

MECHANICAL GENERAL NOTES:

- ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE WORK AREAS BY MEANS OF TEMPORARY PARTITIONS AND/OR TARPES TO KEEP DUST AND DIRT WITHIN THE CONSTRUCTION AREA.
- NO PIPING, EQUIPMENT, ETC. SHALL BE REMOVED, DISCONNECTED OR SHUT DOWN WITHOUT PRIOR REVIEW WITH THE LANDLORD AND/OR ENGINEER TO CONFIRM THAT AREAS TO REMAIN IN OPERATION WILL NOT BE AFFECTED. IF ANY AREAS NOT WITHIN THE SCOPE OF WORK ARE AFFECTED BY ANY SHUTDOWN, REMOVAL OR DISCONNECTION, SUFFICIENT ADVANCE NOTICE MUST BE GIVEN TO THE LANDLORD INDICATING WHICH AREAS WILL BE AFFECTED, WHEN THE PROPOSED SHUTDOWN WILL OCCUR, AND FOR HOW LONG A PERIOD OF TIME.
- ALL ITEMS REMOVED SHALL BECOME PROPERTY OF THE LANDLORD AND SHALL BE DISPOSED OF AS PER THE LANDLORD'S INSTRUCTIONS, UNLESS INDICATED OTHERWISE. ALL ITEMS WHICH ARE NOT TO BE STORED ON SITE BY OWNERS SHALL BE REMOVED FROM THE BUILDING IMMEDIATELY.
- THIS CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. WHERE DISCREPANCIES OCCUR BETWEEN THESE DOCUMENTS AND EXISTING CONDITIONS, THE DISCREPANCY SHALL BE REPORTED TO THE LANDLORD AND/OR ENGINEER FOR EXPEDITING AND THE RESOLUTION.
- CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.
- USE OF THE LANDLORD'S ELEVATORS AND BUILDING CORRIDORS FOR HANDLING OF THE LANDLORD'S AND REMOVED EQUIPMENT AND MATERIALS SHALL BE AT THE DIRECTION OF THE LANDLORD AND SHALL BE COORDINATED WITH HIS OPERATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES AGAINST FIRE, THEFT AND ENVIRONMENTAL CONDITIONS.
- EXISTING MATERIALS THAT ARE REMOVED SHALL NOT BE REUSED IN NEW SYSTEMS, EXCEPT WHERE INDICATED AS BEING RELOCATED.
- PROVIDE ALL NECESSARY TEMPORARY OR PERMANENT CAPS OR PLUGS FOR PIPING. DO NOT LEAVE PIPING OPEN ENDED.
- WHERE USED, THE TERM "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
- THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH THE LANDLORD AND ALL OTHER TRADES PRIOR TO FABRICATION, PURCHASE AND/OR INSTALLATION OF ALL WORK.
- SUBMISSION OF PROPOSAL DIRECTLY OR INDIRECTLY IN CONNECTION WITH THIS WORK SHALL IMPLY THAT THE BIDDER HAS EXAMINED THE JOB SITE UNDER WHICH HE WILL BE OBLIGATED TO OPERATE SHOULD HE BE AWARDED THE WORK UNDER THIS CONTRACT. NO EXTRA CHARGE WILL BE ALLOWED FOR FAILURE OF ANY BIDDER TO EXAMINE THE SITE PRIOR TO BID.
- ALL WORK SHALL CONFORM TO ALL STATE AND LOCAL CODES, RULES AND REGULATIONS AND ORDINANCES.
- CONTRACTOR SHALL SECURE AND PAY ALL FEES AND PERMITS PERTAINING TO THE CONTRACT.
- ALL EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. THE CONTRACTOR SHALL PROVIDE ALL HANGERS AND SUPPORTS REQUIRED FOR A COMPLETE INSTALLATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR WORKMEN'S IDENTIFICATION AND BADGING, SAFETY AND FIRE PROTECTION, CONTRACTOR'S LIABILITY INSURANCE, BARRICADES, WARNING SIGNS, TRASH REMOVAL, CUTTING AND PATCHING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RIGGING, HANDLING AND PROTECTION OF MATERIALS.
- CONTRACTOR SHALL PROVIDE LABOR TO RECEIVE, UNLOAD, STORE, PROTECT AND TRANSFER TO POINT OF INSTALLATION, OWNER FURNISHED ITEMS.
- WHERE CONDUIT, CABLES, DUCTWORK OR PIPING PASSES THROUGH FIRE RATED FLOORS OR WALLS, THE SLEEVES SHALL BE COMPLETELY SEALED WITH A FIRE STOP MATERIAL THAT IS LISTED AND ACCEPTED BY THE BUILDING DEPARTMENT AND FIRE DEPARTMENT AS BEING SUITABLE FOR THIS SERVICE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CORING AS IT RELATES TO HIS WORK.
- CONTRACTOR SHALL REFER TO BUILDING MANAGEMENT'S RULES AND REGULATIONS TO COMPLY WITH BUILDING STANDARDS.
- FLEXIBLE DUCTWORK LENGTHS SHALL NOT EXCEED 8'-0" USE INSULATED RIGID ROUND DUCTWORK WHERE REQUIRED. ALL NEW FLEXIBLE DUCTWORK CONNECTIONS TO AIR DEVICES SHOWN ON THE DRAWING SHALL BE SIZED ACCORDING TO THE NECK SIZE SCHEDULE.
- THE ENTIRE AIR SUPPLY SYSTEM SHALL BE RE-BALANCED TO THE AIR QUANTITIES INDICATED ON THIS DRAWING BY AN INDEPENDENT AIR BALANCE CONTRACTOR. THE AIR BALANCE CONTRACTOR SHALL SUBMIT NEBB CERTIFIED AIR BALANCE REPORTS FOR ENGINEERING REVIEW AND TO BUILDING MANAGEMENT. PROVIDE AHU DRIVE ADJUSTMENTS AS REQUIRED.
- REFER TO DRAWING MEP FOR SPECIFICATIONS THAT APPLY TO THIS SHEET.
- CONTRACTOR SHALL VERIFY THAT SUFFICIENT RETURN AIR OPENINGS ARE PROVIDED IN EXISTING WALLS ABOVE CEILING. AIR IS RETURNED TO THE CEILING PLENUM AND THEN TO THE AIR HANDLING UNITS THROUGH RETURN AIR GRILLES, ARCHITECTURAL CEILING OPENING AND LIGHT FIXTURES.
- EXISTING TAPS TO SUPPLY DUCTWORK SHALL BE USED WHERE POSSIBLE. ANY UNUSED TAPS TO EXISTING SUPPLY DUCTWORK SHALL BE CAPPED, SEALED AIRTIGHT, AND INSULATED.
- EXISTING MAIN TRUNK SUPPLY DUCTWORK SHALL REMAIN. CONTRACTOR SHALL VERIFY EXISTING LOCATION AND LIGHTING FIXTURE CLEARANCES AND INCLUDE IN THEIR COST THE RELOCATION OR REMOVAL OF EXISTING EQUIPMENT REQUIRED TO COMPLY WITH THIS DRAWING.
- CONTRACTOR SHALL PROVIDE TO BUILDING OWNER THE AS-BUILT RECORD DRAWINGS AND THE OPERATING AND MAINTENANCE MANUALS WITHIN 90 DAYS OF SYSTEMS ACCEPTANCE. RECORD DRAWINGS SHALL INCLUDE PERFORMANCE DATA FOR EQUIPMENT, DUCT AND PIPE DISTRIBUTION SYSTEMS, AND AIR AND WATER FLOW RATES. O&M MANUALS SHALL INCLUDE EQUIPMENT AND ASSOCIATED OPTIONS REQUIRING SERVICE, REQUIRED MAINTENANCE ACTIVITIES, CONTACT INFO OF SERVICE AGENCIES, HVAC CONTROLS CALIBRATION INFORMATION AND SET-POINTS, AND DESCRIPTION OF EQUIPMENTS' INTENDED OPERATIONS.
- FOR RETURN AIR PLENUMS, ALL MATERIALS LOCATED WITHIN A RETURN AIR PLENUM SHALL BE RATED AND APPROVED FOR INSTALLATION IN A RETURN AIR PLENUM.

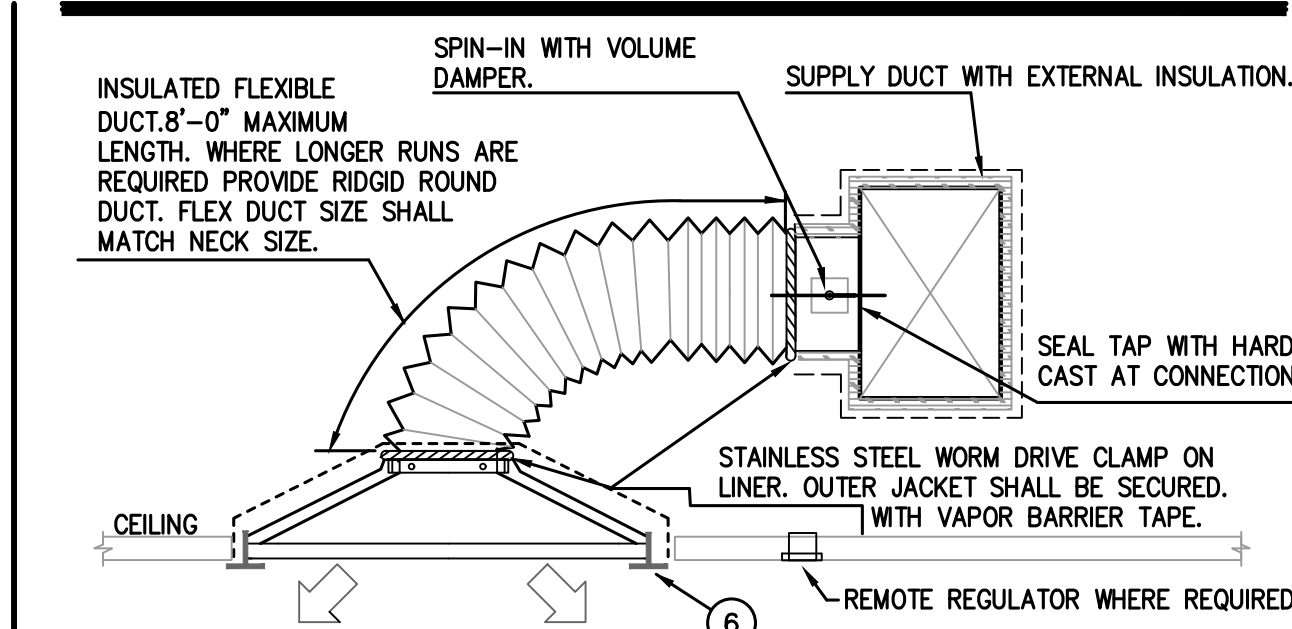
LEGEND OF MECHANICAL SYMBOLS

SYMBOL	DESCRIPTION
	SUPPLY DUCT VIEW INTO DUCT
	SUPPLY DUCT VIEW HEEL OF ELBOW
	RETURN OR EXHAUST DUCT VIEW INTO DUCT
	RETURN OR EXHAUST DUCT VIEW HEEL OF ELBOW
	SQUARE TO ROUND TRANSITION
	SQUARE ELBOW WITH TURNING VANES
	RADIUS ELBOW WITHOUT TURNING VANES
	SUPPLY SIDEWALL REGISTER
	RETURN OR EXHAUST SIDEWALL REGISTER
	ROUND S.A. DIFFUSER
	EXISTING FLEX DUCT
	NEW FLEX DUCT
	EXISTING DUCTWORK
	NEW DUCTWORK
	DUCTWORK TO BE REMOVED
	SQUARE CEILING DIFFUSER
	RETURN AIR GRILLE
	RETURN OR EXHAUST AIR REGISTER W/ SQUARE NECK
	PLENUM SLOT DIFFUSER
	MANUAL DAMPER
	FIRE DAMPER WITH ACCESS DOOR
	DRAIN LINE
	PIPE RISING
	PIPE TURNING DOWN
	EXHAUST FAN SPEED CONTROL
	THERMOSTAT
	EXISTING TO REMAIN
	RELOCATED
	RETURN AIR
	SUPPLY AIR
	C.F.M.
	AHU

NOTES:
1. ALL SYMBOLS MAY NOT BE USED ON THIS DRAWINGS.

FIRE PROTECTION NOTES:

- MODIFY EXISTING FULLY AUTOMATIC WET PIPE SYSTEM HYDRAULICALLY CALCULATED IN ACCORDANCE WITH THE STATE FIRE MARSHAL AND THE LATEST EDITION N.F.P.A. 13, 14, AND REQUIREMENTS OF ALL LOCAL AUTHORITIES HAVING JURISDICTION.
- ALL FIRE PROTECTION EQUIPMENT, I.E. PIPING, VALVES, FITTINGS AND ACCESSORIES, ETC. SHALL BE RATED FOR A MAXIMUM WORKING PRESSURE OF 250 PSI.
- PROVIDE PRESSURE REDUCING VALVES AT ALL SPRINKLER SYSTEM AND FIRE DEPARTMENT HOSE CONNECTIONS WHERE PRESSURES EXCEED 175 PSIG IN ACCORDANCE WITH CODE REQUIREMENTS. CONTRACTOR SHALL FIELD PRESSURE TEST SYSTEM AND DETERMINE WHERE PRESSURE REDUCING VALVES ARE REQUIRED.
- USE PIPING AND FITTINGS FOR FIRE SUPPRESSION SYSTEMS WHICH ARE APPROVED FOR USE BY UNDERWRITERS' LABORATORIES AND FACTORY MUTUAL SYSTEM AND OF THE FOLLOWING TYPES; AND IN ACCORDANCE WITH NFPA, LOCAL CODES ALL AUTHORITIES HAVING JURISDICTION.
a) BLACK STEEL PIPING, MANUFACTURED TO SATISFY ASTM STANDARDS A53 OR A135.
- ALL SPRINKLER PIPING SHALL BE INSTALLED SO THAT ALL PORTIONS OF THE SYSTEM CAN BE DRAINED BACK THROUGH THE DRAIN VALVE WHERE REQUIRED. PROVIDE DRAIN VALVES FOR ALL TRAPPED PORTIONS OF THE SYSTEM.
- ALL FIRE EQUIPMENT THREADS SHALL CONFORM TO LOCAL FIRE DEPARTMENT STANDARDS.
- ALL CONTROL VALVES -- CHECK VALVES AND FLOW ALARM SWITCHES LOCATED ABOVE FINISHED CEILING SHALL BE ACCESSIBLE AND HAVE A NOTIFICATION MARKING TAG AS REQUIRED FOR INSPECTION VERIFICATION.
- CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL PLUMBING/SPRINKLER PIPING TO MAINTAIN PROPER CLEARANCES OVER AREA.
- SPRINKLER SHOP DRAWINGS AND HYDRAULIC CALCULATIONS PREPARED BY A LICENSED SPRINKLER CONTRACTOR SHALL BE SUBMITTED TO THE CITY OF HOUSTON AND ARCHITECT FOR REVIEW AND APPROVAL.



- NOTES:**
- CEILING DIFFUSER SHALL BE INSTALLED SUCH THAT THE FACE OF DIFFUSER IS FLUSH WITH CEILING REFER TO AIR DEVICE SCHEDULE FOR EXACT DEVICE.
 - SUPPORT FLEXIBLE DUCT FROM STRUCTURE. FLEXIBLE DUCT SHALL NOT KINK, SAG OR REST ON LIGHT FIXTURE, CEILING SUPPORT "TEES" OR CEILING TILE.
 - PROVIDE SQUARE TO ROUND TAP AT BRANCH DUCT WHERE FLEXIBLE DUCT SIZE EXCEEDS DIMENSION OF RECTANGULAR DUCT.
 - FOR UNCONDITIONED CEILING PLENUMS, INSULATE BACK OF CEILING DIFFUSER WITH 1" DUCT WRAP AND SEAL WITH VAPOR BARRIER TAPE.
 - METALLIC FLEXIBLE DUCT SHALL BE USED WHERE FLEXIBLE DUCT CONNECTIONS ARE SHOWN ON THE DRAWING TO ALL AIR DEVICES INSTALLED IN INACCESSIBLE LOCATIONS SUCH AS ABOVE GYPSUM BOARD OR PLASTER CEILINGS. (REFER TO ARCH. DRAWINGS FOR CEILING TYPE.)
 - CEILING "TEE" OR DRYWALL TRIM PIECE BY OTHERS.

CEILING DIFFUSER
SCALE: NONE

01

AIR DEVICE SCHEDULE

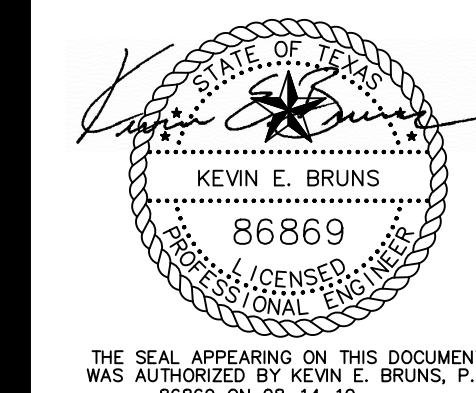
MARK	MANUF. + MODEL	TYPE	REMARKS
☒	NAILOR INDUSTRIES ARNSA	CEILING SUPPLY	24X24, 12X12 LOUVER FACE SUPPLY AIR DIFFUSER. FACE SHALL BE ALUMINUM WITH A STEEL BACK PAN. FACE AND FRAME SHALL HAVE A WHITE ENAMEL FINISH. COORDINATE CEILING MOUNTING TYPE WITH ARCHITECTURAL CEILING TYPE. PROVIDE REMOTE DAMPER OPERATORS IN AREAS WITH INACCESSIBLE CEILINGS.
☒	NAILOR INDUSTRIES 6145H	CEILING RETURN /EXHAUST	24X24, 12X12 LOUVER FACE RETURN GRILLES SHALL BE STEEL CONSTRUCTION WITH HORIZONTAL 45° LOUVERS SET DOWN ON 3/4" CENTERS FOR NARROW REGRESSED T-BAR CEILINGS. COORDINATE CEILING MOUNTING TYPE WITH ARCHITECTURAL CEILING TYPE.

DIFFUSER NECK SIZE SCHEDULE

CFM RANGE	SQUARE NECK SIZE	ROUND NECK SIZE
0 - 120	6 X 6	6"ø
125 - 220	8 X 8	8"ø
225 - 330	10 X 10	10"ø
335 - 450	12 X 12	12"ø
455 - 530	15 X 15	14"ø
540 - 700	16 X 16	16"ø

ISSUES AND REVISIONS

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THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KEVIN E. BRUNS, P.E. 66869 ON 08-14-19

PROJECT NAME:
**WORKFORCE SOLUTIONS - SOUTHEAST:
INTERIOR TENANT IMPROVEMENTS - REMODEL**

PROJECT ADDRESS:
**12148-B GULF FREEWAY
HOUSTON, TX. 77034**

SHEET NAME:
MECHANICAL SCHEDULES

SHEET NUMBER:
M2.01

E/B/E PROJECT#: 19107.00

SCALE: None

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