

EYEMART EXPRESS

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
10/29/2020

1041 N.E. SAM WALTON DR, LEE'S SUMMIT, MO 64086

OWNER/TENANT:

EYEMART EXPRESS, LLC.
13800 SENLAC DR, SUITE 200
FARMERS BRANCH, TX 75234
CONTACT: THOMAS WENTZ
(972) 277-3035

ARCHITECT OF RECORD:

CAROLINE H.C. MA, ARCHITECT
1720 DALE FORD RD
DELAWARE OH 43015
CONTACT: CAROLINE MA
(614) 559-3900

STRUCTURAL ENGINEERS:

SMBH , INC
1166 DUBLIN ROAD,SUITE 200
COLUMBUS, OH 43215
CONTACT: SCOTT DEGAN
(614) 481-9800

M. E. P. ENGINEERS:

POINT ONE DESIGN, LTD
2800 CORPORATE EXCHANGE SUITE 270
COLUMBUS, OH 43231
CONTACT: DAVID ULLIMAN
(614) 540-3500

GENERAL PROJECT NOTES

1. AIA DOCUMENTS A201, 1197 EDITION "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION" IS HEREBY INCORPORATED TO THESE CONTRACT DOCUMENTS AS THOUGH FULLY CONTAINED THEREIN.

2. THE TENANT'S G.C SHALL OBTAIN REQUIRED NUMBER OF COPIES OF "GENERAL CONDITIONS" REFERENCED ABOVE TO ACQUAINT HIMSELF WITH THE ARTICLES CONTAINED THEREIN AND TO NOTIFY AND APPRISE ALL SUBCONTRACTORS, SUPPLIERS, AND OTHER PARTIES TO THE CONTRACT, INDIVIDUALS OR AGENCIES ENGAGED IN THE WORK, AS TO ITS CONTENTS.

3. G.C. BIDDERS AND THEIR SUBCONTRACTORS SHALL REPORT ANY DISCREPANCIES IN TENANT'S WORKING DRAWINGS, INCLUDING VARIATIONS OF TENANT FURNISHED ITEMS TO BE SUPPLIED BY EYEMART EXPRESS, INC, PRIOR TO SUBMISSION OF BIDS. DISCREPANCIES SHALL BE REPORTED TO:
THOMAS WENTZ, SVP OF DESIGN & CONSTRUCTION
EYEMART EXPRESS, LTD.
13800 SENLAC DRIVE
FARMERS BRANCH, TEXAS 75234

4. WITHOUT INVALIDATING THE CONTRACT, THE TENANT (EYEMART EXPRESS, INC) MAY ORDER EXTRA WORK, ALTER, ADD TO OR DEDUCT FROM THE CONTRACT WORK. THE CONTRACT SUM WILL BE ADJUSTED ACCORDINGLY BY WRITTEN CHANGE ORDER.

5. ALL ON SITE REVISIONS TO CONTRACT DOCUMENTS BY TENANT G.C. OR "EXTRA" WORK MUST HAVE PRIOR WRITTEN APPROVAL BY OWNER. REQUESTS OF PAYMENT FOR UNAUTHORIZED REVISIONS OR FOR "EXTRA" WORK SHALL NOT BY GRANTED. ALL PROPOSED G.C CHANGE ORDERS SHALL HAVE AN RFI REFERENCE.

6. TENANT'S G.C. SHALL HIRE LANDLORD APPROVED SPRINKLER CONTRACTOR FOR ANY MODIFICATION OF SPRINKLER SYSTEM AT G.C.'S OWN EXPENSE. TENANT'S G.C. SHALL BE RESPONSIBLE FOR DESIGN AND PERMITTING OF REQUIRED SPRINKLER SYSTEM, AND FOR PREPARATION OF REQUIRED SHOP DRAWINGS. SHOP DRAWINGS SHALL BE SUBMITTED TO LANDLORD'S AND TENANT'S FIRE CASUALTY AND RISK INSURERS FOR APPROVAL PRIOR TO THE INSTALLATION. TENANT'S G.C. SHALL FORWARD TWO (2) SETS OF PRINTS AND ONE (1) REPRODUCIBLE SEPIA BEARING THE INSURER'S APPROVAL STAMP TO THE LANDLORD FOR APPROVAL AND RECORDS. TENANT'S G.C. SHALL COORDINATE TENANT'S WORK WITH THAT OF SPRINKLER CONTRACTOR AND SHALL FORWARD ONE (1) COPY OF APPROVED SHOP DRAWINGS REFERENCED ABOVE FOR TENANT'S RECORDS. LANDLORD WILL COORDINATE NEW FIRE SPRINKLER CONNECTION FROM BASE BUILDING MAINS. PLEASE INFORM LANDLORD OF AWARDED SPRINKLER BIDDER TO ENABLE PROPER COORDINATION OF BUILDING REQUIREMENTS.

7. TENANT'S G.C. SHALL MAINTAIN ONE (1) COMPLETE SET OF BLUELINE PRINTS IN THE JOB OFFICE FOR THE SOLE PURPOSE OF MAINTAINING A PROJECT RECORD. ALL CHANGES MADE IN THE WORK IN CONNECTION WITH FINAL CONSTRUCTION AND INSTALLATION SHALL BE NEATLY RECORDED IN RED INK ON THE PRINTS. UPON COMPLETION OF THE PROJECT, THE MARKED SET OF PRINTS SHOWING THE PROJECT RECORD SHALL BE DELIVERED TO EYEMART INC. FOR AN "AS-BUILT" RECORD SET.
8. ALL WOOD IN DEMISED PREMISES INCLUDING DOORS, PLYWOOD, BLOCKING, MOLDINGS, ARCHITECTURAL MILLWORK, STOREFRONT AND STORAGE ROOM SHELVING, SHALL BE FIRE RETARDANT IMPREGNATED WITH A FIRE-PROTECTIVE CHEMICAL TO PROVIDE A FLAME HAZARD CLASSIFICATION OF 25 OR LESS. REFER TO SPECIFICATION 06100-1.12 AND SHALL HAVE MILL MARKINGS INDICATING TREATMENT.

9. BY SUBMITTING A BID THE TENANT'S G.C. ACKNOWLEDGES THAT HE HAS VISITED THE JOBSITE AND IS FAMILIAR WITH EXISTING CONDITIONS, AND HAS INCLUDED ALL WORK RELATED TO EXISTING CONDITIONS IN HIS BID. BIDDERS SHALL REPORT ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND THE EXISTING CONDITIONS TO THE TENANT'S PROJECT MANAGER PRIOR TO BID SUBMISSION. THE TENANT'S G.C. SHALL VERIFY CLEARANCES FOR DUCTWORK, PIPING, SPRINKLERS, ETC. WHICH MAY CONFLICT WITH THE CEILING AND COORDINATE WITH EYEMART, INC. ANY FOUND DIFFERENCES OR PROBLEMS PRIOR TO BIDDING OR ASSUME RESPONSIBILITY FOR ANY CORRECTIVE WORK NECESSARY TO COMPLETE THE CONSTRUCTION FOR OCCUPANCY. THE T.G.C. IS RESPONSIBLE FOR ALL WORK RELATING TO EXISTING CONDITIONS INCLUDING ALL CONDITIONS THAT CAN BE READILY DISCOVERED BY INSPECTING THE SITE. THE T.G.C. SHALL VERIFY ALL EXISTING DIMENSIONS TO VERIFY THAT THE SQUARE FOOTAGE IS AS SHOWN BEFORE COMMENCING CONSTRUCTION, OR THE T.G.C. ASSUMES THE RESPONSIBILITY FOR CORRECTIVE WORK REQUIRED.

10. THE EXISTING STRUCTURE SHALL BE PROTECTED DURING CONSTRUCTION. REPAIR OR REPLACE ANY FIRE PROTECTION MATERIALS APPLIED TO BUILDING STRUCTURE IF DAMAGED DURING CONSTRUCTION.

11. T.G.C. SHALL FILL OR GRIND CONCRETE FLOOR AS REQUIRED AT ENTRY TO MATCH MALL FLOORING.

12. T.G.C. SHALL FURNISH AND INSTALL FLOORING AS SCHEDULED. T.G.C. SHALL OBSERVE EXISTING SLAB CONDITIONS AND, IF REQUIRED, GRIND AND/OR EPOXY FILL FLOOR TO BE LEVEL PRIOR TO INSTALLING FLOOR FINISH MATERIALS.

13. TENANT'S SIGN, SIGN MATERIALS, SHOP DRAWINGS AND INSTALLATION IS BY TENANT'S SIGN CONTRACTOR. IT IS THE RESPONSIBILITY OF THE T.G.C. TO NOTIFY THE SIGN CONTRACTOR OF LEAD TIMES.

14. FIRE EXTINGUISHER CLASS 2A:10BC FIVE (5) LB., M DRY CHEMICAL INSTALL PER CURRENT N.F.P.A. PAMPHLET 310. THE MAXIMUM TRAVEL DISTANCE IS 50' BETWEEN FIRE EXTINGUISHER (VERIFY WITH LOCAL REQUIREMENT).

15. THE T.G.C. IS RESPONSIBLE FOR THE COORDINATION OF ALL NEW WORK & EXISTING CONDITIONS. ALL WORK IS TO BE TRIMMED OUT AND FINISHED TO MATCH ADJACENT SURFACES, OR AS DIRECTED BY EYEMART, INC. THE T.G.C. IS RESPONSIBLE FOR NOTIFYING THE EYEMART, INC PROJECT MANAGER OF ANY ITEMS MISSING OR NEEDING ADDITIONAL INFORMATION IN A TIMELY MANNER TO NOT DELAY THE COMPLETION OF THE PROJECT. ANY CORRECTIVE WORK NOT NOTIFIED UNTIL AFTER INSTALLATION BECOMES THE RESPONSIBILITY OF THE T.G.C. TO PROVIDE ANY AND ALL WORK NECESSARY TO COMPLETE THE CONSTRUCTION FOR OCCUPANCY.

16. T.G.C. WILL PROVIDE FIRE STOPS AT ALL HORIZONTAL STUD SPACES AT CEILING LEVEL AND AT SOFFITS.
17. ALL PENETRATIONS IN FIRE RATED CONSTRUCTION MUST BE SEALED WITH AN APPROVED FIRE STOPPING MATERIAL-USG THERMAFIBER SAFING INSULATION OR EQUAL.

18. T.G.C. MUST HIRE LANDLORD'S ROOFING CONTRACTOR FOR ALL ROOF REPAIRS, NEW CURBS, ROOF PENETRATIONS, ETC.

19. T.G.C. IS RESPONSIBLE PRIOR TO FINAL ACCEPTANCE TO REMOVE ANY AND ALL DEBRIS. T.G.C. TO CLEAN ALL FLOORS, GLASS, DISPLAYS, SHELVING, TOILET ROOMS, ETC. THE INTENT IS TO HAVE THE STORE AT ACCEPTANCE THOROUGHLY CLEAN. VCT FLOORING SHALL BE CLEANED AND WASHED IMMEDIATELY PRIOR TO ACCEPTANCE.

20. T.G.C. IS TO INSURE THAT THE UNDER FLOOR SLAB UTILITIES ARE NOT DAMAGED DURING FLOOR CUTTING OPERATIONS.

21. T.G.C. IS RESPONSIBLE FOR CONTACTING THE TENANT COORDINATOR OR MALL MANGER TO CONFIRM AND VERIFY SPECIFIC LANDLORD REQUIREMENTS AS THEY PERTAIN TO UTILITIES, FIREPROOFING, ROOFING, ETC.

22. THE LOCATION OF ALL PROPOSED HVAC UNITS OR ANY OTHER ROOF-MOUNTED EQUIPMENT IS TO BE REVIEWED AND VERIFIED BY THE LANDLORD'S STRUCTURAL ENGINEER PRIOR TO INSTALLATION. ANY CUTOUPS IN THE ROOF, EXTERIOR WALLS, OR ANY OTHER MODIFICATIONS TO EXISTING STRUCTURE SHALL BE REVIEWED AND APPROVED BY THE LANDLORD'S STRUCTURAL ENGINEER OR ROOFING ENGINEER AS APPLICABLE.

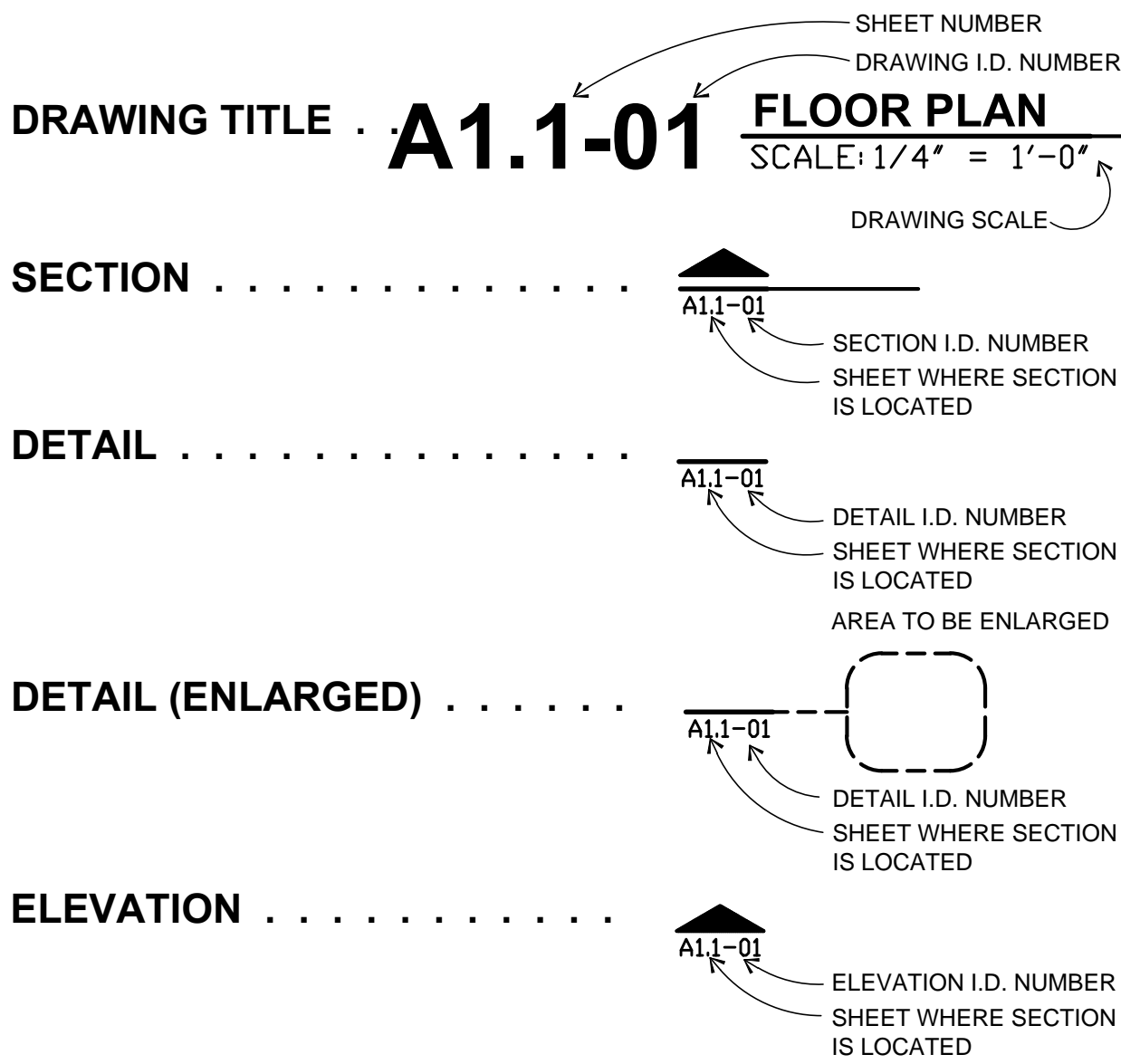
23. TESTING OF ANY SYSTEMS AND/OR PRODUCTS NOT SPECIFICALLY CALLED OUT IN THE CONTRACT DOCUMENTS, BUT WHICH ARE REQUIRED BY LANDLORD, LOCAL, CITY, COUNTY, STATE, OR OTHER AUTHORITIES SHALL BE THE SOLE RESPONSIBILITY OF THE T.G.C. REQUIRED TESTING SHALL BE PERFORMED BY AN OFFICIAL AND/OR ORGANIZATION LICENSED/AUTHORIZED TO DO SUCH TESTING, INCLUDING SPRINKLER SYSTEM. UPON SYSTEM DESIGN APPROVAL AND PRIOR TO INSTALLATION, T.G.C. SHALL FORWARD TO THE TENANT'S PROJECT MANAGER (2) SETS OF PRINTS OF THE SPRINKLER SYSTEM AND SYSTEM TESTING REQUIREMENTS. UPON PROJECT COMPLETION AND PRIOR TO CLOSE-OUT, T.G.C. SHALL FURNISH A CERTIFIED COPY OF ALL REQUIRED TEST RESULTS TO THE TENANT FOR THEIR RECORDS.

24. TENANT'S SPECIFIED SUPPLIERS:
- | | | |
|----------------------------|--|---|
| FIXTURE CONTRACTOR: | ACCEL GROUP
CONTACT: ALICIA CIANCIO | 325 QUADRAL DRIVE, WADSWORTH, OH 44281
PHONE: (330)336-0917 X2128, FAX: (330) 336-1224 |
| LIGHTING FIXTURE SUPPLIER: | LOEB ELECTRIC
CONTACT: JODY HARRIS | 915 WILLIAMS AVENUE, COLUMBUS, OH 43212
PHONE: (614) 294-3201 |
| SIGN CONTRACTOR: | TRIANGLE SIGNS
CONTACT: TORRI RILEY | 11 ALZAR CT. BALTIMORE, MD 21227
PHONE: (443) 297-5044 |

DRAWING INDEX

SHEET NUMBER	SHEET NAME
CS0.0	COVER SHEET
A1.0	LIFE SAFETY EGRESS PLAN, DEMO PLAN & SITE REFERENCE PLAN
A1.1	FLOOR PLAN, NOTES, AREA CALCULATION/ OCCUPANT LOAD
A1.2	FIXTURE & EQUIPMENT SCHEDULE, FINISH SCHEDULE, NOTES
A2.0	DOOR SCHEDULE
A2.1	DOOR ELEVATIONS & DETAILS
A3.0	REFLECTED CEILING PLAN
A4.0	FLOOR FINISH PLAN, FLOOR DETAILS & TRANSITION DETAILS
A5.1	EXTERIOR ELEVATIONS
A5.2	INTERIOR ELEVATIONS & FINISH SCHEDULE
A6.0	ENLARGED RESTROOM PLANS, ELEVATIONS, SCHEDULES
SI-0	GENERAL-STRUCTURAL-NOTES 8 1/2" X 11" STRUCTURAL LETTER, DETAILS & CALCULATIONS
HI-0	MECHANICAL HVAC PLAN
H2-0	HVAC DETAILS & SCHEDULES
H3-0	HVAC DETAILS
HE-0	MECHANICAL COMPLIANCE-GCM-CHECK
PI-0	SANITARY PLUMBING PLAN
P2-0	WATER & GAS PLUMBING PLAN
P3-0	PLUMBING DIAGRAMS
FRI-0	FIRE RATED WALL DETAILS
E1-0	ELECTRICAL POWER PLAN
E2-0	ELECTRICAL LIGHTING PLAN
E3-1	ELECTRICAL DETAILS
E3-2	ENLARGED LAB ELECTRICAL PLAN
E3-3	ELECTRICAL LAB DETAILS & ELEVATIONS
E4-1	ELECTRICAL DETAILS
E4-1a	ELECTRICAL DETAILS-ALTERNATE-B
E5-0	ELECTRICAL COMPLIANCE-GCM-CHECK
SP1	SPECIFICATIONS
SP2	SPECIFICATIONS
SP3	SPECIFICATIONS
SP4	SPECIFICATIONS
SP5	SPECIFICATIONS

SYMBOLS & LEGEND



CODE INFORMATION

1. ALL WORK UNDER THIS CONTRACT SHALL COMPLY WITH THE PROVISIONS OF THE DRAWINGS & SPECIFICATIONS MEETING OR EXCEEDING THE REQUIREMENTS OF ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS OF ALL GOVERNING BODIES INVOLVED. ANY MODIFICATIONS TO THE CONTRACT WORK REQUIRED BY SUCH AUTHORITIES SHALL BE AT THE EXPENSE OF THE TENANT'S GENERAL CONTRACTOR. ALL PERMITS AND LICENSES NECESSARY FOR THE PROPER EXECUTION OF THE WORK SHALL BE SECURED AND PAID FOR BY THE TENANT'S GENERAL CONTRACTOR. APPLICABLE CODES INCLUDE BUT MAY NOT BE LIMITED TO THE FOLLOWING:

(A) BUILDING & STRUCTURAL..... 2018 INTERNATIONAL BUILDING CODE

(B) MECHANICAL..... 2018 INTERNATIONAL MECHANICAL CODE

(C) PLUMBING..... 2018 INTERNATIONAL PLUMBING CODE

(D) FIRE/LIFE SAFETY CODE..... 2018 IFC

(E) ELECTRICAL..... NEC 2017, ANSI 117.1,

(F) ENERGY EFFICIENCY..... X

(G) FUEL GAS..... 2018 FUEL & GAS CODE

(H) ACCESSIBILITY..... CURRENT ADA, 2009 ICC ANSI 117.1

CITY OF LEE'S SUMMIT - (816) 969-1200
2. LEASE SPACE DATA: ALSO REFER TO SHT A1.1 FOR DETAIL CALS.

(A) TOTAL LEASE AREA:..... 2,806 SF

(B) SHELL BUILDING CONSTRUCTION TYPE..... ASSUMED EXISTING 2B

(C) OCCUPANCY GROUP..... M & B

(D) TOTAL OCCUPANT LOAD..... 40 O.L

(E) LEASE SPACE NOT SPRINKLERED..... 2,806 SF

BUSINESS (DOCTOR'S AREA):

(F) OPTOMETRIST SQUARE FOOTAGE..... 853 SF

(G) OPTOMETRIST OCCUPANT LOAD..... 16 PERSONS

(H) OPTOMETRIST EXIT WIDTH REQUIRED 3.2'

(I) OPTOMETRIST EXIT WIDTH PROVIDED 108"

(J) OPTOMETRIST EXITS REQUIRED..... 1

(K) OPTOMETRIST EXITS PROVIDED..... 2

MERCANTILE (RETAIL AREA):

(L) SALES SQUARE FOOTAGE: 1,953 SF

(M) SALES OCCUPANT LOAD: 24 PERSONS

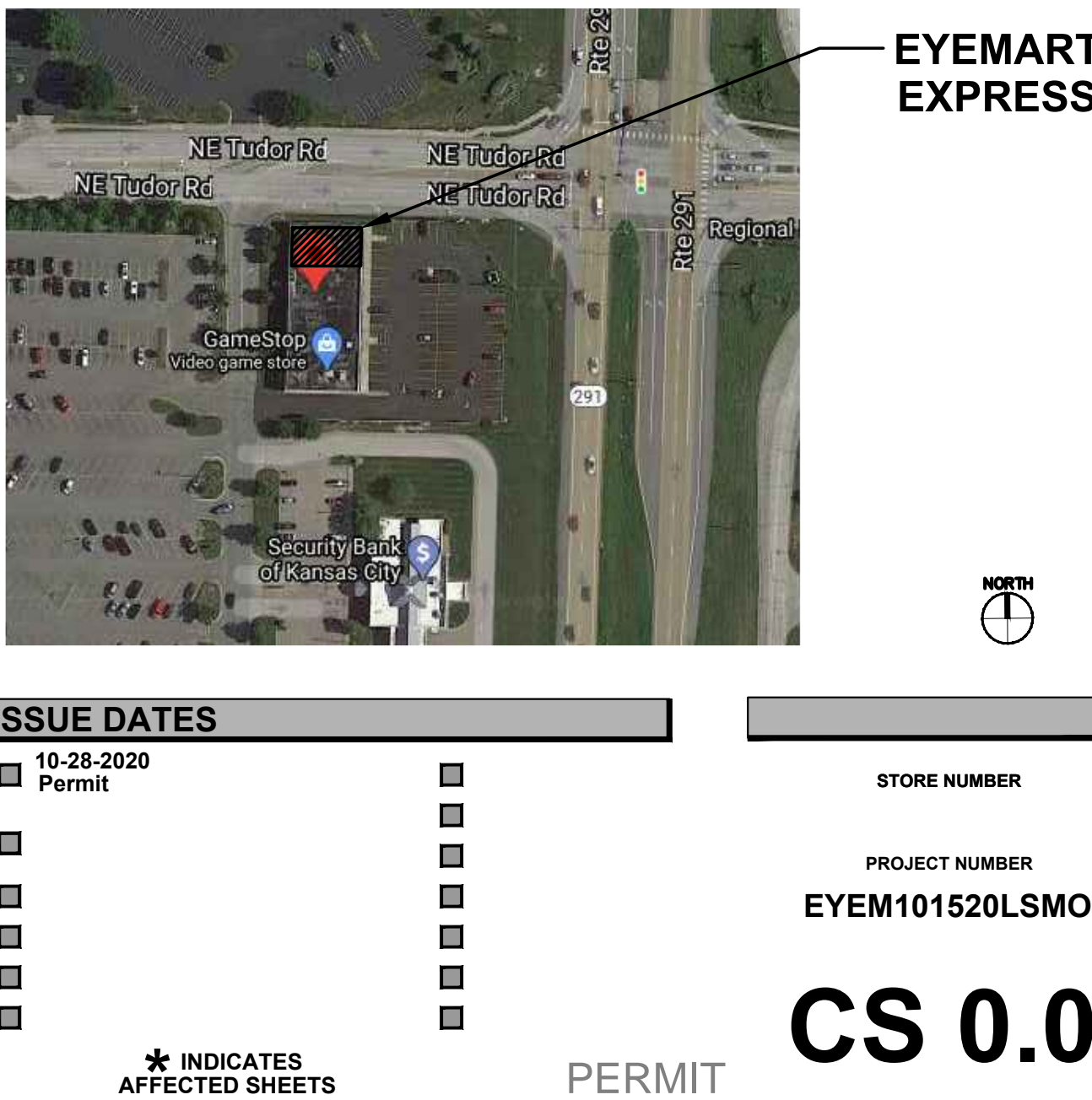
(N) SALES EXIT WIDTH REQUIRED..... 4.8'

(O) SALES EXIT WIDTH PROVIDED..... 108"

(P) SALES EXITS REQUIRED..... 1

(Q) SALES EXITS PROVIDED..... 2
3. SCOPE: INTERIOR TENANT FIT-UP TO INCLUDE REMOVING SPECIFIED EXISTING PARTITION WALLS, FINISHES, CEILING TILES & GRIDS, LIGHTS, DUCTS & RELATED MEP. NEW INSTALLATION TO INCLUDE NEW INTERIOR PARTITION WALLS, FINISHES, FURNITURE, LIGHTS, CEILING GRIDS AND TILES, NEW VESTIBULE, REPLACING/INFILLING EXISTING SPECIFIED STOREFRONT SYSTEM, & REPLACING (1) EXISTING RTU , ADDING (2) NEW RTU AND RELATED MEP WORK.

SITE VICINITY MAP



ARCHITECT OF RECORD 10/29/2020

Caroline H.C. Ma
Architect
Architecture & Design

TEL: 614.559.3900

1720 DALE FORD RD.
DELAWARE, OH
43015

CONSULTANT

PROJECT NAME

EYEMART
EXPRESS

STORE #:

SITE LOCATION:

1041 NE
SAM WALTON DR
LEE'S SUMMIT, MO
64086

ARCHITECT OF RECORD



- * 10-28-2020 Permit
* 10-29-2020 Bldg Dept Comments

PERMIT

* INDICATES
AFFECTED SHEETS

EGRESS_PLAN
DEMO_PLAN
SITE_REFERENCE

DATE

10-29-2020

PROJECT NUMBER

EYEM101520LSMO

SHEET NUMBER

A1.0

AREA & OCCUPANT LOAD (OL) TABULATION:
BUSINESS-OPTOMETRIST AREA: 853 SF

WAITING 146 SF / 10 OL
RECEPTION, PRETEST, OFFICE 568 SF / 6 OL
DOCTOR'S EXAMS, CONTACT HALL 139 SF / 0 OL

OPTOMETRIST SUBTOTAL..... 853 SF / 16 OL

MERCANTILE -RETAIL AREA: 1,953 SF

SALES FLOOR 1,074 SF / 18 OL
LABORATORY 284 SF / 3 OL
HALL 387 SF / 0 OL
OFFICE 60 SF / 1 OL
TOILETS 143 SF / 2 OL

RETAIL SUBTOTAL..... 1,953 SF / 24 OL

RETAIL & OPTOMETRIST TOTAL.... 2,806 SF / 40 O.L

LEGEND- LIFE SAFETY

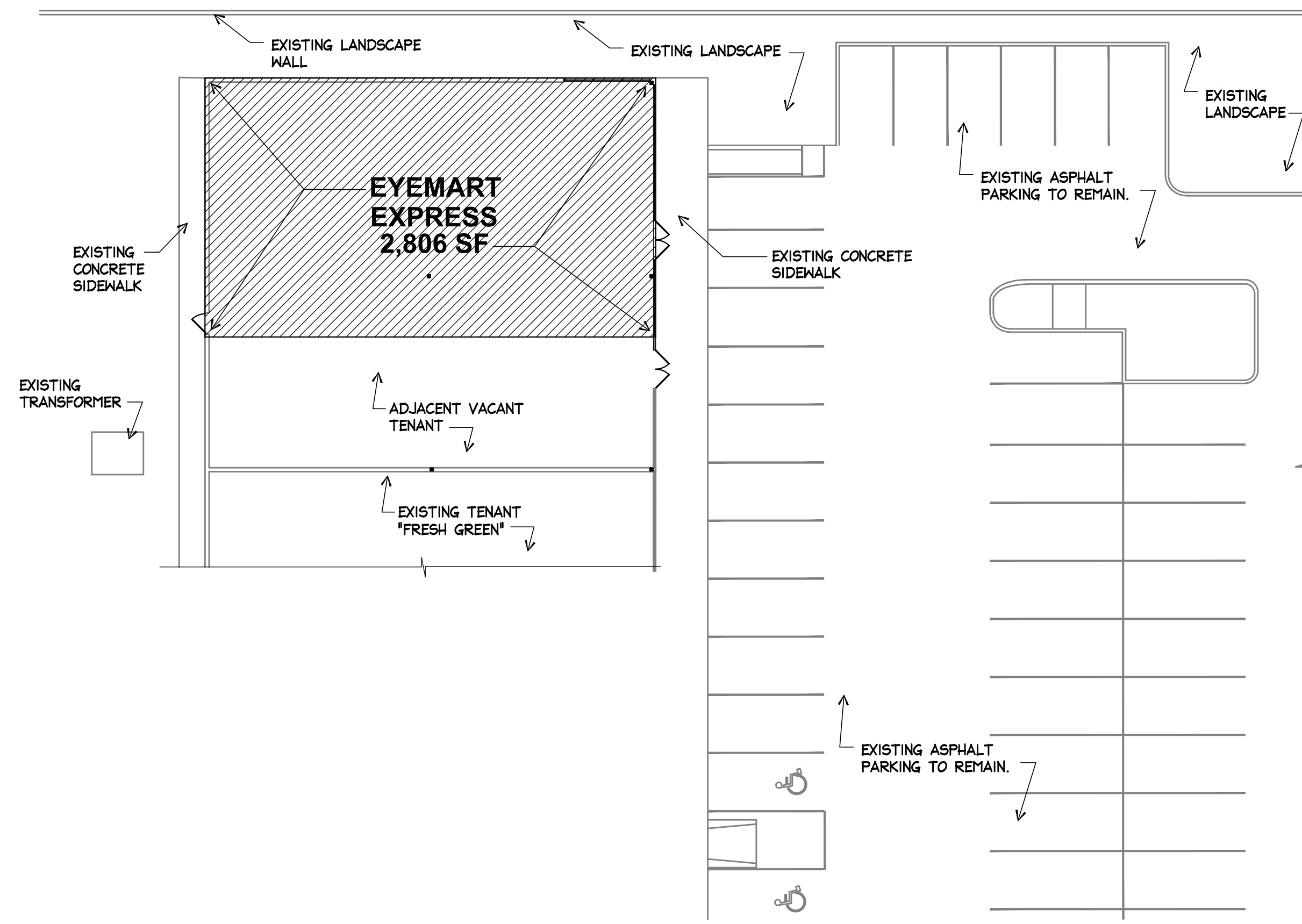
- F.E = FIRE EXTINGUISHERS- CONFIRM FINAL LOCATION WITH FIRE MARSHALL PRIOR TO INSTALLATION
□ E.P = ELECTRICAL PANELS
X ←NUMBER OF OCCUPANTS
XXX ←MAX. NUMBER OF EGRESS OCCUPANTS PER EGRESS COMPONENT AT 0.2 INCH PER WIDTH OF DOOR EGRESS COMPONENT.

→ EGRESS PATH WITH DISTANCE

EXEM EMERGENCY / EXIT LIGHT

REM REMOTE EMERGENCY LIGHT

SITE REFERENCE ONLY

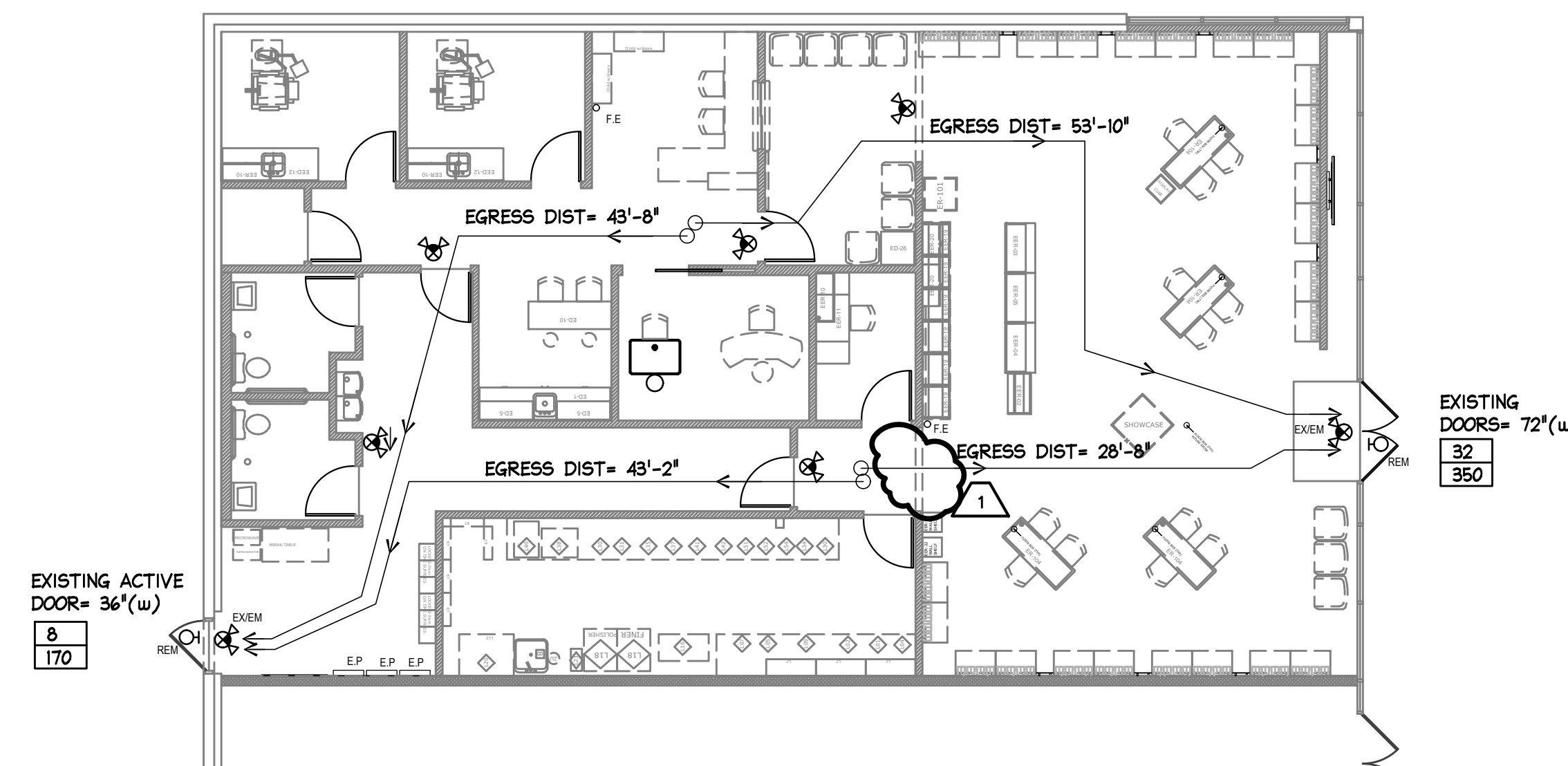


A1.0-03 SITE REFERENCE PLAN

SCALE: 1/16" = 1'-0"

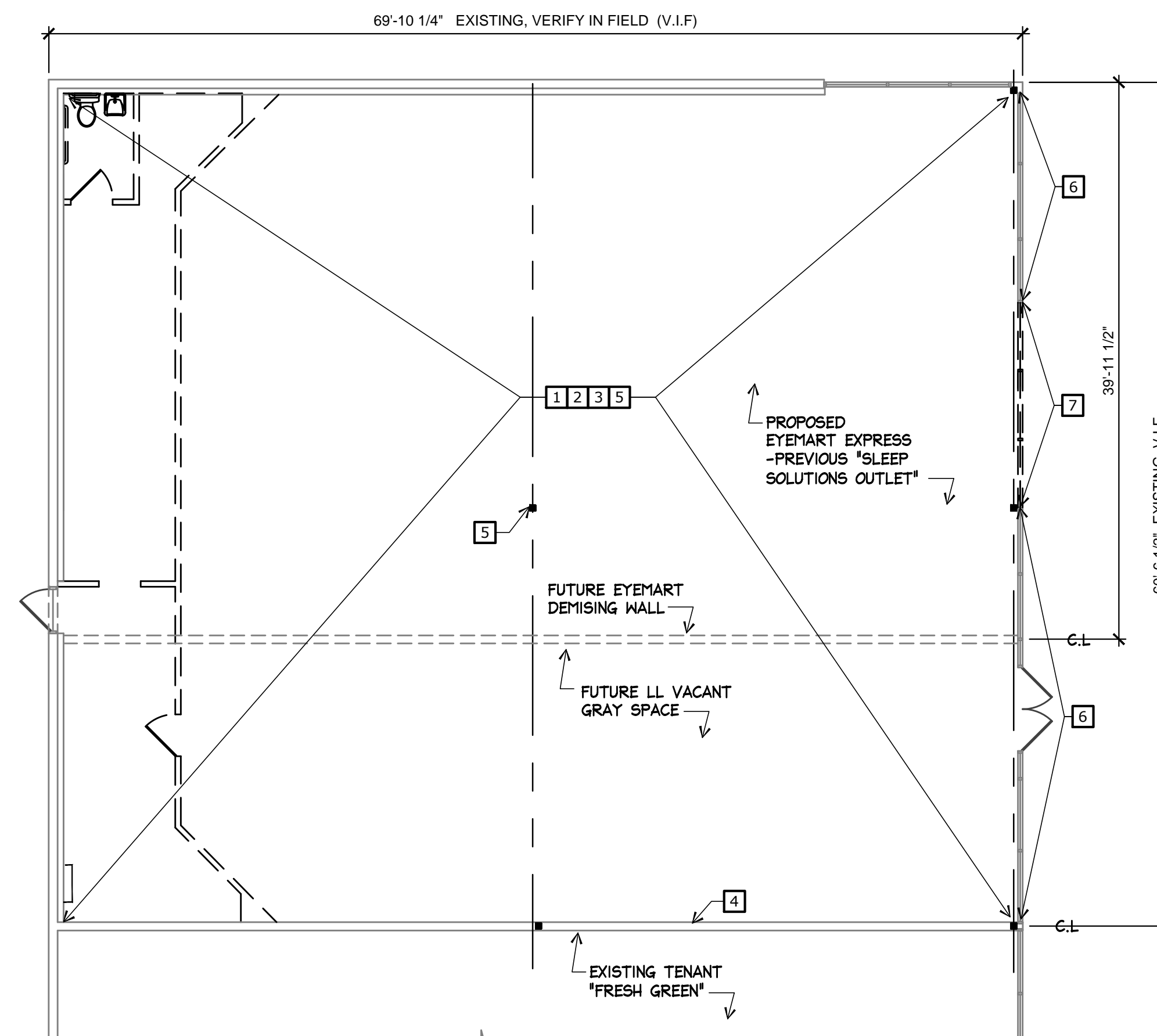
INTERIOR DEMOLITION KEYED NOTES:

- DEMOLISH & REMOVE ALL EXISTING INTERIOR DESIGNATED PARTITION WALLS & RELATED ACCESSORIES, FINISH CEILING GRIDS & TILES, LIGHTS, DOORS, FINISH FLOORING MATERIALS (CARPET, HARDWOOD, VCT). FINISH WALL MATERIALS OTHER THAN DRYWALL FIXTURES & EQUIPMENT AND RELATED WORK.
- T.G.C. TO ENSURE (E) SLAB TO BE READY TO ACCEPT (N) FLOOR FINISH IN PROPOSED EYEMART SPACE ONLY. MOISTURE TEST SHALL BE PERFORMED BY T.G.C PRIOR TO FLOORING INSTALLATION OF ADHESIVE/FLOORING MATERIAL. REFER TO FINISH PLAN.
- REFER TO MEP DWGS AS NECESSARY FOR ELECTRICAL, PLUMBING & MECHANICAL WORK FOR EYEMART SPACE ONLY.
- EXISTING LL INTERIOR (DEMISING) WALL TO REMAIN.
- EXISTING COLUMNS/BEAMS TO REMAIN.
- EXISTING STOREFRONT DOOR, WINDOWS, EXTERIOR WALLS/DOORS TO REMAIN. CLEAN AND PREP AS NEEDED TO LOOK "LIKE-NEW".
- REMOVE EXISTING STOREFRONT GLAZING AND RELATED ACCESSORIES. PREP AND INFILL WITH INSULATED STOREFRONT ENTRY WITH TRANSOM AND ADJACENT INSULATED TEMPERED GLAZING SYSTEM.



A1.0-02 EGRESS LIFE SAFETY PLAN

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



A1.0-01 DEMO PLAN

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

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* 1 10-29-2020 Bldg Dept Comments

* INDICATES
AFFECTED SHEETS

FLOOR PLAN
NOTES & AREA CAL
OCCUPANT LOADS

DATE

10-29-2020

PROJECT NUMBER

EYEM101520LSMO

SHEET NUMBER

A1.1

PLAN KEY NOTES:

- EXISTING INTERIOR PARTITION WALLS TO REMAIN. PATCH, REPAIR, PREP AS NECESSARY FOR PAINT.
- PROTECTIVE EDGE STRIP FLOORING TRANSITION-REFER TO SHT. A4.0
- TYPICAL WAITING CHAIR. FURNISHED BY TENANT, G.C. INSTALLED.
- EXISTING HIGH-LOW ADA COMPLIANT DRINKING FOUNTAIN W/ WRAPP AROUND SKIRT - REFER TO MEP SHTS. -BOTTLE WATER PROVIDED BY EYEMART. -LOCATION TBD. -REPLACE IF EXISTING IS NON-COMPLIANT.
- EXAM CHAIR AND STAND, FURNISHED & INSTALLED BY TENANT
- WALK-OFF MAT
- TYP. STOOL FURNISHED BY TENANT INSTALLED BY T.G.C.
- UTILITY SINK PER SCHEDULE. REFER TO MEP SHTS.
- ACCESSIBLE 36" (L) COUNTER W/ 34" AFF MAX. HT.
- MOVEABLE FURNISHING BY TENANT AND INSTALLED BY T.G.C.
- CASEWORK BY FIXTURE CONTRACTOR- INSTALLED BY T.G.C.
- FEATURE WALL: TGC TO CONFIRM FINAL POSITION OF 60"x60" LED GRAPHIC SCREEN W/ TENANT REP. FRONT FACE OF WALL FACING STOREFRONT TO BE PAINTED "5b". REFER TO SHT A1.2.
- HEADER AT 7'-6" AFF. REFER TO SHT A3.0.
- REMOVE EXISTING STOREFRONT ENTRY DOOR AND/OR TRANSOM W/ RELATED ACCESSORIES. INFILL WITH NEW INSULATED STOREFRONT TEMPERED GLAZING TO MATCH ADJACENT LL. EXISTING SYSTEM. COMPLY W/STATE & LOCAL CODE.
- TYP. OFFICE CHAIR FURNITURE BY TENANT INSTALLED BY T.G.C.
- EXISTING DEMISING (CONC. OR MTL STUD) OR EXTERIOR WALL TO REMAIN. PATCH, REPAIR & PAINT AS NECESSARY. INSTALL, IF MISSING, MIN R-19 BATT INSULATION, CONT 6 MIL VAPOR BARRIER ON WARM SIDE (AT EXTERIOR WALL LOCATION), 5/8" TYPE 'X' GYP BD & ACCESSORIES AROUND PERIMETER EXTERIOR WALL AS NEEDED. MAINTAIN EXISTING FIRE RATING AT DEMISING WALL (IF APPLICABLE). REFER TO GENERAL NOTES "N".
- INSTALL NEW DEMISING WALL TO DECK W/ 6" MTL STUD @ 16" O.C. SOUND BATT INSULATION, TYPE 'X' GYP BD BOTH SIDES. SEAL AT DECK AND PENETRATIONS. INSTALL AS FIRE WALL DATA REFER TO WALL TYPE H ON SHT A1.2.
- 6" MTL. STUD FRAMING @ SLIDER WALL, TOILET CHASE, OR AS NOTED-TYP
- CHAIR RAIL (HT. TBD PENDING ON CHAIR TYPE). T.G.C TO PROVIDE IN-WALL BLOCKING AS NECESSARY. VERIFY FINAL LOCATION AND HT WITH EYEMART.
- ELECTRICAL PANEL/EQUIPMENT -REFER TO MEP SHTS.
- ADA & ANSI COMPLIANT ALUMINUM THRESHOLD PROVIDED & INSTALLED BY T.G.C. IF MISSING
- PORTABLE FIRE EXTINGUISHER FURNISHED, INSTALLED & MAINTAINED IN ACCORDANCE WITH FIRE PREVENTION CODE & NFPA 10. T.G.C. SHALL FURNISH AND INSTALL, VERIFY FINAL LOCATIONS W/ FIRE MARSHALL PRIOR TO INSTALLATION.
- AIR COMPRESSOR-SUPPLIED BY TENANT & INSTALLED BY T.G.C.
- TELEPHONE BOARD-REFER TO MEP
- SOLIDS SEPARATOR-REFER TO MEP
- COUNTER SINK PROVIDED BY MILLWORK VENDOR, INSTALL BY T.G.C. REFER TO PLUMBING DWGS.
- EXISTING SERVICE DOORS TO REMAIN. REPLACE DESIGNATED EXISTING HARDWARE AND THRESHOLD. ENSURE ADA & CODE COMPLIANT FOR NEW & EXISTING HARDWARE. REFER TO SCHEDULE.
- 42" TALL CHECK WRITING SURFACE BY FIXTURE CONTRACTOR.
- 42" FLAT SCREEN T.V. PROVIDED BY TENANT & INSTALLED BY T.G.C. MOUNT 6" BELOW CEILING. G.C. TO PROVIDE & INSTALL IN-WALL/CEILING BLOCKING AS NECESSARY.
- EXISTING COLUMN (& SURROUND) TO REMAIN - PATCH, REPAIR & PAINT AS NECESSARY TO MATCH ADJACENT WALL COLOR.
- LOCKERS PROVIDED BY EYEMART INSTALLED BY T.G.C. EXACT LOCATION TO BE TBD.
- T.G.C. TO COORDINATE FINAL LOCATION OF CASEWORK W/ TENANT.
- EXISTING STOREFRONT/ ENTRY SYSTEM TO REMAIN. CLEAN AS NECESSARY.
- BULKHEAD/SOFFIT SUPPORTED FROM STRUCTURE ABOVE OR ADJACENT WALL FRAMING. REFER TO SHT A3.0.
- SLIDING TEMPERED GLASS WINDOW ASSEMBLY UNIT BY TGC.
- 80" FLAT SCREEN TV PROVIDED BY TENANT & INSTALLED BY T.G.C. CONFIRM FINAL LOCATION W/ EYEMART. T.G.C TO INSTALL BLOCKING AS NECESSARY.
- EXISTING SERVICE DOOR TO BE SHUT PERMANENTLY. T.G.C TO ENSURE DOOR IS WATERTIGHT AND SEALED PROPERLY. REMOVE EXISTING HARDWARE AS NECESSARY TO ENSURE WATER TIGHT CONDITION.
- T.G.C. TO FIELD VERIFY EXTENT OF (E) CONCRETE LEAVE OUT. T.G.C. TO INSTALL A MIN 4" REINFORCED (W/WR 6X6-X2-X2-X2) CONCRETE (MIN. 4000 PSI) OVER (E) VAPOR BARRIER (INSTALL MIN 15 MIL IF MISSING) AND (E) 6" COMPACTED GRAVEL. REFER TO SHT A4.0 FOR KEYED/DOWELED AND SAW CUT JOINTS.
- REMOVE EXISTING STOREFRONT GLAZING AND INFILL WITH NEW PAIR OF 3'X7' STOREFRONT DOOR & TEMPERED INSULATED GLAZING SYSTEM WITHIN 24" OF DOOR PER CODE.
- NOTCH COUNTER FOR COLUMN, ARRANGE LENS DRAWERS ACCORDINGLY.

GENERAL NOTES:

- ALL NEW WALL DIMENSIONS SHALL BE FROM FACE OF DRYWALL OR STOREFRONT U.N.O. DIMENSIONS TO EXISTING WORK ARE TO FACE OF EXISTING STUDS AND /OR MASONRY.
- INTERIOR WINDOWS ARE DIMENSIONED TO FINISHED EDGE OF OPENING.
- WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- G.C. SHALL FIELD VERIFY ALL MEASUREMENTS PRIOR TO CONSTRUCTION START AND MAKE ALL NECESSARY ADJUSTMENTS BASED ON EXISTING CONDITIONS. NOTIFY TENANT OF ANY VARIANCES IMMEDIATELY. UNAUTHORIZED CHANGES WILL NOT BE COMPENSATED.
- ALL INTERIOR PARTITIONS SHALL BE CONSTRUCTED OF 3 5/8" (OR 6") X 30 MIL (33 MIL FOR STRUCTURAL STUDS OR DEMISING FULL HT WALLS) METAL STUDS TO SPECIFIED HEIGHT AS INDICATED ON THE FLOOR PLAN AND WALL LEGEND. U.N.O. NO EQUIVALENT (EQ) STUDS WILL BE ALLOWED.
- CONSTRUCT ALL INTERIOR PARTITIONS AS SOUND CONTROL WALLS WITH SOUND CONTROL BATT INSULATION AS SPECIFIED PER WALL TYPE LEGEND.
- ALL EXPOSED CORNERS OF INTERIOR PARTITIONS SHALL BE PROTECTED WITH METAL "CORNER BEAD."
- DO NOT HANG, FASTEN OR SCREW INTO THE BOTTOM SIDE OF THE ROOF DECK. SECURE TO ROOF FRAMING MEMBERS ONLY.
- G.C. SUPERINTENDENT IS TO VERIFY W/ TENANT PRIOR TO COMMENCING CONSTRUCTION TO CONFIRM LATEST DRAWING/REVISION DATES.
- REFER TO SHEET A1.2 FOR RESPONSIBILITY & EQUIPMENT SCHEDULES, ROOM FINISH SCHEDULE, SCHEDULE OF FINISHES & WALL TYPES.
- FINAL LOCATION OF PORTABLE FIRE EXTINGUISHER, VERIFY WITH FIRE MARSHALL PRIOR TO INSTALLATION.
- T.G.C. TO COORDINATE W/ SIGNAGE VENDOR FOR ELECTRICAL REQUIREMENT.
- T.G.C. TO COORDINATE W/ SPRINKLER CONTRACTOR FOR SPRINKLER MODIFICATION OF BRANCH LINES AND/OR DROPS AS NECESSARY/ IF APPLICABLE. VERIFY EXISTING CONDITION PRIOR TO WORK.
- IF APPLICABLE (MISSING EXISTING CONDITION) T.G.C TO VERIFY (E) DEMISING / EXTERIOR WALL ASSEMBLY TO RECEIVE MIN. R-19 BATT INSULATION (OR SOUND ATTENUATION BLANKET AT DEMISING WALL) W/CONT. 6 MIL VAPOR BARRIER AROUND WARM SIDE OF PERIMETER EXTERIOR WALLS W/ 5/8" TYPE 'X' GYP BD.

- T.G.C TO INSTALL #4, 18" DOWELS @ 16" O.C. WITH MIN. 6" EMBED AT NEW CONCRETE TRENCH TO EXISTING CONC. SLAB. PROVIDE CONT. MIN. 10 MIL VAPOR BARRIER. PROVIDE MIN. 3000 PSI CONCRETE STRENGTH AT 28 DAYS. REFER TO SHT A4.0.
 - T.G.C TO MAINTAIN ALL EXISTING FIRE RATED WALLS. PROVIDE TEXT IF MISSING ON WALL & 1 HOUR FIRE RATED WALL, PROTECT ALL OPENINGS". IF APPLICABLE.
 - T.G.C TO COORDINATE & INSTALL FRT IN-WALL BLOCKINGS/PLYWOOD FOR ALL FIXTURES, LED MONITORS, T.V SCREENS, DOOR STOPS, MIRRORS, WALL CABINETS OR AS NECESSARY. REFER TO INTERIOR ELEVATIONS A5.2 AND/OR DETAILS NOTED ELSEWHERE.
- R. BOTTLE WATER PROVIDED BY EYEMART. TGC TO COORDINATE LOCATION W/ EYEMART.

WALL TYPE NOTES: (REFER TO SHT A1.2 FOR WALL TYPE LEGEND & SHT A3.0 FOR WALL BRACING).

EXISTING EXTERIOR WALL:

EXISTING CONSTRUCTION TO REMAIN.

EXISTING INTERIOR WALL:

EXISTING DEMISING WALL TO REMAIN PATCH, REPAIR AND PREP AS NECESSARY FOR NEW PAINT. MAINTAIN RATING AS NECESSARY.

NEW TYP. INTERIOR WALL: ALSO REFER TO SHT A1.2

3 5/8" (or 6") MTL STUDS, min 30 mil or 33 mil, @ 16" O.C. W/ 5/8" TYPE 'X' GYP BD BOTH SIDES FULL HEIGHT TO 6" ABOVE HIGHEST ADJACENT CEILING. BRACE STUDS TO STRUCTURE ABOVE W/ KICKERS @ 4' O.C. MAX, STAGGERED DIRECTIONS. PROVIDE SOUND BATT INSULATION IN ALL WALLS. PROVIDE 6" MTL STUDS WHERE INDICATED ON DWG.



DEMISING WALL: 6", 33 MIL MTL STUDS @ 16" O.C. W/ 5/8" TYPE 'X' GYP BD BOTH SIDES FULL HEIGHT TO DECK. PROVIDE SOUND BATT INSULATION IN ALL WALLS. REFER TO WALL TYPE "H" ON SHT A1.2.

NOTE: BEFORE COMMENCEMENT T.G.C IS REQUIRED TO PROVIDE EYEMART WITH VERIFICATION OF MTL STUD MATERIAL SPECIFICATIONS IN FORM OF PHOTOS OF STUD MIL STAMPING INSTALLED FOR THIS LOCATION (OR COPY OF PURCHASE INVOICE).

AREA & OCCUPANT LOAD (OL) TABULATION:

BUSINESS-OPTOMETRIST AREA: 853 SF

WAITING	146 SF / 10 OL
RECEPTION, PRETEST, OFFICE	560 SF / 6 OL
DOCTOR'S EXAMS, CONTACT HALL	139 SF / 0 OL

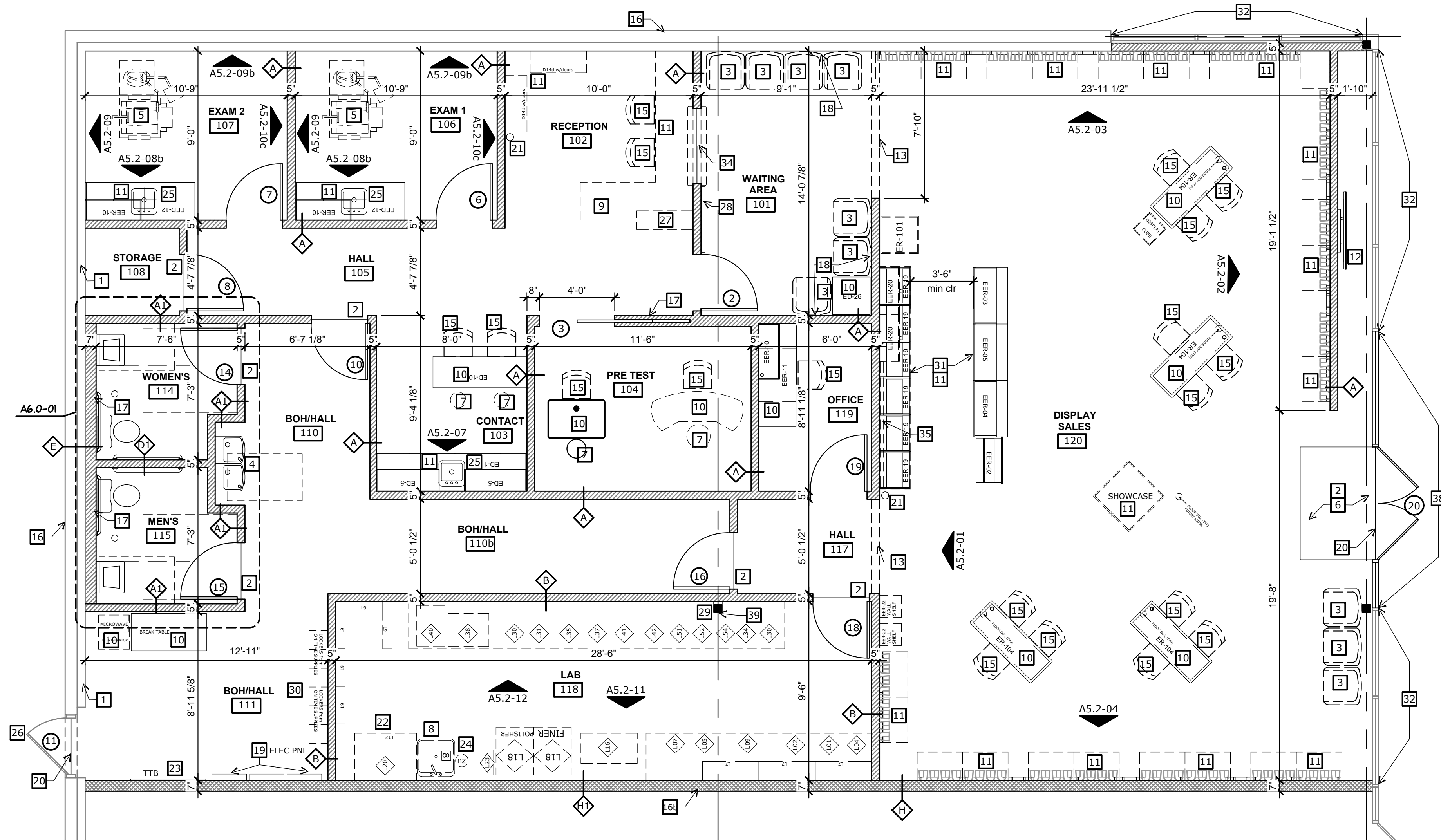
OPTOMETRIST SUBTOTAL..... 853 SF / 16 OL

MERCANTILE -RETAIL AREA: 1,953 SF

SALES FLOOR	1,074 SF / 18 OL
LABORATORY	284 SF / 3 OL
HALL	387 SF / 0 OL
OFFICE	60 SF / 1 OL
TOILETS	143 SF / 2 OL

RETAIL SUBTOTAL..... 1,953 SF / 24 OL

RETAIL & OPTOMETRIST TOTAL.... 2,806 SF / 40 OL



A1.1-01 FLOOR PLAN
SCALE: 1/4"=1'-0"



ROOM FINISH SCHEDULE:									
NUMBER	ROOM NAME	FLOOR	BASE	WALLS	CEILING	WAINSCOT FINISH HT.	NOTE NO.	NOTES	
101	WAITING	17	3	5	4b 10'-0" AFF		1, 4	1. GYP. BD. TAPE, BED, SKIM, SAND AND PAINT W/ 1/2" NAP ROLLER.	
102	RECEPTION	17	3	5	4b 10'-0" AFF		1, 4		
103	CONTACT	17	3	5	4b 10'-0" AFF		1, 4		
104	PRE-TEST	17	3	5	4b 10'-0" AFF		1, 4	2. REFER TO INTERIOR ELEVATIONS FOR WALL COVERING LOCATIONS. ALL OTHER EXAM WALLS SHALL BE PAINTED 5b.	
105	HALL	17	3	5	4b 10'-0" AFF		1, 4		
106	EXAM RM. 1	17	3	5	4b 10'-0" AFF		1, 4	3. REFER TO INTERIOR ELEVATIONS SHEET A5.2 FOR PATTERN AND PAINT 5b.	
107	EXAM RM. 2	17	3	5	4b 10'-0" AFF		1, 4		
108	STORAGE	2	3	5	4 10'-0" AFF		1, 4	4. REFER TO FINISH PLAN SHT A4.0 FOR MATERIAL LOCATIONS AND TRANSITIONS.	
109	NOT USED							5. NOT USED	
110	BOH/HALL	2	3	5	4 10'-0" AFF		1, 4		
111	BOH/HALL	2	3	5	4 10'-0" AFF		1, 4	6. REFER TO INTERIOR ELEVATIONS FOR WAINSCOT LOCATIONS. REMAINING WALL SURFACES SHALL BE FINISH AS DESIGNATED.	
112	NOT USED								
113	NOT USED								
114	WOMEN'S	2	3	20	4 8'-0" AFF	3b	1, 4, 6, 8,	7. REPLACE DAMAGED CEILING TILES.	
115	MEN'S	2	3	20	4 8'-0" AFF	3b	1, 4, 6, 8,	8. REFER TO SHT. A6-0 FOR WALL/BASE DETAIL.	
116	NOT USED							9. 5b PAINT COLOR OCCURS ON FRONT OF FEATURE WALL FACING STOREFRONT. ENDS SHALL BE PAINTED 5b.	
117	HALL	17	3	5	4b 10'-0" AFF		1, 4		
118	LAB	2	3	5	4b 10'-0" AFF	8	1, 4	5c PAINT COLOR OCCURS ON FRONT & BOTTOM FACE OF SOFFIT.	
119	OFFICE	17	3	5	4b 10'-0" AFF		1, 4		
120	DISPLAY SALES	17, 18	3	5, 5b	4b 10'-0" AFF		1, 4	10. EXISTING TOILET ROOM - REMOVE AND REPLACE ALL FIXTURES AND FINISHES PER DWG.	

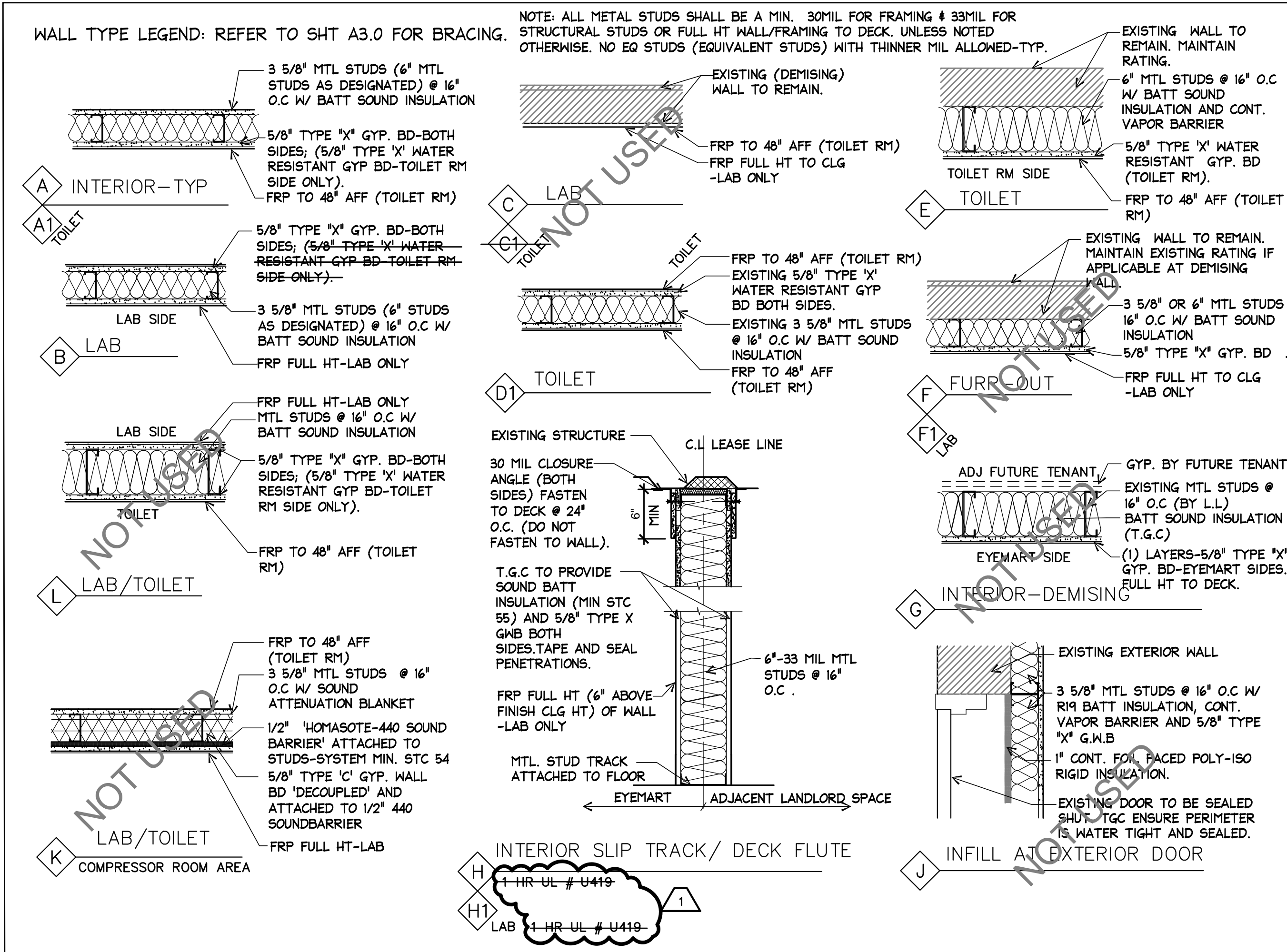
RESPONSIBILITY SCHEDULE:									
				O = OWNER/TENANT C = GENERAL CONTRACTOR (T.G.C.) N/A = NOT APPLICABLE	FURNISHED BY	INSTALLED BY			
NO.	ITEM								
1	COMPACTED FILL				N/A	N/A			
2	CONCRETE STRUCTURAL FLOOR SLAB				N/A	N/A			
3	CONCRETE INFILL AT LEAVE-OUT (T.G.C.)				N/A	N/A			
4	DEMISING WALL (6" METAL STUDS @ 16" O.C. W/ 1/2" GMB)				C	C			
5	DEMISING WALL (GYP. BD. TO DECK ABOVE AND SEAL)				C	C			
6	GYP. BD. ON MTL FRAMING SMOKE BARRIER, FIRE TAPE ALL JOINTS				N/A	N/A			
7	METAL STUD PARTITIONS IN SERVICE CORRIDOR				C	C			
8	GYP. BD. IN SERVICE CORRIDOR				C	C			
9	GYP. BD. ON METAL STUD FRAMING				C	C			
10	GYP. BD. CEILING ON METAL FRAMING				C	C			
11	STOREFRONT ENTRY SYSTEM AND TEMPERED GLASS				C	C			
12	WOOD BLOCKING FOR MILLWORK FIXTURES				C	C			
13	MILLWORK FIXTURES W/COUNTER SINK				O	C			
14	FURNISHINGS				O	O			
15	VINYL BASE				C	C			
16	CASHWRAP COUNTER				O	C			
17	SCHEDULED WINDOWS AND METAL FRAMES				C	C			
18	PASS-THRU SHELF FOR WINDOW				O	C			
19	CLOSET SHELVEING				O	C			
20	PAINTING (# STAIN TOUCH-UP, RE: MAT SCHEDULE NOTE #5)				C	C			
21	SIGNAGE (EXTERIOR) (ELECT. CONNECTION BY G.C.)				O	O			
22	SIGNAGE (INTERIOR) (ELECT. CONNECTION BY G.C.)				O	O			
23	RESILIENT FLOORING AND BASE				C	C			
24	CARPET				O	C			
25	CEILING ACCESS PANEL(S) (WHERE REQUIRED)				C	C			
26	WOOD BLOCKING FOR TOILET FIXTURES AND ACCESSORIES				C	C			
27	FRP WAINSCOT IN TOILET ROOMS AND LAB				C	C			
28	SIGNAGE AT TOILET ROOM DOORS				C	C			
29	SUSPENDED LAY-IN ACOUSTICAL CEILING GRID & TILE				C	C			
30	FINAL CLEANING AT JOB COMPLETION				C	C			
31	METAL AWNING & FRAMES				N/A	N/A			
32	CERAMIC TILE FLOORING & BASE				N/A	N/A			
33	WARDROBE LOCKERS				O	C			
34	FIRE EXTINGUISHER AND CABINET				C	C			
35	ROOF ACCESS LADDER				N/A	N/A			
36	CERAMIC MOSAIC TILE FLOOR				N/A	N/A			
37	SOLENOID VALVES-LAB H/C WATER LINES				C	C			
38	CHAIR RAIL				O	C			
39	ROOFTOP UNIT (RTU)				C	C			

				O = OWNER/TENANT C = GENERAL CONTRACTOR (T.G.C.) N/A = NOT APPLICABLE	FURNISHED BY	INSTALLED BY
NO.	ITEM					
40	PAPER TOWEL DISPENSER - RETAIL SIDE				O	C
41	TOILET PAPER DISPENSER - RETAIL SIDE				O	C
42	SOAP DISPENSER - RETAIL SIDE				O	C
43	PAPER TOWEL DISPENSER-OPTOMETRIST SIDE				O	C
44	ELECTRICAL SWITCHGEAR, RECEPTACLES & PLATES				O	C
45	OASIS PACSL SPLIT LEVEL WATER FOUNTAIN				O	C
46	LIGHT FIXTURES				O	C
47	COMPRESSOR				O	C
48	LOCKERS				O	C
49	LED LIGHTBOX / T.V				O	C
50	CEILING FAN-LAB				C	C

EQUIPMENT SCHEDULE:											
EQUIPMENT: FURNISHED AND INSTALLED BY TENANT											
NO.	ITEM	AMPS	VOLTS	AIR	QUANT	NO.	ITEM	AMPS	VOLTS	AIR	QUANT
1	COMPUTER	1.5	120	NO	2	31	3B BLOCKER	2	120	NO	1
2	FRAME TRACER	2	120	NO	1	32	PATTERN MAKER	1.1	120	NO	1
3	SAGGITTA GAUGE	1.5	120	NO	1	33	BEAD PAN /FRAME WARMER	6	120	NO	1
4	LENS SURFACE SAVER-3M	N/A	N/A	NO	1	34	OPTRONICS 7E EDGER	12.5	120	NO	2
5	LAP SERVICE SAVER	N/A	N/A	YES	1	35	CERAMIC HAND EDGER	6.5	120	NO	1
6	ONC WAX BLOCKER	10	120	NO	1	36	CURING UNIT	6	120	NO	1
7	CHILLER (CM 003-8)	4.5	120	NO	1	37	BACKSIDE COATER	8	120	YES	1
8	LENS MARKER (CS-7)	2	120	NO	1	38	BPI	15	120	NO	1
9	OPTEK LENS GENERATOR	15	120	YES	2	39	UV 400 UNIT	12.5	120	NO	1
10	LENS THICKNESS GAUGE	N/A	N/A	NO	1	40	LENS GROOVER	2	120	NO	1
11	CYLINDER MACHINES	15	120	YES	3	41	ULTRA SONIC CLEANER	1	120	NO	1
12	PAD PRESS	N/A	N/A	N/A	-	42					
13	NOT USED	-	-	-	-	43	STAKING KIT	N/A	N/A	NO	1
14	DIAMOND HAND EDGER	5	120	NO	1	44					
15	CHILLER (CM 003-P)	4.5	120	NO	1	45	FRAME BUFFER	2	120	NO	1
16	POWER-X COMPRESSOR-13 GAL	17	208	YES	1	46	LENS SAFETY ETCHER	N/A	N/A	YES	1
17	TOPCON LENSOMETER-VERTOMETER	1	120	NO	2	47	COMPRESSOR	6.6	208	YES	1

MATERIALS SCHEDULE:			
MATERIAL	DESCRIPTION		
1	CARPET-INSTALL MONOLITHIC	CARPET TILE- 4" INTERFACE -STYLE-VECTOR # 103526 CHARGOAL® WV CARPET ADHESIVE- *XL BRANDS- GRID SET 2000®	11
2	VINYL COMPOSITION TILE (VCT)	12"x12"x1/8" ARMSTRONG STANDARD EXCELLON-COOL WHITE 51849 (AVAIL HOME DEPOT/LOWES)	11, 14
3	VINYL BASE (VB)	4" HIGH VINYL COVE BASE- ARMSTRONG # 114 LUNAR DUST® (ENTIRE SPACE)	
4	ACOUSTICAL CLING. TILE - 2X4 SQ. EDGE LAY-IN.	24"x48"x1/8" ; *ARMSTRONG FISSURED® SQUARE LAY-IN MINERAL FIBERBOARD; #755 COLOR: WHITE-UL LABEL CLASS A, FLAME SPREAD 25 OR UNDER	
4b	ACOUSTICAL CLING. TILE - 2X2 SQ. EDGE LAY-IN.	24"x24"x1/8" ; *ARMSTRONG FISSURED® SQUARE LAY-IN MINERAL FIBERBOARD; #755 COLOR: WHITE-UL LABEL CLASS A, FLAME SPREAD 25 OR UNDER	
4c	EXISTING CEILING GRID/TILES- MATCH EXISTING CONDITION FOR ANY MODIFICATIONS.		
5	PAINT-ALL INTERIOR DRYWALL (unless noted otherwise)	(1) COAT *SHERWIN WILLIAMS PREPRITE 400® LATEX PRIMER B28 SERIES; (3) COATS PROMAR 400 LATEX EGGSHELL ENAMEL B20W400 SERIES; 5 COLOR FOR 5"b. SW# 7668 *MARCH WIND® - SHEEN EGGSHELL	3, 9
5b	PAINT (DRYWALL ON FRONT FEATURE WALL FACING STOREFRONT)	5b COLOR FOR 5"b. SW #6966 *BLUEBLOOD® - SHEEN EGGSHELL	
5c	PAINT-SOFFIT (FRONT AND BOTTOM OF SOFFIT)	5c COLOR FOR 5"b. SW #7005 *PURE WHITE® - SHEEN EGGSHELL	
6	PAINT (TRIM)	(1) COAT *SHERWIN WILLIAMS® ALL SURFACE LATEX ENAMEL PRIMER; (3) COATS *SHERWIN WILLIAMS® PROMAR 400 LATEX EGGSHELL ENAMEL; COLOR: SW# 7668 *MARCH WIND®	3
7	WOOD DOORS	MARSHFIELD: SPECIES-NATURAL-BIRCH- COLOR-AUTUMN #32-95 OR NATURAL BIRCH : COLOR- ESSPRESSO # 42-95	
9	MARLITE FRP PANELS - LAB (FULL HT OF WALLS)	MARLITE FRP PANELS P-100 WHITE WITH INSIDE CORNER MOULDING M350 FP AND CAP EDGING M370 FP.	8, 10
9b	MARLITE FRP PANELS-TOILET	MARLITE FRP PANELS S-100S/2/S SMOOTH WHITE WITH INSIDE CORNER MOULDING M350 FP AND CAP EDGING M370 FP.	10
11	PAINT (METAL DOORS AND FRAMES)	(2) COATS *SHERWIN WILLIAMS® ALKYD PROMAR 400 EGGSHELL ENAMEL; COLOR: SW#1028 KOHL.	3
12	PLASTIC LAMINATE (LAB CASEWORK-COUNTERTOPS, UPPERS, BASES AND KICK).	WILSONART #1570-60 WHITE	2, 8
13	PLASTIC LAMINATE (TYPICAL COUNTERTOPS)	WILSONART- #7039 WINDSOR-MAHOGANY- or #7945 XANADAU	2, 7
14	PLASTIC LAMINATE (TYPICAL UPPERS, BASES & KICK U.N.O)	WILSONART- #7039 WINDSOR-MAHOGANY- or #7945 XANADAU	2, 7
15	GRAPHICS	GRAPHICS FURNISHED AND INSTALLED BY TENANT.	
17	LUXURY VINYL TILES (LVT)-SALES/DR SUITE/OFFICE	LUXURY VINYL BY INTERFACE- *STUDIO SET- TITANIUM # A00705® ADHESIVE: 2000 PLUS-SPRD RATE 220SF/GAL OR 880SF PER 4 GALLON PAIL	11
18	WALK OFF MAT	SCHLUTER-SCHIEBE PERIMETER TRANSITION STRIPS PROVIDED AND INSTALLED BY G.C. SURFACE MOUNTED DIRECT WALK OFF MAT- *POWER-LOC. WROUGHT IRON #4075® PROVIDED BY OWNER AND INSTALLED BY G.C.	6
20	PAINT (DRYWALL)- TOILET/LAB	(1) COAT *SHERWIN WILLIAMS PREPRITE 400® LATEX PRIMER B28 SERIES; (3) COATS PROMAR 400 LATEX EGGSHELL ENAMEL B20W400 SERIES; COLOR: SW# 7668 *MARCH WIND®	3, 9,
21	NOT USED		
22	FLOORING TRANSITION	INSTALL PER MANUF. SPECIFICATION. REFER TO A4.0	
23	EXTERIOR ADA COMPLIANT THRESHOLD	T.G.C. TO INSTALL IF NOT PROVIDED BY LANDLORD-REFER TO A2.0	

- FURNISHED BY OWNER'S FIXTURE CONTRACTOR AND INSTALLED BY G.C.
- FIXTURES FURNISHED BY OWNER AND INSTALLED BY G.C.
- G.C. SHALL SUPPLY ONE (1) UNOPENED GALLON OF PAINT UPON PROJECT COMPLETION.
- INSTALL OVER MFR.-PROVIDED MOISTURE BARRIER.
- ANY PRE-FINISHED MILLWORK DAMAGED AFTER SHIPPING SHALL BE REFURBISHED TO "LIKE NEW" CONDITION/APPEARANCE AT G.C.'S EXPENSE, PRIOR TO PROJECT COMPLETION.
- FURNISHED BY OWNER AND INSTALLED BY G.C.
- IN DOCTORS AND SALES ROOM
- IN LAB ROOM
- LEVEL 4 FINISH APPLY WITH 3/8" NAP ROLLER
- APPLY WITH MANUFACTURER'S APPROVED ADHESIVE AND TECHNIQUES.
- G.C. SHALL OBSERVE CONDITIONS OF EXISTING SLAB AND, IF REQUIRED, GRIND AND/OR EPOXY FILL FLOOR TO BE LEVEL PRIOR TO INSTALLING THE FINISH FLOOR.
- DOORS MAY BE LAMINATED ON SITE. ANY DAMAGE TO THE FINISH SHALL BE REFURBISHED TO "LIKE NEW" CONDITION/APPEARANCE AT G.C.'S EXPENSE- PRIOR TO PROJECT COMPLETION.
- NOT USED
- G.C. TO STRIP AND WAX VCT AFTER INSTALLATION.
- APPLY WATERPROOF LIQUID MEMBRANE BELOW VINYL FLOOR AND UP 6" AT PERIMETER WALL TO PREVENT MOISTURE FROM PENETRATING WALL AND FLOOR.



ARCHITECT OF RECORD 10/29/2020

Caroline H.C Ma
Architect

Architecture & Design

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1720 DALE FORD RD.
DELAWARE, OH
43015

CONSULTANT

PROJECT NAME

EYEMART
EXPRESS

STORE #:

SITE LOCATION:

1041 NE
SAM WALTON DR
LEE'S SUMMIT, MO
64086

ARCHITECT OF RECORD



10-28-2020

* ☐ Permit
* ☐ 10-29-2020
Bldg Dept Comments

* INDICATES
AFFECTED SHEETS

SCHEDULE
WALL TYPES

DATE

10-29-2020

PROJECT NUMBER

EYEM101520LSMO

SHEET NUMBER

A1.2

PERMIT

DOOR SCHEDULE ALL INTERIOR DOORS TO BE REPLACED. ALL INTERIOR DOOR HARDWARE TO MATCH, REPLACE EXISTING HARDWARE AS NECESSARY.														
DESCRIPTION					DETAILS					HARDWARE				
NO.	TYPE	SIZE	DOOR MATL.	FRAME MATL.	HEAD	JAMB	SILL	LABEL	FINISH	TYPE	MODEL / DESCRIPTION	MANUFACTURER	FINISH	NOTE NO.
①	NOT USED													
②	C	3'-0" X 6'-8" X 1 3⁄4"	S.C. WOOD	H.M	A2.1-03	A2.1-02	N/A	N/A	REFER A1.2 MATL SCHD FRAME: (11) DOOR: (7)	HINGES OFFICE LOCKSET-F82	1⁄2 PAIR BBI279 4 1⁄2 X 4 1⁄2 NRP ND 50PD-R40	HAGER SCHLAGE	US26D 626	1, 4, 7, 8, 14
③	F	4'-0" X 6'-8" X 1 3⁄4"	S.C. WOOD	STL	A2.1-06	A2.1-05	N/A	N/A	REFER A1.2 MATL SCHD DOOR:	WALL STOP CLOSER	W 1270 CR DC 6210	TRIMCO RUSSWIN	US26D 626	
④	NOT USED													
⑤	NOT USED													
⑥	B	3'-0" X 6'-8" X 1 3⁄4"	S.C. WOOD	H.M	A2.1-03	A2.1-02	N/A	N/A	REFER A1.2 MATL SCHD FRAME: (11) DOOR: (7)	HINGES PASSAGE LATCH	1⁄2 PAIR BBI279 4 1⁄2 X 4 1⁄2 NRP ND 10S-RHO W 1270 CR	HAGER SCHLAGE TRIMCO	US26D 626	1, 4, 7, 8
⑦	B	3'-0" X 6'-8" X 1 3⁄4"	S.C. WOOD	H.M	A2.1-03	A2.1-02	N/A	N/A	REFER A1.2 MATL SCHD FRAME: (11) DOOR: (7)	HINGES PASSAGE LATCH	1⁄2 PAIR BBI279 4 1⁄2 X 4 1⁄2 NRP ND 10S-RHO W 1270 CR	HAGER SCHLAGE TRIMCO	US26D 626	1, 4, 7, 8
⑧	B	3'-0" X 6'-8" X 1 3⁄4"	S.C. WOOD	H.M	A2.1-03	A2.1-02	N/A	N/A	REFER A1.2 MATL SCHD FRAME: (11) DOOR: (7)	HINGES PASSAGE LATCH	1⁄2 PAIR BBI279 4 1⁄2 X 4 1⁄2 NRP ND 10S-RHO W 1270 CR	HAGER SCHLAGE TRIMCO	US26D 626	1, 4, 7, 8
⑨	NOT USED													
⑩	B	3'-0" X 6'-8" X 1 3⁄4"	S.C. WOOD	H.M	A2.1-03	A2.1-02	N/A	N/A	REFER A1.2 MATL SCHD FRAME: (11) DOOR: (7)	HINGES OFFICE LOCKSET-F82	1⁄2 PAIR BBI279 4 1⁄2 X 4 1⁄2 NRP ND 50PD-R40 W 1270 CR	HAGER SCHLAGE TRIMCO	US26D 626	1, 4, 7, 8
⑪	EXISTING	3'-8" X 7'-0" X 1 3⁄4"	EXIST	EXIST	EXIST	EXIST	N/A	N/A		PEEP HOLE BUZZER	SHL 120980 PER MEP / TENANT'S SPEC	IVES/SCHLAGE	SATIN CHROME	1, 3, 12, 20
		EXISTING DOOR TO REMAIN. T.G.C TO REPLACE HARDWARE AS SPECIFIED AND ENSURE CODE COMPLIANCE. T.G.C TO ENSURE EXISTING, NEW HARDWARE & THRESHOLD TO COMPLY WITH STATE/LOCAL CODES.								PANIC BAR SNEEP	22NL SERIES; 3' 200 NA	VON DUPRIN NATIONAL GUARD	US26D AL	
⑫	NOT USED									WEATHERSTRIPING	155 AL	NATIONAL GUARD	AL	
⑬	NOT USED													
⑭	B	3'-0" X 6'-8" X 1 3⁄4"	S.C. WOOD	H.M	A2.1-03	A2.1-02	N/A	N/A	REFER A1.2 MATL SCHD FRAME: (11) DOOR: (7)	HINGES PRIVACY LATCH	1⁄2 PAIR BBI279 4 1⁄2 X 4 1⁄2 NRP RHODES ND53 W 1270 CR	HAGER SCHLAGE TRIMCO	US26D 626	1, 4, 7, 8, 9
⑮	B	3'-0" X 6'-8" X 1 3⁄4"	S.C. WOOD	H.M	A2.1-03	A2.1-02	N/A	N/A	REFER A1.2 MATL SCHD FRAME: (11) DOOR: (7)	HINGES PRIVACY LATCH	1⁄2 PAIR BBI279 4 1⁄2 X 4 1⁄2 NRP RHODES ND53 W 1270 CR	HAGER SCHLAGE TRIMCO	US26D 626	1, 4, 7, 8, 9
⑯	B	3'-0" X 6'-8" X 1 3⁄4"	S.C. WOOD	H.M	A2.1-03	A2.1-02	N/A	N/A	REFER A1.2 MATL SCHD FRAME: (11) DOOR: (7)	HINGES PASSAGE LATCH	1⁄2 PAIR BBI279 4 1⁄2 X 4 1⁄2 NRP ND 10S-RHO W 1270 CR	HAGER SCHLAGE TRIMCO	US26D 626	1, 4, 7, 8
⑰	NOT USED													
⑱	C	3'-0" X 6'-8" X 1 3⁄4"		H.M	A2.1-03	A2.1-02	N/A	N/A	REFER A1.2 MATL SCHD FRAME: (11) DOOR: (7)	HINGES CLOSER	1⁄2 PAIR BBI279 4 1⁄2 X 4 1⁄2 NRP DC 6210	HAGER RUSSWIN	US26D 626	1, 4, 7, 8, 14
⑲	B	3'-0" X 6'-8" X 1 3⁄4"	S.C. WOOD	H.M	A2.1-03	A2.1-02	N/A	N/A	REFER A1.2 MATL SCHD FRAME: (11) DOOR: (7)	HINGES OFFICE LOCKSET-F82	1⁄2 PAIR BBI279 4 1⁄2 X 4 1⁄2 NRP ND 50PD-R40	HAGER SCHLAGE	US26D 626	1, 4, 7, 8
⑳	A2	PAIR 3'-0" X 7'-0" X 1 3⁄4"	ALUM/ GLASS	ALUM	N/A	N/A	A2.1-04	N/A	ALUM TO MATCH ADJACENT (E) LL FINISH	WALL STOP HINGES CLOSER	W 1270 CR 1⁄2 PAIR BBI279 4 1⁄2 X 4 1⁄2 NRP 1260; PARALLEL ARM	TRIMCO HAGER LCN	US26D 626	1-3, 8, 13
										PULL CYLINDER PANIC BAR/EXIT DEVICE (TO MATCH LL SYSTEM)	CO-12 4036	KAWNEER CLASSIC ADAMS RITE	MATCH EXISTING STOREFRONT 626	14, 17
										SNEEP	200 NA	NATIONAL GUARD	AL	
										WEATHERSTRIPING	155 AL	NATIONAL GUARD	AL	

NOTES:

1. G.C TO VERIFY PROVIDED HARDWARE AND/OR PANIC DEVICES MEET OR EXCEED THOSE ITEMS SCHEDULED AND SPECIFIED.

2. RE: DOOR HARDWARE "GENERAL REQUIREMENTS #2" .

3. G.C. TO VERIFY DOOR PANIC HARDWARE COMPLIES WITH LOCAL REQUIREMENTS.

4. AWI CUSTOM GRADE FOR MARSHFIELD -BIRCH SOLID CORE - COLOR: ESSPRESSO #42-95 & H.M FRAME FURNISHED & INSTALLED BY G.C.

5. NOT USED.

6. NOT USED.

7. PROVIDE SOLID WOOD BLOCKING BEHIND STOP.

8. ACCESSIBLE DOOR HARDWARE ON ALL DOORS.

9. PROVIDE SIGNAGE PER SHT. A6-0.

10. NOTE: ON SLIDING DOOR TO READ: "THIS DOOR TO REMAIN OPEN WHILE BUILDING IS OCCUPIED."

11. PROVIDE HEAVY DUTY HARDWARE TO SUPPORT DOOR & ADA COMPLIANT RECESSED LEVER. STEEL FRAMES BY TIMELY FRAMES -P-SERIES TRIM KIT AND INVERTED STOP.
12. EXIT DOORS: PROVIDE EXIT PANIC PUSH DEVICE (IF MISSING) PER LOCAL & STATE CODE. ~~NO EXTERIOR PULL IS REQUIRED...REMOVE & PLUG IF PULL EXISTS.~~

13. INSTALL PER MANUFACTURER RECOMMENDATIONS.

14. TEMPERED GLASS

15. ~~VERIFY WITH EYEMART IF TGC TO UNDERCUT DOOR IF (THIS WILL COMPROMISE STG-RATING) .~~

16. T.G.C TO ENSURE EXTERIOR DOOR TO BE WATER-TIGHT & SHUT PERMANENTLY. REPLACE EXTERIOR HARDWARE PULL WITH BLANK PLATE. REMOVE EXISTING HARDWARE AS NECESSARY TO ACCOMMODATE INFILL WALL.

17. T.G.C TO VERIFY SPEC'D HARDWARE/FINISH STOREFRONT ENTRY SYSTEM TO MATCH L.L ADJACENT EXISTING SYSTEM.

18. ~~T.G.C. TO CONFIRM HV TENANT LOCKABLE HARDWARE TO BE LOCKABLE FROM OFFICE SIDE DURING DOCTOR'S OFF HOURS.~~

19. ~~T.G.C. TO PROVIDE DOOR HARDWARE & ASSEMBLY TO COMPLY WITH UL DESIGN 419 (1 HR-RATING WALL) .~~

20. T.G.C. TO ENSURE ALL EXISTING HARDWARE TO BE IN WORKING CONDITION COMPLYING WITH STATE & LOCAL CODE. IF HARDWARE REQUIRE REPLACEMENT PROVIDE PER HARDWARE SPEC.

21. ~~PROVIDE MIN. 20 MIN RATED DOOR AND FRAME ASSEMBLIES WITH SMOKE GASKETS, CLOSER AND LATCHES.~~

GENERAL KEYING NOTES: THERE WILL BE (3) DIFFERENT KEYSETS AS FOLLOW:

1. MEDICAL OFFICE DOORS TO BE KEYED ALIKE. TO INCLUDE EXAM ROOMS, PRETEST AND DOCTOR'S OFFICE IN MEDICAL AREA IF APPLICABLE.
2. RETAIL DOOR(S) TO BE KEYED ALIKE TO INCLUDE RETAIL MANAGER'S OFFICE.
3. ENTRY AND REAR EGRESS DOOR(S) TO BE KEYED ALIKE. TO INCLUDE STOREFRONT DOORS AND REAR EGRESS/ENTRY DOOR(S).

GENERAL REQUIREMENTS - DOOR ACCESSIBILITY
G.C. TO COMPLY WITH LOCAL,STATE & FEDERAL CODES

1. EXIT DOORS ARE TO BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
2. KEY-LOCKING HARDWARE MAY BE USED ON THE EXIT WHEN A READILY VISIBLE & DURABLE SIGN ON/OR ADJACENT TO THE DOOR STATES "THIS DOOR MUST REMAIN UNLOCKED DURING BUSINESS HOURS". THE SIGN SHALL BE IN LETTERS NOT LESS THAN 1 INCH HIGH ON A CONTRASTING BACKGROUND.
3. OPENING HARDWARE IS TO BE CENTERED BETWEEN 34" TO 44" ABOVE FINISH FLOOR.
4. THE FLOOR OR LANDING ON EACH SIDE OF THE DOOR IS TO BE LEVEL & CLEAR. FLOOR(S) OR LANDING(S) SHALL NOT BE LOWER THAN 1⁄2" FROM THE TOP OF THE THRESHOLD OF THE DOORWAY.
5. THE BOTTOM 10" OF THE DOOR TO HAVE A SMOOTH, UNINTERRUPTED SURFACE THAT ALLOWS THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.

ACCESSIBILITY REQUIREMENTS FROM LOCAL/STATE, ADA & ANSI A117-1
T.G.C. TO COMPLY WITH LOCAL,STATE & FEDERAL CODES

- 4.13.8 THRESHOLDS AT DOORWAYS
THRESHOLDS IF PROVIDED AT DOORWAYS SHALL BE A MAXIMUM 1⁄4" (13MM) HIGH. FLOOR LEVEL CHANGES SHALL COMPLY WITH 4.5.2

4.13.9 DOOR HARDWARE
HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH OPEN HAND AND DOES NOT REQUIRED TIGHT GRASPING, TIGHT PINCHING, OR THE TWISTING OF THE WRIST TO OPERATE. SUCH HARDWARE SHALL BE MOUNTED WITHIN REACH RANGES SPECIFIED I N4.2. WHEN SLIDING DOORS ARE IN THE FULLY OPEN POSITION, OPERATING HARDWARE SHALL BE EXPOSED AND USEABLE FROM BOTH SIDES.

4.13.10 DOOR CLOSURES
DOOR CLOSURES SHALL B E ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE HE DOOR TO AN OPEN POSITION OF 12 DEGREES WILL BE 5 SECONDS MINIMUM.

4.13.11 DOOR-OPENING FORCE
FIRE DOORS SHALL HAVE A MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY. THE REQUIRED FORCE FOR PUSHING OPEN OR PULLING OPEN DOORS OTHER THAN FIRE DOORS SHALL BE AS FOLLOWS:

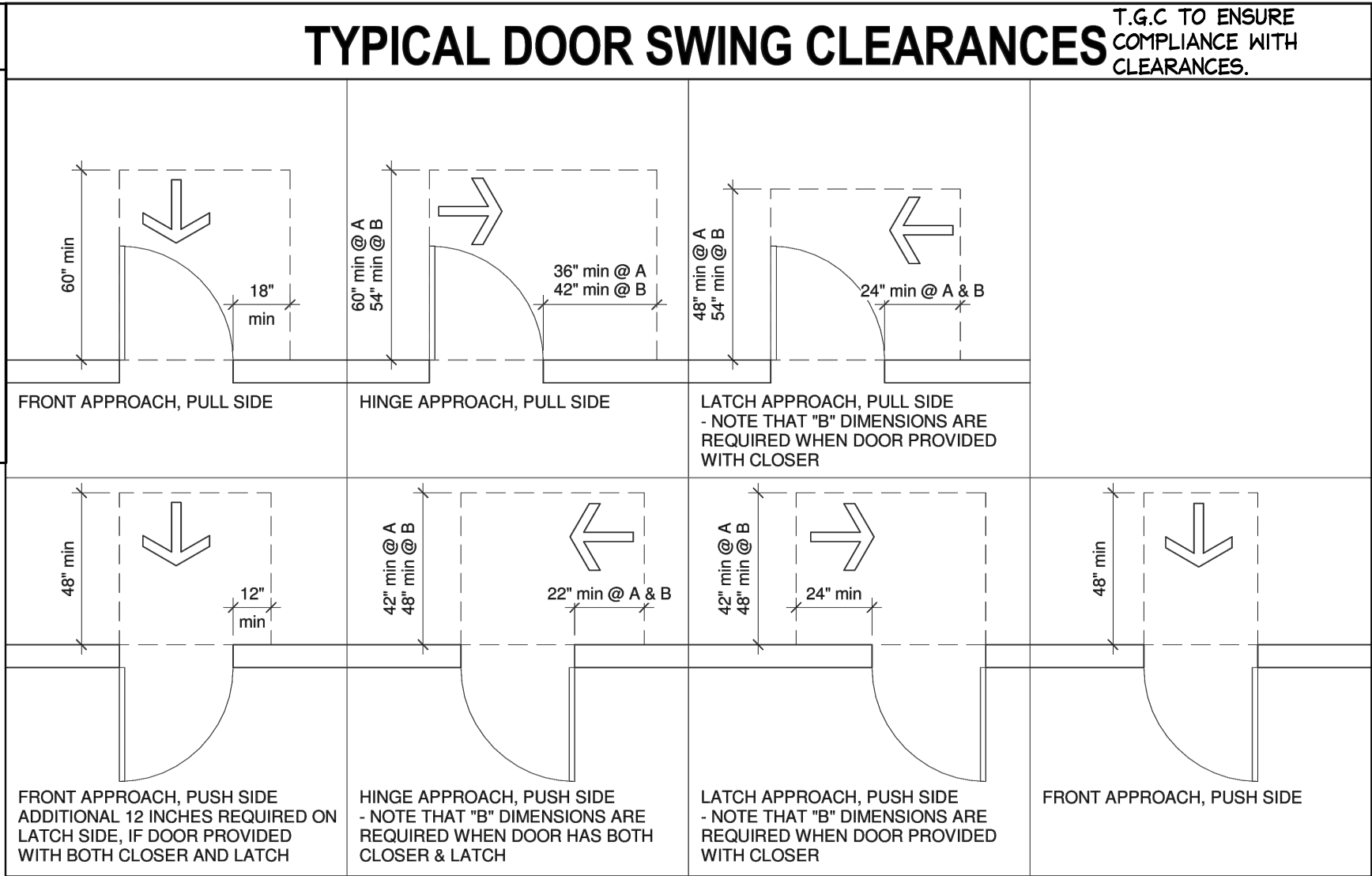
INTERIOR HINGED DOOR: 5.0 LB (22.2N) MAXIMUM
SLIDING /FOLDING DOORS: 5.0 LB (22.2N) MAXIMUM

THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT HOLD THE DOOR IN A CLOSED POSITION.

DOOR FRAMES, HARDWARE & GENERAL NOTES

1. HOLLOW METAL FRAMES SHALL BE PRE-FINISHED UNLESS OTHERWISE DIRECTED BY THE TENANT. KNOCKED-DOWN FRAMES TO BE DELIVERED TO THE JOB SITE KNOCKED-DOWN. IF PRE-FINISHED FRAMES ARE UNAVAILABLE USE PRIMED METAL FRAMES AND FIELD APPLY SPRAY PAINT FINISH.
2. ALL DOORS, FRAMES AND HARDWARE SHALL BE FURNISHED BY EYEMART AND INSTALLED BY T.G.C PER MANUFACTURER'S SPECIFICATION.

TYPICAL DOOR SWING CLEARANCES



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EXPRESS

STORE #:

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AFFECTED SHEETS

DOOR
ELEVATIONS
DETAILS

DATE

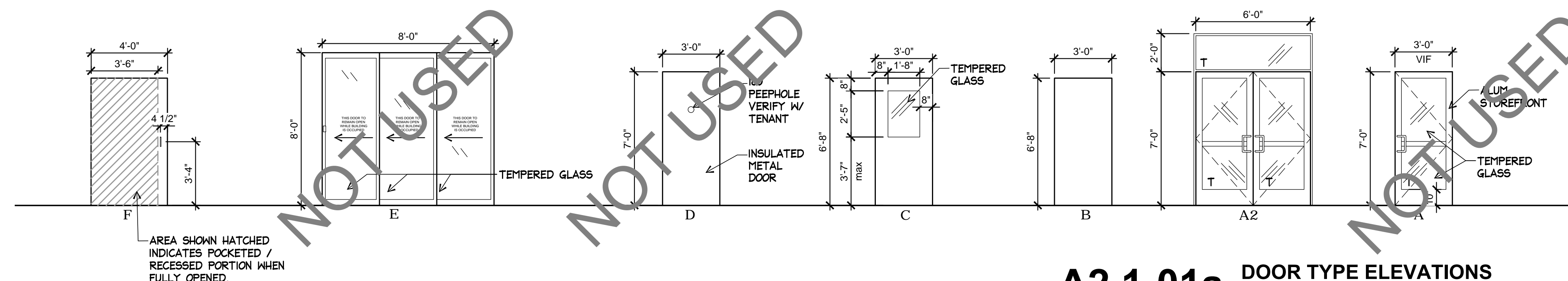
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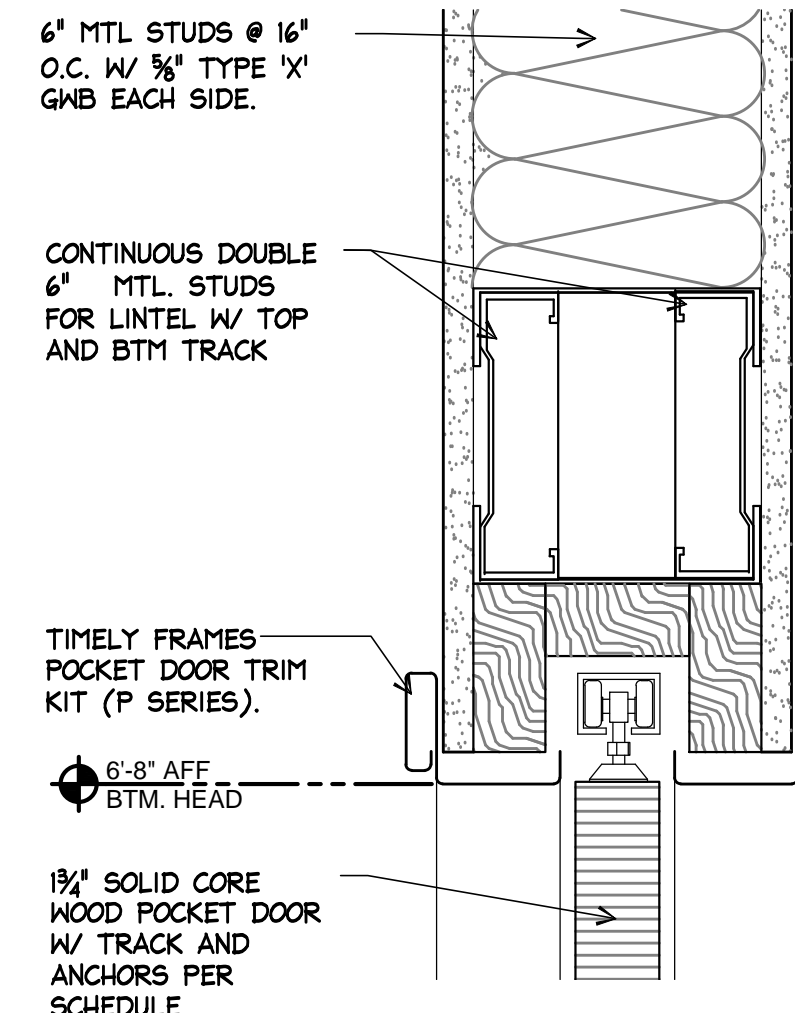
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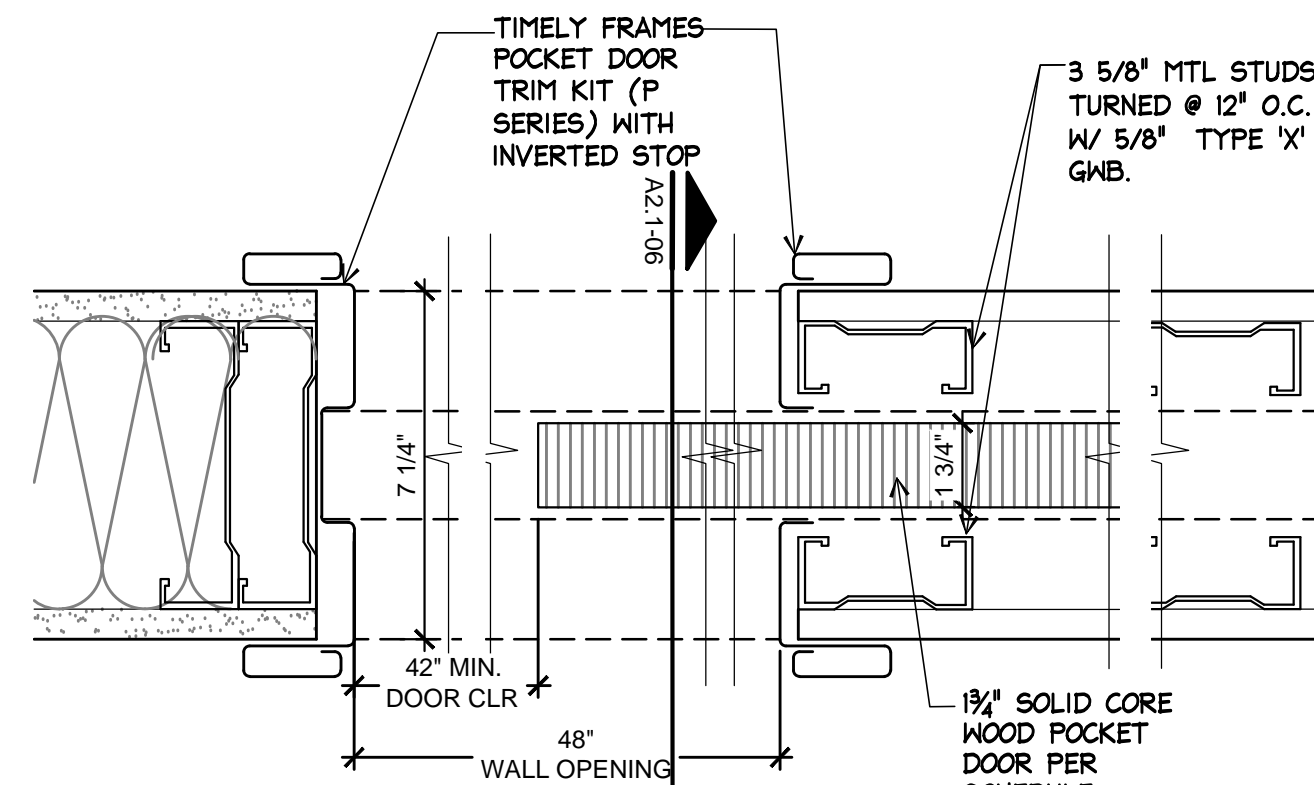
A2.1



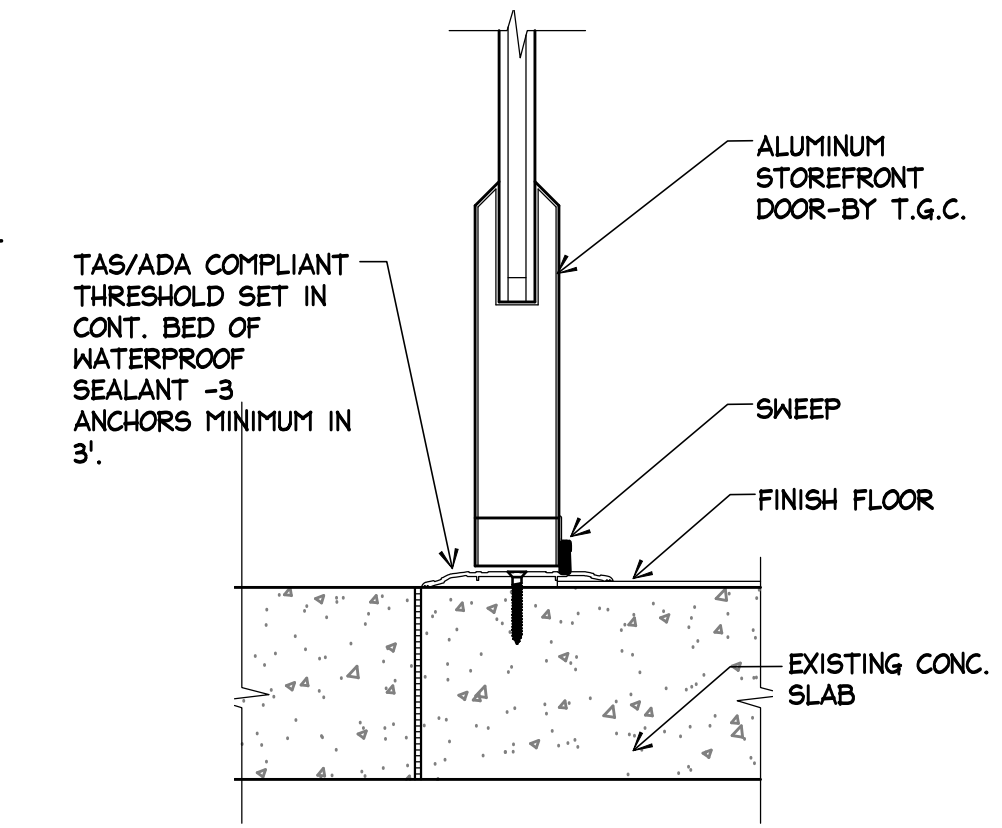
A2.1-01a DOOR TYPE ELEVATIONS
SCALE: 1/4"=1'-0" T=TEMPERED GLASS



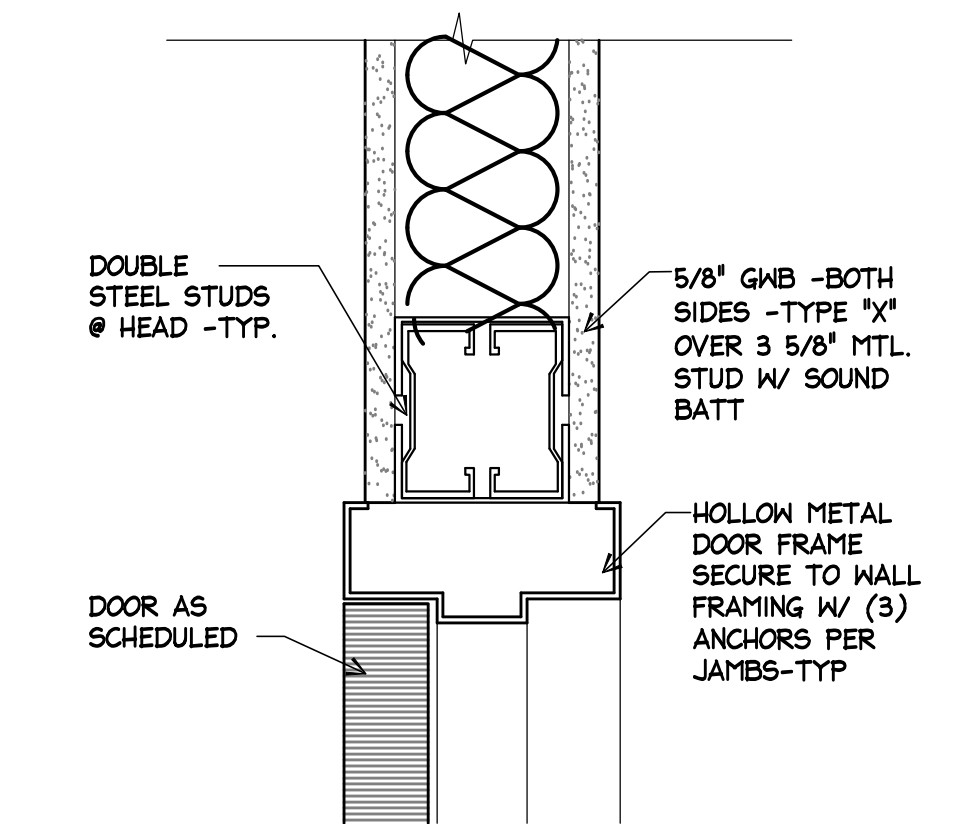
A2.1-06 HEAD-POCKET DOOR
SCALE: 3"=1'-0"



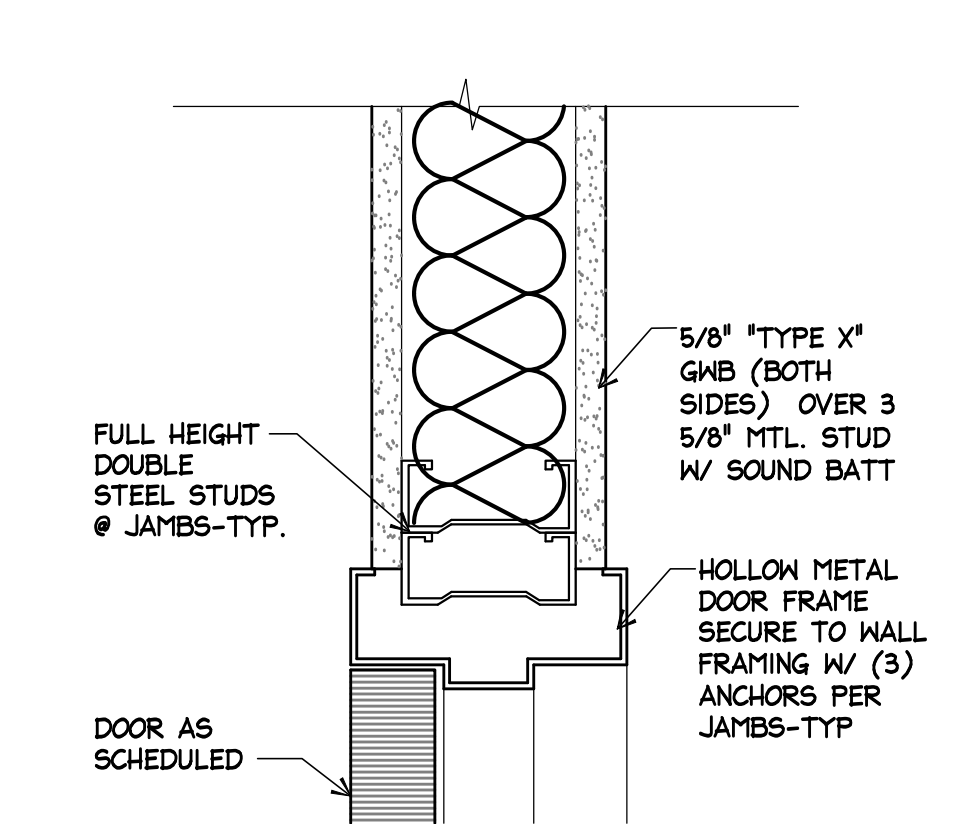
A2.1-05 JAMB-POCKET DOOR
SCALE: 3"=1'-0"



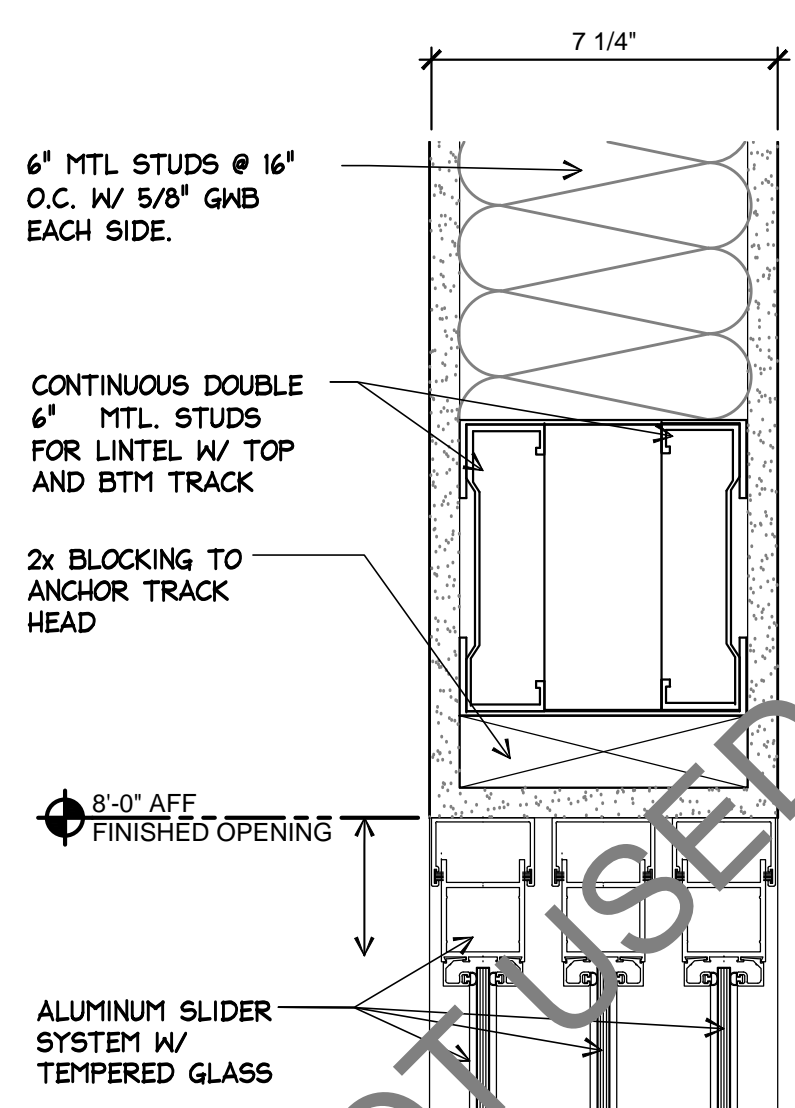
A2.1-04 EXT. THRESHOLD DTL
SCALE: 3"=1'-0"



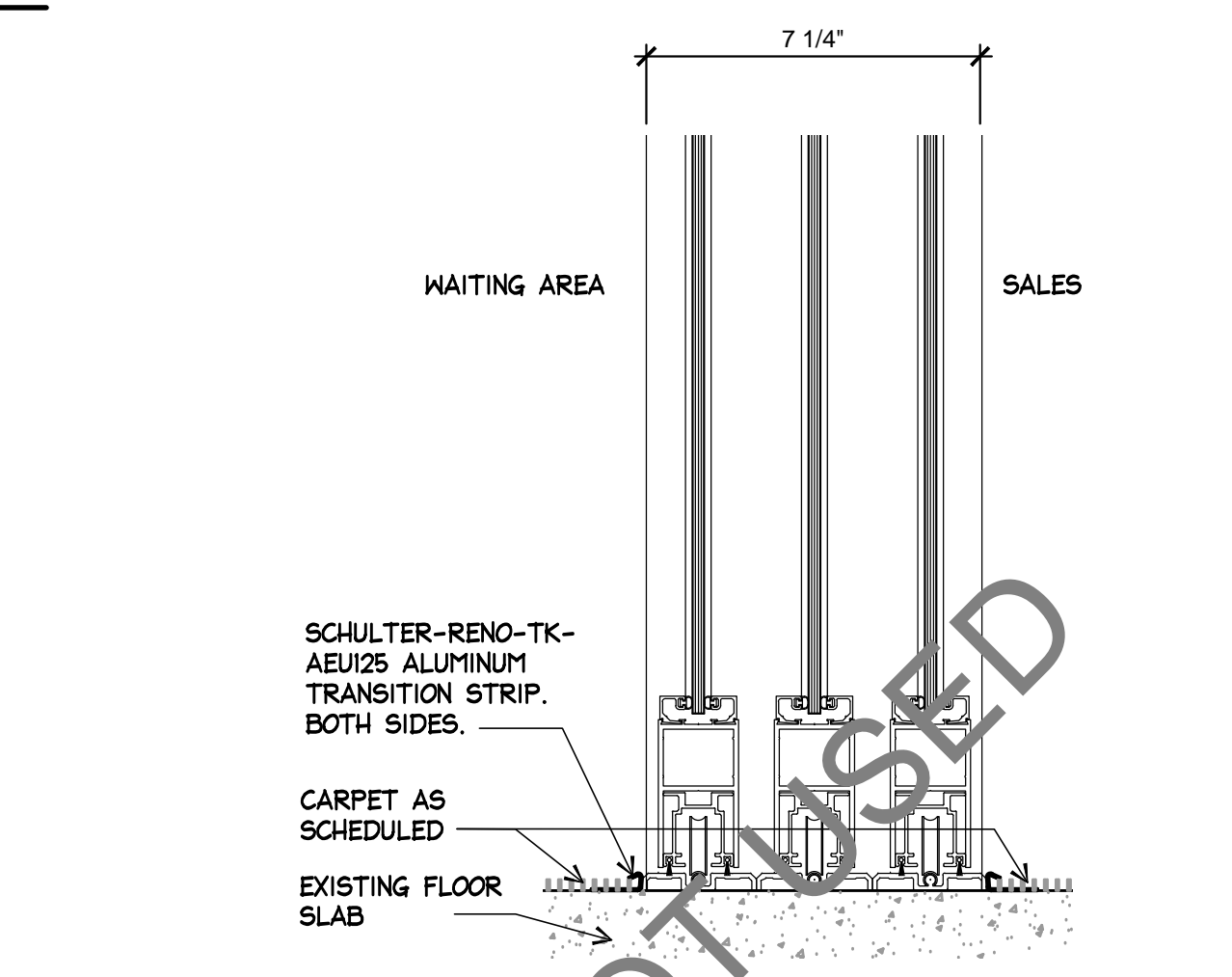
A2.1-03 HEAD DTL-INTERIOR
SCALE: 3"=1'-0"



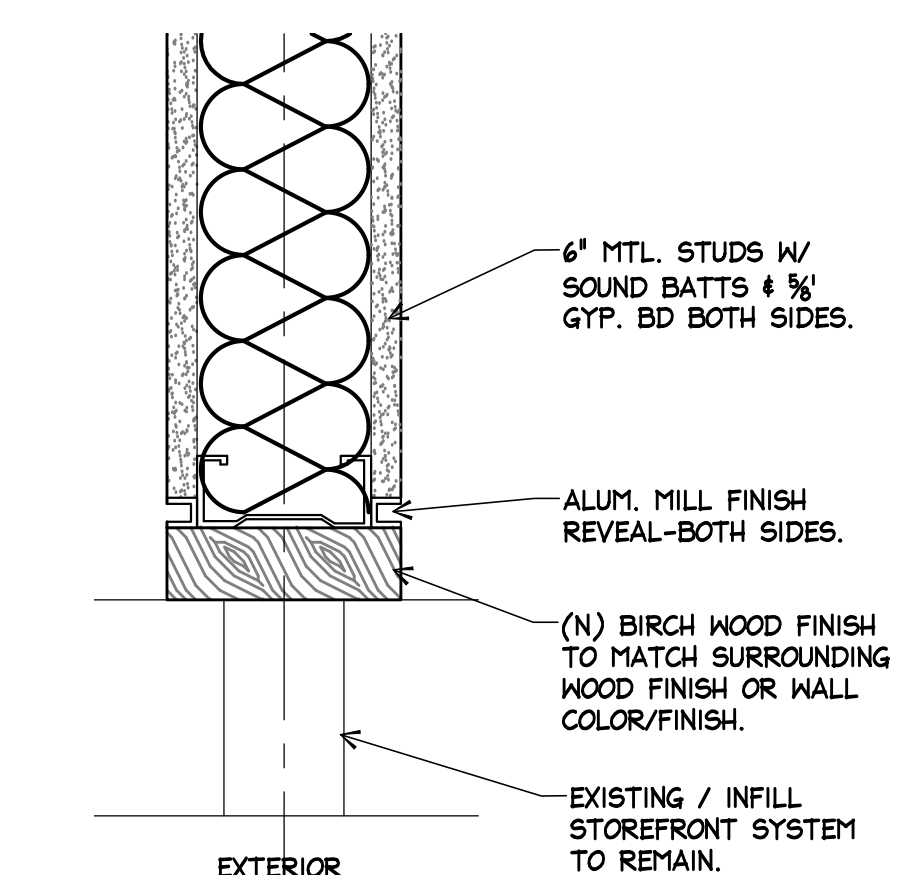
A2.1-02 JAMB DTL-INTERIOR
SCALE: 3"=1'-0"



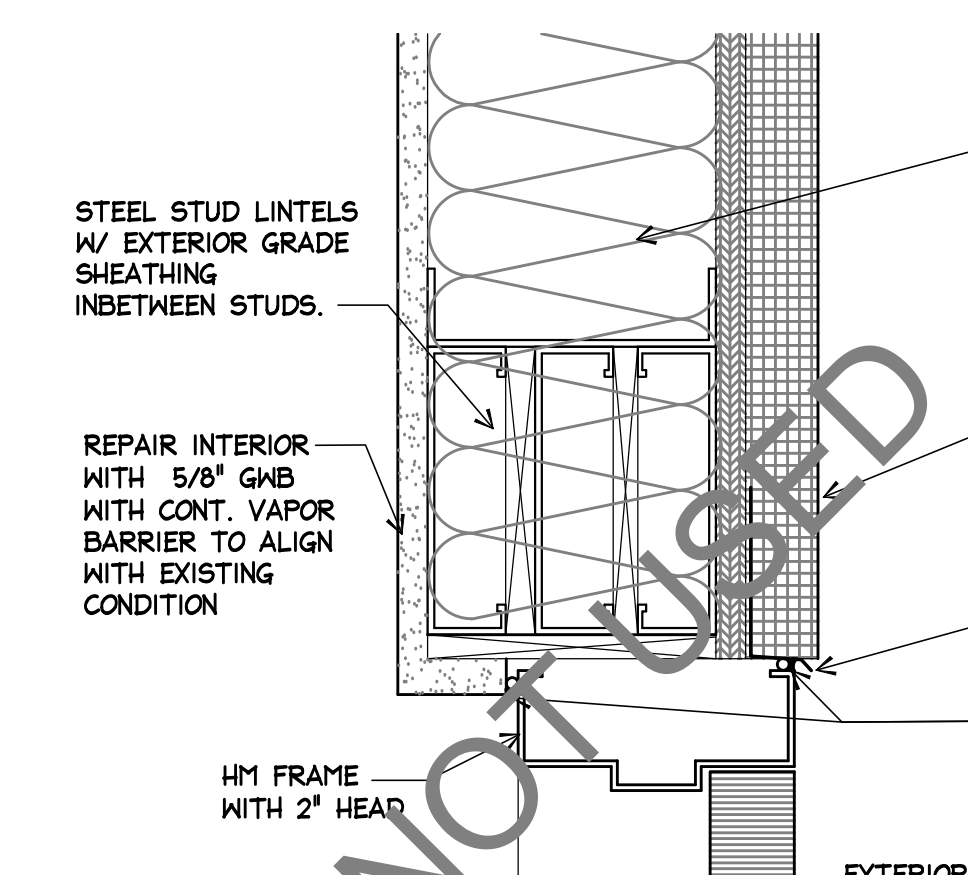
A2.1-07 HEADER - SLIDER
SCALE: 3"=1'-0"



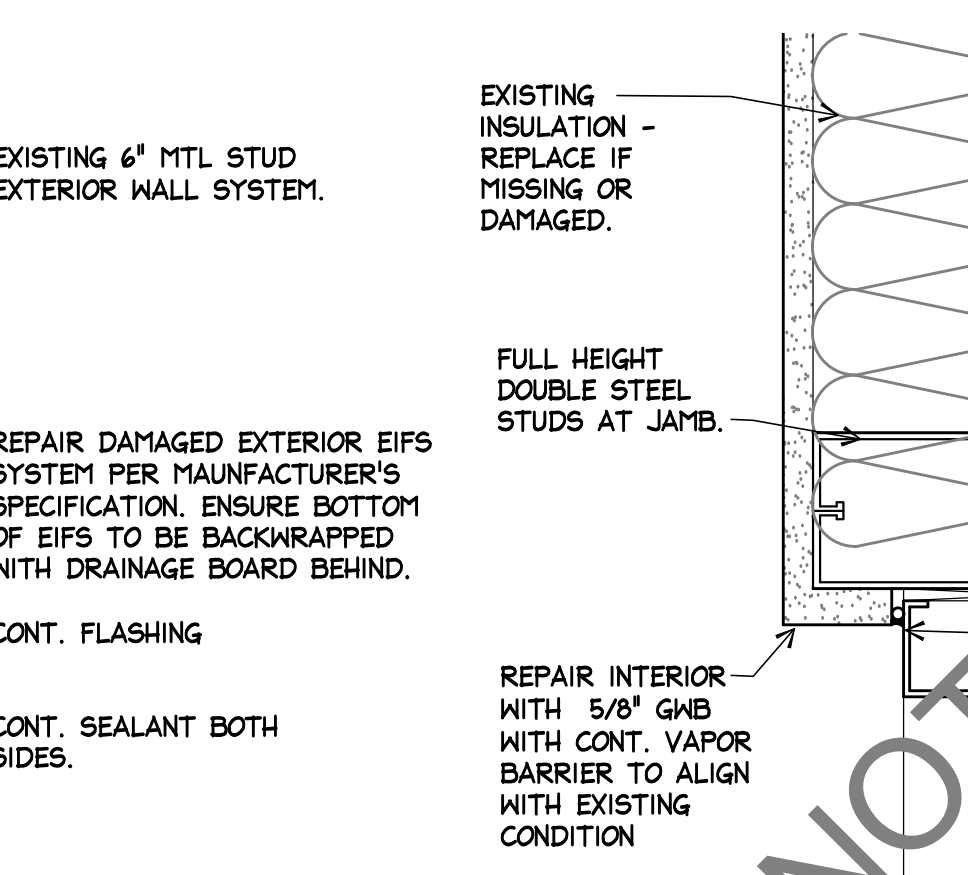
A2.1-08 SILL SURFACE MOUNTED SLIDER
SCALE: 3"=1'-0"



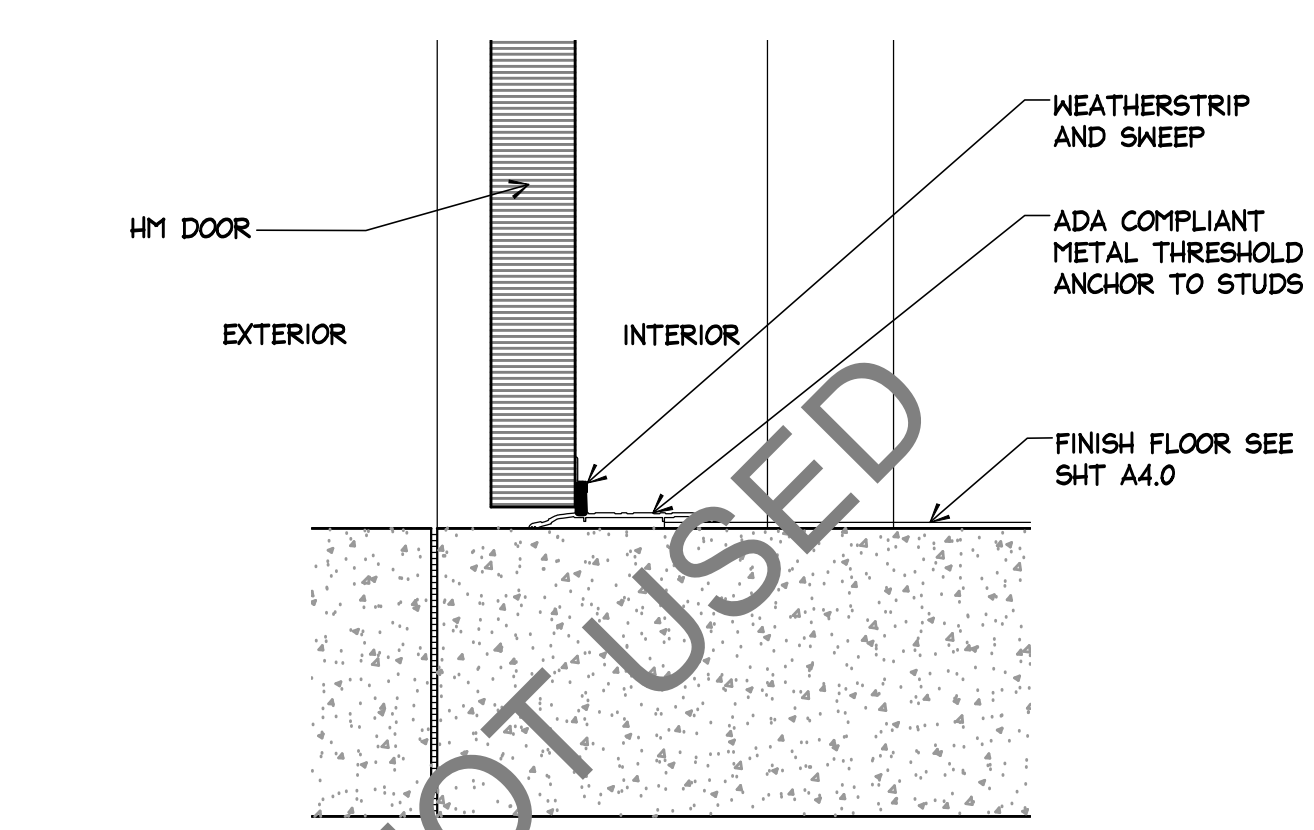
A2.1-09 ENLARGED DTL.
SCALE: 3"=1'-0"



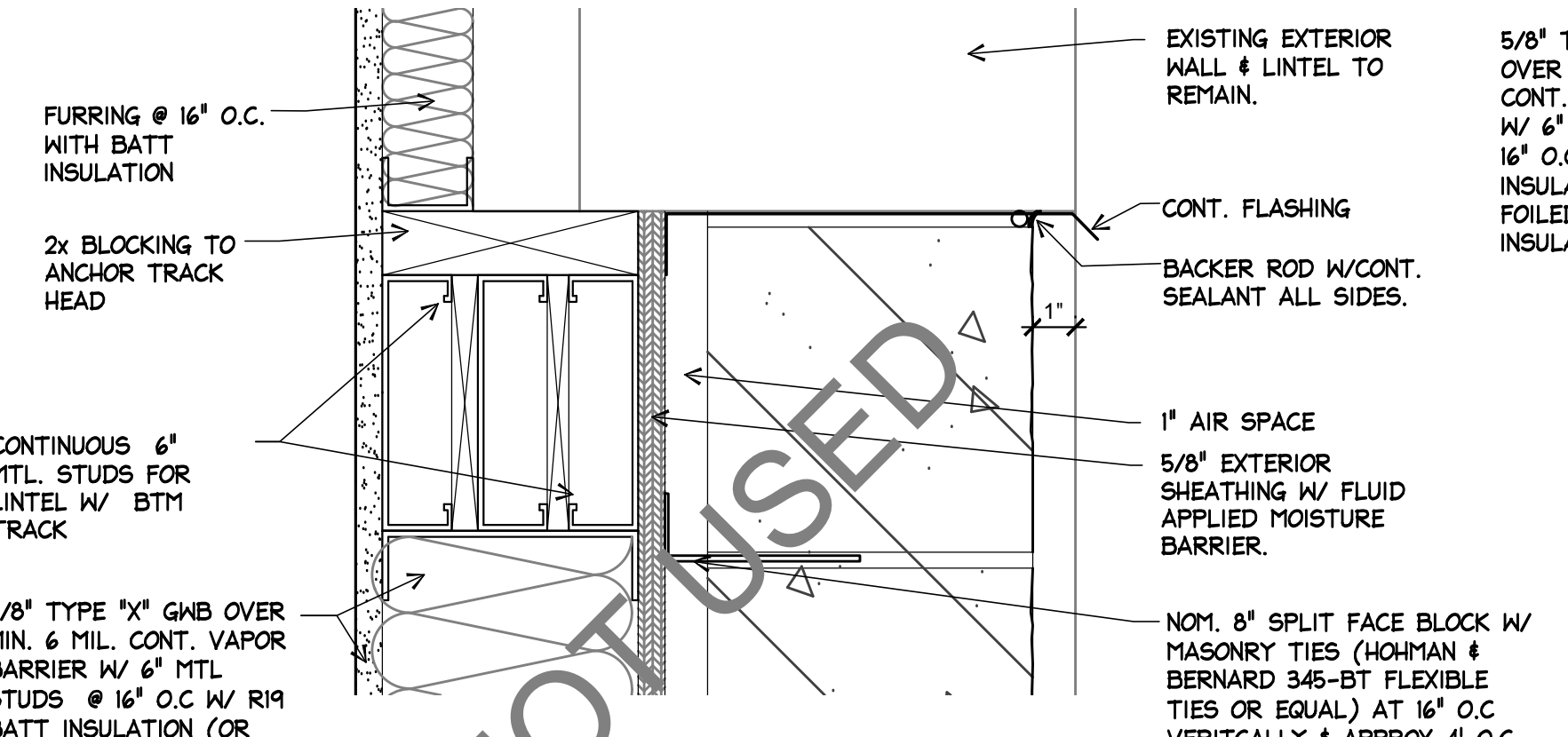
A2.1-10 HEAD DETAIL - EXTERIOR
SCALE: 3"=1'-0"



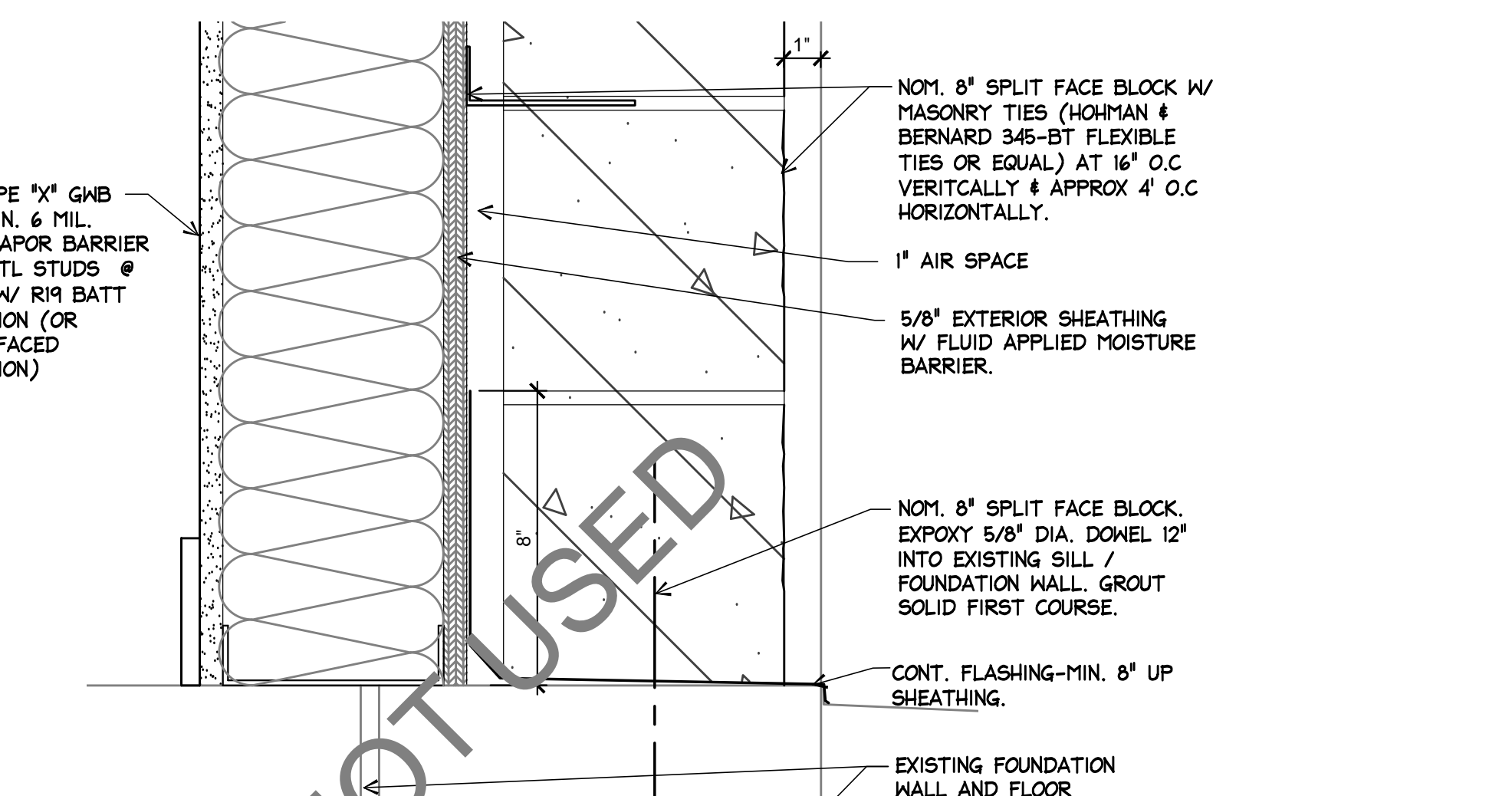
A2.1-11 JAMB DETAIL - EXTERIOR
SCALE: 3"=1'-0"



A2.1-12 SILL DETAIL - EXTERIOR
SCALE: 3"=1'-0"



A2.1-13 HEAD DETAIL - EXTERIOR
SCALE: 3"=1'-0"



A2.1-14 SILL DETAIL - EXTERIOR
SCALE: 3"=1'-0"

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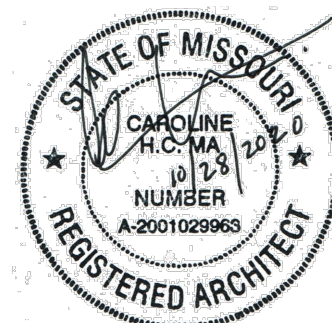
EYEMART
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SITE LOCATION:

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* INDICATES
AFFECTED SHEETS

REFLECTED CLG PLAN

CEILING DTLS
PARTITION DTLS

DATE

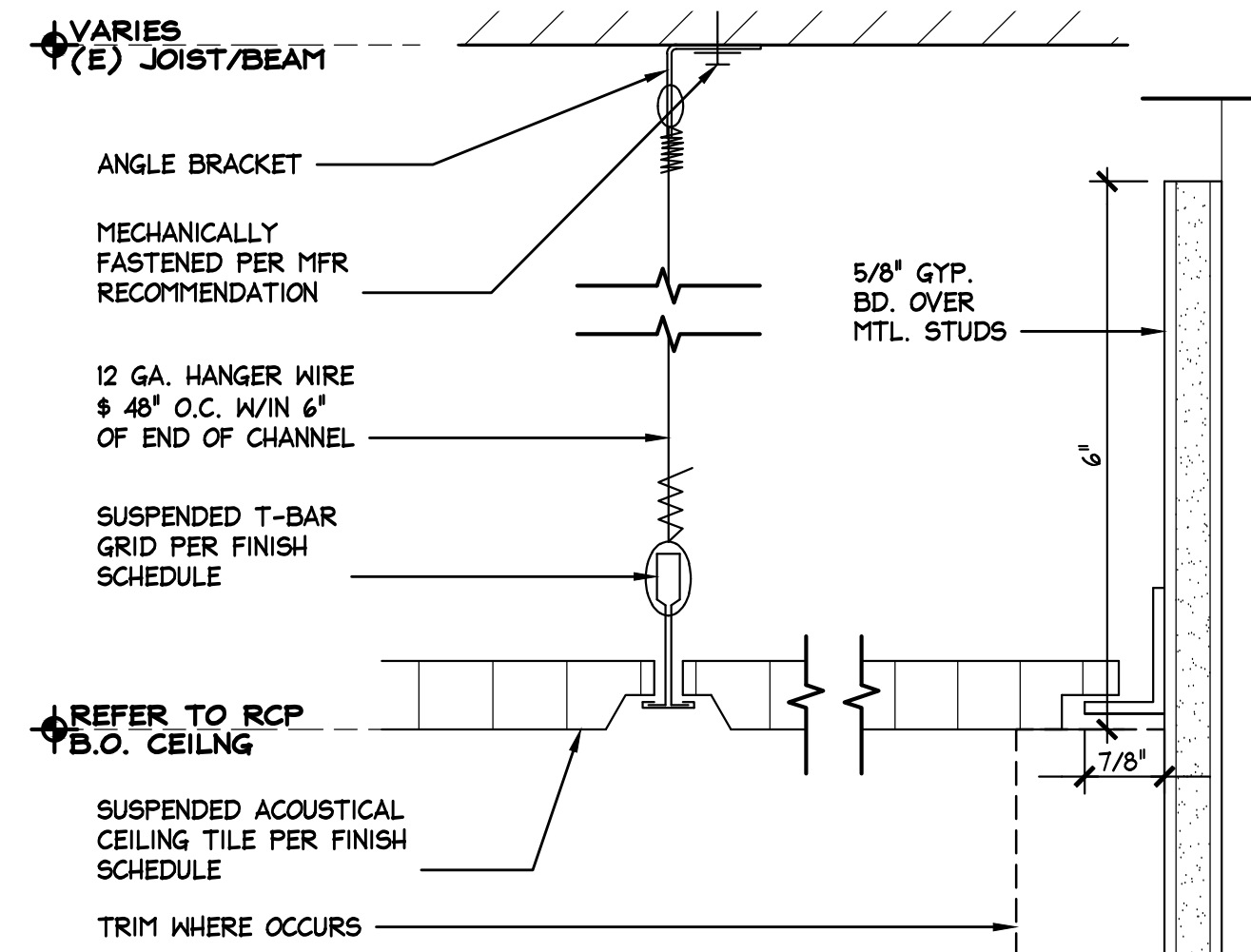
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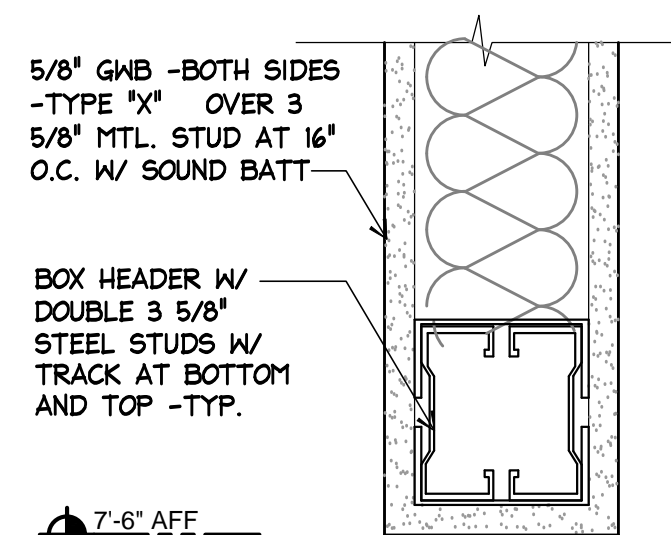
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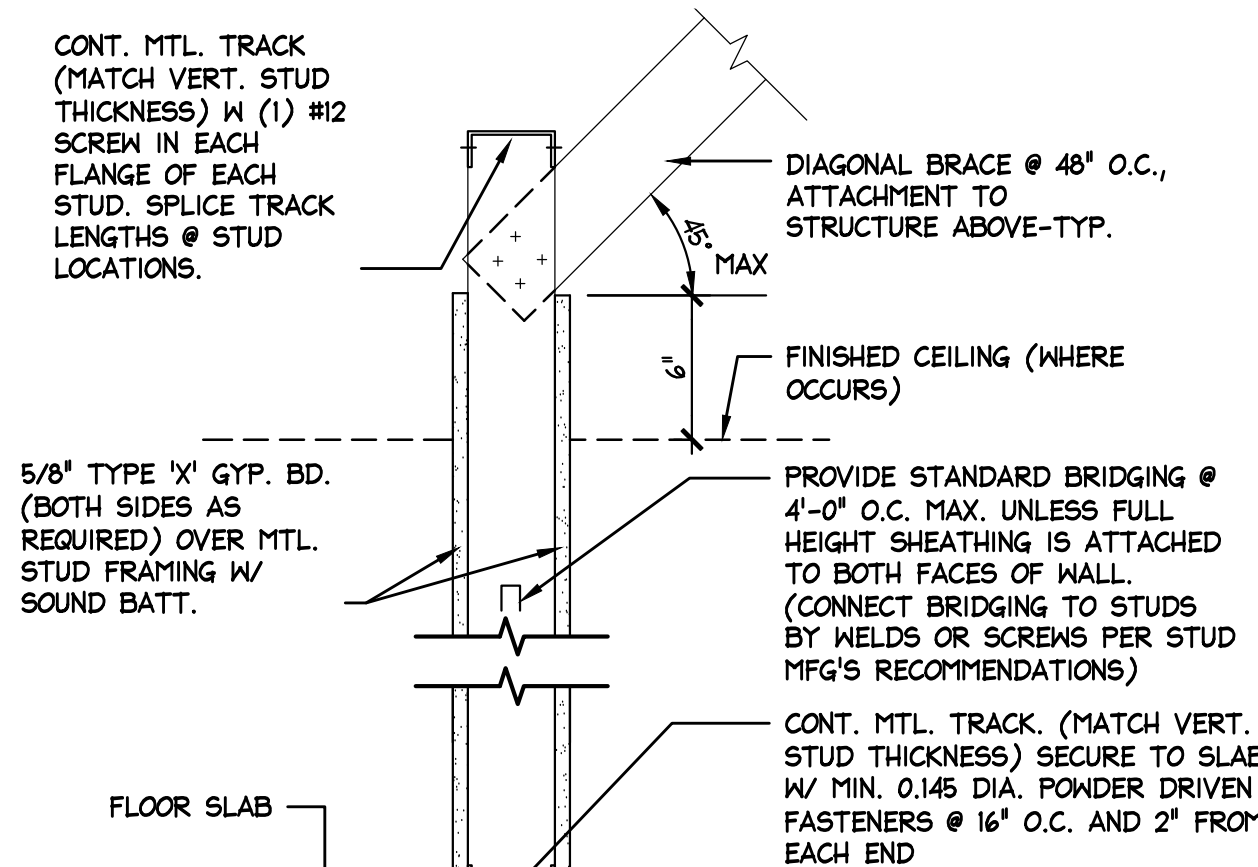
A3.0



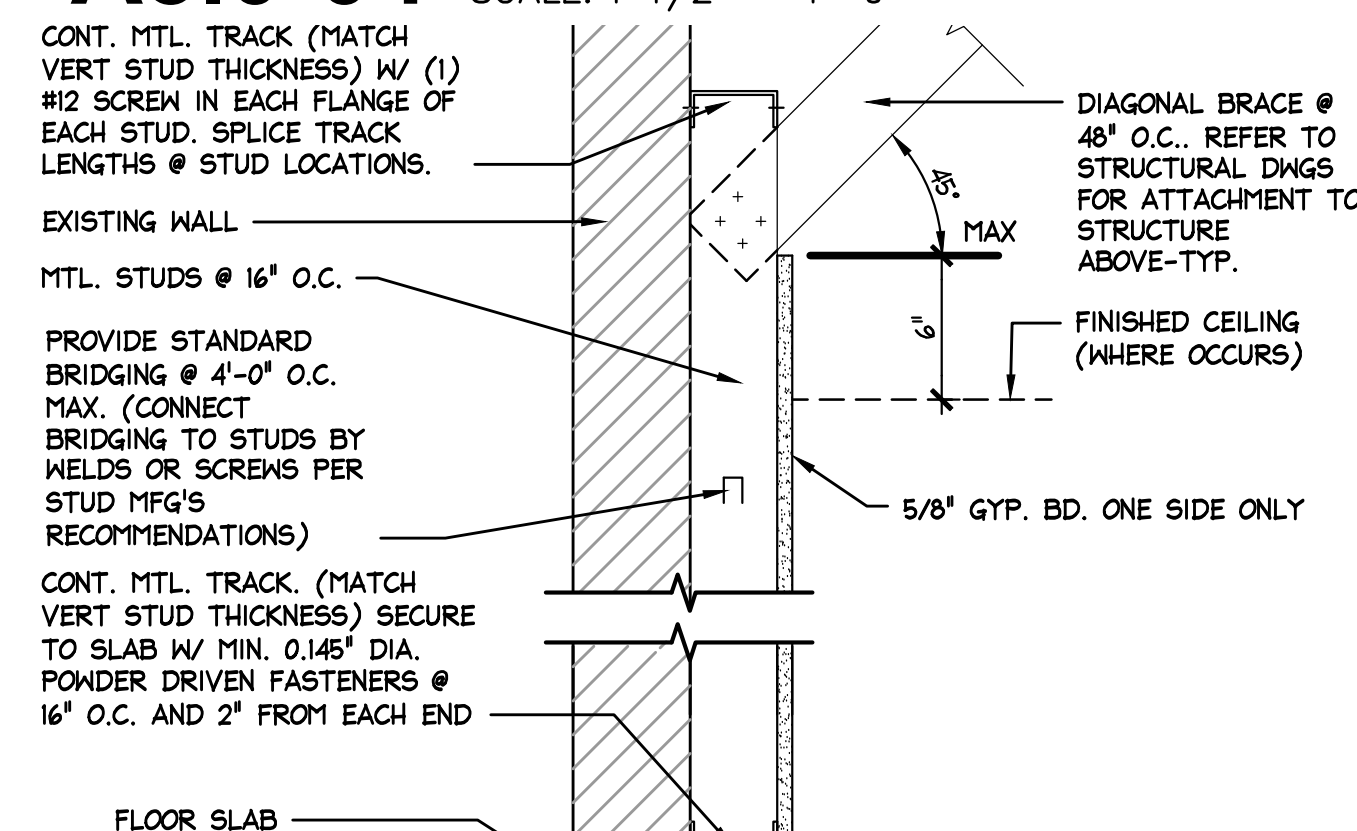
A3.0-07 CEILING ASSEMBLY-TYP
SCALE: 6" = 1'-0"



A3.0-05 SOFFIT/HEADER DTL
SCALE: 3" = 1'-0"



A3.0-04 NON-RATED PARTITION
SCALE: 1 1/2" = 1'-0"



A3.0-03 FURRED PARTITION ATTACHMENT
SCALE: 1 1/2" = 1'-0"

REFLECTED CEILING PLAN LEGEND & NOTES
ALSO REFER TO MEP DWGS.

EXISTING WALL - REFER TO SHT.
A1.1 FLOOR PLAN

NEW WALL OR PARTITION- REFER
TO SHT. A1.1 FLOOR PLAN

CEILING FAN- ANCHOR FAN TO
STRUCTURAL STL. ABOVE

2' X 4' FLAT PANEL LED FIXTURE
W/ PRISMATIC LENS

INDICATE GRID LAYOUT START
POINT PER DWG.

8" RECESSED LIGHT FIXTURE
CENTERED WITHIN GRID IN RETAIL
AREA (UNLESS NOTED OTHERWISE)

4" RECESSED LIGHT FIXTURE IN
SOFFIT- CENTERED WITHIN GRID OR
AS NOTED. VERIFY W/ EYEMART.

ACOUSTICAL TILE 2X4 SQUARE EDGE
LAY-IN

ACOUSTICAL TILE 2X2 SQUARE EDGE
LAY-IN

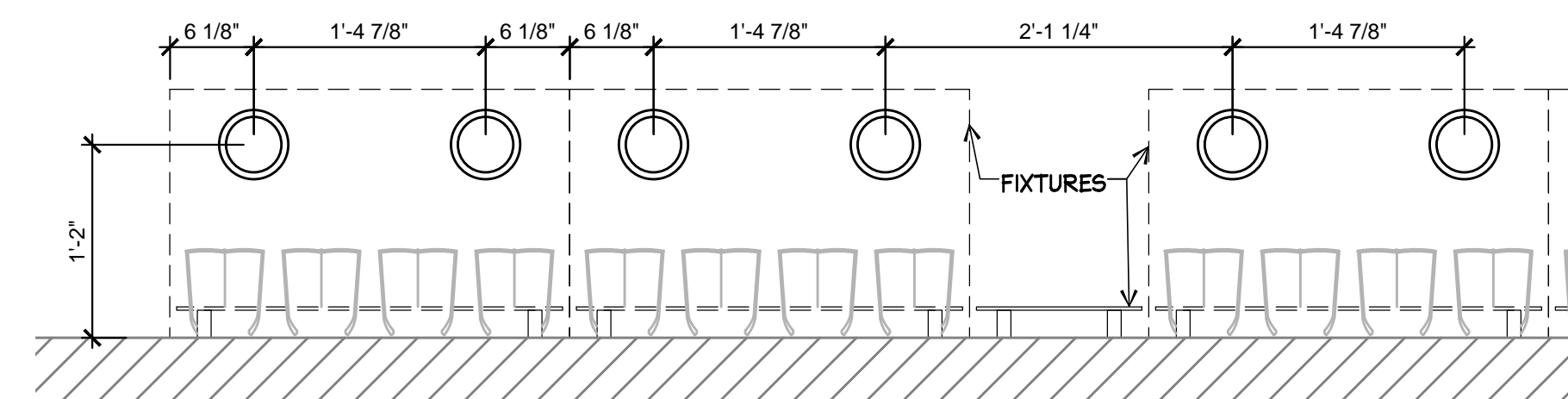
EXISTING ACOUSTICAL TILE 2X4 TO
REMAIN- MODIFY AS NECESSARY- ENSURE
MODIFIED AREAS TO MATCH EXISTING.

1 HEADER REFER TO DTL.A2.1-06

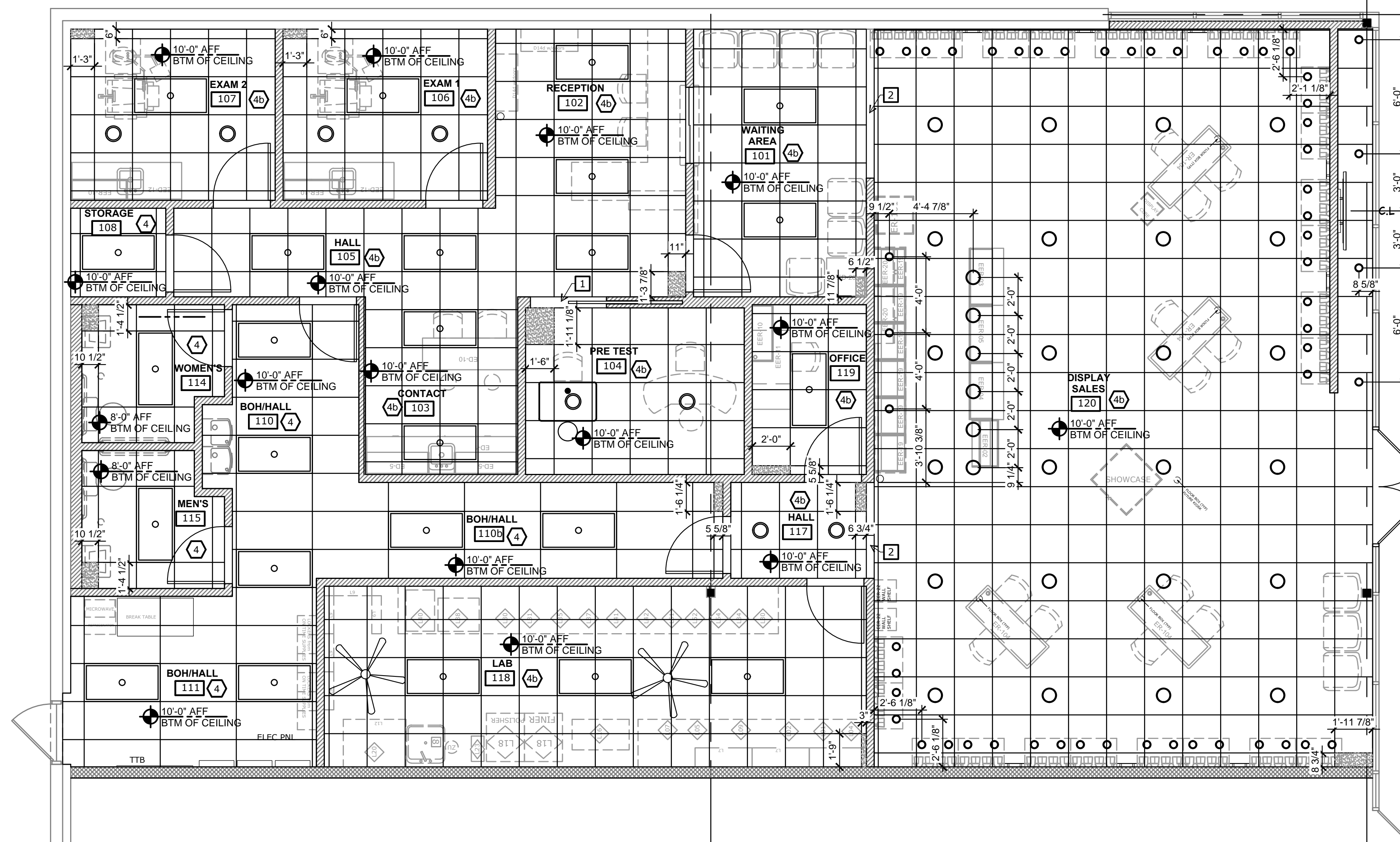
2 BULKHEAD @ 7'-6" A.F.F.
REFER TO DTL. A3.0-05

3 INFILL GYPSUM SOFFIT TO ALIGN WITH
EXISTING ADJACENT.

NOTE:
1) T.G.C. TO CONFIRM AND VERIFY LOCATION OF FIXTURES/FRAME-BOARDS LOCATION PRIOR TO INSTALLATION
OF RECESSED 4" FIXTURE LIGHTS.



A3.0-02 4" RECESSED LIGHTS @ FIXTURES
SCALE: 1" = 1'-0"



A3.0-01 REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

A4.0

DEDMIT

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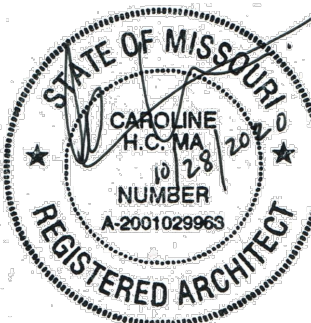
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EXISTING
EXTERIOR
ELEVATION(S)

DATE

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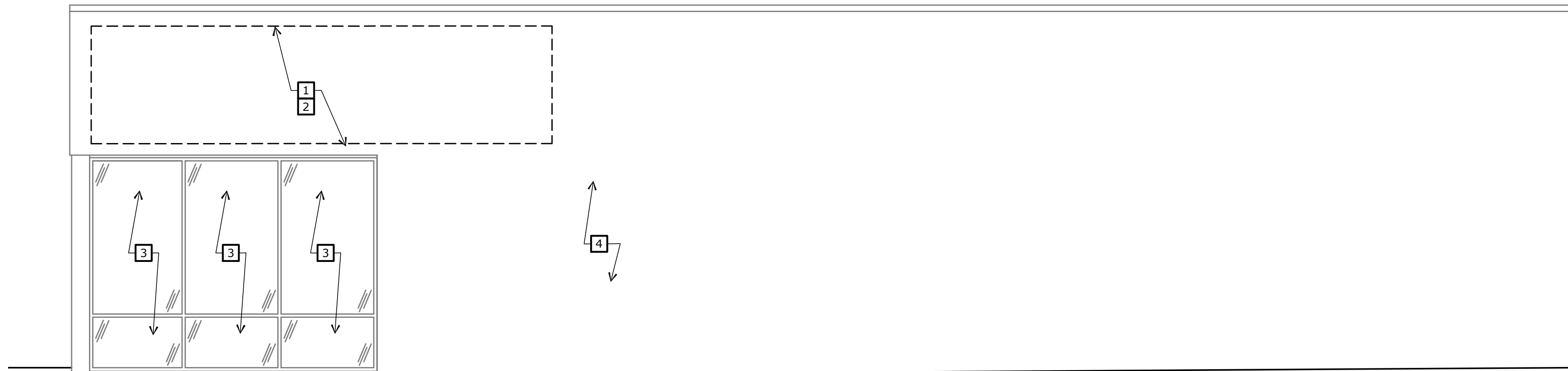
SHEET NUMBER

A5.1

NOTE:
STOREFRONT SIGNAGE TO
BE SUBMITTED UNDER A
SEPARATE COVER

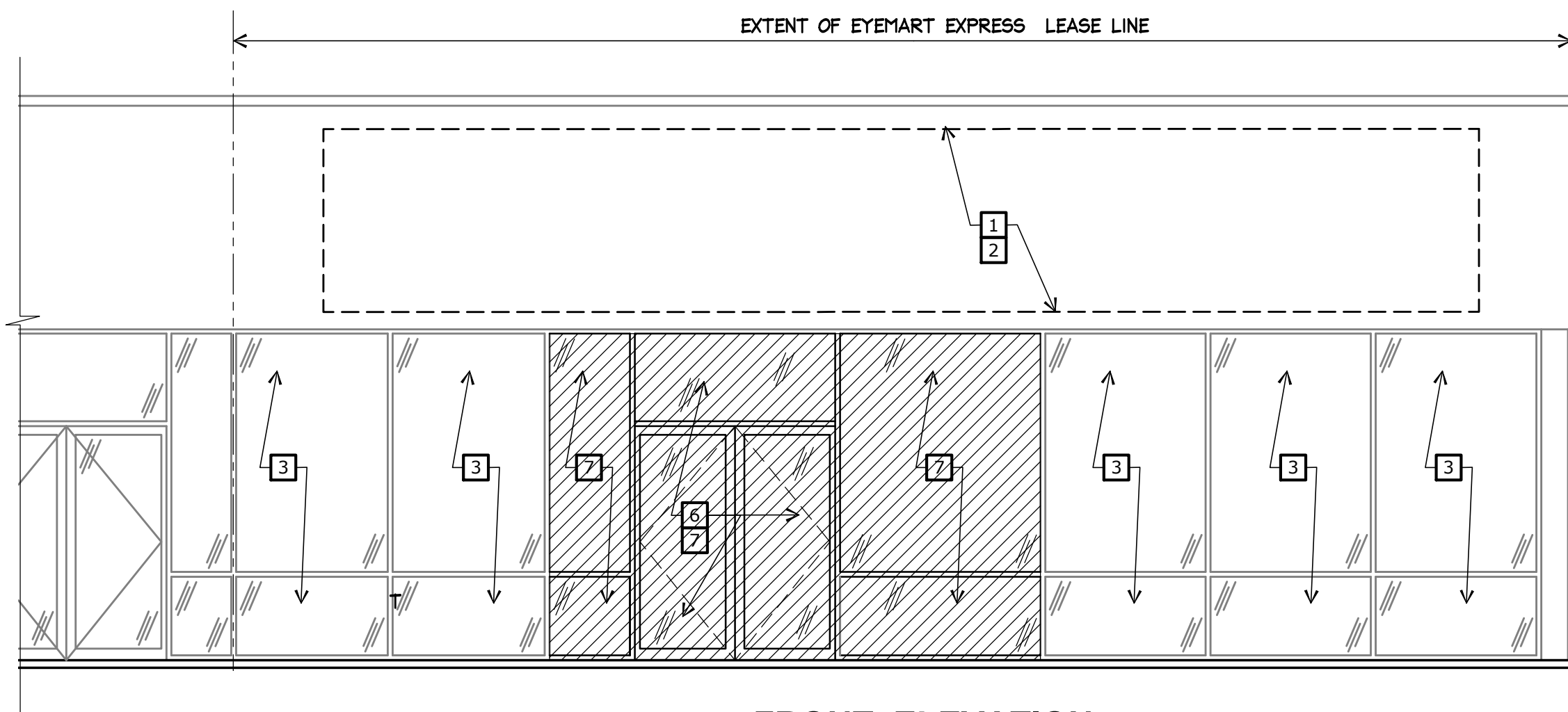
EXTERIOR ELEVATION KEY NOTES:

- 1 T.G.C. TO COORDINATE W/ TENANT & SIGNAGE VENDOR FOR FINAL SIZE, INSTALLATION & FINAL LOCATION IF CHANGING SIGNAGE. VERIFY WITH EYEMART.
- 2 PAINT, PATCH & REPAIR TO "LIKE NEW APPEARANCE" AFTER REMOVAL/RELOCATING OF EXISTING SIGNAGE(IF APPLICABLE).
- 3 EXISTING STOREFRONT & ENTRY SYSTEM TO REMAIN. CLEAN AS NECESSARY.
- 4 EXISTING CANOPY / PIER/ COLUMN/ WALL/ DOOR/ ROOF TO REMAIN. CLEAN AS NECESSARY.
- 5 EXISTING DOOR TO BE SHUT PERMANENTLY. REMOVE EXTERIOR PULL AND INSTALL BLANK PLATE AS NECESSARY. TO ENSURE WATER-TIGHT PERIMETER PRIOR TO SHUTTING PERMANENTLY.
- 6 INFILL WITH STOREFRONT DOOR & GLAZING SYSTEM WITH TEMPERED GLASS TO MATCH EXISTING LL SYSTEM.
- 7 INFILL WITH NEW TEMPERED GLAZING SYSTEM TO MATCH EXISTING.
- 8 T.G.C. TO FIELD VERIFY EXISTING CONDITION FOR KNEE-WALL INFILL FROM REMOVED STOREFRONT DOOR. KNEEWALL TO MATCH WITH ADJACENT KNEE-WALL CONDITION & MATERIAL. REFER TO A5.1-03.



A5.1-02 SIDE ELEVATION

SCALE: 1/4"=1'-0"



A5.1-01 FRONT ELEVATION

SCALE: 1/4"=1'-0"

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* INDICATES
AFFECTED SHEETS

INTERIOR
ELEVATIONS

DATE
10-28-2020

PROJECT NUMBER
EYEM101520LSMO

SHEET NUMBER

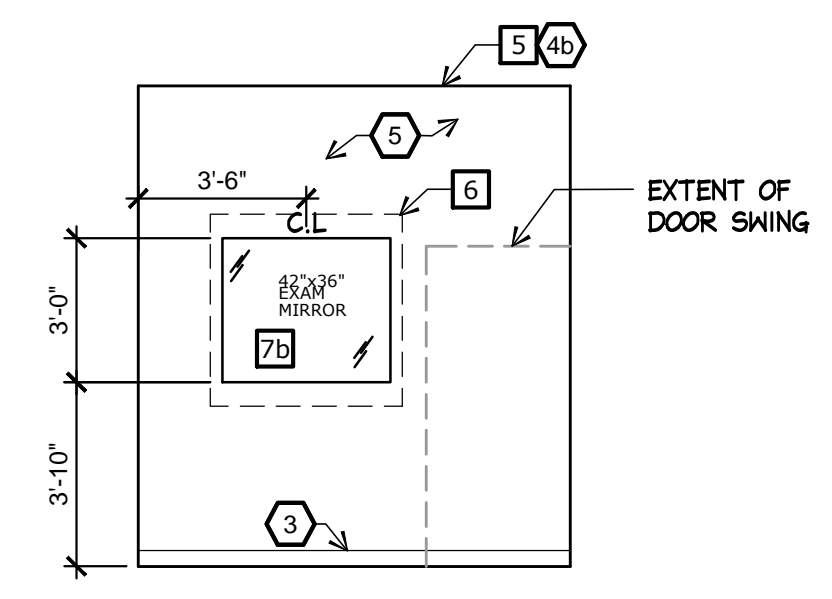
A5.2

ELEVATION KEY NOTES

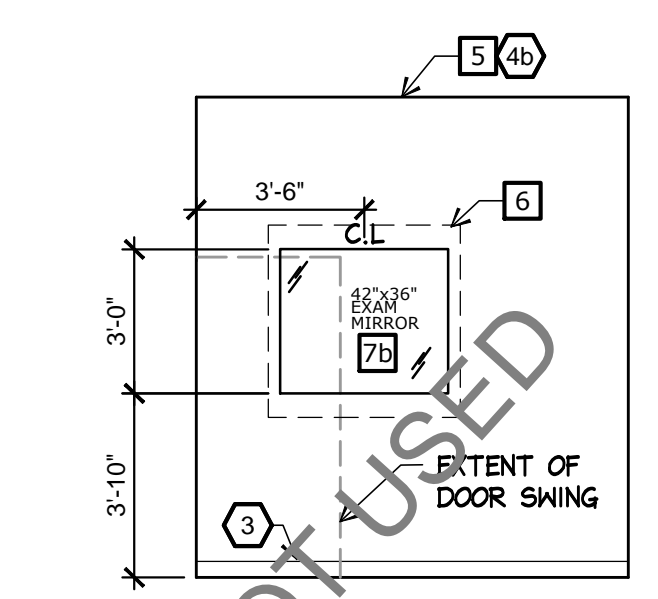
- 1 TYPICAL FIXTURES BY OTHERS. REFER TO SHT. A1.1 FLOOR PLAN FOR LOCATIONS.
- 2 CASEWORK BY FIXTURE VENDOR - INSTALLED BY T.G.C. COMPLY W/ LOCAL/STATE # ADA REQUIREMENTS.
- 3 VISI CHART PROVIDED AND INSTALLED BY TENANT.
- 4 UTILITY SINK AS SCHEDULED - FURNISHED AND INSTALLED BY T.G.C.
- 5 LINE OF CEILING - TYPICAL
- 6 24"(W) (OR SIZE AS NOTED) X 3/4" TREATED FIRE RESISTANT PLYWOOD INDICATED DASHED-CUT BETWEEN METAL STUDS.
- 6b 5/8" A/C PLYWOOD, 6'-6"(H) ATTACHED TO STUDS @ 16" O.C HORIZONTALLY AND 24" O.C VERTICALLY. STAND PLYWOOD VERTICALLY AND "A" FINISH SIDE FACING SALES AREA. PATCH SCREW HOLES, PREP AND PAINT PLYWOOD.
- 7 MIRROR AS SCHEDULED. BTM OF REFLECTIVE SURFACE 40" AFF (MAX) UNO.
- 7b 42"x36" EXAM MIRROR. INSTALL ABOVE SWITCH PLATE. PROVIDED AND INSTALLED BY T.G.C.
- 8 PRE-MANUFACTURED FRP CAP EDGING # INSIDE CORNER MOLDING
- 9 DOOR # FRAME AS SCHEDULED
- 10 SLIDING TEMPERED GLASS WINDOW ASSEMBLY BY TGC
- 11 SILL BY FIXTURE CONTRACTOR. TGC TO COORDINATE
- 12 EXISTING STOREFRONT ENTRY AND/OR GLASS SYSTEM TO REMAIN. CLEAN TO LOOK "LIKE-NEW" APPEARANCE.
- 13 CHAIR RAIL (HT T.B.D) PROVIDED BY FIXTURE CONTRACTOR- INSTALLED BY T.G.C.
- 14 PAPER TOWEL DISPENSER FURNISHED BY OWNER # INSTALLED BY T.G.C. (BOBRICK #B-262 OR EQUAL-SURFACE MOUNTED)
- 15 SOLIDS INTERCEPTOR AS SCHEDULED - REFER TO MEP DRAWINGS.
- 16 SINK PROVIDED BY MILLWORK VENDOR (TGC TO INSTALL)- REFER TO MEP DRAWINGS.
- 17 SALVAGED/RELOCATED STOREFRONT VESTIBULE SYSTEM- INSTALL (2) 3-5/8" 80 MIL HEADERS-ANCHORED TO STRUCTURE ABOVE.
- 18 40" FLAT SCREEN LED T.V. PROVIDED BY TENANT # INSTALLED BY T.G.C. MOUNT 6" BELOW CEILING
- 19 EXISTING COLUMN. PAINT TO MATCH ADJACENT WALL COLOR.
- 20 60"x60" LED SCREEN. PROVIDED BY TENANT # INSTALLED BY T.G.C. FINAL MOUNTING POSITION TO BE VERIFIED W/ TENANT.
- 21 INFILL STOREFRONT GLAZING/ENTRY SYSTEM TO MATCH EXISTING.
- 22 80" LED FLAT SCREEN TV PROVIDED BY TENANT, INSTALLED BY T.G.C. INSTALL BLOCKING AS NECESSARY FOR FLAT SCREEN.
- 23 SOFFIT AT 10'-0" AFF. PAINT FRONT FACE AND BOTTOM PER FINISH SCHEDULE.

ELEVATION FINISH NOTES

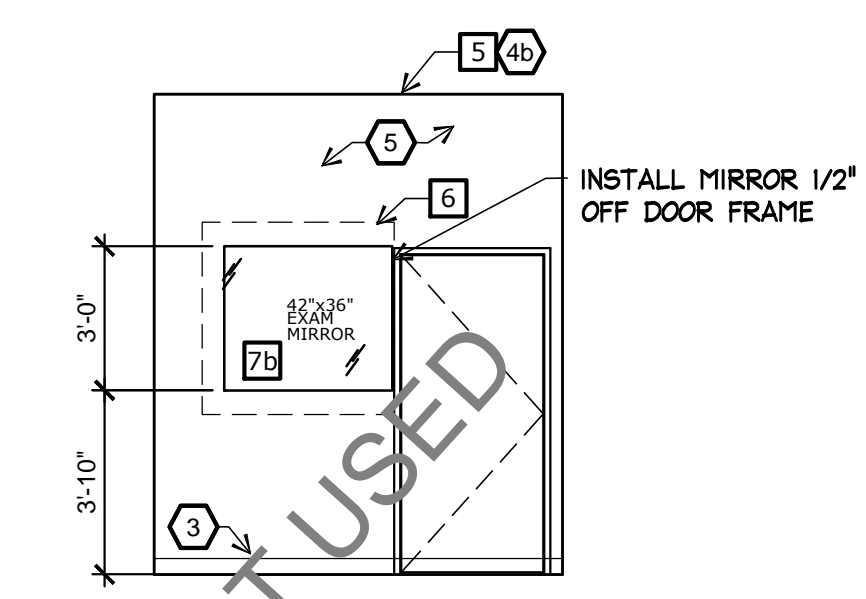
MARK	MATERIAL	NOTES - REFER TO SHT A1.2 FOR FINISH DESCRIPTION
3	VINYL BASE	
4/4b	ACOUSTICAL CEILING TILE	
5/5b/5c	PAINT-DRY/MALL / EXISTING INTERIOR MASONRY	
6	PAINT-TRIM	
7	WOOD DOORS	MARSHFIELD NATURAL BIRCH COLOR: *AUTUMN 32-15 OR* ESSPRESSO 42-15
9	MARLITE FRP PANELS	MARLITE FRP PANELS - INSIDE CORNER MOLDING M350 FP AND CAP EDGING M370 FP.
11	PAINT-METAL DOOR FRAMES	
12	PLASTIC LAMINATE - LAB CASEWORK	WILSONART # 1570 - 60 WHITE
13	PLASTIC LAMINATE - DOCTOR'S CASEWORK # SALES CASEWORK	WILSONART # 7945 "XANADAU"
15	GRAPHICS	GRAPHICS FURNISHED AND INSTALLED BY TENANT



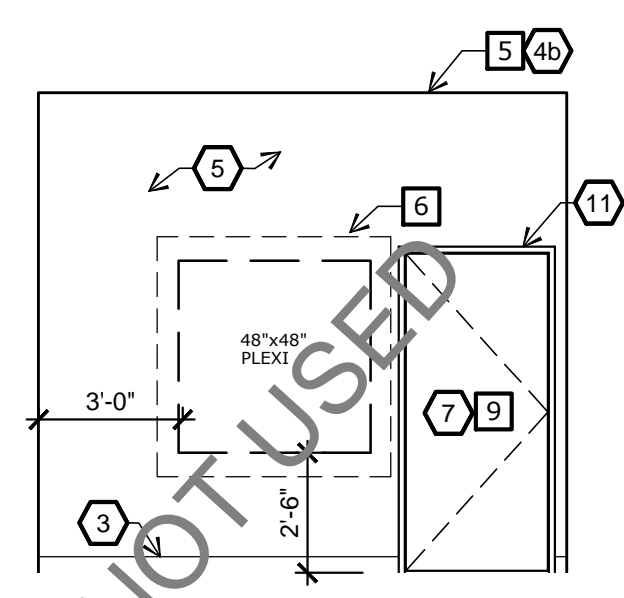
A5.2-10 INTERIOR ELEV-EXAM
SCALE: 1/4"=1'-0"
(ALSO REFER TO ELECT. DWGS)



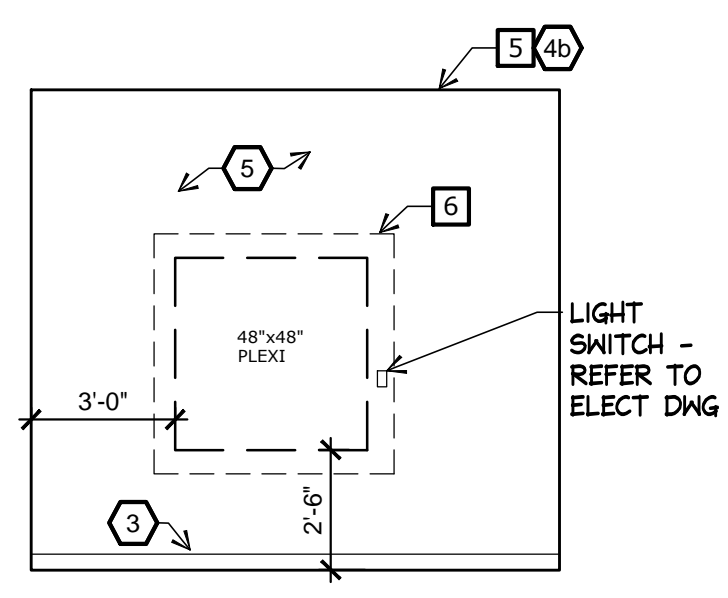
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SCALE: 1/4"=1'-0"
(ALSO REFER TO ELECT. DWGS)



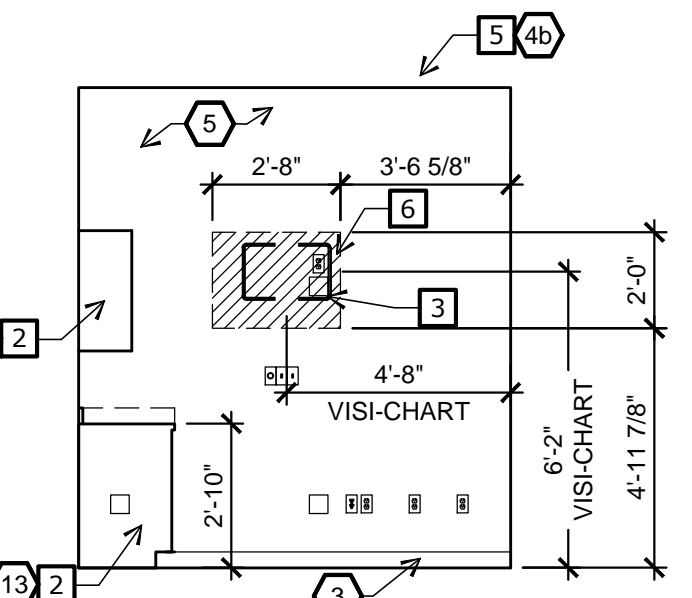
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SCALE: 1/4"=1'-0"
(ALSO REFER TO ELECT. DWGS)



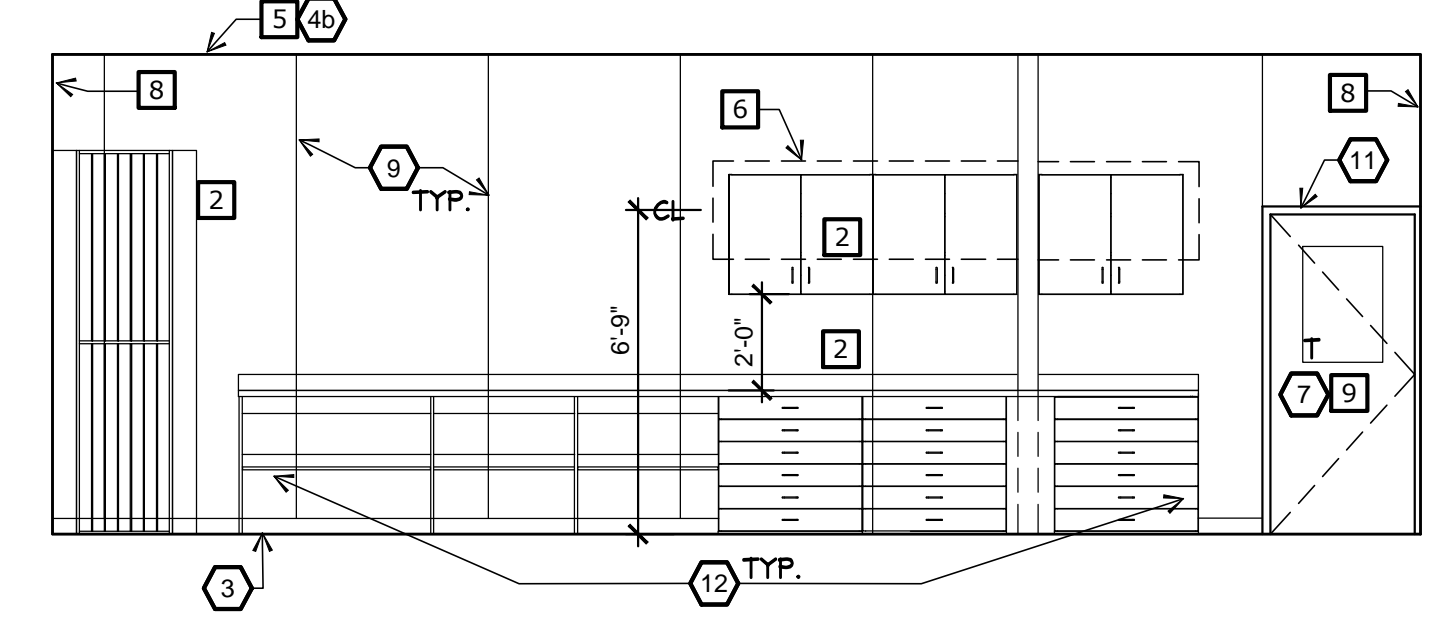
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SCALE: 1/4"=1'-0"
(ALSO REFER TO ELECT. DWGS)



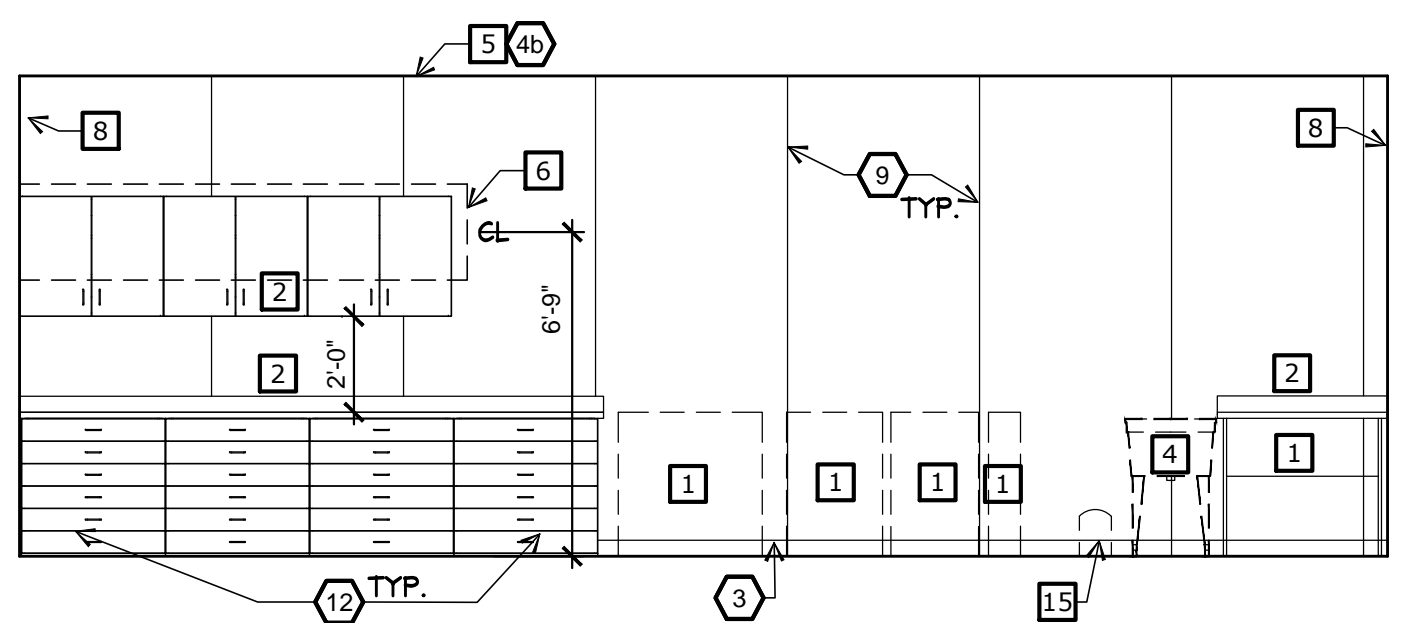
A5.2-10 INTERIOR ELEV-EXAM
SCALE: 1/4"=1'-0"
(ALSO REFER TO ELECT. DWGS)



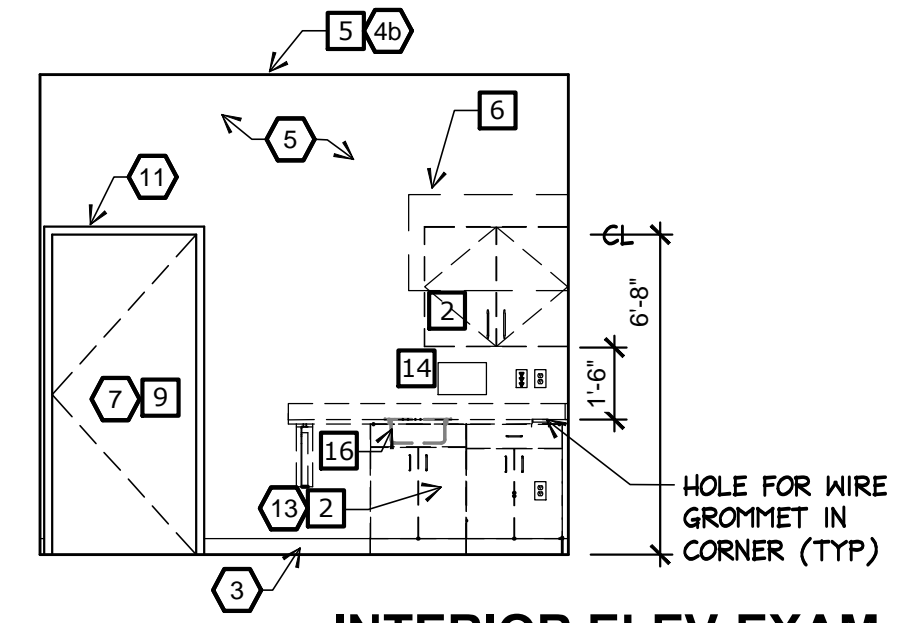
A5.2-10 INTERIOR ELEV-EXAM
SCALE: 1/4"=1'-0"
(ALSO REFER TO ELECT. DWGS)



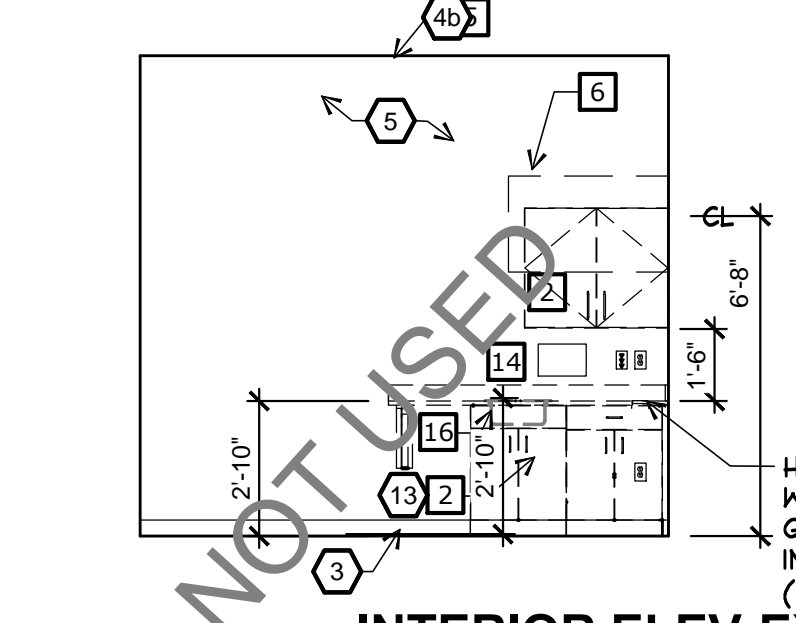
A5.2-12 INTERIOR ELEV-LAB
SCALE: 1/4"=1'-0" (ALSO REFER TO ELECT. DWGS)



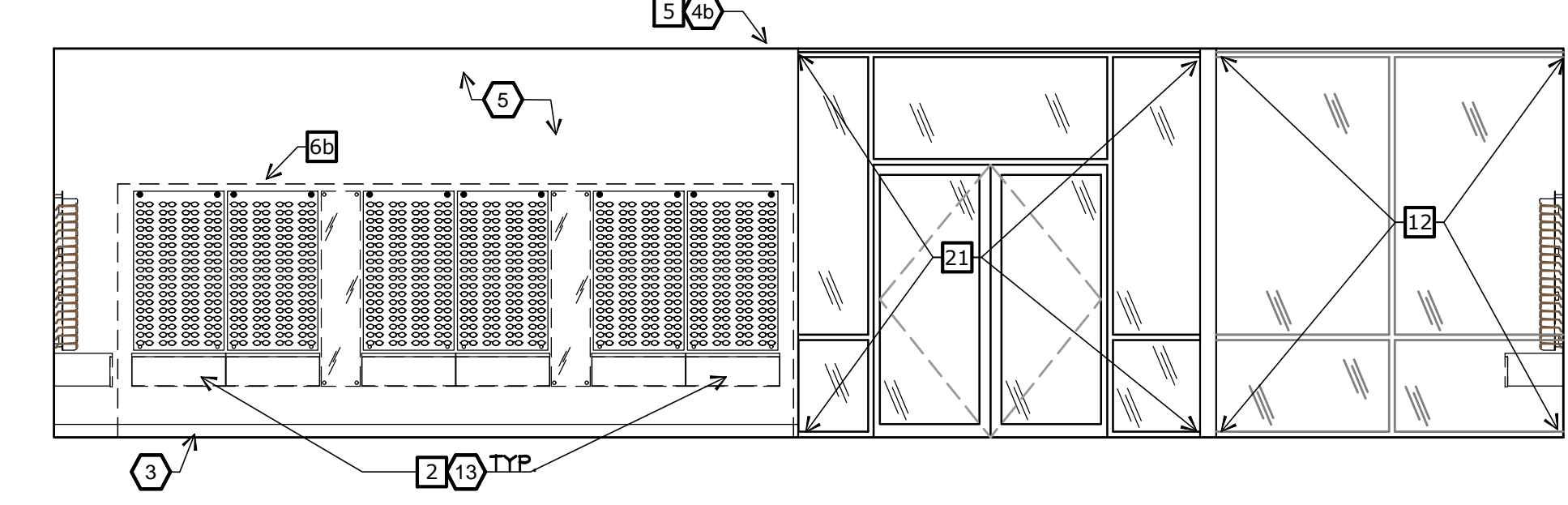
A5.2-11 INTERIOR ELEV-LAB
SCALE: 1/4"=1'-0" (ALSO REFER TO ELECT. DWGS)



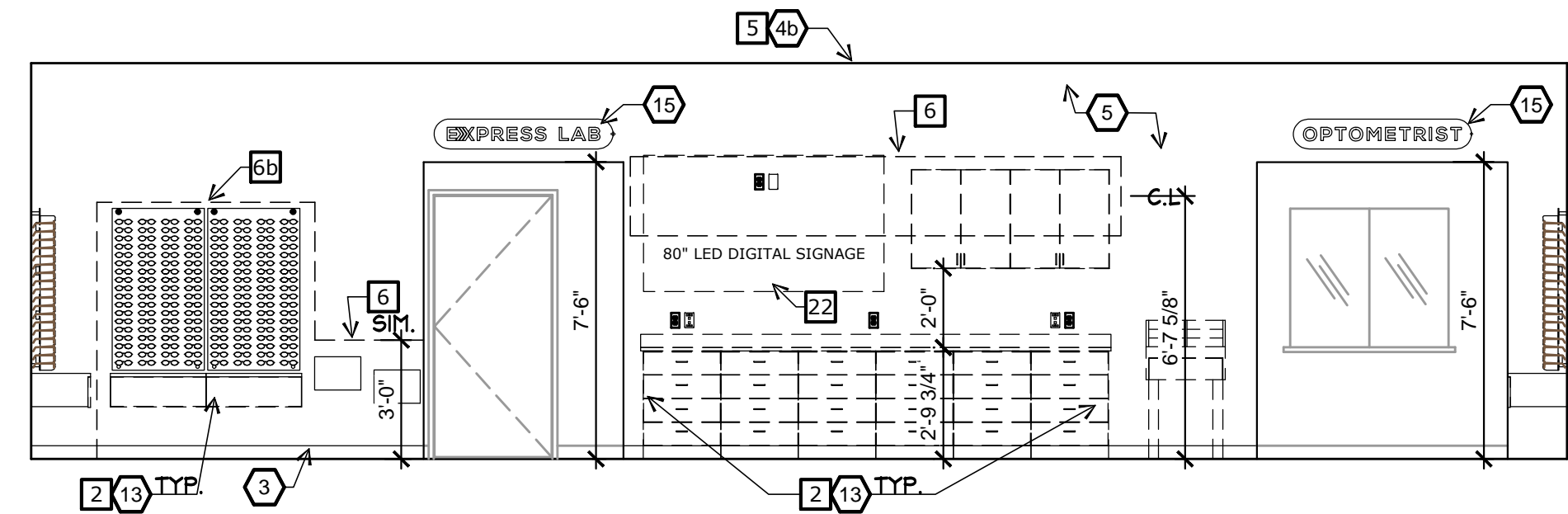
A5.2-08 INTERIOR ELEV-EXAM
SCALE: 1/4"=1'-0" (ALSO REFER TO ELECT. DWGS)



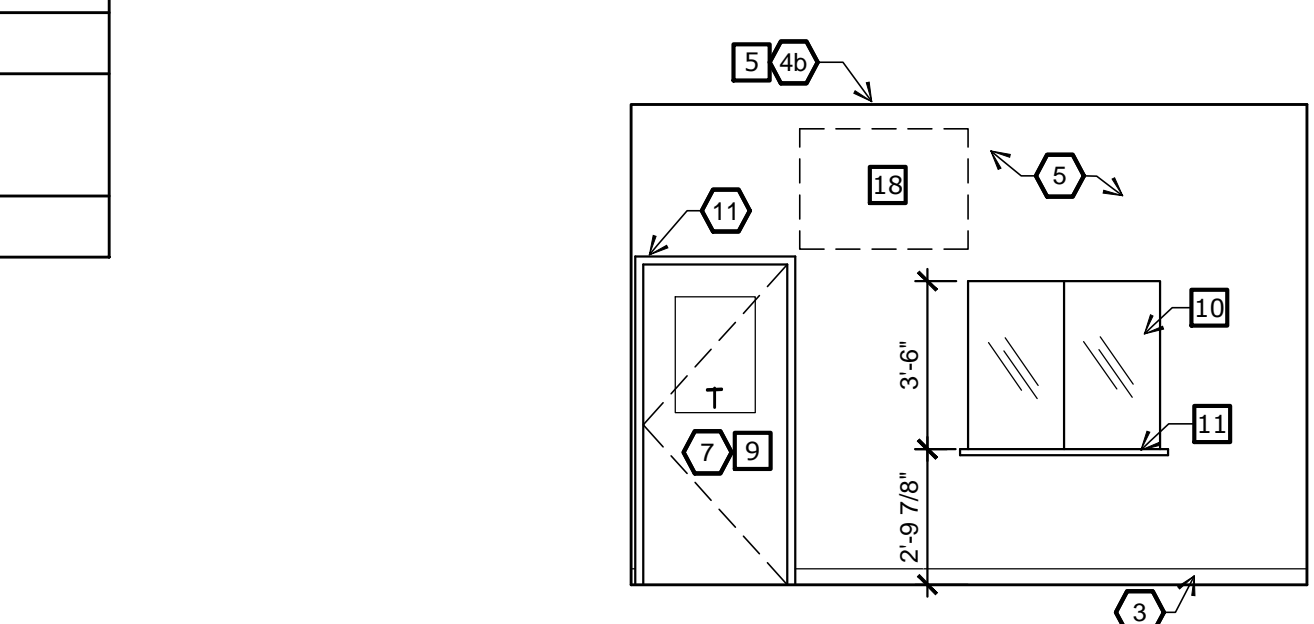
A5.2-08 INTERIOR ELEV-EXAM
SCALE: 1/4"=1'-0" (ALSO REFER TO ELECT. DWGS)



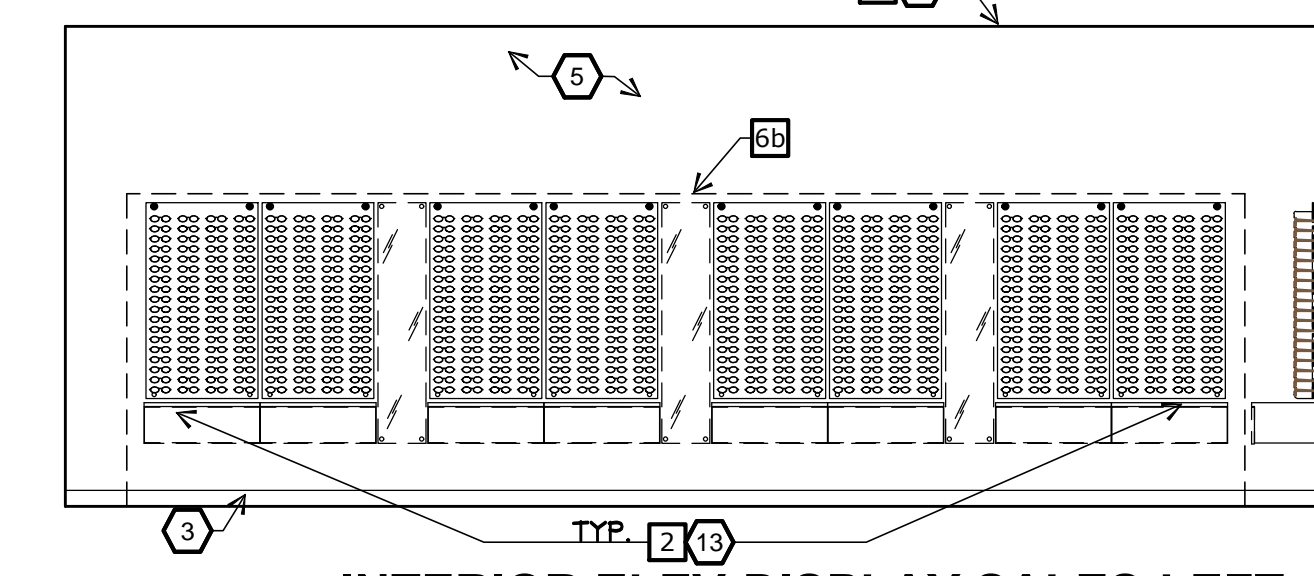
A5.2-02 INTERIOR ELEV-DISPLAY SALES-FRONT
SCALE: 1/4"=1'-0" (ALSO REFER TO ELECT. DWGS)



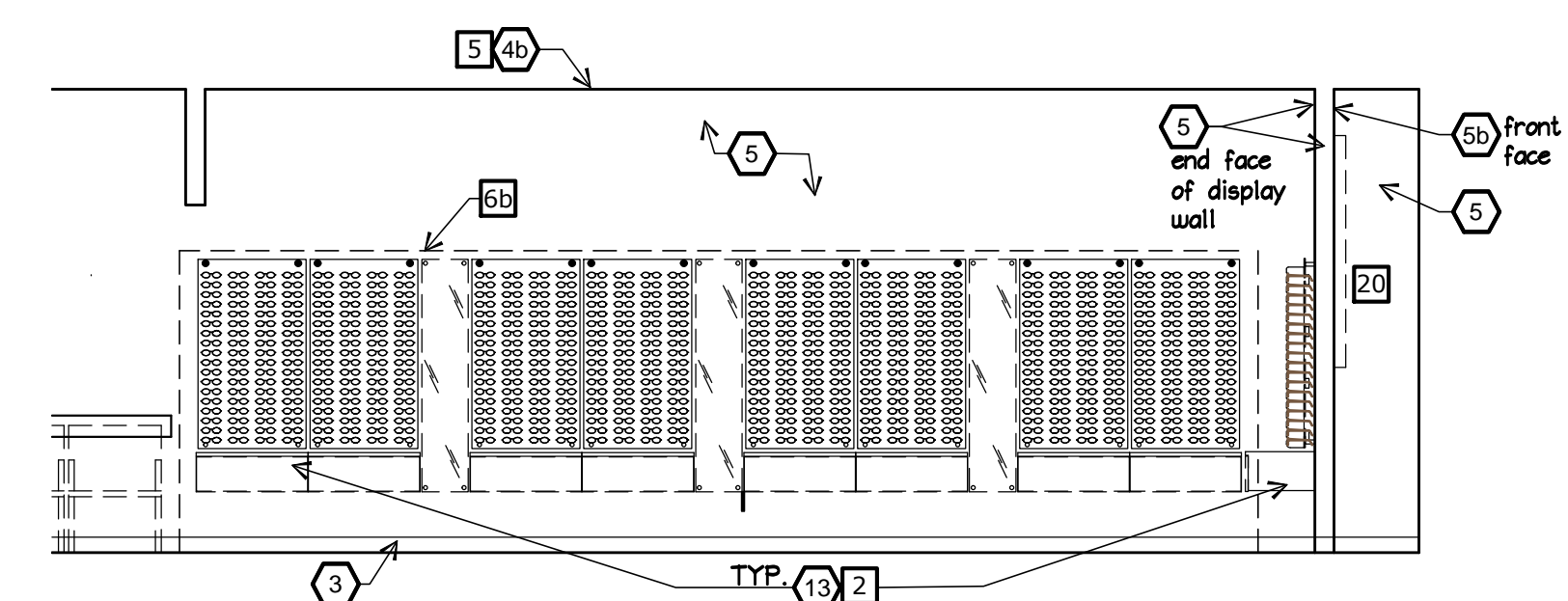
A5.2-01 INTERIOR ELEV-DISPLAY SALES-BACK
SCALE: 1/4"=1'-0" (ALSO REFER TO ELECT. DWGS)



A5.2-05 INTERIOR ELEV-WAITING AREA
SCALE: 1/4"=1'-0"



A5.2-04 INTERIOR ELEV-DISPLAY SALES-LEFT
SCALE: 1/4"=1'-0" (ALSO REFER TO ELECT. DWGS)



A5.2-0 INTERIOR ELEV-DISPLAY SALES-RIGHT
SCALE: 1/4"=1'-0" (ALSO REFER TO ELECT. DWGS)

A5.2-0 INTERIOR ELEV-CONTACTS
SCALE: 1/4"=1'-0" (ALSO REFER TO ELECT. DWGS)

TOILET ACCESSORY LEGEND

MARK	DESCRIPTION	MFR/MODEL #	REMARKS
GB	1/2" DIA. S.S. GRAB BAR (@ H.C. HT: 33"-36" AFF)	AJW #UG150-A30 BOBRICK #B-550	S.S. SATIN FINISH W/ CONCEALED MOUNTING
M	1/4" POLISHED 24"X 36" PLATE GLASS MIRROR W/ 1/2" TRIM	AJW #U704 BOBRICK #B-165	S.S. SATIN FINISH
TP	SURFACE MOUNTED PAPER TOWEL DISPENSER	GEORGIA-PACIFIC: MODEL#54488, HARDWOOD; AUTOMATED 1 ROLL; TRANSLUCENT SMOKE; GEORGIA-PACIFIC: MODEL#56744, (4) CORELESS ROLLS; TRANSLUCENT SMOKE;	SURFACE MOUNTED-PROVIDED BY TENANT-INSTALLED BY G.C.
TP	TOILET PAPER DISPENSER		PROVIDED BY TENANT. INSTALLED BY G.C.
SD	SOAP DISPENSER		S.S. SATIN FINISH, PROVIDED BY TENANT-INSTALLED BY G.C.
N	SANITARY NAPKIN DISPOSAL-WALL MOUNTED	BOBRICK #B-270 OR EQUAL	S.S. SATIN FINISH.
CH	COAT HOOK WITH BUMPER	BOBRICK #B-212 OR EQUAL	MATTE FINISH

KEYED NOTES FOR A6.0 (REFER TO PLUMBING DWGS)

MARK	MATERIAL
1	2X4 (FLAT) FIRE-RETARDANT TREATED BLOCKING SHOWN DASHED. CUT BETWEEN STUDS.
2	LIGHT SWITCH. COMPLY W/ TAB/ADA REQUIREMENTS.
3	DOOR & FRAME AS SCHEDULED.
4	TOILET AS SCHEDULED. REFER TO PLUMBING DWGS. COMPLY WITH TAB/ADA REQUIREMENTS.
5	LAVATORY AS SCHEDULED. REFER TO MEP.
6	HOT WATER SUPPLY & DRAIN LINES UNDER LAVATORY SHALL BE INSULATED PER ADA REQUIREMENTS. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORY.
7	FLOOR DRAIN. REFER TO MEP DWGS.
8	HIGH/LOW ADA COMPLIANT DRINKING FOUNTAIN W/APRON FOR UPPER UNIT. REFER TO PLUMBING DWGS.

GENERAL NOTES:

- FLOORING AT TOILET ROOMS SHALL HAVE A STABLE, FIRM, SLIP-RESISTANT SURFACE THAT IS SMOOTH, HARD AND NON-ABSORBENT. THE INTERSECTIONS OF THE FLOOR AND WALLS SHALL HAVE A SMOOTH, HARD, NON-ABSORBENT VERTICAL BASE A MINIMUM OF 4" OR MIN. 6" PER CODE/DTL.
- ACCESSORIES PROVIDED ON OR WITHIN RESTROOM WALLS SHALL BE INSTALLED AND SEALED TO PROTECT THE STRUCTURAL ELEMENTS FROM MOISTURE.
- ALL DISPENSERS SHALL BE 40" AFF MAX. TO THE HIGHEST OPERABLE PART.
- PROVIDE LIQUID APPLY WATERPROOF MEMBRANE COVERING ENTIRE TOILET ROOM FLOOR AND UP 6" OF PERIMETER WALLS. INSTALL PER MANUF. SPECIFICATION TO INCLUDE CRACKS AND JOINTS REQUIREMENTS.
- COMPLY WITH CURRENT ADAAG /-TAB-/ STATE ACCESSIBILITY REQUIREMENT.
- ~~BOTTLE WATER WILL BE PROVIDED BY EYEMART.~~

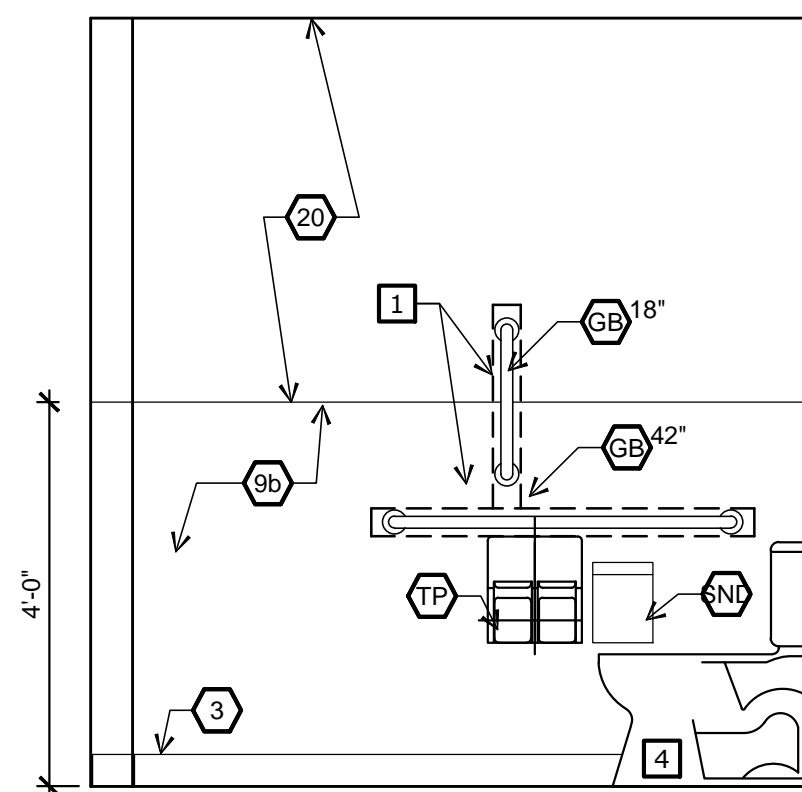
NOTES- SIGNAGE TO COMPLY WITH KBC, 2012 TAS AND ANSI 117.1:

- FOR SINGLE TOILET: USE UNISEX SIGN.
FOR TWO TOILETS: USE GENDER SPECIFIC SIGNS. REFER TO SHT. A6.0 FOR SIGN SCHEDULE. THE GENERAL CONTRACTOR SHALL ENSURE, SUPPLY AND INSTALL ANY ADDITIONAL SIGNS REQUIRED BY CODE.
- THE ELEVATIONS SHOWN ARE MINIMUM CLEAR DIMENSIONS FROM FINISHED SURFACES. REFER TO SHT A6.0 FOR LOCATION OF FIXTURES, M HARDWARE, SHELVES AND EQUIPMENT.
RESTROOM BRAILLE SIGNS:
1. LOCATIONS: ON THE WALL ADJACENT TO LATCH SIDE OF DOOR.
2. HEIGHT: 5'-0" AFF.
3. RAISED LETTERS:
A. 5/8" TO 2" HIGH, RAISED 1/32"
B. SANS SERIF, UPPER CASE
C. NON-GLARE: (TAB & ADA)
D. CONTRAST (TAB & ADA): LIGHT-ON-DARK OR DARK-ON-LIGHT.
4. BRAILLE: GRAD II, DOTS=1/10" ON CENTER ON EACH CELL WITH 2/10" SPACE BETWEEN CELLS, RAISED 1/40". (SIGNS TO COMPLY WITH TAB & ADA REQUIREMENTS)

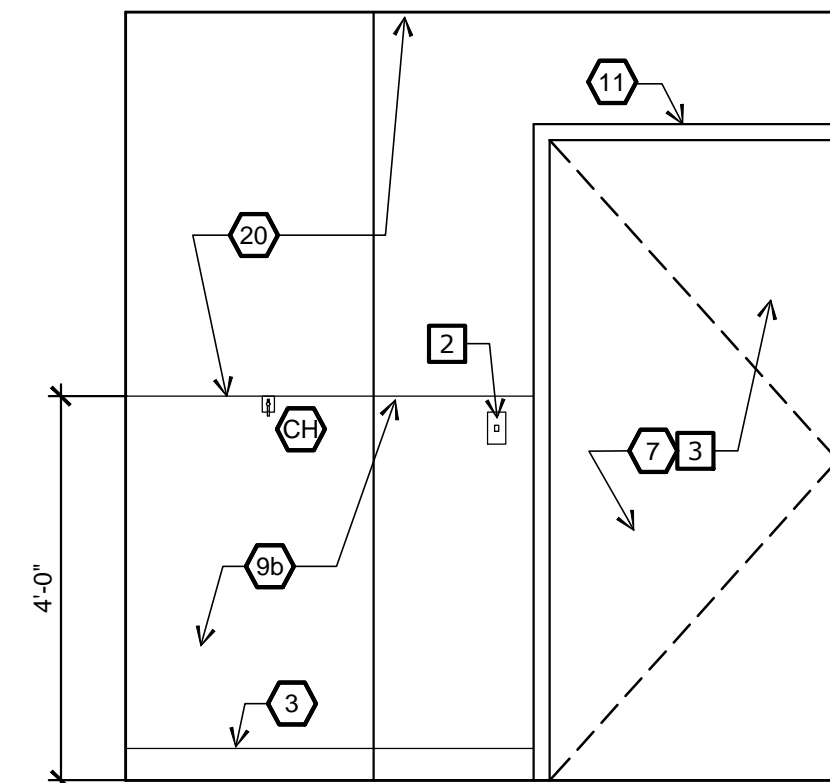
FINISH NOTES

NOTE: ALL MATERIALS & COLORS, SUBJECT TO REVISION BY OWNER, VERIFY WITH OWNER BEFORE PURCHASE & INSTALLATION

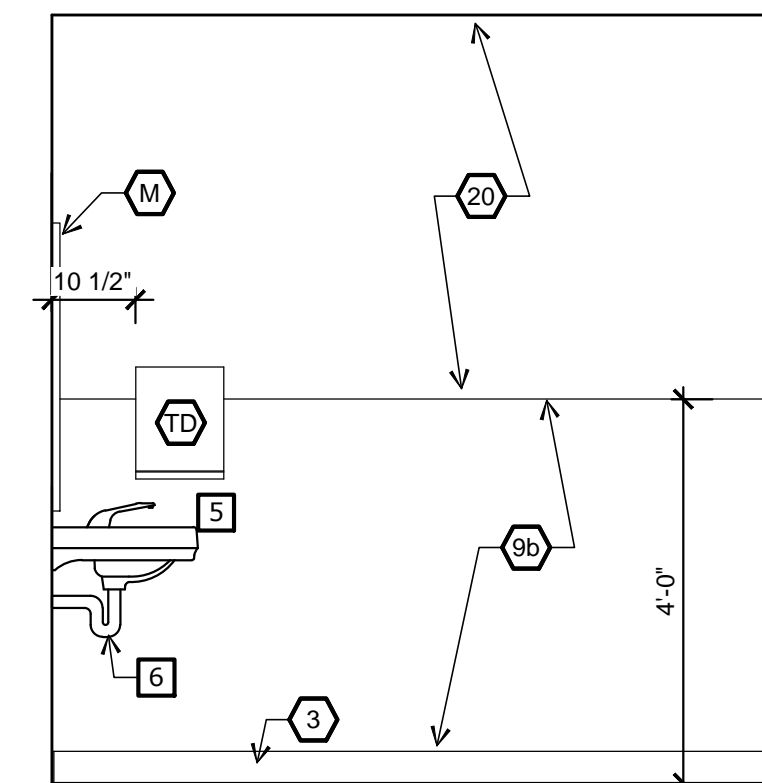
MARK	MATERIAL	MARK	MATERIAL
3	VINYL BASE	6	PAINT (TRIM)
3B	BASE IN TOILET ROOMS: CONTINUOUS SHEET VINYL EXTENSION UP 6" ON WALL. PROVIDE CONTINUOUS VINYL EDGING ALONG TOP EDGE OF 6" BASE/SHEET VINYL-REFER TO DTL A6.0-09	7	WOOD DOOR
		9B	FRP PANELS-TOILET
		11	PAINT (METAL DOORS AND FRAMES)
5	PAINT (DRYWALL)	20	PAINT (DRYWALL) - TOILET/LAB



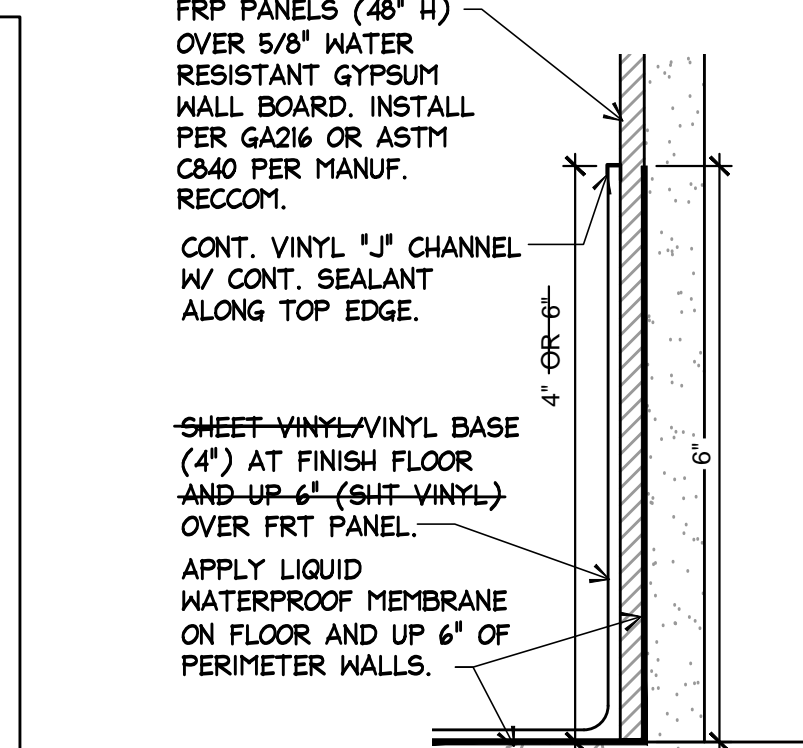
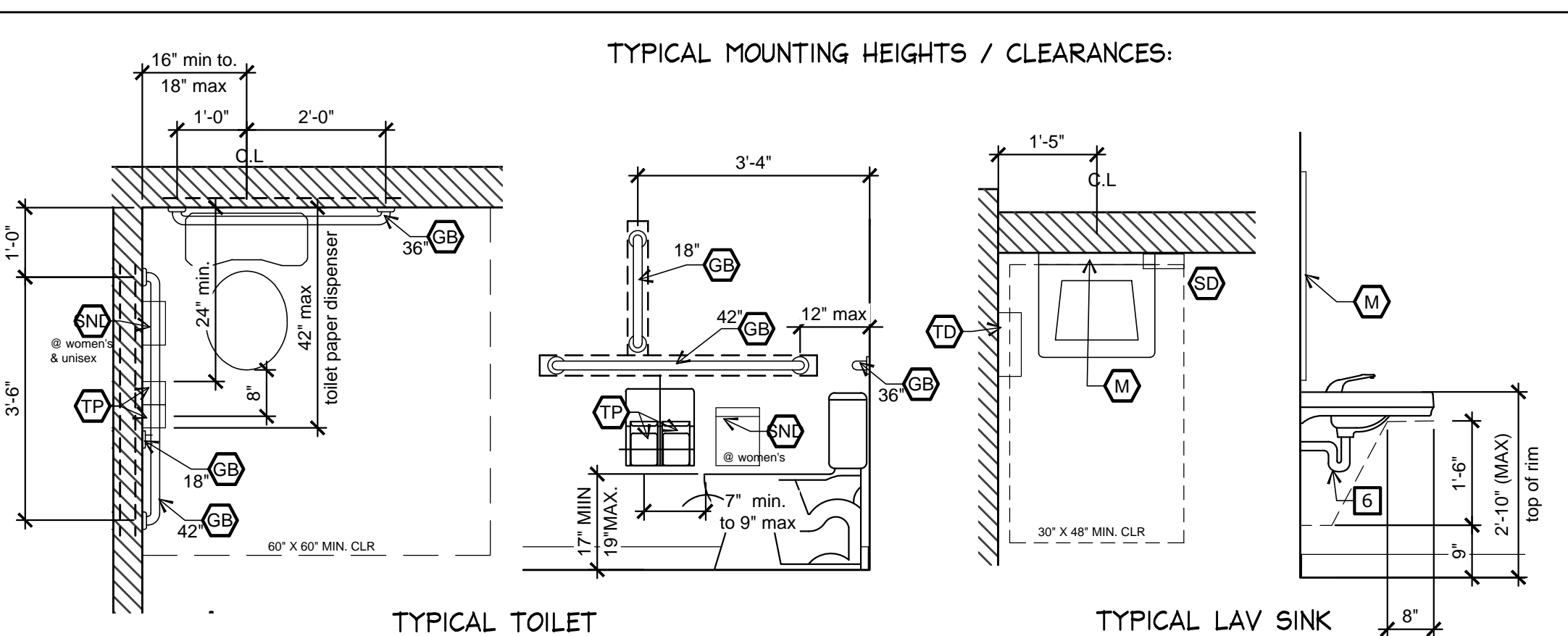
A6.0-05 RESTROOM ELEV.
SCALE: 1/2"=1'-0"



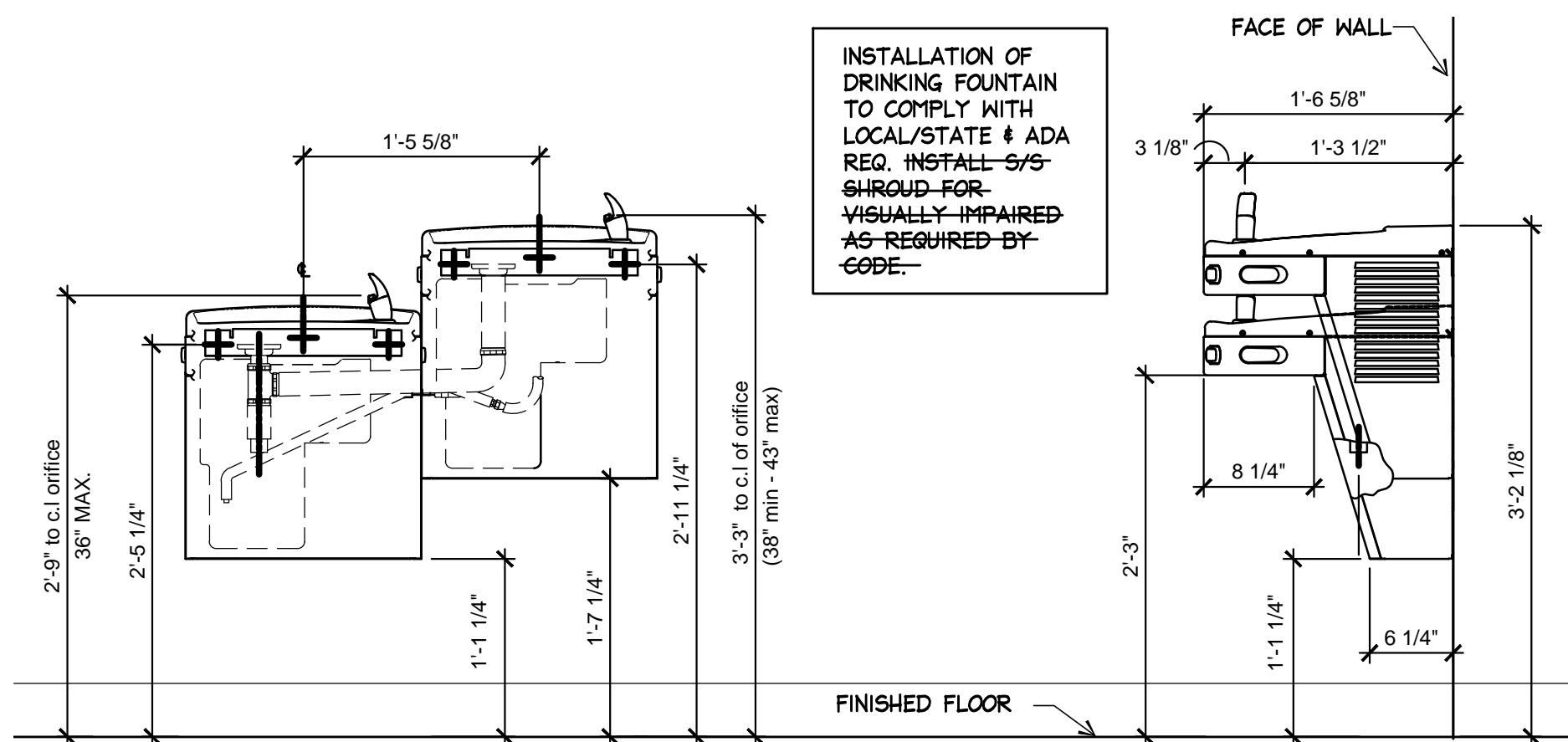
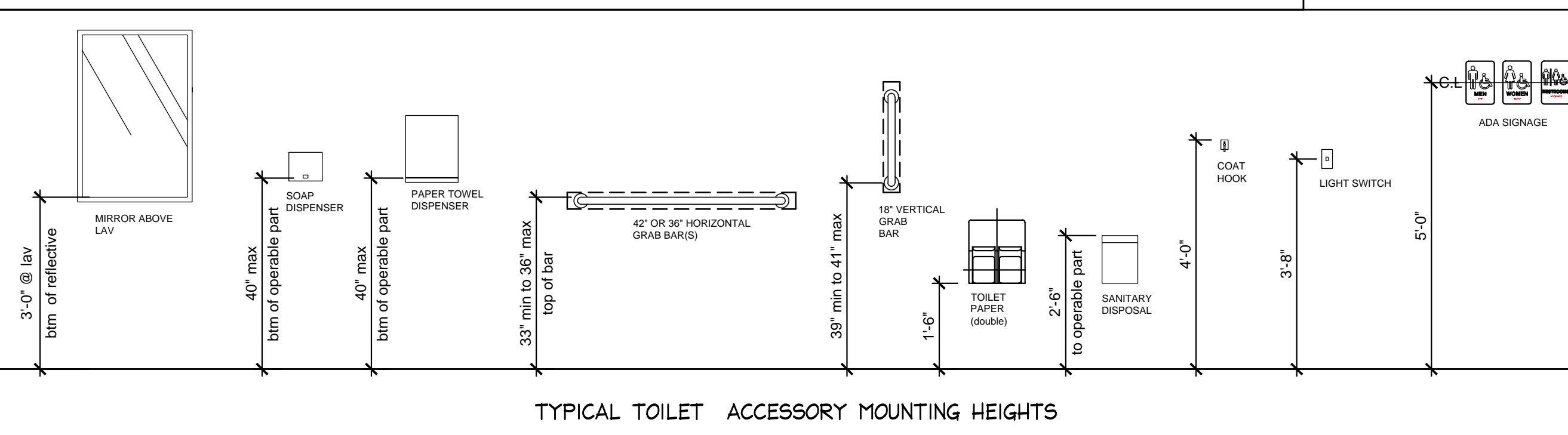
A6.0-06 RESTROOM ELEV.
SCALE: 1/2"=1'-0"



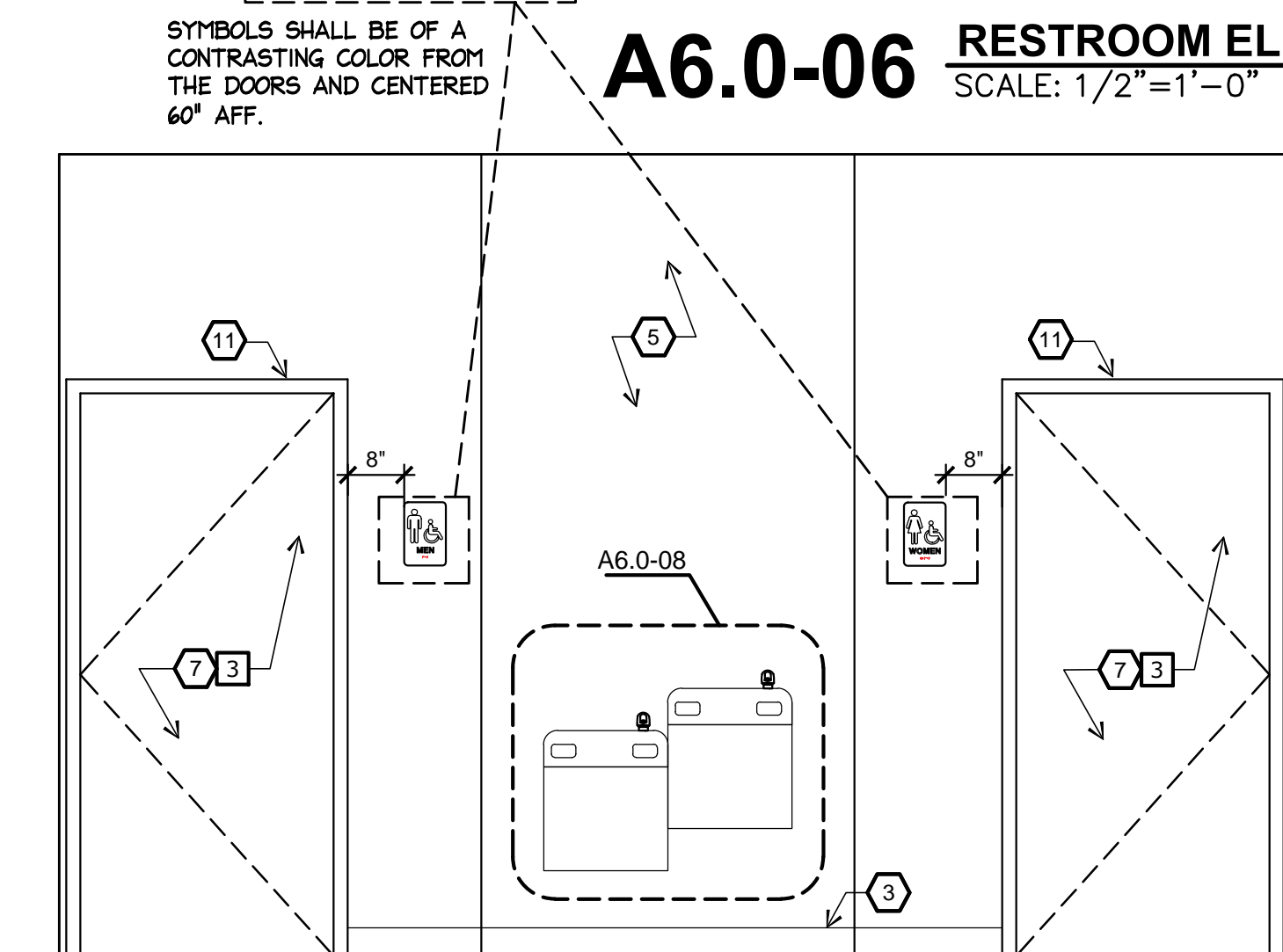
A6.0-03 RESTROOM ELEV.
SCALE: 1/2"=1'-0"



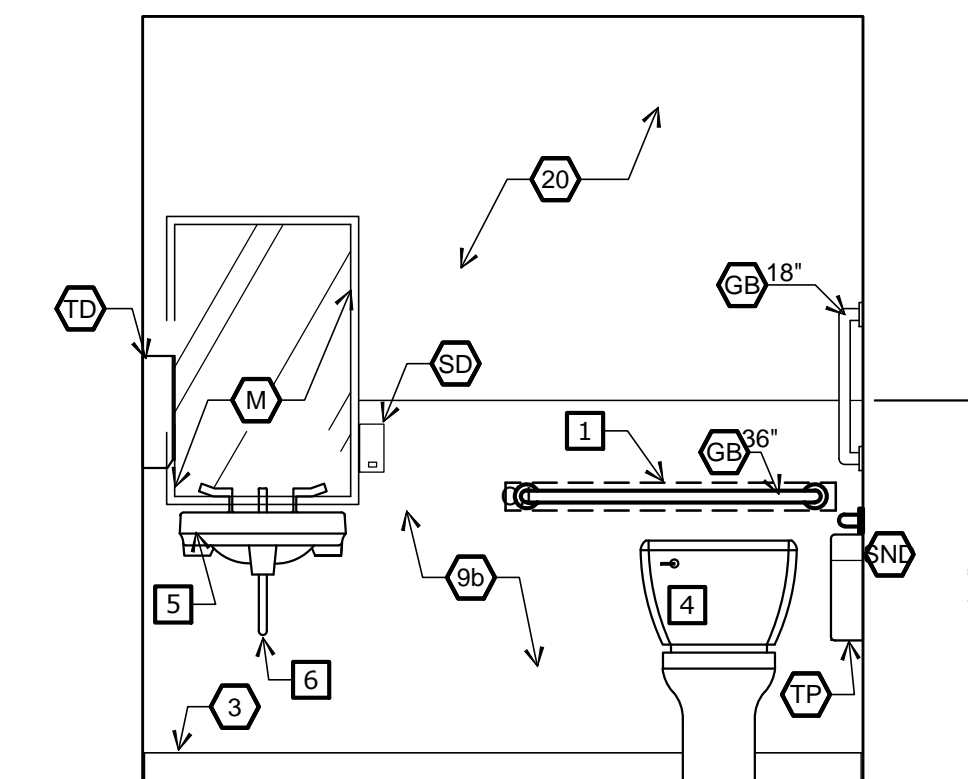
A6.0-09 WALL-FLOOR DTL.
SCALE: 6"=1'-0"



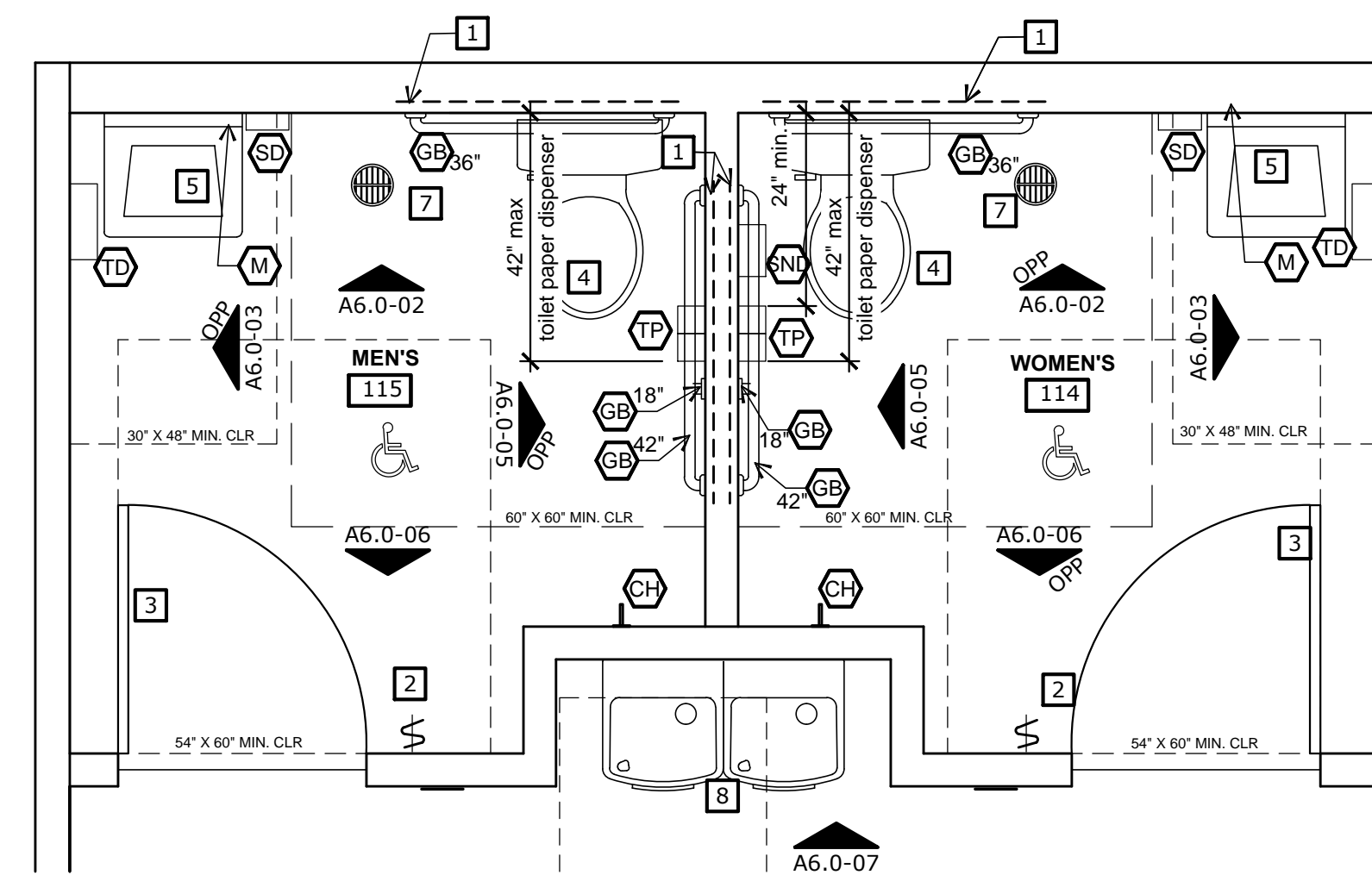
A6.0-08 HIGH-LOW DRINKING FOUNTAIN
SCALE: 1"=1'-0"



A6.0-07 ADA SIGNAGE ELEV
SCALE: 1/2"=1'-0"



A6.0-02 ELEV.
SCALE: 1/2"=1'-0"



A6.0-01 ENLARGED RESTROOMS
SCALE: 1/2"=1'-0"

ARCHITECT OF RECORD 10/29/2020

Caroline H.C Ma
Architect

Architecture & Design

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1720 DALE FORD RD.
DELAWARE, OH
43015

CONSULTANT

PROJECT NAME

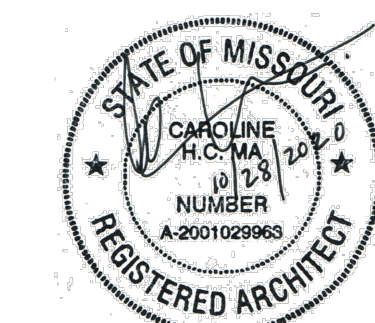
EYEMART
EXPRESS

STORE #:

SITE LOCATION:

1041 NE
SAM WALTON DR
LEE'S SUMMIT, MO
64086

ARCHITECT OF RECORD



10-28-2020
* Permit



PERMIT

* INDICATES
AFFECTED SHEETS

RESTROOM : PLAN

ELEVATIONS
DETAILS

DATE
10-28-2020

PROJECT NUMBER
EYEM101520LSMO

SHEET NUMBER

A6.0

HVAC GENERAL NOTES

1. HVAC/MECHANICAL CONTRACTOR (MC) TO PROVIDE 1 YR. PARTS AND LABOR WARRANTY ON ALL WORK. PROVIDE 5 YR. COMPRESSOR WARRANTY AND 10 YR. HEAT EXCHANGER WARRANTY ON ALL HVAC EQUIPMENT.
2. MC SHALL BE RESPONSIBLE FOR COORDINATION OF ALL TRADES, LANDLORD REQUIREMENTS, CEILING HEIGHTS AND EXISTING STRUCTURAL CONDITIONS PRIOR TO FABRICATION OF ANY DUCTWORK OR ORDERING OF ANY EQUIPMENT.
3. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.
4. FURNISH ALL LABOR, MATERIALS, TOOLS, INCIDENTALS AND DETAILS NECESSARY TO PROVIDE A COMPLETE HEATING, VENTILATING AIR CONDITIONING SYSTEM, TO INCLUDE ANY LABOR AND MATERIAL NOT SPECIFICALLY MENTIONED, BUT NECESSARY TO PROVIDE A COMPLETE AND OPERATING SYSTEM. ALL WORK SHALL BE INSTALLED IN A PROFESSIONAL MANNER AND SHALL MEET ALL THE REQUIREMENTS OF THE STATE BUILDING CODE, CITY BUILDING CODE, SAFETY AND HEALTH CODES, NFPA CODES AND ALL OTHER APPLICABLE CODES AND REQUIREMENTS. ALL COSTS FOR SAID REQUIREMENTS SHALL BE INCLUDED IN THIS CONTRACTOR'S BID PRICE.
5. MC SHALL SECURE AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS AND PERFORM ALL TESTS CALLED FOR OR REQUIRED AS A PART OF HIS WORK. FURNISHED APPROVED CERTIFICATE OF FINAL INSPECTION AND TURN OVER TO OWNER AT COMPLETION OF PROJECT.
6. HVAC PLANS ARE DIAGRAMMATIC, NOT SHOWING EVERY ITEM IN EXACT LOCATION OR DETAIL. MEASUREMENTS AND LOCATIONS MUST BE FIELD VERIFIED AND COORDINATED WITH ARCHITECTURAL, HVAC, FIRE PROTECTION, STRUCTURAL, ELECTRICAL AND OTHER BUILDING DRAWINGS.
7. MC TO PROVIDE TENANT AND LANDLORD WITH AS-BUILT DRAWINGS, ALL EQUIPMENT SHOP DRAWINGS, INFORMATION ON THERMOSTATS, CONTROL WIRING DIAGRAMS AND OTHER PERTINENT INFORMATION AT COMPLETION OF PROJECT.
8. PROVIDE AN INDEPENDENT AABC OR NEBB CERTIFIED AIR BALANCE ON ALL HVAC EQUIPMENT FOR MINIMUM AND ECONOMIZER OUTSIDE AIR OPERATION AND FANS.
9. NEW DUCTS USED TO CONVEY THE CONDITIONED AIR SUPPLY AND VENTILATION AIR ARE TO BE MADE OF CONTINUOUS SHEET METAL. PROVIDE SPIRAL DUCT IN OPEN CEILING AREAS.
10. DUCT LININGS (THERMAL AND ACOUSTICAL), VIBRATION ISOLATION CONNECTORS, FLEXIBLE DUCT CONNECTORS AND DUCT TYPE TO BE APPROVED BY LOCAL CODE.
11. ALL OUTSIDE AIR AND RECTANGULAR RETURN AIR DUCTWORK SHALL BE EXTERNALLY INSULATED WITH 1-1/2" THICK, 1/5 LBS. DENSITY FOIL FACED FIBERGLASS INSULATION UNLESS NOTED OTHERWISE IN GENERAL. SUPPLY AIR DUCTWORK TO BE WRAPPED WITH 2" DUCT WRAP. INSTALL DUCTWORK TIGHT TO UNDERSIDE OF STRUCTURE UNLESS OTHERWISE NOTED OR REQUIRED BY FIELD CONDITIONS. COORDINATE EXACT MOUNTING HEIGHT IN FIELD WITH GENERAL CONTRACTOR (GC).
12. ALL DUCTWORK SHALL BE SHEET METAL FABRICATED IN ACCORDANCE WITH ASHRAE GUIDELINES AND SMACNA MANUAL, LATEST EDITIONS.
13. ALL BRANCH TAKE-OFFS SHALL BE PROVIDED WITH MANUAL BALANCING DAMPERS.
14. 1" INSULATED FLEXIBLE DUCTS SHALL BE MAXIMUM 6'-0" LONG AND SHALL MEET INSTALLATION AND MATERIAL REQUIREMENTS PER LOCAL CODES. INSULATED DUCT TO BE 1" THICK, 1-1/2 LBS. DENSITY WITH FOIL FACE.
15. THE HVAC CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE TEMPERATURE CONTROL SYSTEM. FURNISH AND INSTALL A SEVEN DAY PROGRAMMABLE THERMOSTAT COMPATIBLE WITH HVAC ROOFTOP EQUIPMENT.
16. ALL TEMPERATURE CONTROLS, FIRE ALARM COMPONENTS, EQUIPMENT, NAMEPLATES, LABELS, OR COLOR CODED COMPONENTS SHALL BE MASKED DURING PAINTING TO PREVENT DAMAGE FROM OVER SPRAY OR OBSCURING INFORMATION.
17. ALL LOW VOLTAGE WIRING AND CONDUIT REQUIRED FOR HVAC EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY MC. MC SHALL BE RESPONSIBLE FOR COORDINATING WITH ELECTRICAL CONTRACTOR (EC) ALL WIRING AND CONDUIT REQUIRED FOR EQUIPMENT OPERATION AND CONTROL.
18. PROVIDE OPERATIONAL MANUALS, INSTRUCT OWNER ON EQUIPMENT USE AND TEST ALL UNITS AND CONTROLS FOR PROPER SEQUENCING.
19. IT IS THE MC'S RESPONSIBILITY TO ENSURE THAT THE HVAC EQUIPMENT COMPONENTS ARE INSTALLED AT LOCATIONS AND ELEVATIONS WHICH MAKE THEM READILY ACCESSIBLE FOR ROUTINE MAINTENANCE WITHOUT REQUIRING ANY EXTRAORDINARY MEASURES.
20. ALL ROOF WORK TO BE PERFORMED BY LANDLORDS APPROVED ROOFING CONTRACTOR AT MC'S EXPENSE. SEAL ALL ROOF PENETRATIONS WEATHER TIGHT.
21. MAINTAIN 10'-0" MINIMUM SEPARATION BETWEEN ALL OUTSIDE AIR OPENINGS AND EXHAUST OR VENT OPENINGS.
22. MANUFACTURER'S LISTED ON THE DRAWINGS WERE USED AS THE BASIS OF DESIGN. THE MC MAY, AT THEIR OPTION, PROVIDE AN EQUAL MANUFACTURED PRODUCT. THE MC IS ENTIRELY RESPONSIBLE FOR ANY AND ALL COSTS REQUIRED TO ALTER THE SYSTEM DESIGN. WHETHER IDENTIFIED OR NOT IDENTIFIED BY THE ENGINEER OR ARCHITECT, SHOULD AN EQUAL MANUFACTURER BE SUPPLIED.
23. ALL DUCTWORK TO BE LOW PRESSURE.
24. DUCTWORK AND PIPING TO BE SUPPORTED PER SMACNA SEISMIC RESTRAINT MANUAL AND ALSO THE FEDERAL EMERGENCY MANAGEMENT AGENCY "INSTALLING SEISMIC RESTRAINTS FOR DUCT AND PIPE" AND PER THE NORTH CAROLINA MECHANICAL BUILDING CODE IF REQUIRED.

HVAC CODED NOTES

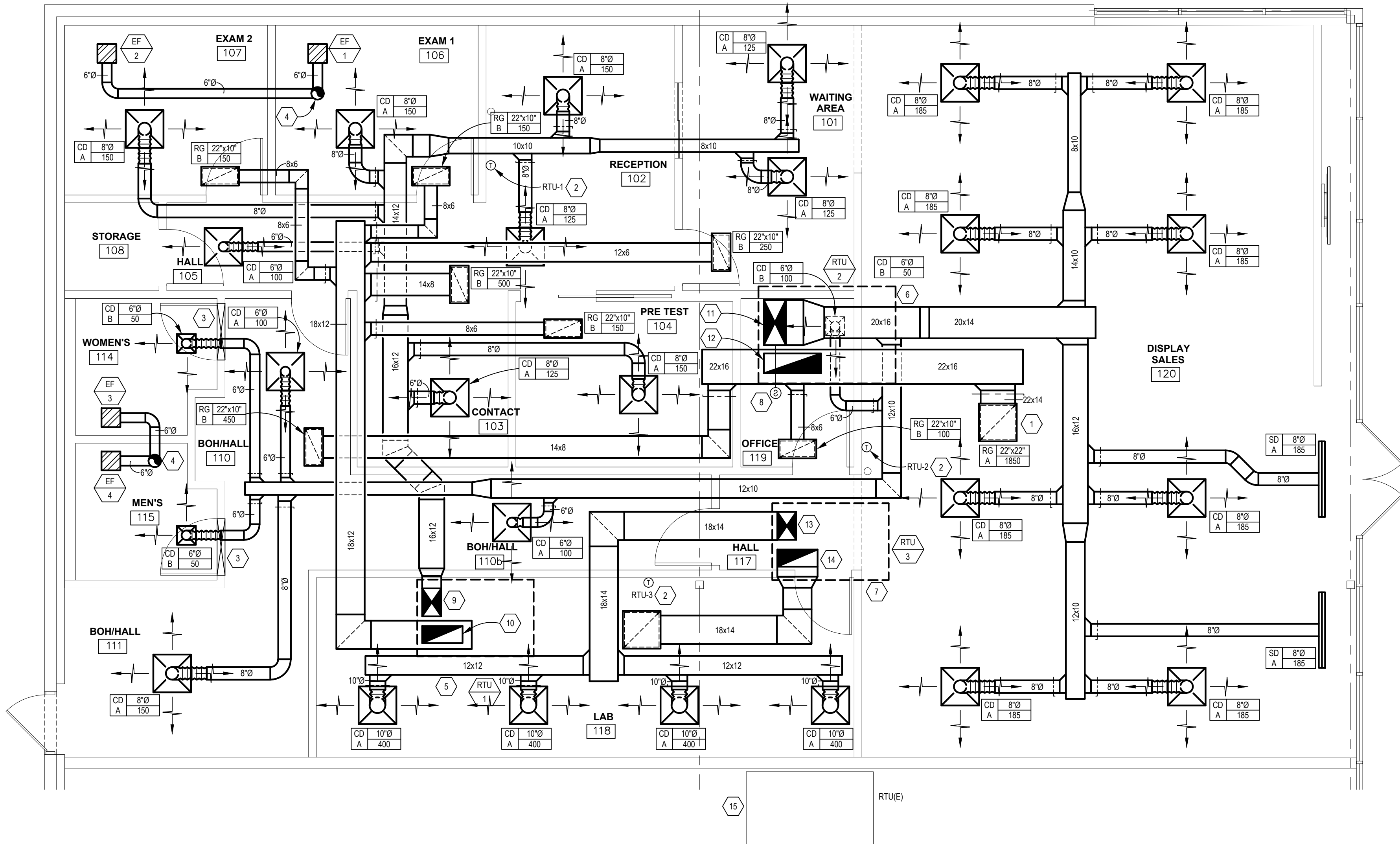
- 1 MC TO COORDINATE EXACT LOCATION OF RETURN AIR GRILLES IN SALES/RETAIL AREA. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL AIR DEVICES.
- 2 MC TO PROVIDE AND INSTALL THERMOSTAT. MOUNT THERMOSTAT AT 48" ABOVE FINISHED FLOOR. PROVIDE LOW VOLTAGE CONTROL WIRING AND MAKE SYSTEM FULLY FUNCTIONAL.
- 3 DOOR TO BE UNDER CUT 1" FOR MAKE-UP TRANSFER AIR.
- 4 8"Ø EXHAUST AIR DUCT UP THRU ROOF IN PRE-FABRICATED INSULATED ROOF CURB WITH VENT CAP. INSTALL CURB AND CAP PER MANUFACTURER'S GUIDELINES AND RECOMMENDATIONS. COORDINATE ROOF PENETRATION WITH GC PRIOR TO CUTTING ROOF. MAINTAIN 10' CLEARANCE TO ALL FRESH AIR INTAKES.
- 5 NEW RTU WITH ALL ASSOCIATED ACCESSORIES TO BE APPROXIMATELY 750 LBS. WEIGHT OF EXISTING UNIT IS UNKNOWN.
- 6 NEW RTU WITH ALL ASSOCIATED ACCESSORIES TO BE APPROXIMATELY 1150 LBS. EXISTING UNIT WEIGHS APPROXIMATELY 730 POUNDS. MC TO VERIFY EXACT WEIGHTS PRIOR TO STARTING WORK.
- 7 NEW RTU WITH ALL ASSOCIATED ACCESSORIES TO BE APPROXIMATELY 850 LBS. WEIGHT OF EXISTING UNIT IS UNKNOWN.
- 8 DUCT MOUNTED SMOKE DETECTOR.
- 9 FULL SIZE SUPPLY AIR DUCT FROM RTU CONNECTION TO TRANSITION TO 16x12 SUPPLY AIR DUCT.
- 10 FULL SIZE RETURN AIR DUCT FROM RTU CONNECTION TO DROP AND TO STUB INTO TOP OF 18x12 DUCT.
- 11 FULL SIZE SUPPLY AIR DUCT FROM RTU CONNECTION TO TRANSITION TO 20x16 SUPPLY AIR DUCT.
- 12 FULL SIZE RETURN AIR DUCT FROM RTU CONNECTION TO DROP AND TO STUB INTO TOP OF 22x16 DUCT.
- 13 FULL SIZE SUPPLY AIR DUCT FROM RTU CONNECTION TO TRANSITION TO 18x14 SUPPLY AIR DUCT.
- 14 FULL SIZE RETURN AIR DUCT FROM RTU CONNECTION TO TRANSITION TO 18x14 RETURN AIR DUCT.
- 15 EXISTING RTU LOCATED ABOVE ADJACENT SPACE AND IS TO BE USED FOR THAT SPACE. VERIFY EXACT USE WITH LANDLORD.

RTU'S WILL BE PROVIDED PER EYEMART HVAC AGREEMENT. T.G.C SHALL COORDINATE WITH EYEMART AND LANDLORD REQUIREMENTS PRIOR TO INSTALLATION. T.G.C. SHALL BE RESPONSIBLE FOR INSTALLATION OF DUCTWORK AND DISTRIBUTION. CONFIRM WITH EYEMART REPRESENTATIVE BEFORE WORK/BID.

HVAC APPROVED EQUAL MANUFACTURERS

THE HVAC CONTRACTOR IS REQUIRED TO USE UNITS THAT ARE SPECIFIED ON DRAWINGS OR APPROVED EQUALS BY EITHER YORK (YU), TRANE OR LENOX. UNITS THAT ARE HEAVIER THAN THE SPECIFIED EQUIPMENT MUST BE PROVIDED WITH STRUCTURAL AT CONTRACTOR'S EXPENSE.

YORK NATIONAL ACCOUNTS HVAC EQUIPMENT PACKAGE
EYEMART EXPRESS HAS A NATIONAL HVAC AGREEMENT WITH YORK INTERNATIONAL. THE HVAC EQUIPMENT SHALL BE PURCHASED DIRECTLY FROM YORK BY EYEMART EXPRESS, UNLESS INSTRUCTED OTHERWISE. THE HVAC MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND ACCEPTING THE EQUIPMENT, VERIFYING PROPER QUANTITIES, PROVIDING TEMPORARY STORAGE, LABOR, 1ST YEAR LABOR WARRANTY. FOR QUESTIONS REGARDING PRICING AND TECHNICAL SPECIFICATIONS AND SUBMITTALS CONTACT YORK NATIONAL ACCOUNTS @ 800-481-9738 OR 405-310-5860, OR EMAIL: BE-YORKNQAQUOTES@JCI.COM. FOR ALL OTHER INQUIRIES, PLEASE CONTACT WALT JACOB, NATIONAL ACCOUNT SALES MANAGER, AT 405-419-6351, EMAIL: WALT.JACOB@jci.com.



MECHANICAL PLAN

SCALE: 1/4" = 1'-0"



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CONSULTANT

PROJECT NAME

EYEMART
EXPRESS

STORE #:

SITE LOCATION:

1041 NE
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LEE'S SUMMIT, MO
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ENGINEER OF RECORD



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* INDICATES
AFFECTED SHEETS

HVAC PLAN

DATE

10-28-2020

PROJECT NUMBER

EYEM101520LSMO

SHEET NUMBER

H1.0

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ROOFTOP UNIT SCHEDULE (GAS HEAT)

TAG	MANUFACTURER & MODEL NUMBER	ZONE SERVED	NOMINAL TONNAGE	CFM	ESP (IN.)	OUTDOOR AIR	HEATING CAPACITY			GROSS COOLING CAPACITY					ELECTRICAL DATA			WEIGHT (LBS)	REMARKS
							INPUT (MBH)	OUTPUT (MBH)	SSE (%)	EAT DBWB	TOTAL (MBH)	SENSIBLE (MBH)	SEER/EER	AMBIENT TEMP.	S/A FAN BHP VOLTAGE	MCA	MOCP		
RTU 1	YORK ZYG04E	DOCTOR'S	3.0	1200	0.8	264	82/112	56/90	80.0	80/67	36.0	26.3	15.0 SEER	95°F	2.4 208-3-60	19.6	30	750	SEE NOTES 1-11
RTU 2	YORK ZYG07E	DISPLAY SALES	6.0	2400	0.8	432	110/150	88/120	80.0	80/67	72.0	52.6	12.0 EER	95°F	2.9 208-3-60	35.9	50	-	SEE NOTES 1-11
RTU 3	YORK ZYG05E	LAB	4.0	1600	0.8	160	82/112	56/90	80.0	80/67	53.8	39.5	15.4 SEER	95°F	2.4 208-3-60	23.7	35	-	SEE NOTES 1-11
FURNISH WITH THE FOLLOWING:																			
1. ECONOMIZER WITH MODULATING CONTROL						6. NON-POWERED CONVENIENCE OUTLET				10. PRE-FABRICATED ROOF ADAPTER CURB IF NECESSARY (COORDINATE IN FIELD WITH EXISTING CURB, REPLACE CURB IF NECESSARY)									
2. 14" HIGH PRE-FAB ROOF CURB (IF NECESSARY)						7. R-410 REFRIGERANT				11. BAROMETRIC RELIEF									
3. DIFFERENTIAL ENTHALPY CONTROL						8. MEDIUM STATIC MOTOR													
4. 7-DAY PROGRAMMABLE THERMOSTAT (MIN. 5°F DEADBAND)						9. LOW AMBIENT CONTROLS													
5. DISCONNECT SWITCH																			

DUCTWORK SCHEDULE

DUCT SYSTEM	SMACNA PRESSURE CLASS	SMACNA SEAL CLASS	DUCT MATERIAL	INSULATION
SUPPLY AIR DUCTWORK	2"	B	GALVANIZED STEEL	2" DUCT WRAP (MIN. R-8)
RETURN AIR DUCTWORK	1"	B	GALVANIZED STEEL	INTERNALLY LINED
EXHAUST AIR DUCTWORK	1"	C	GALVANIZED STEEL	NONE
NOTE: ALL DUCTWORK SIZES ARE AIRWAY DIMENSIONS. ALL DUCTWORK IS TO BE CONSTRUCTED AND SEALED PER LATEST EDITION OF THE INTERNATIONAL MECHANICAL CODE.				

GRILLE, REGISTER AND DIFFUSER SCHEDULE

TAG	MANUFACTURER & MODEL NUMBER	CFM	AIR PATTERN	NECK SIZE	DAMPER	FRAME STYLE	PANEL SIZE	NECK SIZE	MAXIMUM NC LEVEL	FINISH	MATERIAL	REMARKS
SD A	TITUS TBDJ-80	AS NOTED	AS SHOWN	AS NOTED	OPPOSED BLADE	SURFACE MOUNTED	LINEAR	AS NOTED	30	PER ARCH	STEEL	1" SLOT WIDTH, 2 SLOT, 48" LENGTH, 8" INLET, INSULATED PLENUM. ADJUST DIFFUSER PATTERN CONTROLLERS (1) TOWARD STORE FRONT & (1) TOWARD INTERIOR AT A HORIZONTAL DISCHARGE.
CD A	TITUS TMS	AS NOTED	AS SHOWN	AS NOTED	OPPOSED BLADE	CEILING LAY-IN	24"x24"	AS NOTED	30	PER ARCH	STEEL	NEW GRILLES AND DIFFUSERS SHOULD BE SAME MAKE AND MODEL OF EXISTING GRILLES AND DIFFUSERS IN ORDER TO MATCH.
RG A	TITUS 50F	AS NOTED	RETURN	AS NOTED	OPPOSED BLADE	CEILING LAY-IN	24"x24"	22"x22"	30	PER ARCH	STEEL	<p>A schematic diagram of a rectangular grille. It consists of a central rectangle with two smaller rectangles on the top and bottom edges. Arrows point from the labels 'TAG', 'NECK SIZE', and 'CFM' to these respective parts of the grille.</p>
RG B	TITUS 50F	AS NOTED	RETURN	AS NOTED	OPPOSED BLADE	CEILING LAY-IN	24"x12"	22"x10"	30	PER ARCH	STEEL	
TG A	TITUS 50F	AS NOTED	TRANSFER	AS NOTED	OPPOSED BLADE	CEILING LAY-IN	24"x12"	22"x10"	30	PER ARCH	STEEL	
NOTES: 1. 1, 2, 3 AND 4-WAY AIR DEVICES ARE DETERMINED BY DIRECTIONAL ARROWS ON DRAWING. 2. DAMPERS SHALL BE OPERABLE FROM FACE. 3. BAKED WHITE ENAMEL FINISH.												

FAN SCHEDULE

TAG	MANUFACTURER & MODEL NUMBER	AREA SERVED	SERVICE	CFM	ESP	MOTOR HP & VOLTAGE	FAN RPM	FAN TYPE	MAX. SOUND LEVEL	REMARKS
EF 1	GREENHECK SP-B90	EXAM #1	EXHAUST	50	375	18.2 WATTS 120V, 1PH	679	CLG MTD	2.0 SONES	1, 2, 3, 4 & 5
EF 2	GREENHECK SP-B90	EXAM #2	EXHAUST	50	375	18.2 WATTS 120V, 1PH	679	CLG MTD	2.0 SONES	1, 2, 3, 4 & 5
EF 3	GREENHECK SP-B110	WOMEN'S 109	EXHAUST	75	375	80 WATTS 120V, 1PH	769	CLG MTD	1.0 SONES	1, 2, 3, 4 & 6
EF 4	GREENHECK SP-B110	MEN'S 110	EXHAUST	75	375	80 WATTS 120V, 1PH	769	CLG MTD	1.0 SONES	1, 2, 3, 4 & 6
NOTES: PROVIDE WITH THE FOLLOWING ITEMS: 1. DISCONNECT SWITCH 2. VIBRATION ISOLATORS (NEOPRENE) 3. AUTOMATIC BACKDRAFT DAMPER 4. SOLID STATE SPEED CONTROL SWITCH (INTEGRAL MTD. FOR BALANCING ONLY) 5. SWITCH (DO NOT SWITCH WITH LIGHT) 6. CONTROLLED WITH LIGHT BY ROOM OCCUPANCY SENSOR										

VENTILATION AIR REQUIREMENT

HVAC UNIT	ZONE DESCRIPTION	ZONE FLOOR AREA(SQ. FT.) Az	AREA OUTDOOR AIR RATE (CFM/SQ.FT.) Ra	PEOPLE OUTDOOR AIR RATE (CFM/PERSON) Rp	ZONE POPULATION (# OF PEOPLE) Pz	BREATHING ZONE OUTDOOR AIR FLOW (CFM) Vbz	ZONE AIR DISTRIBUTION EFFECTIVENESS Ez	ZONE OUTDOOR AIR FLOW (CFM) Voz	SYSTEM VENTILATION EFFICIENCY Ev	MINIMUM OUTDOOR AIR INTAKE FLOW (CFM) Vot	DESIGN OUTDOOR AIR INTAKE FLOW (CFM) Vot	REMARKS
Zone 1	101 Waiting Area	128	0.06	5	7	42.68	0.8	53.35	1	53.35	55	
	102 Reception	94	0.06	5	2	15.64	0.8	19.55	1	19.55	33	
	103 Contact	75	0.06	5	4	24.5	0.8	30.625	1	30.625	27.5	
	104 Pretest	101	0.06	5	4	26.06	0.8	32.575	1	32.575	33	
	105 Hall	125	0.06	5	0	7.5	0.8	9.375	1	9.375	49.5	
	106 Exam 1	97	0.06	5	2	15.82	0.8	19.775	1	19.775	33	
	107 Exam 2	97	0.06	5	2	15.82	0.8	19.775	1	19.775	33	
ZONE 1 TOTALS		717			21	148.02		185.025		185.025	264	
Zone 2	110 BOH/Hall	203	0.06	0	0	12.18	0.8	15.225	1	15.225	36	
	111 BOH/Hall	116	0.06	0	0	6.96	0.8	8.7	1	8.7	27	
	114 Women's	51	0	0	75cfm/fixture	75cfm/fixture	0.8	75cfm/fixture	1	75cfm/fixture	75	Quantities shown are for exhaust. 9 CFM of OA
	115 Men's	51	0	0	75cfm/fixture	75cfm/fixture	0.8	75cfm/fixture	1	75cfm/fixture	75	Quantities shown are for exhaust. 9 CFM of OA
	119 Office	54	0.06	5	1	8.24	0.8	10.3	1	10.3	18	
	120 Display Sales	1017	0.12	7.5	15	234.54	0.8	293.175	1	293.175	333	
ZONE 2 TOTALS		1492			16	261.92		327.4		327.4	432	
Zone 3	118 Lab	271	0.18	5	8	88.78	0.8	110.975	1	110.975	160	
ZONE 3 TOTALS		271			8	88.78		110.975		110.975	160	
ZONE TOTALS		2480			45	498.72		623.4		623.4	856	

NOTES: VENTILATION RATES ARE BASED ON IMC 2012, NCMC 2012, IECC 2009, ASHRAE 62.1-2007.

ASHRAE 62.1-2010 ITEM 6.2.2.1 BREATHING ZONE OUTDOOR AIR FLOW (CFM) Vbz = RpPz+RaAz x 1.00

WHERE: Az = ZONE FLOOR AREA Pz = POPULATION Rp = TABLE 6.1 OUTDOOR AIR PER PERSON Ra = TABLE 6.1 OUTDOOR AIR PER AREA

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* INDICATES
AFFECTED SHEETS

HVAC DETAILS

DATE

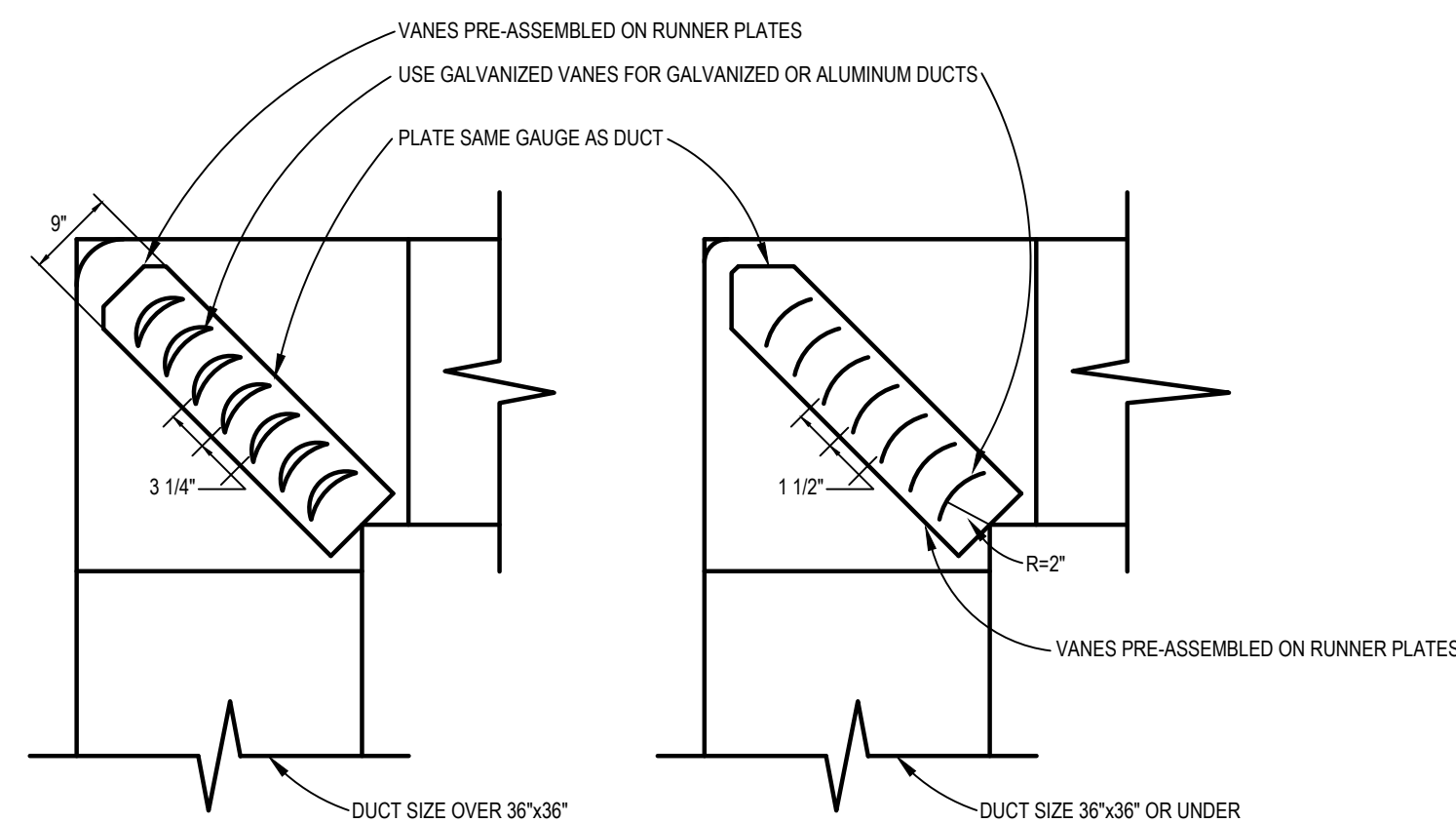
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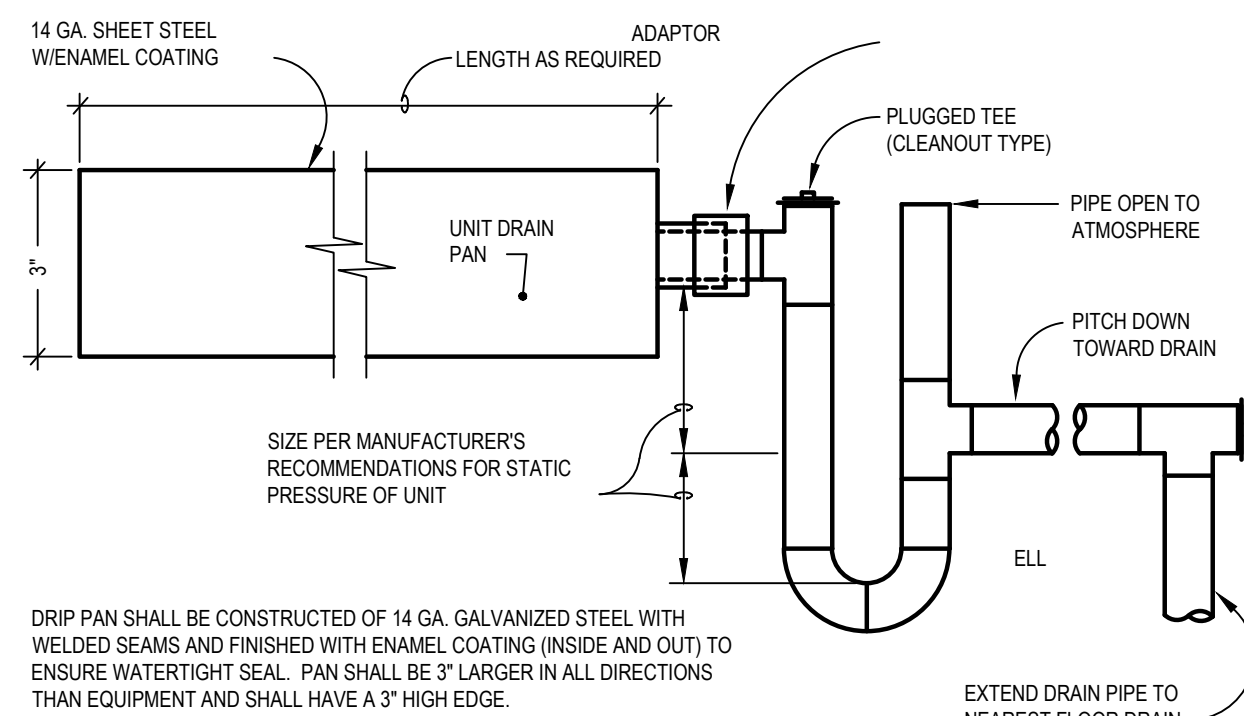
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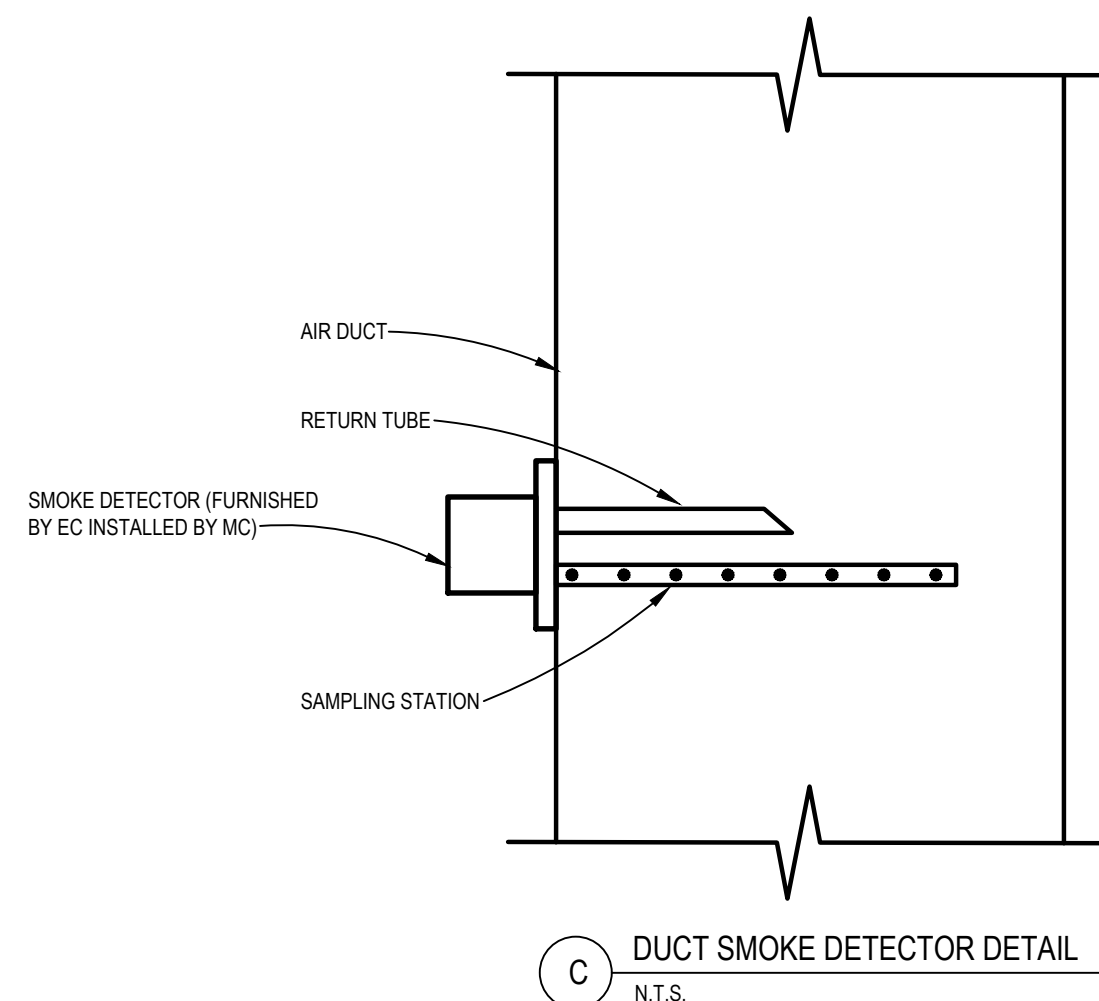
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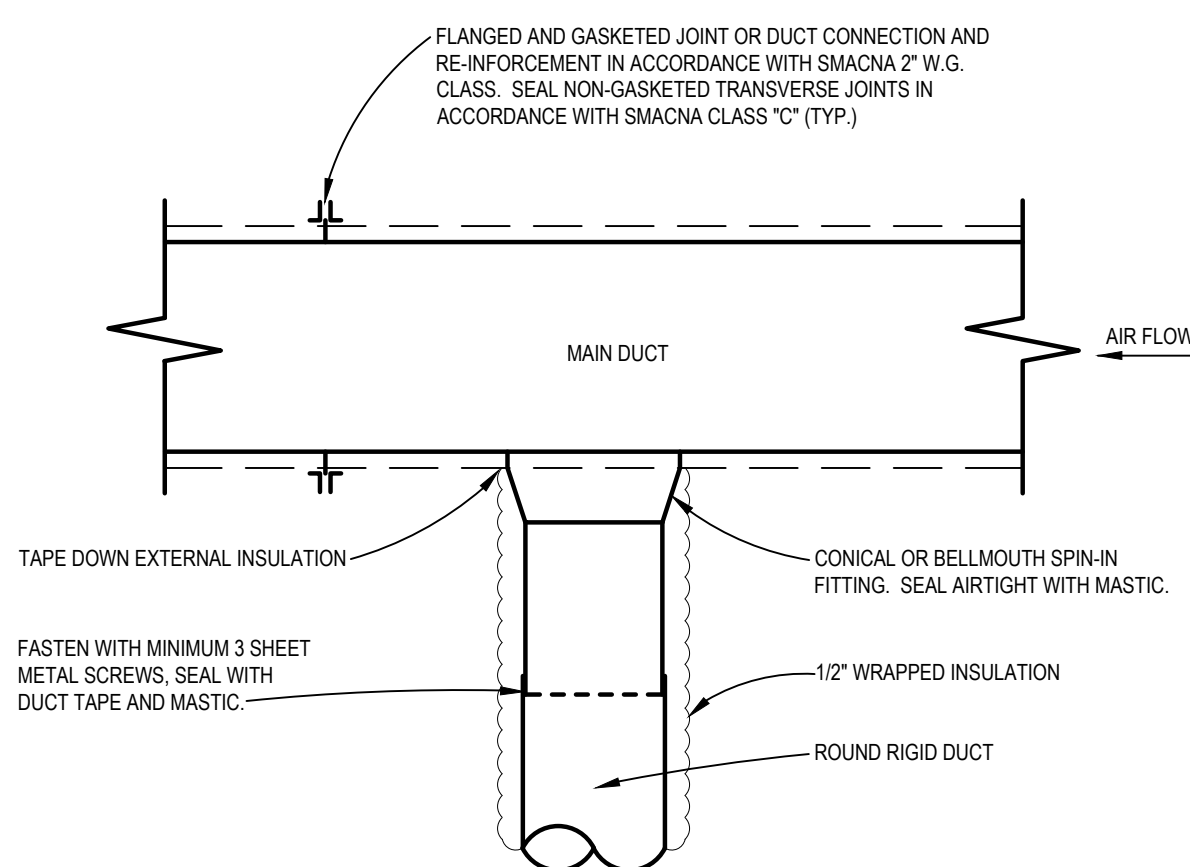
A TURNING VANE DETAIL
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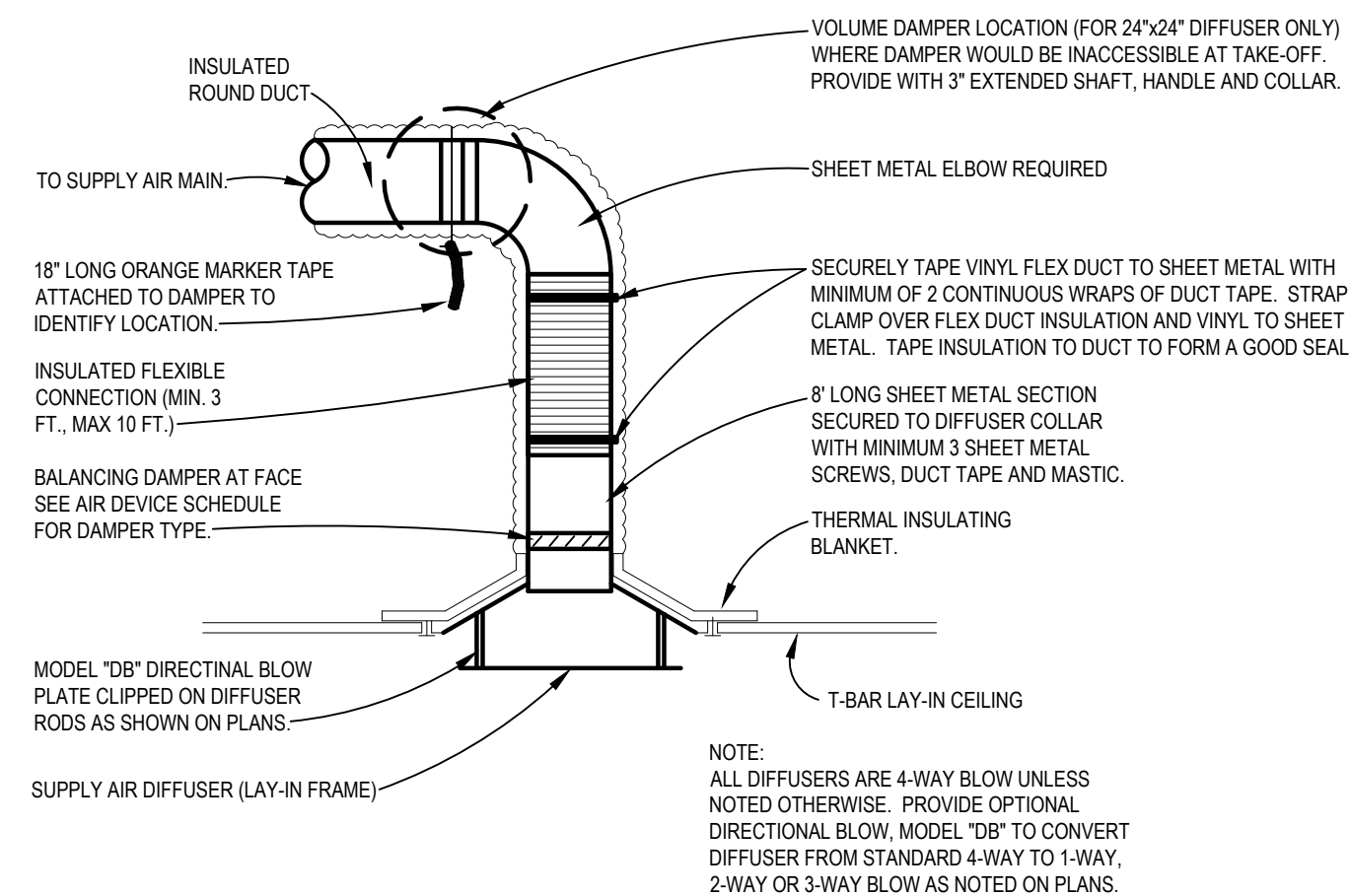
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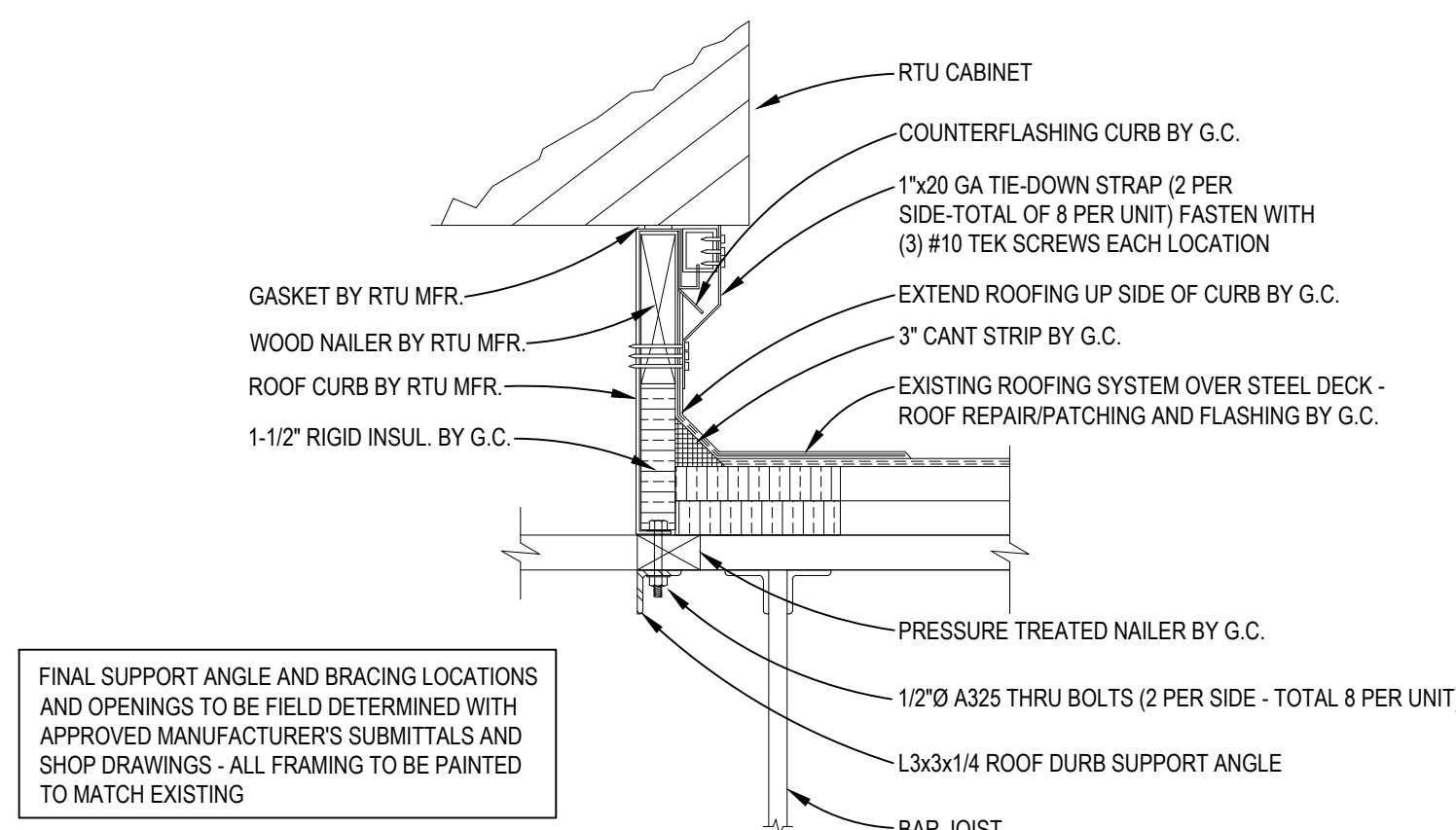
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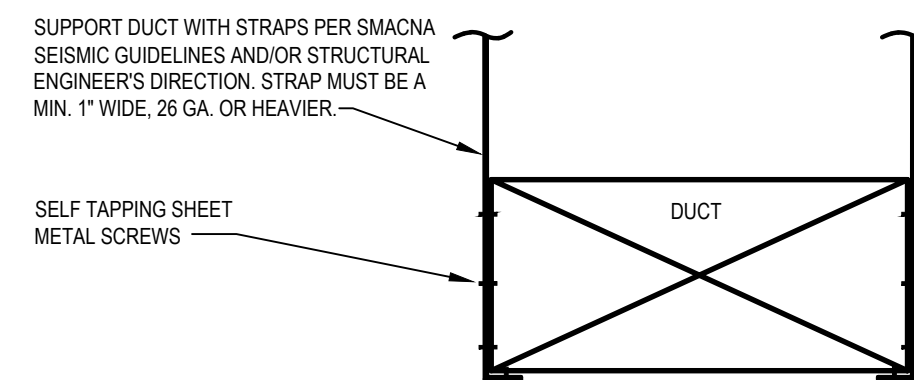
D TYPICAL ROUND DUCT TAKE-OFF DETAIL
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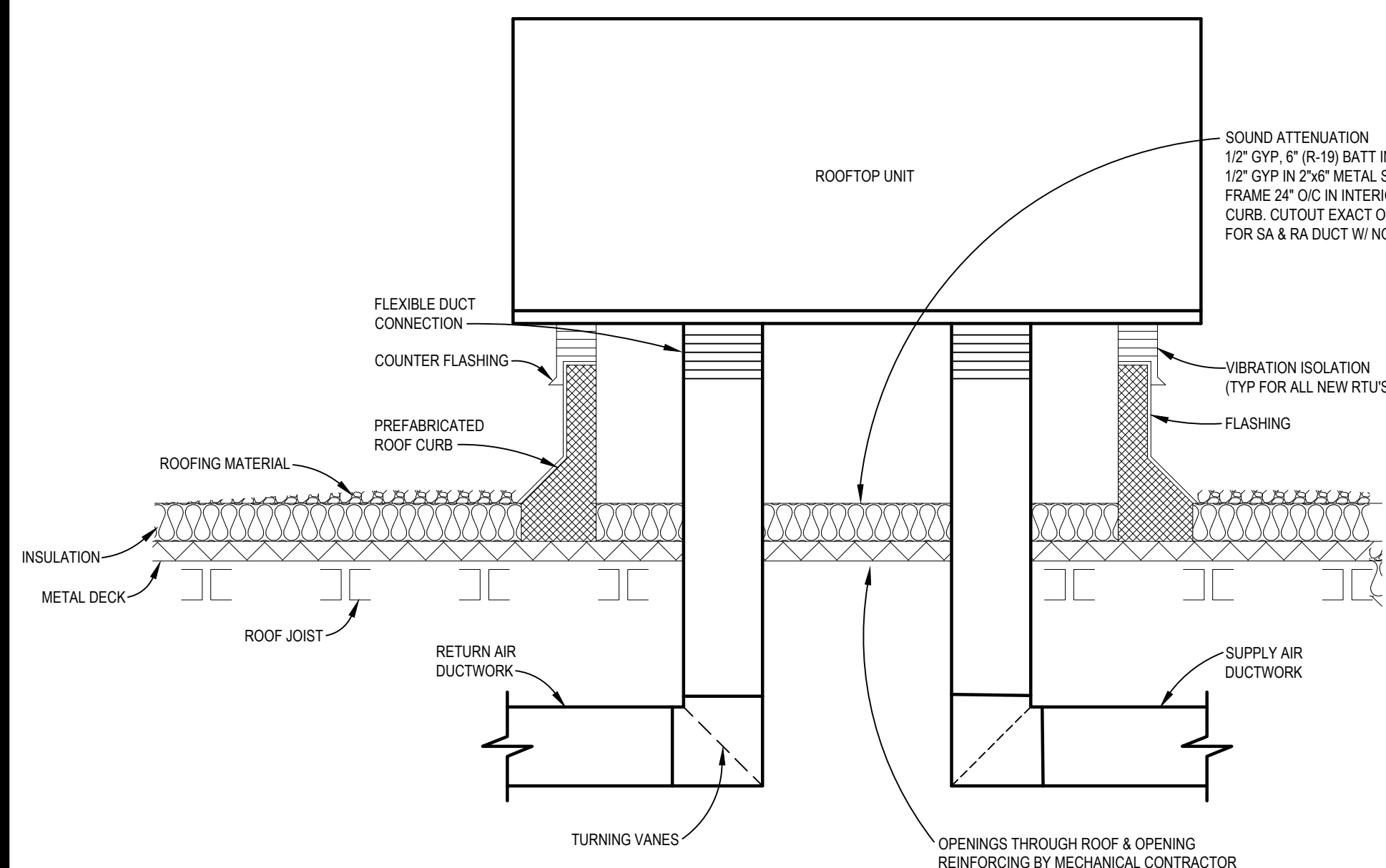
E DIFFUSER MOUNTING DETAIL
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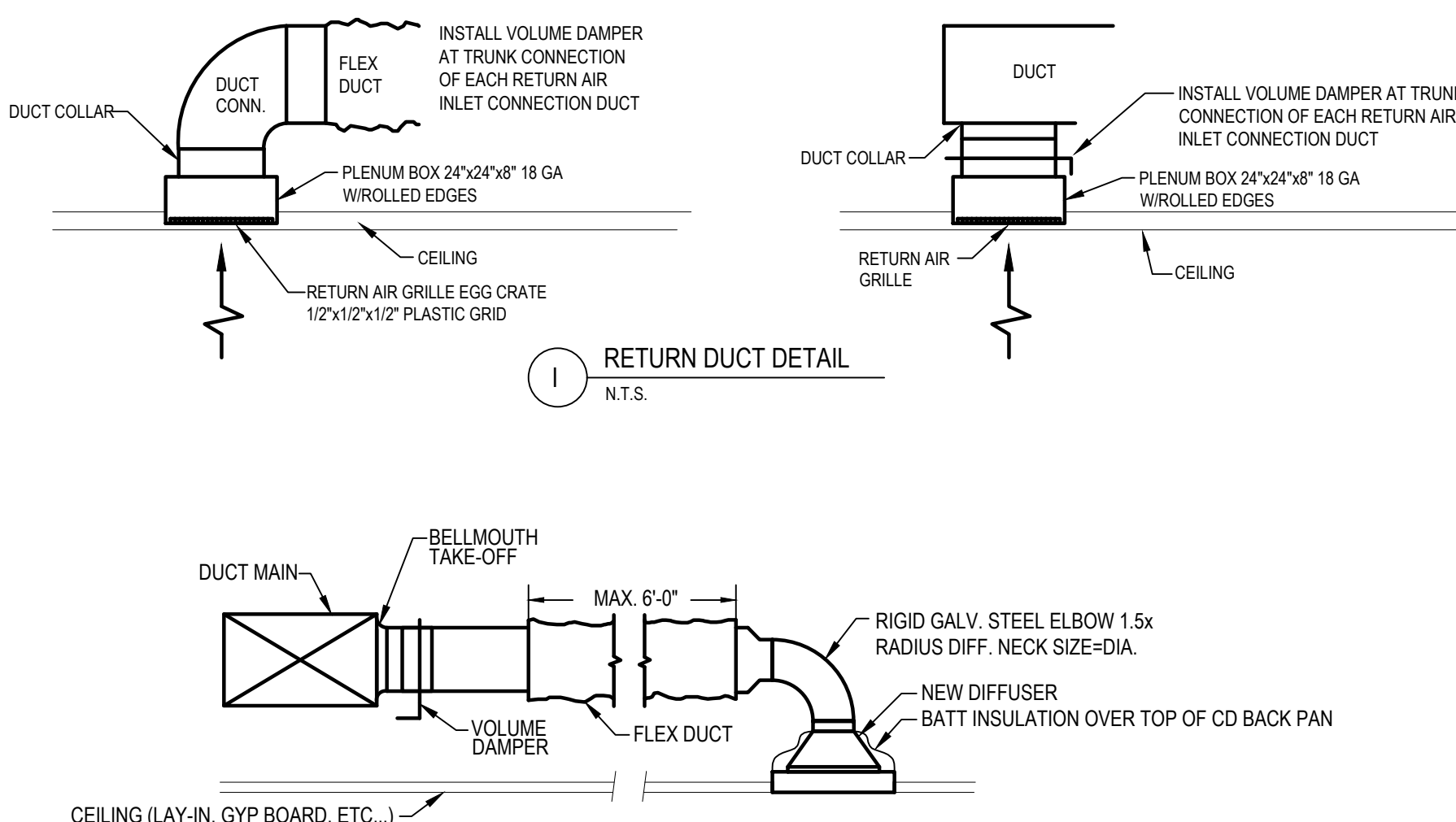
F ROOF CURB DETAIL
N.T.S.



G STRAP SUPPORT DETAIL
N.T.S.



H ROOFTOP UNIT DETAIL
N.T.S.



I RETURN DUCT DETAIL
N.T.S.

J SUPPLY DUCT DETAIL
N.T.S.

NOTE:
REFER TO STRUCTURAL DRAWINGS FOR MORE INFORMATION.

ENGINEER OF RECORD 10-28-2020

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PLUMBING PLAN

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P1.0

PLUMBING GENERAL NOTES:

1. THE PLUMBING CONTRACTOR SHALL FIELD VERIFY SANITARY SEWER INVERT ELEVATIONS, LOCATION, DIRECTION OF FLOW AND SIZES PRIOR TO INSTALLING ANY UNDERGROUND PIPING.
2. THE PLUMBING CONTRACTOR SHALL USE PVC PIPING FOR SANITARY PIPING PER STATE AND LOCAL AUTHORITIES.
3. ALL DOMESTIC WATER PIPING MUST BE COPPER WITH SWEAT FITTINGS. INSULATE ALL WATER PIPING WITH A MINIMUM OF 1/2" FIBERGLASS WRAP INSULATION.
4. ALL VENT PIPING CAN BE PVC, CAST IRON OR COPPER. DO NOT USE PVC WHERE THE CEILING SPACE IS USED AS A RETURN AIR PLENUM AREA.
5. THE PLUMBING CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL HANGERS, SUPPORTS AND ACCESSORIES AS REQUIRED BY ALL CODES.
6. ALL WORK SHALL BE PERFORMED IN A PROFESSIONAL MANNER AND SHALL MEET OR EXCEED ALL CODES HAVING JURISDICTION.
7. THE PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL SHOCK ABSORBERS ON ALL PLUMBING FIXTURES, APPLIANCES AND APPURTENANCES WITH 3/8" OR LARGER INLET OPENINGS AND WITH SOLENOID ACTUATED QUICK CLOSING VALVES SHALL BE PROVIDED WITH WATER HAMMER ARRESTOR (SHOCK ABSORBERS TO BE INSTALLED IN ACCESSIBLE LOCATIONS) ON ALL WATER PIPING AS REQUIRED.
8. THE PLUMBING CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO FIXTURES AND EQUIPMENT PROVIDED BY OTHERS. PLUMBING CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THESE ITEMS WITH THE VENDOR REPRESENTATIVE.
9. THE PLUMBING CONTRACTOR IS RESPONSIBLE TO MAKE ALL FINAL WATER CONNECTION TO FIXTURES. SEE FIXTURE SCHEDULES.
10. THE PLUMBING CONTRACTOR IS RESPONSIBLE TO PAY FOR AND OBTAIN ALL REQUIRED PERMITS AND SCHEDULE INSPECTIONS IN A TIMELY MANNER AS TO NOT DELAY PROJECT.
11. THE PLUMBING CONTRACTOR MUST FURNISH AN AS-BUILT SET OF DRAWINGS SHOWING THE EXACT LOCATION/ELEVATION OF ALL UNDERGROUND PIPING TO THE TENANT AND LANDLORD AT COMPLETION OF THE PROJECT.
12. THE PLUMBING CONTRACTOR SHALL VERIFY ALL LOCATIONS AND CONDITIONS IN THE FIELD PRIOR TO STARTING ANY WORK, ANY CONFLICTS FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER.
13. ALL WATER AND VENT PIPING SHOWN TO BE CONCEALED IN WALLS UNLESS NOTED OTHERWISE.
14. THE PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL SHUT-OFF VALVES TO ALL FIXTURES NOT OTHERWISE EQUIPPED.
15. THE PLUMBING CONTRACTOR TO INSTALL WATTS MODEL #LFUSG-B POINT OF USE MIXING VALVE MEETING ASSE 1070 ON PUBLIC LAVATORIES AND HAND SINK. MANUFACTURERS LISTED ON DRAWINGS WERE USED AS THE BASE OF DESIGN. THE CONTRACTOR MAY AT THEIR OPTION PROVIDE AND EQUAL MANUFACTURED PRODUCT. THE CONTRACTOR IS ENTIRELY RESPONSIBLE FOR ANY AND ALL COSTS REQUIRED TO ALTER THE SYSTEM DESIGN, WHEREBY IDENTIFIED OR NOT IDENTIFIED BY THE ENGINEER OR ARCHITECT, SHOULD AN EQUAL MANUFACTURER BE SUPPLIED.
16. ALL WATER PIPING IN EXTERIOR WALL AND ABOVE CEILING MUST BE ROUTED ON WARM SIDE OF WALL AND CEILING INSULATION TO PREVENT FREEZING OF PIPES. PLUMBING CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR.
17. ALL GAS PIPING TO SCHEDULE 40 BLACK IRON PIPE TO COMPLY WITH IFGC, STATE, AND LOCAL CODES AND GAS COMPANY REGULATIONS. PROVIDE UNION, 6" DRIP LEG AND GAS COCK AT EACH APPLIANCE. PLUMBING CONTRACTOR TO PAINT GAS PIPING SAFETY YELLOW WITH A OIL BASED PAINT (2 COATS MIN.).
18. THE PLUMBING CONTRACTOR TO USE COPPER FOR COMPRESSED AIR LINES AND FITTINGS.
19. THE LOCATIONS OF PIPING AND EQUIPMENT AS SHOWN ON THE DRAWING ARE GENERAL ONLY. THE PLUMBING CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL PIPING AND EQUIPMENT IN THE FIELD PRIOR TO EXECUTING HIS WORK.
20. PLUMBING CONTRACTOR SHALL COORDINATE EXACT LOCATION OF SERVICES IN BUILDING PRIOR TO STARTING ANY WORK.
21. ALL ITEMS PROJECTING THROUGH THE ROOF SHALL BE FLASHED A MINIMUM OF 12" ABOVE THE ROOF. ALL VENTS SHALL BE A MINIMUM OF 10'-0" FROM ANY OUTSIDE AIR INTAKE. THE PLUMBING CONTRACTOR TO COORDINATE ALL CUTTING OF ROOF, WALLS AND FLOORS WITH GENERAL CONTRACTOR PRIOR TO EXECUTING HIS WORK.
22. SEAL PENETRATIONS THRU FIRE-RATED WALLS WITH THE PROPER FIRE STOPPING MATERIAL TO MAINTAIN FIRE RATING.
23. PLUMBING CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES (MECHANICAL, FIRE PROTECTION, ELECTRICAL, ETC.).

GENERAL PLUMBING DEMOLITION NOTES:

1. THE PLUMBING CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL EXISTING PIPING, EQUIPMENT AND FIXTURES REQUIRING DEMOLITION. THE CONTRACTOR SHALL COORDINATE ALL DEMOLITION WORK WITH THE GENERAL CONTRACTOR AND WITH EYEMART'S CONSTRUCTION MANAGER.
2. THE PLUMBING CONTRACTOR SHALL ABANDON ALL EXISTING PIPING UNDERFLOOR THAT IS NOT TO BE REUSED FOR NEW WORK.
3. THE PLUMBING CONTRACTOR SHALL REMOVE ALL EXISTING SANITARY SEWERS THAT ARE NOT BEING REUSED AND IN THE WAY OF NEW WORK.
4. THE PLUMBING CONTRACTOR SHALL CUT EXISTING SANITARY AND WASTE PIPING 3" BELOW FLOOR AND PLUG WITH PERMANENT STOPPER.
5. THE PLUMBING DEMOLITION WORK SHALL BE PERFORMED EXCLUSIVELY BY THE PLUMBING CONTRACTOR UNLESS OTHERWISE INDICATED.
6. ALL UNUSED WASTE, VENT, AND WATER LINES SHALL BE REMOVED COMPLETE. CAP VENT AND WATER LINES NEAR MAINS ABOVE CEILING.
7. THE PLUMBING DEMOLITION WORK SHALL INCLUDE THE DISCONNECT, REMOVE AND DISPOSAL OF THE FOLLOWING PIPING AND ASSOCIATED VALVES, FITTINGS, ACCESSORIES AND SUPPORTS: 1) DOMESTIC COLD WATER, 2) DOMESTIC HOT WATER, 3) SANITARY VENT, 4) SANITARY DRAIN.
8. EXISTING PIPING AND EQUIPMENT LOCATIONS ARE SCHEMATIC. VERIFY EXACT LOCATION AND ELEVATIONS IN FIELD.
9. ALL PATCHING AND SEALING OF WALLS, FLOORS, CEILINGS, ETC... TO BE DONE BY GENERAL CONTRACTOR.
10. PLUMBING CONTRACTOR SHALL CAP ALL UNUSED SANITARY BRANCH LINES NEAR MAIN WITHIN 2'-0" WHERE POSSIBLE. NO DEAD END RUNS ARE ALLOWED PER CODE.

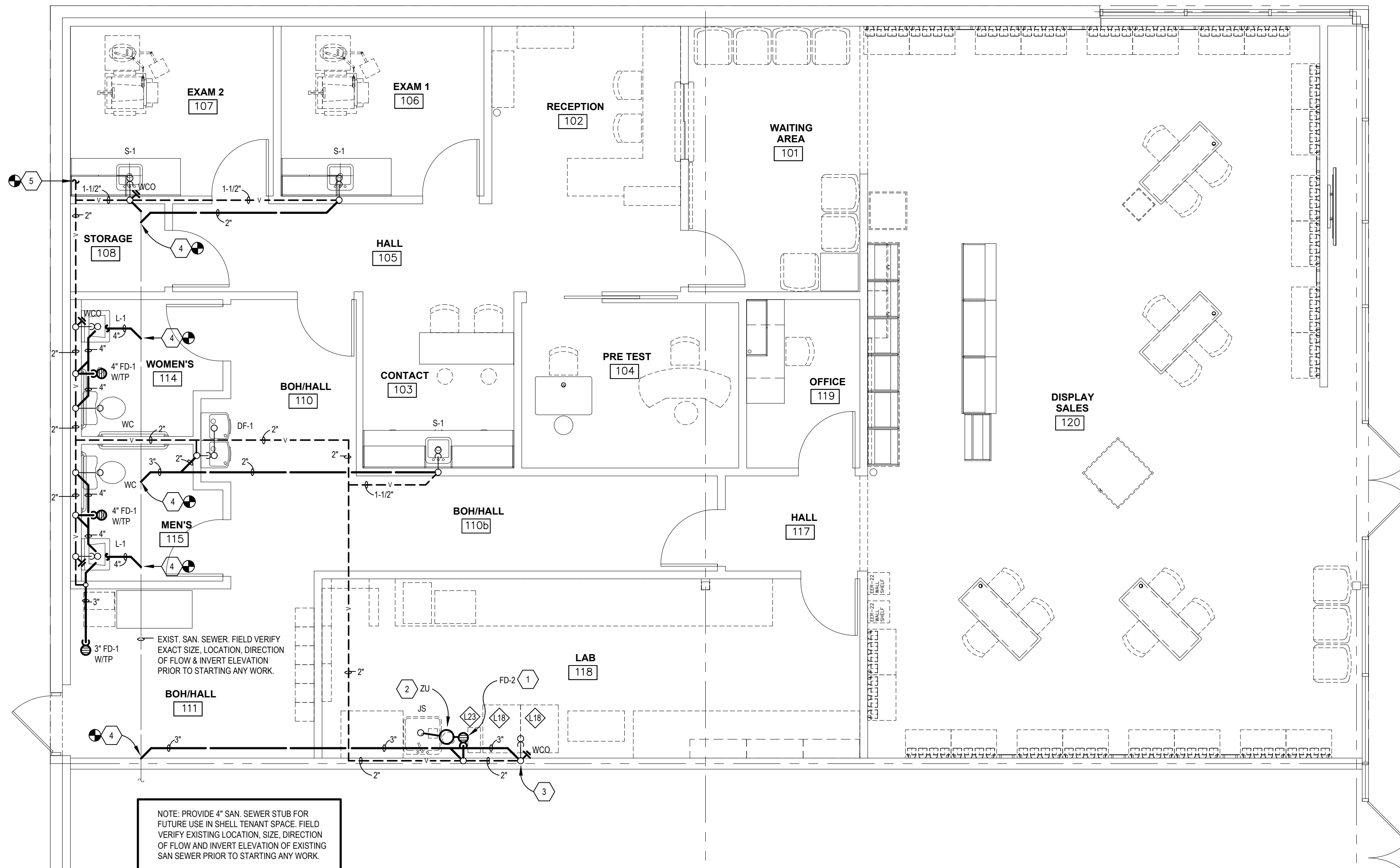
CODED NOTES:

1. EXTEND & CONNECT NEW SANITARY SEWER INTO EXISTING SANITARY SEWER. PC SHALL VERIFY EXISTING SANITARY SEWER SIZE, LOCATION, DIRECTION OF FLOW, AND INVERT ELEVATION PRIOR TO STARTING ANY WORK. MINIMUM SLOPE OF SANITARY PIPING 3" AND LARGER TO BE 1/8" PER FOOT. MIN. SLOPE OF SANITARY PIPING OF 2" TO BE 1/4" PER FOOT. PLUMBING CONTRACTOR TO CONTACT CONSTRUCTION MANAGER OF RECORD IF EXISTING INVERT CANNOT BE MET.
2. EXTEND & CONNECT NEW VENT INTO EXISTING VENT. PC SHALL FIELD VERIFY EXISTING VENT SIZE & LOCATION PRIOR TO STARTING ANY WORK.
3. NEW 2" VENT UP W/3" VTR. COORDINATE EXACT LOCATION EQUIPMENT ON ROOF.

PLUMBING LEGEND	
SYMBOL	DESCRIPTION
---	COLD WATER PIPING
---	HOT WATER PIPING
---	SANITARY SEWER (ABOVE GRADE)
---	SANITARY SEWER (BELOW GRADE)
FD	FLOOR DRAIN
CO	FLOOR CLEANOUT
WCO	WALL CLEANOUT
---	SANITARY VENT PIPING
G	GAS PIPING-LOW PRESSURE
CA	COMPRESSED AIR
]	CAP ON END OF PIPE
+	CHECK VALVE
RP2	REDUCED PRESSURE BACKFLOW PREVENTOR (RP2)

PLUMBING LEGEND (CONT.)	
SYMBOL	DESCRIPTION
+	SHUT-OFF VALVE IN RISER
+	SHUT-OFF VALVE
+	RISER DOWN (ELBOW)
+	RISER UP (ELBOW)
+	BRANCH-TOP CONNECTION
+	BRANCH-BOTTOM CONNECTION
+	TEE
+	ELBOW
ZU	ZURN SOLIDS INTERCEPTOR
HD	HUB DRAIN
TP	TRAP PRIMER
WC	WATER CLOSET
L	LAVATORY

PLUMBING LEGEND (CONT.)	
SYMBOL	DESCRIPTION
S	SINK
JS	JANITOR SINK
MS	MOP SERVICE SINK
DF	DRINKING FOUNTAIN
PC	PLUMBING CONTRACTOR
GC	GENERAL CONTRACTOR
EC	ELECTRICAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
AFF	ABOVE FINISHED FLOOR
(E)	EXISTING TO REMAIN
+	CONNECT TO EXISTING
+	DETAIL NO.
+	DWG. NO.



SANITARY PLAN

SCALE: 1/4" = 1'-0"

NOTE:
THE EXISTING SERVICE CONNECTION LOCATIONS SHOWN ON THE DRAWING WERE DERIVED FROM LIMITED FIELD OBSERVATIONS. THE PLUMBING CONTRACTOR IS RESPONSIBLE TO FIELD VIST SITE TO DETERMINE EXISTING CONDITIONS AND VERIFY EXACT SIZE AND LOCATION OF EXISTING SERVICES IN EXISTING BUILDING. PLUMBING CONTRACTOR SHALL COORDINATE WITH LANDLORD.



- 1 THE PLUMBING CONTRACTOR TO CONNECT NEW COLD WATER TO EXISTING WALK LINE. PLUMBING CONTRACTOR TO VERIFY EXACT SIZE AND LOCATION OF EXISTING COLD WATER LINE PRIOR TO STARTING ANY WORK.
- 2 PROVIDE AND INSTALL SOLENOID VALVE FOR WATER PIPING IN LABORATORY. SOLENOID TO OPEN WHEN LIGHTS ARE TURNED ON. COORDINATE WITH ELECTRICAL CONTRACTOR.
- 3 THE PLUMBING CONTRACTOR SHALL VERIFY W/LAND/LOF IF SUB METER & BACKFLOW PREVENTER IS REQUIRED. INSTALL ANY REQUIRED METERS AND/OR REDUCED PRESSURE BACKFLOW PREVENTER PER LAND/LOF AND LOCAL WATER DEPARTMENT REQUIREMENTS.
- 4 DROP 1/2" CW LINE TO TP (LOCATED IN CEILING SPACE). DROP (2) 1/2" CW LINES FROM TP DISTRIBUTION UNIT DN INTO WALL TO BELOW FLOOR. RUN 1/2" CW LINE BELOW FLOOR TO SERVE FLOOR DRAIN COMPLETE WITH 1/2" THICK ARMAFLEX PIPE INSULATION.
- 5 1/2" CW LINE DN IN WALL TO DF.
- 6 3/4" H & CW LINES DN IN WALL W/ 1/2" H & CW TO JS. 1/2" CW TO HOSE BIBB & 1/2" CW TO FINER (L18).
- 7 1/2" H & CW LINES DN IN WALL TO L-1.
- 8 1/2" H & CW LINES DN IN WALL TO S-1.
- 9 1/2" CW LINE DN IN WALL TO WC.
- 10 EXISTING GAS METER MANIFOLD COMPLETE W/MAIN SHUT-OFF VALVE & PRESSURE REGULATOR. PC SHALL INSTALL NEW METER. PC SHALL COORDINATE W/THE LOCAL GAS COMPANY IF EXISTING GAS SERVICE IS RATED TO HANDLE NEW GAS LOAD. PC TO COORDINATE W/LOCAL GAS CO. FOR INSTALLATION OF NEW METER COMPLETE W/VALVES & PRESSURE REGULATOR. SECURE GAS PIPING TO WALL PER LATEST CODE AND SEISMIC RESTRAINT DETAILS.
- 11 PLUMBING CONTRACTOR TO COORDINATE WITH MC FOR DISCONNECTING GAS PIPING TO EXISTING ROOFTOP BEING REMOVED. EXISTING GAS PIPING TO ROOFTOP W/SHUT-OFF, PRESSURE REGULATOR & DIRT LEG TO REMAIN. PC SHALL RECONNECT GAS PIPING TO NEW ROOFTOP. REWORK GAS PIPING AS NECESSARY TO ACCOMMODATE NEW GAS CONNECTION AT ROOFTOP. FIELD VERIFY EXACT SIZE & LOCATION PRIOR TO STARTING ANY WORK.
- 12 DROP 1/2" CW LINE TO TP (LOCATED IN CEILING SPACE). DROP 1/2" CW LINES FROM TP DN INTO WALL TO BELOW FLOOR. RUN 1/2" CW LINE BELOW FLOOR TO SERVE FLOOR DRAIN COMPLETE WITH 1/2" THICK ARMAFLEX PIPE INSULATION.
- 13 EXTEND & CONNECT NEW GAS LINE INTO EXISTING GAS LINE ON ROOF. FIELD VERIFY EXACT SIZE & LOCATION PRIOR TO STARTING ANY WORK.
- 14 EXTEND & CONNECT 1" GAS LINE TO ROOFTOP UNIT COMPLETE W/SHUT-OFF VALVE & DIRT LEG.

1. PLUMBING CONTRACTOR TO NOTIFY THE AUTHORITY HAVING JURISDICTION WHEN THE INSTALLATION IS READY FOR INSPECTION (AT ROUGH-IN PRIOR TO COVERING AND FINAL).
2. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL MANUAL SHUT-OFF VALVE, DRIPS AND/OR SEDIMENT TRAPS AT EACH PIECE OF EQUIPMENT AND AT THE OUTLET OF THE METER. VALVES AND DRIPS SHALL BE READILY ACCESSIBLE TO PERMIT CLEANING, EMPTYING OR SERVICING.
3. GAS PIPING IS SIZED WITH LONGEST LENGTH METHOD AND BASED ON THE INTERNATIONAL FUEL GAS CODE, SCHEDULE 40 METALLIC PIPE TABLE 402.4(5).
4. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PRESSURE TESTING AND INSPECTION PRIOR TO ACCEPTANCE. PER NFPA 54. TEST PRESSURE SHALL BE NO LESS THAN 1-1/2 TIMES THE MAXIMUM WORKING PRESSURE, BUT NOT LESS THAN 3 PSI. TEST SHALL BE NOT LESS THAN 12 HOUR PER 500 CF OF PIPE VOLUME.
5. GAS PIPING ABOVE GROUND SHALL BE SCHEDULE 40 BLACK STEEL WITH 125 POUND BLACK MALLEABLE IRON SCREWED FITTINGS FOR 2" AND SMALL AND WELDED FOR 2-1/2" AND ABOVE. GAS PIPING COMPOUNDED AT JOINTS SHALL BE PER NFPA BULLEIN #54 AND LOCAL CODES. GAS VALVES SHALL BE UL LISTED FOR GAS SERVICE SUCH AS DEZURICK MODEL S-425 FOR 2" AND LESS AND MODEL R-425 FOR 2-1/2" AND LARGER. NOTE: WELDED PIPE TO BE WITH APPROVED WELD-O-LET FITTINGS.
6. ALL NEW EXTERIOR GAS PIPING IS TO BE PRIMED AND PAINTED WITH TWO (2) COATS OF RUST RESISTANT PAINT. COLOR AS SELECTED BY ARCHITECT AS REQUIRED BY SECTION 40 OF THE INTERNATIONAL FUEL GAS CODE.
7. THE PLUMBING CONTRACTOR SHALL VERIFY IN WRITING WITH LOCAL GAS COMPANY WHETHER THE EXISTING GAS SERVICE LINE & METER ARE ADEQUATE FOR THE NEW GAS DEMAND. IF INADEQUATE FOR THE NEW GAS THE PLUMBING CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IN WRITING.
8. PLUMBING CONTRACTOR SHALL VERIFY THAT EXISTING GAS METER AND SERVICE WILL HANDLE TOTAL NEW GAS DEMAND. REPLACE EXIST. GAS METER AS REQUIRED. TO HANDLE NEW GAS DEMAND. EXISTING GAS METER SHALL SERVE EYEMART EXPRESS TENANT SPACE ONLY. PLUMBING CONTRACTOR SHALL INSTALL NEW GAS METER COMPLETE WITH SHUT-OFF VALVE, PRESSURE REGULATOR, ETC. IF REQUIRED. PLUMBING CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR, OWNER/LANDLORD AND GAS COMPANY FOR CHANGE IN GAS CO. BILLING INFORMATION.

ROOFTOP UNIT (RTU-1), NEW	82.0 CFH
ROOFTOP UNIT (RTU-2), NEW	110.0 CFH
ROOFTOP UNIT (RTU-3), NEW	82.0 CFH
TOTAL	274.0 CFH

1. PLUMBING CONTRACTOR SHALL VERIFY EXISTING GAS PRESSURE. GAS PIPING IS BASED ON 7" W.C.
2. GAS PIPE SIZES ARE BASED ON THE INTERNATIONAL FUEL GAS CODE; TABLE 402.4(2) SCHEDULE 40 METALLIC PIPE; INLET PRESSURE LESS 2 PSI; PRESSURE DROP OF .5" W.C. AND 150 FEET (TOTAL LENGTH OF PIPE).

THERE IS CURRENTLY (1) EXISTING GAS METER SERVING THE EXISTING TENANT SPACE.
 EYEMART'S LEASE SPACE IS A PARTIAL SQUARE FOOTAGE OF THE EXISTING TENANT SPACE.
 THE GAS METERS ARE LOCATED ALONG THE EXTERIOR BACK WALL OF THE BUILDING. THE GAS
 LINES ARE ROUTED ON THE ROOF TO SERVE THE HVAC UNITS. THE EXISTING GAS METER &
 PIPING SHALL REMAIN FOR THE SHELL TENANT SPACE. THE PLUMBING CONTRACTOR SHALL
 INSTALL (1) NEW GAS METER TO SERVE EYEMART'S LEASE ONLY. THE EXISTING GAS SERVICE
 TO REMAIN AS IS. REWORK GAS PIPING AT EXISTING METER BANK AS NECESSARY.
 NOTE: PLUMBING CONTRACTOR SHALL VERIFY THAT EXISTING GAS SERVICE WILL HANDLE
 TOTAL NEW GAS DEMAND. PLUMBING CONTRACTOR SHALL COORDINATE WITH GENERAL
 CONTRACTOR, EYEMART AND GAS COMPANY FOR CHANGE IN GAS CO. BILLING INFORMATION.



SCALE: 1/4" = 1'-0"

NOTE:
THE EXISTING SERVICE CONNECTION LOCATIONS SHOWN ON THE DRAWING WERE DERIVED FROM LIMITED FIELD OBSERVATIONS. THE PLUMBING CONTRACTOR IS RESPONSIBLE TO FIELD VISIT SITE TO DETERMINE EXISTING CONDITIONS AND VERIFY EXACT SIZE AND LOCATION OF EXISTING SERVICES IN EXISTING BUILDING. PLUMBING CONTRACTOR MAY REUSE EXISTING EQUIPMENT/PIPING AS NECESSARY, IF IN GOOD WORKING CONDITION, UNLESS OTHERWISE NOTED. PLUMBING CONTRACTOR SHALL COORDINATE WITH OWNER AND LANDLORD.

PLUMBING GENERAL NOTES:

- EACH LENGTH OF PIPE, FITTINGS, TRAP, FIXTURE, MATERIAL, ETC., UTILIZED IN THE PLUMBING SYSTEM SHALL BEAR THE IDENTIFICATION OF THE MANUFACTURER, AND APPLICABLE STANDARD TO WHICH IT WAS MANUFACTURED.
- ALL MATERIALS USED SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE STANDARDS UNDER WHICH THE MATERIALS ARE ACCEPTED. ALSO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE FOLLOWED.
- PIPES PASSING THROUGH CONCRETE SHALL BE PROTECTED AGAINST EXTERNAL CORROSION BY A PROTECTIVE SHEATHING OR WRAPPING.
- PLUMBING SYSTEM SHALL BE INSTALLED SO AS TO PREVENT STRAINS AND STRESSES THAT EXCEED THE STRUCTURAL STRENGTH OF THE PIPE.
- JOINTS AT THE FLOOR, ROOF AND AROUND VENT PIPES SHALL BE MADE WATER TIGHT.
- HANGERS, ANCHORS AND SUPPORTS SHALL SUPPORT THE PIPING AND THE CONTENT OF THE PIPING. HANGERS AND STRAPPING MATERIALS SHALL BE OF APPROVED MATERIALS THAT WILL NOT PROMOTE GALVANIC ACTION. PIPE SHALL BE SUPPORTED AS FOLLOWS:

CAST IRON PIPE

COPPER PIPE

COPPER TUBING 1-1/4" AND LESS

COPPER TUBING 1-1/2" AND LARGER

MAXIMUM HORIZONTAL 5'-0"

MAXIMUM HORIZONTAL 12'-0"

MAXIMUM HORIZONTAL 6'-0"

MAXIMUM HORIZONTAL 10'-0"
- RIGID SUPPORT SWAY BRACING SHALL BE PROVIDED AT CHANGES IN DIRECTION OVER 45° FOR PIPE SIZE 4" AND ABOVE.

DRAINAGE & VENT WATER TEST: MINIMUM 10 FEET OF HEAD AND KEPT IN FOR AT LEAST 15 MINUTES BEFORE INSPECTION STARTS

DRAINAGE & VENT AIR TEST: MINIMUM 5 PSI FOR AT LEAST 15 MINUTES

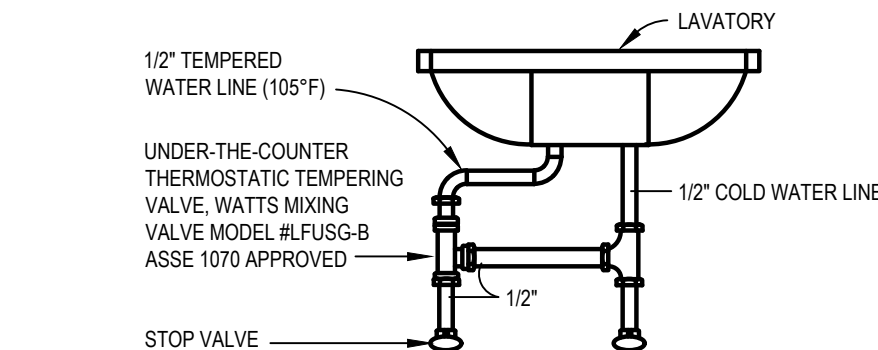
DRAINAGE & VENT FINAL TEST: SHALL BE VISUAL & IN SUFFICIENT DETAIL TO DETERMINE COMPLIANCE

WATER DISTRIBUTION SYSTEM: MINIMUM 100 PSI WATER PRESSURE
- THE SUPPLY LINES AND FITTINGS FOR EVERY FIXTURE SHALL BE INSTALLED TO PREVENT BACKFLOW.
- THE FIXTURES SHALL BE SET LEVEL AND IN PROPER ALIGNMENT.
- CONNECTIONS BETWEEN THE DRAIN AND FLOOR OUTLET PLUMBING FIXTURE SHALL BE MADE WITH A FLOOR FLANGE.
- FLOOR DRAIN SHALL CONFORM TO ASME A112.6.3 OR ASME A112.3.1.
- WATER HEATER RELIEF VALVE SHALL CONFORM TO ANSI Z21.22.
- WATER HEATER DRAIN VALVE SHALL CONFORM TO ASSE 1005.
- AFTER CONSTRUCTION THE INDIVIDUAL WATER SUPPLY SYSTEM SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED.
- WATER-HAMMER ARRESTOR SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION AND ASSE 1010.
- COPPER OR COPPER-ALLOY TUBING (TYPE K, L & M) SHALL MEET ASTM B75, ASTM B88, ASTM B251, ASTM B447. WATER PIPING TO CONFORM TO NSF61 AND SHALL HAVE A MINIMUM PRESSURE RATING OF 100 PSI. THE JOINING OF SUPPLY PIPING TO BE MADE WITH LEAD-FREE (LESS THAN 2 PERCENT) SOLDER AND FLUXES.
- SANITARY DRAINAGE SYSTEM SHALL HAVE MINIMUM 1/8" PER FOOT SLOPE. FOR PIPING 3" TO 4" & 1/4" PER FOOT SLOPE FOR 2-1/2" PIPE & LESS.
- MECHANICAL JOINTS COUPLINGS FOR HUBLESS PIPE AND FITTINGS SHALL COMPLY WITH CISPI 310 OR ASTM C1277. THE ELASTOMERIC SEALING SLEEVE SHALL CONFORM TO ASTM C564.
- CLEANOUTS PLUGS TO BE BRASS. HORIZONTAL DRAINS SHALL HAVE CLEANOUTS AT 50 FEET ON CENTERS, AT EACH CHANGE (45 DEGREE) IN DIRECTION AND AT EACH BASE OF STACK. CLEANOUTS TO HAVE A MINIMUM CLEARANCE OF 18" FOR RODDING.
- VENT PIPES SHALL EXTEND THROUGH THE ROOF AND TERMINATE AT LEAST 6 INCHES ABOVE THE ROOF. VENT PIPE THROUGH ROOF TO BE MADE WATER TIGHT.
- THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE; THE PLUMBING CONTRACTOR SHALL INCLUDE ALL NEEDED OFFSETS, CHANGES IN DIRECTION, ETC. NEEDED FOR COMPLETE AND OPERATIONAL SYSTEMS.
- THE CONTRACTOR WILL VISIT THE SITE AND BE FAMILIAR WITH SITE CONDITIONS. NO EQUIPMENT OR MATERIAL IS TO BE ORDERED OR FABRICATED PRIOR TO FIELD VERIFICATION OF ALL MEASUREMENTS, CLEARANCES, POTENTIAL CONFLICTS WITH EXISTING CONDITIONS OR THAT OF OTHER TRADES ON THE JOB.
- PERFORM ALL WORK IN ACCORDANCE WITH THE RULES & REGULATIONS OF THE APPROPRIATE STATE AND LOCAL BUILDING CODES AND SUBTITLES.
- QUESTIONS REGARDING THESE DRAWINGS SHALL BE ADDRESSED TO THE ENGINEER PRIOR TO THE AWARDDING OF THE CONTRACT. OTHERWISE THE ENGINEER'S INTERPRETATION OF THE MEANING AND INTENT OF THE DRAWINGS SHALL BE FINAL.
- TENANT'S CONTRACTOR IS TO VERIFY POINTS OF CONNECTION OF ALL VENT, SEWER AND WATER LINES WITH LANDLORD BEFORE PROCEEDING WITH WORK.
- INSTALL SHUT OFF VALVES AT ALL PLUMBING FIXTURES.
- INSTALL HAMMER ARRESTORS AT ALL PLUMBING FIXTURES.
- ALL EXPOSED PIPING ABOVE TENANT'S CEILING SHALL BE INSULATED WITH A MINIMUM OF 1" GLASS FIBER WITH NON-COMBUSTIBLE UL RATED VAPOR BARRIER JACKET PER CODE.
- TENANT'S CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL WITHIN THE LANDLORD'S TENANT CRITERIA MANUAL INCLUDING MALL MANAGEMENT'S RULES AND REGULATIONS.
- THE MOUNTING HEIGHTS OF ALL ACCESSORY ITEMS AND HARDWARE SHALL COMPLY WITH NBHA "RECOMMENDED LOCATIONS FOR BUILDERS HARDWARE" AND/OR THE LATEST REQUIREMENTS OF THE A.D.A. REGULATIONS, OR CABO/ANSI STANDARDS WHICHEVER APPLICATION IS MORE STRINGENT FOR ITS USE.
- TENANT CONTRACTOR IS TO HAVE ALL WEATHERPROOFING OF ROOF PENETRATIONS DONE BY LANDLORD'S APPROVED ROOFING CONTRACTOR.
- PLUMBING CONTRACTOR TO INSULATE ANY EXISTING EXPOSED OR RE-INSULATE ANY DAMAGED, MISSING PIPE INSULATION WITH NEW PIPE INSULATION.
- PLUMBING CONTRACTOR SHALL SNAKE ALL EXISTING SANITARY SEWERS A MINIMUM OF 100 FEET. ANY EXTERIOR TRUCK DOCK DRAINS SHALL BE SNAKED A MINIMUM OF 100 FEET.
- PLUMBING CONTRACTOR SHALL VIDEO ALL STORM AND SANITARY LINES DURING THE FIRST WEEK OF CONSTRUCTION AND AFTER CONSTRUCTION IS COMPLETE. VIDEO OF SANITARY LINES SHALL INCLUDE ALL FLOOR DRAINS AND CLEANOUTS. PLUMBING CONTRACTOR SHALL ISSUE WRITTEN EVALUATIONS TO PROJECT MANAGER UPON COMPLETION OF EACH VIDEO AND UPLOAD BOTH VIDEOS TO PROTRACK AND PROVIDE A CD IN CLOSEOUT PACKAGE.

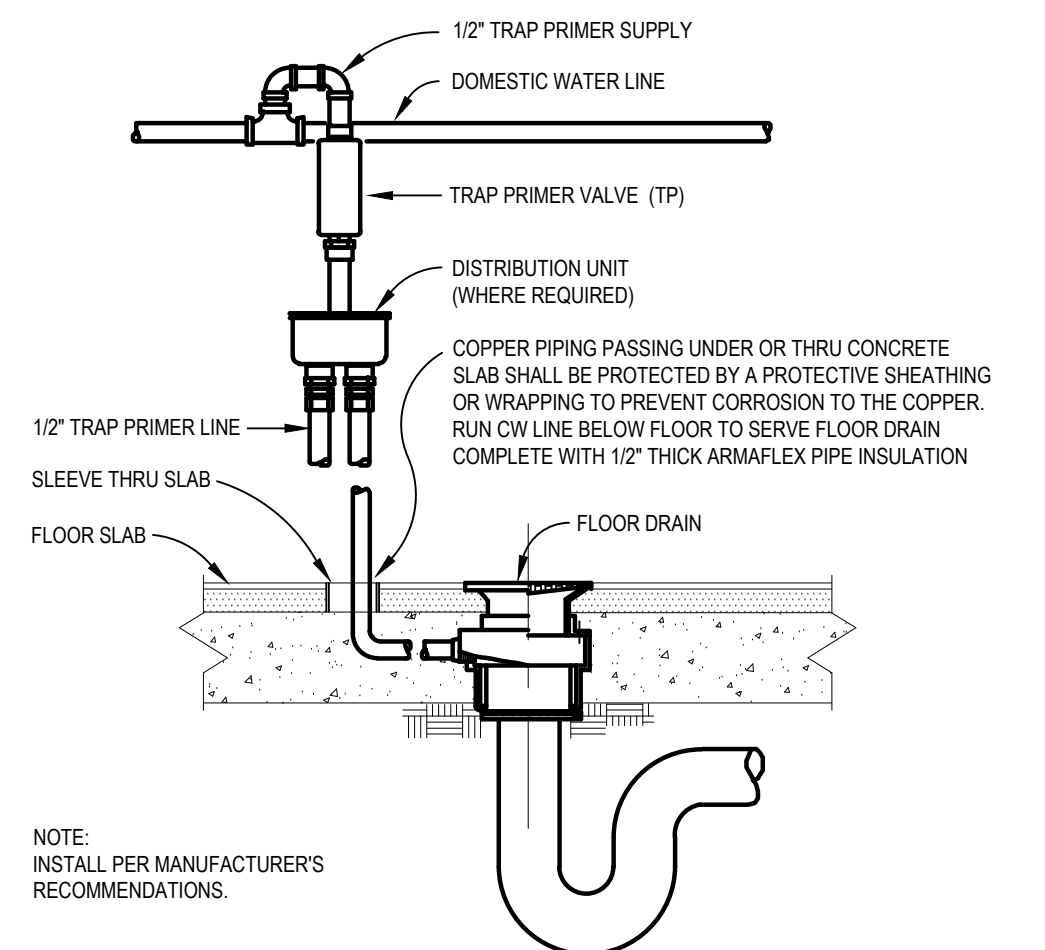
PLUMBING FIXTURE SCHEDULE								
MARK	ITEM	MANUFACTURER/MODEL	DESCRIPTION/ACCESSORIES	HW	CW	SAN	VENT	NOTES
WH	WATER HEATER	A.O. SMITH IDEL-30	ELECTRIC WATER HEATER, 30 GAL. STORAGE CAPACITY, (2) 3000 WATT ELEMENT, 208V, 1 PHASE, 15 GPM RECOVERY AT 80°F TEMPERATURE RISE, FURNISH WITH ASME TEMPERATURE/PRESSURE RELIEF VALVE & 2.0 GAL. EXPANSION TANK.	3/4"	3/4"	-	-	NOTE 10
WC	WATER CLOSET, FLOOR SET TANK TYPE, ACCESSIBLE	KOHLER #K3979 (#K3979-RA FOR RIGHT HAND TRIP LEVER)	FLOOR MOUNT, FLUSH TANK, TOP OF SEAT AT 16-1/2" AFF. VITREOUS CHINA, 1.5 GPM, ELONGATED BOWL WITH CHURCH @259C WHITE, OPEN FRONT SEAT, BOLT CAPS. NOTE: HANDLE MUST MEET ADA REQUIREMENTS AND BE ON ACCESSIBLE SIDE.	-	1/2"	3"	2"	NOTES 2, 10
L-1	LAVATORY, WALL HUNG, ACCESSIBLE (RESTROOM)	AMERICAN STANDARD #0356-421	VITREOUS CHINA WALL HUNG LAVATORY WITH CONCEALED ARMS SUPPORT, SINGLE HOLE, KOHLER #K-13462 TOUCHLESS FAUCET WITH #K-13480-A POWER SUPPLY, 0.5 GPM, WALL CARRIER, GRID STRAINER & P-TRAP, ADA INSULATION PACKAGE.	1/2"	1/2"	2"	1-1/2"	NOTES 3, 5, 10
S-1	SINGLE COMP. SINK, COUNTERTOP, ACCESSIBLE (EXAM & CONTACT)	ELKAY #BCR151	STAINLESS STEEL, 15"x15"x5-1/2" DEEP COUNTERTOP SINK, DRAIN OPENING TO BE IN THE CENTER REAR LOCATION, SINGLE HOLE, KOHLER #K-13474 TOUCHLESS FAUCET WITH #K-13480-A POWER SUPPLY, 0.5 AERATOR, STRAINER AND P-TRAP, ADA INSULATION PACKAGE, TRIBURO 102.	1/2"	1/2"	2"	1-1/2"	NOTE 9
JS	JANITOR'S SINK (LAB)	FIAT SF-1-F TUF-TUB	LAUNDRY TUB WITH FOUR BAKED ENAMEL LEGS, DELTA 2121-VB FAUCET WITH HOSE THREAD, BLADE HANDLES. PROVIDE WITH SOLIDS INTERCEPTOR (ZU).	1/2"	1/2"	3"	-	NOTES 1, 10
ZU	SOLIDS INTERCEPTOR	ZURN #Z-1180	SOLIDS INTERCEPTOR IN LIEU OF FIXTURE P-TRAP FOR ON-FLOOR INSTALLATION WITH TOP ACCESS SECURED COVER, SS HARDWARE AND REMOVABLE SEDIMENT BUCKET. CONTRACTOR SHALL COORDINATE WITH ARCHITECT AND LOCAL PLUMBING/MECHANICAL CODES FOR EXACT INSTALLATION REQUIREMENTS.	-	-	3"	-	-
FD-1	FLOOR DRAIN	JOSAM #30000-A	COATED CAST IRON WITH ADJUSTABLE ROUND NIKALOY STRAINER, FLOOR DRAIN SHALL HAVE INSIDE CAULK CONNECTION AND 1/2" PRIMER TAP.	-	-	SEE PLAN	-	NOTE 4, 6
FD-2	FLOOR DRAIN WITH FUNNEL	JOSAM #30000-E2	COATED CAST IRON WITH ADJUSTABLE ROUND NIKALOY STRAINER AND 4" DIAMETER FUNNEL. FLOOR DRAIN SHALL HAVE INSIDE CAULK CONNECTION.	-	-	SEE PLAN	-	NOTE 4, 6
WCO	WALL CLEANOUT	JOSAM #58600-CO	PROVIDE WITH 6" DIA. SS COVER	-	-	SEE PLAN	-	-
CO	FLOOR CLEANOUT	JOSAM #55000	PROVIDED WITH CAST IRON XH TOP ASSEMBLY	-	-	SEE PLAN	-	NOTE 4
DF	DRINKING FOUNTAIN, WALL MOUNTED, TWO LEVEL, ADA ACCESSIBLE	OASIS MODEL #PACSL	BARRIER-FREE UNIVERSAL SPLIT LEVEL DRINKING FOUNTAIN TO BE PROVIDED WITH ADA APPROVED APRON.	-	1/2"	2"	1-1/2"	NOTE 8
BFP	BACKFLOW PREVENTER	WILKINS MODEL 375	REDUCE PRESSURE ZONE	-	1-1/4"	-	-	NOTE 7
WHA	WATER HAMMER ARRESTER	SIOUX CHIEF MINIRESTER		SEE PLAN	SEE PLAN	-	-	-
TP	TRAP PRIMER	SIOUX CHIEF PRIME PERFECT		-	1/2"	-	-	-

NOTES:

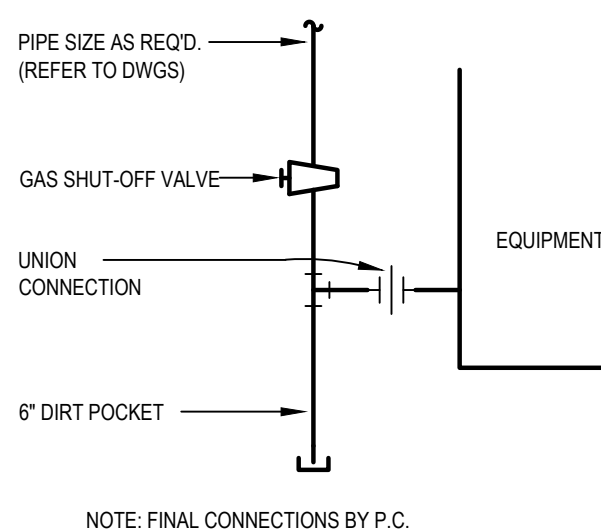
- FAUCET TO HAVE INTEGRAL VACUUM BREAKER.
- CHROME SUPPLY STOP W/ISS BRANDED FLEXIBLE CONNECTION AND WAX RING, HANDLE TO BE ON OPEN SIDE OF WATER CLOSET TO COMPLY WITH ADA.
- PROVIDE MCGUIRE 2" STRAINER, 1-1/4" CHROME P-TRAP & CHROME SUPPLY STOPS, TRIBURO LAV-GUARD 2 ADA INSULATION KIT.
- COVER TO FLUSH WITH FLOOR.
- PROVIDE A WALL MOUNTED CONCEALED ARM CARRIER.
- PROVIDE W/ITRAP PRIMER CONNECTION WHERE NOTED ON PLANS.
- EXTEND RELIEF TO FLOOR DRAIN WITH PROPER AIR GAP.
- LEFT SIDE TO INSTALLED HIGH AND RIGHT SIDE INTALLED TO BE LOW
- SINK IS SUPPLIED BY FIXTURE MANUFACTURER INSTALLED BY TGC, FAUCET SUPPLIED AND INSTALLED BY TGC.
- SUPPLIED AND INSTALLED BY TGC



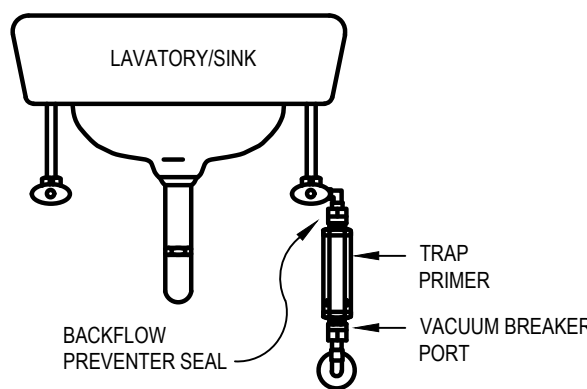
C THERMOSTATIC TEMPERING VALVE (TTV) DETAIL
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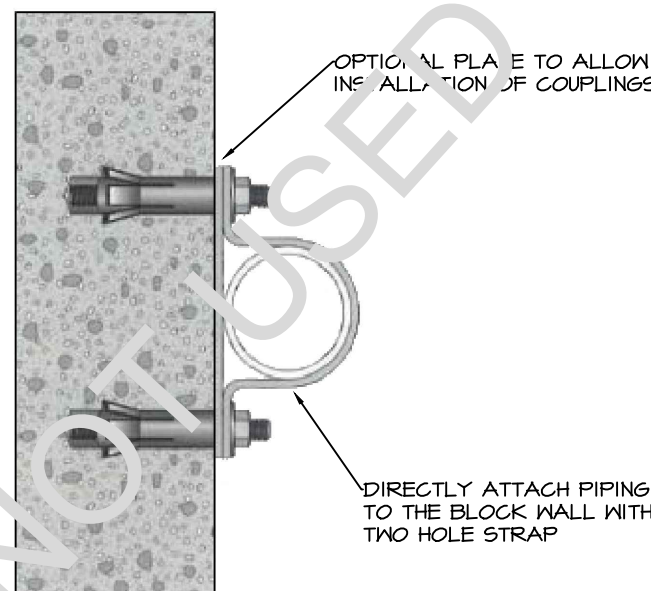
E TRAP SEAL PRIMER (TP) DETAIL
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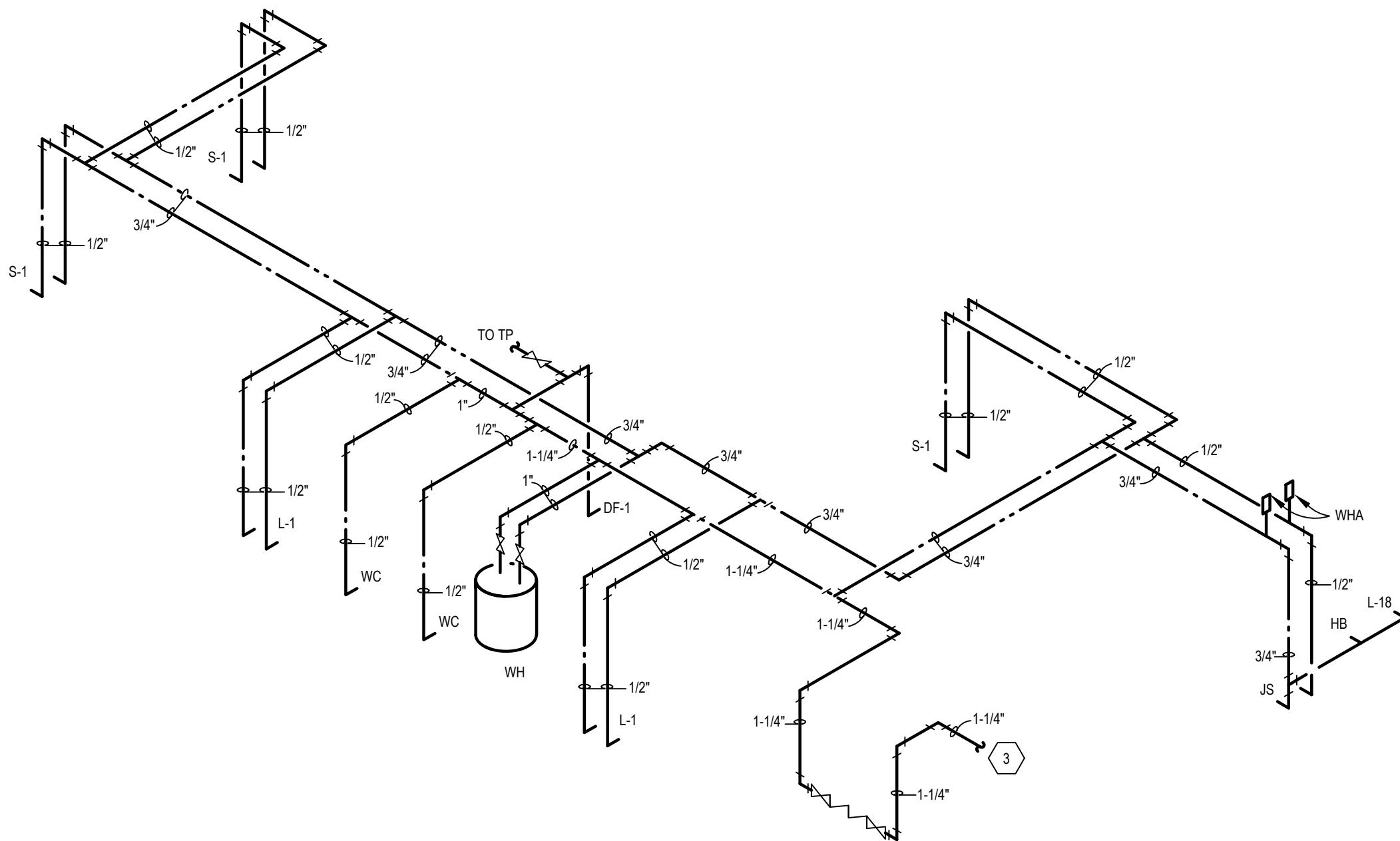
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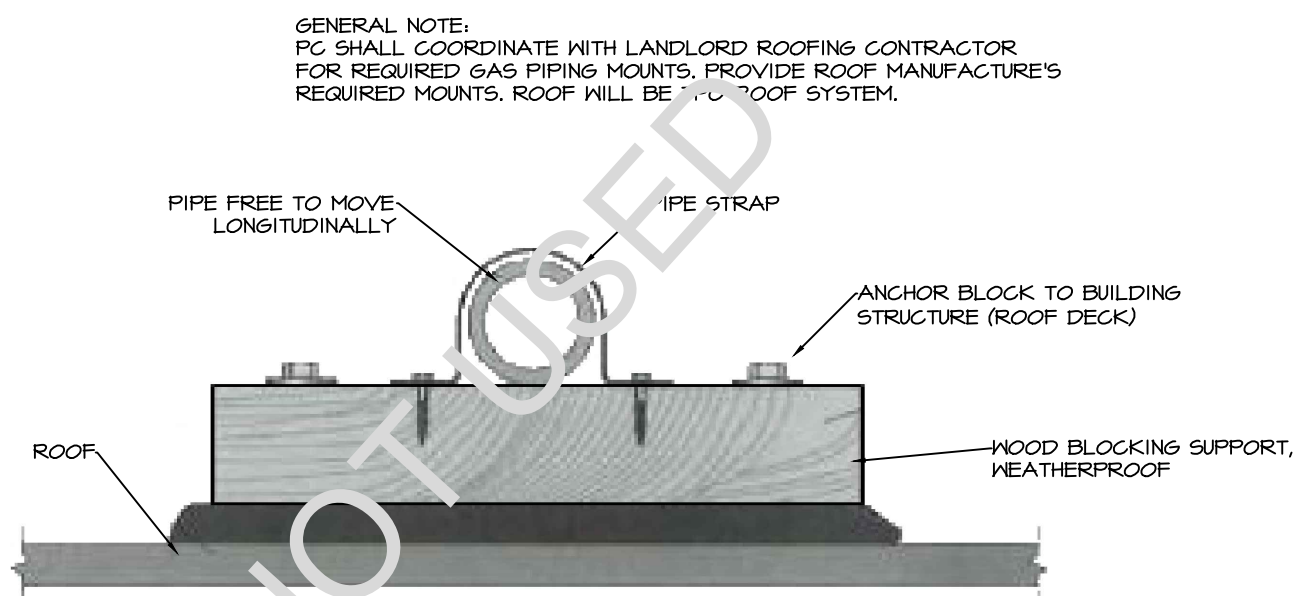
D UNDER-LAV AUTOMATIC TRAP PRIMER (TP-1) DETAIL
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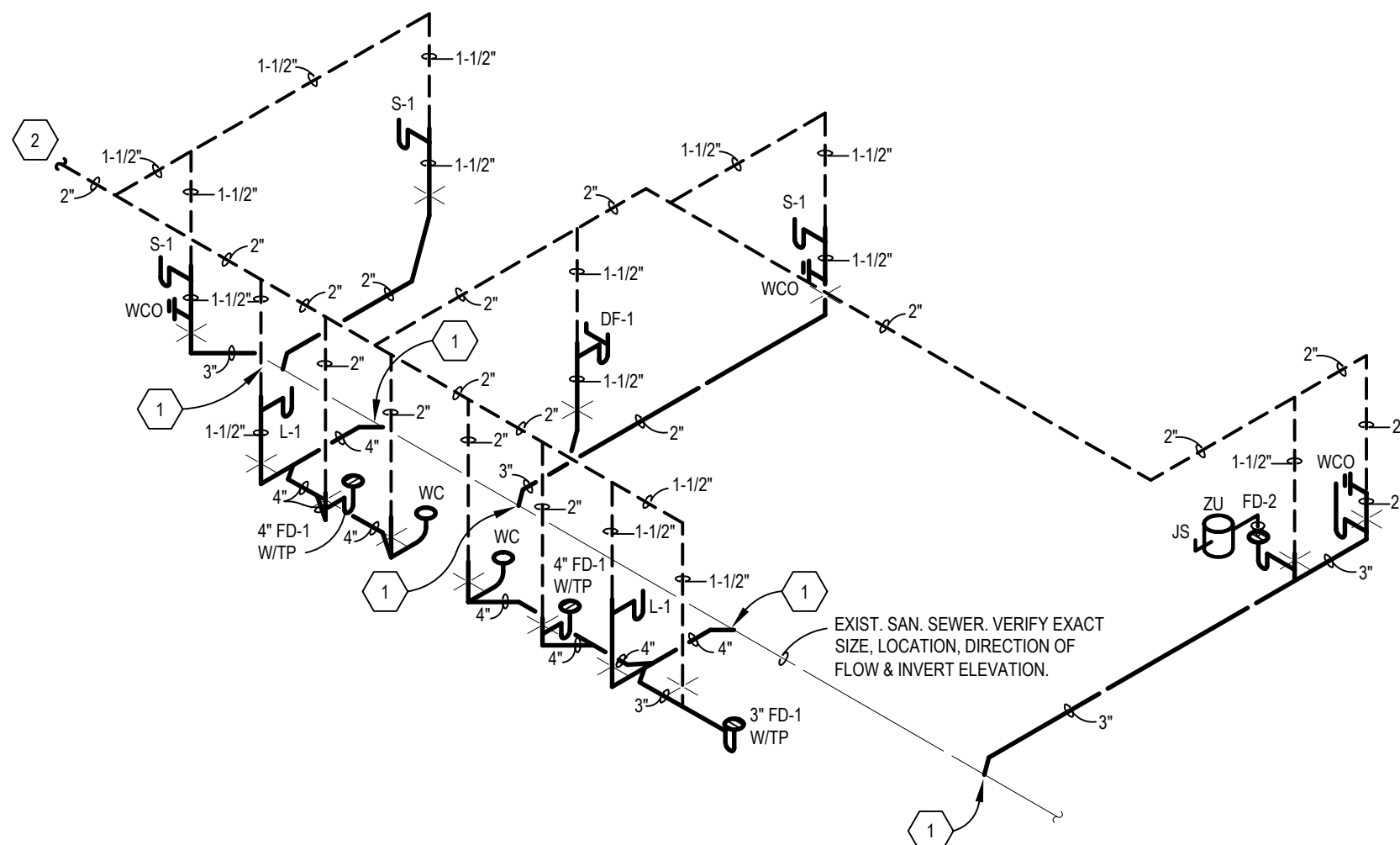
G WALL - MOUNTED PIPING - SDC D/E/F/
NO SCALE



B WATER RISER SCHEMATIC
NO SCALE



H ROOF - MOUNTED PIPING - SDC D/E/F/
NO SCALE



A SANITARY SCHEMATIC
NO SCALE

CODED NOTES:

- EXTEND & CONNECT NEW SANITARY SEWER INTO EXISTING SANITARY SEWER. PC SHALL VERIFY EXISTING SANITARY SEWER SIZE, LOCATION, DIRECTION OF FLOW, AND INVERT ELEVATION PRIOR TO STARTING ANY WORK. MINIMUM SLOPE OF SANITARY PIPING 3" AND LARGER TO BE 1/8" PER FOOT, MIN. SLOPE OF SANITARY PIPING OF 2" TO BE 1/4" PER FLOOR. PLUMBING CONTRACTOR TO CONTACT CONSTRUCTION MANAGER OF RECORD IF EXISTING INVERT CANNOT BE MET.
- EXTEND & CONNECT NEW VENT INTO EXISTING VENT. PC SHALL VERIFY EXISTING SIZE & LOCATION OF EXISTING VENT PRIOR TO STARTING ANY WORK.
- EXTEND NEW CW LINE INTO EXIST. CW LINE. FIELD VERIFY EXACT SIZE & LOCATION OF EXIST. CW LINE. CONT. TO VERIFY SUB WATER METER (TO BE TIED TO EXTERIOR REMOTE READER) & REDUCED PRESSURE BACKFLOW PREVENTER REQUIREMENT. COOR. REQUIREMENTS W/LOCAL JURISDICTION AND LANDLORD.

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CONSULTANT

PROJECT NAME

EYEMART
EXPRESS

STORE #:

SITE LOCATION:

1041 NE
SAM WALTON DR
LEE'S SUMMIT, MO
64086

ENGINEER OF RECORD



10-28-20

★ 10-28-2020
Permit

★ INDICATES
AFFECTED SHEETS

FIRE RATED WALL
PENETRATION
DETAILS

DATE

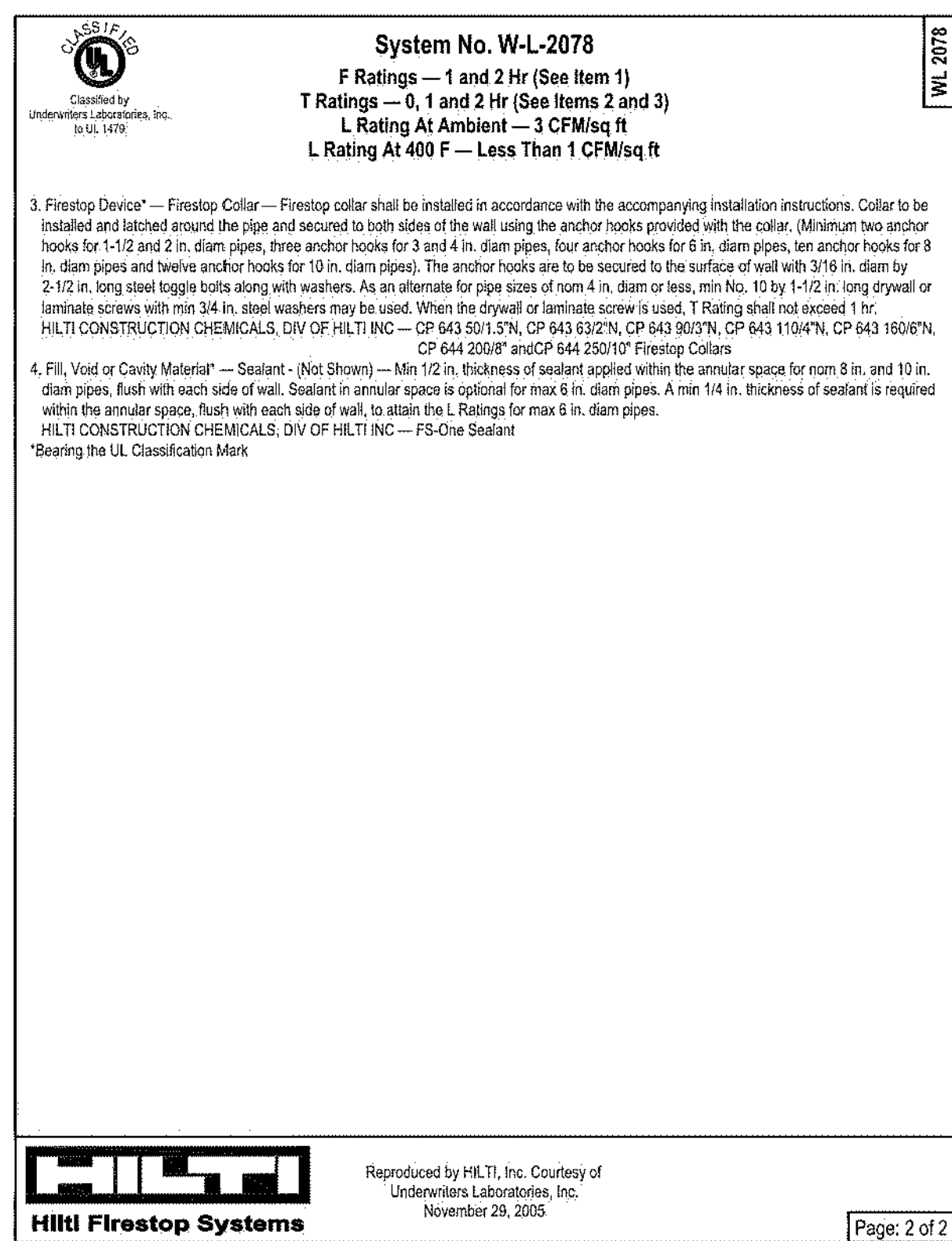
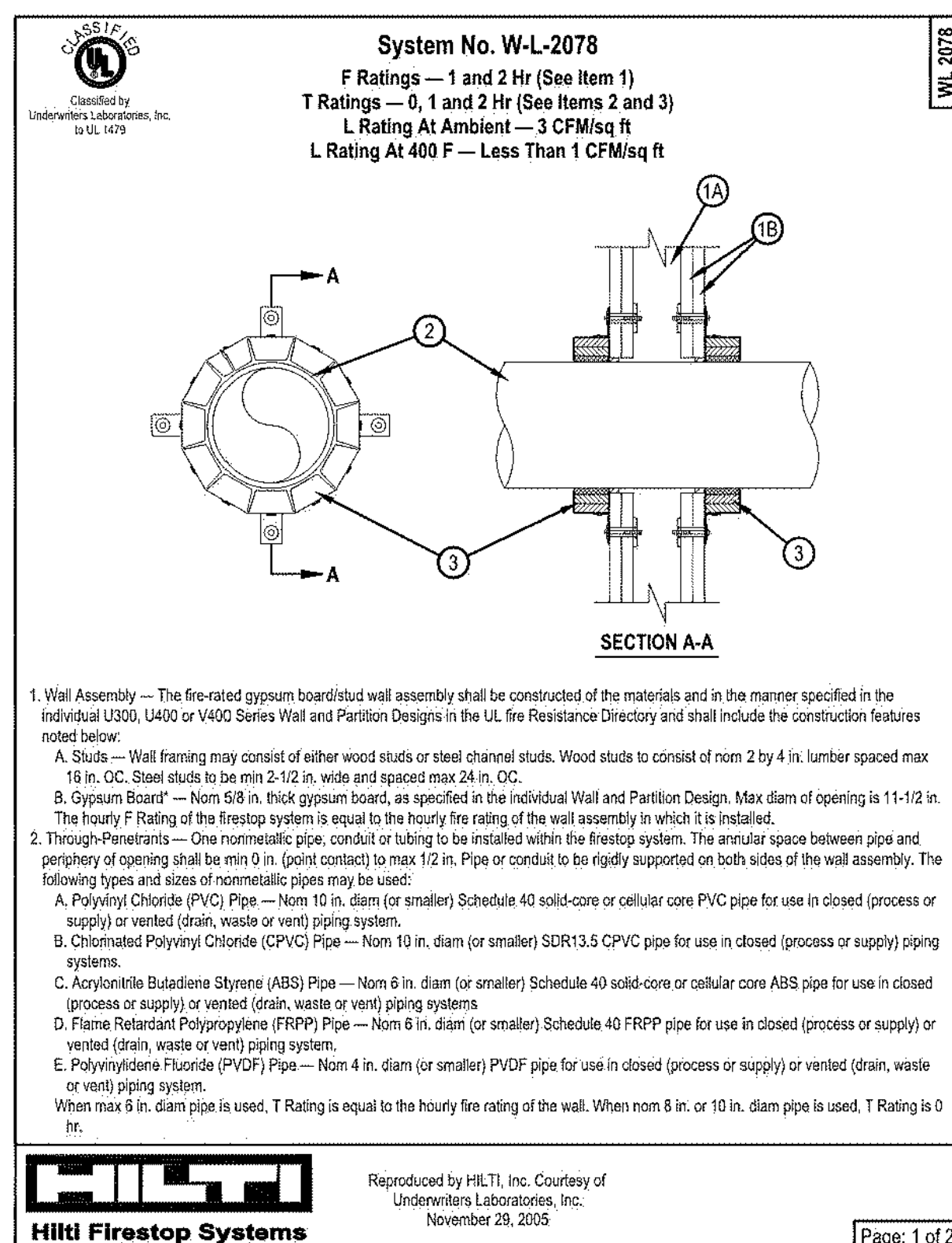
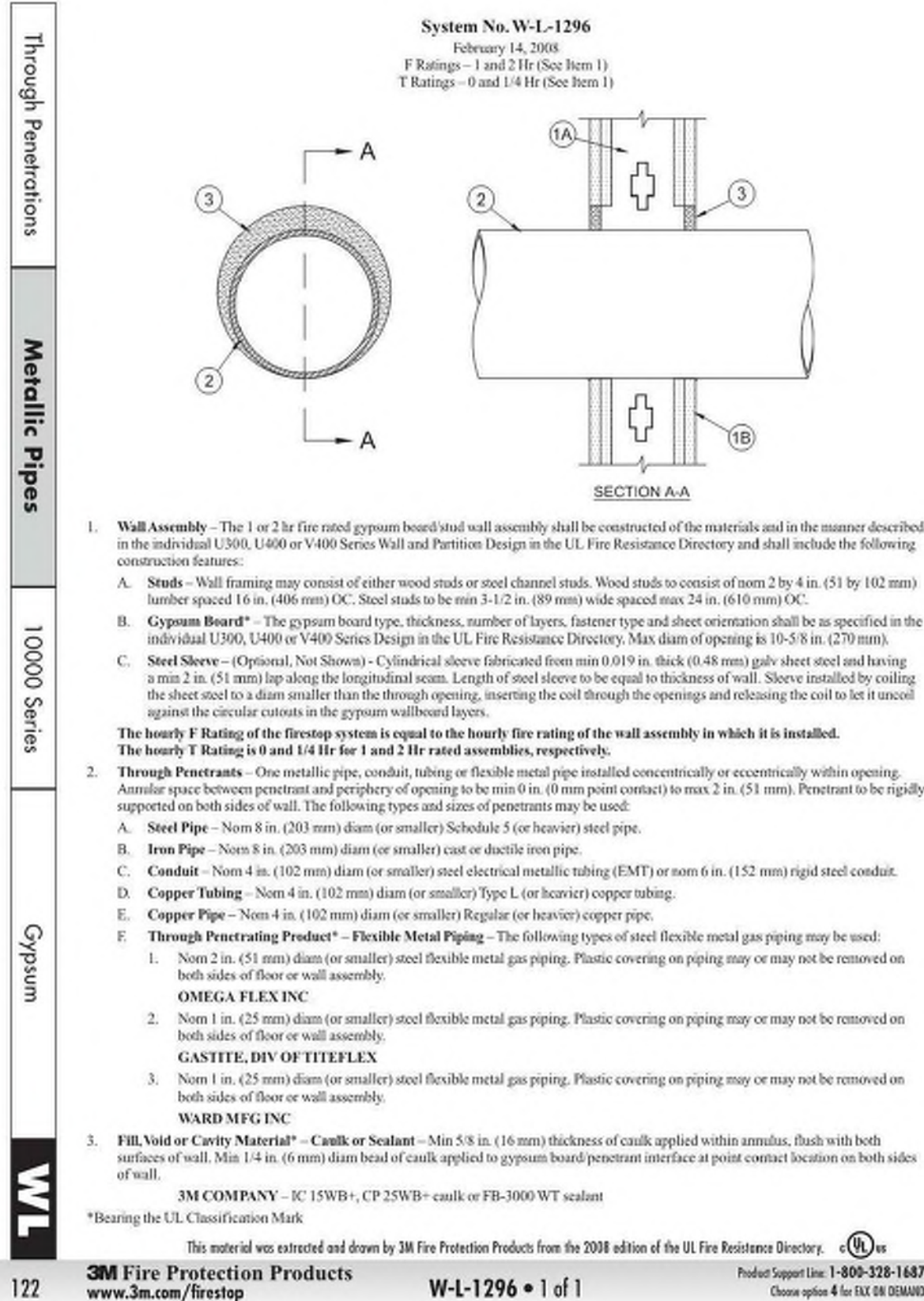
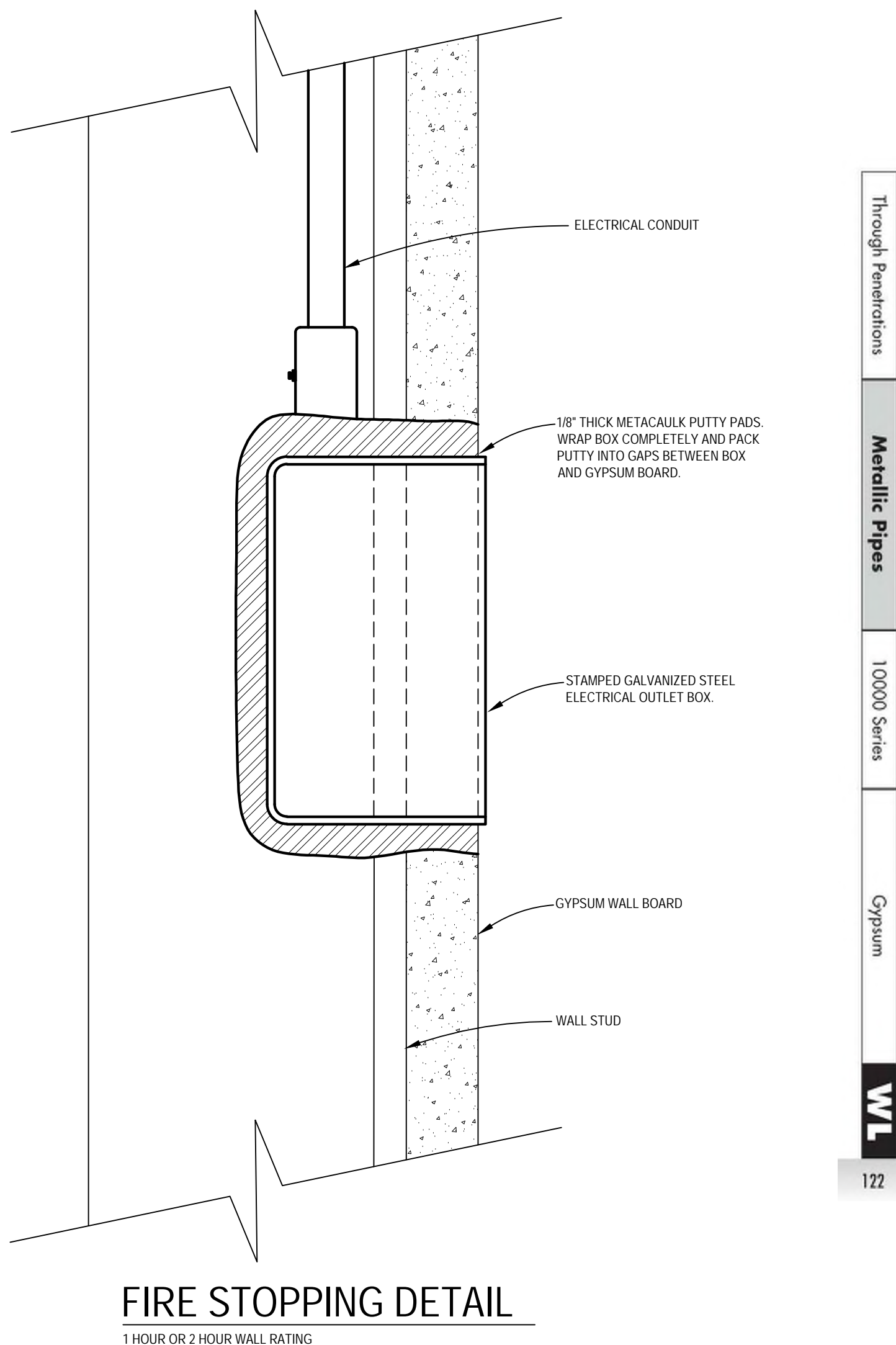
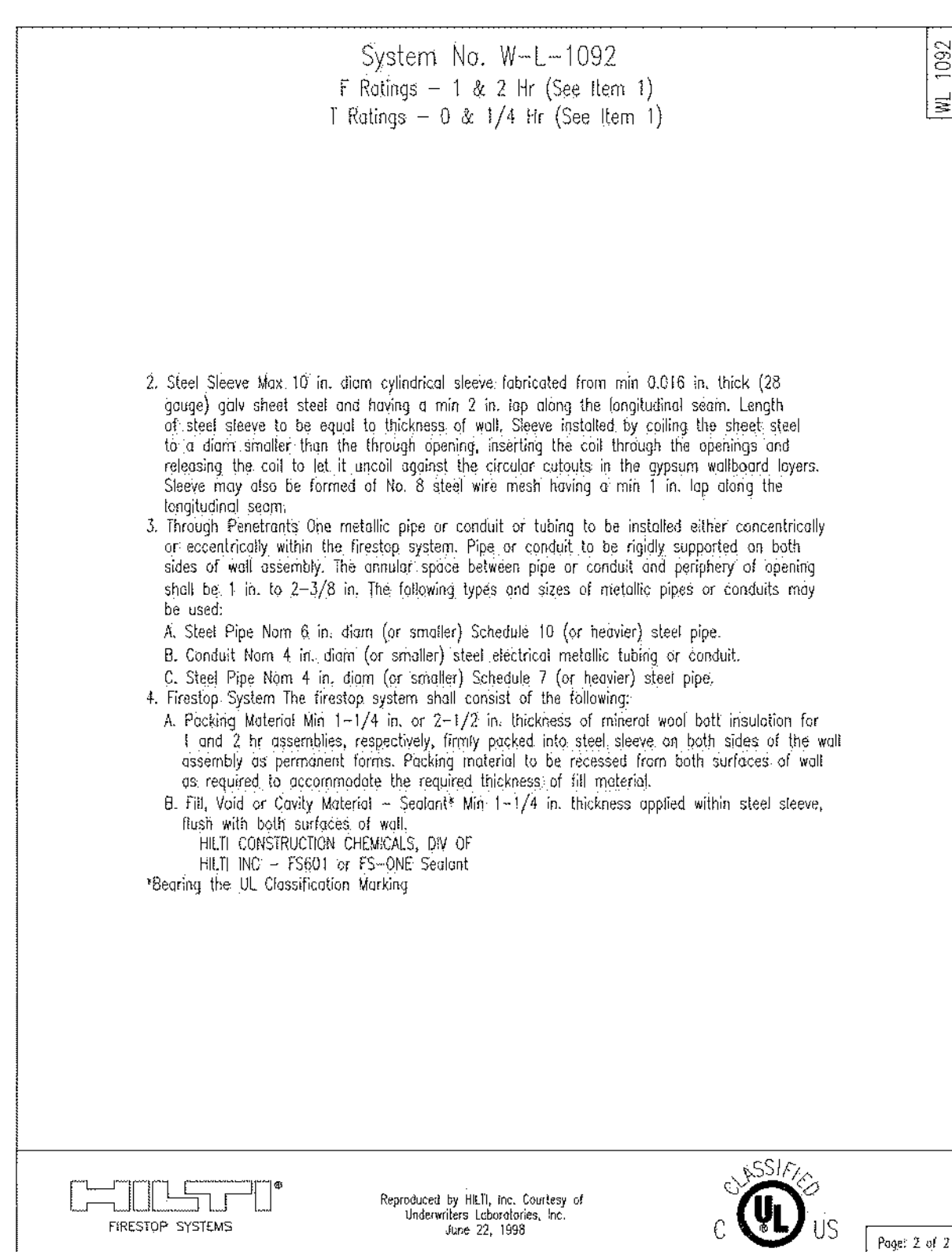
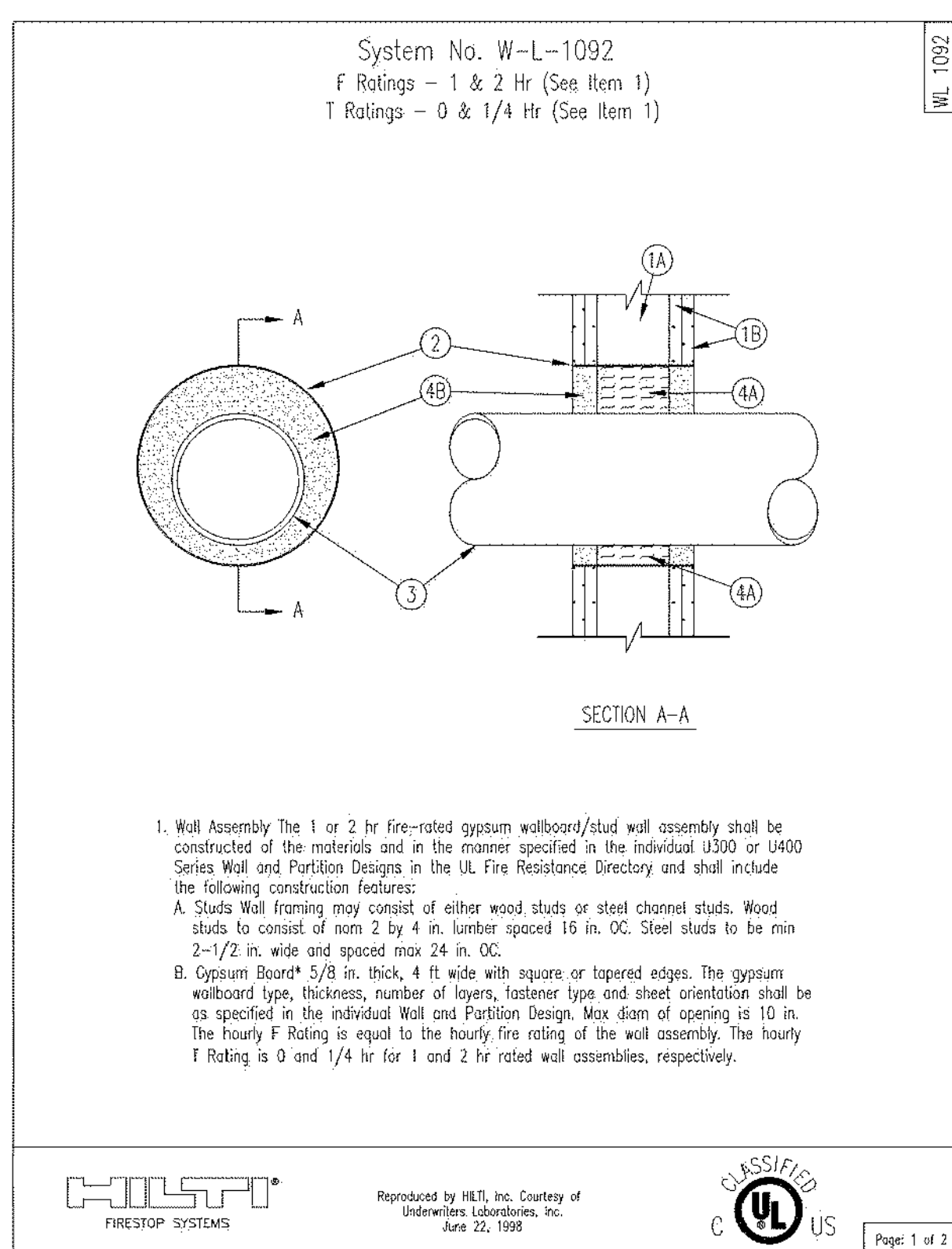
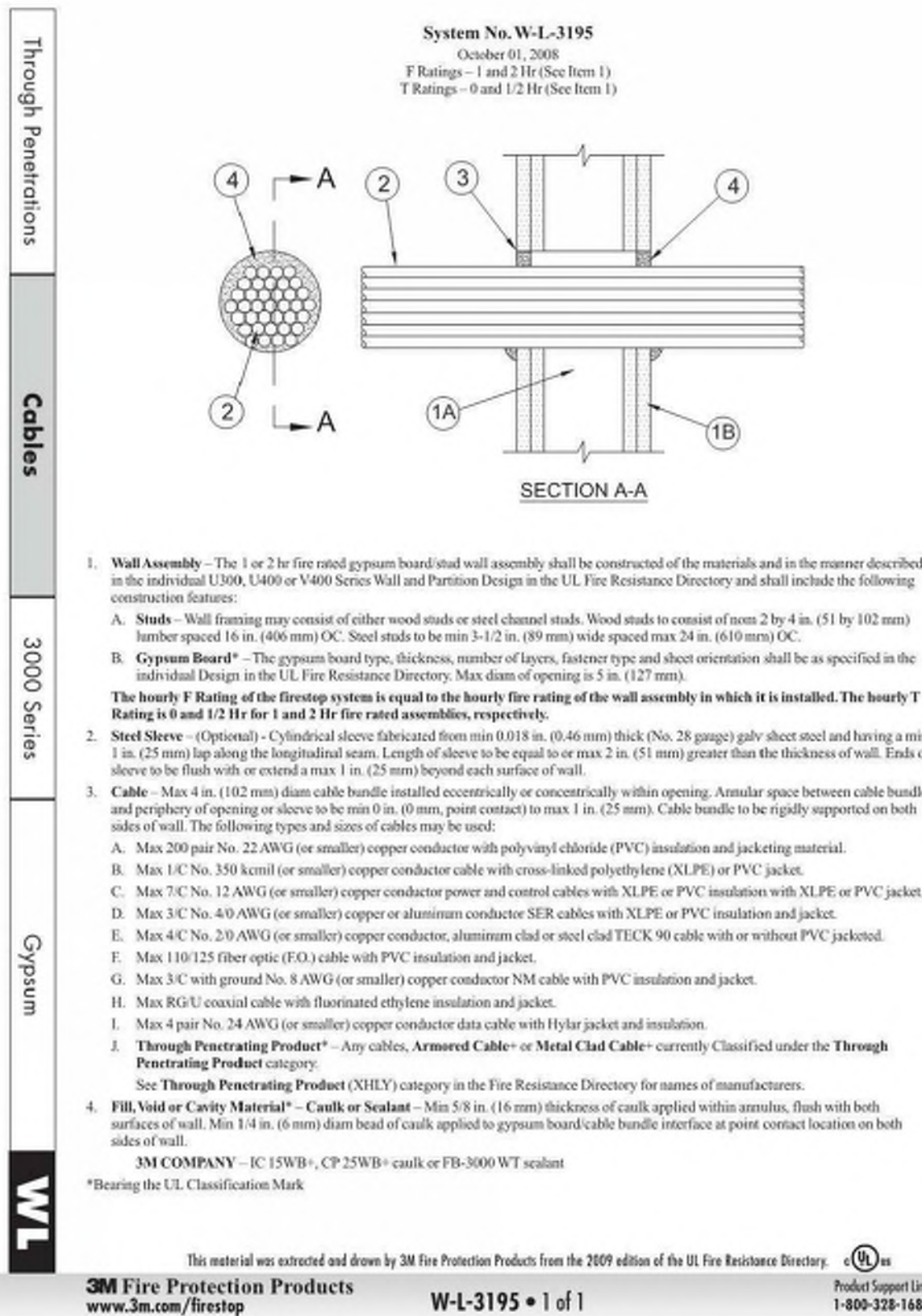
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EYEM101520LSMO

SHEET NUMBER

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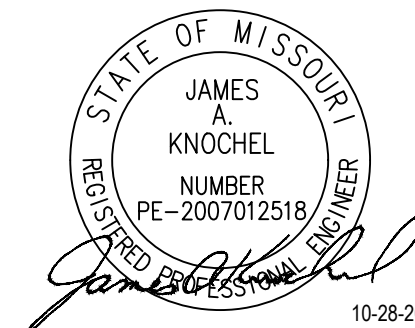
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ELECTRICAL
POWER PLAN

DATE

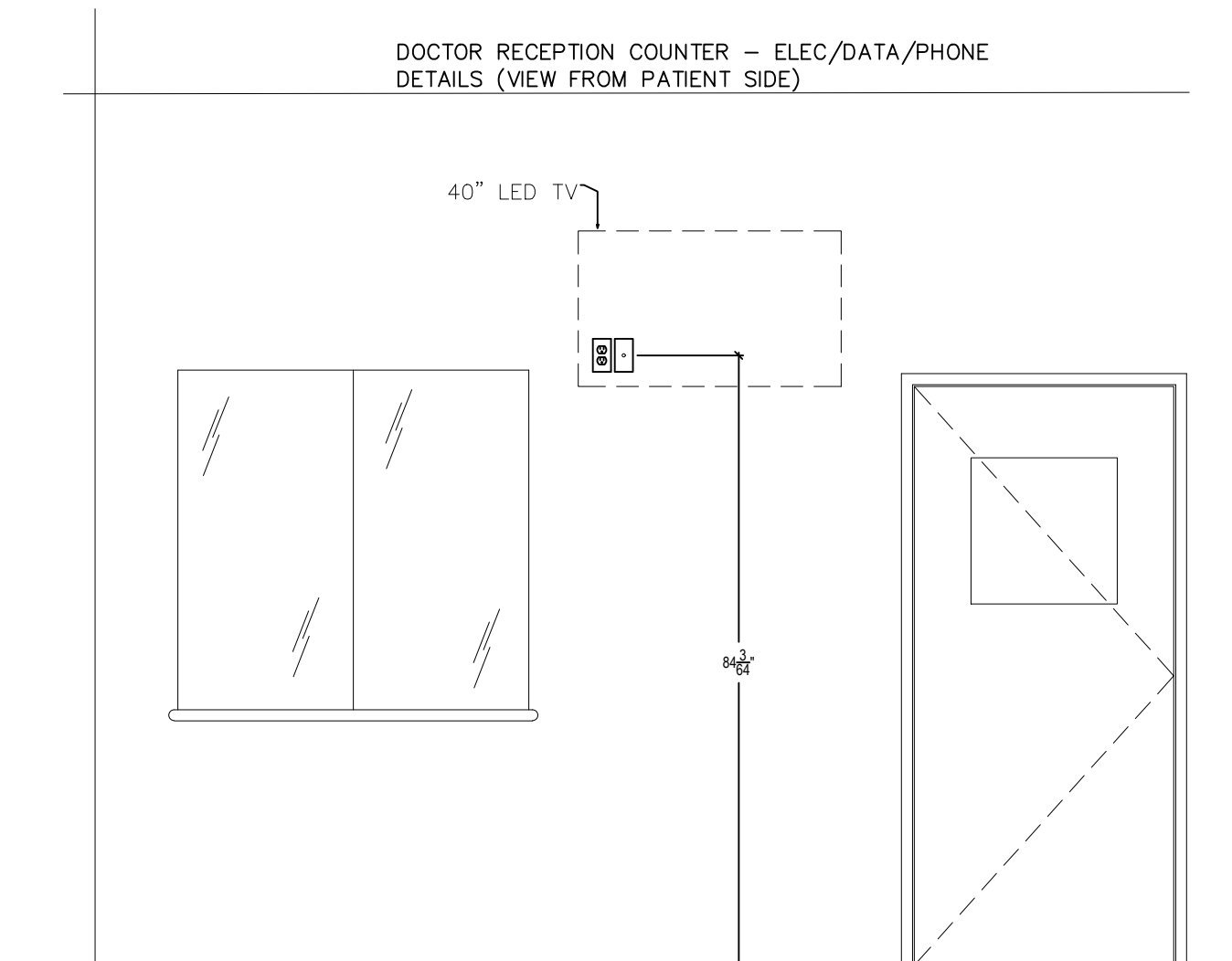
10-28-2020

PROJECT NUMBER

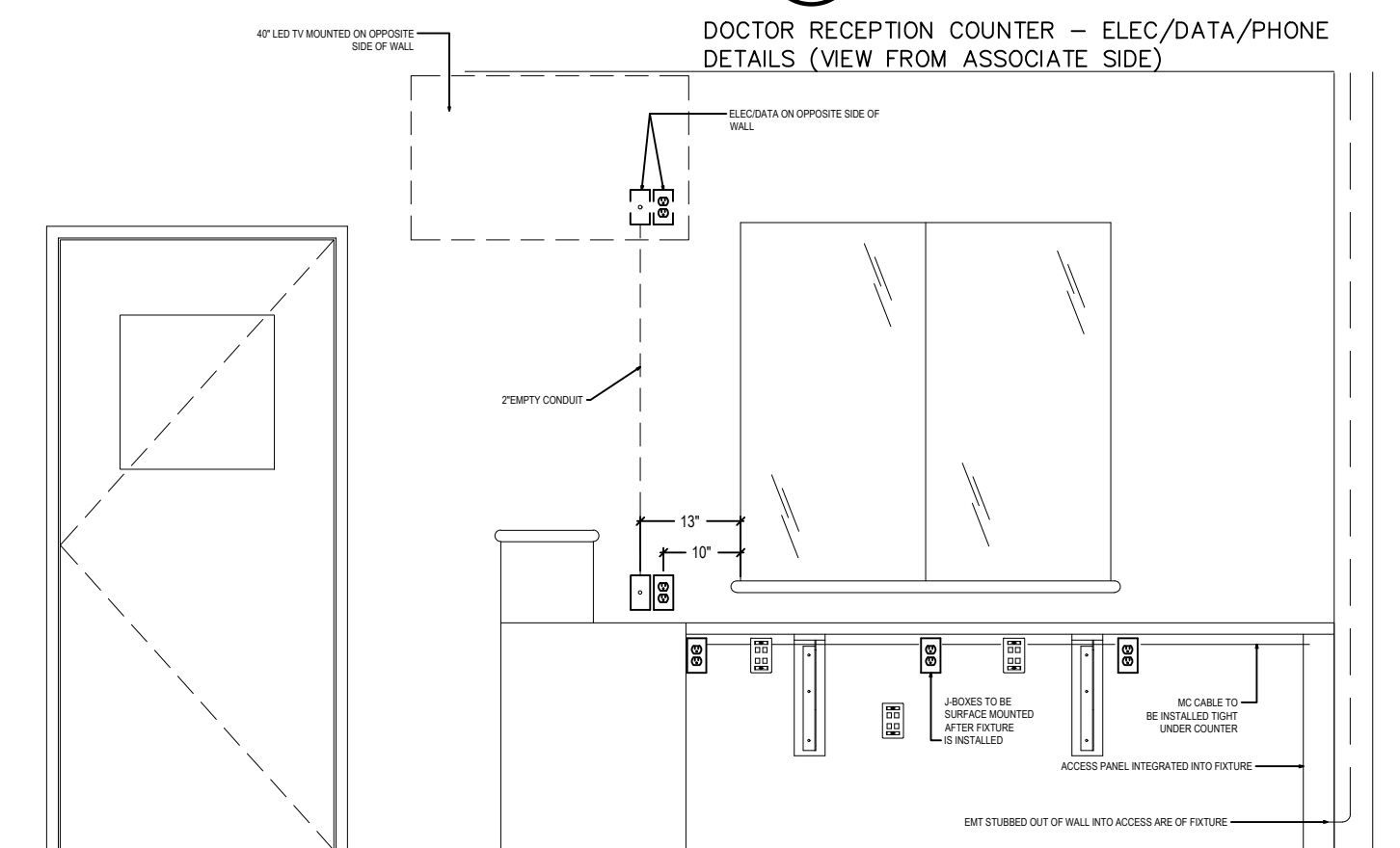
EYEM101520LSMO

SHEET NUMBER

E1.0



WAITING AREA TV
NO SCALE



RECEPTION COUNTER
NO SCALE

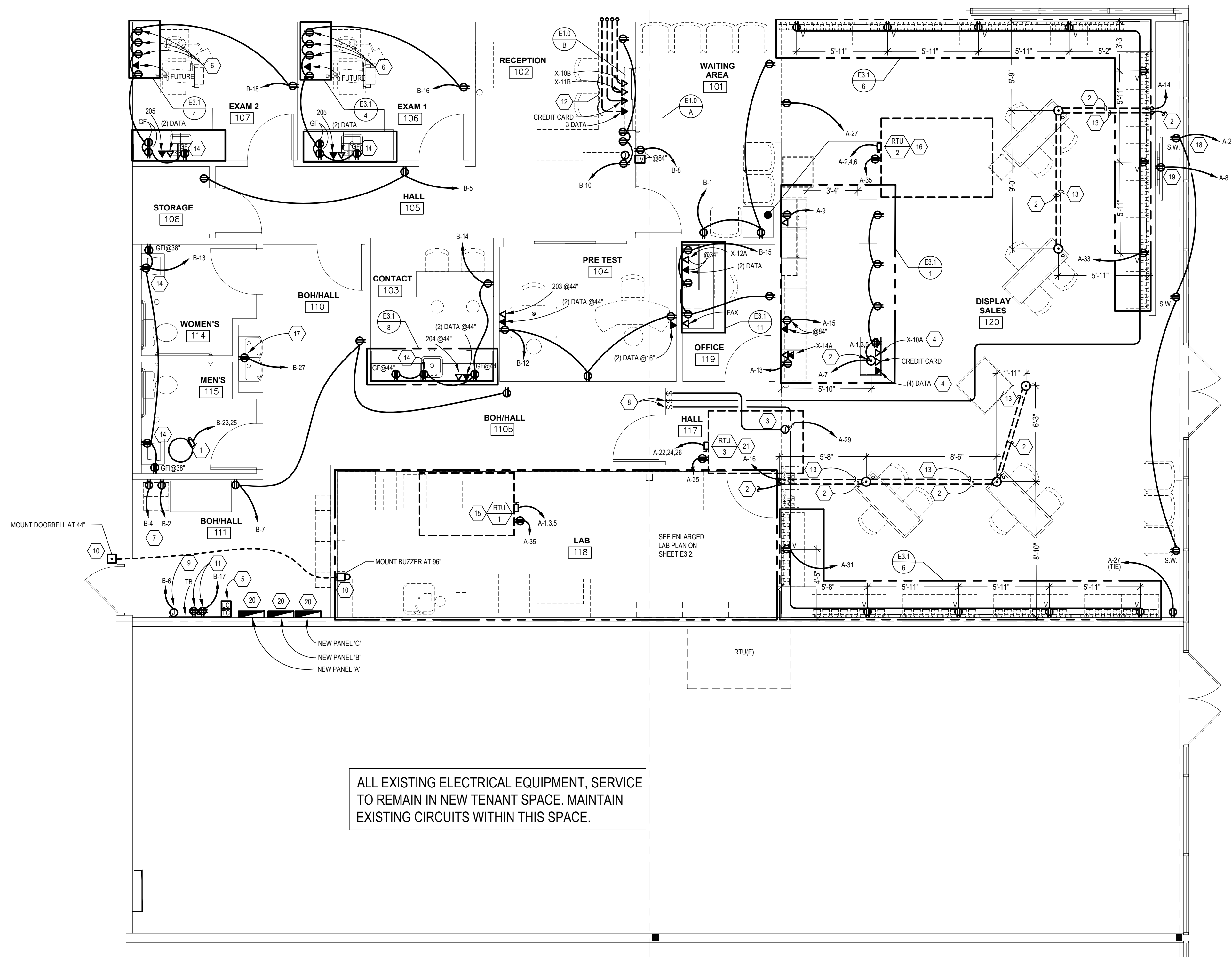
ELECTRICAL LEGEND

LIGHTING		POWER	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
SW	WALL SWITCH @48" A.F.F. 20A, 120V	DP	DUPLEX RECEPTACLE @20" A.F.F. 20A, 125V
3SW	THREE-WAY SWITCH @48" A.F.F. 20A, 120V	DPGFC	DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER @20" A.F.F. 20A, 125V
OS	OCCUPANCY SENSOR WALL MOUNTED @48" A.F.F.	WDP	DUPLEX RECEPTACLE WITH WEATHERPROOF WHILE-IN-USE COVER @18" A.F.F. OR A.F.G. 20A, 125V
CS	OCCUPANCY SENSOR CEILING MOUNTED	SP	SPECIAL RECEPTACLE AMPERAGE, @20" A.F.F. COORDINATE NEMA CONFIG. WITH EQUIPMENT FED.
FL	FLUORESCENT LIGHTING OUTLET, RECESSED OR SURFACE MOUNTED PER FIXTURE SCHEDULE	JB	JUNCTION BOX MOUNTED AS NOTED.
NL	LIGHT FIXTURE ON NIGHT LIGHT	SD	SAFETY DISCONNECT SWITCH @60" A.F.F. TO TOP
CL	CEILING LIGHTING OUTLET, RECESSED OR SURFACE MOUNTED PER FIXTURE SCHEDULE	PB	PANELBOARD, SURFACE MOUNTED @6'-0" A.F.F. TO TOP
LO	WALL LIGHTING OUTLET @ HEIGHT PER FIXTURE SCHEDULE OF ARCHITECTURAL ELEVATIONS.	FLB	PANELBOARD, FLUSH MOUNTED @6'-0" A.F.F. TO TOP
EL	EMERGENCY EXIT LIGHT, SINGLE FACE, CLG. MOUNTED.	EF	CEILING EXHAUST FAN BY M.C. WIRED BY (FURN E.C.) MAKE ALL CONNECTIONS AS INDICATED ON DRAWING.
ELW	EMERGENCY EXIT LIGHT, SINGLE FACE, WALL MOUNTED	WR	4" SQ. BOX W/IG PLASTER RING @20" A.F.F. FOR TELEPHONE OUTLET. COVER/PLATE WIRING & TERMINATION BY OWNER RUN 3/4" C. FROM BOX UP IN WALL TO ABOVE ACCESSIBLE CEILING
ELW	COMBINATION EMERGENCY EXIT/EGRESS LIGHT, SINGLE FACE, CEILING MOUNTED	HB	HUBBELL SYSTEM ONE FLOOR BOX HUBBELL #S1PFB PND - PVC FLOOR BOX HUBBELL #S10V1 - DIVIDER HUBBELL #S10FCAL - COVER (ALUMINUM) HUBBELL #S1SPUSL PLATE HUBBELL #S1SPJCY 3-PORT DATA RECEPTACLE RELEVTON 3352-E
ELW	EMERGENCY EGRESS LIGHT @90" A.F.F. WALL MOUNTED	DO	DATA OUTLET, COORDINATE MOUNTING HT. IN FIELD. PROVIDE 3/4" C. AND/OR PULLSTRING TO ACCESSIBLE CLG. OR AREA AS REQUIRED.
EMR	EMERGENCY REMOTE HEAD FOR EXIT DISCHARGE	TO	TELEPHONE OUTLET MTD AT 18" AFF UNLESS OTHERWISE NOTED. PROVIDE 3/4" C. AND/OR PULLSTRING TO ACCESSIBLE CLG. OR AREA AS REQ.
B	SELF CONTAINED BATTERY	DC	DEDICATED CREDIT CARD OUTLET MTD. AT 18" AFF UNLESS OTHERWISE NOTED. PROVIDE 3/4" C. AND/OR PULLSTRING TO ACCESSIBLE CLG. OR AREA AS REQ.
FD	FIRE ALARM SYSTEM PHOTOELECTRIC SMOKE DETECTOR WITH PROBE. DUCT MOUNTED, ADDRESSABLE	DB	DOOR BELL AND BUZZER
SW	CEILING MOUNTED DUPLEX RECEPTACLE 20A, 125V FOR SHOW WINDOW.		
SV	DUPLEX RECEPTACLE 20A, 125V MOUNTED VERTICALLY AT 20".		
CA	CEILING MOUNTED CARBON MONOXIDE ALARM.		

ELECTRICAL CODED NOTES:

- ELECTRIC WATER HEATER (30K, 208V, 1Ø) E.C. TO FURNISH AND INSTALL A 3ØA, 1Ø, 208V DISCONNECT. COORDINATE MOUNTING REQUIREMENTS IN FIELD. RUN (2) #12 AND #12 GROUND IN 1/2" CONDUIT TO A 2Ø AMP, 2 POLE BREAKER IN THE ELECTRIC PANEL.
- ROUTE 1" CONDUIT WITH PULL STRING UNDER SLAB FROM CASHWRAP/WRITE UP TABLE/FUTURE KIOSK TO WALL. STUB CONDUIT UP IN WALL TO OVER HEAD. ROUTE OVER HEAD. (3) CAT6 TO DATA LOCATION.
- JUNCTION BOX ABOVE CEILING FOR SIGNAGE. COORDINATE EXACT LOCATION WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN. E.C. TO COORDINATE MOUNTING LOCATION WITH MILLWORK IN FIELD.
- PROVIDE TIME CLOCK AND LIGHTING CONTACTOR PER DETAIL 'B' ON E4.1.
- INSTALL RECEPTACLES SO THEY ARE MORE THAN 6" AWAY FROM SINK.
- RECEPTACLES FOR BREAK AREA MICROWAVE AND REFRIGERATOR.
- PROVIDE SINGLE POLE SWITCH TO CONTROL RECEPTACLES FOR DISPLAY CASES. SWITCH SHALL CONTROL CIRCUIT AS INDICATED ON THE POWER PLAN.
- PROVIDE J-BOX FOR SECURITY ALARM SYSTEM. COORDINATE EXACT REQUIREMENTS WITH ALARM COMPANY PRIOR TO ROUGH-IN.
- PROVIDE DELIVERY BUZZER IN LAB AND PUSH BUTTON AT BACK DOOR. CONNECT TO LOCAL RECEPTACLE CIRCUIT FOR POWER. RUN LOW VOLTAGE WIRING AS REQUIRED.
- TELEPHONE BOARD:
(1) PROVIDE NEW 4" X 8" FIRE RETARDANT PAINTED TELEPHONE BOARD MOUNTED VERTICALLY AND
(2) QUADRAPLEX RECEPTACLE AT 36" A.F.F. FOR EQUIPMENT.
- ATTACH BOXES TO REAR OF MILLWORK.
- ROUTE (1) 1/2" CONDUIT WITH (2) #12 CU & (1) #12 GRD. FROM CASHWRAP/WRITE DESK/FUTURE KIOSK TO WALL. STUB CONDUIT UP IN WALL OVER HEAD. ROUTE OVER HEAD TO PANEL.
- PROVIDE GFCI RECEPTACLE UNDER SINK FOR ELECTRONIC FAUCET. FIELD VERIFY EXACT LOCATION.
- NEW HVAC ROOF TOP UNIT - RTU-1 (208V, 3Ø, 19.6 MCA) WITH INTEGRAL DISCONNECT AND GFI RECEPTACLE. RUN 3 #10 AND #10 GROUND IN 3/4" CONDUIT FROM THE UNIT TO A 3Ø AMP, 3 POLE BREAKER IN THE ELECTRIC PANEL. CIRCUIT RECEPTACLE AS SHOWN.
- NEW HVAC ROOF TOP UNIT - RTU-2 (208V, 3Ø, 35.9 MCA) WITH INTEGRAL DISCONNECT AND GFI RECEPTACLE. RUN 3 #8 AND #10 GROUND IN 3/4" CONDUIT FROM THE UNIT TO A 3Ø AMP, 3 POLE BREAKER IN THE ELECTRIC PANEL. CIRCUIT RECEPTACLE AS SHOWN. (TYPICAL FOR RTU-3 WHICH HAS 4Ø.4 MCA)
- PROVIDE GFI RECEPTACLE FOR HI-LO DRINKING FOUNTAIN. LOCATE PER MANUFACTURE'S RECOMMENDATION.
- CIRCUIT SHOWN TO RUN THROUGH LC-1 CONTROLLED BY TIMECLOCK TC-1. SEE DETAIL 'B' ON E4.1 FOR ADDITIONAL INFORMATION.
- PROVIDE RECESSED RECEPTACLE FOR LED TV. COORDINATE EXACT LOCATION WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN. CIRCUIT TO BE WIRED THRU LIGHTING CONTACTOR LC1 CONTROLLED BY TIME CLOCK TC1.
- NEW ELECTRIC PANELS - SEE RISER DIAGRAM AND PANEL SCHEDULES ON E4.1 FOR ADDITIONAL INFORMATION.
- NEW HVAC ROOF TOP UNIT - RTU-3 (208V, 3Ø, 23.7 MCA) WITH INTEGRAL DISCONNECT AND GFI RECEPTACLE. RUN 3 #8 AND #10 GROUND IN 3/4" CONDUIT FROM THE UNIT TO A 3Ø AMP, 3 POLE BREAKER IN THE ELECTRIC PANEL. CIRCUIT RECEPTACLE AS SHOWN.

WIRING IN PATIENT CARE
AREAS MUST COMPLY WITH
2017 NEC SECTION 517.13



ALL EXISTING ELECTRICAL EQUIPMENT, SERVICE
TO REMAIN IN NEW TENANT SPACE. MAINTAIN
EXISTING CIRCUITS WITHIN THIS SPACE.

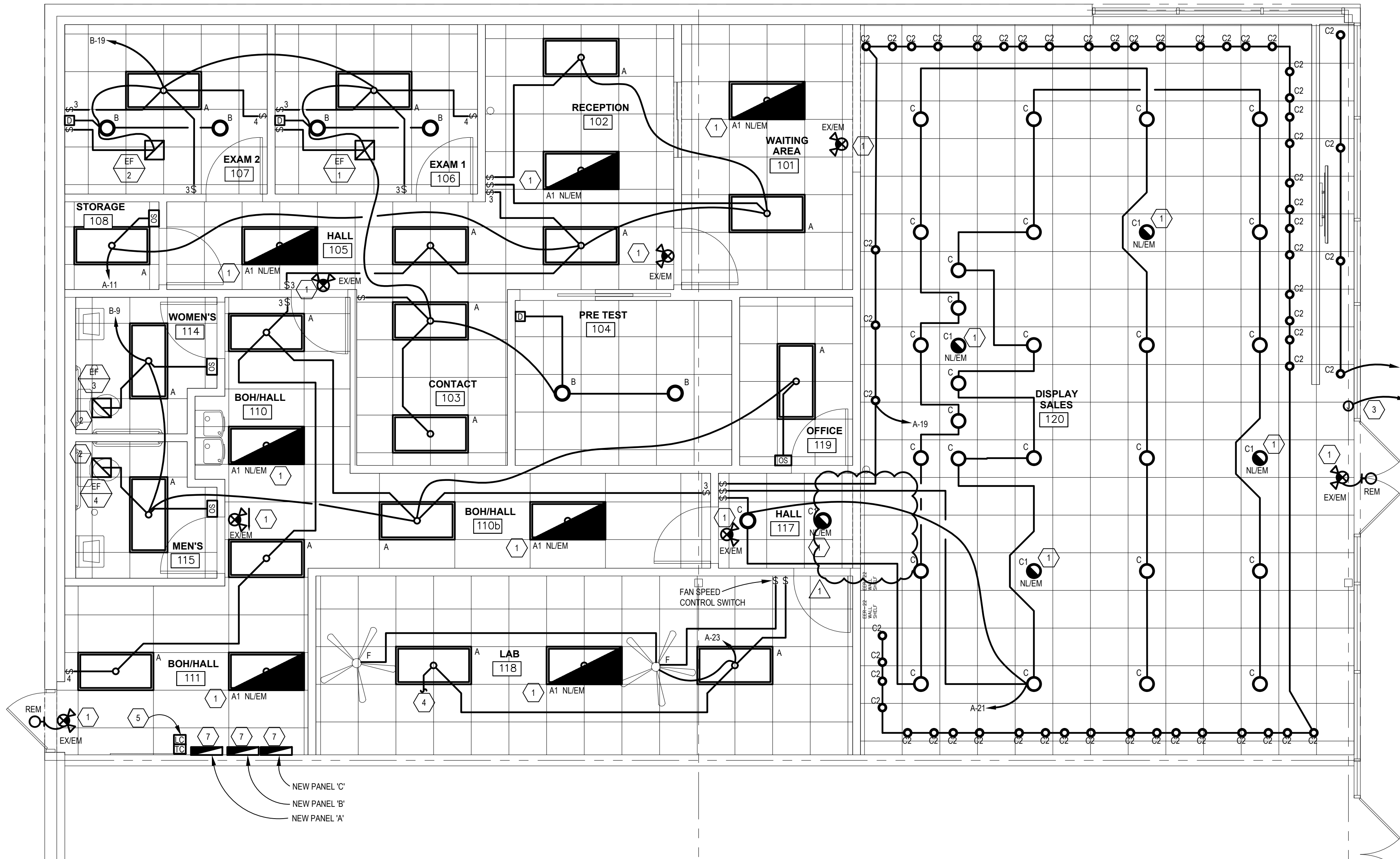
ELECTRICAL POWER PLAN

SCALE: 1/4" = 1'-0"

LIGHTING FIXTURE SCHEDULE					
MARK	DESCRIPTION	VOLT	LAMP	MOUNT	MANUFACTURER
A	2x4 LAY IN LED WITH PRISMATIC LENS (USED IN NON-SALES AREAS)	120	40W LED	LAY-IN	MAXLITE MLFP24EP4035
A1	2x4 LAY IN LED WITH PRISMATIC LENS AND EMERGENCY BATTERY BACK-UP UNIT (USED IN NON-SALES AREAS)	120	40W LED	LAY-IN	MAXLITE MLFP24EP4035EM
B	RECESSED DOWNLIGHT, DIMMABLE (USED IN EXAM ROOMS)	120	13W LED	RECESSED	CAPRI RMS40CLR10X
C	8" RECESSED LED DOWNLIGHT, DIMMABLE (USED IN SALES AREA)	120	36W LED	RECESSED	NORA LIGHTING HOUSING: NCH-830-30-L-E1 REFLECTOR: NC-831-L30-35-W-WSF
C1	8" RECESSED LED DOWNLIGHT, DIMMABLE EMERGENCY NIGHT LIGHT (USED IN SALES AREA)	120	36W LED	RECESSED	NORA LIGHTING HOUSING: NCH-830-30-L-E1-EM REFLECTOR: NC-831-L30-35-W-WSF
C2	4" RECESSED LED DOWNLIGHT, DIMMABLE (USED IN SALES AREA)	120	11W LED	RECESSED	NORA LIGHTING HOUSING: NCH-430-85-L-E1 REFLECTOR: NC-431-L85-35-W-WSF
EX	SELF CONTAINED EXIT LIGHT WITH HIGH 90 MINUTE EMERGENCY BATTERY BACK-UP	120	FURN. WITH UNIT	UNIVERSAL	SURE-LIGHTS LPX7-0-R-WH
EX/EM	SELF CONTAINED EXIT COMBO LIGHT, DUAL LED HEAD WITH HIGH 90 MINUTE EMERGENCY BATTERY BACK-UP	120	FURN. WITH UNIT	UNIVERSAL	LITHONIA LHQM-LED-R
REM	REMOTE EMERGENCY LIGHT, DUAL HEAD	120	FURN. WITH UNIT	EXT. WALL ABOVE DOOR	SURE-LIGHTS 6-T-8W-WMH-WH
NOTES: 1. CONNECT ALL EXIT & EMERGENCY LIGHTS TO LOCAL AREA LIGHTING CIRCUIT AHEAD OF ANY SWITCHING. EMERGENCY LIGHTING FIXTURES IN LAY IN CEILINGS ARE TO BE PERMANENTLY IDENTIFIED ON THEIR EXTERIOR SURFACE (E.G. USE OF RED DOT OR LABEL) SO THAT THESE FIXTURES CAN BE RECOGNIZED FROM FLOOR LEVEL. 2. EQUAL FIXTURES BY COOPER, HUBBELL, LSI, PHILLIPS OR LITHONIA.					

ELECTRICAL SPECIFICATIONS

- THE REQUIREMENTS AS SET FORTH UNDER GENERAL CONDITIONS, INSTRUCTIONS TO BIDDERS AND GENERAL REQUIREMENTS ARE A PART OF THIS CONTRACT. BIDS SHALL BE BASED ON A COMPLETE/FULL SET OF DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF WORK WITH WORK PERFORMED BY OTHER TRADES.
- CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING. BIDS SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS. FIELD VERIFY ALL EXISTING ELECTRICAL LOCATIONS, CONDITIONS ETC. FAILURE TO VISIT THE SITE SHALL NOT RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITY IN THE PERFORMANCE OF THE ELECTRICAL WORK. BEGINNING OF WORK INDICATES ACCEPTANCE OF EXISTING CONDITIONS.
- FURNISH ALL LABOR, MATERIALS, TESTING, EQUIPMENT, INCIDENTALS AND TOOLS TO PERFORM ELECTRICAL WORK SHOWN, NOTED OR SCHEDULED FOR A COMPLETE AND FINISHED INSTALLATION. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND AS SUCH APPEAR ON THE UNDERWRITERS LABORATORIES LIST OF APPROVED ITEMS AND SHALL BE SIZED IN CONFORMITY WITH REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE CODES, WHICHEVER ARE MORE STRINGENT.
- ALL WORK IS TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC AND ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES. ALL ELECTRICAL EQUIPMENT & MATERIALS SHALL BE U.L. LABELED AND LISTED PER NEC 110.3(A)(1).
- SECURE AND PAY FOR ALL REQUIRED PERMITS, FEES, ASSESSMENTS AND INSPECTION CERTIFICATES THAT RELATE TO THE ELECTRICAL CONTRACT. FURNISH APPROVED CERTIFICATE OF FINAL INSPECTION, AND TURN OVER TO OWNER AT COMPLETION OF PROJECT.
- THESE ELECTRICAL PLANS ARE DIAGRAMMATIC, NOT SHOWING EVERY ITEM IN EXACT LOCATION OR DETAIL. MEASUREMENTS AND LOCATIONS MUST BE FIELD-VERIFIED AND COORDINATED WITH ARCHITECTURAL, PLUMBING, HVAC, FIRE PROTECTION, STRUCTURAL AND OTHER BUILDING DRAWINGS.
- THE ELECTRICAL CONTRACTOR SHALL FURNISH ELECTRONIC COPIES OF SHOP DRAWINGS, REVIEWED AND STAMPED APPROVED BY THE CONTRACTOR, FOR APPROVAL BY THE ARCHITECT AND ENGINEER, PRIOR TO ORDERING EQUIPMENT SUCH AS LIGHT FIXTURES, DISTRIBUTION EQUIPMENT, AND FIRE ALARM SYSTEM.
- PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF ELECTRICAL WORK. ALL CORE DRILLING OR CUTTING OF FIRE-RATED FLOORS, SHAFTS AND WALLS SHALL BE FIRE-STOPPED PRIOR TO FINISH PATCHING. ALL PENETRATIONS SHALL BE FIRE SEALED TO MATCH THE FIRE RATING OF THE FLOOR, SHAFT OR WALL PENETRATED.
- FURNISH AND INSTALL A COMPLETE WIRED GROUNDING SYSTEM FOR ELECTRICAL SERVICE ENTRANCE, ELECTRICAL EQUIPMENT AND CIRCUITS AS SHOWN ON THE DRAWINGS AND REQUIRED PER N.E.C. ARTICLE 250. ALL GROUNDING CONDUCTORS SHALL BE GREEN, WHERE EXPOSED IN PANEL, OUTLETS, BOXES, ETC.
- PROVIDE BRANCH CIRCUIT PANELS WHICH SHALL BE OF THE BOLTED CIRCUIT BREAKER TYPE WITH SOLID COPPER BUSSING FULL SIZED NEUTRAL, 25% GROUND BUSSING. OVERALL HINGED/LOCKABLE DOOR, AND TYPEWRITTEN DIRECTORY INSIDE DOOR. ALL SERVICE ENTRANCE EQUIPMENT SHALL BEAR THE MANUFACTURER'S LABEL WHICH SHALL STATE THAT THE EQUIPMENT IS RATED FOR SERVICE ENTRANCE APPLICATION IN ACCORDANCE WITH N.E.C. #230-70. LOAD BALANCE ALL ELECTRICAL PHASES AT PANEL. TWO AND THREE POLE BREAKERS SHALL BE COMMON TRIP TYPE. SQUARE D OR EQUAL BY EATON, CUTLER-HAMMER, OR GENERAL ELECTRIC.
- PROVIDE SAFETY AND DISCONNECT SWITCHES, FUSED OR NONFUSED, AS CALLED FOR ON DRAWINGS AND AS REQUIRED BY CODE. FUSES AS MANUFACTURED BY BUSSMAN OR EQUAL. DISCONNECT SWITCHES THAT ARE INSTALLED AT AIR CONDITIONING EQUIPMENT, HEAT PUMPS, ETC SHALL BE FUSED IN ACCORDANCE WITH THE EQUIPMENT'S NAME PLATE REQUIREMENTS PER N.E.C. 440.21 & 110.30. SWITCHES SHALL BE HEAVY DUTY, QUICK MAKE/QUICK BREAK TYPE, FUSIBLE OR NON-FUSIBLE. LOAD AND HORSEPOWER RATED AS MANUFACTURED BY SQUARE D, EATON, CUTLER HAMMER, OR GENERAL ELECTRIC, WEATHERPROOF WHERE APPLICABLE.
- PROVIDE ARC-FLASH HAZARD WARNING LABELS ON ALL ELECTRICAL EQUIPMENT INCLUDING SWITCHBOARDS, PANELBOARDS, MOTOR CONTROLLERS, AND ANY OTHER EQUIPMENT LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING OR MAINTENANCE WHILE ENERGIZED. THE LABELS SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION.
- ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY SERVICE AND PROVIDE LIGHTING, POWER AND WIRING AS REQUIRED TO FACILITATE APPLICABLE TEMPORARY NEEDS FOR ALL TRADES. HE SHALL FURNISH EXTENSION CORDS FOR HIS OWN USE. ANY TEMPORARY WIRING, FUSES, ETC., SHALL BE REMOVED UPON COMPLETION OF THE PROJECT. PROVIDE GROUND FAULT PROTECTION AS REQUIRED BY N.E.C. AND LOCAL CODES.
- PROVIDE ELECTRICAL SERVICE AS SHOWN ON THE DRAWINGS. FIELD VERIFY EXACT REQUIREMENTS PRIOR TO BIDS. ALL WORK NOT SPECIFICALLY NOTED AS BEING BY THE OWNER OR POWER COMPANY SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. COORDINATE ENTIRE INSTALLATION WITH POWER COMPANY. PROVIDE EQUIPMENT THAT IS COMPATIBLE WITH AVAILABLE FAULT CURRENT LEVELS AND PROVIDE "CABLE LIMITERS" IF NECESSARY FOR SYSTEM COORDINATION. FIELD VERIFY EXACT TYPE, SIZE, LOCATION, ETC. OF EXISTING UTILITIES PRIOR TO BIDDING PROJECT.
- PANELBOARDS AND DISCONNECT SWITCHES SHALL BE IDENTIFIED WITH ENGRAVED BAKELITE NAMEPLATES AS TO DESIGNATION AND VOLTAGE.
- MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS APPEARING IN THAT PERIOD SHALL BE CORRECTED AT THE ELECTRICAL CONTRACTOR'S EXPENSE. FOR THE SAME PERIOD, ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY THE ELECTRICAL CONTRACTOR.
- IT IS THE INTENT THAT THE FOREGOING WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY COMPLETE THE WORK SHALL BE FURNISHED.
- THE ELECTRICAL SERVICE SHOWN ON THE PLAN IS SHOWN FOR INTENT. ONLY AN EXISTING 400 AMP DISCONNECT AND METER BASE IS PROVIDED BY THE LANDLORD FOR THE ELECTRICAL SERVICE TO THE EYEMART SPACE. THE ELECTRICAL CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL COMMUNICATION AND COORDINATION WITH THE LANDLORD, INCLUDING THE EXACT LOCATION FOR CONNECTING TO THE 400 AMP DISCONNECT AND THE ROUTING OF THE SERVICE CONDUIT AND CONDUCTORS TO THE SPACE. COORDINATE WITH THE LOCAL UTILITY THE INSTALLATION OF THE ELECTRIC METER.
- THE ELECTRICAL CONTRACTOR SHALL ALSO BE FULLY RESPONSIBLE FOR ALL COMMUNICATION AND COORDINATION WITH THE TELEPHONE COMPANY, AND RESPONSIBLE FOR FURNISHING AND INSTALLING ALL CONDUITS, TRENCHING, BACKFILLING, ETC. TO COMPLY WITH TELEPHONE COMPANY REQUIREMENTS TO ACHIEVE THE INTENT OF THE DRAWINGS.



ELECTRICAL LIGHTING PLAN

SCALE: 1/4" = 1'-0"

ELECTRICAL CODED NOTES:

- WIRE EXIT, EMERGENCY, AND NIGHT LIGHTS TO LOCAL LIGHTING CIRCUIT AHEAD OF ANY SWITCHING AND AUTOMATIC CONTROLS.
- E.C. SHALL WIRE EXHAUST FAN AND TIE TO OCCUPANCY SENSOR CONTROLLING LIGHTING WITHIN THE ROOM.
- J-BOX FOR STORE FRONT SIGNAGE. VERIFY WITH OWNER FOR EXACT REQUIREMENTS AND LOCATION. CIRCUIT SHOWN TO RUN THROUGH LC-1 CONTROLLED BY TIMECLOCK TC-1. SEE DETAIL 'B' ON E4.1 FOR ADDITIONAL INFORMATION.
- EXTEND BRANCH CIRCUIT WIRING FROM LAB LIGHTING TO HOT AND COLD WATER SOLENOID VALVES.
- PROVIDE TIME CLOCK AND LIGHTING CONTACTORS PER DETAIL 'B' ON E4.1.
- CIRCUIT SHOWN TO RUN THROUGH LIGHTING CONTACTOR LC-1 CONTROLLED BY TIME CLOCK TC-1. SEE DETAIL 'B' ON E4.1 FOR ADDITIONAL INFORMATION.
- NEW ELECTRIC PANELS - SEE RISER DIAGRAM AND PANEL SCHEDULES ON E4.1 FOR ADDITIONAL INFORMATION.

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CONSULTANT

PROJECT NAME

EYEMART
EXPRESS

STORE #:

SITE LOCATION:

1041 NE
SAM WALTON DR
LEE'S SUMMIT, MO
64086

ENGINEER OF RECORD



- * 10-28-2020 Permit
- * 10-29-2020 Bldg. Dept. Comments

* INDICATES
AFFECTED SHEETS

ELECTRICAL
LIGHTING PLAN

DATE

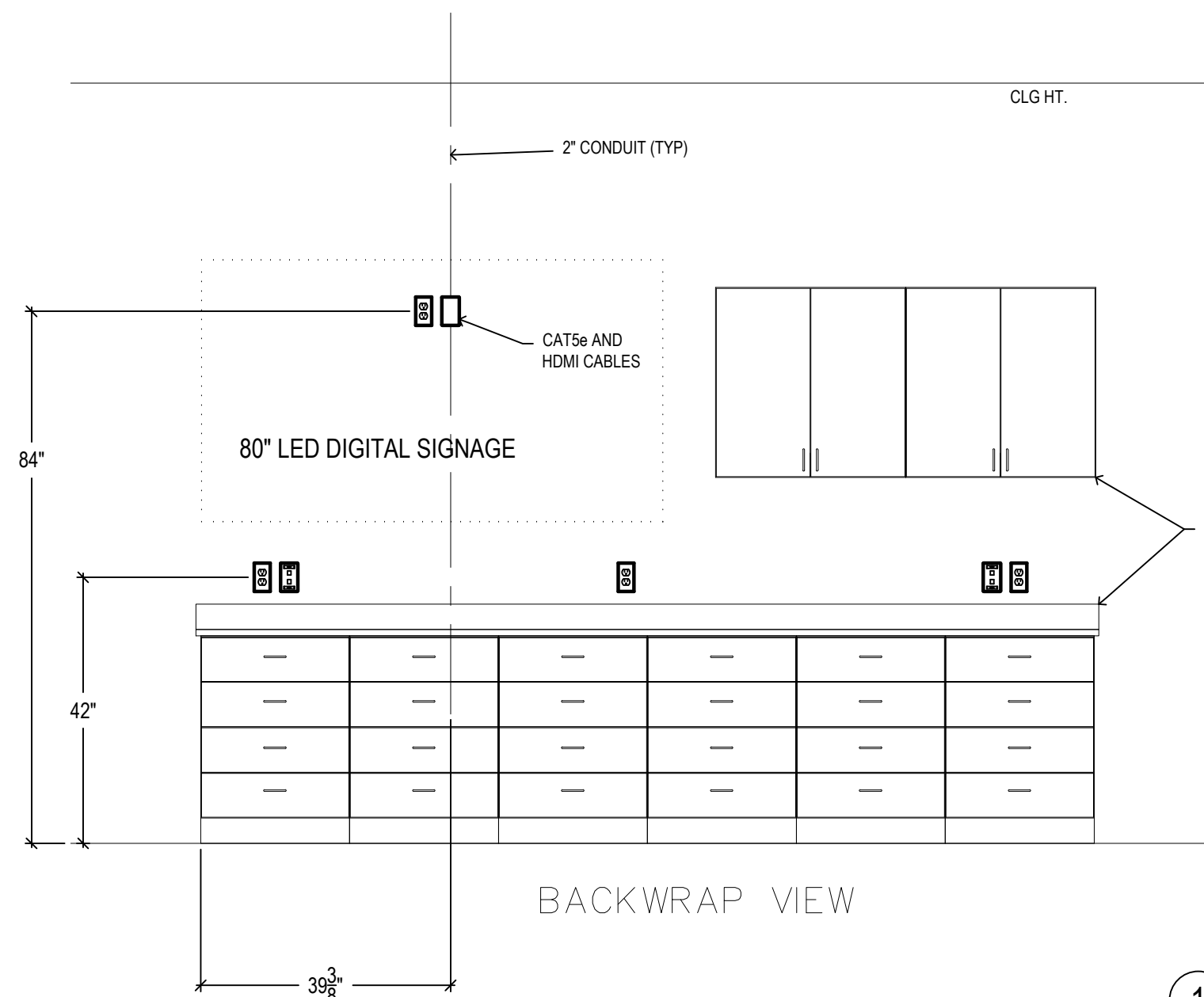
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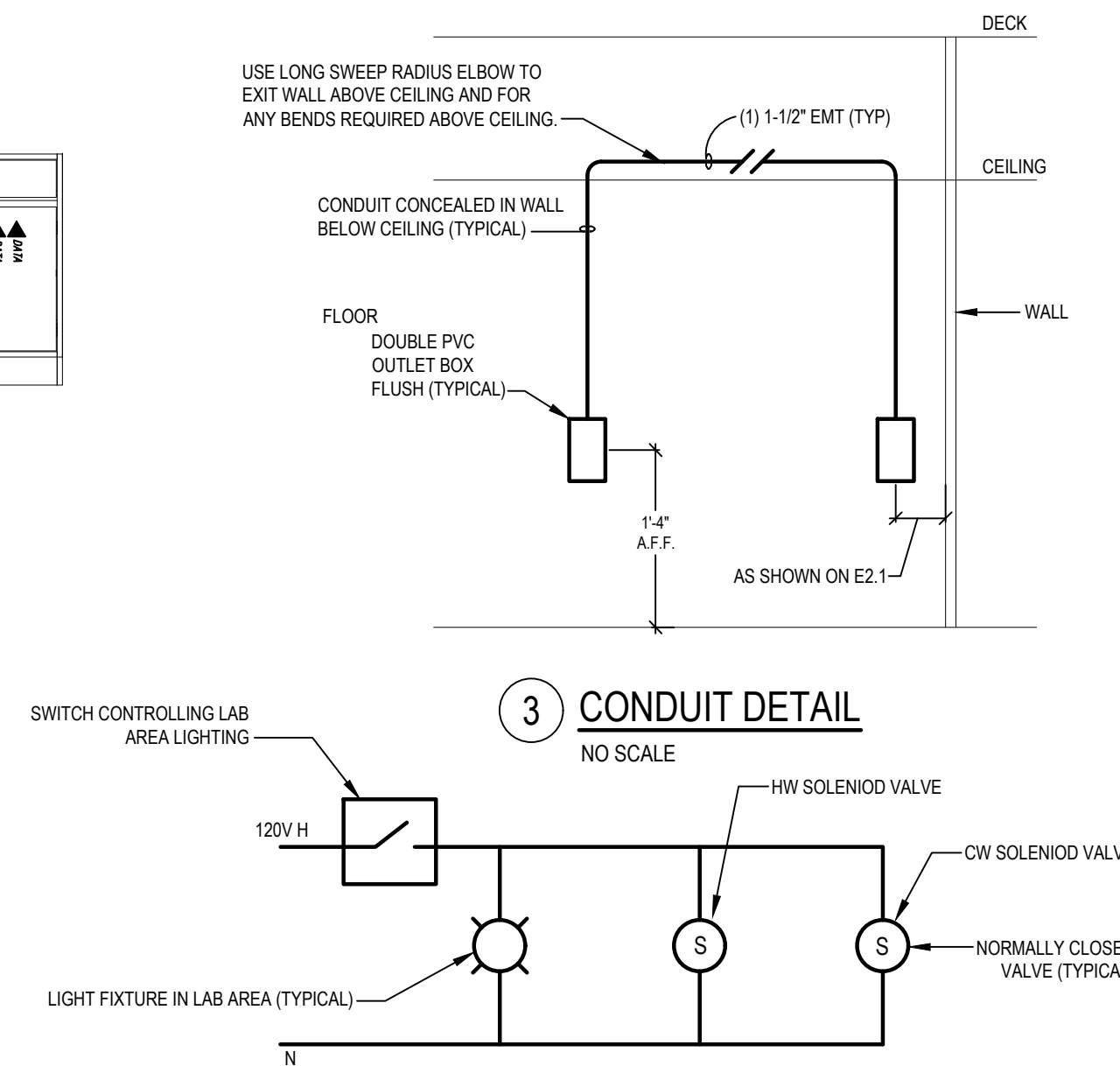
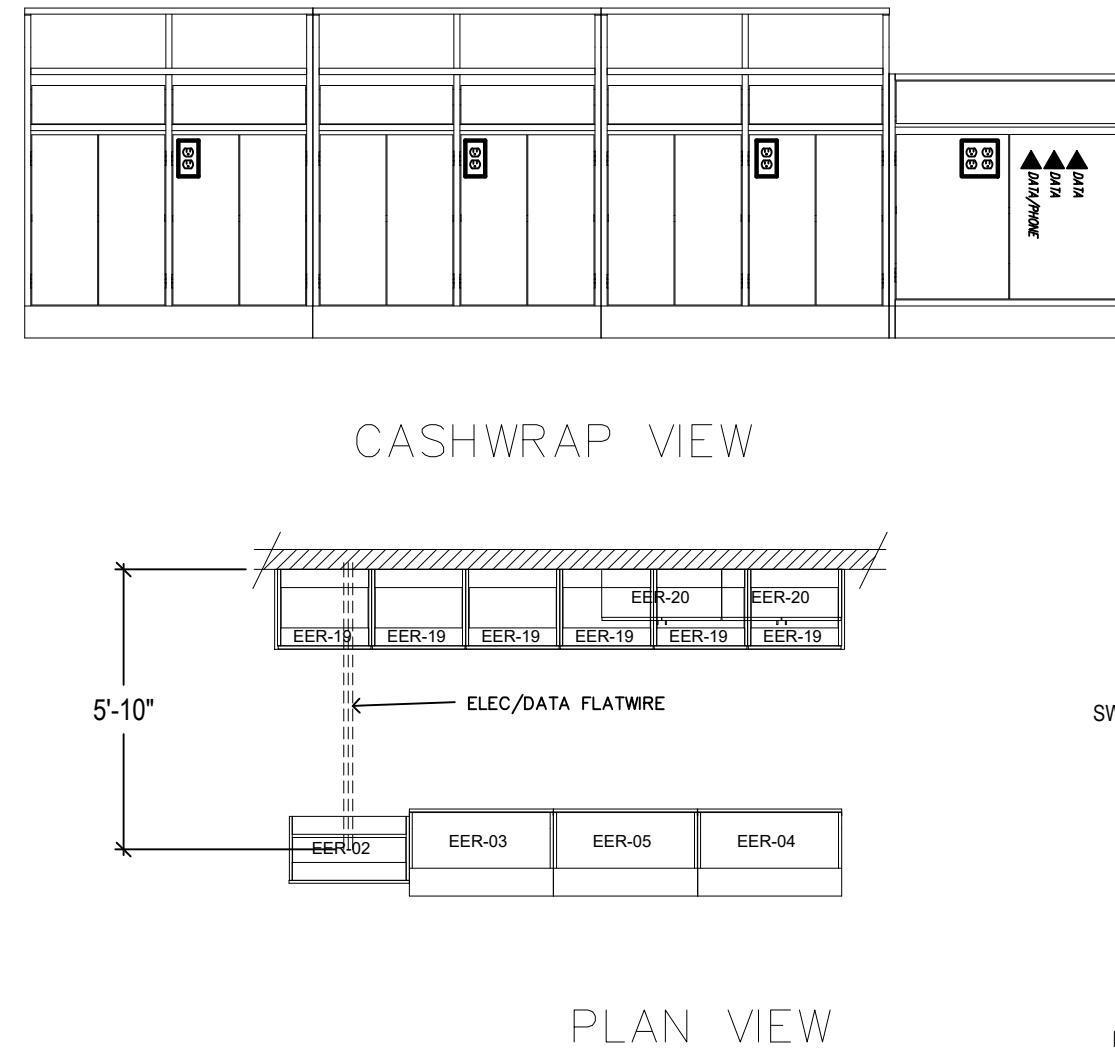
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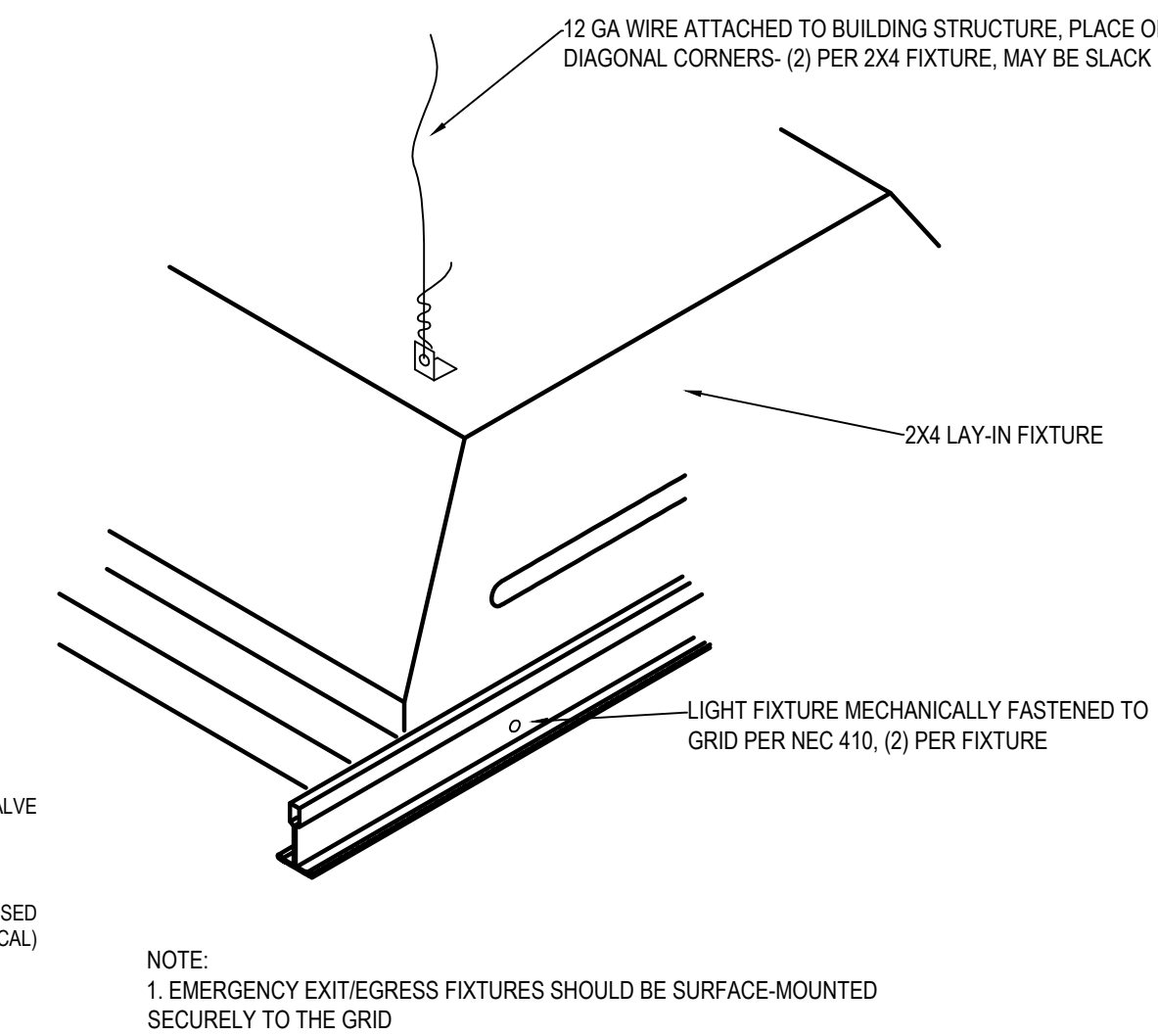
E2.0



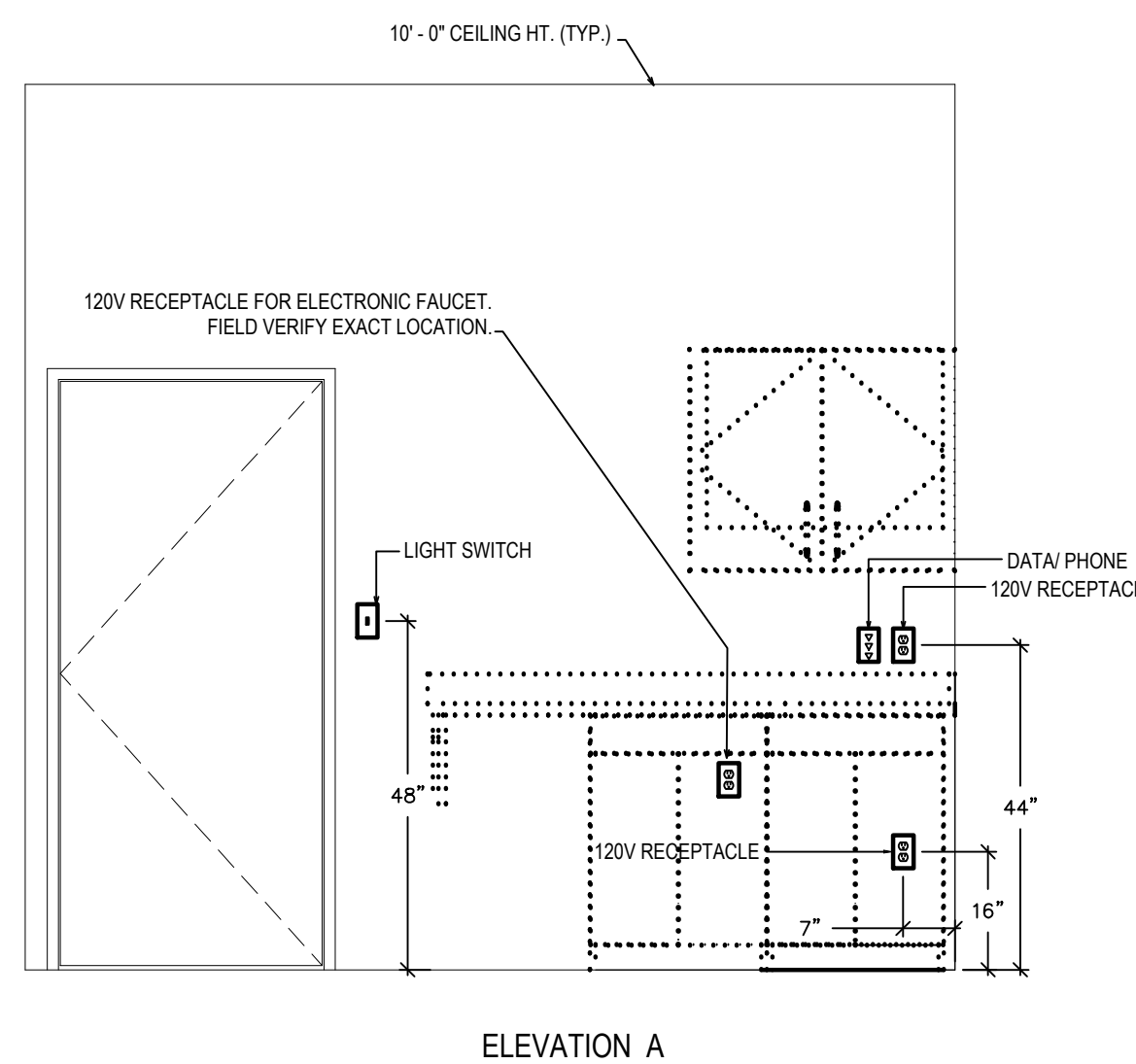
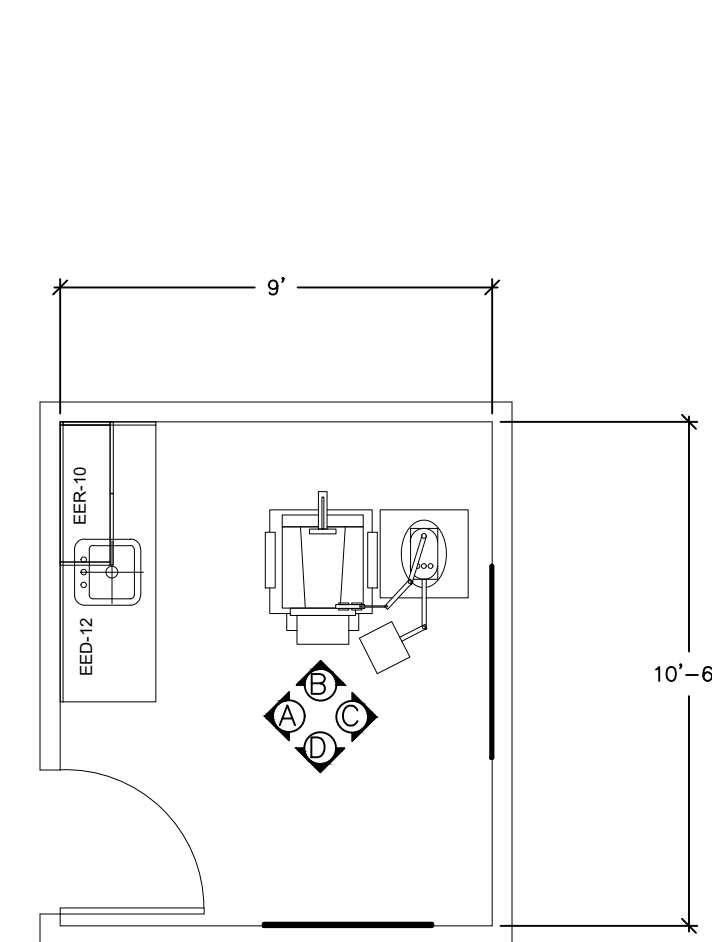
1 CASH COUNTER DEVICE DETAIL
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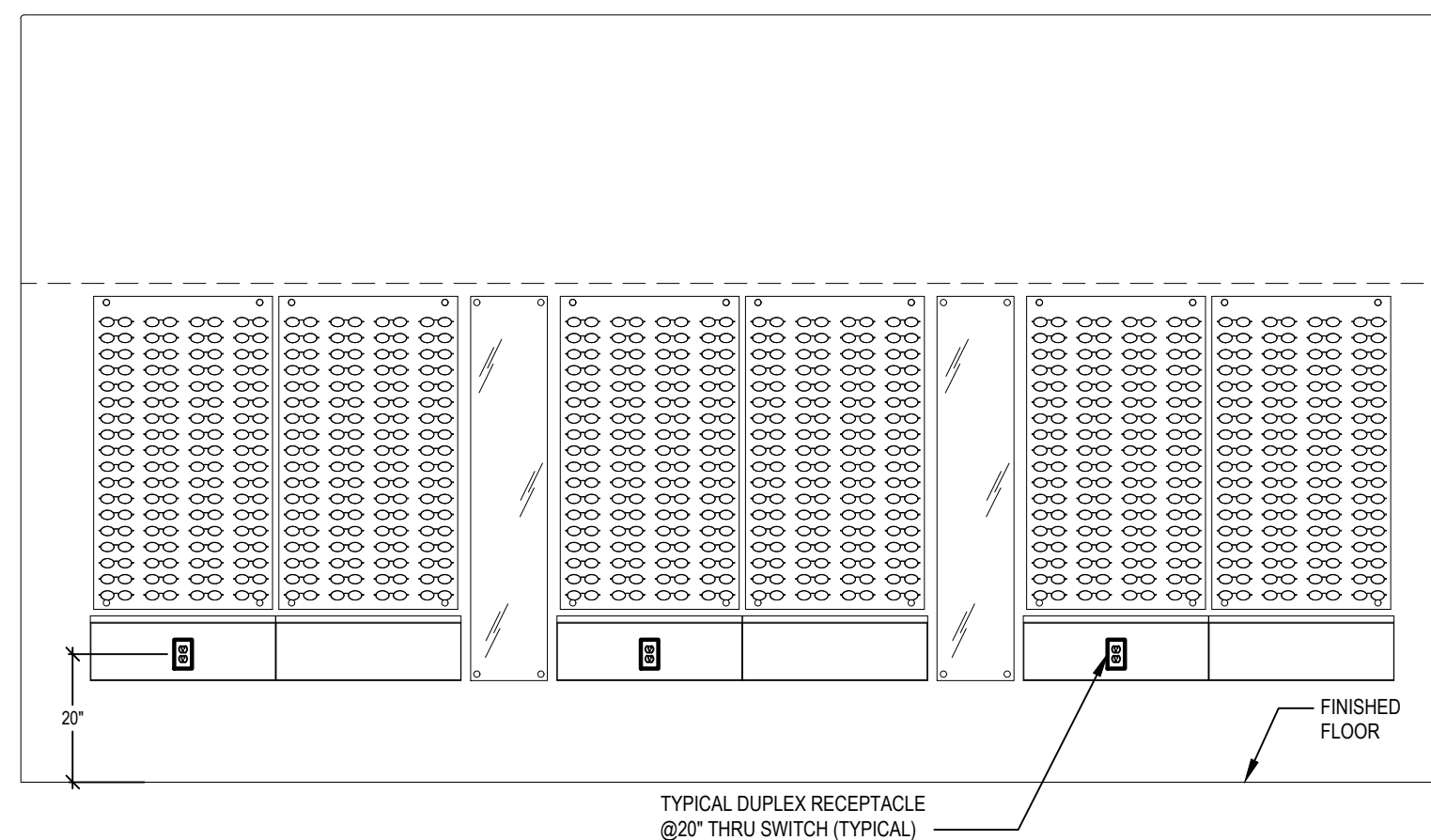
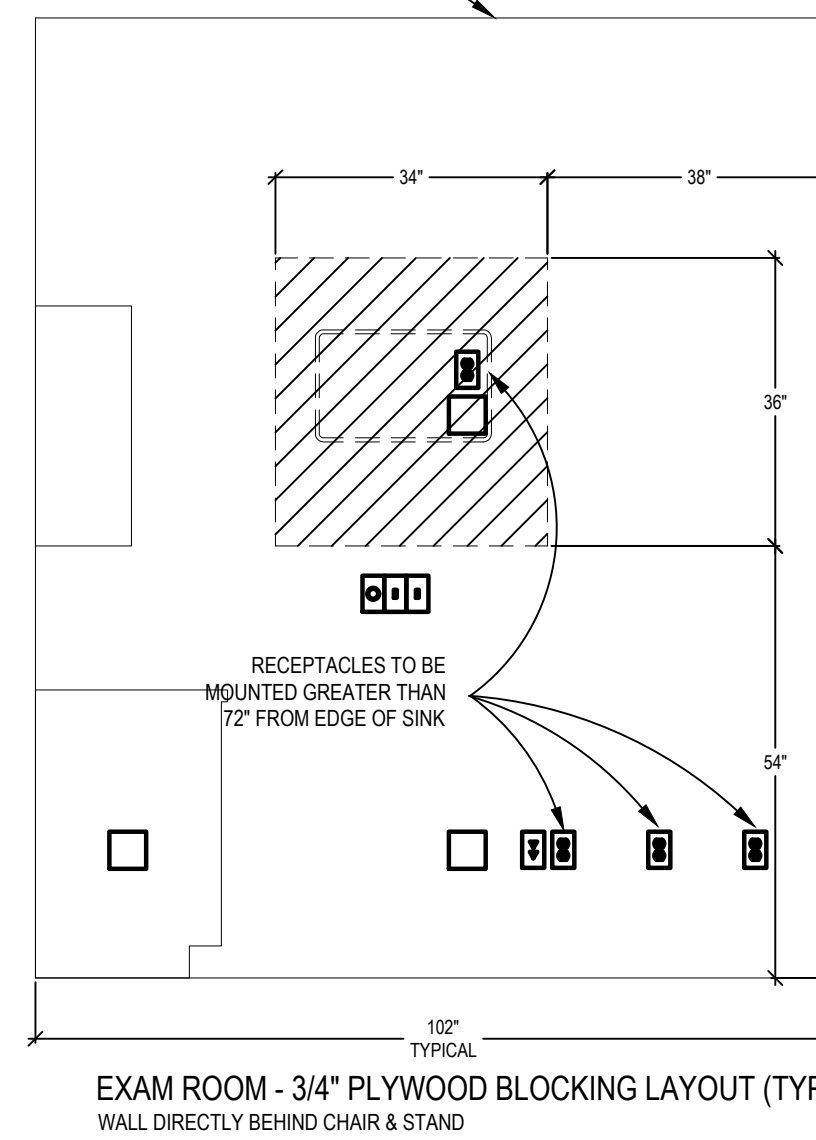
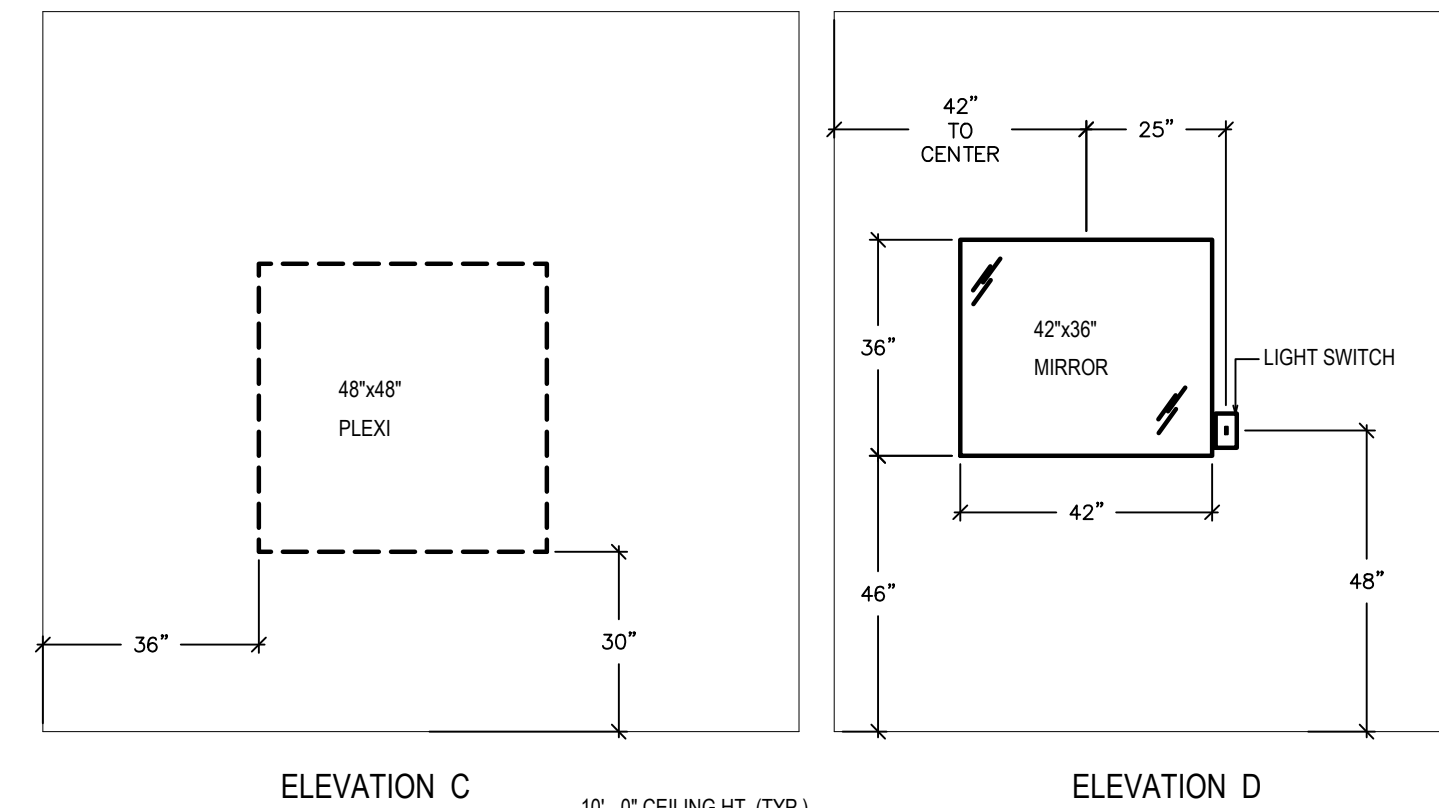
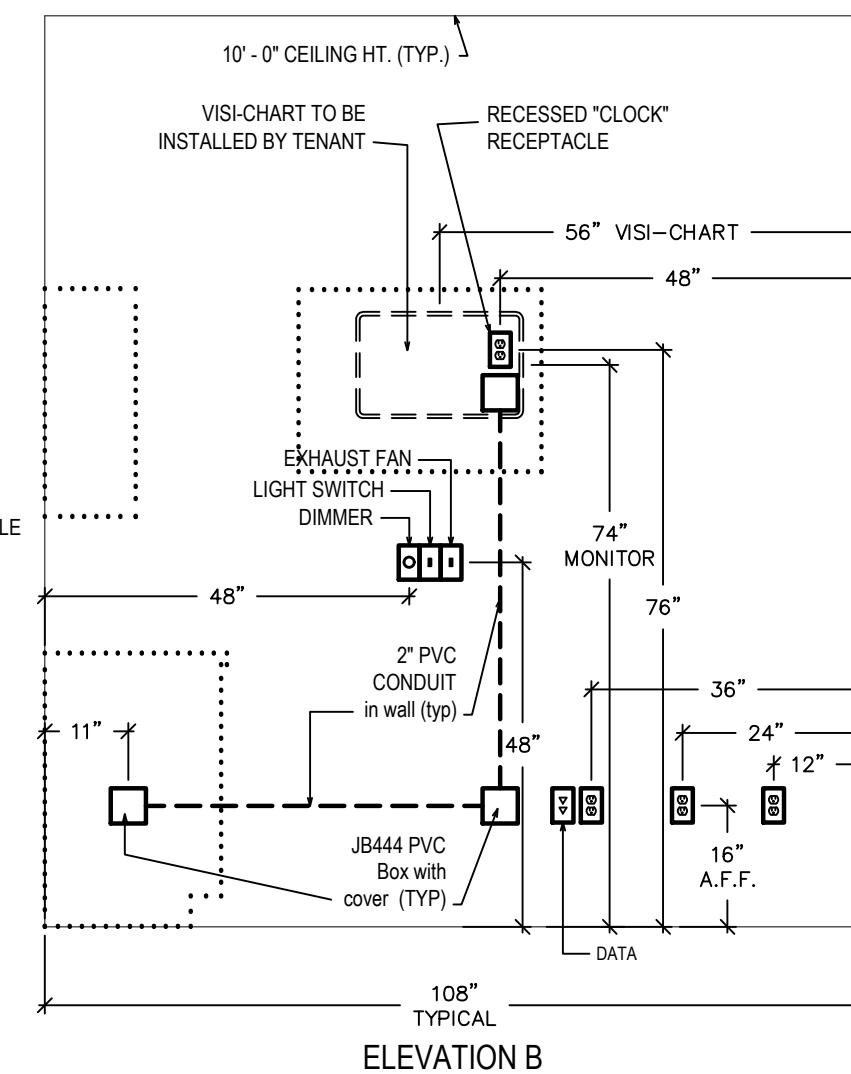
2 SOLENOID CONTROL VALVE
NO SCALE



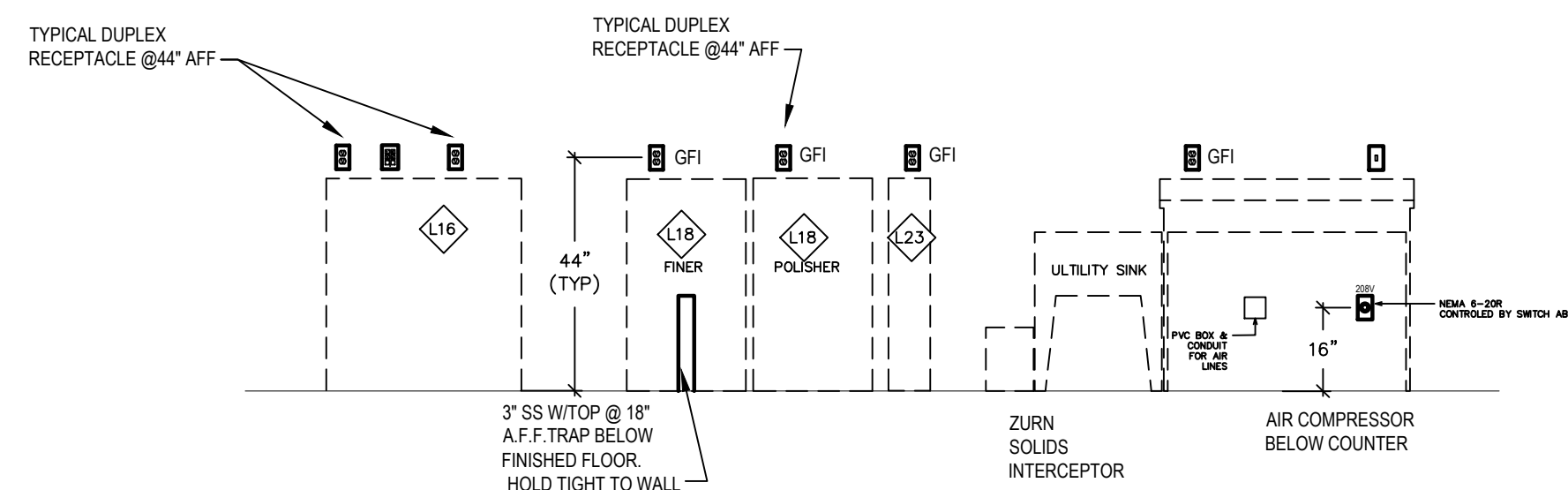
9 LIGHT FIXTURE ATTACHMENT
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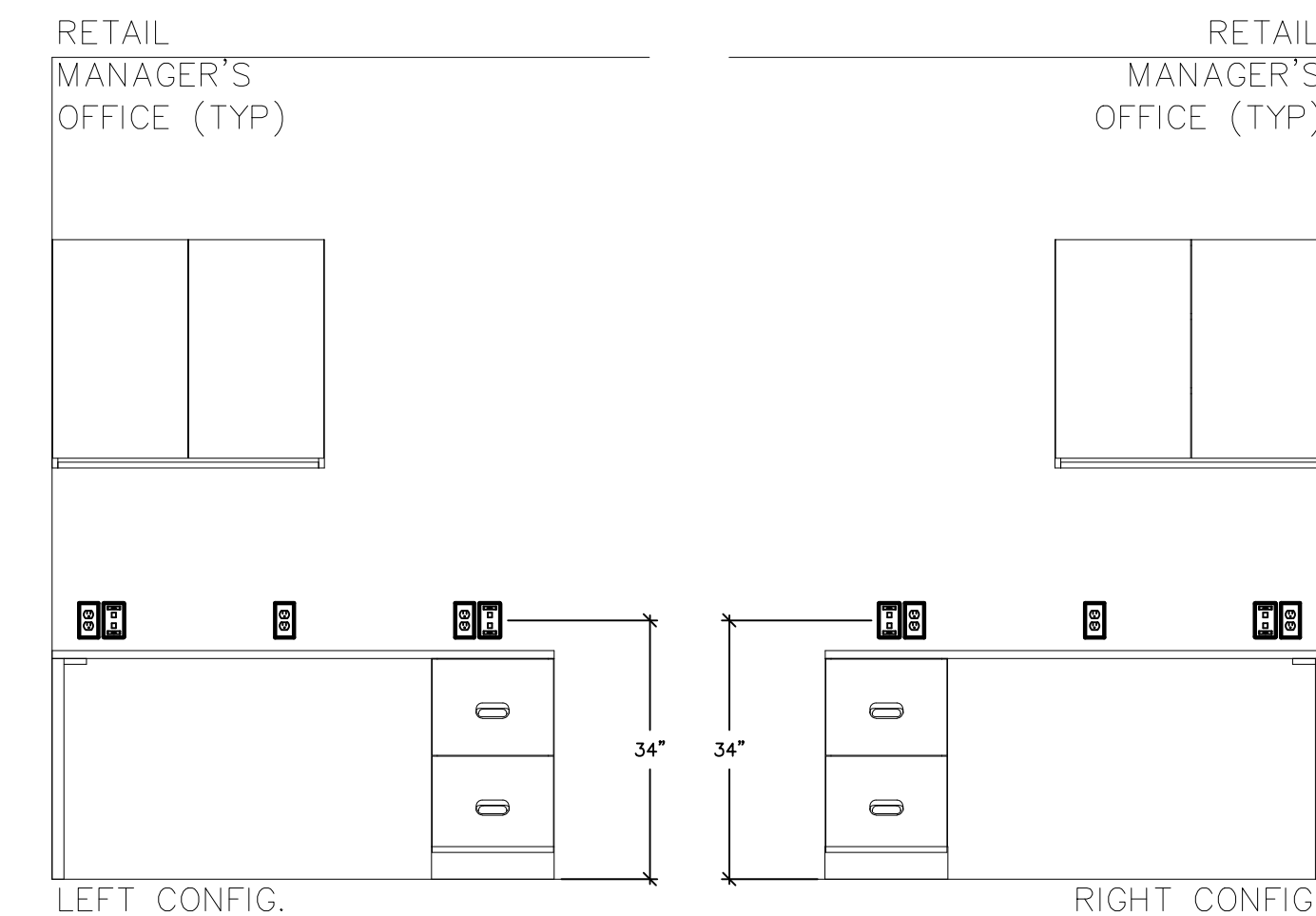
4 EXAM ROOM OUTLET DETAILS
NO SCALE



6 RETAIL ELECTRICAL DETAIL
NO SCALE



5 LAB ELECTRICAL DETAIL
NO SCALE



11 MANAGER'S OFFICE DETAIL
NO SCALE

ENGINEER OF RECORD
10/28/2020

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* 10-28-2020
Permit



PERMIT

* INDICATES
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ENLARGED LAB
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PLAN

DATE
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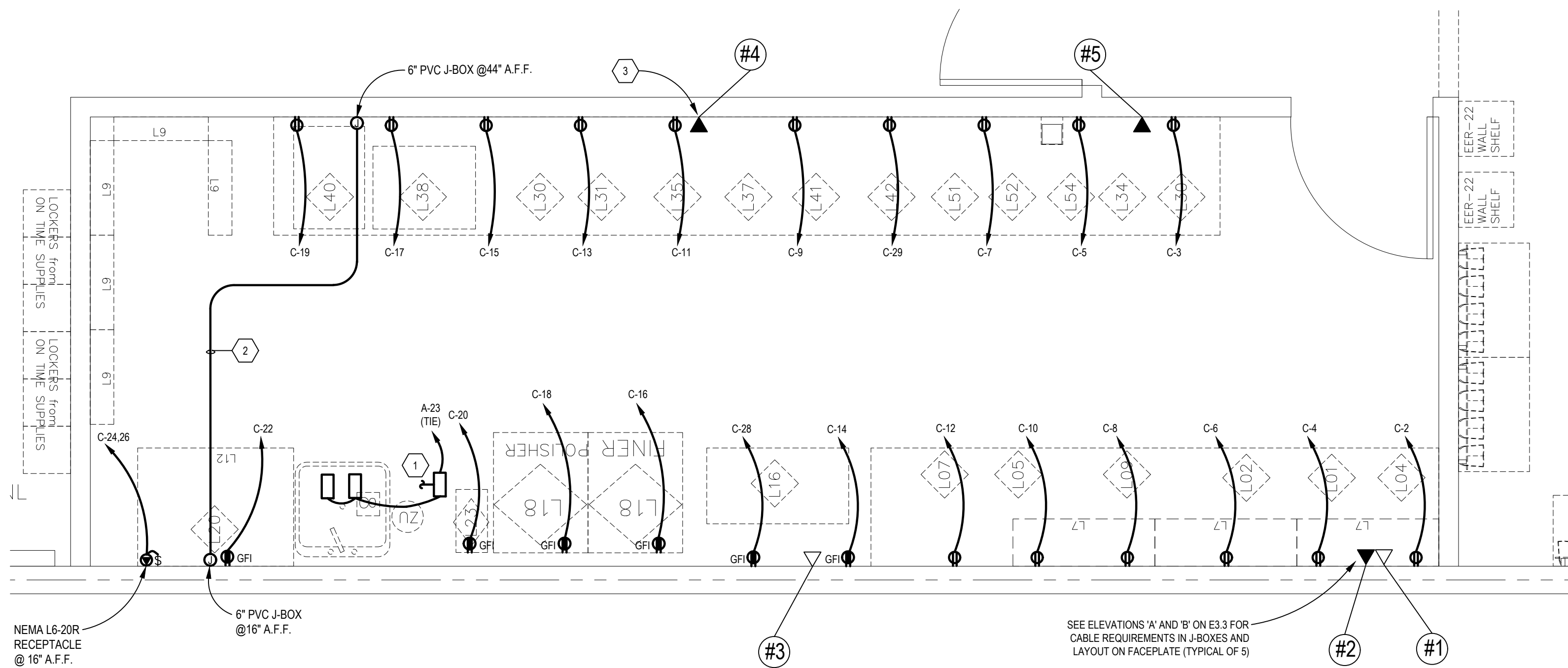
PROJECT NUMBER
EYEM101520LSMO

SHEET NUMBER

E3.2

ELECTRICAL CODED NOTES:

- 1 E.C. SHALL WIRE HOT AND COLD WATER, 120V SOLENOID VALVES TO LIGHT SWITCH CONTROLLING LAB AREA LIGHTING. REFER TO DETAIL 2 ON SHEET E3-1 FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION OF VALVES WITH PLUMBING CONTRACTOR.
- 2 JUNCTION BOX IN WALL AT ELEVATION SPECIFIED WITH (1) 1-1/2" CONDUIT. USE LONG SWEEP RADIUS ELBOWS FOR ANY BENDS. CONDUIT TO EXIT WALL ABOVE CEILING. PROVIDE WITH PULL STRING. REFER TO DETAIL 3 ON SHEET E3.1.
- 3 4-CAT 96 CABLES ACROSS LAB. TERMINATE IN SWITCH BOX @ 44" A.F.F.



ENLARGED LAB ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

ENGINEER OF RECORD 10-28-2020

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CONSULTANT

PROJECT NAME

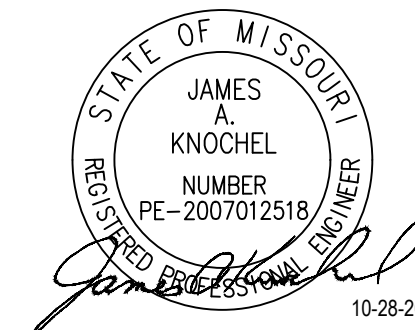
EYEMART
EXPRESS

STORE #:

SITE LOCATION:

1041 NE
SAM WALTON DR
LEE'S SUMMIT, MO
64086

ENGINEER OF RECORD



* 10-28-2020
Permit

PERMIT

* INDICATES
AFFECTED SHEETS

ELECTRICAL LAB
DETAILS AND
ELEVATIONS

DATE

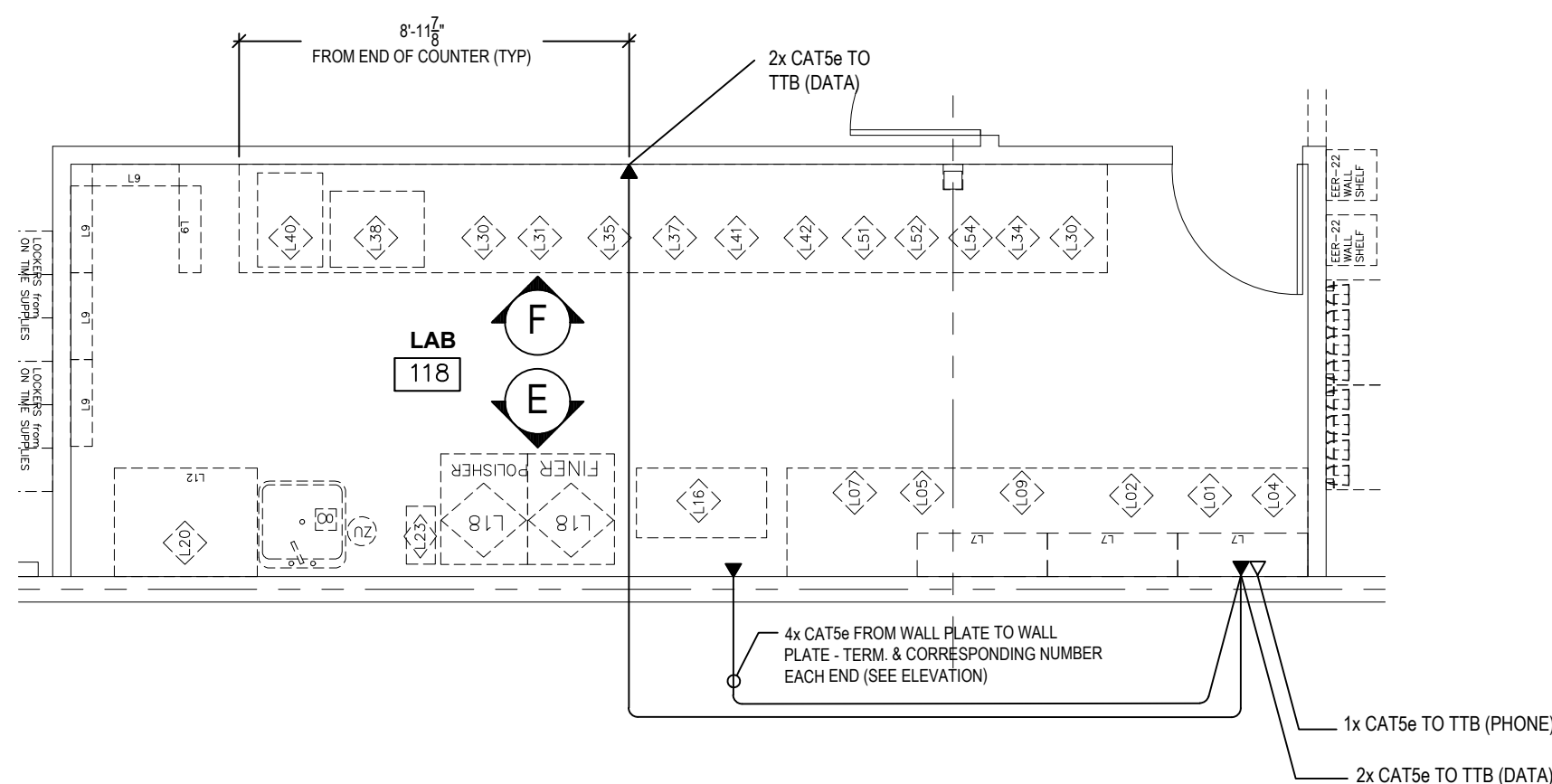
10-28-2020

PROJECT NUMBER

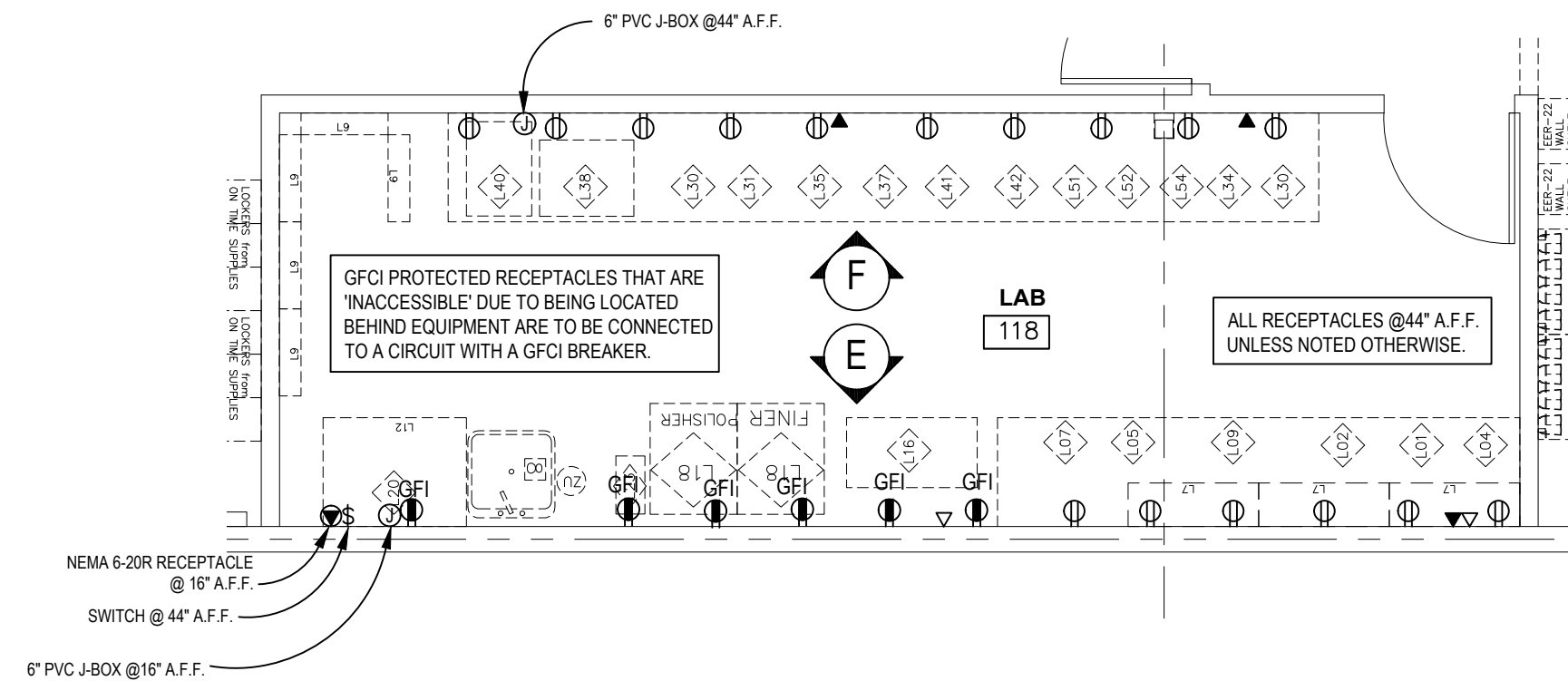
EYEM101520LSMO

SHEET NUMBER

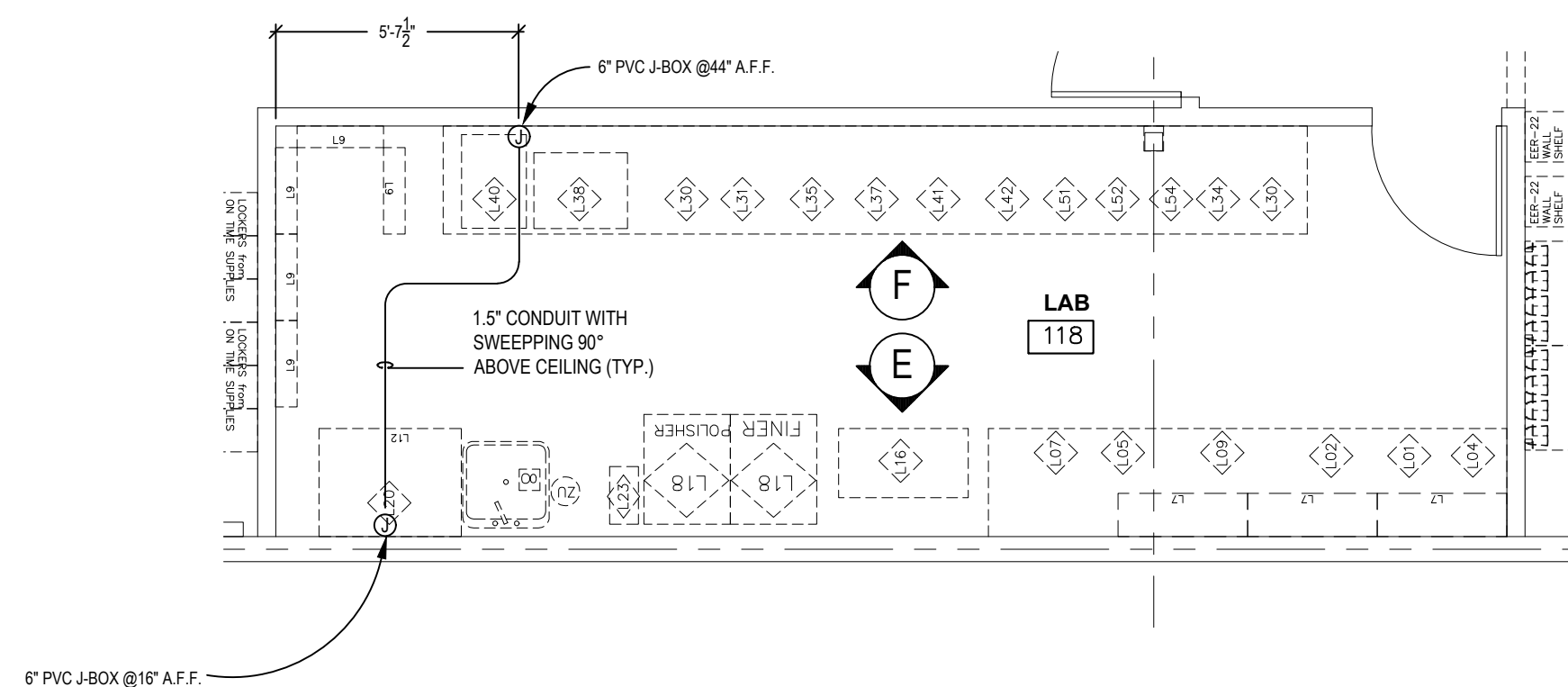
E3.3



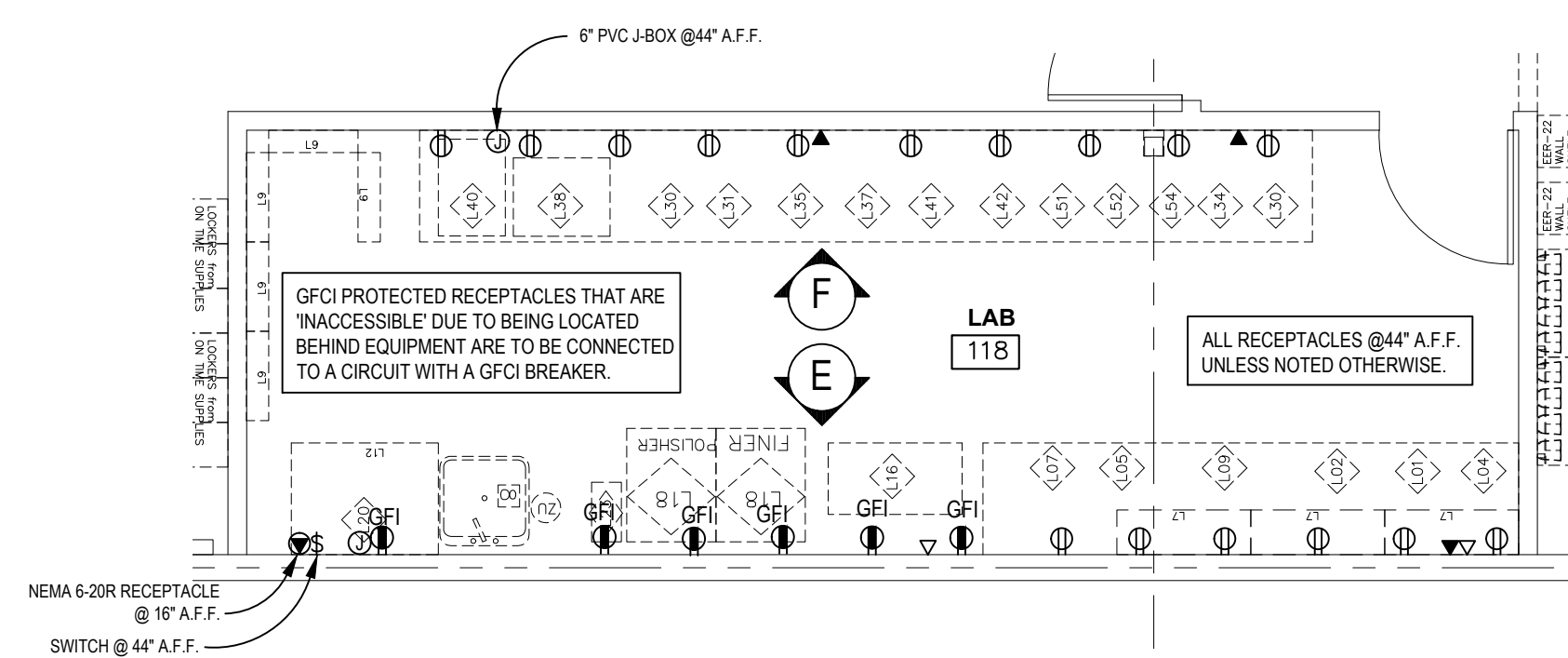
A DATA/COMMUNICATION DETAIL
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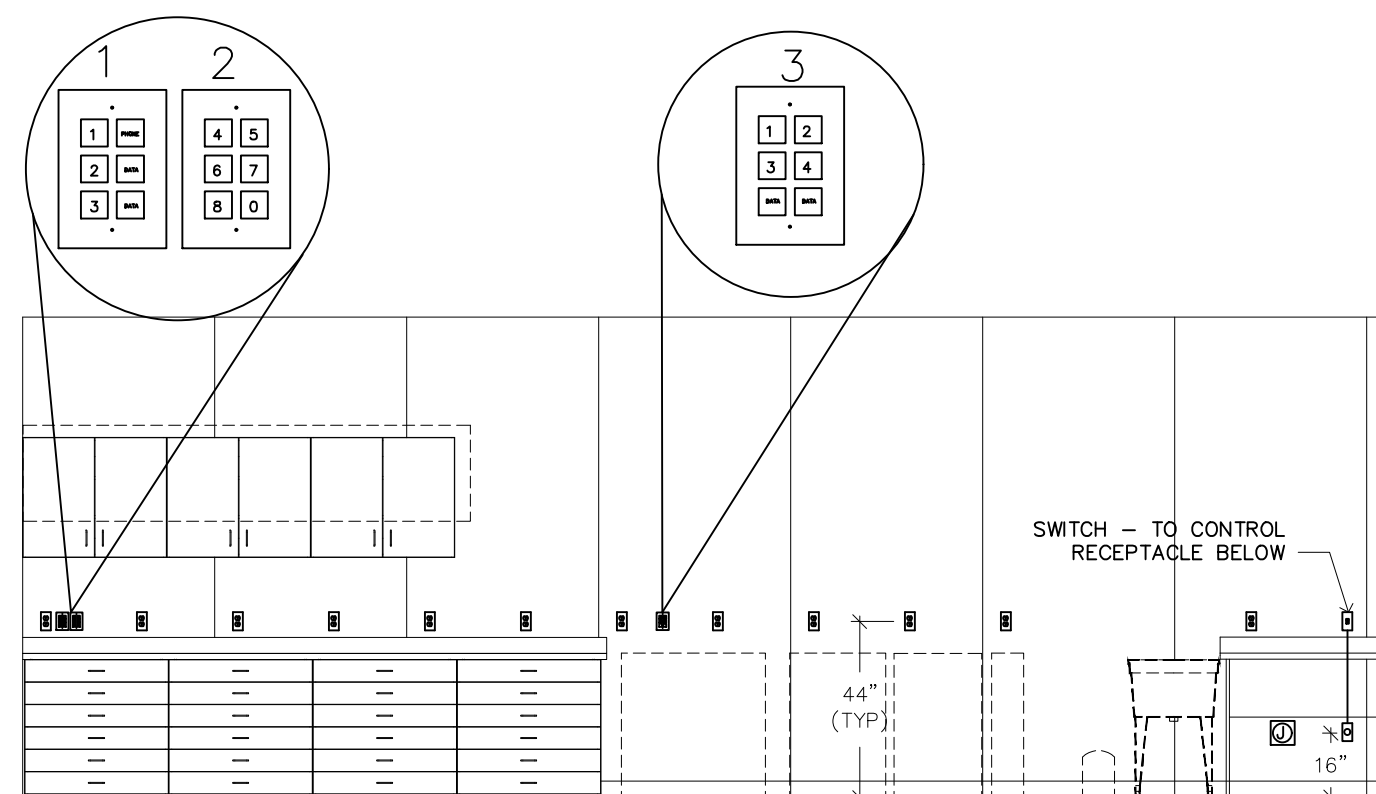
B ELECTRICAL DEVICE LAYOUT DETAIL
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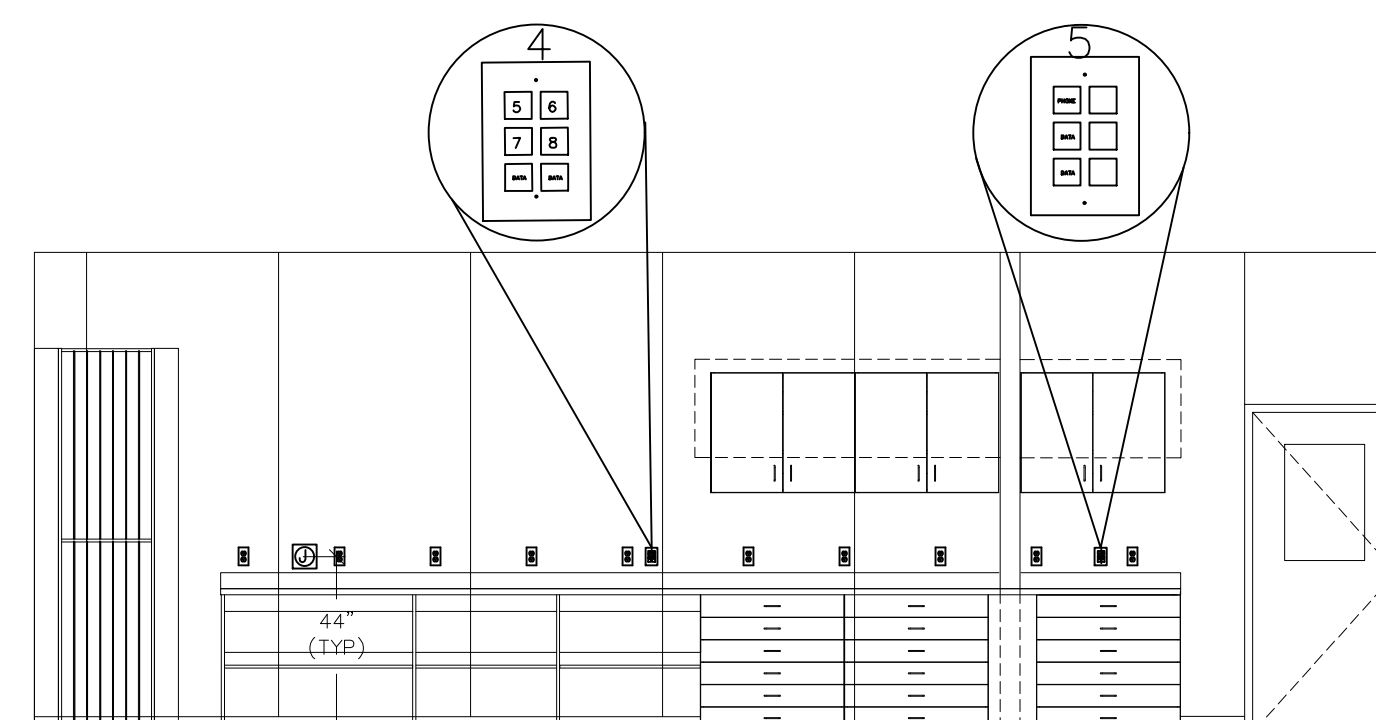
C PVC CONDUIT DETAIL
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D LAB EQUIPMENT TAG DETAIL
NO SCALE



E LAB ELEVATION 'A'
NO SCALE



F LAB ELEVATION 'B'
NO SCALE

ENGINEER OF RECORD 10-28-2020

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PROJECT NAME

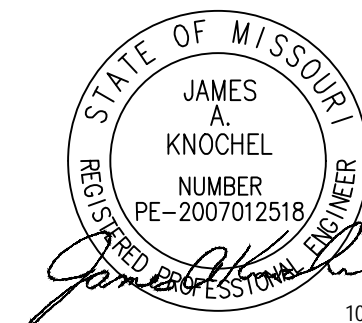
EYEMART
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* INDICATES
AFFECTED SHEETS

ELECTRICAL
DETAILS

DATE

10-28-2020

PROJECT NUMBER

EYEM101520LSMO

SHEET NUMBER

E4.1

Panel ID: A		Voltage: 208 / 120		Panel Type: NQOD								
Location: B.O.H./HALL		Phase: 3		Type Encl.: NEMA-1								
Mounting: SURFACE		Wire: 4										
Main Type: 200A MCB		Main Size: 225 Amps										
All phases to be balanced to within 10% using actual connected loads.												
CKT NO.	BRANCH CIRCUIT DESCRIPTION	CKT BKR SIZE	CKT BKR OPTION	N.E.C. LOAD (KVA)	ACTUAL LOAD (KVA)	PHASE	ACTUAL LOAD (KVA)	N.E.C. LOAD (KVA)	CKT BKR OPTION	CKT BKR SIZE	BRANCH CIRCUIT DESCRIPTION	CKT NO.
1	RTU-1	30/3	HR	2.352	2.352	A	4.308	4.308	HR	50/3	RTU-2	2
3	---	---	---	2.352	2.352	B	4.308	4.308	---	---	SPACE	4
5	---	---	---	2.352	2.352	C	4.308	4.308	---	---	SPACE	6
7	P.O.S. REC	20/1	---	0.900	0.900	A	0.400	0.400	LC-1	20/1	SHOW WINDOW LED MONITOR	8
9	BACKWRAP REC	20/1	---	0.180	0.180	B	0.000	0.000	---	---	SPACE	10
11	SPACE	20/1	---	0.000	0.000	C	0.000	0.000	---	---	SPACE	12
13	BACKWRAP REC	20/1	---	0.180	0.180	A	0.360	0.360	---	---	WRITING DESK REC	14
15	BACKWRAP TV REC	20/1	---	0.400	0.400	B	0.540	0.540	LC-1	20/1	WRITING DESK REC	16
17	TC-1/LC-1	20/1	LD	0.200	0.200	C	0.044	0.044	LC-1	20/1	SHOW WINDOW LIGHTS	18
19	SALES WALL LIGHTS	20/1	---	0.561	0.561	A	1.200	1.200	LC-1	20/1	EXTERIOR SIGN	20
21	SALES LIGHTS (RM/EX)	20/1	LD	1.152	1.152	B	2.844	2.844	HR	35/3	RTU-3	22
23	LABORATORY LTS (RM/EX)	20/1	---	0.320	0.320	C	2.844	2.844	---	---	---	24
25	SHOW WINDOW REC	20/1	LC-1	0.540	0.540	A	2.844	2.844	---	---	---	26
27	SALES GENERAL RECS	20/1	---	0.360	0.360	B	0.000	0.000	---	---	SPACE	28
29	INTERIOR SIGN	20/1	---	0.400	0.400	C	0.000	0.000	---	---	SPACE	30
31	DISPLAY CASE REC	20/1	---	0.900	0.900	A	0.000	0.000	---	---	SPACE	32
33	DISPLAY CASE REC	20/1	---	1.260	1.260	B	0.000	0.000	---	---	SPACE	34
35	RTU REC	20/1	---	0.360	0.360	C	0.000	0.000	---	---	SPACE	36
37	PANEL 'C'	100/3	---	8.760	8.760	A	5.396	5.396	100/3	---	PANEL 'B'	38
39	---	---	---	5.580	5.580	B	4.860	4.860	---	---	---	40
41	---	---	---	6.800	6.800	C	4.800	4.800	---	---	---	42
Actual Load Panel Summary		N.E.C. Load Panel Summary		Breaker Options (If Used):								
Phase A: 28.7 KVA		Phase A: 28.7 KVA		239.2 AMPS								
Phase B: 23.8 KVA		Phase B: 23.8 KVA		198.6 AMPS								
Phase C: 22.4 KVA		Phase C: 22.4 KVA		186.9 AMPS								
Total: 75.0 KVA		Total: 75.0 KVA		208.1 AMPS								
				LCB - Wire Thru Lighting Contactor #								
				LO - Lock-On Device								
				IG- Isolated Ground Conductor								
				LCB - Wire Thru Lighting Contactor#								
				HR - HACR Rated Circuit Breaker								

Panel ID: B		Voltage: 208 / 120		Panel Type: NQOD								
Location: B.O.H./HALL		Phase: 3		Type Encl.: NEMA-1								
Mounting: SURFACE		Wire: 4										
Main Type: MID		Main Size: 100 Amps										
All phases to be balanced to within 10% using actual connected loads.												
CKT NO.	BRANCH CIRCUIT DESCRIPTION	CKT BKR SIZE	CKT BKR OPTION	N.E.C. LOAD (KVA)	ACTUAL LOAD (KVA)	PHASE	ACTUAL LOAD (KVA)	N.E.C. LOAD (KVA)	CKT BKR OPTION	CKT BKR SIZE	BRANCH CIRCUIT DESCRIPTION	CKT NO.
1	WAITING ROOM REC	20/1		0.540	0.540	A	0.700	0.700		20/1	REFRIGERATOR REC	2
3	SPACE	20/1		0.000	0.000	B	1.200	1.200		20/1	MICROWAVE REC	4
5	HALL #105 REC	20/1		0.360	0.360	C	0.100	0.100		20/1	SECURITY ALARM	6
7	ROM/HALL #110, 111B, 111 REC	20/1		0.540	0.540	A	0.400	0.400		20/1	RECEPTION TV REC	8
9	RS/OFFICE/HALL LITS&FANS	20/1		0.560	0.560	B	0.720	0.720		20/1	RECEPTION REC	10
11	STORG/HALL/RECPN/ATC LITS	20/1	LO	0.320	0.320	C	0.540	0.540		20/1	PRETEST ROOM REC	12
13	RESTROOM REC	20/1		0.720	0.720	A	0.720	0.720		20/1	CONTACT ROOM REC	14
15	OFFICE 119 REC	20/1		0.720	0.720	B	1.260	1.260		20/1	EXAM RM #1 REC	16
17	TELEPHONE BD REC	20/1	LD	0.720	0.720	C	1.260	1.260		20/1	EXAM RM #2 REC	18
19	EXAM LITS & FANS	20/1		0.276	0.276	A	0.000	0.000		20/1	SPACE	20
21	SPACE	20/1		0.000	0.000	B	0.000	0.000		20/1	SPACE	22
23	WATER HEATER	20/2		1.500	1.500	C	0.000	0.000		20/1	SPACE	24
25	-- --	--		1.500	1.500	A	0.000	0.000			SPACE	26
27	EMC REC	20/1		0.400	0.400	B	0.000	0.000			SPACE	28
29	SPACE			0.000	0.000	C	0.000	0.000			SPACE	30
31	SPACE			0.000	0.000	A	0.000	0.000			SPACE	32
33	SPACE			0.000	0.000	B	0.000	0.000			SPACE	34
35	SPACE			0.000	0.000	C	0.000	0.000			SPACE	36
37	SPACE			0.000	0.000	A	0.000	0.000			SPACE	38
39	SPACE			0.000	0.000	B	0.000	0.000			SPACE	40
41	SPACE			0.000	0.000	C	0.000	0.000			SPACE	42
Actual Load Panel Summary				N.E.C. Load Panel Summary				Breaker Options (If Used):				
Phase A: 5.4 KVA				Phase A: 5.4 KVA				45.0 AMPS				
Phase B: 4.9 KVA				Phase B: 4.9 KVA				40.5 AMPS				
Phase C: 4.8 KVA				Phase C: 4.8 KVA				40.5 AMPS				
Total: 15.1 KVA				Total: 15.1 KVA				41.8 AMPS				
LCB - Wire Thru Lighting Contactor #												
LO - Lock-On Device												
IG - Isolated Ground Conductor												
Connected to Building Steel												
HR - HACR Rated Circuit Breaker												

Panel ID: C		Voltage: 208 / 120		Panel Type: NQOD								
Location: LAB		Phase: 3		Type Encl.: NEMA-1								
Mounting: SURFACE		Wire: 4										
Main Type: MID		Bus Amperage: 100 Amps										
All phases to be balanced to within 10% using actual connected loads.												
CKT NO.	BRANCH CIRCUIT DESCRIPTION	CKT BKR SIZE	CKT BKR OPTION	N.E.C. LOAD (KVA)	ACTUAL LOAD (KVA)	PHASE	ACTUAL LOAD (KVA)	N.E.C. LOAD (KVA)	CKT BKR OPTION	CKT BKR SIZE	BRANCH CIRCUIT DESCRIPTION	CKT NO.
1	SPACE	20/1	---	0.000	0.000	A	1.000	1.000	20/1	LENS CENTER LOCATE #L04	2	
3	VERTOMETER #L30	20/1	---	0.200	0.200	B	0.180	0.180	20/1	COMPUTER #L01	4	
5	BEAN PAN #L34 & FRAME BFR #L54	20/1	---	1.240	1.240	C	0.180	0.180	20/1	EMPLOYEE TIME CLOCK #L02	6	
7	STKG KIT #L52 & FILE/ DRILL #L5	20/1	---	1.300	1.300	A	1.000	1.000	20/1	LENS MAKER #L09 (CS-7)	8	
9	DBI DYE TANK #L41	20/1	---	1.800	1.800	B	1.000	1.000	20/1	LAP SERVICE SAVER #L05	10	
11	CERAMIC HAND EDGER #L37	20/1	---	0.780	0.780	C	0.720	0.720	20/1	BLOCKER #L07 (SUREFACE)	12	
13	440 WECO EDGER #L35	20/1	---	1.200	1.200	A	1.560	1.560	20/1	LENS REC #L16	14	
15	CS-7 BLXR #L31 & VERTMTR #L30	20/1	---	0.440	0.440	B	1.600	1.600	20/1	CYLINDER MACHINE #L18	16	
17	LENS COATING #L38	20/1	---	0.720	0.720	C	1.600	1.600	20/1	CYLINDER MACHINE #L18	18	
19	BACKSIDE COATER #L40	20/1	---	0.960	0.960	A	0.180	0.180	20/1	CHILLER #L23 (CM-003-8)	20	
21	SPACE	20/1	---	0.000	0.000	B	0.180	0.180	20/1	RECLAIN TANK #L20	22	
23	SPACE	20/1	---	0.000	0.000	C	1.560	1.560	20/2	AIR COMPRESSOR	24	
25	SPACE	20/1	---	0.000	0.000	A	1.560	1.560	--	--	--	26
27	SPACE	20/1	---	0.000	0.000	B	0.180	0.180	20/1	GENERAL LAB REC	28	
29	SPACE	20/1	---	0.000	0.000	C	0.000	0.000	20/1	SPACE	30	
31	SPACE	20/1	---	0.000	0.000	A	0.000	0.000	20/1	SPACE	32	
33	SPACE	20/1	---	0.000	0.000	B	0.000	0.000	20/1	SPACE	34	
35	SPACE	20/1	---	0.000	0.000	C	0.000	0.000	20/1	SPACE	36	
37	SPACE	20/1	---	0.000	0.000	A	0.000	0.000	---	---	SPACE	38
39	SPACE	20/1	---	0.000	0.000	B	0.000	0.000	---	---	SPACE	40
41	SPACE	20/1	---	0.000	0.000	C	0.000	0.000	---	---	SPACE	42
Actual Load Panel Summary				N.E.C. Load Panel Summary				Breaker Options (If Used):				
Phase A: 8.8 KVA				Phase A: 8.8 KVA				TC - Wire Thru TimeClock				
Phase B: 5.6 KVA				Phase B: 5.6 KVA				LO - Lock-On Device				
Phase C: 6.8 KVA				Phase C: 6.8 KVA				IG- Isolated Ground Conductor				
Total: 21.1 KVA				Total: 21.1 KVA				Connected to Building Steel				
								HR - HACR Rated Circuit Breaker				

ELECTRICAL LOAD SUMMARY						
DESCRIPTION	CONNECTED KW	POWER FACTOR	CONNECTED DEMAND KVA	N.E.C. CONNECTED KVA	N.E.C. DEMAND FACTOR	N.E.C. FEEDER DEMAND KVA
LIGHTING	4.435	1.0	4.435	4.435	1.25	5.544
0 LF OF TRACK LIGHTING	0.000	1.0	0.000	0.000	1.25	0.000
RECEPTACLES	30.440	1.0	30.440	30.440	1.0 x 10 KW 0.5 RMNDR	20.220
MOTORS	7.880	0.9	8.756	8.756	125% OF LARGEST MOTOR	8.756
FIXED ELEC. SPACEHEATING *	0.000	1.0	0.000	0.000	1.0	0.000
AIR CONDITIONING SYSTEM *	28.512	1.0	28.512	28.512	125% OF LARGEST MOTOR	23.587
ELECTRIC WATER HEATER	3.000	1.0	3.000	3.000	1.25	3.750
MISCELLANEOUS	0.698	1.0	0.698	0.698	1.0	0.698
TOTALS:	74.965		75.841	76.841		68.554
NOTES: * USE GREATER OF THE LF - LINEAR FEET			N.E.C. DEMAND KVA x 1000 SYSTEM VOLTAGE x 1.73		=MIN FEEDER AMPS	
ELECTRICAL SERVICE VOLTAGE =			208 V - 3 PHASE		68.554 KVA x 1000 =	
MINIMUM ELECTRICAL SERVICE AMPERAGE =			200 AMPS		208 x 1.73	
					190.4 AMPS	

DIVISION 7 - THERMAL & MOISTURE PROTECTION

SECTION 07210 BUILDING INSULATION

1.1 MATERIALS

A. BATT INSULATION: SPUN MINERAL WOOL OR GLASS FIBER BLANKETS OR BATTS 3½" THICK WITH ALUMINUM FOIL. VAPOR BARRIER ONE FACE OF BATT INSULATION ABOVE CEILING UNFACED GLASS FIBER BLANKETS 6".

2.1 INSULATION

- A. APPLYING BATT INSULATION: GENERALLY, INSTALL 3½" THICK INSULATION IN WALLS AND 6" THICK INSULATION ABOVE CEILING AND IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- B. INSTALL VAPOR BARRIER ON INSIDE OR TOWARDS CONDITIONED SPACE.
- C. CUT THE MATERIAL TO FIT SNUGLY AROUND ALL OBSTRUCTIONS WITH EDGED AND JOINTS BUTTED TIGHT SO THAT THERE WILL BE NO GAPS OR BREAKS IN THE INSULATION.
- D. FRICTION FIT INTO PLACE SO THAT INSULATION DOES NOT SAG OR SETTLE.

SECTION 07240 EXTERIOR INSULATION AND FINISH SYSTEMS

1.1 GENERAL

- A. SUBMITTALS: PROVIDE (3) SAMPLES ILLUSTRATING COATING COLOR AND TEXTURE RANGE FOR SELECTION OF EXTERIOR INSULATION AND FINISH SYSTEM.
- B. QUALIFICATION: APPLICATOR-COMPANY SPECIALIZING IN PERFORMING THE WORK OF THIS SECTION WITH MINIMUM (5) YEARS DOCUMENTED EXPERIENCE AND APPROVED AS AN APPLICATOR BY THE MANUFACTURER.
- C. ENVIRONMENT REQUIREMENTS: DO NOT INSTALL WHEN AMBIENT TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT. MAINTAIN THIS TEMPERATURE DURING AND 24 HOURS AFTER INSTALLATION OF FINISH.
- D. WARRANTY: PROVIDE TEN (10) YEARS MANUFACTURER'S MOISTURE DRAINAGE WARRANTY COMBINED WITH TEN (10) YEAR LIMITED WARRANTY AGAINST DEFECTIVE MATERIALS FOR THE COMPLETE SYSTEM FURNISHED.

2.1 PRODUCT

- A. MANUFACTURER: DRYVIT SYSTEMS, INC. "OUTSULATION PLUS MD SYSTEM"- TO BE INSTALLED COMPLETE WITH ALL SYSTEM APPROVED MATERIALS AND METHODS. INCLUDING BUT NOT LIMITED TO: SHEATHING, WEATHER BARRIER, DRAINAGE TRIM AND TRAP MATERIALS, FASTENERS AND FINISH MATERIALS.

2.2 MATERIALS

- A. ALL OUTSULATION PLUS MD SYSTEM COMPONENTS TO BE OBTAINED THROUGH AN AUTHORIZED DRYVIT DISTRIBUTOR.
- B. AIR/WATER RESISTIVE BARRIER COMPONENTS:
- 1) DRYVIT BACKSTOP NT
 - 2) DRYVIT GRID TAPE
- C. FLASHING MATERIALS:
- 1) LIQUID APPLIED: DRYVIT AQUAFASH AND AQUAFASH MESH
 - 2) SHEET TYPE: DRYVIT FLASHING TAPE AND DRYVIT FLASHING TAPE SURFACE CONDITIONER.
- D. ADHESIVES:
- 1) DRYVIT AP ADHESIVE: USED TO ADHERE DRYVIT DRAINAGE STRIP AND DRYVIT DRAINAGE TRACK.
 - 2) DRYVIT PRIMUS, GENESIS OR GENESIS FM: USED TO ADHERE THE EPS TO THE AIR/WATER RESISTIVE BARRIER. SHALL BE COMPATIBLE WITH THE WATER RESISTIVE BARRIER AND THE EPS.
- E. INSULATION BOARD/ TYPE 1 EXPANDED POLYSTYRENE (EPS) INSULATION BOARD CONFORMING TO ASTM C578 AND DRYVIT SPECIFICATION FOR INSULATION BOARD, DS131. THE INSULATION BOARD SHALL BE MANUFACTURED BY A BOARD SUPPLIER LISTED BY DRYVIT SYSTEMS, INC. 1 INCH MIN THICKNESS AND SIZES SHOWN ON CONSTRUCTION DRAWINGS.
- F. BASE COAT: DRYVIT PRIMUS, GENESIS OR GENESIS FM: A CEMENTITIOUS BASE COAT CONSISTING OF A LIQUID POLYMER-BASED MATERIAL WHICH IS FIELD MIXED WITH PORTLAND CEMENT.
- G. REINFORCING MESH: A BALANCED, OPEN WEAVE, GLASS FIBER FABRIC TREATED FOR COMPATIBILITY WITH OTHER SYSTEM MATERIALS.
- 1) STANDARD MESH ON ALL WALL SURFACES UNLESS NOTED OTHERWISE.
 - 2) DETAIL MESH AND CORNER MESH PER MANUFACTURER STANDARD DETAILS.
- H. FINISH: STANDARD DPR: WATER BASED, ACRYLIC COATING WITH INTEGRAL COLOR AND TEXTURE AND FORMULATED WITH DPR CHEMISTRY. COLOR AND TEXTURE AS SELECTED BY OWNER.
- I) MISCELLANEOUS MATERIALS: PROVIDE AND INSTALL ANY/ALL DRAINAGE TRACKS, MATS AND/OR SPACERS AS REQUIRED TO COMPLETE SYSTEM INSTALLATION FOR COMPLIANCE WITH WARRANTY.

3.1 INSTALLATION

- A. INSTALL INSULATION IN ACCORDANCE WITH MANUFACTURER'S SYSTEM SPECIFICATIONS.
- B. INSTALLATION COATING: INSTALL BASE COAT, COATING AND GLASS FIBER MESH REINFORCEMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

DIVISION 8 - DOOR & WINDOWS

SECTION 08100 STEEL DOORS & FRAMES

1.1 QUALITY ASSURANCE

A. MANUFACTURER'S QUALIFICATIONS: ALL WORK SHALL BE THE BEST GRADE OF MODERN SHOP HOLLOW METAL WORK DONE BY A RECOGNIZED MANUFACTURER SPECIALIZING THEREIN.

2.1 MATERIALS

A. SHEET AND STRIP: COMMERCIAL QUALITY, LEVELED, COLD-ROLLED STEEL MEETING THE REQUIREMENTS OF ASTM A 366-72 AND FREE OF SCALE AND OTHER SURFACE DEFECTS. REFER TO DOOR SCHEDULE FOR THICKNESS.

3.1 FABRICATION

A. DOOR: FULL FLUSH TYPE WELDED SEAMLESS CONSTRUCTION WITH NO VISIBLE SEAMS OR JOINTS ON FACES OR VERTICAL EDGES.

B. FRAMES: COMBINED BUCK FRAMES AND TRIM TYPE AS DETAILED 16 GAUGE STEEL BRACK-FROMED TO PROFILE FREE OF WARP, BUCKLES AND FRACTURES WITH CORNERS SQUARE AND SHARP.

C. SHOP FINISH: AFTER FABRICATION, DOORS AND FRAMES SHALL BE DEGREASED, PHOSPHATE AND FACTORY PAINTED INSIDE AND OUT WITH A RUST INHIBITIVE SYNTHETIC PRIMER.

D. INTERIOR FRAMES: PRE-FINISHED HOLLOW METAL SNAP-TOGETHER FACTORY FORMED, SERIES I, 18 GAUGE FRAME AS MANUFACTURED BY "REDIFRAMED" 1-800-633-7553

FRAMES SHALL BE DELIVERED TO JOINT " KNOCKED-DOWN" IN PACKAGES READY FOR JOB ASSEMBLY.

FRAMES SHALL BE PRE-FINISHED WITH STANDARD "REDIFRAMED" BROWN COLOR IN CASE PRE-FINISHED FRAMES ARE NOT AVAILABLE, PAINT FRAMES PER FINISH SCHEDULE.

4.1 HARDWARE PREPARATION

A. PREPARE DOORS AND FRAMES FOR HARDWARE MORTISING, REINFORCING, DRILLING AND TAPING SHALL BE DONE AT THE FACTORY FOR MORTISED HARDWARE.

B. REINFORCEMENT PLATES IN DOORS AND FRAMES FOR HARDWARE SHALL BE 7 GAUGE FOR HINGES AND 12 GAUGE FOR ALL OTHER HARDWARE.

C. PUNCH FOR AND INSTALL RUBBER SILENCERS ON ALL INTERIOR HOLLOW METAL DOOR FRAMES.

5.1 INSTALLATION

A. SETTING FRAMES AS FOLLOWS: SET FRAMES ACCURATELY TO MAINTAIN SCHEDULED DIMENSIONS, HOLD HEAD LEVEL AND MAINTAIN JAMB AND SQUARE.

ANCHOR FRAMES SECURELY TO ADJACENT CONSTRUCTION. ANCHOR TO FLOOR AT EACH JAMB WITH TWO BOLTS TO PREVENT TWIST.

PROVIDE MINIMUM THREE ANCHORS PER JAMBS.

B. HANGING DOORS: FIT AND HANG HOLLOW METAL DOORS, USING THE HARDWARE FURNISHED IN THE HARDWARE CALLED OUT IN DOOR SCHEDULE SHEET.

C. EDGE CLEARANCES SHALL BE PROVIDED AS FOLLOWS: BETWEEN DOOR AND FRAMES AT HEAD AND JAMBS: ¾" AT DOOR SILLS: WHERE NO THRESHOLD IS USED= ¾" MAX. WHERE THRESHOLD IS USED= ¾" MAX.

SECTION 08210 WOOD DOORS

1.1 MATERIALS

A. FLUSH DOORS: AS MANUFACTURED BY MARSHFIELD DOOR SYSTEM INC., OR APPROVED EQUAL DOOR FACES SHALL BE AWI ROTARY CUT "PREMIUM" STAIN GRAD BIRCH.

SOLID CORE DOORS: 1½" THICK SOLID CORE WOOD DOORS, DFC-1 OR EQUAL.

2.1 INSTALLATION

- A. HANDLING DOORS AS FOLLOWS:
1. SET DOOR ACCURATELY WITH PROPER CLEARANCES, HOLD HEAD LEVEL AND SQUARE.
 2. ANCHOR FRAMES TO 2X4 BLOCKING ROUGH OPENING WITH SHIMS AT LEAST THREE PLACES PER JAMB.

SECTION 08305 ACCESS DOORS

1.1 MATERIALS

A. ACCESS DOORS: (WHERE CALLED OUT AND/OR REQUIRED) SHALL BE MILCOR, STYLE DM (FOR DRYWALL APPLICATION) AND STYLE AT (FOR ACOUSTICAL TILE APPLICATION), AS MANUFACTURED BY MILCO DIVISION OF INRYCO, INC. OR AND APPROVED EQUAL CALL (414) 383-3630 THE NEAREST REPRESENTATIVE.

2.1 INSTALLATION

- A. INSTALL IN CEILING WHERE INDICATED ON ELECTRICAL AND REFLECTED CEILING PLAN SHEET B. ATTACH ACCESS DOOR FRAME GRID RUNNERS AROUND OPENING. PROVIDE METAL EDGE TRIM AROUND EXPOSED EDGES OF GYPSUM BOARD.

SECTION 08410 ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

1.1 SUMMARY

A. SECTION INCLUDES: KAWNEER ARCHITECTURAL ALUMINUM STOREFRONT SYSTEMS, INCLUDING PERIMETER TRIMS, STOOLES, ACCESSORIES, SHIMS AND ANCHORS, AND PERIMETER SEALING OF STOREFRONT UNITS.

B. TYPES OF KAWNEER ALUMINUM STOREFRONT SYSTEMS INCLUDE:

1. TRIFAB 450 STOREFRONT SYSTEM - 1 3/4" X 4" NOMINAL DIMENSION, NON-THERMAL, CENTER PLANE, SCRM SPLINE, SHEAR BLOCK, STICK OR PUNCHED OPENING FABRICATION.

1.2 PERFORMANCE REQUIREMENTS

A. GENERAL PERFORMANCE: ALUMINUM-FRAME STOREFRONT SYSTEM SHALL WITHSTAND THE EFFECTS OF THE FOLLOWING PERFORMANCE REQUIREMENTS WITHOUT EXCEEDING PERFORMANCE CRITERIA OR FAILURE DUE TO DEFECTIVE MANUFACTURE, FABRICATION, INSTALLATION, OR OTHER DEFECTS IN CONSTRUCTION:

1. DESIGN WIND LOADS: DETERMINE DESIGN WIND LOADS APPLICABLE TO THE PROJECT FROM BASIC WIND SPEED INDICATED IN MILES PER HOUR, ACCORDING TO ASCE7, SECTION 6.5, "METHOD 2-ANALYTICAL PROCEDURE," BASED ON MEAN ROOF HEIGHTS ABOVE GRADE INDICATED ON DRAWINGS.

- a. BASIC WIND SPEED (MPH): (100 MPH)
- b. IMPORTANCE FACTOR (I, II, III): (1.0)
- c. EXPOSURE CATEGORY (A, B, C, D): (B)

B. STOREFRONT SYSTEM PERFORMANCE REQUIREMENTS:

1. WIND LOADS: PROVIDE STOREFRONT SYSTEM; INCLUDE ANCHORAGE, CAPABLE OF WITHSTANDING WIND LOAD DESIGN PER STATE AND LOCAL CODE. THE DESIGN PRESSURES ARE BASED ON CURRENT STATE & LOCAL CODES WITH AMENDMENT. AIR INFILTRATION: THE TEST SPECIMEN SHALL BE TESTED IN ACCORDANCE WITH ASTM E 283, AIR INFILTRATION RATE SHALL NOT EXCEED 0.06 CFM/FT2 (0.3 L/S · M2) AT A STATIC AIR PRESSURE DIFFERENTIAL OF 6.24 PSF (300 PA).

2. WATER RESISTANCE: THE TEST SPECIMEN SHALL BE TESTED IN ACCORDANCE WITH ASTM E 331. THERE SHALL BE NO LEAKAGE AT A MINIMUM STATIC AIR PRESSURE DIFFERENTIAL OF 8 PSF (383 PA) AS DEFINED IN AAMA 501.

3. UNIFORM LOAD: A STATIC AIR DESIGN LOAD OF 20 PSF (958 PA) SHALL BE APPLIED IN THE POSITIVE AND NEGATIVE DIRECTION IN ACCORDANCE WITH ASTM E 330. THERE SHALL BE NO DEFLECTION IN EXCESS OF L/175 OF THE SPAN OF ANY FRAMING MEMBER. AT A STRUCTURAL TEST LOAD EQUAL TO 1.5 TIMES THE SPECIFIED DESIGN LOAD, NO GLASS BREAKAGE OR PERMANENT SET IN THE FRAMING MEMBERS IN EXCESS OF 0.2% OF THEIR CLEAR SPANS SHALL OCCUR.

1.3 SUBMITTALS

A. PRODUCT DATA: INCLUDE CONSTRUCTION DETAILS, MATERIAL DESCRIPTIONS, DIMENSIONS OF INDIVIDUAL COMPONENTS AND PROFILES, HARDWARE, FINISHES, AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF ALUMINUM FRAME STOREFRONT SYSTEM INDICATED.

B. SHOP DRAWINGS: INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, HARDWARE, AND ATTACHMENTS TO OTHER WORK, OPERATIONAL CLEARANCES AND INSTALLATION DETAILS.

C. SAMPLES FOR INITIAL SELECTION: FOR UNITS WITH FACTORY-APPLIED COLOR FINISHES INCLUDING SAMPLES OF HARDWARE AND ACCESSORIES INVOLVING COLOR SELECTION.

D. SAMPLES FOR VERIFICATION: FOR ALUMINUM FRAMED STOREFRONT SYSTEM AND COMPONENTS REQUIRED.

E. PRODUCT TEST REPORTS: BASED ON EVALUATION OF COMPREHENSIVE TESTS PERFORMED BY A QUALIFIED TESTING AGENCY FOR EACH TYPE OF ALUMINUM FRAMED STOREFRONT.

F. FABRICATION SAMPLE: OF EACH VERTICAL-TO-HORIZONTAL INTERSECTION OF ALUMINUM-FRAMED SYSTEMS, MADE FROM 12" (300 MM) LENGTHS OF FULL-SIZE COMPONENTS AND SHOWING DETAILS OF THE FOLLOWING:

1. JOINERY, INCLUDING CONCEALED WELDS.
2. ANCHORAGE.
3. EXPANSION PROVISIONS.
4. GLAZING.
5. FLASHING AND DRAINAGE.

G. OTHER ACTION SUBMITTALS:

1. ENTRANCE DOOR HARDWARE SCHEDULE: PREPARED BY OR UNDER THE SUPERVISION OF SUPPLIER, DETAILING FABRICATION AND ASSEMBLY OF ENTRANCE DOOR HARDWARE, AS WELL AS PROCEDURES AND DIAGRAMS. COORDINATE FINAL ENTRANCE DOOR HARDWARE SCHEDULE WITH DOORS, FRAMES, AND RELATED WORK TO ENSURE PROPER SIZE, THICKNESS, HAND, FUNCTION, AND FINISH OF ENTRANCE DOOR HARDWARE.

1.4 QUALITY ASSURANCE

A. INSTALLER QUALIFICATIONS: AN INSTALLER WHICH HAS HAD SUCCESSFUL EXPERIENCE WITH INSTALLATION OF THE SAME OR SIMILAR UNITS REQUIRED FOR THE PROJECT AND OTHER PROJECTS OF SIMILAR SIZE AND SCOPE.

B. MANUFACTURER QUALIFICATIONS: A MANUFACTURER CAPABLE OF PROVIDING ALUMINUM FRAMED STOREFRONT SYSTEM THAT MEET OR EXCEED PERFORMANCE REQUIREMENTS INDICATED AND OF DOCUMENTING THIS PERFORMANCE BY INCLUSION OF TEST REPORTS, AND CALCULATIONS.

C. SOURCE LIMITATIONS: OBTAIN ALUMINUM FRAMED STOREFRONT SYSTEM THROUGH ONE SOURCE FROM A SINGLE MANUFACTURER.

D. PRODUCT OPTIONS: DRAWINGS INDICATE SIZE, PROFILES, AND DIMENSIONAL REQUIREMENTS OF ALUMINUM FRAMED STOREFRONT SYSTEM AND ARE BASED ON THE SPECIFIC SYSTEM INDICATED. REFER TO DIVISION 01 SECTION "PRODUCT REQUIREMENTS." DO NOT MODIFY SIZE AND DIMENSIONAL REQUIREMENTS.

1. DO NOT MODIFY INTENDED AESTHETIC EFFECTS, AS JUDGED SOLELY BY ARCHITECT, EXCEPT WITH ARCHITECT'S OR OWNER'S APPROVAL. IF MODIFICATIONS ARE PROPOSED, SUBMIT COMPREHENSIVE EXPLANATORY DATA TO ARCHITECT FOR REVIEW.

E. PRE-INSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE TO COMPLY WITH REQUIREMENTS IN DIVISION 01 SECTION "PROJECT MANAGEMENT AND COORDINATION."

F. STRUCTURAL-SEALANT GLAZING: COMPLY WITH ASTM C1401, "GUIDE FOR STRUCTURAL SEALANT GLAZING" FOR DESIGN AND INSTALLATION OF STRUCTURAL-SEALANT-GLAZED SYSTEMS.

G. STRUCTURAL-SEALANT JOINTS: DESIGN REVIEWED AND APPROVED BY STRUCTURAL-SEALANT MANUFACTURER.

1.5 PROJECT CONDITIONS

A. FIELD MEASUREMENTS: VERIFY ACTUAL DIMENSIONS OF ALUMINUM FRAMED STOREFRONT OPENINGS BY FIELD MEASUREMENTS BEFORE FABRICATION AND INDICATE FIELD MEASUREMENTS ON SHOP DRAWINGS.

1.6 WARRANTY

A. MANUFACTURES WARRANTY: SUBMIT, FOR OWNER'S ACCEPTANCE, MANUFACTURER'S STANDARD WARRANTY.

1. WARRANTY PERIOD: TWO (2) YEARS FROM DATE OF SUBSTANTIAL COMPLETION OF THE PROJECT PROVIDED HOWEVER THAT THE LIMITED WARRANTY SHALL BEGIN IN NO EVENT LATER THAN SIX MONTHS FROM DATE OF SHIPMENT BY MANUFACTURER.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. BASIS-OF-DESIGN PRODUCT:
1. KAWNEER COMPANY INC.
 2. TRIFAB 450
 3. 1 3/4" X 4" SYSTEM DIMENSIONS
 4. GLASS: CENTER PLANE

2.2 MATERIALS

A. ALUMINUM EXTRUSIONS: ALLOY AND TEMPER RECOMMENDED BY ALUMINUM STOREFRONT MANUFACTURER FOR STRENGTH, CORROSION RESISTANCE, AND APPLICATION OF REQUIRED FINISH AND NOT LESS THAN 0.070" WALL THICKNESS AT ANY LOCATION FOR THE MAIN FRAME AND COMPLYING WITH ASTM B 221: 6063-T6 ALLOY AND TEMPER.

B. FASTENERS: ALUMINUM, NONMAGNETIC STAINLESS STEEL OR OTHER MATERIALS TO BE NON-CORROSIVE AND COMPATIBLE WITH ALUMINUM WINDOW MEMBERS, TRIM HARDWARE, ANCHORS, AND OTHER COMPONENTS.

C. ANCHORS, CLIPS, AND ACCESSORIES: ALUMINUM, NONMAGNETIC STAINLESS STEEL, OR ZINC-COATED STEEL OR IRON COMPLYING WITH ASTM B633 FOR SC3 SEVERE SERVICE CONDITIONS OR OTHER SUITABLE ZINC COATING; PROVIDE SUFFICIENT STRENGTH TO WITHSTAND DESIGN PRESSURE INDICATED.

D. REINFORCING MEMBERS: ALUMINUM, NONMAGNETIC STAINLESS STEEL, OR NICKEL/CHROME-PLATED STEEL COMPLYING WITH ASTM B456 FOR TYPE SC3 SEVERE SERVICE CONDITIONS, OR ZINC-COATED STEEL OR IRON COMPLYING WITH ASTM B633 FOR SC3 SEVERE SERVICE CONDITIONS OR OTHER SUITABLE ZINC COATING; PROVIDE SUFFICIENT STRENGTH TO WITHSTAND DESIGN PRESSURE INDICATED.

E. SEALANT: FOR SEALANTS REQUIRED WITHIN FABRICATED STOREFRONT SYSTEM, PROVIDE PERMANENTLY ELASTIC, NON-SHRINKING, AND NON-MIGRATING TYPE RECOMMENDED BY SEALANT MANUFACTURER FOR JOINT SIZE AND MOVEMENT.

F. TOLERANCES: REFERENCE TO TOLERANCES FOR WALL THICKNESS AND OTHER CROSS-SECTIONAL DIMENSIONS OF STOREFRONT MEMBERS ARE NOMINAL AND IN COMPLIANCE WITH AA ALUMINUM STANDARDS AND DATA.

2.3 STOREFRONT FRAMING SYSTEM

A. BRACKETS AND REINFORCEMENTS: MANUFACTURER'S STANDARD HIGH-STRENGTH ALUMINUM WITH NON-STAINING, NONFERREROUS SHIMS FOR ALIGNING SYSTEM COMPONENTS.

B. FASTENERS AND ACCESSORIES: MANUFACTURER'S STANDARD CORROSION-RESISTANT, NON-STAINING, NON-BLEEDING FASTENERS AND ACCESSORIES COMPATIBLE WITH ADJACENT MATERIALS. WHERE EXPOSED SHALL BE STAINLESS STEEL.

C. PERIMETER ANCHORS: WHEN STEEL ANCHORS ARE USED, PROVIDE INSULATION BETWEEN STEEL MATERIAL AND ALUMINUM MATERIAL TO PREVENT GALVANIC ACTION

D. PACKING, SHIPPING, HANDLING AND UNLOADING: DELIVER MATERIALS IN MANUFACTURER'S ORIGINAL, UNOPENED, UNDAMAGED CONTAINERS WITH IDENTIFICATION LABELS INTACT.

E. STORAGE AND PROTECTION: STORE MATERIALS PROTECTED FROM EXPOSURE TO HARMFUL WEATHER CONDITIONS. HANDLE STOREFRONT MATERIAL AND COMPONENTS TO AVOID DAMAGE. PROTECT STOREFRONT MATERIAL AGAINST DAMAGE FROM ELEMENTS, CONSTRUCTION ACTIVITIES, AND OTHER HAZARDS BEFORE, DURING AND AFTER STOREFRONT INSTALLATION.

2.4 GLAZING SYSTEMS

A. GLAZING: AS SPECIFIED IN DIVISION 08 SECTION "GLAZING."

B. GLAZING GASKETS: MANUFACTURER'S STANDARD COMPRESSION TYPES; REPLACEABLE, EXTRUDED EPDM RUBBER.

C. SPACERS AND SETTING BLOCKS: MANUFACTURER'S STANDARD ELASTOMERIC TYPE.

D. BOND-BREAKER TAPE: MANUFACTURER'S STANDARD TPE-FLUOROCARBON OR POLYETHYLENE MATERIAL TO WHICH SEALANTS WILL NOT DEVELOP ADHESION.

E. GLAZING SEALANTS: FOR STRUCTURAL-SEALANT-GLAZED SYSTEMS, AS RECOMMENDED BY MANUFACTURER FOR JOINT TYPE, AND AS FOLLOWS:

1. WEATHERSEAL SEALANT: ASTM C920 FOR TYPES, GRADENS, CLASS 25, USESNT, G, A, AND O; SINGLE-COMPONENT NEUTRAL-CURING FORMULATION THAT IS COMPATIBLE WITH STRUCTURAL SEALANT AND OTHER SYSTEM COMPONENTS WITH WHICH IT COMES IN CONTACT; RECOMMENDED BY STRUCTURAL-SEALANT, WEATHERSEAL-SEALANT, AND ALUMINUM-FRAMED-SYSTEM MANUFACTURERS FOR THIS USE.

2.5 ENTRANCE DOOR SYSTEMS

A. ENTRANCE DOORS: AS SPECIFIED IN DIVISION 08 SECTION "ALUMINUM FRAMED ENTRANCES."

B. ENTRANCE DOOR HARDWARE: AS SPECIFIED IN DIVISION 08 SECTION "FINISH HARDWARE."

2.6 ACCESSORY MATERIALS

A. JOINT SEALANTS: FOR INSTALLATION AT PERIMETER OF ALUMINUM-FRAMED SYSTEMS, AS SPECIFIED IN DIVISION 07 SECTION "JOINT SEALANTS."

B. BITUMINOUS PAINT: COLD-APPLIED, ASPHALT-MASTIC PAINT COMPLYING WITH SSPC-PAINT 12 REQUIREMENTS EXCEPT CONTAINING NO ASBESTOS; FORMULATED FOR 30 MIL (0.762 MM) THICKNESS PER COAT.

2.7 FABRICATION

- A. EXTRUDE ALUMINUM SHAPES BEFORE FINISHING.
- B. FRAMING MEMBERS, GENERAL: FABRICATE COMPONENTS THAT, WHEN ASSEMBLED, HAVE THE FOLLOWING CHARACTERISTICS:
1. PROFILES THAT ARE SHARP, STRAIGHT, AND FREE OF DEFECTS OR DEFORMATIONS.
 2. ACCURATELY FIT JOINTS; MAKE JOINTS FLUSH, HAIRLINE AND WEATHERPROOF.

3. MEANS TO DRAIN WATER PASSING JOINTS, CONDENSATION WITHIN FRAMING MEMBERS, AND MOISTURE MIGRATING WITHIN THE SYSTEM TO EXTERIOR.

4. PHYSICAL AND THERMAL ISOLATION OF GLAZING FROM FRAMING MEMBERS.

5. ACCOMMODATIONS FOR THERMAL AND MECHANICAL MOVEMENTS OF GLAZING AND FRAMING TO MAINTAIN REQUIRED GLAZING EDGE CLEARANCES.

6. PROVISIONS FOR FIELD REPLACEMENT OF GLAZING.

7. FASTENERS, ANCHORS, AND CONNECTION DEVICES THAT ARE CONCEALED FROM VIEW TO GREATEST EXTENT POSSIBLE.

C. MECHANICALLY GLAZED FRAMING MEMBERS: FABRICATE FOR FLUSH GLAZING WITHOUT PROJECTING STOPS.

D. STRUCTURAL-SEALANT-GLAZED FRAMING MEMBERS: INCLUDE ACCOMMODATIONS FOR USING TEMPORARY SUPPORT DEVICE TO RETAIN GLAZING IN PLACE WHILE STRUCTURAL SEALANT CURES.

E. STOREFRONT FRAMING: FABRICATE COMPONENTS FOR ASSEMBLY USING MANUFACTURES STANDARD INSTALLATION INSTRUCTIONS.

F. AFTER FABRICATION, CLEARLY MARK COMPONENTS TO IDENTIFY THEIR LOCATIONS IN PROJECT ACCORDING TO SHOP DRAWINGS.

2.8 ALUMINUM FINISHES

A. FINISH DESIGNATIONS PREFIXED BY AA COMPLY WITH THE SYSTEM ESTABLISHED BY THE ALUMINUM ASSOCIATION FOR DESIGNATING ALUMINUM FINISHES.

PART 3 - EXECUTION

3.1 EXAMINATION

A. EXAMINE OPENINGS, SUBSTRATES, STRUCTURAL SUPPORT, ANCHORAGE, AND CONDITIONS, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE OF WORK. VERIFY ROUGH OPENING DIMENSIONS, LEVELNESS OF SILL PLATE AND OPERATIONAL CLEARANCES. EXAMINE WALL FLASHINGS, VAPOR RETARDERS, WATER AND WEATHER BARRIERS, AND OTHER BUILT-IN COMPONENTS TO ENSURE A COORDINATED, WEATHER TIGHT ALUMINUM FRAMED STOREFRONT INSTALLATION.

1. MASONRY SURFACES: VISIBLY DRY AND FREE OF EXCESS MORTAR, SAND, AND OTHER CONSTRUCTION DEBRIS.
2. WOOD FRAME WALLS: DRY, CLEAN, SOUND, WELL NAILED, FREE OF VOIDS, AND WITHOUT OFFSETS AT JOINTS. ENSURE THAT NAIL HEADS ARE DRIVEN FLUSH WITH SURFACES IN OPENING AND WITHIN 3 INCHES (76 MM) OF OPENING.
3. METAL SURFACES: DRY; CLEAN; FREE OF GREASE, OIL, DIRT, RUST, CORROSION, AND WELDING SLAG; WITHOUT SHARP EDGES OR OFFSETS AT JOINTS.
4. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

3.2 INSTALLATION

A. COMPLY WITH DRAWINGS, SHOP DRAWINGS, AND MANUFACTURER'S WRITTEN INSTRUCTIONS FOR INSTALLING ALUMINUM FRAMED STOREFRONT SYSTEM, ACCESSORIES, AND OTHER COMPONENTS.

B. INSTALL ALUMINUM FRAMED STOREFRONT SYSTEM LEVEL, PLUMB, SQUARE, TRUE TO LINE, WITHOUT DISTORTION, IMPEDING THERMAL MOVEMENT, ANCHORED SECURELY IN PLACE TO STRUCTURAL SUPPORT, AND IN PROPER RELATION TO WALL FLASHING AND OTHER ADJACENT CONSTRUCTION.

- C. SET SILL MEMBERS IN BED OF SEALANT OR WITH GASKETS, AS INDICATED, FOR WEATHER TIGHT CONSTRUCTION.
- D. INSTALL ALUMINUM FRAMED STOREFRONT SYSTEM AND COMPONENTS TO DRAIN CONDENSATION, WATER PENETRATING JOINTS, AND MOISTURE MIGRATING WITHIN SLIDING DOOR TO THE EXTERIOR.
- E. SEPARATE ALUMINUM AND OTHER CORRODIBLE SURFACES FROM SOURCES OF CORROSION OR ELECTROLYTIC ACTION AT POINTS OF CONTACT WITH OTHER MATERIALS.

3.3 FIELD QUALITY CONTROL

A. FIELD TESTS: ARCHITECT SHALL SELECT STOREFRONT UNITS TO BE TESTED AS SOON AS A REPRESENTATIVE PORTION OF THE PROJECT HAS BEEN INSTALLED, GLAZED, PERIMETER CAULKED AND CURED. CONDUCT TESTS FOR AIR INFILTRATION AND WATER PENETRATION WITH MANUFACTURER'S REPRESENTATIVE PRESENT. TESTS NOT MEETING SPECIFIED PERFORMANCE REQUIREMENTS AND UNITS HAVING DEFICIENCIES SHALL BE CORRECTED AS PART OF THE CONTRACT AMOUNT.

1. TESTING: TESTING SHALL BE PERFORMED BY A QUALIFIED INDEPENDENT TESTING AGENCY. REFER TO TESTING SECTION FOR PAYMENT OF TESTING AND TESTING REQUIREMENTS. TESTING STANDARD PER AAMA 503, INCLUDING REFERENCE TO ASTM E 783 FOR AIR INFILTRATION TEST AND ASTM E 1105 WATER INFILTRATION TEST.
 - a. AIR INFILTRATION TESTS: CONDUCT TESTS IN ACCORDANCE WITH ASTM E 783. ALLOWABLE AIR INFILTRATION SHALL NOT EXCEED 1.5 TIMES THE AMOUNT INDICATED IN THE PERFORMANCE REQUIREMENTS OR 0.09 CFM/FT2, WHICHEVER IS GREATER.
 - b. WATER INFILTRATION TESTS: CONDUCT TESTS IN ACCORDANCE WITH ASTM E 1105. NO UNCONTROLLED WATER LEAKAGE IS PERMITTED WHEN TESTED AT A STATIC TEST PRESSURE OF TWO-THIRDS THE SPECIFIED WATER PENETRATION PRESSURE BUT NOT LESS THAN 6.24 PSF (300 PA).

3.4 ADJUSTING, CLEANING, AND PROTECTION

A. CLEAN ALUMINUM SURFACES IMMEDIATELY AFTER INSTALLING ALUMINUM FRAMED STOREFRONTS. AVOID DAMAGING PROTECTIVE COATINGS AND FINISHES. REMOVE EXCESS SEALANTS, GLAZING MATERIALS, DIRT, AND OTHER SUBSTANCES.

B. CLEAN GLASS IMMEDIATELY AFTER INSTALLATION. COMPLY WITH GLASS MANUFACTURER'S WRITTEN RECOMMENDATIONS FOR FINAL CLEANING AND MAINTENANCE. REMOVE NONPERMANENT LABELS, AND CLEAN SURFACES.

C. REMOVE AND REPLACE GLASS THAT HAS BEEN BROKEN, CHIPPED, CRACKED, ABRADED, OR DAMAGED DURING CONSTRUCTION PERIOD.

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SECTION 08710 FINISH HARDWARE

1.1 ALTERNATIVES

A. SUBSTITUTIONS: FIRST QUALITY ITEMS WHICH ARE COMPARABLE TO THE BRANDS SCHEDULE WILL BE ACCEPTABLE UPON WRITTEN APPROVAL BY THE OWNER AND /OR ARCHITECT.

2.1 MATERIALS

A. BUTTS AND HINGES: ONLY BUTTS AND HINGES MANUFACTURED BY STANLEY, HAGER, LAWRENCE OR MCKINNEY WILL BE ACCEPTABLE. ALL SHALL BE FURNISHED WITH FLAT BOTTOM TIPS UNLESS OTHERWISE NOTED.

B. LOCKS AND TRIM: LOCKS AND LATCHES, REFER DOOR SCHEDULE SHEET. LIKE QUALITY WILL BE ACCEPTABLE AS INDICATED IN ALTERNATED.

FURNISH LOCKS WITH ASA STANDARDIZED STRIKES.

C. CLOSERS: FULL RACK AND PINION TYPE AND ADJUSTABLE SPRING POWER AND BACK CHECK AND AS MANUFACTURED BY LCN.

NORTON SARGENT CORBIN, RUSSWIN OR ALE OR AS INDICATED IN HARDWARE SCHEDULE.

D. CABINET AND CASEWORK HARDWARE SHALL BE STANLEY, KNAPE, AND VOGHT OR AS INDICATED ON THE DRAWINGS.

3.1 DELIVERY AND INSTALLATION

A. TYPICALLY, BUTTS, HINGES, LOCKS, TRIM, CLOSER, STOPS, CABINET, AND CASEWORK HARDWARE IS TO BE DELIVERED TO THE JOB SITE BY T.G.C.'S FINISHED HARDWARE SUPPLIER AND INSTALLED BY TENANT GENERAL CONTRACTOR. REFER TO DRAWINGS, SCHEDULES AND RESPONSIBILITY SCHEDULE FOR HARDWARE FURNISHED AND INSTALLED BY T.G.C. AND THAT FURNISHED BY OTHER AND INSTALLED BY T.G.C.

4.1 KEYING

A. KEYS: MASTER-KEY ALL LOCKS IN ONE SET. FURNISH MASTER KEYS AND CHANGE KEYS ON ACCORDANCE WITH THE REQUIREMENTS OF THE TENANT/OWNER.

5.1 HARDWARE SCHEDULE

A. REFER DOOR SCHEDULE FOR TYPE, MANUFACTURER, FINISH, ETC.

SECTION 08800 GLASS AND GLAZING

1.1 QUALITY ASSURANCE

A. SAFETY STANDARDS: GLAZING PROCEDURES AND MATERIALS SHALL MEET THE REQUIREMENTS OF CPSCA "STANDARDS FOR ARCHITECTURAL GLAZING MATERIALS" (16 CFR 1201) ISSUED JULY 6 1977.

2.1 GLASS

A. TEMPERED CLEAR: 1/4" AND 1/2" THICK TEMPERED POLISHED PLATE OF FLOAT GLASS CERTIFIED WITH CATEGORY 8 OF CFR 1201, REFER DRAWING FOR SIZE AND LOCATION.

B. MIRROR: 1/4" THICK POLISHED PLATE MIRROR (CLEAR). REFER DRAWING FOR LOCATION.

C. GLASS SHELVING: 3/8" THICK CLEAR PLATE GLASS. ALL EDGED SHALL HAVE PENCIL GROUND EDGES. REFER DRAWING FOR SIZE, SHAPE AND SPACING.

D. STOREFRONT GLASS: EXTERIOR SHALL BE TEMPERED GLASS TO MATCH EXISTING ADJACENT LANDLORD'S SYSTEM. INSTALL PER SYSTEM MANUFACTURER'S RECOMMENDATION.

3.1 INSTALLATION

A. SETTING GLASS: DO THE GLAZING OF STOREFRONT AND DOORS. GLAZING SHALL BE DONE AT THE SIT BY SKILLED GLAZERS IN CONFORMANCE WITH THE GENERAL CONDITIONS GOVERNING GLAZING IN THE GGMA GLAZING MANUAL.

B. GLAZING OF STOREFRONT SHALL BE DONE IN CONFORMANCE WITH THE METHOD RECOMMENDED BY THE MANUFACTURER OF VARIOUS AND SPECIFIC JOB CONDITIONS.

C. INSTALL MIRROR WHERE INDICATED IN DRAWINGS USING ADHESIVE ANCHORS, ETC. IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

D. VERIFY GLASS AND MIRROR SIZE FOR REQUIRED EDGE CLEARANCES BY MEASURING THE OPENINGS.

E. BUTTED GLASS WHERE INDICATED SHALL HAVE POLISHED EDGED WITH A 1/2" AIR GAP BETWEEN THE PANELS AND WALL CLIPS AS REQUIRED BY LOCAL REQUIREMENTS. REFER TO DRAWING FOR LOCATION(S).

F. INSTALL GLASS SHELVING WHERE INDICATED IN THE DRAWINGS. REFER TO ELEVATIONS DERAILS OF THE SPACING.

4.1 CLEANING

A. UPON COMPLETION OF THE TENANTS AREA, CLEAN ALL GRASS ON BOTH SIDES AND REMOVE LABELS, PAINT SPOTS, PUTTY AND OTHER DEFAECMENTS. REPLACE DAMAGED GLASS WITH NEW GLASS.

DIVISION 9 - FINISHES

SECTION 09250 GYPSUM BOARD

1.1 SUBMITTALS

A. PRODUCT DATA: PROVIDE DATA ON METAL FRAMING, GYPSUM BOARD, ACCESSORIES, AND JOINT FINISHING SYSTEM.

B. SHOP DRAWINGS: INDICATE SPECIAL DETAILS ASSOCIATED WITH FIREPROOFING.

1.2 QUALITY ASSURANCE

A. PERFORM IN ACCORDANCE WITH ASTM C 840. COMPLY WITH REQUIREMENTS OF GA-600 FOR FIRE-RATED ASSEMBLIES.

1.3 REGULATORY REQUIREMENTS

A. CONFORM TO APPLICABLE CODE FOR FIRE RATED ASSEMBLIES AS INDICATED ON DRAWINGS.

1. FIRE RATED PARTITIONS: INDICATED UL ASSEMBLY 1-HOUR RATING

2.1 GYPSUM BOARD MATERIALS

A. STANDARD GYPSUM WALLBOARD: ASTM C 36; SIZES TO MINIMIZE JOINTS IN PLACE; ENDS SQUARE CUT.

1. THICKNESS: 5/8 INCH.

2. EDGES: TAPERED AND BEVELED EDGES.

B. FIRE RATED GYPSUM WALLBOARD: ASTM C 36; TYPE X, UL OR MH RATED; SIZES TO MINIMIZE JOINTS IN PLACE; ENDS SQUARE CUT.

1. THICKNESS: 5/8 INCH, UNLESS INDICATED OTHERWISE..

2. EDGES: TAPERED AND BEVELED EDGES.

C. GLASS-MAT GYPSUM SHEATHING BOARD: ASTM C 1177.

1. TYPE AND THICKNESS: TYPE-X, 5/8 INCH THICK.

2. SIZE: 48 BY 96 INCHES .

3. PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE "DENS-GOLD" BY GEORGIA-PACIFIC CORP.

3.1 INSTALLATION

A. DO NOT COMMENCE INSTALLATION UNTIL THE BUILDING IS CLOSED-IN AND INTERIOR TEMPERATURES CAN BE MAINTAINED UNIFORMLY ABOVE 55 DEGREE FAHRENHEIT DURING THIS WORK AND UNTIL THE COMPLETION OF THE BUILDING.

B. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS , AND IN ACCORDANCE WITH APPROVED DETAILS. USE SCREW FASTENING METHOD, 12" OC.

C. PROTECT FINISH WOK OF OTHER TRADES FROM DAMAGE BY GYPSUM BOARD CONSTRUCTION.

D. NOTIFY CONTRACTOR AND ARCHITECT IN WRITING OF UNSUITABLE CONDITIONS AND DO NOT WORK UNTIL SAME HAVE BEEN CORRECTED. COMMENCEMENT OF WORK SHALL CONSTITUTE ACCEPTANCE OF CONDITIONS AND SURFACES TO WHICH MATERIALS ARE TO BE APPLIED UNDER THIS SECTION.

E. EXCEPT AS NOTED OTHERWISE SPECIFIED HEREIN, ALL GYPSUM WALL BOARDS SHALL BE INSTALLED VERTICALLY AND ALL EDGES AND JOINTS SHALL BE CENTERED OVER STUDS OR FURRING. JOINTS SHALL NOT OCCUR WITHIN 12" OF DOOR OR WINDOW FRAME OPENINGS IN WALL BOARD SURFACES. IN NO CASE, WILL JOINTS ON OPPOSITE SIDES OF PARTITION BE ALLOWED OVER SAME STUD OR POST, UNLESS SPECIFICALLY INDICATED.

F. WALLBOARD SHALL BE CUT SCORING AND BREAKING, OR BY SAWING, ALWAYS WORKING FROM THE FACE SIDE. WHERE BOARD MEETS PROJECTING SURFACES, IT SHALL BE NEATLY SCRIBED WHERE CASING IS INDICATED TO BE OMITTED.

3.2 JOINT FINISHING

A. FOR JOINT TREATMENT USE REGULAR OR PERFORATED TAPE, JOINT COMPOUND AND TOPPING COMPOUND CONFORMING TO ASTM C475 AS RECOMMENDED BY WALL BOARD MANUFACTURER.

B. A UNIFORM THIN LAYER OF JOINT COMPOUND APPROXIMATELY 4" WIDE SHALL BE APPLIED OVER EACH JOINT. TAPE SHALL BE CENTERED OVER THE JOINT AND EMBEDDED CONTINUOUSLY INTO THE COMPOUND, LEAVING SUFFICIENT COMPOUND.

C. AT INTERNAL CORNERS, FOLD TAPE LENGTHWISE THROUGH THE MIDDLE, AND FIT NEATLY INTO CORNER.

D. TAPE SHALL BE COVERED WITH COMPOUND; SPREAD EVENLY OVER SLIGHTLY BEYOND THE TAPED EDGE OF BOARD AND FEATHERED AT EDGES. WHEN DRY, COVER THE GYPSUM JOINT COMPOUND FORMING A SMOOTH, UNIFORM, SLIGHT CROWN OVER THE JOINT, FEATHERED SLIGHTLY BEYOND PRECEDING COAT.

E. DIMPLES AT SCREWHEADS SHALL RECEIVE (3) COATS OF COMPOUND.

F. FLANGES OF METAL CORNER AND CASING BEAD SHALL BE CANCELED BY AT LEAST TWO (2) COATS OF COMPOUND WHICH, WHEN FINISHED SHALL EXTEND APPROXIMATELY 8" FROM EXPOSED NOSING.

G. EACH COAT SHALL BE SANDED AS NECESSARY AFTER COMPOUND HAS DRIED. USE TOPPING COMPOUND FOR FINISHING COATS. FINAL COAT AFTER SANDING SHALL LEAVE THE GYPSUM WALLBOARD AND TREATED AREAS SMOOTH. JOINTS CONCEALED FROM VIEW IN THE FINISHED WORK. CARE SHALL BE TAKEN NOT TO SCUFF THE PAPER SURFACE OF THE BOARD WHEN SANDING.

H. ALL EDGES AND CORNERS SHALL BE LEFT SQUARE, ALL SURFACES PLAIN, PLUMB, STRAIGHT AND TRUE AND READY FOR PAINTING OR OTHER FINISH.

J. CLEAN AND REMOVE ALL REFUSE AND SPLATTERING FROM THIS WORK.

SECTION 09300 CONCRETE BACKER-BOARD

PART 1 GENERAL

1.1 SCOPE

A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SERVICES AND TRANSPORTATION REQUIRED TO COMPLETE CONCRETE BACKER BOARD WORK REQUIRED ON THE DRAWINGS AND AS SPECIFIED HEREIN.

1.2 DELIVERY, STORAGE AND PROTECTION

A. ALL MATERIALS SHALL BE PROPERLY PACKAGED AND BOUGHT TO THE SITE IN ORIGINAL, UNOPENED CONTAINERS WITH GRADE, TYPE AND QUALITY INDICATED ON THE LABELS.

B. STORE BACKER BOARD PROVIDING PROTECTION FROM EXPOSURE TO HEATHER AND ALL OTHER CAUSES.

1.3 STAGING AND SCAFFOLDING

A. PROVIDE AND MAINTAIN ALL NECESSARY STAGING, SCAFFOLDING , PLATFORMS AND PLANKS.

B. SCAFFOLDING SHALL BE IN CONFORMITY WITH ALL APPLICABLE CODES, RULES, REGULATIONS AND ORDINANCES AND SHALL BE MAINTAINED IN SUCH A MANNER AS NOT TO INTERFERE WITH WORK OF OTHER TRADES.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. ALL MATERIALS SHALL BE THE PRODUCT OF ONE (1) MANUFACTURER. PRODUCTS OF DIFFERENT MANUFACTURERS MAY BE USED ONLY AFTER APPROVAL BY THE OWNER.

B. ACCESSORIES, JOINT TREATMENT MATERIALS, FASTENERS, SHALL BE MANUFACTURED BY OR APPROVED BY THE MAKER OF THE BACKER BOARD.

C. ALL MATERIALS SHALL BE AS MANUFACTURED BY:

1. NATIONAL GYPSUM COMPANY, BUFFALO NY

2. U.S GYPSUM COMPANY, CHICAGO IL

3. OR APPROVED EQUAL MANUF.

2.2 MATERIAL

A. ~~WONDERBOARD CEMENTITIOUS BACKERBOARD:~~ UNLESS OTHERWISE INDICATED, ALL BACKERBOARD SHALL BE 5/8" THICK, 24' WIDE, CONFORMING TO ASTM A108.11.

B. TREATMENT MATERIALS: INCLUDING, BUT NOT LIMITED TO: JOINT REINFORCEMENT AND BOND MATERIALS AS RECOMMENDED BY MANUFACTURER AND CONFORMING TO ASTM A118.1 OR A118.4.

C. FASTENERS AS PER MANUFACTURER'S RECOMM.

PART 3 EXECUTION

3.1 INSTALLATION

A. DO NOT COMMENCE INSTALLATION UNTIL THE BUILDING IS CLOSED-IN AND INTERIOR TEMPERATURES CAN BE MAINTAINED UNIFORMLY ABOVE 40 DEG F DURING THIS WORK AND UNTIL COMPLETION OF THE BUILDING.

B. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS AND IN ACCORDANCE WITH APPROVED DETAILS. USE SCREW FASTENING METHOD AS PER MANUFACTURER'S RECOMMENDATION.

C. PROTECT FINISH WORK OF OTHER TRADES FROM DAMAGE BY BACKERBOARD CONSTRUCTION.

D. NOTIFY CONTRACTOR AND OWNER IN WRITING OF UNSUITABLE CONDITIONS AND DO NOT WORK UNTIL CONDITION HAVE BEEN CORRECTED. COMMENCEMENT OF WORK SHALL CONSTITUTE ACCEPTANCE OF CONDITIONS AND SURFACES TO WHICH MATERIALS ARE TO BE APPLIED UNDER THIS SECTION.

E. BACKERBOARDS SHALL BE INSTALLED VERTICALLY AND ALL EDGES AND JOINTS SHALL BE CENTERED OVER STUDS OF FURRING JOINTS SHALL NOT OCCUR WITHIN 12 INCHES OF DOOR. IN NO CASE, WILL JOINTS ON OPPOSITE SIDES OF PARTITION BE ALLOWED OVER SAME STUD OR POST.

3.2 JOINT FINISHING

A. FOR JOINT TREATMENT USE FIBERGLASS MESH TAPE, BONDING MATERIAL AND CONFORMING TO ASTM A118.1 OR ANSI A118.4 AS RECOMMENDED BY BACKERBOARD MANUFACTURER.

B. AT ALL JOINTS AND CORNERS PRE-FILL GAP WITH BONDING MATERIAL THEN APPLY 2" MESH TAPE AND SMOOTH MATERIAL OVER JOINT AND CORNER.

SECTION 09510 ACOUSTICAL CEILINGS

1.1 JOB CONDITIONS

A. MAINTAIN A MINIMUM TEMPERATURE OF 60 DEGREES F DURING AND AFTER INSTALLATION OF ACOUSTICAL WORK.

2.1 MATERIALS

A. ACOUSTIC LAY-IN PANELS: MINERAL FIBER PANELS MEETING FED. SPEC. SS-S-18A, CLASS 25 (NON-COMBUSTIBLE) AND HAVE A NRC RANGE OF .55-.65.

SIZE: 24"x24" AND/OR 24"x48" PANELS WHERE SCHEDULE ON PLANS.

DESIGN: COURSE NON-DIRECTIONAL FISSURED SURFACE, ARMSTRONG PER DWG OR EQUAL.

B. FINISH: WASHABLE WHITE VINYL LATEX PAINT

C. EDGES: SQUARE

D. SUSPENSION SYSTEM: EXPOSED TYPE AS MANUFACTURED BY CHICAGO METALLIC, DOWN, ROPER, EASTERN OR EQUAL. COMPONENT SHALL BE ROLL-FORMED FORM STEEL TO MEET ASTM C 635-64 AND CONFORM TO THE REQUIREMENT FOR INTERMEDIATE DUTY STRUCTURAL CLASSIFICATION.

SYSTEM SHALL BE DESIGNED AND SIZED TO SUPPORT THE CEILING ASSEMBLY WITH A MAXIMUM DEFLECTIONS OF OF THE SPAN.

E. HANGARS: #12 GA ANNEALED AND GALVANIZED STEEL WIRE.

3.1 INSTALLATION

A. GENERAL: INSTALLATION PROCEDURES SHALL MEET OR EXCEED THE MANUFACTURER'S RECOMMENDATIONS AND ASTM C 636-64.

1. COORDINATE THE PATTERNS WITH CEILING LIGHTS AND GRILLS.

B. SUSPENSION:

1. DIRECTLY SUSPEND THE MAIN TEES WITH HANGERS SPACES NOT MORE THAN 24' O.C.

2. SUPPORT LIGHT FIXTURES ON MAIN TEE RUNNERS ONLY. WHERE FIXTURES DO NOT FALL ON MAIN TEE RUNNERS, ADDITIONAL SUPPORT CEILING SYSTEM IS NOT EXCEEDED.

3. LEVEL THE MAIN TEE RUNNERS TO WITHIN 1/8" IN 12 FEET.

C. MOLDINGS: INSTALL FINISH CHANNEL AND ANGLE MOLDING WHERE CEILING ABOUT WALLS OF OTHER INTERSECTING VERTICAL SURFACES.

D. LAY-IN PANELS: INSTALL ACOUSTICAL PANELS IN THE EXPOSED SUSPENSION SYSTEM WITH BOTTOM SURFACES FLUSH AND IN A TRUE LEVEL PLANE. HOLD-DOWN CLIPS ARE REQUIRED ONLY IN VESTIBULE FOR ALL PANELS.

SECTION 09650 RESILIENT TILE FLOORING

1.1 MATERIALS

A. VINYL COMPOSITION TILE: 12"x12"x1/8" GAUGE (IMPERIAL) EXCELON, OR APPROVED EQUAL, WITH COLOR AS SELECTED, REFER TO DRAWINGS.

B. RESILIENT BASE: TOP-SET TYPE VINYL BASE FOR 4" AND COVE FOR 6" HIGH BY 1/8" GAUGE WITH MATCHING END STOPS. COLOR AS SELECTED, REFER TO DRAWINGS.

C. RESILIENT EDGE STRIPS: 1/8" THICK VINYL TAPERED EDGE, COLOR TO MATCH FLOORING, NOT LESS THAN 1' WIDE.

D. ADHESIVE: WATERPROOF STABILIZED TYPE AS RECOMMENDED BY FLOORING MANUFACTURER. ASPHALT EMULSION AND OTHER NON-WATERPROOF TYPES ARE NOT ACCEPTABLE.

E. LEVELING AND PATCHING COMPOUNDS. LATEX TYPES AS RECOMMENDED BY FLOORING MANUFACTURER.

2.1 INSTALLATION:

A. PLACE TILE UNITS WITH ADHESIVE CEMENT IN STRICT COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS.

B. MATCH TILES FOR COLOR AND PATTERN BY USING TILE FROM CARTONS IN THE SAME SEQUENCE AS MANUFACTURED AND PACKAGED. LAY TILE WITH GRAIN RUNNING IN ONE DIRECTION PARALLEL TO THE SHORT DIMENSION OF ROOM.

C. TIGHTLY CEMENT TILES TO SUB FLOOR WITHOUT OPEN CRACK, VOIDS, RAISING AND PUCKERING AT JOINTS TELEGRAPHIC OF ADHESIVE SPREADER MARKS THROUGH TILE OR OTHER SURFACE INTERSECTIONS.

SECTION 09900 PAINTING

1.1 GENERAL

A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SERVICES AND TRANSPORTATION REQUIRED TO COMPLETE ALL PAINTING WORK AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.

B. UNLESS OTHERWISE INDICATED, ALL SURFACES SHALL BE PAINTED WITH NOT LESS THAN ONE (1) SHOP OR PRIME COAT AND TWO (2) FINISH COATS OF APPROPRIATE PAINT.

C. PAINT EXPOSED SURFACES, EXCEPT WHERE THE PAINT SCHEDULES INDICATE THAT A SURFACE OR MATERIAL IS NOT TO BE PAINTED OR IS TO REMAIN NATURAL. IF THE PAINT SCHEDULES DO NOT SPECIFICALLY MENTION AN ITEM OR A SURFACE, CONFIRM WITH ARCHITECT TO PAINT THE ITEM OR NOT. IF THE SCHEDULES DO NOT INDICATE COLOR OR FINISH, THE ARCHITECT WILL SELECT FROM STANDARD COLORS AND FINISHES AVAILABLE.

1. PAINTING INCLUDES FIELD PAINTING OF EXPOSED BARE AND COVERED PIPES AND DUCTS (INCLUDING COLOR CODING), HANGERS, EXPOSED STEEL AND IRON WORK, AND PRIMED METAL SURFACES OF STRUCTURAL MEMBERS, DECK, MECHANICAL AND ELECTRICAL EQUIPMENT.

D. DO NOT PAINT PREFINISHED ITEMS, CONCEALED SURFACES, FINISHED METAL SURFACES, OPERATING PARTS, AND LABELS.

1. LABELS: DO NOT PAINT OVER UNDERWRITERS LABORATORIES (UL), FACTORY MUTUAL (FM), OR OTHER CODE-REQUIRED LABELS OR EQUIPMENT NAME, IDENTIFICATION, PERFORMANCE RATING, OR NOMENCLATURE PLATES.

1.2 PROTECTION

A. FURNISH AND LAY SUITABLE DROP CLOTHS IN ALL AREAS WHERE PAINTING IS BEING DONE TO PROTECT FLOORS AND ALL OTHER SURFACES FROM DAMAGE DURING THE WORK.

B. AT COMPLETION OF WORK IN EACH AREA, REMOVE ALL PAINT SPOTS, OIL, AND STAIN FROM ALL SURFACES, INCLUDING FINISH HARDWARE.

1.3 DELIVERY, STORAGE AND USE OF MATERIALS

A. DELIVER PREMIXED MATERIALS TO SITE IN ORIGINAL CONTAINERS WITH LABELS IN TACT AND SEALS UNBROKEN; LABEL SHOWING TYPE, COLOR, NAME, AND INSTRUCTIONS FOR REDUCING AND FOR RE-COAT TIME.

B. NO MATERIALS ON SITE OTHER THAN THOSE SPECIFIED.

C. NO CLAIM BY SUBCONTRACTOR CONCERNING THE UNSUITABILITY OF ANY MATERIAL SPECIFIED OF HIS ABILITY TO PRODUCE FIRST CLASS WORK WITH SAME WILL BE ENTERAINED AFTER CONTRACT IS SIGNED.

D. ALL MATERIALS SHALL BE STORED IN DESIGNATED SPACES IN A MANNER IN WHICH MEETS THE REQUIREMENTS OF APPLICABLE CODES AND FIRE REGULATIONS. WHEN IN USE, SUCH SPACES SHALL BE KEPT LOCKED AND INACCESSIBLE TO THOSE NOT EMPLOYED UNDER THIS SECTION.

E. ALL MATERIALS SHALL BE BOUGHT TO THE BUILDING AND STORED ORIGINAL SEALED CONTAINERS, BEARING THE MANUFACTURER'S STANDARD LABEL INDICATING TYPE AND COLOR.

F. MATERIALS SHALL BE APPLIED WITHOUT THE ADDITION OF ANY INGREDIENTS AND WITHOUT REDUCING OR THINNING EXCEPT AS RECOMMENDED BY THE MANUFACTURER.

2.1 PRODUCTS

A. SPECIFICATIONS INDICATE PAINT SYSTEMS BASED ON THE SPECIFIC MANUFACTURER INDICATED FOR PERFORMANCE QUALITY. SUBSTITUTION PER OWNER APPROVAL. MANUFACTURER: SHERWIN WILLIAMS (S-W), CLEVELAND OH.

B. MASONRY BLOCK FILLER: HIGH-PERFORMANCE LATEX BLOCK FILLER: HEAVY-DUTY LATEX BLOCK FILLERS USED FOR FILLING OPEN TEXTURED INTERIOR AND EXTERIOR CONCRETE MASONRY BLOCK BEFORE APPLICATION OF TOP COATS.

1. S-W: HEAVY-DUTY BLOCK FILLER B42N446.

C. PRIMERS:

1) INTERIOR FLAT PRIMER: PRIMER OVER CONCRETE AND MASONRY UNDER ALKYD FLAT AND SEMI-GLOSS ENAMEL:

a) S-W: LOXON MASONRY PRIMER A24N8300

2) LATEX-BASED INTERIOR WHITE PRIMER: LATEX-BASED PRIMER COATING USED ON INTERIOR GYPSUM DRYWALL UNDER A FLAT LATEX PAINT OR AN ALKYD SEMI-GLOSS ENAMEL.

a) S-W: PRO-MAR 200 ZERO VOC LATEX PRIMER B28N2600.

3) SYNTHETIC, RUST-INHIBITING PRIMER: QUICK-DRYING, RUST-INHIBITING PRIMER FOR PRIMING FERROUS METAL ON THE EXTERIOR UNDER FULL-GLOSS AND FLAT ALKYD ENAMEL AND ON THE INTERIOR UNDER FLAT LATEX PAINT OR ODORLESS ALKYD SEMI-GLOSS OR ALKYD GLOSS ENAMELS:

a) S-W: KEM BOND HS UNIVERSAL METAL PRIMER B50N24

4) GALVANIZED METAL PRIMER: PRIMER USED TO PRIME INTERIOR AND EXTERIOR ZINC-COATED (GALVANIZED) METAL SURFACES:

a) S-W: PROCRYL UNIVERSAL METAL PRIMER B66 SERIES

D. EXTERIOR FINISH PAINT MATERIAL: EXTERIOR POLYVINYL ACETATE EMULSION: QUICK-DRYING, FLAT, POLYVINYL ACETATE (PVA) PAINT FOR USE ON THE EXTERIOR OVER CONCRETE, STUCCO, AND MASONRY SURFACES:

1) S-W: A-100 EXTERIOR LATEX FLAT A6-100 SERIES.

E. INTERIOR FINISH PAINT MATERIAL

1) LATEX-BASED INTERIOR EGG-SHELL PAINT: READY-MIXED, LATEX-BASED PAINT FOR USE AS A FLAT FINISH OVER CONCRETE AND MASONRY SURFACES, INCLUDING FILLED CONCRETE MASONRY BLOCK, MINERAL FIBER-REINFORCED CEMENT PANELS, AND PLASTER AND OVER PRIME-COATED GYPSUM DRYWALL, FERROUS METAL, AND ZINC-COATED (GALVANIZED) METAL SURFACES:

a) S-W: PROMAR 200 ZERO VOC LATEX EGG-SHELL B20N2600 SERIES

2) INTERIOR SEMI-GLOSS ODORLESS DRY FALL ACRYLIC : LOW-ODOR, SEMI-GLOSS, ACRYLIC FOR USE OVER A PRIMER AND UNDERCOAT ON CONCRETE, MASONRY (INCLUDING CONCRETE MASONRY BLOCK), PLASTER, WOOD, AND HARDBOARD AND BOTH FERROUS AND ZINC-COATED (GALVANIZED) METAL SURFACES AND OVER A PRIMER ON GYPSUM DRYWALL:

a) S-W: B42N2 ACRYLIC DRYFALL EG-SHELL

3.0 EXECUTION

3.1 EXAMINATION

A. EXAMINE SUBSTRATES AND CONDITIONS UNDER WHICH PAINTING WILL BE PERFORMED FOR COMPLIANCE WITH REQUIREMENTS FOR APPLICATION OF PAINT. DO NOT BEGIN PAINT APPLICATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

B. START OF PAINTING WILL BE CONSTRUED AS THE APPLICATOR'S ACCEPTANCE OF SURFACES AND CONDITIONS WITHIN A PARTICULAR AREA.

C. CLEAN SURFACES BEFORE APPLYING PAINT OR SURFACE TREATMENTS. REMOVE OIL AND GREASE PRIOR TO CLEANING. SCHEDULE CLEANING AND PAINTING SO THAT DUST AND OTHER CONTAMINANTS FROM THE CLEANING PROCESS WILL NOT FALL ON WET, NEWLY PAINTED SURFACES.

D. SURFACE PREPARATION: CLEAN AND PREPARE SURFACES TO BE PAINTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS FOR EACH PARTICULAR SUBSTRATE CONDITION AND AS SPECIFIED.

E. PROVIDE BARRIER COATS OVER INCOMPATIBLE PRIMERS OR REMOVE AND RE-PRIME. NOTIFY ARCHITECT IN WRITING OF PROBLEMS ANTICIPATED WITH USING THE SPECIFIED FINISH-COAT MATERIAL WITH SUBSTRATES PRIMED BY OTHERS.

F. CEMENTITIOUS MATERIALS: CONCRETE MASONRY BLOCK SURFACES TO BE PAINTED. REMOVE EFFLORESCENCE, CHALK, DUST, DIRT, GREASE, OILS, AND RELEASE AGENTS. ROUGHEN AS REQUIRED TO REMOVE GLAZE. IF HARDENERS OR SEALERS HAVE BEEN USED TO IMPROVE CURING, USE MECHANICAL METHODS OF SURFACE PREPARATION.

G. USE ABRASIVE BLAST-CLEANING METHODS IF RECOMMENDED BY THE PAINT MANUFACTURER.

H. DETERMINE ALKALINITY AND MOISTURE CONTENT OF SURFACES BY PERFORMING APPROPRIATE TESTS. IF SURFACES ARE SUFFICIENTLY ALKALINE TO CAUSE BLISTERING AND BURNING OF PAINT FINISH, CORRECT THIS CONDITION BEFORE APPLICATION. DO NOT PAINT SURFACES WHERE MOISTURE CONTENT EXCEEDS THAT PERMITTED IN MANUFACTURER'S PRINTED DIRECTIONS.

I. FERROUS METALS: CLEAN UNGALVANIZED FERROUS-METAL SURFACES THAT HAVE NOT BEEN SHOP COATED. REMOVE OIL, GREASE, DIRT, LOOSE MILL SCALE, AND OTHER FOREIGN SUBSTANCES. USE SOLVENT OR MECHANICAL CLEANING METHODS THAT COMPLY WITH THE STEEL STRUCTURES PAINTING COUNCIL'S (SSPC) RECOMMENDATIONS.

J. TREAT BARE AND SANDBLASTED OR PICKLED CLEAN METAL WITH A METAL TREATMENT WASH COAT BEFORE PRIMING.

K. TOUCH UP BARE AREAS AND SHOP-APPLIED PRIME COATS THAT HAVE BEEN DAMAGED. WIRE-BRUSH, CLEAN WITH SOLVENTS RECOMMENDED BY PAINT MANUFACTURER, AND TOUCH UP WITH THE SAME PRIMER AS THE SHOP COAT.

L. GALVANIZED SURFACES: CLEAN GALVANIZED SURFACES WITH NONPETROLEUM-BASED SOLVENTS SO SURFACE IS FREE OF OIL AND SURFACE CONTAMINANTS. REMOVE PRETREATMENT FROM GALVANIZED SHEET METAL FABRICATED FROM COIL STOCK BY MECHANICAL METHODS.

M. MATERIALS PREPARATION: MIX AND PREPARE PAINT MATERIALS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

N. MAINTAIN CONTAINERS USED IN MIXING AND APPLYING PAINT IN A CLEAN CONDITION, FREE OF FOREIGN MATERIALS AND RESIDUE.

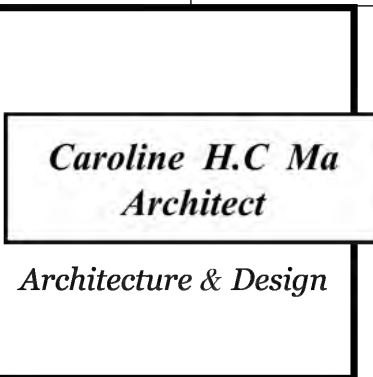
O. STIR MATERIAL BEFORE APPLICATION TO PRODUCE A MIXTURE OF UNIFORM DENSITY. STIR AS REQUIRED DURING APPLICATION. DO NOT STIR SURFACE FILM INTO MATERIAL. IF NECESSARY, REMOVE SURFACE FILM AND STRAIN MATERIAL BEFORE USING.

4.1 CLEANING

A. CLEANUP: AT THE END OF EACH WORKDAY, REMOVE EMPTY CANS, RAGS, RUBBISH, AND OTHER DISCARDED PAINT MATERIALS FROM THE SITE.

B. AFTER COMPLETING PAINTING, CLEAN GLASS AND PAINT-SPATTERED SURFACES. REMOVE SPATTERED PAINT BY WASHING AND SCRAPING. BE CAREFUL NOT TO SCRATCH OR DAMAGE ADJACENT FINISHED SURFACES.

ARCHITECT OF RECORD 10/29/2020



DIVISION 10- SPECIALTIES

SECTION 10800 – TOILET ACCESSORIES

1.1 ACCESSORIES

A. TOILET TISSUE DISPENSER: SURFACE MOUNTED TYPE OF STAINLESS STEEL. α 1 WASHROOM ACCESSORIES, NEW WINDSOR, NY 845-565-3050 # U805 OR APPROVED EQUAL DESIGNED TO HANDLE ROLL TISSUE, FURNISH ONE (1) AT EACH WATER CLOSET.

B. C-FOLD/MULTIFOLD PAPER TOWEL DISPENSER: SURFACE MOUNTED TYPE OF STAINLESS STEEL # U180 OR EQUAL DESIGNED TO C-FOLD/MULTIFOLD TOWELS. FURNISH ONE (1) AT EACH TOILET ROOM.

C. SOAP DISPENSER: SURFACE MOUNTED VERTICAL TYPE OF STAINLESS STEEL #U126 OR EQUAL DESIGNED TO HANDLE LIQUID SOAP. FURNISH ONE (1) AT EACH TOILET ROOM.

D. FIXED TILT MIRROR: SURFACE MOUNTED TYPE OF STAINLESS STEEL #U 704 OR EQUAL DESIGNED FOR HANDICAPPED ACCESSIBILITY. FURNISH ONE (1) AT EACH TOILET ROOM.

E. GRAB BARS: 1½" DIA. X 18 GA. STAINLESS STEEL GRAB BARS. AJ WASHROOM ACCESSORIES OR EQUAL FOR EXPOSED MOUNTING. FURNISH (1) 42" AND (1) 36" #UG130-AS30 BARS AT EACH WATER CLOSET AS INDICATED. CENTERLINE OF EACH GRAB BAR SHALL BE 2¼" FROM THE FACE OF THE WALL AND 34" ABOVE FINISH FLOOR.

2.2 INSTALLATION

A. INSTALL THE TOILET ACCESSORIES WHERE INDICATED OR AS DIRECTED TO BE IN GOOD ALIGNMENT WITH THE WALL AND RIGIDLY FASTENED IN PLACE. ADHESIVE MOUNTINGS AND PLASTIC RAW PLUG MOUNTINGS WILL NOT BE ACCEPTABLE.

DIVISION 11-EQUIPMENT (NOT USED)

DIVISION 12-FURNISHINGS (NOT USED)

DIVISION 13-SPECIAL CONSTRUCTION (NOT USED)

DIVISION 14-CONVEYING SYSTEMS (NOT USED)

DIVISION 15-MECHANICAL GENERAL CONDITIONS

SECTION 15010

1.1 GENERAL

A. THE GENERAL CONDITIONS OF THE CONTRACT, ALONG WITH ALL APPLICABLE INSTRUCTIONS TO BIDDERS SHALL FORM A PART OF THIS SECTION OF THE SPECIFICATIONS.

B. REFERENCES MADE TO REQUISITES FOR BIDDERS AND CONTRACTORS UNDER OTHER SECTIONS OF THESE SPECIFICATIONS, WHICH SHALL BE CONSIDERED BINDING, UNLESS OTHERWISE NOTED, UNDER THIS SECTION.

2.1 SCOPE

A. EACH CONTRACTOR SHALL THOROUGHLY ACQUAINT THEMSELV WITH THE CONSTRUCTION DETAILS BEFORE SUBMITTING THEIR BID AS NO ALLOWANCES WILL BE MADE BECAUSE OF THE CONTRACTOR'S UNFAMILIARITY WITH THESE DETAILS. ALL PERFORMANCE OF CONSTRUCTION SHALL BE AS REQUIRED BY THE PACE OF THE GENERAL CONSTRUCTION.

3.1 INSPECTION OF SITE

A. ALL PROPOSALS SHALL PRELUDE THAT GENERAL CONTRACTOR AND/OR THEIR VARIOUS SUBCONTRACTORS ARE FAMILIAR WITH JOB-SITE CONDITIONS AND UTILITY LOCATIONS AND THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE GENERAL CONTRACTOR AND/OR THEIR VARIOUS SUB-CONTRACTORS OF ANY RESPONSIBILITY DUE TO THEIR LACK OF PRE-EXAMINING ALL EXISTING ON-SITE CONDITIONS.

4.1 PERMITS

A. ALL PERMITS AND LICENSES NECESSARY FOR THE PROPER EXECUTION OF THE WORK SHALL BE SECURED AND PAID FOR BY THE SUBCONTRACTORS INVOLVED.

5.1 CODE REQUIREMENTS

A. ALL WORK UNDER THIS CONTRACT SHALL COMPLY WITH THE PROVISIONS OF THE SPECIFICATIONS, DRAWINGS OR AS DIRECTED BY THE TENANT'S PROJECT MANAGER, AND SHALL SATISFY ALL APPLICABLE CODES, ORDINANCES, OR REGULATIONS OF THE GOVERNING BODIES, WHETHER SO SHOWN OR NOT, AND ALL MODIFICATIONS REQUIRED BY SUCH AUTHORITIES SHALL BE MADE BY THE CONTRACTOR WITHOUT ANY ADDITIONAL COST TO THE TENANT.

6.1 CODE AND REGULATIONS

A. EACH SUBCONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, RULES AND REGULATIONS BEARING ON THE CONDUCT OF THE WORK AS DRAWN OR SPECIFIED. IF A CONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT A VARIANCE, THEY SHALL PROMPTLY NOTIFY THE GENERAL CONTRACTOR AND TENANT IN WRITING. IF ANY SUB-CONTRACTOR PERFORMED ANY WORK KNOWING IT TO BE CONTRARY TO LAWS,ORDINANCES, RULES AND REGULATIONS AND WITHOUT GIVING SUCH NOTICE, THE SUBCONTRACTOR SHALL BEAR ALL COSTS ARISING THERE FROM.

7.1 PROTECTION OF WORK AND PROPERTY

A. EACH SUB SHALL CONTINUOUSLY MAINTAIN ADEQUATE PROTECTION OF ALL THEIR WORK FROM DAMAGE AND SHALL PROTECT THE LANDLORD'S AND/OR TENANT'S PROPERTY FROM INJURY OR LOSS ARISING FROM THEIR WORK. THEY SHALL MAKE GOOD ANY SUCH DAMAGE, INJURY, OR LOSS EXCEPT SUCH AS MAY BE DIRECTLY DUE TO CAUSES BEYOND THEIR CONTROL AND NOT DUE TO THEIR FAULT OR NEGLIGENCE. THEY SHALL ADEQUATELY PROTECT ADJACENT PROPERTY AS WELL.

B. EACH SUBCONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF THEIR EMPLOYEES ON THE WORK AND SHALL COMPLY WITH ALL PROVISIONS OF FEDERAL, STATE AND LOCAL BUILDING CODES AND SAFETY LAWS TO PREVENT ACCIDENTS OR INJURY TO PERSONS ON OR ADJACENT TO THE PREMISES WHERE THE WORK IS BEING PERFORMED. EACH SUB-CONTRACTOR SHALL MAINTAIN ALL INSURANCES REQUIRED TO PROTECT THEMSELVES, LANDLORD AND/OR TENANT FOR THE DURATION OF THE WORK AGAINST PROPERTY DAMAGE AND PUBLIC LIABILITY.

8.1 CHANGES IN THE WORK

A. THE TENANT, WITHOUT VALIDATING THE CONTRACT, MAY ORDER EXTRA WORK OR MAKE CHANGES BY ALTERING, ADDING TO OR DEDUCTING FROM THE WORK. THE CONTRACT SUM BEING ADJUSTED ACCORDINGLY BY WRITTEN CHANGE ORDER.

9.1 COOPERATION

A. ALL WORK UNDER THESE SPECIFICATIONS SHALL BE ACCOMPLISHED IN CONJUNCTION WITH OTHER CONTRACTORS AND TRADES OF THIS PROJECT IN A MANNER WHICH WILL ALLOW EACH CONTRACTOR AND TRADE ADEQUATE TIME AT THE PROPER STAGE OF CONSTRUCTION TO FULFIL THEIR CONTRACTS. REFERENCES SHALL BE MADE TO THE LANDLORD AND/OR TENANTS OR INSTRUCTIONS SHOULD BE GIVEN IF ANY QUESTIONS ARISE BETWEEN TRADES AS TO THE PLACING OF LINES, DUCTS, CONDUITS, FIXTURES, OR EQUIPMENT, OR SHOULD IT APPEAR DESIRABLE TO REMOVE ANY GENERAL CONSTRUCTION WHICH WOULD AFFECT THE APPEARANCE OR STRENGTH OF THE STRUCTURE.

10.1 MATERIALS, WORKMANSHIP AND WARRANTY

A. ALL MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURERS AND UNLESS OTHERWISE SPECIFIED, SHALL BE NEW AND FREE FROM ANY DEFECTS. ALL LIKE MATERIALS USED SHALL BE OF THE SAME MANUFACTURE AND QUALITY UNLESS OTHERWISE SPECIFIED.

B. ALL WORK UNDER THIS CONTRACT SHALL BE PERFORMED BY A COMPETENT WORK FORCE AND EXECUTED IN A NEAT AND WORKMANLIKE MANNER. WORK SHALL BE PROPERLY PROTECTED CURING CONSTRUCTION. UPON COMPLETION, THE INSTALLATION SHALL BE THOROUGHLY CLEANED AND ALL DEBRIS PRESENT AS A RESULT OF THIS CONTRACT SHALL BE REMOVED FROM THE PREMISES.

C. ALL MATERIALS, EQUIPMENT, FIXTURES,DEVISES AND INSTALLATION SHALL BE GUARANTEED TO BE FREE FROM MECHANICAL DEFECTS OR FAULTY WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION. COMPRESSORS SHALL HAVE A MANUFACTURER'S WRITTEN FIVE YEAR WARRANTY. LABOR AND MATERIALS REQUIRED TO FULFILL THE REQUIREMENTS OF THIS GUARANTEE SHALL BE FURNISHED TO THE OWNER BY THIS CONTRACTOR AT NO ADDITIONAL COST TO THE LANDLORD AND/OR TENANT.

11.1 UTILITIES

A. LOCATIONS AND/OR ELEVATIONS OF THE UTILITIES AND STUB-INS HAVE BEEN OBTAINED FROM LANDLORD-FURNISHED DESIGN CRITERIA OR OTHER SOURCES AND ARE OFFERED AS A GENERAL GUIDE ONLY WITHOUT GUARANTEE AS TO ACCURACY. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF THE UTILITIES AND STUBBING AND 2THEIR RELATION TO THE PROPOSED CONSTRUCTION OF THE JOB SITE.

B. BACK FILLING:

1. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL RE-TESTS ARE PERFORMED AND UNTIL THE UTILITIES SYSTEMS AS INSTALLED CONFORM TO THE SPECIFICATION AND REQUIREMENT OF FIELD INSPECTION BY AUTHORITIES HAVING JURSDICTION.

2. BACKFILL LOWER PART OF THE TRENCH WITH SAND TO A DEPTH OF 12" ABOVE THE TOP OF THE PIPE.

3. BACKFILL THE REMAINDER OF THE TRENCH WITH EARTH FILL FREE OF ORGANIC MATTER AND ROCKS LARGER THAN 1-1/2" IN DIAMETER.

13.1 SUBSTITUTION OF MATERIALS

A. MANUFACTURER'S NAMES ARE LISTED HEREIN TO ESTABLISH A STANDARD. THE PRODUCTS OF OTHER MANUFACTURERS WILL BE ACCEPTABLE IF THE OPINION OF THE ARCHITECT (IN WRITING) THE SUBSTITUTE MATERIAL IS OF A QUALITY AS GOOD OR BETTER THAN THE MATERIAL SPECIFIED, AND WILL SERVE WITH EQUAL EFFICIENCY AND DEPENDABILITY, FOR THE PURPOSE WHICH ARE THE ITEMS SPECIFIED WHERE INTENDED.ALL ADDITIONAL COST FOR CHANGES REQUIRED DUE TO EQUIPMENT CONFIGURATION DIFFERENCE AND STRUCTURAL MODIFICATIONS.

14.1 DRAWINGS AND SPECIFICATIONS

A. THE DRAWINGS SHOW DIAGRAMMATICALLY THE LOCATION OF THE VARIOUS LINES, DUCTS, CONDUITS, FIXTURES, AND EQUIPMENT AND THE METHOD OF CONNECTING ANDS CONTROLLING THEM IS NOT INTENDED TO SHOW EVERY CONNECTION IN DETAIL AND ALL FITTINGS REQUIRED FOR A COMPLETE SYSTEM.

B. SHOULD ANY CHANGES BE DEEMED NECESSARY BY THE CONTRACTOR IN ITEMS SHOWN ON CONTRACT DRAWINGS, THE SHOP DRAWINGS, DESCRIPTIONS, AND THE REASON FOR THE PROPOSED CHANGED SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.

15.1 SHOP DRAWINGS

A. SHOP DRAWINGS AND CATALOGUE DATA ON ALL MAJOR ITEMS OF EQUIPMENT AND SYSTEMS, AND SUCH OTHER ILLUSTRATIVE MATERIAL AS MAY BE CONSIDERED NECESSARY BY THE ARCHITECT, SHALL BE SUBMITTED BY THE CONTRACTOR IN ADEQUATE TIME TO PREVENT DELAY AND CHANGES DURING CONSTRUCTION.

16.1 RECORDS FOR THE OWNER

A. ACCUMULATE IN DUPLICATE DURING THE PROGRESSION OF THE JOB THE FOLLOWING EQUIPMENT DATA AND OPERATING INSTRUCTIONS FOR USE AS A PERMANENT RECORD FOR THE LANDLORD AND TENANT.

1. PREVENTATIVE MAINTENANCE PROCEDURES
2. STARTING AND STOPPING
3. CHECKING FOR NORMAL OPERATION
4. MANUFACTURER'S REPAIR AND PARTS REPLACEMENT INSTRUCTIONS

B. THE ABOVE LISTED DATA SHALL BE BOUND IN A NEATLY INDEXED, VINYL-COVERED THREE-RING LOOSE-LEAF BINDER. UPON PROJECT COMPLETION, GENERAL CONTRACTOR SHALL DELIVER ONE COMPLETED BINDER TO LANDLORD AND ONE TO TENANT.

C. INCLUDED IN THE BINDER SHALL BE AN INDEX LISTING FOR EACH ITEM OF EQUIPMENT, THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE LOCAL SUPPLIER, SUBCONTRACTOR AND AGENT.

17.1 PENETRATING STRUCTURAL SLABS

A. ALL WORK INVOLVED FOR STRUCTURAL FLOOR SLAB CORE DRILLING, TRENCHING, ETC., INCLUDING FLOOR X-RAYING AND/OR WRITTEN APPROVAL FROM LANDLORD'S ENGINEER, SHALL BE BY TENANT'S GENERAL CONTRACTOR AND INCLUDED IN THEIR PROPOSAL PRIOR TO SUBMITTING BID. NO PENETRATION OF STRUCTURAL SLAB WORK SHALL BEGIN UNTIL PROPER WRITTEN AUTHORIZATION IS RECEIVED.

18.1 RESPONSIBILITY

A. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR SATISFACTORY AND COMPLETE EXECUTION OF ALL WORK INCLUDED IN THEIR CONTRACT. THEY SHALL PRODUCE COMPLETE FINISHED OPERATING SYSTEMS AND PROVIDE ALL INCIDENTAL ITEMS REQUIRED AS PART OF THEIR WORK, REGARDLESS OF WHETHER SUCH ITEMS PARTICULARLY SPECIFIED OR INDICATED.

19.1 ERRORS AND OMISSIONS

A. NOTED DISCREPANCIES BY GENERAL CONTRACTOR AND/OR MECHANICAL OR ELECTRICAL SUB-CONTRACTOR, WHILE BIDDING THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND/OR TENANT'S PROJECTS MANAGER PRIOR TO SUBMITTING FINAL BID. FAILURE TO BRING ATTENTION TO THE ARCHITECT AND/OR TENANT'S PROJECT MANAGER AN OBVIOUS ERROR AND/OR OMISSION SHALL NOT RELIEVE THE GENERAL CONTRACTOR FROM FURNISHING AND INSTALLING SAID ITEMS AS THOUGH FULLY INDICATED AND /OR SPECIFIED.

SECTION 15400 PLUMBING FIXTURES AND TRIM

(REFER TO 15010 FOR GENERAL CONDITIONS, APPLICABLE HEREIN AS THOUGH FULLY WRITTEN)

1.1 JOB CONDITIONS

A. FIXTURES SHALL BE FURNISHED AND SET BY THE CONTRACTOR ACCORDING TO THE MANUFACTURER'S DIRECTION. ALL FIXTURES SHALL BE NEW AND OF FIRST QUALITY, FREE OF ALL KILN MARKS, CRACKS, CHIPS OR DISCOLORATION.

2.1 FIXTURES

A. REFER TO DRAWINGS FOR FIXTURE SCHEDULE.

B. INSTALLATION: ALL WALL-HUNG FIXTURE SHALL BE RIGIDLY SUPPORTED BY APPROVED METAL HANGERS AND CHAIRS. ALL FLOOR MOUNTED FIXTURES SHALL BE RIGIDLY SECURED TO THE FLOOR BY APPROVED FLOOR FLANGE, SCREWED OR BOLTED TO THE FLOOR.

C. EACH FIXTURE SUPPLY SHALL HAVE A SHUTOFF VALVE.

D. ALL EXPOSED PIPES PASSING THROUGH WALLS AND FLOORS SHALL BE PROVIDED WITH CHROME AND/OR NICKEL PLATES & ESCUTCHEON.

3.1 MATERIALS

A. SANITARY SEWER: SERVICE WEIGHT CAST IRON WITH CAST IRON FITTINGS, NO-HUB JOINTS ABOVE GRADE.

B. DOMESTIC WATER AND HOT WATER PIPING SHALL BE COPPER TYPE "L" WITH WROUGHT COPPER FITTINGS. ALL WATER PIPING SHALL BE INSULATED WITH H+1" THICK GLASS FIBER INSULATION, "K" VALUE OF 0.24 AT 75F WITH ALL SERVICE JACKET/VAPOR BARRIER. **NO PEX ALLOWED.**

C. AIR PIPING SHALL BE COPPER TYPE"L" WITH WROUGHT COPPER, BRASS THREADED FITTINGS NO GALVANIZED PIPING ALLOWED AND SHALL BE INSULATED WITH ARM FLEX OR APPROVED EQUAL TO A THICKNESS OF 1".

D. CONDENSATE PIPING SHALL BE COPPER TYPE "L" WITH WROUGHT COPPER SWEAT FITTINGS, AND SHALL BE INSULATED WITH ARM FLEX OR APPROVED EQUAL TO A THICKNESS OF 1".

E. GAS PIPING ABOVE GROUND SHALL BE SCHEDULE 40 BLACK STEEL WITH 125 POUND BLACK MALLEABLE IRON SCREWED FITTINGS. GAS PIPING COMPOUND AT JOINTS SHALL BE PER NFPA BULLETIN #54 AND LOCAL CODES. GAS VALVES SHALL BE UL LISTED FOR GAS SERVICE. SUCH PIPE SIZES "2" AND LARGER TO BE FERROUS PIPE WITH 150 LB FORGED STEEL FLAP-ON FLANGES AND 1/16 THICK PERFORATED NEOPRENE GASKETS.

4.1 MAKE UP PIPE

A. SCREWED PIPE SHALL BE MADE UP WITH PIPE COMPOUND APPLIED TO THE MALE THREAD WITH NOT MORE THAN TWO THREADS LEFT EXPOSED. PIPE SHALL BE REAMED AFTER THREADING.

B. BELOW GRADE SANITARY PIPING SHALL BE CAST IRON PIPE. JOINTS SHALL BE MADE USING TYLER PIPE TYSICAL COMPOSITION JOINT SEALS FOR CAST IRON.

C. COPPER JOINTS SHALL BE MADE UP WITH SILFOS.

5.1 HANGER AND SUPPORTS

A. HORIZONTAL PIPING SHALL BE SUPPORTED AT INTERVALS IN ACCORDANCE WITH ALL APPLICABLE CODES WITH SWIVEL SPLIT PIPE HANGERS EQUAL TO CRANE NO. 199F OR GRINNELL NO. 104. VERTICAL PIPING SHALL BE SUPPORTED TO STRUCTURE WITH WROUGHT IRON HANGERS SUSPENDED FROM THE UNDERSIDE OF STRUCTURE WITH HANGER RODS.

6.1 CLEANOUTS

A. CLEAN OUTS SHALL BE AS MANUFACTURED BY JOSAM, ZURN MFG CO. OR AN APPROVED EQUAL. ALL CLEANOUTS SHALL BE BROUGHT TO GRADE, AND SHALL BE PROVIDED WITH SUFFICIENT SPACE FOR RODING.

7.1 VALVES

A. ALL VALVES SHALL BE BRASS AND MANUFACTURED BY CRANE, NIBCO, STOCKHAM, LUNKENHEIMER, NORDSTROM, GRINNELL OR AN APPROVED EQUAL.

8.1 INSULATION

A. INSULATE ALL NEW HOT AND COLD WATER PIPING WITH NONCOMBUSTIBLE ARMSTRONG "ARMAFLEX" TYPE II FOAM INSULATION WITH SEALED JOINTS OR WITH OWENS CORNING FIBERGLASS ASJ/SSL-II HEAVY DENSITY PIPE INSULATION WITH VAPOR BARRIER AND SEALED JOINTS. INSULATION THICKNESS SHALL BE AS FOLLOWS:

COLD WATER BRANCH PIPING UP TO 1" – 1/2" THICKNESS
HOT & COLD WATER MAIN PIPING UP TO 1-1/2" – 1" THICKNESS

8.1 SPRINKLER SYSTEM

A. SCOPE OF WORK

1. THE FIRE PROTECTION CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS, TRANSPORTATION AND FACILITIES NECESSARY FOR, REASONABLY IMPLIED AND TO THE FURNISHING, INSTALLATION, COMPLETION AND TESTING OF ALL THE WORK FOR THE SPRINKLER SYSTEMS AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY JOB CONDITIONS, TO INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

A. INSTALLATION OF NEW WET SPRINKLER SYSTEM AS REQUIRED TO PROVIDE COVERAGE IN ACCORDANCE WITH NFPA-13, LOCAL CODES, OWNER'S CRITERIA, AND INSURANCE CARRIERS FOR THE OWNER AND TENANT.

B. TAPS, RISERS, LATERALS, BRANCHES, VALVES, ALARMS, SPRINKLER HEADS AND ALL COMPONENTS REQUIRED FOR A COMPLETE SYSTEM.

C. DESIGN DRAWINGS, CALCULATIONS, SUBMITTALS AND APPROVALS.

D. PERMITS, FEES, AND CHARGES.

E. TESTS AND TEST CERTIFICATES.

F. COST FOR SHUT DOWN FEES.

1. THE CONTRACTOR SHALL DO THE ACTUAL SPRINKLER WORK IS REQUIRED TO BE A OWNER APPROVED SPRINKLER CONTRACTOR.

2. BEFORE STARTING WORK, THE CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL,STRUCTURAL, MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS TO DETERMINE, COORDINATE, AND INTEGRATE THE VARIOUS ELEMENTS OF THE FIRE PROTECTION SYSTEM, MATERIALS, AND EQUIPMENT WITH OTHER CONTRACTORS TO AVOID INTERFERENCES AND CONFRONTATIONS.

3. RELOCATION OF EXISTING MAINS, LATERALS, BRANCHES AND RISERS TO FACILITATE NEW LAYOUT MUST BE INCLUDED IN BID PROPOSAL.

B. PERMIT AND REQUIREMENTS

1. THE FIRE PROTECTION CONTRACTOR SHALL PREPARE DETAILED SHOP DRAWINGS AND CALCULATIONS FOR HIS WORK. SUBMIT SIX (6) COPIES TO GENERALCONTRACTOR FOR APPROVAL. NO WORK SHALL BEGIN UNTIL TENANT'S CONSTRUCTION MANAGER APPROVES HEAD AND PIPING LOCATIONS.

2. THE FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR SUBMITTING COORDINATED DRAWINGS, CALCULATIONS, HEAD TYPES AND COLORS TO ALL AUTHORITIES HAVING JURISDICTION FOR APPROVAL. NO WORK SHALL BEGIN UNTIL ALL APPROVALS HAVE BEEN RECEIVED.

3. A COPY OF THE LETTER OF APPROVAL FROM THE OWNER'S INSURANCE RATING BUREAU SHALL BE FORWARDED TO THE OWNER'S AGENT AND TO THE TENANT'S CONSTRUCTION MANAGER.

4. FIRE PROTECTION CONTRACTOR SHALL PROVIDE FULL PERMIT SUBMISSION DOCUMENTS, AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION, VIA A SEPARATE SUBMISSION. THIS SHALL BE INCLUDED IN THE BID FOR THIS PROJECT.

C. EQUIPMENT

1. SPRINKLER HEADS:

A. ALL SPRINKLER HEADS SHALL BE NEW, U.L., F.M. LISTED, QUICK RESPONSE AND APPROVED AUTOMATIC SPRAY TYPE AS MANUFACTURED BY CENTRAL SPRINKLER CO., GLOBE, GRINNELL, RELIABLE, STAR, OR VIKING.

B. ALL SPRINKLER HEADS SHALL BE RATED FOR 165°F UNLESS INDICATED OTHERWISE ON DRAWINGS OR REQUIRED BY LOCAL CODES. ALL HEADS ARE TO MATCH EXISTING. VERIFY HEAD TYPES AND SUBMIT WITH SPRINKLER DRAWINGS FOR PERMIT.

D. SPRINKLER HEAD TYPES SHALL BE AS FOLLOWS:

1. FINISHED CEILING UNRECESSED TYPE

2. NO-CEILING – CHROME UPRIGHT TYPE
NOTE:SEMI-RECESSED HEADS SHALL PROTRUDE NO MORE THAN 1" BELOW LEVEL OF CEILING OF SOFFIT. ALL HORIZONTAL SPRINKLER RUNS AT SIDEWALL SOFFITS SHALL BE CONCEALED WITHIN SOFFIT FRAMING.

E. GENERAL PIPING

1. AN EXISTING FIRE PROTECTION SYSTEM SHALL BE FURNISHED BY THE OWNER. SPRINKLER SPACING SHALL NOT EXCEED 130 SQ. FT. IN "OFFICE" AREAS AND 100 SQ. FT. IN "STORAGE" AREAS. COMPLY WITH OWNER'S DESIGN CRITERIA. PIPE SIZING SHALL BE BASED ON NFPA ORDINARY HAZARD.

2. ALL SPRINKLER LINES SHALL BE INSTALLED CONCEALED, AVOIDING INTERFERENCE WITH LIGHTS, DUCTS, PIPES, STORAGE DECK, ETC. FIRE PROTECTION CONTRACTOR SHALL PREPARE COORDINATED SHOP DRAWINGS INDICATING THE LOCATIONS OF ALL SPRINKLER HEADS, SPRINKLER LINES, LIGHTS, DIFFUSERS, GRILLES AND REGISTERS PRIOR TO INSTALLATION. HORIZONTAL SPRINKLER RUNS AT MERCHANDISE SOFFITS SHALL BE PLACED INSIDE SOFFIT STRUCTURE. VERTICAL DROPS FROM CEILING TO MERCHANDISE SOFFIT SHALL BE LOCATED FLUSH AGAINST DEMISING WALLS.

3. WHERE POSSIBLE, REWORK THE EXISTING SPRINKLER SYSTEM TO MEET THE NEW REQUIREMENTS OF THIS DESIGN. RELOCATE ALL MAINS AND BRANCHES INTERFERING WITH CEILING HEIGHTS, EQUIPMENT, AND MAJOR COMPONENTS INCLUSIVE OF ADJACENT TENANTS AND MALL COMMON AREAS. REMOVE ALL UNUSED PIPING BE FURNISHED TO THE OWNER, AUTHORITIES HAVING JURISDICTION, AND TENANT'S CONSTRUCTION MANAGER.

4. LOCATIONS OF ALL HEADS SHOULD BE APPROVED BY THE LOCAL FIRE PROTECTION OFFICIAL AND THE TENANT'S CONSTRUCTION MANAGER BEFORE INSTALLATION. HEADS MUST BE LOCATED IN THE CENTER OF CEILING TILES AND IN A SYMMETRICAL PATTERN WITH OTHER CEILING FIXTURES. ADDITIONAL MOVIES WILL NOT BE ALLOWED FOR ADDITIONAL HEADS REQUIRED BY FIELD FIRE INSPECTOR AFTER BIDS ARE ACCEPTED. HEADS IN MERCHANDISE BAYS SHALL BE CENTERED SIDE TO SIDE AND FRONT TO BACK.

5. PROVIDE AND INSTALL A VALVED TEST CONNECTION FOR THE SPRINKLER SYSTEM AS REQUIRED OR REQUESTED BY THE MALL, LOCAL INSPECTOR, OR INSURANCE CARRIER. COORDINATE LOCATION WITH TENANT'S CONSTRUCTION MANAGER AND LOCAL FIRE PROTECTION OFFICIAL PRIOR TO ROUGH-IN.

6. SPRINKLER HEADS LOCATED IN STOCK, CORRIDOR ON TOILET ROOM CEILINGS OR WALLS BELOW 8'-0" ABOVE THE FINISHED FLOOR ARE TO BE PROTECTED WITH APPROVED GUARDS.

F. PIPING:

1. SCHEDULE 40, BLACK STEEL PIPE, ASTM A-53 FOR FERROUS PIPING, WELDED AND SEAMS, ANSI B-36-10-70 FOR WROUGHT STEEL PIPE.
2. CAST IRON OR MALLEABLE IRON SCREWED FITTINGS FOR PIPES 2 INCHES AND SMALLER. SCREWED OR CAST IRON FLANGED JOINTS FOR PIPES LARGER THAN 2 INCHES.
3. GALVANIZED OR BLACKENED IRON WITH BRASS SEAT SCREWED UNIONS FOR PIPES 2 INCHES AND SMALLER.
4. VICTAULIC TYPE COUPLINGS ARE ACCEPTABLE, WHERE APPROVED BY CODE AND THE OWNER.

G. TESTS

1. WHEN COMPLETED, THE ENTIRE FIRE PROTECTION PIPING SYSTEM SHALL BE HYDROSTATICALLY TESTED AS REQUIRED BY THE RULES AND REGULATIONS OF THE AUTHORITIES HAVING JURISDICTION. SYSTEM SHALL SHOW NO SIGNS OF LEAKAGE OR OTHER DEFECTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO THE WORK OF THE OTHER CONTRACTORS OR TO THE BUILDING, OR TO ITS CONTENTS, PEOPLE, ETC., CAUSED BY LEAKS IN ANY OF THE EQUIPMENT INSTALLED BY HIM. ALL REPAIRS OR REPLACEMENT OF DAMAGES SHALL BE AT THIS CONTRACTOR'S EXPENSE.

2. PROPERLY COMPLETED AND SIGNED "SPRINKLER CONTRACTOR'S MATERIAL AND TEST CERTIFICATES" SHALL

9.1 ROUGH-INS

A. GROUND LEVEL STORES: THE TENANT'S GENERAL CONTRACTOR SHALL RUN ALL LINES REQUIRED FOR PLUMBING ROUGH-INS TIGHT AGAINST THE UNDERSIDE OF ROOF STRUCTURE.

10.1 PIPING INSTALLATION

A. THE CONTRACTOR SHALL FURNISH AND INSTALL AS SHOWN ON THE DRAWINGS OR AS NECESSARY TO COMPLETE THE WORKING SYSTEM IN ACCORDANCE WITH THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. A COMPLETE SYSTEM OF PIPING, ALL VALVE AS INDICATED OR AS NECESSARY TO COMPLETELY CONTROL THE ENTIRE APPARATUS AND ALL APPURTENANCES.

B. PIPING SHALL BE PROPERLY SUPPORTED AND ADEQUATE PROVISIONS SHALL BE MADE FOR EXPANSION, CONTRACTION, SLOPE AND ANCHORAGE.

C. PIPING ASSEMBLY:

1. PIPE THREADS SHALL CONFORM WITH ASA DIMENSIONAL STANDARDS B2.1.
2. COPPER TUBING SHALL BE ASSEMBLED WITH SWEAT-TYPE FITTINGS, USING SILFOS SOLDER AND NON-CORROWIVE FLUX.
3. CAST IRON HUB AND SPIGOT PIPE JOINTS SHALL BE MADE WITH NEOPRENE GASKETS.

11.1 TESTING AND ADJUSTING

A. ALL PIPES SHALL BE TESTED BEFORE THEY ARE BACKFILLED, CONCEALED IN FURRING OR CHASES.

B. AFTER TESTING, ALL LINES SHALL BE THOROUGHLY FLUSHED WITH WATER AND LEFT COMPLETELY CLEAN.

C. PROVIDE DISINFECTION IN ACCORDANCE WITH LOCAL WATER UTILITY OR CODE AUTHORITY REQUIREMENTS. ENSURE PH OF WATER TO BE TREATED IS BETWEEN 7.4 AND 7.6.

D. UPON COMPLETION, CONTRACTOR SHALL DEMONSTRATE OPERATION OF SYSTEM TO FULL SATISFACTION OF TENANT.

SECTION 15800 HEATING, VENTILATION AND AIR CONDITIONING

(REFER TO 15010 FOR GENERAL CONDITIONS, APPLICABLE HEREIN AS THOUGH FULLY WRITTEN)

1.1 GENERAL

A. THE WORK COVERED BY THIS SECTION OF THESE SPECIFICATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE RESPECTIVE DRAWINGS, INFORMATION, OR INSTRUCTIONS TO BIDDERS, AND THE GENERAL CONDITIONS, REVISIONS OR DIRECTIVES WHICH MAY BE COMPLIED WITH, IN EVERY RESPECT.

B. THE LISTING HEREIN OF AN ARTICLE OR MATERIALS, OPERATION OF METHOD, REQUIRES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL EACH ITEM LISTED, UNLESS SPECIFICALLY NOTED TO THE CONTRARY, THE CONTRACTOR SHALL PERFORM EACH OPERATION PRESCRIBED OR LISTED ACCORDING TO THE CONDITIONS STATED.

2.1 EXAMINATION OF SITE

A. ALL CONTRACTORS SUBMITTING PROPOSALS FOR THIS WORK SHALL FIRST EXAMINE THE SITE AND ALL CONDITIONS THEREON AND/OR THEREIN. ALL PROPOSALS SHALL TAKE INTO CONSIDERATE ALL SUCH CONDITIONS AS MAY AFFECT THE WORK UNDER THIS CONTRACT.

3.1 SCOPE

A. FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY FOR A COMPLETE FULLY OPERATIVE HEATING, VENTILATING AND AIR CONDITIONING SYSTEM EXCEPT AS SPECIFICALLY EXCLUDED BY THE DRAWINGS, AND /OR ARCHITECT'S DIRECTIONS.

4.1 STANDARDS

A. EXCEPT AS MODIFIED BY THIS SPECIFICATION, CONFORM TO THE APPLICABLE PROVISIONS AND RECOMMENDATIONS OF THE FOLLOWING STANDARDS.

1. AIR MOVING AND CONDITIONING ASSOCIATION (AMCA)
2. AMERICAN GAS ASSOCIATION (AGA)
3. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
4. AMERICAN REFRIGERATION INSTITUTE (ARI)
5. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
6. AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS (ASHRAE)
7. AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)
8. NATIONAL ELECTRIC CODE (NEC)
9. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
10. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
11. SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA)
12. UNDERWRITERS LABORATORIES(UL)

5.1 HEATING AND AIR CONDITIONING EQUIPMENT

A. GENERAL: THE MANUFACTURER SHALL BE A FIRM REGULARLY ENGAGED IN THE PRODUCTION OF HEATING/COOLING EQUIPMENT AND SHALL HAVE PARTS AVAILABLE THROUGHOUT THE UNITED STATES. THE EQUIPMENT SHALL BE SHIPPED COMPLETELY FACTORY ASSEMBLED (EXCEPT FOR OPTIONS REQUIRING FIELD INSTALLATION), PRE-CHARGED , PIPED AND WIRED INTERNALLY READY FOR FIELD CONNECTIONS. IN ADDITION, MANUFACTURER SHALL TEST OPERATING SYSTEM AT THE FACTORY BEFORE SHIPMENT. THE AIR CONDITIONING UNIT'S ENERGY EFFICIENCY RATIO (EER) SHALL COMPLY WITH ADOPTED ENERGY CODE, CONTRACTOR SHALL FURNISH VIBRATION ISOLATION AS REQUIRED AND RECOMMENDED BY THE EQUIPMENT MANUFACTURER.

B. DUCTWORK

1. ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL INSTALLED WITH CONSTRUCTION METHODS AND GAUGES REQUIRED BY THE LATEST EDITION OF SMACNA AND THE LOCAL BUILDING CODES.

2. WRAP ALL METAL SUPPLY AND RETURN DUCTS WITH 2" THICK (MIN R-7) FOIL FACED FIBERGLASS INSULATION. INTERNAL LINING OR FIBERBOARD IS NOT ALLOWED.

3. FLEX DUCT SHALL BE PRE-INSULATED WITH 1" THICK FIBERGLASS 1.5 LB DENSITY-FLEXMASTER OR EQUAL. MAX. FLEX DUCT LENGTH SHALL BE 6'-0". FLEX DUCTS SHALL BE CLAMPED AND TAPED (DUCT TAPE) TO DIFFUSE BOOT AND SHEET METAL. DUCT TO PROVIDE AN AIR TIGHT SEAL. DUCT SHALL HAVE MIN R-6.

4. PROVIDE AN MANUAL BALANCING DAMPER AND EXTRACTOR AT EACH DUCT TAP.

5. THE BOTTOM OF THE DUCT SYSTEM SHALL BE KEPT LEVEL AND HELD AS HIGH AS POSSIBLE AGAINST THE BUILDING CONSTRUCTION.

6. INSTALLATION SHALL BE IN A NEAT AND WORKMANLIKE MANNER WITH ALL JOINTS AND SEAMS ADEQUATELY FASTENED AND SEALED W/ MASTIC TO FORM AN AIR

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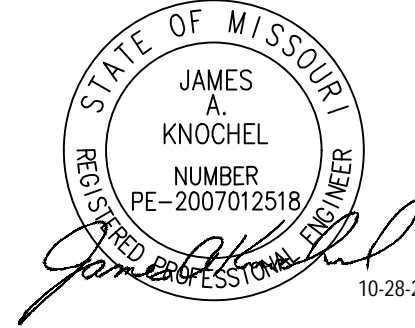
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★ 10-28-2020
Permit

PERMIT

★ INDICATES
AFFECTED SHEETS

SPECIFICATIONS

DATE

10-28-2020

PROJECT NUMBER

EYEM101520LSMO

SHEET NUMBER

SP5.0

D. JOB-FABRICATED TURNING VANES SHALL BE ACCEPTABLE IN SQUARE ELBOWS. PROVIDE AND INSTALL BARBER-COLEMAN AIR-TURNS OR EQUAL. RADIUS ELBOWS SHALL HAVE A CENTERLINE RADIUS OF 1½ TIMES THE DUCT WIDTH.

E. FIRE DAMPERS SHALL BE INSTALLED AT ALL RATED PARTITIONS AND CEILINGS. FURNISH AND INSTALL FLUSH PANEL ACCESS DOOR(S) IN CEILINGS AND WALL WHERE INDICATED AND /OR REQUIRED BY CODE.

10.1 DUCTWORK- EXCEPTIONS

A. DUCTWORK FOR EXHAUST AIR OR OUTSIDE SUPPLY AIR SHALL BE ALL METAL AND CONSTRUCTED ACCORDING TO RECOMMENDED PRACTICES AS FOUND IN THE LATEST ISSUE OF ASHRAE.

B. SUPPORT OF DUCT SYSTEM:

1. DUCTWORK SHALL BE SUPPORTED AT ALL TURNS AND TRANSITIONS AND AT NOT MORE THAN 8" O.C. FOR STRAIGHT DUCTS UP TO 35" TO 59" MAX. DIMENSION, 6" O.C. NO DUCTS OVER 60" MAX. DIMENSION , 4" O.C.

2. HANGER DESIGN SHALL BE AS DESCRIBED IN THE LATEST EDITION OF SMACNA MANUAL. REINFORCEMENT MEMBERS MAY BE SIZED TO SUPPORT DUCT SYSTEM PROVIDED DETAILS OUTLINED IN THE AFOREMENTIONED DOCUMENTS ARE ADHERED TO.

11.1 REINFORCEMENT

A. ALL DUCT REQUIRING REINFORCEMENT SHALL BE REINFORCED ACCORDING TO THE LATEST EDITION OF THE SMACNA MANUAL.

B. MATERIALS FOR REINFORCEMENT MEMBERS SHALL BE GALVANIZED STEEL ALL SCREWS AND WASHERS SHALL BE PLATED OR GALVANIZED.

12.1 ACCESSORY ITEMS

A. ALL MANUAL AND/OR MOTORIZED DAMPERS, FIRE DAMPERS, TURNING VANES, REGISTER CONNECTIONS, ACCESS DOORS OR OTHER ASSOCIATED ACCESSORIES SHALL BE INSTALLED ACCORDING TO THE LATEST EDITION OF THE SMACNA MANUAL.

13.1 PIPING

A. PIPING AND FITTINGS SHALL BE OF THE WEIGHTS AND TYPES SHOWN ON THE DRAWINGS. SIZES SHOWN ON THE DRAWINGS ARE NOMINAL PIPE SIZES.

B. ALL PIPING SHALL BE INSTALLED PARALLEL TO, OR AT RIGHT ANGLES WITH BUILDING WALLS AND PARTITIONS AND SHALL BE INSTALLED WITH THE PROPER PITCH.

C. ALL PIPING SHALL BE UPENDED AND POUNDED TO REMOVE AND FOREIGN MATTER PRESENT AND SHALL BE SWABBED IF NECESSARY.

D. ALL SUPPLY RETURN AIR DEVICES (DIFFUSERS) SHALL BE EXTERIOR INSULATED ABOVE FINISH CEILING WITH BLANKET INSULATION.

E. HEATING WATER PIPING SHALL BE SCHEDULE 40 STEEL W/ 1½" FIBERGLASS INSULATION.

14.1 TESTING AND ADJUSTING

A. CONTRACTOR SHALL DEMONSTRATE OPERATION OF SYSTEM TO FULL SATISFACTION OF TENANT AND BALANCE AIR FLOW IN ACCORDANCE WITH AIR QUANTITIES OR DRAWINGS AND WILL RECORD VOLUME READINGS IN ACCORDANCE WITH ASHRAE AND PROVIDE TEST AND BALANCE REPORT TO TENANT AND LANDLORD.

B. CONTRACTOR SHALL PAY ALL COSTS FOR FUEL, ELECTRICITY , LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR TESTING, ADJUSTING AND BALANCING OF THE SYSTEMS.

DIVISION 16 – ELECTRICAL

SECTION 16010 BASIC ELECTRICAL REQUIREMENTS

1.1 GENERAL CONDITIONS

A. REFER TO SPECIFICATION SECTION 15010 FOR GENERAL CONDITIONS, APPLICABLE HEREIN AS THOUGH FULLY WRITTEN.

2.1 FEES

A. PAY FOR ALL NECESSARY FEES AND PERMITS.

B. PAY FOR ALL FEES AND CHARGES INCURRED FOR THE DISCONNECTION, REMOVAL, RELOCATION AND /OR INSTALLATION OF THE EXISTING, TEMPORARY, AND PERMANENT ELECTRICAL AND TELEPHONE SERVICES. INSTALL THE TEMPORARY AND PERMANENT SERVICES IN CONFORMANCE TO ALL LOCAL AND STATE CODES AND LOCAL UTILITY COMPANY'S STANDARDS OF INSTALLATION.

3.1 PROJECT/SITE CONDITIONS

A. VISIT THE SITE, EXAMINE AND VERIFY THE CONDITIONS UNDER WHICH WORK MUST BE CONDUCTED BEFORE SUBMITTING A PROPOSAL. SUBMITTING A PROPOSAL IMPLIES THAT THE CONTRACTOR HAS VISITED THE SITE, IS KNOWLEDGEABLE OF ALL SITE CONDITIONS, INCLUDING EXISTING SERVICES AND EQUIPMENT, OBSTRUCTIONS AND ALL CONDITIONS, WHICH WILL BE ENCOUNTERED IN THE REMOVAL AND/OR RELOCATION OF PRESENT MATERIALS, FOR A COMPLETE INSTALLATION.

4.1 MATERIALS AND EQUIPMENT

A. MATERIALS AND EQUIPMENT SHALL BE NEW, UL LISTED WHERE APPLICABLE, AND ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED.

B. USE SAME EQUIPMENT MANUFACTURER FOR SAME OR LIKE SYSTEMS.

C. SUBSTITUTIONS: WHERE A SPECIFIC MANUFACTURER OR TRADE NAME IS MENTIONED IN THE SPECIFICATIONS, IT IS TO ESTABLISH A STANDARD OF QUALITY. SUBSTITUTIONS FOR SPECIFIED EQUIPMENT ARE ALLOWED ONLY WHEN SUBSTITUTIONS ARE APPROVED EQUALS ARE NOTED. SUBSTITUTION OF OTHER MAKES SHALL BE SUBMITTED TO THE ARCHITECT AND/OR OWNER, SO THAT SUBSTITUTIONS REVIEWED FOR APPROVAL A MIN. 10 DAYS PRIOR TO BIDS.

5.1 WORKMANSHIP

A. INSTALL WORK USING PROCEDURES IN NECA STANDARD OF INSTALLATION.

B. FURNISH AND INSTALL ALL MATERIALS FOR A COMPLETE INSTALLATION IN ALL RESPECTS READY FOR INTENDED USE AND IN STRICT ACCORDANCE WITH NEC, NESC, STATE AND LOCAL CODES AND MANUFACTURER'S RECOMMENDATIONS.

C. INSTALL WORK TO COMPLY WITH THE FOLLOWING INDUSTRY STANDARDS WHERE APPLICABLE: AIEE, ANSI, ASME, ASTM, IEEE, IES, NEC, NEMA, NBFU, OSHA, UL.

D. REFER TO SPECIFICATIONS SECTION 15010 FOR TRENCHING AND BACKFILLING.

SECTION 16111 – CONDUIT

1.1 SECTION INCLUDES

A. CONDUIT AND FITTINGS.

2.1 MANUFACTURERES-CONDUIT AND FITTINGS

A. STEELDUCT, REPUBLIC, TRIANGLE, NATIONAL, ANACONDA, CARLON, ALUMAX, EASCO (NEW JERSEY), TIFTON, VA.

3.1 CONDUIT SUPPORTS

A. CONDUIT CLAMPS, STRAPS, AND SUPPORTS: STEEL OR MALLEABLE IRON.

4.1 CONDUIT SIZING, ARRANGEMENT, AND SUPPORT

A. IF NOT INDICATED ON DRAWINGS, SIZE CONDUIT FOR CONDUCTOR TYPE INSTALLED: 1/2" MINIMUM SIZE.

B. CONCEAL ALL WORK IN WALLS AND ABOVE CEILINGS IN FINISHED ROOMS. NO CONDUITS SHALL BE INSTALLED ON OR ABOVE ROOF. ROUTE EXPOSED CONDUIT AND CONDUIT ABOVE ACCESSIBLE CEILINGS PARALLEL AND PERPENDICULAR TO WALLS AND ADJACENT PIPING.

5.1 CONDUIT INSTALLATION

A. USE CONDUIT HUBS OR SEALING LOCKNUTS FOR FASTENING CONDUIT TO CAST BOXES, AND FOR FASTENING CONDUIT TO SHEET METAL BOXES IN DAMP OR WET LOCATIONS.

B. INSTALL NO MORE THAN THE EQUIVALENT OF (3) NINETY DEGREE BENDS BETWEEN BOXES.

C. USE SUITABLE CONDUIT CAPS TO PROTECT INSTALLED CONDUIT AGAINST ENTRANCE OF DIRT AND MOISTURE.

D. INSTALL EXPANSION JOINTS WHERE CONDUIT CROSSES BUILDING EXPANSION JOINTS.

E. WHERE CONDUIT PENETRATES FIRE-RATED WALLS AND FLOORS, PROVIDE MECHANICAL FIRE-STOP FITTINGS WITH UL LISTED FIRE RATING EQUAL TO WALL OR FLOOR RATING, OR SEAL OPENING AROUND CONDUIT WITH UL LISTED FOAMED SILICONE ELASTOMER COMPOUND.

F. ROUTE CONDUIT THROUGH ROOF OPENINGS FOR PIPING AND DUCTWORK WHERE POSSIBLE; OTHERWISE, ROUTE THROUGH ROOF JACK WITH PITCH POCKET.

G. ALL UNDERGROUND STEEL CONDUIT NOT ENCASED IN CONCRETE AND IN WET LOCATIONS WHERE STEEL CONDUIT ENTERS CONCRETE OR GROUND, APPLY A FIELD COAT OF BITUMASTIC MATERIAL NO. 550 AFTER INSTALLATION. COATING SHALL COVER CONDUIT AND FITTINGS AND BE COMPLETELY DRY BEFORE BACKFILLING.

6.1 CONDUIT INSTALLATION SCHEDULE

A. UNDERGROUND INSTALLATIONS MORE THAN FIVE FEET FROM FOUNDATION WALL: RIGID GALVANIZED CONDUIT, IMC, PLASTIC-COATED RIGID GALVANIZED CONDUIT, SCHEDULE 80 PVC AND/OR SCHEDULE 40 PVC PVC CONDUIT ONLY IF ALLOWED BY LANDLORD CONSTRUCTION CRITERIA AND LOCAL CODES.

B. INSTALLATIONS IN OR UNDER CONCRETE SLAB, OR UNDERGROUND WITHIN FIVE FEET OF FOUNDATION WALL: RIGID GALVANIZED CONDUIT, IMC, OR SCHEDULE 80 PVC CONDUIT ONLY IF ALLOWED BY LANDLORD CONSTRUCTION CRITERIA AND LOCAL CODES.

C. IN SLAB ABOVE GRADE: RIGID GALVANIZED CONDUIT, EMT, IMC, SCHEDULE 80 PVC AND /OR SCHEDULE 40 PVC CONDUIT ONLY IF ALLOWED BY LANDLORD CONSTRUCTION CRITERIA AND LOCAL CODES.

D. WHERE CONDUIT PENETRATES SLAB OR GRADE, RIGID GALVANIZED CONDUIT, INTERMEDIATE METAL CONDUIT OR PLASTIC-COATED RIGID GALVANIZED CONDUIT SHALL BE USED WITHIN 18" EITHER SIDE OF PENETRATION.

E. EXPOSED OUTDOOR OR WET INTERIOR LOCATIONS: RIGID GALVANIZED CONDUIT, IMC, OR EMT WITH WEATHERPROOF FITTINGS.

F. EXPOSED OR CONCEALED DRY INTERIOR LOCATIONS: RIGID GALVANIZED CONDUIT, IMC, OR EMT.

G. ENT (ELECTRICAL NONMETALLIC TUBING) IS NOT ALLOWED.

H. CHICAGO ONLY: CONDUIT ABOVE CEILING SHALL CONFORM TO CODE REQUIREMENTS FOR PLENUM CEILING. INSTALLATION, INCLUDING COMPRESSION TYPE FITTINGS.

SECTION 16123 – BUILDING WIRE AND CABLE

1.1 PROJECT CONDITIONS

A. VERIFY THAT FIELD MEASUREMENTS ARE AS SHOWN ON DRAWINGS.

B. CONDUCTOR SIZES ARE BASED ON COPPER.

C. ALUMINUM WIRE IS NOT ACCEPTABLE.

2.1 MANUFACTURERS

A. GENERAL ELECTRIC, ROME, GENERAL CABLE, TRIANGLE, ANACONDA AND BELDEN (CONTROL WIRE AND CABLE).

3.1 WIRE AND CABLE

A. DESCRIPTION: SINGLE CONDUCTOR INSULATED WIRE.

B. CONDUCTOR: COPPER, 98% CONDUCTIVITY.

C. INSULATION VOLTAGE RATING: 600 VOLTS

D. INSULATION: ANSI/NFPA 70: TYPE THHN/THWN. THW OR XHHW MAY BE USED IF CONDUIT SIZE IS INCREASED, AS REQUIRED PER NEC.

E. USE EMT (ELECTRICAL METALLIC TUBING) ONLY – NO MC CABLE IS ALLOWED.

4.1 WIRING METHODS

A. USE ONLY BUILDING WIRE IN RACEWAYS IN ALL LOCATIONS.

B. USE WIRING METHODS INDICATED ON DRAWINGS.

C. COLOR CODE:

480Y/277V	208Y/120V	
YELLOW	BLACK	PHASE
ORANGE	RED	PHASE
BROWN	BLUE	PHASE
GRAY	WHITE	NEUTRAL
GREEN	GREEN	GROUND

5.1 INSTALLATION

A. USE CONDUCTOR NOT SMALLER THAN 12 AWG FOR POWER AND LIGHTING CIRCUITS.

B. USE CONDUCTORS NOT SMALLER THAN 14 AWG STANDARD FOR CONTROL CIRCUITS 120 VOLT AND HIGHER.

C. USE SOLDERLESS PRESSURE CONNECTORS WITH INSULATION COVERS FOR COPPER CONDUCTOR SPLICES AND TAPS, 6 AWG AND LARGER.

D. USE INSULATED SPRING WIRE CONNECTORS WITH PLASTIC APS FOR COPPER CONDUCTOR SPLICES AND TAPS, 8 AWG AND SMALLER.

SECTION 16130 – BOXES

1.1 PROJECT CONDITIONS

A. VERIFY FIELD MEASUREMENTS ARE AS SHOWN ON DRAWINGS.

B. ELECTRICAL BOXES ARE SHOWN ON DRAWINGS IN APPROXIMATE LOCATIONS UNLESS DIMENSIONED. INSTALL AT LOCATION REQUIRED FOR BOX TO SERVE INTENDED PURPOSE.

2.1 OUTLET BOXES

A. SHEET METAL OUTLET BOXES: ANSI/NEMA OS 1, GALVANIZED STEEL.
1. LUMINAIRE AND EQUIPMENT SUPPORTING BOXES: RATED FOR WEIGHT OF EQUIPMENT SUPPORTED; INCLUDE ½" MALE FIXTURE STUDS WHERE REQUIRED.

B. CAST BOXES: NEMA FB 1 , TYPE FD CAST FERALLOY. PROVIDE GASKET COVER BY BOX MANUFACTURER. PROVIDE THREADED HUBS.

C. SWITCH AND RECEPTACLE BOXES: PROVIDE SINGLE GANG BOXES, OR MULTIPLE GANG BOXES. SECTIONAL OR GANGABLE, BOXES WILL NOT BE ALLOWED.

3.1 PULL AND JUNCTION BOXES

A. SHEET METAL BOXES: NEMA OS 1 GALVANIZED STEEL.

4.1 INSTALLATION

A. INSTALL ELECTRICAL BOXES AS SHOWN ON DRAWINGS, AND AS REQUIRED FOR SPLICES, TAPS, WIRE PULLING, EQUIPMENT CONNECTIONS AND COMPLIANCE WITH REGULATORY REQUIREMENTS.

B. INSTALL PULL BOXES AND JUNCTION BOXES IN CEILING SPACES ACCESSIBLE THROUGH LAY-IN CEILING OR ACCESS PANELS AND IN UNFINISHED AREAS ONLY, UNLESS NOTED OTHERWISE.

C. INSTALL BOXES TO PRESERVE FIRE RESISTANCE RATING OF PARTITIONS AND OTHER ELEMENTS.

D. ALIGN ADJACENT WALL MOUNTED OUTLET BOXES FOR SWITCHES, THERMOSTATS, AND SIMILAR DEVICES WITH EACH OTHER.

E. USE CAST FLOOR BOXES FOR INSTALLATION IN SLAB ON GRADE FORMED STEEL BOXES ARE ACCEPTABLE FOR OTHER INSTALLATIONS.

5.1 INTERFACE WITH OTHER PRODUCTS

A. LOCATE FLUSH MOUNTING BOX IN MASONRY WALL TO REQUIRE CUTTING OF MASONRY UNIT CORNER ONLY. COORDINATE MASONRY CUTTING TO ACHIEVE NEAT OPENING.

B. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF OUTLETS MOUNTED ABOVE COUNTER, BENCHES AND BACK SPLASHES.

C. FASTEN BOXES SECURELY TO BUILDING STRUCTURE.

SECTION 16141 – WIRING DEVICES

1.1 SECTION INCLUDES

A. WIRING DEVICES

2.1 WALL SWITCHES

SPECIFICATION GRADE, AC TOGGLE SWITCHES, RATED 20 A120-277V AC, IVORY OR BROWN, NYLON DEVICE BODY WITH TOGGLE HANDLE, AS DICTATED BY WALL FINISHES. (IVORY MODEL NUMBER SHOWN):

A. SINGLE POLE:
HUBBELL 1221 ARROW HART 1991
PASS AND SEYMOUR 20 ACI LEVITON 1223-2
GENERAL ELECTRIC FE 5951-2G BRYANT 4901

B. THREE WAY:
HUBBELL 1223 ARROW HART 1993
PASS AND SEYMOUR 20 AC3 LEVITON 1223-2
GENERAL ELECTRIC FE 5953-2G BRYANT 4903

3.1 RECEPTACLES

GROUNDING TYPE SPECIFICATION GRADE, IVORY OR BROWN, NYLON DEVICE BODY, AS DICTATED BY WALL FINISHES (IVORY MODEL NUMBER SHOWN):

A. DUPLEX RECEPTACLE 20A 125V:
HUBBELL 5362 ARROW HART 5362
PASS AND SEYMOUR 5362 LEVITON 5362
GENERAL ELECTRIC 5362-2 BRYANT 5362

B. DUPLEX RECEPTACLE 20A 125V ISOLATED GROUND:
HUBBELL 5362 ARROW HART IG 5362
PASS AND SEYMOUR IG 6300 LEVITON 5362 IG
GENERAL ELECTRIC 5362-IG BRYANT 5362 IG

C. GFCI RECEPTACLE 20A 125V:
HUBBELL GF5252 ARROW HART GF5242

PASS AND SEYMOUR 1591-SI LEVITON 6599
GENERAL ELECTRIC GF 5242-2 BRYANT GFR52FT

D. TWIST-LOCK AND OTHER SPECIFIC USE RECEPTACLES AS SPECIFIED ON DRAWINGS.

4.1 WALL PLATES

A. IVORY OR BROWN, SMOOTH NYLON, TO MATCH DEVICES, AS DICTATED BY WALL FINISHES.

B. STEEL COVER PLATE: STAINLESS STEEL, SAME AS DEVICE MANUFACTURER, TO MATCH DEVICE.

C. WEATHERPROOF COVER PLATE: GASKETED CAST METAL WITH HINGED GASKETED DEVICE COVER SAME AS DEVICE MANUFACTURER, TO MATCH DEVICE.

5.1 EXAMINATION

A. VERIFY OUTLET BOXES ARE INSTALLED AT PROPER HEIGHT.

B. VERIFY WALL OPENINGS ARE NEATLY CUT AND WILL BE COMPLETELY COVERED BY WALL PLATES.

6.1 PREPARATION

A. PROVIDE EXTENSION RINGS TO BRING OUTLET BOXES FLUSH WITH FINISHED SURFACE, IF REQUIRED.

7.1 INSTALLATION

A. CONNECT WIRING DEVICE GROUNDING TERMINAL TO BRANCH CIRCUIT EQUIPMENT GROUNDING CONDUCTOR.

B. CONNECT WIRING DEVICES BY WRAPPING CONDUCTOR AROUND SCREW TERMINAL.

C. USE JUMBO SIZE PLATES FOR OUTLETS INSTALLED IN MASONRY WALLS.

D. INSTALL GALVANIZED STEEL PLATES ON OUTLET BOXES AND JUNCTION BOXES IN UNFINISHED AREAS, ABOVE ACCESSIBLE CEILINGS AND ON SURFACE MOUNTED OUTLETS IN AREAS OUT OF PUBLIC VIEW ONLY.

SECTION 16180 – EQUIPMENT WIRING SYSTEMS

1.1 SECTION INCLUDES:

A. ELECTRICAL CONNECTIONS TO EQUIPMENT SPECIFIED UNDER OTHER SECTIONS.

2.1 INSPECTION

A. VERIFY THAT EQUIPMENT IS READY FOR ELECTRICAL CONNECTION, WIRING AND ENERGIZATION.

3.1 PREPARATION

A. REVIEW EQUIPMENT SUBMITTALS PRIOR TO INSTALLATION AND ELECTRICAL ROUGH-IN. VERIFY LOCATION, SIZE, AND TYPE OF CONNECTIONS. COORDINATE DETAILS OF EQUIPMENT CONNECTIONS WITH SUPPLIER AND INSTALLER.

4.1 INSTALLATION

A. USE WIRE AND CABLE WITH INSULATION SUITABLE FOR TEMPERATURES ENCOUNTERED IN HEAT-PRODUCING EQUIPMENT.

B. MAKE CONDUIT CONNECTIONS TO EQUIPMENT USING FLEXIBLE CONDUIT. USE LIQUID TIGHT FLEXIBLE CONDUIT IN DAMP OR WET LOCATIONS.

SECTION 16190 – SUPPORTING DEVICES

1.1 SECTION INCLUDES

A. CONDUIT AND EQUIPMENT SUPPORTS.

B. FASTENING HARDWARE.

2.1 QUALITY ASSURANCE

A. SUPPORT SYSTEMS SHALL BE ADEQUATE FOR WEIGHT OF EQUIPMENT AND CONDUIT, INCLUDING WIRING, WHICH THEY CARRY.

3.1 MATERIAL

A. SUPPORT CHANNEL: GALVANIZED OR PAINTED STEEL.

B. HARDWARE: CORROSION RESISTANT.

4.1 INSTALLATION

A. FASTEN HANGER RODS, CONDUIT CLAMPS, AND OUTLET AND JUNCTION BOXES TO BUILDING STRUCTURE.

B. USE TOGGLE BOLTS OR HOLLOW WALL FASTENERS IN HOLLOW MASONRY, PLASTER, OR GYPSUM BOARD PARTITIONS AND WALLS; EXPANSION ANCHORS OR PRESENT INSERTS IN SOLID MASONRY WALLS; SELF-DRILLING ANCHORS OR EXPANSION ANCHOR ON CONCRETE SURFACES; SHEET METAL SCREWS IN SHEET METAL STUD; AND WOOD SCREWS IN WOOD CONSTRUCTION.

C. DO NOT FASTEN SUPPORTS TO PIPING, DUCTWORK, MECHANICAL EQUIPMENT, OR CONDUIT.

3.1 BALLASTS

A. ELECTRONIC BALLASTS:
1. GENERAL ELECTRIC/MOTOROLA, ADVANCE, AND MAGNETEK ARE THE ONLY APPROVED MANUFACTURERS.

2. SPECIFICATIONS:BALLASTS SHALL BE PARALLEL-INSTANT START, NORMAL LIGHT OUTPUT TYPE. BALLASTS SHALL BE RATED LESS THAN 20% TOTAL HARMONIC DISTORTION (THD) AND 1.7 CREST FACTOR; BALLASTS SHALL NOT BE RATED LESS THAN 97% POWER FACTOR AND 0.875 BALLAST FACTOR.

3. PROVIDE BALLAST SUITABLE FOR LAMPS SPECIFIED.

4. VOLTAGE: MATCH LUMINAIRE VOLTAGE.

5. DESCRIPTION: ANSI C82.1 HIGH POWER FACTOR TYPE BALLAST.

6. SOURCE QUALITY CONTROL: CERTIFY BALLAST DESIGN AND CONSTRUCTION BY CERTIFIED BALLAST MANUFACTURERS, INC.

4.1 LAMPS

A. MANUFACTURERS:

1. OSRAM/SYLVANIA, GENERAL ELECTRIC
2. LAMPS SHALL BE OF TYPE SPECIFIED ON LIGHT FIXTURE.

5.1 EXAMINATION

A. SUPPORT LIGHT FIXTURES TO BE INSTALLED IN LAY IN CEILINGS, FROM STRUCTURE ABOVE, WEIGHT OF FIXTURE SHALL NOT BE ON CEILING TILE.

B. INSTALL RECESSED LUMINARIES TO PERMIT REMOVAL FROM BELOW.

C. INSTALL RECESSED LUMINARIES USING ACCESSORIES AND FIRE-STOPPING MATERIALS TO MEET REGULATORY REQUIREMENTS FOR FIRE RATING.

D. MAKE WIRING CONNECTIONS TO BRANCH CIRCUIT USING BUILDING WIRE WITH INSULATION SUITABLE FOR TEMPERATURE CONDITIONS WITHIN LUMINAIRE.

7.1 ADJUSTING

A. AIM AND ADJUST LUMINARIES AS INDICATED ON DRAWINGS OR AS DIRECTED.

B. REPLACE ALL LAMPS USED DURING THE COURSE OF CONSTRUCTION FOR TEMPORARY LIGHTING AT COMPLETION OF PROJECT WITH NEW LAMPS PER LIGHT FIXTURE SCHEDULE.