

SCOPE OF WORK

REUSE THREE EXISTING 5.0 TON ELECTRIC HEAT ROOF TOP UNITS. PROVIDE NEW DUCTWORK AND NECESSARY ACCESSORIES FOR COMPLETE HVAC SYSTEM.

PROVIDE 2 NEW RESTROOM EXHAUST FANS & 2 NEW OTHER EXHAUST FANS AND 2 NEW INLINE DRAFT INDUCER AS SHOWN IN PLAN.

COORDINATE WITH GC ANY ADDITIONAL REFRIGERATION WORK REQUIRED AND PLUMBING CONTRACTOR PROVIDING CONDENSATE LINES FOR MECHANICAL EQUIPMENT.

MECHANICAL PLAN NOTES

A. REUSE THREE EXISTING 5.0 TON ELECTRIC HEAT ROOF TOP UNITS. PROVIDE NEW DUCTWORK AND NECESSARY ACCESSORIES FOR COMPLETE HVAC SYSTEM. PROVIDE FLEXIBLE CONNECTORS ON SUPPLY AIR DUCT CONNECTIONS. PROVIDE DUCTWORK AND AIR DISTRIBUTION DEVICES AS INDICATED ON THE PLAN. REFER TO ROOF TOP UNIT SCHEDULE FOR ADDITIONAL REQUIREMENTS.

B. FOR SYSTEM OVER 2,000 CFM CHECK FOR DUCT MOUNTED AIR SMOKE DETECTORS AND THAT MEET THE REQUIREMENTS OF 2023 FMC 8th EDITION SEC. 606.2.1. INTERLOCKED TO SHUTDOWN ROOF TOP UNIT UPON DETECTION OF SMOKE. IF NECESSARY PROVIDE SMOKE DETECTOR WITH AN ANNUNCIATOR, ALARM AND POWER L.E.D.'S FOR VISIBLE AND AUDIBLE ALARM SIGNAL, AND VISIBLE TROUBLE SIGNAL. MOUNT ANNUNCIATOR ON ROOM SIDE OF CEILING. SMOKE DETECTOR SHALL MEET UL268A

C. ALL DUCTS SHALL BE MINIMUM 26 GAUGE SHEET METAL WITH EXTERNAL DUCT WRAP INSULATION FOR CONCEALED DUCTS AND ALL EXPOSED DUCTS WITH INTERNAL INSULATION. ALL DUCTS TO BE MANUFACTURED AND INSTALLED ACCORDING TO ASHRAE AND SMACNA METAL DUCT CONSTRUCTION STANDARD, LATEST EDITION. ALL MATERIALS WILL CONFORM TO NFPA 90A.

D. THERMOSTATS SHALL BE 7-DAY PROGRAMMABLE TYPE. MOUNT THERMOSTAT 48" A.F.F. COORDINATE LOCATION OF THERMOSTAT.

E. ALL INDOOR DUCT AND PLENUM INSULATION SCHEDULE;

1. CONCEALED, RECTANGULAR, ROUND AND FLAT-OVAL, SUPPLY-RETURN, OUTDOOR-AND EXHAUST-AIR DUCT AND AIR PLENUM INSULATION;

2. FLEXIBLE ELASTOMERIC, MINERAL-FIBER BLANKET, MINERAL-FIBER BOARD OR POLYOLEFIN WITH MINIMUM ELASTIC THERMAL RESISTANCE AS FOLLOWS:

UNCONDITIONED SPACES:

UNVENTED ATTIC ABOVE INSULATED CEILING:

EXTERIOR OF BUILDING:

SA PLENUM

R-4.2

RA PLENUM

R-4.2

R-6

R-4.2

F. ALL SEAMS, JOINTS, ETC WILL BE SEALED TO MAKE AIR DUCT AIRTIGHT. PRESSURE SENSITIVE MATERIALS AND OTHERS APPROVED BY LATEST SMACNA. SEALING MATERIALS WILL BE USED.

G. ALL EVAPORATOR UNITS SHALL HAVE A FLOAT SWITCH TO CONTROL OVERFLOW THAT WILL AUTOMATICALLY SHUT DOWN THE A/C SYSTEM. THE DEVICE SHALL BE ATTACHED TO THE SECONDARY DRAIN OUTLET ON THE UNIT.

H. ALL ROOF TOP UNITS UNIT CONDENSATE DRAINS WILL BE PVC FULL DIAMETER OF OUTLET AND WILL TERMINATE IN THE NEAREST APPROVED PLACE OF DISPOSAL.

I. ALL EQUIPMENT AND MATERIALS WILL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND ACCORDING TO THE BEST PRACTICE.


J. HANGER ATTACHMENTS TO THE STEEL STRUCTURE WILL BE RATED POWDER ACTUATED FASTENERS, "C" CLAMPS, WELDED STUDS, CLAMP HANGERS, JOIST CLAMPS OR OTHER METHODS RECOMMENDED BY SMACNA'S "METAL AND FLEXIBLE STANDARDS", CHAPTER 4, AND WILL HAVE A MINIMUM SAFETY MARGIN OF 4:1. SUSPENDED FROM TOP CHORD OF JOISTS, NOTHING FROM DECK OR CROSS BRACING.


K. ALL HVAC CONTROLS AND CONTROL WIRING SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR.


L. PROVIDE FIRE/SMOKE + SMOKE COMBINATION DAMPERS WHEREVER REQUIRED.COORDINATE WITH ARCHITECTURAL DRAWINGS FOR SMOKE/FIRE RATING OF THE WALLS/SLABS/ROOF.COORDINATE ELECTRICAL POWER REQUIREMENT FOR DAMPER ACTUATORS WITH ELECTRICAL CONTRACTOR.


M. MAINTAIN MIN. 10 FT. DISTANCE BETWEEN ALL EXHAUST AIR SOURCES AND OUTSIDE AIR INTAKE SOURCES ON THE ROOF.


MECHANICAL SYMBOLS


 EXHAUST FAN


 SUPPLY OR OUTSIDE AIR DUCT


 RETURN OR EXHAUST AIR DUCT


 INSULATED RIGID DUCTWORK


 FLEXIBLE DUCTWORK R-6.0


 MANUAL VOLUME DAMPER


 ROOF MOUNTED EXHAUST FAN OUTLET


 ROOFTOP UNIT


 MOTORIZED DAMPER


 SUPPLY DIFFUSER
REFER TO DIFFUSER SCHEDULE FOR SPECIFICATIONS


 EXHAUST FAN WITH LIGHT


 OPPOSED BLADE DAMPER


 DUCT SMOKE DETECTOR


 PROGRAMMABLE THERMOSTAT


 REMOTE SENSOR


 TEMPERATURE SENSOR


 ROUND DUCT DIAMETER


 CUBIC FEET/ MINUTE


 SUPPLY AIR


 RETURN AIR

 SUPPLY GRILLE

 CONDENSATE PIPING

 BACK DRAFT DAMPER

 GENERAL CONTRACTOR

 RETURN DIFFUSER
REFER TO DIFFUSER SCHEDULE FOR SPECIFICATIONS

NOTE: THIS PROJECT MAY NOT USE EVERY SYMBOL OR DEVICE APPEARING ON THIS LEGEND.

GENERAL NOTES

A. CONTRACTORS AND SUB-CONTRACTORS SHALL CAREFULLY REVIEW THE CONSTRUCTION DOCUMENTS. INFORMATION REGARDING THE COMPLETE WORK IS DISPERSED THROUGHOUT THE DOCUMENT SET AND CANNOT BE ACCURATELY DETERMINED WITHOUT REFERENCE TO THE COMPLETE DOCUMENT SET. PAY SPECIAL ATTENTION TO THE RESPONSIBILITY SCHEDULE. WORK DESIGNATED ON SCHEDULE SHALL BE CONSIDERED INCLUDED IN YOUR SCOPE OF WORK AND CONTRACT AMOUNT.

B. DRAWINGS/DETAILS ARE TO BE CONSIDERED DIAGRAMMATIC, NOT NECESSARILY SHOWING IN DETAIL OR TO SCALE ALL MINOR ITEMS. UNLESS SPECIFIC DIMENSIONS ARE SHOWN, THE STRUCTURAL, ARCHITECTURAL AND SITE CONDITIONS SHALL GOVERN EXACT LOCATIONS. CONTRACTOR SHALL FOLLOW DRAWINGS IN LAYING OUT WORK, AND CHECK/COORDINATE DRAWINGS OF ALL TRADES.

C. COORDINATE WITH THE WORK OF OTHERS SECTIONS, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE. PROVIDE DUCT RISES AND DRIPS AS REQUIRED FOR FIELD INSTALLATION AND TRADE COORDINATION. NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE STARTING WORK.

D. DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.

E. ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE GOVERNING CITY. PURCHASE ALL PERMITS ASSOCIATED WITH THE WORK. OBTAIN ALL INSPECTIONS REQUIRED BY CODE.

F. USE OF COMBUSTIBLE MATERIALS IS NOT ALLOWED IN THE RETURN AIR PLENUM. MATERIALS USED IN THE PLENUM SHALL HAVE FLAME SPREAD RATING NOT TO EXCEED 25, AND SMOKE DEVELOPED RATING NOT TO EXCEED 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84. ALL EXPOSED WIRING IN THE PLENUM SHALL BE PLENUM RATED.

G. VERIFY LOCATION OF PERMISSIBLE NEW STRUCTURAL ROOF PENETRATIONS AND ADAPT THE REQUIRED DUCTS ACCORDINGLY. THE OPENINGS MUST BE LOCATED USING A REBAR LOCATOR, TRYING TO LEAVE A TRANSVERSE BAR WITHIN 4" FROM THE OPENING. LOCATE OPENINGS AT MID-DISTANCE BETWEEN THE STEMS OF THE DOUBLE TEE AND LONGITUDINAL REINFORCEMENT SHALL NEVER BE CUT. CALL THE ARCHITECT'S OFFICE IN CASE OF UNEXPECTED DIFFICULTIES.

H. ALL RECTANGULAR DUCTS OVER CEILINGS MAY BE SHEET METAL WITH EXTERNAL INSULATION.

I. G.C. SHALL CONTRACT LANDLORD-APPROVED ROOFING CONTRACTOR TO FLASH AND SEAL ALL ROOF PENETRATIONS TO MAINTAIN ROOFING WARRANTY.

J. IF APPLICABLE CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR KITCHEN VENTILATION SYSTEM INCLUDING TYPE 1 HOOD AND FOR THE WALK-IN COOLER & FREEZER.

K. REQUIRED INSURANCE SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.

L. CONSTRUCTION "AS BUILT" DRAWINGS AND DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF ACCEPTANCE AND PROVIDE COPY TO LL.

M. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER.

FLORIDA BUILDING DEPARTMENT NOTES

ALL WORK SHALL COMPLY WITH APPLICABLE SECTIONS OF 2023 FBC 8th EDITION AND ALL AMENDMENTS AND RULES AND REGULATIONS OF THE DEPARTMENT OF BUILDINGS TO DATE.

1. THE LICENSED PROFESSIONAL ENGINEER, ARCHITECT OR OTHER PERSON HAVING NOT LESS THAN FIVE (5) YEARS EXPERIENCE SUPERVISING THE INSTALLATION OF SUCH MECHANICAL SYSTEMS AND CONDUCTING SUCH TESTS WILL FILE DOCUMENTATION AND REPORTS OF TESTS THAT THE SYSTEM COMPLIES WITH THE CONSTRUCTION DOCUMENTS AND APPLICABLE LAWS

2. TESTS OF MECHANICAL SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE 2023 FMC 8th EDITION:

A. VENTILATION SYSTEM BALANCING - 2023 FMC 8th EDITION(2021 IMC) - 403.3

3. THE FOLLOWING WORK ITEMS, COMPONENTS, MATERIALS, CAPACITIES, ETC. SHALL COMPLY WITH THE REFERENCED CODE OR STANDARD:

A. STANDARDS OF HEATING- 2023 FMC 8th EDITION - 309.1

B. DUCT CONSTRUCTION AND INSTALLATION- 2023 FMC 8th EDITION - 603

C. AIR INTAKES, EXHAUSTS AND RELIEF - 2023 FMC 8th EDITION - 401.5

D. AIR FILTERS - 2023 FMC 8th EDITION - 605

E. MANUAL AND AUTOMATIC FIRE AND SMOKE CONTROLS FOR AIR DISTRIBUTION SYSTEMS - 2023 FMC 8th EDITION - 606

4. MINIMUM TEMPERATURE TO BE MAINTAINED IN OCCUPIED SPACES DURING HEATING SEASON: 68 DEG. FAHRENHEIT.

5. VENTILATION FOR ALL AREA SHALL COMPLY WITH 2023 FMC 8th EDITION 401.

6. A STATEMENT SHALL BE FILED BY THE OWNER OR TENANT IN POSSESSION THAT THE VENTILATION SYSTEM WILL BE KEPT IN CONTINUOUS OPERATION AT ALL TIMES DURING THE NORMAL OCCUPANCY OF THE STRUCTURE AS REQUIRED BY 2023 FMC 8th EDITION 403.3

7. REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE-RATED WALL AND SMOKE WALL CONSTRUCTION AND LOCATION.

8. THESE PLANS ARE APPROVED ONLY FOR THE WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

9. ALL HEATING AND COOLING LOADS CALCULATED PER ASHRAE/ACCA 183.

10. SMOKE DETECTOR SHALL MEET UL268A.

11. VENTILATION SYSTEMS SHALL BE BALANCED TO MAINTAIN THE MINIMUM VENTILATION AIRFLOW RATE AS SHOWN IN VENTILATION REQUIREMENT TABLE. THIS SYSTEM SHALL BE BALANCED BY APPROVED METHOD. CONTRACTOR TO SUBMIT THE AIR BALANCE REPORT TO INSPECTOR OF RESPECTIVE BUILDING DEPARTMENT PRIOR TO FINAL INSPECTION.

ROOF TOP UNIT SCHEDULE

UNIT TAG	RTU-1(E)	RTU-2(E)	RTU-3(E)
UNIT TYPE	ELECTRIC HEAT	ELECTRIC HEAT	ELECTRIC HEAT
MANUFACTURER	CARRIER	CARRIER	CARRIER
MODEL	50TC-A06A2M5A0 (V.I.F)	50TC-A06A2M5A0 (V.I.F)	50TC-A06A2M5A0 (V.I.F)
STATUS	EXISTING	EXISTING	EXISTING
MOUNTING	ROOF	ROOF	ROOF
TOTAL CAPACITY	5.0 TONS	5.0 TONS	5.0 TONS
TOTAL COOLING MBH	S.A.E	S.A.E	S.A.E
SENSIBLE COOLING MBH	S.A.E	S.A.E	S.A.E
ELECTRIC HEATING KW	7.9 (V.I.F)	7.9 (V.I.F)	7.9 (V.I.F)
SEER2 / EER2	S.A.E	S.A.E	S.A.E
COP	S.A.E	S.A.E	S.A.E
SUPPLY AIR (CFM)	2000	2000	2000
OUTDOOR AIR (CFM)	345	340	220
ESP (IN. OF H2O)	S.A.E	S.A.E	S.A.E
VOLTAGE (V/PHz)	208-230/3/60	208-230/3/60	208-230/3/60
MCA (A)	37.0 (V.I.F)	37.0 (V.I.F)	37.0 (V.I.F)
MOCP (A)	40.0 (V.I.F)	40.0 (V.I.F)	40.0 (V.I.F)
WEIGHT (lbs)	S.A.E	S.A.E	S.A.E

NOTES FOR EXISTING RTUS:

1. EXISTING RTUS WITH ITS ALL ACCESSORIES TO REMAIN SAME AND TO BE REUSED.

2. CONTRACTOR TO ADJUST FRESH AIR DAMPER TO PROVIDE OUTSIDE AIR AS MENTIONED IN VENTILATION REQUIREMENT TABLE.

3. S.A.E : SAME AS EXISTING.

4. V.I.F : VERIFY IN FIELD.

5. CONTRACTOR TO FIELD VERIFY IF RTUS IS WORKING AT 100% RATED CAPACITIES / LOADS. INFORM TO DESIGN ENGINEER IF ANY DISCREPANCIES ARE FOUND IN PERFORMANCE PRIOR TO CONSTRUCTION.

6. CONTRACTOR TO FIELD VERIFY EXACT LOCATION AND CONFIGURATION OF UNIT ON SITE.

7. IF REQUIRED, PROVIDE NEW THERMOSTAT AND TEMPERATURE SENSORS COMPATIBLE WITH EXISTING RTUS. COORDINATE FINAL LOCATIONS OF T-STAT AND T-SENSORS WITH ARCHITECT / OWNER.

8. CLEAN / REPLACE RETURN AIR FILTERS IF REQUIRE.

9. CONTRACTOR SHALL VERIFY SPECIFICATIONS OF THE EXISTING MECHANICAL EQUIPMENT TO BE REUSED AND NOTIFY THE ENGINEER IF ANY CONFLICT OR DISCREPANCY IS FOUND PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL VERIFY EXACT ELECTRICAL CONNECTIONS, WIRE SIZES, BREAKERS, DISCONNECT ETC. PRIOR TO ORDERING AND BID.

OCCUPANCY CALCULATION PER 2023 FLORIDA MECHANICAL CODE (2021 IMC),TABLE 403.3.1.1

DINING AREA	843 SQ. FT. @70 PEOPLE/1000SQ.FT.	60 PEOPLE
SERVICE COUNTER	221 SQ. FT. @15 PEOPLE/1000SQ.FT.	4 PEOPLE
COOK LINE	285 SQ. FT. @20 PEOPLE/1000SQ.FT.	6 PEOPLE
PREP AREA / OVEN / WASHING AREA	471 SQ. FT. @20 PEOPLE/1000SQ.FT.	10 PEOPLE
TOTAL		80 PEOPLE

VENTILATION REQUIREMENTS PER 2023 FLORIDA MECHANICAL CODE (2021 IMC),TABLE 403.3.1.1

DINING AREA	843 SQ. FT. X 0.18 CFM/SQ. FT. =	152 CFM
	60 PEOPLE X 7.5 CFM/PEOPLE. =	450 CFM
SERVICE COUNTER	221 SQ. FT. X 0.12 CFM/SQ. FT. =	27 CFM
	4 PEOPLE X 7.5 CFM/PEOPLE. =	30 CFM
COOK LINE	285 SQ. FT. X 0.12 CFM/SQ. FT. =	34 CFM
	6 PEOPLE X 7.5 CFM/PEOPLE. =	45 CFM
PREP AREA / OVEN / WASHING AREA	471 SQ. FT. X 0.12 CFM/SQ. FT. =	57 CFM
	10 PEOPLE X 7.5 CFM/PEOPLE. =	75 CFM
HALLWAY	255 SQ. FT. X 0.06 CFM/SQ. FT. =	15 CFM
OUTSIDE AIR REQUIRED		885 CFM
PREP AREA / OVEN / WASHING AREA	471 SQ. FT. X 0.7 CFM/SQ. FT. =	330 CFM
COOK LINE	285 SQ. FT. X 0.7 CFM/SQ. FT. =	200 CFM
MEN'S RESTROOM	70 CFM PER FIXTURE	70 CFM
WOMEN'S RESTROOM	70 CFM PER FIXTURE	70 CFM

AIR BALANCE

O/A PROVIDED THROUGH RTU-1(E)	+345 CFM
O/A PROVIDED THROUGH RTU-2(E)	+340 CFM
O/A PROVIDED THROUGH RTU-3(E)	+220 CFM
BEF-1(N) & BEF-2(N) (@70 CFM EACH)	-140 CFM
KEF-1(N)	-200 CFM
KEF-2(N)	-340 CFM
BUILDING PRESSURE	+225 CFM

FAN SCHEDULE

TAG	BEF-1(N)	BEF-2(N)	KEF-1(N)	KEF-2(N)	DI-1(N)	DI-2(N)
STATUS	NEW	NEW	NEW	NEW	NEW	NEW
QUANTITY	1	1	1	1	1	1
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	TJERNLUND	TJERNLUND
MODEL	SP-A90	SP-A90	SP-A200	SP-A390	D3	D3
CFM	70 @ 0.3 (ESP IN W.C.)	70 @ 0.3 (ESP IN W.C.)	200 @ 0.5 (ESP IN W.C.)	340 @ 0.5 (ESP IN W.C.)	-	-
AMPS	0.17	0.17	0.46 (FLA)	1.42 (FLA)	74 WATTS	74 WATTS
ACCESSORIES	BDD,LITE KIT	BDD,LITE KIT	BDD,LITE KIT	BDD,LITE KIT	-	-
WEIGHT (LBS)	12	12	25	25	-	-
VOLT / PH / HZ	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60

NOTES:

1. PROVIDE DISCONNECT SWITCH.

2. PROVIDE BACK DRAFT DAMPER.

3. INTERLOCK KEF-1(N) & KEF-2(N) WITH RTU-3(E).

4. INTERLOCK BEF-1(N),BEF-2(N) WITH RTU-2(E).

5. INTERLOCK DI-1(N) & DI-2(N) WITH BAGEL OVEN.

AIR CURTAIN SCHEDULE

TAG	ACH-1(N)
MANUFACTURER	MARS
MODEL	LPN236-1UA-OB
NOZZLE WIDTH (IN.)	36"
AIR VOLUME (CFM)	900
MOTOR HP	1/6
AMPS	2.4
V/PH/HZ	115/1/60

NOTES:

1. CO-ORDINATE WITH ARCHITECT/OWNER FOR FINAL MOUNTING, FRAME TYPE,PAINT AND FINISH.

2. PROVIDE MANUFACTURER RECOMMENDED ACCESSORIES.

3. COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER REQUIREMENT.

DIFFUSER SCHEDULE

MANUFACTURER	TITUS	TITUS	TITUS	TITUS
DESIGNATION	A	B	R	R1
USE	SUPPLY	SUPPLY	RETURN	RETURN
MODEL	TDC-AA	TDC-AA	TDC-AA	56FL
MOUNTING	CEILING	CEILING	CEILING	WALL
LOCATION	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN
FACE SIZE	24" X 24"	12"X12"	24" X 24"	AS SHOWN
NECK SIZE	REFER TABLE - A	REFER TABLE - A	-	-
FRAME TYPE	LAY IN	LAY IN / FLANGED	LAY IN	FLANGED
ACCESSORIES	VOLUME DAMPER	VOLUME DAMPER	VOLUME DAMPER	VOLUME DAMPER

NOTES :

1. MAX. NC LEVEL 30 OR LESS.

2. PROVIDE SQUARE TO ROUND NECK ADAPTOR.

3. COORDINATE WITH ARCHITECT FOR PAINT AND FINISH.

4. PROVIDE 4-WAY AIR THROW PATTERN UNLESS NOTED OR INDICATED.

5. PROVIDE INSULATED BACKS ON ALL DIFFUSERS.

NECK SIZE TABLE - A

NY ENGINEERS

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PROJECT

BROOKLYN WATER BAGEL

REVISIONS DATES:

04.01.24 BD COMMENTS

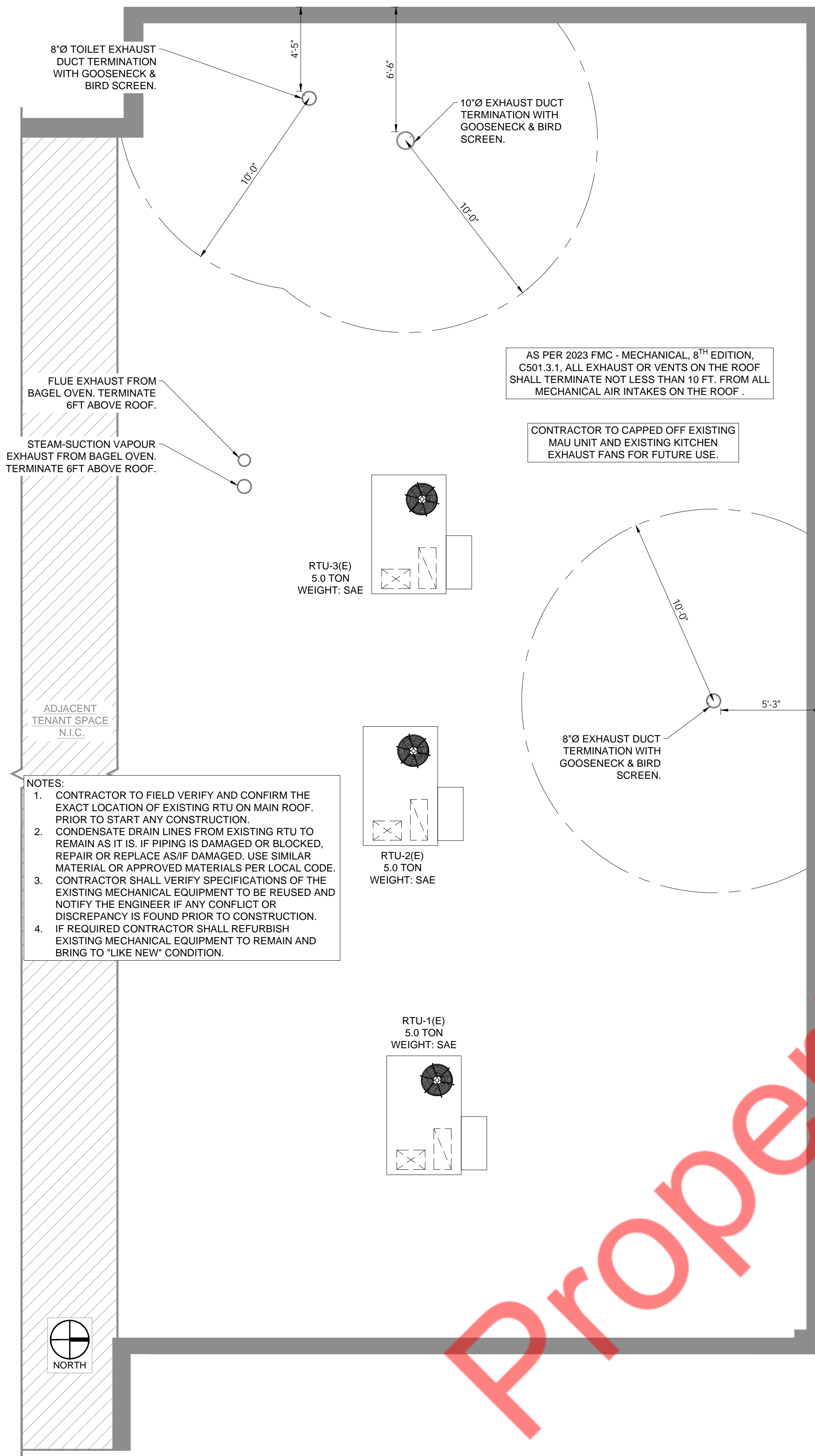
06.21.24 PROJECT COORD.

PROFESSIONAL SEAL

ISSUE DATE: 01.18.24
PROJECT #: 226W.1209W
DRAWN BY: NYE
CHECKED BY: NYE

HVAC NOTES & SCHEDULES

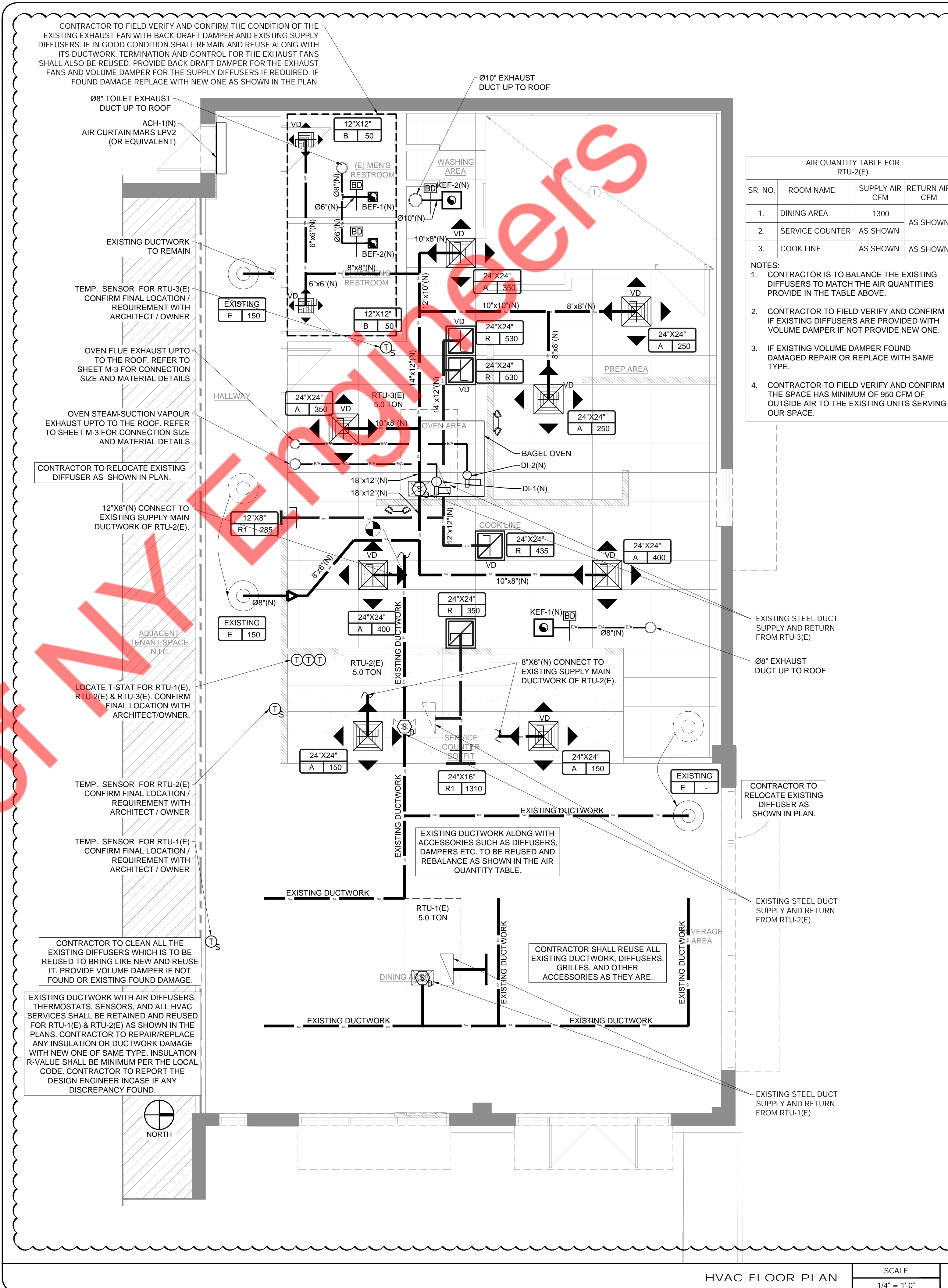
M-1



HVAC ROOF PLAN

SCALE
1/4" = 1'-0"

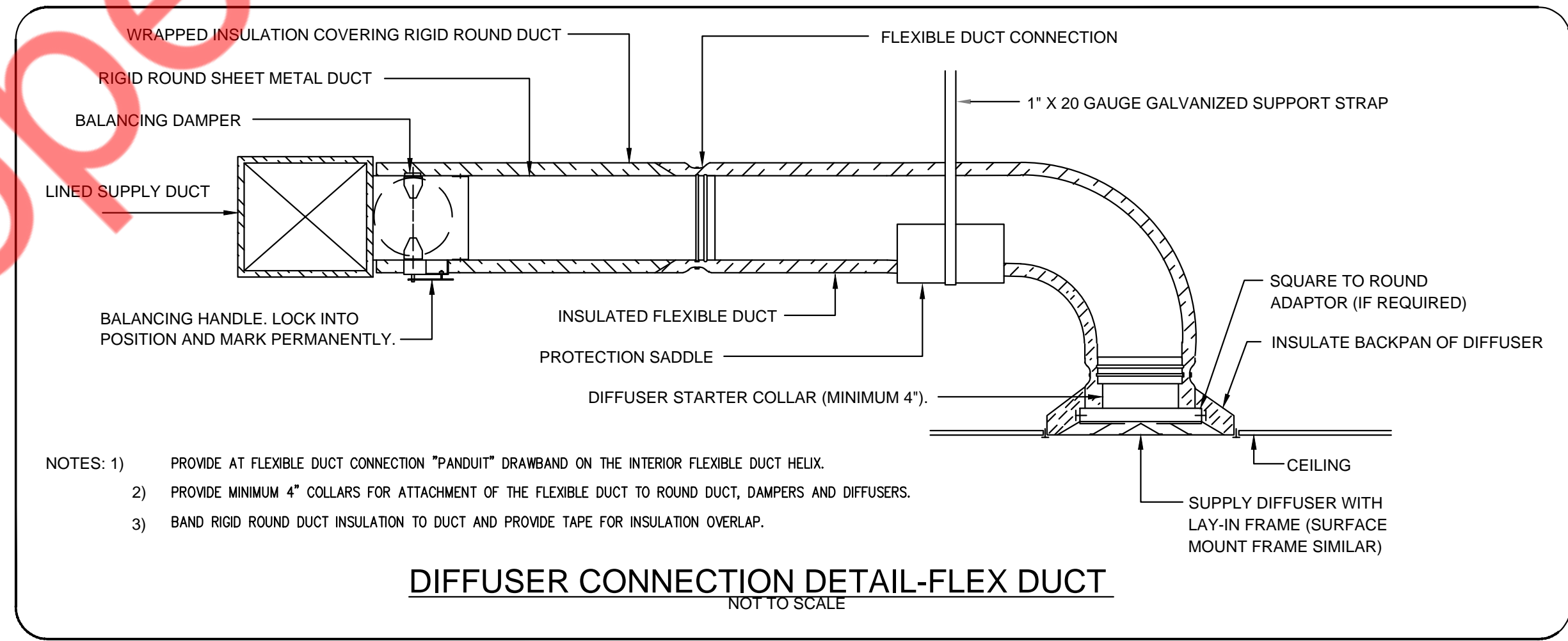
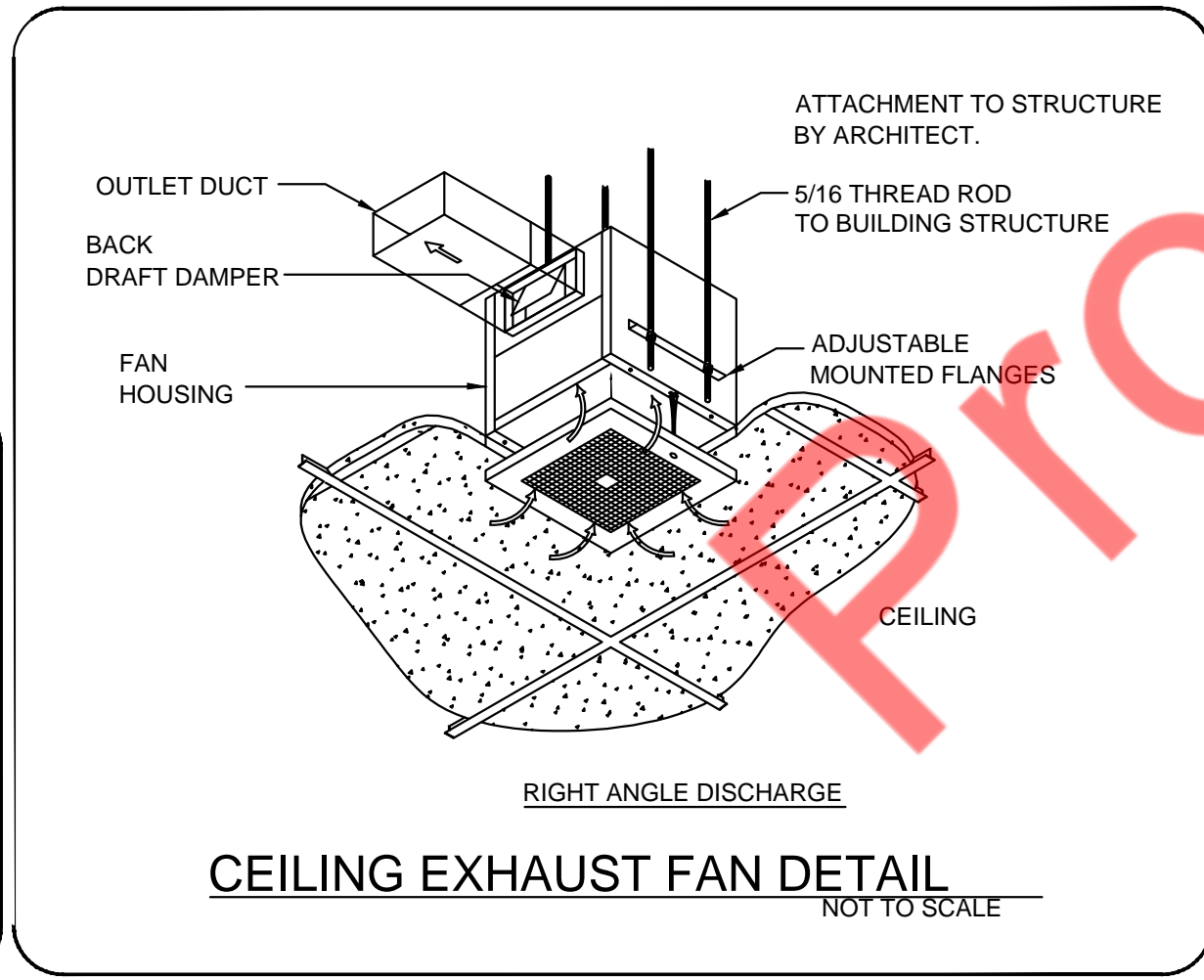
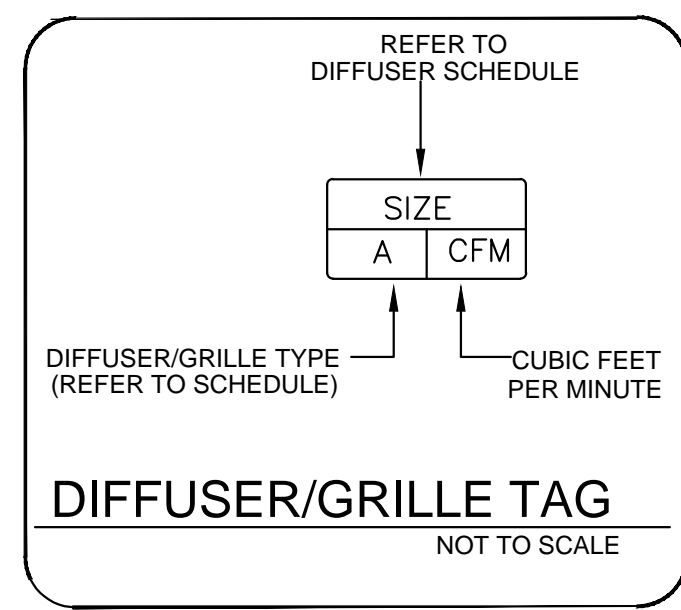
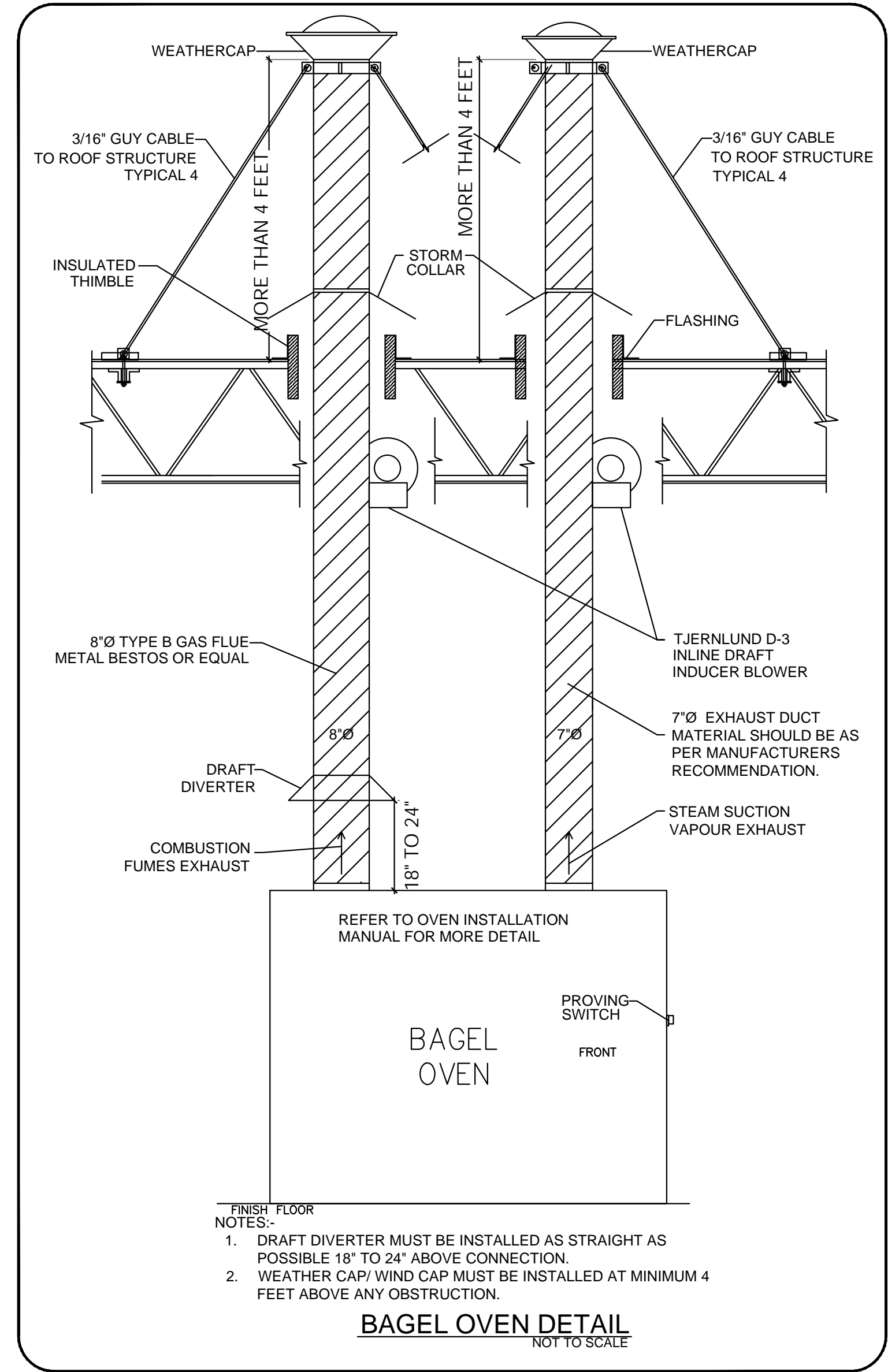
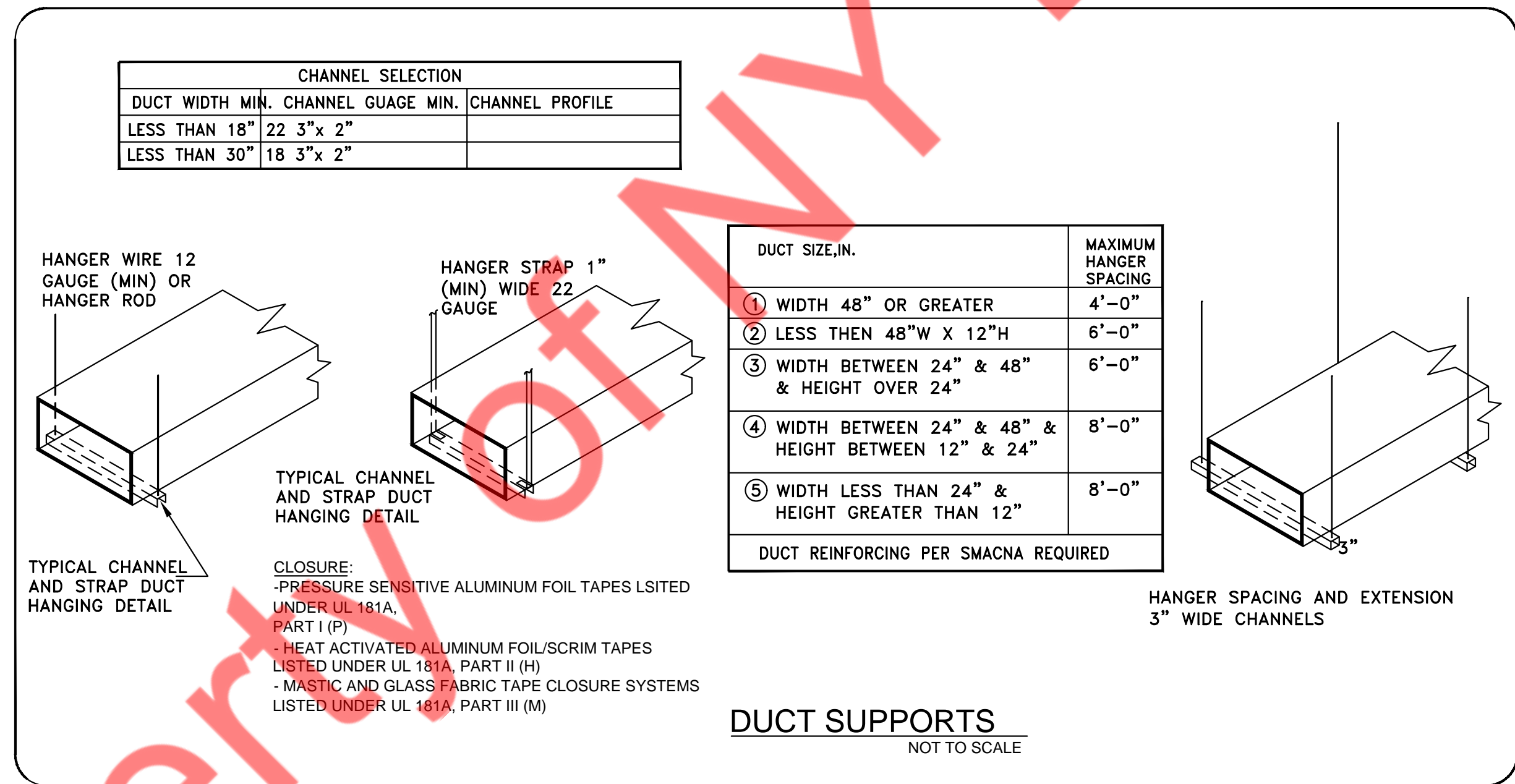
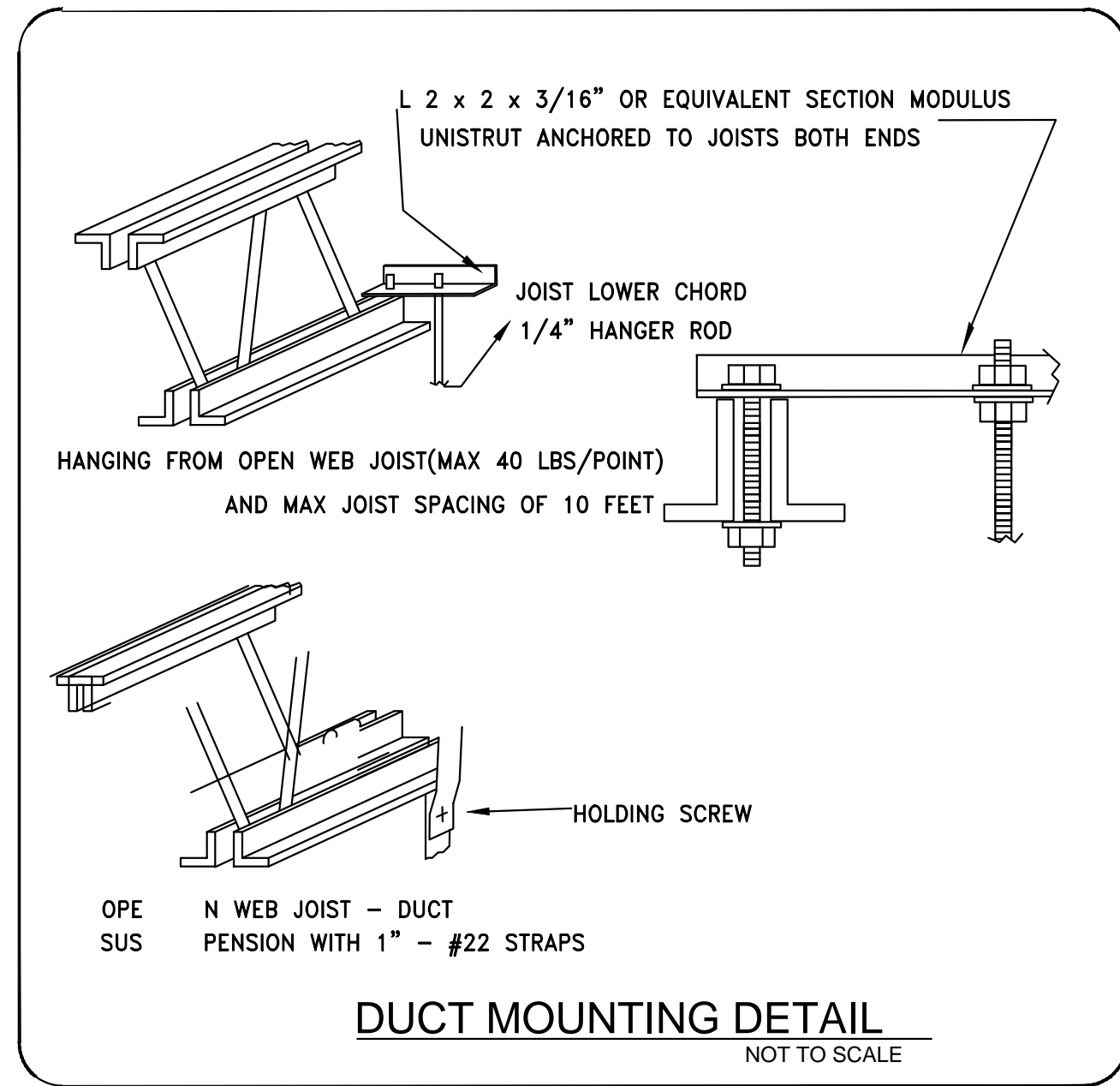
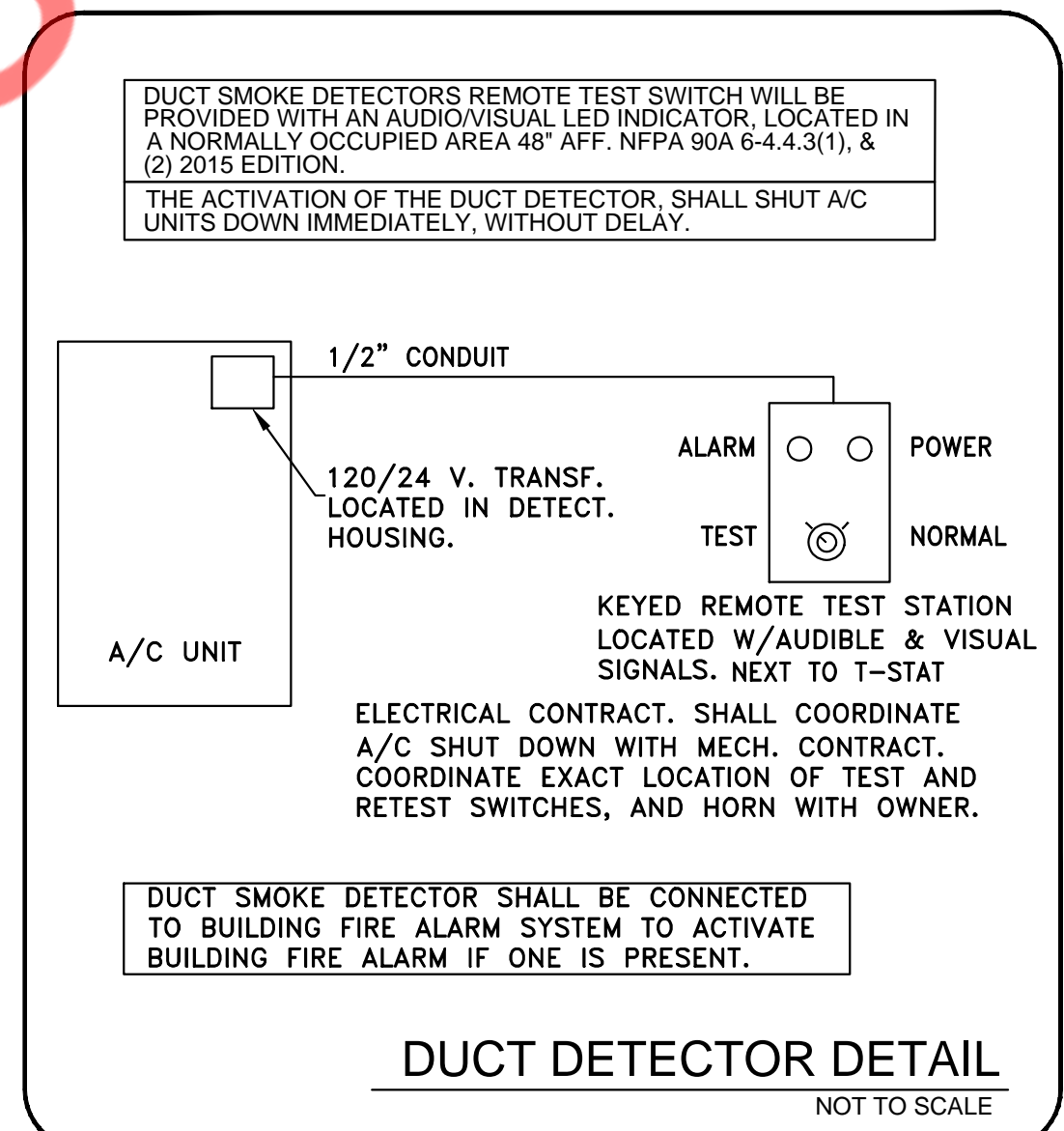
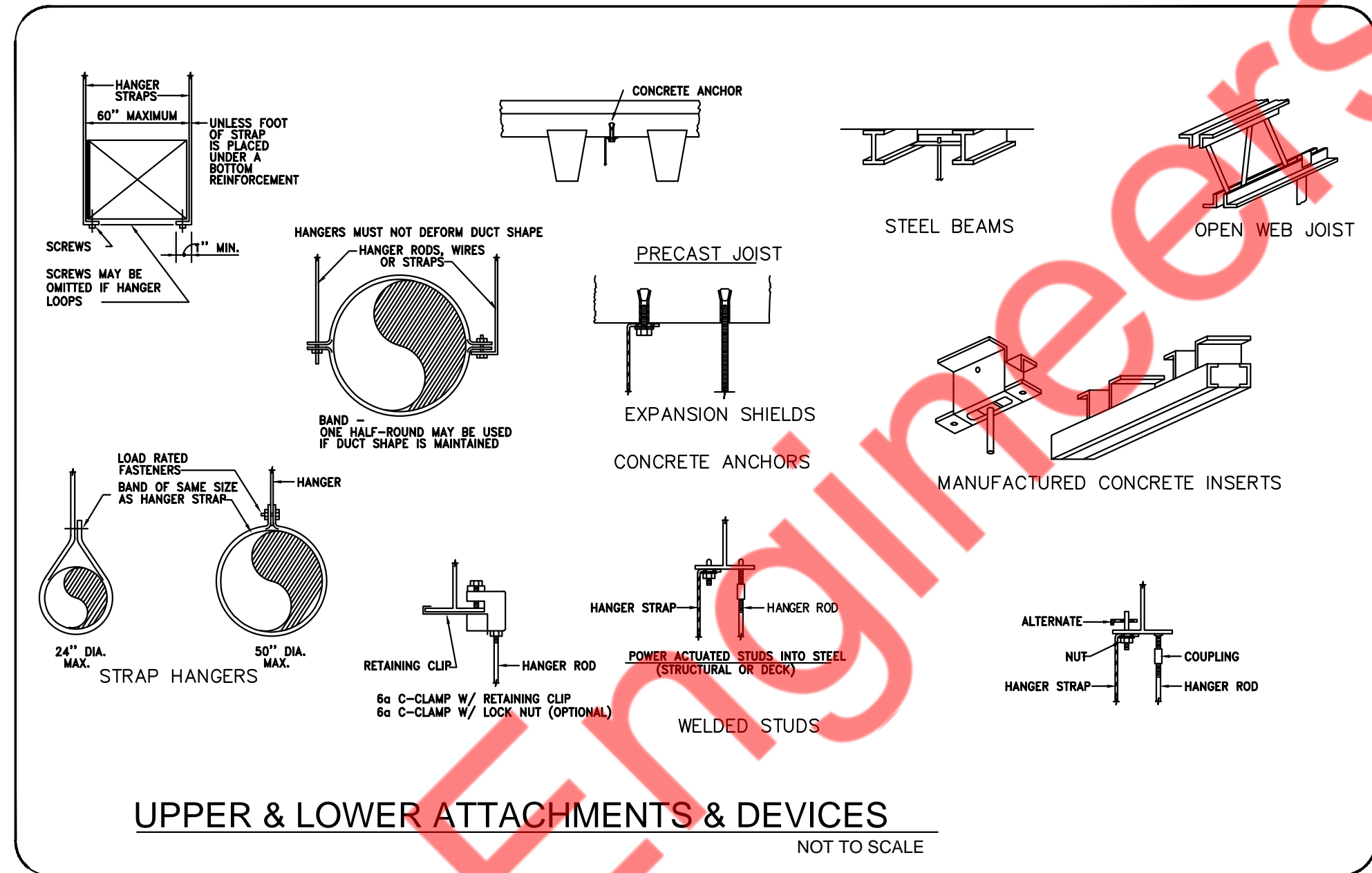
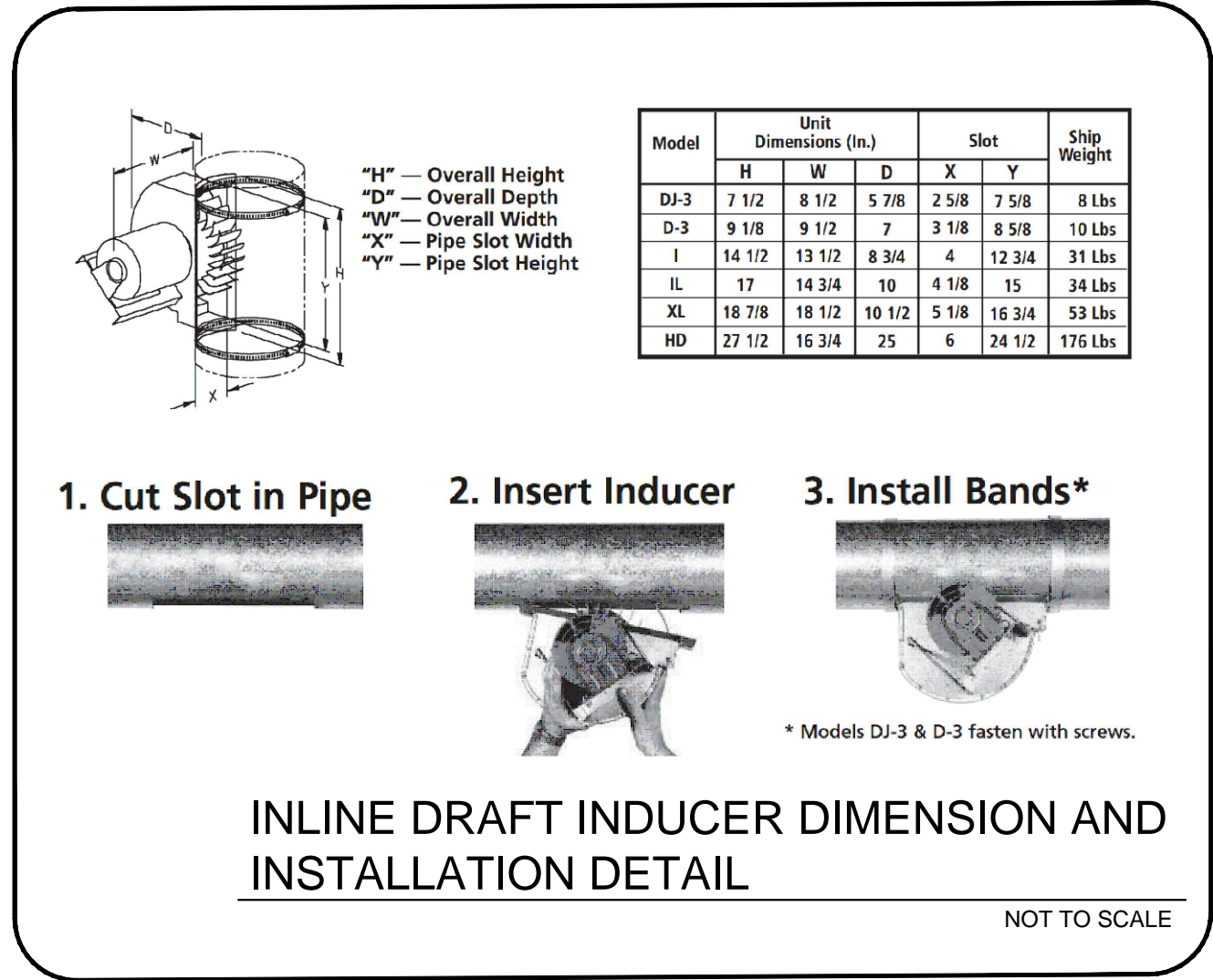
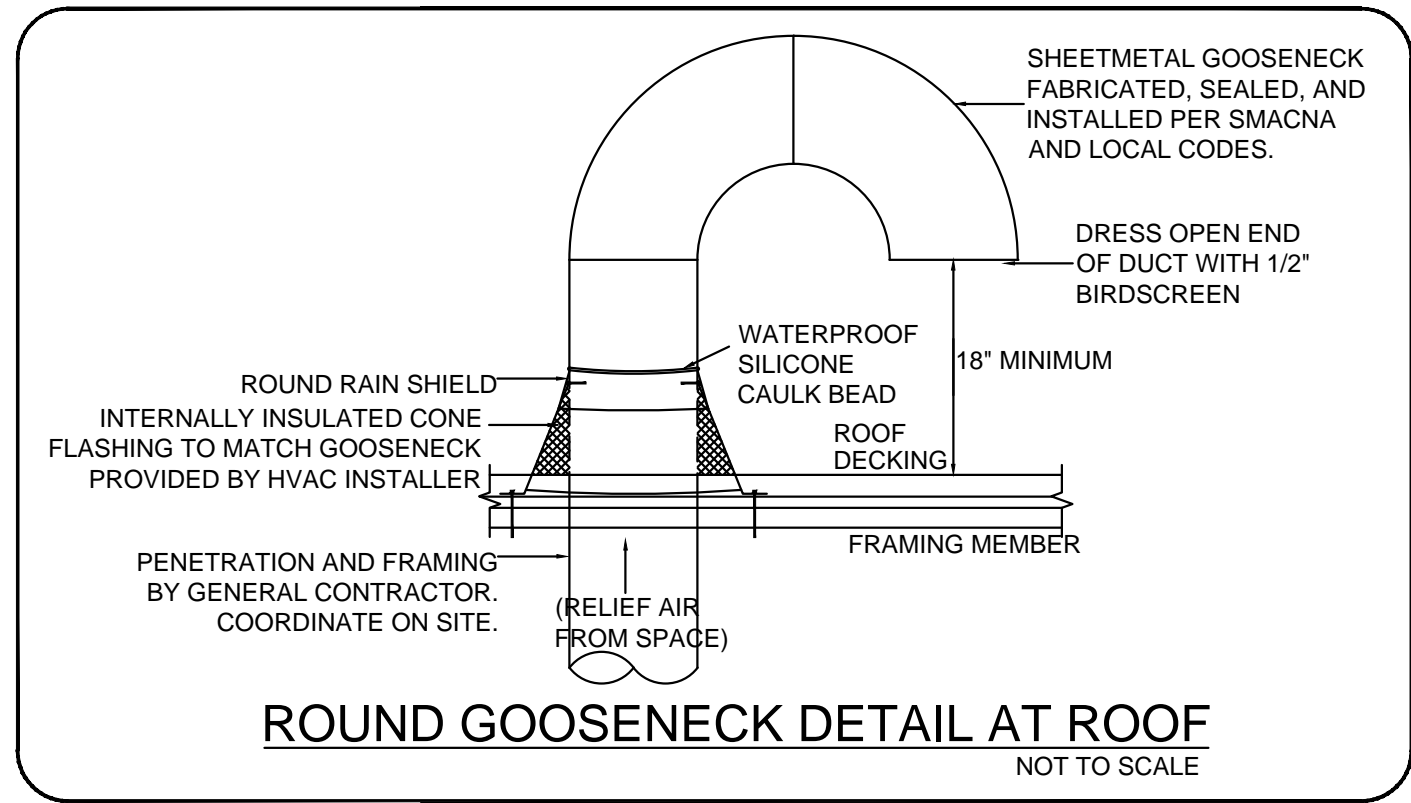
2



HVAC FLOOR PLAN

SCALE
1/4" = 1'-0"

1



System Checksums
By Trial

RTU-1(E) & RTU-2(E) DINING AREA

Single Zone

COOLING COIL PEAK					CLG SPACE PEAK		HEATING COIL PEAK			TEMPERATURES		
Peaked at Time: Mo/Hr: 8 / 14					Mo/Hr: Sum of		Mo/Hr: Heating Design			Cooling		
Outside Air: OADB/WB/HR: 91 / 77 / 119					OADB: Peaks		OADB: 38			Heating		
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total	Space Sensible	Percent Of Total	Space Peak	Coil Peak	Percent	SADB			
Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)	Space Sens	Tot Sens	Of Total	Return	Ret/OA		
						Btu/h	Btu/h	(%) <td>Fn MtrTD<td>Fn BldTD<td>Fn Frict</td></td></td>	Fn MtrTD <td>Fn BldTD<td>Fn Frict</td></td>	Fn BldTD <td>Fn Frict</td>	Fn Frict	
Envelope Loads						Envelope Loads						
Skylite Solar	0	0	0	0	0	0	0	0.00	0.0	0.0	0.0	
Skylite Cond	0	0	0	0	0	0	0	0.00				
Roof Cond	0	3,274	3	0	0	0	-1,740	3.87				
Glass Solar	7,127	0	7	8,001	20	0	0	0.00				
Glass/Door Cond	2,807	0	3	2,968	8	-7,312	-7,312	16.26				
Wall Cond	4,509	5,549	10	4,616	12	-3,149	-7,117	15.83				
Partition/Door	0	0	0	0	0	0	0	0.00				
Floor	0	0	0	0	0	-2,064	-2,064	4.59				
Adjacent Floor	0	0	0	0	0	0	0	0				
Infiltration	3,889	3,889	4	981	2	-3,200	-3,200	7.12				
Sub Total ==>	18,331	8,823	28	16,567	42	-15,726	-21,434	47.66				
Internal Loads						Internal Loads						
Lights	4,076	1,019	5	4,076	10	0	0	0.00				
People	27,014	0	28	12,166	31	0	0	0.00				
Misc	5,060	0	5	5,060	13	0	0	0.00				
Sub Total ==>	36,150	1,019	38	21,302	54	0	0	0.00				
Ceiling Load	1,604	-1,604	0	1,524	4	-1,074	0	0.00				
Ventilation Load	0	0	37	0	0	0	-25,570	56.86				
Adj Air Trans Heat	0	0	0	0	0	0	0	0				
Dehumid. Ov Sizing		0	0			0	0	0.00				
Ov/Undr Sizing	0	0	0	0	0		2,031	-4.51				
Exhaust Heat		-2,903	-3				0	0.00				
Sup. Fan Heat		0	0				0	0.00				
Ret. Fan Heat		0	0				0	0.00				
Duct Heat Pkup		0	0				0	0.00				
Underflr Sup Ht Pkup		0	0				0	0.00				
Supply Air Leakage		0	0				0	0.00				
Grand Total ==>	56,085	5,335	100.00	39,393	100.00	-16,799	-44,973	100.00				

AIRFLOWS		
	Cooling	Heating
Diffuser	1,674	1,674
Terminal	1,674	1,674
Main Fan	1,674	1,674
Sec Fan	0	0
Nom Vent	685	685
AHU Vent	685	685
Infil	61	86
MinStop/Rh	0	0
Return	1,734	1,759
Exhaust	746	771
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	40.9	40.9
cfm/ft²	1.17	1.17
cfm/ton	178.99	
ft²/ton	152.84	
Btu/hr-ft²	78.51	-39.34
No. People	64	

Project Name: BWB Orlando FL
Dataset Name: BWB ORLANDO FL.TRC

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PROJECT

BROOKLYN WATER BAGEL

REVISIONS DATES:

04.01.24 BD COMMENTS
06.21.24 PROJECT COORD.

PROFESSIONAL SEAL

ISSUE DATE: 01.18.24
PROJECT #: 226W.1209W
DRAWN BY: NYE
CHECKED BY: NYE

HVAC HEAT LOAD
SUMMARY

M-4

System Checksums
By Trial

RTU-3(E) KITCHEN AREA

Single Zone

COOLING COIL PEAK					CLG SPACE PEAK					HEATING COIL PEAK					TEMPERATURES		
Peaked at Time: Mo/Hr: 8 / 19					Mo/Hr: Sum of					Mo/Hr: Heating Design					Cooling		
Outside Air: OADB/WB/HR: 86 / 76 / 123					OADB: Peaks					OADB: 38					Heating		
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total		Space Sensible	Percent Of Total				Space Peak Space Sens	Coil Peak Tot Sens	Percent Of Total			SADB		
Btu/h	Btu/h	Btu/h	(%)		Btu/h	(%)				Btu/h	Btu/h	(%)			Ra Plenum		
Envelope Loads					Envelope Loads					Envelope Loads					Return		
Skylite Solar	0	0	0	0	0	0	0	Skylite Solar	0	0	0	0.00			Fn MtrTD		
Skylite Cond	0	0	0	0	0	0	0	Skylite Cond	0	0	0	0.00			Fn BldTD		
Roof Cond	0	2,096	2,096	4	0	0	0	Roof Cond	0	-955	6.36				Fn Frict		
Glass Solar	167	0	167	0	317	1	0	Glass Solar	0	0	0.00						
Glass/Door Cond	188	0	188	0	188	1	0	Glass/Door Cond	-518	-518	3.45						
Wall Cond	1,741	1,450	3,192	7	1,995	7	0	Wall Cond	-1,727	-3,238	21.57						
Partition/Door	0	0	0	0	0	0	0	Partition/Door	0	0	0.00						
Floor	0	0	0	0	0	0	0	Floor	-758	-758	5.05						
Adjacent Floor	0	0	0	0	0	0	0	Adjacent Floor	0	0	0						
Infiltration	2,164	2,164	5	0	459	2	0	Infiltration	-1,693	-1,693	11.28						
Sub Total ==>	4,260	3,546	7,806	16	2,958	11	0	Sub Total ==>	-4,696	-7,162	47.70						
Internal Loads					Internal Loads					Internal Loads					AIRFLOWS		
Lights	2,229	557	2,787	6	2,229	8	0	Lights	0	0	0.00				Cooling		
People	6,581	0	6,581	14	3,079	11	0	People	0	0	0.00				Diffuser		
Misc	19,315	0	19,315	41	19,315	69	0	Misc	0	0	0.00				Terminal		
Sub Total ==>	28,125	557	28,682	60	24,623	88	0	Sub Total ==>	0	0	0.00				Main Fan		
Ceiling Load	488	-488	0	0	506	2	0	Ceiling Load	-292	0	0.00				Sec Fan		
Ventilation Load	0	0	11,660	25	0	0	0	Ventilation Load	0	-8,212	54.70				Nom Vent		
Adj Air Trans Heat	0	0	0	0	0	0	0	Adj Air Trans Heat	0	0	0				AHU Vent		
Dehumid. Ov Sizing	0	0	0	0	0	0	0	Ov/Undr Sizing	0	0	0.00				Infil		
Ov/Undr Sizing	0	0	0	0	0	0	0	Exhaust Heat	360	-2.40					MinStop/Rh		
Exhaust Heat	-590	-590	-1	0	0	0	0	OA Preheat Diff.	0	0.00					Return		
Sup. Fan Heat	0	0	0	0	0	0	0	RA Preheat Diff.	0	0.00					Exhaust		
Ret. Fan Heat	0	0	0	0	0	0	0	Additional Reheat	0	0.00					Rm Exh		
Duct Heat Pkup	0	0	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00					Auxiliary		
Underflr Sup Ht Pkup	0	0	0	0	0	0	0	Supply Air Leakage	0	0.00					Leakage Dwn		
Supply Air Leakage	0	0	0	0	0	0	0	Grand Total ==>	-4,988	-15,014	100.00				Leakage Ups		
Grand Total ==>	32,872	3,026	47,558	100.00	28,087	100.00	0	Grand Total ==>									

COOLING COIL SELECTION									
Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR		Leave DB/WB/HR			
ton	MBh			°F	°F	°F	°F		
Main Clg	4.6	54.7	38.0	78.3	65.3	73.2	56.3	53.8	58.1
Aux Clg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	4.6	54.7							

AREAS				HEATING COIL SELECTION			
Gross Total		Glass		Capacity	Coil Airflow	Ent	Lvg
		ft²	(%)	MBh	cfm	°F	°F
Floor	756			Main Htg	-18.8	1,557	66.2
Part	0			Aux Htg	0.0	0	0.0
Int Door	0			Preheat	0.0	0	0.0
ExFlr	31			Humidif	0.0	0	0.0
Roof	756	0	0	Opt Vent	0.0	0	0.0
Wall	680	31	4	Total	-18.8		
Ext Door	0	0	0				

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HVAC HEAT LOAD
SUMMARY

M-5











SCOPE OF WORK	
1.	REUSE EXISTING (1) 400A, 120/208V, 3-PHASE, 4-WIRE ELECTRICAL SERVICE FOR THE TENANT SPACE.
2.	REUSE EXISTING 400A, 120/208V, 3-PHASE ELECTRICAL CT METER CABINET AND DISCONNECT SWITCH FOR OUR TENANT SPACE IN THE BASE BUILDING ELECTRICAL POWER DISTRIBUTION SYSTEM.
3.	REUSE EXISTING (1) 400A(M.L.O), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A" (101A).
4.	REUSE EXISTING (1) 225A(M.L.O), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "B" (101B).
5.	PROVIDE NEW (1) 125A(M.L.O), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "C".
6.	ALL NECESSARY EQUIPMENT, WIRING AND LIGHTING FOR THE PROJECT SPACE INCLUDING WIRING FOR VENTILATION EQUIPMENT. COORDINATE WITH G.C FOR LOW VOLTAGE WIRING.

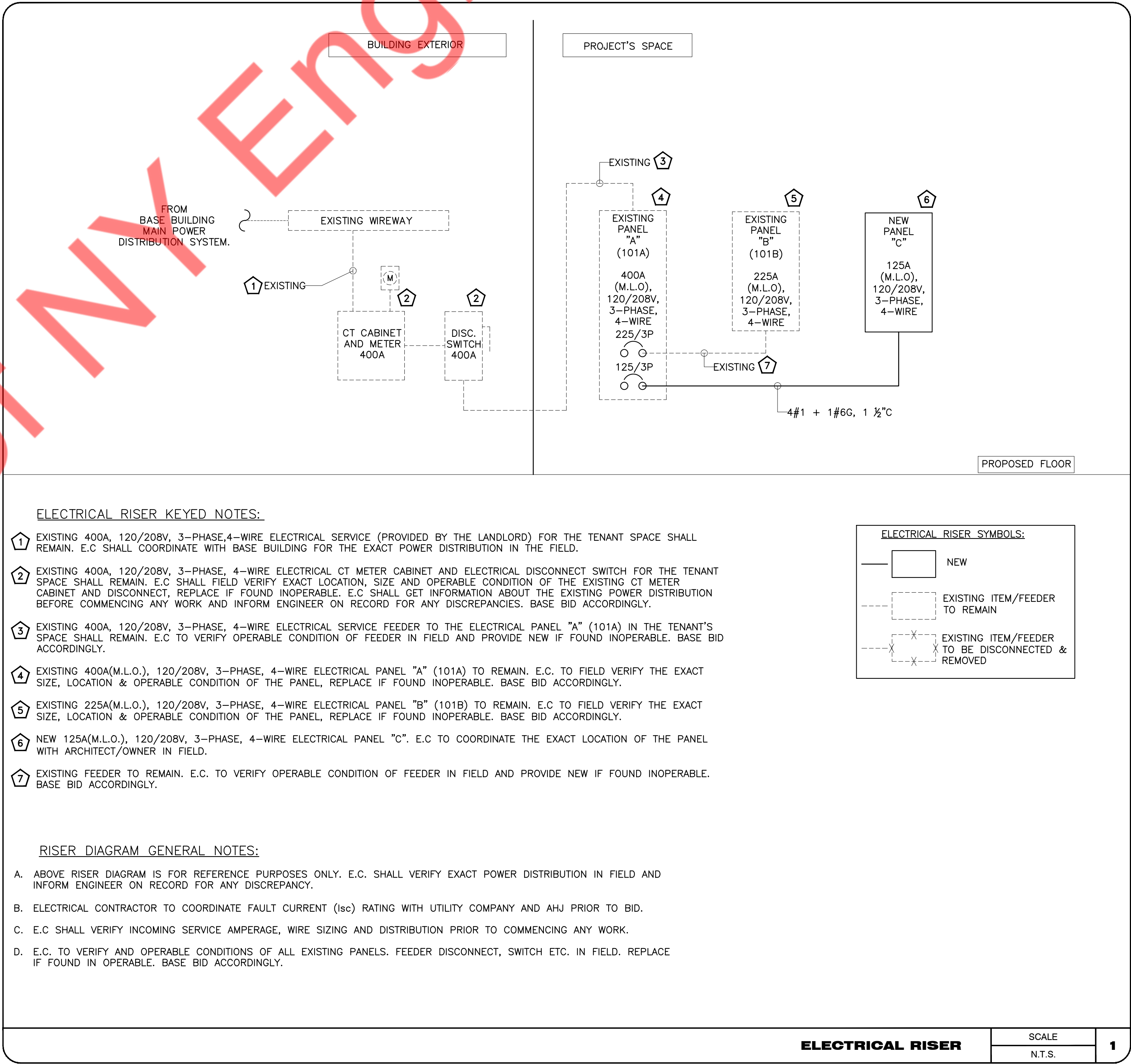
ELECTRICAL PLAN NOTES	
1.	ELECTRICAL CONTRACTOR SHALL REVIEW ALL DRAWINGS OF THIS SET.
2.	CONTRACTOR TO VERIFY THAT ALL EQUIPMENT SHOWN AS EXISTING MATCHES THE DESCRIPTIONS AND SPECIFICATIONS SHOWN ON DRAWINGS AND SCHEDULES. IF DIFFERENT, NOTIFY ARCHITECT/ENGINEER BEFORE BIDDING, ORDERING, OR PROCEEDING WITH WORK.
3.	ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL NEW ELECTRICAL WORK INDICATED. CONSTRUCTION SHALL BE IN ACCORDANCE WITH DRAWINGS AND APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, CONTRACTOR SHALL NOTIFY THE OWNER OR HIS REPRESENTATIVE AS SOON AS POSSIBLE AFTER DISCOVERY OF THE PROBLEM AND SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL OWNER HAS DIRECTED CORRECTIVE ACTION TO BE TAKEN.
4.	ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATIONS INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. EXISTING CONDITIONS OF ELECTRICAL EQUIPMENT, LIGHT FIXTURES, ETC., THAT ARE PART OF THE FINAL SYSTEM SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO SUBMITTING HIS BID.
5.	ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2023 FBC CODE AND ALL CODES AND ORDINANCES OF THE AUTHORITY HAVING JURISDICTION.
6.	DO NOT SCALE THE ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION FOR ALL EQUIPMENT. CONFIRM WITH OWNER'S REPRESENTATIVE.
7.	ALL ELECTRICAL NOT BEING REUSED MUST BE REMOVED IN ITS ENTIRETY.
8.	ALL CONDUIT IN OR UNDERGROUND OR IN CONCRETE MUST BE RIGID GALVANIZED STEEL.
9.	CIRCUIT BREAKERS AND PANELS TO BE BOLT ON TYPE.
10.	ALL EQUIPMENT SHALL BE APPROVED BY UL OR OTHER NATIONALLY RECOGNIZED TESTING COMPANY.
11.	ALL RECEPTACLES SHALL BE GROUNDED AS REQUIRED BY NEC 250.146.
12.	SUBMIT SERVICE ENTRANCE EQUIPMENT FOR SEPARATE APPROVAL.
13.	ALL LOW VOLTAGE MUST BE IN CONDUIT TO ABOVE THE DROP CEILING. BRIDAL RINGS OR "J" HOOKS REQUIRED.
14.	SEPARATE PERMITS ARE REQUIRED FOR ALL LOW VOLTAGE SUCH AS TELEPHONE, DATA, THERMOSTAT, MUSIC, ALARMS ETC.
15.	SEPARATE PERMIT REQUIRED FOR SIGNAGE.
16.	PRIOR TO ANY CONSTRUCTION WORK BEGINNING AN ON-SITE MEETING WITH GENERAL CONTRACTORS IS REQUIRED.
17.	ELECTRICIAN MUST BE ON SITE FOR ALL INSPECTIONS.
18.	MINIMUM WIRE SIZE SHALL BE #12 A.W.G. EXCLUDING CONTROL WIRING. ALL CONDUCTORS SHALL BE COPPER AND UNLESS OTHERWISE NOTED THIN INSULATION.
19.	OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, PLASTIC AND CAST ALLOY WITH THREADED HUBS IN WET OR DAMP LOCATIONS, AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
20.	IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
21.	ELECTRICAL SYSTEM SHALL BE COMPLETE AND EFFECTIVELY GROUNDED AS REQUIRED BY THE N.E.C. OR LOCAL CODES.
22.	ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITERS' LABELS WHERE APPLICABLE.
23.	ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/ARCHITECT.
24.	ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
25.	ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE THAT CERTIFICATE OF OCCUPANCY IS ISSUED. WARRANTY SHALL BE PROVIDED IN WRITING. PROVIDE COPY TO LL.
26.	CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
27.	ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
28.	CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR TO OBTAIN PERMIT AND APPROVED SUBMITTALS PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT.
29.	THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF POWER AND TELEPHONE COMPANIES.
30.	CONTRACTOR SHALL COORDINATE WITH MECHANICAL DRAWINGS AND PROVIDE ALL NECESSARY CONTROL WIRING.
31.	ALL CIRCUIT BREAKERS FEEDING MECHANICAL EQUIPMENT SHALL BE HACR TYPE CIRCUIT BREAKERS.
32.	PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES, DEVICES, ETC. FOR ALL OUTLETS AS INDICATED.
33.	MATERIALS, PRODUCTS, AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SUCH AS APPEAR ON THE UL LIST OF APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF N.E.C., NEMA, AND IEC.
34.	CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR CUT SHEETS OF LIGHTING FIXTURES, SWITCHES, AND OTHER ELECTRICAL ITEMS FOR APPROVAL BY ENGINEER/ARCHITECT.
35.	ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, PATCHING AND FIRED CAULKING REQUIRED OF HIS WORK.
36.	ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS W/TYPE WRITTEN DIRECTORIES.
37.	ALL ELECTRICAL AND COMMUNICATIONS OUTLETS TO BE AT 24" A.F.F. UNLESS NOTED OTHERWISE, AND VERTICALLY MOUNTED.
38.	ALL LIGHT SWITCHES TO BE AT 42" A.F.F.
39.	ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. ALL ELECTRICAL WIRING FOR HVAC SYSTEM INCLUDING CONTROLS, THERMOSTATS, POWER, ETC. SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
40.	BREAKER AND PANELS - ALL CURRENT CARRYING BUSSES SHALL BE COPPER. ALL GROUND BUS BARS SHALL BE COPPER. PANEL BOARD ENCLOSURES SHALL BE FURNISHED WITHOUT PRE-PUNCHED CONCENTRIC HOLES. A.I.C. RATINGS SHALL BE AS INDICATED ON PANEL BOARD SCHEDULES.
41.	DISCONNECT SWITCHES SHALL BE H.P. RATED, GENERAL DUTY, QUICK-MAKE, QUICK-BREAK ENCLOSURES AS REQUIRED BY EXPOSURE.
42.	MOTOR STARTERS SHALL BE MANUAL OR MAGNETIC, WITH OVERLOAD RELAYS IN EACH HOT LEG.
43.	THE TERM "PROVIDE" USED IN THE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS INDICATES THE CONTRACT SHALL FURNISH AND INSTALL.
44.	CONTRACTOR SHALL CONFIRM WITH ANY AND ALL REQUIREMENTS SUCH AS: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, TRANSFORMER SIZE, SCHEDULED DOWN TIME FOR OWNERS CONFIRMATION, ETC.. ANY CONFLICTS SHALL BE BROUGHT TO ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK.
45.	VOLTAGE DROP FOR ALL BRANCH CONDUCTORS SHALL NOT EXCEED 3%, WHERE VOLTAGE DROP EXCEEDS 3%, CONTRACTOR SHALL INCREASE SIZE OF CONDUCTORS.
46.	CONTRACTOR SHALL PROVIDE GFI TYPE BREAKER FOR ALL EXTERIOR 120V CIRCUITS OR GFI PROTECTION - FOR THE WHOLE CIRCUIT.
47.	GAS PIPING SHALL BE BONDED.
48.	ALL OUTDOOR EQUIPMENT SHALL BE WEATHERPROOF.
49.	CONSTRUCTION "AS BUILT" DRAWINGS AND DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF ACCEPTANCE. PROVIDE A COPY TO LL.
50.	OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER.
51.	ABSOLUTELY NO FLEXIBLE CONDUIT IS PERMITTED IN DEMISING WALLS. FLEXIBLE CONDUIT IS PERMITTED FOR SHORT FINAL CONNECTIONS ONLY (6'-0" OR LESS).
52.	EXPOSED CONDUIT SHALL BE INSTALLED IN STRAIGHT LINES, PARALLEL OR IN RIGHT ANGLES TO THE BUILDING STRUCTURE. DO NOT LOOP EXCESS FLEXIBLE CONDUIT IN CEILING SPACE OR WALL CAVITY. NO CONDUIT TO BE SUPPORTED FROM THE ROOF DECK.
53.	CABLE TYPES AC AND NM CABLES ARE NOT ACCEPTABLE. TYPE MC CABLE, ELECTRIC METALLIC TUBING (EMT) AND RIGID GALVANIZED CONDUIT ARE PERMITTED.
54.	ALL EQUIPMENT, DEVICES AND FIXTURES SHALL BE GROUNDED IN COMPLIANCE WITH NEC AND UL REQUIREMENTS.
55.	ALL PANELS TO BE UL LABELED WITH BOLT-ON TYPE CIRCUIT BREAKERS.
56.	7-DAY 24-HOUR TIME CLOCK IS REQUIRED TO CONTROL STOREFRONT ENTRY LIGHTS, SHOW WINDOW LIGHTS, SHOW WINDOW RECEPTACLES AND STOREFRONT SIGNAGE. ILLUMINATED STOREFRONT SIGNS MUST REMAIN LIT DURING ALL MALL BUSINESS HOURS.
57.	TENANT IS REQUIRED TO MAKE A FIELD SURVEY OF THE EXISTING ELECTRICAL SERVICE TO ENSURE THAT THE TOTAL CONNECTED LOAD DOES NOT EXCEED THE ELECTRIC SERVICE. ANY/ALL MODIFICATIONS OR UPGRADES NEEDED ARE SUBJECT TO LANDLORD'S PRIOR APPROVAL AND WILL BE COMPLETED BY TENANT/TENANT'S GC AT TENANT'S SOLE EXPENSE.
58.	ALL ELECTRICAL PANELS TO BE MOUNTED ON PLYWOOD BACKER BOARD.
59.	PANEL PHASE LOADS TO BE BALANCED WITHIN 10%.

EXISTING CONDITIONS NOTES	
STOP AND READ	
THE CONTRACTOR AND SUB-CONTRACTORS SHALL NOT INITIATE ANY WORK UNTIL EXISTING FIELD CONDITIONS ARE PROPERLY VERIFIED. THIS SHALL HOLD TRUE FOR FIRST GENERATION AND 2ND GENERATION SPACES. WHEN DEMOLITION IS REQUIRED, THAT WILL BE PERMITTED TO EXPOSE CONDITIONS. THESE VERIFICATIONS SHALL INCLUDE BUT NOT LIMITED TO: DIMENSIONS BOTH HORIZONTALLY AND VERTICAL, ELECTRICAL SERVICE /PANELS LOCATION AND VOLTS/PHASE, LOCATION/QTY OF ROOF MOUNTED HVAC EQUIPMENT, CONFIRM THAT INTERIOR HVAC HUNG UNITS HAVE PROPER SUPPORT CONNECTIONS FOR EXISTING STRUCTURE, FIRE SPRINKLER MAIN RUNS, TOILET ROOM DIMENSIONS, DOOR SWING FOR DOORS TO REMAIN AND ETC. IF NOT VERIFIED AND DISCOVERED AT A LATER TIME, THE CONTRACTOR SHALL REIMBURSE THE ARCHITECT FOR THE REDESIGN FEE. THIS DOES NOT INCLUDE HIDDEN WORK I.E. PITCH OF SANITARY LINES, ACTUAL CONDITIONS OF EXISTING HVAC EQUIPMENT, STRUCTURAL COLUMNS/BEARING WALLS OR CONDITIONS OF GREASE INTERCEPTORS AND ETC.	

GENERAL LIGHTING NOTES	
A.	UPPER CASE LETTER NEXT TO LIGHT FIXTURE DENOTES FIXTURE TYPE.
B.	ALL EMERGENCY FIXTURES SHALL BE CONNECTED TO AN UNSWITCHED HOT CONDUCTOR.

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	EXHAUST FAN
	COMBINATION EXHAUST FAN/LIGHT (REFER TO MECHANICAL PLANS)
	JUNCTION BOX
	BATTERY BACK UP EXIT LIGHT
	BATTERY BACK UP EMERGENCY LIGHT
	WALL SWITCH (SINGLE, DOUBLE,)
	WALL SWITCH (3 WAY, 4 WAY)
	WALL SWITCH (TIMER)
	OCCUPANCY SENSOR WALL SWITCH
	SINGLE RECEPTACLE
	DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE, 40" TO AFF AT KITCHEN, BATHS AND TOPS
	HALF SWITCHED DUPLEX RECEPTACLE
	230 VOLT RECEPTACLE
	QUADRUPLUX RECEPTACLE
	FLOOR MOUNTED, FLUSH DUPLEX RECEPTACLE
	FLOOR MOUNTED, FLUSH QUAD. RECEPTACLE
	FLOOR MOUNTED, FLUSH 230 VOLT RECEPTACLE
	CEILING MOUNTED DUPLEX RECEPTACLE
	ELECTRICAL PANEL
	DISCONNECT SWITCH
	USB CHARGER RECEPTACLE
	TELEVISION OUTLET
	TELEPHONE OUTLET
	TELEPHONE/DATA OUTLET
	DATA OUTLET
	FLOOR MTD. FLUSH TELEPHONE/DATA OUTLET
	QUAD. DATA OUTLET RJ45
	NON FUSED DISCONNECT SWITCH
ABBREVIATIONS:	
ABOVE FINISH FLOOR= A.F.F.	BELOW COUNTER= BC
COUNTER TOP LEVEL= C	PUSH BUTTON= PB
GROUND FAULT INTERRUPTER= GFCI	UNDER CABINET= UC
VERIFY PRIOR TO INSTALL= VH	VAPOR PROOF= VP
WEATHER PROOF= WP	ELECTRICAL CONTRACTOR=E.C.
KITCHEN EXHAUST FAN = KEF	BATHROOM EXHAUST FAN=BEF
WATER HEATER= WH	RECIRCULATION PUMP= RCP
AUTHORITY HAVING JURISDICTION= A.H.J.	ROOF TOP UNIT= RTU

LIGHTING FIXTURE AND CONTROL SCHEDULE										
SYMBOL	TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	VOLT	NUMBER OF FIXTURES	LAMP TYPE	TOTAL WATTS	MOUNTING	<u>LIGHT FIXTURE SCHEDULE NOTES:</u> REFER TO SHEET A-2 - REFLECTED CEILING PLAN IN ARCHITECTURAL DRAWINGS FOR MORE INFORMATION ON COLORS AND TRIMS REQUIRED (*) EXISTING FIXTURES ARE ACCEPTABLE. IF THEY NEED TO BE REPLACED, REPLACE W/ EXACT MATCH OR MATCH SCHEDULE SUBSTITUTIONS TO THE ABOVE FIXTURE SCHEDULE MUST BE SUBMITTED 14 DAYS PRIOR TO BID & REVIEWED BY THE ARCHITECT, ENGINEER & OWNER. SUBSTITUTIONS WILL NOT BE REVIEWED AFTER THIS TIME. SUBMITTAL PACKAGES MUST INCLUDE COLOR, CUT SHEETS, ALL PHOTO METRICS & FIXTURE SAMPLES FOR ALL DECORATIVE FIXTURES, LANDSCAPE FIXTURES & OUTDOOR FIXTURES. WITHOUT THIS INFORMATION NO REVIEW WILL BE PROVIDED.
	A	2x4 RECESSED LAY-IN LED	TBD	TBD	120	13	LED	650 WATTS	RECESSED	
	B	ACCENT PENDANT LIGHTS	TBD	TBD	120	8	LED	136 WATTS	PENDANT	
	C	LED TRACK WITH HEADS	TBD	TBD	120	42	LED	420 WATTS	SUSPENDED	
	X1	WALL MOUNTED EXIT SIGN/ EMERGENCY LIGHT COMBO	TBD	TBD	120	2	LED	8 WATTS	WALL	
	EU	WALL MOUNTED EMERGENCY LIGHTS	TBD	TBD	120	2	LED	6 WATTS	WALL/CEILING	
	OS	OCCUPANCY WALL SWITCH	INTERMATIC	IOS-DOV	120	-	-	-	WALL	
	OV	OVERRIDE SWITCH	COOPER LIGHTING	-	120	-	-	-	WALL	
	LTC	LIGHTING TIMER CONTROL	COOPER LIGHTING	LITEKEEPER 8	120	-	-	-	WALL	
	OS	OCCUPANCY SENSOR	INTERMATIC	IOS-CMP-DT-U	120	-	-	-	CEILING	
	(E)	EXISTING LIGHT TO REMAIN	-	-	-	-	-	-	-	
<p>NOTE:</p> <p>1. E.C. SHALL COORDINATE WITH ARCHITECT FOR FINAL FIXTURE COUNT AND TYPE.</p> <p>2. COORDINATE EXACT CONTROL REQUIREMENTS WITH OWNER.</p> <p>3. E.C SHALL PROVIDE REQUIRED POWER PACKS AND RELAYS SUITABLE FOR THE ABOVE LIGHT FIXTURES IN COORDINATION WITH THE LIGHTING VENDOR. BASE BID ACCORDINGLY.</p>										



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PROJECT

BROOKLYN WATER BAGEL

REVISIONS DATES:
04.01.24 BD COMMENTS
06.21.24 PROJECT COORD.

PROFESSIONAL SEAL

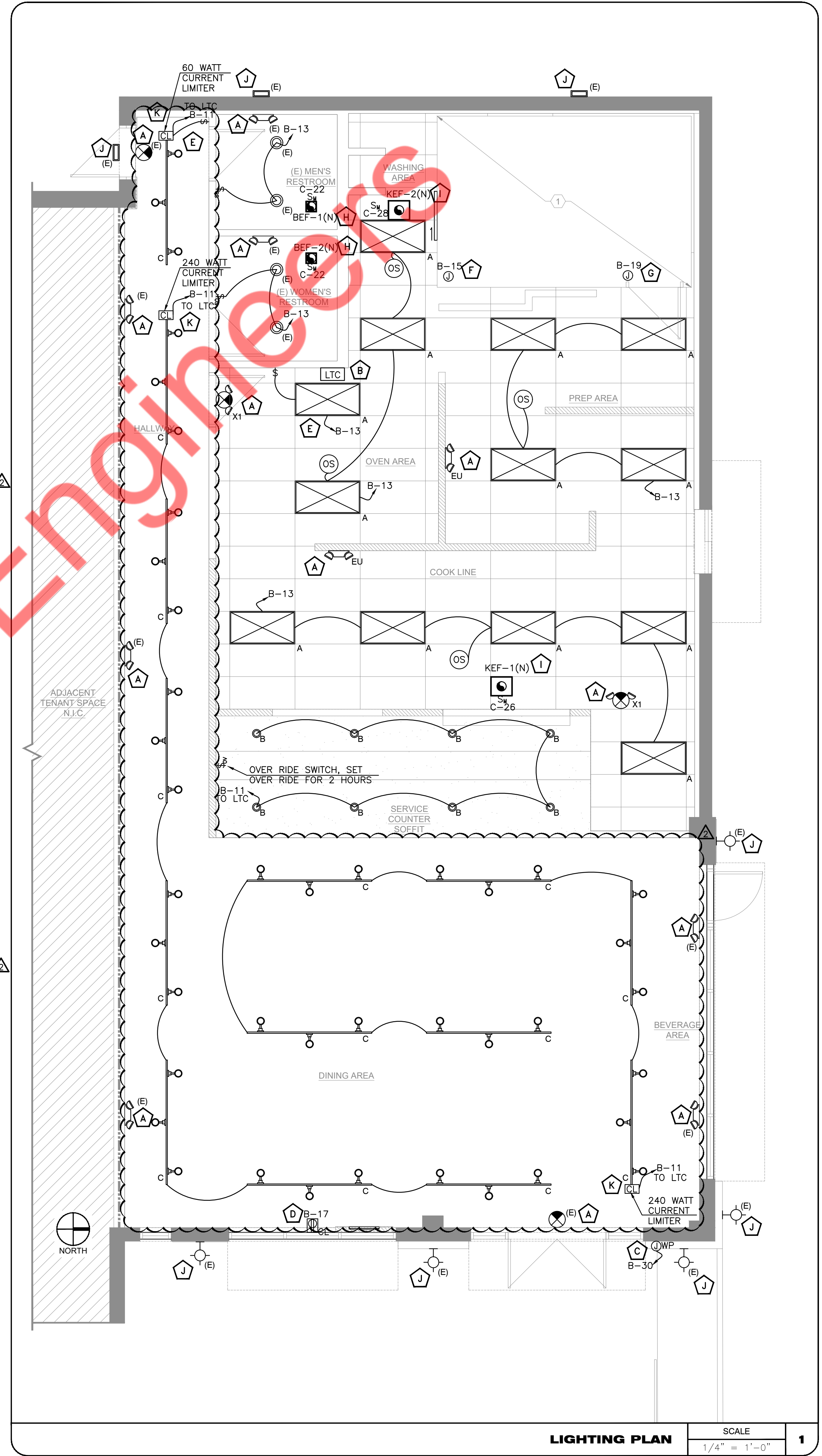
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ELECTRICAL GENERAL NOTES, LEGEND AND RISER

E-1

- ELECTRICAL LIGHTING PLAN KEYED WORK NOTES:
- A CONNECT ALL EMERGENCY EGRESS LIGHTING FIXTURES TO THE NEAREST LIGHTING BRANCH CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS PER STATE AND LOCAL CODES.
 - B E.C SHALL COORDINATE EXACT LOCATION OF LTC WITH OWNER/ARCHITECT.
 - C EXTERIOR SIGNAGE. E.C SHALL COORDINATE EXACT POWER REQUIREMENT, EXACT LOCATION & MOUNTING DETAILS WITH OWNER & SIGN VENDOR.
 - D PROVIDE CEILING MOUNTED RECEPTACLE FOR SHOW WINDOW AS PER NEC 210.62. VERIFY EXACT LOCATION WITH ARCHITECT.
 - E LIGHTING NEAR ELECTRICAL PANELS SHALL NOT BE CONTROLLED BY ONLY AUTOMATIC MEANS AND SHALL BE COMPLIED AS PER NEC 110.26(D).
 - F E.C SHALL PROVIDE JUNCTION BOX AND CIRCUIT FOR WALK-IN BOX FREEZER. LIGHTING TO BE PROVIDED BY WALK IN BOX MANUFACTURER. COORDINATE WITH WALK IN BOX MANUFACTURER FOR LIGHTING CONNECTIONS AND OTHER REQUIREMENTS BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
 - G EXISTING WALK-IN BOX COOLER LIGHTING ALONG WITH ITS CONTROLS SHALL REMAIN AS IT IS AND SHALL BE CIRCUITED TO PANEL-B(E) AS SHOWN IN THE DRAWING. E.C SHALL VERIFY OPERABLE CONDITION OF THE EXISTING ELECTRICAL CONNECTION & FEEDER. PROVIDE NEW IF FOUND INOPERABLE. E.C SHALL COORDINATE WITH WALK IN BOX MANUFACTURER FOR ANY MODIFICATIONS IN THE LIGHTING CONNECTIONS AND FOR OTHER REQUIREMENTS BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
 - H EXHAUST FANS BEF-1(N) & BEF-2(N) SHALL BE INTERLOCKED WITH RTU-2(E). E.C. SHALL COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT REQUIREMENTS BEFORE COMMENCING ANY WORK.
 - I KEF-1(N) AND KEF-2(N) SHALL BE INTERLOCK WITH RTU-3(E). E.C. SHALL COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT REQUIREMENTS BEFORE COMMENCING ANY WORK.
 - J EXISTING LIGHT FIXTURE SHALL REMAIN AND CONNECTED TO THE RESPECTIVE EXISTING ELECTRICAL HOUSE PANEL. E.C. SHALL VERIFY EXACT CONTROLS AND THEIR OPERABLE CONDITION IN FIELD. PROVIDE NEW IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
 - K E.C SHALL COORDINATE WITH THE LIGHTING VENDOR/ OWNER FOR THE EXACT POWER REQUIREMENT AND CURRENT LIMITER REQUIREMENT OF THE LIGHT FIXTURE "C" BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.

- ELECTRICAL LIGHTING PLAN GENERAL NOTES:
- CONTRACTOR ADVISED TO UPDATE THE EMERGENCY LIGHT FIXTURES LOCATIONS/ QUANTITY PER SITE REQUIREMENT UP ON FINAL INSPECTION OR PER LOCAL AHJ REQUIREMENT.
 - SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF LUMINARIES.
 - VERIFY ALL LUMINARIES MOUNTING HEIGHTS PRIOR TO ORDERING SUSPENSION SYSTEMS/CORD LENGTHS.



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LIGHTING PLAN

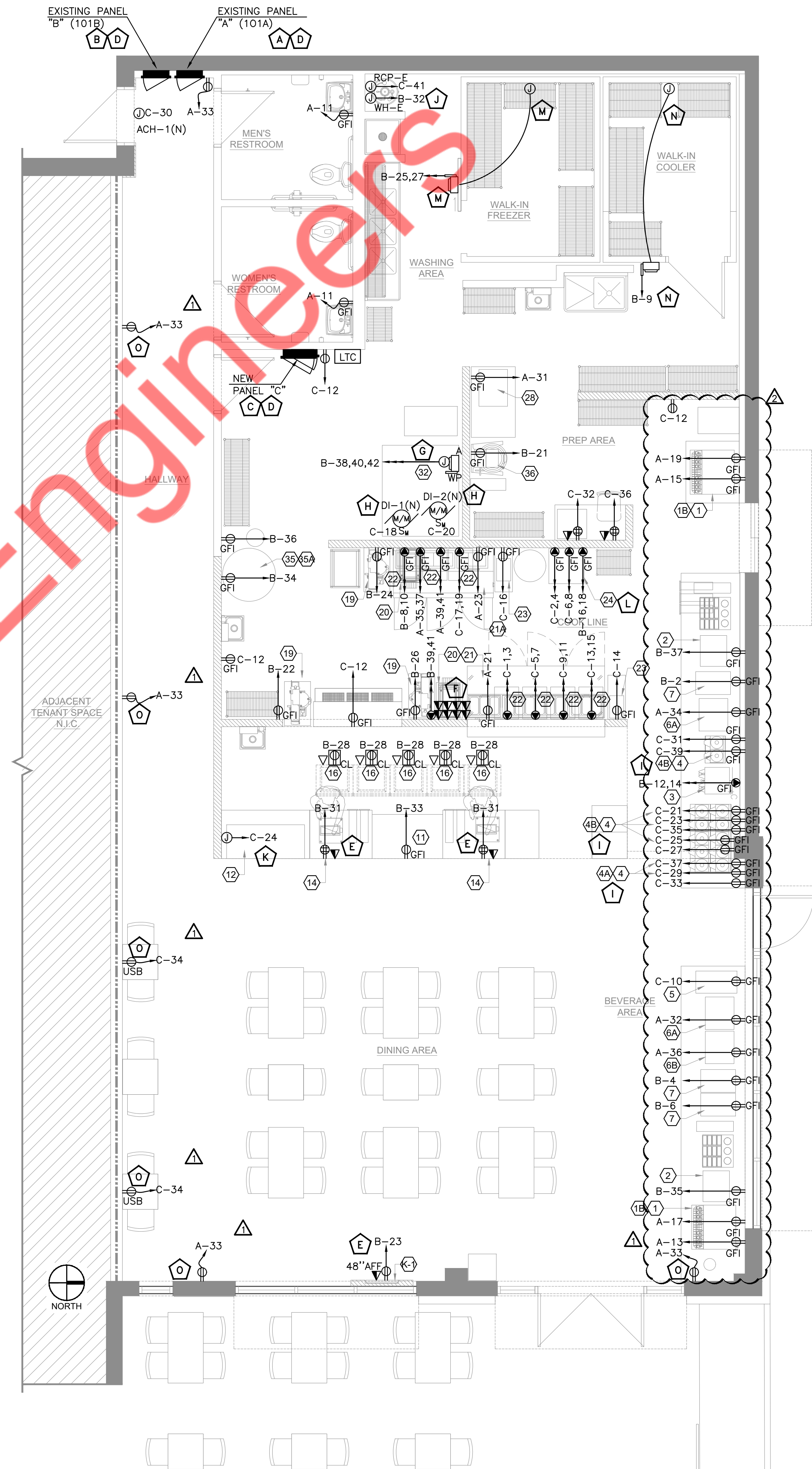
E-2

ELECTRICAL POWER PLAN KEYED WORK NOTES:

- A** EXISTING 400A(M.L.O.), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A" (101A). E.C. SHALL FIELD VERIFY EXACT SIZE, LOCATION AND OPERABLE CONDITION OF THE PANEL. REPLACE IF FOUND INOPERABLE. E.C. SHALL COORDINATE LOCATION WITH ARCHITECT/ OWNER. BASE BID ACCORDINGLY.
- B** EXISTING 225A(M.L.O.), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "B" (101B). E.C. SHALL FIELD VERIFY EXACT SIZE, LOCATION AND OPERABLE CONDITION OF THE PANEL. REPLACE IF FOUND INOPERABLE. E.C. SHALL COORDINATE LOCATION WITH ARCHITECT/ OWNER. BASE BID ACCORDINGLY.
- C** NEW 125A(M.L.O.), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "C". E.C. SHALL COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER.
- D** E.C. SHALL VERIFY/PERFORM THE INSTALLATION OF ELECTRICAL PANELS IN COMPLIANCE WITH 2020 NEC ARTICLE 110.26(A) AND (B). E.C. SHALL FIELD VERIFY THAT THE PANELS ARE UNOBSTRUCTED AND THE AREA WHERE THE PANELS ARE PLACED SHALL NOT BE USED AS A STORAGE SPACE.
- E** DATA JACK(S), COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
- F** (4) DOUBLE CAT-5 IN THE CEILING. E.C. TO COORDINATE EXACT LOCATION AND REQUIREMENT WITH OWNER/LV VENDOR PRIOR TO ROUGH-IN. BASE BID ACCORDINGLY.
- G** E.C. TO COORDINATE WITH #32 BAGEL OVEN- RACK OVEN SINGLE RACK MANUFACTURER/ EQUIPMENT SUPPLIER FOR EXACT ELECTRICAL FOR EXACT POWER REQUIREMENTS BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
- H** DI-1(N) AND DI-2(N) SHALL BE INTERLOCK WITH BAGEL OVEN. E.C. SHALL COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT REQUIREMENTS BEFORE COMMENCING ANY WORK.
- I** E.C. TO COORDINATE WITH #4 COFFEE THERMAL DISPENSER, #4A SINGLE REMOTE WARMER AND #4B DOUBLE REMOTE WARMER STAND EQUIPMENT VENDOR/ MANUFACTURER FOR EXACT POWER REQUIREMENTS BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
- J** EXISTING WATER HEATER WH-E AND RCP-E REMAIN AS IT IS. IF REQUIRED PROVIDE NEW CIRCUIT AS SHOWN IN THE DRAWING. REPORT ENGINEER FOR ANY DISCREPANCIES. BASE BID ACCORDINGLY.
- K** E.C. TO COORDINATE WITH #12 GRAB & GO EQUIPMENT VENDOR/ MANUFACTURER FOR EXACT POWER REQUIREMENTS BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
- L** E.C. TO COORDINATE WITH #24 FAST COOKING MULTI-TECHNOLOGY OVEN EQUIPMENT VENDOR/ MANUFACTURER FOR EXACT POWER REQUIREMENT, LOCATIONS AND MOUNTING HEIGHTS. PRIOR ROUGH IN. BASE BID ACCORDINGLY.
- M** E.C. SHALL COORDINATE WITH WALK IN FREEZER VENDOR FOR EXACT LOCATION AND POWER REQUIREMENT BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
- N** EXISTING WALK-IN BOX COOLER EVAPORATOR POWER CONNECTION SHALL REMAIN AS IT IS AND SHALL BE CIRCUITED TO PANEL-B(E) AS SHOWN IN THE DRAWING. E.C. SHALL VERIFY OPERABLE CONDITION OF THE EXISTING ELECTRICAL CONNECTION & FEEDER. PROVIDE NEW IF FOUND INOPERABLE. E.C. SHALL COORDINATE WITH WALK IN BOX MANUFACTURER FOR ANY MODIFICATIONS IN THE POWER REQUIREMENTS, CONNECTION AND FOR OTHER REQUIREMENTS BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
- O** ALL 15/20A, 125V AND 250V NON LOCKING TYPE RECEPTACLES IN LOBBY/ HALLWAY SHALL BE LISTED TAMPER RESISTANCE AS PER NEC 406.12.

ELECTRICAL POWER PLAN GENERAL NOTES:

- ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 50 AMPERES OR LESS, AND ALL RECEPTACLES SUPPLIED BY THREE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 100 AMPERES OR LESS, INSTALLED IN THE LOCATIONS SPECIFIED IN 210.8(B) SHALL HAVE GFCI PROTECTION. ALL THE KITCHEN EQUIPMENT SHALL HAVE GFI BREAKER IN PANELS.
- ALL RECEPTACLES IN KITCHEN AREA SHALL BE "GFCI" PROTECTED IN ALL RECEPTACLES IN KITCHEN AREA SHALL BE "GFCI" PROTECTED IN ACCORDANCE WITH NEC ART. 210.8(B). GFCI RECEPTACLES, ONCE INSTALLED, SHALL BE READILY ACCESSIBLE. IF GFCI RECEPTACLE IS NOT READILY ACCESSIBLE, PROVIDE GFCI RATED CIRCUIT BREAKER IN PANEL.
- SEE ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF DEVICES.
- ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL CORDS AND PLUGS ON ALL APPLIANCE TYPE EQUIPMENT WHEN CORDS ARE NOT FURNISHED WITH EQUIPMENT. CORDS SHALL BE OF THE HEAVY DUTY TYPE AND BE WATER/OIL RESISTANT.
- ALL CONDUIT PENETRATIONS THRU COOLER/FREEZER WALLS AND ALL CONDUIT PENETRATIONS THRU COOLER/FREEZER WALLS AND CEILINGS SHALL BE SEALED OFF BY ELECTRICAL CONTRACTOR. PROVIDE AND INSTALL SEAL-OFF FITTINGS AS REQUIRED. PENETRATIONS THRU COOLER/FREEZER FLOOR PANELS ARE NOT PERMITTED.
- ELECTRICAL CONTRACTOR SHALL VERIFY ELECTRICAL LOAD DATA WITH ACTUAL NAMEPLATE RATINGS OF ALL TENANT FURNISHED EQUIPMENT. WHERE CONFLICTS OCCUR, NOTIFY ARCHITECT.
- MATCH RECEPTACLE TYPES AND MOUNTING HEIGHTS TO MANUFACTURER'S EQUIPMENT CONNECTION REQUIREMENTS.
- COORDINATE FINAL PLACEMENT OF ALL DEVICES WITH OWNER.
- RECEPTACLES, SWITCHES AND DEVICE COVER PLATES SHALL BE ORDERED AS PER ARCHITECT/OWNER REQUIREMENT.



POWER PLAN

SCALE
1/4" = 1'-0"

1

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PROJECT

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- 04.01.24 BD COMMENTS
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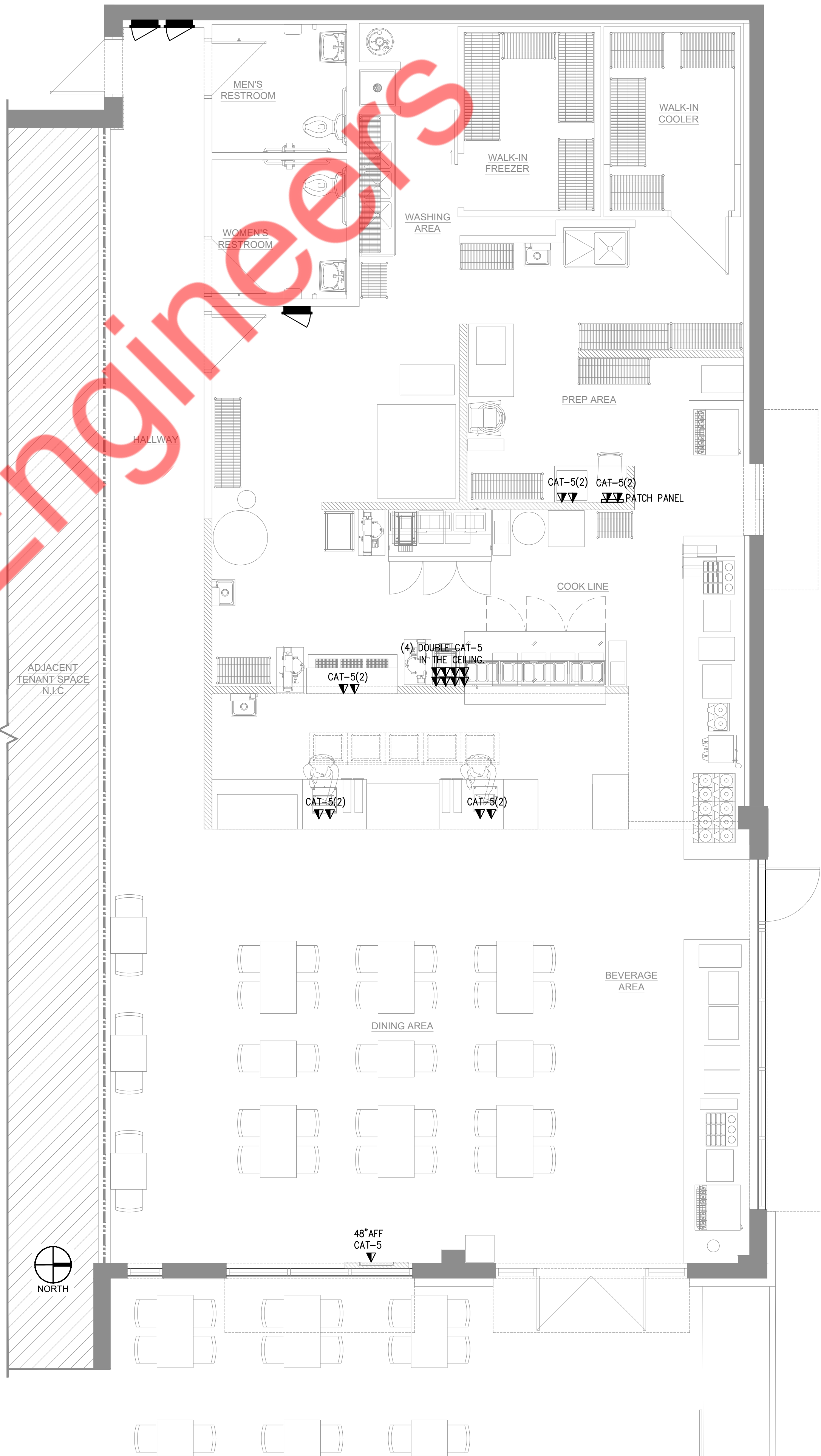
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POWER PLAN

E-3

LV PLAN GENERAL NOTE:
1. E.C TO COORDINATE WITH G.C./ LOW VOLTAGE
VENDOR FOR EXACT QUANTITY AND POWER
REQUIREMENTS FOR LOW VOLTAGE EQUIPMENTS
BEFORE COMMENCING ANY WORK. BASE BID
ACCORDINGLY.



LOW VOLTAGE PLAN

SCALE
1/4" = 1'-0"

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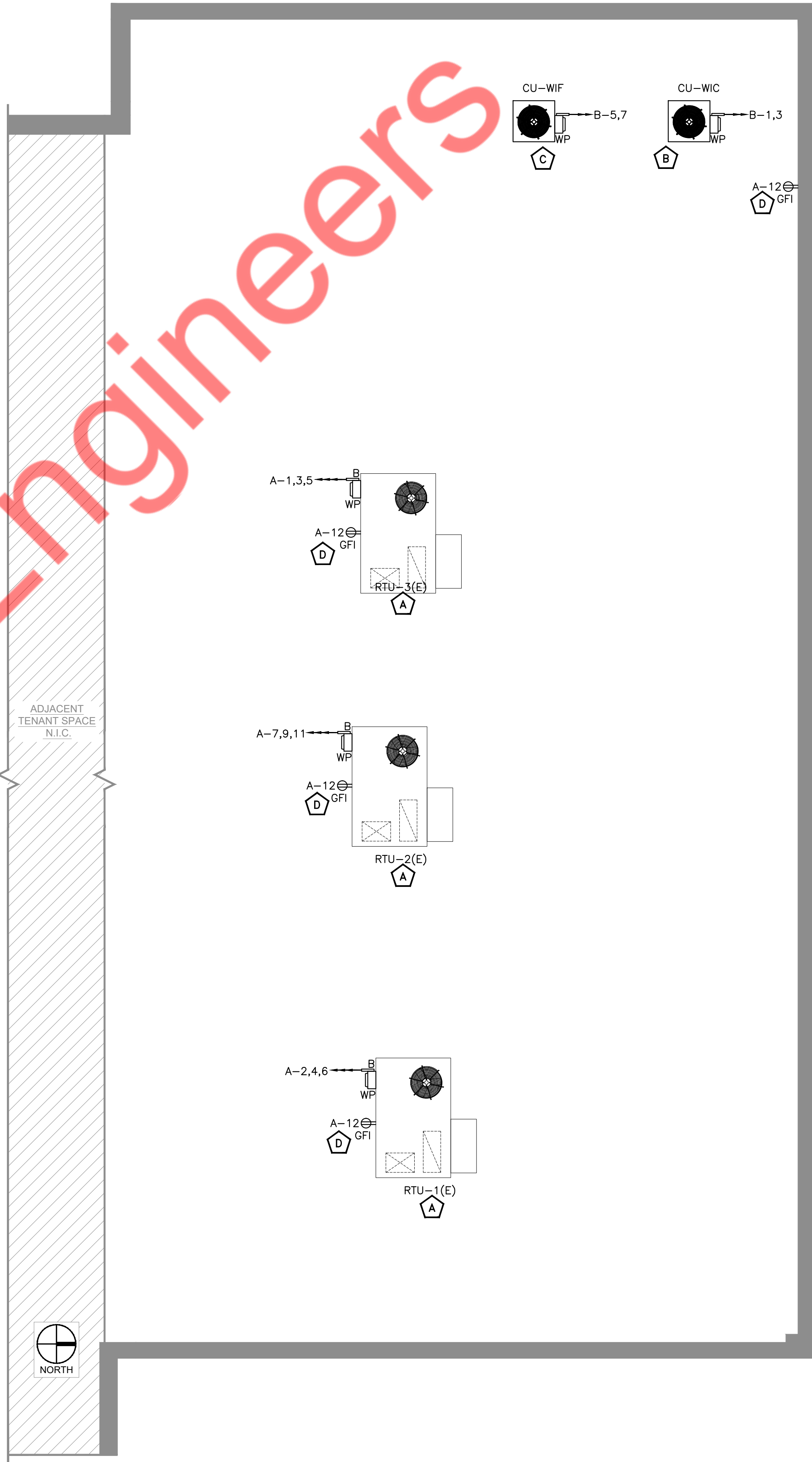
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LOW VOLTAGE
PLAN

ELECTRICAL POWER PLAN KEYED WORK NOTES:

- A** EXISTING MECHANICAL UNIT SHALL REMAIN ALONG WITH ITS ELECTRICAL FIXTURE AND CONNECTION SHALL REMAIN AS IT IS AND SHALL BE CIRCUITED TO THE RESPECTIVE ELECTRICAL PANELS. E.C. SHALL VERIFY THE OPERABLE CONDITION OF THE EXISTING BRANCH CIRCUIT AND PROVIDE NEW IF FOUND INOPERABLE. REPORT TO ENGINEER FOR ANY DISCREPANCIES. E.C. SHALL COORDINATE WITH MECHANICAL CONTRACTOR/OWNER FOR ANY OTHER REQUIREMENT. BASE BID ACCORDINGLY.
- B** EXISTING WALK-IN BOX COOLER CONDENSER POWER CONNECTION SHALL REMAIN AS IT IS AND SHALL BE CIRCUITED TO PANEL-B(E) AS SHOWN IN THE DRAWING. E.C. SHALL VERIFY OPERABLE CONDITION OF THE EXISTING ELECTRICAL CONNECTION & FEEDER. PROVIDE NEW IF FOUND INOPERABLE. E.C. SHALL COORDINATE WITH WALK IN BOX MANUFACTURER FOR ANY MODIFICATIONS IN THE POWER REQUIREMENTS, CONNECTION AND FOR OTHER REQUIREMENTS BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
- C** 20A/2P CIRCUIT BREAKER FOR WALK-IN FREEZER CONDENSER. E.C. SHALL COORDINATE EXACT LOCATION AND ELECTRICAL REQUIREMENT WITH EQUIPMENT MANUFACTURER.
- D** EXISTING ROOF OUTLETS ALONG WITH ITS ELECTRICAL CONNECTION SHALL REMAIN AS IT. E.C TO FIELD VERIFY EXACT LOCATION, QUANTITY AND OPERABLE CONDITION OF THE RECEPTACLES AND ELECTRICAL CONNECTION. IF REQUIRED PROVIDE NEW. BASE BID ACCORDINGLY.



ROOF PLAN

SCALE
1/4" = 1'-0"

1

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ROOF PLAN

E-5

PANEL SCHEDULES:

PANEL: A(E.) (101A)										MOUNTING: RECESSED					
208Y/120		VOLTS,	3	PHASE,	4	WIRE	PANEL LOCATION:		HALLWAY						
MAIN CB:		NA	MLO:	400A	BUS:	400A	MIN,	FED FROM: EXISTING METER/DISCONNECT							
NOTE:															
CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA)			MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.	
						A	B	C							
1	50/3P	RTU-3(E.)	H	4.44	EXISTING	8.89			EXISTING	4.44	H	RTU-1(E.)	50/3P	2	
3			H	4.44			8.89			4.44	H			4	
5			H	4.44				8.89		4.44	H			6	
7			H	4.44		4.44								SPARE	20
9	50/3P	RTU-2(E.)	H	4.44	EXISTING		4.44					SPARE	20	10	
11			H	4.44				5.16	2#12, #12G, 3/4"C	0.72	R	ROOF RECEPTACLES	20	12	
13			20	1_BEVERAGE DISPENSER		E	0.34	2#12, #12G, 3/4"C	0.34					20/3P	14
15			20	1_BEVERAGE DISPENSER		E	0.34	2#12, #12G, 3/4"C		0.34				SPARE	20/3P
17	20	1B_ICE MACHINE	E	1.30	2#12, #12G, 3/4"C			1.30						18	
19	20	1B_ICE MACHINE	E	1.30	2#12, #12G, 3/4"C	1.30								20	
21	20	21_PIZZA PREP TABLE	E	0.64	2#12, #12G, 3/4"C		0.64					SPARE	20/3P	22	
23	20	21A_PIZZA PREP TABLE	E	0.45	2#12, #12G, 3/4"C			0.45						24	
25	225/3P	PANEL-B(E.) (101B)	O	10.15	EXISTING	10.15						SPARE	30/3P	26	
27			O	10.15			10.15							28	
29			O	10.15				10.15						30	
31	20	28_MEAT SLICER	E	0.58	2#12, #12G, 3/4"C	1.30			2#12, #12G, 3/4"C	0.72	E	6A_CLASSIC BUBBLERS BOUBLE BOWL	20	32	
33	20	RECEPTACLE- GENERAL	R	0.90	2#12, #12G, 3/4"C		1.62		2#12, #12G, 3/4"C	0.72	E	6A_CLASSIC BUBBLERS BOUBLE BOWL	20	34	
35	20/2P	22_MICROWAVE	E	1.60	2#12, #12G, 3/4"C			2.32	2#12, #12G, 3/4"C	0.72	E	6B_CLASSIC BUBBLERS MINI QUAD	20	36	
37			E	1.60		9.06				7.46	O	PANEL-C(N)	125/3P	38	
39	20/2P	22_MICROWAVE	E	1.60	2#12, #12G, 3/4"C		9.06		4#1, #6G, 1 1/2"C	7.46	O			40	
41			E	1.60				9.06	7.46	O	42				
TOTAL CONNECTED LOAD (KVA)						35.47	35.14	37.32							

PANEL GENERAL NOTES:

- ALL CIRCUITING IS SHOWN FOR PANEL "A" (101A) & "B" (101B) FOR REFERENCE PURPOSE ONLY. E.C. SHALL VERIFY CIRCUITING OF THE EXISTING DEVICES ON FIELD AND INFORM ENGINEER FOR DISCREPANCIES.
- ELECTRICAL CONTRACTOR TO VERIFY THE EXACT PANEL SIZES AND INCOMING FEEDER SIZE.
- ELECTRICAL CONTRACTOR SHALL VERIFY EXACT CIRCUIT NUMBER & BREAKER SIZE OF EXISTING DEVICES IN FIELD.
- E.C. SHALL PROVIDE NEW CIRCUIT BREAKERS IN PLACE OF EXISTING CIRCUIT BREAKERS WHEREVER NECESSARY TO BE IN LINE WITH THE PANEL SCHEDULE. ALSO CHECK COMPATIBILITY OF NEWLY ADDED BREAKERS WITH EXISTING PANEL BEFORE PURCHASE
- E.C. SHALL VERIFY THE EXISTING EQUIPMENT LOAD & RATINGS IN FIELD AND, ACCORDINGLY CONSIDER THE ELECTRICAL LOAD IN PANEL BOARD SCHEDULE.

PANEL SCHEDULE KEY NOTES:

- A** PROVIDE (1) 20/2P BREAKER IN PLACE OF (2) SPACES.
- B** PROVIDE (1) 125/3P BREAKER IN PLACE OF (3) SPACES.
- C** PROVIDE (1) 20/2P BREAKER IN PLACE OF (1) 15/2P BREAKER.
- D** PROVIDE (1) 20/2P BREAKER IN PLACE OF (2) 20/1P BREAKER.
- E** PROVIDE (1) 50/2P BREAKER IN PLACE OF (2) 20/1P BREAKER.
- F** PROVIDE (1) 30/2P BREAKER IN PLACE OF (2) 20/1P BREAKER.
- G** PROVIDE (1) 20/3P BREAKER IN PLACE OF (3) 20/1P BREAKER.

PANEL: B(E.) (101B)										MOUNTING: RECESSED				
208Y/120		VOLTS,	3	PHASE,	4	WIRE	PANEL LOCATION: HALLWAY							
MAIN CB:		NA	MLO:	225A	BUS:	225A	MIN,	FED FROM: PANEL A(E.)						
NOTE:														
CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA)			MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20/2P	34_WALK-IN COOLER CONDENSER	E	1.20	2#12, #12G, 3/4"C	1.32			2#12, #12G, 3/4"C	0.12	E	7_CREAM DISPENSER-FLEXOSHOT	20	2
3			E	1.20			1.32			2#12, #12G, 3/4"C	0.12	E	7_CREAM DISPENSER-FLEXOSHOT	20
5	20/2P	33_WALK-IN FREEZER CONDENSER	E	1.20	2#12, #12G, 3/4"C			1.32	2#12, #12G, 3/4"C	0.12	E	7_CREAM DISPENSER-FLEXOSHOT	20	6
7			E	1.20		2.80				2#12, #12G, 3/4"C	1.60	E	20_BAGEL AND BUN TOASTER	20/2P
9	20	34_WALK-IN COOLER EVAPORATOR	O	0.30	2#12, #12G, 3/4"C		1.90		2#12, #12G, 3/4"C	1.60	E		10	
11	20	LIGHTING- DINING AREA, HALLWAY, FRONT SERVICE AREA	L	0.56	2#12, #12G, 3/4"C			4.36	2#8, #10G, 3/4"C	3.80	E	3_COFFEE BREWER	50/2P	12
13	20	LIGHTING- RESTROOMS, PREP AREA, COOK LINE	L	0.72	2#12, #12G, 3/4"C	4.52				3.80	E			14
15	20	33_WALK-IN BOXE FREEZER LIGHTING	L	0.20	2#12, #12G, 3/4"C		2.18		2#10, #12G, 3/4"C	1.98	E	24_FAST COOKING MULTI-TECHNOLOGY OVEN	30/2P	16
17	20	SHOW WINDOW RECEPTACLE	L	1.00	2#12, #12G, 3/4"C			2.98		1.98	E			
19	20	34_WALK-IN BOX COOLER LIGHTING	L	0.10	2#12, #12G, 3/4"C	0.10						SPARE	20	20
21	20	36_PLANETARY MIXER - FLOOR	E	1.84	2#12, #12G, 3/4"C		2.62		2#12, #12G, 3/4"C	0.78	E	19_BAGEL SLICER	20	22
23	20	K1_KIOSK WITH TOUCH SCREEN	E	0.50	2#12, #12G, 3/4"C			1.28	2#12, #12G, 3/4"C	0.78	E	19_BAGEL SLICER	20	24
25	20/2P	33_WALK-IN FREEZER EVAPORATOR	E	0.96	2#12, #12G, 3/4"C	1.74			2#12, #12G, 3/4"C	0.78	E	19_BAGEL SLICER	20	26
27			E	0.96			2.16		2#12, #12G, 3/4"C	1.20	E	16_48"TV	20	28
29	20	SPARE						0.20	2#12, #12G, 3/4"C	0.20	L	BULDING SIGNAGE	20	30
31	20	14_POS TERMINAL	R	0.72	2#12, #12G, 3/4"C	1.32			2#12, #12G, 3/4"C	0.60	O	WH-E	20	32
33	20	11_MUFFIN CASE	E	0.12	2#12, #12G, 3/4"C		0.30		2#12, #12G, 3/4"C	0.18	O	35A_BWB WATER SYSTEM RO	20	34
35	20	2_BEVERAGE DISPENSER-SIMPLICITY BUBBLER	E	1.02	2#12, #12G, 3/4"C			1.20	2#12, #12G, 3/4"C	0.18	O	35_BWB WATER SYSTEM TANK	20	36
37	20	2_BEVERAGE DISPENSER-SIMPLICITY BUBBLER	E	1.02	2#12, #12G, 3/4"C	2.82			4#12, #12G, 3/4"C	1.80	E	32_BAGEL RACK OVEN	20/3P	38
39	20/2P	20_BAGEL AND BUN TOASTER	E	1.60	2#12, #12G, 3/4"C		3.40			1.80	E			40
41			E	1.60				3.40		1.80	E			42
TOTAL CONNECTED LOAD (KVA)						14.62	13.87	14.73						

PANEL: C(N.)										MOUNTING: RECESSED							
208Y/120		VOLTS,		3	PHASE,		4	WIRE		PANEL LOCATION: HALLWAY							
MAIN CB: NA		MLO: 125A		BUS: 125A		MIN,		FED FROM: PANEL A(E.)									
NOTE:																	
CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA)			MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.			
						A	B	C									
1	20/2P	22_MICROWAVE	E	1.60	2#12, #12G, 3/4"C	3.58			2#10, #12G, 3/4"C	1.98	E	24_FAST COOKING MULTI-TECHNOLOGY OVEN	30/2P	2			
3				3.58			1.98	E		4							
5						3.58		1.98		E	6						
7							1.98	E		8							
9	20/2P	22_MICROWAVE	E	1.60	2#12, #12G, 3/4"C		1.90		2#12, #12G, 3/4"C	0.30	E	5_ICE DISPENSER	20	10			
11						2.32	0.72	R		RECEPTACLE- GENERAL	20	12					
13			20/2P	22_MICROWAVE		E	1.60	2#12, #12G, 3/4"C		2.40		2#12, #12G, 3/4"C	0.80	E	23_HEATED CABINET, COUNTERTOP	20	14
15										2.40		2#12, #12G, 3/4"C	0.80	E	23_HEATED CABINET, COUNTERTOP	20	16
17	20/2P	22_MICROWAVE	E	1.60	2#12, #12G, 3/4"C			1.67	2#12, #12G, 3/4"C	0.07	H	D1-1(N)	20	18			
19						1.67				0.07	H	D1-2(N)	20	20			
21	20	4_COFFEE THERMAL DISPENSER	E	0.14	2#12, #12G, 3/4"C		0.18		2#12, #12G, 3/4"C	0.04	H	BEF-1(N), BEF-2(N),	20	22			
23	20	4_COFFEE THERMAL DISPENSER	E	0.14	2#12, #12G, 3/4"C			3.02	2#8, #10G, 3/4"C	2.88	E	12_GRAB AND GO	40	24			
25	20	4_COFFEE THERMAL DISPENSER	E	0.14	2#12, #12G, 3/4"C	0.22			2#12, #12G, 3/4"C	0.07	H	KEF-1(N)	20	26			
27	20	4_COFFEE THERMAL DISPENSER	E	0.14	2#12, #12G, 3/4"C		0.22		2#12, #12G, 3/4"C	0.07	H	KEF-2(N)	20	28			
29	20	4_COFFEE THERMAL DISPENSER	E	0.14	2#12, #12G, 3/4"C			0.42	2#12, #12G, 3/4"C	0.28	H	ACH-1(N)	20	30			
31	20	4_COFFEE THERMAL DISPENSER	E	0.14	2#12, #12G, 3/4"C	0.50			2#12, #12G, 3/4"C	0.36	R	RECEPTACLE- IT RACK	20	32			
33	20	4A_SINGLE REMOTE WARMER STAND	E	0.07	2#12, #12G, 3/4"C		0.43		2#12, #12G, 3/4"C	0.36	R	RECEPTACLE- USB	20	34			
35	20	4B_DOUBLE REMOTE WARMER STAND	E	0.32	2#12, #12G, 3/4"C			0.68	2#12, #12G, 3/4"C	0.36	R	RECEPTACLE- DESK	20	36			
37	20	4B_DOUBLE REMOTE WARMER STAND	E	0.32	2#12, #12G, 3/4"C	0.32						SPARE	20	38			
39	20	4B_DOUBLE REMOTE WARMER STAND	E	0.32	2#12, #12G, 3/4"C		0.32					SPARE	20	40			
41	20	RCP-1	O	0.09	2#12, #12G, 3/4"C			0.09				SPARE	20	42			
TOTAL CONNECTED LOAD (KVA)						12.27	9.03	11.77									

SCOPE OF WORK

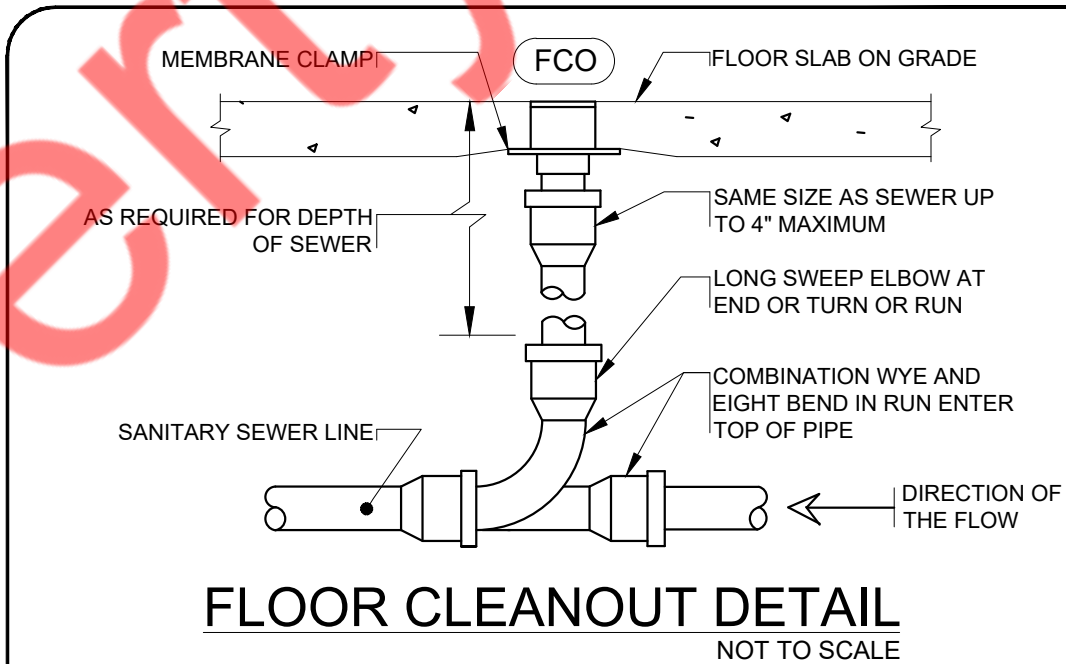
PROVIDE ALL PLUMBING FOR NEW BAGEL RESTAURANT WITHIN AN EXISTING BUILDING, INCLUDING ALL WATER, VENT, GREASE, SANITARY & GAS LINES AND CONNECT TO EXISTING/NEW UTILITIES. REUSE THE EXISTING GAS STORAGE WATER HEATER AND REUSE THE EXISTING GREASE INTERCEPTOR.

COORDINATE CONDENSATE LINE FOR WALK IN COOLER WITH LOCAL CODES.

COORDINATE WITH G.C. AND MECHANICAL CONTRACTOR FOR ANY REQUIRED CONDENSING WATER LINES.

PLUMBING NOTES

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE LOCAL CODES, RULES AND ORDINANCES.
- PLUMBING CONTRACTOR SHALL REVIEW ALL DRAWINGS OF THIS SET. CONTRACTOR TO VERIFY THAT ALL EQUIPMENT SHOWN AS EXISTING MATCHES THE DESCRIPTIONS AND SPECIFICATIONS SHOWN ON DRAWINGS AND SCHEDULES. IF DIFFERENT NOTIFY ARCHITECT/ENGINEER BEFORE BIDDING, ORDERING OR PRECEDING WITH WORK.
- ALL EQUIPMENT WHICH IS TO REMAIN MUST BE REFURBISHED TO A LIKE NEW CONDITION.
- PLUMBING CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS.
- ALL MATERIALS SHALL BE NEW.
- ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE. ALL EXCAVATION AND BACKFILL AS REQUIRED FOR THIS PHASE OF CONSTRUCTION SHALL BE A PART OF THIS CONTRACT.
- REQUIRED INSURANCE SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- PLUMBING CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, INSPECTION AND TESTS. PLUMBING CONTRACTOR TO OBTAIN PERMIT AND APPROVED SUBMITTALS PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT. PLUMBING CONTRACTOR MUST BE PRESENT FOR ALL INSPECTIONS OF HIS WORK BY REGULATORY AUTHORITIES.
- DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE FOR THE EXACT LOCATION OF FIXTURES, PIPING, EQUIPMENT, ETC.
- ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION. REPORT ANY DISCREPANCY TO ENGINEER/ARCHITECT PRIOR TO BEGINNING CONSTRUCTION.
- VERIFY LOCATION, SIZE, DIRECTION OF FLOW AND INVERTS OF ALL EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION. ADVISE ENGINEER OF ANY DISCREPANCIES.
- EXPOSED WATER PIPING SHALL BE TYPE "L" COPPER FOR 2" AND UNDER. WATER PIPING IN WALLS AND UNDERGROUND MAY BE "PEX" TYPE PIPING THAT MEETS ANS/NSF STANDARD 61.
- SOIL, WASTE, VENT AND RAINWATER PIPING SHALL BE PVC BUT MAY NOT RUN THRU RATED ASSEMBLIES OR IN PLENUMS.
- ALL FIXTURES MUST BE PROVIDED WITH READILY ACCESSIBLE STOPS AND APPROPRIATELY MARKED ACCESS PANELS. COORDINATE LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION.
- FURNISH AND INSTALL APPROVED AIR CHAMBERS AT EACH PLUMBING FIXTURE GROUP AS PER CODE AND WITH GOOD ENGINEERING PRACTICE.
- DIELECTRIC COUPLINGS ARE REQUIRED BETWEEN ALL DISSIMILAR METAL IN PIPING AND EQUIPMENT CONNECTIONS; EXCEPT AT WATER HEATER AS PER CODE.
- ISOLATE COPPER PIPE FROM HANGER OR SUPPORTS WITH ISOLATOR PAD.
- ALL FIRE RATED FLOOR AND WALL PENETRATIONS SHALL BE PROPERLY PROTECTED FROM FIRE, SMOKE AND WATER PENETRATION BY FILLING VOIDS BETWEEN PIPE AND WALL/FLOOR SLEEVES WITH FIRE RATED FOAM, TO ACHIEVE THE SAME RATING AS WALLS OR FLOORS AS PART OF THE PLUMBER'S WORK.
- PLUMBING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF CERTIFICATE OF OCCUPANCY. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE WITHIN 72 HOURS OF NOTIFICATION AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED. PROVIDE COPY TO LL.
- STUDOR MINIMAXI AIR ADMITTANCE VALVES MAY NOT BE USED AS AN ALTERNATE TO VENT PIPING THRU ROOF.
- PROVIDE CHROME PLATED COMBINATION COVER PLATE AND CLEAN OUT PLUG OR ACCESS PANEL FOR ALL CLEANOUTS.
- NO COMBUSTIBLE MATERIAL TO BE USED IN MECHANICAL ROOMS OR IN CEILING SPACES WHERE USED AS RETURN AIR PLENUMS.
- WATER PIPING INSULATION SHALL BE 1" THICK ARMAFLEX INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS FOR ALL HOT WATER PIPING. WHERE DOMESTIC WATER TEMPERATURES CAN CAUSE SWEATING, ALL COLD WATER PIPING SHALL BE INSULATED WITH 1/2" THICK ARMAFLEX INSULATION.
- CONDENSATE DRAIN LINES TO BE RUN UNDER SLAB IN PVC SCH 40 PIPE AND STUBBED OUT OF WALL TO UNIT. TIE-IN OF A/C TO BE BY OTHERS. PVC PIPING WITH 1/2" THICK ARMAFLEX INSULATION MAY BE USED IN LOCATIONS WHERE ALLOWED BY LOCAL CODES. SEE PLUMBING DRAWINGS FOR SIZE AND LOCATION OF PIPING. PVC WILL BE MIN. SCHEDULE 40 FOR SIZE AND LOCATION OF PIPING. PVC WILL BE MIN. SCHEDULE 40.
- PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.
- NO JOINTS UNDERGROUND FOR COPPER.
- PLUMBING FIXTURES SHALL COMPLY WITH 2023 FLORIDA PLUMBING CODE, 8TH EDITION.
- WATER HAMMER ARRESTORS AS PER 2023 FLORIDA PLUMBING CODE, 8TH EDITION.
- PLUMBING CONTRACTOR SHALL REVIEW ALL BID DOCUMENTATION.
- PLUMBING CONTRACTOR SHALL REVIEW WALL FINISHES @ LOCATION REQUIRING BARRIER-FREE COMPLIANCE (EXAMPLE: CENTER LINE TO TOILET).
- CONSTRUCTION "AS BUILT" DRAWINGS AND DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF ACCEPTANCE. PROVIDE A COPY TO LL.
- OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER. PROVIDE A COPY TO LL.



FLOOR CLEANOUT DETAIL NOTES

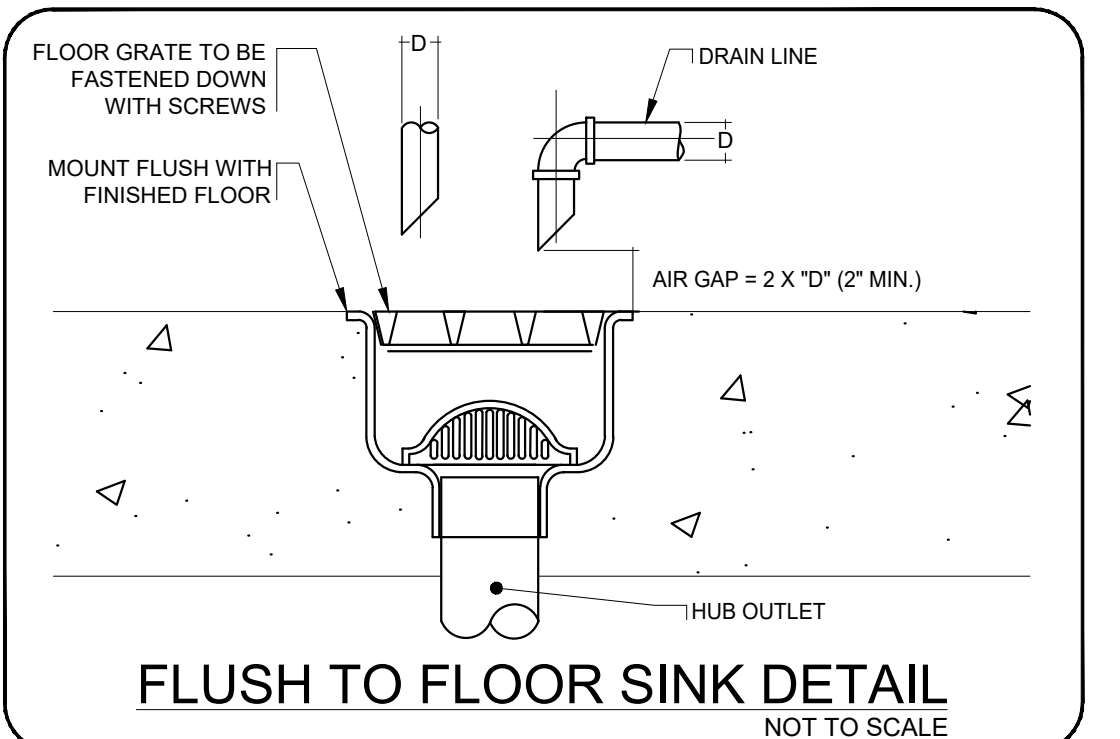
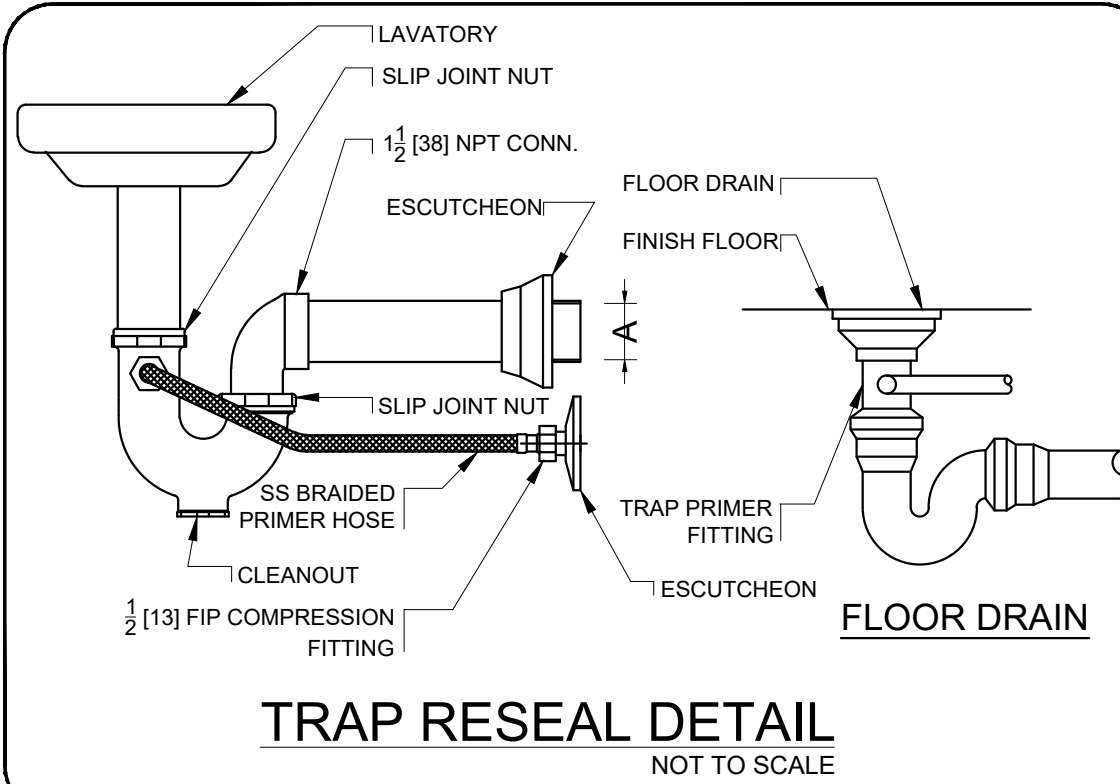
- LOCATE CLEANOUT AT THIS LOCATIONS:
 - BUILDING EXIT
 - AT TURNS OF PIPES GREATER THAN 45 DEGREES
 - AT 90° INTERVALS ON STRAIGHT RUNS
 - WHERE IS SHOWN ON PLANS
 - WHERE IS 18" CLEAR AROUND

PLUMBING LEGEND

	SANITARY SEWER PIPING (UNDERGROUND)
	GREASE SANITARY SEWER PIPING (UNDERGROUND)
	VENT PIPING
	DOMESTIC COLD WATER PIPING
	EXISTING COLD WATER PIPING
	HOT WATER PIPING
	EXISTING HOT WATER PIPING
	HOT WATER RETURN PIPING
	FILTERED WATER PIPING
	GAS PIPING
	PIPE RISE
	PIPE DROP
	FLOOR CLEAN OUT
	P-TRAP
	SHUT - OFF VALVE
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RETURN
	WALL CLEAN OUT
	GATE VALVE
	FLOOR DRAIN
	CHECK VALVE
	GAS COCK
	BALANCING VALVE
	FLOOR TROUGH
	FLOOR SINK
	POINT OF CONNECTION
	THERMOSTATIC MIXING VALVE

FIXTURE BRANCH SCHEDULES

FIXTURE	COLD WATER	HOT WATER	WASTE	VENT
WATER CLOSET (E)	E	--	E	E
LAVATORY (N)	E	E	E	E
1-COMP SINK (E)	E	E	E	E
3-COMP SINK (E)	E	E	E	E
MOP SINK (E)	E	E	E	E
HAND SINK (E)	E	E	E	E
HAND SINK (N)	1/2"	1/2"	2"	1-1/2"
FLOOR DRAIN	--	--	3"	2"
FLOOR SINK	--	--	3"	2"
FLOOR TROUGH	--	--	3"	2"



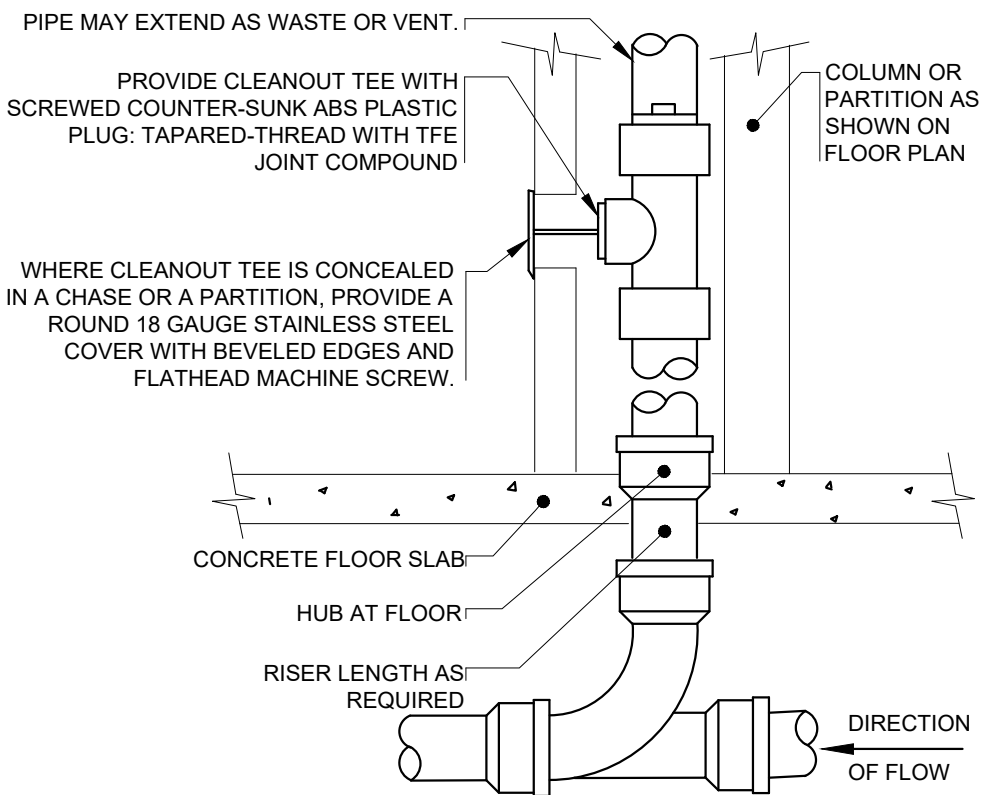
RESTROOM FIXTURE SCHEDULE

Item No.	Qty.	Description	Manufacturer	Model	WATER		WASTE		Spec
					Hot	Cold	Waste	Usage	
A	2	LAVATORY	AMERICAN STANDARD	0355.012			E		
A1	2	LAVATORY FAUCET	AMERICAN STANDARD	7075.050	E	E		0.5	GPM
	2	THERMAL MIXING VALVES	EXISTING TO REMAIN	EXISTING TO REMAIN	E	E			
A2	2	PIPE INSULATION	TRUEBRO	LAV GUARD					
B	2	WATER CLOSET	EXISTING TO REMAIN	EXISTING TO REMAIN		E	E		

KITCHEN EQUIPMENT PLUMBING SCHEDULE

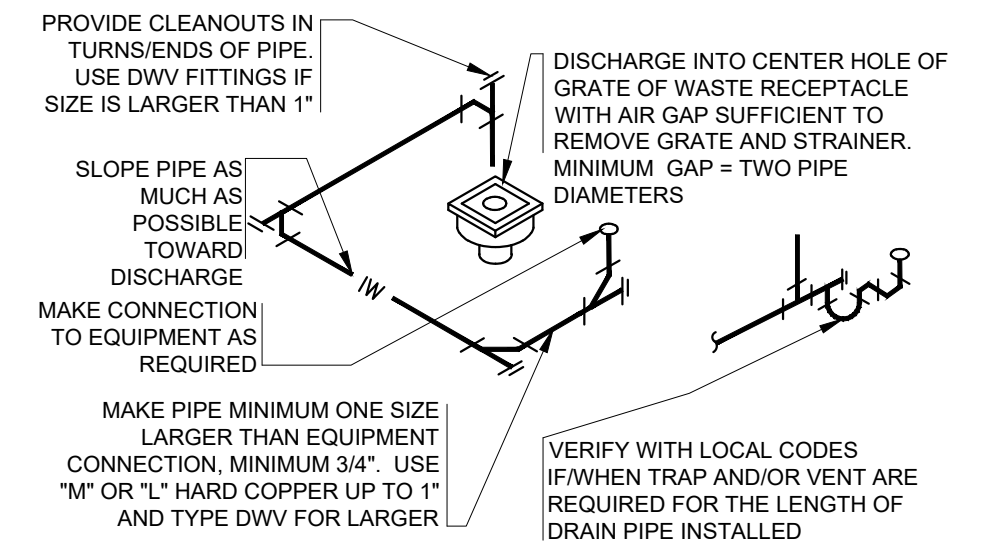
ITEM NO.	QTY.	DESCRIPTION	MANUFACTURER	MODEL	WATER		WASTE	
					Hot	Cold	Direct	Indirect
1	2	BEVERAGE DISPENSER	SERVEND	SV-200				3/4"
1B	2	ICE MACHINE	MANITOWOC	ID-0302A INDIGO SERIES 30			1/2"	3/4"
3	1	COFFEE BREWER	CURTIS	G4GEMTIF10B1000			1/2"	3/4"
5	1	ICE DISPENSER	SERVEND	M-45				(2)3/4"
26	2	HAND SINK	JOHN BOOS	PBHS-W-1410-SSLR-X	1/2"	1/2"	1-1/2"	
26A	1	HAND SINK	EXISTING TO REMAIN	EXISTING TO REMAIN	E	E	E	
29	1	3 COMPARTMENT SINK	EXISTING TO REMAIN	EXISTING TO REMAIN				E
29.1	1	PRE-RINSE FAUCET WITH ADD ON FAUCET	EXISTING TO REMAIN	EXISTING TO REMAIN	E	E		
29.2	2	LEVER WASTE	EXISTING TO REMAIN	EXISTING TO REMAIN				E
30	1	1 COMPARTMENT SINK	EXISTING TO REMAIN	EXISTING TO REMAIN				E
30.1	1	FAUCET	EXISTING TO REMAIN	EXISTING TO REMAIN	E	E		
31	1	MOP SINK	EXISTING TO REMAIN	EXISTING TO REMAIN				E
31.2	1	MOP SINK FAUCET	EXISTING TO REMAIN	EXISTING TO REMAIN	E	E		
32	1	BAGEL OVEN- RACK OVEN	EXCALIBUR	EXL-1		-	1/2"	
33	1	WALK-IN FREEZER	THERMALRITE	CUSTOM				
34	1	WALK-IN COOLER	EXISTING TO REMAIN	EXISTING TO REMAIN				
35	1	BWB WATER SYSTEM - TANK	FLEXWAVV	FWR0120			3/4"	
35A	1	BWB WATER SYSTEM RO	ASHBERRY	NS-300				
36	1	30 QT PLANETARY FLOOR MIXER	GLOBE	SP30				(2)3/4"
37	1	WATER HEATER	EXISTING TO REMAIN	EXISTING TO REMAIN				
	2	THERMAL MIXING VALVES	WATTS	LFMMV	1/2"	1/2"		
FS	5	FLOOR SINKS	ZURN	Z1900-23-31 (ZS1900 IF IN EXPOSED AREAS)				3"
FD	1	FLOOR DRAINS**	ZURN	ZS415 W/ TYPE BS STRAINER				3"

* HOT WATER 140 DEG, **FILTERED (BWB) WATER, **PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS.



WALL CLEANOUT DETAIL NOTES

- PROVIDE WCO WHERE SHOWN ON PLANE. AND ON SANITARY WASTE BRANCHES NOT SERVED WITH A FLOOR CLEANOUT.
- LOCATE ABOVE FIXTURE FLOOR RIM WITHIN 4' OF FLOOR.
- CONSULT LOCAL CODES FOR OTHER WCO REQUIREMENTS.
- LONG SWEEP AT END OF LINE OR COMBINATION WYE AND EIGHT BEND IN RUN OF LINE.
- CLEAN OUT FACE SHALL BE WITHIN 4" OF WALL SURFACE. PROVIDE A PIPE EXTENSION IF REQUIRED.



INDIRECT WASTE DETAIL

NOT TO SCALE

NY ENGINEERS

THIS DOCUMENT IS THE PROPERTY OF NY ENGINEERS AND SHALL NOT BE REPRODUCED WITHOUT THE WRITTEN CONSENT OF NY ENGINEERS.

PROJECT

BROOKLYN WATER BAGEL

REVISIONS DATES:

04.01.24 BD COMMENTS
06.21.24 PROJECT COORD.

PROFESSIONAL SEAL

ISSUE DATE: 01.18.24

PROJECT #: 226W.1209W

DRAWN BY: NYE

CHECKED BY: NYE

PLUMBING
LEGENDS, NOTES
& DETAILS

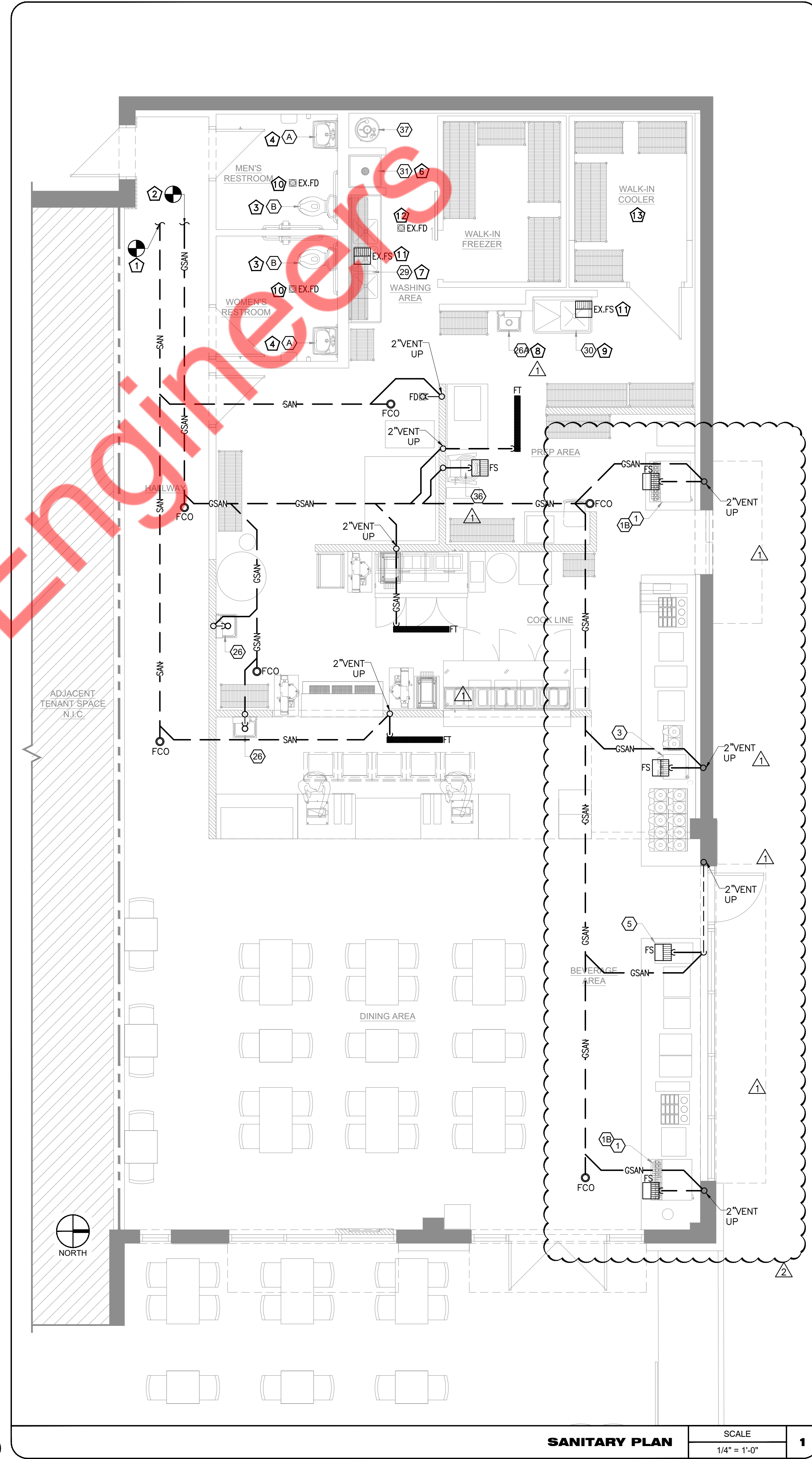
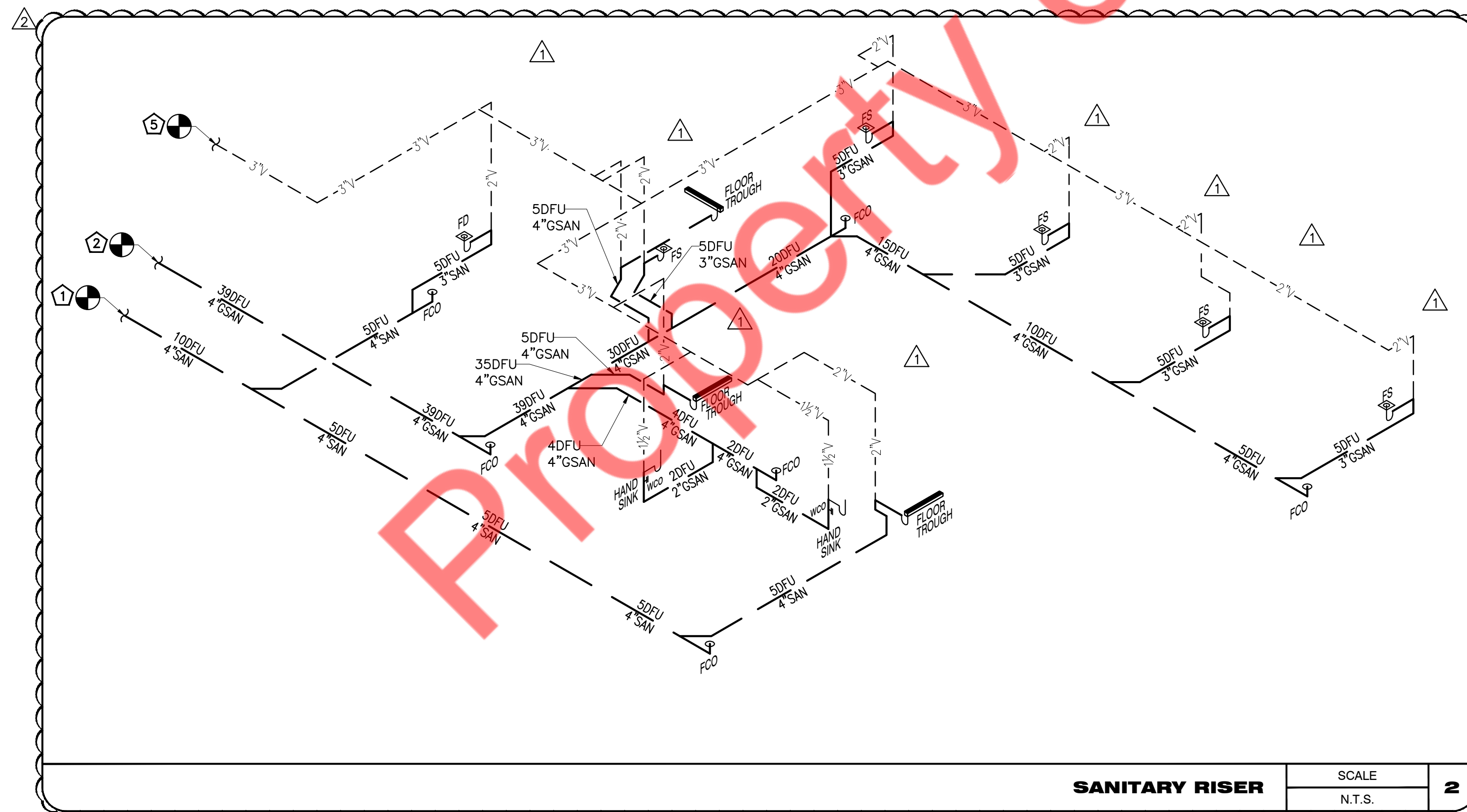
P-1

SANITARY PLAN & RISER KEY NOTE

- EXTEND & CONNECT NEW 4" SANITARY WASTE PIPING TO EXISTING SANITARY LINE OF ADEQUATE SIZE IN SPACE. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION, ROUTING AND INVERT OF EXISTING SANITARY MAIN AND MAKE NECESSARY CHANGES IF REQUIRED.
- EXTEND & CONNECT NEW 4" GREASE SANITARY WASTE PIPING TO EXISTING GREASE SANITARY LINE OF ADEQUATE SIZE IN SPACE. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION, ROUTING AND INVERT OF EXISTING GREASE SANITARY LINE AND MAKE NECESSARY CHANGES IF REQUIRED.
- EXISTING WATER CLOSET TO REMAIN WITH EXISTING SANITARY AND VENT PIPE CONNECTION, ASSOCIATED ACCESSORIES AND FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.
- EXISTING LAVATORY TO REPLACE WITH NEW LAVATORY AND CONNECT THE NEW LAVATORY PIPING TO THE EXISTING PIPING CONNECTIONS. EXISTING LAVATORY SANITARY AND VENT PIPE CONNECTION, ASSOCIATED ACCESSORIES AND FITTINGS TO REMAIN. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.
- CONNECT NEW 3" VENT PIPING TO EXISTING VENT LINE OF ADEQUATE SIZE IN SPACE. CONTRACTOR TO FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING VENT PIPE AND UPGRADE IF REQUIRED.
- EXISTING MOP SINK TO REMAIN WITH EXISTING GREASE SANITARY AND VENT PIPE CONNECTION, ASSOCIATED ACCESSORIES AND FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.
- EXISTING 3-COMP SINK TO REMAIN WITH INDIRECT WASTE CONNECTION, ASSOCIATED ACCESSORIES AND FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.
- EXISTING HAND SINK TO REMAIN WITH EXISTING GREASE SANITARY AND VENT PIPE CONNECTION, ASSOCIATED ACCESSORIES AND FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.
- EXISTING 1-COMP SINK TO REMAIN WITH INDIRECT WASTE CONNECTION, ASSOCIATED ACCESSORIES AND FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.
- EXISTING FLOOR DRAIN TO REMAIN WITH EXISTING SANITARY AND VENT PIPE CONNECTION, ASSOCIATED ACCESSORIES AND FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.
- EXISTING FLOOR SINK TO REMAIN WITH EXISTING GREASE SANITARY AND VENT PIPE CONNECTION, ASSOCIATED ACCESSORIES AND FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.
- EXISTING FLOOR DRAIN TO REMAIN WITH EXISTING GREASE SANITARY AND VENT PIPE CONNECTION, ASSOCIATED ACCESSORIES AND FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.
- EXISTING WALK-IN COOLER TO BE REMAIN WITH EXISTING CONDENSATE DRAIN LINE AND CONNECTIONS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING CONDENSATE DRAIN PIPE AND REPLACE IF REQUIRED.

GENERAL NOTES

- SLOPE OF DRAINAGE PIPING SHALL BE 1/8" PER FOOT OF RUN FOR PIPE 3" TO 6" AND 1/4" PER FOOT OF RUN FOR PIPE 2-1/2" AND SMALLER.
- CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
- ALL MATERIAL INDICATED AND IMPLIED ON THESE DRAWINGS SHALL BE NEW UNLESS OTHERWISE NOTED.
- ALL CLEANOUTS TO BE ACCESSIBLE.
- CONTRACTOR TO FIELD VERIFY THE EXISTING SANITARY, GREASE SANITARY AND VENT LOCATION AND ROUTING. MAKE NECESSARY CHANGES TO NEW PIPING AS PER THE EXISTING SITE CONDITION.
- CONTRACTOR TO REUSE EXISTING SANITARY AND GREASE SANITARY PIPING IN SPACE AND MAKE SURE THAT THE EXISTING PIPING SHOULD BE IN GOOD CONDITION. MAKE NECESSARY CHANGES TO THE EXISTING PIPING AS PER SITE CONDITION AND REPLACE IF REQUIRED.
- CONTRACTOR TO FIELD VERIFY THE LOCATION AND CAPACITY OF THE EXISTING GREASE INTERCEPTOR AND NOTIFY THE ENGINEER IF IT IS NOT IN GOOD CONDITION OR UNDERSIZED. CONTRACTOR TO MAKE SURE THAT THE EXISTING GREASE INTERCEPTOR IS CODE COMPLIANT. IF NOT, THEN MAKE NECESSARY CHANGES AS REQUIRED BY LOCAL CODE.
- EXISTING SANITARY/VENT PIPES FROM EXISTING DEMOLISHED FIXTURE/EQUIPMENT TO BE CAPPED NEAR THE FIXTURE/EQUIPMENT.



- 1 CONNECT NEW 1-1/4" CW LINE TO THE EXISTING WATER MAIN LINE IN SPACE OF ADEQUATE SIZE WITH EXISTING WATER METER AND SHUT OFF VALVE. CONTRACTOR TO FIELD VERIFY TOR SIZE AND LOCATION OF THE EXISTING CW PIPING, WATER METER AND SHUT OFF VALVE AND UPGRADE IF REQUIRED.
- 2 NO TAP OFF TO BE TAKEN BEFORE BFP.
- 3 EXISTING LAVATORY TO REPLACE WITH NEW LAVATORY AND CONNECT THE NEW LAVATORY PIPING TO THE EXISTING PIPING CONNECTIONS. EXISTING LAVATORY C/W/HW PIPING CONNECTION, ASSOCIATED ACCESSORIES & FITTINGS, CONTRACTOR TO FIELD VERIFY TOR SIZE AND LOCATION OF THE EXISTING PIPING AND REPLACE IF REQUIRED.
- 4 EXTEND AND CONNECT NEW 1/2" C/W/HW PIPING TO THE EXISTING LAVATORY PIPING AND CONNECT NEW HW RETURN PIPING TO THE EXISTING HW PIPING AS SHOWN.
- 5 EXISTING WATER CLOSET TO REMAIN WITH EXISTING CW CONNECTION, ASSOCIATED ACCESSORIES & FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING & REPLACE IF REQUIRED.
- 6 EXTEND AND CONNECT NEW 1/2" CW PIPING TO THE EXISTING WATER CLOSET PIPING.
- 7 EXISTING MOP SINK TO REMAIN WITH EXISTING C/W/HW CONNECTION, ASSOCIATED ACCESSORIES & FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING & REPLACE IF REQUIRED.
- 8 EXTEND AND CONNECT NEW 1/2" C/W/HW PIPING TO THE EXISTING MOP SINK PIPING.
- 9 EXISTING 3-COMP SINK TO REMAIN WITH EXISTING C/W/HW CONNECTION, ASSOCIATED ACCESSORIES & FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING & REPLACE IF REQUIRED.
- 10 EXTEND AND CONNECT NEW 3/4" C/W/HW PIPING TO THE EXISTING 3-COMP SINK PIPING.
- 11 EXISTING HAND SINK TO REMAIN WITH EXISTING C/W/HW CONNECTION, ASSOCIATED ACCESSORIES & FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING & REPLACE IF REQUIRED.
- 12 EXTEND AND CONNECT NEW 1/2" C/W/HW PIPING TO THE EXISTING HAND SINK PIPING.
- 13 EXISTING 1-COMP SINK TO REMAIN WITH EXISTING C/W/HW CONNECTION, ASSOCIATED ACCESSORIES & FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING & REPLACE IF REQUIRED.
- 14 EXTEND AND CONNECT NEW 1/2" C/W/HW PIPING TO THE EXISTING 1-COMP SINK PIPING.
- 15 EXISTING WATER HEATER TO REMAIN WITH EXISTING EXPANSION TANK, RE-CIRCULATING PUMP, ASSOCIATED ACCESSORIES AND FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING WATER HEATER AND PROVIDE NECESSARY ACCESSORIES IF REQUIRED.
- 16 EXTEND AND CONNECT NEW 1" C/W/HW & 3/4" HWR PIPING TO THE EXISTING WATER HEATER C/W/HW/HWR.

NOTES:

1. *OPERATING @ 100°F TEMPERATURE RISE
2. CONTRACTOR TO FIELD VERIFY THE OPERATING CONDITION OF THE EXISTING WATER HEATER AND NOTIFY THE ENGINEER IF NOT IN OPERATING CONDITION. ALSO FIELD VERIFY ELECTRICAL POWER REQUIREMENTS AND COORDINATE WITH ELECTRICAL CONTRACTOR BEFORE COMMENCING THE BID.
3. CONTRACTOR TO FIELD VERIFY THE OPERATING CONDITION OF THE EXISTING THERMAL EXPANSION TANK AND REPLACE IF REQUIRED.
4. REUSE EXISTING RCP IF AVAILABLE AND IF IT IS IN GOOD CONDITION OR PROVIDE NEW OF MINIMUM 12" DI. 150' LOW AND 10" HEAD WITH AQUA STAT AND TIMER KIT

1. C/W/H/H/W/R PIPING TO BE PROVIDED WITH INSULATION AS PER 2023 FLORIDA BUILDING CODE, ENERGY CONSERVATION, 8TH EDITION.
2. PROVIDE BRANCH PRV IF PRESSURE EXCEEDS 80 PSI.
3. PROVIDE ACCESS PANELS FOR WATER HAMMER ARRESTOR & SHUT-OFF VALVES AS REQUIRED.
4. REFER WATER RISER DIAGRAM FOR ALL PIPE SIZES.
6. CONTRACTOR CAN REUSE EXISTING H/W/C/W/H/R PIPING IF THE SIZING, LOCATION & SPECIFICATION OF EXISTING PIPING ARE AS PER OUR DRAWING. ALSO MAKE SURE THAT THE EXISTING PIPING SHOULD BE IN GOOD CONDITION.
7. EXISTING WATER HEATER DRAIN TO REMAIN.



2



1

REVISIONS DATES:

04.01.24 BD COMMENTS
06.21.24 PROJECT COORD.

PROFESSIONAL SEAL

ISSUE DATE: 01.18.24
PROJECT #: 226W.1209W
DRAWN BY: NYE
CHECKED BY: NYEGAS PLAN &
RISER

PG-001

GENERAL NOTES

- EXISTING GAS PIPES FROM EXISTING DEMOLISHED FIXTURE/EQUIPMENT TO BE CAPPED NEAR THE FIXTURE/EQUIPMENT.

NATURAL GAS PIPING SYSTEM
PROVIDE A COMPLETE GAS PIPING SYSTEM TO SERVE GAS EQUIPMENT FURNISHED BY OTHERS, AS NOTED ON THE DRAWINGS. PROVIDE EITHER THREADED STEEL OR MALLEABLE IRON PIPE WITH MALLEABLE FITTINGS OR WELDED STEEL. PROVIDE ALL UNIONS, SHUT-OFF VALVES AND DIRT LEGS REQUIRED BY NFPA-54 AND GOVERNING LOCAL CODES AND AT EACH GAS APPLIANCE CONNECTION. PROVIDE ALL TESTS, METERS, PRESSURE REGULATORS, INSPECTIONS, HANGERS AND EQUIPMENT CONNECTIONS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM.

NOTES:

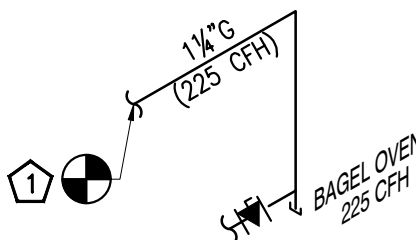
- GAS PIPING TO BE SCHEDULE 40 STEEL PIPE W/125 CAST IRON SCREWD FITTINGS
- GAS SYSTEM TO BE INSTALLED BY QUALIFIED LICENSED CONTRACTOR.
- VERIFY ALL EQUIPMENT BTU'S PRIOR TO INSTALLATION. ADJUST PIPE SIZE ACCORDING 2023 FBC-FUEL GAS 8TH EDITION(ADOPTS 2018 IFGC FUEL GAS CODE) FUEL GAS TABLE 402.4(2)

GAS PLAN KEY NOTE

- EXTEND AND CONNECT NEW 1-1/4" GAS PIPING TO THE EXISTING GAS PIPING IN SPACE OF ADEQUATE SIZE CONTRACTOR TO FIELD VERIFY THE SIZE, PRESSURE AND LOCATION OF EXISTING GAS PIPING AND UPGRADE IF REQUIRED. CONTRACTOR TO MAKE SURE TO PROVIDE ADEQUATE INLET PRESSURE REQUIRED FOR KITCHEN EQUIPMENT.
- EXISTING WATER HEATER TO REMAIN WITH EXISTING GAS PIPING. CONTRACTOR TO FIELD VERIFY THE PRESSURE, SIZE AND LOCATION OF EXISTING GAS PIPING AND UPGRADE IF REQUIRED.

GAS SCHEDULE

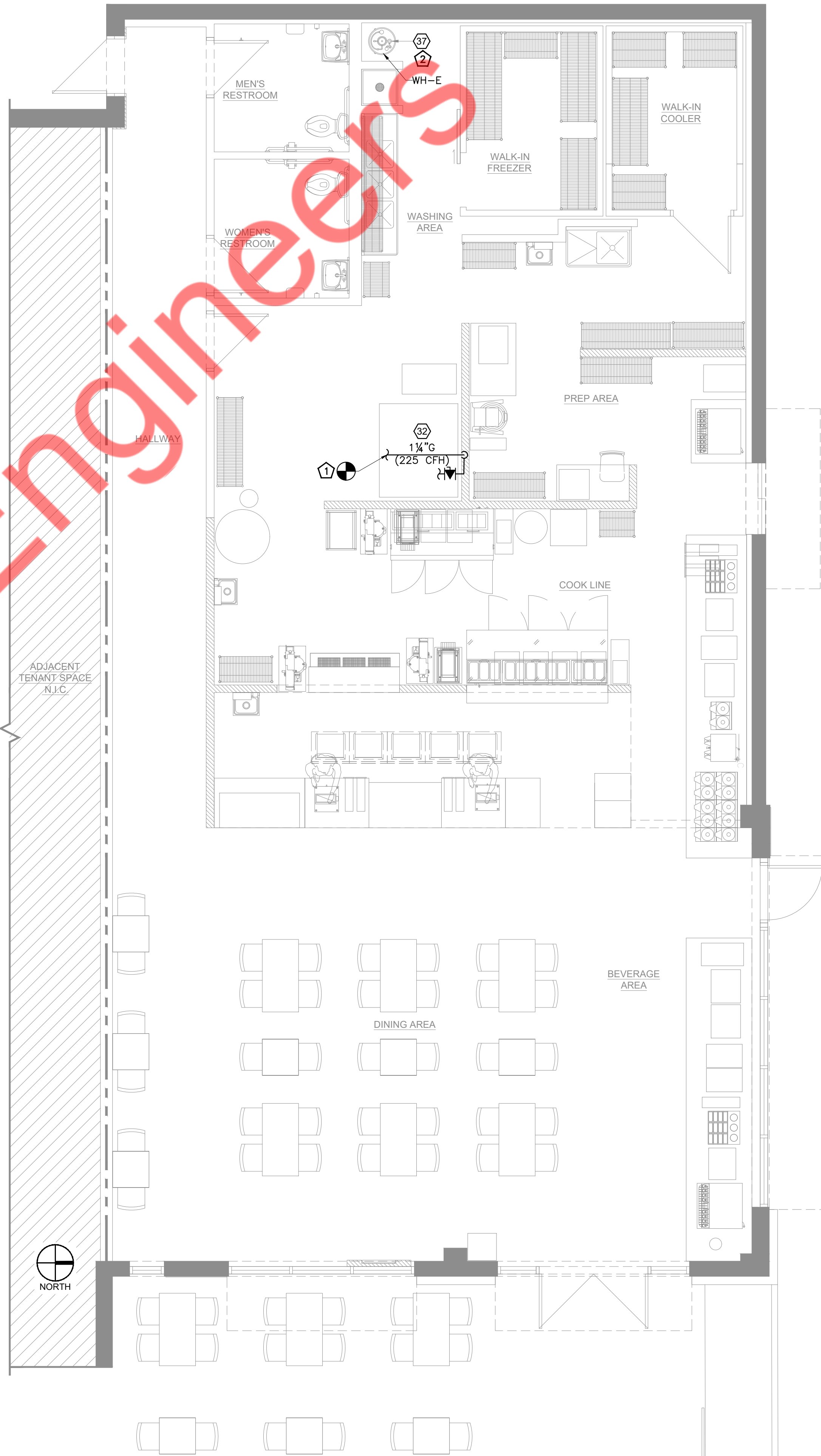
ITEM NO.	QTY.	DESCRIPTION	MANUFACTURER	MODEL	SIZE	BTU/HR.
32	1	BAGEL OVEN	EXCALIBUR	EXL-1	1 1/2"	225,000
WH-E	1	EXISTING WATER HEATER	A.O. SMITH	BTX 100 140	1"	100,000
TOTAL LOAD						325,000



GAS RISER

SCALE
N.T.S.

2



GAS PLAN

SCALE
1/4" = 1'-0"

1