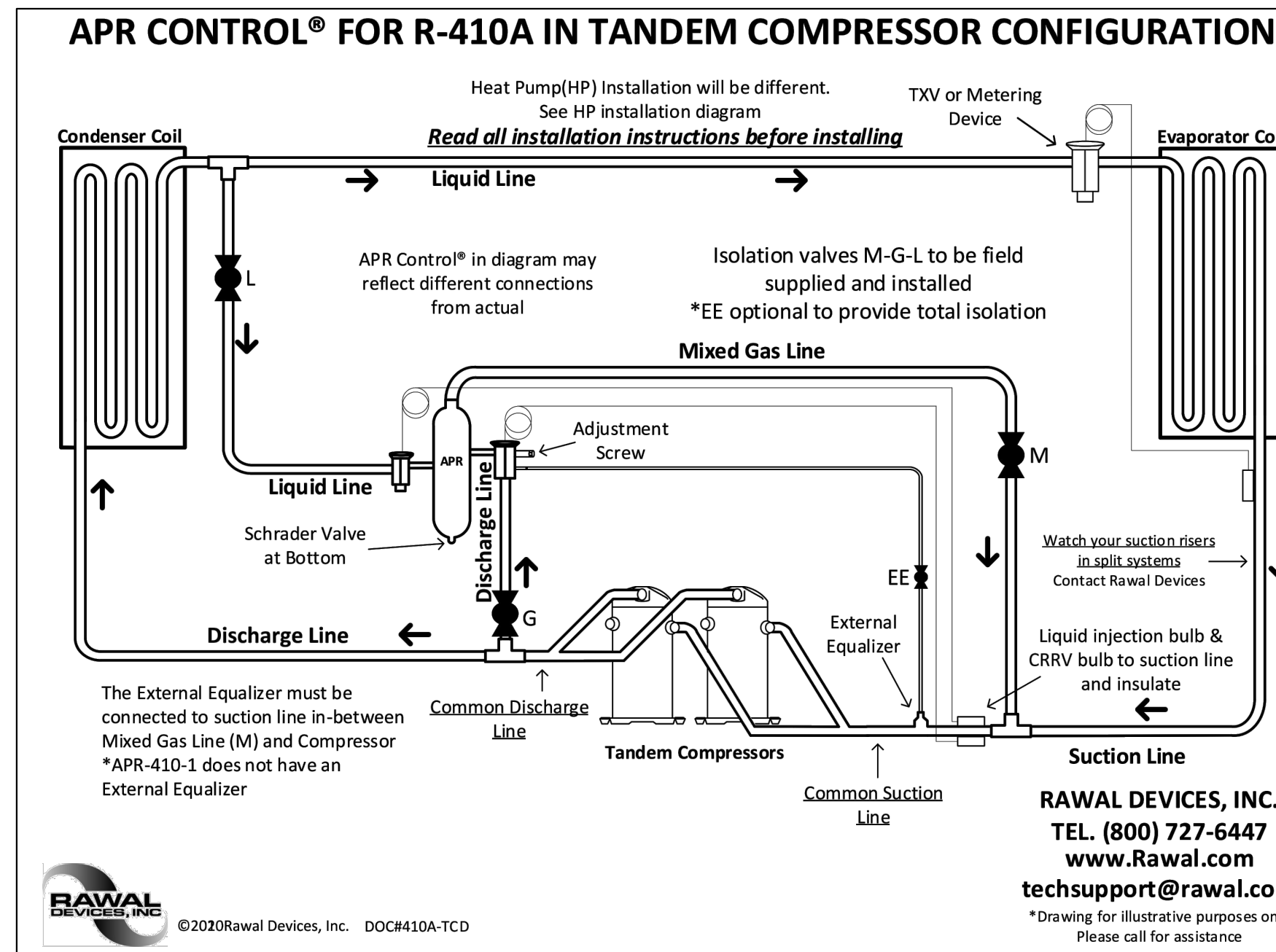
WRIGHT CITY, MO RTU SCHEDULE									
TAG	MANUFACTURER	MODEL	REFRIG.	NOM. SIZE [TON]	# CIRCUITS	CAP. STEPS	COMP A [TON]	COMP B [TON]	APR CONTROL VALVE
RTU-1	CARRIER	48KCRG17	R410A	15	2	50%/100%	7.5/4	7.5	APR-410-3
RTU-2	CARRIER	48KCSA05	R410A	4	1	100%	4/1.5	N/A	APR-410-2

NOTES:  
1. FURNISH AND INSTALL RAWAL APR CONTROL VALVE TO MODULATE THE SYSTEM'S REFRIGERATION CIRCUIT CAPACITY TO MATCH VARYING LOAD CONDITIONS OF THE SPACE.  
2. FURNISH AND INSTALL WICONICS VT765/7B5000 THERMOSTAT WITH HUMIDITY CONTROL

LOCATION: 515 E SPRINGFIELD RD, ST CLAIR, MO 63077

ST CLAIR, MO RTU SCHEDULE									
TAG	MANUFACTURER	MODEL	REFRIG.	NOM. SIZE [TON]	# CIRCUITS	CAP. STEPS	COMP A [TON]	COMP B [TON]	APR CONTROL VALVE
RTU-1	YORK	ZT061	R410A	5	1	100%	5/1.5	N/A	APR-410-3
RTU-2	YORK	ZJ090	R410A	7.5	2	50%/100%	3.75/1.25	3.75	APR-410-2

NOTES:  
1. FURNISH AND INSTALL RAWAL APR CONTROL VALVE TO MODULATE THE SYSTEM'S REFRIGERATION CIRCUIT CAPACITY TO MATCH VARYING LOAD CONDITIONS OF THE SPACE.  
2. FURNISH AND INSTALL WICONICS VT765/7B5000 THERMOSTAT WITH HUMIDITY CONTROL



TYPICAL APR VALVE INSTALLATION SCHEMATIC

GENERAL NOTES

1. Install APR valves in strict accordance with the Manufacturer's APR Control Installation Instructions.
2. Contractor shall verify the correct size of APR valve with the Manufacturer prior to installation.
3. Contractor shall provide:
  - A. Shut-off ball valves for all connections to provide complete isolation.
  - B. Tee for suction line connection
  - C. Tee for discharge line connection
  - D. Tee for liquid line connection.
  - E. All other appurtenances as required for a complete and proper installation.
4. Furnish and install new thermostat with humidity control (See Schedule).



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HVAC upgrades  
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VARIOUS BRANCH LOCATIONS  
MISSOURI

SHEET TITLE  
MECHANICAL PLAN

REVISIONS	

PROJECT NO.  
2215 (1120)  
ISSUE DATE  
April 5, 2022  
SHEET NO.  
M12