SCOPE OF TENANTS WORK & GENERAL NOTES

1. GENERAL CONTRACTOR (G.C.) SHALL FIELD VERIFY ALL DIMENSIONS AND COLUMN LOCATIONS AT THE JOBSITE, AND BE RESPONSIBLE FOR THE PROPER FITTING OF WORK THERETO. REPORT ANY DISCREPANCIES TO THE ARCHITECT AND TO THE TENANT/FRANCHISEE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. WORK SHALL CONFORM TO APPLICABLE LOCAL CODES AND TO LANDLORD'S REQUIREMENTS, INCLUDING TENANT'S EXECUTED LEASE AND CONSTRUCTION EXHIBITS. LANDLORD APPROVED TENANT CONSTRUCTION DRAWINGS MUST REMAIN ON-SITE DURING CONSTRUCTION.
3. PRIOR TO COMMENCEMENT OF ANY DEMOLITION, LOCATE, PROTECT AND PRESERVE ALL LANDLORD'S EXISTING SYSTEMS WITHIN THE SPACE.
4. G.C. SHALL SECURE AND PAY FOR ALL PERMITS, TEMPORARY UTILITIES, AND CARRY LIABILITY INSURANCE AS REQUIRED BY THE FRANCHISEE & L.L.
5. THE CONTRACT FOR CONSTRUCTION SHALL BE BETWEEN THE G.C. AND THE TENANT/FRANCHISEE.
6. CHANGE ORDERS, IF ANY, SHALL BE WRITTEN AND AGREED TO BY THE G.C., THE TENANT/FRANCHISEE, AND THE ARCHITECT PRIOR TO THE COMMENCEMENT OF ANY CHANGES IN THE WORK.
7. PRIOR TO START OF CONSTRUCTION, G.C. SHALL CONDUCT A PRE-CONSTRUCTION MEETING WITH LANDLORD'S ON-SITE REPRESENTATIVE AND SUPPLY ALL REQUIRED PRE-CONSTRUCTION DOCUMENTS. (COPY OF BUILDING PERMIT, CERTIFICATE OF INSURANCE, CONTRACTOR'S LICENSE, CONSTRUCTION SCHEDULE AND SUBCONTRACTOR LIST).
8. DEMISING WALLS: MAINTAIN 1 HOUR RATING. PROVIDE 5/8" FIRE RATED GYPSUM BOARD AS NECESSARY. SEAL TO DECK. FIRE WALLS/DEMISING WALLS 6" METAL STUDS TO DECK.
9. TYPICAL INTERIOR PARTITIONS SHALL BE 22 GA., 3-5/8", METAL STUDS TO ABOVE CEILING AT 16" O.C. WITH BRACING TO STRUCTURE AT 48" O.C. MAX. AS REQUIRED. PROVIDE 5/8" GYPSUM BOARD EACH SIDE.
10. SUSPEND ALL STRUCTURAL ITEMS, WALLS AND WALL FURRDOWNS, FROM TOP CHORD OF EXISTING ROOF BAR JOIST OR OVER PANEL POINTS AT BOTTOM CHORDS. DO NOT SUSPEND ANY ITEMS FROM CEILING GRID OR METAL ROOF DECK.
11. SLAB: EXISTING SLAB TO REMAIN. GC TO FILL IN EXISTING SLAB LEAVE-OUT ACCORDING TO LL SPECIFICATIONS.
12. ANY NEW WORK IS BY TENANT'S G.C.
13. NO COMBUSTIBLE MATERIALS ARE PERMITTED ABOVE CEILINGS.
14. SPRINKLER SYSTEM: RE-USE EXISTING SPRINKLER HEADS TO THE GREATEST EXTENT POSSIBLE. RE-WORK EXISTING HEADS IF/AS NEEDED FOR NEW CEILINGS. LANDLORD REQUIRES ALL PENDANT TYPE HEADS TO BE REPLACED WITH FULLY CONCEALED TYPE HEADS IN PUBLIC VIEW AREAS.
15. THE SUBSTRATE FOR TOPS ON ALL CABINETWORK SHALL BE A WATER RESISTANT PRODUCT.
16. G.C. SHALL SUBMIT SHOP DRAWINGS TO THE FRANCHISEE AND TO THE ARCHITECT FOR REVIEWS AND APPROVALS PRIOR TO FABRICATION OF ALL CABINETWORK AND SIGNAGE. SUBMIT SIGNAGE SHOP DRAWINGS TO THE LANDLORD PRIOR TO THE FABRICATION OF SIGNAGE.
17. G.C. SHALL PROVIDE TO FRANCHISEE AND TO LANDLORD A MINIMUM ONE-YEAR WARRANTY, NAMING BOTH FRANCHISEE AND LANDLORD, AGAINST DEFECTS IN WORKMANSHIP, MATERIALS AND EQUIPMENT.
18. PRIOR TO THE ANTICIPATED SHIPPING DATE, G.C. SHALL VERIFY WITH THE FRANCHISEE THE NAME AND PHONE NUMBER OF THE TRUCKING COMPANY WHICH WILL DELIVER EQUIPMENT FROM THE EQUIPMENT SUPPLIER INTO THE SPACE.
19. G.C. SHALL PROVIDE TO THE FRANCHISEE AS-BUILT DRAWINGS FOR THE PLUMBING SYSTEM INCLUDING ANY AND ALL MODIFICATIONS TO THE DRAWINGS.
20. G.C. SHALL OBTAIN ALL REQUIRED INSPECTIONS, AND SECURE ALL OFFICIAL APPROVALS OF WORK PERFORMED. THE CONTRACTOR SHALL SUBMIT ALL CERTIFICATES OF INSPECTION AND CERTIFICATE OF OCCUPANCY TO THE FRANCHISEE UPON COMPLETION OF THE WORK.
21. PROPERLY SEAL ALL FLOORS, WALLS AND CEILINGS AROUND DUCTS, PIPES AND CABLES TO PREVENT VERMIN HARBORAGE. SEAL ALL GAPS, CRACKS, JOINTS AND OPENINGS GREATER THAN 1/4" WIDE WITH PRINTABLE CAULK. USE BACKER ROD BEHIND CAULK WHERE JOINTS EXCEED 1/4". PAINT TO MATCH ADJOINING SURFACES. SEAL ALL FLOOR-MOUNTED EQUIPMENT TO FLOOR UNLESS EQUIPMENT IS MOUNTED ON LEGS AT LEAST 6" HIGH.
22. ALL PAINTED WOOD SHALL BE PAINT GRADE BIRCH OR COMPARABLE.
23. G.C. SHALL BE RESPONSIBLE FOR ALL FINISH WORK UNLESS OTHERWISE INDICATED IN THE DRAWINGS. ALL PAINTING REQUIRED SHALL BE THREE-COAT SEMI-GLOSS ENAMEL UNLESS OTHERWISE INDICATED IN THE DRAWINGS. FOLLOWING THE INSTALLATION OF CONTRACTOR SUPPLIED CABINETS, THE CONTRACTOR SHALL PROVIDE FACINGS AND COVERINGS INDICATED.
24. AT THE COMPLETION OF THE WORK, G.C. SHALL FURNISH TO THE ARCHITECT, ONE SET OF BLUELINES MARKED IN RED WHERE CHANGES WERE MADE TO THE DRAWINGS, WHERE SUGGESTIONS OR COMMENTS MIGHT HAVE IMPROVED OR CLARIFIED THE DOCUMENTS, OR WHERE FUTURE DETAILS ON FUTURE SETS OF DOCUMENTS COULD BE IMPROVED. THESE ARE FOR THE ARCHITECT'S ON-GOING DOCUMENT QUALITY ENHANCEMENT PROGRAM.
25. PROVIDE MINIMUM OF ONE, MAXIMUM OF TWO (2A RATING) FIRE EXTINGUISHER(S), TO COMPLY WITH REQUIREMENTS OF 1) NFPA 10, 2015 EDITION, 2) THE LOCAL FIRE DEPARTMENT, AND 3) THE LANDLORD'S INSURANCE COMPANY.

beem LIGHT SAUNA

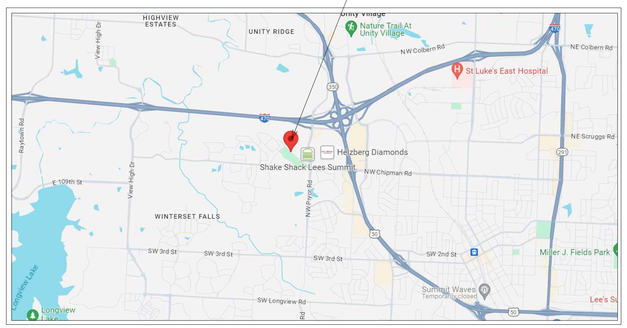
PROJECT SCOPE

INTERIOR FINISH OUT FOR BEEM LIGHT SAUNA WITH SAUNA SUITES AND RESTROOMS

beem LIGHT SAUNA

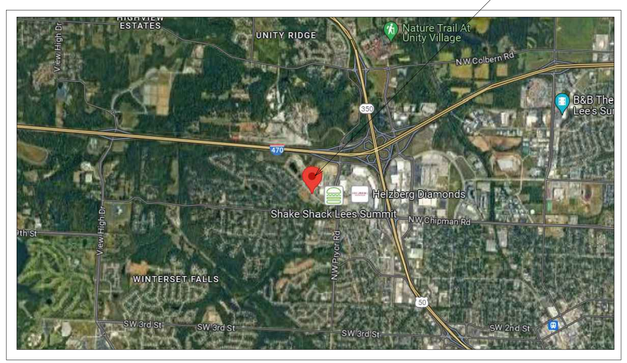
SUITE B AREA: 1549 SQ. FT.
BEEM LIGHT SAUNA
2070 NW LOWENSTEIN DR, SUITE B,
LEE'S SUMMIT, MO 64081

SITE



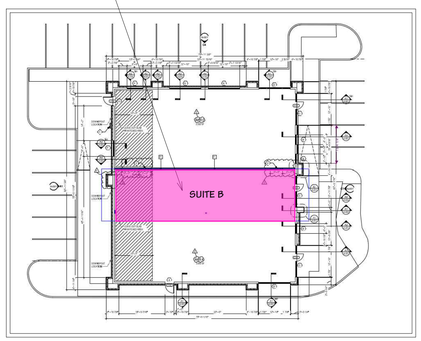
LOCATION MAP
SCALE: N.T.S.

SITE



VICINITY MAP
SCALE: N.T.S.

TENANT SPACE



TENANT MAP
SCALE: N.T.S.

PROJECT DIRECTORY

BEEM LIGHT SAUNA
2070 NW LOWENSTEIN DR, SUITE B,
LEE'S SUMMIT, MO 64081

LANDLORD:

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TENANT:

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BRIAN GREENWALD
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BGREENWALD@BEEMLIGHTSAUNA.COM

CHRIS HENRY
CHENRY@BEEMLIGHTSAUNA.COM

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SHERMAN, TX 75092
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WWW.BLUESTONEBUILD.COM

BUILDING DEPARTMENT:

DEVELOPMENT SERVICES
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LEE'S SUMMIT, MO 64063
TEL: 816-969-1200
EMAIIL: DEVTECH@CITYOFLS.NET

PROJECT MEP:

DENTON MEP
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HTTPS://WWW.DENTONMEP.COM

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OCCUPANCY CALCULATIONS

AREA	CLASSIFICATION	OCCUPANT LOAD (S.F./OCC.)	SQ. FT.	CALCULATED OCCUPANTS
RECEPTION 101	MERCANTILE	60	151	3
MERCHANDISE 102	MERCANTILE	60	100	2
SAUNA 103	BUSINESS	150	60	1
RED LIGHT 104	BUSINESS	150	60	1
SAUNA 105	BUSINESS	150	60	1
SAUNA 106	BUSINESS	150	57	1
SAUNA 107	BUSINESS	150	57	1
SOCIAL SAUNA 108	BUSINESS	150	86	1
ADA SAUNA 109	BUSINESS	150	117	1
RED LIGHT 110	BUSINESS	150	57	1
RED LIGHT 111	BUSINESS	150	70	1
RESTROOM 112	N/A	N/A	43	N/A
ADA RESTROOM 113	N/A	N/A	73	N/A
UTILITY 114	STORAGE	300	122	1
HALLWAY 115	N/A	N/A	234	N/A
TOTAL BUILDING OCCUPANTS				15

PROJECT DATA

CODE REFERENCE	2018 INTERNATIONAL BUILDING CODE 2018 INTERNATIONAL PLUMBING CODE 2018 INTERNATIONAL MECHANICAL CODE 2018 INTERNATIONAL FUEL GAS CODE 2018 INTERNATIONAL RESIDENTIAL CODE 2018 INTERNATIONAL FIRE CODE 2017 NATIONAL ELECTRICAL CODE ICC/ANSI A117.1-2009, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
TENANT	BUSINESS USE GROUP "B" GROSS FLOOR AREA: 1,549 S.F. CONSTRUCTION TYPE: 5-B NON SPRINKLED SPRINKLED: YES FIRE ALARM: YIF (TBD) 1-HOUR PROTECTED: YES NUMBER OF STORIES: 1 CALCULATED LOAD FOR BUILDING OCCUPANCY: 15

PLUMBING CALCULATIONS

OCCUPANCY	REQUIRED WATER CLOSETS (TOILETS)	PROVIDED WATER CLOSETS (TOILETS)	REQUIRED LAVATORIES (SINKS)	PROVIDED LAVATORIES (SINKS)
BUSINESS GROUP 'B'	1 PER 25 FOR THE FIRST 50, AND 1 PER 50 FOR REMAINDER EXCEEDING 50	1 PER 8 (MALE) 1 PER 8 (FEMALE)	1 PER 40 FOR FIRST 80, 1 PER 80 FOR REMINDER EXCEEDING 80	1 PER 15
DRINKING FOUNTAINS: PER 2018 IPC SECTION 403			REQUIRED: 1 PER 100	PROVIDED: 1 PER 15
SERVICE SINK:			REQUIRED: 1	PROVIDED: 1

BLUESTONE PARTNERS, LLC
4708 N. FM. 1417
Sherman, Texas 75092
903.813.1415
www.bluestonebuild.com

STATE OF MISSOURI
DRAKE HITCHCOCK
NUMBER
A-2024010915
ARCHITECT

May 22, 2024

beem Light Sauna
2070 NW Lowenstein Dr., Suite B
Lee's Summit, MO 64081
Permit Set

REVISIONS

No.	DATE	NOTE

Drawn by: ----
Checked by: ----
Project No: ----
Date: May 22, 2024

Cover Sheet

Sheet:
G-001

1.0 GENERAL DEFINITIONS

1.1 "PROVIDE" AND "FURNISH" SHALL MEAN TO PURCHASE AND LOCATE AN ITEM ON THE JOBSITE.

1.2 "INSTALL" SHALL MEAN TO PHYSICALLY INSTALL THE ITEM, AND TO CONNECT ALL REQUIRED SERVICES TO MAKE THAT ITEM FULLY FUNCTIONAL.

1.3 A.F.F. SHALL MEAN "ABOVE FINISHED FLOOR".

1.4 UNLESS SPECIFICALLY NOTED OTHERWISE, ALL ITEMS SHALL BE FURNISHED AND INSTALLED BY THE G.C.

1.5 "T.G.C." SHALL MAN THE TENANT GENERAL CONTRACTOR.

1.6 THE TERM "OWNER" OR "FRANCHISEE" SHALL BE SYNONYMOUS.

2.0 INSURANCE

PER CONTRACTUAL AGREEMENT BETWEEN OWNER & GENERAL CONTRACTOR.

3.0 PROGRESS PAYMENTS

PER CONTRACTUAL AGREEMENT BETWEEN OWNER & GENERAL CONTRACTOR.

4.0 SUBCONTRACTOR APPROVAL

THE OWNER RETAINS THE RIGHT TO REJECT THE USE OF ANY SUBCONTRACTOR FOR ANY REASON. THE T.G.C. SHALL EMPLOY SUBCONTRACTORS WHO ARE LICENSED IN THE STATE WHERE THE JOB IS LOCATED. THE T.G.C. SHALL ASSUME FULL RESPONSIBILITY TO INSURE THE VALIDITY OF ANY LICENSING INFORMATION AND INSURANCE COVERAGE INFORMATION GIVEN BY HIS SUBCONTRACTORS PRIOR TO THE AWARD OF THE CONTRACT. THE T.G.C. SHALL SUBMIT TO THE OWNER, PRIOR TO RECEIVING FINAL RETAINAGE, A LIST OF THE SUBCONTRACTORS WHO WERE EMPLOYED ON THE PROJECT. LIST SHALL INCLUDE COMPANY NAME, STATE LICENSE NUMBER, ADDRESS, PHONE NUMBER AND COPY OF SUBCONTRACTOR'S INSURANCE CERTIFICATE NAMING ALL AS AN ADDITIONAL INSURED.

5.0 COORDINATE OF TRADES

IT WILL BE THE T.G.C.'S RESPONSIBILITY TO COORDINATE THE ACTIVITIES OF ALL CONSTRUCTION TEAM MEMBERS. THE TEAM INCLUDES, BUT IS NOT LIMITED TO, ALL SUBCONTRACTORS, SPECIALTY CONTRACTORS, EQUIPMENT SUPPLIERS, SERVICE PROVIDERS, LOCAL CODE ENFORCEMENT OFFICIALS, AND JOB VALIDATION INSPECTORS. THE T.G.C. SHALL PUBLISH WITHIN FORTY-EIGHT (48) HOURS OF THE CONTRACT BEING SIGNED. A JOB CONTACT LIST AND CONSTRUCTION SCHEDULE FOR THE PROJECT: THE COPY OF THE CONTACT LIST AND CONSTRUCTION SCHEDULE SHALL BE FAXED TO ALL OF THE CONSTRUCTION TEAM MEMBERS.

6.0 PROJECT COMPLETION AND VALIDATION

THE PROJECT SHALL BE COMPLETED WHEN THE FOLLOWING VALIDATION PROCESSES, JOBSITE CONDITIONS AND PAPERWORK ARE COMPLETED AND APPROVED BY OWNER AND/OR OWNER REPRESENTATIVE.

6.1 DEFICIENCIES: ANY DEFICIENCIES NOTED BY THE INSPECTOR (S) SHALL BE CORRECTED BY THE RESPONSIBLE PARTY IN A TIME;Y FASHION. THE T.G.C. HAS FULL RESPONSIBILITY FOR COORDINATING ALL CORRECTIVE ACTION REQUIRED ON THE PROJECT. WHEN CORRECTIVE ACTION IS COMPLETED, THE T.G.C. IS TO RECEIVE WRITTEN NOTIFICATION FROM EACH SUBCONTRACTOR THAT THEIR PORTION OF THE PUNCH LIST IS COMPLETE. THE T.G.C. SHALL COORDINATE AND PAY FOR ANY NEEDED OR REQUIRED RE-INSPECTION (S).

6.2 PUNCH LIST: OWNER AND/OR OWNER REPRESENTATIVE (S) AGREES TO ISSUE ONE (1) CONSOLIDATED AND FINAL PUNCH LIST TO THE T.G.C. PUNCH LIST ITEMS MUST BE CORRECTED WITHIN TEN (10) DAYS OF THE DATE THE PUNCH LIST WAS WRITTEN. OWNER WILL WALK THROUGH THE STORE WITH THE T.G.C. AFTER THE PUNCH LIST HAS BEEN COMPLETED AND SIGN OFF ON EACH PUNCH LIST ITEM INDICATING THAT ALL HAVE BEEN CORRECTED. FINAL RETAINAGE WILL BE RELEASED ONCE THE OWNER HAS SIGNED OFF ON ALL PUNCH LIST ITEMS AGREEING THAT THEY HAVE BEEN COMPLETED.

6.3 LOCAL CODE ENFORCEMENT INSPECTION: THE T.G.C. SHALL PROVIDE A COPY OF ALL INSPECTION REPORTS COMPLETED BY LOCAL CODE ENFORCEMENT OFFICIALS UPON COMPLETION OF THE PROJECT.

6.4 AS-BUILT DRAWINGS: THE T.G.C. SHALL PROVIDE ONE (1) SET OF "AS-BUILT DRAWINGS" OF MECHANICAL AND ELECTRICAL SYSTEMS TO THE OWNER UPON COMPLETION OF THE PROJECT.

7.0 GUARANTEE

THE T.G.C. SHALL PROVIDE A WRITTEN GUARANTEE, EXTENDING FOR ONE (1) YEAR BEYOND DATE OF CERTIFICATE OF OCCUPANCY, WARRANTING THE PROJECT AGAINST DEFECTS IN MATERIALS AND REPAIR AND REPLACEMENTS. ALL GUARANTEES OR WARRANTIES SHALL INSURE TO THE BENEFIT OF THE OWNER.

8.0 PERMITS & LICENSES

THE T.G.C. SHALL SECURE AND PAY FOR ALL GOVERNMENT FEES, LICENSES, AND PERMITS. CONTACT THE OWNER FOR OBTAINING ALL NECESSARY DRAWINGS, SPECIFICATIONS, STAMPS AND SIGNATURES FOR OBTAINING ALL NECESSARY PERMITS AND LICENSES.

9.0 UTILITIES

9.1 THE T.G.C. SHALL PAY FOR ALL TEMPORARY SERVICE AND UTILITIES FOR THE PROJECT.

9.2 THE T.G.C. SHALL LOCATE ALL MECHANICAL AND ELECTRICAL SERVICES AND DISTRIBUTION SYSTEMS, WHETHER SHOWN ON THE PLANS OR NOT, AND SHALL PROTECT THEM FROM DAMAGE. THE T.G.C. SHALL BEAR ALL EXPENSES FOR THE REPAIR OR REPLACEMENT OF OTHER UTILITIES OR OTHER PROPERTY DAMAGE BY OPERATIONS IN CONJUNCTION WITH THE PERFORMANCE OF THE WORK.

10.0 EXISTING CONDITIONS

THE T.G.C. ACCEPTS PREMISES AS FOUND. THE OWNER AND LANDLORD ASSUMES NO RESPONSIBILITY OF THE CONDITION OF THE BUILDING OR LIABILITY FOR LOCATION OF EXISTING UTILITIES, ROOF STRUCTURE, OR ELEVATION AT THE TIME OF BIDDING OR THEREAFTER. THE T.G.C. ACCEPTS PREMISE AS FOUND.

11.0 PROJECT SAFETY

THE T.G.C. IS RESPONSIBLE FOR THE SAFETY, ACTIONS, AND CONDUCT OF THEIR EMPLOYEES AND SUBCONTRACTOR'S EMPLOYEES WHILE IN THE PROJECT AREA, ADJACENT AREAS, IN THE BUILDING, AND ITS VICINITY.

12.0 BUILDING AND ACCESSIBILITY CODES

ALL WORK DESCRIBED BY THESE DOCUMENTS SHALL BE PERFORMED IN FULL ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES, LAWS, AND ORDINANCES BEING ADOPTED BY THE BUILDING AUTHORITY HAVING JURISDICTION OVER THIS PROJECT. THE T.G.C. ASSUMES SOLE RESPONSIBILITY TO IDENTIFY ALL APPLICABLE CODES FOR EACH SUB-TRADE AS WELL AS LOCAL AND NATIONAL ACCESSIBILITY CODES AND PERFORMING ALL WORK ACCORDINGLY.

13.0 PLAN DIMENSIONS

DIMENSIONS SHALL GOVERN THESE DRAWINGS AND THEY ARE NOT TO BE SCALED. THE T.G.C. SHALL VERIFY ALL EXISTING DIMENSIONS. SHOULD THERE BE DISCREPANCIES, THE T.G.C. SHALL NOTIFY THE OWNER AND SHALL BASE BIDDING/PRICING ON THE MOST EXPENSIVE COMBINATION OF QUALITY AND/OR QUANTITY OF THE WORK INDICATED.

14.0 PLAN REVIEW

THE T.G.C. SHALL REVIEW THE PLANS AND SPECIFICATIONS THOROUGHLY, MAKE A DETAILED SITE VISIT, AND SHALL IMMEDIATELY BRING ANY INCONSISTENCY, SITE LAYOUT PROBLEMS, OR ANY OTHER REQUEST FOR CLARIFICATION TO THE OWNER FOR RESOLUTION PRIOR TO THE DELIVERY OF ANY BID. FAILURE TO DO SO SHALL CAUSE THE T.G.C. TO BE INELIGIBLE FOR REQUESTING EXTRAS RELATING TO SUCH MATTERS.

15.0 ENGINEERED SHOP DRAWINGS

THE T.G.C. SHALL ENSURE THAT APPLICABLE SUBCONTRACTORS SUBMIT ENGINEERED SHOP DRAWINGS TO THE OWNER'S ARCHITECT FOR APPROVAL OF ALL ASSEMBLIES, TO OBTAIN BUILDING PERMITS, IF REQUIRED, AND LICENSES, OR FOR SUBSTITUTIONS.

16.0 CHANGE ORDERS

THE T.G.C. MUST SUBMIT ALL CHANGE ORDERS IN WRITING TO THE OWNER. THE T.G.C. MUST HAVE THE OWNER'S SIGNATURE BEFORE PROCEEDING WITH THE WORK SHOULD THE T.G.C. PROCEED WITH THE WORK PRIOR TO OBTAINING THE OWNER'S SIGNATURE ON THE CHANGE ORDER, THE T.G.C. WILL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE CHANGE ORDER.

17.0 TENANT'S GENERAL CONTRACTOR RESPONSIBILITIES

THE T.G.C.'S RESPONSIBILITIES TO INSTALL AND FURNISH MATERIAL/EQUIPMENT ARE LISTED FOR CLARIFICATION AND DO NOT RELIEVE THE T.G.C. OF THE RESPONSIBILITY TO COORDINATE THE MATERIAL/EQUIPMENT DELIVERY OF ALL SUBCONTRACTORS. ALL MATERIAL/EQUIPMENT ASSOCIATED WITH THIS PROJECT SHALL BE INSTALLED IN FULL ACCORDANCE WITH THE SUPPLIER'S AND/OR MANUFACTURER'S WRITTEN RECOMMENDATION.

18.0 PRODUCT SUBSTITUTIONS

THE T.G.C. SHALL RECEIVE APPROVAL FROM OWNER OR ARCHITECT FOR ANY SUBSTITUTIONS TO ANY PRODUCT, TECHNIQUE, MATERIAL OR EQUIPMENT PRIOR TO THE IMPLEMENTATION OF THE SUBSTITUTION. PROPOSED SUBSTITUTION SHALL BE OF EQUAL QUALITY AND PERFORMANCE SPECIFICATION TO THAT ORIGINALLY SPECIFIED.

19.0 LANDLORD REQUIREMENTS

19.1 ATTACHMENT OF BUILDING SYSTEMS TO SLAB: THE METHOD OF ATTACHMENT OF TENANT WORK TO THE BASE BUILDING STRUCTURE WILL BE IN ACCORDANCE WITH STANDARDS REQUIRED BY THE LANDLORD. THE T.G.C. WILL CONSULT THE LANDLORD IN THOSE MATTERS PRIOR TO ATTACHMENT OF SYSTEMS.

19.2 PLACEMENT OF EQUIPMENT ON ROOF: THE T.G.C. SHALL RESTRICT THE LOCATION OF ALL MECHANICAL EQUIPMENT ON THE ROOF TO MEET LOCAL CODE AND LANDLORD REQUIREMENTS. ANY CHANGES RELATED TO THE MOVING OF EQUIPMENT BECAUSE OF CODE VIOLATIONS OR IF PLACEMENT DOES NOT MEET MANUFACTURER'S REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE T.G.C.

19.3 ROOFING WORK: IT IS THE RESPONSIBILITY OF THE T.G.C. TO DETERMINE IF THE ROOF IS A BONDED ROOF. IF THE ROOF IS BONDED, THE T.G.C. SHALL BE RESPONSIBLE FOR COORDINATING ALL ROOFING WORK WITH LANDLORD'S DESIGNATED ROOFING CONTRACTOR. ANY ROOFING COSTS ASSOCIATED WITH THE PROJECT SHALL BE INCLUDED IN THE T.G.C.'S BID. THE ROOFING CONTRACTOR SHALL WARRANT ALL WORK PER THEIR STANDARD TERM AND CONDITIONS TO THE LANDLORD. THE ROOFING CONTRACTOR SHALL WARRANT ALL ROOF WORK TO THE OWNER FOR A PERIOD OF ONE (1) YEAR FROM THE CERTIFICATE OF OCCUPANCY DATE. ANY WARRANTY PROBLEMS ASSOCIATED WITH THE ROOF SHALL BE COORDINATED THROUGH THE T.G.C.

20.0 WEATHER PROTECTION

THE CONSTRUCTION SITE SHALL BE MAINTAINED IN A WEATHERPROOF CONDITION AT ALL TIMES. ANY WEATHER DAMAGE TO THE PROJECT WORK, BUILDING, CONSTRUCTION MATERIALS OR EQUIPMENT FROM WEATHER DURING THE CONSTRUCTION PROCESS SHALL BE THE SOLE RESPONSIBILITY OF THE T.G.C.

21.0 COORDINATION OF MATERIAL/EQUIPMENT DELIVERY

PER CONTRACTUAL AGREEMENT BETWEEN OWNER AND GENERAL CONTRACTOR.

22.0 RECEIPT OF MATERIAL/EQUIPMENT

IT IS THE T.G.C. RESPONSIBILITY TO RECEIVE AND SIGN FOR ALL MATERIAL/EQUIPMENT FOR THE PROJECT AND PROJECT TEAM MEMBERS. UNDER NO CIRCUMSTANCES SHALL ANY SHIPMENT BE REFUSED FOR ANY REASON OTHER THAN DAMAGE, WHICH OCCURRED TO THE MATERIAL/EQUIPMENT DURING SHIPPING (CONTACT OWNER IMMEDIATELY IF DAMAGE HAS OCCURRED). THE T.G.C. SHALL BE HELD ACCOUNTABLE TO CONFIRM THE ITEMS ON THE BILL OF LADING WHERE PRESENT IN THE SHIPMENT. ANY DISCREPANCIES SHALL BEE NOTED AT THE TIME OF RECEIPT. ANY HEAVY EQUIPMENT RENTAL (I.E. FORKLIFTS, CRANES, ECT.) REQUIRED TO OFF-LOAD AN INCOMING TRUCK AND PLACE EQUIPMENT IN THE SECURED STORAGE AREA SHALL BE THE RESPONSIBILITY OF THE T.G.C. THE T.G.C. SHALL PAY FOR ANY CHARGES INCURRED BECAUSE SHIPMENTS ARE REFUSED.

23.0 EQUIPMENT STORAGE

THE T.G.C. SHALL PROVIDE A STORAGE AREA THAT IS SECURED FROM THEFT, VANDALISM AND WEATHER DURING THE CONSTRUCTION PROCESS FOR ALL SUPPLIES AND EQUIPMENT. AT THE T.G.C.'S DISCRETION, THE T.G.C. MAY ELECT TO HAVE THE EQUIPMENT STORED AT THE TRUCKER'S FREIGHT TERMINAL OR OFF SITE AT THE T.G.C.'S OWN FACILITY. ANY CHARGES INCURRED RELATED TO THE STORAGE AND REDELIVERY OF THE EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE T.G.C. UNDER NO CIRCUMSTANCES SHALL THE T.G.C. SURROGATE RESPONSIBILITY TO ANY SUBCONTRACTOR AND/OR TEAM MEMBER.

24.0 DAMAGED MATERIALS/EQUIPMENT

24.1 DAMAGED UPON DELIVERY; UPON DELIVERY OF MATERIALS/EQUIPMENT, IT IS THE RESPONSIBILITY OF THE T.G.C. TO THOROUGHLY INSPECT ALL MATERIALS/EQUIPMENT PRIOR TO ACCEPTING DELIVERY. SHOULD THE T.G.C. FIND ANY DAMAGE TO THE MATERIALS/EQUIPMENT CAUSED DURING SHIPMENT, THE T.G.C. SHALL CONTACT OWNER IMMEDIATELY. UNDER NO CIRCUMSTANCES SHALL THE T.G.C. SURROGATE THIS RESPONSIBILITY TO ANY SUBCONTRACTOR AND/OR TEAM MEMBER.

24.2 DAMAGE DURING THE CONSTRUCTION PROCESS; SHOULD ANY MATERIALS/EQUIPMENT BECOME DAMAGED DURING THE CONSTRUCTION PROCESS, THE T.G.C. SHALL CONTACT OWNER IMMEDIATELY TO RECEIVE DIRECTION AS TO THE CORRECT REPAIR PROCESS. THE T.G.C. IS NOT TO PROCEED WITH REPAIRS TO MATERIALS/EQUIPMENT DAMAGED DURING THE CONSTRUCTION PROCESS WITHOUT FIRST SPEAKING WITH THE OWNER. FREIGHT DAMAGE FOUND TWO OR MORE DAYS AFTER DELIVERY WILL BE DEEMED DAMAGE DURING CONSTRUCTION. THE T.G.C. WILL BE RESPONSIBLE FOR ALL REPAIR COSTS FOR ITEMS DAMAGED DURING CONSTRUCTION. UNDER NO CIRCUMSTANCES SHALL THE T.G.C. SURROGATE THIS RESPONSIBILITY TO ANY SUBCONTRACTOR AND/OR TEAM MEMBER.

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GENERAL CONDITIONS

BASIC DEFINITIONS:
THE CONTRACT DOCUMENTS ARE ALL THE DOCUMENTS REQUIRED FOR THE GENERAL CONTRACTOR TO SUCCESSFULLY COMPLETE THE WORK, AND INCLUDE NOT ONLY THE ARCHITECT'S DRAWINGS AND THE ARCHITECT'S SPECIFICATIONS BUT ALSO DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS NOT LISTED HERE, WHICH HAVE BEEN OR WILL BE PREPARED BY CONSULTANTS, MANUFACTURERS, SUPPLIERS, VENDORS AND OTHERS FOR THE OWNER.

DRAWINGS AND SPECIFICATIONS:
UNLESS SPECIFICALLY NOTED OTHERWISE ANY REFERENCE TO THE DRAWINGS OR SPECIFICATIONS SHALL MEAN THE DRAWINGS AND SPECIFICATIONS PREPARED BY THE ARCHITECT.

CONFLICTS, DISCREPANCIES OR INCONSISTENCIES:
IN THE EVENT OF CONFLICTS, DISCREPANCIES OR INCONSISTENCIES AMONG CONTRACT DOCUMENTS, INTERPRETATIONS WILL BE MADE BY THE ARCHITECT BASED ON THE FOLLOWING: IN ORDER OF PRIORITY, WITH ITEM "1" BEING OF FIRST, OR HIGHEST PRIORITY.

A. WHERE NOT CLARIFIED BY THE AGREEMENT OR ADDENDA TO THE DRAWINGS AND SPECIFICATIONS, THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED AS REQUIRED BY EITHER THE DRAWINGS OR SPECIFICATIONS IN ACCORDANCE WITH THE ARCHITECT'S INTERPRETATION.
B. AS BETWEEN DIMENSIONS SHOWN ON THE DRAWINGS AND SCALED MEASUREMENTS, THE DIMENSIONS SHALL GOVERN.
C. AS BETWEEN LARGE-SCALE DRAWINGS AND SMALL-SCALED DRAWINGS, THE LARGER SCALE SHALL GOVERN.
D. MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MOST CURRENT PRINTED OR PUBLISHED SPECIFICATIONS AND INSTRUCTIONS OF THE MANUFACTURER OR SUPPLIER OF THE MATERIAL OR EQUIPMENT, EXCEPT WHERE SUCH DOCUMENTS CONFLICT WITH THE ARCHITECT'S

SPECIFICATIONS: IN SUCH CASS THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED IN ACCORDANCE WITH THE ARCHITECT'S INTERPRETATION AS REQUIRED BY EITHER (1) THE MANUFACTURER'S OR SUPPLIER'S REQUIREMENTS OR (2) THE ARCHITECT'S SPECIFICATIONS.

PRODUCT DESIGNATIONS:

WHEN REFERENCE IS MADE TO TRADE NAMES OR TO THE NAMES OF MANUFACTURERS, SUCH REFERENCES ARE MADE SOLELY TO DESIGNATE OR IDENTIFY THE QUALITY OF MATERIAL OR EQUIPMENT TO BE FURNISHED AND ARE INTENDED TO RESTRICT THE USE OF EQUAL MATERIAL OR EQUIPMENT EXCEPT WHERE SPECIFICALLY STATED OTHERWISE. IF THE CONTRACTOR WISHED TO USE MATERIALS AND EQUIPMENT OTHER THAN THOSE MENTIONED IN THE SPECIFICATIONS, THE CONTRACTOR SHALL SUBMIT IN WRITING AND INCLUDING ADEQUATE INFORMATION REGARDING THE SUBSTITUTION, TO THE OWNER AND/OR ARCHITECT FOR CONSIDERATION.

REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR:

BEFORE ORDERING ANY MATERIALS OR ANY WORK, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND MEASUREMENTS AND SHALL BE RESPONSIBLE FOR CORRECTNESS OF SAME. NO EXTRA CHARGE OR COMPENSATION WILL BE ALLOWED BECAUSE OF DIFFERENCES BETWEEN ACTUAL DIMENSIONS AND MEASUREMENTS AND THOSE INDICATED ON THE DRAWINGS AND DIFFERENCES WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE ARCHITECT FOR CONSIDERATION BEFORE PROCEEDING WITH THE WORK. THIS APPLIES TO ALL ASPECTS OF THE WORK INCLUDING, BUT NOT LIMITED TO, EQUIPMENT OR MATERIALS FURNISHED BY OWNER OR CONTRACTOR.

PERMIT FEES AND NOTICES:
UNLESS OTHERWISE PROVIDED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SECURE AND PAY FOR THE REMOVAL, RELOCATION AND INSTALLATION OF ELECTRICAL UTILITY POLES AND LINES AND FOR WATER, NATURAL GAS AND SEWER "TAP FEES" REQUIRED BY THE UTILITY COMPANIES AND OWNERS OF UTILITIES.

SUBCONTRACTOR RELATIONS:

THE CONTRACTOR SHALL INCLUDE IN HIS SUBCONTRACTS THE FOLLOWING CLAUSE: "BY EXECUTING THE CONTRACT BETWEEN THE GENERAL CONTRACTOR AND THE SUBCONTRACTOR EACH SUBCONTRACTOR REPRESENTS THAT HE HAS MORE CURRENT AND INTIMATE KNOWLEDGE OF PREVAILING CODES IN HIS SPECIAL FIELD THAN DO GENERALIST. THE SUBCONTRACTOR AGREES TO REPORT TO THE GENERAL CONTRACTOR AS EARLY IN THE PROJECT AS POSSIBLE (PRIOR TO SIGNING THE CONTRACTOR/SUBCONTRACTOR CONTRACT IF KNOWN AT THE TIME BUT IN ANY EVENT AS SOON AS KNOWN) ANY WORK REQUIRED BY THE DRAWINGS AND SPECIFICATIONS, OR ANY OF THE OTHER CONTRACT DOCUMENTS WHICH VIOLATES ANY CODE AFFECTING OR CONTROLLING THE SUBCONTRACTOR'S SPECIALTY." THE CONTRACTOR SHALL IN TURN IMMEDIATELY CONVEY THIS INFORMATION OF THE ARCHITECT.

DIVISION 1 - GENERAL REQUIREMENTS

FORMAT AND CONTENT
SECTION 01010

THE SPECIFICATIONS HAVE BEEN PREPARED FOR MULTIPLE PROJECTS AND MAY CONTAIN REFERENCES TO ITEMS NOT INCLUDED IN THIS SPECIFIC PROJECT. VERIFY ITEMS USED IN THIS SPECIFIC PROJECT BY REFERRING TO THE DRAWINGS. THE SPECIFICATIONS MAY MAKE REFERENCE TO THESE ITEMS BY STATING "IF REQUIRED PER DRAWINGS", "IF ANY" OR SIMILAR LANGUAGE. THE DRAWINGS ARE SCHEMATIC IN NATURE AND THE CONTRACTOR SHALL NOT RELY ON SCALING DRAWINGS TO DETERMINE CRITICAL DISTANCES.

WHERE CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS) ARE INCOMPLETE, AMBIGUOUS OR CONTAIN CONFLICTING INSTRUCTIONS, DO NOT PROCEED UNTIL RECEIVING CLARIFICATION FROM THE ARCHITECT IN WRITING.

ONTRACTOR'S USE OF SITE AND PREMISE
SECTION 01014

LIMITED USE OF THE SITE: VERIFY WITH THE OWNER OR LANDLORD FOR ESTABLISHED USE LIMITS AN RESTRICTIONS OF THE SITE.

DO NOT COMMENCE WORK WHICH SPECIFICALLY AFFECTS THE OPERATION OF ANY OTHER TENANT WITHOUT FIRST COORDINATING AND MAKING SATISFACTORY ARRANGEMENTS FOR SUCH WORK THROUGH THE OWNER OR LANDLORD.

OWNER - FURNISHED ITEMS
SECTION 01015

CERTAIN CONSTRUCTION AND EQUIPMENT ITEMS INDICATED IN THE DRAWINGS AND SPECIFICATIONS AMY BE FURNISHED BY THE OWNER. SUCH ITEMS ARE DESIGNATED ON THE DRAWINGS IN THE "EQUIPMENT SCHEDULE" OR ELSEWHERE AS SUPPLIED BY OWNER OR VENDOR.

UNLESS SPECIFICALLY OTHERWISE INDICATED, OWNER WILL DELIVER SUCH ITEMS TO THE CONTRACTOR WHO SHALL BE RESPONSIBLE FOR RECEIVING, UNLOADING, INVENTORYING, WAREHOUSING, PROTECTING, INSURING, ASSEMBLING AND INSTALLING THEM IN THE SAME MANNER AS IF PURCHASED DIRECTLY BY THE CONTRACTOR.

WORK BY OTHERS
SECTION 01017

CERTAIN ITEMS INDICATED IN THE DRAWINGS AND SPECIFICATIONS MAY BE FURNISHED AND INSTALLED BY ENTITIES OTHER THAN THE CONTRACTOR AND ARE EXCLUDED FROM THE CONTRACT TO BUILD. SUCH ITEMS (IF ANY) ARE INDICATE IN THE "EQUIPMENT SCHEDULE" OR ELSEWHERE ON THE DRAWINGS. CONTRACTOR SHALL INDICATE SEPARATE INSTALLATION COST FOR ITEMS DESIGNATED IN "EQUIPMENT SCHEDULE" TO BE FURNISHED BY OWNER OR "OTHERS".

TEMPORARY FACILITIES
SECTION 01500

THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING AND PAYING FOR ALL UTILITIES INCLUDING PHONE AND SANITATION SERVICE NECESSARY TO CONSTRUCT THE PROJECT.

THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SECURITY OF ALL CONSTRUCTION AND ALL BUILDING MATERIALS AND EQUIPMENT AND SHALL FURNISH AT HIS EXPENSE ON-SITE STORAGE EQUIVALENT TO AN 8 FOOT BY 8 FOOT BY 40 FOOT LOCKABLE, WEATHER TIGHT TRAILER THROUGHOUT THE CONSTRUCTION UNLESS OTHERWISE INDICATED.

MATERIALS AND WORKMANSHIP
SECTION 01600

ENTITIES PERFORMING WORK SHALL BE SKILLED AND KNOWLEDGEABLE IN METHODS AND CRAFTSMANSHIP NEEDED TO PRODUCE REQUIRED QUALITY LEVELS. REMOVE AND REPLACE WORK, WHICH DOES NOT COMPLY, WITH WORKMANSHIP STANDARDS SPECIFIED AND AS RECOGNIZED IN THE CONSTRUCTION INDUSTRY FOR APPLICATIONS INTENDED.

INSTALLER OF EACH MAJOR UNIT OF WORK SHALL INSPECT SUBSTRATA TO RECEIVE WORK AND CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

HANDLE, STORE, INSTALL, MAINTAIN AND OTHERWISE USE PRODUCTS IN COMPLIANCE WITH MANUFACTURER'S APPLICABLE INSTRUCTIONS AND RECOMMENDATIONS AND IN A MANNER TO ENSURE BEST POSSIBLE RESULTS.

PROVIDE ATTACHMENT AND CONNECTION DEVICES AND METHODS FOR SECURING WORK PROPERLY, TRUE TO LINE AND LEVEL AND WITHIN RECOGNIZED INDUSTRY TOLERANCES IF NOT OTHERWISE INDICATED. ALLOW FOR EXPANSION, CONTRACTION AND OTHER NORMAL BUILDING MOVEMENTS.

PROTECT AND MAINTAIN WORK TO ENSURE FREEDOM FROM DAMAGE OR DETERIORATION AT TIME OF COMPLETION. PERMANENTLY ISOLATE EACH UNIT OF WORK FROM ON-COMPATIBLE WORK TO PREVENT DETERIORATION.

FIELD CHECK AND VERIFY AS-BUILT DIMENSIONS TO ASSURE PROPER FIT OF PREFABRICATED MATERIALS AND EQUIPMENT.

INSTALL WORK DURING OPTIMUM WEATHER CONDITIONS OF TEMPERATURE, HUMIDITY, FORECASTED WEATHER, ETC. TO ENSURE BEST POSSIBLE RESULTS.

EXCEPT FOR REQUIRED LABELS AND OPERATING DATA, DO NOT PERMANENTLY ATTACH OR IMPRINT MANUFACTURER'S NAMEPLATES OR TRADEMARKS ON EXPOSED SURFACES OR PRODUCTS WHICH WILL BE EXPOSED TO VIEW IN OCCUPIED SPACES OR ON THE EXTERIOR.

ADJUST ALL MOVING PARTS AND VARIABLES TO OPTIMUM SETTINGS.

SUBSTITUTIONS
SECTION 01630

NO SUBSTITUTIONS FOR PRODUCTS WILL BE ALLOWED UNLESS SPECIFICALLY INDICATED BY THE ARCHITECT. SUBSTITUTION FOR PRODUCTS AND EQUIPMENT MAY BE CONSIDERED WHEN A PRODUCT BECOMES UNAVAILABLE THROUGH NO FAULT OF THE CONTRACTOR OR AS FOLLOWS:

1. AN "OR OWNER APPROVED SUBSTITUTION" CLAUSE OR SIMILAR LANGUAGE IN THE CONTRACT DOCUMENTS.
2. WHEN THE PRODUCT CANNOT BE PROVIDED IN TIME TO KEEP THE PROJECT ON SCHEDULE, THROUGH NO FAULT OF THE CONTRACTOR.
3. WHEN THE PRODUCT DOES NOT MEET THE APPROVAL OF THE GOVERNING AUTHORITIES.
4. WHEN THE OWNER IS OFFERED SUBSTANTIAL ADVANTAGE IN TERMS OF THE COST, TIME OR QUALITY.

WHENEVER A PRODUCT IS SPECIFIED BY USING A PROPRIETARY NAME OR THE NAME OF A PARTICULAR MANUFACTURER OR VENDOR, THE SPECIFIC ITEM MENTIONED SHALL BE UNDERSTOOD AS ESTABLISHING TYPE, FUNCTION, DIMENSION, APPEARANCE AND QUALITY DESIRED. REQUEST FOR SUBSTITUTING OTHER MANUFACTURER'S PRODUCTS MAY BE ACCEPTED PROVIDED SUFFICIENT INFORMATION IS SUBMITTED TO ALLOW THE OWNER TO DETERMINE SUITABILITY OF THE PROPOSED SUBSTITUTION(S) AND AS FOLLOWS:

PRODUCT APPROVAL: IF A QUALIFIED BIDDER PROPOSES TO FURNISH MATERIALS, PRODUCTS OR EQUIPMENT NOT SPECIFIED, BIDDER MUST RECEIVE PRIOR WRITTEN APPROVAL THRU AN ADDENDUM ISSUED BY THE OWNER OR ARCHITECT AND SHALL SUBMIT MANUFACTURER'S NAME AND CATALOG INFORMATION NO LATER THAN SEVEN (7) WORKING DAYS PRIOR.

FINAL CLEANING
SECTION 0170

EXECUTE FINAL CLEANING PRIOR TO FINAL INSPECTION. THOROUGHLY CLEAN THE PROJECT INCLUDING (BUT NOT NECESSARILY LIMITED TO) THE FOLLOWING:

A. REMOVE LABELS, WHICH ARE NOT REQUIRED AS PERMANENT LABELS.
B. CLEAN TRANSPARENT MATERIALS, INCLUDING MIRRORS, WINDOW AND DOOR GLASS, TO A POLISHED CONDITION, REMOVING SUBSTANCES, WHICH ARE NOTICEABLE AS VISION-OBSCURING MATERIALS.
C. CLEAN EXPOSED EXTERIOR AND INTERIOR HARD SURFACED FINISHES, TO A DIRT-FREE CONDITION, FREE OF DUST, STAINS, FILMS AND SIMILAR NOTICEABLE DISTRACTING SUBSTANCES. EXCEPT OTHERWISE INDICATED, AVOID DISTURBANCE OF NATURAL WEATHERING OF EXTERIOR SURFACES. RESTORE REFLECTIVE SURFACES TO ORIGINAL REFLECTIVE CONDITION.
D. WIPE SURFACES OR MECHANICAL AND ELECTRICAL EQUIPMENT CLEAN. REMOVE EXCESS LUBRICATION AND OTHER SUBSTANCES.
E. REMOVE DEBRIS AND SURFACE DUST FROM LIMITED-ACCESS SPACES INCLUDING PLENUMS, SHAFTS, TRENCHES, MANHOLES, ATTICS AND SIMILAR SPACES.
F. THOROUGHLY CLEAN CONCRETE FLOORS.
G. VACUUM CLEAN CARPETED SURFACES AND SIMILAR SOFT SURFACES.
H. CLEAN PLUMBING FIXTURES TO A SANITARY CONDITION, FREE OF STAINS INCLUDING THOSE RESULTING FROM WATER EXPOSURE.
I. CLEAN FOOD SERVICE EQUIPMENT TO A CONDITION OF SANITATION READY AND ACCEPTABLE FOR INTENDED FOOD SERVICE USE.
J. CLEAN LIGHT FIXTURES AND LAMPS/LIGHT BULBS, WHICH HAVE BURNED HALF THEIR RATED LIFE OR MORE.
K. CLEAN PROJECT SITE (YARD AND GROUNDS), INCLUDING LANDSCAPE DEVELOPMENT AREAS, OF LITTER AND FOREIGN SUBSTANCES. SWEEP PAVED AREAS TO A BROOM-CLEAN CONDITION. REMOVE STAINS, PETROCHEMICAL SPILLS AND OTHER FOREIGN DEPOSITS. RAKE GROUNDS WHICH ARE NEITHER PLANTED NOR PAVED, TO A SMOOTH, EVEN-TEXTURED SURFACE.
L. CLEAN FILTERS OF OPERATING EQUIPMENT.
M. PROPERLY CLEAN AND SANITIZE FOOD CONTACT SURFACES BEFORE SERVICE USAGES.
N. CLEAN DEBRIS FROM ROOF, GUTTERS, DOWNSPOUTS AND DRAINAGE SYSTEMS.
O. REMOVE WASTE AND SURPLUS MATERIAL, RUBBISH AND CONSTRUCTION FACILITIES FROM THE SITE.

WARRANTY
SECTION 01740

CONTRACTOR SHALL WARRANT TO THE OWNER THAT ON RECEIPT OF NOTICE FROM HIM, WITHIN A PERIOD OF ONE Y EAR (OR SUCH OTHER PERIOD OF TIME AS MAY BE NOTED FOR SPECIFIC ITEMS) FOLLOWING DATE SUBSTANTIAL COMPLETION, THE CONTRACTOR SHALL, AT HIS COST, PROMPTLY CORRECT ANY DEFECTS IN MATERIALS AND WORKMANSHIP THAT HAVE APPEARED IN THE WORK SO THAT THEY MEET THE CONDITIONS ORIGINALLY REQUIRED BY THE CONTRACT DOCUMENTS.

PREPARE DUPLICATE COPIES OF ALL WARRANTIES. EXECUTE AND ASSEMBLE DOCUMENTS FROM SUBCONTRACTORS, SUPPLIERS AND MANUFACTURERS.

RETAIN ALL DOCUMENTS IN THE OPERATION AND MAINTENANCE INSTRUCTIONS MANUAL NOTED IN SECTION 01730 AT THE JOB SITE UPON COMPLETION OF THE WORK.

CONTRACT CLOSEOUT
SECTION 01760

1.01 FINAL WORK: AT COMPLETION OF THE WORK, LEAVE THE BUILDING COMPLETELY CLEAN AND IN CONDITION SATISFACTORY TO THE OWNER. CLEAN AND POLISH ALL GLASS AND MIRRORS, LEAVE FLOORS, HARDWARE, PLUMBING FIXTURES AND LIGHTING FIXTURES CLEAN AND DUST FREE, ETC., THIS IS NOT AN ENUMERATION OF WORK TO BE DONE, BUT IS MERELY AN INDICATION OF WHAT WILL BE CONSIDERED "SATISFACTORY".

1.02 BONDS, GUARANTEES AND WARRANTIES:

A. THROUGHOUT THE SPECIFICATIONS VARIOUS SURETY BONDS, GUARANTEES AND WARRANTIES ARE REQUIRED. THE CONTRACTOR SHALL SECURE AND PRESENT THESE BONDS AND GUARANTEES TO THE OWNER.
B. THE CONTRACTOR SHALL PRESENT THE OWNER WITH ALL OPERATING MANUALS, MANUALS, PARTS LIST, ETC., COVERING ALL MECHANICAL EQUIPMENT OR OTHER OPERATING DEVICES IN THE WORK.
C. THE CONTRACTOR SHALL PRESENT THE OWNER WITH ALL SPECIAL TOOLS REQUIRED FOR ROUTINE MAINTENANCE OF EQUIPMENT, ETC.

1.03 RECORD DRAWINGS: THE CONTRACTOR SHALL PRESENT THE OWNER WITH A COPY OF RECORD DRAWINGS.

DIVISION 2 - SITE WORK (NOT USED)

DIVISION 3 - CONCRETE
CONCRETE FLOOR STRUCTURE ON GRADE - SECT. 03050

03010 NEW FLOOR STRUCTURE SHALL BE CONCRETE, PORTLAND CEMENT, ASTM C 50, TYPE 1, AND APPLICABLE SECTIONS OF THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" OF THE AMERICAN CONCRETE INSTITUTE AC1-318-LATEST EDITION PRE-INCLUDED AS A PART OF THIS SPECIFICATION. WORKING STRESS FOR ALL CONCRETE SHALL BE 3,000 PSI AT 28 DAYS. REINFORCING MESH SHALL BE FIBERMECH FIBER, BY FIBERMESH COMPANY (423) 892-7243 CONFORMING TO ASTM C-39, C78, C-496. SLAB UNDER CERAMIC TILE SHALL HAVE FLATNESS/LEVELNESS OF $\frac{1}{8}$" PER 10 LINEAR FEET.

03 030 UNDER FLOOR CONDUIT, ELECTRICAL AND TELEPHONE OUTLETS TO REGISTER COUNTER LOCATION BY ELECTRICAL CONTRACTOR. REFER TO FLOOR PLAN AND ELECTRICAL DRAWINGS FOR APPROPRIATE LOCATION.

03 040 PROVIDE A SELF-LEVELING CEMETITIOUS UNDERLAYMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS THAT SHALL BE ARDEX k15 BY ARDEX INC. (412) 264-4240. INSTALLATION SHALL UTILIZE MANUFACTURER APPROVED MIXING TOOLS, EQUIPMENT, AND METHODS. UNDERLAYMENT SHALL BE INSTALLED OF APPROXIMATELY 4,100 PSI AS PER ASTM C109/MOD. INSTALLATION AND EXECUTION SHALL UTILIZE ARDEX SKIMCOAT/FLASHPATCH AS PROJECT CONDITIONS WARRANT AND MANUFACTURER'S INSTALLATION DIRECTIONS REQUIRE. INFILL SHOULD MATCH COLOR/ COMPOSITION OF THE EXISTING CONCRETE SLAB AS CLOSELY AS POSSIBLE.

DIVISION 4 - MASONRY (NOT USED)

DIVISION 5 - METALS

STEEL STUD FRAMING
SECTION 05400

PART ONE - GENERAL

1.01 SCOPE: FURNISH AND INSTALL STEEL STUDS, OTHER STEEL FRAMING MEMBERS, BRACING, FASTENERS AND OTHER RELATED ACCESSORIES IN LOCATIONS RELATED HEREIN AND SHOWN ON THE DRAWINGS.

PART TWO - PRODUCTS

2.01 STEEL STUD FRAMING:

A. MATERIALS: COLD FORMED STEEL FRAMING AS MANUFACTURED BY U.S.G. USING HOT DIPPED GALVANIZED STEEL WITH MINIMUM G-60 COATING WHICH CONFORMS TO ASTM SPECIFICATION A-446 AND A-525, LATEST EDITION. CONFIRM STUD GA. MEETS MANUFACTURERS POSTED LENGTHS AND SPANS FOR SPECIFIC USE ON PROJECT. UNLESS NOTED OTHERWISE ON THE DRAWINGS, PRODUCT SHALL BE MIN:

1. EQUAL TO U.S.G. SJ STEEL STUDS, 3 $\frac{5}{8}$", 26 GAUGE, SPACED 6" ON CENTERS. 2 $\frac{1}{2}$" & 6" STUDS AS NOTED.
2. RUNNER CHANNELS AT TOP AND BOTTOM OF STUDS SHALL BE OF SAME SIZE AND GAUGE AS STUDS.

B. MISCELLANEOUS COMPONENTS: PROVIDE ALL NECESSARY COMPONENT PARTS AND FASTENERS REQUIRED. FINISH TO HOT DIPPED GALVANIZED AS SPECIFIED FOR STUDS OR STAINLESS STEEL.

2.02 ISOLATION JOINTS: WHERE ALUMINUM OR OTHER DISSIMILAR MATERIALS COME IN CONTACT WITH STEEL FRAMING, FURNISH AND INSTALL PLASTIC ISOLATION BLOCKS SHIMS) OR BUILDING FELT BETWEEN DISSIMILAR MATERIALS.

PART THREE - EXECUTION

3.01 INSTALLATION: INSTALL STEEL FRAMING TRUE TO LINE, LEVEL AND PLUMB, IN ACCORDANCE WITH THE DRAWINGS, AND APPROVED SHOP DRAWINGS AND THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

3.02 FIELD PAINTING: TOUCH UP GALVANIZED COATINGS DAMAGED DURING HANDLING AND INSTALLATION WITH GALVANIZING REPAIR PAINT.

DIVISION 6 - CARPENTRY

FINISH CARPENTRY
SECTION 06200

PART ONE - GENERAL

1.01 SCOPE:
A. THIS SECTION INCLUDES FURNISHING AND INSTALLING ALL MISCELLANEOUS EXPOSED WOOD MEMBERS AND TRIM ITEMS AND SERVING COUNTER, AS DETAILED ON THE DRAWINGS.
B. THIS SECTION INCLUDES INSTALLATION OF METAL FRAMES, WOOD DOORS, FINISH HARDWARE, AND MISCELLANEOUS METALS AND SPECIALTIES FURNISHED UNDER OTHER SECTIONS OF THESE SPECIFICATIONS, AND RELATED ITEMS NECESSARY FOR A COMPLETE AND PROPER INSTALLATION.

PART TWO - MATERIALS

2.01 GENERAL REQUIREMENTS:
A. RECEIVE, STOCK AND STORE MATERIALS IN ACCORDANCE WITH GOOD PRACTICE.
B. GRADING; EACH PIECE OF FINISH LUMBER SHALL BE GRADE-MARKED AND KILN-DRIED. BUNDLED STOCK SHALL HAVE GRADE MARKS APPLIED TO EACH BUNDLE.
C. SIZES AND PATTERNS: WORK LUMBER TO PATTERN DETAILED. SHAPED MATERIAL SHALL CONFORM TO STANDARD PATTERNS INDICATED.
D. MOISTURE CONTENT: MAXIMUM MOISTURE CONTENT OF TREATED OR UNTREATED FINISH LUMBER, TRIM AND MILLWORK SHALL BE 12 PERCENT AT TIME OF DELIVERY TO JOB SITE.

2.02 TOUGH HARDWARE: THE GENERAL CONTRACTOR SHALL FURNISH ALL ROUGH HARDWARE INCLUDING NAILS, SCREWS AND SIMILAR ANCHORS AND FITTINGS AND ALL OTHER HARDWARE EITHER MENTIONED IN THESE SPECIFICATIONS OR REQUIRED FOR THE PROPER COMPLETION OF THE WORK.

2.03 PLASTIC LAMINATE: AS SCHEDULED ON THE DRAWINGS. COLORS AS SCHEDULED.

2.04 PLYWOOD: VENEER CORE PLYWOOD OF THICKNESS SHOWN ON THE DRAWINGS.
A. WHERE BOTH SIDES COVERED WITH PLASTIC LAMINATE: APA C-D INT.
B. WHERE BOTH SIDES VISIBLE: APA B-B INT.
C. WHERE BOTH SIDES VISIBLE: APA B-C OR B-D INT.
D. COUNTERTOP AT SERVING COUNTER: APA B-B, EXPOURE I.

2.05 RFP (FIBERGLASS REINFORCED POLYESTER) PANELS: $\frac{3}{32}$" THICK WITH PEBBLED TEXTURE FACE. COLOR NOTED ON THE DRAWINGS. BY KEMLITE. INSTALL ON FACE OF GYPSUM BOARD OR AT EDGES. INTERIOR EXTERIOR CORNERS, BETWEEN PANELS, ALL IN STRICT ACCORDANCE WITH KEMLITE COMPANY SPECIFICATIONS.

2.06 ADHESIVE: FOR ADHERING PLASTIC LAMINATE TO PLYWOOD SUBSTRATE ON WALLS AND CABINETS, USE CONTACT ADHESIVE EQUAL TO WILSONART BRUSHABLE GRADE LW500 ON PLYWOOD AND PLASTIC LAMINATE SURFACES IN ACCORDANCE WITH ADHESIVE MANUFACTURER'S INSTRUCTIONS. FOR ADHERING SOLID SURFACING, BED THE SOLID SURFACE IN SILICONE SEALANT AS RECOMMENDED BY SOLID SURFACE MANUFACTURER ON THE WOOD;/PLYWOOD FRAMING.

PART THREE - EXECUTION

3.01 INSTALLATION:
A. INSTALL WORK OF THIS SECTION AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN, IN ACCORDANCE WITH APPROVED SHOP DRAWINGS AND MANUFACTURER'S WRITTEN INSTRUCTIONS.
B. INSTALL THE WORK PLUMB, TRUE AND STRAIGHT WITH NO DISTORTIONS, SHIM AS REQUIRED USING CONCEALED SHIMS. INSTALL TO A TOLERANCE OF $\frac{1}{8}$" IN 8'-0" FOR PLUMB AND LEVEL (INCLUDING COUNTERTOPS) AND WITH $\frac{1}{16}$" MAXIMUM OFFSET IN FLUSH ADJOINING SURFACES, $\frac{1}{8}$" MAXIMUM OFFSETS IN REVEALED ADJOINING SURFACES.

3.02 FINISH HARDWARE: RECEIVE, STORE AND INSTALL FINISH HARDWARE SPECIFIED ON THE DRAWINGS. AT COMPLETION OF THE JOB, CHECK AND LEAVE ALL HARDWARE IN OPTIMUM LABELED ACCORDING TO THE DOORS AS NUMBERED ON THE DRAWINGS. BOX KEYS NEATLY AND ORDERLY AND THEN TURN OVER TO THE OWNER.

DIVISION 7 - MOISTURE PROTECTION

BUILDING INSULATION
SECTION 07200

PART ONE - GENERAL

1.01 SCOPE: THE WORK OF THIS SECTION INCLUDES INSULATION AT EXTERIOR WALLS AND ELSEWHERE AS SHOWN ON THE DRAWINGS.

PART TWO - MATERIALS

2.01 THERMAL INSULATION: INORGANIC GLASS FIBER BLANKETS WITH VAPOR BARRIER, 6" THICK, R-19.

PART THREE EXECUTION

3.01 INSTALL THERMAL INSULATION ON TOP OF SUSPENDED CEILING TILES IN ATTIC SPACE AND IN WALL VOIDS OF EXTERIOR WALLS UNLESS NOTED OTHERWISE IN DRAWINGS. INSTALL ON OUTSIDE OF WATER PIPES IN EXTERIOR WALL.

CAULKING AND SEALANTS
SECTION 07900

PART ONE - GENERAL

1.01 SCOPE: THE WORK OF THIS SECTION INCLUDES ALL SEALANTS AND CAULKING, BOTH INTERIOR AND EXTERIOR.

PART TWO MATERIALS

2.01 GENERAL REQUIREMENTS: POLYSULFIDE (THLOKAL) BASE CAULKING COMPOUNDS, SYNTHACAULK GC9 BY PECORA, OR APPROVED EQUAL. COLORS SHALL REASONABLY MATCH THAT OR ADJOINING WORK.

PART THREE - EXECUTION

3.01 JOB CONDITIONS: APPLY MATERIALS ONLY WHEN THE TEMPERATURE OF SPACES, MATERIALS, AND SURFACES IS ABOVE 40 DEGREES F. USE MATERIALS WITHIN THE MANUFACTURER'S RECOMMENDED SHELF - LIFE PRIOR; REMOVE FROM THE JOB ANY MATERIALS WHOSE SHELFOLIFE PERIOD EXPIRES AFTER BEING BROUGHT TO THE JOB, AND REPLACE WITH FRESH MATERIAL.

3.02 APPLICATION:

A. APPLY CAULKING IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS; USING PRESSURE TYPE CAULK GUN. PRIME SIDES OF JOINTS BEFORE APPLYING CAULKING IF RECOMMENDED BY THE MANUFACTURER. WIDTH AND DEPTH OF SEALANT IN JOINTS SHALL BE MINIMUM $\frac{1}{8}$". IN LARGE JOINTS, THE DEPTH OF SEALANT SHALL BE ONE HALF THE WIDTH OF THE JOINT. IF REQUIRED, PACK SPACES WITH COMPRESSIBLE MATERIALS, COMPATIBLE WITH THE CAULKING MATERIAL, TO WITHIN THE PROPER DISTANCE OF THE FINISHED JOINT; THEN FILL JOINT WITH CAULKING MATERIAL. PROTECT ADJACENT AREAS NOT TO RECEIVE SEALANTS AND CAULKING, REMOVE PROMPTLY IF CAULKING OR SEALANT DOES GET ON THESE SURFACES; CLEAN SATISFACTORILY OR REPOLACE SURFACES WITH NEW MATERIALS. USE GUN NOZZLES TO FIT JOINTS. FINISH JOINTS NEATLY. REMOVE EXCESS MATERIAL. LEAVE JOINTS CLEAN.

B. CAULK JOINTS BETWEEN DOOR AND WINDOW FRAMES AND ADJOINING WORK, AT ALL JOINTS BETWEEN DIFFERENT MATERIALS, AND ELSEWHERE AS SHOWN OR REQUIRED TO SEAL JOINTS WIND AND WATER TIGHT. EXERCISE CARE TO SEAL ALL OPENINGS IN EXTERIOR WALLS TO BE WIND, WATER AND INSECT TIGHT.

C. USING SPECIFIED SEALANT, SEAL BETWEEN FOOD SERVICE EQUIPMENT AND ADJOINING WALL, BASES, ETC., AS REQUIRED TO SEAL CRACKS OR OTHER OPENINGS, AND AROUND PIPES, SO TO PREVENT ACCESS OF VERMIN AND ACCUMULATION OF CRUMBS, GREASE OR OTHER FOREIGN SUBSTANCES.

D. ALL EXPOSED WOOD SURFACES IN CABINETS/COUNTERS AND ALL PENETRATIONS IN MILLWORK ARE TO BE SEALED.

DIVISION 8 - DOORS AND WINDOWS

STEEL DOORS AND FRAMES
SECTION 08100

PART ONE - GENERAL

1.01 SCOPE: THE WORK OF THIS SECTION INCLUDES FURNISHING OF ALL HOLLOW METAL DOORS AND STEEL FRAMES. INSTALLATION OF DOORS AND FRAME IS INCLUDED UNDER SECTION 06200.

1.02 MARKING: SHIP DOORS AND FRAMES TO JOB WITH EACH ITEM IDENTIFIED WITH ARCHITECT'S MARK.

1.03 PROTECTION AND CLEANING: PROTECT ALL DOOR FRAMES AND DOORS FROM DAMAGE DURING TRANSPORTATION AND AT THE JOB SITE. STORE AT THE SITE UNDER COVER ON WOOD BLOCKING OR ON SUITABLE FLOOR. AFTER INSTALLATION, PROTECT FROM DAMAGE DURING SUBSEQUENT CONSTRUCTION ACTIVITES. DAMAGED WORK WILL BE REJECTED AND SHALL BE REPLACED WITH NEW WORK.

PART TWO - MATERIALS

2.01 METAL FRAMES: FLUSH DOUBLE RABBIT ARC-WELDED FRAMES BY CECO, RUPUBLIC, CURRIES OR EQUAL, OF DEPTHS AND CONFIGURATIONS SHOWN ON THE DRAWINGS. PROVIDE WEATHER HOOD FULL WIDTH OF FRAME AT HEAD ON EXTERIOR SIDE OF EXTERIOR DOORS. INTERIOR DOOR FRAMES TO UTILIZE KNOCK-DOWN METAL FRAMES BY TIMELY, OR EQ.. PREPARE FRAME AT FACTORY FOR HARDWARE INSTALLATION. PROVIDE

BLUESTONE
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STATE OF MISSOURI
DRAKE HITCHCOCK
NUMBER A-2024010915
ARCHITECT

May 22, 2024

beem Light Sauna
2070 NW Lowenstein Dr., Suite B
Lee's Summit, MO 64081
Permit Set

REVISIONS

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Checked by: ----
Project No: ----
Date: May 22, 2024

General Notes

Sheet: G-002

METAL ANCHORS OF SHAPES AND SIZES INDICATED ON JAMBS NEAR TOP AND BOTTOM OF EACH FRAME, AND AT INTERMEDIATE POINTS NOT OVER 24" ON CENTER. PROVIDE TEMPORARY STEEL SPREADERS FASTENED ACROSS BOTTOM OF FRAMES. WHERE CONSTRUCTION WILL PERMIT CONCEALMENT, LEAVE SPREADERS IN PLACE AFTER INSTALLATION; OTHERWISE, REMOVE SPREADERS AFTER FRAMES ARE SET AND ANCHORED.

2.02 HOLLOW METAL DOORS: METAL FRAMES BY RDL SUPPLY, WITH METAL FRAME VIEW PANEL AS SHOWN ON THE DRAWINGS. PREPARE FOR HARDWARE SPECIFIED IN SECTION 08700. PROVIDE TOP CAP FOR WEATHER PROTECTION.

2.03 SHOP PAINTING: CLEAN AND CHEMICALLY TREAT (PHOSPHATES) METAL SURFACES TO ASSURE MAXIMUM PAINT ADHERENCE: FOLLOW WITH A DIP OR SPRAY COAT OR RUST-INHIBITIVE METALLIC OXIDE, ZINC CHROMATE, OR SYNTHETIC RESIN PRIMER ON ALL EXPOSED SURFACES. FINISH SURFACES SHALL BE SMOOTH AND FREE FROM IRREGULARITIES AND ROUGH SPOTS. EACH COAT OF PAINT SHALL BE SEPARATELY BAKED OR OVEN DRIED.

FLUSH WOOD DOORS
SECTION 08250

PART ONE - GENERAL

1.01 SCOPE: PROVIDE SOLID FLUSH DOORS, COMPLETE IN PLACE WITH FINISH HARDWARE INSTALLED, WHERE SHOWN ON THE DRAWINGS, AS SPECIFIED HEREIN, AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION.

1.02 QUALITY ASSURANCE:
A. USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK OF THIS SECTION.
B. IN ADDITION TO COMPLY WITH PERTINENT CODES AND REQUIREMENTS OF GOVERNMENTAL AGENCIES HAVING JURISDICTIONAL AGENCIES HAVING JURISDICTION, COMPLY WITH:

1. "MANUAL OF MILLWORK" OF THE WOODWORK INSTITUTE OF CALIFORNIA, FOR THE GRADE OR GRADES SPECIFIED; OR
2. "ARCHITECTURAL WOODWORK QUALITY STANDARDS" OF THE ARCHITECTURAL WOODWORK INSTITUTE FOR THE GRADE OR GRADS SPECIFIED.
3. CERTIFICATION AND STAMPS WILL NOT BE REQUIRED.

1.03 DELIVERY, STORAGE AND HANDLING:
A. DELIVERY:

1. DELIVER DOORS TO SITE AFTER BUILDING HAS REACHED AVERAGE PREVAILING HUMIDITY OF ITS LOCALITY.
2. DELIVER DOORS IN MANUFACTURER'S NAME, BRAND NAME, SIZE, THICKNESS, AND IDENTIFYING SYMBOL ON THE COVERING.
3. SEAL ALL FOUR EDGES OF THE UNFINISHED DOORS WHEN DELIVERED TO THE JOB SITE.

B. STORAGE:
1. STACK DOOR FLAT ON 2 X 4 LUMBER, LAID 12" FROM ENDS AND ACROSS CENTER.
2. UNDER BOTTOM DOOR AND OVER TOP OF STACK, PROVIDE PLYWOOD OR CORRUGATED CARDBOARD TO PROTECT DOOR SURFACES.
3. STORE DOORS IN AREA WHERE THERE WILL BE NO GREAT VARIATIONS IN HEAT, DRYNESS, AND HUMIDITY.

PART TWO - PRODUCTS

A. PROVIDE SOLID FLUSH WOOD DOORS OF THE TYPES, DESIGNS, AND THICKNESS SHOWN ON THE DRAWINGS, LABELED OR NON-LABELED AS INDICATED AND REQUIRED, AND IN SOLID CORE OR HOLLOW CORE SHOWN ON THE DRAWINGS. APPROVED MFGR'S. HALEY BROTHERS, MARSHFIELD, VT INDUSTRIES, MOHAWK, CRAFTMASTER.
B. GRADE: EXCEPT AS MAY BE SHOWN OTHERWISE ON THE DRAWINGS, FABRICATE THE WORK OF THIS SECTION TO "CUSTOM GRADE" STANDARDS OF THE REFERENCED ORGANIZATIONS.
C. FOR HOLLOW CORE DOORS, PROVIDE CORE CONSTRUCTION AS NEEDED TO ACCOMMODATE FINISH HARDWARE.
D. SPECIES:

1. WHERE PAINT GRADE OR OPAQUE FINISH ARE CALLED FOR ON THE DRAWINGS, PROVIDE BIRCH OR MAPLE FACES FOR OPAQUE FINISH.
2. FOR ALL OTHER FLUSH WOOD DOORS, PROVIDE ROTARY CUT WHITE BIRCH FACES FOR TRANSPARENT FINISH.

C. DO NOT DRAG DOORS ACROSS ONE ANOTHER; LIFT DOORS AND CARRY THEM INTO POSITION.

PART THREE - EXECUTION

3.01 SURFACE CONDITIONS: EXAMINE THE AREAS AND CONDITIONS UNDER WHICH THE WORK OF THIS SECTION WILL BE PERFORMED. CORRECT CONDITIONS DETRIMENTAL TO TIMELY AND PROPER COMPLETION OF THE WORK. DO NOT PROCEED UNTIL SATISFACTORY CONDITIONS ARE CORRECTED.

3.02 INSTALLATION:

A. FITTING AND MATCHING:

1. UNLESS DOORS ARE COMPLETELY FITTED AND MACHINED AT THE MILL, FIT THEM FOR WIDTH BY PLANNING AND FIT THEM FOR HEIGHT BY SAWING.

a. BOTTOM: ½" CLEARANCE MAXIMUM.
b. TOP: ⅛" CLEARANCE MINIMUM. LOCK EDGE AND HINGE EDGE: BEVEL ⅛" IN 2" MAXIMUM
c. LOCK EDGE AND HINGE EDGE: BEVEL ⅛" IN 2" MAXIMUM.

2. MACHINE DOORS FOR HARDWARE IN ACCORDANCE WITH RECOMMENDATIONS OF THE HARDWARE MANUFACTURERS, AS THOSE RECOMMENDATIONS HAVE BEEN APPROVED BY THE ARCHITECT.

B. RECEIVE AND RETAIN CUSTODY OF FINISH HARDWARE FURNISHED FOR THE WORK OF THIS SECTION EXCEPT AS OTHERWISE DIRECTED BY THE ARCHITECT. INSTALL ALL SUCH FINISH HARDWARE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF ITS MANUFACTURER.
C. REPLACE OR RE-HANG DOORS WHICH ARE HINGE BOUND AND DO NOT SWING OR OPERATE FREELY.

ALUMINUM FRAMING (IF REQUIRED PER DRAWINGS)
SECTION 08400

PART ONE - GENERAL

1.01 SCOPE: THE WORK OF THIS SECTION INCLUDES ALUMINUM STOREFRONT MATERIAL AND WINDOW ASSEMBLIES.

PART TWO - PRODUCTS

2.01 WINDOW FRAMING: DESIGN IS BASED ON USE OF U.S. ALUMINUM SERIES 400 FRAMING, AS INDICATED ON THE DRAWINGS. FINISH SHALL BE MFGR. STD. CLEAR ANODIZED, UNLESS NOTED OTHER. IN GENERAL, MATCH EXISTING STOREFRONT SYSTEM & FINISH. EQUAL BY KAWNEER.

2.02 ALUMINUM SPECIALTIES:
A. COLUMN COVERS AND AT SILLS OF WINDOWS, .00" ANODIZED ALUMINUM, FINISH TO MATCH FRAMING.
B. DRIP STRIP AT WINDOW HEADS, .032" ANODIZED ALUMINUM, FINISH TO MATCH FRAMING.

2.03 CAULKING: USE ONLY HARD ALUMINUM ALLOY OR NON-MAGNETIC STAINLESS STEEL SCREWS AND BOLTS.

2.04 FASTENERS: USE ONLY HARD ALUMINUM ALLOY OR NON-MAGNETIC STAINLESS STEEL SCREWS AND BOLTS.

PART THREE - EXECUTION

3.01 GENERAL: CAREFULLY ERECT ALL WORK PLUM, TRUE, SQUARE IN OPENINGS AND SECURELY ANCHOR IN PLACE. PROTECT ALUMINUM SURFACES FROM CONTACT WITH STEEL OR MASONRY WITH TWO COATS OF ZINC CHROMATE PAINT.

3.02 FRAMING INSTALLATION: INSTALL WINDOW FRAMING AS INDICATED ON THE DRAWINGS. SET ON POLYSULFIDE CAULKING BEAD, AND SECURELY ATTACH TO WOOD SUB-FRAME.

FINISH HARDWARE
SECTION 08700

1.01 WORK INCLUDED: INSTALLATION OF FINISH HARDWARE IS COVERED UNDER SECTION 06200. FURNISH ALL FINISH HARDWARE AND RELATED ITEMS NECESSARY TO COMPLETE THE WORK.

1.02 PRODUCT HANDLING: INDIVIDUALLY PACKAGE EACH UNIT OF FINISH HARDWARE COMPLETE WITH PROPER FASTENINGS AND APPURTENANCES, CLEARLY IDENTIFIED.

1.03 GUARANTEE: ANY HARDWARE, WHICH PROVES TO BE DEFECTIVE OR FAULTY WITHIN A PERIOD OF ONE YEAR, SHALL BE REPLACED AT NO COST TO THE OWNER.

PART TWO - PRODUCTS

2.01 GENERAL:
A. FURNISH HARDWARE IN ACCORDANCE WITH HARDWARE SCHEDULE. FURNISH EACH KIND OF HARDWARE FROM ONLY ONE MANUFACTURER.
B. FINISHES OF ALL HARDWARE SHALL MATCH THE FINISH OF THE LOCKSETS, UNLESS OTHERWISE SCHEDULED.
C. FURNISH NON-REMOVABLE PINS AT OUT SWINGING EXTERIOR DOORS.
D. CLOSERS: SIZE THE CLOSERS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN RECOMMENDATIONS. FURNISH SEX BOLTS FOR CLOSERS TO BE MOUNTED IN PARTICLE BOARD OF MINERAL CORE DOORS.
E. DOOR SILENCERS: FURNISH THREE SILENCERS FOR EACH STEEL DOOR FRAME.
F. HAND OF DOOR: THE DRAWINGS SHOW THE SWING OF EACH DOOR LEAF. FURNISH EACH ITEM OF HARDWARE FOR PROPER INSTALLATION AND OPERATION OF THE DOOR SWING AS SHOWN.
G. FASTENERS: FURNISH ALL NECESSARY SCREWS, BOLTS, AND OTHER FASTENERS OF SUITABLE SIZE AND TYPE ACCORDING TO THE MATERIAL TO WHICH THE HARDWARE IS TO BE APPLIED AND THE RECOMMENDATIONS OF THE HARDWARE MANUFACTURER. ALL FASTENINGS SHALL HARMONIZE WITH THE HARDWARE AS TO MATERIAL AND FINISH.

2.02 KEYING: KEY LOCKS IN DOORS INDIVIDUALLY. FURNISH 2 KEYS PER LOCK.

DIVISION 9 - FINISHES

GYPSUM DRYWALL
SECTION 09250

PART ONE - GENERAL

1.01 SCOPE: THIS SECTION INCLUDES MATERIALS, INSTALLATION AND FINISHING OF JOINTS FOR GYPSUM DRYWALL WALLS AND CEILINGS.

1.02 MATERIAL HANDLING: DELIVER ALL MATERIALS IN ORIGINAL UNOPENED PACKAGES AND STORE IN AN ENCLOSED SHELTER PROVIDING PROTECTION FROM DAMAGE AND EXPOSURE TO THE ELEMENTS. REMOVE DAMAGED OR DETERIORATED MATERIALS FROM THE PREMISES.

1.03 JOB CONDITIONS: IN COLD WEATHER AND DURING GYPSUM PANEL APPLICATION AND JOINT FINISHING, MAINTAIN TEMPERATURES WITHIN THE BUILDING WITHIN THE RANGE OF 50 F TO 70 F. PROVIDE ADEQUATE VENTILATION TO REMOVE EXCESS MOISTURE.

1.04 RELATED WORK: WOOD FRAMING IS INCLUDED IN SECTION 06100. STEEL STUD FRAMING IS INCLUDED IN SECTION 05400.

PART TWO - PRODUCTS

2.01 GYPSUM BOARD: TAPERED EDGE, THICKNESS AS INDICATED ON DRAWINGS, BY GOLD BOND OR EQUAL USE REGULAR ⅝" BOARD SUBSTRATE FOR ALL WET WALL LOCATIONS. INSTALL ⅝" DUROCK CEMENT BOARD BY USG, AT DEMISING WALLS LOWER 12" - SEE PLAN DETAILS.

2.02 FASTENERS: FOR ATTACHMENT OF GYPSUM BOARD PANELS TO WOOD FRAMING AND STEEL STUD FRAMING, USE BUGLE HEAD DRYWALL SCREWS EQUAL TO GOLD BOND, OF SPACING PER MANUFACTURER'S RECOMMENDATIONS.

1.03 PRODUCT HANDLING: DELIVER PACKAGED MATERIALS AND STORE IN ORIGINAL CONTAINERS WITH SEALS UNBROKEN AND LABELS INTACT UNTIL TIME OF USE.

1.04 JOB CONDITIONS: MAINTAIN ENVIRONMENTAL CONDITIONS AND PROTECT WORK DURING AND AFTER INSTALLATION IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

PART TWO - PRODUCTS

2.01 TILE PRODUCTS: AS SPECIFIED IN THE DRAWINGS
2.02 GROUT: AS SPECIFIED ON THE DRAWINGS

PART THREE - EXECUTION

3.01 TILE INSTALLATION STANDARDS:
A. COMPLY WITH APPLICABLE REQUIREMENTS OF THE FOLLOWING AMERICAN NATIONAL STANDARDS INSTITUTE STANDARDS.
1. A108.4 FOR TILE INSTALLED WITH ORGANIC ADHESIVE.
2. A108.5 FOR TILE INSTALLED WITH DRY-SET PORTLAND CEMENT MORTAR OR LATEX PORTLAND CEMENT MORTAR.
3. A108.6 FOR TILE INSTALLED WITH EPOXY ADHESIVE.
B. COMPLY WITH MANUFACTURER'S INSTRUCTION FOR MIXING AND INSTALLATION OF PROPRIETARY MATERIALS.
3.02 INSTALLATION:
A. EXTEND TILE WORK INTO RECESSES AND UNDER OR BEHIND EQUIPMENT AND FIXTURES, TO FORM A COMPLETE COVERING WITHOUT INTERRUPTIONS.
B. ACCURATELY FORM INTERSECTIONS AND RETURNS. PERFORM CUTTING AND DRILLING OF TILE WITHOUT MARKING VISIBLE SURFACES. CAREFULLY GRIND CUT EDGES OF TILE ABUTTING TRIM, FINISH OR BUILT-IN ITEMS FOR STRAIGHT ALIGNED SURFACES.
INSTALL TILE USING THE FOLLOWING SETTING BEDS AS SHOWN OR SCHEDULED.
1. QUARRY TILE FLOORS: DRY-SET PORTLAND CEMENT MORTAR OR LATEX-PORTLAND CEMENT MORTAR OVER CONCRETE.
2. GLAZED WALL TILE. ORGANIC ADHESIVE.
3. QUARRY TILE FLOORS IN COOLER/FREEZER: SET WITH EPOXY ADHESIVE.
D. UNLESS OTHERWISE SHOW, LAY TILE IN GRID PATTERN. ALIGN JOINTS WHEN ADJOINING TILES ON FLOOR, BASE, WALLS AND TRIM AREA SAME SIZE. LAYOUT TILE WORK AND CENTER TILE FIELDS IN BOTH DIRECTIONS IN EACH SPACE. ADJUST TO MINIMIZE TILE CUTTING. PROVIDE UNIFORM JOINT WIDTHS, UNLESS OTHERWISE SHOWN.
E. INSTALL EXPANSION JOINTS MAXIMUM 16' - O.C., IN EACH DIRECTION.

3.03 CLEANING AND PROTECTION:
A. UPON COMPLETION OF PLACEMENT AND GROUTING, CLEAN ALL TILE SURFACES SO THEY ARE FREE OF FOREIGN MATTER.
B. LEAVE FINISHED INSTALLATION CLEAN AND FREE OF CRACKED, CHIPPED, BROKEN,L UN-BONDED OR OTHERWISE DEFECTIVE TILE WORK.
C. PROHIBIT FOOT AND WHEEL TRAFFIC FROM USING TILE FLOORS FOR AT LEAST THREE (3) DAYS AFTER GROUTING IS COMPLETED.
D. COVER ALL TILE FLOORS WITH "KRAFT PAPER" IN ALL AREAS AND DO NOT REMOVE THE PAPER UNTIL FINAL CLEAN UP AT COMPLETION OF CONSTRUCTION.

LAY-IN CEILINGS
SECTION 09500

PART ONE - GENERAL

1.01 SCOPE: FURNISH LABOR, EQUIPMENT, AND MATERIALS TO COMPLETE THE INSTALLATION OF ALL LAY-IN CEILING MATERIALS AND SUSPENSION SYSTEMS.

1.02 SUBMITTALS: COMPLY WITH SECTION 10750. SUBMIT SAMPLES FOR APPROVAL.

1.03 JOB CONDITIONS: NO WORK IS TO BE STARTED UNTIL ALL EXTERIOR OPENINGS ARE CLOSED IN. ALL WET WORK SHALL BE COMPLETED AND DRIED BEFORE WORK IS STARTED.

PART TWO - MATERIALS

2.01 CEILING PANELS: COLOR, TYPE, PATTERN, SIZE, ETC., AS SCHEDULED AND SHOWN ON THE DRAWINGS. EXPOSED GRID SUSPENSION SYSTEM. CHICAGO METALLIC NO 200 SERIES SNAP GRID SYSTEM WITH WALL ANGLES, NO. 1408, LO-GLOSS WHITE BAKED ENAMEL PAINT FINISH. EQUAL BY ARMSTRONG, PRELU

PART THREE - EXECUTION

3.01 INSTALLATION: IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTION, SUSPEND MAIN TEES IN PLACE AT EVERY INTERSECTION WITH MAIN RUNNERS, AND WALL ANGLES WITH ENDS OF TEES RESTING ON BOTTOM FLANGE. SECURE WALL ANGLES TO SUBSTRATE WITH EXTRA ANGERS IF REQUIRED. SUSPEND SURFACE MOUNTED FIXTURES FROM BUILDING STRUCTURE AND PULL TIGHTLY AGAINST CEILING. COORDINATE WITH THE ELECTRICAL CONTRACTOR REGARDING SUSPENSION OF ELECTRICAL CEILING FIXTURES FROM THE CEILING SUSPENSION.

3.02 CLEAN-UP: AT COMPLETION OF THE WORK, REMOVE ALL SCAFFOLDING, CONTAINERS AND OTHER RUBBISH FROM THIS PORTION OF THE WORK FROM THE SITE. LEAVE ALL TILE SUPPORTING MEMBERS FIRMLY AND SECURELY ANCHORED, FREE OF FINGER MARKS OR SMUDGES AND IN PERFECT CONDITION.

DIVISION 10 - SPECIALTIES

CORNER GUARDS (IF REQUIRED PER DRAWINGS)
SECTION 10260

1.01 SCOPE: FURNISH LABOR, EQ

1.02 SUBMITTALS: COMPLY WITH SECTION 10750. SUBMIT SAMPLES FOR APPROVAL. DE $^{15}/_{16}$"

PART TWO - MATERIALS

2.01 CORNER GUARDS:
A. APPROXIMATE SIZE SHALL BE 2" X 2" FULL HEIGHT. COLOR SHALL BE WHITE OR CLEAR TO MATCH ADJACENT WALL FINISHES. VERIFY COLOR WITH CONSTRUCTION MANAGER.
B. PROVIDE RUBBER OR VINYL CORNER GUARDS BY ONE OF THE FOLLOWING MANUFACTURERS OR OWNER APPROVED SUBSTITUTIONS.
1. JOHNSONITE MIDDLEFIELD, OHIO (216-543-8916)
2. KOPPE FOSTORIA, OHIO (419435-8546)
3. RC MUSSION RUBBER CO. - AKRON, OHIO (216773-7651)
4. MERCER PRODUCTS COMPANY, INC., - ORLANDO, FLORIDA (407578-2900)
C. PROVIDE STAINLESS STEEL CORNER GUARDS (IF REQUIRED PER DRAWINGS) BY ONE MANUFACTURER'S ALIKE AND AS FOLLOWS: PROVIDE APPROXIMATELY 2" X 2" BY FULL WALL HEIGHT STAINLESS STEEL CORNER GUARDS AT LOCATIONS AS SHOWN ON THE DRAWINGS BY ONE OF THE FOLLOWING MANUFACTURERS OR OWNER APPROVED SUBSTITUTIONS:
1. K.J. MILLER CORPORATION, ELKHARD, IN (800-34-7584)
2. PAWLING CORPORATION, PAWLING, NY (914-855-1005)
3. AMERICAN FLOOR PRODUCTS CO., INC. ROCKVILLE, MD (800-342-0424)
4. MCKINNEY/PARKER DIVISION, SCRANTON, PA (717-348-7551) OR (415-282-7800)

PART THREE - EXECUTION

3.01 GENERAL: INSTALL CORNER GUARDS WHERE NOTED ON THE DRAWINGS AND PER MANUFACTURER'S WRITTEN INSTRUCTION.

PEST CONTROL
SECTION 10290

PART ONE - GENERAL

1.01 SCOPE: FURNISH LABOR, EQUIPMENT AND MATERIALS TO COMPLETE THE APPLICATION OF INSECTICIDE.

1.02 SUBMITTALS: COMPLY WITH SECTION 10750. SUBMIT SAMPLES FOR APPROVAL.

PART TWO - MATERIALS

2.01 PEST CONTROL PRODUCT: PERMA - DUST PT240 BORIC - ACID - BASED INSECTICIDE BY WHITMIRE RESEARCH LABORATORIES INC., ST. LOUIS, MO (314-225-5713), OR OWNER APPROVED SUBSTITUTION.

PART THREE - EXECUTION

3.01 GENERAL: APPLY AT THE RATE OF 150 SQUARE FEET PER 20 OZ., AEROSOL CAN TO FLAT SIDES OF STUDS OF PERIMETER WALLS, INSIDE OF PERIMETER WALL SHEATHING TOP SIDE OF GYPSUM BOARD CEILING MATERIALS AND ALL OTHER AREAS (IF ANY) INDICATED ON THE DRAWINGS. APPLY JUST PRIOR TO COVERING OR ENCLOSING. APPLY IN STRICT CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS.

TILE BACKER BOARD
SECTION 10310

PART ONE - GENERAL

1.01 SCOPE: FURNISH LABOR, EQUIPMENT AND MATERIALS TO COMPLETE THE INSTALLATION OF CEMENTIOUS TILE BACKER BOARD.

1.02 SUBMITTALS: COMPLY WITH SECTION 10750. SUBMIT SAMPLES FOR APPROVAL.

PART TWO - MATERIALS

2.01 CEMENTIOUS TILE BACKER BOARD: DUROCK CEMENT BOARD - ⅝" THICK - UNITED STATES GYPSUM COMPANY, P.O. BOX 806278, CHICAGO, IL 60680-4124.

PART THREE - EXECUTION

3.01 GENERAL: APPLY IN LOCATIONS AS DIRECTED IN SECTIONS AND DETAILS. USE POSITIVE ATTACHMENT OF BUGLE HEAD DRYWALL SCREWS.

EXTERIOR SIGNAGE
SECTION 10430

PART ONE - GENERAL

1.01 SCOPE: FURNISH LABOR, EQUIPMENT AND MATERIALS TO COMPLETE THE INSTALLATION OF ALL EXTERIOR SIGNAGE.

PART TWO - MATERIALS

2.01 EXTERIOR SIGNAGE:
A. OWNER SHALL SUPPLY ALL EXTERIOR SIGNAGE. INSTALLATION OF SIGNAGE BY THIRD PARTY.
B. CONTRACTOR SHALL COORDINATE ELECTRICAL INSTALLATION AND FINAL ELECTRICAL CONNECTIONS FOR EXTERIOR SIGNAGE UNLESS OTHERWISE INDICATED.

INTERIOR SIGNAGE (IF REQUIRED PER DRAWINGS)
SECTION 10440

PART ONE - GENERAL

1.01 SCOPE: FURNISH LABOR, EQUIPMENT AND MATERIALS TO COMPLETE THE INSTALLATION OF ALL INTERIOR SIGNAGE:

PART TWO - MATERIALS

2.01 INTERIOR SIGNAGE:
A. OWNER SHALL SUPPLY ALL INTERIOR SIGNAGE, INSTALLATION OF SIGNAGE BY THIRD PARTY
B. CONTRACTOR SHALL SUPPLY AND INSTALL ALL REQUIRED BLOCKING IN WALLS AS REQUIRED.
C. CONTRACTOR SHALL COORDINATE ELECTRICAL INSTALLATION AND FINAL ELECTRICAL CONNECTIONS FOR INTERIOR SIGNAGE UNLESS OTHERWISE INDICATED.

FIRE EXTINGUISHERS
SECTION 10520

PART ONE - GENERAL

1.01 SCOPE: FURNISH LABOR, EQUIPMENT AND MATERIALS TO COMPLETE THE INSTALLATION OF ALL FIRE EXTINGUISHERS.

PART TWO - MATERIALS

2.01 FIRE EXTINGUISHERS: FIRE EXTINGUISHERS SHALL BE MULTIPURPOSE DRY CHEMICAL TYPE RATE 4-A, 60-BC, 10LB. NORMAL CAPACITY.X IN ENAMELED STEEL CONTAINER, FOR CLASS A, CLASS B AND CLASS C FIRES. PROVIDE MANUFACTURER'S STANDARD BRACKET FOR EXTINGUISHER UL AND FM LISTED UNIT AS MANUFACTURED BY ONE OF THE FOLLOWING:
1. J.L. INDUSTRIES
2. LARSEN'S MANUFACTURING COMPANY
3. MUCKLE MANUFACTURING DIVISION OF TECHNICO, INC.
4. PROFILE INTERNATIONAL, INC.
5. BADGER

PART THREE - EXECUTION

3.01 GENERAL: CONTRACTOR SHALL INSTALL FIRE EXTINGUISHERS AS INDICATED ON THE DRAWINGS OR IF NOT INDICATED ON THE DRAWINGS, AS DIRECTED BY THE LOCAL FIRE MARSHAL TO COMPLY WITH APPLICABLE GOVERNING REGULATIONS.

TOILET ACCESSORIES
SECTION 10800

PART ONE - GENERAL

1.01 SCOPE: THE WORK IN THIS SECTION INCLUDES ACCESSORIES IN TOILETS.

PART TWO - MATERIALS

2.01 ACCESSORIES: PROVIDE TOILET ACCESSORIES TO MEET AMERICANS WITH DISABILITIES ACT

PART THREE - EXECUTION

3.01 INSTALLATION: ERECT ITEMS IN A RIGID SUBSTANTIAL MANNER, IN CORRECT POSITIONS, AND LEVEL & PLUM. FULLY TRIM IN WHERE REQUIRED. INSTALL TOILET ACCESSORIES PER ADAAG GUIDELINES.

DIVISION 11 - EQUIPMENT

FOOD SERVICE EQUIPMENT
SECTION 11400ACCESSIBILITY GUIDELINES (ADAAG) AS SHOWN ON THE DRAWINGS AND OR OWNER APPROVED

PART ONE - GENERAL

1.01 SCOPE:
A. WHERE FIXED FOOD SERVICE EQUIPMENT ABUTS OTHER EQUIPMENT OR CONSTRUCTION, SEAL RESULTING JOINT TO MAKE IT SANITARY FOR CLEANING PURPOSES. PROVIDE BACKER ROD WHERE REQUIRED. USE ONLY RTV ADHESIVE/SEALANT APPROVED BY NSF FOR USE IN FOOD ZONES. PRODUCTS MEETING THIS REQUIREMENT INCLUDE THE FOLLOWING:
1. SILASTIC 732 DOW CORNING CORPORATION, MIDLAND, MI (517-496-6000)
2. SILITE DEVCON CORPORATION, DANVERS, MA (617-777-1100)
3. RTV100 SERIES: GENERAL ELECTRIC COMPANY, WATERFORD, NY (518-266-2315)

B. CLEAN AND PRIME OR SPOT PRIME SURFACES TO RECEIVE SEALANT AS REQUIRED. COLOR TO BE CLEAR OR TO MATCH ADJACENT SURFACES.
C. ITEMS REQUIRING SEALANT INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
1. MOP SINK
2. THREE COMPARTMENT SINK
3. PREP SINK
4. HAND SINKS
5. INSIDE AND OUTSIDE WALK-IN COOLER
6. EXHAUST HOOD

DIVISION 12 - FURNISHINGS (NOT USED)

DIVISION 13 - SPECIAL CONSTRUCTION (NOT USED)

DIVISION 14 - CONVEYING SYSTEMS - MASONRY (NOT USED)

DIVISION 15 - MECHANICAL (SEE MECHANICAL DRAWINGS)

DIVISION 16 - ELECTRICAL (SEE ELECTRICAL DRAWINGS)

SPECIAL INSTRUCTIONS - DIVISIONS AND SITE CONDITIONS

JOB LOCATION AND DIMENSIONS: BEFORE DOING ANY SUCH WORK OR ORDERING MATERIALS DEPENDANT FOR PROPER LOCATION OR SIZE OF INSTALLATION UPON COORDINATION WITH BUILDING CONDITIONS, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS BY TAKING LINES AND MEASUREMENTS AT THE SITE AND SHALL BE RESPONSIBLE FOR CORRECTNESS OF SAME. NO CONSIDERATION WILL BE GIVEN ANY CLAIM BASED ON DIFFERENCES BETWEEN ACTUAL LOCATIONS AND DIMENSIONS AND THOSE SHOW ON THE DRAWINGS.

LAYING OUT OF THE WORK: BEFORE COMMENCING ANY WORK, THE CONTRACTOR SHALL VERIFY ALL GRADES, LINES, VOLTAGES, MECHANICAL CHASES, PLUMBING WASTE & SUPPLY LINES, ROOF CONDITIONS, STRUCTURAL ELEMENTS, LEVELS AND DIMENSIONS AS INDICATED ON THE DRAWINGS. HE SHALL REPORT ANY ERRORS AND INCONSISTENCIES IN THEM BEFORE BEGINNING ANY WORK.

CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING ALL CONSTRUCTION LINES, LEVELS AND GRADES, AND DIMENSIONS AS INDICATED ON THE DRAWINGS AND FOR OTHERWISE FULLY & COMPLETELY LAYING OUT ALL WORK UNDER THE CONTRACT.

DRAWINGS AND SPECIFICATIONS: THE DRAWINGS ARE PRESUMABLY CORRECT BUT THE CONTRACTOR SHALL CHECK ALL FIGURES AND NOTIFY THE DESIGNER IF ANY ERRORS ARE DISCOVERED THEREIN. IF ANY DISPUTES ARISE AS TO THE TRUE INTENT AND MEANING OF THE DRAWINGS AND OR SPECIFICATIONS, SAME SHALL BE REFERRED TO THE DESIGNER, WHOSE DECISION SHALL BE FINAL ON SUCH POINTS. THE FOLLOWING PRINCIPLES SHALL GOVERN THE SETTLEMENT OF DISPUTES WHICH MAY ARISE OVER DISCREPANCIES IN THE CONTRACT DOCUMENTS:
A. AS BETWEEN LARGE SCALE DRAWINGS AND SMALL SCALE DRAWINGS, THE LARGER SCALE SHALL GOVERN.
B. AS BETWEEN SCALE OF DRAWINGS AND WRITTEN DIMENSIONS THERE ON, THE WRITTEN DIMENSIONS SHALL GOVERN.
C. AS BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE REQUIREMENTS ON THE MORE STRINGENT SHALL GOVERN.
D. AS BETWEEN THE DRAWINGS AND SPECIFICATIONS AND THE CONTRACT AGREEMENT, THE REQUIREMENTS OF THE CONTRACT AGREEMENT SHALL GOVERN.

CORRELATION AND INTENT OF CONTRACT DOCUMENTS: THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND ANYTHING CALLED FOR OR SHOWN ON ANY ONE OF THE CONTRACT DOCUMENTS SHALL HAVE LIKE EFFECT AND BE AS BINDING AS IF CALLED FOR OR SHOWN ON ALL THE DOCUMENTS.

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STATE OF MISSOURI
DRAKE HITCHCOCK
NUMBER
A-2024010915
ARCHITECT

May 22, 2024

beem Light Sauna
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Drawn by: ----
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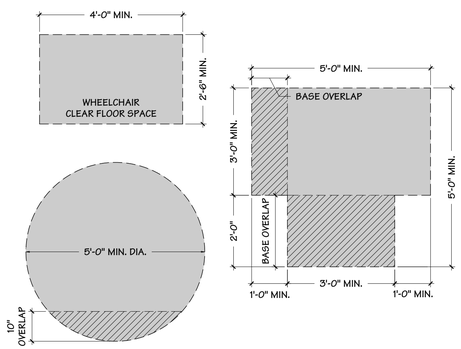
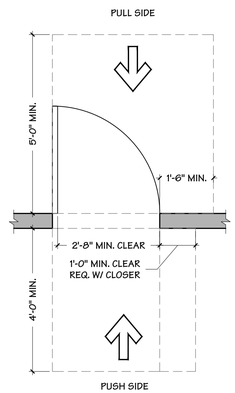
Project No: ----
Date: May 22, 2024

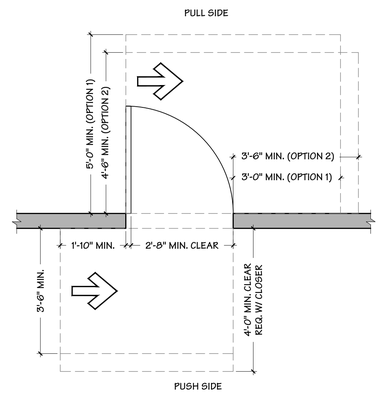
General Notes

Sheet:
G-003

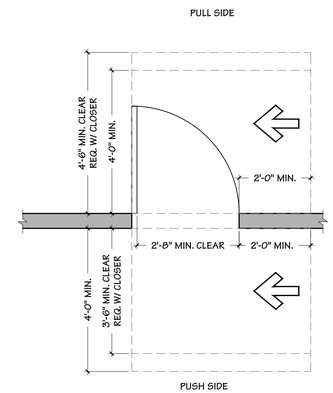




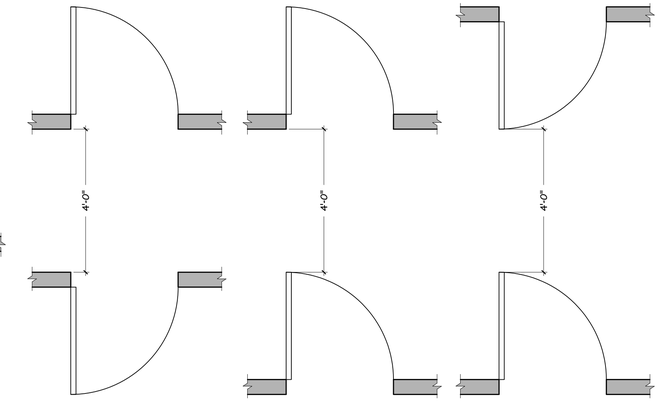
FRONT APPROACH



HINGE APPROACH



LATCH APPROACH



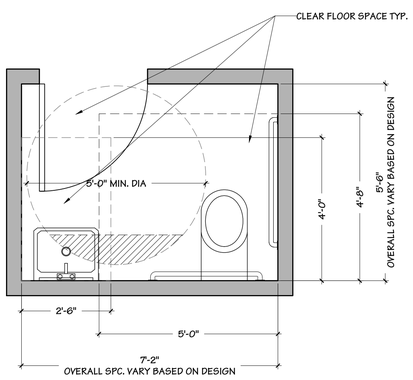
TWO DOORS IN A SERIES

C2 ACCESSIBLE SPACE CLEARANCES

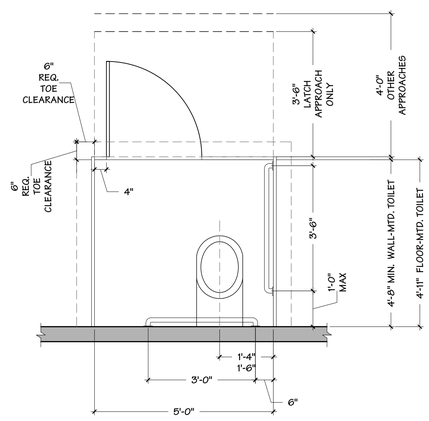
Scale: 1/2" = 1'-0"

C7 ACCESSIBLE DOOR CLEARANCES

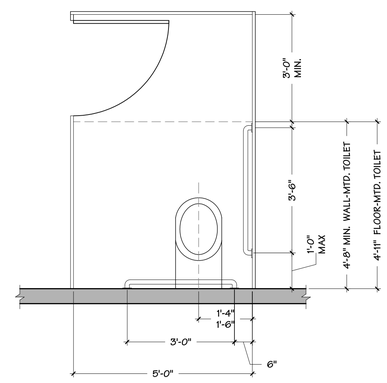
Scale: 1/2" = 1'-0"



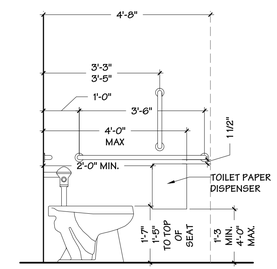
TOILET ROOM

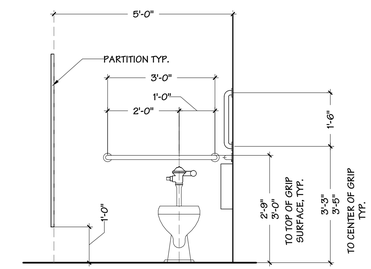


TOILET COMPARTMENT



TOILET COMPARTMENT (END OF ROW)

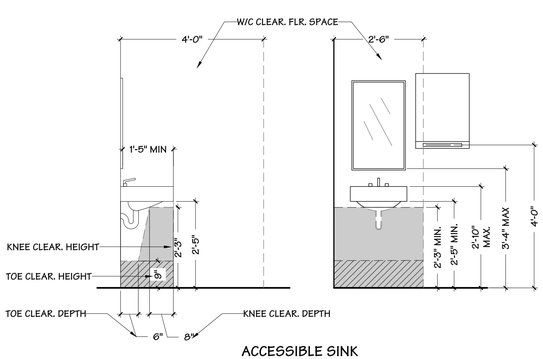




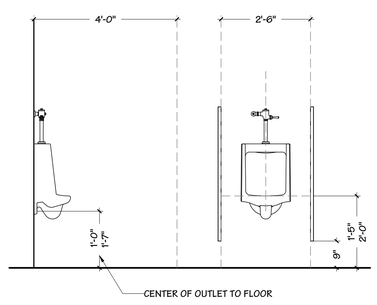
REQUIRED HEIGHTS AND CLEARANCES

E7 ACCESSIBLE TOILET ROOM & COMPARMENTS

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



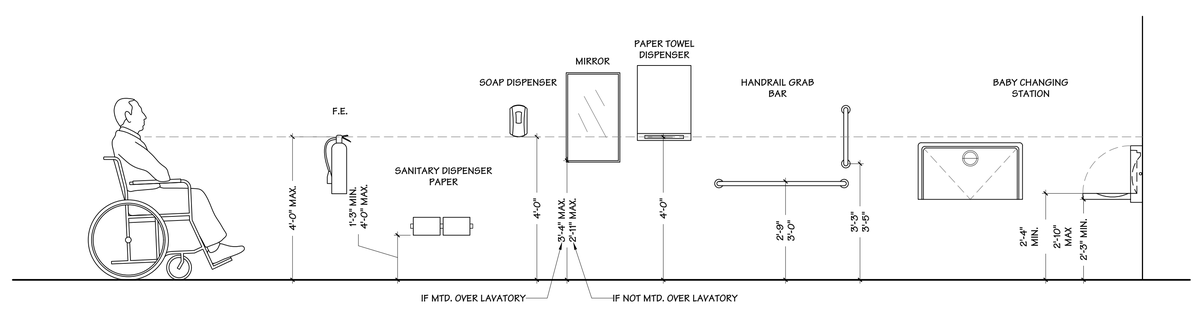
ACCESSIBLE SINK



ACCESSIBLE URINAL

F3 ACCESSIBLE SINK & URINAL

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



F7 ACCESSORIES MOUNTING HEIGHTS

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

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ADA Details

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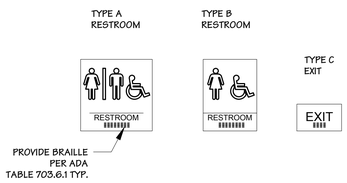
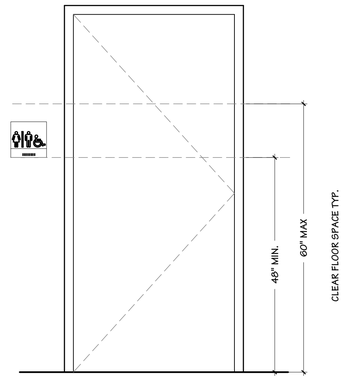
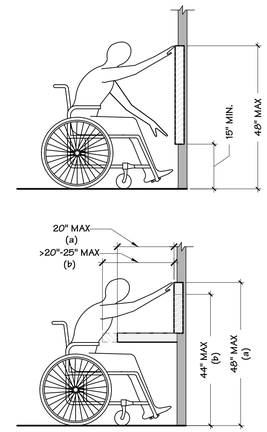
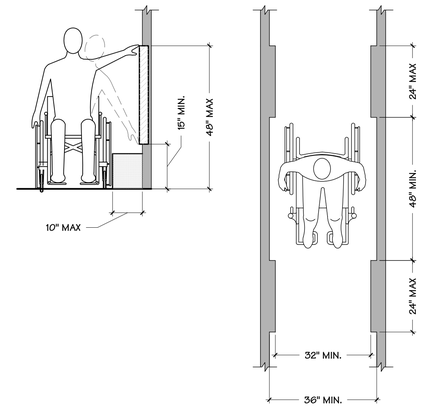


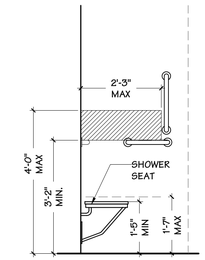


C2 SIGNAGE CLEARANCES
Scale: NTS

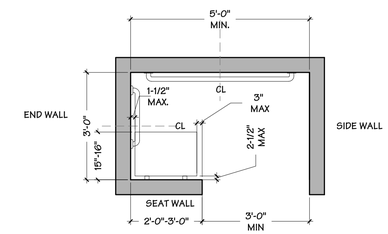




C5 ACCESSIBLE FLOOR & REACH LIMITS
Scale: 1/2" = 1'-0"



END WALL (ELEVATION)



SHOWER ROOM W/ SEAT
(PLAN)

C7 ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE
Scale: 1/2" = 1'-0"

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G-005

RESPONSIBILITY CHART

THIS CHART IS PROVIDED FOR REFERENCE ONLY. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL WORK DESCRIBED IN THE CONSTRUCTION DOCUMENTS. SEE ADDITIONAL SCOPE OF WORK ITEMS LISTED BELOW. CONFLICTS BETWEEN THIS CHART AND THE REST OF THE DRAWINGS TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY FOR CLARIFICATION.

LEGEND:
O = OWNER (TENANT)
GC = GENERAL CONTRACTOR
OC = OWNER'S VENDOR (GC TO COORDINATE W/ OWNER)
PS = WORK TO BE PERMITTED SEPARATELY OF THIS APPROVAL

ITEM (SPECIFICATION SECTION)	FURNISHED				INSTALLED			S	REMARKS
	O	GC	OC	PS	O	GC	OC	PS	
DIVISION- 1 GENERAL REQUIREMENTS									
TEMPORARY FACILITIES & CONTROLS		•				•			
STARTING AND ADJUSTING		•				•			
CONSTRUCTION AND BARRICADES		•				•			
DIVISION- 2 EXISTING CONDITIONS									
DEMOLITION		•				•			
DIVISION- 3 CONCRETE									
CONCRETE INFILL		•				•			CONCRETE INFILL TO MATCH THE COLOR/ COMPOSITION OF THE EXISTING CONCRETE SLAB AS CLOSELY AS POSSIBLE.
CONCRETE SLAB FLOOR PREPARATION		•				•			RE: A-114 FOR FLOORING/FINISHES
DIVISION- 4 MASONRY									
DIVISION- 5 METAL									
STRUCTURAL STEEL									
LIGHT GAUGE METAL FRAMING		•				•			
METAL FABRICATION		•				•			AS MAY BE REQUIRED
DIVISION- 6 WOOD AND PLASTICS									
RUNNING TRIM & MOULDINGS - N/A		•				•			
RECEPTION MILLWORK		•				•			RE: A-113, A-501
BACKING/BLOCKING		•				•			A115/ A-501
WORK AREA BASE AND WALL CABINETS		•				•			RE: A-113, A-501
DIVISION- 7 THERMAL AND MOISTURE PROTECTION									
THERMAL AND SOUND INSULATION		•				•			
SEALANTS		•				•			
DIVISION- 8 DOORS AND FRAMES									
METAL DOORS AND FRAME		•				•			
WOOD DOORS		•				•			
DOOR HARDWARE		•				•			COORDINATE KEYING WITH OWNER
GLAZING- N/A									
STOREFRONT SYSTEM- N/A									
DIVISION- 9 FINISHES									
CONCRETE SLAB- STAIN FINISH		•				•			REFER TO SHEET A-114
FLOOR TILE		•				•			
WALL TILE		•				•			
SEALER FOR EXISTING CONCRETE		•				•			
PAINT		•				•			RE: A-114
~~*ALL ITEMS IN EXPOSED STRUCTURAL AREAS TO BE PAINTED~~		~~•~~				~~•~~			~~RE: A-114~~
ACOUSTICAL CEILING		•				•			RE: A-112, A-114
DIVISION- 10 SPECIALTIES									
*WALL MOUNTED SOAP DISPENSERS		•				•			*CONFIRM W/OWNER
*PAPER TOWEL DISPENSER		•				•			*CONFIRM W/OWNER
*TOILET TISSUE DISPENSERS		•				•			*CONFIRM W/OWNER
TOWEL BARS		•				•			
WASTE RECEPTACLE (RESTROOM)	•					•			
GRAB BARS		•				•			
RESTROOM MIRRORS (BACKLIT)		•				•			POWER AS REQUIRED
THERAPY ROOM MIRRORS (BACKLIT)		•				•			POWER AS REQUIRED
ROBE HOOKS		•				•			
SHOWER SEAT		•				•			
SHAMPOO/ CONDITIONER DISPENSER		•				•			
POINT OF SALE AND DATA: CONDUITS AND PULL STRINGS		•				•			
CABLING	•				•				ROUGH-IN BOXES BY EC AS REQUIRED
POWER		•				•			ROUGH-IN BOXES BY LC AS REQUIRED. COORDINATE WITH OWNER
ENTERTAINMENT (AUDIO VISUAL):									
AV CONSOLE & EQUIPMENT			•				•		
CONDUITS AND PULL STRINGS		•				•			
TV'S AND BRACKETS									
SPEAKERS	•				•				POWER BY E.C.
SIGNAGE: INTERIOR			•				•		POWER BY E.C.
SIGNAGE: EXTERIOR			•				•	PS	PERMITTING BY SIGNAGE SUBCONTRACTOR; POWER BY E.C.
FIRE EXTINGUISHERS		•				•			
ADDRESS AND SERVICE DOOR SIGNAGE		•				•			IF NOT EXISTING, AS REQUIRED BY CODE

ITEM (SPECIFICATION SECTION)	FURNISHED				INSTALLED			S	REMARKS
	O	GC	OC	PS	O	GC	OC	PS	
DIVISION- 11 EQUIPMENT									
WASHER/ DRYER (STACKED UNITS)	•					•			
U/C REFRIGERATOR	•					•			
~~U/C REFRIGERATOR - CUSTOM PANEL FRONT~~	~~•~~				~~•~~				
SAUNA LIGHT THERAPY STATIONS	•						•		
DIVISION- 12 FURNISHINGS									
~~RECEPTION WATERFALL TABLE~~	~~•~~					~~•~~			~~GC TO COORDINATE POWER~~
RECEPTION HANGING APPAREL RACK		•				•			
RED LIGHT THERAPY BED/ LIGHT TRACK	•					•			
HALLWAY MIRROR		•				•			
~~SOCIAL SPACE/ SEATING FURNITURE~~	~~•~~					~~•~~			
WALL TIMER	•					•			
WORK AREA- FOLDING TABLE/ LAUNDRY BASKETS	•				•				
WORK AREA- SUPPLEMENTAL STORAGE	•				•				
~~SAUNA ROOM STORAGE~~	~~•~~				~~•~~				~~RE: A-1~~
~~RESTROOM, SHOWER & SAUNA SHELVING~~	~~•~~				~~•~~				
DECOR	•				•				
DIVISION- 13 SPECIAL CONSTRUCTION									
DIVISION- 14 CONVEYING EQUIPMENT									
DIVISION- 21 FIRE SUPRESSION									
FIRE SPRINKLER SYSTEM		•		•		•			FIELD VERIFY
DIVISION- 22 PLUMBING									
NEW WATER / SEWER CONNECTIONS TO EXISTING PIPING		•				•			RE: PLUMBING DRAWINGS
NEW PLUMBING FIXTURES (UNO)		•				•			RE: PLUMBING DRAWINGS
WATER HEATER		•				•			RE: PLUMBING DRAWINGS
RESTROOM/ SHOWER SINK & FAUCET		•				•			
WATER DISPENSER		•				•			RE: PLUMBING DRAWINGS
SHOWER PAN		•				•			
DIVISION- 23 MECHANICAL									
AIR HANDLING UNITS		•				•			RE: MECHANICAL DRAWINGS
DUCTWORK/ GRILLES		•				•			RE: MECHANICAL DRAWINGS
THERMOSTATS		•				•			RE: MECHANICAL DRAWINGS
DIVISION- 25 INTEGRATED AUTOMATION									
DIVISION- 26 ELECTRICAL									
NEW PANEL, BREAKERS, TRANSFORMER AND SWITCHES		•				•			
ELECTRICAL PANEL		•				•			
LIGHTING		•				•			
LAMPS		•				•			
EXTERIOR SIGNAGE			•				•		POWER BY E.C
EXTERIOR EMERGENCY LIGHTING, IF REQUIRED		•				•			
SECURITY ALARM			•				•		POWER BY E.C
CONDUIT & PULL STRING FOR PHONES, POS AND A/V		•				•			
A/V EQUIPMENT			•				•		POWER BY E.C
FIRE ALARM		•		•		•			
CHANDELIER FIXTURE 'A'		•				•			
PHONE SYSTEM			•				•		WALL BOX AND CONDUIT BY GC
MISCELLANEOUS									
WIFI	•				•				
ADA IDENTIFYING DEVICES (RESTROOM SIGNAGE)		•				•			
SPEAKERS	•				•				
PLANTS/ GREENERY	•				•				
UTILITIES									
GAS SERVICE AND METER - N/A									
WATER SERVICE AND METER									RE: PLUMBING DRAWINGS
SEWER									RE: PLUMBING DRAWINGS
ELECTRICAL SERVICE AND METER									RE: PLUMBING DRAWINGS

NOTE #1: UNLESS SPECIFIED HEREIN NOT TO BE PROVIDED, INSTALLED, AND/ OR FINISHED BY GC. THE GC OR HIS SUBS ARE TO PROVIDE INSTALL AND FINISH ALL ITEMS IN THE CONSTRUCTION DOCUMENTS.

ABBREVIATIONS

ABV	ABOVE	FA	FIRE ALARM	PH	PHASE
A/C	AIR CONDITIONING, AIR CONDITIONER	FACP	FIRE ALARM CONTROL PANEL	PLAM	PLASTIC LAMINATE
ACOUST	ACOUSTICAL	FCO	FLOOR CLEANOUT	PLBG	PLUMBING
ADA	AMERICANS WITH DISABILITIES ACT	FE	FIRE EXTINGUISHER	PLYWD	PLYWOOD
ADAAG	AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES	FF, FFE	FINISH FLOOR, FINISH FLOOR ELEVATION	PNL	PANEL
ADJ	ADJUSTABLE	FLR	FLOOR	PT	PRESSURE TREATED
A.F.F.	ABOVE FINISH FLOOR	FR	FIRE RETARDANT	PVC	POLYVINYL CHLORIDE
AHJ	AUTHORITY HAVING JURISDICTION	FRP	FIBERGLASS REINFORCED PLASTIC	QTY	QUANTITY
ALUM	ALUMINUM	FT	FEET	RA	RETURN AIR
AMP	AMPERES	GA	GAUGE, GAGE	RCP	REFLECTED CEILING PLAN
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	GALV	GALVANIZED	RD	ROOF DRAIN
ARCH	ARCHITECTURAL	GC	GENERAL CONTRACTOR	RE:, REF	REFER TO, REFERENCE
AV	AUDIO VISUAL	GFI, GFCI	GROUND FAULT (CIRCUIT) INTERRUPTER	REINF	REINFORCING
BD	BOARD	GPM	GALLONS PER MINUTE	REQD	REQUIRED
BFF	BELOW FINISH FLOOR	GRND	GROUND	REV	REVISION
BKR	BREAKER	GW	GREASE WASTE	RM	ROOM
BLDG	BUILDING	GYP BD	GYPSUM BOARD	RO	ROUGH OPENING
BO	BOTTOM OF	HB	HOSE BIB	RTU	ROOF TOP UNIT
BRG	BEARING	HORIZ	HORIZONTAL	SA	SUPPLY AIR
BTU	BRITISH THERMAL UNIT	HT, HGT	HEIGHT	SECT	SECTION
CJ	CONTROL JOINT	HTR	HEATER	SF	SQUARE FEET
℄ CL	CENTERLINE	HVAC	HEATING, VENTILATION & AIR CONDITIONING	SIM	SIMILAR
CKT	CIRCUIT	HW	HOT WATER	SGL	SINGLE
CLG	CEILING	IBC	INTERNATIONAL BUILDING CODE	SPEC	SPECIFICATION
CLR	CLEAR	ID	INSIDE DIAMETER	S.S.	STAINLESS STEEL
CMU	CONCRETE MASONRY UNIT	IN	INCHES	SS	SANITARY SEWER
CO	CLEANOUT	INT	INTERIOR	STD	STANDARD
COL	COLUMN			STL	STEEL
CONC	CONCRETE	J-BOX	JUNCTION BOX	STRUCT	STRUCTURAL
CONN	CONNECT, CONNECTION			SURF	SURFACE
CONT	CONTINUOUS	LBS	POUNDS	THRU	THROUGH
COTG	CLEANOUT TO GRADE	LF	LINEAR FEET	TOT	TOTAL
CW	COLD WATER	LTG	LIGHTING	TO, T.O.	TOP OF
DBL	DOUBLE	MAX	MAXIMUM	TSTAT	THERMOSTAT
DF	DRINKING FOUNTAIN	MBM	METAL BUILDING MANUFACTURER	TYP	TYPICAL
DIA	DIAMETER			UG	UNDERGROUND
DIM	DIMENSION	MC	MECHANICAL CONTRACTOR	UNO	UNLESS NOTED OTHERWISE
DISC	DISCONNECT	MDP	MAIN DISCONNECT PANEL	VERT	VERTICAL
DP	DEEP, DEPTH	MECH	MECHANICAL	VTR	VENT THROUGH ROOF
DS	DOWNSPOUT	MFR	MANUFACTURER	W/	WITH
DWG	DRAWING	MIN	MINIMUM	W/O	WITHOUT
		MISC	MISCELLANEOUS	W	WASTE
EA	EACH	MO	MASONRY OPENING	WCO	WALL CLEANOUT
EC	ELECTRICAL CONTRACTOR	MTD	MOUNTED	WH	WATER HEATER
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM	MTL	METAL	WP	WEATHERPROOF
EJ	EXPANSION JOINT	N/A	NOT APPLICABLE	WWF	WELDED WIRE FABRIC
ELEV	ELEVATION	NEC	NATIONAL ELECTRICAL CODE	XFRMR	TRANSFORMER
ELEC	ELECTRICAL	NIC	NOT IN CONTRACT		
ENCL	ENCLOSURE	NTS	NOT TO SCALE		
EQ	EQUAL				
ETC	UNSPECIFIED ADDITIONAL ITEMS	OA, O/A	OVERALL		
EWC	ELECTRIC WATER COOLER	OC	ON CENTER		
EWH	ELECTRIC WATER HEATER	OD	OUTSIDE DIAMETER		
EXH	EXHAUST	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED		
EXIST	EXISTING				
EXT	EXTERIOR	OH	OVERHEAD		
EX	EXISTING	OPNG	OPENING		
		OPP HAND	OPPOSITE HAND		

NOTES:
1. ALL ABBREVIATIONS SHOWN MAY NOT BE APPLICABLE TO THE PROJECT.

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May 22, 2024

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REVISIONS

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Responsibility Matrix

Sheet: G-006

EGRESS LEGEND

TAG	DESCRIPTION
	SQUARE FOOTAGE OCCUPANT LOAD OCCUPANT LOAD FACTOR
	LONGEST DISTANCE TO THE NEAREST EXIT DOOR
	EGRESS ROUTE

EMERGENCY / EXIT LEGEND

SIGN	DESCRIPTION	QUANTITY
	EXIT SIGNAGE. REFER ELECTRICAL DRAWINGS	12
EXIT	EXIT SIGNAGE WITH EMERGENCY LIGHTING. REFER ELECTRICAL DRAWINGS	2 (1)
	FIRE EXTINGUISHER: 10LB ABC DRY CHEMICAL (IN CABINET SEMI-RECESSED IN WALL)	2

EGRESS CALCULATIONS

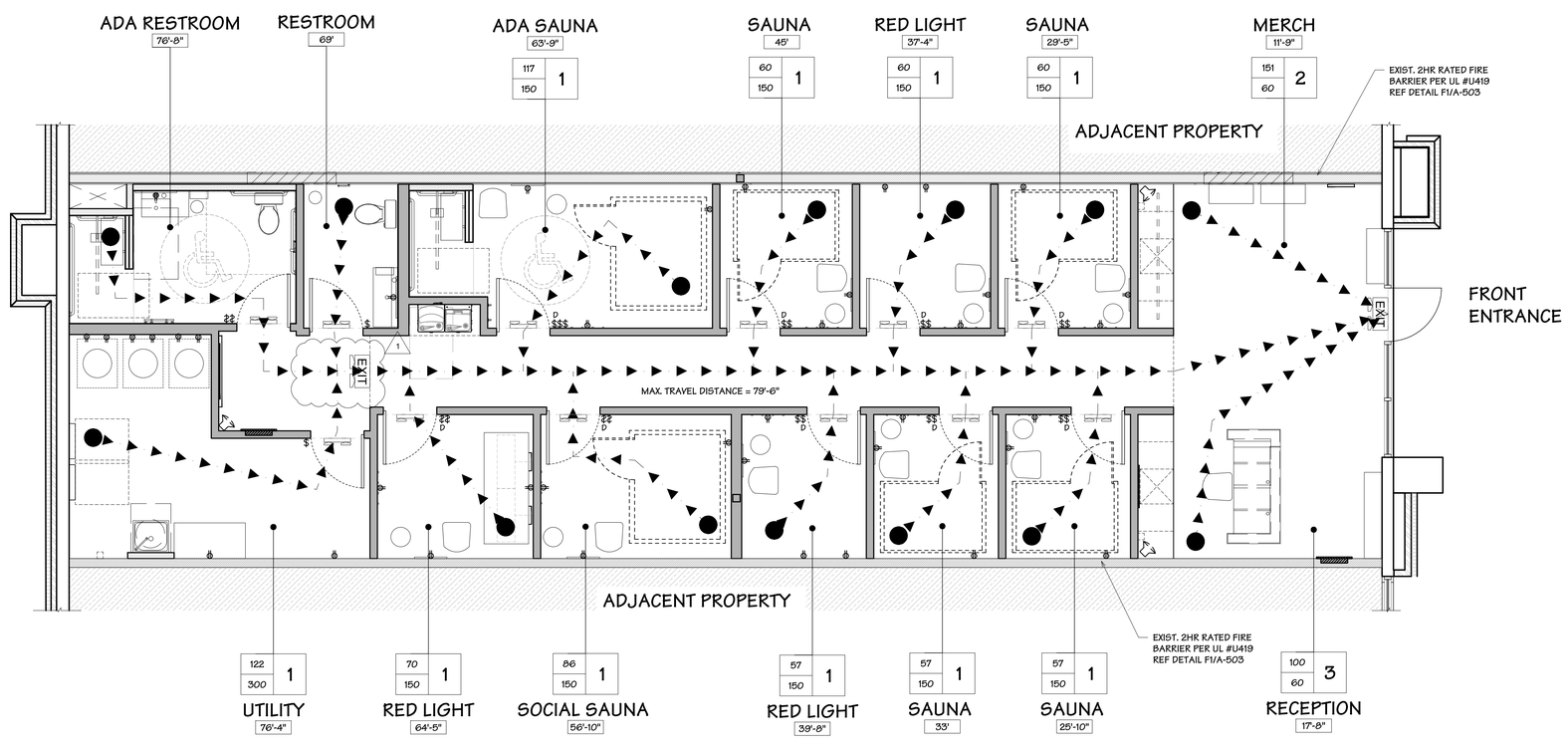
EGRESS FACTORS	CALCULATION	RESULTS
OCCUPANT LOAD	15	15
EGRESS WIDTH PER OCCUPANT SERVED	0.2"	0.2"
EGRESS WIDTH REQUIRED	OCC. LOAD X 0.2"	3.0"
ACTUAL EGRESS WIDTH PROVIDED	36"	36"
NUMBER OF EXITS REQUIRED	IBC, SECTION 1006.2.1	1
NUMBER OF EXITS PROVIDED		1
MAXIMUM TRAVEL DISTANCE ALLOWED	IBC, TABLE (1017.2)	100'

LIFE SAFETY NOTES

1. G.C. TO PROVIDE AND INSTALL ACCESSIBLE SIGNAGE IN ACCORDANCE WITH THE TEXAS ACCESSIBILITY CODE.
2. G.C. TO COORDINATE INSTALLATION REQUIREMENTS OF FIRE EXTINGUISHERS WITH LOCAL FIRE DEPARTMENT.

OCCUPANCY CALCULATIONS

AREA	CLASSIFICATION	OCCUPANT LOAD (S.F./OCC.)	SQ. FT.	CALCULATED OCCUPANTS
RECEPTION 101	MERCANTILE	60	100	2
MERCHANDISE 102	MERCANTILE	60	151	3
SAUNA 103	BUSINESS	150	60	1
RED LIGHT 104	BUSINESS	150	60	1
SAUNA 105	BUSINESS	150	60	1
SAUNA 106	BUSINESS	150	57	1
SAUNA 107	BUSINESS	150	57	1
SOCIAL SAUNA 108	BUSINESS	150	86	1
ADA SAUNA 109	BUSINESS	150	117	1
RED LIGHT 110	BUSINESS	150	57	1
RED LIGHT 111	BUSINESS	150	70	1
RESTROOM 112	N/A	N/A	43	N/A
ADA RESTROOM 113	N/A	N/A	73	N/A
UTILITY 114	STORAGE	300	122	1
HALLWAY 115	N/A	N/A	234	N/A
TOTAL BUILDING OCCUPANTS				15



F7 PLAN - LIFE SAFETY & EGRESS
Scale: 1/4" = 1'-0"

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Date: May 22, 2024

Plan - LS & Egress

Sheet: A-100

GENERAL NOTES

1. ELECTRICAL SERVICE - LL TO PROVIDE ONE 120/208 VOLTS, 400 AMP SERVICE INSTALLED AT LEASED PREMISES. PANELS SHALL CONSIST OF TWO 400 AMP PANELS INCLUDING BREAKERS FED FROM DISCONNECT SWITCHES. LANDLORD, AT LANDLORDS SOLE COST, WILL SEPARATE THE ELECTRICAL PANELS WITHIN THE SUITE FOR TENANT. DUPLEX OUTLETS ABOVE STOREFRONT AT 10'-0" OR AS REQUIRED BY CODE. CONDUIT PROVIDED FOR ONE (1) CIRCUIT FOR TENANT SIGNAGE LOCATED ABOVE FRONT WALL. TENANT WILL CONTACT UTILITY COMPANY AND HAVE THE SERVICE PLACED IN TENANT'S NAME UPON DELIVERY OF LEASED PREMISES. LANDLORD TO PROVIDE AT LEAST 66 PANEL BREAKERS.

2. WATER SERVICE - LL TO PROVIDE 1" DOMESTIC WATER LINE FROM LOCAL MAIN TO LEASED PREMISES WITH PRIVATE SUB-METER. ALL COSTS ASSOCIATED WITH MOVING THE EXISTING PLUMBING/WATER SERVICE CURRENTLY INSTALLED ARE THE TENANT'S SOLE COST AND RESPONSIBILITY.

3. GAS SERVICE - LL TO INSTALL ADEQUATE GAS LINE AND METER TO BUILDING. PIPING TO ROOF SHALL BE ADEQUATELY SIZED TO ACCOMMODATE THE HVAC UNITS. INSTALL A GAS LINE STUBBED INTO THE LEASED PREMISES IN ADDITION TO THE GAS LINE SERVING THE HVAC UNITS.

4. BUILDING SANITARY SEWER - LL TO PROVIDE A 4" SANITARY SEWER LINE FROM THE LEASED PREMISES TO THE AUTHORIZED MAIN SEWER OR A GOVERNMENTALLY APPROVED SEPTIC SYSTEM.

5. TELEPHONE CONDUIT - LL TO PROVIDE AND INSTALL TELEPHONE CONDUIT, STUBBED AT LANDLORD'S SPECIFIED LOCATION. TELEPHONE SERVICE AND CONDUCTORS WILL BE BY THE TENANT.

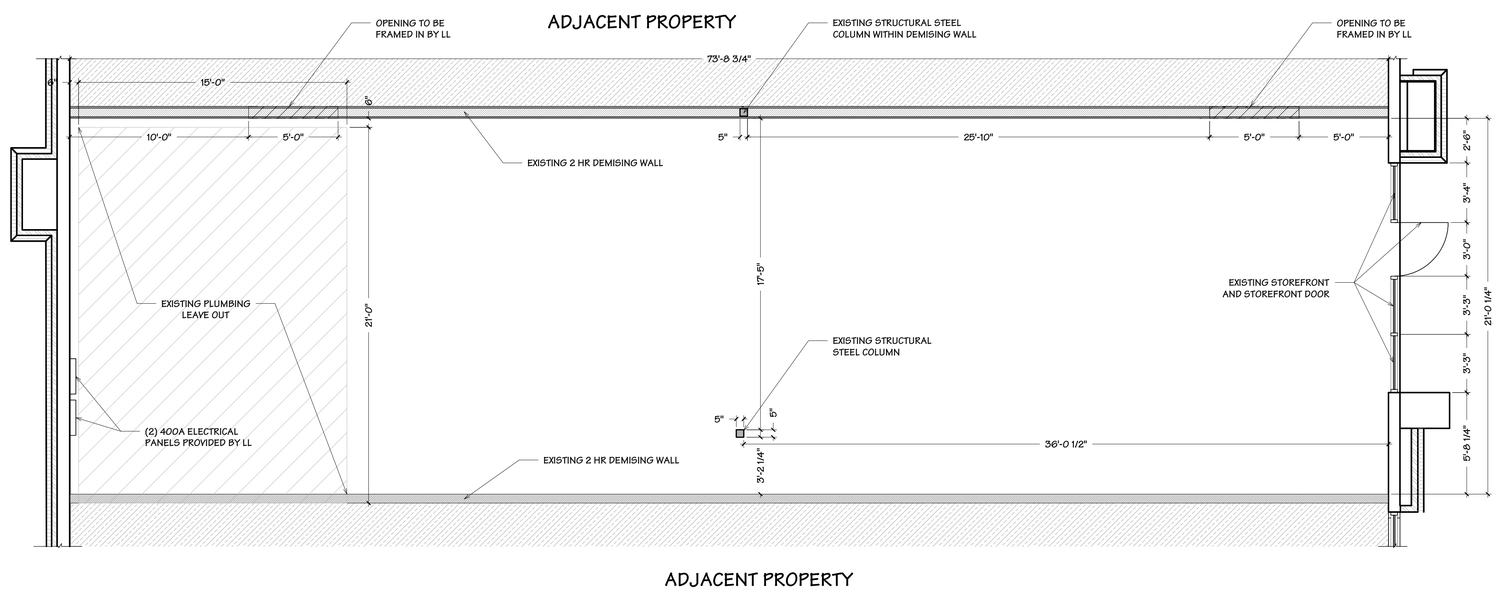
6. HVAC SYSTEM - LL TO PROVIDE HVAC SYSTEM WHICH SHALL CONSIST OF A ROOF-MOUNTED SYSTEM WITH GAS FORCED AIR HEAT. COOLING CAPACITY SHALL BE BASED ON 250 SF OF LEASE SPACE PER TON OF AIR CONDITIONING. TENANT SOLELY RESPONSIBLE FOR INSTALLATION OF ALL DUCTWORK MATERIALS AND EQUIPMENT. LANDLORD SHALL PROVIDE 9 TONS OF HVAC SERVICE.

7. DRYWALL & CEILING SYSTEM - TENANT'S SOLE RESPONSIBILITY FOR MATERIALS, IN ADDITION TO ALL LABOR AND MATERIALS INVOLVED WITH INSTALLATION. LANDLORD SHALL PROVIDE AND INSTALL STANDARD 5/8" DRYWALL AT INTERIOR DEMISING WALLS. THE JOINTS AND FASTENERS SHALL BE TAPED, FLOATED, SANDED AND READY FOR TENANT FINISH. INTERIOR FACE OF THE EXTERIOR WALLS TO REMAIN UNFINISHED BUT INSULATED AS REQUIRED BY CODE FOR THE EXTERIOR WALLS.

8. FLOORS - LL TO PROVIDE EXPOSED CONCRETE, PATCHED AS NECESSARY, TO A SMOOTH, UNIFORM AND CONSISTENT TEXTURE READY FOR TENANT'S FINISHES. FLOOR SLAB LEAVE-OUTS SHALL BE PROVIDED AT RESTROOM AND REAR OF SPACE. TENANT SHALL PLACE CONCRETE FLOOR SLAB AT LEAVE OUTS.

SYMBOL LEGEND

	EXISTING 2 HR DEMISING WALL (SOUTH)
	EXISTING 2 HR DEMISING WALL (NORTH)
	EXISTING STOREFRONT GLAZING
	EXISTING EXTERIOR WALL



F7 PLAN - EXISTING
Scale: 1/4" = 1'-0"

SUITE 'B'
AREA = 1,549 SQ. FT

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Drawn by: ----
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Plan - Existing

Sheet:
A-101

KEY NOTE#	FLOOR PLAN KEY NOTES
1	(2) 400A ELECTRICAL PANELS PROVIDED BY LL. SEE ELECTRICAL FOR MORE DETAILS.
2	PROVIDE NEW HOT WATER HEATER ABOVE CEILING - SEE PLUMBING PLAN ON SHEET P1.0. GC TO PROVIDE SHELF AND SUPPORTS FOR HOT WATER HEATER - REFER TO SHEET A-502.
3	PROVIDE FIRE EXTINGUISHER: 10LB CLASS ABC FIRE EXTINGUISHER, SEMI-RECESSED IN CABINET. MOUNTED BETWEEN 36"-48" A.F.F.
4	NEW ADA ACCESSIBLE RESTROOM, INCLUDING THE FOLLOWING: 18" VERTICAL GRAB BAR, 36" AND 42" HORIZONTAL GRAB BAR, MIRROR AND PLUMBING FIXTURES. REFER TO SHEET A-113, A-201, E1.0 FOR DETAILS.
5	PROVIDE RECEPTION DESK. PROVIDE POWER/DATA THROUGH CONDUIT IN THE FLOOR (WILL BE MOUNTED ON INSIDE OF DESK) STANDARD. REFER TO ENLARGED PLAN 'A5' AND DETAILS ON SHEET A-501.
6	PROVIDE LOWER CABINETS WITH UNDER-COUNTER REFRIGERATOR (OFCI). REFER TO ELEVATIONS ON SHEET A-202, DETAILS ON A-501
7	BEEM ACRYLIC SIGN (OFOI) AT 65" A.F.F. REFER TO ELEVATIONS ON SHEET A-202.
8	PROVIDE LOWER CABINETS WITH UNDER-COUNTER REFRIGERATOR (OFCI) AND APPAREL RACKS (CFCI).
9	INSTALL MERCHANDISE RACK (CFCI). SPACE 4.75" FROM EACH OTHER. SECURE TO WALL. PROVIDE BLOCKING (72"W X 6H" @ 96" O.C.).
10	INSTALL LUUMI SCREEN (OFCI). MOUNT AT 37.5" A.F.F. PROVIDE WALL BACKING (18"W X 30"H 37" A.F.F.). REFER TO ELEVATIONS ON SHEET A-202 AND SHEET E1.0 FOR ELECTRICAL REQUIREMENTS.
11	INSTALL 3" - 4" F.T. PLYWOOD BACKING BEHIND GYP. BD. (22"W x 65"H @ 12" A.F.F). PROVIDE BACKLIT ADA SAUNA MIRROR AT 12" A.F.F. VERIFY IN FIELD WITH TENANT. PROVIDE RECESSED OUTLET AS SHOWN ON SHEET E1.0.
12	INSTALL 3"- 4" F.T. PLYWOOD BACKING (28" X 28" @ 40" A.F.F.) BEHIND GYP. BD. PROVIDE NEW RESTROOM MIRROR PER ELEVATIONS ON SHEET A-201. PROVIDE RECESSED OUTLET WITHIN STUDS CENTERED BEHIND MIRROR. REFER TO SHEET E2.0. FOR ELECTRICAL REQUIREMENTS.
13	INSTALL 3"- 4" F.T. PLYWOOD BACKING BEHIND GYP. BD. (48"W x 80"H @ 4" A.F.F.) FOR HALLWAY MIRROR (CFCI) AND BEEM LIGHTED SIGN (OFOI) 8" ABOVE MIRROR. VERIFY IN FIELD WITH TENANT. PROVIDE POWER ABOVE CEILING OF ADJACENT ROOM. REFER TO ELEVATIONS ON SHEET A-202.
14	SAUNA (OFOI) MINIMUM 4" FROM WALL. PROVIDE POWER AS SHOWN ON SHEET E1.0.
15	INSTALL COAT HOOKS (OFCI). PROVIDE BLOCKING IN WALL (24"W X 8"H @ 5'-0" A.F.F.) CENTERED WITHIN THE CORNER AND DOOR FRAME (TYPICALLY UNLESS SHOWN OTHERWISE), EXCEPT IN ADA SAUNA, INSTALL AT 4'-0" A.F.F.
16	INSTALL WALL TIMER (OFCI) AT 2-1/2" ABOVE SWITCHES CENTERED ON SWITCH PLATE. VERIFY LOCATION WITH OWNER. ADHERE TO WALL WITH MAGNETS (OFCI).
17	PROVIDE BLOCKING (24" X 24" @ 36" A.F.F.). INSTALL ROBE HOOK KIT. VERIFY LOCATION WITH BUILDOUT MANAGER.
18	INSTALL WASHER/DRYER AND DRYER/DRYER (OFCI). PROVIDE PLUMBING AND POWER AS SHOWN ON SHEET P1.0 AND E1.0.
19	PROVIDE SHOWER FIXTURE AND ADA FOLDING SEAT. REFER TO PLUMBING SCHEDULE ON SHEET P1.0 AND ACCESSORY SCHEDULE ON SHEET A-113. RECESS SLAB FOR SHOWER. PROVIDE TRENCH DRAIN PER PLUMBING DRAWINGS ON SHEET P1.0.
20	PROVIDE UTILITY SINK PER PLUMBING PLAN ON SHEET P1.0. PROVIDE WHITE FRP ON WALLS BEHIND UTILITY SINK @ 48" A.F.F. AND EXTEND 12" BEYOND CABINET ON BOTH SIDES. CONTRACTOR TO PROVIDE RATED OUTLET AND JUNCTION BOXES IN ALL RATED WALLS.
21	NOT USED
22	PREP/LAUNDRY TABLE BY OWNER.
23	INSTALL 3"-4" F.T. PLYWOOD BACKING (28" X 28" @ 48" A.F.F.) BEHIND GYP. BD. PROVIDE NEW MIRROR. PROVIDE RECESSED OUTLET WITHIN STUDS CENTERED BEHIND MIRROR. REFER TO SHEET E2.0. FOR ELECTRICAL REQUIREMENTS.
24	BUILT-IN BENCH (20"D X 17"H), FRAMED, DRY-WALLED AND PAINTED ON BASE WITH CORIAN SOLID SURFACE IN GLACIER WHITE (DRY-WALLED ON ALL SIDES).
25	NOT USED
26	EXISTING 2HR RATED DEMISING WALL

GENERAL NOTES

A. FURNITURE PLACEMENT SHALL NOT RESTRICT ADA ACCESS REQUIRED.

B. CONTRACTOR TO PROVIDE MIN. R-30 BATT INSULATION AT EXTERIOR DECK SPACE IF NOT CURRENTLY INSTALLED.

C. CONTRACTOR TO PROVIDE MIN. R-19 BATT INSULATION IN ALL FRAMED EXTERIOR WALLS IF NOT ALREADY PROVIDED.

D. ROOF PENETRATIONS AND ROOF WORK TO BE PERFORMED BY LANDLORD'S CONTRACTOR IF REQUIRED, VERIFY WITH LANDLORD.

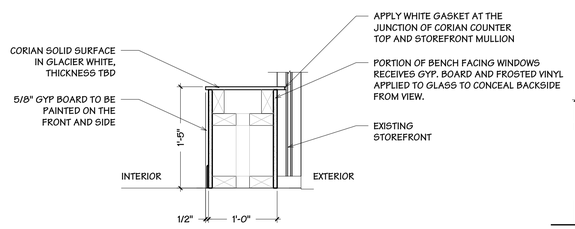
E. DIMENSIONS TAKEN FROM CENTER TO CENTER OF NEW DRY WALL.

F. DOOR THRESHOLDS WITH A CHANGE IN LEVEL BETWEEN 1/4" HIGH MINIMUM AND 1/2" HIGH MAX SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2

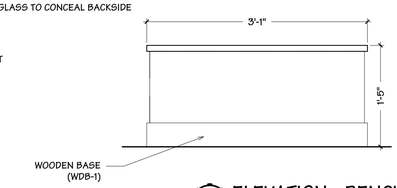
G. RESTROOM WALLS TO GO FULL HEIGHT TO DECK

SYMBOL LEGEND

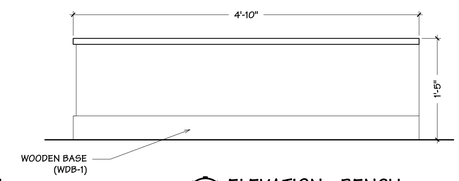
	NEW PARTITION WALL
	NEW 2 1/4", 4-1/4" OR 6 5/8" WALL FURRING W/ R-13 BATT INSULATION
	EXISTING 2 HR DEMISING WALL (SOUTH)
	EXISTING 2 HR DEMISING WALL (NORTH)
	EXISTING STOREFRONT GLAZING
B	INDICATES WALL CONSTRUCTION TYPE
01	DOOR DESIGNATION
	EXISTING EXTERIOR WALL



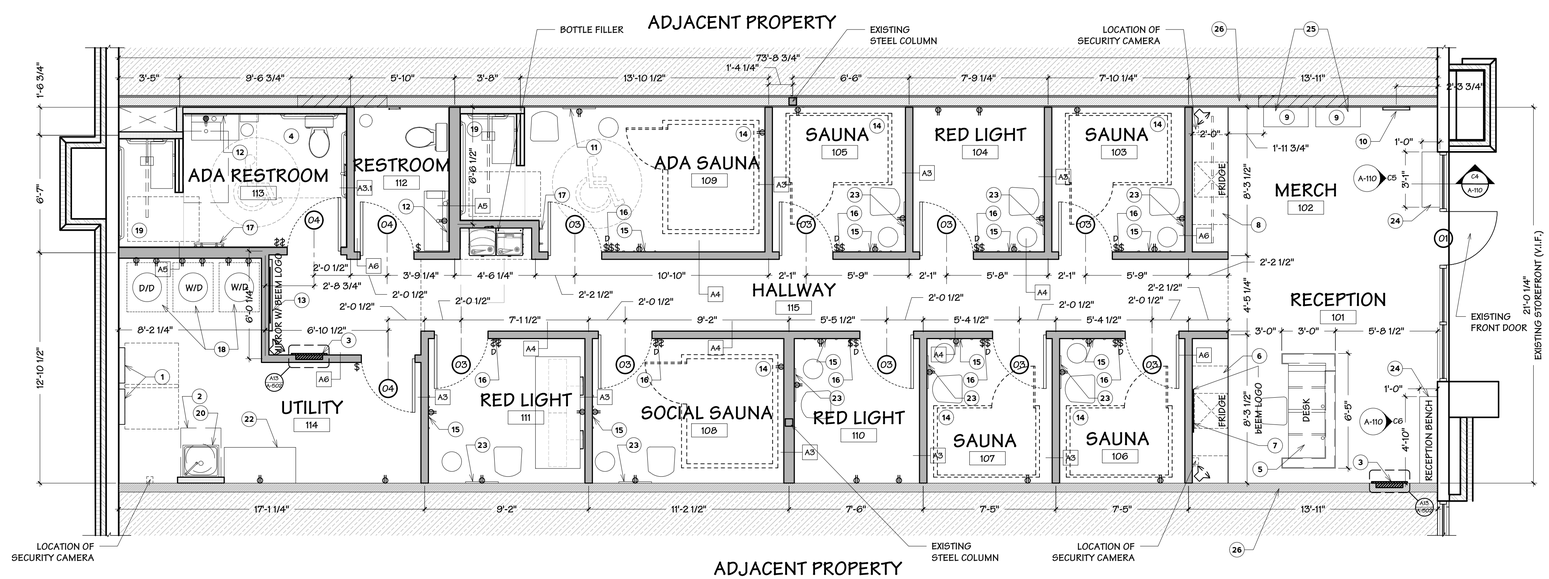
C3 SECTION - BENCH
Scale: 1" = 1'-0"



C5 ELEVATION - BENCH
Scale: 1/2" = 1'-0"



C6 ELEVATION - BENCH
Scale: 1/2" = 1'-0"



F7 PLAN - FLOOR
Scale: 1/4" = 1'-0"

SUITE 'B'
AREA = 1,549 SQ. FT

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Plan - Floor

Sheet: A-110

RCP LEGEND

SYMBOL	MAKE/MODEL	DESCRIPTION
		CEILING DETAIL
FINISH HEIGHT AFF		CEILING ELEVATION
	GC	SUPPLY DIFFUSER, REF: MEP
	GC	RETURN AIR GRILL, REF: MEP
	GC	EXHAUST FAN, REFER MECHANICAL M1.0
EXIT	GC	EXIT LIGHT W/ BATTERY PACK , REF: MEP
	GC	WALL MOUNTED EMERGENCY LIGHT, REF: MEP
	MODEL# VMP 25030BL; VENDOR: VONN	CHANDELIER, REF: MEP.
	HALO HC410D010 RECESSED 4" 3500K, WHITE TRIM OR SUBSTANTIALLY SIMILAR ALTERNATE	RECESSED DOWN LIGHT, REF: MEP
	HALO HC610D010 RECESSED 6" 3500K, WHITE TRIM OR SUBSTANTIALLY SIMILAR ALTERNATE	RECESSED DOWN LIGHT, REF: MEP
	~~PLT-80270 3500K; COLOR: WHITE~~	COLOR SELECTABLE LED SUSPENSION LIGHT FIXTURE
	WYZE LIGHT STRIP PRO	TAPE LIGHT IN BARREL HALLWAY CHANNELS - SOLD IN 16.4' OR 32.8' KITS- TRIMMABLE
D $		DIMMER SWITCH
	CEILING TILE 'ACT-1': VENDOR - ARMSTRONG MODEL - DUNE 1852 COLOR - WHITE BEVELED TEGULAR 9/16" 24" X 24" ACOUSTIC CEILING GRID AND TILE SYSTEM - 5/8" THK. CEILING GRID 'GRID-1': VENDOR - ARMSTRONG MODEL 'T' GRID; COLOR - WHITE; SIZE - 9/16" OR SUBSTANTIALLY SIMILAR ALTERNATE	ACOUSTICAL CEILING TILES
	USG OR EQUIVALENT	NEW GYPSUM BOARD CEILING
	USG OR EQUIVALENT	2 LAYERS OVER FLEX-C METAL SURFACE
	OWNER	WALL MOUNTED SPEAKER (OFOI)

GENERAL RCP NOTES

1. FIELD VERIFY EXISTING NORMAL AND EMERGENCY EGRESS LIGHTING, PROVIDED UNDER THE PREVIOUS PERMIT, IS ADEQUATE & FULLY OPERATIONAL. CLEAN AND RE-LAMP FIXTURES AS REQUIRED.

2. ALL OPEN CEILING ITEMS - IF ANY - (GRILLES, EXHAUST FAN COVERS, LIGHTING TRIM, ETC.) TO BE NOT PAINTED (TYP.). EXPOSED PIPES TO BE PAINTED SAME COLOR AS CEILING.

3. REFER TO SHEET E2.0 FOR LIGHTING LEGEND.

4. REFER TO SHEET A-114 FOR ACOUSTICAL CEILING GRID DETAILS.

5. FOR BARREL HALLWAY - GC TO MAXIMIZE CEILING HEIGHT AS POSSIBLE UP TO 12'-0" AFF, IF LOW HANGING UTILITY PIPES IN THE AREA ARE ENCOUNTERED.

KEY RCP NOTES

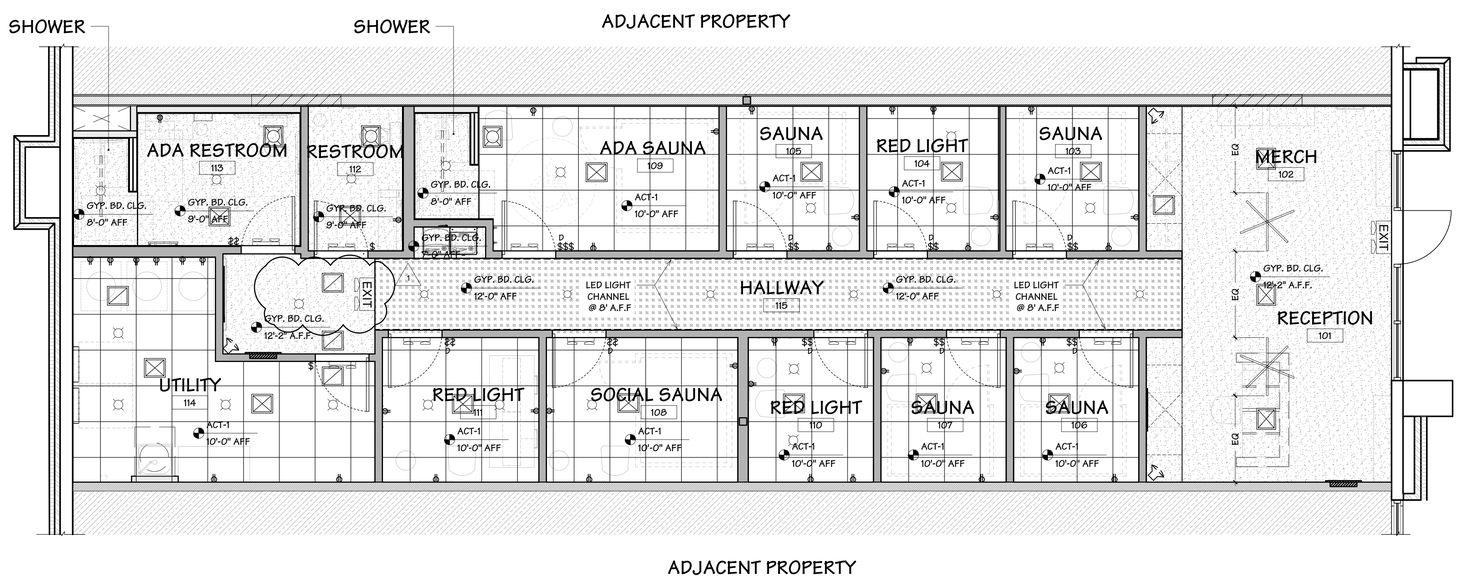
1. PROVIDE NEW GRID (GRID-1) AND ACOUSTICAL TILES (ACT-1). REFER TO SHEET A-114.

2. INSTALL SPEAKERS (OFOI) AT 84" A.F.F. PROVIDE POWER AS SHOWN ON SHEET E1.0

3. EXISTING EXTERIOR LIGHTING TO REMAIN. GC TO CONFIRM EXISTING EXTERIOR

4. EXTERIOR SIGN JUNCTION BOX TO BE BROUGHT WITHIN 5 FEET OF THE PROPOSED STOREFRONT SIGN LOCATION. REFER TO SHEET E1.0.

5. BOTTOM OF CHANDELIERS AT 9'-0" A.F.F.; TYP.



F7 PLAN - REFLECTED CEILING
Scale: 1/4" = 1'-0"

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Date:	May 22, 2024

Plan - RCP

Sheet:
A-112

FURNITURE/ACCESSORY SCHEDULE

MARK	DESCRIPTION	MANUFACTURER & MODEL #	COLOR/FINISH	SUPPLIED	INSTALLED
1	WASTE RECEPTACLE	ROOM ESSENTIALS #064-05-2769 @ TARGET	CLEAR 10.5"H x 8.5"W	OWNER	OWNER
2	TOILET PAPER DISPENSER	TASTOS #B08FWQBQS5 @ AMAZON.COM	MATTE BLACK 7.32 x 3.62 x 2.28	GC *	GC
3	SOAP DISPENSER	CONTAINER STORE #10080651	MATTE BLACK 6.5 OZ	OWNER	OWNER
4	PAPER TOWEL DISPENSER	ESSENTIALLY YOURS #B07PMBQRZ3 @ AMAZON.COM	BLACK 12.17 X 8.46 X 5.04	GC *	GC
5					
6	ROUND LED WALL MIRROR	IVY BRONX LASOYA ROUND LED WALL MIRROR, # W100134102, 28"X28" WWW.WAYFAIR.COM	28" DIA. ROUND, GLASS, WALL MOUNTED, PLUG-IN TYPE	GC	GC
7	GRAB BAR CONCEALED MOUNT - 36"	STAINLESS STEEL 1 1/4" - 2" MAX O.D.	MATTE BLACK AND ROUND TRIM (FOR ALL GRAB BAR)	GC	GC
8	GRAB BAR CONCEALED MOUNT - 42"	STAINLESS STEEL 1 1/4" - 2" MAX O.D.	MATTE BLACK AND ROUND TRIM (FOR ALL GRAB BAR)	GC	GC
9	GRAB BAR CONCEALED MOUNT - 18"	STAINLESS STEEL 1 1/4" - 2" MAX O.D.	MATTE BLACK AND ROUND TRIM (FOR ALL GRAB BAR)	GC	GC
9A	GRAB BAR CONCEALED MOUNT - 60"	STAINLESS STEEL 1 1/4" - 2" MAX O.D.	MATTE BLACK AND ROUND TRIM (FOR ALL GRAB BAR)	GC	GC
10	ROBE HOOKS & TOWEL BAR KIT	LAIRUIER #B07WN3F93N @ AMAZON.COM	MATTE BLACK	GC	GC
11	ACCESSIBLE WALL-MOUNTED FOLDING SEAT	TEAKWORKS4U PTBF-320160W	NATURAL	GC	GC
12	SOAP & SHAMPOO DISPENSER	ZERODIS B08HV21PQ2 @ AMAZON.COM	BLACK	GC	GC
13	TALL BACKLIT MIRROR	HANS & ALICE #B07FQLH757	21.7"W X 65" W MOUNT @ 12" A.F.F.	GC	GC
13A	WLH LED MIRROR	IVY BRONX LASOYA ROUND LED WALL MIRROR (28"X28"), SKU: W100134102 @ WAYFAIR.COM	RECESSED OUTLET @ 60" AFF. INSTALL HEIGHT AT 48" A.F.F.	GC	GC
14	REGULAR SAUNA	SYMMETRY SAUNA	REFER 'SYMMETRY SAUNA' MARK 1 SPEC SHEET	OWNER	OWNER
15	SOCIAL SAUNA	SYMMETRY SAUNA	REFER 'SYMMETRY SAUNA' ADA SPEC SHEET	OWNER	OWNER
16	SAUNA CHAIR	SVELTI #11627	DUSTY PINK	OWNER	OWNER
17	SAUNA SIDE TABLE	WEST ELM #3955376 FLUTED SIDE TABLE	WHITE	OWNER	OWNER
18	LIGHT THERAPY MACHINE, STAND & BED	--	--	OWNER	GC
19	TIMER	VOCOO #B08M95B91P	3.07 X 1.06	OWNER	GC
20	COAT HOOKS	WEST ELM PONTO WALL HOOKS	MULTI	OWNER	GC
21	RECEPTION DESK CHAIR	ARTICLE #12162	WHITE	OWNER	OWNER
22	LUUMI SCREEN	18"W X 30"H X 1.8"D VERIFY POWER HEIGHT	--	OWNER	GC
23	TOWEL & BEVERAGE REFRIGERATOR	23.63"W x 33.5"H 23.5"D	SILVER	OWNER	GC
24	SPEAKER & MOUNTS	--	SPEAKER OUTLETS TO BE NO MORE THAN 2" OFF THE WALL CORNER	OWNER	OWNER
25	MERCHANDISE RACK	CRATE & BARREL #386941 STAIRWAY BOOKCASE	WHITE	GC	GC
26	APPAREL RACK	40" W X 1.25" DIA. KROFT.CO HANGING CLOTHES RACK MEDIUM	WHITE	GC	GC
27	BEEM ACRYLIC SIGN	55" W X 25" H X 1/2" DIA. INSTALL AT 65" A.F.F.	WHITE	OWNER	OWNER
28	LAUNDRY TABLE	--	--	OWNER	OWNER
29	HALLWAY MIRROR	48"W X 78"H INSTALL ABOVE WOOD BASE	1" RADIUS CORNERS	GC	GC
30	ACCESSIBLE SIGNAGE	REFER TO DETAIL A4/A-501	--	GC	GC
31	beem ILLUMINATED SIGN	35"W x 10.75"H REQUIRES J-BOX ABOVE CEILING OF ADJACENT ROOM	--	OWNER	OWNER
32	STACKING DRYER	SPEED QUEEN #LSEE5AGS173TW01	--	OWNER	GC
32A	STACKING WASHER/DRYER	SPEED QUEEN #LTEE5ASP175TW01	--	OWNER	GC
33	TEMPERED GLASS PARTITION	TBD	FRAME: MATTE BLACK	GC	GC
34	UTILITY SINK	GLACIER BAY ALL-IN-ONE INTERNET # 206057007 MODEL # GL033Y	STAINLESS STEEL SINK WITH WHITE CABINET	GC	GC
35	RECEPTION BENCH	BUILT-IN BENCH	CORIAN SOLID SURFACE TOP IN GLACIER WHITE, DRY WALL BASE	GC	GC

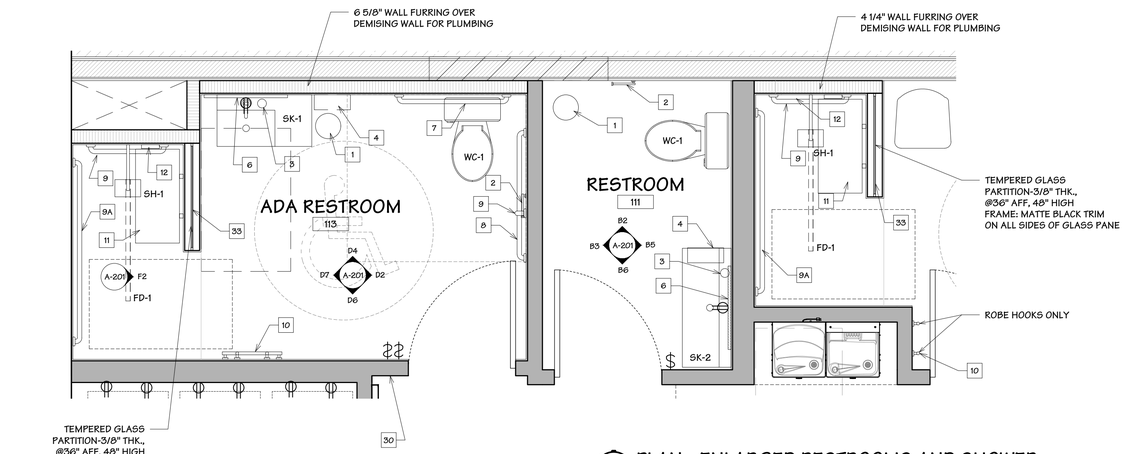
*CONFIRM WITH STUDIO BUILDOUT MANAGER BEFORE PURCHASING. ACCESSORIES MAY BE PROVIDED AND INSTALLED BY OTHERS.

RESTROOM NOTES:
NOTE 1: INSTALL 3 1/2" SOUND INSULATION BATTS IN NEW WALLS AROUND TOILET ROOM(S) - TYPICAL.

NOTE 2: PROVIDE/INSTALL BLOCKING FOR GRAB BAR SUPPORT - TYPICAL. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHERE A VERTICAL OR HORIZONTAL FORCE OF 250 LBS. IS APPLIED AT ANY POINT ON THE GRAB BAR, FASTENER MOUNTING DEVICE OR SUPPORTING STRUCTURE.

NOTE 3: TOILET ACCESSORIES FURNISHED AND INSTALLED BY GC UNLESS OTHERWISE NOTED.

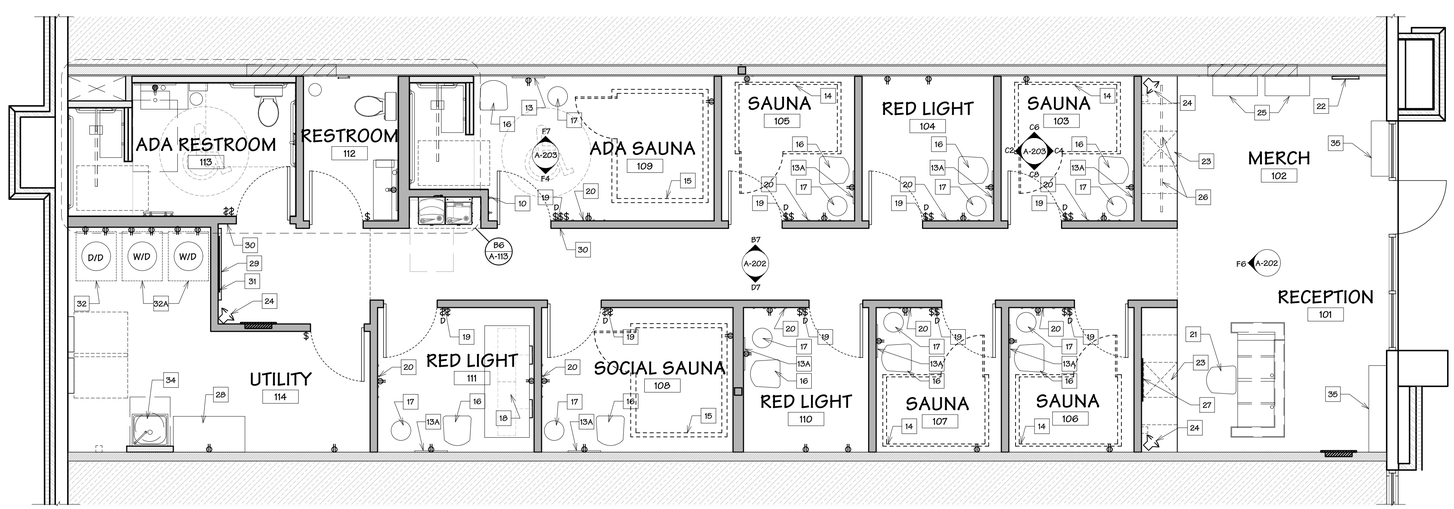
NOTE 4: PROVIDE/INSTALL BLOCKING FOR SECURE SEAT ATTACHMENT. BLOCKING AND SEAT TO BE INSTALLED TO SUPPORT A STATIC LOAD OF UP TO 360 POUNDS.



B6 PLAN - ENLARGED RESTROOMS AND SHOWER
Scale: 1/2" = 1'-0"

SYMBOL LEGEND

	NEW PARTITION WALL
	NEW 2 1/4", 4-1/4" OR 6 5/8" WALL FURRING W/ R-13 BATT INSULATION
	EXISTING 1 HR DEMISING WALL
	EXISTING STOREFRONT GLAZING
B	INDICATES WALL CONSTRUCTION TYPE
01	DOOR DESIGNATION
	EXISTING EXTERIOR WALL



F7 PLAN - FURNITURE
Scale: 1/4" = 1'-0"

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STATE OF MISSOURI
DRAKE HITCHCOCK
NUMBER A-2024010915
ARCHITECT

May 22, 2024

beem Light Sauna
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Lee's Summit, MO 64081
Permit Set

REVISIONS

No.	DATE	NOTE

Drawn by: ----
Checked by: ----
Project No: ----
Date: May 22, 2024

Plan - Furniture

Sheet: A-113

FINISH SCHEDULE

GENERAL NOTES:
A. FLOORS IN RESTROOMS SHALL HAVE A SMOOTH, HARD, NON-ABSORBENT SURFACE SUCH AS PORTLAND CEMENT, CERAMIC TILE, CONCRETE, OR OTHER APPROVED MATERIAL WHICH EXTENDS UPWARD ONTO THE WALLS AT LEAST 6 INCHES.

B. PROVIDED WATER-RESISTANT GYPSUM BOARD, GREEN BOARD, OR OTHER APPROVED MATERIAL ON THE WALLS IN RESTROOMS.

C. WALL IN RESTROOMS WITHIN 2 FEET OF THE FRONT AND SIDES OF URINALS AND WATER CLOSETS SHALL HAVE SMOOTH, HARD NON-ABSORBENT SURFACE TO A HEIGHT OF 4 FEET.

D. DO NOT INSTALL VINYL BASE ON TILE VENEER.

REMARKS:
1. USE MOLD RESISTANT GWB-3 ON WALLS AND GCB-2 ON CEILING IN WET AREAS.

2. REFER TO FINISH PLAN ON SHEET A-114 FOR FINISH LOCATIONS.

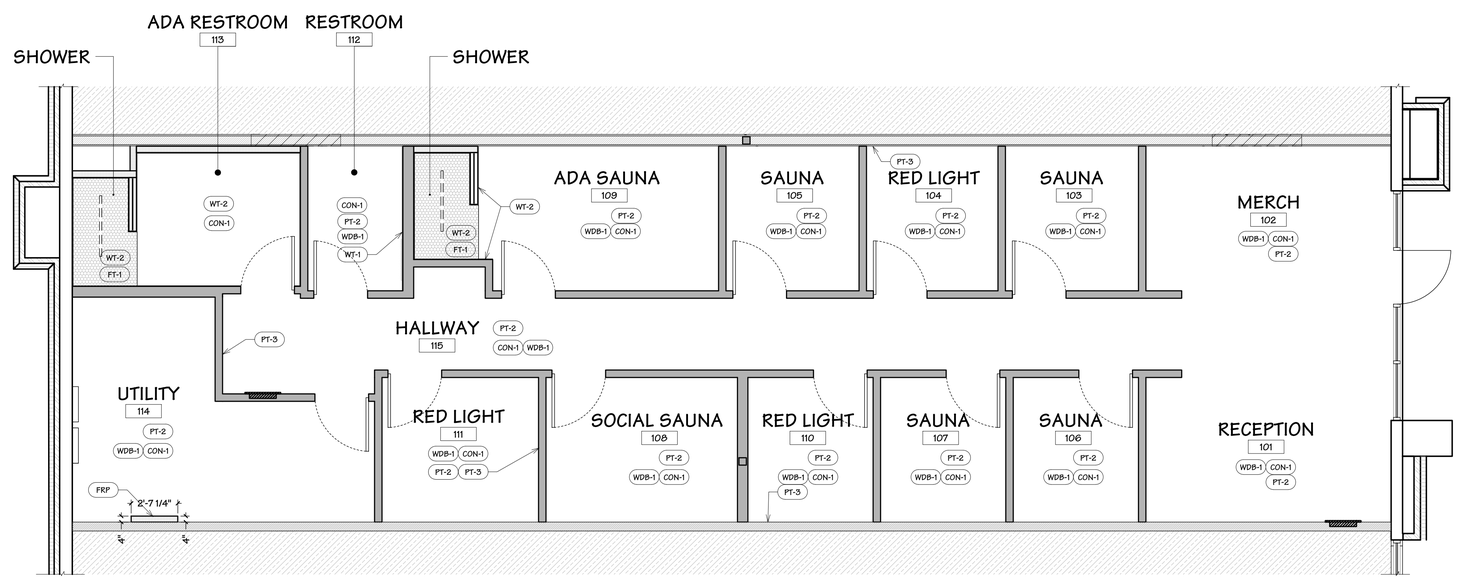
	MANUFACTURER & MODEL #	PRODUCT DETAIL	COLOR/FINISH	SUPPLIED	INSTALLED
FLOOR FINISHES					
CON-1 SEALED CONCRETE	POLISH TO 1500-GRIT. INCLUDE A DENSIFIER TREATMENT PER MANUFACTURER GUIDELINES. FINISH WITH A SEALER.	SEALER: AMERIPOLISH SP E	SEALER FINISH: CLEAR	GC	GC
FT-1 MOSAIC FLOOR TILE	MARAVILLA MARBLE MOSAIC TILE (SHOWER)	COASTAL IVORY BLEND 1" HONED MARBLE MOSAIC; 1/16" JOINT MORTAR: MAPEI KERAFLEX PLUS WHITE MORTAR	MAPEI 93 WARM GRAY	GC	GC
WDB-1 WOOD BASE	1X4 PAINT GRADE WOOD	SEAL GAPS BETWEEN BASE AND CONCRETE FLOOR; COLOR TO MATCH PAINT COLOR	MATCH WALL COLOR SEMIGLOSS	GC	GC
WALL FINISHES					
WT-1 WALL TILE	MONTAGE 12X12 BALLET GLASS PENNY MOSAIC (RESTROOM)	INSTALL OVER CB-1; MORTAR: MAPEI ADESILEX-P10 PREMIUM WITH MAPEI KEROPLY LATEX ADDITIVE	1/16" GROUT: MAPEI FLEXCOLOR 3D PRE-MIXED 201 CRYSTAL MOON	GC	GC
WT-2 WALL TILE	DALTILE 16X32 SCULPTURE GREY P035 (RESTROOM & SHOWER) ORDER FROM: NATIONAL.ACCOUNTS@DALTILE.COM 877-556-5728 FOR BEEM INVENTORY AND PREFERRED PRICING	INSTALL OVER CB-1; RUNNING BOND; USE SRT-1 & SST-1	3/16" GROUT: MAPEI 93 WARM GREY MATTE FINISH	GC	GC
SRT-1 WALL TRIM	SCHLUTER RONDEC TILE EDGE TRIM - ROUNDED	ROUNDED REVEAL SURFACE AT OUTSIDE TILE CORNERS	SATIN ANODIZED ALUMINUM	GC	GC
SST-1 WALL TRIM	SCHLUTER SCHIENE TILE EDGE TRIM - ROUNDED	FINISH EDGE WHERE TILE EDGE EXPOSED	SATIN ANODIZED ALUMINUM	GC	GC
PT-1 WALL PAINT	SHERWIN WILLIAMS (DESK TRIM)	PROMAR 200 ZERO VOC ACRYLIC LATEX	SW-7005 PURE WHITE SATIN FINISH	GC	GC
PT-2 WALL PAINT	SHERWIN WILLIAMS (FIELD)	PROMAR 200 ZERO VOC ACRYLIC LATEX	COLOR-MATCH TO BENJAMIN MOORE OC-22 CALM	GC	GC
PT-3 WALL PAINT	SHERWIN WILLIAMS (ACCENT)	PROMAR 200 ZERO VOC ACRYLIC LATEX	COLOR-MATCH TO BENJAMIN MOORE CSP-20 WALL STREET	GC	GC
GWB-1 GYP BOARD	5/8" TYPE "X" USG OR EQUAL GYPSUM WALL BOARD	ASTM C36	PAINT	GC	GC
GWB-2 GYP BOARD	5/8" TYPE "X" USG OR EQUAL GYPSUM WALL BOARD	FIRE-RESISTANT	PAINT	GC	GC
GWB-3 GYP BOARD	5/8" TYPE "X" USG OR EQUAL GYPSUM WALL BOARD	MOLD-RESISTANT ASTM C1396	PAINT	GC	GC
CB-1 GYP BOARD	USG OR EQUAL 1/2" CEMENT BOARD	CEMENT BOARD WITH WOVEN GLASS FIBER MESH	-	GC	GC
FRP	FIBERGLASS REINFORCED PANEL	MARLITE STANDARD FRP - PEBBLED SURFACE	P100 WHITE OR EQUAL	GC	GC
CEILINGS					
GRID-1 CEILING GRID	ARMSTRONG T-GRID	9/16"	WHITE	GC	GC
ACT-1 CEILING TILE	ARMSTRONG DUNE MODEL #: 1852	24" X 24" LAY-IN CEILING, BEVELED TEGULAR 9/16", 5/8" THICK	WHITE	GC	GC
GCB-1 GYP BOARD	1/2" TYPE "X" USG OR EQUAL GYPSUM BOARD	ASTM C36	PAINT	GC	GC
GCB-2 GYP BOARD	1/2" TYPE "X" USG OR EQUAL GYPSUM BOARD (WET AREAS)	MOLD-RESISTANT ASTM C1396	PAINT	GC	GC
GCB-3 GYP BOARD	USG OR EQUAL 1/4" FLEXIBLE GYPSUM PANELS	2 LAYERS INSTALLED OVER FLEX-C METAL SURFACE	PAINT	GC	GC
CASEWORK					
PLAM-1 PLASTIC LAM.	FORMICA	STANDARD HIGH-PRESSURE LAMINATE	FORMICA 9244-58 CLASSIC WHITE	GC	GC
SS-1 SOLID SURFACE	CORIAN	1/2" THK. 100% ACRYLIC	GLACIER WHITE	GC	GC

FINISH PLAN NOTES

1. VERIFY FINAL FINISH SELECTIONS WITH OWNER PRIOR TO COMMENCING FINISH SCOPE OF WORK.

2. REFER TO RCP NOTES FOR LOCATION OF CEILING FINISHES

3. ORDER WT-2 (DALTILE 16X32 - SCULPTURE GREY) FROM NATIONAL.ACCOUNTS@DALTILE.COM; 877-556-5728 FOR BEEM INVENTORY AND PREFERRED PRICING.



F7 PLAN - FINISH
Scale: 1/4" = 1'-0"

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May 22, 2024

beem Light Sauna
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REVISIONS

No.	DATE	NOTE

Drawn by: ----
Checked by: ----
Project No: ----
Date: May 22, 2024

Plan - Finish

Sheet:
A-114

ROOM FINISH SCHEDULE

NOTE:

SEE DIVISION 9 OF THE SPECIFICATIONS, CONTAINING IMPORTANT INFORMATION RELATING TO BUILDING CODES, CITY ORDINANCES, MATERIALS AND METHODS.

		FLOOR			BASE			WALL									CEILING						REMARKS
		SEALED CONC. (CON-1)	SHOWER FLOOR TILE (FT-1)	EXISTING	WOOD BASE (WB-1)	EXISTING		MOSAIC WALL TILE (WT-1)	RR WALL TILE (WT-2)	SCHLUTER TRIM (SRT-1)	SCHLUTER TRIM (SST-1)	GWB-1 / PAINT (PT-1)	GWB-1 / PAINT (PT-2)	GWB-1 / PAINT (PT-3)	F.R. GYP. BRD (GWB-2)	M.R. GYP. BRD (GWB-3) (PT-2)	EXISTING	GRID-1 / ACT-1	GYP. BOARD (GCB-1/PT-2)	M.R. GYP. BRD (GCB-2/PT-2)	VAULT BD (GCB-3/PT-2)	OTS (PT-2)	EXISTING	INDICATES WHERE WALL FINISH OCCURS (PLAN ORIENTATION)
101	RECEPTION	●			●							●							●					--
102	MERCHANDISE	●			●							●							●					--
103	SAUNA	●			●							●						●						--
104	RED LIGHT	●			●							●	●					●						2 PT-3 ON WALL BEHIND BED (BED WILL NOT BE SHOWN)
105	SAUNA	●			●							●						●						--
106	SAUNA	●			●							●						●						--
107	SAUNA	●			●							●						●						--
108	SOCIAL AUNA	●			●							●						●						
109	ADA SAUNA	●			●							●						●						--
	SHOWER		●						●	●	●									●				1
110	RED LIGHT	●			●							●	●					●						2 PT-3 ON WALL BEHIND BED (BED WILL NOT BE SHOWN)
111	RED LIGHT	●			●							●	●					●						2 PT-3 ON WALL BEHIND BED
112	RESTROOM	●			●			●								●				●				1
113	ADA RESTROOM	●							●											●				1
	SHOWER		●						●	●	●									●				1
114	UTILITY/STORAGE	●			●							●						●						--
115	HALLWAY	●			●							●	●	●		●			●		●			2 PT-3 ON MIRROR WALL

GENERAL NOTES

A. FLOORS IN RESTROOMS SHALL HAVE A SMOOTH, HARD NONABSORBENT SURFACE SUCH AS PORTLAND CEMENT, CERAMIC TILE, CONCRETE, OR OTHER APPROVED MATERIAL WHICH EXTENDS UPWARD ONTO THE WALLS AT LEAST 6 INCHES.

B. PROVIDED WATER-RESISTANT GYPSUM BOARD, GREEN BOARD, OR OTHER APPROVED MATERIAL ON THE WALLS IN RESTROOMS.

C. WALLS IN RESTROOMS WITHIN 2 FEET OF THE FRONT AND SIDES OF URINALS AND WATER CLOSETS SHALL HAVE A SMOOTH, HARD NONABSORBENT SURFACE TO A HEIGHT OF 4 FEET. 1

D. DO NOT INSTALL VINYL BASE ON TILE VENEER.

REMARKS

1. USE MOLD RESISTANT GWB-3 ON WALLS AND GCB-2 ON CEILINGS IN WET AREAS.
2. REFER TO FLOOR PLAN ON SHEET A-114 FOR FINISH LOCATIONS.

DOOR SCHEDULE

NOTE

SEE DIVISION 8 OF THE SPECIFICATIONS, CONTAINING IMPORTANT INFORMATION RELATING TO BUILDING CODES, CITY ORDINANCES, MATERIALS AND METHODS.

		FRAME			HEAD/JAMB			DOOR			RATING				HARDWARE						TYPE	REMARKS	
		WOOD FRAME	EXISTING ALUM. STOREFRONT	EXISTING FRAME	HEAD H1/JAMB J1 - DETAIL A7/A-501	HEAD H2/JAMB J2 - DETAIL A8/A-501	EXISTING HEAD/JAMB	3'-0" x 7'-0" x 1-3/4" WOOD (PT-2)	3'-0" x 8'-0" x 1-3/4" WOOD (PT-2)	EXISTING DOOR	UNRATED	20 MINUTE	45 MINUTE	90 MINUTE	GROUP A	GROUP B1	GROUP B2	GROUP C	GROUP D (EXISTING)	GROUP E (STOREFRONT)			
101	RECEPTION										●									●			
102	MERCHANDISE																						
103	SAUNA	●				●			●		●						●				B	1, 2	MARKED AS 03 ON A-110
104	SAUNA	●				●			●		●						●				B	1, 2	MARKED AS 03 ON A-110
105	SAUNA	●				●			●		●						●				B	1, 2	MARKED AS 03 ON A-110
106	SAUNA	●				●			●		●						●				B	1, 2	MARKED AS 03 ON A-110
107	SAUNA	●				●			●		●						●				B	1, 2	MARKED AS 03 ON A-110
108	SOCIAL SAUNA	●				●			●		●						●				B	1, 2	MARKED AS 03 ON A-110
109	ADA SAUNA	●				●			●		●						●				B	1, 2, 3	MARKED AS 03 ON A-110
	SHOWER																						
110	RED LIGHT	●				●			●		●						●				B	1, 2	MARKED AS 03 ON A-110
111	RED LIGHT	●				●			●		●						●				B	1, 2	MARKED AS 03 ON A-110
112	RESTROOM	●			●			●			●					●					A	1, 2	MARKED AS 04 ON A-110
113	ADA RESTROOM	●			●			●			●					●					A	2, 3	MARKED AS 04 ON A-110
	SHOWER																						
114	UTILITY/STORAGE	●			●			●			●							●			A		MARKED AS 04 ON A-110
115	HALLWAY																						

GENERAL NOTES

A. ALL INTERIOR DOORS TO BE SMOOTH, FLUSH SOLID CORE, WOOD DOORS PREPPED FOR A PAINT FINISH, UNLESS NOTED OTHERWISE (U.N.O.).

B. DOOR CLOSERS, LEVER HANDLES, ETC. TO MEET ADA REQUIREMENTS.

C. REPLACE EXISTING WEATHERSTRIPPING ON EXTERIOR DOORS IF NOT SEALING DOOR FROM AIR & WATER PENETRATION.

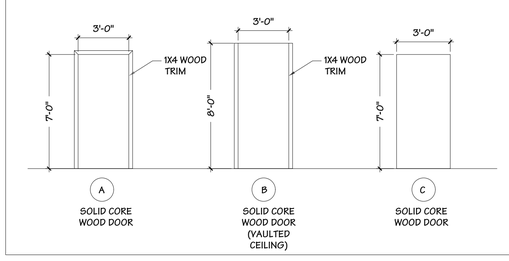
D. COORDINATE ALL KEYING WITH OWNER.

REMARKS

1. UNDERCUT DOOR 1.5"
2. SIGN COMPANY TO INSTALL DOOR SIGN.
3. INSTALL ACCESSIBLE DOOR SIGNAGE ON OUTSIDE OF ROOM. SEE NOTES ON SHEET A-113.
4. EXISTING PANIC HARDWARE TO REMAIN.

	MANUFACTURER & MODEL #	STYLE	COLOR/ FINISH	REMARKS
DOORS AND FRAMES				
INTERIOR DOORS	-	SMOOTH, FLUSH SOLID CORE WOOD	PT-2 SATIN FINISH	SEE DETAIL
INTERIOR FRAMES	1X4 WOOD	-	PT-2 SEMI-GLOSS	SEE DETAIL
EXTERIOR DOORS	MATCH BUILDING STANDARD OR EQUAL	MATCH BUILDING STANDARDS	MATCH BUILDING STANDARDS	-
WINDOWS AND GLASS				
STOREFRONT SYSTEM	MATCH BUILDING STANDARD OR EQUAL	ANODIZED ALUMINUM	BLACK	LAMINATED CLEAR SAFETY GLASS
WINDOWS -	MATCH BUILDING STANDARD OR EQUAL	MATCH BUILDING STANDARDS	MATTE BLACK FRAME	FIXED GLAZING UNLESS OTHERWISE NOTED ON PLANS
HARDWARE GROUPS				
HARDWARE GROUP A	KWIKSET HALIFAX #740HFLRDT-514S (OFFICE)	OFFICE SET SINGLE ACTION, LEVER TYPE	MATTE BLACK WITH CIRCLE TRIM	1-1/2 PAIR HINGES, SILENCERS, SURFACE CLOSER- MOUNT ROOM SIDE, WALL MOUNTED MATTE BLACK EVERBILT DOOR STOP
HARDWARE GROUP B1	KWIKSET HALIFAX #730HFLRDT-514 (RESTROOM)	PRIVACY SET SINGLE ACTION, LEVER TYPE	MATTE BLACK WITH CIRCLE TRIM	1-1/2 PAIR HINGES, SILENCERS, SURFACE CLOSER- MOUNT ROOM SIDE, WALL MOUNTED MATTE BLACK EVERBILT DOOR STOP
HARDWARE GROUP B2	KWIKSET HALIFAX #730HFLRDT-514 (RED LIGHT/SAUNA)	PRIVACY SET SINGLE ACTION, LEVER TYPE	MATTE BLACK WITH CIRCLE TRIM	1-1/2 PAIR HINGES, SILENCERS, WALL MOUNTED MATTE BLACK EVERBILT DOOR STOP
HARDWARE GROUP C	KWIKSET HALIFAX #720HFLRDT-514 (UTILITY/STORE)	PASSAGE SET SINGLE ACTION, LEVER TYPE	MATTE BLACK WITH CIRCLE TRIM	1-1/2 PAIR HINGES, SILENCERS, WALL MOUNTED MATTE BLACK EVERBILT DOOR STOP
HARDWARE GROUP D	EXISTING HARDWARE TO REMAIN	RE-KEY AT TURNOVER		--
HARDWARE GROUP E	NEW HARDWARE PER MANUFACTURER	MATCH EXISTING STOREFRONT		

DOORS AND WINDOW TYPES



ARCHITECTURAL SPECIFICATIONS

DIVISION 3 CONCRETE

1.1 CLEAN, GRIND, FILL AND LEVEL ALL EXISTING CONCRETE TO RECEIVE NEW FLOORING, STAINING OR SEALING.

2.1 FLOORS TO RECEIVE SHEET VINYL OR CERAMIC TILE SHALL NOT VARY MORE THAN 1/4" PER 10 FEET.

3.1 BACK POURED CONCRETE, WHERE SAW CUTTING HAS OCCURRED, SHALL BE SMOOTH AND LEVEL AND HAVE A FINISH TO MATCH THE ADJACENT CONCRETE. USE 2,500 PSI CONCRETE OR HIGHER. PROVE #4 X 12" REBAR DOWELS AT 48" O/C, DRILLED AND DOWELED INTO SIDE OF CONCRETE AT ALL SAW CUT TRENCHES.

4.1 ALL TRENCHES SHALL BE BACKFILLED IN LIFTS OF NOT GREATER THAN 6" AND RECOMPACTED TO 90% OF EXISTING SOIL/PAD COMPACTION.

DIVISION 7 INSULATION

1.1 PROVIDE KRAFT FACED FIBERGLASS BATT INSULATION IN THE FOLLOWING LOCATIONS:

A. AT ALL BUILDING EXTERIOR WALLS IN CONDITIONED SPACES: 2" OR 4" INSULATING BATTS TO MATCH DEPTH OF FURRING. CONTRACTOR MAY USE RIGID FOAM INSULATION AT HIS OPTION.

B. AT ALL TENANT DEMISING WALLS: 4" OR 6" INSULATING BATTS TO MATCH SIZE OF DEMISING WALL STUDS.

C. AT ALL WALLS SEPARATING CONDITIONED SPACE FROM EVAPORATIVE COOLED OR NON-CONDITIONED SPACE: 4" OR 6" INSULATING BATTS TO MATCH SIZE OF DEMISING WALL STUDS

D. AT ALL TOILET ROOM WALLS AND CEILINGS: 4" SOUND BATTS.

E. AT ALL ROOMS CONTAINING ELECTRICAL TRANSFORMERS: 4" INSULATING BATTS IN WALLS AND ABOVE CEILING.

F. AT OTHER LOCATIONS, IF ANY, AS SPECIFIED ON THE FLOOR PLANS: 4" SOUND BATTS. 2.1 INSULATION BOTH THERMAL AND ACOUSTIC TO HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 450. (IBC 803.8, IBC 719 AND ASTM E84).

DIVISION 8 DOOR AND FRAMES

1.1 ALL EXITS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.

2.1 MANUALLY OPERATED EDGE OR SURFACE MOUNTED FLUSH BOLTS AND SURFACE BOLTS ARE PROHIBITED.

3.1 ITEM 1 NEED NOT APPLY TO THE FRONT DOOR OF A PLACE OF BUSINESS AS LONG AS A SIGN IS PLACED ABOVE THE DOOR IN 2" BLOCK LETTERS WITH CONTRASTING BACKGROUND THAT READS, "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED".
WINDOWS AND GLASS

1.1 ALL GLASS SUBJECT TO HUMAN IMPACT SHALL CONFORM TO THE STANDARDS SET FORTH IN SECTION 2406 OF THE INTERNATIONAL BUILDING CODE.

2.1 GLASS: MATCH EXISTING THICKNESS, DESIGN AND FEATURES OF EXISTING GLASS. OTHERWISE USE FLOAT OR TEMPERED AS REQUIRED BY NOTE 1 ABOVE.

DIVISION 9 FINISHES

1.1 REPAIR ALL EXISTING WALLS, FLOORS AND CEILINGS THAT ARE TO REMAIN. REPAIR TO "LIKE NEW" CONDITION, MATCHING ALL NEW WORK IN QUALITY, COLOR AND MATERIALS.

2.1 SMOKE AND FLAME SPREAD FOR INTERIOR FINISHES FOR WALLS AND CEILING TO BE PER ASTM E84 AND IBC 803. FOR B OCCUPANCIES IN A SPRINKLERED SUITE:

EXIT ENCLOSURES AND EXIT PASSAGEWAYS CLASS B(FLAME SPREAD 26-75, SMOKE DEVELOPED 0-450)
CORRIDORS CLASS C(FLAME SPREAD 76-200, SMOKE DEVELOPED 0-450)
ROOMS AND ENCLOSED SPACES CLASS C(FLAME SPREAD 76-200, SMOKE DEVELOPED 0-450)

3.1 ALL EXTERIOR BUILDING WALLS IN CONDITIONED SPACES UPON COMPLETION OF THE PROJECT SHALL RECEIVE 2" METAL STUD FURRING, BATT INSULATION AND GYP. BOARD WITH WALL FINISHES TO MATCH ADJACENT WALLS.

4.1 WALL FINISH NOTES

A. AT NEW WALLS IN NEW AREAS: LEVEL 4 SMOOTH TEXTURE, SATIN LATEX PAINT.

B. AT NEW WALLS IN EXISTING AREAS: WALL FINISH TO MATCH EXISTING WALLS, SATIN LATEX PAINT.

C. AT EXISTING WALLS: REPAIR TO "LIKE NEW" CONDITION MATCHING ALL NEW WORK IN QUALITY. REPAINT WITH SATIN LATEX PAINT.

D. AT WALLS TO RECEIVE WALL COVERING: SMOOTH FINISH, NO TEXTURE, PAINT WITH WALL PRIMER.

E. ALL WALLS SHALL HAVE ROUND CORNER BEAD, TYP.

F. ALL GYP BOARD SOFFITS SHALL HAVE ROUND CORNER BEAD, TYP.

5.1 FLOOR FINISH NOTES:

A. ALL FLOOR TO RECEIVE CERAMIC TILE SHALL HAVE A MAXIMUM OF PER FOOT SLOPE ACROSS PER 10'X10' AREA.

B. ALL FLOOR EXPANSION JOINTS, PATCHES AND IMPERFECTIONS SHALL BE PREPARED WITH EPOXY TYPE FLOOR LEVELER AND/OR FILLER PRIOR TO FINAL FLOOR COVERING INSTALLATION.

C. ALL FLOOR FINISHES ARE AS INDICATED ON THE ROOM FINISH SCHEDULE. WITH FINAL COLOR AND STYLE SELECTIONS BY OWNER/TENANT.

D. CARPET AND INTERIOR FLOOR FINISHES COMPRISED OF FIBERS IN VERTICAL EXITS, EXIT PASSAGEWAYS AND EXIT ACCESS CORRIDORS SHALL NOT BE LESS THEN CLASS II IN ACCORDANCE WITH NFPA 253. IN ALL OTHER AREAS THE INTERIOR FLOOR FINISHES SHALL COMPLY WITH THE DOC FF-1 "PILL TEST"(CPSC 16 CFR, PART 1630). IN A SPRINKLERED BUILDING, MATERIALS COMPLYING WITH THE "PILL TEST" MAY BE USED WHERE CLASS II ARE REQUIRED.

E. TRANSITIONS BETWEEN MATERIALS TO BE WITH SCHLUTER TRIM OR EQUIVALENT. MAXIMUM 1/8" TOLERANCE BETWEEN ELEVATIONS OF FINISHED MATERIALS.

DIVISION 12
FURNISHINGS

CASEWORK
1.1 DETAILED CASEWORK DRAWINGS ARE NOT A PART OF THE SCOPE OF THESE DOCUMENTS. CONTRACTOR SHALL WORK WITH A CASEWORK SUBCONTRACTOR AND THE OWNER/TENANT TO DETERMINE THE LAYOUT AND QUANTITY OF ALL CASEWORK DIAGRAMMATICALLY SHOWN ON THE FLOOR PLANS.

2.1 PROVIDE CASEWORK AS INDICATED IN THESE DOCUMENTS. PROVIDE SHOP DRAWINGS FOR THE OWNER TO REVIEW PRIOR TO MANUFACTURING SHOWING THE TYPE OF FABRICATION PROPOSED.

3.1 PROVIDE CASEWORK WITH ALL NECESSARY HARDWARE AND HINGES.

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ARCHITECT
May 22, 2024

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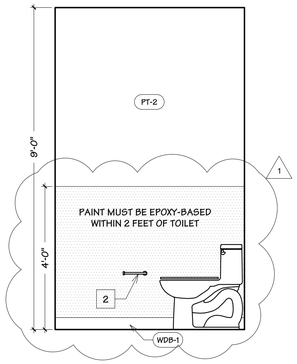

B2 RESTROOM ELEVATION
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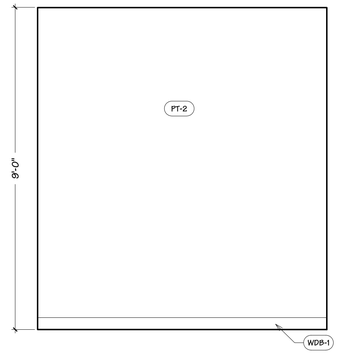

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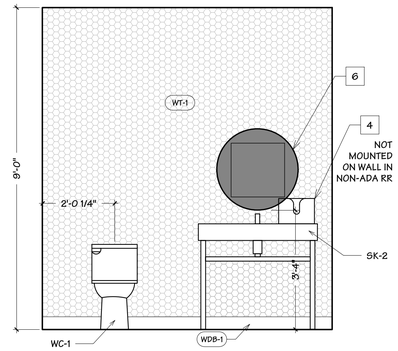

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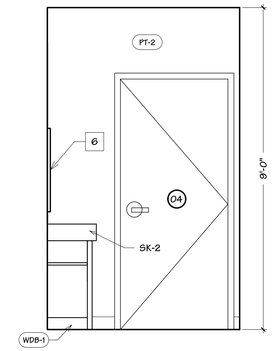
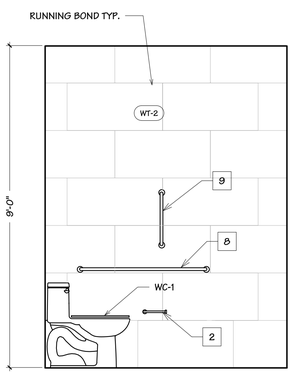


B6 RESTROOM ELEVATION
Scale: 1/2" = 1'-0"

GENERAL NOTES

REFER TO A-113 - FURNITURE PLAN, FOR FURNITURE TAGS AND FURNITURE / ACCESSORY SCHEDULE
GFCI CONVENIENCE OUTLET IN RESTROOMS TO BE INSTALLED AT 44" AFF



D2 ADA RESTROOM ELEVATION
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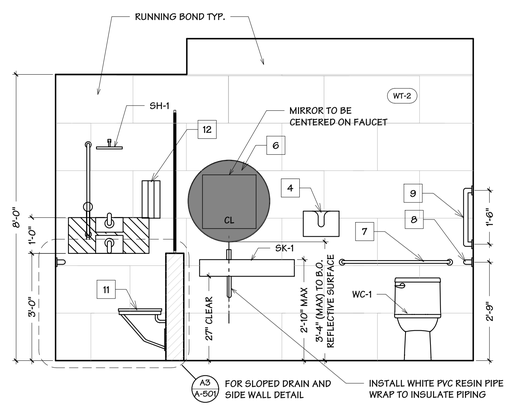

D4 ADA RESTROOM/ SHOWER ELEVATION
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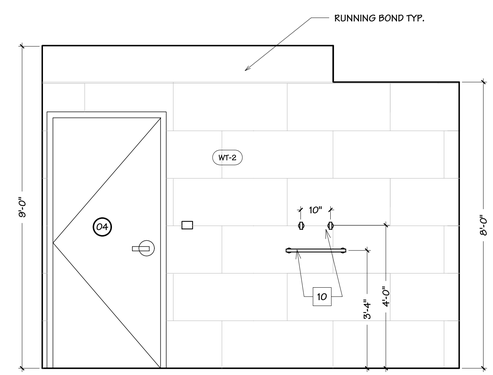

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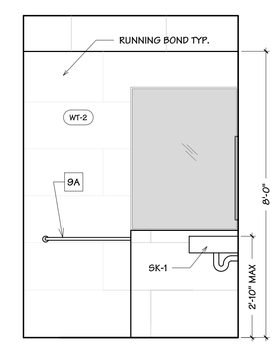

D7 ADA RESTROOM ELEVATION
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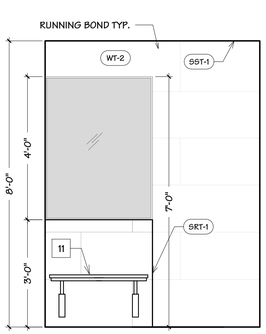

F2 ADA RESTROOM SHOWER ELEVATION
Scale: 1/2" = 1'-0"

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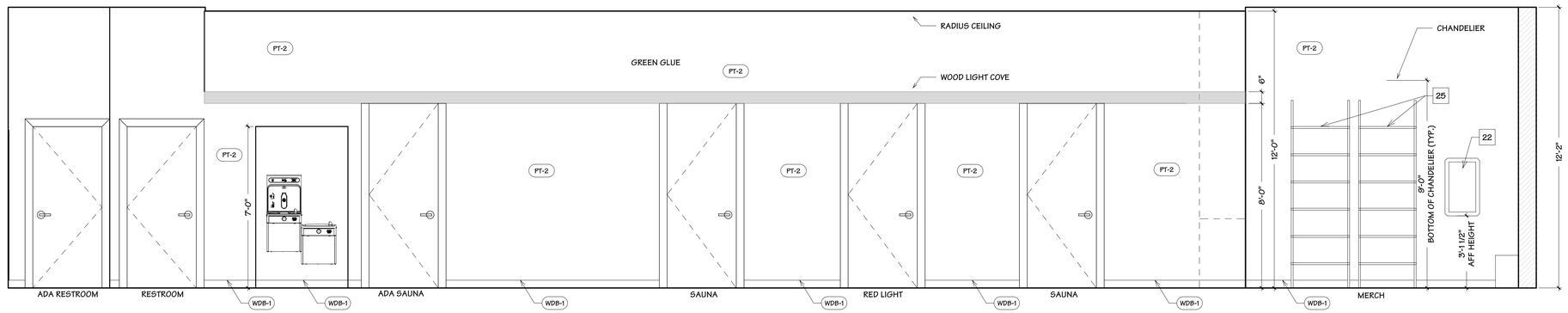
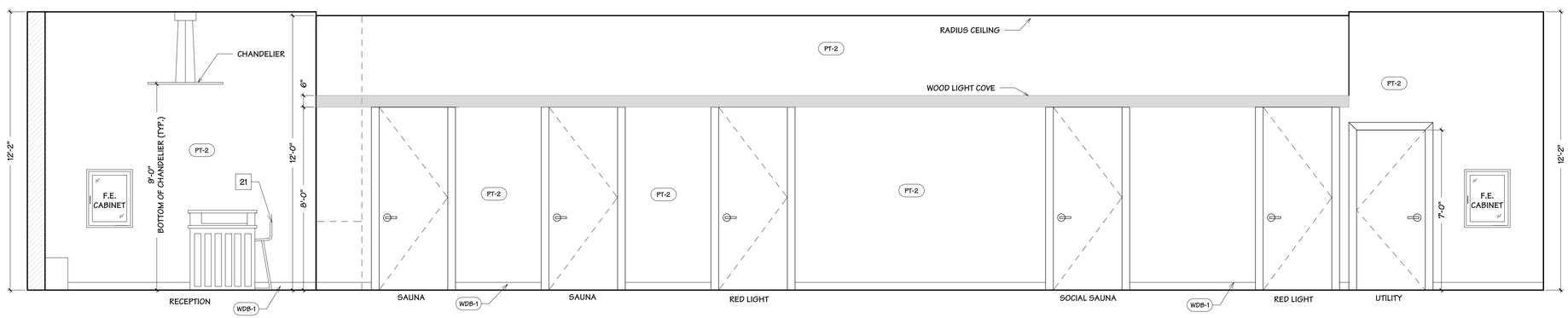


B7 BARREL HALLWAY - ELEVATION
Scale: 3/8" = 1'-0"



D7 BARREL HALLWAY - ELEVATION
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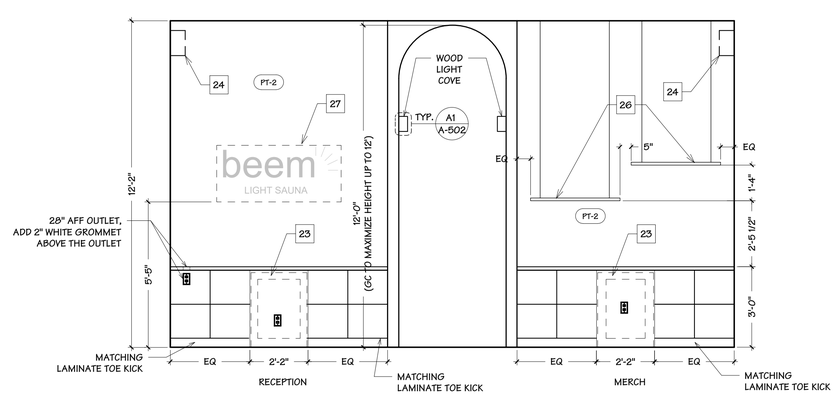

F6 RECEPTION - ELEVATION
Scale: 3/8" = 1'-0"

GENERAL NOTES

REFER TO A-113 - FURNITURE PLAN, FOR FURNITURE TAGS AND FURNITURE / ACCESSORY SCHEDULE

GC TO MAXIMIZE BARREL HALLWAY HEIGHT ON SITE UP TO 12', CONSIDERING EXISTING UTILITY PIPES AND ITS HEIGHTS.

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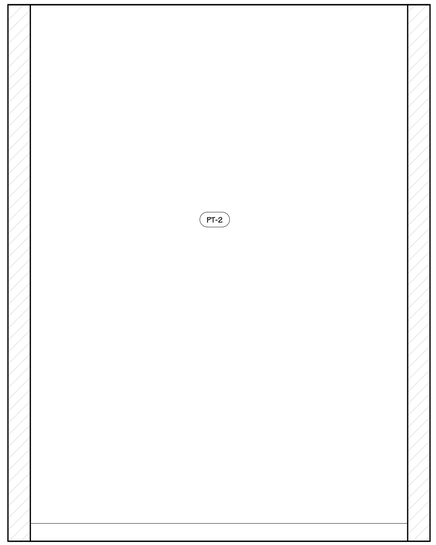
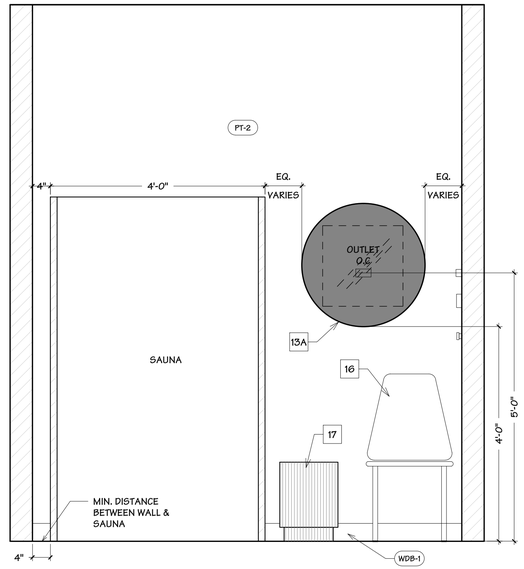
GENERAL NOTES

REFER TO A-113 - FURNITURE PLAN, FOR FURNITURE TAGS AND FURNITURE / ACCESSORY SCHEDULE



C2 SAUNA ROOM ELEV. (NON-ADA)
Scale: 3/4" = 1'-0"



C4 SAUNA ROOM ELEV. (NON-ADA)
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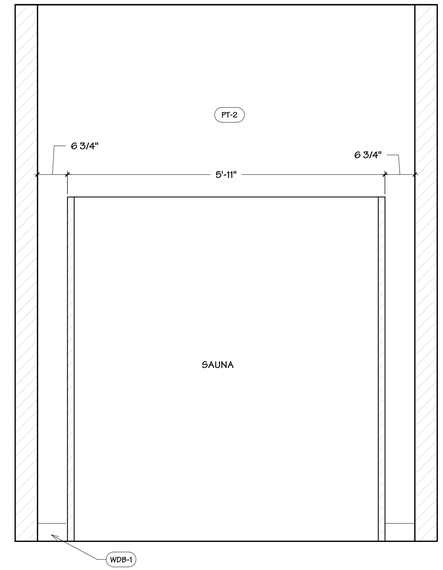

C6 SAUNA ROOM ELEV. (NON-ADA)
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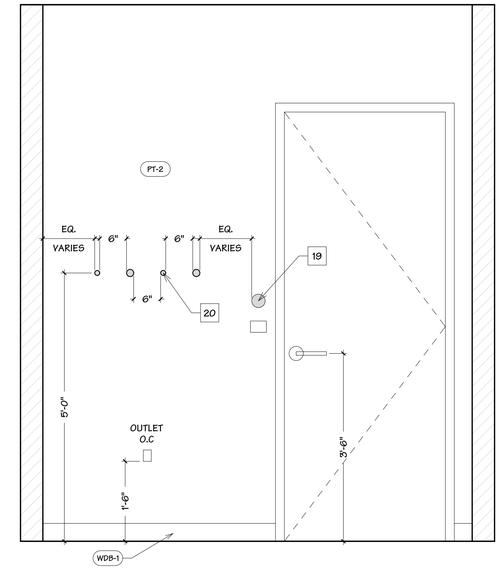

C8 SAUNA ROOM ELEV. (NON-ADA)
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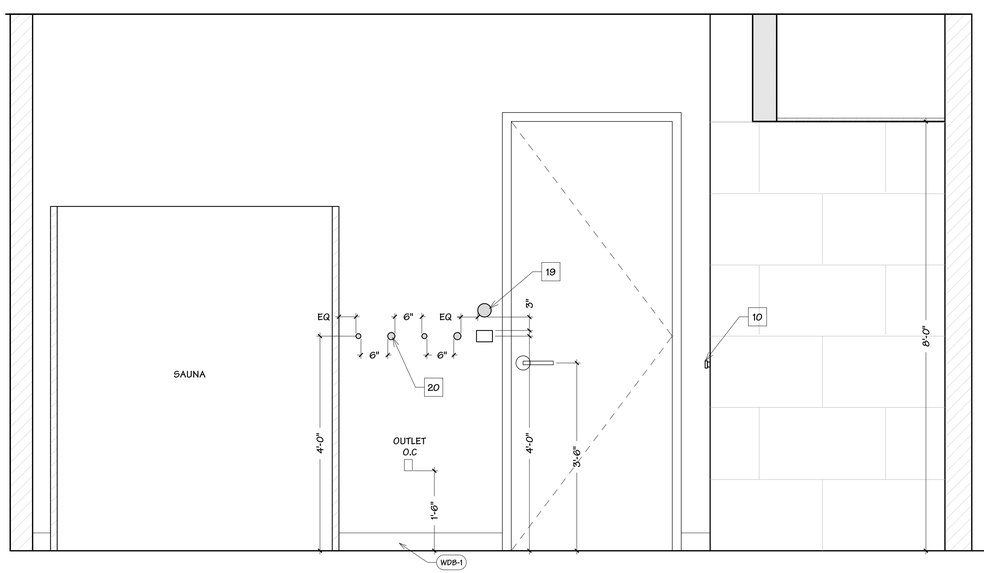
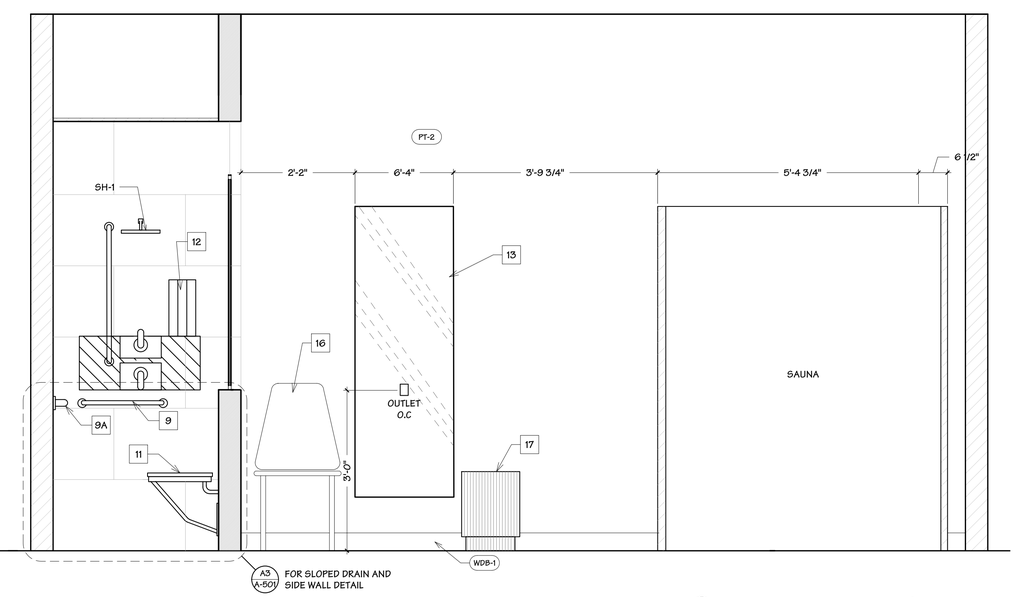


F4 ADA SAUNA ELEVATION
Scale: 3/4" = 1'-0"



F7 ADA SAUNA ELEVATION
Scale: 3/4" = 1'-0"

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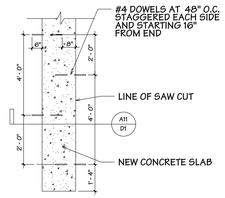
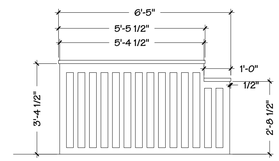
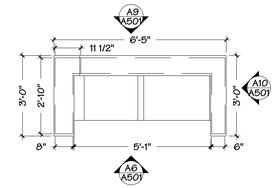


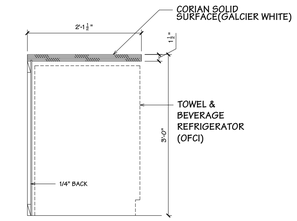
A13 CONC SLAB PATCH
Scale: NTS



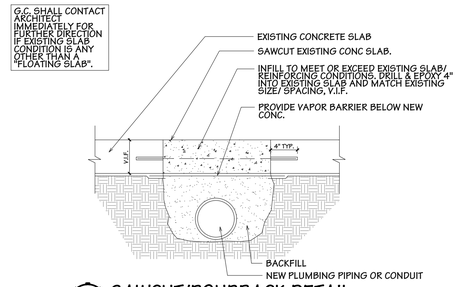
A9 RECEPTION DESK ELEVATION
Scale: NTS



A5 RECEPTION DESK PLAN
Scale: NTS



A1 CABINET DETAIL - FRIDGE
Scale: NTS



A14 SAWCUT/POURBACK DETAIL
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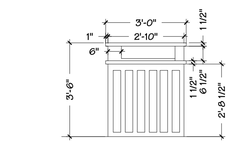
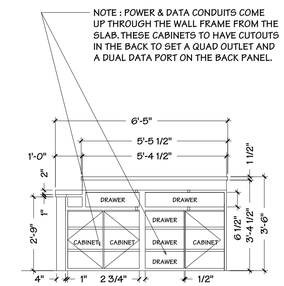


A10 RECEPTION DESK ELEVATION
Scale: NTS



A6 RECEPTION DESK ELEVATION
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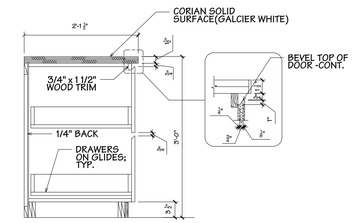


A2 CABINET DETAIL- DRAWERS
Scale: NTS

Stud Sizing Chart

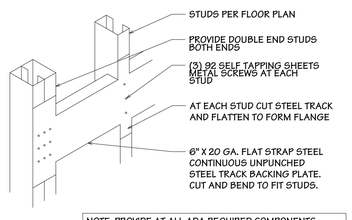
3-5/8" METAL STUDS:
MINIMUM STUD TRACK THICKNESS: 25 GA

GAUGE:	SPACING:	MAX HEIGHT:	HORIZ BRACING:
20	@ 16"O.C	16'-5"	8'-0" O.C.
20	@ 24"O.C.	14'-9"	8'-0" O.C.
25	@ 16"O.C	14'-4"	8'-0" O.C.
25	@ 24"O.C.	13'-5"	8'-0" O.C.

6" METAL STUDS:
MINIMUM STUD TRACK THICKNESS: 25 GA

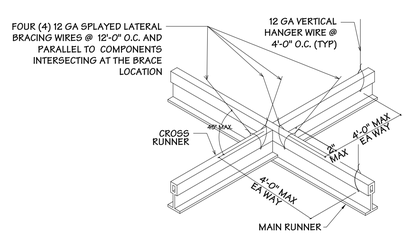
GAUGE:	SPACING:	MAX HEIGHT:	HORIZ BRACING:
20	@ 16"O.C	24'-6"	10'-0" O.C.
20	@ 24"O.C.	21'-7"	10'-0" O.C.
25	@ 16"O.C	19'-9"	10'-0" O.C.
25	@ 24"O.C.	18'-9"	10'-0" O.C.

A19 STUD SIZING CHART
Scale: NTS



NOTE: PROVIDE AT ALL ADA REQUIRED COMPONENTS, CASEWORK, SHELVING AND EQUIPMENT. BLOCKING SHALL SUPPORT A MINIMUM 250 POUND LOAD.

A15 WALL BACKING DETAIL
Scale: NTS



A11 CEILING GRID BRACING
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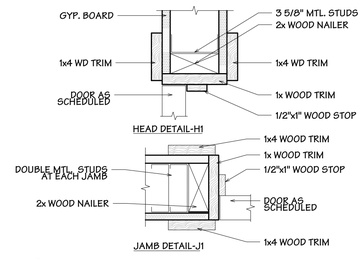
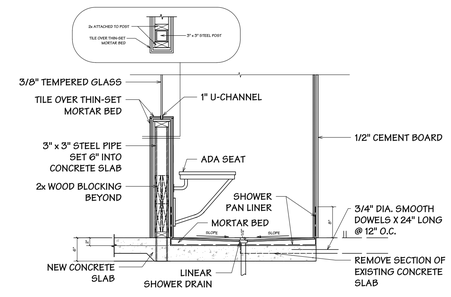
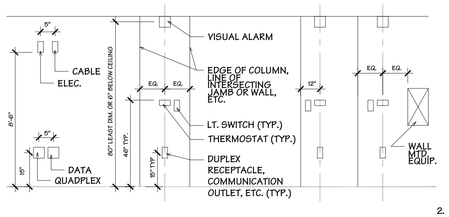


A7 HEAD/JAMB DETAIL
Scale: NTS



A3 SHOWER DETAIL
Scale: NTS



A20 DEVICE LOCATION DIAGRAM
Scale: NTS

SPECIFICATIONS FOR DEVICE LOCATIONS

1. WHEN MOUNTING MULTIPLE DEVICES FROM DIFFERENT TRADES IN THE SAME LOCATION (SUCH AS LIGHTING SWITCHES, THERMOSTATS, ETC.), THEIR ARRANGEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

   1.1 LOCATE DEVICES AS SHOWN ON THE ARCHITECTURAL PLANS, ELEVATIONS OR SECTIONS.

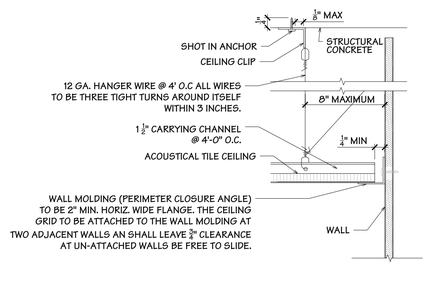
   1.2 WHEN SHOWN ON MECHANICAL OR ELECTRICAL DRAWINGS, BUT NOT ON ARCHITECTURAL DRAWINGS, DEVICES SHALL BE UNIFORMLY AND SYMMETRICALLY MOUNTED. VERTICALLY ALIGN DEVICES MOUNTED AT HEIGHTS INDICATED, UNLESS SEPARATED HORIZONTALLY BY A MINIMUM OF 24".

   1.3 DEVICES INSTALLED IN MASONRY OR SURFACES TO RECEIVE WOOD PANELS, WALL COVERING OR SIMILAR MATERIALS SHALL BE INSPECTED BY THE ARCHITECT AT TIME OF ROUGH-IN.

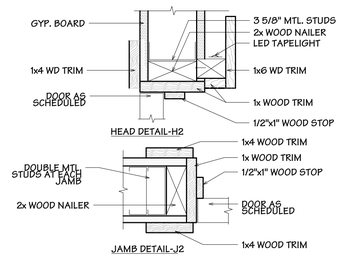
   1.4 IF THE CONTRACTOR HAS ANY DOUBTS REGARDING THE LOCATION OF DEVICES, HE SHOULD CONSULT WITH THE PROJECT ARCHITECT/ENGINEER PRIOR TO ROUGHING-IN.

   1.5 WHERE MULTIPLE SWITCHES OCCUR, GANG W/SINGLE COVER PLATE.

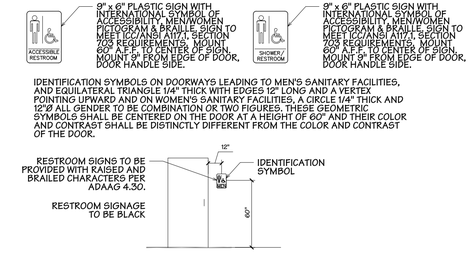
2. DEVIATIONS FROM THE ABOVE PRINCIPLES WITHOUT PRIOR APPROVAL BY THE ARCHITECT/ENGINEER SHALL BE CORRECTED BY THE INSTALLING CONTRACTOR. ANY COST, INCLUDING CUTTING & PATCHING, ENTAILED IN THE REMOVAL, RELOCATION, AND REINSTALLATION OF ANY DEVICES SHALL BE THE RESPONSIBILITY OF CONTRACTOR.



A12 SEISMIC BRACING
Scale: NTS



A8 HEAD/JAMB DETAIL
Scale: NTS



A4 TOILET ROOM SIGNAGE
Scale: NTS

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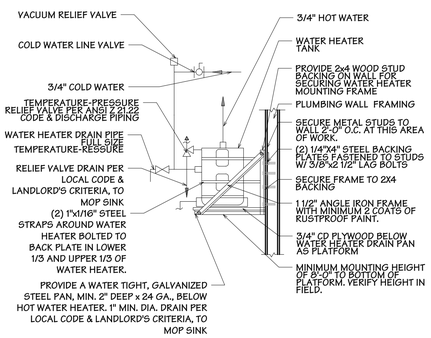
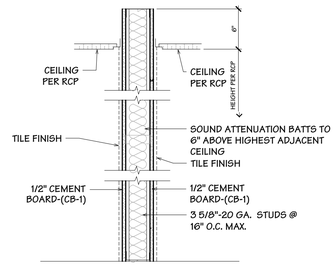
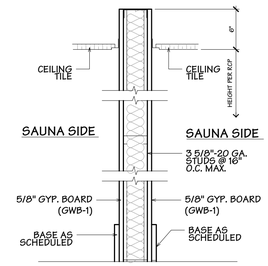


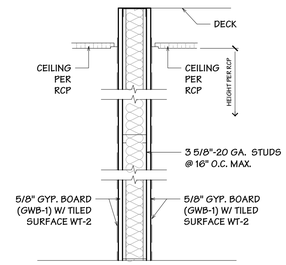
P5 WATER HEATER DETAIL
Scale: NTS



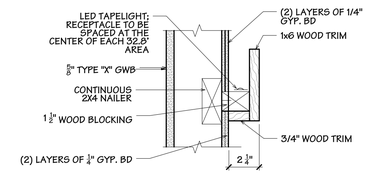
A7 WALL DETAIL - WT-2/WT-2
Scale: NTS



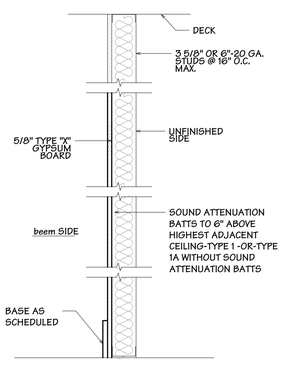
A3 WALL DETAIL - SAUNA
Scale: NTS



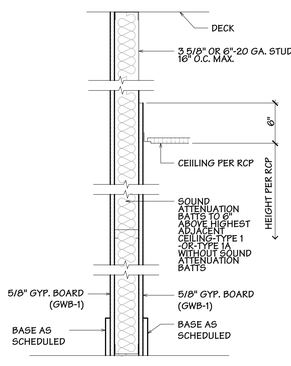
A3.1 WALL DETAIL - RESTROOM PARTITON WALL
Scale: NTS



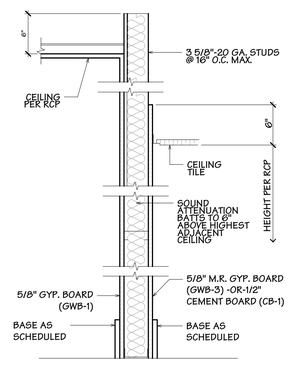
A1 LIGHT COVE DETAIL
Scale: NTS



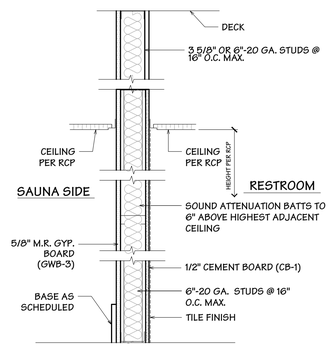
A10 WALL DETAIL - 1 HR RATED
Scale: NTS



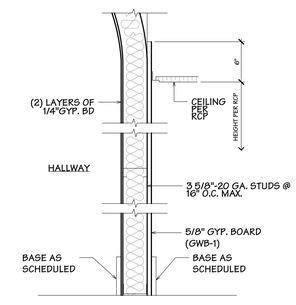
A8 WALL DETAIL - OTS
Scale: NTS



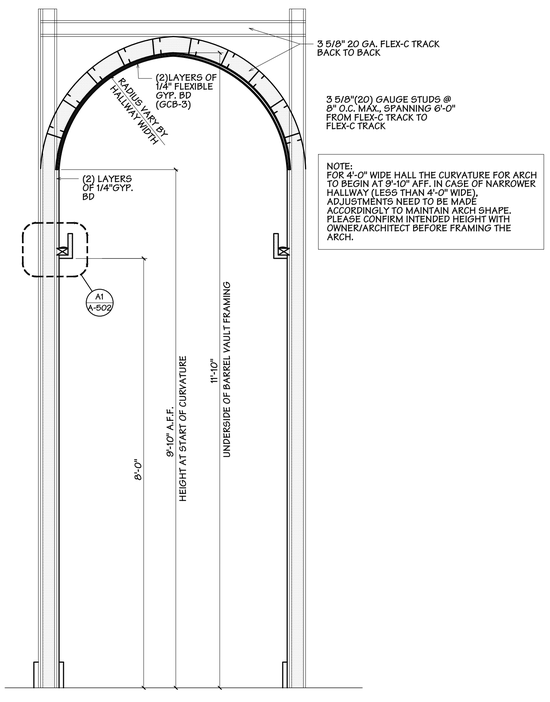
A6 WALL DETAIL - ACT/GWB
Scale: NTS



A5 WALL DETAIL - GWB/WT-2
Scale: NTS

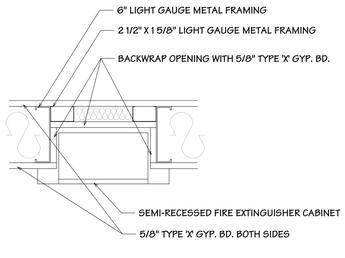


A4 WALL DETAIL - VAULT HALLWAY
Scale: NTS



NOTE:
FOR 4'-0" WIDE HALL THE CURVATURE FOR ARCH TO BEGIN AT 9'-10" AFF. IN CASE OF NARROWER HALLWAY (LESS THAN 4'-0" WIDE), ADJUSTMENTS NEED TO BE MADE ACCORDINGLY TO MAINTAIN ARCH SHAPE. PLEASE CONFIRM INTENDED HEIGHT WITH OWNER/ARCHITECT BEFORE FRAMING THE ARCH.

A2 HALLWAY SECTION
Scale: NTS



A13 FE CABINET DETAIL
Scale: NTS

CONTRACTOR IS TO CONFIRM INTENDED SHAPE OF THE ARCH BEFORE FRAMING

BLUESTONE PARTNERS, LLC
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STATE OF MISSOURI
DRAKE HITCHCOCK
NUMBER
A-2024010915
ARCHITECT

May 22, 2024

beem Light Sauna
2070 NW Lowenstein Dr., Suite B
Lee's Summit, MO 64081
Permit Set

REVISIONS

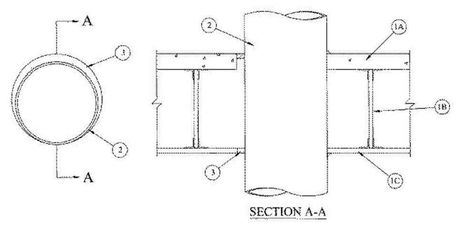
No.	DATE	NOTE

Drawn by: ----
Checked by: ----
Project No: ----
Date: May 22, 2024

Master Details

Sheet: A-502

System No. F-E-7001
May 20, 2005
F Rating — 1 Hr
T Rating — 1 Hr



SECTION A-A

1. FLOOR-CEILING ASSEMBLY -- THE 1 HR FIRE RATED CONCRETE AND STEEL JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL G500 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY, AS SUMMARIZED BELOW:

A. FLOORING -- LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF OR 1600-2400 KG/M3) CONCRETE AS SPECIFIED IN THE INDIVIDUAL G500 SERIES DESIGN. MAX DIAM OF OPENING IS 11 IN. (279 MM).

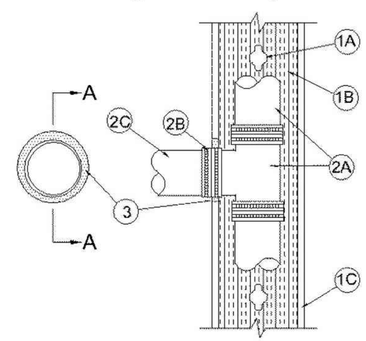
A. JOISTS -- STEEL JOISTS OR STRUCTURAL STEEL MEMBERS* AS SPECIFIED IN THE INDIVIDUAL G500 SERIES DESIGN.
C. GYPSUM BOARD* -- MIN 5/8 IN. (16 MM) THICK, SCREW-ATTACHED TO FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL G500 SERIES DESIGN. MAX DIAM OF OPENING IS 11 IN. (279 MM).

2. STEEL VENT DUCT -- NOM 4 IN. (102 MM) DIAM (OR SMALLER) NO. 30 GAUGE (OR HEAVIER) GALV STEEL VENT DUCT OR NOM 10 IN. (254 MM) DIAM (OR SMALLER) NO. 28 GAUGE (OR HEAVIER) GALV STEEL VENT DUCT. DIAM OF OPENINGS TO BE MAX 1 IN. (25 MM) LARGER THAN OUTSIDE DIAM OF DUCT. DUCT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY IN OPENING. THE ANNULAR SPACE BETWEEN THE DUCT AND THE PERIPHERY OF OPENING SHALL BE MIN 0 IN. (0 MM, POINT CONTACT) TO MAX 1 IN. (25 MM). DUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY.

3. FILL, VOID OR CAVITY MATERIALS* -- CAULK OR SEALANT -- MIN 3/4 IN. (19 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR. MIN 5/8 IN. (16 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTTOM SURFACE OF CEILING. AN ADDITIONAL MIN 1/4 IN. (6 MM) BEAD OF FILL MATERIAL APPLIED AT THE DUCT/FLOOR INTERFACE AT POINT CONTACT LOCATION ON THE TOP SURFACE OF FLOOR AND AT THE DUCT/CEILING INTERFACE AT POINT CONTACT LOCATION ON THE LOWER SURFACE OF CEILING.

F3 DETAILS - 1 HR, CEILING/FLOOR PENETRATION
Scale: NTS

UL 1479 Standard
System No. W-L-1330
September 25, 2003
F Rating — 1 Hr
T Rating — 1 Hr
L Rating at Ambient — Less Than 1 CFM/sq ft.
L Rating at 400 F — 3 CFM/sq ft.



SECTION A-A

1. WALL ASSEMBLY -- THE FIRE-RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
A. STUDS -- WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE AND SPACED MAX 24 IN. OC.
B. INSULATION* -- R13 (OR HIGHER) GLASS FIBER OR MINERAL FIBER BATT INSULATION FRICTION FITTED INTO STUD CAVITY.
C. GYPSUM BOARD* -- ONE LAYER OF NOM 5/8 IN. THICK GYPSUM BOARD, AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX DIAM OF OPENING IS 4-1/2 IN.

2. PIPING SYSTEM -- TTHE PIPING SYSTEM FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS SHALL CONSIST OF THE FOLLOWING:
A. STEEL OR IRON PIPE -- NOM 3 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE OR SCHEDULE 40 (OR HEAVIER) STEEL PIPE, INSTALLED WITHIN STUD CAVITY AND CONNECTED TO TEE. THE TEE PENETRATES WALL ON ONE SIDE AND IS INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN THE TEE AND THE EDGE OF THE OPENING SHALL BE MIN 3/8 IN. TO MAX 5/8 IN.
B. SHIELDED SLIP ON COUPLING -- NOM 3 IN. DIAM (OR SMALLER) 32 GAUGE (OR HEAVIER) CORRUGATED STAINLESS STEEL SHIELDED RUBBER COUPLING. COUPLING TO BE SECURED TO TEE WITH STAINLESS STEEL HOSE CLAMP AT ANY POINT BEYOND THE SURFACE OF WALL, OR MAY EXTEND A MAX OF 1 IN. INTO OPENING. WHEN COUPLING EXTENDS INTO OPENING, THE ANNULAR SPACE BETWEEN THE COUPLING AND THE EDGE OF THE OPENING SHALL BE MIN 1/4 IN. TO MAX 1/2 IN.
C. BRANCH PIPING -- BRANCH PIPE IS SECURED TO SHIELDED SLIP ON COUPLING WITH STAINLESS STEEL HOSE CLAMP AND MAY CONSIST OF THE FOLLOWING:
1. POLYVINYL CHLORIDE (PVC) PIPE -- NOM 3 IN. DIAM (OR SMALLER) SCHEDULE 40 SOLID CORE PVC PIPE.
2. STEEL OR IRON PIPE -- NOM 3 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE OR SCHEDULE 40 (OR HEAVIER) STEEL PIPE.

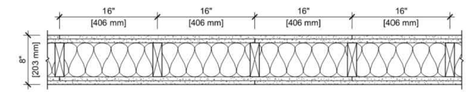
3. FILL, VOID OR CAVITY MATERIAL* -- SEALANT -- MIN 5/8 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH SURFACE OF WALL.

F5 DETAILS - 1 HR, WALL PENETRATION
Scale: NTS

1

DESIGN NO. UL U301

FIRE RATING:	2 HOURS
STC RATING:	40
SOUND TEST:	USG-161206
SYSTEM THICKNESS:	8" [203 MM]
LOCATION:	INTERIOR
FRAMING TYPE:	WOOD STUD (LOAD-BEARING)



ASSEMBLY REQUIREMENTS:

GYPSUM PANELS:	TWO LAYERS 5/8" [15.9 MM] SHEETROCK® ECOSMART GYPSUM PANEL (UL TYPE ULIX™)
WOOD STUDS:	2" X 6" [38 X 140 MM] WOOD STUDS, 16" [406 MM] O.C.
INSULATION:	5-1/2" [140 MM] FIBERGLASS INSULATION
GYPSUM PANELS:	TWO LAYERS 5/8" [15.9 MM] SHEETROCK® ECOSMART GYPSUM PANEL (UL TYPE ULIX™)

F7 DETAILS - 2 HR, SEPARATION WALL
Scale: NTS

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STATE OF MISSOURI
DRAKE HITCHCOCK
NUMBER
A-2024010915
ARCHITECT

May 22, 2024

beem Light Sauna
2070 NW Lowenstein Dr., Suite B
Lee's Summit, MO 64081
Permit Set

REVISIONS

No.	DATE	NOTE
1	05.22.2024	CITY COMM.

Drawn by:	----
Checked by:	----
Project No:	----
Date:	May 22, 2024

UL Details

Sheet:
A-503

LEE'S SUMMIT, MO NOTE:

ALL ELECTRICAL WORK SHALL BE IN COMPLIANCE WITH 2017 NATIONAL ELECTRICAL CODE (NEC), AND 2018 INTERNATIONAL ENERGY CONSERVATION CODE.

LEE'S SUMMIT, MO NOTE:

THIS PROJECT IS A TENANT FINISHOUT OF A FIRST-GENERATION INLINE RETAIL SPACE IN A SINGLE-STORY, SLAB-ON-GRADE RETAIL STRIP CENTER.

LEE'S SUMMIT, MO NOTE:

THE BASIS OF DESIGN IS FOR A LOW-VOLTAGE SECURITY SYSTEM, BY OTHERS. CAMERAS WILL BE POWERED VIA LOW-VOLTAGE CABLES ROUTED BACK TO NVR AT MANAGER'S AREA.

BEEM LIGHT SAUNA PROTO NOTE:

LOW-VOLTAGE CONTRACTOR SHALL COORDINATE WITH JURISDICTION. AND IF NECESSARY, SHALL HAVE A LICENSED ELECTRICIAN PULL THE LOW-VOLTAGE PERMIT.

LOW VOLTAGE WIRING SHALL BE SHIELDED.

GENERAL NOTES

1. GENERAL RECEPTACLES INSTALLED AT +15" TO BOTTOM OF BOX A.F.F.
2. VERIFY GFCI REQUIREMENTS PRIOR TO BID. ALL RECEPTACLES WITHIN 6'-0" OF A SINK OR WASH BASIN SHALL BE GFCI RATED.
3. ALL RECEPTACLES AND DEVICES TO BE WHITE. VERIFY WITH ARCHITECT.
4. SMOKE DETECTORS, FIRE ALARM SYSTEM, STROBES, HORNS, SPRINKLERS, ETC. SHALL BE DESIGNED AND INSTALLED WHERE REQUIRED BY A LICENSED FIRE SPRINKLER/ FIRE PROTECTION CONTRACTOR (DESIGN-BUILD) UNDER A SEPARATE PERMIT.
5. HVAC CONVENIENCE OUTLET(S) AND DISCONNECT(S) SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR, SIZE TO MATCH BREAKERS ON PANEL AND/OR NAMEPLATE.
6. DISCONNECT SHALL BE RATED FOR VOLTAGE OF ORIGINATING PANEL.

CONTRACTOR NOTES:

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ARCHITECT, LANDLORD OR TENANT OF ANY DISCREPANCIES ENCOUNTERED ON THE PLANS OR IN EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.

BIDDERS ARE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND SATISFY THEMSELVES AS TO THE NATURE AND SCOPE OF WORK. THE BASE BID SHALL REFLECT MODIFICATIONS TO SYSTEMS AND DEVICES AS REQUIRED BY STATE AND LOCAL CODES WHETHER INDICATED OR NOT ON CONTRACT DOCUMENTS. THE SUBMISSIONS OF A BID WILL BE EVIDENCE THAT SUCH AN EXAMINATION AND COMPLIANCE WITH GOVERNING CODES / REQUIREMENTS HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED OR FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORSEEN, HAD AN EXAMINATION AND CODE REVIEW BEEN MADE, WILL NOT BE ALLOWED.

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	HEIGHT (U.N.O.)
$	SINGLE POLE SINGLE THROW TOGGLE SWITCH (NOTE L-1)	44"
$3/$4	THREE-WAY TOGGLE SWITCH/FOUR-WAY TOGGLE SWITCH (NOTE L-1)	44"
$M	MOTOR RATED SWITCH	
$D	DIMMER SWITCH (NOTE L-1)	44"
/	DUPLEX / QUAD RECEPTACLE OUTLET (NOTE L-1)	15" (BOTTOM)
	OTHER RECEPTACLE, AS NOTED.	
/	DUPLEX RECEPTACLE OUTLET, CEILING MOUNTED/FLOOR MOUNTED	
(#)	THE NUMBER IN PARENTHESIS IS THE CONVENIENT OUTLET COUNT FOR THE CIRCUIT.	
/	JUNCTION BOX, CEILING / FLOOR MOUNTED	SEE PLAN
/	TELEPHONE OUTLET, WALL MOUNTED / FLOOR MOUNTED	SEE PLAN
/	DATA OUTLET, WALL MOUNTED/FLOOR MOUNTED	SEE PLAN
TV	TELEVISION OUTLET WALL MOUNTED	SEE PLAN
XMFR	CURRENT TRANSFORMER	
M	POWER METER AND SOCKET	
	RACEWAY/CABLE CONCEALED IN WALL AND/OR ABOVE CEILING	
	GROUNDING CONNECTION (SYSTEM AND/OR EQUIPMENT)	
X-1,3,5	ARROWHEAD INDICATES HOMERUN. X-1,3,5 INDICATES HOMERUN TO PANEL X CIRCUIT NUMBERS 1,3, AND 5.	
	MOTOR	
	PANELBOARD - WALL MOUNTED (RECESSED/SURFACE MOUNTED)	
60/3/3R	NONFUSIBLE DISCONNECT SWITCH, RATING/POLES/NEMA ENCLOSURE	
2- 60/40/3P/3R	FUSIBLE DISCONNECT SWITCH, RATING/FUSE RATING/POLES/NEMA ENCLOSURE	
D	DUCT SMOKE DETECTOR	
S	THERMAL DETECTOR, WALL MOUNTED	SEE PLAN
T	THERMOSTAT, WALL MOUNTED	
	CONNECT NEW TO EXISTING	
N.I.C.	NOT IN CONTRACT	

L-1 MOUNTING HEIGHTS NOTED ARE TO THE CENTER OF DEVICE ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE (U.N.O.).

L-2 FIRE ALARM VISUAL DEVICES SHALL BE WALL-MOUNTED 80" AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER. AUDIBLE ONLY DEVICES SHALL BE WALL-MOUNTED AT NOT LESS THAN 90" AFF AND NOT LESS THAN 6" BELOW CEILING.

* NOT ALL SYMBOLS USED ON ALL JOBS *

IECC 2018

IECC 2018 APPLIANCE NOTES:

1. THE REFRIGERATION EQUIPMENT SHALL MEET THE STANDARDS FOR EFFICIENCY, PER IECC 2018 C403.10. NOTE THAT THE ENERGY STAR REFRIGERATORS AND FREEZERS ARE 10% MORE EFFICIENT THAN MINIMUM FEDERAL EFFICIENCY STANDARDS FOR SUCH PRODUCTS. THEREBY THEY SHOULD MEET THIS REQUIREMENT.

IECC 2018 ELECTRICAL NOTES:

1. DAYLIGHT-RESPONSIVE CONTROLS SHALL BE COMPLIANT WITH IECC 2018 C405.2.4. DAYLIGHT RESPONSIVE CONTROLS ARE REQUIRED FOR ROOMS WITH EXTERNAL WINDOWS AND 150 WATTS OR MORE OF GENERAL LIGHTING WITHIN PRIMARY DAYLIGHT ZONES AND/OR 300 WATTS OR MORE OF GENERAL LIGHTING WITHIN SIDELIT DAYLIGHT ZONES.
2. ALL BUILDING LIGHTING NOT CONTROLLED BY AN OCCUPANCY SENSOR (AND NOT IN AN EQUIPMENT ROOM) SHALL BE CONTROLLED BY THE BUILDING LIGHTING TIMER, AND IT SHALL BE SET AND LABELED TO BE OFF DURING NON-OCCUPIED HOURS.
3. AUTOMATIC CONTROLS SHALL TURN ON NO MORE THAN 50% POWER LEVELS WHEN OCCUPANTS ARE SENSED. THIS SHALL BE DONE BY A SENSOR WITHOUT A WALL SWITCH, EXCEPT AN OVERRIDE OFF SWITCH SHALL BE PROVIDED FOR CLASS ROOMS, MEETING ROOMS WITH PROJECTORS, ETC. THIS SENSOR SHALL HAVE A 15-MINUTE TIMEOUT.
4. THE REMAINING 50% OF LIGHTS SHALL HAVE A WALL SWITCH TO TURN ON AND A DIFFERENT OCCUPANCY SENSOR (AN OVERRIDE) TO SHUT OFF LIGHTING DURING UNOCCUPIED HOURS. THIS SENSOR SHALL HAVE A 15-MINUTE TIMEOUT.
5. OCCUPANT SENSOR CONTROLS IN OPEN OFFICES, WAREHOUSES, CORRIDORS, ETC. SHALL BE PROVIDED IN ACCORDANCE WITH IECC 2018 C405.2.1.1.

IECC 2018 ELECTRICAL COMMISSIONING NOTES:

1. ELECTRICAL COMMISSIONING IS REQUIRED. COMMISSIONING SHALL BE PER IECC 2018 C408.3 (LIGHTING SYSTEMS).

KEY NOTES BY SYMBOL '#'

1. EX. 400A MLO, 120/208V, 3PH PANEL 'P2' SECTION 1. PANEL IS SURFACE MOUNTED IN TENANT SPACE AND FACES OPEN INTO ROOM.
2. EX. PANEL 'P2' SECTION 2. PANEL IS SURFACE MOUNTED IN TENANT SPACE AND FACES OPEN INTO ROOM.
3. FURROUT WALLS AS NECESSARY FOR POWER AND PLUMBING.
4. WATER HEATER ON PLATFORM ABOVE UTILITY SINK. STRUCTURAL ENGINEERING IS BY OTHERS. MAINTAIN REQUIRED CLEARANCES. PROVIDE NEC COMPLIANT MEANS OF DISCONNECT.
5. CIRCUIT RESTROOM/SHOWER EXHAUST FAN(S) TO LIGHTING CIRCUIT. PROVIDE ALL NECESSARY RELAYS, CONTACTORS, ETC., TO CONNECT TO ROOM'S OCCUPANCY SENSOR.
6. PLACE RECIRCULATION PUMP OUTLET/J-BOX ABOVE WATER HEATER WHERE SPACE ALLOWS.
7. MAINTAIN 36" CLEAR SERVICE SPACE IN FRONT OF 120/208V ELECTRIC PANELS AND SWITCHGEAR, AND 42" IN FRONT OF 277/480V GEAR, PER NEC.
8. 24"x16"x3/4" 'AC' GRADE PLYWOOD TELEPHONE BOARD. PROVIDE GROUND PER NEC. RUN CONDUITS AND CONDUCTORS AS ALLOWED BY LANDLORD AND LOCAL AHJ TO UTILITY COMPANY'S TELEPHONE CONNECTION POINT.
9. POWER AND DATA TO THE RECEPTION DESK IS ROUTED UNDER THE SLAB INTO THE WALL CAVITY OF THE RECEPTION DESK. PROVIDE A 3/4" CONDUIT FOR POWER, AND A SEPARATE 1" CONDUIT WITH PULL STRING FOR DATA. EACH HALF OF RECEPTION DESK RECEIVES A QUAD OUTLET AND A DOUBLE DATA PORT. RECEPTACLES SHALL BE SET ON THE BACK WALLS OF THE DESK CABINETS.
10. INSTALL A JUNCTION BOX ABOVE THE SUITE DOOR(S) FOR EXTERIOR SIGNAGE CONNECTION. PROVIDE NEC COMPLIANT MEANS OF DISCONNECT FOR BUILDING SIGNAGE. PROVIDE TIME CLOCK, PHOTO CELL AND CONTACTOR AS NEEDED. COORDINATE FINAL LOCATIONS AND QUANTITIES OF SIGNS WITH ARCHITECT AND OWNER PRIOR TO ORDERING. REUSE EXISTING J-BOXES WHERE PRESENT AND IN GOOD WORKING CONDITION.
11. PROVIDE USB/OUTLET COMBO, LEVITON T5633 (SEE DETAIL 02/E1.0), VERIFY QUANTITY, LOCATION AND MOUNTING HEIGHT WITH OWNER'S REPRESENTATIVE.
12. SPEAKER OUTLETS ARE TO BE WITHIN 2" OF THE WALL CORNER.
13. PROVIDE GFCI ELECTRICAL RECEPTACLE OUTLETS WHERE LOCATED WITHIN 6'-0" OF THE OUTSIDE EDGE OF A SINK PER NEC 210.8(B)(5) AND WET AREAS PER NEC 210.8(B)(6). IF OUTLETS ARE PLACED IN AN INACCESSIBLE LOCATION, CONTRACTOR SHALL PROVIDE A GFCI CIRCUIT BREAKER IN THE PANELBOARD.
14. REUSE EXISTING FIRE ALARM CONTROL PANEL WHERE PRESENT. PROVIDE NEW AS NEEDED. REFER TO FIRE PROTECTION CONTRACTOR'S DRAWINGS SUBMITTED UNDER SEPARATE PERMIT.
15. ELECTRIC DRYER. PROVIDE (2)#10,#10G., 3/4"C, 30A/2P RECEPTACLE.
16. CEILING MOUNTED RECEPTACLES ABOVE WINDOW FOR INTERIOR SIGNAGE. MOUNT ON WALL ABOVE WINDOW IF CEILING IS MORE THAN 12" ABOVE TOP OF WINDOW. REUSE EXISTING SHOW WINDOW RECEPTACLE(S) AND CIRCUIT(S) WHERE PRESENT AND IN WORKING CONDITION.
17. WHERE OWNER ELECTS TO INSTALL SECURITY CAMERAS, PROVIDE CONDUITS WITH PULL STRINGS AT 96" AFF IN THE BACK CORNERS OF THE RECEPTION AREA THAT TERMINATE AT THE NETWORK VIDEO RECORDER (NVR) LOCATION. PROVIDE POWER FOR NVR AS NEEDED. PLACE NVR NEAR TELECOM BOARD, COORDINATE FINAL LOCATION OF NVR WITH OWNER IN FIELD.
18. EXISTING BASE BUILDING ELECTRICAL SERVICE GEAR ON EXTERIOR WALL OF BUILDING AT APPROXIMATE LOCATION SHOWN. REFER TO ONE LINE RISER DIAGRAM, SHEET E3.0

REVIEW AND APPROVAL BY THE A.H.J. SHALL NOT RELIEVE THE APPLICANT OF THE RESPONSIBILITY OF COMPLIANCE WITH ALL APPLICABLE CODES.

14 P2-63 F.A.C.P. (AS NEEDED) VERIFY IN FIELD.

Peter A. Leptuch, P.E.
300 N. Carroll Blvd. #200
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BLUESTONE PARTNERS, LLC
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Sherman, Texas 75092
903.813.1415
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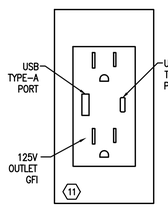
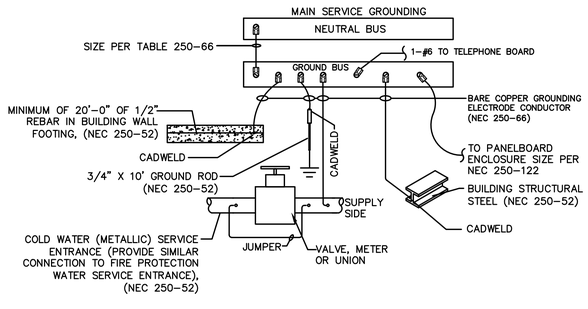
STATE OF MISSOURI
PETER ADAM LEPTUCH
NUMBER PE-2011024021
PROFESSIONAL ENGINEER
05/16/24

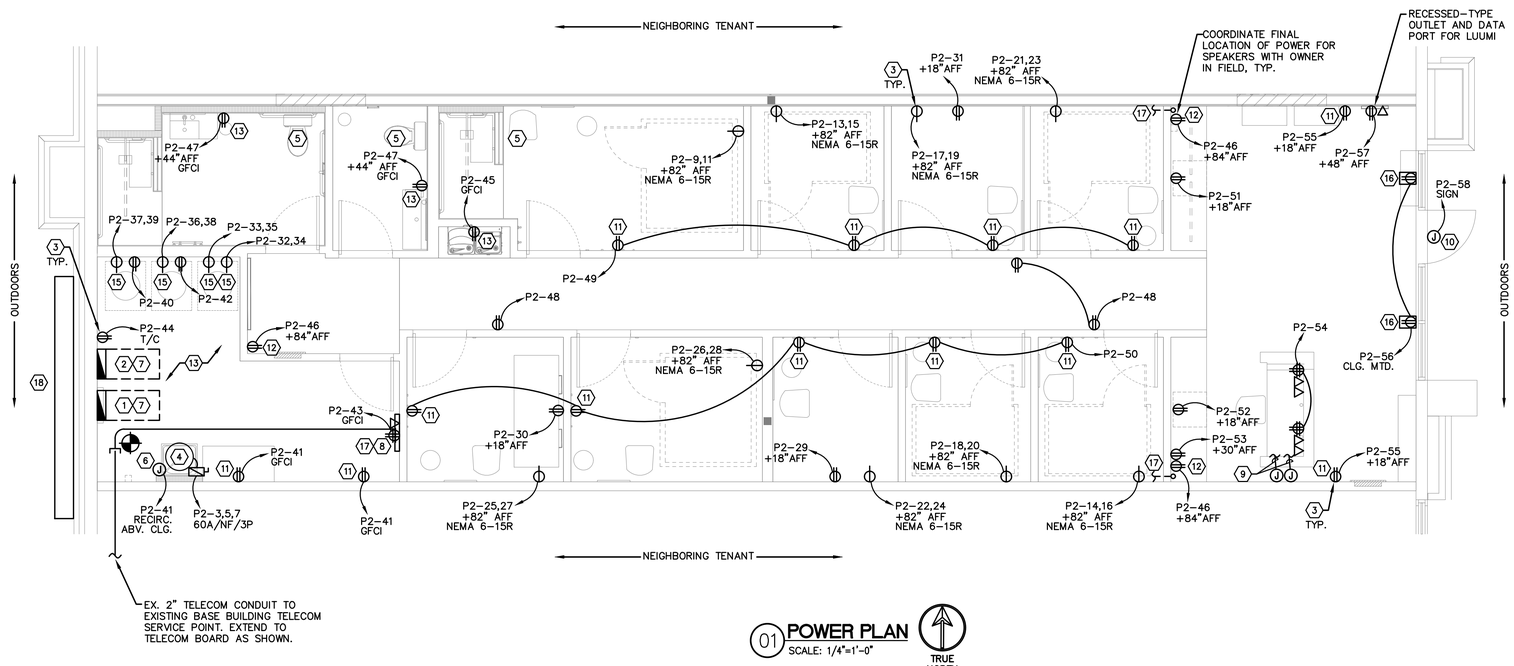


02 USB/OUTLET COMBO
SCALE: NOT TO SCALE

DETAIL NOTES:
1. ALL GROUNDING SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 250-50 OF THE NATIONAL ELECTRICAL CODE.
2. ALL GROUNDING CABLES SHALL BE #3/0 UNLESS OTHERWISE SPECIFIED.



03 GROUNDING ELECTRODE SYSTEM DETAIL (EXISTING)
SCALE: NOT TO SCALE



01 POWER PLAN
SCALE: 1/4"=1'-0"

TRUE NORTH

beem Light Sauna
2070 NW Lowenstein Dr., Suite B
Lee's Summit, MO 64081
Permit Set

REVISIONS

No.	DATE	NOTE

Drawn by: ----
Checked by: ----
Project No: ----
Date: May 16, 2024

POWER PLAN

Sheet: E1.0

SENSOR AND DEVICE SCHEDULE

DESCRIPTION	SYMBOL	MODEL NUMBER	MOUNTING	TIME DELAY	NOTES
DECORA SWITCH	$	LUTRON CLARO CA-1PS-WH	WALL	N/A	2
DIMMER SWITCH	$D	LUTRON DIVA DVCL-153PR-WH	WALL	N/A	1
DUAL TECHNOLOGY OCCUPANCY/VACANCY SENSOR SWITCH	$OS	WATTSTOPPER DW-100 (OR EQUAL)	WALL	5, 15, OR 30 MINUTES	2
DAYLIGHT/OCCUPANCY SENSOR	CS	LEVITON O6C04-IDW (OR EQUAL)	CEILING	N/A	

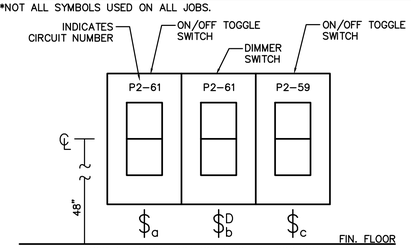
NOTES:
1. DIMMING PROTOCOL (ELV, 0-10V, ETC) SHALL BE COORDINATED WITH FINAL APPROVED LIGHTING FIXTURES PRIOR TO PURCHASE AND INSTALLATION OF DIMMERS.
2. ALL SWITCHES/DIMMERS AND THEIR ASSOCIATED WALL PLATES SHALL BE WHITE.

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	HEIGHT (U.N.O.)
$	SINGLE POLE SINGLE THROW TOGGLE SWITCH (NOTE L-1)	44"
$3	THREE-WAY TOGGLE SWITCH (NOTE L-1)	44"
$D	DIMMER SWITCH (NOTE L-1)	44"
$OS	OCCUPANCY/VACANCY SWITCH	44"
$S	FAN SPEED CONTROL SWITCH	31"/38"

L-1 MOUNTING HEIGHTS NOTED ARE TO THE CENTER OF DEVICE ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE (U.N.O.).

*NOT ALL SYMBOLS USED ON ALL JOBS.



*SWITCH BANK LOCATION MUST BE COORDINATED IN FIELD.

02 SWITCH BANK DETAIL (1)
SCALE: NOT TO SCALE

LIGHTING LEGEND

MARK	MANUFACTURER & MODEL #	DESCRIPTION	LAMPS	NOTES
A	39" VONN SIRIUS VMP25030BL, BLACK	CHANDELIER SUSPENDED 120V INSTALL AT 9'-0" AFF	3 LAMP 119W LED	3000K
B	HALO HC410D010 RECESSED 4" 3500K, WHITE TRIM	WHITE W/ REGRESSED LENS RECESSED 120V	11W LED	3500K
C	HALO HC610D010 RECESSED 6" 3500K, WHITE TRIM	WHITE W/ REGRESSED LENS RECESSED 120V	11W LED	3500K
D	PLT-90270	LED SUSPENSION LIGHT FIXTURE	35W LED	3500K
E	WYZE LIGHT STRIP PRO	LED LIGHT TAPE, 120V	24W (16.4FT) 48W (32.8FT) LED	3000K
	LITHONIA EU2L WHITE	WALL MOUNTED EMERGENCY LIGHT FIXTURE WITH EMERGENCY BATTERY PACK (90 MIN.)		
EXIT	THE EXIT LIGHT CO. COMBOELR-R	CEILING OR WALL RECESSED MOUNTED COMBO EXIT LIGHT FIXTURE W/ RED LETTERS AND ALUMINUM HOUSING WITH ACRYLIC FACE. EMERGENCY BATTERY PACK (90 MIN)		
EXIT	THE EXIT LIGHT CO. CHELR-R	CEILING MOUNTED EXIT LIGHT FIXTURE W/ OPEN-FACE ACRYLIC PANEL, SILK-SCREEN RED LETTERS. EMERGENCY BATTERY PACK		

*COORDINATE FINAL SPECS WITH OWNER PRIOR TO ORDERING. **NOT ALL FIXTURES USED ON ALL JOBS.

GENERAL NOTES

A. LIGHTING SHALL BE CIRCUITED EXACTLY AS SHOWN ON PLANS.

B. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION AND QUANTITY OF LIGHTING FIXTURES.

C. EMERGENCY AND EXIT LIGHTS SHALL BE INSTALLED AND CIRCUITED PER THE LATEST NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES. ALL EMERGENCY AND EXIT FIXTURES SHALL BE DUAL VOLTAGE (120/277 VOLT INPUT) WITH 90 MINUTE BATTERY BACKUP.

D. ELECTRICAL SUB-CONTRACTOR IS RESPONSIBLE FOR ALL REFLECTED CEILING PLAN NOTES ON ARCHITECTURAL DRAWINGS.

E. ALL FLUORESCENT LIGHTING SHALL BE PROVIDED WITH INTEGRAL DISCONNECTING MEANS PER NEC.

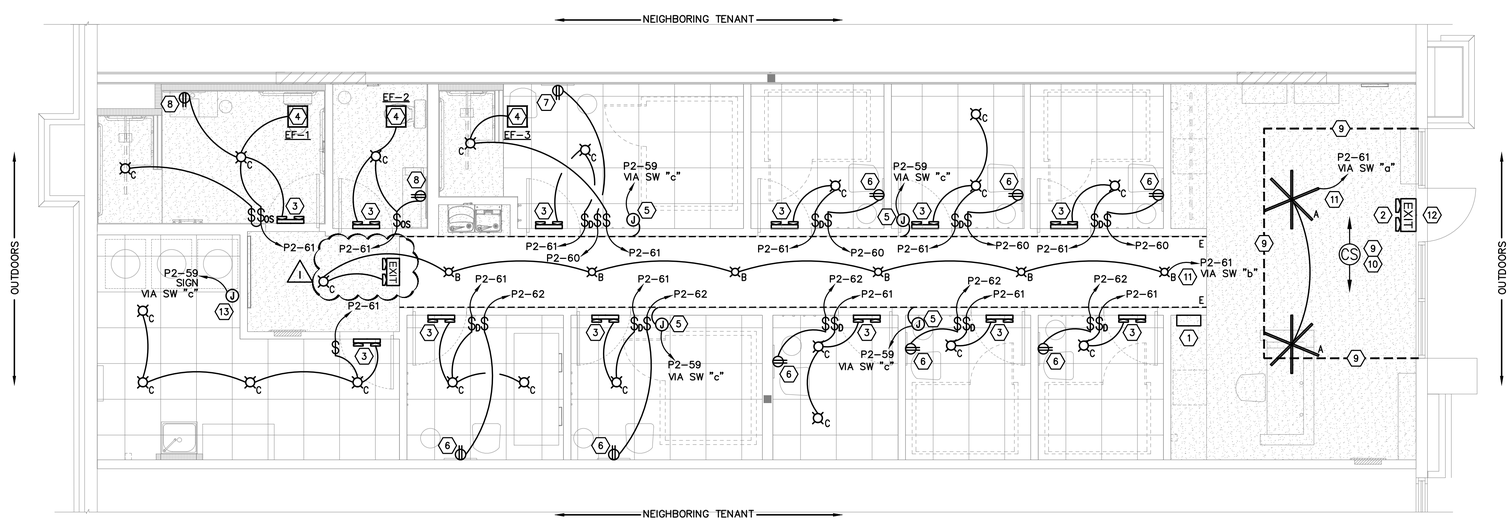
F. EXTERIOR LIGHTS ARE ASSUMED TO BE EXISTING BY LANDLORD, TO REMAIN.

G. "NL" DESIGNATES NIGHT LIGHT- 24/7 OPERATION ON SWITCH-RATED BREAKER. (NOT USED ON ALL JOBS.)

H. THE DIRECTION OF THE BUILDING OFFICIAL REGARDING QUANTITY, LOCATION AND TYPE OF EXIT/EGRESS LIGHTS REQUIRED SHALL TAKE PRECEDENCE OVER WHAT IS SHOWN IN THIS DOCUMENT SET.

KEY NOTES BY SYMBOL (#)

1. SWITCH BANK CONSISTING OF SWITCHES UNDER COMMON FACEPLATES FOR CONTROL OF LIGHTING, MOUNTED AT A MAXIMUM OF 48" AFF. LABEL EACH SWITCH PER AREA SERVED WITH STATUS INDICATOR, PER ENERGY CODE. REFER TO DETAIL 02, THIS SHEET, AND ARCHITECTURAL ELEVATIONS FOR ADDITIONAL INFORMATION. COORDINATE FINAL LOCATION IN FIELD.
2. EXIT LIGHT SHALL BE CIRCUITED TO UNSWITCHED LEG OF LOCAL LIGHT CIRCUIT. PROVIDE CHEVRONS AS NEEDED. BASE BID SHALL ASSUME EXISTING IS PRESENT AT EXISTING EXTERIOR DOORS AND SUITABLE FOR REUSE. PROVIDE NEW AS NEEDED.
3. EMERGENCY EGRESS LIGHT SHALL BE CIRCUITED TO UNSWITCHED LEG OF LOCAL LIGHT CIRCUIT.
4. INTERLOCK EXHAUST FAN WITH LIGHT SWITCH.
5. J-BOXES ABOVE THE DROP CEILINGS OF THE HALLWAY-ADJACENT ROOMS FOR THE LED LIGHT STRIPS ON BOTH SIDES OF THE HALLWAY. LOCATION SHOWN IS DIAGRAMMATIC FOR CLARITY. PLACE ONE AT 16' DOWN THE HALLWAY (BOTH SIDES), AND ANOTHER AT 33' DOWN THE HALLWAY WHERE HALLWAY IS GREATER THAN 32' LONG AT THE END (BOTH SIDES). COORDINATE EXACT QUANTITY AND LOCATION OF J-BOXES WITH OWNER IN FIELD.
6. INSTALL RECESSED OUTLET AT +60" AFF FOR MIRROR POWER. SWITCH AS SHOWN.
7. INSTALL RECESSED OUTLET AT +36" AFF FOR MIRROR POWER, BEHIND THE MIRROR WITHIN THE BLOCKING. SWITCH AS SHOWN.
8. INSTALL A RECESSED OUTLET AT 54" AFF FOR THE RESTROOM MIRROR, OPERATED BY THE SAME SWITCH AS THE OVERHEAD LIGHT.
9. DASHED LINE INDICATES DAY LIGHTING ZONE PER ENERGY CODE. PROVIDE CEILING-MOUNTED DAYLIGHT SENSOR, WHERE REQUIRED BY A.H.J., TO CONTROL LIGHTS WITHIN DAYLIGHT ZONE. PROVIDE LOW VOLTAGE CONTROL WIRE AND LINE VOLTAGE POWER WIRE AS-NEEDED.
10. PROVIDE DAYLIGHT SENSOR PER SENSOR AND DEVICE SCHEDULE, THIS SHEET.
11. COMMON AREA LIGHT SHALL BE SWITCHED THROUGH TIME CLOCK (OVERRIDE), PER SHEET E3.0. LOCATE TIME CLOCK ADJACENT TO ELECTRICAL PANELS. PROVIDE CONTACTOR AS NEEDED, MINIMUM 4 POLES.
12. CONTRACTOR SHALL FIELD VERIFY THE EXISTENCE OF EXTERIOR EMERGENCY EGRESS LIGHTING. IF FOUND TO EXIST DO NOT PROVIDE NEW FIXTURES. BASE BID SHALL ASSUME EXISTING DOORS HAVE COMPLIANT LIGHTS.
13. PROVIDE A J-BOX FOR THE ILLUMINATED BEEM SIGN ABOVE THE CEILING OF THE ROOM BEHIND THE MIRROR. PROVIDE ACCESS PANEL IN HARD-LID CEILING AS NEEDED. COORDINATE WITH ARCHITECT.



01 LIGHTING PLAN
SCALE: 1/4"=1'-0"

TRUE NORTH

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Permit Set

REVISIONS

No.	DATE	NOTE
1	05/13/24	CITY COMMENTS

Drawn by: ----
Checked by: ----
Project No: ----
Date: May 16, 2024

LIGHTING PLAN

Sheet: E2.0

PANELBOARD SCHEDULE - 'P2' (EX.)

MAIN: 400A MLO | VOLTAGE: 208/120 | PHASE: 3 | WIRE: 4 | MOUNTING: SURFACE | AIC: 65K

CKT #	TRIP POLE	DESCRIPTION	LOAD (KVA) LTG	REC	MTR	A/C	HTG	KIT	MISC	PHASE A B C	LOAD (KVA) LTG	REC	MTR	A/C	HTG	KIT	MISC	DESCRIPTION	TRIP POLE	CKT #
1	20/1	(EX.) HVAC REC.		0.4										3.5				(EX.) RTU-4	40/3	2
3	50/3	W.H. (9KW ELEC TANK)							2.3					3.5				-	-	4
5	-	-							4.5					3.5				-	-	6
7	-	-							2.3					3.1				(EX.) RTU-6	35/3	8
9	15/2	SAUNA (1) (ADA-SOCIAL)							1.7					3.1				-	-	10
11	-	-							1.7					3.1				-	-	12
13	15/2	SAUNA (2)							1.5								1.5	SAUNA (5)	15/2	14
15	-	-							1.5								1.5	-	-	16
17	15/2	SAUNA (3)							1.5								1.5	SAUNA (6)	15/2	18
19	-	-							1.5								1.5	-	-	20
21	15/2	SAUNA (4)							1.5								1.5	FUTURE SAUNA	15/2	22
23	-	-							1.5								1.5	-	-	24
25	15/2	FUTURE SAUNA							1.5								1.7	SAUNA (7) (SOCIAL)	15/2	26
27	-	-							1.5								1.7	-	-	28
29	20/1	RED LIGHT THERAPY							1.8								1.8	RED LIGHT THERAPY	20/1	30
31	20/1	FUTURE RED LIGHT THERAPY							1.8								2.5	CLOTHES DRYER (ELEC)	30/2	32
33	30/2	CLOTHES DRYER (ELEC)							2.5								2.5	(GFCI)	-	34
35	-	(GFCI)							2.5								2.5	CLOTHES DRYER (ELEC)	30/2	36
37	30/2	CLOTHES DRYER (ELEC)							2.5								2.5	(GFCI)	-	38
39	-	(GFCI)							2.5								1.8	CLOTHES WASHER (GFCI)	20/1	40
41	20/1	RECIRC. PUMP/UTILITY REC.		0.5													1.8	CLOTHES WASHER (GFCI)	20/1	42
SECTION 2																		SECTION 2		
43	20/1	TELECOM BOARD / NVR		0.4													0.2	TIMECLOCK	20/1	44
45	20/1	DRINKING FOUNTAIN							0.5								0.5	SPEAKERS	20/1	46
47	20/1	RESTROOM REC.		0.4									0.5					HALLWAY REC.	20/1	48
49	20/1	CONV. REC (SAUNA ROOM)		0.7									0.9					CONV. REC (SAUNA ROOM)	20/1	50
51	20/1	U/C FRIDGE (RECEPTION)							1.0								1.0	U/C FRIDGE (RECEPTION)	20/1	52
53	20/1	BACKWRAP REC.		0.2									0.7					RECEPTION DESK REC.	20/1	54
55	20/1	RECEPTION CONV. REC.		0.4									0.5					SHOW WINDOW REC.	20/1	56
57	20/1	LUUMI		0.5							1.2							STORE FRONT SIGN	20/1	58
59	20/1	LED SIGN / HALLWAY TAPE LTG	1.3														0.7	MIRROR (SAUNA RM)	20/1	60
61	20/1	LIGHTING / EF-1,2,3	0.5														0.9	MIRROR (SAUNA RM)	20/1	62
63	20/1	F.A.C.P. (AS NEEDED)							0.2									SPACE		64
65		SPACE																SPACE		66
67		SPACE																SPACE		68
69		SPACE																SPACE		70
71		SPACE																SPACE		72
73		SPACE																SPACE		74
75		SPACE																SPACE		76
77		SPACE																SPACE		78
79		SPACE																SPACE		80
81		SPACE																SPACE		82
83		SPACE																SPACE		84
LIGHTING (KVA):		3.1	1.9	3.4	0.0	0.0	0.0	0.0	39.2		1.2	2.7	0.0	19.8	0.0	0.0	30.7	CONNECTED LOAD (KVA):	98.9	
RECEPTACLES (KVA):		6.1																DEMAND LOAD (KVA):	98.9	
MOTORS (KVA):		0.0							PHASE A	32	265.9									
A/C (KVA):		19.8							PHASE B	34	280.5							CONNECTED LOAD (AMPS):	274.5	
HEATING (KVA):		0.0							PHASE C	33	278.0							DEMAND LOAD (AMPS):	274.5	
KITCHEN (KVA):		0.0								KVA	AMPS									
MISCELLANEOUS (KVA):		69.9																AMPACITY REQUIRED:	276.7	

NOTES: BREAKERS PROTECTING MULTI-WIRE BRANCH CIRCUITS SHALL BE EQUIPPED WITH A PAD-LOCK DEVICE SO THAT CIRCUITS CAN BE DISCONNECTED SIMULTANEOUSLY.

*BALANCE ALL PANELS TO WITHIN 10%
**PANEL DIRECTORIES TO BE TYPE LABELED.
***ALL CLOTHES WASHER AND DRYER BREAKERS SHALL BE GFCI–TYPE.

AMPACITY REQD CALCS

LIGHTING	3.08	KVA X	125	%	=	**3.8 KVA**
RECEPTACLE TOTAL	6.12	KVA				
1ST	10.00	KVA X	100	%	=	**6.1 KVA**
REMAIN	0.00	KVA X	50	%	=	**0.0 KVA**
MOTORS TOTAL	0.00	KVA X	100	%		
LARGEST		KVA X	125	%	=	**0.0 KVA**
REMAIN	0.00	KVA X	100	%	=	**0.0 KVA**
A/C	19.80	KVA X	100	%	=	**19.8 KVA**
HEATING	0.00	KVA X	100	%	=	**0.0 KVA**
LOCKED-OUT LOAD		KVA X	100	%	=	**0.0 KVA**
KITCHEN	0.00	KVA X	65	%	=	**0.0 KVA**
MISCELLANEOUS	69.92	KVA X	100	%	=	**69.9 KVA**
TOTAL					=	**99.7 KVA**

VERIFY SIGN LOCATION AND QUANTITY WITH SEPARATELY PERMITTED SIGN PACKAGE.

SIGNAGE SHALL COMPLY WITH PERMITTED SIGN PACKAGE. ADJUST WHAT IS SHOWN HERE (QUANTITY AND LOCATION) TO MATCH SIGNAGE SET, TYPICAL UNDER A SEPARATE PERMIT.

HOMERUNS AND BRANCH WIRING FOR 20 AMP CIRCUITS SHALL BE AS FOLLOWS:

LENGTH	CIRCUIT WIRE SIZE	HOMERUN WIRE SIZE
1FT TO 50FT	NO.12 AWG	NO.12 AWG
51FT TO 75FT	NO.12 AWG	NO.10 AWG
76FT TO 120FT	NO.10 AWG	NO.8 AWG
121FT TO 190FT	NO.10 AWG	NO.6 AWG
191FT TO 300FT	NO.10 AWG	NO.4 AWG

BRANCH CIRCUIT WIRING SCHEDULE

OCPD AMPS	1P–2W+G,2P–2W+G	2P–3W+G & 3P–3W+G	3P–4W+G
15	2#12, 1#12G, 3/4"C	3#12, 1#12G, 3/4"C	4#12, 1#12G, 3/4"C
20	2#12, 1#12G, 3/4"C	3#12, 1#12G, 3/4"C	4#12, 1#12G, 3/4"C
25	2#10, 1#10G, 3/4"C	3#10, 1#10G, 3/4"C	4#10, 1#10G, 3/4"C
30	2#10, 1#10G, 3/4"C	3#10, 1#10G, 3/4"C	4#10, 1#10G, 3/4"C
35	2#8, 1#10G, 3/4"C	3#8, 1#10G, 3/4"C	4#8, 1#10G, 3/4"C
40	2#8, 1#10G, 3/4"C	3#8, 1#10G, 3/4"C	4#8, 1#10G, 3/4"C
45	2#6, 1#10G, 3/4"C	3#6, 1#10G, 3/4"C	4#6, 1#10G, 1"C
50	2#6, 1#10G, 3/4"C	3#6, 1#10G, 3/4"C	4#6, 1#10G, 1"C
60	2#4, 1#10G, 3/4"C	3#4, 1#10G, 1"C	4#4, 1#10G, 1 1/4"C
70	2#4, 1#8G, 3/4"C	3#4, 1#8G, 1"C	4#4, 1#8G, 1 1/4"C
80	2#3, 1#8G, 1"C	3#3, 1#8G, 1"C	4#3, 1#8G, 1 1/4"C
90	2#2, 1#8G, 1"C	3#2, 1#8G, 1 1/4"C	4#2, 1#8G, 1 1/4"C
100	2#1, 1#8G, 1 1/4"C	3#1, 1#8G, 1 1/4"C	4#1, 1#8G, 1 1/2"C

NOTE:
1. CONTRACTOR TO INCREASE WIRE SIZING FOR LONG RUNS OF WIRING FOR VOLTAGE DROP ALLOWANCE. VOLTAGE DROP SHALL NOT EXCEED 3 PERCENT.

ELECTRICAL ONE-LINE RISER DIAGRAM NOTES

1. INSPECT AND REUSE DISCONNECT AND OVERCURRENT PROTECTION MEANS, FEEDERS AND WHERE POSSIBLE ELECTRICAL PANELS. BRANCH CIRCUIT WIRING SHALL BE ALL COPPER CONDUCTORS.
2. PROVIDE FEEDER FOR TENANT SERVICE. VERIFY LOCATION OF BUILDING ELECTRICAL SERVICE GEAR IN FIELD.
3. E.C. SHALL VERIFY LENGTH OF FEEDERS PRIOR TO (AND INCLUDE PRICING IN) BID.
4. ALL PANELS AND SUB–PANELS SHALL HAVE LOCKS. ALL PANELS SHALL BE SQUARE D / EATON / CUTLER–HAMMER & SUB–PANELS AND PANELS 600A OR LESS SHALL FIT INTO A 6" STUD WALL WITH LOCKING FLUSH MOUNT COVERS.
5. G.C. SHALL CONFIRM VOLTAGE AVAILABLE ON SITE PRIOR TO ORDERING ANY NEW HVAC EQUIPMENT OR ELECTRICAL GEAR. NOTIFY ENGINEER IF VOLTAGE IS DIFFERENT THAN AS SHOWN.
6. HVAC BREAKER SIZES SHALL BE CONFIRMED WITH UNITS AND/OR EQUIPMENT THAT ARRIVE ON SITE. BREAKER SIZES AND WIRE SIZES SHALL BE ADJUSTED AS NECESSARY.
7. PROVIDE LOCK–ON BREAKERS FOR ALL NL/EM AND SECURITY/PHONE CIRCUITS, REFRIGERATION EQUIPMENT, DUCT DETECTORS, AND TIME CLOCK OR OTHER EQUIPMENT REQUIRED TO HAVE POWER 24/7 WITHOUT INTERRUPTION.
8. ON 480V JOBS, AS NEEDED, PROVIDE SECONDARY DISCONNECT (FUSED) WITHIN 10' OF THE STEP DOWN TRANSFORMER WHERE SECONDARY CONDUCTOR DISTANCE IS >25' OR AS REQUIRED ELSEWHERE BY THE TAP RULE.
9. ELECTRICAL PANELS SHALL BE SERIES RATED WITH COORDINATED BREAKERS. WHERE POSSIBLE, ORDER ALL PANELS FROM ONE MANUFACTURER FOR A COMPLETE COORDINATED PACKAGE.
10. PROVIDE ANCILLARY POWER AS NEEDED FOR ITEMS SUCH AS FLUSH SENSORS, DUCT DETECTORS, CAMERA/MUSIC SYSTEMS, ETC. COORDINATE REQUIREMENTS WITH OWNER'S REP.
11. ALL ELECTRICAL CIRCUITS UNDER TYPE 1 HOODS SHALL BE EQUIPPED WITH SHUNT TRIP BREAKERS FOR AUTOMATIC SHUTDOWN OF COOKING ENERGY SOURCE UPON RECEIPT OF A SIGNAL FROM THE HOOD CONTROLLER, OR EQUAL.
12. AREA SMOKE DETECTORS AND DUCT SMOKE DETECTORS SHALL BE INSTALLED AND CIRCUITED TO AN OPEN 20A/1P CIRCUIT.
13. VERIFY FAULT DUTY (SCCR) OF EX. PANEL, SUB–PANEL TO MATCH OR SHALL HAVE SERIES RATED BREAKER FROM SAME MANUFACTURER AS MAIN PANEL.
14. ELECTRICAL CONTRACTOR SHALL VERIFY AVAILABLE FAULT WITH UTILITY CO. PRIOR TO ENERGIZING SERVICE.
15. DISCONNECTS SHALL BE RATED FOR VOLTAGE OF EQUIPMENT SERVED.
16. ALL WIRING IS COPPER, SIZED FOR 75° C THWN. EQUIVALENT ALUMINUM WIRING SIZED PER NEC IS ACCEPTABLE.
17. FEEDER CONDUIT SHALL BE RIGID METALLIC CONDUIT, OR PVC SUITABLE (RATED) FOR ELECTRICAL USE.
18. DISCONNECTS SHALL BE PROVIDED WHERE REQUIRED BY CODE AND ORDERED AT THE VOLTAGE OF THE EQUIPMENT SERVED.

LEE'S SUMMIT, MO NOTE:

ELECTRICAL RISER DIAGRAM HAS BEEN REPRODUCED FROM PREVIOUS DRAWINGS DATED 02/19/2024.

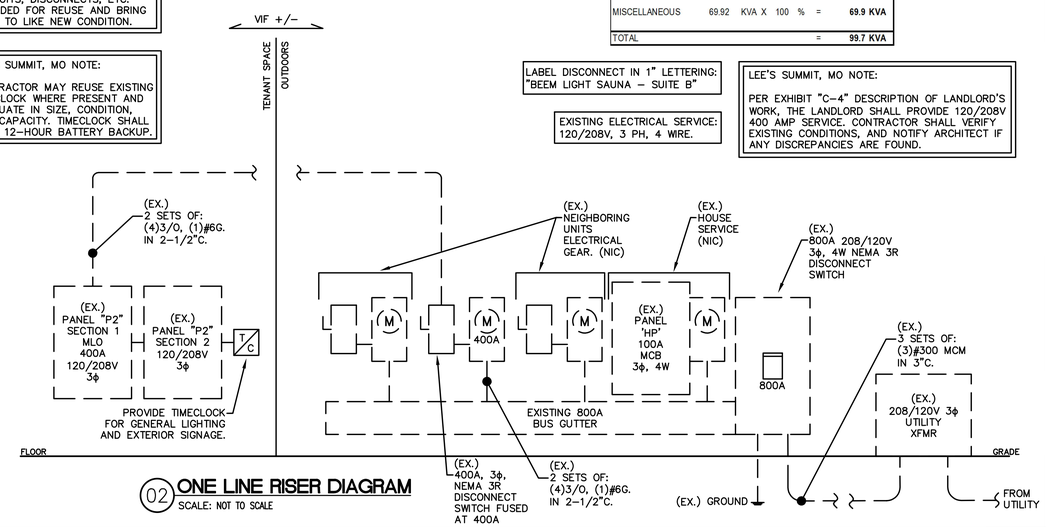
LEE'S SUMMIT, MO NOTE:

CONTRACTOR SHALL SERVICE EXISTING PANEL, FEEDERS, CONDUITS, DISCONNECTS, ETC. INTENDED FOR REUSE AND BRING GEAR TO LIKE NEW CONDITION.

LEE'S SUMMIT, MO NOTE:

CONTRACTOR MAY REUSE EXISTING TIMECLOCK WHERE PRESENT AND ADEQUATE IN SIZE, CONDITION, AND CAPACITY. TIMECLOCK SHALL HAVE 12–HOUR BATTERY BACKUP.

01 PANEL SCHEDULES
SCALE: NOT TO SCALE



02 ONE LINE RISER DIAGRAM
SCALE: NOT TO SCALE

LABEL DISCONNECT IN 1" LETTERING: "BEEM LIGHT SAUNA – SUITE B"

EXISTING ELECTRICAL SERVICE: 120/208V, 3 PH, 4 WIRE.

LEE'S SUMMIT, MO NOTE:

PER EXHIBIT "C–4" DESCRIPTION OF LANDLORD'S WORK, THE LANDLORD SHALL PROVIDE 120/208V 400 AMP SERVICE. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS, AND NOTIFY ARCHITECT IF ANY DISCREPANCIES ARE FOUND.

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NUMBER PE-2011024021
PROFESSIONAL ENGINEER
05/16/24

beem Light Sauna
2070 NW Lowenstein Dr., Suite B
Lee's Summit, MO 64081
Permit Set

REVISIONS

No.	DATE	NOTE

Drawn by: ----
Checked by: ----
Project No: ----
Date: May 16, 2024

ELECTRICAL PANELS & RISER

Sheet: E3.0

ROOF-TOP UNIT SCHEDULE

MARK	MANUFACTURER/ MODEL	NOMINAL TONS	CFM	O/A CFM	E.S.P. (IN. W.C.)	EER2 / SEER2	COOLING CAP. (MBH) TOTAL	SENSIBLE	DRY BULB/ WET BULB °F	GAS HEAT INPUT (MBH)	ELECTRICAL (VOLTS/PH/HZ)	UNIT MCA	UNIT MOCP	UNIT WEIGHT (LBS)	MFG DATE (EX. UNITS)	NOTES
RTU-4 (EX.)	TRANE/ YSC060	5.0	2,000	175	0.8"	11.0 / 13.4	60.0	45.0	80/67	80.0	208/3/60	29.0	40.0	~800	2024	1,2,3,13
RTU-6 (EX.)	TRANE/ YSC048	4.0	1,600	125	0.8"	11.0 / 13.4	48.0	36.0	80/67	80.0	208/3/60	26.0	35.0	~800	2024	1,2,3,13

NOTES:
1. LABEL EACH RTU AND EXHAUST FAN WITH "beem LIGHT SAUNA" AND SUITE NUMBER.
2. COOLING CAPACITY IS BASED ON 80°F EDB AND 67°F EWB CONDITIONS.
3. PROVIDE PROGRAMMABLE ROOM THERMOSTAT, HONEYWELL VISION PRO 8000 WIFI, OR EQUAL.
4. PROVIDE UNWIRED CONVENIENCE OUTLET (ELECTRICIAN SHALL FIELD WIRE TO 208V PANEL) AND 14" ROOF CURB.
5. VERIFY VOLTAGE AVAILABLE ON SITE PRIOR TO ORDERING NEW UNITS. OBTAIN STRUCTURAL APPROVAL PRIOR TO PLACING UNIT.
6. UNIT PROVIDED WITH DUAL COMPRESSORS/2-STAGE COOLING.
7. PROVIDE FACTORY ELECTROFIN OR EQUAL ANTI-CORROSION COATING ON OUTDOOR COILS.
8. WEIGHTS INCLUDE ACCESSORIES.
9. ORDER WITH ACCESSORIES INCLUDING: CURB, ECONOMIZER, HAIL GUARD, 2-POSITION DAMPER, DUAL ENTHALPY SENSORS, DUCT SMOKE DETECTORS, REMOTE ANNUNCIATORS, ETC.
10. MCA BASED ON MEDIUM STATIC FAN.
11. LANDLORD TO FULLY SERVICE AND WARRANTY FOR ONE(1) YEAR.
12. PROVIDE WITH POWERED EXHAUST AND HOT GAS REHEAT (DEHUMIDIFICATION.)
13. BRING EXISTING UNIT TO LIKE NEW OPERATING AND PERFORMANCE CONDITIONS. COMB OUT FINS, CHANGE BELTS, BRING TO FACTORY SPEC REFRIGERANT LEVELS, ETC.

CONTRACTOR NOTES:

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ARCHITECT, LANDLORD OR TENANT OF ANY DISCREPANCIES ENCOUNTERED ON THE PLANS OR IN EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.

BIDDERS ARE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND SATISFY THEMSELVES AS TO THE NATURE AND SCOPE OF WORK. THE BASE BID SHALL REFLECT MODIFICATIONS TO SYSTEMS AND DEVICES AS REQUIRED BY STATE AND LOCAL CODES WHETHER INDICATED OR NOT ON CONTRACT DOCUMENTS. THE SUBMISSIONS OF A BID WILL BE EVIDENCE THAT SUCH AN EXAMINATION AND COMPLIANCE WITH GOVERNING CODES / REQUIREMENTS HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED OR FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN, HAD AN EXAMINATION AND CODE REVIEW BEEN MADE, WILL NOT BE ALLOWED.

KEY NOTES BY SYMBOL '#'

1. EXISTING RTU TO REMAIN. LOCATION SHOWN IS DIAGRAMMATIC, BASED ON SHELL DRAWINGS DATED 02/19/2024. FIELD VERIFY AND ADJUST DUCT WORK AS NEEDED.
2. ROUTE 4"ø RIGID METAL DRYER DUCT, FROM DRYER WALL BOX TO ROOF. TERMINATE WITH MANUFACTURER'S COMMERCIAL GRADE DRYER PORT/CAP/GOOSENECK WITH BACK DRAFT DAMPER. MAINTAIN 10'-0" AWAY FROM ALL BUILDING OPENINGS. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.
3. CEILING MOUNTED EXHAUST FAN. ROUTE 6ø "EXHAUST DUCT TO COMBINED 10"ø EXHAUST DUCT.
4. DUCT SMOKE DETECTOR IN RETURN AIR DUCT. INSPECT AND TEST EXISTING DETECTOR WHERE PRESENT PRIOR TO REUSE. PROVIDE NEW IF ONE IS NOT PRESENT.
5. 22X10 TRANSFER AIR DUCT FROM LAY IN CEILING GRILLE TO GYP CEILING GRILLE IN HALL WAY.
6. 16X16 CLOTHES DRYER MAKE-UP AIR DUCT, FROM ROOF MOUNTED GRAVITY INTAKE HOOD, ROUTED OVER TO UTILITY ROOM. INSTALL FILTER FRAME CEILING GRILLE AND MOTORIZED DAMPER, AS SHOWN.
7. PROVIDE MOTORIZED DAMPER ON DRYER MAKEUP AIR DUCT INTERLOCKED WITH DRYERS. DAMPER SHALL BE PROGRAMMED TO OPEN ANY TIME (2) OR MORE DRYERS ARE IN OPERATION. PROVIDE RELAYS, CONTACTORS, CONTROLLER, AND PRESSURE SWITCH AS NEEDED.
8. UNDERCUT DOOR BY 1.5 INCHES TO ALLOW AIR FROM TO ROOM TO TRANSFER INTO HALL.
9. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT, HONEYWELL VISION PRO 8000 WITH REMOTE SENSOR (WHERE NECESSARY), AND AUTO CHANGEOVER AND RELATED WIRING TO CONTROL EACH UNIT. MOUNT T-STAT AT 48" AFF, SENSOR AT 96" AFF (AS APPLICABLE).
10. PROVIDE A REMOTE ANNUNCIATOR FOR DUCT SMOKE DETECTORS IN UTILITY AREA. REMOTE ANNUNCIATOR SHALL BE EQUAL TO SYSTEM SENSOR RA100Z/RA100ZA WITH AUDIBLE AND VISUAL ANNUNCIATOR. LABEL EACH ANNUNCIATOR ACCORDING TO UNIT BEING MONITORED. PROVIDE SECONDARY ANNUNCIATOR IN DINING AREA WHERE REQUIRED BY LOCAL JURISDICTION. VERIFY REQUIREMENTS WITH LOCAL INSPECTOR.
11. PROVIDE REMOTE DUCT DETECTOR RESET IN UTILITY AREA. LABEL EACH RESET ACCORDING TO UNIT BEING MONITORED.

HVAC SUMMARY:

1,435 SQ FT.
9.0 TONS
159.4 SF/TON

FINAL PLACEMENT OF THERMOSTAT TO BE SELECTED BY CONSTRUCTION MANAGER OR OWNER'S REPRESENTATIVE AND MAY NEED TO BE MODIFIED DUE TO FIELD CONDITIONS.

LEE'S SUMMIT, MO NOTE:

ALL MECHANICAL WORK SHALL BE IN COMPLIANCE WITH 2018 INTERNATIONAL BUILDING CODE, 2018 INTERNATIONAL MECHANICAL CODE, AND 2018 INTERNATIONAL ENERGY CONSERVATION CODE.

LEE'S SUMMIT, MO NOTE:

THIS PROJECT IS A TENANT FINISHOUT OF A FIRST-GENERATION INLINE RETAIL SPACE IN A SINGLE-STORY, SLAB-ON-GRADE RETAIL STRIP CENTER.

AIR DEVICE SCHEDULE

SYMBOL	TAG	MANUF.	CATALOG #	FIXTURE DESCRIPTION	NECK SIZE	REMARKS
	A	TITUS	TDC-AA	12x12 SUPPLY GRILLE	SEE PLAN	ALUMINUM, BORDER TYPE 3 IN LAY IN CEILING WITH MANUAL VOLUME DAMPER IN NECK.
	B	TITUS	TDC-AA	12x12 SUPPLY GRILLE	SEE PLAN	ALUMINUM, BORDER TYPE 1 IN GYP. BOARD CEILING WITH MANUAL VOLUME DAMPER IN NECK.
	C	TITUS	TDC-AA	15x15 SUPPLY GRILLE	SEE PLAN	ALUMINUM, BORDER TYPE 1 IN GYP. BOARD CEILING WITH MANUAL VOLUME DAMPER IN NECK.
	D	TITUS	350FL	24x12 RETURN GRILLE	22X10	ALUMINUM LOUVERED FACE, SIDEWALL BORDER TYPE.
	E	TITUS	350FL	24x24 RETURN GRILLE	22X22	ALUMINUM LOUVERED FACE, BORDER TYPE 1 IN GYP. BOARD CEILING.
	F	TITUS	PAR	24x24 RETURN GRILLE	22X22	ALUMINUM EGG CRATE, HINGED, FILTER FRAME, BORDER TYPE 3 IN LAY-IN. CLG. PROVIDE WITH 1" THROW AWAY FILTER.

NOTE:
1. ALL GRILLES IN GYP BOARD CEILING SHALL BE ORDERED WITH INTEGRAL BALANCING DAMPERS.
2. PROVIDE RECTANGULAR TO ROUND ADAPTERS WHEREVER NECESSARY.
3. NOT ALL DEVICES USED ON ALL JOBS.
4. TRANSITION NECK SIZE ON SUPPLY AND RETURN AS NEEDED TO ENSURE SAME SIZE (WITHIN 2") SUPPLY AND RETURN REGISTERS FOR UNIFORM APPEARANCE.

EXHAUST FAN SCHEDULE - NEW

MARK	MANUFACTURER	MODEL	DRIVE	AIRFLOW (CFM)	EXT. SP (IN W.C.)	V, PH, HZ	MOTOR SIZE (HP)	SERVICE	APPROX. WEIGHT	INSTALL LOCATION	NOTES
EF-1	GREENHECK	SP-A90	DIRECT	70	0.20"	115/1/60	11 WATTS	RESTROOM	13 LBS	CEILING	1,2
EF-2	GREENHECK	SP-A90	DIRECT	70	0.20"	115/1/60	11 WATTS	RESTROOM	13 LBS	CEILING	1,2
EF-3	GREENHECK	SP-A90	DIRECT	70	0.20"	115/1/60	11 WATTS	RESTROOM	13 LBS	CEILING	1,2

NOTES:
1. CONTROL TO BE INTERLOCKED WITH OCCUPANCY SENSOR. PROVIDE WITH 15-MINUTE TIME OUT AFTER LAST OCCUPANT IS SENSED.
2. PROVIDE WITH BACKDRAFT DAMPER.

MANDATORY TEST AND BALANCE REPORT BY LICENSED 3RD PARTY TO BE PROVIDED TO OWNER AND ARCHITECT UPON COMPLETION OF HVAC WORK. REPORT SHALL INCLUDE EXHAUST AND FRESH AIR QUANTITIES. PAYMENT TO G.C. AND MECHANICAL CONTRACTOR MAY BE WITHHELD UNTIL COMPLETE REPORT IS PROVIDED, AND PROPER BUILDING PRESSURIZATION IS ACHIEVED. PROVIDE COPY TO LANDLORD.

HVAC DUCT DROP LOCATIONS, MIXING BOX CONFIGURATIONS (ON FAN POWERED BOX / VAV SYSTEMS), RETURN AIR CONFIGURATIONS, ETC. WILL VARY DEPENDING ON FIELD CONDITIONS, JOISTS, BEAMS, SPRINKLER PIPING, ETC. IT IS EXPECTED THAT THE MECHANICAL CONTRACTOR WILL MAKE MINOR ADJUSTMENTS TO BEST SUIT FIELD CONDITIONS.

BEEM LIGHT SAUNA PROTO NOTE:

THIS IS A SHALLOW STRUCTURE BUILDING. HVAC RUNS ARE DIAGRAMMATIC. ADJUST AS NEEDED TO AVOID STRUCTURAL ELEMENTS, SPRINKLER PIPING ETC. ROUTE RUNOUTS THROUGH WEBBING AS NEEDED. VISIT SITE AND/OR PROVIDE ALLOWANCE IN BID TO ADJUST TO FIELD CONDITIONS.

MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
T	THERMOSTAT @ 48" AFF
D	DUCT MOUNTED SMOKE DETECTOR
S	REMOTE ROOM TEMPERATURE SENSOR AT 96" AFF
	VOLUME DAMPER
M	MOTORIZED DAMPER WITH ACTUATOR
B	BAROMETRIC FLAP DAMPER
RTU	ROOF TOP UNIT
HP	HEAT PUMP UNIT
EF	EXHAUST FAN

AIR BALANCE SCHEDULE

UNIT	SUPPLY AIR	RETURN AIR	OUTSIDE AIR	EXHAUST	PRESSURE	AREA SERVED
RTU-4	2,000	1,825	175	--	+175	LEASE SPACE
RTU-6	1,600	1,475	125	--	+125	LEASE SPACE
EF-1	--	--	--	70	-70	RESTROOM
EF-2	--	--	--	70	-70	RESTROOM
EF-3	--	--	--	70	-70	SHOWER
DRYERS	--	--	--	880	-880	DRYER
DRYER MAKE UP	--	--	880	--	+880	DRYER MAKE-UP AIR
TOTAL	3,600	3,300	1,180	1,090	+90	--

AIR DEVICE NECK CHART

8"ø - 0 TO 180 CFM
10"ø - 185 TO 350 CFM
12"ø - 355 TO 550 CFM
14"ø - 555 TO 850 CFM
16"ø - 855 TO 1350 CFM
18"ø - 1360 TO 1750 CFM

**USE ABOVE SIZES UNLESS A LARGER SIZE IS INDICATED.

DRYER VENT CALCULATION

0'-0"	HORIZONTAL LENGTH
20'-0"	VERTICAL LENGTH
0	45 DEGREE ELBOWS (2.5')
0	90 DEGREE ELBOWS (5')
20'-0"	TOTAL DEVELOPED DUCT LENGTH

SAMPLE DRYER PLACARD

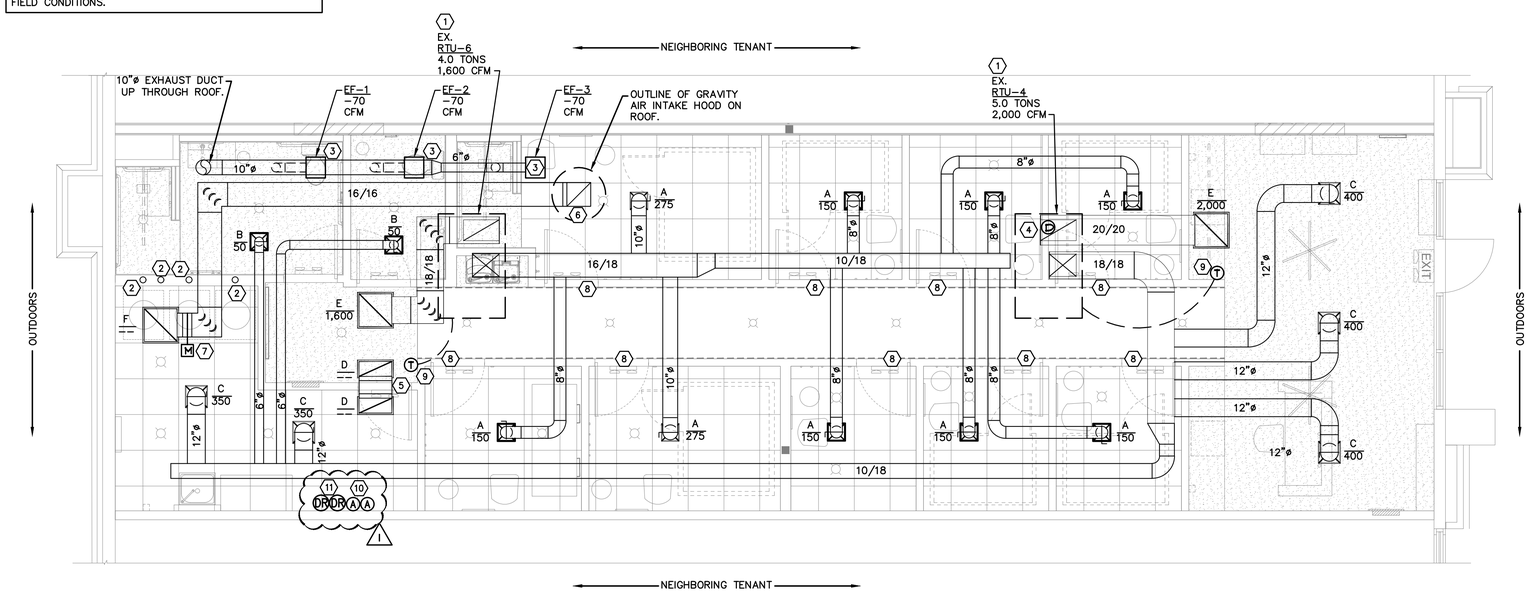
WARNING

CHECK THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ANY DOMESTIC DRYER THAT WILL BE INSTALLED AT THIS LOCATION. THE INSTALLATION INSTRUCTION MUST ALLOW THE DRYER TO BE CONNECTED TO AN EXHAUST DUCT (VENT) THAT IS _____ FEET.

*DRYER DUCT SHALL BE INSULATED. DO NOT INSTALL INSULATED DUCTING UPSTREAM OF DRYER EXHAUST DUCT POWER VENTILATOR (WHERE APPLICABLE).

**PROVIDE UL705 LISTED DRYER EXHAUST DUCT POWER VENTILATOR EQUAL TO TJERNLUND LB2. THERE SHALL BE NO DUCT SEAMS BETWEEN POWER VENTILATOR AND DISCHARGE POINT (DRYER, ROOF VENT CAP/WALL PORT). INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

180' - POWER VENTILATOR CAPACITY
35' - DRYER CAPACITY
186' - TOTAL INSTALLED SYSTEM CAPACITY PROVIDED.



01 MECHANICAL PLAN
SCALE: 1/4"=1'-0"

TRUE NORTH

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REVISIONS

No.	DATE	NOTE
1	05/13/24	CITY COMMENTS

Drawn by: ----
Checked by: ----
Project No: ----
Date: May 16, 2024

MECHANICAL PLAN

Sheet: M1.0

HVAC Load Calculation - Office Space	2024-04-03		Lee's Summit, MO
Heating Load Analysis:		ASHRAE DESIGN: DB =	8
Sensible Heat Loss:		Design Temp	70
H_sensible, O.A. = 1.08 * cfm * delta T		H_sensible_OA =	-20088 (dT = 57F)
H_sensible, O.A. = 1.08 * cfm * delta T		H_sensible_OA =	-6696 (dT = 57F)
H_sensible, walls = A*u*dT		H_sens_wall =	-2356 (dT = 57F)
H_sensible, floor = A*u*dT		H_sens_floor =	4305 (dT = 3F)
H_sensible, roof = A*u*dT		H_sens_roof =	0 (dT = 57F)
H_sensible, window conductance = A_glass*U*dT		H_sens_glass =	-3989.7
Outside Air, ventilation =	300	(from ASHRAE calculation)	
Outside Air, intrusion =	100	(from open doors on windy winter days)	
Outside Air =	400		
Roof / Floor Area =	1435	<----- update per site	
Wall Height - Average	19	<----- update per site	
Perimeter (unconditioned)	42	<----- update per site	
Wall Area =	798		
Window Length =	12	<----- update per site	
Window height =	11	<----- update per site	
Window Area =	143		
Shading Factor =	0.75	(0 = none, 1.0 = fully shaded)	
R-value Walls = (R_net) =	21	EX.Wall	
U-value Walls =	0.047619048	Average Wall	
R-floor = (R_net) =	1		
U-floor	1		
R-roof = (R_net) =	38	EX. Roof	
U-roof	0	Average Roof	
U-glass	0.45	**(1.1/0.55)** for **(1-pane/2-pane)** windows; Energy Star windows **(0.55 max.).**	
Total Heating Load:			**-28824.7**
Safety Factor (25%)			**-36030.9 MBH**
Space Load - Tonnage Required			**10.55695 KW**

HVAC Load Calculation - Office Space	2024-04-03		Lee's Summit, MO	24.128
Cooling Load Analysis:		ASHRAE DESIGN: DB =	96	
Sensible Heat:		Basis of Design: Kansas City, MO WB =	75	
		Design Indoor Temp	72 F	
H_sensible, O.A. = 1.08 * cfm * delta T		H_sensible_OA =	7776 dT =	24
H_sensible, lighting = watts * 3.413		H_sens_ltg=	4897.655	
H_sensible, people = 250 * # people		H_sens_ppl =	3770	
H_sensible, equipment = watts * 3.413		H_sens_epmt =	40300	
H_sensible, walls = A*u*dT		H_sens_wall =	1520.0 (dT = 40F)	
H_sensible, floor = A*u*dT		H_sens_floor =	1435 (dT = 1F)	
H_sensible, roof = A*u*dT		H_sens_roof =	1888.1579 (dT=50F)	
H_sensible, window conductance = A_glass*U*dT		H_sens_glass =	1930.5	
H_sensible, window transmittance = A_glass*SHGC*Et		H_sens_solar gain =	7239.375	
H_latent, O.A. = 0.68 * q*delta w_grains		H_latent_OA =	5263.2	
H_latent, people = 250 * # people		H_latent_ppl=	3770	
Lighting Load (watts)	1435	(from Comcheck/ T-24 / FlaCom)		
Equipment Load (btu/hr)	40300	(Regular Sauna - 6,000 btu/hr each, Large Sauna - 10,000 btu/hr each)		
Occupant Load	15	(Auto Populate - from ASHRAE calculation)		
Grains O.A. =	98	<----- update per site		
Grains I.A. =	72.2	(72.2 is for saturated air at 58F)		
Outside Air, Ventilation =	300	(Auto Populate - from ASHRAE calculation)		
Roof / Floor Area =	1435	(Auto Populate - from ASHRAE calculation)		
Wall Height - Average	19	<----- update per site		
Perimeter (unconditioned)	42	<----- update per site		
Wall Area =	798			
Window Length =	13	<----- update per site		
Window Height =	11	<----- update per site		
Window Area =	143			
Shading Factor =	0.5	(0 = none, 1.0 = fully shaded)		
R-value Walls = (R_net) =	21	Taken from shell drawings		
U-value Walls =	0.047619	Average Wall		
R-floor = (R_net) =	1			
U-floor	1			
R-roof = (R_net) =	38	Taken from shell drawings		
U-roof	0.026316	Average Roof		
U-glass	0.45	Assumed		
SHGC	0.45	Assumed		
Et = incident solar radiation	225	(assume peak daily, btu/hr p.s.f. Solar constant is 442 BTUH/hr at top of atmos, 317 at sfc.))		
Total Cooling Load:				**79789.888**
Space Load - Tonnage Required				**6.6491573 tons**
Safety Factor (10%)				**87768.877**
Space Load - Recommended Tonnage				**7.3140731 tons**
Tonnage Provided				**9.0 tons (Existing)**

beem **2024-04-03** **Lee's Summit, MO**

Zone Identification			Standard Case: IMC - 2018 - Table 403.3 Verification Rate Procedure											Design Case		
Zone	Occupancy Category	Area (sf) (A_z)	Table 403.3.1.1 People Outdoor Air Rate (cfm/person)	Table 403.3.1.1 Area outdoor Air Rate (cfm/sf)	Expected Occupant Density (#/1000 sf)	Zone Population (# persons) (P_z)	Breathing Zone Outdoor Air Flow (CFM) (V_{bz})	From Table 403.3.1.1.1.2 Zone Air Distribution Effectiveness (E_z)	Zone Outdoor Air Flow (CFM) (V_{oz})	Zone Primary Air Flow Fraction (CFM) (V_{pz})	Factor: Zp= V_{oz}/V_{pz}	From Table 403.3.1.1.2.3.2 System Ventilation Efficiency (E_v)	Outdoor Air Intake Flow (CFM) (V_{ot})	Total Outdoor Airflow provided by HVAC equip. (CFM)	Total Airflow provided by HVAC equip. (CFM)	Design % by which Outside Air Design Flow Exceeds Standard
	Office	632	5	0.06	10	6	69.5	0.8	86.9	1	86.9	1	86.9	100	1200	15.1%
	Reception	278	5	0.06	20	6	44.5	0.8	55.6	1	55.6	1	55.6	100	1000	79.9%
	Restroom	133	0	0	0	0	0.0	0.8	0.0	1	0.0	1	0.0	0	100	
	Breakroom	160	5	0.06	20	3	25.6	0.8	32.0	1	32.0	1	32.0	50	600	56.3%
	Corridor	232	0	0.06	0	0	13.9	0.8	17.4	1	17.4	1	17.4	50	100	187.4%
	Total	1435	5	0.06		15	161.5					Total (CFM):	191.9	300	3000	

$V_{bz} = R_p*P_z + R_a*A_z$

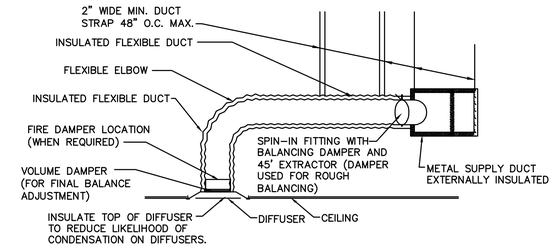
V_{pz} = Total airflow provided by the HVAC equipment (Outdoor + Recirculated).

$V_{oz} = V_{bz}/E_z$

$Z_p = V_{oz}/V_{pz}$

Clothes Dryer	880 CFM	
Restroom Required Exhaust =	210 CFM	as required by Table 403.3.1.1 minimum exhaust rates.
Total Exhaust Required =	1090 CFM	

Terminology has been adopted from IMC 2018, refer to Chapter 4 of that code for additional terminology, equations, etc.



–*REFER TO THE MECHANICAL EQUIPMENT SCHEDULE FOR COMPONENT AND DEVICE SPECIFICATIONS.–

01 HVAC DUCTWORK DETAIL
SCALE: NOT TO SCALE

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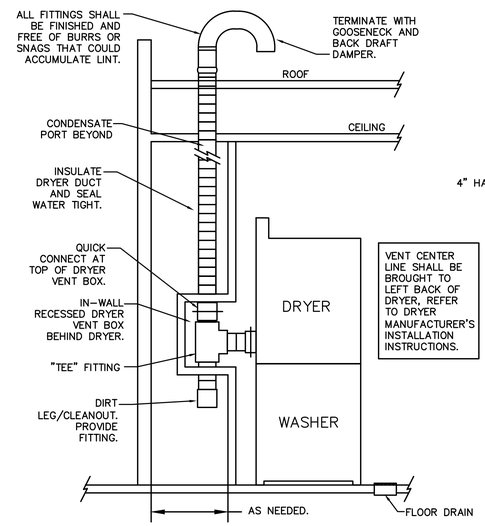
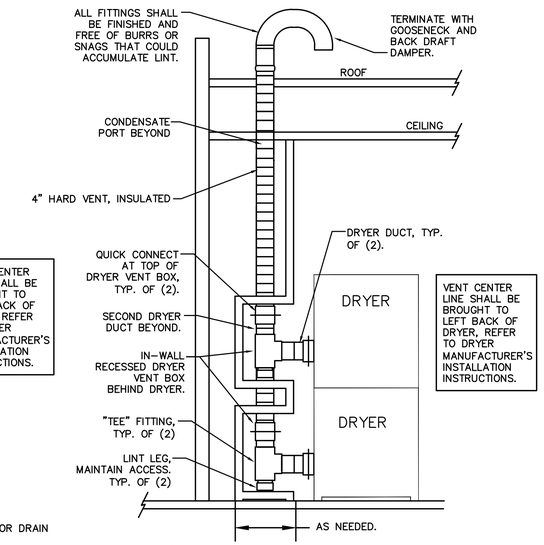
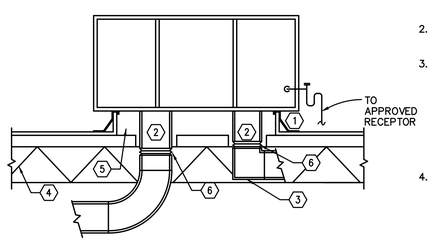


03 DRYER VENT BOX DETAIL
SCALE: NOT TO SCALE



02 DRYER VENT BOX DETAIL
SCALE: NOT TO SCALE

CONDENSATE LINE SIZES:	
3/4"	UP TO 20 TONS CONNECTED.
1"	UP TO 21–40 TONS CONNECTED.
1–1/4"	UP TO 41–90 TONS CONNECTED.
1–1/2"	UP TO 91–125 TONS CONNECTED.
2"	UP TO 126–250 TONS CONNECTED.
*ROUTE TO APPROVED RECEPTOR VIA AIR GAP.	



04 ROOF-TOP UNIT DETAIL (TYPICAL)
SCALE: NOT TO SCALE

1. SET ROOF CURB ON STRUCTURAL STEEL – SHIM DEAD LEVEL. SECURE ROOF CURB TO METAL DECK AND A/C UNIT TO ROOF CURB.
2. TRANSITION TO CONNECTION SIZES IN DUCT RISE, REFER TO PLANS FOR SIZES.
3. 1" ACOUSTIC LINING IN SUPPLY AND RETURN DUCTS FROM FAN DISCHARGE TO POINT INDICATED ON MECHANICAL DRAWINGS (10'–0" MIN.). DUCT SIZES INDICATED ON PLAN ARE INTERIOR AND DO NOT INCLUDE LINING. PAINT EXPOSED DUCTWORK TO MATCH CEILING. REFER TO ARCHITECTURAL DRAWINGS FOR COLOR SCHEME.
4. THE MECHANICAL ENGINEER DOES NOT PROVIDE STRUCTURAL ENGINEERING SERVICES, AND RECOMMENDS TO THE OWNER THAT ANY ADDITIONS LOAD PLACED ON THE ROOF BE APPROVED BY A STRUCTURAL ENGINEER.
5. INSULATED ROOF CURB. PROVIDE MINIMUM OF 14" HIGH RTU CURBS. CURB MUST BE PLACED ON THE STRUCTURAL FRAMING.
6. FLEXIBLE CONNECTION – TYPICAL.

IECC 2018 MECHANICAL COMMISSIONING NOTES:

1. WHERE 480,000 BTU/H OR MORE OF COOLING CAPACITY AND 600,000 BTU/H OF COMBINED SERVICE WATER–HEATING AND SPACE–HEATING CAPACITY WILL BE INSTALLED IN A TENANT SPACE, COMMISSIONING IS REQUIRED. MECHANICAL COMMISSIONING SHALL COMPLY WITH SECTION C408.2 (MECHANICAL SYSTEMS) OF FBCEC 2023.

IMC 2018 HVAC NOTES:

1. AN AIR OR WATER ECONOMIZER SHALL BE PROVIDED FOR INDIVIDUAL FAN SYSTEMS WITH COOLING CAPACITY GREATER THAN OR EQUAL TO 54,000 BTU/H IN BUILDINGS HAVING OTHER THAN GROUP R OCCUPANCY. THE TOTAL SUPPLY CAPACITY OF ALL FAN COOLING UNITS NOT PROVIDED WITH ECONOMIZERS SHALL NOT EXCEED 20% OF THE TOTAL SUPPLY CAPACITY OF ALL FAN COOLING UNITS IN THE BUILDING, OR 300,000 BTU/H, WHICHEVER IS GREATER. ECONOMIZERS SHALL HAVE FAULT DETECTION AND DIAGNOSIS, PER IECC C403.5.5. CONTRACTORS SHALL ENSURE AT THE TIME OF ORDERING EQUIPMENT THAT THE ECONOMIZERS ARE COMPLIANT WITH FBCEC 2023.
2. HVAC DUCT AND PLENUM INSULATION AND SEALING SHALL MEET THE REQUIREMENTS OF C403.12. THESE INCLUDE, BUT ARE NOT LIMITED TO R–6 INSULATION WITHIN BUILDING (DUCT ROUTED IN UNCONDITIONED AREAS) OR HIGHER R–VALUES OUTSIDE OF THE BUILDING ENVELOPE. DUCTS TO BE SEALED PER SECTION 603.9 OF THE I.M.C.
3. THE GENERAL CONTRACTOR TO PROVIDE OPERATING AND MAINTENANCE MANUALS FOR ALL EQUIPMENT REQUIRING REGULAR MAINTENANCE. THESE SHALL BE CONSOLIDATED IN A 2" THREE–RING BINDER, OR EQUAL. EQUIPMENT BEING SERVICED SHALL HAVE THE NAME AND PHONE NUMBER OF A COMPANY TRAINED IN SERVICING SAID EQUIPMENT.
4. T–STAT SHALL BE SET FOR AN AUTOMATIC NIGHT SETBACK OF 55F (HEAT) AND 85F (COOL) WITH 7–DAY TIME CLOCK, 2–HOUR OVERRIDE AND 10 HOUR BACKUP.
5. PROVIDE A 3RD PARTY TEST AND BALANCE REPORT.
6. A MINIMUM OF 25% OF DUCTWORK SHALL BE TESTED FOR MAXIMUM DUCT LEAKAGE COMPLIANCE

beem Light Sauna
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Lee's Summit, MO 64081
Permit Set

REVISIONS

No.	DATE	NOTE

Drawn by: ----
Checked by: ----
Project No: ----
Date: May 16, 2024

MECHANICAL LOADS & DETAILS

Sheet: M2.0

ELECTRICAL SPECIFICATIONS

16010 WORK INCLUDED

1.1 CONTRACTOR SHALL PROVIDE THE FOLLOWING:
- a. LABOR
- b. SUPPLIES
- c. MATERIALS
- d. SHOP DRAWINGS
- e. PERMITS AND INSPECTION FEES
- f. CERTIFICATION OF FINAL INSPECTION AND APPROVAL
- g. ONE YEAR GUARANTEE

1.2 CONTRACTOR SHALL PERFORM THE FOLLOWING:
- a. INSTALLATION OF ALL ELECTRICAL EQUIPMENT.
- b. COORDINATE WITH OTHER TRADES OF ELECTRICAL EQUIPMENT INSTALLATION.
- c. MATERIAL PROTECTION DURING CONSTRUCTION.
- d. TEST OF ENTIRE SYSTEM IN PRESENCE OF OWNER OR HIS REPRESENTATIVE AND CORRECT ANY DEFICIENCIES DISCOVERED.
- e. COORDINATION OF ELECTRICAL SERVICE AND METERING WITH LOCAL POWER COMPANY.
- f. COORDINATION OF TELEPHONE SERVICE WITH LOCAL TELEPHONE COMPANY.

1.3 GOVERNING CODES SHALL BE THE FOLLOWING:
- a. LOCAL MUNICIPALITY ELECTRICAL CODE.
- b. PER LATEST NATIONAL ELECTRICAL CODE (NEC)
- c. UTILITY COMPANY REGULATIONS
- d. AMERICANS WITH DISABILITY ACT
- e. CURRENT APPLICABLE BUILDING CODES
- f. LOCAL BUILDING CODES AND ORDINANCES
- g. THE NATIONAL MANUFACTURER'S ASSOCIATION STANDARDS (NEMA)
- h. UNDERWRITER LABORATORIES INCORPORATED STANDARD(S)
- i. AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
- j. THE MANUFACTURER'S RECOMMENDATION

1.4 MATERIAL WILL BE:
- a. NEW
- b. UL LISTED

16110 RACEWAYS

1.1 USE AND TYPES
- a. SERVICE ENTRANCE – RIGID STEEL
- b. FEEDERS – RIGID STEEL EXCEPT ABOVE 8'-0" AND INDOOR THEN EMT
- c. BRANCH CIRCUIT, TELEPHONE OR COMMUNICATIONS – EMT
- d. IN EARTH OR CONCRETE – SCHEDULE 40 PVC
- e. RECESSED LIGHTING FIXTURES – FLEXIBLE STEEL CONDUIT (SHORT BUT MAXIMUM 72")
- f. OUTDOOR FINAL CONNECTION TO EQUIPMENT OR IN WET LOCATIONS – LIQUID TIGHT FLEXIBLE STEEL CONDUIT (MAXIMUM 36")
- b. ALL RACEWAYS, UNLESS SPECIFICALLY INDICATED TO BE EXPOSED, SHALL BE CONCEALED IN WALLS, CEILING OR FLOORS.
- c. PAINT ALL EXPOSED RACEWAYS COLOR AS DIRECTED BY ARCHITECT.

1.2 CONDUIT BUSHING,
- a. PROVIDE INSULATED CONDUIT BUSHING AT EACH END OF EVERY CONDUIT RUN.

16120 WIRES AND CABLES 600 VOLTS

1.1 COLOR CODING

COLOR CODING	208Y/120V	480Y/277V
PHASE A	BLACK	BROWN
PHASE B	BLUE	YELLOW
PHASE C	RED	ORANGE
NEUTRAL	WHITE	WHITE
GROUND	GREEN	GREEN

1.2 INSULATED, THHN, THWN, XHHW 75 DEGREE C (THWN OR BETTER, WET-RATED FOR BELOW GRADE).

1.3 PROVIDE COPPER WIRING UNLESS ALUMINUM IS SPECIFICALLY SOWN ON THE DRAWINGS. WHEN ALUMINUM CONDUCTORS ARE UTILIZED – PROVIDE COMPRESSION LUG FITTINGS.

1.4 FIXTURE WIRE, 600 VOLTS, 200 DEGREE C. #14 AWG MINIMUM STRANDED, TINNED COPPER WITH SILICONE RUBBER INSULATION AND AN OVERALL JACKET OF GLASS BRAID, AND RATED AS NEC TYPE 'SF-2'

16130 BOXES

1.1 ATTACHED SECURELY TO BUILDING CONSTRUCTION OR SUPPORT FROM SAME

1.2 MASONRY BOXES SHALL BE RACO OR STEEL CITY

1.3 EXPOSED BOXES SHALL BE CAST TYPE SIMILAR TO CROUSE HINDS TYPE FS

1.4 ALL OTHERS SHALL BE STAMPED STEEL

16140 WIRING DEVICES

1.1 RECEPTACLES
DUPLEX – 20 AMPS, 125V. AC GROUNDED UNO
SINGLE – 20 AMPS, 125V. AC GROUNDED UNO
COORDINATE COLOR OF DEVICE WITH ARCHITECT.
COORDINATE FINISH AND COLOR OF COVER PLATE WITH ARCHITECT.

1.2 WALL SWITCHES
SINGLE POLE – 20 AMPS, SINGLE THROW, QUIET TYPE, GROUNDED
COORDINATE COLOR OF DEVICE WITH ARCHITECT.
COORDINATE FINISH AND COLOR OF COVER PLATE WITH ARCHITECT.

1.3 TIME CLOCK
FURNISH AND INSTALL A TWENTY-FOUR (24), SEVEN (7) DAY TIME CLOCK INCLUDING ALL INTEGRAL WIRING AND LOAD BALANCING (PANEL) FOR CONTROLLING THE STOREFRONT SIGN AND SHOW WINDOW LIGHTING, WHETHER SUCH WORK IS OR IS NOT SHOWN ON PLANS OR SPECIFICATIONS

16170 PANEL BOARDS

1.1 PANEL BOARDS SHALL HAVE, BUT NOT BE LIMITED TO THE FOLLOWING:
- A. THREE PHASE, 4 WIRE, COPPER BUSING, NEMA 1 ENCLOSURE FOR INDOOR, NEMA 3R FOR OUTDOOR.
  - a. GROUND BUS WITH SET SCREW CONNECTIONS
  - b. SOLID NEUTRAL, 100% RATED WITH SET SCREW CONNECTION
  - c. SWITCH RATED BOLT-ON BREAKERS
  - d. TYPE WRITTEN DIRECTORY
  - e. PLAQUE, BLACK WITH 1" HIGH WHITE LETTERS TO INDICATE PANEL NAME
  - f. SQUARE D, GENERAL ELECTRIC OR SIEMENS
- B. EXCEPT, SINGLE PHASE PANELS SHALL BE USED FOR PROJECTS THAT HAVE SINGLE-PHASE POWER AND FOR SUB-PANELS ON DELTA HI-LEG PROJECTS.

16190 GROUNDING

1.1 FEEDERS AND BRANCH CIRCUITS
PROVIDE A GREEN INSULATED GROUND CONDUCTOR, SIZED PER THE NEC IN EACH RACEWAY

16200 LIGHTING FIXTURES

1.1 COORDINATE FIXTURE TRIMS WITH CEILING IN/ON WHICH IT IS BEING INSULATED.

1.2 MATCH VOLTAGE OF FIXTURE TO CIRCUIT TO CIRCUIT TO WHICH FIXTURE IS SHOWN CONNECTED

1.3 PROVIDE LOW TEMPERATURE HIGH EFFICIENCY ELECTRONIC BALLASTS IN FLUORESCENT FIXTURES

1.4 PROVIDE THERMAL OVERLOAD PROTECTION IN BOTH FLUORESCENT AND INCANDESCENT FIXTURES

1.5 NARRATIVE DESCRIPTION IN LIGHTING FIXTURE SCHEDULE TAKES PRECEDENCE OVER CATALOG NUMBER

1.6 PROVIDE INTEGRAL DISCONNECTING MEANS FOR ALL FLUORESCENT FIXTURES PER THE NEC

1.7 ORDER DIMMABLE VERSION OF FIXTURES WITH COMPATIBLE DIMMERS WHERE INDICATED AND WHERE NECESSARY TO COMPLY WITH ENERGY CODE.

PROTOTYPICAL "NO SURPRISE" MEP BID NOTE:
EACH SET OF DRAWINGS IS INDIVIDUALLY ASSEMBLED AND AN ATTEMPT IS MADE TO INCLUDE LEASE SCOPE IN THE DRAWING SET. HOWEVER, THE CONTRACTOR SHALL VISIT THE SITE TO CONFIRM WHAT IS LISTED AS EXISTING BY LANDLORD, OR SIMILAR IS ACTUALLY THERE, AND IF IT IS NOT, THE CONTRACTOR SHALL PROVIDE ITEMIZED BID TO COMPLETE SUCH GAP WORK TO ENSURE ALL WORK THAT WILL BE REQUIRED BY CONTRACTOR IS INCLUDED IN THE CONTRACTOR'S SCOPE. IF THE CONTRACTOR PROVIDES A BULK BID OR SINGLE PRICE BID, IT WILL INCLUDE EVERYTHING REQUIRED TO BUILD A COMPLETE STORE, INCLUDING ANY WORK "BY OTHERS" THAT IS NOT PRESENT.

16210 EXISTING CONDITION

1.1 VISIT SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS IN AND AROUND THE BUILDINGS

16220 TELEPHONE SERVICE

1.1 SAFETY SWITCHES SHALL BE HEAVY DUTY TYPE, 600 OR 250 VOLT, WITH NUMBER OF POLES REQUIRED. FUSED SAFETY SWITCHES SHALL BE QUICK-MAKE, QUICK-BREAK MECHANISM, VISIBLE BLADES WITH REJECTION TYPE FUSE CLIPS AND NEMA CLASS "LPJ" FUSES, THE SWITCHES SHALL BE NEMA 3R FOR OUTDOOR. ALL SWITCHES SHALL BE LOCKABLE.

PLUMBING SPECIFICATIONS

SECTION 15-A – PLUMBING

15A-01 GENERAL:

ALL PLUMBING WORK SHALL CONFORM TO THE LANDLORD'S CRITERIA, THE STATE, COUNTY, CITY, LOCAL CODES AND ORDINANCES, SAFETY AND HEALTH CODES, NFPA CODES, ENERGY CODES AND ALL OTHER APPLICABLE CODES AND REQUIREMENTS. INCORPORATE ALL REQUIREMENTS WITH THIS WORK, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT. ADVISE ARCHITECT IF REQUIREMENTS ARE CONTRARY TO THESE PLANS. IT IS INTENDED THAT THE CONTRACTOR SHALL PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM.

THIS CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LICENSES, PERMITS, INSPECTIONS AND FEES REQUIRED OR RELATED TO HIS WORK.

CONTRACTOR SHALL DETERMINE THE LOCATION OF EXISTING WATER SUPPLY AND DRAIN LINES AND MAKE PROPER CONNECTION THERETO, INCLUDING VENTS.

ALL MATERIALS SHALL BE NEW AND SHALL FIT THE SPACE AVAILABLE. VERIFY ALL DIMENSIONS AT THE SITE.

ALL VALVES, CLEANOUTS, ETC., SHALL BE SO LOCATED AND INSTALLED TO PERMIT ACCESS FOR SERVICE WITHOUT DAMAGE TO BUILDING OR FINISHED MATERIAL.

ALL PLUMBING EQUIPMENT AND WORK SHALL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE BY LANDLORD AND TENANT.

UNLESS NOTED OTHERWISE, THE BASELINE DESIGN ASSUMES THAT A GRAVITY FLOW SYSTEM MAY BE ACHIEVED. NOTIFY ARCHITECT IF INVERTS ARE TOO SHALLOW AND A LIFT STATION IS REQUIRED.

15A-02 MATERIALS

REFER TO PLANS FOR SCHEDULES OF EQUIPMENT AND FIXTURES. AMERICAN STANDARD, KOHLER AND CRANE ARE CONSIDERED ACCEPTABLE AS EQUALS. ALL PLUMBING EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

SANITARY PIPING

WHERE NOT OTHERWISE SPECIFIED THROUGHOUT THE DRAWING SET, WASTE, DRAIN AND VENT PIPING SHALL BE PER LOCAL CODE AND AUTHORITY HAVING JURISDICTION. VENT PIPING ABOVE FLOOR 2" OR SMALLER MAY BE GALVANIZED STEEL.

PROVIDE LINE-ITEM BID TO UTILIZE PVC, OBTAIN APPROVAL FROM INSPECTOR PRIOR TO INSTALLATION THAT PVC IS ALLOWED FOR THE SPECIFIC HVAC LAYOUT FOR THIS PROJECT.

INSULATE THE TRAP, SANITARY AND SUPPLY PIPES UNDER LAVATORY WITH 1/2" ARMSTRONG "ARMAFLEX" PIPING INSULATION OR TRUEBRO MODEL 102W "HANDI LAV GUARD" INSULATION KIT.

CLEAN-OUTS AND FLOOR DRAINS SHALL BE INSTALLED PER LOCAL CODES.

CONDENSATE PIPING SHALL BE TYPE "L" HARD DRAWN COPPER TUBE WITH 95-5 TIN-ANTIMONY SOLDERED JOINTS AND WROUGHT COPPER FITTINGS WITH DIELECTRIC SEPARATION BETWEEN DISSIMILAR METALS. CONDENSATE PIPING BELOW ROOF DECK MAY BE PVC. PROVIDE SHARKBITE TRANSITION FROM PVC TO COPPER.

ANY WASTE PIPING EXPOSED IN PARKING AREAS SHALL BE PROTECTED FROM MECHANICAL DAMAGE. PROVIDE WITH FREEZE PROTECTION (HEAT TAPE & INSULATION) WHERE SUBJECT TO POSSIBLE FREEZING CONDITIONS.

POTABLE WATER PIPING

WATER PIPING IN CEILING SPACE AND WITHIN WALLS MAY BE TYPE 'L' COPPER OR PEX, ISNTALLED PER MANUFACTURER'S INSTRUCTIONS. PROVIDE SHARK-BITE TRANSITIONS, OR APPROVED EQUALS.

BELOW GRADE: TYPE "K", ANNEALED TEMPERED COPPER TUBE FOR PIPE SIZES 2 INCHES AND SMALLER.
BRAZE ALL JOINTS.

WHERE APPLICABLE, TRANSITIONS BETWEEN COPPER AND PLASTIC PIPE SHALL BE MADE BY SHARKBITE OR SIMILAR TRANSITIONS, RATED FOR USE WITH SUCH MATERIALS AS ARE BEING USED.

PIPING OF DISSIMILAR METALS MUST BE DI-ELECTRICALLY SEPARATED.

INSULATE ALL HOT WATER, COLD WATER AND CONDENSATE PIPING WITH 1" THICK (K=0.23 @ 75°F) PIPE INSULATION WITH AN ALL-SERVICE JACKET TO MEET LOCAL CODES AND UL FLAME SPREAD AND SMOKE DEVELOPED RATINGS. OWENS-CORNING OR EQUAL.

INSTALL AIR CHAMBER SHOCK ABSORBERS IN BOTH HOT AND COLD LINES OF PIPING SYSTEM TO PREVENT NOISE AND DAMAGE DUE TO WATER HAMMER. J.R. SMITH 5000 SERIES ALL STAINLESS STEEL "HYDROTROLS" OR EQUAL, INSTALLED IN AN UPRIGHT POSITION.

ALL BRANCH PIPING SYSTEMS SHALL HAVE ACCESSIBLE SERVICE VALVE. PROVIDE SHUT OFF VALVES ON THE SUPPLY PIPING TO EVERY FIXTURE. PROVIDE ACCESS DOORS WHERE NECESSARY.

INSTALL ALL NECESSARY PIPE HANGERS, SADDLES AND CARRIERS TO PROPERLY SUPPORT ALL PIPING AND FIXTURES. HANGERS SHALL SUIT TYPE OF PIPING AND SEISMIC BRACING WHERE REQUIRED BY CODES.

STERILIZE WATER SYSTEM IN ACCORDANCE WITH LOCAL CODES PRIOR TO BEGINNING USE.

ESCUTCHEONS SHALL BE CHROME PLATED, SIZE AS REQUIRED AND PLACE AT ALL PIPE PENETRATIONS AT WALL, FLOORS AND CEILINGS IN FINISHED AREAS.

LEAKAGE TESTS SHALL BE PER LOCAL CODES.

FLASHING SHALL BE SEALED WATERTIGHT AND PERFORMED IN ACCORDANCE TO THE LANDLORD'S CRITERIA. USE LANDLORD APPROVED ROOFING CONTRACTOR WHERE APPLICABLE.

GAS PIPING

PROVIDE A COMPLETE GAS PIPING SYSTEM IF APPLICABLE. REFER TO PLANS TO DETERMINE IF A GAS SYSTEM IS REQUIRED. GAS LINES SHALL BE BLACK STEEL, SCHEDULE 40, ASTM A-120, WITH MALLEABLE THREADED FITTINGS FOR 2" AND SMALLER, AND WITH WELDED JOINTS FOR 2 1/2" AND LARGER.

PROVIDE A GAS COCK, DIRT LEG, AND UNION CONNECTION TO EACH PIECE OF EQUIPMENT.

PITCH PIPING AT A UNIFORM GRADE OF 1/4" IN 15 FEET UPWARD IN DIRECTION OF FLOW. SUPPORT PIPING EVERY 5 FEET. SUPPORT AS REQUIRED BY LANDLORD CRITERIA, AS DETAILED ON DRAWINGS, OR BY STANDARD INDUSTRY PRACTICE, WHICHEVER IS MORE STRINGENT.

GAS PIPING EXPOSED ON ROOF MUST BE PAINTED WITH TWO COATS OF RUST-INHIBITING PAINT.

GAS PIPING INSTALLED IN RETURN AIR PLENUMS SHALL BE SLEEVED AND VENTED OR WELDED IN ACCORDANCE WITH THE LOCAL GAS COMPANY, LOCAL CODE AND APPLICABLE NFPA 54 CODES. TESTING AND PURGING OF GAS PIPING SHALL BE DONE PER THE REQUIREMENTS OF THE LOCAL GAS COMPANY, LOCAL CODES AND APPLICABLE NFPA 54 CODES.

CONTACT AND COORDINATE GAS SERVICE AND METER REQUIREMENTS WITH THE LOCAL GAS COMPANY PRIOR TO BID. INCLUDE INSTALLATION OF GAS METER COSTS IN BID. PROVIDE REGULATORS AS NEEDED.

*PROPANE
WHERE PROPANE GAS IS USED, PROVIDE TANK. VERIFY LOCATION ON SITE. COORDINATE PIPE PATH TO BUILDING.

MECHANICAL SPECIFICATIONS

SECTION 15-C – HEATING, VENTILATION, AIR CONDITIONING

15C-01 GENERAL

ALL WORK SHALL CONFORM TO THE LANDLORD'S CRITERIA, THE STATE, COUNTY, CITY CODES AND ORDINANCES, SAFETY AND HEALTH CODES NFPA CODES, ENERGY CODES AND ALL OTHER APPLICABLE CODES AND REQUIREMENTS. INCORPORATE ALL REQUIREMENTS INTO THIS WORK, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT. ADVISE ARCHITECT IF REQUIREMENTS CONTRADICT THESE PLANS. IT IS INTENDED THAT THE CONTRACTOR SHALL PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM.

THIS CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LICENSES, PERMITS, INSPECTIONS, AND FEES REQUIRED OR RELATED TO THEIR WORK.

ALL MATERIALS SHALL BE NEW AND SHALL FIT THE SPACE AVAILABLE. VERIFY ALL DIMENSIONS AT THE SITE PRIOR TO ORDERING OR FABRICATING DUCTWORK.

ALL VALVES, DAMPERS, ETC., SHALL BE SO LOCATED AND INSTALLED TO PERMIT ACCESS FOR SERVICE WITHOUT DAMAGE TO BUILDING OR FINISHED MATERIALS.

ALL EQUIPMENT AND WORK SHALL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE BY LANDLORD AND TENANT.

LABEL ALL RTUS WITH RTU# AND TENANT'S NAME.

15C-02 MATERIALS

REFER TO PLANS FOR SCHEDULES OF EQUIPMENT. ALL EQUIPMENT SHALL BE COMPLETE IN EVERY RESPECT WITH ALL DEVICES, APPURTENANCES, AND ACCESSORIES PROVIDED TO MEET THE DESIGN INTENT AND OPERATION OF THE SYSTEMS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL AIR CONDITIONING EQUIPMENT MUST BE TRAPPED IN ACCORDANCE WITH MANUFACTURERS DATA.

BASE BID SHALL BE FOR RIGID METAL DUCTWORK.

FABRICATE AND INSTALL RECTANGULAR AND ROUND DUCTWORK IN ACCORDANCE WITH SMACNA 'HVAC DUCT CONSTRUCTION STANDARDS" OF THE LATEST EDITION.

INSTALL TURNING VANES IN ALL RIGHT ANGLE ELBOWS OF 1200 CFM OR MORE.

INSTALL RIGID ROUND AND RECTANGULAR WITH SUPPORT SYSTEMS INDICATED IN SMACNA STANDARDS.

PROVIDE SWAY AND SEISMIC BRACING AS REQUIRED BY STATE AND LOCAL CODES OR BY LANDLORD.

ALL JOINTS AND SEAMS SHALL BE SEALED. TOTAL LEAKAGE SHALL NOT EXCEED 5% FOR THE SYSTEM.

ALL DUCTWORK SHALL BE INSTALLED WITH INSIDE CLEAR DIMENSIONS AS NOTED ON DRAWINGS. UPSIZE DUCTWORK AS NEEDED WHEN INTERNAL INSULATION IS NEEDED (E.G. DOUBLE-WALL SPIRAL DUCTWORK). WHERE DUCTWORK SIZE IS LARGER THAN CONNECTED DEVICE SMOOTH DUCT TRANSITIONS ARE TO TAKE PLACE JUST PRIOR TO DEVICE CONNECTIONS.

FLEXIBLE COLLARS AT EQUIPMENT SHALL BE PROVIDED IN ALL CONNECTIONS BETWEEN VIBRATING EQUIPMENT AND DUCTS OR CASINGS. FLEXIBLE CONNECTIONS SHALL CONSTRUCTED OF NEOPRENE-COATED FLAMEPROOF FABRIC. PROVIDE ADEQUATE JOINT FLEXIBILITY TO ALLOW FOR MOVEMENT AND PREVENT THE TRANSMISSION OF VIBRATION.

FLEXIBLE AIR DUCT AT AIR DEVICES SHALL BE 1" INSULATED CLASS 1 AND RATED FOR THE OPERATING PRESSURE OF THE SYSTEM. DUCT CONSTRUCTION MATERIAL MUST ADHERE TO LOCAL CODES AND LANDLORD'S REQUIREMENTS.

PROVIDE MANUAL LOCKING QUADRANT VOLUME CONTROL DAMPERS WITH HANDLE OPERATORS IN EACH BRANCH DUCT AND AS SHOWN ON PLANS TO FACILITATE AIR BALANCING. ALL RECTANGULAR DAMPERS IN OUTSIDE AIR, RELIEF AIR, EXHAUST OR RETURN AIR DUCTS ARE TO BE OF OPPOSED BLADE TYPE.

PROVIDE PRIMARY FIRE DAMPERS WHERE INDICATED OR REQUIRED BY CODES. FIRE DAMPERS SHALL BE UL LABELED. FIRE DAMPERS SHALL HAVE THE BLADES OUT OF THE AIRSTREAM AND A 165°F FUSIBLE LINK, TYPE B, AS MINIMUM.

DUCTWORK INSULATION

INSTALL INSULATION PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES. INSULATION MUST COMPLY WITH NFPA 90A.

DUCT SIZES SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS. ALL SUPPLY AND RETURN AIR
RECTANGULAR DUCTWORK SHALL BE INSULATED. WHERE INTERNAL INSULATION IS USED, UPSIZE DUCTWORK AND PROVIDE 1" THICK, 1 1/2" LB. DENSITY LINER (C=0.28 @ 75°F.). LINER IS TO HAVE A COATED SURFACE EXPOSED TO AIRSTREAM TO PREVENT EROSION.

APPLY ADHESIVES AND MECHANICAL FASTENERS AS RECOMMENDED BY SMACNA AND THE MANUFACTURER TO PREVENT LINER SEPARATION FROM THE DUCT. ALL TRANSVERSE EDGES TO BE COATED WITH ADHESIVE.

WHERE EXTERNAL INSULATION IS USED, PROVIDE WITH A MINIMUM OF 1 1/2" THICK, #1 DENSITY (R=5.6) DUCT WRAP. ALL JOINTS MUST BE TAPED TO THAT NO INSULATION FIBER IS VISIBLE. EXTEND DUCTWORK INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS, AND SIMILAR PENETRATIONS.

AIR CONDITIONING DUCTWORK SHALL BE INSULATED. EXPOSED DUCTWORK SHALL BE INTERNALLY INSULATED. RETURN AIR DUCTWORK SHALL HAVE 10' OF INTERNAL INSULATION BEGINNING AT DROP FROM UNIT. EXHAUST DUCT MAY BE UNINSULATED. OUTSIDE AIR DUCTS SHALL BE INSULATED FOR RESTAURANT, FITNESS, OR OTHER PROJECTS GENERATING A LARGE AMOUNT OF MOISTURE.

ALL INSULATION SHALL HAVE A FLAME SPREAD RATING OF NO MORE THAN 25 AND A SMOKE DEVELOPED RATING OF NO HIGHER THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM C 411, OR AS REQUIRED BY LOCAL CODES.

*WHERE APPLICABLE, GREASE DUCT SHALL BE WELDED BLACK IRON AND SHALL HAVE UL-LISTED GREASE DUCT WRAP, 2 LAYERS, INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALL PER NFPA 96.

*DRYER DUCTS, WHEN USED, SHALL BE GALVANIZED SHEET METAL WITH 1" INSULATION.

TESTING, ADJUSTING AND BALANCING:

BASE BID SHALL BE FOR THE TESTING, ADJUSTING AND BALANCING OF ALL WORK TO BE MADE BY AN INDEPENDENT CONTRACTOR WHO IS A CURRENTLY LICENSED ASSOCIATED AIR BALANCING COUNCIL (AABC) OR NATIONAL ENVIRONMENTAL BALANCE BUREAU (NEBB) BALANCING CONTRACTOR. ALL BALANCING WORK MUST BE COMPLETE AND DONE IN ACCORDANCE WITH THE MOST RECENT STANDARDS OF THEIR SOCIETY. PAYMENT OF ALL COSTS FOR TESTING AND BALANCING SHALL BE INCLUDED IN THE BID.

BALANCE AIR AND WATER QUANTITIES TO WITHIN +/- 5% OF THAT INDICATED ON THE DRAWINGS. ANY
REQUIRED CHANGES IN SHEAVES, BELTS, PULLEYS OR THE ADDITION OF DAMPERS REQUIRED TO ACHIEVE SPECIFIED FLOW RATES SHALL BE PERFORMED BY THE HVAC CONTRACTOR WITH NO ADDITIONAL COST TO THE TENANT.

FOUR COPIES OF THE BALANCE REPORT SHALL BE SUBMITTED TO TENANT AND LANDLORD FOR APPROVAL.

RECORD DRAWINGS

AT THE END OF THE PROJECT THIS CONTRACTOR SHALL SUBMIT 4 COPIES OF RECORD DRAWINGS SHOWING EXACT LOCATIONS OF UNITS, DUCTS, DIFFUSERS, ETC.

ECONOMIZER

GENERALLY, AN ECONOMIZER IS REQUIRED BY THE LATEST VERSIONS OF IECC IN ALL JURISDICTIONS EXCEPT SOUTH FLORIDA (CLIMATE ZONE 1). THE MECHANICAL CONTRACTOR SHALL ORDER ALL NEW ROOF-TOP HVAC UNITS WITH ECONOMIZERS, THE MECHANICAL CONTRACTOR SHALL ORDER ALL SPLIT SYSTEMS, FAN COIL UNITS, WATER SOURCE HEAT PUMPS, OR OTHER MECHANICAL UNITS THAT ARE TO BE OPERATED MORE THAN 20 HOURS PER WEEK WITH ECONOMIZERS, FACTORY INSTALLED WHERE POSSIBLE OR WITH CAPABILITY FOR ECONOMIZER WHERE CONTROLS ARE TO BE FIELD INSTALLED, AND TO INSTALL ALL COMPONENTS – SUCH AS OUTSIDE AIR DUCTS AND DUAL ENTHALPY SENSORS, CONTROLS, ETC. THE CONTRACTOR SHALL VERIFY WITH THE LOCAL INSPECTOR WHAT VERSION OF ENERGY CODE IS ENFORCED IN THE JURISDICTION OF THE PROJECT AND FOR UNITS OTHER THAN PACKAGED ROOFTOP UNITS MAY OMIT THE ECONOMIZER PACKAGE WHERE THE AHJ DOES NOT REQUIRE IT. ON BUILDINGS WITH LESS THAN 25 TONS OF INSTALLED HVAC, WHERE UNITS ARE 4.5 TONS OR SMALLER, THE ECONOMIZER EXEMPTION MAY BE USED UNDER SOME CIRCUMSTANCES. VRF SYSTEMS TYPICALLY DO NOT REQUIRE ECONOMIZERS.

ROOFTOP UNIT SEQUENCE OF OPERATION – CO2 SENSOR & ECONOMIZER

FAN CONTROL:
THE SUPPLY FAN IS TO RUN CONTINUOUSLY DURING THE OCCUPIED MODE AND CYCLE ON AND OFF DURING THE UNOCCUPIED MODE BASED ON A CALL FOR HEATING OR COOLING. THE UNOCCUPIED SET POINT FOR COOLING WILL BE 85° FAHRENHEIT AND 60° FAHRENHEIT FOR HEATING.

THERMOSTAT:
THE ADJUSTABLE ROOM THERMOSTAT WITH AUTOMATIC HEATING / COOLING CHANGEOVER SHALL CONTROL THE SPACE TEMPERATURE BASED ON SET POINT. THE CONTROL OF THE OCCUPIED / UNOCCUPIED SETBACK MODE SHALL BE THROUGH THE THERMOSTAT. PROVIDE 24/7 CONTROLLABLE TYPE. THERMOSTATS SHALL HAVE AUTOMATIC CHANGEOVER, 5 DEGREE DEADBAND (TEMPERATURE SET-POINT OVERLAP RESTRICTIONS) AND SHALL ALLOW AUTOMATIC RESTART AND TEMPORARY OPERATION AS REQUIRED FOR MAINTENANCE, PER ENERGY CODE.

SAFETIES:
THE UNIT SHALL BE TOTALLY DISABLED WHEN THE DUCT MOUNTED SMOKE DETECTOR IS ACTIVATED. PROVIDE REMOTE TEST STATION/ALARM AT A REGULARLY OCCUPIED LOCATION WHEN REQUIRED BY CODE. PROVIDE LANDLORD REQUIRED SEQUENCE OR INTERFACE AS REQUIRED.

COOLING CONTROL:
UPON A CALL FOR COOLING, THE FIRST STAGE OF COOLING WILL BE ENABLED AND WILL OPERATE UNTIL THE SPACE TEMPERATURE IS SATISFIED. IF THE SPACE TEMPERATURE CONTINUES TO INCREASE THEN THE SECOND STAGE OF COOLING WILL BE ENABLED (IF APPLICABLE.)

HEATING CONTROL:
UPON A CALL FOR HEATING, THE FIRST STAGE OF HEATING WILL BE ENABLED AND WILL OPERATE UNTIL THE SPACE TEMPERATURE IS SATISFIED. IF THE SPACE TEMPERATURE CONTINUES TO DECREASE THEN THE SECOND STAGE OF HEATING WILL BE ENABLED (IF APPLICABLE.)

VENTILATION/ECONOMIZER CONTROL:
(WHERE REQUIRED BY A.H.J, OR WHERE CALLED FOR ELSEWHERE IN THE DRAWING SET):
THE OUTSIDE AIR DAMPER SHALL BE OPEN DURING THE OCCUPIED HEATING AND COOLING MODES FOR CODE REQUIRED MINIMUM OUTSIDE AIR VENTILATION AND SHALL REMAIN CLOSED DURING THE UNOCCUPIED MODE. IN THE OCCUPIED MODE THE CO2 SENSOR SHALL MODULATE THE OUTSIDE AIR DAMPER WHEN THE UNIT IS OPERATING BETWEEN THE MINIMUM OUTSIDE AIR MODE AND 50% OUTSIDE AIR.

THE ECONOMIZER MODE IS ENTHALPY CONTROLLED AND WILL BE OPERATIONAL WHENEVER COOLING IS REQUIRED AND THE OUTSIDE AIR ENTHALPY IS AT OR BELOW THE RETURN AIR ENTHALPY. THE POWER EXHAUST (WHERE SPECIFIED) SHALL OPERATE WHENEVER THE OUTSIDE AIR DAMPER IS OPEN MORE THAN 60%.

FIRE PROTECTION SYSTEM (AS NEEDED)

SPRINKLER SYSTEM TO BE NFPA 13 AND SPRINKLER MONITORED WITH OCCUPANCY NOTIFICATION COMPLYING WITH H.C. AMENDMENTS – 903.4.

FIRE SPRINKLER AND FIRE ALARM WORK SHALL BE DONE UNDER A SEPARATE PERMIT (DESIGN/BUILD) BY LICENSED FIRE SPRINKLER AND FIRE ALARM CONTRACTORS.

16270 FIRE ALARM SYSTEM

1.1 FURNISH AND INSTALL FIRE ALARM POWER BOOSTER TO EXISTING BUILDING FIRE ALARM PANEL AS INDICATED ON DRAWINGS. THE FIRE ALARM SYSTEM NEW DEVICES SHALL BE FORMALLY PLANNED BY A LICENSED FIRE ALARM CONTRACTOR WHO SHALL SUBMIT SIGNED AND SEALED DRAWINGS, IF REQUIRED FOR PERMIT, AND SHALL SUPERVISE AND CERTIFY THE INSTALLATION. FIRE ALARM SYSTEM CONTRACTOR SHALL REVIEW THE MECHANICAL DRAWINGS AND PROVIDE AND INSTALL DUCT SMOKE DETECTORS AS REQUIRED IN THE STANDARD MECHANICAL CODE AND BY THE LOCAL FIRE MARSHALL. DESIGN SHALL COMPLY WITH NFPA 72. PROVIDE VOICE EVACUATION MODULES WITH ALL NECESSARY APPURTENANCES WHERE NECESSARY.

1.2 REMOTE ANNUNCIATOR
PROVIDE AN ALPHANUMERIC ANNUNCIATOR WITH INTEGRAL ALPHANUMERIC DISPLAY, SYSTEM CONTROL/TEST SWITCHES, KEY OPERATED ENABLED SWITCH AND BACK BOX. COORDINATE LOCATION WITH AUTHORITY HAVING JURISDICTION PRIOR TO ROUGH-IN.

1.3 MANUAL STATIONS
PROVIDE ANALOG ADDRESSABLE MANUAL STATIONS WITH PROTECTIVE COVERS (WITH INTEGRAL HORN AND 9V BATTERY) AS SHOWN ON THE PLANS.

1.4 SYSTEM SMOKE DETECTORS
PROVIDE ANALOG ADDRESSABLE PHOTOELECTRIC SMOKE DETECTORS WITH BASES AS SHOWN.

1.5 DUCT MOUNTED SMOKE DETECTORS
PROVIDE DUCT MOUNTED ANALOG ADDRESSABLE PHOTOELECTRIC SMOKE DETECTORS WITH SAMPLING TUBES AND ADDRESSABLE CONTROL RELAYS AS SHOWN ON THE PLANS AND AS REQUIRED TO COMPLY WITH THE MECHANICAL CODE. WHERE DUCT SMOKE DETECTORS ARE INSTALLED IN CONCEALED LOCATIONS MORE THAN 10 FEET ABOVE THE FINISHED FLOOR, OR AN ARRANGEMENT WHERE THE DETECTORS ALARM OR SUPERVISORY INDICATOR IS NOT VISIBLE TO RESPONDING PERSONNEL, THE DETECTOR SHALL BE PROVIDED WITH REMOTE ALARM OR SUPERVISORY INDICATION IN A LOCATION ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION. ADDITIONALLY, LABEL REMOTE ALARMS TO INDICATE BOTH THEIR FUNCTION AND THE AIR HANDLING UNITS(S) ASSOCIATED WITH EACH DETECTOR.

1.6 ADDRESSABLE MONITOR MODULES
PROVIDE ADDRESSABLE MONITOR MODULES AS SHOWN ON THE PLANS TO MONITOR SPRINKLER FLOW SWITCHES, SPRINKLER VALVES, SUPERVISORY SWITCHES AND SPRINKLER FIRE PUMP (AS REQUIRED).

1.7 ADDRESSABLE CONTROL MODULES
PROVIDE ADDRESSABLE CONTROL MODULES AS REQUIRED FOR INTERFACE WITH THE ELEVATOR CONTROLS, ELEVATOR POWER CONTROLS (WHERE APPLICABLE) AND HVAC CONTROLS (AS REQUIRED).

1.8 ALARM SIGNALS
PROVIDE 15/75-WW SPEAKER/STROBE ALARM SIGNALS AS SHOWN ON THE PLANS FOR ALL PUBLIC AREAS. PROVIDE 15/75-WW STROBE VISUAL ALARM SIGNALS FOR ALL STROBE ONLY LOCATIONS AS SHOWN ON THE PLANS, 110 CANDELA.

1.9 WIRING
WIRING SHALL BE CONCEALED IN CONDUIT. PROVIDE WIRING AND CONDUIT AS DIRECTED BY THE MANUFACTURER'S AUTHORIZED DISTRIBUTOR.

1.10 APPLICABLE CODES AND STANDARDS
ALL EQUIPMENT SHALL BE UL LISTED FOR ITS INTENDED USE. INSTALL PER CODE AND PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

ALL RACEWAYS AND WIRING SHALL BE INSTALLED IN COMPLIANCE WITH NFPA STANDARD 70 (NATIONAL ELECTRIC CODE)

NFPA STANDARDS 71 AND 72

NFPA 101 (LIFE SAFETY CODE)

AMERICANS WITH DISABILITIES ACT (ADA)

INTERNATIONAL BUILDING CODE (IBC), UNIFORM BUILDING CODE (UBC), STATE BUILDING CODE, OR TITLE-24, AS APPLICABLE

APPLICABLE LOCAL AND NATIONAL CODES AND AUTHORITIES HAVING JURISDICTION

1.11 SYSTEM OPERATION
ACTUATION OF ANY FIRE ALARM INITIATING DEVICE SHALL IMMEDIATELY CAUSE THE FOLLOWING ACTIONS TO BE INITIATED:
- a. IDENTIFY THE TYPE OF ALARM, SPECIFIC DEVICE AND LOCATION ON THE BACK LIT LCD DISPLAY AT THE BUILDING FIRE ALARM CONTROL PANEL AND AT THE REMOTE ANNUNCIATORS
- b. CAUSE THE SYSTEM ALARM LED TO FLASH AT THE FIRE ALARM CONTROL PANEL
- c. CAUSE ALL SYSTEM HORNS TO SOUND
- d. CAUSE ALL VISUAL ALARMS SIGNALS TO FLASH
- e. ACTIVATE THE DIGITAL COMMUNICATOR TO REPORT THE TYPE OF ALARM AND LOCATION TO THE REMOTE CENTRAL MONITORING STATION. COORDINATE CONNECTIONS WITH OWNER'S REPRESENTATIVE.
- f. ACTIVATE SIGNALS TO THE BUILDING DOOR LOCK CONTROLS TO DEACTIVATE LOCKS
- g. ACTIVATE SIGNALS TO THE HVAC CONTROLS TO INITIATE SHUT DOWN OR REROUTING OF AIR HANDLING SYSTEMS

1.12 ACTIVATION OF ANY SPRINKLER VALVE SUPERVISORY SWITCH SHALL AUTOMATICALLY:
- a. CAUSE THE SYSTEM SUPERVISORY LED TO FLASH AND AN AUDIBLE INDICATOR TO SOUND AT THE CONTROL PANEL AND REMOTE ANNUNCIATOR
- b. IDENTIFY THE SUPERVISORY CONDITION, SPECIFIC DEVICE AND LOCATION ON THE BACK LIT LCD DISPLAY AT THE SYSTEM CONTROL PANEL AND THE REMOTE ANNUNCIATOR.

ADDITIONAL FIRE PROTECTION NOTES:

LEE'S SUMMIT, MO NOTE

FIRE PROTECTION DRAWINGS WILL BE SUBMITTED SEPARATELY FOR SEPARATE PERMIT BY LICENSED FIRE SPRINKLER/FIRE ALARM CONTRACTOR, WHERE REQUIRED.

DRAWING INFORMATION IS DISTRIBUTED THROUGHOUT THE DOCUMENT SET. CONTRACTORS SHALL THOROUGHLY REVIEW ALL SHEETS AND SHALL NOTIFY CONSTRUCTION MANAGER FOR DIRECTION IF DISCREPANCIES ARE FOUND.

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Date: May 16, 2024

MEP SPECIFICATIONS

Sheet: MEP1.0

ROOF AND GAS KEYED NOTES ⟨#⟩

1. MAINTAIN 10'–0" BETWEEN OUTSIDE AIR INTAKES AND ALL EXHAUST SOURCES. MECHANICAL CONTRACTOR SHALL PROVIDE OFFSETS AS NEEDED TO ENSURE EXHAUST FANS ARE 10'–0" AWAY FROM NEIGHBORING TENANT'S FRESH AIR INTAKES.
2. CLOTHES DRYER MAKE–UP AIR DUCT FROM NEW ROOF MOUNTED GRAVITY INTAKE HOOD EQUAL TO GREENHECK MODEL GRSI–18. PROVIDE WITH ROOF CURB AND BUG SCREEN.
3. EXISTING ROOFTOP UNIT. REFER TO EQUIPMENT SCHEDULE SHEET M1.0. PROVIDE FLEXIBLE CONNECTORS FOR THE SUPPLY AND RETURN AIR DUCT CONNECTIONS. TRANSITION TO DUCT SIZES SHOWN. PROVIDE CANT STRIPS, FLASHING, AND WEATHER PROOFING AROUND RTU AS NEEDED.
4. LEAVE EXISTING CONDENSATE DISCHARGE AS–IS WHERE CODE–COMPLIANT. OTHERWISE ROUTE TO ROOF DRAIN OR APPROVED RECEPTOR.
5. DRYER VENT DUCT UP THROUGH ROOF TO MANUFACTURER'S GOOSENECK WITH BACK DRAFT DAMPER.
6. 10"ø RESTROOM EXHAUST DUCT UP THROUGH ROOF. TERMINATE WITH EXHAUST VENT CAP.
7. COORDINATE ROOF ACCESS WITH LANDLORD. SHELL DRAWINGS SHOW FIXED LADDER AT REAR FACE OF BUILDING.

LEE'S SUMMIT, MO NOTE:

NO GAS WORK ANTICIPATED TO BE DONE. ALL GAS TO EQUIPMENT BEING UTILIZED TO REMAIN AS–IS.

LEE'S SUMMIT, MO NOTE:

PER EXHIBIT "C–4" LANDLORD'S WORK, ALL ROOFING PENETRATIONS ARE TO BE PERFORMED BY LANDLORD'S DESIGNATED ROOFING CONTRACTOR.

UPON COMPLETION, DESIGNATED ROOFING CONTRACTOR TO PROVIDE A CERTIFICATE TO OWNER AND LANDLORD THAT ROOFING ALTERATIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY THE LANDLORD.

ROOF AND GAS PLAN NOTES

1. 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 REFERENCING THE COMPLETE DOCUMENT SET.
2. COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER AND CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE.
3. ALL ROOFING WORK (CUTS, REPAIRS, SPUD WORK, ETC.) SHALL BE PERFORMED BY THE LANDLORD'S APPROVED ROOFING CONTRACTOR.
4. DRAWINGS FOR THE MECHANICAL WORK ARE DIAGRAMMATIC SHOWING THE GENERAL LOCATION, EQUIPMENT TYPE AND LAYOUT, THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO MANUFACTURERS STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, OFFSETS, ACCESSORIES AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM. SUBMIT SHOP DRAWINGS PER THE SPECIFICATIONS.
5. ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE AUTHORITY HAVING JURISDICTION INCLUDING APPLICABLE SECTIONS OF NFPA, OSHA, BOCA, NEC, AND IBC OR ANY INTERIM AMENDMENTS AT THE TIME OF THE PROPOSAL. PURCHASE ALL PERMITS ASSOCIATED WITH THE WORK AND OBTAIN ALL INSPECTIONS REQUIRED BY CODE.
6. FLEXIBLE DUCT SHALL NOT EXCEED 5' IN LENGTH. ONLY ONE 90 DEGREE ELBOW ALLOWED IN FLEXIBLE DUCTWORK. FLEXIBLE DUCTWORK SHALL BE INSTALLED FREE OF ANY KINKS OR RESTRICTIONS THAT WOULD REDUCE AIRFLOW. FLEX DUCT ALLOWED ONLY ABOVE CONCEALED CEILINGS
7. UNITS SHALL USE SAME ROOF PENETRATION IF POSSIBLE. VERIFY CURB REUSE WITH LANDLORD, ANY ROOF WORK THAT MUST BE DONE SHALL BE BY LANDLORD–APPROVED ROOFING CONTRACTOR. ANY NEW RTU LOCATIONS SHALL BE APPROVED BY STRUCTURAL ENGINEER.
8. TENANT'S G.C. SHALL PROVIDE TEST AND BALANCE REPORT (BY NEBB/AABC CONTRACTOR) TO OWNER PRIOR TO COMPLETION OF WORK.
9. TENANT IS NOT TO SUSPEND ANY ITEMS FROM THE BOTTOM OF THE ROOF DECK. TENANT IS NOT TO SUSPEND ANY ITEMS FROM THE BOTTOM ROOF JOIST OR JOIST GIRDER CHORDS, WITHOUT WRITTEN APPROVAL OF THE BUILDING SHELL STRUCTURAL ENGINEER OF RECORD. TENANT IS TO SUBMIT PROPOSED DETAILS, FOR ITEMS SUSPENDED FROM THE ROOF STRUCTURE, FOR REVIEW BY SHELL STRUCTURAL ENGINEER. IN GENERAL, NO DUCT WORK, CONDUITS, PIPES, BANNERS, SIGNAGE, OR CURTAIN/SUSPENDED FURR–DOWNS OR WALLS ARE TO BE SUSPENDED FROM THE BOTTOM OF THE ROOF STRUCTURE, WITHOUT APPROVAL. NO TENANT FINISH–OUT WORK IS TO BE SUSPENDED FROM ANY WORK BY ANOTHER TRADE, FROM JOIST BRIDGING OR FROM X–BRACING OR FROM THE BOTTOM OF THE ROOF DECK. SUSPENDED TEE GRID CEILINGS AND LIGHT FIXTURES MAY BE SUSPENDED FROM THE BOTTOM ROOF JOIST AND BOTTOM JOIST GIRDER CHORDS IN MAXIMUM WEIGHTS OF SEVENTY–FIVE (75) POUNDS AT BOTTOM CHORD JOIST PANEL POINTS, WITHOUT ADDED STEEL ANGLE REINFORCING UP TO TOP JOIST CHORDS. SUSPENDED CEILINGS AND LIGHT FIXTURES ARE NOT TO BE SUSPENDED FROM THE BOTTOM OF THE ROOF DECK.
10. CONTRACTOR MAY ADJUST VENT LINE LOCATIONS AND REUSE EXISTING VTR(S) WHERE VENT IS NOT WITHIN 10'–0" OF ANY EXISTING OR PROPOSED FRESH AIR INTAKE.
11. THE MEP PLANS ARE NOT STRUCTURAL ENGINEERING PLANS. OBTAIN STRUCTURAL APPROVAL PRIOR TO SETTING ANY NEW EQUIPMENT ON ROOF, AND PRIOR TO HANGING ANYTHING TO STRUCTURE THAT MAY IMPACT THE STRUCTURAL INTEGRITY OF THE SPACE.
12. MAINTAIN 3'–0" CLEAR SPACE AROUND ALL EQUIPMENT FOR MAINTENANCE AND SERVICING.

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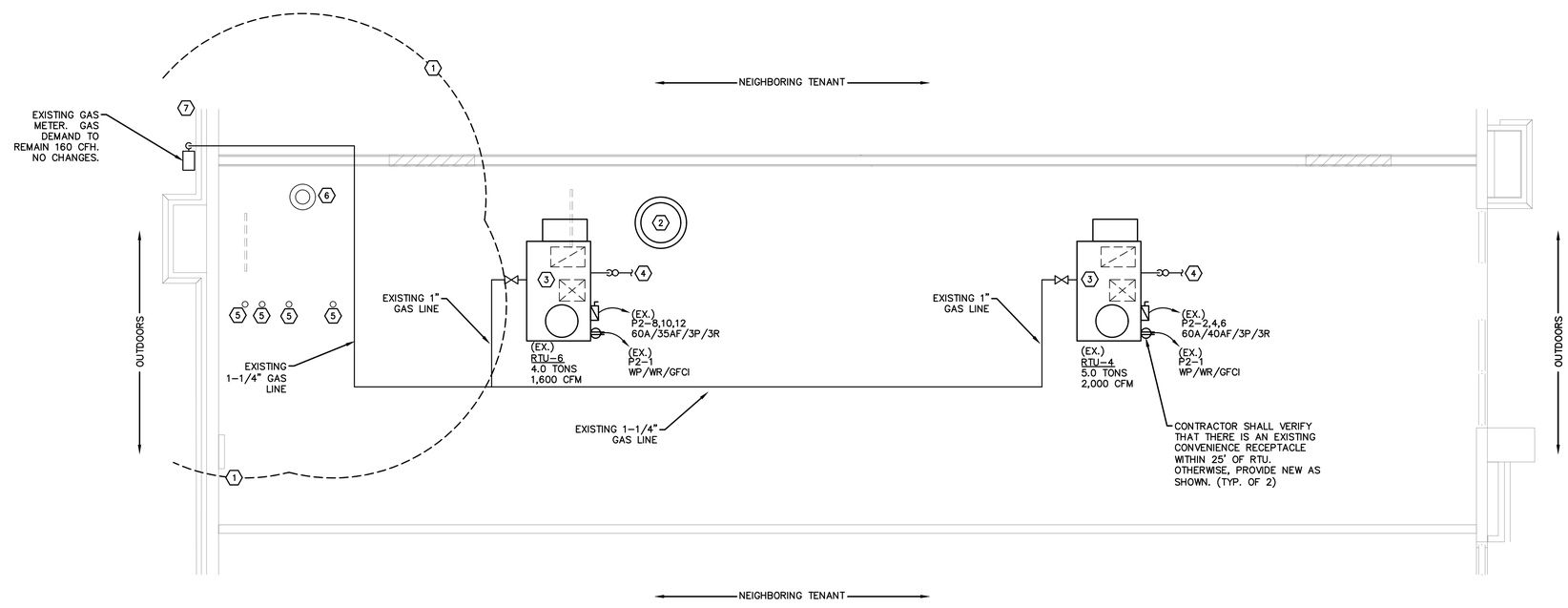

01 ROOF AND GAS PLAN
SCALE: 1/4"=1'–0"

TRUE NORTH

beem Lightsauna
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Drawn by: ----
Checked by: ----
Project No: ----
Date: May 16, 2024

ROOF AND GAS PLAN

Sheet: MEP2.0

IECC 2018 PLUMBING NOTES:

1. A HOT WATER RECIRCULATION LOOP IS REQUIRED. THE HOT WATER RECIRCULATION LOOP SHALL DROP DOWN IN THE WALLS WHERE IT SERVES PUBLIC LAVATORIES SUCH THAT THE MAXIMUM LENGTH OF SUPPLY BETWEEN THE LOOP AND THE FAUCET DOES NOT EXCEED 24" OF 1/2" PIPE. THE RUNOUT OF HOT WATER PIPE (FROM LOOP TO FIXTURE) SHALL NOT EXCEED 43' FOR 1/2" PIPE, OR 21' FOR 3/4" PIPE.
2. RECIRCULATION PUMP SHALL HAVE TIMER AND AQUASTAT PER IECC 2018, SECTION 404.6.

LEE'S SUMMIT, MO NOTE:

ALL PLUMBING WORK SHALL BE IN COMPLIANCE WITH 2018 INTERNATIONAL PLUMBING CODE (IPC), AND 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC).

LEE'S SUMMIT, MO NOTE:

THIS PROJECT IS A TENANT FINISHOUT OF A FIRST-GENERATION INLINE RETAIL SPACE IN A SINGLE-STORY, SLAB-ON-GRADE RETAIL STRIP CENTER.

LEE'S SUMMIT, MO NOTE:

PLUMBING DESIGN IS BASED ON SHELL DRAWINGS DATED 02/19/2024. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING WORK.

PLUMBING LEGEND

- HW — HOT WATER SUPPLY LINE
- CW — COLD WATER SUPPLY LINE
- X" SAN — SANITARY WASTE LINE
- PIPE DROP
- RISER VENT (DASHED)
- T.P. — TRAP PRIMER
- CONTINUATION
- END CAP
- ISOLATION / SHUT-OFF VALVE
- EXTENT OF SAWCUTTING/ TRENCHING
- M — WATER SUBMETER, BETWEEN VALVE AND 1ST FIXTURE.
- R — REMOTE READOUT FOR SUBMETER, +54" VERIFY LOCATION WITH OWNER'S REP.
- CONNECTION OF NEW TO EXISTING.
- RPZ — REDUCED PRESSURE ZONE BACK FLOW ASSEMBLY.
- CHECK VALVE
- R.P. — RECIRCULATION PUMP.
- WCO — WALL CLEAN OUT
- FCO — FLOOR CLEAN OUT
- VTR — VENT THRU ROOF
- (EX.) — EXISTING PIPING
- X"V — VENT
- N.O. — NORMALLY OPEN
- N.C. — NORMALLY CLOSED

KEY NOTES BY SYMBOL '#'

1. PROVIDE AND INSTALL TANK TYPE WATER HEATER, PER SCHEDULE, THIS SHEET, AND DETAIL 01, SHEET P3.0.
2. EXISTING 1" DOMESTIC COLD WATER LINE SERVING PROPOSED BEEM RISES UP TO EXISTING RPZ AT APPROXIMATELY THIS LOCATION. VERIFY EXACT SIZE AND LOCATION IN FIELD. CONNECT AND EXTEND NEW 1-1/2" UNDERGRADE WATERLINE WITHIN LEAVEOUT FROM APPROXIMATELY THIS LOCATION TO LOCATION SHOWN. REUSE / RELOCATE EXISTING RPZ AND ASSOCIATED FLOOR DRAIN WHERE ADEQUATE IN SIZE AND CAPACITY.
3. DO NOT ROUTE LINES ABOVE ELECTRICAL GEAR.
4. PROVIDE WASHER BOX AT 36" AFF FOR HW, CW & SAN CONNECTIONS. WALL SHALL ALLOW FOR 4" DRYER VENT TO BE CONCEALED WITHIN WALL.
5. PROVIDE W.H.A. ON ALL FAST CLOSING VALVES, AND WHERE ELSE INDICATED AND WHERE NECESSARY.
6. FURROUT/THICKEN WALLS AS NECESSARY FOR POWER, PLUMBING, AND DRYER VENT AS APPLICABLE.
7. B.F.P. SHALL BE ACCESSIBLE FOR INSPECTION AND TESTING. TYPICALLY ABOVE OR NEXT TO WATER HEATER, 24" TO 60" AFF. ROUTE DISCHARGE TO NEAREST APPROVED RECEPTOR, PROVIDE AND INSTALL HUB DRAIN WITH TRAP PRIMER AS NEEDED.
8. PROVIDE AND INSTALL TEMPERING VALVE AT ALL LAVATORIES. SET DISCHARGE TEMPERATURE AT 110°. VERIFY TEMPERATURE SETTING OF UTILITY SINK WITH LOCAL HEALTH DEPARTMENT.

WATER HEATER SCHEDULE (ELECTRIC, TANK-TYPE)

MARK	RECOVERY @55°F RISE	STORAGE GALLONS	LINING	MAXIMUM INPUT					DESCRIPTION
				FUEL	CFH	HP	VOLTS/PH	KW	
WH	SEE CALC.	50	GLASS	ELEC.	--	--	208/3	9	AO SMITH DEL-50, OR EQUAL. TWO 4.5 KW ELEMENTS. 26.5" DIAMETER, 30" DRAIN PAN. WIRED FOR SIMULTANEOUS ELEMENT USE. SHIPPING WEIGHT APPROXIMATELY 172 LBS.

RECIRCULATION PUMP SCHEDULE

MARK	SERVICE	GPM	TOTAL HEAD FT.	MOTOR SIZE	ELECTRICAL			REMARKS
					VOLTS	PHASE	HERTZ	
R.P.	120°F HOT WATER	2	4	52 WATTS	115	1	60	BELL & GOSSETT RECIRC. PUMP MODEL NBF 10S/LW PROVIDE WITH TIMER AND AQUASTAT. OR EQUAL.

EXPANSION TANK SCHEDULE

MARK	TANK VOLUME	ACCEPTABLE VOLUME GALLON	HEIGHT	DIAMETER	ASTME CONST.	SERVES WATER HEATER	REMARKS
ET	4.4	3.2	15"	11"	NO	WH	AMTROL ST-12 OR EQUAL.

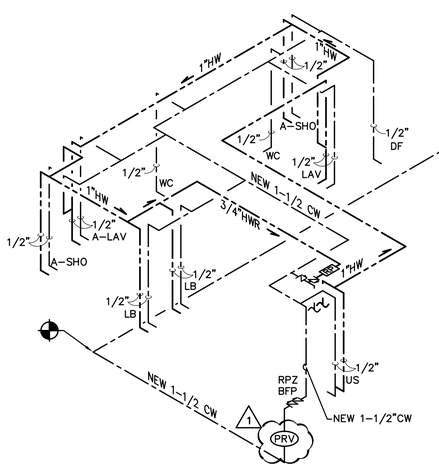
FINAL SHOWERHEAD LOCATION SHALL BE TAS/ADA COMPLIANT WHERE REQUIRED.

REFER TO SHEET P3.0 FOR PLUMBING FIXTURE SCHEDULE.

BASE BID TO ASSUME THAT THE JURISDICTION REQUIRES CONTAINMENT BACK FLOW PREVENTION. P.C. SHALL CONFIRM WITH PLUMBING INSPECTOR IF BUILDING HAS MAIN RPZBFP AND DOES NOT REQUIRE ADDITIONAL BFP IN SPACE, THE PLUMBER MAY OMIT BFP. IF JURISDICTION REQUIRES ISOLATION BFP, THE PLUMBING CONTRACTOR SHALL OMIT THE RPZ BFP NEAR THE MOP SINK AND INSTEAD SHALL PROVIDE A POINT OF USE BFP AT THE DRINKING FOUNTAIN. AS APPLICABLE/AS REQUIRED AND ELSEWHERE AS DETERMINED BY THE PLUMBING INSPECTOR.

PLUMBING RISER NOTES (SUPPLY + WASTE)

1. THE CONTRACTOR SHALL CONFIRM WASTE LINES FOUND IN FIELD AND SHALL VERIFY THAT TENANT SANITARY WASTE LINES ARE CONNECTED TO BUILDING SANITARY WASTE LINE, AND NOT INTO A BUILDING COMMON GREASE WASTE LINE.
2. PROVIDE MINIMUM 6" AIR GAP AT DISCHARGE OF A T&P AT WATER HEATER. PROVIDE FLOOR SINK OR HUB DRAIN WHERE REQUIRED BY A.H.J.
3. PLUMBING CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR PLACEMENT OF HOT AND COLD WATER SUPPLY TAPS PRIOR TO INSTALLATION. WATER SUPPLY LOCATIONS ON THIS SHEET ARE DIAGRAMMATIC.
4. ROUTING OF WATER LINES SHOWN ON PLANS IN VICINITY OF PANELS IS DIAGRAMMATIC. DO NOT ROUTE WATER LINES DIRECTLY ABOVE PANELS.
5. PROVIDE PRESSURE REDUCING VALVE ON MAIN TAP IF SERVICE PRESSURE EXCEEDS 80 PSI, REDUCE TO 65 PSI. NOTIFY ENGINEER IF WATER PRESSURE IS BELOW 45 PSI ON SITE (STATIC OR DYNAMIC). MEASURE BEFORE BEGINNING CONSTRUCTION.
6. IF A R.O./FILTRATION SYSTEM IS USED, PROVIDE A P.R.V. AS NEEDED, SET TO FILTRATION SYSTEM CRITERIA.
7. HOT WATER LOOP SIZE SHALL NOT DECREASE ON DROPS AT SINKS. THE SIZE DECREASE IS ONLY FOR THE BRANCH LINE OFF OF THE MAIN, REGARDLESS OF WHAT THE RISER MAY INDICATE.



02 PLUMBING SUPPLY RISER
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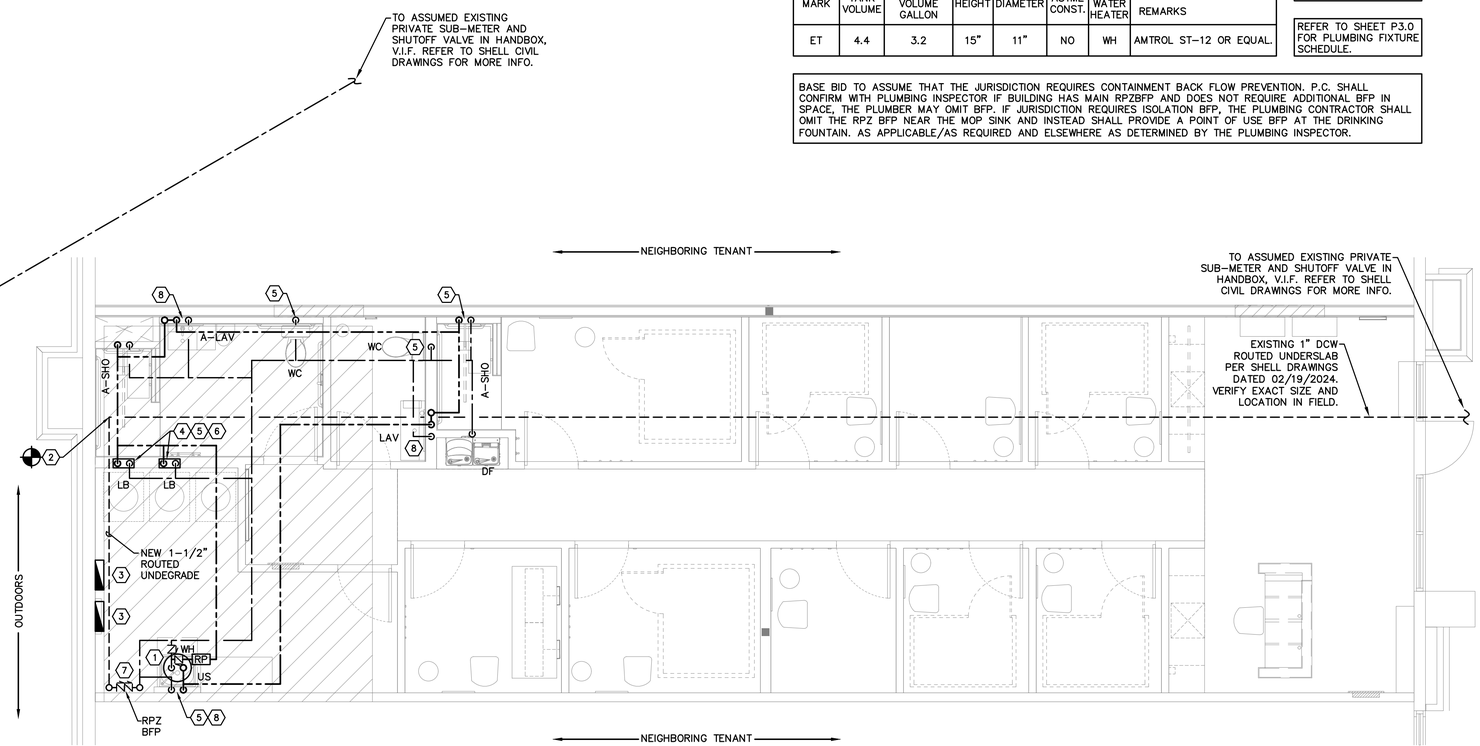

01 PLUMBING SUPPLY PLAN
SCALE: 1/4"=1'-0"

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Date: May 16, 2024

PLUMBING SUPPLY PLAN

Sheet: P1.0

KEY NOTES BY SYMBOL '#'

1. CONNECT NEW SANITARY SEWER TO EXISTING SANITARY MAIN LINE AT APPROXIMATELY THIS LOCATION, PER SHELL DRAWINGS DATED 02/19/2024. COORDINATE EXACT LOCATION IN FIELD. MINIMIZE NUMBER OF TIE IN POINTS. VERIFY LOCATION, INVERT, AND DIRECTION OF FLOW OF SANITARY MAIN PRIOR TO CONNECTING.
2. SLOPE UNDERSLAB 4" SANITARY LINE AT 1/8" PER FOOT, AND 3" SANITARY LINES AT 1/4" PER FOOT.
3. COORDINATE ROUTING OF UNDERSLAB WASTE LINES IN FIELD WITH STRUCTURAL ELEMENTS.
4. FURROUT / THICKEN WALLS AS NECESSARY FOR POWER, PLUMBING, AND DRYER VENT.
5. PROVIDE TRAP PRIMERS ON ALL HUB/FLOOR DRAINS WHERE TRAPS ARE SUBJECT TO DRYING OUT.

REFER TO SHEET P3.0 FOR PLUMBING FIXTURE SCHEDULE.

PLUMBING MATERIALS

A. SANITARY PIPING:
(WHERE NOT OTHERWISE SPECIFIED THROUGHOUT THE DRAWING SET, WASTE, DRAIN AND VENT PIPING SHALL BE PER LOCAL CODE AND AUTHORITY HAVING JURISDICTION.)

1. UNDERSLAB DRAIN PIPING SHALL BE SCHEDULE 40 PVC.
2. VENT PIPING SHALL BE SCHEDULE 40 PVC. VENT PIPING ABOVE FLOOR 2" OR SMALLER MAY BE GALVANIZED STEEL.
3. CONDENSATE PIPING SHALL BE TYPE "L" HARD DRAWN COPPER TUBE WITH 95-5 TIN-ANTIMONY SOLDERED JOINTS AND WROUGHT COPPER FITTINGS WITH DIELECTRIC SEPARATION BETWEEN DISSIMILAR METALS. CONDENSATE PIPING BELOW ROOF DECK MAY BE PVC. PROVIDE SHARKBITE TRANSITION FROM PVC TO COPPER.
4. INSULATE ALL HORIZONTAL RUNS OF PIPING LOCATED IN CEILING SPACES OF TENANTS IN SPACES BELOW WHEN APPLICABLE. INSULATION TO BE AS SPECIFIED FOR WATER PIPING.
5. PROVIDE LINE-ITEM BID TO UTILIZE PVC, OBTAIN APPROVAL FROM INSPECTOR PRIOR TO INSTALLATION THAT PVC IS ALLOWED FOR THE SPECIFIC HVAC LAYOUT FOR THIS PROJECT.

B. POTABLE WATER PIPING

1. ALL HOT AND COLD WATER SUPPLY PIPING, WHERE ALLOWED BY A.H.J. AND OWNER SHALL BE CPVC OR PEX.
2. WATER PIPING IN CEILING SPACE AND WITHIN WALLS MAY BE TYPE 'L' COPPER OR PEX, ISNTALLED PER MANUFACTURER'S INSTRUCTIONS. PROVIDE SHARK-BITE TRANSITIONS, OR APPROVED EQUALS.
3. BELOW GRADE: TYPE "K", ANNEALED TEMPERED COPPER TUBE FOR PIPE SIZES 2 INCHES AND SMALLER. BRAZE ALL JOINTS.
4. WHERE APPLICABLE, TRANSITIONS BETWEEN COPPER AND PLASTIC PIPE SHALL BE MADE BY SHARKBITE OR SIMILAR TRANSITIONS, RATED FOR USE WITH SUCH MATERIALS AS ARE BEING USED.

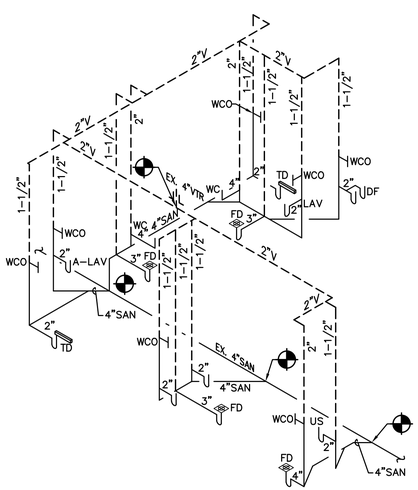
C. GAS PIPING

1. GAS LINES SHALL BE BLACK STEEL, SCHEDULE 40, ASTM A-120, WITH MALLEABLE THREADED FITTINGS FOR 2" AND SMALLER, AND WITH WELDED JOINTS FOR 2-1/2" AND LARGER.
2. GAS PIPING EXPOSED ON ROOF MUST BE PAINTED WITH RUST-INHIBITING PAINT.

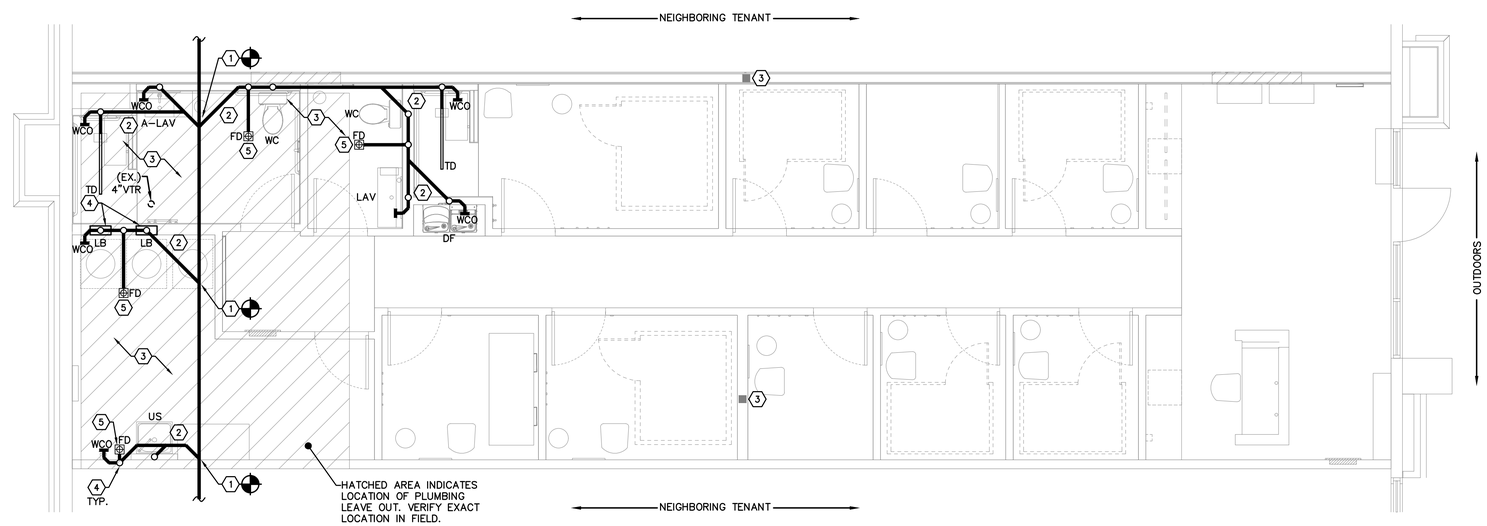
**THIS MATERIALS LIST REPRESENTS THE MINIMUM SPECIFICATIONS SET FORTH BY THE MEP ENGINEER. CONTACT LANDLORD'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION TO VERIFY IF THERE ARE ANY ADDITIONAL OR MORE STRINGENT REQUIREMENTS BEYOND THESE.

PLUMBING GENERAL NOTES

1. 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 REFERENCING THE COMPLETE DOCUMENT SET.
2. COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER AND CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE.
3. ALL ROOFING WORK (CUTS, REPAIRS, SPUD WORK, ETC.) SHALL BE PERFORMED BY THE LANDLORD'S APPROVED ROOFING CONTRACTOR.
4. DRAWINGS FOR THE PLUMBING WORK ARE DIAGRAMMATIC SHOWING THE GENERAL LOCATION, EQUIPMENT TYPE AND LAYOUT, THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO MANUFACTURERS STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE PLUMBING, CONNECTIONS, OFFSETS, ACCESSORIES AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.
5. ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE AUTHORITY HAVING JURISDICTION INCLUDING APPLICABLE LOCAL, STATE AND NATIONAL CODES THE TIME OF THE PROPOSAL. PURCHASE ALL PERMITS ASSOCIATED WITH THE WORK AND OBTAIN ALL INSPECTIONS REQUIRED BY CODE.
6. TRENCHING OF EXISTING REINFORCED CONCRETE FLOOR SLAB IS TO BE KEPT TO A MINIMUM QUANTITY AND WIDTH. WHERE CODES PERMIT, GROUP UNDER FLOOR UTILITIES IN SINGLE TRENCHES. THE MINIMUM TRENCH WIDTH IS TO BE TWELVE INCHES (12"). DOWEL NEW SLAB INFILLS INTO EXISTING SLAB EDGES. PROVIDE SLAB INFILL STEEL REINFORCING TO MATCH EXISTING. COAT SAWCUT SLAB EDGES WITH HIGH-STRENGTH BONDING AGENT. LAY IN NEW UNDERSLAB VAPOR BARRIER, LAP AND SEAL TO EXISTING VAPOR BARRIER.
7. TENANT IS NOT TO SUSPEND ANY ITEMS FROM THE BOTTOM OF THE ROOF DECK. TENANT IS NOT TO SUSPEND ANY ITEMS FROM THE BOTTOM ROOF JOIST OR JOIST GIRDER CHORDS, WITHOUT WRITTEN APPROVAL OF THE BUILDING SHELL STRUCTURAL ENGINEER OF RECORD. TENANT IS TO SUBMIT PROPOSED DETAILS, FOR ITEMS SUSPENDED FROM THE ROOF STRUCTURE, FOR REVIEW BY SHELL STRUCTURAL ENGINEER.
8. IN GENERAL, NO DUCTWORK, CONDUITS, PIPES, BANNERS, SIGNAGE, OR CURTAIN/SUSPENDED FURR-DOWNS OR WALL ARE TO BE SUSPENDED FROM THE BOTTOM OF THE ROOF STRUCTURE, WITHOUT APPROVAL. NO TENANT FINISHOUT WORK IS TO BE SUSPENDED FROM ANY WORK BY ANOTHER TRADE, FROM JOIST BRIDGING OR FROM X-BRACING OR FROM THE BOTTOM OF THE ROOF DECK. SUSPENDED TEE GRID CEILINGS AND LIGHT FIXTURES MAY BE SUSPENDED FROM THE BOTTOM ROOF JOIST AND BOTTOM JOIST GIRDER CHORDS IN MAXIMUM WEIGHTS OF SEVENTY-FIVE (75) POUNDS AT BOTTOM CHORD JOIST PANEL POINTS, WITHOUT ADDED STEEL ANGLE REINFORCING UP TO TOP JOIST CHORDS. SUSPENDED CEILINGS AND LIGHT FIXTURES ARE NOT TO BE SUSPENDED FROM THE BOTTOM OF THE ROOF DECK.
9. SET MAXIMUM TEMPERATURE AT HAND SINKS AT 110°F.
10. PROVIDE HEAT TRACE ON ALL PIPES INSTALLED IN AREAS SUBJECT TO FREEZING. INSTALL PIPING ON CONDITIONED SIDE OF BUILDING INSULATION.
11. PROVIDE CUTOFF ABOVE CEILING, IN ADDITION TO AT FIXTURE WHERE REQUIRED BY A.H.J.
12. LABEL ALL ABOVE CEILING VALVES AND OR EQUIPMENT ON T-BAR GRID, ON ACCESS PANELS SERVING SUCH EQUIPMENT. USE ½" TEXT ON WHITE PEEL AND STICK LABELS.
13. PROVIDE MIXED WATER LINE FROM SHOWER HANDLE MIXING VALVE TO SHOWER HEAD AS NEEDED.
14. PROVIDE A PRV WHERE REQUIRED.
15. UPPER LEVEL TENANTS SHALL CORE DRILL ALL FLOOR PENETRATIONS SHALL BE X-RAYED. GET LANDLORD APPROVAL PRIOR TO BEGINNING WORK. ALL SUCH RESTORATIONS SHALL BE X-RAYED.



02 PLUMBING WASTE RISER
SCALE: NOT TO SCALE



01 PLUMBING WASTE PLAN
SCALE: 1/4"=1'-0"

TRUE NORTH

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PETER ADAM LEPTUCH
NUMBER PE-2011024021
PROFESSIONAL ENGINEER
05/16/24

beem Light Sauna
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REVISIONS

No.	DATE	NOTE

Drawn by: ----
Checked by: ----
Project No: ----
Date: May 16, 2024

PLUMBING WASTE PLAN

Sheet: **P2.0**

Storage Tank Water Heater Sizing Calculator

Developed by the Plan Review Unit of the Environmental Health Services Section

Facility Name:	beem Light Sauna
Address:	Lee's Summit, MO

EQUIPMENT		GPH CALCULATED
Enter the quantity of equipment below	**Quantity**	**Gallons Per Hour (GPH)**
Lavatory	2	10
Shower	2	30
Mop sink	1	5
Washer	2	13.6
Hand sinks and mop sinks are calculated at 5 GPH each, showers at 15 GPH each. Hose reels are calculated at 5 GPH, clothes washers at 6.8 GPH, other equipment at the usage entered	**Total**	58.6
Recovery Rate Needed (GPH):		**59**

Water Heater Input (BTU or kW) Needed:

Gas Water Heater	Electric Water Heater
51 ,000 BTU at 80°F rise	11 kW at 80°F rise
58 ,000 BTU at 90°F rise	13 kW at 90°F rise
64 ,000 BTU at 100°F rise	14 kW at 100°F rise
	17.5 kW at 65°F rise

Recovery Calc (For Tank Type Water Heater)	
Temperature Set Point =	110 °F
Incoming Water Temp =	51.1 °F
ΔT =	58.9 °F
1 Gallon water =	8.34 LBS
BTUH = GPH*8.34*ΔT	28,785.84 BTUH
kW = BTUH/3412.142	8.44 kW Required

PUBLIC		Load Values, In WSFU			Total
Fixture	Qty	Cold	Hot	Total	WSFU
Drinking Fountain	1	0.25	-	0.25	0.25
Lavatory	2	1.50	1.50	2.00	4.00
Service Sink	1	2.25	2.25	3.00	3.00
Shower Head	2	3.00	3.00	4.00	8.00
Washing Machine (15 lb)	2	3.00	3.00	4.00	8.00
Water Closet (Flush Tank)	2	5.00	-	5.00	10.00
*Values replicated from IPC 2018 Table E103.3(2)				Overall Total =	33.25

FROM 2018 IPC TABLE E201.1

USING A MAXIMUM DEVELOPMENT LENGTH OF = 300 FEET
ASSUMING A PRESSURE RANGE OF 30 TO 39 PSI

A 1" METER AND SERVICE PIPE AND 1-1/2" DISTRIBUTION PIPE CAN HANDLE 56 WSFU.

56 WSFU > 33.25 WSFU, THEREFORE A 1" OR LARGER METER AND SERVICE PIPE AND A 1-1/2" DISTRIBUTION PIPE WILL BE SUFFICIENT.

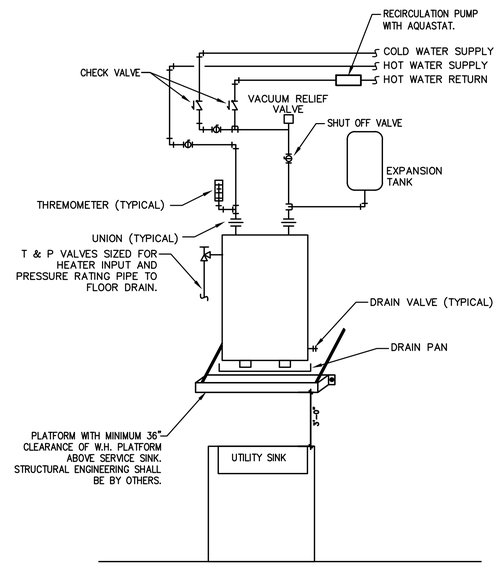
*NOTIFY ENGINEER IF WATER PRESSURE OR MAXIMUM DEVELOPMENT LENGTH DIFFERS FROM AS SHOWN ABOVE.

**PER IPC, "FOR FIXTURES NOT LISTED, LOADS SHOULD BE ASSUMED BY COMPARING THE FIXTURE TO ONE LISTED USING WATER IN SIMILAR QUANTITIES AND AT SIMILAR RATES."

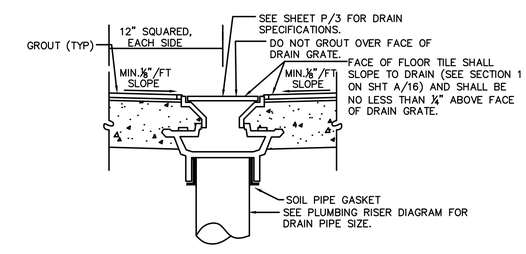
PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	ROUGH-IN-SIZE S/W	V	CW	HW	DESCRIPTION / REMARKS
WC	WATER CLOSET	4"	2"	1/2"	--	FIXTURES: AMERICAN STANDARD COLONY #221AA104.020, 1.28 GPF TANK-TYPE, ADA-COMPLIANT. COLOR: WHITE
A-LAV	LAVATORY (ADA)	2"	1-1/2"	1/2"	1/2"	FIXTURES: NAMEEKS TEOREMA 2 SCARABEO 5114. COLOR: WHITE. ONE FAUCET HOLE. FAUCET: VIGO DAVIDSON VG01043MBK. PROVIDE WITH THERMOSTATIC MIXING VALVE EQUAL TO WATTS LFMMV, SET AT 110°F.
LAV	LAVATORY	2"	1-1/2"	1/2"	1/2"	FIXTURE: SWISS MADISON CLAIRE SM-CS734. COLOR: WHITE. LEG COLOR: BLACK. FAUCET: VIGO DAVIDSON VG01043MBK. COLOR: MATTE BLACK. PROVIDE WITH THERMOSTATIC MIXING VALVE EQUAL TO WATTS LFMMV, SET AT 110°F.
FD	FLOOR DRAIN	3"	1-1/2"	--	--	3" CAST IRON FLOOR DRAIN WITH POLISHED NICKEL BRONZE TOP. ZURN Z-415-J (SQUARE), J.R. SMITH NO 2005Y-A, JOSAM3000-S OR APPROVED EQUAL. ADJUSTABLE STRAINER WITH FLASHING CLAMP DEVICE, PROVIDE TRAP PRIMER CONNECTTION PER LL REQUIREMENTS.
A-SHO	SHOWER (ADA)	--	--	1/2"	1/2"	DELTA TEMPASSURE SHOWER SYSTEM, MODEL DSS-PIVOTAL-17T01-BL MATTE BLACK
SHO	SHOWER	--	--	1/2"	1/2"	DELTA PIVOTAL SHOWER ONLY TRIM, MODEL T17T299BL, MATTE BLACK
LB	WASHING MACHINE BOX	2"	1-1/2"	1/2"	1/2"	FIXTURE: OATEY #38747 WITH INTEGRAL SHOCK ARRESTERS OR EQUAL
US	UTILITY SINK	2"	1-1/2"	1/2"	1/2"	GLACIER BAY - ALL-IN-ONE 24" LAUNDRY SINK CABINET. COLOR: WHITE. MODEL: QL033Y FAUCET: HD67780-1208D2. PROVIDE WITH MIXING VALVE EQUAL TO WATTS LFMMV, SET AT 110°F
BF	BOTTLE FILLING STATION	2"	1-1/2"	1/2"	--	ELKAY - LZBWSSSMC BOTTLE FILLING STATION. REFER TO ELKAY TEMPLATE FOR WATER ROUGH-IN HEIGHT. MAINTAIN TAS/ADA COMPLIANCE.
DF	DRINKING FOUNTAIN	2"	1-1/2"	1/2"	--	ELKAY - LVRCGRNTL8WSK BOTTLE FILLING STATION AND BI-LEVEL DRINKING FOUNTAIN. REFER TO ELKAY TEMPLATE FOR WATER ROUGH-IN HEIGHT. MAINTAIN TAS/ADA COMPLIANCE.
TD	TRENCH DRAIN	2"	1-1/2"	--	--	INFINITY DRAIN S-LT 3848BK INSTALL IN CENTER OF SHOWER.

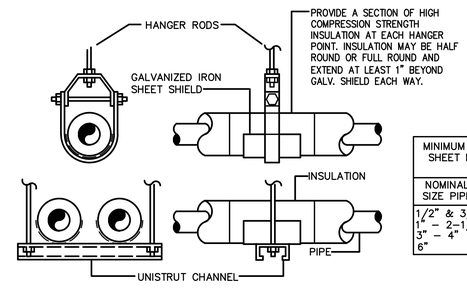
FIXTURE SPECIFICATION NOTE: REFER TO THE ARCHITECTURAL SHEETS AND/OR CORPORATE BUILDOUT PACKAGE FOR PREFERRED SPECIFICATIONS TO ENSURE THE ARCHITECT IS NOT DESIRING AN UPDATED FIXTURE FROM THESE BASELINE SPECIFICATIONS. CONTRACTOR SHALL ALSO THOROUGHLY REVIEW ARCHITECTURAL SHEETS PRIOR TO ORDERING EACH PIECE OF EQUIPMENT FOR COORDINATION FOR THINGS SUCH AS WALL-MOUNT SINKS VERSUS COUNTER-TOP SINKS OR UNDERMOUNT SINKS. MAINTAIN TAS/ADA COMPLIANCE.



01 TANK-TYPE ELECTRIC WATER HEATER DETAIL
SCALE: NOT TO SCALE

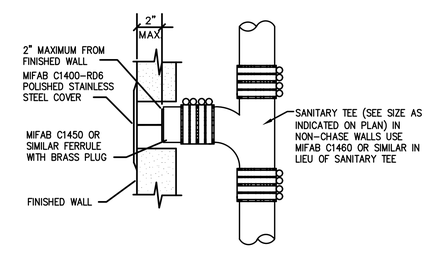


02 FLOOR DRAIN DETAIL
SCALE: NOT TO SCALE



MINIMUM DIMENSIONS OF GALVANIZED SHEET METAL PROTECTION SHIELDS AT PIPE HANGERS		
NOMINAL SIZE PIPE	SHIELD LENGTH (IN.)	GAUGE THICKNESS
1/2" & 3/4"	12	18
1" - 2-1/2"	12	18
3" - 4"	16	18
6"	18	16

03 HANGER FOR INSULATED PIPING
SCALE: NOT TO SCALE



04 WALL CLEAN OUT DETAIL
SCALE: NOT TO SCALE

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PLUMBING SCHEDULES & DETAILS

Sheet: **P3.0**