# MIDLOTHIAN INDEPENDENT SCHOOL DISTRICT T.E. BAXTER ES

1050 Park Pl Blvd, Midlothian, TX 76065

## HVAC REPLACEMENT APRIL 28, 2023



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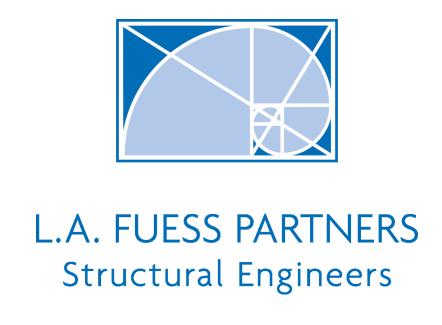
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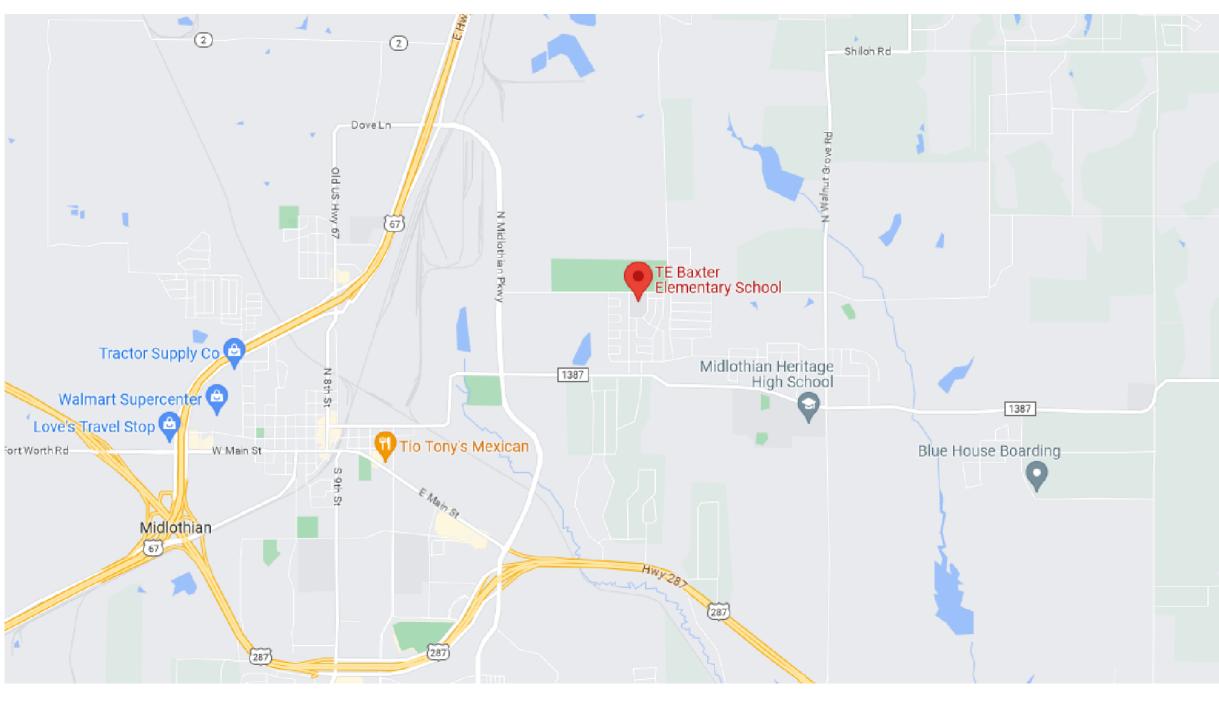
S1.01 GENERAL NOTES, SOSSI, PLAN, AND DETAILS



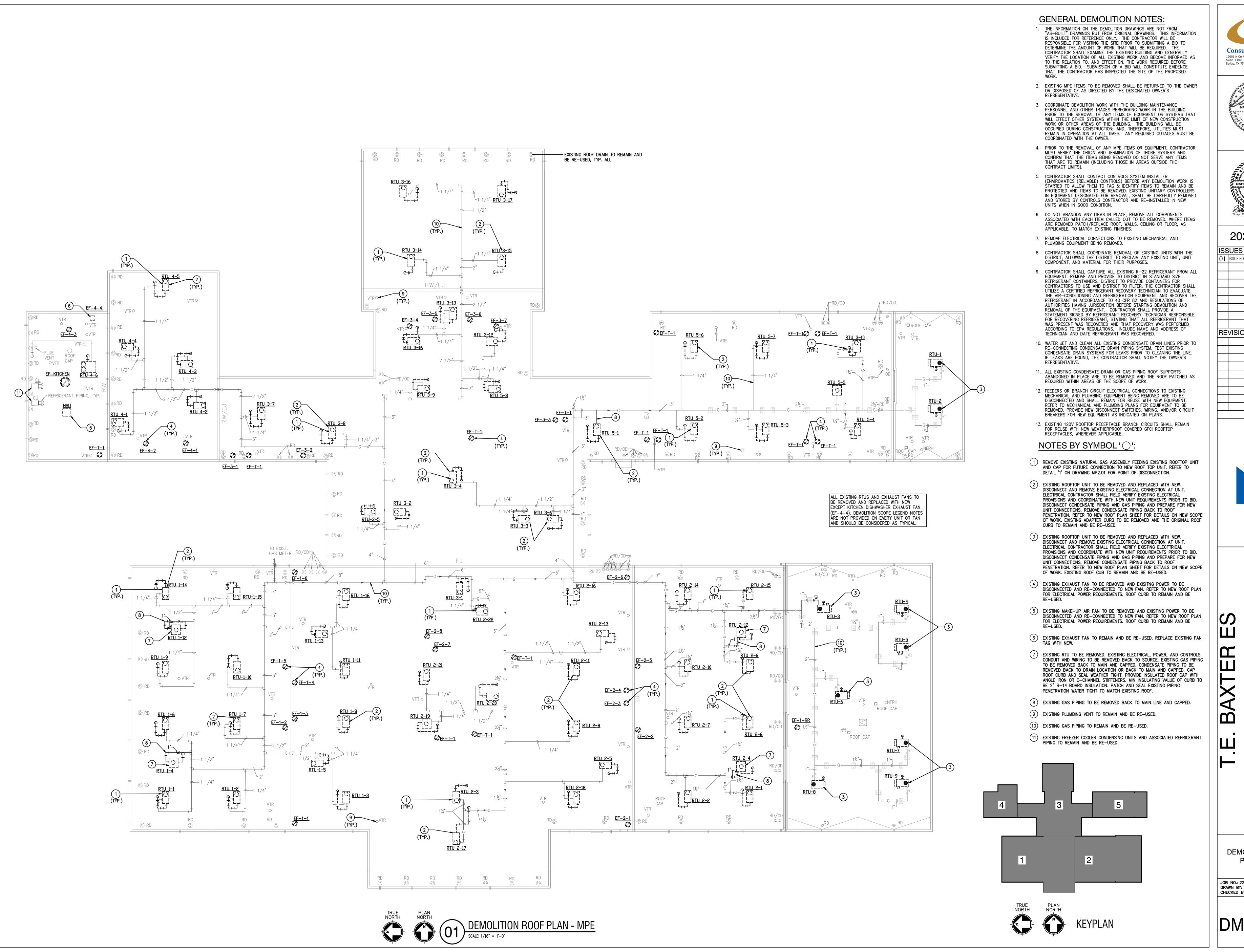
RWB PROJECT # 22146.00



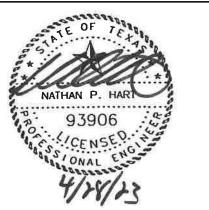


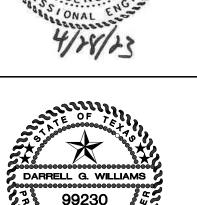


**Location Map** 



**Consulting Engineers** 12001 N Central Expy TX Firm #F-2176 Suite 1100 (972) 788-4222 Dallas, TX 75243 Project 22146.00 Suite 1100 Dallas, TX 75243





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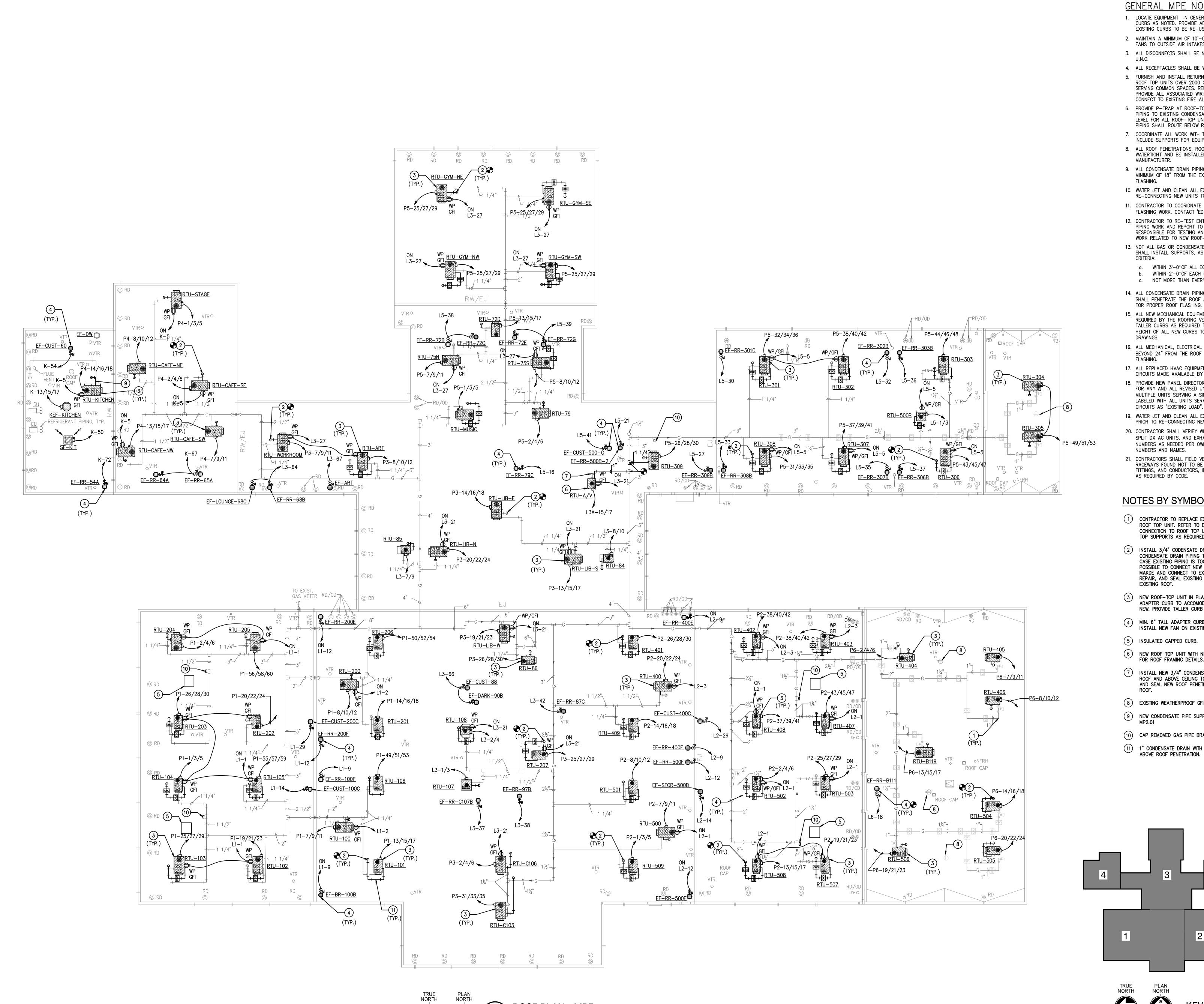




**DEMOLITION ROOF** PLAN - MPE

JOB NO.: 22146-00 DRAWN BY: ND CHECKED BY: HV/NH SHEET NO.

**DMPE1.01** 

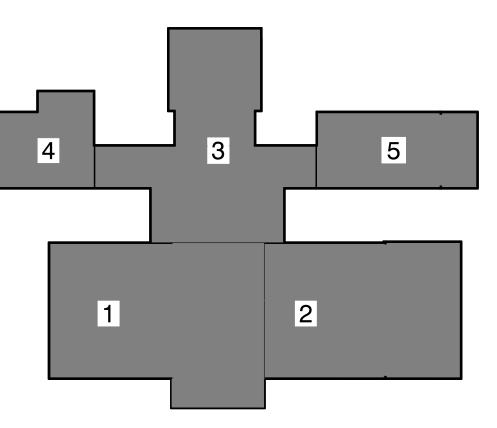


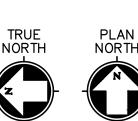


- 1. LOCATE EQUIPMENT IN GENERAL LOCATIONS SHOWN ON EXISTING OR NEW ROOF CURBS AS NOTED. PROVIDE ADAPTER CURB TO ACCOMMODATE NEW UNIT FOR ALL EXISTING CURBS TO BE RE-USED.
- 2. MAINTAIN A MINIMUM OF 10'-0" CLEARANCE FROM PLUMBING VENTS AND EXHAUST FANS TO OUTSIDE AIR INTAKES.
- 3. ALL DISCONNECTS SHALL BE NEMA 3R AND PROVIDED BY ELECTRICAL CONTRACTOR
- 4. ALL RECEPTACLES SHALL BE WEATHER PROOF GFI OUTLETS.
- 5. FURNISH AND INSTALL RETURN AIR MOUNTED SMOKE DUCT DETECTORS FOR ALL ROOF TOP UNITS OVER 2000 CFM OR PROVIDE AREA SMOKE DETECTORS FOR UNITS SERVING COMMON SPACES. REFER TO MECHANICAL EQUIPMENT SCHEDULE ON MP3.01. PROVIDE ALL ASSOCIATED WIRING AND PARTS FOR A COMPLETE WORKING SYSTEM. CONNECT TO EXISTING FIRE ALARM SYSTEM.
- 6. PROVIDE P-TRAP AT ROOF-TOP UNITS AND CONNECT NEW CONDENSATE DRAIN PIPING TO EXISTING CONDENSATE DRAIN PIPING, WHERE SUCH EXISTS, AT ROOF LEVEL FOR ALL ROOF-TOP UNITS. UNLESS NOTED OTHERWISE. ALL CONDENSATE PIPING SHALL ROUTE BELOW ROOF.
- 7. COORDINATE ALL WORK WITH THE STRUCTURAL AND ROOFING SYSTEMS INSTALLED TO INCLUDE SUPPORTS FOR EQUIPMENT.
- 8. ALL ROOF PENETRATIONS, ROOF PIPE SUPPORTS, FLASHING, ETC., SHALL BE WATERTIGHT AND BE INSTALLED AS RECOMMENDED BY THE ROOF SYSTEM
- 9. ALL CONDENSATE DRAIN PIPING DOWN FROM UNIT TO BELOW ROOF TO PENETRATE A MINIMUM OF 18" FROM THE EXISTING UNIT ROOF CURB TO ALLOW FOR PROPER ROOF
- 10. WATER JET AND CLEAN ALL EXISTING CONDENSATE DRAIN LINES PRIOR
- RE-CONNECTING NEW UNITS TO EXISTING CONDENSATE PIPING SYSTEMS. 11. CONTRACTOR TO COORIDNATE WITH AND USE 'FLYNN ROOFING' FOR ALL ROOFING AND
- FLASHING WORK. CONTACT 'ED RISING (817)-662-6399'. 12. CONTRACTOR TO RE-TEST ENTIRE GAS SYSTEM UPON COMPLETION OF ALL GAS PIPING WORK AND REPORT TO DISTRICT THE TEST RESULTS. CONTRACTOR SHALL BE
- RESPONSIBLE FOR TESTING AND REPAIRING GAS PIPING ISSUES ASSOCIATED WITH WORK RELATED TO NEW ROOF-TOP UNITS.
- 13. NOT ALL GAS OR CONDENSATE PIPE SUPPORTS ARE FULLY SHOWN. CONTRACTOR SHALL INSTALL SUPPORTS, AS DETAILED, IN THE LOCATIONS AS PER THE FOLLOWING
- a. WITHIN 3'-0" OF ALL EQUIPMENT CONNECTIONS.
- b. WITHIN 2'-0" OF EACH CHANGE OF DIRECTION, ELBOW AND TEE. c. NOT MORE THAN EVERY 10'-0"ON CENTER BEYOND THOSE REQUIRED ABOVE."
- 14. ALL CONDENSATE DRAIN PIPING ROUTED DOWN FROM UNIT TO BELOW THE ROOF SHALL PENETRATE THE ROOF A MINIMUM OF 18" FROM THE ROOF CURB TO ALLOW
- 15. ALL NEW MECHANICAL EQUIPMENT CURBS SHALL BE THE MINIMUM HEIGHT AS REQUIRED BY THE ROOFING VENDOR TO MEET THE ROOFING WARRANTY. PROVIDE TALLER CURBS AS REQUIRED TO MEET THE MINIMUM HEIGHT REQUIREMENTS. MINIMUM HEIGHT OF ALL NEW CURBS TO BE 18" TALL. WHERE NOT SPECIFIED ELSEWHERE ON
- 16. ALL MECHANICAL, ELECTRICAL AND/OR PLUMBING ROOF PENETRATIONS SHALL OCCUR BEYOND 24" FROM THE ROOF PARAPET IN ORDER TO ALLOW FOR PROPER ROOF
- 17. ALL REPLACED HVAC EQUIPMENT IS INTENDED TO BE FED FROM EXISTING BRANCH CIRCUITS MADE AVAILABLE BY DEMOLITION OF EXISTING HVAC EQUIPMENT.
- 18. PROVIDE NEW PANEL DIRECTORY AND LABEL EACH CIRCUIT WITH CORRECT NOTATION FOR ANY AND ALL REVISED UNIT LABELS OR CIRCUITING. WHERE THERE ARE MULTIPLE UNITS SERVING A SINGLE BREAKER/CIRCUIT. THE CIRCUIT SHALL BE LABELED WITH ALL UNITS SERVED BY ASSOCIATED CIRCUIT. DO NOT LABEL ANY CIRCUITS AS "EXISTING LOAD".
- 19. WATER JET AND CLEAN ALL EXISTING CONDENSATE DRAIN LINES TO BE RE-USED PRIOR TO RE-CONNECTING NEW UNITS TO EXISTING CONDENSATE PIPING SYSTEM.
- 20. CONTRACTOR SHALL VERIFY WITH OWNER ALL MECHANICAL EQUIPMENT TAGS (RTUS, SPLIT DX AC UNITS, AND EXHAUST FANS) AND SHALL MATCH THE PERMANENT ROOM NUMBERS AS NEEDED PER OWNER'S DIRECTION. REFER TO FLOOR PLANS FOR ROOM NUMBERS AND NAMES.
- 21. CONTRACTORS SHALL FIELD VERIFY AND REPAIR ALL EXISTING TO REMAIN ROOFTOP RACEWAYS FOUND NOT TO BE IN SERVICEABLE CONDITION. REPLACE RACEWAYS, FITTINGS, AND CONDUCTORS, IF NECESSARY TO MAINTAIN WEATHERTIGHT CONDITION,

#### NOTES BY SYMBOL ' ():

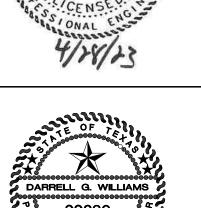
- (1) CONTRACTOR TO REPLACE EXISTING NATURAL GAS ASSEMBLY TO NEW ROOF TOP UNIT. REFER TO DETAIL '1' ON DRAWING MP2.01 FOR GAS CONNECTION TO ROOF TOP UNIT DETAIL. EXTEND PIPING AND ADD ROOF TOP SUPPORTS AS REQUIRED FOR FINAL CONNECTION TO UNIT.
- (2) INSTALL 3/4" CODENSATE DRAIN WITH P-TRAP. CONNECT NEW CONDENSATE DRAIN PIPING TO EXISITNG ABOVE ROOF PENETRATION. IN CASE EXISTING PIPING IS TOO CLOSE TO THE UNIT AND IT IS NOT POSSIBLE TO CONNECT NEW PIPING, A NEW ROOF PENETRATION CAN BE MAKDE AND CONNECT TO EXISTING CD PIPING BELOW ROOF. PATCH, REPAIR, AND SEAL EXISTING ROOF PENETRATION, WATER TIGHT TO MATCH
- (3) NEW ROOF-TOP UNIT IN PLACE OF EXISTING. PROVIDE MIN. 18" TALL ADAPTER CURB TO ACCOMODATE DUCT TRANSITIONS FROM EXISTING TO NEW. PROVIDE TALLER CURB IF REQUIRED.
- (4) MIN. 6" TALL ADAPTER CURB OR CURB EXTENSION SHALL BE PROVIDED TO INSTALL NEW FAN ON EXISTING CURB.
- (5) INSULATED CAPPED CURB.
- (6) NEW ROOF TOP UNIT WITH NEW CURB. REFER TO STRUCTURAL DRAWINGS FOR ROOF FRAMING DETAILS.
- (7) INSTALL NEW 3/4" CONDENSATE DRAIN WITH P-TRAP. PIPE TO RUN BELOW ROOF AND ABOVE CEILING TO NEAREST CONNECTION POINT. PATCH, REPAIR, AND SEAL NEW ROOF PENETRATION, WATER TIGHT TO MATCH EXISTING
- (8) EXISTING WEATHERPROOF GFI ROOF RECEPTACLE TO REMAIN.
- (9) NEW CONDENSATE PIPE SUPPORT, TYP.. REFER TO DETAIL '02' ON SHEET
- (10) CAP REMOVED GAS PIPE BRANCH CONNECTION AT MAIN LINE.
- (11) 1" CONDENSATE DRAIN WITH P-TRAP, CONNECT TO EXISTING CD PIPING ABOVE ROOF PENETRATION.





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ROOF PLAN - MPE

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SHEET NO.

MPE1.01

DEMOLITION FLOOR PLAN - AREA 1 - HVAC

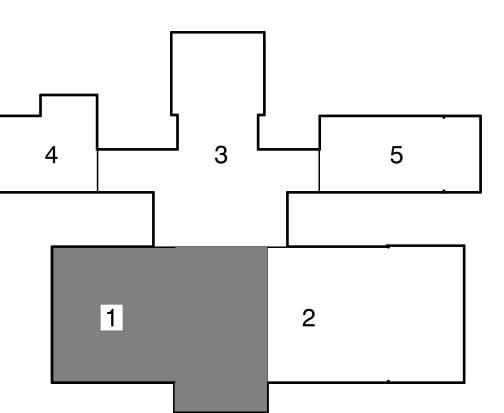
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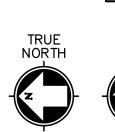
**GENERAL DEMOLITION NOTES:** 

- 1. THE INFORMATION ON THE DEMOLITION DRAWINGS ARE NOT FROM "AS-BUILT" DRAWINGS BUT FROM ORIGINAL DRAWINGS. THIS INFORMATION IS INCLUDED FOR REFERENCE ONLY. CONTRACTOR WILL BE RESPONSIBLE FOR VISITING THE SITE PRIOR TO SUBMITTING A BID TO DETERMINE THE AMOUNT OF WORK THAT WILL BE REQUIRED. CONTRACTOR SHALL EXAMINE THE EXISTING BUILDING AND GENERALLY VERIFY THE LOCATION OF ALL EXISTING WORK AND BECOME INFORMED AS TO THE RELATION TO, AND EFFECT ON, THE WORK REQUIRED BEFORE SUBMITTING A BID. SUBMISSION OF A BID WILL CONSTITUTE EVIDENCE THAT THE CONTRACTOR HAS INSPECTED THE SITE OF THE PROPOSED WORK.
- 2. EXISTING MPE ITEMS TO BE REMOVED SHALL BE RETURNED TO THE OWNER OR DISPOSED OF AS DIRECTED BY THE DESIGNATED OWNER'S REPRESENTATIVE.
- 3. COORDINATE DEMOLITION WORK WITH THE BUILDING MAINTENANCE PERSONNEL AND OTHER TRADES PERFORMING WORK IN THE BUILDING PRIOR TO THE REMOVAL OF ANY ITEMS OF EQUIPMENT OR SYSTEMS THAT WILL EFFECT OTHER SYSTEMS WITHIN THE LIMIT OF NEW CONSTRUCTION OR OTHER AREAS OF THE BUILDING. THE BUILDING WILL BE OCCUPIED DURING CONSTRUCTION; AND, THEREFORE, UTILITIES MUST REMAIN IN OPERATION AT ALL TIMES. ANY REQUIRED OUTAGES MUST BE COORDINATED WITH THE OWNER.
  - PRIOR TO THE REMOVAL OF ANY MPE ITEMS OR EQUIPMENT, CONTRACTOR MUST VERIFY THE ORIGIN AND TERMINATION OF THOSE SYSTEMS AND CONFIRM THAT THE ITEMS BEING REMOVED DO NOT SERVE ANY ITEMS THAT ARE TO REMAIN (INCLUDING THOSE IN AREAS OUTSIDE THE
- 5. CONTRACTOR SHALL CONTACT CONTROLS SYSTEM INSTALLER BEFORE ANY DEMOLITION WORK IS STARTED TO ALLOW THEM TO TAG & IDENTIFY ITEMS TO REMAIN AND BE PROTECTED AND ITEMS TO BE REMOVED. THE CONTROLS SYSTEM INSTALLER SHALL COORDINATE WITH THE OWNER FOR ELEMENTS OF THE EXISTING CONTROLS SYSTEM THAT SHALL BE CAREFULLY REMOVED AND GIVEN TO THE OWNER SUCH AS EXISTING TEMPERATURE SENSORS THAT WILL NOT BE RE-USED. ALL EXISTING TEMPERATURE ONLY SENSORS SERVING EXISTING RTUS SHALL BE CAREFULLY REMOVED, SHRINK WRAPPED, PALATIZED, AND PROVIDED TO OWNER FOR THEIR USE.
- 6. DO NOT ABANDON ANY ITEMS IN PLACE, REMOVE ALL COMPONENTS ASSOCIATED WITH EACH ITEM CALLED OUT TO BE REMOVED. WHERE ITEMS ARE REMOVED PATCH/REPLACE ROOF, WALLS, CEILING OR FLOOR, AS APPLICABLE, TO MATCH EXISTING FINISHES, WHERE NEW FINISHES ARE CALLED FOR PATCHING SHALL MATCH THE NEW FINISH.
- 7. ALL EXISTING FIRE ALARM, SECURITY AND OTHER CEILING MOUNTED DEVICES TO REMAIN IN OPERATION DURING CONSTRUCTION AND BE RE-INSTALLED AS NEEDED. TEMPORARILY SUPPORT
- 8. ALL EXISTING LIGHTS ARE TO BE REUSED AND REMAIN IN PLACE, UNLESS NOTED OTHERWISE. CONTRACTOR TO SUPPORT LIGHTS ABOVE CEILING DURING ANY CEILING DEMOLITION.
- 9. CLEAN EXISTING RE-USED SUPPLY, RETURN AND EXHAUST GRILLES FREE OF ALL DUST AND
- 10. WHERE NEW SENSORS MOUNTED LOWER THAN ORIGINAL OR IN DIFFERENT LOCATION, PROVIDE STAINLESS STEEL COVER PLATE OVER OLD LOCATION, AND PROVIDE NEW WIRING IN GYPSUM OR PLASTER WALLS TO NEW LOCATION OR PROVIDE PANDUIT FROM CEILING TO NEW LOCATION FOR SENSOR INSTALLED ON BRICK OR CMU WALLS. CONTROLS CONTRACTOR TO PROVIDE COVER
- 11. REMOVE AND RE-INSTALL EXISTING LAY-IN AND GYPSUM CEILING AS REQUIRED TO ACCOMODATE NEW DUCTWORK. PROVIDE NEW TILE AND GRID AS NEEDED. PATCH AND REPAIR AREAS OF GYPSUM CEILING TO MATCH EXISTING WHERE REQUIRED. WHERE GYPSUM CEILING IS REMOVED, PAINT ENTIRE ROOM CEILING AFTER PATCHING.
- 12. WATER JET AND CLEAN ALL EXISTING CONDENSATE DRAIN LINES PRIOR TO RE-CONNECTING NEW UNITS TO EXISTING CONDENSATE DRAIN PIPNIG SYSTEM.
- 13. THE MECHANICAL CONTRACTOR / DEMOLITION CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR REGARDING THE SCOPE OF DEMOLITION FOR ELECTRICAL CONNECTIONS. THOSE UNITS BEING REMOVED SHALL BE SAFELY DISCONNECTED FROM EXISTING POWER.
- 14. CONTRACTOR SHALL COORDINATE REMOVAL OF EXISTING UNITS WITH DISTRICT, ALLOWING THE DISTRICT TO REMOVE ANY EXISTING UNIT COMPONENTS FOR SPARE STOCK.
- 15. PROVIDE FLOOR PROTECTION IN ALL AREAS OF DEMOLITION AND NEW WORK THROUGH OUT THE BUILDING FROM WORK AREA TO EXTERIOR. FLOORING PROTECTION TO BE FULL WIDTH OF CORRIDOR AND BE RAM BOARD OR EQUAL TYPE FLOOR PROTECTION.

#### NOTES BY SYMBOL ' ():

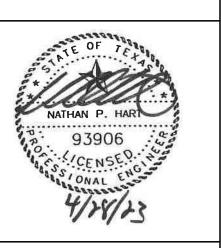
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- 4 EXISTING RTU ON ROOF TO BE REMOVED AND REPLACED WITH NEW. DISCONNECT EXISTING DUCTWORK BELOW ROOF FROM EXISTING RTU AND RECONNECT WITH NEW UNIT.
- (5) EXISTING TEMPERATURE SENSOR TO BE REMOVED. PATCH, REPAIR, AND PAINT WALL TO MATCH EXISTING. EXISTING SENSORS SHALL BE CAREFULLY REMOVED, WRAPPED, PALLETIZED, AND RETURNED TO DISTRICT (OWNER).
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- 8 EXISTING ROOF-TOP UNIT VENT OT BE REMOVED AND ROOF CAPPED. EXISTING CONDENSATE DRAIN PIPING TO BE CAPPED AND ABANDONED IN PLACE.







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**DEMOLITION FLOOR** PLAN - AREA 1 - HVAC

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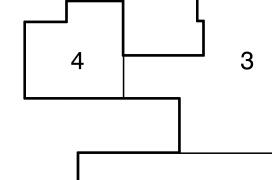
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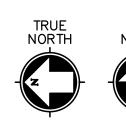
TRUE NORTH

PLAN NORTH

DEMOLITION FLOOR PLAN - AREA 2 - HVAC

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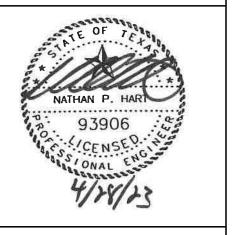












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#### NOTES BY SYMBOL ' ():

PAINT ENTIRE ROOM CEILING AFTER PATCHING.

UNITS TO EXISTING CONDENSATE DRAIN PIPNIG SYSTEM.

**GENERAL DEMOLITION NOTES:** 

INSPECTED THE SITE OF THE PROPOSED WORK.

CONTRACT LIMITS).

REQUIRED OUTAGES MUST BE COORDINATED WITH THE OWNER.

1. THE INFORMATION ON THE DEMOLITION DRAWINGS ARE NOT FROM "AS-BUILT" DRAWINGS BUT FROM ORIGINAL DRAWINGS. THIS INFORMATION IS INCLUDED FOR REFERENCE ONLY. CONTRACTOR WILL BE RESPONSIBLE FOR VISITING THE SITE PRIOR TO SUBMITTING A BID TO DETERMINE THE AMOUNT OF WORK THAT WILL BE REQUIRED. CONTRACTOR SHALL EXAMINE THE EXISTING BUILDING AND GENERALLY VERIFY THE LOCATION OF ALL EXISTING WORK AND BECOME INFORMED AS TO THE RELATION TO, AND EFFECT ON, THE WORK REQUIRED BEFORE SUBMITTING

A BID. SUBMISSION OF A BID WILL CONSTITUTE EVIDENCE THAT THE CONTRACTOR HAS

2. EXISTING MPE ITEMS TO BE REMOVED SHALL BE RETURNED TO THE OWNER OR DISPOSED OF AS DIRECTED BY THE DESIGNATED OWNER'S REPRESENTATIVE.

3. COORDINATE DEMOLITION WORK WITH THE BUILDING MAINTENANCE PERSONNEL AND OTHER TRADES PERFORMING WORK IN THE BUILDING PRIOR TO THE REMOVAL OF ANY ITEMS OF

EQUIPMENT OR SYSTEMS THAT WILL EFFECT OTHER SYSTEMS WITHIN THE LIMIT OF NEW

4. PRIOR TO THE REMOVAL OF ANY MPE ITEMS OR EQUIPMENT, CONTRACTOR MUST VERIFY THE

CONSTRUCTION OR OTHER AREAS OF THE BUILDING. THE BUILDING WILL BE OCCUPIED DURING

CONSTRUCTION; AND, THEREFORE, UTILITIES MUST REMAIN IN OPERATION AT ALL TIMES. ANY

ORIGIN AND TERMINATION OF THOSE SYSTEMS AND CONFIRM THAT THE ITEMS BEING REMOVED DO NOT SERVE ANY ITEMS THAT ARE TO REMAIN (INCLUDING THOSE IN AREAS OUTSIDE THE

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EXISTING TEMPERATURE ONLY SENSORS SERVING EXISTING RTUS SHALL BE CAREFULLY REMOVED,

CEILING OR FLOOR, AS APPLICABLE, TO MATCH EXISTING FINISHES, WHERE NEW FINISHES ARE CALLED FOR PATCHING SHALL MATCH THE NEW FINISH.

OPERATION DURING CONSTRUCTION AND BE RE-INSTALLED AS NEEDED. TEMPORARILY SUPPORT

6. DO NOT ABANDON ANY ITEMS IN PLACE, REMOVE ALL COMPONENTS ASSOCIATED WITH EACH ITEM CALLED OUT TO BE REMOVED. WHERE ITEMS ARE REMOVED PATCH/REPLACE ROOF, WALLS,

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10. WHERE NEW SENSORS MOUNTED LOWER THAN ORIGINAL OR IN DIFFERENT LOCATION, PROVIDE STAINLESS STEEL COVER PLATE OVER OLD LOCATION, AND PROVIDE NEW WIRING IN GYPSUM OR

SENSOR INSTALLED ON BRICK OR CMU WALLS. CONTROLS CONTRACTOR TO PROVIDE COVER

11. REMOVE AND RE-INSTALL EXISTING LAY-IN AND GYPSUM CEILING AS REQUIRED TO ACCOMODATE NEW DUCTWORK. PROVIDE NEW TILE AND GRID AS NEEDED. PATCH AND REPAIR AREAS OF

GYPSUM CEILING TO MATCH EXISTING WHERE REQUIRED. WHERE GYPSUM CEILING IS REMOVED,

12. WATER JET AND CLEAN ALL EXISTING CONDENSATE DRAIN LINES PRIOR TO RE-CONNECTING NEW

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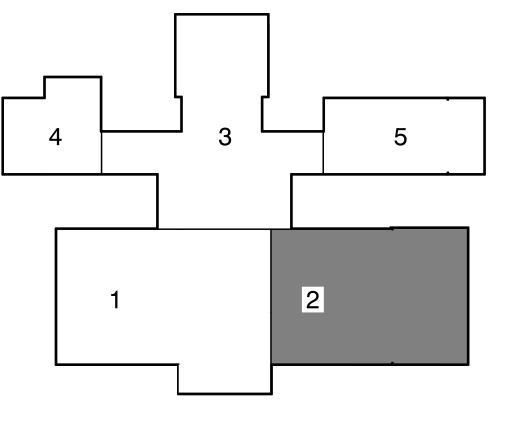
DISTRICT TO REMOVE ANY EXISTING UNIT COMPONENTS FOR SPARE STOCK.

CORRIDOR AND BE RAM BOARD OR EQUAL TYPE FLOOR PROTECTION.

PLASTER WALLS TO NEW LOCATION OR PROVIDE PANDUIT FROM CEILING TO NEW LOCATION FOR

SHRINK WRAPPED, PALATIZED, AND PROVIDED TO OWNER FOR THEIR USE.

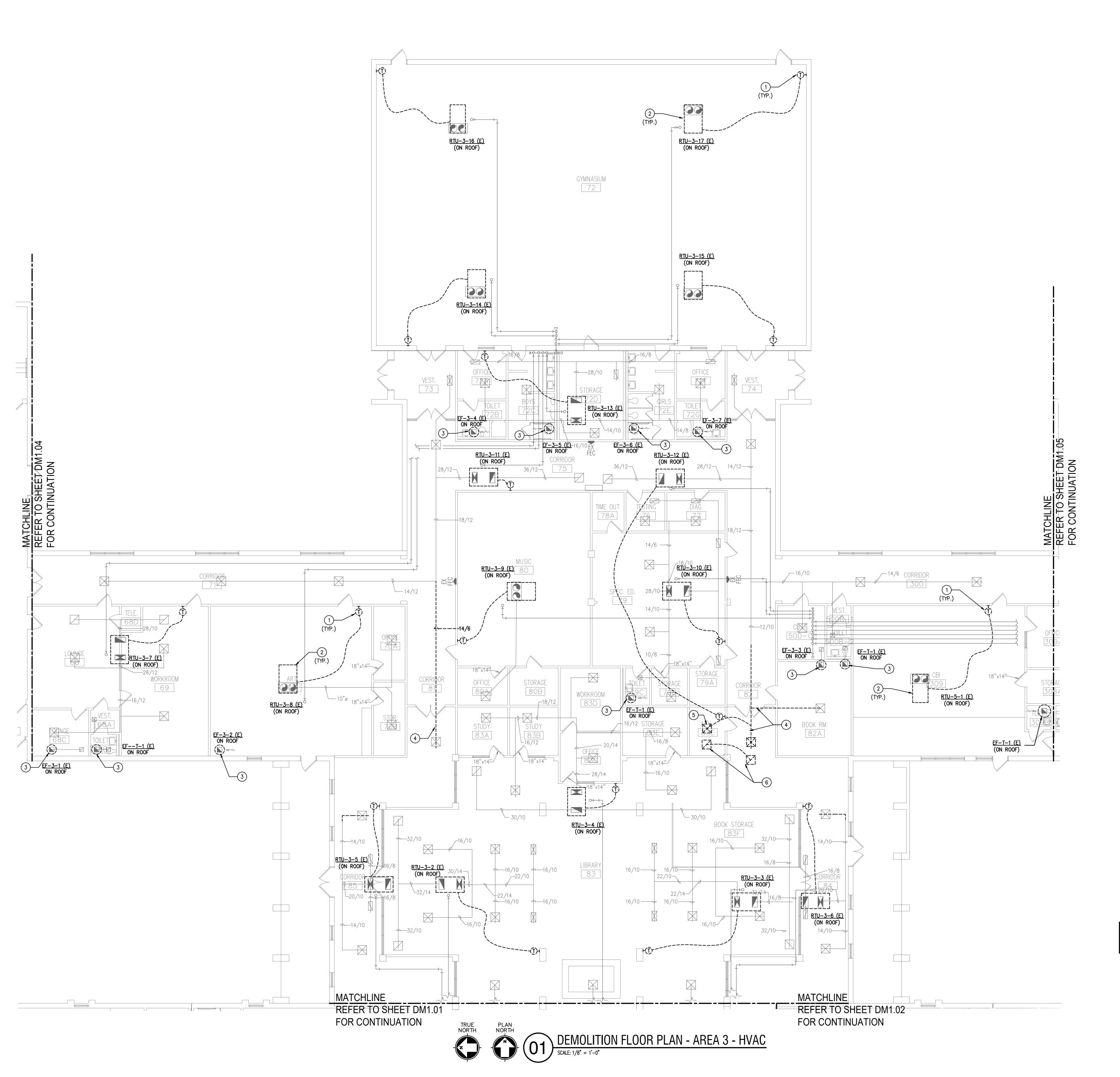
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- (10) EXISTING ROOF-TOP UNIT VENT OT BE REMOVED AND ROOF CAPPED. EXISTING CONDENSATE DRAIN PIPING TO BE CAPPED AND ABANDONED IN PLACE.



JOB NO.: 22146-00 DRAWN BY: ND CHECKED BY: HV/NH SHEET NO.

DM1.02

**DEMOLITION FLOOR** PLAN - AREA 2 - HVAC









2023.04.28

ISSUES
01 ISSUE FOR CONSTRUCTION 2023.04.28

REVISIONS





**GENERAL DEMOLITION NOTES:** 

INSPECTED THE SITE OF THE PROPOSED WORK.

CONTRACT LIMITS).

DIRECTED BY THE DESIGNATED OWNER'S REPRESENTATIVE.

REQUIRED OUTAGES MUST BE COORDINATED WITH THE OWNER.

1. THE INFORMATION ON THE DEMOLITION DRAWINGS ARE NOT FROM "AS-BUILT" DRAWINGS BUT FROM ORIGINAL DRAWINGS. THIS INFORMATION IS INCLUDED FOR REFERENCE ONLY.

A BID. SUBMISSION OF A BID WILL CONSTITUTE EVIDENCE THAT THE CONTRACTOR HAS

3. COORDINATE DEMOLITION WORK WITH THE BUILDING MAINTENANCE PERSONNEL AND OTHER

TRADES PERFORMING WORK IN THE BUILDING PRIOR TO THE REMOVAL OF ANY ITEMS OF EQUIPMENT OR SYSTEMS THAT WILL EFFECT OTHER SYSTEMS WITHIN THE LIMIT OF NEW CONSTRUCTION OR OTHER AREAS OF THE BUILDING. THE BUILDING WILL BE OCCUPIED DURING

4. PRIOR TO THE REMOVAL OF ANY MPE ITEMS OR EQUIPMENT, CONTRACTOR MUST VERIFY THE ORIGIN AND TERMINATION OF THOSE SYSTEMS AND CONFIRM THAT THE ITEMS BEING REMOVED

DO NOT SERVE ANY ITEMS THAT ARE TO REMAIN (INCLUDING THOSE IN AREAS OUTSIDE THE

5. CONTRACTOR SHALL CONTACT CONTROLS SYSTEM INSTALLER BEFORE ANY DEMOLITION WORK IS STARTED TO ALLOW THEM TO TAG & IDENTIFY ITEMS TO REMAIN AND BE PROTECTED AND ITEMS TO BE REMOVED. THE CONTROLS SYSTEM INSTALLER SHALL COORDINATE WITH THE OWNER FOR ELEMENTS OF THE EXISTING CONTROLS SYSTEM THAT SHALL BE CAREFULLY REMOVED AND GIVEN TO THE OWNER SUCH AS EXISTING TEMPERATURE SENSORS THAT WILL NOT BE RE—USED. ALL EXISTING TEMPERATURE ONLY SENSORS SERVING EXISTING RTUS SHALL BE CAREFULLY REMOVED,

6. DO NOT ABANDON ANY ITEMS IN PLACE, REMOVE ALL COMPONENTS ASSOCIATED WITH EACH

7. ALL EXISTING FIRE ALARM, SECURITY AND OTHER CEILING MOUNTED DEVICES TO REMAIN IN

8. ALL EXISTING LIGHTS ARE TO BE REUSED AND REMAIN IN PLACE, UNLESS NOTED OTHERWISE. CONTRACTOR TO SUPPORT LIGHTS ABOVE CEILING DURING ANY CEILING DEMOLITION.

9. CLEAN EXISTING RE-USED SUPPLY, RETURN AND EXHAUST GRILLES FREE OF ALL DUST AND

10. WHERE NEW SENSORS MOUNTED LOWER THAN ORIGINAL OR IN DIFFERENT LOCATION, PROVIDE STAINLESS STEEL COVER PLATE OVER OLD LOCATION, AND PROVIDE NEW WIRING IN GYPSUM OR

11. REMOVE AND RE-INSTALL EXISTING LAY-IN AND GYPSUM CEILING AS REQUIRED TO ACCOMODATE NEW DUCTWORK. PROVIDE NEW TILE AND GRID AS NEEDED. PATCH AND REPAIR AREAS OF GYPSUM CEILING TO MATCH EXISTING WHERE REQUIRED. WHERE GYPSUM CEILING IS REMOVED,

12. WATER JET AND CLEAN ALL EXISTING CONDENSATE DRAIN LINES PRIOR TO RE-CONNECTING NEW

13. THE MECHANICAL CONTRACTOR / DEMOLITION CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR REGARDING THE SCOPE OF DEMOLITION FOR ELECTRICAL CONNECTIONS. THOSE

14. CONTRACTOR SHALL COORDINATE REMOVAL OF EXISTING UNITS WITH DISTRICT, ALLOWING THE

15. PROVIDE FLOOR PROTECTION IN ALL AREAS OF DEMOLITION AND NEW WORK THROUGH OUT THE BUILDING FROM WORK AREA TO EXTERIOR. FLOORING PROTECTION TO BE FULL WIDTH OF

UNITS BEING REMOVED SHALL BE SAFELY DISCONNECTED FROM EXISTING POWER.

DISTRICT TO REMOVE ANY EXISTING UNIT COMPONENTS FOR SPARE STOCK.

CORRIDOR AND BE RAM BOARD OR EQUAL TYPE FLOOR PROTECTION.

PLASTER WALLS TO NEW LOCATION OR PROVIDE PANDUIT FROM CEILING TO NEW LOCATION FOR SENSOR INSTALLED ON BRICK OR CMU WALLS. CONTROLS CONTRACTOR TO PROVIDE COVER

ITEM CALLED OUT TO BE REMOVED. WHERE ITEMS ARE REMOVED PATCH/REPLACE ROOF, WALLS, CEILING OR FLOOR, AS APPLICABLE, TO MATCH EXISTING FINISHES, WHERE NEW FINISHES ARE

OPERATION DURING CONSTRUCTION AND BE RE-INSTALLED AS NEEDED. TEMPORARILY SUPPORT

SHRINK WRAPPED, PALATIZED, AND PROVIDED TO OWNER FOR THEIR USE.

CALLED FOR PATCHING SHALL MATCH THE NEW FINISH.

PAINT ENTIRE ROOM CEILING AFTER PATCHING.

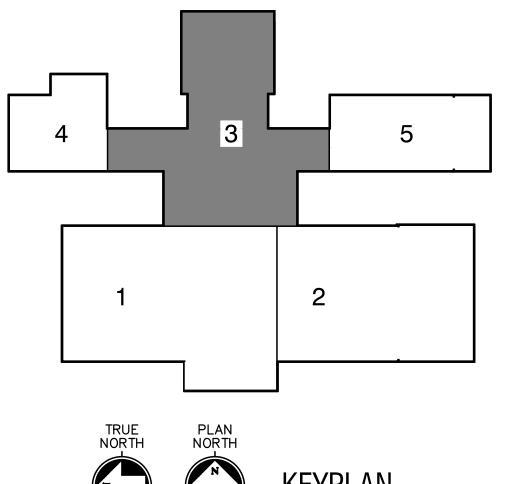
UNITS TO EXISTING CONDENSATE DRAIN PIPNIG SYSTEM.

CONSTRUCTION; AND, THEREFORE, UTILITIES MUST REMAIN IN OPERATION AT ALL TIMES. ANY

2. EXISTING MPE ITEMS TO BE REMOVED SHALL BE RETURNED TO THE OWNER OR DISPOSED OF AS

CONTRACTOR WILL BE RESPONSIBLE FOR VISITING THE SITE PRIOR TO SUBMITTING A BID TO DETERMINE THE AMOUNT OF WORK THAT WILL BE REQUIRED. CONTRACTOR SHALL EXAMINE THE EXISTING BUILDING AND GENERALLY VERIFY THE LOCATION OF ALL EXISTING WORK AND BECOME INFORMED AS TO THE RELATION TO, AND EFFECT ON, THE WORK REQUIRED BEFORE SUBMITTING

- 1 EXISTING TEMPERATURE SENSOR TO BE REMOVED AND REPLACED WITH NEW. EXISTING SENSORS SHALL BE CAREFULLY REMOVED, WRAPPED, PALLETIZED, AND RETURNED TO DISTRICT (OWNER).
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- 3 EXISTING EXHAUST FAN ON ROOF TO BE REMOVED AND REPLACED WITH NEW. DISCONNECT EXISTING DUCTWORK BELOW ROOF FROM EXISTING EXHAUST FAN AND CONNECT TO NEW FAN.
- EXISTING SUPPLY AIR DUCTWORK TO BE REMOVED FROM DIFFUSER BACK TO APPROXIMATE LOCATION SHOWN AND CAPPED. EXISTING DIFFUSER TO REMAIN AND BE RE-USED. PROVIDE NEW CEILING TILE IN PLACE OF REMOVED EXISTING DIFFUSER TO MATCH CEILING TILE MODEL "USG-FSRD-FC".
- 5 EXISTING SUPPLY AIR DIFFUSER AND ASSOCIATED DUCTWORK TO BE REMOVED BACK TO APPROXIMATE LOCATION SHOWN AND CAPPED. EXISTING DIFFUSER TO REMAIN AND BE RE-USED.
- 6 EXISTING TRANSFER AIR GRILLE AND ASSOCIATED DUCTWORK TO BE REMOVED.



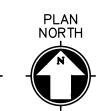
DEMOLITION FLOOR PLAN - AREA 3 - HVAC

JOB NO.: 22146-00 DRAWN BY: ND CHECKED BY: HV/NH

SHEET NO.

DM1.03











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	ISSUE FOR CONSTRUCTION	2023.04.28											

REVISIONS										





PAINT ENTIRE ROOM CEILING AFTER PATCHING.

UNITS TO EXISTING CONDENSATE DRAIN PIPNIG SYSTEM.

**GENERAL DEMOLITION NOTES:** 

INSPECTED THE SITE OF THE PROPOSED WORK.

CONTRACT LIMITS).

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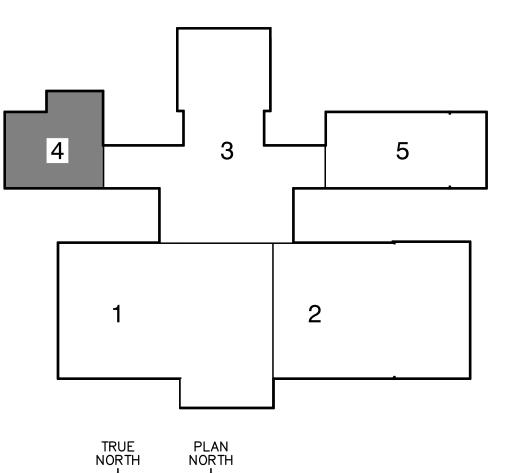
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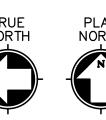
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- 4) EXISTING MAKE-UP AIR FAN ON ROOF TO BE REMOVED AND REPLACED WITH NEW. DISCONNECT EXISTING DUCTWORK BELOW ROOF FROM EXISTING EXHAUST FAN AND CONNECT TO NEW FAN.
- 5 REMOVE INSULATION ON EXISTING EXHAUST DUCTWORK FROM HOOD CONNECTION BACK TO FAN CONNECTION ON ROOF.
- 6 REMOVE INSULATION ON EXISTING MAKE-UP AIR DUCTWORK FROM HOOD CONNECTION BACK TO FAN CONNECTION ON ROOF.
- 7) EXISTING RETURN AIR DUCTWORK TO BE REMOVED FROM GRILLE BACK TO APPROXIMATE LOCATION SHOWN. EXISTING RETURN GRILLE TO BE REMOVED AND



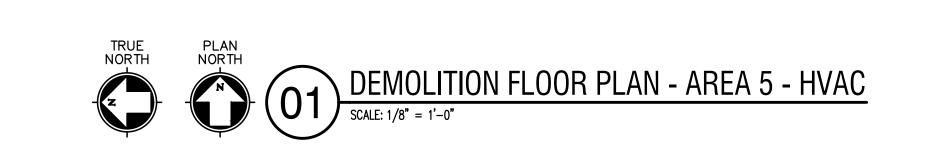




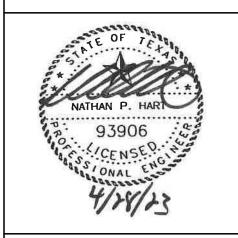
JOB NO.: 22146-00 DRAWN BY: ND CHECKED BY: HV/NH SHEET NO.

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DEMOLITION FLOOR PLAN - AREA 4 - HVAC







2023.04.28

**()1** ISSUE FOR CONSTRUCTION | 2023.04.28

ISSUES

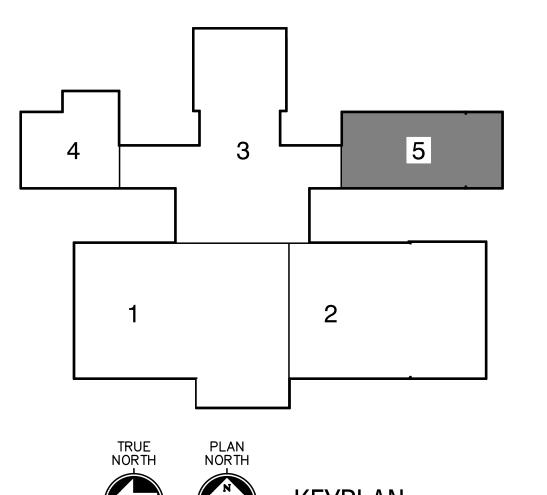
REVISIONS

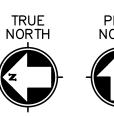
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- 4. PRIOR TO THE REMOVAL OF ANY MPE ITEMS OR EQUIPMENT, CONTRACTOR MUST VERIFY THE ORIGIN AND TERMINATION OF THOSE SYSTEMS AND CONFIRM THAT THE ITEMS BEING REMOVED DO NOT SERVE ANY ITEMS THAT ARE TO REMAIN (INCLUDING THOSE IN AREAS OUTSIDE THE CONTRACT LIMITS).
- 5. CONTRACTOR SHALL CONTACT CONTROLS SYSTEM INSTALLER BEFORE ANY DEMOLITION WORK IS STARTED TO ALLOW THEM TO TAG & IDENTIFY ITEMS TO REMAIN AND BE PROTECTED AND ITEMS TO BE REMOVED. THE CONTROLS SYSTEM INSTALLER SHALL COORDINATE WITH THE OWNER FOR ELEMENTS OF THE EXISTING CONTROLS SYSTEM THAT SHALL BE CAREFULLY REMOVED AND GIVEN TO THE OWNER SUCH AS EXISTING TEMPERATURE SENSORS THAT WILL NOT BE RE-USED. ALL EXISTING TEMPERATURE ONLY SENSORS SERVING EXISTING RTUS SHALL BE CAREFULLY REMOVED, SHRINK WRAPPED, PALATIZED, AND PROVIDED TO OWNER FOR THEIR USE.
- 6. DO NOT ABANDON ANY ITEMS IN PLACE, REMOVE ALL COMPONENTS ASSOCIATED WITH EACH ITEM CALLED OUT TO BE REMOVED. WHERE ITEMS ARE REMOVED PATCH/REPLACE ROOF, WALLS, CEILING OR FLOOR, AS APPLICABLE, TO MATCH EXISTING FINISHES, WHERE NEW FINISHES ARE CALLED FOR PATCHING SHALL MATCH THE NEW FINISH.
- 7. ALL EXISTING FIRE ALARM, SECURITY AND OTHER CEILING MOUNTED DEVICES TO REMAIN IN OPERATION DURING CONSTRUCTION AND BE RE-INSTALLED AS NEEDED. TEMPORARILY SUPPORT
- 8. ALL EXISTING LIGHTS ARE TO BE REUSED AND REMAIN IN PLACE, UNLESS NOTED OTHERWISE. CONTRACTOR TO SUPPORT LIGHTS ABOVE CEILING DURING ANY CEILING DEMOLITION.
- 9. CLEAN EXISTING RE-USED SUPPLY, RETURN AND EXHAUST GRILLES FREE OF ALL DUST AND
- 10. WHERE NEW SENSORS MOUNTED LOWER THAN ORIGINAL OR IN DIFFERENT LOCATION, PROVIDE STAINLESS STEEL COVER PLATE OVER OLD LOCATION, AND PROVIDE NEW WIRING IN GYPSUM OR PLASTER WALLS TO NEW LOCATION OR PROVIDE PANDUIT FROM CEILING TO NEW LOCATION FOR SENSOR INSTALLED ON BRICK OR CMU WALLS. CONTROLS CONTRACTOR TO PROVIDE COVER PLATES AND PANDUIT.
- 11. REMOVE AND RE-INSTALL EXISTING LAY-IN AND GYPSUM CEILING AS REQUIRED TO ACCOMODATE NEW DUCTWORK. PROVIDE NEW TILE AND GRID AS NEEDED. PATCH AND REPAIR AREAS OF GYPSUM CEILING TO MATCH EXISTING WHERE REQUIRED. WHERE GYPSUM CEILING IS REMOVED, PAINT ENTIRE ROOM CEILING AFTER PATCHING.
- 12. WATER JET AND CLEAN ALL EXISTING CONDENSATE DRAIN LINES PRIOR TO RE-CONNECTING NEW UNITS TO EXISTING CONDENSATE DRAIN PIPNIG SYSTEM.
- 13. THE MECHANICAL CONTRACTOR / DEMOLITION CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR REGARDING THE SCOPE OF DEMOLITION FOR ELECTRICAL CONNECTIONS. THOSE UNITS BEING REMOVED SHALL BE SAFELY DISCONNECTED FROM EXISTING POWER.
- 14. CONTRACTOR SHALL COORDINATE REMOVAL OF EXISTING UNITS WITH DISTRICT, ALLOWING THE DISTRICT TO REMOVE ANY EXISTING UNIT COMPONENTS FOR SPARE STOCK.
- 15. PROVIDE FLOOR PROTECTION IN ALL AREAS OF DEMOLITION AND NEW WORK THROUGH OUT THE BUILDING FROM WORK AREA TO EXTERIOR. FLOORING PROTECTION TO BE FULL WIDTH OF CORRIDOR AND BE RAM BOARD OR EQUAL TYPE FLOOR PROTECTION.

#### NOTES BY SYMBOL ' ():

- (1) EXISTING RTU ON ROOF TO BE REMOVED AND REPLACED WITH NEW. DISCONNECT EXISTING DUCTWORK BELOW ROOF FROM EXISTING RTU AND RECONNECT WITH NEW
- 2 EXISTING TEMPERATURE SENSOR TO BE REMOVED AND REPLACED WITH NEW. EXISTING SENSORS SHALL BE CAREFULLY REMOVED, WRAPPED, PALLETIZED, AND RETURNED TO DISTRICT (OWNER).
- (3) EXISTING EXHAUST FAN ON ROOF TO BE REMOVED AND REPLACED WITH NEW. DISCONNECT EXISTING DUCTWORK BELOW ROOF FROM EXISTING EXHAUST FAN AND CONNECT TO NEW FAN.
- (4) EXISTING CEILING MOUNTED EXHAUST FAN TO BE REMOVED AND REPLACED WITH NEW. DISCONNECT EXISTING DUCTWORK FROM EXISTING EXHAUST FAN AND CONNECT TO NEW FAN.
- (5) EXISTING COMBINATION TEMPERATURE/HUMIDITY SENSORS TO BE REMOVED AND RE-USED FOR NEW UNITS.



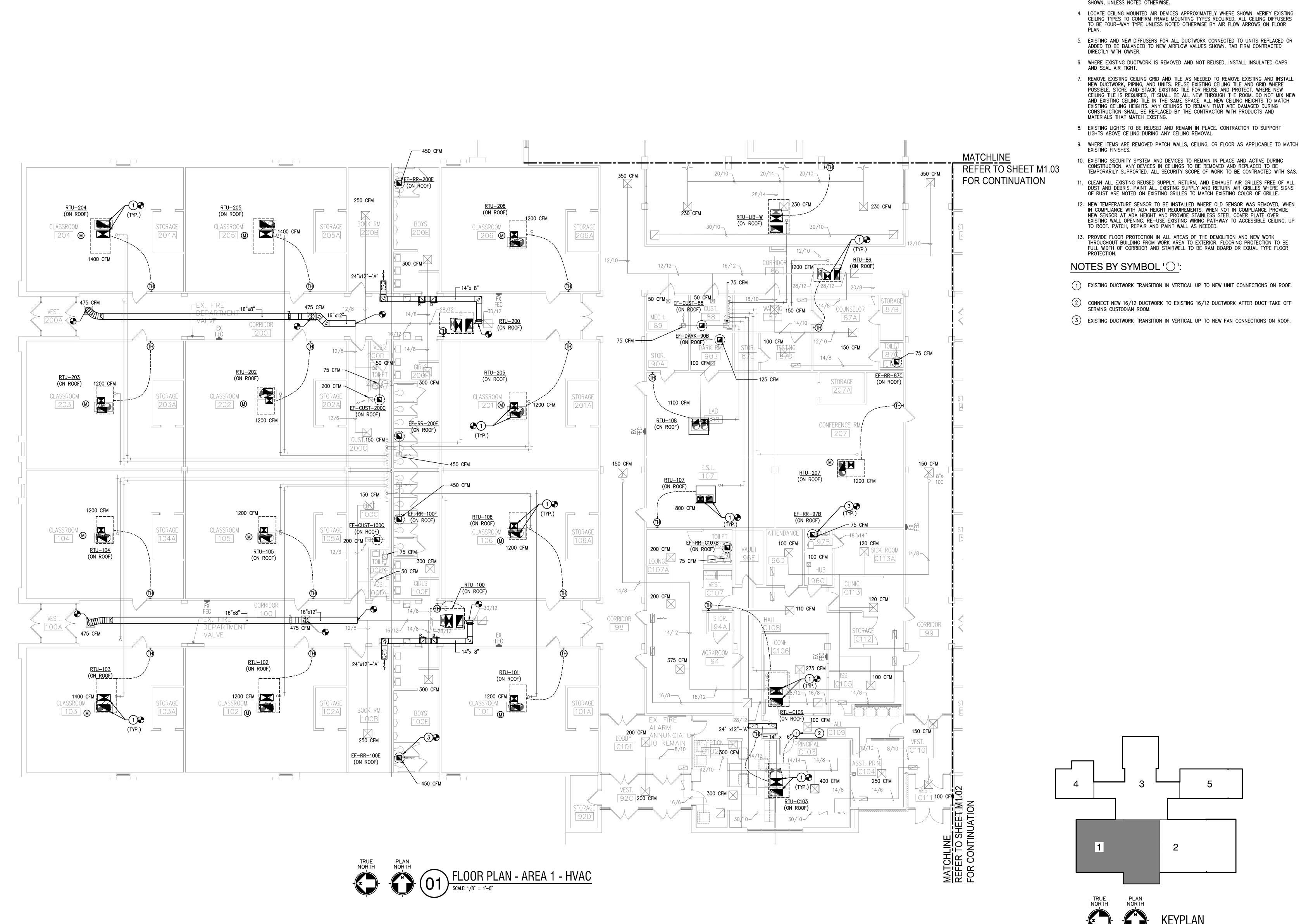




JOB NO.: 22146-00 DRAWN BY: ND CHECKED BY: HV/NH SHEET NO.

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**DEMOLITION FLOOR** PLAN - AREA 5 - HVAC





RECTANGULAR SUPPLY AIR DUCTWORK IS TO BE LINED WITH 1½" THICK ACOUSTICAL AND THERMAL LINER FOR THE FIRST 10'-0" FROM THE UNIT AND EXTERNALLY WRAPPED WITH MINIMUM 2" INSULATION AFTER THE FIRST 10'-0" TO MEET THE 2018 IECC REQUIREMENTS. RECTANGULAR RETURN DUCT SHALL BE LINED WITH 1" LINER FOR THE FIRST 10'-0" FROM THE UNIT AND EXTERNALLY WRAPPED WITH MINIMUM 2" INSULATION AFTER THE FIRST 10'-0". ALL TRANSFER AIR DUCTS TO BE INTERNALLY LINED WITH 1" LINER. DUCTWORK SIZES SHOWN ARE NET INTERNAL AIR STREAM DIMENSIONS. SHEET METAL SIZES ARE TO BE INCREASED IN SIZE TO MAINTAIN THESE INTERNAL CLEAR DIMENSIONS. ROUND DUCTWORK IS TO BE EXTERNALLY WRAPPED. FLEXIBLE ROUND DUCT SHALL HAVE A MINIMUM R-VALUE OF 6.0.

2. BRANCH RUN-OUTS TO CEILING MOUNTED AIR DEVICES SHALL BE SAME SIZE AS NECK, UNLESS NOTED OTHERWISE. PROVIDE A TWIST-IN FLARED TAP WITH MANUAL VOLUME DAMPER AT MAIN DUCT TAP, AND EXTEND AS SHOWN. EXTEND FLEXIBLE DUCTWORK A MAXIMUM OF 5'-0" FROM DIFFUSERS, INSTALL STRAIGHT AS POSSIBLE WITH LONG RADIUS BENDS WITH CLAMPS TO BE USED AT BOTH ENDS.

3. ALL DUCTWORK AND PIPING SHALL BE RUN CONCEALED ABOVE CEILINGS AS HIGH AS POSSIBLE & CONCEALED IN WALLS, CHASES, OR FURROUTS IN GENERAL LOCATIONS



**Consulting Engineers** 

12001 N Central Expy TX Firm #F-2176 Suite 1100 (972) 788-4222 Dallas, TX 75243 Project 22146.00

2023.04.28

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ISSUES

REVISIONS

Suite 1100 Dallas, TX 75243



FLOOR PLAN - AREA -HVAC

JOB NO.: 22146-00 DRAWN BY: ND CHECKED BY: HV/NH SHEET NO.

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PLAN NORTH

FLOOR PLAN - AREA 2 - HVAC

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

GENERAL MECHANICAL NOTES:

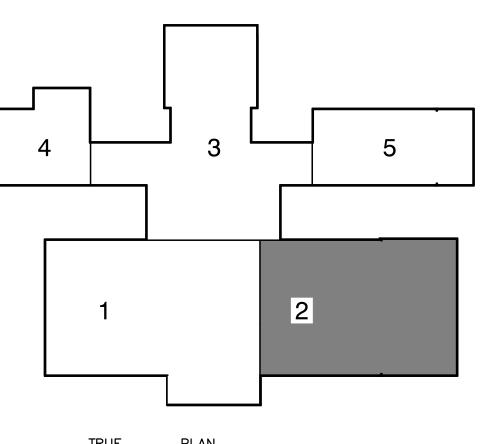
- 1. RECTANGULAR SUPPLY AIR DUCTWORK IS TO BE LINED WITH 1½" THICK ACOUSTICAL AND THERMAL LINER FOR THE FIRST 10'−0" FROM THE UNIT AND EXTERNALLY WRAPPED WITH MINIMUM 2" INSULATION AFTER THE FIRST 10'−0" TO MEET THE 2018 IECC REQUIREMENTS. RECTANGULAR RETURN DUCT SHALL BE LINED WITH 1" LINER FOR THE FIRST 10'−0" FROM THE UNIT AND EXTERNALLY WRAPPED WITH MINIMUM 2" INSULATION AFTER THE FIRST 10'−0". ALL TRANSFER AIR DUCTS TO BE INTERNALLY LINED WITH 1" LINER. DUCTWORK SIZES SHOWN ARE NET INTERNAL AIR STREAM DIMENSIONS. SHEET METAL SIZES ARE TO BE INCREASED IN SIZE TO MAINTAIN THESE INTERNAL CLEAR DIMENSIONS. ROUND DUCTWORK IS TO BE EXTERNALLY WRAPPED. FLEXIBLE ROUND DUCT SHALL HAVE A MINIMUM R−VALUE OF 6.0.
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- 3. ALL DUCTWORK AND PIPING SHALL BE RUN CONCEALED ABOVE CEILINGS AS HIGH AS POSSIBLE & CONCEALED IN WALLS, CHASES, OR FURROUTS IN GENERAL LOCATIONS SHOWN, UNLESS NOTED OTHERWISE.
- 4. LOCATE CEILING MOUNTED AIR DEVICES APPROXIMATELY WHERE SHOWN. VERIFY EXISTING CEILING TYPES TO CONFIRM FRAME MOUNTING TYPES REQUIRED. ALL CEILING DIFFUSERS TO BE FOUR—WAY TYPE UNLESS NOTED OTHERWISE BY AIR FLOW ARROWS ON FLOOR
- 5. EXISTING AND NEW DIFFUSERS FOR ALL DUCTWORK CONNECTED TO UNITS REPLACED OR ADDED TO BE BALANCED TO NEW AIRFLOW VALUES SHOWN. TAB FIRM CONTRACTED DIRECTLY WITH OWNER.
- 6. WHERE EXISTING DUCTWORK IS REMOVED AND NOT REUSED, INSTALL INSULATED CAPS AND SEAL AIR TIGHT.
- 7. REMOVE EXISTING CEILING GRID AND TILE AS NEEDED TO REMOVE EXISTING AND INSTALL NEW DUCTWORK, PIPING, AND UNITS. REUSE EXISTING CEILING TILE AND GRID WHERE POSSIBLE. STORE AND STACK EXISTING TILE FOR REUSE AND PROTECT. WHERE NEW CEILING TILE IS REQUIRED, IT SHALL BE ALL NEW THROUGH THE ROOM. DO NOT MIX NEW AND EXISTING CEILING TILE IN THE SAME SPACE. ALL NEW CEILING HEIGHTS TO MATCH EXISTING CEILING HEIGHTS. ANY CEILINGS TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR WITH PRODUCTS AND MATERIALS THAT MATCH EXISTING.
- 8. EXISTING LIGHTS TO BE REUSED AND REMAIN IN PLACE. CONTRACTOR TO SUPPORT LIGHTS ABOVE CEILING DURING ANY CEILING REMOVAL.
- 9. WHERE ITEMS ARE REMOVED PATCH WALLS, CEILING, OR FLOOR AS APPLICABLE TO MATCH EXISTING FINISHES.

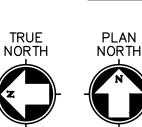
TEMPORARILY SUPPORTED. ALL SECURITY SCOPE OF WORK TO BE CONTRACTED WITH SAS.

- 10. EXISTING SECURITY SYSTEM AND DEVICES TO REMAIN IN PLACE AND ACTIVE DURING CONSTRUCTION. ANY DEVICES IN CEILINGS TO BE REMOVED AND REPLACED TO BE
- 11. CLEAN ALL EXISTING REUSED SUPPLY, RETURN, AND EXHAUST AIR GRILLES FREE OF ALL DUST AND DEBRIS. PAINT ALL EXISTING SUPPLY AND RETURN AIR GRILLES WHERE SIGNS OF RUST ARE NOTED ON EXISTING GRILLES TO MATCH EXISTING COLOR OF GRILLE.
- 12. NEW TEMPERATURE SENSOR TO BE INSTALLED WHERE OLD SENSOR WAS REMOVED, WHEN IN COMPLIANCE WITH ADA HEIGHT REQUIREMENTS. WHEN NOT IN COMPLIANCE PROVIDE NEW SENSOR AT ADA HEIGHT AND PROVIDE STAINLESS STEEL COVER PLATE OVER EXISTING WALL OPENING. RE—USE EXISTING WIRING PATHWAY TO ACCESSIBLE CEILING, UP TO ROOF. PATCH, REPAIR AND PAINT WALL AS NEEDED.
- 13. PROVIDE FLOOR PROTECTION IN ALL AREAS OF THE DEMOLITION AND NEW WORK THROUGHOUT BUILDING FROM WORK AREA TO EXTERIOR. FLOORING PROTECTION TO BE FULL WIDTH OF CORRIDOR AND STAIRWELL TO BE RAM BOARD OR EQUAL TYPE FLOOR PROTECTION.

#### NOTES BY SYMBOL ' ():

- 1 EXISTING DUCTWORK TRANSITION IN VERTICAL UP TO NEW UNIT CONNECTIONS ON ROOF.
- 2 CONNECT NEW 16/12 DUCTWORK TO EXISTING 16/12 DUCTWORK AFTER DUCT TAKE OFF SERVING CUSTODIAN ROOM.
- 3 EXISTING DUCTWORK TRANSITION IN VERTICAL UP TO NEW FAN CONNECTIONS ON ROOF.





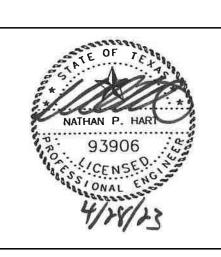


PLAN

Consulting Engineers

12001 N Central Expy
Suite 1100
Dallas, TX 75243

TX Firm #F-2176
(972) 788-4222
Project 22146.00



2023.04.28

1 1 ISSUE FOR CONSTRUCTION 2023.04.28

ISSUES

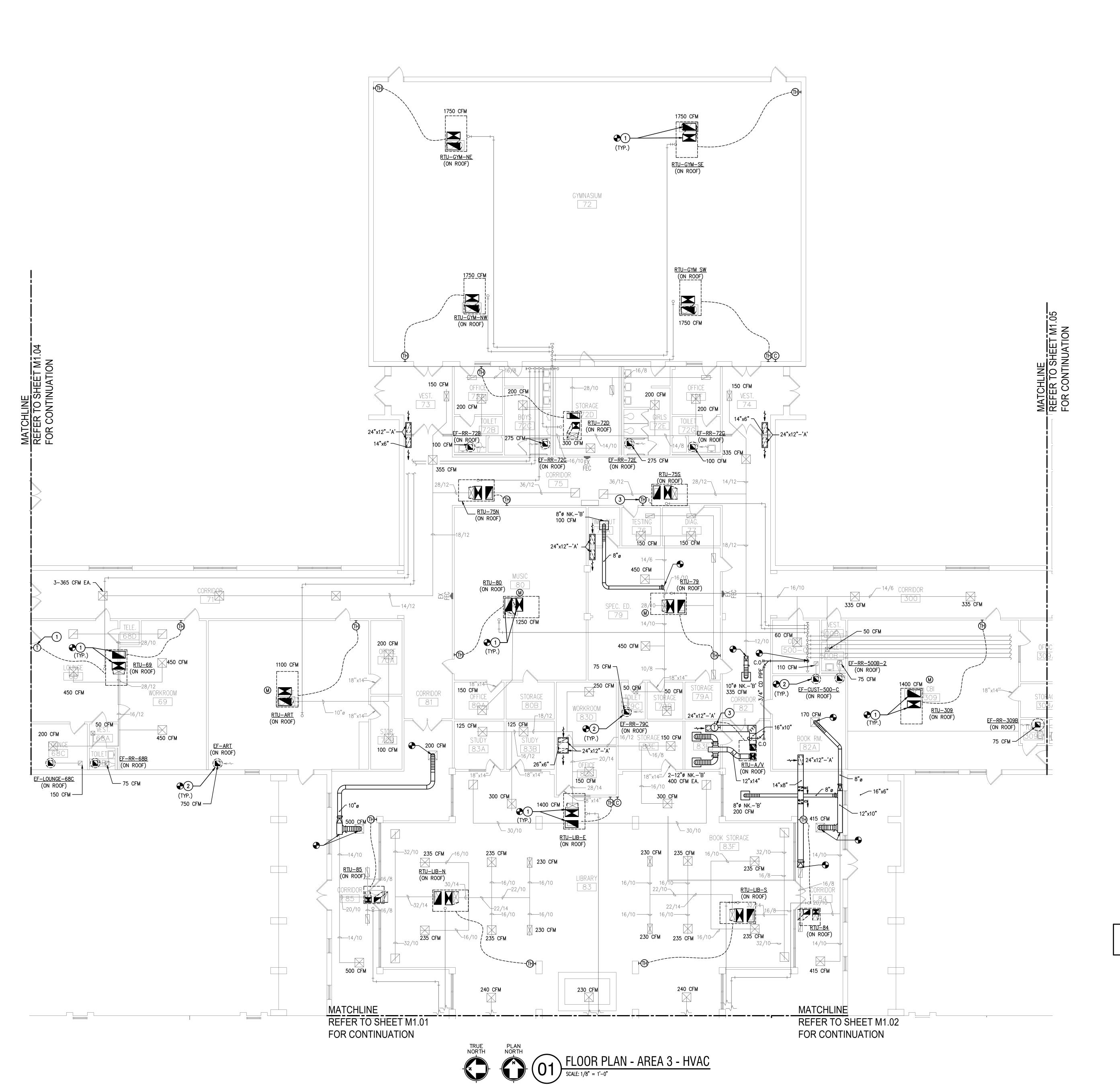
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RE	VISIONS	



PLACEMENT THIAN I.S.D.

FLOOR PLAN - AREA 2 -HVAC

JOB NO.: 22146-00 DRAWN BY: ND CHECKED BY: HV/NH SHEET NO.



#### **GENERAL MECHANICAL NOTES:**

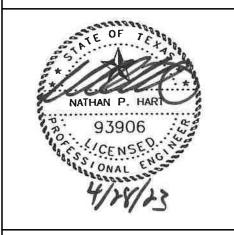
- RECTANGULAR SUPPLY AIR DUCTWORK IS TO BE LINED WITH 11/2" THICK ACOUSTICAL AND THERMAL LINER FOR THE FIRST 10'-0" FROM THE UNIT AND EXTERNALLY WRAPPED WITH MINIMUM 2" INSULATION AFTER THE FIRST 10'-0" TO MEET THE 2018 IECC REQUIREMENTS. RECTANGULAR RETURN DUCT SHALL BE LINED WITH 1" LINER FOR THE FIRST 10'-0" FROM THE UNIT AND EXTERNALLY WRAPPED WITH MINIMUM 2" INSULATION AFTER THE FIRST 10'-0". ALL TRANSFER AIR DUCTS TO BE INTERNALLY LINED WITH 1" LINER. DUCTWORK SIZES SHOWN ARE NET INTERNAL AIR STREAM DIMENSIONS. SHEET METAL SIZES ARE TO BE INCREASED IN SIZE TO MAINTAIN THESE INTERNAL CLEAR DIMENSIONS. ROUND DUCTWORK IS TO BE EXTERNALLY WRAPPED. FLEXIBLE ROUND DUCT SHALL HAVE A MINIMUM R-VALUE OF 6.0.
- BRANCH RUN-OUTS TO CEILING MOUNTED AIR DEVICES SHALL BE SAME SIZE AS NECK, UNLESS NOTED OTHERWISE. PROVIDE A TWIST-IN FLARED TAP WITH MANUAL VOLUME DAMPER AT MAIN DUCT TAP, AND EXTEND AS SHOWN. EXTEND FLEXIBLE DUCTWORK A MAXIMUM OF 5'-0" FROM DIFFUSERS, INSTALL STRAIGHT AS POSSIBLE WITH LONG RADIUS BENDS WITH CLAMPS TO BE USED AT BOTH ENDS.
- ALL DUCTWORK AND PIPING SHALL BE RUN CONCEALED ABOVE CEILINGS AS HIGH AS POSSIBLE & CONCEALED IN WALLS, CHASES, OR FURROUTS IN GENERAL LOCATIONS
- SHOWN, UNLESS NOTED OTHERWISE. 4. LOCATE CEILING MOUNTED AIR DEVICES APPROXIMATELY WHERE SHOWN. VERIFY EXISTING CEILING TYPES TO CONFIRM FRAME MOUNTING TYPES REQUIRED. ALL CEILING DIFFUSERS TO BE FOUR-WAY TYPE UNLESS NOTED OTHERWISE BY AIR FLOW ARROWS ON FLOOR
- 5. EXISTING AND NEW DIFFUSERS FOR ALL DUCTWORK CONNECTED TO UNITS REPLACED OR ADDED TO BE BALANCED TO NEW AIRFLOW VALUES SHOWN. TAB FIRM CONTRACTED
- 6. WHERE EXISTING DUCTWORK IS REMOVED AND NOT REUSED, INSTALL INSULATED CAPS AND SEAL AIR TIGHT.
- 7. REMOVE EXISTING CEILING GRID AND TILE AS NEEDED TO REMOVE EXISTING AND INSTALL NEW DUCTWORK, PIPING, AND UNITS. REUSE EXISTING CEILING TILE AND GRID WHERE POSSIBLE. STORE AND STACK EXISTING TILE FOR REUSE AND PROTECT. WHERE NEW CEILING TILE IS REQUIRED, IT SHALL BE ALL NEW THROUGH THE ROOM. DO NOT MIX NEW AND EXISTING CEILING TILE IN THE SAME SPACE. ALL NEW CEILING HEIGHTS TO MATCH EXISTING CEILING HEIGHTS. ANY CEILINGS TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR WITH PRODUCTS AND MATERIALS THAT MATCH EXISTING.
- 8. EXISTING LIGHTS TO BE REUSED AND REMAIN IN PLACE. CONTRACTOR TO SUPPORT LIGHTS ABOVE CEILING DURING ANY CEILING REMOVAL.
- 9. WHERE ITEMS ARE REMOVED PATCH WALLS, CEILING, OR FLOOR AS APPLICABLE TO MATCH EXISTING FINISHES.
- 10. EXISTING SECURITY SYSTEM AND DEVICES TO REMAIN IN PLACE AND ACTIVE DURING CONSTRUCTION. ANY DEVICES IN CEILINGS TO BE REMOVED AND REPLACED TO BE TEMPORARILY SUPPORTED. ALL SECURITY SCOPE OF WORK TO BE CONTRACTED WITH SAS.
- 11. CLEAN ALL EXISTING REUSED SUPPLY, RETURN, AND EXHAUST AIR GRILLES FREE OF ALL DUST AND DEBRIS. PAINT ALL EXISTING SUPPLY AND RETURN AIR GRILLES WHERE SIGNS OF RUST ARE NOTED ON EXISTING GRILLES TO MATCH EXISTING COLOR OF GRILLE.
- 12. NEW TEMPERATURE SENSOR TO BE INSTALLED WHERE OLD SENSOR WAS REMOVED, WHEN IN COMPLIANCE WITH ADA HEIGHT REQUIREMENTS. WHEN NOT IN COMPLIANCE PROVIDE NEW SENSOR AT ADA HEIGHT AND PROVIDE STAINLESS STEEL COVER PLATE OVER EXISTING WALL OPENING. RE-USE EXISTING WIRING PATHWAY TO ACCESSIBLE CEILING, UP TO ROOF. PATCH, REPAIR AND PAINT WALL AS NEEDED.
- 13. PROVIDE FLOOR PROTECTION IN ALL AREAS OF THE DEMOLITION AND NEW WORK THROUGHOUT BUILDING FROM WORK AREA TO EXTERIOR. FLOORING PROTECTION TO BE FULL WIDTH OF CORRIDOR AND STAIRWELL TO BE RAM BOARD OR EQUAL TYPE FLOOR PROTECTION.

#### NOTES BY SYMBOL ' ::

DIRECTLY WITH OWNER.

- (1) EXISTING DUCTWORK TRANSITION IN VERTICAL UP TO NEW UNIT CONNECTIONS ON ROOF.
- 2 EXISTING DUCTWORK TRANSITION IN VERTICAL UP TO NEW FAN CONNECTIONS ON ROOF.
- 3 NEW TEMPERATURE OR TEMPERATURE/HUMIDITY SENSOR.
- NEW SUPPLY AND RETURN DUCTWORK TRANSITION IN VERTICAL TO NEW UNIT CONNECTIONS ON ROOF.





2023.04.28

1	ISSUE FOR CONSTRUCTION	2020.04.20
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FLOOR PLAN - AREA 3 -HVAC

JOB NO.: 22146-00 DRAWN BY: ND CHECKED BY: HV/NH

SHEET NO.

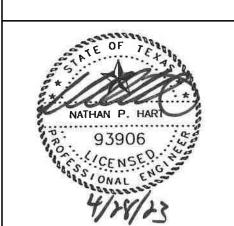


- RECTANGULAR SUPPLY AIR DUCTWORK IS TO BE LINED WITH 11/2" THICK ACOUSTICAL AND THERMAL LINER FOR THE FIRST 10'-0" FROM THE UNIT AND EXTERNALLY WRAPPED WITH MINIMUM 2" INSULATION AFTER THE FIRST 10'-0" TO MEET THE 2018 IECC REQUIREMENTS. RECTANGULAR RETURN DUCT SHALL BE LINED WITH 1" LINER FOR THE FIRST 10'-0" FROM THE UNIT AND EXTERNALLY WRAPPED WITH MINIMUM 2" INSULATION AFTER THE FIRST 10'-0". ALL TRANSFER AIR DUCTS TO BE INTERNALLY LINED WITH 1" LINER. DUCTWORK SIZES SHOWN ARE NET INTERNAL AIR STREAM DIMENSIONS. SHEET METAL SIZES ARE TO BE INCREASED IN SIZE TO MAINTAIN THESE INTERNAL CLEAR DIMENSIONS. ROUND DUCTWORK IS TO BE EXTERNALLY WRAPPED. FLEXIBLE ROUND DUCT SHALL HAVE A MINIMUM R-VALUE OF 6.0.
- 2. BRANCH RUN-OUTS TO CEILING MOUNTED AIR DEVICES SHALL BE SAME SIZE AS NECK, UNLESS NOTED OTHERWISE. PROVIDE A TWIST-IN FLARED TAP WITH MANUAL VOLUME DAMPER AT MAIN DUCT TAP, AND EXTEND AS SHOWN. EXTEND FLEXIBLE DUCTWORK A MAXIMUM OF 5'-0" FROM DIFFUSERS, INSTALL STRAIGHT AS POSSIBLE WITH LONG RADIUS BENDS WITH CLAMPS TO BE USED AT BOTH ENDS.
- 3. ALL DUCTWORK AND PIPING SHALL BE RUN CONCEALED ABOVE CEILINGS AS HIGH AS POSSIBLE & CONCEALED IN WALLS, CHASES, OR FURROUTS IN GENERAL LOCATIONS SHOWN, UNLESS NOTED OTHERWISE.
- 4. LOCATE CEILING MOUNTED AIR DEVICES APPROXIMATELY WHERE SHOWN. VERIFY EXISTING CEILING TYPES TO CONFIRM FRAME MOUNTING TYPES REQUIRED. ALL CEILING DIFFUSERS TO BE FOUR-WAY TYPE UNLESS NOTED OTHERWISE BY AIR FLOW ARROWS ON FLOOR
- 5. EXISTING AND NEW DIFFUSERS FOR ALL DUCTWORK CONNECTED TO UNITS REPLACED OR ADDED TO BE BALANCED TO NEW AIRFLOW VALUES SHOWN. TAB FIRM CONTRACTED DIRECTLY WITH OWNER.
- 6. WHERE EXISTING DUCTWORK IS REMOVED AND NOT REUSED, INSTALL INSULATED CAPS
- 7. REMOVE EXISTING CEILING GRID AND TILE AS NEEDED TO REMOVE EXISTING AND INSTALL NEW DUCTWORK, PIPING, AND UNITS. REUSE EXISTING CEILING TILE AND GRID WHERE POSSIBLE. STORE AND STACK EXISTING TILE FOR REUSE AND PROTECT. WHERE NEW CEILING TILE IS REQUIRED, IT SHALL BE ALL NEW THROUGH THE ROOM. DO NOT MIX NEW AND EXISTING CEILING TILE IN THE SAME SPACE. ALL NEW CEILING HEIGHTS TO MATCH EXISTING CEILING HEIGHTS. ANY CEILINGS TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR WITH PRODUCTS AND MATERIALS THAT MATCH EXISTING.
- 8. EXISTING LIGHTS TO BE REUSED AND REMAIN IN PLACE. CONTRACTOR TO SUPPORT LIGHTS ABOVE CEILING DURING ANY CEILING REMOVAL.
- 9. WHERE ITEMS ARE REMOVED PATCH WALLS, CEILING, OR FLOOR AS APPLICABLE TO MATCH EXISTING FINISHES.
- 10. EXISTING SECURITY SYSTEM AND DEVICES TO REMAIN IN PLACE AND ACTIVE DURING CONSTRUCTION. ANY DEVICES IN CEILINGS TO BE REMOVED AND REPLACED TO BE TEMPORARILY SUPPORTED. ALL SECURITY SCOPE OF WORK TO BE CONTRACTED WITH SAS.
- 11. CLEAN ALL EXISTING REUSED SUPPLY, RETURN, AND EXHAUST AIR GRILLES FREE OF ALL DUST AND DEBRIS. PAINT ALL EXISTING SUPPLY AND RETURN AIR GRILLES WHERE SIGNS OF RUST ARE NOTED ON EXISTING GRILLES TO MATCH EXISTING COLOR OF GRILLE.
- 12. NEW TEMPERATURE SENSOR TO BE INSTALLED WHERE OLD SENSOR WAS REMOVED, WHEN IN COMPLIANCE WITH ADA HEIGHT REQUIREMENTS. WHEN NOT IN COMPLIANCE PROVIDE NEW SENSOR AT ADA HEIGHT AND PROVIDE STAINLESS STEEL COVER PLATE OVER EXISTING WALL OPENING. RE-USE EXISTING WIRING PATHWAY TO ACCESSIBLE CEILING, UP TO ROOF. PATCH, REPAIR AND PAINT WALL AS NEEDED.
- 13. PROVIDE FLOOR PROTECTION IN ALL AREAS OF THE DEMOLITION AND NEW WORK THROUGHOUT BUILDING FROM WORK AREA TO EXTERIOR. FLOORING PROTECTION TO BE FULL WIDTH OF CORRIDOR AND STAIRWELL TO BE RAM BOARD OR EQUAL TYPE FLOOR PROTECTION.

#### NOTES BY SYMBOL '(

- (1) EXISTING DUCTWORK TRANSITION IN VERTICAL UP TO NEW UNIT CONNECTIONS ON ROOF.
- (2) EXISTING DUCTWORK TRANSITION IN VERTICAL UP TO NEW FAN CONNECTIONS ON ROOF.
- 3 EXISTING DUCTWORK TRANSITION IN VERTICAL UP TO NEW MAKE-UP AIR UNIT CONNECTION ON THE ROOF.
- PROVIDE NEW TEMPERATURE, HUMIDITY, AND CO2 SENSOR. CONNECT TO NEW UNIT ON THE ROOF.
- ROUTE TRANSFER AIR DUCTWORK FROM CAFETERIA CEILING DOWN IN FURRDOWN ON CAFETERIA SIDE TO ABOVE CEILING SPACE OF KITCHEN. REMOVE A PORTION OF EXISTING FURRDOWN AS NEEDED TO ACCOMODATE THE DUCTWORK AND RE-INSTALL TO
- PROVIDE NEW FYRE WRAP INSULATION ON KITCHEN GREASE HOOD EXHAUST DUCTWORK FROM HOOD CONNECTION BACK TO FAN CONNECTION ON ROOF.
- PROVIDE NEW INSULATION ON MAKE-UP AIR DUCT AS NOTED IN SPECIFICATIONS FROM HOOD CONNECTION BACK TO FAN CONNECTION ON ROOF.
- (8) NEW CEILING MOUNTED CO SENSOR.





2023.04.28

()1 ISSUE FOR CONSTRUCTION | 2023.04.28 REVISIONS

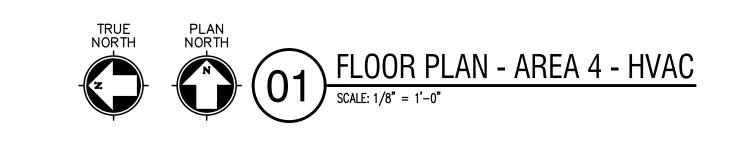


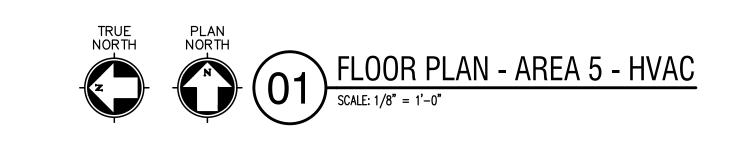


FLOOR PLAN - AREA 4

JOB NO.: 22146-00 DRAWN BY: ND CHECKED BY: HV/NH

SHEET NO. M1.04





**GENERAL MECHANICAL NOTES:** 

- RECTANGULAR SUPPLY AIR DUCTWORK IS TO BE LINED WITH 1½" THICK ACOUSTICAL AND THERMAL LINER FOR THE FIRST 10'-0" FROM THE UNIT AND EXTERNALLY WRAPPED WITH MINIMUM 2" INSULATION AFTER THE FIRST 10'-0" TO MEET THE 2018 IECC REQUIREMENTS. RECTANGULAR RETURN DUCT SHALL BE LINED WITH 1" LINER FOR THE FIRST 10'-0" FROM THE UNIT AND EXTERNALLY WRAPPED WITH MINIMUM 2" INSULATION AFTER THE FIRST 10'-0". ALL TRANSFER AIR DUCTS TO BE INTERNALLY LINED WITH 1" LINER. DUCTWORK SIZES SHOWN ARE NET INTERNAL AIR STREAM DIMENSIONS. SHEET METAL SIZES ARE TO BE INCREASED IN SIZE TO MAINTAIN THESE INTERNAL CLEAR DIMENSIONS. ROUND DUCTWORK IS TO BE EXTERNALLY WRAPPED. FLEXIBLE ROUND DUCT SHALL HAVE A MINIMUM R-VALUE OF 6.0.
- 2. BRANCH RUN-OUTS TO CEILING MOUNTED AIR DEVICES SHALL BE SAME SIZE AS NECK. UNLESS NOTED OTHERWISE. PROVIDE A TWIST-IN FLARED TAP WITH MANUAL VOLUME DAMPER AT MAIN DUCT TAP, AND EXTEND AS SHOWN. EXTEND FLEXIBLE DUCTWORK A MAXIMUM OF 5'-0" FROM DIFFUSERS, INSTALL STRAIGHT AS POSSIBLE WITH LONG RADIUS BENDS WITH CLAMPS TO BE USED AT BOTH ENDS.
- 3. ALL DUCTWORK AND PIPING SHALL BE RUN CONCEALED ABOVE CEILINGS AS HIGH AS POSSIBLE & CONCEALED IN WALLS, CHASES, OR FURROUTS IN GENERAL LOCATIONS SHOWN, UNLESS NOTED OTHERWISE.
- 4. LOCATE CEILING MOUNTED AIR DEVICES APPROXIMATELY WHERE SHOWN. VERIFY EXISTING CEILING TYPES TO CONFIRM FRAME MOUNTING TYPES REQUIRED. ALL CEILING DIFFUSERS TO BE FOUR-WAY TYPE UNLESS NOTED OTHERWISE BY AIR FLOW ARROWS ON FLOOR
- 5. EXISTING AND NEW DIFFUSERS FOR ALL DUCTWORK CONNECTED TO UNITS REPLACED OR ADDED TO BE BALANCED TO NEW AIRFLOW VALUES SHOWN. TAB FIRM CONTRACTED DIRECTLY WITH OWNER.
- 6. WHERE EXISTING DUCTWORK IS REMOVED AND NOT REUSED, INSTALL INSULATED CAPS AND SEAL AIR TIGHT.
- 7. REMOVE EXISTING CEILING GRID AND TILE AS NEEDED TO REMOVE EXISTING AND INSTALL NEW DUCTWORK, PIPING, AND UNITS. REUSE EXISTING CEILING TILE AND GRID WHERE POSSIBLE. STORE AND STACK EXISTING TILE FOR REUSE AND PROTECT. WHERE NEW CEILING TILE IS REQUIRED, IT SHALL BE ALL NEW THROUGH THE ROOM. DO NOT MIX NEW AND EXISTING CEILING TILE IN THE SAME SPACE. ALL NEW CEILING HEIGHTS TO MATCH EXISTING CEILING HEIGHTS. ANY CEILINGS TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR WITH PRODUCTS AND MATERIALS THAT MATCH EXISTING.
- 8. EXISTING LIGHTS TO BE REUSED AND REMAIN IN PLACE. CONTRACTOR TO SUPPORT LIGHTS ABOVE CEILING DURING ANY CEILING REMOVAL.
- 9. WHERE ITEMS ARE REMOVED PATCH WALLS, CEILING, OR FLOOR AS APPLICABLE TO MATCH EXISTING FINISHES.
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#### NOTES BY SYMBOL '()':

- (1) EXISTING DUCTWORK TRANSITION IN VERTICAL UP TO NEW UNIT CONNECTIONS ON ROOF.
- (2) EXISTING DUCTWORK TRANSITION IN VERTICAL UP TO NEW FAN CONNECTIONS ON ROOF.





**Consulting Engineers** 

12001 N Central Expy TX Firm #F-2176 Suite 1100 (972) 788-4222 Dallas, TX 75243 Project 22146.00

2023.04.28

01 ISSUE FOR CONSTRUCTION 2023.04.28

ISSUES

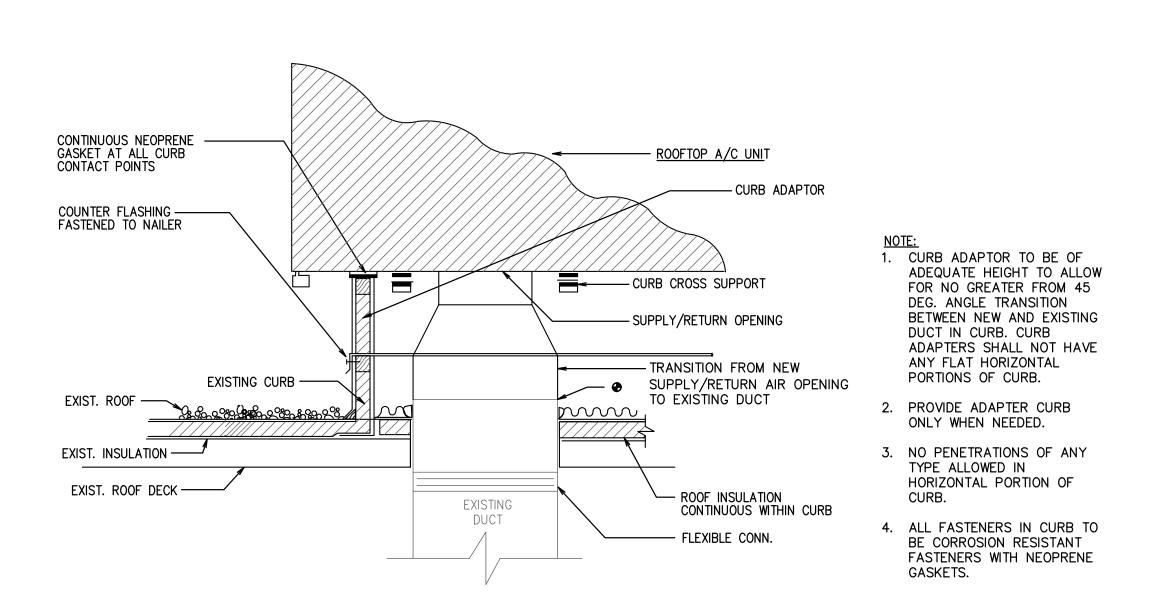
REVISIONS

FLOOR PLAN - AREA 5

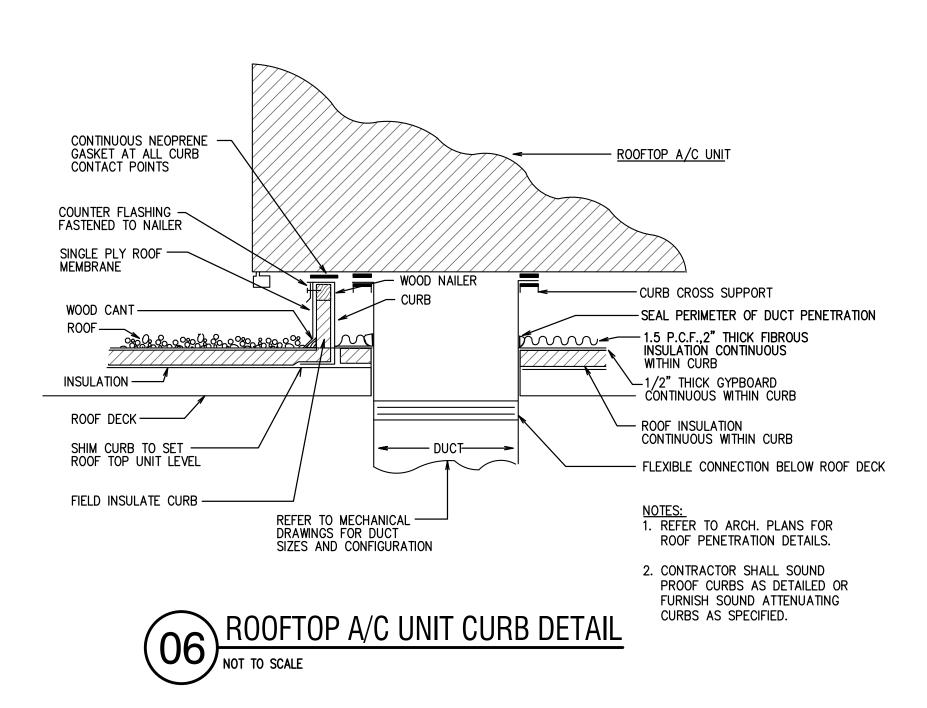
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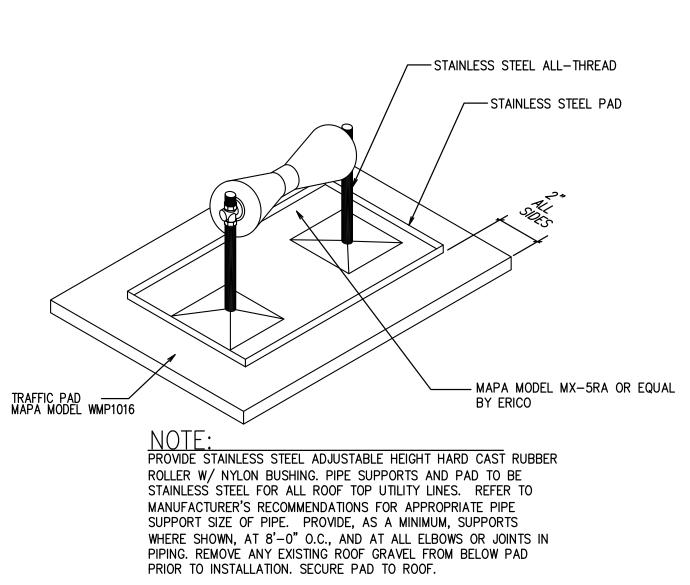
SHEET NO.

ROOF TOP A/C UNIT GAS PIPING

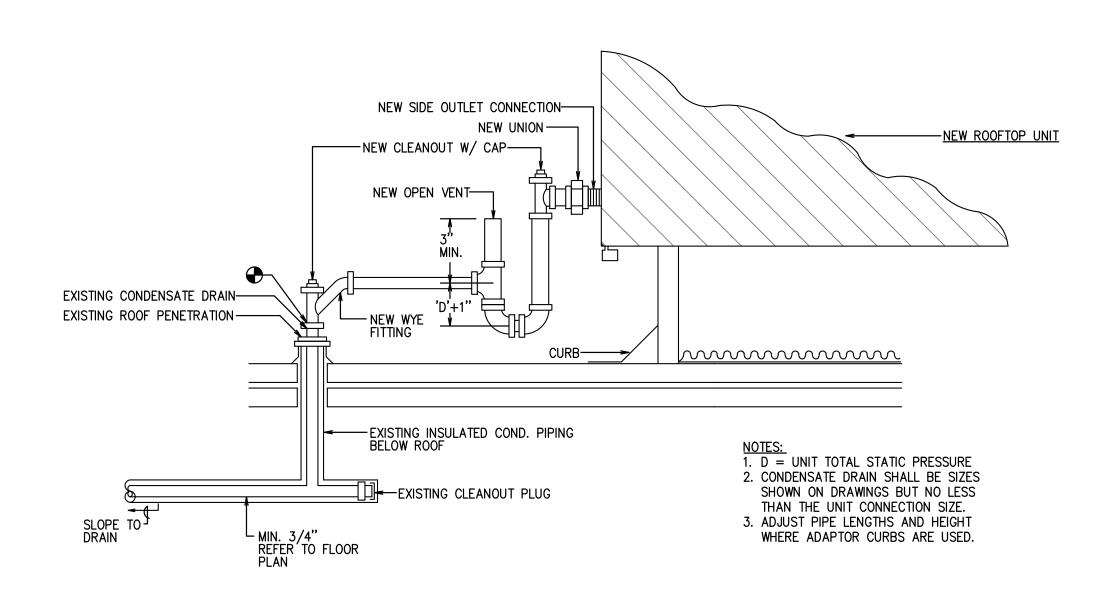


ROOFTOP A/C UNIT WITH ADAPTER CURB DETAIL (04) NOT TO SCALE

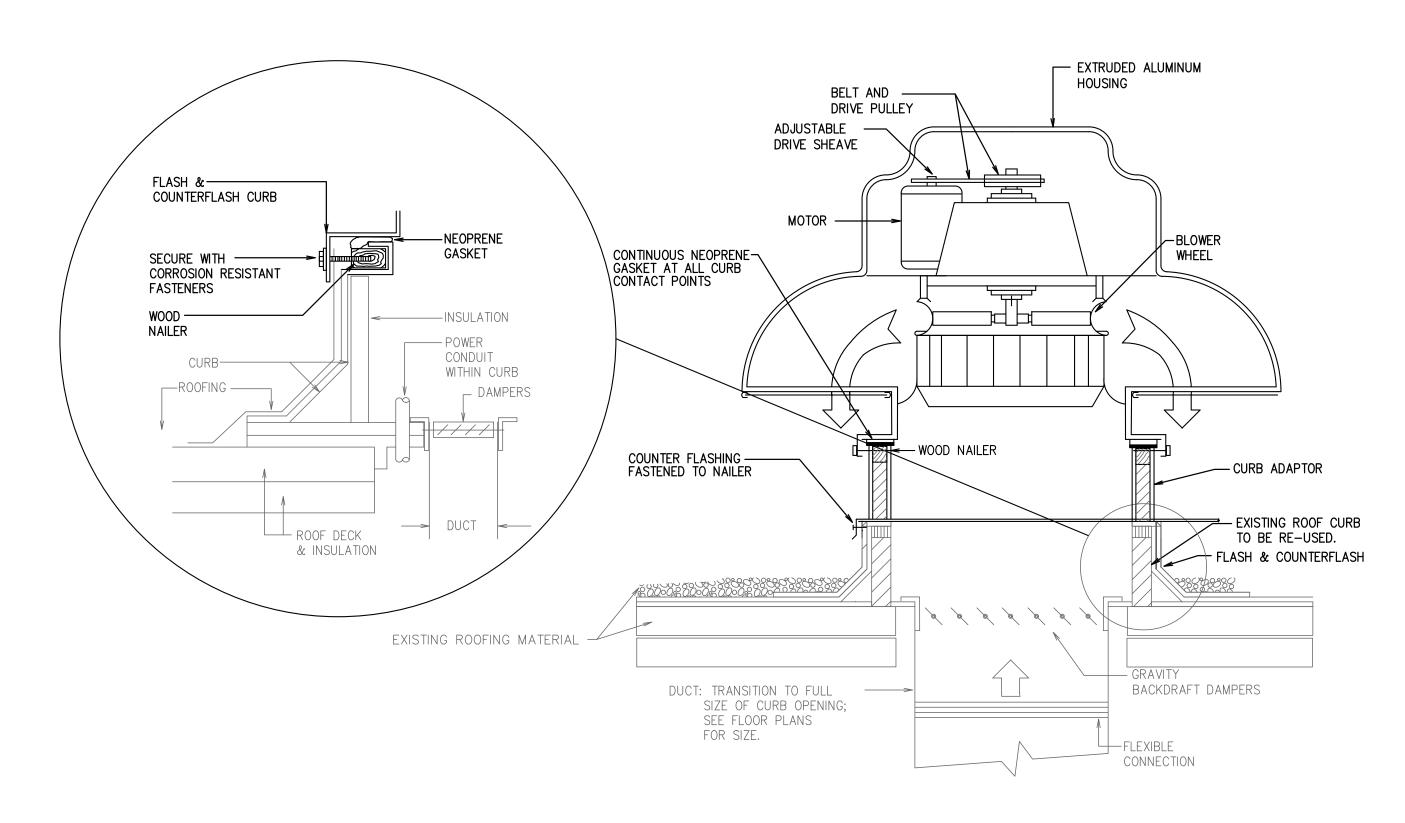




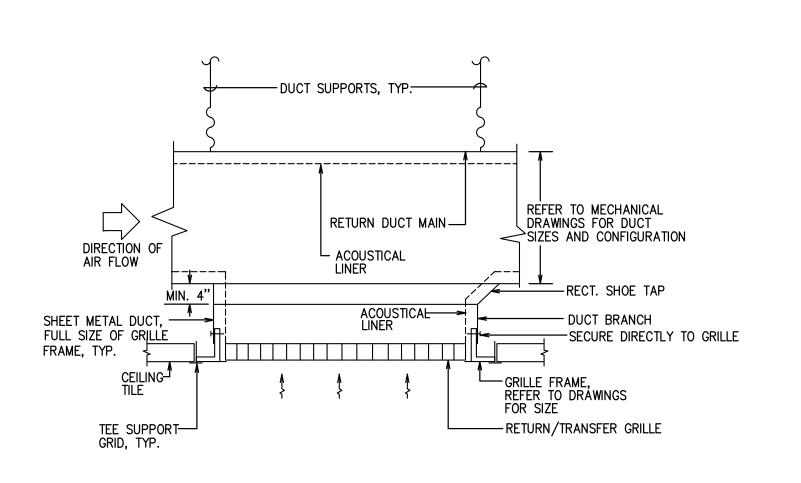
GAS OR CONDENSATE PIPE SUPPORT (02) GAS UP



ROOFTOP A/C UNIT CONDENSATE DRAIN DETAIL NOT TO SCALE

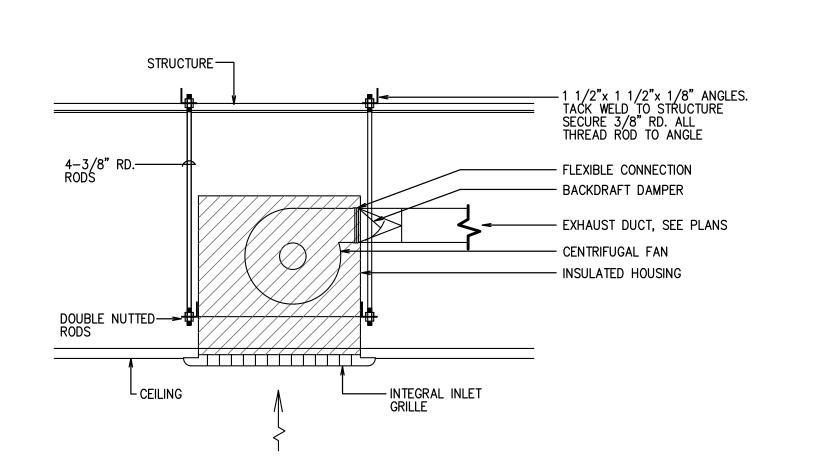


ROOF TOP CENTRIFUGAL EXHAUST FAN MOUNTED ON EXISTING CURB DETAIL  $(05)\frac{ROOF 10}{NOT TO SCALE}$ 



RETURN/TRANSFER AIR GRILLE DETAIL

NOT TO SCALE



O8 CEILING EXHAUST FAN DETAIL
NOT TO SCALE

2023.04.28 ISSUES 101 ISSUE FOR CONSTRUCTION 2023.04.28

**Consulting Engineers** 12001 N Central Expy TX Firm #F-2176 Suite 1100 (972) 788-4222 Dallas, TX 75243 Project 22146.00

REVISIONS



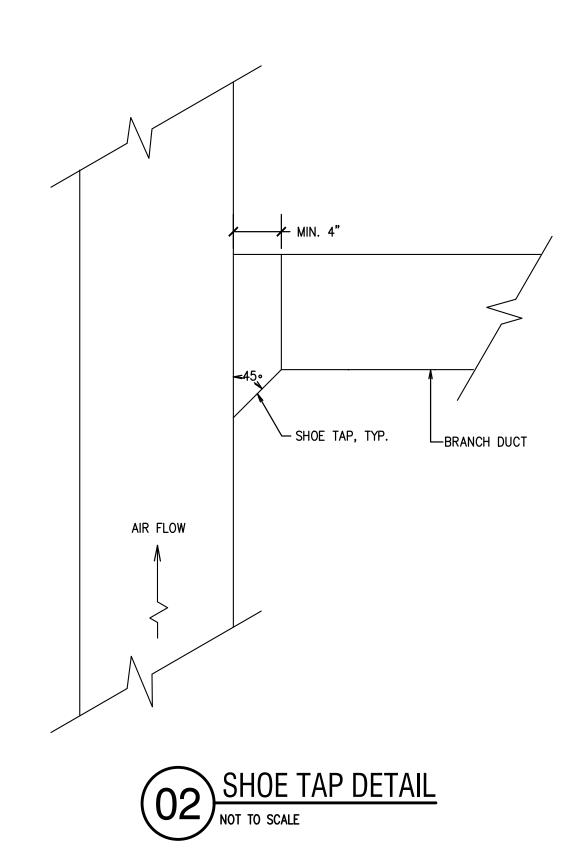


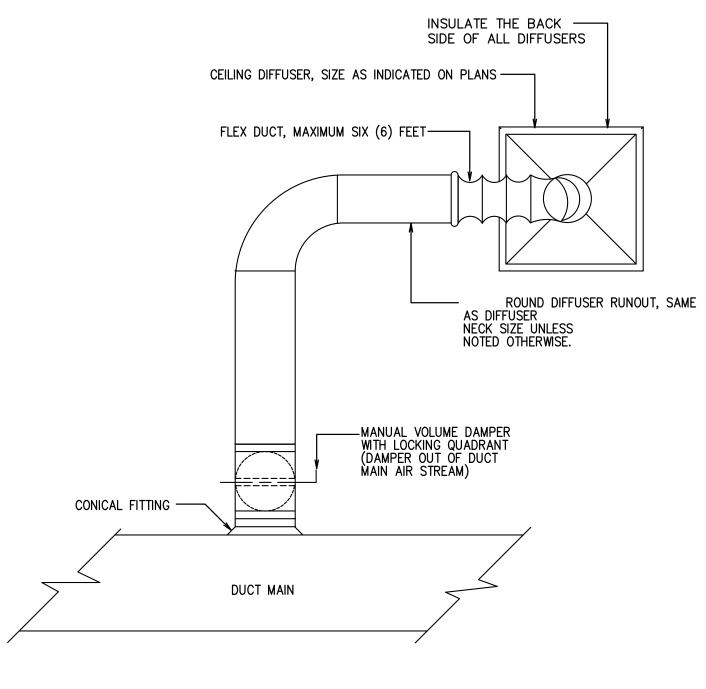
MECHANICAL & **PLUMBING** 

**DETAILS** -

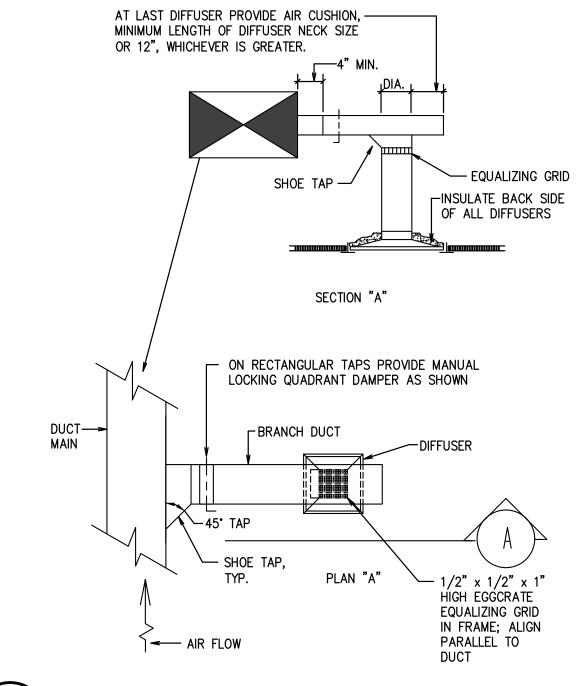
JOB NO.: 22146-00 DRAWN BY: ND CHECKED BY: HV/NH SHEET NO.

MP2.01









TYPICAL RECTANGULAR DUCT DIFFUSER DETAILS

NOT TO SCALE



Consulting Engineers

12001 N Central Expy
Suite 1100
Dallas, TX 75243

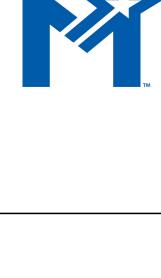
TX Firm #F-2176
(972) 788-4222
Project 22146.00

2023.04.28

01 ISSUE FOR CONSTRUCTION 2023.04.28

ISSUES

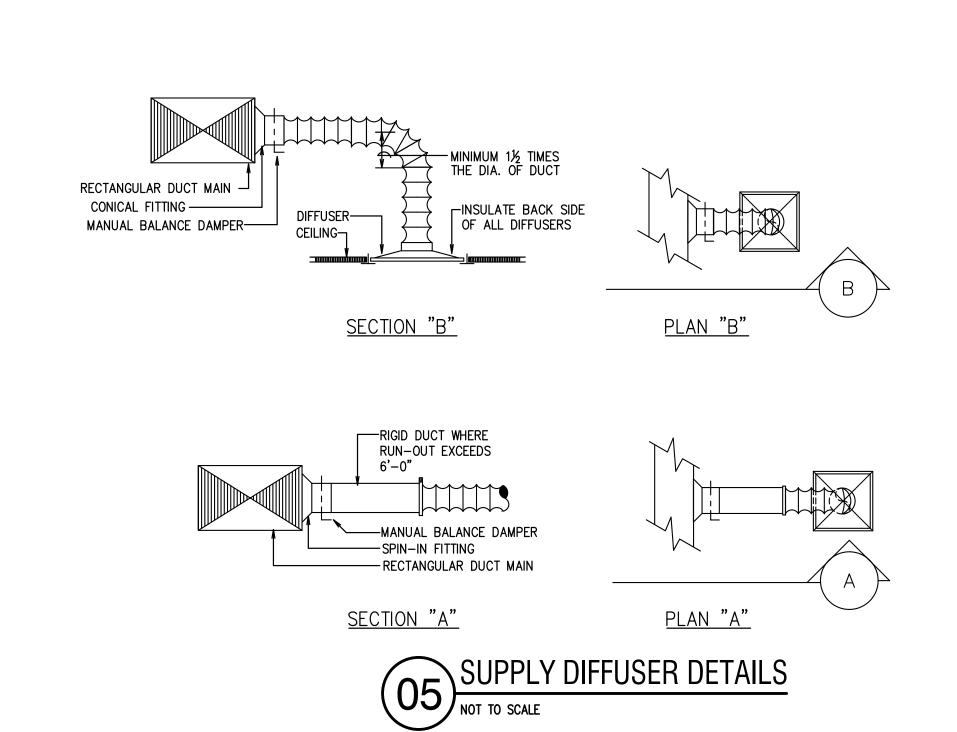
REVISIONS



DETAILS -MECHANICAL

JOB NO.: 22146-00 DRAWN BY: ND CHECKED BY: HV/NH SHEET NO.

M2.02



NOOF TOP A/C ON	II JUILL	/OLL											_																		
DESIGNATION	RTU-KITCHEN	RTU-STAGE	RTU-CAFE-NW	RTU-CAFE-SW/ CAFE-SE/ CAFE-NE	RTU-WORKROOM	RTU-ART	RTU-GYM-NE/ GYM-NW /GYM-SE /GYM-SW	RTU-72D	RTU-75N & 75S	RTU-79	RTU-MUSIC	RTU-LIB-N /LIB-E /LIB-W	RTU-LIB-S	RTU-84 & 85	RTU-86	RTU-100 /200 /400 /500	RTU-101/102/ 104/105 /106/201 /202/203 /206/207	RTU-103 /204/205	RTU-107	RTU-108	RTU-301/302/ 303/306 /307/308 /309	RTU-401/402/ 403/407 /408/409/501 /502/503/507 /508/509	RTU-300B	RTU-304	RTU-305	RTU-B119	RTU-404/405/ 505/506	RTU-406 & 504	RTU-C103	RTU-C106	RTU-A/V
SERVING	KITCHEN	STAGE	CAFETORIUM	CAFETORIUM	WORKROOM	ART	GYMNASIUM	GYM OFFICES	CORRIDORS	SPEC. ED.	MUSIC	LIBRARY	LIBRARY	CORRIDOR	CORRIDOR	CORRIDOR	CLASSROOMS	CLASSROOMS	E.S.L.	LAB	PRE-K./KINDERG ARTEN/PPCD/CBI	CLASSROOMS	CORRIDOR	KINDERGARTEN & OFFICE	KINDERGARTEN & OFFICE	CORRIDORS	CLASSROOMS	CLASSROOMS	PRINCIPAL	CONF	A/V ROOM
MANUFACTURER	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE
MODEL NO.	YHJ090	YHC067	YHJ090	YHC067	YHC047	YHC047	YHC067	YHC037	YHC047	YHC047	YHC047	YHC047	YHC047	4YCZ5036	YHC037	YHC067	YHC037	YHC047	4YCZ5024	4YCZ5036	YHC047	YHC037	4YCZ5024	YHC047	YHC047	YHC047	YHC037	YHC037	YHC067	YHJ090	4YCZ5024
MAXIMUM WEIGHT, LBS.	1070	1000	1070	1000	980	980	1000	770	980	980	980	980	980	400	770	1000	770	980	370	400	980	770	370	980	980	980	770	770	1000	1070	370
NOMINAL CAPACITY	7.5	5	7.5	5	4	4	5	3	4	4	4	4	4	3	3	5	3	4	2	3	4	3	2	4	4	4	3	3	5	5.0	2.0
SUPPLY AIR, CFM	3000	1750	2700	2000	1600	1400	1750	1100	1600	1400	1400	1400	1400	1200	1200	2000	1200	1400	800	1200	1400	1200	800	1400	1440	1400	1100	1150	2000	2000	800
MIN. MIN./MIN. MAX./MAX. UUTSIDE AIR, CFM	500/1000/ 3000	400/1750	300/900/2700		200/1600	400/1400	250/500/1750		140/1600	300/1400	380/1400	170/290/1400	170/1400	150/1200	150/1200	600/2000	400/1200	350/1400	150/800	250/1200	440/1400	350/1200	100/800	400/1400	450/1440	450/1400	400/1100	390/1150	350/2000	350/2000	150/800
EXTERNAL STATIC PRESSURE, IN. W.G.	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
MAXIMUM FAN RPM	1190	910	1190	980	870	830	910	850	870	830	830	830	830	_	880	980	880	830	_	_	830	880		800	840	830	850	860	980	980	_
MINIMUM MOTOR HP	3.0	1.0	3.0	1.0	1.0	1.0	1.0	0.75	1.0	1.0	1.0	1.0	1.0	0.75	0.75	1.0	0.75	1.0	0.5	0.5	1.0	0.75	0.5	1.0	1.0	1.0	0.75	0.75	0.75	0.75	0.5
COIL ENTERING AIR, DB/WB -	82.7/66.1	79.6/66.1	81.8/67.1	81.9/66.6	77.0/63.6	82.3/64.9	81.3/65.9	80.9/64.1	75.9/62.1	79.9/65.9	80.7/65.4	80.1/64.8	76.9/63.1	76.6/63.0	77.7/63.7	82.5/65.3	82.5/66.4	81.1/65.9	79.8/65.3	78.6/64.8	83.5/66.3	83.3/66.5	77.0/63.8	82.1/66.9	82.6/67.1	83.6/67.3	83.3/67.4	82.2/67.0	80.5/65.6	80.5/65.6	79.8/65.3
COIL L.A.T., D.B./W.B F*	58.0/57.0	57.0/56.0	59.0/58.0	59.0/58.0	56.0/55.0	56.0/55.0	57.0/56.0	56.0/55.0	55.0/54.0	57.0/56.0	57.0/56.0	57.0/56.0	55.0/54.0	56.0/55.0	56.0/55.0	57.0/56.0	58.0/57.0	58.0/57.0	57.0/56.0	57.0/56.0	57.0/56.0	58.0/57.0	57.0/56.0	57.0/56.0	57.0/56.0	58.0/57.0	57.0/56.0	57.0/56.0	57.5/56.5	57.5/56.5	57.0/56.0
AMBIENT AIR, DB - F*	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
TOTAL CAPACITY, MBH	85.73	55.68	88.83	55.62	41.69	42.65	54.42	30.15	37.66	43.53	41.14	38.24	37.49	26.14	31.70	58.05	35.59	43.53	32.78	22.93	45.55	36.45	19.15	42.90	46.10	45.99	38.90	38.80	57.24	57.24	32.78
SENSIBLE CAPACITY, MBH	80.66	42.94	74.35	49.83	36.44	39.96	46.14	29.78	36.27	34.84	36.11	35.16	33.26	24.59	28.24	55.39	31.93	36.6	28.21	19.87	40.27	33.04	17.35	33.00	36.10	38.94	29.60	29.90	50.04	50.04	28.21
MAX. AIR P.D., IN. W.G.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
MAX. FACE VELOCITY, FPM	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
STAGES OF COOLING	3	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
SEER/EER @ ARI CONDITIONS	16.6/12.1	17.2/13.0	16.6/12.1	17.2/13.0	17.5/13.0	17.5/13.0	17.2/13.0	17.5/13.0	17.5/13.0	17.5/13.0	17.5/13.0	17.5/13.0	17.5/13.0	15.0/11.0	17.5/13.0	17.5/13.0	17.5/13.0	17.5/13.0	15.0/11.0	15.0/11.0	17.5/13.0	17.5/13.0	15.0/11.0	17.5 / 13.0	17.5 / 13.0	17.5/13.0	17.5/13.0	17.5/13.0	17.2/13.0	17.2/13.0	15.0/11.0
ENTERING AIR DB — F°	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5
DESIGN LEAVING AIR DB - F°	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0
TYPE OF HEAT	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS
HEATING INPUT, MBTUH	150.0/105.0	80.0	150.0/105.0	80.0	80.0	80.0	80.0	60.0	80.0	80.0	80.0	80.0	80.0	56.0/70.0	60.0	80	60.0	80.0	48.0/60.0	56.0/70.0	80.0	60.0	48.0/60.0	80.0	80.0	60.0	60.0	60.0	80	150	48.0/60.0
HEATING OUTPUT, MBTUH	121.5/85.0	64.0	121.5/85.0	64.0	64.0	64.0	64.0	48.0	64.0	64.0	64.0	64.0	64.0	45.0/56.0	48.0	64	48.0	64.0	38.0/48.0	45.0/56.0	64.0	48.0	38.0/48.0	64.0	64.0	48.0	48.0	48.0	64	121.5	38.0/48.0
STAGES OF CONTROL	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2	1	1	1	1	1	1	1	2
MINIMUM AFUE EFF. %	81%	80%	81%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	81%	81%	80%	80%	81%	80%	80%	80%	80%	80%	80%	80%	81%
☆ VOLTS/PHASE	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	208/1	460/3	460/3	460/3	460/3	208/1	208/1	460/3	460/3	208/1	460/3	460/3	460/3	460/3	460/3	460/3	460/3	208/1
MIN. CIRCUIT AMPS REQUIRED	21.0	15.0	21.0	15.0	14.0	14.0	15.0	12.0	14.0	14.0	14.0	14.0	14.0	22.9	12.0	15.0	12.0	14.0	19.5	22.9	14.0	12.0	19.5	14.0	14.0	14.0	12.0	12.0	15.0	15.0	19.5
MAX. OVERCURRENT PROTECTION—AMPS	25.0	20.0	25.0	20.0	20.0	20.0	20.0	15.0	20.0	20.0	20.0	20.0	20.0	35.0	15.0	20.0	15.0	20.0	30.0	35.0	20.0	15.0	30.0	20.0	20.0	20.0	15.0	15.0	20.0	20.0	30.0
₹ THICKNESS/DEPTH - TYPE	2" — PLEATED	2" - PLEATED	2" - PLEATED	2" - PLEATED	2" — PLEATED	2" – PLEATED	2" _ DIEATEN	2" – PLEATED	2" - DIFATED	2" _ DI FATEN	2" - PLEATED	2" _ DIEATED	2" _ DIFATED	2" - PLEATED	2" - DI FATED	2" - PLEATED	2" - PLEATED	2" - DIEATED	2" - PLEATED	2" – PLEATED	2" - PLEATED	2" _ DIEATED	2" _ DIFATED	2" - DIFATEN	2" _ DIFATED	2" _ DIFATED	2" - DIEATED	2" – PLEATED	2" - DIEATED	2" _ DIFATED	2" _ DI FATE
Ĕ <b></b>																															
MAX. A.P.D. CLEAN, IN. W.G.	0.4	0.4	0.4	U.4	U.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	U.4 '	0.4	0.4	0.4	0.4

1-6,8,10,11

1-6,10,11

1-6,10,11

1-6,8,10,11

8 (RTU-102,104, 105,202,203,

207)

CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR |

1-6,10,11

1-6,10,11

AP-THIRTEEN

1-6,10,11

8 (RTU-301,302, | (RTU-402,407, |

503,507,508)

306,307,308) | 407,408,502,

1-6,10,11

1-6,10,11

1-6,10,11

AP-THIRTEEN AP-THIRTEEN AP-THIRTEEN AP-THIRTEEN

1-6,8,10,11

. PROVIDE MANUFACTURER FURNISHED, UNIT MOUNTED, NON-FUSED DISCONNECT SWITCH. . PROVIDE ECONOMIZER WITH BAROMETRIC RELIEF DAMPERS OR POWERED EXHAUST. REFER TO SPECIFICATIONS.

AP-THIRTEEN AP-THIRTEEN AP-THIRTEEN

1-6,8,10,11 1-5,8-12

3. PROVIDE UNIT WITH HOT GAS REHEAT OPTION. 4. MATCH EQUIPMENT NAME TAGS WITH OWNER'S PERMANENT ROOM NUMBERS.

5. PROVIDE ALL UNITS WITH MULTI-SPEED FANS. 6. TWO OUTSIDE AIR VALUES ARE FOR MINIMUM AND ECONOMIZER

THREE (3) OUTSIDE AIR VALUES ARE FOR CARBON DIOXIDE CONTROL OF OUTSIDE AIR. 8. PROVIDÈ MANUFACTURER FURNISHED NON-POWERED SERVICE OUTLET ON UNIT.

1-5,8-12

9. PROVIDE RETURN AIR MOUNTED SMOKE DUCT DETECTOR FOR UNIT. COORDINATE WITH FIRE ALARM CONTRACTOR. 10. PROVIDE MANUFACTURER FURNISHED OVERFLOW PROTECTION SWITCH IN DRAIN PAN OF UNIT WITH DRY CONTACTS AND SHALL BE WIRED BY CONTROLS CONTRACTOR.

11. IF UNIT INCLUDES VFD TO MODULATE SUPPLY AIR FAN TO MATCH THE LOAD, MANUFACTURER TO PROVIDE AND LEAVE VFD COVERR FACE TO ALLOW FOR FUTURE ADJUSTMENTS AS NEEDED. 12. THREE OUTSIDE AIR VALUES ARE FOR KITCHEN HOOD MAKE-UP AIR.

8 (RTU-CAFE-SE)

/III JOHLDOLL	AN	SCHEDULE
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MANUFACTURER/MODEL NO.

REMARKS

DESIGNATION	EF-RR-100E/100F/ 200E/200F/400E/400 F/500E/500F	EF-CUST-100C/ 200C/400C/STOR-5 00B	EF-DARK-90B	EF-CUST-88/ LOUNGE-68C/ RR-64A/ RR-65A	EF-ART	EF-CUST-500-C	EF-RR-72B & 72G	EF-RR-72C & 72E	EF-CUST-60	EF-RR-301C/302B/ 303B/306B/307B/ 308B/309B/ 500-B-2/54A/68B /79C/87C/97B/ C107B	EF-RR-B111	EF-MECH-B112	EF-RR-B109/304C/ 305C	KEF-KITCHEN	SF-KIT
AIR SYSTEM	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	KITCHEN EXHAUST	MAKE-UP
SERVES	TOILETS	CUST./STORAGE	DARK RM.	CUST./LOUNGE/ TOILETS	ART	CUST.	TOILETS	TOILETS	TOILETS/CUST.	TOILETS	TOILETS	MECH	TOILETS	KITCHEN HOOD	KITCHEN HOOD
MOUNTING	ROOF	ROOF	ROOF	ROOF	ROOF	ROOF	ROOF	ROOF	ROOF	ROOF	ROOF	CEILING	CEILING	ROOF	ROOF
TYPE	DOWNBLAST	DOWNBLAST	DOWNBLAST	DOWNBLAST	DOWNBLAST	DOWNBLAST	UPBLAST	UPBLAST	DOWNBLAST	DOWNBLAST	DOWNBLAST	INLINE	INLINE	UPBLAST	CENTRIFUGAL
CAPACITY, CFM	450	275	125	150	750	110	100	275	50	75	600	50	75	3780	1500
EXT. SP. IN. W.G.	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.50	0.125	0.125	1.000	0.750
DRIVE TYPE	BELT	BELT	BELT	BELT	BELT	BELT	BELT	BELT	BELT	BELT	BELT	DIRECT	DIRECT	BELT	BELT
MIN. WHEEL DIA. IN	12	13.5	12	13.5	12	12	12	13.5	12	12	13.5	_	-	30	10
FAN RPM	900	1050	980	930	930	940	920	820	790	830	1170	560	720	940	920
MIN MOTOR H.P.	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	21.2 WATTS	27.4 WATTS	1-1/2	1/2
VOLTS/PHASE	120/1	120/1	120/1	120/1	120/1	120/1	120/1	120/1	120/1	120/1	120/1	277/1	277/1	208/3	120/1
MFG./MODEL NO.	COOK 120 ACEB OR91	COOK 135 ACEB 0R70	COOK 120 ACEB OR60	COOK 135 ACEB OR60	COOK 120 ACEB OR92	COOK 120 ACEB OR60	COOK 120 ACRUB OR60	COOK 135 ACRUB OR80	COOK 120 ACEB OR60	COOK 120 ACEB OR60	COOK 135 ACEB OR91	COOK GC-146	COOK GC-146	COOK 300 VCR-XP	COOK KSP-B 100KSP-B
CONTROLS	EMS	WALL SWITCH	WALL SWITCH	WALL SWITCH	EMS	WALL SWITCH	WALL SWITCH	WALL SWITCH	WALL SWITCH	WALL SWITCH	EMS	WALL SWITCH	WALL SWITCH	HOOD/EMS/ INFRARED SENSOR	HOOD/KEF-KITCHEN
COMMENTS														SELECT AT 300 DEG. F	

1-6,10,11

1-6,8,10,11 | 1-6,8,10,11 | 1-8,10,11 |

CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFIL

AP-THIRTEEN | AP

1-6,10,11

8 (RTU-LIB-N

& LIB-W)

1-6,8,10,11 1-6,10,11

1. WALL SWITCHES: REFER TO MOTOR STARTER SWITCHES TO BE FURNISHED UNDER DIVISION 23 AND INSTALLED UNDER DIVISION 26 (RECESSED IN WALL). 2. EMS: FAN TO BE CONTROLLED BY ENERGY MANAGEMENT SYSTEM.

3. MOTOR STARTER CAN SUBSTITUTE AS FAN DISCONNECT WHERE NOT WALL MOUNTED AND LOCATED AT FAN MOTOR. A DISCONNECT CANNOT SUBSTITUTE FOR A MOTOR STARTER. 4. DIRECT DRIVE FANS TO HAVE ECM CONTROLLER.

5. ALL FANS SHALL BE INTERLOCKED WITH SIMILAR CONTROLS METHOD AS EXISTING (EMS/WALL SWITCH). IN CASE THE EXISTING CONTROLS CANNOT BE RE-USED, PROVIDE NEW CONTROLS AS NOTED.

### GRILLES, REGISTERS AND DIFFUSERS

DESIG.	TYPE	MOUNTING TYPE	MATERIAL	FINISH	MAX. N.C. LVL.	OPPOSED DAMPER BLADE	EQUALIZING GRID	MFG. / MODEL	DESCRIPTION/REMARKS
А	RETURN GRILLE	SURFACE OR LAY-IN	ALUMINUM	WHITE	30	NO	NO	TITUS 50F	1/2"x1/2"x1" EGG CRATE WITH FRAMED BORDE. DO NOT STACK 1/2"
В	SUPPLY DIFFUSER — LOUVERED	SURFACE OR LAY-IN	STEEL	WHITE	30	NO	NO	TITUS TMS	24"x24" FACE

——CD——	CONDENSATE DRAIN
——AD——	AUXILIARY DRAIN LINE
——RS——	REFRIGERANT SUCTION
——RL——	REFRIGERANT LIQUID
	SLOPE DOWN IN DIRECTION OF ARROW
<del>} 10</del> <del>} 19</del>	RISE AND DROP IN PIPIING
	FLOW IN DIRECTION OF ARROW
•	CONNECT TO EXISTING
	EXISTING WORK TO REMAIN
	NEW WORK
	DEMOLITION WORK
Ф	THERMOSTAT/TEMPERATURE SENSOR
Ф	HUMIDITY SENSOR
©	CARBON DIOXIDE SENSOR
M	CARBON MONOXIDE SENSOR
S	DUCT SMOKE DETECTOR
\$	WALL SWITCH
\$P	WALL SWITCH WITH PUSHBUTTON
←	SUPPLY AIR ARROW
<b>←</b> ^-	RETURN AIR ARROW
R	RISE IN DUCT
D	DROP IN DUCT
	SUPPLY DUCT
	RETURN OR EXHAUST DUCT
	MANUAL DAMPER
M	MOTORIZED DAMPER
<b>▼</b> F.D.	FIRE DAMPER
<b>▼</b> F.D.	F.S.D FIRE/SMOKE DAMPER

PLUM	BING LEGEND
SYMBOL	DESCRIPTION
	DOMESTIC COLD WATER (CW)
G	GAS PIPE
—— D——	DRAIN, INDIRECT
	EXISTING TO REMAIN
<del>*</del> * *	EXISTING TO BE REMOVED
C+5///5+->	GAS METER
Ħ	ROOF PIPE SUPPORT
ıŪī	PLUG VALVE
	CAP
	DIRECTION OF SLOPE
	DIRECTION OF FLOW
<del>С+</del> О+	RISE & DROP IN PIPING
	CLEANOUT
<del></del>	BALL VALVE
<u></u>	CHECK VALVE
——————————————————————————————————————	UNION
SA	SHOCK ARRESTOR
	GAUGE COCK
	PRESSURE GAUGE W/GAUGE COCK
	THERMOMETER
₩	NON-FREEZE ROOF HYDRANT
•	NEW CONNECTION TO EXISTING
CO	CLEAN OUT
WCO	WALL CLEAN OUT
VTR	VENT THROUGH ROOF
(E)	EXISTING UTILITIES
NOTE: NOT ALL S	SYMBOLS SHOWN ARE NECESSARILY USED

CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR | CAMFILL FARR |

| AP-THIRTEEN |

1-6,10,11

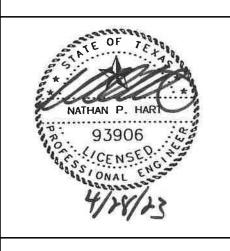
1-6,10,11

1-6,10,11

1-6,10,11

Consulting Engineers

12001 N Central Expy
Suite 1100 (972) 788-4222
Dallas, TX 75243 Project 22146.00



2023.04.28

155	UES	
01	ISSUE FOR CONSTRUCTION	2023.04.2
RE	REVISIONS	





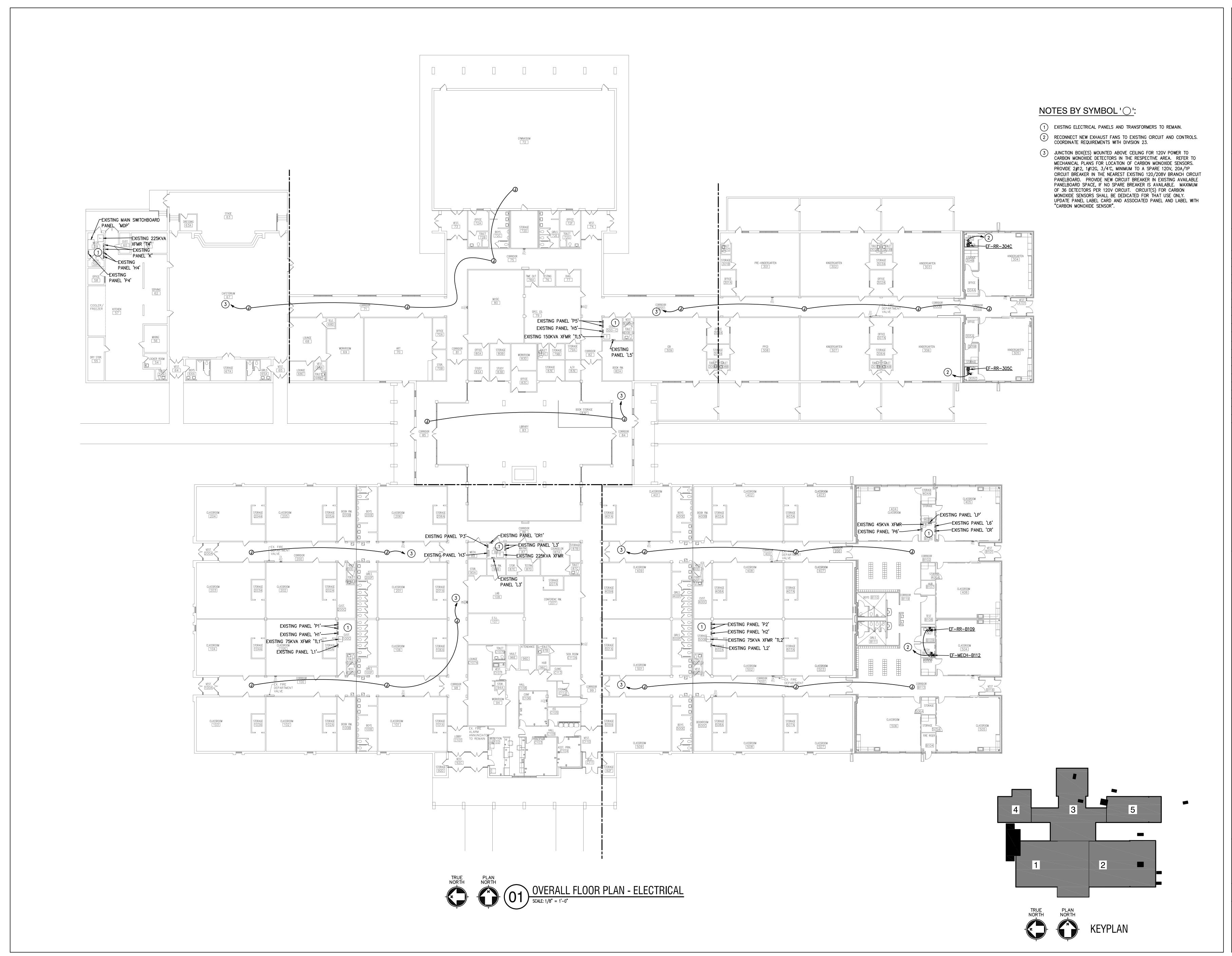
1-6,8,10,11 | 1-6,8,10,11

SCHEDULES & LEGEND - MECHANICAL & **PLUMBING** 

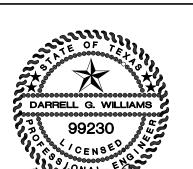
JOB NO.: 22146-00 DRAWN BY: ND CHECKED BY: HV/NH

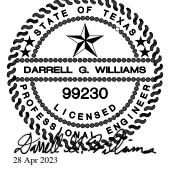
SHEET NO.

MP3.01









2023.04.28

ISSUES 1 ISSUE FOR CONSTRUCTION | 2023.04.28 REVISIONS





OVERALL FLOOR PLAN
- ELECTRICAL

JOB NO.: 22076-00 DRAWN BY: CA CHECKED BY: JW

SHEET NO.

E1.01

	РΔ	NELBOARD: P1 - SE	CTION 1 (FXISTIN	IG)		]		
		NELDOAKDI I SE	CTION I (EXISTI	10)				
L-L VOLTAGE:	CKT	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A	
480 VOLTS	1		EXISTING WIRE &				3324	
L-N VOLTAGE:	3	RTU-104	CONDUIT	15A/3P			3324	
277 VOLTS	5		5.VIOTING WIDE 0				3324	
CONNECTION	7	DTU 100	EXISTING WIRE &	204 (20			4155	
TYPE:	9	RTU-100	CONDUIT	20A/3P			4155	
3 PHASE,	11		EVICTING WIDE 9				4155	
4 WIRE	13 15	  RTU-101	EXISTING WIRE & CONDUIT	1 5 4 /2 D			3324	l
PLUS GND MAINS:	17	K10-101	CONDOIT	15A/3P			3324 3324	l
600A MLO	19		EXISTING WIRE &				3324	
MOUNTING:	21	RTU-102	CONDUIT	15A/3P			3324	
SURFACE	23	10-102	CONDOIT	ISA/SF			3324	
AIC RATING:	25						3878	
EXISTING.	27	RTU-103	EXISTING WIRE &	20A/3P			3878	
EXISTING	29	103	CONDUIT	20//31			3878	
	23		CONDOIT				3070	Α
								В
								С
								Α
								В
								С
	2		EXISTING WIRE &				3878	
	4	RTU-204	CONDUIT	20A/3P			3878	
	6						3878	С
	8		EXISTING WIRE &				4155	Α
	10	RTU-200	CONDUIT	20A/3P			4155	В
	12						4155	С
	14		EXISTING WIRE &				3324	Α
	16	RTU-201	CONDUIT	20A/3P			3324	В
	18						3324	С
	20		EXISTING WIRE &				3324	Α
	22	RTU-202	CONDUIT	15A/3P			3324	В
	24						3324	С
	26		EXISTING WIRE &				3324	Α
		RTU-203	CONDUIT	15A/3P			3324	
	30						3324	С
								Α
								В
								С
								Α
								В
				<u> </u>	<u> </u>	<u> </u>		<u>C</u>
GENERAL NOTES		TT 67756 6000	SUB-FEED PANE		1		13850	l
		IT SIZES SHALL BE	CONNECTI		1		13850	
		NLESS OTHERWISE NOTED.		JMMARY	<u> </u>		13850 149.58	1
2. PROVIDE FEED	HR	U LUGS	TOTALS PER TYPE (I	1	14) / 6	100.0	L	
			LOADS PER PHASE:	49.9	kVA	180.0	Amps	A
				49.9	kVA		Amps	В
			PANEL TOTALS	49.9 149.6	kVA KVA	180.0 180.0		C
			IL ANLE IOIALS	<u>1</u> 73.U	IVVA	100.0	AMIFS	I

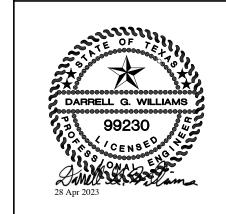
						_		
L VOLTAGE:	СКТ	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A	T
480 VOLTS	31	SPACE						
-N VOLTAGE:	33	SPACE						
277 VOLTS	35	SPACE						
ONNECTION	37							
YPE:	39	EXISTING LOAD		20A/3P				
3 PHASE,	41							
4 WIRE	43							
PLUS GND	45	EXISTING LOAD		20A/3P				
MAINS:	47							
600A MLO	49		EXISTING WIRE &				3324	F
MOUNTING:	51	RTU-106	CONDUIT	15A/3P			3324	ŀ
SURFACE	53						3324	
AIC RATING:	55		EXISTING WIRE &				3324	
EXISTING	57	RTU-105	CONDUIT	15A/3P			3324	
	59						3324	ŀ
	22	SPACE						+
		SPACE						
	36	SPACE						
	38	317(32						
	40	EXISTING LOAD		20A/3P				
	42			20/1/31				
	44							
	46	EXISTING LOAD		20A/3P				
	48							
	50		EXISTING WIRE &				3324	4
	52	RTU-206	CONDUIT	15A/3P			3324	
	54						3324	
	56		EXISTING WIRE &				3878	
	58	RTU-205	CONDUIT	20A/3P			3878	
	60			,			3878	
ENERAL NOTES	:		SUB-FEED PANE	LBOARD				Ť
. ALL WIRE & CO	DNDU	IT SIZES SHALL BE	CONNECTI	ED LOAD				
2#12,#12G,3/	4"C U	NLESS OTHERWISE NOTED.	Sl	<b>JMMARY</b>				
. PROVIDE FEED			TOTALS PER TYPE (I				41.55	<u> </u>
			LOADS PER PHASE:	13.9	kVA	50.0	Amps	
				13.9	kVA	50.0	Amps	
			ii .	13.9	kVA	50.0	Amps	

208 VOLTS				
208 VOLTS   1   ROOF RECEPTACLES   2#12,1#12G-3/4*C.   20A/1P   1440	M&A		—— ₹A	Т
L-N VOLTAGE: 120 VOLTS 5 SPACE CONNECTION TYPE: 3 PHASE, 4 WIRE PLUS GND MAINS: 400A MCB MOUNTING: 5 SURFACE 12 EXISTING RECEPTACLES 12 EXISTING RECEPTACLES 13 EXISTING RECEPTACLES 14 WIRE 15 STACE 16 SURFACE 17 EXISTING RECEPTACLES 18 EXISTING RECEPTACLES 19 EXISTING RECEPTACLES 20 EXISTING R	-			Ť
120 VOLTS				
Type:				
Type:   3 pMase,   4 wire   13 Existing EWC   200/1P	1056	105	056	
3 PHASE, 4 WIRE   13 EXISTING EWC   20A/1P	1000	100	000	
4 WIRE   13   EXISTING EWC   20A/1P   20A/1P   4 WIRE   20A/1P   2 WIRE				
P-US GND				
MAINS:   17				
### A00A MCB   19   EXISTING RECEPTACLES   20A/1P   20A/1				
MOUNTING: SURFACE   SUSTING RECEPTACLES				
SURFACE   23				
AIC RATING: 10,000 AMPS				
10,000 AMPS				
29				
31 EXISTING RECEPTACLES 33 EXISTING RECEPTACLES 33 EXISTING LOAD 37 EXISTING EXT LIGHTS 39 RTU-107 2#10,1#10G-3/4"C. 30A/2P 2 ROOF RECEPTACLES 4 SPACE 6 SPACE 8 SPACE 10 EXISTING EWC 11 EF-RR-200F & EF-RR-200E 12 EF-RR-200F & EF-RR-200E 13 SPACE 14 SPACE 20 EXISTING RECEPTACLES 20 EXISTING RECEPTACLES 21 EXISTING RECEPTACLES 22 EXISTING RECEPTACLES 24 EXISTING RECEPTACLES 25 EXISTING RECEPTACLES 26 EXISTING RECEPTACLES 27 EXISTING RECEPTACLES 28 EXISTING RECEPTACLES 29 EXISTING RECEPTACLES 20 EXISTING RECEPTACLES 20A/1P 24 EXISTING RECEPTACLES 20A/1P 26 EXISTING RECEPTACLES 20A/1P 27 EXISTING RECEPTACLES 20A/1P 28 EXISTING RECEPTACLES 20A/1P 20	F3.		F3.	
33 EXISTING RECEPTACLES 35 EXISTING LOAD 37 EXISTING EXIT LIGHTS 39 RTU-107 2#10,1#10G-3/4"C. 30A/2P 20A/1P	528	52	528	
35				
37 EXISTING EXIT LIGHTS 39 RTU-107 41 2 ROOF RECEPTACLES 4 SPACE 6 SPACE 8 SPACE 10 EXISTING EWC 12 EF-RR-200F & EF-RR-200E 13 SPACE 14 EXISTING EWC 15 EF-RR-200F & EF-RR-200E 16 SPACE 20 EXISTING RECEPTACLES 200/1P 24 EXISTING RECEPTACLES 200/1P 25 EXISTING RECEPTACLES 200/1P 26 EXISTING RECEPTACLES 200/1P 30 EXISTING RECEPTACLES 200/1P 31 EXISTING RECEPTACLES 320/1P 33 EXISTING RECEPTACLES 34 EXISTING RECEPTACLES 35 EXISTING RECEPTACLES 36 EXISTING RECEPTACLES 37 EXISTING RECEPTACLES 38 EXISTING RECEPTACLES 39 EXISTING RECEPTACLES 200/1P				
39   RTU-107   2#10,1#10G-3/4"C.   30A/2P   2   2   2   2   2   2   2   2   2				
41   2   ROOF RECEPTACLES   SPACE				
2   ROOF RECEPTACLES   20A/1P	2184 2184			
4   SPACE   6   SPACE   8   SPACE   8   SPACE   10   EXISTING EWC   20A/1P   10   20A/1P	2104		104	t
8   SPACE   10   EXISTING EWC   20A/1P   10   11   11   12   12   12   14   14   15   15   15   15   15   15				
8   SPACE   10   EXISTING EWC   20A/1P   10   11   11   12   12   12   14   14   15   15   15   15   15   15				
12 EF-RR-200F & EF-RR-200E 14 EXISTNG EWC 15 SPACE 18 SPACE 20 EXISTING RECEPTACLES 20 EXISTING RECEPTACLES 22 EXISTING RECEPTACLES 24 EXISTING RECEPTACLES 25 EXISTING RECEPTACLES 26 EXISTING RECEPTACLES 27 EXISTING RECEPTACLES 28 EXISTING RECEPTACLES 29 EXISTING RECEPTACLES 20A/1P 28 EXISTING RECEPTACLES 20A/1P 29 EXISTING RECEPTACLES 20A/1P				
12   EF-RR-200F & EF-RR-200E   20A/1P   20A/1P   1				
14	1056	105	056	
16 SPACE 18 SPACE 20 EXISTING RECEPTACLES 22 EXISTING RECEPTACLES 24 EXISTING RECEPTACLES 26 EXISTING RECEPTACLES 26 EXISTING RECEPTACLES 27 EXISTING RECEPTACLES 28 EXISTING RECEPTACLES 29 EXISTING RECEPTACLES 200/1P 20	1000	100		
18   SPACE   EXISTING RECEPTACLES   20A/1P   2				
20				
22   EXISTING RECEPTACLES   20A/1P				
24   EXISTING RECEPTACLES   20A/1P				
26 EXISTING RECEPTACLES 28 EXISTING RECEPTACLES 30 EXISTING RECEPTACLES 31 EXISTING RECEPTACLES 32 EXISTING RECEPTACLES 33 EXISTING RECEPTACLES 34 EXISTING RECEPTACLES 35 EXISTING RECEPTACLES 36 EXISTING RECEPTACLES 37 EXISTING RECEPTACLES 38 EXISTING RECEPTACLES 39 EXISTING RECEPTACLES 30 EXI				
28 EXISTING RECEPTACLES 30 EXISTING RECEPTACLES 31 EXISTING RECEPTACLES 32 EXISTING RECEPTACLES 33 EXISTING RECEPTACLES 34 EXISTING RECEPTACLES 35 EXISTING RECEPTACLES 36 EXISTING RECEPTACLES 38 EXISTING RECEPTACLES 40 RTU-108 40 RTU-108 41 EXISTING RECEPTACLES 42 EXISTING RECEPTACLES 43 EXISTING RECEPTACLES 44 EXISTING RECEPTACLES 45 EXISTING RECEPTACLES 46 EXISTING RECEPTACLES 47 EXISTING RECEPTACLES 48 EXISTING RECEPTACLES 49 EXISTING RECEPTACLES 40 EXIST				
30 EXISTING RECEPTACLES 32 EXISTING RECEPTACLES 34 EXISTING RECEPTACLES 35 EXISTING RECEPTACLES 36 EXISTING RECEPTACLES 37 EXISTING RECEPTACLES 38 EXISTING RECEPTACLES 39 EXISTING RECEPTACLES 30 EXISTING RECEPTACLES 20A/1P 20A				
32 EXISTING RECEPTACLES 34 EXISTING RECEPTACLES 36 EXISTING RECEPTACLES 38 EXISTING RECEPTACLES 40 RTU-108 42 20A/1P 20A/				
34   EXISTING RECEPTACLES   20A/1P				
36 EXISTING RECEPTACLES 38 EXISTING RECEPTACLES 40 RTU-108  CENERAL NOTES: L. ALL WIRE & CONDUIT SIZES SHALL BE 2#12,#12G,3/4"C UNLESS OTHERWISE NOTED. 2. PROVIDE FEED THRU LUGS  EXISTING RECEPTACLES 20A/1P 20A/1P 2#10,1#10G-3/4"C.  SUB-FEED PANELBOARD CONNECTED LOAD SUMMARY  TOTALS PER TYPE (kVA): 11.52 9 LOADS PER PHASE: 2.5 kVA 20.8 Amp				
38 EXISTING RECEPTACLES 40 42 RTU-108  38 EXISTING RECEPTACLES 20A/1P 2#10,1#10G-3/4"C. 15A/2P 1 1 SUB-FEED PANELBOARD CONNECTED LOAD 2#12,#12G,3/4"C UNLESS OTHERWISE NOTED. 2. PROVIDE FEED THRU LUGS  TOTALS PER TYPE (kVA): 11.52 9 LOADS PER PHASE: 2.5 kVA 20.8 Amp				
40 RTU-108 42 SENERAL NOTES:  I. ALL WIRE & CONDUIT SIZES SHALL BE 2#12,#12G,3/4"C UNLESS OTHERWISE NOTED.  2. PROVIDE FEED THRU LUGS  2#10,1#10G-3/4"C. 15A/2P 1  SUB-FEED PANELBOARD CONNECTED LOAD SUMMARY  TOTALS PER TYPE (kVA): 11.52 9  LOADS PER PHASE: 2.5 kVA 20.8 Amp.				
GENERAL NOTES:  L. ALL WIRE & CONDUIT SIZES SHALL BE  2#12,#12G,3/4"C UNLESS OTHERWISE NOTED.  2. PROVIDE FEED THRU LUGS  TOTALS PER TYPE (kVA):  LOADS PER PHASE:  2.5 kVA  1  1  1  1  1  1  1  1  1  1  1  1  1	1040	404	240	
SUB-FEED PANELBOARD CONNECTED LOAD 2#12,#12G,3/4"C UNLESS OTHERWISE NOTED. PROVIDE FEED THRU LUGS  SUB-FEED PANELBOARD CONNECTED LOAD SUMMARY  TOTALS PER TYPE (kVA): 11.52 9 LOADS PER PHASE: 2.5 kVA 20.8 Amp	1248 1248			
2#12,#12G,3/4"C UNLESS OTHERWISE NOTED.  2. PROVIDE FEED THRU LUGS  TOTALS PER TYPE (kVA): 11.52 9  LOADS PER PHASE: 2.5 kVA 20.8 Amp	1 12 10	<u> </u>	<u>= 10</u>	Ť
2. PROVIDE FEED THRU LUGS  TOTALS PER TYPE (kVA): 11.52 9  LOADS PER PHASE: 2.5 kVA 20.8 Amp				
LOADS PER PHASE: 2.5 kVA 20.8 Amp	9.50			+
	Amps			T
3.4 kVA 28.6 Amp	-	-	•	
15.1 kVA 28.0 Amp	_	-		

	DΛ	NELBOARD: P2 - S	ECTION 1 (EVISTI	NG)		]		
	PA	NELBOARD. PZ - 3	ECITON I (EXISIII	10)				
L-L VOLTAGE:	СКТ	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A	
480 VOLTS	1		EXISTING WIRE &				3324	Α
L-N VOLTAGE:	3	RTU-509	CONDUIT	15A/3P			3324	
277 VOLTS	5						3324	
CONNECTION	7	DTU 500	EXISTING WIRE &	224 (27			4155	
TYPE:	9	RTU-500	CONDUIT	20A/3P			4155	
3 PHASE, 4 WIRE	11 13		EXISTING WIRE &				4155 3324	
PLUS GND	15	  RTU-508	CONDUIT	15A/3P			3324	
MAINS:	17	10 300	CONDOIT	13//36			3324	
600A MLO	19		EXISTING WIRE &				3324	
MOUNTING:	21	RTU-507	CONDUIT	15A/3P			3324	
SURFACE	23						3324	
AIC RATING:	25						3324	
EXISTING	27	RTU-503	EXISTING WIRE &	15A/3P			3324	В
	29		CONDUIT				3324	C
								Α
								В
								C
								Α
								В
	<u> </u>		EVICTING WIDE 0				2224	C
	2	  RTU-502	EXISTING WIRE &	1 5 4 /2 5			3324	
	4	K10-302	CONDUIT	15A/3P			3324	
	6 8		EXISTING WIRE &				3324 3324	
	10	RTU-501	CONDUIT	15A/3P			3324	
	12	K10 301	CONDOIT	IDA/JF			3324	
	14		EXISTING WIRE &				3324	
	16	RTU-409	CONDUIT	15A/3P			3324	
	18		66112611	157 (7 51			3324	
	20		EXISTING WIRE &				4155	
	22	RTU-400	CONDUIT	20A/3P			4155	
	24						4155	
	26		EXISTING WIRE &				3324	
	28	RTU-401	CONDUIT	15A/3P			3324	В
	30						3324	C
								Α
								В
								C
								A
								В
CENERAL NOTES	<u> </u>		CUB FFFF SATE	10010			12226	C
GENERAL NOTES		ITT CIZEC CHALL DE	SUB-FEED PANE	_			13296	
		IT SIZES SHALL BE	CONNECT				13296	
2#12,#12G,3/4 2. PROVIDE FEED		INLESS OTHERWISE NOTED.		UMMARY			13296 144.59	$\overline{}$
2. FRUVIDE FEEL	·ιΠΚ	LUGS	TOTALS PER TYPE ( LOADS PER PHASE:	48.2	<u> </u>	174.0	Amps	Α
			LOADS FER FRASE:	48.2		174.0	Amps	В
				48.2			Amps Amps	С
			<u> </u>	TU. Z	17 4 M	<u> </u>	AIIIPS	

	PA	NELBOARD: P2 - SEC		NG)				
L-L VOLTAGE:	СКТ	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A	
480 VOLTS	31	SPACE						Α
L-N VOLTAGE:	33	SPACE						В
277 VOLTS		SPACE						C
CONNECTION	37		EXISTING WIRE &				3324	A
TYPE:		RTU-406	CONDUIT	15A/3P			3324	
3 PHASE,	41			-07 ,7 0.			3324	
4 WIRE	43		EXISTING WIRE &				3324	
PLUS GND		RTU-407	CONDUIT	15A/3P			3324	
MAINS:	47		00112011	157 (7 51			3324	
600A MLO	49						3321	A
MOUNTING:	51			20A/3P				В
SURFACE	53			20/4/51				٦
AIC RATING:	55							A
EXISTING.	57			20A/3P				B
LXISTING	59			ZUAYJE				_
	29							C
								A
								В
								C
								A
								В
								C
	32	SPACE						Α
	34	SPACE						В
	36	SPACE						C
	38		EXISTING WIRE &				3324	Α
	40	RTU-402	CONDUIT	15A/3P			3324	В
	42						3324	C
	44		EXISTING WIRE &				3324	
	46	RTU-403	CONDUIT	15A/3P			3324	
	48						3324	
	50						3321	A
	52			20A/3P				В
	54			2077				٦
	56							\ \
				204/20				A
	58			20A/3P				В
	60							1
								A
								В
								C
								A
								В
								C
SENERAL NOTES			SUB-FEED PANE					Α
		IT SIZES SHALL BE	CONNECTE					В
		NLESS OTHERWISE NOTED.		JMMARY				C
2. PROVIDE FEED	THR	U LUGS	TOTALS PER TYPE (I			_	39.89	<u> </u>
			LOADS PER PHASE:		kVA	48.0	Amps	Α
					kVA	48.0	-	В
				13.3	kVA	48.0	Amps	С
			PANEL TOTALS	39.9	KVA	48.0	<b>AMPS</b>	L

	PA	NELBOARD: L2 (EXISTI	NG)					
-L VOLTAGE:	СКТ	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A	Т
208 VOLTS	1	ROOF RECEPTACLES	2#12,1#12G-3/4"C.	20A/1P		1260		Α
-N VOLTAGE:	3	ROOF RECEPTACLES	2#12,1#12G-3/4"C.	20A/1P		720		В
120 VOLTS		EXISTING LOAD	, , , , , ,	20A/1P				c
CONNECTION	7	EXISTING LOAD		20A/1P				A
TYPE:	9	EF-RR-400E & EF-RR-400F	EXISTING WIRE & CON	_			1056	
3 PHASE,	_	EXISTING EWC		20A/1P				
4 WIRE		EXISTING EWC		20A/1P				A
PLUS GND	_	EXISTING LOAD		20A/1P				B
MAINS:	-	EXISTING LOAD		20A/1P				7
400A MCB		EXISTING RECEPTACLES		20A/1P				A
MOUNTING:		EXISTING RECEPTACLES		20A/1P				B
SURFACE		EXISTING RECEPTACLES		20A/1P				
AIC RATING:		EXISTING RECEPTACLES		20A/1P				,
10,000 AMPS		EXISTING RECEPTACLES		20A/1P				A   B
10,000 AMPS	-	EXISTING RECEPTS & EF-CUST-400C	EVICTING MIDE & CON			000	528	
		EXISTING RECEPTS & EF-COST-400C	EXISTING WIRE & CON	-		900	526	١.
				20A/1P				A
		EXISTING LOAD		20A/1P				
		EXISTING LOAD		20A/1P				) C
		EXISTING EXIT LIGHTS		20A/1P				A
		SPARE		20A/2P				B
	41	004.05						<u> </u>
		SPACE						A
		SPACE						B
	_	EXISTING LOAD		20A/1P				C
	_	EXISTING LOAD		30A/2P				A
	10							B
		EF-RR-500E & EF-RR-500F	EXISTING WIRE & CON	20A/1P			1056	C
		EXISTING EWC		20A/1P				A
	16	EXISTING LOAD		20A/1P				В
	18	EXISTING LOAD		20A/1P				C
	20	EXISTING RECEPTACLES		20A/1P				A
	22	EXISTING RECEPTACLES		20A/1P				B
	24	EXISTING RECEPTACLES		20A/1P				C
	26	EXISTING RECEPTACLES		20A/1P				A
	28	EXISTING RECEPTACLES		20A/1P				В
	30	EXISTING RECEPTS & EF-STOR-500B	<b>EXISTING WIRE &amp; CON</b>	-		900	528	c
		EXISTING RECEPTACLES		20A/1P				A
		EXISTING RECEPTACLES		20A/1P				B
	_	EXISTING RECEPTACLES		20A/1P				ر ا ر
		EXISTING RECEPTACLES		20A/1P				Α
		SPARE		20A/2P				B
	42			20, 1, 2.				7
ENERAL NOTES	•	1	SUB-FEED PANEL	BOARD				A
	_	IT SIZES SHALL BE	CONNECTE					B
		NLESS OTHERWISE NOTED.		MMARY				~
. PROVIDE FEED			TOTALS PER TYPE (k			3.78	3.17	+
. I VAAIDE LEEF	, 111K		LOADS PER PHASE:		kVA		Amps	ΙA
			LOADS FLA FIIASE.		kVA		Amps	B
				3.9			_	C
			PANEL TOTALS		KVA KVA		Amps AMPS	屵



2023.04.28

ISSUES
01 ISSUE FOR CONSTRUCTION 2023.04.28

REVISIONS



HVAC REPLACEMENT
MIDLOTHIAN I.S.D.

PANEL SCHEDULES

JOB NO.: 22076-00 DRAWN BY: CA CHECKED BY: JW SHEET NO.

E2.01

	РА	NELBOARD: P3 (EXIS	STING)			]		
L-L VOLTAGE:	Іскт	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A	
480 VOLTS	1	LOND DESCRIPTION	WINE & CONDOIT	DICIC		I KOI I	11071	Α
-N VOLTAGE:	3	EXISTING LOAD		15A/3P				B
277 VOLTS	5							C
ONNECTION	7		EXISTING WIRE &				3878	
TYPE:	9	RTU-MUSIC	CONDUIT	20A/3P			3878	
3 PHASE,	11						3878	
4 WIRE	13		EXISTING WIRE &				3878	
PLUS GND	15	RTU-LIB-S	CONDUIT	20A/3P			3878	
MAINS:	17						3878	
<b>200A MLO</b>	19		EXISTING WIRE &				3878	Α
MOUNTING:	21	RTU-LIB-W	CONDUIT	20A/3P			3878	
SURFACE	23						3878	C
AIC RATING:	25		EXISTING WIRE &				3324	
<b>EXISTING</b>	27	RTU-207	CONDUIT	15A/3P			3324	
	29						3324	C
	31		EXISTING WIRE &				4155	
	33	RTU-C103	CONDUIT	20A/3P			4155	
	35						4155	C
								Α
								В
								С
	2	EVICTING LOAD		154 (25				Α
	4	EXISTING LOAD		15A/3P				В
	6						2070	C
	8	DTU ADT	EXISTING WIRE &	204/20			3878	
	10	RTU-ART	CONDUIT	20A/3P			3878	
	12						3878	
	14	DTU LID E	EXISTING WIRE &	204/20			3878	
	16	RTU-LIB-E	CONDUIT	20A/3P			3878	
	18						3878	
	20	BTU LTB N	EXISTING WIRE &	201/27			3878	
	22	RTU-LIB-N	CONDUIT	20A/3P			3878	
	24		EVICTING MIDE O				3878	
	26	DTU OC	EXISTING WIRE &	4 = 4 /2 =			3324	
		RTU-86	CONDUIT	15A/3P			3324	
	30						3324	
	32	DTU C106	2.440.4.4400.2.4480	254/25			5817	
	1	RTU-C106	3#10,1#10G-3/4"C.	25A/3P			5817	
	36						5817	
								A
								B
ENERAL NOTES	<u>.</u> :	l	SUB-FEED PANE	LBOARD				A
	=	IT SIZES SHALL BE	CONNECT					В
		NLESS OTHERWISE NOTED.		UMMARY				C
2. PROVIDE FEEL			TOTALS PER TYPE (				119.66	
			LOADS PER PHASE:	39.9	kVA	144.0	Amps	Α
				39.9	kVA	144.0	Amps	В
				39.9	kVA	144.0	Amps	С
			PANEL TOTALS	119.7	KVA	144.0	AMPS	

	PA	NELBOARD: L3 SECT 1 (	EXISTING)				
L-L VOLTAGE:	Скт	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A
208 VOLTS	1	RTU-107	EXISTING WIRE &	30A/2P			2028
L-N VOLTAGE:	3		CONDUIT				2028
120 VOLTS	5	EXISTING RECEPTACLES		20A/1P			
CONNECTION	7	RTU-85	EXISTING WIRE &	35A/2P			2381
TYPE:	9		CONDUIT				2383
3 PHASE,	11	EXISTING KILN		90A/2P			
4 WIRE	13						
PLUS GND	15	EXISTING LOAD		20A/2P			
MAINS:	17						
<b>400A MCB</b>	19	EXISTING LOAD		20A/1P			
MOUNTING:	1 -	ROOF RECEPTACLES	2#12,1#12G-3/4"C.	20A/1P		1080	
#VALUE!	23	EXISTING LOAD		20A/2P		2000	
AIC RATING:	25			207 (721			
EXISTING.	27	ROOF RECEPTACLES	2#12,1#12G-3/4"C.	20A/1P		1440	
-/15   111U		EXISTING RECEPTACLES	2π12,1π12G-3/4 C.	20A/1P		1740	
	29	LAISTING RECEFTACES		20A/1P			
	_	DTU 100	EVICTING WITE 5	454/05			404
	2	RTU-108	EXISTING WIRE &	15A/2P			1248
	4	EVICTING DECEDE 6 ST. ES	CONDUIT				1248
		EXISTING RECEPTACLES		20A/1P			
		RTU-84	EXISTING WIRE &	35A/2P			238
	10		CONDUIT				238
	12	EXISTNG LOAD		20A/2P			
	14						
	16	EXISTING LOAD		20A/2P			
	18						
	20	EXISTING LOAD		20A/2P			
	22						
	24	EXISTING LOAD		20A/2P			
	26						
		EXISTING RECEPTACLES		20A/1P			
		EXISTING RECEPTACLES		20A/1P			
				,			
ENERAL NOTES:	<u> </u>	1	SUB-FEED PANE	IBOARD		1800	1584
		IT SIZES SHALL BE	CONNECTI			1000	1056
		JNLESS OTHERWISE NOTED.		JMMARY		900	
•		UITS SHALL HAVE DEDICATED	TOTALS PER TYPE (			5.22	
NEUTRAL WIRES.			LOADS PER PHASE:	11.4	kVΔ		Amps
				11.6	kVA		Amps
					kVA		Amps
			PANEL TOTALS	25.5			AMPS
			"PANEL LULA!	/ > >	R V ()	/:: U	

						7		
	PA	NELBOARD: L3 SECT 2	(EXISTING)					
L-L VOLTAGE:	CKT	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A	_
208 VOLTS	31							
L-N VOLTAGE:		EXISTING LOAD		60A/3P				
120 VOLTS	35							
CONNECTION		EXISTNG RECEPTS & EF-RR-C107B	EXISTING WIRE & CON	20A/1P		900	528	3
YPE:		EXISTING RECEPTACLES		20A/1P				
3 PHASE,		EXISTING RECEPTACLES		20A/1P				
4 WIRE		EXISTING RECEPTACLES		20A/1P				
PLUS GND		EXISTING RECEPTACLES		20A/1P				
MAINS:		EXISTING RECEPTACLES		20A/1P				
400A MCB		EXISTING RECEPTACLES		20A/1P				
MOUNTING:		EXISTING RECEPTACLES		20A/1P				
VALUE!		EXISTING LOAD		20A/2P				
AIC RATING:	55							
EXISTING		EXISTING RECEPTACLES		20A/1P				
GEN. NOTES		EXISTING RECEPTACLES		20A/1P				
	_	EXISTING RECEPTACLES		20A/1P				
		EXISTING RECEPTACLES		20A/1P				
		EXISTING RECEPTACLES		20A/1P				
	0,	EF-ART	EXISTING WIRE & CON	20A/1P			528	
	69	EXISTING LIGHTS		20A/1P				
	71	EXISTING EXIT SIGNS		20A/1P				
	32							
	34	EXISTING LOAD		60A/3P				
	36							
		EXISTING RECEPTS & EF-RR-97B	EXISTING WIRE & CON	20A/1P		900	528	3
		EXISTING RECEPTACLES		20A/1P				
		EXISTING RECEPTS & EF-RR-87C	EXISTING WIRE & CON	20A/1P		900	528	
	44	EXISTING RECEPTACLES		20A/1P				
	46	EXISTING RECEPTACLES		20A/1P				
	48	EXISTING RECEPTACLES		20A/1P				
	50	EXISTING RECEPTACLES		20A/1P				
	52	EXISTING RECEPTACLES		20A/1P				
	54	EXISTING RECEPTACLES		20A/1P				
	56	EXISTING RECEPTACLES		20A/1P				
	58	EXISTING RECEPTACLES		20A/1P				
	60	EXISTING RECEPTACLES		20A/1P				
	62	EXISTING RECEPTACLES		20A/1P				
	64	EF-LOUNGE-68C & EF-RR-68B	EXISTING WIRE & CON	20A/1P			1056	
	66	EF-CUST-88 & EF-DARK-90B	EXISTING WIRE & CON	20A/1P			1056	
	68	EXISTING LIGHTS		20A/1P				
	70	EXISTING RECEPTACLES		20A/1P				
	72	EXISTING RECEPTACLES		20A/1P				
			SUB-FEED PANEL	BOARD				
			CONNECTE	D LOAD				
			SU	<b>MMARY</b>				
			TOTALS PER TYPE (k	VA):		2.70	4.22	
			LOADS PER PHASE:	3.4	kVA	28.2	Amps	•
				1.1	kVA		Amps	
				2.5	kVA		Amps	
			PANEL TOTALS	6.9	KVA		AMPS	

						7		
	PA	NELBOARD: L3A (EXIST	ring)					
L-L VOLTAGE:	CKT	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A	<u> </u>
208 VOLTS		EXISTING RECEPTACLES	WINE & CONBOIT	20A/1P		T(C)	110071	Α
L-N VOLTAGE:		EXISTING REFRIGERATOR		20A/1P				В
120 VOLTS		EXISTING FA POWER SUPPLY		20A/1P				c
CONNECTION	_	EXISTING WATER HEATER		20A/1P				Δ
TYPE:		EXISTING LOAD		20A/1P				B
3 PHASE,		SPACE		20, 1, 11				c
4 WIRE		EXISTING LOAD		20A/1P				A
PLUS GND		RTU-VAV	2#10,1#10G-3/4"C.	30A/2P			2028	
MAINS:	17		2,, 13,1,, 13,3,1, 3,1	00, 1, 2.			2028	
60A MLO		SPACE					2020	A
MOUNTING:		SPACE						В
#VALUE!		SPACE						C
AIC RATING:	25	STACE						A
EXISTING								B
LAISTING								C
								A
								В
								C
								A
								В
								C
	2	EXISTING RECEPTACLES		20A/1P				A
		EXISTING RECEPTACLES		20A/1P				В
		EXISTING RECEPTACLES		20A/1P				C
	_	EXISTING RECEPTACLES		20A/1P				
		EXISTING RECEPTACLES		20A/1P				A   B
		EXISTING RECEPTACLES		20A/1P				
		EXISTING RECEPTACLES		-				C
		EXISTING RECEPTACLES		20A/1P				A
		EXISTING LOAD		30A/2P				В
	18	CDACE						C
		SPACE						A
		SPACE						В
	24	SPACE						C
								A
								В
								C
								A
								В
								C
								Α
								В
								C
GENERAL NOTES:			SUB-FEED PANE					Α
		IT SIZES SHALL BE	CONNECTI					В
		INLESS OTHERWISE NOTED.		<u>JMMARY</u>			1	С
2. ALL ONE POLE	CIRC	UITS SHALL HAVE DEDICATED	TOTALS PER TYPE (I	kVA):			4.06	
NEUTRAL WIRES.			LOADS PER PHASE:		kVA		Amps	Α
				2.0	kVA	16.9	Amps	В
			m .		kVA	16.9		



2023.04.28

ISS	SUES	
01	ISSUE FOR CONSTRUCTION	2023.04
RE	VISIONS	





PANEL SCHEDULES

JOB NO.: 22076-00 DRAWN BY: CA CHECKED BY: JW

SHEET NO.

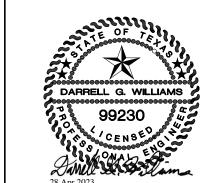
E2.02

	РΔ	NELBOARD: P4 (EX	ISTING)			]		
L-L VOLTAGE:	CKT	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A	1
480 VOLTS	1		EXISTING WIRE &				4155	,
L-N VOLTAGE:	3	RTU-STAGE	CONDUIT	20A/3P			4155	,
277 VOLTS	5						4155	;
CONNECTION	7		EXISTING WIRE &				4155	,
TYPE:	9	RTU-CAFÉ-SW	CONDUIT	20A/3P			4155	;
3 PHASE,	11						4155	;
4 WIRE	13		EXISTING WIRE &				5817	•
PLUS GND	15	RTU-CAFÉ-NW	CONDUIT	25A/3P			5817	•
MAINS:	17						5817	,
<b>400A MCB</b>	19						831	
MOUNTING:	21	EF-KITCHEN	3#12,1#12G-3/4"C.	15A/3P			831	
SURFACE	23			-57 , 51			831	
AIC RATING:	25	SPACE						
EXISTING		SPACE						
	29	SPACE						
	23	317(62						
								1
	2	,	EXISTING WIRE &				4155	
	4	RTU-CAFÉ-SE	CONDUIT	20A/3P			4155	,
	6						4155	,
	8		EXISTING WIRE &				4155	,
	10	RTU-CAFÉ-NE	CONDUIT	20A/3P			4155	
	12						4155	;
	14		EXISTING WIRE &				5817	
	16	RTU-KITCHEN	CONDUIT	30A/3P			5817	
	18		00110011	307,731			5817	
		SPACE					3017	
		SPACE						
		SPACE						
		SPACE						
		SPACE						
	30	SPACE						
	<u>L</u>					<u>L</u> _		
ENERAL NOTES	:		SUB-FEED PANE	LBOARD				أ
		IT SIZES SHALL BE	CONNECT					
		NLESS OTHERWISE NOTED.		JMMARY				
. PROVIDE FEEL			TOTALS PER TYPE (				87.26	1
VIDE I EEL			LOADS PER PHASE:	29.1	kγγ	105.0	Amps	1
			LOADS PER PRASE:	1				
				29.1		1	Amps	
				29.1	KVA	105.0	AMDS	1

	PA	NELBOARD: K SECT 1	(EXISIING)				
L-L VOLTAGE:	СКТ	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A
208 VOLTS	1	EXISTING LOAD	[	100A/2P			
L-N VOLTAGE:	3						
120 VOLTS	5	EXISTING LOAD		20A/1P			
CONNECTION	7						
TYPE:	9	EXISTING LOAD		15A/3P			
3 PHASE,	11			-			
4 WIRE	13			-			828
PLUS GND	15	EF-KITCHEN	EXISTING WIRE & CON	15A/3P			828
MAINS:	17			-			828
600A MLO	19			-			
MOUNTING:	21	EXISTING LOAD		100A/3P			
SURFACE	23			-			
AIC RATING:	25			-			
<b>EXISTING</b>	27	EXISTING LOAD		40A/3P			
	29			-			
		EXISTING LOAD		20A/1P			
		EXISTING LOAD		20A/1P			
		EXISTING LOAD		20A/1P			
	37			,			
		EXISTING LOAD		60A/3P			
	41						
	43						
		EXISTING LOAD		90A/3P			
	47			30,1,01			
	2	EXISTING LOAD		20A/1P			
		EXISTING LOAD		25A/2P			
	6	EXISTING ESTAB		25/1/21			
	8						
		EXISTING LOAD		40A/3P			
	12	EXISTING LOVE		1 40/4/51			
		EXISTING LOAD		20A/1P			
		EXISTING LOAD		60A/2P			
	18	EXISTING LOAD		004,21			
	20						
		EXISTING LOAD		40A/3P			
	24	EXISTING LOAD		40A/3P			
		EXISTING LOAD		204/1D			
		EXISTING LOAD		20A/1P			
		EXISTING LOAD		20A/1P			
		LAISIING LUAD		20A/1P			
	32	EVICTING LOAD		204 (20			
		EXISTING LOAD		20A/3P			
	36	EVICTING LOAD		204/45			
		EXISTING LOAD		20A/1P			
	40						
	42						
	44						
	46						
	48			<u> </u>			
ALL WITE C. CO	L NIDII	IT CIZEC CHALL DE	60111555	D 1 0 4 5			
		IT SIZES SHALL BE	CONNECTE			2.00	F 2 2
		JNLESS OTHERWISE NOTED.		IMMARY	1	360	ì
		UITS SHALL HAVE DEDICATED	TOTALS PER TYPE (		#REF!	#REF!	#REF!
NEUTRAL WIRES.			LOADS PER PHASE:	3.1			Amps
				#REF!		#REF!	-
				#REF!	kVA	#REF!	Amps

	PA	NELBOARD: K SECT	2 (EXISTING)					
L-L VOLTAGE:	Скт	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A	_
208 VOLTS	49	EXISTING LOAD		50A/2P				Ī
L-N VOLTAGE:	51		r					
120 VOLTS	F	EXISTING LOAD	<b>*</b>	20A/1P				
CONNECTION		EXISTING LOAD	•	20A/1P				
TYPE:		EXISTING LOAD		20A/1P	1			
3 PHASE,	_	EXISTING LOAD		20A/1P				
4 WIRE		EXISTING LOAD		20A/1P				
PLUS GND		EXISTING LOAD	•	20A/1P				
MAINS:	_	EXISTING LOAD	•	20A/1P				
	·	EF-RR-64A & EF-RR-65A	EVICTING MIDE & CON				1056	
600A MLO			EXISTING WIRE & CON				1056	)
MOUNTING:	_	EXISTING LOAD		20A/1P	1			
SURFACE		EXISTING LOAD		20A/2P	1			
AIC RATING:		EXISTING LOAD		20A/1P				
EXISTING		EXISTING LOAD		40A/1P				
GEN. NOTES	P	EXISTING LOAD		20A/1P				
	79	EXISTING LOAD		50A/2P				
	81							
	83	EXISTING LOAD		25A/2P				
	85							
	87							
	89	EXISTING LOAD		30A/3P				
	91							
	50	SF-KIT	EXISTING WIRE & CON	20A/1P			1176	5
	52	EXISTING LOAD		20A/1P				
	54	EXISTING LOAD		20A/1P				
		EXISTING LOAD		20A/1P				
		EXISTING LOAD		20A/1P				
		EXISTING LOAD		20A/1P				
		EXISTING LOAD		20A/1P				
		EXISTING LOAD		20A/1P	1			
	_	EXISTING LOAD		-	1			
		EXISTING LOAD		20A/1P				
				20A/1P				
		EXISTING LOAD	EVICTING WITH A CO.	20A/1P		200	F0.0	
		EXISTING RECEPTS & EF	EXISTING WIRE & CON	1		360	528	3
		EXISTING LOAD		20A/1P	1			
		EXISTING LOAD		20A/1P				
		EXISTING LOAD		20A/1P				
		EXISTING LOAD		20A/1P				
		EXISTING LOAD		20A/1P				
	84	EXISTING LOAD		20A/2P				
	86							
	88							
	92							_
			SUB-FEED PANE	LBOARD	_			_
			SUB-FEED PANE					•
			CONNECTE		1			
				JMMARY	1			
			TOTALS PER TYPE (			0.36	2.76	;
			LOADS PER PHASE:		kVA	18.6		:
			LOADO! EN I HAGE!		kVA		Amps	
				0.0		7.4	Amps Amps	
				J U.9	kVA	ı <b>/.4</b>	AHIDS	





2023.04.28

01 ISSUE FOR CONSTRUCTION 2023.04.28 REVISIONS





PANEL SCHEDULES

JOB NO.: 22076-00 DRAWN BY: CA CHECKED BY: JW

E2.03

SHEET NO.

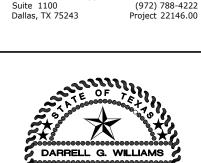
	PA	NELBOARD: P5 - SEC	TION 1 (EXISTI	NG)		]		
L-L VOLTAGE:	СКТ	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A	Π
480 VOLTAGE.	1	LOAD DESCRIPTION	EXISTING WIRE &	DKK	LIG	KCFT	3878	
L-N VOLTAGE:	3	RTU-MUSIC	CONDUIT	20A/3P			3878	
277 VOLTAGE:	5	KTO-MOSIC	CONDOTT	20A/3P			3878	
CONNECTION	7		EXISTING WIRE &	-			3878	
TYPE:	9	RTU-72N	CONDUIT	20A/3P			3878	
	_	K10-72N	CONDOTT	20A/3P			3878	
3 PHASE, 4 WIRE	11 13		EXISTING WIRE &	-			3324	
	15	RTU-72D	CONDUIT	1 E A /2 D				
PLUS GND		K10-72D	CONDOIT	15A/3P			3324	
MAINS:	17		EVICTING WIDE 0	-			3324	
600A MLO	19	DTIL CVA NIM	EXISTING WIRE &	7204 (20			4155	
MOUNTING:	21	RTU-GYM-NW	CONDUIT	20A/3P			4155	
SURFACE	23		-				4155	Ι.
AIC RATING:	ļ							
EXISTING	ļ							E
								(
								4
								E
								(
								4
								E
								(
	2		EXISTING WIRE &				3878	
	4	RTU-79	CONDUIT	20A/3P			3878	
	6						3878	
	8		EXISTING WIRE &				3878	1
	10	RTU-72S	CONDUIT	20A/3P			3878	E
	12						3878	(
	14		EXISTING WIRE &				4155	/
	16	RTU-GYM-SW	CONDUIT	20A/3P			4155	ŀ
	18						4155	(
	20		EXISTING WIRE &				4155	/
	22	RTU-GYM-SE	CONDUIT	20A/3P			4155	
	24						4155	
	- '							
								ľ
								[ ]
								'
								'
ENERAL NOTES	<u>                                     </u>	1	SUB-FEED PANE	I BOARD	<u> </u>		39057	<u>                                     </u>
. ALL WIRE & CONDUIT SIZES SHALL BE		CONNECT				39057	1	
		INLESS OTHERWISE NOTED.		UMMARY			39057	1
/2#12,#12G,3 PROVIDE FEED.							211.07	_
PROVIDE FEEL	, 1 MK	LUGS	TOTALS PER TYPE ( LOADS PER PHASE:		L\/ A	254.0		H
			LUADS PER PRASE:	70.4	kVA	254.0	Amps	/
				70.4			Amps	E
					kVA		Amps	
			PANEL TOTALS	211.1	KVA	<b>  254.0</b>	<b>AMPS</b>	I

L-L VOLTAGE:  480 VOLTS  L-N VOLTAGE:  277 VOLTS  CONNECTION  TYPE:  3 PHASE,  4 WIRE  PLUS GND  MAINS:  600A MLO  MOUNTING:	29 31	LOAD DESCRIPTION  RTU-GYM-NE  RTU-308	WIRE & CONDUIT EXISTING WIRE & CONDUIT EXISTING WIRE & CONDUIT	20A/3P	LTG	RCPT	M&A 4155	
480 VOLTS L-N VOLTAGE: 277 VOLTS CONNECTION TYPE: 3 PHASE, 4 WIRE PLUS GND MAINS: 600A MLO	25 27 29 31 33 35 37	RTU-GYM-NE	EXISTING WIRE & CONDUIT  EXISTING WIRE &		210	IXCI I	1	十
L-N VOLTAGE: 277 VOLTS CONNECTION TYPE: 3 PHASE, 4 WIRE PLUS GND MAINS: 600A MLO	27 29 31 33 35 37		CONDUIT EXISTING WIRE &	20A/3P			1 1 2 3	. 1
277 VOLTS CONNECTION TYPE: 3 PHASE, 4 WIRE PLUS GND MAINS: 600A MLO	29 31 33 35 37		EXISTING WIRE &	207 (7 5)			4155	
CONNECTION TYPE: 3 PHASE, 4 WIRE PLUS GND MAINS: 600A MLO	31 33 35 37	RTU-308	-				4155	
TYPE: 3 PHASE, 4 WIRE PLUS GND MAINS: 600A MLO	33 35 37	RTU-308	-	<b>*</b>			3878	
3 PHASE, 4 WIRE PLUS GND MAINS: 600A MLO	35 37		CONDOI	20A/3P			3878	- 1
4 WIRE PLUS GND MAINS: 600A MLO	37		<b>*</b>	207,31			3878	
PLUS GND MAINS: 600A MLO			EXISTING WIRE &	<b> </b>			3878	
MAINS: 600A MLO		RTU-307	CONDUIT	20A/3P			3878	-
600A MLO	41		CONDOIT	ZUA/SP			3878	-
	43		EXISTING WIRE &	<b>-</b>				
M()  M   M -, '		  RTU-306		204/20			3878	
	45	K10-306	CONDUIT	20A/3P			3878	-
SURFACE	47		<b>-</b>	<b>-</b>			3878	
AIC RATING:	49 51	DTU 204 9 DTU 205	2#0 1#100 2/4"0	404/25			7756	
EXISTING	51	RTU-304 & RTU-305	3#8,1#10G-3/4"C.	40A/3P			7756	-
Ļ	53		-	-			7756	Т
Į.			<b>-</b>	<b> </b>				
			<b>L</b>					
			Ļ					
[			Ļ					
[			Ĺ					
Ĺ								$\downarrow$
	26		EXISTING WIRE &				3878	3
		RTU-309	CONDUIT	20A/3P			3878	
	30						3878	,
	32		EXISTING WIRE &				3878	,
	34	RTU-301	CONDUIT	20A/3P			3878	,
	36						3878	,
	38		EXISTING WIRE &				3878	,
	40	RTU-302	CONDUIT	20A/3P			3878	,
	42						3878	
	44		EXISTING WIRE &				3878	
		RTU-303	CONDUIT	20A/3P			3878	
	48						3878	
	50							
	52	EXISTING LOAD		20A/3P				
	54							
	<b>J</b> ⊣							
GENERAL NOTES:			CUD EEE DANG	IROADD		<u> </u>	<u> </u>	<u> </u>
	MD	IT CITEC CUALL DE	SUB-FEED PANE					
		IT SIZES SHALL BE	CONNECTI					
		NLESS OTHERWISE NOTED.		JMMARY		<u> </u>	117.17	+
2. PROVIDE FEED	ı HK	U LUGS	TOTALS PER TYPE (I	_	L3/A	1410		÷
			LOADS PER PHASE:	39.1			Amps	
				39.1		141.0	-	
			PANEL TOTALS	39.1 117.2		141.0 141.0		<u> </u>

L-L VOLTAGE:	СКТ	LOAD DESCRIPTION	WIRE & CONDUIT	BKR	LTG	RCPT	M&A	-
480 VOLTS	1	EXISTING	EXISTING WIRE &					-
L-N VOLTAGE:	3	TRANSFORMER TLP	CONDUIT	70A/3P				
277 VOLTS	5			7 07 1,7 01				
CONNECTION	7		EXISTING WIRE &	<b>P</b>			3324	1
TYPE:	9	RTU-405	CONDUIT	15A/3P			3324	
3 PHASE,	11			7 37 (7 31			3324	
4 WIRE	13		EXISTING WIRE &	<b>*</b>			3878	
PLUS GND	15	RTU-B119	CONDUIT	15A/3P			3878	
MAINS:	17	INTO BITY	CONDOIT	13/7/31			3878	
200A MLO	19		EXISTING WIRE &	<b>*</b>			3324	
MOUNTING:	21	RTU-506	CONDUIT	15A/3P			3324	
SURFACE		K10-300	CONDOIT	13A/3P				
	23		-	-			3324	+
AIC RATING:	25	EVICTING FULL 1	EVICTING WIDE S	1 EA /OB				
EXISTING	27	EXISTING EUH-1	EXISTING WIRE &	15A/3P				
	29	CDACE	[CONDUIT	-				
		SPACE	<b>-</b>	<b> </b>				
		SPACE	<b>,</b>	<b> </b>				
		SPACE						
		SPACE						
	_	SPACE						
	41	SPACE						_
	2		EXISTING WIRE &				3324	1
	4	RTU-404	CONDUIT	15A/3P			3324	1
	6						3324	1
	8		EXISTING WIRE &				3324	1
	10	RTU-406	CONDUIT	15A/3P			3324	1
	12						3324	1
	14		EXISTING WIRE &				3324	1
	16	RTU-504	CONDUIT	15A/3P			3324	
	18						3324	
	20		EXISTING WIRE &				3324	
	22	RTU-505	CONDUIT	15A/3P			3324	
	24			±3, 5, 51			3324	
	26		EXISTING WIRE &				3327	•
	28	EXISTING WH-1	CONDUIT	15A/3P				
	30	LATORINO WILL	CONDOIL	124/25				
		SPACE						
		SPACE						
		SPACE						
		SPACE						
		SPACE						
	•	SPACE				1	<u> </u>	-
GENERAL NOTES			SUB-FEED PANE	_				
		IT SIZES SHALL BE	CONNECT					
		INLESS OTHERWISE NOTED.		<u>JMMARY</u>				_
2. PROVIDE FEEL	THR	LUGS	TOTALS PER TYPE (				71.47	•
			LOADS PER PHASE:	23.8			Amps	
					kVA	86.0	Amps	
				23.8	<u>kV</u> A	86.0	Amps	-
			PANEL TOTALS	71.5	KVΔ	86.0	<b>AMPS</b>	

	PA	NELBOARD: L5 (EXIST	ING)					
L L VOLTAGE:	I <sub>CV</sub> T	LOAD DECCRIPTION	WIDE & CONDUIT	DIAD	LTC	DCDT	MO A	
L-L VOLTAGE:	CKT	RTU-500B	WIRE & CONDUIT	BKR	LTG	RCPT	M&A	
208 VOLTS	$\begin{bmatrix} 1 \\ 2 \end{bmatrix}$	KTU-500B	[2#10,1#10G-3/4"C.	30A/2P			2184	
L-N VOLTAGE:	3	DOOF DECEDEACIES	2 " 1 2 1 " 1 2 6 2 / 4 ! 6	7204/40		1000	2184	Е
120 VOLTS	5	ROOF RECEPTACLES	2#12,1#12G-3/4"C.	20A/1P		1080		(
CONNECTION	7	EXISTING LOAD		20A/1P				Α
TYPE:	9	EXISTING LOAD		70A/2P				В
3 PHASE,	11							C
4 WIRE	13	EXISTING LOAD	Ļ	70A/2P				Α
PLUS GND	15							В
MAINS:	17	EXISTING RECEPTACLES		20A/1P				C
400A MCB	19	EXISTING RECEPTACLES		20A/1P				Α
MOUNTING:	21	EXISTING RECEPTACLES		20A/1P				В
SURFACE	[ 23	EXISTING RECEPTACLES		[20A/1P				C
AIC RATING:	[ 25	EXISTING RECEPTACLES		20A/1P				Α
10,000 AMPS	27	EXISTING RECEPTS & EF-RR-309B	EXISTING WIRE & CON	[20A/1P		900	528	В
	29	EXISTING RECEPTACLES		20A/1P				C
	31	EXISTING RECEPTACLES		20A/1P				Α
	33	EXISTING RECEPTS & EF-RR-308B	EXISTING WIRE & CON	20A/1P		900	528	В
	35	EXISTING RECEPTS & EF-RR-307B	EXISTING WIRE & CON	20A/1P		900	528	C
	37	EXISTING RECEPTS & EF-RR-306B	EXISTING WIRE & CON	20A/1P		900	528	Α
	39	EF-RR-72E & EF-RR-72G	EXISTING WIRE & CON				1056	
	41	EXISTING LOAD		20A/1P				C
	2	EXISTING LOAD		40A/2P				Ā
	4							В
	6	EXISTING LOAD		70A/2P				C
	8			70/1/21				Α
	10	EXISTING LOAD		70A/2P				В
	12	EXISTING LOAD		707,21				C
	14	EXISTING LOAD		20A/1P				
		EXISTING LOAD  EXISTING RECEPTS & EF-RR-79C	EVICTING WIDE 9. CON	1 -		900	F20	A B
	16	EXISTING RECEPTS & EF-RR-79C	EXISTING WIRE & CON	· -		900	528	
	18			20A/1P				C
	20	EXISTING RECEPTACLES		20A/1P				Α
	22	EXISTING RECEPTACLES		20A/1P				В
	24	EXISTING RECEPTACLES		20A/1P				C
	26	EXISTING RECEPTACLES		20A/1P				A
	28	EXISTING LOAD		50A/2P				В
	30	EXISTING RECEPTS & EF-RR-301C	EXISTING WIRE & CON	1		900	528	
	32	EXISTING RECEPTS & EF-RR-302B	EXISTING WIRE & CON	· ·		900	528	
	34	EXISTING RECEPTACLES		20A/1P				В
	36	EXISTING RECEPTS & EF-RR-303B	EXISTING WIRE & CON	· ·		900	528	
	38	EF-RR-72B & EF-RR-72C	EXISTING WIRE & CON	20A/1P			1056	Α
	40	EXISTING LIGHTS GYM		20A/1P				В
	42	EXISTING EXIT LIGHTS		20A/1P				C
GENERAL NOTES	-		SUB-FEED PANEL	BOARD				Α
L. ALL WIRE & C	DNDU	IT SIZES SHALL BE	CONNECTE	D LOAD				В
2#12,#12G,3/	4"C U	NLESS OTHERWISE NOTED.	SU	<b>MMARY</b>				C
2. PROVIDE FEEL	THR	U LUGS	TOTALS PER TYPE (k	VA):		8.28	10.70	
			LOADS PER PHASE:		kVA	50.8	Amps	Α
				7.5	kVA		Amps	В
				5.4			Amps	C
			PANEL TOTALS	ì	KVA	i	AMPS	_





DARRELL G. WILLIAMS	
99230 CENSE CANSE 28 Apr 2023	

2023.04.28

ISSUES
01 ISSUE FOR CONSTRUCTION 2023.04.28

	RE	VISIONS	
I			





PANEL SCHEDULES

JOB NO.: 22076-00 DRAWN BY: CA CHECKED BY: JW

SHEET NO.

E2.04

## GENERAL NOTES

#### SECTION 1 - GENERAL INFORMATION AND DESIGN CRITERIA

SECTION 1.1 - DOCUMENTS 1.1.1 Structural Drawings are not stand-alone documents. They are augmented by technical specifications and must be coordinated

1.1.2 General Notes and Typical Details apply generally throughout the project wherever conditions similar to those depicted exist and are not necessarily referenced specifically in the documents.

with Architectural, Civil and Mech/Elec/Plumb/HVAC documents.

1.1.3 Structural documents are protected by U.S.A. Copyright Laws, and shall not be used for any purpose other than construction of the building described in the Architectural documents and at the geographic location shown. The structural design described in these documents is not valid for any other purpose, use or location.

#### COORDINATION

1.1.4 Verify weights, location and details of structurally supported mechanical equipment prior to construction of the supporting structure. Report deviations from assumed conditions to the Engineer prior to fabricating materials.

1.1.5 Verify the location, size and detail of roof openings and curbs for mechanical equipment prior to fabricating materials. Report deviations from assumed conditions to the Engineer before proceeding with work.

1.1.6 Verify location and size of floor and roof penetrations and sleeves for mechanical and electrical components. Openings in beams, girders, columns and slabs are subject to prior approval of the Engineer.

1.1.7 Verify dimensions, details, plumbness and squareness of existing structures meeting or tying into new construction.

1.1.8 Do not scale plans, details and sections for quantity, length or fit of materials.

1.1.9 Heights of floor and roof decks and various framing components are given on the drawings relative to a reference elevation of 100'-0". Contractor shall field verify existing reference elevations prior to conducting work.

1.1.10 Structural systems are designed for in-place conditions only. Contractor shall provide temporary bracing of structural components for conditions that will exist during construction and to meet all regulatory requirements for safety of workmen.

1.1.11 Temporary frame bracing shall remain until installation of permanent structural bracing elements, member connections and floor or roof diaphragms are complete.

#### SECTION 1.2 - CODES AND STANDARDS 1.2.1 Building Code of jurisdiction: 2018 International Building Code

1.2.2 Structural Concrete Code-American Concrete Institute (ACI) 318-14

1.2.3 Structural Steel Code - American Institute of Steel Construction

(AISC) 360 - 14th Edition SPECIAL INSPECTIONS

1.2.4 See Technical Specifications for other materials testing and

#### inspection requirements.

1.3.1 Live Loads

SECTION 1.3 - DESIGN CRITERIA

Typical Roof 1.3.2 Ground Snow Load (Pg) 5 psf 1.3.3 Dead Load

Roof Collateral Typ. Roof Sprinklers 3 psf (3) Roofing System and Insulation 12 psf (2)

(1) Collateral loads include; lighting, ductwork, (2) Roofing system weight is the maximum unit weight of roofing materials and ballast (where applicable)

for which the roof structure is designed. (3) Sprinkler loads are for distribution lines and heads, exclusive of mains, which are included separately as concentrated dead loads.

1.3.4 Wind Load Parameters Ultimate Design Wind Speed Nominal Design Wind Speed Building Risk Category IIIWind Exposure Classification Internal Pressure Coefficient +/- 0.18

1.3.5 Seismic Design Parameters The limited scope of renovation exempts seismic evaluation of structural system.

1.3.6 Unless shown otherwise in plan view, rooftop equipment shown in mechanical plans are one-for-one like units with curb adapters with exting support framing.

1.3.7 For new units to be installed on existing roof without a current unit, refer to typical detail for steel framing.

weight shall be brought up to design team.

1.3.8 Weight of new unit is indicated on framing plan, devitions from this

#### SECTION 5 - STRUCTURAL STEEL

SECTION 5.1 - STRUCTURAL FRAME

5.1.1 Structural Steel Properties: ASTM A992 Grade 50 High Strength Steel Use High Strength Steel for W Shapes and WT's, UNO Structural Steel (Normal Strength) ASTM A36 Use for Angles, Channels, and Plates, UNO

Steel Pipes ASTM A53, Grade B Hollow Structural Sections (HSS) ASTM A500. Grade B ASTM A307 Erection Bolts ASTM A325N High Strength Bolts ASTM F1554 Grade 36 Anchor Bolts Higher Strength Anchor Bolts AsTM F1554 Grade 55

(where noted)

5.1.2 Unless otherwise noted, angles, plates, rods, and miscellaneous

framing shall be welded at contact joints and supports. Weld sizes shall conform to AWS D1.1 minimums, except where noted otherwise. 5.1.3 Where fillet weld sizes are not indicated on weld symbols,

fillet size shall be 1/16th inch smaller than thickness of thinner of materials being joined.

5.1.4 Bolts indicated on details shall be 3/4" inch diameter, UNO

5.1.5 Bolts shall be tightened by the AISC "Snug Tight" method UNO

FINISHES 5.1.6 All structural steel elements exposed to exterior conditions shall be hot dip galvanized.

#### SECTION 5.3 - METAL ROOF DECK

5.3.1 Metal Deck Schedule for roof deck opening infill and cover: SDI Deck Sheet Min. Min. Min. Deck Deck Depth Width Ix Sx(top) Sx(bot) Mark Gauge Type (In.) (In.4) (In.3) (In.3) Finish

> \_\_\_\_\_\_ B 22 WR 1.5 36 0.183 0.186 0.194 Galv.

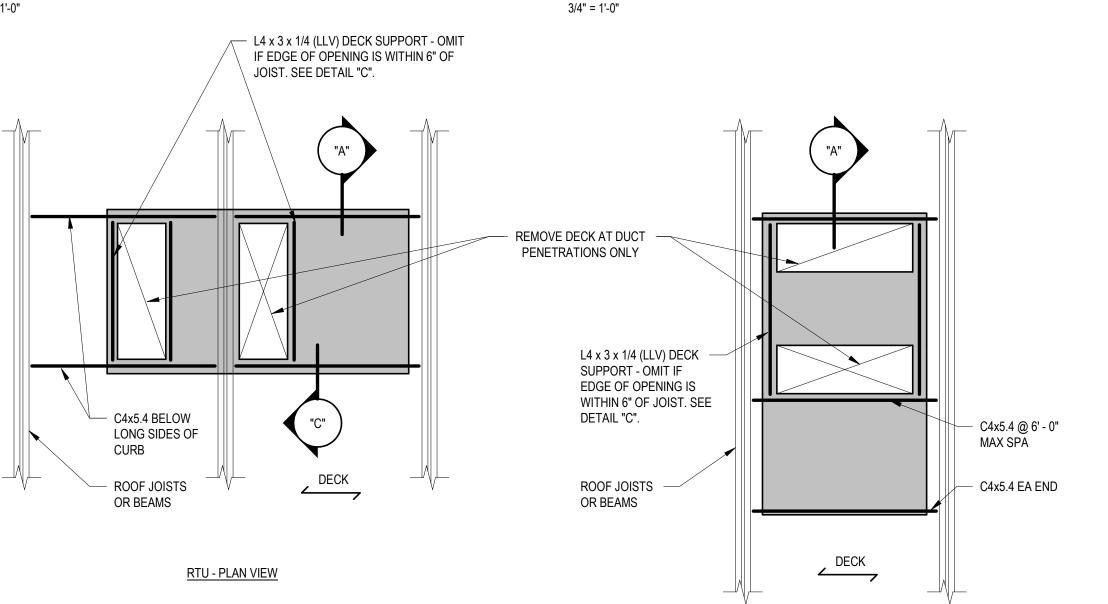
#### THIS DETAIL APPLIES WHERE FIELD CONDITIONS WARRANT DURING CONSTRUCTION AND RENOVATION - TYPICAL THROUGHOUT EXST OPENING TO BE INFILLED 4' - 0" MAX. NEW L3x3x1/4 FRAME ON ALL SIDES OF EXIST. OPENING EXIST. EDGE ANGLE EXIST. EDGE - 1 1/2" WIDE RIB (TYPE B) METAL ROOF DECK, 22 GA. SECURE DECK TO ANGLE WITH 5/8" PUDDLE WELDS AT EACH FLUTE

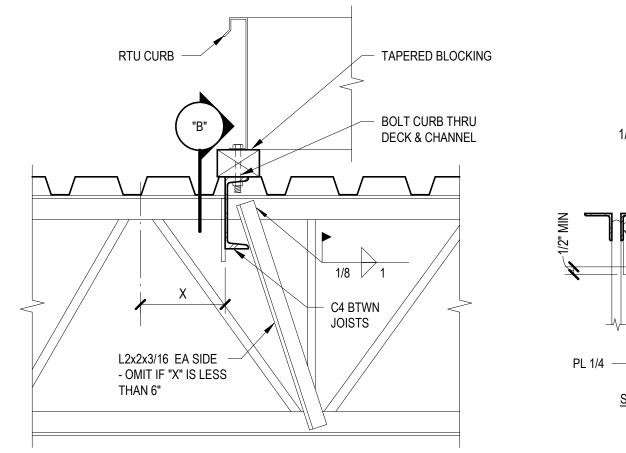
EXISTNG OPENING - CONNECT NEW DECK TO EXISTING DECK WITH #10 TEK SCREWS @ 6" O.C (EACH FLUTE) EACH SIDE OF SUPPORTING JOIST OR BEAM 3" MIN. TYP. - EXISTING 1 1/2" ROOF DECK EXISTING STEEL JOIST OR BEAMS. NEW METAL ROOF DECK TO MATCH EXISTING DECK. NEST NEW EXISTING EDGE OF -DECK WITH EXISTING DECK & SPAN BEYOND THE SUPPORTS. EXPECT 1.5" 22 GA TYPE B DECK. CONTRACTOR SHALL FIELD VERIFY CONDITIONS BEFORE BEGINNING WORK.

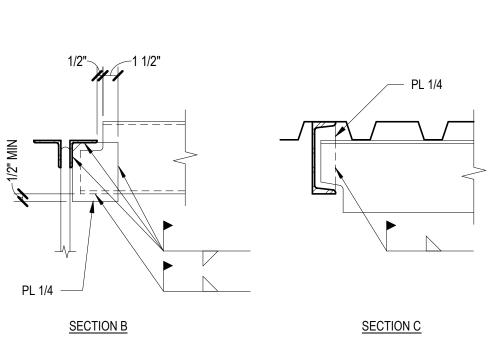
THIS DETAIL APPLIES TO UNREINFORCED ABANDONED OPENINGS IN METAL DECK FRAMED

ROOFS. NEW DECK MUST SPAN AND BE CONNECTED AS SHOWN NEAR AT LEAST TWO SUPPORTS.

## EXST FRAMED ROOF OPENING INFILL







RTU - PLAN VIEW

MECH UNIT CURB SUPPORT FROM BELOW DECK

## PARTIAL ROOF FRAMING PLAN

## STATMENT OF STRUCTURAL SPECIAL INSPECTIONS (SOSSI) - IBC 2018

#### SCHEDULE OF STRUCTURAL SPECIAL INSPECTION SERVICES TABLE NOTES

1. Registered Design Professional In Responsible Charge a. This Statement of Special Inspections is submitted in accordance with Section 1704 of the 2018 International Building Code. It includes a Schedule of Structural Special Inspection Services applicable to the Project. If applicable, it includes Requirements for Seismic Resistance and/or Requirements for Wind Resistance.

2. The Owner a. Shall Employ one or more approved agencies to provide special inspections and test during construction on the types of work specified in Section 1705 and in accordance with the building code.

a. Shall provide written documentation to the Building Official demonstrating the competence and relevant experience or training of the Special Inspector(s) who will perform the Special Inspections and tests during construction.

b. Shall keep records of Special Inspections and tests. The Special Inspector(s) shall submit reports of Special inspection and tests to the Building Official and to the Registered Design Professional in Responsible Charge. Reports shall indicate that work inspected or tested was or was not completed in conformance to approved Construction Documents. c. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If they are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible

Charge prior to completion of that phase of work. d. Shall prepare a final report documenting required special inspections and tests, and corrections of any discrepancies noted in the inspections or tests, shall be submitted at a point in time agreed upon prior to the start of work by the Owner or the or the Owner's authorized agent to the Building Official.

4. The Contractor(s) a. Shall be solely responsible to ensure tests and inspections are performed. The construction or work for which Special Inspection or testing is required shall remain accessible and exposed for Special Inspection or testing purposes until completion of the required

b. The Special Inspection program does not relieve the Contractor of responsibility to comply with the Contract Documents. Jobsite saftey and means and methods of construction are solely the responsibility of the Contractor. 5. See specifications for additional testing requirements. Where conflicts occur, the most stringent requirement shall control.

6. LEGEND:

**Continuous:** Inspections by the special inspector who is present when and where the work to be inspected is being performed. **Periodic:** Inspections by the special inspector who is intermittently present where the work to be inspected has been or is being performed. Periodic Inspections need not interrupt construction activities. Perform: Continuous inspections by the special inspector for specific task to be completed prior to acceptance of the designated item, and need be performed at that time on a continuous basis.

Document: The special inspector shall prepare reports indicating that the work has been performed in accordance with the contract documents.

Existing 22" Joists

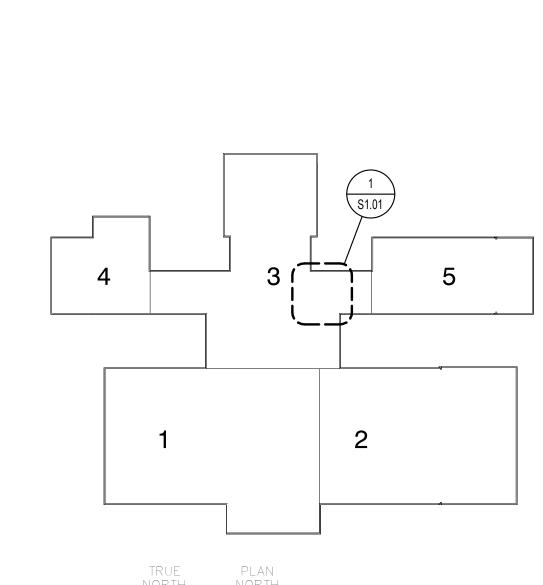
(FIELD VERIFY)

- NEW∤RTU ON EXISTING ROOF - PROVIDE NEW OPENING AND CURB -

Observe: Periodic inspections by the special inspector conducted on a daily basis as a minimum and need not interrupt

	Special Inspections and nondestructive testing of structural steel eshall be in accordance with the quality assurance inspection requi		
CHECK IF REQD	MINIMUM VERIFICATIONS AND INSPECTIONS	FREQUENCY	REFERENCED STANDARD
	Fabricator and Erector documents per AISC 360, chapter N, paragraph 3.2 for compliance with construction documents.	PERIODIC	AISC 360 - Chapter N 3.2
	Verify Structural Steel identification markings and certified mill test	PERIODIC	AISC 360
	Verify embedment member diameter, grade, type, and embedment length	PERIODIC	AISC 360
	Verify member locations, braces, stiffeners, embedment and application of joint detail at each connection	PERIODIC	AISC 360
$\boxtimes$	Structural steel welding		T
	<ul><li>a. Inspect task prior to welding:</li><li>1. Welding procedure specifications and consumable certificates</li></ul>	PERFORM	AISC 360 - Table N5.4-1, AWS D1. AWS D1.1/D1.1M 6.3, 6.2
	<ol> <li>Material identification type and grade</li> <li>Welder identification system</li> <li>Fit-up groove welds joint preparation, alignment, root opening, root face, bevel condition of steel surfaces, tack weld quality and location, backing type and fit</li> <li>Access holes configuration and finish</li> </ol>	OBSERVE	AWS D1.1/D1.1M 6.2 AWS D1.1/D1.1M 6.4 AWS D1.1/D1.1M 6.5.2, 5.22, 5.15 5.18, 5.10 AWS D1.1/D1.1M 6.5.2, 5.17
	Fit-up of fillet welds alignment, gaps at root, condition of steel surfaces, tack weld quality and location.		AWS D1.1/D1.1M 5.22.1, 5.15, 5.16 6.2, 5.11
	<ul> <li>b. Inspect task during welding:</li> <li>1. Qualified welders</li> <li>2. Control and handling of welding consumables</li> <li>3. No welding over cracked tack welds</li> <li>4. Environmental conditions, wind speed, precipitation, and temperature</li> </ul>	OBSERVE	AISC 360 - Table N5.4-2, AWS D1. AWS D1.1/D1.1M 6.4 AWS D1.1/D1.1M 6.2, 5.3 AWS D1.1/D1.1M 5.18 AWS D1.1/D1.1M 5.12.1, 5.12.2
	<ul><li>5. Welding procedure specification followed</li><li>6. Welding techniques, interpass and final cleaning, each pass within profile limitations, and each pass meets quality requirements</li></ul>		AWS D1.1/D1.1M 6.3.3, 6.5.2, 5.5, 5.21, 5.6, 5.7 AWS D1.1/D1.1M 6.5.2, 6.5.3, 5.24, 5.30.1
	c. Inspect task after welding:     1. Welds cleaned	OBSERVE	AISC 360 - Table N5.4-3, AWS D1 AWS D1.1/D1.1M 5.30.1 AWS D1.1/D1.1M 6.5.1
	<ol> <li>Weld proportions (size, length, location)</li> <li>Weld meet visual acceptance criteria</li> <li>Arc strikes,</li> <li>k-area</li> </ol>	PERFORM	AWS D1.1/D1.1M 6.5.3, 6.1 AWS D1.1/D1.1M 5.29 AWS D1.1/D1.1M 5.10, 5.31
	<ul><li>6. Backing removed and weld tabs removed</li><li>7. Repair activities</li><li>8. Document acceptance or rejection of weld</li></ul>		AWS D1.1/D1.1M 6.5.3, 5.26 AWS D1.1/D1.1M 6.5.4, 6.5.5
	<ul> <li>d. Nondestructive testing (NDT) of welded joints</li> <li>1. CJP welds: Testing shall be performed on 100% of shop and field complete-penetration welds</li> <li>2. Access holes (Flanges &gt; 2")</li> </ul>		AISC 360 - Section N5b
	Welded joints subject to fatigue	PERFORM	
	6. Structural Steel Bolting		T 4100 000 T 11 NE 0 4 D000
	a. Inspection task prior to bolting:     1. Manufacturer's certification for fastener materials	AISC 360 - Table N5.6-1, RCSC RCSC 2.1, 9.1 RCSC C-2.1, 9.1	
	<ol> <li>Fasteners mark in accordance with ASTM requirements</li> <li>Proper fasteners selected (grade, type, bolt length)</li> <li>Proper bolting procedure</li> <li>Connecting elements including, faying surface and hole preparation</li> </ol>	OBSERVE	RCSC 2.3.2, 2.7.2, 9.1 RCSC 4, 8 RCSC 3, 9.3
	<ol> <li>Pre-installation verification testing by installation personnel</li> <li>Proper storage provided for bolts, nuts, washers, and other fastener components</li> </ol>		RCSC 7, 9.2 RCSC 2.2, 8, 9.1
	<ul> <li>b. Inspection task during bolting:</li> <li>1. Fastener assemblies, of suitable condition, placed in all holes and washers are positioned as required</li> <li>2. Joint brought to the snug-tight condition prior to</li> </ul>	OBSERVE	AISC 360 - Table N5.6-2, RCSC RCSC 8.1, 9.1
	pretensioning operation 3. Fastener not turned by the wrench prevented from rotating 4. Fasteners are pretensioned in accordance with the RCSC Specification progressing systematically from the most rigid point towards the free edges.		RCSC 8.2, 9.2 RCSC 8.2, 9.2
	<ul><li>c. Inspection task after bolting:</li><li>1. Document acceptance or rejection of bolted connections</li></ul>	PERFORM	AISC 360 - Table N5.6-3
	7. Composite Steel Construction		
	a. Verify placement and installation of steel headed studs	PERFORM	AWS D1.1/D1.1M 7.8
	<ul> <li>For steel deck elements, perform test and additional Special Ins accordance with Steel Deck Construction</li> </ul>		
	c. For concrete elements, perform test and additional Special Inspe	ations in	1

SCHEDULE OF SPECIAL INSPECTION SERVICES 1705.2: STEEL CONSTRUCTION

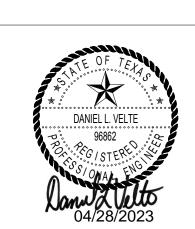




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**Consulting Engineers** 





2023.04.28

ISSUES 01 ISSUE FOR CONSTRUCTION 2023.04.2 REVISIONS



GENERAL NOTES SOSSI, PLAN, AND DETAILS

SHEET NO. S1.01