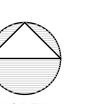
IDEA PUBLIC SCHOOLS UPPER VALLEY - MECHANICAL UPGRADES

RIO GRANDE VALLEY, TEXAS



VICINITY MAP - RIO GRANDE VALLEY



SCOPE OF WORK:

- SYSTEMS, MINI-SPLIT SYSTEMS, AND EXHAUST FANS.
- PROVIDE MODIFICATION OF DUCTWORK, REFRIGERANT PIPING, INSULATION, CONTROLS, AND ELECTRICAL SYSTEMS.
- d. AS INDICATED, PROVIDE CLEANING AND VACUUMING OF EXISTING REFRIGERANT PIPING TO BE REUSED. PROVIDE NEW REFRIGERANT PIPING SPECIALTIES, PIPE INSULATION, JACKETING, PIPE SUPPORTS, AND MISCELLANEOUS ACCESSORIES.
- e. FOR RTUS, PROVIDE NEW ROOF CURBS, ROOFING WORK, SUPPORT ASSEMBLY, DUCT TRANSITIONS, CONDENSATE DRAIN PIPING, MISCELLANEOUS MATERIALS, UTILITIES AND ACCESSORIES.
- f. PROVIDE ALL OTHER ACCESSORIES TO DELIVER A COMPLETE AND OPERATIONAL SYSTEM.
- g. TESTING, ADJUSTING, AND BALANCING.
- h. CUTTING AND PATCHING AND TOUCHUP PAINTING AS REQUIRED.
- i. CONCRETE WORK AS NEEDED.
- ASSISTANCE WITH COMMISSIONING SERVICES PER SPECIFICATIONS.
- k. BUILDING AUTOMATION SYSTEM (BAS): SEE SPECIFICATIONS FOR DETAILS.
- 1) RETAIN AND REUSE CONTROLS FOR REPLACED ACCUS, SPLIT SYSTEMS, EFS.
- 2) FOR REPLACED RTUS, PROVIDE NEW CONTROLS, CONTROLLERS, PROGRAMING OF SEQUENCES, GRAPHICS, SENSORS CONTROLS RELAYS, CONTACTORS, POWER TO DDC PANELS, DAMPERS, INTERFACE CARDS, AND OTHER CONTROLS EQUIPMENT.
- SHOP DRAWING SUBMITTALS FOR ALL MECHANICAL SYSTEMS INCLUDING BUT NOT LIMITED TO EQUIPMENT, DUCTWORK AND PIPING. THESE INCLUDE COORDINATION DRAWINGS FOR PLACING OF MECHANICAL SYSTEMS IN RELATION TO WORK BY OTHER DISCIPLINES.
- m. CONTRACTOR IS RESPONSIBLE FOR PROVIDING WINDSTORM CERTIFICATION INSPECTIONS AND CERTIFICATIONS FOR EXTERIOR MOUNTED EQUIPMENT. CONTRACTOR MUST NOTIFY INSPECTOR PRIOR TO INSTALLING EQUIPMENT, AND APPRISE INSPECTOR OF WORK SCHEDULING INVOLVING EQUIPMENT REQUIRING WIND INSPECTION / CERTIFICATION, SO THAT INSPECTIONS MAY BE CARRIED OUT AT REQUIRED STAGE(S) OF CONSTRUCTION. COST FOR INSPECTION SHALL BE BORNE BY THE CONTRACTOR. INSPECTOR SHALL BE CERTIFIED BY THE TEXAS DEPARTMENT OF INSURANCE (SEE WWW.TDI.STATE.TX.US FOR A LIST OF CERTIFIED INSPECTORS).
- n. COORDINATE ELECTRICAL WORK WITH DIV. 26 AS REQUIRED.
- o. COORDINATE FIRE ALARM RELATED WORK WITH FIRE ALARM CONTRACTOR. PROVIDE SMOKE DETECTORS, WIRING AND CONTROLS FOR UNITS, 2000 CFM AND LARGER, WHERE NONE EXIST.
- 4. PAINTING: SEE DIVISION 9 SPECIFICATIONS. PAINT ALL EXPOSED PIPING, DUCTWORK, INSULATION, HANGERS, ACCESSORIES IN INTERIOR EXPOSED AREAS. PAINT EXTERIOR PIPE SUPPORTS. COORDINATE PAINT TYPE, COLOR AND SCOPE OF WORK WITH ARCHITECT.
- 5. COMMISSIONING: PROVIDE ASSISTANCE WITH COMMISSIONING SERVICES PER SPECIFICATIONS. THIS INCLUDES COMPLETING SYSTEMS READINESS CHECKLISTS, PERFORMING FUNCTIONAL TESTING, PROVIDING OPERATOR TRAINING, ETC.

DATE OF ISSUE MARCH 15, 2024

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ME6.1 MECHANICAL & ELECTRICAL DETAILS ME6.2 MECHANICAL & ELECTRICAL DETAILS

GENERAL STRUCTURAL NOTES IDEA MCALLEN

STRUCTURAL STEEL CONDENSER SUPPORT FRAME PLAN &

- EXISTING JOIST REINFORCING PROFILES & DETAILS

EXECUTIVE COMMITTEE

COLLIN SEWELL	CHAIR
ED RIVERA	VICE-CHAIR
ERICH HOLMSTEN	TREASURER
RYAN VAUGHAN	SECRETARY

BOARD OF DIRECTORS

IICHAEL ADAMS	
SARY LINDGREN	
HERESA BARRERA -SHAW · · · · · · · · · · · ·	·······································
ANETTE COCERO	MEMBER
R. JEFF COTTRILL	CEO AND SUPERINTENDENT
ODY GRINDLE	PRESIDENT
R. ERNIE CANTU	CHIEF SCHOOLS OFFICER

RIO GRANDE VALLEY REGIONAL BOARD

MARIA ANTONIA CHAPA CERISE R. DE GARDUNO

ANDREA RODRIGUEZ ALYSSA L. ROMERO, BOARD CHAIR

SARAH GARZA

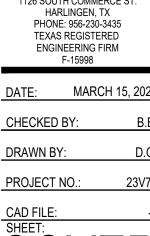
BOBBY SAENZ ZULIEDA LOPEZ-HABBOUCHE CJ SANCHEZ

JESUS (JESSE) ZEPEDA

WE PP

RADES

RFP # 23-URMU-0424



b. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY EQUIPMENT CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.

c. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.

EQUIPMENT ACCESS MAKE ALL VALVES ACCESSIBLE, INCLUDING MANUAL SHUTOFF VALVES AND AUTOMATIC VALVES. VALVES SHOULD BE CLOSE TO THE UNIT BEING SERVED AND REACHABLE BY A 5'-6" PERSON STANDING ON THE FLOOR NEARBY, WITHOUT NEED FOR A LADDER. WHERE SHUTOFF VALVES SERVE AN ABOVE-CEILING UNIT ACCESSIBLE ONLY BY LADDER, THE SHUTOFF VALVES SHOULD BE CLOSE ENOUGH TO THE UNIT SO THAT MAINTENANCE PERSONNEL CAN SHUT THE VALVES AND ACCESS THE CONTROL PANEL WITHOUT HAVING TO RELOCATE THE LADDER. WHERE PIPING CONFIGURATION MAKES IT IMPOSSIBLE TO LOCATE SHUTOFF VALVES IN THE MANNER DESCRIBED ABOVE, OBTAIN APPROVAL FROM OWNER AND/OR ENGINEER FOR ALTERNATE LOCATION.

b. FOR EQUIPMENT WHICH MAY REQUIRE PERIODIC SERVICING (SUCH AS AIR HANDLERS & VAVs) AND WHICH IS LOCATED ABOVE A SUSPENDED CEILING, CONTRACTOR IS TO PROVIDE A MARKER ON CEILING GRID WHICH CLEARLY INDICATES WHICH CEILING TILE IS TO BE REMOVED TO MOST CONVENIENTLY ACCESS EQUIPMENT SIDE NEEDING SERVICING. THE MARKER IS TO BE ROUND DOT OF HEAVY DUTY COLORED PAPER, WITH DIRECTION INDICATION, WITH ADHESIVE BACKING. OBTAIN ARCHITECT APPROVAL FOR COLOR, SIZE, AND TYPE PRIOR TO INSTALLATION.

c. PROVIDE MANUFACTURER RECOMMENDED AND CODE ENFORCED CLEARANCES AROUND EQUIPMENT. MAINTAIN 36" CLEAR IN FRONT OF EFS CONTROLLER, ELECTRIC HEATERS, ETC.

d. INSTALL ALL VALVES, CONTROLS, DAMPERS, FANS, ETC. IN ACCESSIBLE LOCATIONS. PROVIDE ADEQUATELY SIZED ACCESS DOORS WHERE REQUIRED.

3. EQUIPMENT INSTALLATION:

a. PROVIDE SPRING HANGER TYPE VIBRATION ISOLATORS TO SUPPORT SUSPENDED AHUS, FANS AND OTHER POWERED VIBRATING EQUIPMENT. PROVIDE FLEXIBLE DUCT CONNECTORS.

b. AFFIX ID TAGS TO ALL MECHANICAL EQUIPMENT PER SPECIFICATIONS.

EQUIPMENT INSULATION:

ABBREVIATIONS

ACCU

BOP

CHR

CHW

CLG.

COMB.

CONC.

CU.

DDC

DISC.

EAG/EG

AMPS

ACTUATOR

BOTTOM

BOTTOM

AIR COOLED CONDENSING UNIT

BUILDING AUTOMATION SYSTEM

ABOVE FINISHED FLOOR

AIR HANDLING UNIT

BOTTOM OF PIPE

CONDUIT OR COMMON

CHILLED WATER RETURN

CHILLED WATER SUPPLY

CHILLED WATER PUMP

CEILING OR COOLING

COMBINATION

COOLING TOWER

DIRECT DIGITAL CONTROLS

CONCRETE

CONDUIT

COPPER

DAMPER

DISCONNECT

EXHAUST AIR GRILLE

ENERGY MANAGEMENT SYSTEM

CITY WATER

CONDENSER WATER RETURN

CONDENSER WATER SUPPLY

CHILLED WATER

a. INSULATE ALL SURFACES OF THAT ARE CAPABLE OF BECOMING COLD AND COLLECTING CONDENSATE. THIS INCLUDES SUPPLY DIFFUSERS AND CONNECTING DUCTWORK / TRANSITION PIECES.

 CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ELECTRICAL CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.

b. Due to variations in equipment characteristics by different equipment suppliers, mechanical EQUIPMENT ULTIMATELY PROVIDED MAY DIFFER IN HORSEPOWER OR AMPERAGE REQUIREMENTS FROM THAT SPECIFIED IN THESE DRAWINGS. COORDINATE WITH GENERAL CONTRACTOR PRIOR TO BIDDING, AND PRIOR TO SUBMITTALS AND ORDERING EQUIPMENT, TO ENSURE THAT EQUIPMENT ELECTRICAL REQUIREMENTS ARE CONVEYED TO ELECTRICAL CONTRACTOR. IT IS SOLELY CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPATIBILITY ISSUES ARE COORDINATED.

DEMOLITION GENERAL NOTES:

- 1. ALL DEMOLITION WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES INCLUDING THOSE PUBLISHED BY OSHA.
- 2. PROVIDE ALL DEMOLITION WORK REQUIRED FOR THE REMOVAL OF MECHANICAL EQUIPMENT AND ASSOCIATED DEVICES. PROVIDE A COMPLETE AND OPERABLE SYSTEM UPON COMPLETION OF THE PROJECT.
- ALL EXISTING EQUIPMENT REMOVED DURING CONSTRUCTION, THAT IS NOT TO BE REUSED, SHALL BE REMOVED FROM THE JOB SITE AND PROPERLY RETURNED TO THE OWNER, IF DESIRED BY OWNER.
- CONTRACTOR SHALL NOT DAMAGE STRUCTURAL INTEGRITY OF BUILDING ELEMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE ENGINEER, CONTRACTOR SHALL GAIN CONSENT OF ENGINEER PRIOR TO COMPROMISING INTEGRITY OF STRUCTURAL BEAMS, IN WORK ASSOCIATED WITH BOTH DEMOLITION AND INSTALLATION.
- 5. OWNER MAY WISH TO KEEP DEMOLISHED EQUIPMENT AND MATERIALS. COORDINATE OWNER, AND DISPOSE OF EQUIPMENT AND MATERIALS THAT OWNER DOES NOT RETAIN.

ENT.

EXT.

FCU

FM

FS

GA.

GALV.

GPM

HS

HVAC

LVG.

MECH

MS

GRND.

ENTERING

FAN COIL UNIT

FIRE DAMPER

FLOW METER

FLOW SWITCH

FINS PER INCH

GROUND

GALVANIZED

GROUND

LEAVING

MECHANICAL

MOTOR STARTER

MOTOR STARTER

NORMALLY CLOSED

MULTI-ZONE

HOSE BIBB

HORSEPOWER

HUMIDITY SENSOR

HEATING, VENTILATION,

& AIR CONDITIONING

GALLONS PER MINUTE

GAGE

EXTERNAL OR EXTERIOR

COORDINATION:

- a. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND MECHANICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
- b. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR. COORDINATE MECHANICAL WITH OTHER TRADES SUCH AS PLUMBING, ELECTRICAL AND STRUCTURAL WORK. COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
- c. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING STAGE.
- d. PROVIDE COORDINATION DRAWINGS OF REFLECTED CEILING PLAN AND SECTION ABOVE CEILING SHOWING WORK OF ALL AFFECTED TRADES. DO NOT PROCEED WITH FABRICATION WORK UNTIL COORDINATION DRAWINGS HAVE BEEN APPROVED BY A/E.
- e. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.
- WORK TO BE DONE UNDER ALLOWANCES BECOMES AN INTEGRAL PART OF THE PROJECT AND RESPONSIBILITY OF CONTRACTOR ONCE ALLOWANCE IS APPROVED.
- a. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SITE CONDITIONS IN ORDER TO MAKE ANY NECESSARY ADJUSTMENTS, PRIOR TO ORDERING MATERIALS OR COMMENCING INSTALLATION. CHANGE ORDERS WILL NOT BE APPROVED FOR DIMENSIONAL VERIFICATIONS REQUIRING MINOR ADJUSTMENTS NEEDED TO COMPLETE

ARCHITECTURAL AND STRUCTURAL:

- a. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DETAILS OF CONSTRUCTION, INCLUDING BEAMS, FLOOR AND WALL PENETRATIONS, CHASES, AND REFLECTED CEILING PLANS. VERIFY OPENING SIZES WITH
- b. WHERE EXPRESSLY PERMITTED BY THE STRUCTURAL ENGINEER, GRADE BEAM PENETRATIONS SHALL BE MADE WITHIN MIDDLE 1/3 OF VERTICAL SPAN OF BEAM. SLEEVE ALL EXTERIOR WALL AND GRADE BEAM
- c. SEAL AROUND DUCTS AND PIPING AT ALL WALLS, A/C ROOMS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION,

BOTH INSIDE AND OUTSIDE, TO PROVIDE A FINISHED LOOK. COORDINATE FINISH WITH ARCHITECT.

- a. COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
- b. SPACES ABOVE CEILING ARE CONGESTED. DESIGN INTENT IS THAT UTILITIES BE INSTALLED TIGHT AGAINST CEILING STRUCTURE TO EXTENT POSSIBLE, WHILE RETAINING ADEQUATE MAINTENANCE ACCESS PER CODES.
- c. IN CASE OF CONFLICTS, ITEMS SHALL BE ARRANGED ACCORDING TO THE FOLLOWING PRIORITIES: LIGHTING, FIRE PROTECTION, HVAC. PROVIDE OFFSETS/RISES/DROPS REQUIRED TO RESOLVE CONFLICTS WITH OTHER UTILITIES, AND TO ACCOMMODATE ALL UTILITIES ABOVE CEILINGS.
- d. IN GENERAL, REROUTE SMALLER DUCTS/PIPES THROUGH JOISTS TO RESOLVE CONFLICTS WITH LARGER. PERFORM REROUTING IN MOST EFFICIENT MANNER POSSIBLE, AND IN ACCORDANCE WITH INDUSTRY
- e. PROVIDE COORDINATION DRAWINGS OF REFLECTED CEILING PLAN AND SECTION ABOVE CEILING SHOWING WORK OF ALL AFFECTED TRADES. DO NOT PROCEED WITH FABRICATION WORK UNTIL COORDINATION DRAWINGS HAVE BEEN APPROVED BY A/E.
- f. SEE ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL PANELS TO AVOID DUCTWORK AND PIPING RUNNING OVER THESE AREAS. COORDINATE WITH ELECTRICAL CONTRACTOR.
- g. LOCATE AIR DEVICES AS SHOWN. COORDINATE WITH OTHER TRADES TO AVOID CONFLICT AND ADJUST LOCATION IF NEEDED WITHOUT COMPROMISING AIR DEVICES PERFORMANCE.

GENERAL NOTES:

NORMALLY OPEN

NOT TO SCALE

OUTSIDE AIR

RETURN AIR

ROOF DRAIN

SUPPLY AIR

ROOM

RETURN AIR GRILLE

REDUCED PRESSURE ZONE

SUPPLY AIR DIFFUSER

TESTING & BALANCING

TEMPERATURE SENSOR

UNLESS OTHERWISE NOTED

VARIABLE FREQUENCY DRIVE

VARIABLE AIR VOLUME

STAINLESS STEEL

TOP OF LOUVER

THERMOSTAT

VOLTS

WIRE

UNDERGROUND

SINGLE ZONE

PHASE

RAG/RG

SA

SD

SZ

TAB

T.O.L.

TSTAT

UNO

VAV

VFD

UG

 TEST & BALANCE: a. TEST AND BALANCE CONTRACTOR SHALL BE RETAINED BY THE PRIME CONTRACTOR AND NOT UNDER THE MECHANICAL CONTRACTOR. ALL SUB-CONTRACTORS SHALL COORDINATE ACTIVITIES AND ASSIST TEST AND BALANCE CONTRACTOR AS NEEDED.

12x12

(12x12)

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AFR

b. TEST & BALANCE TO COORDINATE MINIMUM AND MAXIMUM OUTSIDE AIR DAMPER SETTINGS WITH DDC CONTROLS AND ENGINEER. PROVIDE TIME ALLOTMENT FOR MULTIPLE DAMPER SETTINGS IN SOME CASES.

MECHANICAL SYMBOLS LEGEND

FIRE DAMPER

FLEXIBLE DUCT

EXHAUST AIR GRILLE

SUPPLY AIR DIFFUSER

SIDE TAP WITH DAMPER

AUTO-FLOW REGULATOR

BACKDRAFT DAMPER

DRAIN VALVE

BALL VALVE

RETURN AIR/TRANSFER AIR GRILLE

DUCT SIZE: FIRST FIGURE IS SIDE SHOWN

DIRECTION OF FLOW-RETURN

DIRECTION OF FLOW-SUPPLY

BELOW DUCT SIZE: FIRST FIGURE IS SIDE SHOWN

CODES & ORDINANCES:

- a. UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS, PERFORM ALL WORK PER APPLICABLE VERSION OF INTERNATIONAL BUILDING CODES, AND LOCAL CODES AND ORDINANCES.
- b. PRIOR TO SUBMITTING PROPOSAL, NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.

- a. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
- b. CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
- APPROVALS AND INSPECTIONS:
- a. OBTAIN APPROVAL FROM CITY FIRE DEPARTMENT AND BUILDING AND SAFETY DEPARTMENT PRIOR TO INSTALLATION OF ANY FIRE RELATED ITEMS.
- b. COORDINATE PRESSURE TESTS, INSPECTIONS AND APPROVAL FOR ALL SYSTEMS WITH PERMITTING OFFICER, OWNER AND ENGINEER.

CONTROLS:

- 1. DDC CONTROLS CONTRACTOR SHALL COOPERATE AND COORDINATE WORK ACTIVITIES WITH PRIME CONTRACTOR TO ENSURE SMOOTH TROUBLE-FREE INSTALLATION.
- 2. PROVIDE FULL COLOR GRAPHICS. ON THE GRAPHIC PAGES FOR ALL EQUIPMENT AND/OR MONITORED DEVICES (SUCH AS SENSORS, METERS, DAMPERS, VALVES, ETC.) GIVE A CLEAR, GRAPHICAL INDICATION AS TO WHETHER EQUIPMENT OR DEVICE HAS BEEN PLACED IN MANUAL OPERATION, OVERRIDING AUTOMATIC OPERATION. (FOR EXAMPLE, PLACE AN "M" NEXT TO EQUIPMENT THAT HAS BEEN PLACED IN MANUAL OPERATION.)
- WHERE NOT SPECIFICALLY INDICATED ON PLANS, DDC CONTRACTOR IS RESPONSIBLE FOR ALL CONTROL RELAYS AND CONTACTORS, POWER TO DDC PANELS AND OTHER CONTROL ELEMENTS. ALTHOUGH DDC CONTRACTOR MAY COORDINATE WITH OTHER TRADES TO PROVIDE MISCELLANEOUS ELECTRICAL WORK, THE FINAL RESPONSIBILITY FOR ACHIEVEMENT OF CONTROL SEQUENCES LIES WITH THE DDC CONTRACTOR.
- 4. DRAWINGS SHOW GENERAL LOCATION OF DDC SENSORS (T, RH, AND CO2). UNLESS NOTED OTHERWISE, INSTALL SENSORS AT 48" ABOVE FINISHED FLOOR. WIRING SHALL BE IN CONCEALED WALLS. IN CASE OF CONFLICTS WITH
- FURNITURE, WINDOWS, ETC., COORDINATE EXACT LOCATION WITH ARCHITECT AND ENGINEER. 5. REFER TO OPERATING SEQUENCE IN SPECIFICATIONS FOR ALARMS AND SEQUENCES REQUIRED.
- 6. PROVIDE WEB-SERVER. SEE SPECIFICATIONS.
- 7. RECOMMENDED DIVISION OF RESPONSIBILITIES BETWEEN SUB-CONTRACTORS IS AS FOLLOWS:
- a. DDC CONTRACTOR IS RESPONSIBLE FOR ETHERNET WIRING FROM MDF ROOM TO CONTROLLER. COORDINATE ETHERNET CONNECTIVITY AND ROUTING WITH OWNER'S IT STAFF.
- b. DDC CONTRACTOR SHALL COORDINATE CONTROL WIRING BETWEEN CONTROL PANELS AND UNITARY
- c. WITH ELECTRICAL SUB CONTRACTOR, CONTROL CONTRACTOR COORDINATES 120V POWER WIRING AND CONDUIT TO NEW CONTROLLERS (AND CIRCUIT BREAKERS, IF NO SPARES EXIST)
- d. CONTROLS CONTRACTOR SUPPLIES HYDRONIC VALVES, DAMPERS, THERMOWELLS, ETC. TO MECHANICAL CONTRACTOR FOR INSTALLATION. COORDINATE OUTSIDE AND RETURN AIR DAMPERS WITH AHU MANUFACTURER
- e. CONTROLS CONTRACTOR IS RESPONSIBLE FOR:
- * DAMPER AND VALVE ACTUATORS * GATEWAY INTERFACES AND ALL RELATED ACCESSORIES FOR FULL COMMUNICATION BETWEEN EQUIPMENT (CHILLERS, VFDS, ETC.) AND DDC SYSTEM
- * ADJUSTABLE RANGE/FLAT PLATE THERMOSTATS, RH, CO2 SENSING DEVICES
- * EQUIPMENT CONTROLLERS, SOFTWARE, PROGRAMMING. * ALL NETWORK CONTROL PANELS, DDC CONTROLLERS, SOFTWARE, AND PROGRAMMING.
- * WIRING AND CONDUIT FOR CONTROL AND MONITORING DEVICES
- * CONTROL RELAYS
- * SHOP DRAWINGS PER SPECIFICATIONS * SYSTEM CHECK OUT, OWNER TRAINING, DDC SYSTEM WARRANTY WORK

INSULATION:

THERMOSTAT

SPACE HUMIDITY SENSOR

DUCT HUMIDITY SENSOR

STATIC PRESSURE SENSOR

CHILLED WATER RETURN

CHILLED WATER SUPPLY

CONDENSATE PIPING

BUTTERFLY VALVE

MANUAL VALVE

AUTOMATIC VALVE

PRESSURE GAUGE & COCK

TEMPERATURE SENSOR

THERMOMETER WELL

CHECK VALVE

SPACE CARBON DIOXIDE SENSOR

DUCT CARBON DIOXIDE SENSOR

 \bigcirc

RH

—— CHR——

—— снs——

—— CD ——

- 1. FIBERGLASS INSULATION MAY NOT BE USED ON ANY COLD PIPING SURFACES; ONLY CLOSED CELL INSULATION IS
- PROVIDE INSULATION ON ALL SURFACES CAPABLE OF CREATING CONDENSATION.

DUCTWORK:

- DUCTWORK GENERAL a. DRAWINGS ARE DIAGRAMMATIC IN NATURE. FOR CLARITY SAKE, MOST DUCT OFFSETS/RISES/DROPS ARE NOT SHOWN. WHERE DUCTS PENETRATE WALLS, INSTALL THEM PERPENDICULAR TO WALL.
- b. RECTANGULAR AND ROUND DUCTWORK SHALL BE GALVANIZED STEEL. SIZES SHOWN ARE INSIDE CLEAR DIMENSION, UNLESS NOTED
- c. VERIFY BOTTOM OF DUCT ELEVATION AND COORDINATE WITH OTHER
- d. CONSTRUCT AND LEAKAGE TEST ALL DUCTWORK BASED ON SPECIFICATIONS AND SMACNA REQUIREMENTS. WHICHEVER IS MORE STRINGENT. COORDINATE PRESSURE CLASSES WITH EQUIPMENT SCHEDULES.
- e. FLEXIBLE DUCTS MAXIMUM LENGTH SHALL NOT EXCEED 6 FEET. USE OF FLEXIBLE DUCTWORK IS LIMITED TO AREAS WITH AN ACCESSIBLE SUSPENDED CEILING. PINCHED DUCT WILL HAVE TO BE REPLACED.
- f. IN AREAS WHERE DUCT CONFLICTS CANNOT BE AVOIDED, ROUTE

SMALLER DUCTS THROUGH STRUCTURAL ROOF JOISTS.

- g. LOCATE AIR DEVICES AS SHOWN. COORDINATE WITH ELECTRICAL, IF NEEDED. RELOCATE DIFFUSER TO ADJACENT TILE.
- 2. DUCTWORK INSULATION:
- a. WRAP ALL OUTSIDE AIR, SUPPLY AND RETURN DUCTWORK UNLESS NOTED OTHERWISE.
- b. IN ADDITION, FOR ACOUSTICAL PERFORMANCE INTERNALLY LINE

FIRST 10' OF SUPPLY AND LAST 10' OF RETURN DUCTWORK.

- c. PROVIDE ACOUSTICAL LINING FOR ALL TRANSFER DUCTS AND RETURN AIR ELBOWS.
- d. INSULATION ON DUCT SHOULD TO BE PROPERLY TAPED AND MASTICS MUST BE APPLIED ON SEAMS AND JOINTS AND AT ENDS ADJACENT TO DUCT FLANGES AND FITTINGS. FOR DUCT SIDES WITH DIMENSIONS LARGER THAN 18 INCHES, APPLY ADDITIONAL PINS AND CLIPS TO HOLD INSULATION TIGHTLY AGAINST SURFACE AT CROSS

3. DUCT FITTINGS:

- a. WHERE RECTANGULAR TEE FITTINGS ARE SHOWN, PROVIDE FITTING WITH ADJUSTABLE DIVIDER SHEET AND TURNING VANES.
- b. WHERE RECTANGULAR MAIN AND BRANCH CONNECTIONS ARE SHOWN, PROVIDE EXTRACTOR VANES. NOT APPLICABLE TO DUCTWORK DOWNSTREAM OF VAV BOXES.
- c. PROVIDE TURNING VANES IN ALL ELBOWS PER SPECS.

4. DAMPERS:

- a. IN AN ACCESSIBLE LOCATION, PROVIDE MANUAL ROD-TYPE VOLUME BALANCING DUCT DAMPERS IN ALL SUPPLY, RETURN AND EXHAUST DUCT BRANCHES TO INDIVIDUAL GRILLES, REGISTERS AND DIFFUSERS (GRD). TO MINIMIZE NOISE INSTALL DAMPERS CLOSER TO THE BRANCH CONNECTION THAN TO THE GRD. IN DUCTWORK, PROVIDE ACCESS DOORS TO ALL DAMPERS.
- ABOVE INACCESSIBLE CEILINGS AND IN CASE DUCT CONFIGURATION DOES NOT ALLOW FOR INSTALLATION OF DAMPER IN DUCTWORK, PROVIDE REMOTE MANUAL DAMPER BY YOUNG REGULATOR OR EQUAL, (CABLE OPERATED SYSTEM) WITH ENGINEER'S PERMISSION CONTRACTOR MAY PROVIDE ROD-TYPE VOLUME DAMPER THAT IS INTEGRAL TO GRD.
- c. PROVIDE BALANCING DAMPERS ON ALL EXHAUST GRILLES TO ACHIEVE DESIRED AIRFLOW.
- d. PROVIDE DYNAMIC FIRE DAMPERS (RUSKIN DIDB20, TYPE B OR EQUAL) IN ACCORDANCE WITH CODE REQUIREMENT, IN ALL PENETRATIONS OF FIRE RATED WALLS, OCCUPANCY SEPARATION WALLS, BARRIERS AND PARTITIONS, AND EXIT CORRIDORS. REFER TO ARCHITECTURAL PLANS FOR RATED WALLS. PROVIDE ACCESS DOORS AS PER CODE REQUIREMENTS, EQUAL TO RUSKIN ADH-22 FOR RECTANGULAR DUCT. ACUDOR RD FOR ROUND DUCT. WHERE GRILLE ACCESS IS INDICATED. ADDITIONAL DUCT ACCESS DOOR IS NOT REQUIRED. WHERE THE CEILING IS FIRE RATED PROVIDE FIRE RATED AIR DEVICES FOR TRANSFER & RETURN AIR GRILLES AND SUPPLY AIR DIFFUSERS AS PER CODE REQUIRMENTS. REFER TO ARCHITECTURAL PLANS FOR RATED CEILINGS.
- e. PROVIDE ACCESS DOORS (NOT SHOWN IN DRAWINGS) FOR INSPECTION OF DUCT MOUNTED EQUIPMENT SUCH AS FIRE/SMOKE DAMPERS, MANUAL BALANCING DAMPERS AND TURNING VANES. IN AREAS WITH HARD CEILING COORDINATE ACCESS DOOR LOCATIONS AND CEILING ACCESS PANELS WITH OTHER TRADES.

ELECTRICAL

- 1. ALL ELECTRICAL WORK SHALL BE UNDER THE MASTER ELECTRICIAN WHO PULLED THE PERMIT AND ITS JOURNEYMAN ELECTRICIANS.
- PERFORM ALL WORK PER ADOPTED N.E.C. AND APPLICABLE STATE STANDARDS, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
- 3. UNLESS NOTED OTHERWISE, MINIMUM POWER CIRCUIT IS TO BE #12 THWN WITH #12 GROUND IN 3/4" CONDUIT, WITH THE EXCEPTION THAT ANY CIRCUIT LONGER THAN 100 FEET SHALL BE MINIMUM #10 AWG WITH #10 GROUND WIRE. CIRCUIT LONGER THAN 200 FEET SHALL BE MINIMUM #8 AWG WITH #10 GROUND WIRE MINIMUM.
- 4. ALL EXISTING ID NAMETAGS AND CIRCUIT IDENTIFICATION MUST BE REVISED TO REFLECT CURRENT CONDITIONS FOR ALL EQUIPMENT WHICH IS NEW, REPLACED, OR DEMOLISHED. REMOVE ID NAMETAGS FOR DEMOLISHED EQUIPMENT. REPLACE EXISTING NAMETAGS WITH NEW FOR REPLACED EQUIPMENT, IF REPLACEMENT EQUIPMENT HAS DIFFERENT NAME. PROVIDE NEW NAMETAGS FOR ALL NEW EQUIPMENT. ALL CIRCUIT BREAKER DIRECTORIES FOR PANELS IN WHICH NEW WORK TAKES PLACE ARE TO BE REPLACED WITH NEW DIRECTORIES WHICH LIST EXISTING CIRCUITS AND NEW. ALL UNUSED CIRCUITS ARE TO BE MARKED AS 'SPARE' IN THE DIRECTORIES. DIRECTORIES ARE TO BE COMPUTER GENERATED; NO HAND WRITTEN DIRECTORIES ARE ACCEPTABLE.
- HAND-WRITTEN CIRCUIT BREAKER DIRECTORIES WILL NOT BE ACCEPTED. DIRECTORIES MUST BE COMPUTER GENERATED AND PRINTED TO REFLECT FINAL INSTALLED CONDITIONS.
- 6. MARK ALL J-BOXES WITH INDELIBLE INK, INDICATING POWER CIRCUITRY INFORMATION. LABEL ALL EQUIPMENT ITEMS PER SPECIFICATIONS.
- 7. ALL EXTERIOR RACEWAYS ABOVE GROUND SHALL BE RIGID GALVANIZED.
- 8. UNDER NO CIRCUMSTANCES SHALL MORE THAN THREE CIRCUITS SHARE THE SAME NEUTRAL, AND SUCH CIRCUITS MUST BE SEPARATE
- 9. SINCE ELECTRICAL CHARACTERISTIC OF EQUIPMENT (SUCH AS HORSEPOWER, KW, AMPERAGE, VOLTAGE, ETC.) SUBMITTED MAY DIFFER FROM THOSE SPECIFIED IN DRAWINGS, CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MECHANICAL AND OTHER CONTRACTORS TO ENSURE COMPATIBILITY BETWEEN ELECTRICAL AND MECHANICAL EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
- 10. USE LONG-SWEEPS FOR ALL CHANGES IN DIRECTION ON CONDUIT
- 11. ALL INTERIOR RACEWAYS SHALL BE EMT.
- 12. FIELD VERIFY PROJECT SITE EXISTING CONDITIONS AND ELEVATIONS PRIOR TO BEGINNING ANY WORK.
- 13. PHASING AND SEQUENCE OF CONSTRUCTION SHALL BE PER DRAWINGS AND SPECIFICATIONS.
- 14. ALL MATERIALS AND LABOR, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT, WHICH ARE NECESSARY FOR THE PROPER INSTALLATION AND FUNCTION OF THE SYSTEM SHALL BE FURNISHED BY THIS CONTRACTOR. INCLUDE ALL COSTS OF CHANGES, IF/AS REQUIRED IN BID PROPOSAL.
- 15. ELECTRICAL WIRING SHALL NOT BE SPLICED BELOW GRADE.
- 16. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
- 17. CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
- 18. NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES. 19. COORDINATE ALL WORK WITH OTHER TRADES: COORDINATE SCHEDULE

OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW

- OF CONSTRUCTION. 20. SEAL AROUND ELECTRICAL RACEWAYS AT ALL WALLS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE FLASHING AROUND PENETRATION, BOTH INSIDE AND
- OUTSIDE, TO PROVIDE FINISHED LOOK. 21. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND ELECTRICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
- 22. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.
- 23. AFFIX ID TAGS TO ALL DIVISION 26 EQUIPMENT.
- 24. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MECHANICAL AND PLUMBING CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
- 25. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
- SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
- 27. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.

26. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR

- 28. SLEEVE ALL EXTERIOR WALL PENETRATIONS.
- 29. PRIOR TO ANY DEMOLITION, CONTRACTOR SHALL CONDUCT A DETAILED INSPECTION OF EXISTING CONDITIONS AND COMPARE AGAINST DEMOLITION DRAWINGS. CONTRACTOR SHALL REQUEST CLARIFICATION AS TO THE REMOVAL OF ANY ELECTRICAL COMPONENTS FOUND IN THE FIELD THAT ARE NOT SPECIFICALLY NOTED TO BE DEMOLISHED.
- 30. THE DESIGN INTENT IS TO REUSE TO EXTENT POSSIBLE EXISTING ELECTRICAL AND SAFETY SYSTEMS INCLUDING CIRCUIT BREAKERS. WIRING AND CONDUITS, SAFETY AND OTHER HARD WIRED INTERLOCKS ETC. EXISTING SYSTEMS TO BE REUSED SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. SEE PLANS
- 31. PROVIDE ADDITIONAL SPARE MATERIALS DESCRIBED BELOW. PROVIDE PROTECTIVE COVERING FOR STORAGE & IDENTIFIED WITH LABELS DESCRIBING THE CONTENTS. INCLUDE THE INSTALLATION COST. FITTINGS AND SUPPORTS IN THE BASE BID PROPOSAL:
- A. 100 LINEAR FEET 1/2"-2#12 & #12G B. 100 LINEAR FEET - 1"-3#10 & #10G C. 100 LINEAR FEET - 1"- 3#8 & #10G
- D. 50 LINEAR FEET 1"-3#6 & #10G E. 100 LINEAR FEET - 1"-3#4 & #8G F. 50 LINEAR FEET - 1.25"-3#2 & #6G G. 50 LINEAR FEET - 1.25"-3#3 & #6G

H. 50 LINEAR FEET - 1.25"-3#1 & #6G I. 50 LINEAR FEET -2"-3#2/0 & #6G

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RFP # 23-URMU-0424

NO: REVISION: BY

CESAR A. GONZALEZ 108611

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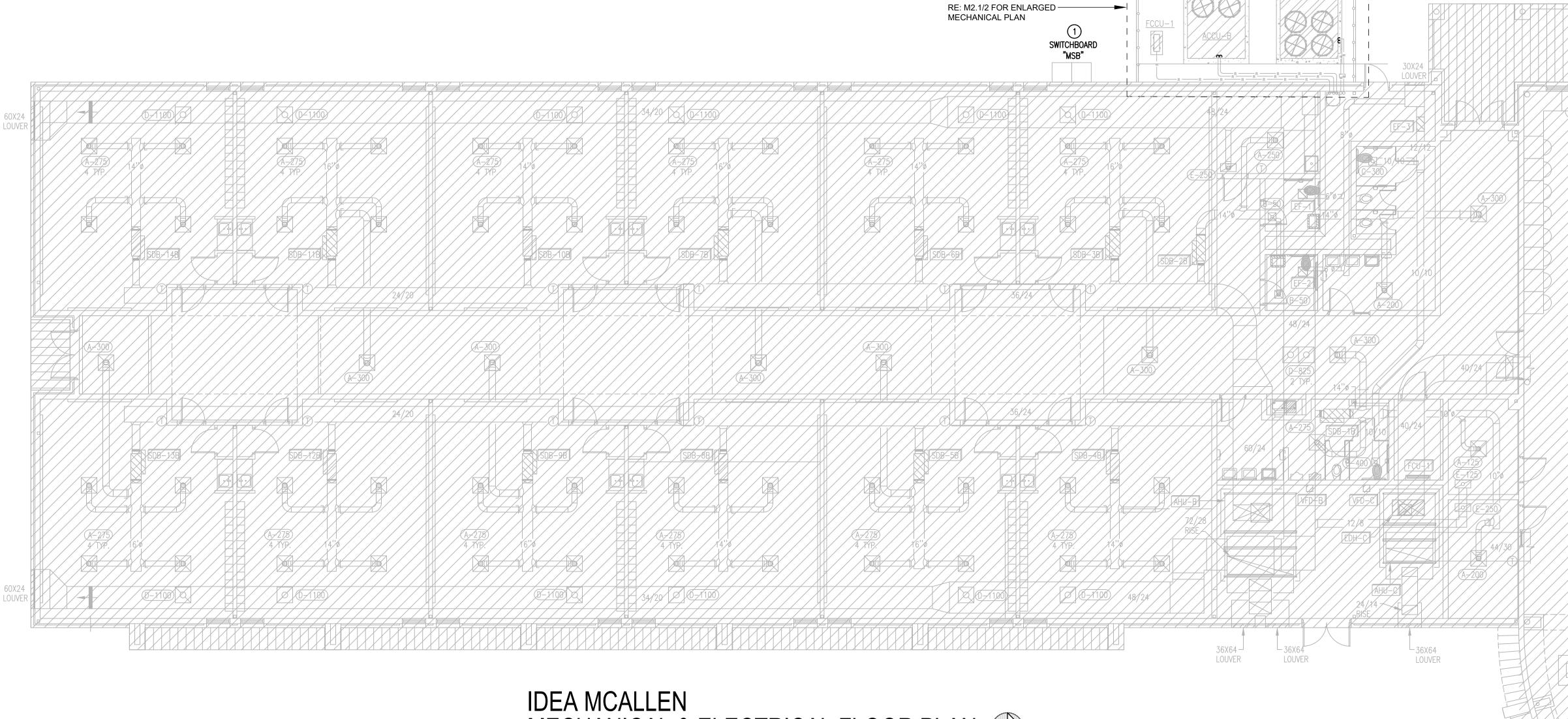
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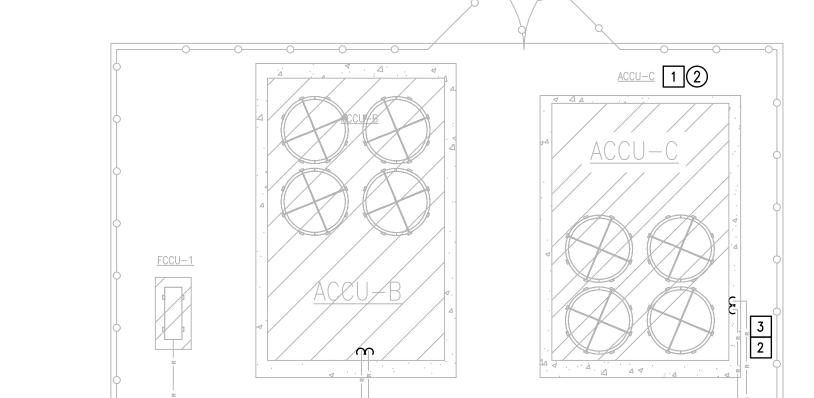
TEXAS REGISTERED ENGINEERING FIRM F-15998 MARCH 15, 202

CHECKED BY: DRAWN BY: PROJECT NO.:





01 MECHANICAL & ELECTRICAL FLOOR PLAN SCALE: 1/8" = 1'-0"



IDEA MCALLEN ENLARGED
MECHANICAL & ELECTRICAL PLAN
SCALE: 1/4" = 1'- 0"

NORTH

IDEA N	IDEA MCALLEN PHASE I EXISTING ACCU SCHEDULE														
MARK	SERVING	NOMINAL TONS	ELECTRICAL V-PH-HZ	FANS HP	(CIRC	MOCP	WEIGHT (LBS.)	NOTES	EXISTING MANUFACTURER	EXISTING MODEL NUMBER					
ACCU-C	AHU-C	30	460-3-60	1.25	60.7	70	1300	ALL	YORK	J30YDC00A4BTA1A					

2. VERIFY ACCU WEIGHT, AND REFRIGERANT PIPE SIZES WITH MANUFACTURER.

EQUIPMENT CONNECTION SCHEDULE:

DESIGN	EXISTING MCA	EXISTING MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	(75° COPPER)	NEW BRANCH CIRCUIT (75° COPPER)	POWER SOURCE	
ACCU-C	60.7	90	480V/3PHASE	100A, 3P3F, 70AF, 600V, NEMA 3R	RETAIN EXISTING.	1" - 3#4 & #8G	1) EXTEND EXISTING	MSB	
OENEDAL NO	TEO								

A) PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

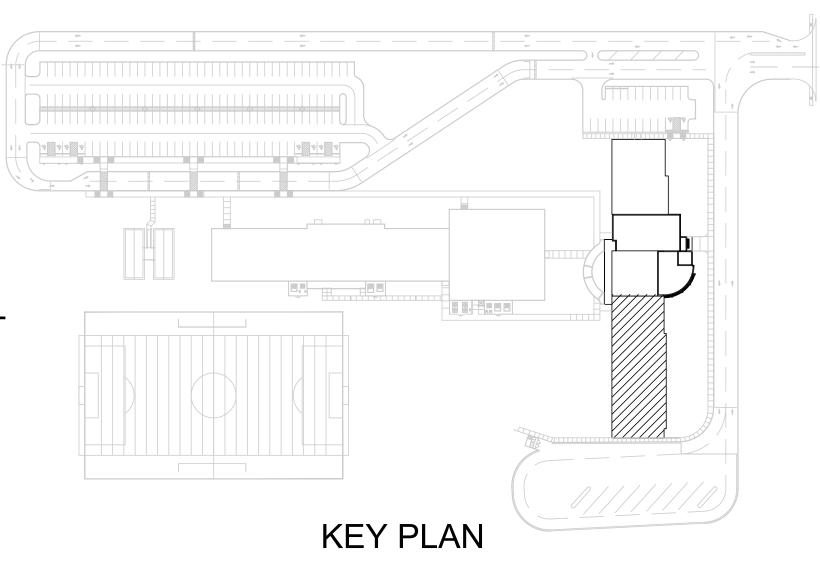
1) PROVIDE A NEMA 3R J-BOX TO SPLICE AND EXTEND EXISTING BRANCH CIRCUIT TO NEW POINT OF CONNECTION.

MECHANICAL KEYED NOTES:

- DISCONNECT AND TEMPORARILY REMOVE CONDENSING UNIT FOR PROVISION OF NEW MOUNTING STRUCTURE PER STRUCTURAL. REINSTALL EXISTING CONDENSING UNIT ON NEW MOUNTING STRUCTURE. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' ELEVATED CONNECTIONS. RECONNECT TO EXISTING PIPING TO CREATE A FULLY OPERATIONAL SYSTEM. CLEAN AND VACUUM EXISTING REFRIGERANT PIPING PRIOR TO INSTALLATION. REPLACE ALL REFRIGERANT SPECIALTIES, SERVICE VALVES, GASKETS, EXPANSION VALVES, SIGHT GLASSES, ETC.
- 2 PROVIDE REFRIGERANT LINE SUPPORTS. SEE ASSOCIATED DETAIL. (TYPICAL)
- PROVIDE NEW 1" INSULATION T ON ALL REFRIGERANT LINES BOTH NEW AND EXISTING. PROVIDE ALUMINUM JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS PER SPECIFICATIONS. SEE ASSOCIATED DETAIL.

ELECTRICAL KEYED NOTES:

- 1 APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- 2 DISCONNECT EXISTING HVAC EQUIPMENT TO BE RAISED. SEE EQUIPMENT CONNECTION SCHEDULE.



UPGRADES MECHA RGV IDEA UPPER



RFP # 23-URMU-0424

MECHANICAL KEYED NOTES:

1 RETAIN EXISTING REFRIGERANT PIPING FOR REINSTALLATION. CLEAN AND VACUUM REFRIGERANT PIPING. REPLACE ALL REFRIGERANT SPECIALTIES, SERVICE VALVES, GASKETS, EXPANSION VALVES, ETC. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' CONNECTIONS. RECONNECT TO EXISTING PIPING TO CREATE A FULLY OPERATIONAL

LEGEND

NO: REVISION: BY

2 DEMOLISH EXISTING AIR COOLED CONDENSING UNIT. PROVIDE NEW AIR COOLED CONDENSING UNIT AND INSULATE REFRIGERANT PIPING PER SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND EXTEND EXISTING HOUSEKEEPING CONCRETE PADS AS NECESSARY TO ACCOMMODATE NEW EQUIPMENT. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA. BOLT EQUIPMENT DOWN TO CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.

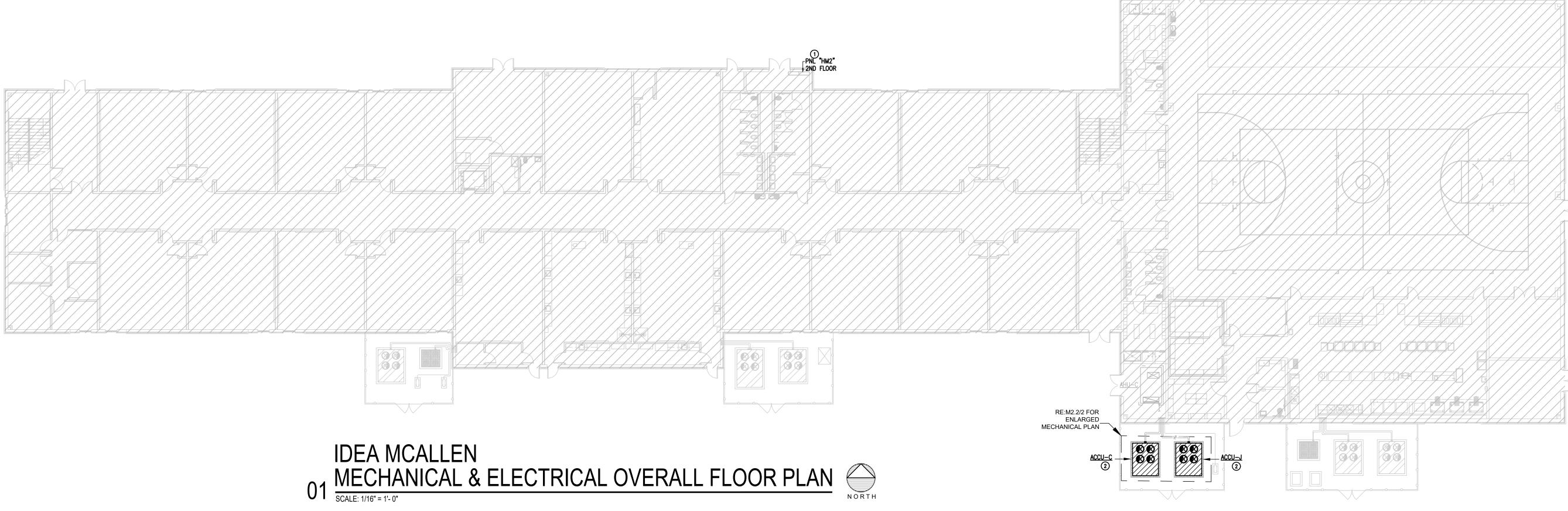
3 PROVIDE NEW REFRIGERANT LINE SUPPORTS. SEE ASSOCIATED DETAIL. (TYPICAL)

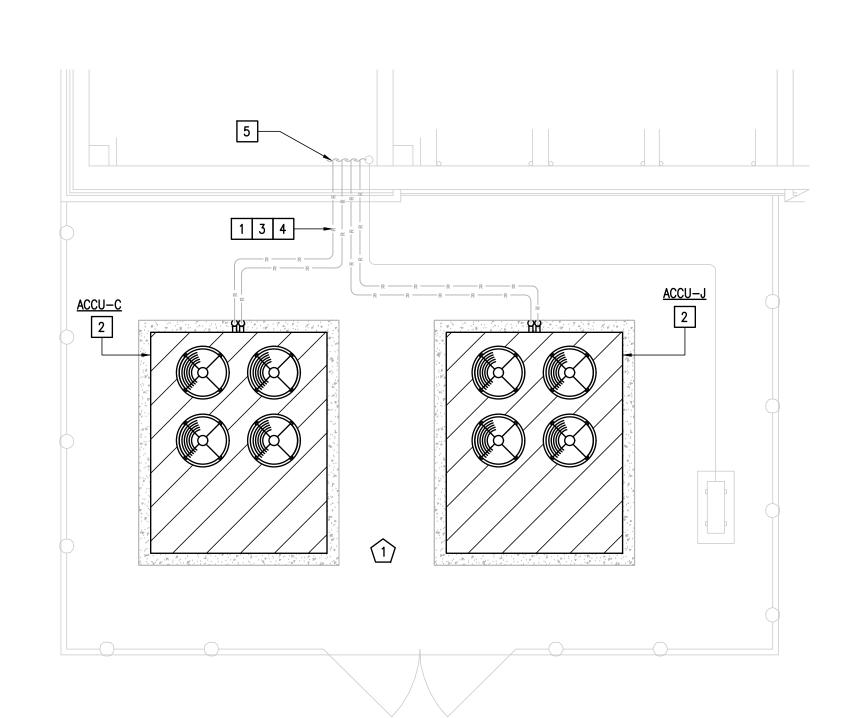
4 PROVIDE NEW 1" INSULATION ON ALL REFRIGERANT LINES BOTH NEW AND EXISTING. PROVIDE ALUMINUM JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS PER SPECIFICATIONS. SEE ASSOCIATED DETAIL.

5 RETAIN EXISTING SLEEVE AT ALL PENETRATIONS PER SPECIFICATIONS WHERE POSSIBLE. SEAL AROUND NEW PIPING WITH FIRE PROOF CAULKING. PROVIDE NEW ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION BOTH INSIDE AND OUTSIDE TO PROVIDE FINISHED LOOK WHERE NECESSARY.

ELECTRICAL KEYED NOTES:

- 1) APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- 2 DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.





IDEA MCALLEN ENLARGED 02 MECHANICAL & ELECTRICAL PLAN SCALE: 1/4" = 1'- 0"

IDEA MCALLEN PHASE II ACCU SCHEDULE

IDEA	TEA MICALLEN I TIAGE II ACCO GCITEDOLE														
MARK	SERVING	EXISTING	EXISTING MODEL	TOTAL	NOMINAL	COND	ELECTRICAL	EER	NUMBER OF	(CIRC	CUIT)	WEIGHT	NOTES	MANUFACTURER	MODEL NUMBER
		MANUFACTURER	The state of the s	MBTUH	TONS	DB	V-PH-HZ	AT ARI	CIRCUITS	MCA	MOCP	(LBS.)			
ACCU-C	AHU-C	YORK	J30YDC00A4BTA1A	324	30	100	460-3-60	11.1	2	63.5	70	1875	ALL	YORK	YD360C00A4EEB2
ACCU-J	AHU-J	YORK	J30YDC00A4BTA1A	324	30	100	460-3-60	11.1	2	63.5	70	1875	ALL	YORK	YD360C00A4EEB2

- 2. EER SHALL EXCEED IECC MINIMUM EFFICIENCY AT DESIGN CONDITIONS. 3. PROVIDE CONDENSER COIL HAIL GUARDS, E-COATED COILS, AND LOW AMBIENT CONTROL.
- 4. PROVIDE BACNET INTERFACE.
- 5. SAFETY DISCONNECT TO BE PROVIDED BY DIV. 26.
- 6. INSULATE REFRIGERANT LINES AS PER SPECIFICATIONS. PROVIDE UV RESISTANT PAINTED JACKETING AROUND INSULATION FOR ALL EXTERIOR EXPOSED LINES.
- 7. PROVIDE FACTORY INSTALLED APR VALVE. PROVIDE 2 STAGES OF MODULATION PER CONDENSING UNIT. PROVIDE ALL NEW REFRIGERANT
- SPECIALTIES, EXPANSION VALVES, ETC.

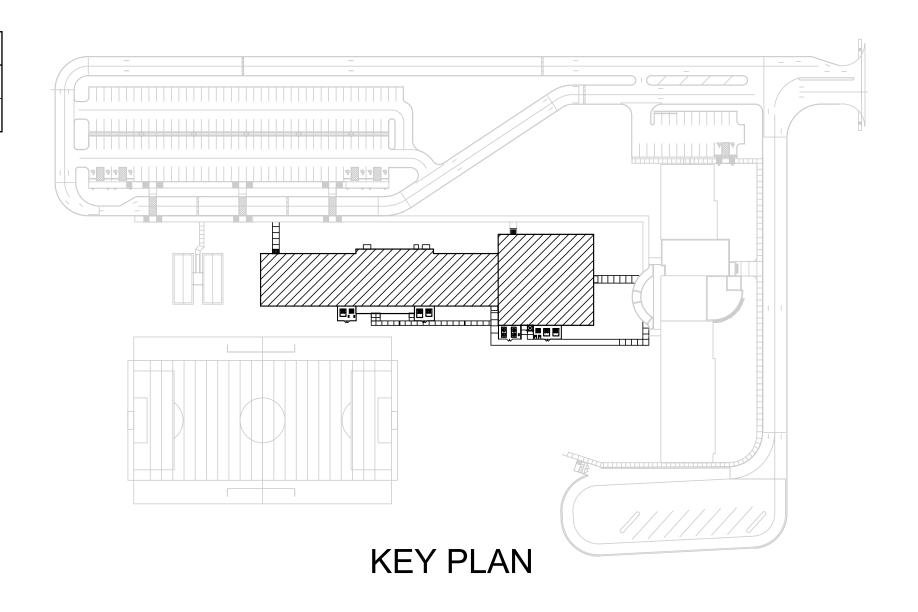
EQUIPMENT CONNECTION SCHEDULE:

DESIGN	NEW	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT (75° COPPER)	NEW BRANCH CIRCUIT (75° COPPER)	EXISTING POWER SOURCE
ACCU-C	MCA 63.5	70	1) 70	480V/3PHASE	100A, 3PNF, 600V, NEMA 3R	RETAIN EXISTING.	1" - 3#3 & #8G	RETAIN EXISTING	HM2
ACCU-J	63.5	70	1) 70	480V/3PHASE	100A, 3PNF, 600V, NEMA 3R	RETAIN EXISTING.	1" - 3#3 & #8G	RETAIN EXISTING	HM2

A) LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES.

B) PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

1) RETAIN AND REUSE EXISTING CIRCUIT BREAKER.



UPPER



IDEA MISSION BUILDING A - MINI-SPLIT CASSETTE INDOOR UNIT SCHEDULE

MARK	SERVED	EXISTING	EXISTING MODEL	LOCATION	MIN	MAX	ELECTRICAL	COO TOTAL	LING EAT	WEIGHT	NOTES	MANUFACTURER	MODEL NUMBER
IVIAIXIX	BY	MANUFACTURER	NUMBER	LOOATION	CFM	CFM	V-PH-HZ	(BTU/H)	DB/WB	(LBS)	NOTES	WAITO ACTORER	WODEL NOWBER
CC-2	ACCU-5	EMI AMERICA SERIES	CACA12	C128	268	406	208-1-60	12,000	80/67	45	ALL	DAIKIN	FFQ12W2VJU

NOTES:

SUBSTITUTION PROCEDURES.

PROVIDE INVERTER DRIVEN COMPRESSOR FOR IMPROVED HUMIDITY CONTROL.

3. PROVIDE WALL MOUNTED AND WIRED 7-DAY PROGRAMMABLE T-STAT IN LIEU OF WIRELESS REMOTE.

1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS AND

4. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT.

NOTES: 1. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT.

IDEA MISSION BUILDING A - MINI-SPLIT CONDENSER SCHEDULE

MODEL COOLING COND DB

12,000

2. PROVIDE CONDENSER COIL CORROSION PROTECTION.

MANUFACTURER

EMI AMERICA

SERIES

MARK

ACCU-5

CC-2

3. INSTALL UNIT ON EXISTING CONCRETE PAD. EXTEND CONCRETE PAD AS NECESSARY TO ACCOMMODATE FOR NEW EQUIPMENT.

208-1-60

19.5

4. PROVIDE INSULATION FOR BOTH LIQUID AND SUCTION LINES.

5. INSTALL PER MANUFACTURERS INSTRUCTIONS AND PIPING RECOMMENDATIONS. 6. 1 YEAR PARTS WARRANTY AND 10 YEAR COMPRESSOR PARTS LIMITED WARRANTY.

NUMBER (BTU/H)

S1CA2

EQUIPMENT CONNECTION SCHEDULE:

DESIGN	NEW MCA	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT (75° COPPER)	NEW BRANCH CIRCUIT (75° COPPER)	EXISTING POWER SOURCE
CC-2	_	15	2) –	208V/1PHASE	30A, 3PNF, 240V, NEMA 1	RETAIN EXISTING.	REMOVE EXISTING	1/2" - 2#12 & #12G	LC
ACCU-5	7.8	15	1) 15	208V/1PHASE	30A, 3PNF, 240V, NEMA 4X SS	RETAIN EXISTING.	 1/2" - 2#12 & #12G	RETAIN EXISTING	LC

GENERAL NOTES:

A) LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES.

B) PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

1) RETAIN AND REUSE EXISTING CIRCUIT BREAKER.

2) EXISTING CIRCUIT BREAKER TO REMAIN A SPARE. OBTAIN POWER FROM ACCU.

MECHANICAL KEYED NOTES:

MCA MOCP WEGHT NOTES MANUFACTURER MODEL NUMBER

DAIKIN

RX12WMVJU

(LBS)

RE: M3.1/2 FOR ENLARGED MECHANICAL PLAN

COMPR TYPE

INVERTER

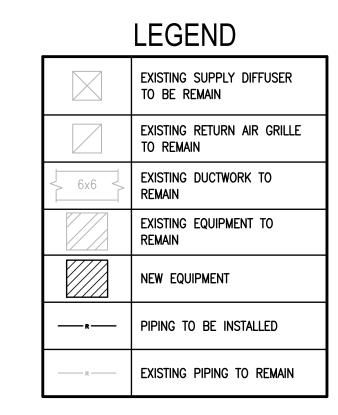
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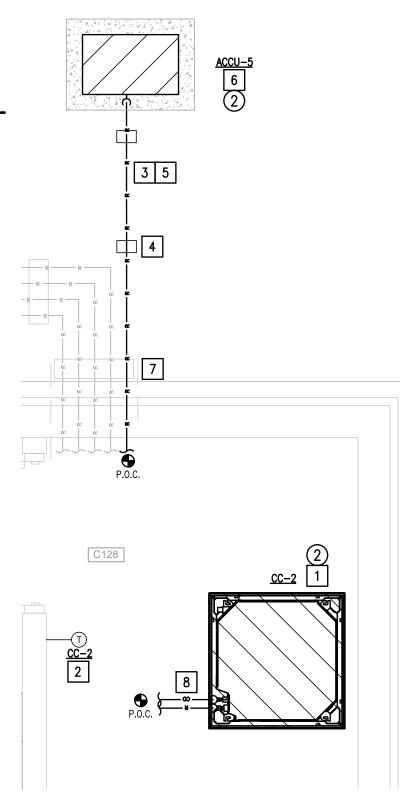
ROTARY

- 1 DEMOLISH EXISTING CASSETTE UNIT. PROVIDE NEW CASSETTE UNIT AT THIS APPROXIMATE LOCATION. REFER TO PROVIDED SCHEDULE AND TAB SPECIFICATIONS FOR MORE INFORMATION.
- 2 DEMOLISH EXISTING THERMOSTAT. PROVIDE NEW THERMOSTAT AS SHOWN. MOUNT 48" ABOVE FINISHED FLOOR & COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS.
- 3 DEMOLISH EXISTING REFRIGERANT PIPING. PROVIDE NEW REFRIGERANT PIPING. AND ROUTE TO INDOOR UNIT. COORDINATE ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION. ROUTE INSIDE WALL TO AVOID EXPOSED PIPING WITHIN THE SPACE. (TYPICAL)
- 4 PROVIDE REFRIGERANT LINE SUPPORTS. SEE ASSOCIATED DETAIL. (TYPICAL)
- 5 PROVIDE NEW 1" INSULATION ON ALL REFRIGERANT LINES BOTH NEW AND EXISTING. PROVIDE ALUMINUM JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS PER SPECIFICATIONS. SEE ASSOCIATED DETAIL.
- 6 DEMOLISH EXISTING ACCU AND INSTALL NEW AIR COOLED CONDENSING UNIT AND INSULATED REFRIGERANT PIPING PER SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND MOUNT UNIT ON EXISTING CONCRETE PAD. PAD SHALL BE MINIMUM 6" LARGER THAN EQUIPMENT FOOTPRINT ON ALL SIDES, EXTEND CONCRETE PAD AS NECESSARY. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA. BOLT EQUIPMENT DOWN TO EXISTING CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
- 7 RETAIN EXISTING SLEEVE AT ALL PENETRATIONS PER SPECIFICATIONS WHERE POSSIBLE. SEAL AROUND NEW PIPING WITH FIRE PROOF CAULKING. PROVIDE NEW ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION BOTH INSIDE AND OUTSIDE TO PROVIDE FINISHED LOOK WHERE NECESSARY.
- 8 RETAIN EXISTING CONDENSATE DRAIN LINE. RECONNECT EXISTING CONDENSATE DRAIN LINE TO NEW CASSETTE UNIT. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' CONNECTIONS.

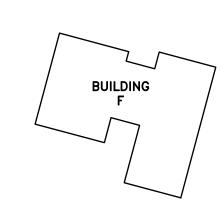
ELECTRICAL KEYED NOTES:

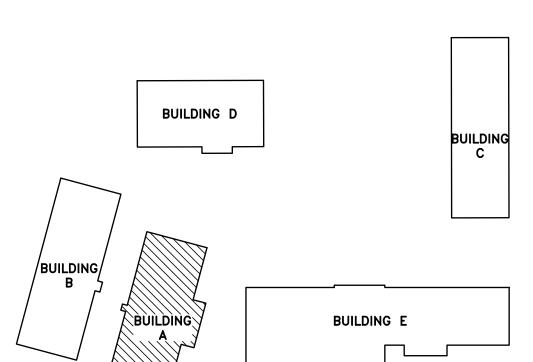
- (1) APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- 2 DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.











01 BUILDING A MECHANICAL & ELECTRICAL FLOOR PLAN SCALE: 1/8" = 1'-0"

KEYPLAN

IDEA RGV UPPER

PUBLIC

MECHA

NO: REVISION: BY

RFP # 23-URMU-0424

CESAR A. GONZALEZ

IDEA MISSION BUILDING B
02 ENLARGED MECHANICAL & ELECTRICAL PLAN

IDEA MISSION - BUILDING B ACCU SCHEDULE

MARK	SERVING	EXISTING MANUFACTURER	EXISTING MODEL NUMBER	TOTAL	COND	ELECTRICAL	EER / IEER	EER / IEER STEPS OF		OF (CIRCUIT)		NOTES	MANUFACTURER	MODEL NUMBER
IVI/ UXIX				BTUH	DB	V-PH-HZ	AT ARI	CAPCITY	MCA	MOCP	(LBS.)	NOTES	WWW. TO TOTAL TO	WOBEL NOWBER
ACCU-1	AHU-1	YORK	YCUL0080EB46XCBSX	872,640	105	460-3-60	9.656/ 16.300	6	160.4	175	3941	ALL	YORK	YLUA0078ZJ46

2. EER SHALL EXCEED IECC MINIMUM EFFICIENCY AT DESIGN CONDITIONS.

3. PROVIDE CONDENSER COIL HAIL GUARDS, E-COATED COILS, AND LOW AMBIENT CONTROL.

PROVIDE BACNET INTERFACE. SAFETY DISCONNECT TO BE PROVIDED BY DIV. 26.

6. INSULATE REFRIGERANT LINES AS PER SPECIFICATIONS. PROVIDE UV RESISTANT PAINTED JACKETING AROUND INSULATION FOR ALL EXTERIOR EXPOSED LINES.

7. PROVIDE FACTORY INSTALLED HOT GAS BYPASS. PROVIDE THERMOSTAT TO PROVIDE 2 STAGES OF MODULATION PER CONDENSING UNIT. PROVIDE ALL NEW REFRIGERANT SPECIALTIES, EXPANSION VALVES, ETC. 8. PROVIDE EVAPORATOR DEFROST CONTROLLER FOR MINIMUM CIRCUIT.

IDEA MISSION BUILDING B - EXHAUST FAN SCHEDULE

MARK	SERVING	TYPE	STATUS	ELECTRICAL V-PH-HZ	DRIVE	CFM	INPUT WATTS	MOTOR HP	RPM	E.S.P. IN. H20	SOUND IN SONES	WEIGHT (LBS)	CONTROL NOTES	NOTES	MANUFACTURER	MODEL NUMBER
EF-1	STUDENT'S RESTROOMS	SUSPENDED IN-LINE	TO BE REPLACED	120-1-60	DIRECT	600	-	1/2	859	0.32	3.2	55.0	Α	ALL	GREENHECK	SQ-120-VG
EF-2	STAFF RESTROOM & JANITOR ROOM	SUSPENDED IN-LINE	TO BE REPLACED	120-1-60	DIRECT	150	-	1/15	1572	0.32	4.6	47.0	Α	ALL	GREENHECK	SQ-70-VG

1. PROVIDE FACTORY MOUNTED DISCONNECT

2. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL." REFER TO SPECIFICATIONS. 3. PROVIDE OSHA MOTOR AND BELT GUARD.

4. PROVIDE AUTOMATIC BELT TENSIONER. 5. PROVIDE INSULATED HOUSING FOR SOUND ATTENUATION.

6. PROVIDE SPRING TYPE VIBRATION ISOLATORS FOR SUSPENDED INLINE TYPE FANS.

CONTROL NOTES:

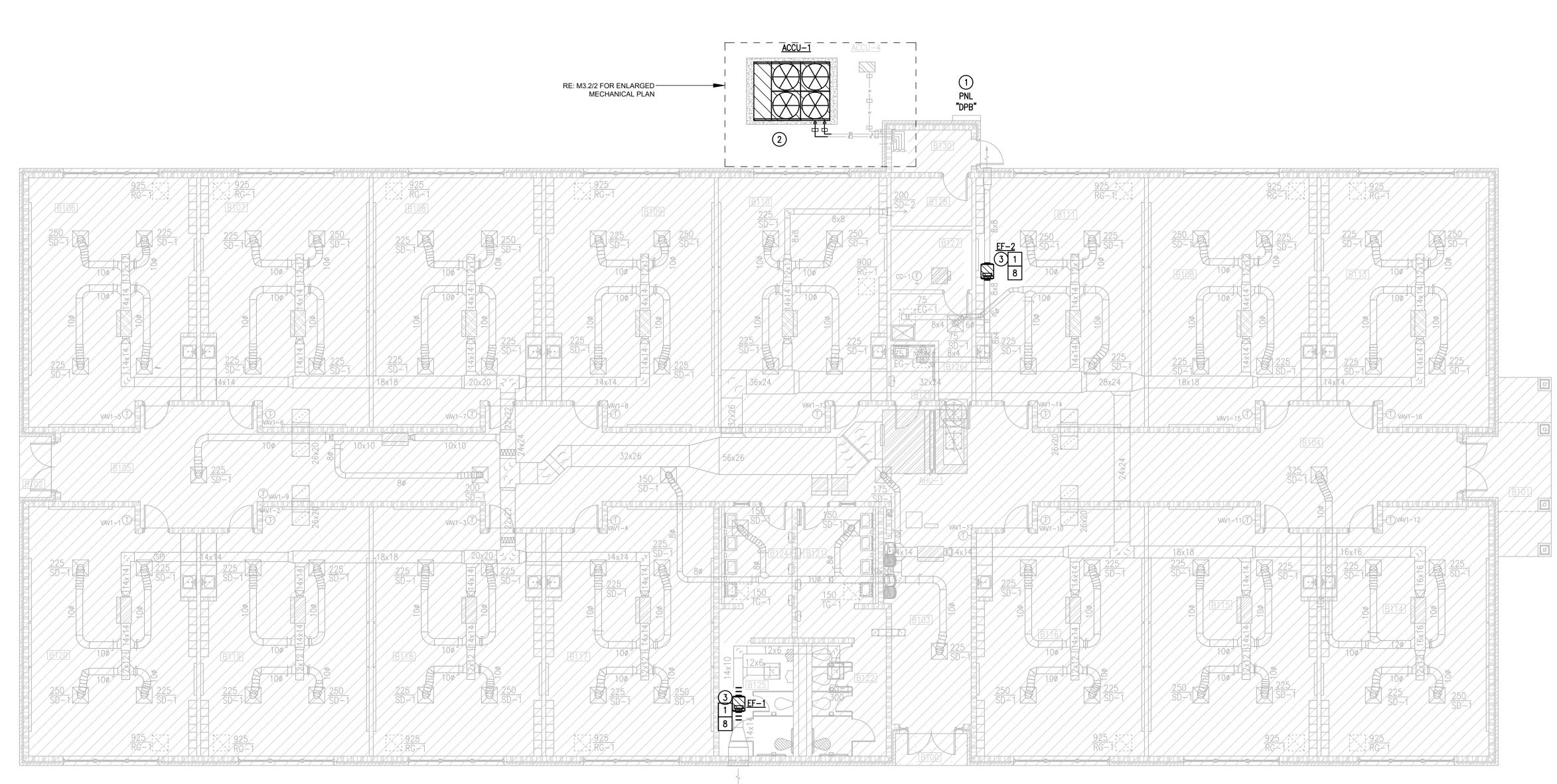
A. CONNECT TO EXISTING DDC SYSTEM. RECREATE EXISTING CONTROL POINTS AND SCHEDULING WITH NEW EQUIPMENT.

EQUIPMENT CONNECTION SCHEDULE:

DE	ESIGN	NEW MCA	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT (75° COPPER)	NEW BRANCH CIRCUIT (75° COPPER)	EXISTING POWER SOURCE
AC	CCU-1	160.4	175	1) 175	480V/3PHASE	CIRCUIT BREAKER WITHIN SIGHT	RETAIN EXISTING.	2" - 3#2/0 & #6G	RETAIN EXISTING	DPB

A) LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES. B) PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

1) RETAIN AND REUSE EXISTING CIRCUIT BREAKER.



MECHANICAL KEYED NOTES:

DEMOLISH EXISTING EXHAUST FAN. REPLACE WITH NEW EXHAUST FAN AT THIS APPROXIMATE LOCATION. PROVIDE NEW DUCT TRANSITIONS TO EXHAUST FAN WHERE NECESSARY. REFER TO PROVIDED SCHEDULE AND TAB SPECIFICATIONS FOR MORE INFORMATION.

LEGEND

TO BE REMAIN

TO REMAIN

REMAIN

REMAIN

NEW DUCTWORK

NEW EQUIPMENT

PIPING TO BE INSTALLED

EXISTING PIPING TO REMAIN

6x6 <

EXISTING SUPPLY DIFFUSER

EXISTING RETURN AIR GRILLE

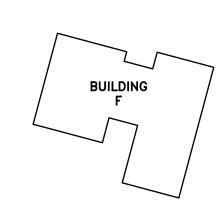
EXISTING DUCTWORK TO

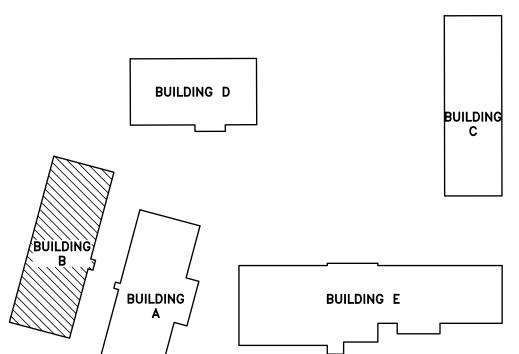
EXISTING EQUIPMENT TO

- 2 RETAIN EXISTING REFRIGERANT PIPING FOR REINSTALLATION. CLEAN AND VACUUM REFRIGERANT PIPING, REPLACE ALL REFRIGERANT SPECIALTIES, SERVICE VALVES, GASKETS, EXPANSION VALVES, ETC. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' CONNECTIONS. RECONNECT TO EXISTING PIPING TO CREATE A FULLY OPERATIONAL SYSTEM.
- 3 DEMOLISH EXISTING AIR COOLED CONDENSING UNIT. PROVIDE NEW AIR COOLED CONDENSING UNIT AND INSULATE REFRIGERANT PIPING PER SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND EXTEND EXISTING HOUSEKEEPING CONCRETE PADS AS NECESSARY TO ACCOMMODATE NEW EQUIPMENT. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA. BOLT EQUIPMENT DOWN TO CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
- 4 PROVIDE NEW REFRIGERANT LINE SUPPORTS. SEE ASSOCIATED DETAIL.
- 5 PROVIDE NEW 1" INSULATION ON ALL REFRIGERANT LINES BOTH NEW AND EXISTING. PROVIDE ALUMINUM JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS PER SPECIFICATIONS. SEE ASSOCIATED DETAIL.
- 6 RETAIN EXISTING SLEEVE AT ALL PENETRATIONS PER SPECIFICATIONS WHERE POSSIBLE. SEAL AROUND NEW PIPING WITH FIRE PROOF CAULKING. PROVIDE NEW ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION BOTH INSIDE AND OUTSIDE TO PROVIDE FINISHED LOOK WHERE NECESSARY.
- 7 RECONNECT EXISTING PIPING TO NEW PIPING AT THIS LOCATION. ROUTE AS SHOWN AND CONNECT TO UNIT'S CONNECTIONS.
- 8 TEMPORARILY REMOVE THE CEILING AROUND THE AREA OF WHERE EXISTING EXHAUST FAN IS TO BE REPLACED. RESTORE THE CEILING BACK TO ITS ORIGINAL CONDITION AFTER REPLACEMENT OF EXHAUST FAN.

ELECTRICAL KEYED NOTES:

- 1 APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- 2 DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.
- 3 DISCONNECT EXISTING EXHAUST FAN FOR REPLACEMENT. RETAIN AND REUSE EXISTING BRANCH CIRCUIT.





KEYPLAN

PUBLIC MECHA RGV IDEA

NO: REVISION: BY:

RFP # 23-URMU-0424

CESAR A. GONZALEZ

UPPER



CHECKED BY: DRAWN BY: PROJECT NO.:

1DEA MISSION 01 BUILDING B MECHANICAL & ELECTRICAL FLOOR PLAN

O

UPPER

PHONE: 956-230-3435 TEXAS REGISTERED

LEGEND EXISTING SUPPLY DIFFUSER TO BE REMAIN

RFP # 23-URMU-0424

NO: REVISION: BY

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MECHANICAL KEYED NOTES:

1 RETAIN EXISTING REFRIGERANT PIPING FOR REINSTALLATION. CLEAN AND VACUUM REFRIGERANT PIPING. REPLACE ALL REFRIGERANT SPECIALTIES, SERVICE VALVES, GASKETS, EXPANSION VALVES, ETC. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' CONNECTIONS. RECONNECT TO EXISTING PIPING TO CREATE A FULLY OPERATIONAL SYSTEM.

6x6

- 2 DEMOLISH EXISTING AIR COOLED CONDENSING UNIT. PROVIDE NEW AIR COOLED CONDENSING UNIT AND INSULATE REFRIGERANT PIPING PER SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND EXTEND EXISTING HOUSEKEEPING CONCRETE PADS AS NECESSARY TO ACCOMMODATE NEW EQUIPMENT. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA. BOLT EQUIPMENT DOWN TO CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
- PROVIDE NEW 1" INSULATION ON ALL REFRIGERANT LINES BOTH NEW AND EXISTING. PROVIDE ALUMINUM JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS PER SPECIFICATIONS. SEE ASSOCIATED DETAIL.
- 4 RETAIN EXISTING SLEEVE AT ALL PENETRATIONS PER SPECIFICATIONS WHERE POSSIBLE. SEAL AROUND NEW PIPING WITH FIRE PROOF CAULKING. PROVIDE NEW ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION BOTH INSIDE AND OUTSIDE TO PROVIDE FINISHED LOOK WHERE NECESSARY.

MECHANICAL KEYED NOTES (ALTERNATE #1):

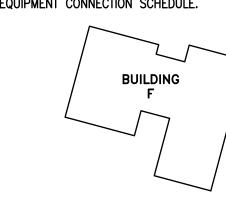
- (1) RETAIN EXISTING REFRIGERANT PIPING FOR REINSTALLATION. CLEAN AND VACUUM REFRIGERANT PIPING. REPLACE ALL REFRIGERANT SPECIALTIES, SERVICE VALVES, GASKETS, EXPANSION VALVES, ETC. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' CONNECTIONS. RECONNECT TO EXISTING PIPING TO CREATE A FULLY OPERATIONAL SYSTEM.
- $\langle 2
 angle$ demolish existing air cooled condensing unit. Provide New Air cooled condensing unit and INSULATE REFRIGERANT PIPING PER SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND EXTEND EXISTING HOUSEKEEPING CONCRETE PADS AS NECESSARY TO ACCOMMODATE NEW EQUIPMENT. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA. BOLT EQUIPMENT DOWN TO CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
- (3) PROVIDE NEW 1" INSULATION ON ALL REFRIGERANT LINES BOTH NEW AND EXISTING. PROVIDE ALUMINUM JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS PER SPECIFICATIONS. SEE ASSOCIATED DETAIL.
- \langle 4 \rangle retain existing sleeve at all penetrations per specifications where possible. Seal around

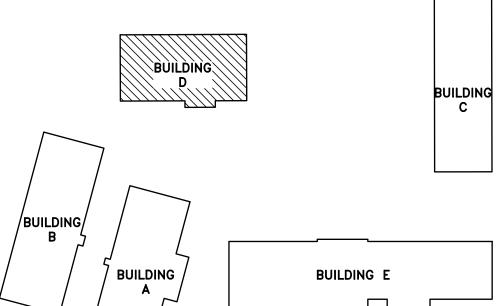
ELECTRICAL KEYED NOTES:

- 1) APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- (2) DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.

ALTERNATE #1 **ELECTRICAL KEYED NOTES:**

- 1 APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.





KEYPLAN

SERVING MODEL MCA MANUFACTURER **BTUH** TONS DB V-PH-HZ AT ARI CIRCUITS MOCP (LBS.) NUMBER 460-3-60 83.6 2273 AHU-5 CARRIER 428,100 40 105 100

TOTAL NOMINAL COND ELECTRICAL EER/IEER

ACCU-4 1 2 2

ACCU-5 1 2

IDEA MISSION BUILDING C 02 ENLARGED MECHANICAL & ELECTRICAL FLOOR PLAN

ACCU-5

. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS AND SUBSTITUTION PROCEDURES

2. EER SHALL EXCEED IECC MINIMUM EFFICIENCY AT DESIGN CONDITIONS.

3. PROVIDE 6-INCH HIGH CONCRETE PAD FOR CONDENSING UNIT.

4. PROVIDE CONDENSER COIL HAIL GUARDS, E-COATED COILS, AND LOW AMBIENT CONTROL.

IDEA MISSION - BUILDING C ACCU SCHEDULE (BASE BID)

5. PROVIDE DIGITAL SCROLL COMPRESSOR OR MULTI-STAGE COMPRESSOR.

6. SAFETY DISCONNECT TO BE PROVIDED BY DIV. 26. 7. INSULATE REFRIGERANT LINES AS PER SPECIFICATIONS. PROVIDE UV RESISTANT PAINTED JACKETING AROUND INSULATION FOR ALL EXTERIOR EXPOSED LINES.

8. MOUNT ON 4" CONCRETE HOUSEKEEPING PAD AND MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES. BOLT CONDENSING UNIT DOWN TO CONCRETE PAD.

9. PROVIDE FACTORY INSTALLED APR VALVE. PROVIDE THERMOSTAT TO PROVIDE 2 STAGES OF MODULATION PER CONDENSING UNIT.

10. PROVIDE STAINLESS STEEL COIL CASING AND DRAIN PAN.

11. UNIT SHALL BE R-13 DOUBLE WALL SEALED PANEL.

IDEA MISSION - BUILDING C ACCU SCHEDULE (ALTERNATE #1)

	11001011	DOILDIN	5 6 7 10 0	0 0011		_ (/ _		· -								
		EXISTING	EXISTING	TOTAL	NOMINAL	COND	ELECTRICAL	EER / IEER	NUMBER OF	FAN	(CIRC	CUIT)	WEIGHT	*******		
MARK	SERVING	MANUFACTURER	MODEL NUMBER	BTUH	TONS	DB	V-PH-HZ	AT ARI	CIRCUITS	FLA	MCA	MOCP	(LBS.)	NOTES	MANUFACTURER	MODEL NUMBER
ACCU-4	AHU-4	CARRIER	38AUZB25A	172,500	15	105	460-3-60	11	2		29.7	40	731	ALL	CARRIER	38AUDU16

NUMBER OF FAN

(CIRCUIT)

MANUFACTURER

CARRIER

MODEL NUMBER

38APD040

. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS AND SUBSTITUTION PROCEDURES.

2. EER SHALL EXCEED IECC MINIMUM EFFICIENCY AT DESIGN CONDITIONS 3. PROVIDE 6-INCH HIGH CONCRETE PAD FOR CONDENSING UNIT.

4. PROVIDE CONDENSER COIL HAIL GUARDS, E-COATED COILS, AND LOW AMBIENT CONTROL.

5. PROVIDE DIGITAL SCROLL COMPRESSOR OR MULTI-STAGE COMPRESSOR.

6. SAFETY DISCONNECT TO BE PROVIDED BY DIV. 26.

7. INSULATE REFRIGERANT LINES AS PER SPECIFICATIONS. PROVIDE UV RESISTANT PAINTED JACKETING AROUND INSULATION FOR ALL EXTERIOR EXPOSED LINES

8. MOUNT ON 4" CONCRETE HOUSEKEEPING PAD AND MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES. BOLT CONDENSING UNIT DOWN TO CONCRETE PAD.

9. PROVIDE FACTORY INSTALLED APR VALVE. PROVIDE THERMOSTAT TO PROVIDE 2 STAGES OF MODULATION PER CONDENSING UNIT.

10. PROVIDE STAINLESS STEEL COIL CASING AND DRAIN PAN.

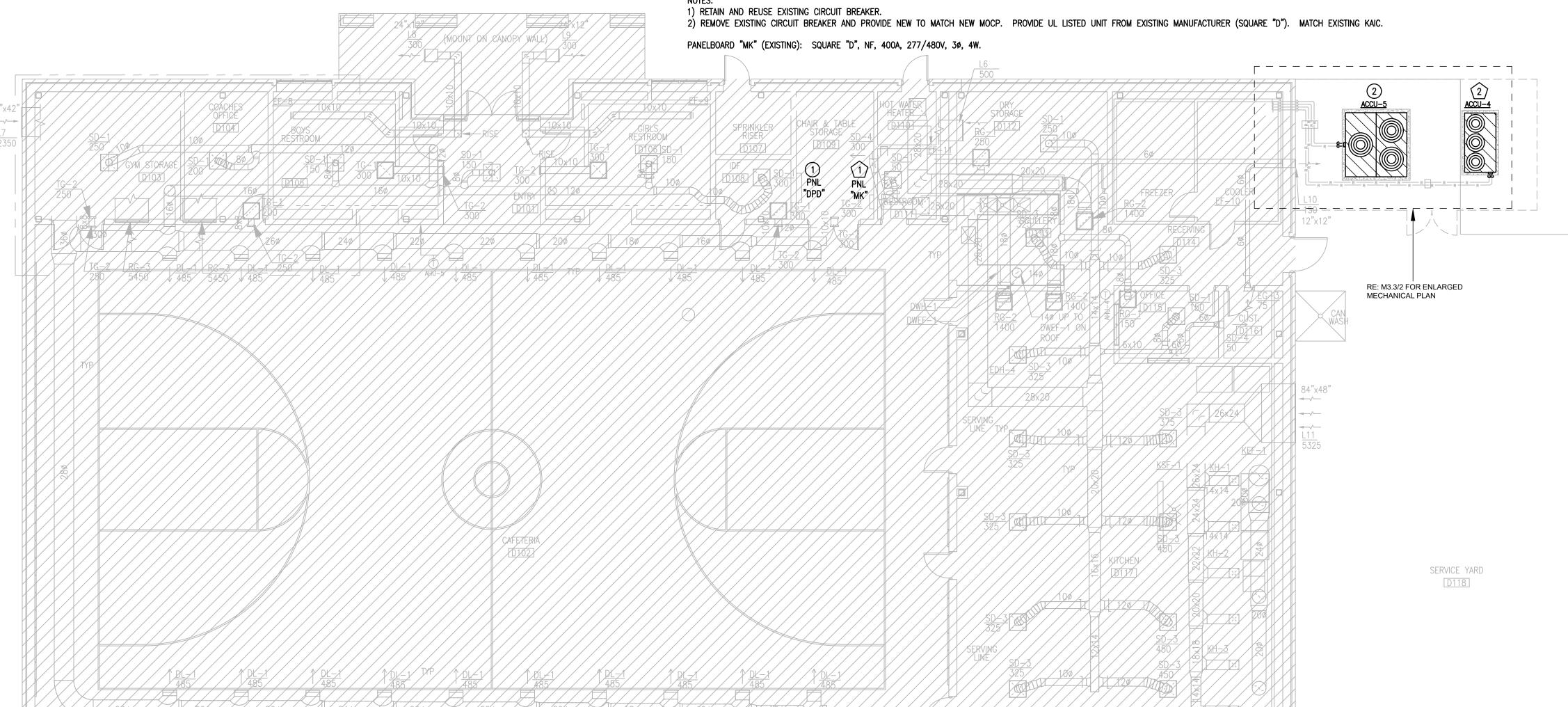
11. UNIT SHALL BE R-13 DOUBLE WALL SEALED PANEL.

EQUIPMENT CONNECTION SCHEDULE:

DESIGN	NEW MCA	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT (75° COPPER)	NEW BRANCH CIRCUIT (75° COPPER)	EXISTING POWER SOURCE
ACCU-5	83.6	100	1) 100	480V/3PHASE	100A, 3PNF, 600V, NEMA 3R	RETAIN EXISTING.	1.25" - 3#3 & #8G	RETAIN EXISTING	DPD
ALTERNATE :	#1		•			•			
ACCU-4	29.7	50	2) 40	480V/3DHASE	60A, 3PNF, 600V, NEMA 3R	RETAIN EXISTING.	3/4" - 3#8 & #10G	RETAIN EXISTING	MK

GENERAL NOTES:

A) LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES. B) PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

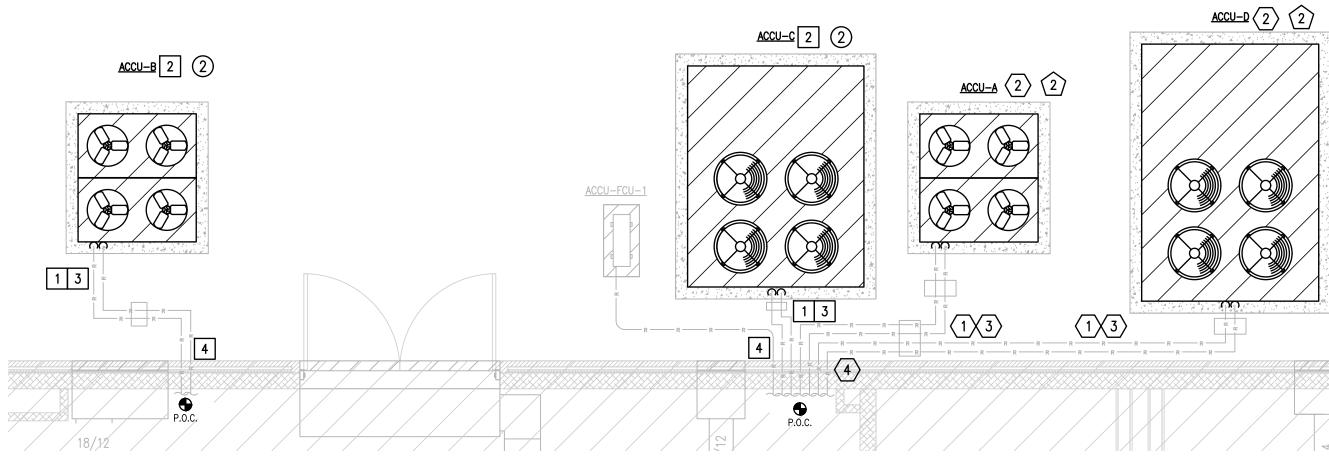


01 BUILDING C MECHANICAL & ELECTRICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"

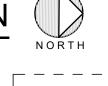
IDEA MISSION - BUILDING E ACCU SCHEDULE

IDE/ \ II	11001011	DOILDIN	0 L /1000	OOHE											
MADIA	050/410	EXISTING	EXISTING MODEL	TOTAL	NOMINAL	COND	ELECTRICAL	EER	NUMBER OF	(CIRC	CUIT)	WEIGHT	NOTEO	MANUEAGTURER	MODEL NUMBER
MARK	SERVING	MANUFACTURER	NUMBER	MBTUH	TONS	DB	V-PH-HZ	AT ARI	CIRCUITS	MCA	MOCP	(LBS.)	NOTES	MANUFACTURER	MODEL NUMBER
ACCU-B	AHU-B	YORK	J20YDC00A4BLH2A	201	20	105	460-3-60	13.8	2	40.8	50	930	ALL	YORK	YD240C00A4ELM5
ACCU-C	AHU-C	YORK	L30YDC00A4BTA1A	314	30	105	460-3-60	11.1	2	63.5	70	1875	ALL	YORK	YD360C00A4EEB2

- 2. EER SHALL EXCEED IECC MINIMUM EFFICIENCY AT DESIGN CONDITIONS. 3. PROVIDE CONDENSER COIL HAIL GUARDS, E-COATED COILS, AND LOW AMBIENT CONTROL.
- 4. PROVIDE BACNET INTERFACE.
- 5. SAFETY DISCONNECT TO BE PROVIDED BY DIV. 26.
- 6. INSULATE REFRIGERANT LINES AS PER SPECIFICATIONS. PROVIDE UV RESISTANT PAINTED JACKETING AROUND INSULATION FOR ALL EXTERIOR EXPOSED LINES
- 7. PROVIDE FACTORY INSTALLED APRIVALVE. PROVIDE THERMOSTAT TO PROVIDE 2 STAGES OF MODULATION PER CONDENSING UNIT. PROVIDE ALL NEW REFRIGERANT SPECIALTIES, EXPANSION VALVES, ETC.



IDEA MISSION BUILDING E 02 ENLARGED MECHANICAL & ELECTRICAL FLOOR PLAN



RE: M3.4/2 FOR ENLARGED —

MECHANICAL PLAN

IDEA MISSION - BUILDING F ACCU SCHEDULE (ALTERNATE #2)

IDEA		DOILDIN	O L ACCO	OOIIL	DOLL			- 11 2)							
		EXISTING	EXISTING MODEL	TOTAL	NOMINAL	COND	ELECTRICAL	EER / IEER	NUMBER OF	(CIRC	CUIT)	WEIGHT			
MARK	SERVING	MANUFACTURER		MBTUH	TONS	DB	V-PH-HZ	AT ARI	CIRCUITS	MCA	MOCP	(LBS.)	NOTES	MANUFACTURER	MODEL NUMBER
ACCU-A	AHU-A	YORK	J20YDC00A4BLH2A	201	20	105	460-3-60	13.8	2	40.8	50	930	ALL	YORK	YD240C00A4ELM5
ACCII-D	AHILD	VORK	ISOVD COO A/RTA1A	522	50	105	460-3-60	11 /	2	an 7	100	2200	ΔΙΙ	VODK	VD600C00A4EER2

- 2. EER SHALL EXCEED IECC MINIMUM EFFICIENCY AT DESIGN CONDITIONS.
- 3. PROVIDE CONDENSER COIL HAIL GUARDS, E-COATED COILS, AND LOW AMBIENT CONTROL
- 4. PROVIDE BACNET INTERFACE.
- SAFETY DISCONNECT TO BE PROVIDED BY DIV. 26.
- 6. INSULATE REFRIGERANT LINES AS PER SPECIFICATIONS. PROVIDE UV RESISTANT PAINTED JACKETING AROUND INSULATION FOR ALL EXTERIOR EXPOSED LINES.
- 7. PROVIDE FACTORY INSTALLED APR VALVE. PROVIDE THERMOSTAT TO PROVIDE 2 STAGES OF MODULATION PER CONDENSING UNIT. PROVIDE ALL NEW REFRIGERANT SPECIALTIES, EXPANSION VALVES, ETC.

EQUIPMENT CONNECTION SCHEDULE:

							EXISTING BRANCH CIRCUIT	NEW BRANCH CIRCUIT	EXISTING
DESIGN	NEW MCA	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	(75° COPPER)	(75° COPPER)	POWER SOURCE
ACCU-B	40.8	50	2) 50	480V/3PHASE	CIRCUIT BREAKER WITHIN SIGHT	RETAIN EXISTING.	1" - 3#8 & #10G	RETAIN EXISTING	MDP1
ACCU-C	63.5	110	1) 70	480V/3PHASE	CIRCUIT BREAKER WITHIN SIGHT	RETAIN EXISTING.	REMOVE EXISTING WIRING	3) 1.25" – 3#3 & #8G	MDP1
ALTERNATE ;	‡2			,					
ACCU-A	40.8	50	2) 50	480V/3PHASE	CIRCUIT BREAKER WITHIN SIGHT	RETAIN EXISTING.	1" - 3#8 & #10G	RETAIN EXISTING	MDP1
ACCU-D	90.7	90	1) 100	480V/3PHASE	CIRCUIT BREAKER WITHIN SIGHT	RETAIN EXISTING.	REMOVE EXISTING WIRING	3) 1.25" - 3#3 & #8G	MDP1

A) LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES. B) PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

ACCU-D

1) REMOVE EXISTING CIRCUIT BREAKER AND PROVIDE NEW TO MATCH NEW MOCP. PROVIDE UL LISTED UNIT FROM EXISTING MANUFACTURER (SQUARE "D"). MATCH EXISTING KAIC.

2) RETAIN AND REUSE EXISTING CIRCUIT BREAKER. 3) RETAIN AND REUSE EXISTING RACEWAY.

PANELBOARD "MDP1" (EXISTING): SQUARE "D", I-LINE, 800A, 277/480V, 3ø, 4W.

MECHANICAL KEYED NOTES:

- 1 RETAIN EXISTING REFRIGERANT PIPING FOR REINSTALLATION. CLEAN AND VACUUM REFRIGERANT PIPING. REPLACE ALL REFRIGERANT SPECIALTIES, SERVICE VALVES, GASKETS, EXPANSION VALVES, ETC. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' CONNECTIONS. RECONNECT TO EXISTING PIPING TO CREATE A FULLY OPERATIONAL SYSTEM.
- 2 DEMOLISH EXISTING AIR COOLED CONDENSING UNIT. PROVIDE NEW AIR COOLED CONDENSING UNIT AND INSULATE REFRIGERANT PIPING PER SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND EXTEND EXISTING HOUSEKEEPING CONCRETE PADS AS NECESSARY TO ACCOMMODATE NEW EQUIPMENT. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA. BOLT EQUIPMENT DOWN TO CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL
- 3 PROVIDE NEW 1" INSULATION ON ALL REFRIGERANT LINES BOTH NEW AND EXISTING. PROVIDE ALUMINUM JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS PER SPECIFICATIONS. SEE ASSOCIATED
- 4 RETAIN EXISTING SLEEVE AT ALL PENETRATIONS PER SPECIFICATIONS WHERE

ALTERNATE #2 MECHANICAL KEYED NOTES:

- 1 RETAIN EXISTING REFRIGERANT PIPING FOR REINSTALLATION. CLEAN AND VACUUM REFRIGERANT PIPING. REPLACE ALL REFRIGERANT SPECIALTIES, SERVICE VALVES, GASKETS, EXPANSION VALVES, ETC. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' CONNECTIONS. RECONNECT TO EXISTING PIPING TO CREATE A FULLY OPERATIONAL SYSTEM.
- 2 DEMOLISH EXISTING AIR COOLED CONDENSING UNIT. PROVIDE NEW AIR COOLED CONDENSING UNIT AND INSULATE REFRIGERANT PIPING PER SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND EXTEND EXISTING HOUSEKEEPING CONCRETE PADS AS NECESSARY TO ACCOMMODATE NEW EQUIPMENT. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA. BOLT EQUIPMENT DOWN TO CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
- 3 PROVIDE NEW 1" INSULATION ON ALL REFRIGERANT LINES BOTH NEW AND EXISTING. PROVIDE ALUMINUM JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS PER SPECIFICATIONS. SEE ASSOCIATED DETAIL.
- 4 RETAIN EXISTING SLEEVE AT ALL PENETRATIONS PER SPECIFICATIONS WHERE

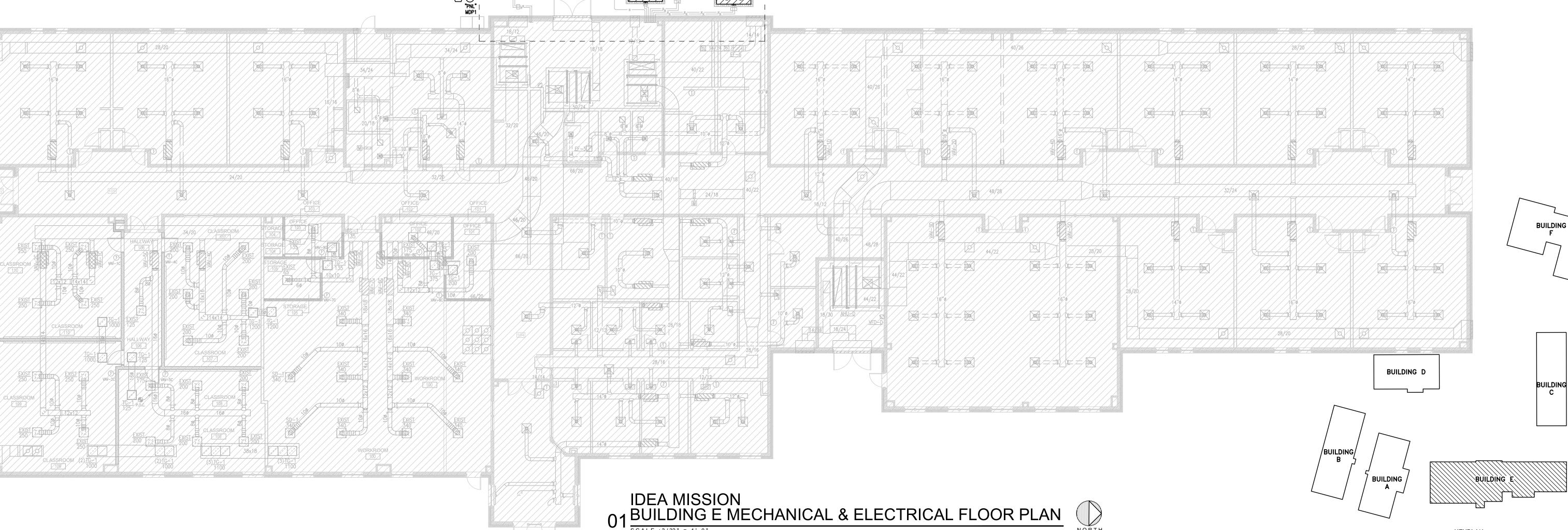
ELECTRICAL KEYED NOTES:

- (1) APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- 2 DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.

ALTERNATE #2 ELECTRICAL KEYED NOTES:

- 1) APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- 2 DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.

KEYPLAN



NO: REVISION: BY

LEGEND

TO BE REMAIN

TO REMAIN

REMAIN

6x6

EXISTING SUPPLY DIFFUSER

EXISTING RETURN AIR GRILLE

EXISTING DUCTWORK TO

EXISTING EQUIPMENT TO

NEW DUCTWORK

NEW EQUIPMENT

PIPING TO BE INSTALLED

EXISTING PIPING TO REMAIN

RFP # 23-URMU-0424

次 CESAR A. GONZALEZ

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D \bigcirc **PUBLIC** MECHA RGV IDEA UPPER



MARCH 15, 20 CHECKED BY: DRAWN BY: PROJECT NO.:

ſ			EXISTING	EXISTING	TOTAL	NOMINAL	COND	ELECTRICAL	EER	STEPS OF	(CIR	CUIT)	WEIGHT			
	MARK	SERVING	MANUFACTURER	MODEL NUMBER	MBTUH	TONS	DB	V-PH-HZ	AT ARI	CAPACITY	MCA	MOCP	(LBS.)	NOTES	MANUFACTURER	MODEL NUMBE
	ACCU-B1	AHU-B1	JONHSON CONTROLS	J20YDC00A4AA B2A	209	20	100	480-3-60	13.8	2	40.8	50	930	ALL	JONHSON CONTROLS	YD240C00A4EEI

1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS AND SUBSTITUTION PROCEDURES.

2. EER SHALL EXCEED IECC MINIMUM EFFICIENCY AT DESIGN CONDITIONS.

3. PROVIDE LOUVERED HAIL GUARD, LOW AMBIENT KIT, SIGHT GLASS, SERVICE VALVES, FILTER DRYER, SOLENOID VALVES, TXVS, ANTI-SHORT CYCLE TIMER

4. PROVIDE CONDENSER COIL COATING AS PER SPECIFICATIONS. 5. SAFETY DISCONNECT TO BE PROVIDED BY DIV. 26.

7. INSULATE REFRIGERANT LINES AS PER SPECIFICATIONS. PROVIDE UV RESISTANT PAINTED JACKETING AROUND INSULATION FOR ALL EXTERIOR EXPOSED LINES.

8. MOUNT ON 4" CONCRETE HOUSEKEEPING PAD AND MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES. BOLT CONDENSING UNIT DOWN TO CONCRETE PAD.

9. PROVIDE FACTORY INSTALLED APR VALVE. PROVIDE THERMOSTAT TO PROVIDE 2 STAGES PER CONDENSING UNIT.

EQUIPMENT CONNECTION SCHEDULE:

DESIGN	NEW HP	NEW	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT (75° COPPER)	NEW BRANCH CIRCUIT (75° COPPER)	EXISTING POWER SOURCE
		MCA								
RTU-B2	3HP	38	50	1) 60	480V/3PHASE	60A, 3PNF, 600V, NEMA 3R	RETAIN EXISTING.	1" - 3#8 & #10G	RETAIN EXISTING	HC
RTU-B4	3HP	52.4	70	2) 60	480V/3PHASE	REMOVE EXISTING	60A, 3P3F, 60AF, 600V, NEMA 3R	1" - 3#4 & #10G	RETAIN EXISTING	HK
ACCU-B1	_	40.8	60	1) 50	480V/3PHASE	60A, 3P3F, 600V, NEMA 3R	RETAIN EXISTING.	1" - 3#6 & #10G	RETAIN EXISTING	HC

A) LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES. B) PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

MIN.

1) SWAP EXISTING CIRCUIT BREAKERS TO MATCH NEW MOCP. 2) RETAIN AND REUSE EXISTING CIRCUIT BREAKER.

NOTES

PANELBOARD "HC" (EXISTING): SIEMENS, TYPE P3, 400A, 277/480V, 3ø, 4W.

MANUFACTURER

MODEL NUMBER

ELECTRICAL KEYED NOTES:

- (1) APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- 2 DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.
- (3) APPROXIMATE LOCATION OF EXISTING NOTIFIER NFS-320 FIRE ALARM CONTROL PANEL (SEE KEY PLAN). PRIME CONTRACTORS SHALL CONTACT PRE-APPROVED SUBCONTRACTORS TO WORK ON SUCH SYSTEM AS BUT NOT LIMITED TO: SUPERIOR ALARMS (956) 793-9771.

PNL "HK"

(4) APPROXIMATE LOCATION OF EXISTING PANELBOARD "HC" (SEE KEY PLAN).

MECHANICAL KEYED NOTES:

1 DEMOLISH EXISTING RTU AND PROVIDE NEW RTU ON NEW ROOF CURB AS SCHEDULED. ORIENT RTU'S TO OPTIMIZE CONNECTION TO EXISTING DUCTWORK. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE COPPER CONDENSATE DRAIN LINES WITH P-TRAPS AND CONNECT TO EXISTING CONDENSATE SYSTEM. PROVIDE PIPING SUPPORTS AS DETAILED. DEMOLISH EXISTING CURB AND PROVIDE NEW ROOF CURB TO INSTALL EQUIPMENT ON ROOF. SECURE EQUIPMENT TO ROOF CURB AND TO ROOF STRUCTURE AS PER DIV. 7 SPECIFICATIONS. ATTACHMENTS SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES. PROVIDE NEW DDC CONTROLS FOR RTU AS SCHEDULED. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

—_R —

LEGEND

TO REMAIN

TO REMAIN

REMAIN

REMAIN

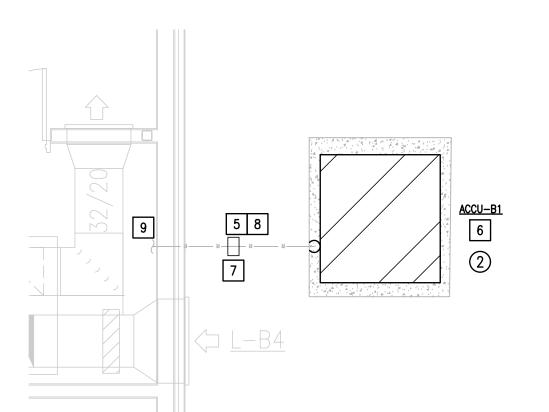
NEW EQUIPMENT

EXISTING SUPPLY DIFFUSER

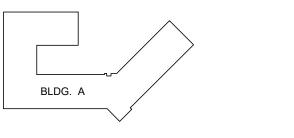
EXISTING RETURN AIR GRILLE

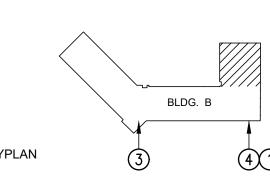
EXISTING DUCTWORK TO

- 2 PROVIDE CONVENIENCE ELECTRICAL OUTLET AT INDICATED RTU. COORDINATE WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ELECTRICAL CONTRACTOR.
- 3 CONNECT EXISTING FULL SIZE DUCT WORK FROM CEILING SPACE BELOW TO NEW RTU SA AND RA OPENINGS. TRANSITION AS NECESSARY.
- 4 ROUTE FULL SIZE CONDENSATE TO EXISTING ROOF PENETRATION SYSTEM. SEE ASSOCIATED DETAIL. COORDINATE INSTALLATION WITH PLUMBING CONTRACTOR. PROVIDE COPPER CONDENSATE PIPING ON ROOF AND PROVIDE SUPPORTS AS PER DETAIL. REFER TO DETAIL SHEET. (TYPICAL)
- 5 RETAIN EXISTING REFRIGERANT PIPING FOR REINSTALLATION. CLEAN AND VACUUM REFRIGERANT PIPING. REPLACE ALL REFRIGERANT SPECIALTIES, SERVICE VALVES, GASKETS, EXPANSION VALVES, ETC. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' CONNECTIONS. RECONNECT TO EXISTING PIPING TO CREATE A FULLY OPERATIONAL SYSTEM.
- 6 DEMOLISH EXISTING AIR COOLED CONDENSING UNIT. PROVIDE NEW AIR COOLED CONDENSING UNIT AND INSULATE REFRIGERANT PIPING PER SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND EXTEND EXISTING HOUSEKEEPING CONCRETE PADS AS NECESSARY TO ACCOMMODATE NEW EQUIPMENT. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA. BOLT EQUIPMENT DOWN TO CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
- 7 PROVIDE NEW REFRIGERANT LINE SUPPORTS. SEE ASSOCIATED DETAIL. (TYPICAL)
- PETAIN EXISTING SLEEVE AT ALL PENETRATIONS PER SPECIFICATIONS WHERE POSSIBLE. SEAL AROUND NEW PIPING WITH FIRE PROOF CAULKING. PROVIDE NEW



ENLARGED MECHANICAL & ELECTRICAL FLOOR PLAN





EXISTING EQUIPMENT TO CESAR A. GONZALEZ PIPING TO BE INSTALLED EXISTING PIPING TO REMAIN

NO: REVISION: BY

RFP # 23-URMU-0424

O **PUBLIC** MECHA

RGV

UPPER

IDEA

IDEA EDINBURG -BUILDING B DX ROOF TOP UNIT SCHEDULE **ESP** MIN. MCA MOCP ELECTRICAL AIR ON CONVENIENCE **ROOF CURB** EXISTING MODEL # TOTAL SENSIBLE EAT (INCHES) | HP | A V-PH-HZ COND. KW STAGES OUTLETS EER/IEER **MBTUH MBTUH** DB/WB

2. HOODED/LOUVERED HAIL GUARDS, ECOATED CONDENSER COILS, MOTORIZED OA AND RA DAMPERS WITH ECONOMIZER CONTROL, INVERTER COMPRESSOR FOR MODULATING COOLING AND PRECISE DISCHARGE AIR TEMPERATURE CONTROL.

RTU-B2 J15ZJC00Q4AZZ20003A 4300 1400 460-3-60

185 110 78.5/68.6 **NEW** YES 11.4 / 20.2 DAIKIN DPS018A 55.1/55.1 3500 RTU-B4 J15ZJE36R4AZZ20002A 4300 1200 3 52.4 460-3-60 105 185 107 77.8/68.5 55.0/55.0 30 SCR NEW 11.2 / 20.1 3700 DAIKIN DPS018A 60

3. PROVIDE 2" DOUBLE WALL CONSTRUCTION WITH R-13 INSULATION, STAINLESS STEEL DRAIN PANS, 2" MERV 8 GALVANIZED PRE-FILTER FRAMES, 4" MERV 13 DISPOSABLE AFTER-FILTERS, AND HINGED ACCESS DOORS.

1. COPPER CONDENSATE TRAP, TXV, FREEZE-STAT OPTIONS. PROVIDE NEW ROOF CURB WITH WINDSTORM CERTIFICATION.

4. FACTORY-INSTALLED FACTORY-POWERED CONVENIENCE ELECTRICAL OUTLETS. COORDINATE WITH ELECTRICAL CONTRACTOR.

5. HEATING KW IN RTU SCHEDULE IS RATED HEATING CAPACITY, NOT NOMINAL KW. 6. FACTORY MOUNTED VARIABLE SPEED DRIVE AND MOTOR SHAFT GROUNDING RINGS.

7. FACTORY UNITARY CONTROLLERS AND BACNET INTERFACE. REFER TO EQUIPMENT SPECIFICATIONS AND CONTROLS SEQUENCE OF OPERATIONS FOR MORE INFORMATION.

8. EQUIPMENT MANUFACTURER, CONTRACTOR, AND CONTROLS CONTRACTOR TO COORDINATE PROVISION AND INSTALLATION OF SENSORS TO ENSURE THESE ARE ALL PROVIDED PROPERLY.

9. FOR RTU-B1 AND B2: TRUE VAV OPERATION TO MODULATE FAN SPEED BASED ON DUCT MOUNTED STATIC PRESSURE SENSOR.

10. FOR RTU-B1 AND B2: CO2 BASED DEMAND CONTROLLED VENTILATION USING RETURN DUCT MOUNTED CO2 SENSOR. 11. FOR RTU-B4: VAV OPERATION TO MODULATE FAN SPEED BASED ON SPACE TEMPERATURE AND RETURN AIR SENSORS. CO2 BASED DCV IS NOT REQUIRED.

12. FOR RTU-B4: WALL MOUNTED TEMPERATURE AND HUMIDITY SENSORS, HOT GAS REHEAT COILS WITH TWO POINT TEMPERATURE CONTROL FOR DEHUMIDIFICATION.

13. PROVIDE SINGLE POINT ELECTRICAL CONNECTION FOR THE PACKAGED ROOFTOP UNIT.

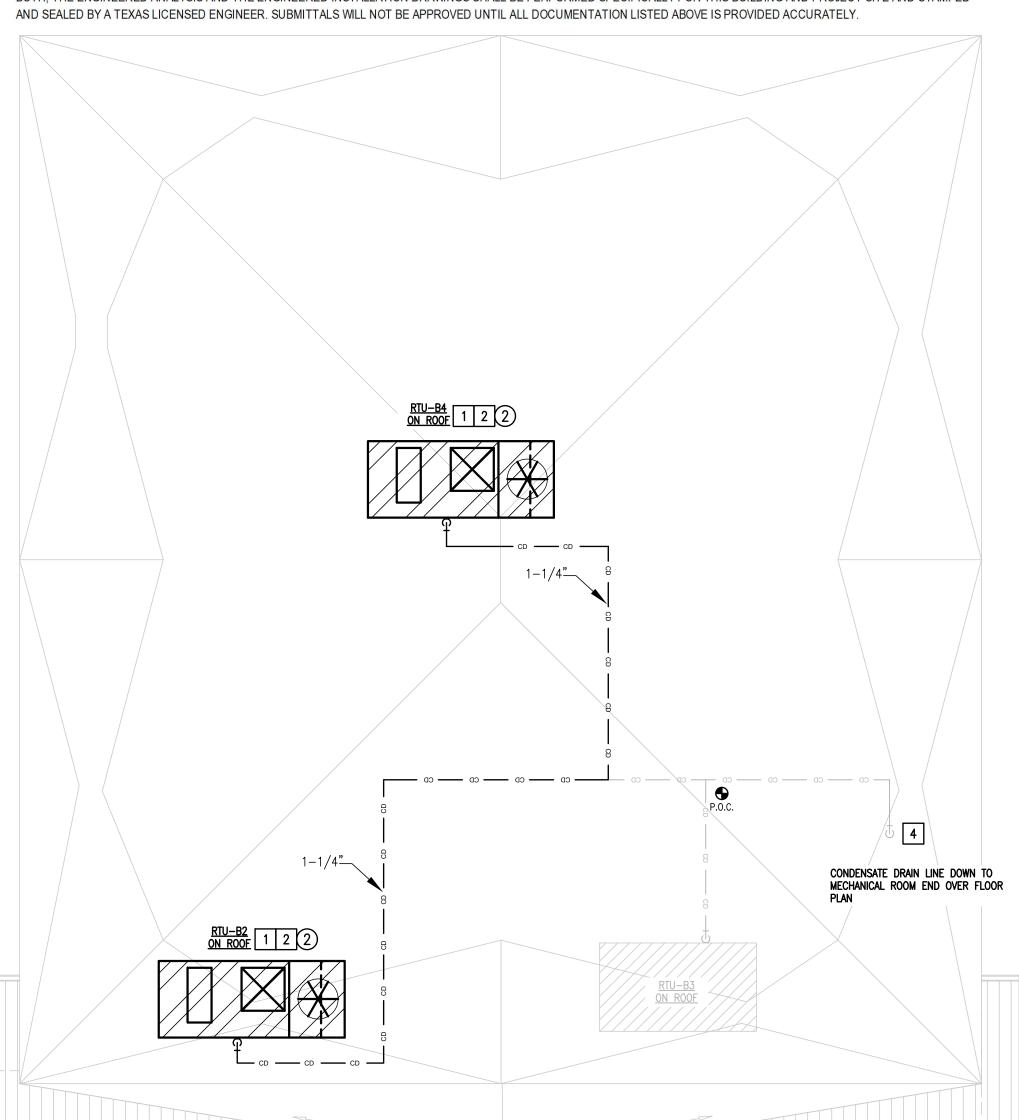
14. PROVIDE IBC COMPLIANT CURB AND ATTACHMENTS FROM UNIT TO CURB AND CURB TO STRUCTURE. EQUIPMENT OR CURB MANUFACTURER IS RESPONSIBLE FOR PROVIDING ENGINEERED DETAIL ANALYSIS OF

1) ATTACHMENT OF EQUIPMENT TO CURB OR PAD. 2) CURB TO STRUCTURE.

3) CURB AND ATTACHMENT HARDWARE STRENGTH.

REFER TO STRUCTURAL DRAWINGS FOR ROOF SUBSTRATE DETAILS.

EQUIPMENT OR CURB MANUFACTURER IS ALSO RESPONSIBLE FOR PROVIDING ENGINEERED INSTALLATION DRAWINGS FOR ITEMS 1 AND 2 LISTED ABOVE. BOTH, THE ENGINEERED ANALYSIS AND THE ENGINEERED INSTALLATION DRAWINGS SHALL BE PERFORMED SPECIFICALLY FOR THIS BUILDING AND PROJECT SITE AND STAMPED



IDEA EDINBURG BUILDING B MECHANICAL & ELECTRICAL ROOF PLAN

IDEA EDINBURG BUILDING B MECHANICAL & ELECTRICAL FLOOR PLAN

RTU-B4 ON ROOF 3 2

MULTI PURPOSE

GENERAL NOTES:

A) LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES.

B) PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

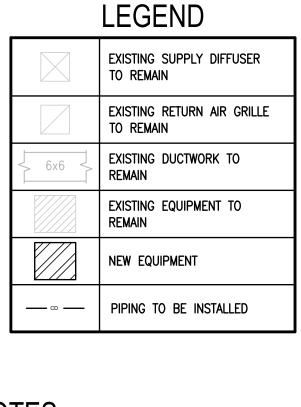
1) RETAIN AND REUSE EXISTING CIRCUIT BREAKER.

IDEA EDINBURG - BUILDING B DX ROOF TOP UNIT SCHEDULE

	NOMINAL		SUPPLY	ΟΛ.	ESP	MINI	MCA	MOCP	ELECTRICAL	AID ON		COOL	ING		HEA	ATING		CONVENIENCE	MIN	WEIGHT		MANUFACTURER,
MARK	TONS	EXISTING MODEL#	CFM	CFM	(INCHES)	HP	A	A	V-PH-HZ	COND.	TOTAL	SENSIBLE	EAT	LAT	KW	STAGES	ROOF CURB	OUTLETS	EER/IEER	(LBS.)	NOTES	MODEL NUMBER
					(MBTUH	MBTUH	DB/WB	DB/WB	IXVV	STAGES		00,121,0		(===,)		
RTU-B1	25	J25ZJC0044AZZ20002A	6000	2000	1.5	5	59	80	460-3-60	105	280	155	77.5/68.7	53.9/53.9	=	¥	NEW	YES	10.5 / 17.4	3600	ALL	DAIKIN DPS025A

1. COPPER CONDENSATE TRAP, TXV, FREEZE-STAT OPTIONS, PROVIDE NEW ROOF CURB WITH WINDSTORM CERTIFICATION.

- 2. HOODED/LOUVERED HAIL GUARDS, ECOATED CONDENSER COILS, MOTORIZED OA AND RA DAMPERS WITH ECONOMIZER CONTROL, INVERTER COMPRESSOR FOR MODULATING COOLING AND PRECISE DISCHARGE AIR TEMPERATURE CONTROL.
- 3. PROVIDE 2" DOUBLE WALL CONSTRUCTION WITH R-13 INSULATION, STAINLESS STEEL DRAIN PANS, 2" MERV 8 GALVANIZED PRE-FILTER FRAMES, 4" MERV 13 DISPOSABLE AFTER-FILTERS, AND HINGED ACCESS DOORS.
- 4. FACTORY-INSTALLED FACTORY-POWERED CONVENIENCE ELECTRICAL OUTLETS. COORDINATE WITH ELECTRICAL CONTRACTOR.
- 5. HEATING KWIN RTU SCHEDULE IS RATED HEATING CAPACITY, NOT NOMINAL KW.
- 6. FACTORY MOUNTED VARIABLE SPEED DRIVE AND MOTOR SHAFT GROUNDING RINGS.
- 7. FACTORY UNITARY CONTROLLERS AND BACNET INTERFACE. REFER TO EQUIPMENT SPECIFICATIONS AND CONTROLS SEQUENCE OF OPERATIONS FOR MORE INFORMATION.
- 8. EQUIPMENT MANUFACTURER, CONTRACTOR, AND CONTROLS CONTRACTOR TO COORDINATE PROVISION AND INSTALLATION OF SENSORS TO ENSURE THESE ARE ALL PROVIDED PROPERLY.
- 9. FOR RTU-B1 AND B2: TRUE VAV OPERATION TO MODULATE FAN SPEED BASED ON DUCT MOUNTED STATIC PRESSURE SENSOR.
- 10. FOR RTU-B1 AND B2: CO2 BASED DEMAND CONTROLLED VENTILATION USING RETURN DUCT MOUNTED CO2 SENSOR.
- 11. FOR RTU-B4: VAV OPERATION TO MODULATE FAN SPEED BASED ON SPACE TEMPERATURE AND RETURN AIR SENSORS. CO2 BASED DCV IS NOT REQUIRED.
- 12. FOR RTU-B4: WALL MOUNTED TEMPERATURE AND HUMIDITY SENSORS, HOT GAS REHEAT COILS WITH TWO POINT TEMPERATURE CONTROL FOR DEHUMIDIFICATION.
- 13. PROVIDE SINGLE POINT ELECTRICAL CONNECTION FOR THE PACKAGED ROOFTOP UNIT.
- 14. PROVIDE IBC COMPLIANT CURB AND ATTACHMENTS FROM UNIT TO CURB AND CURB TO STRUCTURE. EQUIPMENT OR CURB MANUFACTURER IS RESPONSIBLE FOR PROVIDING ENGINEERED DETAIL ANALYSIS OF:
- 1) ATTACHMENT OF EQUIPMENT TO CURB OR PAD.
- 2) CURB TO STRUCTURE.
- 3) CURB AND ATTACHMENT HARDWARE STRENGTH.
- REFER TO STRUCTURAL DRAWINGS FOR ROOF SUBSTRATE DETAILS.
- EQUIPMENT OR CURB MANUFACTURER IS ALSO RESPONSIBLE FOR PROVIDING ENGINEERED INSTALLATION DRAWINGS FOR ITEMS 1 AND 2 LISTED ABOVE.
- BOTH, THE ENGINEERED ANALYSIS AND THE ENGINEERED INSTALLATION DRAWINGS SHALL BE PERFORMED SPECIFICALLY FOR THIS BUILDING AND PROJECT SITE AND STAMPED
- AND SEALED BY A TEXAS LICENSED ENGINEER. SUBMITTALS WILL NOT BE APPROVED UNTIL ALL DOCUMENTATION LISTED ABOVE IS PROVIDED ACCURATELY.

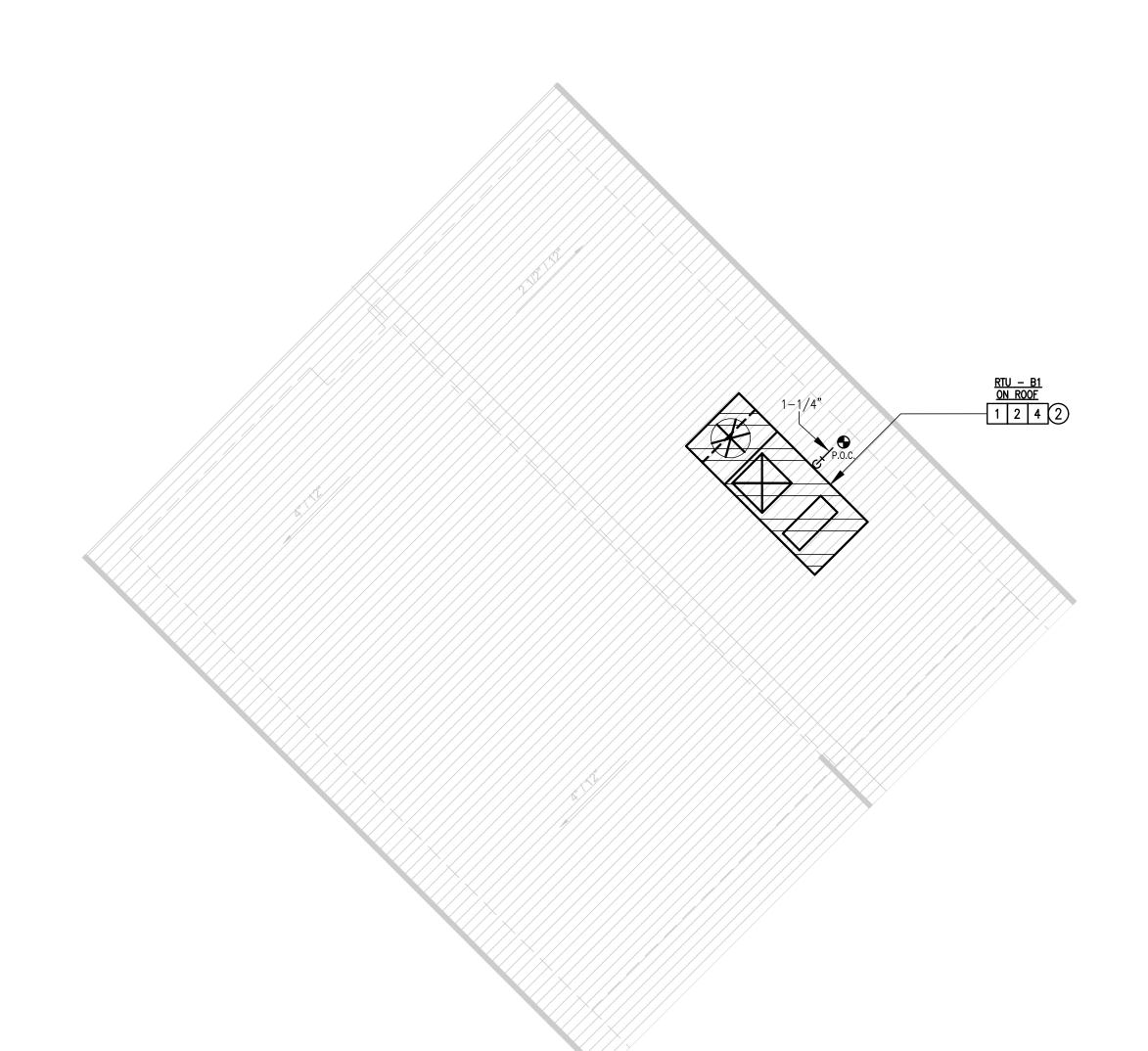


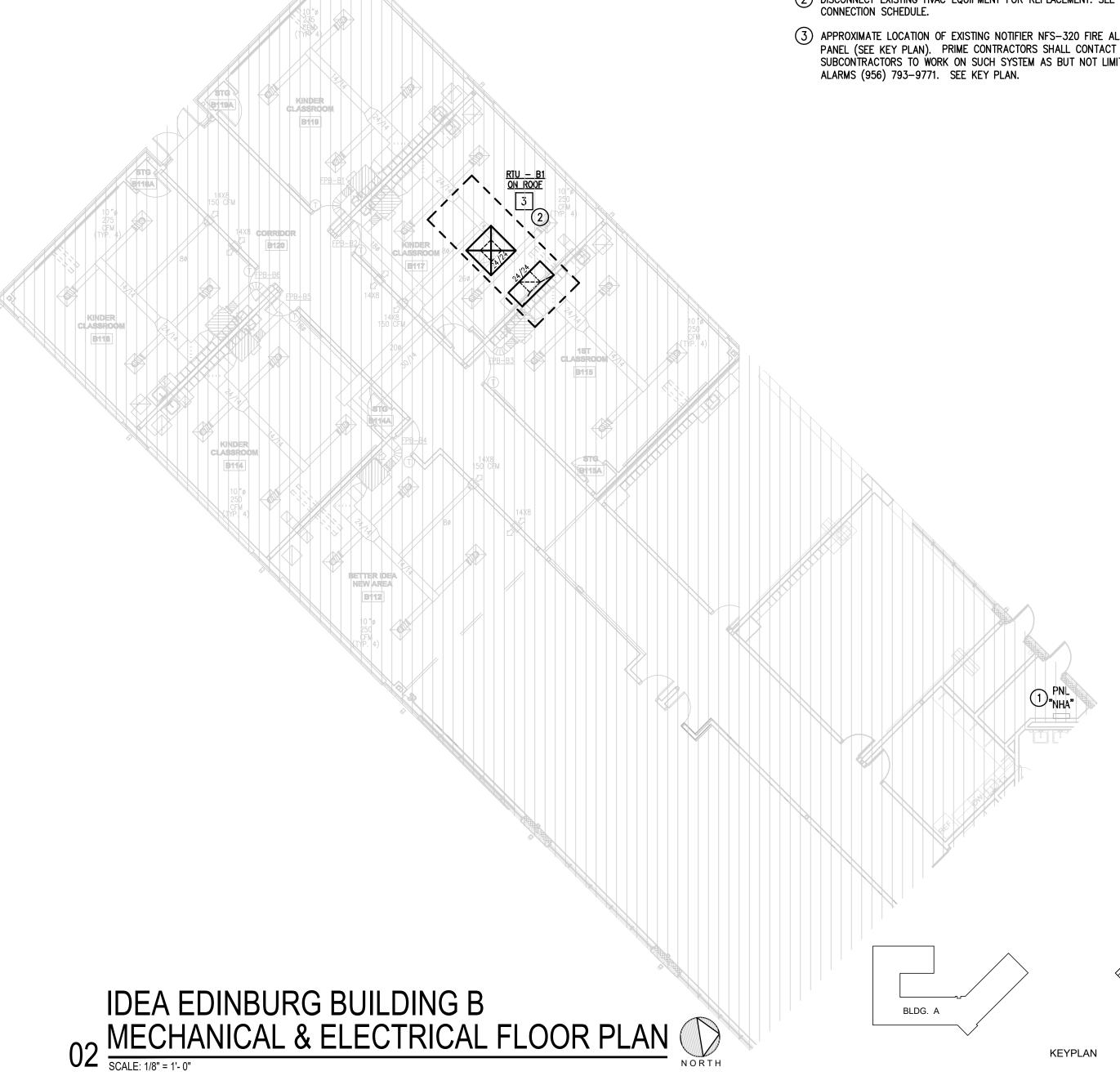
MECHANICAL KEYED NOTES:

- 1 DEMOLISH EXISTING RTU AND PROVIDE NEW RTU ON NEW ROOF CURB AS SCHEDULED. ORIENT RTU'S TO OPTIMIZE CONNECTION TO EXISTING DUCTWORK. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE COPPER CONDENSATE DRAIN LINES WITH P-TRAPS. PROVIDE PIPING SUPPORTS AS DETAILED. DEMOLISH EXISTING CURB AND PROVIDE NEW ROOF CURB TO INSTALL EQUIPMENT ON ROOF. SECURE EQUIPMENT TO ROOF CURB AND TO ROOF STRUCTURE AS PER DIV. 7 SPECIFICATIONS. ATTACHMENTS SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES. PROVIDE NEW DDC CONTROLS FOR RTU AS SCHEDULED. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
- PROVIDE CONVENIENCE ELECTRICAL OUTLET AT INDICATED RTU. COORDINATE WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ELECTRICAL CONTRACTOR.
- 3 CONNECT EXISTING FULL SIZE DUCT WORK FROM CEILING SPACE BELOW TO NEW RTU SA AND RA OPENINGS. TRANSITION AS NECESSARY.
- 4 PROVIDE FULL SIZE CONDENSATE AND ROUTE TO EXISTING ROOF PENETRATION SYSTEM. SEE ASSOCIATED DETAIL. COORDINATE INSTALLATION WITH PLUMBING CONTRACTOR.

ELECTRICAL KEYED NOTES:

- (1) APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- 2 DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.
- (3) APPROXIMATE LOCATION OF EXISTING NOTIFIER NFS-320 FIRE ALARM CONTROL PANEL (SEE KEY PLAN). PRIME CONTRACTORS SHALL CONTACT PRE-APPROVED SUBCONTRACTORS TO WORK ON SUCH SYSTEM AS BUT NOT LIMITED TO: SUPERIOR ALARMS (956) 793-9771. SEE KEY PLAN.





IDEA EDINBURG BUILDING B

MECHANICAL & ELECTRICAL ROOF PLAN

SCALE: 1/8" = 1'-0"

RFP # 23-URMU-0424

NO: REVISION: BY

ME4.2

GENERAL NOTES:

A) LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES.

B) PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

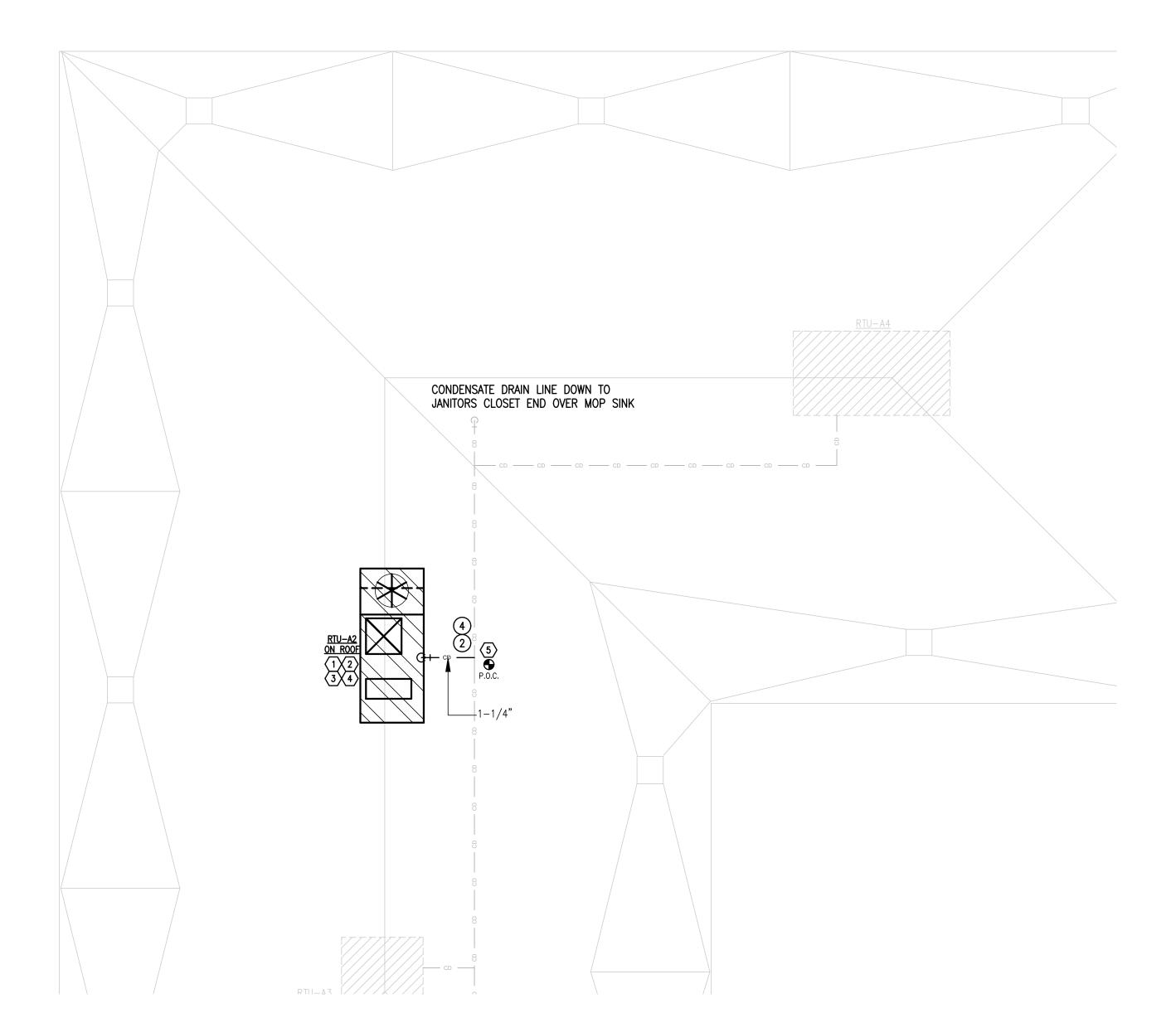
1) REMOVE EXISTING CIRCUIT BREAKER AND PROVIDE NEW TO MATCH NEW MOCP. PROVIDE UL LISTED UNIT FROM EXISTING MANUFACTURER (SIEMENS). MATCH EXISTING KAIC.

PANELBOARD "HCA" (EXISTING): SIEMENS, TYPE P4, 800A, 277/480V, 3ø, 4W.

IDEA EDINBURG - BUILDING A DX ROOF TOP UNIT SCHEDULE - ALTERNATE #3

	NOMINAI		SUPPLY	ΟΔ	ESD	MIN	MCΔ	MOCP	ELECTRICAL	AID ON		COOL	LING		HEA	TING		CONVENIENCE	MIN.	WEIGHT		MANUFACTURER,
MARK	TONS	EXISTING MODEL #	CFM	CFM	(INCHES)	HP	A	A		COND.	TOTAL	SENSIBLE	EAT	LAT	KW	MBTUH	ROOF CURB		EER/IPLV	I I	NOTES	MODEL NUMBER
	10110		OT IVI	OT III	(IIIIIII)	111	7.	,,	V 17(1)2	OOND.	MBTUH	MBTUH	DB/WB	DB/WB	IXVV	WIDTOTT		0012210	LLIVIILV	(LBO.)		
RTU-A2	18	J18ZJC00C4AZZ0001A	4550	1400	1.5	3	38	60	460-3-60	105	186	109	77.3/68.3	55.5/55.4	NA	NA	NEW	YES	11.4/20.2	3500	ALL	DAIKIN DPS018A

- 1. COPPER CONDENSATE TRAP, TXV, FREEZE-STAT OPTIONS. PROVIDE NEW ROOF CURB WITH WINDSTORM CERTIFICATION.
- 2. HOODED/LOUVERED HAIL GUARDS, ECOATED CONDENSER COILS, MOTORIZED OA AND RA DAMPERS WITH ECONOMIZER CONTROL, INVERTER COMPRESSOR FOR MODULATING COOLING AND PRECISE DISCHARGE AIR TEMPERATURE CONTROL.
- 3. PROVIDE 2" DOUBLE WALL CONSTRUCTION WITH R-13 INSULATION, STAINLESS STEEL DRAIN PANS, 2" MERV 8 GALVANIZED PRE-FILTER FRAMES, 4" MERV 13 DISPOSABLE AFTER-FILTERS, AND HINGED ACCESS DOORS.
- 4. FACTORY-INSTALLED FACTORY-POWERED CONVENIENCE ELECTRICAL OUTLETS. COORDINATE WITH ELECTRICAL CONTRACTOR.
- 5. FACTORY MOUNTED VARIABLE SPEED DRIVE AND MOTOR SHAFT GROUNDING RINGS.
- 6. TRUE VAV OPERATION TO MODULATE FAN SPEED BASED ON DUCT MOUNTED STATIC PRESSURE SENSOR.
- 7. CO2 BASED DEMAND CONTROLLED VENTILATION USING RETURN DUCT MOUNTED CO2 SENSOR.
- 8. FACTORY UNITARY CONTROLLERS AND BACNET INTERFACE. REFER TO EQUIPMENT SPECIFICATIONS AND CONTROLS SEQUENCE OF OPERATIONS FOR MORE INFORMATION.
- 9. EQUIPMENT MANUFACTURER, CONTRACTOR, AND CONTROLS CONTRACTOR TO COORDINATE PROVISION AND INSTALLATION OF SENSORS TO ENSURE THESE ARE ALL PROVIDED PROPERLY.
- 10. PROVIDE SINGLE POINT ELECTRICAL CONNECTION FOR THE PACKAGED ROOFTOP UNIT.
- 11. PROVIDE IBC COMPLIANT CURB AND ATTACHMENTS FROM UNIT TO CURB AND CURB TO STRUCTURE. EQUIPMENT OR CURB MANUFACTURER IS RESPONSIBLE FOR PROVIDING ENGINEERED DETAIL ANALYSIS OF:
- 1) ATTACHMENT OF EQUIPMENT TO CURB OR PAD.
- 2) CURB TO STRUCTURE.
- 3) CURB AND ATTACHMENT HARDWARE STRENGTH.
- REFER TO STRUCTURAL DRAWINGS FOR ROOF SUBSTRATE DETAILS.
- EQUIPMENT OR CURB MANUFACTURER IS ALSO RESPONSIBLE FOR PROVIDING ENGINEERED INSTALLATION DRAWINGS FOR ITEMS 1 AND 2 LISTED ABOVE.
- BOTH, THE ENGINEERED ANALYSIS AND THE ENGINEERED INSTALLATION DRAWINGS SHALL BE PERFORMED SPECIFICALLY FOR THIS BUILDING AND PROJECT SITE AND STAMPED
- AND SEALED BY A TEXAS LICENSED ENGINEER. SUBMITTALS WILL NOT BE APPROVED UNTIL ALL DOCUMENTATION LISTED ABOVE IS PROVIDED ACCURATELY



IDEA EDINBURG BUILDING A MECHANICAL & ELCTRICAL ROOF PLAN SCALE: 1/8" = 1'- 0" NORTH



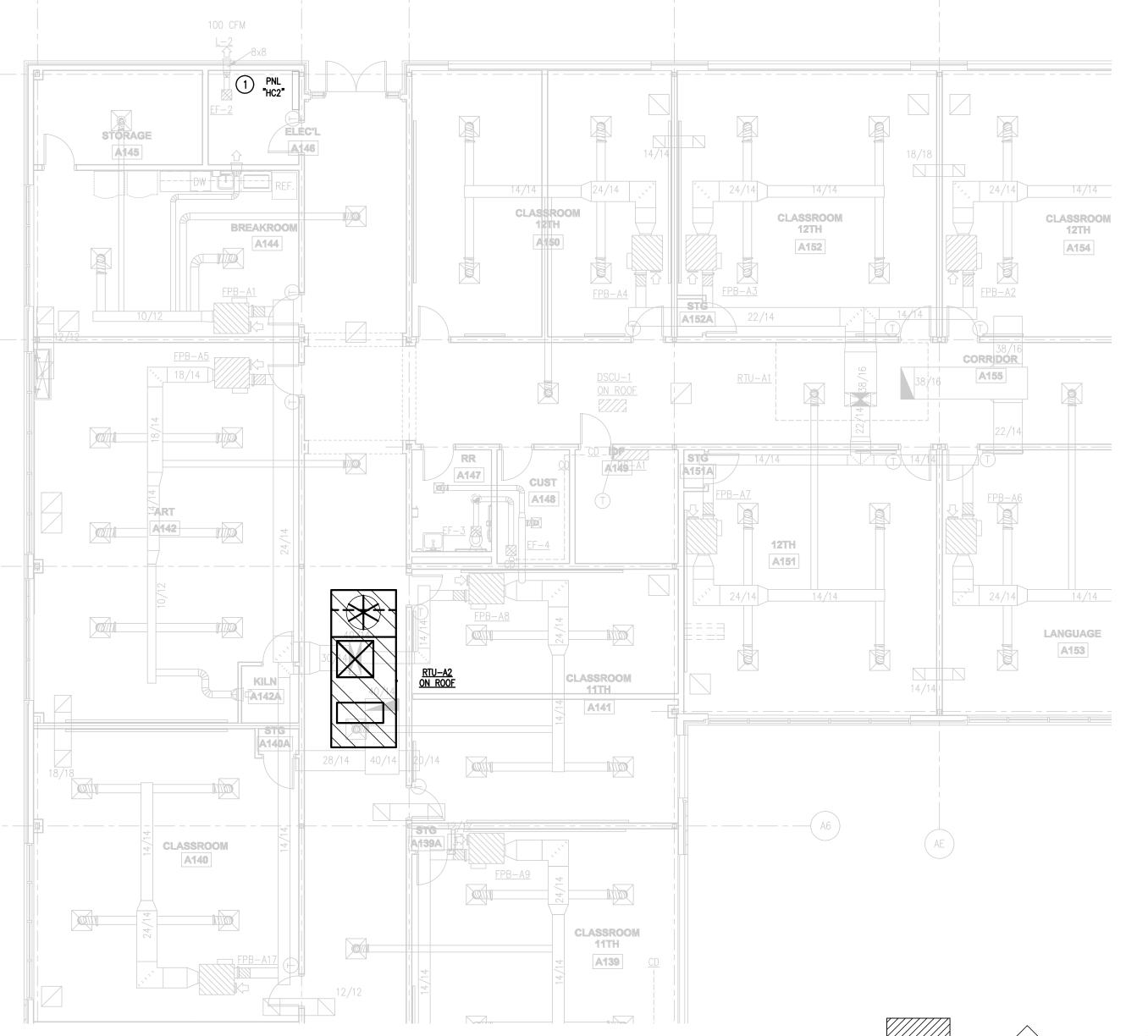
EXISTING EQUIPMENT TO REMAIN NEW EQUIPMENT PIPING TO BE INSTALLED EXISTING PIPING TO REMAIN

ALTERNATE #3 ELECTRICAL KEYED NOTES:

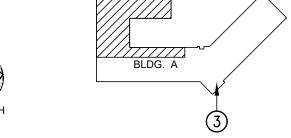
- (1) APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- 2 DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.
- (3) APPROXIMATE LOCATION OF EXISTING NOTIFIER NFS-320 FIRE ALARM CONTROL PANEL (SEE KEY PLAN). PRIME CONTRACTORS SHALL CONTACT PRE-APPROVED SUBCONTRACTORS TO WORK ON SUCH SYSTEM AS BUT NOT LIMITED TO: SUPERIOR ALARMS (956) 793-9771.
- 4 REMOVE EXISTING ROOF MOUNTED CONVENIENCE RECEPTACLE COVER PLATE AND PROVIDE NEW WHILE "IN-USE" COVER PLATE HUBBELL MODEL NO. WP26E.

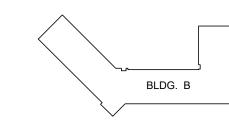
ALTERNATE #3 MECHANICAL KEYED NOTES:

- DEMOLISH EXISTING RTU AND PROVIDE NEW RTU ON NEW ROOF CURB AS SCHEDULED. ORIENT RTU'S TO OPTIMIZE CONNECTION TO EXISTING DUCTWORK. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE COPPER CONDENSATE DRAIN LINES WITH P-TRAPS, AND EXTEND TO NEAREST CONDENSATE DRAIN RECEPTOR. PROVIDE PIPING SUPPORTS AS DETAILED. DEMOLISH EXISTING CURB AND PROVIDE NEW ROOF CURB TO INSTALL EQUIPMENT ON ROOF. SECURE EQUIPMENT TO ROOF CURB AND TO ROOF STRUCTURE AS PER DIV. 7 SPECIFICATIONS. ATTACHMENTS SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES. PROVIDE NEW DDC CONTROLS FOR RTU AS SCHEDULED. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
- PROVIDE CONVENIENCE ELECTRICAL OUTLET AT INDICATED RTU. COORDINATE WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ELECTRICAL CONTRACTOR.
- CONNECT EXISTING FULL SIZE DUCT WORK FROM CEILING SPACE BELOW TO NEW RTU SA AND RA OPENINGS. TRANSITION AS NECESSARY.
- ROUTE FULL SIZE CONDENSATE TO EXISTING ROOF PENETRATION SYSTEM. SEE ASSOCIATED DETAIL. COORDINATE INSTALLATION WITH PLUMBING CONTRACTOR.
- 5 CONNECT NEW CONDENSATE PIPING TO EXISTING AT THIS APPROXIMATE LOCATION.



IDEA EDINBURG BUILDING A MECHANICAL & ELECTRICAL FLOOR PLAN





KEYPLAN

RFP # 23-URMU-0424

NO: REVISION:

CESAR A. GONZALEZ

S O **PUBLIC** MECHA RGV IDEA UPPER



ME4.3

NOTES MANUFACTURER MODEL NUMBER **EMI AMERICA** CC-1 ACCU-11 CACA12 C128 | 268 | 406 | 208-1-60 | 12,000 | 80/67 | DAIKIN FFQ12W2VJU 45 **SERIES**

NOTES:

1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS AND

2. PROVIDE INVERTER DRIVEN COMPRESSOR FOR IMPROVED HUMIDITY CONTROL

3. PROVIDE MOUNTING BRACKET.

4. PROVIDE WALL MOUNTED AND WRED 7-DAY PROGRAMMABLE T-STAT IN LIEU OF WIRELESS REMOTE.

5. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT

IDEA QUEST BUILDING A - MINI-SPLIT CONDENSER SCHEDULE

MARK	SERVING	EXISTING MANUFACTURER	EXISTING MODEL NUMBER	TOTAL COOLING (BTU/H)	COND DB	ELECTRICAL V-PH-HZ	SEER2	COMPR TYPE	MCA	MOCP	WEGHT (LBS)	NOTES	MANUFACTURER	MODEL NUMBER
ACCU-11	CC-1	EMI AMERICA SERIES	S1CA2	12,000	95	208-1-60	19.5	INVERTER DRIVEN TWIN ROTARY	7.8	15	64	ALL	DAIKIN	RX12WMVJU

IDEA QUEST

, ENLARGED MECHANICAL & ELECTRICAL PLAN (

- 1. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT
- 2. PROVIDE CONDENSER COIL CORROSION PROTECTION.
- 3. INSTALL UNIT ON EXISTING CONCRETE PAD. EXTEND CONCRETE PAD AS NECESSARY TO ACCOMMODATE FOR NEW EQUIPMENT
- 4. PROVIDE INSULATION FOR BOTH LIQUID AND SUCTION LINES.
- 5. INSTALL PER MANUFACTURERS INSTRUCTIONS AND PIPING RECOMMENDATIONS.
- 6. 1 YEAR PARTS WARRANTY AND 10 YEAR COMPRESSOR PARTS LIMITED WARRANTY.

EQUIPMENT CONNECTION SCHEDULE:

DESIGN	NEW	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT (75° COPPER)	NEW BRANCH CIRCUIT (75° COPPER)	EXISTING POWER SOURCE
CC-1	MCA -	15	2) –	208V/1PHASE	30A, 3PNF, 240V, NEMA 1	RETAIN EXISTING.	REMOVE EXISTING	1/2" - 2#12 & #12G	LA
ACCU-11	7.8	15	1) 15	208V/1PHASE	30A, 3PNF, 240V, NEMA 4X SS	RETAIN EXISTING.	1/2" - 2#12 & #12G	RETAIN EXISTING	LA

A) LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES. B) PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

1) RETAIN AND REUSE EXISTING CIRCUIT BREAKER.

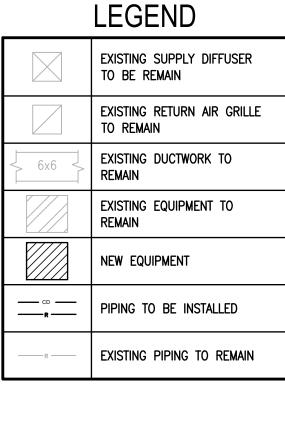
2) EXISTING CIRCUIT BREAKER TO REMAIN A SPARE. OBTAIN POWER FROM ACCU.

IDEA QUEST BUILDING A MECHANICAL & ELECTRICAL FLOOR PLAN

SCALE: 1/8" = 1'-0"

_ _ _ _ RE:M5.1/2 FOR ENLARGED



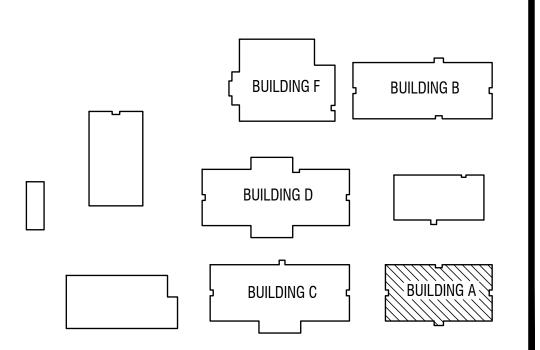


MECHANICAL KEYED NOTES:

- DEMOLISH EXISTING CASSETTE UNIT. PROVIDE NEW CASSETTE UNIT AT THIS APPROXIMATE LOCATION. REFER TO PROVIDED SCHEDULE AND TAB SPECIFICATIONS FOR MORE INFORMATION.
- DEMOLISH EXISTING THERMOSTAT. PROVIDE NEW THERMOSTAT AS SHOWN.
 MOUNT 48" ABOVE FINISHED FLOOR & COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS.
- DEMOLISH EXISTING REFRIGERANT PIPING. PROVIDE NEW REFRIGERANT PIPING. AND ROUTE TO INDOOR UNIT. COORDINATE ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION. ROUTE INSIDE WALL TO AVOID EXPOSED PIPING WITHIN THE SPACE. (TYPICAL)
- 4 PROVIDE REFRIGERANT LINE SUPPORTS. SEE ASSOCIATED DETAIL. (TYPICAL)
- 5 PROVIDE NEW 1" INSULATION ON ALL REFRIGERANT LINES BOTH NEW AND EXISTING. PROVIDE ALUMINUM JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS PER SPECIFICATIONS. SEE ASSOCIATED DETAIL.
- 6 DEMOLISH EXISTING ACCU AND INSTALL NEW AIR COOLED CONDENSING MANUFACTURER'S RECOMMENDED CLEARANCES AND MOUNT UNIT ON EXISTING CONCRETE PAD. PAD SHALL BE MINIMUM 6" LARGER THAN EQUIPMENT FOOTPRINT ON ALL SIDES, EXTEND CONCRETE PAD AS NECESSARY. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY EQUIPMENT DOWN TO EXISTING CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
- 7 RETAIN EXISTING SLEEVE AT ALL PENETRATIONS PER SPECIFICATIONS WHERE POSSIBLE. SEAL AROUND NEW PIPING WITH FIRE PROOF CAULKING. PROVIDE NEW ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION BOTH INSIDE AND OUTSIDE TO PROVIDE FINISHED LOOK WHERE
- 8 RETAIN EXISTING CONDENSATE DRAIN LINE. RECONNECT EXISTING CONDENSATE DRAIN LINE TO NEW CASSETTE UNIT. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' CONNECTIONS.

ELECTRICAL KEYED NOTES:

- 1) APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- 2) DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.



PUBLIC MECH/

RADES

NO: REVISION: BY

RFP # 23-URMU-0424

CESAR A. GONZALEZ

UPPI



DRAWN BY:

NO: REVISION: BY

RFP # 23-URMU-0424

CESAR A. GONZALEZ

EQUIPMENT CONNECTION SCHEDULE:

DESIGN	NEW	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT (75° COPPER)	NEW BRANCH CIRCUIT (75° COPPER)	EXISTING POWER SOURCE
CC-2	MCA -	15	2) –	208V/1PHASE	30A, 3PNF, 240V, NEMA 1	RETAIN EXISTING.	REMOVE EXISTING	1/2" - 2#12 & #12G	LB
ACCU-12	7.8	15	1) 15	208V/1PHASE	30A, 3PNF, 240V, NEMA 4X SS	RETAIN EXISTING.	1/2" - 2#12 & #12G	RETAIN EXISTING	LB
ALTERNATE #	‡ 3								
ACCU-2	120	125	1) 125	480V/3PHASE	CIRCUIT BREAKER WITHIN SIGHT	RETAIN EXISTING.	1.5" - 3#1 & #6G	RETAIN EXISTING	DPB

IDEA QUEST

A) LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES. B) PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

1) RETAIN AND REUSE EXISTING CIRCUIT BREAKER.

2) EXISTING CIRCUIT BREAKER TO REMAIN A SPARE. OBTAIN POWER FROM ACCU.

IDEA QUEST - BUILDING B ACCU SCHEDULE (ALTERNATE #3)

MARK		EXISTING	EXISTING	TOTAL	NOMINAL	COND	ELECTRICAL	EER / IEER	STEPS OF	FAN	(CIRC	CUIT)	WEIGHT			
	SERVING	MANUFACTURER	MODEL NUMBER	BTUH	TONS	DB	V-PH-HZ	AT ARI	CAPACITY	FLA	MCA	MOCP	(LBS.)	NOTES	MANUFACTURER	MODEL NUMBER
ACCU-2	AHU-2	TRANE	RAUCC604BZ	786,870	60	95	460-3-60	11.2	4	1.8	120	125	3462	ALL	TRANE	RAUJC60

1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS AND SUBSTITUTION PROCEDURES

2. EER SHALL EXCEED IECC MINIMUM EFFICIENCY AT DESIGN CONDITIONS. 3. PROVIDE CONDENSER COIL HAIL GUARDS, E-COATED COILS, AND LOW AMBIENT CONTROL.

4. PROVIDE DIGITAL SCROLL COMPRESSOR OR MULTI-STAGE COMPRESSOR.

SAFETY DISCONNECT TO BE PROVIDED BY DIV. 26. 6. INSULATE REFRIGERANT LINES AS PER SPECIFICATIONS. PROVIDE UV RESISTANT PAINTED JACKETING AROUND INSULATION FOR ALL EXTERIOR EXPOSED LINES.

7. PROVIDE FACTORY INSTALLED APRIVALVE. PROVIDE THERMOSTAT TO PROVIDE 2 STAGES OF MODULATION PER CONDENSING UNIT. PROVIDE ALL NEW REFRIGERANT SPECIALTIES, EXPANSION VALVES, ETC.

8. PROVIDE EVAPORATOR DEFROST CONTROLLER FOR MINIUM CIRCUIT.

IDEA QUEST BUILDING B - MINI-SPLIT CASSETTE INDOOR UNIT SCHEDULE

	SERVED	EXISTING	EXISTING		MIN	MAX	ELECTRICAL	C00	LING	WEIGHT			
MARK	BY	MANUFACTURER	MODEL NUMBER	LOCATION	CFM	CFM	V-PH-HZ	TOTAL (BTU/H)	EAT DB/WB	(LBS)	NOTES	MANUFACTURER	MODEL NUMBER
CC-2	ACCU-12	EMI AMERICA SERIES	CACA12	C128	268	406	208-1-60	12,000	80/67	45	ALL	DAIKIN	FFQ12W2VJU

1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS AND

SUBSTITUTION PROCEDURES.

2. PROVIDE INVERTER DRIVEN COMPRESSOR FOR IMPROVED HUMIDITY CONTROL. 3. PROVIDE WALL MOUNTED AND WIRED 7-DAY PROGRAMMABLE T-STAT IN LIEU OF WIRELESS REMOTE.

4. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT.

IDEA QUEST BUILDING B - MINI-SPLIT CONDENSER SCHEDULE

MARK	SERVING	EXISTING MANUFACTURER	EXISTING MODEL NUMBER	TOTAL COOLING (BTU/H)	COND DB	ELECTRICAL V-PH-HZ	SEER2	COMPR TYPE	MCA	MOCP	WEGHT (LBS)	NOTES	MANUFACTURER	MODEL NUMBER
ACCU-12	CC-2	EMI AMERICA SERIES	S1CA2	12,000	95	208-1-60	19.5	INVERTER DRIVEN TWIN ROTARY	7.8	15	64	ALL	DAIKIN	RX12WMVJU

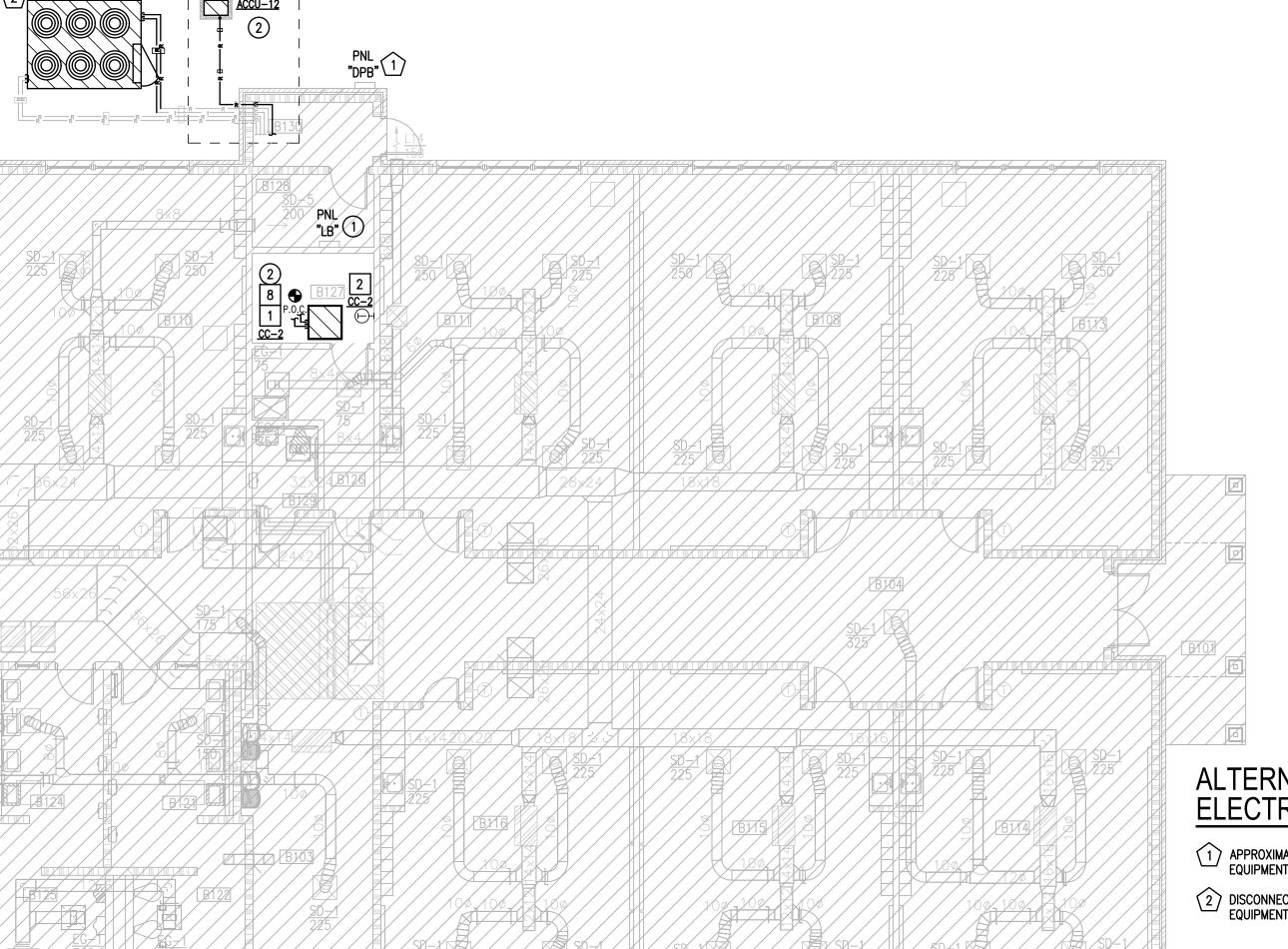
1. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT.

2. PROVIDE CONDENSER COIL CORROSION PROTECTION.

3. INSTALL UNIT ON EXISTING CONCRETE PAD. EXTEND CONCRETE PAD AS NECESSARY TO ACCOMMODATE FOR NEW EQUIPMENT. 4. PROVIDE INSULATION FOR BOTH LIQUID AND SUCTION LINES.

5. INSTALL PER MANUFACTURERS INSTRUCTIONS AND PIPING RECOMMENDATIONS

6. 1 YEAR PARTS WARRANTY AND 10 YEAR COMPRESSOR PARTS LIMITED WARRANTY.



MECHANICAL KEYED NOTES:

- DEMOLISH EXISTING CASSETTE UNIT. PROVIDE NEW CASSETTE UNIT AT THIS APPROXIMATE LOCATION. REFER TO PROVIDED SCHEDULE AND TAB SPECIFICATIONS FOR MORE INFORMATION.
- 2 DEMOLISH EXISTING THERMOSTAT. PROVIDE NEW THERMOSTAT AS SHOWN. MOUNT 48" ABOVE FINISHED FLOOR & COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS.

LEGEND

TO BE REMAIN

TO REMAIN

REMAIN

EXISTING SUPPLY DIFFUSER

EXISTING RETURN AIR GRILLE

EXISTING DUCTWORK TO

EXISTING EQUIPMENT TO

PIPING TO BE INSTALLED

EXISTING PIPING TO REMAIN

NEW EQUIPMENT

- 3 DEMOLISH EXISTING REFRIGERANT PIPING. PROVIDE NEW REFRIGERANT PIPING. AND ROUTE TO INDOOR UNIT. COORDINATE ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION. ROUTE INSIDE WALL TO AVOID EXPOSED PIPING WITHIN THE SPACE. (TYPICAL)
- PROVIDE REFRIGERANT LINE SUPPORTS. SEE ASSOCIATED DETAIL. (TYPICAL)
- 5 PROVIDE NEW 1" INSULATION ON ALL REFRIGERANT LINES BOTH NEW AND EXISTING. PROVIDE ALUMINUM JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS PER SPECIFICATIONS. SEE ASSOCIATED DETAIL.
- 6 DEMOLISH EXISTING ACCU AND INSTALL NEW AIR COOLED CONDENSING UNIT AND INSULATED REFRIGERANT PIPING PER SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND MOUNT UNIT ON EXISTING CONCRETE PAD. PAD SHALL BE MINIMUM 6" LARGER THAN EQUIPMENT FOOTPRINT ON ALL SIDES, EXTEND CONCRETE PAD AS NECESSARY. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA. BOLT EQUIPMENT DOWN TO EXISTING CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
- 7 RETAIN EXISTING SLEEVE AT ALL PENETRATIONS PER SPECIFICATIONS WHERE POSSIBLE. SEAL AROUND NEW PIPING WITH FIRE PROOF CAULKING. PROVIDE NEW ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION BOTH INSIDE AND OUTSIDE TO PROVIDE FINISHED LOOK WHERE
- 8 RETAIN EXISTING CONDENSATE DRAIN LINE. RECONNECT EXISTING CONDENSATE DRAIN LINE TO NEW CASSETTE UNIT. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' CONNECTIONS.
- 9 RECONNECT EXISTING PIPING TO NEW PIPING AT THIS LOCATION. ROUTE TO NEW UNIT'S CONNECTIONS.

ALTERNATE #4 **MECHANICAL KEYED NOTES:**

- (1) RETAIN EXISTING REFRIGERANT PIPING FOR REINSTALLATION. CLEAN AND VACUUM REFRIGERANT PIPING. REPLACE ALL REFRIGERANT SPECIALTIES, SERVICE VALVES, GASKETS, EXPANSION VALVES, ETC. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' CONNECTIONS. RECONNECT TO EXISTING PIPING TO CREATE A FULLY OPERATIONAL SYSTEM.
- 2 DEMOLISH EXISTING AIR COOLED CONDENSING UNIT. PROVIDE NEW AIR COOLED CONDENSING UNIT AND INSULATE REFRIGERANT PIPING PER SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND EXTEND EXISTING HOUSEKEEPING CONCRETE PADS AS NECESSARY TO ACCOMMODATE NEW EQUIPMENT. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA. BOLT EQUIPMENT DOWN TO CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL
- 3 PROVIDE NEW REFRIGERANT LINE SUPPORTS. SEE ASSOCIATED DETAIL. (TYPICAL)
- PROVIDE NEW 1" INSULATION ON ALL REFRIGERANT LINES BOTH NEW AND EXISTING. PROVIDE ALUMINUM JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS PER SPECIFICATIONS. SEE ASSOCIATED
- RETAIN EXISTING SLEEVE AT ALL PENETRATIONS PER SPECIFICATIONS WHERE POSSIBLE. SEAL AROUND NEW PIPING WITH FIRE PROOF CAULKING. PROVIDE NEW ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION BOTH INSIDE AND OUTSIDE TO PROVIDE FINISHED LOOK WHERE NECESSARY.

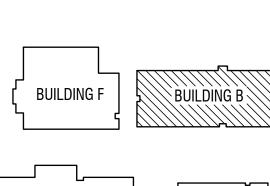
ELECTRICAL KEYED NOTES:

- (1) APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- 2 DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.

ALTERNATE #3 **ELECTRICAL KEYED NOTES:**

APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.

DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.



BUILDING C

BUILDING A

1126 SOUTH COMMERCE ST. HARLINGEN, TX PHONE: 956-230-3435 TEXAS REGISTERED ENGINEERING FIRM F-15998 MARCH 15, 20 CHECKED BY: DRAWN BY:

PROJECT NO.:

BUILDING B MECHANICAL & ELECTRICAL FLOOR PLAN

UPPE

ے 6x6 کے NEW DUCTWORK

NEW EQUIPMENT

EXISTING RETURN AIR GRILLE RFP # 23-URMU-0424

CESAR A. GONZALEZ

NO: REVISION: BY:

PUBLIC MECHAN

IDEA RGV

UPPER

BUILDING C

BUILDING F

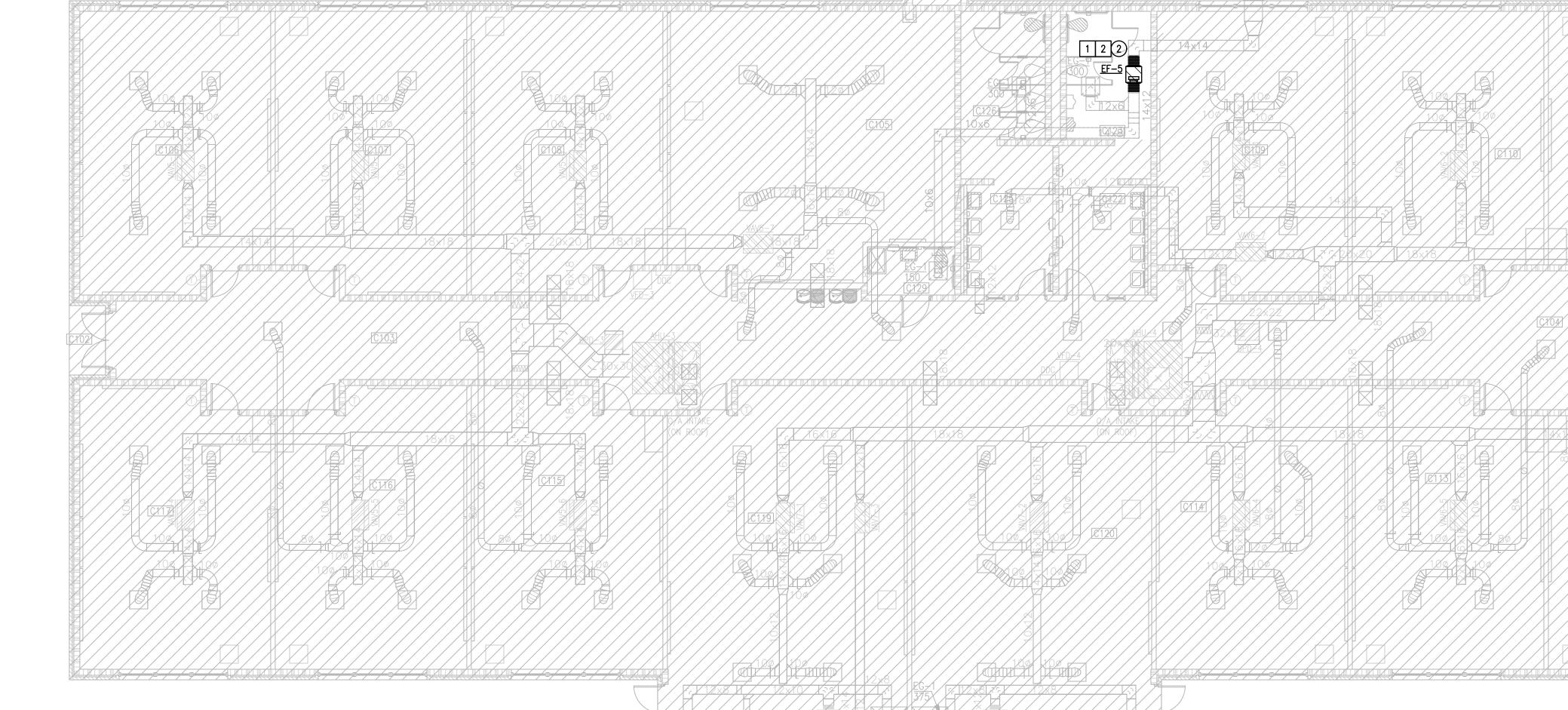
MECHANICAL KEYED NOTES:

- 1 DEMOLISH EXISTING EXHAUST FAN. REPLACE WITH NEW EXHAUST FAN AT THIS APPROXIMATE LOCATION. PROVIDE NEW DUCT TRANSITIONS TO EXHAUST FAN WHERE NECESSARY. REFER TO PROVIDED SCHEDULE AND TAB SPECIFICATIONS FOR MORE INFORMATION.
- TEMPORARILY REMOVE THE CEILING AROUND THE AREA OF WHERE EXISTING EXHAUST FAN IS TO BE REPLACED. RESTORE THE CEILING BACK TO ITS ORIGINAL CONDITION AFTER REPLACEMENT OF EXHAUST

ELECTRICAL KEYED NOTES:

- 1) APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC EQUIPMENT.
- 2) DISCONNECT EXISTING EXHAUST FAN FOR REPLACEMENT. RETAIN AND

IDEA QUEST 01 BUILDING C MECHANICAL & ELECTRICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"



E.S.P. SOUND WEIGHT CONTROL NOTES MANUFACTURER MODEL NUMBER

IDEA QUEST BUILDING C - EXHAUST FAN SCHEDULE

6. PROVIDE SPRING TYPE VIBRATION ISOLATORS FOR SUSPENDED INLINE TYPE FANS.

2. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL." REFER TO SPECIFICATIONS.

A. CONNECT TO EXISTING DDC SYSTEM. RECREATE EXISTING CONTROL POINTS AND SCHEDULING WITH NEW EQUIPMENT.

RESTROOM SUSPENDED IN-LINE TO BE REPLACED

5. PROVIDE INSULATED HOUSING FOR SOUND ATTENUATION.

1. PROVIDE FACTORY MOUNTED DISCONNECT.

3. PROVIDE OSHA MOTOR AND BELT GUARD. 4. PROVIDE AUTOMATIC BELT TENSIONER.

120-1-60 DIRECT 750

SERVING

(BTU/H)

12,000

MCA MOCP WEGHT NOTES MANUFACTURER MODEL NUMBER **DRIVEN TWIN** DAIKIN RX12WMVJU ROTARY

ACCU-14

CC-4

1. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT.

95

2. PROVIDE CONDENSER COIL CORROSION PROTECTION.

EMI AMERICA

SERIES

- 3. INSTALL UNIT ON EXISTING CONCRETE PAD. EXTEND CONCRETE PAD AS NECESSARY TO ACCOMMODATE FOR NEW EQUIPMENT.
- 4. PROVIDE INSULATION FOR BOTH LIQUID AND SUCTION LINES.

NUMBER

S1CA2

5. INSTALL PER MANUFACTURERS INSTRUCTIONS AND PIPING RECOMMENDATIONS. 6. 1 YEAR PARTS WARRANTY AND 10 YEAR COMPRESSOR PARTS LIMITED WARRANTY.

IDEA MISSION BUILDING D. MINISPLIT CASSETTE INDOOR UNIT SCHEDULE

IDEA IV		II DOILDII	10 D -	IAIII 41-0	JI L	11 0	AUULI		וטטטו	1 UIII	1 00	HILDULL	
	SERVED	EXISTING	EXISTING		MIN	MAX	ELECTRICAL		LING	WEIGHT			
MARK	BY	MANUFACTURER	MODEL NUMBER	LOCATION	CFM	CFM	V-PH-HZ	TOTAL (BTU/H)	EAT DB/WB	(LBS)	NOTES	MANUFACTURER	MODEL NUMBE
			HOMBER					(DI OIII)	טוויוטט				
CC-4	ACCU-14	EMI AMERICA SERIES	CACA12	C128	268	406	208-1-60	12,000	80/67	45	ALL	DAIKIN	FFQ12W2VJU

208-1-60

19.5

1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS AND

- SUBSTITUTION PROCEDURES.
- 2. PROVIDE INVERTER DRIVEN COMPRESSOR FOR IMPROVED HUMIDITY CONTROL.
- 3. PROVIDE WALL MOUNTED AND WIRED 7-DAY PROGRAMMABLE T-STAT IN LIEU OF WIRELESS REMOTE.
- 4. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT.

ELECTRICAL KEYED NOTES:

- 1) APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC
- (2) DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE
- EQUIPMENT CONNECTION SCHEDULE.
- 3 DISCONNECT EXISTING EXHAUST FAN FOR REPLACEMENT. RETAIN AND REUSE EXISTING BRANCH CIRCUIT.

IDEA QUEST BUILDING D - EXHAUST FAN SCHEDULE

MARK	SERVING	TYPE	STATUS	ELECTRICAL V-PH-HZ	DRIVE	CFM	INPUT WATTS	MOTOR HP	RPM	E.S.P. IN. H20	SOUND IN SONES	Mary and the second	CONTROL NOTES	NOTES	MANUFACTURER	MODEL NUMBER
EF-8	RESTROOM C - 123	SUSPENDED IN-LINE	TO BE REPLACED	120-1-60	DIRECT	675	-	1/4	1182	0.41	4.5	45.0	Α	ALL	GREENHECK	SQ-100-VG
EF-13	RESTROOM - D130	CEILING MOUNTED	TO BE REPLACED	120-1-60	DIRECT	75	30	-	596	0.35	2.5	10.0	А	ALL	GREENHECK	SP-B110-ES

- 1. PROVIDE FACTORY MOUNTED DISCONNECT
- 2. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL." REFER TO SPECIFICATIONS.
- 3. PROVIDE OSHA MOTOR AND BELT GUARD.
- 4. PROVIDE AUTOMATIC BELT TENSIONER.
- 5. PROVIDE INSULATED HOUSING FOR SOUND ATTENUATION. 6. PROVIDE SPRING TYPE VIBRATION ISOLATORS FOR SUSPENDED INLINE TYPE FANS.

A. CONNECT TO EXISTING DDC SYSTEM. RECREATE EXISTING CONTROL POINTS AND SCHEDULING WITH NEW EQUIPMENT.

MECHANICAL KEYED NOTES:

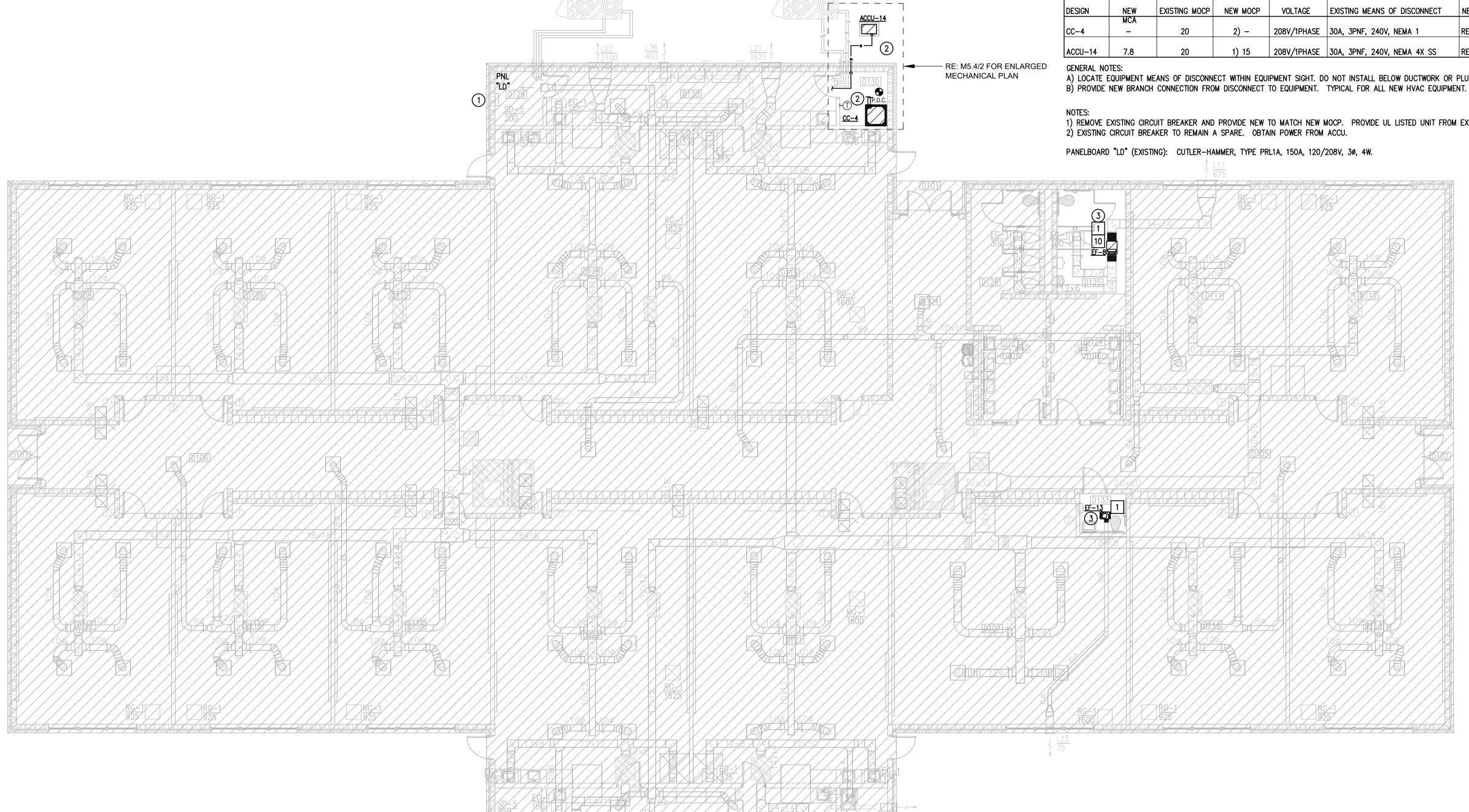
- DEMOLISH EXISTING EXHAUST FAN. REPLACE WITH NEW EXHAUST FAN AT THIS APPROXIMATE LOCATION. PROVIDE NEW DUCT TRANSITIONS TO EXHAUST FAN WHERE NECESSARY. REFER TO PROVIDED SCHEDULE AND TAB SPECIFICATIONS FOR MORE
- 2 DEMOLISH EXISTING CASSETTE UNIT. PROVIDE NEW CASSETTE UNIT AT THIS APPROXIMATE LOCATION. REFER TO PROVIDED SCHEDULE AND TAB SPECIFICATIONS FOR MORE
- 3 DEMOLISH EXISTING THERMOSTAT. PROVIDE NEW THERMOSTAT AS SHOWN. MOUNT 48" ABOVE FINISHED FLOOR & COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS.
- 4 DEMOLISH EXISTING REFRIGERANT PIPING. PROVIDE NEW REFRIGERANT PIPING. AND ROUTE TO INDOOR UNIT. COORDINATE ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION. ROUTE INSIDE WALL TO AVOID EXPOSED PIPING WITHIN THE SPACE. (TYPICAL)
- 5 PROVIDE REFRIGERANT LINE SUPPORTS. SEE ASSOCIATED DETAIL. (TYPICAL)
- 6 PROVIDE NEW 1" INSULATION ON ALL REFRIGERANT LINES BOTH NEW AND EXISTING. PROVIDE ALUMINUM JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS PER SPECIFICATIONS. SEE ASSOCIATED DETAIL.
- DEMOLISH EXISTING ACCU AND INSTALL NEW AIR COOLED CONDENSING UNIT AND INSULATED REFRIGERANT PIPING PER SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND MOUNT UNIT ON EXISTING CONCRETE PAD. PAD SHALL BE MINIMUM 6" LARGER THAN EQUIPMENT FOOTPRINT ON ALL SIDES, EXTEND CONCRETE PAD AS NECESSARY. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA. BOLT EQUIPMENT DOWN TO EXISTING CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
- 8 RETAIN EXISTING SLEEVE AT ALL PENETRATIONS PER SPECIFICATIONS WHERE POSSIBLE. SEAL AROUND NEW PIPING WITH FIRE PROOF CAULKING, PROVIDE NEW ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION BOTH INSIDE AND OUTSIDE TO PROVIDE FINISHED LOOK WHERE NECESSARY.
- 9 RETAIN EXISTING CONDENSATE DRAIN LINE. RECONNECT EXISTING CONDENSATE DRAIN LINE TO NEW CASSETTE UNIT. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' CONNECTIONS.
- TEMPORARILY REMOVE THE CEILING AROUND THE AREA OF WHERE EXISTING EXHAUST FAN IS TO BE REPLACED. RESTORE THE CEILING BACK TO ITS ORIGINAL CONDITION AFTER REPLACEMENT OF EXHAUST FAN.

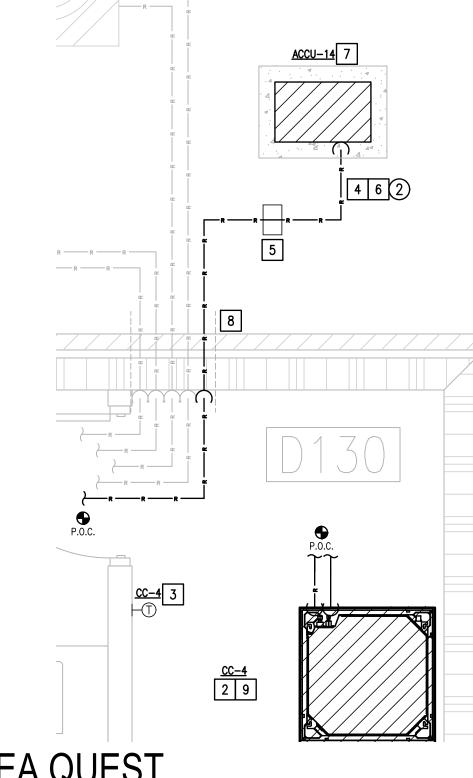
EQUIPMENT CONNECTION SCHEDULE:

DESIGN	NEW	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT (75° COPPER)	NEW BRANCH CIRCUIT (75° COPPER)	EXISTING POWER SOURCE
	MCA								
CC-4	-	20	2) –	208V/1PHASE	30A, 3PNF, 240V, NEMA 1	RETAIN EXISTING.	REMOVE EXISTING	1/2" - 2#12 & #12G	LD
ACCU-14	7.8	20	1) 15	208V/1PHASE	30A, 3PNF, 240V, NEMA 4X SS	RETAIN EXISTING.	1/2" - 2#12 & #12G	RETAIN EXISTING	LD

A) LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES.

1) REMOVE EXISTING CIRCUIT BREAKER AND PROVIDE NEW TO MATCH NEW MOCP. PROVIDE UL LISTED UNIT FROM EXISTING MANUFACTURER (CUTLER-HAMMER). MATCH EXISTING KAIC. 2) EXISTING CIRCUIT BREAKER TO REMAIN A SPARE. OBTAIN POWER FROM ACCU.

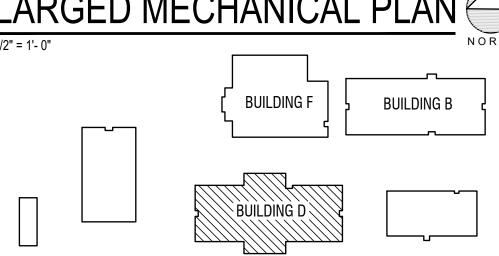




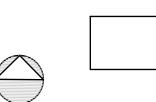
1DEA QUEST

ENLARGED MECHANICAL PLAN

SCALE: 1/2" = 1'- 0"



1 BUILDING D MECHANICAL & ELECTRICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"



RFP # 23-URMU-0424

NO: REVISION: BY

LEGEND

TO BE REMAIN

TO REMAIN

REMAIN

REMAIN

EXISTING SUPPLY DIFFUSER

EXISTING RETURN AIR GRILLE

EXISTING DUCTWORK TO

EXISTING EQUIPMENT TO

PIPING TO BE INSTALLED

EXISTING PIPING TO REMAIN

NEW EQUIPMENT



PUBLIC MECH/ IDEA RGV UPPER



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luu Dir	SERVED	EXISTING	EXISTING		MIN	MAX	ELECTRICAL		LING	WEIGHT			
MARK	BY	MANUFACTURER		LOCATION	CFM	CFM	V-PH-HZ	TOTAL	EAT	(LBS)	NOTES	MANUFACTURER	MODEL NUMBER
			NUMBER					(BTU/H)	DB/WB	()			
CC-16	ACCU-16	EMI AMERICA SERIES	CACA12	C128	268	406	208-1-60	12,000	80/67	45	ALL	DAIKIN	FFQ12W2VJU

1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS AND

SUBSTITUTION PROCEDURES.

PROVIDE INVERTER DRIVEN COMPRESSOR FOR IMPROVED HUMIDITY CONTROL.

3. PROVIDE WALL MOUNTED AND WIRED 7-DAY PROGRAMMABLE T-STAT IN LIEU OF WIRELESS REMOTE.

4. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT.

IDEA QUEST BUILDING F - MINI-SPLIT CONDENSER SCHEDULE

	•													
MARK	SERVING	EXISTING MANUFACTURER	EXISTING MODEL NUMBER	TOTAL COOLING (BTU/H)	COND DB	ELECTRICAL V-PH-HZ	SEER2	COMPR TYPE	MCA	MOCP	WEGHT (LBS)	NOTES	MANUFACTURER	MODEL NUMBER
ACCU-16	CC-16	EMI AMERICA SERIES	S1CA2	12,000	95	208-1-60	19.5	INVERTER DRIVEN TWIN ROTARY	7.8	15	64	ALL	DAIKIN	RX12WMVJU

- 1. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT.
- 2. PROVIDE CONDENSER COIL CORROSION PROTECTION.
- 3. INSTALL UNIT ON EXISTING CONCRETE PAD. EXTEND CONCRETE PAD AS NECESSARY TO ACCOMMODATE FOR NEW EQUIPMENT.
- 4. PROVIDE INSULATION FOR BOTH LIQUID AND SUCTION LINES.
- 5. INSTALL PER MANUFACTURERS INSTRUCTIONS AND PIPING RECOMMENDATIONS.
- 6. 1 YEAR PARTS WARRANTY AND 10 YEAR COMPRESSOR PARTS LIMITED WARRANTY

RE: M5.5/2 FOR ENLARGED MECHANICAL PLAN

EQUIPMENT CONNECTION SCHEDULE:

DESIGN	NEW	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT (75° COPPER)	NEW BRANCH CIRCUIT (75° COPPER)	EXISTING POWER SOURCE
	MCA								
CC-16	-	15	2) –	208V/1PHASE	30A, 3PNF, 240V, NEMA 1	RETAIN EXISTING.	REMOVE EXISTING	1/2" - 2#12 & #12G	LF
ACCU-16	7.8	15	1) 15	208V/1PHASE	30A, 3PNF, 240V, NEMA 4X SS	RETAIN EXISTING.	1/2" - 2#12 & #12G	RETAIN EXISTING	LF
ACCU-9	87	100	1) 100	480V/3PHASE	100A, 3PNF, 600V, NEMA 3R	RETAIN EXISTING.	1.25" - 3#2 & #8G	RETAIN EXISTING	DPF
•		•							

GENERAL NOTES: A) LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES.

B) PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

1) RETAIN AND REUSE EXISTING CIRCUIT BREAKER. 2) EXISTING CIRCUIT BREAKER TO REMAIN A SPARE. OBTAIN POWER FROM ACCU.

IDEA QUEST - BUILDING F ACCU SCHEDULE

	,		. /												
MARK	SERVING	EXISTING	EXISTING MODEL	TOTAL	COND	ELECTRICAL	EER / SEER	STEPS OF	COMPRESSOR	(CIF	RCUIT)	WEIGHT	NOTES	MANUFACTURER	MODEL NUMBER
MAKK	SLKVING	MANUFACTURER	NUMBER	MBTUH	DB	V-PH-HZ	AT ARI	CAPACITY	AMPS	MCA	MOCP	(LBS.)	NOTES	MANOT ACTORER	WODEL NOWBER
ACCU-9	AHU-9	TRANE	RAUCC404BZ0000 D000020	507.2	105	460/3/60	11.7	4	18.6	87	100	3120	ALL	TRANE	RAUJC40

- 1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS AND SUBSTITUTION PROCEDURES.
- 2. PROVIDE HOT GAS BYPASS LINES FOR MINIMUM CIRCUIT. 3. EER SHALL EXCEED IECC MINIMUM EFFICIENCY AT DESIGN CONDITIONS.
- 4. PROVIDE LOUVERED HAIL GUARD, LOWAMBIENT KIT, SIGHT GLASS, SERVICE VALVES, FILTER DRYER, SOLENOID VALVES, TXVS, ANTI-SHORT CYCLE TIMER AND E-COATED CONDENSER COIL.
- 5. PROVIDE FREEZE STAT/DEFROST CONTROLLER TO PROTECT COMPRESSOR WHEN ICE BUILD-UP IS DETECTED IN THE EVAPORATOR COIL.
- 6. PROVIDE CONDENSER COIL COATING AS PER SPECIFICATIONS.
- 7. SAFETY DISCONNECT TO BE PROVIDED BY DIV. 26.
- 8. INSULATE REFRIGERANT LINES AS PER SPECIFICATIONS. PROVIDE UV RESISTANT PAINTED JACKETING AROUND INSULATION FOR ALL EXTERIOR EXPOSED LINES. 9. MOUNT ON 4" CONCRETE HOUSEKEEPING PAD AND MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES. BOLT CONDENSING UNIT DOWN TO CONCRETE PAD.

ELECTRICAL KEYED NOTES:

- 1 APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING HVAC
- 2 DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.

LEGEND

TO BE REMAIN

TO REMAIN

REMAIN

REMAIN

EXISTING SUPPLY DIFFUSER

EXISTING RETURN AIR GRILLE

EXISTING DUCTWORK TO

EXISTING EQUIPMENT TO

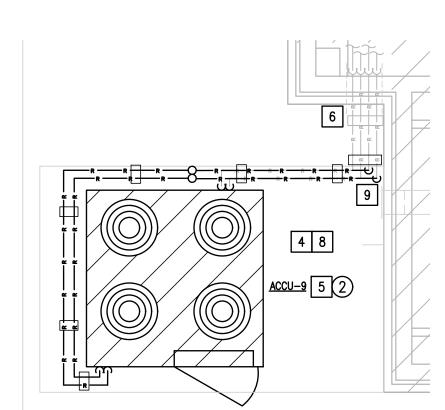
PIPING TO BE INSTALLED

EXISTING PIPING TO REMAIN

NEW EQUIPMENT

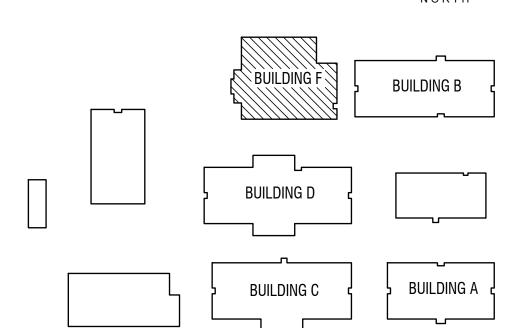
MECHANICAL KEYED NOTES:

- 1 DEMOLISH EXISTING CASSETTE UNIT. PROVIDE NEW CASSETTE UNIT AT THIS APPROXIMATE LOCATION. REFER TO PROVIDED SCHEDULE AND TAB SPECIFICATIONS FOR MORE INFORMATION.
- 2 DEMOLISH EXISTING THERMOSTAT. PROVIDE NEW THERMOSTAT AS SHOWN. MOUNT 48" ABOVE FINISHED FLOOR & COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS.
- DEMOLISH EXISTING REFRIGERANT PIPING. PROVIDE NEW REFRIGERANT PIPING. AND ROUTE TO INDOOR UNIT. COORDINATE ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION. ROUTE INSIDE WALL TO AVOID EXPOSED PIPING WITHIN THE SPACE. (TYPICAL)
- 4 PROVIDE NEW 1" INSULATION & ALUMINUM METAL JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE NEW REFRIGERANT LINE SUPPORTS PER SPECIFICATIONS. SEE ASSOCIATED DETAIL.
- 5 DEMOLISH EXISTING ACCU AND INSTALL NEW AIR COOLED CONDENSING UNIT AND INSULATED REFRIGERANT PIPING PER SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND MOUNT UNIT ON EXISTING CONCRETE PAD. PAD SHALL BE MINIMUM 6" LARGER THAN EQUIPMENT FOOTPRINT ON ALL SIDES, EXTEND CONCRETE PAD AS NECESSARY. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA. BOLT EQUIPMENT DOWN TO EXISTING CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
- 6 RETAIN EXISTING SLEEVE AT ALL PENETRATIONS PER SPECIFICATIONS WHERE POSSIBLE. SEAL AROUND NEW PIPING WITH FIRE PROOF CAULKING. PROVIDE NEW ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION BOTH INSIDE AND OUTSIDE TO PROVIDE FINISHED LOOK WHERE
- 7 RETAIN EXISTING CONDENSATE DRAIN LINE. RECONNECT EXISTING CONDENSATE DRAIN LINE TO NEW CASSETTE UNIT. PROVIDE NEW PIPING CONNECTIONS FROM EXISTING LINES TO UNITS' CONNECTIONS.
- 8 RETAIN EXISTING REFRIGERANT PIPING FOR REINSTALLATION. CLEAN AND VACUUM REFRIGERANT PIPING. REPLACE ALL REFRIGERANT SPECIALTIES, SERVICE VALVES, GASKETS, EXPANSION VALVES, ETC. PROVIDE NEW PIPING 1-5/8" AND HIGHER), IF NOT PROVIDE NEW. RECONNECT TO EXISTING PIPING TO CREATE A FULLY OPERATIONAL SYSTEM.



IDEA QUEST 2 ENLARGED MECHANICAL & ELECTRICAL PLAN SCALE: 1/4" = 1'- 0"





IDEA QUEST

BUILDING F MECHANICAL & ELECTRICAL FLOOR PLAN



NO: REVISION: BY RFP # 23-URMU-0424

CESAR A. GONZALEZ

O **PUBLIC** MECHA RGV IDEA UPPER

1126 SOUTH COMMERCE ST. HARLINGEN, TX PHONE: 956-230-3435 TEXAS REGISTERED

1126 SOUTH COMMERCE ST. HARLINGEN, TX PHONE: 956-230-3435

TEXAS REGISTERED ENGINEERING FIRM F-15998

CHECKED BY:

PROJECT NO.:

DRAWN BY:

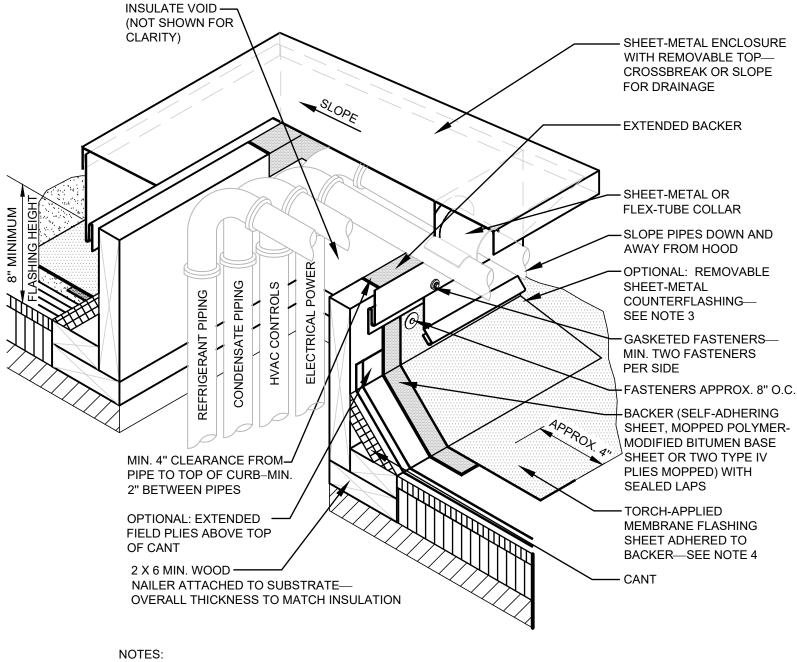
MARCH 15, 202

ME6.1

NO: REVISION: BY

RFP # 23-URMU-0424

CESAR A. GONZALEZ



1. THIS DETAIL ILLUSTRATES ANOTHER METHOD OF ELIMINATING PITCH POCKETS AND AN OPTIONAL METHOD OF GROUPING PIPING THAT MUST PENETRATE THE ROOF.

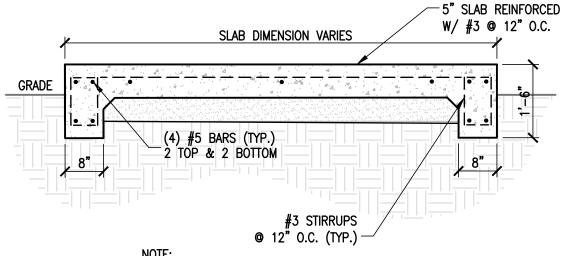
2. MANY MANUFACTURERS OFFER PREFABRICATED BOOTS AND OTHER MATERIALS FOR THIS PURPOSE. SPECIFICS ABOUT THESE PROPRIETARY DESIGNS VARY GREATLY, AND INDIVIDUAL MANUFACTURERS' SPECIFICATIONS SHOULD BE CONSULTED FOR THEIR USE.

3. WHERE THE SHEET-METAL ENCLOSURE OVERLAPS THE BASE FLASHING AT LEAST 3 INCHES, THE REMOVABLE SHEET-METAL COUNTERFLASHING IS NOT REQUIRED.

4. WHEN POTENTIAL FIRE HAZARDS CAN BE MITIGATED, NRCA CONSIDERS IT ACCEPTABLE TO INSTALL TORCH-APPLIED POLYMER-MODIFIED BITUMEN SHEET OVER THE SPECIFIED BACKER FLASHING USING THE DIRECT TORCHING METHOD PROVIDED LOW OUTPUT (50,000 BTU OUTPUT OR LESS) TORCHING EQUIPMENT IS USED. WHEN POTENTIAL FIRE HAZARDS CANNOT BE ADEQUATELY MITIGATED, TORCH- APPLIED POLYMER-MODIFIED BITUMEN SHEET SHALL BE INSTALLED USING INDIRECT TORCHING METHODS, SUCH AS THE TORCH-AND- FLOP APPLICATION METHOD.

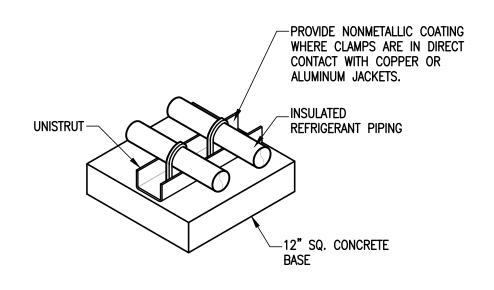
5. FOR ROOF SYSTEMS WITH FACTORY-APPLIED GRANULE SURFACING, PROPERLY PREPARE CAP SHEET TO RECEIVE

6. REFER TO THE INTRODUCTION OF THE CONSTRUCTION DETAILS CHAPTER FOR ADDITIONAL INFORMATION

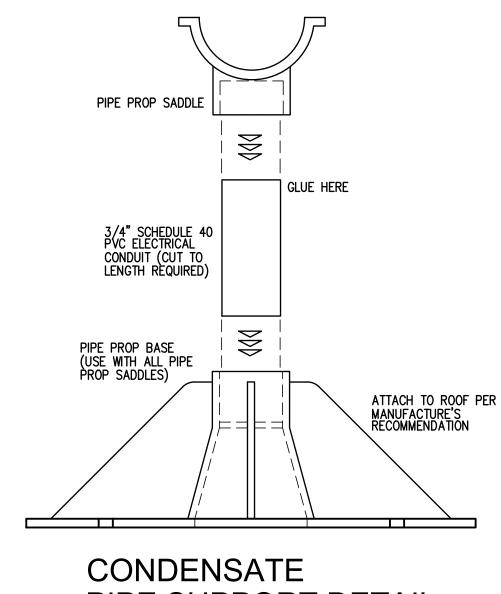


NOTE: STRIP TOPSOIL AND REMOVE ALL DEBRIS. GRADE BEAMS TO EXTEND A MINIMUM OF 6" INTO UNDISTURBED SOIL. TOP OF SLAB TO BE A MINIMUM OF 3" ABOVE EXISTING FINISHED GRADE. GRADE AROUND SLAB TO INSURE DRAINAGE. PROVIDE MINIMUM 6" CRUSHED STONE UNDER SLAB.

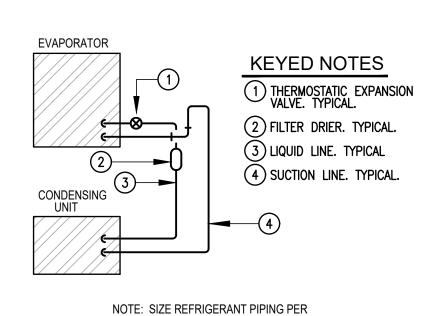
EXTERIOR 04 CONCRETE PAD DETAIL



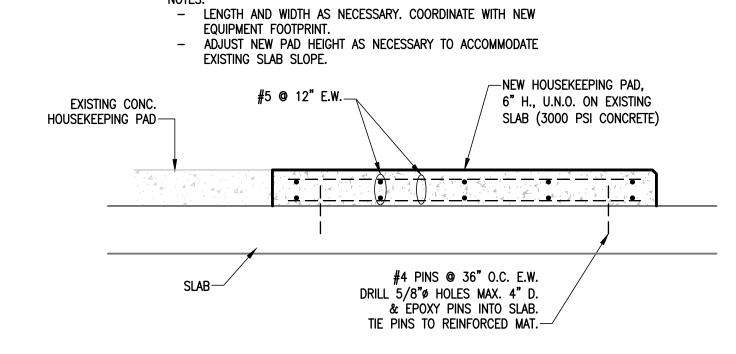
REFRIGERANT PIPING 07 SUPPORT DETAIL
SCALE: NOT TO SCALE



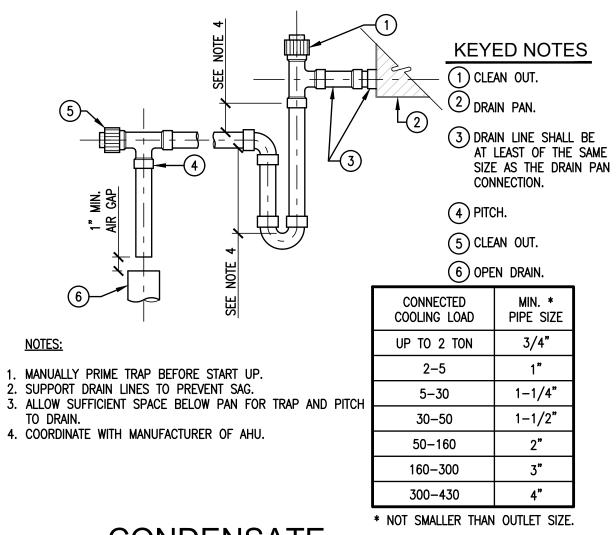




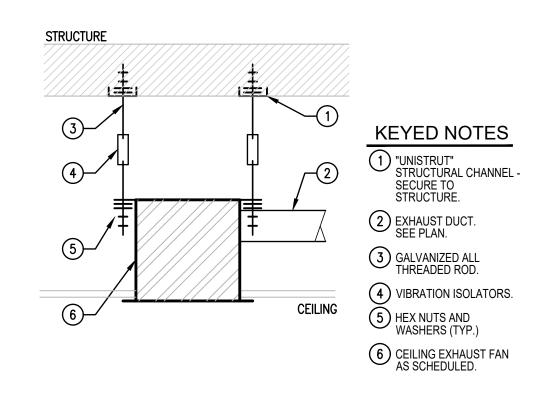
MFR. RECOMMENDATION. REFRIGERANT 05 PIPING DETAIL
SCALE : NOT TO SCALE



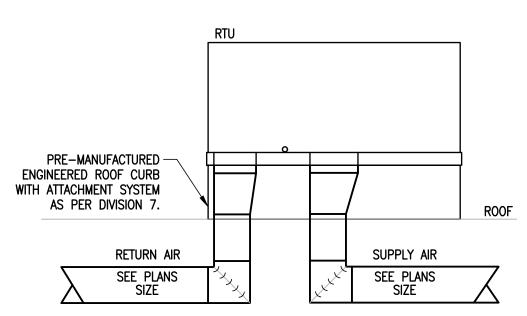
HOUSEKEEPING PAD 08 EXTENSION DETAIL



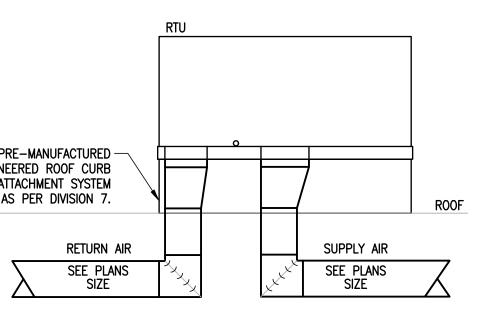
CONDENSATE 03 DRAIN TRAP PIPE



CEILING EXHAUST FAN 06 FAN MOUNTING DETAIL







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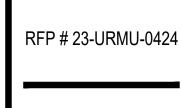
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MARCH 15, 202

ME6.2



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02 PIPE PENETRATION DETAIL

—PIPE ESCUTCHEON,

-FILL ANNULAR SPACE W/ THERMA-FIBER FIRE SAFING INSULATION

BOTH SIDES OF WALL

PIPE SLEEVE-

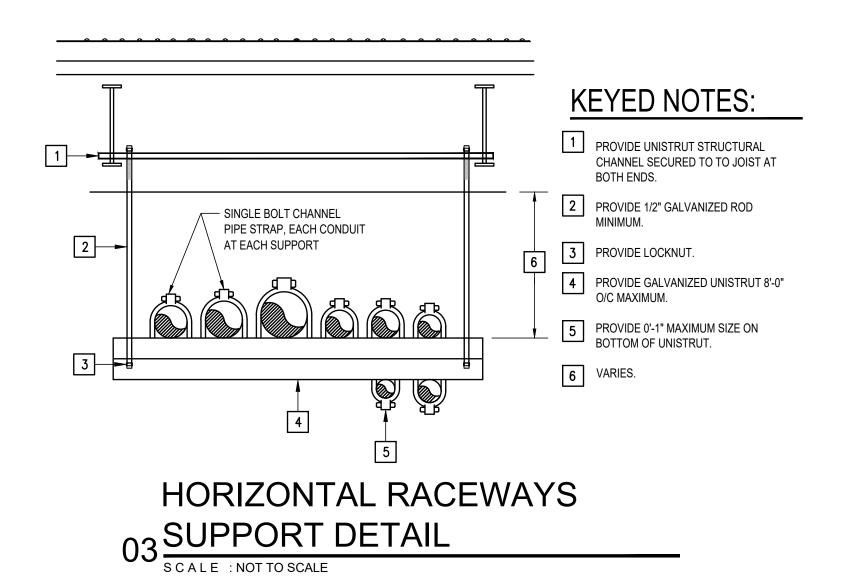
THROUGH WALL

HARD CAST; -

RECONSTRUCT WALL— TO MATCH EXISTING. SEAL WATERTIGHT

TO SLEEVE FLASHING.

EXTEND 6" MIN., EACH SIDE



KEYED NOTES:

PROVIDE GALVANIZED UNISTRUT WALL BRACKET.

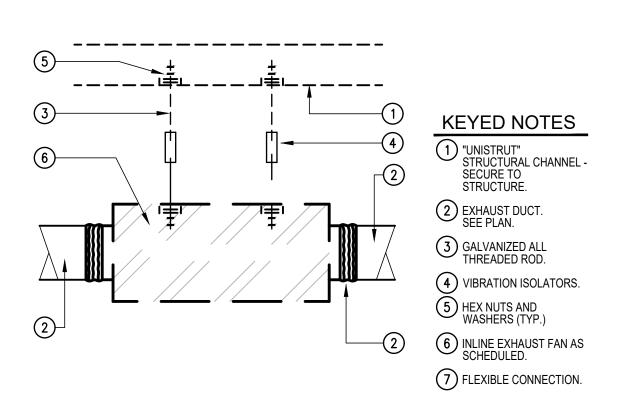
PROVIDE RAMSET OR BOLT GALVANIZED UNISTRUT TO WALL.

PROVIDE SELF HOLDING CLAMPING NUT WITH SPRING.

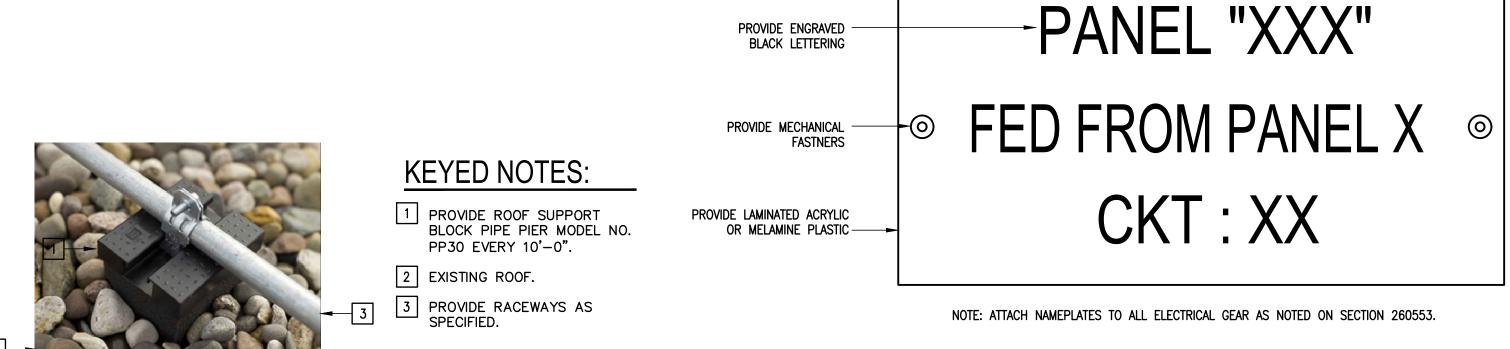
RACEWAY RUNS

01 SUPPORT DETAIL
SCALE: NOT TO SCALE

1 PROVIDE CONDUIT CLAMPS.



04 INLINE EXHAUST FAN DETAIL
SCALE : NOT TO SCALE



ROOF MOUNTED RACEWAYS 15 SUPPORT DETAIL
SCALE: NOT TO SCALE

EQUIPMENT 06 IDENTIFICATION LABEL DETAIL
SCALE: NOT TO SCALE

GENERAL STRUCTURAL NOTES IDEA MCALLEN

THESE GENERAL NOTES SHALL APPLY UNLESS OTHERWISE SPECIFICALLY NOTED ON PLANS OR DETAILS. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SHALL COORDINATE ALL STRUCTURAL PLANS AND DETAILS WITH ARCHITECTURAL & MECHANICAL DRAWINGS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CONTRACTOR MEANS AND METHODS OF CONSTRUCTION OR SITE SAFETY. DESIGN, CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE CONTROLLING PROVISIONS OF THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).

DESIGN CRITERIA

1.	BASIS	FOR	DESIGN	AND	CODE	COMPLIANCE
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A. GOVERNING BUILDING CODE......IBC 2018 EDITION

2. WIND DESIGN BASED ON:

A. ASCE 7-16 REQUIREMENTS

DESIGN WIND SPEED	.138 M	РН
RISK CATEGORY		
MIND EXPOSURE CATEGORY	С	
NTERNAL PRESSURE COEFFICIENT (GCpi)	+/-0	.18
Kzt	1.0	
Kd	0.85	

EXISTING CONDITIONS

- 1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL OBTAIN ALL FIELD MEASUREMENTS AS NECESSARY TO COORDINATE NEW CONSTRUCTION TO EXISTING CONDITIONS.
- 2. IF EXISTING CONDITIONS DIFFER FROM THE DRAWINGS, INFORM THE ENGINEER AND ADDITIONAL DETAILS OR INTERPRETATION WILL BE PROVIDED. DO NOT PROCEED WITHOUT VERIFICATION.
- 3. THE CONTRACTOR SHALL VISIT THE SITE OF THE PROPOSED WORK AND FULLY ACQUAINT THEMSELVES WITH THE EXISTING CONDITIONS.

DEMOLITION NOTES

- 1. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING STRUCTURE AND SURROUNDING BUILDINGS DURING CONSTRUCTION.
- 2. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY WATERTIGHTNESS OF THE BUILDING DURING DEMOLITION AND RECONSTRUCTION.
- 3. GENERAL CONTRACTOR SHALL COORDINATE WITH ENGINEER ITEMS THAT ARE UNCLEAR PRIOR TO ANY DEMOLITION.
- 4. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE PROJECT SITE TO DETERMINE DEMOLITION REQUIREMENTS AT THIS PROJECT. CONTRACTOR SHALL INCLUDE IN THEIR BID ALL THE DEMOLITION REQUIREMENTS TO COMPLETE THIS PROJECT.
- 5. GENERAL CONTRACTOR SHALL LOCATE AND LABEL ALL UTILITIES BEFORE COMMENCEMENT OF DEMOLITION & CONSTRUCTION ACTIVITIES. UTILITIES SHALL BE CLEARLY MARKED SO THAT ANY SUBCONTRACTOR VISITING THIS SITE CAN EASILY IDENTIFY UTILITIES. ANY COSTS TO REPAIR DAMAGES IF UTILITIES ARE NOT PROPERLY IDENTIFIED, ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 6. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING DEBRIS & MATERIAL AWAY FROM SITE ACCORDING TO GOVERNING LOCAL, STATE OR FEDERAL REGULATIONS.
- 7. ANY AREA DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.

<u>SAFET</u>

- 1. PERFORM ALL WORK IN A SAFE AND CONSCIENTIOUS MANNER TO PREVENT INJURIES.
- 2. CONTRACTOR SHALL MAINTAIN OSHA STANDARDS FOR JOB SAFETY AND WORKER PROTECTION, INCLUDING, BUT NOT LIMITED TO ADEQUATE PROTECTION, BARRICADES, SIGNS, ETC.
- 3. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR SAFETY. THE ENGINEER EXPRESSLY EXCLUDES ANY RESPONSIBILITY FOR CONTRACTOR SAFETY OR SAFETY OF JOBSITE.

STRUCTURAL STEEL

- 1. TOP OF BEAM/PLATE (TOB OR TOP) IS USED INTERCHANGEABLY ON PLANS. REFERENCE APPLICABLE SECTION FOR CLARIFICATION.
- 2. STRUCTURAL STEEL WIDE FLANGE MEMBERS SHALL CONFORM TO ASTM SPECIFICATION A 572 AND/OR ASTM A 992 (Fy = 50 KSI) UNLESS OTHERWISE SHOWN OR NOTED. PLATE AND ANGLES MAY BE A36 (Fy = 36 KSI).
- 3. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM SPECIFICATION A-500, GRADE B (Fy=46 KSI). STEEL PIPE SHALL COMPLY WITH ASTM A53 TYPE E OR S (Fy=35 KSI).
- 4. ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
- 5. ALL BOLTS SHALL BE 3/4 DIAMETER ASTM A325. WASHERS SHALL BE PROVIDED AT OVERSIZED HOLES AND AT SLOTTED CONNECTIONS AT EXPANSION JOINTS. A325 CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS UNLESS NOTED OTHERWISE. ANCHOR BOLTS MAY BE ASTM A307 UNLESS NOTED OTHERWISE.
- 6. REFER TO MANUFACTURER & MECHANICAL PLANS FOR VERIFICATION OF ALL BOLTS, BLOCKING ANCHORS, ETC., FOR THE ANCHORAGE OF THEIR RESPECTIVE ITEMS.
- 7. ALL BEAMS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS INDICATED ON PLANS OR APPROVED BY THE ENGINEER IN WRITING.
- 8. ALL SHOP AND FIELD WELDS SHALL BE MADE BY WELDERS WHO HAVE BEEN QUALIFIED AND CERTIFIED TO MAKE THE REQUIRED WELDS IN ACCORDANCE WITH THE LATEST AMERICAN WELDING SOCIETY SPECIFICATIONS (A.W.S. D-1.1).
- 9. WELDS SHALL BE MADE WITH COVERED MILD STEEL ELECTRODES COMPLYING WITH AWS D1 72 CODE AND SERIES E 70XX.
- 10. ERECTION CONNECTORS SHALL BE PROVIDED IN ORDER TO PROPERLY ALIGN AND BE TRUE AND PLUMB WHEN WELDS ARE MADE.

FASTENERS

- 1. CAST—IN—PLACE AND POST—INSTALLED ANCHORS SHALL BE PER ANCHOR DIAMETER AND EMBEDMENT DEPTH NOTED ON THE DRAWINGS. POST—INSTALLED ANCHORS SHALL BE UTILIZED ONLY WHERE SPECIFIED. ALL ANCHORS SHALL BE HOT—DIPPED GALVANIZED PER ASTM A153.
- 2. ALL ANCHORS NOTED BELOW SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL CONTACT MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS, AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY.
- 3. SPECIAL INSPECTIONS SHALL BE PROVIDED FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE EVALUATION REPORT NOTED BELOW. SPECIAL INSPECTIONS SHALL BE PERFORMED BY INDEPENDENT TESTING LABORATORY PERFORMING QA/QC SERVICES ON PROJECT.
- 4. EXPANSION BOLTS (EB) IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
 - A. KWIK BOLT III (ICC-ES ESR-2302) BY HILTI (CONCRETE)
 - B. KWIK BOLT III (ICC-ES-ESR-1385) BY HILTI (MASONRY)
 - C. STRONG-BOLT 2 (ICC-ES ESR-3037) BY SIMPSON STRONG-TIE (CONCRETE)

WEDGE-ALL ANCHOR (ICC-ES ESR-1396) BY SIMPSON STRONG-TIE (MASONRY)

FASTENERS CONTINUED

- 5. HEAVY DUTY SLEEVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED OR USE IN ACCORDANCE WITH ACI 355.2 AND ICC—ES AC193. EXPANSION BOLTS (EB) SHALL NOT BE SUBSTITUTED FOR SLEEVE ANCHORS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER. ACCEPTABLE PRODUCTS:
- A. HSL-3 (ICC-ES ESR-1545) BY HILTI (CONCRETE)
- 3. SCREW ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
- A. KWIK HUS-EZ (ICC-ES ESR-3027) BY HILTI (CONCRETE)
- B. KWIK HUS-EZ (ICC-ES ESR-3056) BY HILTI (MASONRY)
- C. TITEN HD (ICC-ES ESR-2713) BY SIMPSON STRONG-TIE (CONCRETE)
- D. TAPCON ANCHORS (ICC-ES ESR-1671) (MASONRY)
- E. POWERS WEDGE BOLT (ICC-ES ESR-1678) (MASONRY)
- 7. UNDERCUT ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
- A. HDA (ICC-ES ESR-1546) BY HILTI (CONCRETE)
- B. TORQ-CUT (ICC-ES ESR-2705) BY SIMPSON STRONG-TIE (CONCRETE)
- 8. POWDER ACTUATED FASTENERS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
- A. X-U (ICC-ES ESR-2269) BY HILTI (CONCRETE/MASONRY/STEEL)
- B. POWDER ACTUATED FASTENERS (ICC-ES ESR-2138) BY SIMPSON STRONG TIE CONCRETE/MASONRY)
- 9. ADHESIVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308. ACCEPTABLE PRODUCTS:
 - A. HIT-RE 500-V3 (ICC-ES ESR-3814) BY HILTI (CONCRETE)
- B. HIT-HY 270 (ICC-ES ESR-4143) BY HILTI (MASONRY)
- C. SET-XP (ICC-ES ESR-2508) BY SIMPSON STRONG-TIE (CONCRETE)
- D. SET (ICC-ES ESR-1772) BY SIMPSON STRONG-TIE (MASONRY)
- 10. J-BOLTS SHALL BE FABRICATED FROM ASTM A36/A307 ROD. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. EXPANSION BOLTS/SLEEVE ANCHORS SHALL NOT BE SUBSTITUTED FOR J-BOLTS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER.
- 11. HEADED ANCHOR RODS SHALL BE FABRICATED FROM ASTM F1554 MATERIAL, FY=36 KSI.
- 12. SUBSTITUTION REQUESTS FOR PRODUCTS LISTED ABOVE SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS. SUBSTITUTED ANCHORS SHALL HAVE A VALID CURRENT EVALUATION (ICC—ES OR IAPMO—ES) REPORT.
- 13. REFERENCE STRUCTURAL STEEL NOTES FOR BOLTS CONNECTING STRUCTURAL STEEL COMPONENTS.

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS INDEPENDENT OF THE CONTRACTOR, THE ARCHITECT, OR THE ENGINEER, SHALL BE PROVIDED BY A SPECIAL INSPECTOR EMPLOYED BY THE OWNER ACCORDING TO CHAPTER 17 OF THE IBC 2018. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SEND WRITTEN REPORTS TO THE OWNER, THE ARCHITECT, THE ENGINEER AND THE CONTRACTOR. THE REPORTS SHALL INDICATE IF WORK INSPECTED WAS DONE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE SPECIAL INSPECTOR SHALL BRING THE DISCREPANCIES TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, IN OR NOT IN CONFORMANCE WITH THE DRAWINGS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC 2018.

CONTINUOUS OR PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:

REQUIRED VERIFICATION AND INSPECTION OF ANCHORS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
CAST-IN-PLACE, POST-INSTALLED, MECHANICAL AND EPOXY SET ANCHORS: AS APPLICABLE, THE INSPECTION PROGRAM SHALL VERIFY THE ANCHOR TYPE, EMBEDMENT, TIGHTENING TORQUE, DIMENSIONS, HOLE DEPTH & DIAMETER AND CLEANOUT, EPOXY MIXING AND PLACEMENT PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE CURRENT ICC-ES EVALUATION REPORT	FREQUENCY OF INSPECTION SHACCORDANCE CURRENT ICC-EVALUATION REPORTION REQUIREMENTS ANCHOR SUBS WHICHEVER IS STRINGENT	HALL BE IN WITH THE ES EPORT, OR CHAL THE TRATE,

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION		
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS		X
INSPECTION OF HIGH STRENGTH BOLTING		Х
INSPECTION OF WELDING:		
COMPLETE AND PARTIAL PENETRATION GROOVE WELDS	Х	
MULTIPASS FILLET WELDS	Х	
SINGLE-PASS FILLET WELDS		Х
FLOOR AND ROOF DECK WELDS		X
INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS		X

NO: REVISION: BY:

RFP # 23-URMU-0424



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IDEA UPPER VALLEY IECHANICAL UPGRADE

GRANDE VALLE



F-15998

DATE: MARCH 15, 202

CHECKED BY:

DRAWN BY:

PROJECT NO.: 1

CAD FILE:

CAD FILE:
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CONSULTING STRUCTURAL ENGINEERS

GREEN, RUBIANO & ASSOCIATES

IDEA MCALLEN

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GENERAL STRUCTURAL NOTES IDEA EDINBURG

THESE GENERAL NOTES SHALL APPLY UNLESS OTHERWISE SPECIFICALLY NOTED ON PLANS OR DETAILS. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SHALL COORDINATE ALL STRUCTURAL PLANS AND DETAILS WITH ARCHITECTURAL & MECHANICAL DRAWINGS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CONTRACTOR MEANS AND METHODS OF CONSTRUCTION OR SITE SAFETY. DESIGN, CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE CONTROLLING PROVISIONS OF THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).

DESIGN CRITERIA

1. BASIS FOR DESIGN AND CODE COMPLIANCE	
A. GOVERNING BUILDING CODE	IBC 2018 EDITION
2. GRAVITY DESIGN ROOF:	
DEAD LOAD	SELF-WEIGHT OF STRUCTURE & ROOFING SYSTEM
LIVE LOAD	20 PSF (REDUCIBLE)
3. WIND DESIGN BASED ON:	

. ASCE 7-16 REQUIREMENTS	
DESIGN WIND SPEED	140 MPI
RISK CATEGORY	
WIND EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFFICIENT (GCpi)	+/-0.1
Kzt	•
K4	0.85

4. THESE BUILDINGS ARE DESIGNED TO MEET ASCE 7-16 WIND PRESSURES. ALL COMPONENTS AND CLADDINGS (E.G. WINDOWS, DOORS, ARCHITECTURAL SIDINGS AND ROOFING); MUST MEET MINIMUM WIND CODE REQUIREMENTS.

HAZARDOUS MATERIALS ABATEMENT/ MANAGEMENT

1. THE ENGINEER HAS NO RESPONSIBILITY OR LIABILITY FOR DESIGN, REMOVAL OF, OR TESTING FOR ASBESTOS/LEAD, OR FOR ABATEMENT /MANAGERIAL TREATMENTS, MONITORING, AND LEGAL DISPOSAL OF MATERIALS. CONTRACTOR SHALL DETERMINE IF ANY HAZARDOUS MATERIAL ABATEMENT/ MANAGEMENT IS REQUIRED AND SHALL INCLUDE COSTS THEREOF IN THE BID.

CONSTRUCTION NOTES ON THE REPAIR WORKS ON EXISTING STRUCTURE

- 1. BEFORE PROCEEDING WITH ANY WORK WITHIN THE EXISTING FACILITY. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH EXISTING STRUCTURAL AND OTHER CONDITIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY BRACING. SHORING AND OTHER SAFEGUARDS TO MAINTAIN ALL PARTS OF THE EXISTING WORK IN A SAFE CONDITION DURING THE PROCESS OF DEMOLITION AND CONSTRUCTION AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING WORK WHICH ARE TO REMAIN.
- 2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS. ELEVATIONS, ETC. NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTIONS OF THE WORK TO THE EXISTING WORK. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION OF STRUCTURAL MEMBERS. ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
- 3. WELDING TO AND WITHIN AN EXISTING FACILITY PRESENTS POTENTIAL HAZARDS INCLUDING:
 - A. FIRE HAZARD DUE TO THE EXISTING CONSTRUCTION AND BUILDING CONTENTS.
 - B. STRUCTURAL LIQUEFACTION DUE TO WELDING ACROSS THE FULL SECTION OF STRUCTURAL

RECOMMENDATIONS TO PREVENT THESE HAZARDS INCLUDE.

- A. FIRE HAZARD PROTECT EXISTING COMBUSTIBLES PRIOR TO WELDING. KEEP A SEPARATE WATCHMAN AND SEVERAL FIRE EXTINGUISHERS ON HAND.
- B. STRUCTURAL LIQUEFACTION WELD IN SMALL INCREMENTS. ALLOW WELDS TO HARDEN BEFORE CONTINUING TO THE NEXT INCREMENT.
- C. DO NOT LEAVE THE SITE UNTIL SATISFIED THAT NO FIRE HAZARD EXISTS.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND ERECTION OF ALL SHORING NECESSARY TO SAFEGUARD THE EXISTING STRUCTURE.

EXISTING CONDITIONS

- 1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL OBTAIN ALL FIELD MEASUREMENTS AS NECESSARY TO COORDINATE NEW CONSTRUCTION TO EXISTING CONDITIONS.
- 2. IF EXISTING CONDITIONS DIFFER FROM THE DRAWINGS, INFORM THE ENGINEER AND ADDITIONAL DETAILS OR INTERPRETATION WILL BE PROVIDED. DO NOT PROCEED WITHOUT VERIFICATION.
- 3. THE CONTRACTOR SHALL VISIT THE SITE OF THE PROPOSED WORK AND FULLY ACQUAINT THEMSELVES WITH THE EXISTING CONDITIONS.

DEMOLITION NOTES

- 1. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING STRUCTURE AND SURROUNDING BUILDINGS DURING CONSTRUCTION.
- 2. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY WATERTIGHTNESS OF THE BUILDING DURING DEMOLITION AND RECONSTRUCTION.
- 3. GENERAL CONTRACTOR SHALL COORDINATE WITH ENGINEER ITEMS THAT ARE UNCLEAR PRIOR TO ANY DEMOLITION.
- 4. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE PROJECT SITE TO DETERMINE DEMOLITION REQUIREMENTS AT THIS PROJECT. CONTRACTOR SHALL INCLUDE IN THEIR BID ALL THE DEMOLITION REQUIREMENTS TO COMPLETE THIS PROJECT.
- 5. GENERAL CONTRACTOR SHALL LOCATE AND LABEL ALL UTILITIES BEFORE COMMENCEMENT OF DEMOLITION & CONSTRUCTION ACTIVITIES. UTILITIES SHALL BE CLEARLY MARKED SO THAT ANY SUBCONTRACTOR VISITING THIS SITE CAN EASILY IDENTIFY UTILITIES. ANY COSTS TO REPAIR DAMAGES IF UTILITIES ARE NOT PROPERLY IDENTIFIED, ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 6. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING DEBRIS & MATERIAL AWAY FROM SITE ACCORDING TO GOVERNING LOCAL, STATE OR FEDERAL REGULATIONS.
- 7. ANY AREA DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.

PENETRATIONS

- 1. PENETRATIONS THROUGH EXISTING ELEMENTS SHALL COMPLY WITH THE DRAWINGS AND SPECIFICATIONS.
- 2. DO NOT CUT JOISTS, BEAMS OR COLUMNS WITHOUT PRIOR APPROVAL.
- 3. PENETRATIONS THROUGH LOAD-BEARING ELEMENTS SHALL BE TEMPORARILY SHORED TO PREVENT COLLAPSE, AS SPECIFIED BELOW.

TEMPORARY BRACING, FALSEWORK AND FORMWORK

- CONTRACTOR SHALL PROVIDE ENGINEERED SHORING PLAN PRIOR TO START OF ROOF COLUMN DEMOLITION. SHORING PLAN SHALL BE SIGNED AND SEALED BY A STATE OF TEXAS PROFESSIONAL
- THE DESIGN, ENGINEERING, FABRICATION, CONSTRUCTION, ERECTION, REMOVAL AND OVERALL SAFETY OF ALL TEMPORARY SUPPORTS SUCH AS FALSEWORK, FORMWORK, SHORES AND BRACING REQUIRED FOR THE EXECUTION OF THE CONTRACT ARE NOT INCLUDED IN THE DRAWINGS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- . THE ENGINEER'S EFFORTS ARE AIMED AT DESIGNING A PROJECT WHICH WILL BE SAFE AFTER FULL COMPLETION. THE ENGINEER HAS NO EXPERIENCE IN, AND TAKES NO RESPONSIBILITY FOR, CONSTRUCTION MEANS AND METHODS OR JOB SITE SAFETY DURING CONSTRUCTION. SAFETY IS EXCLUSIVELY THE CONTRACTOR'S RESPONSIBILITY. PROCESSING AND/OR APPROVING SUBMITTALS MADE BY CONTRACTOR WHICH MAY CONTAIN INFORMATION RELATED TO SHORING, CONSTRUCTION METHODS OR SAFETY ISSUES, OR PARTICIPATION IN MEETINGS WHERE SUCH ISSUES MIGHT BE DISCUSSED, MUST NOT BE CONSTRUED AS VOLUNTARY ASSUMPTION BY ENGINEER OF ANY RESPONSIBILITY FOR THESE SAFETY PROCEDURES.

<u>SAFETY</u>

- PERFORM ALL WORK IN A SAFE AND CONSCIENTIOUS MANNER TO PREVENT INJURIES.
- 2. CONTRACTOR SHALL MAINTAIN OSHA STANDARDS FOR JOB SAFETY AND WORKER PROTECTION, INCLUDING, BUT NOT LIMITED TO ADEQUATE PROTECTION, BARRICADES, SIGNS, ETC.
- 3. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR SAFETY. THE ENGINEER EXPRESSLY EXCLUDES ANY RESPONSIBILITY FOR CONTRACTOR SAFETY OR SAFETY OF JOBSITE.

STRUCTURAL STEEL

- TOP OF BEAM/PLATE (TOB OR TOP) IS USED INTERCHANGEABLY ON PLANS. REFERENCE APPLICABLE SECTION FOR CLARIFICATION.
- . STRUCTURAL STEEL WIDE FLANGE MEMBERS SHALL CONFORM TO ASTM SPECIFICATION A 572 AND/OR ASTM A 992 (Fy = 50 KSI) UNLESS OTHERWISE SHOWN OR NOTED. PLATE AND ANGLES MAY BE A36 (Fy = 36 KSI).
- 3. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM SPECIFICATION A-500, GRADE B (Fy=46 KSI). STEEL PIPE SHALL COMPLY WITH ASTM A53 TYPE E OR S (Fy=35 KSI).
- . ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
- ALL BOLTS SHALL BE 3/4 DIAMETER ASTM A325. WASHERS SHALL BE PROVIDED AT OVERSIZED HOLES AND AT SLOTTED CONNECTIONS AT EXPANSION JOINTS. A325 CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS UNLESS NOTED OTHERWISE. ANCHOR BOLTS MAY BE ASTM A307 UNLESS NOTED OTHERWISE.
- . REFER TO MANUFACTURER & MECHANICAL PLANS FOR VERIFICATION OF ALL BOLTS, BLOCKING ANCHORS, ETC., FOR THE ANCHORAGE OF THEIR RESPECTIVE ITEMS.
- . ALL BEAMS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS INDICATED ON PLANS OR APPROVED BY THE ENGINEER IN WRITING.
- . ALL SHOP AND FIELD WELDS SHALL BE MADE BY WELDERS WHO HAVE BEEN QUALIFIED AND CERTIFIED TO MAKE THE REQUIRED WELDS IN ACCORDANCE WITH THE LATEST AMERICAN WELDING SOCIETY SPECIFICATIONS (A.W.S. D-1.1).
- . WELDS SHALL BE MADE WITH COVERED MILD STEEL ELECTRODES COMPLYING WITH AWS D1 72 CODE AND SERIES E 70XX.
- 10. ERECTION CONNECTORS SHALL BE PROVIDED IN ORDER TO PROPERLY ALIGN AND BE TRUE AND PLUMB WHEN WELDS ARE MADE.

FASTENERS

- CAST-IN-PLACE AND POST-INSTALLED ANCHORS SHALL BE PER ANCHOR DIAMETER AND EMBEDMENT DEPTH NOTED ON THE DRAWINGS. POST-INSTALLED ANCHORS SHALL BE UTILIZED ONLY WHERE SPECIFIED. ALL ANCHORS SHALL BE HOT-DIPPED GALVANIZED PER ASTM A153.
- 2. ALL ANCHORS NOTED BELOW SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL CONTACT MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS, AND FOR PRODUCT RELATED QUESTIONS AND
- 3. SPECIAL INSPECTIONS SHALL BE PROVIDED FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE EVALUATION REPORT NOTED BELOW. SPECIAL INSPECTIONS SHALL BE PERFORMED BY INDEPENDENT TESTING LABORATORY PERFORMING QA/QC SERVICES ON PROJECT.
- 4. EXPANSION BOLTS (EB) IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
 - A. KWIK BOLT III (ICC-ES ESR-2302) BY HILTI (CONCRETE)
 - B. KWIK BOLT III (ICC-ES-ESR-1385) BY HILTI (MASONRY)
 - C. STRONG-BOLT 2 (ICC-ES ESR-3037) BY SIMPSON STRONG-TIE (CONCRETE)
 - D. WEDGE-ALL ANCHOR (ICC-ES ESR-1396) BY SIMPSON STRONG-TIE (MASONRY)
- 5. HEAVY DUTY SLEEVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED OR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. EXPANSION BOLTS (EB) SHALL NOT BE SUBSTITUTED FOR SLEEVE ANCHORS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER. ACCEPTABLE PRODUCTS:
- A. HSL-3 (ICC-ES ESR-1545) BY HILTI (CONCRETE)
- . SCREW ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
- A. KWIK HUS-EZ (ICC-ES ESR-3027) BY HILTI (CONCRETE)
- B. KWIK HUS-EZ (ICC-ES ESR-3056) BY HILTI (MASONRY)
- C. TITEN HD (ICC-ES ESR-2713) BY SIMPSON STRONG-TIE (CONCRETE)
- D. TAPCON ANCHORS (ICC-ES ESR-1671) (MASONRY)
- E. POWERS WEDGE BOLT (ICC-ES ESR-1678) (MASONRY)
- UNDERCUT ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
 - A. HDA (ICC-ES ESR-1546) BY HILTI (CONCRETE)
- B. TORQ-CUT (ICC-ES ESR-2705) BY SIMPSON STRONG-TIE (CONCRETE)
- POWDER ACTUATED FASTENERS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
- A. X-U (ICC-ES ESR-2269) BY HILTI (CONCRETE/MASONRY/STEEL)
- B. POWDER ACTUATED FASTENERS (ICC-ES ESR-2138) BY SIMPSON STRONG TIE CONCRETE/MASONRY)

FASTENERS CONTINUED

- ADHESIVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308. ACCEPTABLE PRODUCTS:
- A. HIT-RE 500-V3 (ICC-ES ESR-3814) BY HILTI (CONCRETE)
- B. HIT-HY 270 (ICC-ES ESR-4143) BY HILTI (MASONRY)
- C. SET-XP (ICC-ES ESR-2508) BY SIMPSON STRONG-TIE (CONCRETE)
- D. SET (ICC-ES ESR-1772) BY SIMPSON STRONG-TIE (MASONRY)
- 10. J-BOLTS SHALL BE FABRICATED FROM ASTM A36/A307 ROD. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. EXPANSION BOLTS/SLEEVE ANCHORS SHALL NOT BE SUBSTITUTED FOR J-BOLTS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER.
- 11. HEADED ANCHOR RODS SHALL BE FABRICATED FROM ASTM F1554 MATERIAL, FY=36 KSI.
- 12. SUBSTITUTION REQUESTS FOR PRODUCTS LISTED ABOVE SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS. SUBSTITUTED ANCHORS SHALL HAVE A VALID CURRENT EVALUATION (ICC-ES OR IAPMO-ES) REPORT.
- 13. REFERENCE STRUCTURAL STEEL NOTES FOR BOLTS CONNECTING STRUCTURAL STEEL COMPONENTS

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS INDEPENDENT OF THE CONTRACTOR, THE ARCHITECT, OR THE ENGINEER, SHALL BE PROVIDED BY A SPECIAL INSPECTOR EMPLOYED BY THE OWNER ACCORDING TO CHAPTER 17 OF THE IBC 2018. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SEND WRITTEN REPORTS TO THE OWNER, THE ARCHITECT, THE ENGINEER AND THE CONTRACTOR. THE REPORTS SHALL INDICATE IF WORK INSPECTED WAS DONE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE SPECIAL INSPECTOR SHALL BRING THE DISCREPANCIES TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, IN OR NOT IN CONFORMANCE WITH THE DRAWINGS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC 2018.

CONTINUOUS OR PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:

REQUIRED VERIFICATION AND INSPECTION OF ANCHORS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
CAST-IN-PLACE, POST-INSTALLED, MECHANICAL AND EPOXY SET ANCHORS: AS APPLICABLE, THE INSPECTION PROGRAM SHALL VERIFY THE ANCHOR TYPE, EMBEDMENT, TIGHTENING TORQUE, DIMENSIONS, HOLE DEPTH & DIAMETER AND CLEANOUT, EPOXY MIXING AND PLACEMENT PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE CURRENT ICC-ES EVALUATION REPORT	FREQUENCY OF INSPECTION SHACCORDANCE CURRENT ICC-EVALUATION REPORT THE SPECTION REQUIREMENTS ANCHOR SUBSWHICHEVER IS STRINGENT	HALL BE IN WITH THE ES EPORT, OR CLAL SOF THE TRATE,

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS		х
INSPECTION OF HIGH STRENGTH BOLTING		×
INSPECTION OF WELDING:		
COMPLETE AND PARTIAL PENETRATION GROOVE WELDS	Х	
MULTIPASS FILLET WELDS	Х	
SINGLE-PASS FILLET WELDS		X
FLOOR AND ROOF DECK WELDS		×
INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS		Х

NO: REVISION:

RFP # 23-URMU-0424



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1126 SOUTH COMMERCE ST HARLINGEN TX

PHONE: 956-230-3435

TEXAS REGISTERED ENGINEERING FIRM F-15998 MARCH 15, 202

CHECKED BY:

PROJECT NO.:

DRAWN BY:

IDEA EDINBURG

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S1.2

UNIT TO 2X6 DECKING

-L3x3x1/4 TOP & BOTTOM. FASTEN TO MECHANICAL YARD FOUNDATION AT

BOTTOM WITH 1/2"øx4" Lg ADHESIVE

ANCHORS 6" FROM EACH END AND AT

18" o/c MAX (3.1/2" MIN EMBEDMENT) PROVIDE 2" MIN EDGE DISTANCE ALL AROUND EX HOUSEKEEPING PAD

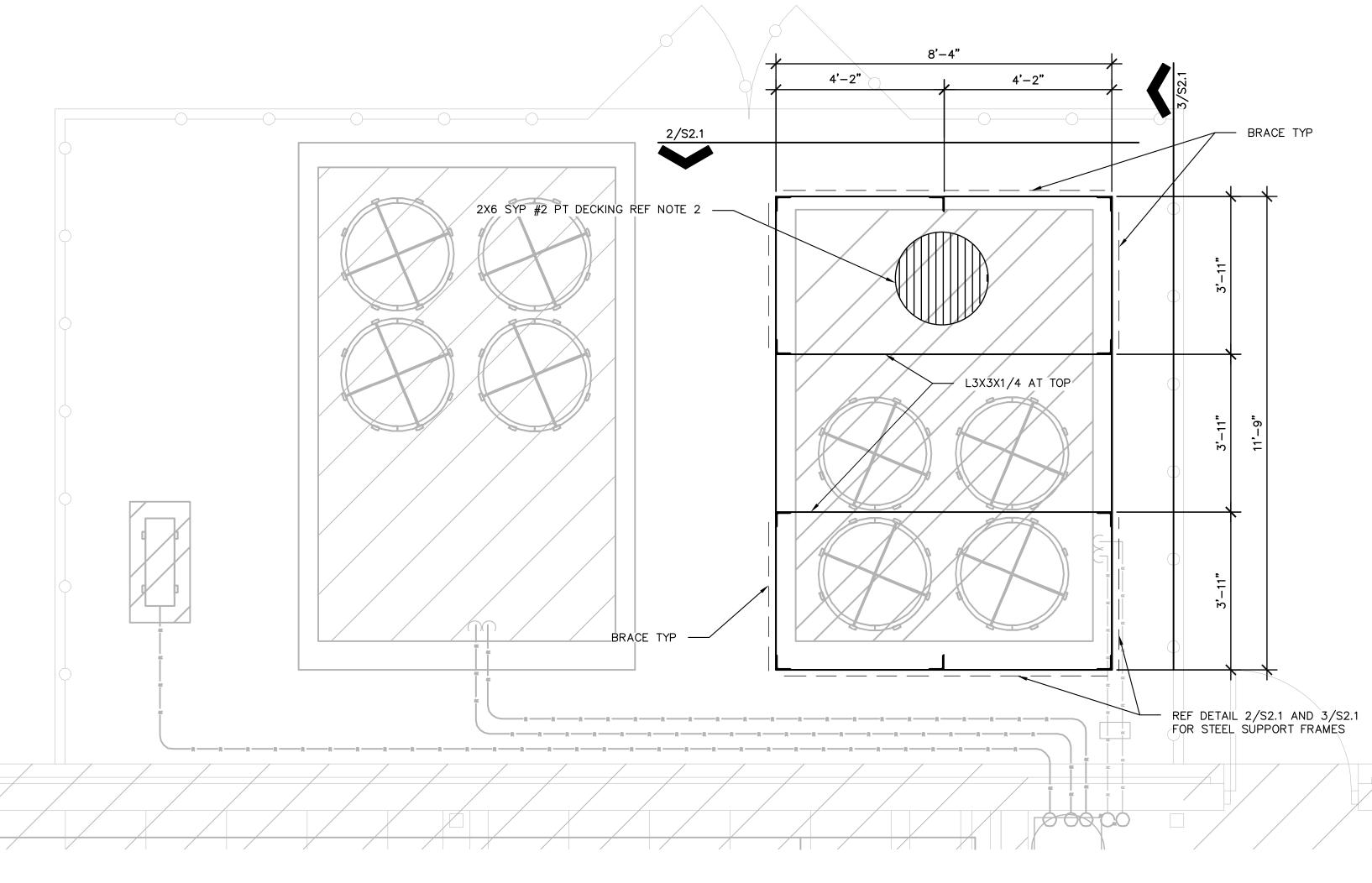
NO: REVISION: BY

RFP # 23-URMU-0424

1126 SOUTH COMMERCE ST. HARLINGEN, TX PHONE: 956-230-3435 TEXAS REGISTERED ENGINEERING FIRM F-15998

MARCH 15, 2024 CHECKED BY: DRAWN BY: PROJECT NO.:

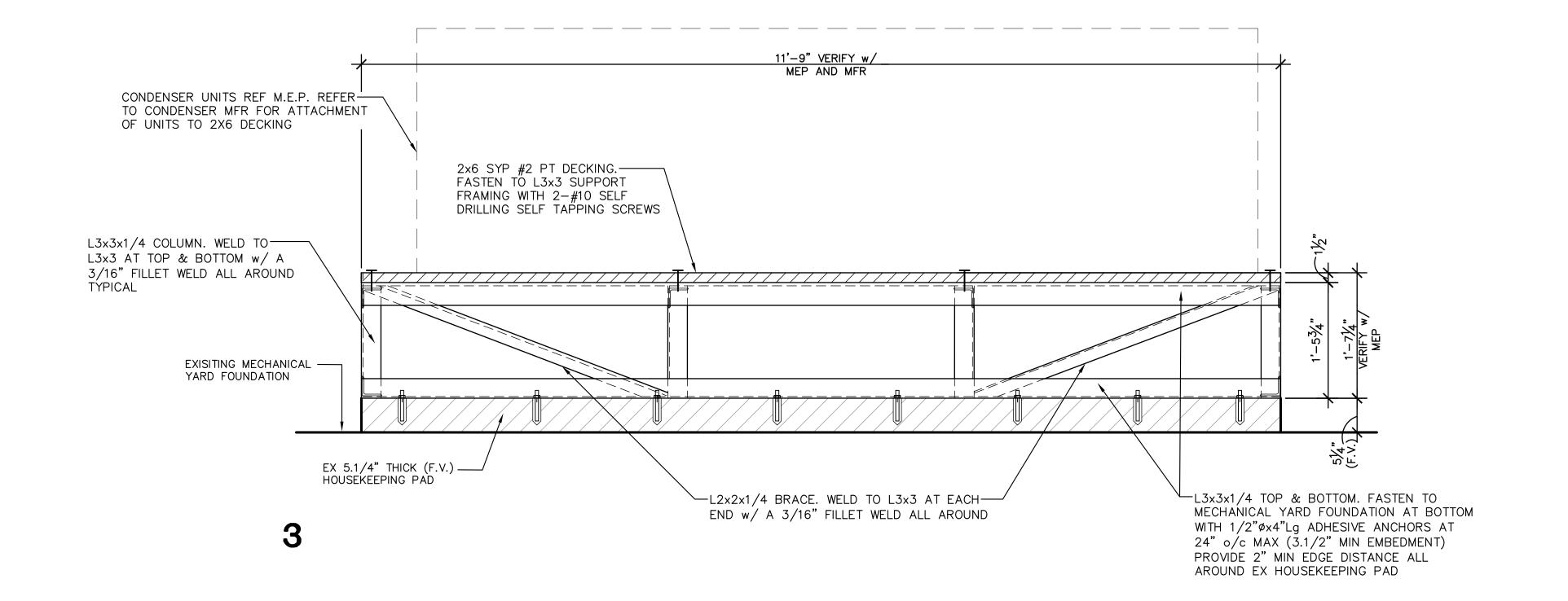
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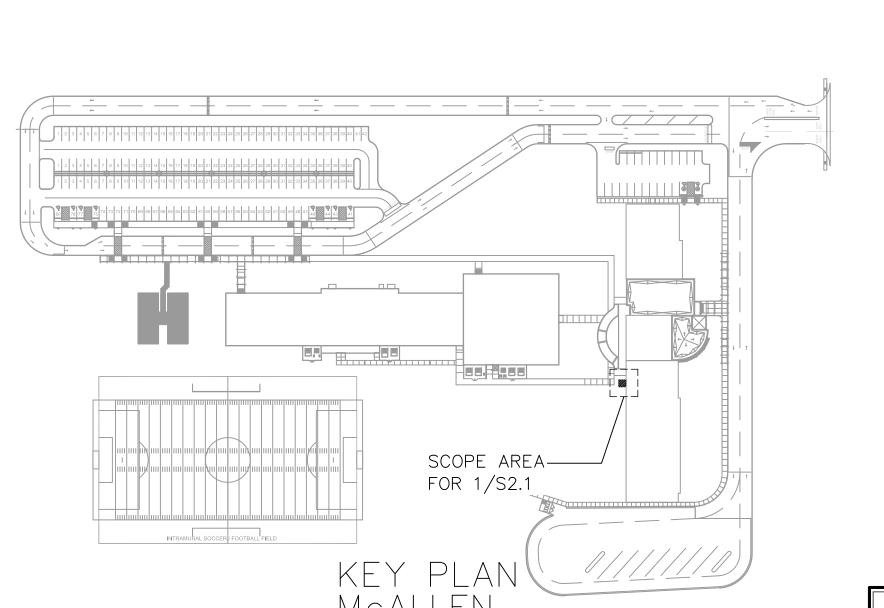


STRUCTURAL STEEL CONDENSER SUPPORT FRAME PLAN McALLEN BUILDING A 1/2" = 1'-0"**PLAN NORTH** NOTES:

ALL STRUCTURAL STEEL SHALL BE HOT DIPPED GALVANIZED UNLESS NOTED OTHERWISE.

2. 2X6 SYP #2 PT DECKING. FASTEN TO L3X3 SUPPORT FRAMING WITH 2-#10 SELF DRILLING SELF TAPPING SCREWS.





8'-4" VERIFY w/ MEP AND MFR

L2x2x1/4 BRACE WELD TO L3x3

AT EACH END w/ A 3/16" FILLET WELD ALL AROUND

2x6 SYP #2 PT DECKING.——

L3x3x1/4 COLUMN. WELD TO— L3x3 ÁT TOP AND BOTTOM w/ A FILLET WELD ALL AROUND

TYPICAL

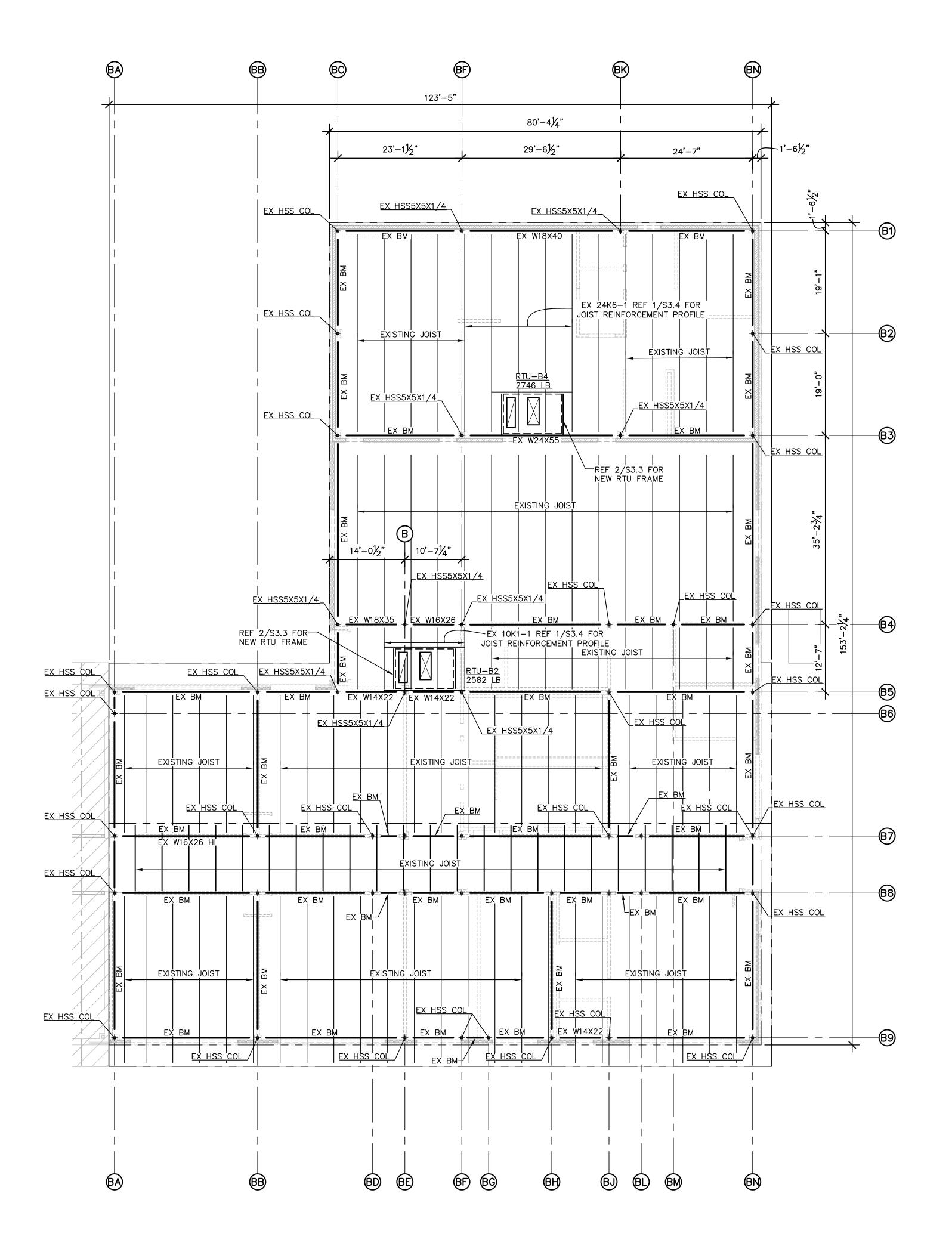
FASTEN TO L3x3 SUPPORT
FRAMING WITH 2-#10 SELF
DRILLING SELF, TAPPING SCREWS

EX 5.1/4" THICK (F.V.) — HOUSEKEEPING PAD

1220 WEST HARRISON
HARLINGEN, TEXAS 78551
(956)428-4461 EM: GRAGGRAENGINEERIN
FIRM REGISTRATION # F-4145

IDEA MCALLEN

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PARTIAL STRUCTURAL RENOVATION FRAMING PLAN

A - MODIFY EXISTING ROOF OPENING FRAME AS REQUIRED TO INSTALL

C - INSTALL NEW METAL ROOF DECK AS REQUIRED TO CLOSE-OFF AREAS

D - INSTALL NEW ROOFING INTEGRATED WITH EXISTING ROOF AND ONTO

2. NEW ROOF DECK SHALL BE 1.5B 22GA GALV DECK BY VULCRAFT OR APPROVED

EQUAL. (lp=0.155 IN^4/FT ; Sp=0.186 IN^3/FT ; In=0.183 IN^4/FT ; Sn=0.192 IN^3/FT ; Fy=33KSI). ATTACH DECK TO SUPPORTS USING 5/8" PUDDLE WELDS ON A 36/5 PATTERN AND 4-#10 TEK SCREW SIDE LAP FASTENERS.

NEW RTU CURBS AS REQUIRED FOR A COMPLETE WATERPROOF

B - INSTALL NEW ROOF OPENING FRAME PER DETAIL 2/S3.3.

BETWEEN NEW AND EXISTING ROOF OPENINGS.

NEW FRAME FOR NEW OPENING SIZE.

INSTALLATION (BY OTHERS).

NOTES:

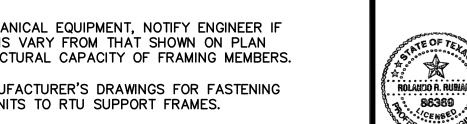
1. SCOPE OF WORK:

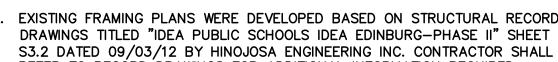


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- 3. PRIOR TO INSTALLATION OF MECHANICAL EQUIPMENT, NOTIFY ENGINEER IF EQUIPMENT WEIGHTS OR LOCATIONS VARY FROM THAT SHOWN ON PLAN TO ALLOW VERIFICATION OF STRUCTURAL CAPACITY OF FRAMING MEMBERS.
- 4. REFER TO MECHANICAL AND MANUFACTURER'S DRAWINGS FOR FASTENING OF THE ROOF CURB AND HVAC UNITS TO RTU SUPPORT FRAMES.
- 5. EXISTING FRAMING PLANS WERE DEVELOPED BASED ON STRUCTURAL RECORD REFER TO RECORD DRAWINGS FOR ADDITIONAL INFORMATION REQUIRED.
- 6. ALL STRUCTURAL STEEL NOTED ON FRAMING PLAN IS EXISTING UNLESS NOTED OTHERWISE.
- 7. REFERENCE 1/S3.4 FOR EXISTING JOIST REINFORCING PROFILES.
- 8. GENERAL CONTRACTOR WILL NEED TO CONTACT GRA TO SCHEDULE FIELD OBSERVATIONS TO OBSERVE EXISTING BAR JOIST AT NEW RTU LOCATIONS. CONTRACTOR WILL NEED TO PROVIDE A LIFT OR LADDERS ON SITE TO BE USED AS DIRECTED BY GRA PERSONNEL TO GAIN ACCESS TO EXISTING BAR

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.





1126 SOUTH COMMERCE ST.
HARLINGEN, TX
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

DRAWN BY:

IDEA EDINBURG

EDINBURG



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PROJECT NO.: **S3.1**

MARCH 15, 202

 \triangleleft UPPE MECHANIC

NO: REVISION: BY:

RFP # 23-URMU-0424

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RFP # 23-URMU-0424



UPPE MECHANIC



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MARCH 15, 202

PROJECT NO.: **S**3.2

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KEYPLAN EDINBURG

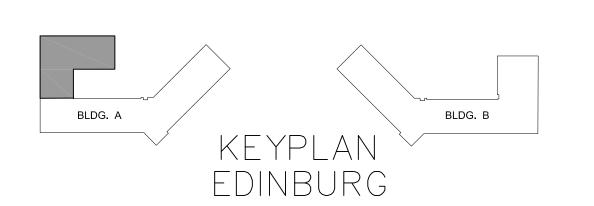


1. SCOPE OF WORK:

- A MODIFY EXISTING ROOF OPENING FRAME AS REQUIRED TO INSTALL NEW FRAME FOR NEW OPENING SIZE.
- B INSTALL NEW ROOF OPENING FRAME PER DETAIL 2/S3.3.
- C INSTALL NEW METAL ROOF DECK AS REQUIRED TO CLOSE-OFF AREAS BETWEEN NEW AND EXISTING ROOF OPENINGS.
- D INSTALL NEW ROOFING INTEGRATED WITH EXISTING ROOF AND ONTO NEW RTU CURBS AS REQUIRED FOR A COMPLETE WATERPROOF INSTALLATION (BY OTHERS).
- 2. NEW ROOF DECK SHALL BE 1.5B 22GA GALV DECK BY VULCRAFT OR APPROVED EQUAL. (Ip=0.155 IN 4 /FT; Sp=0.186 IN 3 /FT; In=0.183 IN 4 /FT; Sn=0.192 IN 3 /FT; Fy=33KSI). ATTACH DECK TO SUPPORTS USING 5/8" PUDDLE WELDS ON A 36/5 PATTERN AND 4-#10 TEK SCREW SIDE LAP FASTENERS.
- 3. PRIOR TO INSTALLATION OF MECHANICAL EQUIPMENT, NOTIFY ENGINEER IF EQUIPMENT WEIGHTS OR LOCATIONS VARY FROM THAT SHOWN ON PLAN TO ALLOW VERIFICATION OF STRUCTURAL CAPACITY OF FRAMING MEMBERS.
- 4. REFER TO MECHANICAL AND MANUFACTURER'S DRAWINGS FOR FASTENING OF THE ROOF CURB AND HVAC UNITS TO RTU SUPPORT FRAMES.
- 5. EXISTING FRAMING PLANS WERE DEVELOPED BASED ON STRUCTURAL RECORD DRAWINGS TITLED "IDEA PUBLIC SCHOOLS IDEA EDINBURG-PHASE II" SHEET S3.1 DATED 09/03/12 BY HINOJOSA ENGINEERING INC. CONTRACTOR SHALL REFÉR TO RECORD DRAWINGS FOR ADDITIONAL INFORMATION REQUIRED.
- 6. ALL STRUCTURAL STEEL NOTED ON FRAMING PLAN IS EXISTING UNLESS NOTED OTHERWISE.
- 7. REFERENCE 1/S3.4 FOR EXISTING JOIST REINFORCING PROFILE.

GENERAL CONTRACTOR WILL NEED TO CONTACT GRA TO SCHEDULE FIELD OBSERVATIONS TO OBSERVE EXISTING BAR JOIST AT NEW RTU LOCATIONS. CONTRACTOR WILL NEED TO PROVIDE A LIFT OR LADDERS ON SITE TO BE USED AS DIRECTED BY GRA PERSONNEL TO GAIN ACCESS TO EXISTING BAR JOISTS.

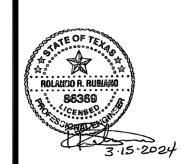
> CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.





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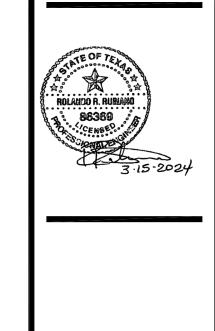
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PHONE: 956-230-3435 TEXAS REGISTERED ENGINEERING FIRM F-15998 MARCH 15, 202

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S3.3



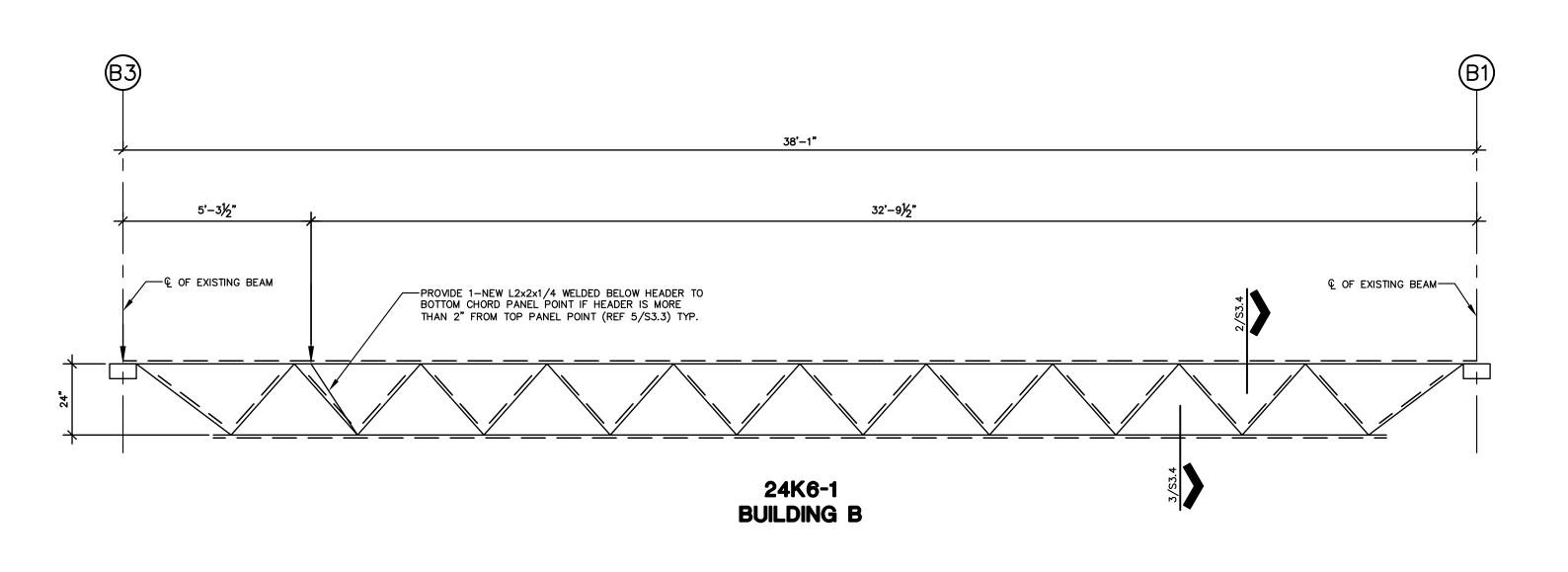
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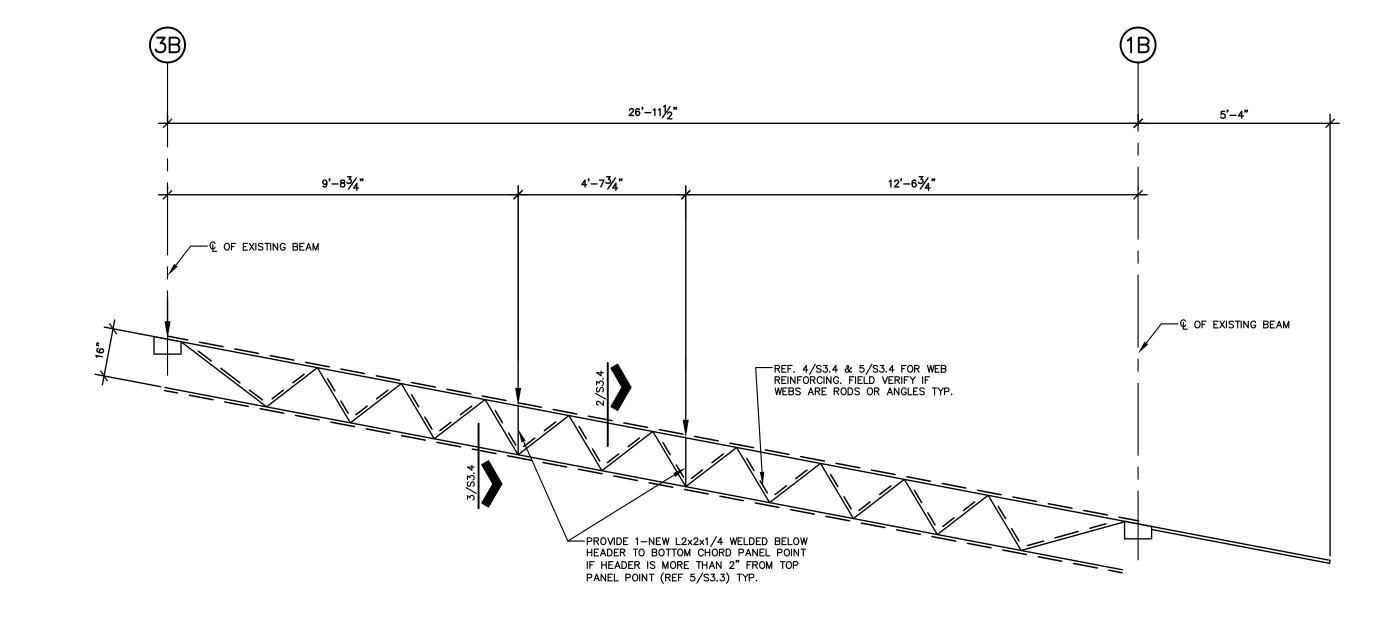
RFP # 23-URMU-0424

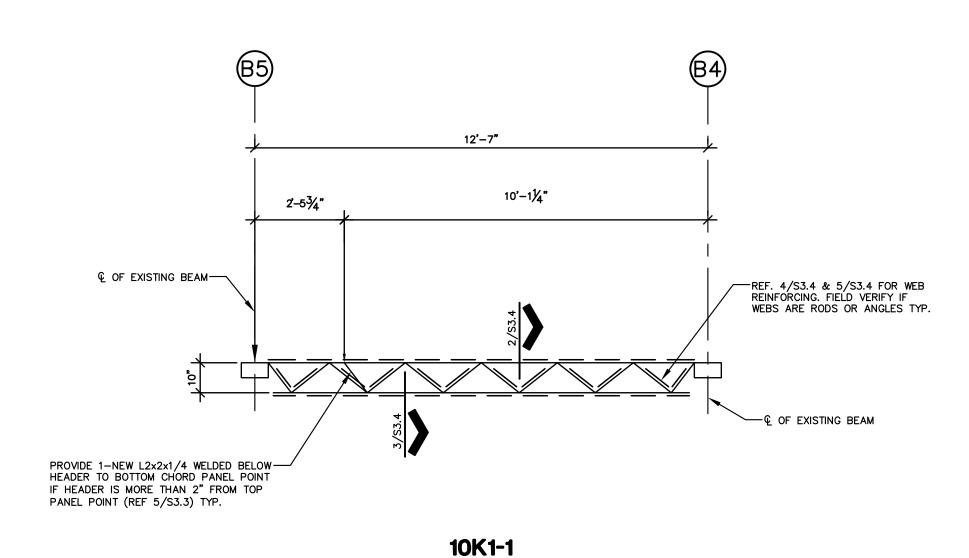
1126 SOUTH COMMERCE ST. HARLINGEN, TX PHONE: 956-230-3435 TEXAS REGISTERED

ENGINEERING FIRM F-15998 MARCH 15, 2024 CHECKED BY: DRAWN BY:

IDEA EDINBURG PROJECT NO.: GREEN, RUBIANO & ASSOCIATES CONSULTING STRUCTURAL ENGINEERS \$3.4







BUILDING B

8'-0" REF. 4/S3.4 & 5/S3.4 FOR WEB REINFORCING. FIELD VERIFY IF WEBS ARE RODS OR ANGLES TYP. € OF EXISTING BEAM— 10K1-2

BUILDING A

16K3-1

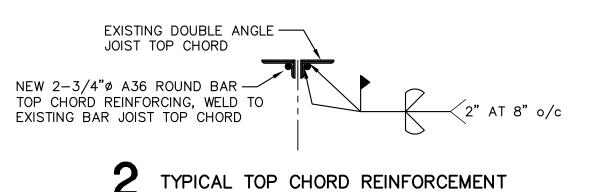


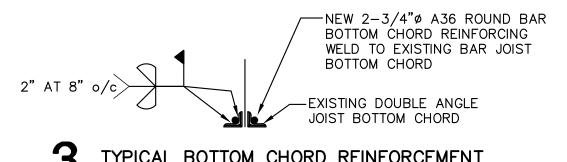
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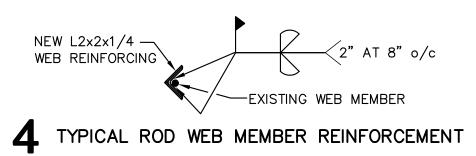
IDEA EDINBURG BUILDING A

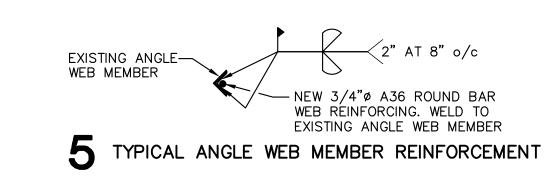
1. ALL EXISTING JOIST REINFORCEMENT PROFILES ARE SCHEMATIC AND PROVIDED FOR PRICING PURPOSES. ALL DIMENSIONS AND JOIST WEB LAYOUTS WILL NEED TO BE FIELD VERIFIED AFTER EXISTING JOIST ARE EXPOSED IN THE FIELD.

- 2. GENERAL CONTRACTOR WILL NEED TO CONTACT GRA TO SCHEDULE FIELD OBSERVATIONS TO OBSERVE EXISTING BAR JOIST AT NEW RTU LOCATIONS. CONTRACTOR WILL NEED TO PROVIDE A LIFT OR LADDERS ON SITE TO BE USED AS DIRECTED BY GRA PERSONNEL TO GAIN ACCESS TO EXISTING BAR JOISTS.
- 3. ONCE GRA HAS ANALYZED THE EXISTING BAR JOIST. THE JOIST REINFORCEMENT JOIST PROFILES ON 1/S3.4 WILL BE REVISED AS REQUIRED, INCORPORATING REPAIR DETAILS 2-5/S3.4.
- 4. REFERENCE PLAN FOR DEDUCTIVE ALTERNATES. CONTRACTOR TO REFER TO BID PROPOSAL FOR FURTHER INSTRUCTIONS.









TYPICAL BOTTOM CHORD REINFORCEMENT

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